Matagorda County

Matagorda County Transit Service Plan

September 2010

Prepared by The Goodman Corporation

Sponsored by Texas Department of Transportation
Houston-Galveston Area Council

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Table of Contents

Chapter 5: Comparison of Transit Service Alternatives

Chapter 6: Service Plan Recommendations

Chapter 7: Finance Plan

Chapter 8: Implementation Plan

Appendices

Appendix A: Matagorda County Public Involvement Plan Report
Appendix B: Demographic Characteristics
Appendix C: Transportation Providers
Appendix D: Transit Service Options

List of Figures and Tables

Chapter 1: Introduction

Background

In February 2010, the Houston-Galveston Area Council (H-GAC) contracted with The Goodman Corporation (TGC) to complete a Matagorda County Transit Service Plan. The purpose of the plan is to identify transit needs and service gaps, develop service recommendations, and provide a five-year finance and implementation plan. The transit needs for Matagorda County are varied, extending from demand-response service for rural areas and small municipalities, to fixed or flex service for Bay City, to job access services for workers and students.

Project Oversight

The planning effort was overseen by a stakeholder review committee composed of the following individuals and organizations: Mitch Thames, President and CEO of the Bay City Chamber of Commerce and Agriculture; D.C. Dunham, Executive Director of the Bay City Community Development Corporation; Richard Knapik, Mayor of Bay City; Joe Morton, Mayor of Palacios, Nate McDonald, Judge Matagorda County; Owen Bludau, Executive Director of Matagorda County Economic Development Corporation; Lisa Cortinas, Transportation Director for the Golden Crescent Regional Planning Commission; Julia Gonzales, Executive Director of the Matagorda County United Way; and Carolyn Thames, Workforce Solutions of Matagorda County. The committee included H-GAC staff Kari Hackett and Texas Department of Transportation (TxDOT) Public Transportation Coordinator Wanda Dyer-Carter.

Study Goals

The stakeholder committee's stated goals for the plan are to: 1) make people's lives better; 2) get people to jobs; and 3) relieve congestion. A long-term goal is to attract and retain new residents for Matagorda County through the provision of needed services, like transit.

Public Involvement Plan

A Public Involvement Plan was completed for this study and included a general public survey, an employer survey, one-on-one interviews with key businesses and organizations, and a series of public meetings. (See Appendix A: Matagorda County Public Involvement Plan)

Previous Studies

Previous studies were reviewed at the outset of this study for previously identified issues. Three studies were reviewed: 2006 Gulf Coast Region Coordinated Regional Plan, 2006 Golden Crescent Regional Plan, and 2008-2009 Matagorda County Community Plan.

Regional Coordinated Plans: The transportation needs of Matagorda County were reviewed in the 2006 Gulf Coast Region Coordinated Regional Plan. In 2003, the Texas Legislature directed

the state's transit and health and human service agencies to coordinate the delivery of transportation services with the adoption of Section 461:003 of the Transportation Code:

> *Public transportation services are provided in this state by many different entities, both public and private. The multiplicity of public transportation providers and services, coupled with a lack of coordination between state oversight agencies, has generated inefficiencies, overlaps in service, and confusion for consumers. It is the intent of this chapter:*
>
> - *To eliminate waste in the provision of public transportation services;*
> - *To generate efficiencies that will permit increased levels of service; and*
> - *To further the state's efforts to reduce air pollution.*

This is further defined in Public Transportation Code, Section 461.004(a):

> *The plan shall consider and address separately:*
>
> - *Overlaps and gaps in the provision of public transportation services;*
> - *Underused equipment owned by public transportation providers; and*
> - *Inefficiencies in the provision of public transportation services.*

TxDOT, in response to this legislation, began a coordinated regional planning process. All transportation agencies and health and human service providers were requested to work together under the umbrella of their council of governments, a regional organization of counties, cities, and special districts. Matagorda County is within the H-GAC planning area and was included in their planning effort, which resulted in the 2006 Gulf Coast Region Coordinated Regional Public Transportation Plan. Specific recommendations for Matagorda County made in that plan included a more active planning role by the H-GAC; a work shuttle to link Matagorda County residents to Brazoria County employment; and more public information about the existing transit services. Specific comments reflected a concern about the lack of information on transit service and providers within Matagorda County, confusion about eligibility for service, and limited service hours that make it difficult to meet the needs of workers.

Matagorda County Plan 2008-2009: Formerly known as the Matagorda County Criminal Justice Community Plan, this report identifies gaps in criminal justice services. Transportation is listed as a General Public Safety Need and Issue. It is specifically cited as a need by the Matagorda County Women's Crisis Center, ranking 8 out of 13 issues facing Victim Service providers:

> *Public transportation is limited in Matagorda County. RTransit provides transportation primarily to Medicare recipients and the elderly. Appointments must be made 24-72 hours in advance. In a community wide need assessment*

2002 survey done by United Way, 36% of respondents reported a lack of transportation as a major problem.

Crime victims that lack transportation have had their access to service providers, social services, medical care, courts, the workplace, daycare and schools restricted due to lack of public transportation. Victims of domestic violence are often forced to leave their homes and possessions behind when they leave their abusive relationships. Without public transportation, victims have difficulty finding transportation to appear in court proceedings or take care of everyday tasks. These shortages result in the need for staff from agencies such as the Crisis Center to provide transportation to victims.

Report Organization

This section outlines the Matagorda County Transit Service Plan:

- Chapter 2, Existing Conditions: Describes the existing conditions of the county, including the study area, demographics and economy, and its impact on transit demand.
- Chapter 3, Transportation Providers: Outlines the transit providers surrounding and serving Matagorda County directly. The information includes the background, organization, types of service, technology used, challenges, and other pertinent information about the organization.
- Chapter 4, Transit Need and Service Gaps: Describes the transit need and service gaps of demand-response service, job and education access, and fixed/flex route in Matagorda County.
- Chapter 5, Transit Service Alternatives: Describes transit modes and their potential application to Matagorda County.
- Chapter 6, Service Plan Recommendations: Recommends the mix of services for Matagorda County.
- Chapter 7, Finance Plan: Outlines the estimated cost for the recommended service plan and the federal, state, and local sources to support those costs.
- Chapter 8, Implementation Plan: Outlines a five year implementation schedule for services.
- Appendix A, Public Involvement Plan: Matagorda County Public Involvement Plan Report: Describes the plan for public involvement and provides the results of these outreach efforts.
- Appendix B, Demographic Characteristics: Provides description and maps of demographic characteristics that are related to transit need.
- Appendix C, Transportation Providers: Provides a description of the region's transit agencies.

- Appendix D, Comparison of Transit Service Alternatives: Evaluates different transit modes across different system requirements.

Chapter 2: Existing Conditions

Introduction

This chapter provides an outline of Matagorda County existing conditions. This chapter includes a brief overview of the study area, its major transportation thoroughfares, demographic and economic indicators of transit, and major employment centers.

Study Area

Matagorda County is located along the Texas coast, approximately 80 miles southwest of Houston. It is bordered by Wharton County to the north, Jackson County to the west, and Brazoria County to the east (Figure 2.1: Location of Matagorda County).

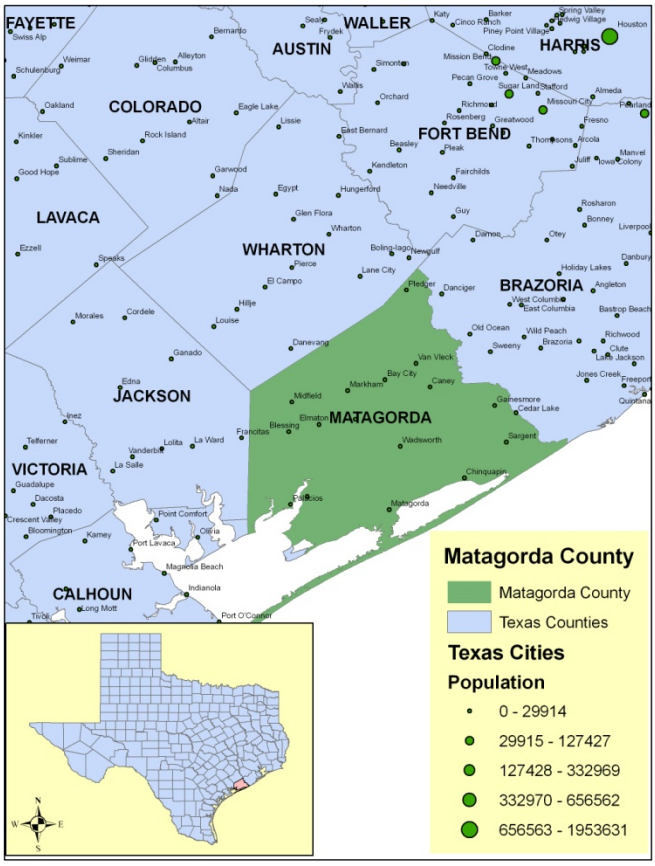

Figure 2.1: Location of Matagorda County

The U.S. Census Bureau reports that Matagorda County is 1,612 square miles, of which 1,114 square miles is land and 498 square miles is water.[1] Matagorda County is also home to an important Texas estuary, Matagorda Bay, where the Colorado River empties into the Gulf of Mexico.

Matagorda County has a rich history. It first became a county under the Mexican rule in 1834 and later became a Texas county in 1836. The county's economy was primarily based on agricultural crops until devastated by pests in the late 1800's. This led to the cattle industry gaining a greater presence in the county. In the 1960's and later, industrial facilities, particularly within the energy and petrochemical sectors, were constructed in the county, which led to today's economic mix of agriculture, cattle, and industry.

Matagorda County has two major thoroughfares. State Highway 60 (SH 60) is a north-south corridor connecting the cities of Wharton, Bay City and Matagorda. SH 60 connects Bay City with major industrial employers south and southwest of the city. State Highway 35 (SH 35) is the

1 America Factfinder, US Census Bureau, 1/10/2010

east/west thoroughfare connecting Matagorda County with the cities of Angleton, Lake Jackson and Freeport to the east and Port Lavaca and Corpus Christi to the west.

Matagorda County is served by two major railroad companies, Union Pacific/Southern Pacific and Burlington Northern/Santa Fe. Union Pacific/Southern Pacific serves the east/west rail corridor, while Burlington Northern/Santa Fe serves the north/south corridor. Both of the rail lines intersect in Bay City. (Figure 2.2: Matagorda County Major Thoroughfares).

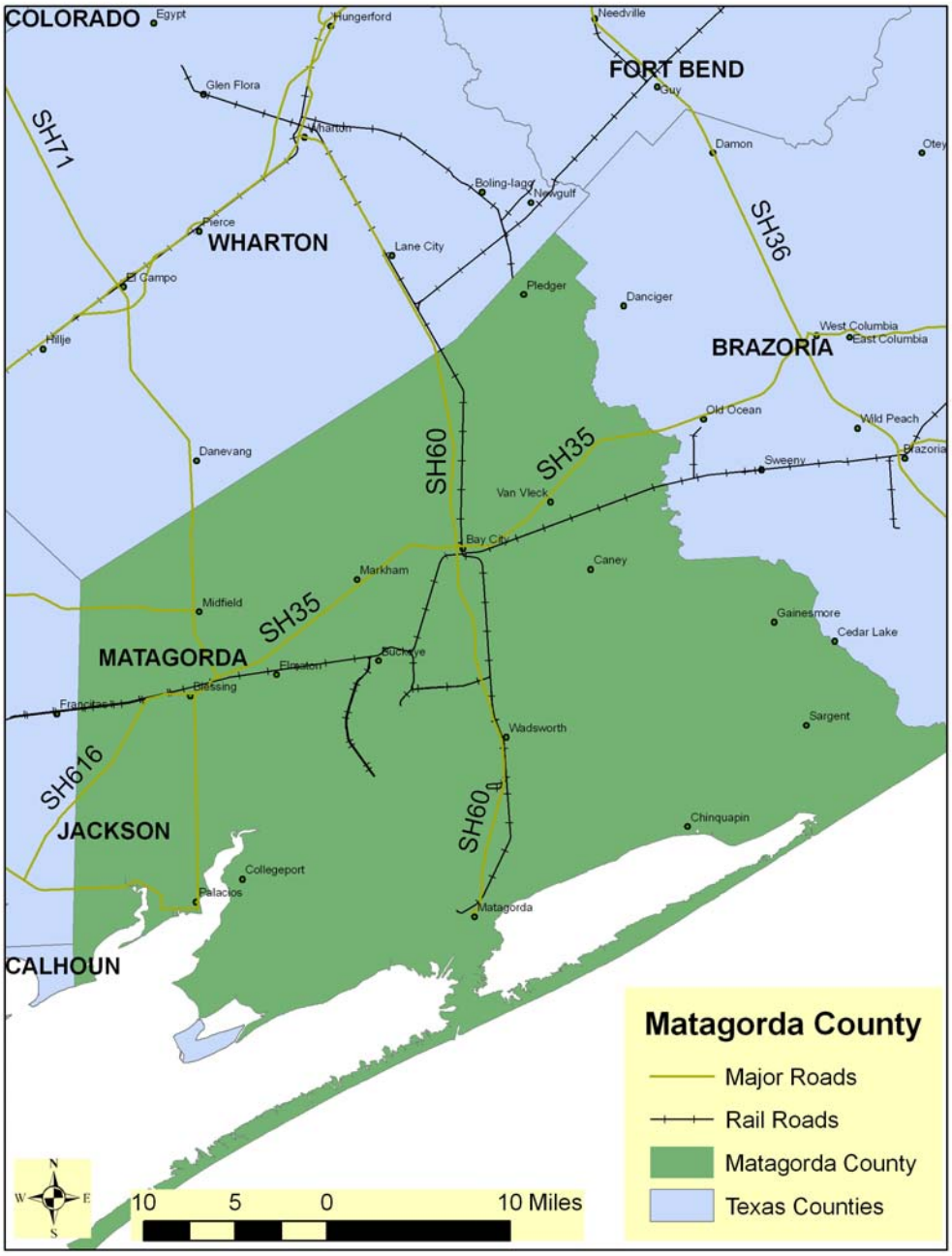

Figure 2.2: Matagorda County Major Thoroughfares

Traffic Counts and Congestion

One of the study's stated goals by the Stakeholder Review Committee is to address concerns regarding future congestion, specifically within the vicinity of facilities anticipating future construction. Bay City is located at the juncture of SH 35 and SH 60, the two highest volume roadways in the county.[2] SH60 connects Bay City to large regional employers to the south. Two employers are anticipating future construction that will generate between 6,000 and 8,000 jobs. The South Texas Nuclear Project (STNP) estimates between 5,000 and 6,500 construction jobs, and White Stallion estimates between 1,000 to 1,500 construction jobs will be created. These jobs are temporary, anticipated to last up to five years. During the construction period, these future workers will add to the traffic volume of SH 35 and SH 60, as well as smaller Farm-to-Market roads. Depending on where these workers settle, there is a concern on the part of the Stakeholder Review Committee that the added traffic will create congestion, particularly close to the construction sites. The following 2008 vehicle counts reflect roads supporting the STNP and White Stallion facilities:

- FM 1468 has a 24-hour traffic count of 1,000 vehicles, just north of FM 521.
- FM 521 has a 24-hour traffic count of 3,000 vehicles in the segment between FM 1468 and FM 2668.
- FM 2668 has a 24-hour traffic count of 1,250 vehicles between Bay City and FM 521.

According to Yoakum District TxDOT engineers, these three roadways are classified as two-lane roadways with shoulders with a peak capacity of 2,000 vehicles per lane per hour. When asked if congestion related to future construction was a concern of the TxDOT office, staff said it was not a concern given:

- The roadways are currently far from capacity. The highest volume segment is on FM521, between FM1468 and FM2668 and it experiences 3,000 vehicles per day.
- Workers will be accessing the site from around the county and region, so not all trips will be originating from the same location. Some of workers will already be living within the area and may be coming from outside the county as well as a different cities, such as the cities of Palacios, Victoria, etc. Others will move to the area. If Matagorda County's experience is similar to that of other areas that have experienced similar large-scale construction projects, those workers may bring trailers, or rent apartments in the area. Currently, Matagorda County does not have projections as to where these temporary construction workers may live.
- Construction materials will be barged in, relieving some of the heavy truck traffic.

[2] TxDOT Traffic Maps: http://www.txdot.gov/travel/traffic_map.htm. Retrieved 1/19/2010.

- STNP is constructing three separate entrances to its site to help coordinate traffic. One entrance will be for construction crews, the second entrance will be for construction materials, and the third entrance will be for the existing staff. STNP may stagger shifts to further alleviate congestion at the plant entrance. They have asked the TxDOT office for a stop light at the plant entrance, a potential point of significant congestion but, to date, that request has not been granted by the TxDOT office. (Figure 2.3: Matagorda County Traffic Counts)

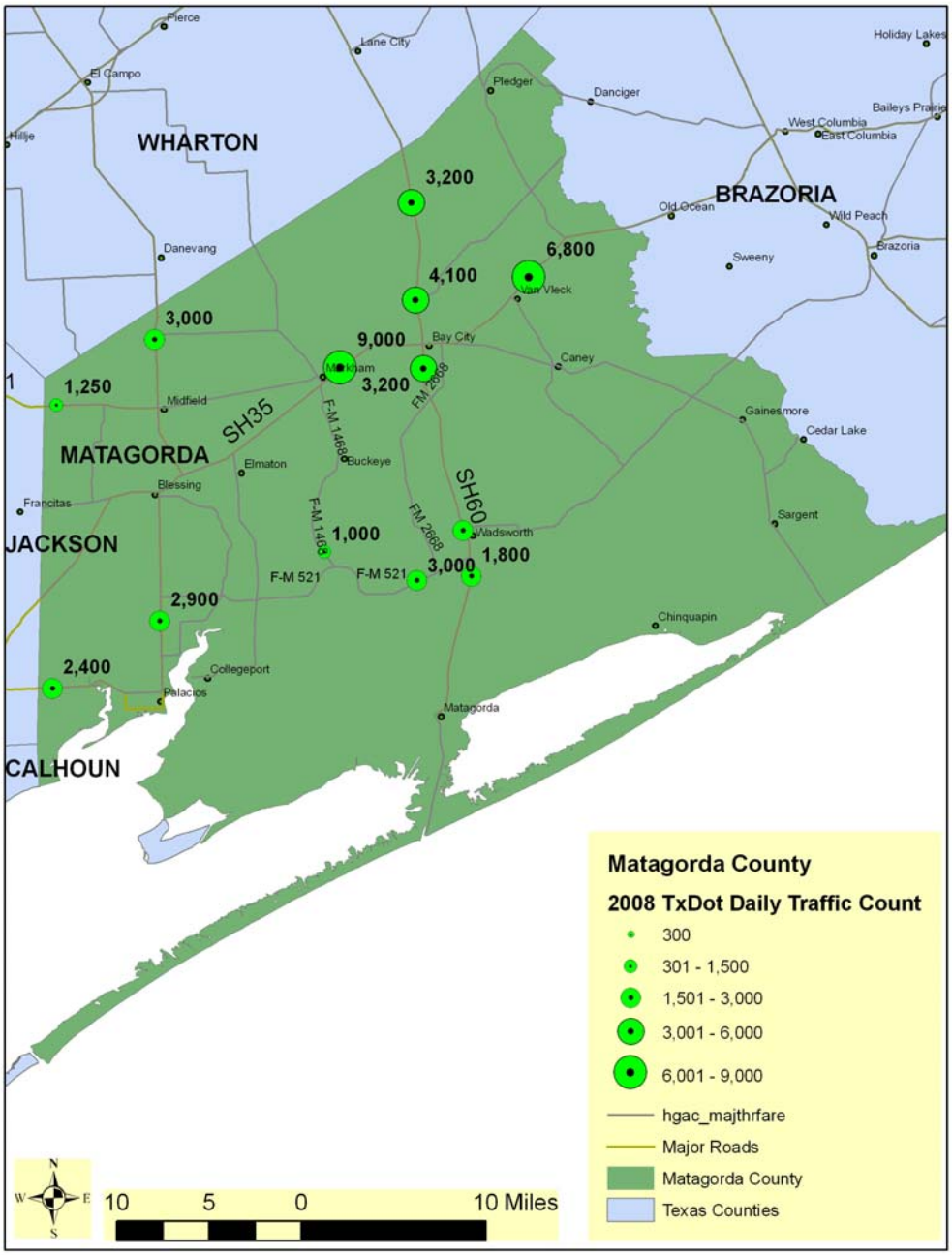

Figure 2.3: Matagorda County Traffic Counts

Demographic Characteristics

The demographic profile of Matagorda County indicates 12.4 percent of its population is over 65 years of age, 19 percent have a disability, 18.5 percent are below the poverty line, and almost 27 percent speak a language other than English in the home. Compared to other counties in the region (Austin, Brazoria, Calhoun, Colorado, DeWitt, Fort Bend, Galveston, Goliad, Gonzales, Jackson, Lavaca, Victoria, Waller and Wharton), Matagorda reflects, on average, more lower income households and households without a vehicle, a larger minority population, and a higher incidence of people with disabilities. (Table 2.1, Matagorda County Demographic Profile and Appendix B: Demographic Characteristics.)

Table 2.1 - Matagorda County Demographic Profile	
2000 Population	37,957
2009 Population Estimate	36,978
2000-2009 Change	-2.6%
1990-2000 Change	2.8%
Persons over 65	12.4%
Persons under 5	7.4%
Persons with a disability	7,063
Persons with a disability (%)	19%
Non-English Spoken at Home	26.6%
Persons Hispanic or Latino	31.3%
Households	13,901
Median Household Income (1999)	$32,174
Persons below poverty line (%, 1999)	18.5%
Households without an automobile	10.3%
Private Non-farm employment (2001)	7,798
Land Area (square miles)	1,114
Density (persons per square mile)	34.1
Source: U.S. Census 2000 and American Community Survey 2009	

Developing an effective transit plan requires a fundamental understanding of the existing demographic conditions within the study area. Depending on the population's characteristics and density, different types of transit are recommended. The majority of Matagorda County's land mass is characterized as low-density rural. However, most of the population is located within the small urban areas of Bay City and Palacios. Assessing the potential for transit requires examining several demographic measures in detail, specifically:

- Dwelling unit (DU) densities with considerations of future growth potential, and population characteristics;

- The major trip producers and attractors, including major employers in the county.

Dwelling Units per Acre: Areas of higher density are more appropriate for fixed or flex route service. Based on an analysis of 2000 data shown in Figure 1.4, Dwelling Units per Acre, the number of Dwelling Units (DU) per acre does not exceed 3.5 in Matagorda County. Areas of greatest density were in the cities of Bay City and Palacios. However, those densities were between .03 and 3.5 households per acre. Population density remains less that .014 dwelling units per acre in most of the rural areas of the county. (Figure 2.4: Dwelling Units per Acre.)

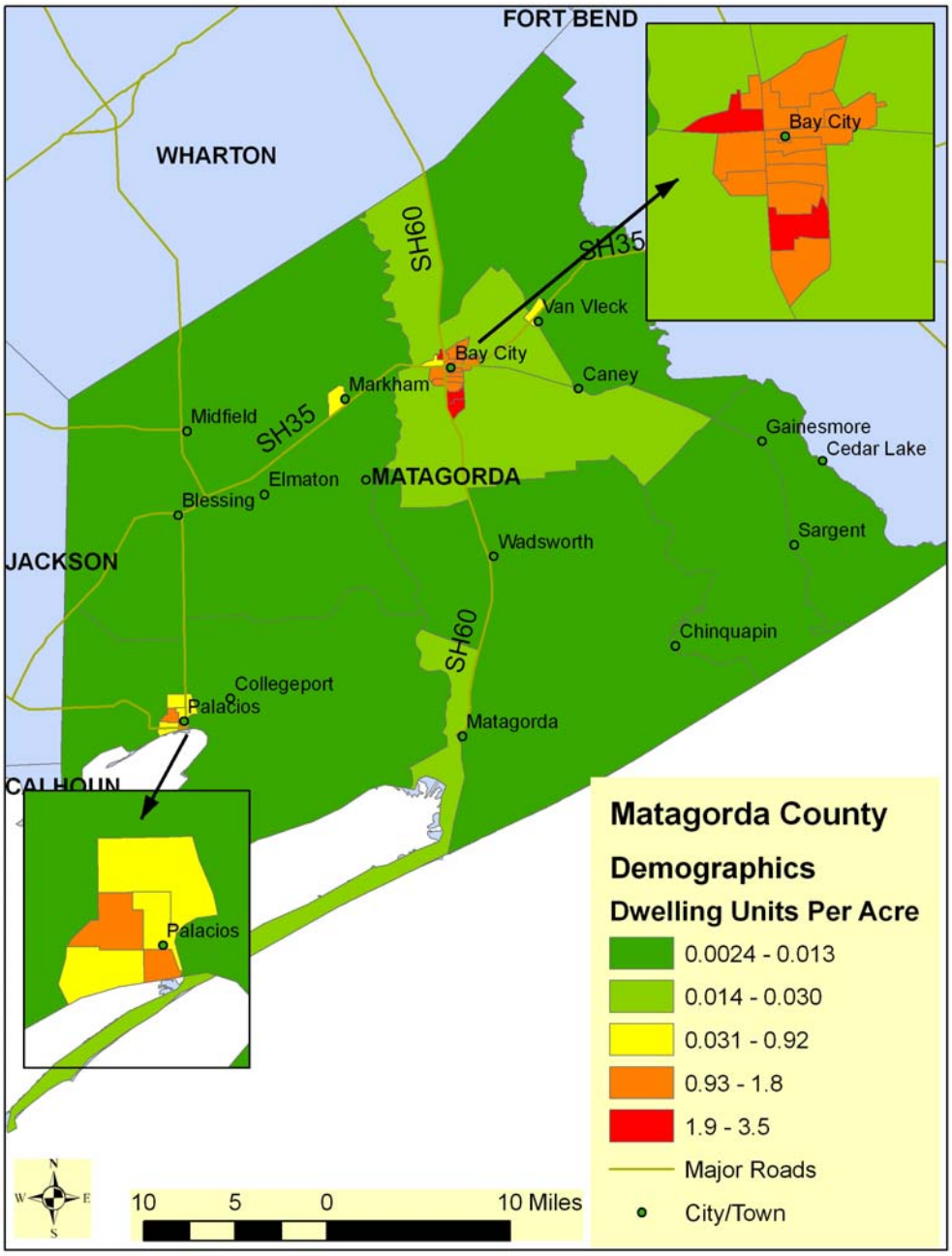

Figure 2.4: Dwelling Units per Acre

As mentioned, higher density is favorable for the development of specific modes of transit and lower density is more appropriate for other modes of transit. Density is not the sole determinant, but it is a critical factor in considering transit feasibility. A traditional measure of potential transit modes is shown in Table 2.2, Appropriate Densities for Different Transit Modes.

Table 2.2: Appropriate Densities for Different Transit Modes

Mode	***Service***	***Minimum Residential Densities (dwelling units/acre)***	***Remarks***
Dial-a-Bus/Demand Response	Many origins to many destinations	6	Assuming labor costs are relatively comparable to taxi service costs
Dial-a-Bus/Flex Service	Fixed destination or subscription service	3.5 to 5	Needed to keep costs relatively manageable at 3.5 to 5
Local Bus	*Minimum* ½-mile route spacing, 20 buses per day	4	Average - varies as a function of downtown size and distance from residential area to downtown.
Local Bus	*Intermediate* ½-mile route spacing, 40 buses per day	7	In some services, fixed route may be allowed to "flex" off route to increase coverage area.
Local Bus	*Frequent* ½-mile route spacing, 120 buses per day	15	This may be appropriate for less dense areas.
Express Bus reached by foot	5 buses during 2-hour peak period	15 Average density over 2-square mile tributary area	10 to 15 miles from large employers only
Express Bus reached by auto	5 to 10 buses during 2-hour peak period	3 Average density over 20-square mile tributary area	10 to 20 miles from a downtown larger than 20 million sq.ft. of non-residential floorspace

Source: Urban Densities For Public Transportation, Tri-State Regional Planning Commission, U.S. Department of Transportation, Ford Foundation and Rockefeller Foundation, Re-affirmed Urban Transportation Perspectives and Prospects, 1982, Rubashev and Zapan.

Based on current and future density levels for Matagorda County, the following modes can be considered appropriate based on population density:

- Dial-a-Bus or demand-response service: Most appropriate for rural areas and for meeting the needs of people with mobility disabilities.
- Flex Service: At 3.5 dwelling units per acre, some Bay City areas approach the minimum density needed for flex route service.
- Express Bus: Appropriate to meet the needs of employees who work a distance from workplace. Increased use of vanpools and carpools may serve as effectively. Currently,

the GCRPC operates a van between Bay City, Blessing, and Palacios to the Inteplast plant in Lolita, Texas, and Colorado Valley Transit District (CVTD) anticipates a van service from Bay City to the Greenleaf Nursery in Wharton County.

Population Characteristics: Like population density, the percentage of elderly, disabled and minority populations, and the number of low-income and zero-car households, can be indicators of higher transit demand. Please refer to Appendix B, Demographic Characteristics for information on these factors.

Trip Producers and Attractors

While population densities and characteristics, income, and auto availability influence the need for transit services, an analysis of major trip producers and attractors can help understand where the potential for effective transit service exists. Typically:

- Trip-producing areas (or origins) are where people live. Those areas that have higher populations and household densities typically produce greater numbers of trips. As is reviewed above, Bay City, followed by Palacios, is where the majority of people live and the greatest need is demonstrated.

- Trip-attracting areas (or destinations) consist of employment, medical, education/academic, health and human services, and retail centers. Areas that support large employment centers, academic and/or health centers will attract a higher percentage of the total trips in the area. The following section reviews significant destinations in the study area.

Employment Destinations: Employment in Matagorda County is concentrated in the following sectors: [3]

- Retail accounts for approximately 18 percent of all employment or 1,500 jobs, in Matagorda County. Retails jobs are concentrated primarily in Bay City along the commercial corridors of SH 35 and SH 60. Large local retailers like HEB and Walmart Supercenter, along with smaller retailers like Palais Royale, were contacted as part of this study to see if there was a perceived need for transit services for either their employees or customers. The response from the retailers was tepid with little need perceived by the employers.

  Despite the response from businesses, if transit service were provided to the SH 35/SH 60 retail corridor, it may attract riders at a level similar to other markets in the region given Bay City's transit needs profile. Based on 2000 U.S. Census data, about one-tenth of one percent, or 19 residents, of Victoria, Texas, take transit to work, where RTransit provides

[3] Employment figures from 2007 U.S. Census, County Business Patterns, Matagorda County

fixed route and van pool service. Galveston, where fixed route service is more extensive, reflects about 2.5 percent of all workers using transit to get to work. If similar percentages were applied and assuming all retail jobs were located in Bay City, the expected ridership may range from 1, for the low estimate, to 37 riders daily. (See Matagorda County Public Involvement Plan Report for business, agency and organization interview results).

- Health and Social Services accounts for 13 percent of all employment, or 1,200 jobs, in Matagorda County. Like retail, health service jobs are concentrated in Bay City but they are also found in smaller communities like Palacios. One of the largest employers is the Matagorda County Regional Medical Center (RMC). Like the larger retailers, the RMC was interviewed for this study. It employs about 350 people, who work among three shifts. Staff members from the Matagorda County RMC did not perceive a need for transit by its workers and they indicated that transportation has not been noted as a need on its internal surveys. They said that most of its employees working at the facility are paid professional wages and do not have difficulties with personal transportation. According to staff, lower paying technical and laborer positions were "scattered" around the county and not concentrated at the clinic, further making the medical center less of a focus of job-related transit demand.

  Other health-related employers contacted for this study include the Matagorda Episcopal Health Outreach Program (MEHOP), the Bay Villa Health Care Center, Bay City Physical Therapy Center, Bethany Health Care, the Matagorda County Women's Crisis Center, and the Economic Action Committee of the Gulf Coast. Most of these agencies felt the need for more transportation was more important from the perspective of the client, rather than the employee and they indicated strong support for the growth and expansion of the county-wide demand-response services. Some agencies felt that a small number of employees (1 to 5) may benefit from transit service.

- Accommodation and Food Services accounts for less than 13 percent of all employment, or 1,051 jobs, in Matagorda County. In Bay City, numerous new hotels have been recently built along SH 35 along with a few new restaurant establishments. As part of this study, these establishments were contacted to see if there was a need for transportation for its employees. Some hotels indicated a need for employee transportation for their lower-wage employees, particularly housekeeping. After polling the hotels, most housekeeping shifts begin between 8:00 and 9:00 am and end at or before 5:00 pm.

- Utilities accounts for less than 13 percent of all employment, or an estimated 1,029 jobs, in Matagorda County.[4] These jobs are in electric power production, transmission, and

[4] Employment figures for Utilities are estimated since actual figures are not reported by the U.S. Census to protect industry information.

distribution, including nuclear power; natural gas distribution; and water distribution/supply. Of these, most jobs are in the electric power production sector. One of the largest employers in this sector is the South Texas Nuclear Project (STNP).

STNP is located about 15 miles south of Bay City. It currently employs about 1,200 workers on site and 100 workers in its administrative building. As part of this study, the STNP was contacted to determine its potential interest in providing transit services to its employees. At the time of this report, the STNP did not indicate a need for transit services; however a significant need may be generated in the future when the STNP begins construction of a new facility. White Stallion Energy is another power facility. It currently employs about 150 workers. It is located close to STNP, and like STNP, it anticipates future construction.

Over the next five years, Matagorda County will see the construction of a new nuclear power reactor by STNP and an energy center by White Stallion. The STNP projects between 5,000 and 6,500 temporary construction jobs. White Stallion expects to employ between 1,000 and 1,500 temporary workers when it begins construction of a new facility in 2016. Together, these projects are estimated to create up to 8,000 short-term (approximately 5 years) construction worker jobs and 1,000 permanent jobs. In a county of less than 40,000 residents, this increase of new jobs, both temporary and permanent, will make a significant economic impact.

- Manufacturing accounts for about 8 percent of all employment, or an estimated 646 jobs, in Matagorda County. These jobs are in all sectors of manufacturing, but the largest employer is petrochemical manufacturing. Three of the largest petrochemical manufacturers are LyondellBasell, OXEA, and Celanese.

  LyondellBasell is located approximately 15 miles south of Bay City. It is a global company and a refiner of crude oil; a significant producer of gasoline blending components; and a global manufacturer of chemicals and polymers. An estimated 180 workers are employed at their Matagorda County facility. OXEA and Celanese have a petrochemical facility about 10 miles south of Bay City. OXEA employs about 150 workers and Celanese employs about 45 workers. Valerus Compressors is another manufacturer in Matagorda County. It makes stainless steel parts and is located on the border of Matagorda and Brazoria counties. It employs about 150 workers.

  Of these manufacturers, only OXEA and Celanese participated in a survey targeted to their employees and asking their opinions about transit services. Forty-four respondents indicated an interest in using vanpools and 35 respondents indicated an interest in park-and-ride services. (See Appendix A: Public Involvement Plan Report for all employee survey results.)

Medical Destinations: Demand for medical trips includes destinations within Matagorda County and surrounding counties and cities, including Houston. Based on an analysis of 6,515 Medical Transportation trips made in 2008, between 61 and 67 percent are destined for medical facilities within Bay City.

- The most significant single attractor is the Matagorda Renal Dialysis Center (1,621 trips). Individual doctor's offices made up the second largest category (1,721 trips).
- Houston is the second most popular attractor. In 2008, over 550 trips were to Houston medical centers such as the Houston Medical Center, Texas Children's Hospital, Memorial Hermann Southwest Hospital, and General Dentistry of West University, Houston.
- For residents of Palacios, most medical trips are taken to Bay City. After that, significant destinations include facilities within Palacios like the Palacios Community Medical Center or the Mid Coast Medical Clinic, or Victoria.
- For residents of northeast Matagorda County, most medical trips are taken to Bay City. After that, significant destinations include facilities within Brazoria County and Wharton County, like the Wharton Kidney Center, the South Texas Medical Clinics, and the Gulf Coast Medical Center.

Community Destinations: Major civic destinations include the County Courthouse, Bay City City Hall and the Palacios City Hall. The civic destinations not only employ over 300 persons, but also attract many non-work related trips.

Education/Academic: Two academic facilities, University of Houston at Victoria, and Wharton Community Junior College attract trips from Matagorda County and the region.

Figure 2.5, Major Trip Attractors shows the location of trip attractors. There are a number of out-of-county trips attractors that are not reflected in Figure 2.5. These include medical faclities in Victoria, Galveston and Houston and various employment in neighboring counties.

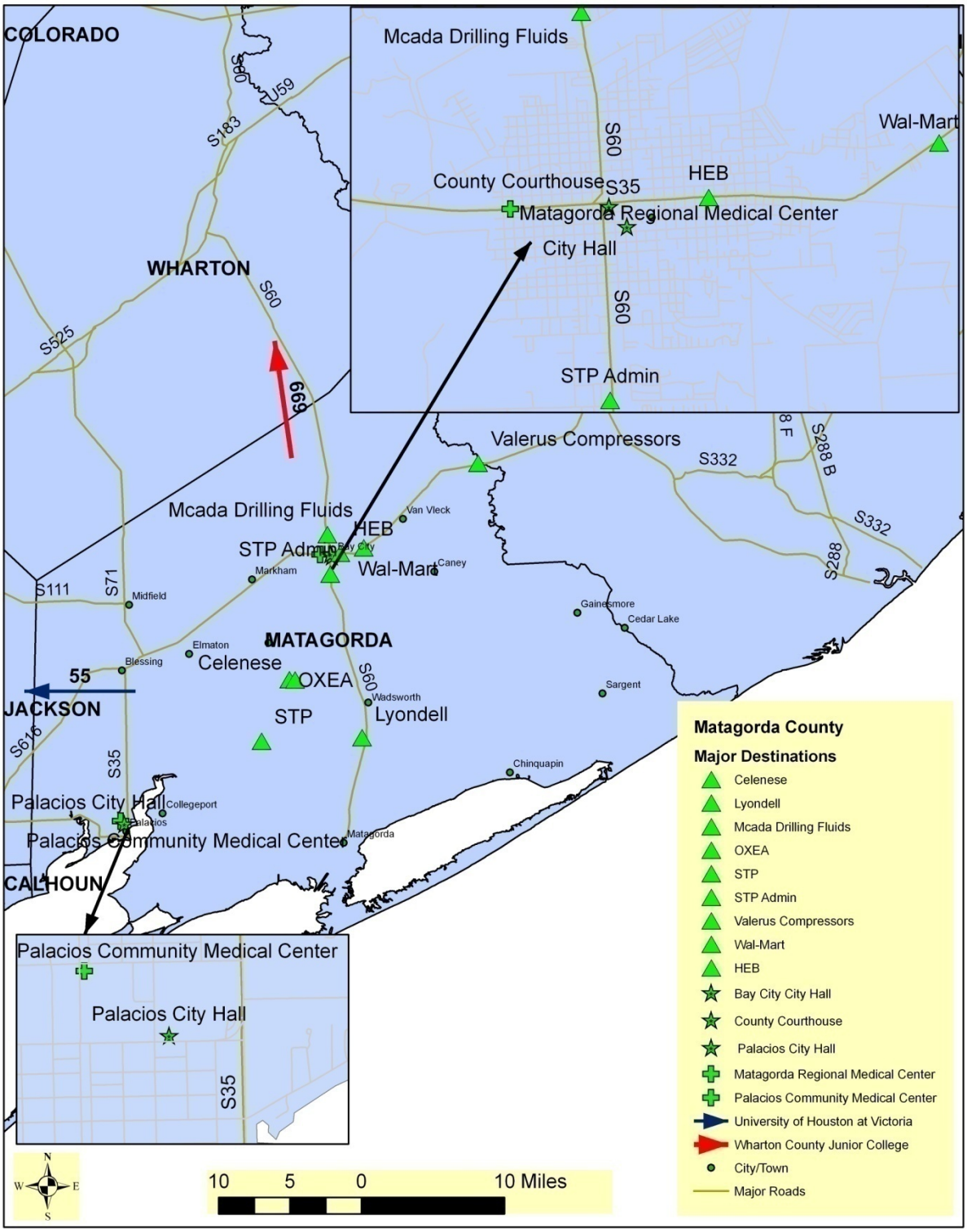

Figure 2.5: Major Trip Attractors

Population and Employment Projections

Between 1990 and 2000, Matagorda County experienced lower levels of population growth than the surrounding Gulf Coast region, which saw a 25 percent increase. Matagorda County, by comparison, experienced growth under 10 percent. Moreover, from 2000 to 2008, the population was estimated to experience little to no growth, from 37,039 in 2000 to 37,265 in 2008. This slow to no growth is a concern for the county as it has little opportunity to generate more revenues to support the services needed by the residents.

However, Matagorda County is anticipating two major construction projects within the next seven years. The White Stallion Energy Center is projected to employ 150 new full-time employees and between 1,000 and 1,500 workers during the peak of construction. The STNP facilty is planning on constructing two new nuclear reactors. The additional reactors could generate up to 800 full-time jobs and up to 5,500 construction jobs. These projects would have a siginificant impact to the county's population and economy in the next five years.

Figure 2.6, Population and Employment Projections shows the H-GAC population and employment projections for 2035. H-GAC projects the population in Matagorda County to increase from 37,600 in 2005 to 45,600 in 2035. H-GAC also projects an increase in employment from 16,400 jobs in 2005 to 19,600 jobs in 2035.[5]

[5] HGAC – Non-TMA Counties 2005-2035: Population and Employment Growth by Tracts. (http://www.h-gac.com/community/socioeconomic/documents/non-tma_4maps.pdf)

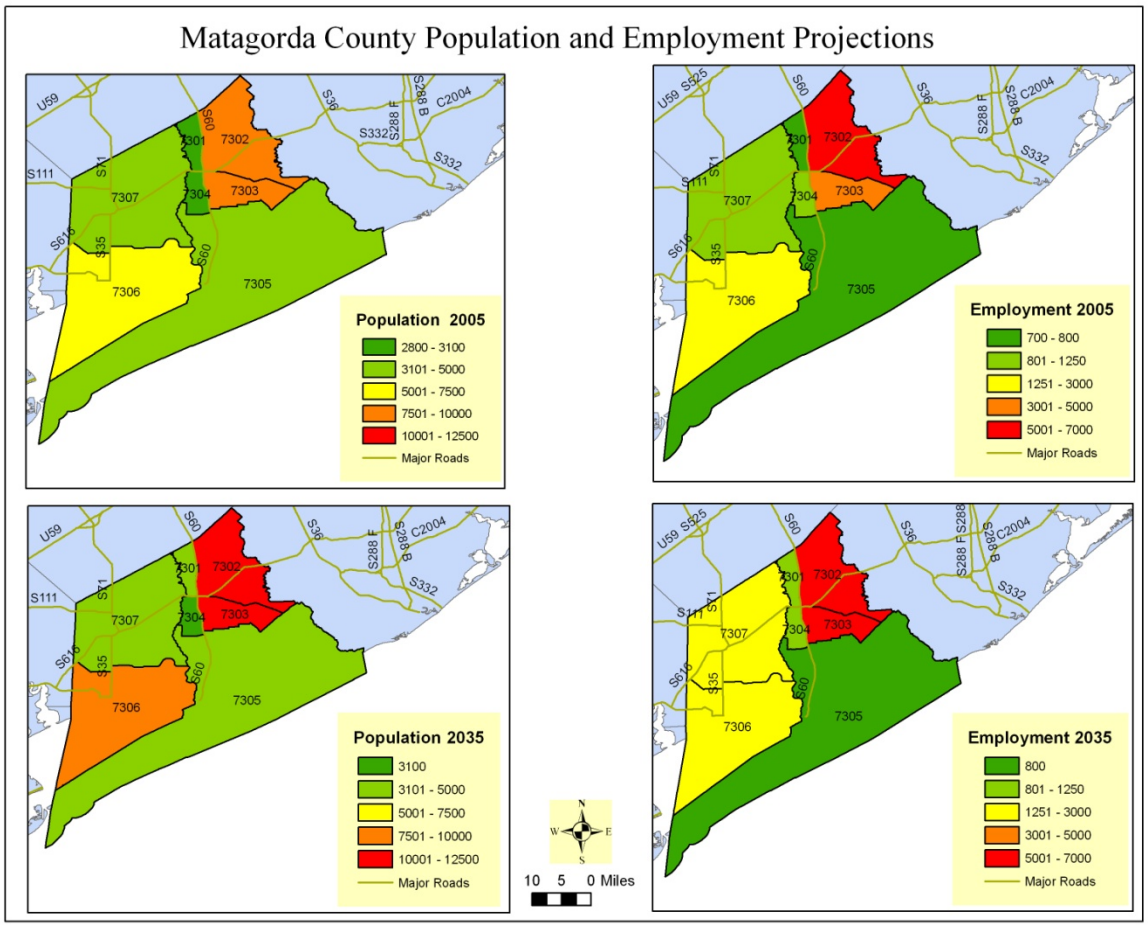

Figure 2.6: Population and Employment Growth

Conclusion

Matagorda County currently has approximately 36,000 residents, of which approximately 50 percent lives in Bay City. The demographic profile of Matagorda County reflects a population with a potentially higher than average need – there is a higher incidence of households with lower incomes and no cars, and people who are elderly or disabled.

Matagorda County has a population density that is appropriate for demand-response service, except for Bay City, where areas reflect the minimal density recommended for flex-route service. Increased use of vanpools and carpools is also appropriate.

Matagorda County has major trip attractors in Bay City and south central Matagorda County. Bay City trip attractors include a regional medical clinic, city and county services, and retailers along the SH 35 and SH 60 corridor, like the HEB and Walmart Supercenter. The concentration of retailers along the corridor, coupled with the wage profile of retail employees, creates an environment that is supportive of transit. Major trip attractors outside of Bay City and in

Matagorda County include STNP, LyondellBasell, Valerus Compressors, Celanese and OXEA. Trip attractors outside of Matagorda County are medical facilities in Houston, Galveston and Victoria, academic centers in Victoria and Wharton and employment in neighboring counties.

Chapter 3: Transportation Providers

Introduction

Examining the experiences of regional and local transit providers offers insights into the types of transit services that may be appropriate, effective, and efficient for Matagorda County. Information about regional peer systems will help provide a framework to improve transit service in Matagorda County. This chapter outlines regional transportation providers: Golden Crescent Regional Planning Commission (GCRPC); Gulf Coast Center/Connect Transit; Colorado Valley Transit District (CVTD); and Fort Bend County Transit (FBC). The chapter also describes local transportation services being provided in Matagorda County through the Friends of Elder Citizens (FOEC), a sub-contractor to the GCRPC.

Regional Transportation Providers

For each provider, information regarding background, organization, types of service, technology used, challenges, and other pertinent information is given in Appendix A, Profile of Transportation Providers. The section concludes with a service efficiency and cost effectiveness discussion. Each of these organizations provides insight to a framework for governance of transportation services in Matagorda County.

FOEC: Matagorda County is served directly by FOEC, who is a sub-contractor to the GCRPC. The FOEC provides demand response service in Matagorda and Jackson counties. In addition, the FOEC is a sub-contractor to American Medical Response (AMR) for Medicaid transportation.

GCRPC: The GCRPC is the Federal Transit Administration (FTA) grantee for Matagorda County, receiving federal and state funding on its behalf. It issues Request for Proposals (RFPs) for service provision in Matagorda County, evaluates service proposals, and ensures that service is effectively delivered. Excluding Matagorda County, the GCRPC provides a variety of services (fixed-route, demand-response, and vanpool) for seven counties: Calhoun, Dewitt, Goliad, Gonzales, Jackson, Lavaca, and Victoria.

Gulf Coast Center/Connect Transit: Connect Transit is organized under the Gulf Coast Center, an organization dedicated to the provision of services and support for people with mental retardation or mental illness. It provides fixed-route, demand-response, and park & ride services within Brazoria and Galveston counties.

CVTD: CVTD serves Austin, Colorado, Waller, and Wharton counties, where it provides fixed-route, demand-response, and vanpool services.

FBC: Unlike the previous organizations, the FBC serves one county, Fort Bend County. Organized as a county department, the FBC provides fixed-route, demand-response, and vanpool service, and manages a ride voucher program.

See Figure 3.1, Local and Regional Transit Providers and Appendix C: Transportation Providers.

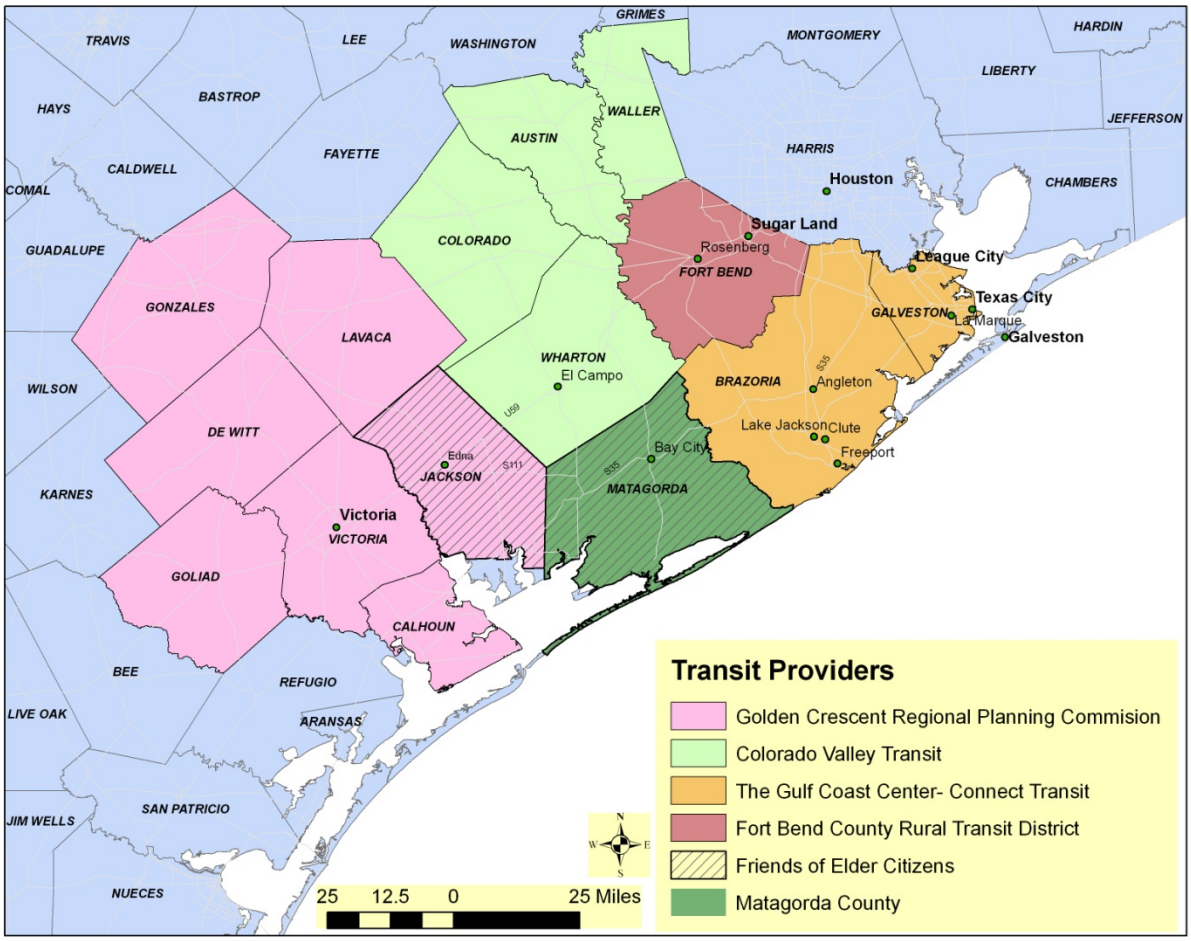

Figure 3.1: Local and Regional Transit Providers

Peer Review: Cost Effectiveness and Service Efficiency

Matagorda County may expect a similar cost effectiveness, service effectiveness and service efficiency as its peer regional transportation providers. Statistics for each of these service providers was reviewed for FY2008 and calculated service efficiency, and cost and service effectiveness measures. (Table 3.1, Peer Comparison of Service Efficiency, Cost Effectiveness, and Service Effectiveness.)

Table 3.1: Peer Comparison of Service Efficiency, Cost Effectiveness, and Service Effectiveness

	State Average for Non-urbanized Area Programs	GCRPC	GCC	CVTD	FBC
Operating Expense	$1,799,304	$1,838,445	$1,935,282	$1,333,193	$1,569,333
Vehicle Revenue Miles	659,308	867,558	519,106	598,510	825,413
Unlinked Trips	126,854	124,738	50,622	76,306	159,304
Vehicle Revenue Hour	37,766	47,648	28,960	38,397	38,713
Total Revenue Vehicles	34	42	50	35	22
Service Area Population	147,130	160,333	140,616	117,124	37,891
Service Efficiency					
Op Exp / Vehicle Rev Mi	$2.73	$2.12	$ 3.75	$2.23	$1.90
Op Exp / Vehicle Rev Hr	$47.64	$38.58	$ 66.83	$34.72	$40.54
Cost Effectiveness					
Op Cost / Passenger Trip	$14.18	$14.74	$ 38.23	$17.47	$9.85
Service Effectiveness					
Trips / Vehicle Rev Mile	0.19	0.14	0.10	0.13	0.19
Trips / Vehicle Rev Hr	3.36	2.62	$1.75	1.99	4.12
Source: Annual Data from 2008 TxDOT PTN Data					

Service Efficiency measures the cost of operating the transit service (labor, cost of fuel, maintenance, etc.) compared to the number of hours and the number of miles during which the vehicles were providing service. The measure reflects how cost effectively the provider operates its vehicles, regardless of ridership, with lower ratios indicating better performance. In the above analysis, those agencies which contracted services, GCRPC and FBC, reflect higher service efficiency than those agencies which directly provide services, GCC and CVTD. Based on peer performance, Matagorda County may expect an estimated operating cost per vehicle revenue mile of $2 to $4, and per vehicle revenue hour of $34 to $68.

Cost Effectiveness measures the cost of operating the transit service compared to the number passenger trips. In rural areas, the cost per trip will be higher because of the limited ridership and longer trip lengths. Operating cost per passenger trip ranges from $9.85 to $39.72. FBC has the best cost effectiveness, delivering a trip for less than $10.00. The source of its advantage is not known but it may be related to lower costs through competitive bidding and high utilization rates

of its commuter services. Connect Transit reflects the lowest cost effectiveness, delivering a trip for slightly less than $40.00. Similarly, the source of the disadvantage is not known but it may be related to the lower utilization of its vehicles for demand-response trips.

Service Effectiveness measures how well the system delivers service to passengers, regardless of the cost. A high ratio indicates high service effectiveness. Passenger trips per vehicle revenue mile ranges from 0.1 to 0.19. Passenger trips per vehicle revenue hour ranges from 1.99 to 4.12.

Overview of Matagorda County Transportation Providers

Friends of Elderly Citizens

Organization: Friends of Elderly Citizens, Inc. (FOEC) is a 501c(3) nonprofit organization with a mission to provide needed services to people 60 years and older in Matagorda and Jackson counties. The FOEC began providing nutrition and activities in 1979. In order to meet its mission, the FOEC offered transportation services to its clients. From this beginning, the FOEC's expertise in transportation grew and in 1995, it began providing general public transit service. At that time, the FOEC became a sub-contractor to the GCRPC to provide demand response services in Matagorda County. It later became a sub-contractor to the American Medical Response (AMR) to provide Medicaid trips in Matagorda and Jackson counties.

Outside of its public transit and Medicaid transit services, the FOEC provides transportation services to its senior clients that are not open to the general public or Medicaid clients. Under its FOEC senior program, it provides transportation for its nutritional program to bring individuals to the center for communal meals or to take meals to home-bound individuals. It also provides transportation for activities and outings. This study focuses on the public and Medicaid portions of FOEC's service.

The FOEC is led by an executive director who oversees all of its operations, including the thrift shop, food pantry, nutrition and activities programs, as well as the transit services. Assigned to Matagorda County are five drivers and two reservation/scheduling and dispatch (RSD) personnel. The drivers provide both general public and Medicaid trips. The RSD personnel are located in the FOEC facilities in Bay City and Palacios.

Services: As the demand-response provider, the FOEC delivers transit services to the general public. The FOEC requires a 24-hour advance reservation but encourages a 48-hour reservation. It is a curb-to-curb service. No scheduled services are provided and it limits its trips to Houston to Tuesdays and its trips to Galveston to Thursdays. The FOEC provides subscription service to the Texas Mental Health Mental Retardation (MHMR) Edith Armstrong Center in Bay City for eight riders out of Bay City and nine riders out of Palacios. No other subscription services are provided.

The FOEC provides service Monday through Friday from 8:00 am to 5:00 pm. Fares are $1.50 for in-town trips; $3.00 for in-county trips; $22.50 for county-to-county trips to Lake Jackson, Angleton, Wharton, and El Campo; and $45.00 for regional trips to Houston, Galveston, Port Lavaca, Missouri City, and Victoria. Fares are half priced for seniors, people with disabilities, and children.

From FY2007 to FY2009, the FOEC provided between 25,000 and 36,000 trips each year. During this time, not only did the number of trips fluctuate considerably, but the composition of what type of trips provided changed as well. In 2007, general public trips accounted for about 74 percent of the service being supplied, or about 22,000 of 29,000 trips. In 2009, this decreased to 11,000 trips, or about 43 percent of all trips. Conversely, the number of trips provided under the Medicaid and Department of Aging and Disability grew. See Table 3.2, FOEC Trips.

Table 3.2: FOEC Trips [1]

Trip Type	**2009**	**2008**	**2007**
General Public	10,836	23,399	21,742
Medicaid	5,635	5,009	4,997
Department of Aging and Disability	8,876	7.511	2,607
Total	**25,374**	**35,919**	**29,346**

According to FOEC staff, the FY2007 to FY2008 increase in general public trips was the result of service advertising and promotion. However, this increase in awareness did not carry forward into FY2009, when average monthly trips dropped from approximately 1,900 per month to 900 per month. In fact, the number of monthly trips dropped from about 2,200 at the end of FY2008 to 900 at the beginning of the next month in FY2009. Like the regional providers, the FOEC's service efficiency, cost effectiveness, and service effectiveness was reviewed. In general, its performance statistics are better than its regional peers for Service Efficiency and Cost Effectiveness and on par for Service Effectiveness.

Table 3.3: FOEC Service Efficiency, Cost Effectiveness, and Service Effectiveness 2007-2009

	2007	**2008**	**2009**	**Peer Average**
Operating Expense	$ 266,277	$ 284,544	$273,143	
Annual Vehicle Revenue Miles	196,861	186,393	199,162	
Annual Unlinked Trips	29,346	35,919	25,374	
Annual Vehicle Revenue Hour	9,659	9,383	9,094	
Total Revenue Vehicles	5	5	5	
Service Area Population	~50,000	~50,000	~50,000	

[1] Texas Department of Transportation, FOEC PTN128 Reports for FY2007 to FY2009

Table 3.3: FOEC Service Efficiency, Cost Effectiveness, and Service Effectiveness 2007-2009, continued				
	2007	**2008**	**2009**	**Peer Average**
Service Efficiency				
Op Exp / Vehicle Rev Mi	$ 1.35	$ 1.53	$ 1.37	$2.57
Op Exp / Vehicle Rev Hr	$ 27.57	$ 30.33	$ 30.04	$46.00
Cost Effectiveness				
Op Cost / Passenger Trip	$ 9.07	$ 7.92	$ 10.76	$19.19
Service Effectiveness				
Trips / Vehicle Rev Mile	0.15	0.19	0.13	0.15
Trips / Vehicle Rev Hr	3.04	3.83	2.79	2.76

Vehicles: The FOEC maintains nine vehicles in Matagorda County, of which five are used in operations and four are spares or non-service vehicles. Of these nine, four vehicles were purchased with private funds and five were purchased with TxDOT funds.

Funding: The FOEC receives federal, state, local, and contract funding for its transit services through the GCRPC, which is the grantee for Matagorda County.

Table 3.4: FOEC Transit Financial Resources			
	FY2007	**FY2008**	**FY2009**
Federal	$ 71,808	$ 61,100	$ 79,034
State	$ 54,107	$ 44,623	$ 48,269
Local			
Fares	$ 9,416	$ 12,080	$ 17,766
Other	$ 10,897	$ 17,000	$ 5,864
Medicaid Contract	$ 168,978	$ 159,220	$ 177,157
Dept. of Aging	$ 18,583	$ 0	$ 11,989
Total	*$ 333,789*	*$ 294,023*	*$ 340,079*
Cost to Operate	$ 266,277	$ 284,544	$ 273,143
Over/(Under)	$ 67,512	$ 9,479	$ 66,936

Federal Funding: The FOEC receives Federal Section 5311 Non-urbanized Area Formula Funding through the GCRPC, which allocates a percentage of this funding to Matagorda County. The Section 5311 program provides support to rural areas and urbanized areas with populations less than 50,000. In FY2009, the GCRPC received $619,002 to support rural services. Of this, $79,034 (or 12.77 percent) was allocated to Matagorda County. The GCRPC receives funding through a formula allocation based on performance and need, and then allocates these funds using an internal allocation system. See Figure 3.2: TxDOT Rural Funding Allocation Formula.

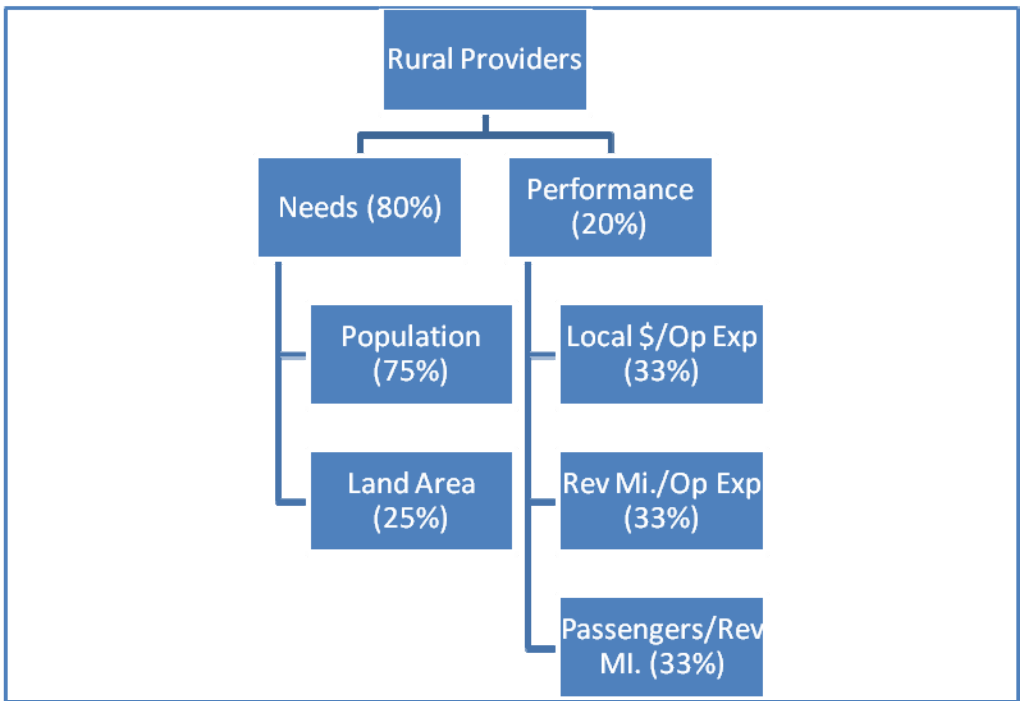

Figure 3.2: TxDOT Rural Funding Allocation Formula

State Funding: Similar to the federal funds, the FOEC receives State Public Transportation Funding through the GCRPC. In FY2009, the GCRPC received $535,018 in State Public Transportation Funds. Of this, $48,269 (or 9 percent) was allocated to Matagorda County. The state funds are also distributed using a funding formula based on needs and performance and then re-allocated internally by GCRPC.

Local Sources

Fares: In FY2009, the FOEC supported 6.5 percent of its cost of operations with fares. This is slightly above the state average of 6 percent and an improvement over a 4.2 percent farebox recovery rate in FY2008 and a 3.5 percent farebox recovery rate of 3.5 percent in FY2007.

Medicaid: The Medicaid contract is a significant source of funding and local share. Between FY2007 and FY2009, over fifty percent of its total revenue was generated by FOEC's Medicaid contract. These funds are important, not only as a source of operating revenue, but as a source of local share. Because federal funds must be matched by local funds, it is important to have sufficient an equal or greater amount of local funds in order to "draw down" the federal funds allocated to the area. With the Medicaid contract, the FOEC is able use these resources to subsidize operating costs for which there is insufficient federal and state funding. Between FY2007 to FY2009, the federal share for the cost of operations ranged from $128,000 to $136,000. However, there was only approximately $71,000 on average in available federal funding. The deficit, which ranges from $48,500 to $75,000, was made up by local resources,

such as Medicaid contract revenue. Tables 3.5, FOEC Funding Balance with Medicaid Contract and Table 3.6, FOEC Funding Balance without Medicaid Contract, illustrate the impact.

	Table 3.5: FOEC Funding Balance with Medicaid Contract				
			FY2007	FY2008	FY2009
A	Operating Cost		$ 266,277	$ 284,544	$ 273,143
B	Less Fares		$ 9,416	$ 12,080	$ 17,766
C	Net Operating Cost		$ 256,861	$ 272,464	$ 255,377
D	Federal Share (C X 50%)	50%	$ 128,431	$ 136,232	$ 127,688
E	Local Share (CX 50%)	50%	$ 128,431	$ 136,232	$ 127,688
	FEDERAL RESOURCES				
F	Section 5311		$ 71,808	$ 61,100	$ 79,034
G	Federal Resources Total (=F)		$ 71,808	$ 61,100	$ 79,034
H	Federal Share Unfunded (D-G)		$ 56,623	$ 75,132	$ 48,654
	LOCAL RESOURCES				
I	Section 5311_TXDOT		$ 54,107	$ 44,623	$ 48,269
J	Medicaid Contract Revenue		$ 168,978	$ 159,220	$ 177,157
K	Aging and Disability Contract Revenue		$ 18,583	$ -	$ 11,989
L	Other		$ 10,897	$ 17,000	$ 5,864
M	Total Local Resources (I+J+K+L)		$ 252,566	$ 220,843	$ 243,279
N	Local Share Unfunded (M-E)		$ -	$ -	$ -
O	Local Share Supporting Federal Share (=H)		$ 56,623	$ 75,132	$ 48,654
p	Total Over/(Under) (M-E-O)		$ 67,512	$ 9,479	$ 66,936

Table 3.6: FOEC Funding Balance without Medicaid Contract					
			FY2007	FY2008	FY2009
A	Operating Cost		$ 266,277	$ 284,544	$ 273,143
B	Less Fares		$ 9,416	$ 12,080	$ 17,766
C	Net Operating Cost		$ 256,861	$ 272,464	$ 255,377
D	Federal Share	50%	$ 128,431	$ 136,232	$ 127,688
E	Local Share	50%	$ 128,431	$ 136,232	$ 127,688
	FEDERAL RESOURCES				
F	Section 5311		$ 71,808	$ 61,100	$ 79,034
G	Total Federal Resources		$ 71,808	$ 61,100	$ 79,034
H	Federal Share Unfunded		$ 56,623	$ 75,132	$ 48,654
	LOCAL RESOURCES				
I	Section 5311_TXDOT		$ 54,107	$ 44,623	$ 48,269
J	Medicaid Contract Revenue		$ -	$ -	$ -
K	Aging and Disability Contract Revenue		$ 18,583	$ -	$ 11,989
L	Other		$ 10,897	$ 17,000	$ 5,864
M	Total Local Resources		$ 83,588	$ 61,623	$ 66,123
N	Local Share Unfunded		$ 44,843	$ 74,609	$ 61,566
P	Total Over/(Under)		($ 101,466)	($ 149,741)	($ 110,220)

Challenges: FOEC does not have any newer technology for its vehicles and is not currently seeking to initiate any new large-scale projects. One of the challenges for FOEC is that transportation is secondary to the organization and any additional transit service would be very difficult to manage and operate, given its other priorities. Another challenge is hiring qualified drivers for various services FOEC manages, including transit. The pool of qualified drivers in Matagorda County may be small and outside training may be necessary.

Other Matagorda County Providers

Taxi Service: There is minimal taxi service in Bay City and none in Palacios. Jitney Taxi operates two vehicles in Bay City, of which neither is equipped with a wheelchair lift. A taxi had previously operated in Palacios but it was discontinued. Another taxi service has not established and many residents of Palacios indicated that they would like to see a taxi return.

Greyhound: Greyhound, operating as Valley Transit Pool, is the inter-city bus company in Matagorda County. It departs for Houston at 2:40 pm daily, returning at 5 p.m. Greyhound leaves from Bay City for Victoria at 1:10 p.m., and arrives a 6 p.m.; or leaves from Bay City at 2:40 p.m. and arrives at 8:40 p.m.

The cost per trip is between $23 and $31, one-way. Some transit agency "inter-line" with carriers like Greyhound for their regional trips. However, Greyhound's schedule does not meet the need of many regional passengers who are going to Houston for early day medical appointments.

Health and Human Service Agencies: The following is a brief review of other transportation services provided by specific agencies:

- Workforce Solutions of Matagorda County: The Workforce Solutions provides gas vouchers for its customers with a need for transportation assistance. It does not provide any funding support for transit services.
- Red Cross of Matagorda County: The Red Cross coordinates transportation in the event of emergencies and/or evacuations. They do not provide or support a regularly scheduled service.
- Division of Aging and Disability Services (DADS): The FOEC provides services under contract to the DADS.
- Mental Health and Mental Retardation Center/Edith Armstrong Center: The FOEC provides subscription services to 17 passengers to a sheltered workshop under contract to the MHMR Center.
- Veterans Affairs Administration: The VA provides trips to the VA Hospital in Houston, Monday through Friday. Only veterans going to the hospital are eligible to ride. It leaves from Bay City at 5:30 am and returns in the afternoon.

Conclusion

Matagorda County is located in a region that is well served by transit. The GCRPC has demand response services throughout its seven-county region, a fixed route in Victoria, and vanpool that includes a pick-up in Palacios. CVTD serves the four counties to the north with a "Loop and Link" system that networks its service area through a combination of shorter and longer routes that connect at transfer stations. Like the GCRPC, it will begin operating a vanpool that will serve some employees that are based in Bay City. Connect Transit has recently implemented fixed route services in southern Brazoria County, expanding its service from one that has previously been focused exclusively on demand-response services. Lastly, the FBC Public Transportation Division is expanding its park & ride system to provide more connectivity from

its county into Houston and is expanding its demand-response services to better serve people with disabilities.

The FOEC provides general public transit services in Matagorda County, as a subcontractor to the GCRPC. Compared to its regional peer, it provides its service cost effectively and efficiently. However, the FOEC's capacity to expand its transit role in Matagorda County is limited, as it considers transit services secondary to its mission to serve the elderly. Lastly, the impact of Medicaid revenue earned by the FOEC is critical to the support of Matagorda County's general public transit program. It provides needed local share to match federal funds.

Chapter 4: Transit Need and Service Gaps

Introduction

This chapter outlines transit services needs and gaps in Matagorda County. Transit needs are classified by type. The location of transit need is measured using a Transit Needs Index. The transit gap for rural areas is measured using average trips per capita measurement. This gap is most appropriately filled by demand-response service. Comments regarding general public transit need are reflected in General Public Surveys section. Work-related trips are evaluated using the 2000 U.S. Census Journey-to-Work data, and general public and employer survey responses. These trips may be most appropriately filled by a combination of flex route service in Bay City, vanpool or park & ride to surrounding industrial employers. Education trips to Wharton County Junior College and University of Houston at Victoria are reviewed as are local public school trips to Bay City ISD. Lastly, Medicaid trips are analyzed for their impact on the provision of transit services in Matagorda County.[1]

Transit Needs Index

The Transit Needs Index (TNI) is a tool to assess an area's transit need. It relies on a weighting of demographic characteristics to formulate a score for the relative need of transit. To calculate the TNI scores for the region and within Matagorda County, data for population density, median household income, minority population, zero car households, senior population, and disability were weighted according to their impact on transit and concentration within each study area. The weights were formulated based on the experiences within small Texas cities in the 1990's and updated with 2000 U.S. Census data. (Table 4.1, TNI Weights.)

Table 4.1: TNI Weights

	Rural (Demand Response)
Population Density	1.00
Low Median HH Income	2.50
Minority Population	1.00
Zero Car Households	1.50
Senior Population	2.00
Workforce Disability	2.00

The TNI results for the region are illustrated in Figure 4.1, Regional TNI. The highest transit demand is reflected in Fort Bend County, largely driven by a population density that is four to five times that of the region. Matagorda County reflects an average transit demand, but has a relatively higher incidence of households with less than median incomes and no cars, more minorities, and a higher incidence of disabilities.

[1] Refer to the Public Involvement Plan for more information and comments from the General Public Survey and the Employer Survey.

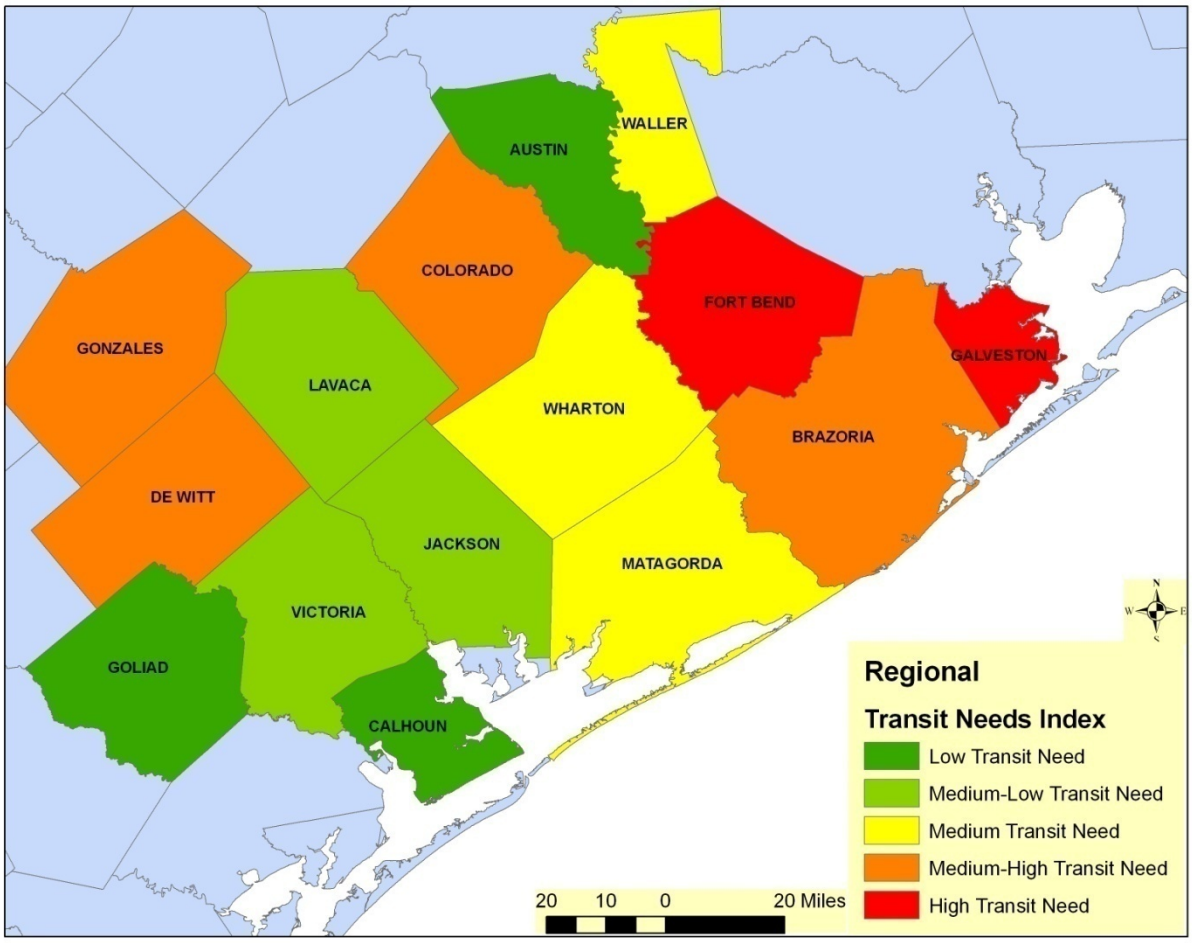

Figure 4.1: Regional TNI

The TNI results for Matagorda County are illustrated in Figure 4.2. This map shows where the transit need is the highest in the county. Like the region, the need is largely driven by population density and is heaviest in Bay City, followed by Palacios.

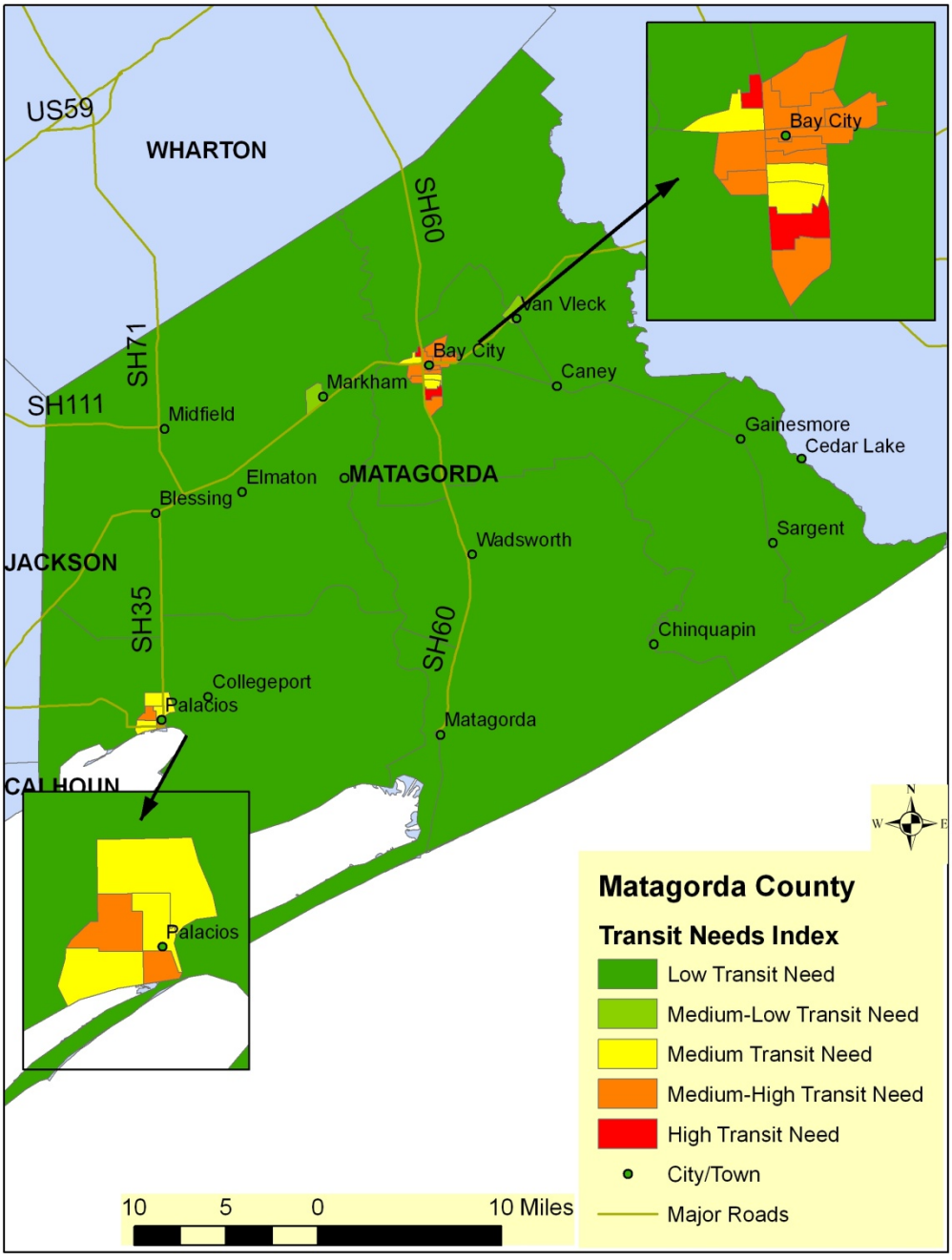

Figure 4.2: Matagorda County TNI

Transit Service Gap

The average number of trips per capita is an easy and quick way to determine if the number of trips being provided is more or less than those provided by peer systems. As mentioned in Chapter 3, Transportation Providers, FOEC provides demand-response service under contract to the GCRPC. The study analyzed the number of trips per capita (including General Public, Medicaid, contract, etc.) provided between FY2007 and FY2008 and compared it to a peer group (GCRPC, Connect Transit, CVTD, and FBC).

Using this approach, it reflects that the level of transit currently provided in Matagorda County is below that provided by peer systems and substantially below the state average. Matagorda County was provided 0.80 trips per capital in 2007 and 0.96 trips per capita in 2008. By comparison, the peer group provided 1.12 trips, and 1.44 trips, in FY2007 and FY2008 respectively; and the state averaged 4.09 trips and 4.45 trips, in FY2007 and FY2008 respectively.[2]

If the same ratio of trips per capita were to be provided as the peer group, an additional 11,753 trips in FY2007 and 17,649 trips in FY2008 would be delivered in Matagorda County. If the same ratio of trips were to be provided as the state average, an additional 114,838 trips in FY2007 and 140,455 trips in FY2008 would be delivered. See Table 4.2: Matagorda County, Unlinked Trips per Capita.

Table 4.2: Matagorda County, Unlinked Trips per Capita

	FY2007	**FY2008**
FOEC	0.80	0.96
Peer Transit Providers	1.12	1.44
All 5311 Texas Providers	4.09	4.45
Additional trips if were to deliver at level of peer providers	11,753	17,649
Additional trips if were to deliver at level of Texas providers	114,838	140,455

[2] Research by the Transportation Research Cooperative, "TRCP Project A-3: Rural Transit Demand Estimation Techniques," posits four persons per capita as a reasonable maximum level of travel demand for highly rural areas. Four persons per capita are referred to as a maximum adequate demand level. One person per capita can be viewed as a minimum service level where basic demand is being met.)

General Public Survey Results

To better understand mobility needs within Matagorda County, a ten-question survey was distributed in both English and Spanish to area residents. In total, 157 surveys were returned. The following comments are a synopsis of the major results. For a full report on the survey, please refer to Appendix B: Matagorda County Public Involvement Plan Report.[3]

Survey Respondents: Most respondents to the survey were between the ages of 51 and 65 and reside in the Bay City (77414) zip code. Most reported to be employed or retired, which corresponds to the age demographic. Places of employment that were most frequently cited are located in or near Bay City and include Matagorda Regional Hospital, self-employed, STNP, and United Way.

Service Needs: The highest need is noted in Bay City, which was influenced by the large number of Bay City respondents. Questions related to Need for Service reflect a potential demand for bus service on a daily or weekly basis within Bay City for work and shopping trips. Bus trips outside of Bay City to other areas within the county or to other counties are limited to interest on a monthly basis. See Table 4.3: Question 5, How likely are you to use a bus to take a trip?

Table 4.3: Question 5, How likely are you to use a bus to take a trip?

Answer Options	Within Bay City	To and from Bay City and Palacios	To and from Bay City and other places in the county	To and from other places in the county	From Matagorda to another county	Other
Never	17.8%	19.1%	18.8%	18.4%	17.4%	8.6%
Daily	45.2%	7.1%	9.5%	11.9%	16.7%	9.5%
Weekly	27.6%	15.3%	18.4%	16.3%	15.3%	7.1%
Monthly	13.7%	21.6%	18.6%	22.5%	18.6%	4.9%
Less Than Monthly	14.5%	18.8%	16.7%	17.4%	26.8%	5.8%

[3] Results of survey are not statistically significant.

Respondents indicated that demand for medical and shopping trips would be frequented on a weekly and monthly basis. Bus trips related to school showed the least interest; this is likely due to the type of respondent (older and working or retired), rather than a lack of need. See Table 4.4, Question 6, How likely are you to use a bus to make these kinds of trips?

Table 4.4: Question 6, How likely are you to use a bus to make these kinds of trips?

Answer Options	Work	School	Medical	Shopping	Other
Never	24.1%	28.5%	17.0%	18.5%	11.9%
Daily	38.2%	14.7%	8.8%	32.4%	5.9%
Weekly	14.1%	3.1%	23.4%	46.9%	12.5%
Monthly	8.6%	8.6%	50.0%	28.6%	4.3%
Less Than Monthly	14.8%	6.6%	39.3%	26.2%	13.1%

The most important attributes for bus service noted by respondents is distance to bus stop, fare price, and frequency of service. By comparison, respondents felt service after 5:00 pm or on the weekends was not an important attribute of the system.

Availability of Service: About 60 percent of respondents indicated that they were not aware that local bus service is available in Matagorda County. This result is similar to one reached for the 2006 Gulf Coast Regional Transportation Coordination Plan where a lack of awareness of service was cited as a need to be addressed. Better information and outreach to communities is needed to close this gap.

Work Trips

Commuters are one of the most important transit markets and one that can be fairly well-defined. Work trips typically take place within a fairly well-defined window of time; most morning commutes occur between 6:00 am and 9:00 am in the morning and 4:00 pm to 7:00 pm in the evening. Transit services that target these travel times may be more cost-effective than a service that runs all day. Likewise, some employment centers may have a very definitive transit need that could be served well with vanpools serving only that employment site. By understanding work travel patterns, Matagorda County stakeholders have the opportunity to provide more cost-effective, targeted transit programs.

Journey-to-Work: The 2000 U.S. Census collects data on inter-county work trips and the data for trips originating in Matagorda County was analyzed. The total number of people recorded as making work trips is 14,762 (or about 40 percent of the county's population.). Of that, 76 percent, or 11,762 people, commute within Matagorda County. The top five destinations outside of Matagorda County are:

- 10.83 percent, or 1,600 people commute to Brazoria County; [4]
- 3.5 percent, or 517 people, commute to Harris County;
- 3.25 percent, or 482 people, commute to Wharton County;
- 2.40 percent, or 358 people, commute to Calhoun County; and
- Less than one percent, or 145 people, commute to Fort Bend County.

The remaining 34 destinations represent less than one percent of commuters, or 613 people.

The Journey-to-Work data is useful in measuring the transit gap. In peer regions, transit agencies provide between 0.5 percent and 1.66 percent of all work trips. Using these averages to estimate low and average demand and 3 percent for high demand, the work-related transit gap is as follows.

Table 4.5: Work-Related Transit Gap

Modal Split	***Riders***	***Estimated Annual Trips***
Low or 0.5 percent	74	37,000
Medium or 1.50 percent	221	110,500
High or 3.00 percent	443	221,430

The data is also useful for determining where commute services between counties can be supported. Assuming that Matagorda County would achieve the same average public transit

[4] Large single-site Brazoria County employers include Concoco Phillips, Dow Chemical, Texas Department of Criminal Justice, and Walmart. Information from: http://www.eda-bc.com/demographics/employment.asp.

ridership for work trips as other regional providers, about one percent of these trips, or 143 riders may use public transit for work trips, or the equivalent of 71,500 trips annually.

The Journey-to-Work data indicates transit gap that may be served by flex, peak-hour service in Bay City, the site of most employment within the county, vanpool or park & ride service to surrounding industrial employers, and a commuter connection between Matagorda County and regional employers. (Some of these regional transit riders are already being served by RTransit's vanpool service to the Inteplast facility in Lolita, Texas, and will be served by CVTD's vanpool service to Greenleaf Nursery in El Campo, Texas. However, there is a service gap within Matagorda County and between Matagorda County and Brazoria County.)

Bay City Employment: Based on 2002 U.S. Economic Census data for retail, food service, and accommodations, there are about 1,900 employees in Bay City for these sectors. These are positions which are more likely to offer lower wage positions and which may be higher frequency users of transit. Assuming a 0.5 percent to 3 percent modal split, this employment base may generate between 10 and 57 daily riders.

Local Industrial Employers: Local industrial employers considered for this study include STNP, OXEA, Celanese, LyondellBassell, and White Stallion. Located approximately 10 miles south of Bay City, they represent an industry cluster that may be well served by vanpool and/or park-and-ride services. Together, they represent an employment of about 1,700 individuals. (See Chapter 2, Existing Conditions.) Assuming a 0.5 percent to 3 percent modal split, this employment base may generate between 9 and 51 daily riders.

Future demand for transit services from STNP and White Stallion may increase dramatically due to an influx of up to 8,000 short-term construction positions over the next five years. The Stakeholder Review Committee indicated a strong interest in strategies to serve these workers as a way to address roadway congestion. As of this report, neither STNP nor White Stallion had expressed an interest in partnering to bring transit to these workers. As part of this study, best practices in other similar communities were researched. A peer city, Alexandria, Louisiana, was contacted to learn how it addressed this situation. It is a community, similar to Bay City, that faced a similarly large influx of short-term residents. The employers established a number of meeting locations around the county to facilitate carpooling and vanpooling. No local or federal funds were used to support these services or facilities, which were paid for by the employer. (See Figure 4.3, Daily Journey-to-Work Trips.)

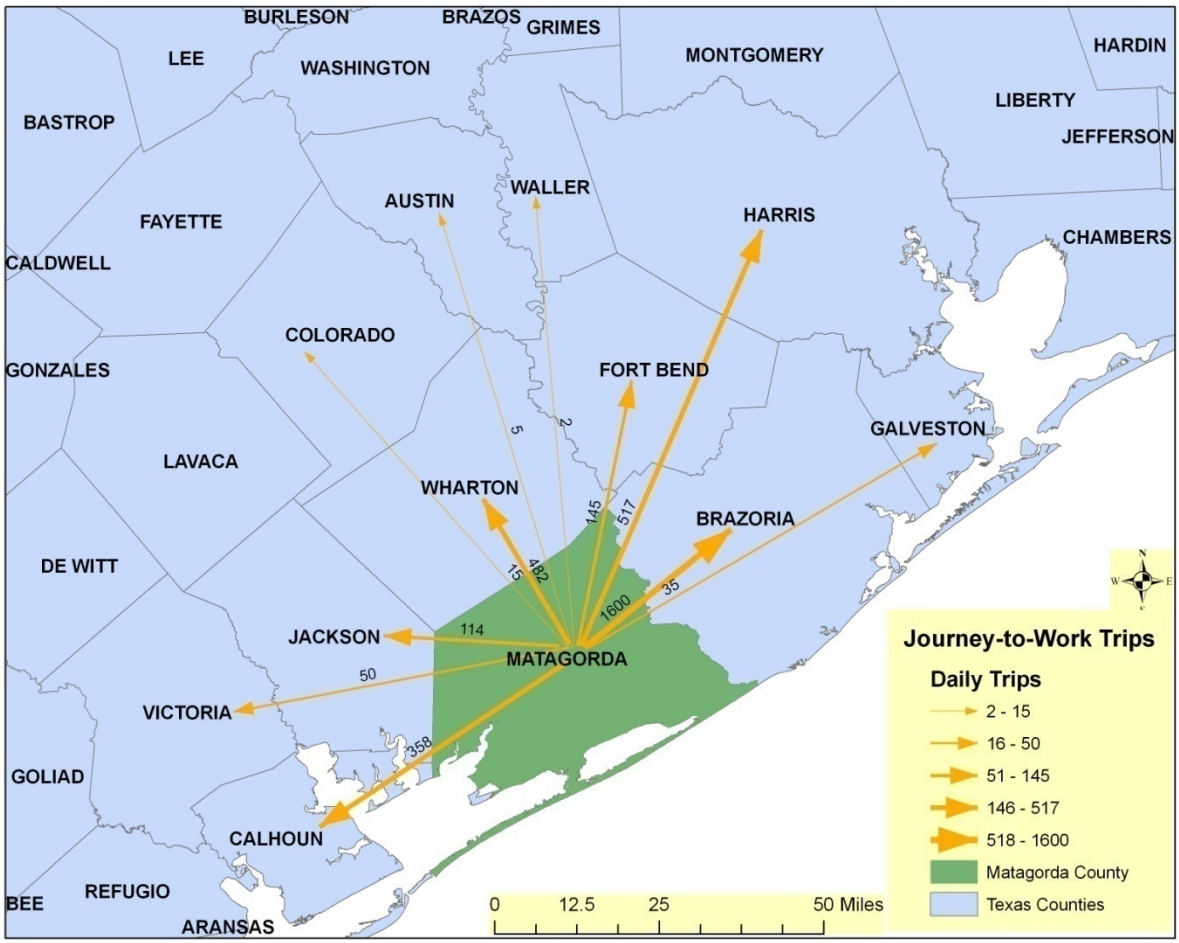

Figure 4.3: Daily Journey-to-Work Trips

Similarly, the data for trips from other counties into Matagorda County was analyzed. The 2000 U.S. Census records the total number of people commuting into Matagorda County as 13,828. Similar to above, 11,762 are people who both live and work in the county. The top five origin counties for trips into Matagorda County are:

- 5.87 percent, or 812 people, commute from Brazoria County;
- 3.54 percent, or 490 people, commute from Wharton County;
- 1.21 percent, or 168 people, commute from Harris County;
- 1.13 percent, or 156 people, commute from Jackson County; and
- Less than 1 percent, 133 people, commute from Fort Bend County.

Similar to the above analysis, the data reflects higher levels of travel between Matagorda and Brazoria counties, however not as strongly. Consequently, a reverse service from Brazoria County into Matagorda County does not appear to be supportable. Assuming a one percent capture rate, only eight commuters would use the service.

Employer Survey Results

A 20-question survey was distributed to employers whose employees may benefit from vanpool or park & ride services. (Employers who would benefit from flex route service were forwarded the general public survey for distribution.) In total, 87 surveys were completed. Over 90 percent were from industrial manufacturers, OXEA, and Celanese. The survey collected information about respondents' history of transit use, and their interest in using either a vanpool service or park & ride service for their daily work commute.

Survey Respondents: Most respondents to the survey were between the ages of 45 and 59 and reside in the Bay City (77414) zip code. Most were employed by OXEA, Celanese, or firms associated with OXEA (Mustang Engineering, Mundy Corporation).

Service Needs: Forty-four (44) respondents indicated an interest in vanpools. The shift with the highest concentration of potential vanpool participants was from 7:30 am to 4:30 pm (7 respondents), followed by 7:00 am to 4:00 pm (5 respondents), and 8:00 am to 5:00 pm (4 respondents). Most of the respondents who indicated an interest in vanpools are located in Bay City. Thirty-five (35) respondents indicated an interest in park & rides. Similar to the responses for vanpools, the highest concentration of demand was from 7:30 am to 4:30 pm (8 respondents), followed by 8:00 am to 5:00 pm (3 respondents).

Many who expressed interest in transit services also work longer, 10-to-12 hour shifts, beginning as early as 5:00 am. The extended shift with the highest concentration of demand for both vanpool and park & ride services is from 7:00 am to 5:30 pm.

Education Trips

Regional Campuses: Like commuters, students are a potentially strong user of transit services. The need was considered for inter-county trip to Wharton County Junior College (WCJC) in the city of Wharton and the University of Houston (UH) at Victoria in the city of Victoria.[5] In 2009, there were 669 students from Matagorda County attending WCJC and 55 students from Matagorda County attending UH at Victoria. At this time, these concentrations of students are insufficient to support a public transit service link.

Bay City Campus: The need for transit access for WCJC students who attend the Bay City campus was discussed. The campus director expressed the greatest interest in providing transit to those potential students who are candidates for the WCJC programs "but cannot attend because

[5] Wharton County Junior College Fall 2009 Student Demographics: http://www.wcjc.edu/about_n/Facts&Statistics_Fall-2008/Fall%20Enrollment.pdf

they do not have transportation." The WCJC does not have an estimate of how many potential students this represents or where they are located.

Currently, the WCJC draws most of its student body from the Bay City area, followed by Matagorda County and Wharton County. The WCJC has an enrollment of about 450 students per year and it is anticipating 10 percent annual growth. A typical student of the program is between 18 and 26 years old, and a part- to full-time worker. Therefore, the majority of programs are offered after normal work hours, either on a Monday to Wednesday or Tuesday to Thursday schedule. (These extended hours may create a challenge to serving the campus as some classes last until 9:00 pm.[6]) The WCJC expressed that it may be able to provide some local financial support, possibly through a student fee, for transit services if the services would obviously benefit the college.

Public Schools: Public school trips are another source of transit demand. The State of Texas will provide funding support for a school's transportation services for those students who reside farther than two miles from the school. According to the Bay City ISD Transportation Director, there are approximately 200 students who live within this "No Transportation Zone," and would benefit from transit service to school. The Bay City ISD Transportation Director indicated that the district did not have any financial resources that it could dedicate to local transit to support these services but that the parents of some children may be able/willing to pay for transportation services.

Under most circumstances, public transit cannot be used to exclusively provide school transportation. However, school children can ride the public transit vehicle that provides regularly scheduled service to the public and that is open to everyone:

> *The school bus regulations define school tripper service as regularly scheduled mass transportation service that is open to the public, is designed or modified to accommodate the needs of school students and personnel, and uses various fare collections or subsidy systems. Buses used in tripper service must clearly be marked as open to the public and may not carry designations such as "school bus" or "school special." These buses may stop only at a regular bus stop. All routes traveled by tripper buses must be within the regular service area as indicated in published schedules. Schedules listing tripper routes should be on the grantee's regular published schedules or on separately published schedules that*

[6] There are specialized funding categories, such as Job Access Reverse Commute, that will support extension of service hours with the intent that it benefits workers and students. However, these funding sources are competitive and applicants are strongly encouraged to find alternative funding sources after three years.

> *are available to the public with all other schedules. School tripper service should operate and look like all other regular service.*[7]

The Bay City ISD provides transportation to seven campuses. The schedule for start and stop times is as follows:

- Bay City High – 7:45 am to 2:40 pm
- Bay City Junior High – 8:00 am to 3:30 pm
- Bay City Intermediate and McAlister Middle School – 8:00 am to 3:30 pm
- Holmes Junior High – 7:55 am to 2:55 pm
- Cherry, Linnie Roberts, and Tenie Holmes Elementary – 7:55 am to 2:55 pm

Figure 4.5: Bay City ISD No Transportation Zone illustrates that the schoolchildren that live within the core of Bay City, no matter what school they attend, do not receive transportation services. Approximately, these boundaries are Nancy Avenue to the west, Nichols Avenue to the east, 12th Street to the north, and Hillcrest Drive to the south. According to the 2000 U.S. Census, there are approximately 2,573 households in area and 1,711 school age children.

[7] http://www.fta.dot.gov/FY2007TriReview/17school.htm

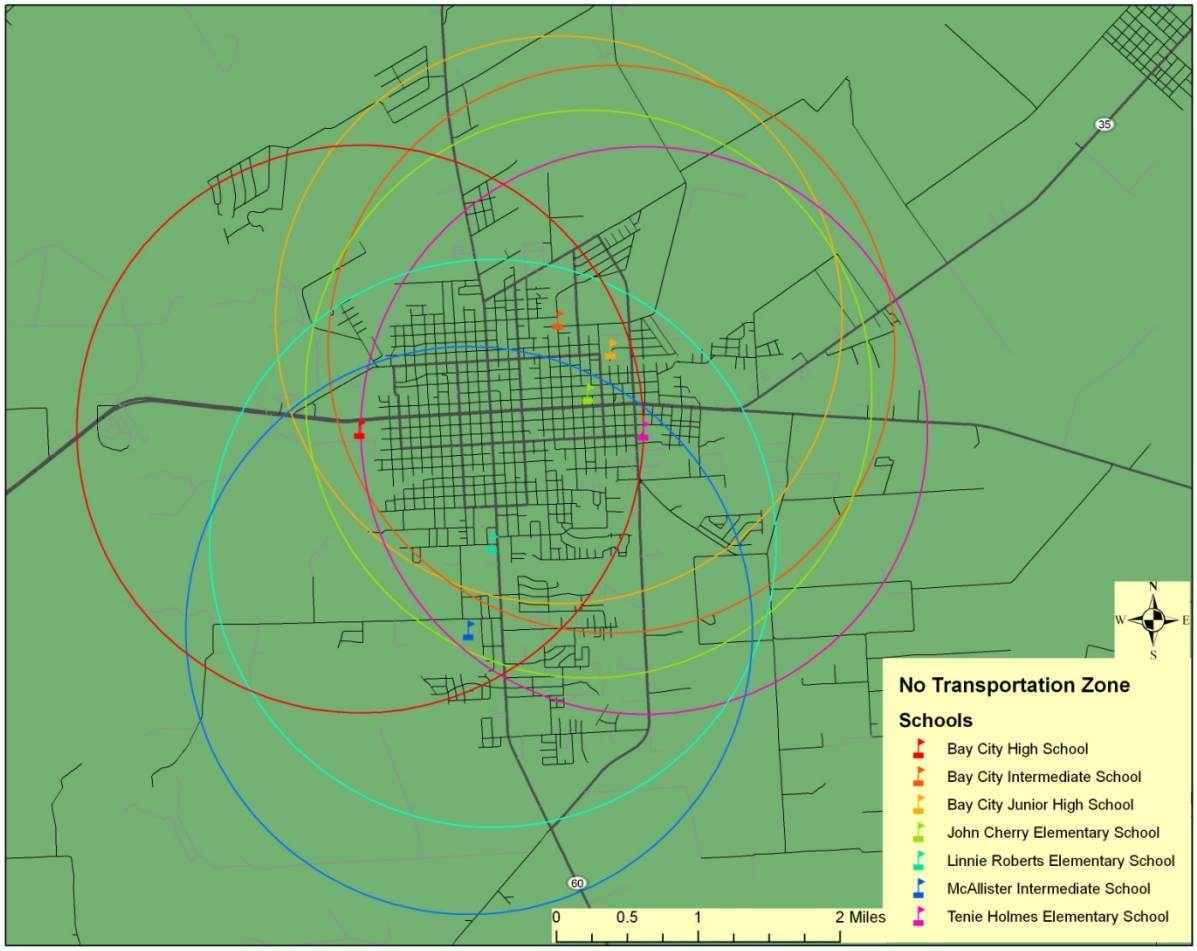

Figure 4.4: Bay City ISD No Transportation Zone

Medicaid Trips

In FY2008, the FOEC delivered 6,515 Medicaid trips. Figure 4.5: FY2008 Medicaid Trips, illustrates the origin of Medicaid trips by color and by zip code.

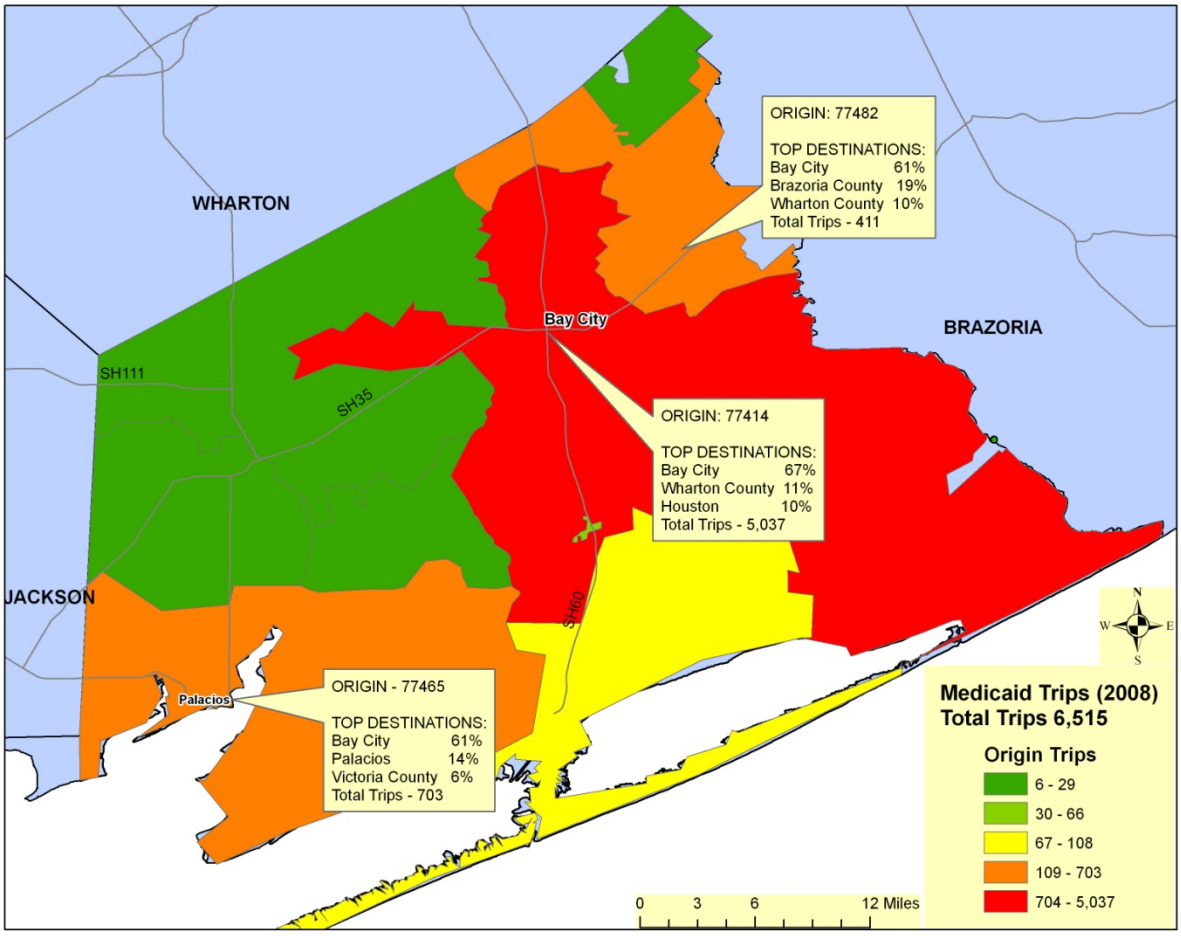

Figure 4.5: FY2008 Medicaid Trips

For the most productive three zones (zip codes 77465, 77482, and 77414), top destinations are noted. These are as follows:

- Bay City: 62 percent, or 4,054 trips
- Wharton County: 9.13 percent, 595 trips
- Houston: 7.74 percent, or 504 trips
- Palacios: 1.5 percent, or 98 trips
- Brazoria County: 1.2 percent, or 78 trips
- Victoria County: Less than one percent, or 42 trips

Because Medicaid requires that its contractor deliver the trip itself, there is little opportunity to benefit from regional connectivity. In other words, FOEC cannot transfer its Medicaid riders to another vehicle traveling to Houston, even if the destinations are the same and both providers are Medicaid contractors. However, Medicaid riders can be joined by general public/demand-response riders, as long as the Medicaid trip is not denied. Therefore, vehicles that provide Bay City Medicaid trips, which are the majority, also can provide general public transit.

There are five vehicles that serve Matagorda County; two of these vehicles serve Palacios and three vehicles serve Bay City. According to FOEC staff, these vehicles are frequently being dispatched on Medicaid trips although FOEC tries to leave at least one vehicle in each city for public trips. It is the FOEC's practice to use its vehicles for both types of trips but there may be under-utilized capacity on Medicaid-trip vehicles that could be used to fill Bay City transit gaps.

Conclusion

The Existing Conditions report (Chapter 3) and Transit Need and Service Gaps report (Chapter 4) provide a good basis upon which to decide what types of service are appropriate and to estimate the potential ridership these services may attract. The following are key points:

- Unmet Need: Compared to the per capita delivery rate of the region's peer transit systems, Matagorda County is underserved by approximately 20,000 trips annually. This shortfall represents an almost doubling of the 25,000 trips provided in FY2009.
- Location of Need: Population density largely drives need within the county. The highest need is within Bay City, and followed by Palacios. Connections between Bay City and communities such as Sargent and Matagorda are needed.
- Service Gaps: The following are highlights noted in this review:
    - Lack of information on the availability of transit remains a barrier to service delivery. In the General Public Survey, over 60 percent of respondents indicated that they did not know there was public bus service available in the county.
    - According to the General Public survey, daily service within Bay City is the highest scoring need. The next highest scoring need is weekly or monthly service between Bay City and Palacios. The highest scoring need is for work trips. After that, trips for medical and shopping are high scoring.
    - Some Bay City employers, like the hotels, have indicated a need for transit service that would benefit their employees. The concentration of businesses along the SH 60 and SH35 corridors which offer lower-wage employment is a potential source for peak period transit services.

- Based on the tepid response to the Employer's Survey from most of the region's large industrial and energy employers, there is little active interest on behalf of the employer in commuter or vanpool services at this time. However, where responses were collected, between 35 and 43 employees indicated interest in either vanpool or park & ride services.

  If commuter services were offered in the county, and these services attracted the region's average market share (about one percent), approximately 115 commuters may be served.

- Education trips are needed to the WCJC – Bay City campus and to Bay City ISD public schools. The WCJC does not have an estimate on those students lacking transportation to the campus but that is the market that the WCJC is interested in reaching with any new transit service.

  The Bay City ISD estimates that there are about 200 students that do not qualify for school-provided transportation services because they live within 2 miles of the school. These trips must get students to school between 7:45 am and 8:00 am and return them home between 2:40 pm and 3:30 pm.

Chapter 5: Comparison of Transit Service Alternatives

Introduction

Matagorda County's commitment to providing transportation should include an understanding among decision-makers that traditional transit options are likely not cost-effective and service options may need to be redefined to better suit low density communities. For example, traditional fixed route may not meet many passenger mobility and accessibility needs because of the infeasibility of locating stops close enough to home – a service attribute that was cited as the most important among respondents to the General Public survey. Similarly, some decision-makers may feel that traditional demand response costs too much for the number of trips provided. The challenge for any community is finding the right balance between cost and quality of service. This chapter examines how various alternative transit modes may each achieve the right balance for Matagorda County. Four transit modes are reviewed: fixed-route, flex-route, demand-response, and carpool/vanpool. Appendix D, Transit Service Options provides a comparison of these modes against a set of 13 criteria along with estimates of service option costs.

Fixed-Route Bus Service

When many individuals think of transit, fixed-route is frequently what comes to mind. Where appropriate, fixed-route bus service can be an effective and efficient means of providing transportation to meet a broad range of mobility needs; however, fixed route works best in communities of sufficient size and density.

Fixed route buses travel along predefined paths and stops, while adhering to a specific schedule. The Federal Transit Administration (FTA) requires that a complementary Americans with Disabilities Act (ADA) paratransit service be provided to qualified individuals who are unable to use the fixed route system. This ADA requirement can add to the cost of operations significantly. Agencies providing fixed-route service have been required since 1990 by the ADA to provide equal access to transit services for persons with disabilities. The ADA complementary paratransit service is required when individuals are unable to use the fixed-route service as a result of a disability. Developing a fixed-route bus service means that ADA complementary paratransit needs to be provided within 3/4 mile of the bus route and has strict requirements regarding service levels that result in ADA complementary paratransit being more costly and less flexible than other demand-response services. Therefore, when adding new fixed-route service, it is necessary to consider the additional cost of the ADA complementary paratransit service. Flex route and commuter services are exempt from the ADA requirement as long as they meet the definition of such service.

Variation: Circulator bus service is a variation of fixed-route service; however, the route is generally shorter and circular, rather than linear. Circulator buses work well for distances between ½ mile and 2 miles. They are commonly used to provide connectivity and access among commuter services, major shopping outlets, employments destinations, and large events. Generally, circulators do not directly connect with a high number of home-based origins.

Figure 5.1 – Typical Circulator Bus

Application to Matagorda County: A flex route system is more appropriate given the size and density of the population. A review of the National Transit Database reveals that there few fixed route systems for small urban areas with a population under 30,000. General public survey respondents indicated that limited connector service between Bay City and Palacios would be used on a weekly or monthly basis. Expansion to other county destinations such as Matagorda and Sargent should be considered in the future.

Flex-Route Bus Service

Flex-route service combines the strengths of fixed-route service and demand-response service. The concept behind flexible routing is the provision of regular fixed-route service, with the flexibility of demand response to pick-up and drop-off passengers at their origins and destinations. Typically, flex-route service has regular stops along its path, but time is added to the schedule for the vehicle to deviate off route to points within the immediate vicinity (normally up to 3/4 mile) to pick-up or drop-off passengers. Other key characteristics include the following:

- Flex-route service is able to cover a larger area than fixed-route service and provide curb-to-curb service to persons with disabilities. In less dense communities, it can be a better choice than fixed route;
- Unlike fixed route, flex-route service does not require an ADA complementary paratransit service. Instead it combines elements of both fixed and ADA paratransit service into one. Agencies may limit deviations to qualified individuals who meet ADA or other criteria; and

Variations: Route deviation, the most common type of flex routing, follows a fixed path, but can deviate up to a ¾-mile off-route upon request by a rider or dispatch; after which, the vehicle

returns to the fixed route. Route deviation provides better service for mobility-impaired individuals; however, it is more difficult to operate than other flex-route options. Point deviation, which is easier to operate than route deviation, is another variation where vehicles operate within a zone, while serving a limited number of pre-determined stops. However, the vehicle does not follow a pre-determined path within the zone.

Despite its benefits, flex route is not widespread in Texas. A few agencies that operate flex route include Wichita Falls, Rio Metro/McAllen and Abilene; they have instituted flex route to replace fixed routes and/or provide general-service transit.

Application to Matagorda County: A flex route service is appropriate for Bay City; however if a contractor is unavailable or unqualified to operate flex route for Matagorda County, then the County may be prevented from exercising this option, unless it chooses to provide transit services in-house and hire and train for this capability.

Figure 5.2: Bay City Flex Route Coverage illustrates the extent of potential service coverage, assuming fixed destinations along the SH35 and SH60 corridors and ¾ mile buffer zone.

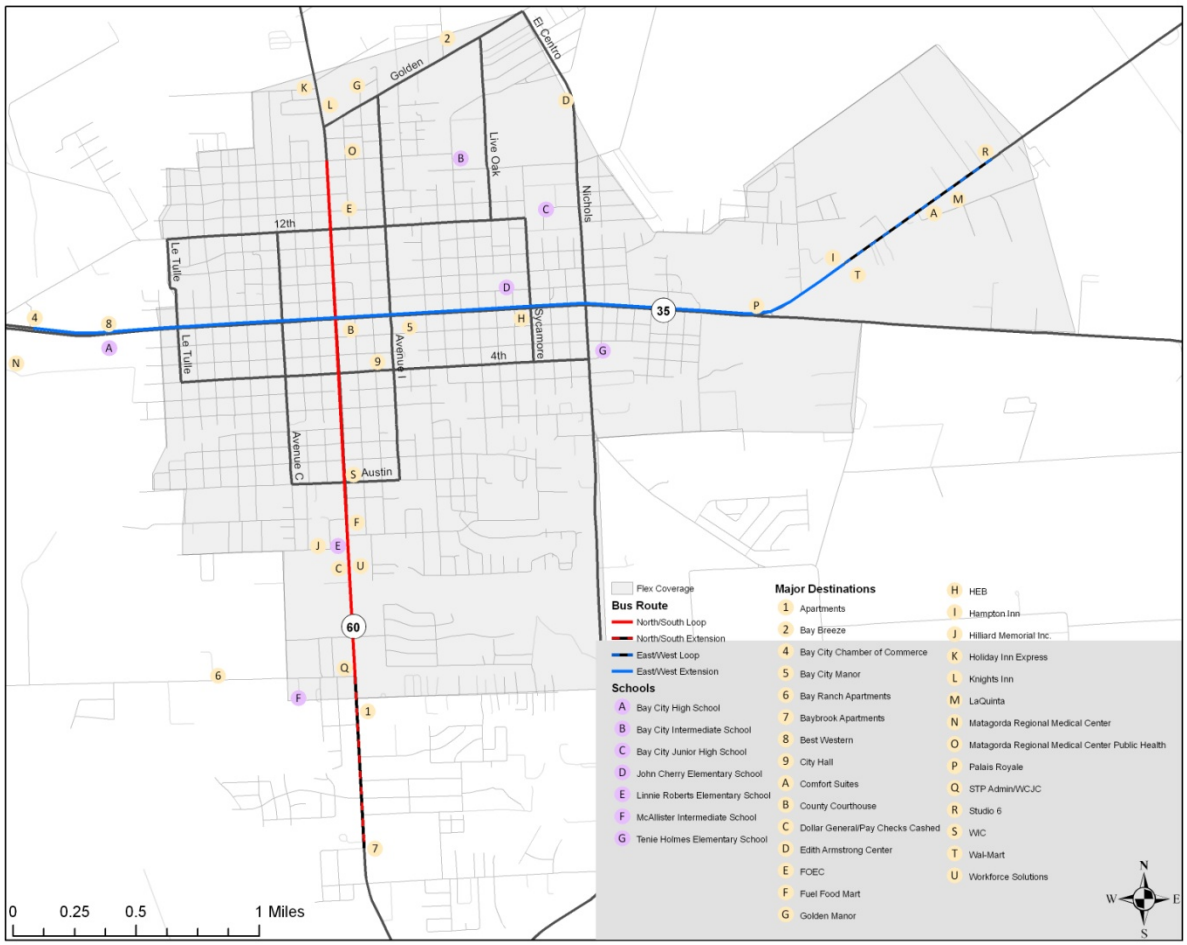

Figure 5.2: Bay City Flex Route Coverage

Demand-Response Service

Matagorda County currently provides demand-response service through the FOEC. Demand-response service works well in low-density, rural areas, or where other transit alternatives are impractical. Similar to a taxi, service is provided "curb-to-curb." In contrast to taxi service, rides often are shared to transport as many people as possible. Advance reservations are required and riders may expect to negotiate a pick-up time that both serves their needs and the need of the transit service to meet the requests of other riders. In Matagorda County, the FOEC's demand-response service provides trips to the general public. However, it is the conception of some of the public that the service is limited to the elderly or people with disabilities.

Variations: Demand-response service may be provided by a private carrier under contract, through a ride voucher program. Under a ride voucher program, the passenger use "ride

vouchers" to pay for a ride from a taxi. The cost of the ride voucher may be supported by a sponsoring agency or a government entity, like the county, or a human services organization, as well as federal transit funds.

Application to Matagorda County: Driven primarily by low population density, demand response will remain the primary service mode for the majority of the county. Most trips can be delivered by the FOEC or similar providers. The addition of private carriers, like taxis, can provide an additional element of service not currently available. However, this will require additional coordination and management on the part of the transit provider.

A ride voucher program could allow more difficult-to-service trips. However, it functions best where there is an active market of transportation providers to keep prices low. Matagorda County, which has only one taxi provider, does not have the market competition to keep prices low, and therefore this option will need to be well managed to control costs.

ADA Complementary Paratransit Service

Similar to demand-response service, is the ADA complementary paratransit service. As with demand-response service, the ADA service is curb-to-curb. However, ADA service differs in some important ways.

- ADA service is a federal requirement where fixed route is in place. Agencies providing fixed-route service have been required since 1990 by ADA to provide equal access to transit services for persons with disabilities. ADA complementary paratransit service is required for individuals who are unable to use the fixed-route service as a result of a disability.
- Developing a fixed-route bus service means that ADA complementary paratransit needs to be provided within ¾-mile of the bus route and has strict requirements regarding service levels that result in ADA complementary paratransit being more costly and less flexible than other demand-response services. Therefore, when adding new fixed-route service, it is necessary to consider the additional cost of the ADA complementary paratransit service must be considered.
- Flex-route and commuter services are exempt from the ADA requirement as long as they meet the definition of such service. Figure 5.3 shows paratransit vehicles used in Tampa, Florida, and San Antonio, Texas.

Figure 5.3 – Typical Demand Response Vehicles

Application to Matagorda County: Assuming a fixed route is established in Bay City, an ADA complementary paratransit is required. If the ADA service were to be provided by the FOEC, it should be stressed that ADA requirements must be met. Examples of compliance issues include:

- Eligibility screening and a notification process must be established to ensure only ADA eligible riders use the paratransit service; and
- All requests for next-day service must be met within one hour of the time requested.

Commuter Services: Carpool, Vanpool and Alternative Programs

Carpools generally consist of two to four people who commute together and rely on a volunteer driver. These typically are informal arrangements with little to no management or institutional support. However, employers or communities may support ride-matching efforts.

Vanpools generally consist of five to 15 people who commute together and rely on a volunteer driver. They are different from carpools as they serve more people and typically require a higher degree of management and involvement from partnering institutions. Some vanpools designate a meeting place to reduce the amount of pick-up/drop-off time. Typically, programs that add more than 12 minutes to commuting times are unsuccessful. Successful programs are those that serve commuters who do not require their cars during the day, rarely work overtime or erratic schedules, and travel relatively long distances (15 or more miles). **Buspools** are similar to vanpools except they rely on professional drivers or volunteer drivers with a commercial license.

Alternative Programs include low-cost loan programs for working individuals with difficult credit histories, such as the Ways to Work program (www.waystowork.org).

Application to Matagorda: The Stakeholder Review Committee expressed a strong interest in transit services to employers such as STNP, which anticipates a large-scale future construction

project employing between 5,000 and 6,500 additional workers. As of this report, STNP has indicated that it will contact the Bay City Chamber of Commerce if it is interested in partnering to provide these services. If it chooses not to partner, the STNP may choose to provide transportation on its own. For example, a similarly large project was constructed in Alexandria, Louisiana, by Fluor Construction, the same firm working with STNP on its construction project. In that project, Fluor established park & ride lots on the periphery of the site (five to six miles away) and bused its employees from these sites. The parish and local community did not contribute financially to this service.

Vanpools or buspools to the county's other large industrial manufacturing and energy employers may be viable. However, there was a weak response from these employers to a request that the survey be administered to their employees. Consequently, the survey was administered for only two employers, Celanese and OXEA. The results indicate that between 35 and 43 individuals are interested in vanpool or park & ride services. OXEA employs about 140 people and Celanese employs about 45 people. Therefore, this represents interest on behalf of approximately 23 percent of the workforce. Assuming that this response level is representative of what the response would be at other facilities, there is sufficient demand for vanpool or park & ride services.

Alternative programs, such as the Ways to Work program, can be promoted through various community and municipal agencies at a low-cost.

Conclusion

This overview provides a guide to help policymakers make appropriate transit choices for their communities, depending upon which attributes are the most important to their constituents. Each mode has benefits and drawbacks that will make it more or less attractive to Bay City decision-makers. For example:

- Fixed route is burdened by the added cost of the complementary ADA-paratransit service, and there is the likelihood of low coverage and frequency of service that may negatively impact ridership. This, coupled with a relatively small urban population, makes fixed route an inappropriate mode for Bay City.

- Flex route is a better choice for Bay City as it can serve both ADA-eligible and the general public. It combines the characteristics of demand response and fixed route.

- Demand response is most appropriate service mode for most of the county but it will continue to be a costly form of transit.

- Carpools and vanpool options are suitable for commuters but do little to address in-town trip needs. Alternative programs such as Ways to Work may provide working individuals an alternative to public transportation through the support of low-cost loan programs.

Chapter 6: Service Plan Recommendations

Introduction

This chapter provides the Matagorda County service plan recommendations. These recommendations are based on public input, demographic and employment data, and best industry practices regarding appropriate modes for small urban and low density rural areas. The process used to develop the plan relied on a number of inputs. See Figure 6.1, Matagorda County Transit Plan Inputs, for an illustration of the process used to develop the plan's recommendations.

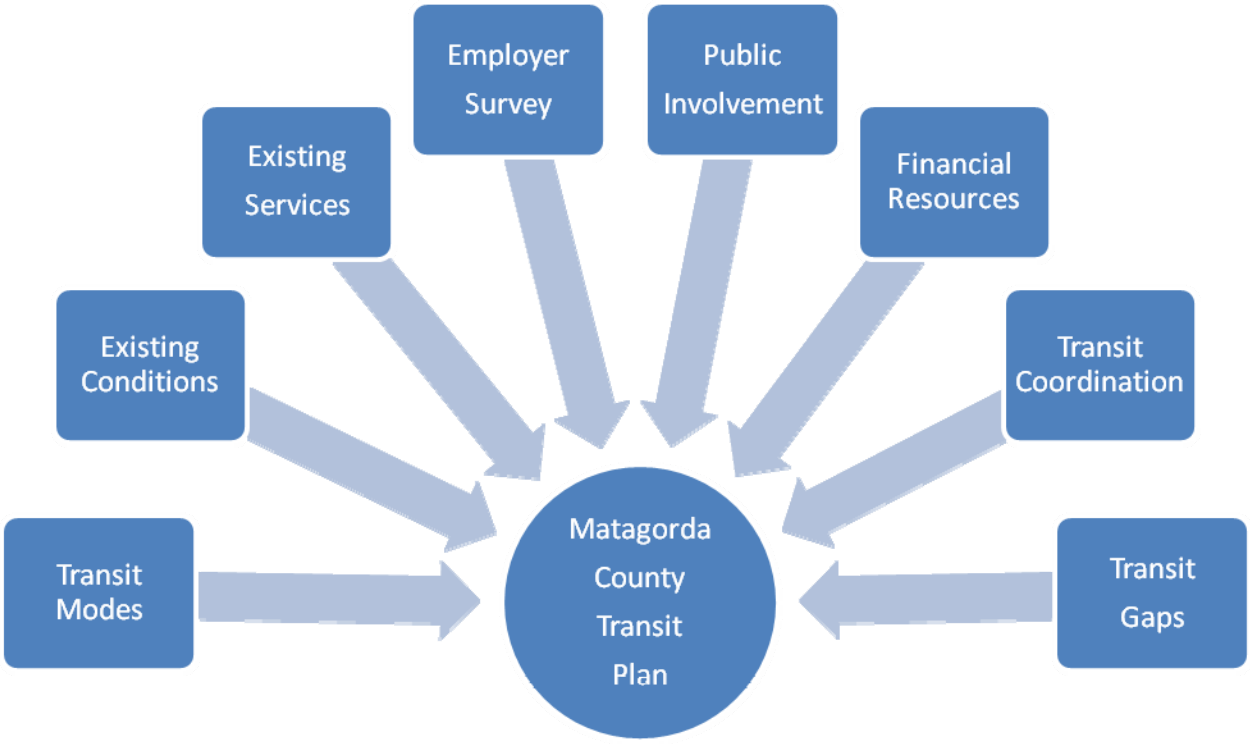

Figure 6.1: Matagorda County Transit Plan Inputs

Ridership Estimates

Demand-Response Service: Based on FOEC's performance from FY2007 to FY2009, it delivers an average of 3.22 trips per vehicle hour. Assuming an additional vehicle was added for eight hours for a 250-day service schedule, it would generate about 6,440 additional trips annually if a similar level of performance is met. (Table 6.1: FOEC Average Trips per Hour.)

Table 6.1: FOEC Average Trips per Hour

	Number of Trips	***Number of Hours***	***Trips per Hour***
FY2007	29,346	9,659	3.04
FY2008	35,919	9,383	3.83
FY2009	25,374	9,094	2.79
Average	**30,213**	**9,378**	**3.22**

Bay City Flex Route: Matagorda County has no experience providing fixed or flex-route services, so ridership estimates are based on the fixed route performance of peer small urban Texas providers. Trips per operating hour and trips per capita were compared across three small urban providers: Victoria, San Angelo, and Galveston. These systems delivered an average of 12.88 trips per operating hour (Table 6.2: Peer Average Trips per Hour and per Capita).

Table 6.2: Peer Average Trips per Hour and per Capita

	Population	***Number of Trips***	***Trips per Hour***	***Trips per Capita***
Victoria	61,529	289,335	10.94	4.70
San Angelo	87,696	182,867	8.34	2.08
Galveston	54,770	643,762	19.37	4.62
Average			**12.88**	**3.80**

Similarly, the Transit Cooperative Research Program (TCRP) analyzed the productivity of small city (population under 50,000) fixed and flex route systems and found that, on average, 10.68 trip were provided per hour of service.[1]

If Bay City were to achieve similar effectiveness, it would deliver about 26,000 trips for each vehicle operating eight hours per day. However, these systems are mature and operate within small urban or suburban environments that are more populous than Bay City. Bay City should initially anticipate lower levels of ridership if a flex route is implemented.

For the purposes of this analysis, a more conservative estimate of five trips per hour will be assumed for the first year of operation. Peak-period service would result in 7,500 trips for each vehicle operating 1,500 hours annually (six hours per day).

Commuter Services: The results of the employer survey indicate that commuter services, such as vanpool or park and ride, are viable between Bay City and OXEA and Celanese. Of the two modes, more people indicated a greater interest in vanpooling. Assuming seven people are recruited to join a vanpool and they use it, on average five days per week, a single vehicle would deliver about 3,500 trips annually.

Another commuter option is the promotion of carpooling. In some programs, interested individuals who are associated with affiliated organizations, such as their employer, can use the service free-of-charge to find other riders in their neighborhood with whom to carpool. For example, the Houston-Galveston Area Council (H-GAC) promotes carpooling through its Commute Solutions program and its affiliation with a group called "NuRide." Promotion of carpooling to local employers could be accomplished through local organizations such as the Chamber of Commerce and Agriculture. No ridership estimates are available for carpooling.

Key issues that are addressed in this service plan include:

- Increasing demand-response service capacity;
- Increasing connectivity between Bay City and smaller communities like Palacios, Sargent, and Matagorda;
- Providing peak period flex route service for Bay City;
- Providing commuter options for existing employees; and
- Evaluating transferring transit agency responsibilities from GCRPC to Connect Transit.

[1] Methods for Forecasting Demand and Quantifying Need for Rural Passenger Transportation, Transit Cooperative Research Board. http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_webdoc_49.pdf.

Demand-Response Service

Recommendation: Provide additional vehicle and driver for operation by FOEC. Provide regularly scheduled weekly connector service between Palacios and Bay City. Additional weekly connector services to smaller communities like Matagorda and/or Sargent to be considered for future implementation.

Description: The additional vehicle and driver will provide FOEC the resources to provide more general public trips, which have decreased from 21,700 trips in FY2007 to 10,800 trips in FY2009. The additional resources will provide the capacity to provide regularly scheduled connector trips between Palacios and Bay City. Additional marketing and promotion of the demand-response service by the FOEC and other stakeholders is needed to expand awareness of general public transit and to increase the return on the investment in additional services.

Table 6.3: Demand-Response Service with Additional Vehicle and Driver	
Gross Operating Cost	$360,000
Less Fares	$11,500
Net Operating Cost	$348,500
Eligible Federal Share	$174,250
Eligible Local Share	$174,250
Capital Cost for Additional Vehicle	$50,000
Eligible Federal Share	$40,000
Eligible Local Share	$10,000

Funding Sources: Fare box recovery is estimated to be approximately $1.00 per general public trip, based on the number of average trips from FY2007 to FY2009. Eligible federal and local share for operating expense is based on service provision by public transit provider and therefore does not take advantage of a higher reimbursement rate under private provider Capital Cost of Contracting. (See Chapter 7, Finance Plan, for more information on Capital Cost of Contracting.) Capital cost for vehicle assumes conventional 80 percent/20 percent federal local share however Transportation Development Credits (TDCs) can be requested from TxDOT. In the event TDCs were awarded, federal or state funding would be required to support 100 percent of the cost of the vehicle.

Sources of funding that can be used to support these services include Federal Section 5311 Rural Area Formula Funds, State Public Transit Trust Funds, Section 5311 Elderly and Disabled (restricted use and typically applied toward the purchase of vehicle or preventative maintenance). Sources of local funding include contract revenue, local contributions from government and non-government organizations, and in-kind services.

Recommendation: Develop ride voucher program for difficult-to-serve demand-response trips. Purchase wheelchair-equipped vehicle for use by private taxi provider for ride voucher program. Apply for Section 5317 New Freedom or Section 5316 Job Access Reverse Commute funds to support program.

Description: This element of the plan will provide transit services to riders who are eligible due to their affiliation with sponsoring community and health and human service agencies. Depending on funding sources and partnering organizations, these riders can include people with mobility disabilities, the elderly, and/or low income workers and job-seekers. The program will provide another transit option for difficult-to-serve trips that cannot be met by the FOEC.

Table 6.4: Ride Voucher Program	
Gross Operating Cost	To be determined by Funding Made Available. Depending on funding source, up to 10% of the program cost can be requested for administrative expenses.
Less Fares	Estimate that Fare box recovery is 10%
Net Operating Cost	NA
Eligible Federal Share	50 percent
Eligible Local Share	50 percent
Capital Cost for Wheelchair Equipped Vehicle	$50,000
Eligible Federal Share	$40,000
Eligible Local Share	$10,000

Funding: The gross operating cost can be scaled to available funding. For larger programs, administrative costs may represent about 25 percent of the budget; however small efforts have been managed for less. Depending on the rules of the program, fare box can recover about 35 percent of the cost of service.

Voucher programs typically reimburse at the operating rate of 50 percent federal share and 50 percent local share. Federal funding resources that can be used to support operations include Section 5311 Rural Area Formula Funds; Section 5316 Job Access Reverse Commute (JARC); Section 5317 New Freedom, and Section 5310 Elderly and Disabled.

TxDOT manages the distribution of both JARC and New Freedom funding for rural and small urban areas through a Consolidated Call for Projects. The last call for projects took place in Summer 2009. TxDOT will release a similar call in July 2010, but funding levels are not determined at this time. It is anticipated that approximately $6.5 million in New Freedom funds and $9.0 million in JARC funds will be made available.

Depending on the funding source, the ride voucher program will serve different kinds of riders. Programs using JARC funding must be targeted to support trips made by individuals with limited income to employment or employment-related activities, such as education and training

programs. New Freedom funds must support services for individuals with disabilities, as defined under the American with Disabilities Act (ADA).

Section 5310 Elderly and Disabled provides formula funding for transportation services for the elderly or people with disabilities. Within Matagorda County, it has been used primarily for maintenance or capital purchases. However a ride voucher program is also an eligible expense.

Some sources of federal funding can be used to support the ride voucher program but are treated as local share. By partnering with organizations that administer these funds, communities can support a ride voucher program with more federal funds and fewer local cash resources. These federal funds that are treated like local funds are:

- Temporary Assistance to Needy Families (TANF): TANF program provides assistance to needy families and funds may be used to support a wide range of services, including transportation. TANF funds may be used as the local match since they do not originate with the DOT.
- Workforce Investment Act (WIA): WIA funds can be used to support transportation including access to work, training programs or childcare. Similar to TANF, these funds can be applied as local share.

Local funds include local cash, unleveraged contract revenue or other local contributions to transit programs. Local share can also include in-kind donation, such as time spent by staff of partnering agencies to determine eligibility.

Flex Route Service

Recommendation: Implement weekday, peak period, flex route service for a period of three years, when the service will be evaluated for effectiveness. The recommended route is Route A, which travels along the SH35 and SH60 corridors. It provides easy transfers between corridors and pulses every 20 minutes at the intersection.

Description: Route A combines a North/South and East/West Loop that pulses at the interchange of SH35 and SH60. Peak period service targets workers and provides morning and late afternoon service, typically 6:30 am to 9:30 am and 3:30 pm to 6:30 pm. The estimated fare is $1.00 per trip.

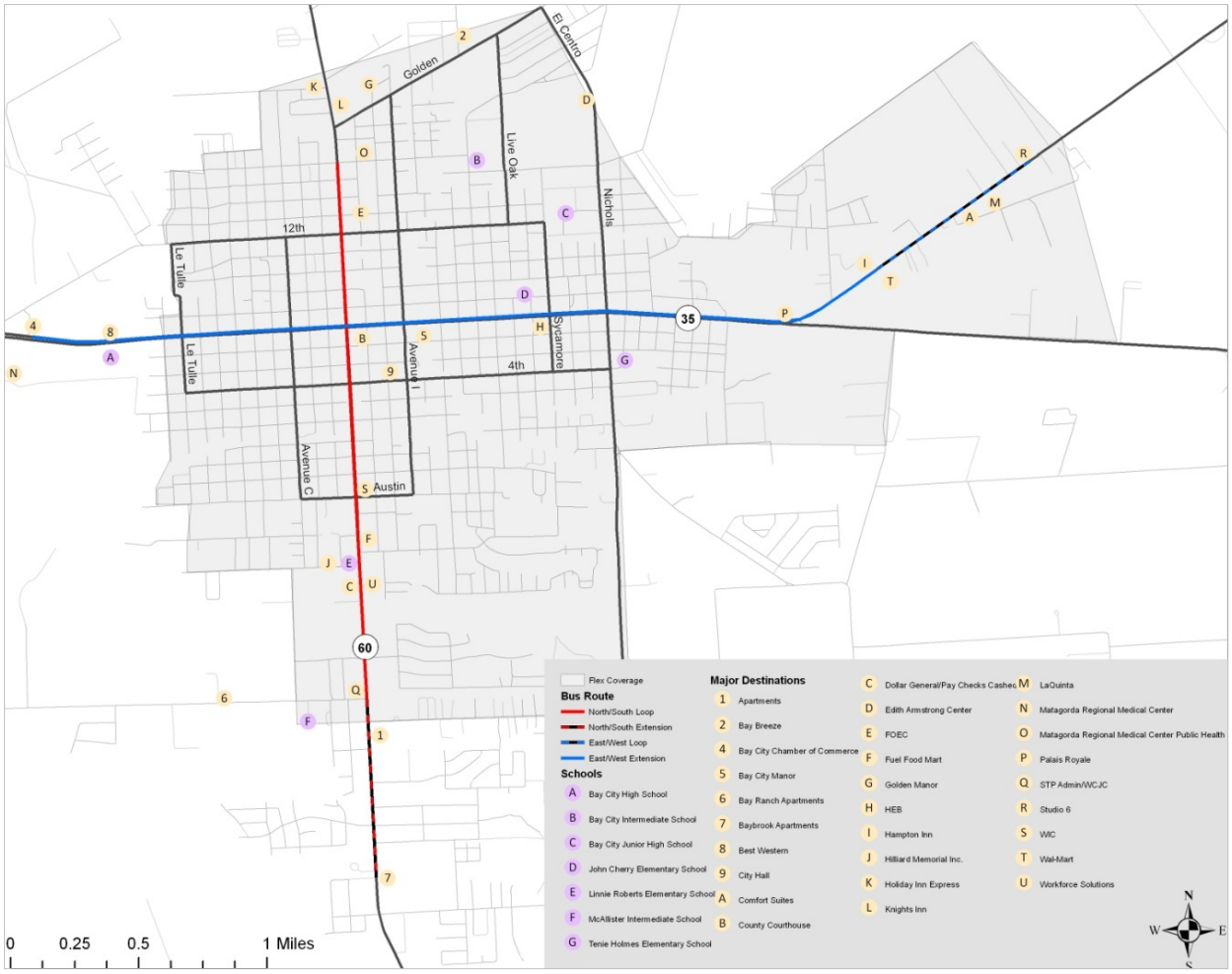

Figure 6.2: Flex Route A Bay City

Funding: This study recommends the pursuit of Section 5316 JARC funding for the three year demonstration period. The cost of the program assumes a $60 per hour operating cost and an average fare of $1.00 per trip.[2] Fares reflect an estimated 5 trips per hour, a conservative estimate and reflecting initial performance of the service.

Table 6.5: Flex Route Service	
Gross Operating Cost	$180,000
Less Fares	$15,000
Net Operating Cost	$165,000
Eligible Federal Share	$82,500
Eligible Local Share	$82,500
Capital Cost for 2 Vehicles and 1 Spare	$150,000
Eligible Federal Share	$120,000
Eligible Local Share	$30,000

[2] Operating cost per hour is based on Connect Transit's operating cost per hour of $59.21 for FY2009.

Commuter Services

Recommendation: In the short-term, continue to work with industrial employers to develop commuter services options and promote carpools. Within five years, develop vanpool services. Consider using private providers to take advantage of higher reimbursement rates of Capital Cost of Contracting (CCC).

Description: In the short term, a low-or no-cost option is the promotion of carpools. Due to the low response level from large local employers to outreach and survey efforts, it is recommended that additional time be spent to develop partnerships with employers in support of transit options such as vanpool services. The recommendation for a private contractor turn-key lease through a transit agency enables the use of CCC, which provides a higher rate of reimbursement. A turn-key contract will require a lower level of daily management from the transit agency.

Table 6.6: Commuter Service	
Car Pool	
Gross Operating Cost	No cost for employees but must be associated with an affiliated organization. Organizations can become affiliated at a low- or no-cost.
Less Fares	No fares are charged.
Eligible Federal Share	NA
Eligible Local Share	NA
Van Pool – Turn Key Lease through Private Firm	
Gross Operating Cost	$20,000 (lease, fuel, admin)
Less Fares	$5,250 (7 people, 250 days, $3.00 round trip)
Net Operating Cost	$14,750
Eligible Federal Share	$10,375 (Using Capital Cost of Contracting)
Eligible Local Share	$4,375 (Using Capital Cost of Contracting)

Funding: Funding sources that can be used to support vanpools include Section 5311 Rural Formula Funds and Section 5316 JARC. It is recommended that any vanpool services are secured by a private contractor, which will contract with the public transit agency. This will allow the transit agency to support the program using federal funds and CCC. CCC will allow a reimbursement of some expenses at the higher capital rate of 80 percent. It is recommended that the local share requirement be provided by employers benefitting from the services.

Choice of Transit Agency

This study investigated the advantages/disadvantages of migrating service to a new provider. Each adjacent transit provider was asked its interest in providing services to the county. As a quick reminder, a transit provider is the grant recipient for a service area. As the transit provider, it can provide service directly or contract for services on behalf of the county.

The study recommends that the transit agency with the authority to oversee transit service delivery in Matagorda County change from the GCRPC to Connect Transit. This change is recommended for three reasons.

- First, it will facilitate the delivery of fixed or flex route service. In discussions with FOEC, it indicated that it did not have an interest in expanding its services to include fixed route. Similarly, discussions with GCRPC indicated a low level of interest in providing these services as well. However, Connect Transit indicated that there is interest if there is sufficient funding to support operations. To facilitate this change, grant funds and vehicles that are currently controlled by the GCRPC would be transferred to the Gulf Coast Center/Connect Transit and contracts that are currently in place between the GCRPC and the FOEC would be re-negotiated between Gulf Coast Center/Connect Transit and the FOEC. Assuming a transfer occurs in 2010, TxDOT has estimated that approximately $79,000 in Federal Section 5311 and $79,000 in State administered Public Transit Trust Funds, would be available to support Matagorda County services.[3]

- Second, the transfer may support future directly-operated transit services. The FOEC has indicated that it considers its provision of transit service as secondary to its core mission to serve the elderly. Furthermore, the FOEC has also indicated that it will likely cease to provide general public transit services should it no longer hold a Medicaid transportation contract. An agency, like Connect Transit, is in a better position to provide demand response service directly should that become a need.

- Lastly, the transfer will align Matagorda County's planning area with its service area. As mentioned previously, this alignment can help ensure that plans, goals, and programs which are within H-GAC's program benefit Matagorda County.

This recommendation does not come without its criticisms. As a rural county, Matagorda County's is concerned that its issues may be overwhelmed by large urban counties, like Harris County, that are also within H-GAC's planning region. Furthermore, the county is pleased with its relationship with the GCRPC and wants to maintain its commuter vanpool service from Bay City, Blessing, and Palacios to the Inteplast facility.

Conclusion

The recommended service plan provides a variety of services for Matagorda County. Increased demand response capacity through an additional vehicle and driver for the FOEC is recommended. This will support regularly scheduled trips between Bay City and smaller

[3] The funding allocation is drive by a two-part formula reflecting the Need of the region (75 percent) and the Performance of the transit provider (25 percent). This allocation reflects only the Need part of the formula. Future allocations would include a Performance portion, which is likely to be significantly less.

communities like Palacios, Sargent, and Matagorda. Increased demand response capacity is also developed through the ride voucher program. It is recommended that local resources available to support the local match for this program, including excess contract revenue, and federal WIA and TANF funds, be considered. Flex route service is recommended for Bay City. This will be a peak-period service which will be operated by Connect Transit. Commute recommendations include the promotion of low-cost carpooling in the short term and the initiation of vanpools for neighboring industrial sites within five years.

Chapter 7: Finance Plan

Introduction

This chapter provides the finance plan for services recommended in Chapter 6, Service Plan Recommendations. Assumptions used to calculate the operating costs are discussed in the first section. Budgets for Year 1 to 5 are outlined along with the sources and uses of federal, state, and local resources. The last section discusses strategies to generate additional local share value and leverage existing local financial contributions.

The need for transit services for rural communities has never been greater. However, the availability of resources to support the same has never been more constrained. Abundant federal resources remain the mainstay of transit systems, particularly in rural areas where dedicated sources of funding for transit are virtually non-existent. The State of Texas has not increased its Public Transit Trust Fund support statewide for many years. The result has been an increasing demand for local cash and other resources to match federal and available state resources. This environment demands that local communities commit between 20 and 25 percent of the total resources required to support ongoing demand response and fixed route services. The ability to provide the local resources required to support on-going or newly introduced transit services for rural areas can be met through the support of local stakeholders who have a direct interest in public transit services for their community.

The services being addressed through this plan, to be introduced over a five year period, should only be initiated if local stakeholders are willing to commit, at a minimum, three years' of financial (cash and/or "in kind") support to the program. The introduction of new transit services often require six to twelve months to come to fruition. While ineffective services can always be quickly terminated, successful service requires a long term commitment to be fully realized.

Operating Cost Assumptions

In this section, assumptions used in estimating the operating budget are discussed by type of service and year. Following this, Table 7.1, Matagorda County Transit Plan Federal and Local Share, outlines the Gross Operating Cost, Fares, and Net Operating Cost for each service type, for Years 1 through 5.

Demand Response Service: The cost of demand response service is inflation-adjusted 3 percent annually. This is a conservative assumption and above the 2 percent average rate over the past 10 years.

- Year 0 – Demand response costs reflect the FY2009 financials from the FOEC. It provides the basis for comparing changes generated by new service implementation in Year 1.

- Year 1 – Demand response costs reflect the addition of another driver for FOEC demand response service. The costs are based on 6 vehicles, each operating for 2,000 hours (8 hours, 250 days a week). Fares are $1.00 per general public trip.

- Year 2 to 5 – Demand response fares are incrementally increased to reflect anticipated higher ridership stimulated by more advertising and promotion of service.

Flex Route Service: The cost of flex service is inflation-adjusted 3 percent annually.

- Year 1 to 2: No service is provided to allow time to develop local consensus and financial commitments for the program. In addition, this will allow time to migrate the transit agency authority from the GCRPC to the Gulf Coast Center/Connect Transit, which will operate the service.

- The flex cost is based on 2 vehicles operating 6 hours daily (a peak period service with 3 hours in the morning and evening each) and $60 an hour per vehicle. Fares are $1.00 and it is assumed that the initially 5 passengers per hour will use the service. This is a conservative estimate which increases by Year 5 to 7 passengers per hour.

- Year 3 to 5: Fares for flex service increase under the assumption that an additional passenger per hour is reflected each year.

Ride Voucher Program: The cost of the ride voucher program is based on funding that can be secured through programs such as Section 5316 Job Access/Reverse Commute or Section 5317 New Freedom. The voucher program is not inflation adjusted.

- Year 1 – No ride voucher program is initiated in Year 1. It is recommended that this year be used to plan for the program and develop partnerships with organizations, like the FOEC, Workforce Solutions, which may have funding through the Workforce Investment Act (WIA) and Temporary Assistance to Needy Families (TANF), that could be used to leverage additional federal transit funding for this program.

- Year 2 – The ride voucher program is initiated. The estimated value of the program is currently based on the availability of excess contract revenue and local contributions that are not currently being leveraged, for example, excess Medicaid contract revenue, United Way and Matagorda County contributions. Additional sources of local share that may be used include WIA and TANF funds.

- Year 3 to 4 – No changes to program.

- Year 5 – It is assumed that the contract for funding will last three years (or Years 2 to 4) and expire in Year 5. The higher program amount reflects Year 5 new request for program funding.

Van Pool and Car Pool Program: The van pool program does not initiate until Year 4. It is assumed that the van pool program will utilize Section 5316 JARC funding.

- Year 4 to 5 - The cost reflects a lease for a single 12-passenger luxury style van through a private provider (approximately $20,000 annually). Fares are based on 7 passengers and $3.00 round-trip fare.

Federal and Local Share

The cost of transit services is divided into a federal share and a local share. Depending on the type of expense, the federal share ranges from a low of 50 percent of the cost for operating to 80 percent for capital purchases. For operating expenses, the federal and local share is calculated after fares have been deducted from the gross cost of service. See Table 7.1, Federal and Local Share for a five-year snapshot of federal and local share.

Table 7.1: Federal and Local Share

	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Gross Op						
DR	$ 270,000	$ 360,000	$ 370,800	$ 381,924	$ 393,382	$ 405,183
Voucher	$ -	$ -	$ 30,000	$ 30,000	$ 30,000	$ 35,000
Fix/Flex	$ -	$ -	$ -	$ 180,000	$ 185,400	$ 190,962
Van Pool	$ -	$ -	$ -	$ -	$ 20,000	$ 20,000
Total	**$ 270,000**	**$ 360,000**	**$ 400,800**	**$ 591,924**	**$ 628,782**	**$ 651,145**
Fares						
DR	$ 9,500	$ 11,500	$ 12,000	$ 12,500	$ 13,000	$ 13,500
Voucher	$ -	$ -	$ 3,000	$ 3,000	$ 3,000	$ 3,500
Fix/Flex	$ -	$ -	$ -	$ 15,000	$ 18,000	$ 21,000
Van Pool	$ -	$ -	$ -	$ -	$ 5,250	$ 5,250
Total	**$ 9,500**	**$ 11,500**	**$ 15,000**	**$ 30,500**	**$ 39,250**	**$ 43,250**
Net Op						
DR	$ 260,500	$ 348,500	$ 358,800	$ 369,424	$ 380,382	$ 391,683
Voucher	$ -	$ -	$ 27,000	$ 27,000	$ 27,000	$ 31,500
Fix/Flex	$ -	$ -	$ -	$ 165,000	$ 167,400	$ 169,962
Van Pool	$ -	$ -	$ -	$ -	$ 14,750	$ 14,750
Total	**$ 260,500**	**$ 348,500**	**$ 385,800**	**$ 561,424**	**$ 589,532**	**$ 607,895**
Fed Sh.	$ 130,250	$ 174,250	$ 192,900	$ 280,712	$ 297,766	$ 306,198
LocalSh.	$ 130,250	$ 174,250	$ 192,900	$ 280,712	$ 291,766	$ 300,198

With the exception of the vanpool program, the federal and local shares are each 50 percent. The vanpool program assumes lease of privately owned vehicles and therefore makes the service eligible for a higher amount of federal support through Capital Cost of Contracting ($10,375

federal share and $4,375 local share).[1] The federal share can be supported with FTA funding programs, such as Section 5311 Rural Formula Funds and competitive programs like Section 5316 JARC and Section 5317 New Freedom funds. The local share can be supported with TxDOT Public Transportation Trust Funds that are allocated annually as well as local funds from organizations like Bay City, Matagorda County, the FOEC, employers, and others

Year 1 Operating Budget

Table 7.2, Year 1 Operating Budget, outlines the federal, state, and local resources that will be used to support each of the transit programs in the first year. An explanation of fund programming is below. Year 1 reflects the addition of an additional drive and vehicle for demand -response service.

Table 7.2: Year 1 Operating Budget

	Total	DR	Voucher	Flex	Van Pool
Net Cost of Program	348,500	348,500	-	-	-
Federal Share	174,250	174,250	-	-	-
Local Share	174,250	174,250	-	-	-
FEDERAL RESOURCES					
Section 5311_Federal	82,000	82,000	-	-	-
Section 5310_Elderly & Disabled	-	-	-	-	-
Section 5316_JARC	-	-	-	-	-
Section 5317_New Freedom	-	-	-	-	-
STATE RESOURCES					
State Public Transit Trust Fund	82,000	82,000	-	-	-
Section 5311_Discretionary	-	-	-	-	-
LOCAL RESOURCES					
Bay City, Matagorda County, etc.	-		-	-	-
FOEC	184,500	184,500	-	-	-
Employers	-	-	-	-	-
Total	348,500	348,500	-	-	-

Federal Resources: Section 5311 Federal Funds are allocated each year by TxDOT by formula that recognizes the needs of the service area and the performance of the transit provider. The amount reflected above, $82,000, reflects the estimate provided by TxDOT ($79,000) for the needs portion of the formula for FY2010, plus an estimate calculated by TGC ($3,000) for the performance portion of the formula.

State Resources

- State Public Transit Trust Funds are allocated by formula, similar to the Section 5311 Federal program; it is based on the need of the community and the performance of the transit provider. As a part of this study, TxDOT estimated Matagorda County would generate $79,000 from the need portion of the formula. TGC estimated $3,000 for the performance portion, for a total of $82,000. These funds are used to match the Federal 5311 funds noted above.

Local Resources

- Currently, the FOEC generates about $180,000 annually through its Medicaid contract that it uses to support demand-response services.

Year 2 Operating Budget

Table 7.3, Year 2 Operating Budget, reflects the addition of the ride voucher program. The plan recommends pursuit of federal funding from either Section 5316 JARC and/or Section 5317 New Freedom. It is recommended that these funds be matched with local funds (excess contract revenue, local contributions, WIA or TANF).

Table 7.3: Year 2 Operating Budget

	Total	DR	Voucher	Flex	Van Pool
Net Cost of Program	385,500	358,800	27,000	-	-
Federal Share	192,900	179,400	13,500	-	-
Local Share	192,900	179,400	13,500	-	-
FEDERAL RESOURCES					
Section 5311_Federal	82,000	82,000	-	-	-
Section 5310_Elderly & Disabled	-	-	-	-	-
Section 5316_JARC	-	-	-	-	-
Section 5317_New Freedom	13,500	-	13,500	-	-
STATE RESOURCES					
State Public Transit Trust Fund	82,000	82,000	-	-	-
Section 5311_Discretionary	-	-	-	-	-
LOCAL RESOURCES					
Bay City, Matagorda County, etc.	-		-	-	-
FOEC	208,300	194,800	13,500	-	-
Employer	-	-	-	-	-
Total	385,500	358,800	27,000	-	-

Federal Resources

- Section 5311 Federal Funds are assigned similar to Year 1. Based on the fund formula, they are allocated to the FOEC for the support of demand-response services.
- Section 5317 New Freedom Funds support the ride voucher program. Under Section 5317 New Freedom program, the ride voucher program must provide trips to people who are eligible under the ADA for para-transit services. A ride voucher program could also be instituted under Section 5316 JARC if it targets low-income workers, and those individuals looking or training for work.

State Resources

- State Public Transit Trust Fund is similar to Year 1. These state funds are used to match the Section 5311 Federal funds discussed above.

Local Resources

- Currently, the FOEC generates about $180,000 annually through its Medicaid contract. Matagorda County currently contributes about $39,000 to the FOEC, of which approximately $12,000 is for transportation. Similarly, United Way currently contributes about $9,000 to the FOEC for transportation. It is recommended that a portion of the underleveraged local resources, such as contract revenue, should be available, subject to FOEC concurrence, to match other federal funds to expand general public transit services through the ride voucher program.

Year 3 Operating Budget

Table 7.4, Year 3 Operating Budget, reflects the addition of the fixed/flex service to the demand response service and the ride voucher program.

Table 7.4: Year 3 Operating Budget

	Total	**DR**	**Voucher**	**Flex**	**Van Pool**
Net Cost of Program	561,424	369,424	27,000	165,000	-
Federal Share	280,712	184,712	13,500	82,500	-
Local Share	280,712	184,712	13,500	82,500	-
FEDERAL RESOURCES					
Section 5311_Federal	84,000	84,000	-	-	-
Section 5310_Elderly & Disabled	-	-	-	-	-
Section 5316_JARC	82,500	-	-	82,500	-
Section 5317_New Freedom	13,500	-	13,500	-	-

Table 7.4: Year 3 Operating Budget, continued					
	Total	**DR**	**Voucher**	**Flex**	**Van Pool**
STATE RESOURCES					
State Public Transit Trust Fund	84,000	84,000	-	-	-
Section 5311_Discretionary	41,250	-	-	41,250	-
LOCAL RESOURCES					
Bay City, Matagorda, etc.	41,250		-	41,250	-
FOEC	214,924	201,424	13,500	-	-
Employer	-	-	-	-	-
Total	561,424	369,424	27,000	165,000	-

Federal Resources

- Section 5311 Federal funds are assigned similar to Years 1 and 2.
- Section 5317 New Freedom funds are assigned similar to Years 1 and 2.
- Section 5316 JARC funds target low-income workers, and individuals seeking employment and/or job training. The flex route is a peak-period service that will target these individuals. It is recommended that stakeholders pursue funding through this category, which is administered through TxDOT's Coordinated Call for Projects. This budget reflects $82,500 in JARC funding which will be matched with state and local funds.

State Resources

- State Public Transit Trust fund is similar to Years 1 and 2. These state funds are used to match the Section 5311 Federal funds used for demand-response service.
- Section 5311 Discretionary funds are controlled by TxDOT. The funding source is generated from a percentage of the Section 5311 apportionment it receives each year and TxDOT has the authority to dedicate these funds to discretionary projects. TGC recommends that Matagorda County request support for 25 percent of the fixed/flex program (or $41,250) to match part of the JARC request of $82,500. TGC recommends that the discretionary funds be matched equally with local funds.

Local Resources

- Bay City funds are used in combination with the Section 5311 Discretionary and the Section 5316 JARC programs to fund the fixed/flex service. The Bay City contribution may include contributions from the City and other stakeholders such as Matagorda

County, the Wharton County Junior College, Matagorda County Economic Development, employers, and others.

Year 4 Operating Budget

Table 7.5, Year 4 Operating Budget, reflects the addition of the van pool service to the demand-response, flex services and the ride voucher program.

Table 7.5: Year 4 Operating Budget					
	Total	**DR**	**Voucher**	**Flex**	**Van Pool**
Net Cost of Program	589,532	380,382	27,000	167,400	14,750
Federal Share	297,766	190,191	13,500	83,700	10,375
Local Share	291,766	190,191	13,500	83,700	4,375
FEDERAL RESOURCES					
Section 5311_Federal	86,000	86,000	-	-	-
Section 5310_Elderly & Disabled	-	-	-	-	-
Section 5316_JARC	94,075	-	-	83,700	10,375
Section 5317_New Freedom	13,500	-	13,500	-	-
STATE RESOURCES					
State Public Transit Trust Fund	86,000	86,000	-	-	-
Section 5311_Discretionary	41,850	-	-	41,850	-
LOCAL RESOURCES					
Bay City, Matagorda County, etc.	41,850		-	41,850	-
FOEC	221,882	208,382	13,500	-	-
Employer	4,375	-	-	-	4,375
Total	589,532	380,382	27,000	167,400	14,750

Federal Resources

- Section 5311 Federal funds are assigned similar to Years 1 through 3.
- Section 5317 New Freedom funds are assigned similar to Years 1 through 3.
- Section 5316 JARC (Job Access/Reverse Commute) funds are assigned similar to Year 3 for the flex service and for the van pool service.

State Resources

- State Public Transit Trust fund is similar to Years 1 through 3. These state funds are used to match the Section 5311 Federal funds used for demand response service.
- Section 5311 Discretionary funds are similar to Year 3.

Local Resources

- Bay City funds are similar to Year 3.
- FOEC contributions are similar to Years 1 through 3.
- Employer funds are used to provide the local share for the vanpool program. This budget reflects a federal and local share calculated using Capital Cost of Contracting which allows a higher reimbursement rate for the capital portion of the contract if it is held by a private provider.

Year 5 Operating Budget

Table 7.6, Year 5 Operating Budget, reflects the implementation of all recommended services.

Table 7.6: Year 5 Operating Budget

	Total	DR	Voucher	Flex	Van Pool
Net Cost of Program	606,394	391,683	30,000	169,962	14,750
Federal Share	306,198	195,842	15,000	84,981	10,375
Local Share	300,198	195,842	15,000	84,981	4,375
FEDERAL RESOURCES					
Section 5311_Federal	88,000	88,000	-	-	-
Section 5310_Elderly & Disabled	-	-	-	-	-
Section 5316_JARC	95,356	-	-	84,981	10,375
Section 5317_New Freedom	15,000	-	15,000	-	-
STATE RESOURCES					
State Public Transit Trust Fund	88,000	88,000	-	-	-
Section 5311_Discretionary	42,490	-	-	42,490	-
LOCAL RESOURCES					
Bay City, Matagorda, etc.	42,490		-	42,490	-
FOEC	230,683	215,683	15,000	-	-
Employer	4,375	-	-	-	4,375
Total	606,394	391,683	30,000	169,961	14,750

Federal Resources

- Section 5311 Federal funds are assigned similar to Years 1 through 4.
- Section 5317 New Freedom funds are assigned similar to Years 1 through 4.
- Section 5316 JARC (Job Access/Reverse Commute) funds are assigned similar to Year 3 for the flex service and Year 4 for van pool service.

State Resources

- State Public Transit Trust fund is similar to Years 1 through 4. These state funds are used to match the Section 5311 Federal funds used for demand response service.
- Section 5311 Discretionary funds are similar to Years 3 to 4.

Local Resources

- Bay City funds are similar to Year 3 and 4.
- FOEC funds are similar to Years 1 through 4.
- Employer funds are similar to Year 4.

Capital Expenditures

The section above focused on operating expenditures. The new services will require additional capital investment in vehicles for the demand response, voucher, and flex services and shelters for the flex service.

- Year 1: $50,000 ($40,000 federal and $10,000 local share) for additional vehicle for demand response service.
- Year 2: $100,000 ($80,000 federal and $20,000 local share) for two, wheel-chair equipped vehicles for ride voucher program.
- Year 3:
    - $150,000 ($120,000 federal and $30,000 local share) for two operating and one spare vehicle for fixed/flex service.
    - $25,000 ($20,000 federal and $5,000 local share) for signage and shelter at intersection of SH60 and SH35.

Federal resources for vehicle purchases include Section 5310 Elderly and Disabled, Section 5316 JARC and Section 5317 New Freedom. Local resources include Transportation Development Credits (TDC); local communities can apply for TDCs for vehicle purchases through TxDOT. Other sources of local share may include in-kind contributions for the installation of signage and shelter.

Strategies to Maximize Local Share

The Year 1 to 5 operating budgets reflect the requirements for the recommended programs and the sources of funding. At this stage, they do not reflect potential local sources of value that, if brought to the table, could either reduce local share cash requirements or provide the local match to expand programs. The following section discusses some strategies to maximize the local value within Matagorda County in order to minimize cash outlays.

In – Kind Contributions: Matagorda County stakeholders have existing assets and services that can benefit the transit program. When the value of these assets and services are incorporated into the transit program's budget, they can decrease the local share cash requirement.

For example, assume a transit program's operating cost is $100,000. Because operating costs are supported with 50 percent federal funding and 50 percent state and local funding, each entity supports $50,000 of the cost. Alternatively, assume that the transit program's operating cost is $100,000 plus $25,000 for advertising supported by stakeholder groups. The value of the program is now $125,000. The federal share is $62,500 or 50 percent. The local share is comprised of the in-kind value of $25,000 plus cash for $37,500. This is a difference of $12,500 (or fifty percent of the in-kind value) in the local cash requirement.

Under-leveraged Local Funds: Through its access to TxDOT-funded vehicles and operating support, the FOEC has the capacity to secure and hold a Medicaid contract. From TxDOT Public Transportation reports which the FOEC files quarterly, it reflects that the FOEC generated revenue above expenses in FY 2007 to FY 2009; in FY2009, this amount was approximately $60,000. With FOEC's concurrence, a portion of this revenue could leverage additional state and federal funding to expand transit in the county. This plan recommends that that a portion of this excess revenue be re-invested back into transit in support of the ride voucher program as a step toward expanding and diversifying services for Matagorda County.

Transportation Development Credits (TDC): TDCs are distributed by TxDOT through a competitive process. The TDCs can be used to provide a local non-cash match for the purchase of vehicles. In the event TDCs are used for local match, the equivalent value in federal and state funds must be secured for the purchase of a vehicle.

Conclusion

There are a number of federal and state programs that can be used to expand transit in Matagorda County. However, it is critical that local communities demonstrate a financial commitment to transit in order to access these funds. This investment can come from several sources. County stakeholders can partner to provide more cash support. These stakeholders may include the City of Bay City, the County of Matagorda, the Matagorda County Economic Development Corporation, local employers, and others. Prior to implementing the plan, securing consensus on the transit plan and financial support among stakeholders is necessary. Secondly, local revenues

that are currently not being leveraged to support transit expansion should be evaluated. Lastly, the opportunity to reflect the value of in-kind contributions needs to be considered prior to the finalizing budgets. To the extent that opportunities exist within the county, such as lease space for vehicles or advertising support, they should be incorporated into the final budget.

Chapter 8: Implementation Plan

Introduction

The recommended service plan will be implemented over a five-year period. The incremental addition of services would allow transit agencies and sub-contractors time to develop the policies and procedures for new services, as well as to provide local stakeholders time to develop partnerships and secure local resources.

Year 1

- Begin transition from GCRPC to Connect Transit.
    - Gain consensus from local stakeholders to end oversight and responsibility for the provision of transit by GCRPC and to initiate a new relationship with Gulf Coast Center/Connect Transit. This transition will require the Matagorda County Commissioner's Court pass a resolution dissolving its agreement with GCRPC and indicating a desire to enter into a new agreement with GCRPC.
    - Pass a similar resolution from the Gulf Coast Center/Connect Transit Board of Directors supporting the transition and accepting the role as transit agency for Matagorda County.
    - Begin negotiations for the transition of funding and assets from the GCRPC to Gulf Coast Center/Connect Transit.
- Initiate additional demand response service through FOEC.
    - Pursue funding for additional vehicle through the TxDOT Section 5311 Elderly and Disabled program. Request Transportation Development Credits for local match for vehicles through TxDOT.
    - Develop partnerships to market and promote transit services. Potential partners could include agencies such as the Matagorda County Economic Development Corporation, Bay City Community Development Corporation, Bay City Chamber of Commerce, The United Way of Matagorda County, and Economic Action Committee.
    - Initiate weekly connector trips between Palacios and Bay City.
- Plan for initiation of ride voucher program in Year 2.
    - Form working group to develop voucher program. Potential partners may include FOEC, Workforce Solutions, and Matagorda County MHMR.
    - Develop a Request for Information to distribute to potential vendors.
    - Secure local resources and apply for program funding through the TxDOT Coordinated Call for Projects for operating and capital expenses.

- Plan for initiation of flex service in Year 3.
    - Continue developing local commitment and financial support for program.
    - Support transfer of agency authority from GCRPC to Gulf Coast Center/Connect Transit.
- Continue developing partnerships with local industries for commuter solutions. For example, information and resources on vanpooling and carpooling can be made available through the Bay City Chamber of Commerce and the Matagorda County Economic Development Corporation.

Year 2

- Finalize transition from GCRPC to Connect Transit.
    - Complete negotiations with TxDOT for transfer of transit agency authority.
    - Complete transfer of vehicles and other assets from GCRPC to Gulf Coast Center/Connect Transit.
    - Re-negotiate contracts with FOEC for provision of demand-response service.
- Initiate ride voucher program.
- Continue planning for initiation of flex route service through Connect Transit.
    - Secure commitments for local funding.
    - Finalize route and stops.
    - Apply for program funding through the TxDOT Coordinated Call for Projects for operating support and vehicles.
- Continue developing partnerships with industrial employers for commute solutions.

Year 3

- Initiate flex service through Connect Transit.
- Apply for funding through TxDOT Coordinated Call for support of vanpool program.

Year 4

- Continue provision of services for demand-response, ride voucher program, and fixed/flex services.
- Initiate vanpool program.

Year 5

- All services implemented.

Conclusion

The services implementation is recommended over a five-year period. During this period, transit advocates in Matagorda County are encouraged to work with partnering agencies to gain consensus on transit service priorities and secure local share commitments.