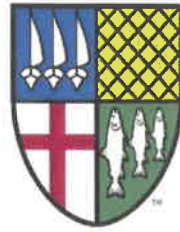


THE TOWN OF
Windermere



MAYOR AND COUNCIL OF THE TOWN OF WINDERMERE

Mayor Jim O'Brien

Council Members

Robert McKinley

Andy Williams

Chris Sapp

Bill Martini

Liz Andert

Agenda

Agenda

WORKSHOP

July 28, 2020

6:00 PM

MEETING TO BE HELD VIRTUALLY ON ZOOM

Join Zoom Meeting

<https://zoom.us/j/98397563611?pwd=eDMyRlhrUkczeK1jajNoMGZsZDNjdz09>

Meeting ID: 983 9756 3611

Passcode: 231329

One tap mobile

+16465588656,,98397563611# US (New York)

+13017158592,,98397563611# US (Germantown)

Dial by your location

+1 646 558 8656 US (New York)

+1 301 715 8592 US (Germantown)

+1 312 626 6799 US (Chicago)

+1 669 900 9128 US (San Jose)

+1 253 215 8782 US (Tacoma)
+1 346 248 7799 US (Houston)
Meeting ID: 983 9756 3611

Find your local number: <https://zoom.us/j/abQ4V3KEpP>

PLEASE NOTE: IN ACCORDANCE WITH F.S. 286.26: Person with disabilities needing assistance to participate in any such proceeding should contact the Office of the Town Clerk at least 48 hours beforehand at (407) 876-2563

Pursuant to Resolution No. 2005-12 adopted on December 13, 2005, the following Civility Code shall govern all proceedings before the Town of Windermere Town Council:

1. All electronic devices, including cell phones and pagers, shall be either turned off or otherwise silenced.
2. Prolonged conversations shall be conducted outside Council meeting hall.
3. Whistling, heckling, gesturing, loud conversations, or other disruptive behavior is prohibited.
4. Only those individuals who have signed the speaker list and/or who have been recognized by the Mayor (or Chair) may address comments to the Council.
5. Comments at public hearings shall be limited to the subject being considered by the Council.
6. Comments at Open Forums shall be directed to Town issues.
7. All public comments shall avoid personal attacks and abusive language
8. No person attending a Town Council meeting is to harass, annoy, or otherwise disturb any other person in the room.

Any member of the public whose behavior is disruptive and violates the Town of Windermere Civility Code is subject to removal from the Town Council meeting by an officer and such other actions as may be appropriate. **PLEASE NOTE:** IN ACCORDANCE WITH F.S. 286.0105: Any person who desires to appeal any decision at this meeting will need a record of this proceeding. For this, such person may need to ensure that a verbatim record of such proceeding is made which includes the

AGENDA

- THE MEETING IS CALLED TO ORDER BY THE MAYOR
- FLAG SALUTE
- INVOCATION

1. OPEN FORUM/PUBLIC COMMENT (3 Minute Limit)

- a. Please email dburkhalter@town.windermere.fl.us prior to 5pm on July 27, 2020 to sign up
- b. Prior to meeting please state name, address and topic within chat box

~~2. SPECIAL PRESENTATION/PROCLAMATIONS/AWARDS~~

3. NEW BUSINESS

- a. ~~MINUTES~~
- b. ~~RESOLUTIONS/ORDINANCES FOR APPROVAL/FIRST READING~~
- c. ~~CONTRACTS & AGREEMENTS~~
- d. ~~FINANCIAL~~
- e. OTHER ITEMS FOR CONSIDERATION:
 - i. Town of Windermere Ward Trail Concept Plan (Attachments-Board Discussion)

4. MAYOR & COUNCIL LIAISON REPORTS

- a. MAYOR O'BRIEN
- b. COUNCILMAN MCKINLEY
- c. COUNCILMAN WILLIAMS
- d. COUNCILMAN SAPP
- e. COUNCILMAN MARTINI
- f. COUNCILMEMBER ANDERT

5. STAFF REPORTS

- a. TOWN MANAGER ROBERT SMITH
- b. TOWN ATTORNEY TOM WILKES
- c. POLICE CHIEF DAVE OGDEN
- d. PUBLIC WORKS DIRECTOR SCOTT BROWN

6. ADJOURN

-
- **REPORTS: NO ACTION REQUIRED**
 - **FILED ITEMS**



DRAFT REPORT



Ward Trail

Multiuse Trail Feasibility Study



June 2020

Kimley»»Horn



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- Appendix A: Drainage Conditions Information**
- Appendix B: Environmental Conditions Information**
- Appendix C: Proposed Alignment Plan Sheets**
- Appendix D: Public Workshop Meeting Materials**

1.0 INTRODUCTION

The Town of Windermere is studying the feasibility of constructing a ±0.6-mile paved multiuse trail located along Dirt Main Street and Lake Butler Boulevard between North Drive and Park Avenue.

This report identifies the existing conditions, opportunities, typical sections, drainage conditions, existing natural and human environment resources, project recommendations, and an opinion of probable construction costs. The study area is shown on **Exhibit 1**.



Exhibit 1: Study Area

2.0 PROCESS

The assessment of existing conditions was multi-disciplinary, including analyses of drainage impacts and permitting, a review of design elements, public involvement and stakeholder coordination, landscaping conditions and opportunities, connections to other systems, and an environmental analysis.

The feasibility study began with a desktop assessment of known conditions, followed by on-site reviews and stakeholder coordination. Once the existing conditions and trail objectives were understood, the project team developed conceptual plans and typical section graphics that were shared with staff, stakeholders, and the public to obtain input. Concept plans were then finalized based on comments, and an engineer's opinion of probable construction costs was developed. This process is shown graphically on Exhibit 2.

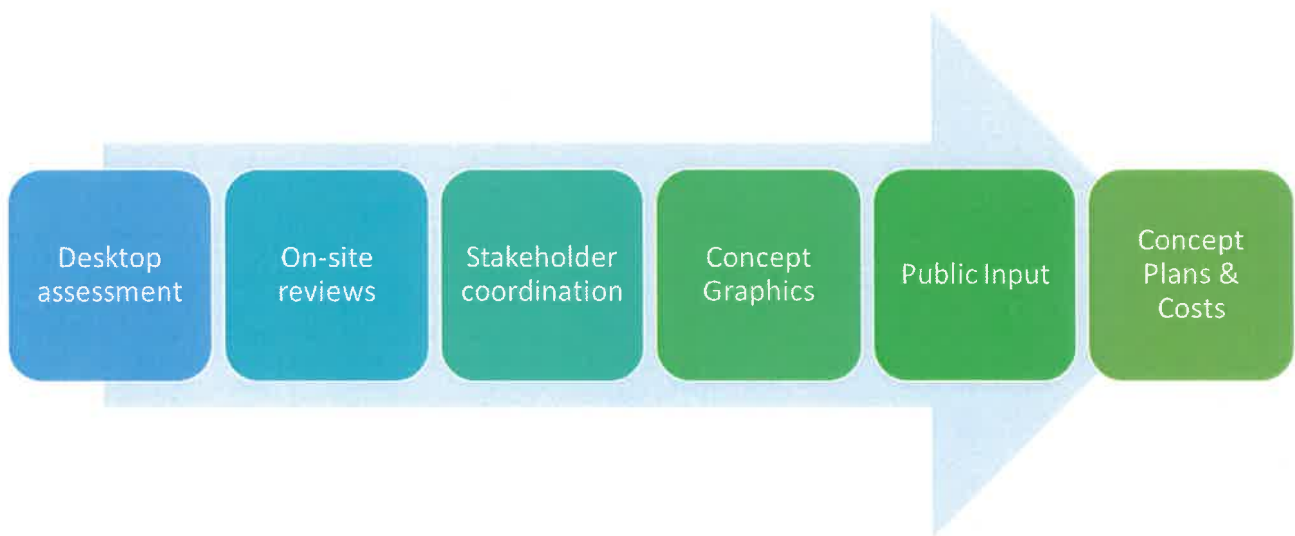


Exhibit 2: Feasibility Study Process

Background data was collected from the Town, from the Orange County Property Appraisers website, from aerial photography, and from previous projects within and near the study area. Roadway edge-of-pavement elevations along Main Street were surveyed to determine whether it is feasible to convert to curb-and-gutter.

The drainage assessment includes identification of basins, outfalls, potential impacts, and identification of opportunities to improve water quality.

The assessment of natural and human environmental features within the study area includes the review of several habitat, species, historic, and resource databases.

3.0 SITE VISITS

A field reconnaissance of environmental features was conducted on February 20, 2020. A site visit was conducted March 23, 2020 with roadway design, drainage design, landscape architecture and trail planning staff, to observe visible constraints and opportunities. The potential alignment for the trail includes several different existing typical sections:

SOUTHERN LIMIT TO CANAL

This portion of the trail is shown in photographs on **Exhibits 3 and 4**.

- This section is relatively open, with increasing separation from Main Street as the alignment heads northbound.
- While traveling northbound, the ridge/berm of the old railroad increases in elevation.
- There is a ditch of varying width and depth between the old railroad berm and Main Street.
- There are existing trees of varying size, quality, and location. There are no alignments that could completely avoid impacts to trees, though mitigation measures are possible in most locations.
- The southernmost portion (between 1st Avenue and North Drive) is not owned by the Town and is therefore not included in this analysis.
- Visible utilities consist of overhead electric, fiber optic communication, water, and drainage facilities (as described in the drainage section).



Exhibit 3: Southern Portion, Looking Northbound



Exhibit 4: Southern Portion of Trail, Looking Northbound Near Canal

CANAL TO 400' SOUTH OF LAKE BUTLER BOULEVARD

- This section is difficult to review in the field due to dense vegetation, as shown on **Exhibit 5**.
- The general typical section is characterized by a surface water ditch adjacent to Lake Butler Boulevard, then a raised wooded section that's approximately 15' wide, that slopes more gradually down to the east, followed by a cleared area of varying widths adjacent to Main Street.
- The wooded portion is relatively dense for an urban area.
- The surface water is described further in the environmental section of this report, but it is not considered a protected waterway or wetland. The edges of the canal and surface water are, however, within the FEMA floodplain.



Exhibit 5: Heavily Wooded Portion of Trail, Looking North along S. Lake Butler Boulevard

400' SOUTH OF LAKE BUTLER BOULEVARD TO LAKE BUTLER BOULEVARD

- As the route approaches Lake Butler Boulevard, the elevation of the berm decreases, and the vegetation becomes significantly less dense, as shown on **Exhibit 6**.
- This short section is relatively open and relatively flat and is likely the least challenging portion of the trail from a design perspective.
- There are likely opportunities to add significant landscaping along this portion.



Exhibit 6: Open Section, Looking South from Lake Butler Boulevard

LAKE BUTLER BOULEVARD TO PARK AVENUE

- This section has an existing 5' wide concrete sidewalk, as shown on **Exhibit 7**.
- The trail should likely follow the general path of the sidewalk.



Exhibit 7: Existing Sidewalk, looking North from Lake Butler Boulevard

4.0 EXISTING CONDITIONS

4.1 DRAINAGE CONDITIONS

Additional Drainage information is provided in **Appendix A**. A summary of conditions is provided below.

DRAINAGE OUTFALLS

The ultimate outfall of the project is the canal located between Lake Butler and Lake Down at STA. 119+50. There are three drainage outfalls located within project limits. Outfall 1 is a storm sewer system, consisting of a ditch bottom inlet (DBI) and pipes, located south of the canal and outfalls into the canal. Outfall 2 is a surface water (SW) ditch located north of the canal, that also outfalls into the canal. Outfall 3 is a roadside ditch located on Lake Butler Lane.

BASINS

1-foot contours were obtained from Orange County GIS to further help determine the existing drainage basins within our project limits. Maine Street / Maguire Road is in crown for a majority of the project length, therefore the drainage boundary is the centerline of the roadway. Runoff from the western half of Maine Street / Maguire Road sheet flows and collects in linear roadside ditches because no curbs are present within project limits.

Basin 1, located south of the outfall to East 4th Avenue, drains north through a series of roadside ditches and side drains until it reaches a DBI located adjacent to the pedestrian ramp for the canal crossing. The water then outfalls through a pipe directly into the canal. The client identified that water does not reach this inlet and is ponding in a low point in the roadway at the north end of Dirt Main Street.

Basin 2, located north of the canal, drains south through a SW ditch. Three DBIs, located near the outfall, drain to the adjacent ditch along Lake Butler Boulevard, which then outfalls directly to the canal.

Basin 3, located between Park Avenue and Lake Butler Boulevard, outfalls to a small roadside ditch near STA. 134+00 that then travel west on Lake Butler Boulevard, and eventually outfalls into Lake Butler.

4.2 ENVIRONMENTAL CONDITIONS

Additional Environmental information is provided in **Appendix B**. A summary of conditions is provided below.

ENVIRONMENTAL RESOURCES

The project limits were visually screened for the presence of wetlands as defined in the *Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1* and Chapter 62-340, Florida Administrative Code. The results of the field reconnaissance and NWI database research indicated that there are no wetlands and one surface water in the study area.

Field verification with the South Florida Water Management District (SFWMD) and the US Army Corps of Engineers (USACE) should be conducted during the project development phase of the project to confirm surface water limits.

FLOODPLAINS

FEMA FIRMs available from the FEMA website (<https://www.fema.gov/>) were reviewed to determine if the project area is located within a flood zone. According to FEMA FIRM Panel 12095C0220F, the study area is outside the 100-year flood zone (Zone X), with the exception of the area on and immediately adjacent to the canal that falls within Flood Zone AE.

PROTECTED SPECIES

No listed species were observed during field reconnaissance. Additionally, the FWC does not indicate any documented observations of state protected species within the study area.

Other species observed included the red-bellied woodpecker (*Melanerpes carolinus*), osprey (*Pandion haliaetus*), red-shouldered hawk (*Buteo lineatus*), brown pelican (*Pelecanus occidentalis*), marsh rabbit (*Sylvilagus palustris*), green anole (*Anolis carolinensis*), and limpkin (*Aramus guarauna*).

Both the USFWS report and the FNAI report listed several federal and state listed plants species as potentially occurring within the study area. However, no listed plant species were observed during field reconnaissance and there is marginal habitat for listed plant species within the study area. No further action should be required for listed plant species.

CONTAMINATION

As of March 17, 2020, the FDEP does not list any potential contamination sites within 500 feet from the project study area.

5.0 POTENTIAL IMPROVEMENTS

5.1 ADJACENT IMPROVEMENT

Dirt Main Street is in the design process to be paved due to chronic flooding problems. The paving project will include installation of curb and gutter along the eastern edge of Dirt Main Street, which is immediately adjacent to the study area for this trail project.

5.2 ANTICIPATED TYPICAL SECTIONS

The typical section of the trail changes based on variations in the existing study area. The trail moves east or west, and to higher or lower elevations largely following the existing land. In the southern portion of the trail, looking north, from left to right: the roadway edge is followed by a landscaping buffer area, then the 10' wide trail, then a drainage swale adjacent to Main Street. It is assumed that regrading of the existing berm will be sufficient and 6' thick concrete pavement is proposed for the trail. The various typical sections are shown on **Exhibit 8** and **Exhibit 9**.

Various decorative features, handrails, signs, striping, and other features can be added as necessary or desired.

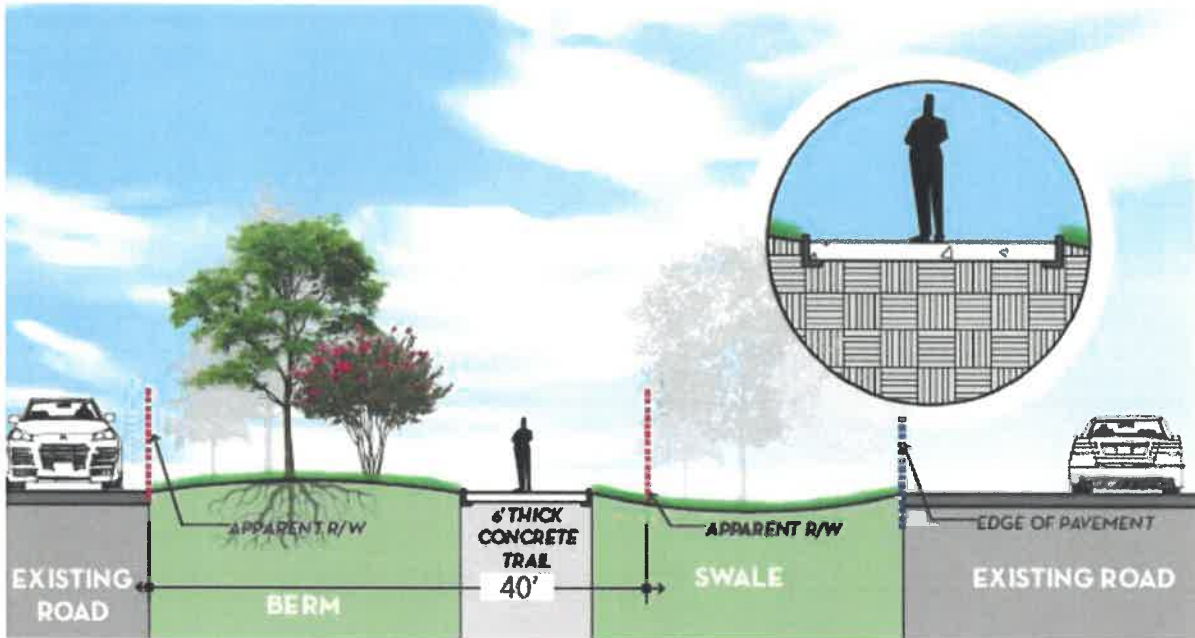


Exhibit 8: At-Grade Trail for Low-Elevation Areas

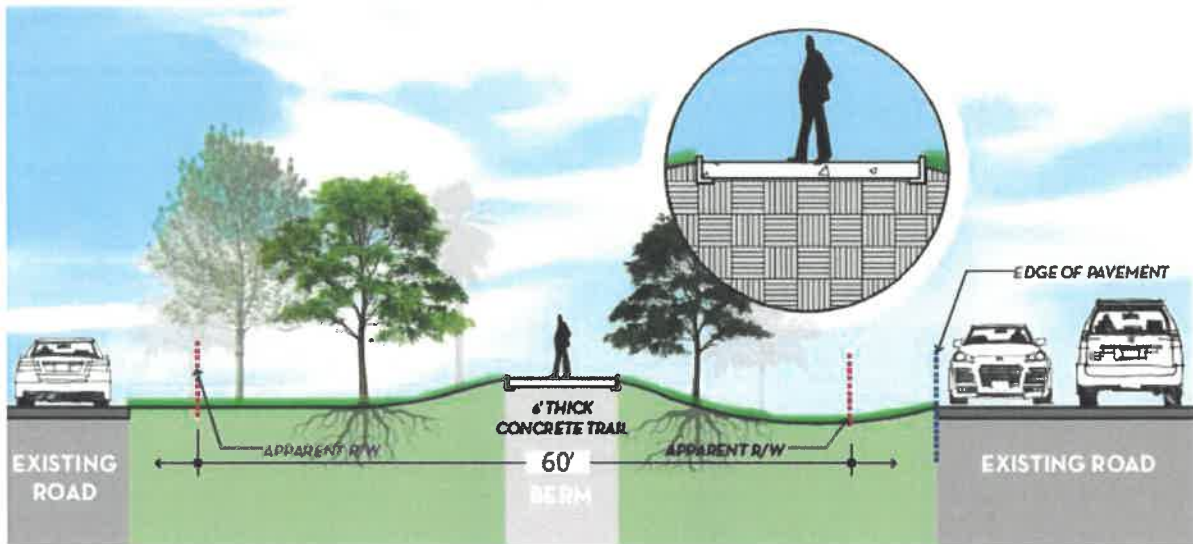


Exhibit 9: At-Grade Trail through Existing Trees, on Medium/High Berms

5.2 ANTICIPATED ALIGNMENT

Plan sheets showing the proposed alignment are provided in **Appendix C**. Note that the alignment was developed prior to obtaining survey. The design phase, which will begin with a topographical survey, will be used to fine-tune the alignment consistent with the overall goals for the trail. Similarly, a tree survey, by an arborist, should be conducted to determine the tree species and tree quality when considering which tree mitigation strategy should be used.

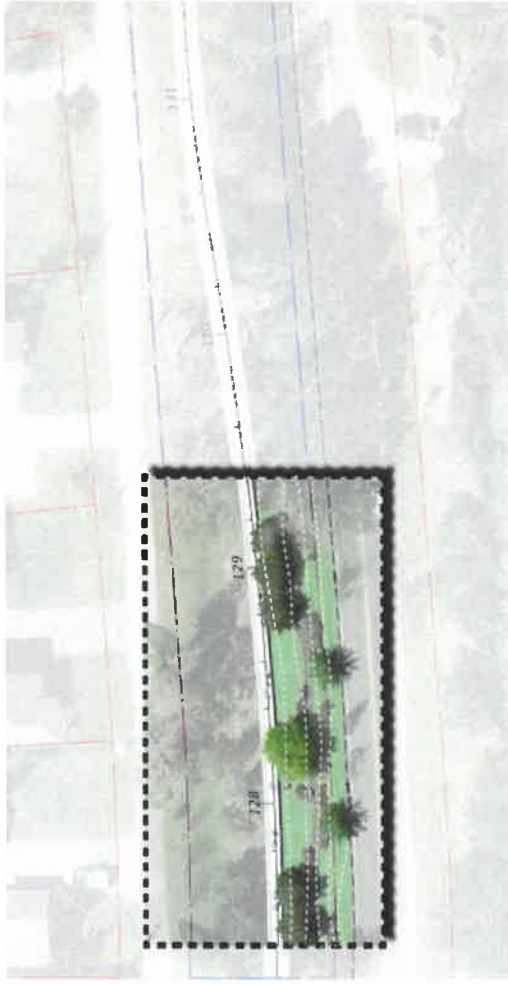
The portion of the trail immediately north of the canal is shown aligned to the eastern portion of the existing berm to avoid impacts to the floodplain. The alignment should be adjusted based on topographical survey to ensure that it does not impact the floodplain. If the berm is narrow in certain areas (this will not be known until the survey is complete), additional embankment on the east side may be appropriate and handrails may be needed to provide protection from dropoff hazards.

5.3 PROPOSED MATERIALS

The trail is proposed to be constructed using concrete due to the known properties, relative constructability, design life, and maintenance benefits when compared with asphalt. The proposed thickness is 6" to provide additional durability, compared to typical 4" thick concrete sidewalk.

5.4 LANDSCAPING

The landscaping elements included in this analysis assume that the trail will not be irrigated. Plantings were selected based on their ability to thrive in Central Florida without irrigation (after a period of establishment). Two tiers of landscape enhancements were considered, one that is primarily shrubs, and one that combines trees and shrubs. Landscaping plans with example images and anticipated costs are shown on **Exhibits 10 and 11**.



PLAN VIEW: STATION 127+40 TO STATION 129+40



SECTION: SHRUBS ENHANCEMENT



SAND CORD GRASS



PINK MUHLY



DWARF FANALTHEE GRASS



BLACK EYE SUSAN



PRECEDENT IMAGE

LANDSCAPE ENHANCEMENT
SHRUBS ENHANCEMENT: -47-\$7,500

Exhibit 10: Landscape Enhancement - Shrubs



PLAN VIEW: STATION 127+40 TO STATION 129+40



SECTION: TREES AND SHRUBS ENHANCEMENT



CAPE MYRTLE



BOTTLEBRUSH TREE



OAK TREE



CAPE MYRTLE



PRECEDENT IMAGE

LANDSCAPE ENHANCEMENT:
 SHRUBS ENHANCEMENT: +/- \$7,500
 TREE ENHANCEMENT: +/- \$38,500
 TOTAL +/- \$46,000

Exhibit 11: Landscape Enhancement – Shrubs and Trees

5.5 WATER QUALITY IMPROVEMENTS

The project has two primary areas that can be used to add water quality enhancements – the area south of the canal, and the area south of Lake Butler Boulevard. Both areas are flat enough that regrading can create swales that can be planted as rain gardens to remove pollutants to improve water quality. Additionally, best management practices can be used to avoid direct discharge into the canal.

5.6 OPINION OF PROBABLE CONSTRUCTION COSTS

An Engineers Opinion of Probable Construction Costs (EOPC) was developed to better understand the likely project costs. Note that the costs for replacing the pedestrian bridge are not included in the cost estimate since the bridge is to be designed and fabricated by a specialty bridge company.

The resulting EOPC is shown in **Table 1**. Note that landscaping costs were assumed to include shrubs and trees. The number of trees and size of trees will significantly affect the cost. These costs assume 64 trees at \$1,000 per tree.

Table 1: Engineers Opinion of Probable Costs

ITEM NO.	UNITS	QUANTITY	ITEM DESCRIPTION	UNIT COST	FACTOR	TOTAL
ROADWAY						
110-1-1	AC	1.80	CLEARING & GRUBBING	\$10,348.06	1.25	\$23,283.14
110-4-10	SY	481	REMOVAL OF EXISTING CONCRETE	\$20.01	1.25	\$12,021.01
120-6	CY	2848	EMBANKMENT	\$8.63	1.25	\$30,724.40
522-2	SY	3795	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	\$58.04	1.25	\$275,290.98
570-1-2	SY	5127	PERFORMANCE TURF, SOD	\$2.67	1.25	\$17,110.25
ROADWAY SUB-TOTAL						\$358,429.77
DRAINAGE						
400-1-2	CY	2.64	CONCRETE CLASS I, ENDWALLS	\$1,788.03	1.25	\$5,900.50
425-1-201	EA	2	INLETS, CURB, TYPE 9, <10'	\$5,477.50	1.25	\$13,693.75
425-2-41	EA	2.0	MANHOLES, P-7, <10'	\$5,819.75	1.25	\$14,549.38
430-174-118	LF	50	PIPE CULVERT, OPTIONAL MATERIAL, ROUND,	\$79.36	1.25	\$4,960.00
430-175-124	LF	300	PIPE CULVERT, OPTIONAL MATERIAL, ROUND,	\$91.22	1.25	\$34,207.50
430-984-125	EA	2	MITERED END SECTION, OPTIONAL ROUND,	\$1,374.37	1.25	\$3,435.93
524-1-19	SY	15	CONC DITCH PAVT, 3", REINFORCED	\$64.83	1.25	\$1,215.56
570-1-2	SY	220	PERFORMANCE TURF, SOD	\$2.66	1.25	\$731.50
571-1-11	SY	100	PLASTIC EROSION MAT, TURF REINFORCED	\$4.26	1.25	\$532.50
DRAINAGE SUB-TOTAL						\$79,226.61
LANDSCAPING (OPTIONAL)						
N/A	LS	1	SHRUB AND TREE ENHANCEMENT	\$71,500.00	\$1.00	\$71,500.00
LANDSCAPING SUB-TOTAL						\$71,500.00
PROJECT SUBTOTAL						\$509,156.38
MISCELLANEOUS						
101-1	LS	1	MOBILIZATION (10%)	\$50,915.64	1.00	\$50,915.64
102-1	DA	1	MAINTENANCE OF TRAFFIC (10% OF COST AMOUNT) (EXCLUDING TEMPORARY PAVEMENT)	\$50,915.64	1.00	\$50,915.64
		1	CONTINGENCY (15%)	\$76,373.46	1.00	\$76,373.46
PROJECT GRAND TOTAL						\$687,361.11

THESE ITEM AVERAGE UNIT COSTS VALUES WERE OBTAINED FROM THE FDOT ESTIMATES OFFICE WEBSITE UNDER THE ITEM AVERAGE UNIT COSTS FOR STATEWIDE SEPTEMBER 1, 2019 – FEBRUARY 29, 2020.

NOTE:

THE ENGINEER HAS NO CONTROL OVER THE COST OF LABOR, MATERIAL, EQUIPMENT, OR OVER THE CONTRACTOR'S METHODS OF DETERMINING PRICES OR OVER COMPETITIVE BIDDING OR MARKET CONDITIONS. OPINIONS OF PROBABLE COSTS PROVIDED HEREIN ARE BASED ON THE INFORMATION KNOWN TO THE ENGINEER AT THIS TIME AND REPRESENT ONLY THE ENGINEER'S JUDGMENT AS A DESIGN PROFESSIONAL FAMILIAR WITH THE CONSTRUCTION INDUSTRY. THE ENGINEER CANNOT AND DOES NOT GUARANTEE THAT PROPOSALS, BIDS, OR ACTUAL CONSTRUCTION COSTS WILL NOT VARY FROM ITS OPINIONS OF PROBABLE COSTS.

6.0 POTENTIAL IMPACT OF IMPROVEMENTS

6.1 ANTICIPATED IMPACTS

The project is not anticipated to add capacity to the roadway, affect planned community growth, land use patterns, or growth rates. The project will create a linear amenity by turning an existing natural area into a trail that can be used by the community.

6.2 ANTICIPATED ENVIRONMENTAL IMPACTS

A portion of the proposed trail alignment intersects with a surface water canal that provides a hydrological connection from Lake Butler to Lake Down. A pedestrian bridge is currently in place over the canal. Assuming the proposed trail is in the same general location as the existing pedestrian bridge, no significant disruption to the current water environment is anticipated.

Drainage improvements are included due to the minor increase in impervious area associated with the recreational trail. Additionally, a Stormwater Pollution Prevention Plan (SWPPP) should be developed and included in the plans, including efforts for sediment erosion control. Compliance with all SFWMD Best Management Practices (BMPs) and the FDOT *Standard Specifications for Road and Bridge Construction* will be implemented to reduce or eliminate discharges that affect water quality.

6.3 ANTICIPATED IMPACTS TO SPECIES

One (1) eagle nest is within a 1-mile range of the site, but not within a 600-foot buffer; therefore, the project is anticipated to have no negative impacts on the bald eagle.

No further action should be required regarding other species.

Although no gopher tortoises were observed during field reconnaissance, surveys for the Florida gopher tortoise are recommended to be conducted during the design phase to ensure no species are present within the proposed project footprint.

Portions of the study area meet the three criteria listed by the USFWS for potential sand skink habitat: county, soil type, and elevation. Potential habitat is primarily located at the start and end of the proposed trail and is surrounded by intensive development. Therefore, it is recommended to consult with the USFWS to determine eligibility for a reduced or eliminated skink survey prior to the start of construction related activities.

6.4 ANTICIPATED IMPACTS TO DRAINAGE

The proposed paving of Dirt Main Street and the proposed 10' wide trail will combine to require additional improvements to drainage collection and treatment. As such, roadside ditches will be realigned and graded to collect all runoff and convey it to existing outfalls. Existing drainage facilities will likewise be upgraded.

6.5 ANTICIPATED IMPACTS TO WATER QUALITY

The proposed trail design does not require attenuation or treatment since the trail does not exceed 14 feet in width and is not anticipated to impact any wetlands or surface waters within project limits. Therefore, the trail is exempt from permitting. A coordination meeting with the South Florida Water Management District (SFWMD) will be held to discuss these criteria. As described previously, opportunity sites along the trail are anticipated to enhance water quality.

7.0 PUBLIC INVOLVEMENT

7.1 STAKEHOLDER WORKSHOPS

A stakeholder workshop was held DATE, 2020, with representatives including Town management, public works staff, Town Council representation, a tree board representative, and a Parks & Recreation representative. The meeting summary is provided in **Appendix D**.

The workshop discussed project constraints, goals, objectives, concerns, and opportunities. Several guiding principles were determined during the meeting, as described below:

- The trail should be approximately 10' wide. A wider trail may encourage higher bike-riding speeds, which are not desired in this community.
- Material should be concrete for improved durability, constructability, and maintenance.
- The trail should mender, rather than being as straight as possible. The curves should be gradual and comfortable to create a more inviting experience.
- Water quality improvements should be considered.
- Golf carts should be allowed on the pedestrian bridge, but not on the rest of the trail.
- The path should be approximately 10' wide.
- Pedestrian scale lighting should be considered.

7.2 PUBLIC WORKSHOP

A public workshop was held at Town Hall on June/July/August? ##, 2020 to present the anticipated alignment and trail features. Meeting materials are provided in **Appendix D**.

7.3 COMMENT SUMMARY

To be completed after the meeting is held

8.0 PERMITTING

An Environmental Resource Permit from SFWMD will be required for activities related to stormwater management, floodplain compensation, and activities located on or adjacent to the canal. A USACE Section 404 permit may be required for potential minor impacts to the canal, however eligibility for a Nationwide Permit is likely. A National Pollutant Discharge Elimination System (NPDES) permit will be required from FDEP and the contractor will be responsible for obtaining it prior to construction.

Per the Code of Ordinances for Orange County, Sec. 15-283(a), a tree removal permit is required from the zoning manager to remove any protected trees on site greater than eight (8) inches diameter at breast height (DBH). What constitutes a protected tree is defined in Sec. 15-283(a).

Per the Code of Ordinances for Orange County, Sec. 15-376, as wetlands are present on-site (edges of Lake Butler), a Conservation Area Determination (CAD) will be required prior to development. This will require an application to be submitted to the Orange County Environmental Protection Division (EPD). EPD will then visit the site and upon completion of field verification by EPD, a Class Determination Letter will be sent to the applicant. If wetlands will be impacted by the project, a Conservation Area Impact (CAI) permit will be required from the Orange County EPD.

APPENDIX A
Drainage Conditions Information



Windermere Ward Trail

DRAINAGE MEMO

Prepared For:



Project Summary

Introduction

The Town of Windermere requests a concept plan for a multi-use path to run adjacent to Main Street / Maguire Road from North Drive to approximately Park Avenue, located in Orange County, Florida. The project proposes an 10-foot wide multi-use path, landscape buffer, and a conveyance system along the western side of Main Street / Maguire Road. This drainage report will document alternatives, provide recommended solution(s), and sketches that will assist in the scoping of design and permitting of the overall improvement. A project location map is located in **Appendix A**.

Existing Conditions

A field review took place on March 12, 2020 to inventory existing drainage structures and identify drainage basins and flow patterns. There is a canal that is the ultimate outfall of the project that is located between Lake Butler and Lake Down at STA. 119+50.

Outfalls

There are three drainage outfalls located within project limits. Outfall 1 is a storm sewer system, consisting of a ditch bottom inlet (DBI) and pipes, located south of the canal and outfalls into the canal. Outfall 2 is a surface water (SW) ditch located north of the canal, that also outfalls into the canal. Outfall 3 is a roadside ditch located on Lake Butler Lane.

Basins

1-foot contours were obtained from Orange County GIS to further help determine the existing drainage basins within our project limits. Maine Street / Maguire Road is in crown for a majority of the project length, therefore the drainage boundary is the centerline of the roadway. Runoff from the western half of Maine Street / Maguire Road sheet flows and collects in linear roadside ditches because no curbs are present within project limits.

Basin 1, located south of the outfall to East 4th Avenue, drains north through a series of roadside ditches and side drains until it reaches a DBI located adjacent to the pedestrian ramp for the canal crossing. The water then outfalls through a pipe directly into the canal. The client identified that water does not reach this inlet and is ponding in a low point in the roadway at the north end of Dirt Main Street.

Basin 2, located north of the canal, drains south through a SW ditch. Three DBIs, located near the outfall, drain to the adjacent ditch along Lake Butler Boulevard, which then outfalls directly to the canal.

Basin 3, located between Park Avenue and Lake Butler Boulevard, outfalls to a small roadside ditch near STA. 134+00 that then travel west on Lake Butler Boulevard, and eventually outfalls into Lake Butler.

A pre-development basin map with existing drainage structures can be found in **Appendix B**.

Proposed Conditions

A roadway improvement project will convert Dirt Main Street to a curbed section within basin 1. This project also proposes to add additional impervious surface by the addition of the 10-foot wide multi-use path. Due to these improvements, roadside ditches will be re-aligned and graded to collect all runoff and convey it to the existing outfalls.

Additionally, the existing inlet in basin 1 will be converted to a manhole. A proposed drainage inlet will be placed at the low point in the roadway at the end of Lake Butler Boulevard and will connect back to the existing system to reduce the ponding at the low point in the roadway.

A proposed drainage structures map can be found in **Appendix C**.

Floodplain Impacts

A portion of basin 2 is located in the FEMA Floodplain Zone X and has a defined floodplain elevation of 100.7. The proposed trail shall remain on the berm and avoid any impacts to the floodplain. Any impacts that cannot be avoided will require a pre-post volumetric comparison of the area showing insignificant impact to storage. The FEMA FIRMette Map can be found in **Appendix D**.

Water Quality Criteria

The proposed trail design does not require attenuation or treatment since the trail does not exceed 14 feet in width and is not anticipated to impact any wetlands or surface waters within project limits. Therefore, the trail is exempt from permitting. A coordination meeting with the South Florida Water Management District (SFWMD) will be held to discuss these criteria.

Water Quality Opportunities

The water quality in Lake Butler has diminished due to silt deposits from the unpaved road washouts near the lake. The washouts have resulted in rising stages and loss of storage volume in the lake. One way this issue can be improved by pre-treating the roadway runoff with ditch blocks prior to runoff entering the lake.

Appendices

Appendix A: Project Location Map

Appendix B: Pre-Development Basin Map

Appendix C: Proposed Drainage Structures Map

Appendix D: FEMA FIRMette Map

Appendix A: Project Location Map



Appendix B: Pre-Development Basin Map



REVISIONS		DESCRIPTION	TOWN OF WINDERMERE	SHEET NO.
DATE				
			DRAINAGE MAP (01)	
			Kimley-Horn Registry No. 696 P. Victor R. Gallo, P.E. 189 S Orange Avenue, Suite 1000 Orlando, FL 32801	c:\pwworking\kvh\proj\windermere\atc\season\lms74418\DRNMAP01.dgn
		4/17/2010 10:23:58 AM Dre/aut		



END PROJECT
STA. 141+98.42

SHEET
NO.

DRAINAGE MAP (01)

**TOWN OF
WINDERMERE**

Kimley-Horn

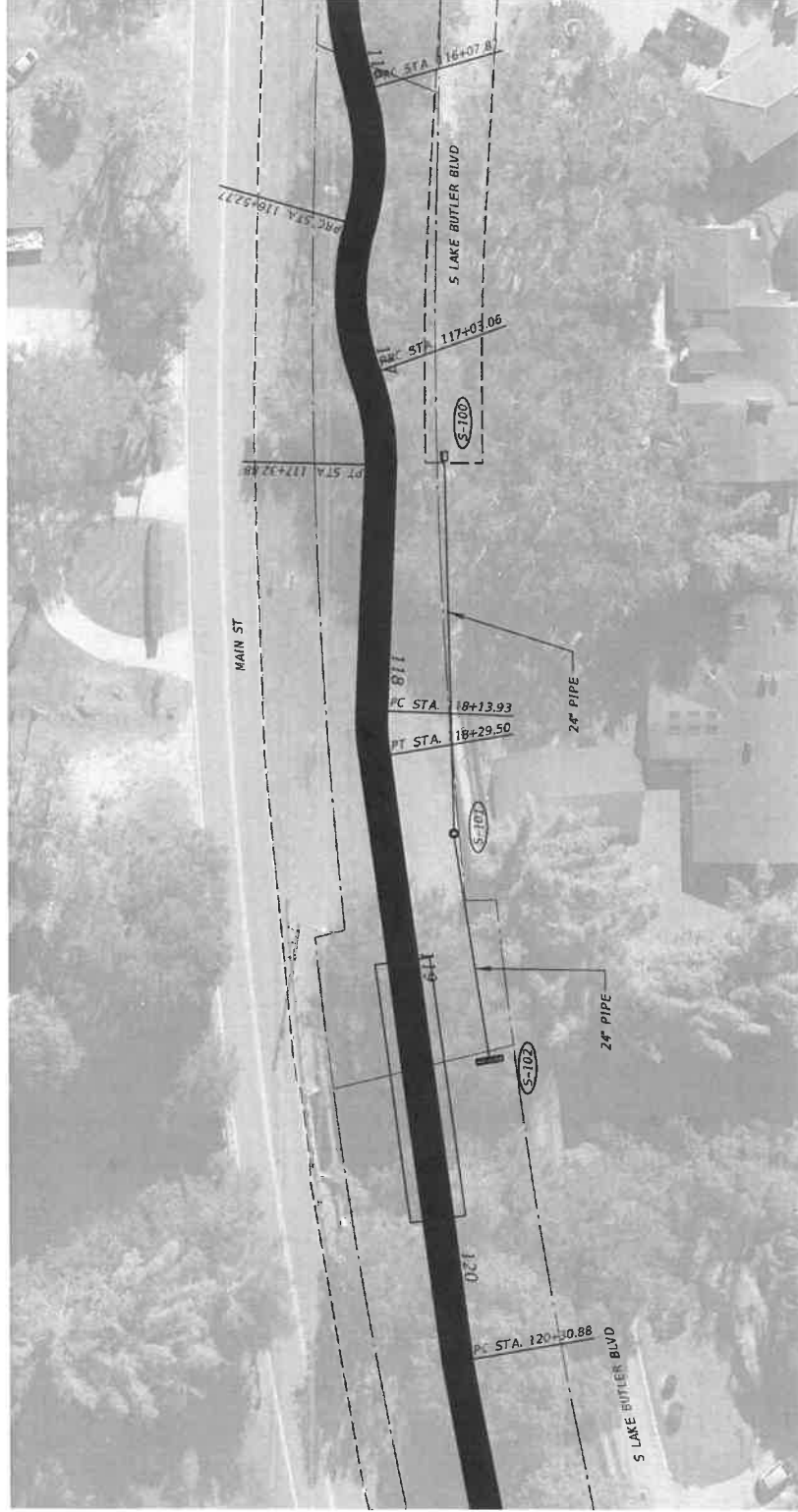
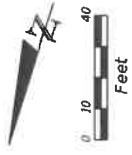
Registry No. 696
Victor H. Gallo, P.E.
189 S Orange Avenue, Suite 1000
Orlando, FL 32801

REVISIONS

DATE

DESCRIPTION

Appendix C: Proposed Drainage Structures Map



REVISIONS	DATE	DESCRIPTION
S-100	STA. 117+40.00 (20.30' LT)	TYPE 9 CURB INLET (CAST-IN-PLACE)
		INDEX NO. 425-024
		EOP EL. 102.00
		FL. 99.80
S-101	STA. 118+65.00 (22.50' LT)	MANHOLE
		INDEX NO. 425-001
		RIM EL. 103.00
		FL. 99.60
S-102	STA. 119+42.00 (24.10' LT)	ENDWALL
		INDEX NO. 430-030
		FL. 99.40

TOWN OF WINDERMERE

PROPOSED DRAINAGE

Kimley-Horn
 Registry No. 636
 Victor H. Gallo, P.E.
 185 S Orange Avenue, Suite 1000
 Orlando, FL 32801

DATE	DESCRIPTION	DATE	DESCRIPTION

Appendix D: FEMA FIRMette Map

National Flood Hazard Layer FIRMette



28°30'31.88"N
81°32'38.40"W



81°32'0.95"W
28°30'0.26"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE) Zone A, V, A99
- With BFE or Depth or Base Flood Elevation (BFE) Zone AE, AO, AH, VE, AR
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes. Zone X
- Area with Flood Risk due to Levee Zone D

OTHER AREAS

- Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES

- Gross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS

- Digital Data Available
- No Digital Data Available
- Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/25/2020 at 7:12:51 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX B
Environmental Conditions Information



Town of Windermere Multiuse Trail Feasibility Study

Natural and Human Environment Screening

April 2020

Kimley »» Horn

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INTRODUCTION

The Town of Windermere is studying the feasibility of constructing a 0.5 ± mile paved multiuse trail located near the eastern side of Lake Butler from North Drive to Lake Butler Boulevard.

This report identifies existing natural and human environment resources within the study area and describes the anticipated impacts to these resources. For purposes of this study, the study area has been defined as the area within 150 feet of the proposed multiuse trail.

METHODOLOGY

The assessment of natural and human environmental features within the study area included the review of the following data and documents:

- Historical aerial photography from the Florida Department of Transportation (FDOT) Aerial Photo Look-up System and Publication of Archival Library and Museum Materials
- Habitat and species-specific information obtained from the US Fish and Wildlife Service (USFWS), the Florida Fish and Wildlife Conservation Commission (FWC), Florida Fish and Wildlife Research Institute, Florida Geographic Data Library (FGDL), and the Florida Natural Areas Inventory (FNAI)
- The US Geological Survey 7.5-Minute Quadrangle maps (see **Figure 1—USGS Quadrangle Map**)
- The USFWS National Wetland Inventory (NWI) maps
- The Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRM)
- USFWS *Information for Planning and Consultation (IPaC) Trust Resources Report* included in **Appendix A**
- FNAI Unofficial Data Report for the study area included in **Appendix B**
- Florida Department of State – Division of Historical Resources Report in **Appendix C**
- Florida Department of Environmental Protection (FDEP) Map Direct Contamination Location Map

In addition to the review of databases and other resources, field reconnaissance was conducted on February 20, 2020.

EXISTING LAND USE PATTERNS

EXISTING RESOURCES

The project study area is urban and essentially built out. The land uses identified within the study area using the Florida Land Use, Cover, and Forms Classification System (FLUCFCS) (see **Figure 2 — FLUCFCS Map**) include the following:

- Fixed single family units
- Educational facility
- Pine flatwoods
- Channelized waterways – canals

ANTICIPATED IMPACTS

The project is not anticipated to have any notable impacts to traffic or community function, being that the project area is small and will be contained in an area that is already unused by the surrounding neighborhoods.

The project is not anticipated to add capacity to the roadway, affect planned community growth, land use patterns, or growth rates. It will simply be turning an existing natural area into a trail that can be used by the nearby communities.

WETLANDS AND SURFACE WATERS

EXISTING RESOURCES

Kimley-Horn and Associates staff conducted field reconnaissance on February 20, 2020 and reviewed NWI mapping of the project vicinity. The project limits were visually screened for the presence of wetlands as defined in the *Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1* and Chapter 62-340, Florida Administrative Code. The results of the field reconnaissance and NWI database research indicated that there are no wetlands and one surface water in the study area. The canal connecting Lake Butler and Lake Down (surface water) was the only jurisdictional feature identified in the study area (see **Figure 3—NWI Wetlands and Surface Waters Map**). The canal exhibits limited wetland vegetation along its banks. Wetland species were observed within the project site, especially on the north side; this included sword fern (*Polystichum munitum*), wild taro (*Colocasia esculenta*), red maple (*Acer rubrum*), Carolina willow (*Salix caroliniana*), dollarweed (*Hydrocotyle umbellata*), dayflower (*Commelina communis*), primrose willow (*Ludwigia peruviana*), and cypress (*Taxodium distichum*). The south side of the project area contains a bamboo (*Bambusoideae spp.*) seawall. Field verification with the South Florida Water Management District (SFWMD) and the US Army Corps of Engineers (USACE) should be conducted during the project development phase of the project to confirm surface water limits.

ANTICIPATED IMPACTS

A portion of the existing trail intersects with a surface water canal that provides a hydrological connection from Lake Butler to Lake Down, but a pedestrian bridge is currently in place there. Assuming the proposed trail is in the same general location as the existing trail, no significant disruption to the current water environment is anticipated.

Drainage improvements may be required due to a minor increase in impervious area associated with the recreational trail. Additionally, a Stormwater Pollution Prevention Plan (SWPPP) should be developed and included in the plans, including efforts for sediment erosion control. Compliance with all SFWMD Best Management Practices (BMPs) and the FDOT *Standard Specifications for Road and Bridge Construction* will be implemented reduce or eliminate discharges that affect water quality.

FLOODPLAIN ENCROACHMENT

EXISTING RESOURCES

FEMA FIRMs available from the FEMA website (<https://www.fema.gov/>) were reviewed to determine if the project area is located within a flood zone. According to FEMA FIRM Panel 12095C0220F, the study area is outside the 100-year flood zone (Zone X), with the exception of the area on and immediately adjacent to the canal that falls within Flood Zone AE. (*Figure 4—FEMA FIRM Map*).

ANTICIPATED IMPACTS

A flood analysis may be required to determine potential floodplain compensation if impacts to the floodplain are proposed. Additionally, a Conditional Letter of Map Revision from FEMA may be required dependent on the proposed activities within Zone AE for the construction of the trail.

PROTECTED SPECIES

EXISTING RESOURCES

Field reconnaissance was conducted to determine if listed species or their habitats were present within the study area. No listed species were observed during field reconnaissance. Other species observed included the red-bellied woodpecker (*Melanerpes carolinus*), osprey (*Pandion haliaetus*), red-shouldered hawk (*Buteo lineatus*), brown pelican (*Pelecanus occidentalis*), marsh rabbit (*Sylvilagus palustris*), green anole (*Anolis carolinensis*), and limpkin (*Aramus guarauna*).

The USFWS *IPaC Trust Resources Report* listed eighteen (18) threatened, endangered, or candidate species (*Table 1*) in Orange County (*Appendix A—USFWS Information for Planning and Consultation Trust Resources Report*). The project area also falls within three (3) USFWS Wood Stork Core Foraging Areas (CFA).

Additionally, a FNAI report (see *Appendix B—FNAI Report*) created on March 18, 2020 identified seventeen (17) species protected by the State of Florida with potential to occur within the study area (*Table 1*). However, the FNAI report did not indicate any documented instances of these protected species within the study area. Additionally, the FWC does not indicate any documented observations of state protected species within the study area (see *Figure 5—Listed Species Map*).

Both the USFWS report and the FNAI report listed several federal and state listed plants species as potentially occurring within the study area. However, no listed plant species were observed during field reconnaissance and there is marginal habitat for listed plant species within the study area. No further action should be required for listed plant species.

Table 1. Protected Species within the Study Area

Common Name	Scientific Name	Status	Habitat Present
Florida Black Bear*	<i>Ursus americanus floridanus</i>	Protected	Marginal
Bald Eagle**	<i>Haliaeetus leucocephalus</i>	Protected	Yes
Florida Burrowing Owl	<i>Athene cunicularia floridana</i>	ST	Marginal
Florida Sandhill Crane	<i>Grus canadensis pratensis</i>	ST	Marginal
Red-cockaded Woodpecker	<i>Picoides borealis</i>	FE	No
Everglade Snail Kite	<i>Rostrhamus sociabilis plumbeus</i>	FE	Marginal
Florida Scrub-jay	<i>Aphelocoma coerulescens</i>	FT	No
Wood Stork	<i>Mycteria americana</i>	FT	Marginal
Gopher Tortoise	<i>Gopherus polyphemus</i>	C	Yes
Eastern Indigo Snake	<i>Drymarchon corais couperi</i>	FT	Yes
Florida Pine Snake	<i>Pituophis melanoleucus mugitus</i>	ST	No
Bluetail Mole Skink	<i>Eumeces egregius lividus</i>	FT	Marginal
Sand Skink	<i>Neoseps reynoldsi</i>	FE	Marginal
<p>Notes: FE = Federally Endangered, FT = Federally Threatened, C = Candidate Species SE = State Endangered, ST = State Threatened *The Florida black bear is protected under Chapter 68A-4.009, Florida Administrative Code, the Florida Black Bear Conservation Plan. ** The bald eagle is protected under the Bald and Golden Eagle Protection Act.</p>			

ANTICIPATED IMPACTS

One (1) eagle nest is within a 1-mile range of the site, but not within a 600-foot buffer; therefore, the project is anticipated to have no negative impacts on the bald eagle.

The study area is located within the Central Bear Management Unit (BMU) and FWC reports that bears are "frequent" in this area. Although impacts to bear habitat will be minimal, consistent with the June 2012 FWC Black Bear Management Plan, garbage and food debris will need to be properly removed from the

construction site daily to eliminate possible sources of food that could encourage and attract bears. Nuisance bears will need to be reported to the FWC at the Wildlife Alert Hotline at 1-888-404-3922.

Potential habitat for the Florida burrowing owl exists within the study area, however observations are rare within Orange County. Additionally, no burrowing owls were observed during field reconnaissance. No further action should be required regarding this species.

No Florida sandhill cranes were observed during field reconnaissance. Although the edges of Lake Butler could provide suitable nesting habitat for the sandhill crane, no potential nesting habitat will be impacted by this project. Therefore, no further action should be required regarding this species.

No habitat for the red-cockaded woodpecker exists within the study area (old growth pine), therefore no further action should be required regarding this species.

No Everglade snail kites were observed during field reconnaissance. Although the edges of Lake Butler could provide suitable nesting habitat for the Everglade snail kite, no potential nesting habitat will be impacted by this project. Therefore, no further action should be required regarding this species.

No habitat for the Florida scrub-jay exists within the study area (xeric oak or pine flatwoods), therefore no further action should be required regarding this species.

Suitable foraging habitat exists along the canal for the wood stork and the project is located within three wood stork CFAs. Mitigation for lost wood stork foraging habitat is only required if impacts exceed 0.50 acres. This project will likely not impact more than 0.50 acres therefore no further action should be required regarding this species.

Although no gopher tortoises were observed during field reconnaissance, surveys for the Florida gopher tortoise are recommended to be conducted during the design phase to ensure no species are present within the proposed project footprint.

According to the *Eastern Indigo Snake Programmatic Effect Determination Key (South Florida) (August 2017)*, if the project will impact less than 25 acres of suitable eastern indigo snake habitat, has no known gopher tortoise burrows, and can be conditioned for use of the *USFWS Standard Protection Measures for the Eastern Indigo Snake (August 2013)*, the project may affect, but is not likely to adversely affect the eastern indigo snake.

No habitat for the Florida pine snake exists within the study area, therefore no further action should be required regarding this species.

Portions of the study area meet the three criteria listed by the USFWS for potential sand skink habitat: county, soil type, and elevation. Potential habitat is primarily located at the start and end of the proposed trail and is surrounded by intensive development. Therefore, it is recommended to consult with the USFWS to determine eligibility for a reduced or eliminated skink survey prior to the start of construction related activities.

HISTORIC AND ARCHAEOLOGICAL RESOURCES

EXISTING RESOURCES

Kimley-Horn requested an inquiry from the Department of State, State Historic Preservation Officer (SHPO) Division of Historical Resources Florida Master Site File (FMSF) regarding the presence of known historical or archaeological findings on the proposed project areas or in the immediate vicinity to determine if additional studies will be required. SHPO found there to be 6 structures within a 0.25-mile buffer of the project area.

ANTICIPATED IMPACTS

No structures documented within the study area have been evaluated by SHPO and therefore their eligibility for listing with the National Register of Historic Places (NRHP) has not been determined. A Cultural Resources Assessment Survey may be required during the design phase of this project.

CONTAMINATION

EXISTING RESOURCES

A preliminary evaluation of the project area was conducted to identify potentially contaminated sites that may be impacted by the proposed project. This analysis included a desktop review of the FDEP Direct Contamination Locator Map and readily available documents from FDEP's OCULUS database. As of March 17, 2020, the FDEP does not list any potential contamination sites within 500 feet from the project study area.

ANTICIPATED IMPACTS

A Phase I Site Assessment may be required to be performed during the design phase of the project to field verify any new or undocumented potential contamination sites. Based on the findings of the Phase I Site Assessment and the proposed construction limits, a Phase II Site Assessment may be required for the project but is not anticipated.

PERMITTING

An Environmental Resource Permit from SFWMD will be required for activities related to stormwater management, floodplain compensation, and activities located on or adjacent to the canal. A USACE Section 404 permit may be required for potential minor impacts to the canal, however eligibility for a Nationwide Permit is likely. A National Pollutant Discharge Elimination System (NPDES) permit will be required from FDEP and the contractor will be responsible for obtaining it prior to construction.

Per the Code of Ordinances for Orange County, Sec. 15-283(a), a tree removal permit is required from the zoning manager to remove any protected trees on site greater than eight (8) inches diameter at breast height (DBH). What constitutes a protected tree is defined in Sec. 15-283(a).

Per the Code of Ordinances for Orange County, Sec. 15-376, as wetlands are present on-site (edges of Lake Butler), a Conservation Area Determination (CAD) will be required prior to development. This will require an application to be submitted to the Orange County Environmental Protection Division (EPD).

EPD will then visit the site and upon completion of field verification by EPD, a Class Determination Letter will be sent to the applicant. If wetlands will be impacted by the project, a Conservation Area Impact (CAI) permit will be required from the Orange County EPD.

LIST OF FIGURES

1. US Geological Survey (USGS) Quadrangle Map
2. Florida Land Use, Cover, and Forms Classification System Map
3. National Wetlands Inventory (NWI) Wetlands and Surface Waters Map
4. Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Map
5. Listed Species Map

LIST OF APPENDICES

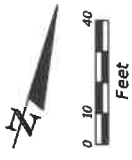
- A. US Fish and Wildlife Service Information for Planning and Consultation Trust Resources Report
- B. Florida Natural Area Inventory Report
- C. Florida Department of State – Division of Historical Resources Report

Appendix A— US Fish and Wildlife Service Report

Appendix B—Florida Natural Areas Inventory Report

Appendix C— Florida Department of State – Division of Historical Resources Report

APPENDIX C
Proposed Alignment Plan Sheets



TOWN R/W — · — · — · — ·
 PRIVATE R/W - - - - -



MATCH LINE SHEET 2

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

Kimley-Horn <small>Registry No. 696 189 S Orange Avenue, Suite 1000 Orlando, FL 32801</small>	TOWN OF WINDERMERE	WARD TRAIL POTENTIAL ALIGNMENT	SHEET NO. 1
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TOWN R/W

PRIVATE R/W



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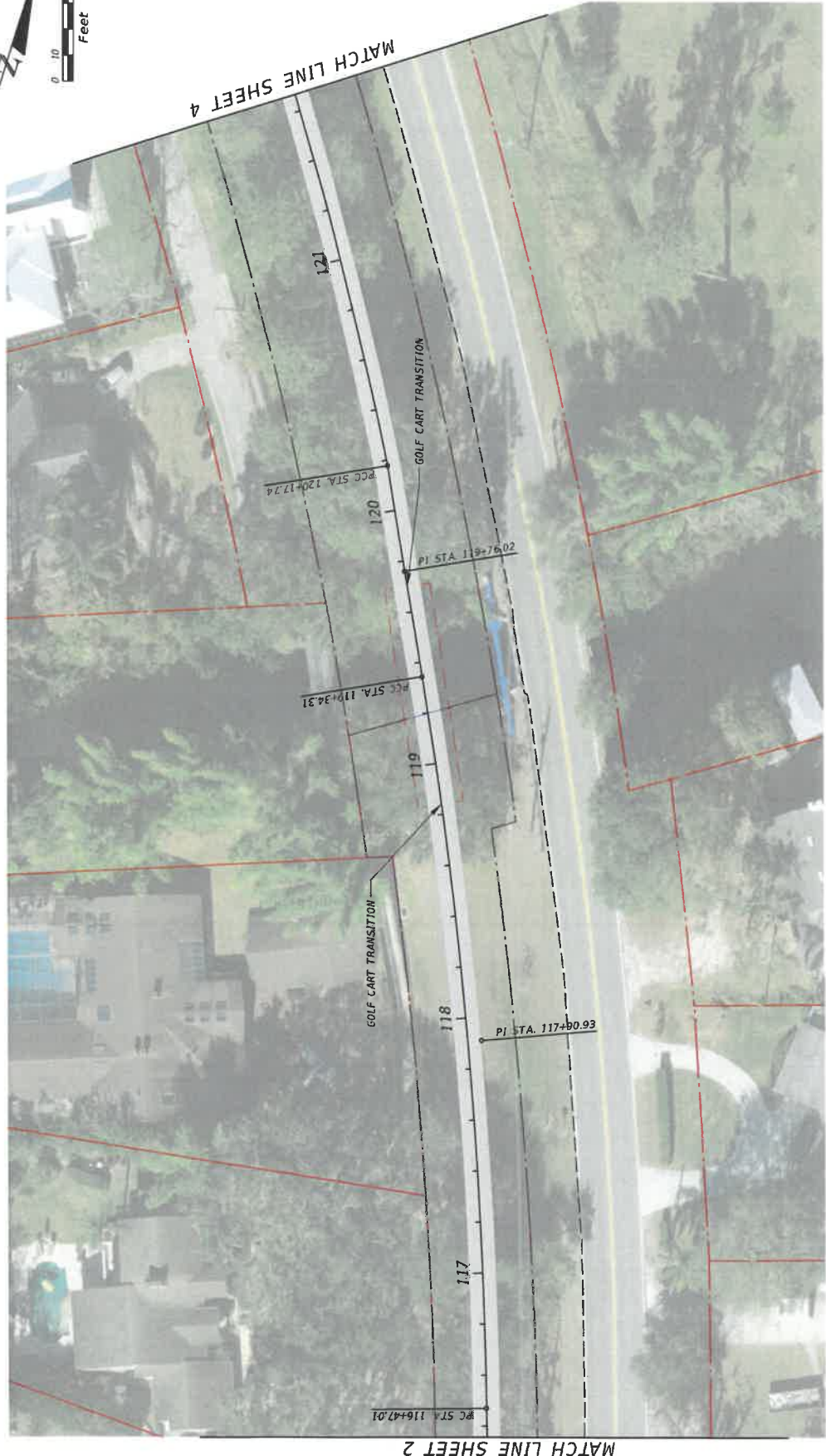
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DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

Kimley-Horn
 Registry No. 696
 Michael R. Woodruff, P.E.
 185 S Orange Avenue, Suite 1000
 Orlando, FL 32801

TOWN OF WINDERMERE
WARD TRAIL
POTENTIAL ALIGNMENT

SHEET NO. 2



TOWN R/W — PRIVATE R/W —

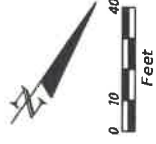
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Kimley-Horn Registry No. 696 Highway 100, Suite 1000 P.E. License No. 70009 109 S Orange Avenue, Suite 1000 Orlando, FL 32801		TOWN OF WINDERMERE	WARD TRAIL POTENTIAL ALIGNMENT	SHEET NO. 3
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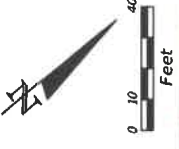
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PRIVATE R/W



DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION	TOWN OF WINDERMERE	WARD TRAIL POTENTIAL ALIGNMENT	SHEET NO.
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Kimley-Horn
 Registry No. 696
 Michael R. Woodward, P.E.
 189 S Grange Avenue, Suite 1000
 Orlando, FL 32801



TOWN R/W ---

PRIVATE R/W ---



MATCH LINE SHEET 6

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DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION	TOWN OF WINDERMERE	WARD TRAIL POTENTIAL ALIGNMENT	SHEET NO.
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Kimley-Horn
 Registry No. 696
 14350 N. W. 22nd St., Suite 100
 Ft. Lauderdale, FL 33309
 180 S Orange Avenue, Suite 1000
 Orlando, FL 32801

TOWN R/W 

PRIVATE R/W 



MATCH LINE SHEET 5

MATCH LINE SHEET 7

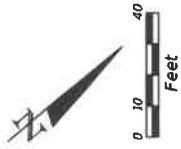
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Kimley-Horn
 Registry No. 696
 Michael R. Woodward, P.E.
 189 S Orange Ave., Suite 1000
 Orlando, FL 32801

TOWN OF
WINDERMERE

WARD TRAIL
POTENTIAL ALIGNMENT

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TOWN R/W
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MATCH LINE SHEET 6

DATE		DESCRIPTION		REVISIONS		DATE		DESCRIPTION	
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APPENDIX D

Stakeholder Workshop Meeting Summary
Public Workshop Meeting Materials



Town of Windermere
614 Main Street
Windermere, FL 34786

Meeting Summary
Ward Trail
Stakeholder Kickoff Meeting
February 21, 2020

Attendance List

Name	Organization
Mike Woodward	Kimley-Horn
Maile Spang	Kimley-Horn
Scott Brown	Town of Windermere
Robert Smith	Town of Windermere
John Fitzgibbon	Town of Windermere / LRP
Susan Carter	Tree Board
Nora Brophy	Parks & Rec
Roger Gatlin	Chair - LRP
Chris Sapp	Town Council / Streets & Roads

Project Background

This portion of the project is in Phase 1, with multiple future phases anticipated, including connecting to Ocoee and the West Orange Trail. This kickoff meeting was held to solicit stakeholder input prior to preparing concepts and developing meeting materials for upcoming charettes. The project limits are from North Drive to Park Avenue in Windermere.

Water Quality Discussion

The project will evaluate the ability to provide curb and gutter along Main Street parallel to the project. The feature will help improve water retention and water quality. The group advised Kimley-Horn to move forward with the drainage analysis to determine the proper treatment for water quality along the route.

Landscaping / Typical Section Features

- The intent of the path is not for high speed road bikers, but more leisurely riding and walking to and from Town.
- The path will be winding/meandering by nature of avoiding impacts to trees and also creating a pleasant aesthetic.
- The group discussed the use of golf carts on the path. The consensus was that the golf carts should only be allowed on the canal bridge. Departing the bridge, golf carts will be directed to either Lake Butler Boulevard or Old Main Street, likely via signage and bollards.
- There was some discussion on having exercise facilities along the path. The Town recently installed similar facilities in Central Park, adjacent to Main Street. There is question as to whether additional exercise facilities will be beneficial since they are so close to the existing facilities.
- The stakeholders all agreed that the placement of benches is necessary, but the spacing of these is to be determined. Two benches along the path will need to be dedicated to the Rubio and Sorensen Families. There is no need for additional structures or shelters near the benches. It was recommended to include space for future benches, to be constructed later. Benches should be located at key opportunity sites where they will be well used. Note – benches should be offset to avoid creating a conflict with trail users.
- The Town may have a list of trees/plants that the Town recommends for different situations. Along the path low maintenance trees that are native to the area are preferred.
- Landscaping items shall be passive, with some benches, trees and an overall “green and peaceful” feel.
- Public Works is working on putting out an RFQ for a Landscape Architecture group with Arborist experience. They will likely be involved in this process, at some point near the end of the concept phase or prior to design.

Environmental Issues

An environmental analysis will take place along the corridor. The town currently has a plan to upgrade water supply pipes. Scott to send the plans to Mike (sent via email 2/21).

Geometric Design

The agreed upon typical section (if asphalt) is generally a 10’ wide shared path with 6” ribbon curb on either side. There was a discussion on the type of pavement to be used. Asphalt tends to be favored by runners and anyone traveling with small wheels. Concrete is preferable from a maintenance perspective. There was a discussion regarding the use of a dirt path or pervious pavement. The Town has had issues with pervious pavement. A dirt path is not feasible due to constructability at a narrow width, maintenance, water quality, and lack of utility (it is difficult for wheels).

Lighting

The trail should include pedestrian scale lighting along the corridor. Lighting should not be bothersome to residents along the path. A photometric study may be needed to determine the spacing of lights.

Potential Funding Sources

Safe Routes to Schools, FRDAP, Wine & Dine, West Orange Healthcare, Orange County Sales Tax referendum.

Next Steps

The next steps include research, site visits, and concept development. Concepts and materials for the charette are to be ready by end of March for an April meeting.