

Appendix J
**Water Civil Technical
Memorandum**



- Hannum Ave: There is an existing 12" AC water line located approximately 36 feet south of the centerline. An SCE electrical line will need to be crossed in order to make a connection.

There is 1 water meter located along the street frontage, and 1 fire hydrant which is located across Hannum Ave at the center of the project site according to the ALTA Survey dated October 5, 2022, prepared by Hahn and Associates, Inc.

Proposed Improvements

The following are based on PPR Re-Submittal Concept Plan received April 04, 2023, prepared by KFA:

Proposed Project Development Programming: The project will develop or include the following:

- Residential – 356,996 SF
- Commercial – 5,600 SF

Table 1: Existing vs. Proposed Water Demand Table

Existing Water Usage (gpm)*	Construction Water Usage (gpm)**	Proposed Peak Water Demand (gpm)	Available Capacity (gpm)
9	0.05	820	4,409

*Estimated existing water usage is determined by selecting the highest-usage month from a 6-month consecutive period. August had the highest measurement of 55 CC, which is converted to an assumed 20 working office days per month and a standard 9-hour working day.

**Construction water usage is estimated based on contractor estimate of 75 gpd. This number is converted to gpm by assuming 24 working business days a month and a standard 12-hour day.

Table 2: Estimated Water Use Table

Land Use	Units	Water Use Rate (GPD)*	Total Estimated Water Use (GPD)
Existing			
Office	30,762 SF	200/1,000 SF	6,134
<i>Total Estimated Existing Water Use</i>			6,134
<i>Total Estimated Existing Irrigation Use**</i>			1,227
<i>Total Estimated Existing Water Use with Irrigation**</i>			7,361
Proposed			
Residential: Studio 1 Bed 2 Bed	39 Units 180 Units 90 Units	75/Unit 110/Unit 150/Unit	36,225
Commercial	5,600 SF	50/1,000 SF	280
<i>Total Estimated Proposed Water Use</i>			36,505
<i>Total Estimated Proposed Irrigation Use**</i>			7,301
<i>Total Estimated Proposed Water Use with Irrigation**</i>			43,806

*Estimated water usage is estimated as being equivalent to the estimated sewage generation for the Project. These rates are assessed using LA County Sanitation’s Estimated Wastewater Generation Tables. Table shall be used for estimating daily water consumption only.

**A 20% factor is included to account for landscape and irrigation needs for the project.

Proposed Water and Fire Service Pressure Requirement: The project’s plumbing engineer and/or fire service consultant will need to assess the project water/fire service design requirements based on the Fire Service Pressure Flow Report provided by Golden State Water. The plumbing engineer will also need to assess the need for any booster pump for the project in coordination with Golden State Water and the Culver City Fire Department.

Per the Fire Service Pressure Flow Report provided by Golden State Water dated May 25, 2023, the fire hydrant connected to the 12-inch water main line in Hannum Avenue can provide 4,409 GPM at 20 PSI for 2 hours. The static pressure of the water main at this location is 76 PSI.

Proposed Water and Fire Service Connection: The proposed water/fire service connections for the project will be located off Hannum Avenue. It is anticipated that a proposed 8” domestic water line and 8” fire water line will be sufficient to serve the proposed development. The proposed connection will need to cross enter the Hannum Avenue ROW by approximately 14 feet to tie into the existing 12” water main. Per Novus Design email dated September 13th, 2023, required fire flow is 1,500 GPM for the development and existing fire flow for fire service tested at 4,409 GPM shall be sufficient to meet the site fire flow requirements. Documentation is supplemented in Appendix 3 of this memorandum.

Table 3: Required Fire Flow

Fire Flow Calculation Area (SF)	Required Fire Flow (gpm)	Adjusted Required Fire Flow (gpm)*	Available Fire Flow (gpm)
356,996 SF	6,000	1,500	4,409

*Adjusted is calculated using CFC 75% reduction; adjusted required must be greater than 1,000 gpm

Per direction of Dave Montgomery of the Culver City Fire Department, fire hydrants are not required per Appendix B of the 2022 California Fire Code. Documentation is supplemented in Appendix 3 of this memorandum.

Conclusion

Per the Will Serve Letter received from the Golden State Water dated April 26, 2023, the project property can be supplied with water from the existing municipal system.

Appendix 1 – Golden State Water Will-Serve Letter



Golden State Water Company

A Subsidiary of American States Water Company

April 26, 2023

Jonathan Williamson
660 S Figueroa St, Suite 2050
Los Angeles, CA 90017

**Re: Will Serve Letter
5700 Hannum Ave
Culver City, California**

Dear Mr. Williamson:

This letter is to inform you that water service is available to the above referenced address from Golden State Water Company's (GSWC) Central District water system located in Culver City. Service to the address can be provided from our existing water facilities within HannumAve.

Upon completion and execution of a Water Service Agreement, that contains satisfactory financial arrangements and other provisions governing the extension of water service, Golden State Water Company (GSWC) will begin providing water service for the referenced address once all owner obligations have been satisfied. Analysis of more detailed development plans may require the owner to participate in the construction of special facilities prior to the Company providing water service.

GSWC is committed to providing water service to all customers within its service area, consistent with the company's obligations under rules, statutes and regulations of both the California Department of Public Health and the California Public Utilities Commission.

Unless modified or extended by GSWC, this Will Serve Letter shall terminate and be of no further force and effect one year from the date indicated above.

If you have any questions concerning the issues addressed in this letter, please let us know.

Sincerely,

Ray Burk, P.E.
Operations Engineer
Central District

Appendix 2 – Golden State Water Fire Service Pressure Flow Report

FIRE DEPARTMENT

Culver CITY

(310) 253-5925

FAX (310) 253-5901

CHRIS SELLERS
Fire Chief

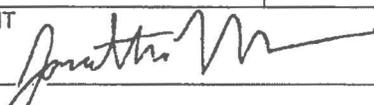
9770 CULVER BOULEVARD, CULVER CITY, CALIFORNIA 90232-0507

MICHAEL BOWDEN
Fire Marshal

FIRE PREVENTION BUREAU

INFORMATION ON FIRE FLOW AVAILABILITY FOR BUILDING PERMIT
SINGLE AND TWO FAMILY DWELLINGS (R-3)
AND BUSINESS OCCUPANCIES UNDER 2500 SQUARE FEET

PART I
PROJECT INFORMATION
(To Be Completed by Applicant)

BUILDING ADDRESS 5700 Hannum Ave	
CITY OR AREA Culver City	
NEAREST CROSS STREET Buckingham Pkwy	DISTANCE TO NEAREST CROSS STREET 0 ft (Corner Lot)
PROPERTY OWNER Jonathan Williamson	TELEPHONE 213-328-6583
ADDRESS 660 S Figueroa St, Suite 2050, Los Angeles, CA 90017	
OCCUPANCY (USE OF BLDG) Residential & Commercial	
TYPE of CONSTRUCTION IIIA and IA	
SQUARE FOOTAGE 348,513	NUMBER of STORIES 6
PRESENT ZONING Commercial Regional Business Park (CRB)	
APPLICANT (Please Print) Jonathan Williamson	DATE 4/19/2023
SIGNATURE of APPLICANT 	

SINGLE FAMILY DWELLING: See Page 2

BUSINESS OCCUPANCIES UNDER 2500 SQUARE FEET:

Regardless of Fire Flow-2, Occupancies (Small Businesses) under 2500 square feet require Fire Department approval. Plans to be submitted to the Area Detail for Plan Check approval. Contact 310-253-5925, Fax 310-253-5824

Culver City Employees take pride in effectively providing the highest levels of service to enrich the quality of life for the community by building on our tradition of more than seventy-five years of public service, by our present commitment, and by our dedication to meet the challenges of the future.

FIRE DEPARTMENT

Culver CITY

(310) 253-5925

FAX (310) 253-5901

CHRIS SELLERS
Fire Chief

9770 CULVER BOULEVARD, CULVER CITY, CALIFORNIA 90232-0507

MICHAEL BOWDEN
Fire Marshal

FIRE PREVENTION BUREAU

Part II

INFORMATION ON FIRE FLOW AVAILABILITY

(To be Completed by Water Purveyor)

THE FIRE HYDRANT NEAREST THE PROPOSED STRUCTURE IS WITHIN 85 FEET VIA VEHICULAR ACCESS. THE FIRE FLOW SERVICE WILL BE RENDERED FROM A 12 INCH DIAMETER WATER MAIN

MAIN LOCATED ON **Hannum Ave.**

CITY OR AREA

Culver City

(# FEET)

230 Feet

(DIRECTION)

West

OF (NEAREST CROSS STREET)

Buckingham Pkwy.

UNDER NORMAL OPERATING CONDITIONS THE FIRE FLOW AVAILABLE FROM THIS 6 inch HYDRANT IS 4409 GPM AT 20 PSI RESIDUAL FOR 2 HOURS AT 76 PSI STATIC

WATER



Golden State
Water Company
A Subsidiary of American States Water Company

DATE

05/25/23

SIGNATURE

TITLE

Operations Engineer

TELEPHONE #

562-907-9200 310-413-0420

Part III

CONDITIONS FOR APPROVAL BY BUILDING AND SAFETY DIVISION

(To be Completed by Building Department)

THE FIRE FLOW MAY BE APPROVED FOR SINGLE AND TWO-FAMILY DWELLINGS WHEN THE ABOVE INFORMATION IS COMPLETE AND SHOWS THAT THE FOLLOWING MINIMUM REQUIREMENTS ARE MET AND THE PROPERTY IS NOT IN FIRE ZONE 4.

THE WATER SYSTEM IS CAPABLE OF DELIVERING AT LEAST 750 GPM AT 20 PSI FOR TWO HOURS. THE DISTANCE FROM THE STRUCTURE TO THE FIRE HYDRANT DOES NOT EXCEED 450 FEET VIA VEHICULAR ACCESS.

APPROVED BY

DATE

OFFICE

THIS APPROVAL IS VALID FOR SIX (6) MONTHS

Where the Water Service does not meet the requirements of the Building and Safety Division, Fire Department approval of plot plan will be required before a Building Permi can be issued by the Building Department and all approvals by the Fire Department will be issued by the Fire Prevention Division only.

Test Date and Time: 05/24/23 7:10 am

Hydrant Number: 700

Project Address: 5700 Hannum Ave.

Culver City Employees take pride in effectively providing the highest levels of service to enrich the quality of life for the community by building on our tradition of more than seventy-five years of public service, by our present commitment, and by our dedication to meet the challenges of the future.

Appendix 3 – Additional Documentation

From: Jonathan Ting <jonathan@novusdesignstudio.com>

Sent: Wednesday, September 13, 2023 9:29 AM

To: Justin Cua <JustCua@lpc.com>

Cc: Varand Balasianian <varand@novusdesignstudio.com>; michael@novusdesignstudio.com; Mike Harden <MHarden@esassoc.com>; Troy Meldrum <TMeldrum@lpc.com>; Duong, Danh <danh.duong@kimley-horn.com>; Claudia Watts <CWatts@esassoc.com>; Kristyn Cosgrove <kristyn@kfalosangeles.com>

Subject: Re: 5700 Hannum - Utility Needs for EIR

Justin,

There's actually two figures to determine the site fire flow requirement. In both cases the current fire service will be enough.

I have broken down the two estimates below:

1. The actual flow requirement was based on the number of stairwell for our project. The most remote has been accounted as 500 gpm, and every additional stairwell 250 gpm. From our analysis we have 4 stairwell which should equate to 1250 gpm.

NFPA 14 capped this to a maximum of 1000 gpm when the building has an automatic sprinkler system that conforms with NFPA 13.

2. Based on the California Fire Code, our project site will require 1500 gpm. This is based on the type of construction of our project and the area. In our case Type IIA and Type IIIA and 348,513 SF. CFC also stated that if the building is fully sprinklered, figure extracted for the table can be reduced by 75% but shall not be less than 1000 gpm. Referencing table B105.1(2) of CFC the fire flow req'd is 6000 gpm. With reduction will be 1500 gpm.

TABLE B105.1(2) REFERENCE TABLE FOR TABLES B105.1(1) AND B105.2

FIRE-FLOW CALCULATION AREA (square feet)					FIRE FLOW (gallons per minute) ^b	FLOW DURATION (hours)
Type IA and IB ^a	Type IIA and IIIA ^a	Type IV and V- A ^a	Type IIB and IIIB ^a	Type V-B ^a		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	2
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	2,000	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	3
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3,500	
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3,750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	4
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,201-286,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901-Greater	166,501-Greater	106,501-115,800	77,001-83,700	47,401-51,500	6,000	

Again both are within the existing service.

Hope this helps.

J

From: "Montgomery, Dave" <Dave.Montgomery@culvercity.org>

Subject: RE: 5700 Hannum Fire Hydrants

Date: October 5, 2023 at 10:00:50 AM PDT

To: 'Kristyn Cosgrove' <kristyn@kfalosangeles.com>

Hi Krystin,

Based on the information you submitted additional fire hydrants are not required per Appendix B of the 2022 California Fire Code.

Dave Montgomery
Fire Prevention Specialist

2

FIRE DEPARTMENT
FIRE PREVENTION DIVISION
9770 CULVER BLVD
CULVER CITY, CA 90232
TEL 310-253-5929
FAX 310-253-5937
dave.montgomery@culvercity.org

From: Kristyn Cosgrove <kristyn@kfalosangeles.com>
Sent: Thursday, October 5, 2023 9:54 AM
To: Montgomery, Dave <Dave.Montgomery@culvercity.org>
Subject: Re: 5700 Hannum Fire Hydrants

EXTERNAL: This email originated from outside of the organization. Do not click links or open attachments unless you confirm the content is safe.

Hi Dave,

See table below for Residential, Commercial & Parking Square Footages.

Table 1.2 - Development Use Summary

Use	Si
Site Area (sf/ac)	97,264 sf
Residential Component	
Studios	
1-Bedrooms	
2-Bedrooms	
Residential Lobby	
Residential Amenities	
<i>Residential Units</i>	
<i>Residential Floor Area</i>	3
Commercial Component	
Retail Space	f
<i>Commercial Floor Area</i>	
<i>Residential and Commercial Square Footage</i>	3f
P02 Parking	f
P01 Parking	f
Ground Level Parking	f
<i>Parking Floor Area</i>	1f
Total Project Square Footage	5f