

Attachment K

**Data in Support of
Modified Alternative 7**

for:

Ridge Road Extension Alternatives Analysis

PREPARED FOR:



Pasco County Engineering Services Department

PREPARED BY:

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TABLE OF CONTENTS

	<u>Page</u>
INDIVIDUAL ALTERNATIVE ANALYSIS FOR MODIFIED ALTERNATIVE 7	
1.0 Alternative Description	K-1
2.0 Construction, Right-of-Way, and Mitigation Cost Estimates	K-1
3.0 Traffic Assessment	K-1
4.0 Hurricane Evacuation Assessment	K-2
5.0 Logistics	K-3
6.0 Environmental Impacts	K-3
7.0 Other Environmental Impacts	K-6
8.0 Archaeological/Historical Impacts	K-8
9.0 Summary	K-8

APPENDICES

Appendix K-1	Alignment and Cross Sections for Modified Alternative 7
Appendix K-2	Construction Cost Estimate Sheets
Appendix K-3	Wetland and Habitat Maps

INDIVIDUAL ALTERNATIVE ANALYSIS FOR MODIFIED ALTERNATIVE 7

1.0 Alternative Description

Modified Alternative 7 is the extension of existing Ridge Road to US 41 constructing 4 lanes both west and east of the Suncoast Parkway. Modified Alternative 7 includes the extension of Ridge Road as a 4 lane facility west of Suncoast Parkway with segments of the roadway on bridges through all but 1.8 acres of wetlands and some upland portions of the Serenova Preserve. This includes the 1.0 acre of impact in the Serenova Preserve required of all central alternatives (2-7, and Modified 7) to construct an interchange with the Suncoast Parkway. This alternative includes less bridging than the original Alternative 7. East of Suncoast Parkway this alternative is 4 lanes at grade. The alignment for this alternative is shown in Appendix K-1 and the typical cross section is shown in Appendix K-2.

This alternative utilizes the same alignment as Alternative 5 for the Applicant's originally proposed project and passes through the existing overpass at the Suncoast Parkway that was constructed by Florida's Turnpike Enterprise to accommodate a future interchange with the Ridge Road Extension. Completion of the interchange by constructing ramps to provide access to and from the Ridge Road Extension and the Suncoast is part of the improvements included with this alternative.

2.0 Construction, Right-of-Way, and Mitigation Cost Estimates

The methodologies utilized to estimate construction, right-of-way and mitigation costs for Modified Alternative 7 are described in Attachment A. Right-of-way costs are identical to original Alternative 7 and backup is provided in Attachment B. Worksheets for estimating Construction Costs for Modified Alternative 7 are provided in Appendix K-3.

Compensatory mitigation costs were estimated assuming that each acre of direct wetland impact would cost \$150,000 to mitigate. The asking price for mitigation credits varies by type of wetland and by individual bank. Asking prices for six mitigation banks within Pasco, Hillsborough and Polk Counties can range from \$120,000 to \$180,000, but final costs are negotiated and usually lower. The \$150,000 figure is an estimate to use for comparison purposes. Modified Alternative 7's Construction Cost is estimated at \$97,920,000; Right-of-Way Cost is estimated at \$508,000; and, Compensatory Mitigation Costs are estimated at \$3,390,000. The total estimated cost for Modified Alternative 7 is \$101,818,000. (See Table 4-1).

3.0 Traffic Assessment

Extending Ridge Road to the east from its current terminus to intersect with the Suncoast Parkway and US 41 has been a part of Pasco County's Long Range Transportation Plan since 1995. This extension would reduce travel time and distance caused by the current configuration of a four lane east-west roadway ending at the intersection with two lane north-south roadways

that result in north-south travel of about 5 miles or more to get to the nearest east-west arterial to be able to continue east-west travel within the County.

The improved mobility provided by Modified Alternative 7 is identical to the improvement for original Alternative 7. This is demonstrated in the traffic assessment (provided in Attachment C) to increase Average Travel Speed within the Study Area from 18.9 mph for the No Action Alternative to 20.8 miles per hour, a 10% increase.

Average travel speed is a measure that consistently is reported by the Florida Standard Urban Travel Model Structure (FSUTMS), of which the Tampa Bay Regional Planning Model (TBRPM) is the local adaptation. This is one of many measures considered by transportation planners as they develop their respective transportation network plans – higher speeds indicating delivery of better quality of service and better mobility. This measure is usually reported on a county-wide basis; however, in this case it is being reported for the study area. Network average travel speed was derived by dividing the estimated vehicle-miles of travel in the study network by the estimated vehicle-hours of travel on the same roads.

Even though the improved road network attracted an additional 73,859 vehicle-miles of travel per day, the increase in average travel speed still resulted in reduced overall travel time by 1,859 vehicle-hours per day. The savings of 1,859 vehicle-hours per day translates to an estimated cost savings in time alone of roughly \$11.1 million per year. This does not consider other travel time reductions outside of the study network from where the additional travel was attracted. The value of time saved assumes a value of \$12.5/hour/person and 1.31 persons per vehicle. Additional benefits are also realized, because this estimate does not include savings in fuel costs or a reduction of carbon emissions and greenhouse gases.

As regards other measures of mobility, Modified Alternative 7 increased Vehicles Miles Traveled (VMT) by 8%; reduced Vehicle Hours of Travel (VHT) by 2%; reduced the volume to capacity ratio (v:c) by 7% (reducing congestion); and, reduced the number of crashes per day by 2%, a reduction of 62 crashes per year.

4.0 Hurricane Evacuation Assessment

Based on the Hurricane Evacuation Assessment (Attachment D) that was conducted, the No Action Alternative is shown to require 23.4 hours to essentially complete the evacuation of the Coastal Population. For purposes of this evaluation, evacuation was considered essentially complete when 99% of the evacuating population have evacuated outside of the evacuation zone. The roadway improvement under Modified Alternative 7 is shown to result in 16.8 hours to essentially complete the evacuation of this same population. This is a 6.6 hour reduction in evacuation time from the Coastal Area and is the same reduction which resulted from original Alternative 7.

A consistent assumption made for the analysis was that up to 12 hours is required for all evacuees to leave their homes in all scenarios. In the traffic model, the last evacuees leave

their driveways during the 30-minute time period from 11.5 to 12 hours from the time of the evacuation order. Thus, the additional time beyond 12 hours represents the additional time needed to clear the evacuation zone. As indicated above, in the "No Action" condition, 99 percent of the evacuees had cleared the evacuation zone after 23.4 hours, and in Modified Alternative 7 and original Alternative 7 conditions, the same occurred after 16.8 hours. The percentage reduction in evacuation zone clearance time was calculated as $100 * (1 - (16.8 - 12) / (23.4 - 12))$ under the model which recognizes the delay in some evacuees leaving their homes. Using this calculation, a 42.5 percent improvement would occur with Modified Alternative 7 compared to the "No Action" alternative. Original Alternative 7 also resulted in a 42.5 percent improvement.

5.0 Logistics

Obstacles to Construction:

Modified Alternative 7 is consistent with Pasco County's Long Range Transportation Plan and does not require a permit from FDOT to construct. Correspondence from FDOT provided in Attachment E indicates "an additional route, Ridge Road, would be necessary to fully accommodate the Pasco residents in the coastal communities" for both mobility and evacuation. Modified Alternative 7 would provide this additional route.

Impacts to Residences and Businesses:

This alternative is expected to have no impacts on residences or businesses.

6.0 Environmental Impacts

The methodologies, sources, and outcomes of the environmental assessment for each alternative are provided in Attachments F, G, H and I. The assessment includes wetlands, streams, wildlife and plant species, and habitat impacts likely to result from each alternative.

Wetlands:

Modified Alternative 7 is projected to have a direct impact on 22.6 acres of wetlands, of which 17.8 acres are Palustrine Forested and 4.8 acres are Palustrine Emergent. Compared to original Alternative 7, the increase in direct wetland impacts is 0.8 acres. In order to construct a safe intersection between the proposed RRE and the Suncoast Parkway, approximately 1 acre of wetland impact within the Serenova Preserve is required. As with original Alternative 7, all other permanent impacts to wetlands (other than the 1.8 acres noted above) within the Serenova Preserve are indirect with the exception of small impacts associated with bridge pilings, as all wetlands except the 1.8 acres will be bridged in this area. When compared to Alternative 7, the additional 0.8 acres of wetland impact in the Serenova Preserve are to herbaceous wetlands along the edges of forested wetlands and no wetlands are bisected in the Serenova Preserve by Modified Alternative 7. Additionally 0.3 acres of surface waters are

estimated to be potentially impacted. Modified Alternative 7 is projected to have 208.9 acres of indirect wetland impacts within 300' on both sides of the alignment compared to 207.0 acres of indirect wetland impacts for original Alternative 7.

Overall, wetlands along Modified Alternative 7 are moderate in quality; however, quality varies with location. West of the Serenova Preserve, the wetlands are typically low quality due to hydrological alterations, abundant nuisance species, and low quality surrounding uplands. Within the Serenova Preserve, the wetlands are generally high quality. East of the Serenova Preserve and west the Five-Mile Creek crossing, the wetlands are moderate quality as they hydrology has some alteration such as ditching, and most of the surrounding uplands have been converted to pine plantation. East of the creek, the wetlands are low in quality as many appear to have been dewatered by residential development to the north. Direct impacts to high quality wetlands, except for the 1.8 acres of impact noted above, have been avoided since the roadway is bridged over the remaining wetlands in the Serenova Preserve. The result is that Modified Alternative 7 would have 0.8 acres more wetland impact than Alternative 7 in the Serenova Preserve but 5.3 fewer acres of wetland impact within the Serenova Preserve than the other central alternatives (2-5).

With the exception of the crossing of the Pithlachascotee River and Five-Mile Creek, the Palustrine Forested wetlands are isolated to semi-isolated systems which sometimes have narrow stringers (narrow bands of cypress, often in border areas of wet prairie or along ditches) that connect them. They are characteristically dominated by pond cypress with occasional individuals of swamp tupelo, dahoon holly, and red maple. Herbaceous vegetation is variable, but common species include pickerelweed, sawgrass, lizard's tail, and a variety of sedges. Hydroperiods are variable but typically longer than the hydroperiods in the Palustrine Emergent wetlands. Most of the direct impacts to isolated Palustrine Forested wetlands occur either west of the Pithlachascotee or east of the Suncoast Parkway since the roadway is mostly on bridges across the Serenova Preserve. Indirect impacts will occur within the preserve including construction disturbances, and depending on the vegetation height, permanent conversion to herbaceous wetlands, and shading.

A second form of Palustrine Forest wetland occurs in riverine settings along streams. The palustrine forested wetland along the Pithlachascotee is a riverine system dominated by hardwoods especially swamp laurel oak, red maple, and occasional individuals of swamp tupelo and bald cypress. The wetlands at the Five-Mile Creek crossing would historically have been similar, but at this crossing most of the forested wetlands have been cleared and are now classified as Palustrine Emergent.

While the acreage of Palustrine Emergent wetlands is much lower than the acreage of Palustrine Forested wetlands, the Palustrine Emergent wetlands are more variable in character. West of the CSX railway, the Palustrine Emergent wetlands are generally shallow wet prairies or savannas on the fringes of forested wetlands. Some form shallow connectors between forested wetlands when water levels are high. They are dominated by grasses and grass-like species including little blue maidencane, maidencane, beakrushes, nutrushes and yellow-eyed-grasses.

Many have a characteristic suite of small shrubs and herbaceous plants including water toothleaf, St. John's worts, meadow-beauties, and rosegentians. These wetlands typically have short hydroperiods, though there is one deep marsh in the area between the Suncoast Parkway and the railroad. Typical species in the marsh include pickerelweed, arrowroot, white water lily, sawgrass and spatterdock.

A Palustrine Emergent wetland occurs at the crossing of Five-Mile Creek. This was once forested but has been cleared and is now highly disturbed. In the area of the crossing, the creek is best described as a shallow ditch bordered by a disturbed, mostly herbaceous wetland. Further east and north of the creek is a series of highly disturbed isolated, shallow, wet prairie wetlands. All are dominated by maidencane, broomsedges, blackberry, Peruvian primrose-willow, and dogfennel.

Most of the direct impacts to isolated Palustrine Emergent wetlands occur at Five Mile Creek or north of the creek near the eastern end of the road extension. These also lie between a planned wildlife corridor (Tierra Del Sol Preserve) owned by Pasco County and the Tierra Del Sol residential development. Direct impacts will be avoided within the Serenova Preserve, other than the 1 acre of impact required for the intersection with the Suncoast Parkway, but indirect impacts will include construction disturbances and shading.

Depending on water levels, all of these wetlands provide foraging and roosting habitat for wading birds, cover for small birds and migratory birds, water sources for mammals and resting habitats when dry, and habitat for an array of reptiles and amphibians. Some amphibians, including the gopher frog, depend on the isolated wetlands for breeding since there are no fish. The floodplain wetlands are known to be movement corridors for a number of species, especially when dry. All of the wetlands provide water retention and reduce the potential for downstream flooding.

All of the wetlands are important to elemental cycling, especially the cycling of carbon, sulfur, phosphorus and nitrogen. In areas where there is grazing currently, or in the recent past, the wetlands provide water quality treatment through capture of sediments and uptake of dissolved constituents from non-point-sources, especially nitrogen and phosphorus. The wetlands along streams also provide treatment for non-point-source materials that come from off-site.

The impact to open surface water is to a borrow area.

Stream Impacts:

There are two stream crossings for Modified Alternative 7: The Pithlachascotee River and Five-Mile Creek for a total of 618 linear feet of impacts.

The alignment for Modified Alternative 7 results in one crossing over the Pithlachascotee River resulting in an estimated 148 linear feet of stream impacts. Since the crossing will be bridges, these will be indirect impacts. At the point of the Pithlachascotee River crossing, the stream has

a poorly defined channel, and it is intermittent. The stream is bordered on either side by Palustrine Forested wetlands described above, and the canopy extends completely across the channel. Bridging will extend over the entire wetland associated with the river crossing. Fish use is limited to typical assemblages found in intermittent streams in west-central Florida including mosquitofish, gar, sunfish, catfish, tadpole madtom, hogsucker, and largemouth bass, some of which move upstream from reaches with year-round flows into this intermittent flow area during periods of high water.

This alignment crosses Five-Mile Creek in an area where the creek has been substantially altered. It has been ditched since the late 1950s and the original Palustrine Forested wetland has been mostly cut. The channel is appropriately described as a shallow ditch. The alignment crosses at an angle, and impacts approximately 470 linear feet of the stream as measured along the ditch. The crossing follows the same alignment as Alternatives 3, 5, 6 and original 7. The Five-Mile Creek will be routed through a culvert under the RRE. The same fish species are anticipated but with an emphasis on small fish such as mosquitofish. This portion of Five-Mile Creek is upstream of a former sand mine, and the stream rerouting that was done to make the stream bypass the old mine pits includes impediments to fish that might otherwise move upstream during periods of high water. Flow is intermittent.

7.0 Other Environmental Impacts

Wildlife Impacts:

Potential effects on listed wildlife species were evaluated by intensive sampling of the alignments passing through the Serenova Preserve and adjacent undeveloped lands for federally listed species with potential to occur in Pasco County, and regional knowledge of the Cardno staff of the listed species that occur or potentially occur in the Study area and the habitat requirements for these species. As original Alternative 7, Modified Alternative 7 was determined to have No Impact on any federally listed species except the eastern indigo snake and wood stork, which could have a Very Low impact. That impact to the eastern indigo snake is minimized by the extensive lengths of elevated roadway across wetlands within the Serenova Preserve, excluding the snake from the roadway by fencing within the Serenova Preserve, and adhering to USFWS and FFWCC procedures that are designed to avoid accidental mortality during construction. The impact to the wood stork is to foraging habitat, and the elevation of the roadway to avoid wetlands within the Serenova Preserve reduces potential losses of foraging habitat. Losses that do occur should be functionally replaced by wetland mitigation, and the floodplain management ponds and stormwater treatment ponds required by the ERP could actually increase available foraging habitat. Low impact could also occur to the gopher tortoise, state listed and proposed for federal listing due to loss of habitat in the roadway footprint. It will be mitigated by relocating tortoises prior to construction following FFWCC requirements. For other state listed species, Very Low Impact may occur to the Suwannee cooter due to temporary impacts during construction and shading by a bridge. Elevation of the roadway over wetlands within the Serenova Preserve also results in a Very Low impact rating for the Florida black bear which would have ample connectivity of habitats without risk of vehicle strikes and for

state listed wading birds since wetland foraging habitats will be maintained. Elevation results in a Low impact rating for pine snake, and Sherman's fox squirrel. Species with Moderate potential for impact include southeastern American kestrel, Florida sandhill crane, gopher frog, Florida mouse and short-tailed snake. The distinction between Low and Moderate depends on population levels and species habitat requirements. In addition, appropriate fencing will be installed along those portions of the alignments that are at-grade through the Serenova Preserve to prevent vehicle strikes. Secondary impacts such as changes in land management near the road (such as reduced fire frequency) and roadway noise/disturbance will still occur. Other, non-listed, wildlife, such as deer, fox, opossum, raccoon, rabbits, most mice, most birds, small fish, and amphibians are abundant in the area of Modified Alternative 7. Similar types of impacts will occur, but they will be minimal within the Serenova Preserve for species that use wetlands as habitat or movement corridors. The impact minimization and compensatory mitigation provided for listed species will maintain appropriate habitat for these species. Although impacts are somewhat higher for this alternative than for original Alternative 7, relative to Alternatives 2-5, impacts are lower for Modified Alternative 7 for all species that benefit from the roadway being raised over wetlands or which readily use wetlands as movement corridors.

There is a high probability that none of the federally listed plant species for which surveys were conducted have ever occurred on this alternative's alignment. The alignment is outside of the known range of Cooley's water-willow and Brooksville bellflower and habitat quality is marginal. Habitat quality is low for Britton's beargrass due to long term inappropriate management. There is potential that impacts, likely Low, could occur to state listed plant species due to changes in land management or direct impacts due to roadway construction.

A more detailed discussion of the species and their habitat requirements is provided in Attachment I.

Habitat Impacts:

Based on this analysis, Modified Alternative 7 was estimated to impact approximately 108.7 acres of natural habitat including approximately 86.1 acres of uplands and 22.6 acres of wetlands. This compares to 96.0 acres of impacts to natural habitat likely to result from original Alternative 7 of which 74.2 acres are uplands and 21.8 acres are wetland.

Natural habitats with more than 2 acres of impact include pine flatwoods, hardwood-conifer mixed forest, cypress, freshwater marsh, shrub and brushland, palmetto prairie and longleaf pine-xeric oak (sandhill). Other than direct impacts, the primary impact to habitats will likely be changes in land management. Most of the native upland habitats are fire-dependent, and the land managing agency is likely to have smoke issues that reduce its opportunities to burn near the road. Reduced fire frequency has the potential to reduce the value of natural habitats to wildlife populations, as discussed above. The scaled IWRS habitat impact value was 3.2. The range for all alternatives was 0.5 to 3.4.

8.0 Archaeological/Historical Impacts

This alternative, like original Alternative 7, is anticipated to have 13.1 acres of direct impacts to archaeological/historic sites and 43.3 acres of indirect impacts with 300 feet on both sides of the proposed alignment. No impacts to historic bridges or structures will occur.

A more detailed analysis will be conducted after a final alternative is identified.

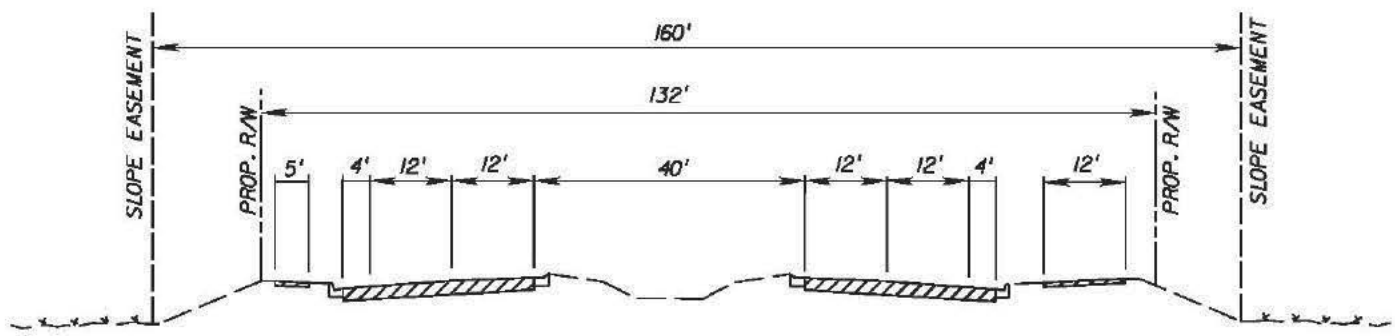
9.0 Summary

Compared to the No Action Alternative, Modified Alternative 7 reduces time to evacuate the coastal population by 6.6 hours which is a 42.5% improvement and is the same reduction in evacuation time which results with original Alternative 7. Compared to the No Action Alternative, Modified Alternative 7 improves mobility by increasing Average Travel Speed by 10%; increasing Vehicle Miles of Travel by 8%; reducing Vehicle Hours of Travel by 2.0%; reducing the Volume to Capacity Ratio (congestion level) by 7% and improving Safety by reducing crashes 2% per day, a reduction of 62 crashes per year within the Study Area. These are the same improvements in mobility that are achieved by original Alternative 7.

The total cost for Modified Alternative 7 is \$101,818,000 which is \$33,847,000 less than original Alternative 7 and \$25,159,000 more than the cost of the Proposed Project, Alternative 5. This additional cost is due primarily to construction costs associated with additional bridging.

Modified Alternative 7 does not have logistical or technical factors that make it unavailable or unobtainable by the applicant. This alternative is consistent with the Long Range Transportation Plan and is supported by the FDOT.

Appendix K-1
Alignment and Cross Sections
For Modified Alternative 7



PROPOSED RIDGE ROAD EXTENSION WEST 4 LANE
URBAN TYPICAL SECTION

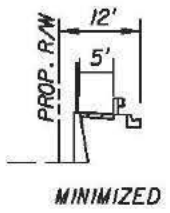


FIGURE K-2	
ALTERNATIVE	MODIFIED 7
TYPICAL CROSS SECTION	

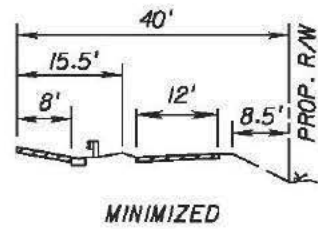
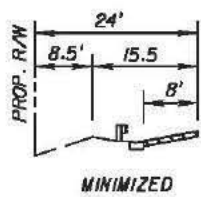
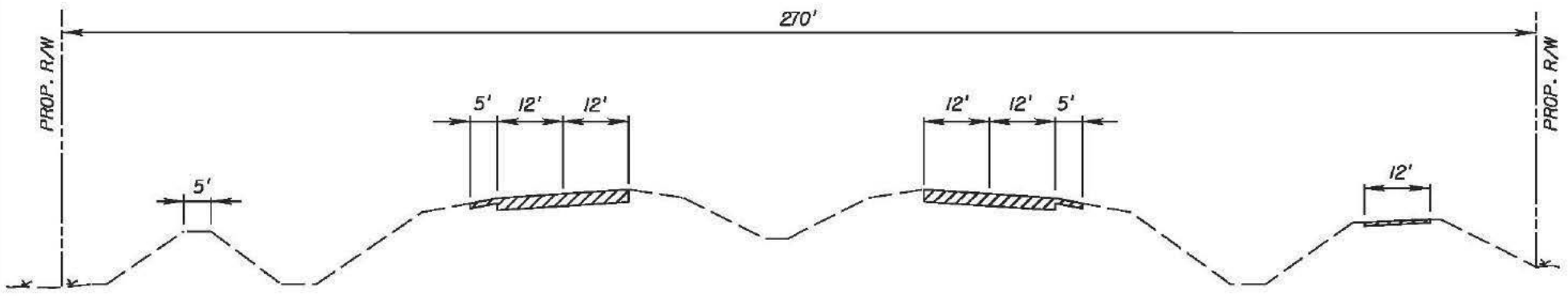
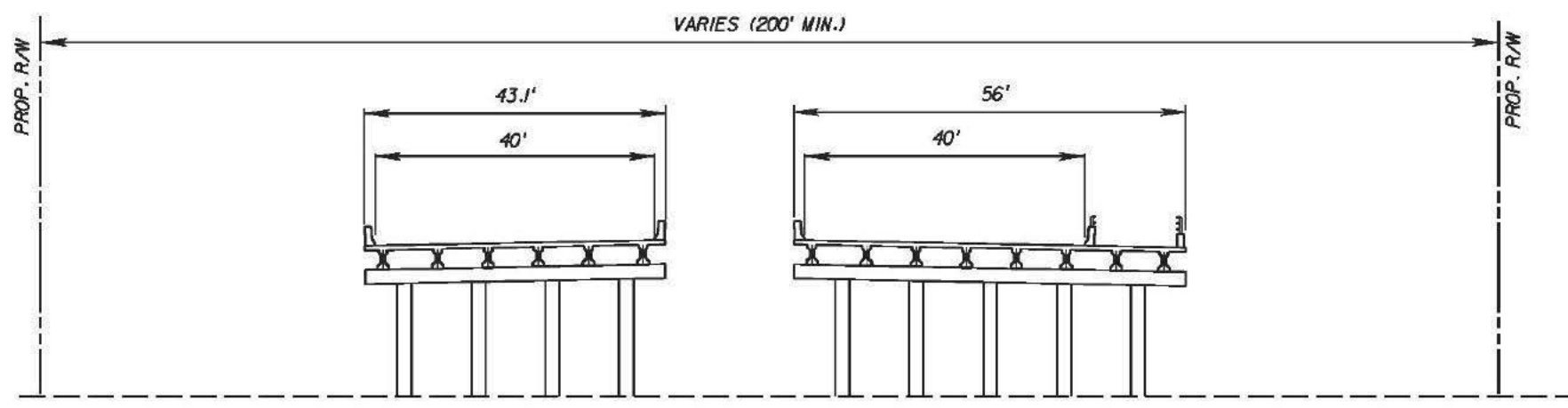


FIGURE K-2

ALTERNATIVE	MODIFIED 7
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PROPOSED RIDGE ROAD EXTENSION WEST
4 LANE BRIDGE TYPICAL SECTION

FIGURE K-2
ALTERNATIVE MODIFIED 7

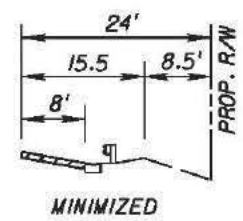
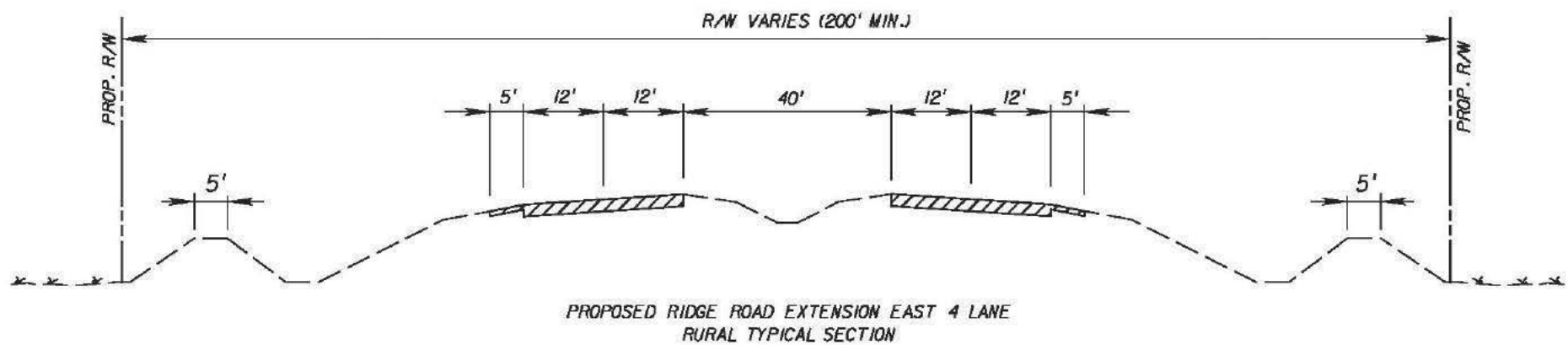
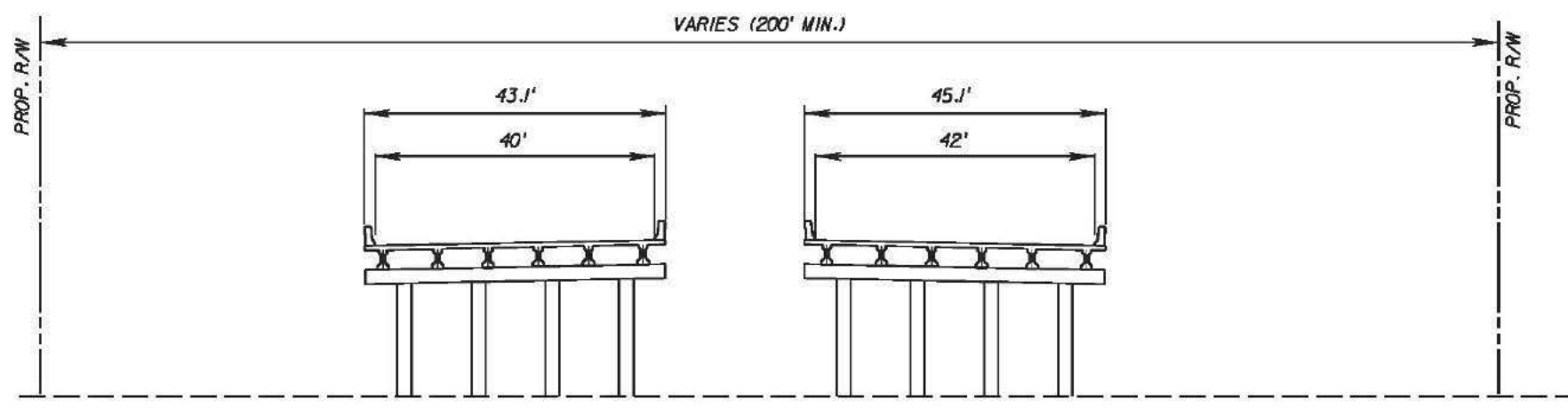


FIGURE K-2

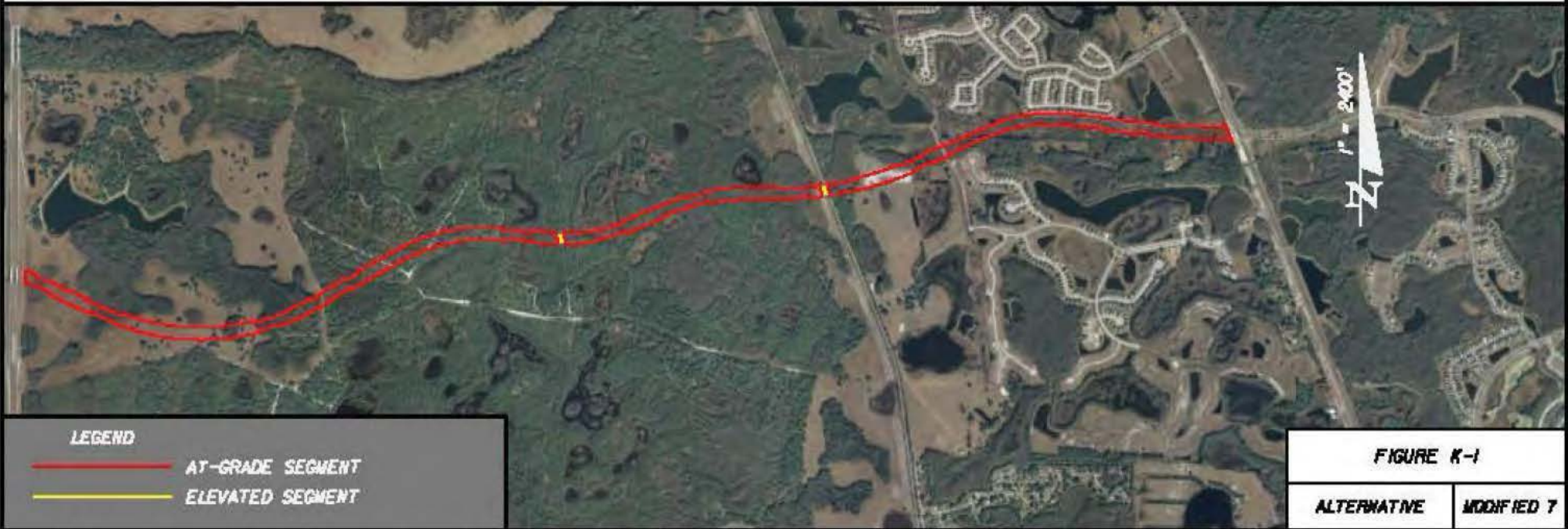
ALTERNATIVE	MODIFIED 7
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TYPICAL CROSS SECTION



PROPOSED RIDGE ROAD EXTENSION
EAST 4 LANE BRIDGE TYPICAL SECTION

FIGURE K-2
ALTERNATIVE MODIFIED 7





LEGEND	
	AT-GRADE SEGMENT
	ELEVATED SEGMENT

FIGURE K-1	
ALTERNATIVE	MODIFIED 7

Appendix K-2

Cost Sheets

APPENDIX K-2

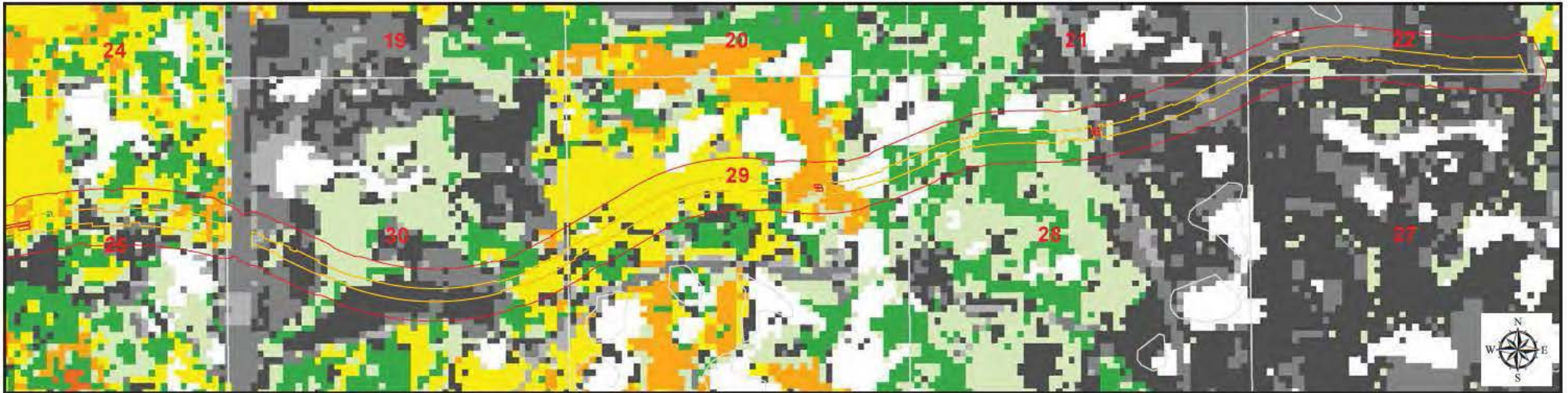
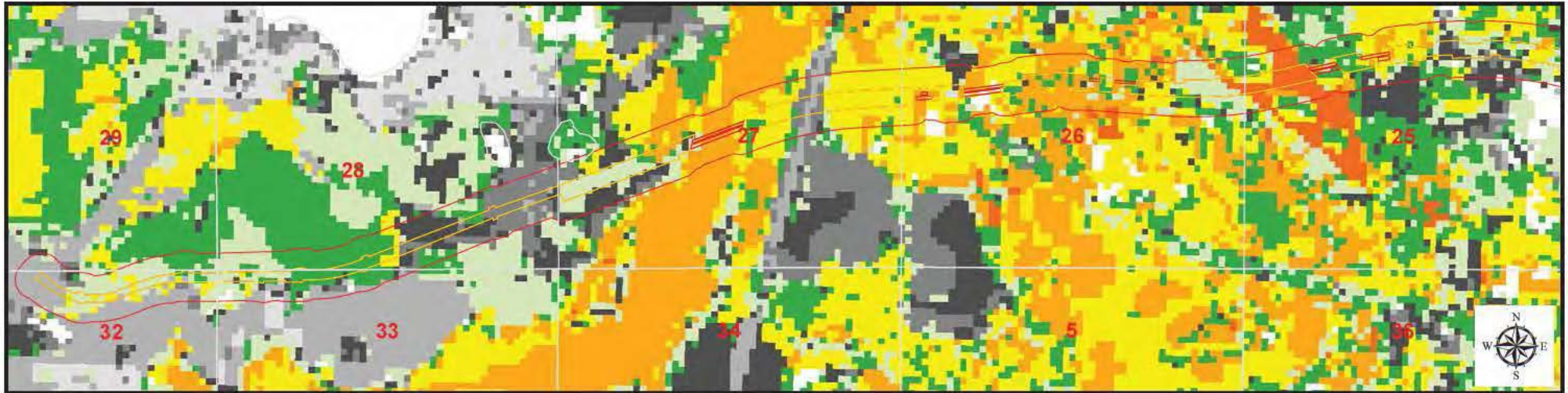
Alternative No: Modified 7 - 4-Lane RRE Partially Elevated									
Existing Typical Section Ridge Rd. West:		Undeveloped							
Existing Typical Section Ridge Rd. East:		Undeveloped							
Gross Length					Net Length		Bridge Length		
Ridge Rd. West:		4.708			Ridge Rd. West:		4.210		Ridge Rd. West: 0.498
Ridge Rd. East:		3.933			Ridge Rd. East:		3.831		Ridge Rd. East: 0.102
County Roadway Construction Cost									
Side	Description	Length (miles)	FDOT Const. Cost/Mile	Const. Cost	MOT (Yes or No)	MOT Cost	Mobilization	Subtotal	Adjusted Subtotal (85%)
West	New 4-Lane Urban with Sidewalk and C&G	1.59	\$6,832,753	\$10,864,077	No	\$0	\$1,086,408	\$11,950,485	\$10,157,912
West	Multi-Use Trail	1.59	\$170,032	\$270,351	No	\$0	\$27,035	\$297,386	\$252,778
West	New 4-Lane Rural with Paved Shoulders	2.62	\$5,449,902	\$14,278,743	No	\$0	\$1,427,874	\$15,706,618	\$13,350,625
West	Multi-Use Trail	2.62	\$170,032	\$445,484	No	\$0	\$44,548	\$490,032	\$416,527
East	New 4-Lane Rural with Paved Shoulders	3.88	\$5,449,902	\$21,145,620	No	\$0	\$2,114,562	\$23,260,182	\$19,771,154
East/West*	1 Through Lane on the Outside (Ramps)	1.56	\$1,334,043	\$2,081,107	No	\$0	\$208,111	\$2,289,218	\$1,945,835
Subtotal Roadway Construction Costs								\$53,993,920	\$45,894,832
County Roadway Bridge Cost									
Side	Direction	Type	Length (ft)	Width (ft)	Area (sf)	Cost/sf	Subtotal	Adjusted	
1-West	Westbound	Mid Level	845	43.1	36,405	\$145.00	\$5,278,745	\$4,486,933	
1-West	Eastbound	Mid Level	845	56.0	47,355	\$145.00	\$6,866,546	\$5,836,564	
2-West	Westbound	Mid Level	100	43.1	4,308	\$145.00	\$624,704	\$530,998	
2-West	Eastbound	Mid Level	240	56.0	13,450	\$145.00	\$1,950,262	\$1,657,722	
3-West	Westbound	Mid Level	640	43.1	27,573	\$145.00	\$3,998,102	\$3,398,387	
3-West	Eastbound	Mid Level	580	56.0	32,504	\$145.00	\$4,713,132	\$4,006,162	
4-West	Westbound	Mid Level	200	43.1	8,617	\$145.00	\$1,249,407	\$1,061,996	
4-West	Eastbound	Mid Level	0	56.0	0	\$145.00	\$0	\$0	
5-West	Westbound	Mid Level	360	43.1	15,510	\$145.00	\$2,248,933	\$1,911,593	
5-West	Eastbound	Mid Level	0	56.0	0	\$145.00	\$0	\$0	
6-West	Westbound	Mid Level	415	43.1	17,879	\$145.00	\$2,592,520	\$2,203,642	
6-East	Eastbound	Mid Level	415	56.0	23,257	\$145.00	\$3,372,327	\$2,866,478	
7-West	Westbound	Mid Level	440	43.1	18,957	\$145.00	\$2,748,695	\$2,336,391	
7-East	Eastbound	Mid Level	180	56.0	10,088	\$145.00	\$1,462,696	\$1,243,292	
1-East	East/West	Overpass	135	45.1	11,903	\$155.00	\$1,844,894	\$1,568,160	
2-East	East/West	Overpass	135	43.1	11,903	\$155.00	\$1,844,894	\$1,568,160	
1-East	East/West	Overpass	135	45.1	6,089	\$155.00	\$943,718	\$802,160	
2-East	East/West	Overpass	135	43.1	5,819	\$155.00	\$901,868	\$766,587	
5800 Subtotal Bridge Construction Costs							\$42,641,442	\$36,245,226	

APPENDIX K-2

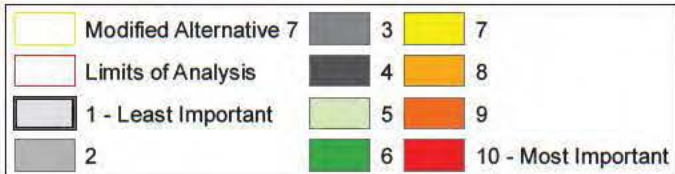
Alternative No: Modified 7 - 4-Lane RRE Partially Elevated				
County Roadway Signalization Cost				
Side	# of Signals	FDOT Const.	Subtotal	Adjusted
Ridge West	1	\$147,128	\$147,128	\$125,059
Ridge East	1	\$187,577	\$187,577	\$159,440
Subtotal Signalization Costs			\$284,499	
Subtotal Construction costs			\$82,424,557	
Contingency (10%)			\$8,242,456	
Subtotal Construction costs			\$90,667,013	
Design	5%		\$4,533,351	
CEI	3%		\$2,720,010	
Total Project Const & Engineering Cost			\$97,920,374	
Notes:	Bridges		Length	
	West of Suncoast	5260		
	East of Suncoast	540		
		5800		
Bridge width of 43.1' consists of (2) 12' Lanes, (1) 10' Shoulder, (1) 6' Shoulder, and (2) 1.54 Barriers.				
Bridge width of 56.0' consists of (2) 12' Lanes, (1) 10' Shoulder, (1) 6' Shoulder, (1) 12' Trail and (1) 1' Parapet, (1) 1.5' Barrier and (1) 1.54' Barrier				
Bridge width of 88.2' consists of (2) 12' Lanes, (1) 10' Shoulder, (1) 8' Shoulder, and (2) 1.54 Barriers and a bridge with the same dimensions as the 43.1' bridge.				
The ramps are the 4 ramps calculated from the Suncoask Parkway and Ridge Road Interchange (Phase II) Plans.				
Ridge Road West proposed signalization is located at Starkey Blvd.				
Ridge Road East proposed signalization is located at US 41.				
The signalization cost for Ridge Road West is from FDOT Construction Cost of a 4-Lane Roadway intersecting a 4-Lane Roadway and the cost at Ridge Road East is from a 6-Lane Roadway intersecting a 6-Lane Roadway. FDOT has only established construction costs for a 2-Lane Roadway intersecting a 2-Lane Roadway, a 4-Lane Roadway intersecting a 4-Lane Roadway, and a 6-Lane Roadway intersecting a 6-Lane Roadway.				

Appendix K-3

Wetland and Habitat Maps



Modified Alternative 7. Integrated Wildlife Habitat Ranking System (IWHR) Scores



0 750 1,500 3,000 Feet

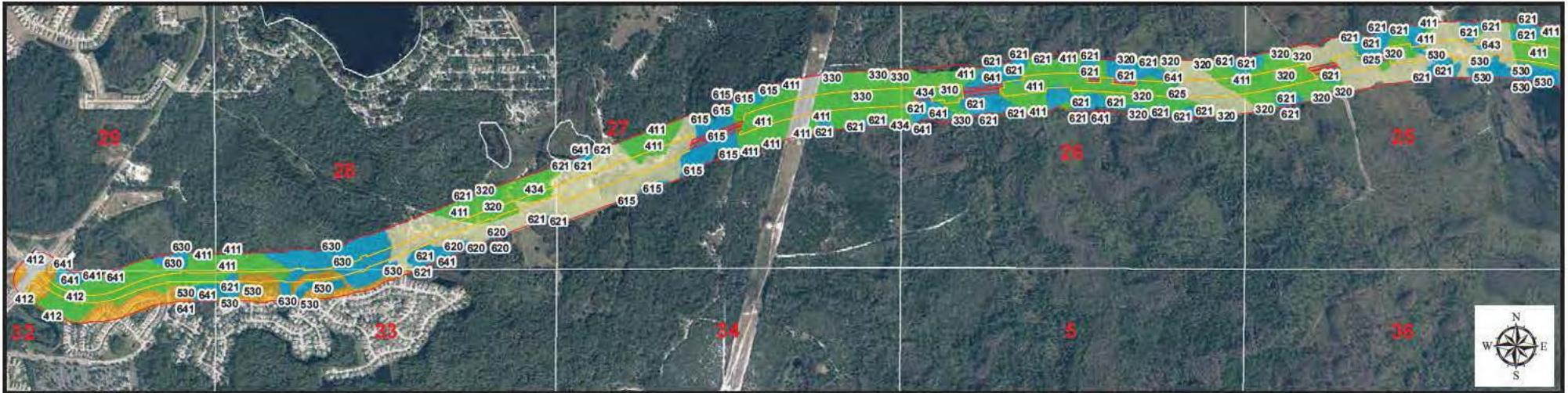
Pasco County Florida



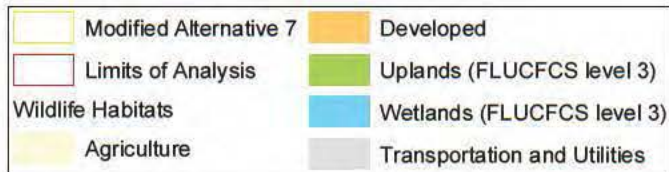
Ridge Road Extension
Alternatives Analysis

Drawn March, 2015

© 2015 All rights reserved. In the shape of a circle with a logo in the center. The logo features a stylized 'P' and 'C' with a tree and a sun. The text 'PASCO COUNTY FLORIDA' is written around the circle.



Modified Alternative 7. FLUCFCS Map Showing Habitats Along the Alternative



0 750 1,500 3,000 Feet

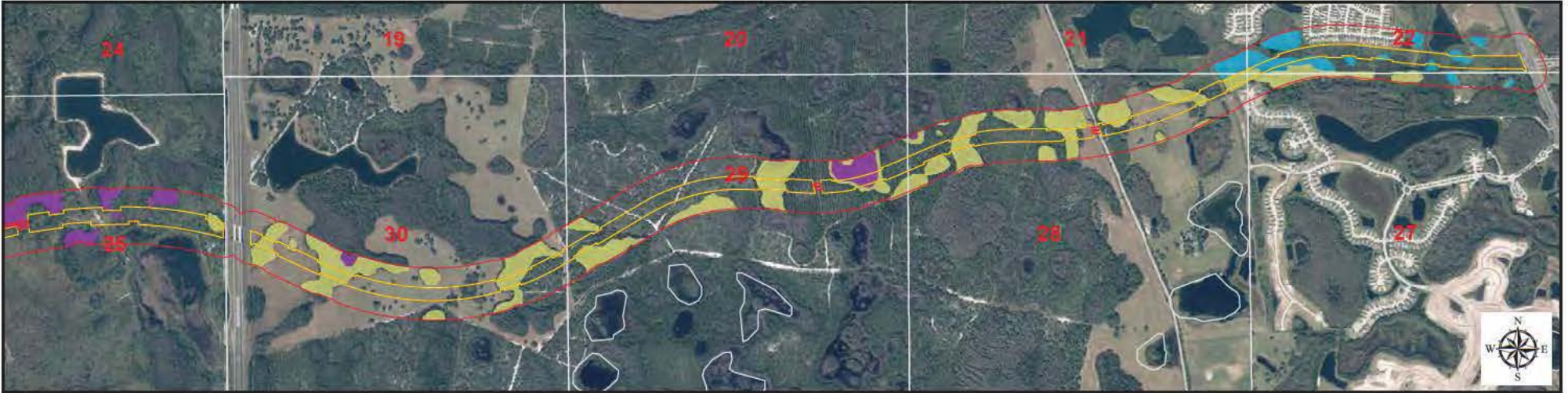
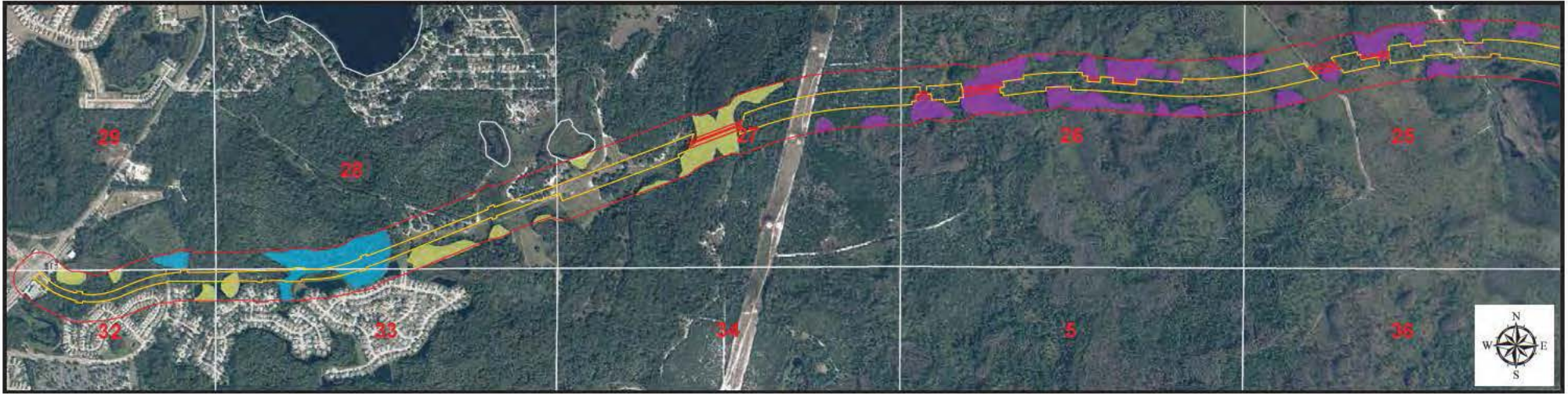
Pasco County Florida



Ridge Road Extension
Alternatives Analysis

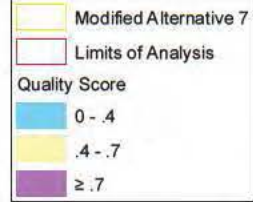
Drawn March, 2015

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Modified Alternative 7. Wetland Quality Score

0 750 1,500 3,000 Feet



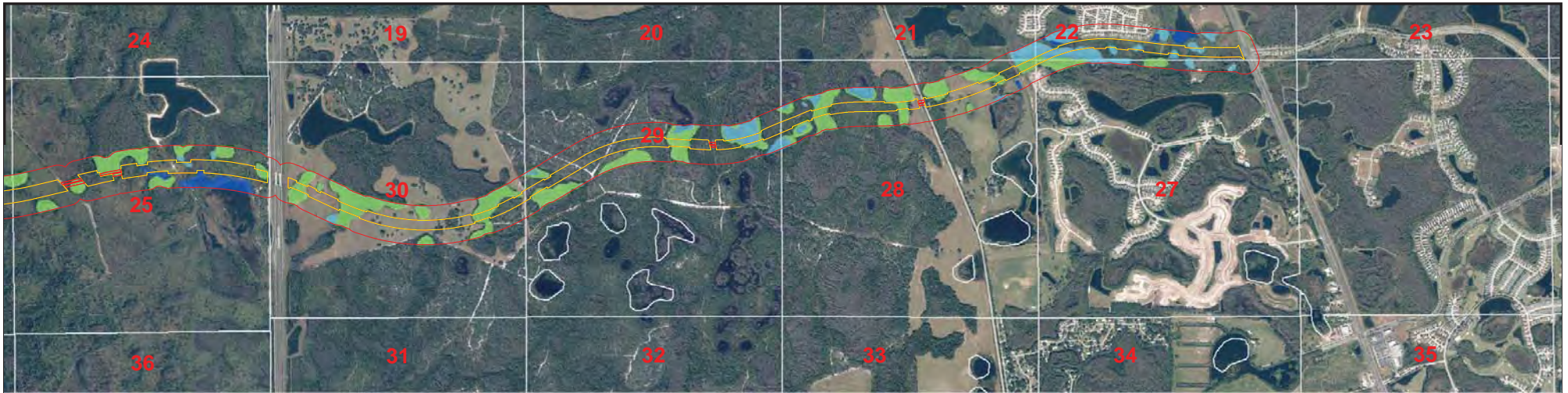
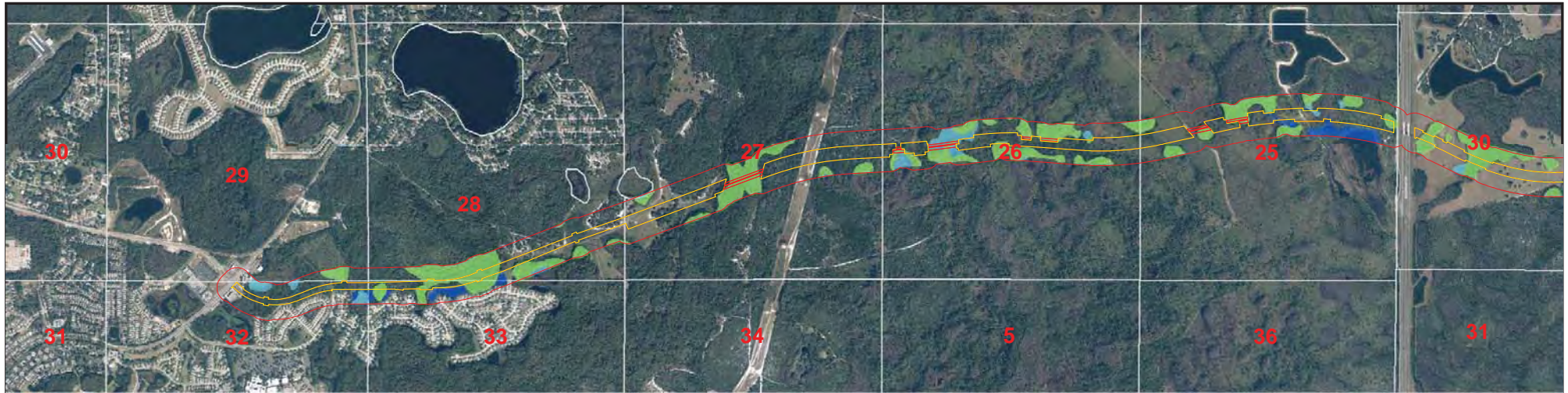
Pasco County Florida



**Ridge Road Extension
Alternatives Analysis**






Drawn March, 2015

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**Wetland Impacts Map
Modified Alternative 7 Ridge Road Extension**

1 inch = 2,000 feet

Legend	
	Modified Alternative 7
	Limits of Analysis
Wetlands and Waterbodies	
	Emergent
	Forested
	Surface Waters

Pasco County Florida



**Ridge Road Extension
Alternatives Analysis**



Drawn March, 2015

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