

Appendix J

Utility Report



**1718 VINE STREET PROJECT
UTILITY INFRASTRUCTURE TECHNICAL REPORT: WATER
MAY 2018**

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Exhibit 1- LADWP “Information of Fire Flow Availability Request” (IFFAR) Results

Exhibit 2- LADWP Water “Service Advisory Request” (SAR) Results

1. INTRODUCTION

1.1. PROJECT DESCRIPTION

The proposed Project (Project) includes development of a hotel on an approximately 0.28-acre site located at 1718 N. Vine Street (Project Site) in the Hollywood community of the City of Los Angeles (City). The Project would include 240 guest rooms, approximately 2,742 square feet of guest amenities, and approximately 5,373 square feet of shared guest and public spaces. The building would have a maximum height of 185 feet and would consist of 13 above-ground levels (including a mechanical mezzanine level above Level 1) and five subterranean levels.

1.2. SCOPE OF WORK

As a part of the Environmental Impact Report for the Project, the purpose of this report is to analyze the potential impact of the Project to the existing water infrastructure systems.

2. REGULATORY FRAMEWORK

The City of Los Angeles Department of Water and Power (LADWP) is responsible for providing water supply to the City while complying with Local, State, and Federal regulations.

Below are the State and Regional water supply regulations:

- California Code of Regulations (CCR), Title 20, Chapter 4, Article 4, Section 1605 establishes water efficiency standards for all new plumbing fixtures and Section 1608 prohibits the sale of fixtures that do not comply with the regulations.
- 2013 California Green Building Standards Code, CCR, Title 24, Part 11, adopted on January 1, 2014 (CALGreen), requires a water use reduction of 20% above the baseline cited in the CALGreen code book. The code applies to family homes, state buildings, health facilities, and commercial buildings.
- California Urban Water Management Planning Act of 1984 requires water suppliers to adopt an Urban Water Management Plan (UWMP).
- Metropolitan Water District (MWD) official reports and policies as outlined in its Regional UWMP, Water Surplus and Drought Management Plan, Water Supply Allocation Plan, and Integrated Resources Plan.
- LADWP's 2015 UWMP outlines the City's long-term water resources management strategy. The 2015 UWMP was approved by the LADWP Board of Water and Power Commissioners on June 7, 2016.
- Senate Bill 610 and Senate Bill 221, approved on October 9, 2001, require land use agencies to perform a detailed analysis of available water supply when

approving large developments. Historically, public water suppliers (PWS) simply provided a “will serve” letter to developers. SB 610, Public Resources Code (PRC) and Section 10910-10915 of the State Water Code requires lead agencies to request a Water Supply Assessment (WSA) from the local water purveyor prior to project approval. If the projected water demand associated with a proposed development is included in the most recent UWMP, the development is considered to have sufficient water supply per California Water Code Section 10910, and a WSA is not required. All projects that meet any of the following criteria require a WSA:

- 1) A proposed residential development of more than 500 dwelling units.
- 2) A proposed shopping center or business establishment of more than 500,000 square feet of floor space or employing more than 1,000 persons
- 3) A proposed commercial office building of more than 250,000 square feet of floor space or employing more than 1,000 persons
- 4) A proposed hotel or motel of more than 500 rooms
- 5) A proposed industrial, manufacturing, or processing plant or industrial park of more than 40 acres of land, more than 650,000 square feet of floor area, or employing more than 1,000 persons
- 6) A mixed use project that falls in one or more of the above-identified categories
- 7) A project not falling in one of the above-identified categories but that would demand water equal or greater than the amount required by a 500-dwelling unit project.

As this Project does not trigger any of the above thresholds, a WSA is not required for this Project.

3. EXISTING CONDITION

The Project Site is currently occupied by a 6,393 sq. ft. two-story brick/stucco building occupied by restaurant, bar, and nightclub uses, as well as surrounding hardscape surfaces.

LADWP maintains water infrastructure to the Project Site.

3.1. DOMESTIC INFRASTRUCTURE

Based on available record data provided by the City, there is a 24-inch water main in Vine Street. Based upon a water service map provided by the City, the Project Site has 2 domestic water connections off Vine Street. It appears there is an existing 1-1/2-inch service, and an existing 1-inch connection. LADWP has removed the meter from the 1-inch connection indicating that the 1-inch connection is no longer in use.

Water consumption estimates have been prepared based on 100 percent of the City of LA Bureau of Sanitation (BOS) sewerage generation factors for commercial categories and are summarized in Table 1 below.

Table 1 – Estimated Existing Water Consumption			
Land Use	Units	Consumption Rate (gpd/unit) ^(a)	Total Water Consumption (gpd)
Existing			
Restaurant	6,393 sf	(30/15 sf) ^(b)	12,786
Subtotal Existing			12,786
^(a) The average daily flow based on 100% of City of Los Angeles BOS sewerage generation factors.			
^(b) Assumed 15 sf per person to estimate existing seat count. ¹			

3.2. FIRE INFRASTRUCTURE

There is an existing Fire Department Connection to charge fire sprinklers on the building face along Vine Street. It is expected that this connection would be removed with demolition of existing improvements and replaced with new connection to meet all Fire Department and Department of Building and Safety regulations. Based on a water service map provided by the City, there is an existing 4-inch fire service along Vine Street. There are two fire hydrants in the immediate vicinity of the Project Site on the east side of Vine Street. One is approximately 160 feet north of the Project Site, and the other is

¹ International Code Council. (2014). 2015 International Building Code, Section 1004.1.2. Country Club Hills. ICC.

approximately 170 feet south. Multiple additional fire hydrants are located in the greater vicinity of the Project Site.

4. SIGNIFICANCE THRESHOLDS

Appendix G of the State of California's California Environmental Quality Act (CEQA) Guidelines (CEQA Guidelines) provides a set of sample questions that address impacts with regard to water supply. These questions are as follows:

Would the project:

- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

In the context of the above questions from the Appendix G of the CEQA Guidelines, the City of Los Angeles CEQA Thresholds Guide (*L.A. CEQA Thresholds Guide*) states that the determination of significance with regard to impacts on water shall be made on a case-by-case basis, considering the following factors:

- The total estimated water demand for the project;
- Whether sufficient capacity exists in the water infrastructure that would serve the project, taking into account the anticipated conditions at project buildout;
- The amount by which the project would cause the projected growth in population, housing or employment for the Community Plan area to be exceeded in the year of the project completion; and
- The degree to which scheduled water infrastructure improvements or project design features would reduce or offset service impacts.

Based on these factors, the Project would have a significant impact if the City's water supplies would not adequately serve the Project or water distribution capacity would be inadequate to serve the proposed use after appropriate infrastructure improvements have been installed.

5. METHODOLOGY

The methodology for determining the significance of a project as it relates to a project's impact on water supply and distribution infrastructure is based on the *L.A. CEQA Thresholds Guide*. This methodology involves a review of the project's environmental setting, project impacts, cumulative impacts, and mitigation measures (if required). The following has been considered as part of the determination for this Project:

Environmental Setting

- Description of major water infrastructure serving the Project site, including the type of facilities, location and sizes, and any planned improvements.
- Description of the water conditions for the Project area and known improvement plans.

Project Impacts

- Evaluate the Project's water demand, taking into account design or operational features that would reduce or offset water demand.
- Determine what improvements would be needed, if any, to adequately serve the Project.
- Describe the degree to which presently scheduled off-site improvements offset impacts.

This report analyzes the potential impacts of the Project on the existing public water infrastructure by comparing the estimated Project demand with the calculated available capacity of the existing facilities.

The existing and proposed water demand is based upon available site and occupancy information and 100% of the BOS sewerage generation factors.

LADWP performed a hydraulic analysis of their water system to determine if adequate fire flow is available to the fire hydrants surrounding the Project Site. LADWP's approach consists of analyzing their water system model in the vicinity of the Project Site. Based on the results, LADWP determines whether they can meet the Project's fire hydrant flow needs based on existing infrastructure. See Exhibit 1 for the results of the Information of Fire Flow Availability Request (IFFAR).

In addition, LADWP performed a flow test to determine if available water conveyance exists for future development. LADWP's approach consists of data ranging from available static pressure (meaning how much pressure is available at the source before applying the Project's demand), to the available pressure at the maximum demand needed

for the Project. Based on the results, LADWP determines whether they can meet the Project's needs based on existing infrastructure. See Exhibit 2 for the results of the Service Advisory Request (SAR).

6. PROJECT IMPACTS

6.1. CONSTRUCTION

Water demand for construction of the Project would be required for dust control, cleaning of equipment, excavation/export, removal and re-compaction, etc. Based on a review of construction projects of similar size and duration, a conservative estimate of construction water use ranges from 1,000 to 2,000 gallons per day (gpd). Considering temporary construction water use would be substantially less than the existing water consumption at the Project Site (estimated to be approximately 12,786 gpd), it is anticipated that the existing water infrastructure would meet the limited and temporary water demand associated with construction of the Project. Impacts on the water infrastructure due to construction activity would therefore be less than significant.

The Project will require construction of new, on-site water distribution lines to serve the new building. Construction impacts associated with the installation of water distribution lines would primarily involve trenching in order to place the water distribution lines below surface and would be limited to on-site water distribution, and minor off-site work associated with connections to the public main. Prior to ground disturbance, Project contractors would coordinate with LADWP to identify the locations and depth of all lines. Further, LADWP would be notified in advance of proposed ground disturbance activities to avoid water lines and disruption of water service. Therefore, Project impacts on water associated with construction activities would be less than significant.

6.2. OPERATION

6.2.1. INFRASTRUCTURE CAPACITY

When analyzing the Project for potential impacts regarding infrastructure capacity, the projected demands for both fire suppression and domestic water are considered. Although domestic water demand is the Project's main contributor to water consumption, fire flow demands have a much greater instantaneous impact on infrastructure, and therefore are the primary means for analyzing infrastructure capacity. Nevertheless, conservative analysis for both fire suppression and domestic water flows has been completed by LADWP for the Project. See Exhibit 1 and Exhibit 2 for the results of the IFFAR and SAR, respectively, which together demonstrate that adequate water infrastructure capacity exists for the Project.

6.2.2. FIRE WATER DEMAND

Based on fire flow standards set forth in Section 57.507.3 of the LAMC, the Project falls within the Industrial and Commercial category, which has a required fire flow of 6,000 to 9,000 gallons per minute (gpm) from four to six hydrants flowing simultaneously with a

residual pressure of 20 pounds per square inch. This translates to a required flow of 1,500 gpm for each hydrant. An IFFAR was submitted to LADWP regarding available fire hydrant flow to demonstrate compliance. The completed IFFAR, attached as Exhibit 1, shows 6 nearby hydrants in the vicinity of the Project Site flowing simultaneously for a combined 9,000 gpm. As shown by the IFFAR, the Project Site has adequate fire flow available to demonstrate compliance with Section 57.507.3 of the LAMC.

Furthermore, LAMC Section 57.513, Supplemental Fire Protection, states that:

Where the Chief determines that any or all of the supplemental fire protection equipment or systems described in this section may be substituted in lieu of the requirements of this chapter with respect to any facility, structure, group of structures or premises, the person owning or having control thereof shall either conform to the requirements of this chapter or shall install such supplemental equipment or systems. Where the Chief determines that any or all of such equipment or systems is necessary in addition to the requirements of this chapter as to any facility, structure, group of structures or premises, the owner thereof shall install such required equipment or systems.

The Project will incorporate a fire sprinkler suppression system to reduce the public hydrant demands, which will be subject to Fire Department review and approval during the design and permitting of the Project. Based on Section 94.2020.0 of the LAMC that adopts by reference NFPA 14-2013 including Section 7.10.1.1.5, the maximum allowable fire sprinkler demand for a fully or partially sprinklered building would be 1,250 gpm. As noted, an SAR was submitted to LADWP in order to determine if the existing public water infrastructure could meet the demands of the Project. The approved SAR, attached as Exhibit 2, shows a static pressure of 63 pounds per square inch and that a flow of up to 2,500 gpm can be delivered to the Project Site with a residual pressure of 61 pounds per square inch, which exceeds the 20 pounds per square inch requirement for the surrounding public hydrants. As shown by the SAR, and through compliance with Fire Department and LADWP requirements, the Project's fire flow impacts to water infrastructure would be less than significant.

6.2.3. DOMESTIC WATER DEMAND

Water consumption estimates for the Project have been prepared based on 100 percent of the BOS sewerage generation factors for the Project's various uses, which are summarized in Table 2 below. It is estimated that the Project will demand a total of approximately 29,896 gpd of water, representing a net increase of approximately 17,110 gpd as compared to the Project Site's existing uses.

The approved SAR confirms that sufficient infrastructure capacity is available for the Project. The Project proposes to connect to the existing 24-inch main in Vine Street with a lateral that will be adequately sized to simultaneously accommodate fire demand and domestic demand. In addition, the services will include backflows and be metered

separately per City requirements. Therefore, the Project's impacts on water infrastructure would be less than significant.

Table 2 – Estimated Proposed Water Consumption			
Land Use	Units	Consumption Rate (gpd/unit)^(a)	Total Water Consumption (gpd)
EXISTING			
Restaurant	6,393 sf	(30/15 sf) ^(b)	12,786
Subtotal Existing			12,786
PROPOSED			
Hotel	240 Rooms	120/Room	28,800
Guest Amenity Space			
Level 1 Lobby	1,248 sf	50/1000 sf	62
Restrooms & Gym	1,494 sf	200/1000 sf	298
Shared Guest & Public Space			
Outdoor Seating	563 sf	50/1000 sf	28
Coffee Bar	280 sf	50/1000 sf	14
Living Room & Terrace	4,530 sf	50/1000 sf	227
Corridors, Elevator Lobbies, and Circulation			
Elevator Lobbies & Circulation	3,015	50/1000 sf	151
Guestroom Corridors ^(c)	-	-	-
Back of House^(d)	2,630 sf	120/1000 sf	316
Subtotal Proposed			29,896
Net Increase			17,110
<p>(a) The average daily flow based on 100% of City of Los Angeles BOS sewerage generation factors.</p> <p>(b) Assumed 15 sf per person to estimate existing seat count.²</p> <p>(c) This area already accounted for in the hotel guest room calculation</p> <p>(d) Office was used to account for this space because there is no sewerage generation factor for back of house.</p>			

² International Code Council. (2014). 2015 International Building Code, Section 1004.1.2. Country Club Hills. ICC.

6.2.4. WATER SUPPLY

LADWP, as a public water service provider, is required to prepare and periodically update a UWMP to plan and provide for water supplies to serve existing and projected demands. The 2015 UWMP prepared by LADWP accounts for existing development within the City, as well as projected growth through the year 2040³.

Furthermore, through LADWP's 2015 UWMP process and the City's Securing L.A.'s Water Supply, the City will meet all new demand for water due to projected population growth to the year of 2040, through a combination of water conservation and water recycling. These plans outline the creation of sustainable sources of water for the City of Los Angeles to reduce dependence on imported supplies. LADWP is planning to achieve these goals by expanding its water conservation program. To increase recycled water use, LADWP is expanding the recycled water distribution system to provide water for irrigation, industrial use, and groundwater recharge. Through these programs, as well as the fact that projected water demand through 2040 is accounted for in the 2015 UWMP, LADWP will have sufficient supplies to meet the Project's water demands, and potential impacts to water supply would be less than significant.

6.3. CUMULATIVE IMPACTS

The geographic context for the cumulative impact analysis on water supply is the LADWP service area (i.e., the City). As noted above, LADWP, as a public water service provider, is required to prepare and periodically update a UWMP to plan and provide for water supplies to serve existing and projected demands. The 2015 UWMP prepared by LADWP accounts for existing development within the City, as well as projected growth through the year 2040.

Additionally, under the provisions of Senate Bill 610, LADWP is required to prepare a comprehensive water supply assessment for every new development "project" (as defined by Section 10912 of the Water Code) within its service area that reaches certain thresholds. The types of projects that are subject to the requirements of Senate Bill 610 tend to be larger projects that may or may not have been included within the growth projections of the 2015 UWMP. The water supply assessment for projects would evaluate the quality and reliability of existing and projected water supplies, as well as alternative sources of water supply and measures to secure alternative sources if needed.

Furthermore, and also as noted above, through LADWP's 2015 UWMP process and the City's Securing L.A.'s Water Supply, the City will meet all new demand for water due to projected population growth to the year of 2040, through a combination of water conservation and water recycling. These plans outline the creation of sustainable sources of water for the City of Los Angeles to reduce dependence on imported supplies.

³ Los Angeles Department of Water & Power, Urban Water Management Plan 2015, June 7, 2016.

LADWP is planning to achieve these goals by expanding its water conservation program. To increase recycled water use, LADWP is expanding the recycled water distribution system to provide water for irrigation, industrial use, and groundwater recharge.

Compliance of the Project and future development projects with regulatory requirements that promote water conservation such as the Los Angeles Municipal Code, including the City's Green Building Code, would also assist in assuring that adequate water supply is available on a cumulative basis.

Based on the above, it is anticipated that LADWP would be able to supply the water demands of the Project as well as future growth. Therefore, cumulative impacts on water supply would be less than significant.

7. LEVEL OF SIGNIFICANCE

Based on the analysis contained in this report no significant impacts have been identified to water infrastructure for this Project.

EXHIBIT 1



City of Los Angeles

Los Angeles Department of Water and Power - Water System

INFORMATION OF FIRE FLOW AVAILABILITY

LAFD Fire Flow Requirement: <u>4 closest hydrants 6000 gpm @ 20psi</u> <u>6 closest hydrants 9000 gpm @ 20psi</u>	Water Service Map No.: <u>W148-186</u> LAFD Signature: _____ Date Signed: _____
Applicant: <u>Trenton Ramos</u>	
Company Name: <u>KPFF Consulting Engineers</u>	
Address: <u>6080 Center Drive, Los Angeles CA 90045</u>	<u>RECEIVED</u>
Telephone: <u>(310) 665-2800</u>	<u>JUL 18 2016</u>
Email Address: <u>trenton.ramos@kpff.com</u>	

	F- 42692	F- 39725	F- 81902	F- 35953
Location:	W of Vine St & 270 SS Yucca St / W of Argyle Ave & 342 NN Hollywood Bl	E of Vine ST & 335 NN Hollywood Bl / NW of Hollywood Bl & Argyle Ave	NW of VINE ST and HOLLYWOOD BL	NE of HOLLYWOOD BLVD and VINE ST
Distance from Nearest Pipe Location (feet):	28 / 25	72 / 20	30	25
Hydrant Size:	4D / 4D	4D / 2 1/2 x 4D	2 1/2 x 4D	4D
Water Main Size (in):	24 / 8	24 / 24	24	24
Static Pressure (psi):	91 max / 94 max	93 max / 97 max	95 max	96 max
Residual Pressure (psi):	61 / 63	63 / 67	65	66
Flow at 20 psi (gpm):	1500 / 1500	1500 / 1500	1500	1500

NOTE: Data obtained from hydraulic analysis using peak hour.

Remarks: _____ ECMR No. W20160721008
6 HYDRANTS FLOWING SIMULTANEOUSLY FOR COMBINED 9000 GPM.

Water Purveyor: Los Angeles Department of Water & Power Date: 7/22/2016

Signature:  Title: ASSOCIATE ENGINEER
Mark Patterson

Requests must be made by submitting this completed application, along with a \$215.00 check payable to:
"Los Angeles Department of Water and Power", and mailed to:
Los Angeles Department of Water and Power
Distribution Engineering Section - Water
Attn: Business Arrangements
P.O. Box 51111 - Room 1425
Los Angeles, CA 90051-5700

* If you have any questions, please contact us at (213) 367-2130 or visit our web site at <http://www.ladwp.com>.

EXHIBIT 2

