

Subject: 1045 Olive Street Mixed-Use Development Project

From: Eduardo Hermoso <eduardo.hermoso@lacity.org>

Date: 8/16/2018, 3:23 PM

To: Luciralia Ibarra <luciralia.ibarra@lacity.org>

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Luciralia,

The Department of Transportation has completed the Traffic Impact Study review for the proposed mixed-use development project for the location at 1045 Olive Street. A copy of the assessment letter is attached.

Please contact our office if you have any questions.

Thank You.

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Eduardo Hermoso

Transportation Engineer Associate II
Metro Development Review

Los Angeles Department of Transportation

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— Attachments: —

CEN17-45847_1045 Olive Street Mixed-Use ts ltr.pdf

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CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

1045 Olive Street
DOT Case No. CEN 17-45847

Date: August 16, 2018

To: Luciralia Ibarra, Senior City Planner
Department of City Planning

From: Wes Pringle, Transportation Engineer
Department of Transportation

Subject: **TRANSPORTATION STUDY ASSESSMENT FOR THE PROPOSED MIXED-USE DEVELOPMENT LOCATED AT 1045 OLIVE STREET**

The Department of Transportation (DOT) has reviewed the transportation impact study prepared by The Mobility Group, dated May, 2018, for the proposed mixed-use development project at 1045 Olive Street. In order to evaluate the effects of the project's traffic on the available transportation infrastructure, the significance of the project's traffic impacts is measured in terms of change to the volume-to-capacity (V/C) ratio between the "future no project" and the "future with project" scenarios. This change in the V/C ratio is compared to DOT's established threshold standards to assess the project-related traffic impacts. Based on DOT's current traffic impact criteria¹, the transportation study included the detailed analysis of 34 signalized intersections and determined that three of these study intersections would be significantly impacted by project-related traffic prior to mitigation. This report summarizes the results of the transportation analysis (see **Attachments 1-4**), which accounted for other known development projects in evaluating potential cumulative impacts and adequately evaluated the project's traffic impacts on the surrounding community. The transportation analysis identifies the transportation mitigation measures designed to reduce the project's potential traffic impacts to a less than significant level for the three intersections.

DISCUSSION AND FINDINGS

A. Project Description

The project proposes to construct 794 apartment units and approximately 12,504 square feet (sf) of commercial uses, which may include restaurant uses; an equal split between quality restaurant and high turnover restaurant. The project site is currently occupied with approximately 35,651 sf of various one-story commercial uses; of which 14,653 sf are active manufacturing space and 5,171 sf of active retail space, all of which would be removed. The project development will construct six levels

¹ Per the DOT Traffic Study Policies and Procedures, a significant impact is identified as an increase in the Critical Movement Analysis (CMA) value, due to project-related traffic, of 0.01 or more when the final ("with project") Level of Service (LOS) is LOS E or F; an increase of 0.020 or more when the final LOS is LOS D; or an increase of 0.040 or more when the final LOS is LOS C.

subterranean parking and eight levels of above grade parking to provide up to 891 vehicle parking spaces on-site. Vehicle access to the project would be provided by one driveway on Olive Street and two driveways via an alley way. The project will widen the alley to meet the City's standard 20-foot total alley width. The alley way is located west of the site between 11th Street and Olympic Blvd. The project is expected to be completed by 2023.

B. Trip Generation

The project is estimated to generate a net increase of approximately 2,227 daily trips, 196 trips during the a.m. peak hour and 200 trips during the p.m. peak hour. These estimates were derived using trip generation rates from the Institute of Transportation Engineers (ITE) "Trip Generation Handbook, 10th Edition." A copy of the trip generation estimates table from the traffic study is attached and identified as **Attachments 5 & 6**. For the commercial land uses, in order to present a conservative analysis, they were assumed to be restaurant uses, split equally between quality restaurant and high turnover restaurant. These trip generation rates are typically derived from surveys of similar stand-alone (single) land use projects in suburban areas with little to no transit service. Therefore, DOT's transportation impact study guidelines allow projects to reduce their total trip generation to account for potential transit usage to and from the site and for the internal-trip making opportunities that are afforded by mixed-use projects. Consistent with these guidelines, the estimated trip generation includes trip credits to account for the mixed-use nature of the project and for the expected transit mode share.

C. Freeway Analysis

The traffic study included a freeway impact analysis that was prepared in accordance with the State-mandated Congestion Management Program (CMP) administered by the Los Angeles County Metropolitan Transportation Authority (MTA). According to this analysis, the project would not result in significant traffic impacts on any of the evaluated freeway mainline segments. To comply with the Freeway Analysis Agreement executed between Caltrans and DOT in December 2015, the study also included a screening analysis to determine if additional evaluation of freeway mainline and ramp segments was necessary beyond the CMP requirements. Exceeding one of the four screening criteria would require the applicant to work directly with Caltrans to prepare more detailed freeway analyses. However, the project did not meet or exceed any of the four thresholds defined in the agreement; therefore, no additional freeway analysis was required.

D. Traffic Impacts

The study determined that the project would result in significant traffic impacts, before mitigation, at the following intersections:

1. Olive Street and Olympic Boulevard (a.m. and p.m. peak hours)
2. Olive Street and Pico Boulevard (p.m. peak hours)
3. Olive Street and 17th Street (p.m. peak hours)

In consideration of the City's goals to reduce greenhouse gas emissions, the transportation study proposed a transportation mitigation program designed to reduce project-related trips and promote other travel modes. The transportation mitigation

program (discussed in the “Project Requirements” section below) fully reduces these impacts (see **Attachments 7-10**).

E. Construction Impacts

DOT recommends that a construction work site traffic control plan be submitted to DOT’s Citywide Temporary Traffic Control Section or Permit Plan Review Section for review and approval prior to the start of any construction work. Refer to <http://ladot.lacity.org/what-we-do/plan-review> to determine which section to coordinate review of the work site traffic control plan. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. DOT also recommends that all construction related traffic be restricted to off-peak hours.

PROJECT REQUIREMENTS

A. Transportation Improvement and Mitigation Program

Consistent with City policies on sustainability and smart growth and with DOT’s trip reduction and multi-modal transportation goals, the project’s mitigation focuses on developing a trip reduction program and on solutions that promote other modes of travel. The traffic mitigation program includes the following:

1. **Transportation Demand Management (TDM) Program**

A TDM program, which includes design elements and trip reduction strategies, would reduce the project’s overall trip generation by discouraging single occupancy vehicle use and by promoting the use of alternative travel modes. Through strategic building design and orientation, this project can facilitate access to existing transit services, provide a pedestrian-friendly environment, promote non-automobile travel and support the goals of a trip-reduction program.

A preliminary TDM program shall be prepared and provided for DOT review prior to the issuance of the first building permit for this project and a final TDM program approved by DOT is required prior to the issuance of the first certificate of occupancy for the project. The preliminary plan will include, at a minimum, measures consistent with the City’s Trip Reduction Ordinance. As recommended by the transportation study, the TDM program should include, but not be limited to the following strategies:

- Promotion and support and rideshares, including parking and transit incentives;
- Preferential parking for carpools and vanpools for employees;
- Provide on-site real-time information displays to make available real-time information on car-sharing, transit, vanpools, taxis;
- Transit Welcome Package – to all new residents/employees with info on alternate modes and walk to destination opportunities;
- Unbundling of residential parking;

- Participate in a Car-Share Program to provide vehicle spaces for car-share vehicles;
- Provide access to collapsible shopping carts and/or cargo bike for ease of local shopping;
- Provide discounts for employees who utilize public transit to travel from the project site;
- On-site bicycle amenities such as access to free bicycles for residential guests, on-site repair station and bicycle racks, and lockers/showers for residents and employees;
- Provide a free bike share service for residents;
- Participate in the City's Bike Share Program by providing an area for bike share facility
- A one-time fixed-fee contribution of **\$75,000** to be deposited into the City's Bicycle Plan Trust Fund prior to the issuance of any certificates of occupancy to be used to implement bicycle improvements within the Project area;
- Make a one-time financial contribution of **\$75,000** to the City of Los Angeles Department of Transportation for the implementation of First and Last Mile transit access measures in the vicinity of the project site;
- Ridesharing Services Program which would match employees together to establish carpools and vanpools;
- Record a Covenant and Agreement to ensure that the TDM program will be maintained.

In order to assess the project's actual trip generation and any subsequent TDM Plan (if deemed necessary), a traffic monitoring plan will be implemented once the project is built and occupied to equilibrium (i.e., the level at which the owner/management deems maximum occupancy). The monitoring program should be conducted annually to ensure compliance for a period of 3 years. If the project is found to not conform to the trip reduction targets summarized in **Attachments 11 & 12**, the project will have an additional year to meet the trip reduction levels. If the project continues to not meet the TDM goals, the City and project staff will cooperate on implementing further TDM Strategies. The final traffic monitoring plan and TDM Plan will be prepared for and approved by the LADOT prior to the issuance of the first certificate of occupancy for the project.

2. Transportation System Management (TSM) Improvements

The project would contribute up to **\$100,000** toward TSM improvements to intersections within the vicinity of the project that may be considered to better accommodate intersection operations and increase intersection capacity throughout the study area.

Should the project be approved, then a final determination on how to implement the TSM improvements will be made by DOT prior to the issuance of the first building permit. These TSM improvements will be implemented **either** by the

applicant through the B-Permit process of the Bureau of Engineering (BOE), or through payment of a one-time fixed fee of **\$100,000** to DOT to fund the cost of the upgrades. If DOT selects the payment option, then the applicant would be required to pay **\$100,000** to DOT, and DOT shall design and construct the upgrades.

If the upgrades are implemented by the applicant through the B-Permit process, then these TSM improvements must be guaranteed prior to the issuance of any building permit and completed prior to the issuance of any certificate of occupancy. Temporary certificates of occupancy may be granted in the events of any delay through no fault of the applicant, provided that, in each case, the applicant has demonstrated reasonable efforts and due diligence to the satisfaction of DOT.

B. Implementation of Improvements and Mitigation Measures

The applicant should be responsible for the cost and implementation of any necessary traffic equipment modifications, bus stop relocations and lost parking meter revenues associated with the proposed TSM improvements described above. All proposed TSM improvements within the City of Los Angeles must be guaranteed through BOE's B-Permit process, prior to the issuance of any building permit and completed prior to the issuance of any certificate of occupancy. Prior to setting the bond amount, BOE shall require that the developer's engineer or contractor contact DOT's B-Permit Coordinator, at (213) 972-8687, to arrange a pre-design meeting to finalize the proposed design. Costs related to any relocation of bus zones and shelters, and to modifying or upgrading traffic equipment and that are necessary to implement the proposed mitigations shall be incurred by the applicant.

If a proposed traffic mitigation measure does not receive the required approval during plan review, a substitute mitigation measure may be provided subject to the approval of LADOT or other governing agency with jurisdiction over the mitigation location, upon demonstration that the substitute measure is environmentally equivalent or superior to the original measure in mitigating the project's significant traffic impact. To the extent that a mitigation measure proves to be infeasible and no substitute mitigation is available, then a significant traffic impact would remain.

C. Highway Dedication and Street Widening Requirements

On September 7, 2016, the City Council adopted the Mobility Plan 2035 which is the new Mobility Element of the General Plan. A key feature of the updated plan is to revise street standards in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. The applicant should check with BOE's Land Development Group to determine the specific highway dedication, street widening and/or sidewalk requirements for this project. Per the new Mobility Element, **Olive Street** has been designated as Modified Avenue II that would require a 28-foot half-width roadway within a 45-foot half-width right-of-way. **11th Street** has been designated as Modified Collector that would require a 20-foot half-width

roadway within a 32-foot half-width right-of-way. The applicant should check with BOE's Land Development Group to determine the specific highway dedication, street widening and/or sidewalk requirements for this project.

D. Parking Requirement

The project would provide up to 891 automobile spaces within the subterranean and above grade on-site parking facility. The developer should check with the Department of Building and Safety on the number of parking spaces needed.

E. Removal of Metered Parking Spaces

The project could remove up to eight adjacent on-street parking spaces on Olive Street, in order to provide the project driveway and a passenger loading zone for drop-off and pick up. When a proposal for a Development Project requires the permanent removal of any metered parking spaces, payment to LADOT for lost parking meter revenue is required. The lost revenue fee will be determined during the site plan or B-permit plan review process and will be based on the revenue collected over the last twelve continuous months for each removed parking meter, as determined by LADOT's Parking Meter Division. The removal of each on-street metered parking space will require payment to LADOT in the amount of the annual revenue projected over a ten year period. The Project applicant will also be subject to any costs incurred by LADOT during the removal of each parking meter, including but not limited to meter post removal, parking sensors (if any), sign and post removal/ relocation, stall marking, pavement messages, and curb painting.

F. Project Access and Circulation

The proposed site plan illustrated in **Attachment 13** is acceptable to DOT; however, review of the study does not constitute approval of internal circulation schemes and driveway dimensions. Those require separate review and approval and should be coordinated with DOT's Citywide Planning Coordination Section (201 N. Figueroa Street, 5th Floor, Station 3, @ 213-482-7024). In order to minimize and prevent last minute building design changes, the applicant should contact DOT, prior to the commencement of building or parking layout design efforts, for driveway width and internal circulation requirements. Any changes to the project's site access, circulation scheme, or loading/unloading area after issuance of this report would require separate review and approval and should be coordinated as well.

G. Development Review Fees

An ordinance adding Section 19.15 to the Los Angeles Municipal Code relative to application fees paid to DOT for permit issuance activities was adopted by the Los Angeles City Council in 2009 and updated in 2014. This ordinance identifies specific fees for traffic study review, condition clearance, and permit issuance. The applicant shall comply with any applicable fees per this ordinance.

If you have any questions, please contact Eduardo Hermoso of my staff at (213) 972-8451.

Attachments

N:\letters\CEN17-45847_1045 Olive St Mixed-Use ts ltr

c: Shawn Kuk, Council District 14
Mehrdad Moshksar, Central District Office, DOT
Taimour Tanavoli, Citywide Planning Coordination Section, DOT
Bert Moklebust, Central District, BOE
Michael Bates, The Mobility Group

**Table 6.1 Future With Project - Intersection Level of Service
AM Peak Hour**

4/30/2018

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS		
1	La Live Way & Pico Boulevard	0.905	E	0.907	E	0.002	No
2	Figueroa Street & Olympic Boulevard	1.158	F	1.162	F	0.004	No
3	Figueroa Street & Chick Hearn Court	0.827	D	0.842	D	0.015	No
4	Figueroa Street & Pico Boulevard	0.887	D	0.889	D	0.002	No
5	Flower Street & Olympic Boulevard	0.776	C	0.779	C	0.003	No
6	Flower Street & 11th Street	0.315	A	0.333	A	0.018	No
7	Hope Street & Olympic Boulevard	0.781	C	0.789	C	0.008	No
8	Hope Street & 11th Street	0.324	A	0.345	A	0.021	No
9	Grand Avenue & 8th Street	0.567	A	0.570	A	0.003	No
10	Grand Avenue & 9th Street	0.512	A	0.513	A	0.001	No
11	Grand Avenue & Olympic Boulevard	0.647	B	0.651	B	0.004	No
12	Grand Avenue & 11th Street	0.386	A	0.415	A	0.029	No
13	Grand Avenue & Pico Boulevard	0.763	C	0.779	C	0.016	No
14	Grand Avenue & Venice Boulevard	0.446	A	0.456	A	0.010	No
15	Grand Avenue & 17th Street	0.817	D	0.825	D	0.008	No
16	Grand Avenue & 18th Street	0.666	B	0.674	B	0.008	No
17	Olive Street & 8th Street	0.833	D	0.839	D	0.006	No
18	Olive Street & 9th Street	0.707	C	0.715	C	0.008	No
19	Olive Street & Olympic Boulevard	0.932	E	0.950	E	0.018	Yes
20	Olive Street & 11th Street	0.465	A	0.470	A	0.005	No
21	Olive Street & Pico Boulevard	0.827	D	0.835	D	0.008	No
22	Olive Street & 16th Street	0.577	A	0.580	A	0.003	No
23	Olive Street & 17th Street	0.931	E	0.933	E	0.002	No
24	Olive Street & 18th Street	0.684	B	0.688	B	0.004	No

**Table 6.1 Future With Project - Intersection Level of Service
AM Peak Hour**

4/30/2018

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS		
25	Hill Street & Olympic Boulevard	0.739	C	0.741	C	0.002	No
26	Hill Street & 11th Street	0.311	A	0.315	A	0.004	No
27	Broadway & Olympic Boulevard	0.729	C	0.733	C	0.004	No
28	Broadway & 11th Street	0.367	A	0.369	A	0.002	No
29	Main Street & Olympic Boulevard	0.884	D	0.885	D	0.001	No
30	Main Street & 11th Street	0.511	A	0.513	A	0.002	No
31	Los Angeles Street & Olympic Boulevard	0.462	A	0.463	A	0.001	No
32	Los Angeles Street & 11th Street	0.225	A	0.227	A	0.002	No
33	Olive Street & 12th Street	0.460	A	0.465	A	0.005	No
34	Hill Street & Pico Boulevard	0.497	A	0.497	A	0.000	No

**Table 6.2 Future With Project - Intersection Level of Service
PM Peak Hour**

4/30/2018

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS		
1	La Live Way & Pico Boulevard	0.849	D	0.849	D	0.000	No
2	Figueroa Street & Olympic Boulevard	1.316	F	1.318	F	0.002	No
3	Figueroa Street & Chick Hearn Court	1.000	E	1.004	F	0.004	No
4	Figueroa Street & Pico Boulevard	1.073	F	1.078	F	0.005	No
5	Flower Street & Olympic Boulevard	1.123	F	1.127	F	0.004	No
6	Flower Street & 11th Street	0.743	C	0.743	C	0.000	No
7	Hope Street & Olympic Boulevard	1.022	F	1.027	F	0.005	No
8	Hope Street & 11th Street	0.687	B	0.693	B	0.006	No
9	Grand Avenue & 8th Street	0.795	C	0.799	C	0.004	No
10	Grand Avenue & 9th Street	0.901	E	0.905	E	0.004	No
11	Grand Avenue & Olympic Boulevard	0.989	E	0.998	E	0.009	No
12	Grand Avenue & 11th Street	0.861	D	0.871	D	0.010	No
13	Grand Avenue & Pico Boulevard	1.294	F	1.300	F	0.006	No
14	Grand Avenue & Venice Boulevard	0.598	A	0.601	B	0.003	No
15	Grand Avenue & 17th Street	1.139	F	1.143	F	0.004	No
16	Grand Avenue & 18th Street	0.810	D	0.814	D	0.004	No
17	Olive Street & 8th Street	0.697	B	0.700	C	0.003	No
18	Olive Street & 9th Street	0.852	D	0.856	D	0.004	No
19	Olive Street & Olympic Boulevard	1.128	F	1.139	F	0.011	Yes
20	Olive Street & 11th Street	0.757	C	0.775	C	0.018	No
21	Olive Street & Pico Boulevard	1.025	F	1.047	F	0.022	Yes
22	Olive Street & 16th Street	0.663	B	0.672	B	0.009	No
23	Olive Street & 17th Street	1.005	F	1.015	F	0.010	Yes
24	Olive Street & 18th Street	0.751	C	0.758	C	0.007	No

**Table 6.2 Future With Project - Intersection Level of Service
PM Peak Hour**

4/30/2018

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS		
25	Hill Street & Olympic Boulevard	1.047	F	1.053	F	0.006	No
26	Hill Street & 11th Street	0.605	B	0.617	B	0.012	No
27	Broadway & Olympic Boulevard	1.094	F	1.102	F	0.008	No
28	Broadway & 11th Street	0.719	C	0.728	C	0.009	No
29	Main Street & Olympic Boulevard	1.122	F	1.129	F	0.007	No
30	Main Street & 11th Street	0.826	D	0.829	D	0.003	No
31	Los Angeles Street & Olympic Boulevard	0.803	D	0.805	D	0.002	No
32	Los Angeles Street & 11th Street	0.575	A	0.578	A	0.003	No
33	Olive Street & 12th Street	0.528	A	0.542	A	0.014	No
34	Hill Street & Pico Boulevard	0.811	D	0.811	D	0.000	No

Table 3.1 1045 Olive - Trip Generation Estimates

1/5/2018

Land Use Assumptions	Source ¹ & Code	Quantity	Units	Daily		
				Trip Rate		Total Trips
Existing Uses						
Manufacturing ^{2,3,4}	ITE 140	14,653	SF	3.93		-58
(Reduction for transit trips) - 15%						9
(Reduction for walk/bike trips) - 5%						2
Net Manufacturing						-47
Retail ^{2,3,5}	ITE 820	5,171	SF	37.75		-195
(Reduction for transit trips) - 15%						29
(Reduction for walk/bike trips) - 5%						8
(Reduction for pass-by trips) - 50%						79
Net Retail						-79
Total Existing						-126
Proposed Uses						
Apartment ^{2,6}	ITE 222	794	DU	2.07		1,644
(Reduction for transit trips) - 0%						0
(Reduction for walk/bike trips) - 0%						0
Net Apartments						1,644
High-Turnover Restaurant ^{2,7}	ITE 932	6,252	SF	112.18		701
(Reduction for internal trips) - 15%						-105
(Reduction for transit trips) - 15%						-89
(Reduction for walk/bike trips) - 5%						-25
(Reduction for pass-by trips) - 20%						-96
Net High-Turnover Restaurant						386
Quality Restaurant ^{2,8}	ITE 931	6,252	SF	83.84		524
(Reduction for internal trips) - 15%						-79
(Reduction for transit trips) - 15%						-67
(Reduction for walk/bike trips) - 5%						-19
(Reduction for pass-by trips) - 10%						-36
Net Quality Restaurant						323
Total Proposed						2,353
Total Net						2,227

Land Use Assumptions	Source ¹ & Code	Quantity	Units	AM Peak Hour					
				Trip Rate			Total Trips		
				In	Out	Total	In	Out	Total
Existing Uses									
Manufacturing ^{2,3,4}	ITE 140	14,653	SF	0.48	0.14	0.62	-7	-2	-9
(Reduction for transit trips) - 15%							1	0	1
(Reduction for walk/bike trips) - 5%							0	0	0
Net Manufacturing							-6	-2	-8
Retail ^{2,3,5}	ITE 820	5,171	SF	0.00	0.00	0.00	0	0	0
(Reduction for transit trips) - 15%							0	0	0
(Reduction for walk/bike trips) - 5%							0	0	0
(Reduction for pass-by trips) - 50%							0	0	0
Net Retail							0	0	0
Total Existing							-6	-2	-8
Proposed Uses									
Apartment ^{2,6}	ITE 222	794	DU	0.03	0.18	0.21	24	143	167
(Reduction for transit trips) - 0%							0	0	0
(Reduction for walk/bike trips) - 0%							0	0	0
Net Apartments							24	143	167
High-Turnover Restaurant ^{2,7}	ITE 932	6,252	SF	5.47	4.47	9.94	34	28	62
(Reduction for internal trips) - 15%							-5	-4	-9
(Reduction for transit trips) - 15%							-4	-4	-8
(Reduction for walk/bike trips) - 5%							-1	-1	-2
(Reduction for pass-by trips) - 20%							-5	-4	-9
Net High-Turnover Restaurant							19	15	34
Quality Restaurant ^{2,8}	ITE 931	6,252	SF	0.40	0.33	0.73	3	2	5
(Reduction for internal trips) - 15%							-1	0	-1
(Reduction for transit trips) - 15%							0	-1	-1
(Reduction for walk/bike trips) - 5%							0	0	0
(Reduction for pass-by trips) - 10%							0	0	0
Net Quality Restaurant							2	1	3
Total Proposed							45	159	204
Total Net							39	157	196

Table 3.1 1045 Olive - Trip Generation Estimates

1/5/2018

PM Peak

Land Use Assumptions	Source & Code	Quantity	Units	PM Peak Hour					
				Trip Rate			Total Trips		
				In	Out	Total	In	Out	Total
Existing Uses									
Manufacturing ^{2,3,4}	ITE 140	14,653	SF	0.21	0.46	0.67	-3	-7	-10
(Reduction for transit trips) - 15%							0	2	2
(Reduction for walk/bike trips) - 5%							0	0	0
Net Manufacturing							-3	-5	-8
Retail ^{2,3,5}	ITE 820	5,171	SF	1.83	1.98	3.81	-9	-11	-20
(Reduction for transit trips) - 15%							1	2	3
(Reduction for walk/bike trips) - 5%							0	1	1
(Reduction for pass-by trips) - 50%							4	4	8
Net Retail							-4	-4	-8
Total Existing							-7	-9	-16
Proposed Uses									
Apartment ^{2,6}	ITE 222	794	DU	0.13	0.06	0.19	103	48	151
(Reduction for transit trips) - 0%							0	0	0
(Reduction for walk/bike trips) - 0%							0	0	0
Net Apartments							103	48	151
High-Turnover Restaurant ^{2,7}	ITE 932	6,252	SF	6.06	3.71	9.77	38	23	61
(Reduction for internal trips) - 15%							-6	-3	-9
(Reduction for transit trips) - 15%							-5	-3	-8
(Reduction for walk/bike trips) - 5%							-1	-1	-2
(Reduction for pass-by trips) - 20%							-5	-3	-8
Net High-Turnover Restaurant							21	13	34
Quality Restaurant ^{2,8}	ITE 931	6,252	SF	5.23	2.57	7.80	33	16	49
(Reduction for internal trips) - 15%							-5	-2	-7
(Reduction for transit trips) - 15%							-4	-2	-6
(Reduction for walk/bike trips) - 5%							-1	-1	-2
(Reduction for pass-by trips) - 10%							-2	-1	-3
Net Quality Restaurant							21	10	31
Total Proposed							145	71	216
Total Net							138	62	200

Notes:

1. ITE Rates from Trip Generation, 10th Edition, Institute of Transportation Engineers, Washington, DC, 2017, except otherwise noted.
2. Trip rate reductions were applied per LADOT's Transportation Impact Study Guidelines, December 2016.
3. Existing land use data from Crescent Heights and site observations on 9/5/2017.
4. Manufacturing analyzed as ITE 140 - Manufacturing. Used trip rates for General Urban/Suburban.
5. Retail analyzed as ITE 820 - Shopping Center. Used trip rates for General Urban/Suburban.
Existing Retail is closed on weekday mornings, therefore no existing trip credit is claimed for the AM peak hour.
6. Apartments analyzed as ITE 222 - Multifamily Housing (High Rise). Used trip rates for Dense Multi-Use Urban.
7. High-Turnover Restaurant analyzed as ITE 932 - High-Turnover (Sit-Down) Restaurant. Used trip rates for General Urban/Suburban.
8. Quality Restaurant analyzed as ITE 931 - Quality Restaurant. Used trip rates for General Urban/Suburban.
Directional Distribution for AM peak from High-Turnover Restaurant, as none published for Quality Restaurant.

Note : Some numbers may not add up exactly due to rounding .

Table 7.2 Future With Project With Mitigation Conditions - Intersection Level of Service - AM Peak Hour

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact	Future With Project With Mitigation		Change in V/C	Significant Impact	Mitigates ?
		V/C	LOS	V/C	LOS			V/C	LOS			
1	La Live Way & Pico Boulevard	0.905	E	0.907	E	0.002	No					
2	Figueroa Street & Olympic Boulevard	1.158	F	1.162	F	0.004	No					
3	Figueroa Street & Chick Hearn Court	0.827	D	0.842	D	0.015	No					
4	Figueroa Street & Pico Boulevard	0.887	D	0.889	D	0.002	No					
5	Flower Street & Olympic Boulevard	0.776	C	0.779	C	0.003	No					
6	Flower Street & 11th Street	0.315	A	0.333	A	0.018	No					
7	Hope Street & Olympic Boulevard	0.781	C	0.789	C	0.008	No					
8	Hope Street & 11th Street	0.324	A	0.345	A	0.021	No					
9	Grand Avenue & 8th Street	0.567	A	0.570	A	0.003	No					
10	Grand Avenue & 9th Street	0.512	A	0.513	A	0.001	No					
11	Grand Avenue & Olympic Boulevard	0.647	B	0.651	B	0.004	No					
12	Grand Avenue & 11th Street	0.386	A	0.415	A	0.029	No					
13	Grand Avenue & Pico Boulevard	0.763	C	0.779	C	0.016	No					
14	Grand Avenue & Venice Boulevard	0.446	A	0.456	A	0.010	No					
15	Grand Avenue & 17th Street	0.817	D	0.825	D	0.008	No					
16	Grand Avenue & 18th Street	0.666	B	0.674	B	0.008	No					
17	Olive Street & 8th Street	0.833	D	0.839	D	0.006	No					
18	Olive Street & 9th Street	0.707	C	0.715	C	0.008	No					
19	Olive Street & Olympic Boulevard	0.932	E	0.950	E	0.018	Yes	0.937	E	0.005	No	Fully Mitigates
20	Olive Street & 11th Street	0.465	A	0.470	A	0.005	No					
21	Olive Street & Pico Boulevard	0.827	D	0.835	D	0.008	No					
22	Olive Street & 16th Street	0.577	A	0.580	A	0.003	No					
23	Olive Street & 17th Street	0.931	E	0.933	E	0.002	No					
24	Olive Street & 18th Street	0.684	B	0.688	B	0.004	No					

Table 7.2 Future With Project With Mitigation Conditions - Intersection Level of Service - AM Peak Hour

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact	Future With Project With Mitigation		Change in V/C	Significant Impact	Mitigates ?
		V/C	LOS	V/C	LOS			V/C	LOS			
25	Hill Street & Olympic Boulevard	0.739	C	0.741	C	0.002	No					
26	Hill Street & 11th Street	0.311	A	0.315	A	0.004	No					
27	Broadway & Olympic Boulevard	0.729	C	0.733	C	0.004	No					
28	Broadway & 11th Street	0.367	A	0.369	A	0.002	No					
29	Main Street & Olympic Boulevard	0.884	D	0.885	D	0.001	No					
30	Main Street & 11th Street	0.511	A	0.513	A	0.002	No					
31	Los Angeles Street & Olympic Boulevard	0.462	A	0.463	A	0.001	No					
32	Los Angeles Street & 11th Street	0.225	A	0.227	A	0.002	No					
33	Olive Street & 12th Street	0.460	A	0.465	A	0.005	No					
34	Hill Street & Pico Boulevard	0.497	A	0.497	A	0.000	No					

Table 7.3 Future With Project With Mitigation Conditions - Intersection Level of Service - PM Peak Hour

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact	Future With Project With Mitigation		Change in V/C	Significant Impact	Mitigates ?
		V/C	LOS	V/C	LOS			V/C	LOS			
1	La Live Way & Pico Boulevard	0.849	D	0.849	D	0.000	No					
2	Figueroa Street & Olympic Boulevard	1.316	F	1.318	F	0.002	No					
3	Figueroa Street & Chick Hearn Court	1.000	E	1.004	F	0.004	No					
4	Figueroa Street & Pico Boulevard	1.073	F	1.078	F	0.005	No					
5	Flower Street & Olympic Boulevard	1.123	F	1.127	F	0.004	No					
6	Flower Street & 11th Street	0.743	C	0.743	C	0.000	No					
7	Hope Street & Olympic Boulevard	1.022	F	1.027	F	0.005	No					
8	Hope Street & 11th Street	0.687	B	0.693	B	0.006	No					
9	Grand Avenue & 8th Street	0.795	C	0.799	C	0.004	No					
10	Grand Avenue & 9th Street	0.901	E	0.905	E	0.004	No					
11	Grand Avenue & Olympic Boulevard	0.989	E	0.998	E	0.009	No					
12	Grand Avenue & 11th Street	0.861	D	0.871	D	0.010	No					
13	Grand Avenue & Pico Boulevard	1.294	F	1.300	F	0.006	No					
14	Grand Avenue & Venice Boulevard	0.598	A	0.601	B	0.003	No					
15	Grand Avenue & 17th Street	1.139	F	1.143	F	0.004	No					
16	Grand Avenue & 18th Street	0.810	D	0.814	D	0.004	No					
17	Olive Street & 8th Street	0.697	B	0.700	C	0.003	No					
18	Olive Street & 9th Street	0.852	D	0.856	D	0.004	No					
19	Olive Street & Olympic Boulevard	1.128	F	1.139	F	0.011	Yes	1.137	F	0.009	No	Fully Mitigates
20	Olive Street & 11th Street	0.757	C	0.775	C	0.018	No					
21	Olive Street & Pico Boulevard	1.025	F	1.047	F	0.022	Yes	1.033	F	0.008	No	Fully Mitigates
22	Olive Street & 16th Street	0.663	B	0.672	B	0.009	No					
23	Olive Street & 17th Street	1.005	F	1.015	F	0.010	Yes	1.014	F	0.009	No	Fully Mitigates
24	Olive Street & 18th Street	0.751	C	0.758	C	0.007	No					

Table 7.3 Future With Project With Mitigation Conditions - Intersection Level of Service - PM Peak Hour

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact	Future With Project With Mitigation		Change in V/C	Significant Impact	Mitigates ?
		V/C	LOS	V/C	LOS			V/C	LOS			
25	Hill Street & Olympic Boulevard	1.047	F	1.053	F	0.006	No					
26	Hill Street & 11th Street	0.605	B	0.617	B	0.012	No					
27	Broadway & Olympic Boulevard	1.094	F	1.102	F	0.008	No					
28	Broadway & 11th Street	0.719	C	0.728	C	0.009	No					
29	Main Street & Olympic Boulevard	1.122	F	1.129	F	0.007	No					
30	Main Street & 11th Street	0.826	D	0.829	D	0.003	No					
31	Los Angeles Street & Olympic Boulevard	0.803	D	0.805	D	0.002	No					
32	Los Angeles Street & 11th Street	0.575	A	0.578	A	0.003	No					
33	Olive Street & 12th Street	0.528	A	0.542	A	0.014	No					
34	Hill Street & Pico Boulevard	0.811	D	0.811	D	0.000	No					

Table 7.1 1045 Olive - Trip Generation with TDM Program Reduction

7/31/2018

AM Peak

Land Use Assumptions	Source ¹ & Code	Quantity	Units	AM Peak Hour					
				Trip Rate			Total Trips		
				In	Out	Total	In	Out	Total
Existing Uses									
Manufacturing ^{2,3,4}	ITE 140	14,653	SF	0.48	0.14	0.62	-7	-2	-9
(Reduction for transit trips) - 15%							1	0	1
(Reduction for walk/bike trips) - 5%							0	0	0
Net Manufacturing							-6	-2	-8
Retail ^{2,3,5}	ITE 820	5,171	SF	0.00	0.00	0.00	0	0	0
(Reduction for transit trips) - 15%							0	0	0
(Reduction for walk/bike trips) - 5%							0	0	0
(Reduction for pass-by trips) - 50%							0	0	0
Net Retail							0	0	0
Total Existing							-6	-2	-8
Proposed Uses									
Apartment ^{2,6}	ITE 222	794	DU	0.03	0.18	0.21	24	143	167
(Reduction for transit trips) - 0%							0	0	0
(Reduction for walk/bike trips) - 0%							0	0	0
Net Apartments							24	143	167
High-Turnover Restaurant ^{2,7}	ITE 932	6,252	SF	5.47	4.47	9.94	34	28	62
(Reduction for internal trips) - 15%							-5	-4	-9
(Reduction for transit trips) - 15%							-4	-4	-8
(Reduction for walk/bike trips) - 5%							-1	-1	-2
(Reduction for pass-by trips) - 20%							-5	-4	-9
Net High-Turnover Restaurant							19	15	34
Quality Restaurant ^{2,8}	ITE 931	6,252	SF	0.40	0.33	0.73	3	2	5
(Reduction for internal trips) - 15%							-1	0	-1
(Reduction for transit trips) - 15%							0	-1	-1
(Reduction for walk/bike trips) - 5%							0	0	0
(Reduction for pass-by trips) - 10%							0	0	0
Net Quality Restaurant							2	1	3
Total Proposed Project							45	159	204
Project TDM Program									
Apartment (Reduction for TDM Program) - 15%							-4	-21	-25
High-Turnover Restaurant (Reduction for TDM Program) - 15%							-3	-2	-5
Quality Restaurant (Reduction for TDM Program) - 15%							0	0	0
Total TDM Reduction							-7	-23	-30
Total Proposed Project with TDM Program							38	136	174
Total Net New Project trips with TDM Program							32	134	166

Table 7.1 1045 Olive - Trip Generation with TDM Program Reduction

7/31/2018

PM Peak

Land Use Assumptions	Source ¹ & Code	Quantity	Units	PM Peak Hour					
				Trip Rate			Total Trips		
				In	Out	Total	In	Out	Total
Existing Uses									
Manufacturing ^{2,3,4}	ITE 140	14,653	SF	0.21	0.46	0.67	-3	-7	-10
(Reduction for transit trips) - 15%							0	2	2
(Reduction for walk/bike trips) - 5%							0	0	0
Net Manufacturing							-3	-5	-8
Retail ^{2,3,5}	ITE 820	5,171	SF	1.83	1.98	3.81	-9	-11	-20
(Reduction for transit trips) - 15%							1	2	3
(Reduction for walk/bike trips) - 5%							0	1	1
(Reduction for pass-by trips) - 50%							4	4	8
Net Retail							-4	-4	-8
Total Existing							-7	-9	-16
Proposed Uses									
Apartment ^{2,6}	ITE 222	794	DU	0.13	0.06	0.19	103	48	151
(Reduction for transit trips) - 0%							0	0	0
(Reduction for walk/bike trips) - 0%							0	0	0
Net Apartments							103	48	151
High-Turnover Restaurant ^{2,7}	ITE 932	6,252	SF	6.06	3.71	9.77	38	23	61
(Reduction for internal trips) - 15%							-6	-3	-9
(Reduction for transit trips) - 15%							-5	-3	-8
(Reduction for walk/bike trips) - 5%							-1	-1	-2
(Reduction for pass-by trips) - 20%							-5	-3	-8
Net High-Turnover Restaurant							21	13	34
Quality Restaurant ^{2,8}	ITE 931	6,252	SF	5.23	2.57	7.80	33	16	49
(Reduction for internal trips) - 15%							-5	-2	-7
(Reduction for transit trips) - 15%							-4	-2	-6
(Reduction for walk/bike trips) - 5%							-1	-1	-2
(Reduction for pass-by trips) - 10%							-2	-1	-3
Net Quality Restaurant							21	10	31
Total Proposed Project							145	71	216
Project TDM Program									
Apartment (Reduction for TDM Program) - 15%							-15	-8	-23
High-Turnover Restaurant (Reduction for TDM Program) - 15%							-3	-2	-5
Quality Restaurant (Reduction for TDM Program) - 15%							1	-6	-5
Total TDM Reduction							-17	-16	-33
Total Proposed Project with TDM Program							128	55	183
Total Net							121	46	167

Notes:

1. ITE Rates from Trip Generation, 10th Edition, Institute of Transportation Engineers, Washington, DC, 2017, except otherwise noted.
2. Trip rate reductions were applied per LADOT's Transportation Impact Study Guidelines, December 2016.
3. Existing land use data from Crescent Heights and site observations on 9/5/2017.
4. Manufacturing analyzed as ITE 140 - Manufacturing. Used trip rates for General Urban/Suburban.
5. Retail analyzed as ITE 820 - Shopping Center. Used trip rates for General Urban/Suburban.
Existing Retail is closed on weekday mornings, therefore no existing trip credit is claimed for the AM peak hour.
6. Apartments analyzed as ITE 222 - Multifamily Housing (High Rise). Used trip rates for Dense Multi-Use Urban.
7. High-Turnover Restaurant analyzed as ITE 932 - High-Turnover (Sit-Down) Restaurant. Used trip rates for General Urban/Suburban.
8. Quality Restaurant analyzed as ITE 931 - Quality Restaurant. Used trip rates for General Urban/Suburban.
Directional Distribution for AM peak from High-Turnover Restaurant, as none published for Quality Restaurant.

Note : Some numbers may not add up exactly due to rounding.

