## 클 Equity Residential

Technical Memorandum

## 340 South Hill Street Project Transportation Impact Study Update

Prepared for Equity Residential by IBI Group

Revised July 17, 2019


## 1 Introduction

IBI Group completed a Transportation Impact Study in June 2017 for the 340 South Hill Street Project, a new high-rise multi-family residential project planned in Los Angeles, California at the corner of 4th Street and Hill Street. The Transportation Impact Study was reviewed and approved by the City of Los Angeles Department of Transportation (LADOT), as noted in a letter received from the City of Los Angeles dated August 7, 2017.

Due to delays in the project construction schedule, the Project Opening Year has been shifted from 2021 to 2023. The purpose of this technical memorandum is to update the traffic analysis prepared in 2017 (the Approved Study) to reflect a Project Buildout Year of 2023. This memo is intended to be a companion to the Approved Study, and only includes updated information and analysis results.

To remain consistent with the Approved Study:

1. New traffic data was not collected. This analysis is based on the traffic counts used in the Approved Study.
2. The Cumulative Project trip data developed for the Approved Study was used in this analysis.
3. All of parameters included in the approved LADOT Memorandum of Understanding (MOU) prepared for the Approved Study remain valid, including study intersection locations, project trip generation and distribution, and the ambient annual growth rate to forecast ambient traffic growth.
4. The Project Description has not changed. The project trip volumes calculated for 428 residential units (including 22 affordable housing units), 2,980 square feet of office use and 2,630 square feet of commercial land use, have not changed.

This memo consists of the following sections:
1 Introduction
2 Project Buildout (Year 2023) Conditions
3 Level of Service Analysis Results
4 Project Access Driveways
5 Los Angeles Congestion Management Plan (CMP)
$6 \quad$ Alignment with Vision Zero
7 Mitigation Measures
8 Conclusion
Section 1 provides the purpose and need for this memo and a description of the contents. Section 2 presents the increase in traffic volume forecast to occur due to ambient traffic growth and cumulative projects, and the opening year traffic volumes with the project. The intersection level of service analysis results are summarized in Section 3, and the signal warrant analysis results for the project access driveways are presented in Section 4. The Los Angeles Congestion Management Plan requirements are addressed in Section 5, and the Project requirements associated with Vision Zero are discussed in Section 6. Project mitigation measures are described in Section 7, and the conclusions are presented in Section 8.

## 2 Project Buildout (Year 2023) Conditions

### 2.1 Ambient Traffic Growth

An annual ambient traffic growth rate of $1.0018 \%$ is assumed for the study area based on factors published in Appendix D of the 2010 Congestion Management Program for Los Angeles County. Between 2017 and 2023, traffic volumes are assumed to grow by 6.16\%. Project Buildout (Year 2023) AM and PM peak hour volumes with ambient traffic growth only are shown in Figure 1.

### 2.2 Cumulative Projects

The list of related projects provided by LADOT and the City of Los Angeles Planning Department, along with the related project trip generation and distribution information, can be found in the Approved Study. No changes to the related projects list have been made as part of this update. The peak hour study intersection volumes for the Project Buildout (Year 2023) including ambient traffic growth and related project trips (the cumulative base traffic) are shown in Figure 2.

### 2.3 Proposed Project

The proposed project description, trip generation calculations, trip distribution, and forecast peak hour project trip volumes through each study intersection can be found in the Approved Study. The peak hour study intersection volumes for the Project Buildout (Year 2023) including cumulative base traffic and project trips are shown in Figure 3.

FIGURE 1 - BUILDOUT (YEAR 2023) VOLUMES - AMBIENT GROWTH


PM Peak Hour


FIGURE 2 - BUILDOUT (YEAR 2023) VOLUMES - CUMULATIVE BASE


PM Peak Hour


FIGURE 3 - BUILDOUT (YEAR 2023) VOLUMES - WITH PROJECT


PM Peak Hour


## 3 Level of Service Analysis Results

The Transportation Research Board, Circular 212 Critical Movement Analysis (CMA) Planning Method was utilized to analyze traffic operating conditions at study intersections using the MSExcel spreadsheet developed by LADOT. No modifications were made to the spreadsheet to model non-standard intersection configurations, gridlock, heavy pedestrian volumes or other special conditions.
Currently, LADOT describes the performance of the City's transportation system using Level of Service (LOS). LOS ranges from "A" to " $F$ " with LOS "A" representing excellent, free flow conditions and LOS " F " representing jammed, forced flow conditions. The City defines the thresholds for significant impact as noted in Table 1.

Table 1: Significant Transportation Impact Thresholds for Development Projects

| Level of <br> Service | Final V/C Ratio |
| :---: | :---: | :---: | | Project Related |
| :---: |
| Increase in V/C |

1. The "Final V/C Ratio" shall define the future V/C ratio at a study intersection considering impacts with Development Project, and ambient and related Project growth without proposed transportation impact mitigation.
2. "Project-Related Increase in V/C" shall be calculated as the change in $V / C$ between the future $V / C$ ratio with Project, ambient and related project growth without proposed traffic mitigation, and the future V/C ratio with ambient and related project growth without Project and proposed traffic mitigation.

The results of the intersection Level of Service analysis during the AM and PM peak hours are summarized in Tables 2 and 3 , respectively. There are no significant traffic impacts associated with the project in the Existing (Year 2017) and Project Buildout (Year 2023) conditions.

Table 2: Level of Service Analysis Results Summary - AM Peak Hour

| Intersection |  | Year 2017 Existing Traffic Conditions |  | Existing Plus Project |  | $\begin{gathered} \Delta \\ \text { in } V / C \end{gathered}$ | Project Impact | Year 2023 Cumulative Base |  | Year 2023 Plus Project |  | $\begin{gathered} \Delta \\ \text { in } V / C \end{gathered}$ | Project Impact |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | V/C | LOS | V/C | LOS |  |  | V/C | LOS | V/C | LOS |  |  |
| 1 | 2nd St \& Olive St | 0.209 | A | 0.209 | A | 0.000 | NO | 0.225 | A | 0.225 | A | 0.000 | NO |
| 2 | 2nd St \& Hill St | 0.597 | A | 0.606 | B | 0.009 | NO | 0.651 | B | 0.659 | B | 0.008 | NO |
| 3 | 2nd St \& Broadway | 0.385 | A | 0.389 | A | 0.004 | NO | 0.429 | A | 0.433 | A | 0.004 | NO |
| 4 | 3rd St \& Hill St | 0.729 | C | 0.743 | C | 0.014 | NO | 0.826 | D | 0.840 | D | 0.014 | NO |
| 5 | 3rd St \& Broadway | 0.503 | A | 0.507 | A | 0.004 | NO | 0.577 | A | 0.581 | A | 0.004 | NO |
| 6 | 4th St \& Olive St | 0.233 | A | 0.235 | A | 0.002 | NO | 0.281 | A | 0.283 | A | 0.002 | NO |
| 7 | 4th St \& Hill St | 0.394 | A | 0.405 | A | 0.011 | NO | 0.465 | A | 0.476 | A | 0.011 | NO |
| 8 | 4th St \& Broadway | 0.317 | A | 0.327 | A | 0.010 | NO | 0.379 | A | 0.389 | A | 0.010 | NO |
| 9 | 5th St \& Grand Ave | 0.263 | A | 0.267 | A | 0.004 | NO | 0.310 | A | 0.314 | A | 0.004 | NO |
| 10 | 5th St \& Olive St | 0.382 | A | 0.388 | A | 0.006 | NO | 0.423 | A | 0.429 | A | 0.006 | NO |
| 11 | 5th St \& Hill St | 0.538 | A | 0.545 | A | 0.007 | NO | 0.604 | B | 0.611 | B | 0.007 | NO |
| 12 | 5th St \& Broadway | 0.361 | A | 0.365 | A | 0.004 | NO | 0.408 | A | 0.412 | A | 0.004 | NO |

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Table 3: Level of Service Analysis Results Summary - PM Peak Hour

| Intersection |  | Year 2017 Existing Traffic Conditions |  | Existing Plus Project |  | $\begin{gathered} \Delta \\ \text { in } V / C \end{gathered}$ | Project Impact | Year 2023 <br> Cumulative Base |  | Year 2023 Plus Project |  | $\underset{\text { in } V / C}{\Delta}$ | Project Impact |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | V/C | LOS | V/C | LOS |  |  | V/C | LOS | V/C | LOS |  |  |
| 1 | 2nd St \& Olive St | 0.216 | A | 0.216 | A | 0.000 | NO | 0.233 | A | 0.233 | A | 0.000 | NO |
| 2 | 2nd St \& Hill St | 0.581 | A | 0.592 | A | 0.011 | NO | 0.660 | B | 0.671 | B | 0.011 | NO |
| 3 | 2nd St \& Broadway | 0.454 | A | 0.458 | A | 0.004 | NO | 0.507 | A | 0.510 | A | 0.003 | NO |
| 4 | 3rd St \& Hill St | 0.610 | B | 0.629 | B | 0.019 | NO | 0.737 | C | 0.757 | C | 0.020 | NO |
| 5 | 3rd St \& Broadway | 0.493 | A | 0.499 | A | 0.006 | NO | 0.597 | A | 0.603 | B | 0.006 | NO |
| 6 | 4th St \& Olive St | 0.356 | A | 0.364 | A | 0.008 | NO | 0.421 | A | 0.429 | A | 0.008 | NO |
| 7 | 4th St \& Hill St | 0.497 | A | 0.549 | A | 0.052 | NO | 0.593 | A | 0.645 | B | 0.052 | NO |
| 8 | 4th St \& Broadway | 0.470 | A | 0.481 | A | 0.011 | NO | 0.563 | A | 0.574 | A | 0.011 | NO |
| 9 | 5th St \& Grand Ave | 0.375 | A | 0.377 | A | 0.002 | NO | 0.461 | A | 0.463 | A | 0.002 | NO |
| 10 | 5th St \& Olive St | 0.578 | A | 0.581 | A | 0.003 | NO | 0.632 | B | 0.636 | B | 0.004 | NO |
| 11 | 5th St \& Hill St | 0.517 | A | 0.521 | A | 0.004 | NO | 0.607 | B | 0.611 | B | 0.004 | NO |
| 12 | 5th St \& Broadway | 0.395 | A | 0.397 | A | 0.002 | NO | 0.468 | A | 0.476 | A | 0.008 | NO |

## 4 Project Access Driveways

Vehicular access to the project site will be provided via two driveways and an existing alley. Both driveways are proposed in locations where driveways currently serve the existing surface parking lot, and it is assumed that the existing roadway striping on $4^{\text {th }}$ Street and Hill Street would not need to be modified to accommodate the project. The first driveway is located on Hill Street, approximately 160 feet north of $4^{\text {th }}$ Street. Vehicles entering the site from southbound Hill Street would be able to turn left into Driveway 1 via an existing two-way left turn lane. Vehicles exiting Driveway 1 would be able to turn left or right onto Hill Street.

The second driveway would be located on $4^{\text {th }}$ Street, approximately 135 feet east of Hill Street and 175 feet west of Broadway. Fourth Street is a one-way street carrying eastbound traffic only, so Driveway 2 would be accessed via left turns in and left turns out only.

The project access driveways and the Project Buildout (Year 2023) peak hour driveway volumes with the project are shown in Figure 4. With peak hour volumes totaling less than 100 trips from each access driveway, the project driveways do not meet the criteria for the Manual on Uniform Traffic Control Design (MUTCD) Warrant 3, which is based on peak hour traffic volumes.

## 5 Los Angeles Congestion Management Plan (CMP)

Traffic analyses for new projects in Los Angeles County are also governed by the Los Angeles County Congestion Management Program (CMP), which sets forth specific analysis criteria for roadways and intersections included in the CMP network. The CMP facilities closest to the project, the distance from the project site to those facilities, and the number of peak hour forecast trips on those facilities are summarized in Table 7.

Table 4 - CMP Facilities

| Facility <br> Type | Facility Name | Distance From <br> Project Site | AM Peak <br> Hour Trips | PM Peak <br> Hour Trips | Analysis <br> Required |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Freeway | Route 110 | 0.50 miles | 23 | 30 | No |
| Freeway | U.S. 101 | 0.65 miles | 14 | 19 | No |
| Freeway | Interstate 10 | 1.45 miles | 7 | 8 | No |
| Roadway | Wilshire Boulevard <br> (west of Route 110) | 0.65 miles | 0 | 0 | No |
| Roadway | Alameda Street | 0.85 miles | 13 | 17 | No |

The project does not contribute more than 50 peak hour trips to any CMP roadways and does not contribute more than 150 peak hour trips onto any CMP freeways, so a CMP analysis is not required for this project.

## FIGURE 4 - BUILDOUT (YEAR 2023) VOLUMES AT ACCESS DRIVEWAYS




Driveway 1 - PM

|  | $\begin{aligned} & 七_{24} \\ & \checkmark^{25} \end{aligned}$ |
| :---: | :---: |
|  | 个 $\sim$ $\sim$ $\infty$ |

Driveway 2 - AM


Driveway 2 - PM


## 6 Alignment with Vision Zero

Mayor Eric Garcetti's Vision Zero Los Angeles initiative commits the City to creating safer streets for its most vulnerable road users, including children, older adults, and people walking and bicycling. The City aims to eliminate all traffic-related deaths by the year 2025. To focus the implementation of safety countermeasures, LADOT conducted a citywide traffic collision analysis and identified a network of streets known as the High Injury Network (HIN), which consists of streets where high incidences of collisions involving vulnerable road users have resulted in severe injuries and deaths. The segments of Hill Street and 4th Street adjacent to the project site are not included in the High Injury Network, so roadway improvements to enhance pedestrian and bicycle safety are not specifically required for the project.

## 7 Mitigation Measures

In the Existing (Year 2017), the project is not forecast to create significant impacts at any of the study intersections, and no mitigation measures are required based on LADOT criteria. The intersection of Hill Street and $3^{\text {rd }}$ Street (\#4) is forecast to operate at LOS D during the AM peak period in the With Project condition, but the project is not expected to create a significant impact at this location. All other study intersections are forecast to operate at LOS C or better during the AM and PM peak periods, therefore no mitigation measures are required by the LACCMP.
To be conservative, the analysis for the Project Buildout (Year 2023) does not assume that all study intersections will be operating under Adaptive Traffic Control System (ATCS) in the future condition. The project is not forecast to create a significant impact at any study intersections during the AM peak and PM peak, and would only operate better under adaptive traffic control. All intersections perform at LOS D or better during both time periods with and without the project, and no mitigation measures are required by the City or the LACCMP.

## 8 Conclusion

The high-rise residential project proposed at 340 S. Hill Street is not expected to generate any significant impacts to traffic operations in the existing condition or in the project opening year of 2023. No mitigation measures are required based on City of Los Angeles, County of Los Angeles, State of California or Federal criteria.

## Appendix

## CMA Spreadsheets

## Transportation Impact Study Approval Letter

## CMA Spreadsheets

## Level of Service Workheet

(Circular 212 Method)

REMARKS:
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| I/S \#: | North-South Street: | Hill St |  |  |  | Year | r of Count: | 2017 | Amb | ent Grow | th: (\%): | 1.0018 | Condu | cted by: | IBI G | roup | Date: |  | 019-06-26 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | East-West Street: | 2nd St |  |  |  | Projec | ction Year: | 2023 |  | Pea | k Hour: | PM | Revie | wed by: | Lydia L | a Point | Project: |  | 40 S . Hill |  |
| Right | No. Nosed Ø'ing: N/S-1, E/W-2 urns: FREE-1, NRTOR-2 <br> ATSAC-1 or ATSAC Override | Phases Both-3? OLA-3? ATCS-2? Capacity | $\begin{aligned} & N B--1 \\ & E B-- \\ & 0 \end{aligned}$ | $\begin{aligned} & \text { SB-- } \\ & \text { WB-- } \end{aligned}$ | $\begin{aligned} & 2 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 1 \\ & 0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { NB-- } \\ & E B-- \end{aligned}$ | $\begin{array}{l\|l\|} \hline 0 & S B-- \\ 0 & W B- \end{array}$ | 2 <br> 0 <br> 0 <br> 0 <br> 1 <br> 0 | $\begin{aligned} & N B--1 \\ & E B-- \end{aligned}$ | $\begin{aligned} & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & \text { SB-- } \end{aligned}$ | $\begin{aligned} & 2 \\ & 0 \\ & 0 \\ & 0 \\ & 1 \\ & 0 \\ & \hline \end{aligned}$ | NB-- | $\begin{aligned} & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & \text { SB-- } \\ & \text { WB-- } \end{aligned}$ | $\begin{aligned} & 2 \\ & 0 \\ & 0 \\ & 0 \\ & 1 \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & N B-- \\ & E B-1 \end{aligned}$ | 0 | SB-- | $\begin{aligned} & 2 \\ & 0 \\ & 0 \\ & 0 \\ & 1 \\ & 0 \\ & \hline \end{aligned}$ |
|  |  |  | ExIS | ING CONDİ | ION | Existin | NG PLUS PRO | Oject | FUTUR | CONDITIO | N W/O PR | Oject | FUTUR | E CONDIT | ON W/ PRO | JECT | FUTURE | W/ PROJE | CT W/ Miticis | gation |
|  | MOVEMENT |  | Volume | No. of Lanes | $\begin{array}{\|c\|} \hline \text { Lane } \\ \text { Volume } \end{array}$ | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | $\begin{gathered} \hline \text { Lane } \\ \text { Volume } \end{gathered}$ | Added Volume | Total Volume | No. of Lanes | $\begin{array}{\|c\|} \hline \text { Lane } \\ \text { Volume } \end{array}$ | Added Volume | Total Volume | No. of Lanes | $\begin{array}{c\|} \hline \text { Lane } \\ \text { Volume } \end{array}$ |
|  | 7 Left |  | 123 | 1 | 123 | 6 | 129 | 129 | 0 | 131 | 1 | 131 | 6 | 137 | 1 | 137 | 0 | 137 | 1 | 137 |
| 2 | $\uparrow$ Left-Through |  | 710 | $0$ | 378 | 10 | 720 | 383 | 71 | 825 | $\begin{aligned} & 0 \\ & 1 \end{aligned}$ | 437 | 10 | 835 | 1 | 442 | 0 | 835 | $\begin{aligned} & 0 \\ & 1 \end{aligned}$ | 442 |
| m | $1-$ Through-Right |  |  | 1 |  |  |  |  |  |  | 1 |  |  |  | 1 |  |  |  | 1 |  |
| 呂 | $\stackrel{r}{ }$ Right |  | 46 | 0 | 46 | 0 | 46 | 46 | 0 | 49 | 0 | 49 | 0 | 49 | 0 | 49 | 0 | 49 | 0 | 49 |
|  | $\uparrow$ Left-Through-Right <br> $\gamma$ Left-Right |  |  | $0$ |  |  |  |  |  |  | $0$ |  |  |  | $0$ |  |  |  | $0$ |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\checkmark$ Left |  | 31 | 1 | 31 | 0 | 31 | 31 | 0 | 33 | 1 | 33 | 0 | 33 | 1 | 33 | 0 | 33 | 1 | 33 |
| $\stackrel{3}{3}$ | $\stackrel{\text { Left-Through }}{ }$ |  |  | 0 |  |  |  |  |  |  | 1 |  |  |  | 0 |  |  |  | 0 |  |
| \% | - Through |  | 850 | 1 | 472 | 23 | 873 | 483 | 116 | 1018 | 1 | 559 | 23 | 1041 | 1 | 570 | 0 | 1041 | 1 | 570 |
| $\stackrel{5}{5}$ | $J$ Right |  | 93 | 0 | 93 | 0 | 93 | 93 | 0 | 99 | 0 | 99 | 0 | 99 | 0 | 99 | 0 | 99 | 0 | 99 |
| O | $\rightarrow$ Left-Through-Right <br> $\curlywedge$ Left-Right |  |  | $0$ |  |  |  |  |  |  | $0$ |  |  |  | $0$ |  |  |  | $\begin{aligned} & 0 \\ & 0 \end{aligned}$ |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Left |  | 57 | 0 | 57 | 0 | 57 | 57 | 0 | 61 | 0 | 61 | 0 | 61 | 0 | 61 | 0 | 61 | 0 | 61 |
|  | $\xrightarrow{\rightarrow}$ Left-Through |  |  | 1 |  |  |  |  |  |  | 1 |  |  |  | 1 |  |  |  | 1 |  |
| O | $\rightarrow$ Through |  | 315 | 0 | 372 | 0 | 315 | 372 | 0 | 334 | 0 | 395 | 0 | 334 | 0 | 395 | 0 | 334 | 0 | 395 |
| 5 | 7 Right |  | 233 | 1 | 172 | 19 | 252 | 188 | 0 | 247 | 1 | 182 | 19 | 266 | 1 | 198 | 0 | 266 | 1 | 198 |
|  | $\vec{~}{ }_{\text {Left-Through-Right }}$ |  |  | , |  |  |  |  |  |  | 0 |  |  |  | 0 |  |  |  | 0 |  |
|  | 人 Left-Right |  |  | 0 |  |  |  |  |  |  | 0 |  |  |  | 0 |  |  |  | 0 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\stackrel{\zeta}{5}$ Left |  | 9 | 0 | 9 | 0 | 9 | 9 | 0 | 10 | 0 | 10 | 0 | 10 | 0 | 10 | 0 | 10 | 0 | 10 |
|  | $\tau$ Left-Through |  |  | 0 |  |  |  |  |  |  | 0 |  |  |  | 0 |  |  |  | 0 |  |
| O | $\leftarrow$ Through |  | 138 | 0 | 190 | 4 | 142 | 194 | 0 | 147 | 0 | 203 | 4 | 151 | 0 | 207 | 0 | 151 | 0 | 207 |
| $\stackrel{5}{5}$ | $\overbrace{\text { L }}^{\text {L Through-Right }}$ |  | 43 | 0 | 0 |  |  | 0 | 0 |  |  | 0 | 0 | 46 |  | 0 | 0 | 46 |  | 0 |
|  | Left-Through-Right |  |  | 1 |  |  |  |  |  |  | 1 |  |  |  | 1 |  |  |  | 1 |  |
|  | $\checkmark$ Left-Right |  |  | 0 |  |  |  |  |  |  | 0 |  |  |  | 0 |  |  |  | 0 |  |
| CRITICAL VOLUMES |  |  | North-South: East-West: SUM: |  | 595 | $\begin{array}{r} \hline \text { North-South: } \\ \text { East-West: } \\ \text { SUM: } \end{array}$ |  | 612 |  | $\begin{aligned} & \text { North-South: } \\ & \text { East-West: } \\ & \text { SUM: } \end{aligned}$ |  | 690 | North-South: East-West: SUM: |  |  | 707 |  | North-South: East-West: SUM: |  | 707 |
|  |  |  | 381 | 381 |  |  |  | 405 | 405 |  |  |  |  |  |  | 405 |  |  |
|  |  |  | 976 | 993 |  |  |  | 1095 | 1112 |  |  |  |  |  |  | 1112 |  |  |
| VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS): |  |  |  |  | 0.6510.581$\mathbf{A}$ |  |  | 0.662 <br> 0.592 <br> A |  |  |  |  |  | 0.730 |  |  |  | 0.741 |  |  |  | 0.741 |
|  |  |  | 0.660 | 0.671 |  |  |  |  |  |  |  |  |  | 0.671 |  |  |  |  |  |
|  |  |  | B | B |  |  |  |  |  |  |  |  |  | B |  |  |  |  |  |

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## Level of Service Workheet

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## Transportation Impact Study Approval Letter

Date: $\quad$ August 7, 2017<br>To: Karen Hoo, City Planner Department of City Planning<br>From: Wes Pringle, Transportation Engineer<br>Department of Transportation<br>Subject: TRAFFIC IMPACT STUDY FOR THE PROPOSED RESIDENTIAL MIXEDUSE PROJECT LOCATED AT 340 SOUTH HILL STREET (ENV-2015-982EIR)

DOT has reviewed the traffic analysis dated June 2017 prepared by IBI Group for the proposed residential mixed use project located at 340 South Hill 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 traffic impact criteria ${ }^{1}$, the proposed development is not expected to result in any significant traffic impacts at the 12 study intersections identified for detailed analysis, as noted in Attachment 1. The results of the traffic analysis accounted for other known development projects in evaluating potential cumulative impacts and adequately evaluated the project's traffic impacts on the surrounding community.

## DISCUSSION AND FINDINGS

## A. Project Description

The project will be replacing an 850 square foot restaurant and a 109-space surface parking lot with a 33 -story tower with 428 multi-family residential units (including 22 very-low-income housing units), a 2,980 square foot leasing office, and up to 2,630 square feet of neighborhood serving retail.

The project will provide 435 parking spaces via a two and a half level subterranean parking garage and a seven story parking podium. Vehicular access will be provided via two driveways, one full access driveway on Hill Street and one left-in left-out driveway on $4^{\text {th }}$ Street, and an existing alley. The project is expected to be completed by 2021.

## B. Trip Generation

The project is estimated to generate a net increase of 2,253 daily trips, 166 trips in the a.m. peak hour, and 208 trips in the p.m. peak hour. The trip generation estimates are based on formulas published by the Institute of Transportation Engineers (ITE) Trip Generation, $9^{\text {th }}$ Edition, 2012. A copy of the trip generation table can be found in

[^0]
## Attachment 2.

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 Impact Analysis Agreement executed between Caltrans and DOT in October 2013, the study also included a screening analysis to determine if additional evaluation of freeway mainline and ramp segments was necessary beyond the CMP requirements. The project did not meet or exceed any of the four thresholds defined in the latest agreement, updated in December 2015. Exceeding one of the four screening criteria would require the applicant to work directly with Caltrans to prepare more detailed freeway analyses. No additional freeway analysis was required.

## PROJECT REQUIREMENTS

A. Construction Impacts

DOT recommends that a construction work site traffic control plan be submitted to DOT for review and approval prior to the start of any construction work. 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.
B. Highway Dedication And Street Widening Requirements

On August 11, 2015, 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. Per the new Mobility Element, South Hill Street is designated as a Modified Avenue II, which would require a 33 -foot half-width roadway and a 46.5 -foot half-width right-of-way. West $4^{\text {th }}$ Street is designated as a Modified Avenue III, which would require a 20 -foot half-width roadway and a 30 -foot half-width right-of-way. The applicant should check with BOE's Land Development Group to determine if there are any other applicable highway dedication, street widening and/or sidewalk requirements for this project.
C. Parking Requirements

The project will provide 435 parking spaces via a two and a half level subterranean parking garage and a seven story parking podium. Vehicular access will be provided via two driveways, one full access driveway on Hill Street and one left-in left-out driveway on $4^{\text {th }}$ Street, and an existing alley. The applicant should check with the Department of Building and Safety on the number of Code-required parking spaces needed for the project.
D. Driveway Access and Circulation

The proposed site plan illustrated in Attachment 3 is acceptable to DOT; however, review of the study does not constitute approval of the driveway dimensions and internal circulation schemes. Those require separate review and approval and should be
coordinated with DOT's Citywide Planning Coordination Section (201 N. Figueroa Street, 5th Floor, Room 550, at (213-482-7024). In order to minimize potential building design changes, the applicant should contact DOT for driveway width and internal circulation requirements so that such traffic flow considerations are designed and incorporated early into the building and parking layout plans. All new driveways should be Case 2 driveways and any security gates should be a minimum 20 feet from the property line. All truck loading and unloading should take place on site with no vehicles backing into the project via the project driveways.

## E. 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. 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 Johnathan Yu of my staff at (213) 972-4993.
Attachments

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c: $\quad$ Shawn Kuk, Council District No. 14
Mehrdad Moshksar, Central District, DOT
Taimour Tanavoli, Case Management Office, DOT
Carl Mills, Central District, BOE
Lydia La Point, IBI Group

## ATTACHMENT 1 <br> Summary of Volume to Capacity Ratios (V/C) and Level of Service (LOS)

Table 5 - Level of Service Analysis Results Summary - AM Peak Hour

| Intersection |  | Year 2017 Existing Traffic Conditions |  | Existing Plus Project |  | Project Impact | Year 2021 Cumulative Base |  | Year 2021 Plus Project |  | Project Impact | Year 2021 Project with Mitigation |  | Net Project Impact |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | VIC | LOS | VIC | LOS |  | VIC | LOS | VIC | LOS |  | VIC | LOS |  |
| 1 | 2nd St \& Olive St | 0.209 | A | 0.209 | A | NO | 0.221 | A | 0.221 | A | NO | 0.221 | A | NO |
| 2 | 2nd St \& Hill St | 0.597 | A | 0.606 | B | NO | 0.637 | B | 0.646 | B | NO | 0.646 | B | NO |
| 3 | 2nd St \& Broadway | 0.385 | A | 0.389 | A | NO | 0.420 | A | 0.424 | A | NO | 0.424 | A | NO |
| 4 | 3rd St \& Hill St | 0.729 | C | 0.743 | C | NO | 0.809 | D | 0.823 | D | NO | 0.823 | D | NO |
| 5 | 3rd St \& Broadway | 0.503 | A | 0.507 | A | NO | 0.564 | A | 0.568 | A | NO | 0.568 | A | NO |
| 6 | 4th St \& Olive St | 0.233 | A | 0.235 | A | NO | 0.274 | A | 0.277 | A | NO | 0.277 | A | NO |
| 7 | 4th St \& Hill St | 0.394 | A | 0.405 | A | NO | 0.455 | A | 0.466 | A | NO | 0.466 | A | NO |
| 8 | 4th St \& Broadway | 0.317 | A | 0.327 | A | NO | 0.371 | A | 0.381 | A | NO | 0.381 | A | NO |
| 9 | 5th St \& Grand Ave | 0.263 | A | 0.267 | A | NO | 0.303 | A | 0.307 | A | NO | 0.307 | A | NO |
| 10 | 5th St \& Olive St | 0.382 | A | 0.388 | A | NO | 0.415 | A | 0.421 | A | NO | 0.421 | A | NO |
| 11 | 5th St \& Hill St | 0.538 | A | 0.545 | A | NO | 0.591 | A | 0.597 | A | NO | 0.597 | A | NO |
| 12 | 5th St \& Broadway | 0.361 | A | 0.365 | A | NO | 0.399 | A | 0.403 | A | NO | 0.403 | A | NO |

Table 6 - Level of Service Analysis Results Summary - PM Peak Hour

| Intersection |  | Year 2017 Existing Traffic Conditions |  | Existing Plus Project |  | Project Impact | Year 2021 Cumulative Base |  | Year 2021 Plus Project |  | Project Impact | Year 2021 Project with Mitigation |  | Net Project Impact |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | VIC | LOS | V/C | LOS |  | VIC | LOS | V/C | LOS |  | VIC | LOS |  |
| 1 | 2nd St \& Olive St | 0.216 | A | 0.216 | A | NO | 0.228 | A | 0.228 | A | NO | 0.228 | A | NO |
| 2 | 2nd St \& Hill St | 0.581 | A | 0.592 | A | NO | 0.645 | B | 0.657 | B | NO | 0.657 | B | NO |
| 3 | 2nd St \& Broadway | 0.454 | A | 0.458 | A | NO | 0.496 | A | 0.499 | A | NO | 0.499 | A | NO |
| 4 | 3rd St \& Hill St | 0.610 | B | 0.629 | B | NO | 0.722 | C | 0.742 | C | NO | 0.742 | C | NO |
| 5 | 3rd St \& Broadway | 0.493 | A | 0.499 | A | NO | 0.585 | A | 0.591 | A | NO | 0.591 | A | NO |
| 6 | 4th St \& Olive St | 0.356 | A | 0.364 | A | NO | 0.411 | A | 0.419 | A | NO | 0.419 | A | NO |
| 7 | 4th St \& Hill St | 0.497 | A | 0.549 | A | NO | 0.581 | A | 0.633 | B | NO | 0.633 | B | NO |
| 8 | 4th St \& Broadway | 0.470 | A | 0.481 | A | NO | 0.551 | A | 0.562 | A | NO | 0.562 | A | NO |
| 9 | 5th St \& Grand Ave | 0.375 | A | 0.377 | A | NO | 0.452 | A | 0.455 | A | NO | 0.455 | A | NO |
| 10 | 5th St \& Olive St | 0.578 | A | 0.581 | A | NO | 0.618 | B | 0.622 | B | NO | 0.622 | B | NO |
| 11 | 5th St \& Hill St | 0.517 | A | 0.521 | A | NO | 0.595 | A | 0.599 | A | NO | 0.599 | A | NO |
| 12 | 5th St \& Broadway | 0.395 | A | 0.397 | A | NO | 0.459 | A | 0.467 | A | NO | 0.467 | A | NO |

## ATTACHMENT 2

Project Trip Generation Estimates
Table 4 - Net Project Generated Trips With Trip Credits

| Land Use | $\begin{aligned} & \text { ITE } \\ & \text { Code } \end{aligned}$ | Qty | Units | Daily | AM |  |  | PM |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | IN | OUT | Total | IN | OUT | Total |
| Proposed New Uses |  |  |  |  |  |  |  |  |  |  |
| Apartment | 220 | 406 | DU | 2,700 | 41 | 166 | 207 | 164 | 88 | 252 |
| General Office | 710 | 2.98 | TSF | 33 | 4 | 1 | 5 | 1 | 4 | 4 |
| Quality Restaurant | 931 | 2.63 | TSF | 237 | 1 | 1 | 2 | 13 | 7 | 20 |
| Total Proposed New Trips (Not Including Affordable) |  |  |  | 2,970 | 46 | 167 | 214 | 177 | 99 | 276 |
| Existing Uses to be Removed |  |  |  |  |  |  |  |  |  |  |
| Sit-Down Restaurant | 932 | 0.85 | TSF | -108 | -5 | -5 | -10 | -6 | -4 | -10 |
| Pass-By Trips | 932 | -20\% |  | 22 | 1 | 1 | 2 | 1 | 1 | 2 |
| Total Existing Trips to be Removed |  |  |  | -86 | -4 | -4 | -8 | -5 | -3 | -8 |
| Total New Trips Minus Existing to be Removed (Total eligible for Transit Credit reduction) |  |  |  | 2,884 | 42 | 163 | 206 | 172 | 96 | 268 |
| Trip Credits (Transit) |  |  |  |  |  |  |  |  |  |  |
| Transit Credit |  | -25\% |  | -721 | -10 | -41 | -51 | -43 | -24 | -67 |
| Affordable Housing |  |  |  |  |  |  |  |  |  |  |
| Affordable Housing | LADOT | 22 | DU | 90 | 4 | 7 | 11 | 4 | 3 | 7 |
| Net Project Trips |  |  |  | 2,253 | 36 | 129 | 166 | 133 | 75 | 208 |

DU - dwelling units; TSF - thousand square feet
Affordable housing and pass-by trip discount rate from Attachment I of the LADOT Traffic Study Policies and Procedures

ATTACHMENT 3
Project Site plan



[^0]:    ${ }^{1}$ 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.

