

SUPPLEMENTAL ENGINEER'S REPORT

POINCIANA WEST COMMUNITY DEVELOPMENT DISTRICT (PWCDD)

Prepared for:

**Poinciana West
Community Development District**

Prepared by:



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TABLE OF CONTENTS

Section	Page
List of Tables	TC-2
List of Figures	TC-2
1 Introduction	
1.1 Introduction.....	1-1
2 Project Description	
2.1 General.....	2-1
2.2 Poinciana West.....	2-1
3 Proposed Improvements	
3.1 General.....	3-1
3.2 Poinciana West Improvements.....	3-1
3.2.1 <u>Infrastructure</u>	3-1
3.2.2 <u>Ownership and Maintenance</u>	3-6
3.2.3 <u>Improvement Costs</u>	3-6
3.3 Permitting.....	3-8
3.4 Construction Status.....	3-8
4 Engineer's Certification	
4-1 Engineer's Certification	4-1

LIST OF TABLES

<u>Table</u>	<u>Title</u>
2-1	Poinciana West Projected Absorption Schedule
2-2	Comparison of Permitting and Construction Phases
3-1	Poinciana West Ownership and Maintenance Responsibilities
3-2	Poinciana West Estimate of Probable Costs
3-3	Poinciana West Permitting Status
3-4	Estimated Time of Completion

LIST OF FIGURES

<u>Figure</u>	<u>Title</u>
1-1	Location Map
1-2	Poinciana West Master Plan
2-1	Permitting Phase Map
3-1	Poinciana Stormwater Master Plan
3-2	Poinciana Master Utility Plan

Section 1

INTRODUCTION

1.1 INTRODUCTION

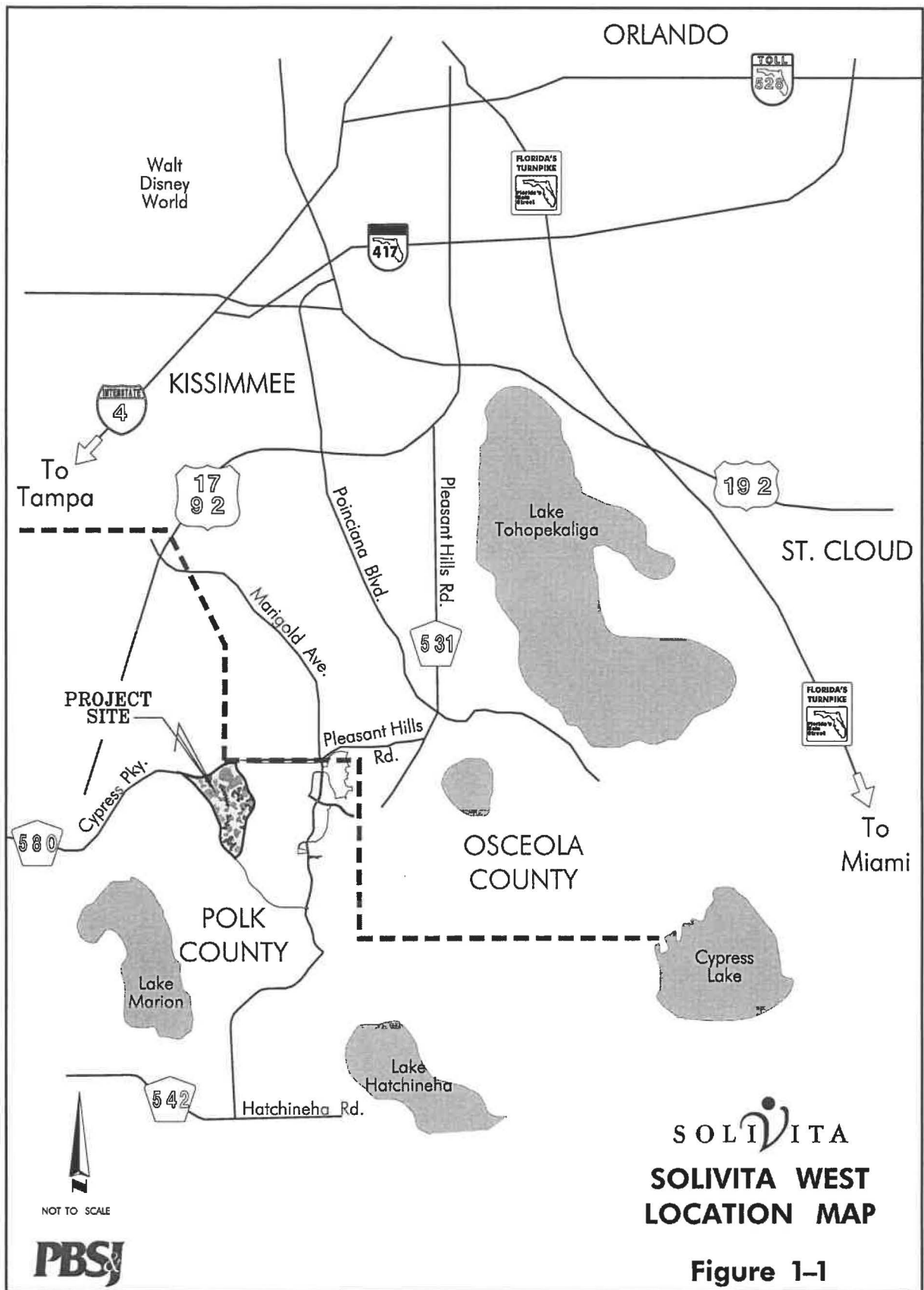
SOLIVITA is a planned mixed-use development in northeast Polk County along the Polk and Osceola County border. SOLIVITA is a self-contained portion of the overall Poinciana Planned Development in Osceola and Polk Counties, which was master-planned in the 1970s and has been under continuous development since. There are over 50,000 residents now living in Poinciana. Location map shown in Figure 1-1.

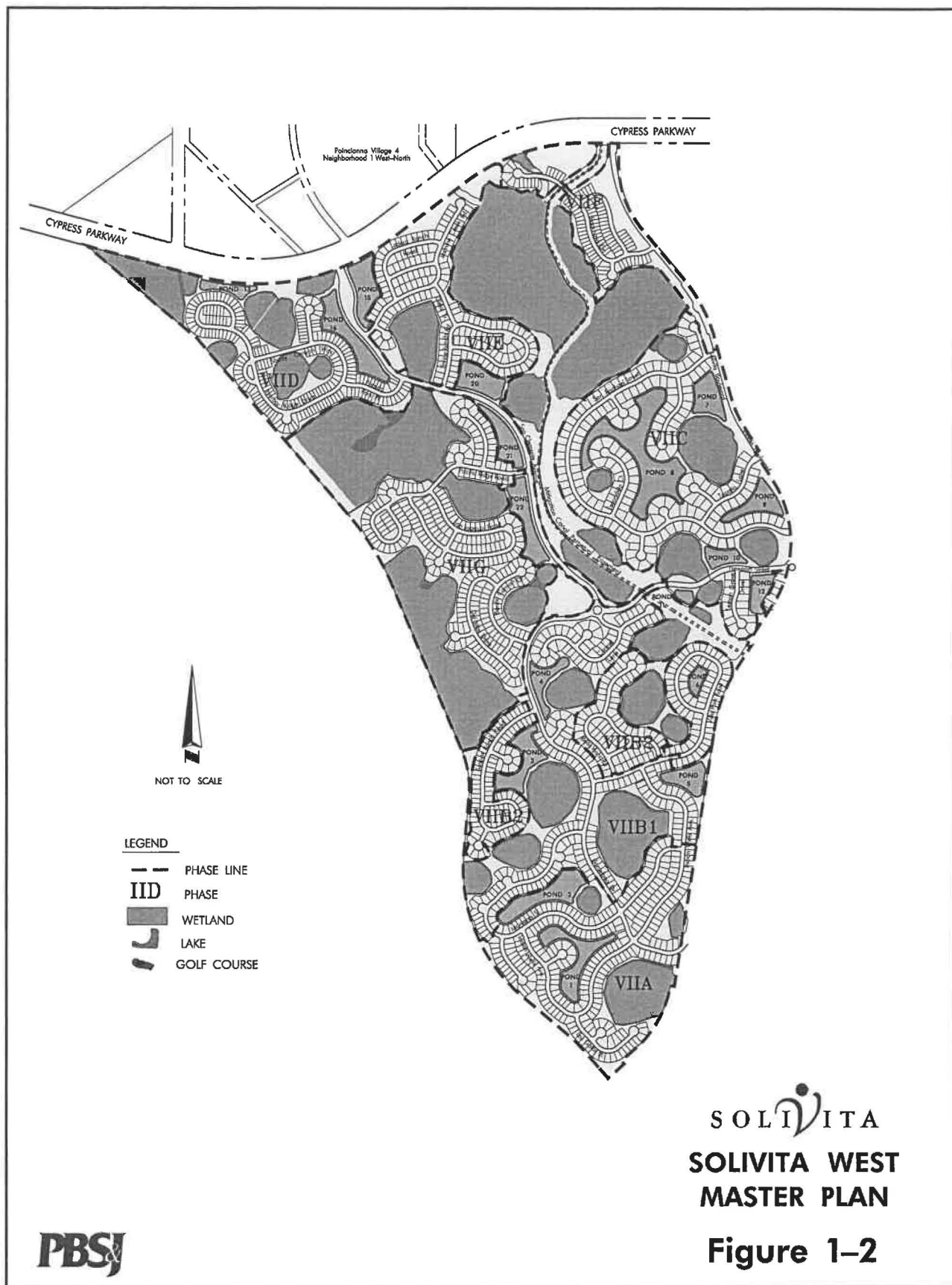
SOLIVITA is now being developed as an active adult community consisting of single- and multi-family dwellings, a town center, golf course, and numerous parks and recreation facilities. Solivita is comprised of two villages; i.e., Solivita and Solivita West. SOLIVITA is being constructed in several phases spanning approximately 10 years. The current Solivita Master Plan is illustrated in Figure 1-2.

SOLIVITA has 4,187.56 acres and is comprised of two separate and distinct Community Development Districts, namely, Poinciana Community Development District or PCDD (3,028 acres) and Poinciana West Community Development District or PWCDD (949 acres). The PCDD further comprised of Solivita Proper, herein after called "Solivita" and Solivita East which is also known as Phase 6 or the Boundary Amendment.

The Poinciana West Community Development District (PWCDD) is the subject of this report and was established by ordinance of Polk County effective October 6, 2006 and pursuant to the provisions of Chapter 190, Florida Statutes. Creation of the PWCDD, also known as Solivita West provides an efficient mechanism for financing, developing, and managing the public infrastructure associated with its various phases of development.

This Engineering Report provides a general description of the infrastructures proposed as part of the Solivita West Improvement Plan. This report also certifies the estimated project construction costs for the: wetlands mitigation; stormwater treatment; and reclaimed water. The various federal, state, and local permits for Solivita West and their respective status are also presented herein.





Section 2

PROJECT DESCRIPTION

2.1 GENERAL

SOLIVITA is located within the overall Poinciana master planned community in Polk and Osceola Counties. The 4,187.56-acre mixed-use active adult community consists of several villages inspired by community based design principles and includes single and multi-family residences, a central community recreation complex, neighborhood recreation areas, a commercial town center area, a golf course, and various biking and pedestrian trails. SOLIVITA's overall development program may include as many as 6,500 single-family units, two 18-hole golf courses and 140,000 square feet of other non-residential space. The proposed absorption schedule for Solivita West is provided in Table 2-1.

2.2 POINCIANA WEST

The SOLIVITA Development (please see Figure 1-2) is comprised at present of two distinct Community Development Districts, namely Poinciana Community Development District (PCDD) and the Poinciana West Community Development District (PWCDD), herein after referred to as Poinciana West. The entire SOLIVITA development has 4,187.56 acres with approximately 5,665 single family residential units.

The PWCDD is comprised of 949 acres with 1,650 single family units (sfu) planned. The development has 22 wet water detention and 6 dry water detention treatment ponds. In addition, it has 31 preserved or enhanced wetland areas and 1.5 miles of enhanced Southern Canal. The development is broken down into seven (7) construction phases; namely phases VIIA through VIIG. For regulatory agencies' permitting purposes, the construction phases have been grouped into six phases, namely phases IA, IB-IC, IIA, IIB, IIC and VIIF (Please see Figure 2-1). For the purpose of this report we will only use the construction phases.

Phases VIIA and VIIB, VIIC, VIID and VIIG, including the Spine Road that connects all phases have been permitted and have been completed. These areas have 461 acres, 10 wetlands and 6 wet water detention treatment ponds.

Summary for all the Solivita West Phases is as follows:

- Area = 949 Acres;
- Single family units = 1,650 in 409.78 Acres;
- Stormwater management ponds = 22 Wet Water and 6 Dry Detention for a Total of 28 Water Detention Treatment Ponds with a Total Area of 96.39 Acres;
- Preserved or enhanced wetland acres = 31 with a Total Area of 411.88 Acres;
- Southern/mitigation canal project (southern canal) = 1.5 miles with a Total of 2.41 Acres;
- The remainder, 26.45 Acres are for Open Areas and Landscape.

For comparison of permitting phases and construction phases please see Table 2-1 and Table 2-2.

Table 2-1
Projected Schedule of Number of Units By Phase and Product Type

PHASE								
	VII A	VII B	VII C	VII D	VII E	VII F	VII G	
Lot Type	Lot Count							Total
40' Lots	--	--	--	203	--	92	--	295
55' Lots	179	151	--		--	--	236	566
65' Lots	80	295	--	--	165	--	42	582
85' Lots	--	--	202	5	--	--	--	207
TOTAL	259	446	202	208	165	92	278	1650

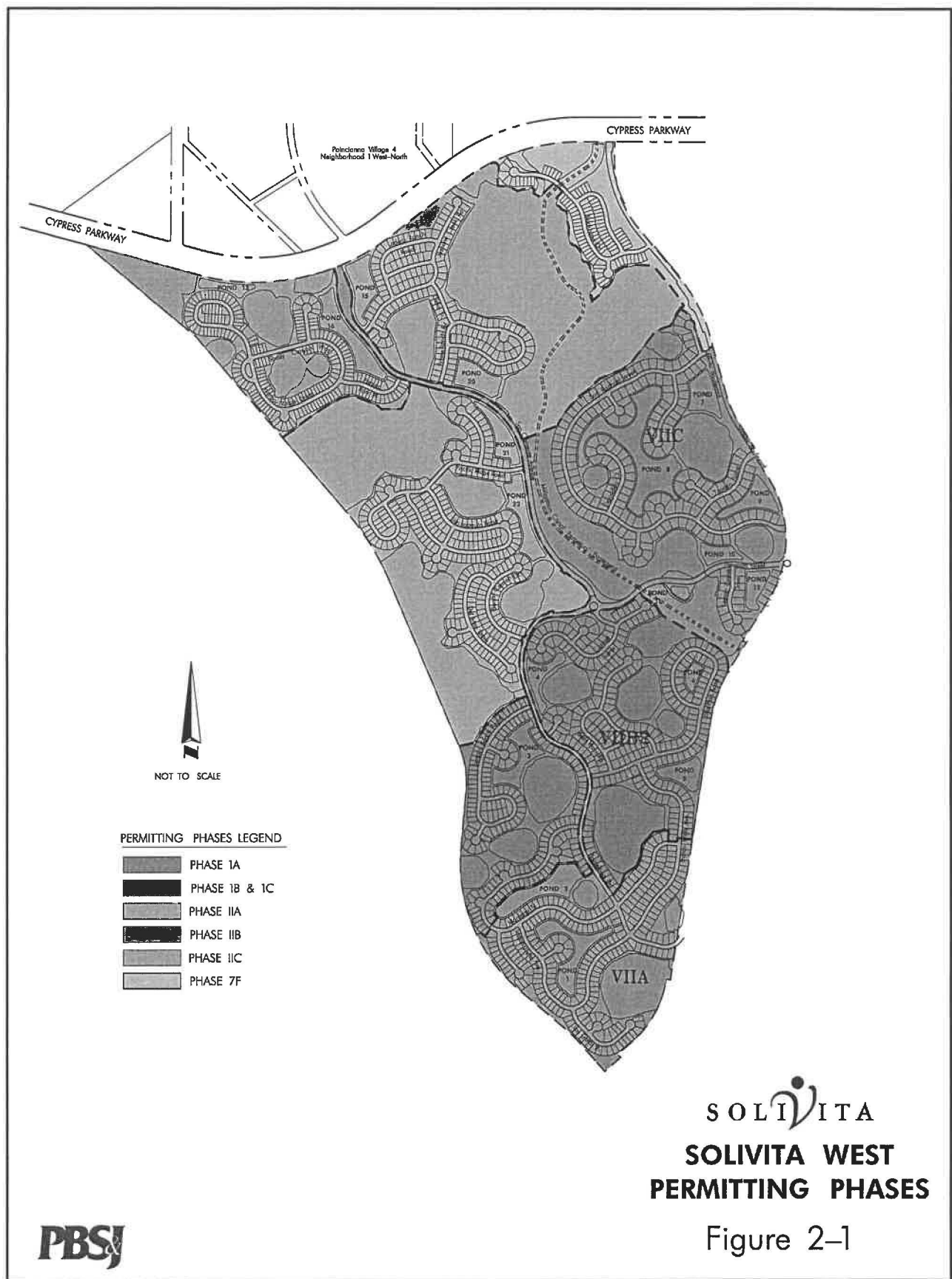


Table 2-2
Comparison of Permitting and Construction Phases

Permitting Phase	Construction Phase
IA South	VII A
IA North	VII C
IA	Spine Road
IB	VII B
IC	VII B
II A	VII G
II B	VII D
II C	VII E
VII F	VII F

Note: For the purpose of this report, we are going to use only the construction phases. The permitting phases are given for information purpose only.

Section 3

PROPOSED IMPROVEMENTS

3.1 GENERAL

The PWCDD proposes the construction of major infrastructure as part of Solivita West. This includes but may not be necessarily limited to the following:

- Stormwater management serving the Spine Road and all construction phases;
- Wetlands mitigation/environmental compliance, including the Southern Canal Project; and
- Re-use/reclaimed water distribution systems based on a Master Utilities Plan (MUP).

These infrastructure improvements are described in more detail in the following section.

3.2 POINCIANA WEST

3.2.1 Infrastructure:

In accordance with the Solivita West Master Plan and the Solivita West Master Utility Plan, the proposed Solivita West infrastructure is planned and designed with sufficient capacity to support all the proposed construction phases. The major infrastructures proposed to be constructed as part of Solivita West are described in greater detail below.

A. Stormwater Management Facilities:

In 1998, Avatar Retirement Communities, Inc. authorized preparation of a Stormwater Master Plan for Solivita. The purpose of the Solivita Stormwater Master Plan is to assure that adequate stormwater management facilities are available to provide sufficient capacity for a complete build-out of Solivita and to meet the requirements of the following regulatory agencies:

1. U. S. Environmental Protection Agency (EPA);
2. U. S. Army Corps of Engineers (ACOE);
3. South Florida Water Management District (SFWMD);
4. Florida Department of Environmental Protection (FDEP); and
5. Polk County, Florida

The Solivita Stormwater Master Plan (Figure 3-1) identifies peak discharge rates, water quality requirements, 100-year floodplain elevations, and groundwater flows. More specifically, the Plan includes:

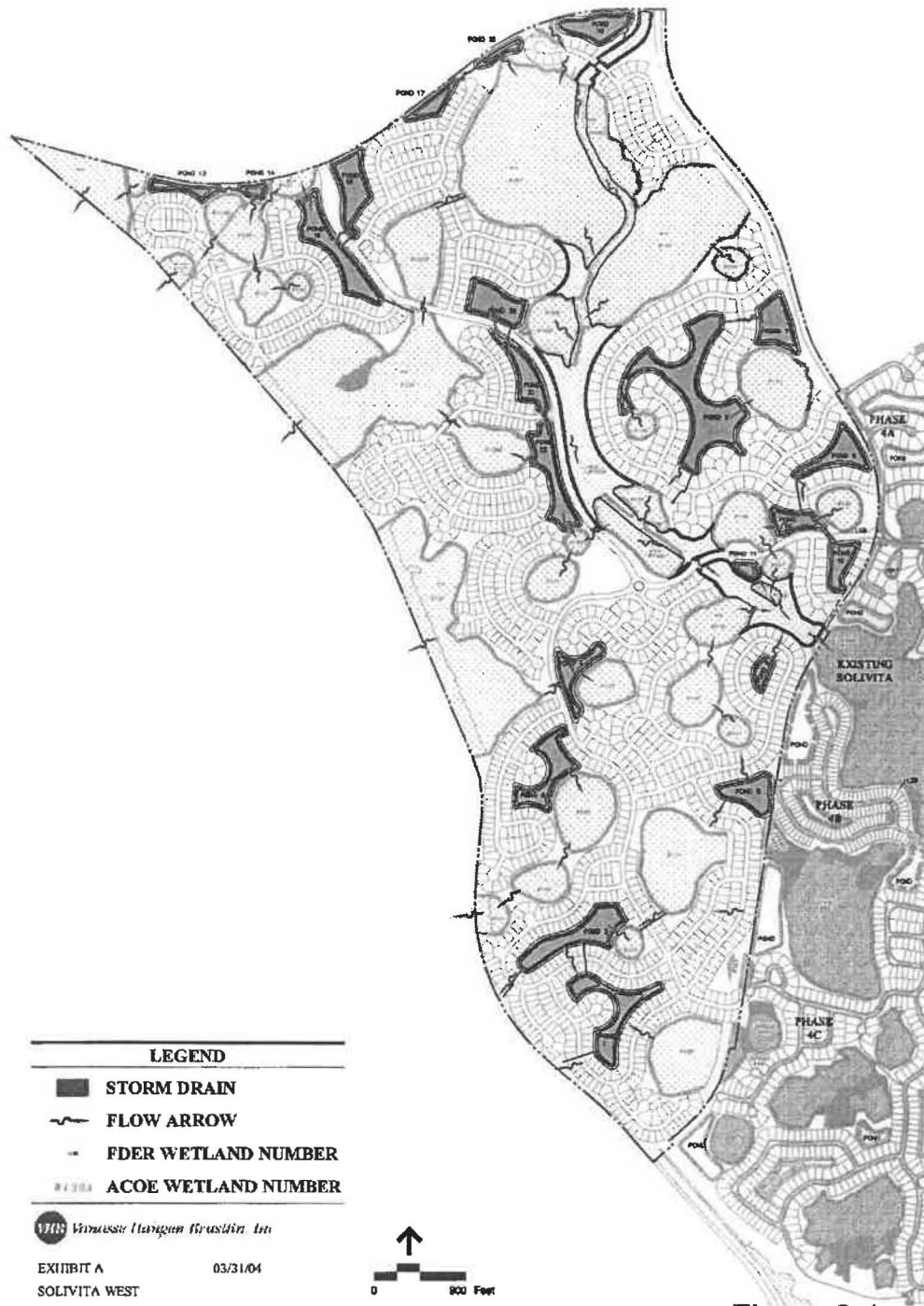
- Location and size of ponds and lakes required for stormwater management facilities;
- Control elevations of ponds and lakes, including required water quality treatment volumes;

- Peak flow rates, flow volumes, and stages for flood events determined within each basin and within major conveyance areas;
- Compensating storage requirements to mitigate for encroachments into the 100-year floodplain in the basins where encroachments occur;
- Wetland evaluations to show that hydroperiods and the viability of wetlands are being maintained; and
- Groundwater impacts quantified as to the effects on flow rates and wetland impacts.

Design of the proposed stormwater management system for Solivita West Phases VIIA, VIIB, VIID, VIIE and VIIG and Spine Road was submitted to SFWMD and Polk County approved. All regulatory agency permits for these phases were received. All other phases are under design and permits from all regulatory agencies will be obtained prior to going to construction. The drainage system is consistent with the Solivita Stormwater Master Plan and maintains the existing drainage patterns to the greatest extent possible. The stormwater detention ponds will be wet and dry detention biological treatment facilities designed to provide for the treatment of stormwater according to *Chapter 40E-4 of the Florida Administrative Code*.

In accordance with the overall Solivita's SFWMD Stormwater Permit, mitigation for environmental impacts will be provided as part of the 1.51-mile Southern/Mitigation Canal Project. This project requires improvements to an existing canal and wetland plantings for enhancement within the environmental areas.

SOLIVITA WEST



WHS Wm. H. W. & Associates, Inc.

EXHIBIT A 03/31/04
SOLIVITA WEST

MASTER STORMWATER PLAN

Figure 3-1

The collection of surface runoff from the roadways will be accomplished via typical storm drainage systems, including curb and gutter, inlets, and reinforced concrete pipes along each side of the roadways. Via these systems and grassed spreader swales, all runoff will be conveyed to lined and un-lined stormwater treatment ponds located along the Spine Roadway. The Marion Creek Basin and the Mitigation/Southern Canal both serve as the ultimate outfalls.

Site work for Solivita West includes but is not limited to: approximately 38,000 LF of sock dewatering, clearing and grubbing, 1.5 million cubic yards of excavation, grading, seeding and sodding, silt fences, and turbidity barriers. The stormwater systems will require over 46,000 LF of reinforced concrete pipe ranging between 18-in. and 72-in. in diameter and an estimated 330 curb inlets, 98 manholes, and 14 control structures.

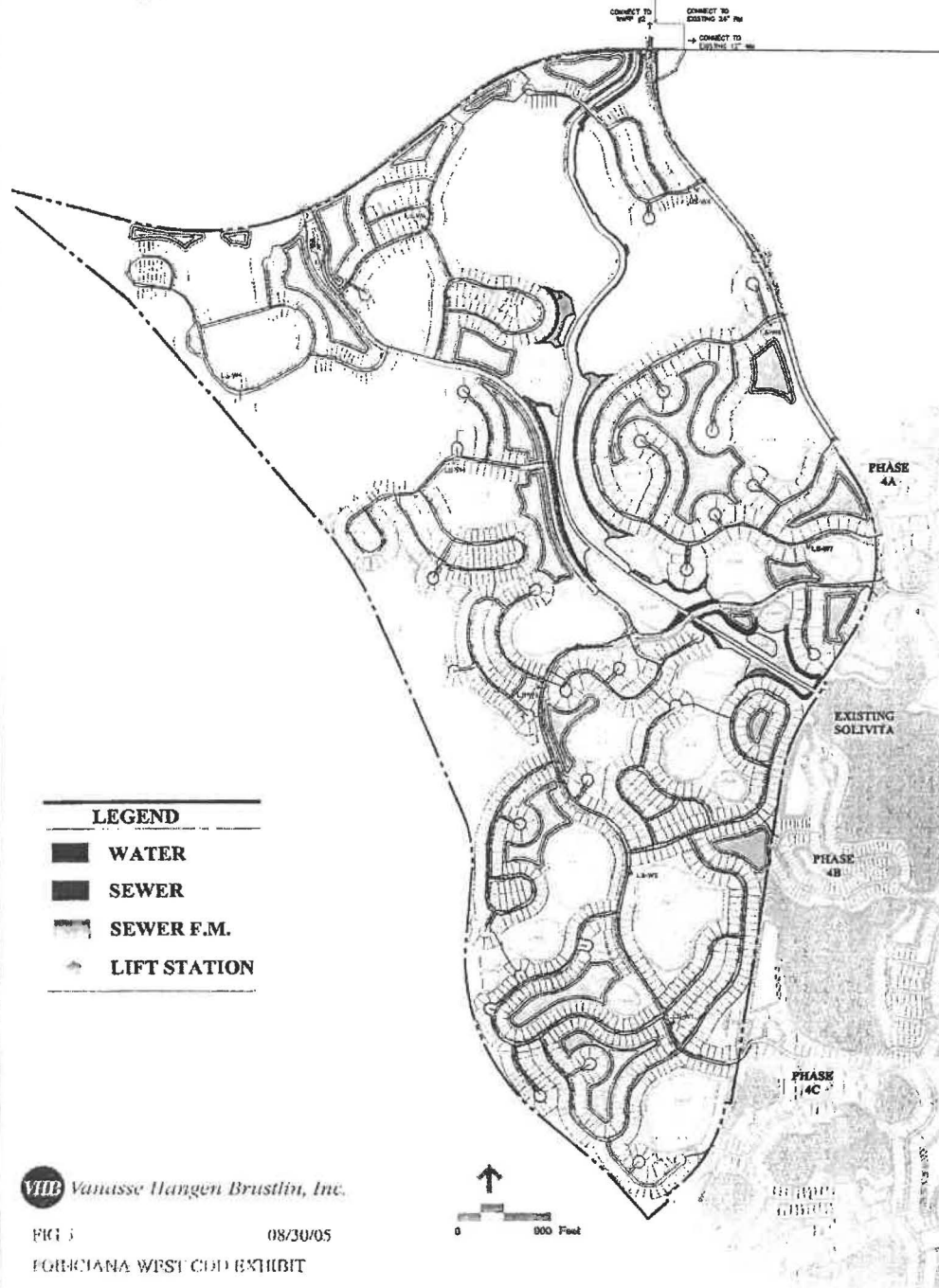
B. Reclaimed Water/Reuse Water System (Irrigation):

The Solivita West Master Utility Plan (MUP) provides the utility demands for potable water, sewage (wastewater), and reclaim/reuse water systems for the full build-out of Solivita West. The reclaimed/reuse water system is to be constructed by the Poinciana West CDD with reclaimed water supplied by the Toho Water Authority (TWA). The master utility mains are shown in Figure 3-2.

The reclaim/reuse water system generally consists of 12-in. diameter PVC pipe and appurtenant fittings, valves, and tapping sleeve will deliver reuse water for irrigation to Solivita West via a looped distribution system located within the roadway rights of way. The system has been designed and is being constructed to accommodate the peak irrigation demands according to the Solivita West Master Utility Plan (MUP).

The potable water and sewage (wastewater) improvements will continue to be funded by the developer and are not a component of the District's Improvement Plan.

SOLIVITA WEST



MASTER UTILITIES PLAN

Figure 3-2

Additional potable water supply and gravity sewer transmission and force mains will be required to maintain the development program in accordance with the anticipated lot development schedule (Table 2-1).

3.2.2 Ownership and Maintenance:

The ownership and maintenance responsibilities for the Poinciana West CDD infrastructure improvements are outlined in the following table:

**Table 3-1
Ownership and Maintenance Responsibilities**

<i>Improvement</i>	<i>Constructed or Acquired By</i>	<i>Ownership & Maintenance</i>
Stormwater Management System	Poinciana West CDD	Solivita West CDD
Reclaimed Water Distribution System	Poinciana West CDD	Toho Water Authority

3.2.3 Improvement Costs:

The proposed infrastructure improvements for Solivita West Phases VIIA, VIIB, and VIIC may be accomplished under separate construction/acquisition packages, which may call for a separation of the site dewatering, site and canal earthwork, and roadway construction under one contract and all utilities work under another. The costs associated with these operations have been estimated and are presented in Table 3-1, which shows the total construction cost at an estimated \$25,460,630.

Table 3-2
Engineers Estimate of Probable Cost

ITEMS	PHASES				TOTALS
	VII A & VII C	VII B	VII D, VII E, VII F & VII G	ENTRANCE IMPR.	
EARTHWORK (PONDS)	\$3,669,376	\$190,573	\$409,187	\$0	\$4,269,136
MASTER STORMWATER SYSTEM	\$5,223,987	\$2,270,381	\$5,934,412	\$52,000	\$13,480,780
IRRIGATION	\$7,679,520	\$31,194	\$0	\$0	\$7,710,714
TOTALS	\$16,572,883	\$2,492,148	\$6,343,599	\$52,000	\$25,460,630

NOTES:

1. COST ASSOCIATED WITH UTILITY CAPACITY AND ANY ELECTRICAL WORK ARE NOT INCLUDED IN THIS ESTIMATE.

3.3 PERMITTING

Regulatory agency permits for Phases VIIA, VIIB, VIIC, VIID, VIIE, VIIG, Spine Road (Private), and VIIF are in hand. The permit applications for the remaining phases are being prepared and will be submitted to the respective regulatory agencies in due time (see Table 3-3). Any permits not issued to date which are necessary to effect the improvements described herein will be obtained during the ordinary course of development.

3.4 CONSTRUCTION STATUS

Poinciana West Community Development District Phases VIIA, VIIB, VIIC and the Spine Road are complete. For the estimated time of completion, please see Table 3-4.

**Table 3-3
Permitting Status**

PHASE	AGENCY	PERMIT	STATUS
Master Permits	ACOE	Environmental	Permit No. 199801377
	SFWMD	Stormwater	Permit No. 49-00094-31-S
Phase IA, IB & IC	Polk County	Residential Development	Approved Date June 29, 2005
	FDEP	Wastewater	Permit No. CS53-0241065-003 Dated August 26, 2005
	FDEP	Water	Permit No. WD53-0116367-063 Dated August 9, 2006
	SFWMD	Stormwater	Permit No. 49-00094-S Dated October 3, 2005
Phase II	Polk County	Residential Development	Approved Date November 11, 2005
	FDEP	Wastewater	Permit No. CS53-0241065-002 Dated November 3, 2005
	FDEP	Water	Permit No. WD53-0116367-066 Dated September 22, 2006
	SFWMD	Stormwater	Permit No. 49-00094-S-31 Dated November 8, 2005
Phase VIIF	Polk County	Residential Development	Approved Dated December 29, 2005
	FDEP	Wastewater	Permit No. CS53-0206539 Dated December 15, 2005
	FDEP	Water	Permit No. WD53-0116367-069 Dated November 16, 2006
	SFWMD	Stormwater	Permit No. 49-00094-S-31 Dated December 14, 2005

Table 3-4
Estimated Time of Completion

<u>PHASE</u>	<u>START CONSTRUCTION</u>	<u>FINISH CONSTRUCTION</u>
7A	Dec-04	Complete
7B	Sep-05	Complete
7C	Dec-04	Complete
7D	Nov-05	Complete
7E	Nov-05	Oct-07
7F	Apr-06	May-09
7G	Nov-05	Complete

Section 4

ENGINEER'S CERTIFICATION

4.1 ENGINEER'S CERTIFICATION

The infrastructure improvements as detailed herein are necessary for the functional development of Solivita West as required by the applicable independent unit of local government. The planning and design of the infrastructure is in accordance with current governmental regulatory requirements. The infrastructure will provide the intended function so long as the construction is in substantial compliance with the design and permits. Poinciana West Community Development District (CDD) will need funding to acquire a portion of the improvements included in this report. The Engineer recommends that in addition to the annual non-ad valorem assessments to be levied and collected to pay debt service on the proposed bonds, Poinciana West CDD should levy and collect an annual "Operating and Maintenance Fee". Said fee is to be determined, assessed and levied by the Poinciana West CDD's Board of Supervisors upon the assessable real property within Solivita West for the purpose of defraying the cost and expenses of maintaining Poinciana West CDD-owned improvements.

It is my professional opinion that the costs provided herein for the Poinciana West Community Development District's proposed infrastructure improvements are reasonable to complete the construction of the proposed infrastructure improvements described herein and that these infrastructure improvements will benefit and add value to the Poinciana West Community Development District as more fully detailed in the Assessment Methodology Report. All such proposed infrastructure costs are public improvements or community facilities as set forth in Section 190-012(1) and (2) of the Florida Statutes.

The estimate of infrastructure construction costs is only an estimate and not a guarantee maximum price. A portion of the costs are based on actual construction bids received by Avatar Holdings, Inc. Where necessary, historical costs, information from other professional or utility consultants and contractors have been used in preparation of this report. Consultants and contractors who have contributed in providing the cost data included in this report are reputable entities within the area. It is therefore our opinion that the construction of the proposed Development can be completed at the costs stated.

The labor market, future costs of equipment and materials, increased regulatory actions and the actual construction process are all beyond control. Due to this inherent opportunity for fluctuation in cost, the total final cost may be more or less than estimated.

Kathy Leo, P.E.
Vice President
State of Florida Registration No. 51419