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William Halligan, Esq.
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Subject: Trip Generation Analysis for OC River Walk Project, Orange County, California

Dear Mr. Halligan:

At your request, LSA has prepared this analysis of the potential for transportation impacts from the proposed OC River Walk (project). The project site is located along the Santa Ana River corridor, generally between Orangewood Avenue and Ball Road, extending to the existing Anaheim Coves at Burris Basin. It generally encompasses approximately a 2-mile stretch of the Santa Ana River, covering approximately 111 acres. Portions of the project study area are within Anaheim and within Orange, and portions of the project study area are owned by the County of Orange. The City of Anaheim (City) is proposing the project and is the Lead Agency. The purpose of this analysis is to determine whether the proposed project has the potential for transportation impacts requiring additional transportation analysis. The project's potential effects on vehicle level of service and vehicle miles traveled (VMT) transportation impacts according to the California Environmental Quality Act (CEQA) were considered.

PROJECT DESCRIPTION

The Santa Ana River is the largest river in Southern California. From the Prado Dam the river traverses the Santa Ana Canyon and bisects Orange County as it flows to the Pacific Ocean. The Santa Ana River Trail is a Class I bicycle path that parallels the Santa Ana River for 30 miles (its entire length through Orange County). The Santa Ana River Trail is an important artery in Orange County's bicycle infrastructure, including as part of the OC Loop network. The project would improve the riverbed, embankments, and adjacent trails.

The main components of the Conceptual Master Plan involve creating three water impoundments by installing inflatable rubber dams (impoundments), modifying the riverbanks, constructing two pedestrian/bike bridges, providing new trails, improving existing trails, creating new and protection of existing access ramps, constructing two new undercrossings on the west bank at the railroad, providing enhanced community recreation amenities (terraced seating, nature play areas, parklets, plazas, gathering areas, water access, kayak launch, etc.), and other improvements. These project

elements fall into three general categories: recreational (within the water and along the bank), water quality improvements, and non-motorized infrastructure (new river crossings and new undercrossings along the riverbanks). Vehicle trips would only be generated by the recreational improvements.

VEHICLE LEVEL OF SERVICE GUIDELINES

The City of Anaheim's *Criteria for Preparation of Traffic Impact Studies* states that a traffic impact analysis (TIA) would be needed for a project that would generate 100 or more a.m. or p.m. peak-hour trips, would contribute 51 or more peak-hour trips to any Congestion Management Program (CMP) monitored intersection, would generate 1,600 daily trips if located on the CMP highway system, or would generate 2,400 daily trips if adjacent to the CMP highway system. The Orange County CMP highway system includes Katella Avenue and the Katella Avenue interchanges with State Route 91 (SR-57) in the vicinity of the project.

The *City of Orange Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment* also suggests that level of service analysis would be required if a project generates more than 100 a.m. or p.m. peak-hour trips or adds 51 or more trips during the a.m. or p.m. peak hours to any single intersection.

The County of Orange *Transportation Implementation Manual* states that open space, passive park, and park buildings are deemed to have significant public benefit and exempt from preparing level of service analysis.

TRIP GENERATION

The Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021), provides data on the trip generation characteristics of different types of land uses. The proposed project has the potential to generate recreation trips similar to other public parks. While only a small portion of the study area is outside of the riverbed, Table A calculates project trips based on the entire 90-acre study area.

Table A: Trip Generation

Land Use (Land Use Code)	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates ¹									
Public Park (411)		Acre	0.78	0.01	0.01	0.02	0.06	0.05	0.11
Trip Generation									
OC River Walk	90	Acre	70	1	1	2	5	5	10

Source: Compiled by LSA (2025).

¹ Trip rates referenced from the ITE *Trip Generation Manual*, 11th Edition.

ADT = average daily trips

ITE = Institute of Transportation Engineers

As Table A shows, the proposed project is anticipated to generate 70 daily trips on a typical day of which 2 trips would occur in the a.m. peak hour and 10 trips would occur in the p.m. peak hour. This is below the established threshold of 100 peak-hour trips (51 peak-hour trips at a CMP intersection) that would require preparation of a detailed traffic analysis.

VEHICLE MILES TRAVELED

The State revised its *State CEQA Guidelines* in January 2019. Among the revisions, vehicle delay and level of service analysis have been removed from consideration under CEQA. The current *State CEQA Guidelines* prescribe the evaluation of transportation impacts on a project's effect on VMT.

On June 23, 2020, the City adopted the *City of Anaheim Traffic Impact Analysis Guidelines for California Environmental Quality Act Analysis* (June 2020) (City Guidelines). These adopted guidelines include screening criteria for various project types that can be screened from project level assessment as they are presumed to have a less than significant impact. The examples of projects that could be screened include "pocket, neighborhood and community parks" (Type 3 project screening, page 7). Projects generating less than 110 daily trips are also presumed to have a less than significant impact.

The *City of Orange Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment* also identifies local parks and projects generating fewer than 110 daily vehicle trips as having a presumption of a less than significant impact.

The County of Orange *Transportation Implementation Manual* states that public facilities that support community health, safety, or welfare are screened from subsequent analysis of VMT. Small projects generating fewer than 500 daily vehicle trips are presumed to have a less than significant impact on VMT.

Simultaneous with clearance of the revised *State CEQA Guidelines*, the Governor's Office of Planning and Research (OPR) released the *Technical Advisory for Evaluating Transportation Impacts under CEQA* (OPR, December 2018). Although this document does not carry the weight of law, it does provide clarification of *State CEQA Guidelines* Section 15064.3 and guidance that could be adopted by jurisdictions. The *Technical Advisory for Evaluating Transportation Impacts under CEQA* states that the addition of Class I bike paths, trails, multi-use paths, or other off-road facilities that serve non-motorized travel would not likely lead to a substantial or measurable increase in vehicle travel (pages 20–21).

The project elements accessible to the public will be a park serving the local population. Other project elements support community health and safety through water quality improvements. Still other project elements construct new Class I bike path connections bridging the Santa Ana River.

The project meets the descriptions provided in the City Guidelines, the City of Orange guidelines, and the County of Orange guidelines for project types presumed to have a less than significant transportation impact under CEQA. Therefore, no additional VMT analysis is necessary.

BICYCLE AND PEDESTRIAN NETWORK EFFECTS

The California Air Pollution Control Officers Association (CAPCOA) *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* discusses and quantifies the effects of measures to reduce greenhouse gas (GHG) emissions including measures that promote alternatives to single occupant vehicle use. Measure T-18 describes providing pedestrian network improvements. Based on data compiled for the CAPCOA report, improvements to the pedestrian network can reduce up to 6.4 percent of GHG emissions from vehicle travel within a community dependent on the level of pedestrian facility deficit and subsequent improvement. Measure T-19a describes constructing or improving bicycle facilities, which can reduce up to 0.8 percent of GHG emissions from parallel roadways.

As mentioned previously, the Santa Ana River Trail is an important bicycle facility in Orange County. Improved bicycle connections along and across the Santa Ana River have the potential to facilitate additional bicycle trips which could replace vehicle trips, reduce VMT, and reduce GHG emissions.

CONCLUSION

Because the project would not generate 100 or more a.m. or p.m. peak-hour trips and does not have the potential to add 51 or more peak-hour trips to any CMP-monitored intersection or to add 1,600 daily trips to the CMP system, LSA does not believe the proposed project meets the criteria for requiring a TIA. In addition, the proposed project would be assumed to have a less than significant impact on transportation according to City and State guidance on evaluating transportation impacts under CEQA. Project elements providing improved bicycle and pedestrian connections have the potential to reduce GHG emissions.

Please let us know if you have any questions or if we can be of further assistance.

Sincerely,

LSA Associates, Inc.

Arthur Black
Principal Transportation Planner