# **Appendix G**Civil Data



DATE: October 22, 2020

TO: Mr. Jerry Illoulian

Principal

Illoulian & Illulian Properties, L.P. 8727 Melrose Ave, West Hollywood

West Hollywood, CA 90069

FROM: KPFF Consulting Engineers

700 South Flower Street, Suite 2100

Los Angeles, CA 90017

RE: Santa Monica and Orange Grove Mixed-Use Project: Civil Engineering Initial Study Data

This memo summarizes the civil related technical studies needed to evaluate the Santa Monica and Orange Grove Mixed-Use project's impacts relating to surface hydrology, water supply, wastewater, and groundwater.

#### General

#### **Existing Conditions**

The existing site consists of six lots at 7811 Santa Monica Blvd, 1114 North Orange Grove Ave, and 1125 North Ogden Drive in the City of West Hollywood, California. The project site currently consists of existing commercial buildings, residential buildings, and parking lots. The project site is approximately 44,200 square feet (0.92 acres) and appears to be 100% impervious.

#### **Proposed Conditions**

The site will be developed into a mixed-use building consisting of two subterranean parking levels, ground level restaurant space, a 95 unit apartment complex, and a 45 room hotel. The development will span approximately to the property line and be six stories above grade.

#### **Excavation Depths and Earthwork Volumes**

The estimated depths of excavation expected for the subterranean parking and building foundations depths are approximately 27-34 feet below the finished surface on Santa Monica Boulevard. The assumed floor slab thickness is 5" with a 2" sand barrier per the Geotechnical Engineering Investigation report dated November 17, 2014 by Geotechnologies, Inc. The combined parking structure footprint is approximately 37,430 sq. ft.

The earthwork volume for the project was determined using Civil 3D software for AutoCAD. The net site earthwork as a result of the subterranean parking excavation will be approximately 44,300 cubic yards of cut/export. Assuming a 25 percent expansion factor, this equates to a hauled volume of 55,375 cubic yards. See rough grading plan and sections in Attachment A.

The soil export will be hauled to an acceptable location per local jurisdictions' Haul Route requirements. Since the project is in West Hollywood and adjacent to Los Angeles, it is likely that each jurisdiction will have haul route requirements.

#### **Surface Hydrology**

## **Existing Hydrology**

Existing storm water runoff from the project site is conveyed via sheet flow and curb drains to the adjacent streets. The existing site is generally flat with a 1% slope to the west and a 3% slope to the south. The site is located within the Federal Emergency Management Agency (FEMA) Flood Zone X, which denotes an area where the potential for flooding is minimal. There are no surface water bodies in the project vicinity.

The existing site's total peak flow generated from a 50-year storm event is approximately 2.95 cubic feet per second (cfs) with 0.93 cfs flowing to Santa Monica Boulevard, 1.51 cfs flowing to North Orange Grove Ave, and 0.51 cfs flowing to North Ogden Drive. See Existing Hydrology Exhibit in Attachment B.

#### Proposed Hydrology

Storm water runoff from the Project site will be conveyed to the public streets via roof downspouts and site area and podium drains. The proposed development will decrease the existing impervious area by adding planting and landscaping around the site and upper levels. The existing peak flow of 2.95 cfs generated from a 50-year storm will be reduced by the proposed development to 2.87 cfs.

#### **Existing Water Quality Management**

Based on our research and existing records, there are currently no stormwater BMPs on the existing site.

#### Proposed Water Quality Management - Construction

Within the State of California, the National Pollutant Discharge Elimination System (NPDES) requirements mandate that stormwater Best Management Practices (BMPs) be implemented during project construction. These stormwater BMPs may include, but are not limited to: sandbag barriers, shaker plates, silt fences, fiber rolls, and street sweeping.

## Proposed Water Quality Management-Project Implementation

Permanent post-construction stormwater management mitigation will be implemented per the County of Los Angeles Department of Public Works Low Impact Development Standards Manual, dated February 14, 2014.

LID (Low Impact Development) is a storm water management strategy with goals to mitigate the impacts of increased runoff and storm water pollution as close to its source as possible.

Considering the proposed development's subterranean footprint and lack of setbacks, we expect infiltration to be infeasible. Capture and reuse may be feasible to treat a portion of the stormwater, but will depend on overall landscaping. This option should be explored with the Architect and Landscape Architect. Preliminary calculations show the 85<sup>th</sup> Percentile rainfall flow and volume for the project site will be approximately 0.34 cfs and 2,580 cubic feet (cf), respectively. Based on these approximate values, 100% of the required treatment flow could be treated using biofiltration per the LA county LID manual. Biofiltration systems could be located throughout the project site where feasible. The design team should engage early in satisfying stormwater mitigation requirements.

#### **Groundwater**

#### **Existing Groundwater**

Existing Groundwater conditions are to be verified pending the completion of the project Geotechnical Investigation Report.

#### Proposed Groundwater Impacts

Impacts on groundwater due to subterranean parking excavation, including temporary and permanent dewatering will be confirmed pending the completion of the project Geotechnical Investigation Report.

#### **Water Supply**

There is an existing 12-inch water main on Santa Monica Blvd, which is owned and operated by the Los Angeles Department of Water and Power (LADWP). A flow and pressure report has been conducted by the LADWP, and is attached to this report. We anticipate a 6-inch fire water service, capable of delivering 1,400 gpm, and 6-inch domestic water service, capable of delivering 700 gpm, to serve the project. Based on the flow report, the 12-inch main has a static pressure of 93 psi and a residual pressure of 88 psi at a flow of 1400 gpm. See the LADWP Flow Test Results in Attachment C.

Currently there are no existing fire hydrants along the proposed project site's property frontage. This includes the north side of Santa Monica Blvd, the east side of Orange Grove Ave, and the west side of Ogden Drive. The project Architect and Civil Engineer should engage the County of Los Angeles Fire Department to determine if public or private fire hydrants are required to be installed as part of this project. If hydrants are required, the proposed hydrants must meet a minimum flow of 1,750 gpm at 20 psi per the LA County Fire Code requirement for a Type 1A building (assumed) with a proposed fire sprinkler system and the three largest successive building floors equating to 108,642 square feet.

For the purposes of this report we are assuming the total water usage per day will be equal to the total sewage discharge per day for the project. Based on the sewage discharge estimates in the next section we anticipate the daily water demand to be approximately 26,679 GPD as shown in the table below.

Anticipated Water Generation and Demand						
Facility Description	Building Program	Units	Flow (gpd) per unit	Avg Load, Q <sub>AF</sub> (gpd)		
Restaurant (Indoor)	230	Seat	30	6,900		
Restaurant (Outdoor)	21	Seat	18	378		
Hotel Amenity Space	2066	SF	0.5	1,033		
Art Galley	1381	SF	0.02	28		
Residential Lobby	1850	SF	0.08	148		
Studio Apartments	46	Unit	80	3,680		
1-Bedroom Apartments	21	Unit	120	2,5200		
2-Bedroom Apartments	15	Unit	160	2,400		
3-Bedroom Apartments	13	Unit	200	2,600		
Hotel Lobby	1567	SF	0.08	125		
Hotel Rooms	45	Room	130	5,850		
Hotel Back-of-House	6211	SF	0.08	497		
Fitness Area	650	SF	0.8	520		
	<u>TOTAL</u>			26,679		

#### Wastewater (Sewer)

There is an existing 8-inch public sewer main that runs north to south on North Orange Grove Ave, and a 12-inch public sewer main that runs east to west on Santa Monica Blvd. A separate Sewer Capacity Study has been prepared for submittal and approval through West Hollywood Public Works. See separate "Sewer Capacity Study" report dated 04/05/2019.

Using the Sanitation District No. 4 Sewer Load Table and the proposed uses of the project, the following table was created outlining the total estimated proposed sewer load.

Anticipated Sewer Generation and Demand						
Facility Description	Building Program	Units	Flow (gpd) per unit	Avg Load, Q <sub>AF</sub> (gpd)	Avg Load, Qaf (cfs)	Peak Flow, Q <sub>PF</sub> (cfs)
Restaurant (Indoor)	230	Seat	30	6,900	0.011	0.0267
Restaurant (Outdoor)	21	Seat	18	378	0.001	0.0015
Hotel Amenity Space	2066	SF	0.5	1,033	0.002	0.0040
Art Galley	1381	SF	0.02	28	0.000	0.0001
Residential Lobby	1850	SF	0.08	148	0.000	0.0006
Studio Apartments	46	Unit	80	3,680	0.006	0.0142
1-Bedroom Apartments	21	Unit	120	2,520	0.004	0.0097
2-Bedroom Apartments	15	Unit	160	2,400	0.004	0.0093
3-Bedroom Apartments	13	Unit	200	2,600	0.004	0.0101
Hotel Lobby	1567	SF	0.08	125	0.000	0.0005
Hotel Rooms	45	Room	130	5,850	0.009	0.0226
Hotel Back-of-House	6211	SF	0.08	497	0.001	0.0019
Fitness Area	650	SF	0.8	520	0.001	0.0020
	<u>TOTAL</u>			26,679	0.041	0.103

Existing sewer loads and capacity were generated based on City of West Hollywood Requirements as laid out in the Sewer Flow Report (Appendix D). The following table summarizes the Sewer Capacity Study Results:

Sewer Analysis Summary Table					
Orange Grove Ave Santa Monica Blvd					
Pipe Diameter	8-inch	12-inch			
Slope	3.32%	0.32%			
Manning N	0.013	0.013			
50% Full Capacity	1.10 cfs	1.00 cfs			
Monitored Daily Flow	0.020 MGD / 0.031 cfs	0.150 MGD / 0.232 cfs			
Existing Peak Flow	0.077 cfs	0.580 CFS			
Existing % Pipe Full	12.80%	11.60%			
Additional Generated Peak Flow(cfs)	0.103	0.103			
Total Proposed Peak Flow (cfs)*	0.188	0.691			
Proposed % full*	13.13%	12.60%			

<sup>\*</sup>assuming entire project sewer load connects to single sewer

Both the 8" sewer main in North Orange Grove Ave and the 12" sewer main in Santa Monica Blvd are below 50% full with the addition of the project's proposed sewer loads, which meets City of West Hollywood requirements. The 8" sewer main in North Orange Grove Ave and the 12" sewer main in Santa Monica Blvd have adequate capacity for this project. See Attachment D for the complete Sewer Capacity Study.

## **Gas and Power**

Gas for the project will be supplied by Southern California Gas. A will-serve letter from Southern California Gas Company can be found in Attachment F. Specific gas demands will need to be determined by the project plumbing engineer.

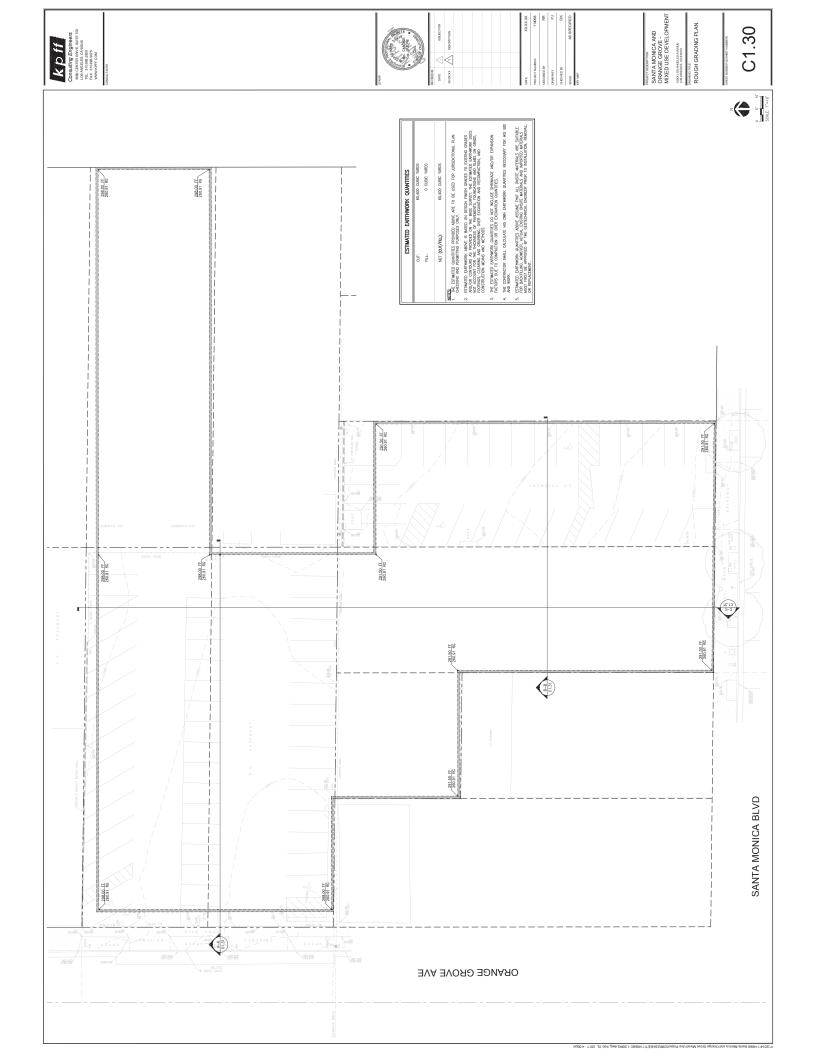
Electrical service will be supplied by Southern California Edison. A letter from Southern California Edison can be found in Attachment E. Specific electrical requirements for the project will need to be determined by the project electrical engineer.

### **Offsite Improvements**

The limit of off-site improvements will be dependent upon the City's requirements set forth in the Conditions of Approval, or similar documents. At a minimum, we expect the scope to include replacement of all curb, gutter, and sidewalk in property frontage. All offsite improvements will be handled through a separate permit with the City of West Hollywood.

# ATTACHMENT A

**ROUGH GRADING** 



# ATTACHMENT B

## **EXISTING HYDROLOGY**

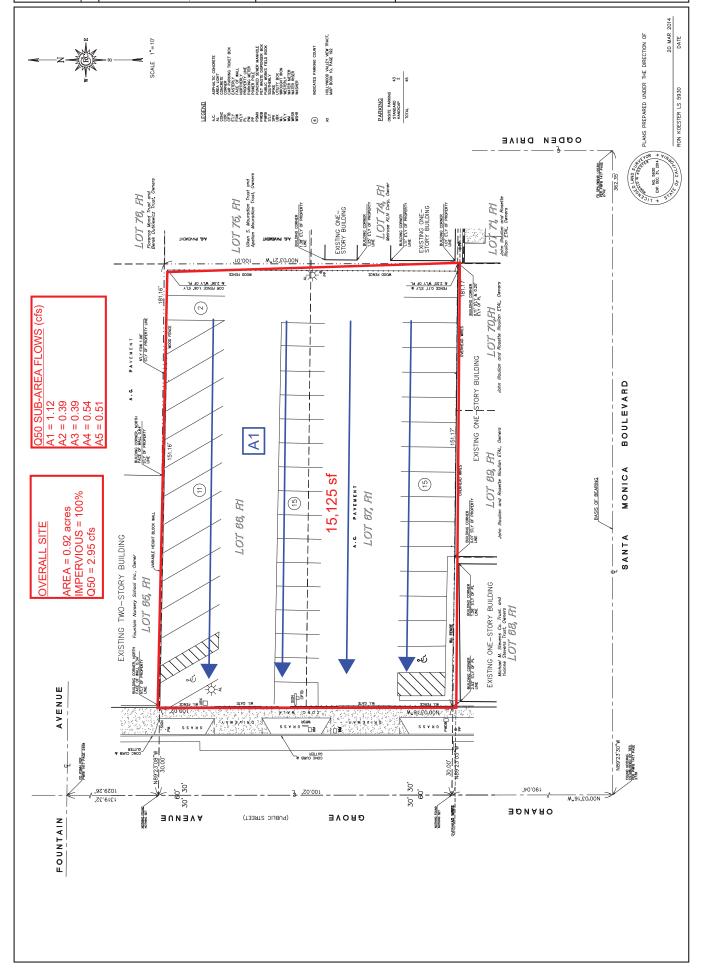
c\o Mr. 1880n Illonlian
TOS ANGELES: CV 30069
FARMIC CAPITAL LLC.
TOS ANGELES: ANGEL

AHERT 2 OF 2 SHEET

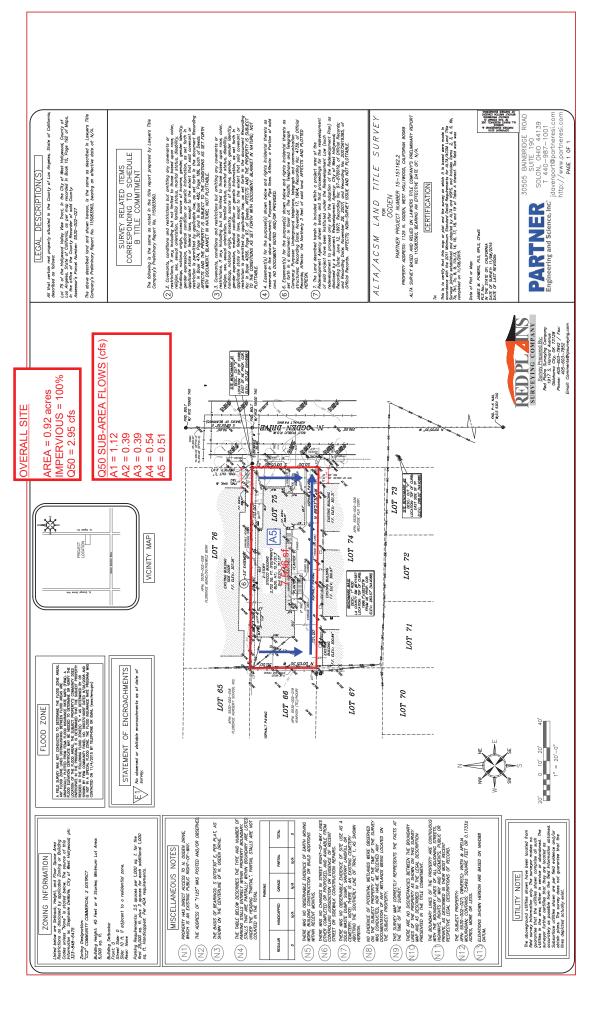
TITLE SURVEY

ALTINE SURVEY

AMME



# SANTA MONICA / ORANGE GROVE - CITY OF WEST HOLLYWOOD





# ATTACHMENT C

LADWP WATER FLOW TEST RESULTS



## **City of Los Angeles**

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



SAR NUMBER 54895

## **Fire Service Pressure Flow Report**

SERVICE NUMBER	616772

For:		78	11 SANTA	MONICA BLVD		Approved Date	e: <b>7-12-2016</b>
Prop	osed Service	6 INCH	off of the				
	12 inch m	ain in SANTA MON	IICA BL	on the	NORTH	side approximately	
	<b>155</b> feet	EAST of	EAST	of NORANGE GR	OVE AVE	The System maximum pressure is	
	psi ba	sed on street curb e	evation of	295 feet above	sea level a	at this location.	
Syst		ce from the DWP stopressure should be		property line is 15 determining class of		eet and fittings.	

## Residual Flow/Pressure Table for water system street main at this location **Flow** Press. **Flow** Press. Press. Flow (gpm) (psi) (gpm) (psi) (gpm) (psi) 92 585 91 855 90 1065 89 1240 88 1400 87

## Meter Assembly Capacities

<b>Domestic Meters</b>							
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: With 700 gpm simultaneous flow from 6" domestic service

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

This SAR is valid for one year from 07-12-16. Once the SAR expires, the applicant needs to re-apply and pay applicable processing fee.

For additional information contact the Water Distribution Services SectionWESTERN (213) 367-1225

	ELIA SUN	ELIA SUN	144-177
-	Prepared by	Approved by	Water Service Map

ERIC GARCETTI Mayor Commission
MEL LEVINE, President
WILLIAM W. FUNDERBURK JR., Vice President
JILL BANKS BARAD
MICHAEL F. FLEMING
CHRISTINA E. NOONAN
BARBARA E. MOSCHOS, Secretary

MARCIE L. EDWARDS General Manager

May 21, 2015

Map No. 144-177

Mr. James Rice KPFF Consulting Engineers 6080 Center Drive, Suite 700 Los Angeles, California 90045

Dear Mr. Rice:

Subject: Water Availability – Will Serve

1114 North Orange Grove Avenue, 7811 Santa Monica Boulevard

APN: 5530-002-019, 5530-002-067, Hollywood Valley View Tract, Lots 66 and 67

Lot N 50 ft. of Lot 69 and all of Lots 70 and 71

This is in reply to your request regarding water availability for the above-mentioned property. 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. Dolores Welsh at (213) 367-1301. Correspondence may be addressed to:

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

Sincerely,

Hugo A. Torres

Manager-Business Arrangements Water Distribution Engineering

DW:rp

c: Ms. Dolores Welsh

# ATTACHMENT D

## SEWER CAPACITY STUDY



## **SEWER CAPACITY STUDY**

## For:

Santa Monica and Orange Grove Mixed-Use Development 7811 Santa Monica Blvd, 1114 North Orange Grove Ave, & 1125 North Ogden Drive West Hollywood, CA

## Prepared by:

KPFF Consulting Engineers 700 South Flower Street, Suite 2100 Los Angeles, CA 90017 213.266.5208

## Date:

12/20/17

## **Submitted To:**

City of West Hollywood Department of Public Works Engineering Division

## **Table of Contents**

<b>SECTION</b>	PAGE
1. Project D	escription
2. Site Desc	ription
3. Existing S	Sewer Analysis
4. Proposed	Flow Generation
5. Results	
APPENDICE	SS .
Appendix A	Project Vicinity Map
Appendix B	City of West Hollywood Zoning Map and General Land Use Plan
Appendix C	City of West Hollywood Master Plan of Sewers and Sewer Facilities Data
Appendix D	City of West Hollywood Sewer Capacity Study Requirements & LA County Sanitation District No. 4 Mean Loading Table
Appendix E	Hydraulic Calculations
Appendix F	Utility Systems Science & Software Sewer Flow Monitoring Report

## 1. Project Description

The Santa Monica and Orange Grove project consists of the design and construction of a mixed-use development at 7811 Santa Monica Blvd, 1114 North Orange Grove Ave, and 1125 North Ogden Drive in the City of West Hollywood, California. The development site currently consists of existing commercial buildings, residential buildings, and parking lots. The site is zoned Commercial, Community 2 (CC2) and Residential, Multi-Family Medium-Density (R3B) per the City of West Hollywood Zoning Map and General Land Use Plan (Appendix B). All existing buildings and hardscape will be removed as part of the proposed project, which includes three parking levels, ground level restaurant space, an 82 unit apartment, and a 74 room hotel.

## 2. Site Description

The existing site consists of size lots at 7811 Santa Monica Blvd, 1114 North Orange Grove Ave, and 1125 North Ogden Drive in the City of West Hollywood, California. The project site is approximately 44,200 square feet (0.92 acres) and appears to be 100% impervious. Refer to Appendix A for the Project Vicinity Map.

## 3. Existing Sewer Analysis

Per the City of West Hollywood Master Plan of Sewers and Sewer Facilities Data (Appendix C), there is an existing 8-inch public sewer main that runs north to south on North Orange Grove Ave, and a 12-inch public sewer main that runs east to west on Santa Monica Boulevard. As requested by the City of West Hollywood, a sewer manhole on North Orange Grove Ave was examined to ensure that the proposed project will not overload any sewer lines. Flow monitoring radars were installed in the manhole and data was collected over a one-week period, from October 25, 2014 to November 2, 2014. (See Appendix F for sheets from the Sewer Flow Monitoring Report compiled by Utility Systems Science & Software.)

Pipe Capacity ( $Q_{CAP}$ ) was calculated using Manning's Formula, per City of West Hollywood Sewer Capacity Study Requirements (Appendix D). See Appendix E for pipe hydraulic calculations.

8-inch sewer on North Orange Grove Ave:

$$Q_{CAP} = 1.09 CFS$$

12-inch sewer on Santa Monica Blvd:

$$Q_{CAP} = 1.00 \, CFS$$

Peak flow (QPF) rate was calculated by taking the measured average daily flowrate, multiplied by a factor of 2.5, per City of West Hollywood Requirements, (Appendix D). The

average measured flow for the manhole on North Orange Grove, during the one-week period was  $0.020\,\mathrm{MGD}$ , or  $0.031\,\mathrm{CFS}$ :

$$Q_{PF} = 2.5 * 0.031 \ CFS = 0.077 \ CFS$$

## 4. Proposed Flow Generation

The anticipated sewer load generation for the proposed development was calculated using the County Sanitation District No. 4 of Los Angeles Mean Loading Table (see Appendix D).

	Anticipated Sewer Generation and Demand							
Facility Description	Building Program	Units	Flow (gpd) per unit	Avg Load, Q <sub>AF</sub> (gpd)	Avg Load, Q <sub>AF</sub> (cfs)	Peak Flow, Q <sub>PF</sub> (cfs)		
Restaurant								
(Indoor)	230	Seat	30	6,900	0.011	0.0267		
Restaurant								
(Outdoor)	21	Seat	18	378	0.001	0.0015		
Event Space	2,066	SF	0.08	165	0.000	0.0006		
Art Galley	1,381	SF	0.02	28	0.000	0.0001		
Residential Lobby	1,850	SF	0.08	148	0.000	0.0006		
Studio								
Apartments	60	Unit	80	4,800	0.007	0.0186		
1-Bedroom								
Apartments	13	Unit	120	1,560	0.002	0.0060		
2-Bedroom								
Apartments	9	Unit	160	1,440	0.002	0.0056		
Hotel Lobby	1,104	SF	0.08	88	0.000	0.0003		
Hotel Rooms	74	Room	130	9,620	0.015	0.0372		
Hotel Back-of-								
House	5,057	SF	0.08	405	0.001	0.0016		
Screening Room	615	SF	0.08	49	0.000	0.0002		
Fitness Area	650	SF	0.8	520	0.001	0.0020		
Office/Admin	2,001	SF	0.15	300	0.000	0.0012		
	<u>TOTAL</u>			26,401	0.041	0.102		

## 5. Results

Below is a summary of the existing sewer analysis, additional generated load, and future condition hydraulics.

Sewer Analysis Summary Table						
	Orange Grove Ave					
Pipe Diameter	8-inch					
Slope	3.32%					
Manning N	0.013					
50% Full Capacity	1.09 c					
Monitored Daily Flow	0.020 MGD / 0.031 cfs					
Existing Peak Flow	0.077 cfs					
Existing % Pipe Full	12.80%					
Additional Generated Peak Flow(cfs)	0.102					
Total Proposed Peak Flow (cfs)*	0.179					
Proposed % full*	19.30%					

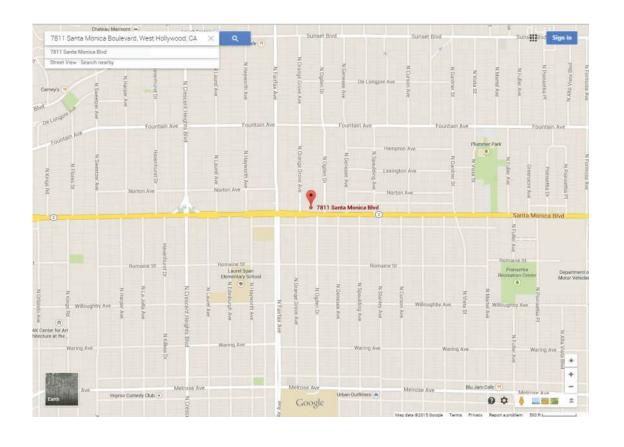
<sup>\*</sup>assuming entire project sewer load connects to single sewer

Based on the results in the table above the 8" main has adequate capacity for our project. The 8" main leads into a 12" main located in Santa Monica Blvd. Given that the project's impact on the 8" main is very minimal it is assumed that the 12" main will also have capacity for the project.

# APPENDIX A

**Project Vicinity Map** 

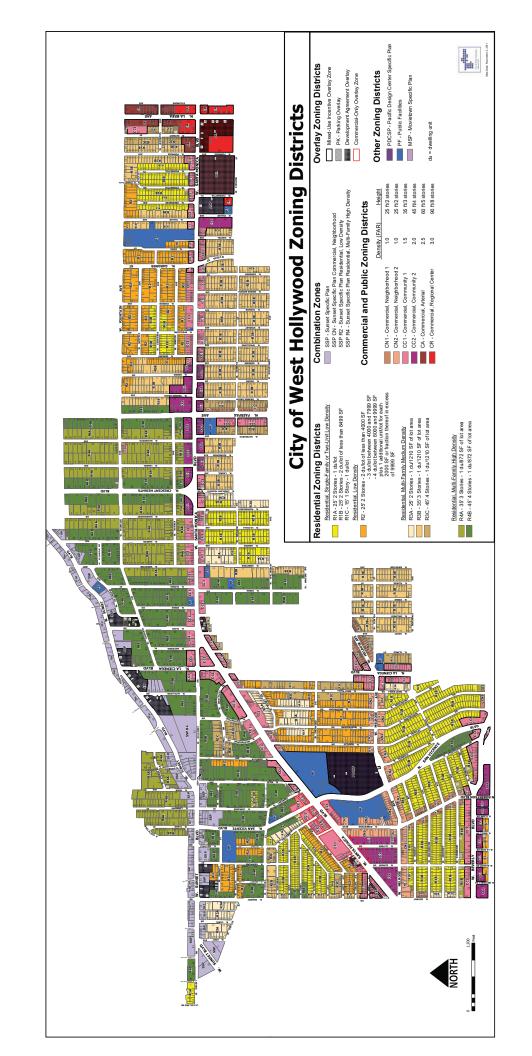






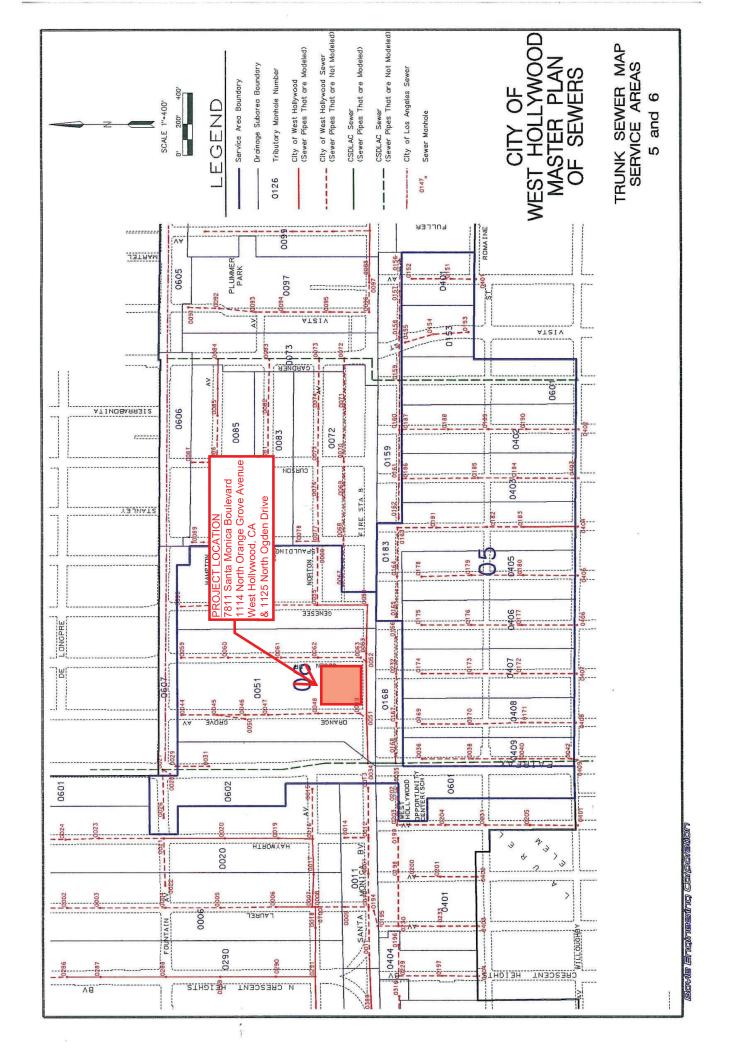
# **APPENDIX B**

City of West Hollywood Zoning Map and General Land Use Plan

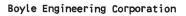


# APPENDIX C

City of West Hollywood Master Plan of Sewers and Sewer Facilities Data



ID	Street/Comments	Drawing No	Year Inst	Size	Mater ial	Manning N	Length	Ground Elev	Invert Elev	Invert Elev	Giver Slope
	,,,,,		***************************************	(in)			(ft)	USMH	USMH	DSMH	
060026-060027	FOUNTAIN	CI-359-17A	1925	8.00	VCP	0.013	281	341.00	331.55	329.75	0.00640
060027-060028	FAIRFAX-CSDLAC	CI-359-30A	1925	8.00	VCP	0.013	6	338.00	329.21	327.65	0.2600
060034-060035	FAIRFAX-CSDLAC	CI-359-30A	1925	10.00	VCP	0.013	194	290.00	276.67	271.38	0.0308
060044-060045	ORANGE GROVE	CI-359-20A	1925	8.00	VCP	0.013	218	330.00	322.65	313.95	0.0400
060045-060046	ORANGE GROVE	CI-359-20A	1925	8.00	VCP	0.013	50	324.00	313.79	311.95	0.0400
060046-060047	ORANGE GROVE	CI-359-20A	1925	8.00	VCP	0.013	296	320.00	311.80	301.97	0.0332
060047-060048	ORANGE GROVE	CI-359-20A	1925	8.00	VCP	0.013	296	310.00	301.84	292.01	0.0332
060048-060049	ORANGE GROVE	CI-359-20A	1925	8.00	VCP	0.013	249	300.00	291.88	283.61	0.0332
060049-060051	ORANGE GROVE	PC-7711-P4	1967	8.00	VCP	0.013	37	289.50	283.12	278.64	
060050-060045	ORANGE GROVE	CI-359-20A	1925	8.00	VCP	0.013	60	320.00	316.19	313.79	0.0400
060051-060034	STA MONICA	PC-7711-P4	1967	12.00	VCP	0.013	352	289.50	278.14	277.03	0.0032
060052-060051	STA MONICA	PC-7711-P4	1967	12.00	VCP	0.013	367	290.50	279.43	278.24	0.0032
060053-060052	STA MONICA	PC-7711-P4	1967	8.00	VCP	0.013	7	290.50	279.70	279.63	0.0096
060054-060053	STA MONICA	MAP 36A	1925	8.00	VCP	0.013	328	290.50	281.25	280.20	0.0032
060055-060054	GENESEE	CI-359-18A	1925	8.00	VCP	0.013	310	299.00	289.99	281.45	0.027
060056-060055	GENESEE	CI-359-18A	1925	8.00	VCP	0.013	316	308.50	300.22	290.11	0.0320
060057-060056	GENESEE	CI-359-18A	1925	8.00	VCP	0.013	321	322.00	312.05	300.37	0.0364
060058-060057	GENESEE	CI-359-18A	1925	8.00	VCP	0.013	231	330.00	321.89	312.21	0.0420
060059-060060	OGDEN DR	CI -359-19A	1925	8.00	VCP	0.013	319	328.50	319.59	310.03	0.0300
060060-060061	OGDEN DR	CI-359-19A	1925	8.00	VCP	0.013	322	318.50	309.90	298.95	0.0340
060061-060062	OGDEN DR	CI-359-19A	1925	8.00	VCP	0.013	216	307.00	298.82	292.08	0.0312
060062-060063	OGDEN DR	PC-7711-P4	1967	8.00	VCP	0.013	260	300.00	291.96	284.89	0.0272
060063-060052	OGDEN DR	PC-7711-P4	1967	8.00	VCP	0.013	36	291.00	284.07	279.91	0.115
060064-060057	HAMPTON	CI-359-16B	1925	8.00	VCP	0.013	351	321.50	313.80	312.40	0.0040
060065-060056	LEXINGTON	CI-359-15B	1925	8.00	VCP	0.013	351	311.00	302.94	300.42	0.0072
060066-060055	NORTON	CI-359-14B	1925	8.00	VCP	0.013	351	299.50	291.59	290.19	0.0040
060166-060232	ALLEY SO OF STA MONI	CI-359-11D	1925	8.00	VCP	0.013	263	286.00	279.68	278.63	0.004
060167-060168	ALLEY SO OF STA MONI	CI-359-11D	1925	8.00	VCP	0.013	280	284.00	277.19	276.07	0.004
060168-060035	ALLEY SO OF STA MONI	CI-359-11D	1925	8.00	VCP	0.013	16	283.00	276.06	276.00	0.004
060232-060167	ALLEY SO OF STA MONI	CI-359-11D	1925	8.00	VCP	0.013	311	285.00	278.53	277.29	0.0040



## APPENDIX D

City of West Hollywood Sewer Capacity Study Requirements & LA County Sanitation District No. 4 Mean Loading Table



## City of West Hollywood Department of Public Works Engineering Division

## **Sewer Capacity Study Requirements**

- 1. The sewer capacity study shall be certified by a California licensed Civil Engineer.
- 2. Project Description: The study should have a project description describing what is being proposed on the development site. The current land uses and proposed land uses of the development shall also be indentified.
- 3. Site Description: The site description shall describe the project's location, the approximate acreage of the project site, and contain a vicinity map to identify the project's location.
- 4. Existing Sewer Pipe Capacity Analysis: This section shall identify any existing connections to the sewer system. A 7-day flow monitoring study will be required to obtain the existing flow capacity. This shall be done at the downstream sewer manhole, or at a location that makes sense to adequately determine existing flow capacity. Additional monitoring locations may be required to verify downstream capacity of the local sewer network as well as if the project will connect to a nearby trunk line. The City of Los Angeles sewers located downstream may be impacted by a proposed development project. Therefore, the sewer study may need to include monitoring locations in the City of Los Angeles. The existing average daily flow (Q<sub>exist</sub>) and peak flow shall be determined in cubic feet per second.
- 5. Proposed Flow Generation: This section shall include the proposed land use(s). Flow generation shall be determined by the user category that most closely matches the County Sanitation District No. 4 of Los Angeles County mean loading table. This will determine your average daily flow (Q<sub>AF</sub>) in gallons per day (gpd) that shall then be converted to cubic feet per second (cfs).

The City of West Hollywood was an unincorporated area of Los Angeles County until 1984; therefore the sewer system was designed to the County of Los Angeles Department of Public Works standards, where all pipes are designed for peak flow.

n = 0.013

 $D/d \le 0.50$  for  $d \le 15$ "

 $D/d \le 0.75$  for d > 15"

These assumptions will determine the  $Q_{cap}$  = Sewer pipe capacity.

The peak flow  $(Q_{PF})$  for this study shall be calculated in cubic feet per second (cfs) by  $Q_{PF} = 2.5 \times Q_{AF}$  where 2.5 is the peaking factor used to determine the maximum peak flow rate for sewer diameters less than 15". The peaking factor shall be 2.0 for diameters greater than 15".

6. Conclusion: The conclusion shall identify the sewer capacity of the pipe as a flow rate (Q<sub>cap</sub>). The calculations shall demonstrate that the sewer mainline has the capacity for the existing flow and the added flow at average and peak conditions. If the sewer is found to be inadequate, recommendations shall be provided to handle the increase in sewer flow. If this is a large site that has several sewer connection options, the conclusion shall address those options and make a recommendation for the project. The recommendations will be incorporated into the mitigation measures for the project.

# AN ORDINANCE PRESCRIBING THE CONNECTION FEE RATE AND MEAN LOADINGS PER UNIT OF USAGE FOR COUNTY SANITATION DISTRICT NO. 4 OF LOS ANGELES COUNTY

## THE BOARD OF DIRECTORS OF COUNTY SANITATION DISTRICT NO. 4 OF LOS ANGELES COUNTY ORDAINS AS FOLLOWS:

#### SECTION 1.0 - USER CATEGORIES AND MEAN LOADINGS

Pursuant to Section 3.03(2) of the *Master Connection Fee Ordinance for County Sanitation District* No. 4 of Los Angeles County, the following shall constitute the User Categories and mean loadings per Unit of Usage for flow, Biochemical Oxygen Demand (BOD), and Suspended Solids:

USER CATEGORY	UNIT OF USAGE	FLOW (Gallons per Day)	BOD (Pounds per Day)	SUSPENDED SOLIDS (Pounds per Day)
Acupuncture Office/Clinic	1000 Sq.Ft.	150	0.16	0.10
Arcade - Video Games	1000 Sq.Ft.	80	0.10	0.10
Auditorium	Seat	4	0.01	0.01
Auto Parking	1000 Sq.Ft.	20	0.03	0.03
Auto Body/Mech. Repair Shop	1000 Sq.Ft.	80	0.12	0.19
Bakery	1000 Sq.Ft.	280	2.34	1.40
Bank: Headquarters	1000 Sq.Ft.	150	0.16	0.10
Bank: Branch	1000 Sq.Ft.	80	0.10	0.10
Banquet Room/Ballroom	1000 Sq.Ft.	800	6.67	4.00
Bar: Cocktail, Fixed Seat	Seat	18	0.03	0.03
Bar: Juice, No Baking Facilities	1000 Sq.Ft.	120	0.20	0.20
Bar: Juice, With Baking Facilities	1000 Sq.Ft.	280	2.34	1.40
Bar: Cocktail, Public Table Area	1000 Sq.Ft.	500	4.17	2.50
Barber Shop	1000 Sq.Ft.	100	0.13	0.13
Beauty Parlor	1000 Sq.Ft.	280	0.35	0.35
Bldg. Const/Field Office	Office	150	0.19	0.19
Bowling Alley: Alley, Lanes & Lobby Area	1000 Sq.Ft.	80	0.10	0.10
Cafeteria: Fixed Seat	Seat	30	0.25	0.15
Car Wash: Wand Type	1000 Sq.Ft.	700	3.00	1.58
Car Wash: Tunnel - Recycling Type	1000 Sq.Ft.	2700	11.74	6.16
Car Wash: Tunnel - Non-Recycling Typ	e 1000 Sq.Ft.	3700	15.86	8.33
Chapel: Fixed Seat	Seat	4	0.01	0.01
Chiropractic Office	1000 Sq.Ft.	150	0.16	0.10

USER CATEGORY	UNIT OF USAGE	FLOW (Gallons per Day)	BOD (Pounds per Day)	SUSPENDED SOLIDS (Pounds per Day)
Church: Fixed Seat	Seat	4	0.01	0.01
Church School: Day Care/Elem	Occupant	8	0.01	0.01
Church School: One Day Use	1000 Sq.Ft.	200	0.22	0.17
Cocktail Lounge: Fixed Seat	Seat	18	0.03	0.03
Coffee House: No Pastry Baking & No Food Preparation		120	0.20	0.20
Coffee House: Pastry Baking Only	1000 Sq.Ft.	280	2.34	1.40
Coffee House: Serves Prepared Food	Seat	30	0.25	0.15
Cold Storage: No Sales	1000 Sq.Ft.	20	0.03	0.03
Cold Storage: Retail Sales	1000 Sq.Ft.	80	0.10	0.10
Comfort Station: Public	Fixture	100	0.13	0.13
Commercial Use	1000 Sq.Ft.	80	0.10	0.10
Community Center	Occupant	4	0.01	0.01
Counseling Center	1000 Sq.Ft.	150	0.16	0.10
Credit Union	1000 Sq.Ft.	150	0.19	0.19
Dairy: Retail Area	1000 Sq.Ft.	80	0.10	0.10
Dancing Area (of Bars or Nightclub)	1000 Sq.Ft.	600	1.00	1.00
Dance Studio	1000 Sq.Ft.	80	0.10	0.10
Dental Office/Clinic	1000 Sq.Ft.	250	0.27	0.17
Doughnut Shop	1000 Sq.Ft.	280	2.34	1.40
Drug Rehabilitation Center	1000 Sq.Ft.	150	0.16	0.10
Equipment Booth	1000 Sq.Ft.	20	0.03	0.03
Film Processing - 1 Hour Photo, Etc.	1000 Sq.Ft.	100	0.13	0.13
Gas Station: Self Service	Fixture	100	0.15	0.23
Gas Station: Four Bays Max	Station	430	0.65	1.00
Gymnasium - Basketball, Volleyball	1000 Sq.Ft.	250	0.31	0.31
Hanger (Aircraft)	1000 Sq.Ft.	80	0.12	0.19
Health Club/Spa	1000 Sq.Ft.	800	1.00	1.00
Homeless Shelter	Bed	75	0.13	0.13
Hospital: Convalescent	Bed	75	0.16	0.06
Hospital: Animal	1000 Sq.Ft.	280	0.35	0.35
Hotel: Use Guest Rooms Only	Room	130	0.34	0.13
Jail	Inmate	85	0.22	0.09
Kennel: Dog Kennel/Open	1000 Sq.Ft.	100	0.13	0.13
Laundromat	Machine	170	0.21	0.16
Library: Public Area	1000 Sq.Ft.	80	0.10	0.10

USER CATEGORY	UNIT OF USAGE	FLOW (Gallons per Day)	BOD (Pounds per Day)	SUSPENDED SOLIDS (Pounds per Day)
Library: Stacks, Storage	1000 Sq.Ft.	25	0.03	0.03
Lobby Of Retail Area	1000 Sq.Ft.	80	0.10	0.10
Lodge Hall	Seat	4	0.01	0.01
Lounge	1000 Sq.Ft.	80	0.13	0.13
Machine Shop	1000 Sq.Ft.	80	0.10	0.10
Manufacturing (Dry) Facility	1000Gr.Sq.Ft.	80	0.10	0.10
Massage Parlor	1000 Sq.Ft.	275	0.34	0.34
Medical Building	1000 Sq.Ft.	250	0.27	0.17
Medical: Lab In Hospital	1000 Sq.Ft.	250	0.69	0.31
Medical Office/Clinic	1000 Sq.Ft.	250	0.27	0.17
Mini-Mall	1000 Sq.Ft.	80	0.40	0.27
Mortuary: Chapel	Seat	4	0.01	0.01
Mortuary: Embalming	1000 Sq. Ft.	715	4.77	4.77
Mortuary: Living Area	1000 Sq.Ft.	80	0.14	0.14
Motel: Use Guest Rooms Only	Room	130	0.34	0.13
Museum: All Area	1000 Sq.Ft.	20	0.03	0.03
Museum: Office Over 15%	1000 Sq.Ft.	150	0.19	0.19
Museum: Sales Area	1000 Sq.Ft.	80	0.10	0.10
Office Building	1000 Sq.Ft.	150	0.16	0.10
Office Bldg W/ Cooling Tower	1000 Sq.Ft.	180	0.16	0.10
Pool Hall (No Alcohol)	1000 Sq.Ft.	80	0.10	0.10
Post Office: Full Service	1000 Sq.Ft.	150	0.19	0.19
Post Office: Private Mail Box Rental	1000 Sq.Ft.	80	0.10	0.10
Prisons	Inmate	175	0.45	0.18
Residential Dorm: College Or Resident	ial Student	75	0.13	0.13
Residential: Boarding House	Bed	75	0.13	0.13
Residential: Apt - Bachelor	<b>Dwelling Unit</b>	80	0.14	0.14
Residential: Apt - 1 Bedroom	<b>Dwelling Unit</b>	120	0.22	0.21
Residential: Apt - 2 Bedroom	<b>Dwelling Unit</b>	160	0.29	0.27
Residential: Apt - 3 Bedroom	<b>Dwelling Unit</b>	200	0.36	0.34
Residential: Apt - >3 Bedroom	Additional Bedroom	40	0.07	0.07
Residential: Condo - 1 Bedroom	<b>Dwelling Unit</b>	120	0.22	0.21
Residential: Condo - 2 Bedroom	<b>Dwelling Unit</b>	160	0.29	0.27
Residential: Condo - 3 Bedroom	Dwelling Unit	200	0.36	0.34

					SUSPENDED	
	USER CATEGORY L	INIT OF USAGE	FLOW (Gallons per Day)	BOD (Pounds per Day)	SOLIDS (Pounds per Day)	
	Residential: Condo ->3 Bedroom	Additional Bedroom	40	0.07	0.07	
	Residential: Duplex/Townhouse/SFD - 1 Bedroom	Dwelling Unit	130	0.23	0.22	
. ·	Residential: Duplex/Townhouse/SFD - 2 Bedroom	Dwelling Unit	180	0.32	0.31	
	Residential:Duplex/Townhouse/SFD - 3 Bedroom	Dwelling Unit	230	0.41	0.39	
	Residential:Duplex/Townhouse/SFD - >3 Bedroom	Additional Bedroom	50	0.09	0.09	
	Residential Room Addition: Bedroom	Bedroom	50	0.09	0.09	
	Residential Room Conversion: Into A Bedroom	Bedroom	50	0.09	0.09	
	Residential: Mobile Home	<b>Dwelling Unit</b>	160	0.29	0.27	
	Residential: Artist (2/3 Area)	Dwelling Unit	250	0.45	0.43	
	Residential: Artist Residence Residential: Guest Home w/ Kitchen	Dwelling Unit Same as Residential Apt	80	0.14	0.14	
	Residential: Guest Home w/o Kitchen	Bedroom	50	0.06	0.06	
	Rest Home	Bed	75	0.16	0.06	
	Restaurant: Drive-In	Stall	40	0.33	0.20	
	Restaurant: Drive-In	Seat	20	0.17	0.10	•
	Restaurant: Fast Food - Indoor Seat	Seat	20	0.17	0.10	
e	Restaurant: Fast Food - Outdoor Seat	Seat	12	0.10	0.06	
	Restaurant: Full Service - Indoor Seat	Seat	30	0.25	0.15	
	Restaurant: Full Service - Outdoor Seat	Seat	18	0.15	0.09	
	Restaurant: Take-Out	1000 Sq.Ft.	300	2.50	1.50	
	Retail Area	1000 Sq.Ft.	80	0.10	0.10	r
	Rifle Range: Shooting Stalls, Shooting Lanes, Lobby Area	1000 Sq.Ft.	80	0.10	0.10	a *
	School: Arts/Dancing/Music	1000 Sq.Ft.	80	0.09	0.07	
	School: Day Care Center	Child	8	0.01	0.01	
	School: Elementary/Jr. High	Student	8 12	0.01 0.01	0.01	
	School: High School School: Kindergarten	Student 1000 Sq.Ft.	200	0.01	0.01 0.17	
	School: Martial Arts	1000 Sq.Ft. 1000 Sq.Ft.	80	0.22	0.17	
	School: Nursery-Day Care	Child	8.	0.01	0.01	
	Solitor Analogy Day Care	4			0.01	
		4				
		я				14.
						`~

,		FLOW	BOD	SUSPENDED SOLIDS
		(Gallons	(Pounds	(Pounds
USER CATEGORY	UNIT OF USAGE	per Day)	per Day)	per Day)
	01111 01 0011011	- Control of the Cont		
School: Special Class	Student	8	0.01	0.01
School: Trade Or Vocational	Student	12	0.01	0.01
School: Training	Student	12	0.01	0.01
School: University/College	Student	18	0.02	0.02
School: Dormitory	Student	75	0.13	0.13
School: Stadium, Pavilion	Seat	4	0.01	0.01
Storage: Building/Warehouse	1000 Sq.Ft.	20	0.03	0.03
Storage: Self Storage Bldg.	1000 Sq.Ft.	20	0.03	0.03
Store: Ice Cream/Yogurt	1000 Sq.Ft.	80	0.67	0.40
Store: Retail	1000 Sq.Ft.	80	0.10	0.10
Studio: Film/TV - Audience Viewing R	oom Seat	4	0.01	0.01
Studio: Film/TV - Regular Use - Indoor Filming Area	1000 Sq.Ft.	80	0.10	0.10
Studio: Film/TV - Industrial Use (Domestic)	1000 Sq.Ft.	80	0.00	0.00
Studio: Recording	1000 Sq.Ft.	80	0.10	0.10
Tanning Salon: Independent, No Showe	er 1000 Sq.Ft.	80	0.10	0.10
Tanning Salon: Within A Health Spa/Cl	lub 1000 Sq.Ft.	800	1.00	1.00
Theater: Drive-In	Vehicle	10	0.01	0.01
Theater: Live/Music/Opera	Seat	4	0.01	0.01
Theater: Cinema	Seat	4	0.01	0.01
Tract: Commercial/Residential	Acre	1	0.00	0.00
Trailer - Const/Field Office	Office	150	0.19	0.19
Veterinary Clinic/Office	1000 Sq.Ft.	280	0.30	0.19
Warehouse	1000 Sq.Ft.	20	0.03	0.03
Waste Dump: Recreational	Station	430	0.54	0.54
Wine Tasting Room: Kitchen	1000 Sq.Ft.	215	0.27	0.27
Wine Tasting Room: All Area	1000 Sq.Ft.	80	0.10	0.10

#### **SECTION 2.0 - CONNECTION FEE RATE**

Pursuant to Section 3.02 of the Master Connection Fee Ordinance for County Sanitation District No. 4 of Los Angeles County, the Connection Fee Rate shall be \$1,710.00 per capacity unit.

#### **SECTION 3.0 - COST ALLOCATION FACTORS**

Pursuant to Section 3.03(2) of the Master Connection Fee Ordinance for County Sanitation District No. 4 of Los Angeles County, the proportions of the capital improvement component of the connection fee rate which are attributable to flow, BOD, and Suspended Solids, designated as X, Y, and Z, respectively, shall be:

X = 0.6567

Y = 0.1992

Z = 0.1441

#### SECTION 4.0 - BASIC RESIDENTIAL UNIT

Pursuant to Section 3.03(2) of the Master Connection Fee Ordinance for County Sanitation District No. 4 of Los Angeles County, the loadings from a basic residential unit shall be:

Flowbru

= 260 gallons per day of Wastewater flow

BODbru

= 0.466 pounds per day of BOD

SSbru

= 0.445 pounds per day of Suspended Solids.

#### **SECTION 5.0 - EFFECTIVE DATE**

This Ordinance shall become effective on July 1, 1999.

Chairperson, Board of Directors County Sanitation District No. 4

of Los Angeles County

ATTEST:

Clerk, Board of Directors/

County Sanitation District No. 4

of Los Angeles County

# **APPENDIX E**

**Hydraulic Calculations** 

#### **Worksheet for NORTH ORANGE GROVE 8-IN CAPACITY**

Project Description			
Friction Method	Manning Formula		
Solve For	Normal Depth		
Input Data			
Roughness Coefficient		0.013	
Channel Slope		3.32	%
Diameter		8.00	in
Discharge		1.090	ft³/s
Results			
Normal Depth		0.33	ft
Flow Area		0.17	ft²
Wetted Perimeter		1.04	ft
Hydraulic Radius		0.17	ft
Top Width		0.67	ft
Critical Depth		0.50	ft
Percent Full		49.7	<b>%</b>
Critical Slope		0.01000	ft/ft
Velocity		6.29	ft/s
Velocity Head		0.62	ft
Specific Energy		0.95	ft
Froude Number		2.18	
Maximum Discharge		2.37	ft³/s
Discharge Full		2.20	ft³/s
Slope Full		0.00814	ft/ft
Flow Type	SuperCritical		

#### **Worksheet for NORTH ORANGE GROVE 8-IN EXISTING**

	<u> </u>		
Project Description			
Friction Method	Manning Formula		
Solve For	Normal Depth		
Input Data			
Roughness Coefficient		0.013	
Channel Slope		3.32	<mark>%</mark>
Diameter		8.00	<u>in</u>
Discharge		0.077	ft³/s
Results			
Normal Depth		0.09	ft
Flow Area		0.03	ft²
Wetted Perimeter		0.49	ft
Hydraulic Radius		0.05	ft
Top Width		0.45	ft
Critical Depth		0.13	ft
Percent Full		12.8	%
Critical Slope		0.00662	ft/ft
Velocity		2.96	ft/s
Velocity Head		0.14	ft
Specific Energy		0.22	ft
Froude Number		2.16	
Maximum Discharge		2.37	ft³/s
Discharge Full		2.20	ft³/s
Slope Full		0.00004	ft/ft
Flow Type	SuperCritical		

#### **Worksheet for NORTH ORANGE GROVE 8-IN PROPOSED**

Worksheet	01 14014111 01	ANOL OIL	OVE O III I NOI I	
Project Description				
Friction Method	Manning Formula			
Solve For	Normal Depth			
Innut Data				
Input Data				
Roughness Coefficient		0.013		
Channel Slope		3.32000	<mark>%</mark>	
(Diameter)		8.00	(in)	
Discharge		0.19	ft³/s	
Results				
Normal Depth		0.13	ft	
Flow Area		0.05	ft²	
Wetted Perimeter		0.61	ft	
Hydraulic Radius		0.08	ft	
Top Width		0.53	ft	
Critical Depth		0.20	ft	
Percent Full		19.8	<mark>%</mark>	
Critical Slope		0.00642	ft/ft	
Velocity		3.85	ft/s	
Velocity Head		0.23	ft	
Specific Energy		0.36	ft	
Froude Number		2.24		
Maximum Discharge		2.37	ft³/s	
Discharge Full		2.20	ft³/s	
Slope Full		0.00024	ft/ft	
Flow Type	SuperCritical			
GVF Input Data				
Downstream Depth		0.00	ft	
Length			ft	
Number Of Steps		0		
GVF Output Data				
		0.00		
Upstream Depth		0.00	ft	
Profile Description		0.00	f	
Profile Headloss  Average End Depth Over Rise		0.00	ft %	
Normal Depth Over Rise		19.75	%	
Downstream Velocity		Infinity	ft/s	
Downstream velocity		······································	100	

#### **Worksheet for SANTA MONICA 12-IN CAPACITY**

TTOTASTIC	Ct 101 CANTA MONIOA	12 III OAI AOITT
Project Description		
Friction Method	Manning Formula	
Solve For	Normal Depth	
Input Data		
Roughness Coefficient	0.013	
Channel Slope	0.32	<b>%</b>
Diameter	12.00	in
Discharge	1.00	ft³/s
Results		
Normal Depth	5.97	in
Flow Area	0.39	ft²
Wetted Perimeter	1.57	ft
Hydraulic Radius	2.99	in
Top Width	1.00	ft
Critical Depth	0.42	ft
Percent Full	49.8	%
Critical Slope	0.00582	ft/ft
Velocity	2.56	ft/s
Velocity Head	0.10	ft
Specific Energy	0.60	ft
Froude Number	0.72	
Maximum Discharge	2.17	ft³/s
Discharge Full	2.02	ft³/s
Slope Full	0.00079	ft/ft
Flow Type	SubCritical	

#### **Worksheet for SANTA MONICA 12-IN EXISTING**

	0110001101 02111111		
Project Description			
Friction Method	Manning Formula		
Solve For	Normal Depth		
Input Data			
Roughness Coefficient		0.013	
Channel Slope		0.32	<mark>%</mark>
Diameter		12.00	<u>in</u>
Discharge		0.58	ft³/s
Results			
Normal Depth		4.41	in
Flow Area		0.26	ft²
Wetted Perimeter		1.30	ft
Hydraulic Radius		2.41	in
Top Width		0.96	ft
Critical Depth		0.32	ft
Percent Full		36.7	<b>%</b>
Critical Slope		0.00562	ft/ft
Velocity		2.22	ft/s
Velocity Head		0.08	ft
Specific Energy		0.44	ft
Froude Number		0.75	
Maximum Discharge		2.17	ft³/s
Discharge Full		2.02	ft³/s
Slope Full		0.00027	ft/ft
Flow Type	SubCritical		

#### **Worksheet for SANTA MONICA 12-IN PROPOSED**

Workshee	FLIOI SANTA MO	HICA	12-IN PROPOSED
Project Description			
Friction Method	Manning Formula		
Solve For	Normal Depth		
Input Data			
Roughness Coefficient		0.013	
Channel Slope		0.32000	<mark>(%)</mark>
Diameter		12.00	in
Discharge		0.69	(ft³/s)
Results			
Normal Depth		0.40	ft
Flow Area		0.30	ft²
Wetted Perimeter		1.38	ft
Hydraulic Radius		0.22	ft
Top Width		0.98	ft
Critical Depth		0.35	ft
(Percent Full)		40.4	<mark>%</mark> )
Critical Slope		0.00565	ft/ft
Velocity		2.32	ft/s
Velocity Head		0.08	ft
Specific Energy		0.49	ft
Froude Number		0.74 2.17	ft³/s
Maximum Discharge Discharge Full		2.17	ft³/s
Slope Full		0.00038	ft/ft
Flow Type	SubCritical	0.00000	
GVF Input Data			
Downstream Depth		0.00	ft
Length		0.00	ft
Number Of Steps		0	
GVF Output Data			
Upstream Depth		0.00	ft
Profile Description			
Profile Headloss		0.00	ft
Average End Depth Over Rise		0.00	%
Normal Depth Over Rise		40.39	%
Downstream Velocity		Infinity	ft/s

# **APPENDIX F**

Utility Systems Science & Software Sewer Flow Monitoring Report



#### Site Report

#### Confidential Proprietary Information

Connaent	iai FTO	prietary in	iioiiiiatio	"	
Faring cap	oital		On N.Oranç	ge Grove Av, jus Santa Mo	st north of nica Blvd.
Orange Grove & Santa Monica				Mar	nhole No.*
Access:		System Type:	:		
Manhole	San	itary X Stor	rm 🔲	Install Date: 1	0/25/2014
Мар			Flo	w Meter	
THE RESIDENCE OF THE PARTY OF T	4 3 4	Meter Deptl	h ":91"		
		Meter SN ":	*		
Total Salaring		*			
	000	Avg Velocity	Avg Measure	d Level	Multiplier
	1	3.94 fps	0.74"		1
				Gas	
	-	O2	H2S	co	LEL
	504	20.9	0	0	0
			1	Notes	
Technology		*			
	444744				
Velocity measured			Trafl	fic Safety	
RADAR	_	Used cones	s, signs and	a flagger.	
			La	nd Use	
		Residential	Commercia	I Industrial	Trunk
			X		
		Manhole De	epth "	8.8'	-
		Pipe Size "		8"	
Traffic Plan		Inner Pipe S	Size "	8"/8"	
		(In/Out)			
	1	Pipe Shape		Round	
	1	Pipe Condit Manhole Ma		Good	
				Brick	
A LINE COLOR DE LA	A S	Silt (inches) Velocity Pro		0 *	
		Velocity Pro			
		Sensor Offs		14.57"	
		Sensor Dist		6.57"	
		Flow Direct		Upstream	

Flow Heading

South



#### Meter Site Document

#### Faring capital

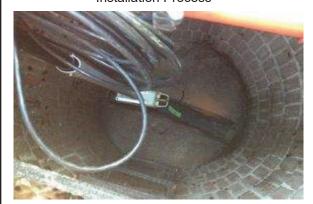
Orange Grove & Santa Monica

On N.Orange Grove Av, just north of Santa Monica Blvd.





Installation Process



Upstream



Manhole Before Install



Installed



Downstream



## Temporary Flow Study

#### Faring capital

#### Orange Grove & Santa Monica

Meter Start Date		From	10/25/2014 12:00:00 AM		
Meter Stop Date		То	11/2/2014 12:00:00 AM		
Velocity (fps)		Level (in)	Flow (mgd)		
Average	3.690	0.415	0.020		
Maximum	5.309	0.859	0.071		
Minimum 1.939		0.151	0.003		
Pipe Size		8.000			
Estimated Ca	pacity (mgd)	1.298			
Capacity Used		5.50 %			
Sensor Type		Hach - Flodar			
Estimated Capacity Usage					

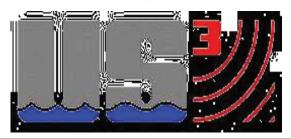
### % Capacity Used Estimated Capacity Available

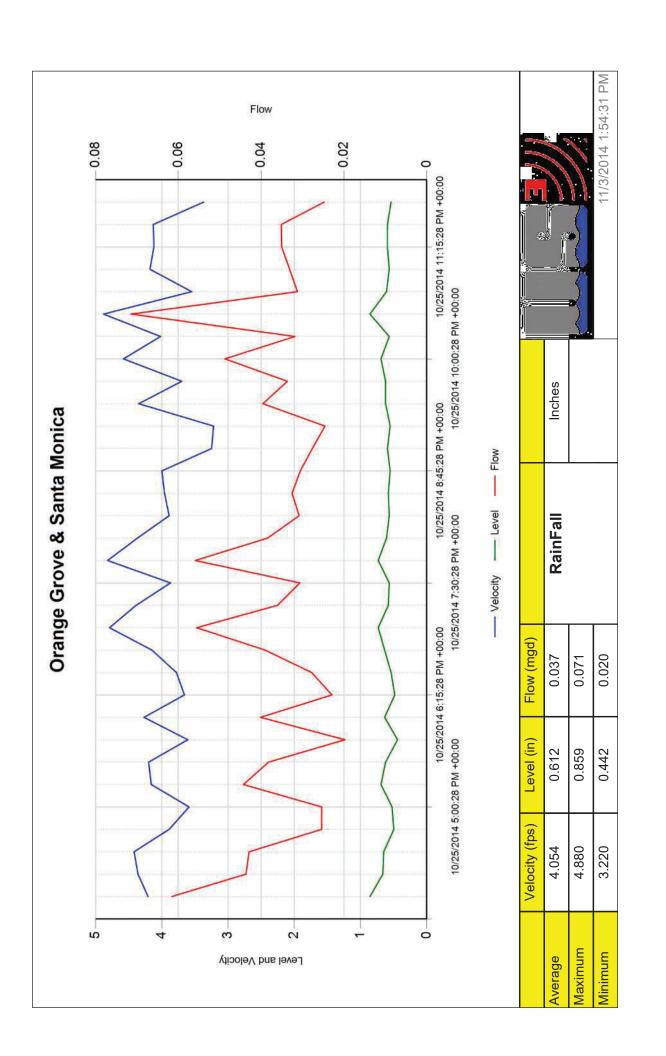


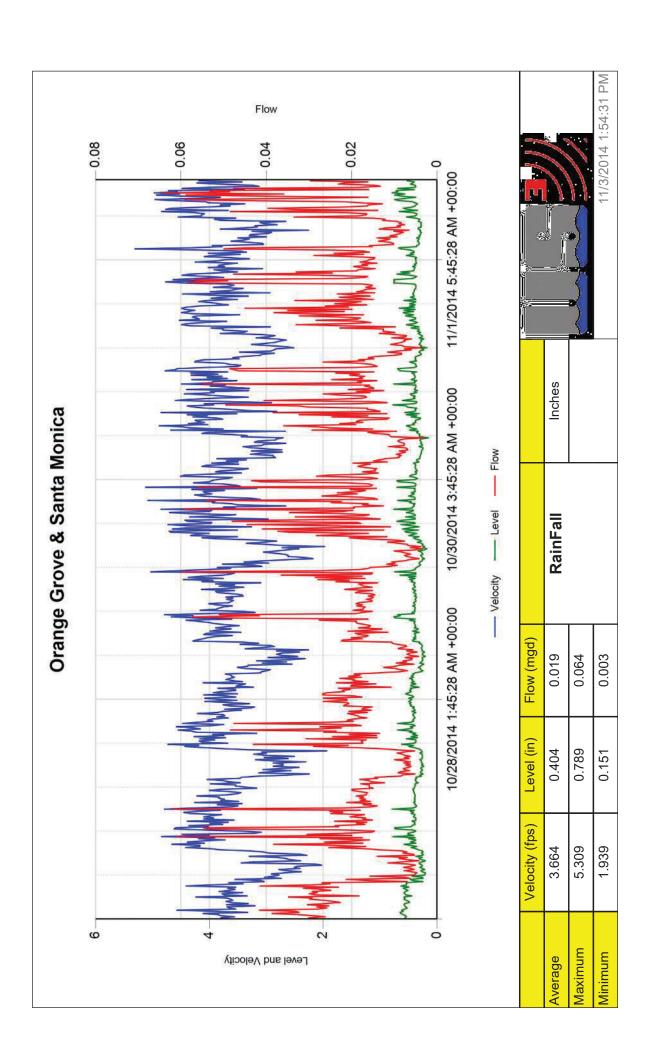
#### **Utility Systems, Science and Software**

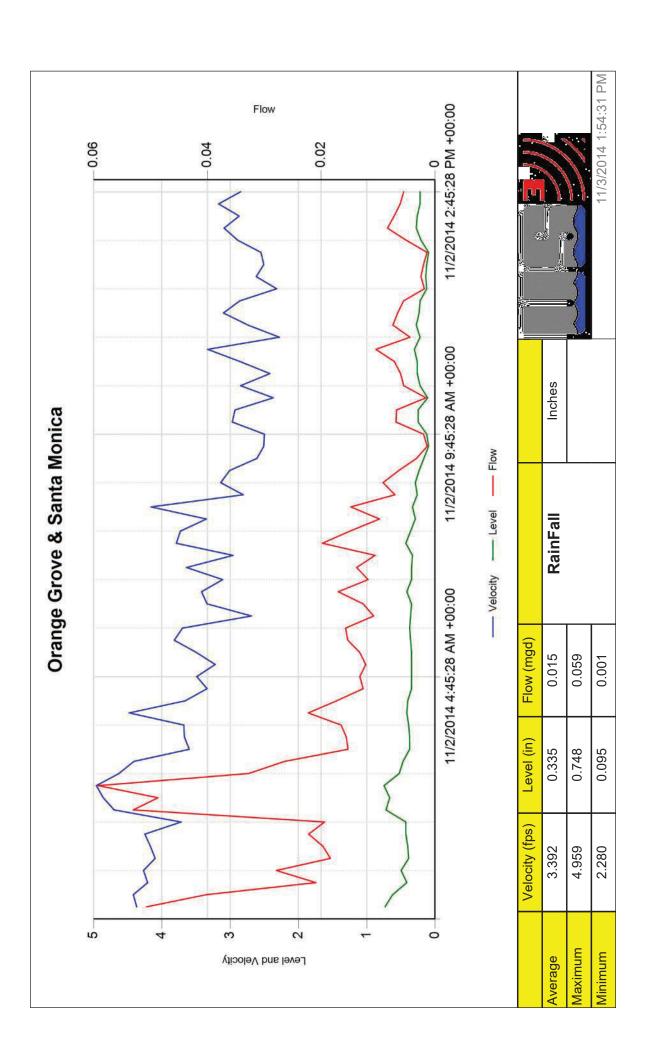
6190 Fairmount Ave. Suite E San Diego, CA 92021

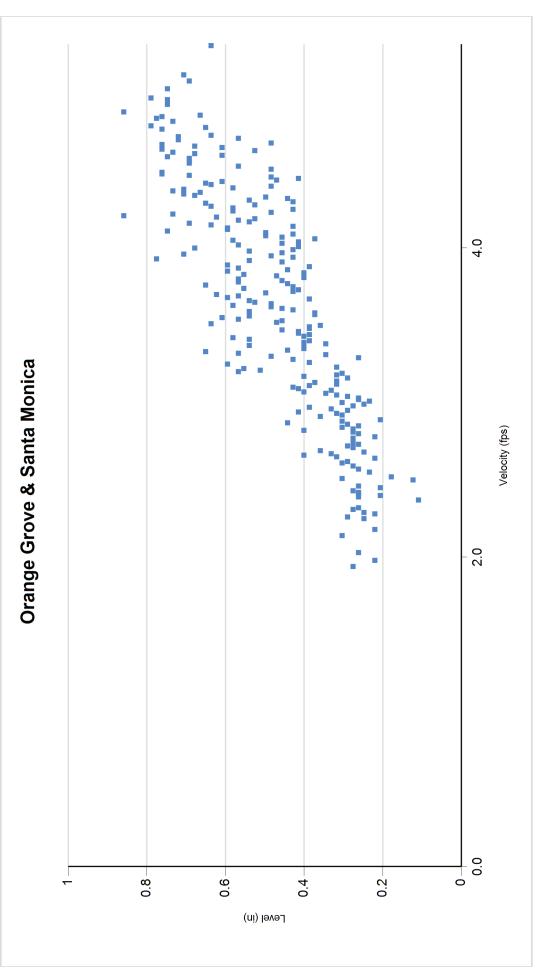
601 N. Parkcenter Drive Suite 209 Santa Ana, CA 92705











10/25/2014 thru 11/2/2014



11/3/2014 1:54:31 PM

## ATTACHMENT E

# SOUTHERN CALIFORNIA EDISON PROCESS EXPLANATION LETTER



June 8, 2015

#### **KPFF Consulting Engineers**

Will serve letter - 7811 Santa Monica Blvd. and 1114 North Orange Grove Ave., West Hollywood

Your project is located in Southern California Edison (SCE) service territory. SCE will serve the above subject project's electrical requirements per the California Public Utilities Commission and Federal Energy Regulatory Commission tariffs.

SCE may need to conduct utility studies, where applicable, to assess whether additions or modifications to the existing electric infrastructure are required to serve this project. Where applicable, SCE has attached Appendix (B) which not only describes the study, and permitting, but includes a Project Information Sheet that will need to be completed by you and submitted to SCE if your project is at a point where SCE has to determine the required electrical utility work. This Will-Serve letter does not imply that either: (i) these studies have been completed, or (ii) that any required California Environmental Quality Act (CEQA) analysis of project-related electric utility impacts has been conducted.

I am the SCE Design Representative currently assigned to this project. SCE or Applicant will design and construct all required electrical infrastructure to serve this project provided you enter into the applicable contractual agreements with SCE identify scope of electrical utility work required, and supply the following information:

- Site plans as required
- Required contracts and agreements (fully executed)
- Applicable fees
- Local permits
- Required easement documents

Your project will be scheduled for construction once SCE has all the necessary information for your project and you have submitted or agreed to the applicable requirements as stated above, and paid any necessary fees.

If your project will not require SCE services, please notify us so that we can update our records.

SCE appreciates your business. If you have any questions, please feel free to call me at (310) 315-3220.

Sincerely,

SCE Design Representative

Enclosure: Appendix B, where applicable

Rev. 07/09/12

#### Appendix B



June 8, 2015

#### **KPFF Consulting Engineers**

7811 Santa Monica Blvd. and 1114 North Orange Grove Ave., West Hollywood

As your Southern California Edison (SCE) Design Representative for this project, I am committed to providing you with excellent customer service. The following information is intended to help explain SCE's planning and permitting process for the electric infrastructure needed to serve your Project.

Depending on the scope of work necessary to serve your project (electric facility installation, removal, relocation, rearrangement and/or replacement), it may be necessary for you to submit an Advanced Engineering Fee. This Fee will be applied to certain expenses associated with preliminary design and engineering work required to estimate the cost for SCE to perform the electric work associated with your project. Please note: Depending on factors such as resource constraints, construction or relocation of SCE facilities requirements, the need for environmental review, and so forth, delays in meeting your projected completion date may occur. To help minimize the potential for delays it is imperative that you provide all requested information as early as possible.

If the project results in the need for SCE to perform work on SCE electrical facilities that operate at between 50 and 200 kilovolts (kV), please be advised these facilities are subject to the California Public Utilities Commission's (CPUC's) General Order 131-D (GO 131-D) Permit to Construct (PTC) requirements. For the CPUC PTC review, the CPUC acts as the lead agency under the California Environmental Quality Act (CEQA). Depending on the scope of SCE's work, certain exemptions to the PTC requirements may be available. If no exemptions are available, the PTC application preparation and environmental approval process could take a minimum of 24 - 48 months.

If you anticipate that your project will require work to be performed on SCE electrical facilities operated at between 50 kV and 200 kV, please inform me at your earliest possible convenience for further assistance to determine the potential G.O.131-D permitting requirements and/or permitting exemption(s).

In order for SCE to determine the required electrical utility work necessary to support your project, and to determine any permitting requirements and costs associated with constructing these facilities, project plans and a completed Customer Project Information Sheet will need to be submitted.

If you have any additional questions, please feel free to call me at (310) 315-3220.

Sincerely,

SCE Design Representative

# ATTACHMENT F

## SOUTHERN CALIFORNIA GAS WILL SERVE LETTER



June 3, 2015

KPFF Consulting Engineers 6080 Center Drive, Suite 700 Los Angeles, CA 90045

Attn: James Rice

RE: Will Serve Letter Request for – Job I.D. #43-2015-05-00015

7811 Santa Monica Blvd; 1114 North Orange Grove Ave, West Hollywood

Dear Mr. Rice:

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,

Zakee Singleton

Planning Associate

Compton Headquarters

#### Will Serve Letter Only



**DATE: August 06, 2019** 

**COMPANY: KPFF** 

SUBJECT: 7965-7985 Santa Monica Blvd, West Hollywood, CA 90046

Your project is located in Southern California Edison (SCE) service territory. SCE will serve the above subject project's electrical requirements per the California Public Utilities Commission and Federal Energy Regulatory Commission tariffs.

SCE may need to conduct utility studies, where applicable, to assess whether additions or modifications to the existing electric infrastructure are required to serve this project. Where applicable, SCE has attached Appendix (B) which not only describes the study, and permitting, but includes a Project Information Sheet that will need to be completed by you and submitted to SCE if your project is at a point where SCE has to determine the required electrical utility work. This Will-Serve letter does not imply that either: (i) these studies have been completed, or (ii) that any required California Environmental Quality Act (CEQA) analysis of project-related electric utility impacts has been conducted.

I am the SCE Design Representative currently assigned to this project. SCE or Applicant will design and construct all required electrical infrastructure to serve this project provided you enter into the applicable contractual agreements with SCE identify scope of electrical utility work required, and supply the following information:

- Site plans as required
- Required contracts and agreements (fully executed)
- Applicable fees
- Local permits
- Required easement documents

Your project will be scheduled for construction once SCE has all the necessary information for your project and you have submitted or agreed to the applicable requirements as stated above, and paid any necessary fees.

If your project will not require SCE services, please notify us so that we can update our records.

SCE appreciates your business. If you have any questions, please feel free to call me at (310) 738-1170.

Sincerely,

SCE Design Representative

Enclosure: Appendix B, where applicable

Rev. 07/09/12 DS-125

701 N. Bullis Rd. Compton, CA 90224-9099



July 25, 2019

KPFF 700 South Flower Street, Suite 2100 Los Angeles, CA 90017 Attn: James Rice

Subject: Will Serve - 5530-002-019 & 5530-002-067 7811 Santa Monica Blvd and 1114 North Orange Grove Ave West Hollywood, CA 90046

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 (CPUC) 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,

William Perez

Pipeline Planning Assistant

William Perez

SoCalGas-Compton HQ