Appendix G:
Sewer Area Study

SEWER AREA STUDY

for Tract No. 82315 – Covina

<u>LOCATION:</u> 1000 N. Azusa Avenue

May 2019

<u>PREPARED FOR:</u>

PKL Investments, LLC

2863 Maricopa Street
Torrance, CA 90503
(714) 738-0828

<u>PREPARED BY:</u>

LAND DEVELOPMENT CONSULTANTS

1520 Brookhollow Drive, Suite 33
Santa Ana, CA 92705
(714) 557-7700

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SEWER CAPACITY STUDY

for Tract No. 82315 – Covina

1.0 Executive Summary

At the request of PKL Investments, LLC and the City of Covina, Land Development Consultants (LDC) has prepared a Sewer Capacity Study comparing the existing and proposed sewage generation for APNs 8421-001-016 and 8421-001-061, 1000 N. Azusa Avenue, in the City of Covina (hereinafter referred to as "Property"). The Property is located towards the northeast corner of Cypress Avenue and Azusa Avenue intersection, and is approximately 7.9 acres. See *Appendix A* for an existing aerial of the Property. *Appendix B* shows the proposed Site Plan for the Property, consisting of condominium units and fast-food/retail fronting Azusa Avenue. The fast-food/retail component consists of approximately 2.9 acres, while the residential component is approximately 4.9 acres.

The Property is presently designated General Commercial (GC) by the City's General Plan and zoned C-4 by the City's Zoning Code. By way of Tract Map No. 82315 (*Appendix C*), Parcels 2-4 will remain the same land use and zoning. Only Parcel 1 will change designation to residential through the Cypress Villas Specific Plan.

The Property is currently improved with one (1) building, which served as a grocery store. The site is now vacant with the building now abandoned. The Property currently connects to sewer towards the north of the Property, along Azusa Avenue. The existing line is an 8" V.C.P., and runs westerly through Azusa Avenue to a service road and easement, then southerly down Homerest Avenue, eventually connecting to Sanitation District lines. Please see *Appendix D*, As-Built Plan and Profile of Sanitary Sewer in Azusa Avenue Service Road, Sheets 1 and 2, and *Appendix E*, Sewer Index Sheet E-2257.

2.0 Introduction

The purpose of this Sewer Capacity Study is to calculate the existing and proposed sewage generated from the Property. Calculations will show that the proposed development will not exceed the allowable capacity of the existing sewer main. This study will also demonstrate that the proposed development will not exceed the existing capacity, based on zoning coefficients and calculations. The wastewater flow from the proposed site is calculated per County of Los Angeles Department of Public Works' Estimated Average Daily Sewage Flows for Various Occupancies as found in *Appendix F*.

2.1 Project Description

The proposed development per Tract Map No. 82315 is located on the northeast corner of Cypress Avenue and Azusa Avenue, in the City of Covina, County of Los Angeles, State of California. Development of the proposed project site will consist of a residential and commercial component. Parcel 1 will consist of a stand-alone residential community, with gated access, entry from Cypress Avenue, and includes 61 condominium units, open space, amenities, garage and visitor parking, private yards, and two- and three-story elevation options. Parcels 2, 3, and 4 of Tract No. 82315 will front along Azusa Avenue, and will be the retail/fast-food component of this project. Currently proposed are three small retail/fast-food buildings with potential drive-thrus.

3.0 Sewage Generation

The equation for the tributary sewer discharge is as follows:

$$Q = ZA$$

Where Q = Sewer discharge (cfs)

Z = Zoning coefficient (cfs/acre)

A = Area (acres)

The corresponding zoning coefficients were obtained from the County of Los Angeles Department of Public Works. This equation is common-practice in sewage generation, and utilizes zoning and acreage information to determine generation factors. The wastewater flow from the proposed site is calculated per County of Los Angeles Department of Public Works' Estimated Average Daily Sewage Flows for Various Occupancies as found in *Appendix F*.

3.1 Sewage Generation Factors for Existing Land Use

The generation factor for commercial (C-1 through C-4) is 0.015 cfs per acre based on the LADPW Sanitary Sewer Procedural Manual, Estimated Average Daily Sewage Flows for Various Occupancies (*Appendix G*). The Property is 7.99 acres.

Calculation for sewage flow for existing Property:

0.015 cfs/acre * 7.99 acres = 0.1198 cfs

Peak factor = 2.5 (based on LADPW)

0.1198 cfs x 2.5 = 0.299 cfs

1 cfs = 448.83 GPM

0.299 cfs * 448.83 = 134.48 GPM

The existing sewage generation including peak factor is:

0.299 cfs and 134.48 GPM.

3.2 Sewage Generation Factors for Proposed Development

The Property will be subdivided into the following: 4.99 acres residential and 2.93 acres commercial. (0.078 acres will be street dedication)

Residential Component Calculation

The generation factor for residential (R-1) is 0.004 cfs per acre based on the LADPW Sanitary Sewer Procedural Manual, Estimated Average Daily Sewage Flows for Various Occupancies (*Appendix G*). The residential component is 4.99 acres.

Calculation for sewage flow for proposed residential component:

0.004 cfs/acre * 4.99 acres = 0.0199 cfs

Peak factor = 2.5 (based on LADPW)

0.0199 cfs x 2.5 = 0.0499 cfs

1 cfs = 448.83 GPM

0.0499 cfs * 448.83 = 22.39 GPM

The proposed sewage generation for the residential component, including peak factor, is:

0.049 cfs and 22.39 GPM

Commercial Component Calculation

The generation factor for commercial (C-1 through C-4) is 0.015 cfs per acre based on the LADPW Sanitary Sewer Procedural Manual, Estimated Average Daily Sewage Flows for Various Occupancies (*Appendix G*). The commercial component is 2.93 acres.

Calculation for sewage flow for proposed commercial component:

0.015 cfs/acre * 2.93 acres = 0.04395 cfs

Peak factor = 2.5 (based on LADPW)

0.04395 cfs x 2.5 = 0.109 cfs

1 cfs = 448.83 GPM

0.109 cfs * 448.83 = 49.32 GPM

The proposed sewage generation for the commercial component, including peak factor, is:

0.109 cfs and 49.32 GPM

3.3 Existing and Proposed Sewage Generation Comparison

Based on the above calculations, the existing Property generates 0.299 cfs and 134.48 at its current zoning and land use. The proposed development will generate a total of 0.158 cfs (0.049 [residential] + 0.109 [commercial]) and 71.71 GPM (22.39 GPM [residential] + 49.32 GPM [commercial]).

SEWAGE GENERATION SUMMARY		
	TOTAL CFS (includes Peak Factor)	**TOTAL GPM** (includes Peak Factor)
EXISTING PROPERTY (COMMERCIAL)	0.299 CFS	134.48 GPM
PROPOSED DEVELOPMENT (RESIDENTIAL + COMMERCIAL)	0.158 CFS	71.71 GPM
DIFFERENCE/DEFICIT	**0.141 CFS**	**62.77 GPM**

4.0 Conclusion

Based on the findings of this report, the proposed development will discharge a peak flow of 0.158 cfs and 71.71 GPM. There will be a **reduction** of sewage generation of 0.141 cfs and 62.77 GPM from the existing allowable land use.

DUE TO THE <u>REDUCTION</u> IN SEWAGE GENERATION FOR THE PROPOSED DEVELOPMENT, MITIGATION IS NOT WARRANTED. CALCULATED RESULTS SHOW THE PROPOSED DEVELOPMENT WILL HAVE LESS IMPACT ON THE EXISTING SEWER SYSTEM THAN EXISTING ZONED CONDITIONS. THE PROPOSED DEVELOPMENT WILL GENERATE SIGNIFICANTLY LESS CFS AND GPM THAN THE EXISTING ALLOWABLE LAND USE.

5.0 Appendices

Please see attached for the following supplemental information related to this Sewer Area Study.

- **Appendix A** – Existing Aerial of the Property
- **Appendix B** – Site Plan for Tract No. 82315
- **Appendix C** – Tentative Tract No. 82315
- **Appendix D** – As-Built Plan and Profile in Azusa Avenue Service Road, Sheets 1 and 2
- **Appendix E** – Sewer Index Sheet E-2257
- **Appendix F** – Estimated Average Daily Sewage Flows for Various Occupancies
- **Appendix G** – Flow Diagram for the Design of Circular Sanitary Sewer, Standard S-C4

APPENDIX A

Existing Aerial

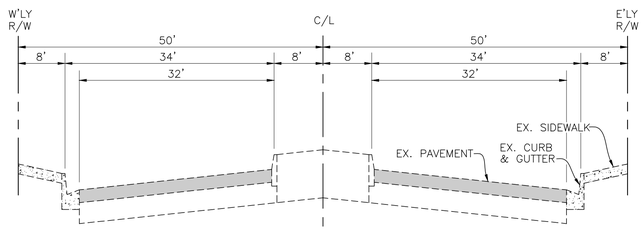
EXISTING AERIAL AND SITE CONDITIONS
1000 N. AZUSA AVENUE, COVINA, CA

APPENDIX B

Site Plan

SITE PLAN

TENTATIVE TRACT MAP NO. 82315
A MIXED USE DEVELOPMENT
RESIDENTIAL PLANNED DEVELOPMENT & COMMERCIAL
1000 N. AZUSA AVENUE & 845 W. CYPRESS STREET
IN THE CITY OF COVINA COUNTY OF LOS ANGELES, STATE OF CALIFORNIA



AZUSA AVENUE TYPICAL SECTION
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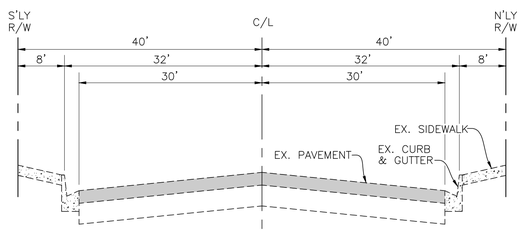

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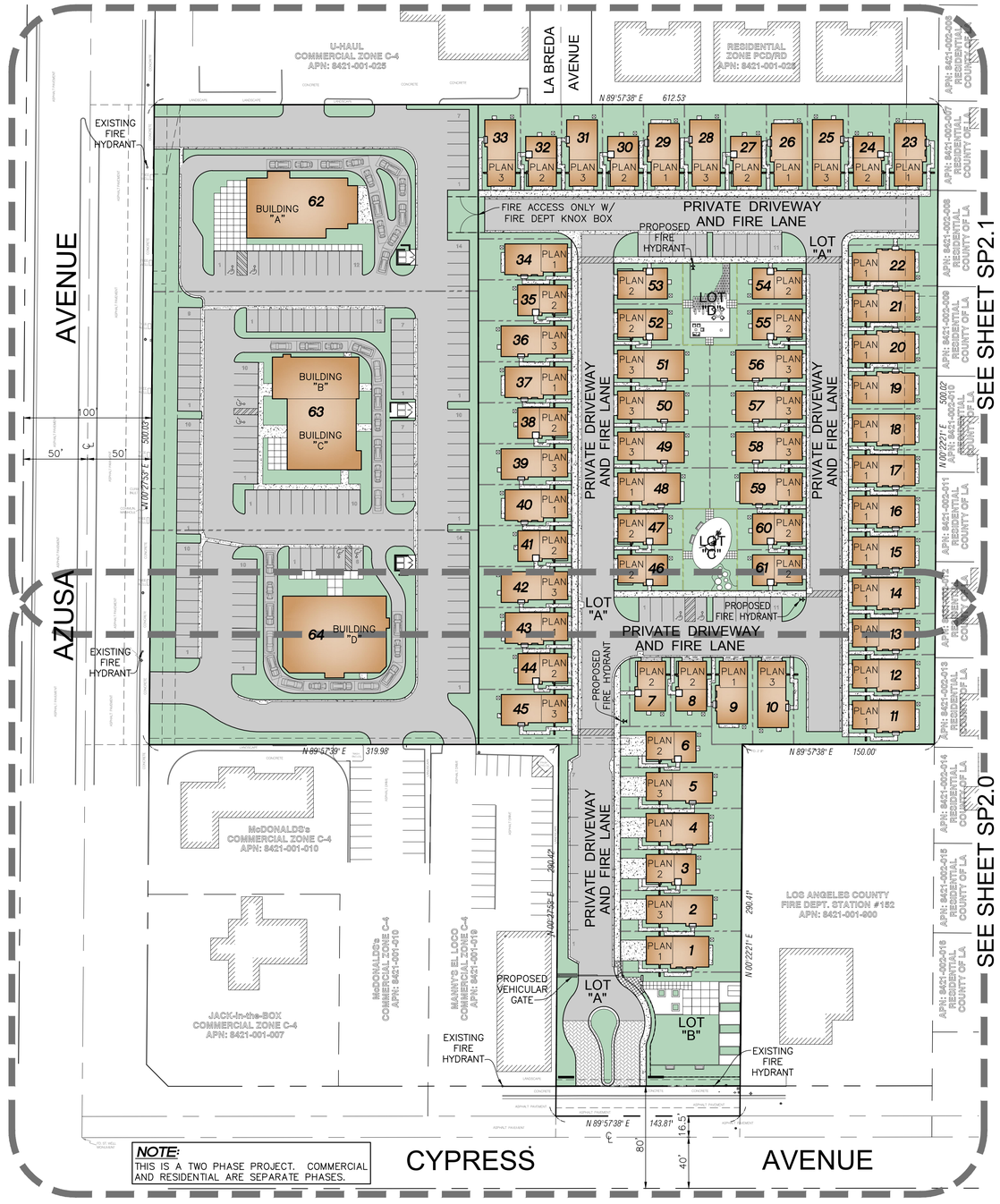
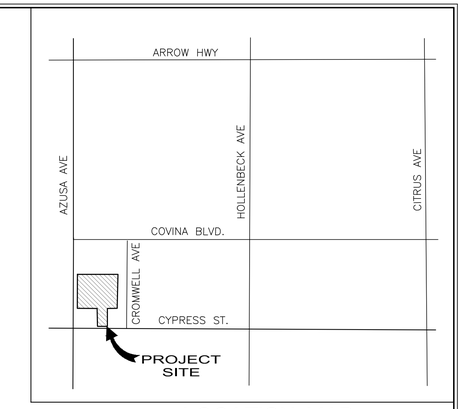


NOTE:
THIS IS A TWO PHASE PROJECT. COMMERCIAL AND RESIDENTIAL ARE SEPARATE PHASES.



LOCATION MAP
(NO SCALE)

PROJECT SUMMARY:

APPLICANT/OWNER:	PKL INVESTMENTS, LLC 2863 MARICOPA STREET TORRANCE, CA 90503 (714) 738-0828
ENGINEER:	LAND DEVELOPMENT CONSULTANTS 1520 BROOKHOLLOW DRIVE, SUITE 33 SANTA ANA, CA 92705 (714) 557-7700
ARCHITECT:	WILLIAM HEZMALHALCH ARCHITECTS 2850 RED HILL AVENUE, SUITE 200 SANTA ANA, CA 92705 (949) 250-0607
SOILS ENGINEER:	GEOCONCEPTS 14428 HAMLIN STREET, #200 VAN NUYS, CA 91401 (818) 994-8895
PROJECT LOCATION:	1000 NORTH AZUSA AVENUE 845 WEST CYPRESS STREET COVINA, CA 91722
APNs:	8421-001-016 & 8421-001-061
FLOOD ZONE:	ZONE "X" (FLOOD INSURANCE RATE MAP) COMMUNITY PANEL No. 06037C1700F
PROJECT SITE AREA:	348,165 SF = 7.993 ACRES
STREET DEDICATION:	3,379 SF = 0.078 ACRES
NET SITE AREA:	344,786 SF = 7.915 ACRES
RESIDENTIAL SITE AREA:	217,218 SF = 4.986 ACRES
LOTS 1-61 AREA:	138,177 SF = 3.172 ACRES
LOTS A-D AREA:	79,041 SF = 1.814 ACRES
TOTAL UNITS:	61 HOMES * (24) PLAN 1: ±1,761 SF * (20) PLAN 2: ±2,028 SF * (17) PLAN 3: ±2,593 SF
DENSITY:	12.05 HOMES PER ACRE
PARKING:	164 SPACES (2.69 SPACES PER HOME) * GARAGE: 122 SPACES * DRIVEWAY: 12 SPACES (LOTS 1-6) * HEAD IN: 23 SPACES (9'x19') * PARALLEL: 7 SPACES (8'x22')
OPEN SPACE:	48,515 SF TOTAL (±795 SF PER HOME) * COMMON: 10,920 SF (5' MIN. DIMENSION) * PRIVATE: 37,595 SF (12' MIN. DIMENSION)
BUILDING COVERAGE:	± 65,824 SF (30.3% OF SITE)
RETAIL SITE AREA:	127,568 SF = 2.929 ACRES (LOTS 62-64)
TOTAL SF:	14,000 SF * BUILDING A: 4,000 SF * BUILDING B: 2,200 SF * BUILDING C: 3,000 SF * BUILDING D: 4,800 SF
PARKING:	103 SPACES (9'x19') 45 SPACES (9'x17')

UTILITY:

ELECTRIC:	SO. CALIFORNIA EDISON (800) 655-4555
WATER:	AZUSA LIGHT & WATER (626) 812-5063
GAS:	THE GAS COMPANY (800) 427-2200
CABLE:	TIME WARNER (626) 384-5400
TELEPHONE:	VERIZON (800) 483-4000

SHEET INDEX:

SP1.0 TITLE SHEET
SP2.0 SITE PLAN
SP2.1 SITE PLAN

DATE PREPARED: JAN. 22, 2019

N

GRAPHIC SCALE
50 25 0 50 100
SCALE IN FEET
1 inch = 50 ft.

BENCHMARK:
LOS ANGELES COUNTY BENCHMARK G 4444 -RDBM TAG IN WEST CATCH BASIN 1 FT N. OF BCR AT THE N-W CORNER OF ARROW HWY AND AZUSA AVE.

ELEVATION = 519.766 FEET

BASIS OF BEARINGS:
BASIS OF BEARINGS FOR THIS MAP IS THE CENTERLINE OF AZUSA AVE AS SHOWN ON TRACT NO. 34224 M.B. 895/56-59 RECORDS OF LOS ANGELES COUNTY SAID BEARING BEING N 0°27'53" E.

REVISIONS

NO.	DESCRIPTION	BY	DATE	APPROVED

PREPARED FOR:
PKL Investments, LLC
2863 MARICOPA STREET
TORRANCE, CA 90503
(714) 738-0828

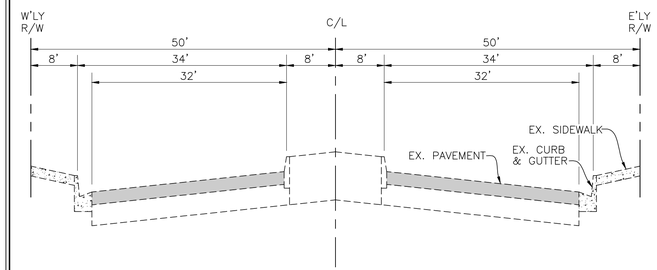
REGISTERED PROFESSIONAL ENGINEER HERSEL MOUSSAK LAND No. 44560 Exp. 3-31-2020 CIVIL STATE OF CALIFORNIA

LDC LAND DEVELOPMENT CONSULTANTS
LAND PLANNERS
SURVEYORS
CIVIL ENGINEERS
1520 BROOKHOLLOW DRIVE, SUITE 33
SANTA ANA, CALIFORNIA, 92705
(714) 557-7700 (714) 557-7707 FAX

DATE: 01-22-19
DESIGNED:
DRAFTED:
CHECKED:

SITE PLAN
TTM NO. 82315
1000 N. AZUSA AVENUE &
845 W. CYPRESS STREET
CITY OF COVINA

SP1.0
SHEET 1 OF 3
JOB NO. 503



AZUSA AVENUE TYPICAL SECTION
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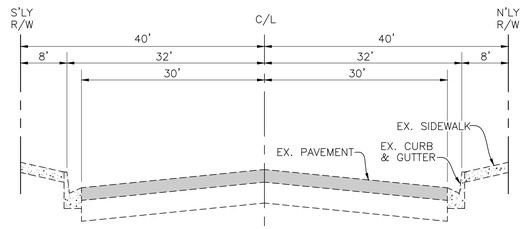

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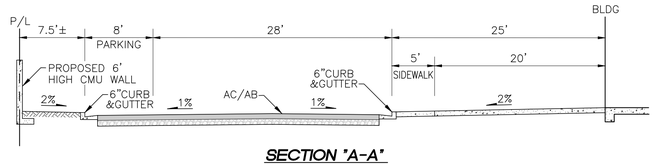

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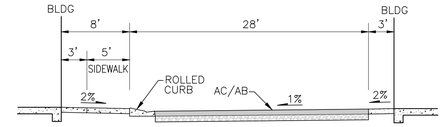

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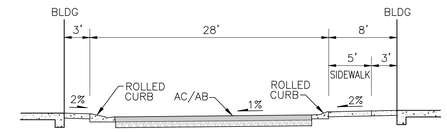

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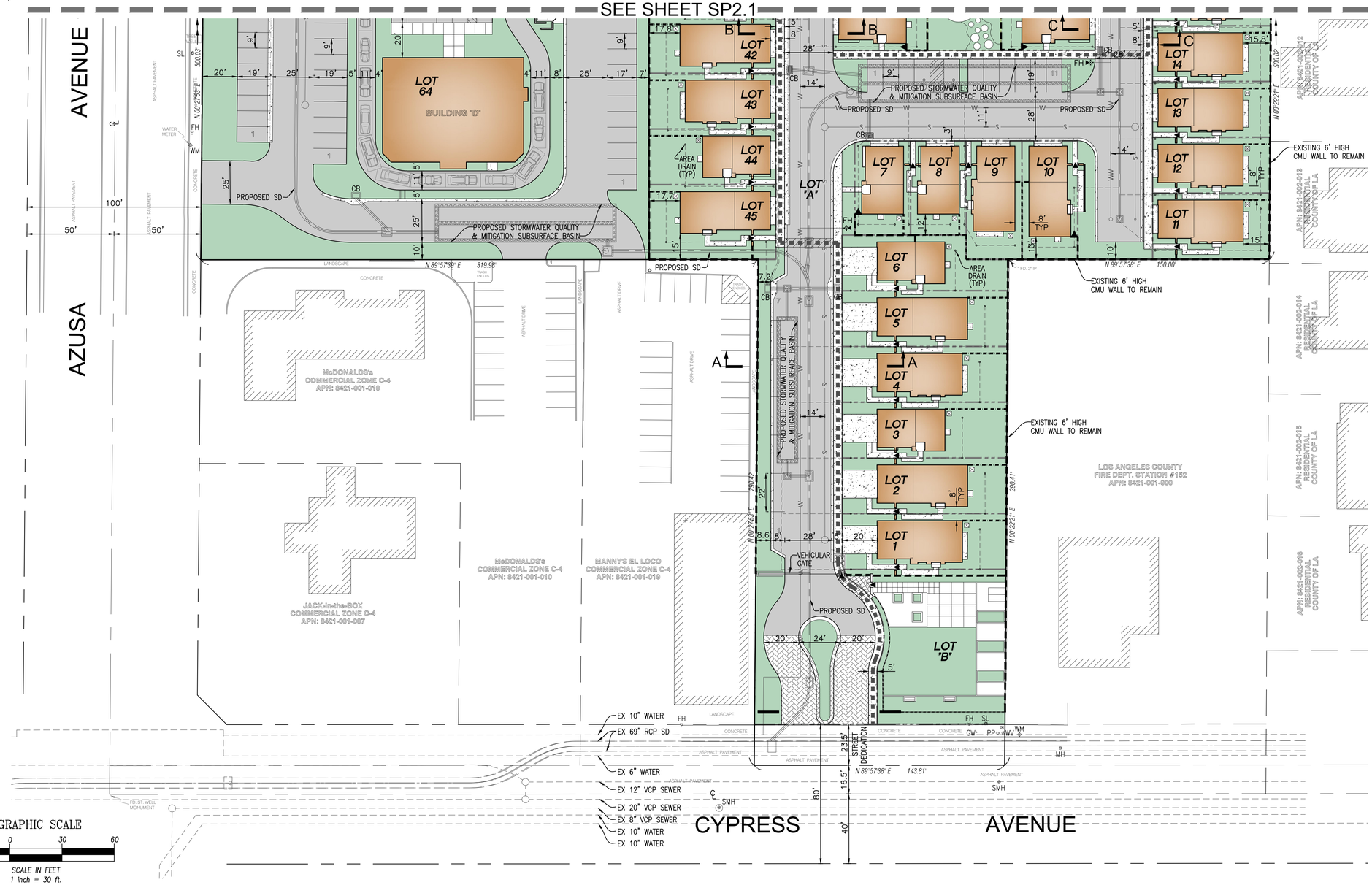

LEGEND:

CB	– CATCH BASIN
EPB	– ELECTRICAL PULLBOX
EX	– EXISTING
FH	– FIRE HYDRANT
GW	– GUY WIRE
MH	– MANHOLE
PP	– POWERPOLE
S	– SIGN
SD	– STORM DRAIN
SL	– STREET LIGHT
SMH	– SEWER MANHOLE
T/A	– TRASH AREA
WM	– WATER METER
WV	– WATER VALVE
—S—	– PROPOSED SEWER
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▶	– GATE
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	– ADA PATH OF TRAVEL
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	– POROUS PAVERS
	– ASPHALT PAVING

RESIDENTIAL COMPONENT			
LOT	ACREAGE	LOT	ACREAGE
1	3,009 SF	32	2,144 SF
2	3,018 SF	32	2,219 SF
3	3,025 SF	33	2,329 SF
4	3,032 SF	34	2,329 SF
5	3,040 SF	35	2,329 SF
6	2,711 SF	36	2,329 SF
7	1,725 SF	37	2,329 SF
8	1,728 SF	38	2,329 SF
9	2,176 SF	39	2,329 SF
10	2,176 SF	40	2,329 SF
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21	2,220 SF	51	2,400 SF
22	2,228 SF	52	1,728 SF
23	2,562 SF	53	1,728 SF
24	2,144 SF	54	1,728 SF
25	2,144 SF	55	1,728 SF
26	2,144 SF	56	2,409 SF
27	2,144 SF	57	2,409 SF
28	2,144 SF	58	2,409 SF
29	2,144 SF	59	2,409 SF
30	2,144 SF	60	1,728 SF
31	2,144 SF	61	1,728 SF
OPEN SPACE LOTS			
A	66,960 SF	C	2,707 SF
B	6,667 SF	D	2,707 SF

COMMERCIAL COMPONENT	
LOT	ACREAGE
62	36,996 SF
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* AVERAGE LOT AREA: 2,265 SF
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1000 N. AZUSA AVENUE &
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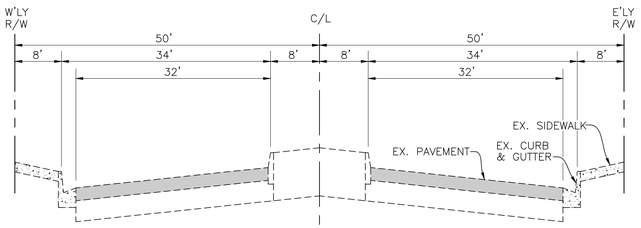
CITY OF COVINA

SP2.0

SHEET 2 OF 3

JOB NO. 503



AZUSA AVENUE TYPICAL SECTION
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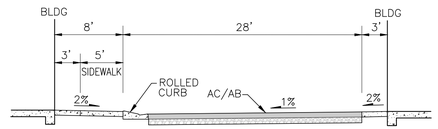

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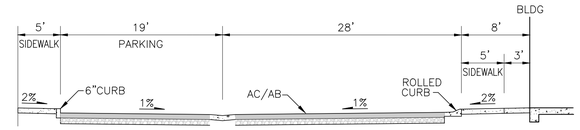

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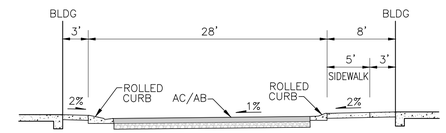

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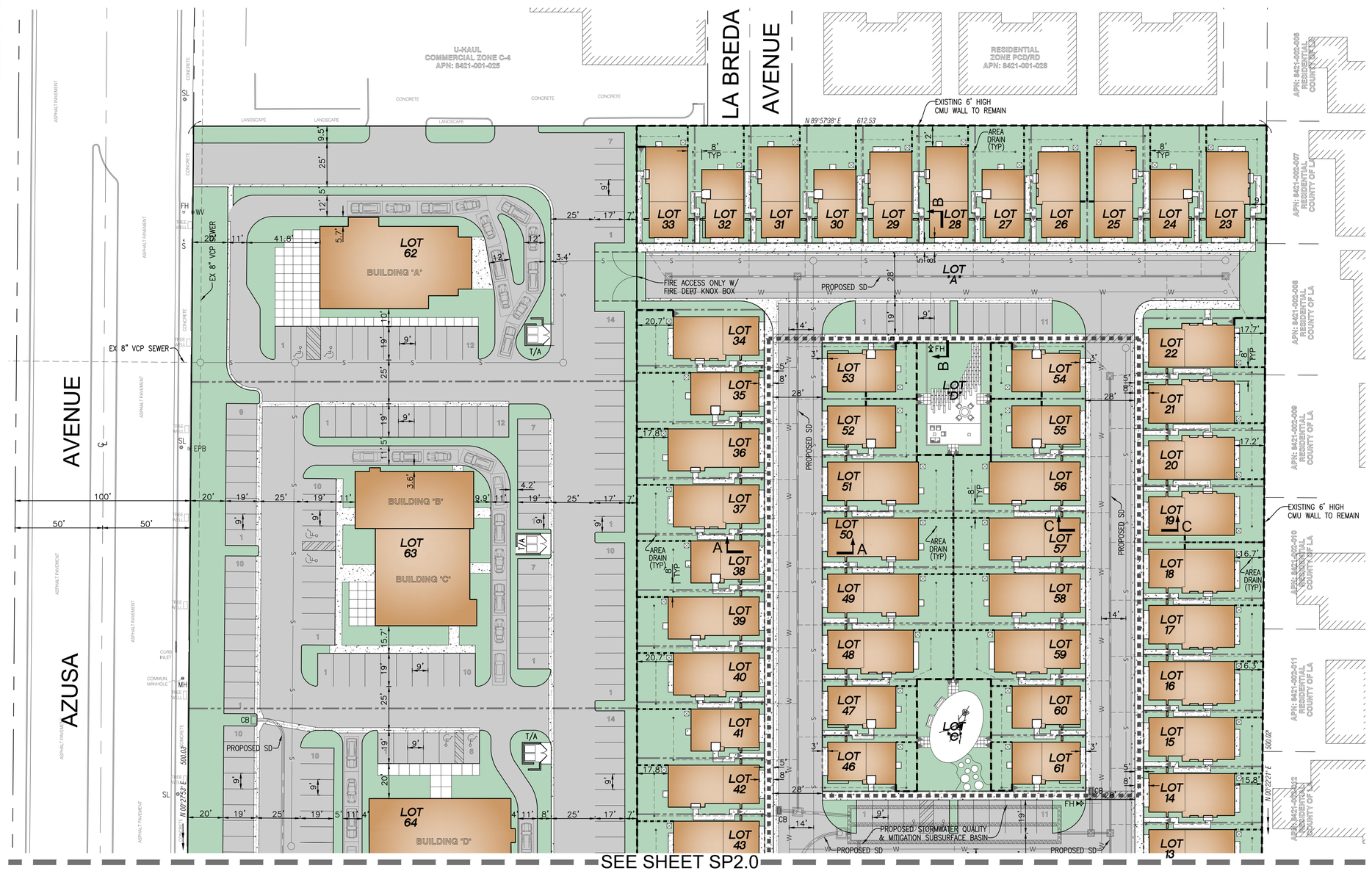

SEE SHEET SP2.0

N

GRAPHIC SCALE
30 15 0 30 60
SCALE IN FEET
1 inch = 30 ft.

LEGEND:

CB	– CATCH BASIN
EPB	– ELECTRICAL PULLBOX
EX	– EXISTING
FH	– FIRE HYDRANT
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* AVERAGE LOT AREA: 2,265 SF
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* MINIMUM LOT DEPTH: 54 FEET

BENCHMARK:
LOS ANGELES COUNTY BENCHMARK G 4444 –RDBM TAG IN WEST CATCH BASIN 1 FT N. OF BCR AT THE N–W CORNER OF ARROW HWY AND AZUSA AVE.
ELEVATION = 519.766 FEET

BASIS OF BEARINGS:
BASIS OF BEARINGS FOR THIS MAP IS THE CENTERLINE OF AZUSA AVE AS SHOWN ON TRACT NO. 34224 M.B. 895/56–59 RECORDS OF LOS ANGELES COUNTY SAID BEARING BEING N 0°27'53" E.

REVISIONS

NO.	DESCRIPTION	BY	DATE	APPROVED

PREPARED FOR:
PKL Investments, LLC
2863 MARICOPA STREET
TORRANCE, CA 90503
(714) 738-0828

REGISTERED PROFESSIONAL ENGINEER JEFFREY MOUSSY ZANE No. 44560 Exp. 3-31-2020 CIVIL STATE OF CALIFORNIA

LAND DEVELOPMENT CONSULTANTS
LAND PLANNERS
SURVEYORS
CIVIL ENGINEERS
1520 BROOKHOLLOW DRIVE, SUITE 33
SANTA ANA, CALIFORNIA, 92705
(714) 557-7700 (714) 557-7707 FAX

DATE: 01–22–19
DESIGNED:
DRAFTED:
CHECKED:

TENTATIVE TRACT MAP NO. 82315

1000 N. AZUSA AVENUE &
845 W. CYPRESS STREET
CITY OF COVINA

SP2.1
SHEET 3 OF 3
JOB NO. 503

APPENDIX C

Tentative Tract No. 82315

TENTATIVE TRACT MAP NO. 82315

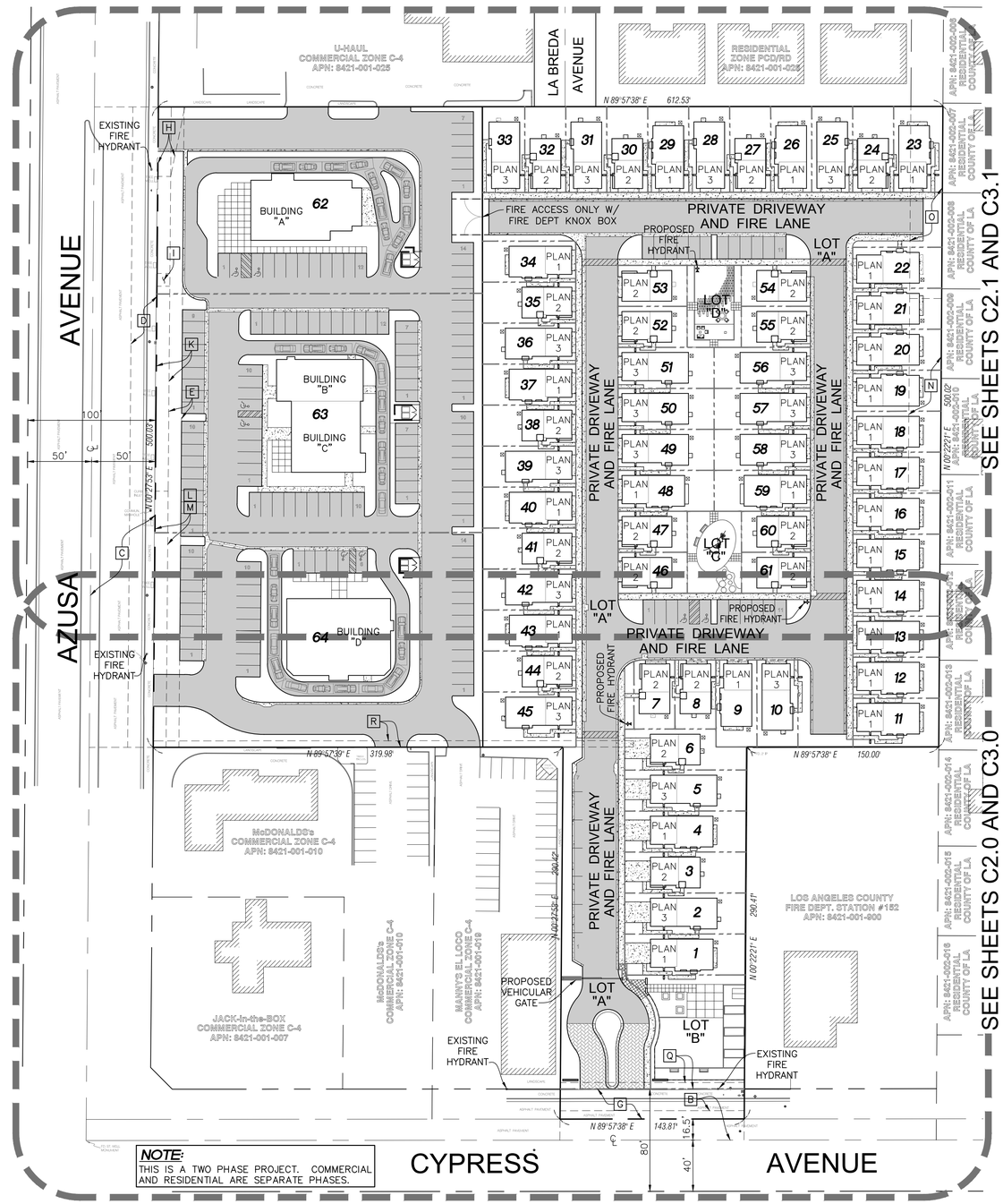
A MIXED USE DEVELOPMENT
RESIDENTIAL PLANNED DEVELOPMENT & COMMERCIAL
1000 N. AZUSA AVENUE & 845 W. CYPRESS STREET
IN THE CITY OF COVINA COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

N

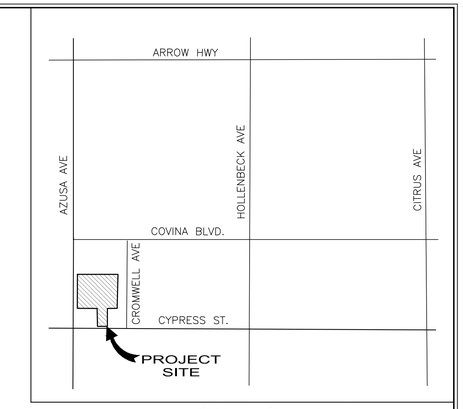
GRAPHIC SCALE

50 25 0 50 100

SCALE IN FEET
1 inch = 50 ft.



NOTE:
THIS IS A TWO PHASE PROJECT. COMMERCIAL AND RESIDENTIAL ARE SEPARATE PHASES.



LOCATION MAP
(NO SCALE)

LEGAL DESCRIPTION:

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF COVINA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL 1: (PORTION OF APN: 8421–001–061)

THE SOUTHERLY 150 FEET OF THAT PORTION OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 1 SOUTH, RANGE 10 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF COVINA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND FILED IN THE DISTRICT LAND OFFICE ON APRIL 21, 1877, LYING NORTHERLY OF THE NORTHERLY LINE OF THE SOUTHERLY 506.90 FEET OF SAID LAND.

PARCEL 1A:

A NON–EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS, AND FOR PUBLIC UTILITY PURPOSES, OVER THE EASTERLY 25 FEET OF THAT PORTION OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 1 SOUTH, RANGE 10 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF COVINA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND FILED IN THE DISTRICT LAND OFFICE ON APRIL 21, 1877, LYING NORTHERLY OF THE NORTHERLY LINE OF THE SOUTHERLY 506.90 FEET OF SAID LAND.

EXCEPT THAT PORTION OF SAID LAND DESCRIBED IN THE DEED RECORDED JANUARY 13, 1964 IN BOOK D2320, PAGE 558, OFFICIAL RECORDS.

ALSO EXCEPT THE SOUTHERLY 150 FEET.

PARCEL 2: (PORTION OF APN: 8421–001–061)

THAT PORTION OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 1 SOUTH, RANGE 10 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF COVINA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND, FILED IN THE DISTRICT LAND OFFICE, APRIL 21, 1877, DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE NORTHERLY LINE OF THE SOUTHERLY 16.5 FEET OF SAID WEST HALF WITH A LINE WHICH IS PARALLEL WITH AND 150.00 FEET WESTERLY, MEASURED AT RIGHT ANGLES FROM THE WESTERLY LINE OF TRACT NO. 18938, AS PER MAP RECORDED IN BOOK 496, PAGES 21 AND 22 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY; THENCE ALONG SAID PARALLEL LINE NORTH 00° 21' 56" EAST 290.41 FEET TO A LINE WHICH IS PARALLEL WITH AND 290.4 FEET NORTHERLY MEASURED AT RIGHT ANGLES FROM SAID NORTHERLY LINE; THENCE ALONG LAST DESCRIBED PARALLEL LINE SOUTH 89° 57' 38" WEST 243.35 FEET TO A LINE WHICH IS PARALLEL WITH AND 220.00 FEET EASTERLY MEASURED AT RIGHT ANGLES FROM THE EASTERLY LINE OF AZUSA AVENUE, 100 FEET WIDE; THENCE PARALLEL WITH SAID EASTERLY LINE SOUTH 00° 27' 45" WEST 290.41 FEET TO SAID NORTHERLY LINE; THENCE ALONG SAID NORTHERLY LINE NORTH 89°57' 38" EAST 243.80 FEET TO THE POINT OF BEGINNING.

EXCEPT THEREFROM THE WESTERLY 100 FEET THEREOF.

PARCEL 3: (PORTION OF APN: 8421–001–061)

THE SOUTH 200 FEET OF THAT PORTION OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 1 SOUTH, RANGE 10 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF COVINA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND, FILED IN THE DISTRICT LAND OFFICE, APRIL 21, 1877, LYING NORTHERLY OF THE NORTHERLY LINE OF THE SOUTHERLY 306.9 FEET OF SAID LAND.

PARCEL 4: (PORTION OF APN: 8421–001–016)

THE NORTHERLY 150 FEET OF THE SOUTHERLY 300 FEET OF THAT PORTION OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 1 SOUTH, RANGE 10 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF COVINA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND FILED IN THE DISTRICT LAND OFFICE ON APRIL 21, 1877, LYING NORTHERLY OF THE NORTHERLY LINE OF THE SOUTHERLY 506.90 FEET OF SAID LAND.

EXCEPT ALL OIL, MINERAL, GAS AND OTHER HYDROCARBON SUBSTANCES BELOW A DEPTH OF 500 FEET UNDER THE REAL PROPERTY HEREINABOVE DESCRIBED WITHOUT THE RIGHT OF SURFACE ENTRY, AS RESERVED BY A.S.D., A CALIFORNIA LIMITED PARTNERSHIP, IN THE DEED RECORDED JULY 19, 1985 AS INSTRUMENT NO. 85–828960.

PARCEL 4A:

A NON–EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS, AND FOR PUBLIC UTILITY PURPOSES, OVER THE EASTERLY 25 FEET OF THAT PORTION OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 1 SOUTH, RANGE 10 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF COVINA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND FILED IN THE DISTRICT LAND OFFICE ON APRIL 21, 1877, LYING NORTHERLY OF THE NORTHERLY LINE OF THE SOUTHERLY 506.90 FEET OF SAID LAND.

EXCEPT THAT PORTION OF SAID LAND DESCRIBED IN THE DEED RECORDED JANUARY 13, 1964 IN BOOK D2320, PAGE 558, OFFICIAL RECORDS.

ALSO EXCEPT THE NORTHERLY 150 FEET OF THE SOUTHERLY 300 FEET THEREOF.

EASEMENTS:

PER FIRST AMERICAN TITLE INSURANCE COMPANY ORDER NUMBER NHSC–5837139 (tc) DATED DECEMBER 31, 2018.

SYMBOL ON MAP	ITEM PER REPORT	DESCRIPTION
--	2	AN EASEMENT FOR HIGHWAY AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED IN BOOK 63, PAGE 3 AND IN BOOK 63, PAGE 70, BOTH OF DEEDS.–THE LOCATION OF THE EASEMENT CANNOT BE DETERMINED FROM RECORD INFORMATION.
--	3	THE INTEREST IN THE WEST 30 FEET OF SAID LAND, AS CONVEYED TO THE COUNTY OF LOS ANGELES, FOR ROAD PURPOSES, BY DEED RECORDED IN BOOK 739, PAGE 190 OF DEEDS.
B	4	THE EFFECT OF THE RIGHT TO CONSTRUCT AND MAINTAIN A PIPE LINE TO BE LOCATED IN A STRIP OF LAND ALONG THE SOUTH SIDE, WHICH IS NOT MORE THAN 23 FEET NORTH OF THE CENTER OF CYPRESS AVENUE, ACROSS THE WEST HALF OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 1 SOUTH, RANGE 10 WEST, AS CONVEYED TO AZUSA IRRIGATING COMPANY, BY DEED RECORDED IN BOOK 8465, PAGE 148, OFFICIAL RECORDS.
C	5	AN EASEMENT FOR ROADWAYS AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED MARCH 24, 1941 IN BOOK 18284, PAGE 195 OF OFFICIAL RECORDS. (AFFECTS PORTION OF PARCELS 1, 3, AND 4) SAID INSTRUMENT ALSO PROVIDES FOR THE CONSTRUCTION AND MAINTENANCE BY THE STATE OF CALIFORNIA OF 1 TO 1 EXCAVATION SLOPES 1.5 TO 1 EMBANKMENT SLOPES AND THE RIGHT TO EXTEND DRAINAGE STRUCTURES BEYOND THE LIMIT OF THE ABOVE DESCRIBED STRIP OF LAND, WHERE REQUIRED FOR THE CONSTRUCTION AND MAINTENANCE OF 100 FEET WIDTH OF ROADBED.
D	6	AN EASEMENT FOR PUBLIC STREET, ROAD/HIGHWAY AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED MARCH 26, 1941 AS INSTRUMENT NO. 6270–J OF OFFICIAL RECORDS. SAID INSTRUMENT ALSO WAIVES AND CLAIMS FOR DAMAGES TO THE LAND DESCRIBED HEREIN BY REASON OF THE LOCATIONS, CONSTRUCTION, LANDSCAPING OR MAINTENANCE OF A HIGHWAY CONTIGUOUS THERETO.
E	7	AN EASEMENT FOR PIPE LINES AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED JULY 11, 1941 AS INSTRUMENT NO. 12922–J OF OFFICIAL RECORDS.
G	8	AN EASEMENT FOR PUBLIC STREET, ROAD OR HIGHWAY AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED JUNE 24, 1958 AS INSTRUMENT NO. 3657 IN BOOK D136, PAGE 597 OF OFFICIAL RECORDS.
H	9	AN EASEMENT FOR SLOPE AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED OCTOBER 29, 1958 AS IN BOOK D–259, PAGE 713 OF OFFICIAL RECORDS.
I	10	AN EASEMENT FOR SANITARY SEWER AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED AS IN BOOK D–1508, PAGE 495 OF OFFICIAL RECORDS.
J	11	AN EASEMENT FOR SANITARY SEWERS AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED AS IN BOOK D–2190, PAGE 408 OF OFFICIAL RECORDS.
K	12	AN EASEMENT FOR PIPE LINES AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED AUGUST 10, 1964 AS INSTRUMENT NO. 631 IN BOOK D2583, PAGE 82 OF OFFICIAL RECORDS.
L	13	AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED JANUARY 14, 1965 AS INSTRUMENT NO. 3300 IN BOOK D–2764, PAGE 541 OF OFFICIAL RECORDS.
M	14	AN EASEMENT FOR SANITARY SEWERS AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED JANUARY 29, 1965 AS INSTRUMENT NO. 69 IN BOOK D–2780, PAGE 880 OF OFFICIAL RECORDS.
N	15	A NON–EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS, AND FOR PUBLIC UTILITY PURPOSES OVER THE EASTERLY 25 FEET OF SAID PROPERTY, AS RESERVED IN THE DEED FROM TRANSAMERICA DEVELOPMENT COMPANY, A CORPORATION, RECORDED MARCH 18, 1966 AS INSTRUMENT NO. 763.
O	16	AN EASEMENT FOR INGRESS AND EGRESS AND PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED JUNE 2, 1966 AS INSTRUMENT NO. 1603 OF OFFICIAL RECORDS.
Q	17	AN EASEMENT TO CONSTRUCT, USE, MAINTAIN, OPERATE, ALTER, ADD TO, REPAIR, REPLACE, AND/OR REMOVE ITS FACILITIES, INCLUDING UNDERGROUND CONDUITS, MANHOLES, PEDESTALS, CABLES, WIRES AND APPURTENANCES, FOR THE TRANSMISSION OF ELECTRIC ENERGY FOR COMMUNICATION AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED AUGUST 19, 1992 AS INSTRUMENT NO. 92–1546379 OF OFFICIAL RECORDS.
R	18	AN EASEMENT FOR CONSTRUCTING, USING, MAINTAINING, OPERATING, ALTERING, ADDING TO, REPAIRING, REPLACING, RECONSTRUCTING, INSPECTING AND/OR REMOVING ITS FACILITIES, AND/OR OTHER PURPOSES AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED JULY 23, 1997 AS INSTRUMENT NO. 97–1111840 OF OFFICIAL RECORDS.

PROJECT SUMMARY:

APPLICANT/OWNER:	PKL INVESTMENTS, LLC 2863 MARICOPA STREET TORRANCE, CA 90503 (714) 738–0828
ENGINEER:	LAND DEVELOPMENT CONSULTANTS 1520 BROOKHOLLOW DRIVE, SUITE 33 SANTA ANA, CA 92705 (714) 557–7700
ARCHITECT:	WILLIAM HEZMALHALCH ARCHITECTS 2850 RED HILL AVENUE, SUITE 200 SANTA ANA, CA 92705 (949) 250–0607
SOILS ENGINEER:	GEOCONCEPTS 14428 HAMLIN STREET, #200 VAN NUYS, CA 91401 (818) 994–8895
PROJECT LOCATION:	1000 NORTH AZUSA AVENUE 845 WEST CYPRESS STREET COVINA, CA 91722
APNs:	8421–001–016 & 8421–001–061
FLOOD ZONE:	ZONE "X" (FLOOD INSURANCE RATE MAP) COMMUNITY PANEL No. 06037C1700F
PROJECT SITE AREA:	348,165 SF = 7.993 ACRES
STREET DEDICATION:	3,379 SF = 0.078 ACRES
NET SITE AREA:	344,786 SF = 7.915 ACRES
RESIDENTIAL SITE AREA:	217,218 SF = 4.986 ACRES
LOTS 1–61 AREA:	138,177 SF = 3.172 ACRES
LOTS A–D AREA:	79,041 SF = 1.814 ACRES
TOTAL UNITS:	61 HOMES * (24) PLAN 1: ±1,761 SF * (20) PLAN 2: ±2,028 SF * (17) PLAN 3: ±2,593 SF
DENSITY:	12.05 HOMES PER ACRE
PARKING:	164 SPACES (2.69 SPACES PER HOME) * GARAGE: 122 SPACES * DRIVEWAY: 12 SPACES (LOTS 1–6) * HEAD IN: 23 SPACES (9'x19') * PARALLEL: 7 SPACES (8'x22')
OPEN SPACE:	48,515 SF TOTAL (±795 SF PER HOME) * COMMON: 10,920 SF (5' MIN. DIMENSION) * PRIVATE: 37,595 SF (12' MIN. DIMENSION)
BUILDING COVERAGE:	± 65,824 SF (30.3% OF SITE)
RETAIL SITE AREA:	127,568 SF = 2.929 ACRES (LOTS 62–64)
TOTAL SF:	14,000 SF * BUILDING A: 4,000 SF * BUILDING B: 2,200 SF * BUILDING C: 3,000 SF * BUILDING D: 4,800 SF
PARKING:	103 SPACES (9'x19') 45 SPACES (9'x17')

UTILITY:

ELECTRIC:	SO. CALIFORNIA EDISON (800) 655–4555
WATER:	AZUSA LIGHT & WATER (626) 812–5063
GAS:	THE GAS COMPANY (800) 427–2200
CABLE:	TIME WARNER (626) 384–5400
TELEPHONE:	VERIZON (800) 483–4000

SHEET INDEX:

C1.0	TITLE SHEET
C2.0	TENTATIVE TRACT MAP
C2.1	TENTATIVE TRACT MAP
C3.0	CONCEPTUAL GRADING & UTILITY PLAN
C3.1	CONCEPTUAL GRADING & UTILITY PLAN

DATE PREPARED: JAN. 22, 2019

BENCHMARK:
LOS ANGELES COUNTY BENCHMARK G 4444 –RDBM TAG IN WEST CATCH BASIN 1 FT N. OF BCR AT THE N–W CORNER OF ARROW HWY AND AZUSA AVE.
ELEVATION = 519.766 FEET

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BASIS OF BEARINGS FOR THIS MAP IS THE CENTERLINE OF AZUSA AVE AS SHOWN ON TRACT NO. 34224 M.B. 895/56–59 RECORDS OF LOS ANGELES COUNTY SAID BEARING BEING N 0°27'53" E.

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PREPARED FOR:
PKL Investments, LLC
2863 MARICOPA STREET
TORRANCE, CA 90503
(714) 738-0828

REGISTERED PROFESSIONAL ENGINEER HESEL MOUSSA ZAND No. 44560 Exp. 3-31-2020 CIVIL STATE OF CALIFORNIA

LDC LAND DEVELOPMENT CONSULTANTS
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TENTATIVE TRACT MAP NO. 82315
1000 N. AZUSA AVENUE &
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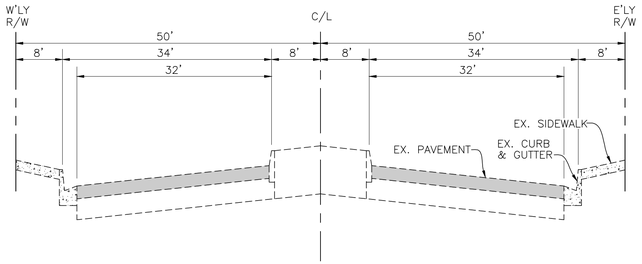
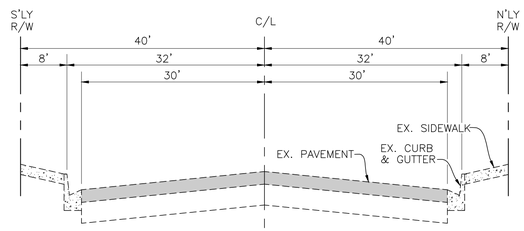
C1.0
SHEET 1 OF 5
JOB NO. 503



AZUSA AVENUE TYPICAL SECTION
(NO SCALE)



CYPRESS STREET TYPICAL SECTION
(NO SCALE)

RESIDENTIAL COMPONENT			
LOT	ACREAGE	LOT	ACREAGE
1	3,009 SF	32	2,144 SF
2	3,018 SF	32	2,219 SF
3	3,025 SF	33	2,329 SF
4	3,032 SF	34	2,329 SF
5	3,040 SF	35	2,329 SF
6	2,711 SF	36	2,329 SF
7	1,725 SF	37	2,329 SF
8	1,728 SF	38	2,329 SF
9	2,176 SF	39	2,329 SF
10	2,176 SF	40	2,329 SF
11	2,549 SF	41	2,329 SF
12	2,155 SF	42	2,329 SF
13	2,162 SF	43	2,329 SF
14	2,169 SF	44	2,329 SF
15	2,177 SF	45	3,129 SF
16	2,184 SF	46	1,728 SF
17	2,191 SF	47	1,728 SF
18	2,199 SF	48	2,400 SF
19	2,205 SF	49	2,400 SF
20	2,213 SF	50	2,400 SF
21	2,220 SF	51	2,400 SF
22	2,228 SF	52	1,728 SF
23	2,562 SF	53	1,728 SF
24	2,144 SF	54	1,728 SF
25	2,144 SF	55	1,728 SF
26	2,144 SF	56	2,409 SF
27	2,144 SF	57	2,409 SF
28	2,144 SF	58	2,409 SF
29	2,144 SF	59	2,409 SF
30	2,144 SF	60	1,728 SF
31	2,144 SF	61	1,728 SF
OPEN SPACE LOTS			
A	66,960 SF	C	2,707 SF
B	6,667 SF	D	2,707 SF
COMMERCIAL COMPONENT			
LOT	ACREAGE		
62	36,996 SF		
63	47,594 SF		
64	42,978 SF		

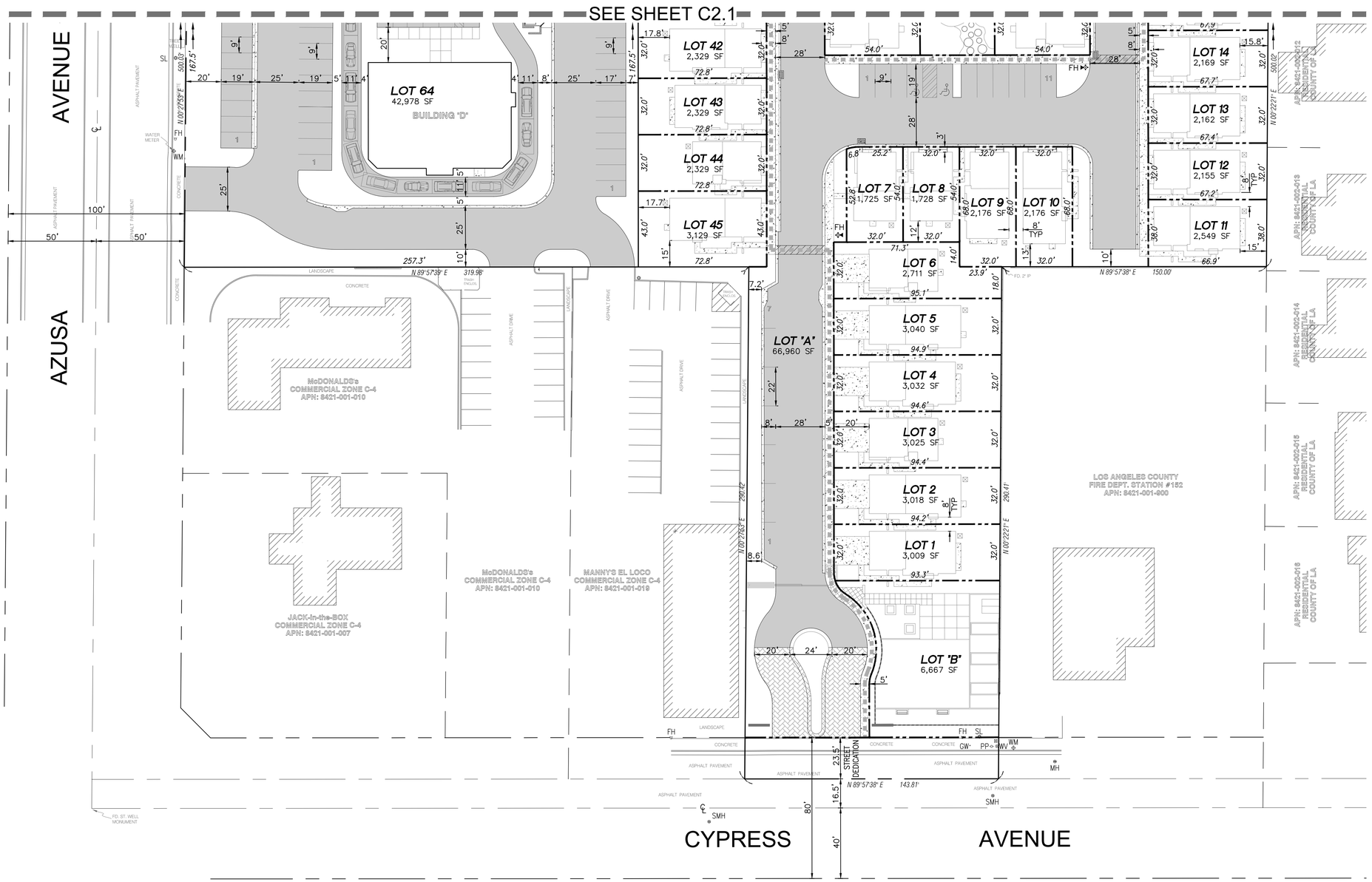
* AVERAGE LOT AREA: 2,265 SF
* MINIMUM LOT AREA: 1,725 SF
* MINIMUM LOT WIDTH: 32 FEET
* MINIMUM LOT DEPTH: 54 FEET

N

GRAPHIC SCALE
30 15 0 30 60
SCALE IN FEET
1 inch = 30 ft.

LEGEND:

- EPB – ELECTRICAL PULLBOX
- FH – FIRE HYDRANT
- GW – GUY WIRE
- MH – MANHOLE
- PP – POWERPOLE
- S – SIGN
- SF – SQUARE FEET
- SL – STREET LIGHT
- SMH – SEWER MANHOLE
- T/A – TRASH AREA
- WM – WATER METER
- WV – WATER VALVE
- PROPOSED LOT LINE
- ADA PATH OF TRAVEL
- HARDSCAPE
- POROUS PAVERS
- ASPHALT PAVING



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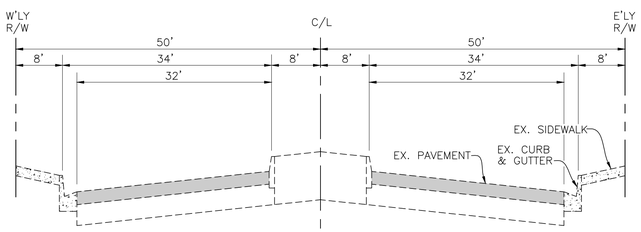

AZUSA AVENUE TYPICAL SECTION
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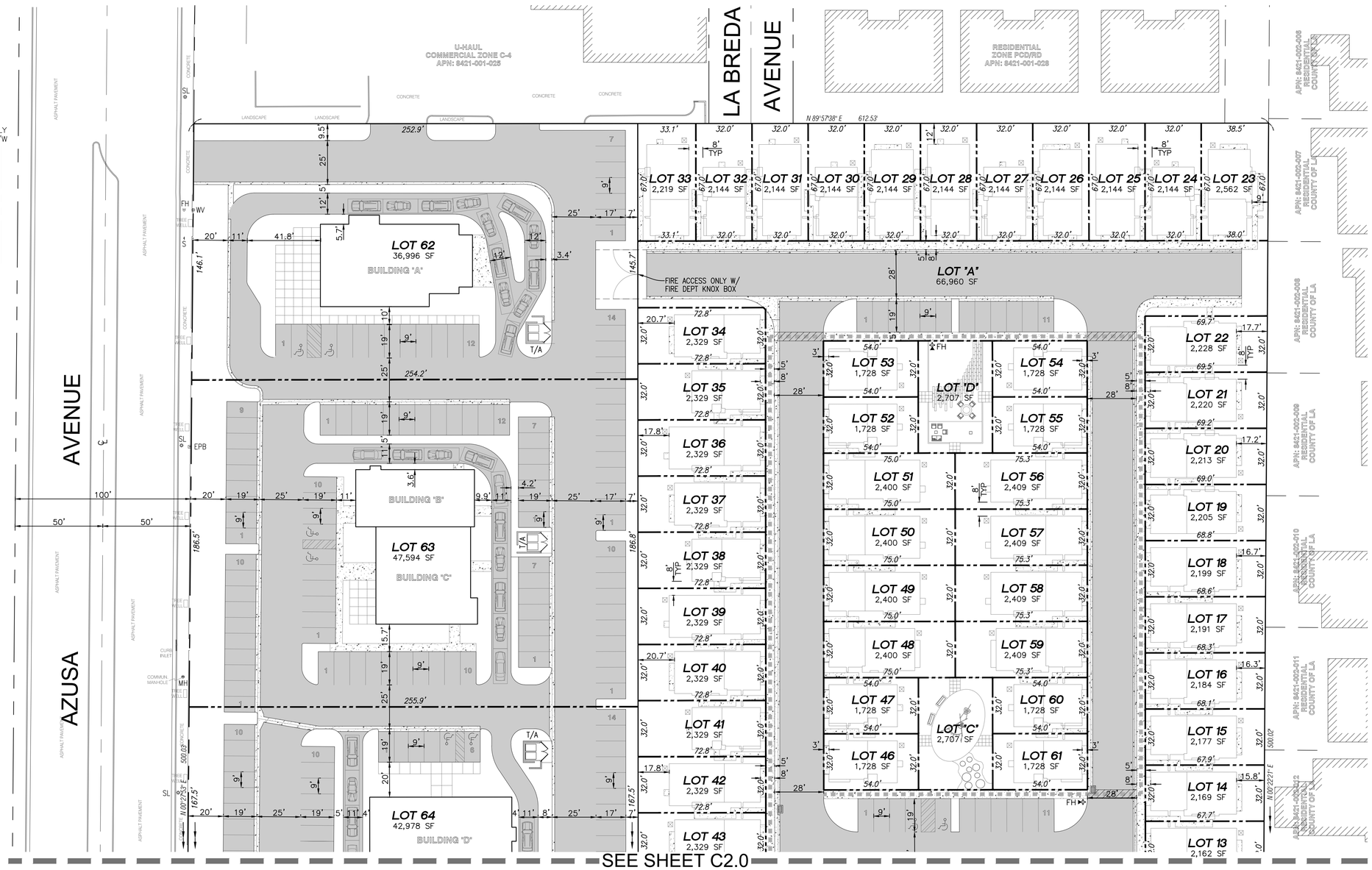

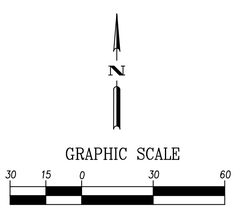

LEGEND:

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* AVERAGE LOT AREA: 2,265 SF
* MINIMUM LOT AREA: 1,725 SF
* MINIMUM LOT WIDTH: 32 FEET
* MINIMUM LOT DEPTH: 54 FEET

BENCHMARK:
LOS ANGELES COUNTY BENCHMARK G 4444 –RDBM TAG IN WEST CATCH BASIN 1 FT N. OF BCR AT THE N–W CORNER OF ARROW HWY AND AZUSA AVE.
ELEVATION = 519.766 FEET

BASIS OF BEARINGS:
BASIS OF BEARINGS FOR THIS MAP IS THE CENTERLINE OF AZUSA AVE AS SHOWN ON TRACT NO. 34224 M.B. 895/56–59 RECORDS OF LOS ANGELES COUNTY SAID BEARING BEING N 0°27'53" E.

REVISIONS

NO.	DESCRIPTION	BY	DATE	APPROVED

PREPARED FOR:
PKL Investments, LLC
2863 MARICOPA STREET
TORRANCE, CA 90503
(714) 738-0828

REGISTERED PROFESSIONAL ENGINEER HESSEL NOUSSIA No. 44560 Exp. 3-31-2020 CIVIL STATE OF CALIFORNIA

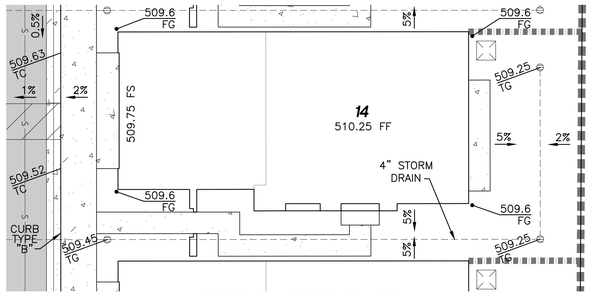
LDC LAND DEVELOPMENT CONSULTANTS
LAND PLANNERS
SURVEYORS
CIVIL ENGINEERS
1520 BROOKHOLLOW DRIVE, SUITE 33
SANTA ANA, CALIFORNIA, 92705
(714) 557-7700 (714) 557-7707 FAX

DATE: 01-22-19
DESIGNED:
DRAFTED:
CHECKED:

TENTATIVE TRACT MAP NO. 82315

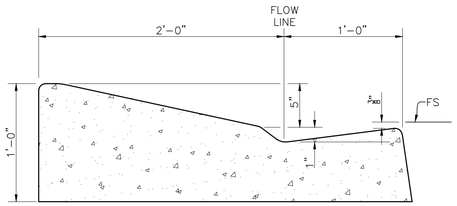
1000 N. AZUSA AVENUE &
845 W. CYPRESS STREET
CITY OF COVINA

C2.1
SHEET 3 OF 5
JOB NO. 503



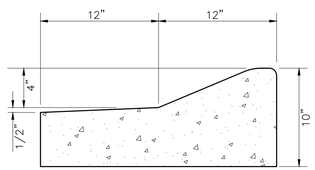
TYPICAL LOT DRAINAGE

SCALE
1 INCH = 10 FEET



CONCRETE ROLLED CURB TYPE "A"

(NO SCALE)



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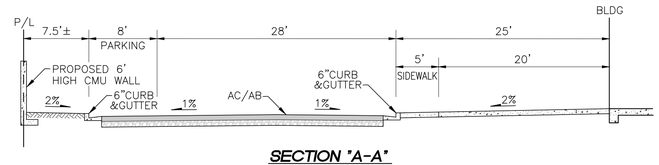

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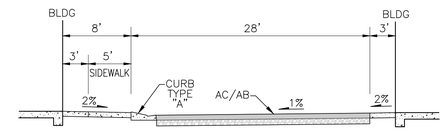

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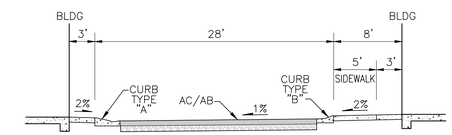

SECTION "C-C"

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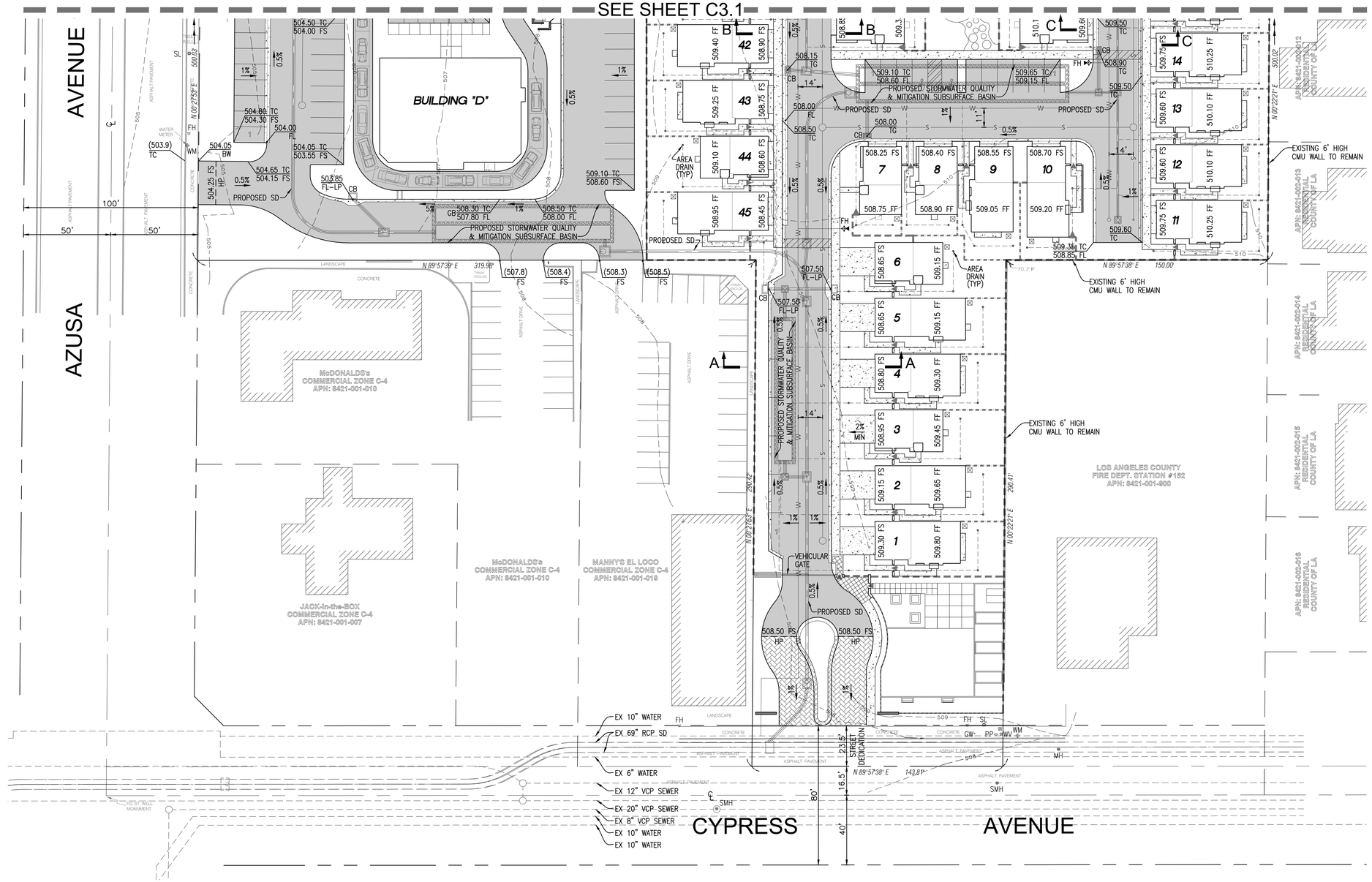

LEGEND:

BW	– BACK OF WALK
CB	– CATCH BASIN
EPB	– ELECTRICAL PULLBOX
EX	– EXISTING
FF	– FINISHED FLOOR
FG	– FINISHED GROUND
FH	– FIRE HYDRANT
FL	– FLOWLINE
FS	– FINISHED SURFACE
GW	– GUY WIRE
HP	– HIGH POINT
LP	– LOW POINT
MH	– MANHOLE
PP	– POWERPOLE
S	– SIGN
SD	– STORM DRAIN
SL	– STREET LIGHT
SMH	– SEWER MANHOLE
T/A	– TRASH AREA
TC	– TOP OF CURB
TG	– TOP OF GRATE
WM	– WATER METER
WV	– WATER VALVE
	– HARDSCAPE
	– POROUS PAVERS
	– ASPHALT PAVING

N

GRAPHIC SCALE

30 15 0 30 60

SCALE IN FEET
1 inch = 30 ft.

GRADING VOLUME:

FILL = 2,700 CUBIC YARDS

CUT = 3,150 CUBIC YARDS

—S—	– PROPOSED SEWER
—W—	– PROPOSED WATER
	– 6 FEET HIGH CMU WALL
	– 6 FEET HIGH VINYL FENCE
	– 6' HIGH WROUGHT IRON FENCE
	– 3 FEET HIGH CMU WALL
▶	– GATE

BENCHMARK:

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PREPARED FOR:

PKL Investments, LLC
2863 MARICOPA STREET
TORRANCE, CA 90503
(714) 738-0828

REGISTERED PROFESSIONAL ENGINEER — JEROME HOUSER — No. 44560 — Exp. 3-31-2020 — CIVIL — STATE OF CALIFORNIA

LDC LAND DEVELOPMENT CONSULTANTS
LAND PLANNERS
SURVEYORS
CIVIL ENGINEERS
1520 BROOKHOLLOW DRIVE, SUITE 33
SANTA ANA, CALIFORNIA, 92705
(714) 557-7700 (714) 557-7707 FAX

DATE: 01–22–19
DESIGNED:
DRAFTED:
CHECKED:

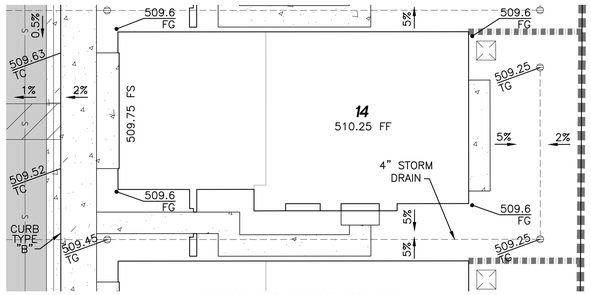
CONCEPTUAL GRADING & UTILITY PLAN

TENTATIVE TRACT MAP NO. 82315

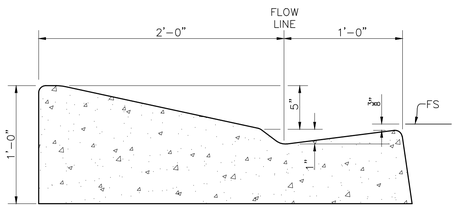
C3.0

SHEET 4 OF 5

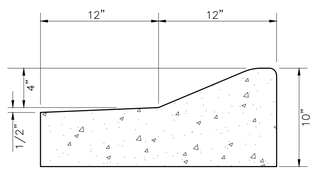
JOB NO. 503



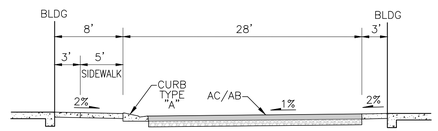
TYPICAL LOT DRAINAGE
SCALE
1 INCH = 10 FEET



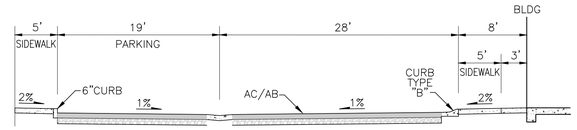
CONCRETE ROLLED CURB TYPE "A"
(NO SCALE)



CONCRETE ROLLED CURB TYPE "B"
(NO SCALE)



SECTION "A-A"
(NO SCALE)



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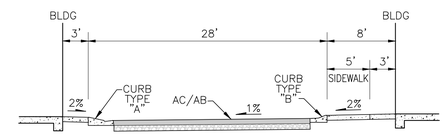
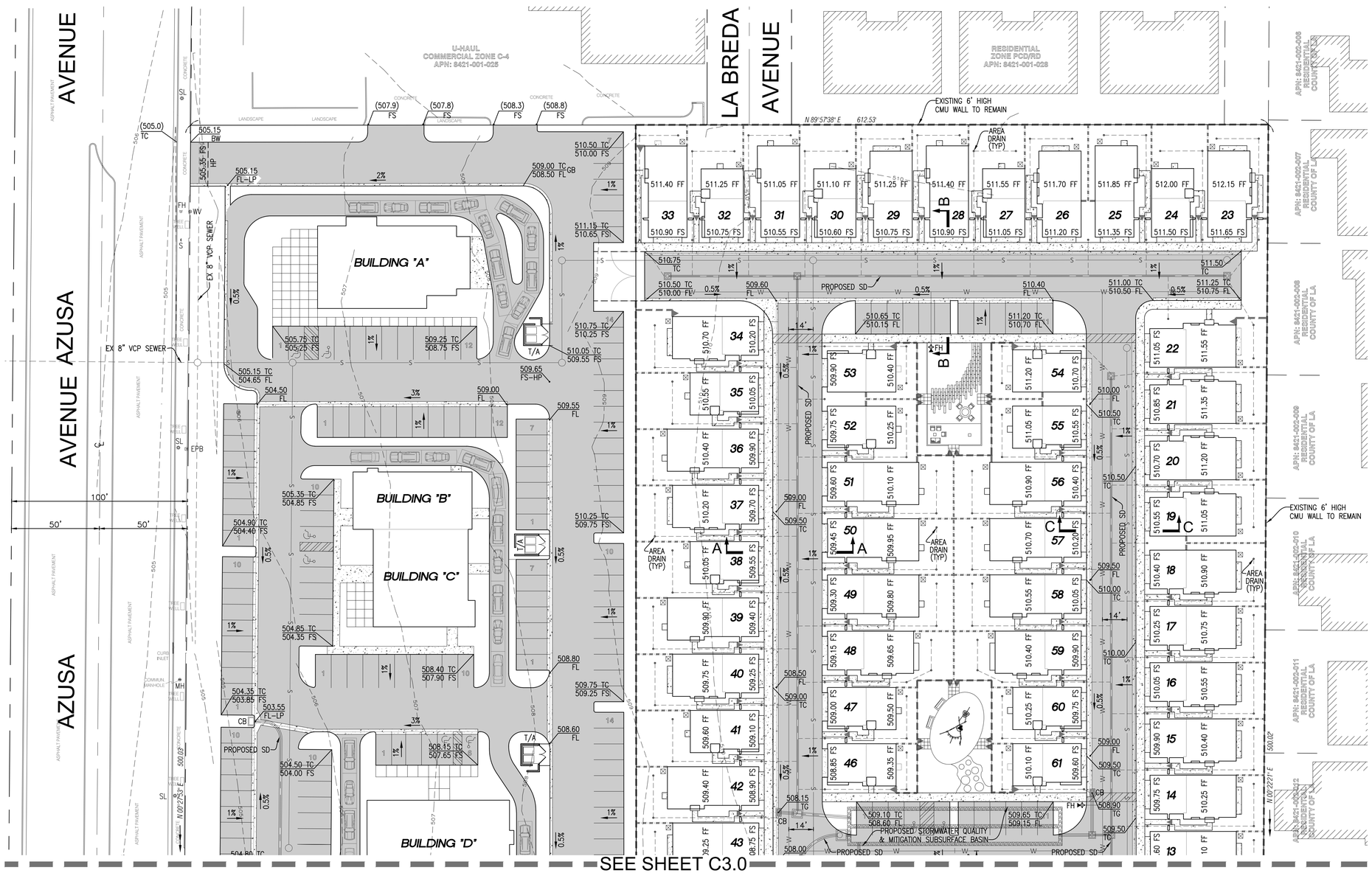
(NO SCALE)



SECTION "C-C"
(NO SCALE)



SEE SHEET C3.0

LEGEND:

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- EPB – ELECTRICAL PULLBOX
- EX – EXISTING
- FF – FINISHED FLOOR
- FG – FINISHED GROUND
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- ASPHALT PAVING

N

GRAPHIC SCALE
30 15 0 30 60
SCALE IN FEET
1 inch = 30 ft.

GRADING VOLUME:
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REVISIONS

NO.	DESCRIPTION	BY	DATE	APPROVED

PREPARED FOR:
PKL Investments, LLC
2863 MARICOPA STREET
TORRANCE, CA 90503
(714) 738-0828

REGISTERED PROFESSIONAL ENGINEER HESEL MOUSA ZAND No. 44560 Exp. 3-31-2020 CIVIL STATE OF CALIFORNIA

LAND DEVELOPMENT CONSULTANTS
LAND PLANNERS
SURVEYORS
CIVIL ENGINEERS
1520 BROOKHOLLOW DRIVE, SUITE 33
SANTA ANA, CALIFORNIA, 92705
(714) 557-7700 (714) 557-7707 FAX

DATE: 01-22-19
DESIGNED:
DRAFTED:
CHECKED:

CONCEPTUAL GRADING & UTILITY PLAN

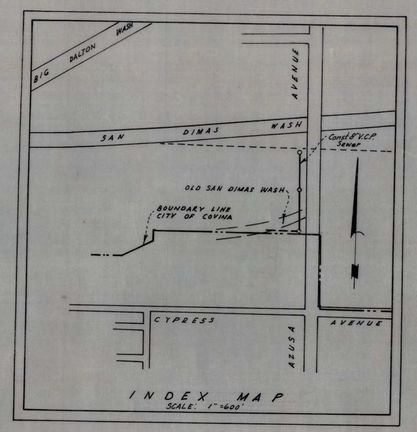
TENTATIVE TRACT MAP NO. 82315

C3.1
SHEET 5 OF 5
JOB NO. 503

APPENDIX D

As-Built Plan

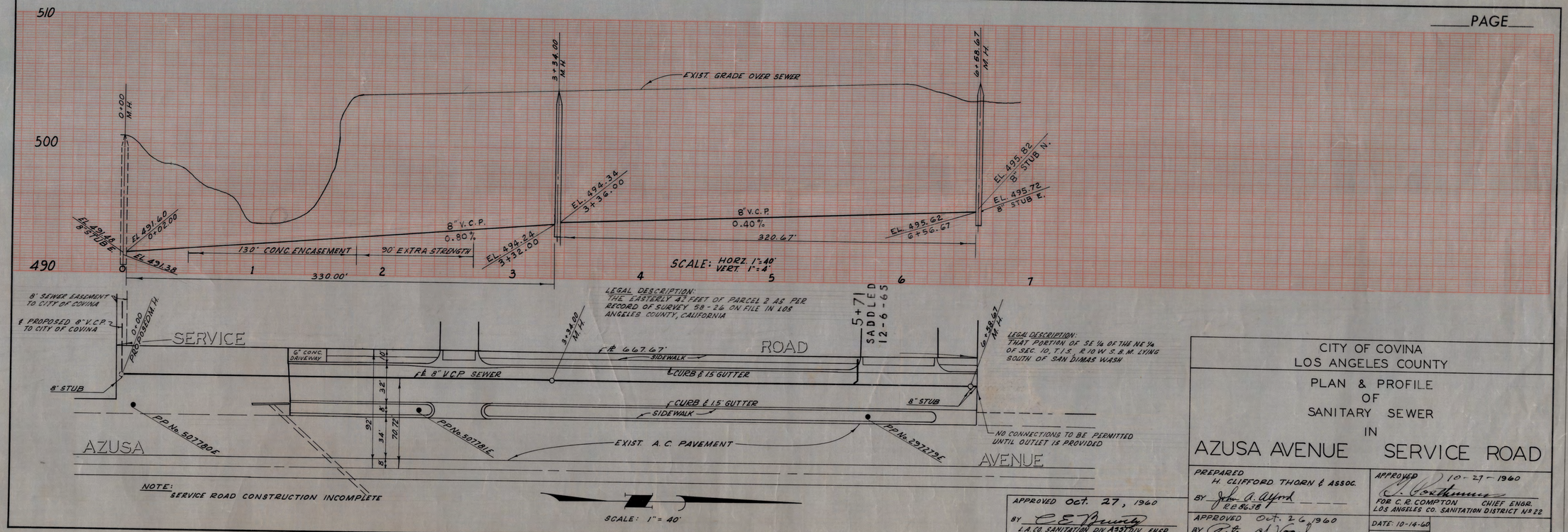
BM S.D. Nº 125 EL. 502.287
BOAT SPIKE IN CURB 2' EAST OF EAST END OF CURB RETURN N.E. CORNER CYPRESS AVE & AZUSA AVE.



INDEX MAP
SCALE: 1" = 600'

NOTES

1. NO REVISIONS WILL BE MADE IN THESE PLANS WITHOUT THE APPROVAL OF THE CITY ENGINEER.
2. ALL WORK SHALL BE CONSTRUCTED ACCORDING TO SPECIFICATIONS ON FILE IN THE OFFICE OF THE CITY ENGINEER & SHALL BE PROSECUTED ONLY IN THE PRESENCE OF THE CITY ENGINEER (SPEC. ARE DATED 1-1-60)
3. GRADES TO WHICH THIS IMPROVEMENT IS TO BE CONSTRUCTED ARE SHOWN ON PLANS AND PROFILES. GRADE POINTS FOR THE TOPS OF CURBS ARE SHOWN BY CIRCLES ON PROFILE. AT ALL POINTS BETWEEN DESIGNATED POINTS THE GRADE SHALL BE ESTABLISHED SO AS TO CONFORM TO A STRAIGHT LINE DRAWN BETWEEN DESIGNATED POINTS.
4. ELEVATIONS ARE IN FEET ABOVE U.S.C.&G.S. SEA LEVEL DATUM OF 1929
5. THIS DRAWING AND THE DATUM HEREON ARE MADE A PART OF THE SPECIFICATIONS
6. APPROVAL OF THIS PLAN BY THE CITY OF COVINA DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OF THE LOCATION OR THE EXISTENCE OR NON-EXISTENCE OF ANY UNDERGROUND UTILITY PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL SATISFY HIMSELF AS TO THE EXISTENCE OR NON-EXISTENCE OF ANY SUCH SUBSTRUCTURES AND SHALL BE RESPONSIBLE FOR ANY DAMAGE, DISTURBANCE OR DISCONNECTION OF SAME.
7. BEFORE BREAKING INTO ANY EXISTING STRUCTURES AND BEFORE FINAL ACCEPTANCE OF THIS WORK COUNTY SANITATION DISTRICT SHOULD BE NOTIFIED IN ORDER THAT THE REQUIRED INSPECTION MAY BE MADE
8. ALL VITRIFIED CLAY PIPE JOINTS SHALL BE MADE IN ACCORDANCE WITH SEC. 45 OF SAID SPECIFICATIONS.
9. RESURFACE ALL TRENCH WITHIN PAVED AREA TO MEET CITY OF COVINA REQUIREMENTS IN ACCORDANCE WITH PERMITS.
10. FOR ALLOWABLE LEAKAGE TEST, USE FORMULA Nº 1 OF SECTION 54 OF SPECIFICATIONS.
11. LOCATION OF HOUSE LATERALS ARE TENTATIVE ONLY. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER



LEGAL DESCRIPTION:
THE EASTERLY 42 FEET OF PARCEL 2 AS PER RECORD OF SURVEY 58-26 ON FILE IN LOS ANGELES COUNTY, CALIFORNIA

LEGAL DESCRIPTION:
THAT PORTION OF SE ¼ OF THE NE ¼ OF SEC. 10, T.1S. R.10W. S.B.M. LYING SOUTH OF SAN DIMAS WASH

NOTE:
SERVICE ROAD CONSTRUCTION INCOMPLETE

APPROVED Oct. 27, 1960
BY C.E. Dunning
L.A. CO. SANITATION DIV. ASST. DIV. ENGR.

CITY OF COVINA
LOS ANGELES COUNTY

PLAN & PROFILE
OF
SANITARY SEWER
IN
AZUSA AVENUE SERVICE ROAD

PREPARED
H. CLIFFORD THORN & ASSOC.
BY John A. Alford
R.E. 86.38

APPROVED Oct. 26, 1960
BY Peter H. Vogel
CITY ENGINEER

APPROVED 10-27-1960
R. Southmayd
FOR C.R. COMPTON CHIEF ENGR.
LOS ANGELES CO. SANITATION DISTRICT Nº 22

DATE: 10-14-60
DWN BY: C.W.D.

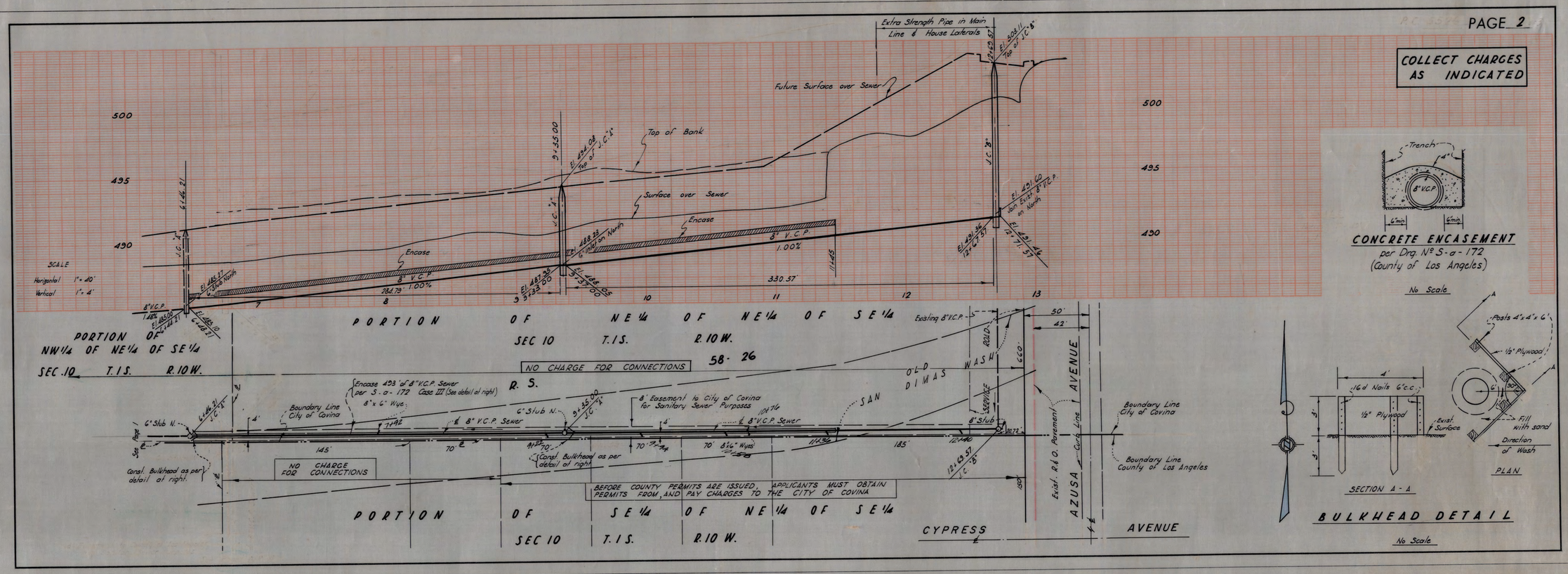
K. & E. 158 SQ. CAL. BLUE PRINT SHEET NO. 2

AS BUILT

SHEET 1 OF 2 SHEETS

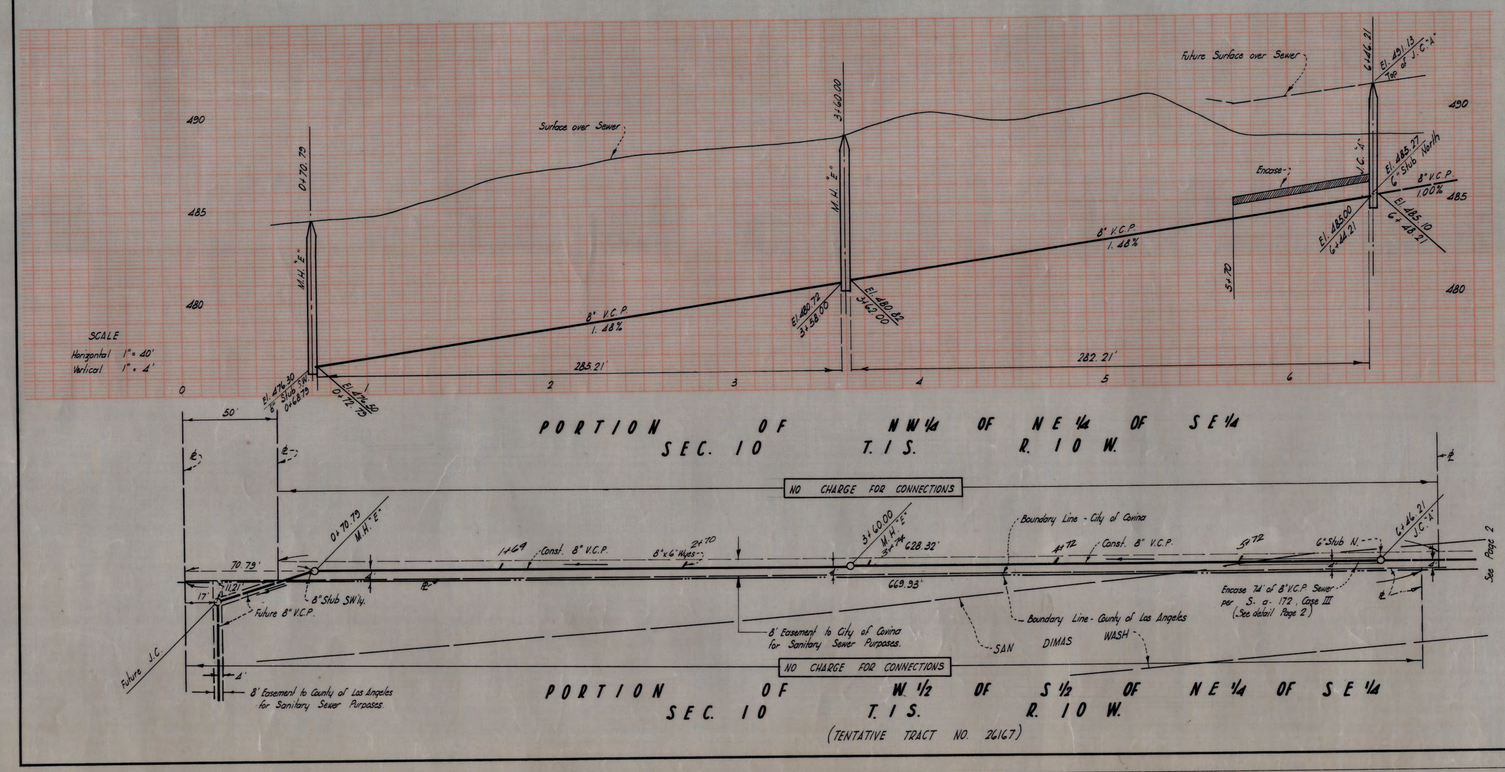
C.R. DUNNING 1983 14-A 1031

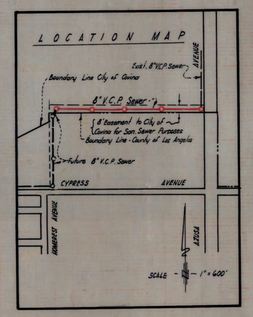
COLLECT CHARGES AS INDICATED



CONCRETE ENCASEMENT
per Drg. No S-a-172
(County of Los Angeles)
No Scale

BULKHEAD DETAIL
No Scale





NOTES

1. All work to be done in accordance with Standards and Specifications of the City of Covina
2. Utilities:- It shall be the responsibility of the contractor to locate all utilities of every nature, whether shown hereon or not and to protect them from damage. The contractor shall bear the total expence of repair or replacement of said utilities damaged by operations in connection with prosecution of the work.
3. Manholes shall be type "E", per sheet 3.1 of City of Covina Standards
4. Junction Chambers shall be type "A" & "B" per sheets 3.2 & 3.3 of City of Covina Standards.
5. Use L.A. County M.H. frame and Cover per sheet SA-117 modified for use by the City of Covina.
6. Before breaking into any existing structures and before final acceptance of this work, the County Sanitation District shall be notified in order that the required inspection be made.

BENCH MARK:- S.D. 122 Bent spike in south curb 10ft. E/O west end curb 435'± N/O Homerest Avenue.
Elevation 474.184' F.B. 2505 page 18

December 18, 1965

CITY OF COVINA
LOS ANGELES COUNTY

PLAN AND PROFILE
of
SANITARY SEWER
in
RIGHT OF WAY

PREPARED IN THE OFFICE OF WALSH-FORKERT CIVIL ENGINEERS, INC. BY [signature] 11/15/60 R.E. 6871	APPROVED 11/10/ 16 1960 [signature] R.C.B. COMPTON CHIEF ENGINEER LOS ANGELES COUNTY SANITATION DISTRICT NO. 22
APPROVED November 17 1960 BY [signature] CITY ENGINEER	APPROVED JOHN A. LAMBIE LOS ANGELES COUNTY ENGINEER [signature] ASST. SANITATION ENGINEER 11-18-60 DATE

SHEET ~~2~~ OF 2 SHEETS 14A-1031

AS BUILT

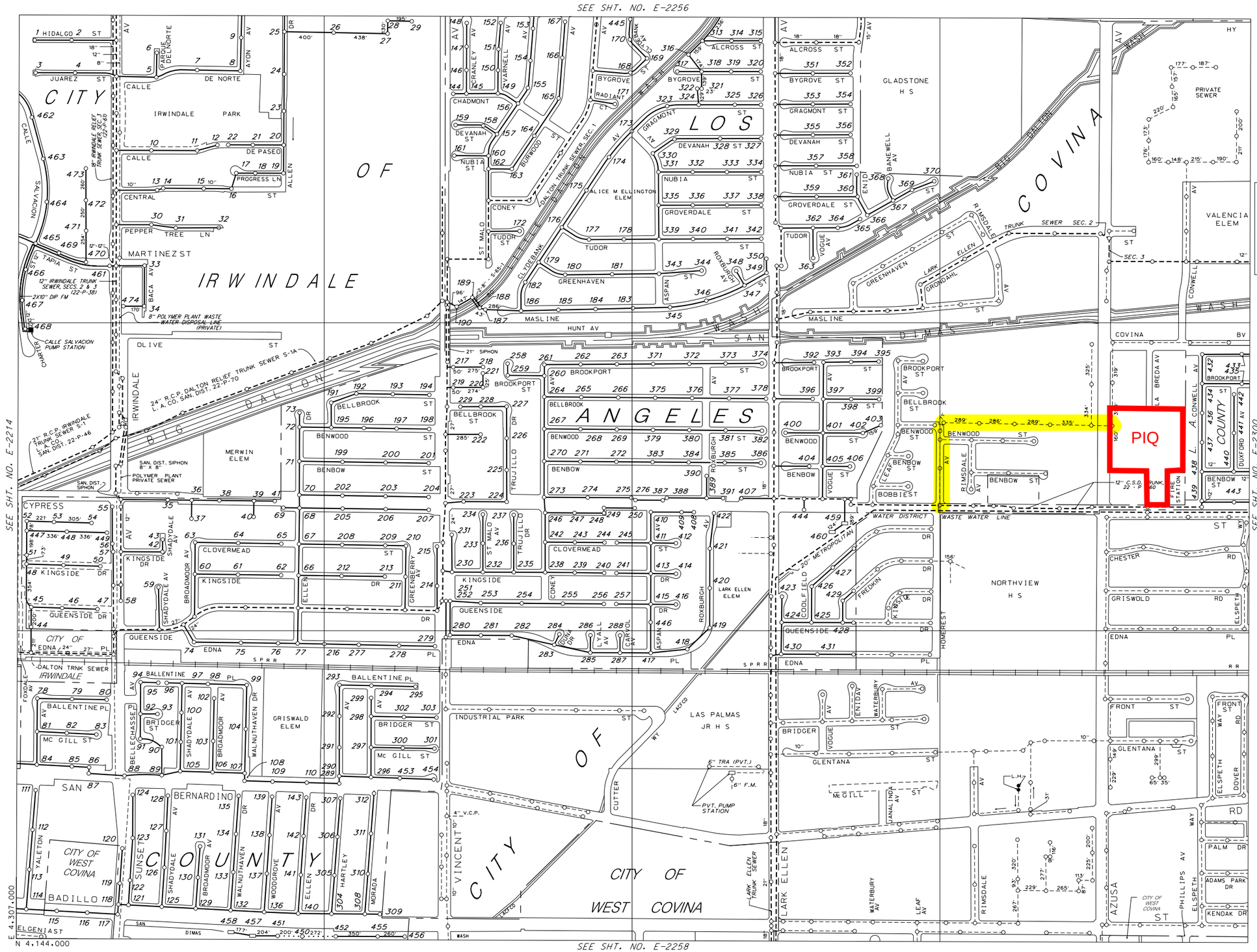
J 100

K. & E. 156 SQ. CAL. BLUE PRINT SHEET NO. 2

APPENDIX E

Sewer Index Sheet

U-64
U-65
U-70
U-71



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.

N
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: 474

MAP REV
12-06-11

DATA BASE REV
02-23-89

E-2257

CONSOLIDATED S.M.D.

E-2257

T:598:G4

1427.1429.2257

APPENDIX F

Estimated Average Daily Sewage Flows for Various Occupancies

Estimated Average Daily Sewage Flows for Various Occupancies

Occupancy	Abbreviation	*Average daily flow	
Apartment Buildings:			
Bachelor or Single dwelling units	Apt	100	gal/D.U. → 150
1 bedroom dwelling units	Apt	150	gal/D.U. → 200
2 bedroom dwelling units	Apt	200	gal/D.U. → 250
3 bedroom or more dwelling units	Apt	250	gal/D.U. → use 300 GPD per SMI
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	M	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

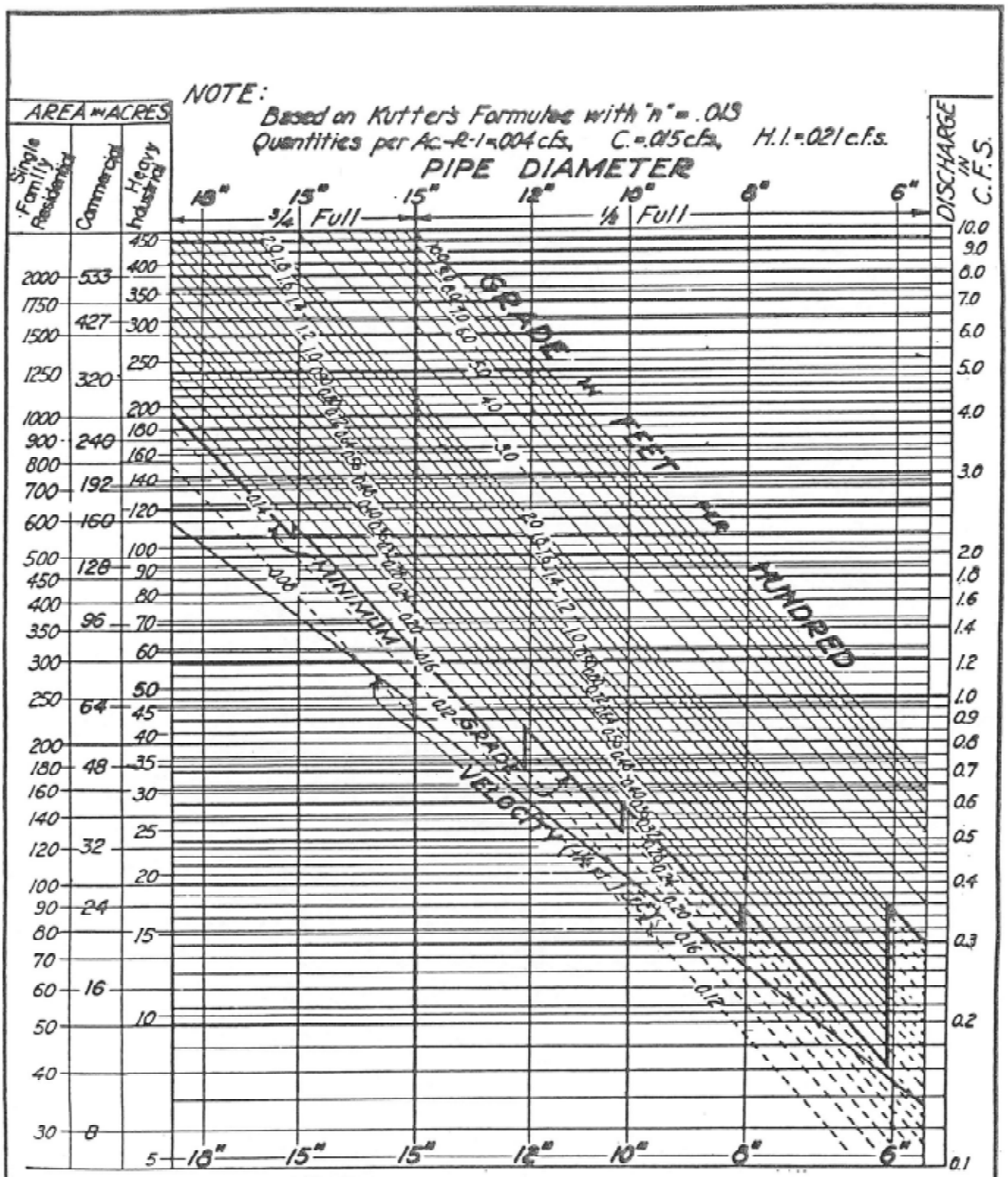
Zone	Coefficient (cfs/Acre)
Agriculture ----------	0.001
Residential+:	
R-1 ----------	0.004
R-2 ----------	0.008
R-3 ----------	0.012
R-4 ----------	0.016*
Commercial:	
C-1 through C-4 ----------	0.015*
Heavy Industrial:	
M1 through M-4 ----------	0.021*

*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 G

Flow Diagram for the Design of Circular Sanitary Sewer, Standard S-C4



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

ASSISTANT DEPUTY

COUNTY ENGINEER

COUNTY ENGINEER STANDARD S-C4

DATE: 3/80

DESIGN RCE 10443