Appendix IS-8

Utility Technical Memorandum



DATE: November 9, 2018

TO: Ms. Frankie Tong

FROM: Chris Dorn

RE: 8th and Grand/Hope

Utility Infrastructure-Technical Memo

KPFF has conducted a review of existing Utility Infrastructure conditions for the 8th and Hope project site. Following are our findings.

Project Description

The project site is located within the City of Los Angeles at 754 South Hope Street and 735 South Grand. The existing site is fully developed and operating as a parking structure and an asphalt surface parking lot. The project site area is approximately 0.83 acres. It is bound by Hope Street to the northwest, 8th Street to the southeast, Grand Avenue to the southeast, and existing privately owned parking structures to the northeast.

The proposed project consists of a new forty-five story mixed-use residential apartment building consisting of 547 residential units, a 37,216 square-foot school (or 33 additional residential units in the event that the school is not developed), rooftop decks, a podium level swimming pool, four levels of parking above grade, three levels of subterranean parking and 7,499 square-feet of retail at the ground floor.

The following includes a description of the public wet and dry utility infrastructure availability, preliminary stormwater treatment analysis and preliminary earthwork volume analysis.

Existing Public Wet Utility Infrastructure

Sanitary Sewer

Based on available City of Los Angeles record data, there are two sewer mains that may serve the project site; one along Hope Street and one along Grand Avenue. On Hope Street there is an 8 inch diameter vitrified clay pipe and on Grand Avenue there is a 10 inch diameter vitrified clay pipe. Available City record information show an existing wye on the 8 inch main currently serving the existing parking structure. There is also an existing wye on the 8 inch line and an existing wye on the 10 inch line that can potentially serve the project site. See Attachment A for utility exhibit.

Water

Based on available record data attained from Los Angeles Department of Water and Power (LADWP), an 8 inch diameter water main exists within the Hope Street right-of-way, a 12 inch diameter water main exists within the 8th Street right-of-way, and a 12 inch water main exist within the Grand Avenue right-of-way. All three water mains are owned by LADWP. There are no indications on the record drawings as to the location or existence of water services to the existing parking structure. There are six existing public hydrants within the project vicinity. See Attachment A for utility exhibit and Attachment B for hydrant exhibit.

Ms. Frankie Tong, Eyestone Environmental 8th and Grand/Hope Utility Infrastructure Technical Memo KPFF Job #1600717 November 9, 2018 Page 2 of 13

Storm Drain

Based on available record data and visual observations, a 4 inch curb drain is located on 8th Street, two existing catch basins are located at the intersection of Hope and 8th Street and one catch basin is located at the intersection of Grand Avenue and 8th Street. Record drawings indicate that the catch basins are piped to a 42 inch diameter reinforced concrete pipe (RCP) located within the 8th Street right-of-way. Based on the record information this drainage system is owned and maintained by the Los Angeles County Flood Control District (LACFCD). See Attachment A for utility exhibit.

Existing Public Dry Utility Infrastructure

Gas

Based on record information, there are existing Southern California Gas Company (SCGC) gas mains located in the Hope Street, 8th Street, and Grand Avenue right-of-ways. There are no indications on the record drawings as to the location or existence of gas services to the existing parking structure. See Attachment A for utility exhibit.

Electric and Power Poles with Overhead Wires

Based on visual observation and the survey provided there are no existing power poles and overhead lines serving the subject property. Based on record information, there are underground power lines and vaults located in the Hope Street, 8th Street, and Grand Avenue right-of-ways. One 2 inch and two 2.5 inch power service lines are shown serving the existing parking structure off of 8th Street at the southwest corner of the property. See Attachment A for utility exhibit.

Existing Offsite Surface Public Infrastructure

Street Lights, Traffic Signal Infrastructure, Street Trees and Signage

Based on visual observation and the survey provided there is existing offsite surface public infrastructure including street lights, traffic signal infrastructure, street trees and signage along the property frontage. Should a street widening be required on 8th Street each of these items will require relocation and or modification. Offsite improvements will require a type 'B' permit to be obtained from the City of Los Angeles.

Additional street tree requirements may be designated by the City of Los Angeles Urban Forestry Division and additional street light requirements may be designated by the City of Los Angeles Bureau of Street Lighting Division.

Ms. Frankie Tong, Eyestone Environmental 8th and Grand/Hope Utility Infrastructure Technical Memo KPFF Job #1600717 November 9, 2018 Page 3 of 13

Public Wet Utility Availability and Design

Sanitary Sewer

As stated previously, an 8 inch diameter sanitary sewer main and wye connection within the Hope Street right-of-way serve the existing subject site. If required, additional connections can be made to both the Hope Street and Grand Avenue sanitary sewer mains. A new sewer connection 'S' permit from the Los Angeles Bureau of Engineering (BOE) will be required to connect to the existing sewer mains. It will likely be the preference of BOE to use the existing wye connections to the maximum extent possible.

Sewer Capacity Availability Review

A Sewer Capacity Availability Review (SCAR) has been submitted to the Los Angeles Department of Public Works, Bureau of Sanitation (BOS). BOS evaluated the existing sewer system to determine if there is adequate capacity to safely convey sewage from proposed development project. Based on established City of Los Angeles Flow Rates, the approximate total proposed flow that will be generated by the future development are summarized in Table 1 and Table 2 for the two project options. These estimates are based on the entitlement package provided by Gensler, dated October 30, 2018.

Table 1: Proposed Sewage Generation (School Option)					
Facility	Average Daily Flow (gpd/unit)(a)	Quantity	Average Daily Water Demand (gpd)		
School	11/student	500 student	5,500		
Residential: Apt – Studio	75/unit	108 units	8,100		
Residential: Apt – 1 Bedroom	110/unit	304 units	33,440		
Residential: Apt – 2 Bedrooms	150/unit	133 units	19,950		
Residential: Apt – 3 Bedrooms	190/unit	2 units	380		
Recreational Facilities	100gpd	-	100		
Retail Area	25/1,000sf	7,499 sf	188		
Total P	67,658				

Ms. Frankie Tong, Eyestone Environmental 8th and Grand/Hope Utility Infrastructure Technical Memo KPFF Job #1600717 November 9, 2018 Page 4 of 13

Table 2: Proposed Sewage Generation (Residential Option)					
Facility	Average Daily Flow (gpd/unit)(a)	Quantity	Average Daily Water Demand (gpd)		
Residential: Apt – Studio	75/unit	108 units	8,100		
Residential: Apt – 1 Bedroom	110/unit	331 units	36,410		
Residential: Apt – 2 Bedrooms	150/unit	139 units	20,850		
Residential: Apt – 3 Bedrooms	190/unit	2 units	380		
Recreational Facilities	100gpd	-	100		
Retail Area	25/1,000sf	7,499 sf	188		
Total Propo	66,028				

Sewer capacity review for a higher, conservative total flow of 68,411 GPD was submitted and approved for existing sewer infrastructure under the Hope Street and Grand Avenue right-of-way with 90% of the proposed flow tributary to Hope Street and 10% of the proposed flow tributary to Grand Avenue. The estimated percentage distribution is based upon information provided by the plumbing engineers, Glumac. The SCAR has an expiration date of 180 days from the date of approval. If the design and permit phase extend beyond the expiration date, a new SCAR will need to be filed. Please see Attachment C for approved SCAR dated September 13, 2018.

Water

As stated previously, an 8 inch diameter water main exists within Hope Street, a 12 inch diameter water main exists within 8th Street, and a 12 inch water main exists within the Grand Avenue right-of-way. The required connection point will be determined by LADWP and will be based on available capacity. The project site may require the addition of another fire hydrant along 8th Street, pending the requirements set forth by the Los Angeles Fire Department (LAFD). Please see Attachment A for utility exhibit and Attachment B for hydrant exhibit.

Ms. Frankie Tong, Eyestone Environmental 8th and Grand/Hope Utility Infrastructure Technical Memo KPFF Job #1600717 November 9, 2018 Page 5 of 13

Service Advisory Request for Potable Water

A Service Advisory Request (SAR) has been submitted to the Los Angeles Department of Water and Power for the water main on Hope Street. This review evaluates the existing water system to determine if there is adequate capacity to meet the project's demands for fire and domestic water use. The SAR was submitted and approved for an estimated fire demand of 1,000 gallons per minute (GPM) and an estimated domestic demand of 1,100 gallons per minute (GPM). These estimated demands are based on information provided by the plumbing engineers, Glumac. Please see Attachment D for approved SAR dated September 26, 2018.

The SAR has an expiration date of one year from the date of approval. If the design and permit phase extend beyond the expiration date, a new SAR will need to be filed.

Information of Fire Flow Availability

An Information of Fire Flow Availability (IFFAR) has been submitted to the Los Angeles Department of Water and Power for six hydrants located within the vicinity of the project. This review evaluates the existing water system to determine if there is adequate capacity to meet the project's demands for fire flow. The project's Fire Flow Requirement as determined by the Los Angeles Fire Department is 6,000-9,000 gallons per minute (GPM) from 4-6 hydrants flowing simultaneously. The IFFAR was submitted and approved for six hydrants each flowing 1,500 GPM for a total fire flow availability of 9,000 GPM. Please see Attachment E for approved IFFAR dated September 12, 2018.

Storm Drain

As stated previously, two existing LACFCD catch basins are located at the intersection of Hope and 8th Street and one LACFCD catch basin is located at the intersection of Grand Avenue and 8th Street. Record drawings indicate that the catch basin is piped to a 42 inch diameter reinforced concrete pipe (RCP) located within the 8th Street right-of-way. If road widening occurs along Hope Street these existing catch basins may require removal and reconstruction. The existing connecting pipe infrastructure will require removal and reconstruction as well. Removal and reconstruction of the catch basins and pipes will require a permit from LACFCD.

Public Dry Utility Availability and Design

Gas and Electric

As stated previously, gas and electric utility infrastructure is located along the subject site frontage. Will-serve letter requests have been sent to SCGC and LADWP to confirm that infrastructure is available for the proposed project. See Attachment F for response letters from LADWP and SCGC.

A dry utility or mechanical and electrical consultant will be responsible for the gas and electric infrastructure design for this project.

Ms. Frankie Tong, Eyestone Environmental 8th and Grand/Hope Utility Infrastructure Technical Memo KPFF Job #1600717 November 9, 2018 Page 6 of 13

Onsite Stormwater Treatment and Design

Low Impact Development - Stormwater Treatment/Mitigation

Low Impact Development (LID) is a strategy implemented by the City of Los Angeles to mitigate the impacts of runoff and storm water pollution as close to the source as possible through the use of Best Management Practices (BMPs). The City of Los Angeles requires that a project treat stormwater in accordance with the City of Los Angeles LID Handbook when more than 500 square feet of impervious surface area is disturbed.

BMPs for stormwater treatment are prioritized in order of design preference (per the City of Los Angeles LID Handbook). The BMP selected is chosen based on site specific conditions. The allowable BMP methods (in order of priority) are:

- 1. Infiltration Systems
- 2. Stormwater Capture and Use
- 3. High Efficiency Bio-filtration/Bio-retention Systems
- 4. Combination of Any of the Above

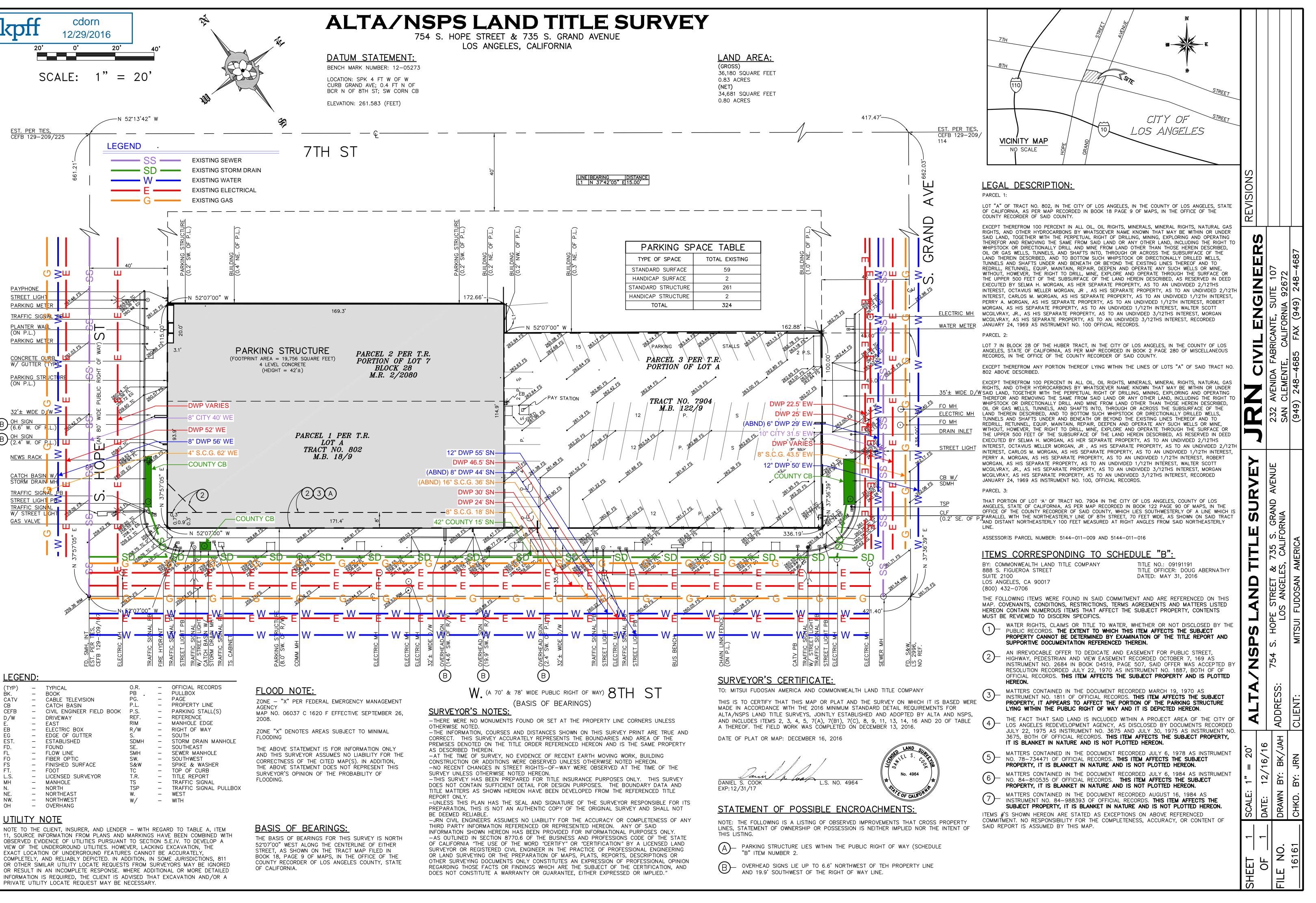
Based on a geotechnical report by Geotechnologies Inc. on-site infiltration is feasible. The geotechnical investigation indicated that infiltration will be feasible due to suitable soils below the proposed building foundation in the zone for potential infiltration. A 4-foot diameter, 45 foot deep, infiltration drywell below the structure will be required. The drywell will be located within the subterranean parking level and below foundations. This design was determined using a 30 foot infiltration depth and 120in/hr infiltration rate. See Attachment G for LID calculations.

A combination system may also be permitted to meet the LID stormwater treatment requirements. Space should be allocated for design and incorporation of the LID stormwater treatment system capable of treating the required volume of stormwater.

The onsite stormwater system must be designed with an overflow discharge. The design intent is to provide an overflow discharge to the curb face along the street frontage. Pending further investigation during the detailed design, there may also be an opportunity to connect to the existing 42 inch RCP LACFCD line along 8th Street or the existing LACFCD catch basins if required. Connection to the LACFCD infrastructure will require a separate permit from LACFCD. There is no additional permit required by the City of Los Angeles to overflow to the curb face.

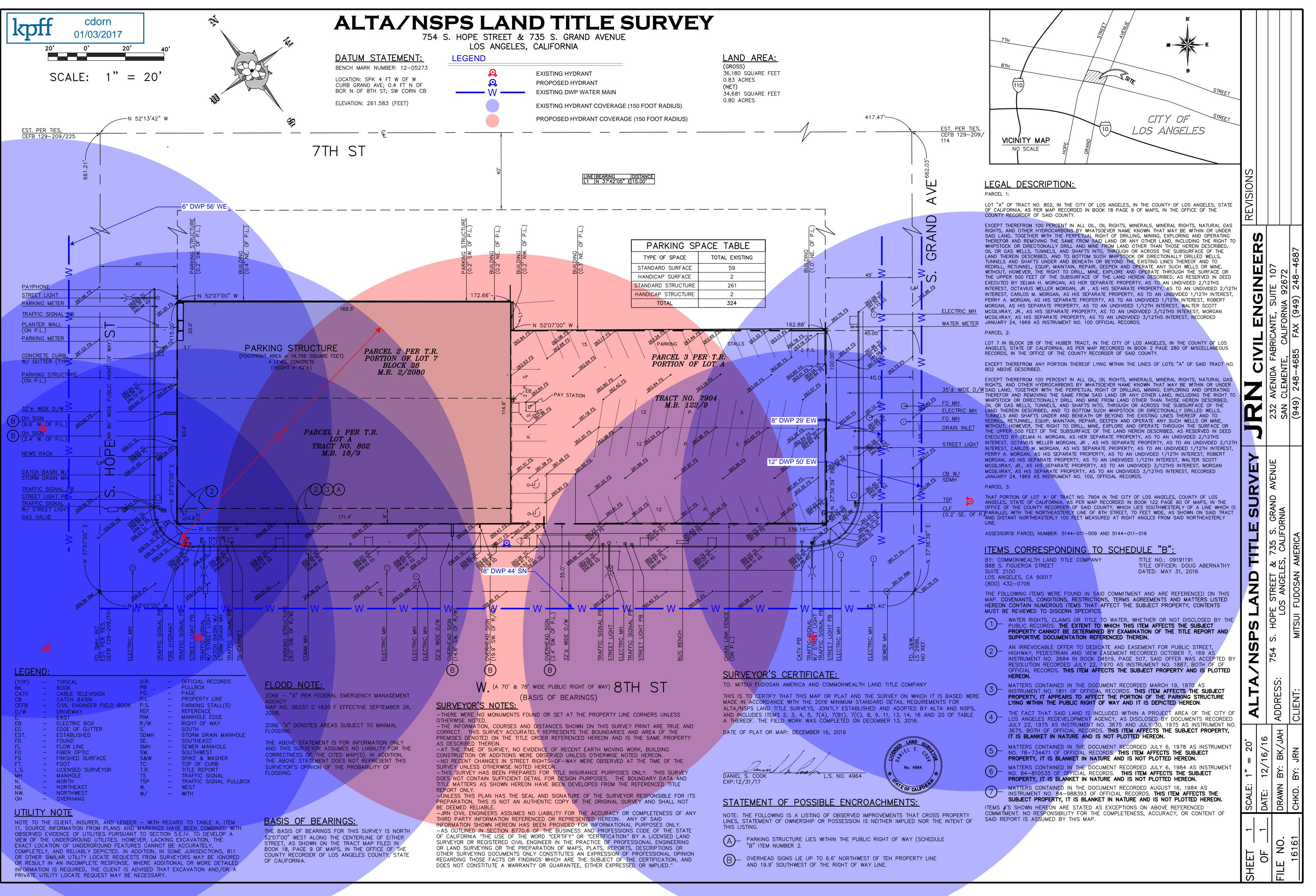


Attachment A - Existing Utility Exhibit





Attachment B - Hydrant Exhibit





Attachment C - Sewer Capacity Availability Review (SCAR)

City of Los Angeles Bureau of Engineering

Sewer Capacity Availability Request (SCAR)

To: Bureau of Sanitation

The following request is submitted to you on behalf of the applicant requesting to connect to the public sewer system. Please verify that the capacity exists at the requested location for the proposed developments shown below. The results are good for 180 days from the date the sewer capacity approval from the Bureau of Sanitation.

754 S. HOPE ST AND Job Address:

735 S. GRAND AVE

Sanitation Scar ID: 63-4278-0818

Date Submitted 08/24/2018 Request Will Serve Letter? Yes

BOE District:

Central District

Applicant: Address:

Chris Dorn

700 S. Flower St.

City:

LOS ANGELES

State:

CA

Zip:

90017

Phone:

213-418-0201

Fax:

Email:

S-Map:

BPA No.

chris.dorn@kpff.com 129A209-C

Wye Map:

129A209-C

SIMM Map - Maintenance Hole Locations

No.	Street Name	U/S MH	D/S MH	Diam. (in)	Approved Flow %	Notes
1	Along Hope St.	51607153	51607195	8	90.00	61,570 GPD
2	Along Grand Ave	51607197	51607196	10	10.00	6,841 GPD

Proposed Facility Description

No.	Proposed Use Description	Sewage Generation (GPD)	Unit	Qty	GPD
1	SCHOOL: HIGH SCHOOL *8	11	STUDENT	500	5,500
2	RESIDENTIAL: APT - 3 BDRMS *6	190	DU	2	380
3	RECREATION FACILITIES (RESIDENTIAL)		GPD	100	100
4	RESIDENTIAL: APT - BACHELOR	75	DU	108	8,100
5	RESIDENTIAL: APT - 1 BDRM. *6	110	DU	304	33,440
6	RESIDENTIAL: APT - 2 BDRMS *6	150	DU	133	19,950
7	RETAIL AREA (LESS THAN 100,000 SF)	25	KGSF	37,655	941

Proposed Total Flow (gpd):

68,411

Remarks

1] Approved for the maximum allowable capacity of 68,411 GPD (47.50 gpm). 2] This SCAR will supersede previous SCAR ID 60-3511-0217. 3] Discharge as indicated on SCAR letter.

Note: Results are good for 180 days from the date of approval by the Bureau of Sanitation

Date Processed: 09/13/2018 Expires On: 03/12/2019

Scar Request Number: 2508

ATTACHMENT C

Processed by: Albert Lew

Bureau of Sanitation Phone: 323-342-6207

Sanitation Status: Approved Reviewed by: Ricardo Avendano

on 09/13/2018

Submitted by: Karen Le

Bureau of Engineering

Central District

Phone: 213-482-7048

Fees Collected Yes SCAR FEE (W:37 / QC:705) \$1,996.50
Date Collected 08/24/2018 SCAR Status: Completed

City of Los Angeles Bureau of Engineering

SEWER CAPACITY AVAILABILITY REVIEW FEE (SCARF) - Frequently Asked Questions

SCAR stands for Sewer Capacity Availability Review that is performed by the Department of Public Works, Bureau of Sanitation. This review evaluates the existing sewer system to determine if there is adequate capacity to safely convey sewage from proposed development projects, proposed construction projects, proposed groundwater dewatering projects and proposed increases of sewage from existing facilities. The SCAR Fee (SCARF) recovers the cost, incurred by the City, in performing the review for any SCAR request that is expected to generate 10,000 gallons per day (gpd) of sewage.

The SCARF is based on the effort required to perform data collection and engineering analysis in completing a SCAR. A brief summary of that effort includes, but is not limited to, the following:

- 1. Research and trace sewer flow levels upstream and downstream of the point of connection.
- 2. Conduct field surveys to observe and record flow levels. Coordinate with maintenance staff to inspect sewer maintenance holes and conduct smoke and dye testing if necessary.
- 3. Review recent gauging data and in some cases closed circuit TV inspection (CCTV) videos.
- 4. Perform gauging and CCTV inspection if recent data is not available.
- 5. Research the project location area for other recently approved SCARs to evaluate the cumulated impact of all known SCARs on the sewer system.
- 6. Calculate the impact of the proposed additional sewage discharge on the existing sewer system as it will be impacted from the approved SCARs from Item 6 above. This includes tracing the cumulative impacts of all known SCARs, along with the subject SCAR, downstream to insure sufficient capacity exist throughout the system.
- 7. Correspond with the applicant for additional information and project and clarification as necessary.
- 8. Work with the applicant to find alternative sewer connection points and solutions if sufficient capacity does not exist at the desired point of connection.

Questions and Answers:

- 1. When is the SCARF applied, or charged?
 - It applies to all applicants seeking a Sewer Capacity Availability Review (SCAR). SCARs are generally required for Sewer Facility Certificate applications exceeding 10,000 gpd, or request from a property owner seeking to increase their discharge thru their existing connection by 10,000 gpd or more, or any groundwater related project that discharges 10,000 gpd or more, or any proposed or future development for a project that could result in a discharge of 10,000 gpd.
- 2. Why is the SCARF being charged now when it has not been in the past?
 - The City has seen a dramatic increase in the number of SCARs over 10,000 gpd in the last few years and has needed to increase its resources, i.e., staff and gauging efforts, to respond to them. The funds collected thru SCARF will help the City pay for these additional resources and will be paid by developers and property owners that receive the benefit from the SCAR effort.
- 3. Where does the SCARF get paid?
 - The Department of Public Works, Bureau of Engineering (BOE) collects the fee at its public counters. Once the fee is paid then BOE prepares a SCAR request and forwards it to the BOS where it is reviewed and then returned to BOE. BOE then informs the applicant of the result. In some cases, BOS works directly with the applicant during the review of the SCAR to seek additional information and work out alternative solutions

Scar Request Number: 2508



Attachment D - Service Advisory Request (SAR)



City of Los Angeles





SAR NUMBER 70845

Fire Service Pressure Flow Report

SERVICE NUMBER	622290

For:			754 S	HOPE ST	Approved Date: 9-26-2018
Proposed	Service	8 INCH	off of the		
12	inch ma	ain in 8 ST		on the NORTH	side approximately
90	feet	EAST of	EAST	of HOPE ST	The System maximum pressure is
85	psi bas	ed on street cur	b elevation of	258 feet above sea level a	t this location.
Т	he distanc	e from the DWI	street main to th	e property line is 63 fe	eet
System m	aximum p	ressure should	d be used only fo	or determining class of piping a	and fittings.

Residual Flow/Pressure Table for water system street main at this location **Flow** Press. **Flow** Flow Press. Press. (gpm) (psi) (psi) (psi) (gpm) (gpm) 0 65 1380 64 2010 63 2500 62

Meter Assembly Capacities

Domestic	c 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: OK to sell combo (8"FS + 8"DS).

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

This SAR is valid for one year from 09-26-18. Once the SAR expires, the applicant needs to re-apply and pay applicable processing fee.

For additional information contact the Water Distribution Services Section CENTRAL (213) 367-1216

RUIPIN WANG	RUIPIN WANG	128-207
Prepared by	Approved by	Water Service Map



Attachment E - Information of Fire Flow Availability (IFFAR)



City of Los Angeles

Los Angeles Department of Water and Power - Water System

INFORMATION OF FIRE FLOW AVAILABILITY

	6 000 to 9 000 GRA	Afrom A. 6 hydrants	Water Service Map No.:	120 207
LAFD Fire Flow Requirement:	6,000 to 9,000 GPM from 4-6 hydrants flowing simultaneously			128-207
LAID THE HOW REquirement.			LAFD Signature Date Signed	
Applicant:	Chris Dorn		Date Signed:	·
Company Name:	KPFF Consulting Engin	eers		
Address:	700 S Flower Street			
Telephone:	213-418-0201			
Email Address:	chris.dorn@kpff.com		-	
			-	
	F- <u>9280</u>	F- <u>15592</u>	<u>F- 9258</u>]
Location:	Southwest corner of 8th and Grand	Southeast corner of 8th and Grand	Northeast corner of 8th and Grand	
Distance from Neareast				1
Pipe Location (feet):	Aprox. 25 ft	Aprox. 30 ft	Aprox. 50 ft	
Hydrant Size:	4D	4D	4D	ECEIVED/RP
Water Main Size (in):	12	12	12	AUG 28 2819
Static Pressure (psi):	83	83	83	
Residual Pressure (psi):	66	66	46]
Flow at 20 psi (gpm):	1500	1600	1500	
NOTE: Data obtained from hyd	Iraulic analysis using	peak hour.		
Remarks:			ECMR No.	102080831009
6 FIRE HYDRANTS TO BE RUN SIM	ULTANEOUSLY IN CONJ	UCTION WITH SEPARAT		
HYDRANTS: 15526, 15388, 9279, 9	9280, 15592, 9258			
Water Purveyor: Los Angeles	Department of Wate	r & Power	Date:	9/12/2018
Signtature: Signtature:	Cro/		OWIL Singinaerine	o
Requests must be made by	supmittma this comp	leted application, al	ona with a \$215,00 ch	neck navable to:

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.



City of Los Angeles

Los Angeles Department of Water and Power - Water System

INFORMATION OF FIRE FLOW AVAILABILITY

			Water Service Map	
			No.:	128-207
	6,000 to 9,000 GPM fr	om 4-6 hydrants flowing		
LAFD Fire Flow Requirement:	simult	aneously	LAFD Signature:	
			Date Signed:	
Applicant:	Chris Dorn			
Company Name:	KPFF Consulting Engine	eers		
Address:	700 S Flower Street			
Telephone:	213-418-0201			
Email Address:	chris.dorn@kpff.com		-	
			-	
	F <u>- 15526</u>	<u>F- 15388</u>	<u>F-9279</u>	
Location:	Northwest corner of 8th	Northeast corner of 8th	Southeast corner of 8th	
	and Hope	and Hope		ECEIVED/RE
Distance from Neareast	<u> </u>		10	be v b I v b D / M I
Pipe Location (feet):	Aprox. 25 ft	Aprox. 40 ft	Aprox. 20 ft	AUG 28 2019
Hydrant Size:	4D	4D	4D	

12

85

67

1500

12

85

67

1500

NOTE: Data obtained from hydraulic analysis using peak hour.

84

66

1500

Water Main Size (in):

Static Pressure (psi):

Flow at 20 psi (gpm):

Residual Pressure (psi):

Remarks:			ECMR No. 11 7018 0831 009
6 FIRE HYDRANTS TO BE R	UN SIMULTANEOUSLY IN CONJUCTION WITH S	EPARATE FORM	
HYDRANTS: 15526, 15388,	9279, 9280, 15592, 9258		
Water Purveyor: Los A	ngeles Department of Water & Power		Date: 9/12/2018
Signtature:	m (m/	Title: AND A	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \

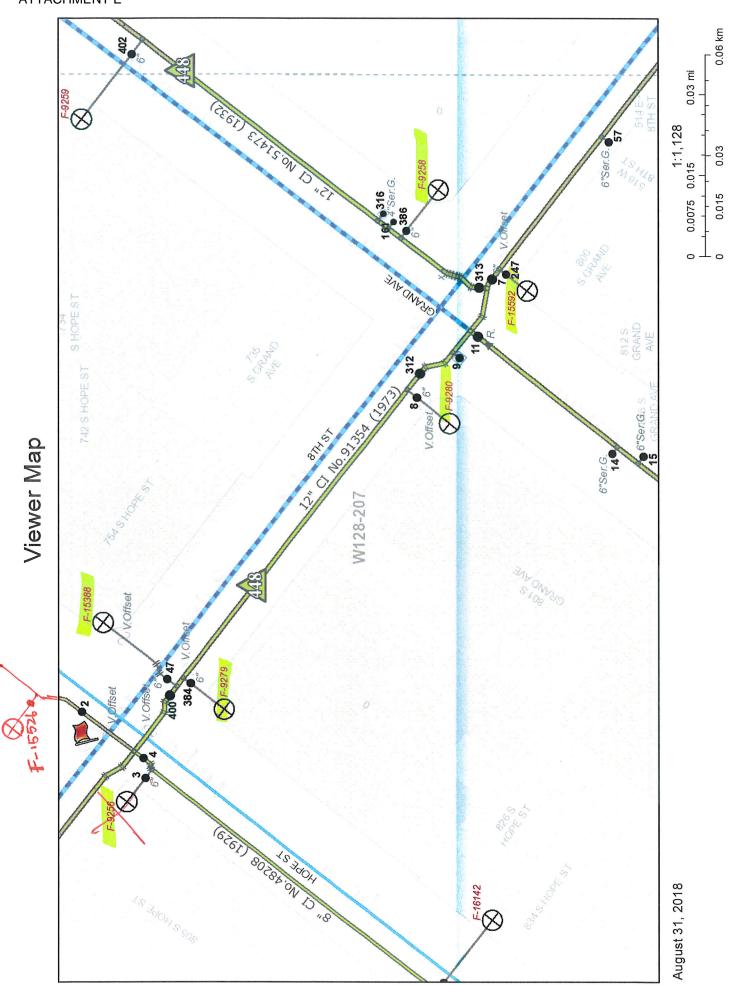
Requests must be made by submitting this completed application, along with a \$215.00 check payable to:

"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.



ATTACHMENT E



Department Of Water & Power City Of Los Angeles

Cash Memorandum Receipt

Receipt No.

W20180831009

Water Revenue Fund

Office Issued By:

.WD 1425-CTaylor

Date:

8/31/2018

Office Issued To:

Accounting BU

Assigned To:

CTaylor

Amount:

FOUR HUNDRED THIRTY DOLLARS And 00/100 CENTS

Received Of:

KPFF INC. - LA CIVIL OPERATING ACCOUNT

Telephone No.:

(213) 418-0201

Collection Address:

700 S Flower Street., STE. 2100, Los Angeles, CA 90017

Comments:

Fire Flow Availability - City LAFD for 6 Hydrants: F-9280m F-15592, F-9258, F-15526, F-15388, F-9279

Fee Type	Size/other	Rate	Rate Per		Units		Amount	ID No. / Location / Map
Hydrant Work-Hydrant Flow Tests		,	Flow Test		2.00	=	\$430.00	
Payment Method:	Check	Payment Ref. N		1087	,		\$430.00	
								eC&YeWETHIA TAYLOR
Received By Cashier:		On:		1	By:	-		Printed On: 2016 8/31/2018
Internal Comments:								





Attachment F - Will-Serve Response Letters

SERVICE PLANNING & CUSTOMER SUPPORT SUBSECTION

METROPOLITAN EAST SERVICE PLANNING

2633 Artesian Street, Suite 210, Los Angeles, CA 90031 (213) 367-6000 FAX: (213) 367-6027

Jeffrey T. Bergman District Engineer

WILL SERVE

September 11, 2018

Mr. Chris Dorn Civil Division 700 South Flower Street, Suite 2100 Los Angeles, CA 90017

Dear Mr. Dorn:

754 South Hope Street & 735 South Grand Avenue 44-Story Mixed-use Building

This is in response to your letter dated August 23, 2018 regarding electric service for the proposed project at the above address.

Electric service is available and will be provided in accordance with the Los Angeles Department of Water and Power Rules and Regulations. The estimated power requirement for this proposed project is part of the total load growth forecast for the City and has been taken into account in the planned growth of the power system.

If you have any questions regarding this matter, please call Mr. Buu Truong at (213) 367-6007.

Sincerely,

Jeffrey T. Bergman

District Engineer, Metro East Service Planning

c: Buu Truong Area 205



September 19, 2018

Attn: Chris Dorn KPFF 700 S. Flower St. Suite 2100 Los Angeles, CA. 90018

RE: Will Serve Letter Request for – Job ID# 43-2018-08-00026: 754 Hope St. & 735 S. Grand Ave.

Los Angeles, CA. 90017

Dear Sir/Madam:

Thank you for inquiring about the availability of natural gas service for your project. We are pleased to inform you that Southern California Gas Company (SoCalGas) has facilities in the area where the above named project is being proposed. The service would be in accordance with SoCalGas' policies and extension rules on file with the California Public Utilities Commission (Commission) at the time contractual arrangements are made.

This letter should not be considered a contractual commitment to serve the proposed project, and is only provided for informational purposes only. The availability of natural gas service is based upon natural gas supply conditions and is subject to changes in law or regulation. As a public utility, SoCalGas is under the jurisdiction of the Commission and certain federal regulatory agencies, and gas service will be provided in accordance with the rules and regulations in effect at the time service is provided. Natural gas service is also subject to environmental regulations, which could affect the construction of a main or service line extension (for example, if hazardous wastes were encountered in the process of installing the line). Applicable regulations will be determined once a contract with SoCalGas is executed.

If you need assistance choosing the appropriate gas equipment for your project, or would like to discuss the most effective applications of energy efficiency techniques, please contact our area Service Center at 800-427-2200.

Thank you again for choosing clean, reliable, and safe natural gas, your best energy value. Sincerely,

Pedro Reyes
Pipeline Planning Associate
Compton Headquarters



Attachment G - LID Stormwater Treatment Calculations

Infiltration BMP Sizing

Note: Red values to be <u>changed</u> by user.

Black values are <u>automatically calculated</u>.

[1]	Total Area (SF)		34681
[2]	Impervious Area (SF)		34681
[3]	Pervious Area (SF)	[1]-[2] =	0
[4]	Catchment Area (SF)	([2]*0.9)+([3]*0.1) =	31213
[5]	Design Rainfall Depth (in)	Greater of 0.75", 85th percentile	1.0
[6]	V _{design} (CF)	[5]/12*[4] =	2601
[7]	K _{sat,measured} (in/hr)		120.0
[8]	FS	Use 6 if no geotech investigation	3.0
[9]	K _{sat,design} (in/hr)	[7]/[8] =	40.0
[10]	Drawdown Time (hr)		48
[11]	Infiltrating Surface Area (sq. ft) A_min	[6]*12/([10]*[9]) =	16
[12]	Porosity	"Use 0.40 for gap-graded gravel"	0.40

ATTACHMENT G

Dry Well and Storage Design:

[15] [16] [17] [18] [19] [20] [21]	Dry Well Diameter = Dry Well Circumference = Dry Well Area = Primary Settling Chamber Diameter = Primary Settling Chamber Circumference = Primary Settling Chamber Area = Infiltration Depth = Primary Settling Chamber Depth = Additional Depth Between Bottom of Settling		4 ft 12.57 ft 12.57 sf 4 ft 12.57 ft 12.57 sf 30 ft 15 ft	
	Chamber and Top of Infiltration Section =		0 ft	
	Calculate for Dury ideal Infiltration Asses			
[22]	<u>Calculate for Provided Infiltration Area:</u> $A_{\text{infiltration}} =$	([15]*[20])+[16] =	389.56 sf	
[23]	Ainfiltration —	([13] [20])+[10] -	363.30 31	
	Area Based Calculation for Number of Dry Wells R	Sould:		
[24]	# of dry wells req'd =	Inf [11]/[23] =	0.04	
[]	" or any meno req a	=	1 units	
[24A]	# of dry wells provided =	=	1 units	
	Calculate for Storage Volume in Each Dry Well:			
	Primary Chamber Storage Volume =	[19]*[21]=	188 cf	
	Gravel Void Volume =	Inf [12]*[16]*[20]	151 cf	
[27]	Total Dry Well Storage Volume =	[29]+[30]+[31]=	339 cf	
	Calculate for Charges Makings for all Discoving	as la i sa a al s		
[00]	<u>Calculate for Storage Volume for all Dry Wells Cor</u> Total Dry Well Storage Volume =	<u>noinea:</u> [28A]*[32]=	339 cf	
[20]	Total Dry Well Storage Volume –	[26A] [32]-	339 CI	
	Calculate for Amount of Water Infiltrated in the fi	rst 3 hours:		
[29]		3hrs*Inf [9]*[23]*[24A]/12=	3,896 cf	
	Total Provided Storage Volume	[28]+[29]	4,235 cf	
[31]	Total Required Storage Volume	Inf[6]	2,601 cf	