

Memorandum

To: CHAIR AND COMMISSIONERS
CALIFORNIA TRANSPORTATION COMMISSION

CTC Meeting: August 27, 2015

Reference No.: 2.2c.(2)
Action Item

From: NORMA ORTEGA
Chief Financial Officer

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Division of
Environmental Analysis

Subject: **APPROVAL OF PROJECT FOR FUTURE CONSIDERATION OF FUNDING
12-ORA-405, PM 9.3/24.2, 12-ORA-22, PM R0.7/R3.8, 12-ORA-22, PM R0.5/R0.7,
12-ORA-73, PM R27/27.8, 12-ORA-605, PM 3.5/R1.6, 07-LA-405, PM 0.0/1.2,
07-LA-605, PM R0.0/R1.2
RESOLUTION E-15-50**

RECOMMENDATION:

The California Department of Transportation recommends that the California Transportation Commission (Commission), as a responsible agency, approve the attached Resolution E-15-50.

ISSUE:

The attached resolution proposes to approve for future consideration of funding the following project for which a Final Environmental Impact Report (FEIR) has been completed:

- Interstate 405 (I-405), State Route 22 (SR 22), State Route 73 (SR 73), and Interstate 605 (I-605) in Orange and Los Angeles counties. Construct roadway and interchange improvements on a portion of I-405 between the cities of Huntington Beach and Irvine (PPNO 5054)

This project in Orange and Los Angeles Counties will construct improvements on the mainline freeway and interchanges on Interstate 405 between State Route 73 and Interstate 605. The project is fully funded. The total estimated cost is \$1,782,050,000 for capital and support. The project is programmed in the 2014 State Highway Operation and Protection Program for \$82,050,000. The balance is funded with federal and local dollars. Construction is estimated to begin in Fiscal Year 2016-17. The scope, as described for the preferred alternative, is consistent with the project scope programmed by the Commission in the 2014 State Highway Operation and Protection Program.

A copy of the FEIR has been provided to Commission staff. Resources that may be impacted by the project include: aesthetics, community impacts, noise, geology and soils, water quality, biological resources, and traffic.

Potential impacts associated with the project can all be mitigated to below significance through proposed mitigation measures with the exception of aesthetics and community impacts, causing a Statement of Overriding Considerations to be prepared for the project. As a result, an FEIR was prepared for the project.

Attachments

CALIFORNIA TRANSPORTATION COMMISSION

Resolution for Future Consideration of Funding

**12-Ora-405, PM 9.3/24.2, 12-Ora-22, PM R0.7/R3.8, 12-Ora-22, PM R0.5/R0.7,
12-Ora-73, PM R27/27.8, 12-Ora-605, PM 3.5/R1.6,
07-LA-405, PM 0.0/1.2, 07-LA-605, PM R0.0/R1.2
Resolution E-15-50**

- 1.1 **WHEREAS**, the California Department of Transportation (Department) has completed a Final Environmental Impact Report pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines for the following project:
 - Interstate 405 (I-405), State Route 22 (SR 22), State Route 73 (SR 73), and Interstate 605 (I-605) in Orange and Los Angeles counties. Construct roadway and interchange improvements on a portion of I-405 between the cities of Huntington Beach and Irvine. (PPNO 5054)
- 1.2 **WHEREAS**, the Department has certified that a Final Environmental Impact Report has been completed pursuant to CEQA and the State CEQA Guidelines for its implementation; and
- 1.3 **WHEREAS**, the California Transportation Commission, as a responsible agency, has considered the information contained in the Final Environmental Impact Report.
- 1.4 **WHEREAS**, the project will have a significant effect on the environment.
- 1.5 **WHEREAS**, a Statement of Overriding Considerations was prepared; and
- 1.6 **WHEREAS**, Findings were made pursuant to the State CEQA Guidelines.
- 2.1 **NOW, THEREFORE, BE IT RESOLVED** that the California Transportation Commission does hereby support approval of the above referenced project to allow for consideration of funding.

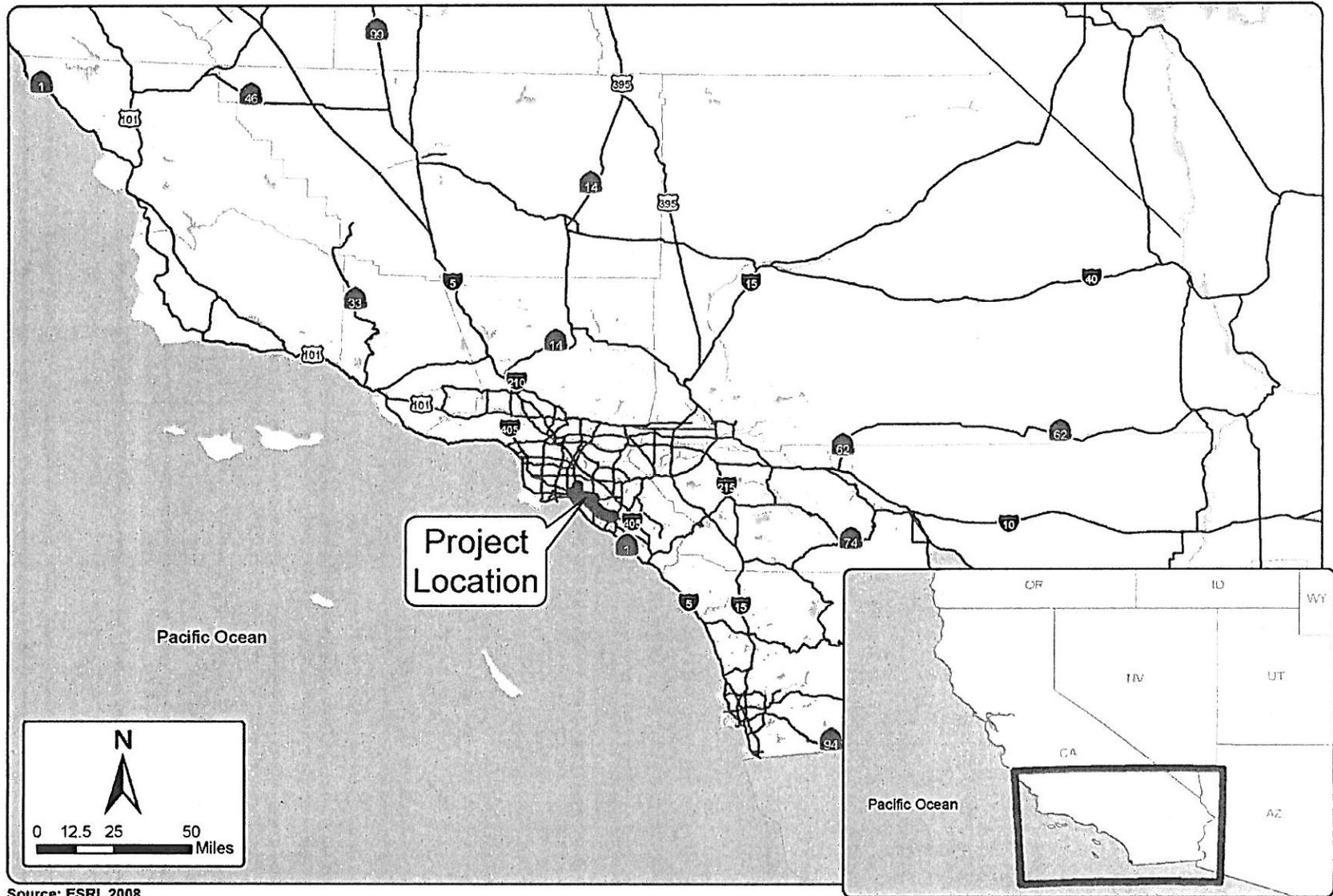


Figure 1-1: Regional Vicinity Map

STATEMENT OF OVERRIDING CONSIDERATIONS
CALIFORNIA DEPARTMENT OF TRANSPORTATION STATEMENT OF
OVERRIDING CONSIDERATIONS FOR THE SAN DIEGO FREEWAY (I-405)
IMPROVEMENT PROJECT, BETWEEN STATE ROUTE (SR)-73 AND INTERSTATE
605 (I-605)

The following information is presented to comply with State CEQA Guidelines (Title 14 California Code of Regulations, Chapter 3, Section 15903), and the Department of Transportation and California Transportation Commission Environmental Regulations (Title 21 California Code of Regulations, Chapter 11, Section 1501). Reference is made to the Final Environmental Impact Report (FEIR) for the project, which is the basic source for the information.

The following impacts have been identified as significant and not fully mitigable:

- Construction of the build alternatives would result in changes to the visual quality and/or character associated with vegetation removal, construction activities, and the introduction of new and modified permanent structures. For the build alternatives, the removal of the eucalyptus trees and other vegetation within the interchange areas would likely have the greatest impact on the visual quality; however, this effect would remain until trees grow back to existing conditions. Other elements, such as replacement structures, new retaining walls, and soundwalls, would be a permanent change to the elements within the existing viewsheds along the corridor, including some areas where visual impacts were determined to be Moderately High.
- Project effects on the community have been mitigated to the maximum extent practicable; however, the increased urbanization subsequent to completion of the project (i.e., expanded pavement and ROW, new and widened bridges/overcrossings/undercrossings, new retaining walls and soundwalls, and replacement/removal of mature vegetation) and the temporary construction-related effects on freeway users and corridor cities (i.e., 54-month construction period, increased congestion associated with construction, detours, ramp, lane and arterial closures, potential reduced incident response times, and reduced access to the freeway, businesses, and pedestrian facilities) are considered significant and unavoidable. Accordingly, avoidance, minimization, and mitigation measures have been incorporated to reduce significant unavoidable effects on the corridor cities and traveling public to the maximum extent practicable.
- If the mitigation measures related to cumulative intersection operations/impacts in the portions of the study area within Los Angeles County are implemented, traffic or transportation-related direct or indirect cumulative impacts are not anticipated to be significant. However, the implementing agencies, being the City of Long Beach and Caltrans, are outside the control of the project proponent; should these measures not be implemented, after the fair share mitigation contribution, significant cumulative impacts would continue to occur at those intersections.

Given the significance of impacts to aesthetic/visual resources, community, and traffic pertaining to fair share mitigation, avoidance, minimization, and mitigation measures have been incorporated to reduce significant unavoidable effects to the maximum extent practicable.

Overriding considerations that support approval of this recommended project are as follows:

The selected alternative (Alternative 3) is considered a viable project alternative because it would achieve the project's purpose and need. The project purpose is a set of objectives the project is intended to meet. The project need is the range of transportation deficiencies that the project was initiated to address.

Accordingly, the purpose of the proposed action is to:

- Reduce congestion;
- Enhance operations;
- Increase mobility, improve trip reliability, maximize throughput, and optimize operations; and
- Minimize environmental impacts and right-of-way (ROW) acquisition.

In furtherance of the project's purpose, the following objective is established:

- To be consistent with regional plans and find a cost-effective early project solution for delivery.

Furthermore, current deficiencies of Interstate 405 (I-405) within the project limits are summarized below:

- The I-405 mainline general purpose (GP) lanes peak-period traffic demand exceeds available capacity;
- The I-405 mainline high-occupancy vehicle (HOV) lanes peak-period traffic demand exceeds available capacity;
- The I-405 mainline GP traffic lanes have operational and geometric deficiencies;
- The interchanges along I-405 within the study area have geometric, storage, and operational capacity deficiencies; and
- I-405 currently has limitations in detecting traffic incidents and providing rapid response and clearance due to lack of capacity and technological infrastructure.

Capacity and Level of Service (LOS)

With the current configuration, there is insufficient capacity within the I-405 corridor on the freeway and adjacent arterial streets to accommodate existing and projected travel demands between SR-73 and I-605. Furthermore, sections of the I-405 corridor currently operate at unacceptable levels of traffic congestion.

Existing and Future Traffic Volumes

By 2040, traffic volumes are projected to grow by approximately 30 to 35 percent along the project corridor.

Regional Population and Employment Growth Trends

Projected population and employment growth trends indicate that transportation demand in the I-405 corridor will continue to increase in future years.

Projected Delay and Level of Service Degradation

Without any improvements in the I-405 corridor, additional traffic congestion resulting from regional growth will further degrade traffic Level of Service (LOS) and worsen operational deficiencies in the future. During the morning and evening peak hours in years 2020 and 2040, traffic is forecasted to operate at LOS F along the entire corridor, with volume to capacity (V/C) ratios of 1.14 to 1.61.

Without any improvements in the I-405 corridor, future increased traffic congestion will result in substantially reduced travel speeds and substantially increased commute times.

Safety

The proposed project would relieve congestion by widening I-405, reconstructing interchanges and widening ramps, thus providing safety improvements within the project limits by reducing:

- Congestion-related collisions on the mainline of I-405;
- Off-ramp queuing onto the freeway mainline; and
- On-ramp queuing onto arterials due to mainline congestion and ramp meter operation.

Roadway and Operational Deficiencies

Operational problems occur on I-405 primarily because of physical bottlenecks. Moreover, a variety of interchange and ramp deficiencies in the I-405 corridor result in traffic queue backups onto the freeway and local streets.

Consistency with Regional Plans

Improvements in the proposed alternatives for the I-405 project corridor demonstrate consistency with the goals and objectives of the following regional plans:

- SCAG 2012 Regional Transportation Plan (RTP);
- SCAG 2015 Federal Transportation Improvement Program (FTIP);
- OCTA 2006 Long-Range Transportation Plan;
- OCTA Master Plan of Arterial Highways (2009 and 2007)
- OCTA 2009 Commuter Bikeways Strategic Plan

Modal Inter-Relationships and System Linkages

I-405 represents a major link to other freeway systems within the Orange County area and is a strategic component of the county's transportation system. Serving as a major link between Orange and Los Angeles Counties, the freeway begins at the "El Toro Y" in southeast Irvine and terminates near Mission Hills in the San Fernando Valley section of the City of Los Angeles. I-405 is part of the National Highway System and is considered a bypass route to I-5 (the Santa

Ana/Golden State Freeway) providing intra-regional and inter-regional access between Orange and Los Angeles Counties.

With regard to local access, two highways parallel I-405 exist within the county: Pacific Coast Highway (Highway 1) to the south and I-5 to the north; however, these are not considered effective alternates for travel through the study area because of their distance from I-405 and because of their limited ability to accept additional traffic, particularly in the case of Pacific Coast Highway.

Improving interchange efficiency would provide a higher level of operation and throughput for entering and exiting traffic along I-405. Improving interchanges would likely enhance interchange safety. Adding ramp storage capacity would reduce queuing of vehicles back onto the freeway mainline and surface streets. Improving intersection efficiency would provide a higher level of operation and throughput for local street and ramp traffic.

On a regional level, I-405 provides access between cities in Orange and Los Angeles Counties. I-405 is used for commuting and inter-regional travel, along with direct and indirect access to employment centers, recreational attractions, shopping malls, medical centers, universities, airports, and other land uses. The northern segment, between Valley View Street and the I-605, is considered one of the heaviest traveled sections of freeway in the nation.

The entire length of I-405 is part of the National Highway System, the Department of Defense Priority Network, the Interstate Highway System, and the Strategic Highway Corridor Network. The 1990 Federal Surface Transportation Assistance Act (STAA) identifies I-405 as a "National Network" route for STAA trucks (Department 2007). Strategically, I-405 is a transportation link for national defense and transportation security, providing direct and indirect access to major military installations in the west, including Los Angeles Air Force Base to the north, and NAVWPNSTA Seal Beach, Air Force Reserve Center Los Alamitos, and Camp Pendleton to the south.

Project Benefits

In addition, project benefits include but are not limited to:

- The selected alternative best fulfills the purpose and need of the project; by providing tolled express lanes along an important travel corridor with free-flow conditions for future decades, access along the corridor will be greatly enhanced.
- This improvement, via tolled express lanes, will provide major benefits for the communities along the corridor, including Orange & Los Angeles County commuters by encouraging HOVs and transit bus services, as well enhancing response times for emergency vehicles. With free-flow conditions for such vehicles, livability along the corridor would be improved as lanes would be able to serve the community better.
- Air quality improvements associated with reduced congestion could improve health.
- The selected alternative has lower travel times and higher travel speeds due to the component of tolled express lanes. General purpose lanes will not deliver service life for the design year as demand exceeds capacity. But tolled express lanes can preserve mobility beyond the design year.
- Although, the construction costs will be higher for the selected alternative, the revenue generation from toll collection, the long-term operational benefits and transit/carpool encouragement outweigh any increase in construction cost.

STATEMENT OF OVERRIDING CONSIDERATIONS

- Additionally, the trip reliability for transit/carpools will be enhanced because they will be able to utilize the managed lanes, as opposed to being forced to use the general purpose lanes.
- The Project will provide construction jobs as well as other long-term employment opportunities for the businesses in Orange County and surrounding cities.
- The Project will support local and regional sustainability goals through urban infill.
- The Project will generate community benefits by maximizing available ROW opportunities and providing an efficient transportation corridor with State-of-the-Art improvements.
- The Project will provide safe access for pedestrians and special need people through ADA compliant facilities.

Conclusion

Pursuant to §15093 of the State *CEQA Guidelines*, decision-makers are required to balance the benefits of a project against its unavoidable environmental risks in determining whether to approve a project. In the event the benefits of a project outweigh the unavoidable adverse effects, the adverse environmental effects may be considered “acceptable”. The State *CEQA Guidelines* require that, when a public agency allows for the occurrence of significant effects which are identified in the Final Environmental Impact Report but are not at least substantially mitigated, the agency shall state in writing the specific reasons the action was supported. Any statement of overriding considerations should be included in the record of project approval and should be mentioned in the Notice of Determination.

To the extent the significant effects of the project are not avoided or substantially lessened to a level of insignificance, Caltrans, having reviewed and considered the information contained in the Final Environmental Impact Report for the Project, and having reviewed and considered the information contained in the public record, and having balanced the benefits of the Project against the unavoidable effects which remain, finds that such unmitigated effects to be acceptable in consideration of the overriding considerations discussed herein.

Caltrans finds that all feasible mitigation measures have been imposed to lessen unavoidable Project impacts to the extent possible. As such, Caltrans, as the Lead Agency for the Project, has reviewed and considered the information contained in the Draft, Supplemental, and Final Environmental Impact Reports prepared for the I-405 Improvement Project and the public record. Accordingly, the Lead Agency makes the following finding, pursuant to §15093 of the State *CEQA Guidelines*, with regard to the Statement of Overriding Considerations for the I-405 Improvement Project:

California Administrative Code, Title 14, Section 15093(a) states: “If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered ‘acceptable’.” Based on the above discussion and on the evidence presented, Caltrans therefore finds that the benefits of the proposed project outweigh the adverse impacts on Aesthetic/Visual Resources, community, and traffic impacts related to fair share mitigation from the I-405 Improvement Project, which cannot be eliminated or reduced to a level less than significant.

FINDINGS

FOR THE SAN DIEGO FREEWAY (I-405) IMPROVEMENT PROJECT BETWEEN STATE ROUTE (SR)-73 AND INTERSTATE 605 (I-605).

The following information is presented to comply with State CEQA Guidelines (Title 14 California Code of Regulations, Chapter 3, Section 15901) and the Department of Transportation and California Transportation Commission Environmental Regulations (Title 21, California Code of Regulations, Chapter 11, Section 1501). Reference is made to the Final Environmental Impact Report (FEIR) for the project, which is the basic source for the information.

The following impacts have been identified in the FEIR as resulting from the project. Impacts found not to be significant have not been included.

Paleontological/Cultural Resources

Significant Environmental Impacts:

Pleistocene vertebrates have been found at 10 to 15 ft below ground level, and deeper near the project; and vertebrate fossils have been recovered from borings in the project vicinity. The selected alternative's (Alternative 3) improvements are situated above paleontologically sensitive sediments, however disturbance of sediments below grade has the potential to directly affect paleontological resources along most of the Caltrans Right-of-Way (ROW). Anticipated impacts would be where augering for overhead signage and where the overcrossings and railroad overheads are replaced, particularly in the foundations and augering. Project redesign to avoid these sites proved to be infeasible, which could significantly impact paleontological resources within the project ROW.

The United States Navy conditioned the transfer of the proposed easement in the northern Naval Weapons Station (NAWPNSTA) with construction of various Cost to Cure Items within their boundaries. These activities included relocation of the perimeter/security fencing and farm roads, installation of perimeter security lighting, various utilities associated with the lighting, and agricultural farmland. Construction of these activities occurred in 2011 during the course of the SR-22 West County Connector (WCC) project in the same area. The Navy required construction activities within the NAWPNSTA be monitored by a qualified Native American and Archaeologist. Monitoring was conducted during the Cost to Cure project within the NAWPNSTA and one isolate was identified.

Findings:

Changes or alterations have been designed in, or incorporated into, the project, which avoid or substantially lessen the significant environmental impact as identified in the final

EIR. Incorporated by reference from the SR-22 WCC Project, is the Navy's Native American and Archaeological monitoring requirement for work on the NAVWPNSTA (CUL-4).

Statement of Facts:

To reduce potential direct impacts to paleontological resources, a Paleontological Mitigation Plan, as described in Mitigation Measure PAL-1, will be required. With the implementation of PAL-1, the selected alternative's impacts on paleontological resources would be less than significant.

With the implementation of CUL-4, the selected alternative's impacts on previously unknown archaeological resources within the NAVWPNSTA would be less than significant.

Geology and Soils

Significant Environmental Impacts:

The project is located in a State of California mapped Liquefaction Hazard Zone. The project area has relatively shallow groundwater, layers of loose to medium dense saturated granular soils, and moderate to high earthquake accelerations. Liquefiable soils are expansive and are considered unstable or could become unstable due to liquefaction.

Findings:

Changes or alterations have been designed in, or incorporated into the project, which avoid or substantially lessen the significant environmental impact as identified in the final EIR.

Statement of Facts:

The design and construction of the selected alternative to current highway and structure design standards, including applicable seismic standards which would minimize the potential impacts due to seismic events on the project facilities. These potential impacts are addressed in Mitigation Measures GEO-1 through GEO-7, which require specific surveys and the treatment of these conditions as part of the final design. With the implementation of Mitigation Measures GEO-1 through GEO-7, the selected alternative's potential project impacts on geology and soils would be less than significant.

Hazards and Hazardous Materials

Significant Environmental Impacts:

Some partial acquisitions of properties are considered Recognized Environmental Conditions (RECs). Also, other site concerns related to Leaking Underground Storage Tanks (LUSTs), historical spills along I-405, Lead-Based Paint (LBP), Aerially-Deposited Lead (ADL), Asbestos-Containing Materials (ACMs), and abandoned drums and soil exist within or adjacent to the project area. As a result, property acquisition or

disturbance without further investigation or characterization could result in a significant hazard to the public.

Significant impacts to emergency response plan could occur during the construction of the project which would occur over 54 months. Proposed mainline improvements would necessitate the construction of up to 8 new structures, 18 structure replacements, and 6 structure widening/modifications, which would result in construction-related delays along I-405, I-605, SR-22, SR-73, interchanges, and on surrounding local arterials.

Findings:

Changes or alterations have been designed in, or incorporated into, the project, which avoid or substantially lessen the significant environmental impact as identified in the final EIR.

Statement of Facts:

The project would incorporate procedures for hazardous materials investigation which are addressed in Measures HAZ-1 through HAZ-4 of the final environmental document. With the implementation of Measures HAZ-1 through HAZ-4, the selected alternative's potential impacts on properties potentially containing hazardous materials would be less than significant.

Project-construction-related closures would be addressed through a comprehensive Traffic Management Plan (TMP), as required by Mitigation Measure T-1, which includes requirements for coordination with and notification to the corridor cities and emergency responders. Additionally, Mitigation Measures T-2 through T-9 and T-12 would improve circulation on the affected local arterials. With the implementation of Measures T-1 through T-9 and T-12, the selected alternative's potential impacts on adopted emergency response or evacuation plans would be less than significant.

Community/Public Services

Significant Environmental Impacts:

Proposed mainline improvements would necessitate construction of up to 8 new structures, 18 structure replacements, and 6 structure widening/modifications over a 54 month duration, which would result in construction-related delays along I-405, I-605, SR-22, and SR-73, interchanges, and on surrounding local arterials: and could result in significant impacts on emergency response.

Construction of the selected alternative would result in temporary increases in automobile and/or pedestrian access to businesses, public services, schools, and other facilities. There may be temporary impacts during construction to pedestrian service within a 0.25 to 0.5 mile radius of the project that changes/reduces pedestrian access used by the disabled, resulting in a longer route that could indirectly reduce their access to community facilities. Additionally, construction may result in increases in local traffic as residents travel longer distances on local streets to enter I-405 at the limited access points.

Following completion of construction, most of the overcrossings and undercrossings will be wider to accommodate the additional lanes of I-405 and bring crossings to MPAH standards; as a result, this would increase the lengths of the roads and sidewalks that are on the overcrossings or in the undercrossings. Therefore, the amount of time pedestrians and bicyclists spend on these overcrossings or in the undercrossings would increase compared to existing conditions. The new features of the undercrossings would include lighting for vehicles and pedestrians consistent with local standards; however, the segments of those roads under the existing overcrossings would experience a reduction in the amount of natural light, which could be perceived by pedestrians and bicyclists as adversely affecting their experiences crossing under I-405.

Findings:

Changes or alterations have been designed in, or incorporated into, the project, which avoid or substantially lessen the significant environmental impact as identified in the final EIR. Measure T-1 requires implementation during construction of methods to avoid and minimize construction-related traffic and circulation impacts and minimize impacts to pedestrian and bicycle access, including ADA-compliant features, as a result of the proposed project. The provision of appropriate lighting in the new features of the undercrossings and potential additional lighting in the existing features of the undercrossings is included in the project.

Statement of Facts:

Project impacts on the community have been mitigated to the maximum extent practicable; however, the increased urbanization subsequent to completion of the project (i.e., expanded pavement and ROW, new and widened bridges/overcrossings/undercrossings, new retaining walls and soundwalls, and replacement/removal of mature vegetation) and the temporary construction-related impacts on freeway users and corridor cities (i.e., 54-month construction period, increased congestion associated with construction, detours, ramp, lane and arterial closures, potential reduced incident response times, and reduced access to the freeway, businesses, and pedestrian facilities) are considered significant and unavoidable. Caltrans/OCTA has a robust public outreach process for this project, which will continue through completion of the project.

None of the temporary long-term closures that have been identified would result in any substantial impact on emergency access or response times. A Final TMP (Mitigation Measure T-1) will be prepared in coordination with local jurisdictions and emergency service providers (e.g., CHP, local police, fire, paramedics) to identify emergency service routes that serve hospitals, fire/police stations, emergency shelters, emergency command centers, and other facilities that provide essential services in times of emergency within the study area. All emergency service routes would be maintained during construction, or alternate routes would be provided. Mitigation Measure UT-2 requires emergency service providers to be alerted in advance of any temporary road closures and delays so that they have adequate time to make appropriate accommodations to ensure prompt emergency response times that fulfill their responsibilities and defined service objectives. In addition to T-1 and UT-2, Mitigation Measures COM-1 through COM-11 would further minimize potential project impacts on acceptable service ratios, response times, or other performance objectives of public services. With the implementation of Mitigation Measures T-1, UT-2, and COM-1 through

COM-11, the selected alternative's potential impacts on police and fire emergency response would be less than significant.

Measures to avoid, minimize, and mitigate these potentially significant impacts during construction have been incorporated into the project; however, the related project impacts on the community within the corridor cannot be fully mitigated.

Transportation/Traffic

Significant Environmental Impacts:

Orange County

A. Future Selected Alternative Compared to Existing Condition

A comparison of the selected alternative in 2020 and 2040 to the existing condition reveals that in 2020, there are 11 intersections with a significant cumulative impact; and in 2040, there are 14 intersections with a significant cumulative impact.

Furthermore, with regard to freeway segments, an increase in the volume/capacity (v/c) ratio of a freeway segment is an indication of a cumulative traffic impact on the freeway mainline. Under the selected alternative, on I-405, between SR-73 and I-605, in 2020 and in 2040, LOS F conditions are anticipated during peak hours in the GP lanes, except for LOS D northbound from SR-73 to Brookhurst Street during the a.m. peak hour in 2020. Under the existing condition LOS F conditions occur during peak hours in the GP lanes, except for LOS D in the northbound direction during the a.m. peak hour and southbound during the p.m. peak hour between SR-73 and Brookhurst Street. Under the selected alternative, in 2020, v/c ratios range from 0.05 lower to 0.20 greater than existing conditions. In 2040, v/c ratios range from 0.13 to 0.45 greater than existing conditions. As a result, based on the increases in freeway GP lane v/c ratios, there is a cumulative impact on the freeway mainline.

B. Future Selected Alternative Compared to Future No Build

A comparison of selected alternative in 2020 and 2040 to the No Build Alternative in 2020 and 2040 identifies the contribution of the selected alternative to cumulative impacts. All v/c ratios for the freeway mainline under the selected alternative are lower than under the No Build Alternative. Therefore, the contribution of the selected alternative to the cumulative impact on the freeway mainline is less than significant.

Additionally, there are eight intersections with project contributions to cumulative traffic impacts that are significant. However, mitigation measures are proposed to mitigate those significant impacts, as discussed below in the statement of facts. With all improvements including mitigation, five intersections are anticipated to have significant cumulative impacts in 2020. In 2040, with all improvements including mitigation, 10 intersections are anticipated to have significant cumulative impacts. However, there are no intersections in 2020 or 2040 where the contribution of the selected alternative to the cumulative impacts is significant with the proposed mitigation in place.

As such, there are no significant impacts from the selected alternative on the performance or LOS of the circulation system.

Los Angeles County

A. Future Selected Alternative Compared to Existing Condition

A comparison of the selected alternative in 2020 and 2040 to the existing condition reveals that in 2020, there are five intersections in the Los Angeles County traffic study area with a significant cumulative impact; and in 2040, there are nine intersections with a significant cumulative impact.

Furthermore, with regard to freeway segments, an increase in the vehicle/capacity (v/c) ratio of a freeway segment is an indication of a cumulative impact on the freeway mainline. Under the selected alternative on I-405 north of I-605 to Lakewood Boulevard in 2020, LOS F conditions are anticipated during peak hours in the GP lanes, except for LOS D and E in the southbound direction between I-605 and Studebaker Road during the AM and PM peak hours, respectively. In 2040, LOS F conditions are anticipated during peak hours in the GP lanes, except for LOS E in the southbound direction between I-605 and Studebaker Road during the AM peak hour. Under the existing condition, LOS D to F conditions occur during peak hours in the GP lanes. Under the selected alternative in 2020, v/c ratios in the GP lanes range from 0.01 to 0.61 greater than under existing conditions. In 2040, v/c ratios range from 0.09 to 0.72 greater than under existing conditions. Moreover, on I-405 north of I-605 to Lakewood Boulevard, HOV lanes are anticipated to operate at LOS F during peak hours in 2020 with v/c ratios in excess of 1.00, except southbound during the AM peak hour; the 2020 v/c ratios in the I-405 HOV lanes range from 0.94 to 1.24 in 2020. Under the existing condition, v/c ratios range from 0.50 to 1.06. In 2040, HOV lanes are anticipated to operate at LOS F during peak hours because v/c ratios are all forecast to be over capacity ranging from 1.25 to 1.65. In 2020, the selected alternative v/c ratios in the HOV lanes range from 0.05 lower to 0.46 greater than under existing conditions. In 2040, v/c ratios range from 0.19 to 0.86 greater than under existing conditions. As a result, based on the increases in freeway GP and HOV lane v/c ratios, there is a cumulative impact on the I-405 freeway mainline.

B. Future Selected Alternative Compared to Future No Build

A comparison of the selected alternative in 2020 and 2040 to the No Build Alternative in 2020 and 2040 identifies the contribution of the selected alternative to cumulative impacts. V/c ratios for the I-405 freeway mainline under the selected alternative are 0.03 to 0.13 higher than under the No Build Alternative in 2020 and 0.02 to 0.13 higher in 2040. Although there are some increases in v/c ratios, the contribution of the selected alternative to the cumulative impact on the freeway mainline is less than significant because LOS is F under the No Build Alternative or the maximum increase in v/c ratios is 0.05.

Additionally, there are seven intersections with project contributions to cumulative impacts that are significant. However, mitigation measures T-10 and T-11 are proposed to mitigate those significant impacts, as discussed below in the statement of facts. With all improvements, including mitigation, three intersections are anticipated to have significant cumulative impacts in either 2020 or 2040. However, there are no intersections where the contribution of the selected alternative to the cumulative impacts is significant with the proposed mitigations in place.

As such, there are no significant impacts from the selected alternative on the performance or the LOS of the circulation system.

Findings:

Changes or alterations have been designed in, or incorporated into, the project, which avoid or substantially lessen the significant environmental impact as identified in the final EIR.

Statement of Facts:

Mitigation measures T-10 and T-11 as identified in the FEIR address cumulative intersection operations/impacts in the portions of the study area within Los Angeles County (T-10 applies to City of Long Beach and T-11 applies to Caltrans). The project's fair share contributions are payments of a fair share towards overall construction costs of proposed mitigation improvements which would include shares from other projects with an identified impact/share. This is consistent with CEQA Guidelines Section 15130(a)(3). There are two possible payment options: payment could either be made by the project proponent to the City of Long Beach/Caltrans and they can implement the projects or, alternatively (applies to T-11 only), the project proponent shall hold the fair share mitigation funds until Caltrans pays the differential between the cost of the mitigation project and the retained funds to the project proponent and the project proponent would then program and construct the projects. If these measures are implemented as discussed above, traffic or transportation-related direct or indirect cumulative impacts are not anticipated to be significant. However, as discussed in T-10 and T-11, if the cost differential was not paid by other entities causing cumulative traffic impacts, then significant cumulative impacts would continue to occur at those intersections.

Visual/Aesthetics

Significant Environmental Impacts:

Construction of the selected alternative would result in changes to the visual quality and/or character associated with vegetation removal, construction activities, and the introduction of new and modified permanent structures. For the selected alternative, the removal of the eucalyptus trees and other vegetation within the interchange areas would likely have the greatest impact on the visual quality; however, this impact would remain until trees grow back to existing conditions. Other elements, such as replacement structures, new retaining walls, and soundwalls, would be a permanent visual change within the existing viewsheds along the corridor, including some areas where visual impacts were determined Moderately High.

Findings:

Changes or alterations have been designed in, or incorporated into the project, which avoid or substantially lessen the significant environmental impact as identified in the final EIR.

Statement of Facts:

Given the significance of impacts to visual/aesthetics, avoidance, minimization, and mitigation measures VIS-1 through VIS-21 have been incorporated to reduce significant unavoidable impacts on the visual character and quality of the project surroundings to the maximum extent practicable.

Greenhouse Gas Emissions

Significant Environmental Impacts:

Proposed mainline improvements would add capacity by adding one GP lane and one tolled express lane, which would result in increased throughput at higher speeds along I-405, I-605, SR-22, and SR-73. Greenhouse gas emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from traffic delays due to construction. These emissions would be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases. During the operational phase, it is anticipated that the project will not result in an increase in operational GHG emissions. Based on the project resulting in less congestion and more efficient system operations, Caltrans anticipates that GHG emissions will decrease in the future build conditions when compared to existing conditions.

Findings:

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 determination regarding the significance of the project's direct impact and its contribution on the cumulative scale to global climate change. However, Caltrans is firmly committed to implementing measures to help reduce the potential effects of the project. These measurements are outlined in the following sections.

Statement of Facts:

The project's specific measures to reduce these impacts include the following:

- For on-highway vehicles used for this project, contractors are encouraged to meet or exceed the USEPA exhaust emissions standards for model year 2010 and newer heavy-duty on-highway compression-ignition engines (e.g., long-haul trucks, refuse haulers, shuttle buses, etc.).
- For non-road vehicles & equipment used for this project, contractors are encouraged to meet or exceed the USEPA Tier 4 exhaust emissions standards

for heavy-duty non-road compression-ignition engines (e.g., construction equipment, non-road trucks, etc.).

- Contractors are encouraged to demonstrate and deploy heavy-duty technologies that exceed the latest USEPA emission performance standards for the equipment categories that are relevant for this project (e.g., plug-in hybrid-electric vehicles-PHEVs, battery-electric vehicles BEVs, fuel cell electric vehicles-FCEVs, etc.).
- The construction traffic management plan will be followed to maintain traffic flow in order to reduce emissions.
- Encourage the use of cement blended with the maximum feasible amount of fly ash or other materials that reduce GHG emissions from cement production.