Attachment G

STREAM IMPACTS

for:

Ridge Road Extension Alternatives Analysis

PREPARED FOR:

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Stream Impacts for

Ridge Road Extension Alternatives Analysis

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Stream Impacts

1.0 Methodology

An impact to a stream was considered to be the linear length of the stream that would be under the footprint of an alternative. Post-construction, this would be the length of the original stream that would either flow under a bridge or be routed through culverts.

To measure the length of stream, the outline of the alternative was superimposed on a current digital aerial photograph, and a line, possibly with bends, was drawn through the center of the stream within the outline. If the stream was ditched, the line was placed in the center of the ditch. If the stream was bridged or culverted due to existing roads, the line was assumed to connect the center of the stream to either side of the bridge or culvert. Measurements were made in the ArcMap GIS program. Impacts were tallied for individual streams and the overall impact to streams was assumed to be the total length of streams impacted. The illustration below (for Five-mile Creek) depicts the way in which the impact was determined. The outline of the alternative is shown in gold. The linear impact, measured along the center of the stream, here a ditch, is shown in white.

Locations of stream crossings are shown in Figure G-1.

Illustrative only – enhanced to make linework more visible

2.0 Findings

Linear impacts are shown below for each alternative in linear feet of impact along the channel or ditch.

Alternative	Total Impact	Pithlachascotee	Five-mile Creek	Anclote South Branch	Anclote Sandy Branch
2	148	148	0	0	0
3	618	148	470	0	0
4	426	148	278	0	0
5	618	148	470	0	0
6	618	148	470	0	0
7	618	148	470	0	0
8	120	120	0	0	0
9	0	0	0	0	0
10	212	0	0	106	106
11	0	0	0	0	0
12	120	0	0	60	60
13	120	120	0	0	0
14	240	120	0	60	60
15	399	124	155	60	60
16	399	244	155	0	0
17	279	124	155	0	0

Among the alternatives options, there are two potential crossings of the Pithlaschotee River: at a site on the western edge of the Starkey Wilderness area (Figure G-1, Pithlachascotee RRE) and along SR 52 (Figure G-1, Pithlachascotee SR 52). The first site currently is undeveloped, there are no current impacts to the stream, and the crossing is more-or-less perpendicular to the direction of flow. The channel is poorly defined, and the stream is intermittent.

The second is along SR 52, and the stream is currently crossed by a concrete structure with 3 culverts. While a new bridge may be constructed, any impact would be at the same location as

the current one, but wider to accommodate the new lanes. The north side, with natural riverine Palustrine Forested wetland is avoided. The crossing at SR 52 is more-or-less perpendicular to the direction of flow and includes the width of the current structure. Any new impact is on the south side where the vegetation is highly altered and the original riverine forest is gone. The stream is intermittent.

Multiple alternatives cross Five-mile Creek in an area where it has been ditched and where the ditch forms a channel for water flow. There are two different ways in which the alternatives cross the creek, and the number of lanes in the roadway and orientations of the roadway relative to the ditch differ. Where alternatives 3, 5-7, and 15-16 cross the creek (Figure 5-1, Five Mile Creek West), the alignment is oblique relative to the ditch and the ditch is not straight. The creek at this point is best described as a ditch surrounded by disturbed herbaceous wetland vegetation. The alternative 4 crossing (Figure G-1, File Mile Creek East) is more perpendicular, and the creek is ditched at the crossing and more-or-less straight. At the alternative 4 crossing, the ditch is bordered by natural riverine Palustrine forest, and a created wetland is also present. The stream is intermittent.

Alignments 10, 12, 14 and 15 cross the South Branch of the Anclote River (Figure 5-1, Anclote South Branch). These cross just upstream of an old railroad grade that was reused in 2007 to carry a public water supply pipeline. The stream has been routed across the pipeline via a shallow “trough”, essentially a created swale. To avoid impacts to the pipeline, the roadway is just south of the pipeline, and the new impacts expand the area of existing impact by the width of the right-of-way, though to minimize wetland impacts, a narrow band of wetland trees exists between the new crossing and the pipeline. Alternatives that cross the South Branch by following SR 54 do not have impacts to the South Branch of the Anclote since they cross the South Branch where the existing SR 54 roadway is adequate and no new roadway will be constructed.

Alignments 10, 12, 14 and 15 cross the Sandy Branch of the Anclote (Figure G-1, Anclote Sandy Branch) at a location that is already substantially altered by the old railroad grade, which is crossed by a culvert, and by the water pipeline. The alignments are on the north side of the old railway and are co-located with the pipeline. The existing crossing is more-or-less perpendicular to the planned roadway and appears to be a constructed swale, a non-forested wetland with no obvious channel. The stream is intermittent and appears (from inspection of aerial photographs) to typically be dry.

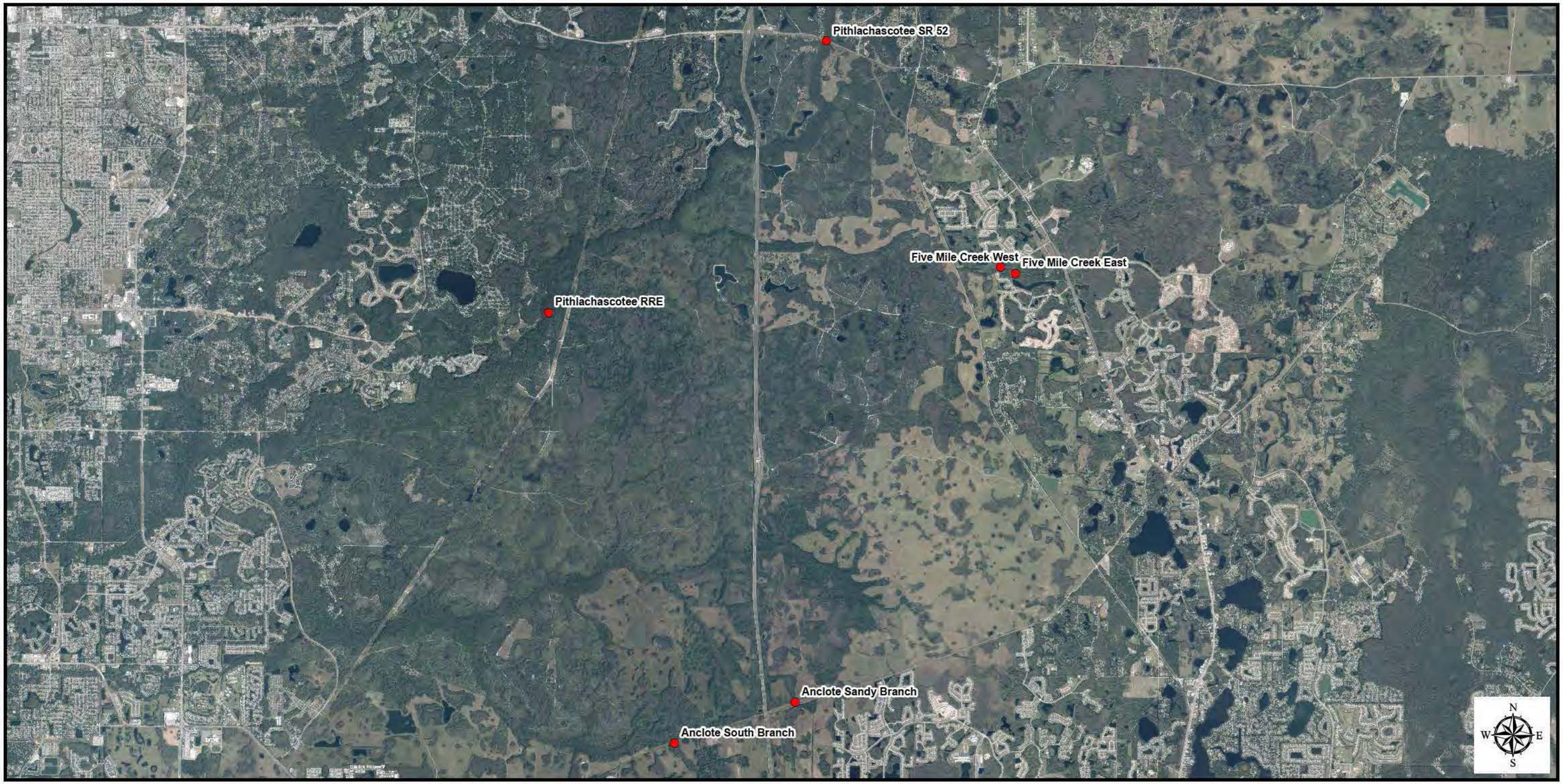

Figure G-1 Locations of Stream Crossings

Stream Crossings

Pasco County Florida

Ridge Road Extension
Alternatives Analysis

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