Appendix L-3

Sewer Area Study

PSOMAS

Imperial Avalon Mixed-Use Project

SEWER AREA STUDY

October 29, 2020
Revised: August 11, 2021

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PSOMAS

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1.0 OVERVIEW

The Imperial Avalon Mixed-Use project, herein known as the Project, involves the development of multiple residential buildings with a café, restaurant space, and open space park areas to serve as amenity spaces for the community on a 27.3-acre site. The Project site currently consists of a mobile home park. The development site is located at 21207 S. Avalon Boulevard and is bounded by Grace Ave to the west, Dominguez Channel and I-405 freeway to the north, Avalon Blvd to the east, and single-family residences and a shopping center to the south.

2.0 METHODOLOGY

Psomas performed a review of the nearby existing sewer system and reviewed the need for potential sewer upgrades. The purpose of this sewer study is to analyze the available capacity of downstream pipes and to determine whether these pipes are adequate to handle the additional proposed sewer discharge.

The current amount of sanitary sewerage entering the sewer main line running from the project site is estimated by adding sewer flows contributory to all the areas upstream of that main line just prior to the Sanitation Districts of Los Angeles County (LACSD) trunk sewer line. Sewer flows are calculated by multiplying the contributory areas to zoning coefficients given by County of Los Angeles Department of Public Works.

This study assumes that the buildings on the east side of the project will discharge to an 8” sewer main in Avalon Blvd, and the buildings on the west side of the project will discharge to a 12” trunk sewer in Grace St. Typically, the study area of the Avalon sewer main would be divided into 3 subareas based on the number of upstream manhole segments. In the case of the Avalon sewer main, the only flows which contribute to this main come from the existing trailer park within our site area. This means that we will not need to complete the typical upstream analysis for each segment, but rather, calculate the proposed flow and review that against the maximum allowable flow that the LACSD would allow.

Per County of Los Angeles standards, acceptable capacity for sewer pipes less than 15” in diameter is determined by verifying that the cumulative flow capacity is less than 50%. Due to existing conditions, the county has allowed that some segments of pipes that are less than 15” in

diameter be at a cumulative flow capacity of 75%, but that is a rare situation. For the purpose of this report we would assume the County would only allow 50% full for the capacity limit.

Once flow reaches a Sanitation Districts of Los Angeles County (LACSD) sewer line, the cumulative upstream analysis of the sewer system from Psomas is complete and a will serve letter will be requested from the LACSD for the proposed demand at that connection for the expected future sewer flows. In the case of the half of the site which will connect to the sewer main in Grace Street, only flows calculated for our proposed project will be considered in the cumulative impact study. No upstream cumulative review will be necessary as the project will directly connect to the trunk sewer. Further discussion on this is provided in the following sections of this report.

3.0 SEWER PIPE CAPACITY ANALYSIS

Typically, the existing upstream sewer pipes would be analyzed using the County of Los Angeles Department of Public Works (LADPW) Sewer Manual S-C4 chart for a maximum design capacity at half full for pipes less than 15" and at three quarters full for pipes 15" and greater. The chart is based on Kutter's Formula. The sewer capacity for existing pipes were obtained by using Kutter's Formula with "n=0.013".

The cumulative calculated flow for each segment was compared to the sewer capacity at each segment. 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)

In the case of this project, through review of the existing sewer main system it has been determined that no additional upstream cumulative flows contribute to the sewer main line within Avalon, so therefore this method will not be employed. Capacity of the main will be reviewed based on the Los Angeles County sewer generation tables for each proposed use within the project site and we will apply review for half-full capacity (50% full) using the Manning's Equation for pipe flow. These findings are provided in the appendix of this document.

4.0 SEWER

4.1 Existing Infrastructure

There is an existing 8" sewer main in the west side of Avalon Blvd adjacent to the Project site that is owned and operated by Los Angeles County Department of Public Works (DPW). A request has been made to DPW for detailed record drawing information of this 8" sewer main regarding existing slope information. In the absence of the true slope, the slope of the pipe was assumed to be 0.3%, which is the absolute minimum slope a sewer main can have per standard construction tolerances and standard engineering design practice (see Table 2). In the case that there is not enough capacity and a pipe upsize is required, the typical slope of 2% is reviewed for half full capacity to determine the resized pipe diameter. This review of ranges allow for the most conservative assumption for capacity and the most likely form of sewer upgrade is necessary. The existing slope of the sewer main will be verified by field survey of the inverts at each manhole.

The 8" DPW sewer main in Avalon enters the Sanitation Districts of Los Angeles County (LACSD) system at the corner of Avalon Blvd and 213th Street, about 350-ft south of the project site. This ties to a 15" LACSD trunk sewer in 213th Street. It appears that only the existing trailer park (our site) connects to this sewer main, as there is another 8" sewer main on the east site of Avalon which supports sewer connections from the area east of Avalon.

Also, there is a 12" LACSD trunk sewer in Grace Street, so the project will make a direct connection to this pipe and not be required to assess existing cumulative sewer flows upstream of the trunk sewer connection.

4.2 Proposed Infrastructure

The Project's total proposed peak flow will discharge approximately 696,430 gallons per day (gpd) or 1.08 cubic feet per second (cfs) into the sewer system per Table 1 in the Appendix. Conservative Sewer Generation Factors were used for certain aspects of the proposed development. The load table used to calculate the total sewage is in the Appendix D. The sewer system on the property will be constructed as public sewers with easements dedicated for maintenance purposes. The Project's sewer connections will follow Los Angeles County Code of Ordinances Chapter 20.32 and will tie into the sewer main in the street via a saddle or wye connection at the plan checkers' discretion.

It is anticipated that the project will split its flows 37% to the 12” trunk sewer line in Grace St and 63% to the 8” sewer main Avalon Blvd. This means that the proposed peak flow will be 256,300 gpd and 440,130 gpd, respectively for each connection.

Further study of the existing 8” sewer main has revealed that an 8” pipe sloped at 0.3% can only carry 213,878 gallons per day flowing half-full. This will not be able to carry the full load of the proposed project when split 63/37. Therefore, it is likely that a sewer main upgrade from 8” to 12” diameter would be required of the project for approximately 350-ft, sloping 2% from the project to the existing 15” trunk line in 213th Street.

5.0 Conclusions

If 63% of the Project’s proposed sewer discharge is directed to the 8” DPW sewer main in Avalon, then it is expected that the 8” sewer main must allow capacity for at least the 440,130 gallons per day. The calculations in Table 2 of the appendix state that the pipe must be upsized to the standard main line size of 12” flowing at 2% in order to not exceed 100% of the cumulative flow capacity.

The LACSD trunk sewer must attain will serve status for the total 696,430 gallons per day, but it is anticipated that the trunk sewers will be enough to carry the requested sewer discharge. Pending the will serve letters from LACSD, the results of the sewer study indicate that the existing sewer system with a 350-ft sewer main upgrade from 8” to 12” along Avalon Blvd would be enough to handle the additional discharge from the proposed project.

APPENDICIES

APPENDIX A

Table 1 – Estimated Project Sewer Discharge

Table 2 – Sewer Study Calculation

Sewer Area Study Map

LA County Sewer Load Table

Architectural Site Plan

Table 1

East Side Project Totals - discharging to Avalon Blvd

	Facility Description	Quantity	Unit	Sewer Generation Factor*	GPD	
1	Residential: Apartment- Studio	182	DU	150	27,300	
2	Residential: Apartment - 1BED	487	DU	200	97,400	
3	Residential: Apartment - 2BED	164	DU	250	41,000	
4	Café / Restaurants	10,352	SF	1	10,352	
	Total				176,052	
				x2.5 FS	440,130.0	63%

West Side Project Totals - discharging to Grace St

	Facility Description	Quantity	Unit	Sewer Generation Factor	GPD	
1	Residential: Apartment - 2BED	192	DU	250	48,000	
2	Residential: Apartment - 3BED	188	DU	290	54,520	
	Total				102,520	
				x2.5 FS	256,300.0	37%

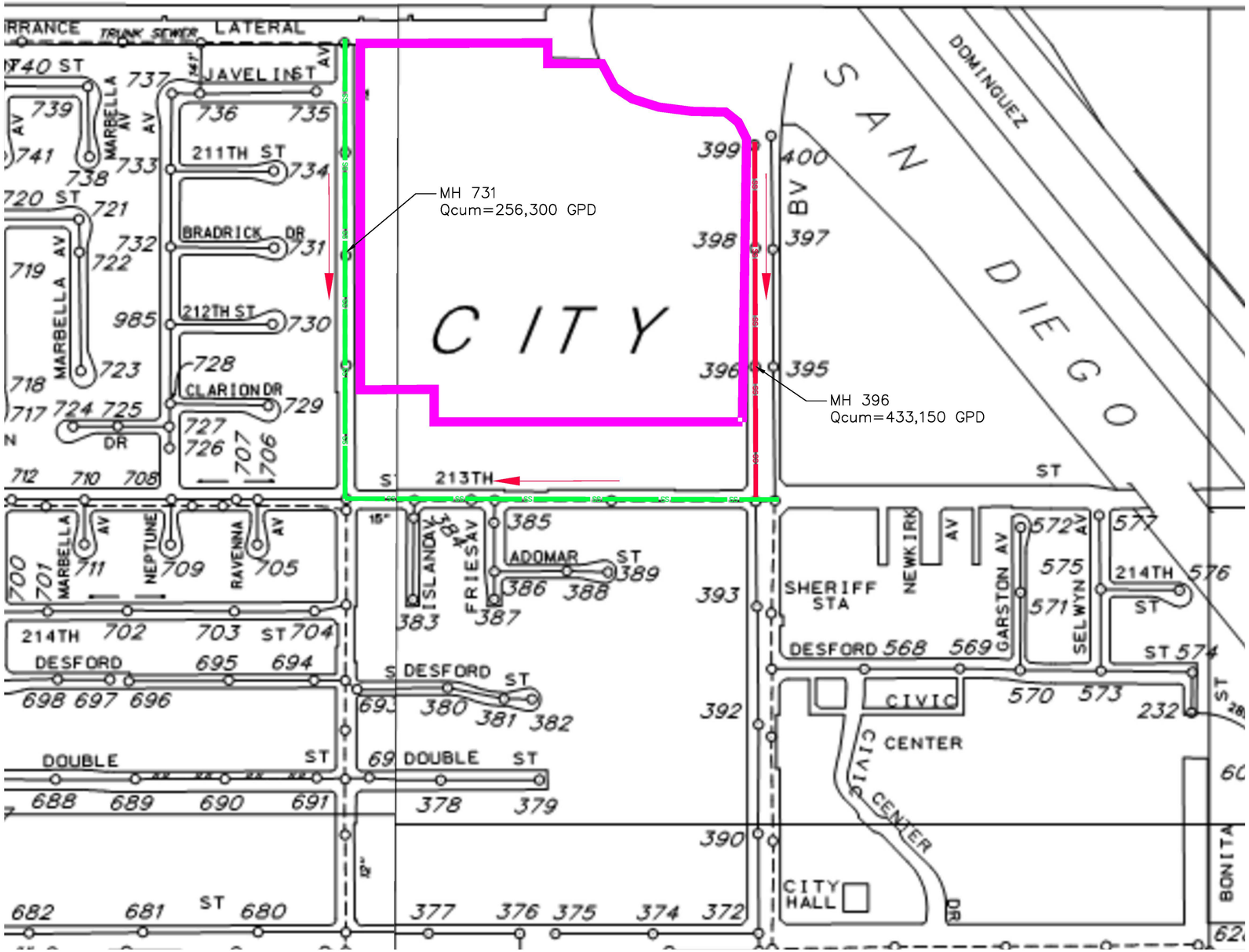
Project Total			x2.5 FS	**696,430.0**	100%

TABLE 2 - SEWER STUDY CALCULATION

STREET NAME	Location Description	SEGMENT #	PIPE			CAPACITY (GPD)	PROPOSED FLOWS (CFS)	CUMULATIVE FLOWS/ CAPACITY x100 (%)-HALL FULL	SEGMENT FLOW COMMENTS
			SIZE (IN).	Roughness Coefficient	SLOPE(%)	1/2 FULL*			
Avalon Blvd	County of Los Angeles	1	8	0.013	0.30	213878	0.0000	0.00	OK
Avalon Blvd	County of Los Angeles	2	8	0.013	0.30	213878	0.0000	0.00	OK
Avalon Blvd	County of Los Angeles	3	8	0.013	0.30	213878	696430	325.62	Requires Upsize
	UPSIZE Capacity Review for Larger Pipe		**12**	**0.013**	**2.00**	**1628719**	**696430**	**42.76**	**OK**

* using Kutter's Formula

** LACSD manhole



Legend

- EXISTING CONSOLIDATED SEWER MAINTENANCE DISTRICT SANITARY SEWER
- EXISTING SANITATION DISTRICTS OF LA COUNTY SANITARY TRUNK SEWER
- FLOW DIRECTION
- PROJECT SITE BOUNDARY
- 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

SEAL

DESIGNED	D.A.R
DRAFTED	D.A.R
CHECKED	D.J.C.

REV	DATE	DESCRIPTION	BY	APP'D

BENCHMARK

ELEV. _____ ADJUSTMENT _____

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SEWER AREA STUDY MAP

DATE:	01/17/20
SCALE:	NOT TO SCALE
PROJECT NUMBER	1IMP020100
SHEET	1
OF	1

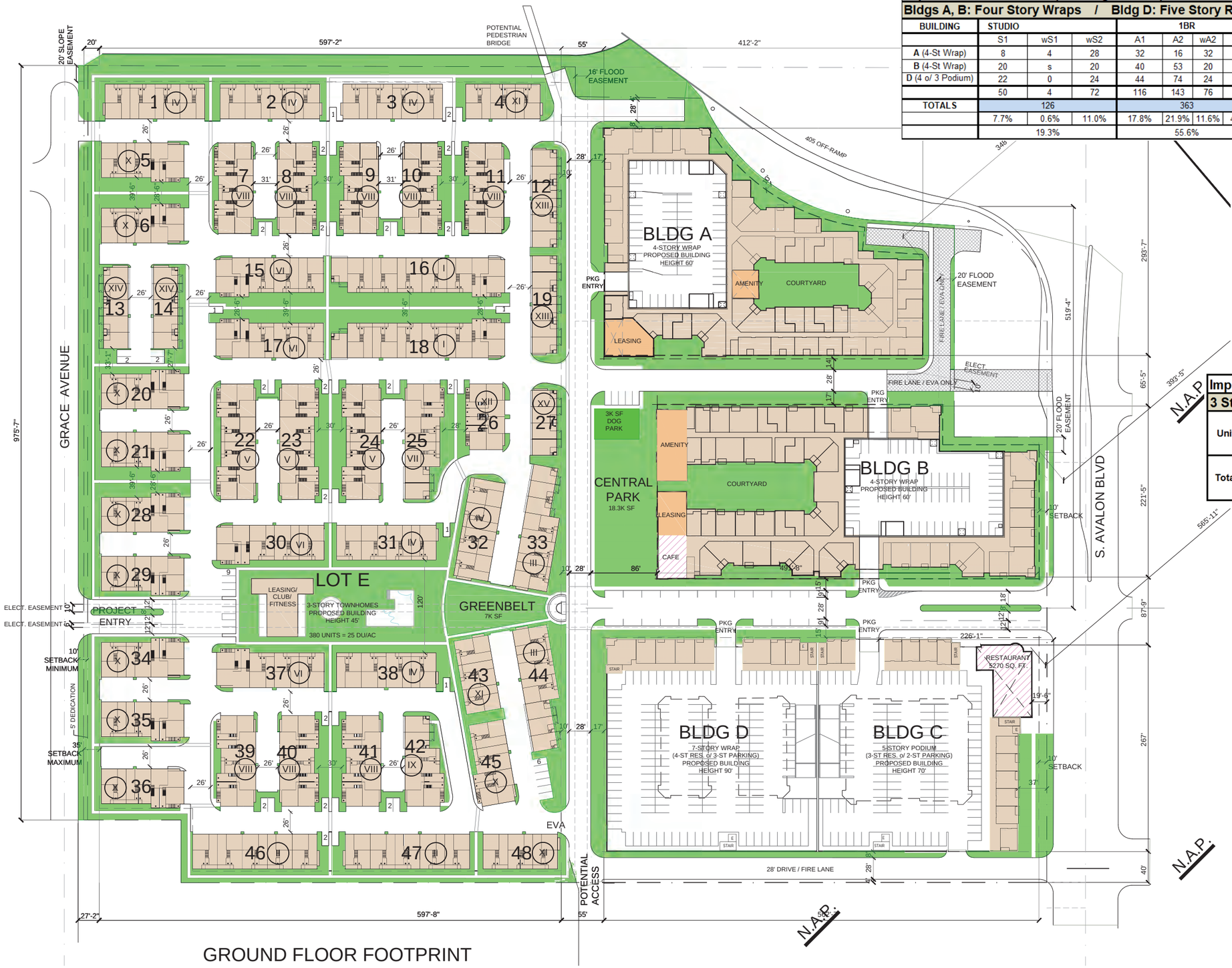
TABLE 1

LOADINGS FOR EACH CLASS OF LAND USE

DESCRIPTION	UNIT OF MEASURE	FLOW (Gallons Per Day)	COD (Pounds Per Day)	SUSPENDED SOLIDS (Pounds Per Day)
RESIDENTIAL				
Single Family Home	Parcel	260	1.22	0.59
Duplex	Parcel	312	1.46	0.70
Triplex	Parcel	468	2.19	1.05
Fourplex	Parcel	624	2.92	1.40
Condominiums	Parcel	195	0.92	0.44
Single Family Home (reduced rate)	Parcel	156	0.73	0.35
Five Units or More	No. of Dwlg. Units	156	0.73	0.35
Mobile Home Parks	No. of Spaces	156	0.73	0.35
COMMERCIAL				
Hotel/Motel/Rooming House	Room	125	0.54	0.28
Store	1000 ft^2	100	0.43	0.23
Supermarket	1000 ft^2	150	2.00	1.00
Shopping Center	1000 ft^2	325	3.00	1.17
Regional Mall	1000 ft^2	150	2.10	0.77
Office Building	1000 ft^2	200	0.86	0.45
Professional Building	1000 ft^2	300	1.29	0.68
Restaurant	1000 ft^2	1,000	16.68	5.00
Indoor Theatre	1000 ft^2	125	0.54	0.28
Car Wash				
Tunnel - No Recycling	1000 ft^2	3,700	15.86	8.33
Tunnel - Recycling	1000 ft^2	2,700	11.74	6.16
Wand	1000 ft^2	700	3.00	1.58
Financial Institution	1000 ft^2	100	0.43	0.23
Service Shop	1000 ft^2	100	0.43	0.23
Animal Kennels	1000 ft^2	100	0.43	0.23
Service Station	1000 ft^2	100	0.43	0.23
Auto Sales/Repair	1000 ft^2	100	0.43	0.23
Wholesale Outlet	1000 ft^2	100	0.43	0.23
Nursery/Greenhouse	1000 ft^2	25	0.11	0.06
Manufacturing	1000 ft^2	200	1.86	0.70
Dry Manufacturing	1000 ft^2	25	0.23	0.09
Lumber Yard	1000 ft^2	25	0.23	0.09
Warehousing	1000 ft^2	25	0.23	0.09
Open Storage	1000 ft^2	25	0.23	0.09
Drive-in Theatre	1000 ft^2	20	0.09	0.05

TABLE 1
(continued)
LOADINGS FOR EACH CLASS OF LAND USE

DESCRIPTION	UNIT OF MEASURE	FLOW (Gallons Per Day)	COD (Pounds Per Day)	SUSPENDED SOLIDS (Pounds Per Day)
C O M M E R C I A L				
Night Club	1000 ft^2	350	1.50	0.79
Bowling/Skating	1000 ft^2	150	1.76	0.55
Club	1000 ft^2	125	0.54	0.27
Auditorium, Amusement	1000 ft^2	350	1.50	0.79
Golf Course, Camp, and Park (Structures and Improvements	1000 ft^2	100	0.43	0.23
Recreational Vehicle Park	No. of Spaces	55	0.34	0.14
Convalescent Home	Bed	125	0.54	0.28
Laundry	1000 ft^2	3,825	16.40	8.61
Mortuary/Cemetery	1000 ft^2	100	1.33	0.67
Health Spa, Gymnasium				
With Showers	1000 ft^2	600	2.58	1.35
Without Showers	1000 ft^2	300	1.29	0.68
Convention Center, Fairground, Racetrack, Sports Stadium/Arena	Average Daily Attendance	10	0.04	0.02
I N S T I T U T I O N A L				
College/University	Student	20	0.09	0.05
Private School	1000 ft^2	200	0.86	0.45
Church	1000 ft^2	50	0.21	0.11



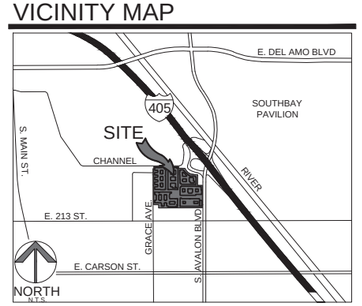
GROUND FLOOR FOOTPRINT

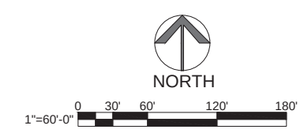
Imperial Avalon - TOTAL (Buildings A, B, D)													
Bldgs A, B: Four Story Wraps / Bldg D: Five Story Residential over 2-Level Podium (Liner Units & Parking)													
BUILDING	STUDIO			1BR				2BR					TOTAL
	S1	wS1	wS2	A1	A2	wA2	A4	B1	B2	B3	B4	B5	
A (4-St Wrap)	8	4	28	32	16	32	28	23	2	0	21	8	202
B (4-St Wrap)	20	s	20	40	53	20	0	8	22	0	0	23	206
D (4 o/ 3 Podium)	22	0	24	44	74	24	0	4	42	0	0	11	245
	50	4	72	116	143	76	28	35	66	0	21	42	**653**
TOTALS	126			363				164					
	7.7%	0.6%	11.0%	17.8%	21.9%	11.6%	4.3%	5.4%	10.1%	0.0%	3.2%	6.4%	**100%**
	19.3%			55.6%				25.1%					

Imperial Avalon - Bldg C-Seniors				
5 Story Podium (3-story Residential Over 2-story Liner Residential and Parking)				
LEVEL	STUDIO	1BR		TOTAL
	sS1	sA1	sA2	
5	16	8	28	52
4	16	8	28	52
3	16	8	28	52
2	4	0	8	12
1	4	0	8	12
	56	24	100	**180**
Totals	56	124		
	31.1%	13.3%	55.6%	**100%**
	31.1%	68.9%		

Imperial Avalon - Lot E							
3 Story Townhome Residential							
	2BR			3BR			TOTAL
Units	TH-B1	TH-B2	TH-B3	TH-C1	TH-C2	TH-C3	
	42	42	108	38	42	108	**380**
Totals	192			188			
	11.1%	11.1%	28.4%	10.0%	11.1%	28.4%	**100%**
	50.5%			49.5%			

VICINITY MAP





IMPERIAL AVALON MIXED USE

CARSON, CA 90745

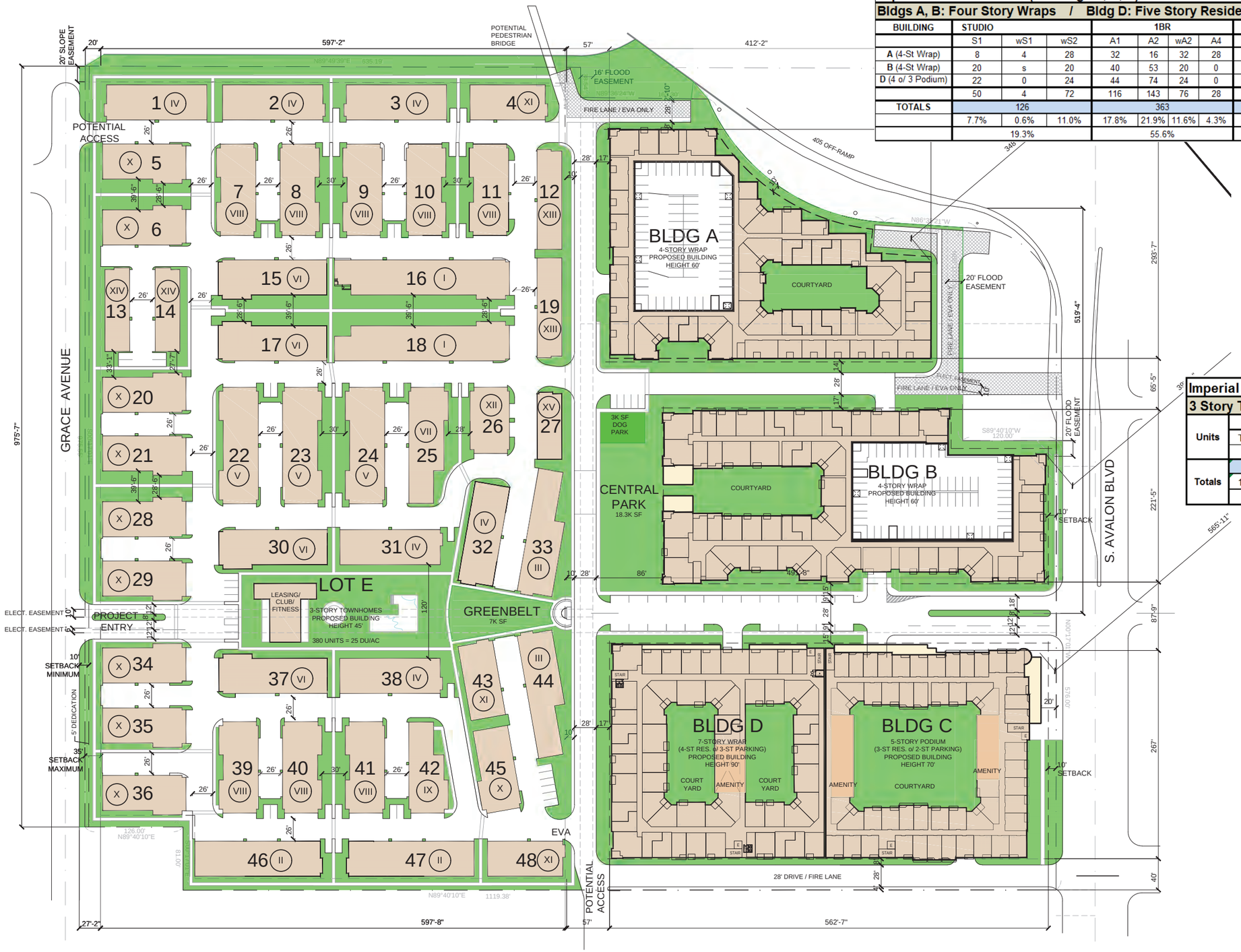
RESIDENTIAL BUILDINGS
Site Plan

Architecture. Design. Relationships.

A1.1

Scale 1" = 60'
Job No. 2019-298
Date 09-30-2020

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Imperial Avalon - TOTAL (Buildings A, B, D)

Bldgs A, B: Four Story Wraps / Bldg D: Five Story Residential over 2-Level Podium (Liner Units & Parking)

BUILDING	STUDIO			1BR				2BR					TOTAL
	S1	wS1	wS2	A1	A2	wA2	A4	B1	B2	B3	B4	B5	
A (4-St Wrap)	8	4	28	32	16	32	28	23	2	0	21	8	202
B (4-St Wrap)	20	s	20	40	53	20	0	8	22	0	0	23	206
D (4 o/ 3 Podium)	22	0	24	44	74	24	0	4	42	0	0	11	245
	50	4	72	116	143	76	28	35	66	0	21	42	**653**
TOTALS	126			363				164					
	7.7%	0.6%	11.0%	17.8%	21.9%	11.6%	4.3%	5.4%	10.1%	0.0%	3.2%	6.4%	**100%**
	19.3%			55.6%				25.1%					

Imperial Avalon - Bldg C-Seniors

5 Story Podium
(3-story Residential Over 2-story Liner Residential and Parking)

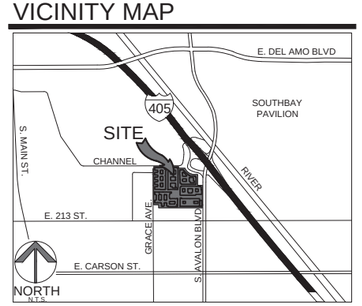
LEVEL	STUDIO	1BR		TOTAL
	sS1	sA1	sA2	
5	16	8	28	52
4	16	8	28	52
3	16	8	28	52
2	4	0	8	12
1	4	0	8	12
	56	24	100	**180**
Totals	56	124		
	31.1%	13.3%	55.6%	**100%**
	31.1%	68.9%		

Imperial Avalon - Lot E

3 Story Townhome Residential

	2BR			3BR			TOTAL
Units	TH-B1	TH-B2	TH-B3	TH-C1	TH-C2	TH-C3	
	42	42	108	38	42	108	**380**
Totals	192			188			
	11.1%	11.1%	28.4%	10.0%	11.1%	28.4%	**100%**
	50.5%			49.5%			

VICINITY MAP



NORTH

1"=60'-0" 0 30' 60' 120' 180'

IMPERIAL AVALON MIXED USE

CARSON, CA 90745

RESIDENTIAL BUILDINGS
Upper Level Site Plan

Architecture. Design. Relationships.

A1.2

Scale 1" = 60'
Job No. 2019-298
Date 09-30-2020

Thursday, October 01, 2020 12:31:11 PM
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APPENDIX B

FlowMaster Capacity Calculations

8" Pipe - half full capacity

Project Description

Friction Method	Manning Formula
Solve For	Discharge

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.00300	ft/ft
Normal Depth	4.00	in
Diameter	8.00	in

Results

Discharge	213878.82	gal/day
Flow Area	0.17	ft²
Wetted Perimeter	1.05	ft
Hydraulic Radius	2.00	in
Top Width	0.67	ft
Critical Depth	0.27	ft
Percent Full	50.0	%
Critical Slope	0.00660	ft/ft
Velocity	1.90	ft/s
Velocity Head	0.06	ft
Specific Energy	0.39	ft
Froude Number	0.65	
Maximum Discharge	0.71	ft³/s
Discharge Full	0.66	ft³/s
Slope Full	0.00075	ft/ft
Flow Type	SubCritical	

GVF Input Data

Downstream Depth	0.00	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	50.00	%
Downstream Velocity	Infinity	ft/s

8" Pipe - half full capacity

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	4.00	in
Critical Depth	0.27	ft
Channel Slope	0.00300	ft/ft
Critical Slope	0.00660	ft/ft

12 inch - Half Full Capacity

Project Description

Friction Method	Manning Formula
Solve For	Discharge

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.02000	ft/ft
Normal Depth	6.00	in
Diameter	12.00	in

Results

Discharge	2.52	ft³/s
Flow Area	0.39	ft²
Wetted Perimeter	1.57	ft
Hydraulic Radius	3.00	in
Top Width	1.00	ft
Critical Depth	0.68	ft
Percent Full	50.0	%
Critical Slope	0.00770	ft/ft
Velocity	6.41	ft/s
Velocity Head	0.64	ft
Specific Energy	1.14	ft
Froude Number	1.80	
Maximum Discharge	5.42	ft³/s
Discharge Full	5.04	ft³/s
Slope Full	0.00500	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.00	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	50.00	%
Downstream Velocity	Infinity	ft/s

12 inch - Half Full Capacity

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	6.00	in
Critical Depth	0.68	ft
Channel Slope	0.02000	ft/ft
Critical Slope	0.00770	ft/ft

APPENDIX C

Los Angeles County Department of Public Works

Record Maps

SEE SHT. NO. S-1704

C-33
C-34
C-36
C-37

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. S-1650

SEE SHT. NO. S-1760

SEE SHT. NO. S-1706

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: 1102

MAP REV
07-02-18

DATA BASE REV
06-10-86

CONSOLIDATED S.M.D.

T: 764 A-5

0219.0319.1705

SEE SHT. NO. S-1759

C-34
C-35
C-36

CITY OF CARSON

SAN DIEGO

DOMINGUEZ

CHICO

213TH ST

SHERIFF STA

CIVIC CENTER

CITY HALL

CARSON ST

SAN. DIST. TRUNK

CARNEGIE JR HS

BONITA ST ELEM

CALAS PARK

DOLPHIN PARK

FRIENDSHIP PARK

PACIFICA VILLA CR

RECREATION ROAD PUMP STATION

WATSON CENTER

WILMINGTON 30IN OUTFALL "B" SEC. 7

WILMINGTON AV. TRUNK

CHANNEL

FW

SAN DIEGO FRWY

FIRE STA

PUMP STA.

WESTWARD AV

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: 615

SEE SHT. NO. S-1705

SEE SHT. NO. S-1815

SEE SHT. NO. S-1761

E 4,207,000
N 4,046,500

MAP REV
05-19-16

DATA BASE REV
05-21-86

CONSOLIDATED S.M.D.

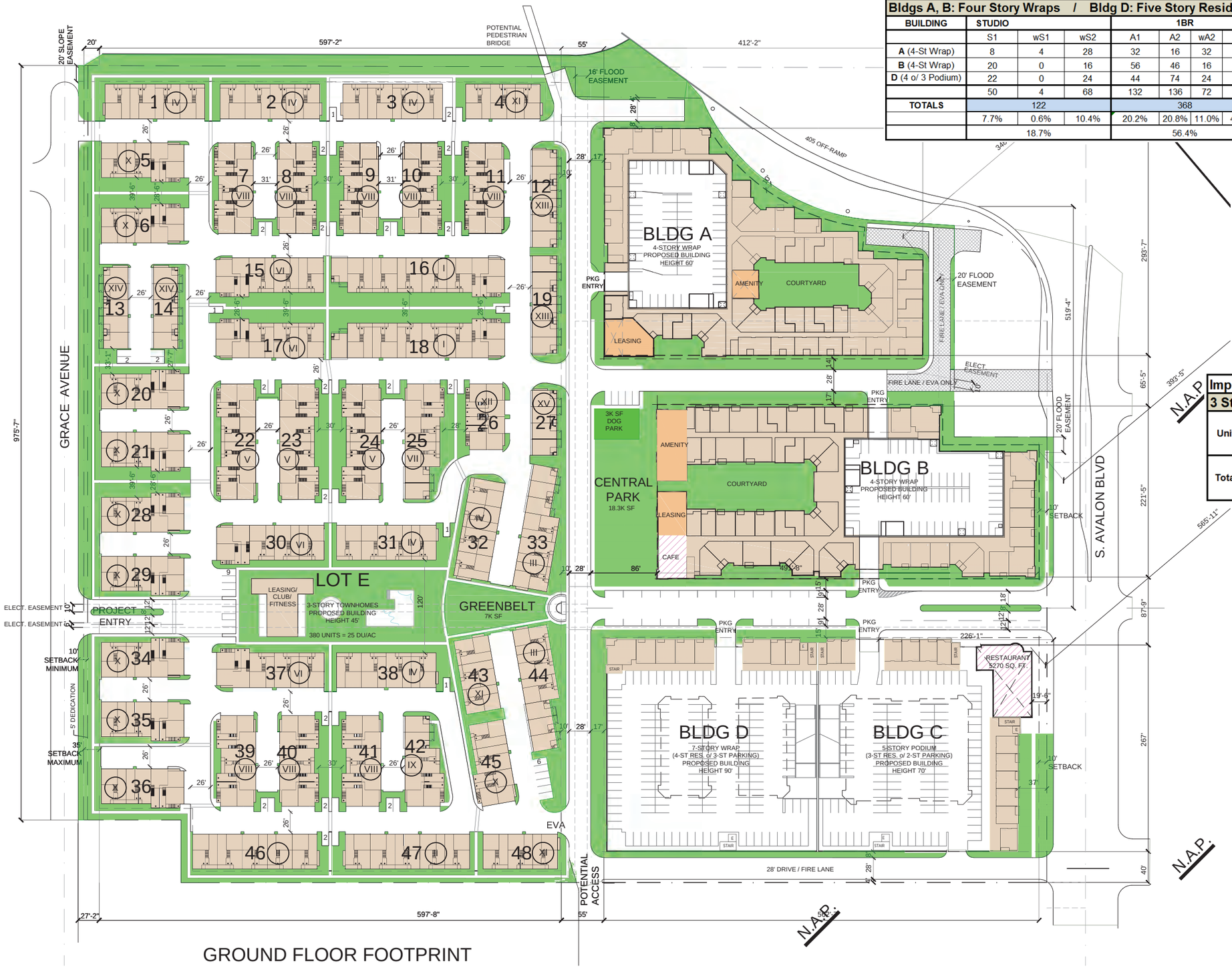
S-1760

T: 764 E-7

0219-0319-1760

APPENDIX D

Additional Information



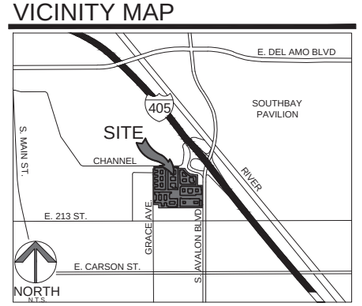
GROUND FLOOR FOOTPRINT

Imperial Avalon - TOTAL (Buildings A, B, D)													
Bldgs A, B: Four Story Wraps / Bldg D: Five Story Residential over 2-Level Podium (Liner Units & Parking)													
BUILDING	**STUDIO**			**1BR**				**2BR**					**TOTAL**
	S1	wS1	wS2	A1	A2	wA2	A4	B1	B2	B3	B4	B5	
A (4-St Wrap)	8	4	28	32	16	32	28	23	2	0	21	8	202
B (4-St Wrap)	20	0	16	56	46	16	0	8	24	0	0	20	206
D (4 o/ 3 Podium)	22	0	24	44	74	24	0	4	42	0	0	11	245
	50	4	68	132	136	72	28	35	68	0	21	39	**653**
TOTALS	122			368				163					
	7.7%	0.6%	10.4%	20.2%	20.8%	11.0%	4.3%	5.4%	10.4%	0.0%	3.2%	6.0%	**100%**
	18.7%			56.4%				25.0%					

Imperial Avalon - Bldg C-Seniors				
5 Story Podium (3-story Residential Over 2-story Liner Residential and Parking)				
LEVEL	**STUDIO**	**1BR**		**TOTAL**
	sS1	sA1	sA2	
5	16	8	28	52
4	16	8	28	52
3	16	8	28	52
2	4	0	8	12
1	4	0	8	12
	56	24	100	**180**
Totals	56	124		
	31.1%	13.3%	55.6%	**100%**
	31.1%	68.9%		

Imperial Avalon - Lot E							
3 Story Townhome Residential							
Units	**2BR**			**3BR**			**TOTAL**
	TH-B1	TH-B2	TH-B3	TH-C1	TH-C2	TH-C3	
	42	42	108	38	42	108	**380**
Totals	192			188			
	11.1%	11.1%	28.4%	10.0%	11.1%	28.4%	**100%**
	50.5%			49.5%			

VICINITY MAP



NORTH

1"=60'-0" 0 30' 60' 120' 180'

IMPERIAL AVALON MIXED USE

CARSON, CA 90745

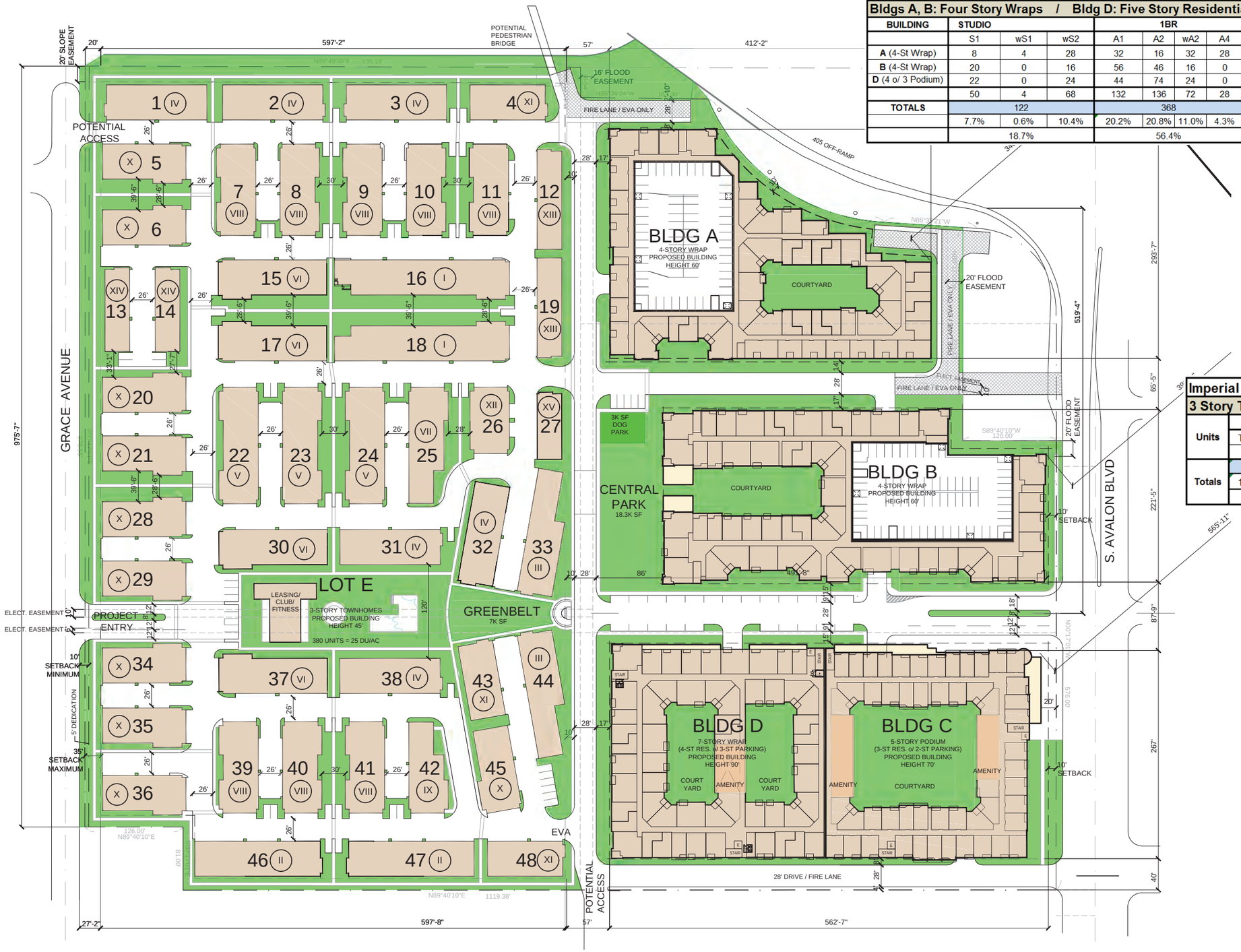
RESIDENTIAL BUILDINGS
Site Plan

Architecture. Design. Relationships.

A1.1

Scale 1" = 60'
Job No. 2019-298
Date 09-30-2020

Thursday, October 01, 2020 12:26:02 PM
R:\2019\2019-298 FARING CAPITAL IMPERIAL AVALON CARSON\03 DESIGN\02 SCHEMATIC\02 AUTOCAD\19-298_A1.1-1.2 SITE PLAN.DWG



Imperial Avalon - TOTAL (Buildings A, B, D)

Bldgs A, B: Four Story Wraps / Bldg D: Five Story Residential over 2-Level Podium (Liner Units & Parking)

BUILDING	STUDIO			1BR				2BR					TOTAL
	S1	wS1	wS2	A1	A2	wA2	A4	B1	B2	B3	B4	B5	
A (4-St Wrap)	8	4	28	32	16	32	28	23	2	0	21	8	202
B (4-St Wrap)	20	0	16	56	46	16	0	8	24	0	0	20	206
D (4 o/ 3 Podium)	22	0	24	44	74	24	0	4	42	0	0	11	245
	50	4	68	132	136	72	28	35	68	0	21	39	**653**
TOTALS	122			368				163					
	7.7%	0.6%	10.4%	20.2%	20.8%	11.0%	4.3%	5.4%	10.4%	0.0%	3.2%	6.0%	**100%**
	18.7%			56.4%				25.0%					

Imperial Avalon - Bldg C-Seniors

5 Story Podium
(3-story Residential Over 2-story Liner Residential and Parking)

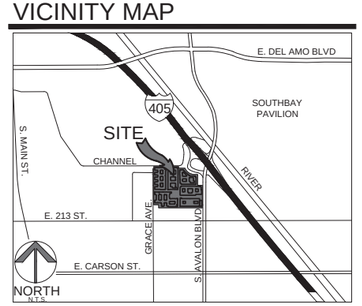
LEVEL	STUDIO	1BR		TOTAL
	sS1	sA1	sA2	
5	16	8	28	52
4	16	8	28	52
3	16	8	28	52
2	4	0	8	12
1	4	0	8	12
	56	24	100	**180**
Totals	56	124		
	31.1%	13.3%	55.6%	**100%**
	31.1%	68.9%		

Imperial Avalon - Lot E

3 Story Townhome Residential

	2BR			3BR			TOTAL
Units	TH-B1	TH-B2	TH-B3	TH-C1	TH-C2	TH-C3	
	42	42	108	38	42	108	**380**
Totals	192			188			
	11.1%	11.1%	28.4%	10.0%	11.1%	28.4%	**100%**
	50.5%			49.5%			

VICINITY MAP



NORTH

1"=60'-0" 0 30' 60' 120' 180'

IMPERIAL AVALON MIXED USE

CARSON, CA 90745

RESIDENTIAL BUILDINGS
Upper Level Site Plan

Architecture. Design. Relationships.

A1.2

Scale 1" = 60'
Job No. 2019-298
Date 09-30-2020

Thursday, October 01, 2020 12:31:11 PM
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