

Transportation and Circulation

Element 3



INTRODUCTION

Transportation Planning is an integral part of land use planning because effective development can only occur when appropriately designed transportation infrastructure is built to meet the future growth demands. This element addresses general provisions for an efficient and effective transportation and circulation system that accommodates all modes of transportation, promotes economic development, and encourages a healthier lifestyle.



“Complete Streets” allow for safe travel by those walking, bicycling, driving automobiles, riding public transportation, or delivering goods.”

Many of the components needed for efficient and effective transportation and circulation systems are part of the “Complete Streets” roadway design. “Complete Streets” is a universal transportation policy and design approach that requires streets to be planned, designed, operated, and maintained to enable safe, convenient, and comfortable travel and access for users of all ages and abilities regardless of their mode of transportation.

During the “Dream Your City” public visioning process comments were made relating to transportation, such as designing roadways



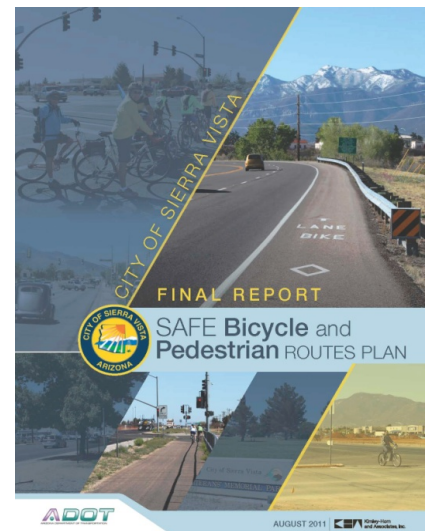
that enable various modes of transportation, particularly those oriented toward pedestrian and bicycle use, as well as providing traffic management improvements. Other comments included promoting opportunities to allow the Sierra Vista Airport to expand and become self-sufficient; expanding the Vista Transit service area; and considering additional region-wide transit systems. This section will consider these comments as specific goals and objectives are developed.

BACKGROUND

Between 2003 and 2013, approximately 24 miles of public roads were constructed in the City. The number of roads and multi-use paths will greatly expand when development begins in the areas covered by the Tribute and Ventana De Flores Specific Plans. Therefore, it is essential that future land use plans consider these future transportation and circulation systems.

Since 2003, the planning and functionality of current and future transportation systems resulted in the creation and approval of a number of plans. For example,

- 1) The Small Area Transportation Plan, published in 2003, evaluated possible bypass routes around the City and determined that Buffalo Soldier Trail would suffice.
- 2) The Vista Transit Five-Year Master Plan, published in 2008, identified current ridership, future growth capabilities of the system, and additional funding sources.
- 3) The Safe Bicycle and Pedestrian Routes Plan, adopted in 2011, identified the safest existing and future bicycle and pedestrian routes throughout the City.
- 4) The Sierra Vista Traffic Efficiency Study, published in 2013, provided goals and strategies on how to make transportation, including non-motorized forms of transportation, more efficient within the City.
- 5) The Sierra Vista Municipal Airport Master Plan, adopted in 2013, evaluated current aviation demand and analyzes future demand and growth capabilities.



Census 2010 identified that the population in the greater Sierra Vista area (includes the City of Sierra Vista and some adjacent County areas) was above 50,000, and therefore, this area is now classified by the United States Census Bureau as an Urbanized Area. Federal law requires that these Urbanized Areas form a Metropolitan Planning Organization (MPO). An MPO is a federally mandated and federally funded [transportation](#) policy-making organization that is

made up of representatives from local [government](#) and governmental transportation authorities. The City Council approved the MPO boundaries in March of 2013. Since transportation funds will be channeled through the MPO, it is responsible for coordinating all regional transportation plans within its boundaries. The MPO boundary map is attached as Map 9.

GOALS AND STRATEGIES

Goal 3-1 A public transportation system that incorporates and encourages all modes of transportation

- Strategies*
1. Encourage developers to use “Complete Streets” when planning and designing Collector and Arterial roadways.

As part of the City Council’s most recent Strategic Plan, one of the objectives is to create an Complete Streets Ordinance which is to be completed within 2 years.

The Development Code does not require developers to construct a complete streets roadway which allows for multiple modes of transportation. However, there is a requirement to construct elements of a Complete Street roadway such as a requirement to construct bicycle lanes and multi-use paths along arterial and collector roadways. The Tribute Specific Plan and the Ventana De Flores Specific Plan are proposing numerous multi-modal options along their roadways to include multi-use paths, bike lanes, and sidewalks. The West Fry Boulevard/North Garden Avenue Improvement Project will also include multi-modal components as well.

2. Establish bus pull-ins and associated bus shelters (as per the Sierra Vista Short Range Transit Plan) in appropriate locations for all future roadways.

The bus routes are located where they are projected to generate the most ridership, which does not



necessarily correlate to new residential or commercial developments.

However, there have been instances in the past where pull-ins have been required for existing bus stops such as Cimarron Estates and Walmart which helps to decrease the disruption of through traffic. There is a bus pull-out proposed in the Tribute Specific Plan.

3. Ensure arterial and collector roadway pavement widths allow for striped bicycle lanes.

The Development Code requires a minimum street width of 94-feet for principal arterial roadways, 70 feet in width for minor arterial roadways, and 54 feet for collector roadways. For all three roadway designations, the minimum bike lane width is 3 feet. According to the American Association of State Highway and Transportation Officials (AASHTO), the minimum width of a bicycle lane is 4-feet. The City will be considering increasing the bicycle lane standard to be consistent with the AASHTO standard.

4. Construct multi-use paths along collector and arterial roadways.

As previously stated, the Development Code does require multi-use paths to be constructed along Arterial and Collector roadways. (Section 151.08.004). A multi-use path was recently constructed along Coronado Drive, between Golf Links Road and Busby Drive, as part of the Canada Vista subdivision plat.

5. Identify and secure funding sources for the development of transportation systems.

The City has received grant funding from the Federal Transportation Administration and from the Community Development Block Grant program.

6. Limit curb cuts along arterial and collector roadways to provide additional safety for bicyclists and pedestrians.

The Development Code prohibits residential properties from directly accessing arterial roadways and highly discourages access to collector roadways. The Code also states that commercial properties shall be prohibited from directly accessing Principal Arterials, limits direct access onto Minor Arterials to one, and should limit access onto collector roadways to one. The City will be revising the access management code in the next fiscal year as part of the Complete Streets strategic objective.

7. Consider pedestrian needs in the design of transportation systems, particularly related to connectivity and road crossings.
The Development Code requires public sidewalks or multi-use paths be constructed along any new arterial or collector roadways. In addition, there will be multi-use paths along the major roadways in the Tribute Specific Plan. The Safe Bicycle and Pedestrian Routes Plan prioritizes multi-use path projects throughout the City. This prioritization list is used for the funding of future multi-use path projects.
8. Ensure that traffic signals provide for maximum pedestrian safety.
The signal crossings are all timed to meet federal standards. In addition, an audible signal has been installed at the traffic light at the Transit Center to aid visually challenged pedestrians.
9. Ensure all public and private roadways meet minimum roadway standards for sanitation and emergency service vehicles.
The minimum roadway width for public residential local streets is 34 feet. The minimum roadway width for private streets is 26 feet. These widths are the minimum necessary for emergency and sanitation vehicles.

Goal 3-2 Design roadways and circulation patterns that enable efficient movement for all modes of transportation

Strategies

1. Encourage grid pattern circulation in all new developments, where applicable, in order to provide for connections between streets.
Although the Development Code does not require grid pattern circulation, the Tribute Specific Plan is proposing grid pattern streets. According to the Plan, “local traffic will circulate through the planned development areas via pedestrian-friendly street patterns that include a combination of relatively narrow, gridded streets and short cul-de-sacs.”
2. Ensure that Arterial and Collector roadways are continuous and that they commence and conclude at a roadway with a higher or equivalent roadway classification.
There have not been any Arterials or Collectors constructed since the adoption of the Plan in 2014. However, the extension of Avenida Escuela is currently in design and should be completed within the next two years.

3. Ensure local roads allow pedestrian and bicycle connections to washes, parks, open space, and multi-use paths.

The Development Code does require all new residential subdivisions to provide pedestrian access to multi-use paths, washes, and parks. Numerous subdivisions under development are currently providing these connections to include Summit Heights, Canada Vista, Retreat and Holiday.

4. Use traffic modeling and other forms of analysis to determine future traffic generation throughout the City.

The QRSII modeling software was originally used to determine the future traffic generation throughout the City. However, the City now uses a combination of the Arizona Department of Transportation (ADOT) Arizona Statewide Travel Demand Model and traffic counts to determine future traffic generation.

5. Update the Traffic Circulation Plan, as necessary, to determine roadway classifications.

The City updated the Traffic Circulation Plan in 2019. The roadways were classified as determined by the Arizona Department of Transportation (ADOT) Statewide Functional Classification System.



Canyon de Flores/Golden Acres Roundabout 1

In other words, the roadway classifications were consistent with the classifications as shown on the Statewide Functional System Map.

6. Plan for future roadway alignments on vacant land.

The Tribute Specific Plan and the Ventana De Flores Specific Plan do plan for future roadway alignments in the Plan areas. Both Plans do provide a roadway circulation plan. The City is also planning to connect Avenida Escuela to the athletic fields on Las Brisas Drive.

7. Coordinate with Cochise County and other governmental organizations in creating a regional transportation system that would provide transportation to areas within and beyond the County boundaries.

The Cochise Connection transit service currently functions as a regional transit bus system with stops in Douglas, Bisbee, Palominas, Hereford, and Sierra Vista. The Cochise Connection service started in 2018 and primarily serves the elderly and individuals with disabilities. There has been no proposals to create a regional transportation system beyond the County boundaries.

- 8. Synchronize traffic signals to ensure maximum traffic flow efficiency. The City is currently testing software and other technologies on the traffic signals to maximize traffic flow efficiency.

Goal 3-3 Meet or exceed ADA (Americans with Disabilities Act) requirements for public infrastructure and the public transit system

Strategies

- 1. Expand and promote the Vista Transit curb-to-curb pickup program. The Para Transit service has expanded and is available weekly from 7:00am to 6:00pm and on Saturday from 9:30-6:00pm. The passenger database was up to 478 at the end of 2020. The current roster includes 151 passengers and is expected to fluctuate in the future due to riders moving, passing away, or finding other means of transportation.

- 2. Ensure access into City buses meets, at a minimum, the requirements of the ADA. All the transit buses have an accessible entrance in the form of a ramp mounted at the passenger doors with two stations for securing mobility devices.



- 3. Ensure transit information is accessible and easily readable for all individuals.

- 1. The literature and information is available online, on the buses or at the Transit Center. If necessary, any passenger document can be printed in larger print at the Transit Center upon request. Also, applications for discounted fare or paratransit service are available in Spanish upon request. The Vista Transit Ride Guide is printed in both English and Spanish.

4. Retrofit existing transit shelters and install new transit shelters that allow additional space for wheelchairs.

The transit shelters were all retrofitted with a smaller 4-foot bench which allows a wheelchair to fit inside the shelter. However, the stops with less passenger traffic only have a signpost indicating the location as a stop.

5. Create a transition plan for public infrastructure accessibility deficiencies and make recommendations.

Community Development is working with the City's ADA coordinator on creating a transition plan which will identify and prioritize the improvement of the deficiencies. The City is also conducting a survey to inquire about ADA deficiencies in the City parks. Most of the survey comments relate to inadequate handicapped parking areas, such as spaces either not being improved or the location of the spaces requiring a lengthy walking distance to amenities.

6. Seek funding to upgrade public infrastructure improvements to ADAAG (Americans with Disabilities Act – Accessibility Guidelines).

The City uses monies from the Community Development Block Grant (CDBG) and Federal Transportation Administration (FTA).

Goal 3-4 Expand transportation choices that reduce reliance on single-occupancy vehicles

Strategies

1. Continue the practice of placing appropriate bicycle parking facilities at commercial sites, multi-family sites, public parks, public facilities, and along pedestrian and multi-use pathways.

The City adopted a bicycle parking Ordinance in 2017 which required bicycle parking for all new commercial development with certain exceptions. There is no current policy to locate bicycle parking along pedestrian or multi-use pathways.

2. Continue to seek funding to construct additional multi-use paths and sidewalks.

The City received money from a Federal Transportation Administration (FTA) grant earlier this year which will be applied to missing sidewalks on the West End. The City also applied for a grant for two multi-use path projects. The first proposed project is located on SR 92 between Foothills

Drive and Avenida Cochise with the total amount requested of \$682,574. The second project is located on Buffalo Soldier Trail between Golf Links Road and Fry Boulevard with a total amount requested of \$987,565. Additional grant opportunities for future paths will continue.

3. Interconnect the multi-use path system to provide access to commercial nodes, schools, and other points of interest.

The Safe Bicycle and Pedestrian Routes Plan prioritizes pedestrian and bicycle projects by their access to commercial nodes, schools, and other points of interest. The Plan was adopted by City Council as Appendix P of the General Plan. The priority list identified in the Plan is the same priority list the City is using when applying for the FTA grants. For example, the proposed multi-use path projects on SR 92 and Buffalo Soldier Trail, both were designated as high priority. The City also prioritizes pathways that provide connections to essential services and public transportation.

4. Enhance the multi-use path system to include route identifiers and wayfinding signage.

The Safe Bicycle and Pedestrian Routes Plan recommends the use of route identifiers and wayfinding signage to encourage multi-modal use of the pathways. There is currently route identification signs for the Cochise Vista Trail Loop. Additional route identification signage will be included on future pathway projects.

5. Coordinate with Cochise County and Fort Huachuca when designing and constructing an interconnected region-wide system of multi-use routes.

The City has been coordinating with the Metropolitan Planning Organization (MPO) on the Long Range Transportation Plan. Integrated in the Plan is the prioritized list of multi-use paths from the Safe Bicycle and Pedestrian Routes Plan. The multi-use path system will ultimately extend through the Cochise County enclave areas and unincorporated areas which will require additional coordination with Cochise County.

6. Encourage the use of park-and-ride facilities, carpools, and public transit.

The City provides a parking incentive for carpool spaces. As part of the Parking Credits and Flexible Parking Allocations in the Development Code, *“On property zoned or used for office or industrial purposes, the number of required vehicle parking spaces may be reduced by two parking spaces for*

each marked carpool parking space provided.” Vista Transit encourages ridership by reducing fares to military, seniors, disabled, and students. No park-and-ride facilities have been proposed at this time.

Goal 3-5 Ensure that VISTA Transit meets the needs of the growing community.

Strategies

1. Meet the goals and objectives of the Vista Transit Short Range Transit Plan, adopted in 2014, or any subsequent Plans.

The Sierra Vista Metropolitan Planning Organization (SVMPO) updated the 2014 Short-Range Transit Plan. The Plan was adopted by the SVMPO Board in August of this year. The City will need to meet the goals of the Plan which extends until 2026.

2. Expand route locations and times to include underserved area within the Metropolitan Planning Organization (MPO) area, when feasible.

In 2019, additional stops were added along Industry and Commerce Drive to provide access to the business and industrial parks. Additional stops were added at Colombo and Highway 90, Colombo and Campus Dr., Campus Dr. and SR 90 bypass, Canyon Vista Medical Center, and Buffalo Wild Wings.



3. Coordinate with Fort Huachuca to enhancing transit service to the Fort installation. One of the goals of the Short Range Transit Plan was to enhance the service on Fort Huachuca. Saturday service was established on Fort Huachuca following approval of the Plan. Ridership has more than doubled following Covid.

4. Pursue opportunities to increase ridership.

The City has an advertising campaign that offers a free, single ride bus ticket for new riders with the goal of giving citizens an opportunity to explore the bus system to see if it works for them.

5. Establish promotional agreements with private businesses to increase revenue.
Businesses may purchase a window to advertise. They can purchase as many windows as they like depending on availability. The cost to advertise is \$70 a month, per window.
6. Continue to seek funding to obtain additional transit vehicles and operations support, as necessary. The City continues to pursue FTA grants for vehicles as needed as well as funding for transit operations.

Goal 3-6 Ensure that air transit facilities are adequate for community needs

- Strategies*
1. Meet the goals and objectives of the Airport Master Plan which was approved in 2013. The City has constructed one capital improvement project since 2015, which was to rebuild a portion of Taxiway G and J. Shortly after the Airport Master Plan was approved, the FAA determined that projects within a joint-use area, were not eligible for federal funding through the FAA. Therefore, it became financial infeasible to pursue the additional projects.
 2. Plan airport development to effectively and efficiently meet current and projected customer demand. The focus of the airport is much more strategic. The goal now is to focus development/expansion on currently underutilized space rather than expanding capacity. Currently, the General Aviation community and the Forest Service both lease space at the airport. Economic Development is actively seeking opportunities to bring development to the airport which is compatible with the existing airport uses.
 3. Ensure that airport operations are safe and secure by using required policies and procedures for the Federal Aviation Administration (FAA). The City continues to comply with these policies and procedures as a condition of the grants received from the FAA.
 4. Ensure that there is minimal development within the High Noise Accident Potential Zone. (Reference High Noise Accident Potential Zone Map (Map 2-7) in Land Use Element)

There has not been any development within the High Noise/Accident Potential Zone. However, to comply with state law, should there be residential development in this area, the density cannot be any greater than one home per acre.

STATE LAW REQUIREMENTS

Arizona Revised Statutes, Section 9-461.05-C 2, E 3

“A circulation element consisting of the general location and extent of existing and proposed freeways, arterial and collector streets, bicycle routes and any other modes of transportation as may be appropriate, all correlated with the land use element of the plan.”

“The circulation element provided for in subsection C, paragraph 2 of this section shall also include for cities of fifty thousand persons or more and may include for cities of less than fifty thousand persons recommendations concerning parking facilities, building setback requirements and the delineations of such systems on the land, a system of street naming and house and building numbering and other matters as may be related to the improvement of circulation of traffic. The circulation element may also include:

(a) A transportation element showing a comprehensive transportation system, including locations of rights-of-way, terminals, viaducts and grade separations. This element of the plan may also include port, harbor, aviation and related facilities. A transit element showing a proposed system of rail or transit lines or other mode of transportation as may be appropriate.”

ATTACHMENTS

Map 8, Traffic Circulation Map

Map 9, MPO Boundary Map

Map 10, Transit Map

REFERENCES

Small Area Transportation Plan

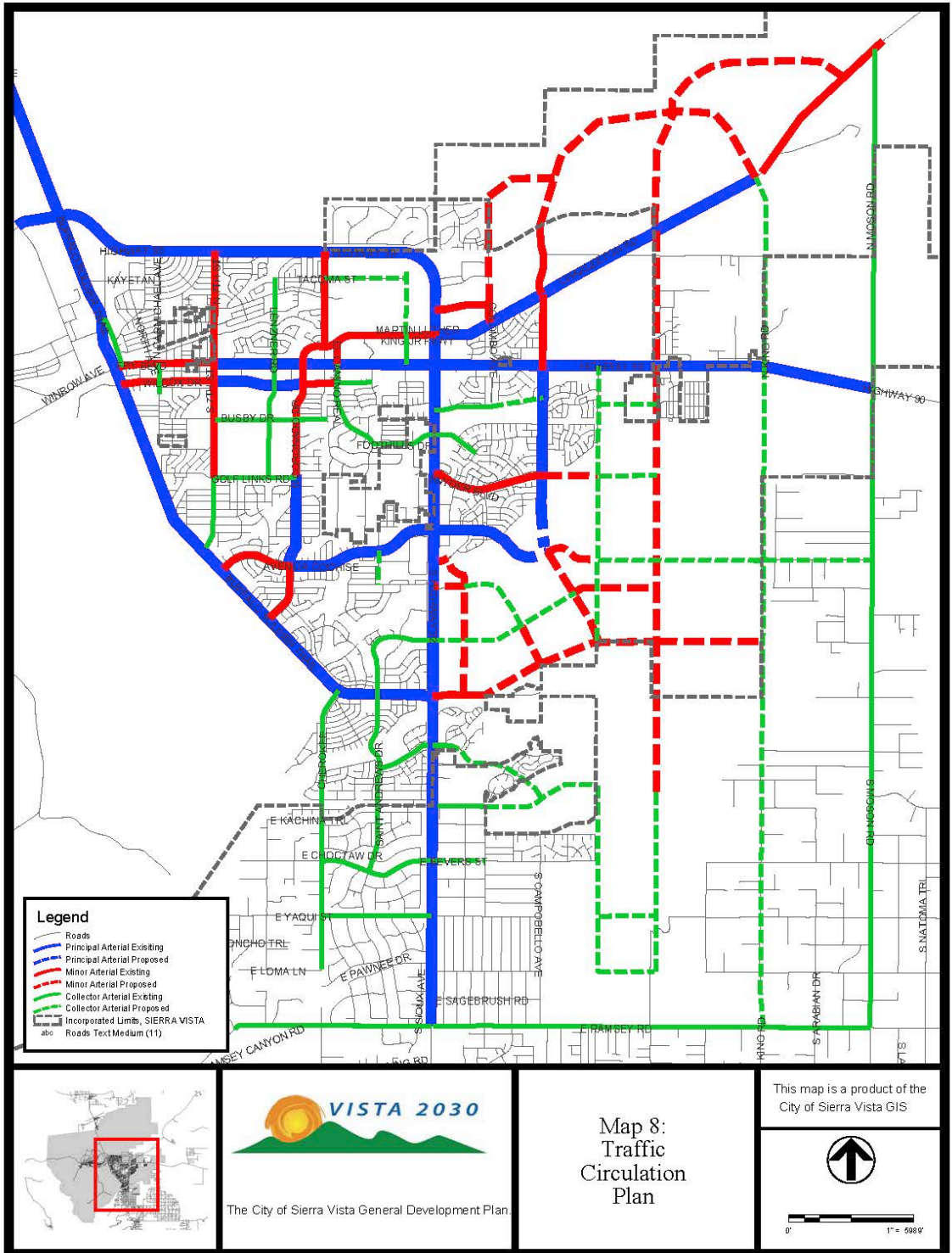
Vista Transit Five Year Master Plan

Safe Bicycle and Pedestrian Routes Plan

Sierra Vista Traffic Efficiency Study

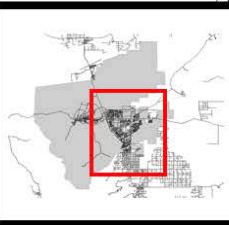
Sierra Vista Municipal Airport Master Plan

Cochise Bicycle Advocates Parking Facilities Guidelines



Legend

- Roads
- Principal Arterial Existing
- Principal Arterial Proposed
- Minor Arterial Existing
- Minor Arterial Proposed
- Collector Arterial Existing
- Collector Arterial Proposed
- Incorporated Limits, SIERRA VISTA
- Roads Text Medium (11)



VISTA 2030

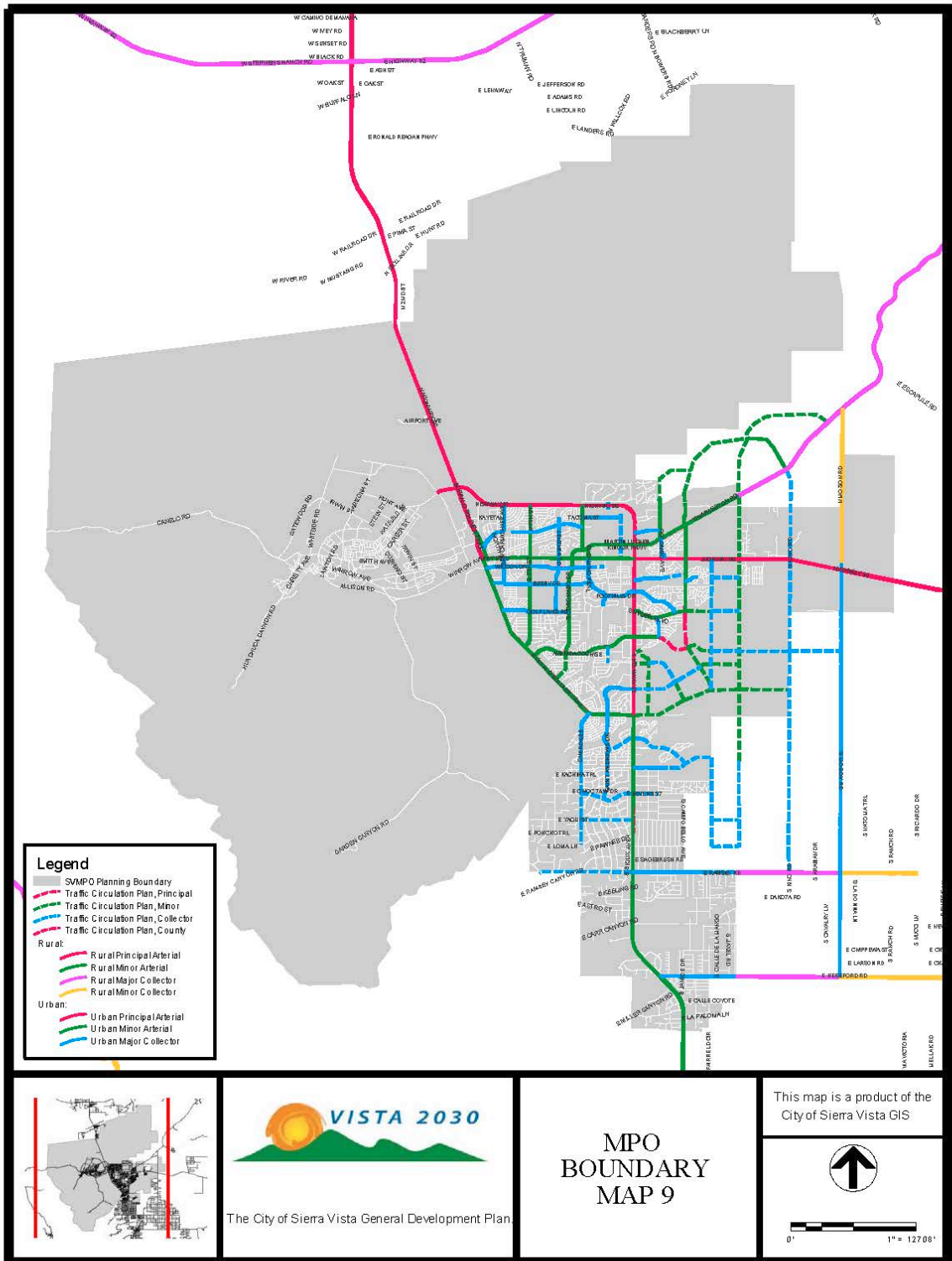
The City of Sierra Vista General Development Plan

Map 8:
Traffic
Circulation
Plan

This map is a product of the
City of Sierra Vista GIS

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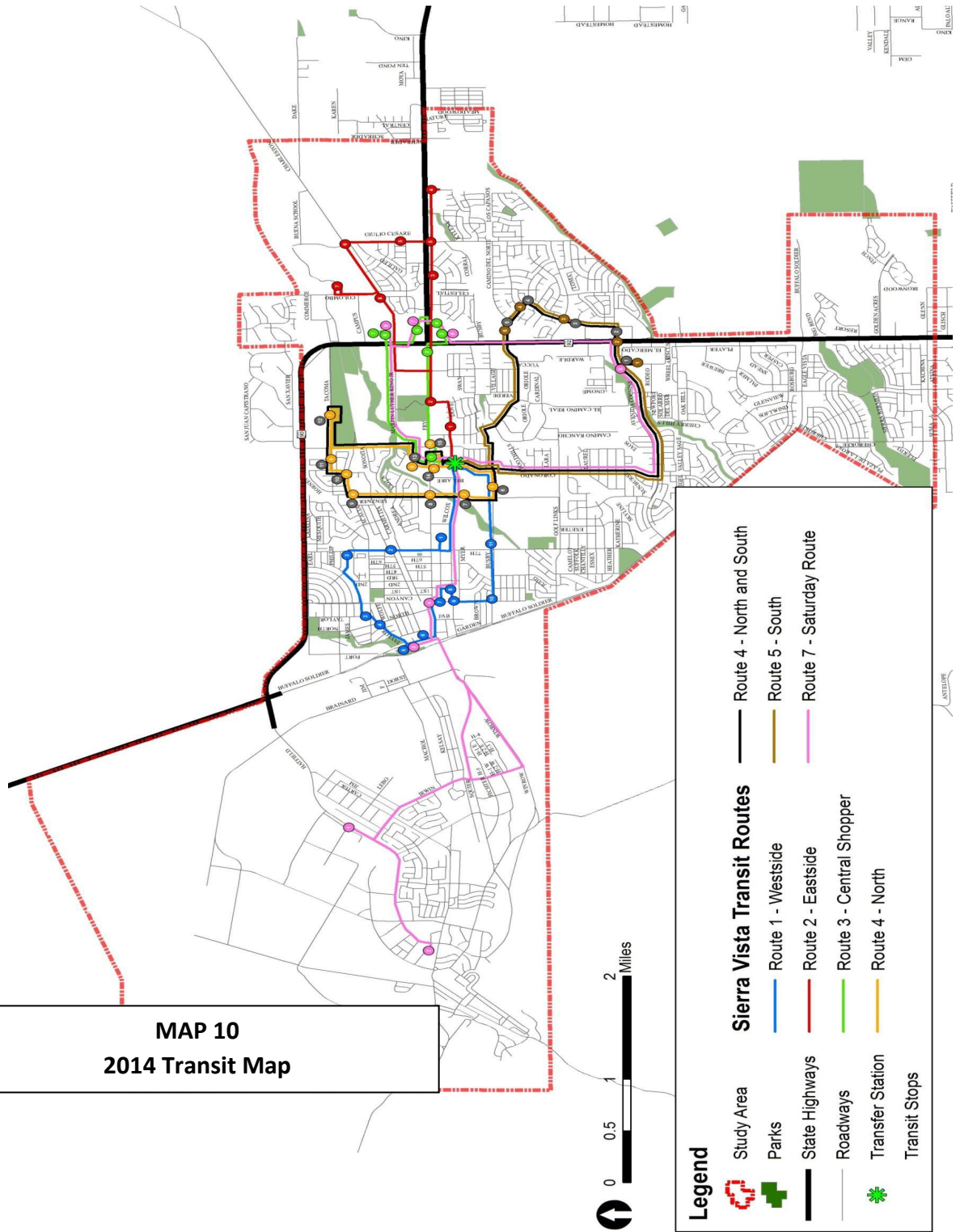
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MPO Functionally Classified Roads (Tapps\GIS\Encompass\Admin\Personal\Planning.mxd)

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MAP 10
2014 Transit Map



Legend

- Study Area
- Parks
- State Highways
- Roadways
- Transfer Station
- Transit Stops
- Route 4 - North and South
- Route 5 - South
- Route 7 - Saturday Route
- Route 1 - Westside
- Route 2 - Eastside
- Route 3 - Central Shopper
- Route 4 - North

