

# Polk County

KATHLEEN RD

OLD DADE CITY RD

SOCRUM LOOP RD

2

1

3

4

ROCKRIDGE RD

4

98

ALTERNATIVE 4  
CONNECTION TO US 98

98



INTEGRITY · COMMITMENT · EXCELLENCE

PROFESSIONAL ENGINEERING SERVICES  
FOR KATHLEEN RD WIDENING EXTENSION  
FROM DUFF RD TO HWY 98

RFP #25-421

# AGENDA

- **Overview of Firm**
  - Project Team
  - Management
  - Schedule
- **Approach to Project**
- **Timely Completion of Projects**
  - Willingness to Meet Time & Budget Requirements
  - Recent, Current & Projected Workloads
- **Why PGA?**

## Project Goals:

- ✓ Increase capacity for expected development
- ✓ Increase safety by reducing congestion, managing access, and incorporating optimal intersection control
- ✓ Extend Kathleen Rd to create a new connection further north on US 98 to give trucks a viable alternative route to US 98
- ✓ Comply with LAP funding, schedule, and NEPA requirements

# KIM WARREN



**Kim Warren**

*Project Manager*

**70% Available**

- ✓ 36 years of PD&E and Transportation Planning Experience
- ✓ 33 years of Project Management Experience
- ✓ Former D1 District Environmental Administrator & District Planning Manager
- ✓ D1 Consultant Project Manager
- ✓ D1 Owner's Representative
- ✓ Former Polk County Employee (FEMA Compliance)
- ✓ Trusted Advisor
- ✓ Extensive Local Knowledge
- ✓ Dedicated
- ✓ Production and Quality Focused

# PROJECT MANAGEMENT EXPERIENCE

- **Tenoroc Trail PD&E Study – LAP**
  - City of Lakeland/FDOT D1
- **Tampa Bypass Canal Trail PD&E Study – LAP**
  - Hillsborough County/FDOT D7
- **Central Polk Parkway PD&E Study**
  - SR 60 to Polk Parkway and SR 60 to I-4
  - New alignment
  - Accelerated schedule
  - SEIR approved in approx. 6 months
- **Bartow Northern Connector PD&E Study**
  - US 98 to US 17
  - New alignment
- **SR 29 from Oil Well Rd to SR 82 PD&E Study**
  - Accelerated schedule
  - Design overlap
  - 2-4L widening
  - Segment of new alignment
  - ESA Formal Section 7 Consultation – USFWS
  - EA/FONSI approved in 9 months
- **D1 EMO Districtwide Continuing Services Contract**



**Kim Warren**  
Project Manager

# KEY STAFF PRESENTING



**Kim Warren**  
Project Manager  
Availability: 70%

### Experience:

- 36+ years of experience
- NEPA compliance, PM, LAP



**Jonathan Jones, PE**  
Deputy Project Manager  
Availability: 65%

### Experience:

- 14 years of experience
- Eight years on Polk County projects (ex. W Pipkin Rd & Spirit Lake)



**Gordon Greene, PE**  
Principal-in-Charge & QA/QC Manager  
Availability: 50%

### Experience:

- 25 years of experience
- 20+ years on Polk County projects (ex. W Pipkin Rd)



**Kimley»Horn**

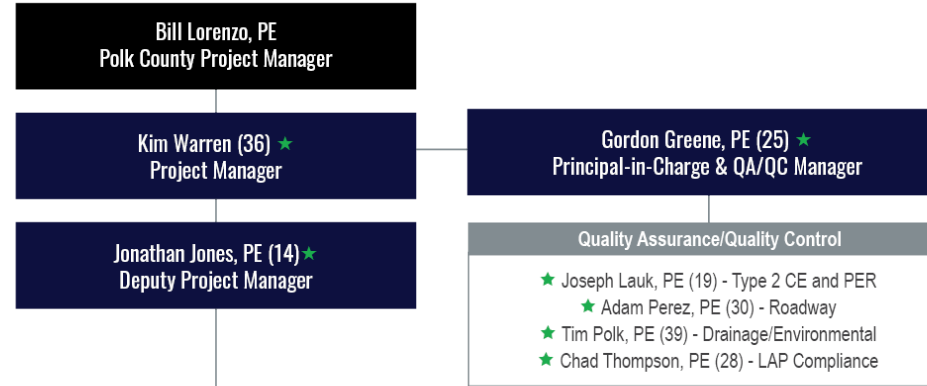
**Michael Garau, PE**  
Public Involvement  
Availability: 60%

### Experience:

- 24 years of experience
- Four years on Polk County projects (ex. Thompson Nursery Rd PD&E & Combee Rd)

# PROJECT ORG CHART

- 65% overall availability
- PGA's key staff have an average 24+ years of experience
- Technical expertise
- Depth of experience
- Depth of staff = availability to expedite the schedule
- Proven success
  - W Pipkin Rd Widening
  - Medulla Sidewalk



### PUBLIC INVOLVEMENT

*Public Meetings/Newsletters/Presentations*  
 Michael Garau, PE (24) - **KHA** ★  
 Cris Schooley, PE, AICP (17) - **KHA**  
 Marc Ispass, AICP (12) - **KHA**  
 Evan Magley, AICP (7) - **KHA**

*GIS and Graphics*  
 Mary Stallings Weber (29)  
 Ryan Wenger, AICP (9)  
 Ryan Tyrrell (15)

### ENVIRONMENTAL

*Type 2 Categorical Exclusion*  
 Kim Warren (36) ★  
 Alayna Delgado, AICP (7) ★

*Wetlands/Water Quality/Permitting/Wildlife/Contamination*  
 Terry Cartwright (28) ★  
 Susan Durrance (22) ★  
 Andrew Harris (7)  
 Sarah Johnson (24) - **KHA** ★

*ETDM/Sociocultural Effects*  
 Tori Bachelor (13) - **KHA** ★  
 Lucas Cruse, AICP (22) ★  
 Alayna Delgado, AICP (7)

*Noise*  
 Tad Hardy, PE (13) - **KHA** ★  
 Marc Ispass, AICP (12) - **KHA**

*Cultural/Historical Resources*  
 Matt Nowak (9) - **SEA** ★  
 Anna Supahanniam (7) - **SEA**

*GIS/Mapping Coordination*  
 Mary Stallings Weber (29)  
 Ryan Wenger, AICP (9)

### LEGEND

ELEMENT Engineering Group, LLC - **EEG**  
 Kimley-Horn & Associates, Inc. - **KHA**  
 Quality Counts, LLC - **QCL**  
 SEARCH, Inc. - **SEA**  
 \*Test Lab, Inc. - **TLI**

\* - Certified SBE  
 (XX) - Years of Experience  
 ★ - Key Staff Resume Included

### ENGINEERING

*PER/Alternatives Development/Design Plans/MOT*  
 Jonathan Jones, PE (14) ★  
 Amber Lewis (11)  
 Megan Miller, PE (7)

*Drainage/LHR/PSR/WQIE*  
 Manny Monreal, PE (18) ★  
 Sean Siwiecki, PE (11)  
 Chao Ye, EI, PhD (1)

*Structures*  
 Tommy Peake, PE (24) ★  
 Spencer Baker, PE (10)

*Safety/Access Management/Traffic Support*  
 Vischal Persaud, PE, PTOE, RSP1 (12) ★  
 Geraldo Sanchez, PE, PTOE (19)

*Traffic Analysis/PTAR*  
 Mike Woodward, PE (21) - **KHA** ★  
 Michael Haddad, PE (21) - **KHA**

*Context-Sensitive Design*  
 Lucas Cruse, AICP (22) ★  
 Katie Habgood, AICP (22)

*Traffic Counts*  
 Rodrikas Jones (18) - **QCL** ★  
 Alfredo Suarez (15) - **QCL**

*Utility Coordination*  
 Brent Postma (16) - **EEG** ★  
 Kyle McDowell (6) - **EEG**

*Geotechnical*  
 Igon Kratser, PE (22) **TLI** ★  
 Connie Johnson-Gearhart, PE (25) **TLI**

*Survey/SUE*  
 Bryan Flynn, PSM (9) - **EEG** ★  
 Ned Connolly, PSM (20) - **EEG**

*Landscape Architecture*  
 Emilyvette DeGaetano, PLA, ISA (21) ★  
 Abdias Dalisma, PLA, ISA (10)

# PROJECT COMMUNICATION & MANAGEMENT

## COMMUNICATION

- **Polk County PM Bill Lorenzo, PE**
  - **Proactive communication**
    - Minimum of bi-weekly coordination
    - Teams calls/meetings or phone calls
    - Project status/next steps
  - **Early identification of unforeseen risks/provide possible solutions**
  - Progress meetings with County staff
- **PGA Team**
  - **Weekly workload meetings (PGA)**
  - **Monthly progress meetings**
  - Use MS Teams, ProjectWise, SharePoint
  - **Deputy PM role for redundancy**

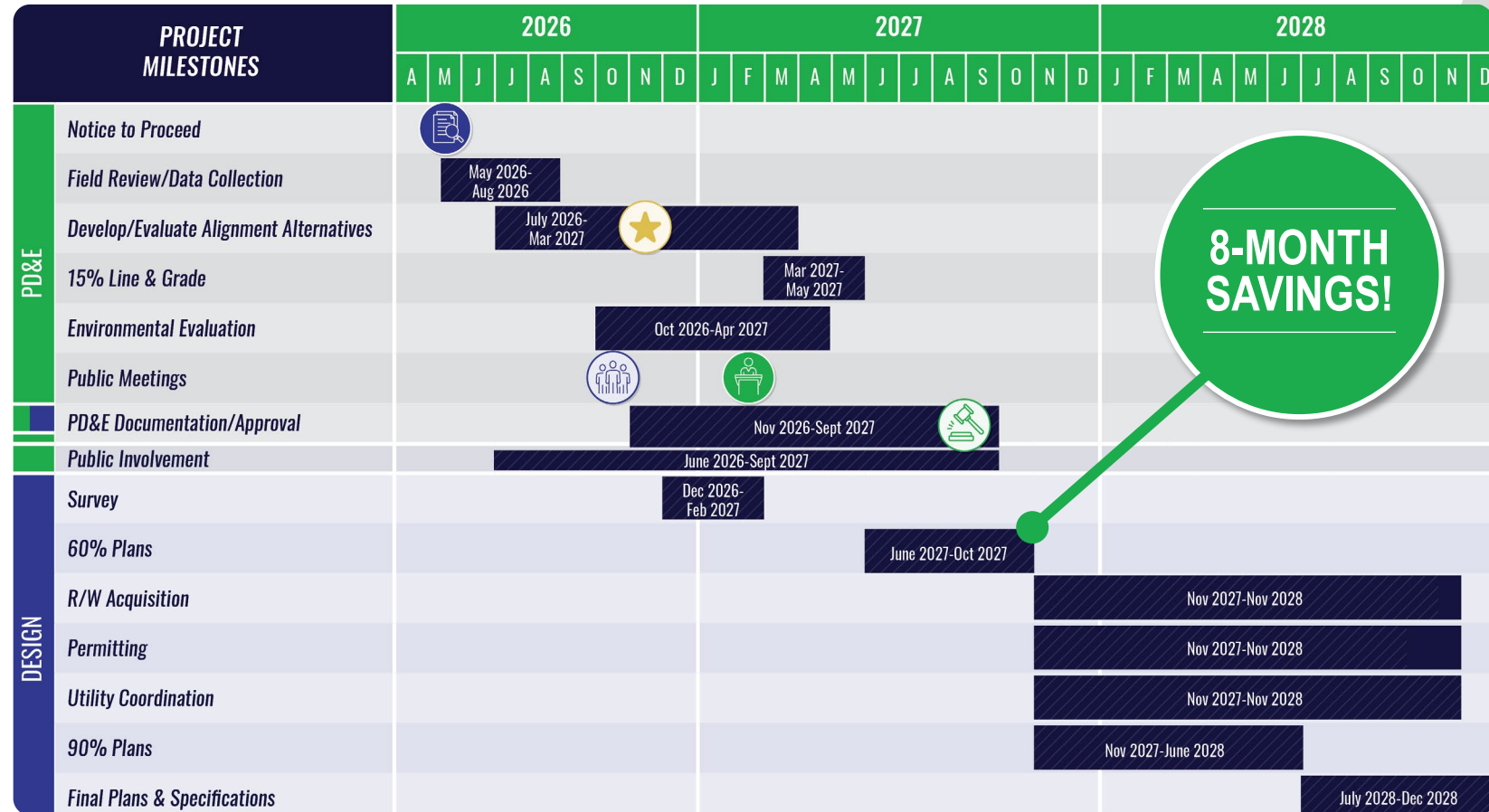


## MANAGEMENT

- **Schedule**
  - Monthly review/progress meeting status
  - **Monitor critical path tasks**
- **Budget**
  - Monitor
  - **Ensure utilization of appropriate level of qualified staff**
- **Quality Assurance/Quality Control**
  - Ensure QA/QC process is followed
  - **Five-step color-coded process undergone for all deliverables**
  - Utilize checklists (includes lessons learned), update QC log regularly
- **Risk Assessment**
  - Update monthly

# SCHEDULE

- **Task 1 – Alignment Study Milestones**
  - 16 months
  - Preferred Alternative November 2026
  - Public Hearing February 2027
  - Type 2 CE Approval September 2027
- **Accelerate Task 2 – Design**
  - Complete survey after Preferred Alternative identified
  - Begin 60% plans after 15% Line & Grade
    - 3 months prior to Task 1 approval
  - **Saves 8 months!**
- **Total Tasks 1 & 2 = 32 months**



**8-MONTH SAVINGS!**

**KEY**

- Study Begins (May 5, 2026)
- Public Meeting (Oct 2026)
- Preferred Alternative (Nov 2026)
- Public Hearing (Feb 2027)
- Approval (Sept 2027)

# Understanding of the Project

## Goals:

- ✓ Increase capacity for expected development
- ✓ Increase safety by reducing congestion, managing access, and incorporating optimal intersection control
- ✓ Extend Kathleen Rd to create a new connection further north on US 98 to give trucks a viable alternative route to US 98
- ✓ Comply with LAP funding, schedule, and NEPA requirements

## Risks:

- ⚠ Right-of-way impacts
- ⚠ Environmental impacts
- ⚠ Stakeholder engagement (i.e. FDOT, Cypress Lakes Village residents)

- **Optimal Preferred Alignment Alternative**
  - Meets goals
  - Minimizes risks
  - Accordance with County, FDOT FDM, and FDOT PD&E Manual
- **Compliance with LAP Agreement**
- **National Environmental Policy Act (NEPA)**
  - Compliance required for federal funding
  - PD&E Manual technical analysis and documentation
    - Project Traffic Analysis Report (PTAR), Location Hydraulics Report (LHR), Pond Siting Report (PSR), Water Quality Impact Evaluation (WQIE), Conceptual Stage Relocation Plan (CSRP)
    - Social, Farmland, Contamination Screening Evaluation Report (CSER), Noise Study Report (NSR)
      - ✓ *Minimal impacts anticipated*
    - Cultural Resource Assessment Report (CRAS), Natural Resource Evaluation (NRE)
      - ✓ *Require agency approval/concurrence*
    - Public Involvement
    - Type 2 Categorical Exclusion, Preliminary Engineering Report (PER), Planning Consistency and PCR
      - ✓ *Require FDOT D1 review, OEM review and approval*

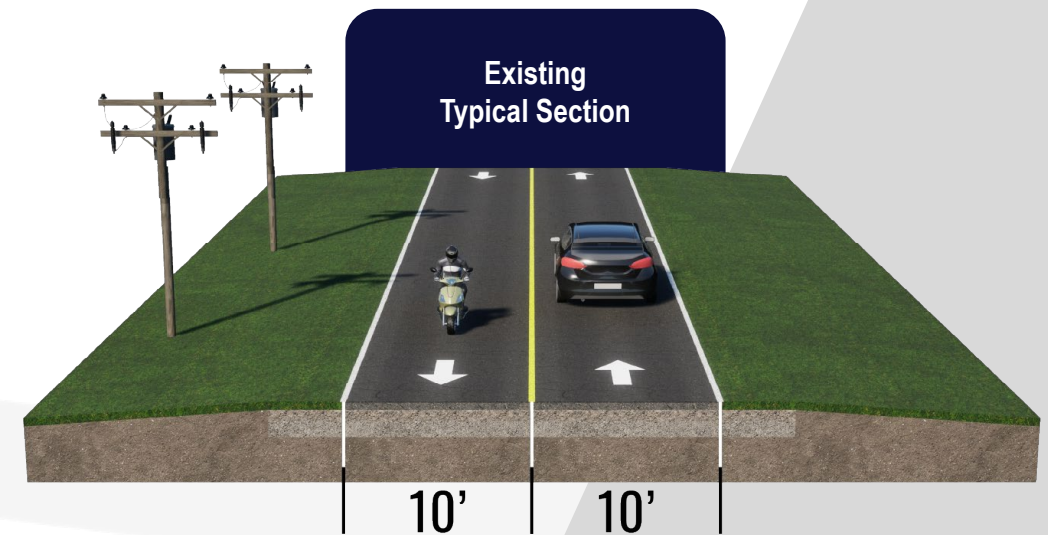
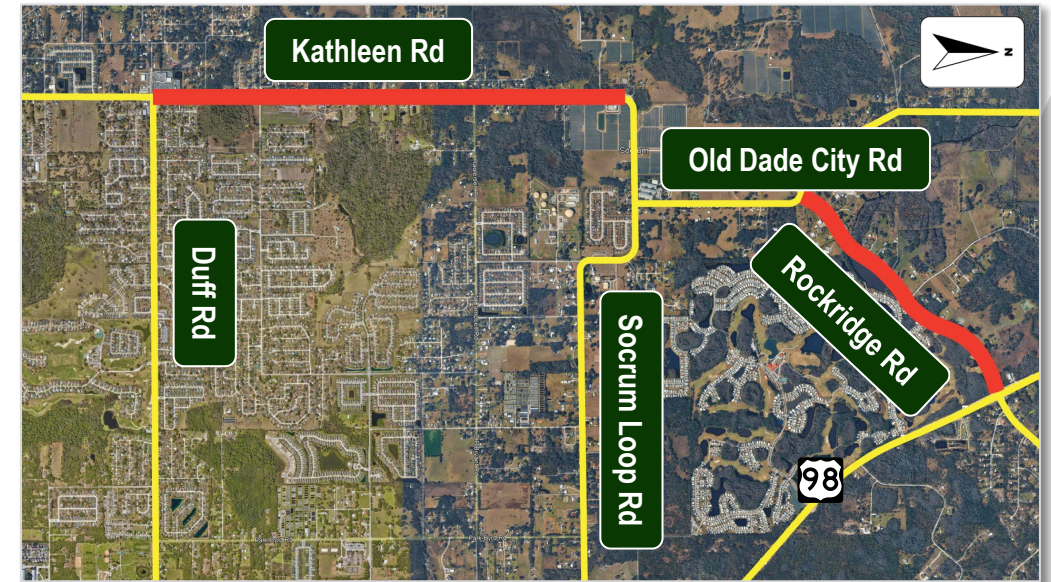
# EXISTING CONDITIONS

## • Kathleen Rd

- From Duff Rd to Socrum Loop Rd (2.25 miles)
  - Urban collector roadway
  - Posted and design speed: 45 mph
  - Two 10-ft travel lanes
  - R/W Width: varies (30-80 ft)
  - Exist. utility poles on west side of roadway

## • Rockridge Rd

- Old Dade City Rd to US 98 (1.35 miles)
  - Rural minor collector
  - Posted and design speed : 40 mph (w/ reduced advisory speeds at horizontal curves)
  - Two 10-ft travel lanes
  - R/W Width: varies (30-50 ft)
  - Exist. utility poles along south side of roadway



# TRAFFIC ANALYSIS

- **Traffic Projections Utilizing D1 Regional Traffic Model**
  - Proposed four-laning of Kathleen Rd is warranted by the anticipated design year
    - 2025 AADT = 11,008 (generated AADT with new connection)
    - 2050 AADT = 18,710 (warrants four-lane)
    - Growth Rate = 2.8%
- **Intersection Control Evaluation (ICE) Process**
  - Identified six intersection locations throughout project limits:
    - Duff Rd, Campbell Rd, Raulerson Rd, Socrum Loop Rd, Old Dade City Rd, US 98
  - Anticipated results warrant either signalized intersections or roundabouts
  - Results to be further discussed with the County and FDOT (US 98)
- **Successful Teaming Experience with County and D1 on ICE Analysis**
  - Early coordination with FDOT is key (US 98)
  - Our examples: Thompson Nursery Rd, Combee Rd, CPP
- **Commitment to Quality Traffic Deliverables**
  - Synchro software for intersection configuration and optimization
  - Preparation of Project Traffic Analysis Report (PTAR)



**Mike Woodward, PE**  
Traffic Analysis



*Kimley-Horn recently completed the traffic analysis for Thompson Nursery Rd for Polk County*

# SAFETY

Location Name	Segment/ Intersection	Length/ Control Type	Total Crashes	Angle	Animal	Head On	Left Turn	Off Road	Other	Rear End	Right Turn	Rollover	Sideswipe	Unknown	Fatal	Serious Injury	Pedestrian	Bicycle
at Duff Rd	Intersection	Signal	29	5	0	0	11	1	1	8	0	0	2	1	0	0	0	0
at Willow Wisp Dr W/Publix-Northern Driveway	Intersection	Side St Stop	8	2	0	0	3	0	1	0	1	0	1	0	0	0	0	0
Willow Wisp Dr W to Mather Rd	Segment	650-ft	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
at Mather Rd	Intersection	Side St Stop	5	0	0	1	0	0	1	1	1	0	1	0	0	1	0	0
Mather Rd to Laurel Branch Dr	Segment	850-ft	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
at Laurel Branch Dr	Intersection	Side St Stop	2	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
at W Campbell Rd	Intersection	Side St Stop	4	0	0	0	2	0	1	1	0	0	0	0	0	1	0	0
W Campbell Rd to Palow Rd	Segment	3954-ft	7	0	1	0	0	0	3	1	0	1	1	0	0	0	0	0
at Palow Rd	Intersection	Side St Stop	5	0	1	0	0	2	0	1	0	0	0	0	0	0	1	0
at Ward Rd	Intersection	Side St Stop	3	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
Ward Rd to Raulerson Rd	Segment	924-ft	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
at Raulerson Rd	Intersection	Side St Stop	6	0	0	1	0	1	3	1	0	0	0	0	0	0	0	0
at Rob Way	Intersection	Side St Stop	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Rob Way to Tom Bryan Ln	Segment	1621-ft	2	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
at Tom Bryan Ln	Intersection	Side St Stop	2	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
at SB Merrion Rd	Intersection	Side St Stop	7	0	0	0	2	0	1	1	0	0	3	0	0	0	0	0
along Sharp Curve at Socrum	Segment	400-ft	3	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0
at Hancock Rd/Old Dade City Rd	Intersection	Side St Stop	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
Rockridge Rd from Old Dade City Rd to Sherrouse Rd	Segment	3885-ft	3	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0
at Rockridge Rd/Sherrouse Rd	Intersection	Side St Stop	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Rockridge Rd from Sherrouse Rd to US 98	Segment	3290-ft	7	0	0	0	0	0	4	0	0	1	1	1	1	0	0	0
at Rockridge Rd/US 98	Intersection	Signal	4	0	0	0	2	0	1	0	0	0	0	1	0	0	0	0
<b>Total</b>			<b>106</b>	<b>7</b>	<b>3</b>	<b>3</b>	<b>20</b>	<b>6</b>	<b>30</b>	<b>14</b>	<b>3</b>	<b>2</b>	<b>13</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>

## 5-Year Crash Data Review:

- 106 total crashes (Oct 2020-Sept 2025)

- 79 intersection crashes (29 at Duff Rd Intersection)
- 27 midblock/segment crashes

- One fatal crash

- Motorcyclist failed to navigate curve on Rockridge Rd

- Two incapacitating injuries

- Left turn from Campbell Rd
- Head-on collision near Mather Rd (vehicle crossed centerline)

- 30 "Other" type collisions

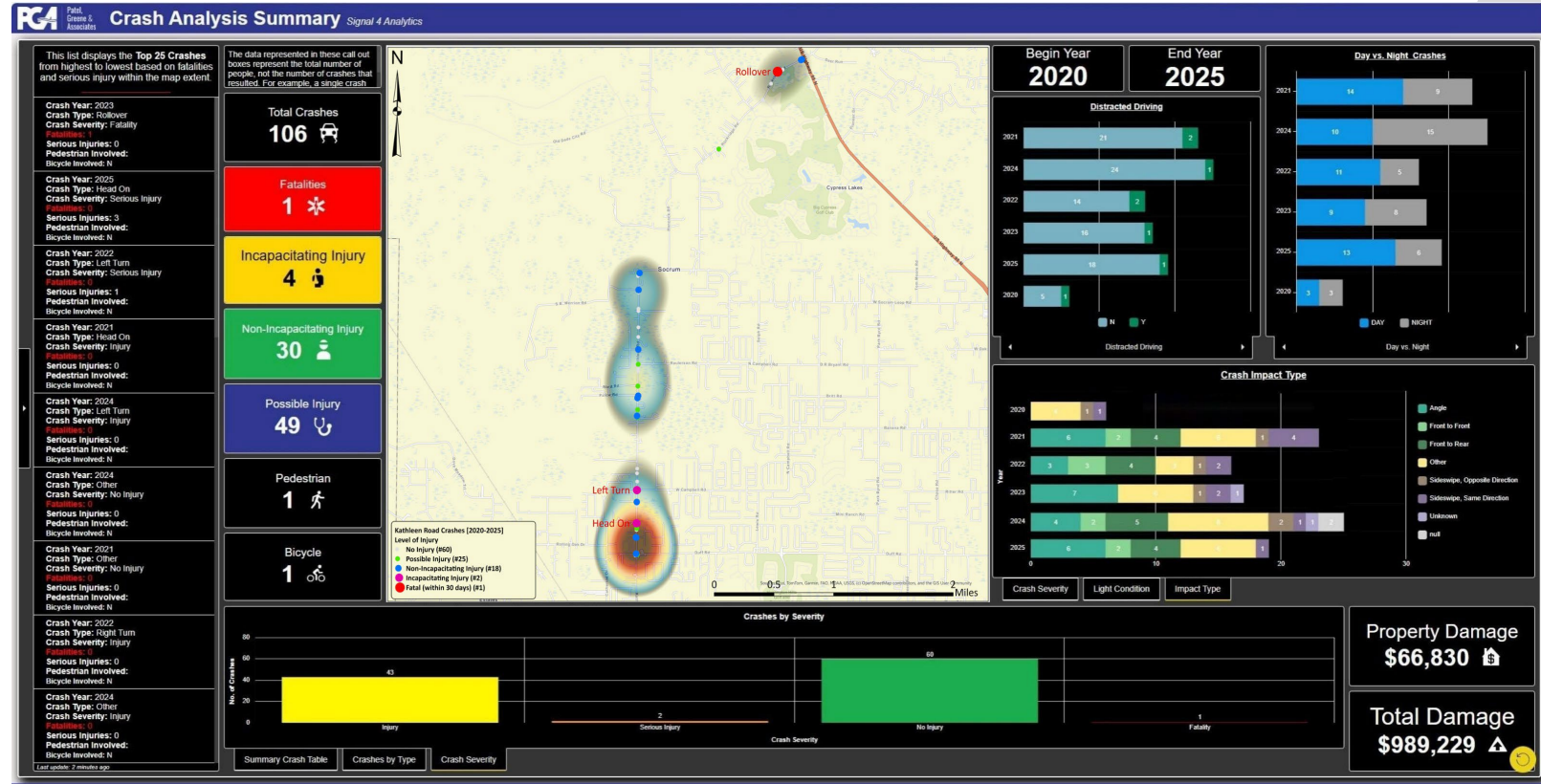
- 20 single-car events
- Road departure
- Fixed objects



# SAFETY

## Severe collision countermeasures:

- Fatal collision**
  - Inadequate curves along Rockridge Rd will be corrected to meet current design criteria for design speed
- Incapacitating injuries**
  - Signal warrants will be performed at selected intersections (Side street pullout)
  - Sight distance checks (Side street pullout)
  - Proposed median to provide separation for opposing vehicles (Head-on collision)
- Single-car collisions**
  - Bike lanes to provide additional horizontal buffer
  - Curb and gutter improves visible edge guidance
- Signalized intersections**
  - Highest number of collisions are left turn movement
    - Consideration for protected left turning movement



# DESIGN CRITERIA

- 2026 FDOT Design Manual (FDM)
  - LAP Agreement requirement
    - Context Classification: C3 Suburban
    - Access Classification: 5
  - Design Speed: 45 mph
  - Design Vehicle: WB-62FL (anticipated high truck %)
  - Min. Travel Lane width: 11-ft
  - Standard Bike Lane Width: 7-ft buffered



ROADWAY DESIGN CRITERIA MATRIX - KATHLEEN ROAD			
Design Element	FDM Standard Criteria	FDM Criteria Source	Comments
<b>Design Controls</b>			
Context Classification	C3 Suburban	Table 200.4.1	
Posted / Design Speed (mph)	35-55	Table 201.5.1	45 mph selected
Design Vehicle	WB-62FL	Section 201.6	
<b>Typical Section</b>			
Min. Travel Lane Widths (ft)	11	Table 210.2.1	
Min. Auxiliary Lane Width (ft)	11	Table 210.2.1	
Bike Lane Width (ft)	7 buffered	Section 223.2.1.1	Design Variation needed
Median Width (ft)	22	Table 210.3.1	
Min. Border Width (ft)	14	Table 210.7.1	
Roadside Slopes	Front slope: 1:2 (max.) Back slope: 1:2 (max.) Transverse slope: 1:4 or flatter	Table 215.2.3	
Cross Slope (%)	2	Figure 210.2.1	
Clear Zone (ft)	24	Table 215.2.1	
Lateral Offset (ft)	See Table	Table 215.2.2	
<b>Horizontal Geometry</b>			
Min. Horizontal Curve Length (ft)	675 (desired) 400 (min.)	Table 210.8.1	
Max. Deflection Without a Horizontal Curve	1° 00'00"	Section 210.8.1	
Superelevation Rates	emax = 0.05	Section 210.9	
Min. Radius for Horizontal Curve (ft)	694	Table 210.9.2	
Superelevation Transition Slope Rates	1:150	Table 210.9.3	
Min. Stopping Sight Distance (ft)	360	Table 210.11.1	
<b>Vertical Geometry</b>			
Min. Vertical Grade (%)	0.3	Section 210.10.1.1	
Max. Vertical Grade (%)	6.0	Table 210.10.1	
Min. Vertical Curve Length (ft)	135	Table 210.10.4	
Max. Change In Grade Without Vertical Curve (%)	0.70	Table 210.10.2	
Min. K values for Crest Curves	98	Table 210.10.3	
Min. K values for Sag Curves	79	Table 210.10.3	
Base Clearance (ft)	3 (min.)	Section 210.10.3	
VPI spacing (ft)	250 (min.)	Section 210.10.1.1	

# TYPICAL SECTION ALTERNATIVES

## • Intended Typical Section

- Existing typical to the south (project intended typical)
  - 120-ft max. R/W width
  - Four 12-ft travel lanes
  - 22-ft median (type E curb & gutter)
  - 4-ft bike lanes
  - 6-ft back of curb (type F curb & gutter) sidewalks

## • Pros & Cons:

- ✓ Consistent with existing typical to the south
- ✗ Minimal bike lane width
  - Does not meet Minimum FDM Standards (7-ft buffered)
  - Requires bike lane width variation
- ✗ Minimal sidewalk offset from the travel lanes



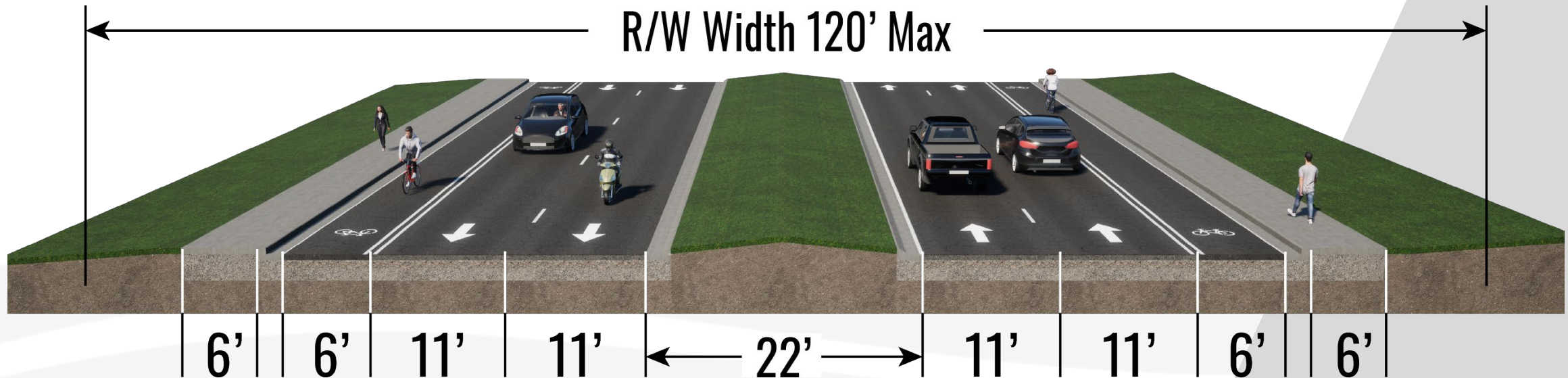
# TYPICAL SECTION ALTERNATIVES

## • Optimized Typical Section

- Reduced travel lanes, wider bike lane
  - 120-ft max. R/W width
  - **Four 11-ft travel lanes** (meets FDOT min. Standards)
  - 22-ft median (type E curb & gutter)
  - **6-ft buffered bike lanes**
  - 6-ft back of curb (type F curb & gutter) sidewalks

## • Pros & Cons:

- ✓ **Reduced lane width (speed reduction countermeasure)**
- ✓ **Wider bike lane**
  - Closer to FDM criteria (7-ft buffered)
- ✗ **Still requires bike lane width variation**
- ✓ **Additional pedestrian offset from travel lane**
- ✓ **Segment to the south can be restriped to match during next milling cycle**
- ✓ **Same typical section as West Pipkin Rd**

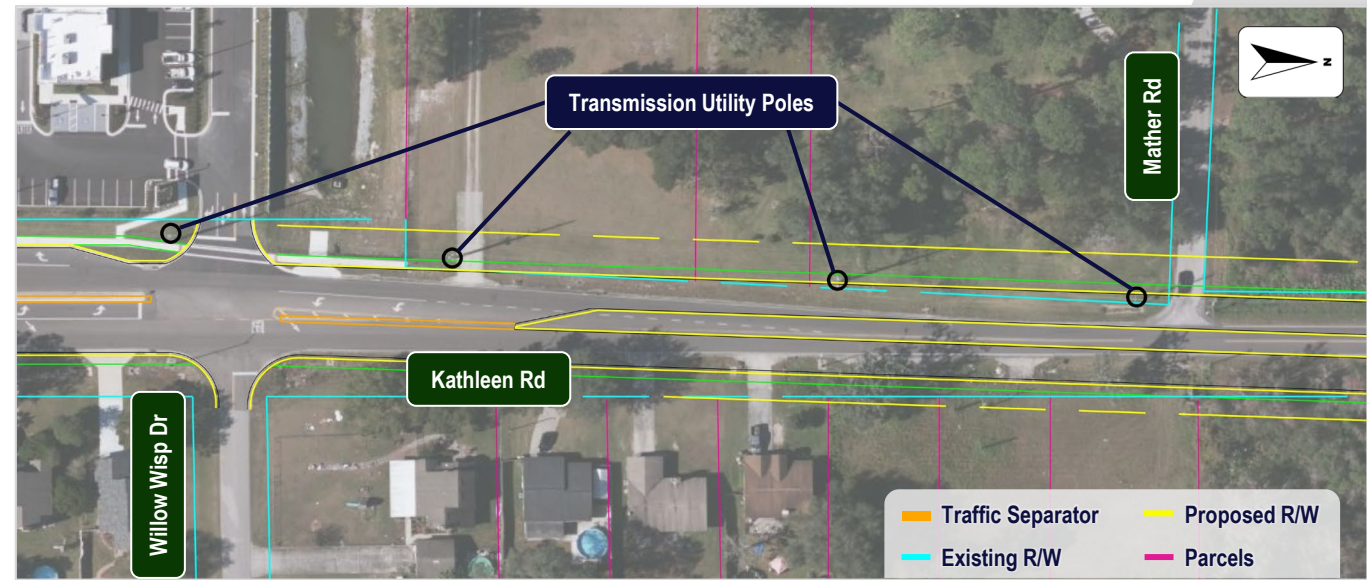


# ALIGNMENT ALTERNATIVES

## • Widening Section

- From Duff Rd to W Socrum Loop Rd
- Analyzed left (west), right (east), and hybrid widening alternatives
- Initial Analysis Focus:
  - Parcel impacts and relocations
  - Minimize environmental impacts (wetlands and floodplains)
  - Minimize utility impacts
- Majority of utilities located along the left (west) side
  - Overhead electric and communications on left (west)
  - Sanitary sewer and reclaimed water on left (west)
  - Water (varies)
  - Gas on right (east side)
- Left (west) widening – Higher relocations, reduced environmental impacts
- Right (east) widening – Higher environmental impacts, fewer relocations
- Hybrid Alternative– Significantly reduced anticipated relocations, balanced environmental impacts

Alternative Impacts - Widening Section					
Alternative	Length (MI)	Parcel Impacts (#)	Anticipated Relocations (#)	Wetland Impacts (AC)	Floodplain Impacts (AC)
Left	2.25	50	22	0.8	3.9
Right		31	9	1.2	6.6
Hybrid		55	2	1.0	4.6

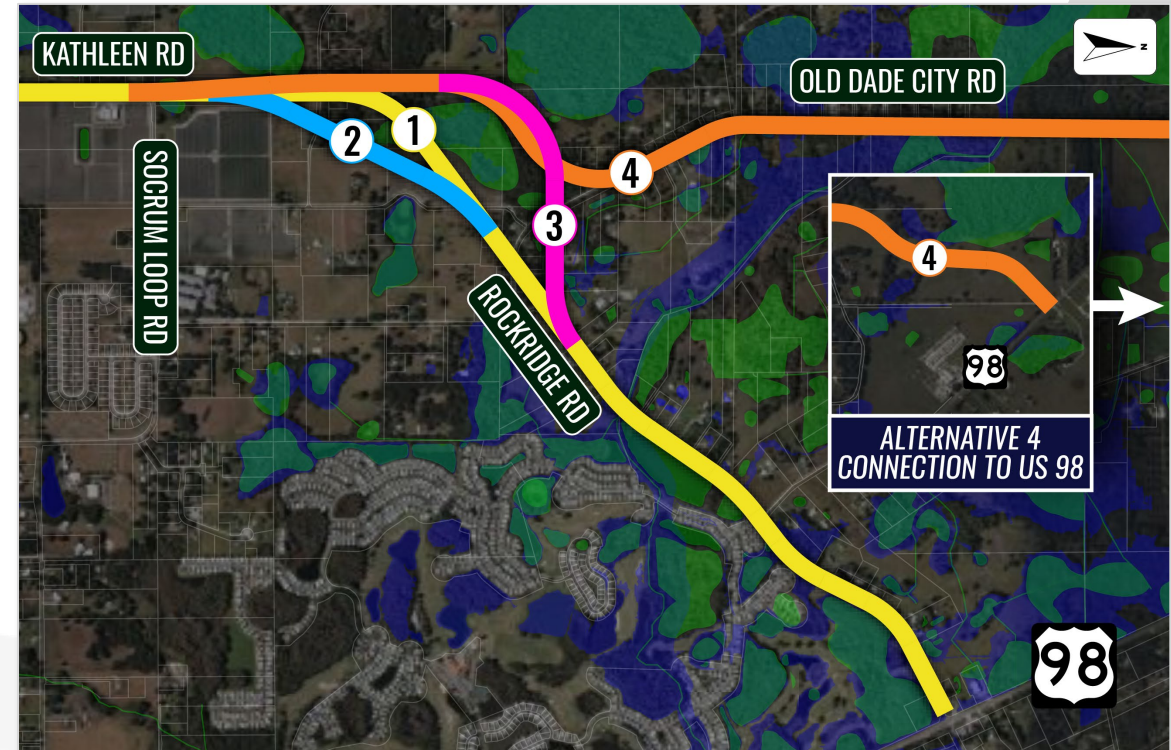


# ALIGNMENT ALTERNATIVES

## • Extension Section

- W Socrum Loop Rd to US 98
- Four proposed alignment options
  - Alignments 1-3 utilizing Rockridge Rd footprint
    - Alignment 1: concept provided by the County
    - Alignment 2: minimize environmental impacts (more relocations)
    - Alignment 3: minimize relocations
  - ✗ More parcel impacts and relocations
  - ✓ Less environmental impacts
- Alignment 4 utilizing Old Dade City Rd footprint
  - US 98 Tie-in at Keen Rd
  - Recommended for evaluation through the PD&E process
  - ✓ Significant reduction in parcel impacts and potential relocations
  - ✗ Longer distance to US 98
  - ✗ More environmental impacts

Alternative Impacts - Extension					
Alternative	Length (MI)	Parcel Impacts (#)	Anticipated Relocations (#)	Wetland Impacts (AC)	Floodplain Impacts (AC)
1	2.4	57	12	2.0	4.1
2	2.3	59	13	0.8	3.6
3	2.6	52	5	1.00	3.8
4	3.5	33	3	3.1	6.9



# ALIGNMENT ALTERNATIVES

- Extension Section**

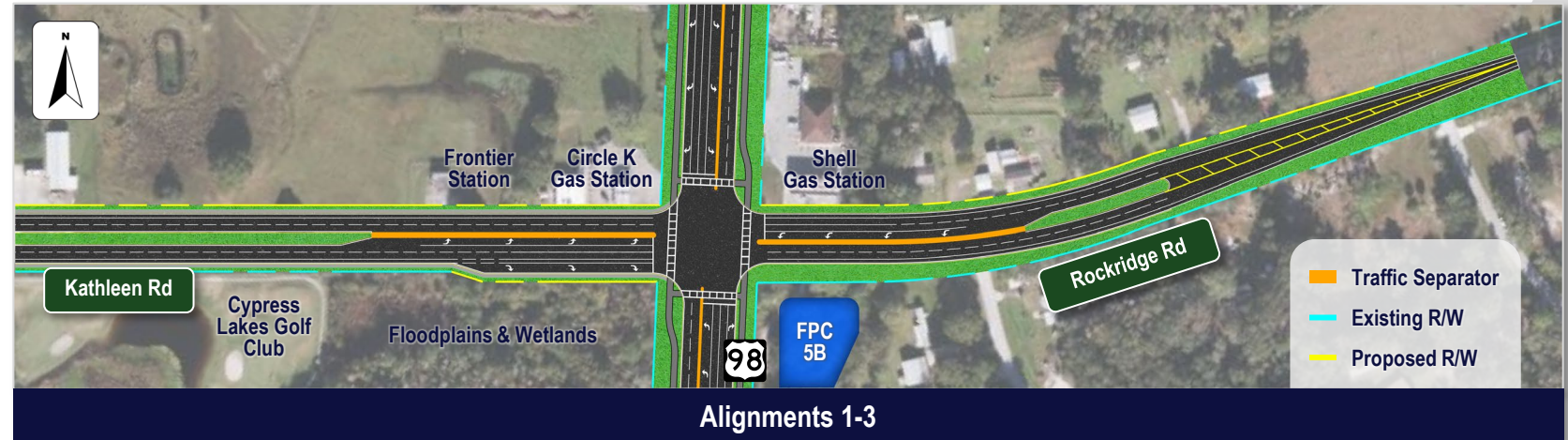
- US 98 Connections
- Aware of the US 98 widening project

- Rockridge Rd (Alignments 1-3):**

- Impacts expected to either Circle K Gas Station and Frontier Substation or Cypress Lakes Golf Club
- Impacts to either Shell Gas Station or FDOT floodplain compensation site
- Impacting recently relocated utility poles at US 98 intersection
- Anticipated impacts to parcels along the north or south to be evaluated further

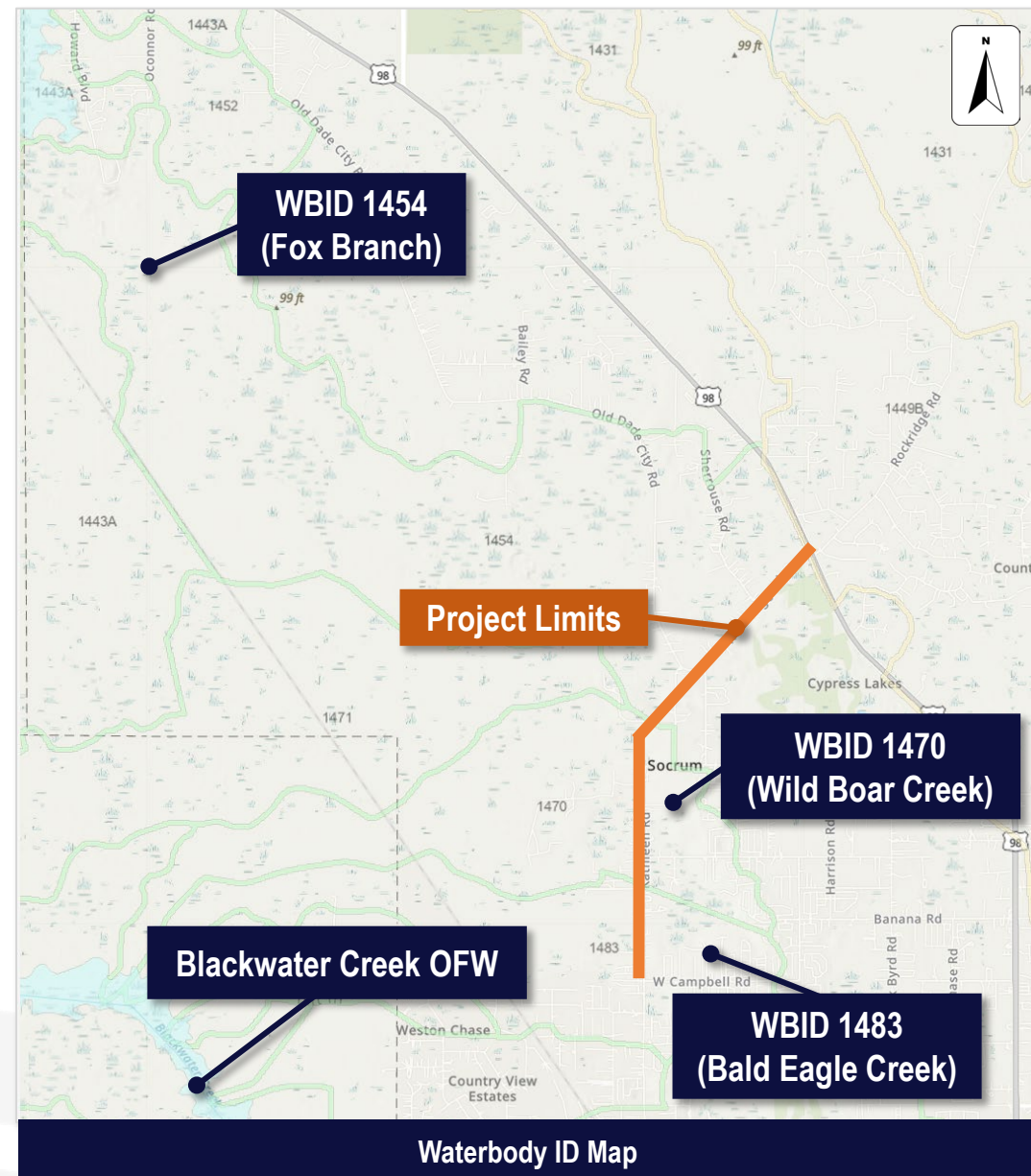
- Connection at Keen Rd (Alignment 4)**

- No business impacts
- Existing drainage impacts along US 98



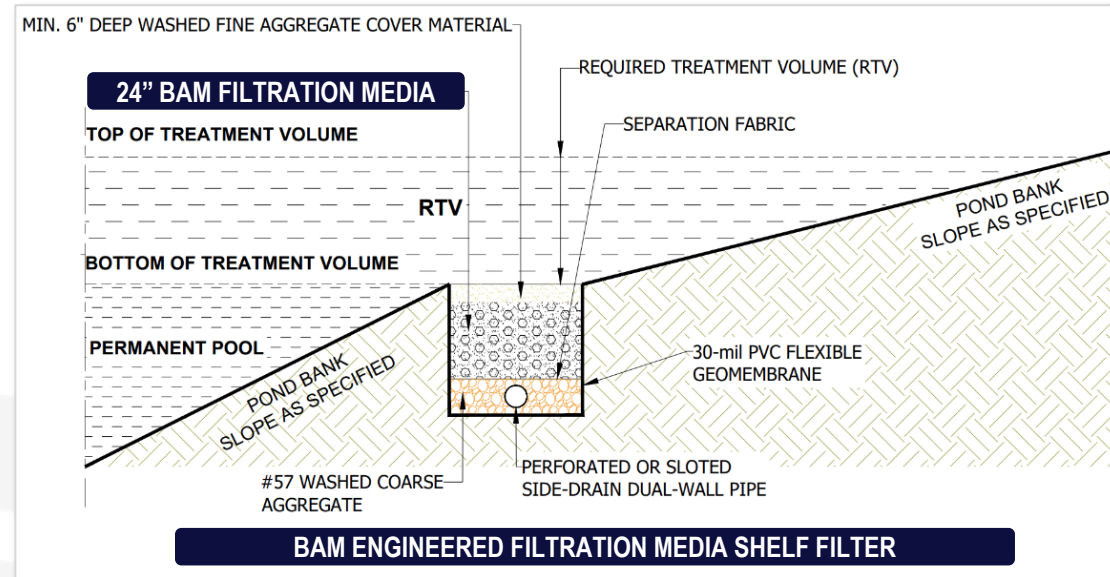
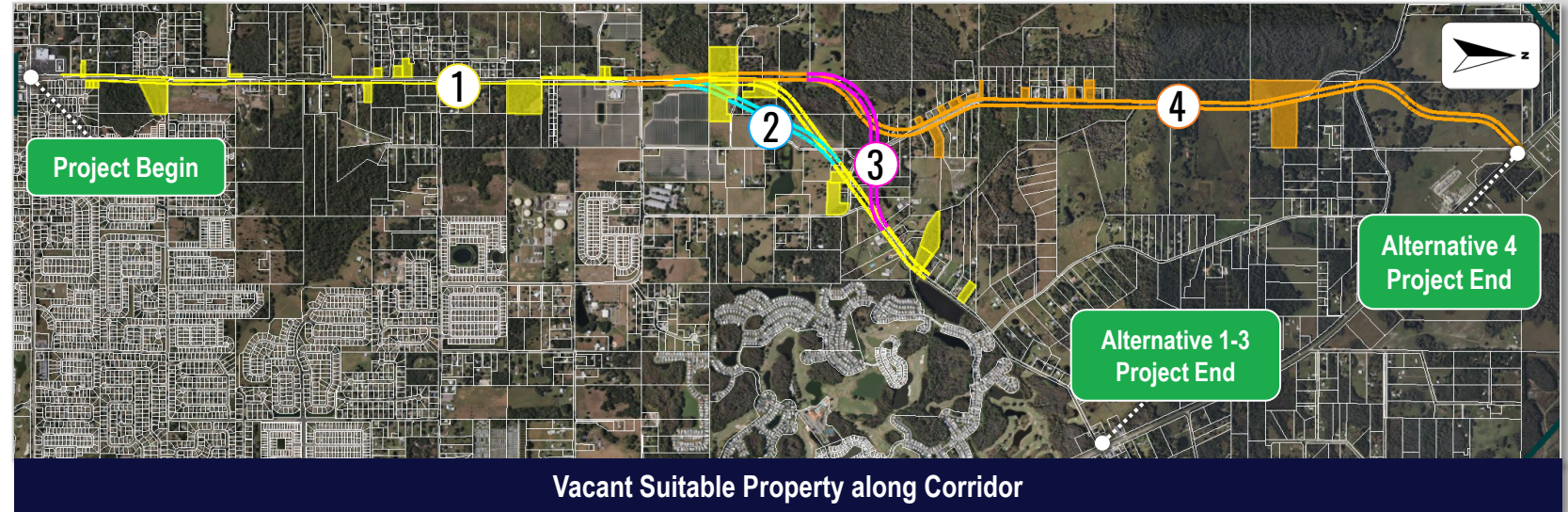
# DRAINAGE

- **Waterbodies (WBIDs)**
  - 1454 (Fox Branch)
    - Impaired for bacteria
  - 1483 (Bald Eagle Creek)
    - Impaired for nutrients
  - 1470 (Wild Boar Creek)
- **Outstanding Florida Water (OFW)**
  - Hillsborough River within Blackwater Creek
- **New Stormwater Rule**
  - Efficiency standards effective June 28, 2026
    - Project will not qualify for the Grandfathering Provisions
    - New Efficiency Standards
  - Significant increases to required treatment
    - 95% reduction of TN and TP in impaired basins upstream of an OFW



# DRAINAGE

- **New Off-site Ponds Needed**
  - 20+ vacant parcels along corridor
- **Pond Siting Report**
  - Innovative solutions key to addressing new stormwater rule
  - Early coordination with SWFWMD
- **Innovative Concepts**
  - **Treatment Train**
    - Permanent wet detention pool
    - Bio-sorption Activated Media (BAM) filter
  - “Pump to dry” concept
  - **Regional Alternatives (Joint-Use Ponds)**
    - Fox Branch Offsite Improvements along Kathleen Rd
  - **Stormwater Nutrient Credits**



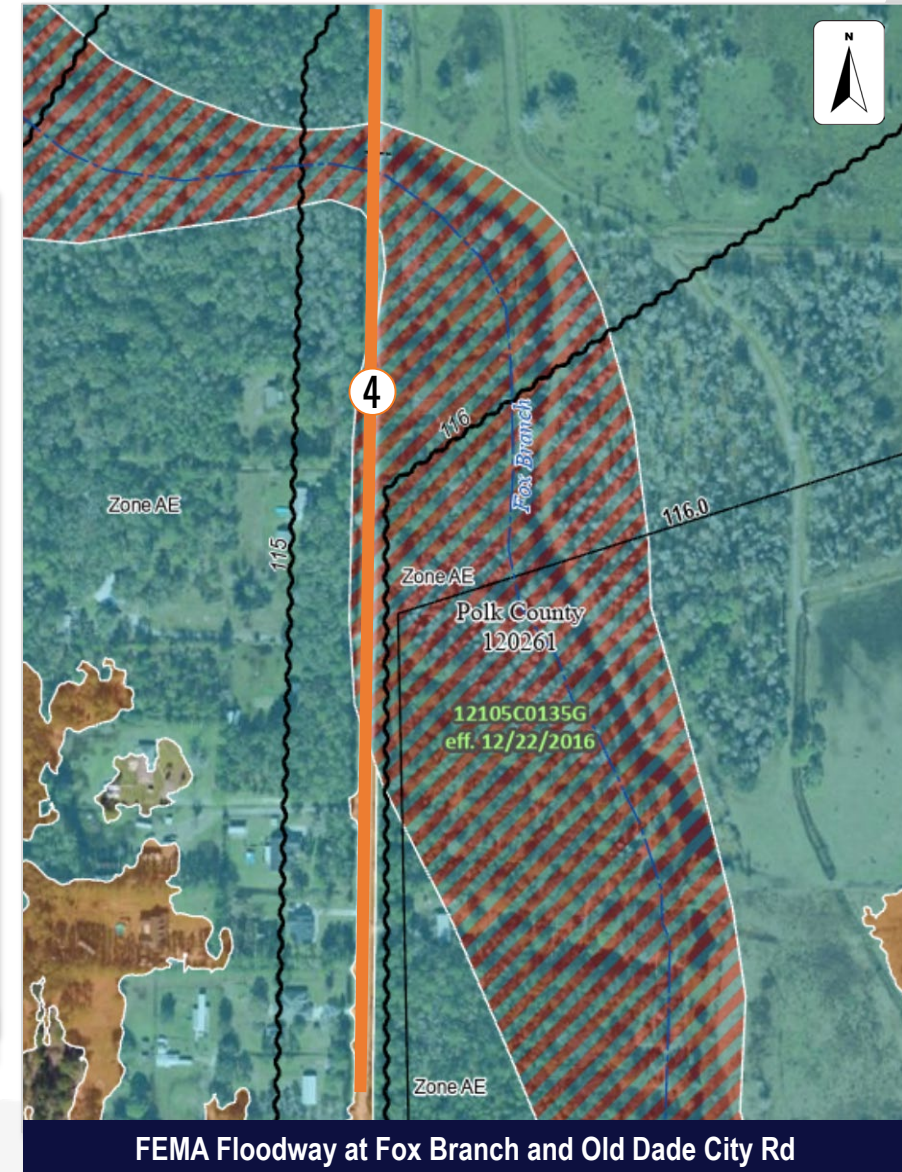
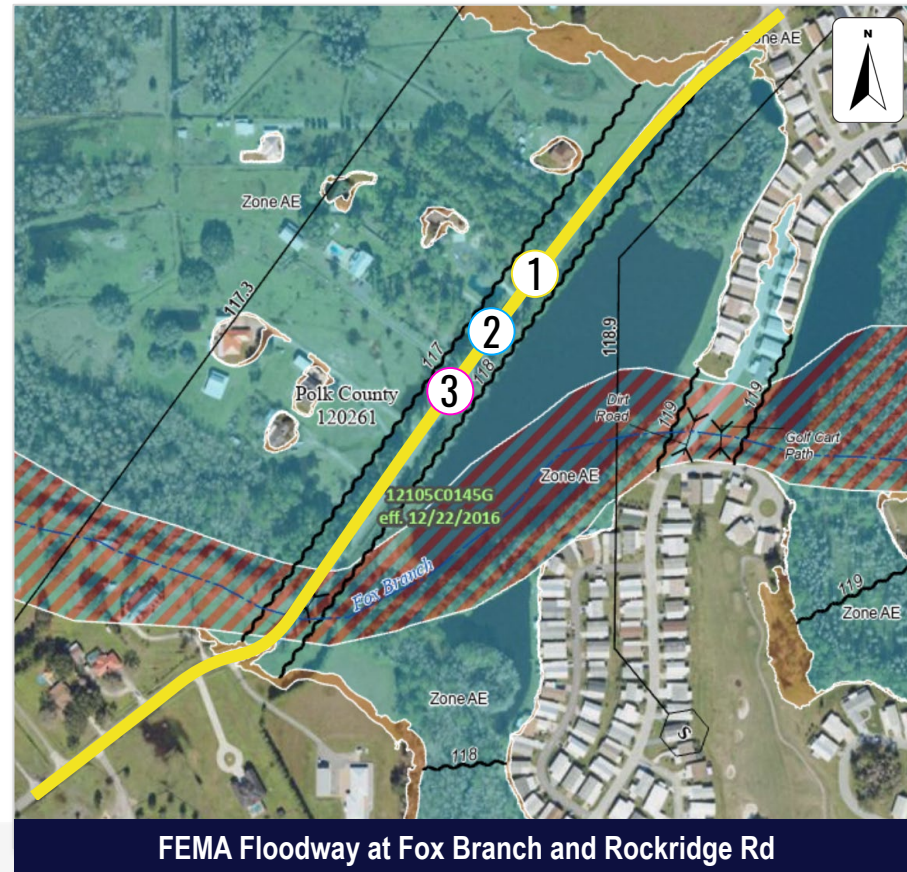
# DRAINAGE

## FEMA Floodway

- Six+ locations of Zone A potential impacts
- Floodway and Zone AE, Elevation 117.0 -118.0 (NAVD) at Rockridge Rd
- Floodway and Zone AE, Elevation 115.0-116.0 (NAVD) at Old Dade City Rd

## Location Hydraulics Report

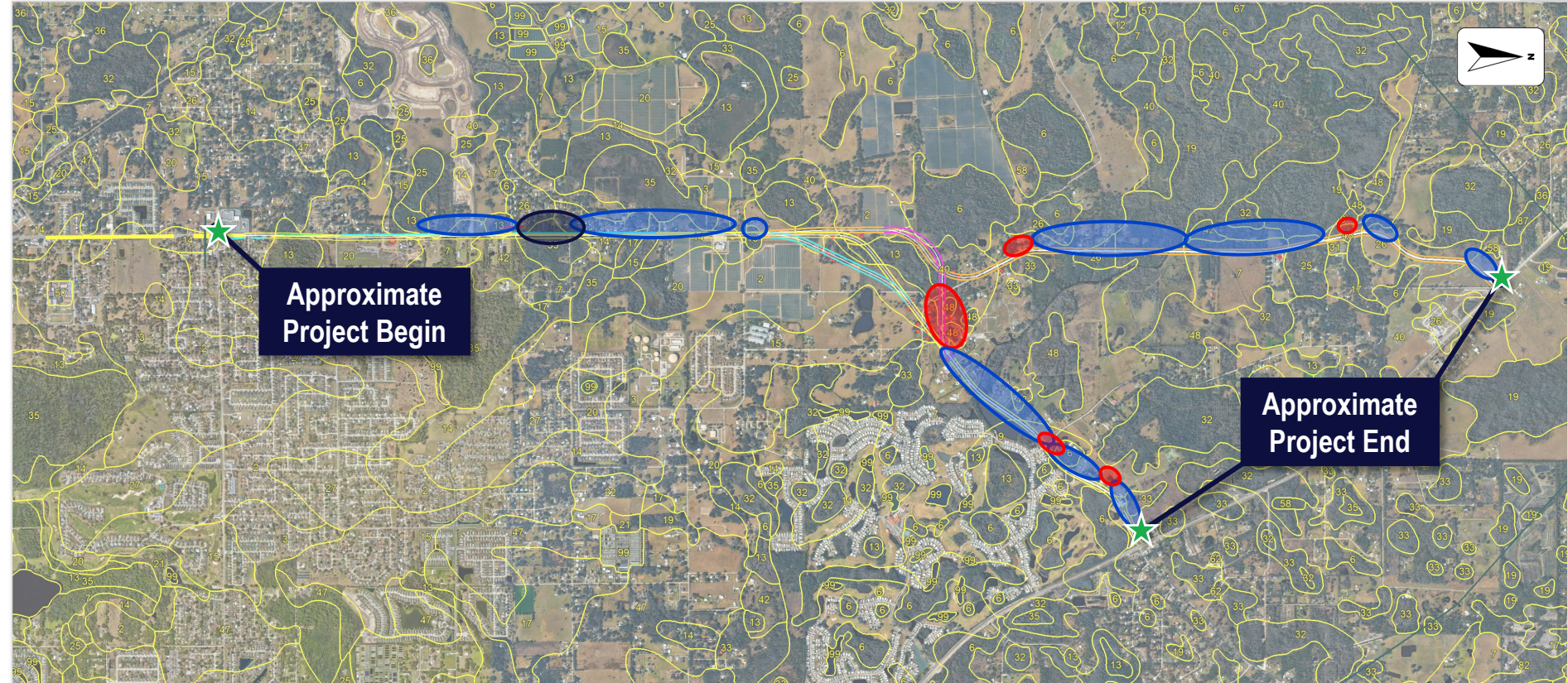
- Six+ Flood Zone A impact locations
- Nine cross drains and one bridge culvert
- FEMA Floodway Coordination
  - Transverse crossing at Fox Branch
  - Alignment 4 has potential longitudinal impacts



# GEOTECHNICAL CONSIDERATIONS

## Typical Soil Profile and Seasonal High Groundwater Table (SHGWT) Information

- Shallow soils within the project corridor include sandy A-3/A-2-4 materials, silty sand, clayey sand, silt, clay A-2-4/A-2-6/A-4/A-6/A-7-6 materials and organic A-8 materials
- SHGWT is reported to be at grade to more than 6 feet of predevelopment ground surface



**Areas of Shallow SHGWT**

- 7 Pomona Fine Sand, 0-2% Slopes
- 9 Lynne Sand
- 14 Sparr Fine Sand, 0-5% Slopes
- 17 Smyrna & Myakka Fine Sands
- 19 Floridana Mucky Fine Sand, Frequently Pounded, 0-1 % Slopes
- 25 Placid & Myakka Fine Sands, Depressional
- 26 Lochloosa Fine Sand
- 31 Adamsville Fine Sand, 0-2% Slopes
- 42 Felda Fine Sand

**Areas of Reported Shallow Loamy Soils with Shallow SHGWT**

- 6 Eaton Mucky Fine Sand, Depressional
- 33 Holopaw Fine Sand, Frequently Pounded, 0-1 % Slopes
- 48 Chobee Fine Sandy Loam, Frequently Pounded, 0-1 % Slopes

**Areas of Reported Organic Soils/Muck with Shallow SHGWT**

- 35 Hontoon Muck, Frequently Pounded

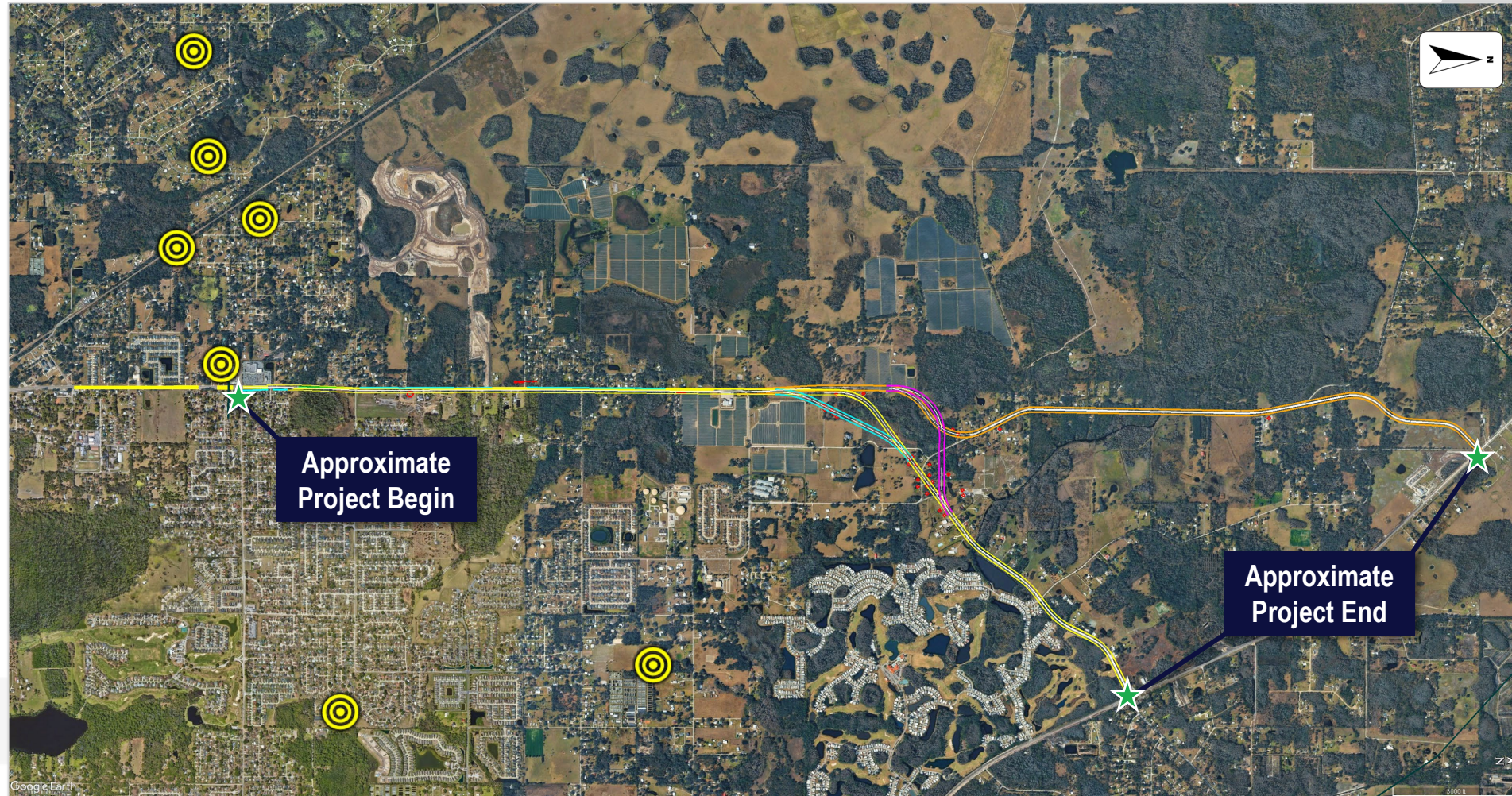
# GEOTECHNICAL CONSIDERATIONS

## Reported Sinkhole Occurrences in Close Proximity to Project Limits

- One previously reported sinkhole is located near the project limits approximately 660 ft southwest of the project alignment start; reported width was 10 feet or less
- Reported sinkhole locations also include (4) occurrences approximately 0.7 to 1.5 miles to the west of the project alignment start and (2) occurrences approximately 1.2 to 1.4 miles to the east of the project alignment

### Legend

 Reported Sinkhole



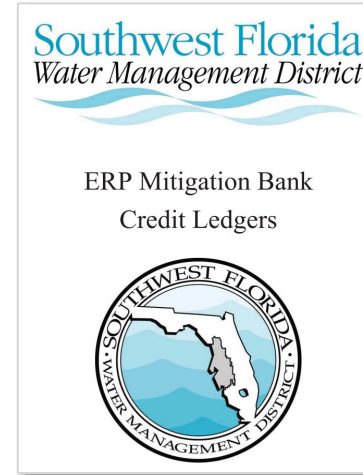
# UTILITIES

- **Nine Utility Agency Owners (UAOs)**  
– Relationship with All UAOs
- **Verify UAOs, Collect As-Builts, Atlas Pages, and GIS Prints**
- **Confirm if Easements or Subordinations are present – Lakeland Electric**
- **Coordination with New Subdivisions**
- **Large Relocation Costs**
  - Lakeland Electric (Distribution and Transmission Lines)
  - Polk County Utilities (Reclaimed, Sanitary and Watermain)
  - Frontier Communications (Fiber and Copper lines)
- **Concerns/Considerations:**
  - **Polk County – Reclaimed, Sanitary, Water**
    - Western R/W – Reclaimed and Sanitary lines
    - Western and Eastern R/W sporadic throughout limits – Water main
  - **Lakeland Electric – Distribution and Transmission**
    - Western R/W – potential easements, OSHA clearances, Clear zone concerns
  - **TECO Peoples Gas -**
    - Eastern R/W – potential complete replacement, located approx. 10 ft from existing NB travel lane
  - **AT&T Transmission - Fiber**
    - US 98 intersection
  - **Frontier Communications**
  - **Western R/W**
    - Underground and overhead on Lakeland Electric pole line
  - **Spectrum -**
    - Western R/W – with overhead on Lakeland Electric pole line and power supply on west side of roadway with multiple underground crossings

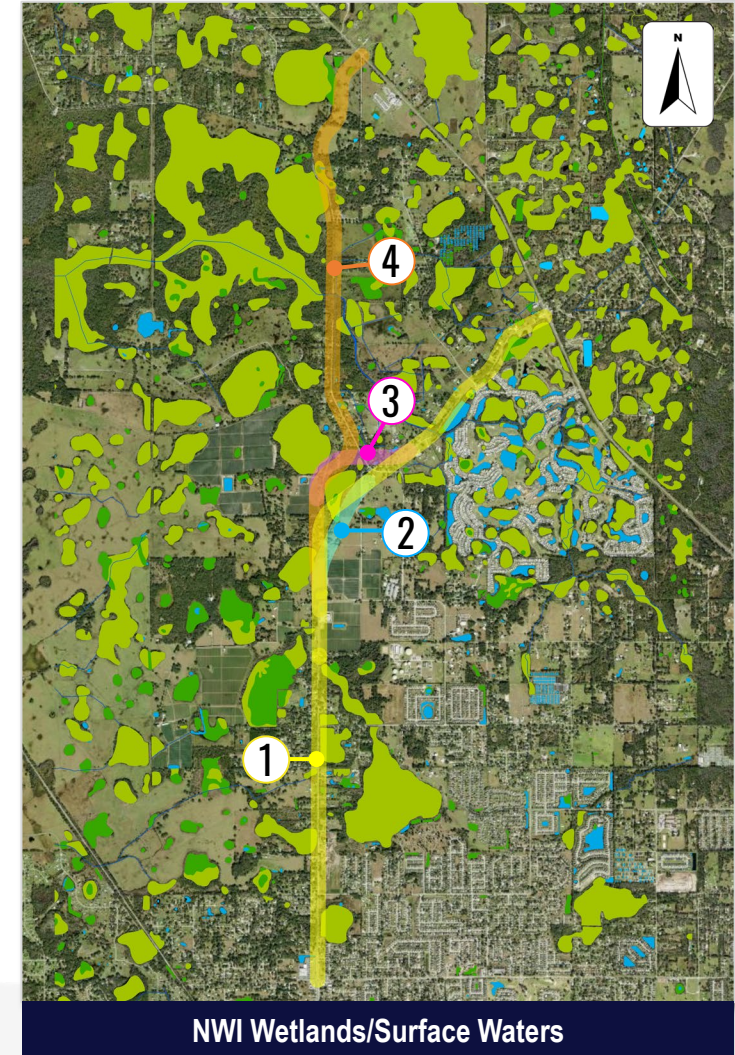


# NATURAL RESOURCES – WETLANDS/SURFACE WATERS

- **Freshwater forested and herbaceous wetlands present**
  - Avoid and minimize impacts
- **Complete wetland assessments**
  - Identify low, moderate, high-value wetlands
  - Adjust alignments to avoid/minimize high quality wetlands
  - Determine wetland connectivity – Reduce USACE mitigation
- **Wetland impact reductions = ~ \$240,000/mitigation credit**
- **Assess mitigation options for unavoidable impacts**
  - Six potential mitigation banks with state/federal credits



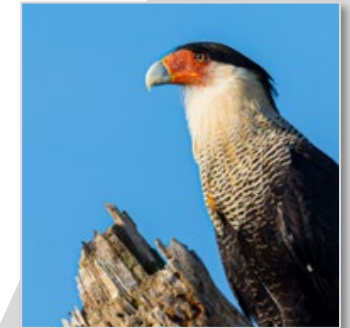
**\$ COST SAVINGS**



# NATURAL RESOURCES – PROTECTED SPECIES

- Complete habitat and preliminary species assessments
- Technical Assistance Meetings with USFWS/FWC
  - Early coordination and comments
  - Approval of preliminary effect determinations
  - Approval of species survey areas/plans
- Anticipated Surveys – Time allocated in schedule!
  - Tricolored bat (acoustic and roost, year-round)
  - Crested caracara (January 1 – April 30)
  - Sand/blue-tailed mole skinks (Mar 1 – May 15 or Oct 15 – Dec 15)
  - Gopher tortoises/FL burrowing owls (year-round)
- Determine final effect determinations

Federally-listed Species	Anticipated Effect Determinations
Sand/Blue-tailed mole skinks	No effect
Crested caracara	No effect
FL scrub jay	No effect
Snail kite	No effect
FL grasshopper sparrow	No effect
Tri-colored/FL bonneted bat	MANLAA
Eastern black rail	No effect
Eastern indigo snake	MANLAA
Flowering plants/Lichens	No effect
State-listed Species	Anticipated Effect Determinations
FL sandhill crane	No adverse effect
FL burrowing owl	No effect
Gopher tortoise	No adverse effect
Flowering plants	No effect



# NATURAL RESOURCE EVALUATION REPORT

- Prepare Natural Resource Evaluation (NRE)
- Effect determinations
- Agency Review
  - FDOT D1 and OEM
  - USFWS and FWC
  - Obtain concurrence
- Conceptual mitigation plan
  - Define impacts
  - Preliminary UMAM and wildlife impact assessments
- “Tee it up” for design/permitting
- Permits required during Task 2 - Design Phase
  - SWFWMD ERP
  - USACE 404
  - FDEP – NPDES Generic Discharge
  - FWS and FWC incidental take/relocation permits



## Natural Resources Evaluation Outline and Guidance

This document provides guidance and a suggested outline for the development of a Natural Resources Evaluation (NRE) as well as technical memorandums for projects and information needed for re-evaluations.

### Guidance:

An NRE should be prepared for projects that meet or involve one or more of the following:

- Federal listed and candidate species/critical habitat consultation (informal or formal)
- Wetland impacts require either a standard/individual or regional general permit (SAJ – 92)
- Substantial adverse effects to Essential Fish Habitat (EFH)

If an NRE is required for one resource (species, wetland, or EFH), a section for the other resources present in the project area should also be included. For example, a project requires the development of an NRE because of species consultation, but has minor wetland impacts, and no EFH impacts. The NRE developed should include a Protected Species and Habitat and Wetlands Sections with a statement in the project overview that EFH is not applicable. The Protected Species and Habitat section needs to include information sufficient to complete agency consultation and the Wetlands section should include a discussion of the minor wetland impacts.

For projects that have natural resource impacts that do not exceed any of the thresholds listed above, a technical memorandum discussing the impacts may be sufficient. See page 8 of this document for more details.

NREs require review by the Office of Environmental Management (OEM) regardless of federal Class of Action. NREs for State Environmental Impact Reports (SEIRs) or Non-major State Actions (NMSAs) will not require OEM review.

### Outline:

#### Cover Page and NRE Content

- Technical Report Cover Page, Form No. 650-050-38
- Table of Contents (Executive Summary, Project Overview, Protected Species and Habitat, Wetlands and Other Surface Waters, and Essential Fish Habitat, Conclusion)
- List of Tables
- List of Figures
- List of Appendices (as applicable to the specific project)

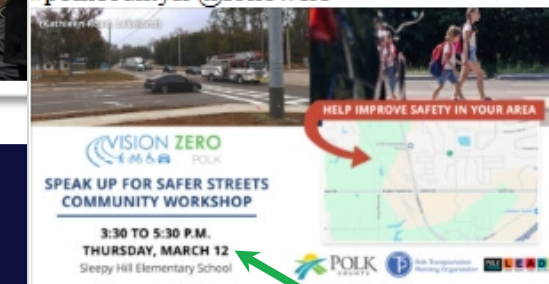
Items such as FNAI data reports, soil descriptions, land use descriptions, photos, pond site descriptions, species surveys, UMAMs, species protection measures may be included as Appendices.

# PUBLIC INVOLVEMENT

- Identification of key stakeholders
  - Kathleen Community
  - Cypress Lakes Community
  - Adjacent residents and businesses
  - Polk County Elected Officials
  - Polk County School District
  - Polk TPO
  - FDOT D1
- Awareness of community concerns
  - Flooding
  - Increasing traffic and speeding
  - Need for street lighting
- Create clear messaging about the need for the project



#lakelandflorida #kathleenroad #SafeStreets  
 #CommunityEvent #safety Polk Vision  
 #polkcountyfl @followers



## FOCUS ON THE BENEFITS:

- ✓ New stormwater system to capture run-off
- ✓ Raised median will improve safety
- ✓ Widening will accommodate increasing traffic
- ✓ New bike and pedestrian accommodations
- ✓ Street light enhancements

Meeting next week!

# PUBLIC INVOLVEMENT

- Knowledgeable of FDOT requirements and County preferences
  - Team members have assisted with training of FDOT staff in effective public involvement techniques
  - Numerous public meetings held on behalf of Polk County and FDOT D1
- Active engagement
  - Kickoff newsletter
  - Small group meetings
  - Alternatives public meeting
  - Public hearing
- Passive engagement
  - Project website
  - Map-based commenting tool
  - Responses to comments
- Provide high quality graphics to communicate concepts



**Cris Schooley, PE, AICP**  
Public Involvement

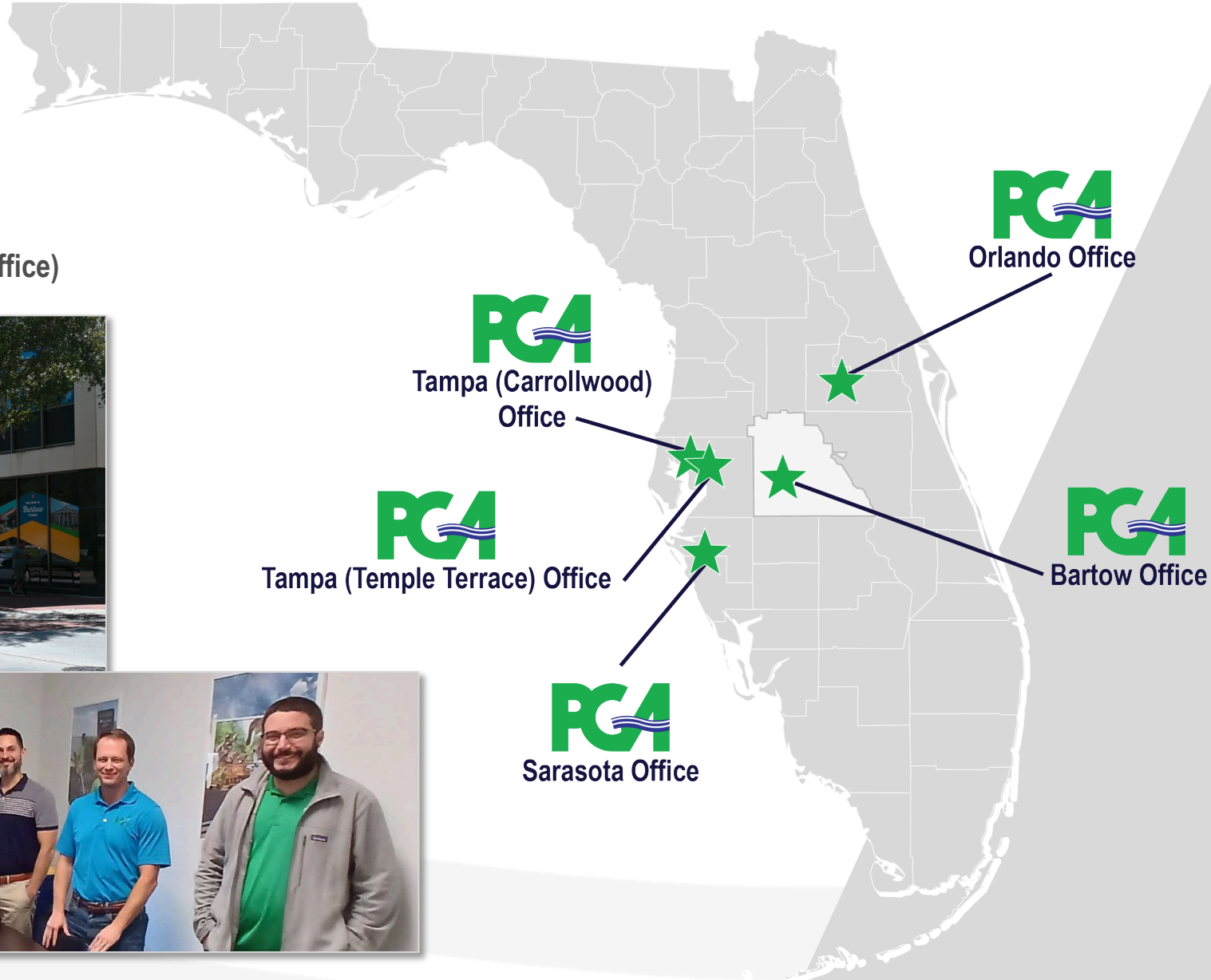
## PublicCoordinate



Kimley-Horn's proprietary software, PublicCoordinate, is a map-based commenting tool for enhancing public interaction and involvement. This was successfully used on the Thompson Nursery Rd Project.

# LOCATION

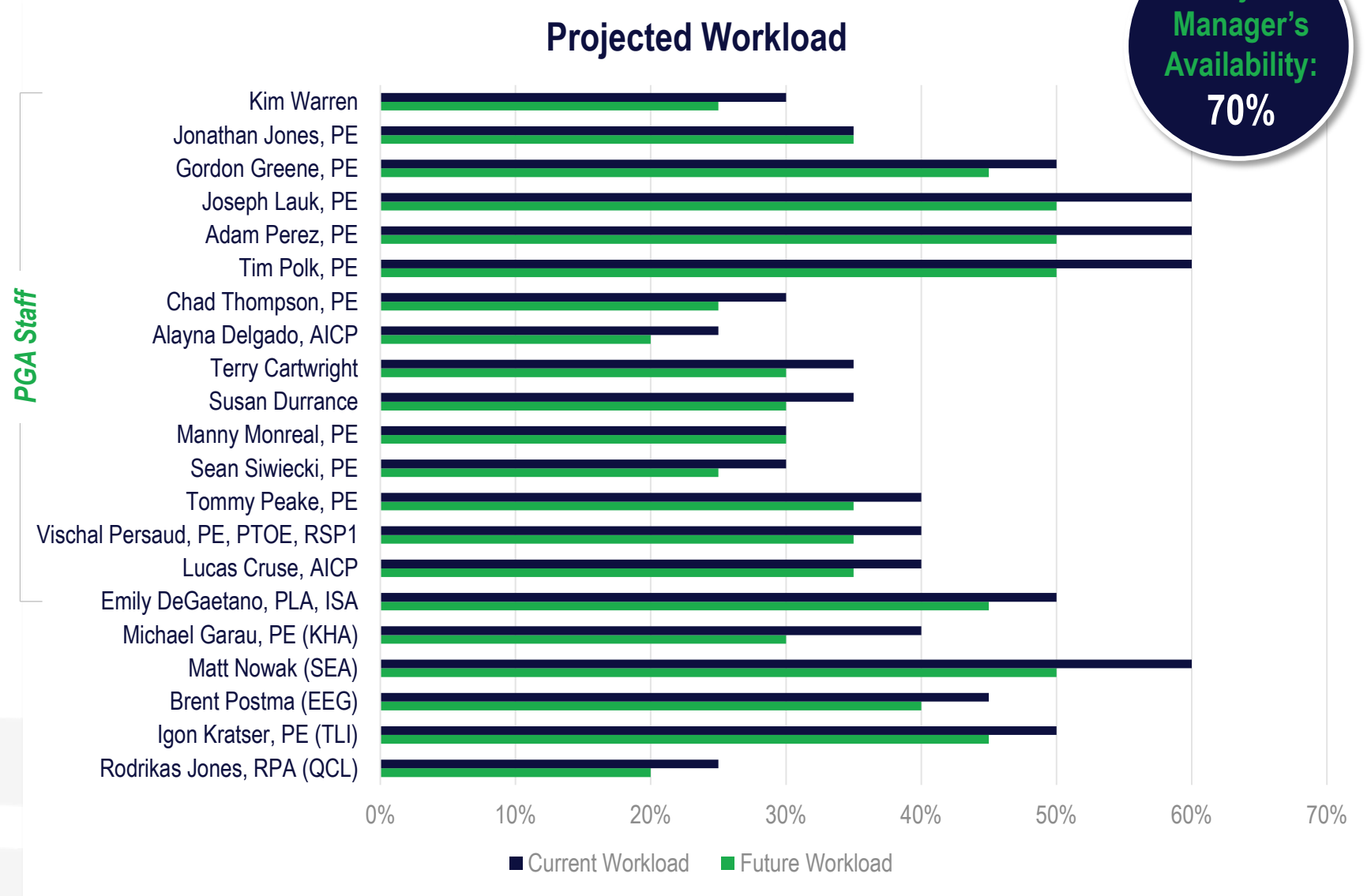
- Five offices across Central Florida
- Bartow Office: Located on Main St.
  - (15-min drive to Polk County Rds and Drainage Office)



# CURRENT & PROJECTED WORKLOAD

- Highly available
- 120+ staff in Central Florida
- Current Polk County workload wrapping up

**Project Manager's Availability: 70%**



# WILLINGNESS TO MEET TIME & BUDGET REQUIREMENTS

- Our Dedicated Local Team and additional resources can support every phase of this study.
- Weekly Team Meetings ensure efficiency and proactive communication.
- Project Manager's Experience allows her to effectively and efficiently manage schedule and budget.
- Utilization of appropriate level of qualified staff ensuring budget is efficiently managed.
- Accelerated Project Track Record: PGA has successfully executed numerous fast-tracked projects.
- Schedules Managed to QC deadlines means high-quality documents and designs are delivered on time.



# WHY PGA

- **Dedicated Project Manager**
  - Significant experience
  - Production and Quality Focused
- **Driven by innovation**
  - Alternatives analysis
  - Identify most cost-effective solutions
  - Minimize risk and maximize safety
- **Committed to an Expedited Schedule**
  - Overlap Tasks 1 & 2
  - Saves 8 months!
- **Commitment to Polk County**
  - PGA is Polk County
  - Guaranteed accessibility and responsiveness



Kim Warren in the field



PGA's Bartow Office

# QUESTIONS

We are eager to answer any questions from the Committee.

Thank you for your time and consideration!

