

Hendry County

Long Range Transportation Plan Update



Hendry County

Long Range Transportation Plan Update

**Prepared by:
David Plummer & Associates, Inc.**

**May 2008
DPA Project #06646**



TABLE OF CONTENTS

	<u>Page</u>
List of Exhibits.....	iii
EXECUTIVE SUMMARY	iv
1.0 INTRODUCTION.....	1
2.0 PLAN DEVELOPMENT	3
2.1 Technical Analysis.....	3
2.2 Advisory Committee.....	3
2.3 Public Input.....	3
2.4 Plan Adoption	4
3.0 TRAVEL DEMAND FORECAST	5
3.1 Socio Economic Data.....	5
3.2 Travel Demand Model	5
4.0 NEEDS PLANS AND FUTURE CORRIDORS.....	7
4.1 Level of Service Standards	7
4.2 Year 2030 Needs Plan.....	8
4.3 Future Corridors.....	11
4.4 Year 2015 Needs Plan.....	13
5.0 PRIORITIES	15
5.1 Evaluation Criteria.....	15
5.2 Recommended Priorities.....	16
6.0 FISCAL FEASIBILITY	18
6.1 Hendry County Sources	18
6.2 FDOT Sources	20
7.0 FINANCIALLY FEASIBLE PLAN	19
8.0 IMPLEMENTATION	24

- Appendix A: Transportation Advisory Board
- Appendix B: Road Construction Costs
- Appendix C: Right of Way Units Costs
- Appendix D: Needed Improvements and Costs
- Appendix E: Additional Funding Source

LIST OF EXHIBITS

<u>Exhibit</u>	<u>Page</u>
1.1 Location Map	2
4.1 2030 Needs Plan	10
4.2 Future Corridors.....	12
4.3 2015 Needs Plan	14
5.1 2030 Priorities.....	17
7.1 2030 Financially Feasible Plan	23

EXECUTIVE SUMMARY

In 2004 the Florida Department of Transportation (FDOT) sponsored the first Long Range Transportation plan for the area. That effort culminated in a final report dated April 2005. However, that plan was never adopted in part due to controversy regarding the cost of the plan and traffic Level of Service (LOS) issues. In 2007, Hendry County requested its transportation consultant to update the previous plan and seek formal adoption of the document by the Board of County Commissioners (BOCC). Following several months of technical analysis, meetings, and feedback from a steering committee and the public, the plan was adopted by the BOCC in November 2007. The study focuses on the county roadway needs and funding resources and presents the adopted Financially Feasible Plan for the area. This report describes the process, analysis, and public involvement throughout the study.

Formulation of a transportation plan involves several types of data and technical analysis. These include: traffic forecasting models; forecasts of future growth patterns; estimates of the cost of the recommended improvements; and an analysis of available financial resources for implementation.

The Year 2030 Needs Plan reflects the necessity to widen most state roads in the area, the extension of several existing roads, as well as, the construction of a few new county roads. All facilities identified with a certain number of future lanes, should be interpreted as corridors representing a general, not specific, location/alignment. Specific recommendations are possible only after a detailed study of alternatives and impacts. Such studies take place a few years in advance of funding and construction and are generally known as Project Development and Environment (PDE) studies. It also important to note that most of the growth is expected to occur in the northern half of the county. Therefore, the plan includes no roadway capacity improvement recommendations in the southern half of Henry County.

During the development of the long range plan, opportunities are often identified that are worth noting, although they might seem premature at the time. A few of those opportunities surfaced

during the study. These have been designated as Future Corridors. These corridors are potential needs and/or opportunities beyond the year 2030. They are the product of analysis by the project team as well as input from area residents that participated in the development of the plan.

Like the recommendations in the 2030 Needs Plan, the Future Corridors must be the subject of more extensive studies addressing need, location, impacts, costs, etc. However, identification of the corridors should provide guidance to the county and state planning staffs so that these opportunities are preserved, instead of precluded as future options, while actual demand materializes and more studies can be completed.

Development of the year 2015 roadway Needs Plan was accomplished using the same process as the year 2030 Needs Plan. The main difference was that the population, dwelling units and employment forecasts were based on estimates roughly midway between the year 2002 and 2030. The year 2015 Needs Plan was used as input in developing the recommended improvements priorities.

The purpose of establishing improvement priorities is to provide guidance on the relative importance of the recommended improvements needed by the year 2030. This is especially critical given the fact that the cost of long range transportation needs usually exceeds the available resources. Priorities also identify logical increments of improvements over time. The actual priority designations break up the improvements into three groups as follows: Priority I: 2007 – 2015; Priority II: 2016 – 2020; Priority III: 2021 – 2030.

The principal premise in developing a Financially Feasible Plan is that such a plan must use presently and reasonably available funding sources. Unfortunately, long range transportation needs are often more costly than the available resources. Given this constrain, the Financially Feasible Plan then must be a smaller subset of the Needs Plan. The priorities described in the previous section then became the guide for selecting which recommended improvements were to become

part of the Financially Feasible Plan. Projects were added to the plan until all the available resources were allocated. In fact, given the need for certain projects, the BOCC decided that it was acceptable to slightly exceed the financial resources on temporary basis until such sources could be supplemented to implement the recommended Financially Feasible Plan. Given the cost of the entire plan, the county plans to overcome the small unfunded difference (SR 29 improvements) by working closely and cooperatively with FDOT to find the missing funds. The adopted Financially Feasible Plan is presented this report.

The most pressing implementation issue of a long range transportation plan is usually funding. Large gaps have been identified in the section above when funding the 2030 year roadway needs. Given that each jurisdiction (state and county) have specific system needs and dedicated funding sources, then is important that each jurisdiction pursue the necessary funding to bridge the corresponding gap. While it is expected that the forecasted revenues from sources presently available will fluctuate, additional sources will likely be necessary to fully implement the year 2030 Needs Plan.

1.0 INTRODUCTION

Hendry County is located between the Fort Myers area (Lee County) and Palm Beach County in south central Florida. Lake Okeechobee and the Caloosahatchee River are near its northern boundary (see Exhibit 1.1). In 2004 the Florida Department of Transportation (FDOT) sponsored the first Long Range Transportation plan for the area. That effort culminated in a final report dated April 2005. However, that plan was never adopted in part due to controversy regarding the cost of the plan and traffic Level of Service (LOS) issues. In 2007, Hendry County requested its transportation consultant to update the previous plan and seek formal adoption of the document by the Board of County Commissioners (BOCC). Following several months of technical analysis, meetings and feedback from a steering committee and the public, the plan was adopted by the BOCC in November 2007. The study focuses on the county roadway needs and funding resources, and presents the adopted Financially Feasible Plan for the area. This report describes the process, analysis and public involvement throughout the study.

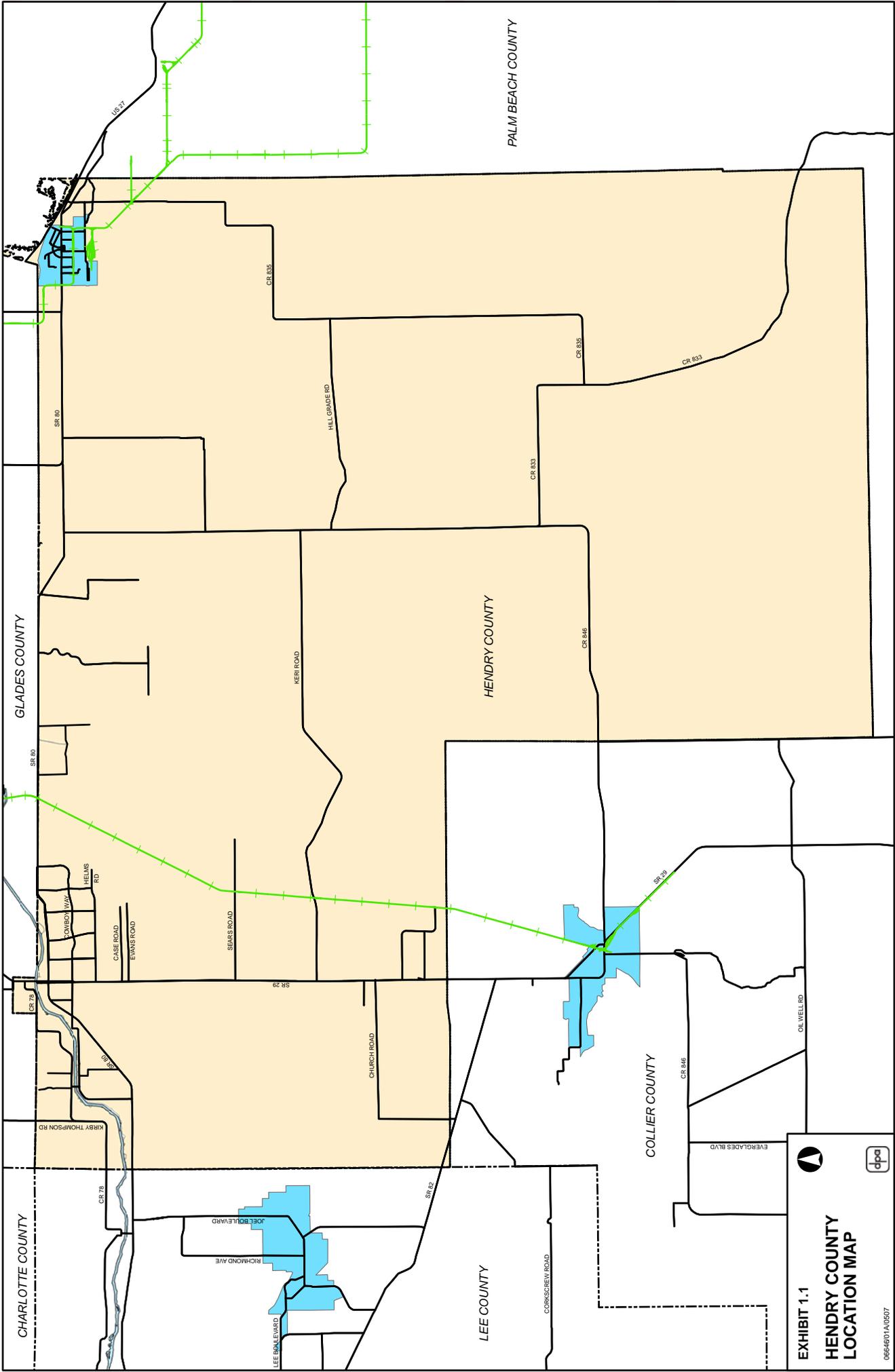


EXHIBIT 1.1
HENDRY COUNTY
LOCATION MAP

06P-4601A/0507

2.0 PLAN DEVELOPMENT

Development of the plan required the use of data, analysis tools and significant public input. These elements are described below.

2.1 Technical Analysis

Formulation of a transportation plan involves several types of data and technical analysis. These include: traffic forecasting models; forecasts of future growth patterns; estimates of the cost of the recommended improvements; and an analysis of available financial resources for implementation. These analyses are described in the following sections of this report.

2.2 Advisory Committee

The study was conducted with the aid of an Advisory Committee. Specifically, a Transportation Advisory Board (TAB) appointed by the Board of County Commissioners (BOCC) fulfilled the role of the advisory committee. The group (see Appendix A) provided valuable advice and feedback from the perspective of area residents and businesses. Furthermore, many of the Board members had been involved in the development of the previous LRTP. This background ensured that: previously debated issues were identified and properly addressed; local policy matters were taken into consideration; and where possible, helped maintain consistency with the previous plan.

2.3 Public Input

In addition to the input provided by the members of the TAB, all meetings with this group were advertised and open to the general public. A combined total of four meetings with the TAB took place in LaBelle and Clewiston between July and October 2007. Additionally, the preliminary plan recommendations were presented to the Local Planning Agency (LPA) at a public hearing in LaBelle. Public comments, questions and suggestions were considered in the development of the plan. Both groups endorsed the plan recommendations prior to adoption by the BOCC.

2.4 Plan Adoption

A public workshop was held with the BOCC in Pioneer Plantation in October 2007. Formal adoption of the plan was requested and obtained from the BOCC at the regular meeting in Clewiston in November 2007.

3.0 TRAVEL DEMAND FORECAST

3.1 Socio Economic Data

Future travel was estimated using forecasts of the amount and location of future population, dwelling units, and employment. The subject data was secured from estimates developed (and endorsed by the former steering committee) during the previous study, but the data was updated to reflect the recent land use amendment application for the West Hendry County area. A summary of the aforementioned base and future years data is presented below.

Hendry County Growth Forecast

	2002	2015	2030
Population	36,389	75,656	121,409
Dwelling Units	13,154	25,925	40,683
Employment	13,053	24,336	37,790

Sources:

Hendry County Long Range Transportation Plan, April 2005
West Hendry County Comprehensive Plan Amendment, 2007

3.2 Travel Demand Model

Roadway needs are estimated using tools such as traffic forecasting models. Traffic models estimate future travel demand using data such as the number and location of dwelling units and employment. These parameters are converted into vehicular trips, the trips are assigned to a roadway network and the resulting traffic volumes are compared to levels of service standards. The models also allow testing of roadway improvements such as new roads or widening of existing facilities.

In Hendry County, the base traffic model was developed by the FDOT consultants. This model was secured and examined to determine its accuracy. The roadway network was updated as needed to reflect conditions during the base year (2002). The number and location of dwelling

units and employment from the previous study (based on year 2000 Census data) was retained. Model estimated traffic volumes were compared against actual traffic counts to once again, verify the model's accuracy.

4.0 NEEDS PLANS AND FUTURE CORRIDORS

The county roadway needs were examined for the year 2015, 2030 and beyond, as described below. These needs, however, are predicated on the officially adopted Hendry County minimum roadway Level of Service standards.

4.1 Level of Service Standards

The county, as required by Florida Rules and Statutes, has adopted Roadway LOS standards. These standards are part of the area’s Comprehensive Plan. The currently adopted LOS standards are shown below:

Hendry County Roadway Level Of Service Standards

<u>Adopted Standards</u>	
State Urban Arterials:	C
State Rural Arterials	B
County Roads	C
City Roads - Clewiston	C
City Roads - LaBelle	D
 <u>BCC Directed Changes (in process)</u>	
SR 82	E
Other State (FIHS/SIS) Roads	
“Urban” Areas	C
“Rural” Areas – 2 lanes	C
“Rural” Areas – multilane	B

Source: Hendry County, Clewiston and LaBelle Comprehensive Plans
FIHS: Florida Intrastate Highway System
SIS: Strategic Intermodal System

Traffic LOS is generally defined as follows:

LOS is a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.

Letters designate each level, from A to F, with LOS A representing the best operating conditions and LOS F the worst. Each level of service represents a range of operating conditions and the driver's perception of those conditions.

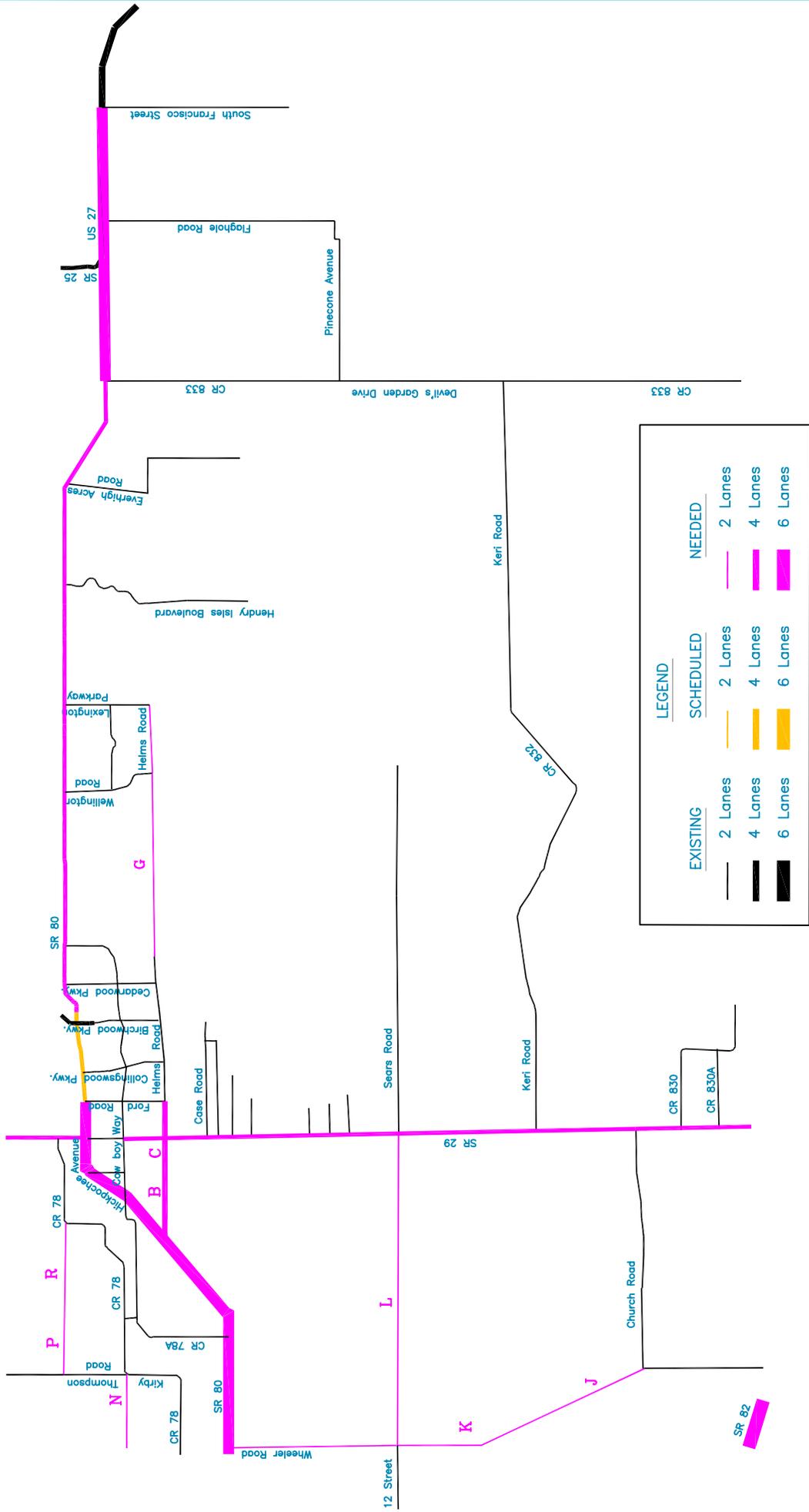
These standards are a critical issue in determining future roadway needs because as traffic volumes increase, more lanes are required in order to maintain acceptable levels of service. It should be noted that the standards for the area are fairly stringent. LOS D, for example, would represent busy traffic conditions during the peak hours but no serious traffic congestion. These standards are the result of county policy decisions intended to protect the quality of life of area residents and visitors. LOS C is even better, while LOS B represent very good traffic flow in general. The latter standards are mandated by FDOT requirements intended to protect the integrity of the major state roads that traverse the county. These state roads are part of a larger network of key facilities known as the Strategic Intermodal System (SIS).

4.2 Year 2030 Needs Plan

Long range planning is always a good idea. However, in the case of Hendry County, such planning for future transportation needs is essential given the recent growth patterns in the western portion of the county. Notwithstanding the current slowdown in the real estate sector, these are hundreds of dwelling units already approved for the area and thousands more are presently seeking approval. In fact, two major amendments to the county's land use plan have been filed recently. Given that real estate is cyclical, demand for more residential units is expected to resume upon the end of the current cycle. Therefore, additional housing and the corresponding increase in jobs and

traffic will be effected sometime in the future. The roadway needs plan anticipate the roadway network necessary to serve that residential demand into year 2030. This study emphasizes future road capacity needs. Routine maintenance of roads is a shorter term issue that is typically addressed through the county's Capital Improvement Plan and/maintenance program as well a specific component of the FDOT work program.

The forecasted trips were tested on a road network comprised of existing roads and number of lanes in addition to roadway improvements with committed funding (existing plus committed network). This test pointed out areas where LOS would not meet the minimum standards suggesting the need to widen or extend exiting roads or construct new ones. The resulting year 2030 Needs Plan is shown in Exhibit 4.1. The plan reflects the necessity to widen most state roads in the area, the extension of several existing roads, as well as, the construction of a few new county roads. All facilities identified with a certain number of future lanes, should be interpreted as corridors representing a general, not specific, location/alignment. Specific recommendations are possible only after a detailed study of alternatives and impacts. Such studies take place a few years in advance of funding and construction and are generally known as Project Development and Environment (PDE) studies. It also important to note that most of the growth is expected to occur in the northern half of the county. Therefore, the plan includes no roadway capacity improvement recommendations in the southern half of Henry County.



Note: All new roads are shown as a general corridor location, not a specific alignment. Alignments will be the subject of future studies.



HENDRY COUNTY 2030 LONG-RANGE TRANSPORTATION PLAN (LRTP) UPDATE

2030 NEEDS PLAN

Exhibit No.

4.1

4.3 Future Corridors

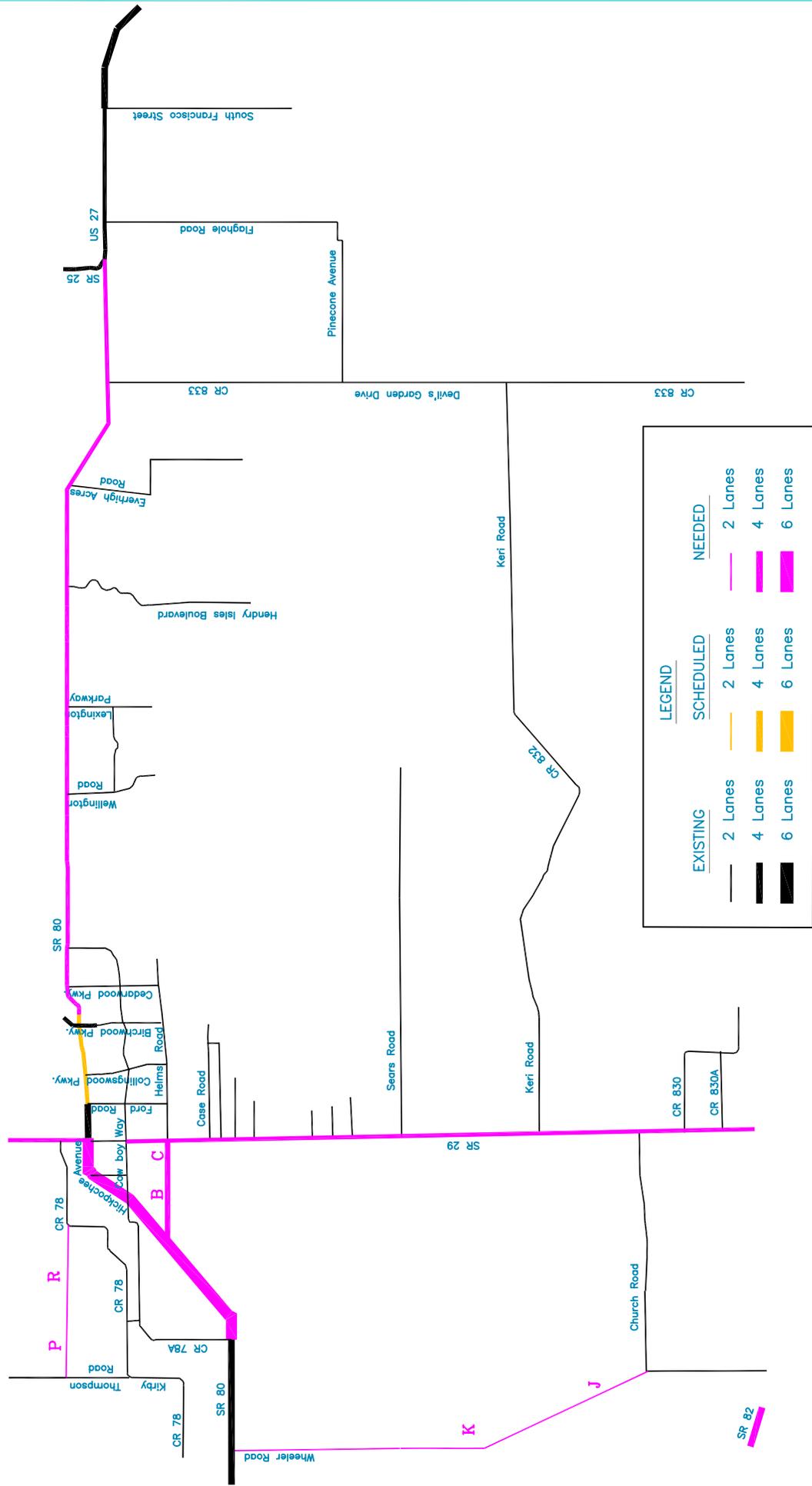
During the development of long range plans, opportunities are often identified that are worth noting although they might seem premature at the time. A few of those opportunities surfaced during the study. These have been designated as Future Corridors. These corridors are potential needs and/or opportunities beyond the year 2030. They are the product of analysis by the project team as well as input from area residents that participated in the development of the plan. Since most of these recommendations are not along existing or known facilities, they have been depicted in Exhibit 4.2, and briefly described below:

- FPL Utility Corridor (east-west along FPL easement, between Helms Rd extension and Sears Rd., west of SR 29, with a connection to CR 78)
- RR Corridor (north-south along abandoned railroad corridor, east of SR 29, as a shared corridor with Rails to Trail facilities or parallel to that future facility)
- Helms Road East Extension (east extension from Lexington Pkwy to CR 833)
- Clewiston Truck Route (from US 27, west of Clewiston, turning south and then east south of the sugar mill, then meeting with US 27 again east of Clewiston)
- Lexington Parkway South Extension (from Helms Rd to Kerri Rd with a connection to Sears Rd)
- Sears Road West Extension (from SR 29 to Wheeler Rd and aligned with 12th St in Lee County)

Like the recommendations in the 2030 Needs Plan, the Future Corridors must be the subject of more extensive studies addressing need, location, impacts, costs, etc. However, identification of the corridors should provide guidance to the county and state planning staffs so that these opportunities are preserved, instead of precluded as future options, while actual demand materializes and more studies can be completed.

4.4 Year 2015 Needs Plan

Development of the year 2015 roadway Needs Plan was accomplished using the same process as the year 2030 Needs Plan. The main difference was that the population, dwelling units and employment forecasts were based on estimates roughly midway between the year 2002 and 2030. This estimate was developed assuming a constant rate of growth between those two years (straight line interpolation). The plan is shown in Exhibit 4.3. The year 2015 Needs Plan was used as input in developing the recommended improvements priorities described in the next section.



Note: All new roads are shown as a general corridor location, not a specific alignment. Alignments will be the subject of future studies.



HENDRY COUNTY 2030 LONG-RANGE TRANSPORTATION PLAN (LRTP) UPDATE

2015 NEEDS PLAN

Exhibit No.

4.3

5.0 PRIORITIES

The purpose of establishing improvement priorities is to provide guidance on the relative importance of the recommended improvements needed by the year 2030. This is especially critical given the fact that the cost of long range transportation needs usually exceeds the available resources. Priorities also identify logical increments of improvements over time.

The actual priority designations break up the improvements into three groups as follows:

- Priority I: 2007 - 2015
- Priority II: 2016 - 2020
- Priority III: 2021 - 2030

5.1 Evaluation Criteria

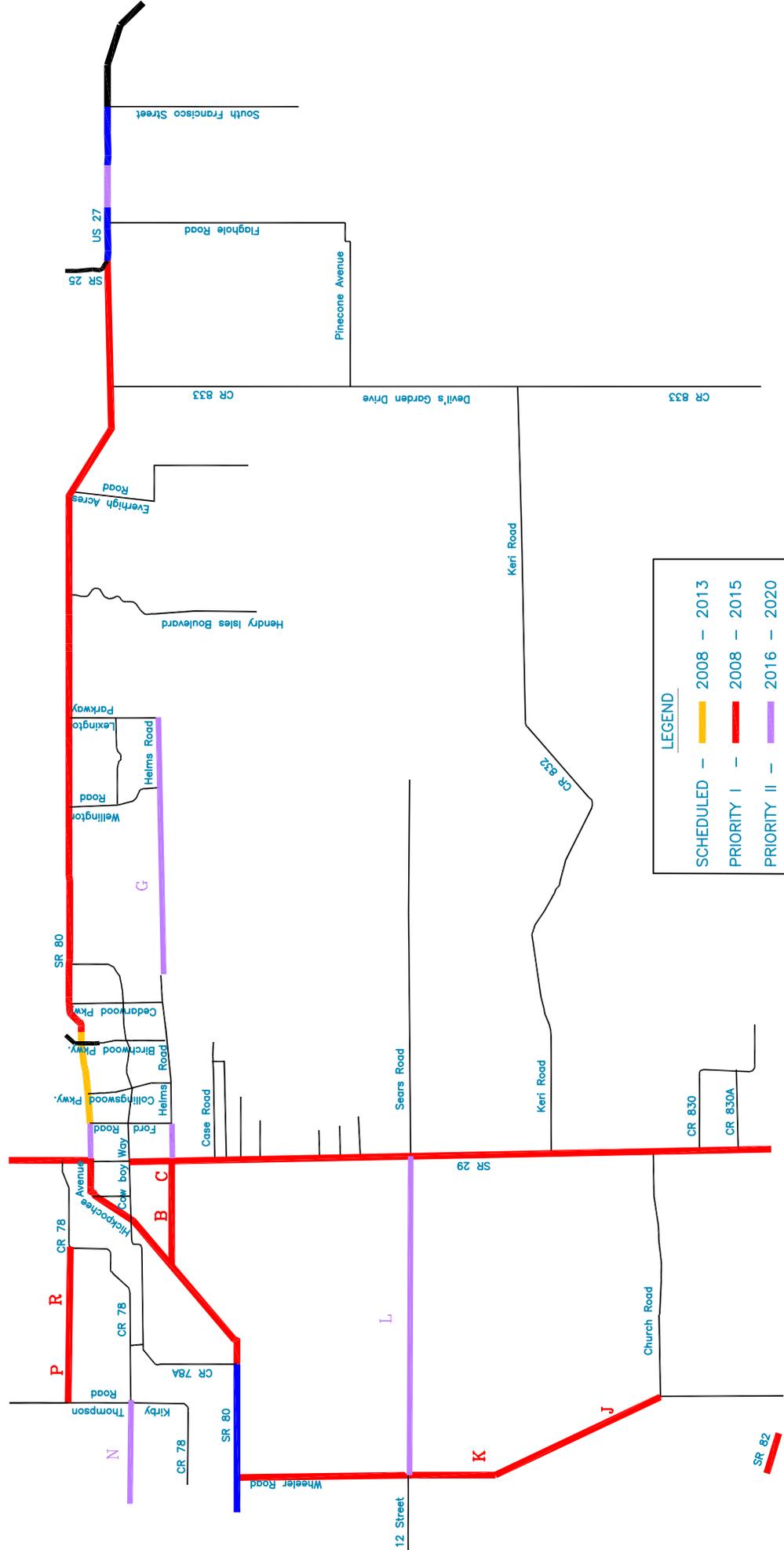
The priorities for the improvements in the year 2030 plan were largely based on the degree of future traffic demand both in the year 2015 and the year 2030. While year 2015 needs clearly pointed to projects that should have the highest priority (Priority I) based on LOS, other factors were also taken into account, namely:

- Level of Service (1.1)
- Public Safety/Health/Accidents (1.2.1.a-b)
- Existing Deficiencies (1.2.1.b)
- Rational Extension of Existing Road (1.2.1.c)
- Promote Urban Infill (1.2.1.d)

Note: Notations in parenthesis refers to corresponding goals and objectives in the Transportation Element of Hendry County Comprehensive Plan.

5.2 Recommended Priorities

The priority designations for the recommended year 2030 roadway improvements are shown in Exhibit 5.1.



LEGEND	
SCHEDULED	— 2008 — 2013
PRIORITY I	— 2008 — 2015
PRIORITY II	— 2016 — 2020
PRIORITY III	— 2021 — 2030

Note: All new roads are shown as a general corridor location, not a specific alignment. Alignments will be the subject of future studies.



HENDRY COUNTY 2030 LONG-RANGE TRANSPORTATION PLAN (LRTP) UPDATE

RECOMMENDED PRIORITIES

Exhibit No.

5.1

6.0 FISCAL FEASIBILITY

The most important ingredient in implementing a road improvement plan is funding. This section addresses potentially available funding for improvements based on currently available funding sources and trends. Traditionally, Hendry County has spent county generated revenues on county owned roads. FDOT, for the most part does the same for their facilities. For that reason, funding sources have been identified and funding estimated separately for each of these components. It should be noted, however, that all funding estimates presented in this report are in constant dollars for consistency with the cost estimating method described below. The effect of inflation, therefore, is cancelled by assuming that it affects both revenues and costs equally.

6.1 Hendry County Sources

The County's financial consultant conducted a review of local sources potentially available to fund capital (capacity) roadway projects. The only such source presently available is the newly established Road Impact Fee assessment for new development. This source not only generates substantial revenues, but these revenues can be used in the areas where the new local demands will take place due to the expected growth patterns. The estimated revenues are shown below, together with the information on the cost of the improvements plans.

Additionally, one available source that is not explicitly estimated is Municipal Services Benefit Unit (MSBU). The reason is that only one such arrangement exists and it applies exclusively to a portion of Wheeler Road near the western county line. The cost of that road segment was also excluded from the cost estimates as it has a dedicated funding source that will cover such cost.

6.2 FDOT Sources

The funding in the two latter documents, therefore, is considered dedicated to a specific list of projects as follows:

For purposes of this study, we have identified two components of FDOT funding. The first component was a combination of miscellaneous construction funding from two sources: a) historic construction funding information extracted from previous work programs (2002-2007); and b) estimates of future funding developed by FDOT, for the Hendry County area (between the years 2012 and 2030). The average of these two data sources was approximately one million dollars per year. This figure, extrapolated for the years of the plan (2012-2030) resulted in an estimated \$19 million. The second component is also a composite of two sources: a) the current work program (2007/2008-2012/2013); and b) The recently approved and released (October 2007) 2035 Cost Feasible Plan for the Highway Component of the SIS. The latter plan lists cost feasible SIS improvements in Hendry County.

The funding in the two latter documents, therefore, is considered dedicated to a specific list of projects as follows:

FDOT work Program (2008 and 2013)

- SR 80 (widen from 2 to 4 from Clark St to Birchwood Dr)

SIS Plan

- SR 80 (widen from 2 to 4 lanes from Birchwood Dr to Dalton La) – (2018-2025)
- SR 80 (widen from 2 to 4 lanes from Dalton La to Indian Hills Dr) – (2026-2030)
- SR 80 (widen from 2 to 4 lanes from Indian Hills Dr to CR 833) – (2026-2030)
- SR 80 (widen from 2 to 4 lanes from CR 833 to US 27) – (2026-2030)

For that reason the FDOT projects with dedicated funding are included in the plan, but the corresponding funding is not. Those funds are not available for any other state or county facilities.

6.3 Cost of the Plan

Once the roadway needs were identified for the year 2030, the cost of said Needs Plan was estimated. The components and source of data for the cost estimates were as follows:

- **Construction Cost:** Cost per mile of various types of roadway improvements were obtained from FDOT's 2006 Generic Cost per Mile (Statewide Average Unit Prices) (see Appendix B). These unit costs, developed from data for FDOT roads, were also used for Hendry County roads because recent, similar information was not available for local roads. The plan includes only one major bridge improvement (SR 29). Costs for adding more capacity to that crossing were estimated as an average of various methods to provide such capacity. Precise costs can only be estimated after studies of the preferred type and alignment are completed as part of a PDE study that must consider numerous issues including impacts.
- **Right of Way Cost:** The current cost of land in various areas of the County was provided by Hendry County. The area was divided into seven sectors with a wide variation in land cost per square foot. (See Appendix C) The need for right of way of individual facilities was a function of the length of each project and the number of lanes being added.
- **Other Costs:** the estimated construction costs were factored up to reflect average indirect costs such as PDE, design, construction support services, etc. A listing of the needed facilities and corresponding costs is included in Appendix D.

All cost used current unit cost data that was not adjusted for inflation because the constant dollar analysis method was used.

7.0 FINANCIALLY FEASIBLE PLAN

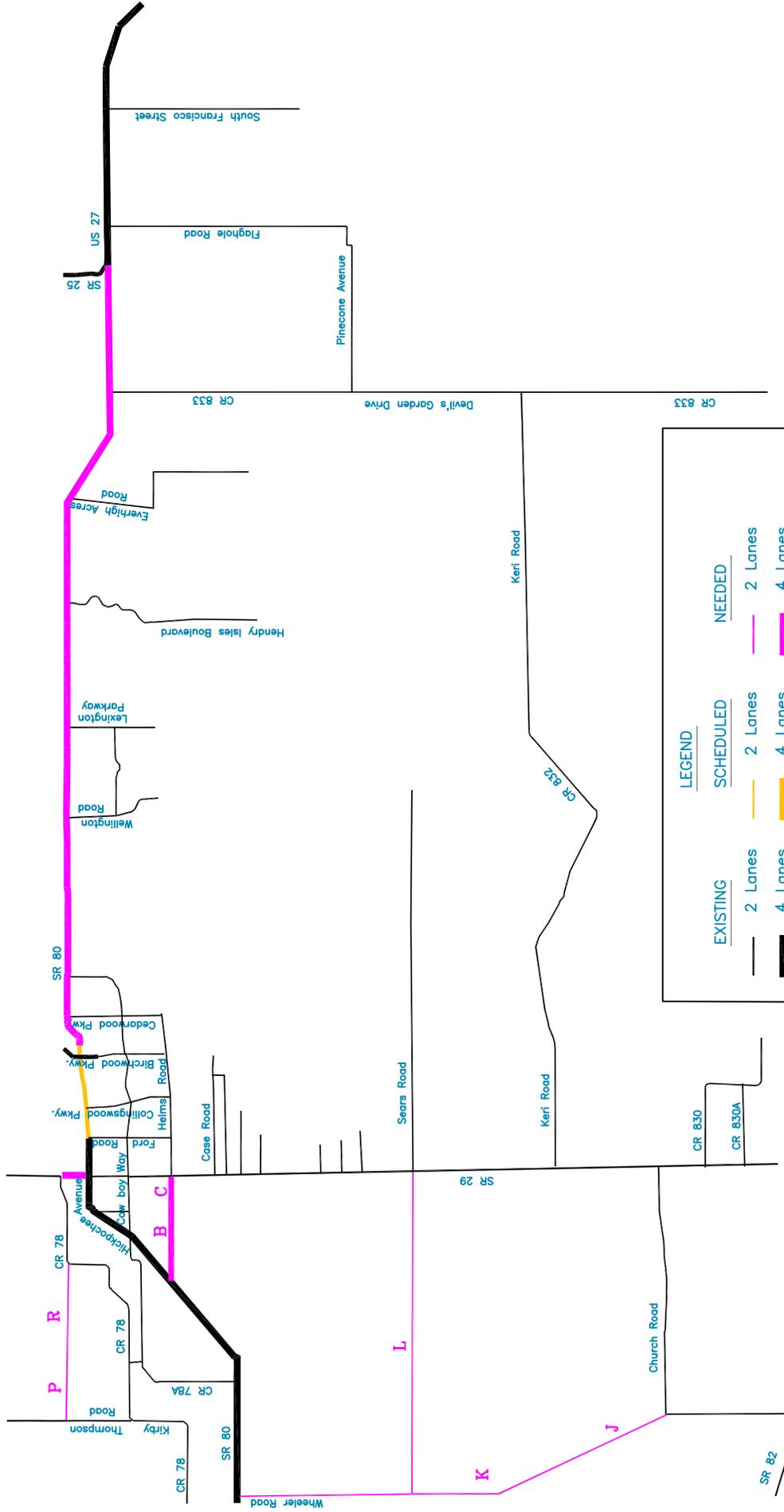
The principal premise in developing a Financially Feasible Plan is that such a plan must use presently and reasonably available funding sources. Unfortunately, long range transportation needs are often more costly than the available resources. Given this constrain, the Financially Feasible Plan then must be a smaller subset of the Needs Plan. The priorities described in the previous section then became the guide for selecting which recommended improvements were to become part of the Financially Feasible Plan. Projects were added to the plan until all the available resources were allocated. In fact, given the need for certain projects, the BOCC decided that it was acceptable to slightly exceed the financial resources on temporary basis until such sources could be supplemented to implement the recommended Financially Feasible Plan. Given the cost of the entire plan, the county plans to overcome the small unfunded difference (SR 29 improvements) by working closely and cooperatively with FDOT to find the missing funds. The adopted Financially Feasible Plan is presented in Exhibit 7.1. A summary of the costs of the various plans, compared to resources, is provided below.

**Estimated Cost of the Plans
 (in millions of dollars)**

	Cost ^{1,2}	Available Needs Plan ³	Difference
Hendry County	140	83	- 57
FDOT	<u>207</u>	<u>19</u>	<u>- 188</u>
Total	347	102	- 245
Financially Feasible			
Hendry County	77	83	+ 6
FDOT	<u>38</u>	<u>19</u>	<u>- 19</u>
Total	115	102	- 13

Note:

1. Costs exclude Future Transportation Corridors. The costs of SR 80 from Clark St. to US 27 are also excluded as these projects are part of the current FDOT Work Program and the SIS Cost Feasible Plan.
2. The cost of two additional SR 29 lanes on a bridge over the river will vary depending on the type of bridge and alignment. Detailed studies are required to determine these factors.
3. Available funding does not reflect FDOT funds allocated to SR 80 as part of the current FDOT Work Program and the SIS Cost Feasible Plan.



Notes: a. All new roads are shown as a general corridor location, not a specific alignment. Alignments will be the subject of future studies.
 b. SR 80 improvements reflect FDOT current work program and SIS Cost Feasible Plan

Exhibit No.

2030 FINANCIALLY FEASIBLE PLAN

7.1

HENDRY COUNTY 2030 LONG-RANGE TRANSPORTATION PLAN (LRTP) UPDATE



8.0 IMPLEMENTATION ISSUES

The most pressing implementation issue of a long range transportation plan is usually funding. Large gaps have been identified in the section above when funding the year 2030 roadway needs. Given that each jurisdiction (state and county) have specific system needs and dedicated funding sources, then is important that each jurisdiction pursue the necessary funding to bridge the corresponding gap. While it is expected that the forecasted revenues from sources presently available will fluctuate, additional sources will likely be necessary to fully implement the year 2030 Needs Plan.

The State Road System needs have the largest funding deficit. All state roads in the county are part of the Strategic Intermodal System (SIS) and/or the Florida Intrastate Roadway System (FIHS). As such, specific funding is allocated to these systems by FDOT. The state admits that the needs they have independently identified, both statewide and within Hendry County, exceed the funding presently available. They are continuously looking for ways to secure new funding or reallocate their resources to fulfill these needs. One of the methods of stretching their resources is to partner with local governments to find shared funding opportunities for facilities of mutual interest. These partnerships should be further explored for project such as SR 29. The segment from SR 80 to CR 78, which includes expensive additional capacity over the Caloosahatchee River, is one example. This area is located right next to Downtown LaBelle, it is already heavily traveled and is definitely anticipated to become more congested given the current growth patterns north of the river.

The county road system faces similar challenges, although the funding gap is not as large as the state's. Presently, the only available funding for county road improvements is from the recently adopted Road Impact Fees, and there are limitations as to where within the county and what type of roads these funds can be used for. One specific restriction in the Impact Fee Ordinance precludes use of impact fees on SR 80. Additionally, all gas tax allocated to the County by the state is presently used for county road maintenance and resurfacing functions as well as

administration of these functions. The TAB recognized a number of options that the BOCC may pursue in order to reduce or bridge the county needs funding gap. These options include: easing restrictions on the use of impact fees; reallocating gas tax funds; further increasing gas taxes; and partnering with FDOT to help fund projects of mutual interest. These and a number of other funding options should be pursued by the BOCC in the future. A list of additional funding sources is provided in Appendix E.

Report (Dec 2007).doc

Appendix A

Transportation Advisory Board

Appendix B

Road Construction Costs

Road Construction Costs¹
(Per Mile)

<u>Improvement</u>	<u>Rural Design²</u>	<u>Urban Design²</u>
New 2 Lane Rd.	\$2,650,000	\$5,600,000
Widen 2 lanes to 4	\$3,350,000	\$5,750,000
Widen 4 lanes to 6 ³	\$3,350,000	\$5,750,000

1. Source: FDOT Generic Cost per Mile Models (Jan. 2006 – Dec. 2006)

Does not include administration, ROW, design, PDE, structures, etc.

These soft costs increase total project costs by 10 -20% on average

2. Rural/Urban refers to type of design (curb/gutter and sidewalk)

3. No data available. Used most similar (2 to 4) lane widening costs

Appendix C

Right of Way Unit Costs

Hendry County LRTP
ROW Costs*

Area	Land Value Per Acre			Ave Cost per sf	Cost per Centerline Mile
	Low	High	Ave		
1 CR 78 south to River	\$34,627	\$42,822	\$38,725	\$0.89	\$140,816
2 SR 80 south	\$17,647	\$18,007	\$17,827	\$0.41	\$64,825
3 SR 80 & US 27 north to Ri	\$17,647	\$22,286	\$19,967	\$0.46	\$72,605
4 SR 29 south of LaBelle	\$14,973	\$25,543	\$20,258	\$0.47	\$73,665
5 Misc. Areas	\$6,462	\$9,577	\$8,020	\$0.18	\$29,162
6 Clewiston	\$16,471	\$288,636	\$152,554	\$3.50	\$554,740
7 LaBelle	\$55,354	\$298,636	\$176,995	\$4.06	\$643,618

* Land cost base data provided by Hendry County Public Works Department in August 2007

Appendix D

Needed Improvements and Costs

Roadway Segment	From	To	Improvement	R/U	\$/mile	Length (miles)	Constr. Cost (a)	Area	Ave. Indirect Cost (a)	R/W Cost	Needs Plan Total Cost	Fin. Feasible
State Roads												
SR 29	Glades County Line	Caloosahatchee River	Widen from 2L to 4LD	U	\$5,750,000	0.93	\$5,347,500		10%	\$598,087	\$6,480,337	
SR 29 (Bridge) over	Caloosahatchee River	Caloosahatchee River	Widen from 2L to 4LD	U	(b)	0.10	\$32,000,000		\$3,200,000	\$64,310	\$35,264,310	\$35,264,310
Bridge St./SR 29	SR 80	SR 80	Widen from 2L to 4LD	U	\$5,750,000	0.47	\$2,702,500		\$270,250	\$302,259	\$3,275,009	\$3,275,009
SR 29	Cowboy Way	Helms Rd.	Widen from 2L to 4LD	U	\$5,750,000	1.00	\$5,750,000		\$575,000	\$74,448	\$6,399,448	
SR 29	Helms Rd.	Sears Rd.	Widen from 2L to 4LD	R	\$3,350,000	5.93	\$19,865,500		\$1,986,550	\$441,477	\$22,293,527	
SR 29	Sears Rd.	Keri Rd.	Widen from 2L to 4LD	R	\$3,350,000	3.45	\$11,557,500		\$1,155,750	\$256,846	\$12,970,096	
SR 29	Keri Rd.	Church Rd.	Widen from 2L to 4LD	R	\$3,350,000	2.60	\$8,710,000		\$871,000	\$193,565	\$9,774,565	
SR 29	Church Rd.	Collier Co. Line	Widen from 2L to 4LD	R	\$3,350,000	3.03	\$10,150,500		\$1,015,050	\$225,577	\$11,391,127	
SR 80	Lee County Line	Fort Denaud Rd.	Widen from 4LD to 6LD	R	\$3,350,000	2.98	\$9,983,000		\$998,300	\$193,533	\$11,174,833	
SR 80	Fort Denaud Rd.	Murray Rd.	Widen from 4LD to 6LD	R	\$3,350,000	1.45	\$4,857,500		\$485,750	\$94,169	\$5,437,419	
SR 80	Murray Rd.	Helms Road Ext.	Widen from 4LD to 6LD	R	\$3,350,000	1.52	\$5,092,000		\$509,200	\$98,715	\$5,699,915	
SR 80	Helms Road Ext.	Fort Denaud Rd.	Widen from 4LD to 6LD	R	\$3,350,000	1.48	\$4,958,000		\$495,800	\$96,117	\$5,549,917	
SR 80	Fort Denaud Rd.	MLK Blvd.	Widen from 4LD to 6LD	U	\$5,750,000	1.13	\$6,497,500		\$649,750	\$626,472	\$7,773,722	
SR 80	MLK Blvd.	Hardee St.	Widen from 4LD to 6LD	U	\$5,750,000	0.31	\$1,782,500		\$178,250	\$171,864	\$2,132,614	
SR 80	Hardee St.	Main St.	Widen from 4LD to 6LD	U	\$5,750,000	0.46	\$2,645,000		\$264,500	\$255,024	\$3,164,524	
SR 80	Main St.	Bridge St.	Widen from 4LD to 6LD	U	\$5,750,000	0.06	\$345,000		\$34,500	\$33,264	\$412,764	
SR 80	Bridge St.	Lee St.	Widen from 4LD to 6LD	U	\$5,750,000	0.08	\$460,000		\$46,000	\$44,352	\$550,352	
SR 80	Lee	Ft. Thompson	Widen from 4LD to 6LD	U	\$5,750,000	0.71	\$4,082,500		\$408,250	\$393,624	\$4,884,374	
SR 80	Ft. Thompson	Clark St.	Widen from 2L to 4LD	U	\$5,750,000	0.07	\$402,500		\$40,250	\$38,808	\$0 (e)>	\$0
SR 80	Clark St.	Collingswood Pkwy	Widen from 2L to 4LD	U	\$5,750,000	0.86	\$4,945,000		\$494,500	\$476,784	\$0 (e)>	\$0
SR 80	Collingswood Pkwy	Birchwood Pkwy.	Widen from 2L to 4LD	U	\$5,750,000	1.20	\$6,900,000		\$690,000	\$665,280	\$0 (e)>	\$0
SR 80	Birchwood Pkwy.	Wellington Pkwy.	Widen from 2L to 4LD	R	\$3,350,000	6.46	\$21,641,000		\$2,164,100	\$419,538	\$0 (f)>	\$0
SR 80	Wellington Pkwy.	Lexington Pkwy.	Widen from 2L to 4LD	R	\$3,350,000	1.54	\$5,159,000		\$515,900	\$100,014	\$0 (f)>	\$0
SR 80	Lexington Pkwy.	Hendry Isles Blvd.	Widen from 2L to 4LD	R	\$3,350,000	3.06	\$10,251,000		\$1,025,100	\$198,729	\$0 (f)>	\$0
SR 80	Hendry Isles Blvd.	CR 833	Widen from 2L to 4LD	R	\$3,350,000	5.62	\$18,827,000		\$1,882,700	\$364,985	\$0 (f)>	\$0
SR 80	CR 833	US 27	Widen from 2L to 6LD	R	\$6,700,000	3.00	\$20,100,000		\$2,010,000	\$184,832	\$0 (f)>	\$0
US 27/SR 80	SR 80	Flaghole Rd.	Widen from 4LD to 6LD	U	\$3,350,000	0.99	\$3,316,500		\$331,650	\$64,295	\$3,712,445	
US 27/SR 80	Flaghole Rd.	CR 720	Widen from 4LD to 6LD	U	\$3,350,000	5.23	\$17,520,500		\$1,752,050	\$339,657	\$19,612,207	
US 27/SR 80	CR 720	Lewis Blvd	Widen from 4LD to 6LD	U	\$5,750,000	1.11	\$6,382,500		\$638,250	\$615,384	\$7,636,134	
US 27/SR 80	Lewis Blvd	Olympia St.	Widen from 4LD to 6LD	U	\$5,750,000	1.24	\$7,130,000		\$713,000	\$687,456	\$8,530,456	
US 27/SR 80	Olympia St.	S. Pedro St.	Widen from 4LD to 6LD	U	\$5,750,000	0.74	\$4,255,000		\$425,500	\$410,256	\$5,090,756	
US 27/SR 80	S. Pedro St.	S. Francisco St.	Widen from 4LD to 6LD	U	\$5,750,000	0.37	\$2,127,500		\$212,750	\$205,128	\$2,545,378	
SR 82	Lee Co. Line	Collier Co. Line	Widen from 2L to 4LD	R	\$3,350,000	1.30	\$4,355,000		\$435,500	\$96,782	\$4,887,282	
Subtotal							\$270,099,000		\$27,009,900	\$9,041,630	\$206,643,510	\$38,539,319
Other Roadways												
Helms Rd. East Extension (G)	Lexington Pkwy.	CR 833	New 2L Road	U	\$5,600,000	8.16	\$45,696,000		\$4,569,600	\$232,658	\$50,498,258	
Helms Rd.	SR 29	Ford	Widen from 2L to 4LD	U	\$5,750,000	1.01	\$5,807,500		\$580,750	\$28,797	\$6,417,047	
Helms Rd. West Extension (B)	SR 80	SR 29	New 4LD Road	U	\$11,500,000	2.51	\$28,865,000		\$2,886,500	\$71,565	\$31,823,065	\$31,823,065
Church Rd North Extension (J)	Church Rd.	Sears Rd. W. Extension	New 2L Road	R	\$2,650,000	3.40	\$9,010,000		\$901,000	\$96,941	\$10,007,941	\$10,007,941
Sears Rd. West Extension (L)	Wheeler Rd.	SR 29	New 2L Road	R	\$2,650,000	7.96	\$21,094,000		\$2,109,400	\$226,956	\$23,430,356	\$23,430,356
Wheeler Rd.	Sears Rd. Extension	SR 80	New 2L Road	R	(c)	7.51			\$0	\$0	\$0	\$0
Kirby Rd. West Ext.(N)	Kirby Thompson Rd.	Lee Co. Line	New 2L Road	R	\$2,650,000	2.06	\$5,459,000		\$545,900	\$290,411	\$6,295,311	
Howard Rd. West Ext. (P/R)	Kirby Thompson Rd.	N. River Rd.	New 2L Road	R	\$2,650,000	3.77	\$9,990,500		\$999,050	\$531,480	\$11,521,030	\$11,521,030
Subtotal							\$125,922,000		\$12,592,200	\$1,478,807	\$139,993,007	\$76,782,391
Total							\$396,021,000		\$39,602,100	\$10,520,437	\$446,636,517	\$115,321,710

Notes:
(a) Design, PDE and administration costs often funded separately from construction
(b) Average cost of a new 2 lane structure
(c) Funded through a MSBU
(d) Ft. Denaud bridge may need to be replaced as a routine maintenance/replacement project
(e) Has allocated FDOT funding as per current Work Program
(f) Shown as part of current Financially Feasible SIS Plan

Appendix E

Additional Funding Source

Other Potential Funding Sources

- Increase Road Impact Fees
- Reallocate Existing Sources System Wide
- Federal/State Grants
- State's Bridge Replacement & Rehabilitation Program
- Economic Development Transportation Fund
- Rural Infrastructure Fund
- Increase Local Gas Tax
- Local Option (Infrastructure) Sales Tax
- Municipal Services Benefit Unit (MSBU)
- Public Service (Utility) Tax
- Communications Services Tax
- General Obligation Bonds
- Revenue Bonds
- Public-Private Partnerships
- Private Funding
- Tolls

David Plummer & Associates

1750 Ponce de Leon Blvd
Coral Gables, FL 33134

Phone: (305) 447-0900

Fax: (305) 444-4986

Email: dpa@dplummer.com

www.dplummer.com

