



El Paso Industrial Park

***31.2+/- Acre Development
Project***

Analysis Completed August 11, 2025

Public Water & Sewer Impact Analysis

Prepared by Ardurra, for The City of Flagstaff Water Services

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Public Water and Sewer Impact Analysis

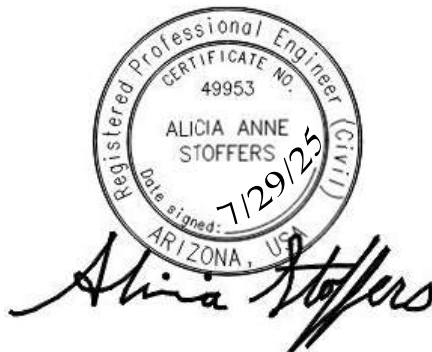
El Paso Industrial Park

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I. INTRODUCTION

The El Paso Industrial Park project is located on the northwest corner of El Paso Flagstaff Road and Route 66 in Flagstaff with an Assessor's Parcel Number of 113-37-STATE1. This State Land was recently auctioned off to private ownership and the new owners are proposing this project and Rezoning. The project is located in Section 08, Township 21 North, Range 8 East (See Figure 1 – Vicinity Map on the following page). The proposed development lies within the City of Flagstaff Urban Growth Boundary and is able to be served by City water and sewer utilities.

The parcel has a total area of 54.1 acres and will be subdivided into various parcels. The development will consist of the rezoning of State Trust Land to Heavy Industrial, with portions going to Arizona Department of Transportation (ADOT) and other areas being dedicated to the City of Flagstaff for their use in relation to rural floodplain management in the Rio De Flag. The portion of the parcel that will be developed is 31.2 acres, which is used as the basis for this analysis.

The El Paso Rd Industrial Park Site Analysis Map, dated May 2024, (Site Analysis Map - Exhibit 1) was provided to the City by Ardurra and has been used as the basis for this analysis. The Site Analysis Map (Exhibit 1) shows the proposed sub-dividing of APN 113-37-STATE1.

The criteria used herein to estimate the project's utility impacts are from the City of Flagstaff Engineering Design Standards, Chapter 13-09, effective October 2017. This Water and Sewer Impact Analysis (WSIA) is considered valid for two years from its completion date, which is August 11, 2025.

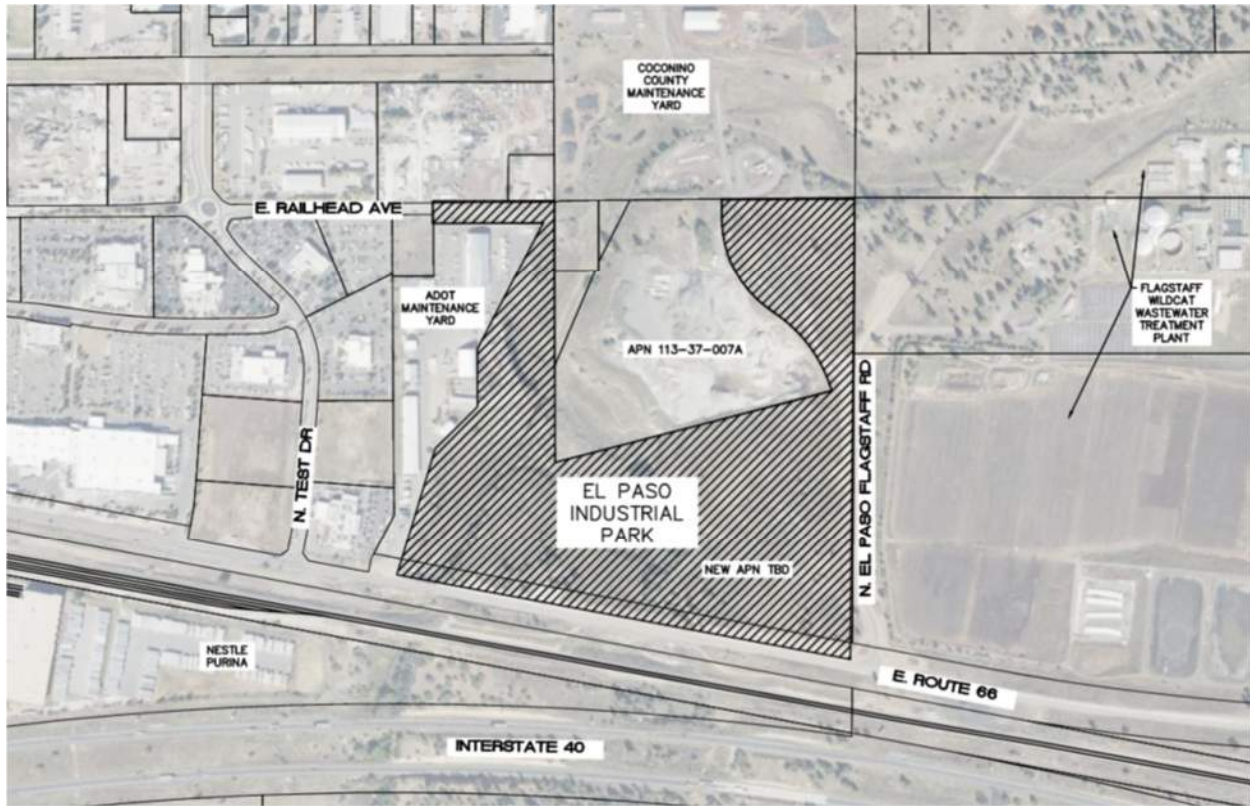


Figure 1 – Vicinity Map

II. ANALYSIS SUMMARY

A. ON-SITE MODIFICATIONS

Water: There is no infrastructure onsite to support this development, so all systems will have to be designed and built.

Sewer: There is no infrastructure onsite to support this development, so all systems will have to be designed and built.

B. OFF-SITE MODIFICATIONS

Water: The project site is adjacent to the existing El Paso Flagstaff Rd and Route 66. El Paso Flagstaff Rd has an 8-inch waterline underneath, and Route 66 contains a 12-inch waterline within the right-of-way. Since there is infrastructure within both roads that can be utilized for water service connections, **there will be no off-site modifications required** prior to connecting to the existing system. Taping and connecting to the existing system shall be done per Flagstaff standards.

Per the Flagstaff International Fire Code amendments (5-02-001-0005), the following code applies and will be required by the onsite waterline extensions.

Amend Section 507.2, Type of water supply, by adding:

Water supply for a major system component as described by the American Water Works Association must provide a continuous and uninterrupted supply of fire protection water through redundancy. Fire mains in excess of 1,000 feet in length or which have more than 3 hydrants affixed shall be looped to a second source of water. All fire mains hereafter constructed shall be a minimum of 8-inch diameter but in all cases shall be of sufficient size to adequately supply the required fire flow.

Sewer: Currently, there is a 30-inch sewer trunkline (Rio De Flag) that runs along the west and north portion of the property that is being zoned as Heavy Industrial. This sewer trunkline can be utilized for sewer service. Therefore, **no offsite improvements will be required** prior to connecting to the existing system.

In order to provide adequate downstream capacity, offsite sewer improvements will be necessary on the Rio de Flag trunkline near the Wildcat Treatment Plant. Per COF Engineering Standards Section 13-05-002-0002 C.2., these may not be

required of the developer on the sewer trunkline. The City will fund the design of this upgrade and will fund, for prioritized completion, the actual construction of the upsized sewer trunkline. These offsite improvements must be completed prior to connecting to the existing system.

III. WATER SYSTEM ANALYSIS

A. EXISTING WATER SYSTEM

No existing onsite improvements.

B. PROPOSED WATERLINE EXTENSIONS

The Site Analysis Map (Exhibit 1) shows 8" water connection locations for the proposed development, with each parcel connecting to the existing system within the adjacent street. Fire hydrants are shown to provide firefighting capabilities. The existing water mains fall within the City of Flagstaff Pressure Zone B.

C. WATER SYSTEM DEMANDS

The following quantifies the anticipated water demands for the project. The demand criteria for fire flow is from the City of Flagstaff Code 13-09-003-0004.2.

Water System Demand

Site Acreage Total	31.19 acres
Site Acreage (Southwest Connection)	5.97 acres
Site Acreage (Northeast Connection)	25.22 acres
Average Flow per Acre	2,000 gpd
Peak Flow Per Acre	5,000 gpd
Average Total Daily Flow (Southwest Connection)	11,940 gpd
Peak Total Daily Flow (Southwest Connection)	29,850 gpd or 20.7gpm
Average Total Daily Flow (Northeast Connection)	50,440 gpd
Peak Total Daily Flow (Northeast Connection)	126,100 gpd or 87.6gpm

D. WATER SYSTEM ANALYSIS RESULTS

Bentley WaterGEMS software was used for simulations of peak daily and fire flow. The analysis area of the surrounding water system for this project is shown on the GIS Water Map, Exhibit 2. This area includes all of Zone B along El Paso Flagstaff Road, as well as portions of Route 66, Commerce Ave, Railhead Ave, and Test Dr.

Results of the water demand computer analysis are in Appendix A and the Junction Map is Exhibit 4. The peak daily flows in the project vicinity range in pressures from 169.0-psi (J-4810, 8-inch waterline within the Wildcat

Wastewater Treatment Plant, APN 113-07-002A) to 101.3 (J-14201, 8-inch waterline in the Coconino County Maintenance Yard, APN 113-10-003). The rest of the nodes show consistent pressure results given the elevations of the junction nodes within the analyzed boundary.

The new loads for the project are input at junctions J-121 and J-127 for the southwestern and northeastern portions of the project respectively. The peak daily flow yields pressures of 156.9-psi at J-121 and 149.1 psi at J-127. This project meets the minimum pressure requirements stated in the City of Flagstaff Engineering Standards and does not negatively impact the Flagstaff water system.

A pressure-reducing valve is required by the City of Flagstaff (COF) Engineering Design Standards (EDS) if the pressure is above 80-psi pressure. If high pressures occur on-site the developer will be required to install pressure-reducing valves after the meter.

Based on the computer simulation of fire flow, residual pressures in the project vicinity are projected to remain at, or above, 20-psi (COF EDS 13-09) during fire flow scenarios of 1,500 gpm or less. The hydrants in the analysis area can provide the required fire flow. Results are included in Appendix B with hydrant locations on Exhibit 5.

The lowest fire flow available (2,043gpm) within the analysis area occurs at hydrant 142902 which is within the Wildcat Wastewater Treatment Plant. Therefore, this project does not reduce the available flow below the COF standard.

It is the developer's responsibility to design, acquire adequate right-of-way for, and construct all on-site and connecting water infrastructure per all applicable City, State, and Federal rules and regulations.

IV. SEWER SYSTEM ANALYSIS

A. EXISTING SEWER SYSTEM

The unsubdivided project site is crossed by the existing City of Flagstaff 30-inch trunkline running through the Rio De Flag. The Rio De Flag portion of the subject property will be a parcel sold to the City of Flagstaff, per the Site Analysis Map (Exhibit 1). The sewer line information is based on the City of Flagstaff Geographic Information System (GIS) data shown on Exhibit 3.

B. PROPOSED SEWER SYSTEM EXTENSIONS

The Site Analysis Map (Exhibit 1) shows the intended layout of the site, along with 2 proposed tap locations to the 30-inch trunkline. These connection Points shall be coordinated with the City of Flagstaff to be included in the Wildcat Interceptor project. A new 48" sewer main will be constructed to replace the 30" existing main in 2026.

The manhole location near Rt 66 is not feasible. A manhole within the concrete outlet structure is not constructible.

The proposed on-site sewer system was not analyzed as a part of this report and shall be addressed by the A/E as part of their design for their project. The A/E's engineering analysis and design, including tapping of the existing system, shall be consistent with the requirements called out in the City of Flagstaff Engineering Standards.

C. SEWER SYSTEM FLOWRATES

The following criteria were utilized in determining the anticipated wastewater generation for this project. The following demand criteria is from the City of Flagstaff Code 13-09-002-0002.

Sewer System Demand

Site Acreage Total	31.19 acres
Site Acreage (Southwest Connection)	5.97 acres
Site Acreage (Northeast Connection)	25.22 acres
Average Flow per Acre	1,000 gpd
Peak Flow Per Acre	3,000 gpd
Average Total Daily Flow (Southwest Connection)	5,970 gpd
Peak Total Daily Flow (Southwest Connection)	17,910 gpd or 0.018 MGD
Average Total Daily Flow (Northeast Connection)	25,220 gpd
Peak Total Daily Flow (Northeast Connection)	75,660 gpd or 0.076 MGD

D. SEWER SYSTEM ANALYSIS RESULTS

No modeling results or analysis are provided since this development ties directly into the Rio De Flag trunkline, which is the City's responsibility. There are no downstream impacts that need to be addressed by this development. The information provided in this report is included simply to ensure the accuracy of the sewer model for analysis of other projects.

E. FLAGSTAFF DOWNSTREAM SEWER CAPACITY

Downstream of the study area, the Flagstaff trunkline in the Rio De Flag is at capacity. The additional wastewater flow (31,190 gpd average day flow) created by El Paso Industrial Park project cannot be accommodated within the current wastewater collection system. As currently projected, this project will put certain segments of pipes in the wastewater collection system over the maximum capacity of the peak day dry weather flow identified in the City's Engineering Standards (70% d/D) and over the maximum capacity for the wet weather peak flows identified by ADEQ (pipe flowing full).

Resolving this issue is an urgent priority for the City of Flagstaff. The City of Flagstaff is actively working to fund and construct the necessary improvements to the sewer trunkline to create additional capacity. While the funding and timeline for construction of the City's improvements is still undetermined, the City is committed to completing the improvements prior to the El Paso Industrial Park project coming online. As such, the El Paso Industrial Park project's connection to the sewer system is contingent on the successful completion of the trunkline improvement and, therefore the City's sewer trunkline improvements must be

completed before El Paso Industrial Park receives any certificate of occupancy (or equivalent) on the project.

According to the City of Flagstaff's Biosolids Master Plan developed by Carollo in 2019, the City's wastewater treatment capacity for both treatment plants combined is 6.3 MGD average daily flow based on current conditions and configurations. Average daily flows for both plants measured 5.404 MGD for the calendar year 2021. The remaining treatment capacity of both plants combined has been previously committed. The City is creating additional wastewater treatment capacity currently scheduled for completion by the end of 2025. The additional wastewater demand created by the El Paso Industrial Park project can be accommodated within the current wastewater treatment capacity projections. Therefore, the two-year reservation of capacity through the WSIA is not contingent upon the successful construction of improvements by 2025.

V. CONCLUSIONS & REQUIREMENTS

Sewer and water service to all adjacent homes and businesses must be maintained during construction and tapping for this project.

The findings of this analysis indicate that the completion of the project will comply with public water and sewer infrastructure requirements as outlined in the current City of Flagstaff Engineering Standards as long as all on-site infrastructure is designed and constructed per the Engineering Standards and as stipulated herein. All new service connections to the City water and sewer infrastructure are required to pay capacity fees for the new connection to the public water and sewer system. Deviations from the intent shown on the developer's provided preliminary drawings, and/or further development beyond what was shown on the preliminary drawings will require additional review and must gain full IDS (Inter-Division Staff) Approval. This WSIA does not guarantee conformance to any other codes, standards, or specifications listed with this report, similar to, but not limited to, IBC, IFC, IRC, etc.

The location(s) of any required fire hydrants related to this project is (are) left to the discretion of the City of Flagstaff Fire Department per City of Flagstaff Engineering Standards and current Fire Codes. Approval by the City Engineer shall also be obtained.

Water and Sewer computer analyses were done with Bentley Systems WaterGEMS and SewerGEMS software. The existing City of Flagstaff master water and sewer models were modified to incorporate the estimated infrastructure and flows that will be required by this development.

All existing utility information is based on the City of Flagstaff GIS data and other information contained within the WaterGEMS & SewerCAD master models or provided by the City of Flagstaff engineering staff. The developer's A/E should confirm the City water system supply and wastewater collection system pipe sizes, materials, and locations as part of their design for connection to the COF water and sewer systems.

Changes to the development plan can impact the results of this Water and Sewer Impact Analysis. Those changes include modification of the development size, area of commercial space, number or type of residential units, population, etc. If such changes are made, then the developer must apply for an updated analysis and provide the proposed changes to the City of Flagstaff for review

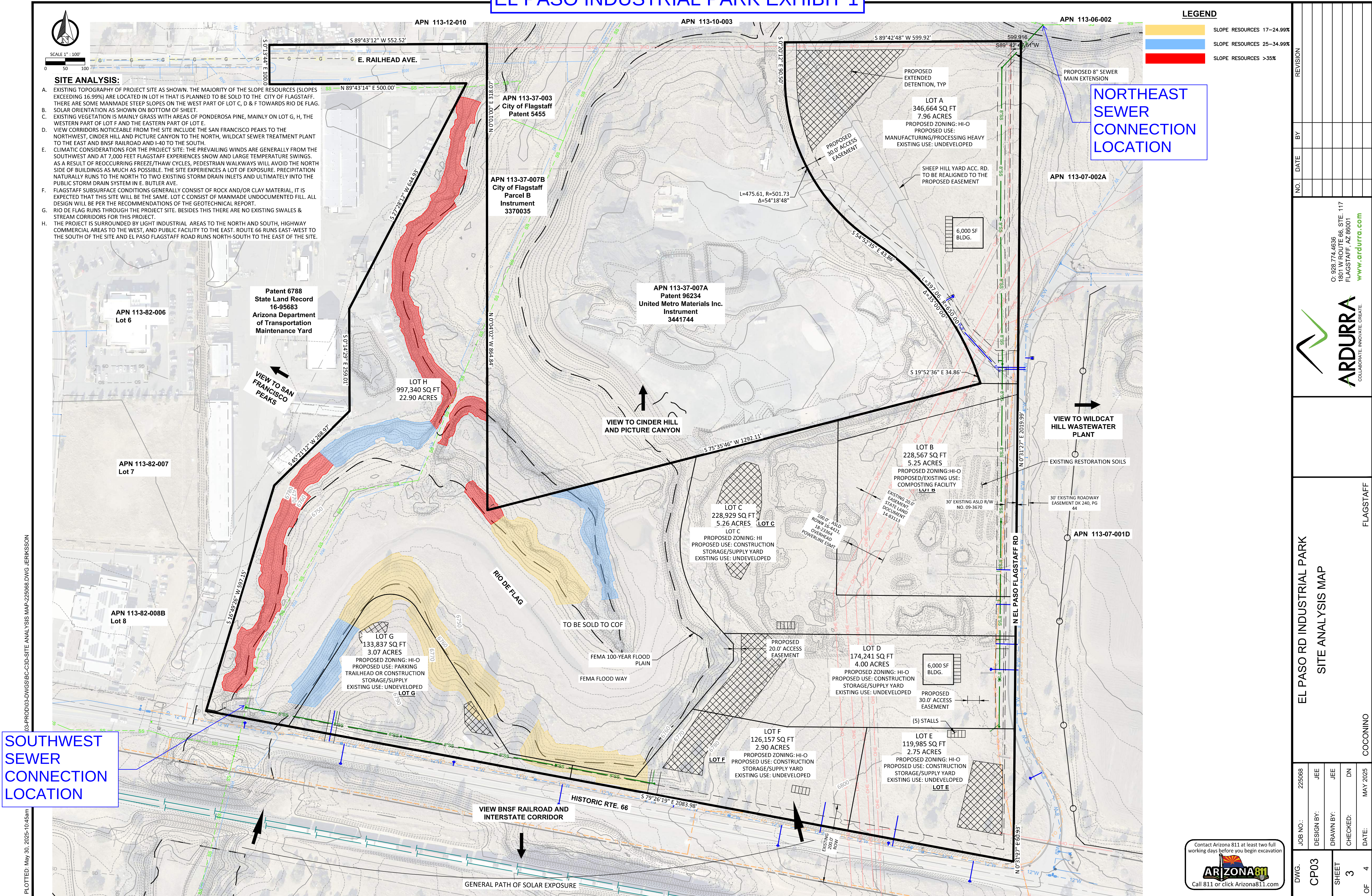
and consideration.

This WSIA is considered valid for two years from its completion date, 8/11/2025, which is the date of the engineer's seal on the cover sheet and table of contents of this WSIA. All water and sewer utility lines and treatment plant capacity reservations as a result of this study will expire at that time. This WSIA will function as place holder for the developer. The capacity assurances discussed within this report will be provided by the City for 2 years. At which time the developer will need to have applied for a building permit or will be removed from the list of assured capacity. If this project is removed from the capacity assurance list, the developer will need to re-apply for capacity assurance by getting a new WSIA.



Exhibit Maps

EL PASO INDUSTRIAL PARK EXHIBIT 1



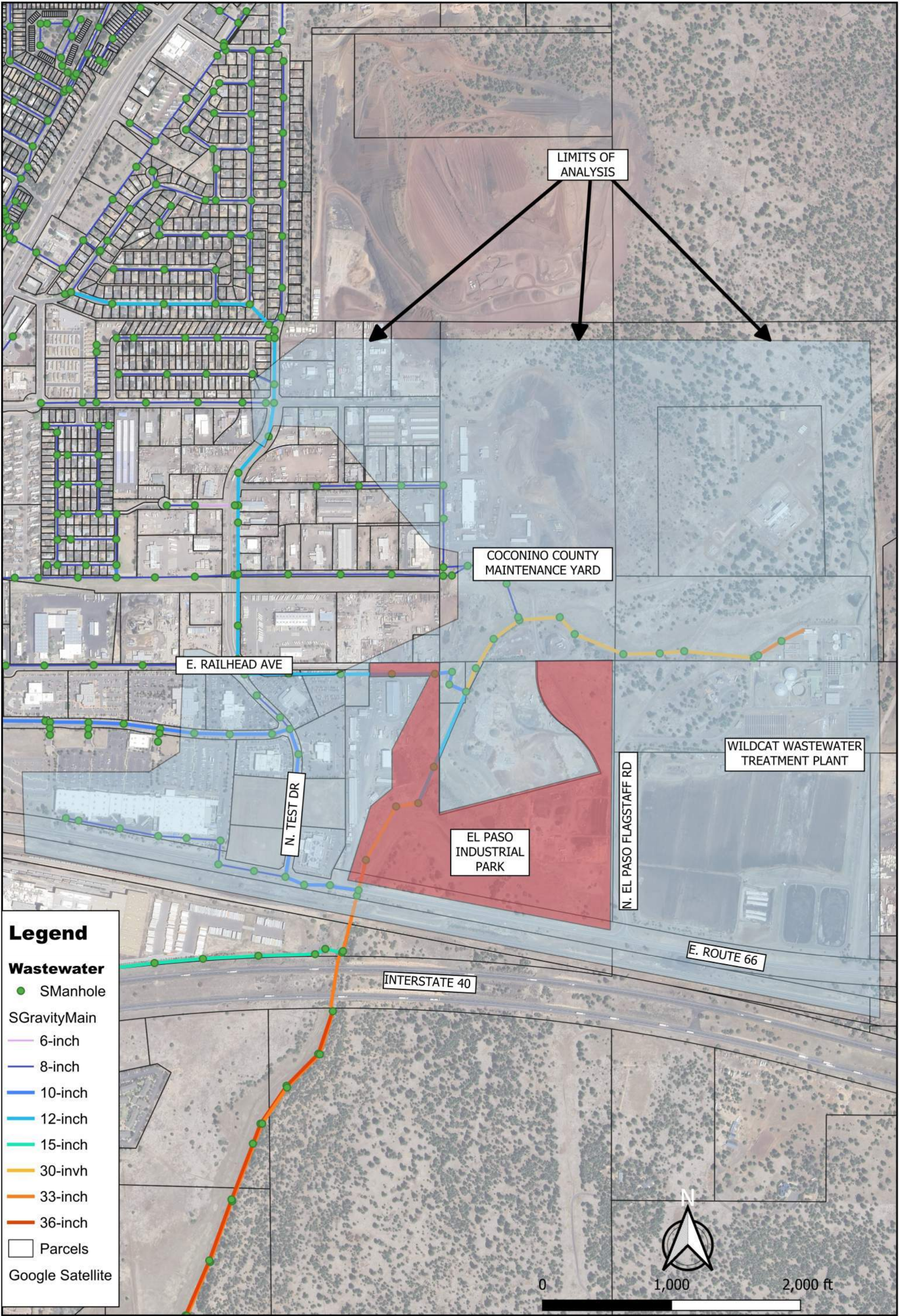


EXHIBIT 2	DRAWN BY:	SJC	EL PASO INDUSTRIAL PARK EXISTING WATER GIS MAP FLAGSTAFF ARIZONA		
	DATE:	7/11/25			
	COF NO.	PZ -23-00235			
	JOB NO:	224168			

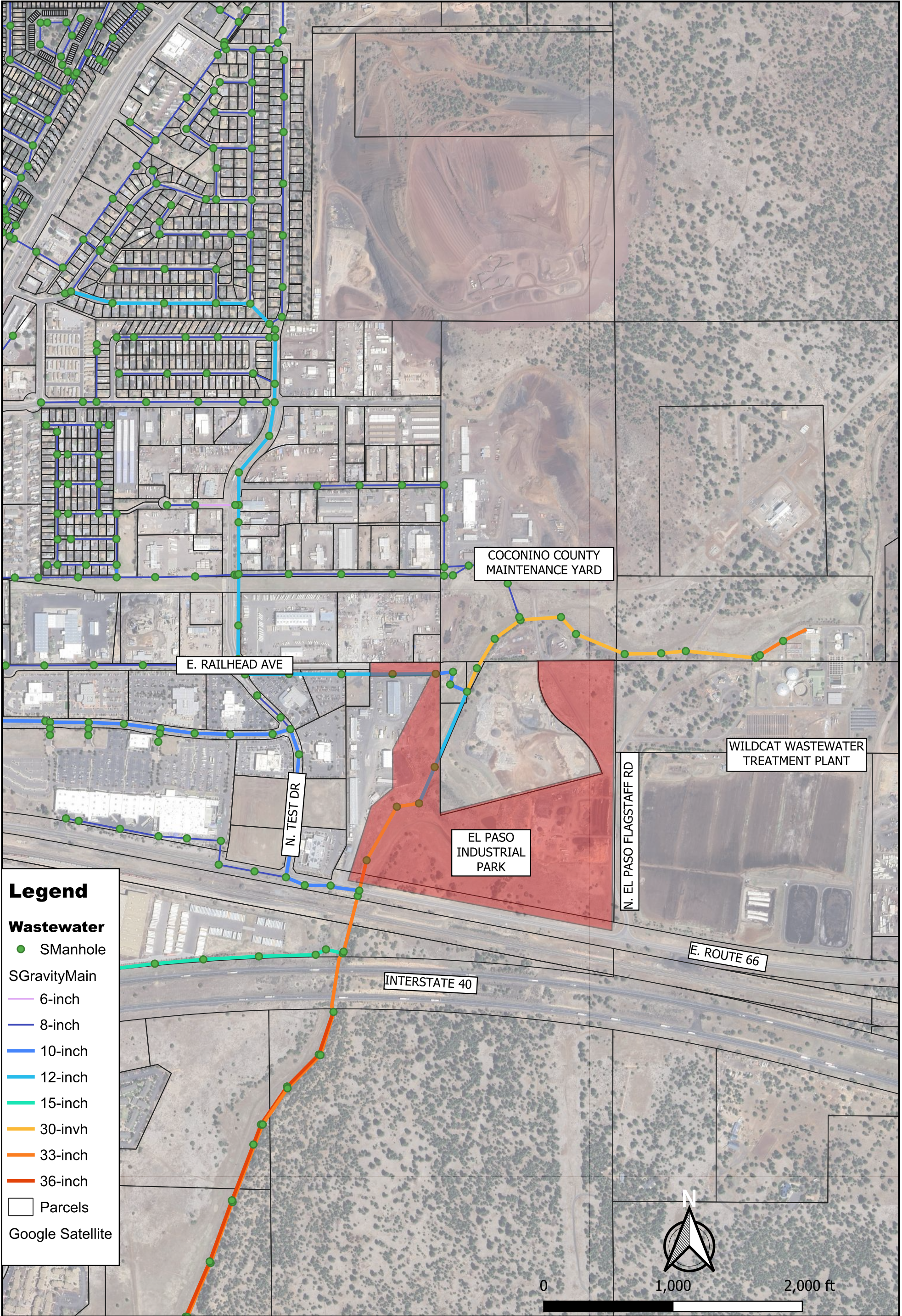
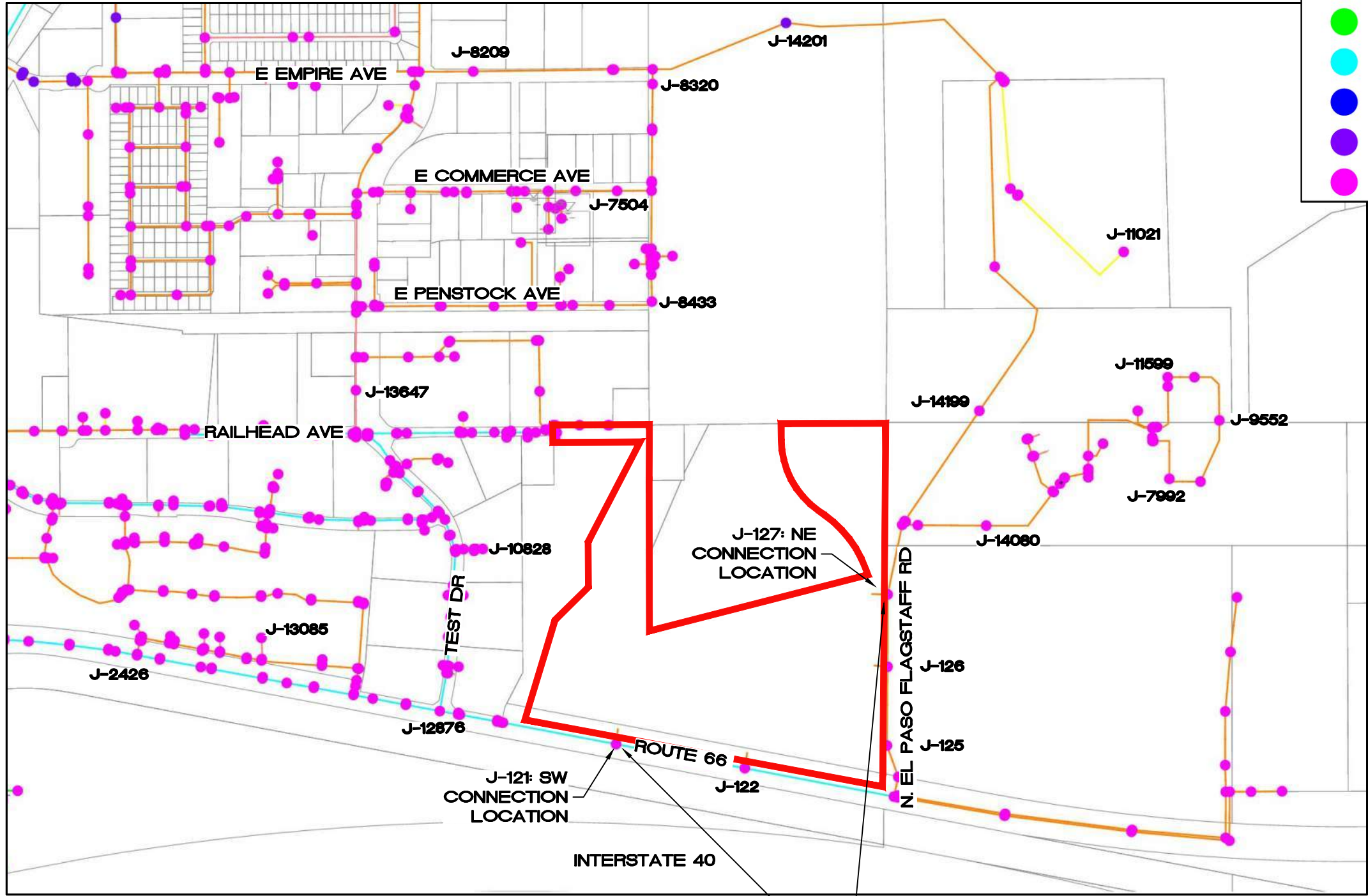


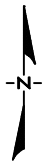
EXHIBIT 3	DRAWN BY:	SJC	EL PASO INDUSTRIAL PARK EXISTING SEWER GIS MAP FLAGSTAFF ARIZONA		
	DATE:	7/11/25			
	COF NO.	PZ -23-00235			
	JOB NO:	224168			



Junction: Pressure (psi)	
●	≤ 20.0
●	≤ 40.0
●	≤ 60.0
●	≤ 80.0
●	≤ 100.0
●	≤ 120.0
●	Other

Pipe: Diameter (in)	
—	≤ 5.0
—	≤ 6.0
—	≤ 8.0
—	≤ 10.0
—	≤ 12.0
—	≤ 16.0
—	≤ 18.0
—	≤ 24.0

NOTE: ALL
JUNCTIONS
SHOWN ON
THIS MAP FALL
WITHIN
PRESSURE
ZONE B



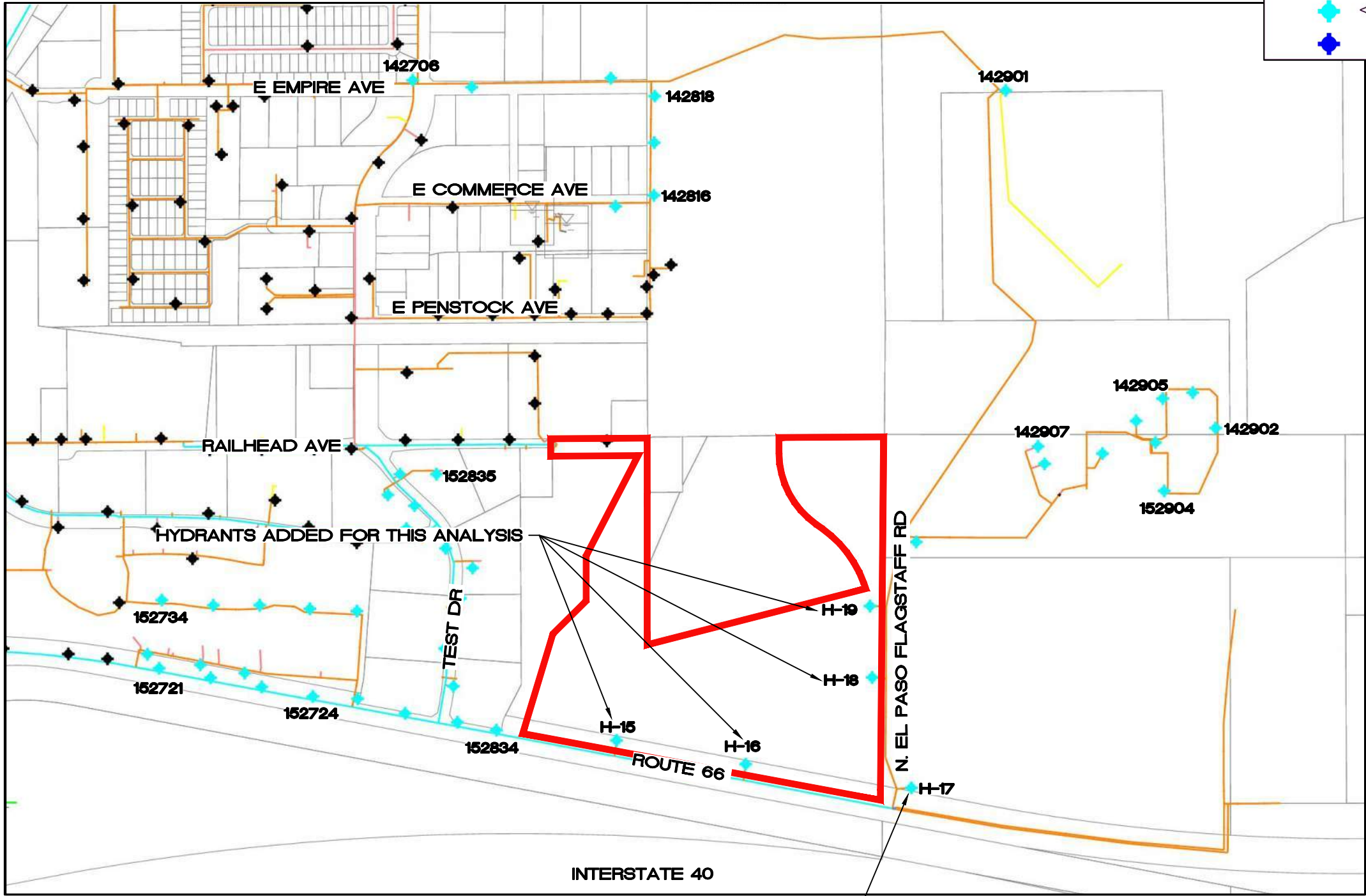
NOT TO SCALE



KINSEY ELEMENTARY SCHOOL
STATIC PRESSURES - PEAK FLOW
FLAGSTAFF
WSIA ON CALL

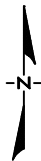
DRAWN BY:	SJC
DATE:	3/26/25
SCALE:	NTS
JOB NO:	224168

EXHIBIT
4



Hydrant: Fire Flow (Available) (gpm)		Pipe: Diameter (in)	
	<= 500.00		<= 5.0
	<= 1,000.00		<= 6.0
	<= 1,500.00		<= 8.0
	<= 3,500.00		<= 10.0
	Other		<= 12.0
			<= 16.0
			<= 18.0
			<= 24.0

NOTE: ALL
HYDRANTS
SHOWN ON
THIS MAP FALL
WITHIN
PRESSURE
ZONE B



NOT TO SCALE



KINSEY ELEMENTARY SCHOOL

AVAILABLE FIRE FLOW

FLAGSTAFF

WSIA ON CALL

DRAWN BY:	SJC
DATE:	3/26/25
SCALE:	NTS
JOB NO:	224168

EXHIBIT
5



Appendix A

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
J-61	6,783.64	0.00	150.0
J-62	6,783.67	0.00	150.0
J-79	6,773.57	0.00	154.2
J-80	6,773.60	0.00	154.2
J-99	6,783.24	0.00	150.2
J-100	6,783.30	0.00	150.1
J-121	6,768.11	20.70	156.6
J-122	6,786.62	0.00	148.6
J-123	6,786.85	0.00	148.4
J-124	6,786.99	0.00	148.4
J-125	6,791.40	0.00	146.5
J-126	6,789.43	0.00	147.4
J-127	6,787.07	87.60	148.5
J-128	6,789.15	0.00	147.5
J-129	6,788.00	0.00	147.9
J-130	6,780.00	0.00	151.3
J-131	6,776.00	0.00	153.0
J-132	6,788.00	0.00	147.8
J-133	6,788.00	0.00	147.8
J-134	6,780.00	0.00	151.3
J-135	6,776.00	0.00	153.0
J-136	6,782.00	0.00	150.5
J-137	6,789.15	0.00	147.5
J-138	6,786.00	48.61	148.6
J-139	6,788.00	48.61	147.7
J-140	6,790.00	0.00	146.9
J-141	6,790.00	0.00	146.9
J-142	6,790.00	0.00	146.9
J-143	6,792.00	48.61	145.9
J-206	6,779.60	0.00	151.7
J-207	6,779.60	0.00	151.7
J-392	6,763.10	0.00	159.1
J-393	6,762.98	0.00	159.1
J-400	6,827.19	0.00	133.9
J-401	6,827.22	0.00	133.9
J-889	6,753.45	0.00	163.2
J-890	6,753.51	0.00	163.2
J-1167	6,794.10	0.00	147.2
J-1168	6,794.63	0.00	147.0
J-1214	6,779.65	0.00	151.7
J-1306	6,783.47	0.00	149.9
J-1307	6,783.47	0.00	149.9
J-1350	6,773.52	0.00	154.3
J-1351	6,774.02	0.00	154.1
J-1396	6,791.39	0.00	146.4
J-1397	6,791.10	0.00	146.5
J-1484	6,786.72	0.00	148.5
J-1485	6,786.42	0.00	148.6
J-1486	6,777.10	0.00	152.8

Loading due to El Paso Industrial Park development (southwest parcels) added at J-121

Loading due to El Paso Industrial Park development (northeast parcels) added at J-127

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
J-1487	6,777.21	0.00	152.7
J-1514	6,788.86	0.00	147.5
J-1515	6,789.01	0.00	147.5
J-1539	6,765.93	0.00	157.8
J-1540	6,765.96	0.00	157.8
J-1845	6,792.73	0.00	146.0
J-1868	6,779.88	0.00	151.5
J-1869	6,780.02	0.00	151.4
J-1870	6,781.17	0.00	151.2
J-1871	6,780.75	0.00	151.4
J-2000	6,788.93	0.00	147.8
J-2010	6,821.04	0.00	136.7
J-2011	6,821.25	0.00	136.6
J-2012	6,784.76	0.00	149.4
J-2013	6,784.73	0.00	149.4
J-2014	6,780.55	0.00	151.4
J-2015	6,780.48	2.08	151.4
J-2126	6,764.16	0.00	158.6
J-2197	6,781.25	0.00	150.9
J-2198	6,780.76	0.00	151.1
J-2228	6,782.17	0.00	150.5
J-2229	6,782.14	0.00	150.5
J-2285	6,780.70	0.00	151.2
J-2286	6,780.68	0.00	151.2
J-2292	6,786.00	0.00	148.9
J-2293	6,786.00	0.00	148.9
J-2296	6,780.02	0.00	151.5
J-2297	6,780.00	0.00	151.6
J-2304	6,776.00	0.00	153.2
J-2305	6,776.00	0.00	153.2
J-2308	6,783.94	0.00	149.9
J-2316	6,783.64	0.00	150.0
J-2324	6,784.00	0.00	149.9
J-2325	6,784.00	0.00	149.9
J-2398	6,781.60	0.00	150.9
J-2399	6,781.58	0.00	150.9
J-2411	6,788.32	0.00	147.7
J-2412	6,779.04	0.00	151.8
J-2413	6,779.20	0.00	151.8
J-2426	6,794.07	0.00	145.3
J-2427	6,794.02	0.00	145.3
J-2503	6,773.09	0.00	154.4
J-2504	6,773.19	0.00	154.4
J-2528	6,773.67	0.00	154.2
J-2534	6,779.16	0.00	151.8
J-2535	6,778.91	0.00	151.9
J-2545	6,771.37	0.00	155.2
J-2546	6,771.39	0.00	155.2
J-2591	6,780.05	0.00	151.4

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
J-2592	6,780.12	0.00	151.4
J-2607	6,780.70	0.00	151.2
J-2608	6,780.80	0.00	151.2
J-2612	6,784.38	0.00	149.5
J-2613	6,784.55	0.00	149.4
J-2634	6,776.60	0.00	153.0
J-2635	6,776.64	0.00	153.0
J-2654	6,781.18	0.00	151.0
J-2655	6,781.15	0.00	151.1
J-2662	6,782.60	0.00	150.3
J-2663	6,782.54	0.00	150.3
J-2668	6,773.52	0.00	154.3
J-2680	6,776.72	0.00	152.9
J-2681	6,776.77	0.00	152.9
J-2735	6,785.69	0.00	148.9
J-2736	6,785.70	0.00	148.9
J-2737	6,790.23	0.00	146.9
J-2738	6,790.17	0.00	146.9
J-2767	6,786.00	0.00	148.8
J-2768	6,786.00	0.00	148.8
J-2804	6,782.76	0.00	150.2
J-2805	6,783.32	0.00	149.9
J-2831	6,784.67	0.00	149.6
J-2832	6,784.55	0.00	149.6
J-2895	6,784.38	0.00	149.5
J-2906	6,788.77	0.00	147.8
J-2921	6,772.21	0.00	154.8
J-2922	6,772.19	0.00	154.8
J-2928	6,782.00	0.00	150.5
J-2929	6,782.00	0.00	150.5
J-3043	6,784.20	0.00	149.5
J-3049	6,781.20	0.00	150.9
J-3050	6,781.13	0.00	150.9
J-3113	6,761.45	0.00	159.8
J-3114	6,761.30	0.00	159.8
J-3141	6,783.17	0.00	150.2
J-3165	6,792.13	0.00	146.3
J-3166	6,765.17	0.00	158.2
J-3167	6,764.92	0.00	158.3
J-3182	6,781.27	0.00	151.0
J-3183	6,788.65	0.00	147.9
J-3184	6,791.49	0.00	146.5
J-3242	6,783.16	0.00	150.2
J-3247	6,784.67	0.00	149.6
J-3327	6,780.27	0.00	151.5
J-3365	6,838.44	0.00	129.2
J-3366	6,838.55	0.28	129.2
J-3863	6,772.04	0.00	154.9
J-3961	6,779.83	0.00	151.6

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
J-3962	6,779.82	0.00	151.6
J-4055	6,781.16	0.00	151.1
J-4209	6,817.53	0.00	138.7
J-4210	6,817.10	0.00	138.9
J-4259	6,780.00	0.00	151.6
J-4422	6,827.55	0.51	133.8
J-4443	6,803.27	0.00	145.3
J-4444	6,802.85	0.00	145.5
J-4703	6,779.65	0.00	151.7
J-4743	6,771.02	0.00	155.3
J-4744	6,770.84	0.00	155.4
J-4810	6,740.00	0.00	169.0
J-4947	6,779.47	1.33	151.8
J-5003	6,785.72	0.00	148.9
J-5500	6,752.15	0.00	163.8
J-6458	6,795.52	0.00	146.6
J-6732	6,776.34	0.00	153.1
J-6851	6,796.93	0.00	146.0
J-7159	6,784.50	0.00	149.6
J-7274	6,748.00	0.00	165.6
J-7403	6,750.17	0.00	164.6
J-7504	6,803.69	0.47	145.8
J-7535	6,742.56	0.00	167.9
J-7547	6,773.46	0.00	154.3
J-7992	6,753.38	0.00	163.3
J-8001	6,753.24	0.00	163.3
J-8125	6,783.28	0.00	150.2
J-8209	6,827.51	0.46	133.8
J-8320	6,835.92	0.00	130.5
J-8442	6,777.96	0.00	152.3
J-8645	6,748.57	0.00	165.3
J-8752	6,838.55	0.00	128.8
J-8768	6,757.08	0.00	161.7
J-8769	6,756.33	0.00	162.0
J-9237	6,827.67	0.00	133.7
J-9341	6,782.07	8.27	150.8
J-9387	6,758.13	0.00	161.2
J-9492	6,781.51	0.00	151.1
J-9503	6,780.90	0.00	151.0
J-9552	6,755.41	0.00	162.4
J-9989	6,796.84	0.00	147.9
J-10140	6,786.00	0.00	148.8
J-10317	6,778.39	0.00	152.1
J-10828	6,780.00	0.00	151.5
J-10884	6,779.75	0.00	151.6
J-11015	6,801.31	0.00	146.2
J-11087	6,784.26	0.00	149.8
J-11149	6,781.03	0.00	151.1
J-11230	6,782.32	0.00	150.5

Maximum Pressure
in project vicinity

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
J-11342	6,781.89	0.00	150.7
J-11599	6,741.94	0.00	168.2
J-11676	6,750.34	0.00	164.6
J-11695	6,776.77	0.00	152.9
J-11728	6,774.11	0.00	154.0
J-11832	6,784.08	0.00	149.8
J-11847	6,783.96	0.00	149.9
J-11971	6,787.50	0.00	148.1
J-12315	6,753.20	0.00	163.3
J-12412	6,825.24	0.00	134.8
J-12424	6,787.76	0.00	148.0
J-12518	6,783.65	0.00	149.8
J-12529	6,784.27	0.00	149.5
J-12531	6,843.79	0.00	127.0
J-12733	6,781.07	0.00	151.0
J-12876	6,773.84	0.00	154.1
J-12943	6,777.79	0.00	152.4
J-12964	6,775.21	0.00	153.6
J-13085	6,782.00	0.00	150.5
J-13169	6,785.90	0.00	148.9
J-13306	6,782.00	0.00	150.5
J-13436	6,806.25	0.41	145.4
J-13593	6,758.60	15.79	161.0
J-14080	6,778.32	0.40	152.5
J-14199	6,746.16	0.00	166.8
J-14201	6,902.00	0.00	101.3
J-14204	6,789.93	0.00	148.4

Minimum Pressure
in project vicinity



Appendix B

FlexTable: Hydrant Table

Label	Elevation (ft)	Fire Flow (Available) (gpm)	Pressure (Calculated Residual) (psi)	Zone
142706	6,827.61	3,500.00	96.2	B
142813	6,803.06	3,500.00	95.6	B
142816	6,802.25	3,500.00	96.2	B
142817	6,814.92	3,500.00	86.7	B
142818	6,834.54	3,500.00	78.1	B
142819	6,838.79	3,500.00	73.2	B
142820	6,827.05	3,500.00	84.8	B
142901	6,792.93	3,454.94	20.1	B
142902	6,754.75	2,042.74	20.0	B
142904	6,748.00	2,097.79	20.0	B
142905	6,741.33	2,135.54	20.0	B
142906	6,740.00	2,137.54	20.0	B
142907	6,760.00	2,355.81	20.0	B
142908	6,763.08	2,384.45	20.0	B
152706	6,784.00	3,500.00	113.3	B
152707	6,780.00	3,500.00	128.3	B
152721	6,790.50	3,500.00	123.0	B
152722	6,785.89	3,500.00	124.1	B
152723	6,782.17	3,500.00	124.7	B
152724	6,780.00	3,500.00	126.5	B
152725	6,775.18	3,500.00	128.7	B
152726	6,777.56	3,500.00	125.4	B
152727	6,784.94	3,500.00	104.9	B
152728	6,784.82	3,500.00	106.9	B
152729	6,788.15	3,500.00	104.2	B
152730	6,780.23	3,500.00	106.9	B
152731	6,780.61	3,500.00	102.4	B
152732	6,782.09	3,500.00	101.2	B
152733	6,784.73	3,500.00	103.2	B
152734	6,786.00	3,500.00	109.8	B
152739	6,780.41	3,500.00	114.6	B
152828	6,781.97	3,500.00	126.8	B
152829	6,780.84	3,500.00	136.1	B
152830	6,777.23	3,500.00	114.8	B
152831	6,772.51	3,500.00	130.6	B
152832	6,773.57	3,500.00	116.7	B
152833	6,772.17	3,500.00	127.1	B
152834	6,771.42	3,500.00	126.2	B
152835	6,784.38	3,500.00	97.1	B
152836	6,779.17	3,500.00	106.8	B
152901	6,782.00	3,500.00	21.6	B
152902	6,751.80	2,413.08	20.0	B
152903	6,752.33	2,138.00	20.0	B
152904	6,752.88	2,102.06	20.0	B
H-15	6,771.00	3,500.00	119.0	B
H-16	6,790.00	3,500.00	102.4	B
H-17	6,787.00	3,500.00	88.8	B

Minimum Available
Fire Flow in
Analysis Area

FlexTable: Hydrant Table

Label	Elevation (ft)	Fire Flow (Available) (gpm)	Pressure (Calculated Residual) (psi)	Zone
H-18	6,792.00	3,500.00	55.8	B
H-19	6,790.00	3,500.00	40.2	B