

City of Somerton

Pathway Master Plan

FINAL REPORT



Somerton Pathway Master Plan

Final Report

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ADOT & City of Somerton



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I. INTRODUCTION

In conjunction with the Planning Assistance for Rural Areas (PARA) program sponsored by the Arizona Department of Transportation (ADOT), Multimodal Planning Division (MPD), the City of Somerton applied for and received funding to conduct a comprehensive transportation study. The study includes this update to the City's Shared Use Pathway and Trails System Master Plan. Somerton adopted the Shared Use Pathway and Trails System Master Plan in 2005 with the purpose to connect parks and schools and provide safe facilities for non-motorized users. This master plan update builds on the 2005 plan and incorporates the non-motorized findings and recommendations included in the 2013 City of Somerton Comprehensive Transportation Plan. It is consistent with YMPO Mission Statement:

"Attain a balanced multimodal transportation system within the Yuma regional transportation planning boundary area, as designated by the Governor of Arizona, with finite resources, while promoting a safe environment and enhancing the quality of life in the region."

The former US 95, known locally as Main Street, is important to the economic vitality of Somerton. However, Main Street serves two conflicting functions: on one hand, the road functions as a primary corridor to/from Mexico; but on the other hand the road also functions as "Main Street" where reduced vehicle speeds, on-street parking, and bicycle and pedestrian traffic are desired. In fact, the City recently converted Main Street between Congress and Somerton Avenue from a five lane (four through lanes) street to a three lane (two through lanes) street with parking.

A Background

Somerton was established in 1898 and incorporated in 1918. Somerton experienced explosive growth nearly doubling in population from 7,266 in 2000 to 14,287 in 2010 according to the U.S. Census Bureau. This growth has a significant effect on local travel patterns and in turn increases the transportation needs of the City. By conducting transportation assessments that are focused on improving all transportation modes, including pedestrian and bicycle facilities, Somerton will proactively improve mobility and safety throughout the community and the region. The majority of development is located within 2 square miles which helps to promote walking and biking. The local canal system provides excellent opportunities for pedestrian and bicycle connectivity.



Non-motorized travel is becoming more popular and increasingly important in an area's transportation system. When combined with Somerton's explosive growth, the need for bicycle and pedestrian facilities is great. A complete streets concept encompasses all users to provide safe, efficient travel along and across streets and promotes livability, mobility and economic development.

Additionally, walking and biking are important modes of travel. In its 2033 Regional Transportation Plan, the Yuma Metropolitan Planning Organization quotes 2000 census data for Yuma County to illustrate the travel to work mode share for biking and walking:

TABLE 1: MODE SHARE

Mode	Yuma County	Arizona	United States
Bicycle	0.9%	1.0%	0.4%
Walk	4.3%	2.6%	2.9%
Combined	5.2%	3.6%	3.3%
Public Transportation	1.1%	1.9%	4.7%

When combined, walking and biking to work accounted for a larger percentage of trips in Yuma County than either Arizona or the United States. They also accounted for more trips than public transportation in Yuma County.

The financial benefit to the user is also remarkable. The 2010 report "Your Driving Costs" prepared by the American Automobile Association finds that the composite national average cost to own and operate an automobile is 60 cents per mile. The same cost for a bicycle is 2.25 cents per mile.

B. Definitions

The following definitions related to non-motorized travel are from the American Association of state Highway and Transportation Officials (AASHTO).

- *BICYCLE LANE* – A portion of a roadway that has been designated by signing, and pavement markings for the preferential or exclusive use of bicyclists
- *BICYCLE ROUTE SYSTEM* – A system of bikeways designated by the jurisdiction having authority with appropriate directional and informational route markers, with or without specific bicycle route numbers. Bicycle routes should establish a continuous routing, but may be a combination of any and all types of bikeways.

- **SHARED ROADWAY** – A roadway, which is open to both bicycle and motor vehicle travel. This may be an existing roadway, street with wide curb lanes, or road with paved shoulders.
- **SHARED USE PATHWAY** – A bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent right-of-way. Pedestrians, skaters, wheelchair users, joggers, and other non-motorized users may also use shared use paths.
- **SIDEWALK** – The portion of a street or highway right-of-way designed for preferential or exclusive use by pedestrians.

C. Guidance from Other Agencies

Bicycle and pedestrian planning is recognized and endorsed by all levels of government.

United States Department of Transportation (USDOT):

The 2010 USDOT Policy Statement on Bicycle and Pedestrian Accommodation supports interconnected cycling and walking networks to increase bicycle and pedestrian safety. The USDOT considers walking and bicycling as equals with other transportation modes.

Moving Ahead for Progress in the 21st Century (MAP-21) was signed into law on July 6, 2012. MAP-21 builds on and refines many of the highway, transit, bike, and pedestrian programs and policies established in 1991. It ensures local communities are able to build multimodal, sustainable projects ranging from passenger rail and transit to bicycle and pedestrian paths. It creates a new Transportation Alternatives (TA) formula program encompassing most activities funded through Transportation Enhancements, Recreational Trails, and Safe Routes to School under SAFETEA-LU.

American Association of State Highway and Transportation Officials (AASHTO):

AASHTO publishes the “Guide for the Development of Bicycle Facilities” (4th Edition). They publish a companion “Guide for the Planning, Design, and Operation of Pedestrian Facilities” (1st Edition). They identify a hierarchy of bicycle facility types including shared lanes, paved shoulders, bike lanes, shared use paths and bike routes. AASHTO has found the highest level of bike use in the United States is where bike lanes and shared use paths form the backbone of the network

Arizona Department of Transportation (ADOT):

ADOT is updating its “Statewide Bicycle and Pedestrian Plan” in 2013. They, too, identify a hierarchy of facilities including bike lanes, sidewalks, shared use paths and bike routes.

They also state that pedestrian amenities enhance the pedestrian experience and safety including bus shelters, street furniture, and attractive street lights and trash/recycling receptacle.

Yuma Metropolitan Planning Organization (YMPO):

The YMPO “2033 Regional Transportation Plan” (RTP) is a multimodal plan that includes bicycle and pedestrian elements under non-motorized uses. The RTP states “non-motorized transportation can reduce congestion and increase the livability of the region”.

City of Yuma:

The Yuma “Bicycle Facilities Master Plan” quotes the Bureau of Transportation Statistics Omnibus Survey from 2002 finding that 14.3% of adults rode a bike in the previous month. Of those, 60% were for recreation, 30% for exercise, and 5% for work or school. Yuma identifies major facility types as bike paths, bike lanes, bike routes and shared use paths. The plan contains a vision for the region - a unified system that provides bicyclists with safe, convenient, accessible facilities. The system promotes bicycling through a well-marked, mapped and publicized bike network.

D. Goals and Objectives

Goals and objectives help an agency focus on its vision and deliver its mission. ADOT, YMPO, Yuma and Somerton all identify some level of goals and objectives related to non-motorized travel. The goals stated in ADOT’s Statewide Bicycle and Pedestrian Plan basically summarize the goals of all the organizations in a succinct manner:

- Goal No. 1 – Increase Bicycle and Pedestrian Trips
- Goal No. 2 – Improve Bicyclist and Pedestrian Safety
- Goal No. 3 – Improve Pedestrian and Bicycle Infrastructure

The City of Somerton Comprehensive Transportation Plan also tabulates pertinent non-motorized goals and objectives in the form of recommendations from previous Somerton plans, all of which are still valid.

Somerton Small Area Transportation Study (2006)

- Construct the remainder of the planned trails system

Somerton 2010 General Plan

- Offer mobility choices
- Develop a pedestrian oriented system

- Include 6-foot wide striped bicycle lane on new collector or arterial roads
- Construct sidewalks on both sides of new roadways

E. Travel Characteristics

During the past five years, substantial changes have occurred in travel characteristics and patterns as a result of the economy and a changing work force. As economic and environmental conditions continue to change, transportation investments must be cost-effective and contribute to a healthy environment. One key is to provide transportation choices such as non-motorized options. The concept of “complete streets” encompasses all users to provide safe, efficient travel along and across streets. As a companion document to The City of Somerton Comprehensive Transportation Plan, this non-motorized plan promotes livability, mobility, and a healthy environment.

At the national level, a new transportation act with emphasis on economic vitality, transparency, livability, complete streets, mobility, safety, and freight movement was recently signed into law. As we enter a new era in transportation, the next several years are likely to see broad changes and policy transitions. Federal transportation policy is evolving, as are environmental and economic policies that will influence the direction of transportation and funding investments. These policies will have significant impacts on how people travel and goods move.



F. Study Area

The City of Somerton is located in southwestern Yuma County between the rapidly growing City of Yuma to the north and San Luis, AZ/San Luis, Rio Colorado to the south. The study area for this non-motorized plan is depicted in Figure 1. It encompasses the City’s planning area identified in the Somerton General Plan, which is bounded by County 14th Street, Avenue A, County 19th Street, and Avenue G. the current City limits are also shown in Figure 1.

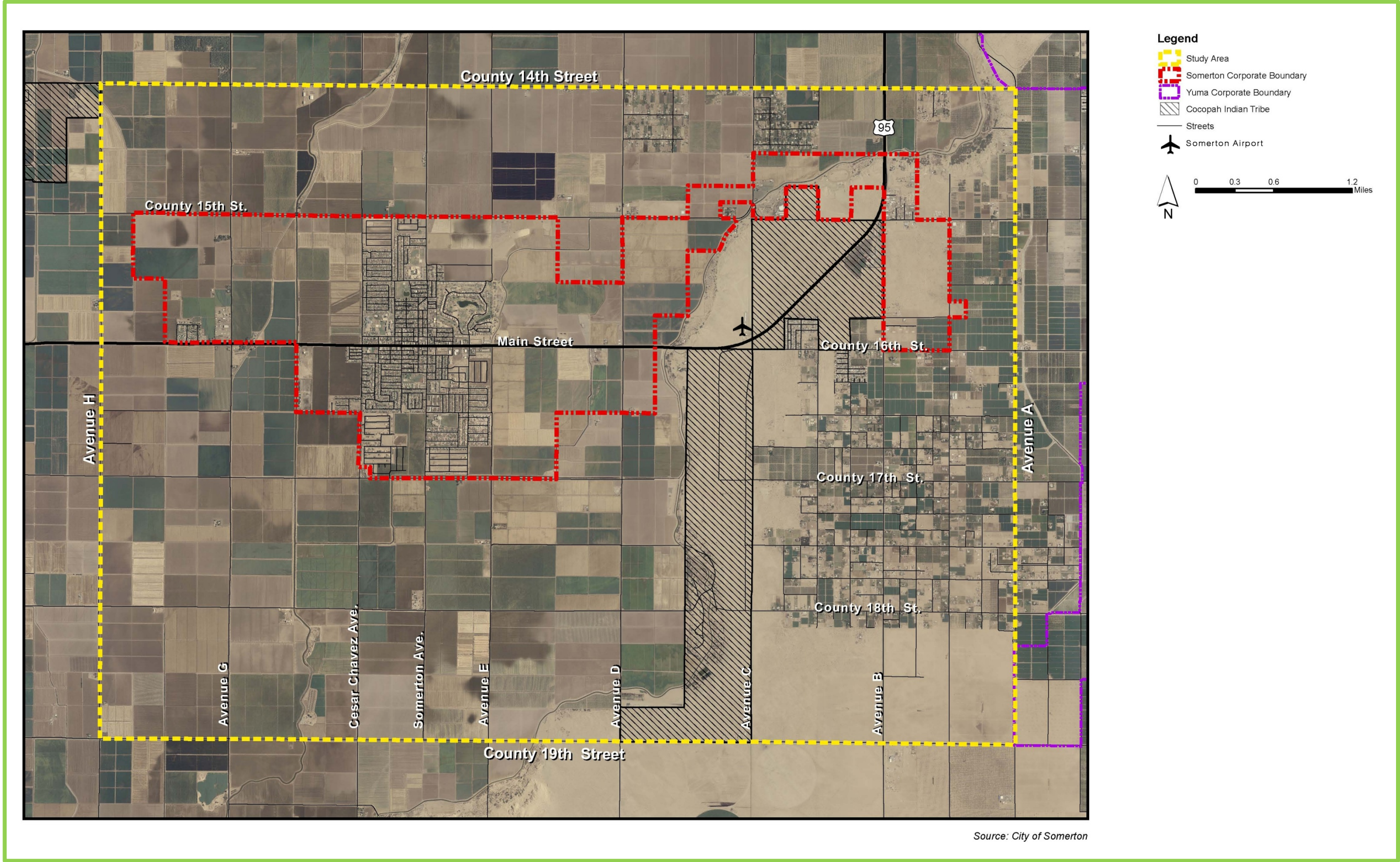


FIGURE 1: STUDY AREA

II. EXISTING CONDITIONS

Existing conditions provide a basis for projecting future conditions and guiding the development of the non-motorized plan. Several measures of existing conditions were selected for documentation and analysis including:

- Land use
- Socioeconomic data
- Non-motorized system

A. Land Use

A review of land use data is important to understand travel characteristics and patterns in an area. The Somerton Planning Area is comprised of mostly privately owned lands. The Planning Area is primarily laid out on a grid and a compact urban form bounded on the north by County 14th Street, the south by



County 19th Street, Avenue A on the east and Avenue H on the west. The community's present commercial center is well defined along Main Street. There are some scattered commercial uses but few other concentrations with the exception of a business center (commercial/industrial uses) located within the recently annexed area at the northeast corner of Avenue B and County 15th Street. Agriculture uses dominate the periphery of the Planning Area. The major employment uses are farming and retail. The majority of the community has a traditional small-lot single-family housing pattern.

The Cocopah Indian Tribe operates a popular casino, bowling, and game center and plans to expand the facility. The following park types are located in the study area – two linear parks, one mini park, and five neighborhood parks. There is one county library in the study area. There is one middle school and four elementary schools. PPEP TEC High School is a charter school that offers an alternative education option to students ages 14 – 21 and grades 9 – 12.

The current allocation of land use in the planning area is presented in Table 2. As seen in Table 2, the predominant land use is agriculture.

TABLE 2: EXISTING LAND USE

Land Use	Area (AC)	Percent of Planning Area
Agriculture	17,169	76.1%
Residential	3,128	13.9%
Commercial	212	0.9%
Industrial	194	0.9%
Public / Quasi-Public	104	0.5%
Tribal Land	1,648	7.3%
Open Space	109	0.5%
TOTAL	22,564	

Source: RBF Consulting - Visual Aerial Assessment

B. Socioeconomic Data

Population data for Arizona, Yuma County, the City of Somerton, and the Cocopah Indian Tribe is presented in Table 3 for the years 2000 and 2010. As shown in the table, when comparing the growth between the geographic areas, the highest average annual growth rate in the decade from 2000 to 2010 occurred in the City of Somerton with a 7.0% annual increase.

TABLE 3: POPULATION GROWTH, 2000 TO 2010

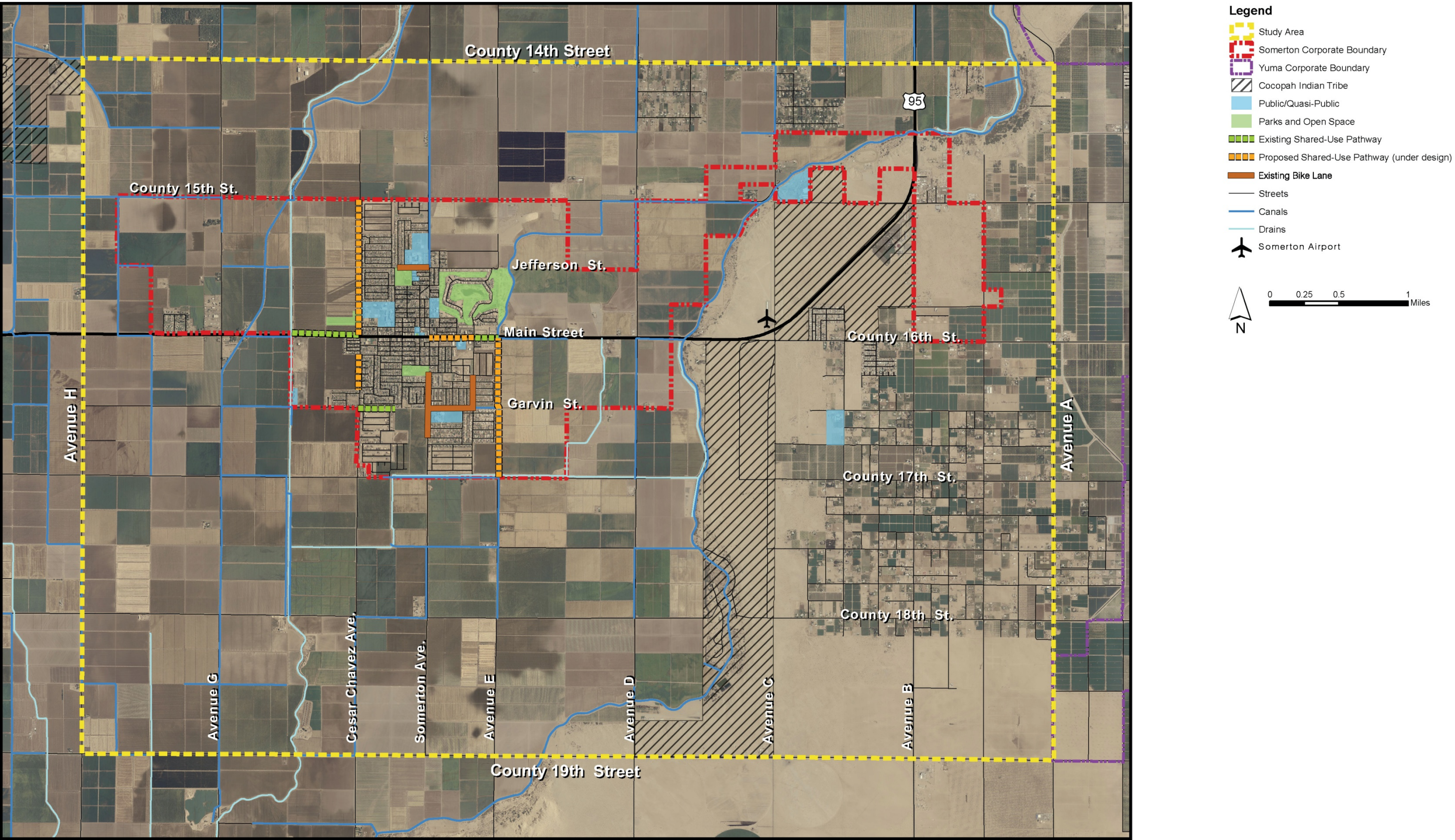
Area	2000	2010	Average Annual Change
Arizona	5,130,632	6,392,017	2.3%
Yuma County	160,026	195,751	2.0%
City of Somerton	7,266	14,287	7.0%
Cocopah Indian Tribe	232	208	-1.0%
Remaining Study Area	3,757	3,910	<1%

Source: 2000 and 2010 Census

C. Non-Motorized Facilities

Non-motorized travel generally includes pedestrians and bicycles that utilize sidewalks, bike lanes, or shared use paths. An inventory of the City's existing shared use facilities is shown in Figure 2. There are three existing sections of multi-use paths – two on Main Street and one on County 16½. There are four sections of bike lanes and they are on Somerton Avenue, Garvin Street, Bingham Avenue, and Jefferson Street. In addition, there are several new shared use pathways that are in the design phase located on Cesar Chavez Avenue, the Somerton Canal, and Main Street.





Source: City of Somerton

FIGURE 2: EXISTING SHARED USE PATHWAYS, TRAILS AND OPEN SPACE

III. REVIEW OF PREVIOUS RECOMMENDATIONS

This section presents a review of projects that incorporates non-motorized features that were previously recommended along with an update of the current status.

TABLE 4: YMPO 2011-2016 TIP PROJECTS

PROJECT NAME	PROJECT LOCATION	FISCAL YEAR	FUNDING	STATUS
Somerton Avenue-mill & replace	14 th Street to County 15 th	2012	STP	In process
Somerton Canal Shared use pathway-design	Hwy 95 to County 17 th	TBD	TE	In process
Somerton Canal Shared use pathway-construction	Hwy 95 to County 17 th	TBD	TE	Not started
Cesar Chavez Avenue Shared use pathway-design	Hwy 95 to Madison Street	TBD	TE	In process
Cesar Chavez Avenue Shared use pathway-construction	Hwy 95 to Madison Street	TBD	TE	Not started
Main Street Shared use pathway-design	Bingham to Somerton Avenue	TBD	TE	In process
Main Street Shared use pathway-construction	Bingham to Somerton Avenue	TBD	TE	Not started

TBD – to be determined

TABLE 5: YMPO 2033 RTP PROJECTS

PROJECT NAME	PROJECT LOCATION	FISCAL YEAR	FUNDING	STATUS
Somerton Avenue widening	Fern to County 17 th	2010-2014	TBD	Not started
Somerton Avenue widening	Jefferson to County 15 th	2010-2014	TBD	Not started
Somerton Avenue-mill & replace	County 15 th to 14 th Street	2010-2014	TBD	In process

TBD – to be determined

IV. FUTURE CONDITIONS

Like many City's within the Yuma Metropolitan area, the City of Somerton experienced exceptional growth over the last ten years. While it is important to understand the impacts of this growth in order to develop a non-motorized master plan that meets the current needs of the community, it is equally important to contemplate the future build-out conditions within the City so that necessary non-motorized improvements can be identified, programmed, and ultimately implemented as growth occurs.

A. Land Use

The City of Somerton's General Plan Land Use map serves as the framework for formulating how land will be used in the future. In order to design a comprehensive trail system that accommodates the future development patterns of the Somerton community, the Somerton General Plan Land Use map was reviewed to identify and link planned population centers with activity, employment, and recreational areas.



The recently updated Somerton General Plan Land Use map maintains the City's historic compact development pattern with the majority of non-agriculture uses focused within an approximate two square mile "Growth Area". The bulk of commercial land uses are centered along the Main Street Corridor. High density land uses

are largely found buffering the commercial land uses along Main Street as well as straddling Somerton Avenue north of Main Street. Medium density residential uses are intermittently dispersed in the northern, southern, and western portions of the City. Low Density Residential is the most prevalent residential classification and generally reaches from County 15th Street to County 17th Street and Avenue E to Avenue G. Due to the impacts of the Marine Corps Air Station and limited accessibility to existing infrastructure, the General Plan Land Use map dedicates the majority of the land east of Avenue E to Industrial or Agricultural uses.

B. Population

In order to achieve maximum service, the design of the trail system also considered the existing population as well as future anticipated population levels. The City of Somerton's General Plan identifies the projected build-out population for the City's Growth Area to be approximately 25,000 people. It is difficult to anticipate when or how this growth will occur. However, it is expected that the highest concentration of new residential development will occur in the western portion of the Somerton planning area due to limitations on residential development within the MCAS-Yuma High Noise or Accident Potential Zone, which generally covers the eastern portion of the Somerton planning area.

C. Employment

Understanding the employment characteristics of the Somerton community is another important factor in the development of a comprehensive non-motorized master plan. The YMPO Travel Forecasting Model was used to identify existing baseline employment figures. Based on the YMPO model, the existing employment to population ratio is 0.27. Future employment figures were then estimated using a similar ratio of employment to population compared to today. Analyzing a build-out condition of the Growth Area identified in the Somerton General Plan, the result of this examination yielded a future employment population of 8,026 and an employment to population ratio of 0.29.

V. ISSUES AND NEEDS

As part of the update to the transportation plan, issues and needs were developed based on a review of the current and future conditions, TAC input, and comments from the public. The following summarizes those issues and needs related to non-motorized travel.

- Update trails and shared use pathways plan
- Complete streets practices
- Traffic calming
- Typical cross sections
- Need additional shared use pathways and bike lanes
- Bike lanes on Somerton Avenue from County 17th to County 15th
- City should promote bike lanes
- Finish sidewalk on Hwy 95
- Bike lanes on Hwy 95
- Provide more amenities along existing and future shared use pathways
- Provide additional seating and improve lighting along existing trail system
- Enhance the experience within the downtown and trail system by developing character themes
- Improve signage and wayfinding in the downtown
- Provide opportunities for exercise stations along existing and proposed shared use pathways



VI. IMPROVEMENT OPTIONS & CRITERIA

This section describes various improvements that were considered for the non-motorized plan and a set of criteria to be measured when projects are being evaluated for implementation.

A. Improvement Options

The individual projects and potential impacts are summarized later in this section by type of improvement. A description of each improvement type is discussed below.

1. New or Improved Two-Lane Road

The two-lane cross-section includes one travel lane in each direction, a two-way left-turn lane and shoulders or bike lanes.

2. New or Widened Four-Lane Road

The four-lane cross-section includes a bike lane and two travel lanes in each direction with a center two way left-turn lane (unless safety or access considerations indicate a raised median should be provided). The outside features of the cross-section include curb, gutter, and sidewalk.

3. Add Bike Facilities

This improvement includes the addition of bike facilities along an existing roadway either by signing, re-striping or roadway widening. The purpose of this improvement is to close a gap in existing bike facilities. The American Association of State Highway and Transportation Officials (AASHTO) *Guide for the Development of Bicycle Facilities* (2012) provides definitions for bicycle facilities. The following bicycle facility definitions are suggested as a guide for Somerton.



- Bike Path (Class I bikeway) – provides bicycle travel on a paved right-of-way completely separated from any street or highway.
- Bike Lane (Class II bikeway) – provides a dedicated striped lane for one-way bicycle travel on a street shared with motor vehicles.
- Bike Route (Class III bikeway) – provides for shared use of a roadway with motor vehicles and is identified only by signing.

4. Add Sidewalk

This improvement includes the addition of a sidewalk along an existing roadway. The purpose of this improvement is to close a gap in existing pedestrian facilities. Sidewalks are intended for exclusive use by pedestrians. They are typically located adjacent to a street or physically separated from motor vehicle traffic by a landscaped area.

5. Shared Use Pathway

A shared use pathway generally provides for pedestrian, bicycle, and other non-motorized travel on a paved right-of-way completely separated from a street. Shared use paths can be designed with various cross-sections, but are typically bi-directional and are often planned along uninterrupted linear rights-of-way, such as canals, drainage facilities, or linear parks.

6. Wayfinding Signage

Wayfinding signage can be developed to help non-motorized users navigate specific areas and/or predefined routes. Wayfinding signage can serve several purposes including; identify a type of facility (bike lane, bike route), provide direction to a major destination, help to establish a sense of place or specific theme, or simply provide general information (distance, hazards). An example of signs that would identify the City's routes based on the City's agriculture history is shown here.

7. Street Furniture and Shared use pathway Amenities

Street furnishings and shared use pathway amenities provide important services to non-motorized users by adding functionality as well as visual detail. Street furniture and shared use pathway amenities might include benches and seating, bicycle racks, kiosks, public art, trashcans, water fountains, and/or exercise equipment. Examples of amenities currently used by the City are included in the Appendix.



B. Evaluation Criteria

The following criteria provide City staff a guide regarding the factors that should be considered when assessing the implementation of the projects included in this plan. Some of the factors are measured quantitatively and some are measured qualitatively and not all criteria will apply to every project.

1. Cost

Planning level construction cost estimates are estimated for each potential improvement. The costs are based on unit costs for each project type. The cost is calculated in 2012 dollars and is not adjusted for inflation.

2. Right-of-Way Impacts

The need for new right-of-way for an improvement should be determined early in the project development process because the acquisition of right-of-way typically takes longer than the design and construction. This is a qualitative measure that identifies if additional right-of-way is anticipated.

3. Impacts to Existing Businesses/Residences

This is a qualitative measure that identifies if impacts to existing buildings are expected.

4. Accessibility/ Mobility

This is a qualitative measure of a project's ability to improve the overall transportation system in terms of mobility and accessibility.

5. Network Continuity

This is a qualitative measure to assess a project's impact on providing a continuous transportation system by eliminating gaps that may exist in the current system.

6. Environmental Impacts

This is a qualitative review that identifies any potential environmental issues. At the planning level, this is a visual observation of possible environmental constraints such as adjacent schools or parks or natural habitat.

VII. RECOMMENDED PLAN

Population and employment growth and the desire for sustainable transportation will generate the need for additional bicycle and pedestrian facilities such as bike lanes, wide curb lanes, paved shoulders, sidewalks, and shared use pathways. This non-motorized plan promotes livability and mobility and is in concert with “Moving Ahead for Progress in the 21st Century” (MAP-21). MAP-21 ensures that local communities are able to build multimodal, sustainable projects.

The concept of “complete streets” encompasses all users to provide safe, efficient travel along and across streets. While the roadway system often provides the infrastructure for other modes including non-motorized, it is key to ensure that improvements to the roadway system do not preclude the use of other modes, but rather fully incorporate and compliment other modes.

This non-motorized plan will enhance opportunities for economic development and provide a circulation system that meets the long-term needs of the City’s planned growth. The purpose of the plan is to connect parks and schools, provide for safe pedestrian and bicycle movement. The focus area of the plan is bounded by the Main Drain, Avenue E, County 15th Street and County 17th Street. The long-range goal is for this area to provide amenities such as exercise equipment and play areas with a park facility serving as a central focus.

The plan includes typical cross sections, builds on the 2005 plan, and incorporates the recommendations of the 2013 Comprehensive Transportation Plan. The plan is divided into short, mid, and long-range components. The last section discusses a variety of policies, guidelines, and references that will enhance the non-motorized system.

A. Short-term

The short-term improvements are projects that are intended to address current need and would be implemented in the next five years. There is a need for a clearly-defined, continuous bicycle and pedestrian network. “Complete streets” cross-sections should be developed to better accommodate bicycle and pedestrian travel. Somerton started design and/or construction of several paths recommended in the Shared Use Pathway and Trails System Master Plan. The short-term program should continue that effort conforming to Phase One and Two of the 2005 Shared Use Pathway and Trails System Master Plan.

Build shared use pathways that are designed or under design

- Cesar Chavez Avenue, Eucalyptus Street to Gardenia Street
- Cesar Chavez Avenue, Main Street to County 15th Street
- Somerton Canal shared use pathway, County 17th Street to Patricia Street and Fern Street to Main Street
- Main Street shared use pathway, Somerton Avenue to Bingham Avenue

Close gaps created by the previous step

- Cesar Chavez Avenue shared use pathway, Garvin Street to Gardenia Street
- Cesar Chavez Avenue shared use pathway, Eucalyptus Street to Main Street

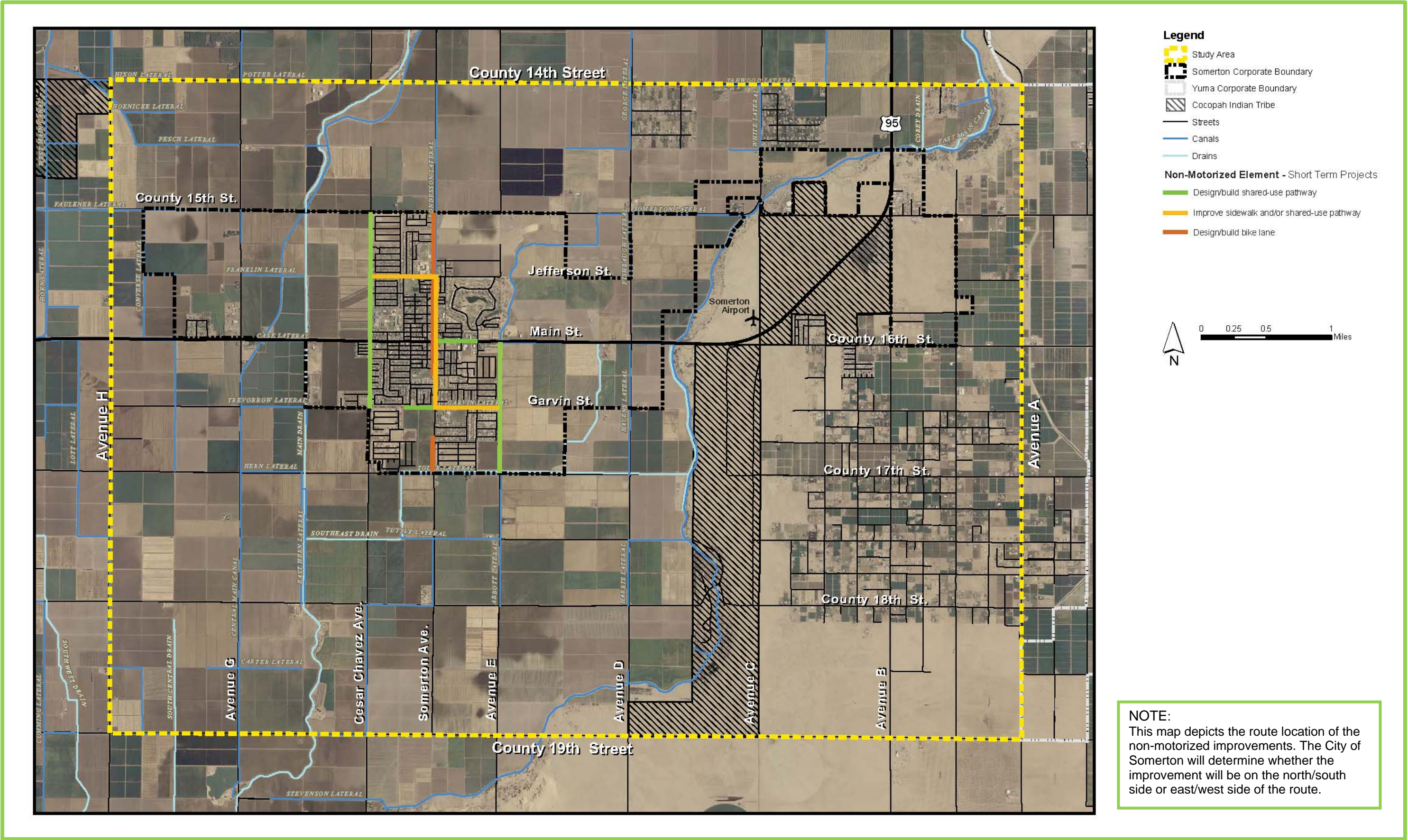
Existing sidewalk and shared use pathway improvements

- Garvin Street sidewalk, Somerton Avenue to Somerton Canal
- Garvin Street shared use pathway, Cesar Chavez Avenue to Somerton Avenue
- Somerton Avenue sidewalk, Garvin Street to Jefferson Street
- Jefferson Street sidewalk, Somerton Avenue to Cesar Chavez Avenue

Design and build

- Somerton Avenue bike lane, County 15th Street to County 17th Street

The short-term non-motorized improvements are shown in Figure 4.



B. Mid-term

The mid-term improvements are projects that are intended to address needs in years 6-10. The mid-term projects continue the program initiated in the short term program. To more accurately respond to predicted future growth patterns and to enhance connectivity of existing and proposed non-motorized facilities, these mid-term projects implement components of phases one and two of the 2005 Shared Use Pathway and Trails System Master Plan. The mid-term non-motorized improvements are shown in Figure 5.

Existing sidewalk improvements

- Main Street sidewalk, Somerton Avenue to Cesar Chavez Avenue
- Jefferson Street sidewalk, Somerton Avenue to Somerton Canal
- Somerton Avenue sidewalk, Jefferson Street to County 15th Street

Design and build bike facility

- Main Street bike lane, Avenue D to Somerton Avenue and Cesar Chavez Avenue to Main Drain
- Main Street bike route, Somerton Avenue to Cesar Chavez Avenue (develop bike route due to lack of bike lane in association with the Main Street Retail Core cross-section as shown within the Downtown Somerton Redevelopment Plan)

Design and build shared use pathway

- Somerton Canal shared use pathway, Main Street to Jefferson Street
- Somerton Avenue shared use pathway, County 15th Street to County 17th Street
- Cesar Chavez Avenue shared use pathway, Garvin Street to County 17th Street

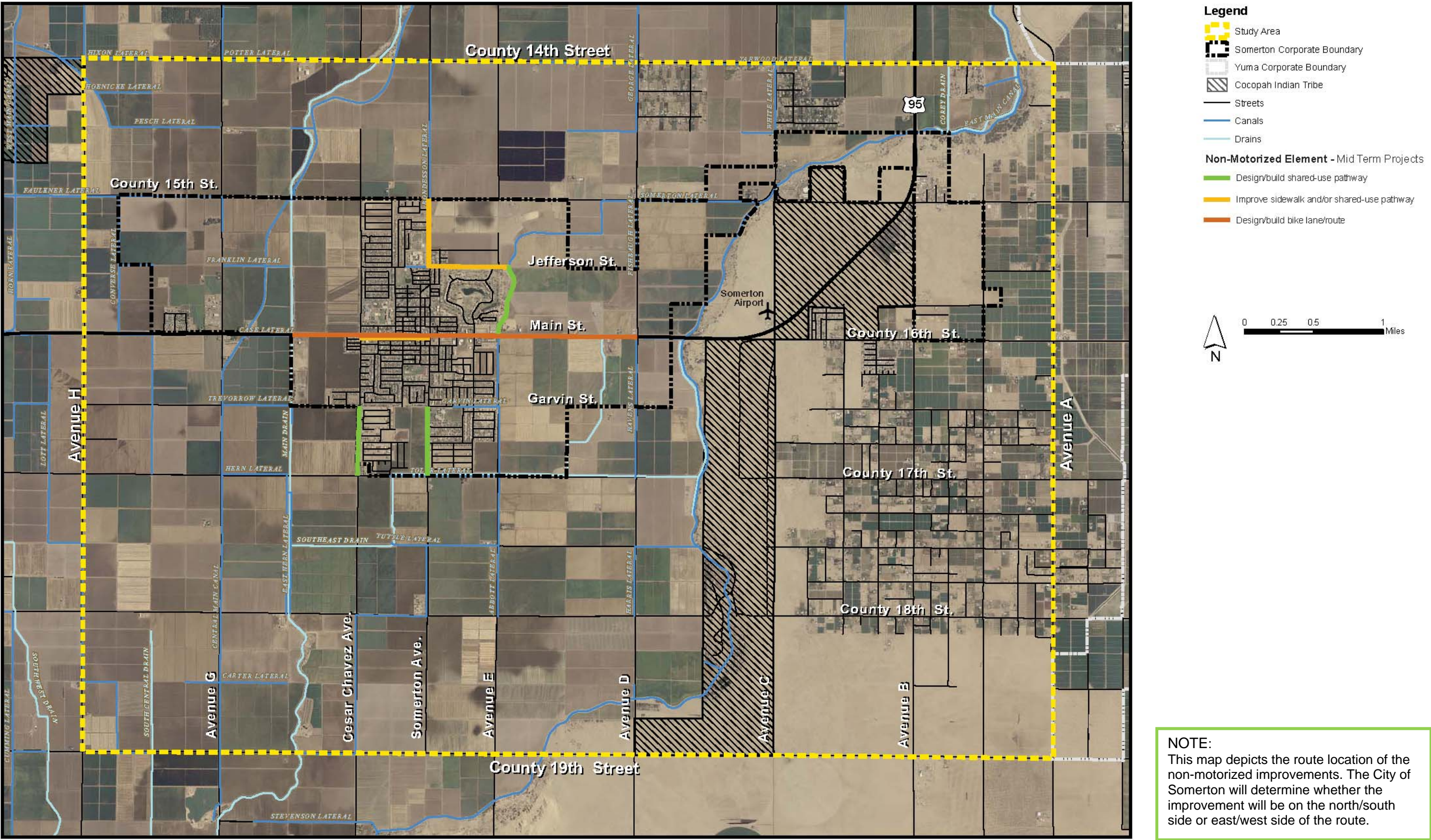


FIGURE 4: MID-TERM NON-MOTORIZED RECOMMENDATIONS

C. Long-term

The long-term improvements are projects that are intended to address needs in years 11-20 and beyond. The long-term projects continue the program initiated in the short/mid-term phases. To more accurately respond to predicted future growth patterns and to enhance connectivity of existing and proposed non-motorized facilities, these long term projects implement components of phases two, three and four of the Shared Use Pathway and Trails System Master Plan Design and build new shared use pathways. The long-term non-motorized improvements are shown in Figure 6.

Design and build bike facility

- County 17th Street bike lane, Main Drain to Somerton Canal (portions of this project may be developed sooner if combined with County 17th Street roadway improvements)
- County 15th Street bike lane, Main Drain to Somerton Canal (portions of this project may be developed sooner if combined with County 15th Street roadway improvements)

Design and build shared use pathway

- Main Street shared use pathway, Somerton Canal to East Main Canal
- Main Drain shared use pathway, County 15th Street to County 17th Street
- Garvin Street shared use pathway, Cesar Chavez Avenue to Main Drain
- Jefferson Street sidewalk, Cesar Chavez Avenue to Main Drain

Future regional connections

- East Main Canal shared use pathway, County 19th Street to Somerton Canal
- Somerton Canal shared use pathway, Jefferson Street to East Main Canal
- County 19th Street bike lane, Main Drain to East Main Canal
- Main Drain shared use pathway, County 17th Street to County 19th Street

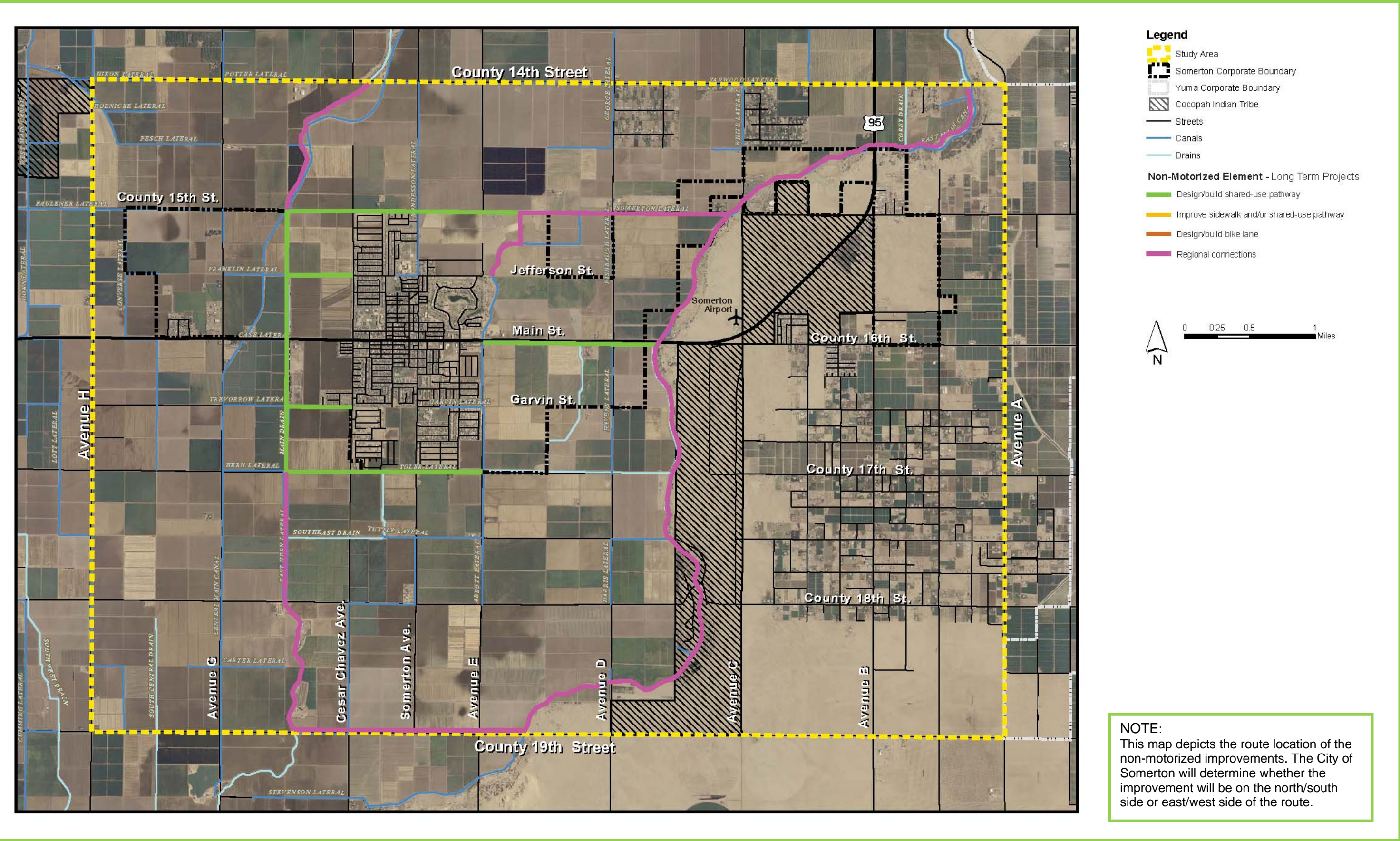


FIGURE 5: LONG-TERM NON-MOTORIZED RECOMMENDATIONS

D. Combined Plans

The short, mid, and long term improvements are combined to show the total non-motorized plan. Figure 6 shows the regional non-motorized plan along with the major traffic generators in the area. Figure 7 shows a more detailed look at the local non-motorized plan with the route designations.

E. Evaluation Summary

Table 6 presents an initial planning level summary of the recommended plan criteria. The cost is a planning level cost estimate. The other criteria are measured as (+) which means a positive or good impact, (-) which means a negative or undesirable impact or (o) which means no impact or cannot be determined at this time.

The following summarizes the planning level cost for each timeframe.

- Short-term cost \$1.87 million
- Mid-term cost \$1.58 million
- Long-term cost \$4.04 million

The total cost of the non-motorized plan is \$7.49 million.

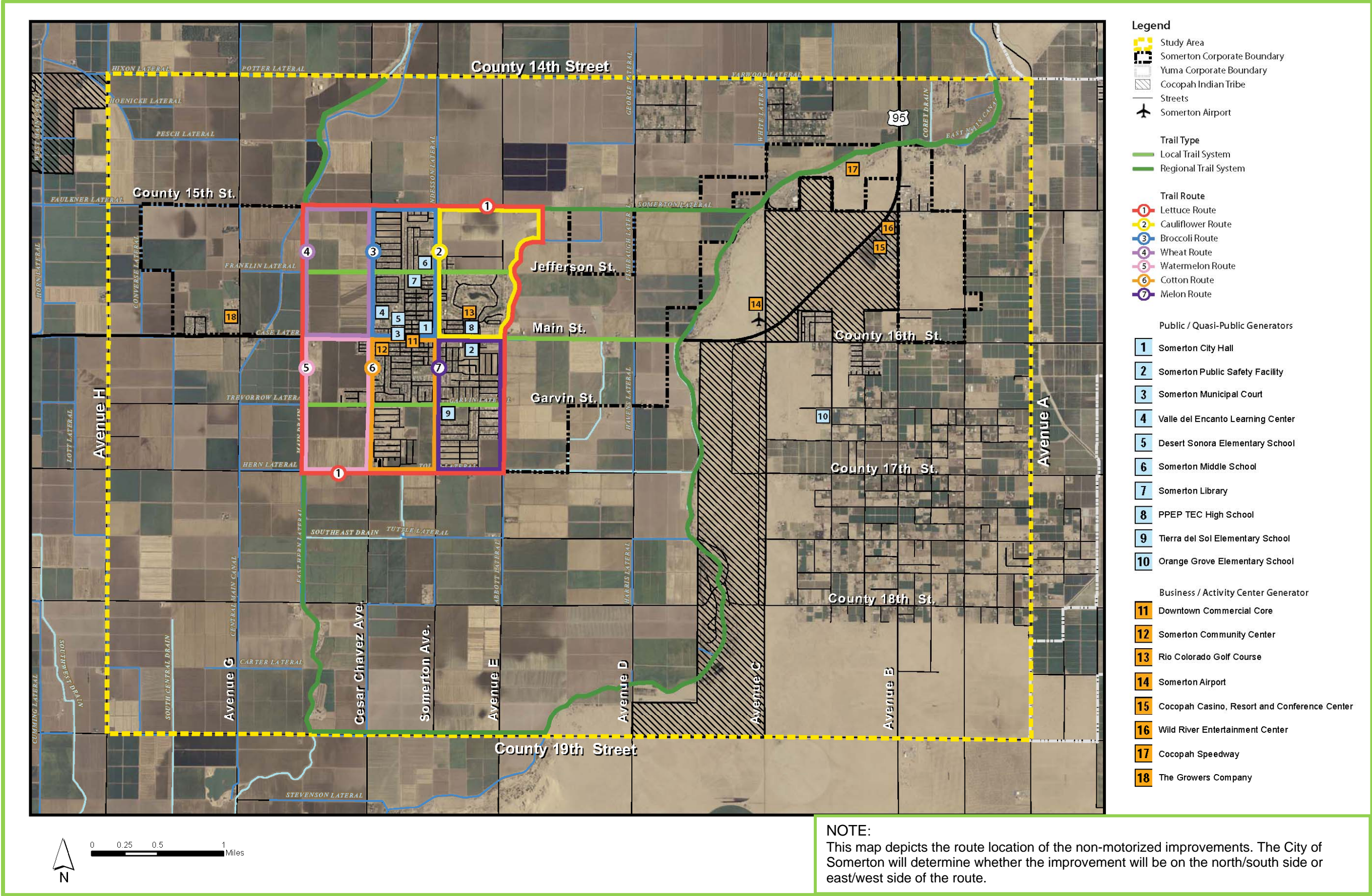


FIGURE 6: COMBINED REGIONAL NON-MOTORIZED PLAN

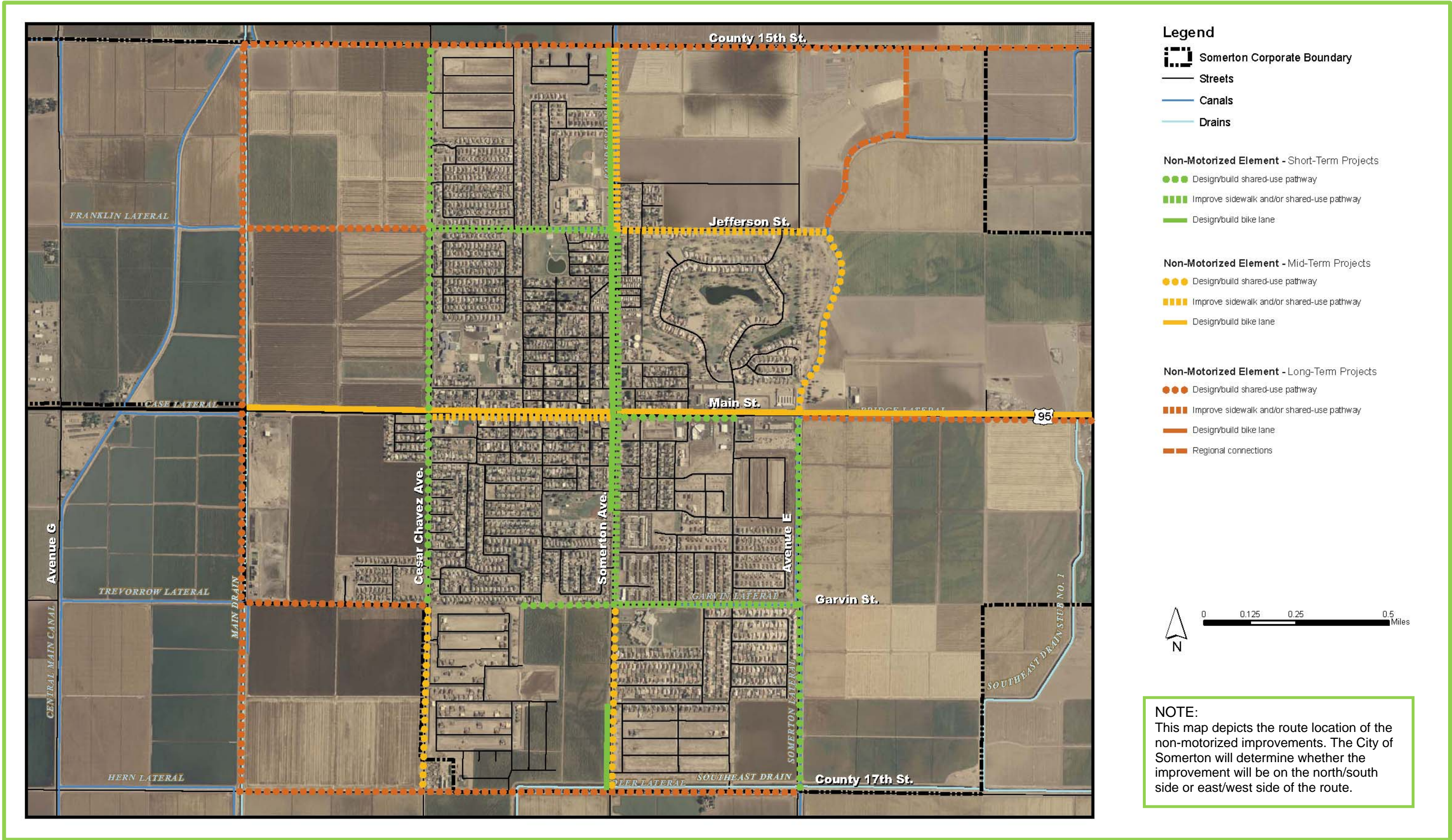


FIGURE 7: COMBINED LOCAL NON-MOTORIZED PLAN

TABLE 6: EVALUATION SUMMARY

Project	Cost (thousands)	Right-of-Way Impacts	Impacts to Existing Businesses/Residences	Accessibility/ Mobility	Network Continuity	Environmental Impacts
Short-term						
Cesar Chavez Avenue shared use pathway, Eucalyptus Street to Gardenia Street	\$50	o	o	+	+	o
Cesar Chavez Avenue shared use pathway, Main Street to County 15 th Street	\$200	o	+	+	+	o
Somerton Canal shared use pathway, County 17 th Street to Main Street	\$200	o	o	+	+	o
Main Street shared use pathway, Somerton Avenue to Bingham Avenue	\$66	o	+	+	+	o
Cesar Chavez Avenue shared use pathway, Garvin Street to Gardenia Street	\$30	o	+	+	+	o
Cesar Chavez Avenue shared use pathway, Eucalyptus Street to Main Street	\$26	o	+	+	+	o
Garvin Street shared use pathway, Main Street to Somerton Canal	\$188	o	o	+	+	o
Somerton Avenue sidewalks, Garvin Street to Jefferson Street	\$375	o	o	+	+	o
Jefferson Street sidewalk, Somerton Avenue to Cesar Chavez Avenue	\$188	o	o	+	+	o
Somerton Avenue bike lane, 15 th Street to 17 th Street	\$550	o	o	+	+	o
Mid-term						
Main Street sidewalk, Somerton Avenue to Cesar Chavez Avenue	\$188	o	+	+	+	o
Jefferson Street sidewalk, Somerton Avenue to Somerton Canal	\$218	o	o	+	+	o
Somerton Avenue sidewalk, Jefferson Street to County 15 th Street	\$188	o	o	+	+	o
Main Street bike lane, Avenue D to Somerton Avenue and Cesar Chavez Avenue to Main Drain	\$413	o	+	+	+	o
Main Street bike route, Somerton Avenue to Cesar Chavez Avenue	\$138	o	+	+	+	o

TABLE 6: EVALUATION SUMMARY (CONTINUED)

Project	Cost (thousands)	Right-of-Way Impacts	Impacts to Existing Businesses/Residences	Accessibility/ Mobility	Network Continuity	Environmental Impacts
Mid-term – (continued)						
Main Street bike lane, Cesar Chavez Avenue to Main Drain	\$138	o	+	+	+	o
Somerton Canal shared use pathway, Main Street to Jefferson Street	\$100	o	o	+	+	o
Somerton Avenue shared use pathway, Garvin Street to County 17 th Street	\$100	o	o	+	+	o
Cesar Chavez Avenue shared use pathway, Garvin Street to County 17 th Street	\$100	o	o	+	+	o
Long-term						
Main Street shared use pathway, Somerton Canal to East Main Canal	\$270	o	o	+	+	o
County 17 th Street bike lane, Cesar Chavez Avenue to Avenue E	\$300	o	o	+	+	o
County 15 th Street bike lane, Main Drain to Somerton Canal	\$450	o	o	+	+	o
Main Drain shared use pathway, County 15 th Street to County 17 th Street	\$400	o	o	+	+	o
Garvin Street shared use pathway, Cesar Chavez Avenue to Main Drain	\$100	o	o	+	+	o
Jefferson Street sidewalk, Cesar Chavez Avenue to Main Drain	\$188	o	o	+	+	o
East Main Canal shared use pathway, County 19 th Street to Somerton Canal	\$1,100	o	o	+	+	o
Somerton Canal shared use pathway, Jefferson Street to East Main Canal	\$450	o	o	+	+	o
County 19 th Street bike lane, Main Drain to East Main Canal	\$350	o	o	+	+	o
Main Drain shared use pathway, County 17 th Street to County 19 th Street	\$430	o	o	+	+	o

F. Guidelines and Policies

1. Bike and Pedestrian Education/Encouragement Program

The key to creating an effective bicycle and pedestrian system is to develop a comprehensive program that provides instruction on bike and pedestrian laws, safety techniques, as well as encourages specialized bike and pedestrian events. Program options may include educating children with regard to safety through school curriculum or educating adults by producing brochures and placing information on Somerton’s web site.

2. AASHTO Guidelines

The American Association of State Highway and Transportation Officials’ “Guide for the Development of Bicycle Facilities” (4th Edition) and “Guide for the Planning, Design, and Operation of Pedestrian Facilities” (1st Edition), should be used as a reference when creating bicycle and pedestrian designs and/or standards.

3. Complete Streets

“Complete Streets” are streets for everyone’s use. They are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities are able to safely move along and across a complete street. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work.

There is no singular design prescription for Complete Streets; each one is unique and responds to its community context. A complete street may include: sidewalks, bike lanes (or wide paved shoulders), special bus lanes, comfortable and accessible public transportation stops, frequent and safe crossing opportunities, median islands, accessible pedestrian signals, curb extensions, narrower travel lanes, roundabouts, and more.

A complete street in a rural area will look quite different from a complete street in a highly urban area, but both are designed to balance safety and convenience for everyone using the road. The below photos show the variety of options in creating roads that are safe for all users, regardless of age, ability, or mode of transportation.

4. Cross sections

Cross sections provide a footprint to use when planning for new non-motorized facilities. If adopted, cross sections provide the City with a basis for requesting right-of-way dedication from new development as well as developer participation in the improvements. Non-motorized facilities can either be included within the roadway, outside the roadway, or in

conjunction with other facilities such as canals. The City of Somerton Transportation Plan included four cross sections that incorporated bicycle facilities within the roadway and can be found in that document. Four additional cross sections that show the non-motorized facility in more detail are included in the appendix. They are:

- A bike lane within the roadway
- A shared use pathway outside the roadway, but in the right of way
- A shared use pathway outside the roadway with no buffer, but in the right of way
- A shared use pathway along a canal

The bike lane is suitable for roadways where width is available to accommodate the bike lane. The shared use pathway within the right of way can be used where the pavement width cannot accommodate an on-street bike lane. The shared use pathway can be used by pedestrians and bicycles.

VIII. APPENDIX

The following information is included in the appendix and is considered supplemental reference information for the City to use in implementing the non-motorized plan.

Typical Cross Sections

The four cross sections included here show how non-motorized facilities can be provided both with the roadway right of way as well as on separate right of way. These sections provide a variety of options for accommodating pedestrian and bicycle users.

Design details

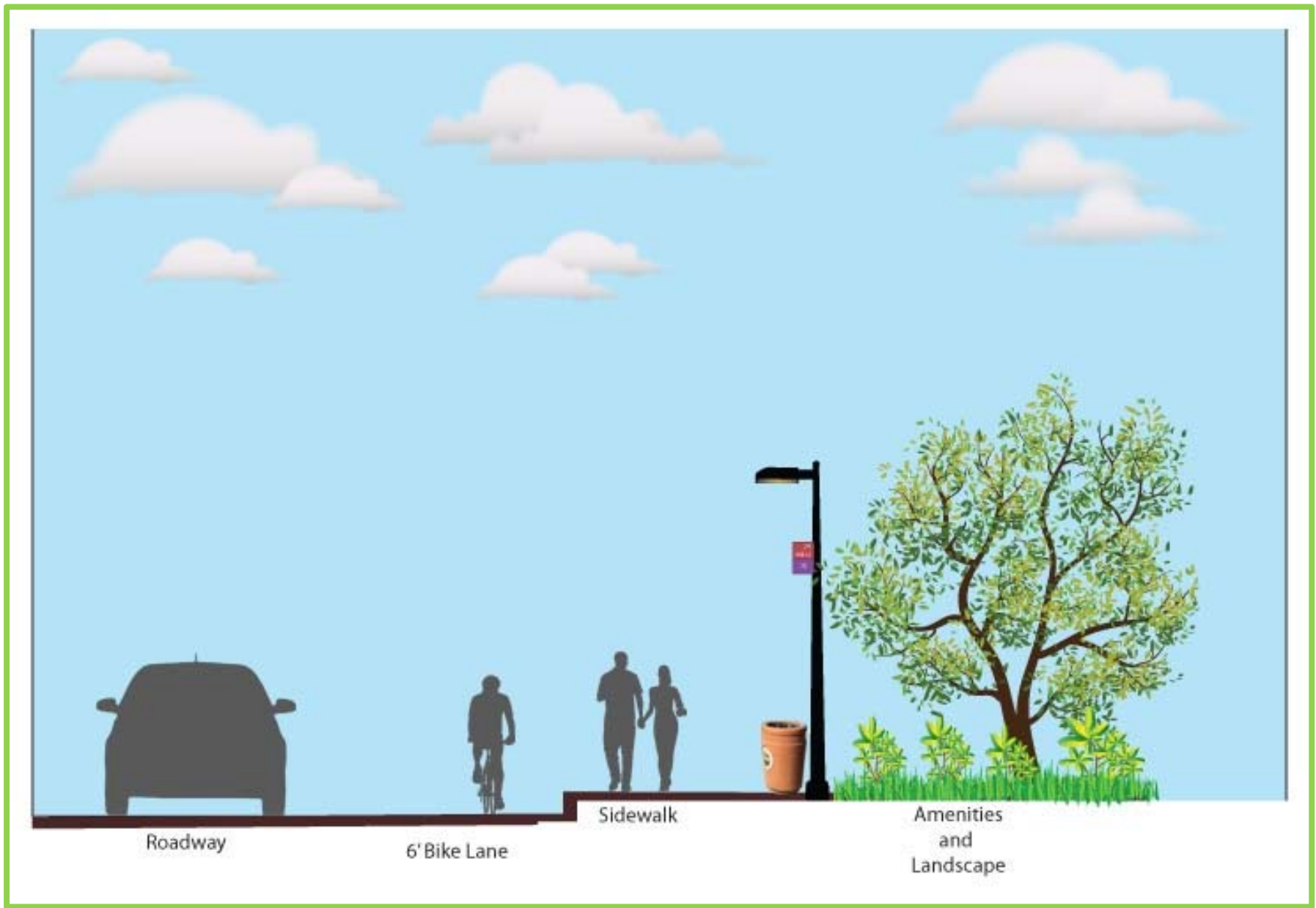
The design details provide examples of shared use pathway lighting and amenities that the City has previously used and their continued use will provide consistency.

Amenities

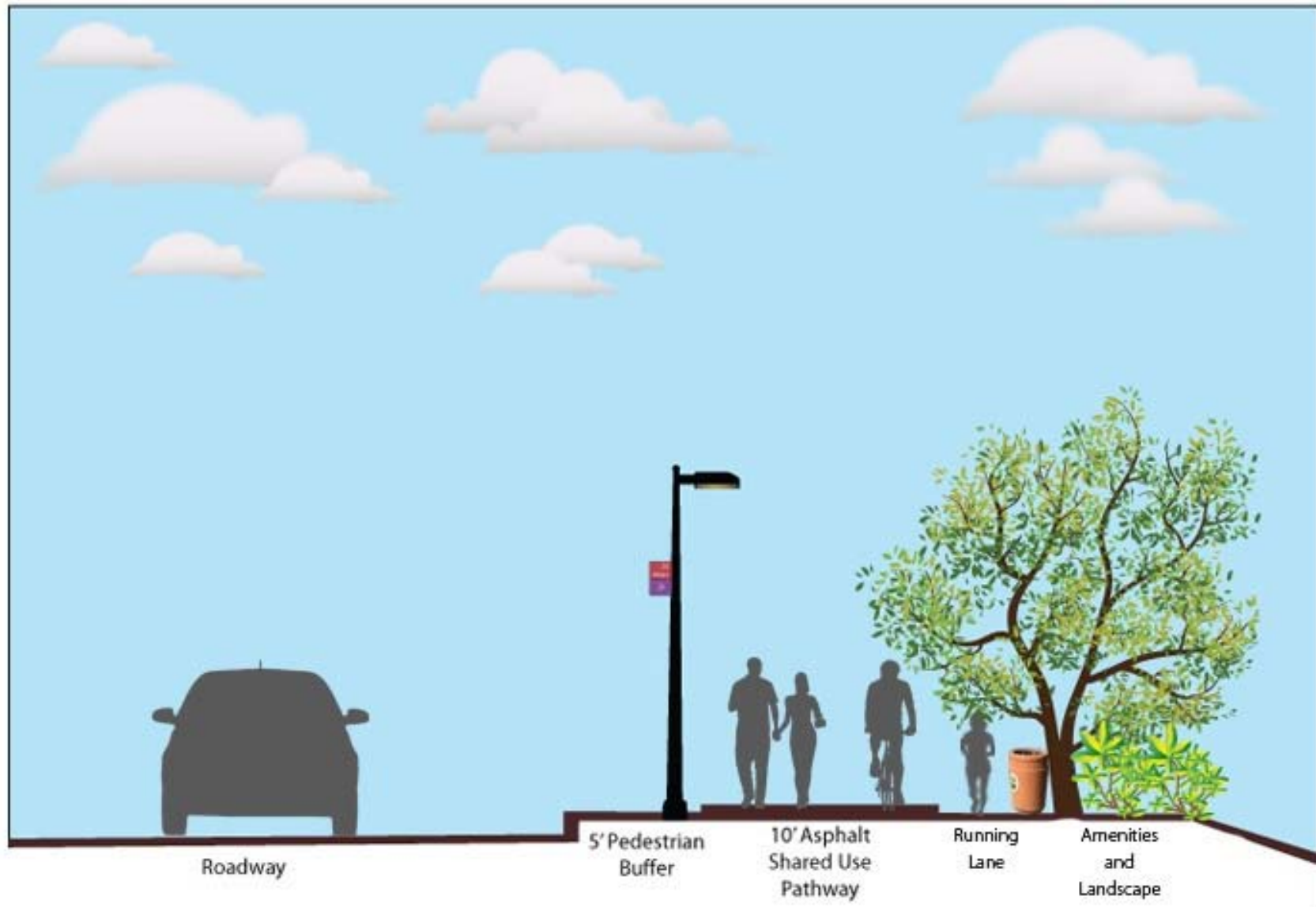
This graphic presents pictures of some City of Somerton facilities as well as pictures from other locations to supplement the City's current activities. More detailed information regarding the exercise equipment is also provided.

Non-motorized funding opportunities

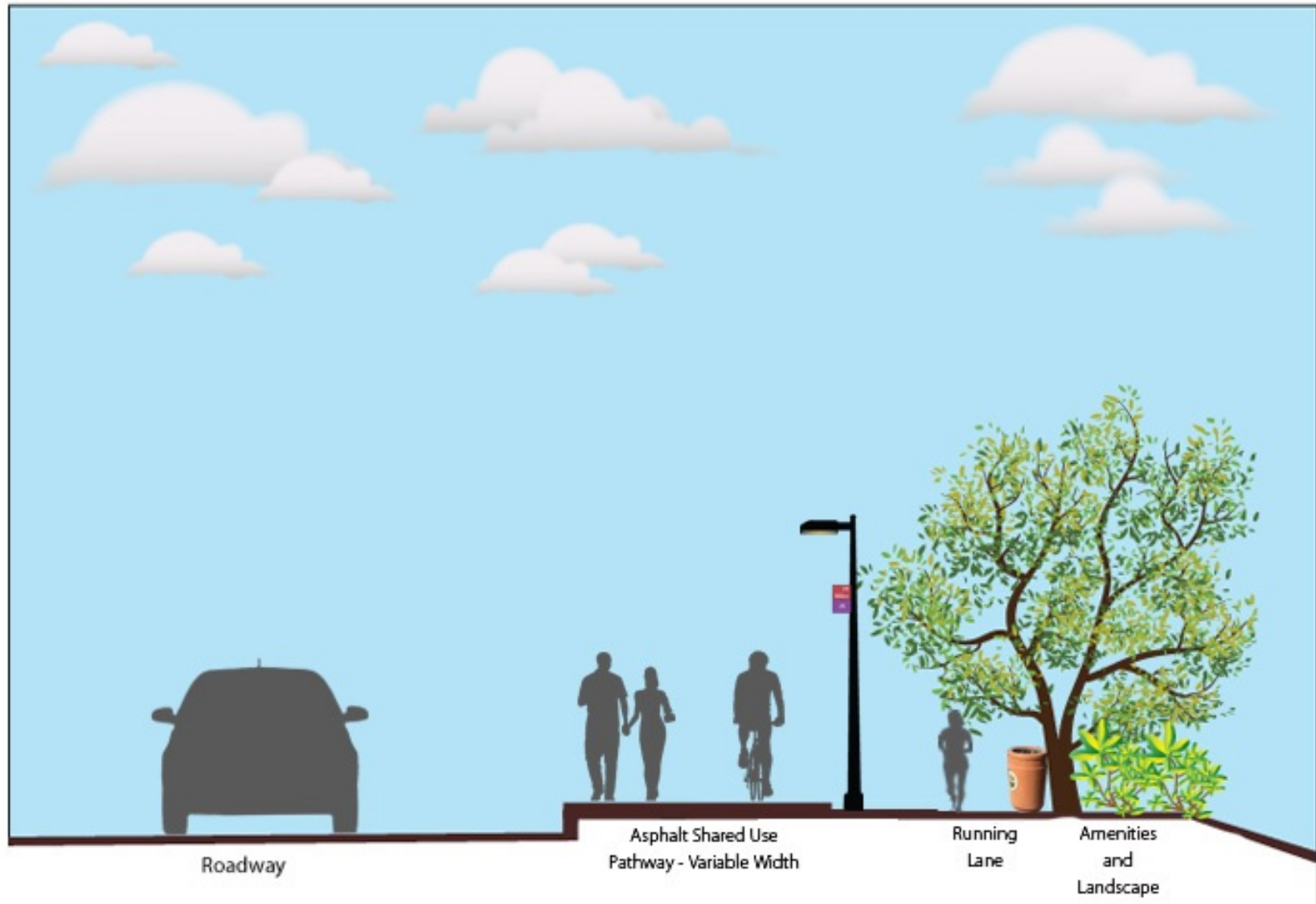
This table provides a list of various funding options available for non-motorized facilities.



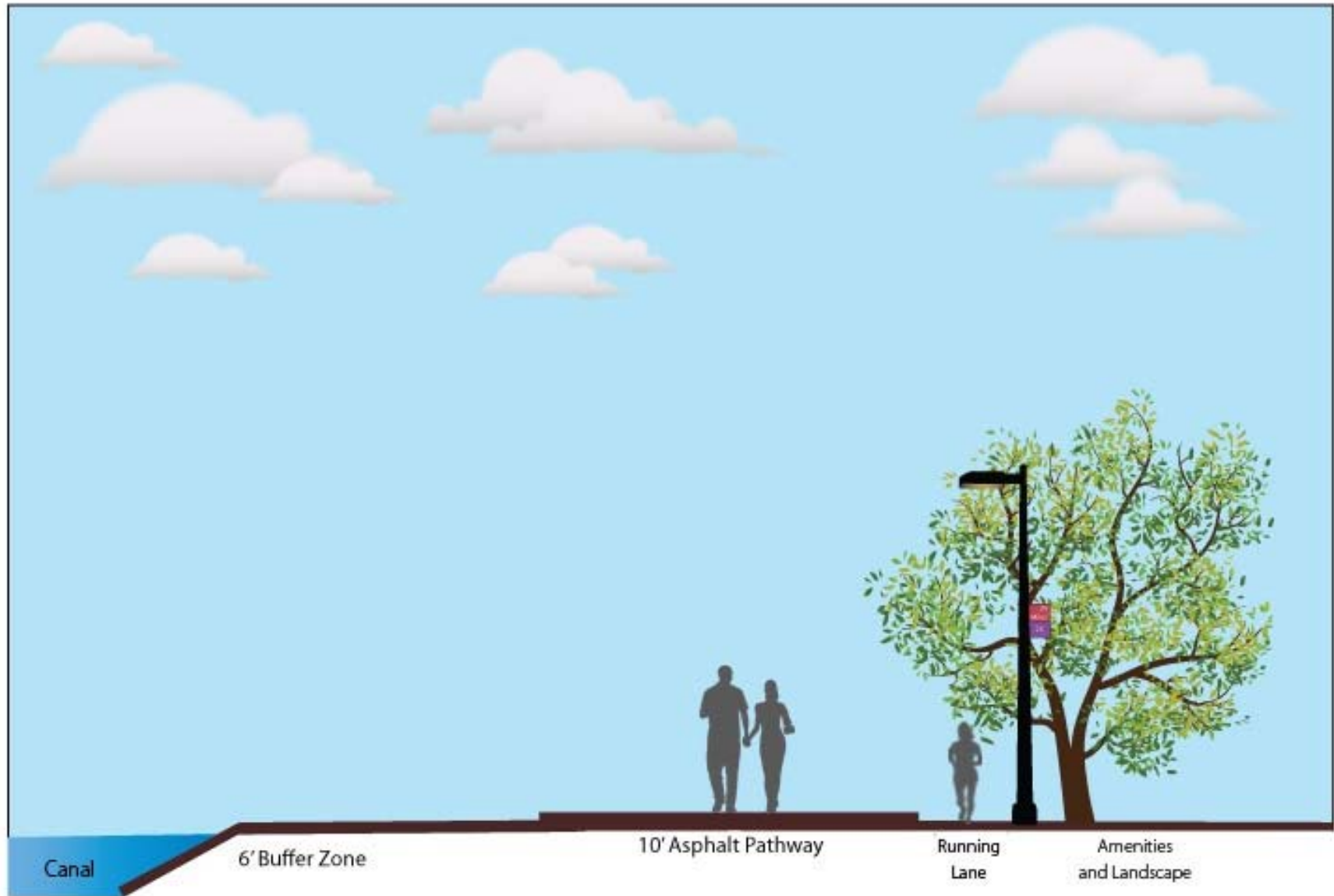
ON STREET BIKE LANE TYPICAL SECTION



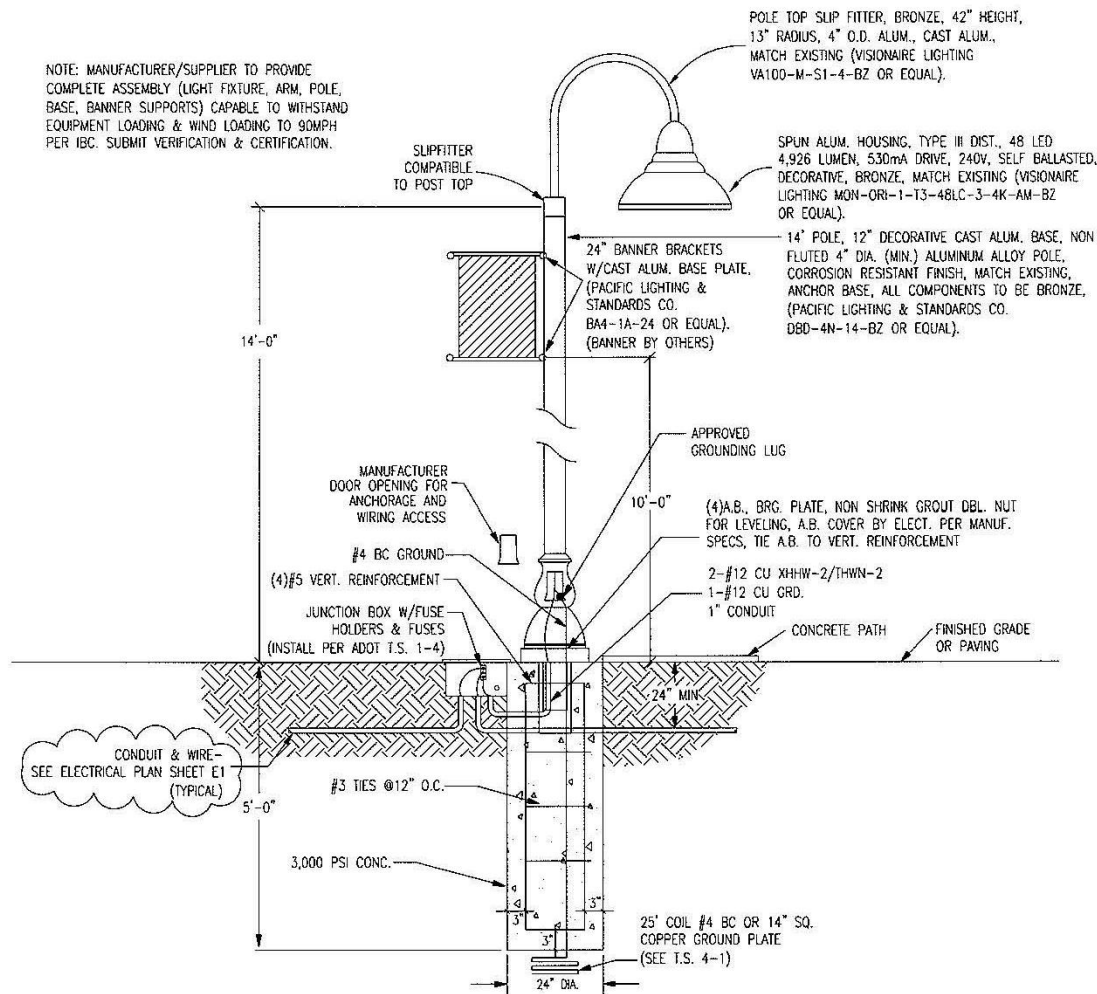
SHARED USE PATHWAY TYPICAL SECTION



SHARED USE PATHWAY TYPICAL SECTION – NO BUFFER



CANAL SHARED USE PATHWAY TYPICAL SECTION



DETAIL 1E2

TYPICAL PEDESTRIAN LUMINAIRE AND DECORATIVE POLE

POLE SCHEDULE

CIRCUIT	POLE	CONSTRUCTION C/L	STATION	OFFSET	MAST ARM	POLE	LUMINAIRE
1	1	MAIN STREET (U.S. HWY 95)	15+00	*	**	**	48 LED (4,926 LUMENS)
1	2	MAIN STREET (U.S. HWY 95)	17+40	*	**	**	48 LED (4,926 LUMENS)
1	3	MAIN STREET (U.S. HWY 95)	19+00	*	**	**	48 LED (4,926 LUMENS)
1	4	MAIN STREET (U.S. HWY 95)	20+72	*	**	**	48 LED (4,926 LUMENS)
1	5	MAIN STREET (U.S. HWY 95)	21+88	*	**	**	48 LED (4,926 LUMENS)
1	6	MAIN STREET (U.S. HWY 95)	23+08	*	**	**	48 LED (4,926 LUMENS)
1	7	MAIN STREET (U.S. HWY 95)	24+45	*	**	**	48 LED (4,926 LUMENS)
1	8	MAIN STREET (U.S. HWY 95)	25+83	*	**	**	48 LED (4,926 LUMENS)

* LOCATE POLE & FOUNDATION AT BACK EDGE OF CONCRETE PATH.
** SEE DETAIL 1/E2.

CONDUCTOR SCHEDULE


CONDUIT RUN NUMBERS		A	B
CONDUIT SIZE IN INCHES		2	1(E)
AWG	NUMBER OF WIRES		
#8	BARE CU BOND	1	1(NOTE 3)
#6	PEDESTRIAN LIGHTING BRANCH CIRCUIT	2	4(NOTE 3)

NOTES:
1. "E" DESIGNATED CONDUITS AND WIRES ARE EXISTING.
2. ALL WIRE SHALL BE TYPE THWN OR XHHW PER STANDARD SPECIFICATIONS.
3. REMOVE & REPLACE EXISTING WIRE WITH NEW (FOR CONDUIT RUN B).
4. LUMINAIRE WIRING FROM PULLBOX TO LUMINAIRE SHALL BE #12 CU STRANDED XHHW-2/THWN-2.

ELECTRICAL GENERAL NOTES:

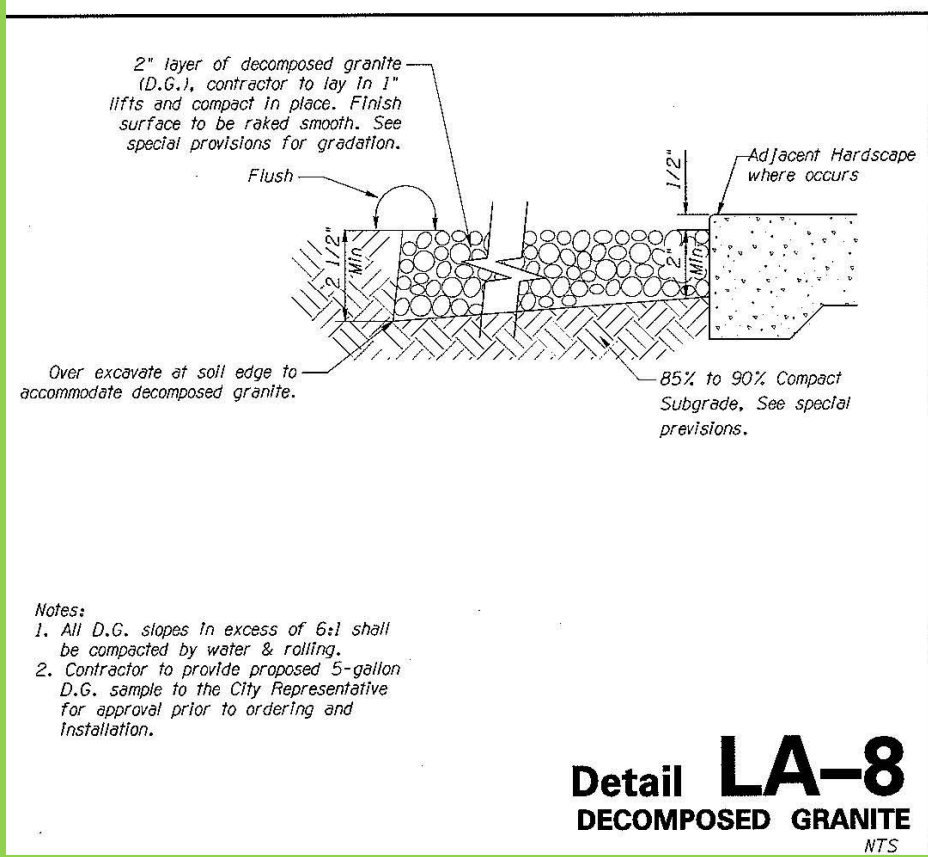
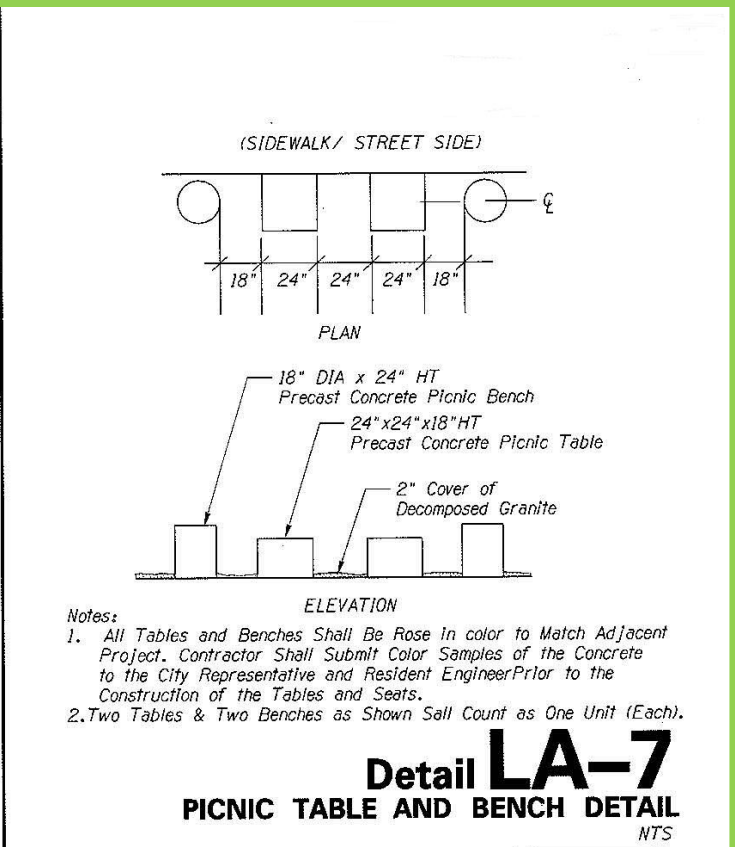
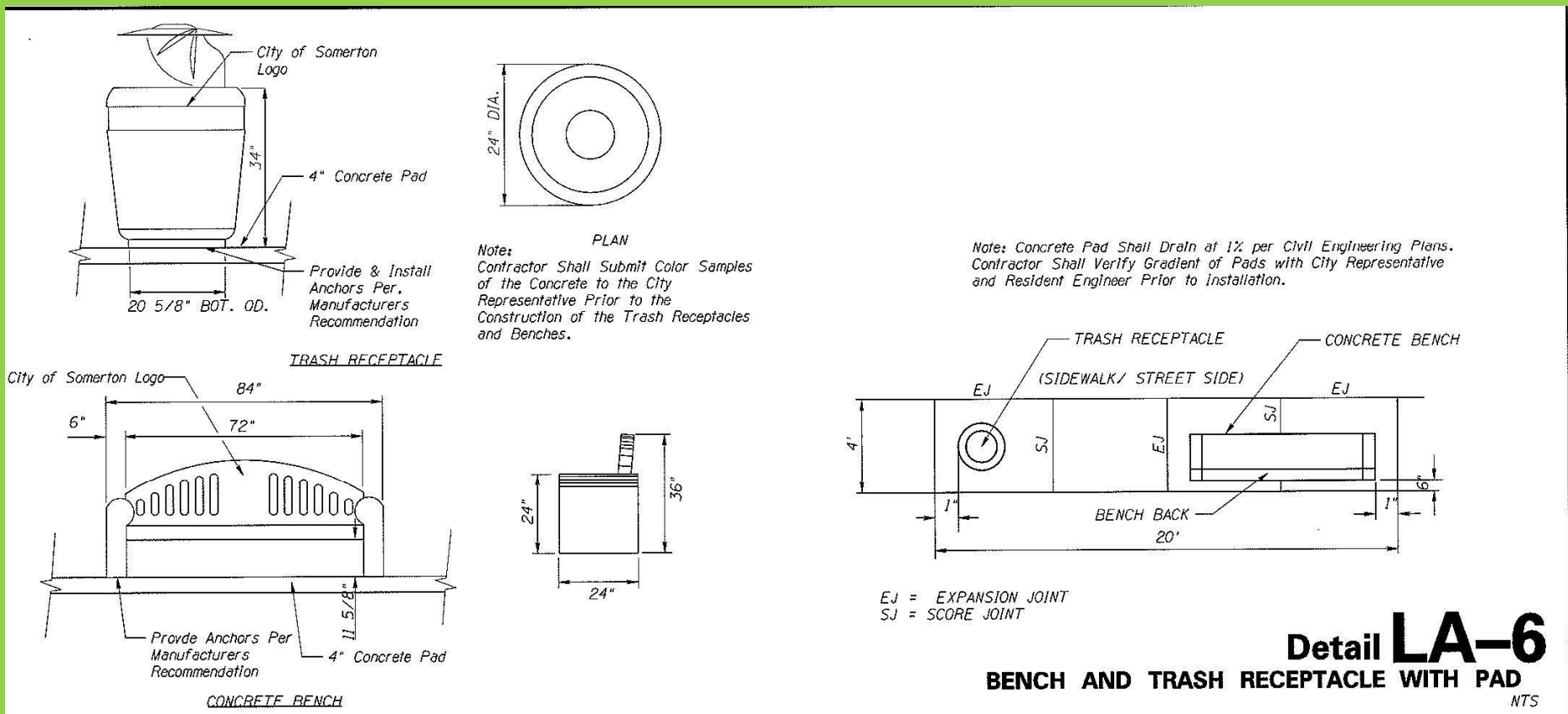
- ALL MATERIALS AND WORKMANSHIP TO BE OF FIRST RATE QUALITY. MATERIALS TO BE UL LISTED AND APPROVED. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN COMPLIANCE WITH THE CURRENT ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE (NEC), NATIONAL ELECTRICAL SAFETY CODE (NESC), AND ANY OTHER STATE AND LOCAL APPLICABLE CODES.
- ALL PENETRATIONS SHALL BE CAULKED/SEALED TO PRESERVE FIRE RATINGS AND WATERPROOF INTEGRITY.
- ALL ELECTRICAL CONDUCTORS SHALL BE COPPER, 90 DEGREE C TEMPERATURE RATING, MINIMUM SIZE IS NO. 12 AWG. ALL WIRING SHALL BE IN CONDUIT UNLESS OTHERWISE NOTED ON THE DRAWINGS. UNDERGROUND CONDUCTORS MUST BE RATED FOR 90 DEGREE C AS DEFINED FOR "WET LOCATION" BY THE NEC, UNLESS NOTED OTHERWISE.
- UNDERGROUND CONDUIT SHALL BE MINIMUM OF SCHEDULE 40 PVC, 90 DEGREE C, RATED WITH MINIMUM OF TRENCH COVER PER NEC TABLE 300-5 & ADOT STANDARD SPECIFICATIONS. APS SECONDARY SERVICE CONDUITS SHALL BE GRAY SCH. 40/D6120 WITH SCH. 80 24" MIN. RAD. SWEEPS. ALL UNDERGROUND JUNCTION/PULL BOXES SHALL BE RATED THE SAME AS THE ASSOCIATED CONDUIT. MINIMUM SIZE UNDERGROUND CONDUIT IS 3/4".
- THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF CONDUIT, WIRING, ELECTRICAL EQUIPMENT AND ASSOCIATED HARDWARE WITH THE INSTALLATION OTHER TRADES.
- THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION AND INSTALLATION OF SERVING ELECTRICAL COMPANY CONDUIT SYSTEMS AND SERVICE EQUIPMENT. UNDERGROUND TRENCH LOCATIONS SHOWN ARE APPROXIMATE AND MUST BE VERIFIED WITH THE SERVING UTILITY. CONTACT WITH THE SERVING UTILITIES IS REQUIRED PRIOR TO INSTALLATION. THE CONTRACTOR IS RESPONSIBLE FOR EXISTING FIELD CONDITIONS AND PROVIDING A FULL FUNCTIONING ELECTRICAL SYSTEM.
- ALL LIGHT FIXTURES, JUNCTION BOXES, LOAD CENTER CABINETS AND ALL OTHER METALLIC ELECTRICAL APPLIANCES AND DEVICES MUST BE GROUNDED AS REQUIRED BY SECTION 250 OF THE NATIONAL ELECTRICAL CODE.
- LIGHT FIXTURE SUBSTITUTIONS MUST BE OF EQUAL APPLICATION, SIZE, WEIGHT, AND APPEARANCE AND MUST BE SUBMITTED FOR OWNER APPROVAL.
- ALL WORK SHALL COMPLY WITH 2008 ARIZONA DEPARTMENT OF TRANSPORTATION (ADOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND 2010 ADOT TRAFFIC SIGNALS & LIGHTING STANDARD DRAWINGS.
- APS PRIMARY & SERVICE PULL BOXES, TRENCHING, & CONDUIT SHALL COMPLY WITH APS STANDARDS, DRAWINGS, & SPECIFICATIONS. APS SECONDARY WIRING (IF APPLICABLE) FROM THE TRANSFORMER/RISER POLE TO THE LOAD CENTER CABINET WILL BE PROVIDED & INSTALLED BY APS. STAKING OF PULL BOXES & CONDUIT ROUTING WILL BE BY APS. PROVIDE 14 WORKING DAYS NOTICE TO APS FOR SCHEDULING WORK & TO COORDINATE INSPECTION OF WORK BY APS. APS POINT OF CONTACT IS JEFF ALDAMA, (928) 336-9820.
- POLE LOCATIONS SHALL BE FIELD VERIFIED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE NEW & EXISTING STREET LIGHTING AND OF PARTIALLY COMPLETED PORTIONS OF THE WORK UNTIL FINAL ACCEPTANCE OF THE PROJECT.
- THE LOCATIONS OF UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE (SEE CIVIL DRAWINGS). THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES AND OTHER FACILITIES WHICH PERTAIN TO AND AFFECT THE CONSTRUCTION OF THIS PROJECT. CONTRACTOR TO NOTIFY BLUE-STAKE AT 1-800-STAKE-IT A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION IN THIS AREA.

LOAD CENTER/TRANSFORMER SCHEDULE

LOAD CENTER CABINET/TRANSFORMER						
CABINET	TYPE	CIRCUIT BREAKERS	AUX. CONTROL	REMARKS	LOCATION	LOAD SUMMARY
	EXISTING TYPE I 120/240V 1PH 3W METER PEDESTAL CABINET PER T.S.3-5	120/240V 1PH 3W SERVICE (E) 100A MCB (E) (1) 20A/2P LIGHTS (E) (1) 15A/1P P.E.C. (E) (1) 15A/1P IRR. CNT. (E) (1) 20A/2P LIGHTS. (N)	EXISTING CABINET MTD. P.E.C. & INTERNAL LIGHTING CONTACTOR PER T.S.3-5 & STANDARD SPECIFICATIONS	INSTALLED PER ADOT STANDARD SPECIFICATIONS & STANDARD DRAWINGS.	APPROXIMATELY STA. 30+10 AS SHOWN.	PEDESTRIAN LIGHTING 2430VA (E) PEDESTRIAN LIGHTING 760VA (N) IRRIGATION CONTROLLER 900VA (E) TOTAL LOAD 4090VA (17.0A @ 240V 1ø)

Note:

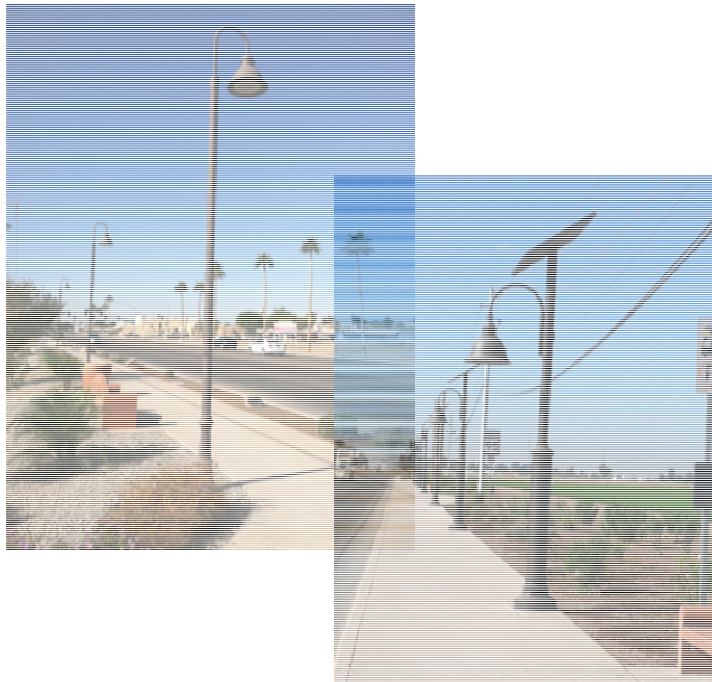
This drawing provides guidance regarding the luminaire fixtures to be used along shared use pathways. The City of Somerton will provide additional detail regarding aesthetic features, light levels, and pole spacing during design.



Note:

This drawing provides guidance regarding the amenities to be used along shared use pathways. The City of Somerton will provide additional detail regarding aesthetic features, layout, and spacing during design.

LIGHTING – CURRENT CITY DESIGN



EXAMPLE SIGNAGE - FOR ILLUSTRATIVE PURPOSES



WASTE RECEPTACLE - CURRENT CITY DESIGN



Note:
This drawing is for illustration only regarding the amenities to be used along shared use pathways. The City of Somerton will provide additional detail regarding aesthetic features, layout, and spacing during design

BENCHES – CURRENT CITY DESIGN



EXERCISE EQUIPMENT – FOR ILLUSTRATIVE PURPOSES





A.

A. Mobility

- Exercises both the balancing area of the brain and the nervous system
- Great exercise for joint replacement rehabilitation
- TenderTuff™-coated platform in gray only
- Minimum area required 8' x 15' (2,44 m x 4,57 m)
- #177722A-B

B. Balance Steps

- Use as a balance beam or for step aerobics
- Builds coordination and balance
- Minimum area required 12' x 6' (3,66 m x 1,83 m)
- #161315A-B



B.



C.

C. Squat Press

- Builds leg and hip muscle endurance
- Adjustable dial offers six resistance levels
- Minimum area required 9' x 4' (2,74 m x 1,22 m)
- #161310A-B

D. Plyometrics

- Increases muscle power
- Develops strength for explosive motions such as running and jumping
- Minimum area required 8' x 8' (2,44 m x 2,44 m)
- #161317A-B



D.



E.

E. Cardio Stepper

- Provides a cardiovascular/step aerobic workout
- Adjustable dial offers six resistance levels
- Minimum area required 8' x 5' (2,44 m x 1,52 m)
- #161312A-B

Source:
Playlsi.com

Note:

This drawing is for illustration only regarding the amenities to be used along shared use pathways. The City of Somerton will provide additional detail regarding aesthetic features, layout, and spacing during design.

A. Assisted Row/ Push-Up

- Great upper-body workout
- Exercises multiple muscles
- Provides several activities in one station
- Minimum area required 8' x 14' (2,44 m x 4,27 m)
- #161316A-B



A.

B. Pull-Up/Dip

- Highly effective upper-body workout
- Allows for multiple strength-building exercises
- Minimum area required 7' x 5' (2,13 m x 1,52 m)
- #161313A-B



B.

C. Tai Chi Wheels

- Promotes flexibility
- Enhances relaxation and meditation
- Evenly tones muscles without strain
- Minimum area required 5' x 6' (1,52 m x 1,83 m)
- #161311A-B



C.

D. Chest/Back Press

- Builds equal endurance for opposing muscle groups
- Adjustable dial offers six resistance levels
- Minimum area required 8' x 6' (2,44 m x 1,83 m)
- #161309A-B



D.

E. Ab Crunch/ Leg Lift

- Works both upper and lower abdominals
- Provides two different activities in one fitness station
- Builds core strength
- Minimum area required 10' x 4' (3,05 m x 1,22 m)
- #161314A-B



E.

Note:

This drawing is for illustration only regarding the amenities to be used along shared use pathways. The City of Somerton will provide additional detail regarding aesthetic features, layout, and spacing during design.

Source:
Playlsi.com

NON-MOTORIZED FUNDING OPPORTUNITIES

Source	Program	Description	Eligible Project Types	Requirements	Administration
Federal – MAP-21	National Highway Performance Program (NHPP)	The NHPP provides support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a State's asset management plan for the NHS.	<ul style="list-style-type: none">Bicycle transportation and pedestrian walkways	NHPP projects must be on an eligible facility and support progress toward achievement of national performance goals for improving infrastructure condition, safety, mobility, or freight movement on the NHS, and be consistent with Metropolitan and Statewide planning requirements. Funding: Generally, 80% federal / 20% matching	In general, obligated through competitive local or statewide grant programs
Federal – MAP-21	Surface Transportation Program (STP)	The Surface Transportation Program (STP) provides flexible funding that may be used by States and localities for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals	<ul style="list-style-type: none">Recreational trails projectsbicycle transportation and pedestrian walkwaysmost transportation enhancement eligibilities (see below)	Projects must be identified in the STIP/TIP and they must be consistent with the Long-Range Statewide Transportation Plan and the Metropolitan Transportation Plan Funding: Generally, 80% federal / 20% matching	In general, obligated through competitive local or statewide grant programs
Federal – MAP-21	Transportation Alternatives Program (TA) - <i>Includes Recreational Trails Program set aside</i>	MAP-21 establishes a new program to provide for a variety of alternative transportation projects. The TAP replaces the funding from pre-MAP-21 programs including Transportation Enhancements, Recreational Trails, Safe Routes to School, and several other discretionary programs	<ul style="list-style-type: none">Construction, planning, and design of on-road and off-road trail facilities for pedestrians, bicyclists, and other non-motorized forms of transportationInfrastructure-related projects and systems that will provide safe routes for non-drivers, including children, older adults, and individuals with disabilities to access daily needsConversion and use of abandoned railroad corridors for trails for pedestrians, bicyclists, or other non-motorized transportation users.recreational trails programSafe routes to school program	Funding: Generally, 80% federal / 20% matching	In general, obligated through competitive local or statewide grant programs
Federal – MAP-21	Congestion Mitigation and Air Quality Program (CMAQ)	The Congestion Mitigation and Air Quality (CMAQ) Improvement Program funds transportation projects to improve air quality and reduce traffic congestion in areas that do not meet air quality standards.	<ul style="list-style-type: none">Projects or programs that shifts traffic demand to non-peak hours or other transportation modes during peak hoursNon-recreational bicycle transportation and pedestrian improvements that provide a reduction in single-occupant vehicle travel	Funding: Generally, 80% federal / 20% matching	In general, obligated through competitive local or statewide grant programs

Source	Program	Description	Eligible Project Types	Requirements	Administration
Federal – MAP-21	Highway Safety Improvement Program (HSIP)	The Highway Safety Improvement Program (HSIP) is a Federal Highway Administration (FHWA) program that funds highway safety projects aimed at reducing highway fatalities and serious injuries.	<ul style="list-style-type: none"> Bike lanes, bike parking, crosswalks, and signage 	<p>Bicycle safety must be included in state's Strategic Highway Safety Plan (SHSP).</p> <p>Funding: 90% federal / 10% matching</p>	In general, obligated through competitive local or statewide grant programs
Federal – MAP-21	Federal Lands Program (Access and Transportation Programs)	The FLP funds projects that improve access to or transportation within the Federal estate (national forests, national parks, national wildlife refuges, national recreation areas, and other Federal public lands)	<ul style="list-style-type: none"> Program administration, transportation planning, research, preventive maintenance, engineering, rehabilitation, restoration, construction, and reconstruction of Federal lands transportation facilities, and provision for pedestrians and bicycles 	<p>Project must be within, adjacent to, or provide access to Federal Lands.</p> <p>Funding: 100% Federal</p>	In general, projects are selected by Federal Land Management Agency or statewide committee.
Federal	Federal Highway Safety (Section 402) Grant Program	Highway Safety Funds are used to support State and community programs to reduce deaths and injuries on the highways	<ul style="list-style-type: none"> Conducting data analyses, developing safety education programs, and conducting community-wide pedestrian safety campaigns. Funds can also be used for some limited safety-related engineering projects 		Program administered through the Governor's Office of Highway safety
Federal	Community Development Block Grants (CDBG)	The Community Development Block Grant (CDBG) program is a flexible program that provides communities with resources to address a wide range of unique community development needs.	<ul style="list-style-type: none"> Public Facilities and Improvements (road and street improvements) Planning and Capacity Building (transportation plans) 		Submit an annual Regional Account Application to SEAGO
Non-Profit	Bikes Belong Grant Program	The Bikes Belong Grant Program supports cycling facilities and projects that improve health, strengthen bike businesses, and enhance quality of life in communities across the country.	<ul style="list-style-type: none"> Includes bike paths and rail trails, as well as mountain bike trails, bike parks, BMX facilities, and large-scale bicycle advocacy initiatives 	Does not require a specific percentage match, but does favor projects where grant would leverage additional funding partnerships.	In general, obligated through competitive grant program
State	Highway User Revenue Fund (HURF)	The State of Arizona taxes motor fuels and collects a variety of fees and charges relating to the registration and operation of motor vehicles on the public highways of the state. These collections include gasoline and use fuel taxes, motor carrier taxes, vehicle license taxes, motor vehicle registration fees, and other miscellaneous fees.	<ul style="list-style-type: none"> Expenditures of HURF must be for improvements in the public roadway right-of-way. They can also be used for the acquisition of right-of-way. Examples of eligible expenditures can include the installation of new pavement, curbing, sidewalks, street lights, traffic control devices, landscaping, distinctive banner treatments and culverts. Administrative and engineering costs are also eligible expenses and will be included in the cost of any Back to Basics project 		HURF revenues are distributed to counties, cities, towns and the State Highway Fund for obligation

Source	Program	Description	Eligible Project Types	Requirements	Administration
State	Vehicle License Tax (non-HURF portion)	Arizona charges a Vehicle License Tax (VLT) in lieu of a personal property tax on vehicles.			VLT revenues are distributed to counties, cities, towns and the State Highway Fund for obligation
State	Heritage Fund	Arizona voters created the Heritage Fund in 1990, designating up to \$10 million a year from lottery ticket sales for the conservation and protection of the state's wildlife and natural areas.	<ul style="list-style-type: none">Projects that help to enhance wildlife viewing or provide access to public lands		Funds obligated by Arizona Game and Fish Department
Local	Development Impact Fees	An impact fee is a fee that is determined by a municipality and is placed on a proposed project to help cover the additional costs associated with upgrading affected public facilities resulting from new construction.			
Local	Development Stipulations	Development requirements are typically placed on proposed projects at the time of entitlement approval to help develop necessary public facilities.		Project developer must agree to proposed stipulations prior to entitlement approval.	
Local	Sales Tax	Funds from a portion of a municipality's sales tax	<ul style="list-style-type: none">Pedestrian facilities and programs		
Local	Special Districts: Community Facilities District (CFD), Improvement Districts	Special District created for the purpose of financing the acquisition, construction, operation and maintenance of public infrastructure improvements.		Acceptance by the owners of at least twenty-five per cent of the land area proposed to be included in the district	
Local	General Obligation bonds	Bonds are a common mechanism that counties use to borrow money for transportation projects. Most general obligation pledges at the local government level include a pledge to levy a property tax to meet debt service requirements.			