State Transportation System Mobility and Regional Circulation Needs Feasibility Study
Final Working Paper 2
Assessment of Selected Loop Routes for Designation as State Highways

Prepared for Pima Association of Governments
Pima Association of Governments:  
State Transportation System Mobility and Regional Circulation Needs Feasibility Study  
(Loop Road Study)  

FINAL  
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1.0 Study Background and Purpose

1.1 Study Background

In January 1986, the State Transportation Board passed right-of-way resolutions designating nine roadways and corridors in the Pima Association of Government (PAG) region as State Routes. The State Route designation is used by the State Transportation Board to designate both existing rights-of-way and potential new corridors for future construction as State Highways. Construction and maintenance of State Routes are the responsibility of local jurisdictions until such time as they are designated as State Highways by the State Transportation Board.

Four of the nine State Routes were identified by the State Transportation Board as priority corridors and commitments were made to partner with PAG and its member jurisdictions on funding corridor development. The priority corridors were:

- Tangerine Road (SR 989)
- Golf Links Extension (SR 810)
- Sahuarita Corridor (SR 982)
- Houghton Road (SR 983)

The adopted 1986 PAG Regional Transportation Plan (RTP) included all nine State Routes and relied heavily on the priority corridors to meet the Region’s 20-year transportation needs. The State Routes made up a significant portion of the 80 miles of new controlled access roadways and 22 miles of new arterial roadways that were recommended in the 1986 RTP. The current 2030 Regional Transportation Plan incorporates improvements to all of these corridors.

Past funding of the priority corridors has resulted in corridor improvement plans and environmental analyses for the Sahuarita Corridor, Tangerine Road, and Houghton Road. Additionally, Golf Links Road, another priority corridor, was extended east to Houghton Road using local funds. However, shortfalls in local and state funding and jurisdictional differences on corridor improvement plans have significantly limited the development of other State Routes.

In an attempt to facilitate development of the Region’s priority corridors and to address an identified lack of State Highways in the PAG Region, six jurisdictions in the PAG Region asked the State Transportation Board to take three corridors into the State Highway System. In a November 2003 letter to the State Transportation Board, the following three corridors were requested for designation as State Highways.

- Sahuarita Corridor between I-19 and I-10
- A Loop Corridor consisting of Houghton Road, Golf Links, Alvernon Way, Swan Road, and Sahuarita Corridor
- Tangerine Road Corridor between I-10 and SR 77

These three corridors, when combined with the transportation system included in the 1986 RTP, make up a majority of the corridors that will be evaluated in this study – the PAG State Transportation Mobility and Regional Circulation Needs Feasibility Study (Loop Road Study). This renewed interest in the development of a loop system along with the passing of House Bill 2507 (the PAG Regional
Transportation Authority) has given PAG an opportunity to consider the need for and feasibility of reestablishing a high capacity framework for the Region’s transportation system.

1.2 Study Purpose

The principal purpose of the PAG Loop Road Study is to evaluate the need for, and feasibility of, developing a system of limited, controlled, and reduced access roadways in the PAG Region. The successful completion of this study will result in the following regional transportation goals being met:

- A traffic circulation and access framework for future planning efforts in the study area;
- Identification of transportation corridors in advance of land use development to meet future mobility and regional bypass needs in future growth areas of the Region;
- Preservation of corridors and establishment of land use controls in the emerging and fringe areas of the Region;
- Extension of the functional and operational life-cycle of existing arterials, collectors, and local streets in developed areas by providing opportunities for diverting regional traffic to regional routes;
- Study area transportation network being reflected in the PAG travel demand model;
- A basis for prioritizing and programming transportation infrastructure construction within the study area; and
- A foundation for a public/private partnership in the funding of transportation infrastructure in the study area.

1.3 Overview of Working Paper 2

Based on direction from the Pima Association of Governments special focus corridors were defined for this study, and are shown in Exhibit 1. These corridors are defined as follows:

1. Tangerine Road (I-10 to SR 77) either connecting directly to I-10 or with an alternative connection to I-10 via Camino De Manana.
2. Sahuarita Corridor, consisting of a new limited access facility on the El Toro Road alignment, turning north to a Wilmot Road/Kolb Road alignment, which extends north to the I-10/Kolb Road interchange. This alignment includes an east-west extension along Andrada Road from Wilmot Road to I-10 in the vicinity of SR 83. The definition of this corridor is consistent with the draft recommendations of the PAG Southeast Area Arterial Study.
3. Loop Corridor consisting of Houghton Road, Golf Links Road, Alvernon Way, and Swan Road. (The Sahuarita Corridor “closes” this loop).
4. Barraza-Aviation Parkway Extension (Golf Links Road to I-10/Valencia Road)

The purpose of this working paper is to provide information on the criteria and process to designate a route as a State Highway and to assess whether these special focus corridors are justified for inclusion on the State Highway system. This information is presented to PAG for further discussions with ADOT and possible distribution to the State Transportation Board for a decision on whether to designate any or all of these routes as State Highways. The assessment was based on criteria developed from State Transportation Board policies, the Arizona Revised Statutes, and the Arizona Department of Transportation (ADOT) Route Transfer and Level of Development Study (2004).
1.4 Background Information on Current Route Classifications and Growth Areas

Resources to assist in assessing the special focus corridors for suitability as possible state highway facilities are provided in the following three exhibits. Exhibit 2 provides a summary of the state route designations in the Tucson area. Exhibit 3 provides reference information on future growth areas, based on information provided in the PAG Draft 2030 Regional Transportation Plan. These growth areas are referred to in Chapter 3 to evaluate whether a route serves a population center. Exhibit 4 provides a graphic depiction of current state highways, state routes, and National Highway System routes.

Exhibit 2 - State Route System Inventory - PAG Region

<table>
<thead>
<tr>
<th>No.</th>
<th>Route</th>
<th>Description</th>
<th>Resolution</th>
<th>Date</th>
<th>Designated State Highway?</th>
<th>Did Resolution note facility as part of PAG Freeway/Expressway System?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SR 983</td>
<td>Houghton Rd. Sahuarita Rd. north to Golf Links</td>
<td>86-01-A-07</td>
<td>1/20/1986</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>SR 210* and SR 810</td>
<td>Aviation Corridor I-10 at St. Mary's east to Alvernon Way and Golf Links Corridor (Alvernon to Pantano Parkway)</td>
<td>82-03-A-17</td>
<td>4/16/1982</td>
<td>Yes, Aviation (Broadway to Alvernon Way)**</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>SR 489</td>
<td>Alvernon Way Valencia Rd. north to Grant Rd.</td>
<td>86-01-A-05</td>
<td>1/20/1986</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>4</td>
<td>SR 910</td>
<td>Valencia Extension - East Kolb Rd. east to Houghton Rd.</td>
<td>86-01-A-12</td>
<td>1/20/1986</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>6</td>
<td>SR 989</td>
<td>Sandario/San Joaquin Highway SR 86 north to I-10 via Manville Rd.</td>
<td>86-01-A-09</td>
<td>1/20/1986</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>7</td>
<td>SR 989</td>
<td>Tangerine Rd. Highway First Ave. east to SR 77</td>
<td>91-09-A-73</td>
<td>9/20/1991</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>8</td>
<td>SR 989</td>
<td>Tangerine Rd. Highway</td>
<td>86-01-A-10</td>
<td>1/20/1986</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>9</td>
<td>SR 110</td>
<td>Kolb-Grant Loop Corridor I-10 east to Kolb Rd. south on Kolb to I-10</td>
<td>81-11-A-47</td>
<td>11/20/1981</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>10</td>
<td>SR 910</td>
<td>Valencia - Bilby Corridor I-19 east to I-10</td>
<td>81-11-A-47</td>
<td>11/20/1981</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>11</td>
<td>SR 589</td>
<td>Campbell Ave. / Kino Highway Valencia Rd. north to Grant Ave.</td>
<td>86-01-A-06</td>
<td>1/20/1986</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>12</td>
<td>SR 982</td>
<td>Sahuarita Rd. Highway I-19 east to I-10</td>
<td>86-01-A-08</td>
<td>1/20/1986</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>13</td>
<td>SR 810</td>
<td>Golf Links Extension Highway Camino Seco east to Houghton Rd.</td>
<td>86-01-A-11</td>
<td>1/20/1986</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>14</td>
<td>SR 210</td>
<td>Aviation Corridor I-10 to Golf Links Rd.</td>
<td>83-03-A-09</td>
<td>2/18/1983</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

*Resolution defined SR 210 as State Route - existing State Route includes St. Mary’s Road east to Broadway Blvd only.

** Not designated a state highway via this resolution.

Source: ADOT Engineering District II, Pima County, Arizona
Exhibit 3 Regional Growth Areas, 2000-2030
Exhibit 4 Existing National Highway, State Highway, and State Route Systems
2.0 Review of State Statutes, Policies, and System Criteria Regarding State Highway Criteria

This section discusses criteria to use in defining routes that may qualify for consideration of inclusion on the state highway system through a route transfer. It discusses relevant state statutes, State Transportation Board (Board) policies, and state highway classification criteria contained in the ADOT Route Transfer and Level of Development Study (2004). Since criteria for designating routes as State Highways does not exist per se, the criteria presented below is an interpretation of general information relating to the function of the State Highway System.

2.1 Arizona Revised Statutes

2.1.1 State Highway and State Route Definition

Definitions for state highways and state routes are provided in ARS 28-101, (Definitions), and ARS 28-7041, (State Highways and Routes Defined). In particular, ARS 28-7041 is a key legislative statute to reference for this analysis. It is provided in it’s entirety below as follows (bold and italics were added to highlight areas that refer to the process for designating a state highway and the requirements for a state highway). Key elements of Statute 28-7041 include the requirement that a road must be recommended to the Board by the Director of Transportation to be designated a state highway, and (in item B) a state highway must first be designated as a state route.

These statutes are provided as follows:

28-101. Definitions

49. "State highway" means a state route or portion of a state route that is accepted and designated by the board as a state highway and that is maintained by the state.

50. "State route" means a right-of-way whether actually used as a highway or not that is designated by the board as a location for the construction of a state highway.

28-7041. State highways and routes defined

A. The state highways, to be known as state routes, consist of the highways declared before August 12, 1927 to be state highways, under authority of law, that the board, after receipt of a recommendation from the director, may add to, abandon or change. If the board proceeds contrary to the recommendations of the director, it shall file a written report with the governor stating the reasons for the action.

B. The state highways consist of the parts of the state routes designated and accepted as state highways by the board. A highway that has not been designated as a state route shall not become a state highway and any portion of a state route shall not become a state highway.
until it has been specifically designated and accepted by the board as a state highway and ordered to be constructed and improved.

C. All highways, roads or streets that have been constructed, laid out, opened, established or maintained for ten years or more by the state or an agency or political subdivision of the state before January 1, 1960 and that have been used continuously by the public as thoroughfares for free travel and passage for ten years or more are declared public highways, regardless of an error, defect or omission in the proceeding or failure to act to establish those highways, roads or streets or in recording the proceedings.

2.1.2 Responsibility of the State Transportation Board to Designate a State Highway

Statute 28-304 section B defines the powers and duties of the State Transportation Board regarding establishing a state highway system. A partial excerpt of this statute is provided as follows:

28-304. Powers and duties of the board; transportation facilities
B. With respect to highways, the board shall:
1. Establish a complete system of state highway routes.
2. Determine which state highway routes or portions of the routes are accepted into the state highway system and which state highway routes to improve.
3. Establish, open, relocate or alter a portion of a state route or state highway.
4. Vacate or abandon a portion of a state route or state highway as prescribed in section 28-7209.
5. Sell board funding obligations to the state treasurer as provided in section 28-7678.

2.1.3 Process of Designating a State Highway

The process of converting a state route to a state highway is further defined in Statute 28-7043. Statute 28-7043 provides for noticing requirements for the affected county to participate in the State Transportation Board meeting and have their opinion heard regarding the conversion of a state route to a state highway. The statute also states that a state route should not be designated as a state highway until monies for its improvement are provided in the budget of the department.

28-7043. Designation of state route as state highway

A. At least two weeks before the designation and acceptance by the transportation board of a state route or portion of a state route as a state highway, the transportation board shall give notice to the board of supervisors of the county in which the proposed highway is located of the intention of the transportation board to consider the designation.

B. The board of supervisors may:

1. Appear before the transportation board and be heard on the proposal.
2. Petition the transportation board to take over and designate a state route as a state highway.

C. Until designated and accepted as state highways, all state routes are county highways and shall be constructed, improved and maintained as county highways, except as otherwise provided in this title.

D. A part of a state route shall not be taken over or designated as a state highway until monies for its improvement are provided in the budget of the department. If part of a state route is designated and accepted by the transportation board as a state highway, the department shall maintain the highway.

ARS 28-7046 states that the Director must deliver a written report to the State Transportation Board to establish a state highway, and that the Superior Court may review the action of the State Transportation Board.

28-7046. Opening, altering or vacating highway; review of order

A. If the director or the board desires to establish, open, relocate, alter, vacate or abandon a state highway or a portion of a state highway, the director shall make and deliver a written report to the board describing the highway or portion of the highway to be affected. If the board decides that the public convenience will be served, it shall enter a resolution on its minutes approving the proposed action and authorizing the director to proceed and to acquire any property for the action by condemnation or otherwise.

B. The superior court may review by certiorari the action of the board establishing, opening, relocating, altering, vacating or abandoning state highways.

ARS 28-7049 defines the criteria of connectivity for state highways that involves forming necessary or convenient links to connect sections of state highways or state routes, or for carrying state highways through cities and towns.

28-7049. Classification of streets that connect highways and routes

A. If the streets of an incorporated city or town form necessary or convenient links for the connection of sections of state highways or state routes, or for carrying the state highways or state routes through the city or town, the director and the governing body of the city or town, in the case of state highways, or the board of supervisors and the governing body of the city or town, in the case of state routes, may agree that the streets are deemed state highways or county highways, respectively.

B. The agreement shall provide for maintenance of the streets classified pursuant to this section.
2.2 State Transportation Board Policies

The State Transportation Board has broad authority to plan and develop Arizona’s highways, airports, and other state transportation facilities. In addition to these general policy responsibilities the Board is responsible for development and oversight of the State’s Five-Year Transportation Facilities Construction Program and for policy and rule-making in the following areas:

- Priority Programs
- Establishing, altering or vacating highways
- Construction contracts
- Accelerated funding mechanisms
- Local government airport grants
- Designating or establishing scenic or historic highways

State Transportation Board Policies 5 and 16 serve as criteria for establishing state highways. Key phrases in the policies that serve as criteria are highlighted and bolded. Policy 5 highlights the need for state highways to provide connectivity between population centers and to interconnect with those of other states. Policy 16 highlights the need to provide a statewide network to serve the movement of goods and people.

Policy No. 5 - State Highway System Priorities Policy

1. It is the policy of the Board to implement Arizona’s vision for an integrated statewide transportation system by placing priority on state highways that:

   - Connect Arizona’s regions and population centers by an efficient network of highways to carry travelers and commerce throughout the state;
   - Connect Arizona, its regions and population centers with other states and Mexico; and
   - Connect major population centers and through routes within urban areas with high volume routes that increase mobility of people and goods.

2. Consistent with these priorities, the State Highway System should include routes primarily designed to carry through traffic, including:

   - Interstate Highways;
   - Other arterial routes connecting Arizona’s population centers and interconnecting with those of other states; and
   - High capacity connecting routes needed to form an efficient network.

Policy No. 16 - Transfer of State Routes Policy

16.1. states that “It is the policy of the Board that the State Highway System consist primarily of routes necessary to provide a statewide network to serve the ever changing environment with regards to statewide and regional movement of people and goods. Routes primarily providing land access and local movement of people and
goods should be the responsibility of local governments. The Transportation Board will seek to transfer these routes to other jurisdictions.”

2.3 State Highway Criteria from ADOT Route Transfer and Level of Development Study

Another source of criteria for state highways is the Route Transfer and Level of Development Study, (2004) prepared by HDR for the Arizona Department of Transportation. As part of this study, criteria for inclusion of a road on the state highway system was developed for functional categories of state highways. These criteria are summarized in Exhibit 5.

Exhibit 5 State Highway Criteria from Route Transfer and Level of Development Study

<table>
<thead>
<tr>
<th>Facility</th>
<th>Definition</th>
<th>Classification Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeways</td>
<td>Interstate and urban controlled access facilities designed for high volume, high speed and full access control.</td>
<td>• Designated as Interstate Highway or Urban freeway</td>
</tr>
<tr>
<td>Other Major Facilities</td>
<td>Other major facilities serving significant auto or truck traffic forming a network of high capacity routes for long-distance travel. In rural areas they are designed for high speeds and continuous flow. In urban areas they are designed and maintained for continuous flow with minimal interruptions. Where volumes exceed 5,000 average daily traffic (ADT), designs are often multi-lanes with expressway characteristics.</td>
<td>• Rural routes with more than 5,000 ADT • Connecting rural National Highway System (NHS) routes with more than 1,500 ADT • Key freight routes (more than 1,000 articulated trucks per day) • Urban and rural connecting routes to form a network in which other major facilities routes connect at both ends to Freeways or other Major Facilities routes</td>
</tr>
<tr>
<td>Other Statewide Routes</td>
<td>Other statewide routes providing for long distance travel and regional links through urban areas. These roads contain the majority of miles on the highway system, filling the network to provide access to all areas of the state. In rural areas they are generally higher speed routes, although with more variation in speed than would be acceptable on the “other major facilities” category. In larger urban and suburban areas they are designed for continuous flow, but with more interruptions than being acceptable for the “other major facilities” category.</td>
<td>• Rural arterial and major collector routes with more than 1,500 ADT • Urban arterial routes with more than 5,000 ADT • Connecting routes necessary to form a network in which all other statewide routes connect with Freeways, other major facilities or other statewide routes • Not including business routes and other routes with parallel state highways of higher classification</td>
</tr>
<tr>
<td>Non-statewide routes serving points of state and National interest</td>
<td>Lower volume rural routes connecting facilities or regions of statewide significance. These routes are expected to stay on the state system</td>
<td>• Routes that would normally be classified as a route without statewide significance but serves a state or national facility • Provide only access to a large population or...</td>
</tr>
</tbody>
</table>
Facility | Definition | Classification Criteria
--- | --- | ---
 | because they serve significant state or national facilities, including national parks and monuments and institutions such as prisons and major research centers. However they do not handle significant volumes of through traffic and are not a significant part of the state system. | land area.

Source: *Route Transfer and Level of Development Study*, HDR, 2004

### 2.4. Summary of State Highway Designation Criteria

Based on the policies and criteria discussed earlier in this chapter, a list of state highway criteria was developed to measure against the characteristics of the special focus corridors in order to determine if they might be eligible for state highway designation. It is not necessary to respond “yes” to every criteria in order to be a successful state highway. Any route that meets a preponderance of the criteria may be suitable.

These criteria can be expressed by the following questions:

1. Has this road been designated as a state route? If yes, what are the specifics of the route designation? (Per ARS 28-101, 28-7041)
2. Does this road form a convenient or necessary link for connecting sections of state highways or for carrying state highways or state routes through cities or towns? (Per ARS 28-7049).
3. Is this route primarily designed to carry through traffic? (Per State Transportation Board Policy No. 5).
4. Does this route connect Arizona’s population centers? (State Transportation Board Policy No. 5)
5. Does this route interconnect with those of other states? (State Transportation Board Policy No. 5)
6. Is this route a high capacity connecting route needed to form an efficient network? (State Transportation Board Policy No. 5)
7. Does this route provide statewide and regional movement of people and goods? (State Transportation Board Policy No. 16)
8. Is this route designated as Interstate Highway or Urban freeway? (Per *Route Transfer and Level of Development Study*).
9. Does this route meet criteria for “other major facilities” including (Per *Route Transfer and Level of Development Study*).
- Rural routes with more than 5,000 ADT
- Connecting rural National Highway System (NHS) routes with more than 1,500 ADT
- Key freight routes (more than 1,000 articulated trucks per day)
- Urban and rural connecting routes to form a network in which other major facilities routes connect at both ends to Freeways or other major facilities routes

10. Does this route meet criteria for “other statewide routes” including (Per Route Transfer and Level of Development Study).

- Rural arterial and major collector routes with more than 1,500 ADT
- Urban arterial routes with more than 5,000 ADT
- Connecting routes necessary to form a network in which all other statewide routes connect with freeways, other major facilities or other statewide routes
- Not including business routes and other routes with parallel state highways of higher classification

11. Does this route meet criteria for “non-statewide routes” serving points of state and national interest. (Per Route Transfer and Level of Development Study).
3.0 Assessment of Special Focus Corridors

This chapter provides an assessment of each of the special focus corridors to determine if the corridor, or corridor segments, meets the criteria for a state highway designation. All of the special focus corridors were modeled individually as access-controlled parkways, using future (2030) land use and population projections. This is referred to as the “Special Loop 2030 Model” in the sections that follow.

3.1 Tangerine Road, I-10 to SR 77

Tangerine Road is a two-lane facility, which currently (2005) carries between 6,600 and 14,600 vehicles per day (vpd). Tangerine Road is already designated as a state highway between Oracle Road (SR 77) and First Avenue. This section is currently under construction by ADOT to be widened to a four-lane section. Tangerine Road, from First Avenue to La Canada Drive, in Oro Valley has been widened to a four-lane section. According to the 2030 Regional Transportation Plan (RTP), Tangerine Road is planned to be widened to a four-lane facility between La Canada Drive to I-10. Future (2030) traffic projections, based on the RTP, can be summarized as follows:

<table>
<thead>
<tr>
<th>Corridor Segment</th>
<th>Traffic Volume (vpd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR 77 to Rancho Vistoso Blvd. /First Avenue</td>
<td>20,000</td>
</tr>
<tr>
<td>Rancho Vistoso Blvd. /First Avenue to La Cholla Blvd</td>
<td>28,000</td>
</tr>
<tr>
<td>La Cholla Blvd to Thornydale Boulevard</td>
<td>42,000</td>
</tr>
<tr>
<td>Thornydale Boulevard to Tortolita Road</td>
<td>25,200</td>
</tr>
<tr>
<td>Tortolita Road to I-10</td>
<td>30,400</td>
</tr>
</tbody>
</table>

Tangerine Road, Tangerine to Camino de Manana: 9,600 vpd
Camino de Manana, Tortolita Road to I-10: 17,100 vpd

Two alternatives for this corridor were modeled: one showing Tangerine Road with a direct connection to I-10, and one with a limited access connection to Camino de Manana, which would link to the programmed I-10 / Twin Peaks Road interchange. The Camino de Manana alternative would connect to Tangerine Road using the Tortolita Road alignment, then transition to Camino de Manana.

3.1.1 Tangerine Road Corridor with Direct Connection to I-10

In this alternative, Tangerine Road was improved along current alignment with a direct connection to I-10 via the Tangerine Road interchange.

A comparison of forecast 2030 traffic volumes for the base RTP network and the access controlled configuration can be summarized as follows:
<table>
<thead>
<tr>
<th>Road Segment</th>
<th>PAG 2030 RTP Volumes (vehicles per day)</th>
<th>Special Loop 2030 Model (vehicles per day)</th>
<th>Change in traffic volume (vehicles per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangerine Road</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR 77 to Rancho Vistoso Blvd/First Avenue</td>
<td>20,000</td>
<td>44,000</td>
<td>+24,000</td>
</tr>
<tr>
<td>Rancho Vistoso Blvd/First Avenue to La Cholla Blvd.</td>
<td>28,000</td>
<td>71,700</td>
<td>+43,700</td>
</tr>
<tr>
<td>La Cholla Blvd. to Thornydale Road</td>
<td>42,000</td>
<td>66,200</td>
<td>+24,200</td>
</tr>
<tr>
<td>Thornydale Blvd to Tortolita Road</td>
<td>25,200</td>
<td>46,900</td>
<td>+21,700</td>
</tr>
<tr>
<td>Tortolita Road to I-10</td>
<td>30,400</td>
<td>48,800</td>
<td>+18,400</td>
</tr>
<tr>
<td>Tortolita Road, Tangerine to Camino De Manana</td>
<td>9,600</td>
<td>5,700</td>
<td>-3,900</td>
</tr>
<tr>
<td>Camino de Manana, Tortolita Road to I-10</td>
<td>17,100</td>
<td>12,845</td>
<td>-4,255</td>
</tr>
</tbody>
</table>

The model results from the Special Loop 2030 Model indicate that Tangerine Road traffic grew by 58% to 156% as an access controlled facility.

Analysis indicates that approximately 15,000 vehicles per day would be through trips between I-10 and Oracle Road (SR 77). This indicates that the corridor will carry approximately 19% to 38% through trips as a six-lane access controlled facility in 2030.

A brief evaluation of the state highway criteria for Tangerine Road as an access controlled parkway is summarized as follows:

1. Has this road been designated as a state route? If yes, what are the specifics of the route designation? (Per ARS 28-101, 28-7041)
   Yes, Tangerine Road was designated as State Route 989. Resolution 86-01-A-10 (1/20/86) designated Tangerine Road from I-10 to US 89 (now SR 77) as a state route. This resolution also notes that PAG had adopted and approved the expansion of the PAG Regional Freeway/Expressway Plan to include this route. Resolution 91-09-A-73 (9/20/91) established Tangerine Road from First Avenue (in Oro Valley) to US 89 (now SR 77) as a state highway.

2. Does this road form a convenient or necessary link for connecting sections of state highways or for carrying state highways or state routes through cities or towns? (Per ARS 28-7049)
   Yes, Tangerine Road connects I-10 (a state highway) and SR 77 (a state highway) through the Towns of Marana and Oro Valley. The location of this corridor makes it a good candidate for a continuous east-west access controlled roadway in the northern part of the Tucson region. This route provides for growing travel between Oracle Road and I-10, and is a major corridor for travel from southern Pinal County to access I-10. Large housing developments are being approved for construction in the Oracle
Road corridor north of Tangerine, in Pima and Pinal counties, which will increase demand for this connection significantly.

3. Is this route primarily designed to carry through traffic? (Per State Transportation Board Policy No. 5).
   Yes. If Tangerine Road is improved to an access controlled facility, modeling for 2030 conditions indicates that this route will carry approximately 15,000 vehicle trips per day between I-10 and SR 77.

4. Does this route connect Arizona’s population centers? (State Transportation Board Policy No. 5)
   Yes, Tangerine Road connects the Towns of Marana and Oro Valley. It also provides access to the population centers of Saddlebrooke, the Town of Catalina, and other existing or planned developments in Pinal County. Additionally, this roadway has been identified as the northern segment of a future loop system connecting through Marana to the Avra Valley / Sandario corridor.

5. Does this route interconnect with those of other states? (State Transportation Board Policy No. 5)
   No, Tangerine Road will not interconnect with state highways of other states.

6. Is this route a high-capacity connecting route needed to form an efficient network? (State Transportation Board Policy No.5)
   Yes, it would provide the only access controlled east-west facility in the northern area of Tucson.

7. Does this route provide statewide and regional movement of people and goods? (State Transportation Board Policy No.16)
   Yes, this facility would provide regional movement of people and goods by providing a regional route connecting from I-10 to SR 77 and SR 79.

8. Is this route designated as an Interstate Highway or Urban freeway (per Route Transfer and Level of Development Study)
   Yes, as mentioned in Criteria 1, Resolution 86-01-A-10 (1/20/86) designated Tangerine Road from I-10 to US 89 (now SR 77) as a state route. It also noted that PAG adopted and approved the expansion of the PAG Regional Freeway/Expressway Plan to include this route, indicating it is part of the PAG urban freeway system. Resolution 91-09-A-73 (9/20/91) established Tangerine Road from First Avenue (in Oro Valley) to US 89 (now SR 77) as a state highway.

9. Does this route meet criteria for “other major facilities” (per Route Transfer and Level of Development Study) which includes:
   - Rural routes with more than 5,000 ADT
   - Connecting rural National Highway System (NHS) routes with more than 1,500 ADT
   - Key freight routes (more than 1,000 articulated trucks per day)
   - Urban and rural connecting routes to form a network in which Other Major Facilities routes connect at both ends to Freeways or other Major Facilities routes

   Yes, Tangerine Road meets the fourth (bullet) criteria because it is an urban connecting route (it is classified as an urban principal arterial, according to federal functional classification) which forms a connection at both ends to a state highway, because it connects to Interstate 10 and SR-77. It does not connect to any rural National Highway System routes. While the route will serve freight traffic coming into/from the Catalina / Oro Valley area from the I-10, the specific volume of freight traffic is unknown.
10. Does this route meet criteria for “other statewide routes” (per Route Transfer and Level of Development Study), which includes:
   - Rural arterial and major collector routes with more than 1,500 ADT
   - Urban arterial routes with more than 5,000 ADT
   - Connecting routes necessary to form a network in which all other statewide routes connect with Freeways, other major facilities or other statewide routes
   - Not including business routes and other routes with parallel state highways of higher classification

Yes. Tangerine Road could carry between 44,300 vpd and 71,700 vpd if improved to an access-controlled facility. It will form a network connecting I-10 and SR 77 which would not be parallel to another state highway route.

11. Does this route meet criteria for “Non-Statewide routes” serving points of state and national interest (per Route Transfer and Level of Development Study).
Yes, Tangerine Road serves a number of points of state and national interest, including Catalina State Park and the Coronado National Forest.

Conclusions
Tangerine Road meets all the criteria for a state highway, with the exception of Criteria 5 (Interconnection with Routes of Other States). It meets the main criteria for designation as state highway because it would form the only continuous east-west access-controlled connection between I-10 and SR 77.

3.1.2 Tangerine Corridor with Connection to I-10 Via Camino De Manana
In this alternative, Tangerine Road is connected to I-10 via an access controlled connection on Camino de Manana (using a Tortolita Road alignment) which leads to the planned I-10 / Twin Peaks Road interchange.

A comparison of 2030 forecast traffic volumes between the base RTP network and the access controlled configuration can be summarized as follows:

<table>
<thead>
<tr>
<th>Road segment</th>
<th>PAG 2030 RTP Volumes (vehicles per day)</th>
<th>Special Loop 2030 Model (vehicles per day)</th>
<th>Change in traffic volume (vehicles per day) (Rounded to the nearest 100 vpd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangerine Road</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR 77 to Rancho Vistoso Blvd/First Avenue</td>
<td>20,000</td>
<td>44,700</td>
<td>+24,700</td>
</tr>
<tr>
<td>Rancho Vistoso Blvd/First Avenue to La Cholla Blvd.</td>
<td>28,000</td>
<td>71,000</td>
<td>+43,000</td>
</tr>
<tr>
<td>La Cholla Blvd. to Thornydale Road</td>
<td>42,000</td>
<td>58,996</td>
<td>+17,000</td>
</tr>
<tr>
<td>Thornydale Blvd to Tortolita Road</td>
<td>25,200</td>
<td>43,300</td>
<td>+18,100</td>
</tr>
<tr>
<td>Tortolita Road to I-10</td>
<td>30,400</td>
<td>26,017</td>
<td>-4,400</td>
</tr>
</tbody>
</table>
Road segment | PAG 2030 RTP Volumes (vehicles per day) | Special Loop 2030 Model (vehicles per day) | Change in traffic volume (vehicles per day) (Rounded to the nearest 100 vpd)
---|---|---|---
Tortolita Road, Tangerine to Camino De Manana | 9,600 | 31,600 | +22,000
Camino de Manana, Tortolita Road to I-10 | 17,100 | 32,643 | +15,500

The model results from the Special Loop 2030 Model indicate that Tangerine Road traffic grew by 40% to 124%, as an access controlled facility, with the exception of the segment between Tortolita Road and I-10. Camino de Manana traffic grew by 90% to 229% as an access controlled facility.

Analysis indicates that approximately 3,700 vehicles per day would be through trips between I-10 and Oracle Road (SR 77), using Camino de Manana. This indicates that the corridor will carry approximately 10% through trips as a six-lane access controlled facility in 2030.

A brief evaluation of the state highway criteria for Tangerine Road via Camino de Manana as an access controlled facility is provided as follows:

1. Has this road been designated as a state route? If yes, what are the specifics of the route designation? (Per ARS 28-101, 28-7041)
   Yes and no. As discussed in Section 3.1.1, Tangerine Road has been designated as a state route from I-10 to SR-77 and the segment from SR 77 to First Avenue has been designated as a state highway, but Camino de Manana and Tortolita Road have not been designated as state routes.

2. Does this road form a convenient or necessary link for connecting sections of state highways or for carrying state highways or state routes through cities or towns? (Per ARS 28-7049).
   Yes, Tangerine Road connects I-10 (a state highway) and SR 77 (a state highway) through the Towns of Marana and Oro Valley. In this alternative it will connect to I-10, via Camino De Manana (which leads to a planned I-10/Twin Peaks Road interchange).

3. Is this route primarily designed to carry through traffic? (Per State Transportation Board Policy No. 5).
   Yes, in its future design configuration, Tangerine Road and Camino de Manana will be access controlled facilities. There are estimated be approximately 3,700 through trips between I-10 and SR 77 using Camino de Manana and Tangerine Road.

4. Does this route connect Arizona’s population centers? (State Transportation Board Policy No. 5)
   Yes, Tangerine Road connects the Town of Marana and Oro Valley. It also provides access to the population centers of Saddlebrooke and the Town of Catalina.

5. Does this route interconnect with those of other states? (State Transportation Board Policy No. 5)
   No, Tangerine Road and Camino de Manana will not interconnect with state highways of other states.
6. Is this route a high-capacity connecting route needed to form an efficient network? (State Transportation Board Policy No.5)
Yes, as an access-controlled roadway, this is a high-capacity facility.

7. Does this route provide statewide and regional movement of people and goods? (State Transportation Board Policy No.16)
Yes, this facility will provide regional movement of people and goods by providing a regional route connecting from I-10 to SR 77 and SR 79.

8. Is this route designated as an Interstate Highway or Urban freeway (per Route Transfer and Level of Development Study)
Yes and no. As mentioned in Criteria 1, Resolution 86-01-A-10 (1/20/86) which designated Tangerine Road from I-10 to US 89 (now SR 77) as a state route noted that PAG adopted and approved the expansion of the PAG Regional Freeway/Expressway Plan to include this route, indicating that Tangerine Road is part of the PAG urban freeway system. However, Camino de Manana is not designated as an interstate highway or urban freeway.

9. Does this route meet criteria for “other major facilities” (per Route Transfer and Level of Development Study) which includes:
   - Rural routes with more than 5,000 ADT
   - Connecting rural National Highway System (NHS) routes with more than 1,500 ADT
   - Key freight routes (more than 1,000 articulated trucks per day)
   - Urban and rural connecting routes to form a network in which Other Major Facilities routes connect at both ends to Freeways or other Major Facilities routes

   Yes, Tangerine Road meets the fourth (bullet) criteria because it is an urban connecting route which forms a connection at both ends to a state highway, because it connects to Interstate 10 and SR 77.

10. Does this route meet criteria for “other statewide routes” (per Route Transfer and Level of Development Study), which includes:
    - Rural arterial and major collector routes with more than 1,500 ADT
    - Urban arterial routes with more than 5,000 ADT
    - Connecting routes necessary to form a network in which all other statewide routes connect with Freeways, other major facilities or other statewide routes
    - Not including business routes and other routes with parallel state highways of higher classification

   Yes, when widened Tangerine Road (an urban principal arterial) will carry between 44,300 vehicles per day, at the east end of the corridor, and an estimated 71,000 vpd between La Canada Drive and First Avenue. Camino de Manana is federally functionally classified as an urban collector route. At the west end of the corridor the Camino de Manana connection will carry an estimated 31,555 vpd to 33,450 vpd. Tangerine Road, between Camino de Manana and I-10, will carry an estimated 25,400 vpd to 26,400 vpd. It will form a network connecting I-10 and SR 77. It is not parallel to another state route.

11. Does this route meet criteria for “Non-statewide routes” serving points of state and national interest (per Route Transfer and Level of Development Study).
    Yes, Tangerine Road serves a number of points of state and national interest, including Catalina State Park and the Coronado National Forest.
Conclusions

The Tangerine Road corridor option of an access-controlled connection to Camino de Manana/Tortolita Road does not meet all the criteria for a state highway designation, primarily because of the status of Camino de Manana and Tortolita Road. Camino de Manana and Tortolita Road do not meet Criteria 1 (Designation as State Route) because they are not designated as state routes, which must be done prior to designation as a state highway. Camino de Manana and Tortolita Road do not meet Criteria 8 (Designation as an interstate highway or urban freeway). The entire corridor does not meet Criteria 5 (Interconnection with Routes of Other States). The provision of a Camino de Manana connection diverts approximately 23,000 vehicles per day from Tangerine Road at the west end of the corridor. These trips are more likely to be drivers seeking to travel into/from Tucson, or I-19 south, whereas those trips which remain on Tangerine Road are more likely to be traveling west on I-10.

3.2 Sahuarita Corridor, I-19 to I-10

As documented in the draft report for the PAG Southeast Area Arterial Study, a revised Sahuarita Corridor alignment was recommended as a new six-lane access controlled facility which connects with Interstate 19 (I-19) via a system interchange in the vicinity of El Toro Road (south of Sahuarita Road). The recommended facility extends east along the El Toro Road alignment and then turns north along the Wilmot Road alignment minimizing impacts to sensitive cultural areas as well as avoiding the Sahuarita Bombing Range. North of protected cultural resource areas, the freeway shifts to the Kolb Road alignment to provide continuity to areas north of I-10, and connects to the I-10/Kolb Road interchange. This corridor includes an east-west extension along the Andrada Road alignment from Wilmot Road to I-10 in the vicinity of SR-83 to provide future opportunities for a fully access controlled roadway connecting with I-10 to the east.

The 2030 Regional Transportation Plan includes the construction of a new limited access roadway on the eventual Sahuarita Corridor alignment, from I-19 to Wilmot Road. This specific corridor alignment was not modeled in the 2030 base RTP network at the time of this report.

A Special Loop Model run was conducted to determine traffic projections for the access controlled six-lane facility and the traffic forecasts are summarized below:

**East-West Segments (El Toro Road/Andrada Road alignment)**
- El Toro Road alignment (I-19 to Wilmot Road): 28,600 to 43,400 vpd
- Andrada Road, Kolb/Wilmot intersection to Houghton Road: 53,300 vpd
- Andrada Road, Houghton Road to I-10/SR 83 interchange: 17,800 vpd

**North-South Segment (Wilmot Road/Kolb Road alignment)**
- Wilmot Road alignment (El Toro Road to Andrada Road): 40,800 to 95,150 vpd
- Kolb Road alignment (Andrada Road to I-10): 93,000 to 106,260 vpd

These results indicate that the Sahuarita Corridor will carry significant traffic volumes through the corridor, particularly the north-south segment of the corridor. A brief evaluation of the state highway criteria for the Sahuarita corridor is summarized as follows:
1. Has this road been designated as a state route? If yes, what are the specifics of the route designation? (Per ARS 28-101, 28-7041)
No. The Sahuarita Corridor was designated as the Sahuarita Road Highway, SR 982 from I-19 east to I-10 under Resolution 86-01-A-08 (1/20/86). The resolution states that the State Route Plan is to be established, adopted, and approved as shown in Appendix A of the resolution, which shows the state route located on the Sahuarita Road alignment, and veering northeast to connect to the I-10/SR 83 interchange (Mountain View interchange). Kolb Road and Wilmot Road south of I-10 are not designated as state routes. Although the specific corridor is not designated as a state route, the idea of a Sahuarita corridor as a state route is embodied in Resolution 86-01-A-08.

2. Does this road form a convenient or necessary link for connecting sections of state highways or for carrying state highways or state routes through cities or towns? (Per ARS 28-7049).
Yes, the Sahuarita Corridor will connect I-19 (an interstate facility), I-10 (an interstate facility), and State Route 83 (a state highway), and provides access through the Town of Sahuarita.

3. Is this route primarily designed to carry through traffic? (Per State Transportation Board Policy No. 5).
Yes. In 2030 the east-west alignment is anticipated to carry approximately 10,000 through trips per day between I-19 and the Houghton Road/I-10 area, representing 17% to 50% through trips. The north-south segment of the corridor, via Wilmot Road/Kolb Road is anticipated to carry 30,000 through trips per day from the Sahuarita area to I-10 and areas north of I-10, representing 27% to 60% through trips. It will provide a through route for freight movement to and from Mexican Ports of Entry.

4. Does this route connect Arizona’s population centers? (State Transportation Board Policy No. 5)
Yes, the Sahuarita Corridor will connect the Town of Sahuarita with Davis-Monthan Air Force Base and the Tucson metropolitan area north of I-10. It also connects growth areas on Tucson’s southeast area, including the Southlands area, and the University of Arizona Technology Park, located north of I-10 between Kolb Road and Rita Road. This corridor also provides better access to the Tohono O’odham Nation, San Xavier District, located west of I-19. It provides connections to new growth areas east of Tucson, such as the Benson area.

5. Does this route interconnect with those of other states? (State Transportation Board Policy No. 5)
No, the Sahuarita corridor will not interconnect with state highways of other states.

6. Is this route is a high-capacity connecting route needed to form an efficient network? (State Transportation Board Policy No.5)
Yes. Future 2030 projected traffic volumes range from 18,000 to 43,000 vehicles per day on the east-west corridor roadways and from 41,000 and 106,000 vehicles per day on the north/south corridor segment. It is needed to form a network connection in the rapidly growing Sahuarita area and Southlands area. The corridor will provide east-west and north/south connectivity in the future southern Tucson metropolitan area, forming a link between I-19 and I-10.

7. Does this route provide statewide and regional movement of people and goods? (State Transportation Board Policy No.16)
Yes, this corridor will facilitate regional movement because it will connect I-19, I-10 and SR 83, and it will serve the growing area of Sahuarita and the Southlands growth areas, as well as growth in Santa Cruz County. It will serve statewide travel because it will provide a better transportation system to serve the Puerto Nuevo area and the Tucson International Airport area. It will also serve as a freight route,
reducing truck traffic on SR 83 and through central Tucson. This route provides an interstate travel benefit, by serving as a southwest passage for trucks traveling from Nogales and east to I-10.

8. Is this route designated as an Interstate Highway or Urban freeway (per *Route Transfer and Level of Development Study*)
No, this facility is not designated as an interstate highway or urban freeway.

9. Does this route meet criteria for “other major facilities” (per *Route Transfer and Level of Development Study*) which includes:
   - Rural routes with more than 5,000 ADT
   - Connecting rural National Highway System (NHS) routes with more than 1,500 ADT
   - Key freight routes (more than 1,000 articulated trucks per day)
   - Urban and rural connecting routes to form a network in which other major facilities routes connect at both ends to Freeways or other major facilities routes

Yes, the Sahuarita Corridor meets the fourth (bullet) criteria because it is an urban connecting route which forms a connection at both ends to a state highway, because it connects to Interstate 10 (at Kolb Road and at the Mountain View interchange), SR 83 and Interstate 19 (part of the Canamex Corridor). Although truck data is not available, it would provide a route for trucks traveling to/from Mexico and areas east of Tucson. Additionally, Kolb Road is a National Highway System Route (NHS) between I-10 and Sunrise Drive, so the north/south connection of this corridor links to a NHS route.

10. Does this route meet criteria for “other statewide routes” (per *Route Transfer and Level of Development Study*), which includes:
   - Rural arterial and major collector routes with more than 1,500 ADT
   - Urban arterial routes with more than 5,000 ADT
   - Connecting routes necessary to form a network in which all other statewide routes connect with Freeways, other major facilities or other statewide routes
   - Not including business routes and other routes with parallel state highways of higher classification

Yes, when constructed, the Sahuarita Corridor will consist of urban arterial routes with more than 5,000 vehicles per day, and it will be a connecting route which will form a network linking I-10, I-19, and SR 83.

11. Does this route meet criteria for “Non-Statewide routes” serving points of state and national interest (per *Route Transfer and Level of Development Study*).

Yes, the Sahuarita Corridor will serve the following points of state or national interest:
   - The Tucson International Airport (TIA) is the only commercial service airport in Pima County and has about 69 flights depart from TIA on a typical day.
   - There are currently three prisons within the Southeast Area: the Arizona State Correctional Facility, the Federal Medium Security Prison, and the US Penitentiary. All three are located along Wilmot Road south of I-10.
- The Pima County Southeast Regional Park, which is managed by Pima County Parks and Recreation Department, includes the Pima County Fair Grounds, the Southwestern International Raceway, the Tucson Raceway Park, and is planned to include a dirt track, a shooting range, and sports fields.

- Puerto Nuevo is planned to be a multidimensional inland port with facilities in the Southeast Area that will serve local, regional, and international trade. The Tucson-Mexico Trade Office, an organization under the City of Tucson, is the lead on Puerto Nuevo.

- University of Arizona Science and Technology Park and Davis Monthan Air Force Base are both major employers in the vicinity of the corridor.

Conclusions
The Sahuarita Corridor (although not the specific alignment under consideration) meets many of the criteria for a state highway, with the exception of Criteria 1 (Designation as a State Route), Criteria 5 (Interconnection Route with Those of Other States) and Criteria 8 (Designation as an interstate highway or urban freeway). The corridor does not meet Criteria 1 because the east-west segment of the corridor was designated as a state route on the Sahuarita Road alignment and the Kolb Road/Wilmot Road connection to the north is not designated as a state route. The Sahuarita Corridor forms a system which links I-10 (at the Kolb Road interchange and Mountain View interchange), I-19, and SR 83 through the Town of Sahuarita.

The final preferred alignment for the Sahuarita Corridor needs to be specifically designated as a state route to meet the basic criteria for a state highway.

3.3 Loop Corridor (Houghton Road, Golf Links Road, Alvernon Way, and Swan Road)
This Loop Corridor consists of Houghton Road, Golf Links Road, Alvernon Way and Swan Road. (The Sahuarita Corridor “closes” this loop on the south). Each roadway segment comprising the Loop Corridor was analyzed to determine if it met the criteria for a state highway designation.

3.3.1 Houghton Road, Golf Links Road to Andrada Road
Houghton Road is currently a two-lane facility, which carries approximately 19,200 vehicles per day (vpd) between Golf Links Road and Escalante Road and 4,200 vpd south of I-10 (2002 counts). In the 2030 Regional Transportation Plan (RTP), Houghton Road improvements include widening between Sahuarita Road and Old Vail Road (two-lanes to four-lanes), widening between Old Vail Road and Old Spanish Trail (two-lanes to six lanes) and widening from Old Spanish Trail and Snyder Road (from two-lanes to four lanes). Future (2030) RTP traffic volume projections on Houghton Road including these improvements are:

- Houghton Road
  - Golf Links Road to Valencia Road: 80,200 vpd
  - Valencia Road to I-10: 64,600 vpd
  - I-10 to Pima Mine Road: 50,700 vpd
As part of the special focus Loop Corridor, Houghton Road was modeled as an access controlled facility between Golf Links Road and Andrada Road. A comparison of traffic volume projections between the base RTP network and the access controlled configuration that was modeled in the Special Loop 2030 Model are:

<table>
<thead>
<tr>
<th>Road segment</th>
<th>PAG 2030 RTP Volumes (vehicles per day)</th>
<th>Special Loop 2030 Model (vehicles per day)</th>
<th>Change in traffic volume (vehicles per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Houghton Road</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Golf Links Road to Valencia</td>
<td>80,200</td>
<td>135,200</td>
<td>+55,000</td>
</tr>
<tr>
<td>Road</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valencia Road to I-10</td>
<td>64,600</td>
<td>140,100</td>
<td>+75,500</td>
</tr>
<tr>
<td>I-10 to Andrada Road</td>
<td>50,700</td>
<td>83,300</td>
<td>+32,600</td>
</tr>
</tbody>
</table>

These traffic volume projections indicate that Houghton Road traffic will increase by 64% to 116% as an access controlled facility.

An analysis of through trips indicated that the access controlled Houghton Road alignment will carry approximately 5,000 through vehicle trips per day from I-19 to I-10 and north, 15,000 through vehicle trips per day between Sahuarita and I-10 north, and 25,000 through vehicle trips per day from Golf Links Road and points north to I-10 and points south of I-10.

A brief evaluation of the state highway criteria for Houghton Road as an access-controlled facility is summarized as follows:

1. Has this route been designated as a State Route? If yes, what are the specifics of the route designation (per ARS 28-101, 28-7041)
   Yes, Houghton Road, from Sahuarita Road to Golf Links Road, was designated as State Route 983, per Resolution Number 86-01-A-08 on January 20, 1986.

2. Does this road form a convenient or necessary link for connecting sections of state highways or for carrying state highways or state routes through cities or towns? (Per ARS 28-7049).
   Yes, Houghton Road will form a convenient and necessary north-south link between the City of Tucson and the Town of Sahuarita, Corona de Tucson, and the growing southeast area. Houghton Road will intersect with the Sahuarita Corridor (a state route), I-10 (a state highway), Valencia Road (a state route), Golf Links Road (a state route) and further north, Grant Road (a state route).

3. Is this route primarily designed to carry through traffic? (Per State Transportation Board Policy No. 5)
   Yes, as part of the Loop Corridor, Houghton Road would be an access-controlled facility. Future (2030) traffic volume projections indicate that Houghton Road will carry approximately 5,000 through vehicle trips per day between I-19 and I-10 and areas north, 15,000 through vehicle trips per day between the Town of Sahuarita and I-10 and areas north, and 25,000 through vehicle trips per day between Golf Links Road (and areas north) and I-10 (and areas south of I-10).
4. Does this route connects population centers (Per State Transportation Board Policy No. 5)
Yes. Houghton Road connects the City of Tucson and the Town of Sahuarita, Corona de Tucson and the southeast area. Improving Houghton Road in the future will enhance this connection and will connect the Houghton Road growth areas and the Southlands growth area.

5. Does this route interconnect with those of other states? (State Transportation Board Policy No. 5)
No, Houghton Road does not connect with state highways or routes of other states.

6. Is this route a high-capacity connecting route needed to form an efficient network? (State Transportation Board Policy No. 5)
Yes, future traffic volume projections indicate this will be a heavily used route. It is needed to form an efficient network because of its north/south connectivity.

7. Does this route provide statewide and regional movement of people and goods? (State Transportation Board Policy No.16)
Yes, Houghton Road provides regional movement of people and goods by providing a north/south route between the City of Tucson and growing areas south of I-10. It provides statewide traffic movement via linkages with Interstate 10. The Houghton Road connection to the Sahuarita Corridor also provides a link to Interstate 19.

8. Is this route designated as an Interstate Highway or Urban freeway (per Route Transfer and Level of Development Study)
Yes, as mentioned in Criteria 1, Resolution 86-01-A-07 (1/20/86) which designated Houghton Road from Golf Links Road to Sahuarita Road as a state route noted that PAG adopted and approved the expansion of the PAG Regional Freeway/Expressway Plan to include this route, indicating it is part of the PAG urban freeway system.

9. Does this route meet criteria for “other major facilities” (per Route Transfer and Level of Development Study) which includes:
- Rural routes with more than 5,000 ADT
- Connecting rural National Highway System (NHS) routes with more than 1,500 ADT
- Key freight routes (more than 1,000 articulated trucks per day)
- Urban and rural connecting routes to form a network in which other major facilities routes connect at both ends to freeways or other major facilities routes

Yes, when reconstructed, this route will function as an urban arterial, and future truck traffic on this route is unknown. Currently, between Golf Links Road and Andradia Road, Houghton Road has a mix of both rural and urban functional classifications. It does not connect at either ends to Freeways or other major facilities (state highways), however, it connects to state routes at both ends (Golf Links Road and Sahuarita Road). It should be noted that Houghton Road itself, between I-10 and Golf Links Road, is a designated National Highway system route (the segment between I-10 and Old Vail Road is a rural NHS route), and it connects to another designated National Highway System route, Golf Links Road.

10. Does this route meet criteria for “other statewide routes” (per Route Transfer and Level of Development Study) which includes:
- Rural arterial and major collector routes with more than 1,500 ADT
- Urban arterial routes with more than 5,000 ADT
- Connecting routes necessary to form a network in which all other statewide routes connect with Freeways, other major facilities or other statewide routes
- Not including business routes and other routes with parallel state highways of higher classification

Yes, this is an urban arterial route which is projected to carry up to 140,000 vehicles per day. It is not parallel with any state highways of higher classification. The high projected volumes on this link demonstrate that it is a necessary linkage connecting I-10 and other state routes, including the Sahuarita Corridor, Golf Links Road, and Valencia Road.

11. Does this route meet criteria for “Non-Statewide routes” serving points of state and national interest (per Route Transfer and Level of Development Study).

Yes, Houghton Road serves a number of points of state and national interest. It connects Interstate 10 to the Coronado National Forest on both the north and south ends of the roadway. It serves the Pima County Fairgrounds, provides a connection to the Davis Monthan Air Force Base, via Irvington Road and Golf Links Road, and provides access to the Mount Lemmon / Summerhaven area from the south.

Conclusions

Houghton Road meets all the criteria for a state highway, with the exception of Criteria 5 (Interconnection Route with Those of Other States). As part of this special focus Loop Corridor, Houghton Road would qualify as a state highway, because it is a projected high volume route serving as an important linkage between I-10, and the Sahuarita Corridor (if designated as a state highway), and the Southlands growth area.

3.3.2 Golf Links Road, Aviation Parkway to Houghton Road

Golf Links Road is currently a six-lane divided arterial roadway between Alvernon Way and Harrison Road and a four-lane divided facility between Harrison Road and Houghton Road. The federal functional classification of Golf Links Road between Alvernon and Kolb Road is an Urban Other Freeway. The federal functional classification of Golf Links Road between Kolb Road and Houghton Road is an Urban Principal Arterial. Current (2003) average daily traffic volumes on Golf Links Road are between 48,000 and 58,000 vehicles per day (vpd) from Alvernon Way to Wilmot Road and between 27,600 and 44,900 vpd from Wilmot Road to Harrison Road. Existing traffic volumes along Golf Links Road between Harrison Road and Houghton Road were 11,500 vpd in 2003.

According to the 2030 Regional Transportation Plan, intersection improvements are planned at the intersections of Golf Links Road/Swan Road, and Golf Links Road/Wilmot Road and Golf Links Road/Kolb Road. These intersection improvements involve the addition of turn lanes at all three intersections, and traffic signal improvement at Golf Links/ Kolb Road. Another planned project is a traffic interchange improvement at the Golf Links Road / Barraza Aviation Parkway / Alvernon traffic interchange. Traffic projections from the 2030 network based on these improvements indicate that Golf Links Road will carry 51,900 vehicles per day between the Barraza-Aviation Parkway and Kolb Road, and approximately 33,200 vpd between Harrison Road and Houghton Road.
Future (2030) RTP model projected two-way traffic volumes are:

**Golf Links Road**
- Barraza-Aviation Parkway to Swan Road: 52,000 vpd
- Swan Road to Craycroft Road: 53,500 vpd
- Craycroft Road to Wilmot Road: 51,900 vpd
- Wilmot Road to Kolb Road: 43,500 vpd
- Kolb Road to Houghton Road: 46,000 vpd

A comparison of the base RTP and the special loop 2030 model are summarized as follows:

<table>
<thead>
<tr>
<th>Road segment</th>
<th>PAG 2030 RTP Volumes (vehicles per day)</th>
<th>Special Loop 2030 Model (vehicles per day)</th>
<th>Change in traffic volume (vehicles per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Golf Links Road</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barraza-Aviation Parkway to Swan Road</td>
<td>52,000</td>
<td>50,600</td>
<td>-1,400</td>
</tr>
<tr>
<td>Swan Road to Craycroft Road</td>
<td>53,500</td>
<td>121,000</td>
<td>+67,500</td>
</tr>
<tr>
<td>Craycroft Road to Wilmot Road</td>
<td>51,900</td>
<td>127,500</td>
<td>+75,600</td>
</tr>
<tr>
<td>Wilmot Road to Kolb Road</td>
<td>43,500</td>
<td>126,500</td>
<td>+83,000</td>
</tr>
<tr>
<td>Kolb Road to Houghton Road</td>
<td>46,000</td>
<td>110,700</td>
<td>+64,700</td>
</tr>
</tbody>
</table>

These traffic projections indicate that east of Swan Road, Golf Links Road traffic will increase by 126% to 191% as an access controlled facility.

An analysis of through trips indicated that approximately 35,000 vehicle trips per day are estimated to be through trips between Houghton Road and the connection to the Barraza-Aviation Parkway and Alvernon Way. This represents approximately 27% to 35% through trips.

A brief evaluation of the state highway criteria for Golf Links Road is provided as follows:

1. Has this road been designated as a state route? If yes, what are the specifics of the route designation? (Per ARS 28-101, 28-7041)
   
   Yes, Golf Links Road has been designated as a state route, SR 810. This designation was made under two separate resolutions. Resolution number 82-03-A-17 (4/16/82) was a resolution of clarification and reaffirmation that the corridor portion of the Butterfield Parkway (State Route 810, originally designated by Highway Commission Resolution 71-21) between Alvernon Way and Pantano Parkway be renamed as the Golf Links Corridor Route (Alvernon Way to Camino Seco). Resolution 86-01-A-11 (1/20/86) designated SR 810 as the Golf Links Extension Highway, from Camino Seco east to Houghton Road. Golf Links Road, between Alvernon Way and Houghton Road is also part of the National Highway System, and it is a part of the Major Strategic Corridor Network (STRAHNET).
2. Does this road form a convenient or necessary link for connecting sections of state highways or for carrying state highways or state routes through cities or towns? (Per ARS 28-7049).
Yes, Golf Links Road provides a necessary link between the Barraza Aviation Parkway (SR 210) and Houghton Road (SR 983). This is demonstrated by the large forecast 2030 traffic volumes, particularly between Swan Road and Kolb Road, which are in excess of 120,000 vpd. It will effectively extend the Barraza-Aviation corridor east to Houghton Road and south to the Sahuarita Corridor, and will increase the effectiveness of the Barraza-Aviation Parkway as a route to the Tucson Central Business District.

3. Is this route primarily designed to carry through traffic? (Per State Transportation Board Policy No. 5)
Yes, this facility would be designed as an access controlled facility. As mentioned above, 2030 through trips are estimated to be approximately 35,000 vehicle trips per day between Houghton Road and the connection to the Barraza-Aviation Parkway and Alvernon Way, representing 27% to 35% through trips.

4. Does this route connect Arizona’s population centers? (State Transportation Board Policy No. 5)
Yes, it would connect the Houghton Road growth area with central Tucson and the downtown businesses.

5. Does this route interconnect with those of other states? (State Transportation Board Policy No. 5)
No, Golf Links Road does not interconnect with routes in other states.

6. Is this route a high capacity connecting route needed to form an efficient network? (State Transportation Board Policy No. 5)
Yes, as an access controlled facility, future (2030) traffic forecasts indicate it will carry between 50,600 and 127,500 vehicles per day.

7. Does this route provide statewide and regional movement of people and goods? (State Transportation Board Policy No. 16)?
Yes, this route provides regional movement of people and goods via connections to the Barraza-Aviation Parkway (SR 210) and Houghton Road (SR 983).

8. Designated as Interstate Highway or Urban freeway? (Per Route Transfer and Level of Development Study)
Yes, Golf Links Road is designated as an urban other freeway, between Alvernon Way and Kolb Road. Between Kolb Road to Houghton Road, it is designated as an urban principal arterial. Resolution 86-01-A-11 (1/20/86) which designated the Golf Links Extension Highway from Camino Seco to Houghton Road as a state route noted that PAG adopted and approved the expansion of the PAG Regional Freeway/Expressway Plan to include this route, indicating it is part of the PAG urban freeway system. So the majority of the route is classified as an urban freeway.

9. Does this route meet criteria for “Other Major facilities” (Per Route Transfer and Level of Development Study)?
- Rural routes with more than 5,000 ADT
- Connecting rural National Highway System (NHS) routes with more than 1,500 ADT
- Key freight routes (more than 1,000 articulated trucks per day)
Urban and rural connecting routes to form a network in which other major facilities routes connect at both ends to Freeways or other major facilities routes (state highways)

No, Golf Links Road, an urban route, connects only at one end to a state highway (Barraza-Aviation Parkway) and connects at the east end to Houghton Road (SR 983), a state route (but not a state highway).

10. Does this route meet criteria for “other statewide routes” (Per Route Transfer and Level of Development Study).

- Rural arterial and major collector routes with more than 1,500 ADT
- Urban arterial routes with more than 5,000 ADT
- Connecting routes necessary to form a network in which all other statewide routes connect with Freeways, Other major facilities or other statewide routes
- Not including business routes and other routes with parallel state highways of higher classification

Yes, Golf Links Road is an urban arterial route which will provide a connecting route between the Barraza-Aviation Parkway (SR 210) and Houghton Road (SR 983).

11. Does this route meet criteria for “Non-Statewide routes” serving points of state and national interest. (Per Route Transfer and Level of Development Study).

Yes, Golf Links Road directly serves Davis Monthan Air Force Base, which is a military facility of state and national interest. Between Alvernon Way and Houghton Road, it is a part of the Major Strategic Corridor Network (STRAHNET), which is identified by the Department of Defense in cooperation with USDOT. These routes are designed to mobilize resources for national defense. It is also a National Highway System route.

Conclusions
Golf Links Road meets all the criteria for a state highway, with the exception of Criteria 5 (Interconnection Route with Those of Other States), and Criteria 9 (Criteria for “Other Major Facilities”).

3.3.3. Alvernon Way, Barraza Aviation Parkway to El Toro Road (Via Swan Road)

As part of the special focus Loop Corridor, Alvernon Way and Swan Road form a north / south access controlled facility between the Barraza-Aviation Parkway and the El Toro Road alignment of the Sahuarita corridor. Alvernon Way transitions to a Swan Road alignment at approximately Los Reales Road.

Alvernon Way between Golf Links Road and Drexel Road is currently a four-lane divided roadway carrying approximately 23,000 to 54,500 vehicles per day, based on 2003 counts. Between Drexel Road and Valencia Road, Alvernon Way is a four lane roadway with a center left turn lane. Existing (2004) traffic volumes on this segment range from 17,000 to 23,000 vehicles per day. South of Valencia Road,
Alvernon Way is a two-lane, undivided facility. No current traffic counts were available for this segment.

Swan Road is a two-lane undivided roadway between Los Reales Road and Old Vail Road. No traffic counts were available for this road segment.

The 2030 Regional Transportation Plan includes construction of a new four-lane roadway on the Swan Road alignment from Old Vail Road to the Alvernon/Valencia intersection, for a length of 4.61 miles. There are no improvements planned on Alvernon Way, within the study area. The future (2030) RTP traffic volumes are summarized as follows:

Alvernon Way
Aviation Parkway to Ajo Way: 34,100 vpd
Ajo Way to I-10: 10,100 vpd
I-10 to Benson Highway: 10,100 vpd
Benson Highway to Valencia Road: 38,000

Swan Road
Valencia Road to Old Vail Road: 49,300 vpd

As part of the special focus Loop Corridor assessment, this facility was modeled as an access controlled facility, between the Barraza- Aviation Parkway and El Toro Road. A comparison of the base 2030 RTP volumes and 2030 traffic volumes under the future access controlled configuration are summarized as follows:

<table>
<thead>
<tr>
<th>Road segment</th>
<th>PAG 2030 RTP Volumes (vehicles per day)</th>
<th>Special Loop 2030 Model (vehicles per day)</th>
<th>Change in traffic volume (vehicles per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alvernon Way</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aviation Parkway to Ajo Way</td>
<td>34,100</td>
<td>40,100</td>
<td>+6,000</td>
</tr>
<tr>
<td>Ajo Way to I-10</td>
<td>10,100</td>
<td>114,200</td>
<td>+104,100</td>
</tr>
<tr>
<td>I-10 to Benson Highway</td>
<td>10,100</td>
<td>113,700</td>
<td>+103,600</td>
</tr>
<tr>
<td>Benson Highway to Valencia Road</td>
<td>38,000</td>
<td>110,740</td>
<td>+72,740</td>
</tr>
<tr>
<td><strong>Swan Road</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valencia Road to Old Vail Road</td>
<td>49,300</td>
<td>129,900</td>
<td>+80,300</td>
</tr>
<tr>
<td>Old Vail Road to Pima Mine Road</td>
<td>Not included</td>
<td>87,900</td>
<td>+87,900</td>
</tr>
<tr>
<td>Pima Mine Road to El Toro Road</td>
<td>Not included</td>
<td>28,200</td>
<td>+28,200</td>
</tr>
</tbody>
</table>

This comparison clearly shows that constructing and widening the corridor to an access controlled facility will result in traffic volume increases of 17% to over 1000% in some segments of Alvernon Way.
An analysis of through trips indicated that in 2030 the route will attract approximately 10,000 through trips between I-19 and I-10 and areas north (this represents 8% to 14% through trips), and approximately 20,000 through trips per day between Sahuarita and I-10 and areas north (this represents 17% to 29% through trips).

A brief evaluation of the state highway criteria for these segments of Alvernon Way and Swan Road are:

1. Has this road been designated as a state route? If yes, what are the specifics of the route designation? (Per ARS 28-101, 28-7041)
   Yes and No. Alvernon Way is designated as a state route (State Route 489) between Valencia Road and Grant Road, per Resolution Number 86-01-A-05, dated 1/20/86. Swan Road is not designated as a state route.

2. Does this road form a convenient or necessary link for connecting sections of state highways or for carrying state highways or state routes through cities or towns? (Per ARS 28-7049)
   Yes, this north/south route connects the Barraza-Aviation highway (SR 210) to the Sahuarita Corridor, with a connection to I-10.

3. Is this route primarily designed to carry through traffic? (Per State Transportation Board Policy No. 5)
   Yes, as an access controlled facility, it is primarily designed to carry through traffic. As mentioned previously, the 2030 traffic forecasts indicate that the corridor will serve approximately 10,000 through trips between I-19 and I-10 and areas north (this represents 8% to 14% through trips), and approximately 20,000 through trips per day between the Town of Sahuarita and I-10 and areas north of I-10 (this represents 17% to 29% through trips).

4. Does this route connect Arizona’s population centers? (State Transportation Board Policy No. 5)
   Yes, this route connects Tucson, Sahuarita, and the Southlands growth area.

5. Does this route interconnect with those of other states? (State Transportation Board Policy No. 5)
   No, Swan Road does not connect to routes of other states.

6. Is this route a high capacity connecting route needed to form an efficient network? (State Transportation Board Policy No. 5)
   Yes, this route will attract significant forecast traffic volumes, up to 129,900 vehicles per day.

7. Does this route provide statewide and regional movement of people and goods? (State Transportation Board Policy No. 16)
   Yes, this route provides regional movement of people and goods by facilitating travel from the central area of Tucson to the southern area of Tucson, and to the Town of Sahuarita. It provides access to I-10 and the Barraza-Aviation Parkway from the airport area and from the Sahuarita area, as evidenced by the high projected traffic volumes on this route.

8. Designated as Interstate Highway or Urban freeway? (Per Route Transfer and Level of Development Study)
   Yes and No. Swan Road is not designated as an Interstate Highway or urban freeway, however, Resolution 86-01-A-05 (1/20/86) which designated the Alvernon Way Highway from Grant Road to Valencia Road as a state route noted that PAG adopted and approved the expansion of the PAG
Regional Freeway/ Expressway Plan to include this route, indicating it is part of the PAG urban freeway system. So part of this route is classified as an urban freeway.

9. Does this route meet criteria for “other major facilities” includes (Per Route Transfer and Level of Development Study).

- Rural routes with more than 5,000 ADT
- Connecting rural National Highway System (NHS) routes with more than 1,500 ADT
- Key freight routes (more than 1,000 articulated trucks per day)
- Urban and rural connecting routes to form a network in which other major facilities routes connect at both ends to freeways or other major facilities routes (e.g. state highways)

No, the Alvernon /Swan Road alignment is an urban connecting route which does not connect two state highways. It connects one state highway, the Barraza-Aviation Parkway (SR 210) and the Sahuarita Corridor (SR 982), a state route on the Sahuarita corridor alignment. Anticipated freight traffic on this route is unknown.

10. Does this route meet criteria for “other statewide routes” includes (Per Route Transfer and Level of Development Study).

- Rural arterial and major collector routes with more than 1,500 ADT
- Urban arterial routes with more than 5,000 ADT
- Connecting routes necessary to form a network in which all other statewide routes connect with Freeways, Other major facilities or other statewide routes
- Not including business routes and other routes with parallel state highways of higher classification

Yes, this route is an urban arterial route that carries between 28,000 to 129,900 vpd. This route forms a network that connect the Barraza-Aviation Parkway to the Sahuarita Corridor

11. Does this route meet criteria for “Non-Statewide routes” serving points of state and national interest. (Per Route Transfer and Level of Development Study).

Yes, this route will provide a connection to the Tucson International Airport. It also provides access to Davis-Monthan Air Force Base from the rapidly growing Southlands area.

Conclusions
Alvernon Way/Swan Road meets all the criteria for a state highway, with the exception of Criteria 5 (Interconnection Route with those of other states) and Criteria 9 (Criteria for “Other Major Facilities”). Criteria 1 (Designation of a State Route) is partially met (Alvernon Way has been designated as a state route, Swan Road has not been designated) and Criteria 8 (Designation as an interstate highway or urban freeway is partially met.
3.4 Barraza - Aviation Corridor Extension, Golf Links Road to I-10

The Barraza-Aviation Parkway is currently a State Highway (SR 210) between Broadway Boulevard to Alvernon /Golf Links Road. The Barraza-Aviation Parkway is a 6-lane divided roadway between Broadway Boulevard and 22nd Street, which carries between 23,700 vehicles per day and 28,800 vehicles per day. The eastern half of the Barraza-Aviation Parkway, between 22nd Street and Golf Links Road, is a four-lane facility which carries traffic volumes of 27,800 to 30,300 vehicles per day. The federal functional classification of the Barraza-Aviation Parkway is an urban other freeway. Currently the Barraza-Aviation Parkway terminates at Golf Links Road.

The Draft 2030 Regional Transportation Plan lists a four-phase project for the Barraza-Aviation Parkway:
- Phase 1 – Broadway to Church - extend parkway
- Phase 2 – 6th Avenue Underpass - construct grade separation
- Phase 3 – I-10 to Church via St. Mary’s - design and construct new roadway
- Phase 4 – Stone Avenue Underpass - design and construct new underpass

The special focus corridor concept for this facility is to extend the Barraza-Aviation Parkway south from Golf Links Road to an interchange connection with I-10 and Valencia Road. This connection is part of the base RTP 2030 network, and is projected to carry the following two-way daily traffic volumes:

<table>
<thead>
<tr>
<th>Barraza-Aviation Parkway</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Broadway to 22nd Street</td>
<td>67,600 vpd</td>
</tr>
<tr>
<td>22nd Street to Golf Links Road</td>
<td>56,000 vpd</td>
</tr>
<tr>
<td>Golf Links Road to Ajo Way</td>
<td>50,400 vpd</td>
</tr>
<tr>
<td>Ajo Way to Valencia Road</td>
<td>51,100 vpd</td>
</tr>
</tbody>
</table>

This extension is estimated to attract approximately 3,000 through trips per day between I-10 (near downtown) and I-10 (near the Valencia Road area). This represents between 4% and 20% of the trips on the corridor.

A brief analysis of the state highway criteria for the extension of this corridor is summarized as follows:

1. Has this road been designated as a state route? If yes, what are the specifics of the route designation? (Per ARS 28-101, 28-7041)
   No, the extension of Barraza-Aviation from Golf Links Road to Valencia Road has not been designated as a state route. Resolution 82-03-A-17, dated 4/16/82, designates Aviation Corridor as State Route 210 from I-10 at St. Mary’s Road east to Alvernon Way. Resolution 83-03-A-09 designates SR 810 as Aviation Corridor/Golf Links Road, described as comprising Golf Links Road (Alvernon Way to Camino Seco).

2. Does this road form a convenient or necessary link for connecting sections of state highways or for carrying state highways or state routes through cities or towns? (Per ARS 28-7049).
   Yes, this extension would connect I-10 at two points: Valencia Road and via St. Mary’s Road.
3. Is this route primarily designed to carry through traffic? (Per State Transportation Board Policy No. 5)
Yes, this route is access-controlled currently, and the extension is planned to be access controlled. This extension is estimated to attract approximately 3,000 through trips per day between I-10 (near downtown) and I-10 (near the Valencia Road area). This represents between 4% and 20% of the trips on the corridor.

4. Does this route connect Arizona’s population centers? (State Transportation Board Policy No. 5)
Yes, it connects the central Tucson business district with the Davis-Monthan Air Force Base and I-10, and would provide access to the airport area.

5. Does this route interconnect with those of other states? (State Transportation Board Policy No. 5)
No, it does not connect with state highways of other states.

6. Is this route a high capacity connecting route needed to form an efficient network? (State Transportation Board Policy No. 5)
Yes, with a high capacity connecting route through downtown Tucson, it will form an efficient network. It will provide a connecting link to Alvernon Way and areas to the north from I-10.

7. Does this route provide statewide and regional movement of people and goods? (State Transportation Board Policy No. 16)
Yes, this route provides regional movement of persons and goods by facilitating travel from the downtown area of Tucson to the southeast area of Tucson.

8. Is this route designated as Interstate Highway or Urban freeway? (Per Route Transfer and Level of Development Study)
Yes and No. The existing Barraza-Aviation parkway is classified as an urban other freeway. The extension of the Barraza-Aviation Parkway has not been classified. When constructed, it will likely be classified as an urban other freeway.

9. Does this route meet criteria for “other Major facilities” (Per Route Transfer and Level of Development Study), which includes:
   - Rural routes with more than 5,000 ADT
   - Connecting rural National Highway System (NHS) routes with more than 1,500 ADT
   - Key freight routes (more than 1,000 articulated trucks per day)
   - Urban and rural connecting routes to form a network in which Other Major Facilities routes connect at both ends to Freeways or other Major Facilities (e.g. state highway) routes

Yes, the Barraza-Aviation Parkway is an urban connecting route to Interstate-10. It will also connect to Valencia Road (a state route) at the south end of the route, Golf Links Road (a state route), and Alvernon Way (a state route).

10. Does this route meet criteria for “other statewide routes” (Per Route Transfer and Level of Development Study), which includes:
   - Rural arterial and major collector routes with more than 1,500 ADT
   - Urban arterial routes with more than 5,000 ADT
   - Connecting routes necessary to form a network in which all other statewide routes connect with Freeways, Other major facilities or other statewide routes.
- Not including business routes and other routes with parallel state highways of higher classification

Yes, this extension will provide a connecting route necessary to form a network to connect I-10.

11. Does this route meet criteria for “Non-Statewide routes” serving points of state and national interest. (Per Route Transfer and Level of Development Study).

Yes, this route serves points of statewide and national interest including Davis-Monthan Air Force Base, and the downtown governmental center of Tucson, the Pima Air and Space Museum, and the Tucson International Airport. Between Broadway Boulevard and Alvernon Way, the Barraza-Aviation Parkway is a part of the Major Strategic Corridor Network (STRAHNET), which is identified by the Department of Defense in cooperation with USDOT. These routes are designed to mobilize resources for national defense. It is also designated as a National Highway System route.

Conclusions
The extension of the Barraza-Aviation Parkway meets all the criteria for a state highway, with the exception of Criteria 1 (Designation of a State Route), Criteria 5 (Interconnection Route with Those of Other States), Criteria 8 (Designation as an interstate highway or urban freeway). Criteria 1 and 8 are not met because the planned extension of the Barraza-Aviation Parkway is not classified as an urban freeway. Prior to being considered further as a State Highway, this extension must be designated as a state route.
4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

Based on the assessment of the special focus corridors with respect to meeting state highway criteria the following conclusions can be made:

Tangerine Road, I-10 to SR 77

Tangerine Road meets all the criteria for a state highway, with the exception of Criteria 5 (Interconnection Route with Those of Other States). It meets the main criteria for designation as state highway because it will form the only continuous access-controlled high capacity connection between I-10 and SR 77.

The Tangerine Road corridor option of an access-controlled connection to Camino de Manana/Tortolita Road does not meet all the criteria for a state highway designation, primarily because of the status of Camino de Manana and Tortolita Road. Camino de Manana and Tortolita Road do not meet Criteria 1 (Designation as State Route) because they are not designated as state routes, which must be done prior to designation as a state highway. Camino de Manana and Tortolita Road do not meet Criteria 8 (Designation as an interstate highway or urban freeway). The entire corridor does not meet Criteria 5 (Interconnection with Routes of Other States). The provision of a Camino de Manana connection diverts approximately 23,000 vehicles per day from Tangerine Road at the west end of the corridor. These trips are more likely to be drivers seeking to travel into/from Tucson, or I-19 south, whereas those trips which remain on Tangerine Road are more likely to be traveling west on I-10.

In summary, Tangerine Road, between I-10 and SR 77 meets ten of the eleven criteria for a state highway, and Tangerine Road, I-10 to SR 77, with a direct connection to Camino de Manana, meets eight of the eleven criteria for a state highway, as summarized in Exhibit 6.

Sahuarita Corridor, I-19 to I-10

The Sahuarita Corridor (although not the specific alignment under consideration) meets many of the criteria for a state highway, with the exception of Criteria 1 (Designation as a State Route), Criteria 5 (Interconnection Route with Those of Other States) and Criteria 8 (Designation as an interstate highway or urban freeway). The corridor does not meet Criteria 1 because the east-west segment of the corridor was designated as a state route on the Sahuarita Road alignment and the Kolb Road/Wilmot Road connection to the north is not designated as a state route. The Sahuarita Corridor forms a system which links I-10 (at the Kolb Road interchange and Mountain View interchange), I-19, and SR 83 through the Town of Sahuarita. The final preferred alignment for the Sahuarita Corridor needs to be specifically designated as a state route to meet the basic criteria for a state highway. This corridor meets eight of the eleven criteria for a state highway, as summarized in Exhibit 6.

Loop Corridor (Houghton Road, Golf Links Road, Alvernon Way, and Swan Road)

This Loop Corridor consists of Houghton Road, Golf Links Road, Alvernon Way and Swan Road. (The Sahuarita Corridor “closes” this loop on the south). Houghton Road meets ten of the eleven criteria for a
state highway, with the exception of Criteria 5 (*Interconnection Route with Those of Other States*). As part of this special focus Loop Corridor, Houghton Road would qualify as a state highway, because it is a projected high volume route serving as an important linkage between I-10, and the Sahuarita Corridor (if designated as a state highway), and the Southlands growth area.

Golf Links Road meets nine of the eleven criteria for a state highway, with the exception of Criteria 5 (*Interconnection Route with Those of Other States*) and Criteria 9 (Criteria for “Other Major Facilities”). 2030 traffic volume projections indicate Golf Links Road is projected to attract high traffic volumes, indicating its importance as an east-west facility.

Alvernon Way/Swan Road meets all the criteria for a state highway, with the exception of Criteria 5 (*Interconnection Route with those of other states*) and Criteria 9 (Criteria for “Other Major Facilities”). Criteria 1 (*Designation of a State Route*) is partially met (Alvernon Way has been designated as a state route, Swan Road has not been designated) and Criteria 8 (*Designation as an interstate highway or urban freeway*) is partially met. It fully meets seven of the eleven criteria.

**Barraza-Aviation Corridor Extension, Golf Links Road to I-10**

The extension of the Barraza-Aviation Parkway meets all the criteria for a state highway, with the exception of Criteria 1 (*Designation of a State Route*), Criteria 5 (*Interconnection Route with Those of Other States*), Criteria 8 (*Designation as an interstate highway or urban freeway*). Criteria 1 and 8 are not met because the planned extension of the Barraza-Aviation Parkway is not classified as an urban freeway. Prior to being considered further as a State Highway, this extension must be designated as a state route. It fully meets eight of the eleven criteria.

A summary of how each route meets the state highway criteria is summarized in Exhibit 6.
### Exhibit 6 – Summary of State Route Criteria Compliance

<table>
<thead>
<tr>
<th>Criteria for State Highway Designation</th>
<th>Tangerine Road, I-10 to SR 77 with Direct Connection to I-10</th>
<th>Tangerine Road, I-10 to SR 77 with Direct Connection to Camino de Manana</th>
<th>East-West Alignment, via El Toro Road / Andra Road</th>
<th>North-South Alignment via Wilmot Road / Kolb Road</th>
<th>Houghton Road, Golf Links to Andra Road</th>
<th>Golf Links Road, Aviation Parkway to Houghton Road</th>
<th>Alvernon Way / Swan Road, Aviation Parkway to El Toro Rd</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Has this road been designated as a state route?</td>
<td>Yes</td>
<td>Yes/No* (criteria partially met)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>2. Does this road form a convenient or necessary link for connecting sections of state highways or for carrying state highways or state routes through cities or towns?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>3. Is this route primarily designated to carry through traffic?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>4. Does this route connect Arizona’s population centers?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>5. Does this route interconnect with those of other states?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>6. Is this route a high capacity connecting route needed to form an efficient network?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>7. Does this route provide statewide and regional movement of people and goods?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>8. Is this route designated as Interstate Highway or Urban freeway?</td>
<td>Yes</td>
<td>Yes/No* (criteria partially met)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>9. Does this route meet criteria for “other major facilities” including:</td>
<td>Rural routes with more than 5,000 ADT</td>
<td>Rural routes with more than 1,500 ADT</td>
<td>Key freight routes (more than 1,000 articulated trucks per day)</td>
<td>Urban and rural connecting routes to form a network in which Other Major Facilities routes connect at both ends to Freeways or other Major Facilities routes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>10. Does this route meet criteria for “other statewide routes” including:</td>
<td>Rural arterial and major collector routes with more than 1,500 ADT</td>
<td>Urban arterial routes with more than 5,000 ADT</td>
<td>Connecting routes necessary to form a network in which all other statewide routes connect with Freeways, Other major facilities or other statewide routes or Not including business routes and other routes with parallel state highways of higher classification</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>11. Does this route meet criteria for “non-statewide routes” serving points of state and national interest?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

| Total Number of Criteria Fully Met | 10 | 8 | 8 | 8 | 10 | 9 | 7 | 8 |
4.2 Recommendations

The following recommendations are made regarding advancement of discussions with the State Transportation Board on the designation of special focus corridors as state highways.

1. Discuss the contents of this Working Paper with representatives of the ADOT Transportation Planning Division and the ADOT Tucson District staff to determine the view of ADOT with respect to advancing a recommendation to the State Transportation Board regarding State Highway designation, and to discuss funding and programming issues. Key elements of ARS 28-7041 include the requirement that a road must be recommended to the Board by the ADOT Director of Transportation to be designated a state highway. Additionally, per ARS 28-7043, a part of a state route shall not be taken over or designated as a state highway until monies for its improvement are provided in the budget of the department. If part of a state route is designated and accepted by the State Transportation Board as a state highway, the department (ADOT) shall maintain the highway. For these reasons, ADOT Planning Division participation is essential.

2. Discuss the contents of this paper with the Tucson Representative to the State Transportation Board to determine the process to designate, approve, fund and program new state highways into the State Highway System.

3. Discuss the contents of this paper with the affected jurisdictions who are currently maintaining the affected roadways. Statutory law (ARS 28-7043) requires that at least two weeks before the designation and acceptance by the State Transportation Board of a state route or portion of a state route as a state highway, the State Transportation Board shall give notice to the board of supervisors of the county in which the proposed highway is located of the intention of the transportation board to consider the designation. The county can appear before the board or petition the board to take over and designate a state highway. Therefore, local coordination is also a critical component of the designation process.