

Village of Estero Council Presentation September 11, 2024

Williams Rd. Widening from US 41 to Via Coconut Point EC2023-50

Conceptual Update

KISINGER CAMPO

OBJECTIVE

Determine Preliminary Design and R/W needs for future roadway capacity and safety improvements along Williams Rd. from US 41 to Via Coconut Pt.







END PROJECT

DISCUSSION TOPICS

KISINGER CAMPO

Concept <u>Alternative 1</u> On-Site Drainage

Conceptual Plan Roadway Typical Section Preliminary Right-Of-Way (R/W) Impacts Landscaping Lighting Summary of Alternative 1 Concept Alternative 2 Off-Site Drainage **Conceptual Plan** ** **Roadway Typical Section** ** **Preliminary R/W Impacts** Landscaping Lighting **Summary of Alternative 2 Existing Roundabout at Via Coconut Pt. Schedule Update**





CONCEPT ALT 1 / ON-SITE DRAINAGE







ROADWAY TYPICAL ALT 1 / ON-SITE DRAINAGE









PRELIMINARY R/W IMPACTS ALTERNATIVE 1







LANDSCAPING ALT 1 / ON-SITE DRAINAGE

NORTH POINT

WILLIAMS RD

Constraints

• Safety Clear Zones

2010

- Safe Site Distances
- Compatible with Drainage, Signing and Lighting Conflicts
- Canopy Heights and Spread
- Maintenance Frequencies



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Plant Selection

- Palms: Royal, Sylvester, Alexander, Sabals, Thatch
- Canopy Trees: Buttonwood, Cypress, Live Oak
- Accent Trees: Tabebuia, Silver Buttonwood, Firebush
- o Shrubs: Horizontal Cocoplum, Dwarf Bougainvillea, Carissa
- Wetland Species: Spartina, Pickerel Weed, Muhly Grass, Ferns
- **Groundcovers:** Liriope, Flax Lily, Asiatic Jasmine, Mimosa

LIGHTING ALT 1 / ON-SITE DRAINAGE







SUMMARY OF ALTERNATIVE 1

Roadway

KISINGER CAMPO & ASSOCIATES

- 12' shared use path (north) and 8' sidewalk (south) and 7' bicycle lanes to improve user safety
- Shared use path meandering to offer pleasant walking environment and accommodate landscaping
- 4-lane divided typical section with 11' lanes to increase traffic capacity and operations
- **Curb & gutter to convert section** into urban facility minimizing R/W impacts and reducing clear zone requirements

Drainage

- avoid off-site floodplain compensation
- for treatment/attenuation

Landscaping

due to drainage being accommodated along the proposed roadway



Linear ponds along roadside to

Use of existing linear ditches

Slightly more landscaping area accessible for beautification

CONCEPT ALTERNATIVE 2 / OFF-SITE DRAINAGE



ROADWAY TYPICAL ALT 2 / OFF-SITE DRAINAGE

PRELIMINARY R/W IMPACTS ALTERNATIVE 2

LANDSCAPING ALT 2 / OFF-SITE DRAINAGE

NORTH POINT

WILLIAMS RD

Constraints

o Safety Clear Zones

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- Safe Site Distances
- Compatible with Drainage, Signing and Lighting Conflicts
- **Canopy Heights and Spread**
- Maintenance Frequencies

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VIA COCONUT PT

Plant Selection

- Palms: Royal, Sylvester, Alexander, Sabals, Thatch
- Canopy Trees: Buttonwood, Cypress, Live Oak
- Accent Trees: Tabebuia, Silver Buttonwood, Firebush
- **o Shrubs: Horizontal** Cocoplum, Dwarf Bougainvillea, Carissa
- Wetland Species: Spartina, Pickerel Weed, Muhly Grass, **Ferns**
- **Groundcovers:** Liriope, Flax Lily, Asiatic Jasmine, Mimosa

LIGHTING ALT 2 / OFF-SITE DRAINAGE

SUMMARY OF ALTERNATIVE 2

Roadway

- 12' shared use path (north) and 8' sidewalk (south) and 7' bicycle lanes to improve user safety
- Shared use path meandering to offer pleasant walking environment and accommodate landscaping
- **4-lane divided typical section with** 11' lanes to increase traffic capacity and operations
- **Curb & gutter to convert section** into urban facility minimizing R/W impacts and reducing clear zone requirements

Drainage

- **3 different off-site pond** southwest and northeast intersection for treatment, attenuation, and floodplain compensation

Landscaping

for beautification due to off-site

options identified at northwest, quadrants of Via Coconut Point

Use of existing linear ditches

Slightly less landscaping area drainage ponds being proposed

SUMMARY OF PRELIMINARY R/W IMPACTS

TOTAL ESTIMATED R/W IMPACTS COMPARISON (Alternative 1 vs. Alternative 2)

	Alternative 1 On-Site	te Alternative 2 Off-Site Drainage (acre									
	Drainage (acres)	Option 1	Option 2	Option 3							
Property along north side of Williams Rd. (North Point Development)	3.787 Subtotal: (3.098 + 0.689)	2.854 Subtotal: (1.408 + 1.446)	1.408	2.968 Subtotal: (1.408 + 1.560)							
Property at southwest corner of Williams Rd. and Via Coconut Point (east of Hertz Global Headquarters)	_	-	1.919	-							
Total (acres)	3.787	2.854	3.327	2.968							

SUMMARY OF ENVIRONMENTAL IMPACTS

ESTIMATED ENVIRONMENTAL IMPACTS/INVOLVEMENT BY ALTERNATIVE										
			Alternative 2							
	Alternative 1	Option 1	Option 2	Option 3						
Natural Habitat Land Use Changes (acres)	0.36	0.00	0.00	1.01						
Wetland Impacts (acres)	0.00	0.00	0.00	0.00						
Protected Species Involvement (primarily related to the Florida bonneted bat)	Low	Moderate	Low	High						

PRELIMINARY ROUNDABOUT ANALYSIS

Why do we need to analyze the current and future performance of the existing roundabout at Williams Rd. and Via Coconut Pt.?

- Roundabout provides sidewalk continuity for pedestrians, bicycle connections and refuge to all facility users (Safety)
- Roundabout is located at the end of this's projects construction limit and plays an important role in traffic operations and flow patters (Operations)
- Deficiencies in roundabout design geometry and approach speeds have been identified and should be corrected to allow proposed design along Williams Rd. to work efficiently after construction upgrades are completed

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PRELIMINARY ROUNDABOUT ANALYSIS

Fastest Path (Safety)

- Each existing roundabout approach exceeds maximum recommended speed per design standards (25-30 mph)
- Proposed improvements for eastbound approach and westbound departure designed by **KCA under this project will meet** design standards
- Further evaluation of existing roundabout will need the Village of Estero to coordinate with adjacent FDOT project to address deficient geometry at the other three legs of roundabout

	WESTBOUND						
	RADIUS	МРН					
R1	445	36					
R2	115	20					
R3	*	48					
R4	75	17					
R5	135	23					

	NORTHBOUND							
	RADIUS	мрн						
R1	359	33						
R2	108	19						
R3	*	46						
R4	78	17						
R5	130	23						

PRELIMINARY ROUNDABOUT ANALYSIS

Swept Path (Operations)

- Moderate truck traffic in all directions at roundabout
- Need to accommodate large trucks and allow them to navigate the roundabout without issues
- Evaluated turning movements using truck design vehicle WB-50
- Recommend modifying geometry of the existing roundabout in all approaches to prevent trucks from invading adjacent travel lanes and/or hitting curbs

KISINGER CAMPO & ASSOCIATES

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SCHEDULE UPDATE

Next Milestones

Village Council Presentation • September 11, 2024 **Public Meeting** • October 22, 2024 Village PZDB (Concept) • November 12, 2024 Village Council Presentation # 2 (Pre-30% Design) • December 4, 2024 **Preferred Alternative Selection**

- December 5, 2024
- **30% Plans**
 - May 1, 2025

ID	Task Name	Duration	Start	Finish	Predecessors	Sen	Oct	Nov	Dec	Jan	Feb	Mar	Apr	av bu	2024
1	Williams Road Widening Preliminary Design and Engineering	403 days	Wed 9/27/23	Thu 5/1/25		4	CCI	1100	Dec	Jan	Teb	IVIAI 7		ay ou	
2	Start Up Activities & Field Work	117 days	Wed 9/27/23	Thu 3/14/24					-	-	+ +	117	days		
3	Notice to Proceed	1 day	Wed 9/27/23	Wed 9/27/23			Not	ice to	Proce	ed					
4	Kick-Off Meeting	1 day	Thu 1/4/24	Thu 1/4/24	3FS+65 days				1	♦ Kid	k-Off	Meeting	3	1	1
5	Design Survey	40 days	Tue 12/5/23	Thu 2/1/24	3FS+46 days						Desig	gn Surv	vey		
6	Geotechnical Investigation	10 days	Mon 12/18/23	Wed 1/3/24	3FS+55 days				1	Geo	techni	cal Invo	estigati	on	1
7	Traffic Data Collection (TMC's)	5 days	Tue 1/23/24	Mon 1/29/24				1	1		Traffi	c Data	Collect	ion (TN	MC's)
8	SUE (Level B)	30 days	Fri 2/2/24	Thu 3/14/24	5				1			SUE	(Leve	IB)	
9	Public Involvement	150 days	Wed 9/11/24	Wed 4/16/25				l.	1	1		i li	1	1	1
10	Village Council Presentation #1 (Concept)	1 day	Wed 9/11/24	Wed 9/11/24	27FS+2 days			12	1	1		- L.			- 1
11	Public Meeting (Conceptual)	1 day	Tue 10/22/24	Tue 10/22/24	10FS+10 days				1			E.			1
12	Village PZDB Presentation (Concept)	1 day	Tue 11/12/24	Tue 11/12/24	11FS+11 days			1	1	1				1	
13	Village Council Presentation #2 (pre-30% Design)	1 day	Wed 12/4/24	Wed 12/4/24	11FS+17 days										
14	Village Council Presentation #3 (post-30% Design)	1 day	Wed 4/16/25	Wed 4/16/25	36			ł.	1	ĵ.	î î	E.	1	1	1
15	Design	337 days	Thu 1/4/24	Thu 5/1/25					1	-	1			1	
16	Geotechnical Report, Prepare	20 days	Thu 1/4/24	Wed 1/31/24	6				1		Geot	echnica	al Repo	rt, Pre	pare
17	Geotechnical Report, Submit	1 day	Thu 2/1/24	Thu 2/1/24	16				1	Ι.	Geo	technic	al Rep	ort, Su	bmit
18	Geotechnical Report, Village Review	5 days	Fri 2/2/24	Thu 2/8/24	17				1	1	Geo	otechni	cal Rep	ort, Vi	llage I
19	Geotechnical Report, Comment Response	5 days	Fri 2/9/24	Thu 2/15/24	18				1		G	eotechr	nical Re	eport, C	Comm
20	Technical Traffic Memo (TTM), Prepare	20 days	Tue 1/30/24	Mon 2/26/24	7			1	1	1 1		Techni	cal Tra	ffic Me	mo (T
21	Technical Traffic Memo (TTM), Submit	1 day	Tue 2/27/24	Tue 2/27/24	20				1			Traffic	Analy	sis, Su	bmit
22	Technical Traffic Memo (TTM), Village Review	5 days	Wed 2/28/24	Tue 3/5/24	21			i.	1	į.		Techr	nical Tr	affic M	lemo (
23	Technical Traffic Memo (TTM), Comment Response	5 days	Wed 3/6/24	Tue 3/12/24	22						1 1	Tech	nnical	Traffic I	Memo
24	Conceptual Alternatives, Development	50 days	Fri 2/2/24	Thu 4/11/24	5				1	i.			Conc	eptual	Altern
25	Conceptual Alternatives, QAQC	10 days	Fri 4/12/24	Thu 4/25/24	24			1	1	1		- 8	Co	nceptu	ual Alt
26	Conceptual Alternatives, Submit	1 day	Fri 4/26/24	Fri 4/26/24	25								• 0	oncept	tual Al
27	Conceptual Alternatives, Village Review	5 days	Mon 4/29/24	Fri 5/3/24	26				1	l.	1	Ê		oncep	tual A
28	Conceptual Alternatives, Comment Response	5 days	Mon 5/6/24	Fri 5/10/24	27			1	1	ł.	1 1	1	- 14	Conce	ptual
29	Conceptual Alternatives, Comment Incorporation Resubmittal	5 days	Mon 6/17/24	Fri 6/21/24	28								- 17		Con
30	Public Meeting Changes	10 days	Wed 10/23/24	Tue 11/5/24	11			ł.	1	ļ.		E.	1		
31	Preferred Alternative Selected	1 day	Thu 12/5/24	Thu 12/5/24	13,29				1						
32	30% Plans, Prepare	60 days	Fri 12/6/24	Tue 3/4/25	31				1		1	E.			1
33	30% Plans QA/QC	10 days	Wed 3/5/25	Tue 3/18/25	32,41			1	1	1					1
34	30% Plans, Submit	1 day	Wed 3/19/25	Wed 3/19/25	33										
35	30% Plans, Village Review	5 days	Thu 3/20/25	Wed 3/26/25	34			1	1	î.	i i	E.	- 1		1
36	30% Plans, Comment Response	5 days	Thu 3/27/25	Wed 4/2/25	35				1	1	1 1	ł.			
37	Final Deliverables, Prepare	20 days	Thu 4/3/25	Wed 4/30/25	36				1	1	1	E.			
38	Final Deliverables, Submit	1 day	Thu 5/1/25	Thu 5/1/25	37				1	1	1 1				
39	Utility Coordination	25 days	Wed 12/27/23	Wed 1/31/24						_	25 d	avs			
40	Submit Base Maps to Utility Owners	5 days	Wed 12/27/23	Wed 1/3/24	3FS+60 days					Sub	mit Ba	se Mar	s to Ut	ility Ov	wners
41	Receive Utility Markups & As-Builts	20 days	Thu 1/4/24	Wed 1/31/24	40			1	1.1		Rece	ive Util	ity Mar	kups	linere
42	Environmental Services	214 days	Fri 3/1/24	Tue 1/7/25					1				, inter	l	
43	Species Surveys	30 dave	Eri 3/1/24	Thu 4/11/24	24FF			1	1	ł		1	Snac		Neve
44	Agency Pre-App Mtgs, Schedule & Attend	20 days	Mon 4/15/24	Fri 5/10/24	28FF								opec	Agence	v Pro-
-1-1	Faulteren and Tradelad Marca Deserve 00 & Submit	20 days	Eri 10/6/04	Tuo 1/7/24	13 11 21				1	Î.				Agenc	, , , , , , , , , , , , , , , , , , , ,

Schedule 2025 Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jar 150 days Village Council Presentation #1 (Concept) ◆ Public Meeting (Conceptual) Village PZDB Presentation (Concept) Village Council Presentation #2 (pre-30% Design) ◆ Village Council Presentation #3 (post-30% Design) 337 days t Res TM), Comment Respo ives, evelopment ative QAQC natives. Submit rnatives, Village Review es, Comment Response atives, Comment Incorporation Resu Public Meeting Changes Preferred Alternative Selected 30% Plans, Prepare 30% Plans QA/QC ♦ 30% Plans, Submit 30% Plans, Village Review a 30% Plans, Comment Response Final Deliverables, Prepare Final Deliverables, Submi 214 days p Mtos. Schedule & Attend Environmental Technical Memo, Prepare, QC, & Submit

QUESTIONS?

