City of Doral Comprehensive Plan

2024 CAPITAL IMPROVEMENTS ELEMENT/FIVE-YEAR SCHEDULE OF CAPITAL IMPROVEMENTS

Doral Planning &
Zoning Department

September 11, 2024

DORAL COMPREHENSIVE PLAN
CAPITAL IMPROVEMENTS ELEMENT/FIVE-YEAR SCHEDULE OF CAPITAL IMPROVEMENTS

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INTRODUCTION

The purpose of the 2024 Capital Improvements Element (CIE) Update is to annually review and maintain the 5-Year Schedule of Capital Improvements (SCI) consistent with the requirements set forth in Subsection 163.3177(3)(b), Florida Statutes. The Updated 5-Year SCI will replace the existing capital improvement projects in the "Data Inventory Analysis (DIA)" document that supports the City of Doral Comprehensive Plan.

The 2024 CIE Update includes all capital projects for which the City has fiscal responsibility, including parks and recreation, stormwater management and transportation. The Update also includes capital improvement projects which are the responsibility of other government agencies and entities, including water supply, sanitary sewer, solid waste, public school facilities and transportation facilities. These "non-Doral" projects are funded through Miami-Dade County, Miami-Dade Public School Board, Miami-Dade Transportation Planning Organization (TPO).

This Update also provides Level of Service (LOS) analyses for all public facilities within the City based on population projections and related data. Projects included in the updated 5-Year SCI are necessary to address projected public facility needs to meet future LOS demand.

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I. Population Estimates and Projections

Population projections are the foundation upon which to forecast future demand on public facilities and services. In developing Doral's population projections for this CIE update, various demographic sources including population estimates derived from the University of Florida Bureau of Economic and Business Research (BEBR), the U.S. Census, other county and regional planning documents, and city approved unbuilt units are reviewed and analyzed.

Table 1 below shows the historical, current and future estimates projections of Doral's population through the year 2040.

Table 1: Population Estimates and Projections

YEAR	POPULATION
Historic Population	
2000	20,438
2004	26,438
2010	45,709
2015	55,660
Current and Projected Population	
2020	75,874
2021	80,703
2022	81,182
2023	82,408
2024	83,636
2025	84,890
2026	86,164
2027	87,456
2028	88,768
2029	90,099
2030	91,451
2035	98,519
2040	106,133

Sources: U.S. Census and University of Florida BEBR 2024; City Staff 2024.

The population levels in Table 1 above are utilized as the City's current population projections for this CIE update to determine the City's public facility needs during the 5-year planning period from 2024/25 to 2028/29

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II. Level-of-Service Analysis

A. Transportation

There are approximately 330 lane miles of roads within Doral maintained by three (3) separate government jurisdictions: City of Doral, Miami-Dade County and the State of Florida. Each jurisdiction provides routine maintenance of their roadways. However, all roadway traffic control such as speed limit signs, stop signs and traffic signals fall under the jurisdiction of, and are maintained by, Miami-Dade County. Doral maintains approximately 76 miles of roadway. Over the years, the city has taken over maintenance jurisdiction for many public roads and streets in Doral through inter-local agreements with Miami-Dade County. The expressways surrounding Doral on three (3) sides are: State Road 826/Palmetto Expressway along the eastern border (Florida Department of Transportation), State Road 836/Dolphin Expressway along the southern border (Greater Miami Expressway Authority), and State Road 821/Homestead Extension of the Florida Turnpike (HEFT) along the western border (Florida Turnpike Enterprise).

The City completed most recent update of its Transportation Master Plan (TMP) in 2017. The TMP is a long-range 20-year plan that guides Doral's mobility improvements within the City and with regional destinations. The 2017 TMP inventoried and analyzed Level of Service (LOS) for existing roadways and projected future roadway LOS in the years 2025 and 2040. The plan addresses transit, bikeway and pedestrian facilities and their traffic relief. The Plan identifies and prioritizes projects needed to address current and future transportation deficiencies, and methods for financing transportation improvements and mitigation necessary to maintain adopted LOS standards. The City is in the process of updating the TMP and anticipates the new plan to be completed and adopted by October 2024.

1. Roadways

Adopted Level of Service (LOS) standards for roadway facilities are contained in Policies 2.2.1, 2.2.2 and 2.2.3 of the Transportation Element of the City's Comprehensive Plan. Local roadways have an adopted LOS standard of "D" except where specialized transit service exists, the LOS threshold is increased to "D + 120%". State roadways have an adopted LOS standard of "E". The LOS analysis contained in this CIE update is based on 2018 traffic counts from the *City of Doral Biennial Traffic Monitoring Report* (dated October 16, 2018).

This section of the report addresses the performance of Doral's roadway system. Roadway vehicular counts were undertaken at various locations within the City. Using this data, LOS were calculated for each associated roadway segment on an Annual Average Daily Traffic (AADT), Peak Hour, Peak Directional and Peak Hour Bi-directional basis. Traffic conditions were projected to 2025 using a combination of TPO and local growth factors, derived from an understanding of existing and planned future developments. This provides an assessment of future conditions to determine project priorities. Existing LOS conditions have been analyzed and the results are displayed in Table 2. This serves as a handbook to detail the condition of each facility in the City. Categories of data include:

* Specific Link
* Number of Lanes
* Existence of a Median
* Road Jurisdiction

- Functional Classification
- Number of Traffic Signals
- Segment Length
- Signals per Mile
- Speed Limit
- Roadway Class
- Existing Level of Service Standard
- Service Volume at LOS C, D, E
- Average Annual Daily Traffic (AADT)
- Peak Hour Volume
- Remaining Capacity
- Transit Service
- Sidewalks
- Bike Lanes

Figure 1 shows the Level-of-Service (LOS) on the primary Doral roads in 2018. Roadways with average daily traffic flows exhibiting LOS "F" in 2018 were:

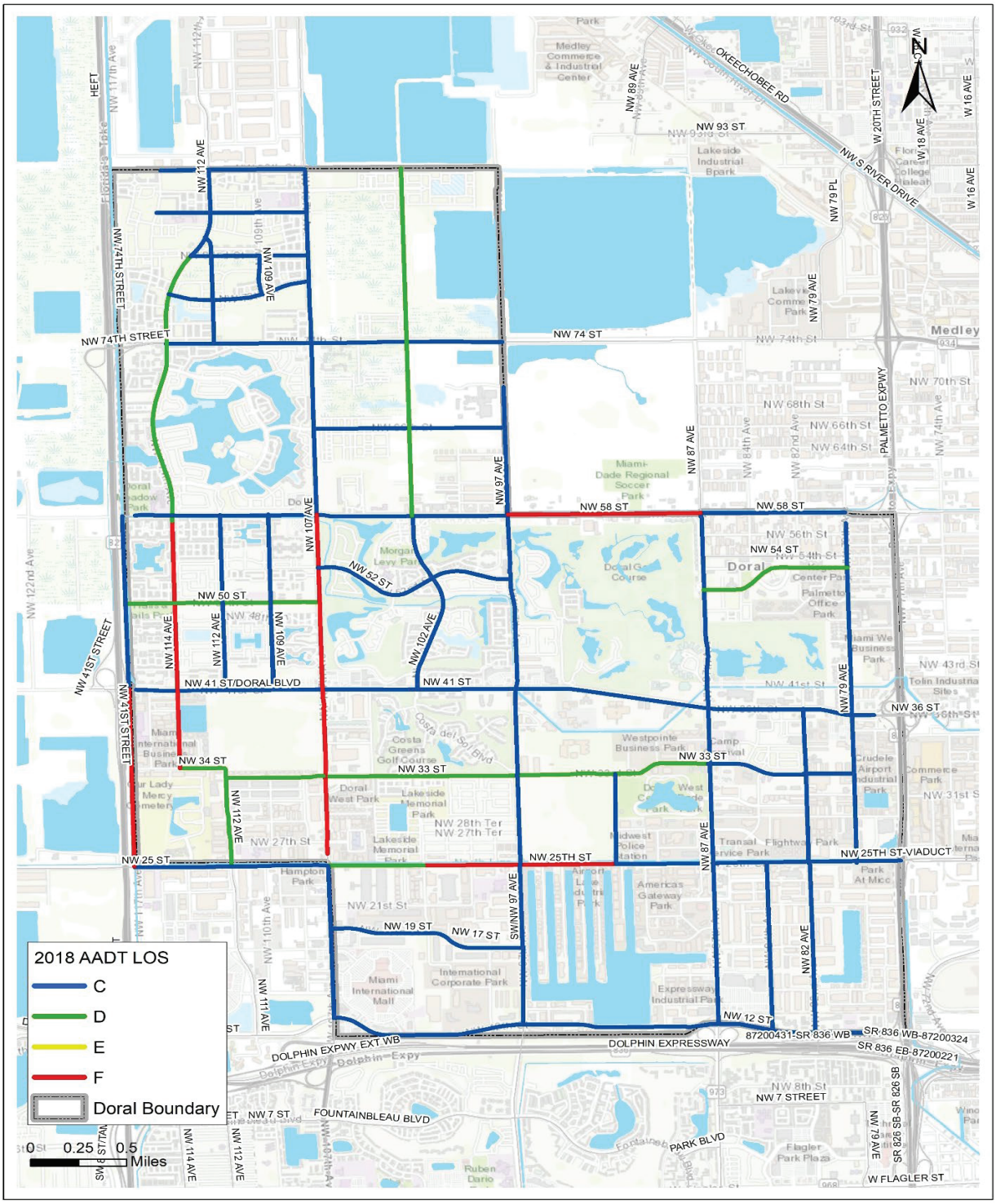
1. NW 58th Street - NW 87th Avenue to NW 97th Avenue
2. NW 25th Street - NW 92nd Avenue to NW 102nd Avenue
3. NW 107th Avenue - NW 25th Street to NW 58th Street
4. NW 114th Avenue – NW 34th Street to NW 58th Street
5. NW 117th Avenue – NW 25th Street to NW 41st Street

Figure 2 presents the projected Level-of-Service on the City's primary road system in 2025. Roadways with average daily traffic flows exhibiting LOS "F" in 2025 are projected to be:

1. NW 107th Avenue - NW 25th Street to NW 41st Street
2. NW 97th Avenue – NW 12th Street to NW 17th Street
3. NW 112th Avenue – NW 25th Street to NW 34th Street
4. NW 114th Avenue – NW 34th Street to NW 58th Street
5. NW 117th Avenue – NW 25th Street to NW 41st Street
6. NW 25th Street - NW 92nd Avenue to NW 117th Avenue
7. NW 36/41st Street – Palmetto Expressway to NW 107th Avenue
8. NW 34th Street – NW 112th Avenue to NW 114th Avenue
9. NW 74th Street – NW 97th Avenue to NW 107th Avenue

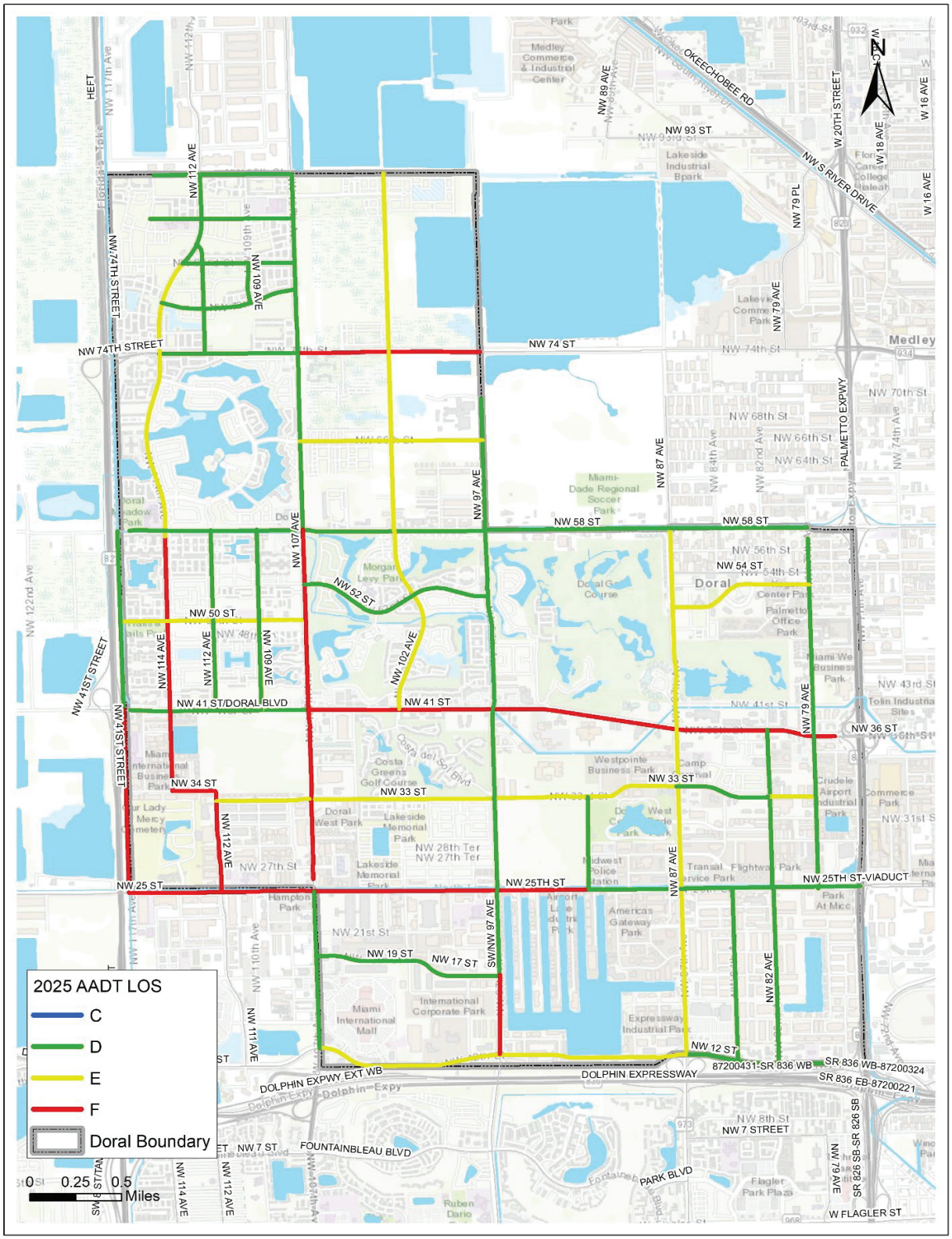
It is important to note that the information provided above is currently being evaluated as part of the Transportation Master Plan Update.

Figure 1: 2018 Daily Level-of-Service Roadway Conditions



Source: City of Doral Biennial Traffic Monitoring Report, October 16, 2018.

Figure 2: 2025 Projected Daily Level-of-Service Roadway Conditions



Source: City of Doral Biennial Traffic Monitoring Report, October 16, 2018.

The potential mitigation solutions to these documented and projected future traffic conditions is to increase the miles of sidewalks and bike lanes, increase trolley service and make modifications to routes as needed, and roadway and intersection improvements. These mitigation strategies are documented in the preparation of the FY 2024-2029 Schedule of Capital Improvements presented later in this report in Table 17.

2. Intersections

The City's Transportation Master Plan (2016) included a total of 30 intersections with 29 signalized and 1 unsignalized intersection. The traffic volumes collected in the field were checked for accuracy. Pedestrian volumes were also input and analyzed in the Synchro software. For signalized intersections, the existing signal timings were obtained from Miami-Dade County. The of the Levels-of-Service (LOS) analyses for the study intersections follow the procedures outlined in the 2010 Highway Capacity Manual (HCM), Transportation Research Board, Special Report 209, and the latest Synchro software. The LOS findings have been summarized for 2016 Existing Conditions and 2016 Existing Conditions with Proposed Mitigation. It should be noted that only for unsignalized intersection, HCM does not compute a LOS value for "Yield" and "Free Flow" traffic movements. Consequently, HCM does not determine an overall LOS for those particular unsignalized intersections. The intersections in Table 2 below resulted in an overall LOS E or F during morning and afternoon peaks.

Table 2: Existing Intersection Conditions LOS Summary

Intersection		Traffic Control	Overall LOS/Delay [1]	Approach LOS [2]			
No.	Name			NB	SB	EB	WB
1	NW 12th Street & NW 107th Avenue	Signalized	E/55.9 sec (E/64.9 sec)	D (D)	D (D)	E (F)	E (F)
2A	NW 12th Street & NW 97th Avenue (Off Ramp)	Signalized	C/20.3 sec (A/8.5 sec)	N/A	C (C)	C (B)	A (A)
2B	NW 12th Street & NW 97th Avenue (On Ramp)	Signalized	A/9.8 sec (B/10.5 sec)	C (B)	N/A	A (A)	B (B)
3	NW 12th Street & NW 87th Avenue	Signalized	D/52.6 sec (D/54.6 sec)	C (D)	D (D)	F (F)	D (E)
4	NW 12th Street & NW 82nd Avenue	Signalized	C/26.1 sec (B/19.1 sec)	N/A	C (B)	C (B)	C (C)
5	NW 25th Street & NW 117th Avenue	Signalized	D/52.3 sec (E/72.6 sec)	E (F)	F (F)	D (D)	B (D)
6	NW 25th Street & NW 107th Avenue	Signalized	E/63.7sec (E/65.0 sec)	E (E)	D (E)	E (E)	D (E)
7	NW 25th Street & NW 97th Avenue	Signalized	D/43.9 sec (E/55.3 sec)	D (D)	D (E)	D (E)	D (D)
8	NW 25th Street & NW 87th Avenue	Signalized	E/57.5 sec (E/61.1 sec)	D (D)	D (D)	E (F)	E (E)
9	NW 25th Street & NW 82nd Avenue	Signalized	E/56.4 sec (D/53.1 sec)	E (E)	F (E)	C (D)	E (D)
10	NW 25th Street & NW 79th Avenue	Signalized	D/37.7 sec (E/65.8 sec)	E (D)	E (F)	C (D)	C (C)
11	NW 33rd Street & NW 107th Avenue	Signalized	F/85.2 sec (D/54.6 sec)	E (D)	F (C)	F (F)	D (E)
12	NW 33rd Street & NW 97th Avenue	Signalized	E/69.0 sec (E/62.3 sec)	D (D)	E (D)	F (D)	E (F)
13	NW 33rd Street & NW 87th Avenue	Signalized	E/55.4 sec (E/67.5 sec)	D (E)	D (D)	F (E)	E (F)
15	NW 41st Street & HEFT NB Off -Ramp	Signalized	B/11.5 sec (A/7.9 sec)	A (B)	N/A	B (B)	A (A)
16	NW 41st Street & NW 115th Avenue	Signalized	D/35.2 sec (D/36.3 sec)	C (E)	E (D)	C (C)	D (D)
17	NW 41st Street & NW 114th Avenue	Signalized	E/72.4 sec (E/60.7 sec)	E (F)	F (F)	E (D)	D (D)
18	NW 41st Street & NW 107th Avenue	Signalized	F/80.8 sec (E/77.8 sec)	F (E)	F (F)	E (E)	F (F)

Intersection		Traffic Control	Overall LOS/Delay [1]	Approach LOS [2]			
No.	Name			NB	SB	EB	WB
19	NW 41st Street & NW 102nd Avenue	Signalized	D/40.7 sec (D/36.1 sec)	F (E)	E (E)	C (C)	C (C)
20	NW 36th Street & NW 87th Avenue	Signalized	E/69.7 sec (E/70.2 sec)	D (E)	E (F)	F (E)	E (E)
21	NW 36th Street & NW 82nd Avenue	Signalized	C/32.1 sec (D/45.6 sec)	F (F)	F (F)	C (C)	B (B)
22	NW 36th Street & NW 79th Avenue	Signalized	E/68.4 sec (F/124.8 sec)	F (F)	F (F)	D (E)	E (E)
23	NW 58th Street & NW 114th Avenue	Signalized	D/53.7 sec (D/42.8 sec)	D (C)	C (D)	E (D)	F (D)
24	NW 58th Street & NW 107th Avenue	Signalized	E/62.9 sec (E/69.3 sec)	F (F)	D (E)	E (D)	E (E)
25	NW 58th Street & NW 97th Avenue	Signalized	E/69.1 sec (E/73.1 sec)	F (F)	F (F)	D (D)	D (E)
26	NW 58th Street & NW 87th Avenue	Signalized	E/60.1 sec (F/91.1 sec)	F (F)	F (F)	C (C)	D (D)
27	NW 58th Street & NW 79th Avenue	Signalized	E/64.2 sec (F/95.4 sec)	F (F)	F (E)	E (E)	D (D)
28	NW 74th Street & NW 114th Avenue	Signalized	E/73.9 sec (F/143.9 sec)	F (F)	F (F)	D (D)	D (E)
29	NW 74th Street & NW 107th Avenue	Signalized	F/140.8 sec (F/91.3 sec)	C (C)	F (D)	F (B)	B (F)
30	NW 74th Street & NW 97th Avenue	Unsignalized	F/62.0 sec (F/67.7 sec)	F (F)	A (A)	B (C)	F (B)

[1] - AM LOS without parenthesis; PM LOS with parenthesis; Delay in seconds per vehicle
[2] - AM LOS without parenthesis; PM LOS with parenthesis

Intersection		Traffic Control	Overall LOS/Delay [1]	Approach LOS [2]			
No.	Name			NB	SB	EB	WB
1	NW 12th Street & NW 107th Avenue	Signalized	E/55.9 sec (E/64.9 sec)	D (D)	D (D)	E (F)	E (F)
2A	NW 12th Street & NW 97th Avenue (Off Ramp)	Signalized	C/20.3 sec (A/8.5 sec)	N/A	C (C)	C (B)	A (A)
2B	NW 12th Street & NW 97th Avenue (On Ramp)	Signalized	A/9.8 sec (B/10.5 sec)	C (B)	N/A	A (A)	B (B)
3	NW 12th Street & NW 87th Avenue	Signalized	D/52.6 sec (D/54.6 sec)	C (D)	D (D)	F (F)	D (E)
4	NW 12th Street & NW 82nd Avenue	Signalized	C/26.1 sec (B/19.1 sec)	N/A	C (B)	C (B)	C (C)
5	NW 25th Street & NW 117th Avenue	Signalized	D/52.3 sec (E/72.6 sec)	E (F)	F (F)	D (D)	B (D)
6	NW 25th Street & NW 107th Avenue	Signalized	E/63.7sec (E/65.0 sec)	E (E)	D (E)	E (E)	D (E)
7	NW 25th Street & NW 97th Avenue	Signalized	D/43.9 sec (E/55.3 sec)	D (D)	D (E)	D (E)	D (D)
8	NW 25th Street & NW 87th Avenue	Signalized	E/57.5 sec (E/61.1 sec)	D (D)	D (D)	E (F)	E (E)
9	NW 25th Street & NW 82nd Avenue	Signalized	E/56.4 sec (D/53.1 sec)	E (E)	F (E)	C (D)	E (D)
10	NW 25th Street & NW 79th Avenue	Signalized	D/37.7 sec (E/65.8 sec)	E (D)	E (F)	C (D)	C (C)
11	NW 33rd Street & NW 107th Avenue	Signalized	F/85.2 sec (D/54.6 sec)	E (D)	F (C)	F (F)	D (E)
12	NW 33rd Street & NW 97th Avenue	Signalized	E/69.0 sec (E/62.3 sec)	D (D)	E (D)	F (D)	E (F)
13	NW 33rd Street & NW 87th Avenue	Signalized	E/55.4 sec (E/67.5 sec)	D (E)	D (D)	F (E)	E (F)
15	NW 41st Street & HEFT NB Off -Ramp	Signalized	B/11.5 sec (A/7.9 sec)	A (B)	N/A	B (B)	A (A)
16	NW 41st Street & NW 115th Avenue	Signalized	D/35.2 sec (D/36.3 sec)	C (E)	E (D)	C (C)	D (D)
17	NW 41st Street & NW 114th Avenue	Signalized	E/72.4 sec (E/60.7 sec)	E (F)	F (F)	E (D)	D (D)
18	NW 41st Street & NW 107th Avenue	Signalized	F/80.8 sec (E/77.8 sec)	F (E)	F (F)	E (E)	F (F)
19	NW 41st Street & NW 102nd Avenue	Signalized	D/40.7 sec (D/36.1 sec)	F (E)	E (E)	C (C)	C (C)
20	NW 36th Street & NW 87th Avenue	Signalized	E/69.7 sec (E/70.2 sec)	D (E)	E (F)	F (E)	E (E)

Intersection		Traffic Control	Overall LOS/Delay [1]	Approach LOS [2]			
No.	Name			NB	SB	EB	WB
21	NW 36th Street & NW 82nd Avenue	Signalized	C/32.1 sec (D/45.6 sec)	F (F)	F (F)	C (C)	B (B)
22	NW 36th Street & NW 79th Avenue	Signalized	E/68.4 sec (F/124.8 sec)	F (F)	F (F)	D (E)	E (E)
23	NW 58th Street & NW 114th Avenue	Signalized	D/53.7 sec (D/42.8 sec)	D (C)	C (D)	E (D)	F (D)
24	NW 58th Street & NW 107th Avenue	Signalized	E/62.9 sec (E/69.3 sec)	F (F)	D (E)	E (D)	E (E)
25	NW 58th Street & NW 97th Avenue	Signalized	E/69.1 sec (E/73.1 sec)	F (F)	F (F)	D (D)	D (E)
26	NW 58th Street & NW 87th Avenue	Signalized	E/60.1 sec (F/91.1 sec)	F (F)	F (F)	C (C)	D (D)
27	NW 58th Street & NW 79th Avenue	Signalized	E/64.2 sec (F/95.4 sec)	F (F)	F (E)	E (E)	D (D)
28	NW 74th Street & NW 114th Avenue	Signalized	E/73.9 sec (F/143.9 sec)	F (F)	F (F)	D (D)	D (E)
29	NW 74th Street & NW 107th Avenue	Signalized	F/140.8 sec (F/91.3 sec)	C (C)	F (D)	F (B)	B (F)
30	NW 74th Street & NW 97th Avenue	Unsignalized	F/62.0 sec (F/67.7 sec)	F (F)	A (A)	B (C)	F (B)

[3] - AM LOS without parenthesis; PM LOS with parenthesis; Delay in seconds per vehicle
[4] - AM LOS without parenthesis; PM LOS with parenthesis

Following review with the City staff of the information in Table 2, a mitigation strategy for each intersection with LOS E was developed. Mitigation includes adding lane capacity, removal of split phasing and signal timing optimization. Proposed improvements were analyzed with results included in Table 3. With the inclusion of proposed mitigation measures, the overall level of service for all the intersections improves, yet there are intersections that remain at LOS E or F.

Table 3: Existing Intersection Traffic with Mitigation LOS Summary

Intersection		Traffic Control	Overall LOS/Delay [1]	Approach LOS [2]			
No.	Name			NB	SB	EB	WB
1	NW 12th Street & NW 107th Avenue	Signalized	D/53.1 sec (E/58.1 sec)	D (D)	D (D)	E (E)	D (E)
2A	NW 12th Street & NW 97th Avenue (Off Ramp)	Signalized	C/20.1 sec (A/8.4 sec)	N/A	C (C)	C (B)	A (A)
2B	NW 12th Street & NW 97th Avenue (On Ramp)	Signalized	A/7.4 sec (B/8.5 sec)	B (A)	N/A	A (A)	B (B)
3	NW 12th Street & NW 87th Avenue	Signalized	D/47.6 sec (D/46.1 sec)	D (C)	D (D)	F (F)	D (E)
4	NW 12th Street & NW 82nd Avenue	Signalized	C/26.1 sec (B/19.1 sec)	N/A	C (B)	C (B)	C (C)
5	NW 25th Street & NW 117th Avenue	Signalized	C/29.2 sec (D/43.1 sec)	D (D)	D (C)	C (C)	B (D)
6	NW 25th Street & NW 107th Avenue	Signalized	E/59.9 sec (E/61.4 sec)	D (D)	D (D)	E (E)	E (F)
7	NW 25th Street & NW 97th Avenue	Signalized	C/31.8 sec (D/40.6 sec)	C (C)	C (D)	C (D)	C (D)
9	NW 25th Street & NW 82nd Avenue	Signalized	D/50.2 sec (D/51.9 sec)	E (E)	E (E)	D (D)	D (D)
10	NW 25th Street & NW 79th Avenue	Signalized	D/38.9 sec (D/46.2 sec)	D (D)	E (D)	C (D)	D (C)
11	NW 33rd Street & NW 107th Avenue	Signalized	E/55.5 sec (D/44.5 sec)	E (D)	D (C)	E (E)	D (E)
12	NW 33rd Street & NW 97th Avenue	Signalized	E/56.4 sec (D/46.9 sec)	D (D)	D (D)	D (D)	E (D)
13	NW 33rd Street & NW 87th Avenue	Signalized	D/54.7 sec (D/50.8 sec)	D (D)	E (D)	D (D)	D (E)
16	NW 41st Street & NW 115th Avenue	Signalized	D/36.6 sec (D/39.1 sec)	D (D)	E (D)	D (C)	C (D)
17	NW 41st Street & NW 114th Avenue	Signalized	E/58.1sec (D/51.8 sec)	D (E)	E (D)	E (D)	D (D)

Intersection		Traffic Control	Overall LOS/Delay [1]	Approach LOS [2]			
No.	Name			NB	SB	EB	WB
18	NW 41st Street & NW 107th Avenue	Signalized	E/69.5 sec (E/73.1 sec)	E (E)	F (E)	E (E)	D (F)
19	NW 41st Street & NW 102nd Avenue	Signalized	C/30.5 sec (C/31.0 sec)	D (D)	D (D)	C (C)	C (C)
20	NW 36th Street & NW 87th Avenue	Signalized	E/62.1 sec (E/62.2 sec)	E (E)	E (E)	E (E)	D (E)
21	NW 36th Street & NW 82nd Avenue	Signalized	C/22.9 sec (C/23.4 sec)	E (E)	E (E)	B (B)	B (B)
22	NW 36th Street & NW 79th Avenue	Signalized	D/47.0 sec (F/103.9 sec)	D (F)	E (F)	D (F)	D (E)
23	NW 58th Street & NW 114th Avenue	Signalized	D/38.0 sec (D/47.6 sec)	C (D)	C (D)	E (D)	D (D)
24	NW 58th Street & NW 107th Avenue	Signalized	D/47.9 sec (D/46.7 sec)	D (D)	D (D)	E (D)	D (D)
25	NW 58th Street & NW 97th Avenue	Signalized	D/42.4 sec (D/37.6 sec)	D (C)	D (C)	D (D)	C (D)
26	NW 58th Street & NW 87th Avenue	Signalized	D/41.8 sec (D/45.9 sec)	D (E)	E (D)	D (D)	C (D)
28	NW 74th Street & NW 114th Avenue	Signalized	D/40.8 sec (D/40.2 sec)	C (C)	C (C)	D (D)	D (E)
29	NW 74th Street & NW 107th Avenue	Signalized	D/53.8 sec (D/46.3 sec)	D (E)	E (E)	E (B)	C (D)
30	NW 74th Street & NW 97th Avenue	Signalized	B/10.0 sec (C/20.7 sec)	D (B)	A (A)	A (B)	B (C)

[1] - AM LOS without parenthesis; PM LOS with parenthesis; Delay in seconds per vehicle
[2] - AM LOS without parenthesis; PM LOS with parenthesis

3 Transit

The City of Doral is served by four (4) Miami-Dade Transit (MDT) routes 36, 87, 95B, and 132 and four (4) Doral Trolley routes. Figure 3, shows the combined routes of Miami-Dade Transit and the City of Doral Trollies within the City's boundary.

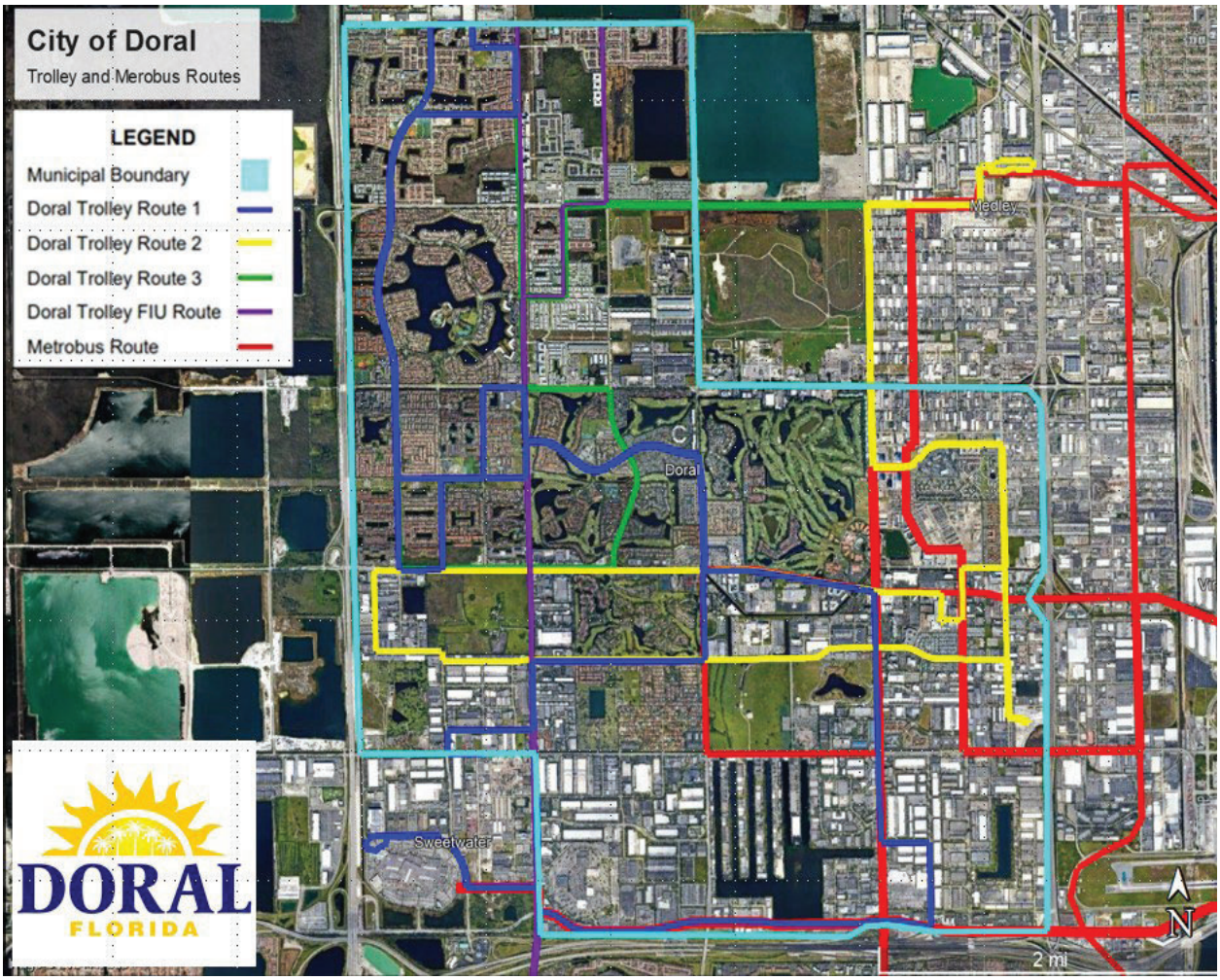
The free-fare Doral Trolley System launched on February 1, 2008. It is a local circulator which now serves the city through four (4) routes (R1, R2, R3 and R4), with route R1 providing connector service to MDT Metrobus routes at Miami International Mall and routes R2 and R3 providing connector service to the Miami-Dade Transit Metrorail via the Palmetto Metrorail Station in Medley. Route R4 commenced in August 2018 and provides service to Florida International University (FIU) along NW 107th Avenue. While these routes are intended to serve separate areas of the city, there is significant overlap between them. Because there are no dedicated trolley lanes, trolleys operate on the same roadways used by individual vehicles. The city conducts regular trolley ridership surveys to provide insight into future changes to route alignment, stops, hours of operation and frequency.

Route 1 has the highest ridership, followed by Routes 3, 2 and 4, respectively. Route 4 has a comparatively low overall ridership and is the newest route. High ridership boarding locations show the locations of high activity and indications of the demographics of route ridership, but where the routes intersect, provide insight into potential hub or corridor development areas. Conversely, low ridership indicates a need to consolidate stops and modify routes consistent with current land use patterns. There are also lower than average performing stops on all four routes. Stops falling into these lower categories will be examined for alterations or elimination to improve trolley efficiency and reduce future congestion mitigation

Factors that affect both the level of ridership and the quality of trips include access to and amenities at trolley stops. Trolley stop accessibility includes connectivity by sidewalks connecting to stops and

improvements would include meeting all ADA requirements, convenient stop locations, shelters, shade, signage, schedules, and easy boarding curb heights. Key urban centers with large job, housing, and/or retail activity centers within the City should be joined by transit routes, as well as, primary locations/ transit connections located outside the City Limits.

Figure 3: Transit Routes in Doral



Source: City of Doral Public Works Dept. July, 2024.

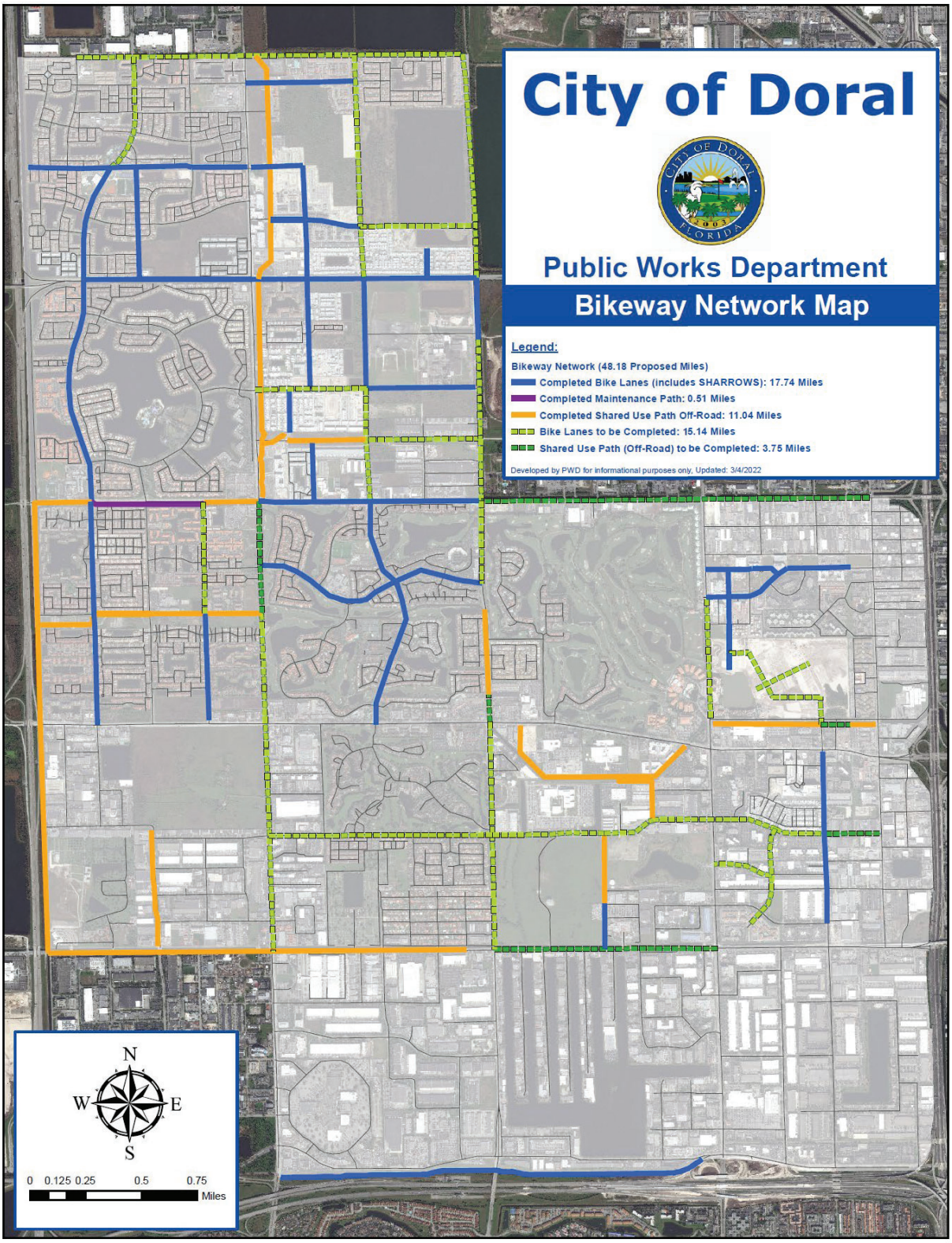
4 Bicycle/Pedestrian Facilities

The City's goal is to encourage intra-city trips by bicycles and walking. A majority of the City of Doral is interconnected by sidewalks and the city has dedicated annual funding to continue to connect missing segments. The City has also developed a Bikeway Network Master Plan that contains a series of interconnected bike lanes and multi-use paths that will be implemented by both public and private entities. Figure 4, shows the current and planned bikeway network within Doral. The existing bike network consists of 17.78 miles of bike lanes, 9.95 miles of off-road shared-use paths, and 0.51 miles of maintenance path for a total of 28.24 miles of current bike facilities. The city is also currently designing a total of 21.54 miles of additional bike lanes and shared-use paths as shown in Figure 4.

5 De Minimus Impact Report

Pursuant to State Statute Section 163.3180(6), local governments must submit a De Minimis Impact Report with the annual Capital Improvements Element update of the City's Comprehensive Plan. A De Minimis Impact is defined as: an impact that would not affect more than 1 percent of the maximum volume at adopted LOS of the affected transportation facility; no impact is a de minimis if the sum of the existing roadway volumes and the projected volumes from approved projects on each transportation facility would exceed 110 percent of the maximum volume at the adopted LOS and provided that an impact of a single-family home on an existing lot will constitute a de minimus impact on any roadway regardless of the level of deficiency of the roadway. Based on the above definition of de minimis impact and current city traffic data, the City of Doral does not need to file a De Minimis Impact Report.

Figure 4. Doral's Existing and Planned Bikeway Network



Source: City of Doral Public Works Dept., July, 2024.

6. 5-Year Level-of-Service Transportation Projects

To address the LOS deficiencies now and expected by 2027-28, the City has programmed 15 roadway, intersection and multi-modal capacity improvement projects within the current 5-year planning period. These projects are listed in Table 4 below and will be funded primarily through the City's Transportation Fund as shown in Table 16.

Table 4. City Transportation Projects FY 2024-2029

Project Location	Type of Work	Implementation Timeframe (Fiscal Year)
1. Citywide (Milling & Resurfacing / Re-Striping)	Roadway Maintenance	2023-2027
2. Landmark Community Complete Streets	Traffic Calming Improvements	2023
3. Citywide	Traffic Calming Improvements	2024-2027
4. NW 90 Street (Vacant Land Section 7)	Roadway Widening	2026
5. NW 104 Avenue (69 St. – 70 St)	Roadway Widening	2026
6. NW 102 Avenue (76 St - 86 St)	Roadway Widening	2026
7. Citywide (Bus shelters)	Transit Mobility & Infrastructure	2024-2026
8. NW 114 Avenue (34 St - 39 St)	Roadway Improvements	2027
9. NW 34 Street (117 Ave - 112 Ave)	Roadway Improvements	2025
10. NW 117 Avenue (NW 25 St - NW 34 St)	Roadway Improvements	2024
11. Intersection Improvements - Citywide	Roadway Improvements	2023-2027
12. Do Not Block Box Intersections	Roadway Improvements	2025-2027
13. FPL Undergrounding	Roadway Improvements	2026
14. NW 33 Street (NW 79 - 82 Avenue) Reconstruct	Roadway Improvements	2025
15. Improvements Identified in the 2023 Transportation Master Plan Update	Roadway Improvements	2027
16. Doral Art District (Adaptive Re-Use)	Complete Streets	2023-2025

Source: Doral Public Works Department (July 2024)

In addition to the City-funded transportation projects listed above, a number of capacity improvement projects in the City have been identified in the current Miami-Dade County Transportation Planning Organization (TPO) 5-year Transportation Improvement Program (TIP). The TIP is a staged multi-year program similar to the CIE at the regional scale and coordinates all cities, Miami-Dade County departments, State of Florida, Turnpike Enterprise, and Expressway Authority required for all federally-funded transportation projects and prioritizes Priority Transportation Projects (PTP) funded over the next 5-year planning period. The planned projects within or affecting the City of Doral are shown in *Table 5*.

Table 5: Planned State and County Transportation Projects in Doral Area FY 2024-2029

FACILITY	LIMITS	TYPE OF WORK	RESPONSIBLE AGENCY	CONSTRUCTION TIME FRAME	TOTAL COST FY 2023-2027 (Millions)
SR 826 (Palmetto Expressway)	SR 836 to SR 93/I-75	PD&E/EMO	FDOT		PYF*
SR 826 (Palmetto Expressway)	SR 968 West Flagler Street to South of NW 154 Street	PD&E/EMO	FDOT		$6.600
SR 826 (Palmetto Expressway)	Express Lanes Tolling & Ramp Signaling Operations	Technical Assistance	FDOT		$4.338
City of Doral - NW 117 Avenue	NW 25 Street to NW 34 Street	Miscellaneous Construction	FDOT		$2.104
NW 25 Street Viaduct Trucking Impacts		PTO Studies	FDOT		$0.450
HEFT	MP 33.2 (SB) MP 35.4 (NB) to MP 35.4 (SB) MP 38.0 (NB)	Resurface HEFT	FL Turnpike Enterprise		PYF*
HEFT	MP 33.2 to MP 40.15	Thermoplastic for HEFT Resurfacing	FL Turnpike Enterprise		PYF*
HEFT	MP 33.2 to MP 40.15	Guardrail	FL Turnpike Enterprise		PYF*
HEFT	SR 836 (MP 32) to NW 106 St (MP 34)	Thermoplastic for HEFT Widening	FL Turnpike Enterprise		PYF*
HEFT	SR 836 to NW 106 St (MP 26-34)	Add Lanes and Reconstruct	FL Turnpike Enterprise		$0.528
SR 836 (Dolphin) Interchange Modifications at 87th Avenue	SR 836 West of 82 Avenue to NW 97 Avenue	Interchange Improvements	MDX		PYF*
SR 836 (Dolphin) New HEFT Ramp Connections	HEFT and SR 836	New Connector	MDX	FY 2023 – FY2024 Design Build	$50.031
NW 25 Street	NW 117 Avenue to NW 87 Avenue	Widen from 4 to 6 Lanes	MDC	FY2025 - FY2028	$26.272
NW 58 Street	NW 97 Avenue to SR 826	Road Reconstruction	MDC	Procurement	PYF*
NW 84 Avenue	NW 58 Street to NW 74 Street	Widen from 2 to 4 Lanes	MDC	Design/Build ongoing	PYF*
NW 97 Avenue	NW 52 Street to NW 58 Street	Widen from 2 to 4 Lanes	MDC	Under Design	$3,498
NW 97 Avenue	NW 58 Street to NW 70 Street	Widen from 2 to 4 Lanes	MDC	Completed	PYF*
NW 12 Street	NW 97 Avenue to NW 93 Court	Intersection Improvement	MDC	Completed	PYF*
NW 36 Street	NW 87 Avenue to NW 79 Avenue	Resurfacing	MDC	Completed	PYF*
NW 41 Street	NW 114 Avenue to NW 107 Avenue	Resurfacing	MDC	Construction Completed	PYF*
NW 107 Avenue	NW 12 Street to NW 25 Street	Resurfacing	MDC	Completed	PYF*

FACILITY	LIMITS	TYPE OF WORK	RESPONSIBLE AGENCY	CONSTRUCTION TIME FRAME	TOTAL COST FY 2023-2027 (Millions)
NW 107 Avenue	NW 58 Street to NW 74 Street	Resurfacing	MDC		PYF*
NW 87 Avenue and NW 74 Street		Intersection Improvement	MDC	Construction Completed	PYF*
NW 107 Avenue and NW 12 Street		Intersection Improvement	MDC	Design Completed	PYF*
NW 107 Avenue and NW 27 Street		Intersection Improvement	MDC		PYF*
NW 25 Street and NW 112 Avenue		Intersection Improvement	MDC	Constriction Completed	PYF*
NW 79 Avenue and NW 56 Street		Traffic Signal	MDC	Completed	PYF*
NW 98 Court and NW 12 Street		Traffic Signal	MDC	Under Design	PYF*
NW 98 Court and NW 17 Street		Traffic Signal	MDC	Completed	PYF*
NW 107 Avenue and NW 14 Street		Traffic Signal	MDC	Completed	PYF*
NW 107 Avenue and NW 50 Street		Traffic Signal	MDC	Design Completed	PYF*

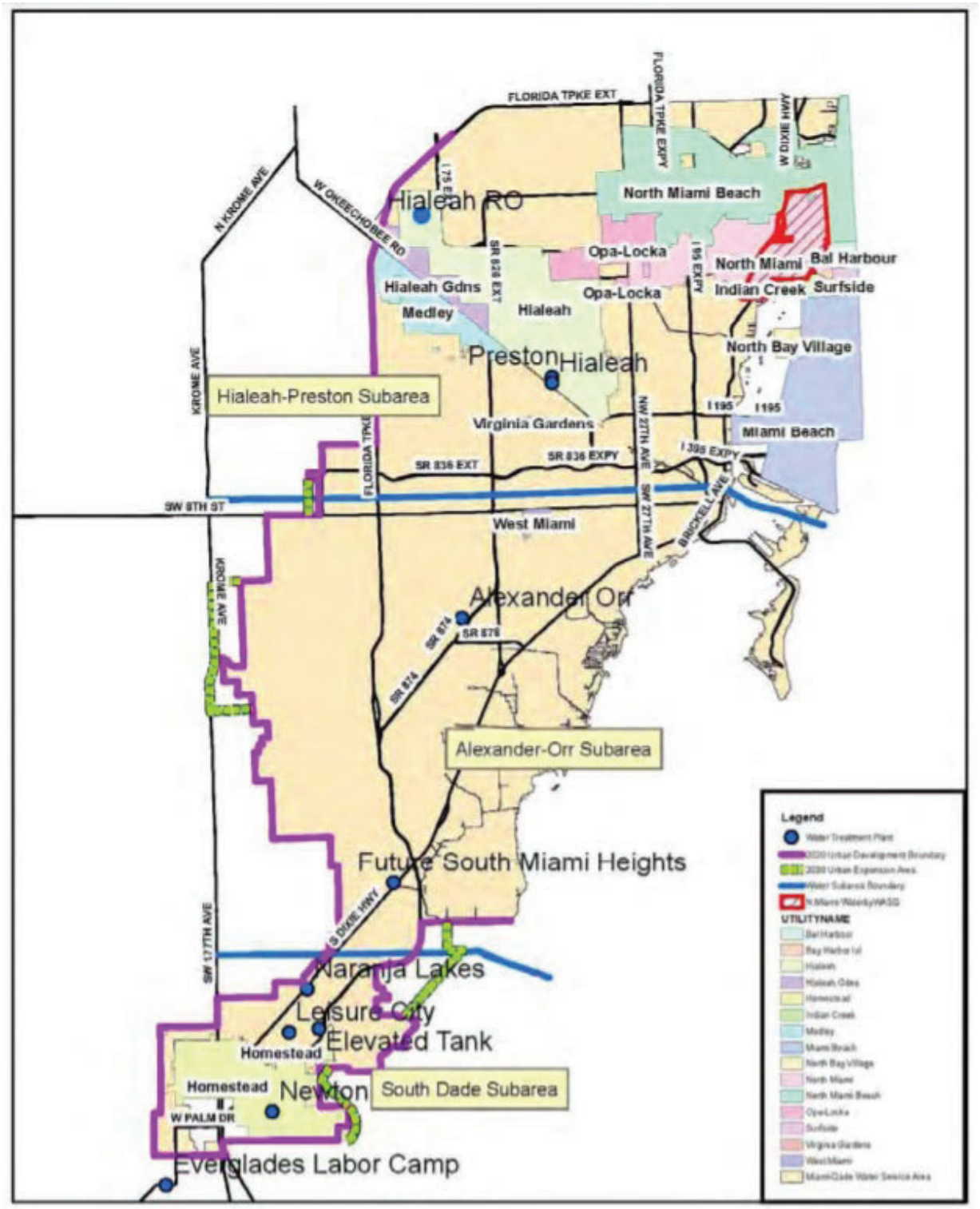
*PYF: Prior Year Funding
Source: Miami-Dade County TPO 2023 TIP, (2027-28) Approved June 22, 2023.

Additional roadway improvement projects currently not programmed in the FY 2024-2028 TIP plan may be added in future CIE and TIP updates as funding becomes available at the Federal, State and local levels of government. The City is proactively addressing local roadway deficiencies occurring primarily on its roadways and works closely with County and State agencies to address future LOS requirements on their roadways through FY 2028-29 and beyond.

B. Potable Water Service

The residents of the City of Doral obtain their potable water and sewer service directly from WASD, which is responsible for ensuring enough capacity to meet the water needs of existing and future water customers. In addition to serving the City, WASD is the designated regional supplier of potable water for most of the cities in Miami-Dade County. In that capacity, the WASD supplies the City of Doral's residential and non-residential property owners with potable water on a retail basis and bills these customers for this service. WASD owns, operates, and maintains a central potable water distribution system, along with the facilities for collection and treatment of water, which then transmits the potable water to its citizens throughout most of Miami-Dade County. See Figure 5: Existing WASD Water Treatment Plants below.

Figure 5: Existing WASD Water Treatment Plants



Source: City of Doral Water Supply Plan 2021

Table 6: City of Doral Water Usage Projections

Table 3.4 - Retail Water Use Forecast in the City of Doral, 2020 to 2040

Year	Population Forecast (a)	2018 Per Capita (gallons per person per day) (b)	Annual Average Daily Water Demand, mgd
(1)	(2)	(3)	(4) = (2) x (3) / 1,000,000
2020	75,522	126.94	9.59
2025	96,606	126.94	12.26
2030	104,072	126.94	13.21
2035	112,115	126.94	14.23
2040	120,779	126.94	15.33

(a) From City of Doral, 2020.
(b) City of Doral water demand in Gross Gallons Per Person Per Day is from Miami-Dade County that is reflected in the Draft Miami Dade Water and Sewer Department 10-Year Water Supply Facilities Work Plan October 2020.

Source: City of Doral Water Supply Plan 2021.

Regional water system capacity projections have been developed based on current water system capacity, planned WASD capacity projects, and current and projected demand from retail water customers within the County. These studies show that the County will have sufficient capacity through 2040. There are no private potable water facilities in the City of Doral.

Wellfield Protection Measures: WASD's wellfields and their corresponding Cones of Influence are in or near the City. These wellfields consist of 45 individual wells and have a total designed installed capacity of approximately 295 mgd. Of these wells, 23 provide raw water to the Hialeah Water Treatment Plant while the remaining 22 wells service the J.E. Preston Water Treatment Plant. To protect the quality of the groundwater in the area, the City of Doral has adopted the Miami-Dade County Wellfield
Protection Program, which restricts the types of land uses allowed within the area of the wellfield cones of influence. The following are some of the restrictions associated with the Wellfield Protection Program:

- Only uses that do not generate hazardous waste are allowed within the Cone of Influence.
- All permitted land uses within the Cone of Influence shall be required to connect to the WASD central sewer collection system.
- Developments within the Cone of Influence shall be required to meet the minimum requirements for percentages of pervious area.
- Land uses within the Cone of Influence shall be restricted to those uses that do not create water pollution.

Water Conservation Measures: Miami-Dade County Water Conservation Plans and Ordinances. The City of Doral, located in Miami-Dade County, is subject to the following County plans and ordinances:

- Miami-Dade Water Use Efficiency Plan: The Miami-Dade WASD's 20-year Water Use Efficiency Goal-Based Plan (Efficiency Plan) was approved by the SFWMD in May 2007. Included in the Efficiency Plan is the Water Conservation Best Management Practices (BMP) Implementation Schedule, Costs, and Savings Projections through the year 2026. WASD is implementing the BMPs included in the 2019 Annual Report for the Water Conservation Plan to improve the management of traditional water supplies, encourage development of alternative water supplies and improve water use efficiency. Several initiatives were adopted by WASD to encourage efficient use of water by residential and non-residential users. Some initiatives included plumbing retrofits, landscape irrigation evaluations, and residential and commercial water use evaluations and rebates. To ensure future water savings, the Water Use Efficiency Standards for new residential and commercial developments enacted by the Miami-Dade Board of County Commissioners on January 1, 2009 are being implemented through local building codes. The standards include technical amendments to the Building Code to require maximum water conservation flow rates for plumbing fixtures. Because of these efforts, as of December 31, 2019, the County saw an 18.6 mgd reduction in finished water demand from the year prior to the implementation of the Efficiency Plan in 2006 (from 341.62 mgd to 323.04 mgd).
- Miami-Dade County Water Conservation Plans and Development Codes: The County adopted a Water Conservation Plan that was added to its Water Use Efficiency Section as mandated by County Ordinance 06-177, Section 32-83.1 of the Miami-Dade County Code. The Plan identifies BMPs for the service area. (Doral's Comprehensive Plan – Policies: 1.5.3, 5A.3, 5A.3.2) Since January 1, 2009, the county's building code, specifically Section 8-31 and 32-84, requires the installation of water efficient fixtures and high efficiency appliances. In 2007, Section 3.0 Provision of Water Supply City of Doral, Florida 12 Water Supply Facilities Work Plan Update - 2021 the County developed a water conservation program that provides rebates to residents that install high efficiency faucets, toilets and showerheads in properties constructed prior to 1996. It also includes rebates for water efficient upgrades to irrigation systems in single family and large properties throughout the County.
- Miami-Dade County Permanent Landscape Irrigation Restriction: Lawn and landscape irrigation throughout the county has been limited to two days per week year-round as required by Section 32-8.2 of the Miami-Dade County Code of Ordinances. Irrigation is not permitted between the hours of 10:00 a.m. and 4:00 p.m.
- Miami-Dade County Landscape Standards: Development within the county must comply with landscape standards in Sections 18-A and 18-B of the County Code which encourages Florida Friendly Landscaping to reduce outdoor water use.
- Miami-Dade County Multi-Family Sub-Metering: The County Code was also modified to authorize the use of submetering in multifamily residential developments, requiring a meter be installed in each individual dwelling unit for water billing purposes instead of being billed using a single master meter. Use of submeters enhances water use monitoring and encourages water conservation.
- Water Conservation Based Rate Structure: Miami-Dade County has adopted a water conservation-based rate structure for its retail water customers. 3.3.2 City of Doral Ordinances and Codes Promoting Water Conservation The City has adopted the following ordinances and codes to promote water conservation by the City's residents. Because the City does not have access to customer water use data, the City is unable to develop estimates of the amount of water conserved.
- access to customer water use data, the City is unable to develop estimates of the amount of water conserved.

- Use of Florida-Friendly Landscape Principles: The City of Doral Comprehensive Plan and Land Development Code recommends use of Florida-Friendly landscape materials and the minimum percent of required pervious area that must follow the principles of Florida Friendly Landscape provisions as set forth in the South Florida Water Management District's Xeriscape Plant Guide II. (Doral's Comprehensive Plan - Objective: 5A.5. Policies 1.4.2, 1.4.3, 5A.3.2, 6.1.6) Requirement of
- High Efficiency Plumbing Fixtures in New Construction: The City of Doral has adopted the Florida Building Code (FBC) which contains plumbing flow restriction requirements. The County Code prohibits the cities within its jurisdiction from enacting standards less stringent from the FBC. The City of Doral Building and Inspection Services also includes, in their procedures, provisions for new construction to have water conservation control devices installed per the Florida Plumbing Code, as a condition for granting certificates of occupancy. (Doral's Comprehensive Plan – Policy 6.1.6)
- Rain Sensor Overrides for New Lawn Sprinkler Systems: The City of Doral has adopted the FBC, which requires the installation of rain sensors on new irrigation systems. Section 3.0 Provision of Water Supply City of Doral, Florida 13 Water Supply Facilities Work Plan Update - 2021 Additionally, the City of Doral abides by all County's landscape Code requirements, including the use of rain sensors on automatic lawn sprinklers systems. (Doral's Comprehensive Plan – Policy 1.5.4) City of Doral Adoption of the SFWMD's Water Shortage Restrictions: In 2007, the City of Doral adopted Ordinance No. 2007-13 entitled "Water Restrictions" to protect the water resources of the City from harmful effects of over-utilization during periods of water shortage and to assist the SFWMD as it implements its water shortage plan. The provisions are found in Chapter 47 – Division 2. – Water Restrictions of the City of Doral Code of Ordinances. This ordinance applies to all persons using the City's water resources that are subject to the "water shortage" or "water shortage emergency" as determined by the SFWMD, whether from a publicly- or privately-owned water utility system, private wells, or private connections with surface water bodies. The use of treated effluent or saltwater is excluded from the requirements of this ordinance. The ordinance references the South Florida Water Management District's Water Shortage Plan as provided in Chapter 40E-21, Florida Administrative Code.

Enforcement: The City enforces these ordinances through its code compliance department.

1. 5-Year Level-of-Service Water Projects

Section 163.3177(4)(a), Florida Statutes, requires coordination of the local comprehensive plan with the water management district's regional water supply plan. Doral receives all potable water service from Miami-Dade County Water and Sewer Department's (WASD) Hialeah/Preston Water Treatment Plant (WTP). The supply capacity of the Hialeah-Preston Subarea wellfields is 343.43 million gallons per day. The plant is owned and operated by WASD, who is responsible for maintaining the distribution and treatment facilities serving the City of Doral. The City of Doral's Water Supply Plan and Infrastructure Element Policy 5A.1.1 of the City's Comprehensive Plan establishes the adopted Level of Service (LOS) standard for potable water at 127 gallons per capita per day (GPD). According to the State guidelines, the Water Supply Plan and the Comprehensive Plan must address the development of traditional and alternative water supplies, service delivery, conservation, and reuse programs necessary to serve existing and new developments for at least a 10-year planning period. As the city implements its Green Master Plan and Miami-Dade County water restrictions on landscape watering to 2x/week, the City should be able to reduce its water demand (GPD) moving forward. (The city should aim to reduce its average GPD over time to be closer to the State and National averages.)

C. Sanitary Sewer Facilities

The adopted Level of Service (LOS) standard for sanitary sewer in Doral is 100 gallons per capita per day, as noted in Policy 5B.1.1 of the Infrastructure Element of the Comprehensive Plan. Sanitary sewer service in the City is provided by Miami-Dade County's Water and Sewer Department (WASD). The LOS standard for wastewater in the County requires all regional water treatment plants to operate with a physical capacity of no less than the annual average daily sewage flow. The Hialeah Water Treatment Plant is located at 700 West 2nd Avenue, Hialeah, Florida. This facility has a maximum installed design capacity of 60.0 million gallons per day.

1. 5-Year Level-of-Service Wastewater Projects

No capacity-related projects for the County's wastewater system have been identified within the City of Doral or WASD for the 5-year CIE planning period 2024-2029.

D. Stormwater Management

The City of Doral falls within the boundaries of the C-4 Tamiami Canal and C-6 Miami River Canal watershed basins managed by the South Florida Water Management District (SFWMD). Within the City of Doral there are three (3) sub basin secondary canals which convey surface stormwater from the city: the Northline Canal, located along the north side of NW 25th Street, the C-2 Extension Canal, located along NW 117th Avenue, and the Dressels Canal which crosses the City from NW 117th Avenue to the Palmetto Expressway. Figure 6 depicts the canal system in Doral.

Doral adopts the following system-wide drainage Level of Service (LOS) standards for new development and redevelopment in Comprehensive Plan Policy 5C.1.1 of the Infrastructure Element:

- *Water Quality Standard.* Stormwater facilities shall meet the design and performance standards established in Chapter 62-25, Rule 25.025, Chapter 40-E, Chapter 40E-40, Florida Administration Code (FAC), and Section 24-48, of the Code, with the retention of the first inch of runoff onsite to meet the water quality standards required by Chapter 62-302, Rule 862-302.500, FAC, and Section 24-42 of the Code.

- *Water Quantity Standard.* Where two or more standards impact a specific development, the most restrictive standard shall apply:
  - Post-development runoff shall not exceed the pre-development runoff rate for a 25-year storm event, up to and including an event with 24-hour duration.
  - Treatment of the runoff from the 5-year storm event, 24-hour duration, in accordance with Section D-4, Part 2, Miami-Dade County Public Works Manual and Sec. 24-48.3 (7) and Rule 40E-40.302, FAC, "Basis of Review, Volume IV Manual."
  - Treatment of the runoff from the first one inch of rainfall onsite or the first 0.5 inch of runoff from impervious areas, whichever is greater.

* *Flooding Standard.* During the 10-year return design storm event, flooding of minor arterials should be below the crown of the roadway.

The City requires all new developments to provide adequate on-site drainage prior to the issuance of a Building permit to maintain LOS standard for drainage. However, there were a number of pre-existing deficient drainage conditions when the City was incorporated in 2003. In 2006, Doral adopted its first Stormwater Master Plan. Since then, the City has updated the plan on several occasions, including the latest update in 2021, which forms the basis for the Stormwater 5-Year SCI.

The City's Stormwater Master Plan (SWMP) serves as a planning-level engineering document that analyzes the current condition of storm water management systems across the city. The plan identifies high priority flood prone areas, and establishes a five-year capital improvement plan for implementation. The analysis performed for this SWMP takes into consideration the primary components of the existing storm water management system (manholes, inlets, and major conveyance pipes), canals and lakes, topography, land uses, as well as, groundwater elevations, and historical rainfall when analyzing the primary existing drainage infrastructure throughout the City. These elements are all combined and analyzed within a mathematical Hydraulic and Hydrologic model that simulates the performance of the City's primary drainage systems using design rainfall events. The City's secondary drainage storm water management systems, such as individual inlets, manholes, and minor conveyance systems which control drainage within the sub-basin, are not analyzed as a part of this SWMP. The secondary drainage systems are typically analyzed in the construction design phase and through redevelopment projects.

The City's drainage system deficiencies are identified through a series of sub-basins which are color coded for priority ranking purposes and depicted in Figure 7. This system allows the City to identify and prioritize the most cost-effective storm water management projects for inclusion in the 5-Year SCI and City Capital Improvement Program. The main intent of the contents of this SWMP is to serve as a guide for the City in order to identify problem areas, develop potential future projects, and correlating those future projects with a planning-level cost.

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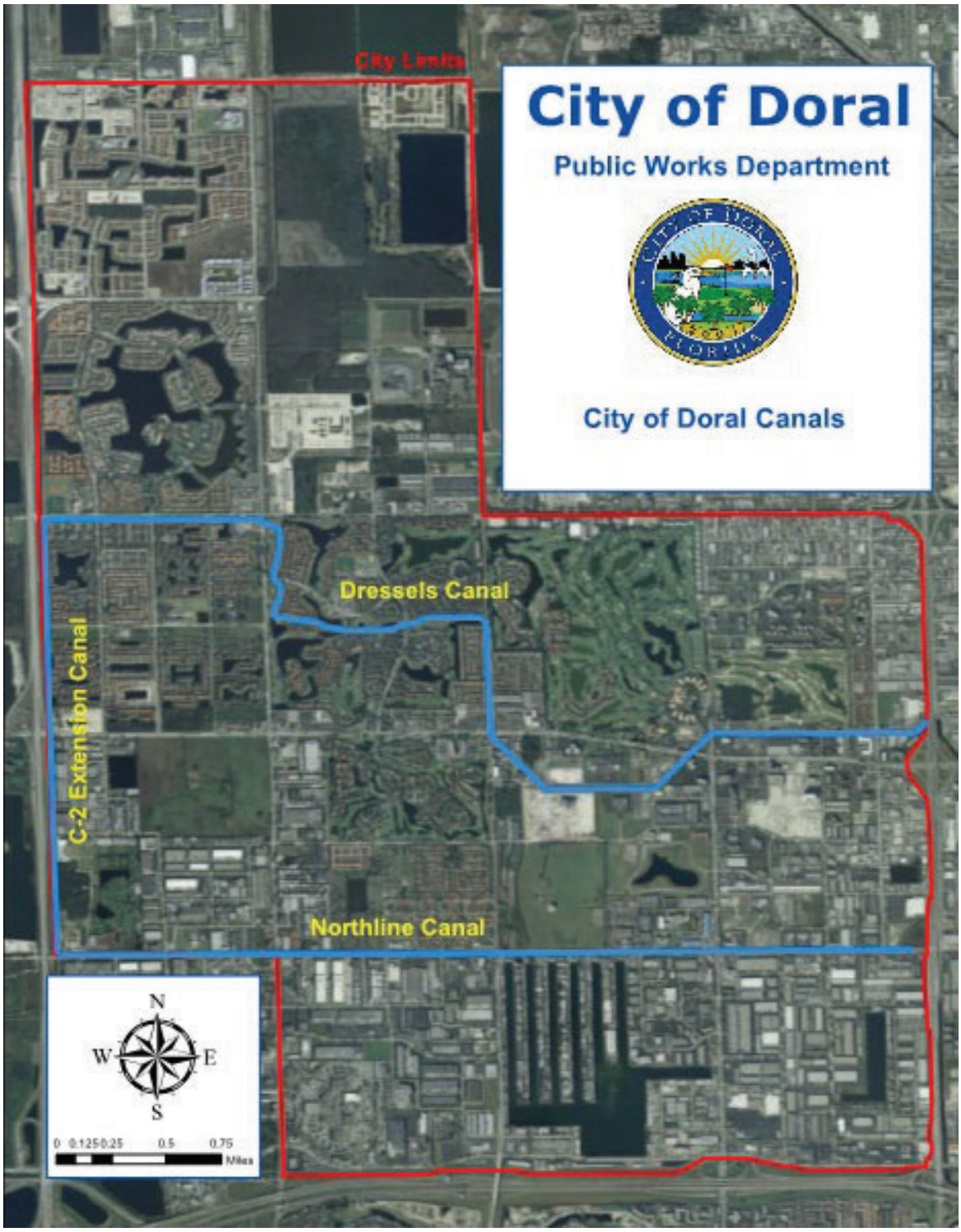
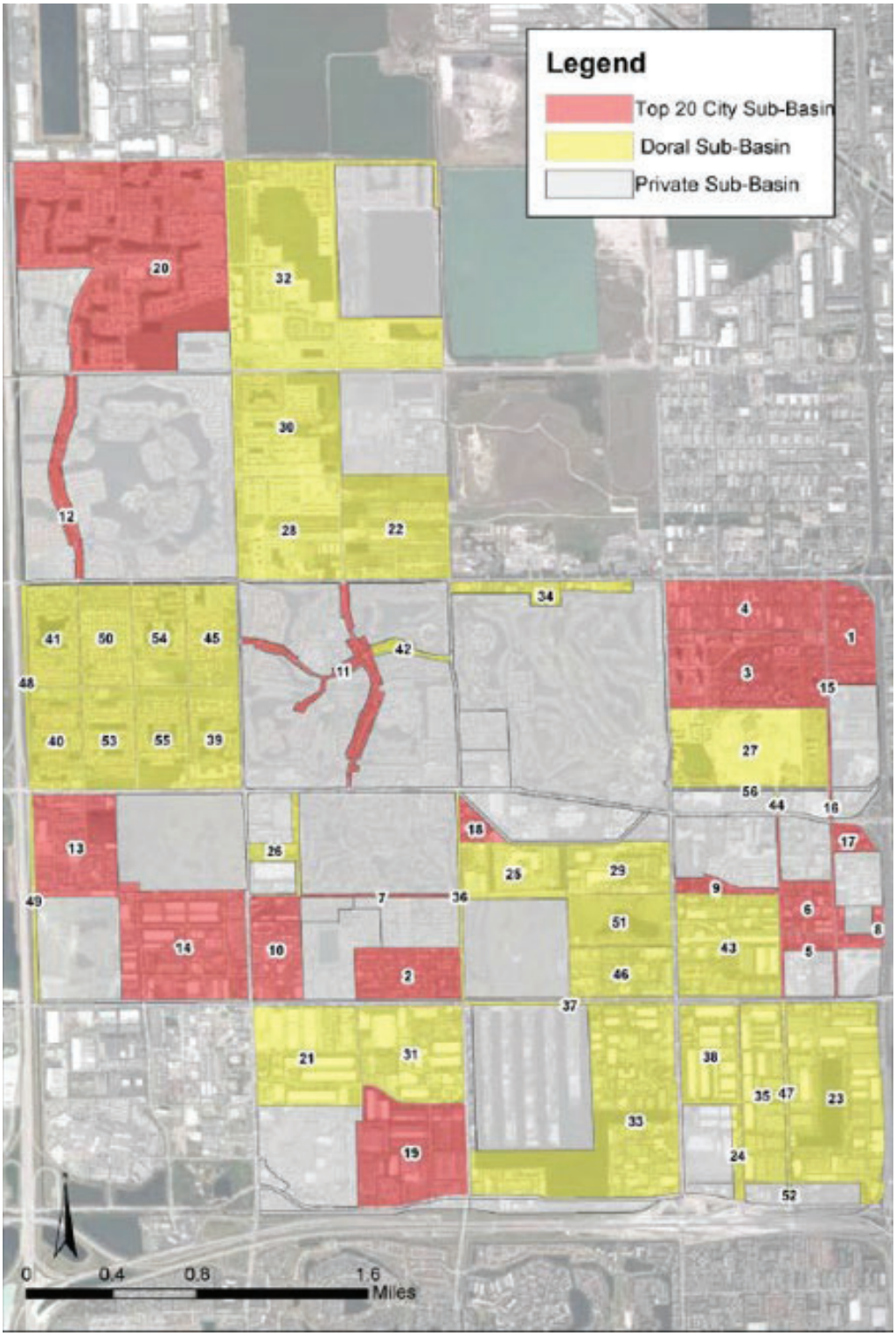
Figure 6: Doral Canal System



Source: City of Doral Public Works 2024

Figure 7: Prioritized Drainage Sub Basins



Source: City of Doral Public Works 2024

1. 5-Year Level-of-Service Stormwater Projects

The City of Doral has created a Stormwater Fund to continue to fund maintenance and improvements to existing stormwater facilities within the city. Ongoing important stormwater projects are ***NW 58 Street Outfall, Stormwater Improvements for Sub-Basin D-3-1 (as identified in the Stormwater Master Plan), and the Update to the City of Doral Vulnerability Assessment.*** Furthermore, in 2023 will begin the design phase of the stormwater improvement project for **Sub-Basins F-5, NW 114th Ave and D-2-1** included in Year 4 of the capital improvement plan proposed in the 2021 update of the Stormwater Master Plan. These projects will allow the city to maintain and improve their FEMA flood ranking and reduce insurance premiums for all City of Doral residents.

The citywide general stormwater improvements and maintenance is also funded through the stormwater fund and includes catch basin maintenance, regular street sweeping, canal maintenance, and floating debris removal. The city will continue to implement the updated Stormwater Master Plan and the proposed flood reduction projects in addition to implementing, when possible, non-canal BMP's.

These include integrating the green infrastructure and Low Impact Development methodologies outlined and codified in the city's Green Master Plan and Low Impact Development Master Plan. Table 7 below shows the projects and costs for specific planned stormwater improvements during the 5-year CIE period. The total cost of the 5-year program is estimated to be $5,345,000.

Table 7: City Stormwater Projects and Estimated Costs FY 2024-2029

Project Location	FY2024/25 (in $$s)	FY2025/26 (in $$s)	FY2026/27 (in $$s)	FY2027/28 (in $$s)	FY2028/2029 (in $$s)
City-Funded Projects					
Stormwater Master Plan Improvements (Various Locations)	1,000,000	650,000	620,000	400,000	1,125,000
NW 78th Av (12th St – 15th St)		400,000			
88th Av (13th Terr - 15th St)			450,000		
115th Av (34th Ave- Doral Blvd)				700,000	
TOTALS	**1,000,000**	**1,050,000**	**1,070,000**	**1,100,000**	**1,125,000**

Source: City of Doral Public Works Department. July 2024.

E. Solid Waste

The City's adopted Level of Service (LOS) standard for solid waste is 9.4 pounds per capita per day (Comprehensive Plan, Infrastructure Element Policy 5D.1.2). Table 8 below shows the projected solid waste which could be generated in the City through 2030 based on population projections. The city's Green Master Plan does stress the need to reduce the amount of solid waste being sent to the landfill and increasing the capture rate of recyclable materials. Increasing the recycling rate would reduce the total pounds per capita per day.

Table 8: Solid Waste Generation 2020-2030

YEAR	POPULATION	LOS (lbs./capita/day)	SOLID WASTE GENERATED (tons/day)
2020	75,874	9.4	357
2025	84,890	9.4	399
2030	91,451	9.4	430

Source: Iler Planning (2021)

The City has an interlocal agreement with Miami-Dade County Solid Waste Management for County collection, recycling and disposal of residential solid waste generated within Doral. Private businesses, industries, warehouses, and medical facilities utilize private waste management services that are not included in this analysis. According to the County's Comprehensive Development Master Plan, there will be sufficient landfill capacity to serve future development county-wide through 2030. Miami-Dade County operates two (2) landfills: (1) North Dade Landfill (Class III landfill receives yard trash, construction and demolition debris, waste tires, asbestos, carpet, cardboard, paper, glass, plastic, non-appliance furniture, and cannot accept putrescible) located in the northern portion of the County; and (2) South Dade Landfill (Class I landfill receives general, non-hazardous, commercial, industrial, and agriculture wastes) located in the southern portion of the County. Covanta Resource Recovery Facility (RRF) is a recycling and waste to energy facility located in Doral. As of the date of this report, the RRF was closed due to a fire that severely damaged several buildings in the facility.

Miami-Dade County enters into interlocal agreements with each municipality and services unincorporated areas for waste disposal and recycling services throughout the county. The County has prepared a Solid Waste Master Plan which identifies new activities, programs, facilities and technologies to provide sustainable solid waste services to ensure public health and environmental protection. The County's Waste Management Master Plan identifies potential new technologies, operational efficiency, recycling, waste to energy and other methods to meet Miami-Dade County's projected long-term needs.

Using the City's projected annual solid waste generation for the years 2024-25 through 2028-2029, the City will average approximately 147,847 tons per year annually through the 5-year period.

1. 5-Year Level-of-Service Solid Waste Projects

The County's solid waste LOS will be maintained with the operation of the county-wide solid waste management system. As of the date of this report, the Miami-County Department of Solid Waste Management (DSWM) has indicated that the system has the capacity to meet the minimum LOS standard for solid waste disposal (available capacity in County Landfills and contracted disposal capacity). (See: Memorandum from Mayor Cava to the Board of County Commissions, dated June 21, 2023). The City should integrate, implement, and monitor waste vs recycling rates within Doral and consistent with the City's Green Master Plan objectives and goals.

F. Parks and Recreation

The Level of Service (LOS) standard for Doral's parks system is contained in Parks and Recreation Element Policy 7.1.1 which was amended in 2018 as follows:

2012-2014: 3.75 acres of developed park land per 1,000 population
2015-2020: 2.25 acres of developed public park land per 1,000 population
2021-future: 3.00 acres of developed public park land per 1,000 population

The Doral's Parks System is shown in Figure 8. The City currently has 166.3 acres of developed parks. The Parks System LOS standard is increased in 2021 from 2.25 to 3.00 acres per 1000 population per the City's Comprehensive Plan. The annual projected park acreage needed through 2029 is presented in Table 9 below:

Table 9: Projected Parks Level-of-Service Acreage Needs

YEAR	PROJECTED POPULATION	PARK LOS NEED (Acres)	PARK (ACRES)	DEFICIT
2022	81,182	244	163	-81
2023	82,408	247	166	-81
2024	83,636	251	166	-85
2025	84,890	255	169	-86
2026	86,164	259	169	-90
2027	87,456	247	169	-93
2028	88,768	266	169	-97
2029	90,099	270	169	-101*

*The City will be adding 133 acres of new private parks with approved developments that is not calculated.
Source: City of Doral staff (2024)

1. 5-Year Level-of-Service Projects

The planned park developments in FY 2024-2029 are shown in Table 10. Some of the projects are improvements to existing parks, however most represent new parkland acreage and thus will serve to increase the City's future Parks LOS as follows:

	Acres	Year Projected Completion
PW - Flight way Retention Passive Park	3.0	2025
Linear Greenway Park	29.5	TBD
Total New Park Areas.....	32.5 acres	

The City is projecting a deficiency to meeting their adopted LOS of 104 acres within the 5-year planning period of this CIE, City will need a total of 270 acres of public park land to meet the LOS in 2029; this will require an additional 101 acres of new parks. The combined planned parks projects within this CIE planning period will add an additional 32.5 acres of park land giving Doral a total of 201.5 acres within 5-years.

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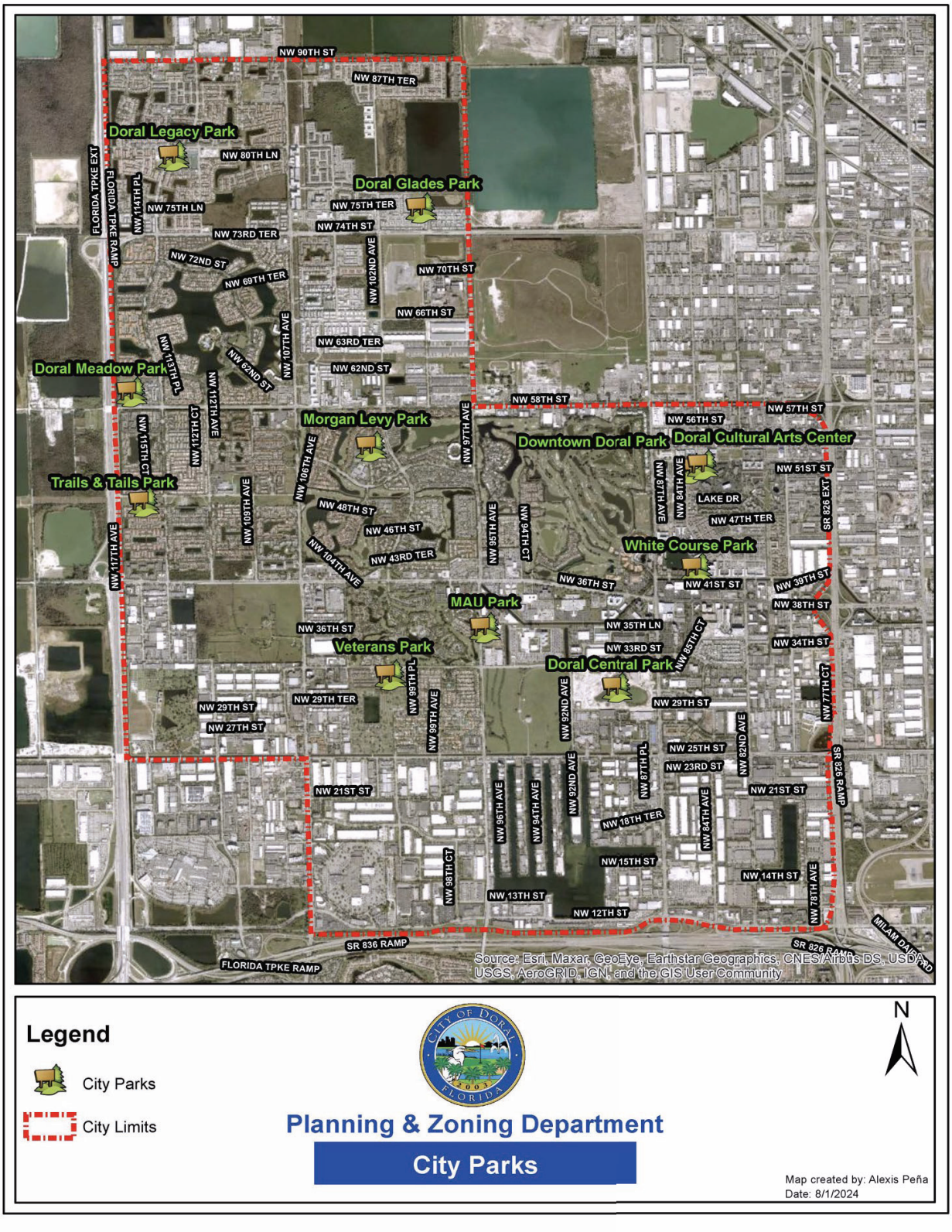
Figure 8: Doral's Park System (2024)



Source: City of Doral Parks and Recreation, 2024

Table 10: Planned Parks Projects FY 2024-2029

PROJECT	LOCATION	ESTIMATED COMPLETION	SIZE (in acres)
City:			
PW – Flightway Retention Passive Park	NW 102nd Av. & NW 62nd St.	Q4 2025	3
Doral Central Park	NW 87th Ave. & 30th St.	Q1 2025	78*
Linear Greenway Park	NW 50th St. & NW 107th Av.	Q3 2027	29.5
Total Public Parks Added			***33.8***
Private:			
Environmental Passive Park	NW 107 Ave. and NW 74 St.	Concurrent with development – Q3 2026	51
Grand Bay Preservation Park	NW 87th St./NW 86th St. (east of NW 107th Ave.)	Concurrent with development – Q3 2026	72
Total Private Parks Added			***133***

Source: Doral Parks Department, 2024.
*Existing park acreage undergoing major upgrades; not included in public parks total acres figure.

A detailed description of each proposed park improvement is provided below:

1. *Doral Central Park* – is a 78-acre park is the largest in Doral and home to major events such as EGGstravaganza and the Independence Day Celebration. Its open green spaces and scenic lake views are ideal for corporate gatherings and community events. Central Park is located in the community heart of Doral adjacent to the headquarters of Carnival Cruise Lines and the United States Southern Command. As part of the voter approved Parks Bond Referendum, this park will be redeveloped to include amenities such as a 80,000 square foot indoor recreation center, aquatic facility with competition and teaching pools, amphitheater, basketball and tennis courts, playgrounds, skate park and pump track and multi-purpose green spaces.

2. *Retention Passive Park* - This proposed park site is located on 102nd Avenue and theoretical NW 62nd Street. The site will be used as a retention area for the Police/Public Works Building and adjacent Flightway project with 3 acres of the 5-acre city parcel dedicated as a passive park site. This park will include a stormwater retention area, walking trails, parking lot, landscaping and environmental observation being built by a private developer on public land and will be turned over to the city after construction.

3. *Linear Greenway Park* – Areas under FP&L transmission lines adjacent to streets are being used as multi-purpose trails as proposed in the City's Bicycle Master Plan and Parks and Recreation Element Policy 6.2.6. Facilities and features include: multi-purpose trail/service access route with trailhead, naturalistic planted areas/native habitat plantings and public art. The linear park system comprises 41 acres.

4. *Environmental Passive Park* – This proposed private park site is (51 acres) located at NW 107th Avenue & 74th Street and contains wetlands. The site has been identified in the Parks System Master Plan as a future "Environmentally-Protected Park." Low impact observation walkways on the perimeter of the wetlands and educational kiosks are planned.

5. *Preservation Park* – This proposed private park site (72 acres) is currently a highly-impacted wetland located between two residential developments. This natural resource would be restored transforming the site into a unique passive recreation amenity for the residents of Doral. The City's goal is to make this preservation park a public access point; coordination with Miami-Dade County and the SFWMD will be required in the process.

2. Long-Term Planning

Since 2021, the parks LOS standard is 3.00 acres per 1,000 population per city council resolution. Figure 10 shows a net deficit of park land as the population of the city continues to increase unless new developments supply additional parks or the city adds additional park land. Unless new park lands are identified and improved over the next five (5) years, the City will have a park LOS deficiency of -104 acres by 2029. A portion of the Police-Training facility site is being considered as an alternative for additional park land. Additional acreage may be added by providing park land under high voltage power lines and in future annexation areas.

G. Education Facilities

Public school facility planning for Doral is provided by Miami-Dade County Public Schools (MDCPS). Every year, MDCPS is required to update and submit a Five-Year District Facilities Work Plan to demonstrate available and projected student capacity, and related information on project funding for capacity-related projects. The information below summarizes the current and projected level of service (LOS) for public schools serving Doral from the current MDCPS Five-Year District Facilities Work Plan.

The City has seven (7) public schools located within its boundary. Table 11 provides the 2024 capacity and enrollment for these public schools. It shows that all 5 of the K-8 public schools in Doral are currently operating below permanent capacity. Ronald Reagan / Doral Senior High School is operating at 71% of capacity and J. C. Bermudez Senior High School is operating at 97% of capacity. It is also relevant to note Miami-Dade College operates the School for Advanced Studies at its campus in west Doral. There are a total of 6,940 students enrolled in the public schools located in Doral.

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PUBLIC SCHOOL	PERMANENT CAPACITY	STUDENT ENROLLMENT	% CAPACITY
Eugenia B. Thomas K-8 Center	1,421	983	69%
John I. Smith K-8 Center	1,118	859	77%
Ronald Reagan/ Doral Senior High School 9-12	1,776	1,312	74%
Dr. Toni Bilbao Preparatory Academy K-8	1,084	666	61%
Dr. Rolando Espinosa K-8 Center	1,381	633	46%
J. C. Bermudez Doral Senior High School	1,014	1,152	114%
Andrea Castillo Preparatory Academy K-5*	670	349	52%

* Only PK-4 grades opened..
Information for FY 23/24 will be available after the 23/24 school opening.
Source: Miami-Dade County Public Schools, July 2024

1. 5-Year Capacity Projects in Doral

Miami-Dade County Schools has four (4) school projects planned over the next five (5) years in the Doral area as listed below.

1. **J. C. Bermudez Doral SHS** – The upgrading of the athletic fields was completed in November2022. The subsequent phases include the phased construction of a new gymnasium, PE support spaces, and a 616-student station classroom addition. This project is in the final the design phase. Construction will start in late fall or early winter. This project is expected to be completed by the summer of 2026.
2. **Andrea Castillo Preparatory Academy-** The middle school component (6-8 grade addition) is at the end of planning phase and will add 158 additional student stations.
3. **John I. Smith K-8-** New building addition including 105 new student stations is expected to be completed by the summer of 2025**.**

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2. Charter and Private Schools

Doral is also home to 13 charter schools serving a total of 10,902 students in 2022 as shown in Table 12 below. There is one private school in the City serving 916 students (see Table 13).

Table 12: Enrollment and Capacity for Charter Schools in Doral

CHARTER SCHOOL	PERMANENT CAPACITY	STUDENT ENROLLMENT	% CAPACITY
Doral Academy K-5	1,395	1,099	98.3%
Just Arts and Management CMS		272	
Doral Academy Charter High School 9-12	3,943	2,003	3103.3%
Doral Academy Charter Middle School 6-8		1,381	
Doral Academy of Technology 6-8		287	
Doral Performing Arts & Entertainment 9-12		402	
Renaissance Elementary K-5	900	909	101%
Renaissance Middle Charter School 6-8	650	486	75%
Doral International Academy of Math & Science K-8	900	816	90.7%
Downtown Doral Charter Elementary K-5	1,000	1,085	108.5%
Downtown Doral Charter Upper 6-12	1,500	1,500	100%
Bridge Prep Academy K-8	975**	835	85.6%
Academy Charter School East	656	458	69.8%

* No enrollment data available at this time.
** 975 students maximum capacity for year 2 as per Resolution No. 21-32.
Source: https://charterschoolsdadeschools.net/annualreport/2021 and city staff July 2024.

Table 13: Enrollment and Capacity for Private Schools in Doral

PRIVATE	PERMANENT CAPACITY	STUDENT ENROLLMENT	% CAPACITY
Divine Savior Academy	1,006	916	91%

Source: City staff, 2024

- Shelton Academy l ceased to exist as a school. d it is contemplated to be sold to another private school.

** Loyola will be closed in the year 2024 and will cease to exist as a school

III. CAPITAL IMPROVEMENTS

The data and analysis presented herein shows level of service (LOS) needs in transportation, parks and recreation, and stormwater management. Tables 14 and 15 below show the projected 5-year revenues and planned project expenditures for capital improvements in the City. The proposed SCI in Table 16 (pages 35-36) is intended to address the maintenance and improvement of public facilities including transportation, stormwater/drainage and parks in FY 2024-2029.

Table 14: Projected Revenues for Capacity-Related Projects by Funding Source

FUNDING SOURCES	FY 2024/25 (in $$s)	FY 2025/26 (in $$s)	FY 2026/27 (in $$s)	FY 2027/28 (in $$s)	FY 2028/29 (in $$s)	5 YEAR TOTAL FY 2024-2029 (in $$s)
Park Impact Fee Fund	260,000	265,200	270,504	275,914	281,432	**1,353,050**
Stormwater Fund	4,987,800	5,087,566	5,189,807	5,298,093	5,408,638	**25,971,904**
Transportation Fund	1,748,023	1,782,983	1,818,643	1,855,016	1,892,116	**9,096,781**
TOTALS	6,995,823	7,135,749	7,278,954	7,429,023	7,582,186	**36,421,735**

Source: City of Doral, July 2024.

Table 15: Projected 5-Year Expenditures for Capital Improvements by Type

Project Type	FY2024/25 (in $$s)	FY2025/26 (in $$s)	FY2026/27 (in $$s)	FY2027/28 (in $$s)	FY2028/2029 (in $$s)	5-YEAR TOTAL FY 2024-2029 (in $$s)
City-Funded Projects						
Parks*	612,000	388,000	823,000	1,628,500	2,635,500	**6,087,000**
Stormwater / Drainage	1,000,000	1,050,000	1,070,000	1,100,000	1,125,000	**5,345,000**
Transportation	1,750,000	4,800,000	5,550,000	3,400,000	4,150,000	**19,650,000**
TOTALS	**3,362,000**	**6,238,000**	**7,443,000**	**6,128,500**	**7,910,500**	**31,082,000**

Source: City of Doral Public Works and Parks Departments, July 2024.
* Does not include Parks Bond projects; includes funding from the General Fund and Park Impact fees.

Revenue projections for capital projects (by type) to be funded by Doral are presented in Table 14. Table 15 summarizes the proposed expenditures for parks, stormwater/drainage and transportation based on the Schedule of Capital Improvements for FY 2024-2029.

An analysis of the projected revenues and planned capital expenditure indicates that overall City capital project revenues will exceed costs by an estimated $5.8 million over the next five (5) years. The City is projected to accumulate $36.4 million in revenues over the 5-year planning period to fund the capital improvements needed to maintain and improve public facility LOS and has identified a total of 30.5 million in capital improvement projects over the planning period.

Table 16. Doral's Schedule of Capital Improvements 2024/25- 2028/29

PROJECTS / LOCATION	TYPE OF WORK	FY 2024-25 (in $$s)	FY 2025-26 (in $$s)	FY 2026-27 (in $$s)	FY 2027-28 (in $$s)	FY 2028-29 (in $$s)	TOTAL COST FY 2024-2029	FUNDING SOURCE
TRANSPORTATION PROJECTS*								
1. Citywide (Milling and Resurfacing / Restriping)	Roadway Maintenance	225,000	0	300,000	300,000	300,000	1,125,000	PTP, TF
2. Landmark Community Complete Streets	Traffic Calming Improvements	500,000	0	0	0	0	500,000	TF
3. Citywide Traffic Calming	Traffic Calming Improvements	0	150,000	0	150.,000	150,000	450,000	TF
4. NW 90th St (Vacant Land Section 7)	Roadway Widening	0	0	0	250,000	0	250,000	TF
5. NW 104th Av (69-70 St)	Roadway Widening	0	0	0	250,000	0	250,000	TF
6. NW 102nd Av (76 St. to 86 St)	Roadway Widening	0	0	0	2,000,000	0	2,000,000	SWF, TF
7. Citywide Bus Shelters	Transit Mobility & Infrastructure		250,000	0	250,000	0	500,000	TF
8. NW 114 Av (34 – 39 St)	Roadway Improvements	0	0	0	0	1,500,000	1,500,000	SWF, TF
9. NW 34th St (117 Av – 112 Av)	Roadway Improvements	0	0	1,500,000	0	0	1,500,000	SWF, TF
10. NW 117 Av (NW 25 St – NW 34 St)	Roadway Improvements	0	1,800,000	0		0	1,800,000	SWF, TF
11. Intersection Improvements - Citywide	Roadway Improvements	25,000	0	100,000	0	100,000	225,000	TF
12. Do Not Block Intersections	Roadway Improvements	0	0	100,000	0	100,000	200,000	TF
13. FPL Underground Power Lines	Roadway Improvements	0	600,000	0	200,000	0	800,000	TF
14. NW 33 St (NW 79 Av – 82nd Av)	Roadway Reconstruction	0	0	1,500,000	0	0	1,500,000	SWF, TF
15. Improvements Identified in 2023 Transportation Master Plan Update	Roadway Improvements	0	0	0	0	2,000,000	2,000,000	SWF, TF, GF, PTP
16. Doral Arts District	Complete Streets	1,000,000	2,000,000	2,000,000	0	0	5,000,000	TF, SWF, GF, PTP
5 Year Transportation Cost Sub Total		**1,750,000**	**4,800,000**	**5,500,000**	**3,400,000**	**4,150,000**	**19,600,000**	

Table 16 (continued)

CITY PARKS PROJECTS**	Type of Work	FY 2024-25 (in $s)	FY 2025-26 (in $s)	FY 2026-27 (in $s)	FY 2027-28 (in $s)	FY 2028-29 (in $s)	Total Cost FY 2024-2029	Funding Source
1. Parks Projects	Citywide park and recreation projects	612,000	388,000	823,000	1,628,500	2,635,500	3,715,000	PIF; GF
2. Flightway- Public Works Retention Park	Park construction	0	0	0	0	0	0	Private Funding
Parks Cost Subtotal		**612,000**	**388,000**	**823,000**	**1,628,000**	**2,635,500**	**3,715,000**	
CITY STORMWATER PROJECTS*								
1. Stormwater Master Plan Improvements	Stormwater Improvements	1,000,000	650,000	620,000	400,000	1,125,000	3,795,000	SWF
2. NW 78th Av (12th St – 15th St)	Stormwater Improvements	0	400,000	0	0	0	400,000	SWF
3. NW 88th Av (13th Terr – 15th St)	Stormwater Improvements			**450,000**		0	450,000	SWF
4. 115th Av (31st Av - Doral Blvd)	Stormwater Improvements				700,000	0	700,000	SWF
Stormwater Cost Sub Total		**1,000,000**	**1,050,000**	**1,070,000**	**1,100,000**	**1,125,000**	**5,345,000**	
TOTAL CITY CAPITAL COST		**3,362,000**	**6,238,000**	**7,393,000**	**6,128,000**	**7,910,500**	**28,660,000**	

** Source: City of Doral Public Works Dept., July 2024.*

*** Source: City of Doral Parks Dept., July 2024. Park costs do not include projects funded by the Parks Bond.*

Table Key:

TF: Transportation Fund
PIF- Park Impact Fees
SG: State Appropriation for Stormwater Improvements
SWF: Stormwater Fund
GF: General Fund
PTP: Peoples Transportation Fund (CITT)