APPENDIX 7

April 12, 2021

Ms. Kaitlyn Dodson-Hamilton
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San Bernardino, CA 92406-2307

SUBJECT: EAST ORANGE COUNTY WATER DISTRICT ID1 CAPACITY REHABILITATION & AUGMENTATION PROJECT TRIP GENERATION EVALUATION

Dear Ms. Kaitlyn Dodson-Hamilton:

Urban Crossroads, Inc. is pleased to submit this Trip Generation Evaluation (**TG Evaluation**) prepared for the East Orange County Water District ID1 Capacity Rehabilitation & Augmentation Project (**Project**), which is located in the City of Tustin.

PROJECT DESCRIPTION

East Orange County Water District (District or EOCWD) encompasses an area of approximately 10,000 acres and is a member of the Municipal Water District of Orange County, which is a member of the Metropolitan Water District, and is therefore entitled to receive Colorado River and Northern California imported water through the distribution facilities of the Metropolitan system. On May 11, 2016, the Orange County Local Agency Formation Commission (OCLAFCO) approved EOCWD's application for transfer of the Orange County Sanitation District's (OCSD's) Area 7 Local Sewer System. The actual transfer of the gravity sewer assets was performed on August 1, 2016.

The District's ID1 Capacity Rehabilitation and Augmentation Project is a result of the capacity analysis performed under EOCWD's Sewer Master Plan. The project involves rehabilitation of existing sewer alignments through installation of distinct sewer segments, as follows:

- Browning Avenue Sewer (Exhibit 1)
- Fallen Leaf Sewer (Exhibit 2)
- 6th Street Sewer (Exhibit 3)
- Crawford Canyon Sewer (Exhibit 4)
- Clarissa Lane Sewer (Exhibit 5)

BROWNING AVENUE SEWER

The Browning Avenue Sewer alignment includes 3 segments:

- Segment 1 – Segment 1 of the Browning Avenue Sewer Improvement includes trenchless installation of approximately 300 feet of 18-inch pipe in a casing under the I-5 Freeway to connect to segments at El

Camino Real on the north and Nisson Road on the south. EOCWD requires that the existing sewer—originally constructed in 1962 with 184 feet of 30-inch diameter steel casing jacked and bored and 18 feet of concrete encasement—be maintained as backup. The sewer was lengthened when the I-5 Freeway was widened. This segment will also require construction of new manholes and reconstruction of a portion of the sewer in El Camino Real, which is a heavily traveled street. 5 months of construction is anticipated beginning in April of 2022 to September of 2022.

- Segment 2 – This segment will replace and upsize 2,475 feet of 12-inch sewer in Browning Road between Bryan Avenue and the I-5 Freeway and upsize approximately 1,500 feet of 10-inch sewer between Bryan Avenue and Bent Twig Lane. The recommended replacement sizes are 18- inches (replacing the 12-inch pipes) and 15-inches (replacing the 10-inch pipes). Replacement and upsizing of the existing pipes will be performed either via open trench excavation or trenchless methods. 6 months of construction is anticipated beginning in September of 2021 to February of 2022.
- Segment 3 – This segment will replace and upsize 1,235 feet of 12-inch sewer in Browning Road between the I-5 Freeway and Mitchell Avenue. The recommended replacement size is 18-inches. Replacement and upsizing of the existing pipes will be performed either via open trench excavation or trenchless methods. 3 months of construction is anticipated beginning in September of 2021 to November of 2021.

FALLEN LEAF SEWER

There were 3 alternatives considered for the Fallen Leaf Sewer, however, the District has selected Alternative 1 as the preferred alternative. Alternative 1 would construct a new 20 to 24-inch sewer parallel to the existing crossing. Construction would entail jack and boring of a steel encasement and the carrier pipe would be installed inside the steel pipe. The annular space would be filled with grout. The parallel line would be bored adjacent to the existing line, and level of service to the affected homes will be improved. Permitting this new line may take longer due to crossing the Metro Rail lines but is the most cost-efficient alternative. Constructing a parallel line within the existing easement will entail negotiations with the affected homeowners to allow a temporary construction easement. Construction of the Fallen Leaf Sewer (Alternative 1) is anticipated to require 4 months of construction and is anticipated to begin in February of 2022 to May of 2022.

6TH STREET SEWER

This segment will convey the flows north of B Street by designing and constructing a new 10-inch sewer line in 6th Street that connects to the existing OCSD manhole located at the intersection of 6th and El Camino Real. This new line would relieve future capacity issues to the existing sewer line in B Street south of 6th Street. Construction of the new line is expected to be completed using open trench methods. The length of sewer that would be installed is approximately 775 feet. 4 months of construction is anticipated beginning in September of 2021 to December of 2021.

CRAWFORD SEWER

This segment entails the replacement and upsizing of about 605 feet of existing 8-inch sewer with a new 12-inch sewer. The line is deep, so pipe bursting would be preferred as a replacement technique; however, open trench replacement is also potential alternative. 3.5 to 4 months of construction is anticipated beginning in September of 2021 to December of 2021.

CLARISSA LANE SEWER

This is an existing sewer that crosses under another Orange County Public Works (OCPW) flood control channel. It is about 500-ft in length and only 6-inches in diameter and has outlived its useful life. Two alternatives are being considered during preliminary design: (1) design and construct a new parallel sewer with siphon under the channel; (2) design and construct a new sewer connecting the existing manhole at Clarissa Lane to the existing manhole in Plaza Drive with a new 8-inch sewer, about 220 ft long, and about 5-8 ft deep, utilizing either the open trench method or jack and bore method between the two existing homes in Clarissa Ln. In order to accomplish this alternative, a new easement would be required. 3 months of construction is anticipated beginning in August of 2021 to November of 2021.

CONSTRUCTION TRAFFIC

All materials for project construction would be delivered by truck. Truck deliveries will normally occur during daylight hours. All truck traffic would utilize City-designated truck routes. Traffic associated with construction activities are temporary and would occur along area roadways as workers and materials are transported to and from the proposed Project site. It is assumed that an underground utility installation team can install approximately 200-400 lineal feet of sewer line per day. A team consists of the following:

- 1 Excavator
- 1 Backhoe
- 1 Paver
- 1 roller
- 1 Water Truck
- 10 Dump/Delivery trucks (80 miles round trip distance)
- Employees (11 members per team)
- Traffic Control Signage and Devices

For the purposes of the air quality emissions analyses, it has been assumed that 2 teams would be installing pipelines for a maximum total of 800 lineal feet per day. As such, this trip generation

assessment will also take into consideration the trucks and employees needed to support 2 teams. In order to install 7,800 lineal feet of sewer line, 60 days of construction has been assumed. Repaving is anticipated to occur as soon as each area is completed. It is our understanding that construction activity is anticipated to occur between 7 AM and 4 PM during the weekdays. However, note that the bypass pumps must run continuously for the Browning Avenue and Clarissa Lane Sewer alignments.

Construction employees are anticipated to arrive by private automobile, and no carpooling has been assumed for the purposes of this trip generation evaluation. It has been assumed that all construction employees would arrive to the site prior to the morning 7-9 AM peak commute period, however, all 22 employees are assumed to depart during the PM peak hour based on the anticipated work hours. It has conservatively been assumed that 25% of the daily truck trips would occur during the morning peak hour, however, no trucks activity is assumed during the PM peak hour as the truck activity is anticipated to cease prior to the end of the workday at 4 PM. For this analysis, a worst-case scenario was assumed where we are assuming 2 installation teams; therefore, the total potential vehicle trip generation from the proposed Project would be approximately 84 trips per day (see Table 1).

TABLE 1: CONSTRUCTION TRIP GENERATION SUMMARY

	AM Peak Hour			PM Peak Hour			
Project	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**Daily**
EOCWD ID1							
Passenger Cars:[1]	0	0	0	0	22	22	44
Truck trips:	5	5	10	0	0	0	40
Project Total:	**5**	**5**	**10**	**0**	**22**	**22**	**84**

[1] Construction workers would arrive prior to the 7-9 AM morning peak commute period. Construction workers anticipated to leave the site starting at 4:00 PM (at the beginning of the 4-6 PM peak commute period).

FINDINGS

The 2020 Updated Transportation Implementation Manual for the County of Orange (amended November 17, 2020) indicates that projects generating fewer than 110 two-way trips per day would screen out. The Project is anticipated to contribute fewer than 50 peak hour trips to the existing circulation system during construction and is anticipated to generate fewer than 110 two-way trips per day. As such, no additional traffic analysis is necessary based on the CMP traffic study guidelines.

If you have any questions, please contact me directly at (949) 861-0177.

Respectfully submitted,

URBAN CROSSROADS, INC.

Charlene So, P.E.

Associate Principal

EXHIBIT 1: BROWNING AVENUE SEWER

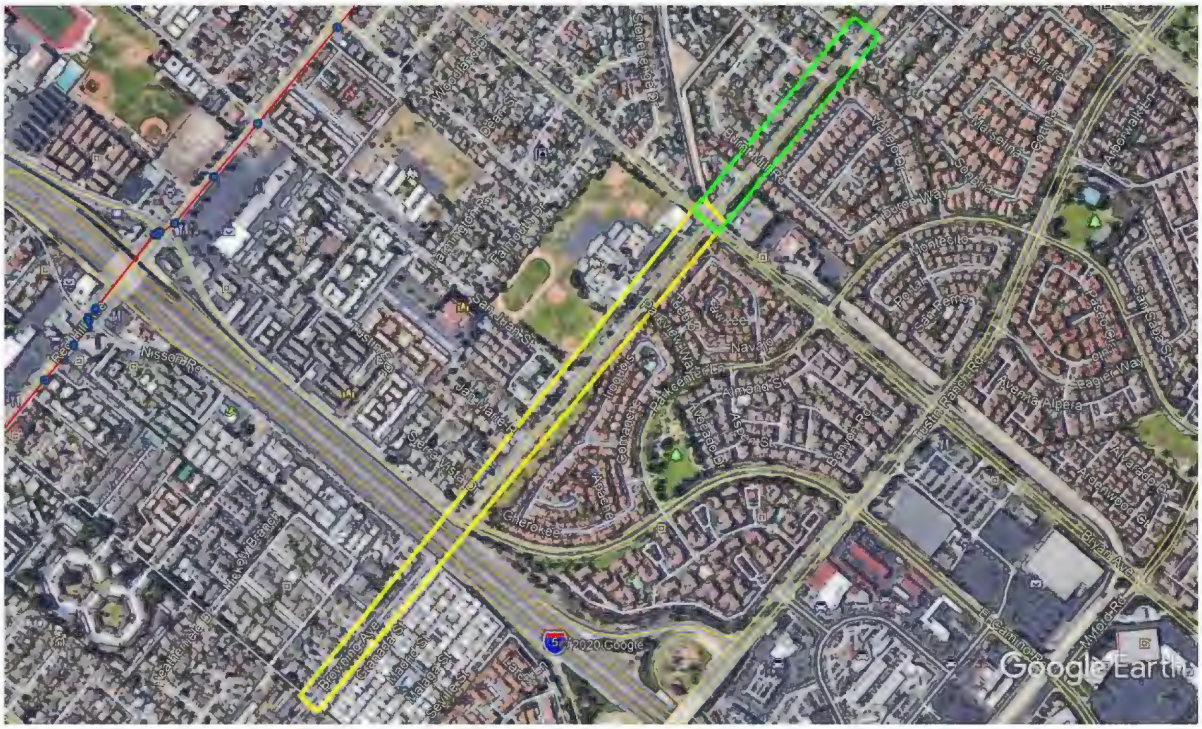

EXHIBIT 2: FALLEN LEAF SEWER

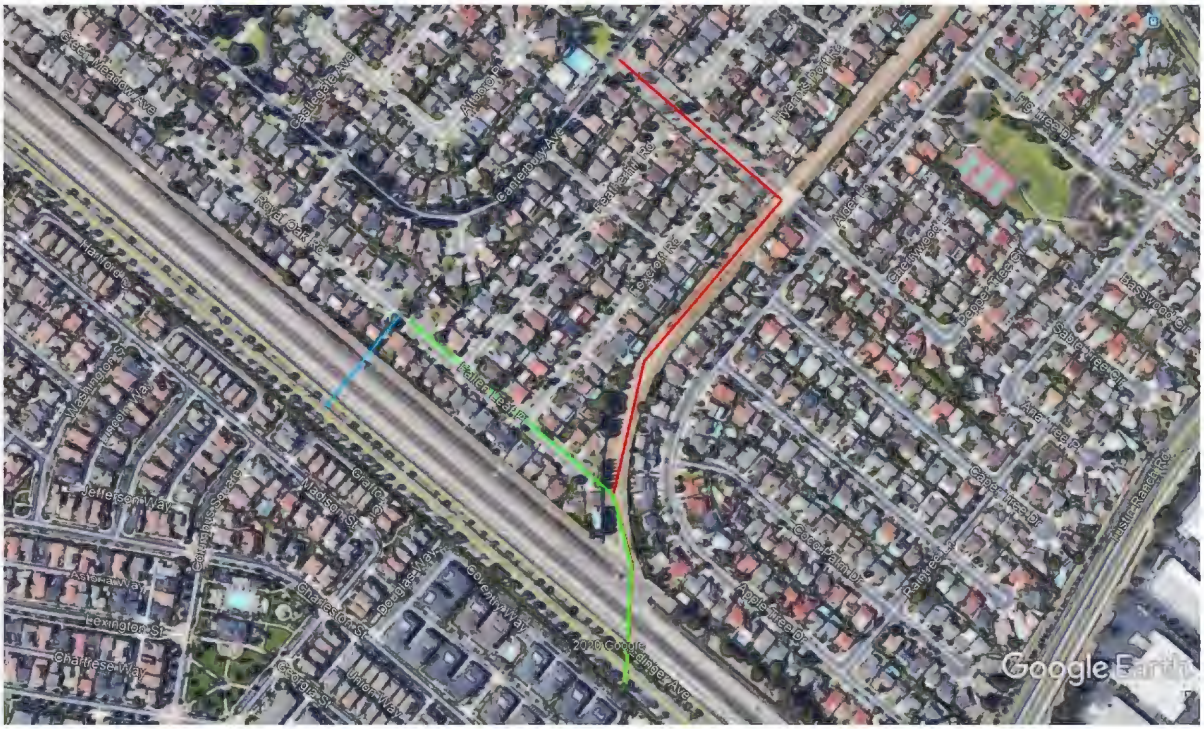

EXHIBIT 3: 6TH STREET SEWER

EXHIBIT 4: CRAWFORD SEWER

EXHIBIT 5: CLARISSA LANE SEWER