

**Council Members**

Roger Manning-Mayor  
Katrina Long Robinson-Vice Mayor  
John Stanavitch-Seat 1  
Kara Crump-Seat 2  
Phillip Everett-Seat 3



**City of Westlake**

4001 Seminole Pratt Whitney Rd.  
Westlake, Florida 33470  
Phone: 561-530-5880  
Fax: 561-790-5466

**Workshop Meeting  
Monday, August 28, 2017**

**Meeting Location  
Westlake Council Chambers  
4005 Seminole Pratt-Whitney Road  
Westlake, FL 33470  
6:30 PM**

*PLEASE TAKE NOTICE AND BE ADVISED, that if any interested person desires to appeal any decision made by the City Council with respect to any matter considered at this meeting or hearing, such interested person will need a record of the proceedings and for such purpose may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. The meeting/hearing may be continued to another date and time as may be found necessary during the aforesaid meeting. In accordance with the provisions of the Americans with Disabilities Act (ADA), any person requiring special accommodations at these meetings because of disability or physical impairment should contact the Interim City Manager at (954)753-5841 at least two (2) calendar days prior to the meeting.*

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Phone: 561-530-5880  
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August 23, 2017

City Council  
City of Westlake

Dear Mayor and Council:

The City Council of the City of Westlake will hold a workshop meeting on Monday, August 28, 2017 at 6:30 p.m. at the Westlake Council Chambers, 4005 Seminole Pratt Whitney Road, Westlake, Florida. Following is the advance agenda for the meeting.

1. Call to Order/ Roll Call
2. Pledge of Allegiance
3. Approval of Agenda
4. Audience Comments on Agenda Items (3) Minute Time Limit
5. Discussion and Presentation of Comprehensive Plan Elements
  - Infrastructure Element
  - Capital Improvement Element
  - Transportation Element
6. Audience Comments on Other Items (3) Minute Time Limit
7. Adjournment

Any additional supporting material for the items listed above, not included in the agenda package, will be distributed at the meeting. Staff will present their reports at the meeting. I look forward to seeing you, but in the meantime if you have any questions, please contact me.

Sincerely,

*Kenneth Cassel*

Kenneth G. Cassel  
City Manager

cc: Pam E. Booker, Esq  
John Carter  
Terry Lewis  
Kelley Burke

## Infrastructure Element Presentation



# SEMINOLE IMPROVEMENT DISTRICT (SID)

8.28.17



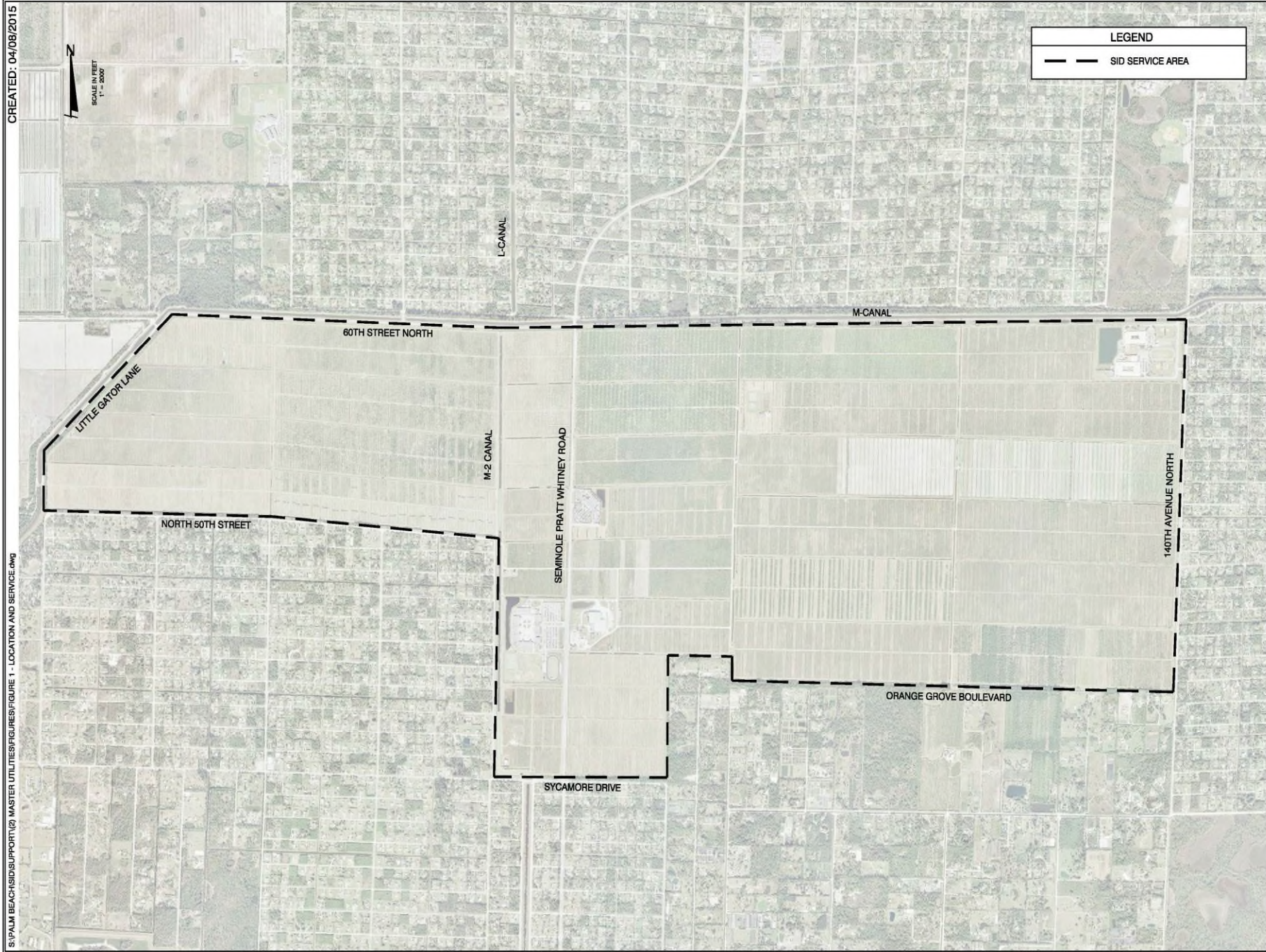
# History of SID:

- ▣ Formerly known as Seminole Water Control District
- ▣ Established June 19, 1970 by State of Florida Statutes
- ▣ Florida Legislature empowers SID to provide public infrastructure
- ▣ Governed by a three-member Board of Supervisors

# Statutory Responsibilities and Powers:

- ▣ Construct and maintain public works and utilities
  - Potable Water
  - Reuse/Reclaim Water
  - Wastewater
  - Drainage
  - Irrigation
  - Water Management
  - Parks
  - Recreation Facilities
  - Roadways





S:\PALM BEACH\SID\SUPPORT\GIS\MASTER UTILITIES\FIGURES\FIGURE 1 - LOCATION AND SERVICE.dwg



**FIGURE 1**  
SID UTILITIES MASTER PLAN  
**SEMIMOLE IMPROVEMENT DISTRICT**  
**SERVICE AREA**



**FARNER BARLEY**  
AND ASSOCIATES, INC.  
ENGINEERS SURVEYORS PLANNERS  
Certificate of Authorization Number: 4709  
4450 N.E. 85th Road O Wildwood, Florida 34785 O (352) 748-3128



# UTILITY PROVIDER

- ▣ SID is the exclusive retail provider of potable water, reuse water, wastewater, and drainage facilities in the city
- ▣ SID has bulk water agreements with Palm Beach County to provide adequate water and wastewater supply and capacity to the city

SEMINOLE IMPROVEMENT  
DISTRICT

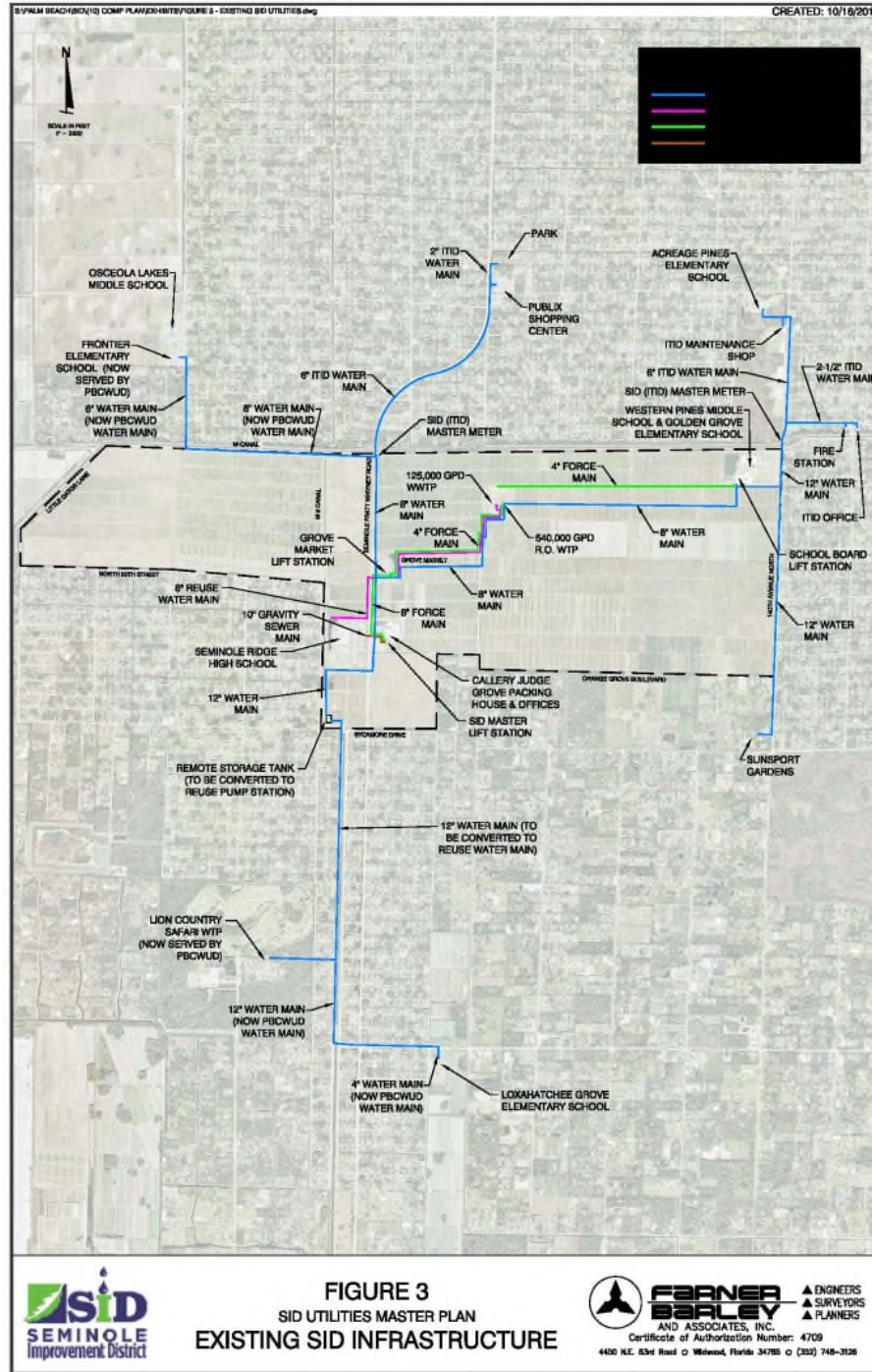


CITY OF WESTLAKE

# EXISTING INFRASTRUCTURE

- ▣ The majority of the lands within the SID service area are currently used for tree nurseries, row crops, other agricultural uses, or in accessory agriculture uses such as an existing packing house or offices. The remainder of the land is utilized for schools, public ownership, MUPD (Grove Market), or for utility purposes
  
- ▣ Existing customers include water and wastewater service to six (6) users, as detailed the table. SID does not provide reuse water service to any customers

Existing SID Customers
SID Offices
Callery Judge Packing House (water only)
Grove Market
Seminole Ridge High School
Western Pines Middle School
Golden Grove Elementary School



**FIGURE 3**  
 SID UTILITIES MASTER PLAN  
 EXISTING SID INFRASTRUCTURE





# PROPOSED DEVELOPMENT

- On October 29<sup>th</sup> 2014, the Palm Beach Board of County Commissioners (BCC) approved and adopted the comprehensive amendments to the future land use atlas, the zoning map amendments, and the Unified Land Development Code (ULDC) amendments requested by the primary landowner, Minto
- Under the approvals from the County, the SID service area was rezoned from Agriculture Residential (AR) and Public Ownership (PO) to Traditional Town Development (TTD). The future land use atlas was amended to revise previously adopted conditions of the Agricultural Enclave (AGE) future land use designation, and to change the portion of the District with the future land use designation of Rural Residential to AGE. Changes to intensity and density are summarized below. The tabular acreage breakdown of the proposed development land use plan

PROPOSED USES	
USE	DENISTY
RESIDENTIAL	4,546 UNITS
RETAIL	500,000 SQ. FT.
OFFICE	450,000 SQ. FT.
RESEARCH DEVELOPMENT/LIGHT INDUSTRIAL	1,050,000 SQ. FT.
HOTEL	150 ROOMS
COLLEGE	3,000 STUDENTS

- The existing Silver Lakes parcel is currently zoned as rural residential, development and service information of the parcel is unknown. The master planning analysis did not include the Silver Lakes parcel

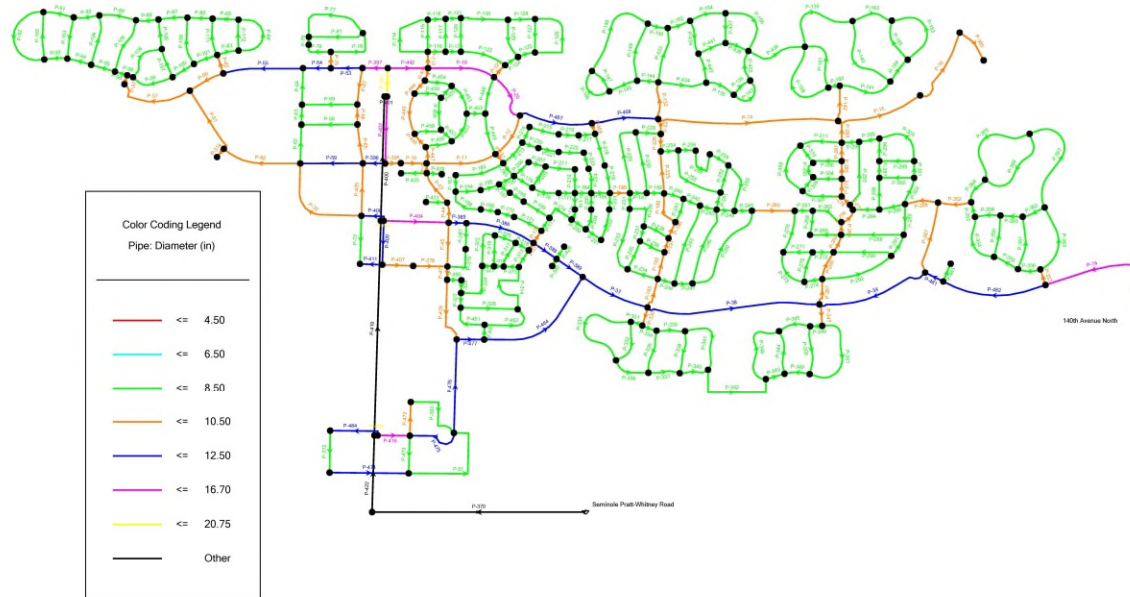
# HYDRAULIC MODEL ANALYSIS

- ▣ The purpose of the hydraulic model is to evaluate the proposed development requirements to identify the required SID capital improvement infrastructure, as well as potential problems which may arise during growth in the SID service area as greater demands are placed on the system. The capital improvements will address the requirements of the infrastructure for city, including the following:
  - Utility (potable water, reuse water, and wastewater) main size required for development
  - Utility Meter Sizes
  - Most cost effective method of looping for future development
  - Connection locations to Palm Beach County utilities
  - Flexibility of the system
  - Retrofitting existing potable water facilities for use in the reuse water system
  - Improvements to the storage facilities
  - Offsite reuse water mains
  - Recreation Facilities



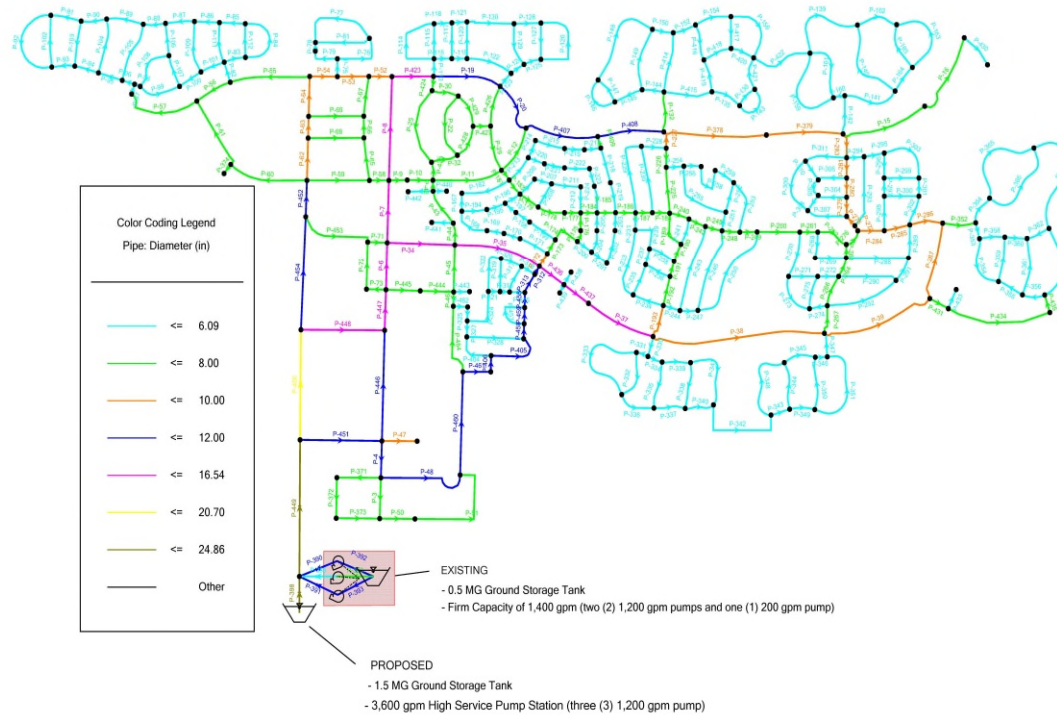
# POTABLE WATER MASTER HYDRAULIC MAP

Scenario: Potable Water - Pipe Diameters



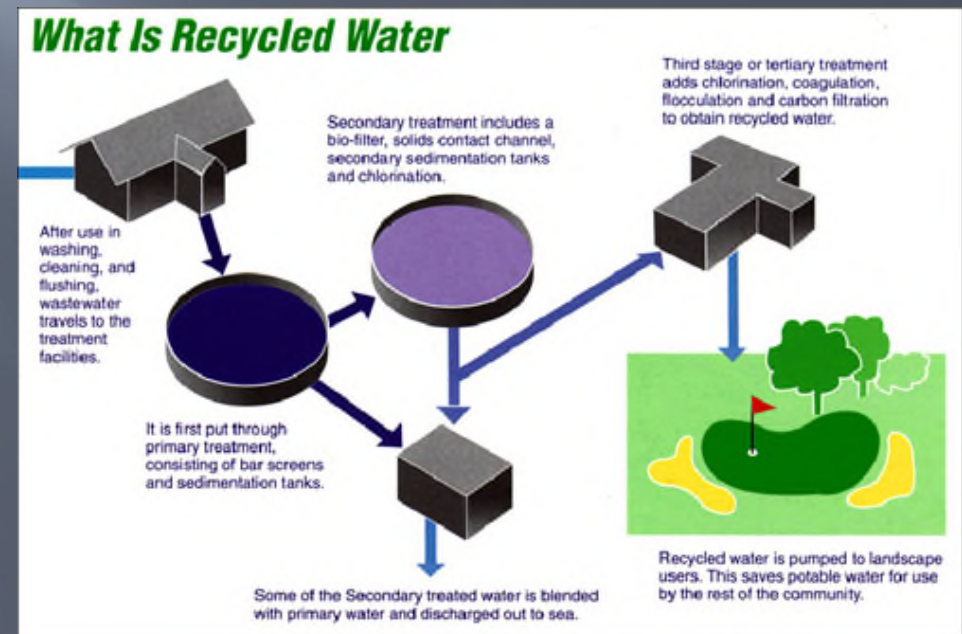
# REUSE WATER MASTER HYDRAULIC MAP

Scenario: Reuse - Pipe Diameters



# WHAT IS REUSE WATER

- Reuse water, also known as reclaimed water and recycled water, is the process of converting wastewater into water that can be reused for other purposes, as a water saving measure for irrigation









# INFRASTRUCTURE ELEMENT OF THE COMPREHENSIVE PLAN

# INFRASTRUCTURE ELEMENT

Purpose of Infrastructure Element is to identify and describe public facilities and services needed to accommodate the City's population

- Potable Water
- Reuse Water
- Wastewater
- Solid Waste
- Drainage
- Ground Water Recharge

# POTABLE WATER

- The City of Westlake's level of service standard for potable water is 110 gallons per capita per day for residential uses and 150 gallons per 1,000 sq. ft. per day for non-residential uses unless otherwise listed for specific non-residential uses. The level of service standards for specific non-residential uses are based on rule 64E, FAC in existence at the date of adoption of this plan (2018)
  
- The following table provides an analysis of potable water supply and demand over the short and long term planning periods. It evaluates the projected residential population, including the seasonal population, projected non-residential square footage, the adopted level of service and the available capacity for potable water through the 2038 planning horizon

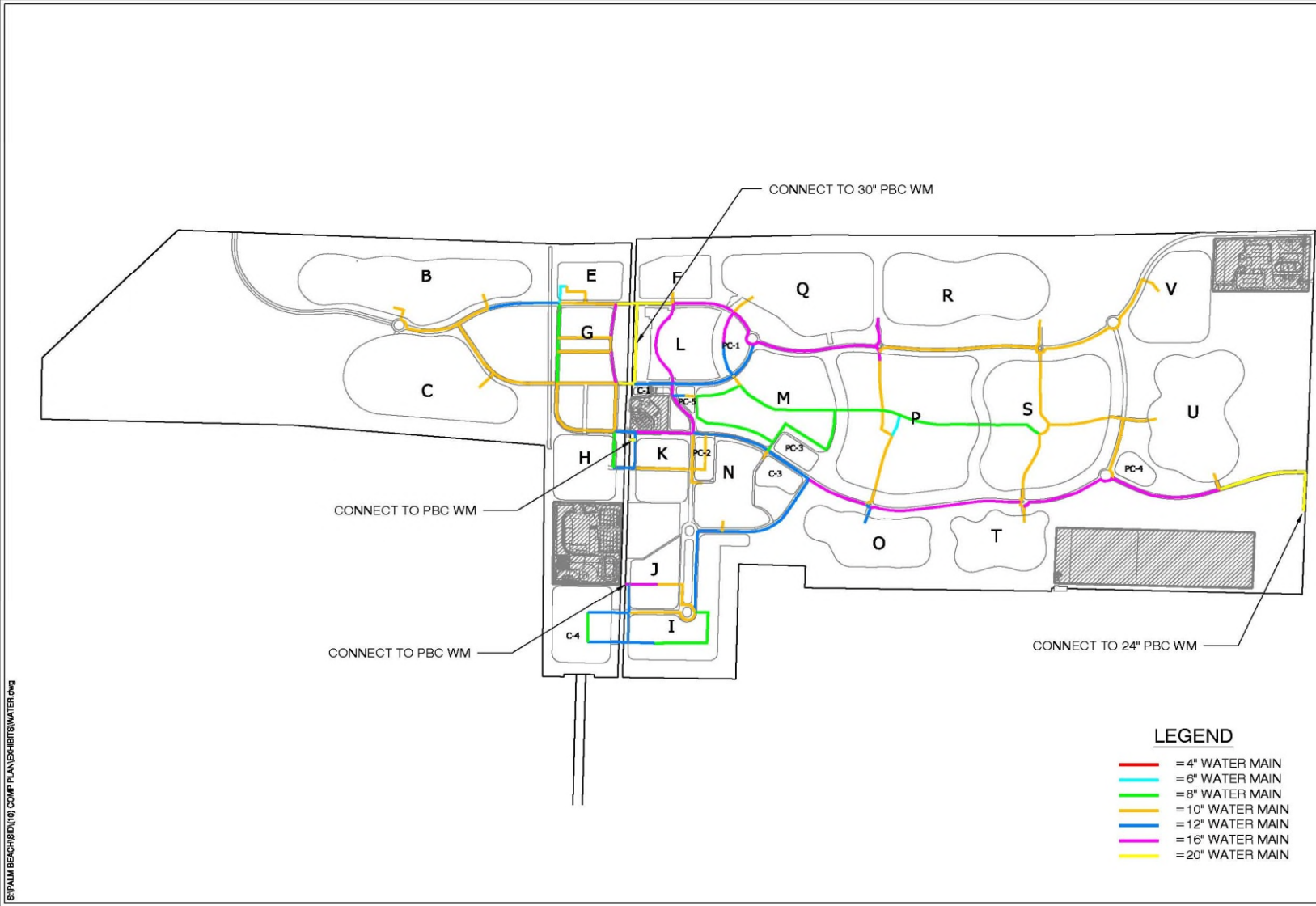


# POTABLE WATER ANALYSIS TABLE

<b>Potable Water Level of Service Standard</b>				
	Gallons Per Day			
Per Person	110			
Per square foot for Commercial, Civic, and Industrial	0.15			
Per Student	18			
Per Hotel Room	100			
Per visitor of park and recreation facilities	10			
<b>Demand Generators</b>				
	2018	2023	2038	
Population (excluding hotel population)	298	3,803	15,791	
Existing Commercial, Civic, and Industrial S.F.	180,581	180,581	180,581	
New Commercial, Civic, and Industrial S.F.	75,000	650,000	2,200,000	
Total Commercial, Civic, and Industrial S.F.	255,581	830,581	2,380,581	
K- 12 Students	4,463	4,463	5,433	
College Students	0	0	3,000	
Total Students	4,463	4,463	8,433	
Hotel Rooms	0	150	150	
Recreation and Park Daytime Visitors	0	650	2,600	
<b>Demand Projections</b>				
	2018	2023	2038	
Population (excluding hotel population)	32,780	418,330	1,737,010	
Total Commercial, Civic, and Industrial	38,337	124,587	357,087	
Total Students	80,334	80,334	151,794	
Hotel Rooms	0	15,000	15,000	
Recreation and Park Day Time Visitors	0	6,500	26,000	
Total Demand (Gallons Per Day)	151,451	644,751	2,286,891	



# POTABLE WATER MASTER DEVELOPMENT MAP



CREATED: 8/11/2017  
**BARNEY BARNEY**  
 ENGINEERS ARCHITECTS PLANNERS  
 4800 N.E. 1st Road • West Palm Beach, FL 33409  
 Telephone: 561-838-4700  
 Fax: 561-838-4701  
 www.barneybarney.com

POTABLE WATER SYSTEM



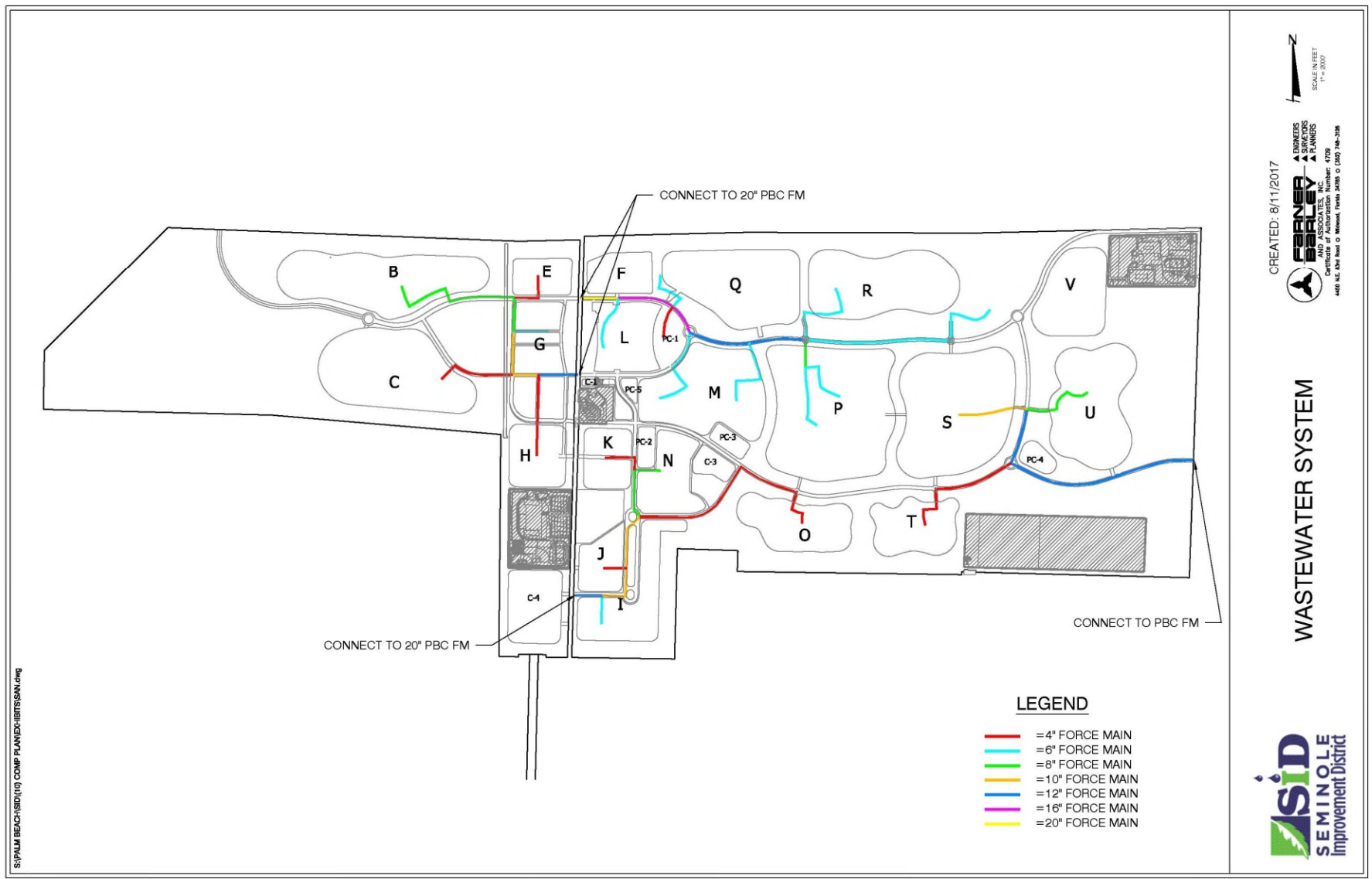
# WASTEWATER

- The City of Westlake's level of service standard for potable water is 100 gallons per capita per day for residential uses and 150 gallons per 1,000 sq. ft. per day for non-residential uses unless otherwise listed for specific non-residential uses. The level of service standards for specific non-residential uses are based on rule 64E, FAC in existence at the date of adoption of this plan (2018)
  
- The following table provides an analysis of potable water supply and demand over the short and long term planning periods. It evaluates the projected residential population, including the seasonal population, projected non-residential square footage, the adopted level of service and the available capacity for potable water through the 2038 planning horizon

# WASTEWATER ANALYSIS TABLE

Wastewater Level of Service Standard				
	Gallons Per Day			
Per Person	100			
Per square foot for Commercial, Civic, and Industrial	0.15			
Per Student	18			
Per Hotel Room	100			
Per visitor of park and recreation facilities	10			
<b>Demand Generators</b>				
	2018	2023	2038	
Population (excluding hotel population)	298	3,803	15,791	
Existing Commercial, Civic, and Industrial S.F.	180,581	180,581	180,581	
New Commercial, Civic, and Industrial S.F.	75,000	650,000	2,200,000	
Total Commercial, Civic, and Industrial S.F.	255,581	830,581	2,380,581	
K- 12 Students	4,463	4,463	5,433	
College Students	0	0	3,000	
Total Students	4,463	4,463	8,433	
Hotel Rooms	0	150	150	
Recreation and Park Daytime Visitors	0	650	2,600	
<b>Demand Projections</b>				
	2018	2023	2038	
Population (excluding hotel population)	29,800	380,300	1,579,100	
Total Commercial, Civic, and Industrial	38,337	124,587	357,087	
Total Students	80,334	80,334	151,794	
Hotel Rooms	0	15,000	15,000	
Recreation and Park Day Time Visitors	0	6,500	26,000	
Total Demand (Gallons Per Day)	148,471	606,721	2,128,981	

# WASTEWATER MASTER DEVELOPMENT MAP



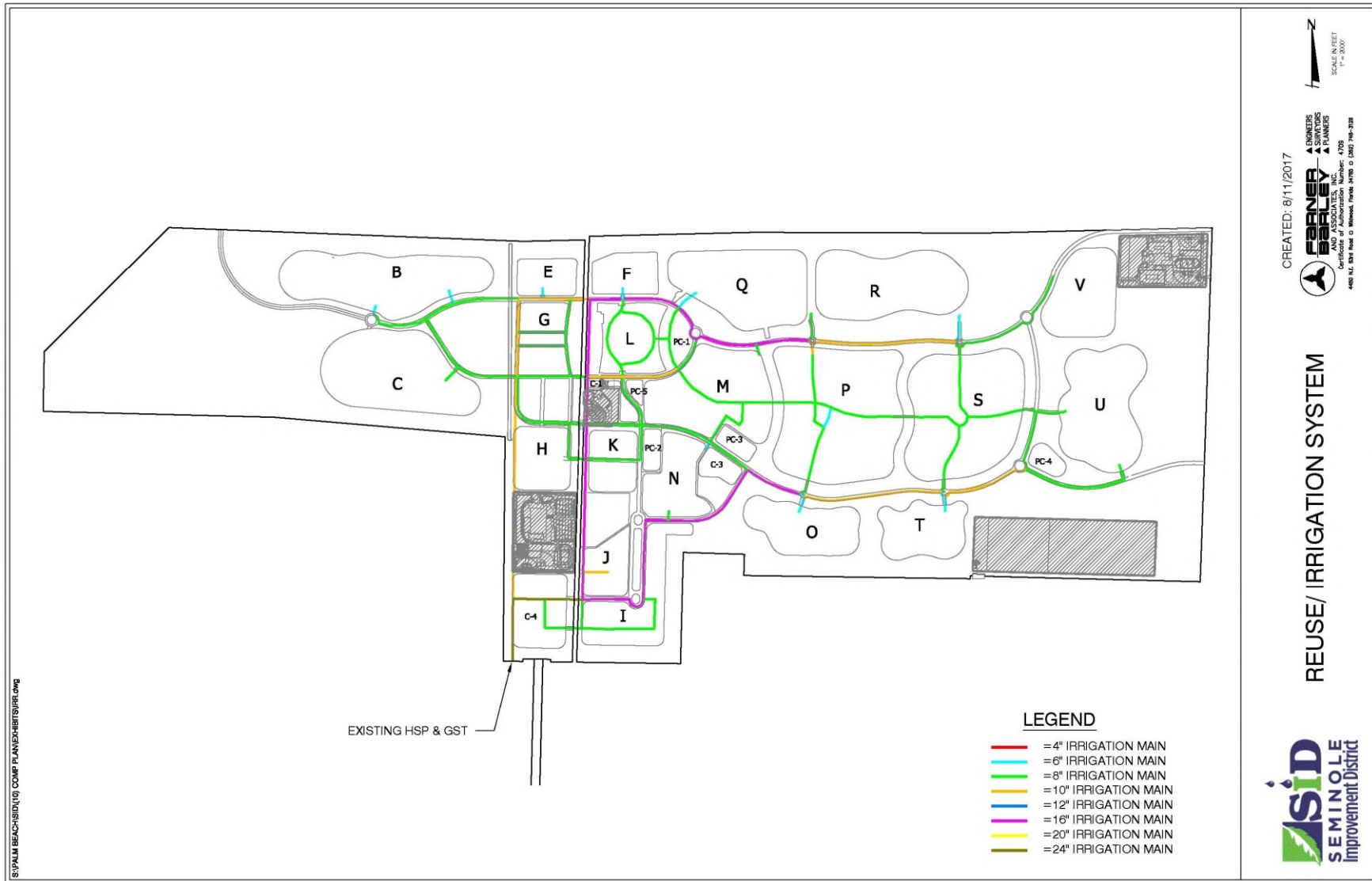


# REUSE WATER

- The City will use reuse water from SID for irrigation of developed areas. If reuse is not available from County, it will be supplement with Water Use Permit. This irrigation will be supplemented by canal water as allowed by permit with the South Florida Water Management District
- An interlocal agreement between SID and Palm Beach County for the purchase of bulk reused water dated April 20, 2010 gives SID a “prior reserve capacity” of reuse water to be provided by the county. The amount of reuse water is contingent upon the amount needed by Florida Power and Light. SID will not produce its own reuse water, but will receive reuse water pursuant to this agreement with the county. At this time, a re-pump and storage facility and some transmission pipes are connected and in operation. Further expansion of the distribution system within the City will occur as the City develops



# REUSE WATER MASTER DEVELOPMENT MAP





# SOLID WASTE

- ▣ The Solid Waste Authority (SWA) of Palm Beach County is a dependent special district which is responsible for managing solid waste disposal and recycling programs within Palm Beach County pursuant to a Special Act of the Florida Legislature in 2001. The (SWA) integrated solid waste management system includes a 334 acre landfill, a 2,000 ton per day waste to energy facility, a 3,000 ton per day mass burn waste-to-energy plant, a recovered materials processing facility, a biosolid pelletization facility, a vegetative waste processing operation, household hazardous collection facilities and 6 transfer facilities
- ▣ The SWA's 2017 Landfill Depletion Model projects sufficient landfill capacity through the 2038 planning horizon with the current lifespan of the facility projected to extend from 2038 to 2051 depending upon various demand and operational assumptions. This projection is based upon countywide growth projections. Based on the average solid waste generation rate for the county as a whole, the City is establishing a solid waste level of service standard of 7.02 pounds per capita per day

# DRAINAGE

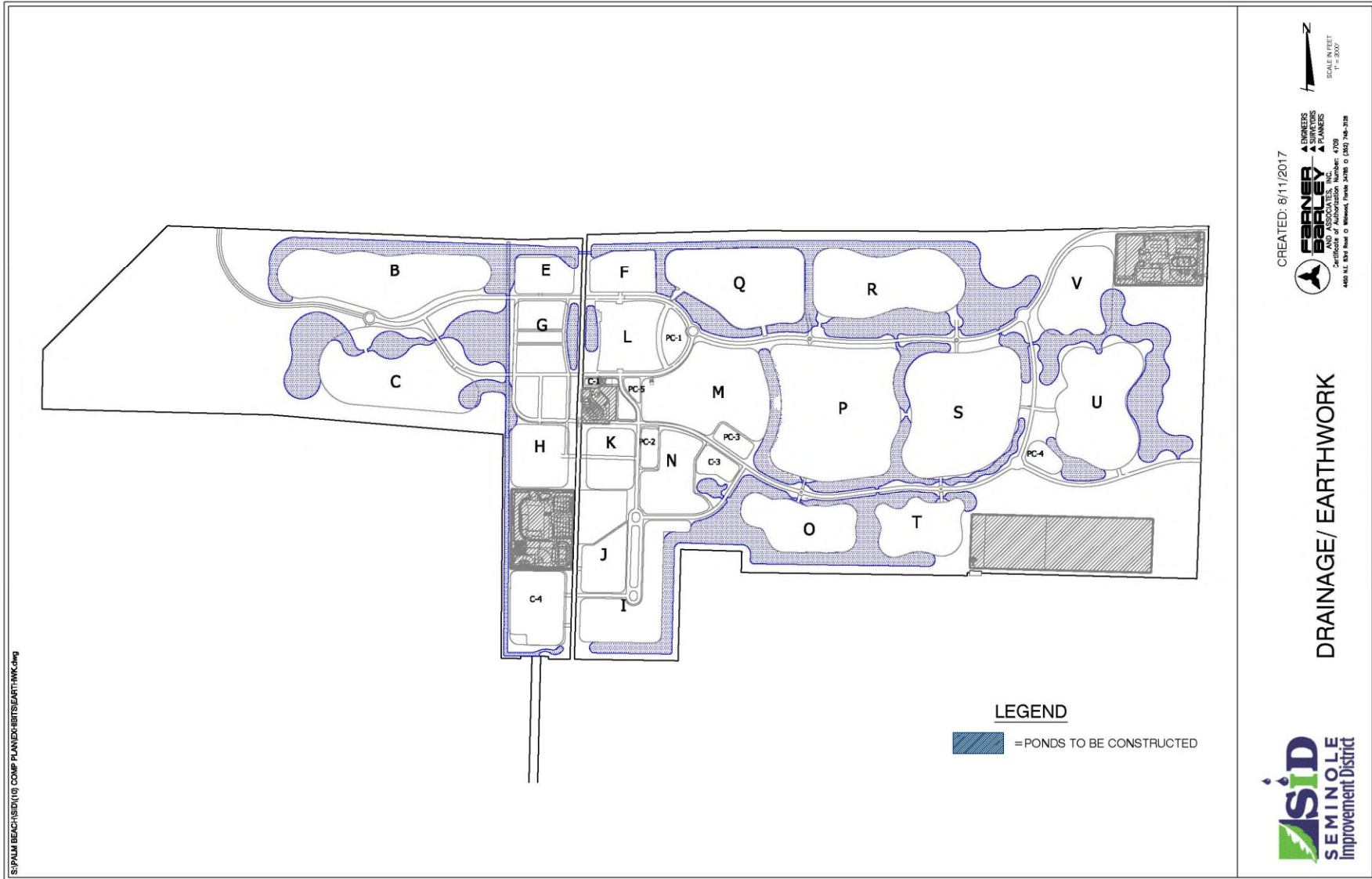
- ▣ The land area of the City is currently drained through the M-2 Canal. The ultimate discharge point for the area is the South Florida Water Management District C-51 Canal. There are numerous agricultural ditches and canals currently running through the City. The system was created for citrus agricultural use and provided both irrigation water supply and flood control within the area. Permits for peak discharge up to 2-inches in 24 hours via M-2 Canal to C-51 Canal are in place for the Seminole Improvement District (SID), which can accommodate the City’s future land uses shown Future Land Use Map
  
- ▣ SID will provide drainage for the City. SID’s master drainage management plan currently provides for the drainage system which will consist of an extensive lake system to be constructed in phases to accept runoff from common areas, collector roads, and residential and non-residential development areas. The water management system will continue to discharge into the M-2 Canal

## LEVEL OF SERVICE STANDARD

Storm Event	Intensity of Rainfall Depth (in.)	Drainage Level of Service
10 year-1 day	7.4	Local Roads/ Parking Lots
10 year-3 day	10	Perimeter Berm and Peak Discharge
25 year-3 day	12	Arterial Roads
100 year-3 day, zero discharge	14	Finished Floors



# MASTER DRAINAGE DEVELOPMENT MAP



S:\PALM BEACH\SID\103 COMP PLAN\EXHIBITS\EARTH\MK\Map

CREATED: 8/11/2017  
**FABREY**  
 ENGINEERS SURVEYORS PLANNERS  
 Certificate of Authorization Number: 4709  
 4400 U.S. 90th Road, O. Munnell, Florida 33426, O (561) 744-3124

DRAINAGE/ EARTHWORK



# GOAL INFRASTRUCTURE ELEMENT 1

Provide and maintain the necessary Public Infrastructure for Potable Water, Wastewater, Drainage, Solid Waste, and Aquifer Recharge in a manner that will ensure public health, safety, and welfare to encourage a *Sustainable Community*





# OBJECTIVE INF 1.1

Potable water facilities shall be provided that are *cost effective, adequate and maintain* the adopted level of service standard

- ▣ **Policy INF 1.1.1:** In coordination with the SID, the City of Westlake shall evaluate the capacity, operation, and maintenance of its water distribution system on an annual basis to maintain adopted levels of service and to maximize the use of existing facilities
- ▣ **Policy INF 1.1.6:** Adequate water supply and potable water facilities shall be in place and available to serve new development no later than the issuance by the City of a certificate of occupancy or its functional equivalent. Prior to approval of a building permit or its functional equivalent, the City shall consult with SID to determine whether adequate water supply exists to serve the new development no later than the anticipated date of issuance by the City of a certificate occupancy or its functional equivalent

## OBJECTIVE INF 1.2

Provide *adequate, efficient, and safe water* distribution to accommodate existing and future demand

- ▣ **Policy INF 1.2.3:** The City of Westlake shall coordinate the availability of potable water with the land uses shown on the Future Land Use Map (FLU Map 2.1)
- ▣ **Policy INF 1.2.4:** The City of Westlake shall coordinate with the South Florida Water Management District to continue to protect ground and surface waters

## OBJECTIVE INF 1.4

In coordination with the Seminole Improvement District (SID), the City of Westlake shall provide *Reuse Water* to accommodate existing and future demand

- ▣ **Policy INF 1.4.1:** The City will coordinate with SID to provide reuse water to residents for the use of irrigation. Where reuse water is unavailable, surface water will be used as a source of irrigation water

# OBJECTIVE INF 1.5

Ensure that *Adequate* and *Efficient* solid waste collection is available for the City of Westlake

- ▣ **Policy INF 1.5.1:** Coordinate with the Palm Beach County Solid Waste Authority to determine disposal capacity available to accommodate the solid waste generation of the City of Westlake for the coming year and the short and long term planning periods
- ▣ **Policy INF 1.5.2:** The solid waste level of service standard shall be 7.02 pounds of solid waste per person per day. Such standard shall be used for determining concurrency for solid waste



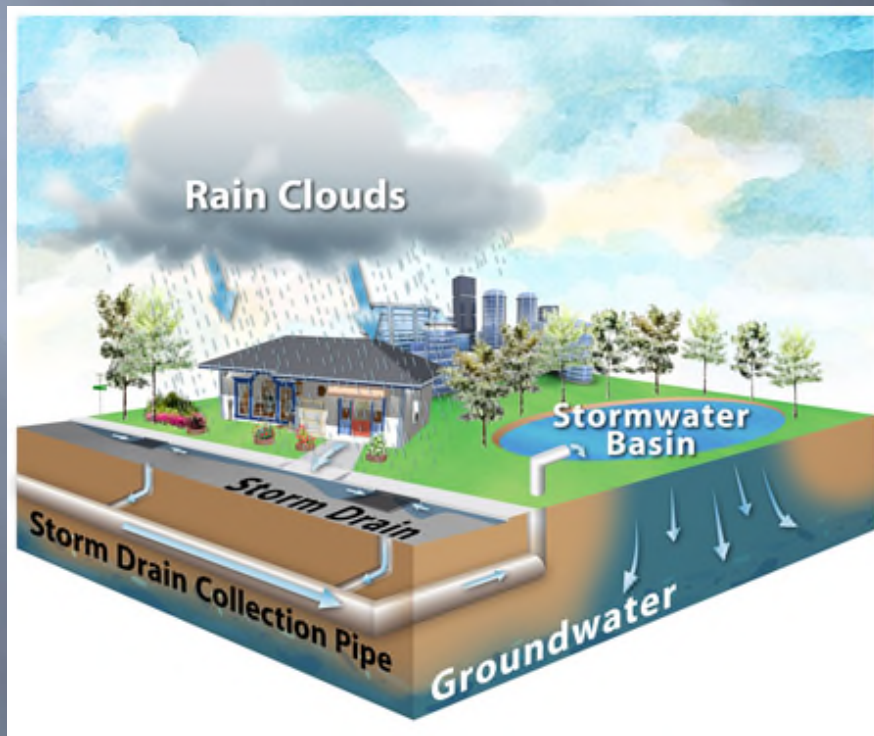
## OBJECTIVE INF 1.6

Coordinate with SID to implement a *Drainage System* for the City of Westlake that will address flood risks to public and private property

- ▣ **Policy INF 1.6.2:** All residential and nonresidential development and redevelopment shall adequately accommodate runoff to meet all federal, state and local requirements

# OBJECTIVE INF 1.7

Provide *Adequate* and *Effective Protection* of water resources and the surficial aquifer within the City of Westlake.







# CAPITAL IMPROVEMENTS ELEMENT OF THE COMPREHENSIVE PLAN

# 5 YEAR CAPITAL IMPROVEMENTS

- The purpose of the Capital Improvements Element is to address the need for public facilities as identified in other Plan elements; to and to schedule the funding and construction of improvements to ensure that capital improvements are provided when required.

5 YEAR PLANNING PERIOD DEVELOPMENT SCHEDULE					
FISCAL YEAR 2017/2018	FISCAL YEAR 2018/2019	FISCAL YEAR 2019/2020	FISCAL YEAR 2020/2021	FISCAL YEAR 2021/2022	FISCAL YEAR 2022/2023
150 RESIDENTIAL UNITS	225 RESIDENTIAL UNITS	300 RESIDENTIAL UNITS	300 RESIDENTIAL UNITS	300 RESIDENTIAL UNITS	300 RESIDENTIAL UNITS
75,000 SQ.FT. NON- RESIDENTIAL DEVELOPMENT	50,000 SQ.FT. NON- RESIDENTIAL DEVELOPMENT	50,000 SQ.FT. NON- RESIDENTIAL DEVELOPMENT	125,000 SQ.FT. NON- RESIDENTIAL DEVELOPMENT	150,000 SQ.FT. NON- RESIDENTIAL DEVELOPMENT	200,000 SQ.FT. NON- RESIDENTIAL DEVELOPMENT
PALM BEACH COUNTY FIRE STATION	17 ACRE PARK	PALM BEACH COUNTY SHERIFF STATION			150 ROOM HOTEL

# PROJECTED COST ESTIMATE

Project	Fiscal Year 2017/2018	Fiscal Year 2018/2019	Fiscal Year 2019/2020	Fiscal Year 2020/2021	Fiscal Year 2021/2022	Fiscal Year 2022/2023
<b>Potable Water</b>						
Extend water lines	\$325,000*	\$290,000*	\$1,020,000*	\$350,000*	\$550,000*	\$550,000*
Decommission and convert water treatment plant	\$700,000*					
Water interconnections with Palm Beach County lines.	\$250,000*	\$150,000*	\$150,000*			
<b>Reuse Water</b>						
Install reuse lines	\$220,000*	\$197,000*	\$370,000*	\$128,000*	\$200,000*	\$200,000*
<b>Wastewater</b>						
Extend wastewater lines	\$250,000*	\$225,000*	\$425,000*	\$150,000*	\$300,000*	\$100,000*
Decommission wastewater treatment plant	\$100,000*					
Wastewater interconnections with Palm Beach County lines.	\$75,000*	\$100,000*	\$100,000*			
<b>Drainage</b>						
Construct water management system	\$4,800,000*	\$1,800,000*	\$1,650,000*	\$1,650,000*		
<b>Transportation</b>						
Construct 2 lane collector	\$1,300,000*	\$2,200,000*	\$1,320,000*	\$450,000*	\$500,000*	\$550,000*
<b>TOTAL</b>						
	\$8,020,000	\$4,962,000	\$5,035,000	\$2,728,000	\$1,550,000	\$1,400,000

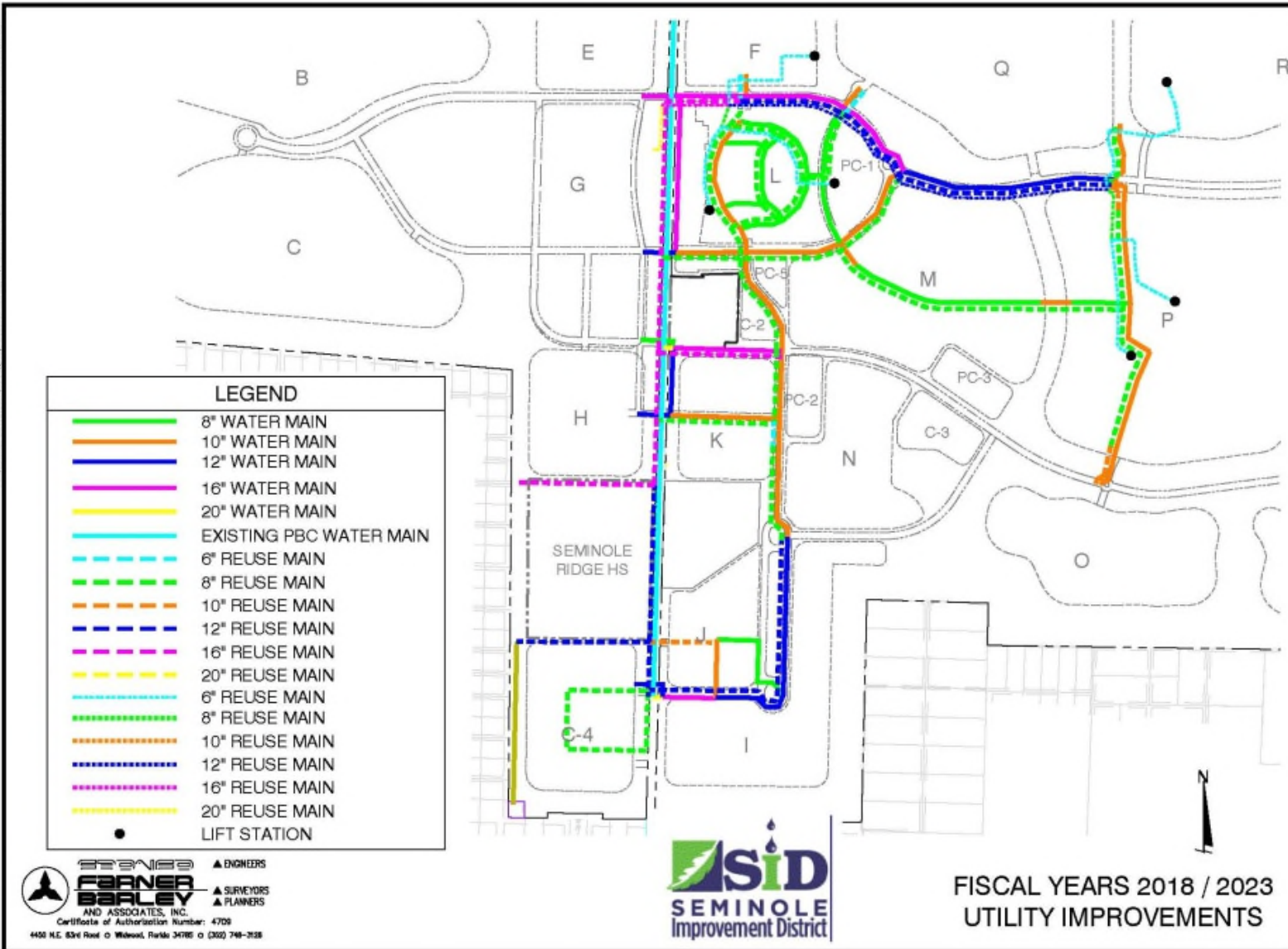
Source: Seminole Improvement District (2016)

\*Funded through Seminole Improvement District contributions

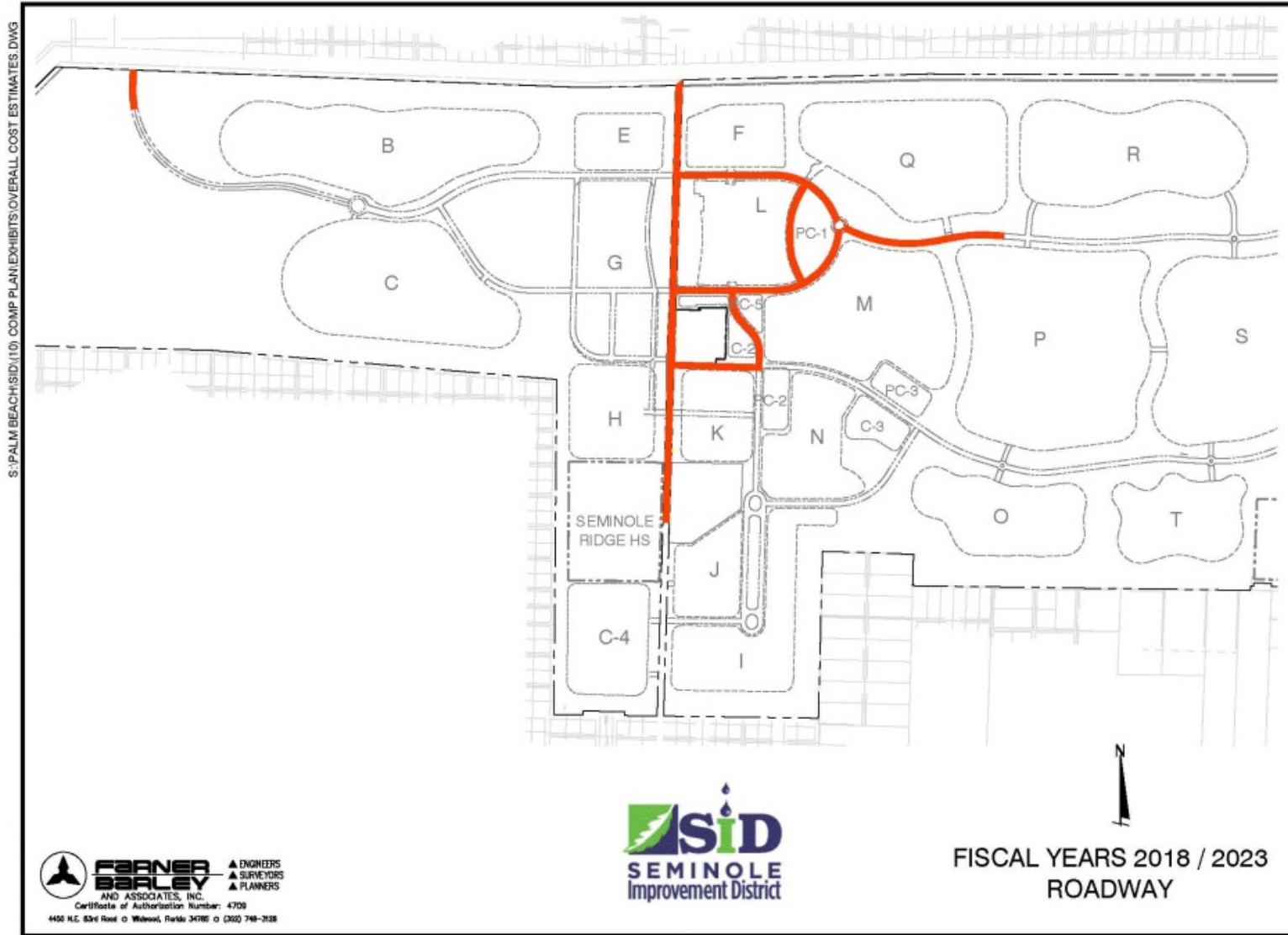


# 5 YEAR UTILITY CAPITAL IMPROVEMENT MAP

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# 5 YEAR ROADWAY CAPITAL IMPROVEMENT MAP



# 5 YEAR DRAINAGE CAPITAL IMPROVEMENT MAP





# GOAL CAPITAL IMPROVEMENT ELEMENT 1

Ensure the *Timely* and **Efficient** provision of *Public Facilities* for Existing and Future Populations



# THANK YOU!



## Transportation Element Presentation





# Engineering Department

## COMPREHENSIVE PLAN

### Transportation Element (TE)

# Presentation Outline

- ▣ Purpose of the Transportation Element
- ▣ Definitions
- ▣ Existing network and conditions
- ▣ 2023 anticipated network and conditions
- ▣ 2038 anticipated network and conditions
- ▣ Goals/Objectives/Policies

# Presentation Outline

- ▣ **Purpose of the Transportation Element**
- ▣ Definitions
- ▣ Existing network and conditions
- ▣ 2023 anticipated network and conditions
- ▣ 2038 anticipated network and conditions
- ▣ Goals/Objectives/Policies



# Purpose of the Transportation Element

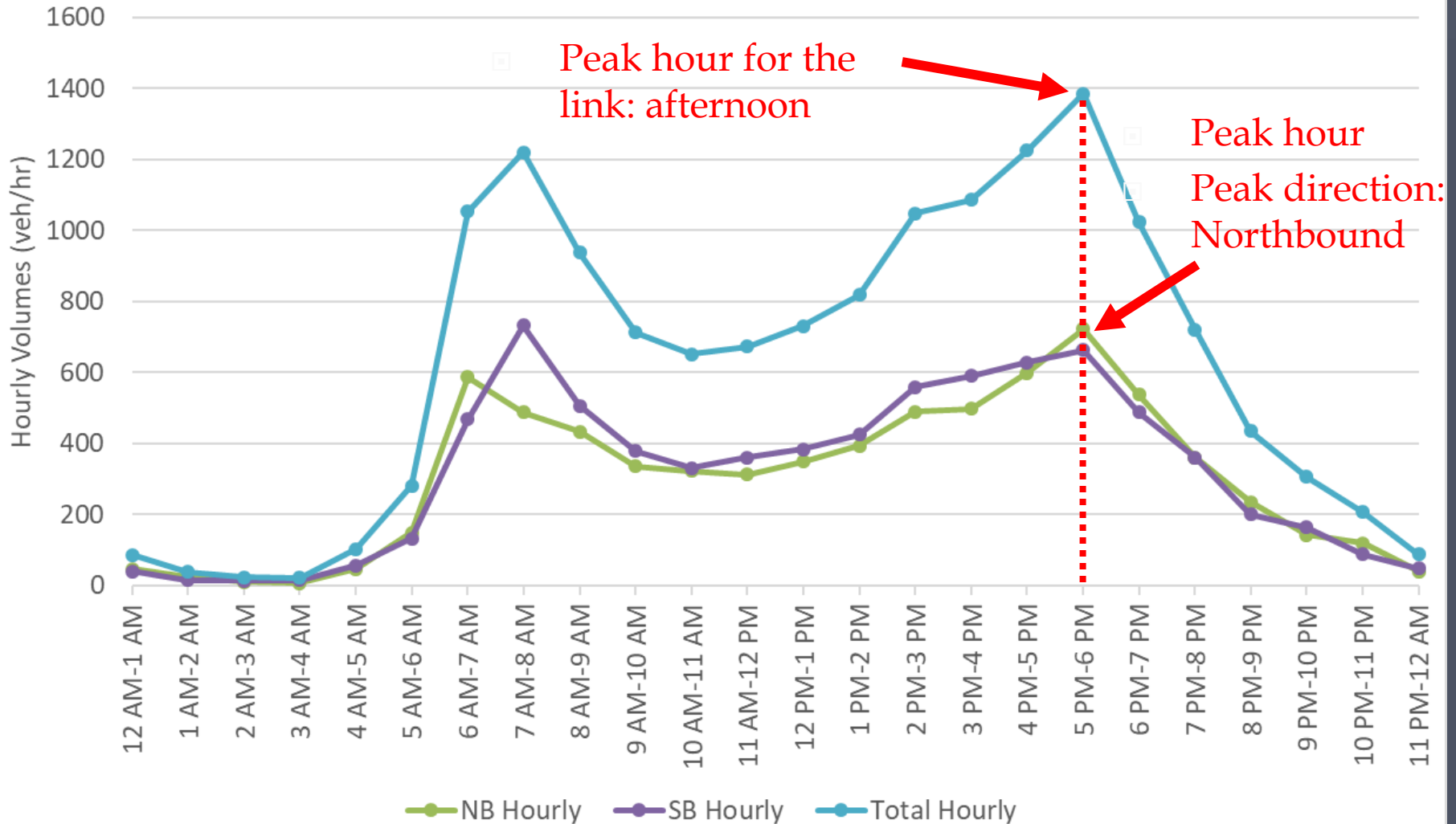
- ▣ Plan for a **safe, convenient multimodal** transportation system
- ▣ Coordinate with the planned **Future Land Use**
- ▣ Design to **support all elements** of the Comprehensive Plan
- ▣ Address transportation needs, including:
  - Roadways
  - Mass Transit
  - Bicycle and Pedestrian Facilities

# Presentation Outline

- ▣ Purpose of the Transportation Element
- ▣ **Definitions**
- ▣ Existing network and conditions
- ▣ 2023 anticipated network and conditions
- ▣ 2038 anticipated network and conditions
- ▣ Goals/Objectives/Policies

# Peak Hour

Hourly Volume Profile








# Level of Service (LOS)

From Highway Capacity Manual (HCM):

LOS is a quantitative stratification of a **performance measure or measures**

representing quality of service ...through the use of a familiar **A (best) to F (worst)** scale

LOS	Automobile
A/B	
C/D	
E/F	

# LOS Thresholds



## Signalized Arterial

STATE SIGNALIZED ARTERIALS					
Class I (40 mph or higher posted speed limit)					
Lanes	Median	B	C	D	E
1	Undivided	*	830	880	**
2	Divided	*	1,910	2,000	**
3	Divided	*	2,940	3,020	**
4	Divided	*	3,970	4,040	**
Class II (35 mph or slower posted speed limit)					
Lanes	Median	B	C	D	E
1	Undivided	*	370	750	800
2	Divided	*	730	1,630	1,700
3	Divided	*	1,170	2,520	2,560
4	Divided	*	1,610	3,390	3,420

Peak Hour Peak Direction  
**Volume** Thresholds

## Signalized Arterial

LOS	Travel Speed Threshold by Base Free Flow Speed (mph)	
	40	35
A	> 32	> 28
B	> 27	> 23
C	> 20	> 18
D	> 16	> 14
E	> 12	> 11
F	≤ 12	≤ 11

## Signalized Intersection

LOS	Control Delay
A	≤ 10
B	> 10-20
C	> 20-35
D	> 35-55
E	> 55-80
F	> 80

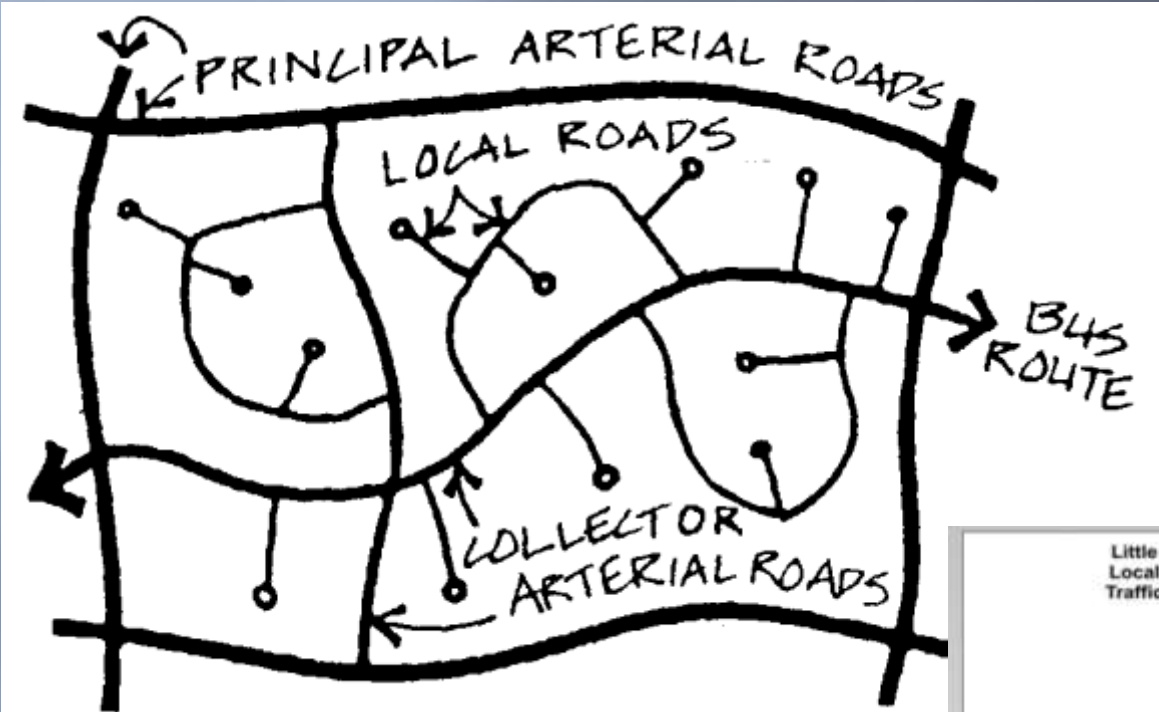
Source: FDOT 2013 Quality/Level of Service Handbook

Source: Highway Capacity Manual (HCM) 6<sup>th</sup> Edition



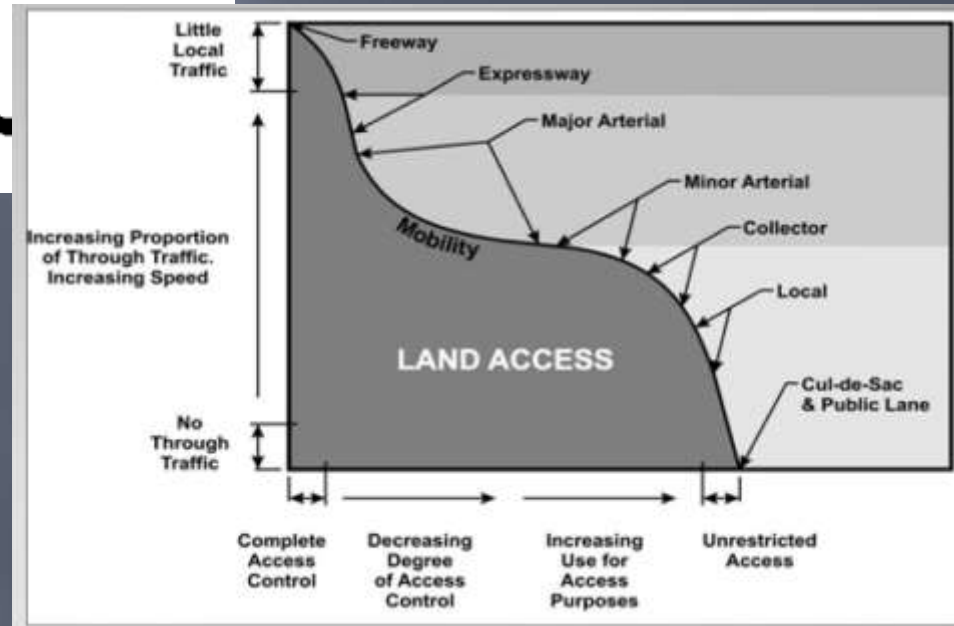


# Functional Classifications



Source: FHWA

Source: [www.pedshed.net](http://www.pedshed.net)



# Urban Minor Arterial

**Urban Minor Arterial**  
Seminole Pratt Whitney Road



# Urban Major Collector

**Urban Major Collector**  
Big Blue Trace (Wellington)





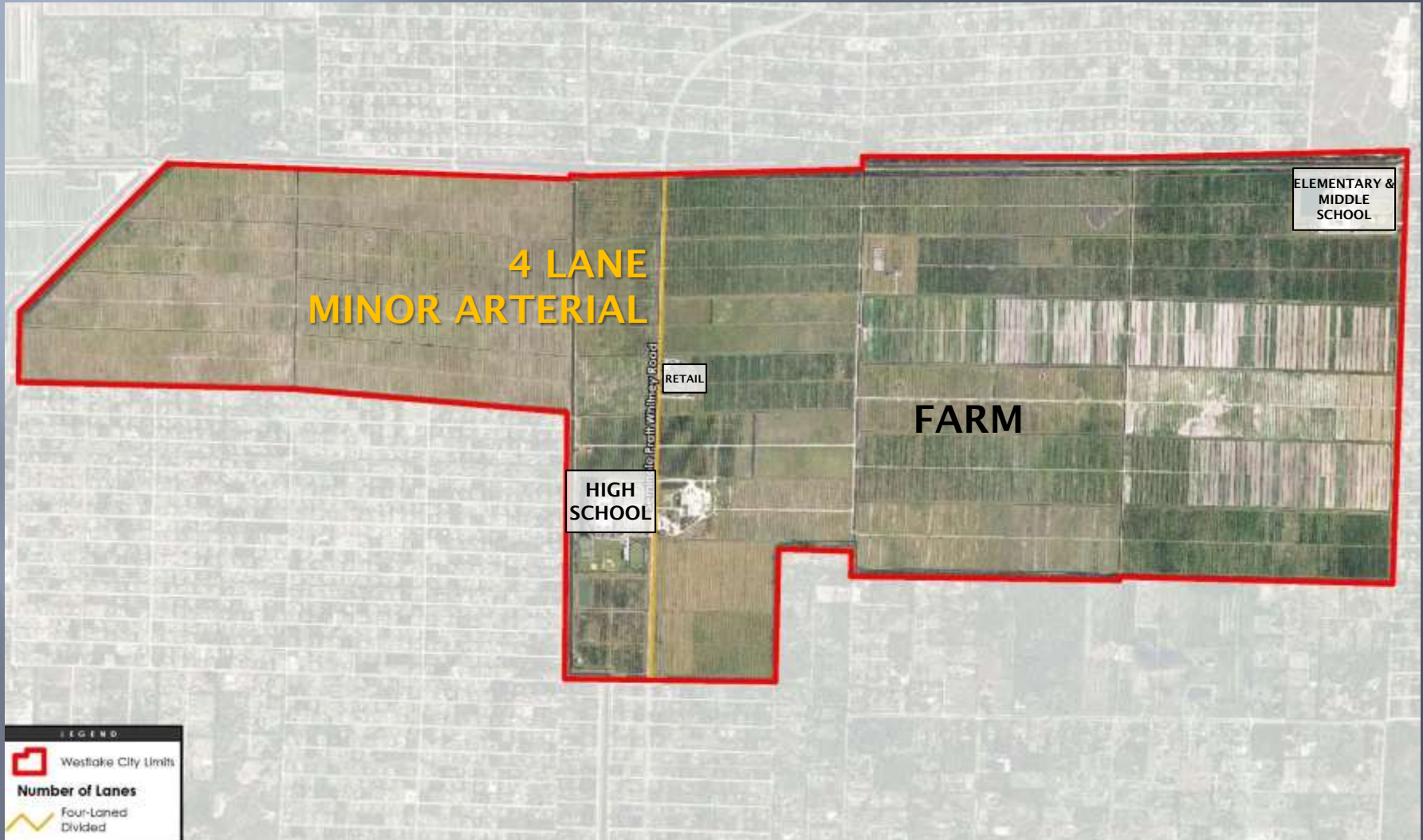
# Roadway Needs

- ▣ Existing Roadways, serving:
  - High School
  - Retail
  - Farm
- ▣ Future Roadways
  - Coordinate with **Future Land Use Plan**
  - Support anticipate **Growth and Development**

# Presentation Outline

- ▣ Purpose of the Transportation Element
- ▣ Definitions
- ▣ **Existing network and conditions**
- ▣ 2023 anticipated network and conditions
- ▣ 2038 anticipated network and conditions
- ▣ Goals/Objectives/Policies

# Existing Roadway and Existing Land Use





# Existing (2016) Conditions

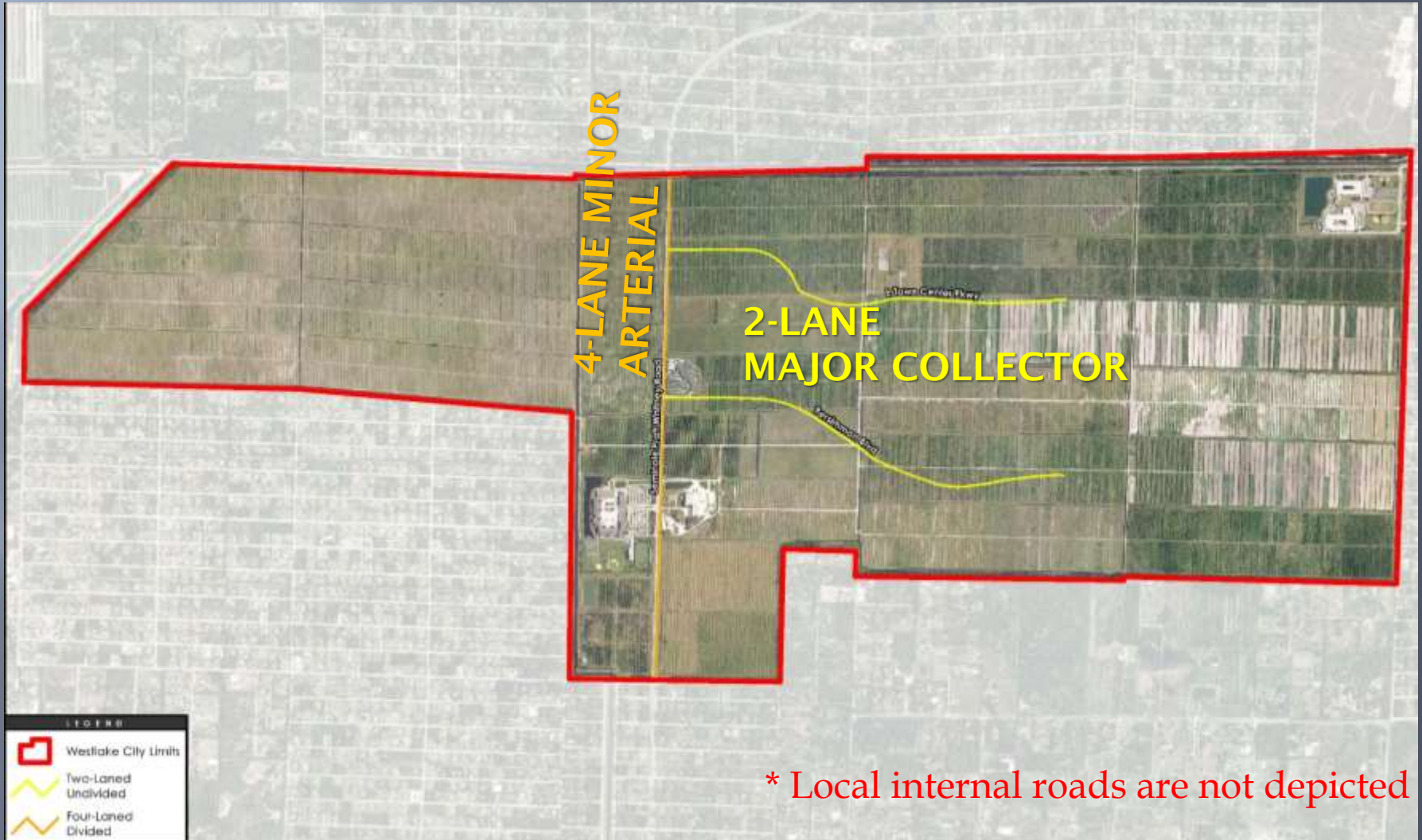
## Peak Hour Peak Direction Traffic Conditions

Roadway Name	Limit	Lanes	Adopted LOS	Roadway Classification	Capacity	2016 Volume	Current LOS
Seminole Pratt Whitney Road	Sycamore Dr to Seminole Ridge HS	4LD	D	Urban Minor Arterial	2,000	999	C
	Seminole Ridge HS to 60th St	4LD	D	Urban Minor Arterial	2,000	999	C

# Presentation Outline

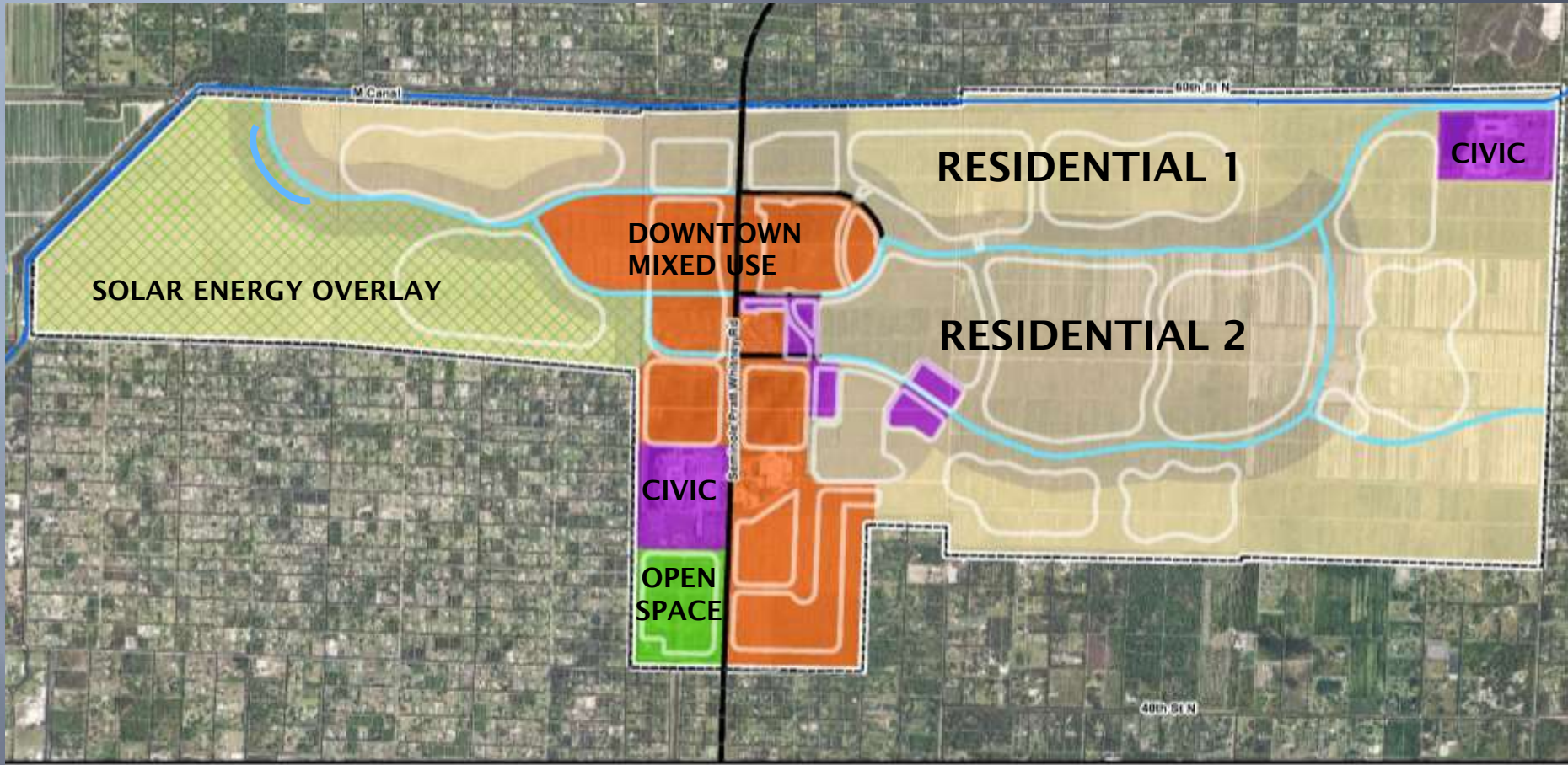
- ▣ Purpose of the Transportation Element
- ▣ Definitions
- ▣ Existing network and conditions
- ▣ **2023 anticipated network and conditions**
- ▣ 2038 anticipated network and conditions
- ▣ Goals/Objectives/Policies

# 5-year (2023) Roadway





# Future Land Use Map



FUTURE LAND USE		OTHER	
	Residential 1		Civic
	Residential 2		Open Space & Recreation
	Downtown Mixed Use		Solar Energy Overlay
			Streets
			Development Pods
			Future Streets
			Major Canal



# 5-year (2023) Conditions

## Peak Hour Peak Direction Traffic Conditions

Roadway Name	Limit	Lanes	Adopted LOS	Roadway Classification	Capacity	2023 Volume	2023 LOS
Seminole Pratt Whitney Road	Sycamore Dr to Persimmon Blvd	4LD	D	Urban Minor Arterial	2,000	1,906	C
	Persimmon Blvd to E Town Center Pkwy	4LD	D	Urban Minor Arterial	2,000	1,860	C
	E Town Center Pkwy to 60th St	4LD	D	Urban Minor Arterial	2,000	1,839	C

# 5-year (2023) Conditions (cont.)

## Peak Hour Peak Direction Traffic Conditions

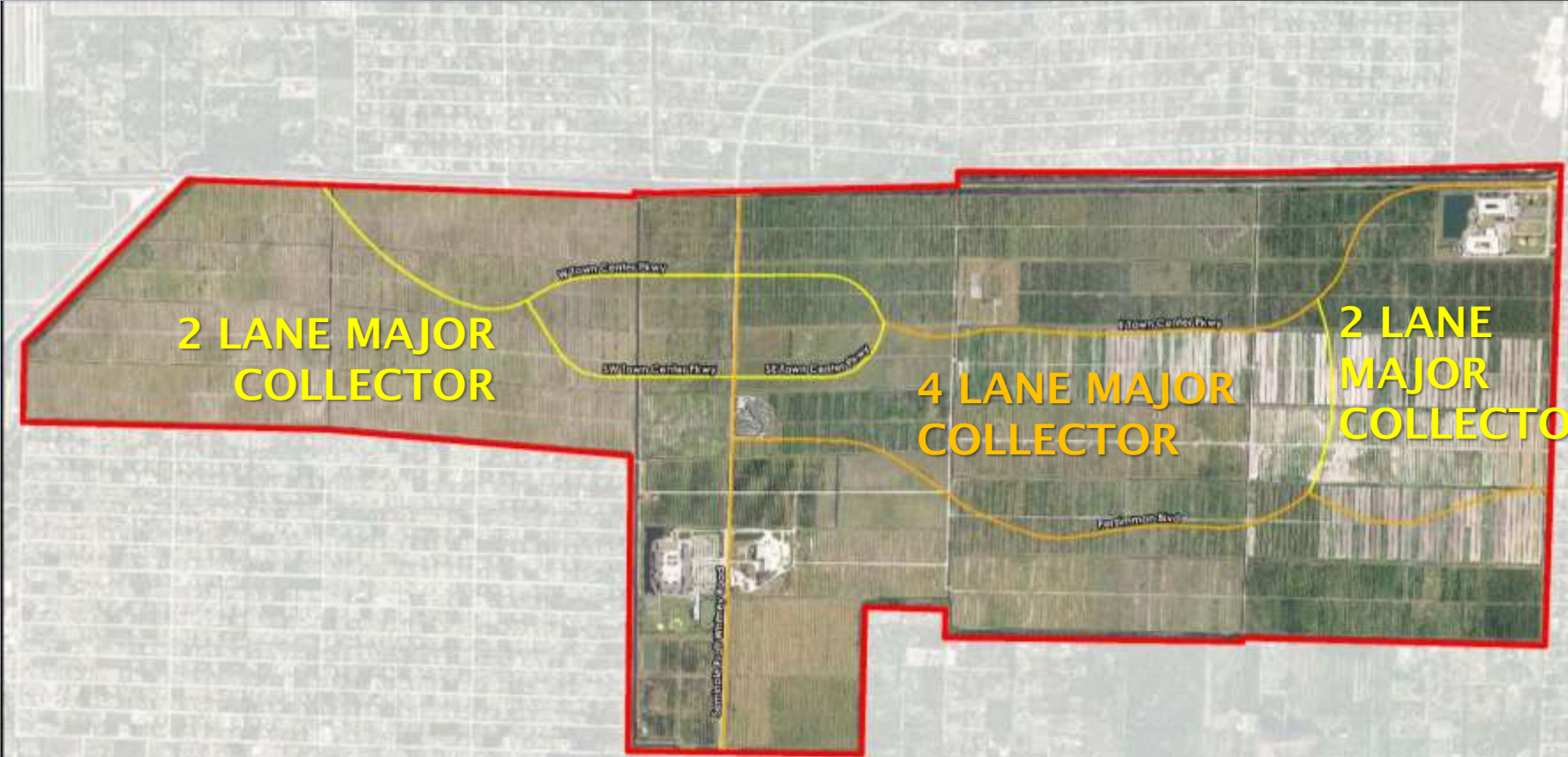
Roadway Name	Limit	Lanes	Adopted LOS	Roadway Classification	Capacity	2023 Volume	2023 LOS
East Town Center Parkway	Seminole Pratt Whitney Rd to Eastern Terminus	2LU	D	Urban Major Collector	709	578	D
Persimmon Blvd	Seminole Pratt Whitney Rd to Eastern Terminus	2LU	D	Urban Major Collector	832	385	C

# Presentation Outline

- ▣ Purpose of the Transportation Element
- ▣ Definitions
- ▣ Existing network and conditions
- ▣ 2023 anticipated network and conditions
- ▣ **2038 anticipated network and conditions**
- ▣ Goals/Objectives/Policies

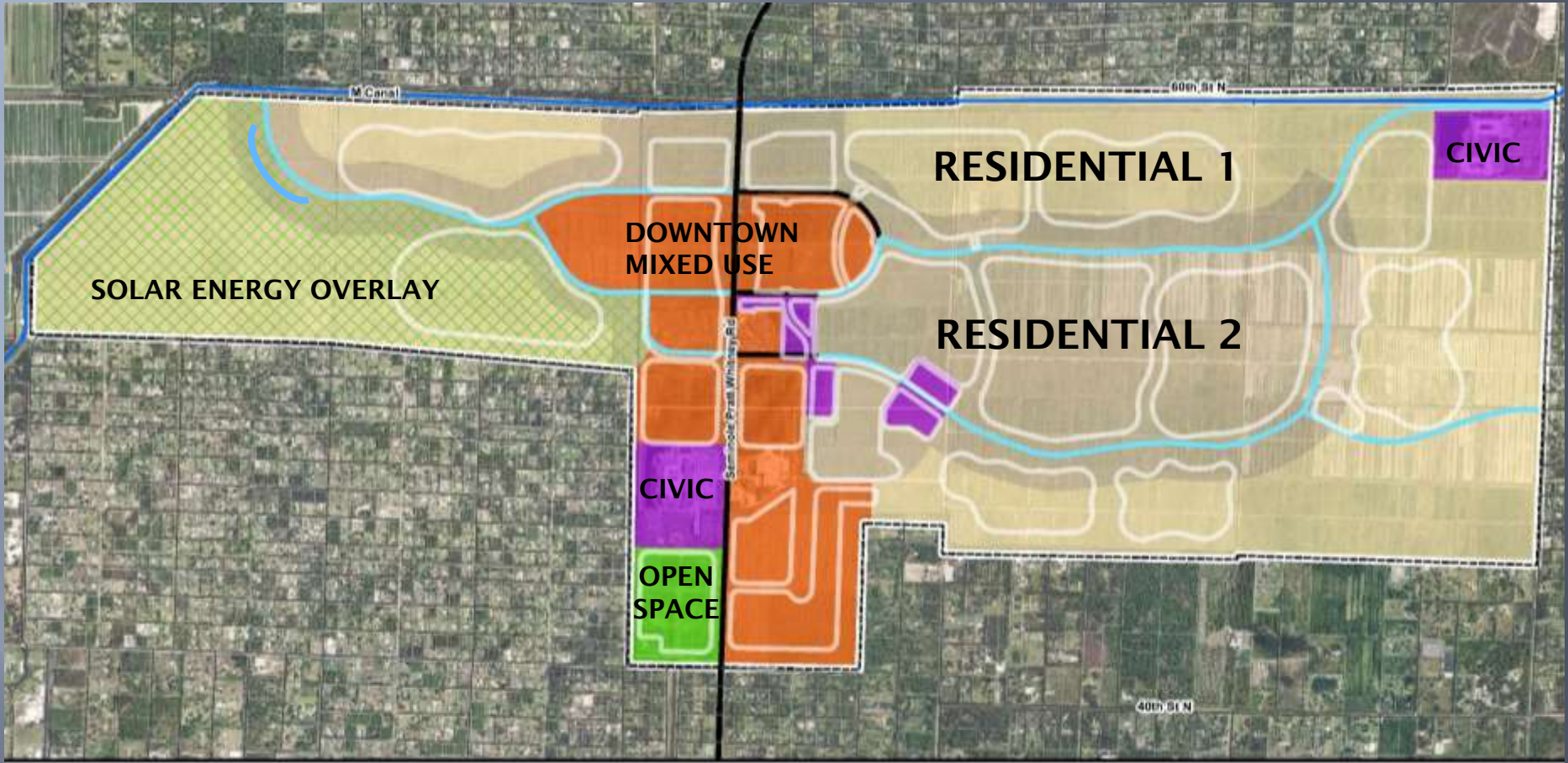


# 20-year (2038) Roadway



\* Local internal roads are not depicted

# Future Land Use Map



**FUTURE LAND USE**

- Residential 1
- Residential 2
- Downtown Mixed Use
- Civic
- Open Space & Recreation
- Solar Energy Overlay

**OTHER**

- Streets
- Future Streets
- Major Canal
- Development Pods



# 20-year (2038) Conditions

## Peak Hour Peak Direction Traffic Conditions

Roadway Name	Limit	Lanes	Adopted LOS	Roadway Classification	Capacity	2038 Volume	2038 LOS
Seminole Pratt Whitney Road	Sycamore Dr to Persimmon Blvd	4LD	D	Urban Minor Arterial	2,000	1,880	C
	Persimmon Blvd to 60th St	6LD	D	Urban Minor Arterial	3,020	2,144	D
East Town Center Pkwy	Seminole Pratt Whitney Rd to W Roundabout	4LD	D	Urban Major Collector	1,467	719	D
	W Roundabout to 60 <sup>th</sup> St	4LD	D	Urban Major Collector	1,800	580	C

# 20-year (2038) Conditions (cont.)

## Peak Hour Peak Direction Traffic Conditions

Roadway Name	Limit	Lanes	Adopted LOS	Roadway Classification	Capacity	2038 Volume	2038 LOS
SE Town Center Pkwy	Seminole Pratt Whitney Rd to W Roundabout	4LD	D	Urban Major Collector	1,467	719	D
SW Town Center Pkwy	W Town Center Pkwy to Seminole Pratt Whitney Rd	2LU	D	Urban Major Collector	709	641	D
West Town Center Pkwy	Western Terminus to SW Town Center Pkwy	2LU	D	Urban Major Collector	709	321	C
	SW Town Center Pkwy to Seminole Pratt Whitney Rd	2LU	D	Urban Major Collector	709	641	D



# 20-year (2038) Conditions (cont.)

## Peak Hour Peak Direction Traffic Conditions

Roadway Name	Limit	Lanes	Adopted LOS	Roadway Classification	Capacity	2038 Volume	2038 LOS
Persimmon Blvd	Seminole Pratt Whitney Rd to Persimmon East	4LD	D	Urban Major Collector	1,800	840	C
Persimmon / Town Center Connector	Persimmon Blvd to E Town Center Pkwy	2LU	D	Urban Major Collector	709	143	C

# Bicycle and Pedestrian Network

- ▣ Part of the overall **mobility vision** of the City
- ▣ Reduce the need for motorized transportation within the City



Source: [www.streetsblog.org](http://www.streetsblog.org)



Source: [www.acogok.org](http://www.acogok.org)

# Complete Streets

- ▣ Definition of Complete Streets from Smart Growth America:
  - *“Complete Streets are **streets for everyone**. They are designed and operated to **enable safe access for all users**, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.”*



Source: FDOT  
 Complete Street  
 Implementation  
 Plan 2015



# Existing Bicycle and Pedestrian Facilities





# Future Bicycle and Pedestrian Facilities



# Evacuation Routes, Transit, Aviation

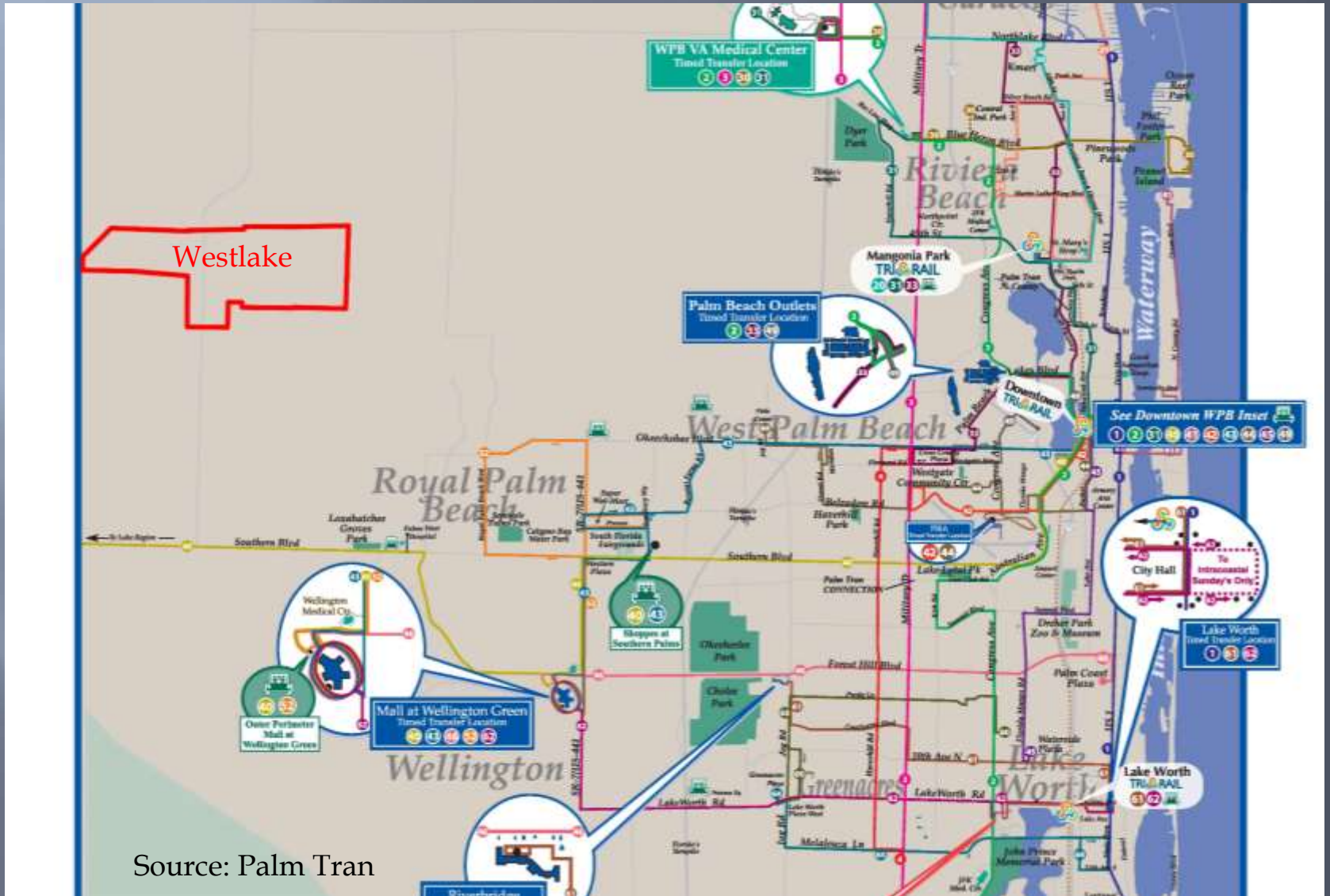
- ▣ Required under Florida Statutes 163.3177(6)(b)(2)
- ▣ **No existing or future evacuation routes** within the City
  - Seminole Pratt Whitney Road provides access to the designated evacuation route at US 441
- ▣ **No fixed-route transit or paratransit service**
  - Will coordinate with Palm Tran
- ▣ **No existing or proposed airport** within the City
  - The nearest airport is >7 miles away







# Palm Tran Bus Map



Source: Palm Tran

# Presentation Outline

- ▣ Purpose of the Transportation Element
- ▣ Definitions
- ▣ Existing network and conditions
- ▣ 2023 anticipated network and conditions
- ▣ 2038 anticipated network and conditions
- ▣ **Goals/Objectives/Policies**

# Goal Transportation Element 1

Provide a Safe, Convenient, and Energy Efficient **Multi-modal Transportation System** in the City of Westlake



Source: [www.aimsun.com](http://www.aimsun.com)



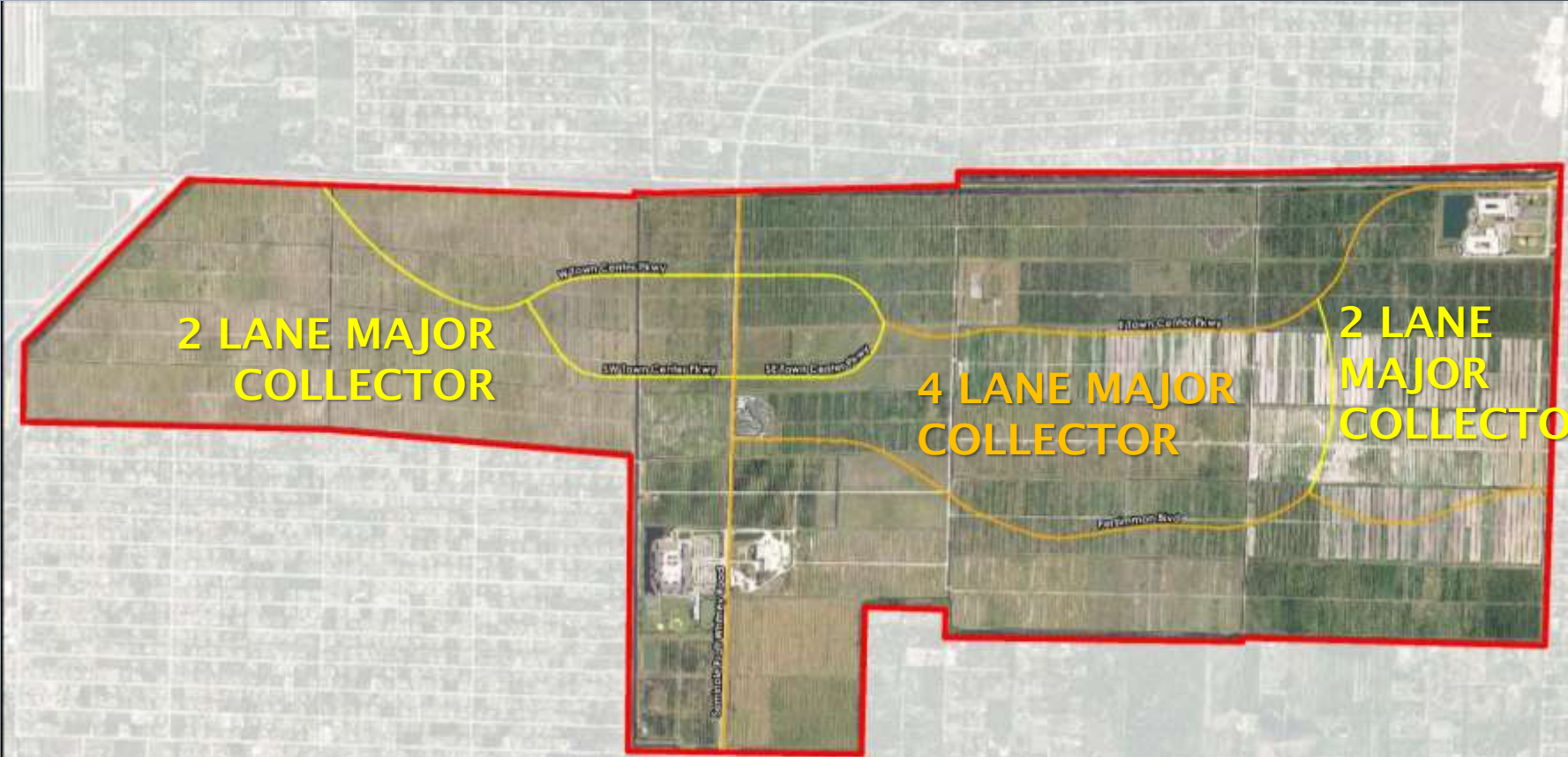
# Objective TE 1.1

Provide a **Traffic Circulation Network** that is coordinated with and **adequately** serves the anticipated and planned **growth** represented in the Future Land Use Map for the short and long term planning periods



Source: [www.ecovallee-cotedazur.com](http://www.ecovallee-cotedazur.com)

# 20-year (2038) Roadway



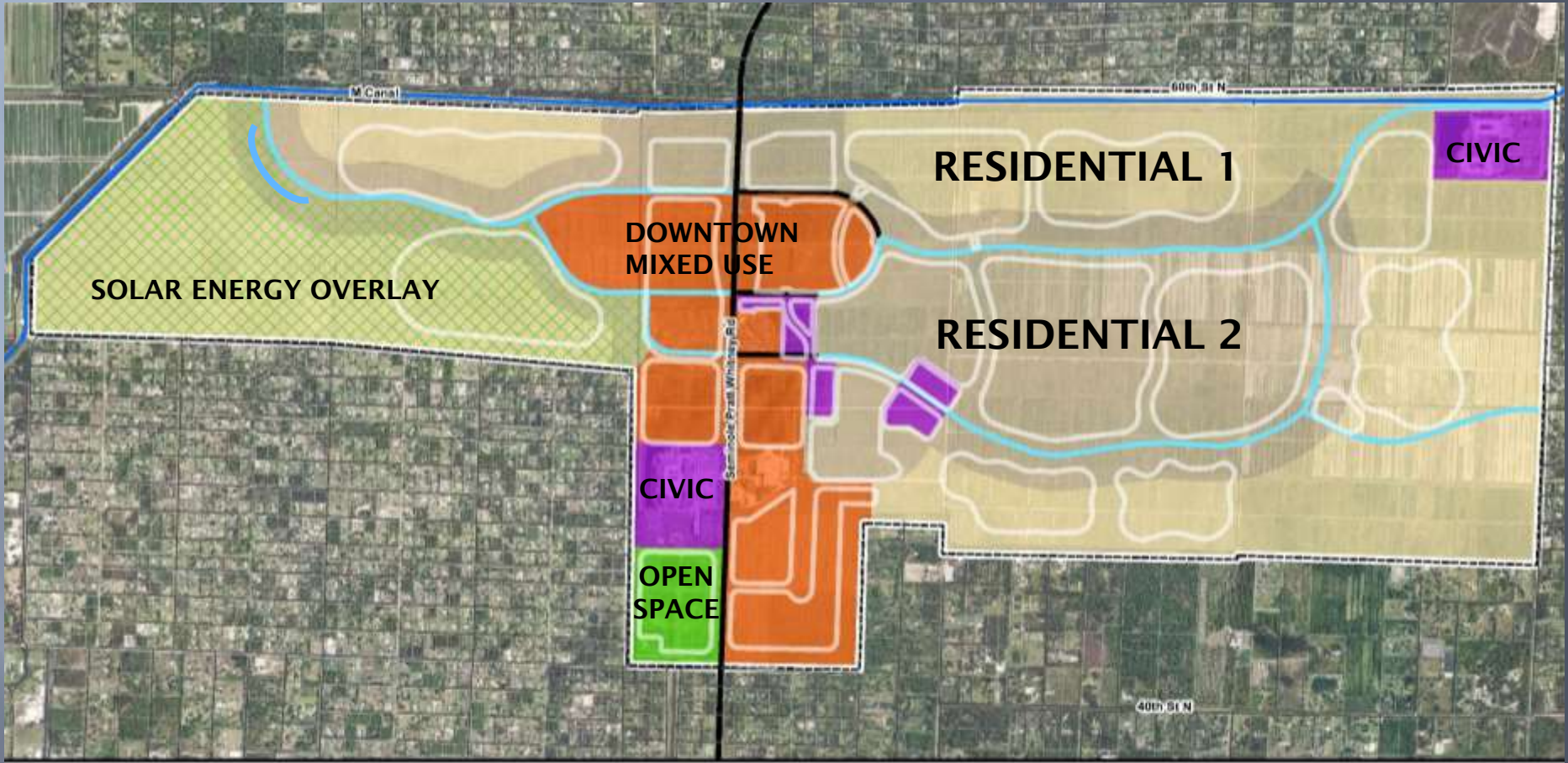
**LEGEND**

- Westlake City Limits
- Two-Laned Undivided
- Four-Laned Divided

\* Local internal roads are not depicted



# Future Land Use Map



**FUTURE LAND USE**

- Residential 1
- Residential 2
- Downtown Mixed Use
- Civic
- Open Space & Recreation
- Solar Energy Overlay

**OTHER**

- Streets
- Future Streets
- Major Canal
- Development Pods



# Objective TE 1.2

Maintain **mobility** within the City of Westlake






Source: [www.nacto.org](http://www.nacto.org)

## Policy TE 1.2.1

The adopted roadway level of service for Seminole Pratt Whitney Road within the City of Westlake shall be **“D.”** The adopted roadway level of service for all other functionally classified roadways shall be **“D.”** Roadway level of service will be based on the **peak hour, peak direction traffic volumes.** The roadway levels of service are adopted **for planning purposes only**

# Level of Service (LOS) “D”

LOS	Automobile
A/B	
C/D	
E/F	

Source: FDOT 2013 Quality/Level of Service Handbook



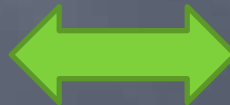
## Policy TE 1.2.6

To ensure that roadway level of service standards are maintained, while providing for flexibility in the development of the community, the Land Development Regulations may establish a **land use equivalency process**, through which **exchanges of different land uses** consistent with the Future Land Use Map may be accomplished so long as the proposed development **does not result in additional transportation impacts**. Exchanged land uses shall be consistent with the Future Land Use Category for the given property

# Example: Exchange of Land Uses

- ▣ Example: Redevelop Existing Grove Market Shopping Center on 5060 Seminole Pratt Whitney Road to General Office
- ▣ Future Land Use: Downtown Mixed-Use
  - Allowable Uses: Commercial uses, etc.
- ▣ General office is an allowable use under Future Land Use

10 KSF Shopping Center  
(1,520 Daily / 128 Peak  
Hour Trips)



86 KSF General Office  
(1,170 Daily / 128 Peak  
Hour Trips)

*(The numbers shown are for illustration purpose only)*

- ▣ New land use also needs to meet Comp Plan requirements and LDRs

# Policy TE 1.2.16

Encourage **connectivity of roadways, bicycle, and pedestrian facilities** in the City to reduce congestion on arterial and collector roads

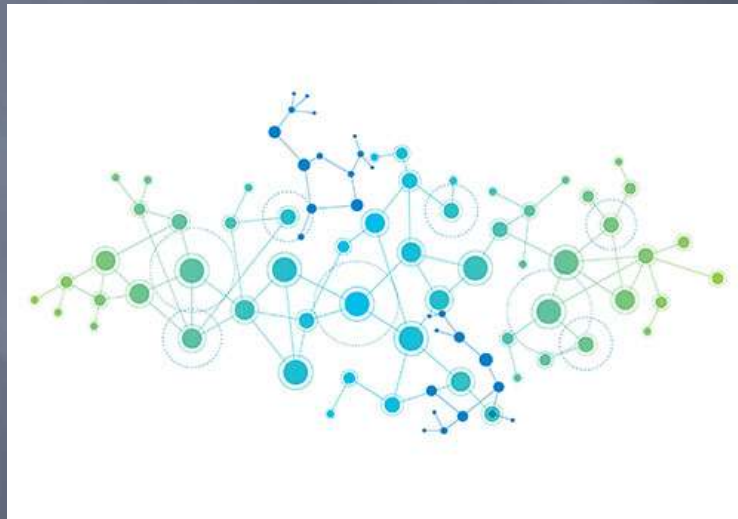


Source: Miami-Dade County West End Connectivity Master Plan



# Objective TE 1.3

Maintain **adequate capacity** on arterial roadways (*Seminole Pratt Whitney Road*) which **connect to designated evacuation routes** (*Southern Boulevard*)



Source: [www.trinitymaxwell.com](http://www.trinitymaxwell.com)

# Objective TE 1.4

To provide safe and accessible alternatives to motorized transportation through **bicycle and pedestrian facilities**



Source: [www.westsiderag.com](http://www.westsiderag.com)

# Future Bicycle and Pedestrian Facilities





# Policy TE 1.4.4

The City of Westlake shall ensure bicycle and pedestrian facilities are provided. The City shall adopt **Land Development Regulations** that require **pedestrian facilities** within residential subdivisions



Source: [popularenggcorp.com](http://popularenggcorp.com)

## Policy TE 1.4.12

Evaluate **2014 Complete Streets Policy** adopted by the Florida Department of Transportation and coordinate with SID concerning applicability and integration into Land Development Regulations for design and construction of roadway projects

# FDOT Complete Streets



Florida Department of Transportation

RICK SCOTT  
GOVERNOR

635 Suwannee Street  
Tallahassee, FL 32399-0450

ANANTH PRASAD, P.E.  
SECRETARY

**POLICY**

Effective: September 17, 2014  
Office: Design Director  
Topic No.: 000-625-017-a

**COMPLETE STREETS**

It is the goal of the Department of Transportation to implement a policy that promotes safety, quality of life, and economic development in Florida. To implement this policy, the Department will routinely plan, design, construct, reconstruct and operate a context-sensitive system of "Complete Streets." While maintaining safety and mobility, Complete Streets shall serve the transportation needs of transportation system users of all ages and abilities, including but not limited to:

- Cyclists
- Motorists
- Transit riders
- Freight handlers
- Pedestrians

The Department specifically recognizes Complete Streets are context-sensitive and require transportation system design that considers local land development patterns and built form. The Department will coordinate with local governments, Metropolitan Planning Organizations, transportation agencies and the public, as needed to provide Complete Streets on the State Highway System, including the Strategic Intermodal System.

This **Complete Streets Policy** will be integrated into the Department's internal manuals, guidelines and related documents governing the planning, design, construction and operation of transportation facilities.

*Ananth Prasad*  
Ananth Prasad, P.E.  
Secretary

## COMPLETE STREETS IMPLEMENTATION PLAN

M2D2: Multimodal Development and Delivery

December 2013



The Florida Department of Transportation and Smart Growth America





# Objective TE 1.5

Ensure efficiency in transportation planning and implementation through **coordination with other agencies and jurisdictions** in Palm Beach County

- ▣ **Policy TE 1.5.1:** be consistent and compatible with transportation plans from **FDOT, Palm Beach County, and Palm Beach MPO**



# Planning Documents



## FLORIDA'S ADOPTED FIVE YEAR WORK PROGRAM

July 1, 2017 through June 30, 2022

As of July 1, 2017

Office of Work Program

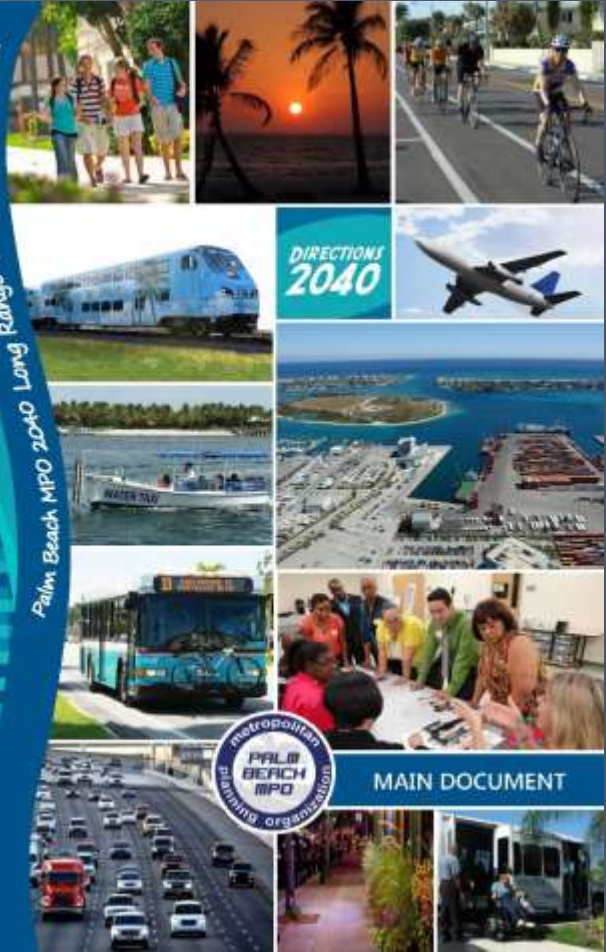
FLORIDA DEPARTMENT OF TRANSPORTATION, MIKE DEW - SEC



OCT  
2015

## SOUTHEAST FLORIDA 2040 REGIONAL TRANSPORTATION PLAN Miami-Dade • Broward • Palm Beach

Palm Beach MPO 2040 Long Range Transportation Plan



DIRECTIONS  
2040



MAIN DOCUMENT

# Objective TE 1.6

Plan for the provision of **mass-transit options** as such options become available

- ▣ Policy TE 1.6.1: coordinate with **Palm Tran** to **extend service** as the City develops
- ▣ Policy TE 1.6.3: encourage **population densities** to support mass transit
- ▣ Policy TE 1.6.6: evaluate **parking requirements** for new developments

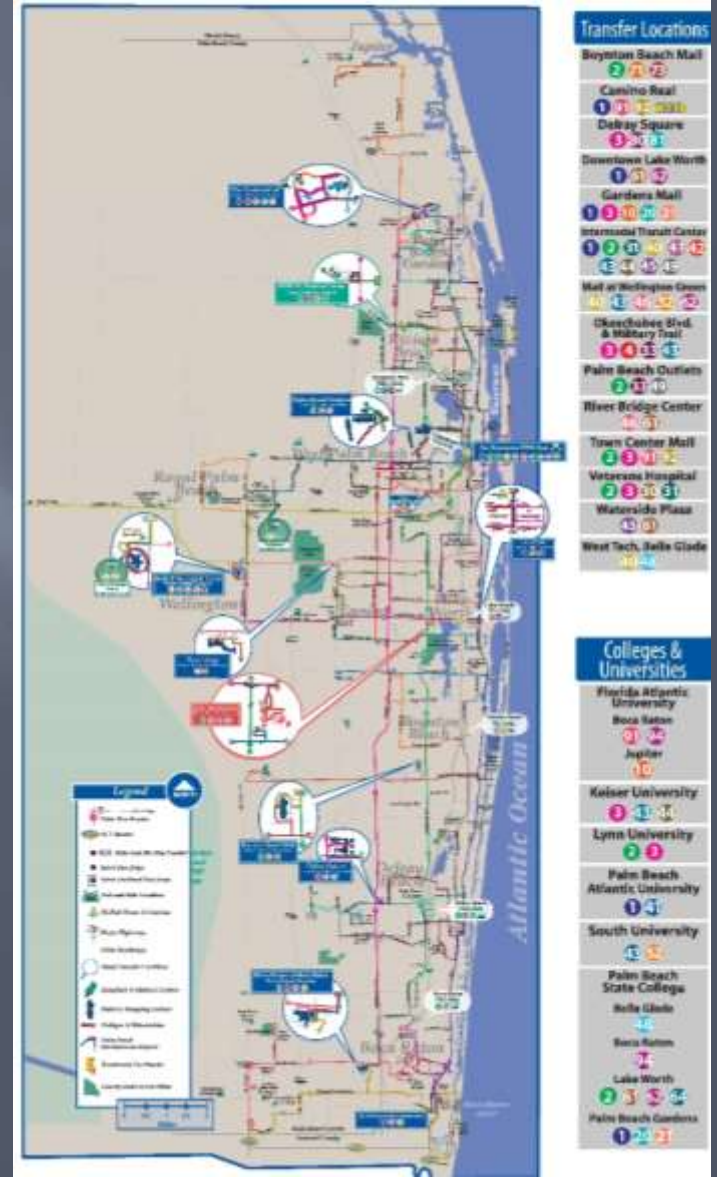


# Palm Tran



Transit Development Plan 2017 - 2026  
**Executive Summary**

Approved November 22, 2016



# Objective TE 1.7

The City of Westlake shall promote **energy efficiency and greenhouse gas reduction** strategies

- ▣ Policy TE 1.7.1: promote **mass-transit**
- ▣ Policy TE 1.7.2: provide **bicycle and pedestrian pathways**