



PASCO COUNTY MPO

# Conceptual Vision for Park-and-Ride Facilities

## Final Report



# Section 1: Introduction

## Overview

Park-and-ride facilities provide collection points for travelers to transfer from the auto mode to the transit mode or between auto modes (from single-occupant vehicle to carpool or vanpool). When conveniently located and carefully planned and implemented, park-and-ride facilities are integrated into the overall transportation network and can encourage a shift from the single-occupant vehicle to transit or other alternative modes.

Identifying a viable, strategically-placed area and a site within that area are critical factors for the success of a park-and-ride facility. In Florida, the Florida Department of Transportation (FDOT) has identified a number of reasons for incorporating information on park-and-ride facilities into key local plans such as Long Range Transportation Plans (LRTPs) or comprehensive plans to form a network of strategically-placed park-and-ride facilities. This assists in the following:

- Automatic consideration of park-and-ride lots during preliminary phases of road improvement projects (which corresponds to FDOT’s policy regarding bikeways).
- Developing priority lists in which park-and-ride lots compete for funding with other projects.
- Assessing impact or mobility fees for lot development.
- Capturing federal, state and/or local funds for facility construction.
- Developing outlying parking facilities in lieu of activity or employment center parking.
- Reserving land for future facilities through advanced purchase or development order conditions.
- Developing public/private partnerships for parking facilities.
- Encouraging transit-oriented development (TOD) joint-use parking facilities at outlying locations.

Figure 1-1 shows how park-and-ride planning fits into the long-range planning and project development process, as identified in FDOT’s 2012 *State Park-and-Ride Guide*.

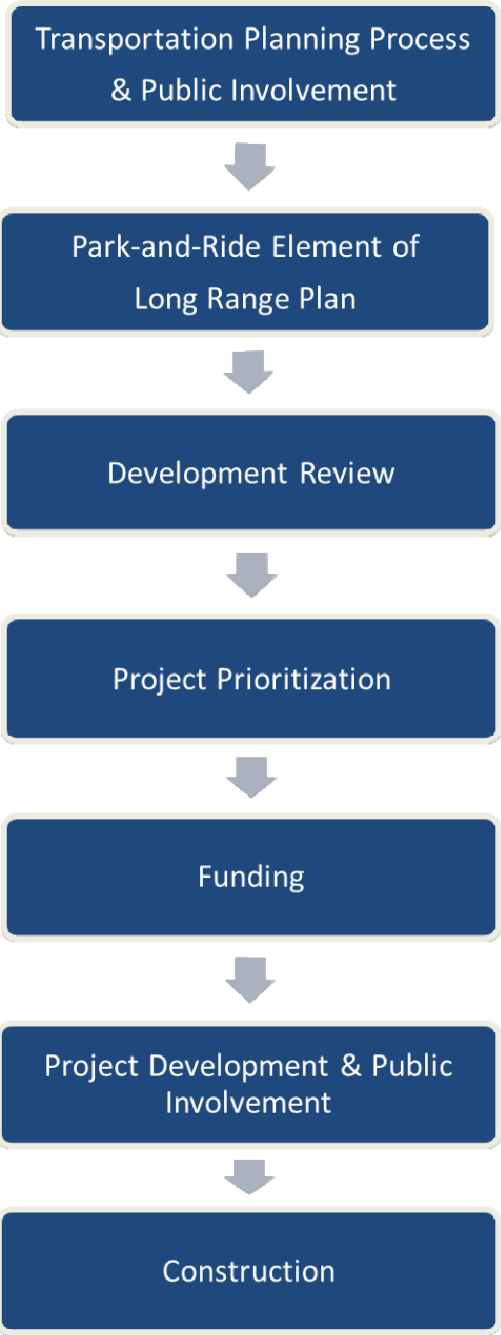
The *State Park-and-Ride Guide* identifies creating a network of strategically-placed park-and-ride facilities on a regional and statewide basis as a primary objective of a park-and-ride program in Florida. These facilities should be placed in support of and in conjunction with new and existing transportation improvements, which will provide the most benefit to the transportation system. A long-range view of upcoming park-and-ride projects assists with knowing when and what grants and funding programs to apply for. Long-range park-and-ride planning efforts by local governments, MPOs, and FDOT Districts also help with annual planning, prioritization of projects, and other efforts that work toward the primary objective. According to FDOT guidance, a long-range view of park-and-ride facility planning must be interwoven with the Transit Office in the FDOT Office of Freight, Logistics and Passenger Operations, Planning, and Environmental Management functions, and activities that occur under the Project Development and Environment (PD&E) Manual. Opportunities for park-and-ride facilities should be incorporated into upcoming roadway, corridor, transit, and fixed guideway projects. Roadway and PD&E projects must be reviewed and evaluated to determine if park-and-ride facilities would be justified along a given corridor and if such a facility could be incorporated into the improvement plan in accordance with the stated objective.

## Conceptual Vision for Park-and-Ride Facilities

This conceptual plan is developed as one of the several transit and pedestrian infrastructure planning initiatives implemented by the Pasco County MPO and Pasco County Public Transportation (PCPT). Pasco County currently has an inventory of bus stops, bus transfer facilities, park-and-ride facilities, and related transit infrastructure to support its public transit services. Part of Pasco County’s vision for improving its overall service is to provide enhanced access for passengers using transit infrastructure and amenities at bus stops, including convenient park-and-ride locations, as well as more shelters, benches, and other amenities/ infrastructure.

This conceptual plan for future park-and-ride facilities is developed to supplement this vision. It is intended to provide Pasco County MPO with initial guidance for effective planning and successful integration of park-and-ride facilities into the growing multimodal transportation network in Pasco County. In addition, this conceptual plan is intended to support the development and site plan review process.

Figure 1-1  
Park-and-Ride Planning Process



Source: 2012 FDOT *State Park-and-Ride Guide*.





## Section 2: Existing & Planned Conditions

A review of local conditions as they relate to park-and-ride facilities in Pasco County was conducted. The review include a look at the existing and future planned facilities and information from key regional plans on park-and-ride facilities in the county.

### Existing Park-and-Ride Locations

PCPT, the major transit service provider in Pasco County, currently does not own or operate any park-and-ride lots. However, Hillsborough Area Regional Transit (HART) operates two park-and-ride lots as part of its network of express buses connecting to Pasco County. Both park-and-ride lots are located in the south central portion of Pasco County, with one at the Crossroads Community Methodist Church on Old Pasco Road and the other at the Victorious Life Church just north of the Hillsborough-Pasco county line. In addition to HART Route 51X, the park-and-ride lot at the Victorious Life Church is also served by PCPT's Route #54 that operates across the county on SR 54.

### Planned Park-and-Ride Locations

To increase local and regional connectivity in the short and long terms, Pasco County has developed plans to potentially provide a network of park-and-ride facilities in the future. According to the 2035 LRTP, Pasco County needs 12 new park-and-ride facilities to support local and premium transit service needs. While the LRTP identifies no specific site locations, the plan indicates general areas where the County has identified a need for park-and-ride lots in the next 23 years. The key areas identified in Pasco County for potential future park-and-ride lots are adjacent to local and premium transit routes included in the transit component of the LRTP. In addition, some key locations also complement the transit service areas identified in the Tampa Bay Area Regional Transportation Authority (TBARTA) Transportation Master Plan.

On a more short-range planning horizon, PCPT's most recent Transit Development Plan (TDP) Major Update, FY 2009–FY 2018, identifies a goal to investigate the need for park-and-ride services. The TDP identifies plans to construct 6 park-and-ride facilities within its 10-year planning period. One of those facilities is to be

constructed in Wiregrass Ranch in the Wesley Chapel area through coordination with the developer. The TDP also outlines a plan to continue agency coordination with developers in order to discuss park-and-ride opportunities within other new developments.

### Transit Service Improvements

As access to transit services is one of the key ingredients of a multimodal park-and-ride facility, a review of transit service networks was necessary for identifying areas for effective park-and-ride locations. The two key plans for transit in Pasco County, the adopted Pasco County TDP, reflecting improvements for the next 10 years, and the 2035 LRTP, reflecting improvements for the next 23 years, were reviewed to identify the transit service improvements, as summarized below.

- **2009-2018 TDP** – One key improvement in the 10-year TDP calls for the introduction of a new express service on US 19. This new route would operate limited-stop express service on US 19 from SR 52 south to Pinellas County. The TDP also recommends additional fixed-route service in the Bruce B. Downs Blvd./Wesley Chapel and Land O' Lakes area. These new fixed-route services will connect surrounding communities to other transit routes, connecting other areas in Pasco County as well as areas to the south in Hillsborough County.
- **2035 LRTP Cost Affordable Plan** – The LRTP identifies new local and premium transit services in its long-range plan for transit in Pasco County. One of those, the Cross-County Connector on SR 54, has already been implemented. In addition, the plan includes a number of other local bus routes, including the Moon Lake Road route, the Moon Lake to Suncoast connector, the Ridge Road to Suncoast connector, the Zephyrhills to Wesley Chapel route, new service in the Hudson area, and new local service on SR 52 to Dade City. The premium transit services, including light rail and/or express bus, are also planned on SR 54, Suncoast Parkway, I-75 and Little Road (south on SR 54), and US 19. In addition, numerous frequency and span improvements are also identified.





Regional Plans

Because of its location north of Hillsborough and Pinellas counties, Pasco County has become a key player in regional mobility. A significant portion of the workforce in Pasco County commutes south to Hillsborough County as well as to Pinellas County. These commuters have become the focus of park-and-ride facilities planning and development. A review of the regional conditions/plans on park-and-ride facilities is essential for any vision planning of Pasco’s own park-and-ride network, as presented below.

TBARTA Transportation Master Plan

TBARTA is the regional authority charged with improving mobility and expanding multimodal transportation options for passengers and freight throughout the seven-county region that includes Citrus, Hernando, Hillsborough, Manatee, Pasco, Pinellas, and Sarasota counties. In developing its transportation Master Plan, TBARTA worked closely with each county to identify a supporting transit network that provides connections with the proposed regional transit network as well as improves circulation within each county. These includes providing access to convenient boarding locations, pedestrian connections, and park-and-ride opportunities that connect transit. TBARTA’s Master Plan identifies a park-and-ride lot at I-75 and SR 56 in Pasco County.

Hillsborough Park-and-Ride Plans

Located south of Pasco County, Hillsborough County is one of the largest employment destinations for Pasco County commuters. HART provides two express routes that serve Pasco County. Both of hese routes originate in Central Pasco County and provide service to Downtown Tampa. HART Route 51X serves both park-and-ride locations in Pasco County.

In 2010, HART conducted a study of its existing park-and-ride lots and how to plan for future needs. The report identified a need for park-and-ride lots in central and eastern Pasco County. The plan establishes that HART needs to provide local park-and-ride lots that provide convenient access to regional corridors in order to enhance access to the future multimodal system. The HART plan identifies Pasco County as a key market and, currently, the park-and-ride lot at the Victorious Life Church is one of the highest-performing lots in the system.

The plan identifies a single regional lot for Wesley Chapel instead of two decentralized lots as currently exist. A preliminary location for this future regional lot has been identified at Wiregrass Mall at CR 581 and Summergrass Boulevard.



Pinellas Park-and-Ride Plans

Also located south of Pasco County, Pinellas County is the second largest job destination for Pasco County commuters outside of those who are employed and work in Pasco County. Currently, no routes from Pinellas Suncoast Transit Authority (PSTA) serve Pasco County. PCPT provides two routes with connecting service to PSTA, including Routes 18 and 19. The routes are not express or enhanced, and there is currently no park-and-ride access to riders accessing this connection.

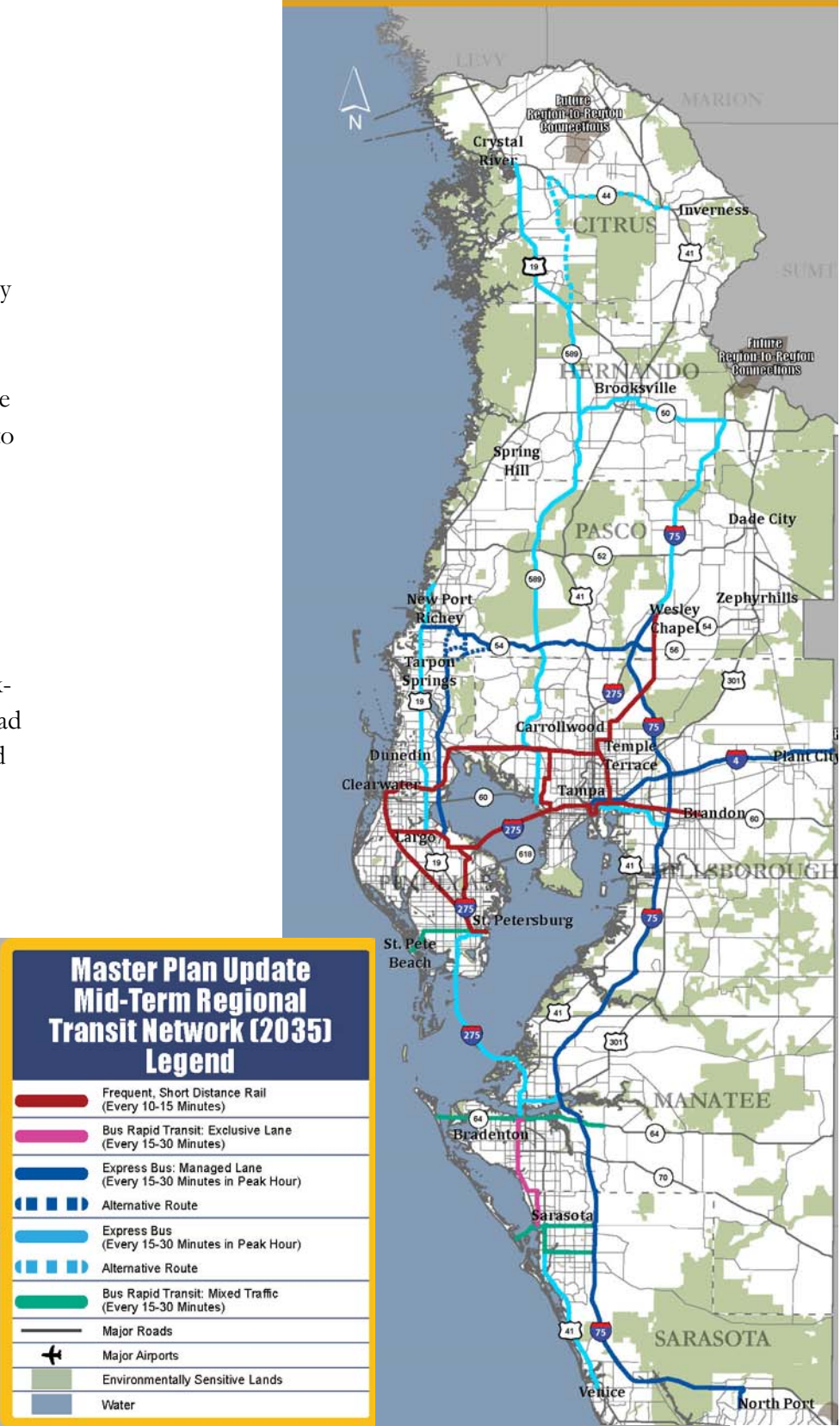
There are currently three park-and-ride facilities in Pinellas County that are officially maintained by FDOT or PSTA. The lot in Oldsmar is the closest to Pasco County; however, it does not provide transit connections to Pasco County. In addition, the 2035 Pinellas County MPO LRTP identifies a park-and-ride lot at Tarpon Mall. The LRTP is not specific about park-and-ride; however, the plan does suggest a desire to promote regional connectivity.

Hernando Park-and-Ride Plans

Located north of Pasco County, Hernando County is not identified as a major employment destination for residents of Pasco County. Currently, PCPT has no routes serving Hernando County.

The transit element of the 2035 Hernando County MPO LRTP identifies four park-and-ride locations. One of these locations, along Pasco-Hernando County Line Road and Anderson Snow Road, connects with the premium bus service that is identified as a need by PCPT. This route would be a premium/express bus from Tampa to Hernando along the Suncoast Parkway; it is also identified in the TBARTA Transportation Master Plan.

TBARTA Master Plan Update  
Mid-Term Regional Transit Network (2035)



## Section 3. Conceptual Vision

This section presents the park-and-ride vision for Pasco County for the next 23 years. The vision was developed based on reviewing various criteria as well as factors related to identifying park-and-ride areas for siting and development of potential facilities for park-and-ride locations. The selection process, criteria, and types of facilities are summarized.

### Area Selection Process

The process used to identify and select general areas for siting future park-and-ride lots is summarized in this section. The “data-driven” criteria are most commonly used in selecting areas for such facilities and are the first step in the site selection process for park-and-ride facilities in Pasco County. However, together with the results for each of the data-driven criteria, professional judgment also is needed in refining/ filtering appropriate areas for developing park-and-ride facilities.

#### Data-Driven Criteria

The following criteria, based on information from the FDOT 2012 *State Park-and-Ride Guide* and the 2004 *AASHTO Guide for Park-and-Ride Facilities*, were used to identify potential areas for locating park-and-ride facilities in Pasco County:

- Local strategic plans on transit/transportation
- Existence of informal park-and-ride activity
- Transit access
- Existing and future employment/activity centers
- Visibility and accessibility
- Density and location of residential areas
- Current and future roadway levels of service
- Regional network access

To develop the park-and-ride vision for Pasco County with guidance on potential general areas for future park-and-ride sites, these criteria were assessed at a sketch level using various sources of available data. Each of these criteria and the sketch-level methodology used for assessing each criterion are presented below.

**Local Strategic Plans on Transit/Transportation** – This criterion reviews if areas or specific locations have been identified in two of the County’s most transportation-relevant strategic plans, including the adopted LRTP and TDP.

**Existence of Informal Park-and-Ride Activity** – Already established demand for park-and-rides serves as a good indicator for the need for a permanent park-and-ride facility in an area. Using data and observations from PCPT, this criterion identifies if any locations in an area are already being used as informal facilities.

**Transit Access** – The *State Park-and-Ride Guide* suggests that new park-and-ride facilities should be located adjacent to existing major transit corridors where peak transit service can be provided with headways on the order of 15 minutes or less. While PCPT currently does not offer such high-frequency services, 15-minute frequency has been planned for Route 19 (serving US 19) in the future. High-frequency service, such as express bus, that provides service between the park-and-ride facility and key activity centers is one of the demand-generating characteristics of successful park-and-ride facilities. A review of the adopted LRTP and TDP was conducted to assess the existing and future transit access to potential areas for park-and-ride facilities.

**Existing and Future Employment/Activity Centers** – As park-and-ride facilities are mostly used by commuters on work-related trips, the locations of existing and future employment concentrations is considered one of the critical factors in locating park-and-ride facilities. A review of the existing and future employment/activity centers, including Central Business Districts (CBDs), major market areas with a high density of commercial/office developments, and TODs, is necessary for identifying the potential origin-based and destination-based areas for park-and-ride locations. Data on future market area plans and transit overlay developments were reviewed to identify the key employment/activity centers planned for Pasco County.

**Visibility and Accessibility** – While this criterion relates more to the actual site selection, visibility and accessibility should still be considered when selecting potential areas for establishing park-and-ride facilities. For example, locating a park-and-ride facility within visible range of a radial freeway or a major arterial will be essentially self-advertising for such facilities. If convenient access is provided, such as near a major intersection or along a highly-traveled corridor, such lots are more likely to develop demand quickly, drawing patrons from the adjacent major road facilities, especially if they are congested.

**Location and Density of Residential Areas** – Data have shown that half of the total demand for a park-and-ride facility is typically generated within a 2.5-mile radius of the facility, and 85 percent of total demand is generated from an area defined by a





parabola extending 10 miles upstream of the lot and having a long cord of 10–12 miles. The geographic area immediately upstream of the area/site should demonstrate sufficient residential densities to supply acceptable demand for the facility. Therefore, available data on existing and future population densities were reviewed for selecting areas for establishing park-and ride sites in the future.

**Current and Future Roadway Levels of Service** – As park-and-ride programs have been suggested as a strategy to reduce roadway congestion through enhanced mobility options, focus should be on effectively locating park-and-ride facilities along congested roadways. Such facilities may also contribute to the reduction of greenhouse gas (GHG) emissions through the reduction of single-occupant vehicles on adjacent corridors. Existing and future roadway Level-of-Service (LOS) conditions were reviewed to identify the highly-congested corridors in Pasco County.

**Regional Network Access** – Proximity to major regional commuter corridors and access to regional activity centers should be a factor in selecting areas for potentially establishing park-and-ride facilities. FDOT identifies creating a regional network of strategically-placed park-and-ride facilities as one of the primary objectives of its park-and-ride program. Therefore, the consideration of access to regional transportation facilities, including roadways, activity centers, and park-and-ride lots, may greatly benefit any efforts to secure FDOT funding for park-and-ride facilities in Pasco County. (Note: The FDOT Park-and-Ride Lot Program provides funding for the purchase and/or lease of private land for construction, promotion, and monitoring of the lots, and the FDOT Strategic Intermodal System [SIS] provides funding for statewide and regionally-significant transportation facilities and services that focus on improving intercity transportation corridors rather than local services. )

Professional Judgment

While data from various sources provide valuable information on narrowing down potential locations for park-and-ride lots, professional judgment also must be used when reviewing, selecting, and delineating potential areas to be included in the park-and-ride vision. This approach provides an opportunity to review and revise each possible area option on meeting two key conditions, including:

- Does the selected area provide practical park-and-ride choices to commuters?
- Has the area been sufficiently delineated to provide practical locations that are functional and operational?

Figure 3-1 illustrates the process used to develop the Pasco County park-and-ride vision plan. Using the data-driven and professional judgment approaches presented previously, the recommended areas for locating park-and-ride facilities were identified, as summarized in the remainder of this section.

Figure 3-1  
Park-and-Ride Area Selection Process



Source: Adapted from 2012 FDOT State Park-and-Ride Guide and 2004 AASHTO Guide for Park-and-Ride Facilities.



Park-and-Ride Facility Types

The Pasco park-and-ride vision also identifies the potential park-and-ride facility types for each area identified in Pasco County. These facility types, as defined by the *State Park-and-Ride Guide*, are described below.

Remote or Rural Facilities

Remote lots are generally located outside of the urban area in a rural or small-town setting. Trip lengths for both home-to-lot and lot-to-work are much longer than for other types of park-and-ride lots. The success of a remote lot is generally dictated by the amount of employment located at the destination and the distance traveled. Lot use will be greater if located near a major commute route oriented toward an urban area. This provides the opportunity to intercept commuters along their normal travel path. Such a location provides for better visibility and awareness of the facility.

Urban Fringe Facilities

Urban fringe lots are located at the outer edge of urban development. Trips tend to originate outside or on the fringe of the urban area, while destinations may be concentrated or dispersed within the urban area. Increasingly, urban fringe lots have become origin locations for express bus service to urban activity centers. Shared-use lots and lease agreements, such as for shopping center lots, are most applicable in fringe areas.

Peripheral Facilities

By definition, these facilities serve activity centers having limited parking and/or auto access, such as auto-free zones and colleges. They are usually located at the outer edge of activity centers. As a result, distances to the lot from residential areas are typically longer than to other park-and-ride facilities, while distances from the lot to the activity center are usually shorter. If additional parking is needed in the activity center area, then a peripheral facility may be appropriate. As these type of facilities are typically built to serve specific activity centers, Pasco County should focus on forging joint public/private partnerships in the development of peripheral park-and-ride facilities in the county.

Urban Corridor Facilities

These lots are located along major commute corridors within an urban area and are often served by High Occupancy Vehicle (HOV) lanes or line-haul transit consisting of express bus, urban rail, or commuter rail services. Trip origin patterns tend to be

dispersed along the corridor; and trip destination patterns are usually concentrated in a CBD or other major activity and employment centers.

Pasco County should focus on forging joint public/private partnerships in the development of Urban Corridor park-and-ride facilities, especially in the TOD emphasis areas along the SR 54/56 corridor. These facilities may potentially be integrated into the TOD development itself.

Each of these facility types is presented in Table 3-1, including a description of the suggested area for that facility type and the typical standards or thresholds suggested for establishing such facilities within that area. This information on park-and-ride facility types, adopted from the *State Park-and-Ride Guide*, provided guidance for making an initial determination on the facility type for each area identified in the Pasco park-and-ride vision. Before a final determination is made on a facility type, a more in-depth review of all applicable standards for each facility type should be performed.

Table 3-1  
Pasco Park-and-Ride Vision – Facility Types

Facility Type	Area Description
Remote or Rural	Remote lots are located in areas with low population growth and are not expected to grow excessively. Lots are generally located outside the urban area in a rural or small town setting. Trip lengths for home-to-lot and lot-to-work tend to be longer than for other lot types.
Urban Fringe	Urban fringe lots are located at the edge of urban development. These lots can be, but are not generally, served by transit. Trips tend to originate outside or at the outer limits of the urban area while the destinations may be concentrated or dispersed within the urban area.
Peripheral	Peripheral lots are typically located at the periphery or on the edge of an intensely-developed, highly-congested or access-restrained activity center. These lots are designed to supplement parking deficiencies and include facilities that service activity centers with limited parking and/or auto access such as auto-free zones, colleges, and universities.
Urban Corridor	Urban corridor lots are located along a major commute route within an urban area, typically served by express bus, urban rail, or commuter rail services. Trip origins tend to be dispersed along the corridor; destinations are usually concentrated in a CBD or employment center.

Source: 2012 FDOT *State Park-and-Ride Guide*.





## Conceptual Vision for Pasco Park-and-Ride Facilities

Map 3-1 on the following page illustrates the conceptual vision for park-and-ride areas in Pasco County for the next 23 years. The park-and-ride vision areas are developed using a 1/2-mile buffer around locations and/or corridors selected based on the area selection process previously described. The areas are categorized into the four park-and-ride facility types, including remote/rural, urban fringe, peripheral, and urban corridor. In addition, the map also shows the core park-and-ride demand area for each park-and-ride vision area selected. The core area represents a 2.5-mile buffer around park-and-ride areas. Research has shown that 50-percent of a park-and-ride facility's demand is typically generated within a 2.5-mile buffer area around the facility.

The park-and-ride vision presented in Map 3-1 is intended to provide Pasco County with initial guidance for effective planning and successful integration of park-and-ride facilities into the growing multimodal transportation network in Pasco County.

## Next Steps

The vision provides a starting point for the MPO's goal of creating a network of strategically-placed park-and-ride facilities throughout the county in support of and in conjunction with existing as well as future multimodal transportation improvements. The next steps towards that MPO goal should include the following:

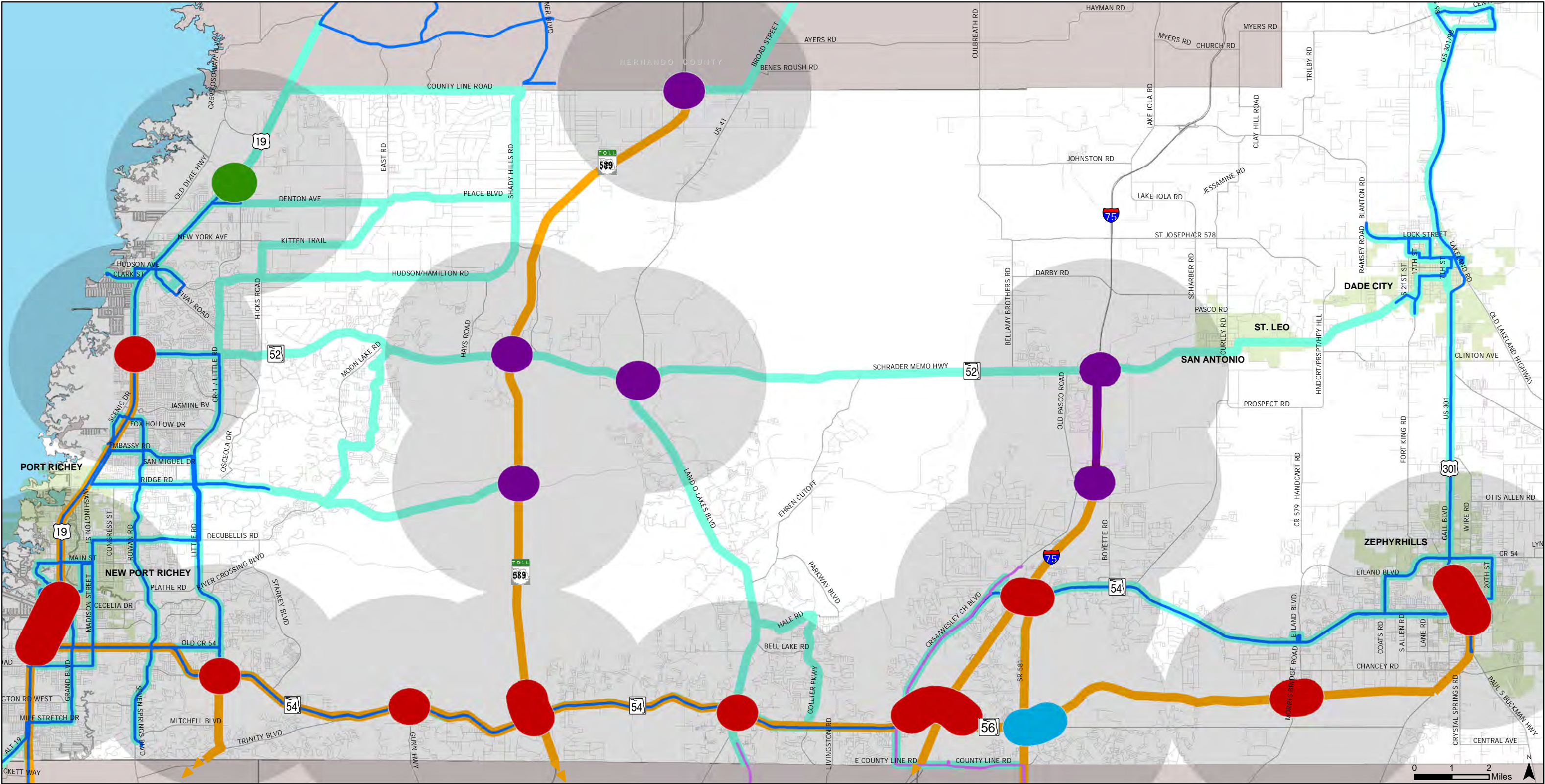
- **Conduct Detailed Review/Prioritization of Locations** – A more detailed review of the selected areas should be conducted to identify physical barriers, environmental limitations, building and operational issues, and any other constraints associated with the areas identified in the park-and-ride vision. Once more precise and practical delineations are conducted, a suitable prioritization process should also be used to prepare a priority list of locations.
- **Coordinate with FDOT** – In developing a park-and-ride system, Pasco County should engage with the FDOT District Park-and-Ride Coordinator in selecting and designing locations for new park-and-ride facilities to ensure that the site will help facilitate the network of strategically-placed facilities. Per FDOT, park-and-ride facilities should not be located within interchange areas unless the following conditions are met:

- No other area is acceptable or economically justifiable.
- Approval is received from the District Design Engineer and Traffic Operations Engineer.

FDOT recommends that park-and-ride facilities should be considered for inclusion when major transportation construction projects are being planned, including new freeways, construction of new interchanges, modification of existing interchanges, adding highway lanes, new transit or intermodal facilities, and HOV lanes.







**Legend**

**Park-and-Ride Vision Areas**

- Urban Fringe
- Urban Corridor
- Peripheral
- Remote/Rural

**Park-and-Ride Demand Area**

2.5-Mile Zone (core)

**Core Demand Area** – The core demand area represents a 2.5-mile buffer around park-and-ride areas. Research have shown that 50-percent of a park-and-ride facility's demand is typically generated within a 2.5-mile buffer area around the facility.

**Transit Services**

- Existing Express (Operated by HART)
- Existing Local
- Future Express/Premium
- Future Local

- Notes:**
- The areas for future park-and-ride facilities included in this map are depictive. The locations and sizes of the park-and-ride vision areas are subject to change.
  - A more in-depth review of all applicable standards is needed before a final determination is made on park-and-ride facility type.
  - Transit improvements are based on adopted 2035 L RTPs and TDPs.



**Map 3-1**



**Conceptual Vision for Park-and-Ride Facilities**