FUSCOE ENGINEERING

WATER INFRASTRUCTURE ASSESSMENT REPORT

1400 VINE STREET

1400 Vine Street
City of Los Angeles, California

Prepared For

Tooley Interests, LLC
Beverly Hills, LLC
2001 Wilshire Blvd., Suite 420
Santa Monica, CA 90403

Prepared By

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600 Wilshire Blvd., Ste. 1470
Los Angeles, California 90017
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Project Manager:
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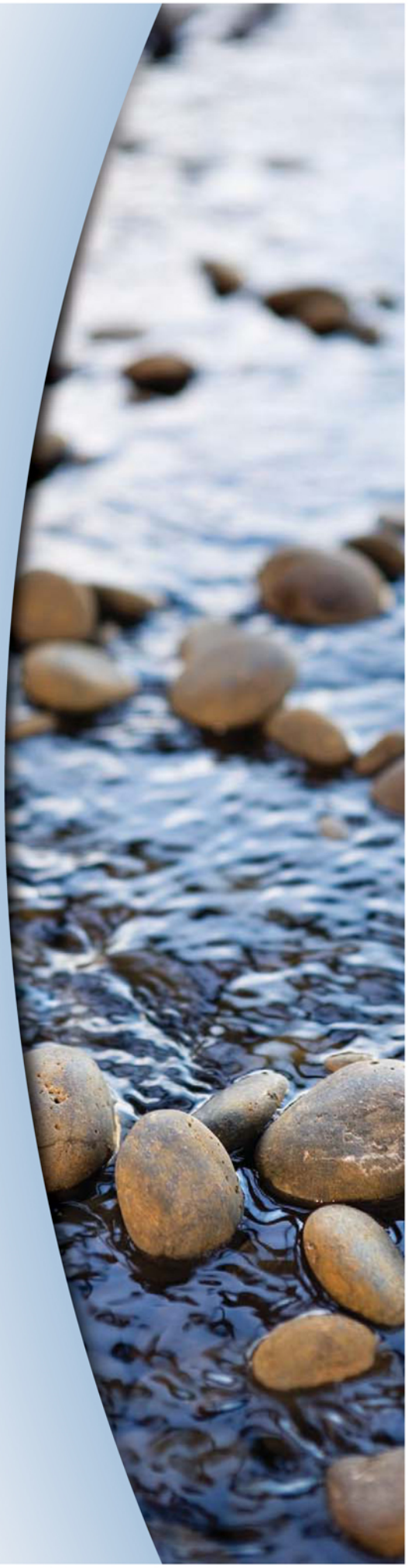
C-83863

Date Prepared: April 2, 2020

Job Number: 1906.001

REGISTERED PROFESSIONAL ENGINEER
SAMSON ESPIRITU KAWJAREE
No. C83863
CIVIL
STATE OF CALIFORNIA

04.20.2021



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1. INTRODUCTION

1.1 PROJECT DESCRIPTION

Tooley Interests, LLC (Applicant) is proposing to develop a new mixed-use development (Project) on an approximately 1.13-acre site (1.09 acres post-dedication) located at 1400 Vine Street (Project Site) in the City of Los Angeles. The Project proposes a 8-Story structure above three levels of subterranean parking. The Project will include 198 apartment units (studio, 1-bedroom, and 2-bedroom units) above approximately 16,000 square feet of retail and restaurants on the ground level, and 278 parking stalls in three subterranean levels. Two existing commercial buildings, a FedEx Office to the North and a wine merchant to the South, and a shared surface parking lot shall be removed to accommodate the Project.

1.2 SCOPE OF WORK

This report describes the current location of existing water infrastructure and analyzes potential Project impacts to the City's infrastructure.

2. REGULATORY FRAMEWORK

The Project site receives water supply from the Los Angeles Department of Water and Power (LADWP), the primary water purveyor for the City. As the primary supplier of water to the City, LADWP must comply with all applicable regulations at the State and Federal level.

Applicable regulations affecting LADWP as a supplier of water include efficiency requirements, such as California Code of Regulations (CCR) Title 20, Chapter 4, Article 4, Section 1605, which requires all new plumbing fixtures to adhere to efficiency requirements, and CCR Title 24, Part 11, which requires a water use reduction of 20% above baseline for all homes, commercial, and state buildings.

The regulations also include reporting requirements, such as California Urban Water Management Planning Act (1984) and Senate Bill (SB) 610. The California Urban Water Management Planning Act requires that municipalities and other water suppliers must create an updated Urban Water Management Plan (UWMP) every five years, outlining anticipated trends in supply and demand for the planning period. LADWP's most recent UWMP update was in 2015 and identified adequate supplies to match modeled demands through 2040. SB 610 required water suppliers to submit a Water Supply Assessment (WSA) for all project that propose over 500 residential dwelling units, 500,000 square feet of commercial floor space, or employ over 1,000 individuals or the equivalent water usage. A WSA will not be required for the project as it proposes under 500 dwelling units.

3. EXISTING CONDITION

As noted above, the existing Project Site consists of a 5,997 square-foot 1-story FedEx office building, an 8,976 square-foot 1-story wine merchant, and surface parking.

3.1 DOMESTIC INFRASTRUCTURE

The City of Los Angeles Department of Water and Power (LADWP) maintains water infrastructure in the Project area and provides domestic water service to the Project Site. Available record drawings provided by the City indicate the following existing water infrastructure: a 10-inch line on Vine St., an 8-inch line on Leland Way, and an 8-inch line on De Longpre Ave.

Table 1 shows the estimated existing water demand for the Project Site, prepared based on 100 percent of the City of Los Angeles Bureau of Sanitation (BOS) sewerage generation factors for residential and non-residential categories. This estimate is appropriate given the fact that there is no existing landscaping on-site that would deviate from the LABOS sewage generation factors.

Table 1 - Estimated Existing Water Demand

Land Use	Units	Average Consumption Rate (gpd/unit)	Total Average Daily Consumption (gpd)
Retail Building 1	5,997 sf	25/1000 sf	150
Retail Building 2	8,976 sf	25/1000 sf	225
		Total Existing Water Demand	375

3.2 FIRE INFRASTRUCTURE

There are currently two existing fire hydrants located within 300 feet of the project, one located at the southeast corner of Vine St. and Leland Way, and the other at the northwest corner of Vine St. and De Longpre Ave.

4. SIGNIFICANCE THRESHOLDS

CEQA significance criteria are used to evaluate the degree of impact caused by a development project.

Appendix G of the CEQA Guidelines provides a set of sample questions that address impacts with regard to water infrastructure. These questions are as follows:

Would the project:

- Require or result in the relocation or construction of new water facilities, the construction or relocation of which could cause significant environmental effects?
- Have sufficient water supplies available to serve the project and reasonably foreseeable future developments during normal, dry and multiple dry years?

The City of Los Angeles, as the lead agency, utilizes a set of city-specific criteria to evaluate impacts. The *L.A. CEQA Thresholds Guide* states that a project would normally have a significant impact on water infrastructure if it would:

- 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

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 *City of Los Angeles CEQA Thresholds Guide*. This methodology involves a review of the project's environmental setting, project impacts, cumulative impacts, and mitigation measures as 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/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.

Based on available site and occupancy information, the BOS's sewer generation factors were used to estimate the existing water consumption. 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 (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 will determine whether they can meet the Project's needs based on the existing infrastructure. An Information of Fire Flow Availability report (IFFA) is also conducted by LADWP to determine that there is sufficient hydrant flow from existing or proposed hydrants fronting the project based on the existing infrastructure. See Exhibit 2 for SAR and IFFA for the Project.

6. PROJECT IMPACTS

6.1 CONSTRUCTION

During construction, water will be required intermittently for dust control, equipment cleaning, soil grading and preparation during the early phases of the project. The latter phases of construction normally require less water usage. Since water usage during construction is typically less demanding than the water usage for the proposed Project, it is anticipated that existing water infrastructure would meet the limited, temporary water demand associated with construction of the Project, and that the water purveyor is able to provide water during construction. Therefore, impacts to water infrastructure due to construction activity is considered less than significant.

The Project will require decommission/abandonment of existing water lines to the site, and construction of new on-site water distribution lines to serve new buildings, as well as the potential relocation of existing lines. Prior to buildout of the water system, during construction, with approval from LADWP and the City, temporary water supply needs during construction may be obtained from metered connections from existing metered water connections or fire hydrants. Construction impacts associated with the installation of water distribution lines would primarily involve trenching in order to place the lines below surface. Installation of new water infrastructure will be limited to on-site water distribution and minor off-site work associated with connections to the public main. No upgrades to public water mains are anticipated. 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 existing water lines and disruption of water service. Therefore, Project impacts on water infrastructure associated with construction activities would be less than significant.

6.2 OPERATION

6.2.1 INFRASTRUCTURE CAPACITY

To determine the ability to provide on-site water service to the Project, a Water Pressure – Flow Report (SAR) was submitted to LADWP to analyze if there is adequate water capacity for both the on-site fire suppression system (i.e. building sprinkler system) and domestic water service. One location at the 8-

inch main on Leland and one location at the 8-inch main on De Longpre Avenue were separately analyzed for their capacity to provide water service individually for the whole on-site fire suppression system and domestic water service. See Exhibit 2 for the results of the SAR, which demonstrates the adequate water infrastructure capacity exists.

6.2.2 DOMESTIC WATER DEMAND

Water consumption estimates have been prepared based on 100 percent of the City of LA Bureau of Sanitation sewage generation factors for residential and commercial land uses and are summarized in Table 2 below. The Project proposes to connect to either the 8-inch main on Leland Way or the 8-inch main on De Longpre Ave for the domestic service. There are two types of connections that can be made to the City main. One type of connection is a combo service, which is has one connection to the main and splits to serve both fire and domestic. The second type of connection is to have independent connections for fire and domestic. Refer to Exhibit 2 for the approved domestic SAR for Leland Way and De Longpre Ave. In addition, the services include backflows and meters that are to be billed separately per City requirements. The approved SAR, along with the will serve letter found in Exhibit 1, confirms that sufficient infrastructure capacity is available for the Project. Therefore, the Project's impacts on water supply would be less than significant.

Table 2 – Estimated Proposed Water Demand

Land Use	Units	Average Consumption Rate (gpd/unit)	Total Avg. (gpd)
Residential: Studio(Bachelor)	54 units	75/unit	4,050
Residential: Apt – 1 Bedroom	111 units	110/unit	12,210
Residential: Apt – 2 Bedroom	33 units	150/unit	4,950
Retail:	3,100 sf	50/1,000 sf	155
Restaurant (12,900 sf):	430 seats	30/seat	12,900
Outdoor Common Area:	10,900 sf	50/1,000 sf	545
Indoor Common Area:	7,400 sf	50/1,000 sf	370
Gym:	1,600 sf	650/1,000 sf	1,040
Pool:	1 pool	20,200/pool	20,200
Total Proposed Water Demand			**56,420**
Total Existing Water Demand (Per Table 1)			**375**
Project Net Water Demand (Proposed – Existing)			**+56,045**

6.2.3 FIRE WATER DEMAND

The project will incorporate a fire sprinkler suppression system, 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. Article 7 Fire Protection and Prevention, Section 57.507.3 of the Los Angeles Municipal Code (LAMC) sets the fire flow requirements for the Project. These guidelines, in addition to the requirements set by the City Fire Chief, will prescribe the fire flow requirements (pressure and duration) and hydrant spacing requirements for the Project.

The Project falls within the High Density Residential and Neighborhood Commercial category, which has a required fire flow of 4,000 gallons per minute (gpm) from four adjacent fire hydrants flowing simultaneously. Additionally, the minimum residual water pressure of 20 pounds per square inch (psi) must remain in the system (while the 4,000 gpm flow is occurring.)

In order to meet the minimum required 4,000 gpm flow from four hydrants, two new public hydrants will need to be installed in addition to the two existing hydrants; one midblock on the east side of Vine St. between Leland Way and De Longpre Ave., the other at the northeast corner of Vine St. and De Longpre Ave. Collectively these four hydrant features will meet the project's fire flow requirements

As noted, a SAR and IFFA was submitted to LADWP in order to determine if the existing public water infrastructure could meet the demands of the Project. The approved SAR and IFFA are attached as Exhibit 2. The water service availability for the 8-inch main on Leland Way shows a static pressure of 77 pounds per square inch at a flow of 1,400 gpm, which exceeds the 20 pounds per square inch requirement. The water service availability for the 8-inch main on De Longpre Ave. shows a static pressure of 74 pounds per square inch at a flow of 1,400 gpm, which also exceeds the 20 pounds per square inch requirement. The Fire Flow Availability per the IFFA for the two existing hydrants and two proposed hydrants are 1,500 gpm each, resulting in a total of 6,000 gpm from four adjacent hydrants. As shown by the IFFA and SAR, and through compliance with LAFD and LADWP requirements, the Project's fire flow impacts to water infrastructure 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). LADWP, as a public water service provider, is required to prepare and periodically update an Urban Water Management Plan (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. The regional water provider, the Metropolitan Water District of Southern California (MWD), which also recently released its 2015 UWMP and provides the City with imported water resources, also follows this process.

Through the MWD 2015 Regional UWMP and LADWP's local UWMP process along with the City's Securing L.A.'s Water Supply (through water conservation and groundwater remediation), MWD and the City will meet all new demand for water due to projected population growth through a combination of water conservation, water transfer agreements and water supply projects (i.e. increase water recycling). LADWP plans to outline the creation of sustainable sources of water for the City of Los Angeles to reduce dependence on imported supplies from MWD. LADWP is planning to achieve these goals by increasing its water conservation program and by expanding the recycled water distribution system to provide water for irrigation, industrial use, and groundwater recharge.

Additionally, under the provisions of Senate Bill 610, LADWP is required to prepare a comprehensive water supply assessment (WSA) 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.

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, as well as AB 32, 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 demands of the Project and 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, less than significant water impacts have been identified for this Project.

EXHIBIT 1

CITY OF LOS ANGELES (LADWP – WILL SERVE LETTER)

February 19, 2020

Map No. 146-189

Mr. Anthony Navarrete
FUSCOE ENGINEERING, INC.
600 Wilshire Boulevard, Suite 1470
Los Angeles, California 90017

Dear Mr. Navarrete:

Subject: Water Availability-Will Serve
1400 North Vine Street
APN: 5546-023-051, Leland Tract, Lot FR 21

This is in reply to your request regarding water availability for the above-mentioned location. This property can be supplied with water from the municipal system subject to the Water System rules of the Los Angeles Department of Water and Power (LADWP). It is also subject to all conditions set by LADWP.

Should you require additional information, please contact Ms. Cynthia Taylor at (213) 367-1306. Correspondence may be addressed to:

LADWP
P.O. Box 51111, Room 1425
Los Angeles, California 90051-5700

Sincerely,

Liz Gonzalez
Manager-Business Arrangements
Water Distribution Engineering

CT:rp
c: Ms. Cynthia Taylor

EXHIBIT 2

CITY OF LOS ANGELES (LADWP – SAR/IFFA)

City of Los Angeles

Los Angeles Department of Water and Power - Water System

SAR NUMBER **81609**

Fire Service Pressure Flow Report

SERVICE NUMBER **632782**

For: **1400 VINE ST** Approved Date: **11-13-2019**

Proposed Service **6 INCH** off of the

8 inch main in **DELONGPRE AVE** on the **NORTH** side approximately

170 feet **EAST** of **EAST** of **VINE ST** The System maximum pressure is

110 psi based on street curb elevation of **338** feet above sea level at this location.

The distance from the DWP street main to the property line is **15** feet

System maximum pressure should be used only for determining class of piping and fittings.

Residual Flow/Pressure Table for water system street main at this location

Flow (gpm)	Press. (psi)	Flow (gpm)	Press. (psi)	Flow (gpm)	Press. (psi)
0	81				
490	80				
710	79				
885	78				
1035	77				
1165	76				
1290	75				
1400	74				

These values are subject to change due to changes in system facilities or demands.

Notes: SAR for combined simultaneous flow of 2100 GPM. OK to sell combo.

Meter Assembly Capacities

Domestic Meters	
1 inch =	56 gpm
1-1/2 inch =	96 gpm
2 inch =	160 gpm
3 inch =	220 gpm
4 inch =	400 gpm
6 inch =	700 gpm
8 inch =	1500 gpm
10 inch =	2500 gpm

Fire Service	
2 inch =	250 gpm
4 inch =	600 gpm
6 inch =	1400 gpm
8 inch =	2500 gpm
10 inch =	5000 gpm

FM Services	
8 inch =	2500 gpm
10 inch =	5000 gpm

This information will be sent to the Department of Building and Safety for plan checking.

This SAR is valid for one year from 11-13-19. Once the SAR expires, the applicant needs to re-apply and pay applicable processing fee.

For additional information contact the Water Distribution Services Section **WESTERN (213) 367-1225**

MATTHEW GONZALEZ	**MATTHEW GONZALEZ**	**146-189**
Prepared by	**Approved by**	**Water Service Map**

City of Los Angeles

Los Angeles Department of Water and Power - Water System

SAR NUMBER **81610**

Fire Service Pressure Flow Report

SERVICE NUMBER **632783**

For: **1400 VINE ST** Approved Date: **11-13-2019**

Proposed Service **6 INCH** off of the

8 inch main in **LELAND WY** on the **NORTH** side approximately

95 feet **EAST** of **EAST** of **VINE ST** The System maximum pressure is

109 psi based on street curb elevation of **340** feet above sea level at this location.

The distance from the DWP street main to the property line is **16** feet

System maximum pressure should be used only for determining class of piping and fittings.

Residual Flow/Pressure Table for water system street main at this location

Flow (gpm)	Press. (psi)	Flow (gpm)	Press. (psi)	Flow (gpm)	Press. (psi)
0	80				
775	79				
1125	78				
1400	77				

Meter Assembly Capacities

Domestic Meters	
1 inch =	56 gpm
1-1/2 inch =	96 gpm
2 inch =	160 gpm
3 inch =	220 gpm
4 inch =	400 gpm
6 inch =	700 gpm
8 inch =	1500 gpm
10 inch =	2500 gpm

Fire Service	
2 inch =	250 gpm
4 inch =	600 gpm
6 inch =	1400 gpm
8 inch =	2500 gpm
10 inch =	5000 gpm

FM Services	
8 inch =	2500 gpm
10 inch =	5000 gpm

These values are subject to change due to changes in system facilities or demands.

Notes: SAR with simultaneous combined flow of 2100 GPM for 6"DOM. OK to sell combo.

This information will be sent to the Department of Building and Safety for plan checking.

This SAR is valid for one year from 11-13-19. Once the SAR expires, the applicant needs to re-apply and pay applicable processing fee.

For additional information contact the Water Distribution Services Section **WESTERN (213) 367-1225**

MATTHEW GONZALEZ	MATTHEW GONZALEZ	146-189
Prepared by	**Approved by**	**Water Service Map**

City of Los Angeles
Los Angeles Department of Water and Power - Water System

INFORMATION OF FIRE FLOW AVAILABILITY

LAFD Fire Flow Requirement: 4,000 GPM

Water Service Map No.: 146-189
LAFD Signature:
Date Signed:

Applicant: ANTHONY NAVARRETE
Company Name: FUSCOE ENGINEERING
Address: 600 WILSHIRE BLVD, SUITE 1470, LOS ANGELES, CA 90017
Telephone: 213-542-5627
Email Address: ANAVARRETE@FUSCOE.COM

	F- 40288	F- 35766	F- PROPOSED
Location:	LELAND WAY	N/W CORNER OF DE LONGPRE AVE AND VINE ST	N/E CORNER VINE ST/DELONGPRE
Distance from Neareast Pipe Location (feet):	16' N/S/PL.	24' S/N PL	24' S/N PL.
Hydrant Size:	2 1/2" X 4D	2 1/2" x 4 D	2 1/2" X 4"
Water Main Size (in):	8"	6"	8"
Static Pressure (psi):	111 psi	113 psi	113 psi
Residual Pressure (psi):	79 psi	76 psi	76 psi
Flow at 20 psi (gpm):	1500 GPM	1500 GPM	1500 GPM

NOTE: Data obtained from hydraulic analysis using peak hour.

Remarks: PROJECT ADDRESS: 1400 VINE STREET ECMR No. WB20200211003

PLEASE INCLUDE ALL WATER MAIN UPSIZING REQUIREMENTS
2 PUBLIC HYDRANTS (F-40288 AND F-35766)
2 NEW PUBLIC HYDRANTS (1-NE CORNER OF VINE ST/DE LONGPRE AVE,
1-VINE ST, MIDBLOCK BETWEEN LELAND WAY/DE LONGPRE AVE ON EAST SIDE)

Water Purveyor: **Los Angeles Department of Water & Power** *Date:*

Signtature: *Title:* CE ASSOCIATE

Requests must be made by submitting this completed application, along with a $235.00 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

CYNTHIA TAYLOR
FEB 1 2020

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

City of Los Angeles
Los Angeles Department of Water and Power - Water System

INFORMATION OF FIRE FLOW AVAILABILITY

Water Service Map No.: 146-189

LAFD Fire Flow Requirement: 4,000 GPM

LAFD Signature: _____

Date Signed: _____

Applicant: ANTHONY NAVARRETE

Company Name: FUSCOE ENGINEERING

Address: 600 WILSHIRE BLVD, SUITE 1470, LOS ANGELES, CA 90017

Telephone: 213-542-5627

Email Address: ANAVARRETE@FUSCOE.COM

	F- PROPOSED	F-	F-
Location:	VINE ST, MIDBLOCK BETWEEN LELAND WAY & DELONG PL		
Distance from Neareast Pipe Location (feet):	78' W/E PL.		
Hydrant Size:	2½"x4"		
Water Main Size (in):	10"		
Static Pressure (psi):	107 psi		
Residual Pressure (psi):	75 psi		
Flow at 20 psi (gpm):	1500 GPM.		

NOTE: Data obtained from hydraulic analysis using peak hour.

Remarks: ADDRESS: 1400 VINE STREET ECMR No. WI2020021 1003

SEE PAGE 1.

Water Purveyor: **Los Angeles Department of Water & Power** *Date:* _____

Signtature: _____ *Title:* CE ASSOCIATE

Requests must be made by submitting this completed application, along with a $235.00 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.**