

# Appendix K

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Sewer Area Study



# SEWER AREA STUDY

FOR THE PROJECT:

## Tract No. 83166

Vincent Ave. Development  
1024 W. Workman Avenue  
City of West Covina  
County of Los Angeles

PREPARE FOR:

## MLC HOLDINGS, INC.

5 Peters Canyon Road Suite 310  
Irvine, CA 92606  
(310) 293-8463

PREPARED BY:

## BLUE ENGINEERING AND CONSULTING, INC

12223 Highland Avenue #106-594  
RANCHO CUCAMONGA, CA 91739  
(909) 248-6557

PREPARED UNDER THE SUPERVISION OF:

  
ANGEL CESAR P.E., RCE 87222

July, 2020





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## I. INTRODUCTION

The purpose of this study is to analyze the adequacy of the existing system to take the effluents generated for the proposed development of the 8.05-acre site. The development TR No. 83166 is for 119 residential units located at 1024 West Workman Avenue within the community of West Covina under the jurisdiction of the County of Los Angeles. The site is currently within R-1 zone. The development will be proposing to change the zone to single family/multifamily residential. Figure 1 shows the proposed site and Figure 2 shows the vicinity map.

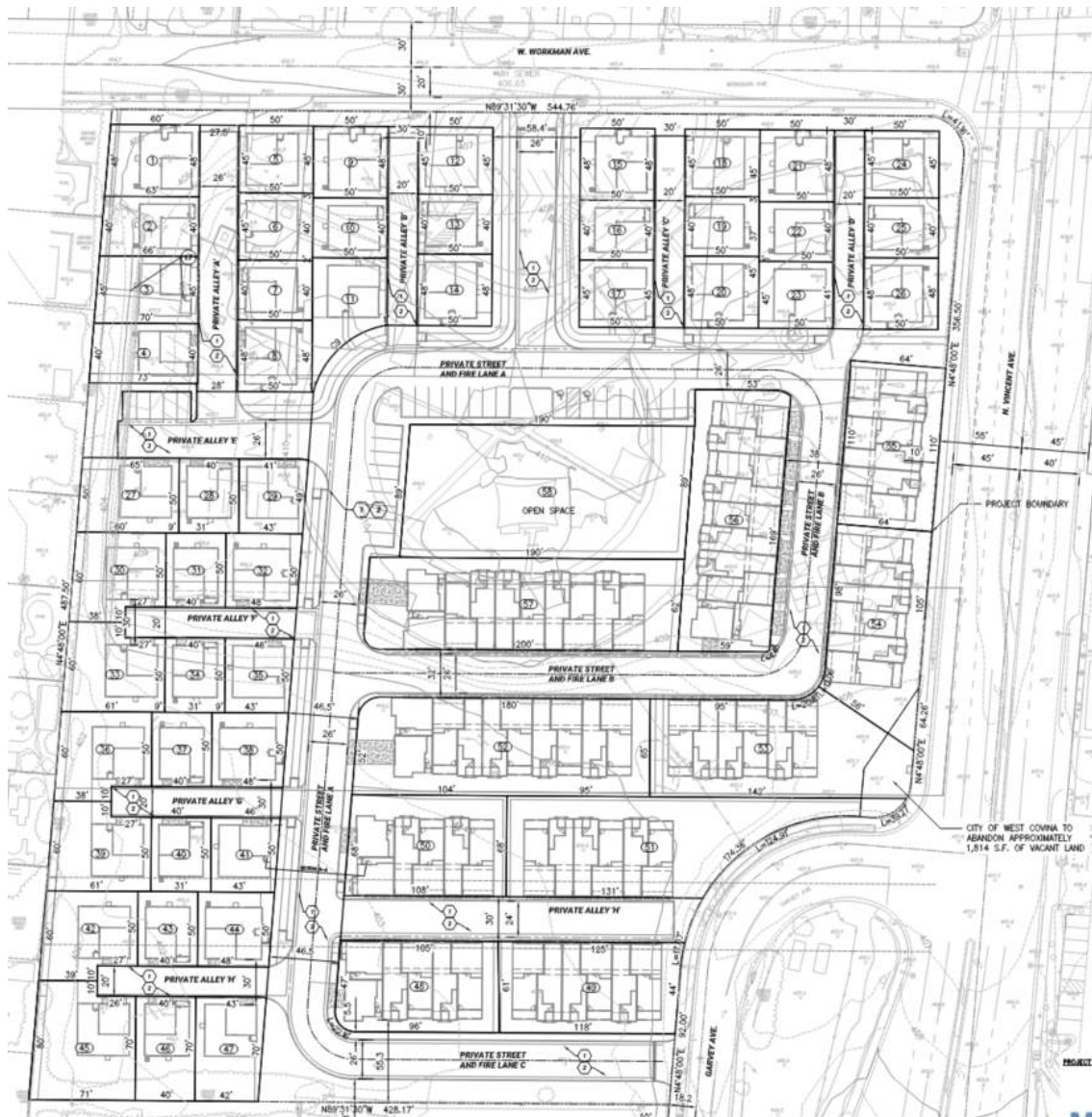


Figure 1 - Proposed Site

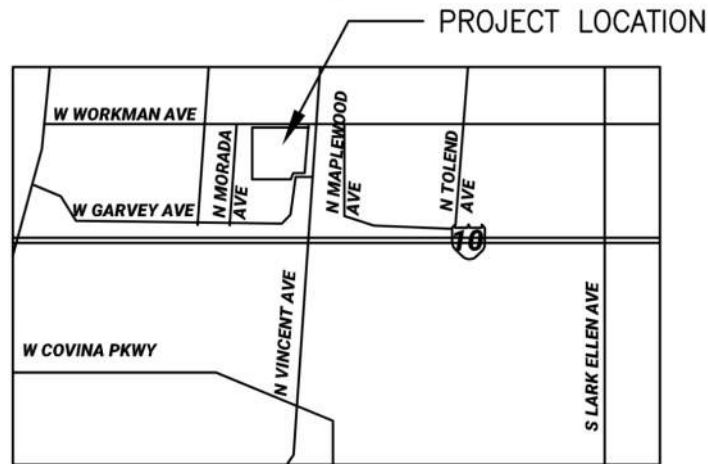


Figure 2 – Vicinity Map

To provide the development's sewer system, we propose to connect to the existing sewer system network on West Workman Avenue.

As part of this study, copies of the existing sewer plans in the area were obtained from the Los Angeles County Sanitation Districts (LACSD) online Underground Utilities viewer.

## II. SITE DESCRIPTION

Site is approximately 8.05-acres in the County of Los Angeles. Project is located at 1024 West Workman Avenue, West Covina, CA 91790, (APN. 8457-029-906). The site is bound by West Workman Avenue to the north, North Vincent Avenue and West Garvey Avenue to the east, townhomes and apartments to the south, and single-family dwellings to the west. A preschool occupies the northern portion of the lot and the southern portion is vacant.

## III. PROJECT DESCRIPTION

Tract number 83166 is a subdivision project for 119 units with a mixture of single-family dwellings and multifamily townhomes. The single-family units surround the north and west, and the multifamily units are at the center, east, and south. A 26' wide private drive will run north to south and a private loop will surround a shared open space. Each unit will be serviced by a lateral that will come off a public 8" sewer main that will be in the alley or private street. An access and maintenance easement will be provided that will blanket the entire alley or private street.

A copy of the Tentative Tract No. 83166 is included at the end of the report for reference.

## IV. DESCRIPTION OF EXISTING SEWER SYSTEM

There is a 27" RCP trunk sewer that runs along Workman Avenue north of the project site and draining west at slopes of 0.505 and 0.496%. At approximately 700' east of Hartley Avenue, the line transitions to a 24" RCP draining west at a slope of 0.923% and continues east at a slope of 0.913% past Vincent Avenue. The line is was approved in 1954 and is maintained by Los Angeles County Sanitation Districts (LACSD).



There is an 8" VCP sewer on Vincent Avenue 24' east of the centerline. The line has a slope of 0.60% and starts at the connection at Workman Avenue, continues south for about 550', and ends at a manhole.

**V. DESCRIPTION OF PROPOSED SEWER SYSTEM**

The proposed public sewer system to service the proposed development will be an 8-inch Vitrified Clay Pipe sewer main that will be designed to public standards. The main will run along the proposed street going through the development and will connect to the existing 27" sewer on W Workman Avenue. The laterals will run along the onsite alleys and join the proposed main.

**VI. METHODOLOGY USED AND LIST OF REFERENCES**

The existing sewer pipes as described above were analyzed per Kutter's Formula as used in LA County Standard S-C4 for a maximum design depth at 3/4 full for pipes  $\geq 15"$ .

**VII. SEWER PIPE CAPACITY ANALYSIS**

The tributary sewer flow rates (Q) for the impacted reaches sewer lines are analyzed based on LA County standards as follows:

$Q = ZA$  (csf)

A = Tributary Area (acres)

Z = Zoning Coefficient (See Estimated Average Daily Sewage Flow for Various Occupancies) (csf/acre)

Flow from proposed site is calculated at 0.001 CFS/UNIT for condominiums units.

Existing Flow at Trunk Sewer Connection	
Cumulative Flow	0.0390 cfs
Percent 3/4 Full	15.60%

Proposing Flow at Trunk Sewer Connection	
Cumulative Flow	0.1034 cfs
Percent 3/4 Full	41.36%
Percent increase	165%

**VIII. PROPOSED MITIGATION IF NECESSARY**

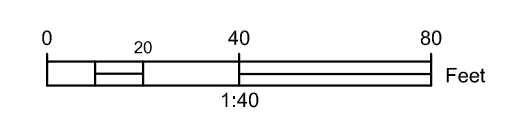
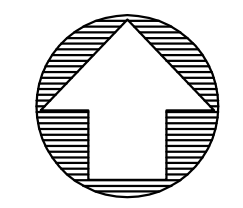
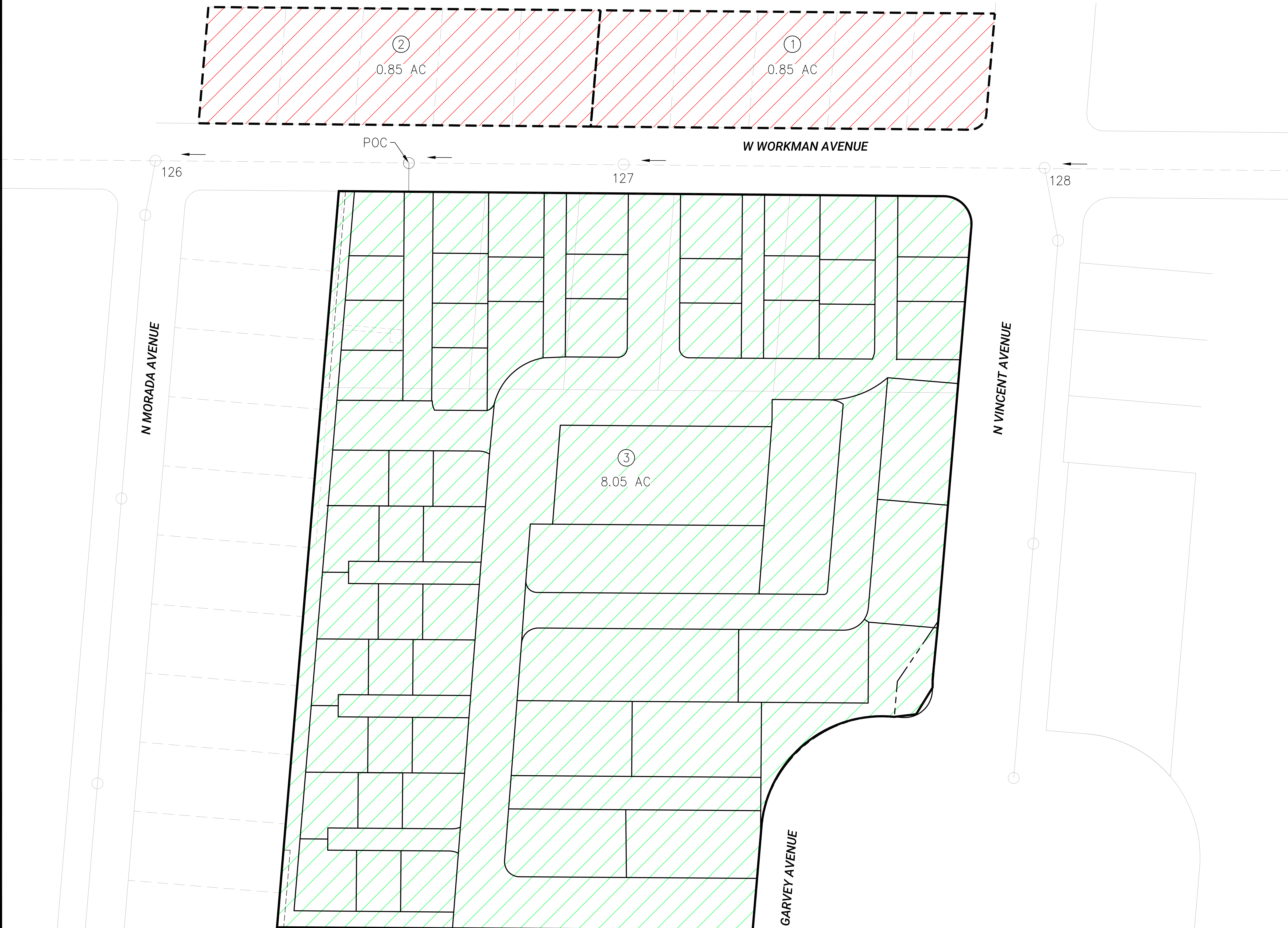
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**IX. CONCLUSION**


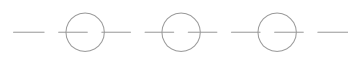

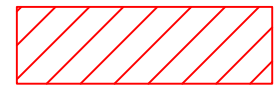
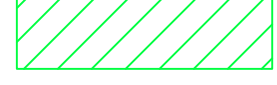
Based on this Sewer Area Study, the existing sewer mainlines are adequate to serve the proposed project and no mitigation is required. Using the 3/4 flow analysis, the existing capacity to the trunk is at 15.60% and the proposed capacity will increase to 41.36%.



## a. SEWER AREA MAP



**LEGEND**

-  PROJECT SITE
-  EXISTING RCP TRUNK SEWER
-  EXISTING VCP SEWER
-  R-1
-  MF-15

N MORADA AVENUE

N VINCENT AVENUE

W WORKMAN AVENUE

GARVEY AVENUE

126

127

128


②  
0.85 AC

①  
0.85 AC


③  
8.05 AC

POC

PREPARED BY:



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 WWW.BLUECIVILENG.COM



ANGEL CESAR, P.E. RCE 87222      DATE

MAJOR LAND DIVISION		
SEWER AREA STUDY MAP TENTATIVE TRACT NO. 83166		
PLAN NO.	SCALE:	
	DATE:	
SHEET:      OF	SCALE:	





## **b. SEWER CAPACITY CALCULATIONS**

ZONING AND FLOW CALCULATIONS				
AREA NO.	ZONING	AREA/UNITS	COEFF.*	FLOW IN CFS
1	R-1	0.85	0.004	0.0034
2	R-1	0.85	0.004	0.0034
3	R-1	8.05	0.004	0.0322
3	MF-15	8.05	0.012	0.0966

Pre Development  
Post Development

\*Coefficients obtained from LA County " Estimated Average Daily Sewage Flow":  
<https://dpw.lacounty.gov/lld/lldservices/sewerAreaStudy/sewerAreaStudy.shtml>

TOTAL SEWAGE FLOW TO SEWER REACHES		
SEWER REACH	TRIBUTARY AREAS	TOTAL FLOW IN CFS
MH 128 TO MH 127	1	0.0034
MH 127 TO MH 126	2 and 3	0.0356
MH 127 TO MH 126	2 and 3	0.1000

Pre Development  
Post Development

Street Name	Segment		Pipe		*Capacity		Calculated Flow (cfs)	**Cumulative Calculated Flow (cfs)	PC or CI Construction Plan #	Comment	%Full	Jurisdiction
	M.H. #	M.H. #	Size (in)	Slope (%)	1/2 Full (<15")	3/4 Full (>15")					Cummulative Flow / Capacity	
W Workman Ave	128	127	24	0.923	N/A	5.5	0.0034	0.0034	22-P-4		1.87%	LA County
W Workman Ave	127	126	27	0.496	N/A	4.0	0.0356	0.0390	22-P-4	Under Capacity	15.60%	LA County
W Workman Ave	127	126	27	0.496	N/A	4.0	0.1000	0.1034	22-P-4	Under Capacity	41.36%	LA County

Pre Development  
Post Development

AREA IN ACRES

Single Family Residential	Commercial	Heavy Industrial
2000	533	450
1750		400
1500	427	350
1250		300
1000	320	250
900		200
800	246	150
700		140
600	192	140
500		100
450	128	90
400		80
350	96	70
300		60
250	64	50
200		45
180	48	40
160		35
140	32	30
120		25
100	24	20
80		15
70	16	15
60		10
50	10	10
40		8
30	8	8

NOTE:

Based on Kutter's Formulae with  $n = .013$   
 Quantities per Ac -  $R = 1 = .004$  c.f.s.,  $C = .015$  c.f.s.,  $H.I. = .021$  c.f.s.

PIPE DIAMETER

18" 15" 15" 12" 10" 8" 6"

3/4 Full 1/2 Full

DISCHARGE IN C.F.S.

10.0  
9.0  
8.0  
7.0  
6.0  
5.0  
4.0  
3.0  
2.0  
1.8  
1.6  
1.4  
1.2  
1.0  
0.9  
0.8  
0.7  
0.6  
0.5  
0.4  
0.3  
0.2  
0.1

ex. 24"  
s=0.923

ex. 27"  
s=0.496

~5.5

~4.0

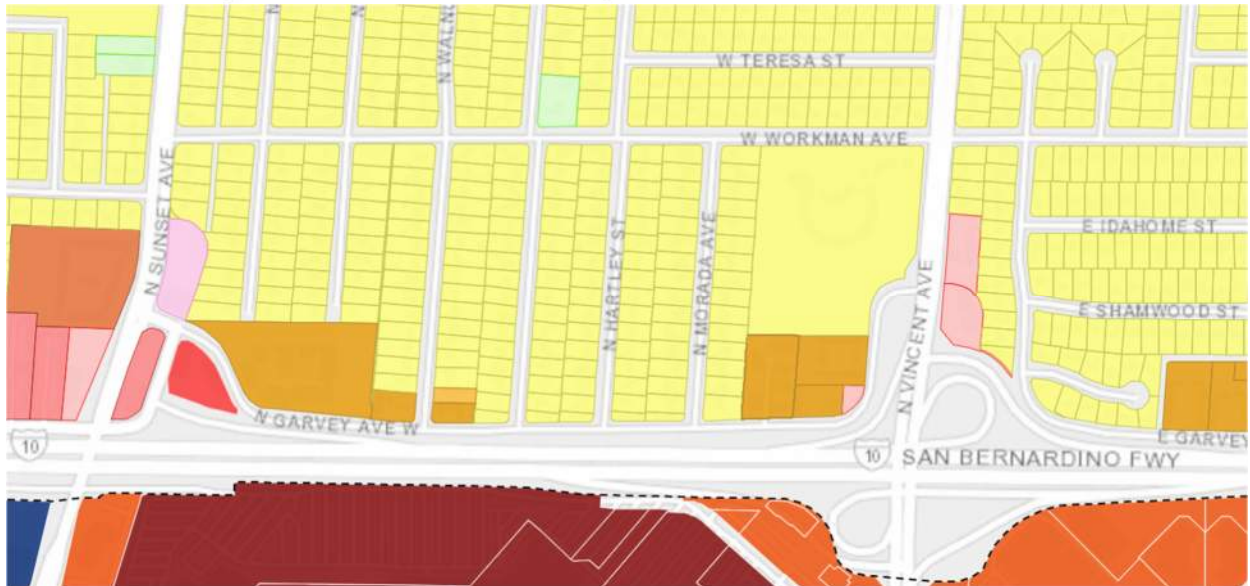
NOTE: USE 15" 1/2 FULL FOR COMPUTING DESIGN CAPACITY OF A NEW SEWER SYSTEM.  
 USE 15" 3/4 FULL FOR CHECKING CAPACITY OF EXIST. SEWER SYSTEM.

FLOW DIAGRAM FOR THE DESIGN OF CIRCULAR SANITARY SEWERS

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS		COUNTY ENGINEER STANDARD DATE: 3 / 80 DESIGN: <i>S. J. ORR</i> RCE 12/10/83
<i>[Signature]</i> ASSISTANT DEPUTY	<i>[Signature]</i> COUNTY ENGINEER	S-C4



**c. ALL SUPPORTING PLANS/MAPS**

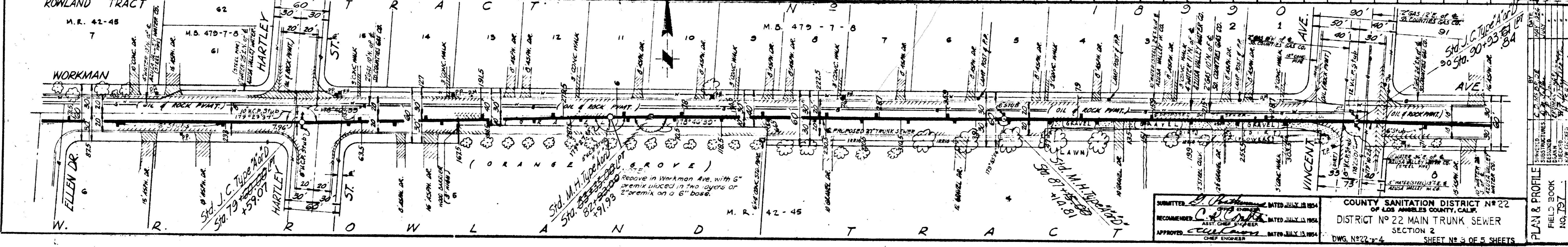
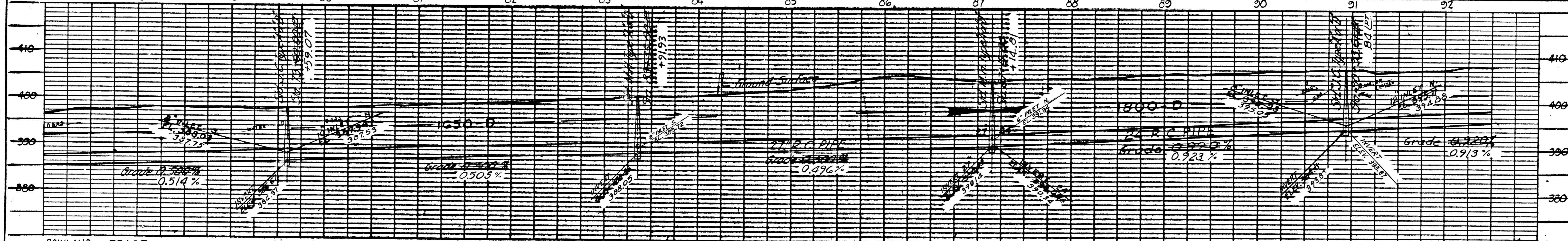
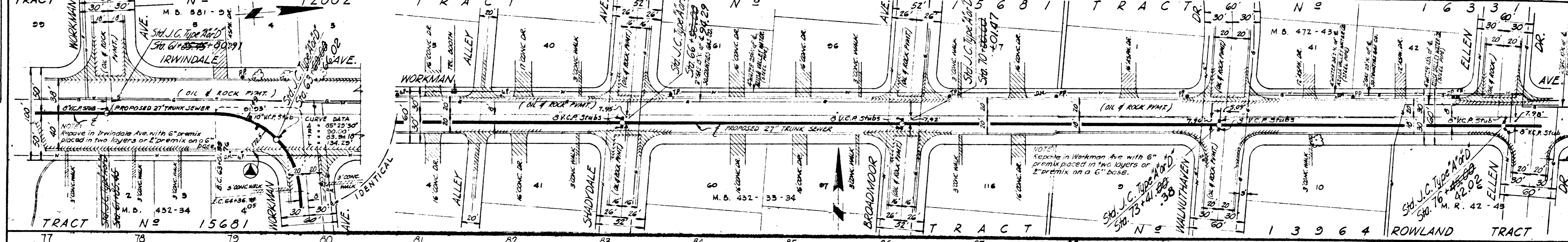
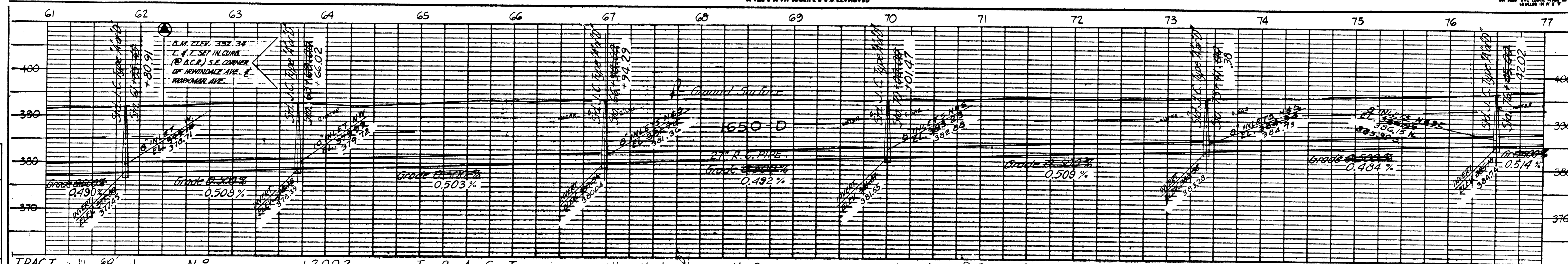


**City of West Covina Zoning Code**

-  R-A - Residential Agriculture
-  R-1 - Residential Single Family
-  R-A & R-1 - Residential Agriculture and Residential Single Family
-  MF-8 - Residential 8 du/ac
-  MF-15 - Residential 15 du/ac
-  MF-20 - Residential 20 du/ac
-  MF-45 - Residential 45 du/ac
-  N-C - Neighborhood Commercial
-  S-C - Service Commercial
-  R-C - Regional Commercial
-  C-2 - Medium Commercial
-  C-3 - Heavy Commercial
-  O-P - Office Professional
-  M-1 - Manufacturing
-  I-P - Planned Industrial
-  P-B - Public Building
-  O-S - Open Space
-  PCD-1 - Planned Community Development
-  SP - Specific Plan

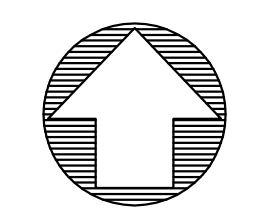
DATE	
BY	
CHECKED	
APPROVED	
REVISIONS	
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	
NO. 6	
NO. 7	
NO. 8	
NO. 9	
NO. 10	

DATE	
BY	
CHECKED	
APPROVED	
REVISIONS	
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	
NO. 6	
NO. 7	
NO. 8	
NO. 9	
NO. 10	



SUBMITTED: *[Signature]* DATED JULY 13, 1954  
 RECOMMENDED: *[Signature]* DATED JULY 13, 1954  
 APPROVED: *[Signature]* CHIEF ENGINEER DATED JULY 13, 1954

COUNTY SANITATION DISTRICT NO. 22  
 OF LOS ANGELES COUNTY, CALIF.  
 DISTRICT NO. 22 MAIN TRUNK SEWER  
 SECTION 2  
 DWG. NO. 22-2-4 SHEET NO. 3 OF 5 SHEETS



# TENTATIVE TRACT MAP NO. 83166

LOCATED IN THE CITY OF WEST COVINA OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

SCALE 1" = 40'

### GENERAL NOTES:

- SEWER DISPOSAL TO BE BY SANITARY SEWER PROVIDED BY THE CITY OF WEST COVINA. ALL SANITARY SEWER PROPOSED WILL BE PUBLIC.
- WATER PURVEYOR IS AZUSA LIGHT & WATER. ALL WATER LINES PROPOSED WILL BE PUBLIC.
- A HOMEOWNERS ASSOCIATION SHALL BE FORMED TO MAINTAIN THE PRIVATE DRIVEWAY, PRIVATE ALLEYS, FIRE LANES AND LANDSCAPING/Common AREAS.
- ALL EXISTING UTILITIES, IMPROVEMENTS, AND STRUCTURES WITHIN THE BOUNDARY OF THIS TENTATIVE TRACT MAP WILL BE DEMOLISHED AND REMOVED FROM THE SITE. EXISTING UTILITY CONNECTIONS THROUGH THE TENTATIVE MAP BOUNDARY SHALL BE MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES AND FINAL PROJECT CONDITIONS.
- VACATE SCE EASEMENT 17 ON TITLE REPORT ON THE FINAL MAP.
- MINIMUM PRIVATE STREET AND ALLEY GRADE IS 0.5%.
- ALL FINISH FLOOR ELEVATIONS SHALL BE HIGHER THAN NEAREST DOWNSTREAM SEWER MANHOLE RIM ELEVATION. IF NOT, A SEWER BACK-FLOW DEVICE WILL BE REQUIRED ON ALL SEWER LATERALS THAT DO NOT MEET THIS REQUIREMENT.
- ALL PROPOSED UTILITIES WILL BE UNDERGROUND.
- DEVELOPMENT TO INCLUDE NEW DRIVEWAY APPROACH PER SPPWC STANDARD PLAN 110-2.
- DEVELOPMENT INCLUDES CLOSING EXISTING DRIVEWAY APRON ALONG PROJECT FRONTAGE THAT WILL NOT BE USED. IMPROVEMENTS TO MATCH REQUIRED ADJACENT SECTIONS.
- IMPROVEMENTS ALONG PROJECT FRONTAGE TO INCLUDE REMOVAL AND REPLACE BROKEN AND OFF GRADE SIDEWALK, CURB AND GUTTER IN ACCORDANCE WITH SPPWC STANDARD PLAN 113-2 AND 120-2 RESPECTIVELY.
- DEVELOPMENT TO REPLACE EXISTING CURB WORK AT THE CORNER OF WORKMAN AVE AND VINCENT AVENUE WITH NEW CURB RAMP PER SPPWC STANDARD PLAN 111-5.
- ACCESS RIGHTS TO INTERIOR LOTS AND PRIVATE STREETS FROM PUBLIC ROADWAYS SHALL BE DEDICATED TO THE CITY OF WEST COVINA.

**APPLICANT/DEVELOPER:**  
MLC HOLDINGS, INC.  
5 PETERS CANYON ROAD SUITE 310  
IRVINE, CA 92606  
ATN: MATT MACHARA  
949-372-3310

**ARCHITECT:**  
KEVIN L. CROOK ARCHITECTS, INC  
CONTACT JEFF ADDISON  
1360 REYNOLDS AVENUE SUITE 110  
IRVINE, CA 92614

**LANDSCAPE ARCHITECT:**  
STUDIO PAD, INC  
CONTACT: PETER DUARTE  
23276 S. POINTE DR., STE 103  
LAGUNA HILLS, CA 92653

**OWNER:**  
COVINA VALLEY UNIFIED SCHOOL DISTRICT  
1024 W. WORKMAN AVE,  
WEST COVINA, CA 91790

**MAJOR LAND DIVISION**

**TENTATIVE TRACT MAP NO. 83166**  
IN THE CITY OF WEST COVINA  
COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

PLAN NO.	SCALE: 1" = 40'
	DATE: July 28, 2020
SHEET: C1 OF	SCALE:

**TENTATIVE TRACT MAP**

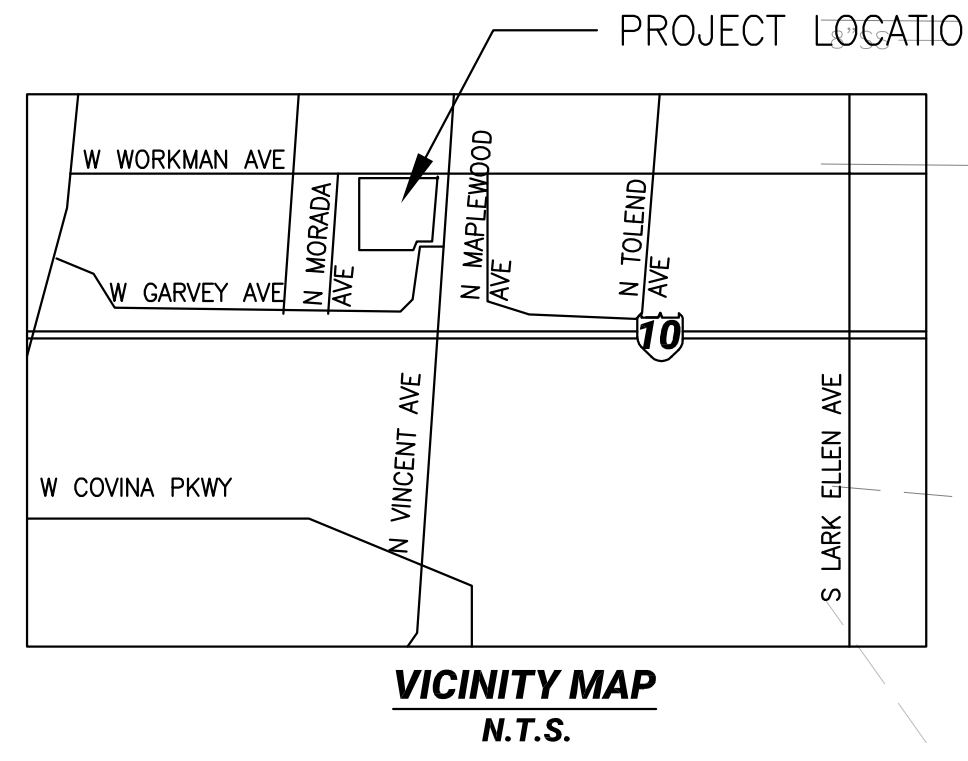
PREPARED BY:

**BLUE Engineering & Consulting, Inc**

12223 HIGHLAND AVE. #106-594  
RANCHO CUCAMONGA, CA 91739  
PHONE: 909-248-6557  
WWW.BLUEENGINEERING.COM

REGISTERED PROFESSIONAL ENGINEER  
ANGEL G. CESAR  
No. 87222  
CIVIL  
STATE OF CALIFORNIA

7-28-2020  
DATE



- EXISTING EASEMENTS**
- AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED OCTOBER 14, 1953 AS INSTRUMENT NO. 3599, IN BOOK 42917, PAGE 159 OF OFFICIAL RECORDS. IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION. AFFECTS A PORTION OF PARCEL 1
  - AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED OCTOBER 14, 1953 AS INSTRUMENT NO. 3600, IN BOOK 42917, PAGE 160 OF OFFICIAL RECORDS. IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION. AFFECTS A PORTION OF PARCEL 1.
  - AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED JANUARY 26, 1955 AS INSTRUMENT NO. 3190, IN BOOK 46742, PAGE 167 OF OFFICIAL RECORDS. IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION. AFFECTS A PORTION OF PARCEL 1.
  - AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED JANUARY 26, 1955 AS INSTRUMENT NO. 3191, IN BOOK 46742, PAGE 168 OF OFFICIAL RECORDS. IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION. AFFECTS A PORTION OF PARCEL 1.
  - AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED JANUARY 26, 1955 AS INSTRUMENT NO. 3192, IN BOOK 46742, PAGE 169 OF OFFICIAL RECORDS. IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION. AFFECTS A PORTION OF PARCEL 1.
  - AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED FEBRUARY 2, 1955 AS INSTRUMENT NO. 3192, IN BOOK 46806, PAGE 436 OF OFFICIAL RECORDS. IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION. AFFECTS A PORTION OF PARCEL 1.
  - AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED AUGUST 13, 1959 AS INSTRUMENT NO. 3379 OF OFFICIAL RECORDS. IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION. AFFECTS A PORTION OF PARCEL 6.

- PROPOSED EASEMENTS**
- RECIPROCAL INGRESS/EGRESS EASEMENT FOR PUBLIC AND EMERGENCY ACCESS TO CITY OF WEST COVINA
  - PUBLIC UTILITY EASEMENT DOMESTIC WATER ACCESS AND MAINTENANCE PURPOSES TO AZUSA LIGHT AND WATER.
  - PUBLIC UTILITY EASEMENT FOR SANITARY SEWER ACCESS AND MAINTENANCE PURPOSES TO CITY OF WEST COVINA.

**BENCHMARK**  
CITY OF WEST COVINA BR DISC IN WEST CATCH BASIN SUNSET AVE. 39 FT W/O C/L & 6.6 FT S/O C/L PROD WORKMAN AVE MKD (BM NO 18)  
LACO MB G4452  
EL=394.833 NAVD88

**BASIS OF BEARINGS**  
THE BEARING N4°48'00" E OF THE C/L MORADA AVE. AS SHOWN ON THE MAP OF TRACT 42861 RECORDED IN BOOK 1028 PAGES 98 AND 99 OF MAPS, RECORDS OF LOS ANGELES COUNTY WAS USED AS THE BASIS OF BEARING.

**PROJECT SUMMARY**  
MAIN ACCESS FROM WEST WORKMAN AVENUE  
EVA ACCESS FROM W. GARVEY AVENUE

APN 8457-029-906  
STREET ADDRESS: 1024 W. WORKMAN AVENUE  
WEST COVINA, CA 91790

TOTAL NET DEVELOPABLE AREA	7.67 AC.
NUMBER OF LOTS (RESIDENTIAL)	57
NUMBER OF LOTS (DETACHED)	47
NUMBER OF LOTS (ATTACHED)	10
NUMBER OF H.O.A. OPEN SPACE	1
NUMBER OF PRIVATE STREET LOTS	3
NUMBER OF PRIVATE ALLEY LOTS	9
NUMBER OF LANDSCAPE LOTS	2 ('L' & 'M')
TOTAL NUMBER OF MULTIFAMILY UNITS	72
TOTAL NUMBER OF UNITS	119
TOTAL GROSS AREA:	8.05 AC.
COMMON OPEN SPACE PROVIDED	0.38 AC. (15,580 SF)
NET DENSITY	14.8 DU/AC
BUILDING COVERAGE:	138,639 SF
GROSS BUILDING AREA:	201,192 SF
SPRINKLER SYSTEM:	NFPA 13D
NUMBER OF STORIES	2-3
AVERAGE LOT SIZE (SFD)	2,544
MINIMUM LOT SIZE (SFD)	2,000
AVERAGE LOT SIZE (MULTIFAMILY)	10,078
MINIMUM LOT SIZE (MULTIFAMILY)	6,552
EXISTING ZONING DESIGNATION:	(R-1), AREA DISTRICT 1
PROPOSED ZONING DESIGNATION:	SPECIFIC PLAN
EXISTING LAND USE	EDUCATION/DAYCARE
PROPOSED LAND USE	RESIDENTIAL
EXISTING GENERAL PLAN	CIVIC: SCHOOL (S)
PROPOSED GENERAL PLAN	NEIGHBORHOOD MEDIUM (9-20 DU/AC)

TOTAL REQUIRED PARKING:	268
TOTAL PROVIDED NUMBER OF PARKING STALL:	294
GARAGE/DRIVEWAY PARKING:	242
GUEST PARKING:	31
PARALLEL PARKING ON WORKMAN:	21

**COMMON OPEN SPACE**

TOTAL REQUIRED:	17,850 SF
TOTAL PROVIDED:	25,540 SF

**LEGEND**

---	RIGHT OF WAY LINE/ PROPERTY LINE
---	CENTERLINE
---	EXISTING CONTOUR
(101)	PROPOSED CONTOUR
---	EXISTING STORMDRAIN LINE
---	EXISTING SEWER LINE
---	EXISTING WATER LINE
---	PROPOSED STORMDRAIN LINE
---	PROPOSED SEWER LINE
---	PROPOSED WATER LINE
---	PROPOSED WATER METER
---	PROPOSED HYDRANT ASSEMBLY
---	SIGN
---	POWER POLE
---	A/C UNIT
---	CATCH BASIN
(XX)	LOT NUMBER

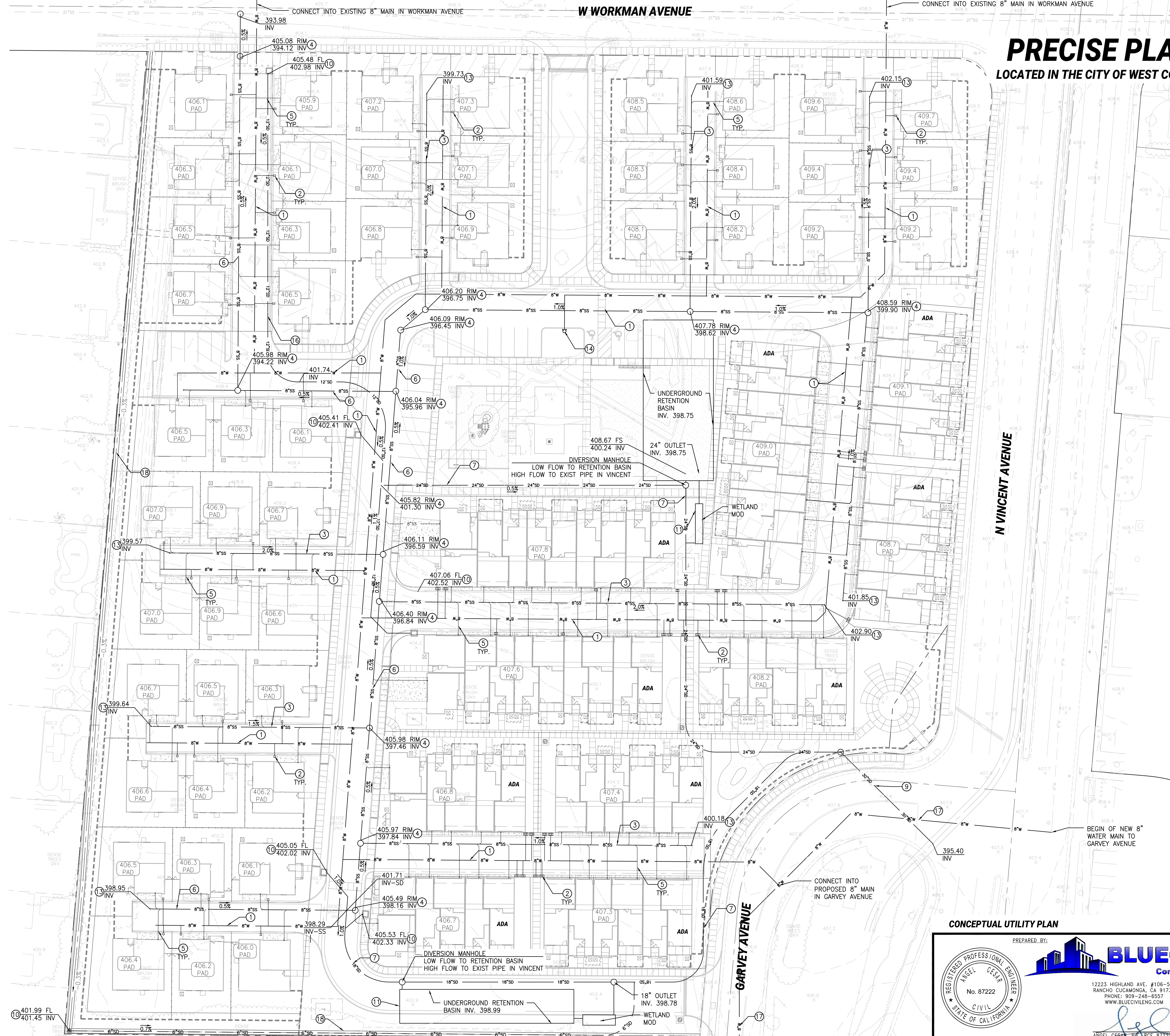
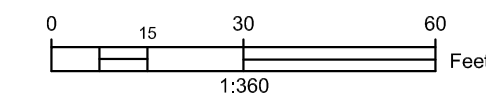
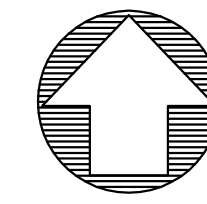
**ABBREVIATIONS**

AC	ASPHALT CONCRETE	HZ	HORIZONTAL CONTROL
ADA	AMERICAN DISABILITY ACT	INV	INVERT
BW	BACK OF WALK	LP	LOW POINT
BCR	BEGIN CURB RETURN	PA	PLANTER AREA
CL	CENTER LINE	PVMT	PAVEMENT
ECR	END CURB RETURN	PCC	PORTLAND CEMENT CONCRETE
EG	EXISTING GROUND	P/L	PROPERTY LINE
ELEV	ELEVATION	R/W	RIGHT OF WAY
EP	EDGE OF PAVEMENT	SD	STORM DRAIN
FF	FINISH FLOOR	SERV	SERVICE
FG	FINISH GROUND	SF	SQUARE FEET
FL	FLOWLINE	SS	SANITARY SEWER
FS	FINISH SURFACE	STA	STATION
GB	GRADE BREAK	STD	STANDARD
HOPE	HIGH-DENSITY POLYETHYLENE	TC	TOP OF CURB
HP	HIGH POINT		

PARCEL AREA TABLE		
PARCEL #	AREA	LOT COVERAGE
1	2,946	58.0%
2	2,182	61.2%
3	2,602	58.1%
4	2,767	48.2%
5	2,754	54.9%
6	2,250	67.3%
7	2,000	66.8%
8	2,803	61.0%
9	2,900	59.0%
10	2,000	66.8%
11	3,364	45.0%
12	3,059	49.5%
13	2,228	59.9%
14	2,912	58.7%
15	3,232	52.9%
16	2,228	59.9%
17	2,734	55.3%
18	2,745	55.3%
19	2,000	66.8%
20	2,617	65.3%
PARCEL AREA TABLE		
PARCEL #	AREA	LOT COVERAGE
21	2,900	59.0%
22	2,000	66.8%
23	2,454	61.7%
24	3,480	43.5%
25	2,506	53.3%
26	3,082	55.5%
27	2,631	57.5%
28	2,003	66.7%
29	2,443	61.9%
30	2,625	57.6%
31	2,000	66.8%
32	2,698	63.4%
33	2,898	52.2%
34	2,003	66.7%
35	2,449	61.8%
36	2,670	56.7%
37	2,002	66.7%
38	2,701	63.3%
39	2,945	51.4%
40	2,000	66.8%
PARCEL AREA TABLE		
PARCEL #	AREA	LOT COVERAGE
41	2,450	61.8%
42	2,713	55.8%
43	2,003	66.7%
44	2,697	63.4%
45	3,261	46.4%
46	2,195	60.8%
47	2,676	56.5%
48	6,552	N/A
49	7,325	N/A
50	7,158	N/A
51	7,856	N/A
52	12,844	N/A
53	7,753	N/A
54	7,070	N/A
55	6,998	N/A
56	10,886	N/A
57	12,924	N/A

# PRECISE PLAN FOR TRACT NO. 83166

LOCATED IN THE CITY OF WEST COVINA OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA



**NOTES**

NOTES	QUANTITIES
① 8" C-900 CL 305 (DR-14) PIPE	2,904 L.F.
② 1" SERVICE WITH 3/4" METER	119 EA
③ 8" SDR-35 PVC SEWER PIPE	1,813 LF
④ 48" DIAMETER MANHOLE	17 EA
⑤ 4" HOUSE CONNECTION	119 EA
⑥ 8" SDR-35 PVC SEWER PIPE	850 LF
⑦ 18" HDPE PIPE	529 L.F.
⑧ 24" HDPE PIPE	475 L.F.
⑨ 30" HDPE PIPE	110 L.F.
⑩ CATCH BASIN	9 EA.
⑪ WETLANDMOD	2 EA.
⑫ RETENTION BASIN	2 EA.
⑬ 8" SEWER TERMINAL CLEANOUT STRUCTURE	10 EA.
⑭ FIRE HYDRANT	1 EA.
⑮ 6" HDPE PIPE	566 LF.
⑯ 12" HDPE PIPE	428 L.F.
⑰ 8" C-900 CL 305 (DR-14) PIPE OFF SITE MAIN	1,232 L.F.
⑱ 3' WIDE VALLEY GUTTER	1,088 L.F.

**NOTES:**  
 PROPOSED DOMESTIC WATER FOR SAID PROJECT WILL BE PUBLIC AND WILL BE MAINTAINED BY AZUSA LIGHT & WATER.  
 PROPOSED SEWER SYSTEM FOR SAID PROJECT WILL BE PUBLIC AND WILL BE MAINTAINED BY THE CITY OF WEST COVINA.  
 ACCESS AND UTILITY EASEMENT WILL BE PROVIDED ON THE FINAL MAP OVER ALL PRIVATE ROADS AND PRIVATE ALLEYS.  
 EXISTING WATER MAIN ON GARVEY AVENUE FROM VINCENT AVENUE TO MORADA AVENUE TO BE REPLACED WITH AN 8 INCH DUCTILE IRON CLASS 350 PUBLIC WATER MAIN. RE-CONNECT ALL EXISTING SERVICES AND LATERALS TO THE NEW PUBLIC WATER MAIN. ALL NEW SERVICES SHALL BE CONNECTED TO THE NEW PUBLIC WATER MAIN.

**CONCEPTUAL UTILITY PLAN**

PREPARED BY:

**BLUE Engineering & Consulting, Inc**  
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 RANCHO CUCAMONGA, CA 91739  
 PHONE: 909-248-6557  
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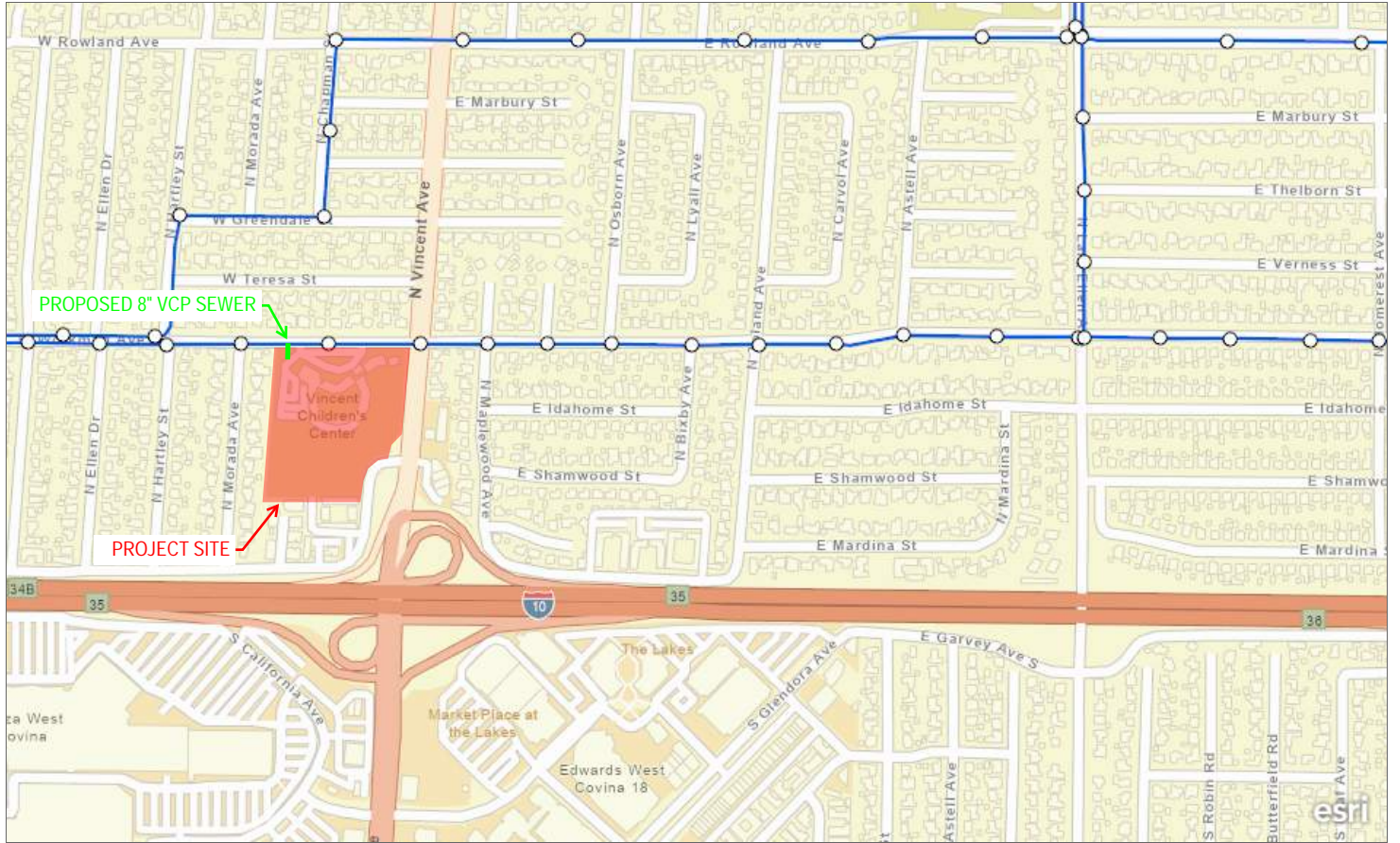
ANGEL CESAR, P.E., RCE 87222

7-28-2020 DATE

MAJOR LAND DIVISION	
<b>TENTATIVE TRACT MAP NO. 83166</b>	
IN THE CITY OF WEST COVINA COUNTY OF LOS ANGELES, STATE OF CALIFORNIA	
PLAN NO.	SCALE: SEE SHEET
	DATE: <b>June 22, 2020</b>
SHEET: <b>C7</b> OF	SCALE: SEE SHEET



# LACSD Sewer System for Open Data



LACSD Sewer System for Open Data

600ft

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