APPENDIX B

Existing Conditions Report

South Airport Way, Little Manila/Gleason Park, and Cabral/East Cabral Station Area Study Areas

Prepared for: City of Stockton
April 2023

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INTRODUCTION

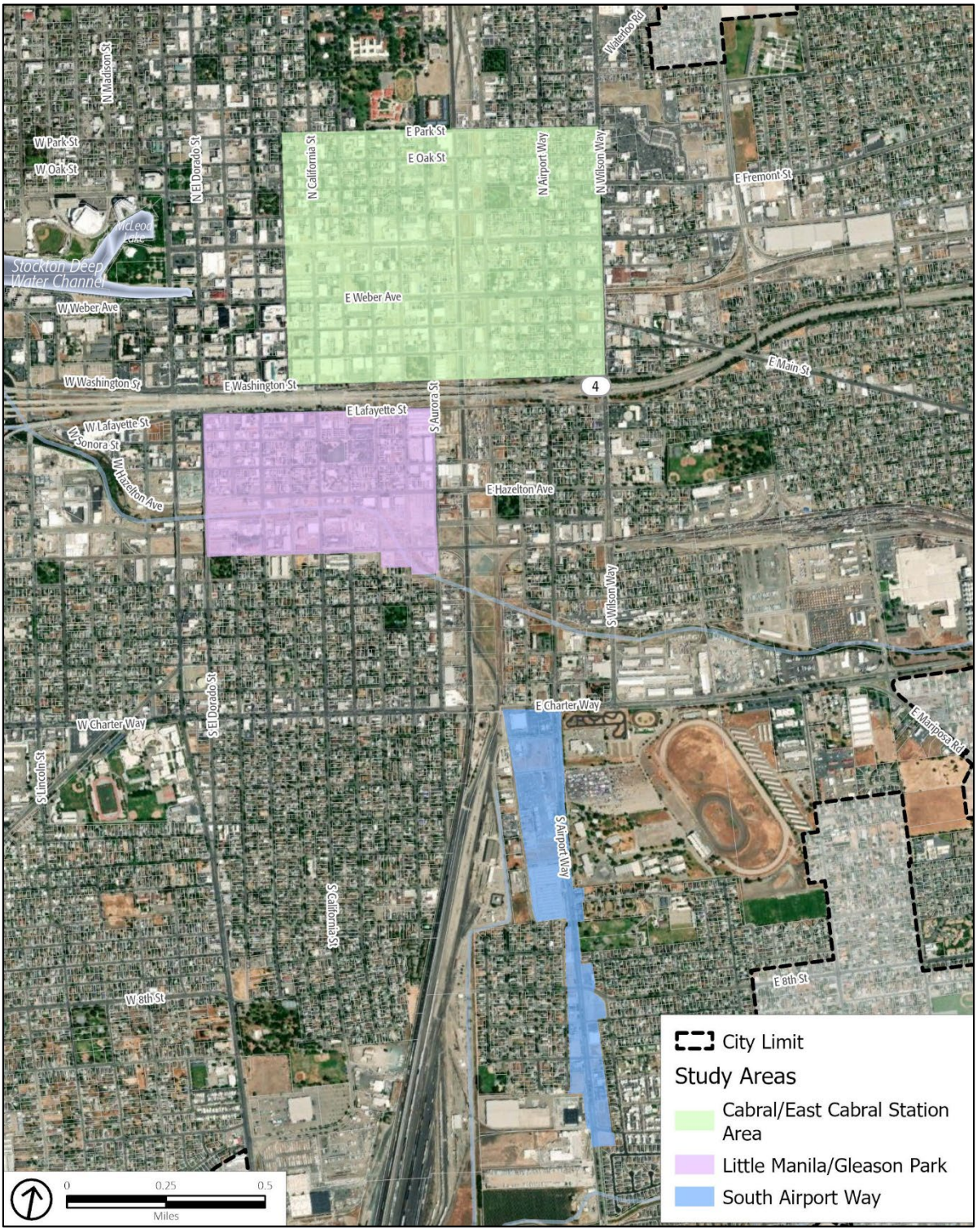
As of 2023, the entire State of California, including Stockton, faces a significant housing supply and affordability crisis spurred by high land costs, rising construction costs, and limited financing options. In 2019, the Governor allocated $250 million to help jurisdictions with planning efforts that accelerate housing production to meet the identified needs of each community. The funds were directly allocated as a one-time award to regional governments. Stockton's regional Council of Governments – the San Joaquin Council of Governments (SJCOG) – was the governing body responsible for distributing the funds to local jurisdictions. In 2021, the City of Stockton applied for and was awarded funds to prepare Neighborhood Action Plans focused on furthering housing development in three study areas in Stockton: South Airport Way, Little Manila/Gleason Park, and Cabral/East Cabral Station Area. See Figure 1 for the location of all three study areas.

The study areas were selected for a Neighborhood Action Plan because there is an elevated need for quality housing and complementing services and amenities for the surrounding community in these three areas. The boundary for each study area was created based on existing planning area boundaries and is not meant to be an official map of the neighborhood. This report analyzes and summarizes demographics, community character, infrastructure, housing barriers, and related conditions in each study area, with the goal of helping these communities and the City planning team understand the issues and opportunities facing each community. The information in this report will be used to support the development of each Neighborhood Action Plan.

A key element of each Neighborhood Action Plan's success depends on meaningful engagement with the community and stakeholders. From July 2022 to September 2022, the City and PlaceWorks held one-on-one and small group meetings with stakeholders to learn about housing needs and barriers to housing development in each study area. Key themes emerging from the stakeholder feedback are summarized in this report to help inform existing conditions. Detailed notes from the stakeholder meetings and a summary of the community feedback received which helped with the development of the actions included in the Neighborhood Action Plans can be found in the Outreach Summary.

To understand existing conditions in each study area, the City and PlaceWorks also collected geographic data and displayed it in an online mapping software called ArcGIS. Information about the mapping data can be found at the end of this report.

Figure 1: Neighborhood Action Plans Study Areas



Source: PlaceWorks, 2022

SOUTH AIRPORT WAY

Community Character

The South Airport Way Study Area runs north to south along the South Airport Way corridor from East Charter Way down to East 12th Street (see **Figure 2**). This study area includes the South Airport Way corridor, which is a heavily traveled arterial in the southern portion of the city. The San Joaquin County Fairgrounds is located near the study area, but it is not included as part of the study area since the fairground is owned by the State of California. The South Airport Way Study Area does not contain any Federal, State, or local historic resources.

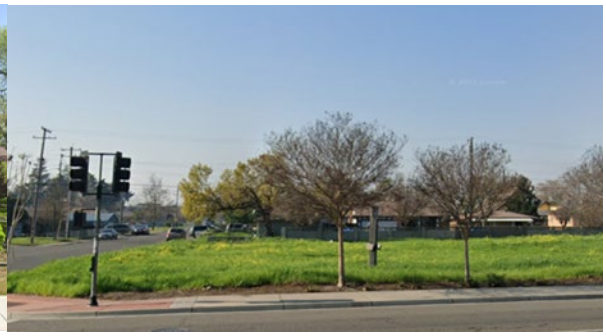
The South Airport Way Study Area is characterized by the following elements:

- **Land Uses.** The existing land uses include a mix of housing, commercial, industrial, public/quasi-public, and vacant land uses. Vacant land occupies approximately 40% of the land and is a predominant use within this study area, followed by institutional and public/quasi-public uses, which make up 23% of existing uses. Housing occupies approximately 12% of land. Commercial and industrial development forms roughly 25% of the existing land uses.
- **Housing Types.** There are a few single family homes and apartments along the South Airport Way corridor, but most nearby residential uses are located outside of the study area to the east, west, and south. These areas include established residential neighborhoods with single family homes. There is a large affordable housing community, Sierra Vista, just outside of the study area.
- **Commercial Uses and Food Access.** Several commercial uses are located along the corridor, including the Rancho San Miguel grocery store, Family Dollar, Valley Strong Credit Union, and a small retail strip center. The South Airport Way Study Area contains low-income census tracts where a significant number or share of residents is more than half mile from the nearest supermarket.
- **Vacant Land and Environmental Issues.** As described earlier, vacant land occupies about 40% of the land within this study area which means there are opportunities for new housing development. During the outreach process, a few stakeholders expressed concern about developing a few of the vacant properties in the study area because the ground might be contaminated. Sites that are contaminated typically require remediation before construction can occur, which can be an impediment to new housing development due to cost and timing issues. Further studies would need to be completed to determine if the vacant sites along the corridor are contaminated.
- **Industrial and Auto-Centered Uses.** There are a few auto-centered and industrial uses along the corridor. Large industrial areas are also located to the south of the study area boundary.

Sierra Vista Affordable Housing

Nearby Single Family Homes

Apartments on South Airport Way



Vacant Land on South Airport Way

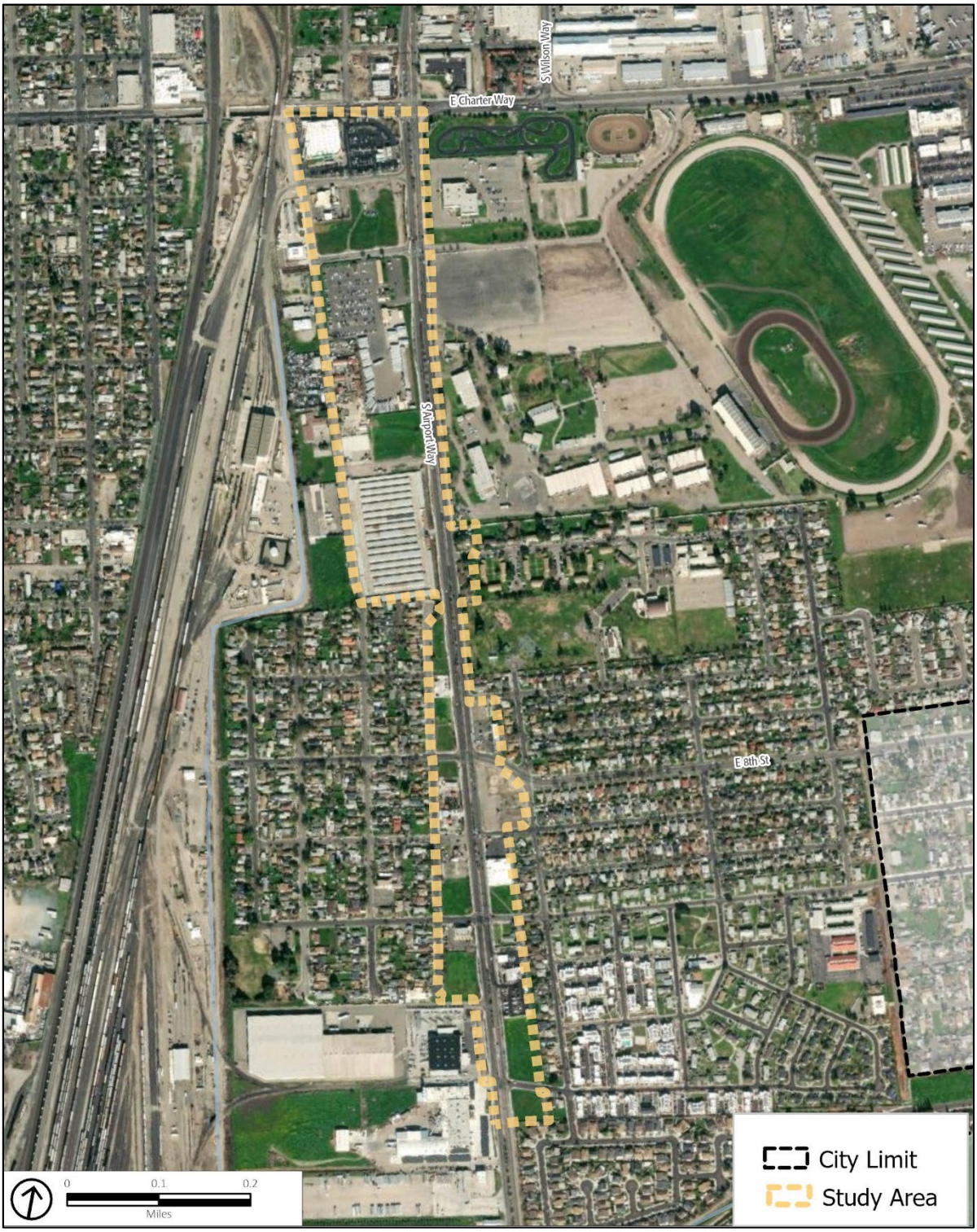
Commercial Uses on South Airport Way

Auto Uses on South Airport Way

View of South Airport Way

Bus Shelter on South Airport Way

Figure 2: South Airport Way Study Area



Source: PlaceWorks, 2022

South Airport Way Demographics

The American Community Survey from the United States Census Bureau provides the most recent data available by census-tract. There are two census tracts that encompass the South Airport Way Study Area: Census Tract 22.01 and Census Tract 22.02. As shown in **Figure 3**, the census tracts extend beyond the study area to the east, west and south. Therefore, the demographics described below inform existing conditions both within and adjacent to the South Airport Way Study Area. **Appendix A** shows comparison tables for each demographic section below that compares the South Airport Way Study Area with the other two study areas.

Population and Age

In 2020, the larger South Airport Way census area had a population of 8,240, accounting for less than three percent of the total population of Stockton, which was 311,103. **Table 1** shows the age distribution for the South Airport Way census area and the city as a whole. As shown in the table, South Airport Way has a higher proportion of people under the age of 20 (40 percent) and lower share of seniors (10 percent), compared to Stockton as a whole. For both South Airport Way and Stockton, the ratio of population decreases as age increases.

Table 1: Population by Age – South Airport Way Census Area

Age Group	South Airport Way		Stockton	
	Number (Persons)	Percentage	Number (Persons)	Percentage
0-19 years	3,280	40%	96,343	31%
20-34 years	1,794	22%	68,042	22%
35-49 years	1,496	18%	59,035	19%
50-64 years	890	11%	49,078	16%
65-79 years	570	7%	30,128	10%
80 years and above	210	3%	8,477	3%
Total	8,240	101%	311,103	101%

Source: U.S. Census Bureau, American Community Survey 5-Year Data (2020)

Percentages do not add to 100% due to rounding.

Figure 3: South Airport Way Census Tracts

Source: PlaceWorks, 2022

Race and Ethnicity

The racial and ethnic composition of the South Airport Way census area, as documented by the 2020 ACS, differs from Stockton as a whole. In 2020, 79 percent of the population in the South Airport Way area was Hispanic or Latino, contrasted with 44 percent for Stockton. In addition, 2 percent of South Airport Way residents were White, contrasted with 19 percent for Stockton (see **Table 2**). South Airport Way had a similar share of Black or African American population (15 percent) to Stockton (11 percent), but a lower share of Asian (3 percent) to Stockton (20 percent). The population of American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander, Some other race, or two or more races for both South Airport Way and Stockton were no larger than five percent.

Table 2: Race and Ethnicity – South Airport Way Census Area

Racial Composition	South Airport Way		Stockton	
	Number (Persons)	Percentage	Number (Persons)	Percentage
Hispanic or Latino (of any race)	6,517	79%	135,457	44%
White alone	204	2%	60,442	19%
Black or African American alone	1,217	15%	34,195	11%
American Indian and Alaska Native alone	0	0%	493	0%
Asian alone	254	3%	63,657	20%
Native Hawaiian and Other Pacific Islander alone	0	0%	1,404	0%
Some other race alone	0	0%	1,252	0%
Two or more races	48	1%	14,203	5%
Total	**8,240**	**100%**	**311,103**	**99%**

Source: U.S. Census Bureau, American Community Survey 5-Year Data (2020)
Percentages may not add to 100% due to rounding.

Renter and Ownership Characteristics

Renter-occupied housing units in the South Airport Way census area made up 59 percent of the total housing units in 2020, with owner-occupied housing units comprising 41 percent. South Airport Way had a higher share of renter-occupied housing units compared to Stockton's share of 50 percent renter-occupied housing units. The average household size in South Airport Way is 4.0, which is slightly larger than Stockton's average household size of 3.2.

Overcrowding

The US Census defines overcrowding as more than one person per room in a given housing unit (not including kitchens and bathrooms). Overcrowding can be a result of a low supply of affordable and adequate housing. Households that are unable to afford larger housing units, or face a lack of vacant larger housing units in an area, may be forced to rent or purchase housing that is too small to meet their needs. In 2020, a total of 362 housing units (16 percent of total housing units) in the South Airport Way area were overcrowded. Of those housing units, 267 were overcrowded, and 95 housing units were severely overcrowded (more than 1.5 occupants per room).

Employment and Household Income

In 2020, the South Airport Way census area had a population of 2,991 residents aged 16 and over in the labor force, of which 84 percent were employed and 16 percent were unemployed, which is double the unemployment rate of Stockton citywide (8 percent).

An Extremely Low-Income Household is one whose combined income is between the floor set at the minimum Supplemental Security Income and 30 percent of the Area Median Income (AMI). A household of four is considered to be extremely low-income in Stockton if its combined income is $27,750 or less for the year 2022. As shown in Table 3, 36 percent of the households make less than $25,000 a year.

A Very Low-Income Household is one whose combined income is at or between 31 and 50 percent of the AMI. A household of four is considered to be very low-income in Stockton if its combined income is between $27,751 and $41,400 for the year 2022. As shown in Table 3, 36 percent of households earn $25,000 to $50,000 annually.

Table 3: Household Income – South Airport Way Census Area				
Household Income	South Airport Way		Stockton	
	Number (Households)	Percentage	Number (Households)	Percentage
Less than $10,000	250	11%	6,133	6%
$10,000 to $14,999	221	10%	4,683	5%
$15,000 to $24,999	324	15%	8,723	9%
$25,000 to $34,999	479	22%	9,391	10%
$35,000 to $49,999	300	14%	11,911	13%
$50,000 to $74,999	322	15%	17,962	19%
$75,000 to $99,999	71	3%	11,966	13%
$100,000 to $149,999	141	6%	14,273	15%
$150,000 to $199,999	88	4%	5,327	6%
$200,000 or more	0	0%	4,867	5%
Total	**2,196**	**100%**	**95,236**	**101%**

Source: U.S. Census Bureau, American Community Survey 5-Year Data (2020)

Percentages may not add to 100% due to rounding.

Infrastructure in South Airport Way

The cost of site improvements can be a significant constraint for the production of housing. Site improvements are an important component of new development and include water, sewer, storm drain lines, and other infrastructure needed to serve the new development. Requiring developers to construct site improvements or pay fees toward the provision of infrastructure increases the cost of building new housing, including affordable housing. West Yost Associates completed an infrastructure readiness analysis (attached as **Appendix B**) for three vacant infill sites in South Airport Way to help inform existing conditions in the study area. The analysis provides preliminary water and sewer evaluations for each site.

The preliminary analysis shows there is adequate water to meet the water demands of each infill site, however Site 1 on South Airport Way and 8th Street (see **Figure 4**) may not have adequate fire flow for a new mixed-use building with 77 housing units. The fire flow capacity would need to be verified by Cal Water. There were no sewer capacity limitations or significant impacts on drainage for any of the potential infill sites investigated in this study area.

Figure 4: Infrastructure Analysis Key Sites

Source: PlaceWorks, 2022

Note: The boundaries for Site #4 and Site #9 have been revised since the publication of this report.

Sidewalk Conditions

The sidewalk conditions within South Airport Way Study Area are illustrated in Figure 5. The sidewalk conditions were evaluated by conducting an in-person site visit of the South Airport Way neighborhood and ranking the condition of a sidewalk segment as good, poor condition, or no sidewalk present as shown in the figure. Majority of sidewalks located along South Airport Way are in fairly good condition containing even sidewalk surfaces and curb ramps to help people with impaired vision.

Sidewalk conditions vary along secondary streets connecting to South Airport Way. Certain segments of 1st Street, Union Street, Phelps Street, and Folsom Street either contain sidewalks in bad condition, with uneven paving, absence of curb ramps, or have no sidewalks. Sidewalks in poor condition are predominantly found in the southern portion of the neighborhood, along 7th Street, 8th Street, 9th Street, 10th Street, Ophir Street, and Phelps Street.

Roadway Network

Stockton's roadway network was evaluated in the Environmental Impact Report for the 2040 General Plan to identify operational conditions and deficiencies considering peak hour intersection operations, daily roadway segment analysis, and accident data. The analysis identified that Dr. Martin Luther King Jr. Boulevard, which passes through the northern portion of the Study Area, operates at a level of service E between the Interstate-5 and Lincoln Boulevard. This is the only street segment suffering deficiencies within all three study areas. Figures 6 and 7 show the approximate street maximum and minimum widths for the South Airport Way Study Area. The street width varies depending on the type of street.

Figure 5: Sidewalk Conditions in South Airport Way

Source: PlaceWorks, 2023

Figure 6: Minimum Street Widths in South Airport Way

Source: PlaceWorks, 2023

Figure 7: Maximum Street Widths in South Airport Way

Source: PlaceWorks, 2023

LITTLE MANILA/GLEASON PARK

Community Character

The Little Manila/Gleason Park Study Area lies just south of Downtown and the Cabral/East Cabral Station Area Study Area. It is bound by the Crosstown Freeway (Highway 4) to the north and the railroad tracks to the south. Mormon Slough, which is a seasonally dry creek bed where many members of the unhoused population sometimes reside, runs through the southern portion of the study area (as shown in Figure 8). The study area is comprised of residential uses, corner store markets, restaurants, and religious and educational institutions. It also includes the Spanos Elementary School, and Gleason Park Apartments, which is an affordable housing development. This study area is rooted in Filipino/a culture and remnants of that history can still be found in the community and buildings throughout the study area.

The Little Manila/Gleason Park Study Area is characterized by the following elements:

- Land Uses. Housing-related uses, including single family and multifamily developments dominate the Little Manila/Gleason Park study area and make up 50% of the existing land uses. Commercial and industrial development forms roughly 19% of the existing land uses. There is 16% vacant land, 7% institutional and public/quasi-public uses, and less than 1% of agricultural uses within the study area.
- Housing Types. This study area predominantly features residential uses, including single family homes, duplexes, triplexes, fourplexes, apartments, and residential hotels. There is also a shelter for the unhoused population near the study area.
- Commercial Uses and Food Access. Several commercial uses are located in the study area, including corner markets, restaurants, and offices. The Little Manila/Gleason Park Study Area includes low-income census tracts where a significant number or share of residents are more than a half mile from the nearest supermarket.
- Crosstown Freeway (Highway 4). Highway 4 is a State highway that runs east-west from Interstate 5 to Highway 99. It is a six-lane controlled freeway that carries local and regional traffic through Stockton. Highway 4 divides the Little Manila/Gleason Park Study Area from other parts of the city, including downtown. There are several parking lots and one day care center under the freeway. Caltrans is in the process of planning a new park under the freeway that could help connect Little Manila/Gleason Park with downtown.
- Mormon Slough. Mormon Slough passes through the southern portion of the study area. It is a seasonally dry creek bed where many members of the unhoused population sometimes reside. Any proposed improvement plan along the slough should consider the people that reside in and adjacent to the intermittent waterway. There may also be environmental issues that would need to be considered and analyzed if improvements are proposed along the slough.

- Historic Resources. The Cultural Heritage Board assisted the City with identifying districts and sites with historical significance and has listed two historic resources in the study area. The first is the Little Manila Historic Site, which is generally located in the four block area surrounding the intersection of Lafayette and El Dorado Streets. The second historic resource is the Daguhoy Lodge which is the location of a fraternal organization for members of the Filipino American community. There are no Federal or State historic resources in the study area.

Residential Building

Corner Market

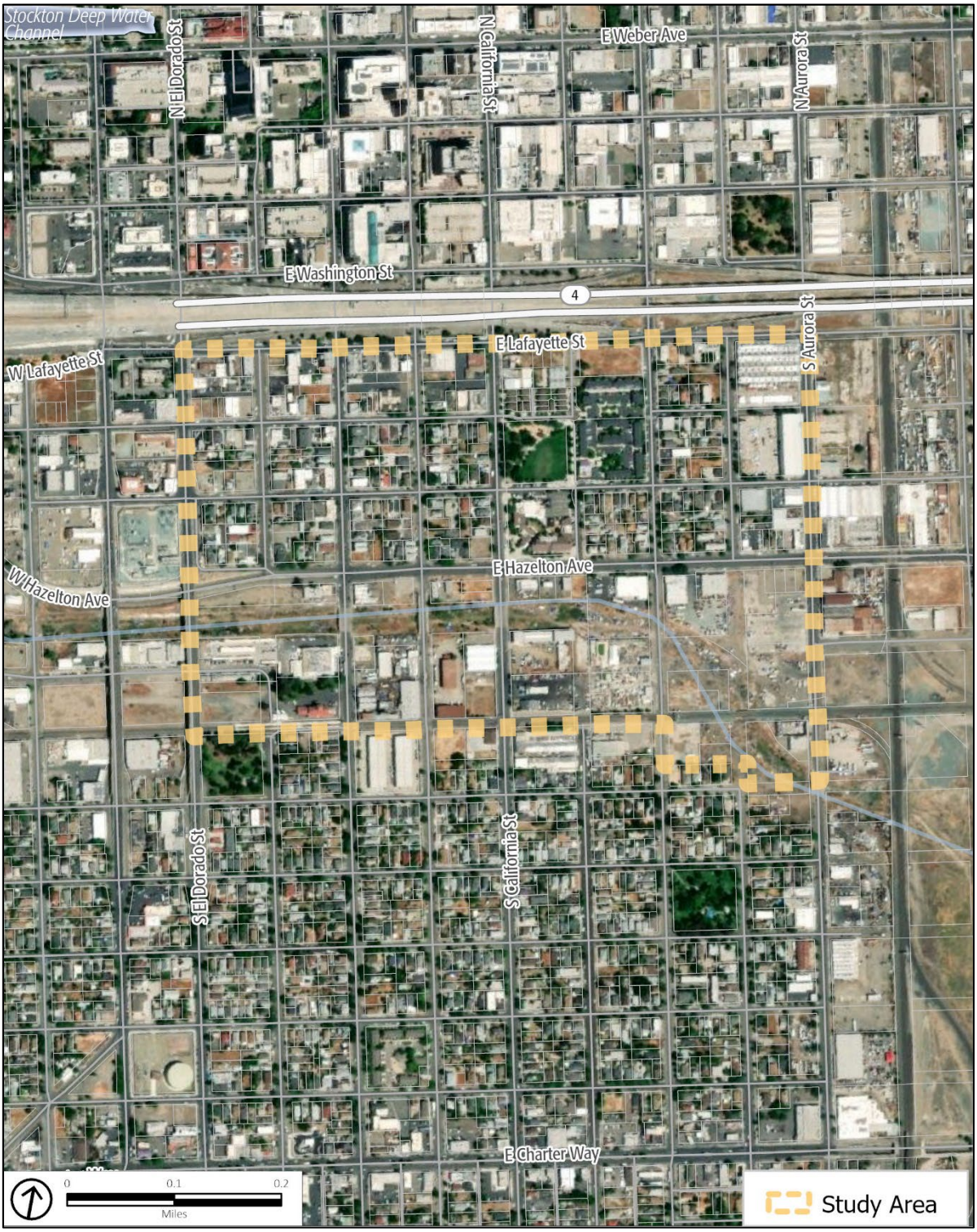
Crosstown Freeway (Highway 4)

Hotel along San Joaquin Street

View from Lafayette Street

Mormon Slough

Figure 8: Little Manila/Gleason Park Study Area



Source: PlaceWorks, 2022

Little Manila/Gleason Park Demographics

A single census tract aligns closely with the study area boundary, Census Tract 1.01 (see **Figure 9** for census tract location). The census tract captures the entire study area, except for a small industrial area located south of Mormon Slough and north of Taylor Street with no homes. **Appendix A** shows comparison tables for each demographic section below that compares the Little Manila/Gleason Park Study Area with the other two study areas.

Population and Age

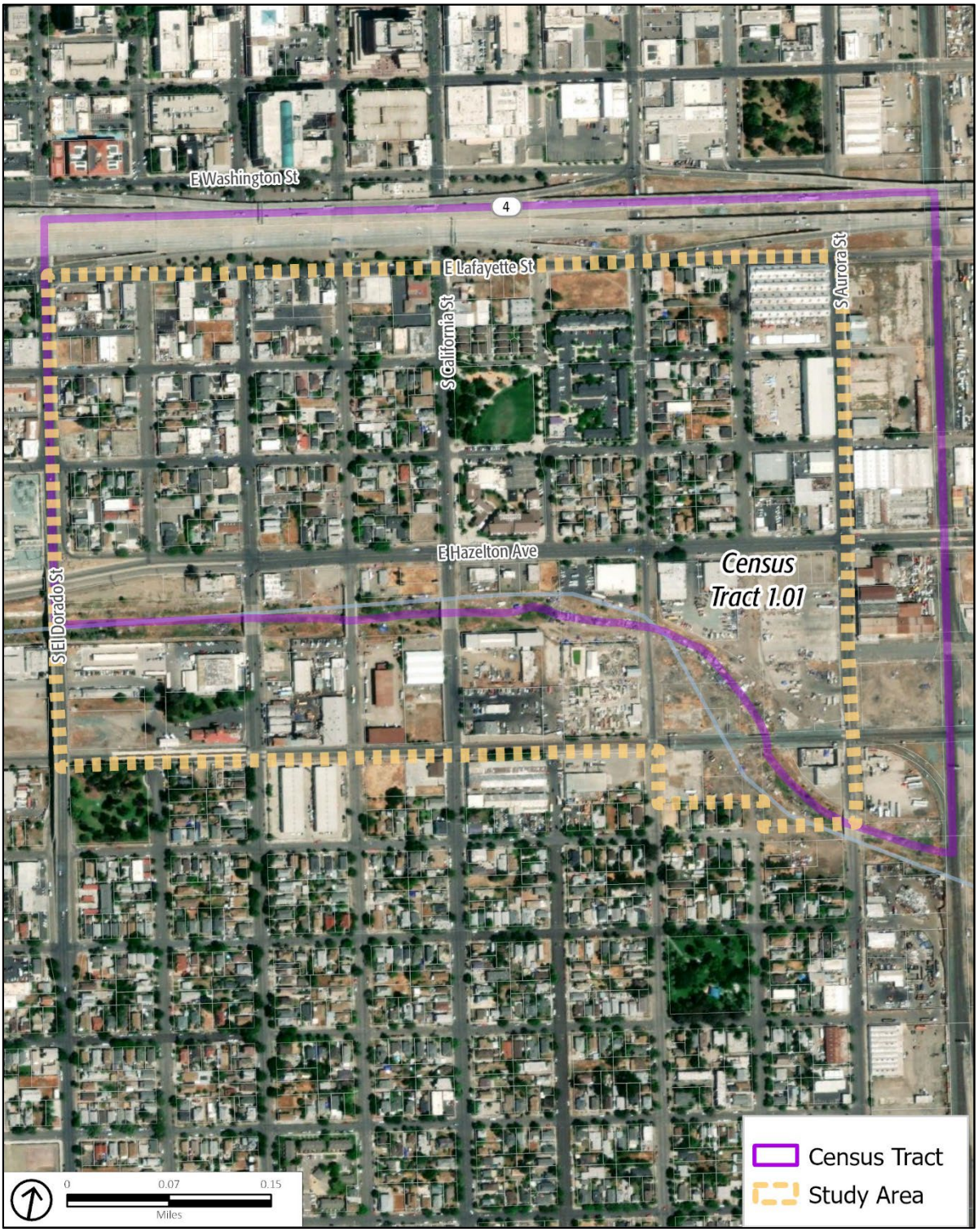
In 2020, Little Manila/Gleason Park had a population of 1,541, accounting for less than one percent of the total population of Stockton. **Table 4** shows the age distribution for the Little Manila/Gleason Park census area and the city as a whole. In 2020, Little Manila/Gleason Park had a higher proportion of people under the age of 35 (56 percent) compared to all other age groups, similar to Stockton's age distribution. For both Little Manila/Gleason Park and Stockton, the rate of age population decreases as age increases, likely indicating that some people move out of the city when they get older.

Table 4: Population by Age – Little Manila/ Gleason Park Census Area

Age Group	Little Manila/ Gleason Park		Stockton	
	Number (Persons)	Percentage	Number (Persons)	Percentage
0-19 years	431	28%	96,343	31%
20-34 years	426	28%	68,042	22%
35-49 years	269	17%	59,035	19%
50-64 years	225	15%	49,078	16%
65-79 years	156	10%	30,128	10%
80 years and above	34	2%	8,477	3%
Total	**1,541**	**100%**	**311,103**	**101%**

Source: U.S. Census Bureau, American Community Survey 5-Year Data (2020)
Percentages may not add to 100% due to rounding.

Figure 9: Little Manila/Gleason Park Census Tract



Source: PlaceWorks, 2022

Race and Ethnicity

In 2020, 77 percent of the population in the Little Manila/Gleason Park census area was Hispanic or Latino, 10 percent Asian, and 7 percent Native Hawaiian and Other Pacific Islander, as shown in **Table 5**. The racial and ethnic composition of Little Manila/Gleason Park differed from that of Stockton, with a lower share of Asian (10 percent; compared to 20 percent citywide) but a higher share of Native Hawaiian and Other Pacific Islander (7 percent; compared to less than one percent citywide) populations. A small amount of Little Manila/Gleason Park residents were White (4 percent), versus 19 percent in Stockton as a whole.

Table 5: Race and Ethnicity – Little Manila/ Gleason Park Census Area

Racial Composition	Little Manila/ Gleason Park		Stockton	
	Number (Persons)	Percentage	Number (Persons)	Percentage
Hispanic or Latino (of any race)	1,183	77%	135,457	44%
White alone	59	4%	60,442	19%
Black or African American alone	33	2%	34,195	11%
American Indian and Alaska Native alone	15	1%	493	0%
Asian alone	146	10%	63,657	20%
Native Hawaiian and Other Pacific Islander alone	105	7%	1,404	<1%
Some other race alone	0	0%	1,252	<1%
Two or more races	0	0%	14,203	5%
Total	**1,541**	**101%**	**311,103**	**99%**

Source: U.S. Census Bureau, American Community Survey 5-Year Data (2020)

Percentages do not add to 100% due to rounding.

Renter and Ownership Characteristics

In 2020, renter-occupied housing units in the Little Manila/Gleason Park census area made up 96 percent of total housing units, with the remaining 4 percent owner-occupied housing units compared to 50 percent citywide. The average household size in Little Manila/Gleason Park is 3.0, which is smaller than Stockton's average household size of 3.2.

Overcrowding

In 2020, a total of 119 renter-occupied housing units in the Little Manila/Gleason Park census area were overcrowded, comprising 22 percent of total renter-occupied housing units in the study area. Of renter-occupied housing units in Little Manila/Gleason Park, 45 housing units were overcrowded, and 74 housing units were severely overcrowded (with 1.5 or more persons per room). Little Manila/Gleason Park does not appear to have an overcrowding issue for the few owner-occupied housing units.

Employment and Household Income

In 2020, the Little Manila/Gleason Park census area had a population of 630 residents aged 16 and over in the labor force, of which 96 percent were employed and 4 percent were unemployed. The employment trend in Little Manila/Gleason Park is similar for Stockton, of which 92 percent of the population 16 years and over in the labor force were employed and 8 percent were unemployed in 2020.

Table 6 shows the income breakdown for Little Manila/Gleason Park and the larger city. A household of four is considered to be extremely low-income in Stockton if its combined income is $27,750 or less for the year 2022. An Extremely Low-Income Household is one whose combined income is between the floor set at the minimum Supplemental Security Income and 30 percent of the Area Median Income (AMI). As shown in Table 6, 47 percent of the households make less than $25,000 a year.

A Very Low-Income Household is one whose combined income is at or between 31 and 50 percent of the AMI. A household of four is considered to be very low-income in Stockton if its combined income is between $27,751 and $41,400 for the year 2022. As shown in Table 6, 26 percent of households earn $25,000 to $50,000 annually.

Table 6: Household Income – Little Manila/ Gleason Park Census Area				
Household Income	Little Manila/ Gleason Park		Stockton	
	Number (Households)	Percentage	Number (Households)	Percentage
Less than $10,000	49	9%	6,133	6%
$10,000 to $14,999	69	12%	4,683	5%
$15,000 to $24,999	144	26%	8,723	9%
$25,000 to $34,999	32	6%	9,391	10%
$35,000 to $49,999	110	20%	11,911	13%
$50,000 to $74,999	99	18%	17,962	19%
$75,000 to $99,999	16	3%	11,966	13%
$100,000 to $149,999	31	6%	14,273	15%
$150,000 to $199,999	0	0%	5,327	6%
$200,000 or more	3	1%	4,867	5%
Total	**553**	**101%**	**95,236**	**101%**

Source: U.S. Census Bureau, American Community Survey 5-Year Data (2020)

Percentages do not add to 100% due to rounding.

Infrastructure in Little Manila/Gleason Park

As described earlier, the cost of site improvements can be a constraint for the production of housing. West Yost Associates completed an infrastructure readiness analysis (attached as **Appendix B**) for three vacant infill sites in Little Manila/Gleason Park to help inform existing conditions in the study area. The analysis shows there is adequate water to meet the water demands of each infill site; however, two of the sites (Site 5 and Site 6), both of which are smaller than 0.24 acres, may not have adequate fire flow to support new housing (see **Figure 4** for sites location). The construction of new residential development on both sites would also exceed the design criteria for sewers, but the construction of sewer rehab projects 1 and 4 (R-1 and R-4) identified in the City's current Wastewater Master Plan (WWMP) would mitigate these exceedances. There were no significant impacts on drainage for any of the potential infill sites investigated in this study area.

Sidewalk Conditions

The sidewalk conditions within Little Manila/ Gleason Park are illustrated in Figure 10. The sidewalk conditions were evaluated by conducting an in-person site visit of the Little Manila/Gleason Park neighborhood and ranking the condition of a sidewalk segment as good, poor condition, or no sidewalk present as shown in the figure.

Sidewalks within the neighborhood are predominantly in poor condition with uneven paving and missing curb ramps. Few segments of Sonora Street, California Street, American Street, Church Street, and Hazelnut Avenue, near Eden Gleason Park, have sidewalks in good condition.

The intersection of Hazelton Avenue and El Dorado Street, segments of El Dorado Street and Stanislaus Street, south of Church Street, and portions of Stanislaus Street and Worth Street south of railroad, have missing sidewalks.

Roadway Network

Stockton's roadway network was evaluated in the Environmental Impact Report for the 2040 General Plan to identify operational conditions and deficiencies considering peak hour intersection operations, daily roadway segment analysis, and accident data. The analysis did not identify any streets that are deficient in the Little Manila/Gleason Park Study Area. Figures 11 and 12 show the approximate street maximum and minimum widths for the Little Manila/Gleason Park Study Area. The street width varies depending on the type of street.

Figure 10: Sidewalk Conditions in Little Manila/Gleason Park

Source: PlaceWorks, 2023

Figure 11: Minimum Street Widths in Little Manila/Gleason Park

Source: PlaceWorks, 2023

Figure 12: Maximum Street Widths in Little Manila/Gleason Park

Source: PlaceWorks, 2023

CABRAL/EAST CABRAL STATION AREA

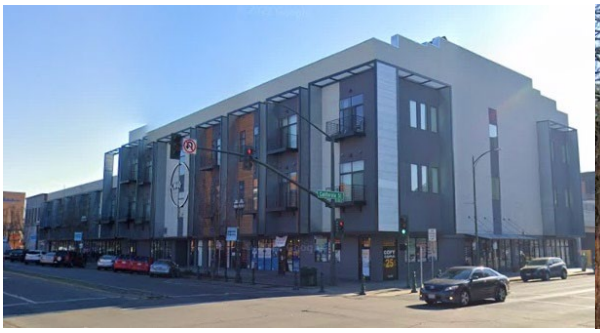
Community Character

Cabral/East Cabral Station Area is the northern-most study area. It is bound by the Crosstown Freeway (Highway 4) to the south and the Stanislaus State Stockton campus to the north (as shown in **Figure 13**). This study area includes portions of the city's downtown, the Robert J. Cabral Train Station (Cabral Train Station), commercial uses, residential uses, parks, and industrial uses adjacent to the active freight and passenger rail line.

The Cabral/East Cabral Station Area is characterized by the following elements:

- Land Uses. The existing land uses within the Cabral/East Cabral study primarily include a mix of housing, commercial, mixed-use, industrial, public/quasi-public, institutional uses, and vacant land. Housing development forms the largest share of existing uses within this study area, occupying 42% of the land, followed by commercial and industrial uses that occupy 30% of the land. Institutional and public/quasi-public uses make up 13% of the uses and 14% of existing land within this study area is vacant.
- Housing Types. Residential uses occupy most of the land in this study area. The existing residential uses include single family homes, duplexes, fourplexes, apartments, and mixed-use housing.
- Commercial Uses and Food Access. A large portion of the study area comprises of commercial uses, including restaurants, grocery stores, retail stores, medical services, and offices. There is also an auto row along Miner Avenue with large billboards, auto repair shops, and used auto dealerships fronting the sidewalk. The area includes low-income census tracts where a significant number or share of residents is more than a half mile from the nearest supermarket.
- Cabral Train Station. The Altamont Corridor Express operates four daily roundtrips originating at the Cabral Train Station, which is located within the study area, and traveling through the Tri-Valley area and into downtown San Jose. The Valley Rail Sacramento Extension is anticipated to provide passenger rail service between Stockton and Sacramento in 2024/2025.
- Walkability and Train Station Access. The City has completed recent streetscape improvements in the study area to enhance walkability and access to the Cabral Train Station, including along Miner Avenue, which was a road diet project and now has street trees, wide sidewalks, buffered Class II bike lanes, decorative lighting, a landscaped median, enhanced materials, and a roundabout. Approximately $9.5 million in grant funding has been secured for the Downtown Stockton Weber Avenue Bicycle and Pedestrian Connectivity Active Transportation Program project.

- **Historic Resources.** According to the National Register of Historic Places, there are three Federal historic resources in the study area: the Benjamin Holt Home, the Commercial Savings Bank and Elks Building. 1100 E Weber Street at North Union Street is listed as a historic site by the California Office of Historic Preservation and is the burial place of the California historical figure, John Brown. The Cultural Heritage Board has listed seven local historic landmarks and 12 historic sites, including the Medico-Dental Building, Children's Home of Stockton, Engine House No. 3, Hotel Terry, and the Dawson storage building.



Mixed-Use Residential Building

Single family home on East Market Street

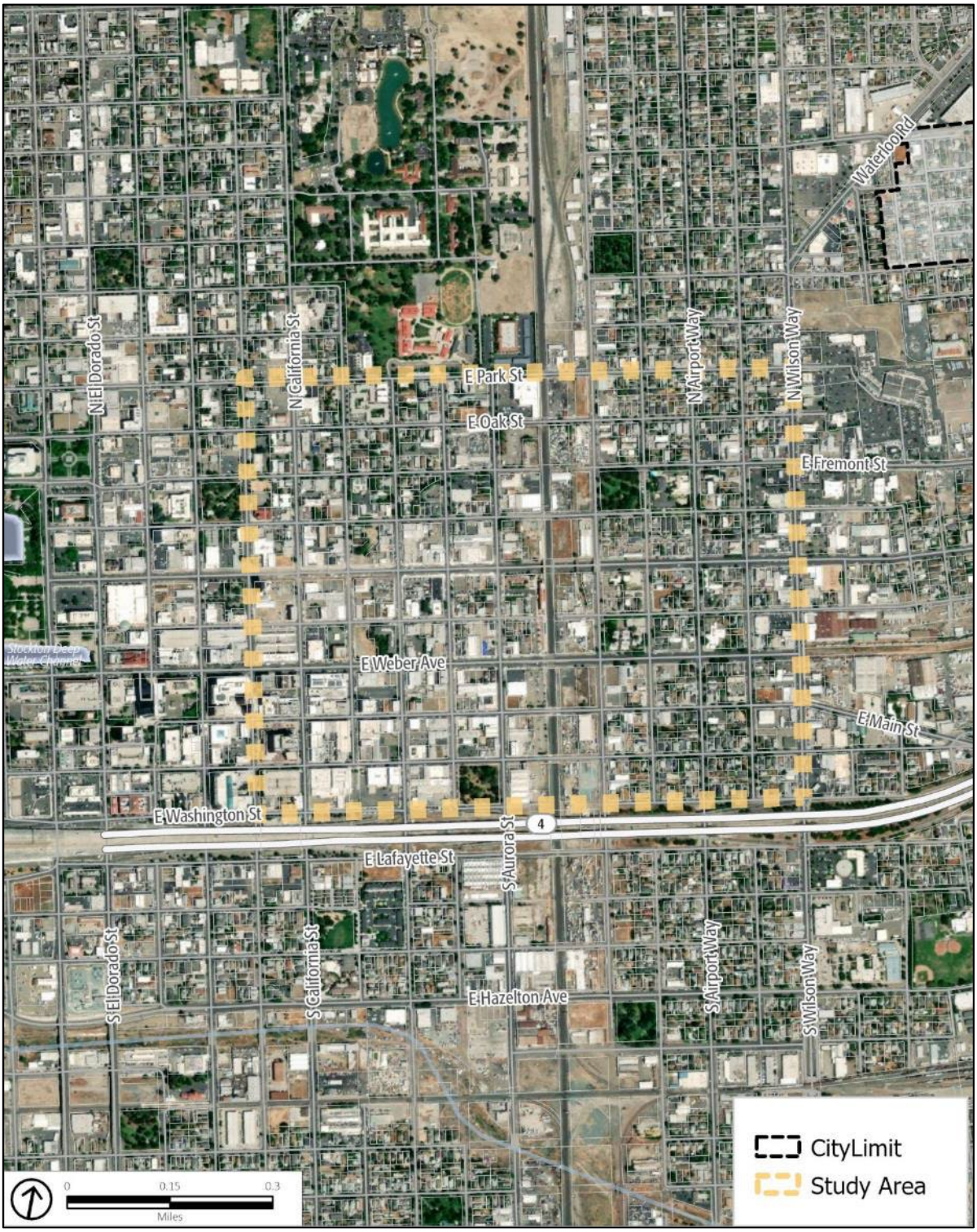
Vacant Land

Robert J. Cabral Train Station

Robert J. Cabral Train Station

Auto Uses Along Miner Avenue

Figure 13: Cabral/East Cabral Station Area Study Area



Source: PlaceWorks, 2022

Cabral/East Cabral Station Area Demographics

There are three census tracts in and around the study area: Census Tract 1.02; Census Tract 5; and Census Tract 6 (see **Figure 14** for census tract locations). The census tracts extend beyond the study area to the north, east, west, and south. **Appendix A** shows comparison tables for each demographic section below that compares the Cabral/East Cabral Station Study Area with the other two study areas.

Population and Age

In 2020, these census tracts had a population of 6,330, accounting for about two percent of the population of Stockton. **Table 7** shows the age distribution for the study area and the city. In 2020, Cabral/East Cabral Station Area had the highest percentage of people under the age of 20 (26 percent) among all age groups and a very low proportion of seniors (1 percent).

Table 7: Population by Age – Cabral/East Cabral Station Area Census Area

Age Group	Cabral/East Cabral Station Area		Stockton	
	Number (Persons)	Percentage	Number (Persons)	Percentage
0-19 years	1,643	26%	96,343	31%
20-34 years	1,287	20%	68,042	22%
35-49 years	1,336	21%	59,035	19%
50-64 years	1,370	22%	49,078	16%
65-79 years	609	10%	30,128	10%
80 years and above	85	1%	8,477	3%
Total	**6,330**	**100%**	**311,103**	**101%**

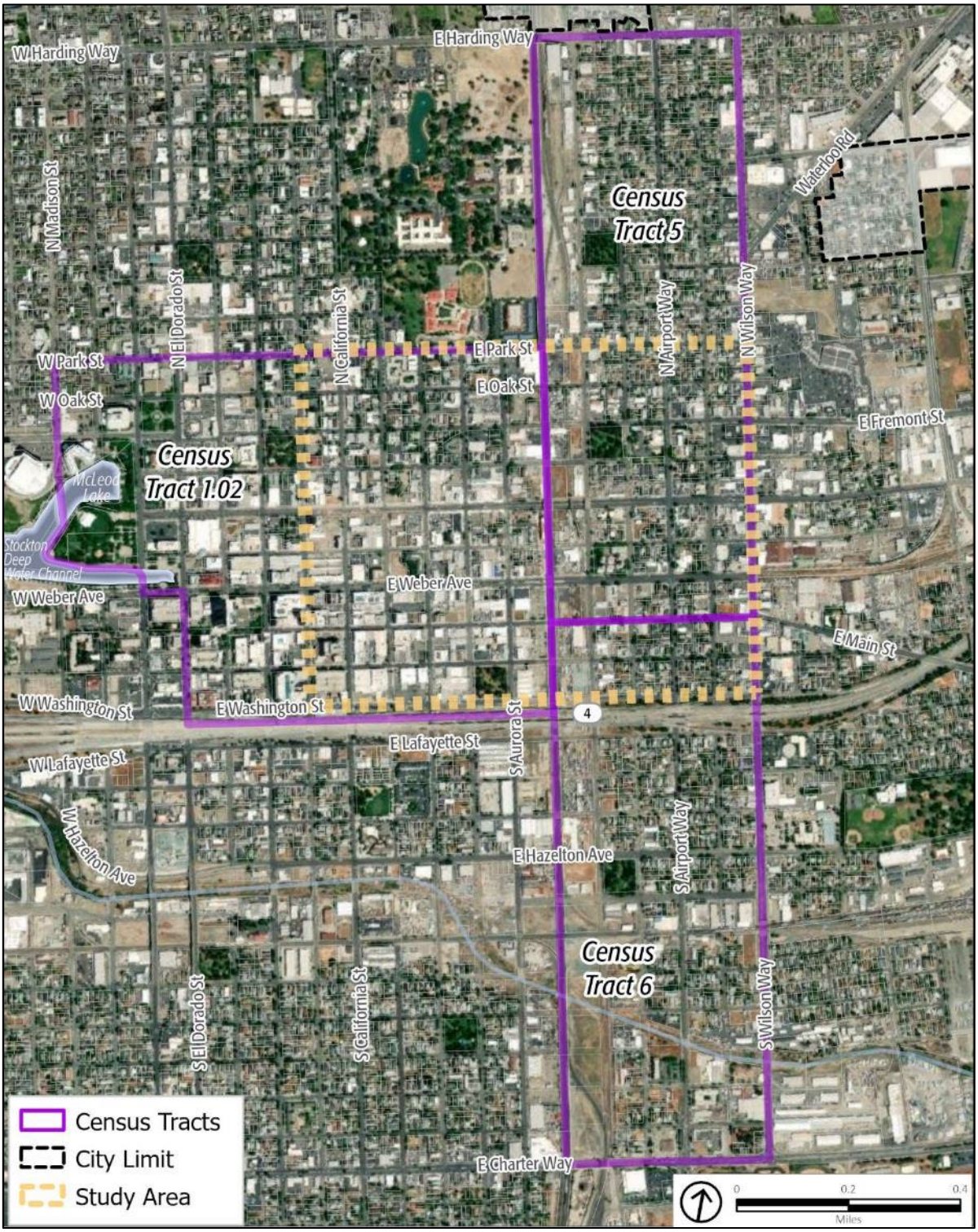
Source: U.S. Census Bureau, American Community Survey 5-Year Data (2020)

Percentages may not add to 100% due to rounding.

Race and Ethnicity

In 2020, 63 percent of the population in the Cabral/East Cabral Station Area census area was Hispanic or Latino, 14 percent Black or African American, and 12 percent White (see **Table 8**). The population of American Indian and Alaska Native alone, Native Hawaiian and Other Pacific Islander alone, Some other race alone, or Two or more races for both South Airport Way and Stockton were no larger than 5 percent.

Figure 14: Cabral/East Cabral Station Area Census Tracts



Source: PlaceWorks, 2022

Table 8: Race and Ethnicity – Cabral/East Cabral Station Area Census Area				
Racial Composition	Cabral/ East Cabral Station Area		Stockton	
	Number (Persons)	Percentage	Number (Persons)	Percentage
Hispanic or Latino (of any race)	3,975	63%	135,457	44%
White alone	784	12%	60,442	19%
Black or African American alone	888	14%	34,195	11%
American Indian and Alaska Native alone	0	0%	493	0%
Asian alone	503	8%	63,657	20%
Native Hawaiian and Other Pacific Islander alone	62	1%	1,404	0%
Some other race alone	0	0%	1,252	0%
Two or more races	118	2%	14,203	5%
Total	**6,330**	**100%**	**311,103**	**99%**

Source: U.S. Census Bureau, American Community Survey 5-Year Data (2020)
Percentages may not add to 100% due to rounding.

Renter and Ownership Characteristics

In 2020, renter-occupied housing units in the study area made up 90 percent of total housing units in 2020, with owner-occupied housing units comprising 10 percent. Cabral/East Cabral Station Area had a higher share of renter-occupied housing units (90 percent) compared to Stockton as a whole (50 percent). The average household size in Cabral/East Cabral Station Area is 2, which is smaller than Stockton's average household size of 3.2.

Employment and Household Income

In 2020, the Cabral/East Cabral Station Area census area had a population of 2,603 aged 16 and over in the labor force, of which 93 percent were employed and 7 percent unemployed. The employment trend in the study is similar for Stockton, of which 92 percent of the population 16 years and over in the labor force were employed and 8 percent were unemployed in 2020.

A household of four is considered to be extremely low-income in Stockton if its combined income is $27,750 or less for the year 2022. As shown in **Table 9**, 56 percent of the households make less than $25,000 a year. A Very Low-Income Household is one whose combined income is at or between 31 and 50 percent of the AMI. A household of four is considered to be very low-income in Stockton if its combined income is between $27,751 and $41,400 for the year 2022. As shown in **Table 9**, 27 percent of households earn $25,000 to $50,000 annually.

Table 9: Household Income – Cabral/East Cabral Station Area Census Area

Household Income	Cabral/East Cabral Station Area		Stockton	
	Number (Households)	Percentage	Number (Households)	Percentage
Less than $10,000	453	17%	6,133	6%
$10,000 to $14,999	483	18%	4,683	5%
$15,000 to $24,999	561	21%	8,723	9%
$25,000 to $34,999	427	16%	9,391	10%
$35,000 to $49,999	304	11%	11,911	13%
$50,000 to $74,999	204	8%	17,962	19%
$75,000 to $99,999	91	3%	11,966	13%
$100,000 to $149,999	113	4%	14,273	15%
$150,000 to $199,999	29	1%	5,327	6%
$200,000 or more	40	1%	4,867	5%
Total	**2,705**	**100%**	**95,236**	**101%**

Source: U.S. Census Bureau, American Community Survey 5-Year Data (2020)

Percentages may not add to 100% due to rounding.

Overcrowding

In 2020, a total of 389 housing units in the Cabral/East Cabral Station Area census area were overcrowded, comprising 14 percent of the total housing units in this area. Of the owner-occupied housing units, 33 housing units (12 percent) were overcrowded. Of the renter-occupied housing units, 139 (6 percent) were overcrowded, and 217 (9 percent) were severely overcrowded (more than 1.5 occupants per room).

Infrastructure in Cabral/East Cabral Station Area

West Yost Associates completed an infrastructure readiness analysis (attached as **Appendix B**) for three vacant infill sites in the Cabral/East Cabral Station Area to help inform existing conditions in the study area. The analysis shows there is adequate water to meet the water demands of each infill site; however, all three sites may not have adequate fire flow for new residential buildings. Development of Site 7 would also exceed the design criteria for sewers; however, construction of the sewer rehab projects 1, 4 and 5 (R-1, R-4, and R-5)identified in the City's current Wastewater Master Plan (WWMP) would mitigate those exceedances. There were no significant impacts on drainage for any of the potential infill sites investigated in this study area. Flooding is projected to occur at the discharge point for Site 7 for both pre and post development conditions.

Sidewalk Conditions

The sidewalk conditions within Cabral/East Cabral Station Area are illustrated in **Figure 15**. The sidewalk conditions were evaluated by conducting an in-person site visit of the Cabral/East Cabral Station Area neighborhood and ranking the condition of a sidewalk segment as good, poor condition, or no sidewalk present as shown in the figure.

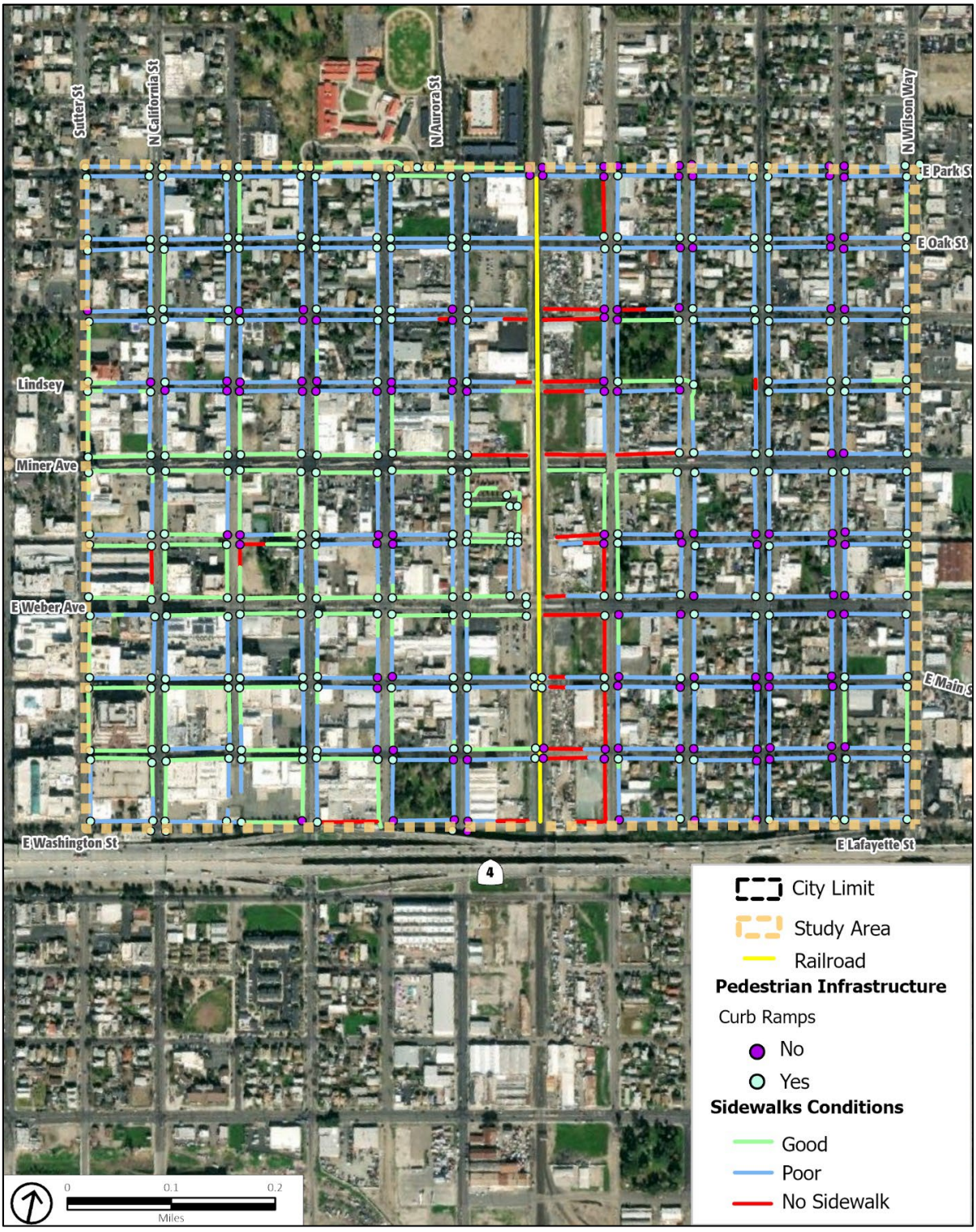
Sidewalk condition is found to be poor primarily in areas north of Miner Avenue and east of the railroad tracks, which form the north, north east, and south east quadrants of the neighborhood. Many streets located immediately east of the railroad are missing sidewalks as shown in the figure.

Within the south west quadrant, most of Miner Avenue and Weber Avenue, some segments of Main Street, Market Street, Sutter Street, Channel Street, Grant Street and California Street and have sidewalks in good condition.

Roadway Network

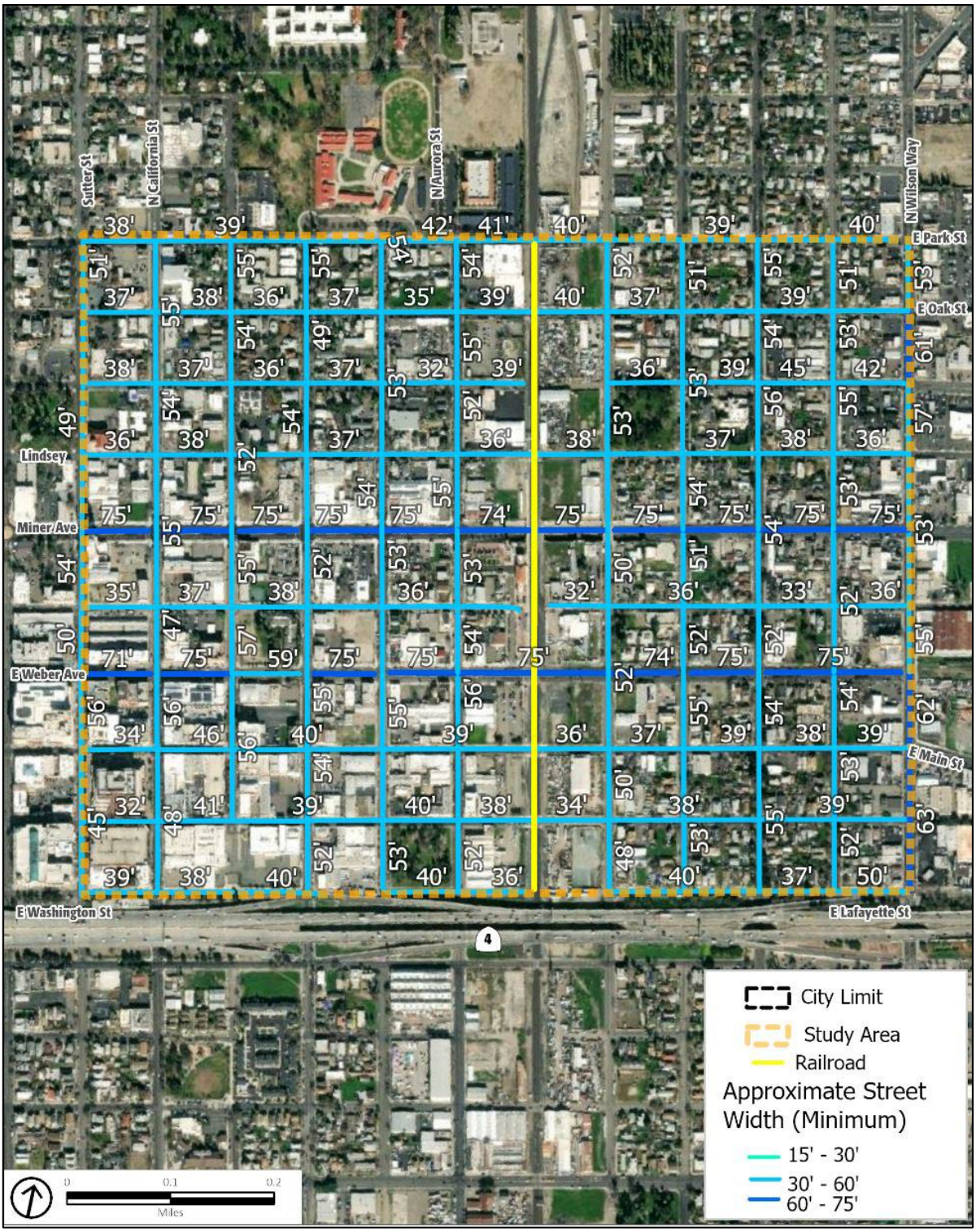
Stockton's roadway network was evaluated in the Environmental Impact Report for the 2040 General Plan to identify operational conditions and deficiencies considering peak hour intersection operations, daily roadway segment analysis, and accident data. The analysis did not identify any streets that are deficient in the Cabral/East Cabral Station Area Study Area. **Figures 16 and 17** show the approximate street maximum and minimum widths for the Cabral/East Cabral Study Area. The street width varies depending on the type of street.

Figure 15: Sidewalk Conditions in Cabral/East Cabral Station Area



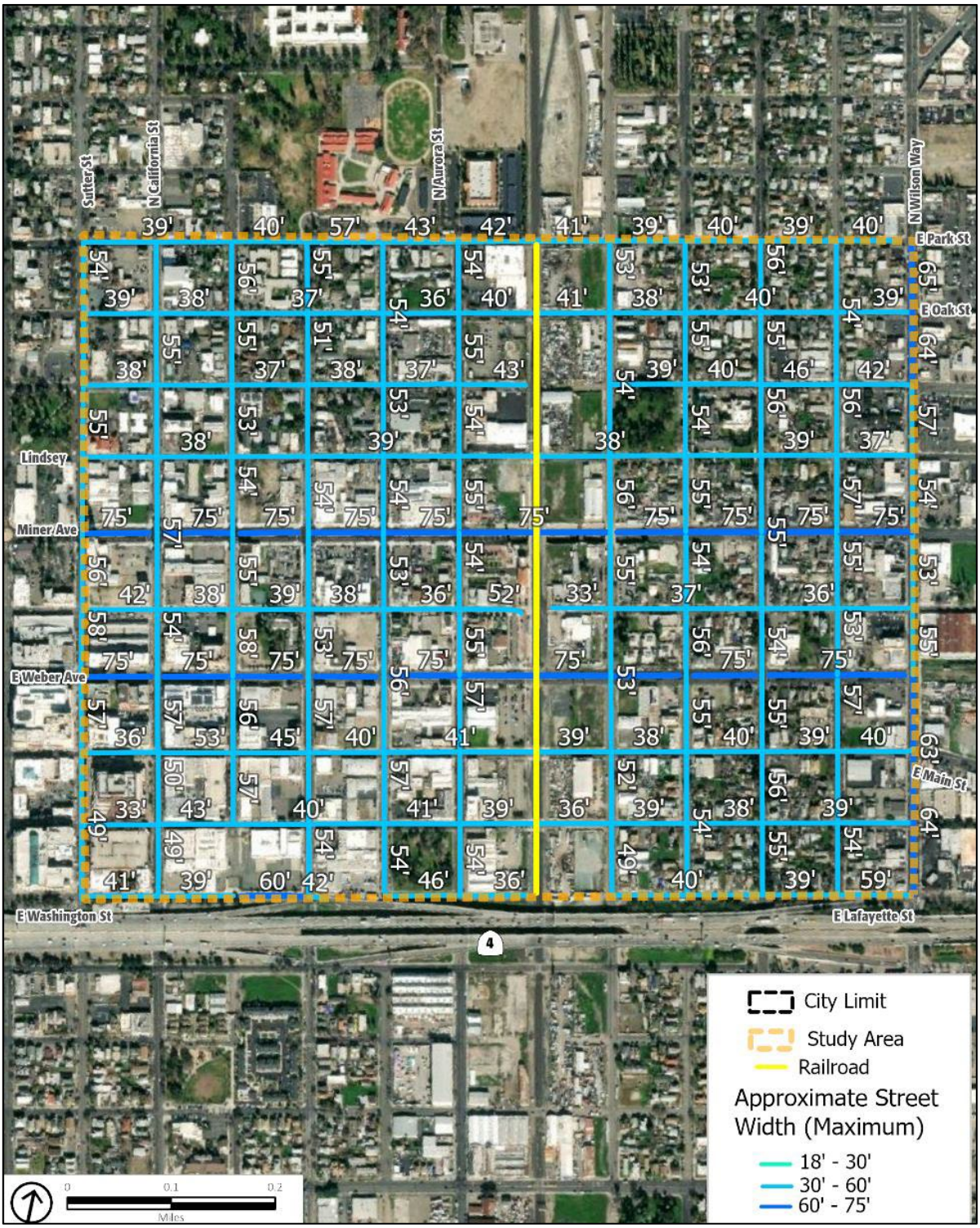
Source: PlaceWorks, 2023

Figure 16: Minimum Street Widths in Cabral/East Cabral Station Area



Source: PlaceWorks, 2023

Figure 17: Maximum Street Widths in Cabral/East Cabral Station Area



Source: PlaceWorks, 2023

STAKEHOLDER FEEDBACK

A key element of each Neighborhood Action Plan's success depends on meaningful engagement with the community and stakeholders. From July 2022 to September 2022, the City and PlaceWorks held one-on-one and small group meetings with stakeholders to learn about housing needs and barriers to housing development in each study area. Below is a list of stakeholders the project team met with over the past few months. Most of the stakeholder meetings were held virtually due to the COVID-19 pandemic. Key themes emerging from the stakeholder feedback are summarized for each study area below. Detailed notes from the meetings can be found in the Outreach Summary.

- African American Chamber of Commerce San Joaquin*, virtual meeting*
- Catholic Charities Diocese of Stockton, *virtual meeting*
- Downtown Stockton Alliance, *virtual meeting*
- Echo Chamber*, virtual meeting*
- El Concilio, *virtual meeting*
- Enterprise Community Partners, *meeting held in-person at The Well in Downtown*
- Gospel Center Rescue Mission, *walking tour of Little Manila/Gleason Park*
- HATCH Workshop, *walking tour of East Cabral Study Area*
- Little Manila Rising, *virtual meeting*
- Mutual Housing*, virtual meeting*
- Reinvent South Stockton Coalition*, virtual meeting*
- San Joaquin Council of Governments, *virtual meeting*
- San Joaquin County Hispanic Chamber of Commerce*, virtual meeting*
- San Joaquin Partnership, *virtual meeting*
- San Joaquin Regional Rail Commission, *meeting held in-person*
- STAND Affordable Housing, *meeting held in-person at the STAND office*
- Visionary Home Builders, *virtual meeting*

Additionally, the City also reached out to community members in each study area to learn about their housing needs. In Fall 2022, City staff attended two community events in each study area to distribute surveys asking the community about their housing needs, unique opportunities in the study areas , and localized neighborhood issues. In November, the City held an open house to gather additional input from the community about the type of housing they would like to see in each study area. Survey responses and feedback received from the open house are summarized in Appendix C, Outreach Summary.

Key Themes

South Airport Way

Stakeholders expressed a need for more multifamily housing and mixed-use development along the South Airport Way corridor, but acknowledged that without economic development in the area, there will not be sufficient services to accommodate future tenants. There was a concern about environmental contamination on vacant sites along the South Airport Way corridor. Sites that are contaminated typically require remediation before construction can occur, which can be an impediment to new housing development due to cost and timing issues. There are also concerns over high rates of asthma, low education rates, and lack of trees, grocery stores, and socializing or gathering places; issues that can partly be addressed by the construction of affordable and market-rate housing. Lastly, several acknowledged the potential for South Airport Way Area to incorporate neighborhood-serving commercial uses and healthy food options. A few believe this area of the city is a food desert.

Little Manila/Gleason Park

Stakeholders cited that small lot sizes may be a possible constraint to housing development in Little Manila/Gleason Park. Several key themes that have a significant impact on the quality of life and livelihood of the study area were also discussed. These issues include limited access to healthy foods, public safety concerns, high asthma rates, lack of community gathering and social spaces, lack of sidewalks, and poor infrastructure for pedestrians. There was also a mention of the possibility of adding bike lanes and a community garden along the Mormon Slough to help improve conditions. Moreover, many expressed an interest in preservation and rehabilitation of the buildings in the Little Manila/Gleason Park Study Area, which underscores the area's historical significance and potential for revitalization.

Cabral/East Cabral Station Area

Throughout the outreach process, stakeholders expressed the need for mixed-use development and affordable housing that is pedestrian friendly, safe, and attractive. There is a concern about environmental contamination of sites in this study area. Additionally, there is a perceived lack of responsiveness from property owners as a significant obstacle to housing development. It was also noted that the price point for new market rate housing in Stockton is lower than other cities; therefore, this type of housing might not pencil out for the developer. Other issues highlighted include the lack of services and amenities, poor street infrastructure and circulation around the study area, lack of street lighting, and equity issues, such as building housing adjacent to travel corridors. There is also a concern about concentrating affordable housing in one area of the city, indicating a need for a more equitable distribution of such resources in the Study Area.

IMPLICATIONS FOR THE NEIGHBORHOOD ACTION PLANS

South Airport Way

The outreach process showed that there is a need for multifamily, mixed-use development and neighborhood-serving uses in the area. This presents an opportunity to transform the South Airport Way area into a thriving mixed-use corridor with improved mobility and access to transit. Because overcrowding may be an issue, new development in the Study Area could include housing units with more than three bedrooms. To address concerns about the environmental contamination of vacant lots, stakeholders emphasized securing funding to support developers in their efforts to clean up a site prior to the construction of new development.

Little Manila/Gleason Park

The Little Manila/Gleason Park Study Area's proximity to Downtown provides various opportunities to enhance the quality of life of current and potential residents. Re-establishing pedestrian connectivity to and from central Stockton is one way to provide residents with more options to move around and access goods and services. Additionally, because there is an interest in preserving and rehabilitating the buildings in the study area, there is an opportunity to provide financial or educational resources to help residents rehabilitate their homes. There are also vacant lots and underutilized parking lots that may provide opportunities for new housing development. Lastly, there may be an opportunity to add amenities along Mormon Slough that meet the needs of the community.

Cabral/East Cabral Station Area

Due to its approximate location to Downtown and the Cabral Train Station, there is an opportunity to enhance the Cabral/East Cabral Station Study Area into a mixed-use community with improved mobility and access to local and regional transit. The future extension of passenger rail service to and from Sacramento could help enhance economic development and support the existing businesses in the area. While there are some services and amenities in the Cabral/East Cabral Station Study Area, additional services and amenities could be placed to support new housing development. Higher-income housing or market rate is also necessary to help ensure low-income housing is not concentrated in one area. Because the area has a high proportion of overcrowded units, new development could include housing units with three or more bedrooms. Other opportunities for this area include increasing green spaces, improvements to encourage walkability and improving safety.

WEBMAP

To understand existing conditions in each study area, the City and PlaceWorks collected geographic data and displayed it in an online mapping software called ArcGIS. The mapping data is available using the link below and includes the following layers:

Webmap can be viewed by clicking on the following link (this link may not work after 2025): https://stocktongis.maps.arcgis.com/apps/webappviewer/index.html?id=8fed617a16634a328aaf7d1402695c43

- Schools. This layer shows where schools are located in each study area and citywide. The data shown in this layer came from San Joaquin County, for the year 2021.
- Police Station. This layer shows where police stations are located in the city. There are no police stations in any of the study areas, the closest police station is located north of Little Manila/Gleason Park Study Area and east of Cabral/East Cabral Station Area at 22 East Market Street. The data shown in this layer is from the City for the year 2021.
- Streetlights. This layer shows where streetlights are located in each study area and citywide. The Cabral/East Cabral Station Area has the most streetlights, especially along East Miner Street, East Weber Street, and East Main Street. The data shown in this layer is from the City of Stockton for the year 2022.
- Opportunity Areas. This layer shows viable opportunity areas for infill development in each study area and citywide. The data shown in this layer is from the City of Stockton's General Plan for the year 2018.
- Vacant Lands. This layer shows where vacant parcels are located in each study area and citywide. All three study areas contain vacant parcels that could support housing development. The data shown in this layer came from San Joaquin County Assessors for the year 2022.
- Underutilized Lands. This layer shows where underutilized parcels are located in each study area and citywide. All three study areas contain underutilized parcels, where the value of improvements is less than 10 percent of the value of the property. The data shown in this layer came from San Joaquin County Assessors data for the year 2022.
- Building Footprints. This layer shows building footprints of structures citywide. The data shown in this layer came from the City of Stockton for the year 2022.
- Existing and Proposed Active Transportation Network. This layer shows the existing and proposed active transportation network citywide. There are no existing active transportation network segments in any of the study areas. The data shown in these layers are from the City of Stockton's Bicycle Master Plan from the year 2017.

- San Joaquin Regional Transit District (SJRTD) High Quality Stops and High Frequency Routes. This layer shows the locations of bus stops with 30 minute or less wait times, including "high quality bus stops and high frequency routes" along East Weber Avenue, East Miner Avenue, and South Airport Way. The data shown in these layers is from San Joaquin Regional Transit District and Google for the year 2022.
- 100-Year and 200-Year Flood Zones. This layer shows that Little Manila/Gleason Park Area has a potential 100-year flood zone along the Mormon Slough. The data shown in these layers is from FEMA for the year 2021.
- Noise Contours in Decibels (70, 65, and 60 dBA). These layers show where the noise contours are located in each study area and citywide. Portions of each study area have noise contours reaching 70 and 65 decibels, including along East Sonora Street, East Lafayette Street, East Washington Street, East Market Street, South Airport Way and Hwy. 4. The data shown in these layers are from the City of Stockton's General Plan for the year 2018.
- Street Centerlines. This layer shows where freeways, State highways, major arterials, and minor arterials are in each study area and citywide. The data shown in this layer is from the City of Stockton for the year 2021.
- Household Internet Access. This layer shows the percent of households with internet access in each study area and citywide. All three study areas have 22 percent or more of households with no internet access. The data shown in this layer is from the American Community Survey for the year 2022.
- Proposed Zoning, Proposed Zoning Series ID, and Existing Zoning. These layers show existing zoning, and any zoning changes currently in process. The data shown in these layers are from the City of Stockton for the year 2022.
- General Plan Land Use. This layer shows land use designations in each study area and citywide. The data shown in this layer is from the City of Stockton for the year 2018.
- Tree Canopy. This layer shows where trees are located in each study area and citywide. The data shown in this layer is from Earth Define for the year 2018.

SOURCES

Reports and Data

Gensler, ACE Planning and Parking Strategy Cabral Station, April 12, 2011

San Joaquin Regional Rail Commission, Valley Rail Sacramento Extension Project Draft Environmental impact report, March 2022

U.S. Census Bureau, American Community Survey 5-Year Data (2020)

Persons Contacted

Anthony Robinson Jr., Echo Chamber, Executive Director

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Benjamin Saffold, Gospel Center Rescue Mission, Development of Marketing

Bob Gutierrez, San Joaquin Partnership, Chief Executive Officer

Carol J. Ornelas, Visionary Home Builders, Chief Executive Officer

Christine Corrales, San Joaquin Council of Governments, Senior Regional Planner

Dan Leavitt, San Joaquin Regional Rail Commission, Manager of Regional Initiatives

Darryl Rutherford, Reinvent South Stockton Coalition, Executive Director

Dr. Inés Ruiz-Huston, El Concilio, Vice President

Elazar Abraham, HATCH Workshop, Executive Director, Irene Calimlim, Little Manila Rising, Community Development Director

Jonathan Pruitt, Ector Olivares, and Tanisha Raj, Catholic Charities Diocese of Stockton

Keith Bloom, Mutual Housing, Project Manager

Kristine Williams, Enterprise Community Partners, Program Director

Lisa Vela, San Joaquin County Hispanic Chamber of Commerce, Chief Executive Officer

Lueathel Seawood, African American Chamber of Commerce San Joaquin, President

Michael Huber and Courtney Wood, Downtown Stockton Alliance

APPENDIX A: DEMOGRAPHICS

Age

Table A-1: Population by Age

Age Group	South Airport Way		Little Manila/ Gleason Park		Cabral/East Cabral Station Area		Stockton	
	Number (Persons)	Percentage	Number (Persons)	Percentage	Number (Persons)	Percentage	Number (Persons)	Percentage
0-19 years	3,280	40%	431	28%	1,643	26%	96,343	31%
20-34 years	1,794	22%	426	28%	1,287	20%	68,042	22%
35-49 years	1,496	18%	269	17%	1,336	21%	59,035	19%
50-64 years	890	11%	225	15%	1,370	22%	49,078	16%
65-79 years	570	7%	156	10%	609	10%	30,128	10%
80 years +	210	3%	34	2%	85	1%	8,477	3%
Total	**8,240**	**101%**	**1,541**	**100%**	**6,330**	**100%**	**311,103**	**101%**

Source: U.S. Census Bureau, American Community Survey 5-Year Data (2020)
Percentages may not add to 100% due to rounding.

Race and Ethnicity

Table A-2: Race and Ethnicity								
Race or Ethnicity	South Airport Way		Little Manila/ Gleason Park		Cabral/East Cabral Station Area		Stockton	
	Number (Persons)	Percentage	Number (Persons)	Percentage	Number (Persons)	Percentage	Number (Persons)	Percentage
Hispanic or Latino (of any race)	6,517	79%	1,183	77%	3,975	63%	135,457	44%
White alone	204	2%	59	4%	784	12%	60,442	19%
Black or African American alone	1,217	15%	33	2%	888	14%	34,195	11%
American Indian and Alaska Native alone	0	0%	15	1%	0	0%	493	0%
Asian alone	254	3%	146	10%	503	8%	63,657	20%
Native Hawaiian and Other Pacific Islander alone	0	0%	105	7%	62	1%	1,404	0%
Some other race alone	0	0%	0	0%	0	0%	1,252	0%
Two or more races	48	1%	0	0%	118	2%	14,203	5%
Total	**8,240**	**100%**	**1,541**	**101%**	**6,330**	**100%**	**311,103**	**99%**

Source: U.S. Census Bureau, American Community Survey 5-Year Data (2020)

Percentages may not add to 100% due to rounding.

Employment Status

Table A-3: Employment Status								
Employment Status	South Airport Way		Little Manila/ Gleason Park		Cabral/East Cabral Station Area		Stockton	
	Number (Persons)	Percentage	Number (Persons)	Percentage	Number (Persons)	Percentage	Number (Persons)	Percentage
Employed	2,527	84%	604	96%	2,416	93%	128,952	92%
Unemployed	464	16%	26	4%	187	7%	11,399	8%
Total	**2,991**	**100%**	**630**	**100%**	**2,603**	**100%**	**311,103**	**100%**

Source: U.S. Census Bureau, American Community Survey 5-Year Data (2020)
The population is comprised of individuals 16 years and over in the civilian labor force.

Housing Tenure

Table A-4: Owner vs. Renter								
Owner vs. Renter	South Airport Way		Little Manila/ Gleason Park		Cabral/East Cabral Station Area		Stockton	
	Number (Persons)	Percentage	Number (Persons)	Percentage	Number (Persons)	Percentage	Number (Persons)	Percentage
Owner-occupied	890	41%	22	4%	284	10%	153,508	50%
Renter-occupied	1,306	59%	531	96%	2,421	90%	151,029	50%
Total	**2,196**	**100%**	**553**	**100%**	**2,705**	**100%**	**304,537**	**100%**

Source: U.S. Census Bureau, American Community Survey 5-Year Data (2020)
The population is comprised of occupied housing units.

Household Income

Table A-5: Household Income								
Household Income	South Airport Way		Little Manila/ Gleason Park		Cabral/East Cabral Station Area		Stockton	
	Number (Households)	Percentage	Number (Households)	Percentage	Number (Households)	Percentage	Number (Households)	Percentage
Less than $10,000	250	11%	49	9%	453	17%	6,133	6%
$10,000 to $14,999	221	10%	69	12%	483	18%	4,683	5%
$15,000 to $24,999	324	15%	144	26%	561	21%	8,723	9%
$25,000 to $34,999	479	22%	32	6%	427	16%	9,391	10%
$35,000 to $49,999	300	14%	110	20%	304	11%	11,911	13%
$50,000 to $74,999	322	15%	99	18%	204	8%	17,962	19%
$75,000 to $99,999	71	3%	16	3%	91	3%	11,966	13%
$100,000 to $149,999	141	6%	31	6%	113	4%	14,273	15%
$150,000 to $199,999	88	4%	0	0%	29	1%	5,327	6%
$200,000 or more	0	0%	3	1%	40	1%	4,867	5%
Total	**2,196**	**100%**	**553**	**101%**	**2,705**	**100%**	**95,236**	**101%**

Source: U.S. Census Bureau, American Community Survey 5-Year Data (2020)
Percentages may not add to 100% due to rounding.

Overcrowding

Table A-6: Overcrowding in Households								
Occupants per Room	South Airport Way		Little Manila/ Gleason Park		Cabral/East Cabral Station Area		Stockton	
	Number (Households)	Percentage	Number (Households)	Percentage	Number (Households)	Percentage	Number (Households)	Percentage
Owner-occupied housing units	**890**	**41%**	**22**	**4%**	**284**	**10%**	**47,481**	**50%**
0 to 1.00 occupants per room	775	87%	22	100%	251	88%	44,601	94%
1.01 to 1.50 occupants per room	48	5%	0	0%	33	12%	2,058	4%
More than 1.50 occupants per room	67	8%	0	0%	0	0%	822	2%
Renter-occupied housing units	**1,306**	**59%**	**531**	**96%**	**2,421**	**90%**	**47,755**	**50%**
0 to 1.00 occupants per room	1,059	81%	412	78%	2,065	85%	41,814	88%
1.01 to 1.50 occupants per room	219	17%	45	8%	139	6%	4,270	9%
More than 1.50 occupants per room	28	2%	74	14%	217	9%	1,671	3%
Total	**2,196**	**100%**	**553**	**100%**	**2,705**	**100%**	**95,236**	**100%**

Source: U.S. Census Bureau, American Community Survey 5-Year Data (2020)

Population is comprised of occupied housing units.

Appendix B: Infrastructure Readiness Analysis

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TECHNICAL MEMORANDUM

DATE: December 21, 2022

Project No.: 425-60-22-05
SENT VIA: EMAIL

TO: Charlie Knox, Placeworks

FROM: Doug Moore, PE, RCE #58122
Colton Short, EIT #174039

REVIEWED BY: Elizabeth Drayer, PE # 46872

SUBJECT: City of Stockton Infrastructure Readiness Assessment
Water, Sewer, and Drainage Evaluations for Stockton Housing Infill Sites

This Technical Memorandum (TM) provides preliminary water, sewer, and drainage evaluations of the City of Stockton Housing Infill Sites (Infill Sites) for the City of Stockton Infrastructure Readiness Assessment. This TM includes the following sections:

- Evaluation Summary
- Infill Site Locations and Land Uses
- Potable Water Evaluation
- Sanitary Sewer Evaluation
- Drainage Evaluation

EVALUATION SUMMARY

This section presents a concise summary of this evaluation and the resulting conclusions:

- Land Use Summary: The nine Infill Sites are located within three neighborhoods in the City of Stockton (City) (see Figure 1). The proposed land uses for the Infill Sites include Mixed Use Residential and Commercial, and Multi-Family Residential.
- Potable Water Evaluation:
  - Methodology: The potable water demand evaluation was performed using water supply and demand data from the California Water Service (Cal Water) Stockton District's 2020 Urban Water Management Plan (UWMP) and from that data estimating if there is adequate water supply for the proposed development at the Infill Sites. The fire flow evaluation was based on comparing the Infill Sites required fire flows with Cal Water's capacity to supply the fire flows.
  - Conclusions: This evaluation demonstrates that there appears to be adequate water to meet the water demands of the Infill Sites; however, Infill Sites 1 and 5-9 may not have adequate fire flow for the proposed land uses. The fire flow capacity should be verified by Cal Water.

- Sewer Evaluation
  - Methodology: The sewer evaluation was performed using the City's current Wastewater Master Plan (WWMP, prepared by West Yost, September 2022) and the associated sewer system hydraulic model. This is a standard methodology for evaluating potential sewer impacts.
  - Conclusions: There are no sewer capacity limitations for Infill Sites 1, 2, 3, 4, 8 and 9 for existing conditions. At Infill Sites 5, 6, and 7, the sewers are within design criteria, but further investigations are needed before development should be approved. At buildout of the City, the sewers exceed the design criteria at Infill Sites 5, 6, and 7; but construction of the sewer improvements identified in the WWMP would mitigate the exceedances.
- Drainage Evaluation
  - Methodology: The drainage evaluation was performed by Hazen and Sawyer Engineers using hydraulic and hydrologic models of the City's drainage system for the 10-year, 24-hour design storm.
  - Conclusions: There are no significant impacts as a result of infill development at all Sites. Flooding is projected at the discharge point for Infill Site 8 for both pre and post infill development conditions. Water surface elevations at all other Infill Site discharge locations remain largely unchanged between pre and post infill development conditions and remain below the ground elevation.

INFILL SITE LOCATIONS AND LAND USES

The nine Infill Sites are grouped into three neighborhoods, as shown on Figure 1 (all figures are presented at the end of this TM) and listed below:

- Neighborhood A – South Airport Way
- Neighborhood B - Little Manila/Gleason Park
- Neighborhood C - Cabral Station

The existing and proposed land uses for each Infill Site are summarized in Table 1 (all tables are presented at the end of this TM). As shown in Table 1, Infill Site 1 was evaluated with housing densities of 20 dwelling units (DUs) per acre and 48 DUs/acre.

POTABLE WATER EVALUATION

The water evaluation is presented below. All the Infill Sites are in the Cal Water Stockton District water service area. Thus, this information is based on information available from Cal Water. If the required data was not available from Cal Water, then other data sources were used and noted in the discussion below.

Estimated Water Demands

Typical water demand factors are summarized in Table 2. The estimated water demands by neighborhood and Site are calculated in Table 3 and summarized below:

- The total annual water demand is 46 to 52 acre-feet/year (depending on the Site 1 dwelling unit density)
- The total average daily water demand is 41,242 to 46,427 gallons per day (gpd)
- The peak hour water demand is 103,106 to 116,067 gpd
- The required fire flows range from 2,500 to 4,500 gallons per minute (gpm)

Available Water Supplies

The available water supplies are summarized below from Cal Water Stockton District's 2020 UWMP. The water supplies are from treated surface water purchased from Stockton East Water District (SEWD) and groundwater wells owned and operated by Cal Water. Both supplies are discussed below.

Purchased Water from SEWD

Cal Water Stockton District's primary source of water is treated surface water purchased from SEWD. This water is acquired by SEWD from the New Hogan Reservoir and New Melones Reservoir, both of which are located to the east of the City in the foothills of the Sierra Nevada mountain range. In an agreement with the United States Bureau of Reclamation, SEWD is guaranteed 56.5 percent of the yield held in New Hogan Reservoir and 75,000 acre-feet (ac-ft) from New Melones Reservoir. SEWD treats the raw water at its treatment plant in the City of Stockton. Cal Water has a 51.8 percent share of the total water treated at the SEWD plant.

Groundwater Wells

While Cal Water plans on maximizing the use of purchased surface water, groundwater is used to augment the supply to their Stockton service area when customer demands are high. Groundwater has accounted for an average of 16 percent of water supply to the Cal Water Stockton District over the last 10 years. The service area lies within the unadjudicated San Joaquin Valley – Eastern San Joaquin Subbasin, of which Cal Water's pumping has ranged from 924 ac-ft/year to 23,481 ac-ft/year since 1980. The Cal Water wells have always been able to meet the service area demands, including during times of drought, indicating Cal Water's capacity to pump additional groundwater to increase water supply.

Though the high historical rates indicate large amounts of pumping, overdraft is not a concern in the Stockton District as the change in groundwater elevations have consistently varied within a range of only 20 feet over the last 25 years and land subsidence is not an issue. Recent conservation efforts have also diminished demands on the groundwater, and monitoring wells have shown stable to increasing groundwater elevation trends in the Stockton area.

Water Supply and Demand Evaluation

This evaluation is based on Cal Water Stockton District's 2020 UWMP. Cal Water supplied 24,106 ac-ft of water to the Stockton District in 2020, as shown in Table 6-8 of the 2020 UWMP. Table 6-8 is shown below.

Table 6-8. Water Supplies – Actual (DWR Table 6-8)

Water Supply	Additional Detail on Water Supply	2020		
		Actual Volume	Water Quality	Total Right or Safe Yield *(optional)*
Purchased or Imported Water	Stockton East Water District	22,622	Drinking Water	
Groundwater (not desalinated)	Eastern San Joaquin Subbasin	1,484	Drinking Water	
	Total	24,106		
NOTES: (a) Volumes are in units of AF.				

Cal Water's 2020 UWMP (Table 7-2, shown below) projects overall demand and supplies in the Stockton District to decrease from 23,733 ac-ft/year in 2025 to 23,517 ac-ft/year in 2045 due to various efforts to conserve water. The available supplies exactly match the demands because Cal Water can secure additional water as needed from the groundwater wells (see footnotes to Table 7-2). Tables 7-3 and 7-4 of the 2020 UWMP indicate that Cal Water has adequate water supplies to meet the demands in single and multiple drought years. Thus, it appears that Cal Water can provide water to all nine of the Infill Sites.

The estimated total water demand from the nine Infill Sites of 60 ac-ft is less than 0.3 percent of the projected current and future demands. Some level of water demands from the nine Infill Sites are already included in the Cal Water 2020 UWMP demand projections. Thus, the water demand increase of 60 acre-feet (0.3 percent increase) is the maximum increase in water demand that could occur from the nine Infill Sites. Since Cal Water successfully supplied 24,106 ac-ft in 2020, and Cal Water projects that the 2025 to 2045 demands are less than 23,733 ac-ft, it appears that Cal Water could supply an additional 60 acre-feet of water to serve the nine Infill Sites. Additionally, since the projected future water demands and supplies are not the limit of what Cal Water can supply, Cal Water should have adequate supplies to provide water service to the nine Infill Sites. This conclusion should be verified by Cal Water at an appropriate time in the future.

Table 7-2. Normal Year Supply and Demand Comparison – Districtwide (DWR Table 7-2)

	2025	2030	2035	2040	2045
Supply totals *From DWR Table 6-9*	23,733	23,588	23,548	23,480	23,517
Demand totals *From DWR Table 4-3*	23,733	23,588	23,548	23,480	23,517
Difference	0	0	0	0	0
NOTES: (a) Volumes are in units of AF. (b) The Eastern San Joaquin Subbasin is not adjudicated, and this projected supply volumes, which include groundwater, do not comprise a determination of water rights or maximum allowable pumping. (c) Table 7-2A and 7-2B show normal year supply and demand comparison for each of the District's supply sources.					

Water Distribution System Evaluation

The second element of this water evaluation is to estimate if Cal Water's distribution network of pipes can convey the needed water to the Infill Sites. Treated surface water and groundwater are distributed throughout the Stockton District (and to the Infill Sites) using Cal Water's water pipeline system. The peak water demands would occur if there is a fire and high-water flow rates were needed fight the fire. These peak flows are called fire flows. The required fire flows are based on the types of buildings near the fire hydrants. Typical fire flows for various land uses are summarized in Table 2. Typically, the fire flow must be provided without the water flow velocity in the pipe network exceeding 10 feet per second. However, different water suppliers have different criteria for evaluating fire flows. This evaluation is based on typical standards and Cal Water's standards may be different than these typical standards.

Table 3 summarizes the land uses adjacent to each Infill Site and the resulting required fire flows. The proposed land uses and the required fire flows for the nine Infill Sites are also summarized in Table 3. As shown in Table 3:

- For Infill Site 1, the development would introduce a new land use that would result in an increase in the required fire flow, and the adjacent 8-inch water line may not provide the required fire flow.
- For Infill Sites 2 and 4, there is no increase in the required fire flow, and the adjacent water lines appear to provide adequate fire flow.
- For Infill Site 3, the development would introduce a new land use that would result in an increase in the required fire flow. However, the adjacent 16-inch water line should provide adequate fire flow.
- For Infill Sites 5, 6, 7, 8, and 9, there is no increase in the required fire flow, but nevertheless the adjacent 6-inch to 10-inch water lines may not provide adequate fire flow.

Normally, fire flow evaluations are performed with a computer model of the pipe network. However, Cal Water's computer model is not available for this evaluation. At an appropriate time, these conclusions should be verified by Cal Water with their computer model of the water pipe network.

SANITARY SEWER EVALUATION

The City's sewer system is shown on Figure 2. All the Infill Sites are in the City of Stockton wastewater service area. This analysis is based on the WWMP and the associated sewer system computer model. Consistent with the WWMP, this evaluation is based on the following wastewater flow factors:

- A residential flow factor of 300 gpd/DU (City Engineering Standards),
- A commercial flow factor of 3,000 gpd/ac (developed in the WWMP),
- A downtown commercial flow factor of 4,500 gpd/ac (developed in the WWMP).

The impact significance evaluation is based on the sewer system priority evaluation criteria from the Table 4-3 of the WWMP (reproduced below).

Table 4-3. Existing Gravity Main Capacity Criteria

Capacity Category	Criteria (a)	Comments
Priority 1 – Possible Sanitary Sewer Overflows	1. $Q_p > Q_{full}$; and, 2. HGL within 1 foot of ground surface	These gravity sewers have the potential to produce sanitary sewer overflows during peak wet weather flow events.
Priority 2 – Excessive Surcharging	1. $Q_p > Q_{full}$; and, 2. HGL from 1 to 4 feet below ground surface	These gravity sewers have the potential to backup into service laterals and drains at low elevations during peak wet weather flow events. There is some apparent risk of overflows.
Priority 3 – Moderate Surcharging	1. $Q_p > Q_{full}$; and, 2. HGL from 4 to 8 feet below ground surface (or) 3. HGL more than 1 foot above crown in sewers less than 8 feet deep	These gravity sewers have the potential to backup into service laterals and drains at low elevations during severe peak wet weather flow events. There is reduced apparent risk of overflows. Field investigations and flow/surcharge monitoring is warranted if an improvement is not otherwise recommended. Additional flow from new development is not acceptable without improvements.
Priority 4 – Minimal Surcharging/ Reported Adverse Slope	1.$Q_p > Q_{full}$; and, 2. HGL more than 8 feet below ground surface (or) 3. HGL less than 1 foot above crown in sewers 5 to 8 feet deep (or) 4. Sewer line sloped adversely (negative slope in the direction of flow)	These sewers have an apparently acceptable level of peak flow surcharging. Additional flow from new development is not acceptable without capacity improvements. Sewers with reported adverse slopes should be field investigated to verify invert elevations.
Approaching Full-Pipe Capacity	Q_p ranges between 90-100% of Q_{full};	These sewers do not exceed City design criteria, but should be investigated further with flow monitoring before permitting additional flows from upstream development.

"Q_{full}" is the flow at which no more flow can be accommodated without surcharging.

The potential sewer impacts from the development of the Infill Sites were evaluated using the City's sewer model. The evaluation is summarized below:

- **Model Run 1** – Existing Land Uses with the Existing Sewer System: This model run included existing land uses with the existing sewer system. The water surface elevation (WSE) and freeboard (freeboard is the distance that the maximum WSE is below the sewer maintenance hole rim) for this condition for the maintenance holes where each of the Infill Sites would discharge into the sewer system are summarized in Table 4. If the flow depth (d) in the sewer divided by the sewer diameter (D) exceeds 0.75, then the sewer flow exceeds 90 percent of the sewer capacity. As shown in Table 4, there are capacity limitations at Infill Sites 5, 6, and 7 (d/D exceeds 0.75 but is less than 1.0) for existing conditions.
- **Model Run 2** - Infill Housing Land Uses with the Existing Sewer System: This model run was developed from Model Run 1 and included revising the land uses to include the full development of the nine Infill Sites. No other land use changes were included. This model run also included the existing sewer system with no changes. As shown in Table 4, there are capacity limitations at Infill Sites 5, 6, and 7 (d/D exceeds 0.75 but is less than 1.0). For this case, the sewer does not exceed the City's design criteria, but flow monitoring should be conducted prior to approval of development at these Infill Sites. The other Infill Sites have no sewer capacity limitations.
- **Model Run 3** – City-Wide Buildout with the Infill Housing Land Uses: Several of the Infill Sites are in a Sewer Study Area. In the WWMP, Sewer Study Areas were assumed to be completely built out using estimated land uses and flow factors available when the WWMP was prepared. Because the Site land uses are at a higher residential density than was used for the WWMP, this model run included revising the Buildout model run to include these higher residential densities. The d/D values and wastewater surcharging depths for this condition are summarized in Table 4. A comparison of Model Runs 1 and 3 show the impacts (increases in the d/D values) to the sewer system from buildout of the City with these Infill Sites at the proposed dwelling unit density. At Infill Sites 5, 6, and 7, the sewer evaluation ratings shift up to Priority 2 or 3, representing significant exceedance of the sewer design criteria. These exceedances are almost entirely a result of buildout of the rest of the City, and the development of the Infill Sites contributes only slightly to the exceedances. These exceedances represent the cumulative impact of the City-wide development. To address the cumulative impacts, the WWMP identifies sewer system improvements in each of the sewer systems at and/or downstream of the Infill Sites. Thus, the Infill Sites' contributions to the cumulative impacts would be mitigated by construction of the sewer improvements at an appropriate time in the future.

The sewer evaluation is summarized below:

- The model results show no capacity limitations for Infill Sites 1, 2, 3, 4, 8 and 9 for existing conditions, with the development of the Infill Sites, nor at Buildout of the City.
- The model results show that the sewers are approaching full capacity at Infill Sites 5, 6, and 7, but are still within design criteria for existing conditions and with the development of the Infill Sites.
- The model results show that at buildout of the City, the sewers exceed the design criteria at Infill Sites 5, 6, and 7. But construction of the sewer improvements identified in the SSMP would mitigate the exceedances.

DRAINAGE EVALUATION

The City's storm drainage system is shown on Figure 3. The storm drainage analysis was performed by hydrologic and hydraulic modeling of the Stockton drainage collection system prepared by Hazen and Sawyer Engineers (the City's stormwater master plan consultant). A 10-year, 24-hour design storm totaling 2.4 inches of precipitation was used to evaluate the capacity of the stormwater collection system for both pre and post infill development conditions. The 10-year, 24-hour design storm was represented using a National Oceanic and Atmospheric Administration (NOAA) Type III rainfall distribution.

Table 5 summarizes the hydrologic and hydraulic modeling results, which shows an overall negligible increase in peak runoff rates, total runoff volumes, and peak WSEs as result of infill development at all the priority sites. The drainage evaluation is summarized below:

- The largest increase in peak runoff rate and total runoff volume is projected to occur at Infill Site 4. With infill development at this location, the peak runoff rate increases from 0.13 cfs to 2.48 cfs (2.35 cfs increase) and the total runoff volume increases from 661 cf to 10.764 cf (10,103 cf increase). The peak WSE in the drainage collection system at the discharge point for Infill Site 4 is not projected to change with infill development, with freeboards remaining 0.9 feet for both conditions.
- Flooding is projected at the discharge point for Infill Site 8 for both pre and post infill development conditions. Infill development for Site 8 is projected to minimally increase flooding at this location.
- Available freeboard (the difference between the ground elevation and the maximum WSE) at each Infill Site discharge locations remain largely unchanged between pre and post infill development conditions. Freeboards range from flooding (Site 8) to 6.4 feet (Site 3). Infill development at all nine sites is projected to have negligible impacts on downstream WSEs.

Table 1. Infill Site Proposed Land Uses						
Neighborhood	Site	Proposed Land Use	Acreage	Dwelling Unit Density, DU/acre	Total Dwelling Units, DU	Current Land Use
A - South Airport Way	1	Mixed Use	0.71	20	32	Vacant Lot
A - South Airport Way		Mixed Use	0.90			Vacant Lot
A - South Airport Way	1	Mixed Use	0.71	48	77	Vacant Lot
A - South Airport Way		Mixed Use	0.90			Vacant Lot
A - South Airport Way	2	Residential	0.48	20	14	Vacant Lot
A - South Airport Way		Residential	0.23			Vacant Lot
A - South Airport Way	3	Residential	0.59	20	12	Vacant Lot
B - Little Manila/Gleason Park	4	Residential	0.28	60	116	American Way
B - Little Manila/Gleason Park		Residential	1.66			Vacant Lot
B - Little Manila/Gleason Park	5	Residential	0.23	60	14	Underutilitized Parking Lot
B - Little Manila/Gleason Park	6	Residential	0.17	60	10	Vacant Lot
C - Cabral Station	7	Residential	0.30	60	25	Vacant lot
C - Cabral Station		Residential	0.11			Vacant lot
C - Cabral Station	8	Residential	0.34	60	20	Industrial, old car rental?
C - Cabral Station	9	Mixed Use	0.57	90	72	Auto Sales
C - Cabral Station		Mixed Use	0.23			Auto Sales

Table 2. Water Demand Factors, Peaking Factors, and Fire Flow Rates		
Land Use Category	Units	Factor
Demand Factors		
Single Family Residential	gpd/ gross acre	2,232
Multi-Family Residential	gpd/ du	115
Multi-Family Residential (Downtown)	gpd/ du	115
Commercial	gpd/ gross acre	2,053
Industrial	gpd/ gross acre	1,785
Typical Peaking Factors		
Maximum Day Peaking Factor (Maximum Day to Average Day)		1.8
Peak Hour Peaking Factor (Peak Hour to Average Day)		2.5
Typical Fire Flow Rates		
Single Family Residential	gpm	2,000
Multi-Family Residential	gpm	3,000
Multi-Family Residential (Downtown)	gpm	2,500
Commercial	gpm	4,500
Industrial	gpm	4,500

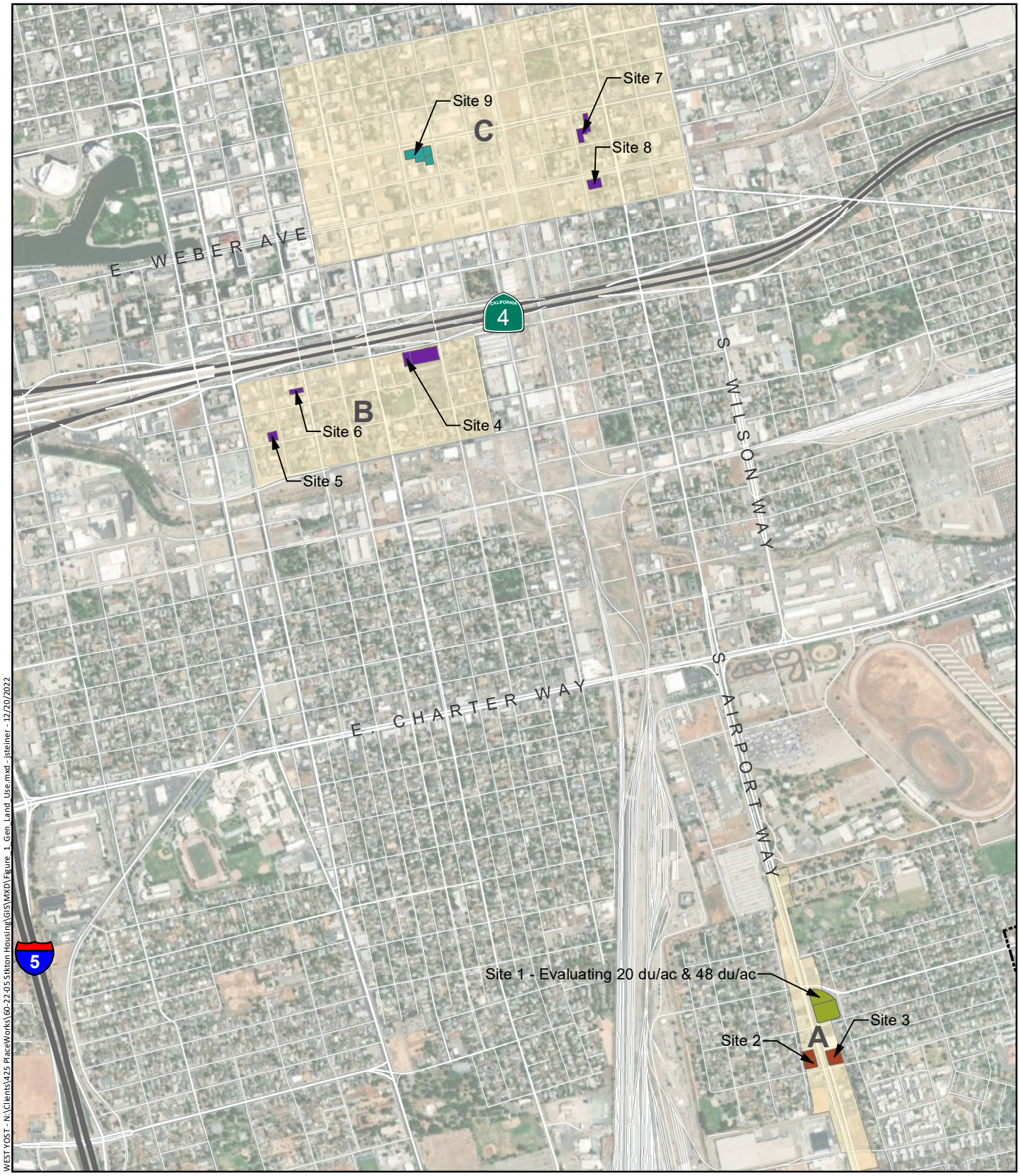
Table 3. Water Evaluation

Neighborhood	Site	Acreage	Total Dwelling Units, DU	Average Day Water Demand, gpd	Average Day Water Demand, ac-ft/yr	Max Day Water Demand (factor = 1.8), gpd	Peak Hour Water Demand (factor = 2.5), gpd	Adjacent Land Uses	Adjacent Land Use with the Highest Fire Flow)	Adjacent Land Use Fire Flow, gpm	Proposed Site Fire Flow	Increase in Fire Flow, gpm	Adjectent Water Main Size, inches	Adjacent Water Main Capacity at Peak Velocity of 10 feet per second), gpm	Evaluation Conclusion
A - South Airport Way	1	1.61	32	7,009	7.85	12,616	17,522	Single Family Residential	Single Family Residential	2,000	4,500	2,500	8	1,567	There may not be adequate fire flow for the proposed land use.
A - South Airport Way	1	1.61	77	12,193	13.66	21,947	30,483	Single Family Residential	Single Family Residential	2,000	4,500	2,500	8	1,567	There may not be adequate fire flow for the proposed land use.
A - South Airport Way	2	0.71	14	1,633	1.83	2,939	4,083	Commercial, Single Family Residential	Commercial	4,500	3,000	0	16	6,266	There appears to be adequate fire flow for the proposed land use.
A - South Airport Way	3	0.59	12	1,357	1.52	2,443	3,393	Single Family Residential	Single Family Residential	2,000	3,000	1,000	16	6,266	There appears to be adequate fire flow for the proposed land use.
B - Little Manila/Gleason Park	4	1.94	116	13,386	15.00	24,095	33,465	Commercial, Multi-Family Residential	Commercial	4,500	2,500	0	14	4,798	There appears to be adequate fire flow for the proposed land use.
B - Little Manila/Gleason Park	5	0.23	14	1,587	1.78	2,857	3,968	Commercial, Single Family Residential, Multi-Family Residential	Commercial	4,500	2,500	0	8	1,567	There may not be adequate fire flow for the proposed land use.
B - Little Manila/Gleason Park	6	0.17	10	1,173	1.31	2,111	2,933	Commercial, Multi-Family Residential	Commercial	4,500	2,500	0	10	2,448	There may not be adequate fire flow for the proposed land use.
C - Cabral Station	7	0.41	25	2,829	3.17	5,092	7,073	Multi-Family Residential, Single Family Residential	Multi-Family Residential (Downtown)	2,500	2,500	0	8	1,567	There may not be adequate fire flow for the proposed land use.
C - Cabral Station	8	0.34	20	2,346	2.63	4,223	5,865	Commercial, Single Family Residential	Commercial	4,500	2,500	0	6	881	There may not be adequate fire flow for the proposed land use.
C - Cabral Station	9	0.80	72	9,923	11.12	17,861	24,807	Commercial, Multi-Family Residential	Commercial	4,500	4,500	0	6	881	There may not be adequate fire flow for the proposed land use.
Total with Infill Site 1 at 32 DUs				**41,242**	**46.20**	**74,236**	**103,106**								
Total with Infill Site 1 at 77 DUs				**46,427**	**52.01**	**83,568**	**116,067**								

Table 4. Sewer Evaluation

Land Use Data						Flow Data		Sewer Data				Model Run 1 Results - Existing Land Uses with the Existing Sewer System				Model Run 2 Results - Infill Housing Land Uses with the Existing Sewer System				Model Run 3 Results – City-Wide Buildout with the Infill Housing Land Uses			
Neighborhood	Site	Proposed Land Use	Acreage	Density, DU/ac	Total Dwelling Units	Flow Factor, gpd/ac	ADWF, MGD	Downstream Sewer Diameter, inches	Ground Elevation, ft	Invert Elevation, ft	Sewer Depth, ft	WSE, ft	Freeboard, ft	d/D	Capacity Criteria Rating	WSE, ft	Freeboard, ft	d/D	Capacity Criteria Rating	WSE, ft	Freeboard, ft	d/D	Capacity Criteria Rating
South Airport Way	Site 1	Mixed Use	0.71	48	34	17,400	0.01235	12	19.46	3.40	16.06	3.61	15.85	0.21	No Capacity Limitation	3.62	15.84	0.22	No Capacity Limitation	3.62	15.84	0.22	No Capacity Limitation
			0.90		43	17,400	0.01566																
	Site 2	Residential	0.48	20	10	6,000	0.00288	30	19.55	1.55	18.00	2.58	17	0.41	No Capacity Limitation	3	17	0.42	No Capacity Limitation	3	17	0.43	No Capacity Limitation
			0.23		5	6,000	0.00138																
	Site 3	Residential	0.59	20	12	6,000	0.00354																
Little Manila/ Gleason Park	Site 4	Residential	0.28	60	17	18,000	0.00504	8	17.13	9.60	7.53	9.65	7.48	0.07	No Capacity Limitation	9.67	7.46	0.11	No Capacity Limitation	9.67	7.46	0.10	No Capacity Limitation
			1.66		100	18,000	0.02988	12	17.82	3.54	14.28	4.07	13.75	0.53	No Capacity Limitation	4.12	13.70	0.58	No Capacity Limitation	4.26	13.55	0.72	No Capacity Limitation
	Site 5	Residential	0.23	60	14	18,000	0.00414	27	14.57	1.32	13.25	3.28	11.29	0.87	Approaching Full Pipe Capacity	3.29	11.28	0.88	Approaching Full Pipe Capacity	4.36	10.21	1.35	Priority 3
	Site 6	Residential	0.17	60	10	18,000	0.00306																
Cabral Station	Site 7	Residential	0.30	60	18	18,000	0.00540	12	16.11	7.26	8.85	7.61	8.50	0.35	No Capacity Limitation	7.61	8.50	0.35	No Capacity Limitation	7.83	8.28	0.57	No Capacity Limitation
			0.11		7	18,000	0.00198	6	17.45	10.93	6.52	11.35	6.10	0.84	Approaching Full Pipe Capacity	11.36	6.10	0.85	Approaching Full Pipe Capacity	14.64	2.82	7.42	Priority 2
	Site 8	Residential	0.34	60	20	18,000	0.00612	12	17.82	3.54	14.28	4.07	13.75	0.53	No Capacity Limitation	4.12	13.70	0.58	No Capacity Limitation	4.26	13.55	0.72	No Capacity Limitation
	Site 9	Mixed Use	0.57	90	51	30,000	0.01710	10	16.21	5.69	10.52	5.82	10.39	0.16	No Capacity Limitation	5.88	10.33	0.23	No Capacity Limitation	6.12	10.09	0.51	No Capacity Limitation
			0.23		21	30,000	0.00687																

Table 5. Infill Development Drainage Results						
	Peak Runoff Rate, cfs		Total Runoff Volume, cf		HGL at Discharge Point, feet	
Infill Site	Pre-Development	Post-Development	Pre-Development	Post-Development	Pre-Development	Post-Development
1	1.56	2.12	7594	10354	18.0	18.1
2	0.15	0.88	1270	4279	14.9	14.9
3	0.16	0.68	1061	3213	14.1	14.1
4	0.13	2.48	661	10764	17.1	17.1
5	0.40	0.40	1868	1868	14.0	14.0
6	0.01	0.26	40.8	1164	14.2	14.3
7	0.13	0.84	611	3865	15.3	15.4
8	0.12	1.20	574	5443	18.1	18.1
9	1.70	1.70	8160	8160	15.4	15.4



WEST YOST - N:\Clients\425 PlaceWorks\60-22-05 Stkton Housing\GIS\MXD\Figure_1_Gen_Land_Use.mxd - jsteiner - 12/20/2022

Priority Sites

Density, du/ac

- 20
- 48
- 60
- 90

N

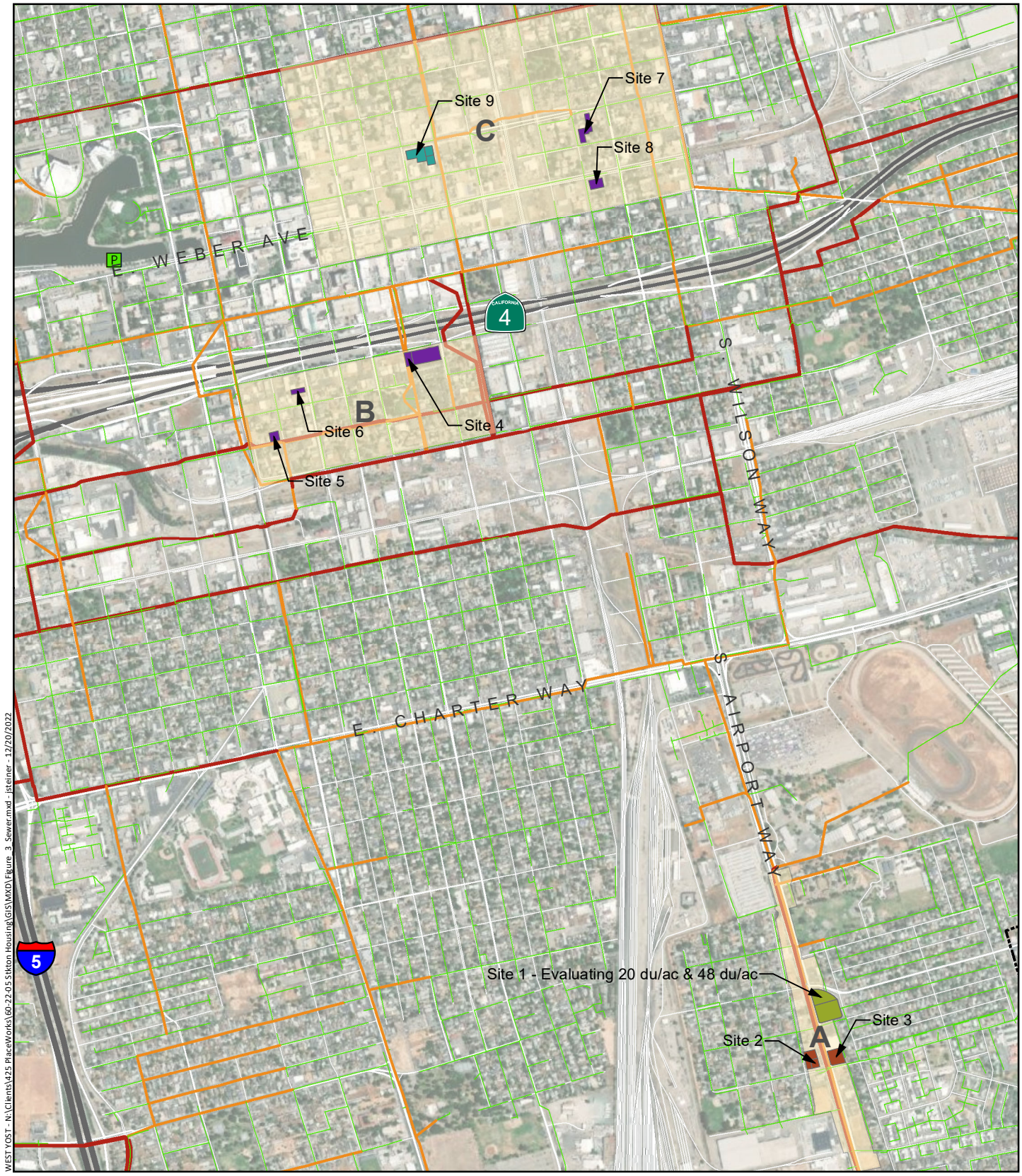
0 750 1,500

Scale in Feet

Figure 1

Infrastructure Readiness Priority Sites

PlaceWorks
City of Stockton Infrastructure Readiness Assessment



WEST YOST - N:\Clients\425 PlaceWorks\60-22-05 Stkton Housing\GIS\MXD\Figure_3_Sewer.mxd - jsteiner - 12/20/2022

Existing Sewer Line (Diameter)

- < 8 Inches
- 10 - 18 Inches
- > 19 Inches

Existing Sewer Facility

- Pump Station
- Pump Station Excluded from "SanitaryPumpStations_point" File

N

0 750 1,500

Scale in Feet

Figure 2

Sewer Network

PlaceWorks
City of Stockton Infrastructure Readiness Assessment

WEST YOST - N:\Clients\425 PlaceWorks\60-22-05 Stkton Housing\GIS\MXD\Figure_4_Storm.mxd - jsteiner - 12/20/2022

Existing Storm Drain (Diameter)

- < 22 Inches
- 24 - 36 Inches
- >39 Inches

N

0 750 1,500

Scale in Feet

Figure 3

Storm Drain Network

PlaceWorks
City of Stockton Infrastructure
Readiness Assessment

WEST YOST

APPENDIX C: SEWER AND STORM DRAIN LINES

The following pages include sewer and storm drain utility information for South Airport Way, Little Manila/Gleason Park, and Cabral/East Cabral Station Area.

This appendix is for *internal informational purposes only*.

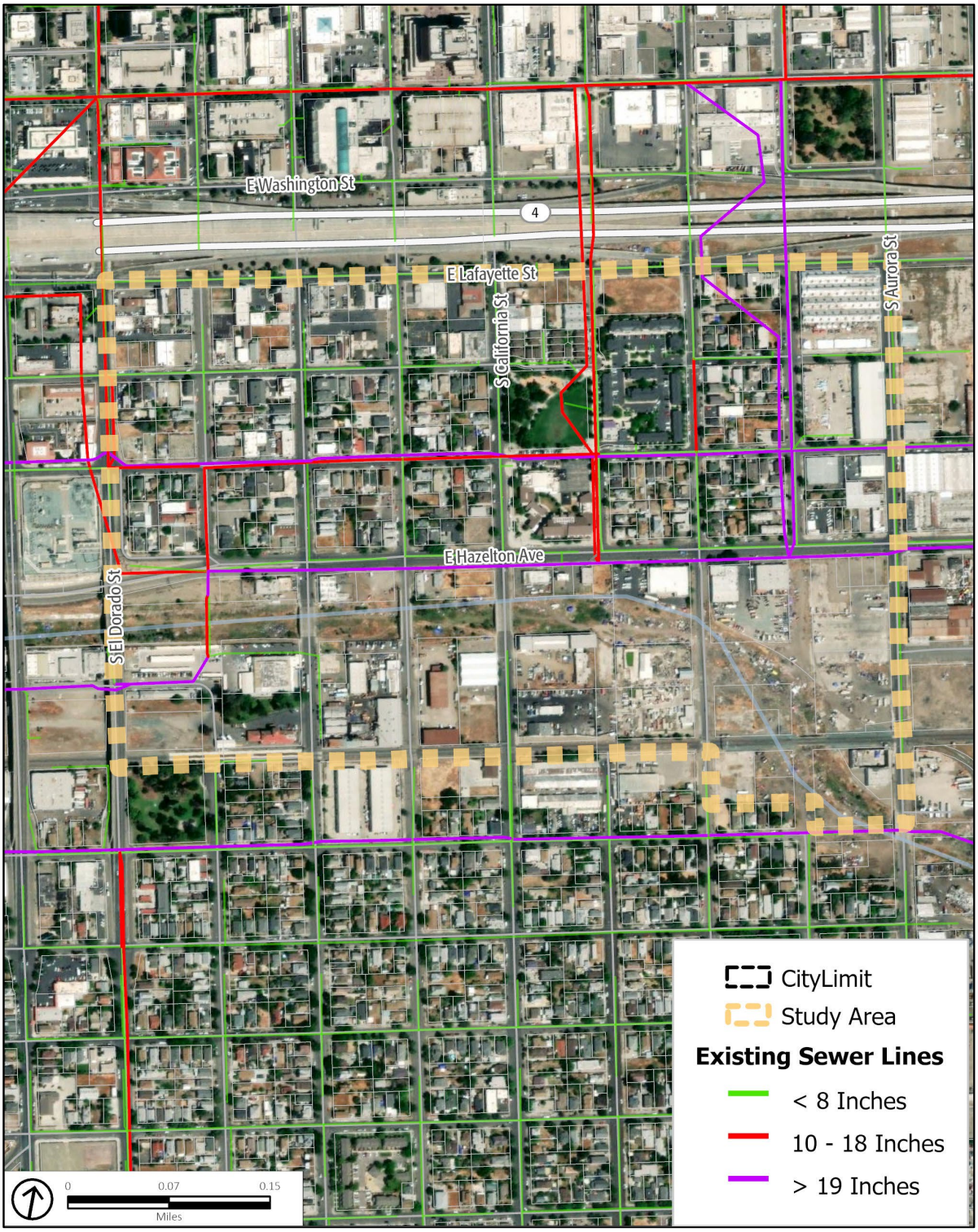
Sewer Lines in South Airport Way

Source: City of Stockton, West Yost, and PlaceWorks (2022)

Storm Drain Lines in South Airport Way

Source: City of Stockton, West Yost, and PlaceWorks (2022)

Sewer Lines in Little Manila/Gleason Park

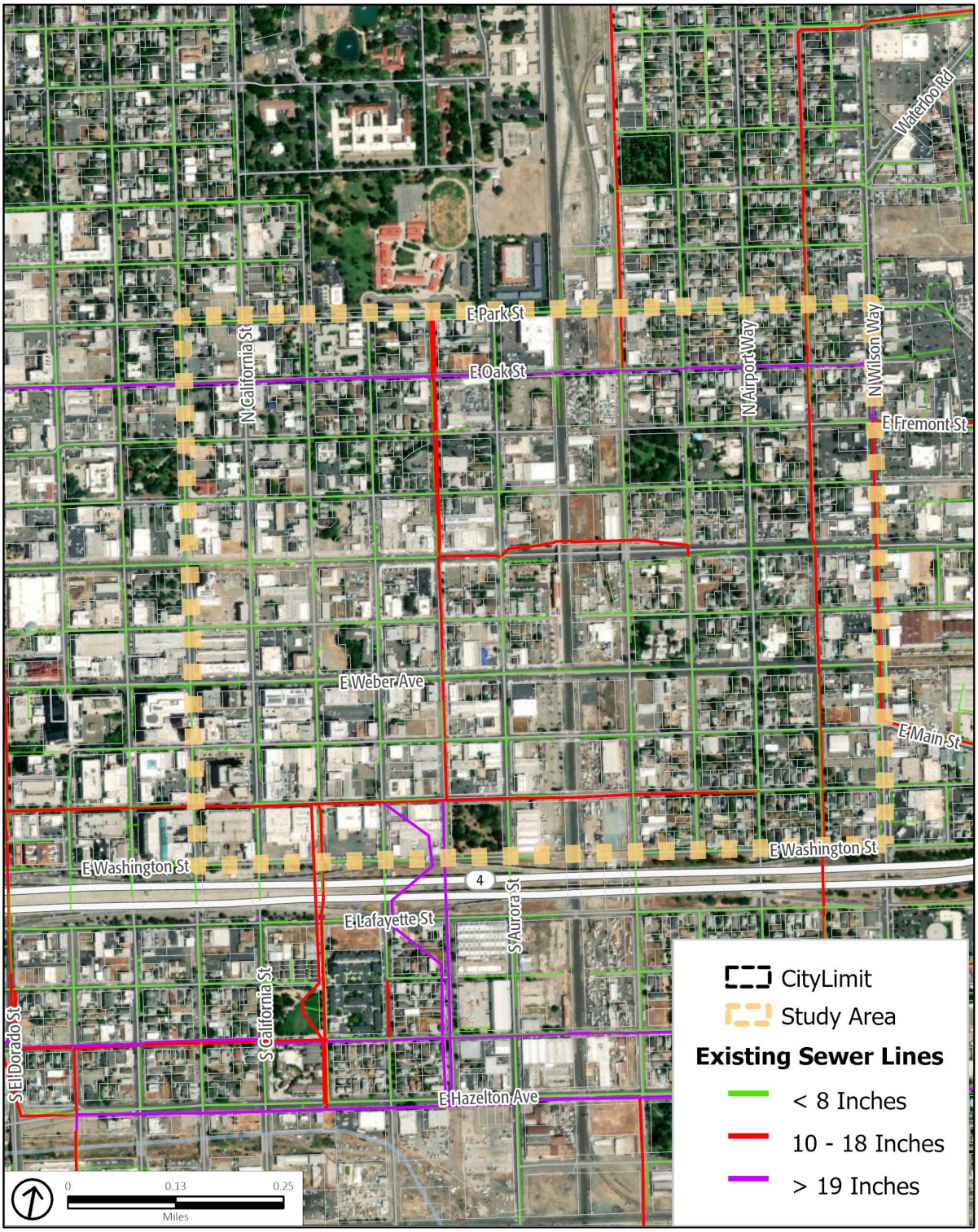


Source: City of Stockton, West Yost, and PlaceWorks (2022)

Storm Drain Lines in Little Manila/Gleason Park

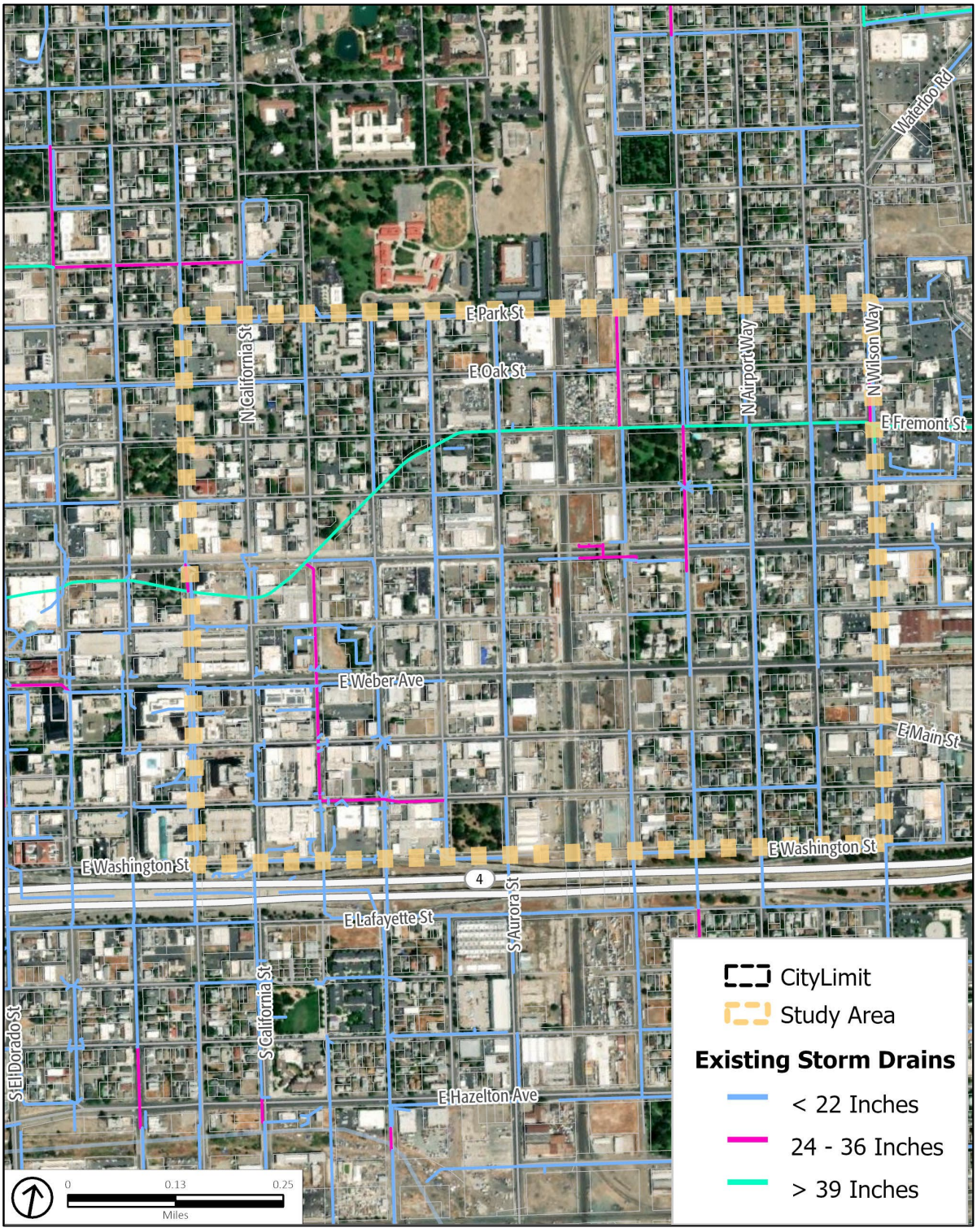
Source: City of Stockton, West Yost, and PlaceWorks (2022)

Sewer Lines in Cabral/East Cabral Station Area



Source: City of Stockton, West Yost, and PlaceWorks (2022)

Storm Drain Lines in Cabral/East Cabral Station Area



Source: City of Stockton, West Yost, and PlaceWorks (2022)