Appendix L-4
Sewer Area Study

DEXTER WILSON ENGINEERING, INC.

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CONS□LTING □NGIN□□RS

SEWER AREA STUDY FOR THE
TRAILS AT LYONS CANYON PROJECT
IN THE COUNTY OF LOS ANGELES
TR 083301
ESTU 2021000305
PC 12582AS

2234 FARADAY AVENUE • CARLSBAD, CA • (760) 438-□□□□

SEWER AREA STUDY FOR THE TRAILS AT LYONS CANYON PROJECT IN THE COUNTY OF LOS ANGELES

TR 083301

ESTU 2021000305

PC 12582AS

October 17, 2022

SEWER AREA STUDY
CONDITIONALLY APPROVED

REVIEWED BY: _____ DATE 11/8/2022

APPROVED BY: Pedro Romero DATE 11/17/2022

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

THIS APPROVAL EXPIRES TWO YEARS FROM THE DATE OF APPROVAL

THIS APPROVAL IS CONTINGENT UPON OUTLET APPROVAL FROM
CITY OF SANTA CLARITA

PLEASE NOTE THAT THE COUNTY OF LOS ANGELES ONLY REVIEWED AND APPROVED DISCHARGES AND CAPACITIES FROM FACILITIES WITHIN UNINCORPORATED AREAS. SEWER CAPACITIES FOR EXISTING SEWER LINES LYING WITHIN CITY JURISDICTION SHALL BE CHECKED BY SAID CITY.

APPROVED
CITY OF SANTA CLARITA
ENGINEERING SERVICES DIVISION
SIGNATURE _____ DATE 5/4/23

Prepared by:
Dexter Wilson Engineering, Inc.
2234 Faraday Avenue
Carlsbad, CA 92008
760-438-4422

REGISTERED PROFESSIONAL ENGINEER
NATALIE J FRASCHETTI
C 77025
EXP. 12/31/2022
CIVIL
STATE OF CALIFORNIA

Job No. 736-022

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INTRODUCTION

The proposed Trails at Lyons Canyon project (TR 083301) lies between Sagecrest Circle and Calgrove Boulevard directly adjacent to the west side of the Golden State Freeway 5 in the County of Los Angeles. The purpose of this study is to provide a capacity analysis for the existing and proposed sewer lines that will convey the flow from the proposed project through the County of Los Angeles and the City of Santa Clarita before entering the Santa Clarita Valley Sanitation District (SCVSD) Trunk Sewer.

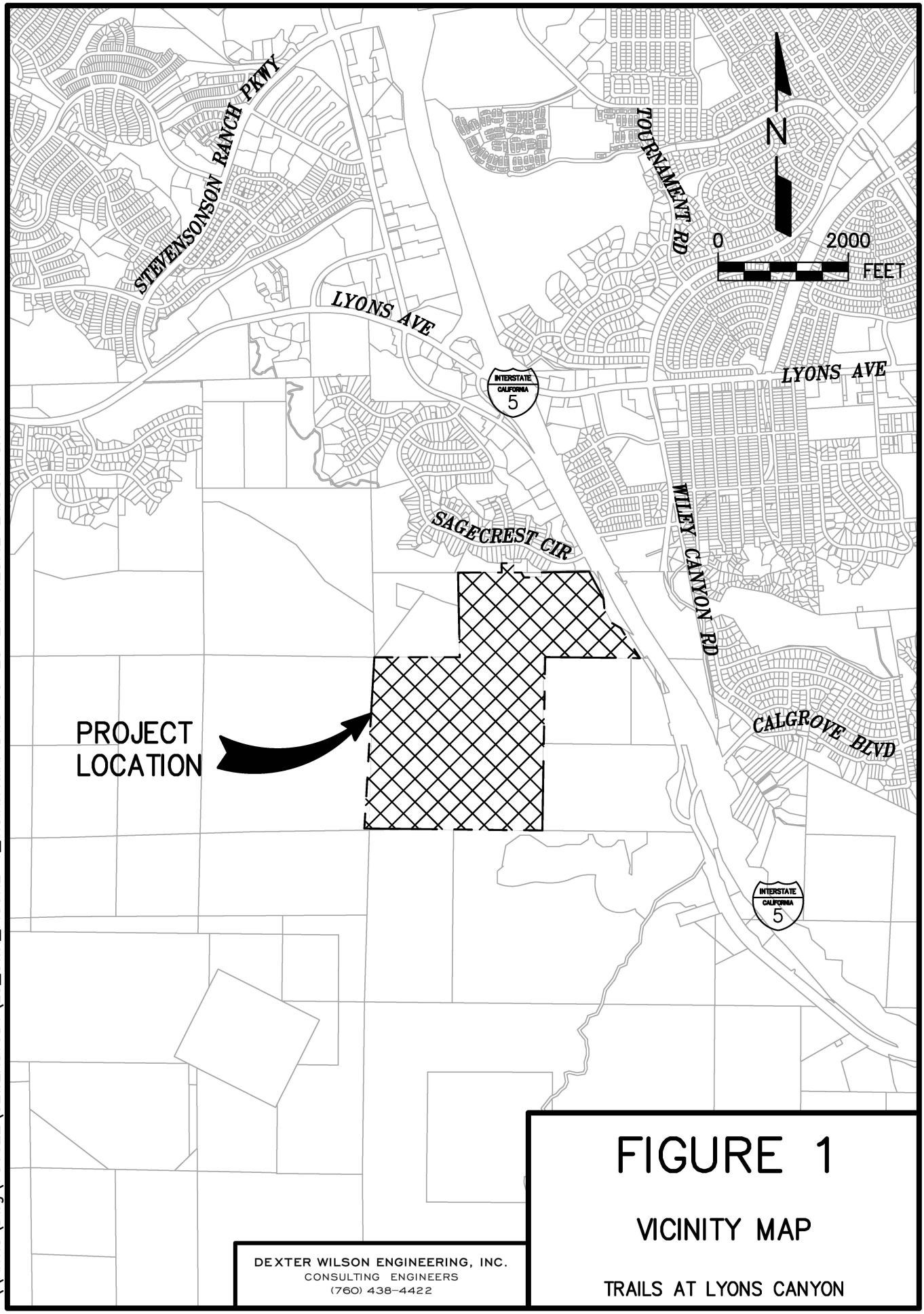
References used in the preparation of this study include Los Angeles (LA) County Sewer Maintenance Division Maps, LA County Sanitary Sewer Drawings (PC 6698A, 7521, 7549, 8048B, 8494, and 10428), City of Santa Clarita Zoning Maps, City of Santa Clarita Standards, sewer flow monitoring results from 2021, and the 2020 Approved Sewer Area Study (SAS20-00003) for the Trails at Lyons Canyon Project.

SITE AND PROJECT DESCRIPTION

The Trails at Lyons Canyon lies in the unincorporated area of Los Angeles County and is within the service boundaries of SCVSD. The project is west of Interstate 5 between Lyons Avenue and Calgrove Boulevard.

The Trails at Lyons Canyon gross area is 233 acres and will consist of 504 residential units (attached and detached condos and a 36-unit senior housing complex), a recreation center, and a future fire station. The proposed project zoning will be A-2-1, C-3, and C-3-DP. The property information is APN's 2826-022-026, -027, -035; 2826-023-014, 2826-041-039. LA County Sewer Maintenance District (C.S.M.D) Index N-1258, N-1259, N-1297, and N-1298. See Figure 1 for a Vicinity Map.

The Trails at Lyons Canyon proposes to connect to the existing LA County sewer in The Old Road by constructing additional LA County sewer south to the project.



\\ARTIC\Dwg\736022\SEWERSTUDY\LC_SWR_FIGURE-1_VICINITYMAP.DWG 05-25-21 14:28:42 LAYOUT: 8X11

FIGURE 1

VICINITY MAP

TRAILS AT LYONS CANYON

DEXTER WILSON ENGINEERING, INC.
CONSULTING ENGINEERS
(760) 438-4422

DESCRIPTION OF EXISTING AND PROPOSED SEWER SYSTEM

The existing downstream sewer system consists of approximately 11,500 linear feet of gravity sewer pipe ranging in size from 8" to 18" before connecting to the 24" SCVSD Trunk Sewer. Sewer flow from the proposed development will proceed through 10" pipe owned by LA County from the project to existing Manhole #9 and 10" pipe (upsized from 8" pipe) from Manhole 9 to Manhole 14. From there, flow will pass through largely 10" to 18" pipe owned by the City of Santa Clarita from Manhole 15 to Manhole 781, discharging to the existing 24" SCVSD Trunk Sewer line. See Exhibit A for the layout of existing and proposed sewer systems.

Analysis of the sewer systems begins at proposed Manhole 3, in the Old Road approximately 500 feet south of Sagecrest Circle. The analysis ends at the SCVSD Trunk Sewer line located approximately 240 feet south of Wiley Canyon Road and Orchard Village Road intersection at Manhole #781.

The proposed onsite sewer system is recommended to be at least 8-inch in diameter with a 1 percent slope. An 8-inch pipe with a slope of 1 percent has full capacity of 0.553 cfs, which will allow for the full conveyance of project flows to the public sewer system.

SEWER CAPACITY ANALYSIS

The sewer capacity analysis performed for this report includes calculating the proposed flow from the Trails at Lyons Canyon development from the project location to the trunk sewer using Kutter's Formula. See Sewer Area Study Map (Exhibit A) in the pocket of this report for sewer layout and capacity calculations.

The total flowrate generated by the Trails at Lyons Canyon project is 0.525 cfs and enters the proposed 10" sewer line at Manhole #3. There are 504 residential units, recreation center, and a future fire station. See Table 1 for the sewage generation calculation.

TABLE 1 TRAILS AT LYONS CANYON FLOW GENERATION				
Product	**Land Use**	**Units**	**Peak Q Coefficient**	**Peak Q (cfs)**
Apartments and Condos	Residential	504 units	0.001 cfs/unit	0.504
Future Fire Station	Commercial	1.38 acre	0.015 cfs/acre	0.0207
Recreational Center	Open Space	0.68 acre	0.0005 cfs/acre	0.0003
TOTAL	**-**	**-**	**-**	**0.525 cfs**

During existing theoretical conditions (utilizing planning factors), it was found that City sewer segments between Manholes 457, 451, 452 and Manholes 392 and 394 (Segments 7, 8, and 41) are currently overloaded. With the addition of the project flow rate of 0.525 cfs and other future developments' combined flow of 0.159 cfs, all County Segments and City Segments 5, 6, 7, 8, 10, 11A, 11B, 21, and 41 are over capacity. To validate the existing condition, flow test monitoring was performed at Manhole #13, 452, 430, and 392 in September 2021. Additionally, a sewer area study for the nearby proposed development Wiley Canyon (SAS20-00003) conducted flow test monitoring in June 2020 at Manhole #28 and 780. These results are available in Appendix E. The flow test monitoring results conclude that the actual flow is less than the theoretical calculated flow, therefore decreasing the number of segments overloaded. Ultimately, all Los Angeles County sewer segments and City sewer segments between Manholes 457, 451, and 452 remain overloaded; the replacement of these sewers are discussed in the following section.

CONCLUSION

The Trails at Lyons Canyon proposed development (TR 083301) lies between Sagecrest Circle and Calgrove Boulevard west of the Golden State Freeway 5 in Los Angeles County. It consists of 504 residential units, a recreation center, and a future fire station anticipated to generate a total flow rate of 0.525 cfs entering the existing 8" sewer lines from proposed Manhole #3 to existing Manhole #9. The flow will make its way through 10"-18" City lines before entering the existing 24" SCVSD Trunk Sewer at City Manhole #781.

County owned 8-inch sewer facilities from Manholes 9, 10, 11, 12, and 13 will exceed the County's design criteria of 100% with the addition of the proposed Trails at Lyons Canyon development and future planned parcels. Mitigations will be required for these manholes and will be upgraded to 10-inch pipe prior to the connection of the proposed project. See page 6 for the capacity analysis of County owned sewer facilities.

City owned sewer facilities between Manholes 457, 451, and 452 (Segments 7 and 8) will exceed the City's design criteria of 50% for 8-inch through 12-inch sewer facilities. These segments will be upgraded by the City; the project will pay its fair share as articulated in the Appendix J Agreement. See Appendix I Tables 3, 4, and 5 for the capacity analysis of City owned sewer facilities.

All on-site public sewer facilities will be owned, operated, and maintained by the Los Angeles County Consolidated Sewer Maintenance District (LACSMD).

LOS ANGELES COUNTY SUMMARY TABLES

TABLE 1: MINIMUM RECOMMENDED ONSITE SEWER DIAMETER AND SLOPE

Street Name	Segment		Pipe		Design Capacity, Q (cfs)		Tributary Area			Calculated Flow (cfs)	Cumulative Flow (cfs)	PC or CI Construction Plan #	Cumulative Flow/Capacity	Comment	Jurisdiction	Foot Note
	M.H In	M. H Out	Pipe Dia. (in)	Slope	1/2 Full (<15")	3/4 Full (≥15")	Tributary	Coefficient	Parcel Flow (cfs)							
ONSITE	-	-	8	1.00%	0.553	-	TR083301-0.525 EDUs	TR083301-0.001	TR083301-0.525	0.525	0.525	-	95%	Capacity	L.A COUNTY	-

TABLE 2: LOS ANGELES COUNTY ULTIMATE CONDITION UNDER EXISTING INFRASTRUCTURE

Street Name	Segment		Pipe		Design Capacity, Q (cfs)		Tributary Area			Calculated Flow (cfs)	Cumulative Flow (cfs)	PC or CI Construction Plan #	Cumulative Flow/Capacity	Comment	Jurisdiction	Foot Note
	M.H In	M. H Out	Pipe Dia. (in)	Slope	1/2 Full (<15")	3/4 Full (≥15")	Tributary	Coefficient	Parcel Flow (cfs)							
The Old Road	9	10	8	0.60%	0.428	-	TR083301-525 EDUs, B10-151 acres, B11-116 acres, B1-1.76 acres, B2-139 units, B12-30 acres, B13-20 acres B4-11.9 acres	TR083301-0.001, B10-0.001*0.5, B11-0.001*0.5, B1-0.015, B2-0.001, B12-0.001*0.5, B13-0.001*0.5, B4-0.015	TR083301-0.525 B10-0.076 B11-0.058 B1-0.026 B2-0.139 B12-0.015 B13-0.01 B4-0.179	1.03 0.08*	1.03 0.764**	10428	240.65% 179.21%	No Capacity	L.A COUNTY	1
The Old Road	10	11	8	0.60%	0.428	-	-	-	-	- 0.08*	1.03 0.764**	10428	240.65% 178.50%	No Capacity		1
The Old Road	11	12	8	0.60%	0.428	-	-	-	-	- 0.08*	1.03 0.764**	10428	240.65% 178.50%	No Capacity		1
The Old Road	12	13	8	0.60%	0.428	-	-	-	-	- 0.08*	1.03 0.764**	10428	240.65% 178.50%	No Capacity		1
The Old Road	13	14	8	0.83%	0.504	-	-	-	-	- 0.08*	1.03 0.764**	10428	204.37% 151.59%	No Capacity		2
1	SEPTEMBER 2021 FLOW TESTS AT MANHOLE 13 OF JUNCTION 1 INDICATES THE ACTUAL FLOW RATE IS 0.08. ADD IN THE TRAILS AT LYONS CANYON PROJECT FLOW RATE OF 0.525 cfs AND FUTURE PARCELS COMBINED FLOW RATE OF 0.159 cfs TO GET THE COMBINED FLOW OF 0.764 cfs.															
2	END OF COUNTY OWNED SEWER PIPES. SEWER LINES AFTER MANHOLE 14 ARE CITY OWNED															
*	FLOW TAKEN FROM SEWER FLOW MONITORING RESULTS AVAILABLE IN APPENDIX E.															
**	CUMULATIVE FLOW VALUE REPRESENTS THE ACTUAL FLOW FROM SEWER FLOW MONITORING RESULTS PLUS THE ADDITION OF THE TRAILS AT LYONS CANYON PLANNED SEWER DISCHARGE AND FUTURE PLANNED PARCELS.															

TABLE 3 LOS ANGELES COUNTY ULTIMATE CONDITION UNDER PROPOSED AND UPSIZED INFRASTRUCUTURE

Street Name	Segment		Pipe		Design Capacity, Q (cfs)		Tributary Area			Calculated Flow (cfs)	Cumulative Flow (cfs)	PC or CI Construction Plan #	Cumulative Flow/Capacity	Comment	Jurisdiction	Foot Note
	M.H In	M. H Out	Pipe Dia. (in)	Slope	1/2 Full (<15")	3/4 Full (≥15")	Tributary	Coefficient	Parcel Flow (cfs)							
The Old Road	3	2	10	0.62%	0.808	-	TR083301-525 EDUs B10-151 acres B11-116 acres	TR083301-0.001 B10-0.001*0.5 B11-0.001*0.5	TR083301-0.525 B10-0.076 B11-0.058	0.659	0.659	10428	81.51%	Under Capacity	L.A COUNTY	3
The Old Road	2	1	10	0.45%	0.688	-	-	-		-	0.659	10428	95.80%	Under Capacity		3
The Old Road	9	10	10	0.60%	0.795	-	B1-1.76 acres, B2-139 units, B12-30 acres, B13-20 acres B4-11.9 acres	B1-0.015, B2-0.001, B12-0.001*0.5, B13-0.001*0.5 B4-0.015		0.368 0.08*	1.03 0.764**	10428	130.82% 96.10%	Pipe Upsized, Under Capacity		1
The Old Road	10	11	10	0.60%	0.795	-	-	-		- 0.08*	1.03 0.764**	10428	130.82% 96.10%	Pipe Upsized, Under Capacity		1
The Old Road	11	12	10	0.60%	0.795	-	-	-		- 0.08*	1.03 0.764**	10428	130.82% 96.10%	Pipe Upsized, Under Capacity		1
The Old Road	12	13	10	0.60%	0.795	-	-	-		- 0.08*	1.03 0.764**	10428	130.82% 96.10%	Pipe Upsized, Under Capacity		1
The Old Road	13	14	10	0.83%	0.936	-	-	-		- 0.08*	1.03 0.764**	10428	111.11% 81.62%	Pipe Upsized, Under Capacity		2
1	SEPTEMBER 2021 FLOW TESTS AT MANHOLE 13 OF JUNCTION 1 INDICATES THE ACTUAL FLOW RATE IS 0.08. ADD IN THE TRAILS AT LYONS CANYON PROJECT FLOW RATE OF 0.525 cfs AND FUTURE PARCELS COMBINED FLOW RATE OF 0.159 cfs TO GET THE COMBINED FLOW OF 0.764 cfs.															
2	END OF COUNTY OWNED SEWER PIPES. SEWER LINES AFTER MANHOLE 14 ARE CITY OWNED															
3	PROPOSED SEWER LINE BY TRAILS AT LYONS CANYON															
*	FLOW TAKEN FROM SEWER FLOW MONITORING RESULTS AVAILABLE IN APPENDIX E.															
**	CUMULATIVE FLOW VALUE REPRESENTS THE ACTUAL FLOW FROM SEWER FLOW MONITORING RESULTS PLUS THE ADDITION OF THE TRAILS AT LYONS CANYON PLANNED SEWER DISCHARGE AND FUTURE PLANNED PARCELS.															

APPENDIX A

WILL SERVE LETTER

LOS ANGELES COUNTY
SANITATION DISTRICTS
Converting Waste Into Resources

Robert C. Ferrante
Chief Engineer and General Manager

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
(562) 699-7411 • www.lacsd.org

May 3, 2021

Ref. DOC 6158981

Mr. Jason Han
NUWI – Lyons Canyon, LLC
c/o Dexter Wilson Engineering, Inc.
2001 Wilshire Boulevard, Suite 401
Santa Monica, CA 90403

Dear Mr. Han:

Will Serve Letter for Vesting Tentative Tract Map No. 83301, Trails at Lyons Canyon

The Santa Clarita Valley Sanitation District (District) received your will serve letter request for the subject project on April 8, 2021. The proposed project is located within the jurisdictional boundary of the District. We offer the following comments regarding sewerage service:

1. The wastewater flow originating from the proposed project will discharge to a local sewer line, which is not maintained by the District, for conveyance to either or both the District's District No. 32 Main Trunk Sewer, located in a private right-of-way southeast of the intersection of Orchard Village Road and Wiley Canyon Road, or the Valencia Trunk Sewer, located in Orchard Village Road south of Wiley Canyon Road. The District's 18–inch diameter District No. 32 Main Trunk Sewer has a capacity of 3.3 million gallons per day (mgd) and conveyed a peak flow of 0.1 mgd when last measured in 2018. The District's 24-inch diameter Valencia Trunk Sewer has a capacity of 5.3 mgd and conveyed a peak flow of 1.9 mgd when last measured in 2018.

2. The District operates two water reclamation plants (WRPs), the Saugus WRP and the Valencia WRP, which provide wastewater treatment in the Santa Clarita Valley. These facilities are interconnected to form a regional treatment system known as the Santa Clarita Valley Joint Sewerage System (SCVJSS). The SCVJSS has a capacity of 28.1 mgd and currently processes an average flow of 19.9 mgd.

3. The expected average wastewater flow from the project site, described in the application as a total of 268 detached residential condominium units, a total of 214 attached residential condominiums, 35 apartment units, a 30,492 square-foot recreational center, and a 46,174 square-foot fire station, is 125,299 gallons per day. For a copy of the District's average wastewater generation factors, go to www.lacsd.org, under Services, then Wastewater Program and Permits, select Will Serve Program, and scroll down to click on the Table 1, Loadings for Each Class of Land Use link.

4. The District is empowered by the California Health and Safety Code to charge a fee to connect facilities (directly or indirectly) to the District's Sewerage System or to increase the strength or quantity of wastewater discharged from connected facilities. This connection fee is a capital facilities fee that is used by the District to upgrade or expand the Sewerage System. Payment of a connection fee may be required before this project is permitted to discharge to the District's Sewerage System. For more information and a copy of the Connection Fee Information Sheet, go to www.lacsd.org, under Services, then Wastewater (Sewage) and select Rates & Fees. In determining the impact to the Sewerage System and applicable connection fees, the District will determine the user category (e.g. Condominium, Single Family home, etc.) that best represents

the actual or anticipated use of the parcel(s) or facilities on the parcel(s) in the development. For more specific information regarding the connection fee application procedure and fees, the developer should contact the District's Wastewater Fee Public Counter at (562) 908-4288, extension 2727

5. In order for the District to conform to the requirements of the Federal Clean Air Act (CAA), the capacities of the District's wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts in order to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CCA. All expansions of District's facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the District's treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service, but is to advise the developer that the District intends to provide this service up to the levels that are legally permitted and to inform the developer of the currently existing capacity and any proposed expansion of District's facilities.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717 or at araza@lacsd.org.

Very truly yours,

Adriana Raza

Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR:ar

cc: A. Schmidt
A. Howard

APPENDIX B

FLOW COEFFICIENTS

City of Santa Clarita
Engineering Services Division

SEWAGE FLOW COEFFICIENTS

ZONING		DESCRIPTION	COEFFICIENT
			(cfs/gross acreage)
Residential	RE	Residential Estate – large custom single family homes on uniquely configured lots	0.00075
	RVL	Residential Very Low Density - 1 DU/AC	0.001
	RL	Residential Low Density – 2.2 DU/AC	0.0015
	RS	Residential Suburban - 5 DU/AC	0.005
	RM	Residential Moderate – 11 DU/AC	0.012
	RMH	Residential Medium High – 20 DU/AC	0.015
	RH	Residential High – 28 DU/AC	0.023
The above coefficients shall be used for undeveloped land, land that is not entitled, and apartment complexes. For developed land, and for entitled residential developments (except apartment complexes), a value of 0.001 cfs/dwelling unit shall be used in lieu of the above coefficients.			
Agricultural	A	Agricultural - 1 single family home/ legal lot	0.0002
Mixed-Use	MU	existing zone + 16 dwelling units per acre	existing zone coefficient + 0.016
Open Space	OS	Open Space - Natural / Unimproved	0
		Open Space - Parks	0.0002
		Community Rooms	0.0005
		Community Pool Facilities	0.001
Commercial	CTC	Commercial Town Center	0.015
	CC	Community Commercial	
	CN	Commercial Neighborhood	
	CO	Commercial Office	
Industrial	VSR	Visitor Serving/Resort	0.021
	BP	Business Park	
	IC	Industrial Commercial	
	I	Industrial	
SP 3: Newhall Specific Plan	UG1	Urban General 1	0.005
	UG2	Urban General 2	0.012
	UC	Urban Center	0.015
	COR	Corridor	0.021
	CD	Creative District	0.021
	OS	Open Space	0
			(gal/student)
Schools		Elementary & Junior High Schools	25
		High School	37.5
		University & College	50
		College with dormitories	212.5

Estimated Average Daily Sewage Flows for Various Occupancies

Occupancy	Abbreviation	*Average daily flow	
Apartment Buildings:			
Bachelor or Single dwelling units	Apt	150	gal/D.U.
1 bedroom dwelling units	Apt	200	gal/D.U.
2 bedroom dwelling units	Apt	250	gal/D.U.
3 bedroom or more dwelling units	Apt	300	gal/D.U.
Auditoriums, churches, etc.	Aud	5	gal/seat
Automobile parking	P	25	gal/1000 sq ft gross floor area
Bars, cocktails lounges, etc.	Bar	20	gal/seat
Commercial Shops & Stores	CS	100	gal/1000 sq ft gross floor area
Hospitals (surgical)	HS	500	gal/bed
Hospitals (convalescent)	HC	85	gal/bed
Hotels	H	150	gal/room
Medical Buildings	MB	300	gal/1000 sq ft gross floor area
Motels	MB	150	gal/unit
Office Buildings	Off	200	gal/1000 sq ft gross floor area
Restaurants, cafeterias, etc.	R	50	gal/seat
Schools:			
Elementary or Jr. High	S	10	gal/student
High Schools	HS	15	gal/student
Universities or Colleges	U	20	gal/student
College Dormitories	CD	85	gal/student

*Multiply the average daily flow by 2.5 to obtain the peak flow

Zoning Coefficients

Zone	Coefficient (cfs/Acre)
Agriculture ----------	0.001
Residential*:	
R-1 ----------	0.004
R-2 ----------	0.008
R-3 ----------	0.012
R-4 ----------	0.016*
Commercial:	
C-1 through C-4 ----------	0.015*
Heavy Industrial:	
M-1 through M-4 ----------	0.021*

* Individual building, commercial or industrial plant capacities shall be the determining factor when they exceed the coefficients shown

* Use 0.001 (cfs/unit) for condominiums only

APPENDIX C

APN/TRACT MAPS

LOT 19
(TRACT 83301-01)

LOT 21
(TRACT 83301-01)

(PVT. ACCESS ROAD)

LOT 9

LOT 8
FUTURE FIRE STATION
(TRACT 83301-01)

LOT 6
AFFORDABLE SENIOR APARTMENTS
(TRACT 83301-05)

LOT 1
(TRACT 83301-02)
CONDOMINIUMS

"A" STREET (PUBLIC)

LOT 13

LOT 11
(DEBRIS BASIN)
(TRACT 83301-01)

LOT 2
(TRACT 83301-03)
CONDOMINIUMS

LOT 7
REC. CENTER AREA
(TRACT 83301-01)

LOT 4
(TRACT 83301-06)
CONDOMINIUMS

LOT 5
(TRACT 83301)
CONDOMINIUMS

(PVT. ACCESS ROAD)

THE
ON 4

LOT 18
(TRACT 83301-01)

"B" STREET (PUBLIC)

LOT 14

LOT 15
(TRACT 83301-01)

LOT 10

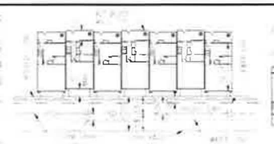
LOT 3
(TRACT 83301-04)
CONDOMINIUMS

LOT 16
(DESILTING BASIN)
(TRACT 83301-01)

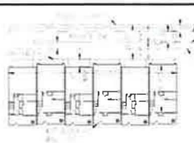
LOT 17
(TRACT 83301-01)

LOT 12
(DEBRIS BASIN)
(TRACT 83301-01)

LOT 20
(TRACT 83301-01)

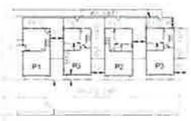


TYPICAL 7-PLEX

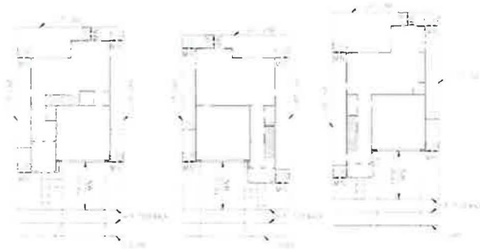


TYPICAL 6-PLEX

LOT 1 UNITS

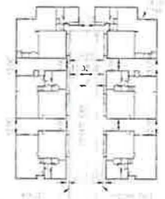


LOT 2 UNITS



TYPICAL PLOT PLAN-1 TYPICAL PLOT PLAN-2 TYPICAL PLOT PLAN-3

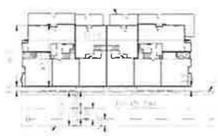
LOT 3 UNITS



TYPICAL 6-CLUSTER

TYPICAL 4-CLUSTER

LOT 4 UNITS



TYPICAL 6-PLEX

LOT 5 UNITS

GRAPHIC SCALE

(IN FEET)
1 inch = 100 ft.

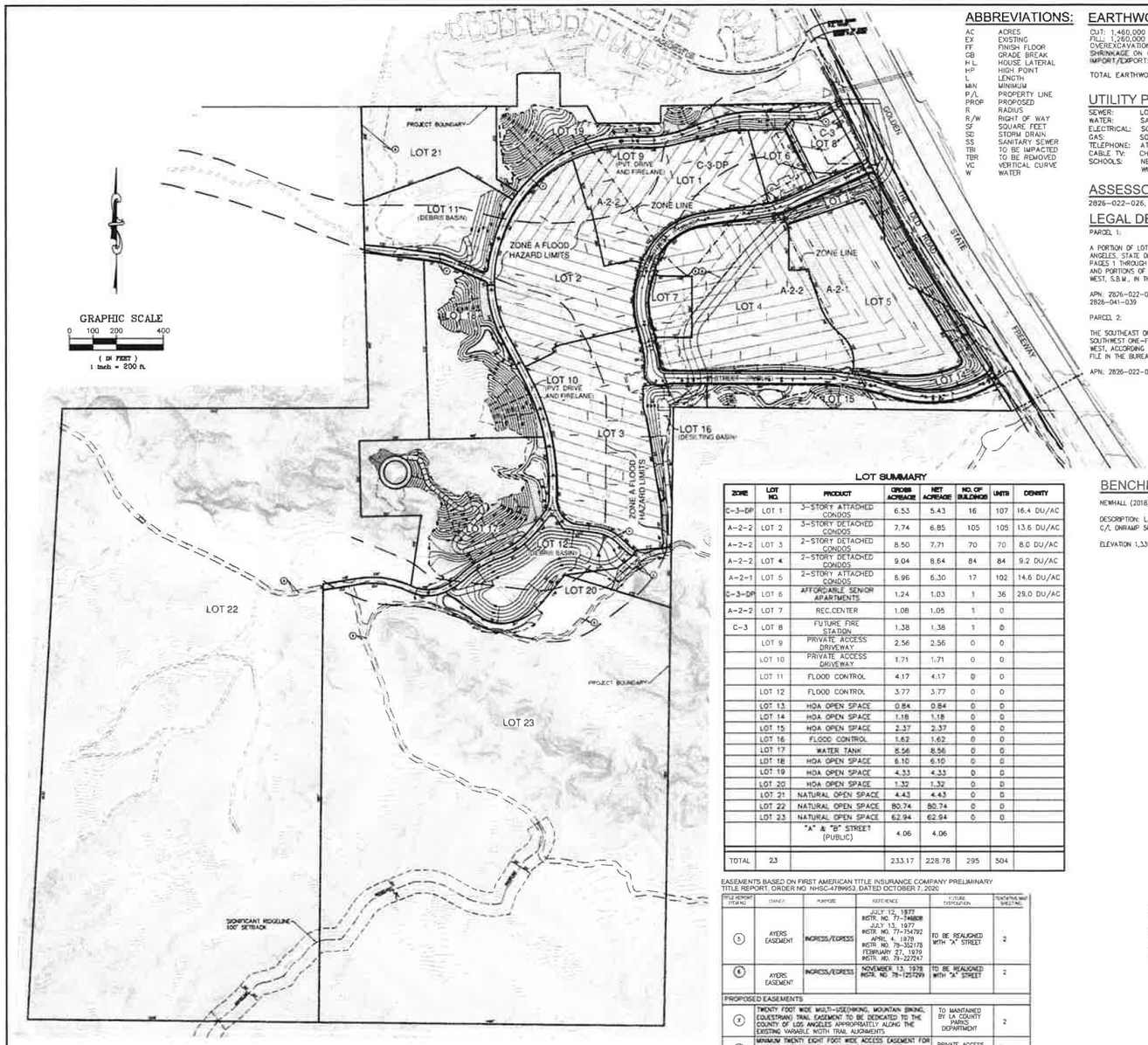
UNITED CIVIL INC
30141 Agoura Road Suite 215
Agoura Hills, CA 91301
PH (818) 707-8648

OWNER/APPLICANT

NUWI LYONS CANYON, LLC
2001 WILSHIRE BOULEVARD SUITE 401
SANTA MONICA, CA 90403
TEL (310) 864-2427

THE TRAILS AT LYONS CANYON
MAJOR LAND DIVISION
VESTING TENTATIVE TRACT MAP NO. 83301
(FOR CONDOMINIUM PURPOSES)
LOCATED IN THE UNINCORPORATED TERRITORY OF
THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA
SITE PLAN

1
1



ABBREVIATIONS:

AC	ACRES
EX	EXISTING
FF	FINISH FLOOR
GB	GRADE BREAK
H-L	HOUSE LATERAL
HP	HIGH POINT
L	LENGTH
MIN	MINIMUM
P/L	PROPERTY LINE
PROP	PROPOSED
R	RADIUS
R/W	RIGHT OF WAY
SF	SQUARE FEET
SD	STORM DRAIN
SS	SANITARY SEWER
TBI	TO BE IMPACTED
TBR	TO BE REMOVED
VC	VERTICAL CURVE
W	WATER

EARTHWORK SUMMARY:

CUT: 1,460,000 CY
FILL: 1,260,000 CY
OVEREXCAVATION 1 345,000 CY
SHRINKAGE ON OVEREX (15%)=200,000 CY
IMPORT/EXPORT: (1,460,000 CY – 1,260,000 – 200,000 CY) = 0 CY

TOTAL EARTHWORK (1,460,000 CY+1,345,000 CY) = 2,805,000 CY

UTILITY PROVIDERS

SEWER:	LOS ANGELES SANITATION DISTRICT
WATER:	SANTA CLARITA VALLEY WATER AGENCY
ELECTRICAL:	SOUTHERN CALIFORNIA EDISON COMPANY
GAS:	SOUTHERN CALIFORNIA GAS COMPANY
TELEPHONE:	AT&T
CABLE TV:	CHARTER
SCHOOLS:	NEWHALL SCHOOL DISTRICT & WILLIAM S. HART UNION HIGH SCHOOL DISTRICT

ASSESSOR'S PARCEL NUMBERS:

2826-022-026, -027, -035; 2826-023-014; 2826-041-039;

LEGAL DESCRIPTION

PARCEL 1:

A PORTION OF LOT 31, TRACT NO. 43793, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 1072, PAGES 1 THROUGH 7, INCLUSIVE, OF MAPS, AND PORTIONS OF LOT 7 AND PORTIONS OF SECTIONS 4 AND 9, TOWNSHIP 3 NORTH, RANGE 16 WEST, S.B.M., IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA.

APN: 2826-022-027 AND 2826-022-035 AND 2826-023-014 AND 2826-041-039

PARCEL 2:

THE SOUTHEAST ONE-FOURTH OF THE SOUTHEAST ONE-FOURTH OF THE SOUTHWEST ONE-FOURTH OF SECTION 4, TOWNSHIP 3 NORTH, RANGE 16 WEST, ACCORDING TO OFFICIAL PLAT OF THE SURVEY OF SAID LAND ON FILE IN THE BUREAU OF LAND MANAGEMENT.

APN: 2826-022-026

BENCHMARK

NEWHALL (2018) L 5370

DESCRIPTION: LACO BM TAG IN SE CB RCT 10' N/O BCR 40' S/O C/L ONRAMP SFRWY SO & 39' E/O C/L CALGROVE BL

ELEVATION 1,339.015'

GENERAL NOTES

1. GROSS AREA: 233.17 ACRES NET AREA: 228.78 ACRES
2. EXISTING ZONING: A-2-1/A-2-2/C-3/C-3-DP
3. PROPOSED ZONING: A-2-1/A-2-2/C-3/C-3-DP
4. EXISTING SITE USE: VACANT
5. DEVELOPMENT TYPE: SINGLE AND MULTI-FAMILY RESIDENTIAL
6. TOTAL NUMBER OF RESIDENTIAL LOTS: 6
7. SMALLEST RESIDENTIAL LOT SIZE: 1.2 ACRES
8. DEVELOPMENT IS LOCATED IN FIRE ZONE 4.
9. PRIVATE DRIVEWAY AND FIRE LANE GRADES: MIN. 0.5% MAX. 12.5%
10. TOPOGRAPHY IS BASED ON CONTROLLED TOPO W/ CONTOUR INTERVALS 5 FEET.
11. THE OLD ROAD HAS A VARIABLE WIDTH RIGHT-OF-WAY OFFERED FOR DEDICATION.
12. ALL SLOPES OVER 5 FEET IN HEIGHT ARE TO BE LANDSCAPED AND IRRIGATED WITH THE COUNTY APPROVED PLANTS AND GROUND COVER.
13. EXISTING LOS ANGELES COUNTY GENERAL PLAN: H2/SEA
14. EXISTING LA COUNTY SANTA CLARITA VALLEY AREA WIDE LOCAL PLAN: H2
15. THERE ARE OAK TREES EXISTING WITHIN PROJECT BOUNDARY.
16. BOUNDARY LINE DIMENSIONS ARE TAKEN FROM RECORD DATA, LOT AREAS SHOWN IN TABLE HEREON ARE GROSS ACREAGE.
17. TOP & TOE OF SLOPES ARE SUBJECT TO CHANGE IN FINAL ENGINEERING.
18. AN H.O.A. WILL BE ESTABLISHED FOR MAINTENANCE OF OPEN SPACE, SLOPES, AND ALL COMMON LANDSCAPE AREAS.
19. GRADE ELEVATIONS SHOWN ON THE VTTM AND THE EXHIBIT MAP ARE APPROXIMATE. THE ELEVATIONS MAY CHANGE BY 10 FEET. ELEVATION CHANGES MAY BE GREATER THAN 10 FEET BUT ONLY IF DETERMINED BY DPW AND DRP THAT THE REVISIONS ARE CONSISTENT WITH THE INTENT OF THE SUBDIVISION MAP APPROVAL.
20. LOT LINES CAN BE ADJUSTED TO THE SATISFACTION OF DRP.
21. ALIGNMENT AND GEOMETRICS OF THE PRIVATE DRIVEWAYS AND TRAILS ARE APPROXIMATE. ADJUSTMENTS TO TRAILS CAN BE MADE WITH APPROVAL BY DRP AND THE PARKS AND RECREATION DEPARTMENT.
22. BUILDING FOOTPRINTS THAT ARE SHOW ON THE EXHIBIT MAP ARE ONLY FOR ILLUSTRATIVE PURPOSES. ACTUAL BUILDING LOCATIONS AND FOOTPRINTS MAY VARY. APPROVAL IS REQUESTED DURING PLOT PLAN REVIEW PROVIDED THE PROPOSED BUILDINGS SATISFY ALL EXISTING CODES AND ORDINANCES. THIS MINOR CHANGE DOES NOT, HOWEVER, INCLUDE:
    A. A CHANGE IN PROPOSED LAND USE.
    B. A CHANGE OF MORE THAN 10 FEET IN BUILDING HEIGHT.
23. PERMISSION IS REQUESTED FOR UNIT PHASING.
24. PERMISSION IS REQUESTED TO COMBINE LOTS.
25. PERMISSION IS REQUESTED TO RECORD ADDITIONAL OPEN SPACE LOTS.
26. PERMISSION IS REQUESTED TO RECORD ADDITIONAL UTILITY LOTS AND PROVIDE MAINTENANCE EASEMENTS TO THE SATISFACTION OF THE DPW AND DRP.
27. THE LOCATIONS OF APPURTENANT STRUCTURES (E.G., PASEOS, PEDESTRIAN BRIDGES, TRANSIT SHELTERS, WATER QUALITY BASINS, ETC.) MAY BE RELOCATED TO THE SATISFACTION OF DPW AND DRP.
28. PRIVATE DRIVEWAY AND FIRELANE LOTS 9 AND 10 WILL HAVE A RECIPROCAL ACCESS EASEMENT TO PROVIDE ACCESS TO ALL RESIDENTIAL LOTS, OPEN SPACES, COUNTY MAINTAINED FACILITIES AND ADJACENT PROPERTIES
29. PERMISSION IS REQUESTED TO MASS GRADE.
30. PERMISSION IS REQUESTED TO WAIVE LOT FRONTAGE.
31. PROPOSED PRIVATE DRIVEWAY GRADING IS APPROXIMATE ONLY AND SUBJECT TO ADJUSTMENTS PENDING DETERMINATION OF FINAL DEVELOPMENT LAYOUT AND PLANS.
32. LOCATION OF TRAILS TO BE FINALIZED PRIOR TO FINAL MAP APPROVAL.
33. ALL DIMENSIONS SHOWN ARE APPROXIMATE.
36. RELATED ENTITLEMENTS:
    - TENTATIVE MAP NO. 083301 (RPPL2021003061)
    - CONDITIONAL USE PERMIT NO. RPPL2021003113
    - OAK TREE PERMIT NO. RPPL2021003070
    - ZONE CHANGE NO. RPPL2021003163
    - ADMINISTRATIVE HOUSING PERMIT NO. RPPL2021003105
    - ENVIRONMENTAL ASSESSMENT NO. RPPL2021003071
    - SEA CONDITIONAL USE PERMIT NO. RPPL2021003113
    - ZONING CONFORMANCE NO. RPPL2021003126
37. ALL SANITARY SEWER EASEMENTS SHALL BE LOCATED WITHIN PUBLIC RIGHT OF WAY OR A MINIMUM 10' WIDE SANITARY SEWER EASEMENT. EACH RESIDENTIAL UNIT WILL BE SERVED BY A SEPARATE 4" SEWER LATERAL THAT IS CONNECTED TO THE SEWER MAIN WITHIN THE PRIVATE DRIVE AND FIRELANES.
38. THE DEVELOPER/ENGINEER ACKNOWLEDGE THAT THE SIZE OF THE WATER QUALITY AND/OR FLOOD CONTROL BASIN WILL BE REVIEWED AT THE IMPROVEMENT PLAN STAGE. SIGNIFICANT CHANGE OF THE SIZE OF THE BASIN FROM WHAT IS SHOWN ON THE TENTATIVE MAP MAY RESULT IN REVISING PLANNING DOCUMENTS BY THE DEPARTMENT OF REGIONAL PLANNING.

LEGEND:

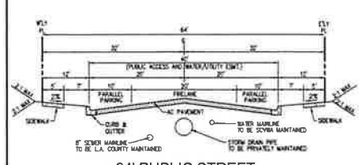
- BOUNDARY LINE
- EXISTING CONTOURS
- EXISTING SEWER
- EXISTING WATER
- DRAINAGE FLOW DIRECTION
- PROPOSED LOT LINES
- ZONE BOUNDARY LINE
- PROPOSED GRADING CONTOUR
- PROPOSED STREET GRADES
- PROPOSED RETAINING WALL
- PROPOSED MANUFACTURED SLOPE
- EXISTING EASEMENTS
- PROPOSED EASEMENTS
- LIMIT OF GRADING LINE
- PROPOSED STORM DRAIN
- PROPOSED SANITARY SEWER
- PROPOSED WATER
- LOT X — LOT NUMBER
- EXISTING OAK TREE (SEE OAK TREE REPORT AND SHEET 4)

LOT SUMMARY

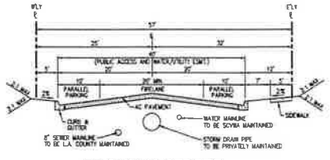
ZONE	LOT NO.	PRODUCT	GROSS ACREAGE	NET ACREAGE	NO. OF BUILDINGS	UNITS	DENSITY
C-3-DP	LOT 1	3-STORY ATTACHED CONDOS	6.53	5.43	16	107	16.4 DU/AC
A-2-2	LOT 2	3-STORY DETACHED CONDOS	7.74	6.85	105	105	13.6 DU/AC
A-2-2	LOT 3	2-STORY DETACHED CONDOS	8.50	7.71	70	70	8.0 DU/AC
A-2-2	LOT 4	2-STORY DETACHED CONDOS	9.04	8.64	84	84	9.2 DU/AC
A-2-1	LOT 5	2-STORY ATTACHED CONDOS	6.96	6.30	17	102	14.6 DU/AC
C-3-DP	LOT 6	AFFORDABLE SENIOR APARTMENTS	1.24	1.03	1	36	29.0 DU/AC
A-2-2	LOT 7	REC.CENTER	1.08	1.05	1	0	
C-3	LOT 8	FUTURE FIRE STATION	1.38	1.38	1	0	
	LOT 9	PRIVATE ACCESS DRIVEWAY	2.56	2.56	0	0	
	LOT 10	PRIVATE ACCESS DRIVEWAY	1.71	1.71	0	0	
	LOT 11	FLOOD CONTROL	4.17	4.17	0	0	
	LOT 12	FLOOD CONTROL	3.77	3.77	0	0	
	LOT 13	HOA OPEN SPACE	0.84	0.84	0	0	
	LOT 14	HOA OPEN SPACE	1.18	1.18	0	0	
	LOT 15	HOA OPEN SPACE	2.37	2.37	0	0	
	LOT 16	FLOOD CONTROL	1.62	1.62	0	0	
	LOT 17	WATER TANK	8.56	8.56	0	0	
	LOT 18	HOA OPEN SPACE	6.10	6.10	0	0	
	LOT 19	HOA OPEN SPACE	4.33	4.33	0	0	
	LOT 20	HOA OPEN SPACE	1.32	1.32	0	0	
	LOT 21	NATURAL OPEN SPACE	4.43	4.43	0	0	
	LOT 22	NATURAL OPEN SPACE	80.74	80.74	0	0	
	LOT 23	NATURAL OPEN SPACE	62.94	62.94	0	0	
		"A" & "B" STREET (PUBLIC)	4.06	4.06			
TOTAL	23		233.17	228.78	295	504	

EASEMENTS BASED ON FIRST AMERICAN TITLE INSURANCE COMPANY PRELIMINARY TITLE REPORT, ORDER NO. NHSC-4784953, DATED OCTOBER 7, 2020.

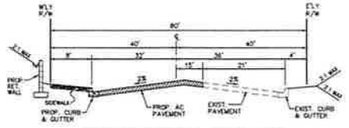
TITLE REPORT ITEM NO.	CHARGE	PURPOSE	REFERENCE	FUTURE DISPOSITION	TENTATIVE MAP SHEET NO.
5	AYERS EASEMENT	INGRESS/EGRESS	JULY 12, 1977 INSTR. NO. 77-736828 JULY 13, 1977 INSTR. NO. 77-754792 APRIL 4, 1978 INSTR. NO. 78-352178 FEBRUARY 27, 1979 INSTR. NO. 79-227247	TO BE REALIGNED WITH "A" STREET	2
6	AYERS EASEMENT	INGRESS/EGRESS	NOVEMBER 13, 1978 INSTR. NO. 78-1257269	TO BE REALIGNED WITH "A" STREET	2
PROPOSED EASEMENTS					
2			TWENTY FOOT WIDE MULTI-USE(HIKING, MOUNTAIN BIKING, EQUESTRIAN) TRAIL EASEMENT TO BE DEDICATED TO THE COUNTY OF LOS ANGELES APPROXIMATELY ALONG THE EXISTING VARIABLE WIDTH TRAIL ALIGNMENTS	TO MAINTAINED BY LA COUNTY PARKS DEPARTMENT	2
1			MINIMUM TWENTY EIGHT FOOT WIDE ACCESS EASEMENT FOR INGRESS AND EGRESS PURPOSES TO BE GRANTED ADJACENT PRIVATE PROPERTY OWNERS	PRIVATE ACCESS EASEMENT (TO BE MAINTAINED BY HOA)	2
			TEN FOOT WIDE SANITARY SEWER EASEMENT, CENTERLINE BEING PROPOSED SEWER MAIN WHERE SEWER MAIN IS OUTSIDE OF PUBLIC RIGHT OF WAY	TO MAINTAINED BY LA COUNTY PUBLIC WORKS	



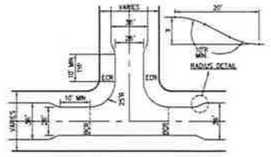
64' PUBLIC STREET
"A" STREET AND "B" STREET
N.T.S



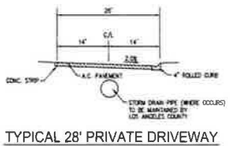
57' PUBLIC STREET
"A" STREET AND "B" STREET
N.T.S



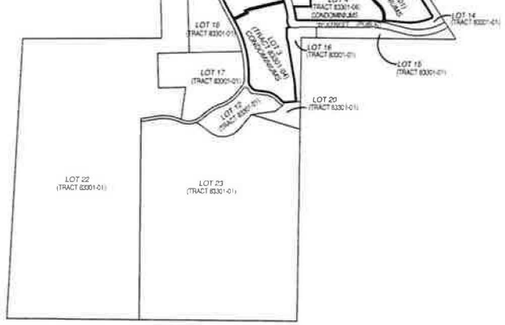
PUBLIC STREET - (R/W = 80')
THE OLD ROAD



TYPICAL PRIVATE DRIVE LOCAL INTERSECTION
3-WAY TRAFFIC CALMING DETAIL
N.T.S



TYPICAL 28' PRIVATE DRIVEWAY
LOT 9 AND LOT 10
N.T.S



TRACT NO.	RES. UNITS	OPEN SPACE
TR 83301-01	–	164.14 Ac.
TR 83301-02	107 CONDOMINIUMS	–
TR 83301-03	105 CONDOMINIUMS	–
TR 83301-04	70 CONDOMINIUMS	–
TR 83301-05	36 AFFORDABLE	–
TR 83301-06	84 CONDOMINIUMS	–
TR 83301	102 CONDOMINIUMS	–
TOTAL	504 UNITS	9 LOTS(164.21 Ac.)

UNIT MAP PHASING EXHIBIT
N.T.S.

UNITED CIVIL INC
30141 Agoura Road, Suite 215
Agoura Hills, CA 91301
PH: (818) 707-8648

SIEW HUAT NG R.C.E. 46026 7/26/2022 DATE

OWNER/APPLICANT:

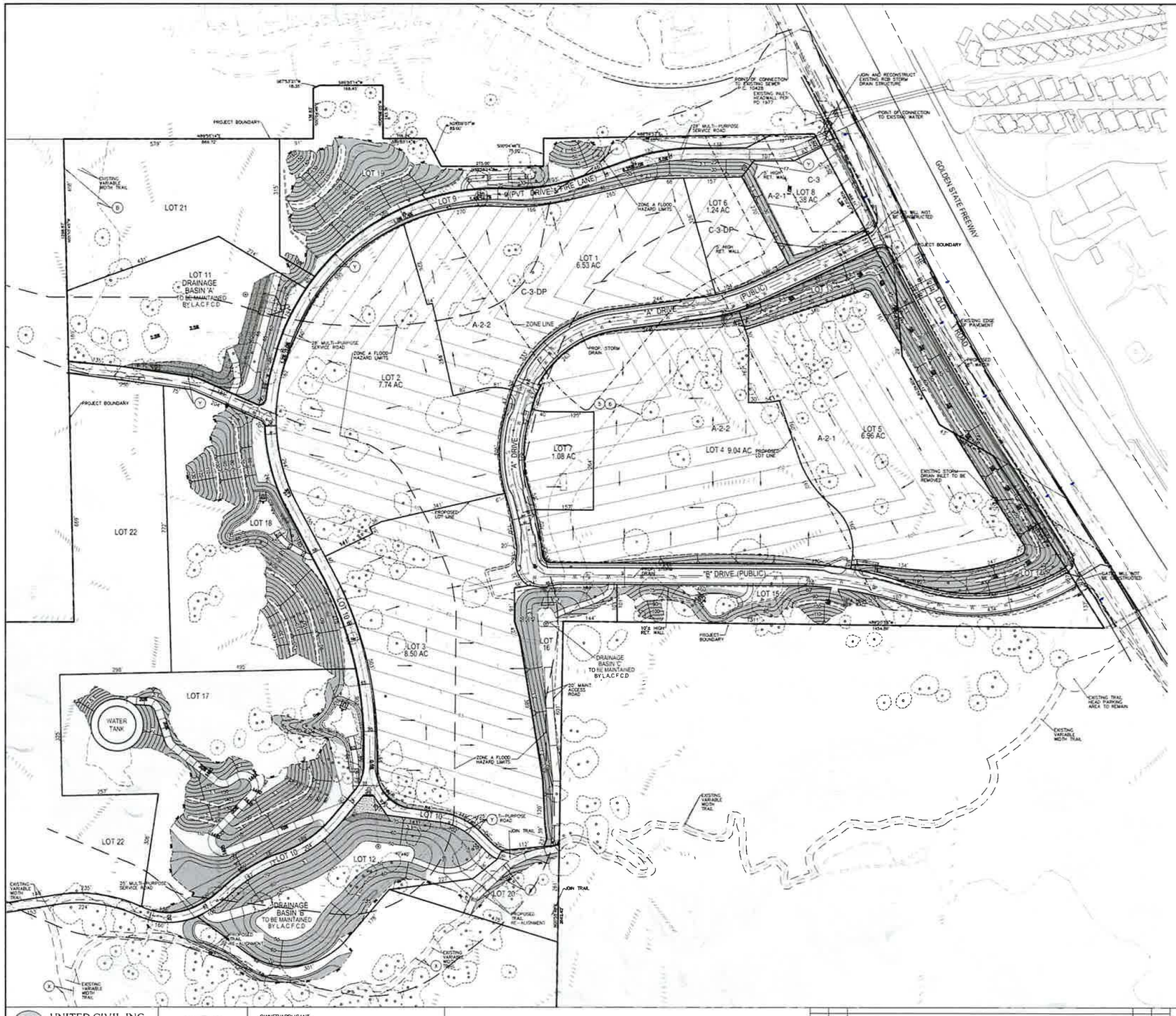
NUWI LYONS CANYON, LLC
2001 WILSHIRE BOULEVARD, SUITE 401
SANTA MONICA, CA 90403
TEL. (310) 864-2427

NO.	DATE	REVISIONS	BY	APPR

THE TRAILS AT LYONS CANYON
MAJOR LAND DIVISION
VESTING TENTATIVE TRACT NO. 83301
(FOR CONDOMINIUM PURPOSES)
LOCATED IN THE UNINCORPORATED TERRITORY OF
THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

DATE: July 26, 2022
SHEET 1 OF 5

G:\Lyons Canyon Ranch\GAT\VTM\83301_TENTATIVE MAP_Sheets.dwg



EASEMENTS BASED ON FIRST AMERICAN TITLE INSURANCE COMPANY PRELIMINARY TITLE REPORT, ORDER NO. NHSC-4789952, DATED OCTOBER 7, 2020

(1) REFERENCE ITEM NO.	OWNER	PURPOSE	REFERENCE	FUTURE DISPOSITION	TENTATIVE MAP SHEET NO.
(5)	AYERS EASEMENT	INGRESS/EGRESS	JULY 12, 1977 INSTR. NO 77-746808 JULY 13, 1977 INSTR. NO 77-754792 APRIL 4, 1978 INSTR. NO 78-352178 FEBRUARY 27, 1979 INSTR. NO 79-227247	TO BE REALIGNED WITH "A" STREET	2
(6)	AYERS EASEMENT	INGRESS/EGRESS	NOVEMBER 13, 1979 INSTR. NO 79-1257299	TO BE REALIGNED WITH "A" STREET	2
PROPOSED EASEMENTS:					
(X)	TWENTY FOOT WIDE MULTI-USE(HIKING, MOUNTAIN BIKING, EQUESTRIAN) TRAIL EASEMENT TO BE DEDICATED TO THE COUNTY OF LOS ANGELES APPROPRIATELY ALONG THE EXISTING VARIABLE WIDTH TRAIL ALIGNMENTS	TO MAINTAINED BY LA COUNTY PARKS DEPARTMENT	2
(Y)	MINIMUM TWENTY EIGHT FOOT WIDE ACCESS EASEMENT FOR INGRESS AND EGRESS PURPOSES TO BE GRANTED ADJACENT PRIVATE PROPERTY OWNERS	PRIVATE ACCESS EASEMENT (TO BE MAINTAINED BY HOA)	2
	TEN FOOT WIDE SANITARY SEWER EASEMENT, CENTERLINE BEING PROPOSED SEWER MAIN WHERE SEWER MAIN IS OUTSIDE OF PUBLIC RIGHT OF WAY	TO MAINTAINED BY LA COUNTY PUBLIC WORKS	

SCALE 1"=100'

GRAPHIC SCALE
0 50 100 200
(IN FEET)
1 inch = 100 ft.

UNITED CIVIL INC
39141 Agoura Road, Suite 215
Agoura Hills, CA 91301
PH (818) 707-8648

SIEW HUAT NG R.C.E. 46026 7/25/2022 DATE

OWNER/APPLICANT
NUWI LYONS CANYON, LLC
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SANTA MONICA, CA 90403
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NO.	DATE	REVISIONS	BY	APPR

THE TRAILS AT LYONS CANYON
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DATE: July 26, 2022
SHEET 2 OF 5

GRAPHIC SCALE

0 50 100 200

(IN FEET)
1 inch = 100 ft.

UNITED CIVIL INC
30141 Agoura Road, Suite 215
Agoura Hills, CA 91301
PH: (818) 707-8649

SIEW HUAT NG R.C.E. 46026 DATE 7/26/2022

OWNER/APPLICANT

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NO.	DATE	REVISIONS	BY	APP'D

THE TRAILS AT LYONS CANYON
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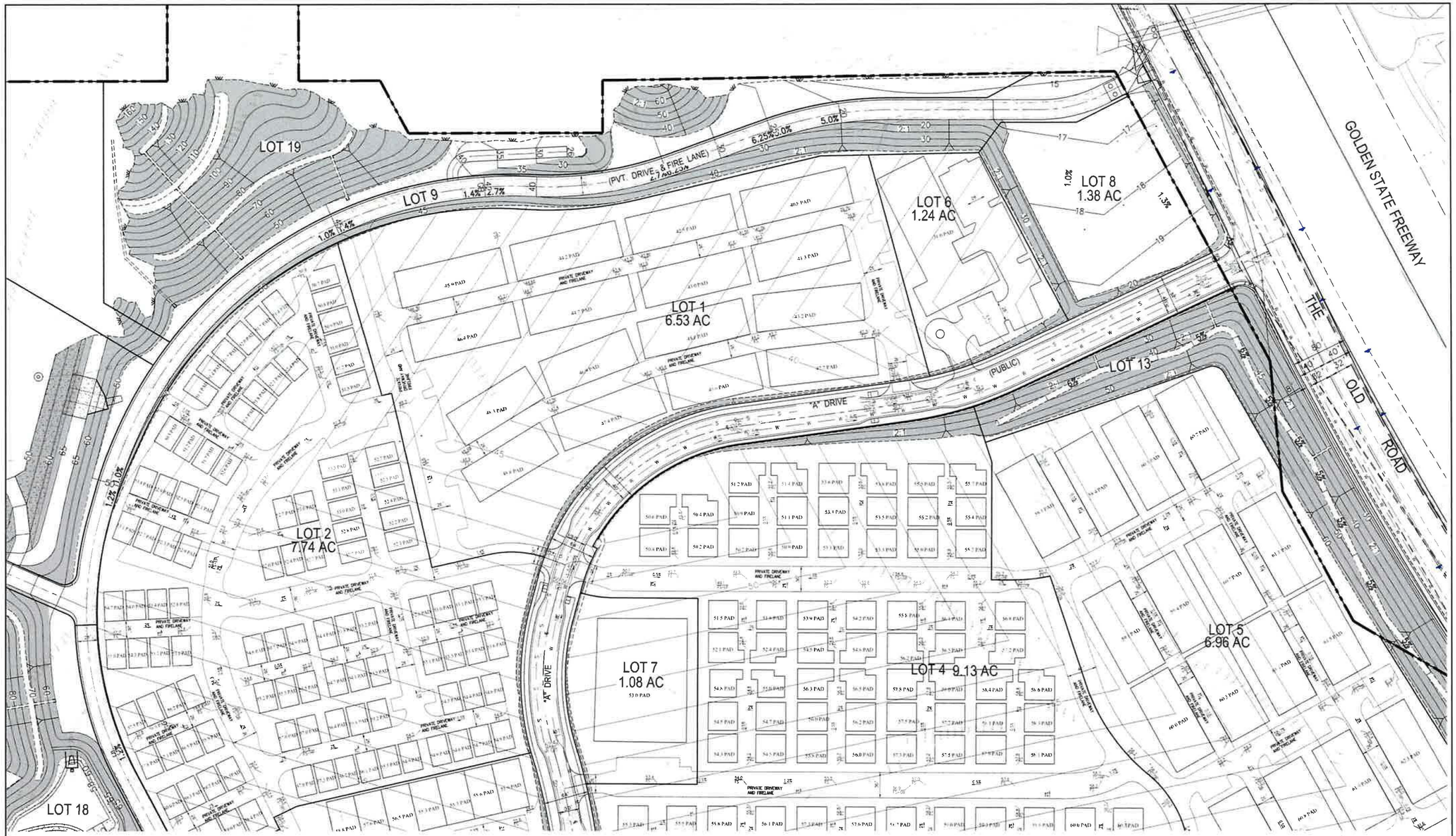
THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

DATE: July 26, 2022

SHEET 3 OF 5



UNITED CIVIL INC
30141 Agoura Road, Suite 215
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SIEW HUAT NG RCE. 46026 7/28/2022 DATE

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NO.	DATE	REVISIONS	BY	APPR

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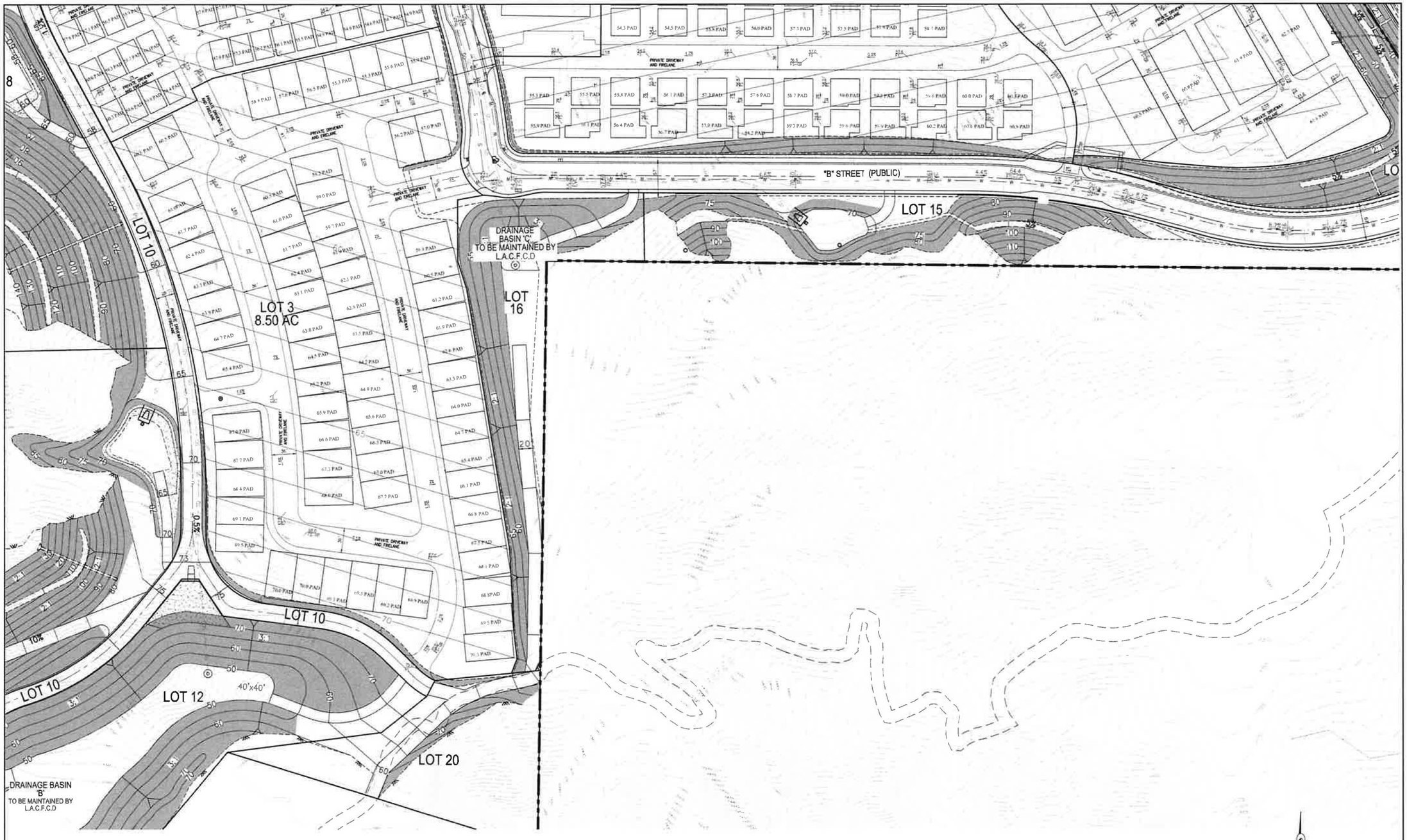
DATE July 26, 2022
SHEET 4 OF 5



GRAPHIC SCALE
0 25 50 100
(IN FEET)
1 inch = 50 FL

UNITED CIVIL INC
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SIEW HUAT NG R.C.E. 46026 7/26/2022 DATE

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NO.	DATE	REVISIONS	BY	APPR

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LOCATED IN THE UNINCORPORATED TERRITORY OF
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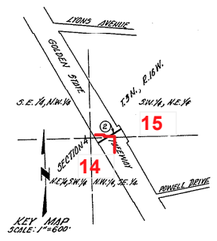
DATE: July 26, 2022
SHEET 5
OF 6

APPENDIX D

SEWER PLANS

LOS ANGELES COUNTY SEWER AS BUILTS

B.M. S.L. G40 ELEV. 1692.071
ED. DEPT. B.M. TIG H. SURF. CONC. BASE AT N.E. COR. EDISON IRON TENSION TOWER #41-37-3W3-9 +35. 00 FT. LEADS ARE 7 FT. E/E. WILEY CANYON RD.
NEWHALL QUAD. 1938



NEWHALL BLDG. DIST. NO.

NOTES:

1. PROVIDE STAKES ON THE PROPERTY LINE OR PROPERTY LINES PRODUCED AT RIGHT ANGLES TO THE SEWER LINE AT THE CENTER LINE OF EACH MANHOLE.
2. NO REPRESENTATIVE OF THE COUNTY ENGINEER WILL SURVEY OR LAY OUT ANY PORTION OF THE WORK.
3. THE PRIVATE ENGINEER SHALL FURNISH THE COUNTY ENGINEER WITH GRADE SHEETS AND STATIONING FOR ALL HOUSE LATERALS AND Y BRANCHES AND SHALL PROVIDE STAKES FOR THEM AT THOSE PROPER LOCATIONS WITH STATIONING PLAINLY MARKED. ALL HOUSE LATERALS SHALL BE CONSTRUCTED IN A STRAIGHT ALIGNMENT AT RIGHT ANGLES FROM THE MAIN LINE SEWER EXCEPT AS SHOWN ON THE PLANS. HOUSE LATERALS FROM CHAMBERS SHALL NOT HAVE AN ANGLE OF LESS THAN 45° WITH THE MAIN LINE SEWER. ANY CHANGE IN ALIGNMENT SHALL BE REQUESTED IN WRITING BY THE PRIVATE ENGINEER.
4. THE PRIVATE ENGINEER SHALL FURNISH THE HOUSE LATERAL DEPTH AT THE PROPERTY LINE BELOW THE TOP OF CURB ELEVATION FOR EACH HOUSE LATERAL ON THE GRADE SHEET.
5. NO REVISIONS SHALL BE MADE IN THESE PLANS WITHOUT THE APPROVAL OF THE COUNTY ENGINEER.
6. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION DIVISION BY TELEPHONE, MADISON 9-4747, EXT. 2222, AT LEAST TWENTY-FOUR HOURS BEFORE STARTING ANY WORK UNDER THIS CONTRACT.
7. MANHOLES SHALL BE BRICK SEWER STRUCTURES PER S-276, PRECAST CONCRETE MANHOLES PER S-133 OR S-173 MAY BE USED AS AN ALTERNATE IN LOCATIONS APPROVED BY THE COUNTY ENGINEER.
8. USE STANDARD MANHOLE FRAMES AND COVERS, S-277, EXCEPT AS NOTED.
9. MANHOLE TOPS IN UNIMPROVED AREAS SHALL BE SET TO FIT THE FINISH SURFACE GRADES.
10. USE VCP/ASTM PIPE. ALL PIPE IS STANDARD DEPTH EXCEPT AS NOTED.
11. ~~EXCEPT WHERE SHOWN, THE REINFORCED CONCRETE PIPE SHALL BE X.C.P. CONFORM TO SPECS., SEC. 34.10 (B).~~
12. ~~WHERE EVER SHOWN, WHERE IS ENCASEMENT SHOWN, THE CONSTRUCTION OF THE SEWERS, REV. C.C. SHALL BE OF HEAVY CONFORMING TO SPECS., SEC. 34.10 (B), THE MECHANICAL COMPRESSION SHOWN SHALL SPECIFICATIONS.~~
13. IF A POWER POLE IS WITHIN THREE FEET OF THE SEWER, THE SEWER SHALL BE ENCASED, PER S-476, CASE III, TWO FEET ON EITHER SIDE FROM THE POINT OF INTERSECTION.
14. ~~IF IN THE OPINION OF THE SUPERINTENDENT IF A SUFFICIENT THAT THERE IS LESS THAN FOUR FEET OF COVER OVER THE TOP OF A SEWER LINE OR HOUSE LATERAL V.C.P. SEWER WHICH IS NOT INDICATED ON THE PLANS, THE PIPE SHALL BE ENCASED PER S-476, CASE III, UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER.~~
15. HOUSE LATERALS OR OF CONSTRUCTION THERE APPEARS AN EMERGENCY ~~SHALL EXTEND FIVE FEET BELOW FINAL GRADE ENGINEER OR INSPECTOR.~~
16. ~~BENCHMARK ALL TRENCHES WITHIN PAVED AREAS TO MEET L.A. COUNTY ROAD DEPT. OR CALIFORNIA STATE HIGHWAY REQUIREMENTS BE ACCORDANCE WITH PERMITS.~~
17. FOR ALIGNMENT LEAKAGE TEST USE FORMULA WQ.....S....., SPECS., SEC. 34.
18. ALL TRENCH SAFETY ORDERS WILL BE STRICTLY ENFORCED.

SPECIAL NOTE:

NO CONNECTIONS TO BE MADE TO SEWERS SHOWN ON THESE PLANS UNTIL AN OUTLET HAS BEEN PROVIDED AND SEWER EASEMENT GRANTED TO COUNTY OF LOS ANGELES.

COLLECT CHARGES AS INDICATED

PROFILE ALIGNMENT AND GRADE OF P.C. 7521
SANITARY SEWERS PAGE 1
TO BE CONSTRUCTED IN
GOLDEN STATE FREEWAY CROSSING
1600 FEET SOUTHEAST OF LYONS AVENUE

PRIVATE CONTRACT NO. 7521

W.S.
1 SHEETS; 2 PAGES
SCALE: TEST. 1"=5' HORIZ. 1"=50'
DECEMBER, 1965

39086

PREPARED IN THE OFFICES OF
JENNINGS ENGINEERING CO.
24811 SAN FERNANDO ROAD, NEWHALL, CALIF.
By: [signature]
REG. C. E. NO. 7858

FOR LEGEND SEE PLAN NO. S-64

NOTE:
GRADES TO WHICH THIS IMPROVEMENT IS TO BE CONSTRUCTED ARE SHOWN ON A HIGH AND HIGHER, GALVANIZED STEEL PIPE OF CURB, CENTER LINE OF STREETS, OR CENTER LINE OF COURTS AND ON OTHER SPECIFIED POINTS AS NOTED. GRADES ATTACHED POINTS THE GRADE SHALL BE ESTABLISHED BY AS TO CONFORM TO A STRAIGHT LINE DRAWN BETWEEN SAID DESIGNATED POINTS.
ELEVATIONS ARE IN FEET ABOVE U.S.C. & G.S. SEA LEVEL DATUM OF 1929.
WORK SHALL BE CONSTRUCTED ACCORDING TO STANDARD SPECIFICATIONS.
WORK SHALL BE CONSTRUCTED ACCORDING TO STANDARD SPECIFICATIONS DATED MAY 21, 1964 ON FILE IN THE OFFICE OF THE COUNTY ENGINEER AND SHALL BE PROSECUTED ONLY IN THE PRESENCE OF THE COUNTY ENGINEER.
BEFORE WORK CAN BE STARTED, THE CONTRACTOR MUST OBTAIN A PERMIT TO EXCAVATE IN COUNTY STREETS FROM THE L.A. COUNTY ROAD DEPARTMENT OFFICE NO..... AND FAX A PPE TO THE COUNTY ENGINEER, ROOM 518, COUNTY ENGINEERING BUILDING, 900 WEST SECOND STREET, LOS ANGELES, CALIF. ..... MINIMUM DEPOSIT, SUFFICIENT TO COVER TWO DAYS OF CONSTRUCTION INSPECTION AND RECORD PLANS.
APPROVAL OF THIS PLAN BY THE COUNTY OF LOS ANGELES DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OF THE LOCATION OF ANY UNDERGROUND UTILITY PIPE OR STRUCTURE OR ANY UNDERGROUND UTILITY PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THIS NOTE APPLIES TO ALL PAGES.
IF WORK IS TO BE DONE IN A STATE HIGHWAY, A PERMIT MUST BE OBTAINED FROM THE STATE OF CALIFORNIA, DIVISION OF HIGHWAYS, 120 SOUTH SPRING STREET, LOS ANGELES, CALIFORNIA.

COUNTY OF LOS ANGELES, CALIFORNIA
JOHN A. LAMBIE, COUNTY ENGINEER
APPROVED BY: [signature] ASSISTANT SANITATION ENGINEER
SUBMITTED BY: [signature] ENGINEER
CHECKED BY: [signature] REG. C.E. NO. 13946

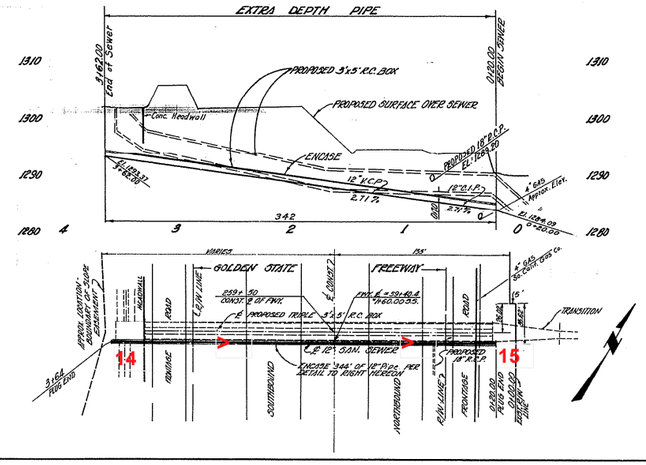
J. N. 0366.72

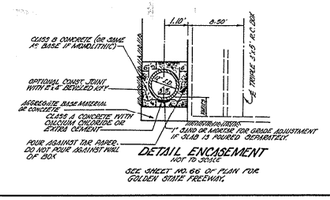
P. C. 7521 PAGE 2

DOUBLE SCALE

SEE SPECIAL NOTE ON PAGE 1

39087

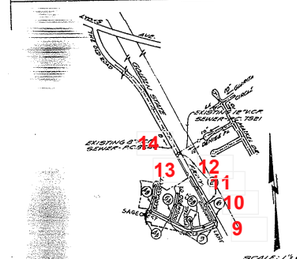




466 17153 L.A. COUNTY SEWER SHEET NO. 1 SOUTHERN CALIFORNIA BLUEPRINT CO. LA 3555

B.M. BL 3962 ELEV. 1365.079
STAMPED "TIE O" ON NORTHWESTERLY
CURB RET. 0.3' SOUTH OF EAST OF
WEST END OF FREEWAY BRIDGE
& 5' SOUTH OF LYONS AVE.

NEWHALL QUAD. 19 TE



INDEX MAP
TRACT Nº 43792
P.C. 10428

NOTE: NUMBERS IN CIRCLES INDICATE PAGE NUMBERS

GENERAL NOTES: (CONT.)

12. ALL REFERENCES ON THIS PLAN TO THE COUNTY ENGINEER, THE ROAD DEPARTMENT, OR THE FLOOD CONTROL DISTRICT SHALL APPLY TO THOSE APPROPRIATE SECTIONS OF THE DEPARTMENT OF PUBLIC WORKS.

DOUBLE SCALE.

REVISION NO. 2 DATE: 6-17-86
ELIMINATE H.L.'s @
STA. 4+12 and 5+00.
APPROVED _____ DEPT. OF PUBLIC WORKS

REVISION No. 1 DATE 6-4-86
REVISE MAINLINE FROM EXISTING MH Y'D STATION 2+04.82 AS SHOWN ON PAGE 2.
APPROVED _____ DEPT. OF PUBLIC WORKS

NO CONNECTION FOR THE DISPOSAL OF INDUSTRIAL WASTES SHALL BE MADE TO SEWERS SHOWN ON THESE DRAWINGS UNTIL A PERMIT FOR INDUSTRIAL WASTEWATER DISCHARGE HAS BEEN ISSUED BY THE SANITATION DISTRICTS FOR SAID CONNECTION.

BEFORE BREAKING INTO OR CONSTRUCTION ON A COUNTY SANITATION DISTRICT SEWER AND PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, SANITATION DISTRICT INSPECTOR SHALL BE NOTIFIED BY PHONE (213) 867-5027 SO THAT REQUIRED INSPECTION CAN BE MADE.

LOTS 34 & 35 ARE OPEN SPACE LOTS AND ARE NOT SERVED WITH HOUSE LATERAL CONNECTIONS

GENERAL NOTES:

1. ELEVATIONS ARE IN FEET ABOVE U.S.C. & G.S. SEA LEVEL DATUM OF 1929.
2. NO REVISIONS SHALL BE MADE IN THESE PLANS WITHOUT THE APPROVAL OF THE COUNTY ENGINEER.
3. NO REPRESENTATIVE OF THE COUNTY ENGINEER WILL SURVEY OR LAY OUT ANY PORTION OF THE WORK.
4. GRADES TO HAVE BEEN APPROVED PRIOR TO BE CONSTRUCTED AND SHOWN ON PLANS AND PROFILES. CHAIN ATTACHED FOR TOP OF CURBS, CENTER LINE OF STREETS, OR CENTER LINE OF ALLEYS ARE SHOWN BY CIRCLES ON PROFILES AT ALL POINTS BETWEEN DESIGNATED POINTS THE GRADE SHALL BE ESTABLISHED AS TO CONFORM TO A STRAIGHT LINE DRAWN BETWEEN SAID DESIGNATED POINTS.
5. THE PRIVATE ENGINEER SHALL FURNISH THE COUNTY ENGINEER WITH GRADE SHEETS AND STAKEMENT FOR ALL HOUSE LATERALS SHOWN ON THESE PLANS. ALL HOUSE LATERALS SHALL BE CONSTRUCTED IN A STRAIGHT ALIGNMENT AT RIGHT ANGLES FROM THE MAIN LINE SEWER EXCEPT AS SHOWN ON THE PLANS. HOUSE LATERALS FROM CHANGES SHALL NOT HAVE AN ANGLE OF LESS THAN 45° WITH THE MAIN LINE SEWER. ANY CHANGE IN ALIGNMENT SHALL BE REQUESTED IN WRITING BY THE PRIVATE ENGINEER.
6. THE PRIVATE ENGINEER SHALL FURNISH THE PROPER LOCATION, GRADE AND ALIGNMENT OF ALL HOUSE LATERALS AND SHALL SET STAKES AT THE PROPERTY CORNER OF EACH LOT AND SHALL SHOW THE TOP OF CURB ELEVATION FOR EACH HOUSE LATERAL ON THE GRADE SHEET.
7. BEFORE WORK CAN BE STARTED, THE CONTRACTOR MUST OBTAIN A PERMIT TO EXCAVATE IN COUNTY STREETS FROM THE L.A. COUNTY ROAD DEPARTMENT, 900 SOUTH FREMONT AVE., ALHAMBRA, CALIFORNIA, AND PAY A FEE TO THE COUNTY ENGINEER, 550 S. VERMONT AVENUE, LOS ANGELES, CA 90020, TO COVER THE COST OF CONSTRUCTION INSPECTION AND RECORD PLANS.
8. IF WORK IS TO BE DONE IN A STATE HIGHWAY, A PERMIT MUST BE OBTAINED FROM THE STATE OF CALIFORNIA, DIVISION OF HIGHWAYS, 120 SOUTH SPRING STREET, LOS ANGELES, CALIFORNIA.
9. APPROVAL OF THIS PLAN BY THE COUNTY OF LOS ANGELES DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OF THE LOCATION OF THE EXISTING UNDERGROUND FACILITIES SHOWN HEREON, OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THIS NOTE APPLIES TO ALL PAGES.
10. REFER 1ST SECTION 7.10.1 OF THE STANDARD SPECIFICATIONS, REGARDING SAFETY ORDERS.
11. PRIOR TO THE ISSUANCE OF THE REQUIRED SEWER CONSTRUCTION PERMIT, THE CONTRACTOR SHALL OBTAIN AND FILE WITH THE COUNTY ENGINEER COPIES OF A PERMIT TO EXCAVATE IN COUNTY STREETS FROM THE LOS ANGELES COUNTY ROAD DEPARTMENT, A PERMIT FOR EXCAVATIONS AND TRENCHES FROM THE STATE OF CALIFORNIA, DIVISION OF INDUSTRIAL SAFETY, LABOR CAMP & HOUSING DIVISION, 107 SOUTH BROADWAY, LOS ANGELES, CALIFORNIA, A CERTIFICATE OF WORKERS COMPENSATION INSURANCE WITH THE DEPARTMENT OF COUNTY ENGINEER, 550 SOUTH VERMONT, AVE. LOS ANGELES, CALIFORNIA 90020, NAMED AS THE CERTIFICATE HOLDER TO BE NOTIFIED IN WRITING PRIOR TO CANCELLATION OF POLICY.

CONSTRUCTION NOTES:

1. WORK SHALL BE CONSTRUCTED ACCORDING TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (WHERE EDITION DATED SEPT. 21, 1976) AND THE COUNTY ENGINEER'S SPECIAL PROVISIONS FOR THE CONSTRUCTION OF SANITARY SEWERS, AND SHALL BE PROSECUTED ONLY IN THE PRESENCE OF THE COUNTY ENGINEER.
2. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION DIVISION - P.W. (213) 566-8281 AT LEAST TWENTY-FOUR HOURS BEFORE STARTING ANY WORK UNDER THIS CONTRACT.
3. HOUSE LATERALS TO BE CONSTRUCTED WITH WYES AT PROPERTY LINE & 5 FEET BELOW CURB GRADE EXCEPT AS NOTED.
4. WYE OR TEE BRANCHES MAY BE USED FOR CONNECTIONS TO MAINLINE SEWERS EXCEPT AS NOTED.
5. ALL STRUCTURES SHALL BE EITHER BRICK MANHOLES PER S.D. OR PRECAST CONCRETE MANHOLES PER S.D. EXCEPT AS NOTED.
6. PROVIDE STAKES ON THE PROPERTY LINE OPPOSITE AT PROPERTY LINES PRODUCED AT RIGHT ANGLES TO THE SEWER LINE AT THE CENTER LINE OF EACH MANHOLE.
7. MANHOLE TOPS TO BE UNPAINTED RIMS OF MAY TO BE SET INCHES ABOVE FINISHED GRADE.
8. VITRIFIED CLAY PIPE JOINTS SHALL BE TYPE "O" OR "U" PER STANDARD SPECIFICATIONS SECTION 208-3.
9. IF A POWER POLE IS WITHIN THREE FEET OF THE SEWER, THE SEWER SHALL BE ENCASED PER S.D. CASE II, TWO FEET ON EACH SIDE FROM THE POINT OF INTERFERENCE.
10. IF DURING THE COURSE OF CONSTRUCTION, IT IS DETERMINED THAT THERE IS LESS THAN FIVE FEET OF COVER OVER THE TOP OF A MAIN LINE OR HOUSE LATERAL, ZONE WHICH IS NOT INDICATED ON THE PLANS, THE PIPE SHALL BE ENCASED FOR A DISTANCE OF 10 FEET UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER.
11. ALL JOINTS BETWEEN CAST IRON PIPE AND VITRIFIED CLAY PIPE SHALL BE MADE WITH A RUBBER SLEEVE JOINT, TYPE "O" OR "U", WITH SLEEVES AS NEEDED, AS PER STANDARD SPECIFICATIONS, SECTION 208-3.
12. SEWERS TO BE TESTED FOR LEAKAGE PER SECTION 208-9.4 OF THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
13. RESURFACING ALL TRENCHES WITHIN PAVED AREAS TO MEET L.A. COUNTY ROAD DEPT. OR CALIFORNIA STATE HIGHWAY REQUIREMENTS IN ACCORDANCE WITH PERMITS.
14. PIPE BEDDING MATERIAL SHALL BE AS PER THE SPECIAL PROVISIONS WILL BE REQUIRED FOR BACKFILL IN STREETS. CERTIFICATES OF COMPLIANCE SHALL BE FURNISHED FOR ALL SPECIAL PROVISIONS MATERIALS. IF REQUIRED, REQUIRED TESTING LABORATORY SHALL BE PROVIDED BY THE PERMITTEE PRIOR TO THE ISSUANCE OF A CERTIFICATE OF PARTIAL ACCEPTANCE.
15. SPECIAL BACKFILL IN EASEMENT CONSTRUCTION VIA BACKFILL TRENCH AND REPLACE DOWN EARTH SO AS TO ASSURE THE NATURAL OR FINISHED GRADES AND SLOPES SHOWN ON THE GRADING PLANS APPROVED FOR THE DEVELOPMENT BY THE BUILDING AND SAFETY DIVISION. (BULK) BACKFILL AND EARTHWORK SHALL BE COMPACTED TO A MINIMUM OF 90% OF MAXIMUM DENSITY PER ASTM STD. METHOD OF TEST DESIGNATED AS MODIFIED. ACCEPTABLE CERTIFICATION OF SUCH COMPACTION SHALL BE SUBMITTED TO THE CONSTRUCTION DIVISION - PUBLIC WORKS.

PROFILE, ALIGNMENT AND GRADE OF PAGE 1

SANITARY SEWERS

TO BE CONSTRUCTED IN

TRACT Nº 43792

PRIVATE CONTRACT NO. 10428

INDEX A-25 & 42

2 SHEETS, 6 PAGES

SCALE: VERT. 1"=5' OCTOBER 1985
HORIZ. 1"=40'
PREPARED IN THE OFFICES OF

JOEL SILVERMAN & ASSOCIATES
BY Manuel J. Urrea
REG. C.E. No. 30045
20300 VENTURA BLVD., SUITE 350
WOODLAND HILLS, CA 91364

51271

THE FOLLOWING LATEST ISSUED STANDARD PLANS ON FILE IN THE OFFICE OF THE COUNTY ENGINEER SHALL APPLY IN THE USUAL MANNER OF THIS PROJECT:

	CO. APPR.
STORM DRAIN MANHOLE	S-1
MINIMUM PUBLIC SAFETY REQUIREMENTS	S-2
SHOE - FENCE ANCHORAGE	S-3
STANDARD WARNING SIGN	S-27
BEDDING FOR STATES PIPE	S-31
CLEARING AND GRUBBING	S-33
WYE OR TEE SUPPORT	S-34
ALLOWABLE TRENCH WIDTHS	S-35
LOCKING MANHOLE FRAME AND COVER	S-36
NON-REINFORCED PRECAST CONCRETE SEWER MANHOLE	S-36
CENTINELS	S-37
SPECIAL HOUSE LATERALS	S-55

COUNTY OF LOS ANGELES, CALIFORNIA

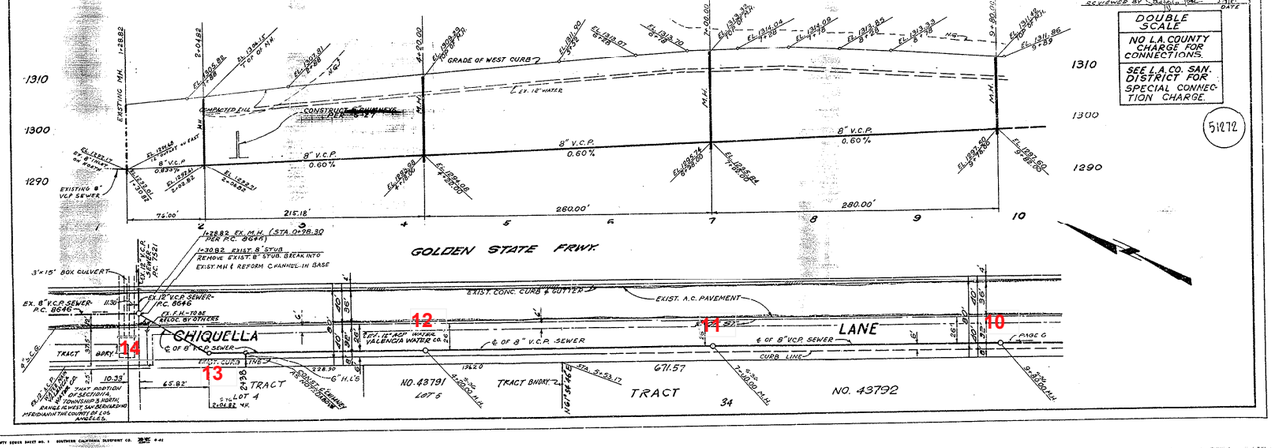
THOMAS A. TIDEMANSON, DIRECTOR OF PUBLIC WORKS
APPROVED [signature] 4/16/86 DATE
CHARLES W. CARRY CHIEF ENGINEER
CO. ENGINEER NO. 35
APPROVED [signature] 4/16/86 DATE
CHECKED [signature] 3/19/86 DATE
REG. C.E. NO. 16841

SANTA CLARITA VALLEY BLDG. DIST. 32

P.C. 10428 PAGE 2
REVIEWED BY [signature] 4/16/86 DATE

DOUBLE SCALE
NO L.A. COUNTY CHARGE FOR CONNECTIONS.
SEE L.A. CO. SAN. DISTRICT FOR SPECIAL CONNECTION CHARGE.

51272



BC 10458 (3)

P.C. 10428 PAGE 5

REVIEWED BY Sam G. Lee 7-14-76

DOUBLE SCALE

NO L.A. COUNTY CHARGE FOR CONNECTIONS

SEE L.A. CO. SAN. DISTRICT FOR SPECIAL CONNECTION CHARGE

5-18-76

P.C. 10428 PAGE 6

REVIEWED BY Sam G. Lee 7-14-76 STATE

DOUBLE SCALE

NO L.A. COUNTY CHARGE FOR CONNECTIONS.

SEE L.A. CO. SAN. DISTRICT FOR SPECIAL CONNECTION CHARGE.

5-18-76

009 - 1703 | 43792 | 5 | 3 of 3

L.A. COUNTY SEWER MAP NO. 5 - SOUTHERN CALIFORNIA BLUEPRINT CO.

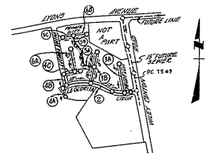
CITY OF SANTA CLARITA SEWER AS BUILTS

B.M. SL 642 ELEV. 1662.071
CO. DEPT. BM TAG IN CHOE CONC. BASE
AT N.E. COR. FOLSOM/HARRY FOLSOM
TOWER #AT-373W3-9 +35.3, '64
LYONS AVE. +130.2' SE NEWHALL RANCH RD.
NEWHALL QUAD. 1952

REVISION:
Sheet 2: Added House Laterals and Detail for same at Stations 1+62 and 4+56; Added Existing Storm Drain in Plan and Profile.
APPROVED: Ralph Schaefer 7/11/66
Asst. Chief of the County Engineer

ISSUE NO HOUSE CONNECTION PERMITS UNTIL THE OUTFALL LINE HAS BEEN CONSTRUCTED AND ACCEPTED FOR PUBLIC USE BY THE COUNTY OF LOS ANGELES

ISSUE NO HOUSE CONNECTION PERMITS UNTIL TRACT NO 24957 HAS BEEN RECORDED



INDEX MAP
TRACT NO 24957
P.C. 6698A
SCALE: 1"=800'

NOTE: Figures in circles indicate page numbers

Any connection to the Sewage System of County Sanitation District, provided directly or indirectly by the sewers shown on these plans, shall be considered a temporary connection until all area covered by or annexed to said district, at which time the connection shall become permanent. If for any reason the annexation to the district of any area covered hereunder is not completed, the property not in the district will be required to disconnect unless a contract is entered into with the district providing for the disposal of sewage from the area.

NEWHALL BLDG. DIST. NO. 8.2

NOTES:
1. PROVIDE STAKES ON THE PROPERTY LINE OR PROPERTY LINES PRODUCED AT RIGHT ANGLES TO THE SEWER LINE AT THE CENTER LINE OF EACH MANHOLE.
2. NO REPRESENTATIVE OF THE COUNTY ENGINEER WILL SURVEY OR LAY OUT ANY PORTION OF THE WORK.
3. THE PRIVATE ENGINEER SHALL FURNISH THE COUNTY ENGINEER WITH GRADE SHEETS AND STATIONING FOR ALL HOUSE LATERALS AND Y BRANCHES AND SHALL PROVIDE STAKES FOR FIELD USE AT THEIR PROPER LOCATIONS WITH STATIONING PLAINLY MARKED. ALL HOUSE LATERALS SHALL BE CONSTRUCTED IN A STRAIGHT ALIGNMENT AT RIGHT ANGLES FROM THE MAIN LINE SEWER EXCEPT AS SHOWN ON THE PLANS. HOUSE LATERALS FROM DOUBLE FRONT LOTS SHALL HAVE AN ANGLE OF USE THAT IS WITHIN THE MAIN LINE SEWER. ANY CHANGE IN ALIGNMENT SHALL BE REQUESTED IN WRITING BY THE PRIVATE ENGINEER.
4. THE PRIVATE ENGINEER SHALL FURNISH THE HOUSE LATERAL DEPTH AT THE PROPERTY LINE BELOW THE TOP OF CURB ELEVATION FOR EACH HOUSE LATERAL ON THE GRADE SHEET.
5. NO REVISIONS SHALL BE MADE IN THESE PLANS WITHOUT THE APPROVAL OF THE COUNTY ENGINEER.
6. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION DIVISION BY TELEPHONE, MADISON 9-4747, EXT. 81551, AT LEAST TWENTY-FOUR HOURS BEFORE STARTING ANY WORK UNDER THIS CONTRACT.
7. MANHOLES SHALL BE BRICK SEWER STRUCTURES PER S- 3 , PRECAST CONCRETE MANHOLES PER S- 3 OR S- 4 MAY BE USED AS AN ALTERNATE IN LOCATIONS APPROVED BY THE COUNTY ENGINEER, EXCEPT AS NOTED.
8. USE STANDARD MANHOLE FRAMES AND COVERS, S-15 EXCEPT ', ...NOTED.
9. MANHOLE TOPS IN UNIMPROVED RIGHTS-OF-WAY TO BE 30 INCHES ABOVE FINISHED GRADE AT FINISH GRADE.
10. USE EXTRA STRENGTH PIPE, ALL PIPE IS STANDARD DEPTH EXCEPT AS NOTED.
11. USE CEMENT MORTAR OR MECHANICAL COMPRESSION JOINTS FOR ALL V.C.P. JOINTS PER SPEC'S., SECS. 36 & 38.
12. WHERE FREE GROUND WATER IS ENCOUNTERED DURING THE CONSTRUCTION OF THE SEWERS, THE V.C.P. JOINTS SHALL BE OF JOINT COMPOUND PER SPEC'S., SEC. 37 & 38, OR MECHANICAL COMPRESSION JOINTS PER SPEC'S. SEC. 36.
13. IF A POWER POLE IS WITHIN THREE FEET OF THE SEWER, THE SEWER SHALL BE ENCASED, PER S-29 CASE III, TWO FEET ON EITHER SIDE FROM THE POINT OF INTERFERENCE.
14. IF DURING THE COURSE OF CONSTRUCTION IT IS DETERMINED THAT THE AS IS LESS THAN FOUR FEET OF COVER OVER THE TOP OF A MAIN LINE OR HOUSE LATERAL V.C.P. SEWER WHICH IS NOT INDICATED ON THE PLANS, THE PIPE SHALL BE ENCASED PER S- 29, CASE III, UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER.
15. HOUSE LATERALS TO BE CONSTRUCTED WITH INVERTS AT PROPERTY LINE ...6"... FEET ABOVE CURB GRADE BEFORE BEING BACKED.
16. BACKFILL ALL TRENCHES WITHIN PAVED AREAS TO MEET L.A. COUNTY ROAD DEPT. OR CALIFORNIA STATE HIGHWAY REQUIREMENTS IN ACCORDANCE WITH PERMITS.
17. FOR ALLOWABLE LEAKAGE TEST USE FORMULA NO. ...2..., SPEC'S., SEC. 24.
18. ALL STATE AND LOCAL TRENCH SAFETY ORDERS SHALL BE STRICTLY ENFORCED.
19. NO CONSTRUCTION WILL BE PERMITTED IN FILLED AREAS UNLESS ACCEPTABLE COMPACTION IS SUBMITTED TO THE CONSTRUCTION DIVISION OF THE COUNTY ENGINEER THAT EQUALS COMPACTION OF GREATER THAN 90%.
(a) IF CONNECTION IS LESS THAN 90% THE SEWER MUST BE CRADLED AS SHOWN ON PLANS PER S-29 AND MANHOLE BASES CONSTRUCTED PER S-14.
(b) IF CONNECTION IS GREATER THAN 90% CRADLING PER S-29 AND MANHOLE BASES PER S-14 WILL NOT BE REQUIRED.

COLLECT CHARGES AS INDICATED
Ralph Schaefer

NO CONNECTIONS FOR THE DISPOSAL OF INDUSTRIAL WASTES SHALL BE MADE TO SEWERS SHOWN ON THESE DRAWINGS WITHOUT WRITTEN PERMISSION FROM THE CHIEF ENGINEER AND GENERAL MANAGER OF THE COUNTY SANITATION DISTRICTS.

SANITARY SEWERS PAGE 1

CONSTRUCTED IN

TRACT NO. 24957 (37884)

PRIVATE CONTRACT NO. 6698A

W.S. 62

3 SHEETS; 6 PAGES

SCALE: VERT. 1"=5'
HORIZ. 1"=40 NOVEMBER, 1965

PREPARED IN THE OFFICES OF
JENNINGS ENGINEERING CO.
2481 SAN FERNANDO ROAD, NEWHALL, CALIF.
by: E. J. Jennings
REG. C. E. NO. 7858

FOR LEGEND SEE PLAN NO. S-1

NOTE:
GRADES TO WHICH THIS IMPROVEMENT IS TO BE CONSTRUCTED ARE SHOWN ON PLANS AND PROFILES. GRADE POINTS FOR TOP OF CURB ELEVATIONS AT HOUSE LATERAL LOCATIONS ARE SHOWN ON THE GRADE SHEETS. GRADE SHEETS ALSO INDICATE DESIGNATED POINTS THE GRADE LINE IS TO BE ESTABLISHED SO AS TO CONFORM TO A STRAIGHT LINE DRAWN BETWEEN SAID DESIGNATED POINTS.
ELEVATIONS ARE IN FEET ABOVE U.S.C. & G.S. SEA LEVEL DATUM OF 1929.
THIS DRAWING AND THE DATA HEREON ARE HEREBY MADE A PART OF THE SPECIFICATIONS.
WORK SHALL BE CONSTRUCTED ACCORDING TO STANDARD SPECIFICATIONS AND STANDARD PLANS ..... ON FILE IN THE OFFICE OF THE COUNTY ENGINEER, 108 WEST SECOND STREET, LOS ANGELES, CALIFORNIA, 90012, UNLESS OTHERWISE INDICATED.
BEFORE WORK CAN BE STARTED, THE CONTRACTOR MUST OBTAIN A PERMIT TO EXCAVATE IN COUNTY STREETS FROM THE L.A. COUNTY ROAD DEPT., DISTRICT OFFICE NO. ..3..., AND PAY A FEE TO THE COUNTY ENGINEER, ROOM 306, COUNTY ENGINEERING BUILDING, 108 WEST SECOND STREET OR ..... ANTELOPE ..... VALLEY ..... REGIONAL OFFICE, SUFFICIENT TO COVER THE COST OF CONSTRUCTION INSPECTION AND RECORD PLANS.
THE APPROVAL OF THESE PLANS BY THE COUNTY OF LOS ANGELES DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OF THE LOCATION OF OR THE EXISTENCE OR NON-EXISTENCE OF ANY GAS, TELEPHONE UTILITY PIPE, OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THIS NOTE APPLIES TO ALL PAGES.
IF WORK IS TO BE DONE IN A STATE HIGHWAY, A PERMIT MUST BE OBTAINED FROM THE STATE OF CALIFORNIA, DIVISION OF HIGHWAYS, 120 SOUTH SPRING STREET, LOS ANGELES, CALIFORNIA.

COUNTY OF LOS ANGELES, CALIFORNIA

JOHN A. LAMBIE, COUNTY ENGINEER
APPROVED BY: Richard S. Kiel
ASSISTANT SANITATION ENGINEER

J. D. PARKHURST, CHIEF ENGINEER
CO. ENG. DEPT. 39932
APPROVED BY: J. Parkhurst
CHIEF ENGINEER

CHECKED BY: Ralph Schaefer 12/8/65
REG. C.E. NO. 13196

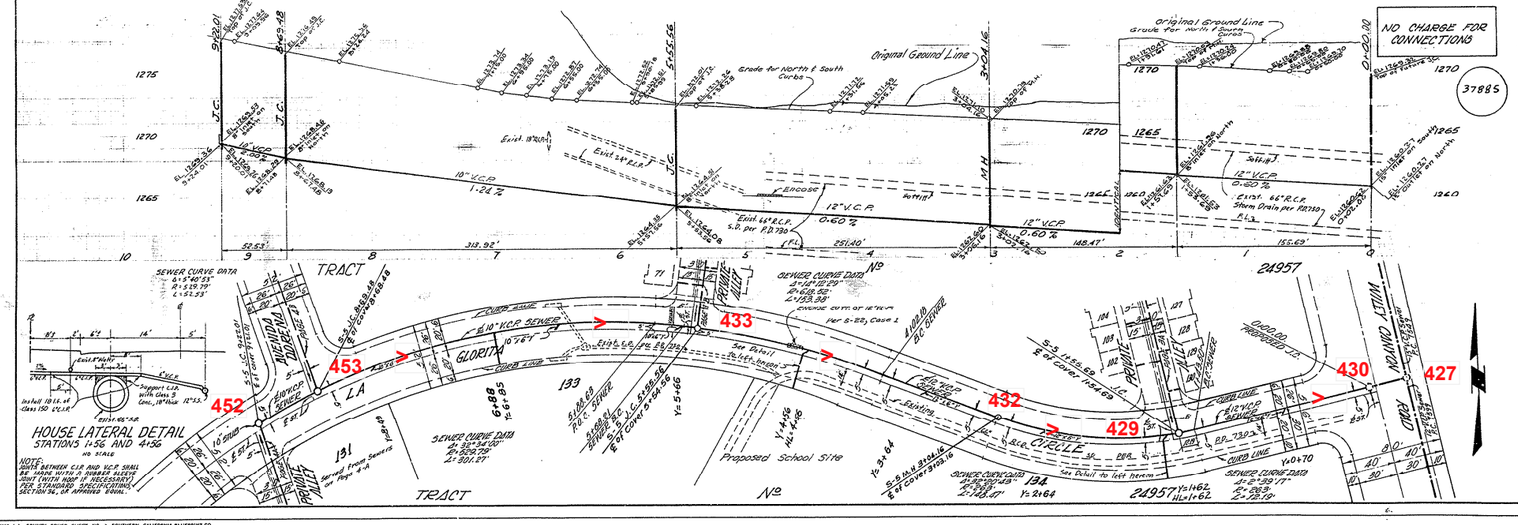
APPROVAL BY SAN. DISTRICT DOES NOT GUARANTEE SERVICE INTO SAN. DISTRICT SYSTEM UNTIL OUTFALL SEWER HAS BEEN CONSTRUCTED.

J. N. 0361.33

P. C. 6698A PAGE 2

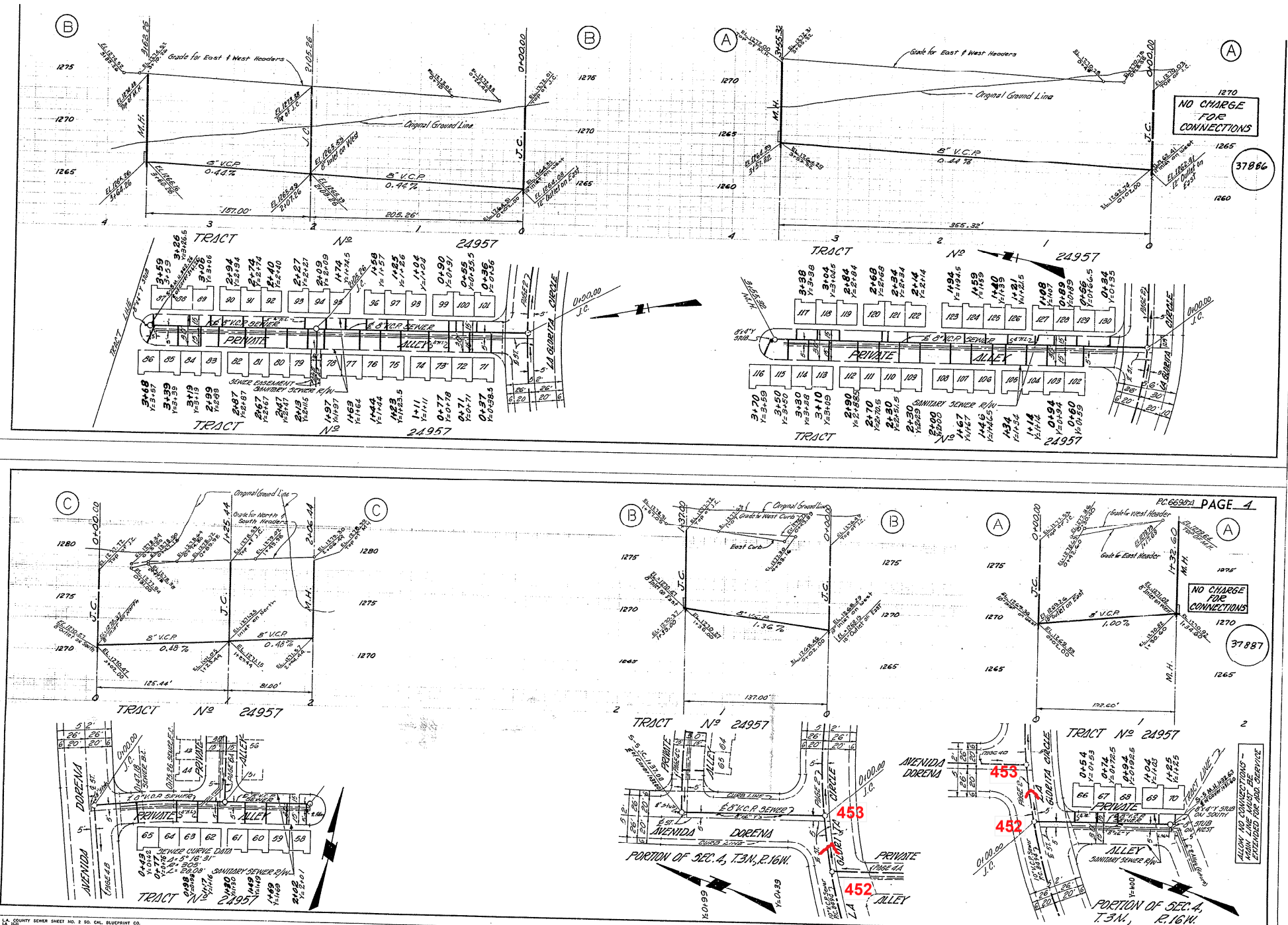
NO CHARGE FOR CONNECTIONS

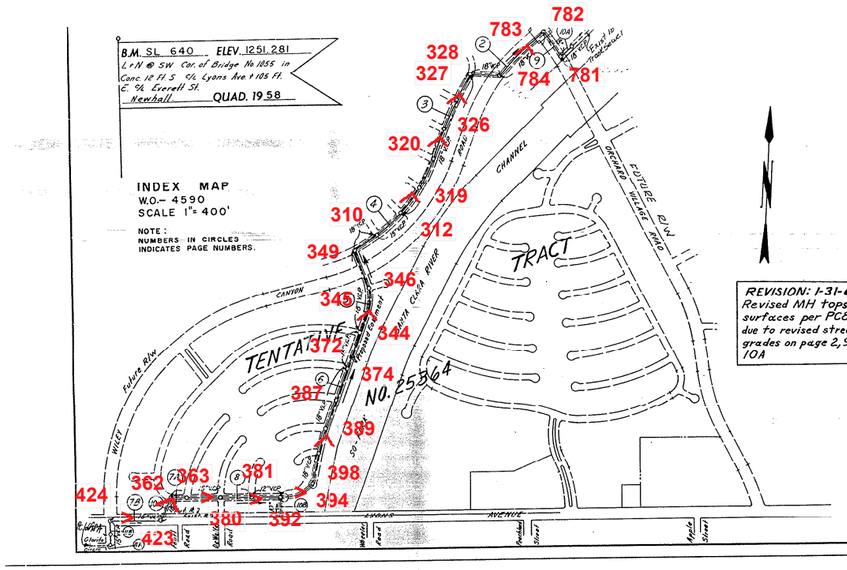
37885



K&E 121338 L.A. COUNTY SEWER SHEET NO. 1 SOUTHERN CALIFORNIA BLUEPRINT CO.

P.C. 6690-A PAGE 4





DOUBLE SCALE

NEW HALL BLDG. DIST. NO. 8.2

NOTES:

1. PROVIDE STAKES ON THE PROPERTY LINE OR PROPERTY LINES PRODUCED AT RIGHT ANGLES TO THE SEWER LINE AT THE CENTER LINE OF EACH MANHOLE.
2. NO REPRESENTATIVE OF THE COUNTY ENGINEER WILL SURVEY OR LAY OUT ANY PORTION OF THE WORK.
3. THE PRIVATE ENGINEER SHALL FURNISH THE COUNTY ENGINEER WITH GRADE SHEETS AND STATIONING FOR ALL ~~SEWER CENTERLINES AND~~ Y BRANCHES AND SHALL PROVIDE STAKES FOR THEM AT THOSE PROPER LOCATIONS WITH STATIONING PLAINLY MARKED. ~~RECORDED~~ ~~GRADE SHALL BE CONSTRUCTED BY A SURVEYOR OR REGISTERED ENGINEER AS MORE SPECIFICALLY PROVIDED BY SECTION 8766 OF THE BUSINESS AND PROFESSIONS CODE. THE SURVEYOR OR REGISTERED ENGINEER SHALL SET, WHERE THE SEWER LINE DEPARTS,~~ ANY CHANGE IN ALIGNMENT SHALL BE REQUESTED IN WRITING BY THE PRIVATE ENGINEER.
4. THE PRIVATE ENGINEER SHALL FURNISH THE HOUSE LATERAL DEPTH AT THE PROPERTY LINE BELOW THE TOP OF CURB ELEVATION FOR EACH HOUSE LATERAL ON THE GRADE SHEET.
5. NO REVISIONS SHALL BE MADE IN THESE PLANS WITHOUT THE APPROVAL OF THE COUNTY ENGINEER.
6. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION DIVISION BY TELEPHONE, MADISON 9-0747, EXT. 61551, AT LEAST TWENTY-FOUR HOURS BEFORE STARTING ANY WORK UNDER THIS CONTRACT.
7. MANHOLES SHALL BE BRICK SEWER STRUCTURES PER S-2 . PRECAST CONCRETE MANHOLES PER S-5 OR S-6 MAY BE USED AS AN ALTERNATE IN LOCATIONS APPROVED BY THE COUNTY ENGINEER.
8. USE STANDARD MANHOLE FRAMES AND COVERS, S-15 , EXCEPT AS NOTED.
9. MANHOLE TOPS IN UNIMPROVED RIGHTS-OF-WAY TO BE SIX INCHES ABOVE FINISHED GRADE.
10. USE EXTRA STRENGTH PIPE. ALL PIPE IS STANDARD DEPTH EXCEPT AS NOTED.
11. USE ~~CEMENT MORTAR OR~~ MECHANICAL COMPRESSION JOINTS FOR ALL V.C.P. JOINTS PER SPECS., SECS. 36 & 48.
12. ~~WHERE END GROUND WATER IS ENCOUNTERED DURING THE CONSTRUCTION OF THE SEWERS, THE V.C.P. JOINTS SHALL BE OF JOINT DESIGNED FOR SPECS., SECS. 51 & 58, OR MECHANICAL COMPRESSION JOINTS PER SPECS., SEC. 36.~~
13. IF A POWER POLE IS WITHIN THREE FEET OF THE SEWER, THE SEWER SHALL BE ENCASED, PER S-23 TWO FEET ON EACH SIDE FROM THE POINT OF INTERFERENCE.
14. IF DURING THE COURSE OF CONSTRUCTION IT IS DETERMINED THAT THERE IS LESS THAN FOUR FEET OF COVER OVER THE TOP OF A MAIN LINE OR HOUSE LATERAL V.C.P. SEWER WHICH IS NOT INDICATED ON THE PLANS, THE PIPE SHALL BE ENCASED PER S-23 UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER.
15. ~~HOUSE SEWERS TO BE SO CONSTRUCTED THAT THE ANGLE OF PROPERTY LINE ..... (YET ABOVE SAME SHOULD BE NOTED.~~
16. RESURFACE ALL TRENCHES WITHIN PAVED AREAS TO MEET L.A. COUNTY ROAD DEPT. OR CALIFORNIA STATE HIGHWAY REQUIREMENTS IN ACCORDANCE WITH PO-ATS.
17. FOR ALLOWABLE LEAKAGE TEST USE FORMULA NO. ...R....., SPECS., SEC. 54.
18. ALL STATE AND LOCAL TRENCH SAFETY ORDERS WILL BE RIGIDLY ENFORCED.
19. ALL JOINTS BETWEEN CAST IRON PIPE AND VITRIFIED CLAY PIPE SHALL BE MADE WITH A RUBBER SLEEVE JOINT (WITH HOODS, IF NECESSARY) PER STANDARD SPECIFICATIONS, SEC.36, OR APPROVED EQUAL.

REVISION: 1-31-69
Revised MH tops & surfaces per PC8197 due to revised street grades on page 2, 9 & 10A

COLLECT CHARGES AS INDICATED
Ralph Schaefer

BEFORE BREAKING INTO ANY EXISTING STRUCTURE AND BEFORE FINAL ACCEPTANCE OF THIS WORK, COUNTY SANITATION DISTRICT (DU 6-1281) SHALL BE NOTIFIED IN ORDER THAT REQUIRED INSPECTION CAN BE MADE.

NO CONNECTIONS FOR THE DISPOSAL OF INDUSTRIAL WASTES SHALL BE MADE TO SEWERS SHOWN ON THESE DRAWINGS WITHOUT WRITTEN PERMISSION FROM THE CHIEF ENGINEER AND GENERAL MANAGER OF THE COUNTY SANITATION DISTRICTS.

SANITARY SEWERS PAGE 1

TO BE CONSTRUCTED IN R W

NORTH OF LYONS AVENUE

PRIVATE CONTRACT NO. 7549

W.S. 62

6 SHEETS, 12 PAGES

SCALE: VERT. 1"=8' HORIZ. 1"=40'

FEBRUARY , 1966

38652

PREPARED IN THE OFFICES OF
VOORHEIS – TRINDLE CO.

By: R. P. Dalton
REG. C. E. NO. 37791

FOR LEGEND SEE PLAN NO. S-1

NOTE:
GRADES TO WHICH THIS IMPROVEMENT IS TO BE CONSTRUCTED ARE SHOWN ON PLANS AND PROFILES. GRADE POINTS FOR TOP OF CURBS, CENTER LINE OF STREETS, OR CENTER LINE OF ALLEYS ARE SHOWN BY GINGER DAB PROFILES. AT LEG POINTS BETWEEN DESIGNATED POINTS THE GRADE SHALL BE ESTABLISHED SO AS TO CONFORM TO A STRAIGHT LINE DRAWN BETWEEN SAID DESIGNATED POINTS.
THIS WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS ~~DATED~~ signed ~~1964~~ AND THE DATA HEREON AS SHOWN HOLD A PART OF THE SPECIFICATIONS.
WORK SHALL BE CONSTRUCTED ACCORDING TO STANDARD SPECIFICATIONS DATED 1964 ON FILE IN THE OFFICE OF THE COUNTY ENGINEER AND SHALL BE PROSECUTED ONLY IN THE PRESENCE OF THE COUNTY ENGINEER.
BEFORE WORK CAN BE STARTED, THE CONTRACTOR MUST OBTAIN A PERMIT TO EXCAVATE IN COUNTY STREETS FROM THE L.A. COUNTY ROAD DEPARTMENT, 900 SOUTH FREMONT AVE., ALHAMBRA, CALIF. ~~90 803~~ AND FROM THE CITY OF SANTA CLARITA, 23920 VALENCIA BLVD., SUITE 300, SANTA CLARITA, CALIF. 91355 REGIONAL OFFICE, SUPPORT TO COVER THE COST OF CONSTRUCTION INSPECTION AND RECORD PLANS.
APPROVAL OF THIS PLAN BY THE COUNTY OF LOS ANGELES DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OF THE LOCATION OR DO THE EXISTENCE OR NON-EXISTENCE OF ANY UNDERGROUND UTILITY PIPE, OR STRUCTURE WITHIN THE LIMITS OF THIS WORK OR ADJACENT THERETO.
IF WORK IS TO BE DONE IN A STATE HIGHWAY, A PERMIT MUST BE OBTAINED FROM THE STATE OF CALIFORNIA, DIVISION OF HIGHWAYS, 120 SOUTH SPRING STREET, LOS ANGELES, CALIFORNIA.

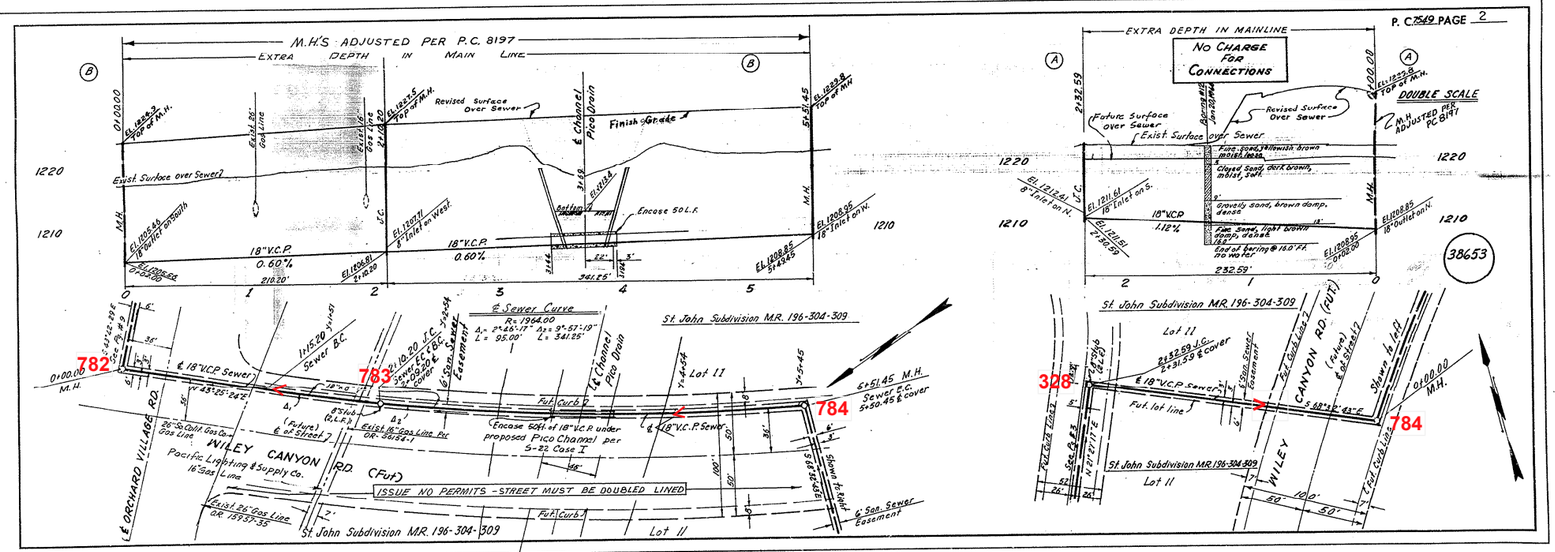
COUNTY OF LOS ANGELES, CALIFORNIA
JOHN A. LAMBIE, COUNTY ENGINEER J. D. PARKHURST, CHIEF ENGINEER
CO. SAN. DIST. NO. 8

APPROVED BY: Robert E. Kuhn, ASSISTANT SANITATION ENGINEER
APPROVED BY: M. Martinez, OFFICE ENGINEER

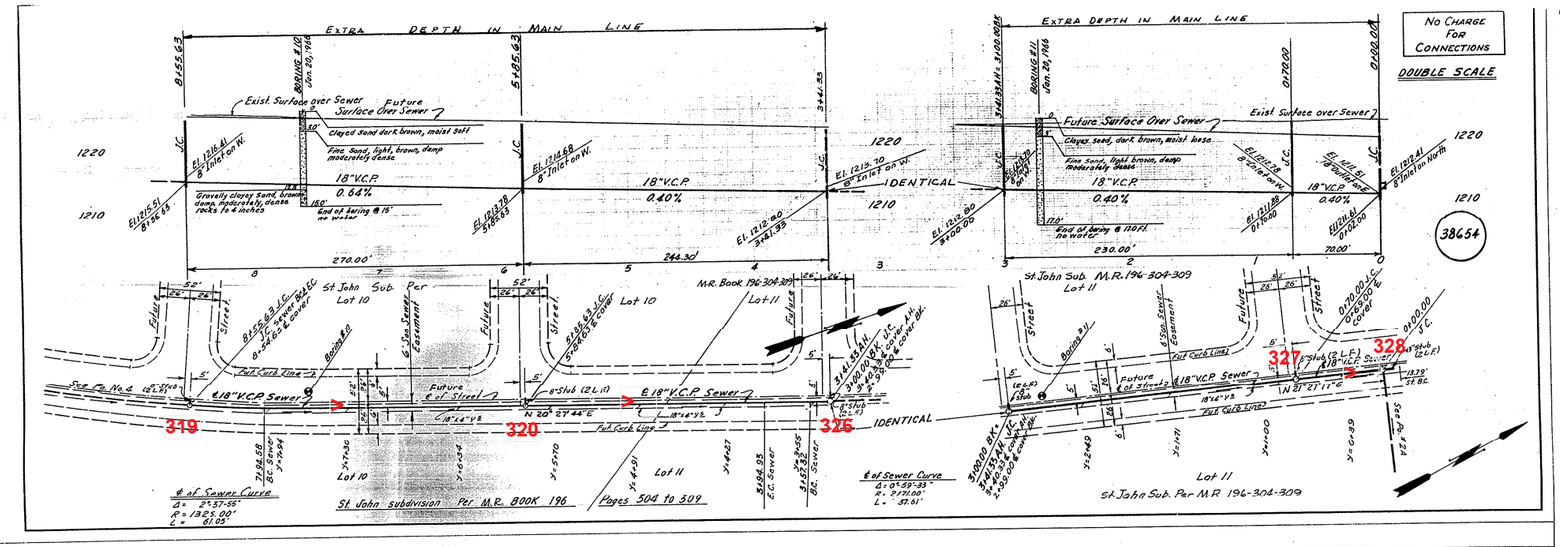
CHECKED BY: Ralph Schaefer 5/19/66
REG. C.E. NO. 13926

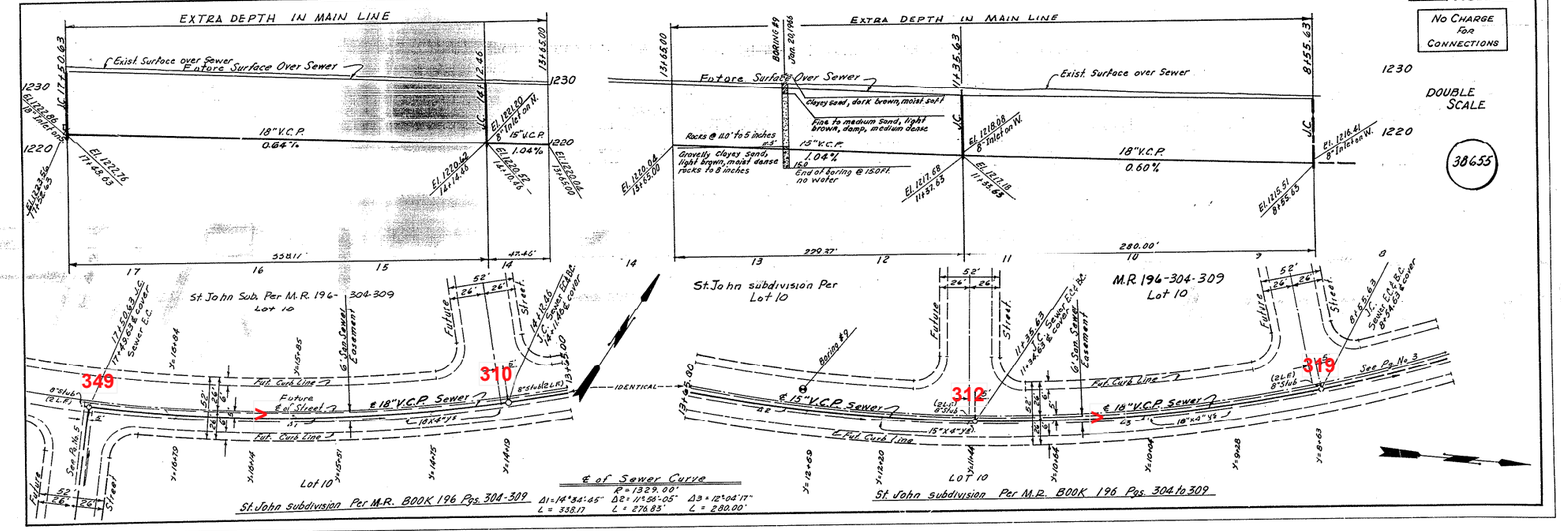
J. N. 0366.91

P. C. 7549 PAGE 2

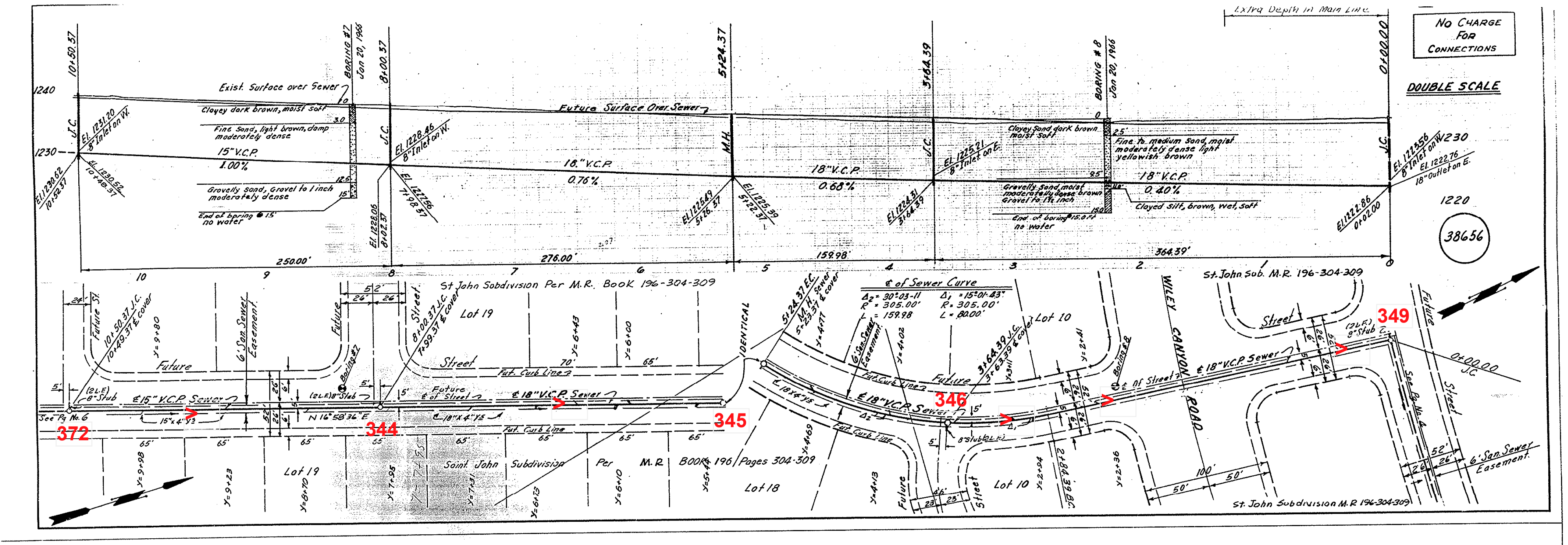


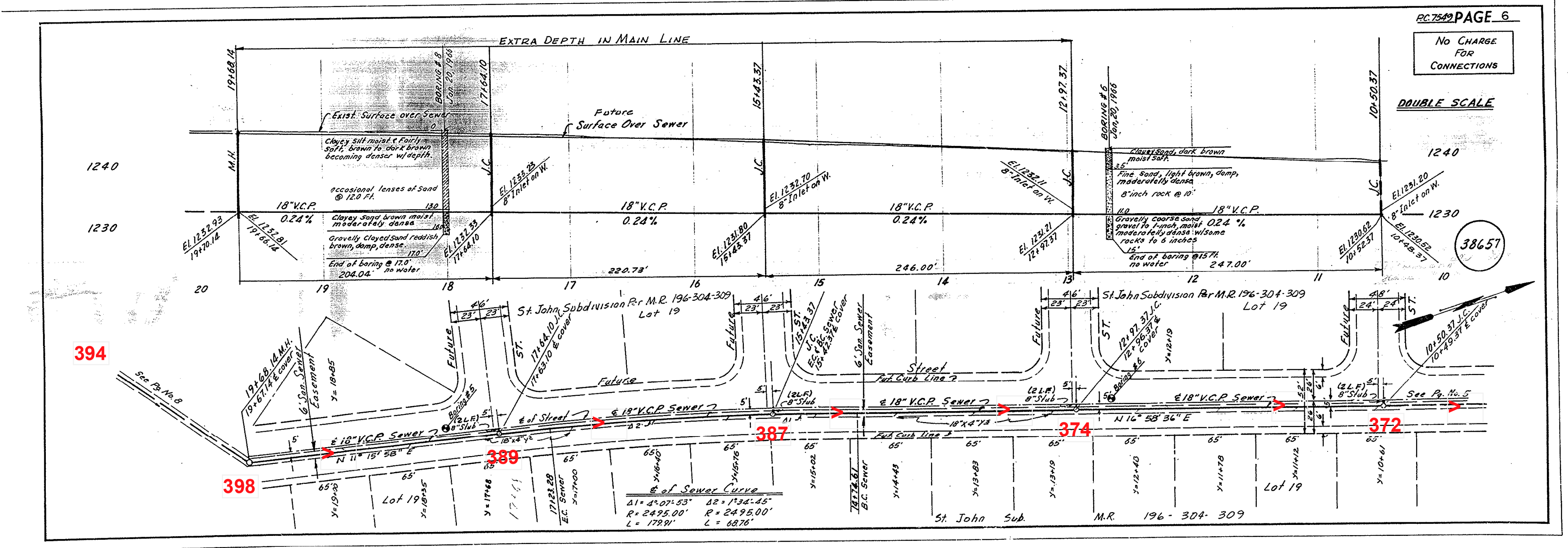
M&E 171133 L.A. COUNTY SEWER SHEET NO. 1 SOUTHERN CALIFORNIA BLUEPRINT CO. LA 5857





K&E 171133 L.A. COUNTY SEWER SHEET NO. 2 SQ. CAL. BLUEPRINT CO. LA 3867





K&E 175153 L.A. COUNTY SEWER SHEET NO. 2 SO. CAL. BLUEPRINT CO.
LA 0867

EXTRA DEPTH IN MAIN LINE

Grade of Centerline of Street

Closed Sand, brown, moist, moderately dense

fine to medium sand, yellowish brown, damp, dense, becoming sandier with depth, gravel at bottom of boring

Fut 96" Storm Drain

15" V.C.P
0.72%
300.61'

End of boring at 16 meters

St John Subdivision Per M.R. Book 196-304-309

NO CHARGE FOR CONNECTIONS
SERVICE STATION (FUTURE)
Lot 19

ISSUE PERMIT FROM PAGE 10C

Future 96" Storm Drain

Future Property Line

Exist R/W

6" Water line

6" Stm Sewer Easement

Exist Pump

PROPOSED ℄ 15" V.C.P Sewer

12" SO. COUNTIES GAS CO. O/S/O ℄ 7

15"x6" Y

PROP. BUNCO TEL. CABLE 30" C

Exist Curb

Exist Curb & Gutter

Exist Sidewalk

Future Curb & Gutter

Future Sidewalk

Future Street Grade

Future Street Grade

Future Curb & Gutter

Future Sidewalk

Future Curb & Gutter

Future Street

Future Street

Future Street

Future Street

LYONS AVENUE

ANNEXATION TO SAN. DIST. REQUIRED

NO CHARGE FOR CONNECTIONS — WAIVER REQUIRED

ST JOHN SUBDIVISION MR-196 306 309

WILEY CANYON ROAD

FOURL RD

4" STD. OIL CO. WATER LINE
SO. CAL. GAS CO. 2"
30 GAL. GAS CO. 2"
PROPOSED ℄ 2
EXISTING 4" V.C.P.
Encase (4) of 8" V.C.P. Det. C-232.0582

Encase (4) of 8" V.C.P. Det. C-232.0582

Encase 16" Storm Drain

Encase 36" Storm Drain

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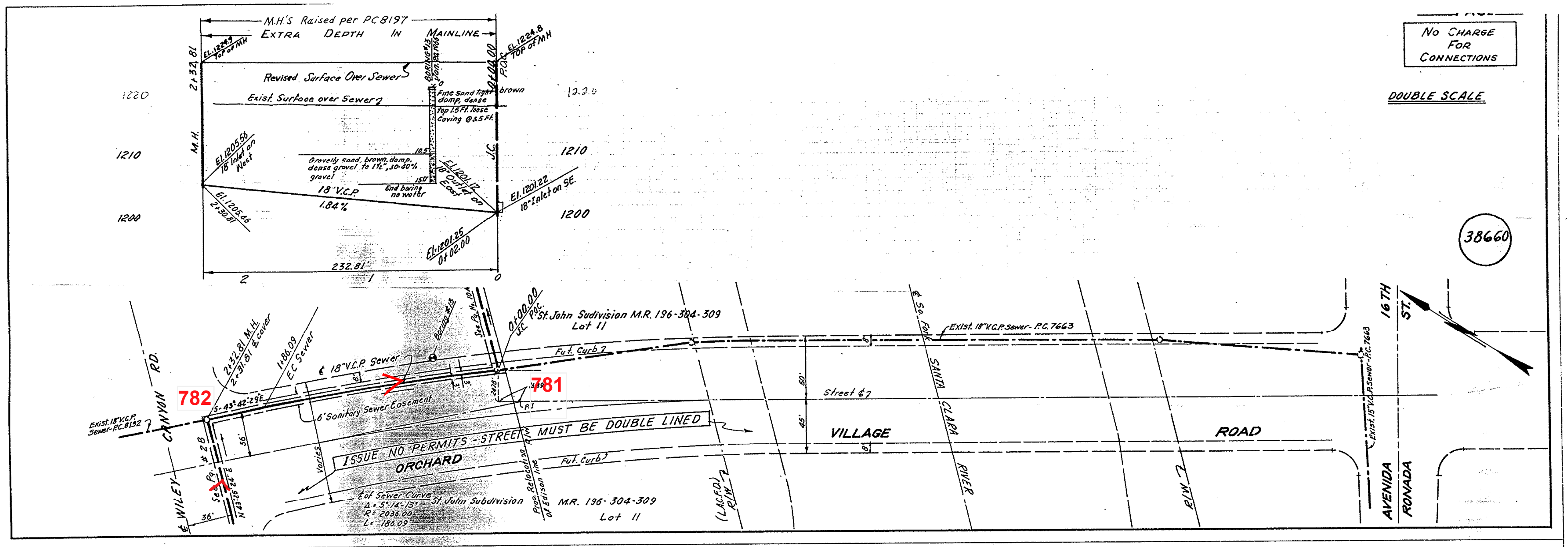
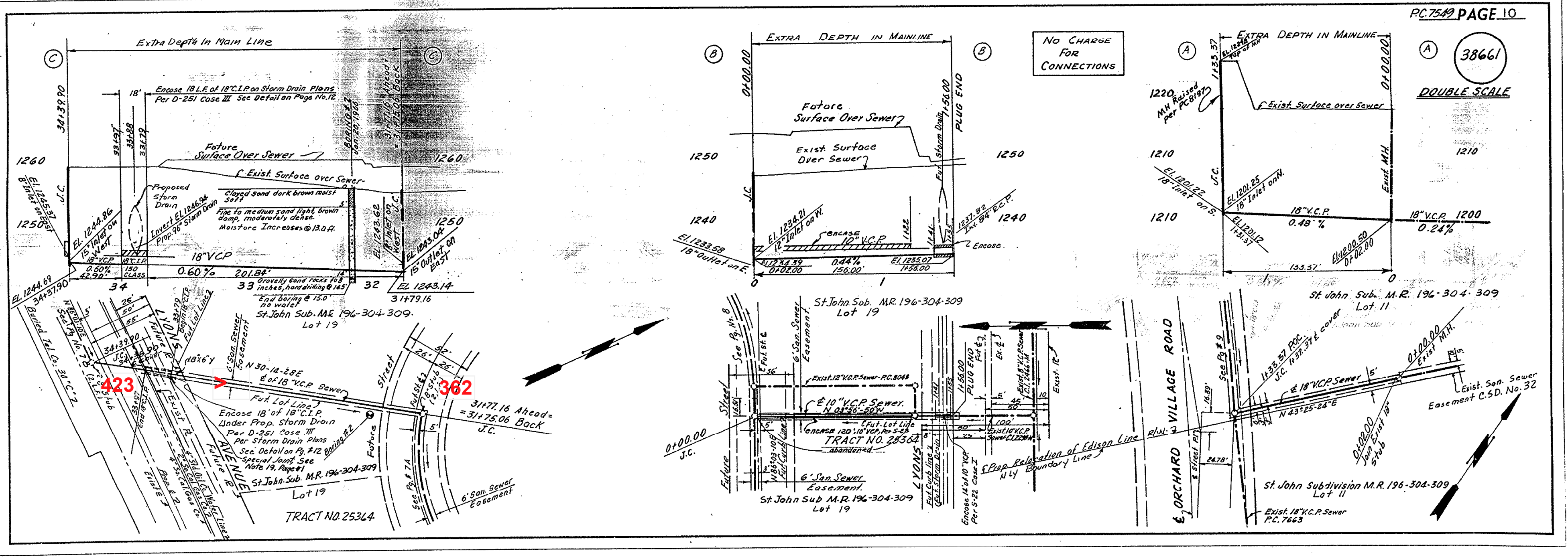
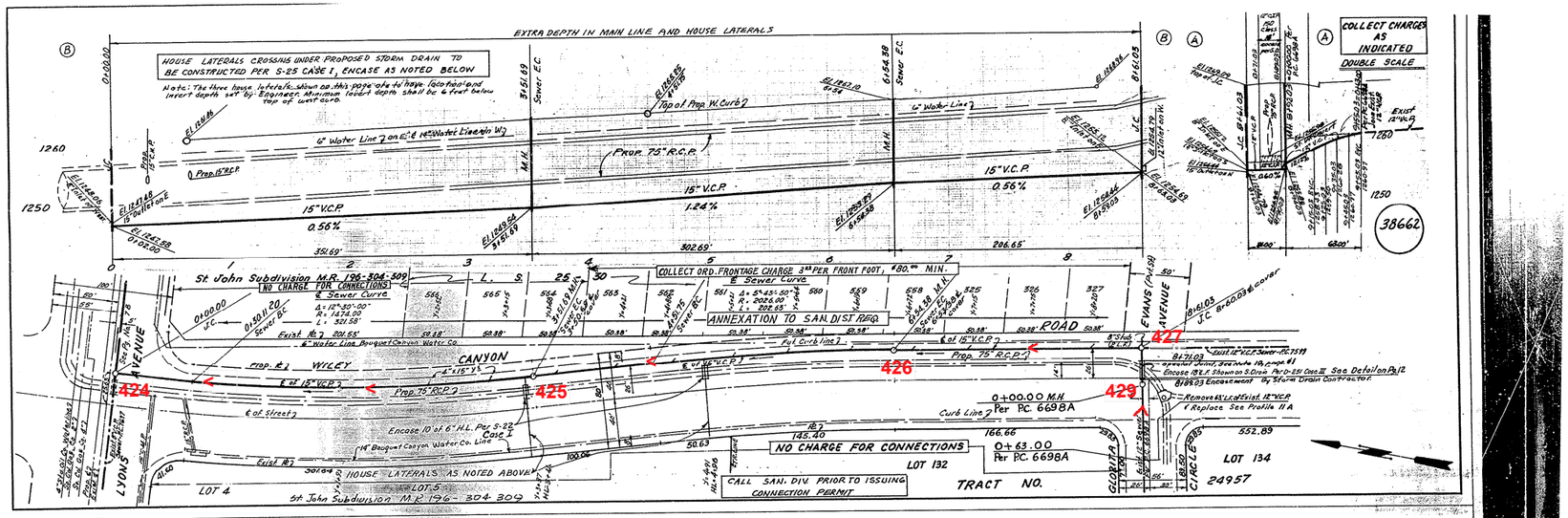


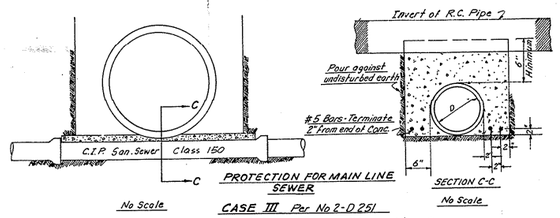


K&E 175153 L.A. COUNTY SEWER SHEET NO. 2 SO. CAL. BLUEPRINT CO.
LA 0867



PAGE 12

38663



KAE 170553 LA COUNTY SEWER SHEET NO. 2 SO. CAL. BLUEPRINT CO. LA 1967

B.M. SL 642 ELEV. 1262.07
Reed Dept. B.M. Tag No. Side Conc. base of NE Cor. Edison High Tension Tower F M-373 W 3-3 2 51.52 & Lyons Avenue and 1 30'E & Wiley Canyon Road
NEWHALL QUAD. 19 58

SPECIAL NOTES:
1) The Contractor for this project is responsible for adjusting all M.H. tops to flush with paving surface of roads in propos'd Tract No. 26915 prior to final acceptance of this sewer.
2) All grading is to be completed by others prior to start of Sewer construction.

NOTE: CONTRACTOR MUST MAINTAIN EXISTING SEWER SERVICE AT ALL TIMES ON PAGES 5, 6, 7, 17 AND 18.

DOUBLE SCALE
NEWHALL BLDG. DIST. NO. 82

PROFILE, ALIGNMENT AND GRADE OF **P.C. 8048**

SANITARY SEWERS PAGE 1

TO BE CONSTRUCTED IN
TRACT NO. 26885
AND TRACT NO. 26915

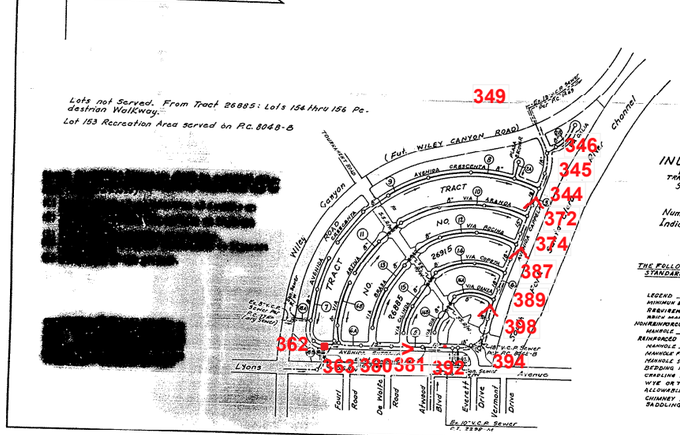
PRIVATE CONTRACT NO. 8048

W.S. 42
9 SHEETS, 18 PAGES
SCALE: VERT. 1"=5' HORIZ. 1"=50' MARCH, 1968
PREPARED IN THE OFFICES OF
VOORHEIS-TRINDLE CO.
5849 Van Nuys Blvd., Van Nuys California
By: E.H. McDaniel REG. C. E. NO. 9513

40361

FOR LEGEND SEE PLAN NO. S-1

Lots not Served. From Tract 26885: Lots 154 thru 156 Pedestrian Walkway.
Lot 153 Recreation Area served on P.C. 8048-B



INDEX MAP
P.C. 8048
TRACT NO. 26915 & TR. 26916
Scale 1" = 400'

Number in Circles Indicates Page Numbers

THE FOLLOWING COUNTY ENGINEER STANDARD PLANS APPLY TO THIS PROJECT

LEGEND	S-1
MINIMUM EXCAVATION SAFETY REQUIREMENTS	S-2
HOUSEBRANCH	S-3
HOUSEBRANCH-SEWER PRECAST CONCRETE MANHOLE	S-5
REINFORCED PRECAST CONCRETE MANHOLE	S-6
MANHOLE FRAME AND COVER	S-7
MANHOLE STEPS	S-7
DEPTHS FOR SEWER PIPE	S-21
CRADLING AND ENCASEMENT	S-23
WYE OR TEE SUPPORT	S-25
ALLOWABLE TRENCH WIDTHS	S-33
CHIMNEY PIPE AND BASE	S-37
TABULINO	S-38

NOTES.
1. PROVIDE STAKES ON THE PROPERTY LINE OR PROPERTY LINES PRODUCED AT RIGHT ANGLES TO THE SEWER LINE AT THE CENTER LINE OF EACH MANHOLE.
2. NO REPRESENTATIVE OF THE COUNTY ENGINEER WILL SURVEY OR LAY OUT ANY PORTION OF THE WORK.
3. THE PRIVATE ENGINEER SHALL FURNISH THE COUNTY ENGINEER WITH GRADE SHEETS AND STATIONING FOR ALL HOUSE LATERALS AND "Y" BRANCHES AND SHALL PROVIDE STAKES FOR THESE AT THESE PROPER LOCATIONS WITH STATIONING PLAINLY MARKED. ALL HOUSE LATERALS SHALL BE CONSTRUCTED IN A STRAIGHT ALIGNMENT AT RIGHT ANGLES FROM THE MAIN LINE SEWER EXCEPT AS SHOWN ON THE PLANS. HOUSE LATERALS FROM CHAMBERS SHALL NOT HAVE AN ANGLE OF LESS THAN 45° WITH THE MAIN LINE SEWER. ANY CHANGE IN ALIGNMENT SHALL BE REQUESTED IN WRITING BY THE PRIVATE ENGINEER.
4. THE PRIVATE ENGINEER SHALL FURNISH THE HOUSE LATERAL DEPTH AT THE PROPERTY LINE BELOW THE TOP OF CURB ELEVATION FOR EACH HOUSE LATERAL ON THE GRADE SHEET.
5. NO REVISIONS SHALL BE MADE IN THESE PLANS WITHOUT THE APPROVAL OF THE COUNTY ENGINEER.
6. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION DIVISION BY TELEPHONE, MADISON 9-0401, EXT. 81551, AT LEAST TWENTY-FOUR HOURS BEFORE STARTING ANY WORK UNDER THIS CONTRACT.
7. ALL STRUCTURES SHALL BE EITHER BRICK MANHOLES PER C-3 OR PRECAST CONCRETE MANHOLES PER S-7 OR S-6, EXCEPT AS NOTED.
8. "Y" OR "T" BRANCHES MAY BE USED FOR CONNECTIONS TO MAIN LINE SEWERS, EXCEPT AS NOTED
9. MANHOLE TOPS ON UNIMPROVED RIGHTS-OF-WAY TO BE 2" ABOVE FINISHED GRADE.
10. USE EXTRA STRENGTH PIPE ALL RUN IN STANDARD DEPTH EXCEPT AS NOTED.
11. VITRIFIED CLAY PIPE JOINTS SHALL BE "TYPE 'D'," OR "2" PER STANDARD SPEC'S SEC. 208-2.
12. IF A POWER POLE IS WITHIN THREE FEET OF THE SEWER, THE SEWER SHALL BE ENCASED, PER S-23, TWO FEET ON EACH SIDE FROM THE POINT OF INTERFERENCE.
13. IF DURING THE COURSE OF CONSTRUCTION IT IS DETERMINED THAT THERE IS LESS THAN FOUR FEET OF COVER OVER THE TOP OF A MAIN LINE OR HOUSE LATERAL Y.C.K. SEWER WHICH IS NOT INDICATED ON THIS PLANS, THE PIPE SHALL BE ENCASED PER S-23, UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER.
14. HOUSE LATERALS TO BE PERPENDICULAR WITH SEWERS AT PROPERTY LINE 6 FEET BELOW CURB GRADE EXCEPT AS NOTED.
15. RECOMPACT ALL TRENCHES WITHIN PAVED AREAS TO MEET L.A. COUNTY ROAD DEPT. OR CALIFORNIA STATE HIGHWAY REQUIREMENTS IN ACCORDANCE WITH PERMITS.
16. SEWERS TO BE TESTED FOR LEAKAGE PER SEC. 306-2.3.7 OF STANDARD SPECIFICATIONS.
17. ALL STATE AND LOCAL TRENCH SAFETY ORDERS WILL BE STRICTLY ENFORCED.
18. SPECIAL BACKFILL IN DESIGNATED AREAS:
(a) Backfill trench and replace other earth removed so as to support the natural or finished grades and slopes shown on the grading plan approved for this tract by Bldg. & Safety Dept.
(b) All backfill shall be mechanically placed compacted to a minimum of 90% of maximum density per ASTM Standard D 1557-58T. Method C or D. A modified Acceptable Control of such compaction shall be submitted to the Construction Division.
19. ALL CUNTE BETWEEN CAST IRON PIPE AND VITRIFIED CLAY PIPE SHALL BE MADE WITH A RUBBER SLEEVE JOINT, TYPE "C" or "D", (WITH BUSHING IF NECESSARY) PER STAND. SPEC'S. SEC. 208-3.
20. SEWER PIPE BEDDING SHALL CONFORM TO S-21.

NOTE "A": PRIOR TO ISSUANCE OF A HOUSE CONNECTION PERMIT FOR THE GAS STATION SITE - CONTACT SANITATION DIVISION

NOTICE TO CONTRACTOR
The existence and location of any underground utility pipes or structures shown on these plans are obtained by a search of the available records. To the best of my knowledge these plans show existing sewers as shown on these plans. The contractor is required to take due precautionary measures to protect the utility lines shown and any other lines not shown or of record or not shown on these plans.
E.H. McDaniel REG. 9513

COUNTY OF LOS ANGELES, CALIFORNIA
JOHN A. LAMBIE, COUNTY ENGINEER J. D. PARKHURST, CHIEF ENGINEER
APPROVED BY: Stanley Hall Wilkinson REGIONAL ENGINEER
APPROVED BY: [signature] OFFICE ENGINEER
CHECKED BY: Ralph Lavelle 5/1/68
REG. C. E. NO. 13408

REVISIONS
1. Remove ML from Lot 154 of Tr. 26885 (Pedestrian Walk)
2. Revise to show inclusion of Tr. 26915
APPROVED: Ralph Lavelle 6/15/68 13408
OFFICE OF THE COUNTY ENGINEER R.C.E. DATE

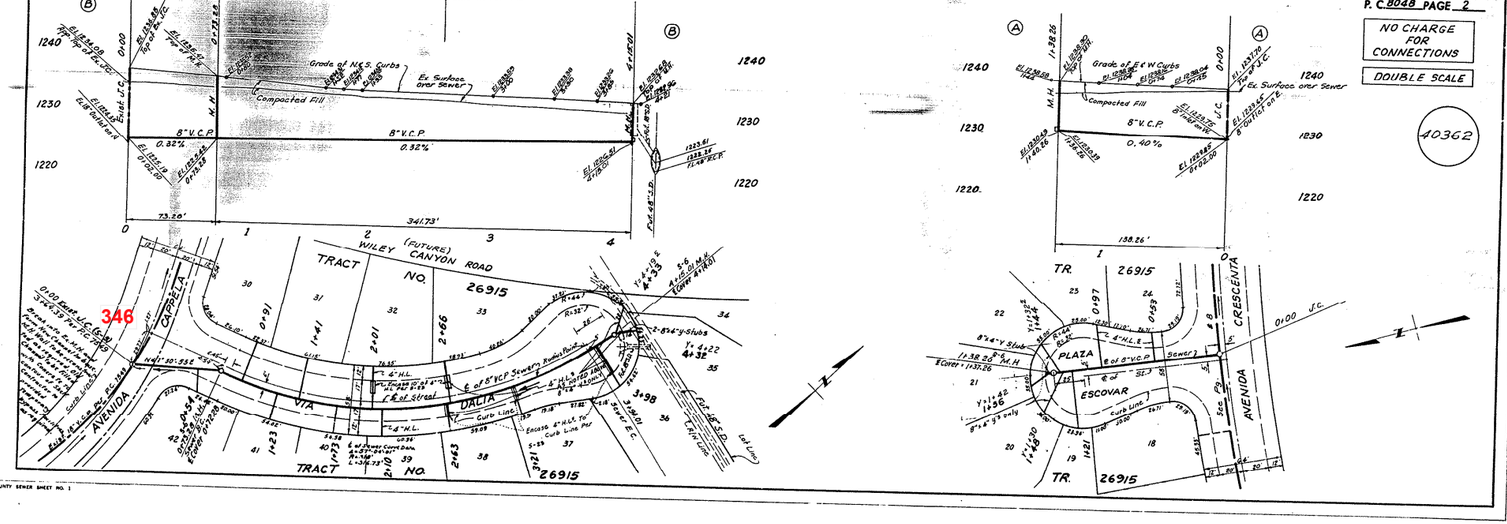
J.N. 0250.02

P. C. 8048 PAGE 2

NO CHARGE FOR CONNECTIONS

DOUBLE SCALE

40362



P.C. 8048 PAGE 3

NO CHARGE FOR CONNECTIONS

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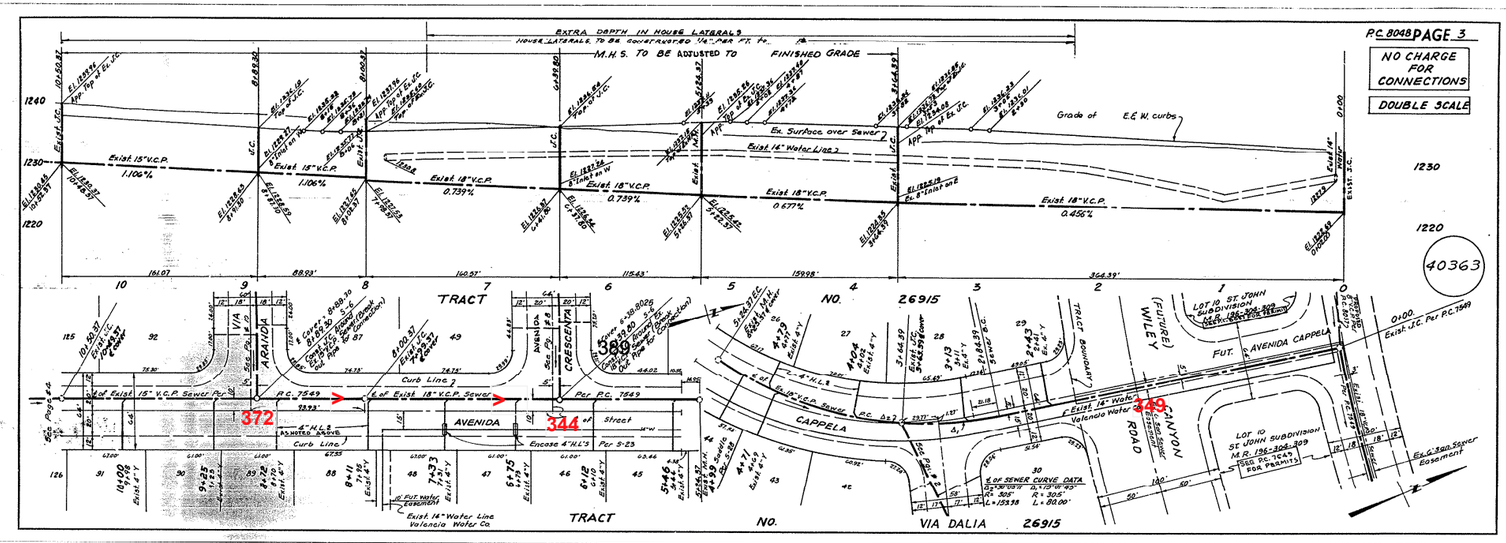
40363



P.C. 8048 PAGE 4

NO CHARGE FOR CONNECTIONS

DOUBLE SCALE

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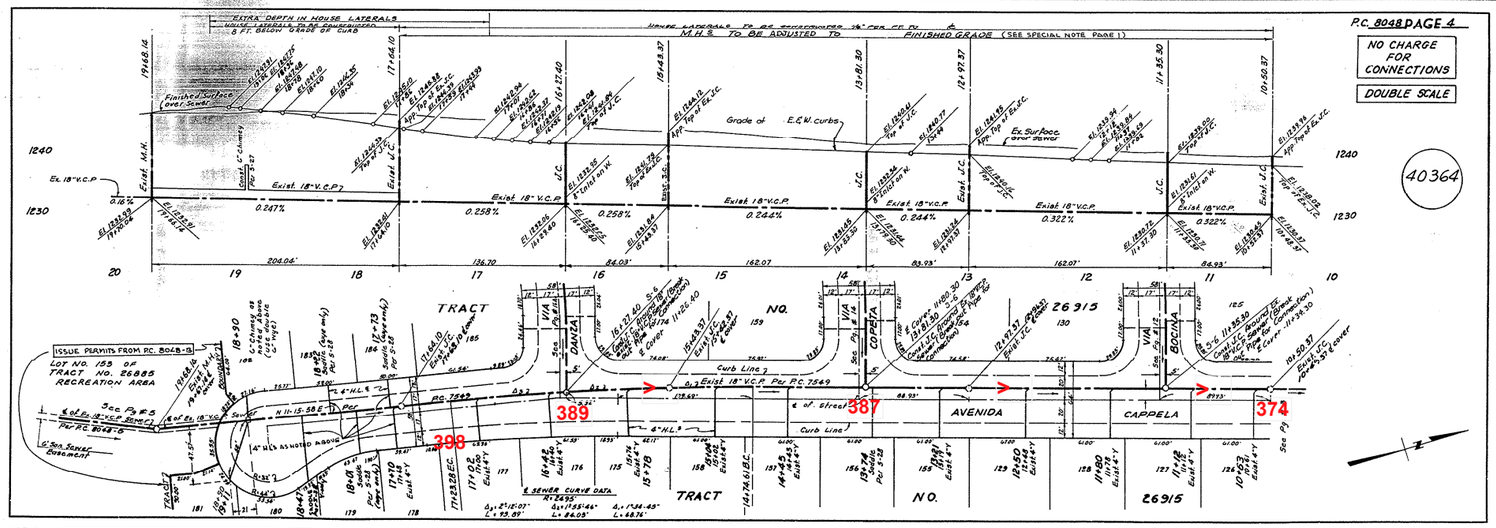


P.C. 8048 PAGE 7

NO CHARGE FOR CONNECTIONS

DOUBLE SCALE

1250 CONTRACTOR TO MAINTAIN SERVICE AT ALL TIMES

40367

EXTRA DEPTH IN MAIN LOW SEWER AND HOUSE LATERALS

Grade of N. & S. Curbs

Grade of E. & W. Curbs

8" V.C.P. 8.94%

8" V.C.P. 7.00%

8" V.C.P. 1.12%

8" V.C.P. 4.52%

15" V.C.P. 0.52%

274.51'

265.85'

221.49

123.20'

133.76'

TRACT NO. 26885

IDENTICAL POINTS

AVENIDA CRESCENTA

AVENIDA ENTRADA

AVENIDA VIVIANA

394

P.C. 8048 PAGE 8

NO CHARGE FOR CONNECTIONS

DOUBLE SCALE

Const. 6" H.L.S. at 1/4" Per Ft. to N.

40368

Exist Surface over Sewer

Grade of N. & S. Curbs

8" V.C.P. 0.40%

8" V.C.P. 0.40%

8" V.C.P. 1.08%

350.00'

350.00'

227.07

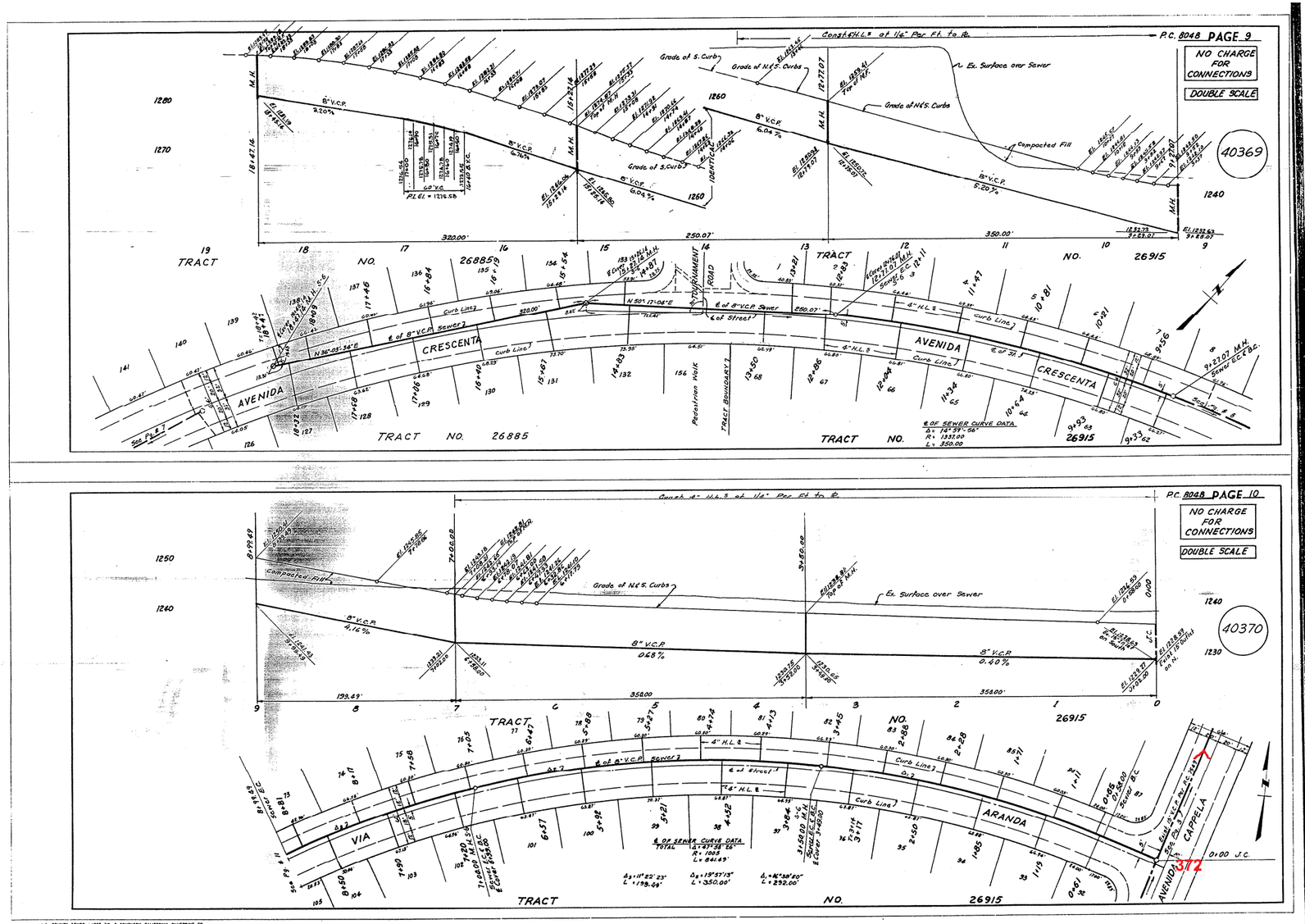
TRACT NO. 26915

AVENIDA CRESCENTA

AVENIDA CAPPELA

344

L.A. COUNTY SEWER SHEET NO. 2 SOUTHERN CALIFORNIA BLUEPRINT CO.


P.C. 8048 PAGE 9
NO CHARGE FOR CONNECTIONS
DOUBLE SCALE
40369
Constr'd H.L.'s at 1/16" Per Ft. to ℄
Grade of S. Curb
Grade of N. & S. Curbs
Ex. Surface over Sewer
Grade of N. & S. Curbs
Compacted Fill
Grade of S. Curb
IDENTICAL
8" V.C.P.
6.04 %
8" V.C.P.
5.20 %
8" V.C.P.
2.20 %
8" V.C.P.
6.00 %
8" V.C.P.
6.04 %
60° V.C.
P.I. EL = 1216.58
M.H.
320.00'
250.07'
350.00'
TRACT NO. 26885
TRACT NO. 26915
TRACT BOUNDARY
Pedestrian Walk
℄ of 8" V.C.P. Sewer
℄ of Street
℄ of 8" V.C.P. Sewer
N 36°-03'-54"-E
N 50°-17'-06"-E
4" H.L.S
Curb Line
AVENIDA CRESCENTA
AVENIDA CRESCENTA
℄ OF SEWER CURVE DATA
Δ = 14°-59'-06"
R = 1337.00
L = 350.00
Sewer 8" V.C.P. No. 25-224
Sewer 8" V.C.P. No. 25-225
Sewer 8" V.C.P. No. 25-226
Sewer 8" V.C.P. No. 25-227
Sewer 8" V.C.P. No. 25-228
Sewer 8" V.C.P. No. 25-229
Sewer 8" V.C.P. No. 25-230
Sewer 8" V.C.P. No. 25-231
Sewer 8" V.C.P. No.

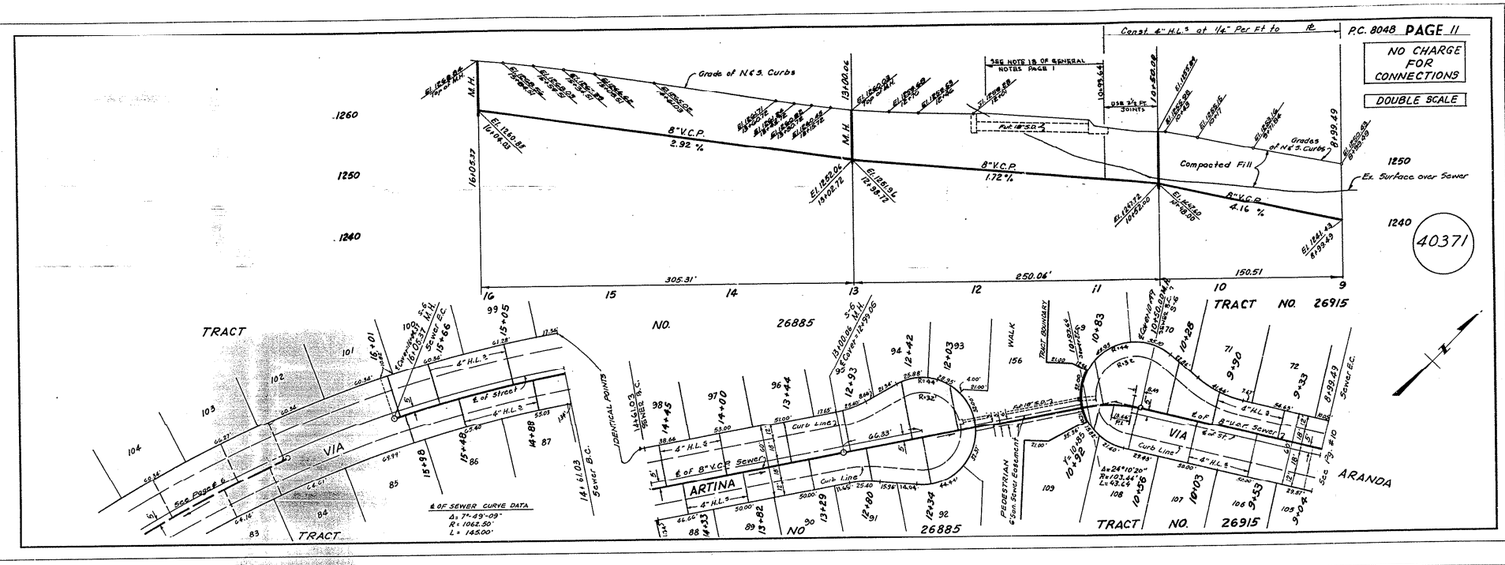
P.C. 8048 PAGE 11

NO CHARGE FOR CONNECTIONS

DOUBLE SCALE

Const 4"H.L.'s at 1/4" Per Ft to ft

40371



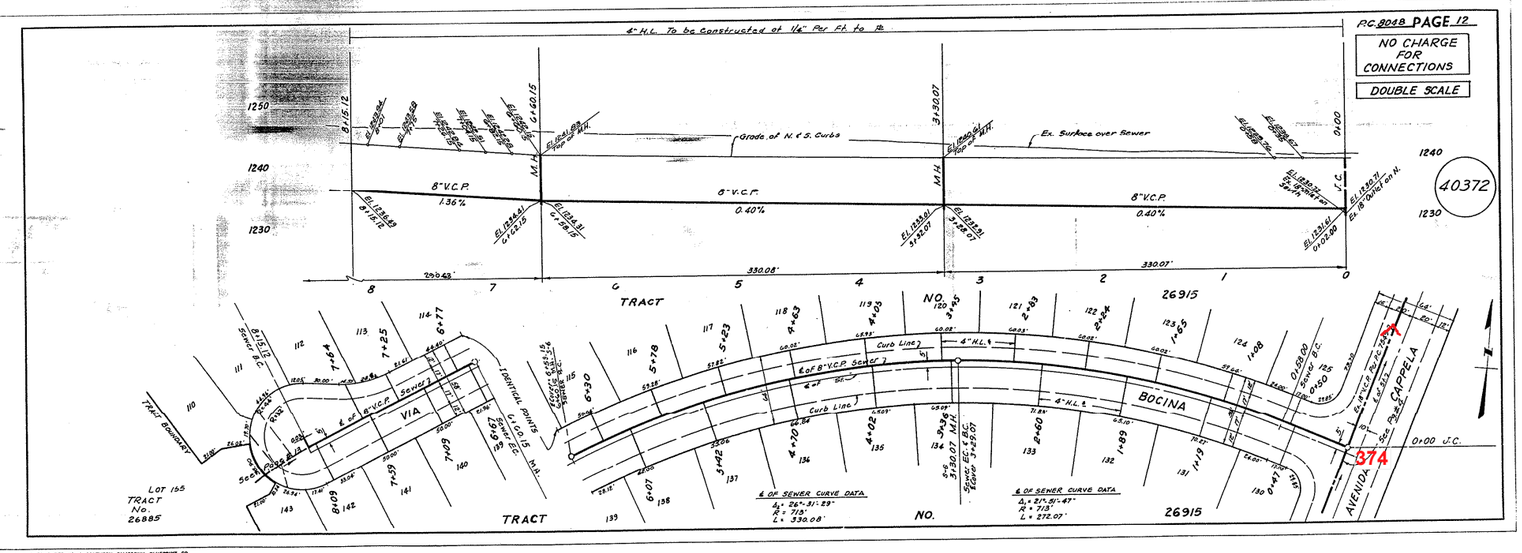
P.C. 8048 PAGE 12

NO CHARGE FOR CONNECTIONS

DOUBLE SCALE

4" H.L. To be Constructed at 1/4" Per Ft to ft

40372



L.A. COUNTY SEWER SHEET NO. 2 SOUTHERN CALIFORNIA BLUEPRINT CO.

P.C. 8048 PAGE 13

NO CHARGE FOR CONNECTIONS

DOUBLE SCALE

40373

Const 4" H.L. at 1/4" Per Ft. to property line

SEE NOTE 19 OF GENERAL NOTES Page 1

8"V.C.P. 1.12%

8"V.C.P. 1.12%

8"V.C.P. 1.36%

Grade of E.C.M. curbs

Ful. 24" SD.

M.H.

354.00'

287.13'

250.63'

TRACT NO. 26885

TRACT NO. 26915

Note: Lots 72 & 46 To be Served on Pg. # 5

VIA BRASA

VIA BOCINA

AVENIDA ENTRADA

℄ of Street

℄ of 8"V.C.P. Sewer

4" H.L. ℄

Curb Line

℄ SEWER CURVE DATA
Δ = 28°23'10"
R = 723.00'
L = 358.00'

℄ SEWER CURVE DATA
Δ = 28°46'09"
R = 175.00'
L = 87.91'
T = 44.90'

Pedestrian Walk

Future Boundary

380

P.C. 8048 PAGE 14

NO CHARGE FOR CONNECTIONS

DOUBLE SCALE

40374

Const 4" H.L. at 1/4" Per Ft. to M.

Grade of N.E.S. curbs

Ex. Surface over Sewer

8"V.C.P. 0.60%

8"V.C.P. 0.60%

M.H.

V.C.

312.60'

255.19'

TRACT NO. 26915

VIA COPETA

AVENIDA CAPPELA

Ex. 8" C.I.P. to be Reconstructed

℄ SEWER CURVE DATA
Δ1 = 84°40'22"
R1 = 467.00'
L1 = 197.20'
Δ2 = 24°01'35"
R2 = 467.00'
L2 = 157.19'

387

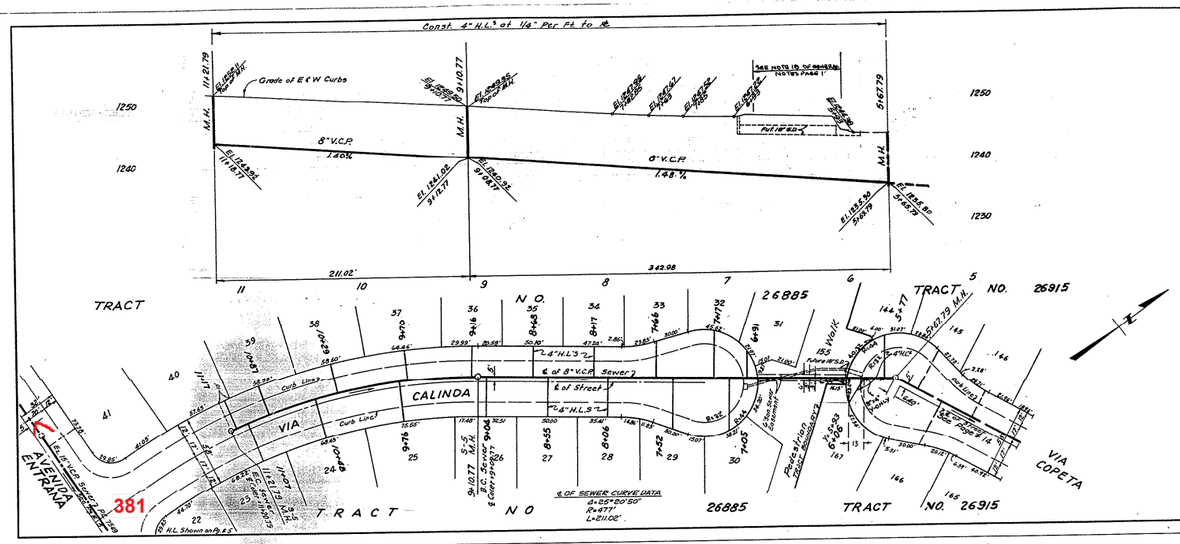
L.A. COUNTY SEWER SHEET NO. 2 SOUTHERN CALIFORNIA BLUEPRINT CO.

P.C. 8048 PAGE 15

NO CHARGE FOR CONNECTIONS

DOUBLE SCALE

40375

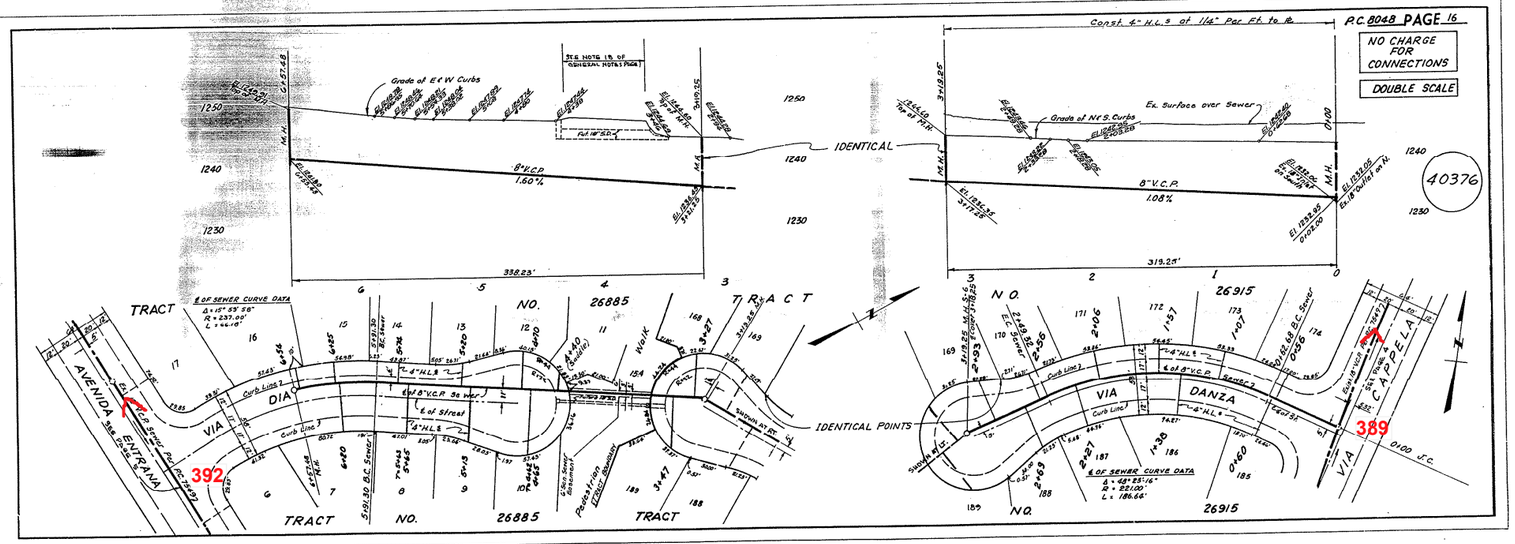


P.C. 8048 PAGE 16

NO CHARGE FOR CONNECTIONS

DOUBLE SCALE

40376



P.C. 8048 PAGE 17

NO CHARGE FOR CONNECTIONS

DOUBLE SCALE

40377

EXTRA DEPTH IN MAIN LINE SEWER

Surface over ℄ Sewer

18"V.C.P.

0.28%

0.311%

0.174%

NOTE: CONTRACTOR MUST MAINTAIN SERVICE AT ALL TIMES

Exist. Rough Toll Pavement

AVENIDA

CRESCENTA

AVENUE

LYONS

TRACT NO. 26885

LOT 156

AREA

This portion of Ex. 18"V.C.P. to be Relocated as Shown

Ex. 10"V.C.P. Sewer

℄ OF TOTAL SEWER CURVE DATA

Δ = 33°14' 22"
R = 300'
L = 174.04'

PARTIAL

Δ₁ = 1°48'13" L = 3.45
Δ₂ = 22°27.04" L = 117.65'
Δ₃ = 8°59'00" L = 47.04'

P.C. 8048 PAGE 18

NO CHARGE FOR CONNECTIONS

DOUBLE SCALE

40378

SEE NOTE 1A OF GENERAL NOTES, PG-1

EXTRA DEPTH IN MAIN LINE SEWER

Surface over ℄ Sewer

18"V.C.P.

0.42%

Contractor to Verify Ex. Invert Elevation at 1+80.21 Prior to construction of this View.

Encase

8"V.C.P.

4.36%

CONTRACTOR MUST MAINTAIN SERVICE AT ALL TIMES

363

362

VIA ARTINA

ENTRADA

AVENIDA

CRESCENTA

AVENUE

LYONS

WILEY CANYON ROAD

TRACT No. 26885

L.A. COUNTY SEWER SHEET NO. 2 SOUTHERN CALIFORNIA BLUEPRINT CO.

B.M. SL 642 ELEV. 1262.071
Road Dept. B.M. Tag No. Side. Conc. base
at NE. Cor. Edison High Tension Tower
#M-37.3 N13°35.5'Sm. & Lyons Avenue
and ± 50'E. & Wiley Canyon Road
NEWHALL QUAD. 19 38

INDEX MAP
SCALE 1"=400'
P.C. 8048-B
Number in Circle
indicate Page Number

DOUBLE SCALE

NEWHALL BLDG. DIST. NO. 8.2

NOTES:
1. PROVIDE STAKES ON THE PROPERTY LINE OR PROPERTY LINES PRODUCED AT RIGHT ANGLES TO THE SEWER LINE AT THE CENTER LINE OF EACH MANHOLE.
2. NO REPRESENTATIVE OF THE COUNTY ENGINEER WILL SURVEY OR LAY OUT ANY PORTION OF THE WORK.
3. THE PRIVATE ENGINEER SHALL FURNISH THE COUNTY ENGINEER WITH GRADE SHEETS AND STATIONING FOR ALL HOUSE LATERALS AND "Y" BRANCHES AND SHALL PROVIDE STAKES FOR THEIR AT THEIR PROPER LOCATIONS WITH STATIONING PLAINLY MARKED. ALL HOUSE LATERALS SHALL BE CONSTRUCTED IN A STRAIGHT ALIGNMENT AT RIGHT ANGLES FROM THE MAIN LINE SEWER EXCEPT AS SHOWN ON THE PLANS. HOUSE LATERALS FROM CURVED MAINS SHALL NOT HAVE AN ANGLE OF LESS THAN 45° WITH THE MAIN LINE SEWER. ANY CHANGE IN ALIGNMENT SHALL BE REQUESTED IN WRITING BY THE PRIVATE ENGINEER.
4. THE PRIVATE ENGINEER SHALL FURNISH THE HOUSE LATERAL DEPTH AT THE PROPERTY LINE BELOW THE TOP OF CURB ELEVATION FOR EACH HOUSE LATERAL ON THE GRADE SHEET.
5. NO REVISIONS SHALL BE MADE IN THESE PLANS WITHOUT THE APPROVAL OF THE COUNTY ENGINEER.
6. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION DIVISION BY TELEPHONE, MADISON 9-2161, EXT. 51551, AT LEAST TWENTY-FOUR HOURS BEFORE STARTING ANY WORK UNDER THIS CONTRACT.
7. MANHOLES SHALL BE BASIC SEWER STRUCTURES PER S.S.T. PRECAST CONCRETE MANHOLES PER S-3 OR S-4 MAY BE USED AS AN ALTERNATE IN LOCATIONS APPROVED BY THE COUNTY ENGINEER.
8. "Y OR "I" BRANCHES MAY BE USED FOR CONNECTIONS TO MAIN LINE SEWERS, EXCEPT AS NOTED
9. MANHOLE TOPS IN UNIMPROVED EQUIS-DO-WAT TO BE SIX INCHES ABOVE FINISHED GRADE.
10. USE EXTRA STRENGTH PIPE, ALL PIPE IS STANDARD DEPTH EXCEPT AS NOTED.
11. VITRIFIED CLAY PIPE JOINTS SHALL BE TYPE "O", "F", OR G PER STD. SPEC. SEC 208-2.
12. IF A POWER POLE IS WITHIN THREE FEET OF THE SEWER, THE SEWER SHALL BE ENCASED, PER S-23, TWO FEET ON EACH SIDE FROM THE POINT OF INTERFERENCE.
13. IF DURING THE COURSE OF CONSTRUCTION IT IS DETERMINED THAT THERE IS LESS THAN FOUR FEET OF COVER OVER THE TOP OF A MAIN LINE OR HOUSE LATERAL V.C.P. SEWER WHICH IS NOT INDICATED ON THE PLANS, THE PIPE SHALL BE ENCASED PER S-26, UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER.
14. HOUSE LATERALS TO BE CONSTRUCTED WITH INVERTS AT PROPERTY LINE 6 FEET BELOW CURB GRADE EXCEPT AS NOTED.
15. BEDDING ALL TRENCHES WITHIN PAVED AREAS TO MEET L.A. COUNTY ROAD DEPT. OR CALIFORNIA STATE HIGHWAY REQUIREMENTS IN ACCORDANCE WITH PERMITS.
16. SEWERS TO BE TESTED FOR LEAKAGE PER SEC. 306-2.3.7 OF STD. SPECS.
17. ALL STATE AND LOCAL TRENCH SAFETY ORDERS WILL BE STRICTLY ENFORCED.
18. ALL JOINTS BETWEEN CAST IRON PIPE AND VITRIFIED CLAY PIPE SHALL SHALL BE MADE WITH A RUBBER SLEEVE UNIC, TYPE "C" OR"D" (WITH EXPANSION IF NECESSARY) PER STANDARD SPECIFICATIONS SEC. 208-2
19. SEWER PIPE BEDDING SHALL CONFORM TO S-21

THE FOLLOWING COUNTY ENGINEER STD PLANS APPLY TO THIS PROJECT

LEGEND	S-1
MINIMUM EXCAVATION SAFETY REQUIREMENTS	S-2
ORIGIN MANHOLE	S-3
HOMEOWNERS PRECAST CONCRETE MANHOLE	S-5
ALTERNATE PRECAST CONCRETE MANHOLE	S-4
MANHOLE FRAME AND COVER	S-15
MANHOLE STEP	S-17
BERMUDA FOR FENCE PIPE	S-21
NOTE ON TOE SUMMARY	S-25
ALLOWABLE TRENCH WIDTHS	S-25

COLLECT CHARGES AS INDICATED

NOTICE TO CONTRACTOR
The existence and location of any underground utility pipes or structures shown on these plans are obtained by a search of the available records. To the best of my knowledge there are no existing utility lines shown on these plans.
The contractor is required to take due precautionary measures to protect the utility lines shown and any other lines not of record or not shown on these plans.
E.H. McDaniel REG. 9373

PROFILE, ALIGNMENT AND GRADE OF P.C. 8048-B

SANITARY SEWERS PAGE 1

CONSTRUCTED IN
REALIGNMENT OF PORTION OF P.C. 7549

PRIVATE CONTRACT NO. 8048-B

W.S. 42-A-3

1 SHEETS, 2 PAGES

SCALE: VERT. 1"=4' HORZ. 1"=40'

MARCH, 1968

PREPARED IN THE OFFICES OF
Vasquez Romero Co.
239 VAN NUYS BLVD. VAN NUYS, CALIFORNIA
By E.H. McDaniel
REG. C. E. NO. 9373

39981

FOR LEGEND SEE PLAN NO. S-1

NOTE:
GRADES TO WHICH THIS IMPROVEMENT IS TO BE CONSTRUCTED ARE SHOWN ON PLANS AND PROFILES. GRADE POINTS FOR TOP OF CURBS, CENTER LINE OF STREETS, OR CENTER LINE OF ALLEYS ARE SHOWN BY CIRCLES ON PROFILES. AT ALL POINTS BETWEEN DESIGNATED POINTS THE GRADE SHALL BE ESTABLISHED AS AS TO CONFORM TO A STRAIGHT LINE DRAWN BETWEEN SAID DESIGNATED POINTS.
ELEVATIONS ARE IN FEET ABOVE U.S.C. & G.S. DATA 1929 DATUM OF 1929.
ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
WORK SHALL BE CONSTRUCTED ACCORDING TO STANDARD SPECIFICATIONS DATED FEB 12, 1968, ON FILE IN THE OFFICE OF THE COUNTY ENGINEER AND SHALL BE PROSECUTED ONLY IN THE PRESENCE OF THE COUNTY ENGINEER.
THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION DIVISION BY TELEPHONE, MADISON 9-2161, EXT. 51551, AT LEAST TWENTY-FOUR HOURS BEFORE STARTING ANY WORK UNDER THIS CONTRACT.
ROAD DEPT. DISTRICT OFFICE NO. 2 AND PAY A FEE TO THE COUNTY ENGINEER, ROOM 320, COUNTY ENGINEERS BUILDING 108 WEST SECOND STREET OR ..... NEWHALL ..... REGIONAL OFFICE, SUFFICIENT TO COVER THE COST OF CONSTRUCTION, INSPECTION AND RECORD PLANS.
APPROVAL OF THIS PLAN BY THE COUNTY OF LOS ANGELES DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OF THE LOCATION OF ANY UNDERGROUND UTILITY PIPE, OR STRUCTURE WITHIN THE LIMITS OF THE PROJECT. SEE NOTE ABOVE TO AS PAGE.
IF WORK IS TO BE DONE IN A STATE HIGHWAY, A PERMIT MUST BE OBTAINED FROM THE STATE OF CALIFORNIA, DIVISION OF HIGHWAYS, 120 SOUTH SPRING STREET, LOS ANGELES, CALIFORNIA.

COUNTY OF LOS ANGELES, CALIFORNIA
JOHN A. LAMBIE, COUNTY ENGINEER
J. D. PARKHURST, CHIEF ENGINEER
CO. SAN. ENGR.
APPROVED BY: L Lambie REGIONAL ENGINEER
APPROVED BY: J D Parkhurst OFFICE ENGINEER
CHECKED BY: Ralph Hofmeister 3/29/68 SAN. CE. NO. 1350 (M)

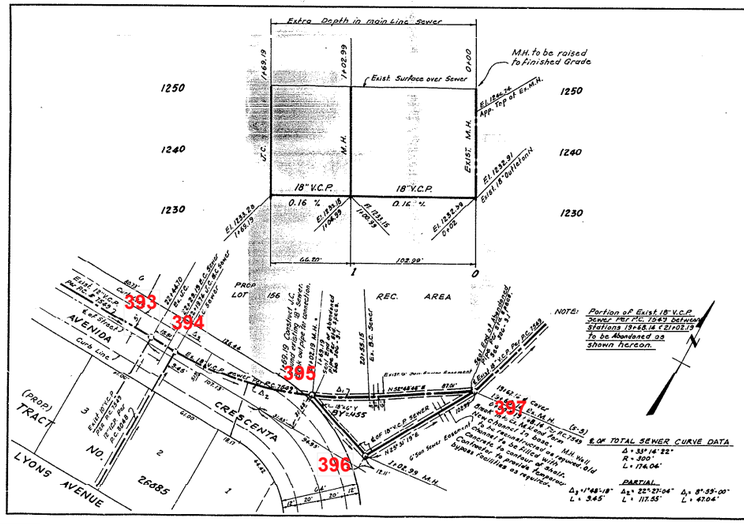
J.N. 0230.02

P. C. 8048-B PAGE 2

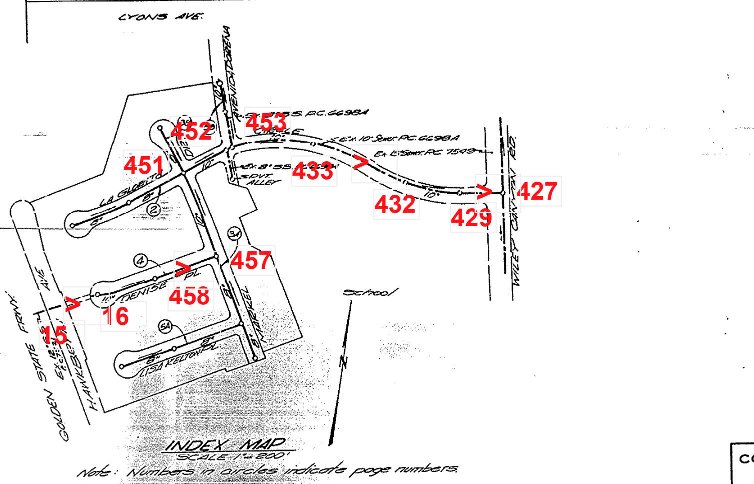
NO CHARGE FOR CONNECTIONS

DOUBLE SCALE

39982



B.M. BL 3026 ELEV. 1262.193'
R.D.B.M. Tag S. Cb. Lyons Ave 40 Ft. S & 134 Ft. W. E Int Lyons Ave. & Wiley Canyon Rd. 2 Ft. N. P.P. 1671986
NEWHALL QUAD. 1965



INDEX MAP
SCALE 1" = 800'
Note: Numbers in circles indicate page numbers.

NEWHALL BLDG. DIST. NO. 8.2

NOTES

1. HOUSE LATERALS TO BE CONSTRUCTED WITH INVERTS AT PROPERTY LINE 6 FEET BELOW CURB GRADE EXCEPT AS NOTED.
2. PROVIDE STAKES ON THE PROPERTY LINE OR PROPERTY LINES PRODUCED AT RIGHT ANGLES TO THE SEWER LINE AT THE CENTER LINE OF EACH MANHOLE.
3. NO REPRESENTATIVE OF THE COUNTY ENGINEER WILL SURVEY OR LAY OUT ANY PORTION OF THE WORK.
4. THE PRIVATE ENGINEER SHALL FURNISH THE COUNTY ENGINEER WITH GRADE SHEETS AND STATIONING FOR ALL HOUSE LATERALS AND "Y" OR "T" BRANCHES AND SHALL PROVIDE STAKES FOR THEM AT THEIR PROPER LOCATIONS WITH STATIONING PLAINLY MARKED. ALL HOUSE LATERALS SHALL BE CONSTRUCTED IN A STRAIGHT ALIGNMENT AT RIGHT ANGLES FROM THE MAIN LINE SEWER EXCEPT AS SHOWN ON THE PLANS. HOUSE LATERALS FROM CHIMNEYS SHALL NOT HAVE AN ANGLE OF LESS THAN 45° WITH THE MAIN LINE SEWER. ANY CHANGE IN ALIGNMENT SHALL BE REQUESTED IN WRITING BY THE PRIVATE ENGINEER.
5. THE PRIVATE ENGINEER SHALL FURNISH THE HOUSE LATERAL DEPTH AT THE PROPERTY LINE BELOW THE TOP OF CURB ELEVATION FOR EACH HOUSE LATERAL ON THE GRADE SHEET.
6. NO REVISIONS SHALL BE MADE IN THESE PLANS WITHOUT THE APPROVAL OF THE COUNTY ENGINEER.
7. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION DIVISION BY TELEPHONE, MADISON 9-4747, EXT. 81351, AT LEAST TWENTY-FOUR HOURS BEFORE STARTING ANY WORK UNDER THIS CONTRACT.
8. ALL STRUCTURES SHALL BE EITHER BRICK MANHOLES PER S-3 OR PRECAST CONCRETE MANHOLES PER S-36 EXCEPT AS NOTED.
9. "Y" OR "T" BRANCHES MAY BE USED FOR CONNECTIONS TO MAINLINE SEWERS EXCEPT AS NOTED.
10. MANHOLE TOPS IN UNIMPROVED RIGHTS OF WAY TO BE SIX INCHES ABOVE FINISHED GRADE.
11. USE EXTRA STRENGTH PIPE. ALL PIPE IS STANDARD DEPTH EXCEPT AS NOTED.
12. VITRIFIED CLAY PIPE JOINTS SHALL BE TYPE "D", "F", OR "G" PER STANDARD SPECIFICATIONS SECTION 208-2.
13. IF A POWER POLE IS WITHIN THREE FEET OF THE SEWER, THE SEWER SHALL BE ENCASED, PER S-23, TWO FEET ON EACH SIDE FROM THE POINT OF INTERFERENCE.
14. IF DURING THE COURSE OF CONSTRUCTION IT IS DETERMINED THAT THERE IS LESS THAN FOUR FEET OF COVER OVER THE TOP OF A MAIN LINE OR HOUSE LATERAL V.C.P. SEWER WHICH IS NOT INDICATED ON THE PLANS, THE PIPE SHALL BE ENCASED PER S-23, UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER.
15. RESURFACE ALL TRENCHES WITHIN PAVED AREAS TO MEET L.A. COUNTY ROAD DEPT. OR CALIFORNIA STATE HIGHWAY REQUIREMENTS IN ACCORDANCE WITH PERMITS.
16. SEWERS TO BE TESTED FOR LEAKAGE PER SECTION 306-2.3.7 OF THE STANDARD SPECIFICATIONS.
17. REFER TO SECTION 7-10.4.1 OF THE STANDARD SPECIFICATIONS, REGARDING SAFETY ORDERS.
18. ALL JOINTS BETWEEN CAST IRON PIPE AND VITRIFIED CLAY PIPE SHALL BE MADE WITH A RUBBER SLEEVE JOINT, TYPE "C" OR "D", (WITH BUSHING IF NECESSARY) PER STANDARD SPECIFICATIONS, SECTION 208-2.

THE FOLLOWING LATEST REVISED STANDARD PLANS ON FILE IN THE OFFICE OF THE COUNTY ENGINEER SHALL APPLY IN THE CONSTRUCTION OF THIS PROJECT:

LEGEND	S-1
MINIMUM PUBLIC SAFETY REQUIREMENTS	S-2
BRICK MANHOLE	S-3
NON-REINFORCED PRECAST CONCRETE MANHOLE	S-34
LOCKING MANHOLE FRAME AND COVER	S-35
STANDARD MANHOLE STEP	S-17
BEDDING FOR SEWER PIPE	S-21
CRADLING AND ENCASEMENT	S-23
WYE OR TEE SUPPORT	S-26
ALLOWABLE TRENCH WIDTHS	S-33

County Sanitation Districts shall be [illegible] for the following so [illegible] inspection can be made (Phone 337-1025 : : ~~[illegible]~~)

[illegible]

COLLECT CHARGES AS INDICATED

No connections for the disposal of [illegible] shown on these drawings [illegible] Chief Engineer [illegible] of the County Sanitation Districts.

PROFILE, ALIGNMENT AND GRADE OF

SANITARY SEWERS

CONSTRUCTED IN

P.C. 8494
PAGE 1

TRACT Nº 29623

PRIVATE CONTRACT NO. 8494

INDEX 294-117
W.S. 63-E-4
3 SHEETS; 5 PAGES
SCALE: VERT. 1"-4' HORIZ. 1"-40'
OCT, 1970

PREPARED IN THE OFFICES OF
CROWN ENGINEERING & SURVEYING CORP.
18455 BURBANK BLVD. TARZANA, CALIF.
By:
MORTON D. SCHWARTZ REG. C. E. NO. 8758

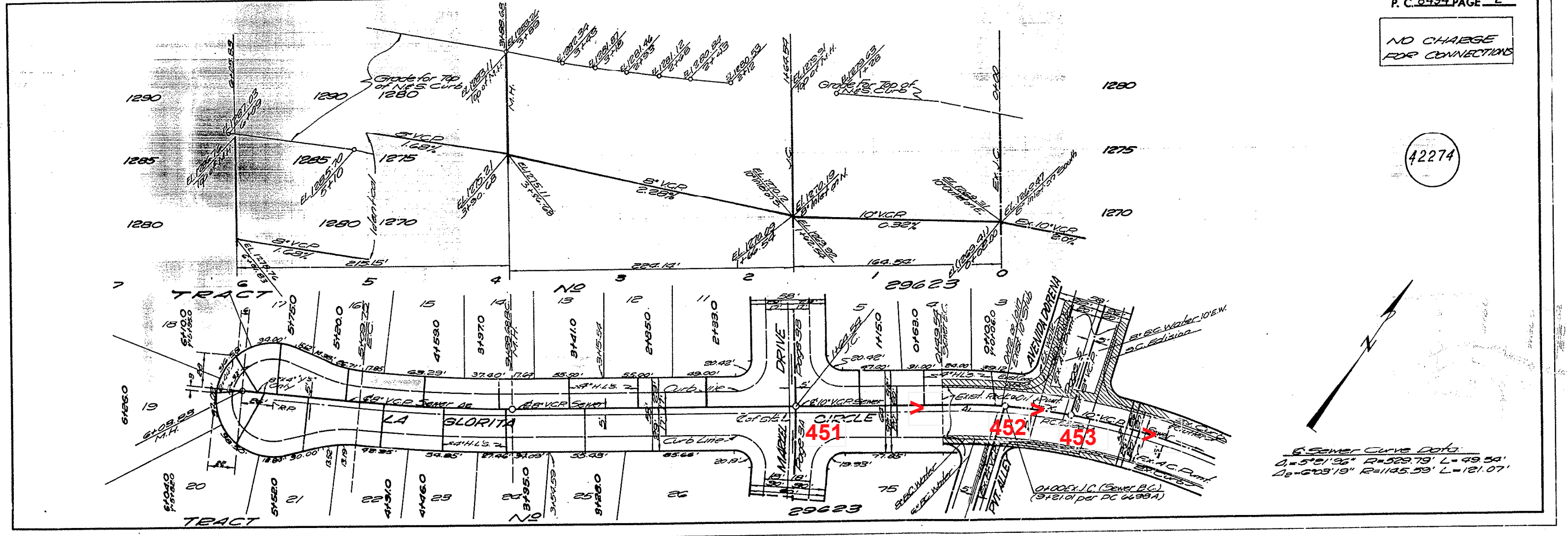
NOTE:
GRADES TO WHICH THIS IMPROVEMENT IS TO BE CONSTRUCTED ARE SHOWN ON PLANS AND PROFILES. GRADE POINTS FOR TOP OF CURBS, CENTER LINE OF STREETS, OR CENTER LINE OF ALLEYS ARE SHOWN BY CIRCLES ON PROFILES. AT ALL POINTS BETWEEN DESIGNATED POINTS THE GRADE SHALL BE ESTABLISHED SO AS TO CONFORM TO A STRAIGHT LINE DRAWN BETWEEN SAID DESIGNATED POINTS.
ELEVATIONS ARE IN FEET ABOVE U.S.C. & G.S. SEA LEVEL DATUM OF 1929.
WORK SHALL BE CONSTRUCTED ACCORDING TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (1970 EDITION) AND SPECIAL COUNTY ENGINEER PROVISIONS FOR THE CONSTRUCTION OF SANITARY SEWERS DATED APRIL 7, 1970 AS REVISED, AND SHALL BE PROSECUTED ONLY IN THE PRESENCE OF THE COUNTY ENGINEER.
BEFORE WORK CAN BE STARTED, THE CONTRACTOR MUST OBTAIN A PERMIT TO EXCAVATE IN COUNTY STREETS FROM THE L. A. COUNTY ROAD DEPT., DISTRICT OFFICE NO. 5, AND PAY A FEE TO THE COUNTY ENGINEER, ROOM 330, COUNTY ENGINEERING BUILDING, 108 WEST SECOND STREET OR NEWHALL REGIONAL OFFICE, SUFFICIENT TO COVER THE COST OF CONSTRUCTION INSPECTION AND RECORD PLANS.
APPROVAL OF THIS PLAN BY THE COUNTY OF LOS ANGELES DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OF THE LOCATION OF OR THE EXISTENCE OR NON-EXISTENCE OF ANY UNDERGROUND UTILITY PIPE, OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THIS NOTE APPLIES TO ALL PAGES.
IF WORK IS TO BE DONE IN A STATE HIGHWAY, A PERMIT MUST BE OBTAINED FROM THE STATE OF CALIFORNIA, DIVISION OF HIGHWAYS, 120 SOUTH SPRING STREET, LOS ANGELES, CALIFORNIA.

COUNTY OF LOS ANGELES, CALIFORNIA
JOHN A. LAMBIE, COUNTY ENGINEER
J. D. PARKHURST, CHIEF ENGINEER
CO. SAN. DIST. NO. 32
APPROVED BY Lindley Williamson REGIONAL ENGINEER (DATE) 10-24-70
APPROVED BY OFFICE ENGINEER
CHECKED BY Rudolph Hylinek 10-26-70 (DATE)
REG. C.E. NO. 14390

42273

P. C. 8494 PAGE 2

NO CHARGE FOR CONNECTIONS



PC 8193 PAGE 3

NO CHARGE FOR CONNECTIONS

Extra depth main line sewer & house Laterals

Grade for Top of E. Curb

Grade for Top of W. Curb

Existing Ground Line over 8" Sewer

Compacted Fill

1880

1875

1870

TRACT 5

TRACT NO 29623

MARKEL DRIVE

LA GRANITA PLACE

451

457

453

42275

PC 8193 PAGE 4

NO CHARGE FOR CONNECTIONS

Extra Depth main line Sewer & House Laterals

Const. H.L.S. per S-22 Class 1 & Choose per S-22 Class 1 for bldg 30 to signal

Grade for Top of E. Curb

Existing Ground over 8"

Existing 66" R.C.P.

P.O. 730

1885

1880

1875

TRACT 5

TRACT NO 29623

DENISE PLACE

HAMMERLY DRIVE

15

16

456

457

42276

APPENDIX E

FLOW TEST RESULTS

- 2021 Flow Test Results for Manhole #13, 452, 430, and 392

- 2020 Flow Test Results for Manhole #28, 780, and Near 23250 Wiley Canyon Road

2021 Flow Test Results for Manhole #13, 452, 430, and 392

Methods & Procedures & Equipment

Methods and Procedures

Utility Systems Science & Software provided Dexter Wilson Engineering with an off the shelf, non-proprietary flow monitoring solution that included four state of the art Hach Flo-Dar® AV Sensor systems. The project course of action is listed below. The US^3 team:

- Assessed permitting and traffic control at the sites on The Old Road in Stevenson Ranch and on Avenida Entrana and La Glorita Circle in Santa Clarita.
- Obtained a City Encroachment Permit.
- Installed and removed traffic control in accord with site-specific California Temporary Traffic Control Handbook (CATTCH) requirements for both the installation and removal of flow monitoring equipment.
- Validated the sites for suitability for sewer flow monitoring for The Trails at Lyons Canyon Project.
  - Site 1 MH 13 had no laterals with slow to moderate open channel hydraulics.
  - Site 2 MH 452 had inlets from the west and the south with moderate open channel hydraulics and consistent flow observed from the south line.
  - Site 3 MH 430 had inlets from the west and the north with moderate open channel hydraulics and some turbulence due to inflow from the north line.
  - Site 4 MH 392 had inlets from the west and the north with moderate open channel hydraulics and no flow observed from the north line.
- Installed and calibrated the flow monitoring equipment at the sites per manufacturer recommendations on 9/21/2021.
  - Follow-up on the installations confirmed equipment was reading properly.
  - Collected 15-minute interval depth and velocity data points over the entire monitoring period.
- Removed the equipment on 9/30/2021 and validated the data.
  - All of the equipment went through diagnostic testing before and after the study with less than a 1% deviation between manual and meter level readings and less than a 5% deviation between manual and meter velocity readings.
  - Equipment calibration was verified in accordance with manufacturer specifications.
- Prepared the data reports.
  - The table below contains a summary of the average (Avg) and maximum (Max) velocities (Vel) and levels (Lev) collected during this study as well as the calculated flow rates (Q) and depth versus diameter ratios (d/D).

Site	Pipe Size (in)	Avg Vel (fps)	Max Vel (fps)	Avg Lev (in)	Max Lev (in)	Avg Q (gpm)	Max Q (gpm)	Avg d/D	Max d/D
1	8	1.03	1.61	1.17	1.66	15.51	35.23	0.15	0.21
2	10	2.34	2.87	1.72	2.21	66.15	104.09	0.17	0.22
3	12	2.70	3.73	2.29	2.78	126.58	219.45	0.19	0.23
4	12	2.15	2.57	4.04	5.14	228.38	355.73	0.33	0.43

Equipment

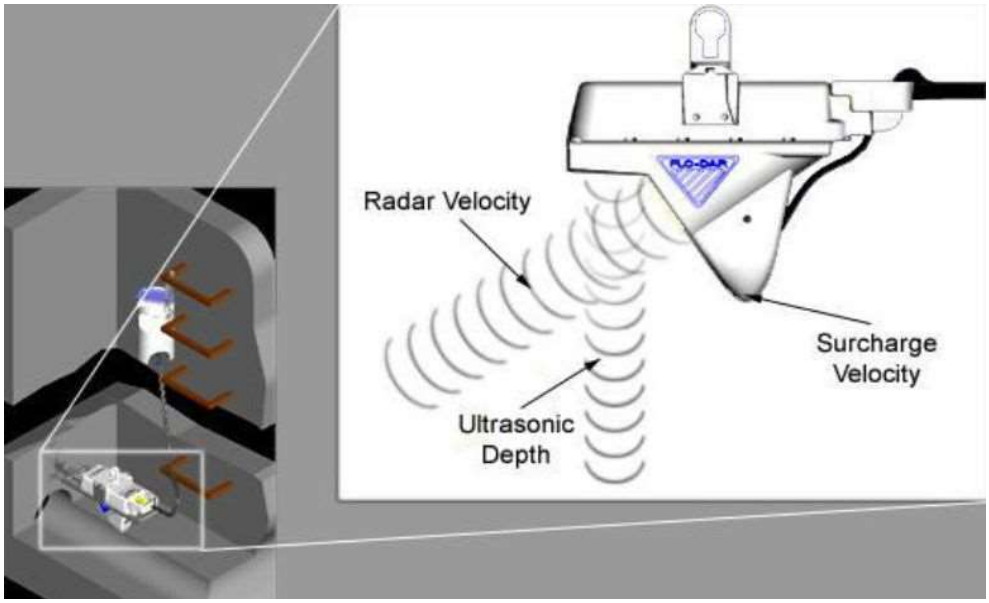


Figure above: Equipment installed for the Sewer Flow Monitoring Study

Figure above: Web-Enabled Flo-Dar® AV Sensor, Radar-Based Velocity/Area Flow Meter

FloDar® AV Sensor Specifications:

- **Enclosure**
  - IP68 Waterproof rating, Polystyrene
- **Dimensions**
  - 160.5 W x 432.2 L x 297 D mm (6.32 x 16.66 x 11.7 in.),
  - With SVS, D = 387 mm (15.2 in.)
- **Weight**
  - 4.8 kg (10.5 lbs.)
- **Operating Temperature**
  - -10 to 50°C (14 to 122°F)
- **Storage Temperature**
  - -40 to 60°C (-40 to 140°F)
- **Power Requirements**
  - Supplied by FL900 Flow Logger, Flo-Logger, or Flo-Station
- **Interconnecting Cable**
  - Disconnect available at both sensor and logger or Flo-Station
  - Polyurethane, 0.400 (±0.015) in. diameter; IP68
  - Standard length 9 m (30 ft), maximum 305 m (1000 ft)
- **Cables – available in two styles:**
  - connectors at both ends
  - connector from sensor with open leads to desiccant hub, desiccant hub with connector to logger. A potting/sealant kit will be included. This can be used to run the cable through conduit.
- **Certification**
  - Certified to: FCC Part 15.245: FCC ID: VIC-FLODAR24
  - Industry Canada Spec. RSS210. v7: IC No.: 6149A-FLODAR24

SURCHARGE DEPTH MEASUREMENT

  - Auto zero function maintains zero error below 0.5 cm (0.2 in.)
- **Method**
  - Piezo-resistive pressure transducer with stainless steel diaphragm
- **Range**
  - 3.5 m (138 in.), overpressure rating 2.5 x full scale

VELOCITY MEASUREMENT

- **Method**
  - Radar
- **Range**
  - 0.23 to 6.10 m/s (0.75 to 20 ft/s)

- **Frequency Range**
  - 24.075 to 24.175 GHz, 15.2 mW (max.)
- **Accuracy**
  - ±0.5%; ±0.03 m/s (±0.1 ft/s)

DEPTH MEASUREMENT

- **Method**
  - Ultrasonic
- **Standard Operating Range from Flo-Dar® Housing to Liquid**
  - 0 to 152.4 cm (0 to 60 in.)
- **Optional Extended Level Operating Range from Transducer Face to Liquid**
  - 0 to 6.1 m (0 to 20 ft.) with 43.18 cm (17 in.) dead band, temperature compensated.
- **Accuracy**
  - ±1%; ±0.25 cm (±0.1 in.)

FLOW MEASUREMENT

- **Method**
  - Based on Continuity Equation
- **Accuracy**
  - ±5% of reading typical where flow is in a channel with uniform flow conditions and is not surcharged, ±1% full scale max.

SURCHARGE CONDITIONS DEPTH/VELOCITY DEPTH (Std with Flo-Dar® Sensor)

- **Surcharge depth supplied by Flo-Dar® sensor.**

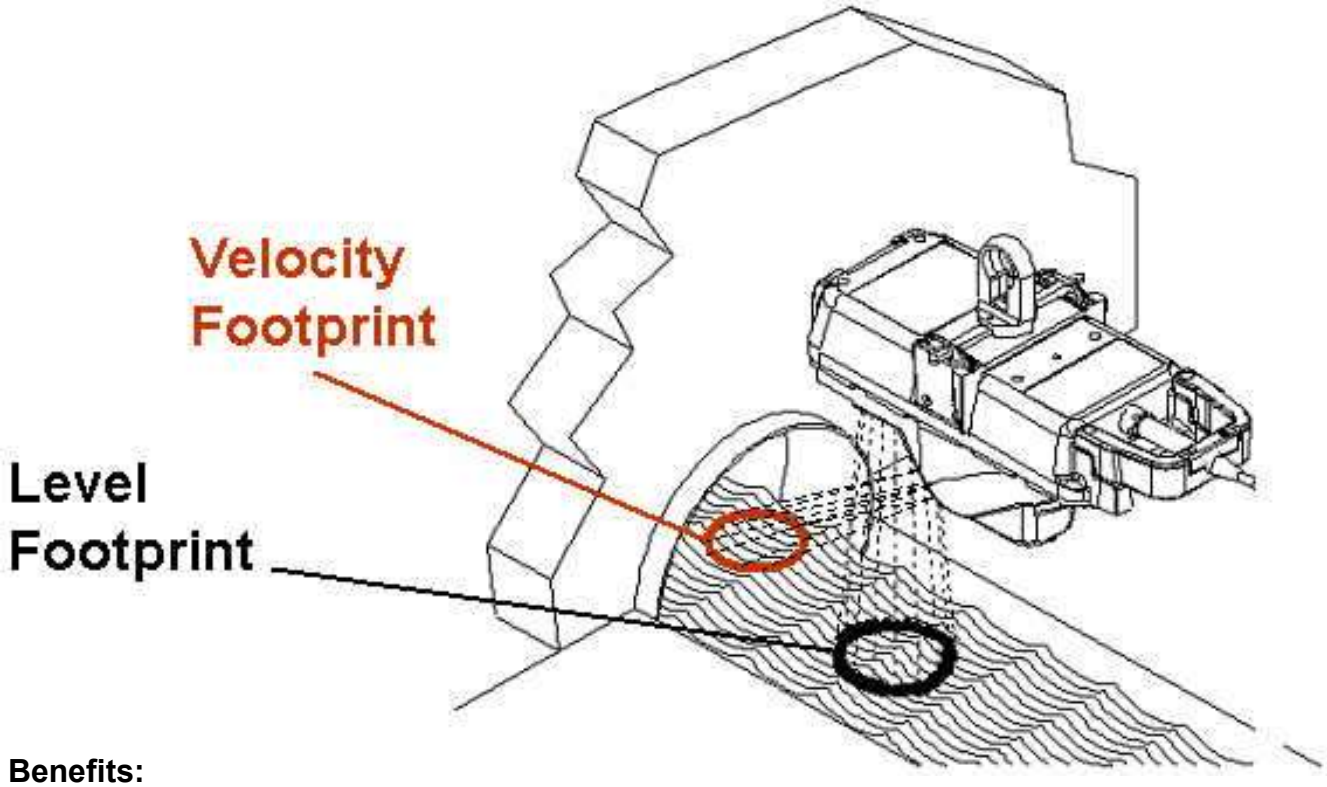
VELOCITY (Optional Surcharge Velocity Sensor)

- **Method**
  - Electromagnetic
- **Range**
  - ±4.8 m/s (±16 ft/s)
- **Accuracy**
  - ±0.15 ft/s or 4% of reading, whichever is greater.
- **Zero Stability**
  - ±0.05 ft/s

The Flo-Dar® Open Channel Flow Meters provide an innovative approach to open channel flow monitoring. Combining digital Doppler radar velocity sensing with ultrasonic pulse echo level sensing Flo-Dar® provides accurate open channel flow monitoring without the fouling problems associated with submerged sensors.

Perfect Solution for Difficult Flow Conditions:

- Flows with High Solids Content
- High Temperature Flows
- Caustic Flows
- Large Man-Made Channel
- High Velocities
- Shallow Flows



Benefits:

1. Personnel have no contact with the flow during installation.
2. Maintenance caused by sensor fouling is eliminated
3. Field Replaceable/Interchangeable Sensors and Monitors

How It Works

Flo-Dar® transmits a digital Doppler radar beam that interacts with the fluid and reflects back signals at a different frequency than that which was transmitted. These reflected signals are compared with the transmitted frequency. The resulting frequency shift provides an accurate measure of the velocity and the direction of the flow. Level is detected by ultrasonic pulse echo. Flow is then calculated based on the Continuity Equation:

Q = V x A, Where Q = Flow, V = Average Velocity and A = Area

Accurate Flow Measurements

Flo-Dar® provides the user with highly accurate flow measurements under a wide range of flows and site conditions. By measuring the velocity of the fluid from above, Flo-Dar® eliminates accuracy problems inherent with submerged sensors including sensor disturbances, high solids content and distribution of reflectors.

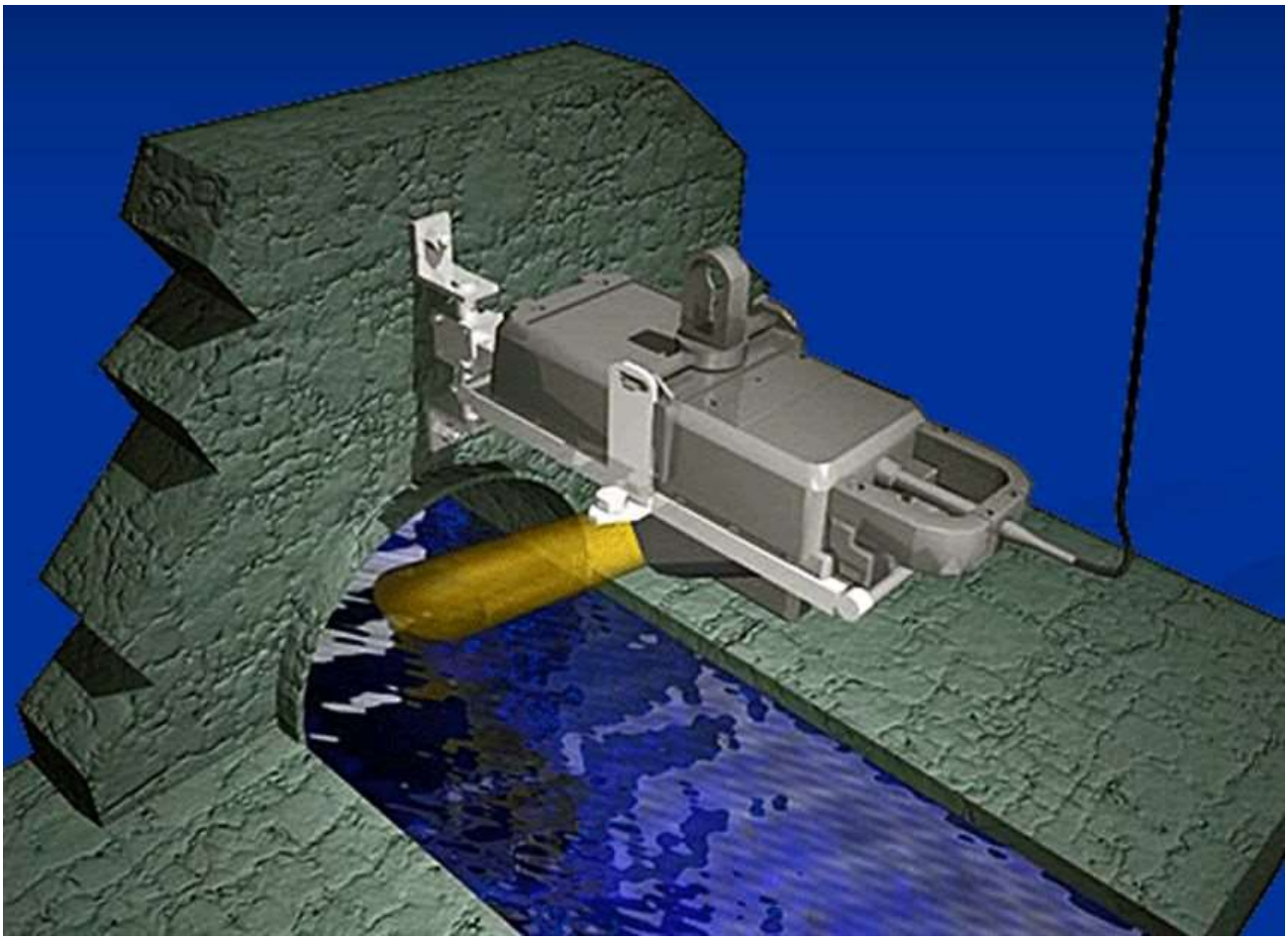


Figure above: US^3 utilizes exclusively Hach March-McBirney Flo-Dar® Meters

US³ Company Information

US³ is a California Corporation **Federal ID No. 33-0729605** and qualifies as a Minority Business Enterprise. US³ has certified as an MBE with the California Public Utility Commission's authorized clearinghouse, **Verification Number: 97ES0008.**

US³ is a specialty service company for the Water & Waste Water industry, providing monitoring and control for Utilities since 1996. US³ is in the forefront of this industry by taking the proven technological approaches developed in other high-tech industries and applying them to protect one of our most precious natural resources - our water.

US³ engineers and technical personnel have applied advanced instrumentation system technology to water/wastewater open channel flow monitoring, pipeline evaluation, engineering, and data analysis, all coupled to the power of the Internet. This unique integrated systems approach allows the company to bring greater insight and intelligence to gathering information about water/wastewater system performance of our clients, and in turn, to support the fulfillment of their commitments to manage and cost effectively design, operate, and maintain these systems.

Moreover, ***US³*** supports Municipalities, Consulting Engineering firms and other water/waste water systems integrators by providing temporary technical services for engineering, software programming and technical site maintenance and calibration site support work, primarily in the Water and Waste Water industries.

Figure at right: All US³ technicians are certified for Confined Space Entry.

Key Personnel Assigned

US³ provided the necessary resources to fully implement this project. Primary in support of this effort were the following personnel:

Mr. Mark Serres: Mr. Serres is a degreed electrical engineer with over 25 years of experience with fresh/wastewater systems, project management, and systems integration in relation to complex industrial systems. This includes experience in industrial automation and water/wastewater industries. Mr. Serres is responsible for assuring client satisfaction and marshalling the required resources to meet the project requirements.

Mr. Thomas Williams: Mr. Williams is an Engineering Manager with over 20 years of experience in complex systems development for wastewater monitoring. This experience includes hydraulic compatibility, instrumentation, communications and analysis. Mr. Williams is responsible for assuring that the required equipment is designed and calibrated to meet the project requirements.

Darlene Szczublewski, PE: Mrs. Szczublewski is a licensed Civil Engineer in multiple states. She has over 15 years of engineering experience with stormwater/wastewater related projects. She assisted in the completion of several Sanitary Sewer Evaluation Surveys and Capacity Analysis projects to meet Consent Decrees as well as completing numerous Infiltration and Inflow (I&I) studies for other clients. Mrs. Szczublewski has developed numerous flow data analysis techniques to present a clear informative picture of flow in a monitored system. Her work also includes the development of training programs for clients describing I&I and capacity analysis methodologies. Mrs. Szczublewski is responsible for analyzing the data as well as the data collection process and assuring that the reports meet the project requirements.

Name, title, address and telephone number of persons to contact regarding this US³ project.

Darlene Szczublewski, PE
Senior Civil Engineer
darlene.szczublewski@uscubed.com

9314 Bond Av, Suite A
El Cajon, CA 92021
619-546-4281 (work)
619-246-5304 (cell)

Tom Williams
Engineering Manager
tom.williams@uscubed.com

9314 Bond Av, Suite A
El Cajon, CA 92021
619-546-4281 (work)
619-398-7799 (cell)

Site Report 10/01/2021

Confidential Proprietary Information

Dexter Wilson Engineering

2021.09 Site 1 MH 13

MH at ~25101 The Old Road
Stevenson Ranch, CA 91381
MH # 13

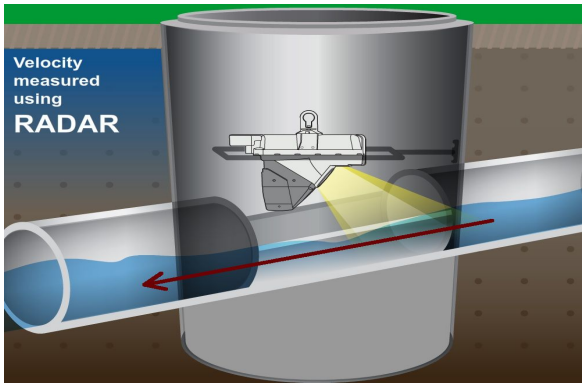
Access:
MH in SB lane near curb, east of address

System Type:
Sanitary [X] Storm [ ]

Install Date: 9/21/2021

Map

Technology



Se□er Plan

Flow Meter			
Meter Depth: 144"			
MH Coordinates: 34.374132, -118.563322			
Slow to moderate open channel hydraulics			
Avg Velocity	Avg Measured Level		Multiplier
1.0 fps	1.2"		1.0
Gas			
O2	H2S	CO	LEL
20.9	0	0	0
Notes			
No laterals; monitored the upstream line as it had the best hydraulics during inspection.			
Traffic Safety			
No formal TCP required; used cones & signs per site-specific CATTCH requirements.			
Land Use			
Residential	Commercial	Industrial	Trunk
	X		

Manhole Depth	159"
Monitored Pipe Size	8"
Inner Pipe Size (In/Out)	8"/8"
Pipe Shape	Round
Pipe Condition	Good
Manhole Material	Concrete
Silt	None observed
Velocity Profile Data	Passed
Velocity Profile Taken	0.4 2-D
Sensor Offset	15.0"
Sensor Dist. to Crown	7.0"
Sensor Direction	Upstream
Flow Heading	North

Meter Site Document

2021.09 Site 1 MH 13

MH at ~25101 The Old Road

Stevenson Ranch, CA 91381

Site

Manhole Before Install

Installation Process

Installed

Upstream

□pstream Pipe Si□e

Statistics for □□□□.□□ Site □ MH □□□□□□□□□□□□□□□ t□ru □□□□□□□□□□

	Flow (GPM)			Flow (MGD)			Flow (CFS)			Velocity (FPS)			Level (inches)				
Date	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Total Gal	Rain
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Week:	**15.80**	**35.23**	**3.72**	**0.02**	**0.05**	**0.01**	**0.04**	**0.08**	**0.01**	**1.03**	**1.61**	**0.59**	**1.18**	**1.62**	**0.65**	**136,547**	
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Week:	**15.19**	**34.23**	**4.32**	**0.02**	**0.05**	**0.01**	**0.03**	**0.08**	**0.01**	**1.02**	**1.56**	**0.64**	**1.15**	**1.66**	**0.69**	**87,470**	
Totals:	**15.56**	**35.23**	**3.72**	**0.02**	**0.05**	**0.01**	**0.03**	**0.08**	**0.01**	**1.03**	**1.61**	**0.59**	**1.17**	**1.66**	**0.65**	**224,017**	

Temporary Flow Study

Dexter Wilson Engineering

2021.09 Site 1 MH 13

Meter Start Date		From	9/21/2021
Meter Stop Date		To	9/30/2021
Velocity (fps)		Level (in)	Flow (mgd)
Average	1.026	1.170	0.022
Maximum	1.610	1.660	0.051
Minimum	0.590	0.650	0.005
Pipe Size		8.000	
Estimated Capacity (mgd)		Not Calculated	
Capacity Used		Not Calculated	
Sensor Type		Hach - Flodar	

Utility Systems, Science and Software

9314 Bond Av, Suite A
El Cajon, CA 92021

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

Site Report 10/01/2021

Confidential Proprietary Information

Dexter Wilson Engineering

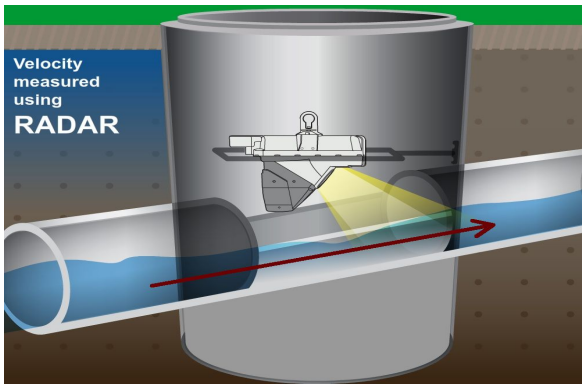
2021.09 Site 2 MH 452

MH at ~24381 La Glorita Circle
Santa Clarita, CA 91321
MH # 452

Access:	System Type:	Install Date: 9/21/2021
MH in WB lane, south of address	Sanitary [X] Storm [ ]	

Map

Technology



Se□er Plan

Flow Meter		
Meter Depth: 86"		
MH Coordinates: 34.376436, -118.560708		
Moderate open channel hydraulics with consistent flow observed from the south line		
Avg Velocity	Avg Measured Level	Multiplier
2.3 fps	1.7"	1.0

Gas			
O2	H2S	CO	LEL
20.9	0	0	0

Notes
Two inlets from west & south; monitored the downstream line to get total flow.

Traffic Safety
No formal TCP required; used cones & signs per site-specific CATTCH requirements.

Land Use			
Residential	Commercial	Industrial	Trunk
X			

Manhole Depth	103"
Monitored Pipe Size	10"
Inner Pipe Size (In/Out)	10"/10"
Pipe Shape	Round
Pipe Condition	Good
Manhole Material	Concrete
Silt	None observed
Velocity Profile Data	Passed
Velocity Profile Taken	0.4 2-D
Sensor Offset	16.8"
Sensor Dist. to Crown	6.8"
Sensor Direction	Downstream
Flow Heading	East

Meter Site Document

2021.09 Site 2 MH 452

MH at ~24381 La Glorita Circle

Santa Clarita, CA 91321

Site

Manhole Before Install

Installation Process

Installed

Do□nstream Pipe Si□e

Downstream

Statistics for □□□□.□□ Site □MH □□□□□□□□□□□□□□□□□ t□ru □□□□□□□□□□□

	Flow (GPM)			Flow (MGD)			Flow (CFS)			Velocity (FPS)			Level (inches)				
Date	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Total Gal	Rain
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Week:	**69.33**	**104.09**	**23.86**	**0.10**	**0.15**	**0.03**	**0.15**	**0.23**	**0.05**	**2.36**	**2.87**	**1.45**	**1.76**	**2.21**	**1.07**	**598,973**	
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Week:	**61.19**	**95.73**	**22.54**	**0.09**	**0.14**	**0.03**	**0.14**	**0.21**	**0.05**	**2.30**	**2.77**	**1.55**	**1.63**	**2.11**	**1.04**	**352,467**	
Totals:	**66.07**	**104.09**	**22.54**	**0.10**	**0.15**	**0.03**	**0.15**	**0.23**	**0.05**	**2.34**	**2.87**	**1.45**	**1.70**	**2.21**	**1.04**	**951,439**	

Temporary Flow Study

Dexter Wilson Engineering

2021.09 Site 2 MH 452

Meter Start Date		From	9/21/2021
Meter Stop Date		To	9/30/2021
Velocity (fps)		Level (in)	Flow (mgd)
Average	2.345	1.718	0.096
Maximum	2.870	2.210	0.150
Minimum	1.450	1.050	0.032
Pipe Size		10.000	
Estimated Capacity (mgd)		Not Calculated	
Capacity Used		Not Calculated	
Sensor Type		Hach - Flodar	

Utility Systems, Science and Software

9314 Bond Av, Suite A
El Cajon, CA 92021

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

Site Report 10/01/2021

Confidential Proprietary Information

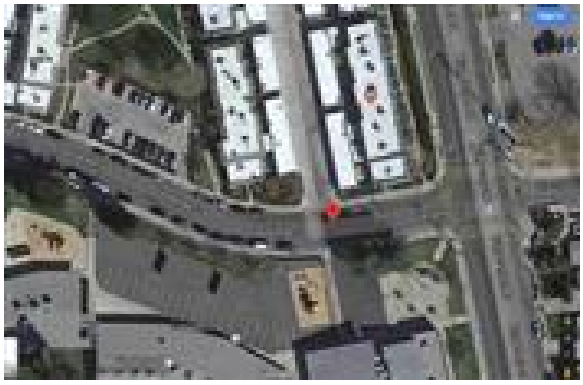
Dexter Wilson Engineering

2021.09 Site 3 MH 430

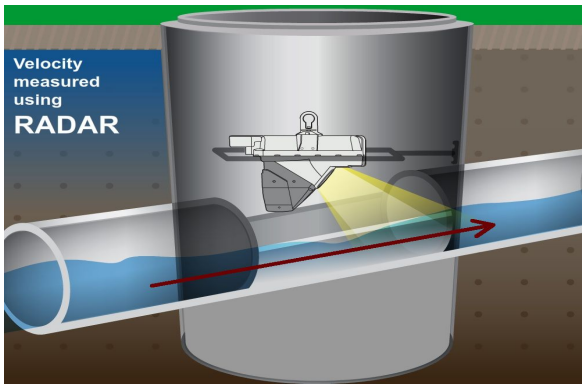
MH at ~24203 La Glorita Circle
Santa Clarita, CA 91321
MH # 430

Access:	System Type:	Install Date: 9/21/2021
MH in WB lane, SW of address	Sanitary [X] Storm [ ]	

Map



Technology



Se□er Plan

Flow Meter		
Meter Depth: 90"		
MH Coordinates: 34.376333, -118.558270		
Moderate open channel hydraulics with some turbulence due to inflow from north line		
Avg Velocity	Avg Measured Level	Multiplier
2.□ fps	2.3"	1.0

Gas			
O2	H2S	CO	LEL
20.9	0	0	0

Notes
Two inlets from west & north; monitored the downstream line to get total flow going to MH 429.

Traffic Safety
No formal TCP required; used cones & signs per site-specific CATTCH requirements.

Land Use			
Residential	Commercial	Industrial	Trunk
X			

Manhole Depth	108"
Monitored Pipe Size	12"
Inner Pipe Size (In/Out)	12"/12"
Pipe Shape	Round
Pipe Condition	Good
Manhole Material	Concrete
Silt	None observed
Velocity Profile Data	Passed
Velocity Profile Taken	0.4 2-D
Sensor Offset	18.3"
Sensor Dist. to Crown	6.3"
Sensor Direction	Downstream
Flow Heading	East

Meter Site Document

2021.09 Site 3 MH 430

MH at ~24203 La Glorita Circle

Santa Clarita, CA 91321

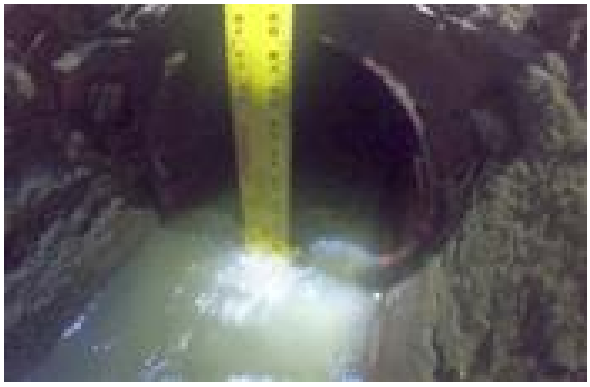
Site

Manhole Before Install

Installation Process

Installed

Do□nstream Pipe Si□e



Downstream

□tilit□ S□stems Science and Soft□are

Report Date□□□□□□□□□□□□
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	Flow (GPM)			Flow (MGD)			Flow (CFS)			Velocity (FPS)			Level (inches)				
Date	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Total Gal	Rain
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Week:	**134.88**	**219.45**	**47.34**	**0.19**	**0.32**	**0.07**	**0.30**	**0.49**	**0.11**	**2.79**	**3.73**	**1.24**	**2.31**	**2.78**	**1.97**	**1,165,376**	
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Week:	**111.76**	**200.04**	**57.39**	**0.16**	**0.29**	**0.08**	**0.25**	**0.45**	**0.13**	**2.42**	**3.62**	**1.41**	**2.24**	**2.68**	**1.93**	**643,740**	
Totals:	**125.63**	**219.45**	**47.34**	**0.18**	**0.32**	**0.07**	**0.27**	**0.49**	**0.11**	**2.64**	**3.73**	**1.24**	**2.28**	**2.78**	**1.93**	**1,809,117**	

Temporary Flow Study

Dexter Wilson Engineering

2021.09 Site 3 MH 430

Meter Start Date		From	9/21/2021
Meter Stop Date		To	9/30/2021
Velocity (fps)		Level (in)	Flow (mgd)
Average	2.699	2.293	0.186
Maximum	3.730	2.780	0.316
Minimum	1.240	1.930	0.068
Pipe Size		12.000	
Estimated Capacity (mgd)		Not Calculated	
Capacity Used		Not Calculated	
Sensor Type		Hach - Flodar	

Utility Systems, Science and Software

9314 Bond Av, Suite A
El Cajon, CA 92021

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

Site Report 10/01/2021

Confidential Proprietary Information

Dexter Wilson Engineering

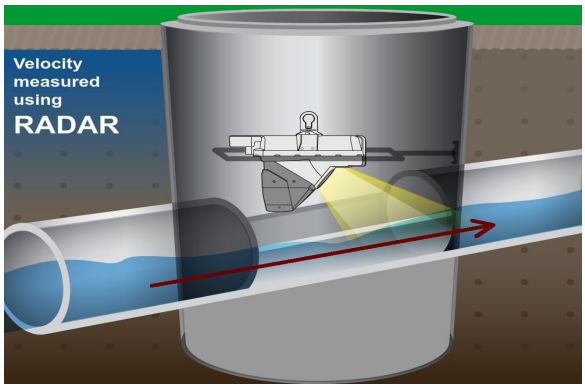
2021.09 Site 4 MH 392

MH at ~23978 Avenida Entrana
Santa Clarita, CA 91355
MH # 392

Access:	System Type:	Install Date: 9/21/2021
MH in WB lane, north of address	Sanitary [X] Storm [ ]	

Map

Technology



Se□er Plan

Flow Meter		
Meter Depth: 154"		
MH Coordinates: 34.379477, -118.554539		
Moderate open channel hydraulics with no flow observed from the north line		
Avg Velocity	Avg Measured Level	Multiplier
2.□□ fps	4.□"	1.0

Gas			
O2	H2S	CO	LEL
20.9	0	0	0

Notes
Two inlets from west & north; monitored the downstream line to get total flow.

Traffic Safety
No formal TCP required; used cones & signs per site-specific CATTCH requirements.

Land Use			
Residential	Commercial	Industrial	Trunk
X			

Manhole Depth	172"
Monitored Pipe Size	12"
Inner Pipe Size (In/Out)	12"/12"
Pipe Shape	Round
Pipe Condition	Good
Manhole Material	Concrete
Silt	None observed
Velocity Profile Data	Passed
Velocity Profile Taken	0.4 2-D
Sensor Offset	18.1"
Sensor Dist. to Crown	6.1"
Sensor Direction	Downstream
Flow Heading	East

Meter Site Document

2021.09 Site 4 MH 392

MH at ~23978 Avenida Entrana

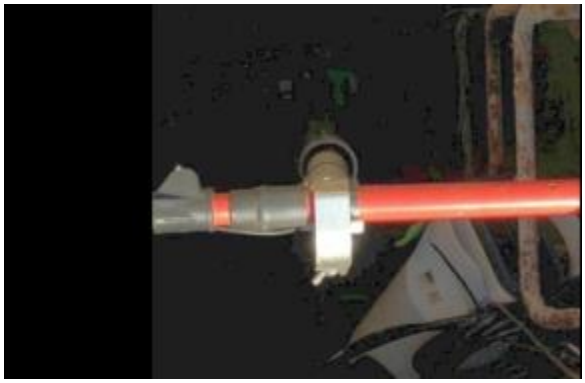
Santa Clarita, CA 91355

Site

Manhole Before Install

Installation Process

Installed



Do□nstream Pipe Si□e

Downstream

Statistics for □□□□.□□ Site □MH □□□□□□□□□□□□□□□□ t□ru □□□□□□□□□□

	Flow (GPM)			Flow (MGD)			Flow (CFS)			Velocity (FPS)			Level (inches)				
Date	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Total Gal	Rain
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Week:	**235.61**	**355.73**	**85.07**	**0.34**	**0.51**	**0.12**	**0.52**	**0.79**	**0.19**	**2.16**	**2.57**	**1.52**	**4.10**	**5.14**	**2.44**	**2,035,705**	
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Week:	**217.92**	**322.57**	**66.46**	**0.31**	**0.46**	**0.10**	**0.49**	**0.72**	**0.15**	**2.13**	**2.49**	**1.34**	**3.90**	**4.97**	**2.36**	**1,255,203**	
Totals:	**228.54**	**355.73**	**66.46**	**0.33**	**0.51**	**0.10**	**0.51**	**0.79**	**0.15**	**2.15**	**2.57**	**1.34**	**4.02**	**5.14**	**2.36**	**3,290,908**	

Temporary Flow Study

Dexter Wilson Engineering

2021.09 Site 4 MH 392

Meter Start Date		From	9/21/2021
Meter Stop Date		To	9/30/2021
Velocity (fps)		Level (in)	Flow (mgd)
Average	2.153	4.043	0.332
Maximum	2.570	5.140	0.512
Minimum	1.490	2.440	0.121
Pipe Size		12.000	
Estimated Capacity (mgd)		Not Calculated	
Capacity Used		Not Calculated	
Sensor Type		Hach - Flodar	

Utility Systems, Science and Software

9314 Bond Av, Suite A
El Cajon, CA 92021

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

2020 Flow Test Results for Manhole #28, 780, and Near 23250 Wiley Canyon Road

SEWER AREA STUDY

WILEY CANYON

APNs: 2825-012-007, -010, -011, -901
Santa Clarita, CA

SAS20-00003

Prepared For:
SHERIDAN-EBBERT DEVELOPMENT/
ROYAL CLARK DEVELOPMENT COMPANY
13120 Telfair Avenue
Sylmar, CA 91342
(818) 364-7505

Prepared By:
Alliance Land Planning & Engineering, Inc.
2248 Faraday Ave.
Carlsbad, CA 92008
(760) 431-9896

AUGUST 10, 2020

Prepared Under the Direction of:

Craig M. Whitteker R.C.E. No. 51929 9/10/20 Date

Flo Test Results

Site Report 6/16/2020

Confidential Proprietary Information

Alliance

2020.06 Langston MH 28

MH at ~25457 Langston St

Santa Clarita, CA 91355

MH # 28

Access:

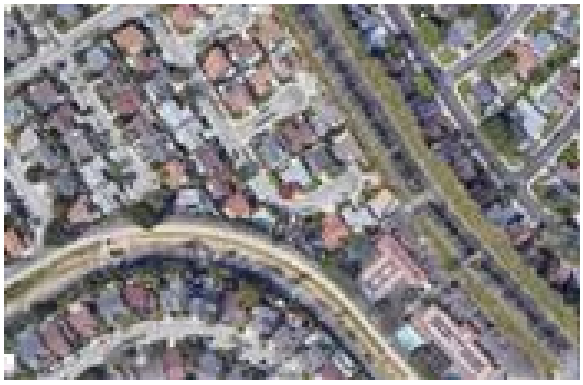
MH in northbound lane, north of address

System Type:

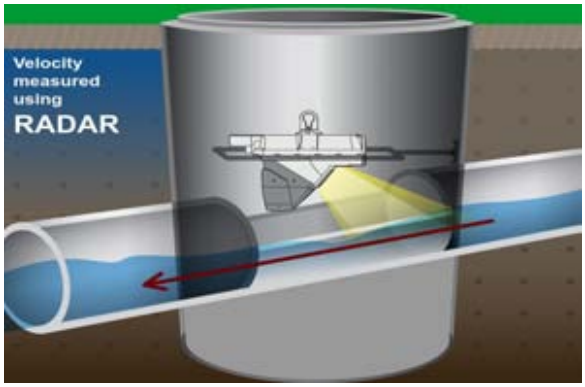
Sanitary [X] Storm [ ]

Install Date: 6/04/2020

Map



Technology



Se□er Plan

Flow Meter			
Meter Depth: 222"			
MH Coordinates: 34.390918, -118.549891			
Moderate open channel hydraulics; difficult to calibrate due to depth of MH			
Avg Velocity	Avg Measured Level		Multiplier
2.0 fps	8.66"		1.0
Gas			
O2	H2S	CO	LEL
20.9	0	0	0
Notes			
No laterals; monitored the upstream line as it generally provides the best hydraulics.			
Traffic Safety			
No formal TCP required; used cones & signs per site-specific CA MUTCD TC requirements.			
Land Use			
Residential	Commercial	Industrial	Trunk
X			

Manhole Depth	247"
Monitored Pipe Size	18"
Inner Pipe Size (In/Out)	18"/18"
Pipe Shape	Round
Pipe Condition	Good
Manhole Material	Concrete
Silt	None observed
Velocity Profile Data	*
Velocity Profile Taken	0.4 2-D
Sensor Offset	24.32"
Sensor Dist. to Crown	6.32"
Sensor Direction	Upstream
Flow Heading	East

Meter Site Document

2020.06 Langston MH 28

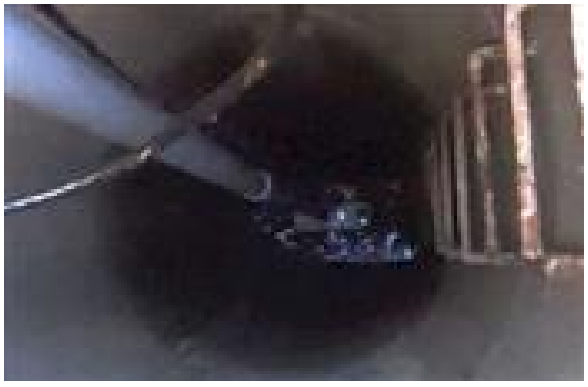
MH at ~25457 Langston St

Santa Clarita, CA 91355

Site

Manhole Before Install

Installation Process



Installed

Upstream

Downstream

Temporary Flow Study

Alliance

2020.06 Langston MH 28

Meter Start Date		From	6/4/2020
Meter Stop Date		To	6/12/2020
Velocity (fps)		Level (in)	Flow (mgd)
Average	1.935	8.732	1.123
Maximum	2.500	11.010	1.827
Minimum	0.940	5.070	0.278
Pipe Size		18.000	
Estimated Capacity (mgd)		Not Calculated	
Capacity Used		Not Calculated	
Sensor Type		Hach - Flodar	

Utility Systems, Science and Software

9314 Bond Av, Suite A
El Cajon, CA 92021

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

Site Report 6/16/2020

Confidential Proprietary Information

Alliance

2020.06 Orchard Village MH 780

MH at ~25456 Orchard Village Rd

Santa Clarita, CA 91355

MH # 780

Access:

MH on sidewalk next to river trailhead, north of road

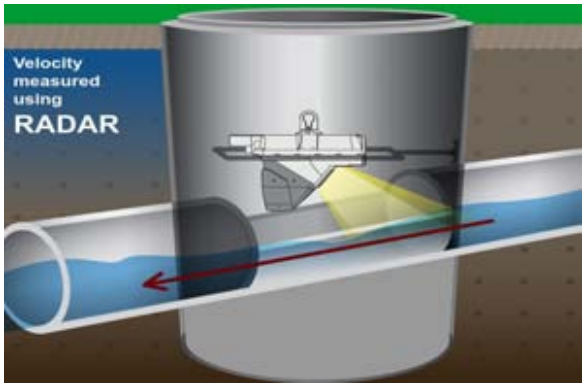
System Type:

Sanitary [X] Storm [ ]

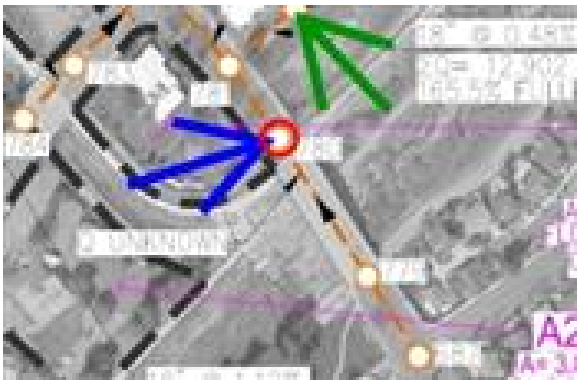
Install Date: 6/04/2020

Map

Technology



Se□er Plan



Flow Meter			
Meter Depth: 280"			
MH Coordinates: 34.389020, -118.546608			
Moderate open channel hydraulics; difficult to calibrate due to depth of MH			
Avg Velocity	Avg Measured Level		Multiplier
1.5 fps	10.75"		1.0
Gas			
O2	H2S	CO	LEL
20.9	0	0	0
Notes			
No laterals; monitored the upstream line as it generally provides the best hydraulics.			
Traffic Safety			
No formal TCP required; used cones & signs to designate work space for pedestrians.			
Land Use			
Residential	Commercial	Industrial	Trunk
X			

Manhole Depth	305"
Monitored Pipe Size	18"
Inner Pipe Size (In/Out)	18"/18"
Pipe Shape	Round
Pipe Condition	Good
Manhole Material	Concrete
Silt	1.5"
Velocity Profile Data	*
Velocity Profile Taken	0.4 2-D
Sensor Offset	25.11"
Sensor Dist. to Crown	7.11"
Sensor Direction	Upstream
Flow Heading	North

Meter Site Document

2020.06 Orchard Village MH 780

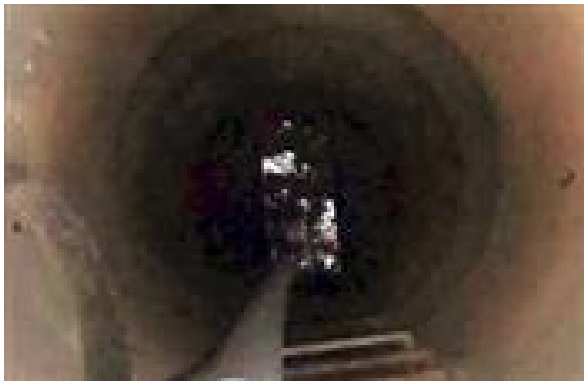
MH at ~25456 Orchard Village Rd

Santa Clarita, CA 91355

Site

Manhole Before Install

Installation Process



Installed

Upstream

Downstream

Temporary Flow Study

Alliance

2020.06 Orchard Village MH 780

Meter Start Date		From	6/4/2020
Meter Stop Date		To	6/12/2020
Velocity (fps)		Level (in)	Flow (mgd)
Average	1.506	10.838	1.050
Maximum	2.230	13.180	1.794
Minimum	0.510	8.410	0.250
Pipe Size		18.000	
Estimated Capacity (mgd)		Not Calculated	
Capacity Used		Not Calculated	
Sensor Type		Hach - Flodar	

Utility Systems, Science and Software

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El Cajon, CA 92021

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

Site Report 6/16/2020

Confidential Proprietary Information

Alliance

2020.06 Wiley Canyon MH

MH at ~23520 Wiley Canyon Rd
Santa Clarita, CA 91355
MH # unknown

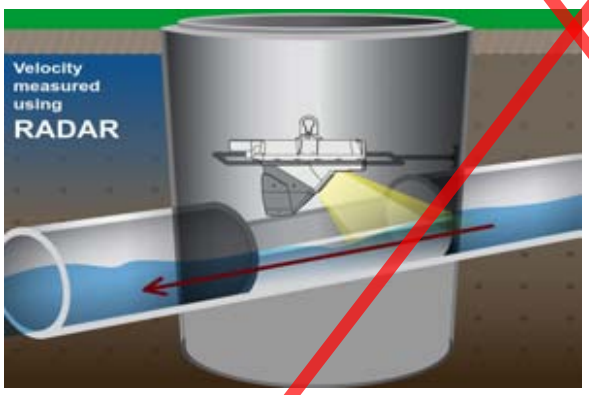
Access:
MH in open space, east of address

System Type:
Sanitary [X] Storm [ ]

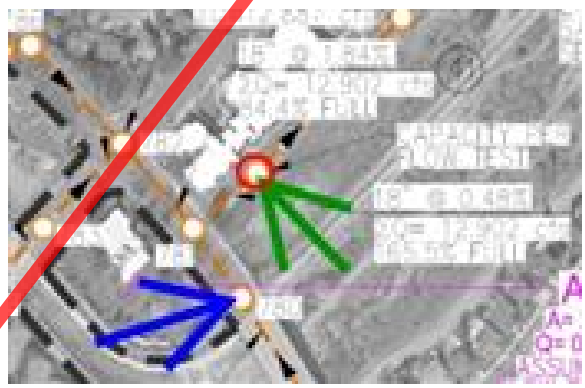
Install Date: 6/04/2020

Map

Technology



Se□er Plan



Flow Meter			
Meter Depth: 192"			
MH Coordinates: 34.389601, -118.546630			
Low to no flow; difficult to calibrate due to depth of MH & flow levels			
Avg Velocity	Avg Measured Level		Multiplier
0.5 fps	0.25"		1.0
Gas			
O2	H2S	CO	LEL
20.9	0	0	0
Notes			
No laterals; monitored the upstream line as it generally provides the best hydraulics.			
Traffic Safety			
MH in open space, no traffic control required.			
Land Use			
Residential	Commercial	Industrial	Trunk
X			X

Manhole Depth	226"
Monitored Pipe Size	18"
Inner Pipe Size (In/Out)	18"/18"
Pipe Shape	Round
Pipe Condition	Good
Manhole Material	Concrete
Silt	Intermittent
Velocity Profile Data	*
Velocity Profile Taken	0.4 2-D
Sensor Offset	34.28"
Sensor Dist. to Crown	16.28"
Sensor Direction	Upstream
Flow Heading	East

Meter Site Document

2020.06 Wiley Canyon MH

MH at ~23520 Wiley Canyon Rd

Santa Clarita, CA 91355

Site

Manhole Before Install

Installation Process

Installed

Upstream

Downstream

Temporary Flow Study

Alliance

2020.06 Wiley Canyon MH

Meter Start Date		From	6/4/2020
Meter Stop Date		To	6/12/2020
Velocity (fps)		Level (in)	Flow (mgd)
Average	0.488	0.255	0.004
Maximum	2.980	1.050	0.060
Minimum	0.000	0.000	0.000
Pipe Size		18.000	
Estimated Capacity (mgd)		Not Calculated	
Capacity Used		Not Calculated	
Sensor Type		Hach - Flodar	

Utility Systems, Science and Software

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El Cajon, CA 92021

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

LOS ANGELES COUNTY APPENDICES

APPENDIX F

CSMD MAPS

SEE SHT. NO. N-1296

A-41
A-42
A-47
A-48
X-48

THIS MAP IS INTENDED FOR USE ONLY AS OPERATIONS MAP BY LOS ANGELES COUNTY SEWER MAINTENANCE DISTRICTS. LOS ANGELES COUNTY EXPRESSLY DISCLAIMS ANY LIABILITY FOR ANY INACCURACIES WHICH MAY BE PRESENT IN THIS MAP.

SEE SHT. NO. N-1258

SEE SHT. NO. N-1336

SEE SHT. NO. N-1298

CITY OF SANTA CLARITA

SCALE
AUTOMATED GRAPHICS
METERS 0 50 100 200 250
FEET 0 200 400 600 800

LEGEND

- CLAY SEWERS MAINTAINED BY SMD, 8" UNLESS OTHERWISE NOTED
- PLASTIC SEWERS
- CONCRETE SEWERS
- CLAY SEWERS, LINED
- CEMENT SEWERS, LINED
- FORCE MAINS
- SEWERS NOT MAINTAINED BY SMD
- TRUNK SEWERS
- CITY BOUNDARY
- STANDARD MANHOLE
- DROP MANHOLE
- SHALLOW MANHOLE
- TRAP MANHOLE
- WEIR MANHOLE
- C.O. CLEANOUT
- L.H. LAMP HOLE
- PUMP STATION

TOTAL MH'S THIS MAP: 919

MAP REV
03-19-14

DATA BASE REV
06-02-88

CONSOLIDATED S.M.D.

N-1297

T: 4550 F-7

2311.2411.1297

SEE SHT. NO. N-1297

A-25
A-26
A-41
A-42

SEE SHT. NO. N-1259

SEE SHT. NO. N-1337

CITY OF LOS ANGELES

CITY OF SANTA CLARITA

SANTA CLARITA

COUNTY

SEC 4 T3N R16W

SEC 10

THE OLD GOLDEN STATE FWY

SOUTH FORK WILEY CANYON

WILEY CANYON RD

SAGASSO CT
DOGWOOD CT
FOXTAIL CT
SAGECREST
DENISE PL
HAWKBERRY PL
MARKELL DR
LISA KELTON PL
KELTON
CHERYL
JENNIFER
KERRY ROBIN DR
WABUSKA
POWELL
SANTA CLARA
ROUND CYN
FOURL
DE WOLFE
ATWOOD
EVERETT DR
AVERMONT
VERMONT
WHEELER
HIGHSPRING
GREENMILL AV
PARCHMAN AV
LAWNSIDE DR
NEARGATE
AIRVILLE AV
OAKRUN
ARLEN DR
HEATHER KNOLLS PL
LLOYD HOUGHTON PL
HIGHLAND GLEN DR
APPLE
8TH ST
MAPLE
HERITAGE LN
VALLEY BV
ST222
OAKRUN LN
ACORN CT
BURR CT
VISTA
TREASURE
DERIAN DR
CEDARTOWN
MARKET
ELLIOT LN
JANEL AV
TIMON LN
SCCC
PARKVIEW DR
SHADELAND
MIDDLE BANK
LOGDELL AV
COLWYN AV
CROSSWINDS PL
CROSS
DAVEY AV
WILDWOOD
WILDWOOD DEBRIS BASIN
ALAMOS LN
CHAMPAGNE LN
AGRAMONTE
HASKELL VISTA
WILDWOOD RD
OAKBRIDGE LN
CARLAND DR
DARBUN DR
FAMBROUGH
FAITH DR
HARBY DR
CANERWELL DR
ADAMSBORO DR
JENA DR
LITTLE OAK LN
CANYON RD
DAISETTA DR
KALMAR AV
CALGROVE
VALLEY OAK CT
WHITE OAK
HERITAGE OAK CT
EBELDEN
LA SALLE CANYON DR
STILLWATER DR
WINDCREST PL
THISTLE CREST
CREST VIEW
SAGEBRUSH
CLOVERDALE CT
GLENRIDGE DR
THORNEWOOD
MENTRY
BELLA CT
CARY CT
DARCY LN
CREEKSIDE DR
CLEARBANK LN
BRIARDALE WY
TOWSLEY CANYON RD
OLD RD
FRWY

METERS
0 50 100 200 250
0 200 400 600 800
FEET

LEGEND

- CLAY SEWERS MAINTAINED BY SMD, 8" UNLESS OTHERWISE NOTED
- PLASTIC SEWERS
- CONCRETE SEWERS
- CLAY SEWERS, LINED
- CEMENT SEWERS, LINED
- FORCE MAINS
- SEWERS NOT MAINTAINED BY SMD
- TRUNK SEWERS
- CITY BOUNDARY
- STANDARD MANHOLE
- DROP MANHOLE
- SHALLOW MANHOLE
- TRAP MANHOLE
- WEIR MANHOLE
- C.O. CLEANOUT
- L.H. LAMP HOLE
- PUMP STATION

TOTAL MH'S THIS MAP: 432

E 4,117,000
N 4,241,500

1299

MAP REV
12-24-07

DATA BASE REV
05-20-93

CONSOLIDATED S.M.D.

N-1298

T: 4640 G-3

2311-2311.1298

SEE SHT. NO. N-1257

A-42
A-47

SEE SHT. NO. 1219

SEE SHT. NO. N-1297

SEE SHT. NO. N-1259

THIS MAP IS INTENDED FOR USE ONLY AS OPERATIONS MAP BY LOS ANGELES COUNTY SEWER MAINTENANCE DISTRICTS. LOS ANGELES COUNTY EXPRESSLY DISCLAIMS ANY LIABILITY FOR ANY INACCURACIES WHICH MAY BE PRESENT IN THIS MAP.

AUTOMATED GRAPHICS

METERS
0 50 100 200 250
0 200 400 600 800
FEET

LEGEND

- CLAY SEWERS MAINTAINED BY SMD, 8" UNLESS OTHERWISE NOTED
- PLASTIC SEWERS
- CONCRETE SEWERS
- CLAY SEWERS, LINED
- CEMENT SEWERS, LINED
- FORCE MAINS
- SEWERS NOT MAINTAINED BY SMD
- TRUNK SEWERS
- CITY BOUNDARY
- STANDARD MANHOLE
- DROP MANHOLE
- SHALLOW MANHOLE
- TRAP MANHOLE
- WEIR MANHOLE
- C.O. CLEANOUT
- L.H. LAMP HOLE
- PUMP STATION

TOTAL MH'S THIS MAP: 649

MAP REV
11-09-06

DATA BASE REV
05-16-88

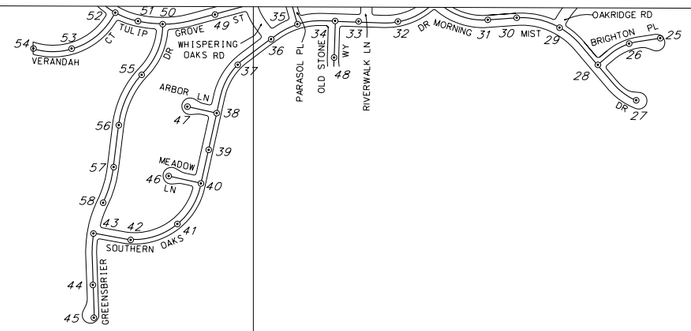
CONSOLIDATED S.M.D.

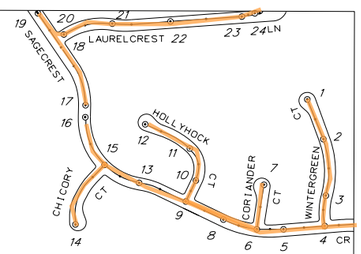
N-1258

T: 4550 C-7

2307.2409.1258

SEE SHT. NO. N-1258





A-25
A-42

THIS MAP IS INTENDED FOR USE ONLY AS OPERATIONS MAP BY LOS ANGELES COUNTY SEWER MAINTENANCE DISTRICTS. LOS ANGELES COUNTY EXPRESSLY DISCLAIMS ANY LIABILITY FOR ANY INACCURACIES WHICH MAY BE PRESENT IN THIS MAP.

LOS *ANGELES* *COUNTY*

1220

E 4,107,000

N 4,241,500

1220

SEE SHT. NO. N-1298

AUTOMATED GRAPHICS

METERS
0 50 100 200 250
0 200 400 600 800
FEET

LEGEND

- CLAY SEWERS MAINTAINED BY SMD, 8" UNLESS OTHERWISE NOTED
- PLASTIC SEWERS
- CONCRETE SEWERS
- CLAY SEWERS, LINED
- CEMENT SEWERS, LINED
- FORCE MAINS
- SEWERS NOT MAINTAINED BY SMD
- TRUNK SEWERS
- CITY BOUNDARY
- STANDARD MANHOLE
- DROP MANHOLE
- SHALLOW MANHOLE
- TRAP MANHOLE
- WEIR MANHOLE
- C.O. CLEANOUT
- L.H. LAMP HOLE
- PUMP STATION

CITY OF SANTA CLARITA

TOTAL MH'S THIS MAP: 58

MAP REV
01-18-06

DATA BASE REV
08-01-88

CONSOLIDATED S.M.D.

N-1259

T: 4640 E-3

2307.2309.1259

SEE SHT. NO. N-1296

A-41
A-42
A-47
A-48
X-48

THIS MAP IS INTENDED FOR USE ONLY AS OPERATIONS MAP BY LOS ANGELES COUNTY SEWER MAINTENANCE DISTRICTS. LOS ANGELES COUNTY EXPRESSLY DISCLAIMS ANY LIABILITY FOR ANY INACCURACIES WHICH MAY BE PRESENT IN THIS MAP.

SEE SHT. NO. N-1336

AUTOMATED GRAPHICS

METERS
0 50 100 200 250
0 200 400 600 800
FEET

LEGEND

- CLAY SEWERS MAINTAINED BY SMD, 8" UNLESS OTHERWISE NOTED
- PLASTIC SEWERS
- CONCRETE SEWERS
- CLAY SEWERS, LINED
- CEMENT SEWERS, LINED
- FORCE MAINS
- SEWERS NOT MAINTAINED BY SMD
- TRUNK SEWERS
- CITY BOUNDARY
- STANDARD MANHOLE
- DROP MANHOLE
- SHALLOW MANHOLE
- TRAP MANHOLE
- WEIR MANHOLE
- C.O. CLEANOUT
- L.H. LAMP HOLE
- PUMP STATION

TOTAL MH'S THIS MAP: 919

A-26
A-41
A-42

PROJECT BOUNDARY

LOS ANGELES COUNTY

CITY OF SANTA CLARITA

SANTA CLARITA

SEC 10

T3N R16W

SEE SHT. NO. N-1337

THIS MAP IS INTENDED FOR USE ONLY AS OPERATIONS MAP BY LOS ANGELES COUNTY SEWER MAINTENANCE DISTRICTS. LOS ANGELES COUNTY EXPRESSLY DISCLAIMS ANY LIABILITY FOR ANY INACCURACIES WHICH MAY BE PRESENT IN THIS MAP.

AUTOMATED GRAPHICS

METERS
0 50 100 200 250
0 200 400 600 800
FEET

LEGEND

- CLAY SEWERS MAINTAINED BY SMD, 8" UNLESS OTHERWISE NOTED
- PLASTIC SEWERS
- CONCRETE SEWERS
- CLAY SEWERS, LINED
- CEMENT SEWERS, LINED
- FORCE MAINS
- SEWERS NOT MAINTAINED BY SMD
- TRUNK SEWERS
- CITY BOUNDARY
- STANDARD MANHOLE
- DROP MANHOLE
- SHALLOW MANHOLE
- TRAP MANHOLE
- WEIR MANHOLE
- C.O. CLEANOUT
- L.H. LAMP HOLE
- PUMP STATION

TOTAL MH'S THIS MAP: 432

APPENDIX G

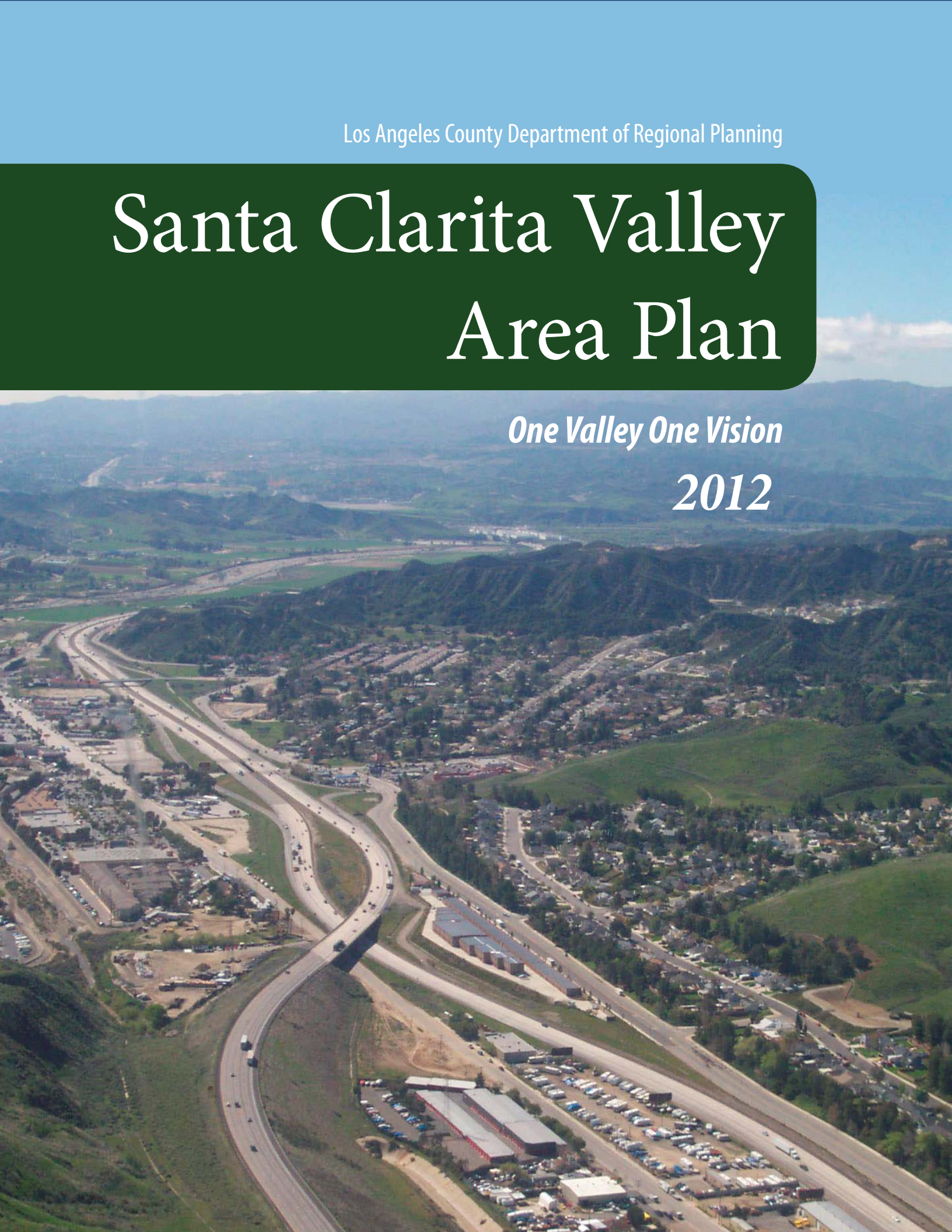
LOS ANGELES COUNTY ZONING MAP

Los Angeles County Department of Regional Planning

Santa Clarita Valley Area Plan

One Valley One Vision

2012



Appendix II

Chapter 1: Introduction

- Figure I-1: Santa Clarita Valley Planning Area Boundaries

Chapter 2: Land Use

- Figure L-1: Communities and Specific Plans
- Figure L-2: Limited H5 Districts

Chapter 3: Circulation

- Figure C-1: Network of Existing Streets and Highways, 2007
- Figure C-2: Circulation Plan of Streets and Highways
- Figure C-3: Standard Roadway Cross Sections
- Figure C-4: Helipads in the Planning Area
- Figure C-5: Valleywide Bikeway Master Plan

Chapter 4: Conservation and Open Space

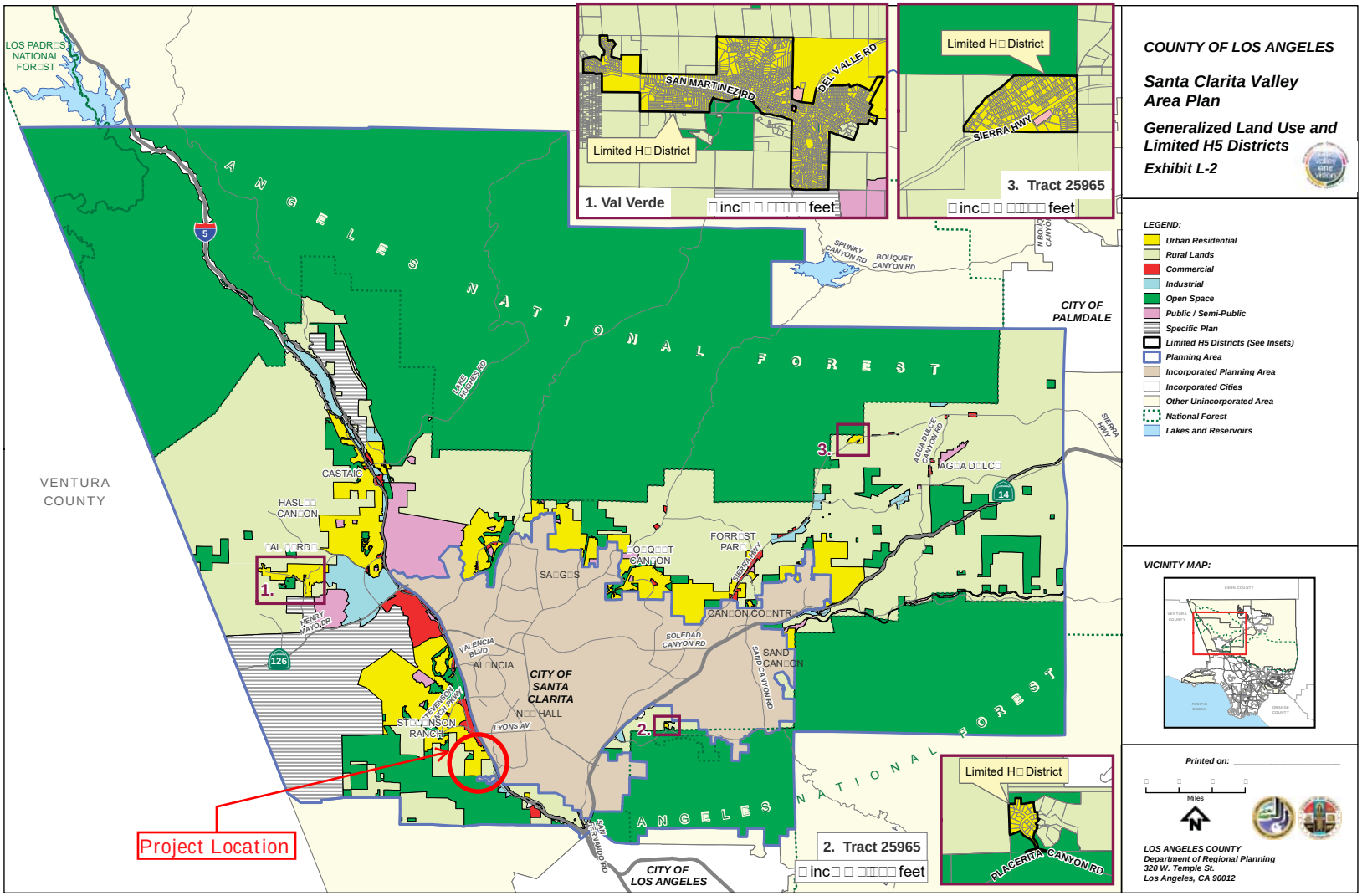
- Figure CO-1: Hillsides and Designated Ridgelines
- Figure CO-2: Mineral Resources
- Figure CO-3: Water Resources
- Figure CO-4: Biological Resources
- Figure CO-5: Significant Ecological Areas
- Figure CO-6: Cultural and Historical Resources
- Figure CO-7: Scenic Resources
- Figure CO-8: Park, Recreation, and Open Space Resources
- Figure CO-9: Master Plan for Trails in the Santa Clarita Valley
- Figure CO-10: Groundwater Recharge Areas

Chapter 5: Safety

- Figure S-1: Earthquake Faults
- Figure S-2: Earthquake Epicenters
- Figure S-3: Seismic Hazards
- Figure S-4: Floodplains
- Figure S-5: Public Safety Facilities
- Figure S-6: Very High Fire Hazard Severity Zone

Chapter 6: Noise

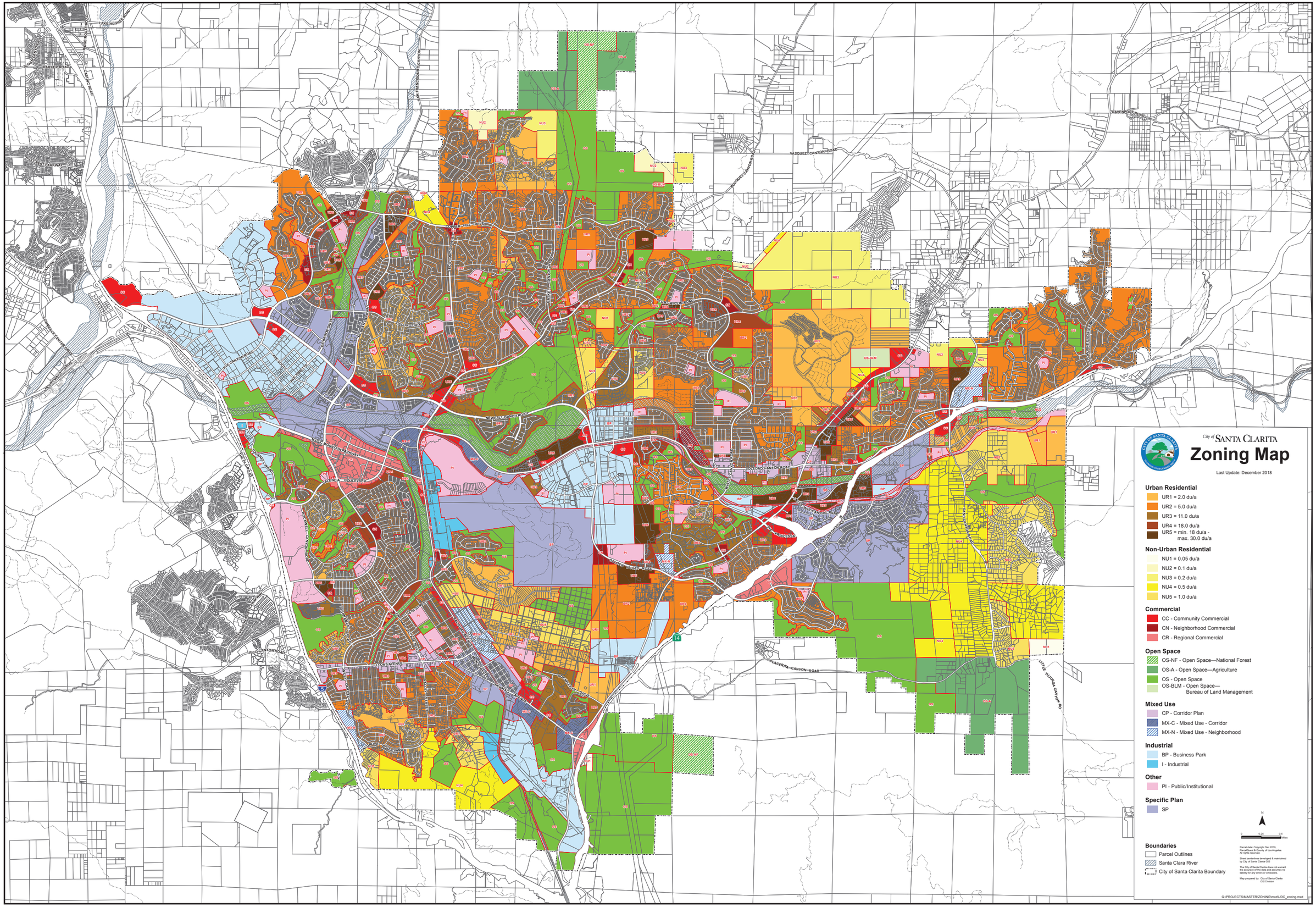
- Figure N-6: Existing Roadway Noise Contours
- Figure N-7: Future Projected Noise Contours


COUNTY OF LOS ANGELES
Santa Clarita Valley Area Plan
Generalized Land Use and Limited H5 Districts
Exhibit L-2
LEGEND:
Urban Residential
Rural Lands
Commercial
Industrial
Open Space
Public / Semi-Public
Specific Plan
Limited H5 Districts (See Insets)
Planning Area
Incorporated Planning Area
Incorporated Cities
Other Unincorporated Area
National Forest
Lakes and Reservoirs
VICINITY MAP:
Printed on:
Miles
LOS ANGELES COUNTY
Department of Regional Planning
320 W. Temple St.
Los Angeles, CA 90012
1. Val Verde
Limited H□ District
3. Tract 25965
2. Tract 25965
Limited H□ District
Project Location
ANGELES NATIONAL FOREST
VENTURA COUNTY
CITY OF PALMDALE
CITY OF SANTA CLARITA
CITY OF LOS ANGELES
SAN MARTINEZ RD
DEL VALLE RD
SIERRA HWY
PLACERITA CANYON RD
SOLEDAD CANYON RD
SAND CANYON RD
LYONS AV
VALENCIA BLVD
HENRY MAYO DR
SPUNKY CANYON RD
BOUQUET CANYON RD
AGUA DULCE CANYON RD
LAKE HUGHES RD
SAUGUS
CANYON COUNTRY
SAND CANYON
FORREST PARK
HASLETT CANYON
CASTAIC
VALENCIA
NEWHALL
STEVENSON RANCH
AGUA DULCE
LOS PADRES NATIONAL FOREST
O:\O□L□general□plan□H□□districts□□□□□□.m□d

CITY OF SANTA CLARITA APPENDICES

APPENDIX H

CITY OF SANTA CLARITA ZONING MAP



City of SANTA CLARITA

Zoning Map

Last Update: December 2018

Urban Residential
- UR1 = 2.0 du/a
- UR2 = 5.0 du/a
- UR3 = 11.0 du/a
- UR4 = 18.0 du/a
- UR5 = min. 18 du/a - max. 30.0 du/a

Non-Urban Residential
- NU1 = 0.05 du/a
- NU2 = 0.1 du/a
- NU3 = 0.2 du/a
- NU4 = 0.5 du/a
- NU5 = 1.0 du/a

Commercial
- CC - Community Commercial
- CN - Neighborhood Commercial
- CR - Regional Commercial

Open Space
- OS-NF - Open Space—National Forest
- OS-A - Open Space—Agriculture
- OS - Open Space
- OS-BLM - Open Space—Bureau of Land Management

Mixed Use
- CP - Corridor Plan
- MX-C - Mixed Use - Corridor
- MX-N - Mixed Use - Neighborhood

Industrial
- BP - Business Park
- I - Industrial

Other
- PI - Public/Institutional

Specific Plan
- SP

Boundaries
- Parcel Outlines
- Santa Clara River
- City of Santa Clarita Boundary

N

0 0.25 0.5 Miles

Street centerlines developed & maintained by City of Santa Clarita GIS

The City of Santa Clarita does not warrant the accuracy of the data and assumes no liability for any errors or omissions.

Map prepared by: City of Santa Clarita GIS Division

Q:\PROJECTS\MASTERZONING\mxd\UDC_zoning.mxd

APPENDIX I

CITY OF SANTA CLARITA SEWER SUMMARY TABLES

TABLE 3A: LOS ANGELES COUNTY EXISTING THEORETICAL AND ACTUAL SCENARIO FLOW TABLE

Segment	Manhole		Pipe		Design Capacity, Q (cfs)		Tributary Area	Calculated Flow (cfs)	Cumulative Flow (cfs)	PC or CI Construction Plan #	Cumulative Flow/ Capacity	Exist. Pipe Adequate	Jurisdiction	Foot Note
	M.H In	M. H Out	Pipe Dia. (in)	Slope	1/2 Full (<15")	3/4 Full (≥15")								
0-1	3	2	10	0.62%	-	-	-	-	-	-	-	-	L.A COUNTY	-
0-2	2	1	10	0.45%	-	-	-	-	-	-	-	-		-
1	9	13	8	0.60%	0.428	-	B1, B2	0.165 0.08*	0.165 0.08**	10428	38.58% 18.69%	YES		-
2	13	14	8	0.83%	0.504	-	-	-	0.165	10428	32.77%	YES		-
*	CALCULATED FLOW VALUE TAKEN FROM SEWER FLOW MONITORING RESULTS AVAILABLE IN APPENDIX E.													
**	CUMULATIVE FLOW VALUE REPRESENTS THE ACTUAL FLOW FROM SEWER FLOW MONITORING RESULTS.													

TABLE 3B: CITY OF SANTA CLARITA EXISTING THEORETICAL AND ACTUAL SCENARIO FLOW TABLE

Segment	Manhole		Pipe		Design Capacity, Q (cfs)		Tributary Area	Calculated Flow (cfs)	Cumulative Flow (cfs)	PC or CI Construction Plan #	Cumulative Flow/ Capacity	Exist. Pipe Adequate	Jurisdiction	Foot Note
	M.H In	M. H Out	Pipe Dia. (in)	Slope	1/2 Full (<15")	3/4 Full (≥15")								
3	14	15	12	2.71%	5.612	-	B3, B4, B5, PART B6	0.437	0.602	7521	10.73%	YES	CITY OF SANTA CLARITA	-
4	15	16	10	5.04%	4.624	-	-	-	0.602	8494	13.02%	YES		-
5	16	458	10	1.40%	2.434	-	-	-	0.602	8494	24.73%	YES		-
6	458	457	10	1.00%	2.056	-	PART B6	0.019	0.621	8494	30.20%	YES		-
7	457	451	10	0.36%	1.229	-	PART B6	0.041 0.23*	0.662 0.23**	8494	53.86% 18.71%	NO YES		-
8	451	452	10	0.32%	1.158	-	-	0.23*	0.662 0.23**	8494	57.17% 19.86%	NO YES		-
9	452	453	10	2.00%	2.911	-	PART B9	0.012	0.674	6698A	23.15%	YES		-
10	453	433	10	1.24%	2.291	-	B8, PART B9	0.138	0.812	6698A	35.45%	YES		-
11a	433	430	12	0.60%	2.634	-	PART B9	0.119	0.931	6698A	35.34%	YES		-
11b	430	427	12	0.60%	2.291	-	PART B9	0.051	0.982	6698A	42.87%	YES		
12	427	426	15	0.56%	-	4.704	B7, A1-A6, WILEY CANYON	1.167	2.098	7549	44.60%	YES		-
13	426	425	15	1.24%	-	7.012	-	-	2.098	7549	29.92%	YES		-
14	425	424	15	0.56%	-	4.704	-	-	2.098	7549	44.60%	YES		-
15	424	423	15	0.72%	-	5.338	A14, A15	0.245	2.343	7549	43.89%	YES		-
16	423	362	18	0.60%	-	8.029	-	-	2.343	8048	29.18%	YES		-
17	362	363	15	0.60%	-	4.870	A16-A18	0.19	2.533	7549	52.01%	YES		-
18	363	380	15	0.60%	-	4.870	A18	0.005	2.538	7549	52.11%	YES		-
19	380	381	15	0.60%	-	4.870	A18	0.005	2.543	7549	52.21%	YES		-
20	381	392	15	0.60%	-	4.870	A18	0.005	2.548	7549	52.32%	YES		-
21	392	394	12	2.00%	4.820	-	A18	0.005 0.79*	2.553 0.79**	8048B	52.97% 16.39%	NO YES		-
22	394	398	18	0.24%	-	5.058	A18-A20	0.367	2.920	7549	57.73%	YES		-
23	398	389	18	0.24%	-	5.058	A21	0.005	2.925	7549	57.83%	YES		-
24	389	387	18	0.24%	-	5.058	A21	0.028	2.953	7549	58.39%	YES		-
25	387	374	18	0.24%	-	5.058	A21	0.044	2.997	7549	59.26%	YES		-
26	374	372	18	0.24%	-	5.058	A21	0.061	3.058	7549	60.46%	YES		-
27	372	344	18	0.24%	-	5.058	A21	0.06	3.118	7549	61.65%	YES		-
28	344	345	18	0.76%	-	9.041	A21	0.059	3.177	7549	35.14%	YES		-
29	345	346	18	0.68%	-	8.550	A21	0.003	3.180	7549	37.19%	YES		-
30	346	349	18	0.40%	-	6.547	A21	0.015	3.195	7549	48.80%	YES		-
31	349	310	18	0.64%	-	8.294	A22-A23	0.082	3.277	7549	39.51%	YES		-
32	310	312	15	1.04%	-	10.582	A23-A24	0.052	3.329	7549	31.46%	YES		-
33	312	319	18	0.60%	-	8.029	A24	0.031	3.360	7549	41.85%	YES		-
34	319	320	18	0.64%	-	8.294	A24	0.027	3.387	7549	40.84%	YES		-
35	320	326	18	0.40%	-	6.547	A24-A27	0.146	3.533	7549	53.97%	YES		-
36	326	327	18	0.40%	-	6.547	A24	0.025	3.558	7549	54.35%	YES		-
37	327	328	18	0.40%	-	6.547	A24	0.025	3.583	7549	54.73%	YES		-
38	328	784	18	1.12%	-	10.983	A28-A32	0.357	3.940	7549	35.87%	YES		-
39	784	783	18	0.60%	-	8.029	-	-	3.940	7549	49.07%	YES		-
40	783	782	18	0.60%	-	8.029	-	-	3.940	7549	49.07%	YES		-
41	782	781	18	1.84%	-	14.085	A33-A35	9.318 2.577*	13.258 6.517**	7549	94.13% 46.27%	NO YES		-

* CALCULATED FLOW VALUE TAKEN FROM SEWER FLOW MONITORING RESULTS AVAILABLE IN APPENDIX E.

** CUMULATIVE FLOW VALUE REPRESENTS THE ACTUAL FLOW FROM SEWER FLOW MONITORING RESULTS.

TABLE 4A: LOS ANGELES COUNTY EXISTING + PROPOSED THEORETICAL AND ACTUAL FLOW TABLE															
Segment	Manhole		Pipe		Design Capacity, Q (cfs)		Tributary Area	Calculated Flow (cfs)	Cumulative Flow (cfs)	PC or CI Construction Plan #	Cumulative Flow/Capacity	Exist. Pipe Adequate	Pipe Upsized (Capacity)	Jurisdiction	Foot Note
	M.H In	M.H Out	Pipe Dia (in)	Slope	1/2 Full (<15")	3/4 Full (≥15")									
0-1	3	2	10	0.62%	0.808	-	TR083301	0.537	0.537		66.42%	YES	-	LA COUNTY	
0-2	2	1	10	0.45%	0.688	-	-	-	0.537		78.06%	YES	-		
1	9	13	8	0.60%	0.428	-	B1, B2	0.165 0.08*	0.703 0.617**	10428	164.25% 144.16%	NO	10" (0.795 cfs)		1
2	13	14	8	0.83%	0.504	-	-	- 0.08*	0.703 0.617**	10428	139.48% 122.42%	NO	10" (0.936 cfs)		-
1	SEPTEMBER 2021 FLOW TESTS AT MANHOLE 13 INDICATES THE ACTUAL FLOW RATE IS 0.08. ADD IN THE TRAILS AT LYONS CANYON PROJECT FLOW RATE OF 0.537 cfs TO GET THE COMBINED FLOW OF 0.617 cfs.														
*	CALCULATED FLOW VALUE TAKEN FROM SEWER FLOW MONITORING RESULTS AVAILABLE IN APPENDIX E.														
**	CUMULATIVE FLOW VALUE REPRESENTS THE ACTUAL FLOW FROM SEWER FLOW MONITORING RESULTS PLUS THE ADDITION OF THE TRAILS AT LYONS CANYON PLANNED SEWER DISCHARGE.														

TABLE 4B: CITY OF SANTA CLARITA EXISTING + PROPOSED THEORETICAL AND ACTUAL FLOW TABLE

Segment	Manhole		Pipe		Design Capacity, Q (cfs)		Tributary Area	Calculated Flow (cfs)	Cumulative Flow (cfs)	PC or CI Construction Plan #	Cumulative Flow / Capacity	Exist. Pipe Adequate	Pipe Upsized (Capacity)	Jurisdiction	Foot Note
	M.H In	M.H Out	Pipe Dia (in)	Slope	1/2 Full (<15")	3/4 Full (≥15")									
3	14	15	12	2.71%	5.612	-	B3, B4, B5, PART B6	0.437	1.139	7521	20.29%	YES	-	CITY OF SANTA CLARITA	-
4	15	16	10	5.04%	4.624	-	-	-	1.139	8494	24.63%	YES	-		-
5	16	458	10	1.40%	2.434	-	-	-	1.139	8494	46.79%	YES	-		-
6	458	457	10	1.00%	2.056	-	PART B6	0.019 0.23*	1.158 0.767**	8494	56.32% 37.31%	NO YES	12" (2.036 cfs)		2
7	457	451	10	0.36%	1.229	-	PART B6	0.041 0.23*	1.20 0.767**	8494	97.64% 62.41%	NO	12" (1.918 cfs)		2, 6
8	451	452	10	0.32%	1.158	-	-	- 0.23*	1.20 0.767**	8494	103.63% 66.23%	NO	-		2, 6
9	452	453	10	2.00%	2.911	-	PART B9	0.012	1.212	6698A	41.64%	YES	-		-
10	453	433	10	1.24%	2.291	-	B8, PART B9	0.138	1.35 1.027**	6698A	58.93% 44.83%	NO YES	-		3
11a	433	430	12	0.60%	2.634	-	PART B9	0.119	1.469 1.027**	6698A	55.77% 38.99%	NO YES	-		3
11b	430	427	12	0.60%	2.634	-	PART B9	0.051 0.49*	1.52 1.027	6698A	57.71% 38.99%	NO YES	-		
12	427	426	15	0.56%	-	4.704	B7, A1-A6, WILEY CANYON	1.167	2.687	7549	57.12%	YES	-		-
13	426	425	15	1.24%	-	7.012	-	-	2.687	7549	38.32%	YES	-		-
14	425	424	15	0.56%	-	4.704	-	-	2.687	7549	57.12%	YES	-		-
15	424	423	15	0.72%	-	5.338	A14, A15	0.245	2.932	7549	54.93%	YES	-		-
16	423	362	18	0.60%	-	8.029	-	-	2.932	8048	36.52%	YES	-		-
17	362	363	15	0.60%	-	4.870	A16-A18	0.19	3.122	7549	64.10%	YES	-		-
18	363	380	15	0.60%	-	4.870	A18	0.005	3.127	7549	64.20%	YES	-		-
19	380	381	15	0.60%	-	4.870	A18	0.005	3.132	7549	64.31%	YES	-		-
20	381	392	15	0.60%	-	4.870	A18	0.005	3.137	7549	64.41%	YES	-		-
21	392	394	12	2.00%	4.820	-	A18	0.005 0.79*	3.142 1.327**	8048B	65.19% 27.53%	NO YES	-		4
22	394	398	18	0.24%	-	5.058	A18-A20	0.367	3.509	7549	69.38%	YES	-		-
23	398	389	18	0.24%	-	5.058	A21	0.005	3.514	7549	69.48%	YES	-		-
24	389	387	18	0.24%	-	5.058	A21	0.028	3.542	7549	70.03%	YES	-		-
25	387	374	18	0.24%	-	5.058	A21	0.044	3.586	7549	70.90%	YES	-		-
26	374	372	18	0.24%	-	5.058	A21	0.061	3.647	7549	72.11%	YES	-		-
27	372	344	18	0.24%	-	5.058	A21	0.06	3.707	7549	73.29%	YES	-		-
28	344	345	18	0.76%	-	9.041	A21	0.059	3.766	7549	41.65%	YES	-		-
29	345	346	18	0.68%	-	8.550	A21	0.003	3.769	7549	44.08%	YES	-		-
30	346	349	18	0.40%	-	6.547	A21	0.015	3.784	7549	57.80%	YES	-		-
31	349	310	18	0.64%	-	8.294	A22-A23	0.082	3.866	7549	46.61%	YES	-		-
32	310	312	15	1.04%	-	10.582	A23-A24	0.052	3.918	7549	37.02%	YES	-		-
33	312	319	18	0.60%	-	8.029	A24	0.031	3.949	7549	49.19%	YES	-		-
34	319	320	18	0.64%	-	8.294	A24	0.027	3.976	7549	47.94%	YES	-		-
35	320	326	18	0.40%	-	6.547	A24-A27	0.146	4.122	7549	62.96%	YES	-		-
36	326	327	18	0.40%	-	6.547	A24	0.025	4.147	7549	63.34%	YES	-		-
37	327	328	18	0.40%	-	6.547	A24	0.025	4.172	7549	63.73%	YES	-		-
38	328	784	18	1.12%	-	10.983	A28-A32	0.357	4.529	7549	41.24%	YES	-		-
39	784	783	18	0.60%	-	8.029	-	-	4.529	7549	56.41%	YES	-		-
40	783	782	18	0.60%	-	8.029	-	-	4.529	7549	56.41%	YES	-		-
41	782	781	18	1.84%	-	14.085	A33-A35	9.318 2.577*	13.847 7.106**	7549	98.31% 50.45%	NO YES	-		5

2	SEPTEMBER 2021 FLOW TESTS AT MANHOLE 452 INDICATES THE ACTUAL FLOW RATE IS 0.23 cfs. AS MANHOLE 458 IS UPSTREAM OF THE FLOW MEASURING LOCATION, IT IS KNOWN THAT THE FLOW RATE CANNOT EXCEED 0.23 cfs UNTIL MANHOLE 452. ADD IN THE TRAILS AT LYONS CANYON PROJECT FLOW OF 0.537 cfs TO GET A COMBINED FLOW RATE OF 0.767 cfs.
3	SEPTEMBER 2021 FLOW TESTS AT MANHOLE 430 INDICATES THE ACTUAL FLOW RATE IS 0.49 cfs. ADD IN THE LYONS CANYON PROJECT FLOW OF 0.537 cfs TO GET A COMBINED FLOW RATE OF 1.027 cfs.
4	SEPTEMBER 2021 FLOW TESTS AT MANHOLE 392 INDICATES THE ACTUAL FLOW RATE IS 0.79 cfs. ADD IN THE TRAILS AT LYONS CANYON PROJECT FLOW RATE OF 0.537 cfs TO GET A FINAL FLOW RATE OF 1.327 cfs.
5	JUNE 2020 FLOW TEST RESULTS AT MANHOLE 28 INDICATES THE ACTUAL FLOW RATE IS 2.577 cfs. ADD AREA 34 AND 35 FLOW OF 0.076 cfs AND THE SUM OF ALL PROJECT FLOWS OF 4.529 cfs TO FIND THE FINAL FLOW RATE OF 7.106 cfs.
6	PIPE SEGMENT UPSIZING COSTS WILL BE SHARED AS DEFINED IN COST SHARE AGREEMENT.
*	CALCULATED FLOW VALUE TAKEN FROM SEWER FLOW MONITORING RESULTS AVAILABLE IN APPENDIX E.
**	CUMULATIVE FLOW VALUE REPRESENTS THE ACTUAL FLOW FROM SEWER FLOW MONITORING RESULTS PLUS THE ADDITION OF THE TRAILS AT LYONS CANYON PLANNED SEWER DISCHARGE.

TABLE 5A: LOS ANGELES COUNTY EXISTING + PROPOSED + FUTURE THEORETICAL AND ACTUAL RESULTS

Segment	Manhole		Pipe		Design Capacity, Q (cfs)		Tributary Area	Calculated Flow (cfs)	Cumulative Flow (cfs)	PC or CI Construction Plan #	Cumulative Flow/Capacity	Exist. Pipe Adequate	Pipe Upsized (Capacity)	Jurisdiction	Foot Note
	M.H In	M. H Out	Pipe Dia. (in)	Slope	1/2 Full (<15")	3/4 Full (≥15")									
0-1	3	2	10	0.62%	0.808	-	TR083301. B10, B11	0.671	0.671		82.99%	YES	-	L.A COUNTY	
0-2	2	1	10	0.45%	0.688	-	-	-	0.671		97.54%	YES	-		
1	9	13	8	0.60%	0.428	-	B1, B2, B12, B13	0.19 0.08*	0.862 0.776**	10428	201.40% 181.31%	NO	10" (0.795 cfs)		1
2	13	14	8	0.83%	0.504	-	-	- 0.08*	0.862 0.776**	10428	171.03% 153.97%	NO	10" (0.936 cfs)		-
1	SEPTEMBER 2021 FLOW TESTS AT MANHOLE 13 OF JUNCTION 1 INDICATES THE ACTUAL FLOW RATE IS 0.08. ADD IN THE TRAILS AT LYONS CANYON PROJECT FLOW RATE OF 0.537 cfs AND FUTURE PARCELS COMBINED FLOW RATE OF 0.159 cfs TO GET THE COMBINED FLOW OF 0.776 cfs.														
*	FLOW TAKEN FROM SEWER FLOW MONITORING RESULTS AVAILABLE IN APPENDIX E.														
**	CUMULATIVE FLOW VALUE REPRESENTS THE ACTUAL FLOW FROM SEWER FLOW MONITORING RESULTS PLUS THE ADDITION OF THE TRAILS AT LYONS CANYON PLANNED SEWER DISCHARGE AND FUTURE PLANNED PARCELS.														

TABLE 5B: CITY OF SANTA CLARITA EXISTING + PROPOSED + FUTURE THEORETICAL AND ACTUAL RESULTS

Segment	Manhole		Pipe		Design Capacity, Q (cfs)		Tributary Area	Calculated Flow (cfs)	Cumulative Flow (cfs)	PC or CI Construction Plan #	Cumulative Flow/Capacity	Exist. Pipe Adequate	Pipe Upsized (Capacity)	Jurisdiction	Foot Note
	M.H In	M. H Out	Pipe Dia. (in)	Slope	1/2 Full (<15")	3/4 Full (≥15")									
3	14	15	12	2.71%	5.612	-	B3, B4, B5, PART B6	0.437	1.299	7521	23.15%	YES	-	CITY OF SANTA CLARITA	-
4	15	16	10	5.04%	4.624	-	-	-	1.299	8494	28.09%	YES	-		-
5	16	458	10	1.40%	2.434	-	-	- 0.23*	1.297 0.926**	8494	53.29% 38.04%	NO YES	-		-
6	458	457	10	1.00%	2.056	-	PART B6	0.019 0.23*	1.316 0.926**	8494	64.01% 45.04%	NO YES	-		2
7	457	451	10	0.36%	1.229	-	PART B6	0.041 0.23*	1.357 0.926**	8494	110.4% 75.35%	NO	12" (2.036 cfs)		2, 6
8	451	452	10	0.32%	1.158	-	-	- 0.23*	1.357 0.926**	8494	117.18% 79.97%	NO	12" (1.918 cfs)		2, 6
9	452	453	10	2.00%	2.911	-	B9D	0.012	1.369	6698A	47.03%	YES	-		7
10	453	433	10	1.24%	2.291	-	B8, B9A	0.085 0.23*+0.012+0.028+.058	1.454 1.024**	6698A	63.47% 44.70%	NO YES	-		7
11A	433	430	12	0.60%	2.634	-	B9B	0.113+ 0.23* +.012+.028+.058 +.113	1.626 1.188**	6698A	61.73% 45.10%	NO YES	-		3, 7
11B	430	427	12	0.60%	2.634	-	B9C	0.051 0.49*	1.677 1.186**	6698A	63.67% 45.03%	NO YES	-		3, 7
12	427	426	15	0.56%	-	4.704	B7, A1-A6, WILEY CANYON	1.167	2.844	7549	60.46%	YES	-		-
13	426	425	15	1.24%	-	7.012	-	-	2.844	7549	40.56%	YES	-		-
14	425	424	15	0.56%	-	4.704	-	-	2.844	7549	60.46%	YES	-		-
15	424	423	15	0.72%	-	5.338	A14, A15	0.245	3.089	7549	57.87%	YES	-		-
16	423	362	18	0.60%	-	8.029	-	-	3.09	8048	38.47%	YES	-		-
17	362	363	15	0.60%	-	4.870	A16-A18	0.19	3.28	7549	67.33%	YES	-		-
18	363	380	15	0.60%	-	4.870	A18	0.005	3.28	7549	67.43%	YES	-		-
19	380	381	15	0.60%	-	4.870	A18	0.005	3.29	7549	67.53%	YES	-		-
20	381	392	15	0.60%	-	4.870	A18	0.005	3.294	7549	67.63%	YES	-		-
21	392	394	12	2.00%	4.820	-	A18	0.005 0.79*	3.299 1.486**	8048B	68.44% 30.83%	NO YES	-		4
22	394	398	18	0.24%	-	5.058	A18-A20	0.367	3.666	7549	72.48%	YES	-		-
23	398	389	18	0.24%	-	5.058	A21	0.005	3.671	7549	72.58%	YES	-		-
24	389	387	18	0.24%	-	5.058	A21	0.028	3.699	7549	73.14%	YES	-		-
25	387	374	18	0.24%	-	5.058	A21	0.044	3.743	7549	74.01%	YES	-		-
26	374	372	18	0.24%	-	5.058	A21	0.061	3.804	7549	75.21%	YES	-		-
27	372	344	18	0.24%	-	5.058	A21	0.06	3.864	7549	76.40%	YES	-		-
28	344	345	18	0.76%	-	9.041	A21	0.059	3.923	7549	43.39%	YES	-		-
29	345	346	18	0.68%	-	8.550	A21	0.003	3.926	7549	45.92%	YES	-		-
30	346	349	18	0.40%	-	6.547	A21	0.015	3.941	7549	60.20%	YES	-		-
31	349	310	18	0.64%	-	8.294	A22-A23	0.082	4.023	7549	48.51%	YES	-		-
32	310	312	15	1.04%	-	10.582	A23-A24	0.052	4.075	7549	38.51%	YES	-		-
33	312	319	18	0.60%	-	8.029	A24	0.031	4.106	7549	51.14%	YES	-		-
34	319	320	18	0.64%	-	8.294	A24	0.027	4	7549	49.83%	YES	-		-
35	320	326	18	0.40%	-	6.547	A24-A27	0.146	4.279	7549	65.36%	YES	-		-
36	326	327	18	0.40%	-	6.547	A24	0.025	4.304	7549	65.74%	YES	-		-
37	327	328	18	0.40%	-	6.547	A24	0.025	4.329	7549	66.12%	YES	-		-
38	328	784	18	1.12%	-	10.983	A28-A32	0.357	4.686	7549	42.67%	YES	-		-
39	784	783	18	0.60%	-	8.029	-	-	4.686	7549	58.36%	YES	-		-
40	783	782	18	0.60%	-	8.029	-	-	4.686	7549	58.36%	YES	-		-
41	782	781	18	1.84%	-	14.085	A33-A35	9.318 2.577*	14.004 7.263**	7549	99.42% 51.57%	NO YES	-		5

2	SEPTEMBER 2021 FLOW TESTS AT MANHOLE 452 OF JUNCTION 7-8 INDICATES THE ACTUAL FLOW RATE IS 0.23 cfs. ADD IN THE TRAILS AT LYONS CANYON PROJECT FLOW OF 0.537 cfs AND THE FUTURE PLANNED PARCELS FLOW OF 0.159 TO GET A COMBINED FLOW RATE OF 0.926 cfs. THIS FLOW RATE IS ASSIGNED UPSTREAM AT MANHOLE 458 SINCE IT IS KNOWN THAT DOWNSTREAM THE ACTUAL FLOW RATE IS 0.926 cfs AND CANNOT EXCEED THAT FLOW RATE UNTIL AFTER MANHOLE 452.
3	SEPTEMBER 2021 FLOW TESTS AT MANHOLE 430 INDICATES THE ACTUAL FLOW RATE IS 0.49 cfs. ADD IN THE LYONS CANYON PROJECT FLOW OF 0.537 cfs AND THE FUTURE PLANNED PARCELS FLOW OF 0.159 cfs TO GET A COMBINED FLOW RATE OF 1.186 cfs.
4	SEPTEMBER 2021 FLOW TESTS AT MANHOLE 392 INDICATES THE ACTUAL FLOW RATE IS 0.79 cfs. ADD IN THE TRAILS AT LYONS CANYON PROJECT FLOW RATE OF 0.537 cfs AND FUTURE PARCELS COMBINED FLOW RATE OF 0.159 cfs TO GET A FINAL FLOW RATE OF 1.486 cfs.
5	JUNE 2020 FLOW TEST RESULTS AT MANHOLE 28 INDICATES THE ACTUAL FLOW RATE IS 2.577 cfs. ADD COMBINED FLOW OF AREA 34 AND 35 FLOW OF 0.076 cfs AND THE SUM OF ALL PROJECT FLOWS OF 4.686 cfs TO FIND THE FINAL FLOW RATE OF 7.263 cfs.
6	PIPE SEGMENT UPSIZING COSTS WILL BE SHARED AS DEFINED IN COST SHARE AGREEMENT.
7	THE DIFFERENCE IN ACTUAL FLOW TEST RESULTS BETWEEN MANHOLES 452 AND 430 IS 0.26 cfs. THE SEWER GENERATION COEFFICIENTS WAS THEN CALCULATED FOR TRACTS B8 AND B9 BASED ON
*	FLOW TAKEN FROM SEWER FLOW MONITORING RESULTS AVAILABLE IN APPENDIX E.
**	CUMULATIVE FLOW VALUE REPRESENTS THE ACTUAL FLOW FROM SEWER FLOW MONITORING RESULTS PLUS THE ADDITION OF THE TRAILS AT LYONS CANYON PLANNED SEWER DISCHARGE AND FUTURE PLANNED PARCELS.

APPENDIX J

FAIR SHARE CALCULATION AND MITIGATION FEE AGREEMENT

City of Santa Clarita
Department of Public Works - Engineering Services Division
Updated fees effective on 09/14/2022

Bond & Fee Calculation Sheet - Sewer

Enter Case #: **SS**

Instructions:
- Complete fields below highlighted in yellow
- On Line B1, using the drop-down arrow, select "Y" or "N" as applicable
- All bond and fee amounts will automatically calculate and be summarized below

Notes:
- Inspection fees calculated below are an estimated amount and subject to change. The fee is based on the final approved plan and date of payment. Verify fee amount with Engineering Services Division prior to payment.

Prepared by:
Dexter Wilson Engineering Inc.
Name
Natallie Fraschetti
Phone
760-438-4422
Email
Natalie@dwilsoneng.com
Date prepared
(place Engineer's seal, exp.date & signature below)

Tract / Parcel Map # 83301
ENG# ENG21-00028
PC# SAS21-00002
Project Name Trails at Lyons Canyons

Approved by:
Name
Signature
Date

SUMMARY

Valuation	$164,079.28	(H)
Bonds		
Sewer - Faithful Performance	$197,800.00	(G)
Sewer - Labor & Materials	$98,900.00	(G/2)
Plan Review Fee	$1,969.88	(I)
Record Management Fee	$60.10	
Bond Processing Fee	$239.00	
Total fee required at package submittal=	$2,268.98	
Encroachment Permit - Sewer		
Inspection Fee	$6,010.14	(F)
Permit Issuance Fee	$49.00	
Total =	$6,059.14	

SEWER - CONSTRUCTION COST					
Item	*Quantity*	*Unit Cost*		*Total Cost*	
Sewer Pipe - Vitrified Clay Pipe					
4" VCP H.L. Sewer		$ 108.25	/ LF	$ -	
6" VCP H.L. Sewer		$ 111.14	/ LF	$ -	
8" VCP Mainline		$ 118.08	/ LF	$ -	
10" VCP Mainline	484	$ 125.03	/ LF	$ 60,514.52	
12" VCP Mainline	484	$ 131.98	/ LF	$ 63,878.32	
15" VCP Mainline		$ 138.98	/ LF	$ -	
18" VCP Mainline		$ 145.88	/ LF	$ -	
Manhole					
Manhole		$ 6,946.34	each	$ -	
Break into Existing Manhole	3	$ 2,778.53	each	$ 8,335.59	
Extra Depth Construction					
Extra Depth Construction (10' - 12')	319	$ 14.59	/ LF	$ 4,654.21	
Extra Depth Construction (12' - 14')		$ 21.53	/ LF	$ -	
Extra Depth Construction (14' - 16')		$ 36.13	/ LF	$ -	
Extra Depth Construction (16' - 18')		$ 43.08	/ LF	$ -	
Extra Depth Construction (18' - 20')		$ 50.71	/ LF	$ -	
Miscellaneous Items					
4" Ductile Iron Pipe		$ 43.56	/ LF	$ -	
6" Ductile Iron Pipe		$ 53.69	/ LF	$ -	
8" Ductile Iron Pipe		$ 70.91	/ LF	$ -	
10" Ductile Iron Pipe		$ 74.96	/ LF	$ -	
12" Ductile Iron Pipe		$ 86.11	/ LF	$ -	
14" Ductile Iron Pipe		$ 92.18	/ LF	$ -	
16" Ductile Iron Pipe		$ 97.25	/ LF	$ -	
≥ 18" Ductile Iron Pipe		$ 108.39	/ LF	$ -	
Concrete Encasement or Cradle		$ 36.13	/ LF	$ -	
Special Encasement or Cradle		$ 71.55	/ LF	$ -	
Excavation in Rock Areas		$ 36.13	/ LF	$ -	
Unstable Bedding		$ 29.19	/ LF	$ -	
Jacking Steel Casing		$ 786.34	/ LF	$ -	
Breaking Pavement & Resurfacing - AC	484	$ 9.03	/ LF	$ 4,370.52	
Breaking Pavement & Resurfacing - Concrete		$ 15.98	/ LF	$ -	
Backflow Preventer		$ 507.08	each	$ -	
Cleanout (6")		$ 1,015.55	each	$ -	
Cast Iron Pipe		$ 9.14	/ in / ft	$ -	
Join Existing VCP		$ 326.33	each	$ -	
Lump Sum ***(enter dollar amount)***				$ -	
			TOTAL =	$ 141,753.16	**(A)**

SEWER - BOND				
(B1) Traffic Control Plan required? ***(click in cell and use drop-down arrow to select 'Y' for Yes or 'N' for No)***	Y	Traffic Control Plan (5% x A) =	$ 7,087.66	**(B)**
		Contingency [15% x (A+B)] =	$ 22,326.12	**(C)**
		Inflation [12% x (A+B+C)] =	$ 20,540.03	**(D)**
		Improvement Total (A+B+C+D) =	$ 191,706.97	**(E)**
		Inspection (Use Table 1) =	$ 6,010.14	**(F)**
		Sewer Bond Amount (E+F) =	$ 197,800.00	**(G)**
		round up to nearest hundred		

PLAN REVIEW FEE			
Valuation for Plan Review Fee (A+C) =	$ 164,079.28	**(H)**	
***Plan Review Fee (Use Table 2)** =	$ 1,969.88	**(I)**	

**Plan Reviews beyond 3rd submittal will require payment of an additional review fee in the amount of 15% of original plan review fee.*

TABLE 1: Inspection Fee Calculation*

Valuation Total (E)				
$0 to $25,000	7.5% of valuation			
$25,001 to $100,000	$ 2,087.00	+ 2.5%	of valuation over	$25,000
$100,000 and over	$ 4,176.00	+ 2.0%	of valuation over	$100,000

TABLE 2: Plan Review Fee Calculation

Valuation Total (H)	Plan Check Fee (I)			
$0 to $25,000	$745			
$25,001 to $100,000	$745	+	$ 9.92	per $1,000 over $25,000
$100,000 and over	$1,488.00	+	$ 7.52	per $1,000 over $100,000

RECORDING REQUESTED BY:

_____

_____

_____

_____

WHEN RECORDED MAIL TO:

Mary Cusick, City Clerk
City of Santa Clarita
23920 Valencia Boulevard, Suite 120
Santa Clarita, CA 91355

Space above this line for Recorder's use

TITLE(S)

MITIGATION FEE AGREEMENT

MITIGATION FEE AGREEMENT

THIS MITIGATION FEE AGREEMENT (the "Agreement") is made and entered into effective as of _____ by and between the City of Santa Clarita, located at 23920 Valencia Boulevard, Suite 300, Santa Clarita, California 91355-2196 (the "City") and New Urban West Incorporated, located at 2001 Wilshire Boulevard, Suite 401, Santa Monica, California 90403 (N.U.W.I.).

PRELIMINARY STATEMENTS

A. N.U.W.I is engaged in a residential development project located in the County of Los Angeles adjacent to the City of Santa Clarita, known as Tract No. 83301 (the "Tract"), the legal description for which is attached hereto as ***Exhibit A*** and incorporated herein by reference (the "Property");

B. The City and N.U.W.I. acknowledge that additional development adjacent to the City creates sewer capacity issues that contribute to the need for a sewer improvement project; and

C. N.U.W.I. plans to pay certain amounts to the City (on a "fair share" prorated basis), which the City will use to partially fund the approximate 484 ft of sewer line upgrade improvements and engineering design described in the approved sewer area study report dated October 2022 prepared by Dexter Wilson Engineering Inc. (the "Project") as well as any other needed sewer system design or improvements within the City.

NOW THEREFORE, the parties agree as follows:

Payment of Mitigation Fee . N.U.W.I. shall pay to the City $184,615.63 (the "Mitigation Fee"), prior to recordation of the tract map. The City calculated the fee based on the following assumptions: (a) the cost of the Project shall be based on an engineer construction cost attached hereto as Exhibit B and (b) N.U.W.I's share of the Project cost is estimated based on the 517 units N.U.W.I. is planning to build, compared to the 40 total units that will be developed in areas adjacent to the City.

Use of Funds. The City shall use such funds to pay for the designated sewer improvements at such time as the improvements are designed/constructed. The Mitigation Fee is designated to be used for the 484ft (+/-) sewer line improvement in question and other sewer system design or improvements within the City.

Cooperation. Upon execution of this Agreement and N.U.W.I.'s payment of the Mitigation Fee, the City shall confirm to the County of Los Angeles that N.U.W.I. has satisfied the City's requirements related to sewer improvement projects. In addition, the City agrees that Mitigation Fee shall satisfy all of N.U.W.I.'s and the Tract's obligations to the City related to impacts upon and connection to sewer service within the City.

Governing Laws. This Agreement shall be governed by, interpreted, and construed in accordance with the laws of the State of California. Any litigation or claims related to this Agreement shall be determined by the state and federal courts located in Los Angeles, California.

Partial Invalidity. If any provisions of this Agreement shall be held invalid or unenforceable by a court of competent jurisdiction, the remainder of this Agreement shall nevertheless continue in full force and effect.

Non-Waiver. No waiver of any provision of this Agreement shall be effective unless in writing and signed by the authorized representative of a Party. No failure or delay by a Party in exercising any right, power or remedy under this Agreement shall operate as a waiver of the right, power or remedy.

Entire Agreement. This Agreement sets forth the entire agreement between the Parties with respect to the subject business contemplated in this Agreement and supersedes all prior contemporaneous agreement, representations and discussions, written or oral, by or between the Parties with respect thereto. No amendment to this Agreement shall be effective unless in writing and signed by the duly authorized representatives of both Parties. This Agreement shall be inure of the benefit of and binding upon the Parties and their respective successors and assigns and affiliates. The City may record a copy of this Agreement against title to the Property and the obligations set forth herein shall be binding upon N.U.W.I. and any other current or subsequent owners of the Property.

Attorneys' Fees. The prevailing party in any litigation related to arising under this Agreement shall be entitled to recover its attorneys' fees and costs from the non- prevailing party.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed and delivered by their respective duly authorized representatives.

Date: _____

"City"

City of Santa Clarita,
A municipal corporation

By: _____

Title: Director of Public Works

Date: _____

New Urban West, Incorporated
Santa Monica, California

By: _____

Title: _____

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of _____ }

On _____ before me, _____, Notary Public,
Date Name of Notary

personally appeared _____
Name(s) of Signer(s)

_____,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____
Signature of Notary Public

Place Notary Seal Above

---------- ***OPTIONAL*** ----------

Though the information below is not required by law, it may prove valuable to person relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
☐ Individual
☐ Corporate Officer --Title(s): _____
☐ Partner -- ☐ Limited ☐ General
☐ Attorney-in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____

Signer Is Representing: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

Signer's Name: _____
☐ Individual
☐ Corporate Officer -- Title(s): _____
☐ Partner – ☐ Limited ☐ General
☐ Attorney-in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____

Signer Is Representing: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

City of Santa Clarita Fair Share Cost Analysis of Proposed Project (Trails at Lyons' Canyon)								
Sewer Pipe Segment Upgrade		**Proposed Project**	**Potential Future Developments**				**Proposed Project**	**Proposed Project**
MH to MH	**Cost**	**TR083301 =0.537*0.001 =0.537 cfs**	**ARCARIA OIL MINE =151*0.05*0.001 =0.0076 cfs**	**CITY OF SANTA CLARITA =116*0.05*0.001 =0.0058 cfs**	**PART OF T3N, R16W =30*0.5*0.001 =0.015 cfs**	**T3N, R16W =20*0.5*0.001 =0.01 cfs**	**%Q Qp/(Qfuture+Qp)**	**Fair Share Cost**
457-451	130,368	0.537	0.0076	0.0058	0.015	0.01	93%	$ 121,678.48
451-452	67,432	0.537	0.0076	0.0058	0.015	0.01	93%	$ 62,937.14
	$ 197,800.00							

Proposed Project Fair Share Cost = $ 184,615.63

APPENDIX K

CITY OF SANTA CLARITA SEWER MAP

TABLE 4A: LOS ANGELES COUNTY EXISTING + PROPOSED + FUTURE THEORETICAL AND ACTUAL RESULTS

Segment	Manhole M.H In	Manhole M. H Out	Pipe Pipe Dia. (in)	Pipe Slope	Design Capacity, Q (cfs) 1/2 Full (<15")	Design Capacity, Q (cfs) 3/4 Full (≥15")	Tributary Area	Calculated Flow (cfs)	Cumulative Flow (cfs)	PC or CI Construction Plan #	Cumulative Flow/Capacity	Exist. Pipe Adequate	Pipe Upsized (Capacity)	Jurisdiction	Foot Note
0-1	3	2	10	0.62%	0.808	-	TR083301, B10, B11	0.671	0.671		82.99%	YES	-		
0-2	2	1	10	0.45%	0.688	-	-	-	0.671		97.54%	YES	-		
1	9	13	8	0.60%	0.428	-	B1, B2, B12, B13	0.19 0.08*	0.862 0.776**	10428	201.40% 181.31%	NO	10" (0.795 cfs)	LA COUNTY	1
2	13	14	8	0.83%	0.504	-	-	- 0.08*	0.862 0.776**	10428	171.03% 153.97%	NO	10" (0.936 cfs)		-
1	SEPTEMBER 2021 FLOW TESTS AT MANHOLE 13 OF JUNCTION 1 INDICATES THE ACTUAL FLOW RATE IS 0.08. ADD IN THE TRAILS AT LYONS CANYON PROJECT FLOW RATE OF 0.537 cfs AND FUTURE PARCELS COMBINED FLOW RATE OF 0.159 cfs TO GET THE COMBINED FLOW OF 0.776 cfs.														
*	FLOW TAKEN FROM SEWER FLOW MONITORING RESULTS AVAILABLE IN APPENDIX E.														
**	CUMULATIVE FLOW VALUE REPRESENTS THE ACTUAL FLOW FROM SEWER FLOW MONITORING RESULTS PLUS THE ADDITION OF THE TRAILS AT LYONS CANYON PLANNED SEWER														

TABLE 4B: CITY OF SANTA CLARITA EXISTING + PROPOSED + FUTURE THEORETICAL AND ACTUAL RESULTS

Segment	Manhole M.H In	Manhole M. H Out	Pipe Pipe Dia. (in)	Pipe Slope	Design Capacity, Q (cfs) 1/2 Full (<15")	Design Capacity, Q (cfs) 3/4 Full (≥15")	Tributary Area	Calculated Flow (cfs)	Cumulative Flow (cfs)	PC or CI Construction Plan #	Cumulative Flow/Capacity	Exist. Pipe Adequate	Pipe Upsized (Capacity)	Jurisdiction	Foot Note
3	14	15	12	2.71%	5.612	-	B3, B4, B5, PART B6	0.437	1.299	7521	23.15%	YES	-		-
4	15	16	10	5.04%	4.624	-	-	-	1.299	8494	28.09%	YES	-		-
5	16	458	10	1.40%	2.434	-	-	- 0.23*	1.297 0.926**	8494	53.29% 38.04%	NO YES	-		-
6	458	457	10	1.00%	2.056	-	PART B6	0.019 0.23*	1.316 0.926**	8494	64.01% 45.04%	NO YES	-		2
7	457	451	10	0.36%	1.229	-	PART B6	0.041 0.23*	1.357 0.926**	8494	110.4% 75.35%	NO	12" (2.036 cfs)		2, 6
8	451	452	10	0.32%	1.158	-	-	- 0.23*	1.357 0.926**	8494	117.18% 79.97%	NO	12" (1.918 cfs)		2, 6
9	452	453	10	2.00%	2.911	-	B9D	0.012	1.369	6698A	47.03%	YES	-		7
10	453	433	10	1.24%	2.291	-	B8, B9A	0.085 0.23*+0.012+0.028 +.058	1.454 1.024**	6698A	63.47% 44.70%	NO YES	-		7
11A	433	430	12	0.60%	2.634	-	B9B	0.113+ 0.23* +.012+.028+.058 +.113	1.626 1.188**	6698A	61.73% 45.10%	NO YES	-		3, 7
11B	430	427	12	0.60%	2.634	-	B9C	0.051 0.49*	1.677 1.186**	6698A	63.67% 45.03%	NO YES	-		3, 7
12	427	426	15	0.56%	-	4.704	B7, A1-A6, WILEY CANYON	1.167	2.844	7549	60.46%	YES	-		-
13	426	425	15	1.24%	-	7.012	-	-	2.844	7549	40.56%	YES	-		-
14	425	424	15	0.56%	-	4.704	-	-	2.844	7549	60.46%	YES	-		-
15	424	423	15	0.72%	-	5.338	A14, A15	0.245	3.089	7549	57.87%	YES	-		-
16	423	362	18	0.60%	-	8.029	-	-	3.09	8048	38.47%	YES	-		-
17	362	363	15	0.60%	-	4.870	A16-A18	0.19	3.28	7549	67.33%	YES	-		-
18	363	380	15	0.60%	-	4.870	A18	0.005	3.28	7549	67.43%	YES	-		-
19	380	381	15	0.60%	-	4.870	A18	0.005	3.29	7549	67.53%	YES	-		-
20	381	392	15	0.60%	-	4.870	A18	0.005	3.294	7549	67.63%	YES	-		-
21	392	394	12	2.00%	4.820	-	A18	0.005 0.79*	3.299 1.486**	8048B	68.44% 30.83%	NO YES	-		4
22	394	398	18	0.24%	-	5.058	A18-A20	0.367	3.666	7549	72.48%	YES	-		-
23	398	389	18	0.24%	-	5.058	A21	0.005	3.671	7549	72.58%	YES	-		-
24	389	387	18	0.24%	-	5.058	A21	0.028	3.699	7549	73.14%	YES	-		-
25	387	374	18	0.24%	-	5.058	A21	0.044	3.743	7549	74.01%	YES	-		-
26	374	372	18	0.24%	-	5.058	A21	0.061	3.804	7549	75.21%	YES	-		-
27	372	344	18	0.24%	-	5.058	A21	0.06	3.864	7549	76.40%	YES	-		-
28	344	345	18	0.76%	-	9.041	A21	0.059	3.923	7549	43.39%	YES	-		-
29	345	346	18	0.68%	-	8.550	A21	0.003	3.926	7549	45.92%	YES	-		-
30	346	349	18	0.40%	-	6.547	A21	0.015	3.941	7549	60.20%	YES	-		-
31	349	310	18	0.64%	-	8.294	A22-A23	0.082	4.023	7549	48.51%	YES	-		-
32	310	312	15	1.04%	-	10.582	A23-A24	0.052	4.075	7549	38.51%	YES	-		-
33	312	319	18	0.60%	-	8.029	A24	0.031	4.106	7549	51.14%	YES	-		-
34	319	320	18	0.64%	-	8.294	A24	0.027	4	7549	49.83%	YES	-		-
35	320	326	18	0.40%	-	6.547	A24-A27	0.146	4.279	7549	65.36%	YES	-		-
36	326	327	18	0.40%	-	6.547	A24	0.025	4.304	7549	65.74%	YES	-		-
37	327	328	18	0.40%	-	6.547	A24	0.025	4.329	7549	66.12%	YES	-		-
38	328	784	18	1.12%	-	10.983	A26-A32	0.357	4.686	7549	42.67%	YES	-		-
39	784	783	18	0.60%	-	8.029	-	-	4.686	7549	58.36%	YES	-		-
40	783	782	18	0.60%	-	8.029	-	-	4.686	7549	58.36%	YES	-		-
41	782	781	18	1.84%	-	14.085	A33-A35	9.318 2.577*	14.004 7.263**	7549	99.42% 51.57%	NO YES	-		5
2	SEPTEMBER 2021 FLOW TESTS AT MANHOLE 452 OF JUNCTION 7-8 INDICATES THE ACTUAL FLOW RATE IS 0.23 cfs. ADD IN THE TRAILS AT LYONS CANYON PROJECT FLOW OF 0.537 cfs AND THE FUTURE PLANNED PARCELS FLOW OF 0.159 TO GET A COMBINED FLOW RATE OF 0.926 cfs. THIS FLOW RATE IS ASSIGNED UPSTREAM AT MANHOLE 458 SINCE IT IS KNOWN THAT DOWNSTREAM THE ACTUAL FLOW RATE IS 0.926 cfs AND CANNOT EXCEED THAT FLOW RATE UNTIL AFTER MANHOLE 452.														
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4	SEPTEMBER 2021 FLOW TESTS AT MANHOLE 392 INDICATES THE ACTUAL FLOW RATE IS 0.79 cfs. ADD IN THE TRAILS AT LYONS CANYON PROJECT FLOW RATE OF 0.537 cfs AND FUTURE PARCELS COMBINED FLOW RATE OF 0.159 cfs TO GET A FINAL FLOW RATE OF 1.486 cfs.														
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6	PIPE SEGMENT UPSIZING COSTS WILL BE SHARED AS DEFINED IN COST SHARE AGREEMENT														
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LEGEND
- PROJECT BOUNDARY
- TRIBUTARY AREA
- EXISTING SEWER FACILITIES WITHIN TRIBUTARY AREA
- EXISTING SEWER FACILITIES TO SERVICE TRAILS AT LYONS CANYON
- PROPOSED SEWER FACILITIES TO SERVICE TRAILS AT LYONS CANYON
- EXISTING MANHOLE
- PROPOSED MANHOLE
- PIPE SEGMENT

N

0 400 FEET

*COEFFICIENT CALCULATION B8, B9
MH 430 PDWF-MH 452 PDWF
=0.49-0.23=0.26 cfs
B8 LOT COUNT = 16 UNITS
B9 LOT COUNT = 137 UNITS
COEFF.=0.0017 cfs/LOT

A33
Q=9.280 cfs
PER STEVENSON RANCH
SAS TRACT NO. 43896

A34
A=3.1 AC
COEFF.=0.015
Q=0.047 cfs

A35
A=2.0 AC
COEFF.=0.015 cfs/AC
Q=0.030 cfs

A24
100 LOTS
COEFF.=0.001 cfs/DU
Q=0.100 cfs

A27
A=3.0 AC
COEFF.=0.015 cfs/AC
Q=0.045 cfs

A26
A=1.7 AC
COEFF.=0.015 cfs/AC
Q=0.026 cfs

A25
A=2.3 AC
COEFF.=0.015 cfs/AC
Q=0.035 cfs

A32
252 LOTS
COEFF.=0.001 cfs/DU
Q=0.252 cfs

A23
60 LOTS
COEFF.=0.001 cfs/DU
Q=0.060 cfs

A22
74 LOTS
COEFF.=0.001 cfs/DU
Q=0.074 cfs

A30
10 LOTS
COEFF.=0.001 cfs/DU
Q=0.010 cfs

A31
12 LOTS
COEFF.=0.001 cfs/DU
Q=0.012 cfs

A28
A=9.5 AC
COEFF.=0.015 cfs/AC
Q=0.143 cfs

A29
11 LOTS
COEFF.=0.001 cfs/DU
Q=0.011 cfs

A16
121 LOTS
COEFF.=0.001 cfs/DU
Q=0.121 cfs

A21
275 LOTS
COEFF.=0.001 cfs/DU
Q=0.275 cfs

A15
A=3.7 AC
COEFF.=0.015 cfs/AC
Q=0.056 cfs

A17
65 LOTS
COEFF.=0.001 cfs/DU
Q=0.065 cfs

B5
A=3.64 AC
ZONING=C3
COEFF.=0.015 cfs/AC
Q=0.055 cfs

A14
A=12.6 AC
COEFF.=0.015 cfs/AC
Q=0.189 cfs

A20
A=10.5 AC
COEFF.=0.012 cfs/DU
Q=0.158 cfs

B8
16 LOTS
COEFF.*= 0.0017 cfs/DU
Q=0.028 cfs

B9B
66 UNITS

B9A
34 UNITS

B9C
30 UNITS

B9D
7 UNITS

A18
A=2.3 AC
COEFF. = 0.012
Q=0.028 cfs

B3
187 LOTS
ZONING=RDP 1-1.4U,
RDP 1-2.7U
COEFF.=0.001 cfs/AC
Q=0.187 cfs

B4
A=11.9 AC
ZONING=C-3
COEFF.=0.015 cfs/AC
Q=0.179 cfs

B9A, B9B, B9C, B9D
137 LOTS
COEFF.*=0.0017 cfs/DU
Q=0.233 cfs

A19
206 LOTS
COEFF.=0.001 cfs/DU
Q=0.206 cfs

B9
A=11 AC
ZONING=UR3
COEFF.=0.012 cfs/AC
Q=0.132 cfs

B7 (750 STUDENTS)
Q=25*750=18,750
gpd=0.029 cfs

B2
139 LOTS
ZONING=1-1.4U
COEFF.=0.001 cfs/DU
Q=0.139 cfs

B6
76 LOTS
ZONING=UR3
COEFF.=0.001 cfs/DU
Q=0.076 cfs

A6
15 LOTS
COEFF.=0.001 cfs/DU
Q=0.015 cfs

A5
95 LOTS
COEFF.=0.001 cfs/DU
Q=0.095 cfs

A4
110 MOBILE HOMES
COEFF.=0.00075 cfs/DU
Q=0.083 cfs

A3
25 LOTS
ZONING=UR2
COEFF.=0.001 cfs/DU
Q=0.025 cfs

B12
PART OF T3N, R16W
A=30 AC
ZONING=A-2-2
COEFF.=0.001*0.5
Q=0.015 cfs

B1
A=1.76
ZONING=C-3
COEFF.=0.015 cfs/AC
Q=0.026 cfs

B13
T3N R16W
A=20 AC
ZONING=A-2-2
COEFF.=0.001*0.5
Q=0.01 cfs

B11
CITY OF SANTA CLARITA
A=116 AC
ZONING=A-2-2
COEFF.=0.001*0.5
Q=0.058 cfs

PROJECT LOCATION

TRAILS AT LYONS CANYON
TR83301
Q=0.537 cfs

WILEY CANYON
Q=0.48 cfs
PER SAS20-00003

A2
350 LOTS
COEFF.=0.001 cfs/DU
Q=0.350 cfs

B10
ARCARIA OIL MINE
A=151 AC
ZONING=A-2-2
COEFF.=0.001*0.5
Q=0.076 cfs

A1
A=6.0 AC
COEFF.=0.015 cfs/AC
Q=0.090 cfs

TABLE 1
TRAILS AT LYON'S CANYON FLOW GENERATION

Product	Land Use	Units	Peak Q Coefficient	Peak Q (cfs)
Apartments and Condos	Residential	517 units	0.001 cfs/unit	0.517
Future Fire Station	Commercial	1.36 acre	0.015 cfs/acre	0.02
Recreational Center	Open Space	0.70 acre	0.0005 cfs/acre	0.0003
TOTAL				**0.537 cfs**

WILEY CANYON RD
SANITATION DISTRICT TRUNK SEWER
TOURNAMENT RD
16TH ST
ORCHARD VILLAGE RD
LYONS AVE
SAGECREST CIR
THE OLD ROAD
CALGROVE BLVD

DEXTER WILSON ENGINEERING, INC.
CONSULTING ENGINEERS
2234 FARADAY AVENUE
CARLSBAD, CA 92008
(760) 438-4422

EXHIBIT A
SEWER MAP
TRAILS AT LYONS CANYON

A:\ARTIC\DWG\7360\SEWERS\SEWER.SWF_EXHIBIT-A_SEWERMAP.DWG 01-28-22 09:02:22 LAYOUT: 24X36

EXHIBIT A

SEWER AREA STUDY MAP

TABLE 2: LOS ANGELES COUNTY ULTIMATE CONDITION UNDER EXISTING INFRASTRUCTURE

Street Name	Segment M.H In	Segment M. H Out	Pipe Dia. (in)	Pipe Slope	Design Capacity, Q (cfs) 1/2 Full (<15")	Design Capacity, Q (cfs) 3/4 Full (≥15")	Tributary Area: Tributary	Tributary Area: Coefficient	Tributary Area: Parcel Flow (cfs)	Calculated Flow (cfs)	Cumulative Flow (cfs)	PC or CI Construction Plan #	Cumulative Flow/Capacity	Comment	Jurisdiction	Foot Note
The Old Road	9	10	8	0.60%	0.428	-	TR083301-525 EDUs, B10-151 acres, B11-116 acres, B1-1.76 acres, B2-139 units, B12-30 acres, B13-20 acres B4-11.9 acres	TR083301-0.001, B10-0.001*0.5, B11-0.001*0.5, B1-0.015, B2-0.001, B12-0.001*0.5, B13-0.001*0.5, B4-0.015	TR083301-0.525 B10-0.076 B11-0.058 B1-0.026 B2-0.139 B12-0.015 B13-0.01 B4-0.179	1.03 0.08*	1.03 0.764**	10428	240.65% 179.21%	No Capacity	LA COUNTY	1
The Old Road	10	11	8	0.60%	0.428	-	-	-	-	- 0.08*	1.03 0.764**	10428	240.65% 178.50%	No Capacity		1
The Old Road	11	12	8	0.60%	0.428	-	-	-	-	- 0.08*	1.03 0.764**	10428	240.65% 178.50%	No Capacity		1
The Old Road	12	13	8	0.60%	0.428	-	-	-	-	- 0.08*	1.03 0.764**	10428	240.65% 178.50%	No Capacity		1
The Old Road	13	14	8	0.83%	0.504	-	-	-	-	- 0.08*	1.03 0.764**	10428	204.37% 151.59%	No Capacity		2

1	SEPTEMBER 2021 FLOW TESTS AT MANHOLE 13 OF JUNCTION 1 INDICATES THE ACTUAL FLOW RATE IS 0.08. ADD IN THE TRAILS AT LYONS CANYON PROJECT FLOW RATE OF 0.525 cfs AND FUTURE PARCELS COMBINED FLOW RATE OF 0.159 cfs TO GET THE COMBINED FLOW OF 0.764 cfs.
2	END OF COUNTY OWNED SEWER PIPES. SEWER LINES AFTER MANHOLE 14 ARE CITY OWNED
*	FLOW TAKEN FROM SEWER FLOW MONITORING RESULTS AVAILABLE IN APPENDIX E.
**	CUMULATIVE FLOW VALUE REPRESENTS THE ACTUAL FLOW FROM SEWER FLOW MONITORING RESULTS PLUS THE ADDITION OF THE TRAILS AT LYONS CANYON PLANNED SEWER DISCHARGE AND FUTURE PLANNED PARCELS.

TABLE 3 LOS ANGELES COUNTY ULTIMATE CONDITION UNDER PROPOSED AND UPSIZED INFRASTRUCUTURE

Street Name	Segment M.H In	Segment M. H Out	Pipe Dia. (in)	Pipe Slope	Design Capacity, Q (cfs) 1/2 Full (<15")	Design Capacity, Q (cfs) 3/4 Full (≥15")	Tributary Area: Tributary	Tributary Area: Coefficient	Tributary Area: Parcel Flow (cfs)	Calculated Flow (cfs)	Cumulative Flow (cfs)	PC or CI Construction Plan #	Cumulative Flow/Capacity	Comment	Jurisdiction	Foot Note
The Old Road	3	2	10	0.62%	0.808	-	TR083301-525 EDUs B10-151 acres B11-116 acres	TR083301-0.001 B10-0.001*0.5 B11-0.001*0.5	TR083301-0.525 B10-0.076 B11-0.058	0.659	0.659	10428	81.51%	Under Capacity	LA COUNTY	3
The Old Road	2	1	10	0.45%	0.688	-	-	-	-	-	0.659	10428	95.80%	Under Capacity		3
The Old Road	9	10	10	0.60%	0.795	-	B1-1.76 acres, B2-139 units, B12-30 acres, B13-20 acres B4-11.9 acres	B1-0.015, B2-0.001, B12-0.001*0.5, B13-0.001*0.5 B4-0.015		0.368 0.08*	1.03 0.764**	10428	130.82% 96.10%	Pipe Upsized, Under Capacity		1
The Old Road	10	11	10	0.60%	0.795	-	-	-		- 0.08*	1.03 0.764**	10428	130.82% 96.10%	Pipe Upsized, Under Capacity		1
The Old Road	11	12	10	0.60%	0.795	-	-	-		- 0.08*	1.03 0.764**	10428	130.82% 96.10%	Pipe Upsized, Under Capacity		1
The Old Road	12	13	10	0.60%	0.795	-	-	-		- 0.08*	1.03 0.764**	10428	130.82% 96.10%	Pipe Upsized, Under Capacity		1
The Old Road	13	14	10	0.83%	0.936	-	-	-		- 0.08*	1.03 0.764**	10428	111.11% 81.62%	Pipe Upsized, Under Capacity		2

1	SEPTEMBER 2021 FLOW TESTS AT MANHOLE 13 OF JUNCTION 1 INDICATES THE ACTUAL FLOW RATE IS 0.08. ADD IN THE TRAILS AT LYONS CANYON PROJECT FLOW RATE OF 0.525 cfs AND FUTURE PARCELS COMBINED FLOW RATE OF 0.159 cfs TO GET THE COMBINED FLOW OF 0.764 cfs.
2	END OF COUNTY OWNED SEWER PIPES. SEWER LINES AFTER MANHOLE 14 ARE CITY OWNED
3	PROPOSED SEWER LINE BY TRAILS AT LYONS CANYON
*	FLOW TAKEN FROM SEWER FLOW MONITORING RESULTS AVAILABLE IN APPENDIX E.
**	CUMULATIVE FLOW VALUE REPRESENTS THE ACTUAL FLOW FROM SEWER FLOW MONITORING RESULTS PLUS THE ADDITION OF THE TRAILS AT LYONS CANYON PLANNED SEWER DISCHARGE AND FUTURE PLANNED PARCELS.

LEGEND

- PROJECT BOUNDARY
- TRIBUTARY AREA
- EXISTING SEWER FACILITIES WITHIN TRIBUTARY AREA
- EXISTING SEWER FACILITIES TO SERVICE TRAILS AT LYONS CANYON
- PROPOSED SEWER FACILITIES TO SERVICE TRAILS AT LYONS CANYON
- EXISTING MANHOLE
- PROPOSED MANHOLE
- PIPE SEGMENT

*COEFFICIENT CALCULATION B8, B9
MH 430 PDWF–MH 452 PDWF
=0.49–0.23=0.26 cfs
B8 LOT COUNT = 16 UNITS
B9 LOT COUNT = 137 UNITS
COEFF.=0.0017 cfs/LOT

N

0 400 FEET

24" SANITATION DISTRICT TRUNK SEWER

SANITATION DISTRICT TRUNK SEWER (DRY)

A33
Q=9.280 cfs
PER STEVENSON RANCH SAS TRACT NO. 43896

A34
A=3.1 AC
COEFF.=0.015
Q=0.047 cfs

WILEY CANYON RD

SANITATION DISTRICT TRUNK SEWER (DRY)

A35
A=2.0 AC
COEFF.=0.015 cfs/AC
Q=0.030 cfs

16TH ST

TOURNAMENT RD

A24
100 LOTS
COEFF.=0.001 cfs/DU
Q=0.100 cfs

A27
A=3.0 AC
COEFF.=0.015 cfs/AC
Q=0.045 cfs

A26
A=1.7 AC
COEFF.=0.015 cfs/AC
Q=0.026 cfs

ORCHARD VILLAGE RD

A25
A=2.3 AC
COEFF.=0.015 cfs/AC
Q=0.035 cfs

A23
50 LOTS
COEFF.=0.001 cfs/DU
Q=0.060 cfs

A22
74 LOTS
COEFF.=0.001 cfs/DU
Q=0.074 cfs

A32
252 LOTS
COEFF.=0.001 cfs/DU
Q=0.252 cfs

A30
10 LOTS
COEFF.=0.001 cfs/DU
Q=0.010 cfs

A31
12 LOTS
COEFF.=0.001 cfs/DU
Q=0.012 cfs

A28
A=9.5 AC
COEFF.=0.015 cfs/AC
Q=0.143 cfs

A29
11 LOTS
COEFF.=0.001 cfs/DU
Q=0.011 cfs

A21
275 LOTS
COEFF.=0.001 cfs/DU
Q=0.275 cfs

A5
121 LOTS
COEFF.=0.001 cfs/DU
Q=0.121 cfs

A7
65 LOTS
COEFF.=0.001 cfs/DU
Q=0.065 cfs

A15
A=3.7 AC
COEFF.=0.015 cfs/AC
Q=0.056 cfs

LYONS AVE

B5
A=3.64 AC
ZONING=C3
COEFF.=0.015 cfs/AC
Q=0.055 cfs

A14
A=12.6 AC
COEFF.=0.015 cfs/AC
Q=0.189 cfs

B8
16 LOTS
COEFF.*= 0.0017 cfs/DU
Q=0.028 cfs

B9B
66 Units

B9C
34 UNITS

B9C
30 UNITS

B9D
7 UNITS

A18
A=2.3 AC
COEFF. = 0.012
Q=0.028 cfs

A20
A=10.5 AC
COEFF.=0.012 cfs/DU
Q=0.158 cfs

B9A, B9B, B9C, B9D
137 LOTS
COEFF.*=0.0017 cfs/DU
Q=0.233 cfs

A19
205 LOTS
COEFF.=0.001 cfs/DU
Q=0.206 cfs

B9
A=11 AC
ZONING=UR3
COEFF.=0.012 cfs/AC
Q=0.132 cfs

B3
187 LOTS
ZONING=RDP 1–1.4U, RDP 1–2.7U
COEFF.=0.001 cfs/AC
Q=0.187 cfs

B4
A=11.9 AC
ZONING=C–3
COEFF.=0.015 cfs/AC
Q=0.179 cfs

B7 (750 STUDENTS)
Q=25*750=18,750 gpd=0.029 cfs

B2
139 LOTS
ZONING=1–1.4U
COEFF.=0.001 cfs/DU
Q=0.139 cfs

B6
76 LOTS
ZONING=UR3
COEFF.=0.001 cfs/DU
Q=0.076 cfs

A6
15 LOTS
COEFF.=0.001 cfs/DU
Q=0.015 cfs

A5
95 LOTS
COEFF.=0.001 cfs/DU
Q=0.095 cfs

A4
110 MOBILE HOMES
COEFF.=0.00075 cfs/DU
Q=0.083 cfs

A3
25 LOTS
ZONING=UR2
COEFF.=0.001 cfs/DU
Q=0.025 cfs

SAGECREST CIR

B12
PART OF T3N, R16W
A=30 AC
ZONING=A–2–2
COEFF.=0.001*0.5
Q=0.015 cfs

B1
A=1.76
ZONING=C–3
COEFF.=0.015 cfs/AC
Q=0.026 cfs

B13
T3N R16W
A=20 AC
ZONING=A–2–2
COEFF.=0.001*0.5
Q=0.01 cfs

B11
CITY OF SANTA CLARITA
A=116 AC
ZONING=A–2–2
COEFF.=0.001*0.5
Q=0.058 cfs

PROJECT LOCATION

TRAILS AT LYONS CANYON
TR83301
Q=0.537 cfs

WILEY CANYON
Q=0.48 cfs
PER SAS20–00003

THE OLD ROAD

B10
ARCARIA OIL MINE
A=151 AC
ZONING=A–2–2
COEFF.=0.001*0.5
Q=0.076 cfs

A2
350 LOTS
COEFF.=0.001 cfs/DU
Q=0.350 cfs

CALGROVE BLVD

A1
A=6.0 AC
COEFF.=0.015 cfs/AC
Q=0.090 cfs

TABLE 1
TRAILS AT LYONS CANYON FLOW GENERATION

Product	Land Use	Units	Peak Q Coefficient	Peak Q (cfs)
Apartments and Condos	Residential	504 units	0.001 cfs/unit	0.504
Future Fire Station	Commercial	1.38 acre	0.015 cfs/acre	0.0207
Recreational Center	Open Space	0.68 acre	0.0005 cfs/acre	0.0003
TOTAL				0.525 cfs

DEXTER WILSON ENGINEERING, INC.
CONSULTING ENGINEERS
2234 FARADAY AVENUE
CARLSBAD, CA 92008
(760) 438–4422

EXHIBIT A

SEWER MAP – COUNTY

TRAILS AT LYONS CANYON

J:\ARTIC\DWG\236023\SEWERSTUDY\CS-SWR_EXHIBIT-A_SEWERMAPCOUNTY.DWG 08-08-22 14:01:18 LAYOUT: 24X36