



Bicycle & Pedestrian Circulation Plan

Evaluation and Recommendations



Village of Wellington

January 11, 2022

Updated from the November 19, 2015 Plan

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Executive Summary

This updated Bicycle and Pedestrian Circulation Plan followed a multi-step process. First, was the evaluation of the existing Circulation Plan from November 19, 2015 that had been approved by Council. Next, projects from the previous plan, which had not yet been completed were carried-over into this plan. Step three was to inventory existing projects that have been approved for grant funding. These projects included:

- Bicycle lanes on Greenview Shores Boulevard
- Bicycle lanes on Greenbriar Boulevard
- A multi-modal pathway adjacent to the C-2 Canal
- A multi-modal pathway adjacent to the C-8 Canal

Finally, this update includes the expansion of existing pathways within Wellington. Pedestrian, bicycle, and golf cart use were evaluated for safety and convenience. This final step coincided with the overall circulation patterns and destinations to improve the multi-modal system and includes an estimated cost for each segment of pathway and proposed project.

	Existing Miles	Estimated over the Next Five Years			
		Grant Estimate	Wellington Funding	Proposed Additional Miles	Total Miles
Bicycle Lanes	47	\$2,313,010	\$1,559,460	6.0	53.0
Multi-Modal	49	\$746,000	\$668,071	2.2	51.2
Sidewalks	318	N/A	N/A	0	318
Equestrian Trails	57	N/A	N/A	0	57

Table 1 - Summary of Mileage and Funding for Projects Proposed within the Next Five Years

Background/Introduction

The Bicycle and Pedestrian Circulation Plan 2022 builds upon the recommendations of the Bicycle and Pedestrian Circulation Plan from November 19, 2015 that was adopted by Wellington's Council. Recommendations from that plan that are not yet completed have been carried over to this plan and updated. Additionally, there are new recommendations based on new direction from Council.

The first official mention of a bicycle and pedestrian plan in Wellington came as part of the Transportation Element of the original Comprehensive Plan in 1999. The original Comprehensive Plan noted:

Bicycle/pedestrian ways are located on one or both sides of all arterial and non-rural collectors. The bicycle/pedestrian ways are eight feet wide and separated from the vehicular roadway. Some of the newer roads have four-foot lanes at the edge of the pavement. These are not marked for bicycles but they are used for bicycles.

Today, the bicycle/pedestrian ways still exist as eight-foot pathways and many roads have four-foot lanes at the edge of pavement for bicycles. Additionally, Wellington's Council has directed staff to widen the eight-foot pathways adjacent to arterials to 10 or 12-foot wide, depending on the available right-of-way or easement. Many of these paths will also be made available for golf cart use. Council approved Ordinance 2021-18 to allow golf carts on these pathways at their September 28, 2021 meeting.

As a point of reference for this plan, the following describes how the village's pathways are classified.

	Surfacing	Area(s)	Use	Width
1. EQUESTRIAN TRAILS	Grass or Asphalt Millings	Equestrian	Horses	Min. 12 ft. Width
2. MULTI-MODAL PATHWAYS	Asphalt, Concrete or Shell Rock	Urban and Equestrian	Pedestrians, Bicycles, and Motorized Vehicles	Varies 8 ft. - 12 ft. Min. 8 ft. Width
3. SIDEWALKS	Asphalt or Concrete	Urban and Equestrian	Pedestrians and Non-Motorized Vehicles	4 – 6 ft.
4. BICYCLE LANES	Asphalt or Concrete	Urban	Non-motorized Vehicles	Min. 4 ft. Width

Table 2 - Wellington Trails and Pathways Classifications



Lastly, the cost estimates have been updated. Costs for asphalt and concrete have risen dramatically since the 2015 Bicycle and Pedestrian Circulation Plan. The rise in costs and new estimates can be seen in *Exhibit 'G' - Bicycle & Pedestrian Circulation Plan Cost Estimates*.

Plan Review

The recommendations provided in this report began with a review of the 2015 Bicycle and Pedestrian Circulation Plan. One major change between the 2015 plan and the 2022 plan is the increase in costs. The construction costs have gone up dramatically, and may affect the village's ability to complete this plan over the next five years.

Other changes from the previous plan include the adoption of Golf Cart Ordinance 2021-18. This ordinance becomes effective on March 28, 2022 and will allow golf cart use on specific multi-modal pathways and neighborhood streets. To accommodate this additional mode of transportation, it is recommended that multi-modal pathways be widened (where possible) from eight feet to 10-12 feet. Also, projects recommended in the 2015 plan that have not been completed were carried forward in this plan. Therefore, the projected cost of the 2022 plan is higher than what was proposed for the 2015 plan.



Evaluation of the Existing Pedestrian and Bicycle System

Wellington's existing pedestrian and bicycle system primarily occurs through the northern portion of Wellington, north of Pierson Road. It occupies the higher density residential and commercial areas and proposes a multi-modal expansion into the Equestrian Preserve Area (EPA). The system extends to each of Wellington's northern, eastern, western, and southern boundaries with the proposed **Village Loop Trail** along much of the perimeter of Wellington (shown as the dashed orange line on Exhibit 'A').

Village Loop Trail

The proposed Village Loop Trail is a 20-mile multi-modal, multi-surfaced trail that will provide residents many options for recreation, exercise, and leisure uses around the village. When completed, the trail will offer pedestrians, cyclists, golf cart riders, equestrians and others opportunities to enjoy the 20-mile pathway that encompasses the majority of Wellington's perimeter. The surface will vary throughout the pathway depending on the expected use. For example, it may be grass or asphalt millings for riders in the Equestrian Preserve Area, or asphalt for pedestrians and cyclists in the urban core, and a combination of surfaces where possible. The trail will also provide access to greenways outside the village.

Construction has already begun on the Village Loop Trail. The Flying Cow Ranch Road segment is completed from Southern Boulevard to the Wellington Environmental Preserve at Section 24. The C-8 Canal portion, which has been approved for grant funding, is proposed for construction in the next three – five years.

The evaluation of existing conditions throughout the pedestrian circulation system was broken into four categories: pedestrian-only pathways (sidewalks), existing multi-modal pathways, proposed multi-modal pathways, and the Village Loop Trail. The multi-modal pathways would allow for pedestrian, bicycle, golf cart, and other uses when determined safe for use by Wellington. This system is shown as Exhibit 'A', with pedestrian-only sidewalks shown in magenta and existing and proposed multi-modal pathways shown in blue. There is also the Village Loop Trail around the perimeter and proposed multi-modal crossings at the northeast corner of the Palm Beach Little Ranches neighborhood and over the C-1 Canal at the C-23 Canal.

Exhibit 'B' shows the multi-modal pathways with key local destinations. These destinations include government buildings, schools, places of worship, parks/venues, commercial areas, neighborhood parks, and bus shelters.

Exhibits 'C' and 'D' show existing and proposed bicycle lanes and multi-modal pathways throughout Wellington. Greenview Shores Boulevard and Greenbriar Boulevard have both been approved for grant funding for bicycle lanes through the Transportation Planning Agency (TPA). The remaining proposed bicycle lanes are proposed to be completed as four-foot wide asphalt shoulders on the sides of the existing travel lanes. The four-foot shoulder along Aero Club Drive will be included in the 2021 – 2022 fiscal year budget.

Exhibit 'E' is an overall composite of all existing and proposed bicycle lanes, multi-modal pathways, and equestrian trails. Equestrian trails were included in the overall composite because pedestrian and bicycle use are allowed on these trails and they provide accessibility in the Equestrian Preserve Area where there are fewer multi-modal trails and bicycle lanes. Sidewalks, which are four – five feet in width, were not included on this map because of scale and readability. However they are internal to most neighborhoods and provide more connectivity as can be seen in Exhibit 'A'.

Equestrian Trails System

The equestrian trails system consists of 57 miles of grass and asphalt millings trails in the Equestrian Preserve Area. There are no proposed plans to create new trails within the immediate three – five year planning range. However, there are proposed multi-modal pathways and an equestrian-friendly overpass across Southern Boulevard depicted on the map marked Exhibit 'E'. These are noted for future planning uses and no cost estimates have been assigned to them as it will be more appropriate to evaluate costs in a future Circulation Plan. A typical equestrian trail cross section is shown below as *Figure 1*. Equestrian trails require a 12' minimum width, a minimum 20' Easement/right-of-way, and a 15' height clearance from overhead objects.

(See *Figure 1*)

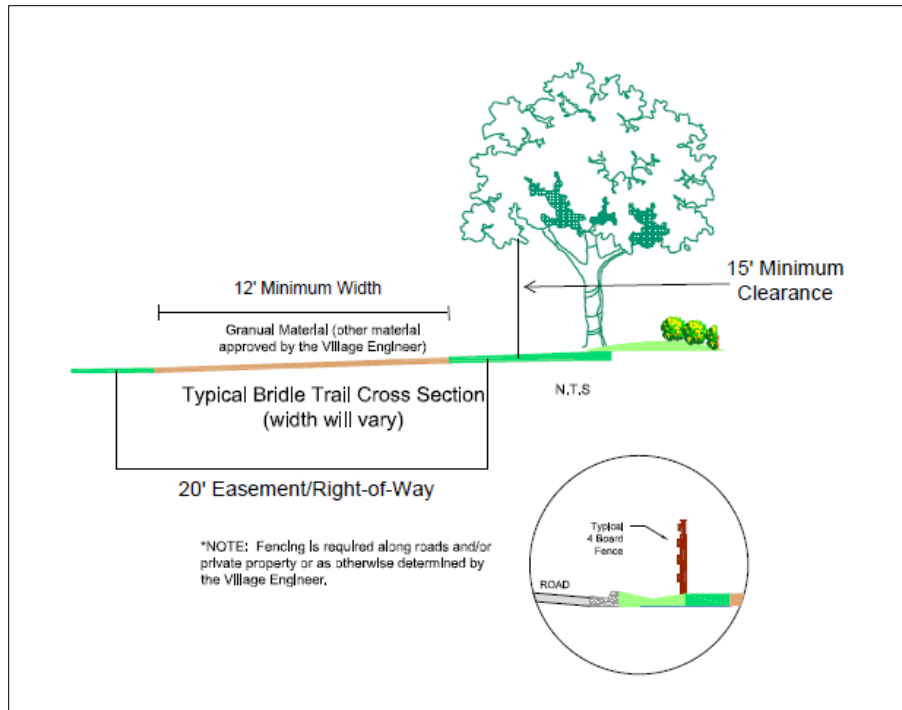


Figure 1 - Typical Equestrian Trail Cross Section

Recommended Improvements

The evaluation of the existing pedestrian and bicycle system, along with the recommendations provided in the 2015 plan have led to the recommendations provided in the 2022 plan. As mentioned, recommendations provided in the 2015 that have not yet been completed have been carried forward to this plan. New to this updated plan are the multi-modal pathways. The recommended improvements for this plan are mapped on Exhibit 'F'.

Construct Bicycle Lanes

New bicycle lanes are proposed for Greenview Shores Boulevard from Wellington Trace to Aero Club Drive and on Greenbriar Boulevard from Aero Club Drive to Greenview Shores Boulevard. This will complete a 6.4 mile bicycle loop in the western area of Wellington, as it will connect to the existing bicycle lanes on Greenview Shores and the four-foot shoulder on Aero Club Drive that is proposed for construction in fiscal year 2021-2022.



1. **Add Four-Foot Wide Shoulder to Roadways**

In locations where Wellington has not received grant money to construct new bicycle lanes, this plan proposes adding four-foot wide asphalt shoulders to the roadways to act as bicycle lanes. These recommendations have been brought forward from the 2015 plan.

- Aero Club Drive from Binks Forest to Greenbriar Boulevard
- Wellington Trace from Forest Hill Boulevard (south) to Forest Hill Boulevard (north)
- Birkdale Drive
- Paddock Drive
- Wellington Trace from Greenview Shores Boulevard to Greenbriar Boulevard
- Ousley Farms Road (north)
- Greenbriar Boulevard (within Aero Club neighborhood)
- Stribling Way From Forest Hill Boulevard to the roundabout at Pierson Road
- Stribling Way from 441 to Lyons Road

2. **Construct New Multi-Modal Pathways**

Two multi-modal construction projects have been approved for grant funding through the Transportation Planning Agency (TPA). One is along the C-2 Canal from Bent Creek Road to Greenview Shores Boulevard. The other is along the C-8 Canal east of Stribling Way. This pathway would span the length from Forest Hill Boulevard to Stribling Way on the south. It will also provide a connection to Wellington Green Park. These projects are projected to be constructed in years 2024 or 2026 depending on TPA funding.

3. **Multi-Modal Pathway Widening**

Several existing pathways are proposed to be widened from eight-feet to ten or twelve-feet depending on the available room. These pathways are:

- Paddock Drive
- Binks Forest Drive and Bent Creek Drive
- Greenview Shores (north side only)
- Greenbriar Boulevard
- Stribling Way
- 120th Avenue South
- Lake Worth Road
- Paddock drive
- Wellington Trace (within the EPA)
- Lyons Road
- Wellington Trace
- South Shore Boulevard

4. **Install Multi-Modal Crossing**

Multi-modal crossings are being proposed at the northeast corner of the Village Loop Trail and across the C-1/Flying Cow Ranch Road Canal at the C-23 Canal (SW corner below Aero Club). These crossings would allow for various modes of travel to cross over the canals and continue along the

Village Loop Trail, similar to the existing bridge at Binks Forest/C-1 Canal and Flying Cow Ranch Road.

5. **Roadway Improvements**

The following projects are roadway improvements which will allow for greater safety and ease of use with the bicycle and pedestrian pathways. Two bicycle lanes are proposed to be shifted at intersections to allow bicyclists to continue their paths between the turn lane and the thru lane traffic, locations are shown on Exhibit 'F'. Currently the bicycle lanes are on the outside of the turn lanes causing bicyclists to cross over the turn lane to continue thru. They are proposed to be shifted at:

- South Shore Boulevard and Pierson Road
- Big Blue Trace and Wellington Trace

European and mid-block crossings are proposed at eight locations as shown on Exhibit 'F'. These crossings would provide for more safety and visibility at these locations.

6. **Hardscape Improvements**

Four shelters with benches are proposed to provide more convenience while accessing other modes of transit.

Estimated Costs

Exhibit 'G' provides a 2021 estimate of probable costs with respect to each type of improvement and breaks down the individual projects in tabular form. The short-term projects and those that have been approved for grant funding are listed first with the year of expected impacts (within the next three – five years). The longer range projects and roadway projects are listed after.

Grant funding amounts have been included for those projects that have been approved for funding. Please note that the longer range projects, such as multi-modal pathway construction in the EPA, that have not yet been approved for grant funding were not included in the final cost estimates. These projects will take place beyond the immediate 3 – 5 year period and it would be appropriate to reevaluate the cost estimates for them at that time.

Bicycle and Pedestrian and Multi-Modal Improvements	\$11,024,639
Roadway (Shoulder-Bicycle Lanes, Crosswalks) Improvements	\$3,660,940
Hardscape Improvements	\$80,000
Bicycle and Pedestrian Circulation Plan Grand Total	\$14,765,579



Wellington Bicycle and Pedestrian Plan

Pedestrian Pathway Network

Legend

- Proposed Multi-Modal Pathway Crossing
- Existing Multi-Modal Pathway
- Proposed Multi-Modal Pathway
- Village Loop Trail
- Pedestrian-Only Pathway

Local Destinations

- Commercial Center
- Government Facility
- Community Park
- School
- Venue
- Worship

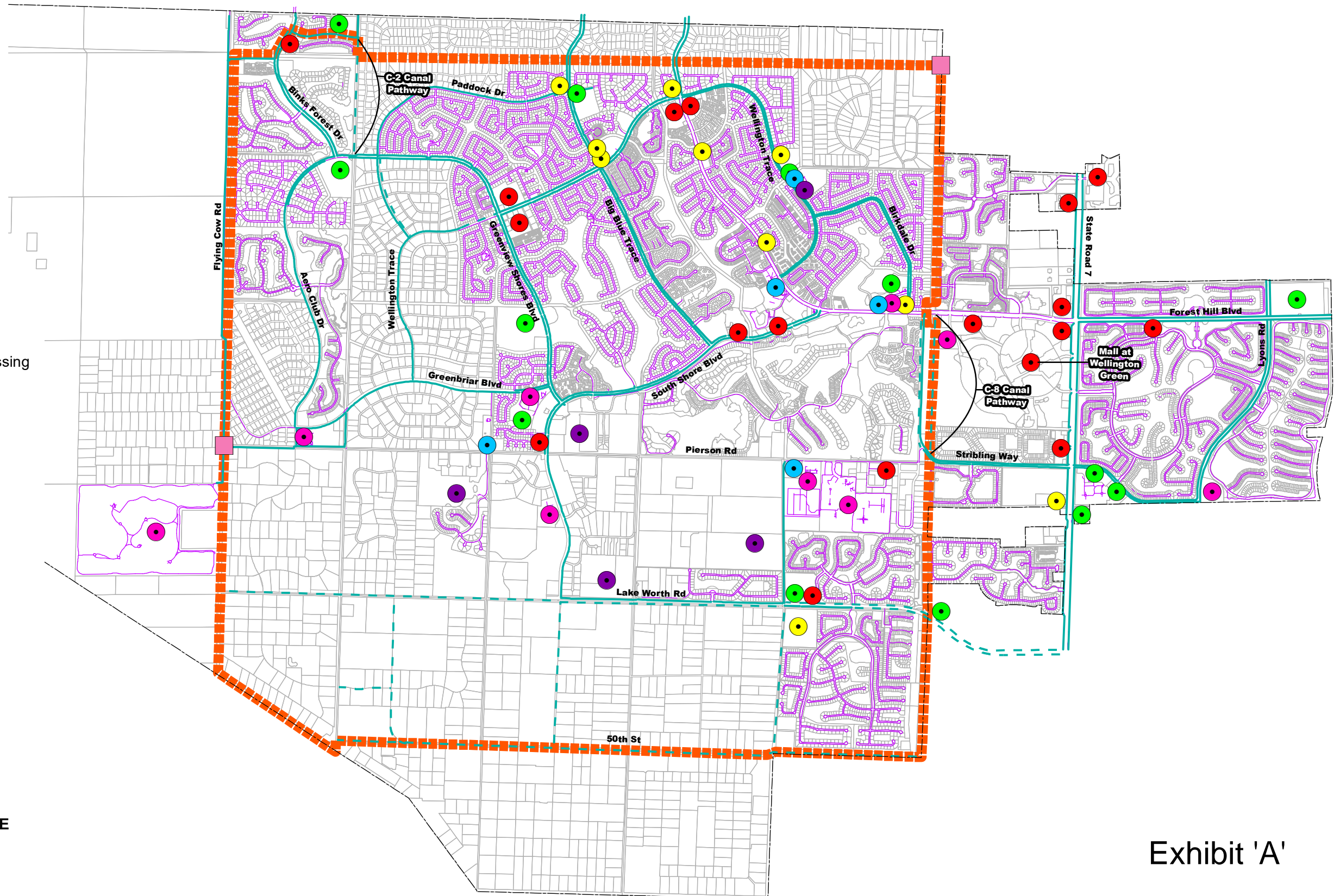


Exhibit 'A'



Wellington Bicycle and Pedestrian Plan

Multi-Modal Pathways

Legend

- Proposed Multi-Modal Pathway Crossing
- Existing Multi-Modal Pathway
- Proposed Multi-Modal Pathway
- Village Loop Trail

Local Destinations

- Commercial Center
- Government Facility
- Community Park
- School
- Venue
- Worship

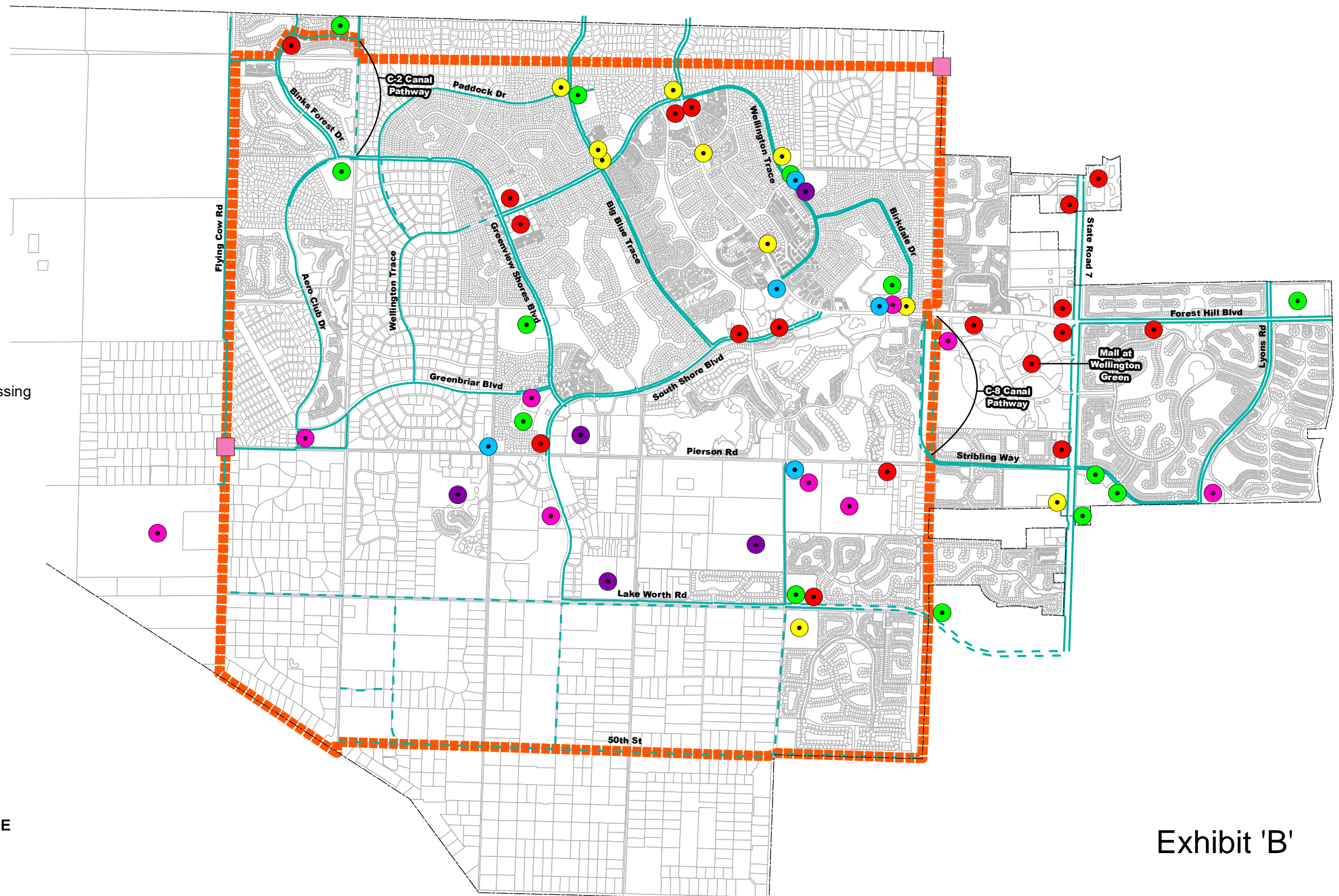


Exhibit 'B'



Bicycle Lanes

Legend

- Proposed Multi-Modal Pathway Crossing
- Existing Bike Lane
- Proposed Bike Lane
- Village Loop Trail

Local Destinations

- Commercial Center
- Government Facility
- Community Park
- School
- Venue
- Worship

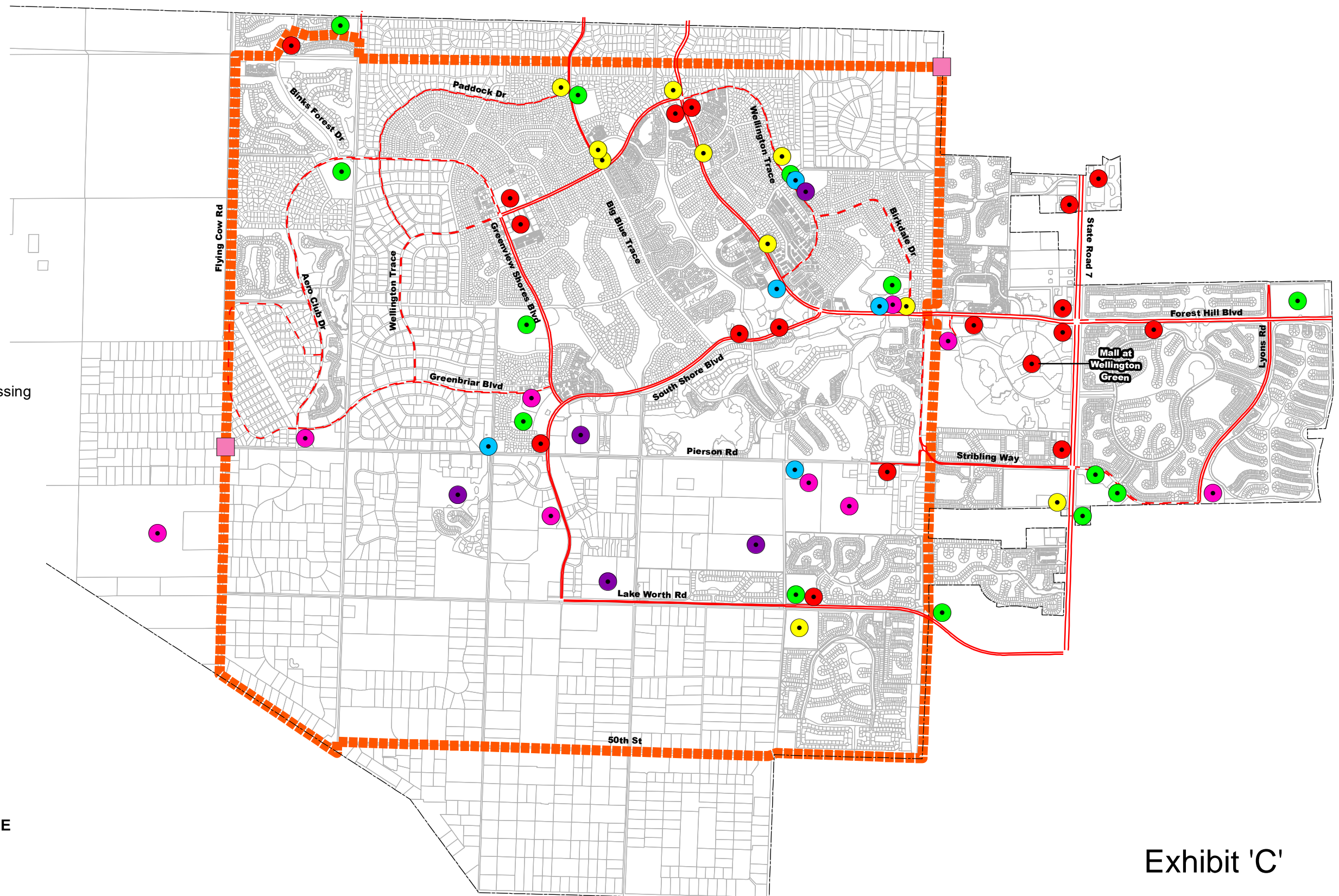


Exhibit 'C'



Multi-Modal Pathways & Bicycle Lanes

Legend

- Proposed Multi-Modal Pathway Crossing
- Existing Bike Lane
- Proposed Bike Lane
- Existing Multi-Modal Pathway
- Proposed Multi-Modal Pathway
- Village Loop Trail

Local Destinations

- Commercial Center
- Government Facility
- Community Park
- School
- Venue
- Worship

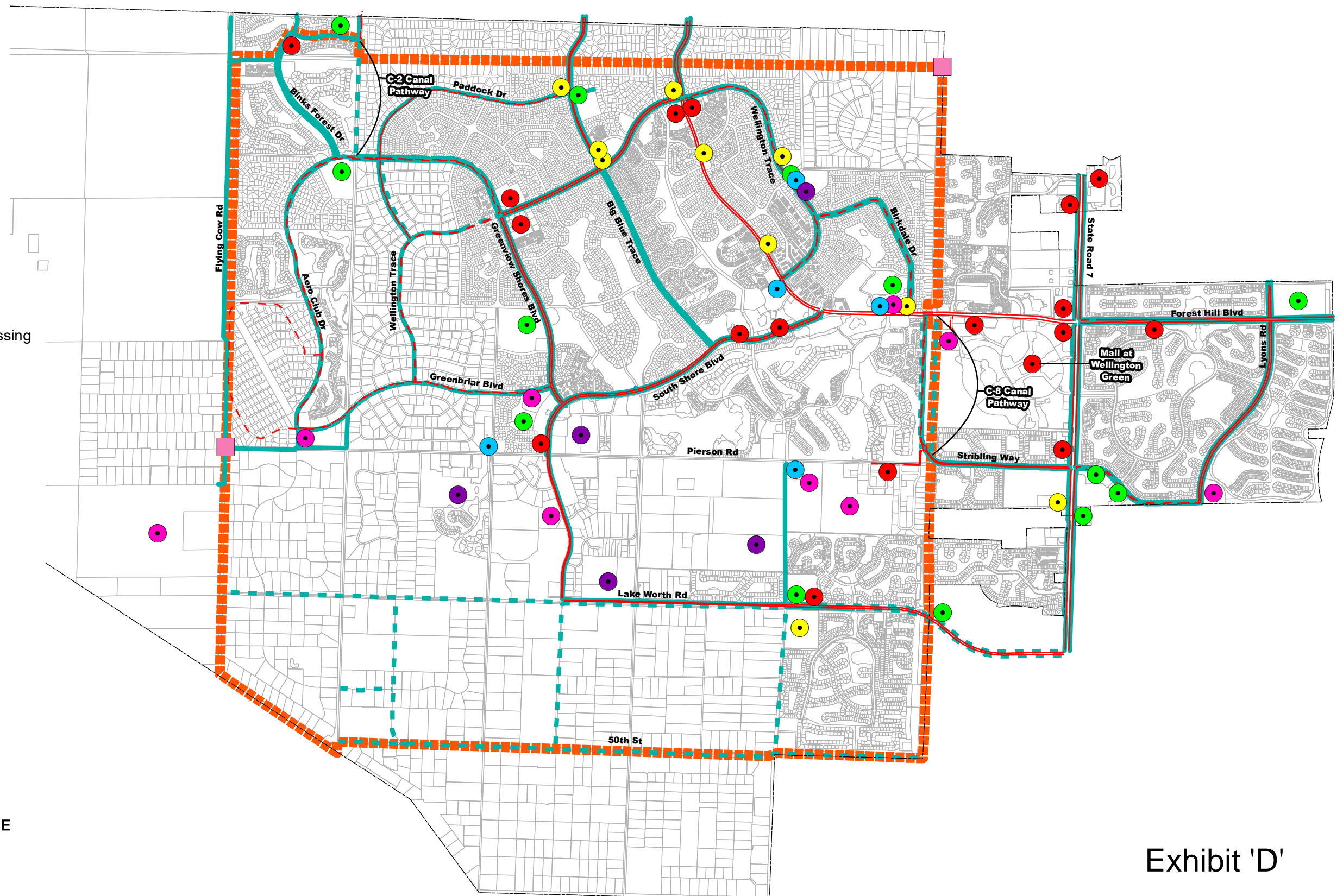







Exhibit 'D'

Legend

-  Commercial Center
-  Government Facility
-  Community Park
-  School
-  Venue
-  Worship

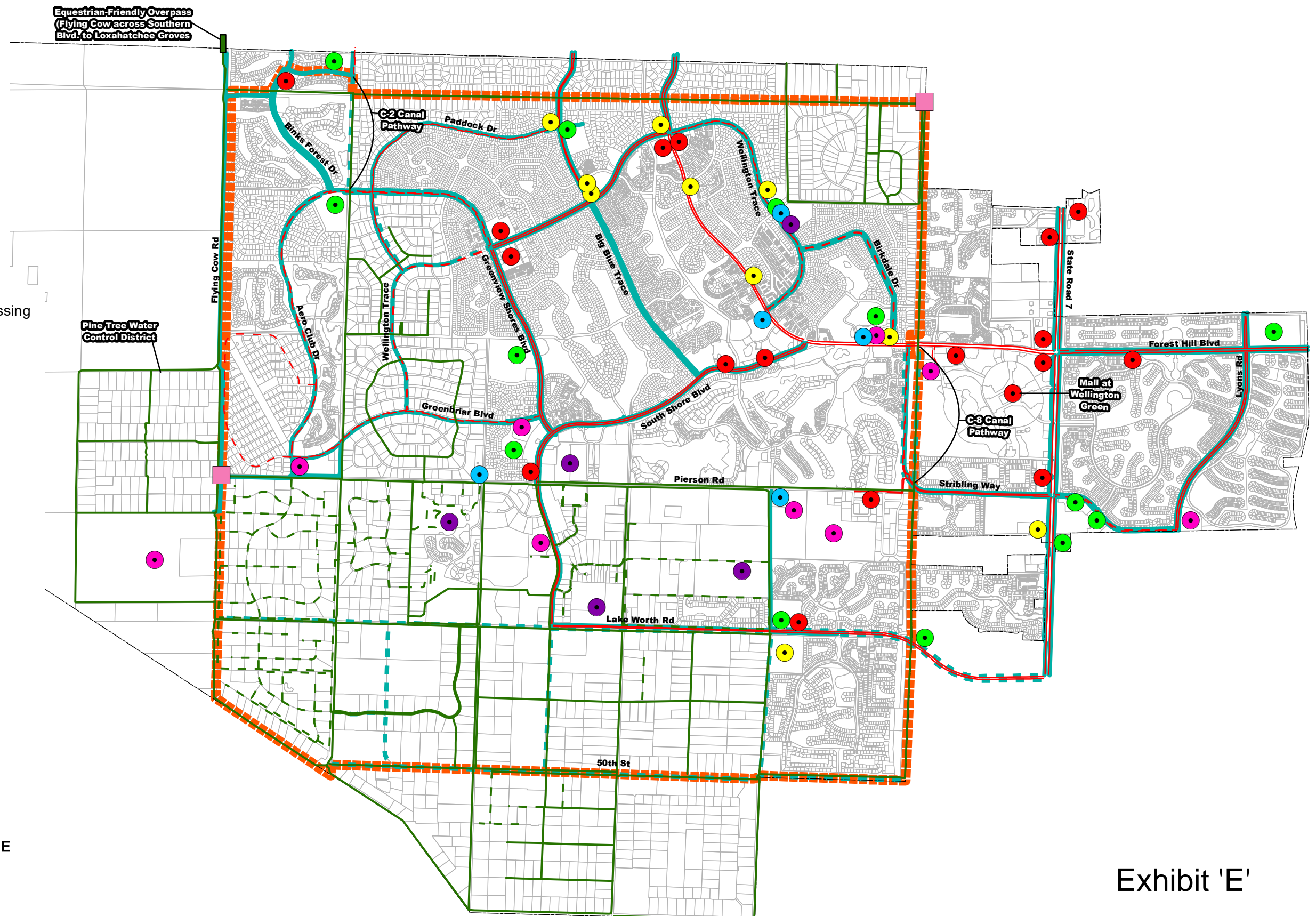


Exhibit 'E'



Wellington Bicycle and Pedestrian Plan

Recommendations

Recommendations

A Bike lane is currently routed along right side of turn lane. Needs to be relocated to travel in between turn lane and straight lane.

B No bike lanes currently exist in intersection of Forest Hill Blvd and South Shore Blvd. Lanes need to be added to streets in this area.

C No bike lane currently exists. An approximate 4 ft ribbon of asphalt needs to be paved along side of road. The road right of way contains room to allow for this modification.

D Roads currently have no existing bike lane and are lined with curb and gutter. Very limited room exists for bike lanes or sidewalk.

E Roads currently have no existing bike lane and are lined with curb and gutter. Lower priority because of alternative routes.

F Proposed multi-use path. By taking advantage of existing equestrian paths, a perimeter multi-use trail can be developed.

G Incorporate beautification techniques along walkable corridor.

H Add Multi-Modal pathway crossing.

Note: "Share the Road" signage should be placed throughout the Village of Wellington

Legend

- Proposed Multi-Modal Pathway Crossing
- Proposed Bus Shelter
- Proposed Mid-Block Crossing
- Proposed European Crosswalk
- No Bike Lane Exists
- Shift Bike Lane
- Add 4 ft Ribbon of Asphalt
- Share The Road Signs
- Add 4 ft Ribbon of Asphalt (Lower Priority)
- Add Bicycle Lane
- Add Proposed Multi-Modal Pathway
- Proposed Village Loop Trail
- Walkable Area

0 0.5 1 Miles

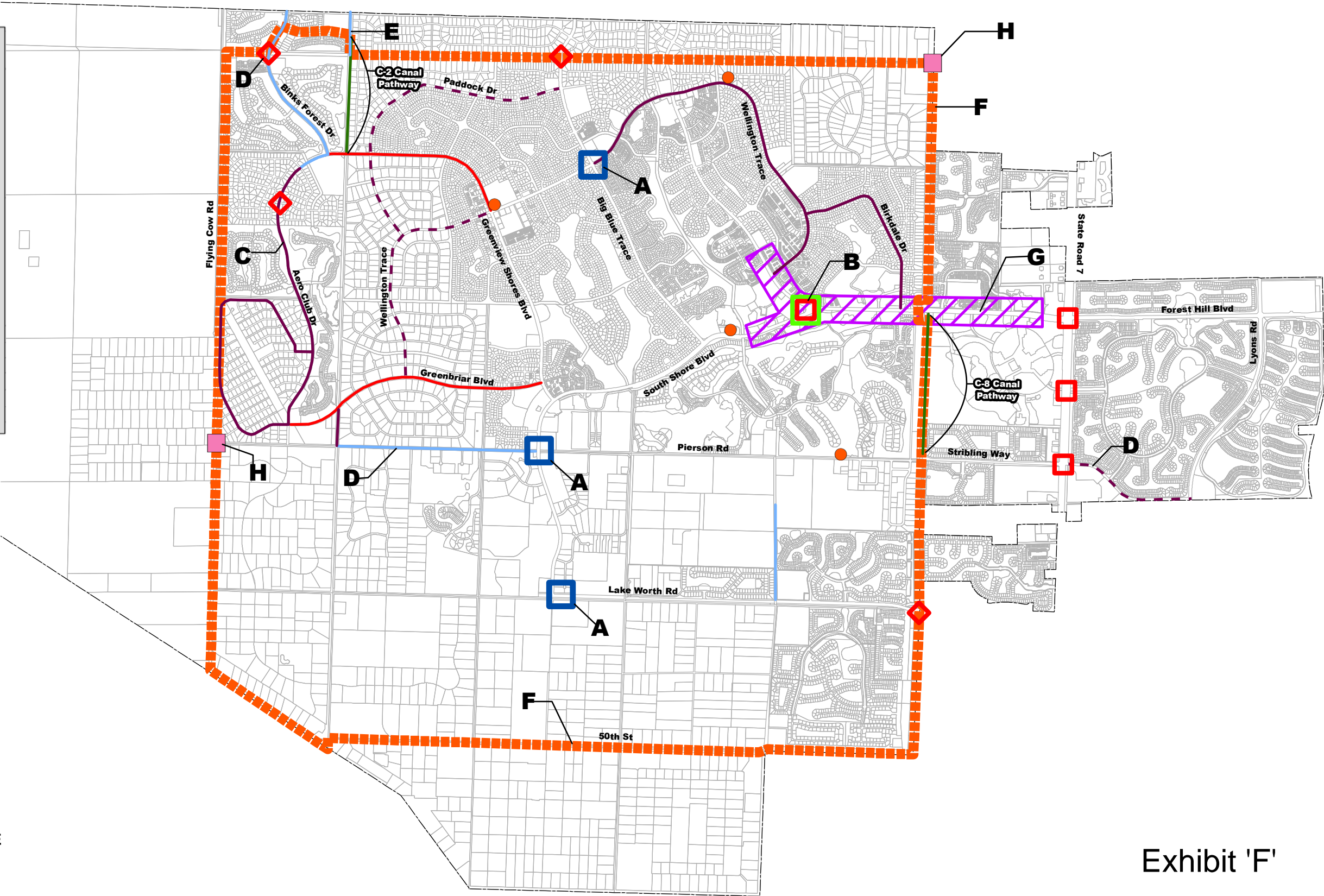
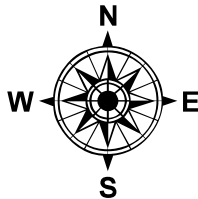


Exhibit 'F'

Exhibit 'G' - June 2021

Bicycle and Pedestrian Improvements

Greenview Shores Bicycle Lanes

TA Grant Application Year: 2019

Estimated Funding Year: 2024

	Improvements				
A.	Wellington Trace to Bink's Forest Drive				
	1.1 miles of bike lanes on both sides of Greenview Shores				
	Roadway	Quantity	Unit	2021 Unit Cost	Total Cost
1	Clearing and Grubbing	5.13	AC	\$1,750.00	\$8,977.50
2	Regular Excavation	2,110	CY	\$4.50	\$9,495.00
3	Embankment	4,250	CY	\$9.00	\$38,250.00
4	Sodding	5,600	SY	\$2.50	\$14,000.00
5	Mill 1" Ex. Asphalt (Travel Lane)	28,900	SY	\$2.50	\$72,250.00
6	1" Type SP-12.5 Asphalt (Final Lift, Travel Lane)	1,630	TON	\$125.00	\$203,750.00
7	Type SP 12.5 Asphalt (Overbuild)	1,251	TON	\$125.00	\$156,375.00
8	1 1/2" Type SP-12.5 Asphalt (Bike Lane Extension)	360	TON	\$125.00	\$45,000.00
9	1" Type SP-12.5 Asphalt (Bike Lane Extension)	240	TON	\$125.00	\$30,000.00
10	8" Base Course - Crushed Concrete or Limerock - LBR 120	4,300	SY	\$22.00	\$94,600.00
11	12" Type B Stabilization - LBR 40 (Bike Lane Extension)	4,800	SY	\$6.00	\$28,800.00
12	Type F-Curb	9,526	LF	\$22.00	\$209,572.00
	Pavement Marking and Signage (Reflective Thermoplastic Markings)				
13	6" Thermoplastic White Solid	2	GM	\$4,800.00	\$9,600.00
14	6" Thermoplastic White Yellow	2	GM	\$4,800.00	\$9,600.00
15	24" Thermoplastic White Solid	250	LF	\$18.00	\$4,500.00
16	6" Thermoplastic White Dotted 2-4/6-10 Gap Extension	0.25	GM	\$8,781.00	\$2,195.25
17	18" Thermoplastic Yellow	750	LF	\$4.00	\$3,000.00
18	FDOT Index 17347 Bicycle Markings	20	EA	\$50.00	\$1,000.00
19	Bicycle Lane Signs	20	EA	\$400.00	\$8,000.00
20	Thermoplastic Directional Arrow	16	EA	\$80.00	\$1,280.00
21	Thermoplastic, Preformed, White, Message	1	EA	\$238.00	\$238.00
22	Retro-Reflective Pavement Markers	400	EA	\$3.50	\$1,400.00
23	Temporary Striping	1	LS	\$958.73	\$958.73
	Drainage/Utilities				
24	Adjust Ex. Drainage Inlet	10	EA	\$1,500.00	\$15,000.00
25	Concrete Open Flume Inlet	19	EA	\$1,500.00	\$28,500.00
	General Conditions				
28	Mobilization & Demobilization	5%	LS	\$996,346.99	\$49,817.35
29	Maintenance of Traffic	2%	LS	\$996,346.99	\$19,926.94
30	Erosion Control	1%	LS	\$996,346.99	\$9,963.47

31	Project Layout/Surveying	1%	LS	\$996,346.99	\$9,963.47
32	Material Testing Allowance	1	LS	\$10,000.00	\$10,000.00
33	As-Builts	1	LS	\$5,000.00	\$5,000.00
				Subtotal:	\$1,101,012.71
	Required FDOT Design Support	1	LS	\$5,000.00	\$5,000.00
	Required FDOT Construction Support	1	LS	\$5,000.00	\$5,000.00
	Local Funds for Design (10%)	10%	LS	\$1,101,012.71	\$110,101.27
	Required Contingency (10%)	10%	LS	\$1,101,012.71	\$110,101.27
	Local CEI (5%)	5%	LS	\$1,101,012.71	\$55,050.64
	Required FDOT Oversight CEI (3%)	3%	LS	\$1,101,012.71	\$33,030.38
				Total:	\$1,419,296.27
				TA Grant Awarded:	\$934,010.00
				Wellington Funding Required:	\$485,286.27
Greenbriar Boulevard Roadway Improvement Project					
LI Grant Application Year: 2020					
Estimated Funding Year: 2025					
	Improvements	Quantity	Unit	2021 Unit Cost	Total Cost
B.	Greenbriar Boulevard Roadway Improvement Project				
	Aero Club Drive to Greenview Shores Boulevard				
	1.9 Miles				
	Roadway				
1	Clearing and Grubbing	1.00	LS	\$2,500.00	\$2,500.00
2	Embankment	2,500	CY	\$9.00	\$22,500.00
3	Sodding	23,920	SY	\$2.50	\$59,800.00
4	Mill 1" Ex. Asphalt	27,050	SY	\$2.50	\$67,625.00
5	Resurface 1" Type SP-12.5 Asphalt	1,550	TON	\$115.00	\$178,250.00
6	1 1/2" Type SP-12.5 Asphalt (Road Widening))	954	TON	\$115.00	\$109,710.00
7	1" Type SP-12.5 Asphalt (Road Widening)	641	TON	\$115.00	\$73,715.00
8	8" Base Course - Crushed Concrete or Limerock LBR 120	11,310	SY	\$22.00	\$248,820.00
9	12" Type B Stabilization LBR 40	11,310	SY	\$8.00	\$90,480.00
10	Type F-Curb	6,100	LF	\$22.00	\$134,200.00
11	Remove Ex. Roadway	6,420	SY	\$5.00	\$32,100.00
12	Raise 600 LF of Roadway above 100 Year Floodplain	600	LF	\$450.00	\$270,000.00
13	Connect to Ex. Roundabout	1	LS	\$20,000.00	\$20,000.00
14	Intersection Improvements	6	EA	\$10,000.00	\$60,000.00
	Pavement Marking and Signage (Reflective Thermoplastic)				
15	Striping (5% Roadway Cost)	5%	LS	\$1,369,700.00	\$68,485.00
	Drainage/Utilites				
16	Ditch Bottom Inlet (Type Varies)	16	EA	\$5,000.00	\$80,000.00
17	Storm Culvert (R. C. P. Size Varies)	1,300	LF	\$100.00	\$130,000.00
18	Concrete Open Flume Inlet	16	EA	\$1,000.00	\$16,000.00
19	Minor Utility Adjustment (Valve Boxes, Manholes, etc.)	1	LS	\$15,000.00	\$15,000.00
	Landscaping				
20	Remove Ex. Palms	130	EA	\$300.00	\$39,000.00
21	Refurbish Irrigation	9,800	LF	\$4.00	\$39,200.00
	General Conditions				

22	Mobilization & Demobilization	5%	LS	\$2,023,935.00	\$101,196.75
23	Maintenance of Traffic	2%	LS	\$2,023,935.00	\$40,478.70
24	Erosion Control	1%	LS	\$2,023,935.00	\$20,239.35
25	Project Layout/Surveying	1%	LS	\$2,023,935.00	\$20,239.35
26	Material Testing Allowance	1	LS	\$10,000.00	\$10,000.00
27	As-Builts	1	LS	\$5,000.00	\$5,000.00
				Subtotal:	\$1,954,539.15
	Required FDOT Design Support	1	LS	\$5,000.00	\$5,000.00
	Required FDOT Construction Support	1	LS	\$5,000.00	\$5,000.00
	Local Funds for Design (1%)	1%	LS	\$1,954,539.15	\$19,545.39
	Required Contingency (20%)	20%	LS	\$1,954,539.15	\$390,907.83
	Local CEI (1%)	1%	LS	\$1,954,539.15	\$19,545.39
	Required FDOT Oversight CEI (3%)	3%	LS	\$1,954,539.15	\$58,636.17
				Total:	\$2,453,173.94
				LI Grant Awarded:	\$1,379,000.00
				Wellington Funding Required:	\$1,074,173.94
C-2 Canal					
TA Grant Application Year: 2020					
Estimated Funding Year: 2025					
	Improvements	Quantity	Unit	2021 Unit Cost	Total Cost
C.	C-2 Canal Multi-Purpose Path				
	0.8 Miles				
	Multi-Purpose Pathway				
1	CLEARING AND GRUBBING	8,800	SY	\$0.50	\$4,400.00
2	6" CONCRETE SIDEWALK (ADA RAMPS)	12	SY	\$55.00	\$660.00
3	TACTILE WARNING SURFACE	40	SF	\$20.00	\$800.00
4	STRIPING/SIGNAGE CONTINGENCY	1	LS	\$2,000.00	\$2,000.00
5	8 FT DIA CONCRETE STORM MANHOLE	1	EA	\$7,500.00	\$7,500.00
6	72" DIA C.A.P.	60	LF	\$1,000.00	\$60,000.00
7	EXCAVATION	2,100	CY	\$7.00	\$14,700.00
8	EMBANKMENT	2,600	CY	\$7.00	\$18,200.00
9	FINAL GRADING	4,500	SY	\$3.00	\$13,500.00
10	SWALE GRADING	2,300	SY	\$3.00	\$6,900.00
11	SODDING	6,800	SY	\$4.00	\$27,200.00
12	1" TYPE SP-9.5 ASPHALTIC CONCRETE	4,890	SY	\$8.50	\$41,565.00
13	8" BASE COURSE (SHELL OR CRUSHED CONCRETE)	5,220	SY	\$20.00	\$104,400.00
14	12" COMPACTED SUBGRADE	5,540	SY	\$3.00	\$16,620.00
	General Conditions				
15	LANDSCAPING	25%	LS	\$318,445.00	\$79,611.25
16	MOBILIZATION & DEMOBILIZATION	5%	LS	\$318,445.00	\$15,922.25
17	MAINTENANCE OF TRAFFIC	2%	LS	\$318,445.00	\$6,368.90
18	EROSION CONTROL	1%	LS	\$318,445.00	\$3,184.45
19	PROJECT LAYOUT / SURVEYING	1%	LS	\$318,445.00	\$3,184.45
20	MATERIAL TESTING ALLOWANCE	1%	LS	\$318,445.00	\$3,184.45
21	AS-BUILTS	1%	LS	\$318,445.00	\$3,184.45

	Required FDOT Design Support	1	LS	\$5,000.00	\$5,000.00
	Required FDOT Construction Support	1	LS	\$5,000.00	\$5,000.00
	Local Funds for Design (12%)	12%	LS	\$433,085.00	\$51,970.20
	Required Contingency (20%)	20%	LS	\$433,086.00	\$86,617.20
	Local CEI (5%)	5%	LS	\$433,087.00	\$21,654.35
	Required FDOT Oversight CEI (3%)	3%	LS	\$433,088.00	\$12,992.64
Total:					\$616,319.59
LI Grant Awarded:					\$446,000.00
Wellington Funding Required:					\$170,319.59
C-8 Canal Multi-Purpose Pathway					
TA Grant Application Year: 2021					
Estimated Funding Year: 2024					
	Improvements	Quantity	Unit	2021 Unit Cost	Total Cost
D.	C-8 Canal Multi-Purpose Path				
	2.0 miles				
1	CLEARING AND GRUBBING	16,400	SY	\$0.50	\$8,200.00
2	6" CONCRETE SIDEWALK (ADA RAMPS)	40	SY	\$55.00	\$2,200.00
3	TACTILE WARNING SURFACE	60	SF	\$20.00	\$1,200.00
4	STRIPING/SIGNAGE CONTINGENCY	1	LS	\$2,500.00	\$2,500.00
5	ADJUST UTILITY VALVE COVERS TO GRADE	10	EA	\$200.00	\$2,000.00
6	EXCAVATION (FOR BASEROCK)	2,170	CY	\$5.00	\$10,850.00
7	EMBANKMENT (FROM BASEROCK)	1,400	CY	\$7.00	\$9,800.00
8	FINAL GRADING	16,400	SY	\$3.00	\$49,200.00
9	SODDING	8,200	SY	\$4.00	\$32,800.00
10	1.5" TYPE SP-9.5 ASPHALTIC CONCRETE	690	TON	\$125.00	\$86,250.00
11	8" BASE COURSE (SHELL OR CRUSHED CONCRETE)	9,800	SY	\$25.00	\$245,000.00
12	12" COMPACTED SUBGRADE	11,500	SY	\$3.00	\$34,500.00
	Improvements				
13	LANDSCAPING (10% CONTINGENCY)	10%	LS	\$484,500.00	\$48,450.00
14	MOBILIZATION & DEMOBILIZATION (5%)	5%	LS	\$484,500.00	\$24,225.00
15	MAINTENANCE OF TRAFFIC (2%)	2%	LS	\$484,500.00	\$9,690.00
16	EROSION CONTROL (1%)	1%	LS	\$484,500.00	\$4,845.00
17	PROJECT LAYOUT / SURVEYING (1%)	1%	LS	\$484,500.00	\$4,845.00
18	MATERIAL TESTING ALLOWANCE (1%)	1%	LS	\$484,500.00	\$4,845.00
19	AS-BUILTS (1%)	1%	LS	\$484,500.00	\$4,845.00
	Required FDOT Design Support	1	LS	\$5,000.00	\$5,000.00
	Required FDOT Construction Support	1	LS	\$5,000.00	\$5,000.00
	Local Funds for Design (5%)	5%	LS	\$586,245.00	\$29,312.25
	Required Contingency (20%)	20%	LS	\$586,245.00	\$117,249.00
	Local CEI (5%)	5%	LS	\$586,245.00	\$29,312.25
	Required FDOT Oversight CEI (3%)	3%	LS	\$586,245.00	\$17,587.35
Total:					\$789,705.85
TPA Anticipated Funding through TA Grant:					\$300,000.00
Wellington Funding Required:					\$489,705.85

Pathway Widening Projects (Not Anticipated for Grant Approval)					
Paddock Drive Widening to 10'					
	Improvements	Quantity	Unit	2021 Unit Cost	Total Cost
E.	Paddock Drive Pathway Widening				
	1.5 miles				
	Roadway				
1	CLEARING AND GRUBBING	7,945	SY	\$ 0.50	\$3,972.50
2	EXCAVATION	420	CY	\$ 7.00	\$2,940.00
3	EMBANKMENT	265	CY	\$ 7.00	\$1,855.00
4	FINAL GRADING	7,945	SY	\$ 3.00	\$23,835.00
5	SODDING	7,945	SY	\$ 4.00	\$31,780.00
6	1" TYPE SP-9.5 ASPHALTIC CONCRETE	1,589	SY	\$ 8.50	\$13,506.50
7	6" BASE COURSE (SHELL OR CRUSHED CONCRETE)	1,987	SY	\$ 12.00	\$23,844.00
8	12" COMPACTED SUBGRADE	2,384	SY	\$ 3.00	\$7,152.00
9	MILL 1" EX. PATHWAY	6,356	SY	\$ 4.00	\$25,424.00
10	TYPE SP-9.5 ASPHALTIC OVERBUILD (2.5" AVERAGE DEPTH)	6,356	SY	\$ 17.00	\$108,052.00
11	REMOVE REPLACE EXISTING DRIVEWAY	20	EA	\$ 4,000.00	\$80,000.00
12	INTERSECTION IMPROVEMENT PER RAMP	12	EA	\$ 7,500.00	\$90,000.00
	Pavement Marking and Singage				
13	6" THERMOPLASTIC WHITE	7,150	LF	\$ 1.50	\$10,725.00
14	PAVEMENT MESSAGE	9	EA	\$ 250.00	\$2,250.00
15	PATHWAY SIGNS	9	EA	\$ 350.00	\$3,150.00
16	TEMPORARY STRIPING	1	LS	\$ 806.25	\$806.25
	MOBILIZATION & DEMOBILIZATION (5%)	5%	LS	\$ 429,292.25	\$21,464.61
	MAINTENANCE OF TRAFFIC (1%)	1%	LS	\$ 429,292.25	\$4,292.92
	EROSION CONTROL (1%)	1%	LS	\$ 429,292.25	\$4,292.92
	ENGINEERING/PERMITTING (IN-HOUSE)	1	AL	\$ 1,000.00	\$1,000.00
	PROJECT LAYOUT / SURVEYING (1%)	2%	LS	\$ 429,292.25	\$8,585.85
	MATERIAL TESTING ALLOWANCE (4%)	4%	LS	\$ 429,292.25	\$17,171.69
	AS-BUILTS (2%)	2%	LS	\$ 429,292.25	\$8,585.85
	CONTINGENCY (10%)	10%	LS	\$ 429,292.25	\$42,929.23
	Total:				\$537,615.31
Binks Forest Drive and Bent Creek Drive Widening to 10'					
F.	Improvements	Quantity	Unit	2021 Unit Cost	Total Cost
	Binks Forest Drive and Bent Creek Drive Pathway Widening				
	1.3 miles				
	Roadway				
1	CLEARING AND GRUBBING	3,135.12	SY	\$ 0.50	\$1,567.56
2	EXCAVATION	413.67	CY	\$ 7.00	\$2,895.69
3	EMBANKMENT	130.63	CY	\$ 7.00	\$914.41
4	FINAL GRADING	1,567.56	SY	\$ 3.00	\$4,702.68
5	SODDING	1,567.56	SY	\$ 4.00	\$6,270.24
6	1" TYPE S-III ASPHALTIC CONCRETE	1,567.56	SY	\$ 8.50	\$13,324.26
7	6" BASE COURSE (SHELL OR CRUSHED CONCRETE)	1,959.45	SY	\$ 12.00	\$23,513.40

8	12" COMPACTED SUBGRADE	2,351.34	SY	\$	3.00	\$7,054.02
9	MILL 1" EX. PATHWAY	6,270.23	SY	\$	4.00	\$25,080.92
10	1" TYPE S-III ASPHALTIC OVERBUILD (2.5" AVERAGE DEPTH)	2,351.34	SY	\$	4.00	\$9,405.36
11	ROOT PRUNING/ROOT BARRIER	400.00	LF	\$	35.00	\$14,000.00
12	INTERSECTION IMPROVEMENT PER RAMP	8.00	EA	\$	7,500.00	\$60,000.00
	Pavement Marking and Singage					
13	6" THERMOPLASTIC WHITE	7,054	LF	\$	1.50	\$10,581.00
14	PAVEMENT MESSAGE	9	EA	\$	250.00	\$2,250.00
15	PATHWAY SIGNS	9	LF	\$	350.00	\$3,150.00
16	TEMPORARY STRIPING (5% Items 9-12)	1	LS	\$	799.05	\$799.05
	MOBILIZATION & DEMOBILIZATION (5%)	5%	LS	\$	185,508.59	\$9,275.43
	MAINTENANCE OF TRAFFIC (1%)	1%	LS	\$	185,508.59	\$1,855.09
	EROSION CONTROL (1%)	1%	LS	\$	185,508.59	\$1,855.09
	ENGINEERING/PERMITTING (IN-HOUSE)	1	AL	\$	1,000.00	\$1,000.00
	PROJECT LAYOUT / SURVEYING (2%)	2%	LS	\$	185,508.59	\$3,710.17
	MATERIAL TESTING ALLOWANCE (4%)	4%	LS	\$	185,508.59	\$7,420.34
	AS-BUILTS (2%)	2%	LS	\$	185,508.59	\$3,710.17
	CONTINGENCY (10%)	10%	LS	\$	185,508.59	\$18,550.86
	Total:					\$232,885.74
	Longer-Range Pathway Widening Projects (Not Anticipated for Grant Approval) Est. at \$20/LF					
	Greenview Shores (North-Side Only)	5,959	LF	\$	20.00	\$119,180.00
	Greenbriar Boulevard	3,646	LF	\$	20.00	\$72,920.00
	Birkdale Drive	7,480	LF	\$	20.00	\$149,600.00
	Stribling Way (North-South)	7,392	LF	\$	20.00	\$147,840.00
	120th Ave. S.	3,646	LF	\$	20.00	\$72,920.00
	Lake Worth Road	3,600	LF	\$	20.00	\$72,000.00
	Paddock Drive (EPA)	3,175	LF	\$	20.00	\$63,500.00
	Wellington Trace (EPA)	8,560	LF	\$	20.00	\$171,200.00
	Concrete Pathway Widening Projects (Not Anticipated for Grant Approval) Est. at \$43/LF					
	Lyons Road (2 Ways)	17,758	LF	\$	43.00	\$763,594.00
	Wellington Trace (Forest Hill to Greenview Shores, 2 Ways)	16,454	LF	\$	43.00	\$707,522.00
	South Shore Blvd. (Forest Hill to Pierson, 2 Ways)	24,962	LF	\$	43.00	\$1,073,366.00
	Install Multi-Modal Crossing and Bridge across C-8 Canal at Little Ranches					\$781,000.00
	Install Multi-Modal Crossing and Bridge across C-1 Canal at the C-23 Canal					\$781,000.00
		<i>Bicycle & Pedestrian Improvements Grand Total</i>				\$11,024,638.70
					<i>Total Grant Amounts Approved</i>	\$2,759,010.00
	Roadway Improvements					
A.	Shift Bike Lane	2	EA	\$	10,000.00	\$20,000.00
B.	Add 4' Shoulder - Aero Club Drive*	1	LS	\$	554,400.00	\$554,400.00

C.	Add 4' Shoulder - Wellington Trace	1	LS	\$ 536,075.00	\$536,075.00
D.	Add 4' Shoulder - Birkdale Drive	1	LS	\$ 344,975.00	\$344,975.00
E.	Add 4' Shoulder - Paddock Drive	1	LS	\$ 603,575.00	\$603,575.00
F.	Add 4' Shoulder - Wellington Trace (EPA)	1	LS	\$ 443,750.00	\$443,750.00
G.	Add 4' Shoulder - Ousley Farms Road	1	LS	\$ 69,325.00	\$69,325.00
H.	Add 4' Shoulder - Greenbriar (Aero Club)	1	LS	\$ 563,300.00	\$563,300.00
I.	Add 4' Shoulder - Stribling Way	1	LS	\$ 248,375.00	\$248,375.00
J.	Add 4' Shoulder -Stribling Way (East of 441)	1	LS	\$ 257,275.00	\$257,275.00
	<i>*Calculated at 4.5 x length of project / 9 x \$50 (\$50 per square yard)</i>				
K.	<u>European and Mid-Block Crosswalks - Costs are per Stripe</u>				
	441 @ Stribling Way	111	EA	\$ 39.00	\$4,329.00
	441 @ Lime Drive/Hutton Boulevard	111	EA	\$ 39.00	\$4,329.00
	441 @ Forest Hill Boulevard	153	EA	\$ 39.00	\$5,967.00
	Forest Hill Boulevard @ South Shore Boulevard	74	EA	\$ 39.00	\$2,886.00
	Multi-Use Path @ Big Blue Trace	11	EA	\$ 39.00	\$429.00
	Multi-Use Path @ Binks Forest Drive	20	EA	\$ 39.00	\$780.00
	Aero Club Drive @ Cedar Bluff Place	10	EA	\$ 39.00	\$390.00
	Multi-Use Path @ Lake Worth Road	20	EA	\$ 39.00	\$780.00
	<i>Roadway Improvements Grand Total</i>				\$3,660,940.00
Hardscape Improvements					
A.	Shelter with Benches	4	EA	\$ 20,000.00	\$80,000.00
	<i>Hardscape Improvements Grand Total</i>				\$80,000.00
	<i>Bicycle & Pedestrian Improvements Grand Total</i>				\$11,024,638.70
	<i>Roadway Improvements Grand Total</i>				\$3,660,940.00
	<i>Hardscape Improvements Grand Total</i>				\$80,000.00
	<i>Bicycle & Pedestrian Circulation Plan Grand Total</i>				\$14,765,578.70



Bicycle & Pedestrian Circulation Plan

Evaluation and Recommendations