



MIAMI-DADE BICYCLE NETWORK



Protected Shared-Use Path on SR 94/Kendall Drive

from SR 997/Krome Ave./SW 177 Ave to SW 162 Ave.

May 2022





Table of Contents

Introduction	...01
Purpose and Need	...05
Planning Consistency	...06
System Linkage	...07
Social Demands & Economic Development	...09
Modal Interrelationships	...09
Safety	...11
FDOT Vital Few	...17
Ongoing and Future Roadway Projects	...18
Kendall Parkway/SR 836 Extension	...18
Alternative Designs Considered	...19
Recommended Alternative	...21
Impacts of Recommended Alternative	...23
Safety Performance	...23
Operational Performance	...23
Right-of-Way	...23
Community and Environment	...24
Usability by All Modes of Transportation	...24
Conceptual Cost Estimate	...25
Summary and Conclusion	...27



Introduction

From February 2015 to March 2021, the Florida Department of Transportation (FDOT) District Six completed 12 projects that widened 36 miles of SR 997/Krome Avenue/SW 177 Avenue from two to four lanes with a 40-foot wide median. In addition to other roadway improvements, five of these projects included the construction of a new 19-miles long shared-use path. Called the Krome Path, this 10-foot wide paved and marked shared-use path creates a physically separated bicycle and pedestrian connection from SW 296 Street to SR 90/SW 8 Street/Tamiami Trail.

The Krome Path creates enhanced opportunities and a safe environment for active transportation in Miami-Dade County. However, most bicycle and pedestrian activity centers (i.e., origin-destination attractors) are located far away from SR 997/Krome Avenue/SW 177 Avenue, a roadway that has typically served the community as a freight corridor and alternate highway for commuters living too far west from SR 826/Palmetto Expressway or SR 825/SW 137 Avenue. Hence, FDOT initiated this planning and conceptual engineering feasibility study to connect bicycle and pedestrian activity centers on SR 90/SW 8 Street to the Krome Path.

Figure 1: SR 997/Krome Avenue/SW 177 Avenue Projects



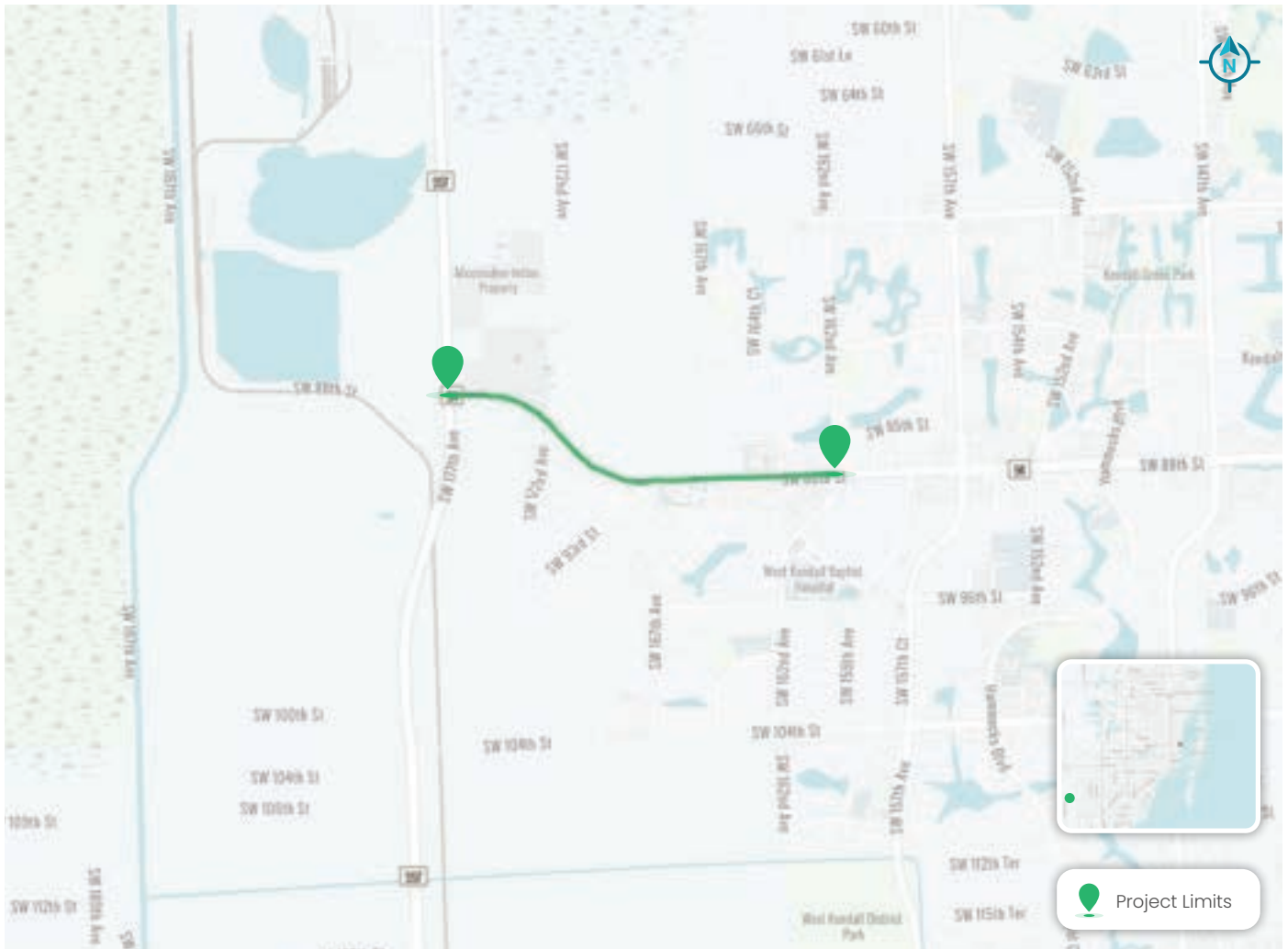
Figure 2: Krome Path (Source: The Miami Bike Scene 12/08/2021)





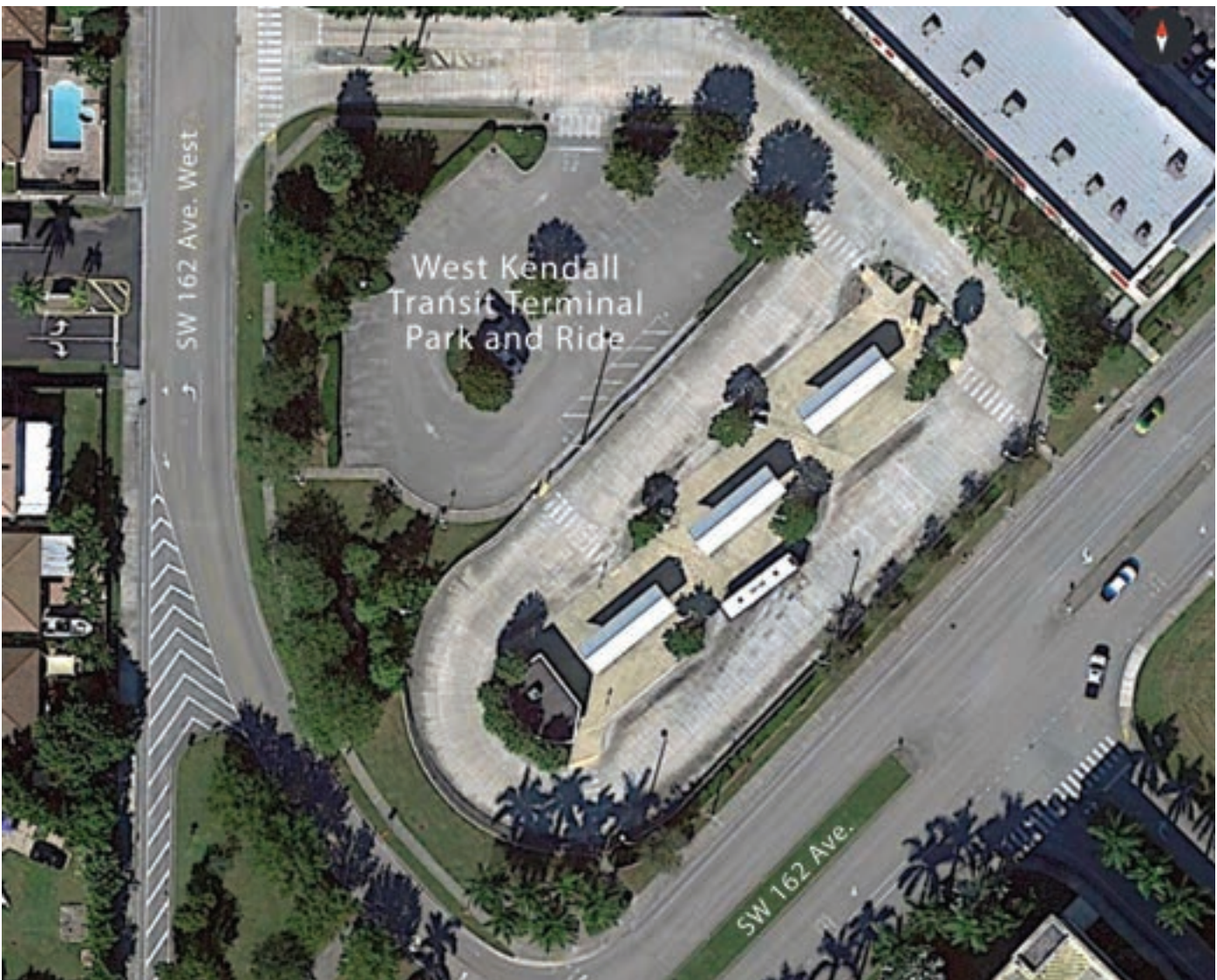
Figure 3 illustrates the study area. The study area is within unincorporated Miami-Dade County and inside the Urban Development Boundary (UDB). SW 162 Avenue was chosen as the eastern logical terminus given this roadway has existing bicycle lanes south of SR 94/Kendall Drive which connect to the West Kendall Transit Terminal Park and Ride (**see Figure 4**). This park and ride will serve as the western terminal for the future Kendall Corridor, one of six rapid transit corridors in the Strategic Miami Area Rapid Transit (SMART) Plan. On February 16, 2016, the Miami-Dade Transportation Planning Organization (TPO) Governing Board unanimously approved a policy to set the advancement of rapid transit corridors and transit supportive projects as the County's highest priority. Metrobus routes 72, 88, 104, 204, 272, and 288 currently serve the West Kendall Transit Terminal Park and Ride. Moreover, this park and ride was chosen as a logical terminus because the transit facility is an ideal public parking location for recreational cyclists intending to use the Krome Path.

Figure 3: Study Area



From SR 997/Krome Avenue/SW 177 Avenue (MP 0.000) to SW 162 Avenue (MP 1.432), SR 94/Kendall Drive is an urban principal arterial with C3R and C3C context classification. From SR 997/Krome Avenue/SW 177 Avenue to SW 167 Avenue (MP 1.142), SR 94/Kendall Drive has a typical section comprising four 12-foot wide general purpose travel lanes, a 27-foot wide landscaped median, 4-foot wide paved inside shoulders, and paved outside shoulders ranging from 2-foot to 8-foot wide. This segment of SR 94/Kendall Drive has a speed limit of 50 mph. From SW 167 Avenue to SW 162 Avenue, SR 94/Kendall Drive typical section transitions to six 12-foot wide general purpose travel lanes, 6-to-8-foot wide raised median, and 6-foot wide sidewalks with curb and gutters on either side of the road. This segment of SR 94/Kendall Drive has a speed limit of 45 mph.

Figure 4: West Kendall Transit Terminal Park and Ride





Purpose and Need



The purpose of this study is to analyze the feasibility of accommodating a shared bicycle and pedestrian protected facility, or facilities, on SR 94/Kendall Drive from SR 997/Krome Avenue/SW 177 Avenue to SW 162 Avenue. The objectives of this study are to:

- 1.** connect the Krome Path to existing bicycle lanes on SW 162 Avenue to provide an interconnected bicycle and pedestrian network that boosts the success of ongoing and planned transportation investments,
- 2.** encourage the utilization of public transportation to increase the throughput capacity of existing roadways by improving first/last-mile connections to the West Kendall Transit Terminal Park and Ride,
- 3.** increase the mobility options of residents, especially of vulnerable and disadvantaged populations, that benefit from affordable and accessible modes of transportation such as cycling and walking, and
- 4.** ensure the safety of vulnerable road users through physical separation of any proposed bicycle and pedestrian facility, or facilities, especially on high-speed roadways (i.e., design speeds of 50 mph or greater per Florida Design Manual Chapter 210) such as SR 94/Kendall Drive.

The improvements evaluated in this study are consistent with published regional master plans and fulfill the need for system linkage, social demands and economic development, modal interrelationships, and safety.

Planning Consistency

The improvements evaluated in this study are consistent with Project 122 in the Bicycle and Pedestrian Priority IV project list of the [2045 Long Range Transportation Plan \(LRTP\)](#), see page 236, and in the [2045 Bicycle and Pedestrian Master Plan](#), see page 208. Project 122 is a SMART Trails corridor and is included as Project D in the SMART Trails Master Plan (see **Figure 5**). The SMART Trails Master Plan was developed to compliment the SMART Plan by identifying potential first/last-mile connections between SMART Plan corridors and the regional non-motorized trails network. Project D proposes a shared-use path on the south side of SR 94/Kendall Drive from SR 997/Krome Avenue/SW 177 Avenue to SW 162 Avenue. Out of 25 projects and subcomponents in the SMART Trails Master Plan, Project D ranks number 23 with an estimated conceptual cost estimate of \$584,000, excluding right-of-way acquisition.

Figure 5: SMART Trails Project D





System Linkage

The Krome Path is part of the Florida Greenways and Trails System and the Miami LOOP, a bicycle network vision comprising 225 miles proposed by the Miami-Dade Trail Alliance. This study aims to determine the engineering and environmental feasibility of constructing a missing link in the local bicycle network that will enhance the Krome Path by increasing the access, convenience, and mobility of cyclists to the path via connections to public parking, transit, and retail and commercial land uses.

Furthermore, this link is significant to the existing and future public transportation network given the interrelationships between cycling, walking, and transit. This shared-use path will also expand low-stress bicycle connections to the West Kendall Baptist Hospital, a significant employment center, and educational facilities such as the Felix Varela Senior High.

Figure 6: The Miami LOOP





Social Demands and Economic Development

In April 2013, Lennar celebrated the grand opening of Kendall Square, a 160-acre residential community south of SR 94/Kendall Drive. Since then, other developments have followed suit including The Shoppes of Paradise Lakes and accompany Publix Supermarket, Casa Vera Apartments, Kendall Square K-8 Center, Max's Landing Apartment, and TownePlace Suites by Marriott Miami Kendall West and accompany retail spaces. In 2018, the 69.85-acre vacant site east of SW 162 Avenue was sold to NAI Miami, a real estate development company that proposed to construct a mixed-use building including 600 apartments, a 120-room hotel, 100,000 square feet of office space, and 418,920 square feet of retail and entertainment space. As of October 2021, this development, known as the Kendall Town Center, is under evaluation by Miami-Dade County for proposed changes to the Comprehensive Development Master Plan.

The bicycle and pedestrian facility, or facilities, proposed and analyzed by this study will enhance the ongoing land use changes in the study area by:

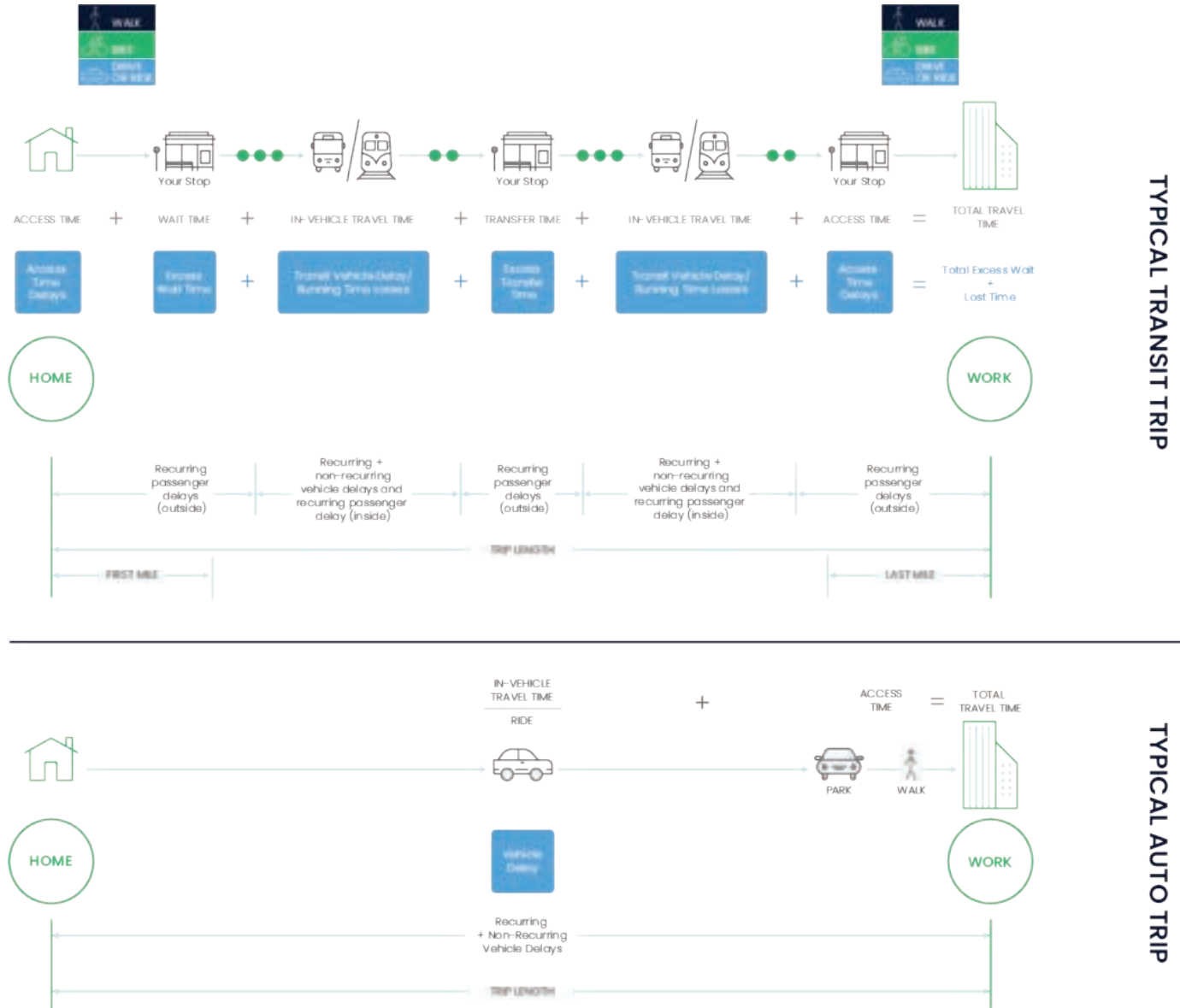
1. creating a new recreational facility,
2. connecting residents to an existing recreational facility (Krome Path), and
3. providing increased mobility options for commuters, especially to alternative modes of transportation such as micromobility and future premium transit.

Modal Interrelationships

In the [2011 Final Policy Statement on Eligibility of Pedestrian and Bicycle Improvements under Federal Public Transportation Law \(76 FR 52046\)](#), Federal Transit Administration (FTA) determined that all pedestrian improvements located within half-mile and all bicycle improvements located within three miles from a public transportation stop or station have a *de facto* physical and functional relationship to public transportation. The intersection of SR 997/Krome Avenue/SW 177 Avenue and SR 94/Kendall Drive (i.e., western terminus of the study area) is approximately 1.44 air miles away from the West Kendall Transit Terminal Park and Ride. Hence, the improvements analyzed in this study have a functional relationship to existing and future transit services at the park and ride including Miami-Dade Metrobus routes 72, 88, 104, 204, 272, 288, and the future Kendall Rapid Transit Corridor.

Moreover, the proposed improvements will also increase convenience in accessing public transportation. Cycling and walking are the most time-efficient and affordable modes of transportation to transfer to/from public transportation. **Figure 7** illustrates the differences between a typical transit and automobile trip and highlights the many potential delays inherent to a typical transit trip. Without the ability to make low-cost and quick transfers, transit trips can easily become inconvenient and inaccessible.

Figure 7: Comparison of a Typical Transit and Auto Trip





Safety

The most current 5-year (11/30/2016 – 11/30/2021) crash data was reviewed to determine the safety needs of the study area. Within this time range, a total of 413 crashes occurred on SR 94/Kendall Drive or within 25 feet north/south of the crossroads within the study area. **Figure 8** through **Figure 15** provide a breakdown of the crash data within the study area. Data was obtained using Signal Four Analytics which is developed and hosted for the State of Florida at the Geoplan Center of University of Florida.

Most crashes occurred between 12:00 – 7:00 PM. Of the 413 crashes, 100 crashes occurred at night. While rear end crashes are the most common crash type, the study area has a significant number of crashes involving same direction sideswipes and parked cars (i.e., combined total of 86 crashes). Of the 43 crashes involving parked vehicles, 25 occurred in a parking lane/zone, 11 occurred on the roadway, and seven occurred off the roadway. Note that the typical section of SR 94/Kendall Drive only has a parking lane/zone between SW 167 Avenue and SW 162 Avenue. A total of five crashes involved bicycle, pedestrians, or micromobility.

Of the four crashes involving bicycles, all occurred at the intersection of SR 94/Kendall Drive and SW 162 Avenue. Reviewing the police reports revealed that two crashes occurred on the northwest corner of the intersection as cyclists were traveling east on the north crosswalk and vehicles were turning left into SR 94/Kendall Drive. A third crash occurred on the same crosswalk as a cyclist was travelling westbound and was struck by a vehicle turning left into northbound SW 162 Avenue. The last crash occurred as a vehicle was exiting one of the driveways from the Kendall Park Plaza (16205 SW 88 Street, Miami, FL 33196) and struck a cyclist travelling westbound on the north sidewalk of SR 94/Kendall Drive. Three of the crashes involving cyclists resulted in non-incapacitating injuries.

The only crash involving a pedestrian occurred during the day, approximately 625 feet east of the intersection of SR 94/Kendall Drive and SW 162 Avenue. This crash occurred as a vehicle travelling westbound on SR 94/Kendall Drive struck a pedestrian crossing the road from north to south. This crash resulted in the death of the pedestrian. Of the 413 crashes, two resulted in fatalities and an additional two in serious injuries. The other fatal crashes occurred west of the same intersection and involved an off-road vehicle hitting a tree at night. The crashes resulting in incapacitating injuries involved vehicles making a left turn into SR 94/Kendall Drive from SW 167 Avenue.

Figure 8: Crashes by Year

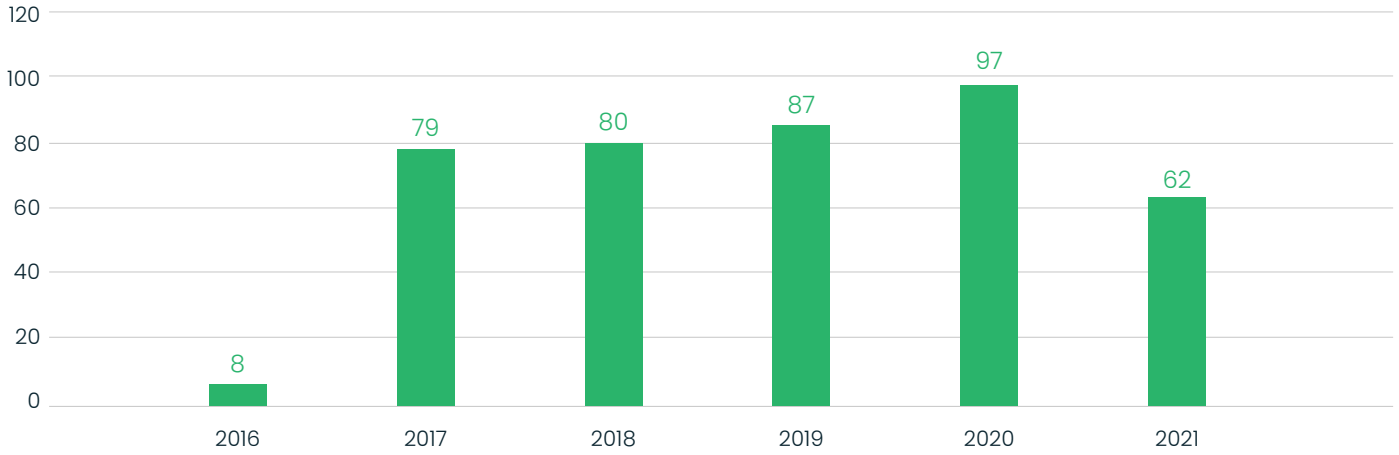


Figure 9: Crashes by Time of Day

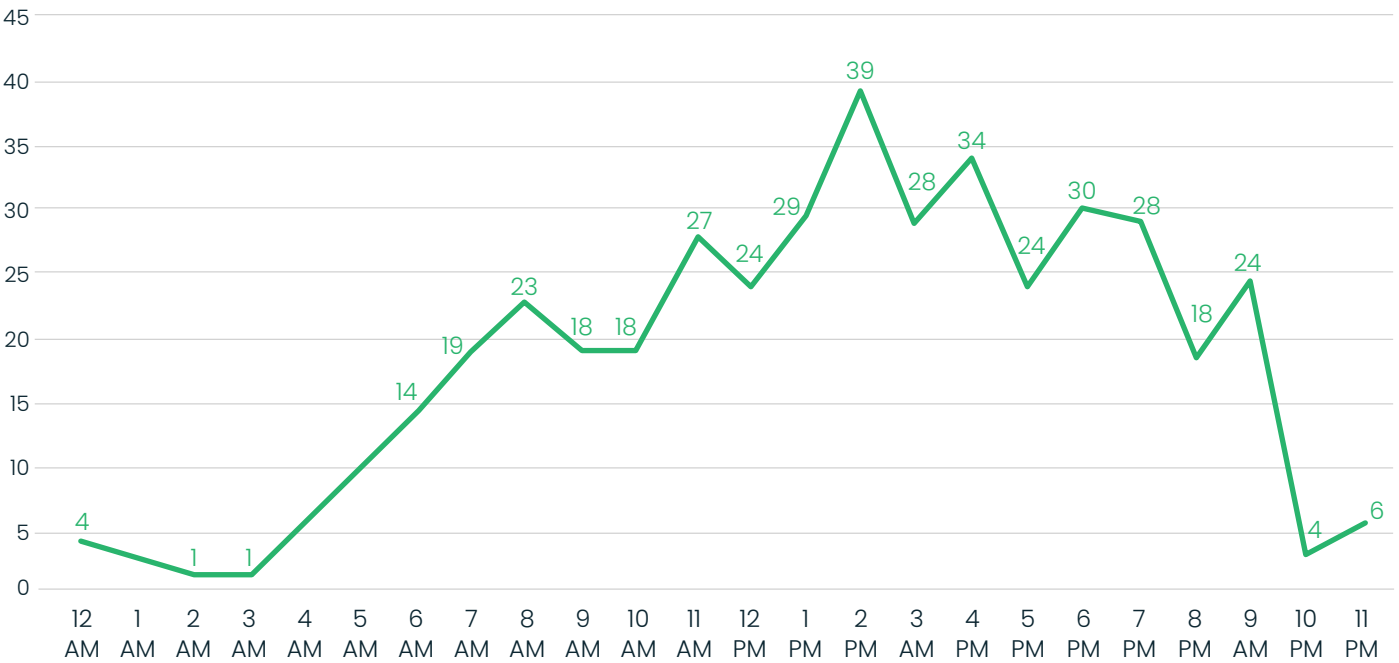




Figure 10: Crashes by Lighting Condition

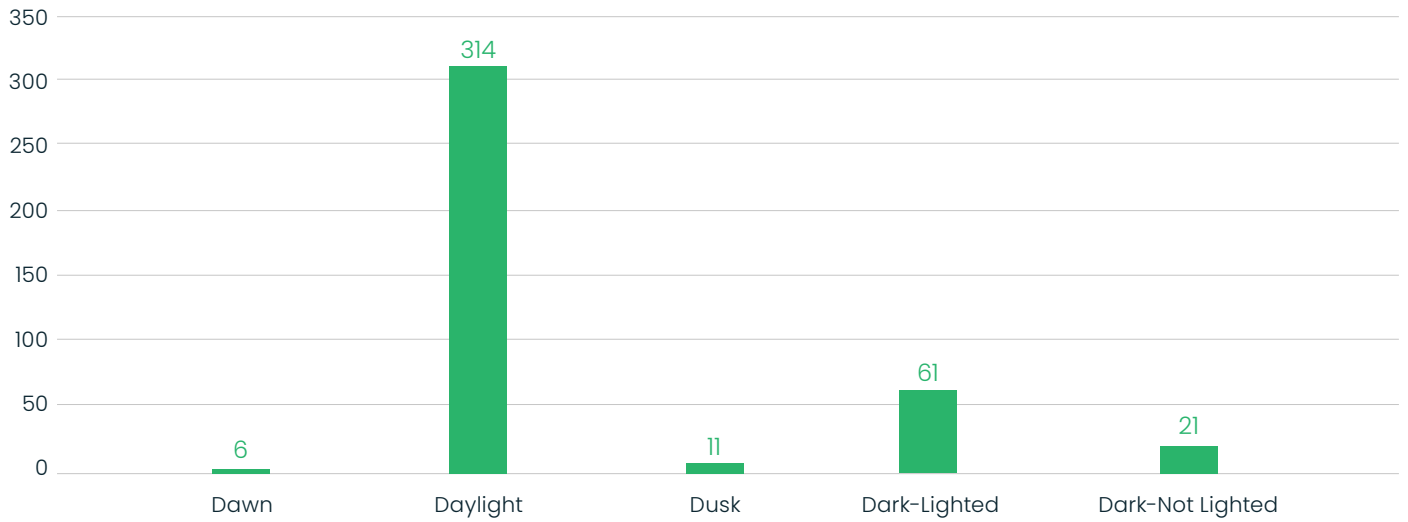


Figure 11: Crashes by Weather Condition

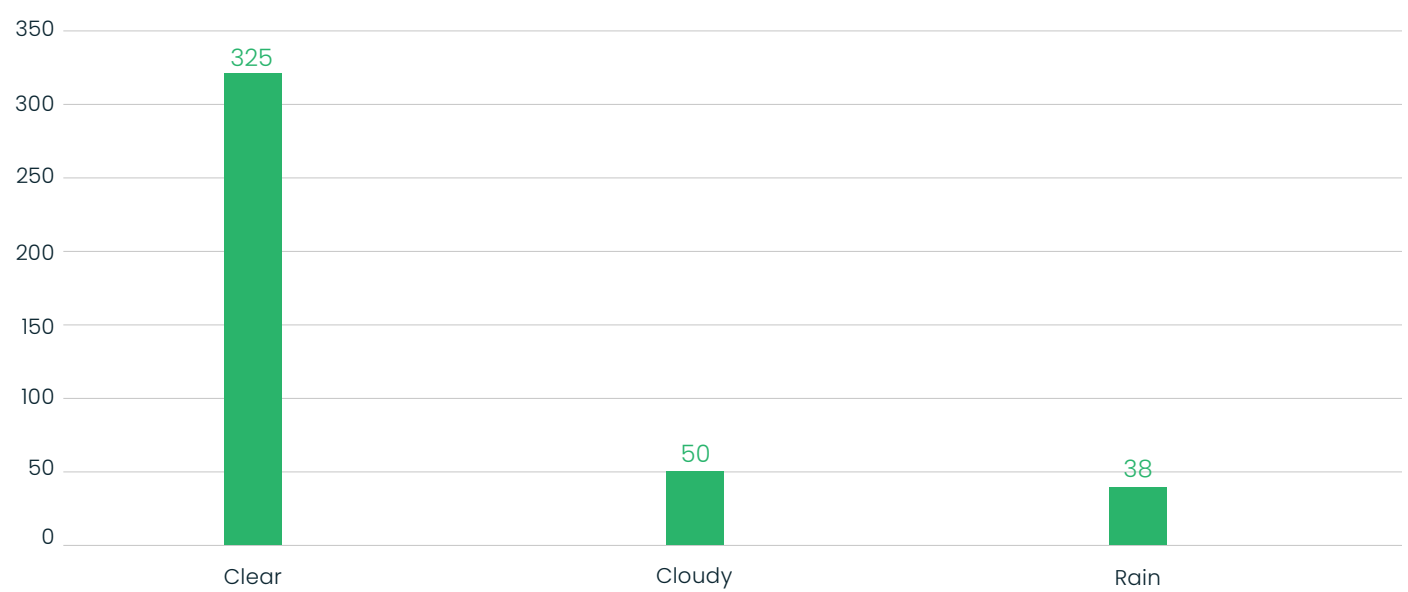


Figure 12: Crashes by Roadway Surface Condition

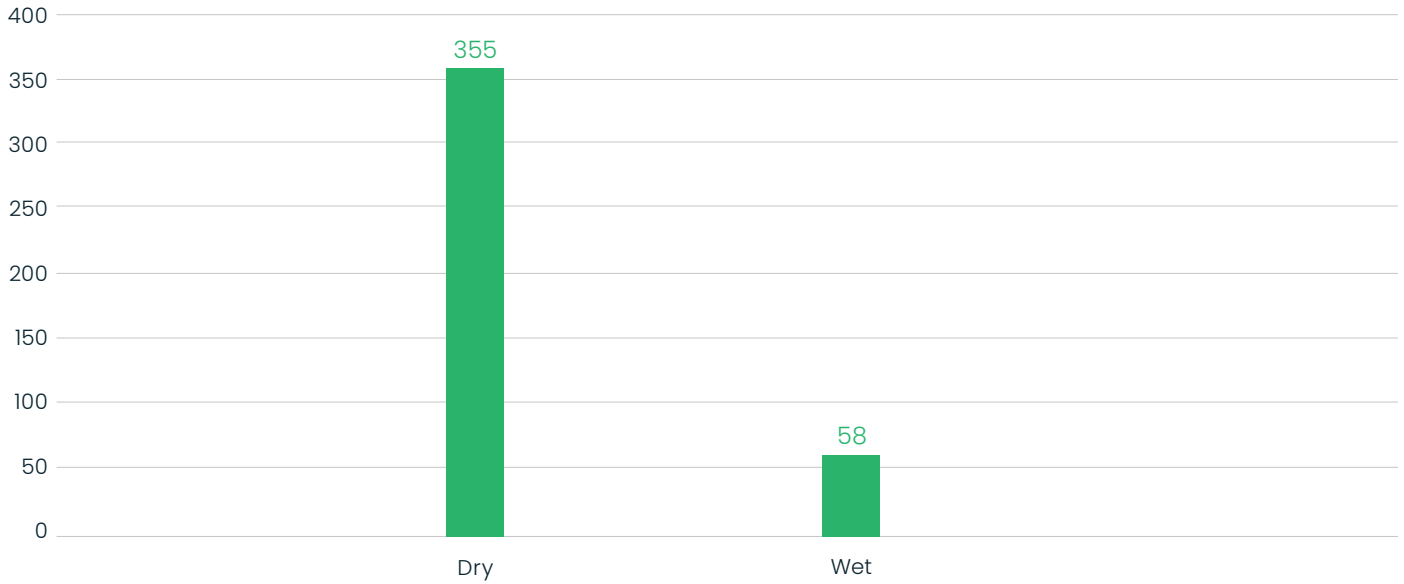


Figure 13: Crashes by Severity

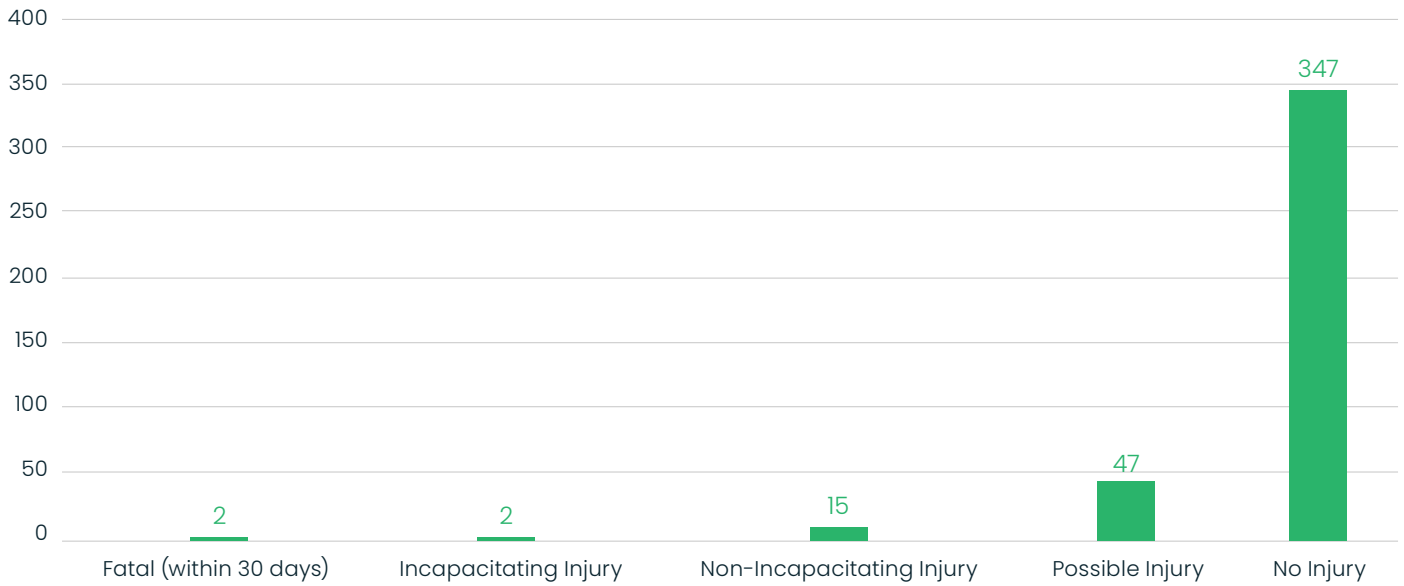
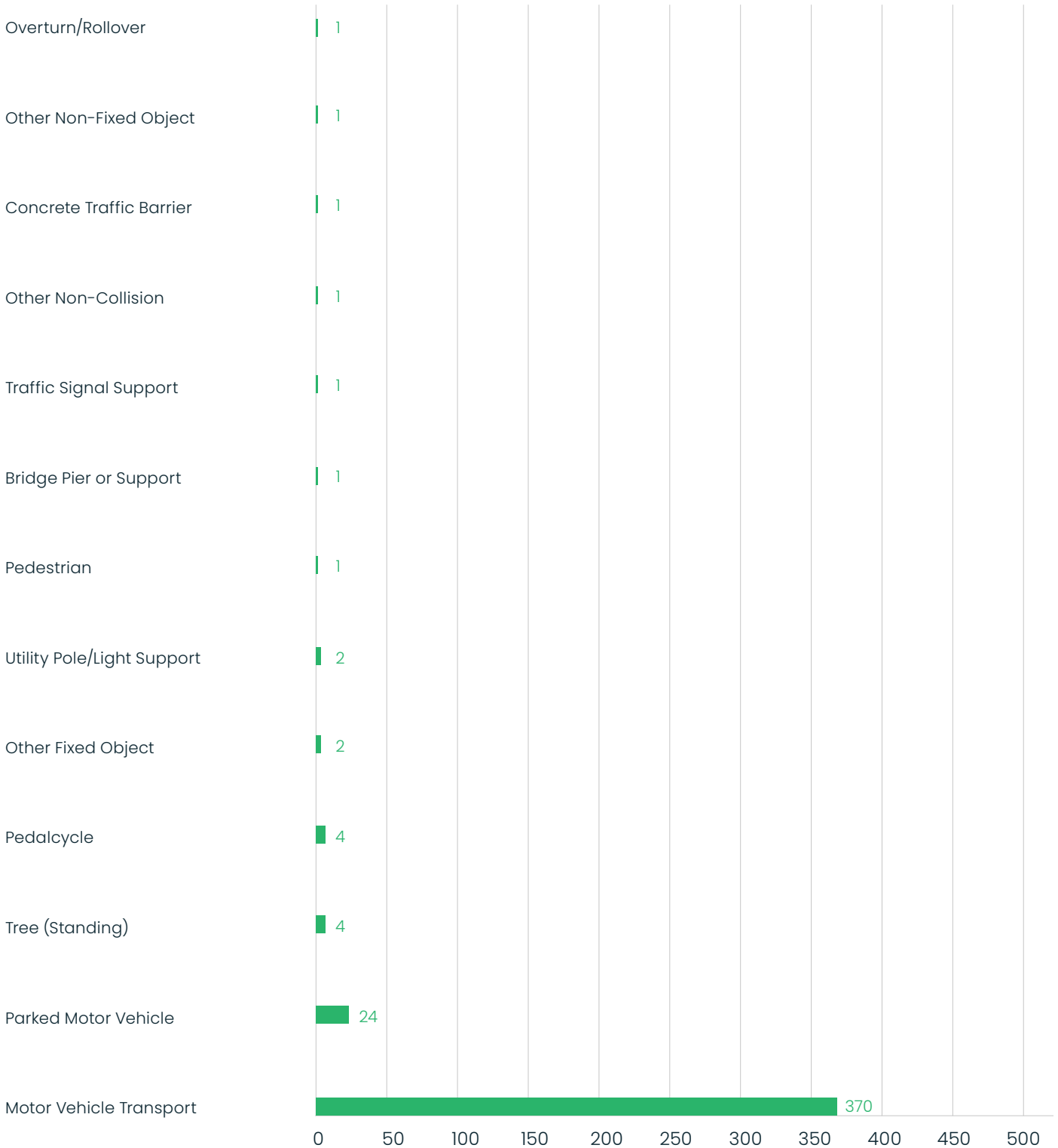




Figure 14: Crashes by Type



Figure 15: Crashes by Harmful Event





FDOT Vital Few

In accomplishing the vision and mission of FDOT, Florida Transportation Secretary Kevin Thibault, P.E. instructed the department to focus on three components that make up the FDOT Vital Few. These components, Improve Safety, Enhance Mobility, and Inspire Innovation, aim to serve the people of Florida by creating and maintaining a transportation network that is well planned, supports economic growth, and strives to be congestion and fatality free. The improvements evaluated under this study aim to enhance mobility and safety through innovative design that accommodates non-motorized modes of transportation and users of all ages and abilities.



IMPROVE SAFETY



ENHANCE MOBILITY



INSPIRE INNOVATION



Lane Departures

Lane departures represent
33% OF ALL
CRASHES
YET RESULT IN
44% OF ALL
DEATHS



Intersections

Florida saw a
26% INCREASE IN FATALITIES
& **3% DECREASE** IN SERIOUS INJURIES
at intersections between
2015 AND 2019



Pedestrians & Bicyclists

— Nationally, Florida had the —
HIGHEST NUMBER OF BICYCLIST FATALITIES
— IN 2018 —
pedestrians accounted for more than
22% IN FLORIDA OF TRAFFIC FATALITIES

Ongoing and Future Roadway Projects

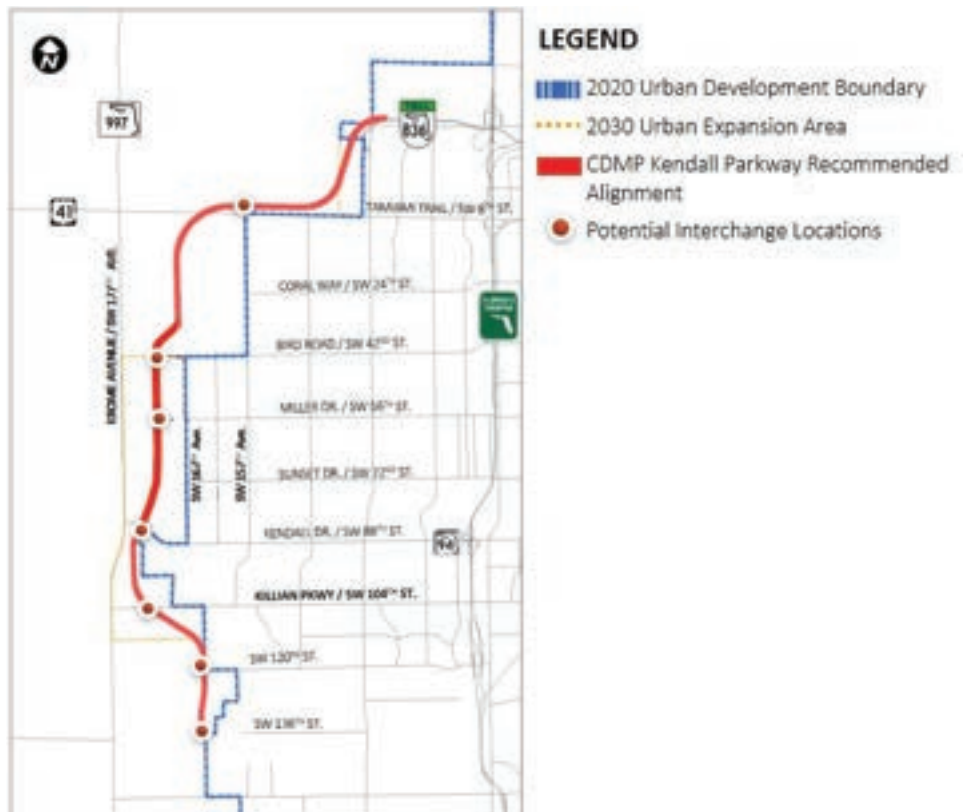
The study area has one future roadway project to be taken into consideration when developing proposed improvements for the area.

Kendall Parkway/SR 836 Extension

Included as Project 7 in the L RTP Priority II (2026 – 2030) list, the Kendall Parkway project plans to extend SR 836/Dolphin Expressway from the current terminus at the intersection of SR 825/SW 137 Avenue and NW 12 Street to SW 136 Street along an alignment located west of SW 167 Avenue. This project plans to create a new interchange north of SR 94/Kendall Drive at SW 172 Avenue and recommends adding turn lanes and bicycle lanes to SR 94/Kendall Drive. Any future improvements on SR 94/Kendall Drive must include envelopes to accommodate any plan improvements included in the Kendall Parkway project.

The Miami-Dade Expressway Authority is conducting a Project Development & Environment Study to evaluate the potential social, natural, and environmental impacts of the Kendall Parkway. The first phase of the study concluded with the submission of the Alternative Corridor Evaluation Report which documents how multiple corridor alternatives and alignments were evaluated. The second phase resulted in a recommended alternative which was presented at a Public Hearing that took place on December 13, 2018. **Appendix A** includes the recommended alternative.

Figure 16: Kendall Parkway Location Map





Alternative Designs Considered

A shared-use path on the south or north side of SR 94/Kendall Drive was considered to achieve the purpose of this study. Within the study area, SR 94/Kendall Drive is abutted by agricultural, vacant, office, and commercial land uses on the northside; with the majority of being agricultural. On the southside, SR 94/Kendall Drive is mostly abutted by residential and commercial land uses with some agricultural uses next to SR 997/Krome Avenue/SW 177 Avenue. The UDB delineates the change in land use from agricultural to commercial/residential along SR 94/Kendall Drive. While the northside has less conflict points with driveways and vehicle turning movements, the southside of SR 94/Kendall Drive was chosen as the preferred location for the proposed shared-use path given that this side of the roadway has more urban developments (i.e., bicycle and pedestrian attractors) and that the logical terminus of the West Kendall Transit Terminal Park and Ride is located south of SR 94/Kendall Drive.







Recommended Alternative

The recommended alternative proposed a shared-use path on the south side of SR 94/Kendall Drive using guardrails as physical separation to protect cyclists and pedestrians. The recommended alternative has three proposed typical sections on the following segments of SR 94/Kendall Drive:

- **Segment 1:** from SR 997/Krome Avenue/SW 177 Avenue to approximately 1,125 feet west of SW 167 Avenue
- **Segment 2:** From approximately 1,125 feet west of SW 167 Avenue to approximately 640 feet west of SW 162 Avenue West
- **Segment 3:** From approximately 640 feet west of SW 162 Avenue West to SW 162 Avenue

The recommended alternative only impacts the eastbound direction of SR 94/Kendall Drive. In this half of the roadway, Segment 1 has a proposed typical section comprising a 4-foot wide inside shoulder, two 11-foot wide eastbound general purpose travel lanes, type F curb and gutter with adjacent guardrail, and a 12-foot wide shared-use path with railing with foreslope to the adjacent properties. Segment 2 has a similar proposed typical section with the exception of including a 6-foot wide utility strip adjacent to the proposed guardrail and a 10-foot wide shared-use path. Segment 3 has a proposed typical section comprising a 2-foot wide inside shoulder, two 12-foot wide and one 11-foot wide eastbound general purpose travel lanes, type F curb and gutter with adjacent guardrail, and a 7-foot wide shared-use path with railing and foreslope to the adjacent properties.

The recommended alternative includes replacing crosswalks with shared-use path crosswalks comprising 6-foot wide bicycle crossings with green pavement markings and 6-foot wide high-emphasis crosswalk markings. The crosswalks recommended to be replaced are:

- East leg of SR 94/Kendall Drive and SR 997/Krome Avenue/SW 177 Avenue,
- South leg of SR 94/Kendall Drive and SW 172 Avenue/SW 90 Way,
- South leg of SR 94/Kendall Drive and SW 93 Street,
- South leg of SR 94/Kendall Drive and SW 167 Avenue,
- South leg of SR 94/Kendall Drive and SW 162 Avenue West, and
- All driveways along the shared-use path.

Along with utility and tree relocations, the recommended alternative includes ADA improvements such as curb ramp widening and detectable warning surfaces. Moreover, the recommended alternative includes an optional shared-use path extension on the west side of SW 162 Avenue West from SR 94/Kendall Drive to the entrance of the West Kendall Transit Terminal Park and Ride.

Recommended Alternative



The recommended alternative was reviewed through FDOT's Electronic Review Comment (ERC) system. **Appendix B** includes the ERC comments and responses. The following comments noted additional analyses needed for the development of the recommended alternative as it advances to the next phases in the development cycle.

1. A traffic analysis of SR 94/Kendall Drive is needed to determine if the typical section of Segment 1 needs to be widened from four to six general purpose lanes, therefore matching the typical sections of Segments 2 and 3.
2. Pavement grades and drainage requirements need to be evaluated on Segment 1 given the recommended alternative adds curb and gutter to the existing typical section. This segment of SR 94/Kendall Drive will require minimum grades of 0.3% and drainage inlets. The recommended shared-use path will also greatly contribute to the impervious areas of SR 94/Kendall Drive and will require an analysis of water quality and quantity.
3. The recommended alternative needs to be reviewed by the FDOT Environmental Section during design once the full scope of work and funding information is available. This information is needed to confirm the appropriate class of action and to determine the appropriate scope of coordination with local, state and/or federal agencies.
4. The study area is within the South Florida Urban Bat Area for the Florida bonneted bat, which is listed as an endangered species. Potential impacts to other protected species and their habitat include the eastern indigo snake. Impacts to trees (trimming, removal, and relocations) and bridges within the project area would require a field review and coordination with the U.S. Fish and Wildlife Service.
5. SR 94/Kendall Drive has been identified as a Priority 2 corridor for fiber as part of the FDOT's Transportation Systems Management and Operations (TSM&O) Master Plan currently under development. This project presents a future opportunity to deploy TSM&O infrastructure and identified fiber. Provision of communications infrastructure could also assist in enhancing the shared-use path through effective ITS devices such as CCTVs and detection for usage statistics.



Impacts of Recommended Alternative

Safety Performance

The recommended alternative is anticipated to improve safety conditions for cyclists and pedestrians in the study area given that these modes of transportation will have a dedicated and physically separated path. While the recommended alternative keeps the existing roadway configuration for vehicles, the recommended alternative does reduce the clear zone width for errant vehicles. Guardrails are proposed to mitigate the reduction in clear zone width and to further increase protection of cyclists and pedestrians.

Another safety concern is the recommended 7-foot wide shared-use path on Segment 3. The FDOT Design Manual allows new shared-use paths to have a minimum width of 8 feet on right-of-way constrained segments. Shared-use paths with widths shorter than 8-feet create a safety concern due to increase potential of opposite direction sideswipes between cyclists and pedestrians. Segment 3 is approximately 640 feet long and will require a design exception.

Operational Performance

The recommended alternative will likely result in an increase in bicycle and pedestrian traffic along the study area since SR 94/Kendall Drive does not have any bicycle or pedestrian facilities west of SW 172 Avenue and since the recommended alternative provides path continuity between the Krome Path, the West Kendall Transit Terminal Park and Ride, and the bicycle lanes on SW 162 Avenue. Increased bicycle and pedestrian traffic may result in operational impacts due to increased controlled and uncontrolled delays from bicycle and pedestrian crossings on SR 997/Krome Avenue/SW 177 Avenue and other crossroads along the study area.

Right-of-Way

The recommended alternative does not impact existing right-of-way conditions.

Community and Environment

The recommended alternative does impact existing landscaping along the south side of SR 94/Kendall Drive. Relocated trees will have to be accounted for to reduce the impact of the proposed improvements through landscape mitigation. The recommended alternative will increase community livability by providing a new recreational facility and increasing access and convenience to affordable and low-to-no carbon emission modes of transportation.

Usability by all Modes of Transportation

The recommended alternative increases the convenience of walking, cycling, and using micromobility and public transportation in the study area by connecting commuters to the West Kendall Transit Terminal Park and Ride.





Conceptual Cost Estimate

A conceptual cost estimate for the recommended alternative was developed using FDOT’s Long Range Estimates and Master Pay Item lists for Area 13 (Miami-Dade County) and reflecting costs from February 1, 2021 to January 31, 2022. Statewide averages were used where applicable.

Table 1 presents a summary of the conceptual cost estimates. **Appendix C** includes a detailed cost breakdown.

Table 1: Conceptual Cost Estimate

Protected Shared-Use Path on SR 94/Kendall Drive from SR 997/Krome Ave./SW 177 Ave. to SW 162 Ave.	On SR 94	On SW 162 Ave. W
Subtotal	\$943,334.44	\$164,144.64
Mobilization (7%)	\$66,033.41	\$11,490.13
Maintenance of Traffic (10%)	\$94,333.44	\$16,414.46
Utilities (2%) Utility work within FDOT ROW is not reimbursable, however, a percentage has been added to conservatively estimate any potential reimbursable utility work	\$18,866.69	\$3,282.89
Lighting (10%)	\$94,333.44	\$16,414.46
Drainage (10%)	\$94,333.44	\$16,414.46
Design (10%) Design percentage assumed based on engineering judgment of the complexity of the project	\$94,333.44	\$16,414.46
Geotechnical (15% of Design)	\$14,150.02	\$2,462.17
Survey (15% of Design)	\$14,150.02	\$2,462.17
CEI (8%)	\$75,466.76	\$13,131.57
Contingency (15%)	\$141,500.17	\$24,621.70
Total (Rounded to Nearest Thousand)	\$1,651,000.00	\$288,000.00





Summary and Conclusion

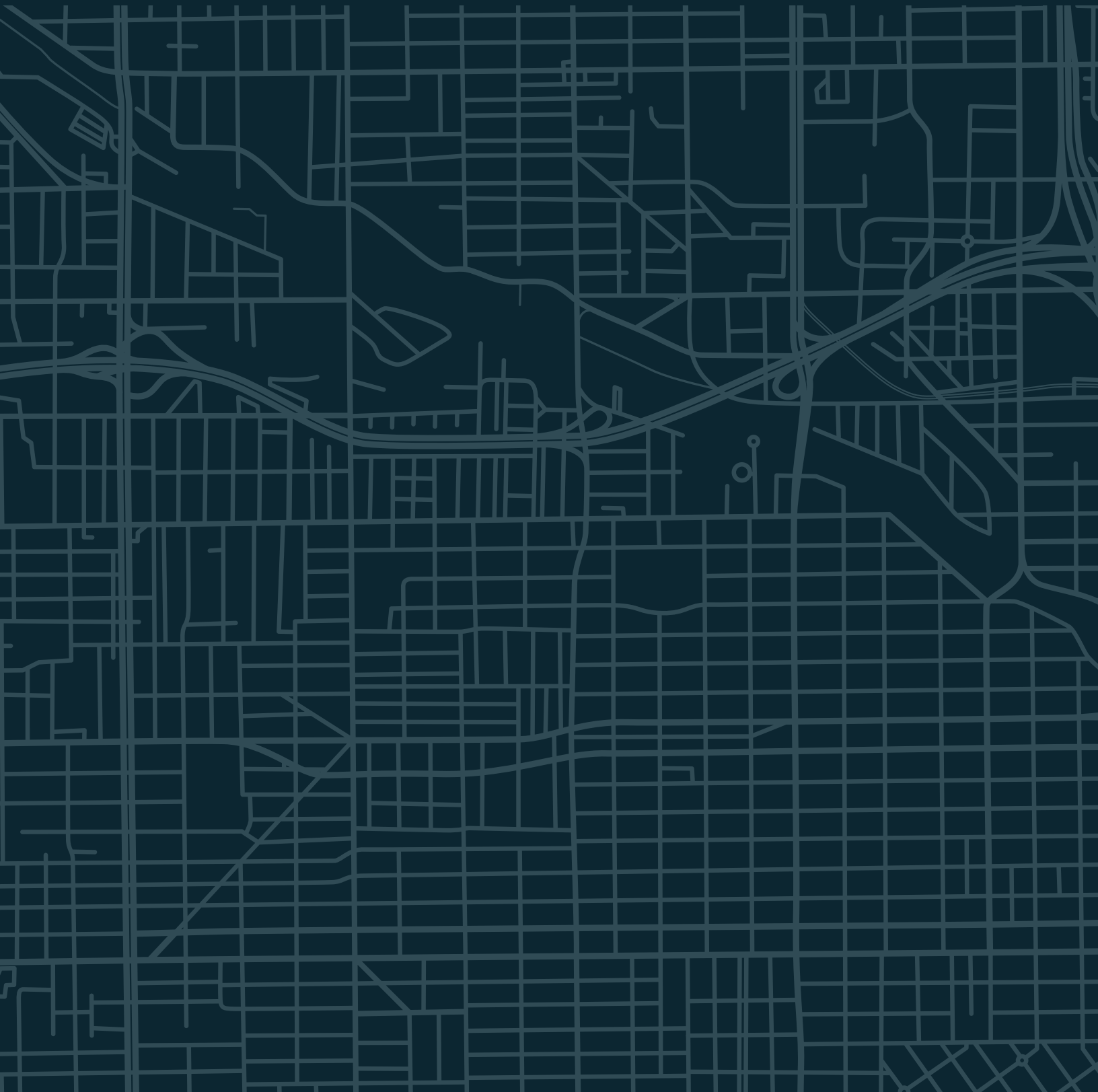
This planning and conceptual engineering feasibility study was initiated to connect bicycle and pedestrian activity centers on SR 94/Kendall Drive to the Krome Path, a new 19-miles long shared-use path along SR 997/Krome Avenue/SW 177 Avenue. Consistent with Miami-Dade County's 2045 LRTP, Bicycle Master Plan, Florida Greenways and Trails System, Miami LOOP, and SMART Trails Master Plan, this feasibility study recommends a physically separated shared-use path on the southside of SR 94/Kendall Drive providing access to the West Kendall Transit Terminal Park and Ride and existing bicycle lanes at SW 162 Avenue. The recommended alternative meets the objectives of this study by creating an interconnected bicycle and pedestrian network, encouraging the utilization of public transportation, increasing the mobility options of residents through affordable and accessible modes of transportation, and ensuring the safety of vulnerable road users through physical separation on high-speed roadways.

At an estimated conceptual cost of \$1,651,000 the recommended alternative includes three typical sections along SR 94/Kendall Drive. The first typical section recommends adding type F curb and gutter with adjacent guardrail and a 12-foot wide shared-use path with railing on the southside of SR 94 from SR 997/Krome Avenue/SW 177 Avenue to approximately 1,125 feet west of SW 167 Avenue. The second typical section includes a 6-foot wide utility strip adjacent to the proposed guardrail and reduces the width of the recommended shared-use path to 10-foot wide. The third typical section recommends adding guardrail and a 7-foot wide shared-use path with railing from approximately 640 feet west of SW 162 Avenue West to SW 162 Avenue. The recommended alternative also includes replacing crosswalks with shared-use path crosswalks, utility and tree relocations, ADA improvements, and an optional shared-use path extension on the west side of SW 162 Avenue West from SR 94/Kendall Drive to the entrance of the West Kendall Transit Terminal Park and Ride for an additional \$288,000.

While the recommended alternative requires further evaluation to fully understand potential impacts, mitigations, and concerns raised, the recommended alternative successfully fulfills transportation needs regarding system linkage, social demands and economic development, modal interrelationships, and safety.



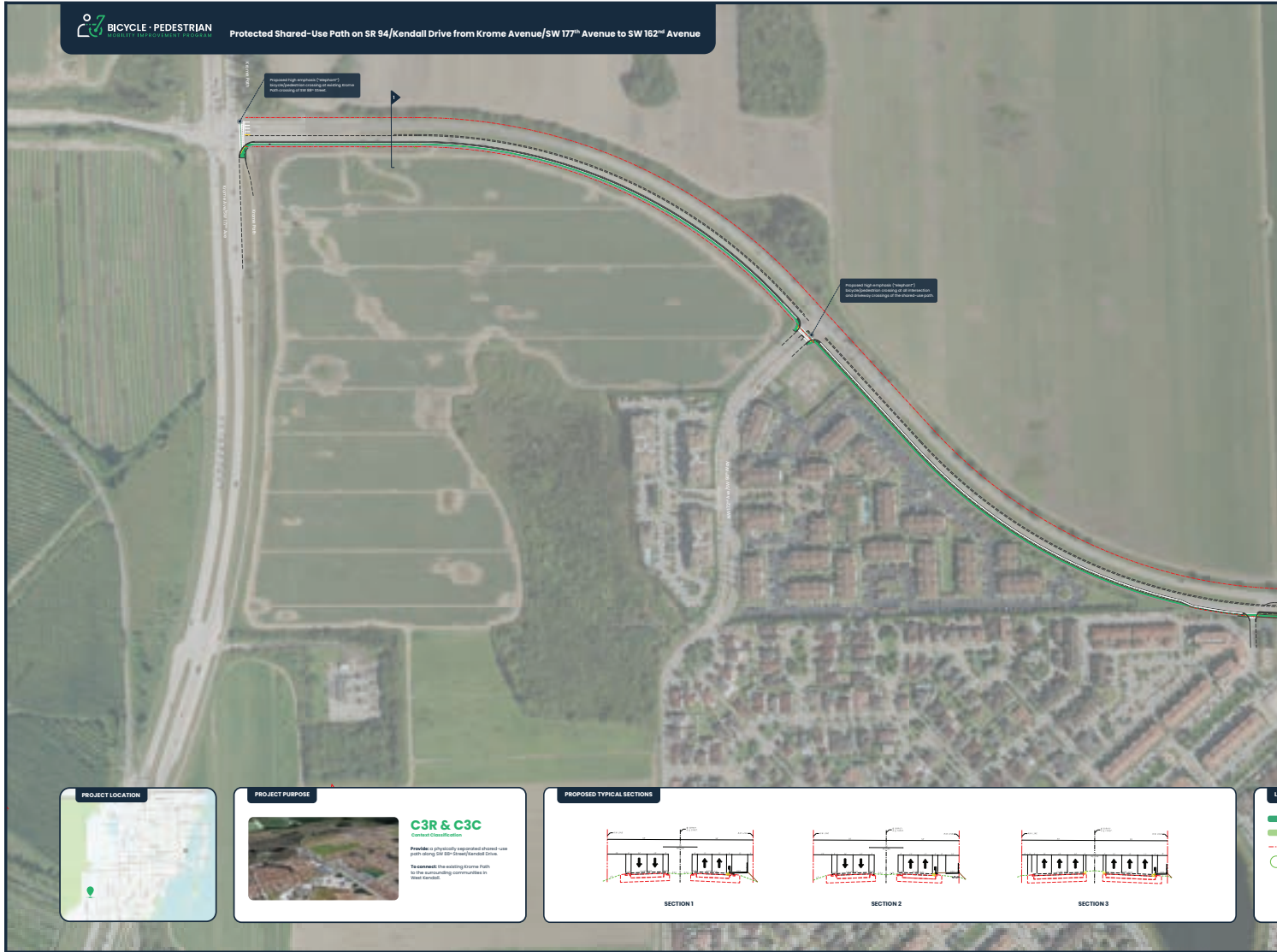




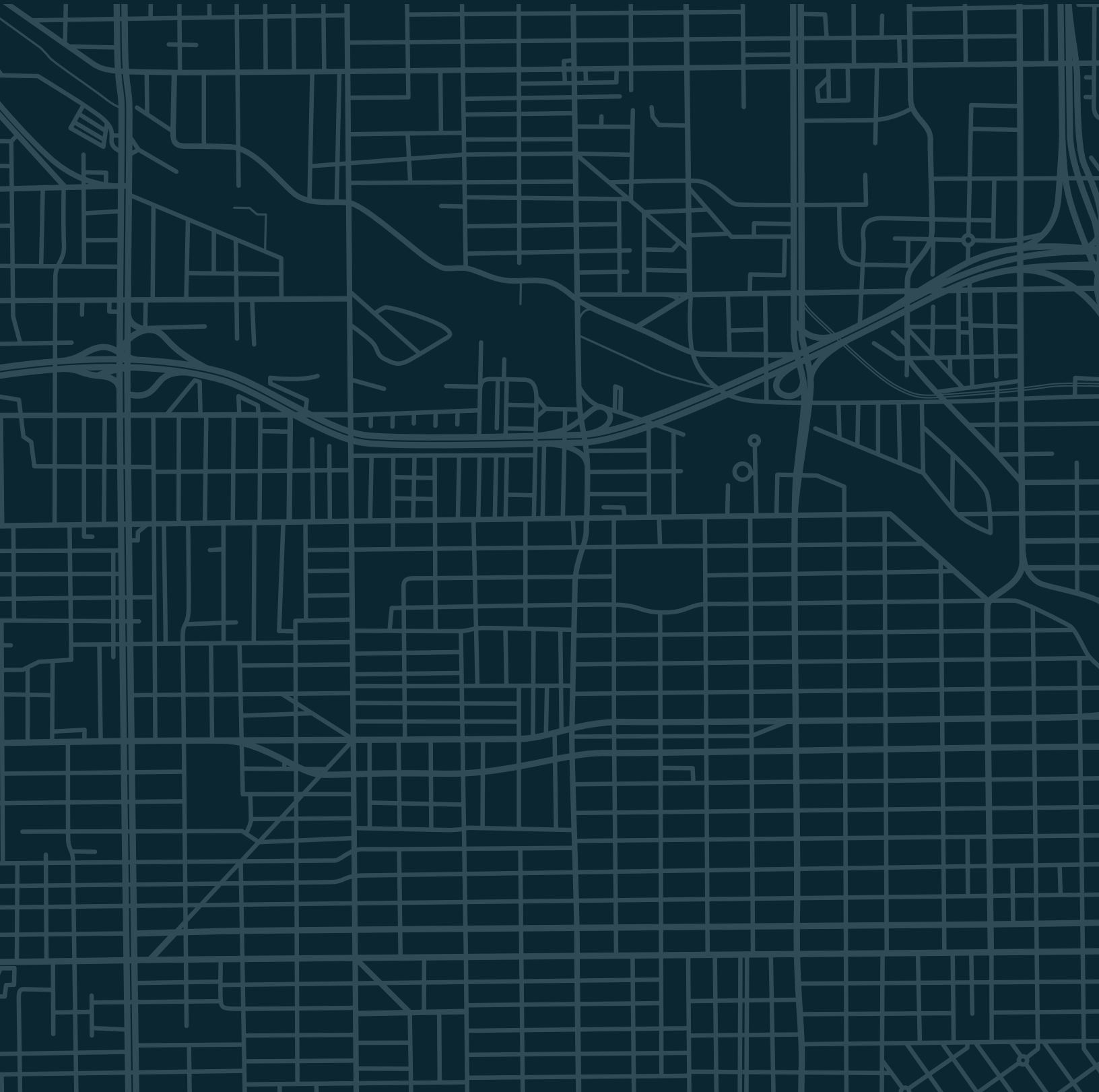


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Appendix A









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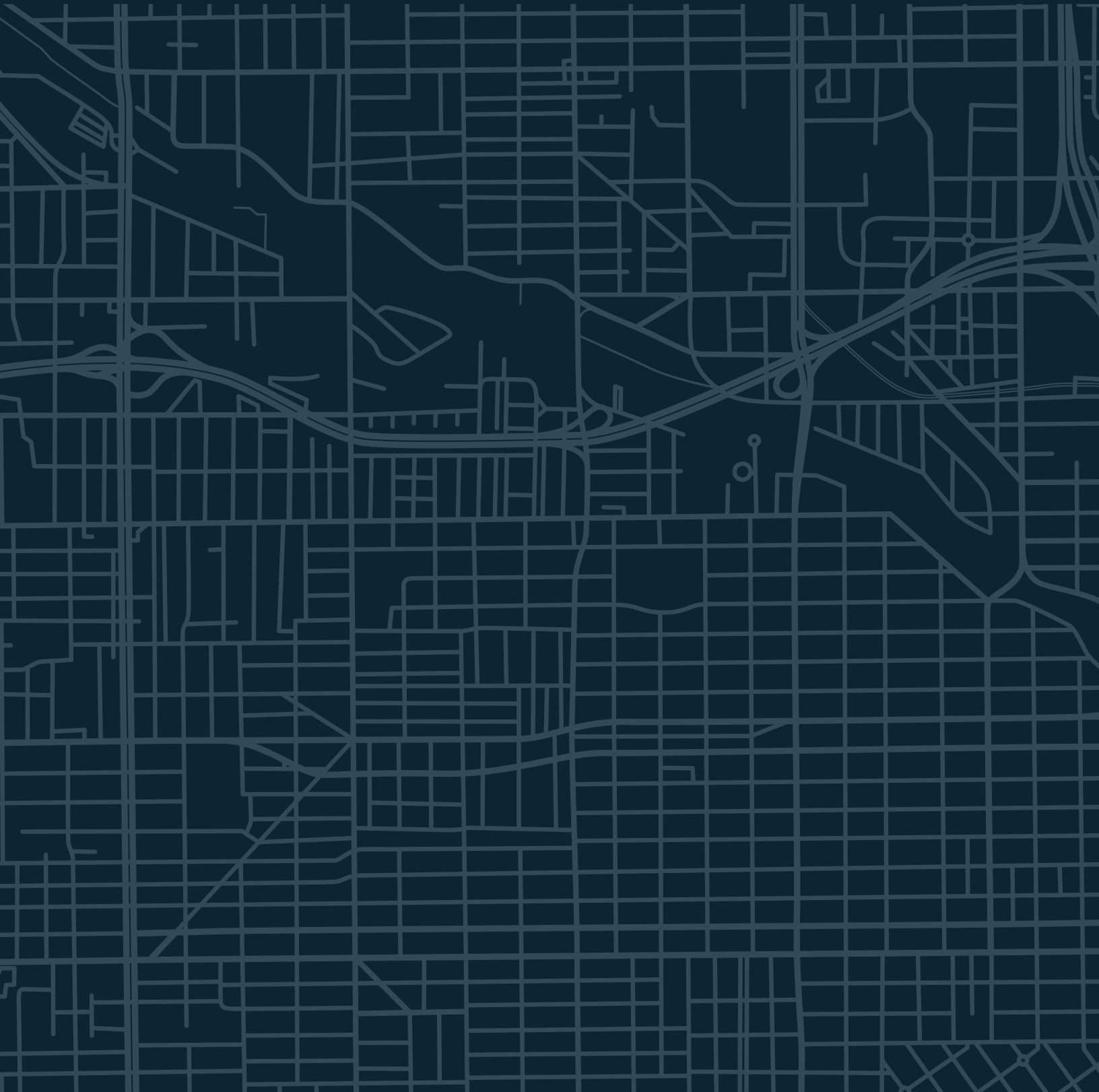
Appendix B



421053-4: Protected Shared-Use Path on SR 94/Kendall Drive from SR 997/Krome Ave./SW 177 Ave. to SW 162 Ave.

Comment No.	Comment	Categories	Created By	Current Holder	GF Responses
1	Has traffic been analyzed on the western portion? Do we anticipate the need to extend the 6 lane section to Krome?	Roadway	Natalie Garganta	Nelson Mora	Vehicular traffic analysis was not part of this feasibility study. This will be noted within the final document for subsequent phases of the project and/or a separate work order to analyze vehicular traffic for capacity improvements.
2	Have existing roadway grades been analyzed? Addition of curb will require minimum .3% grades, which will likely require reconstruction of pavement. Additionally, drainage will need to be added.	Roadway	Natalie Garganta	Nelson Mora	Agreed. Roadway elevations have not been checked given the available data. As-builts available are only for previous resurfacing projects without PGL information. This will be noted within the final report and certainly recommended as it is understood that if curb is being proposed, drainage inlets will be required along with the corresponding roadway longitudinal grades.
3	Consider placing at R/W line without the addition of a curb. Check FDM Criteria for horizontal clearance, it seems there is sufficient space to accommodate the shared use path without the need for guardrail.	Roadway	Natalie Garganta	Nelson Mora	Noted. The intent of having the path closer to the road was to minimize the need for harmonization beyond the ROW line as well as to be able to provide landscape opportunity areas for shade trees along the path.
4	In Typical section 3, it seems the arrows on the left should point westbound. The Kendall widening project that's providing three lanes in each direction seems to have already provided a wide sidewalk; also, there are light poles at the back of sidewalk. *ATTACHMENT PROVIDED ON ERC*	Traffic Control	Raul Alessandri	Nelson Mora	Agreed. Typical will be revised and concept will reflect recently constructed wide sidewalk and any improvements possible to make it a protected shared use path.
5	There are no documented contaminated sites within a 500-foot radius of the project corridor. Therefore, no contamination impacts are anticipated.	Contamination	Michael Miller	Nelson Mora	Noted. Information will be reflected within final document to ensure it is considered during subsequent project phases.
6	This planning study/conceptual plot has been reviewed by the Environment Section and has been determined that this project will need to be revisited during design once the full scope of work and funding information is available. This information is needed to confirm the appropriate class of action and to determine the appropriate scope of coordination with local, state and/or federal agencies.	Environmental Management Office	Kristi Savio	Nelson Mora	Noted. Information will be reflected within final document to ensure it is considered during subsequent project phases.
7	The Project Manager must provide the Environment Section with the opportunity to perform an environmental impact review once design plans have been developed. If warranted, an Environmental Certification will be prepared upon the completion of the environmental impact review.	Environmental Management Office	Kristi Savio	Nelson Mora	Noted. Information will be reflected within final document to ensure it is considered during subsequent project phases.
8	Please be aware that this project is within the South Florida Urban Bat Area for the Florida bonneted bat, which is listed as an endangered species. Impacts to trees (trimming, removal, and relocations) and bridges within the project area would require a field review and coordination with the U.S. Fish and Wildlife Service (USFWS).	Environmental Management Office	Kristi Savio	Nelson Mora	Noted. Information will be reflected within final document to ensure it is considered during subsequent project phases.
9	Potential impacts to protected species and their habitat including the eastern indigo snake would have to be assessed and coordinated with the USFWS. Additionally, a species survey may be required to identify the presence of state listed species and plants within the project area.	Environmental Management Office	Kristi Savio	Nelson Mora	Noted. Information will be reflected within final document to ensure it is considered during subsequent project phases.
10	There appears to be multiple locations where work could occur outside of the ROW. If the project is advanced, please coordinate any work outside of the ROW with the PLEMO office.	Environmental Management Office	Kristi Savio	Nelson Mora	The proposed improvements are being recommended within the existing ROW. The final document will include information recommending additional coordination with PLEMO required if proposed improvements are to be modified to go beyond existing ROW.
11	Should you have any questions or require clarification regarding these environmental comments, please contact Kristi Savio at 813-636-2604/ kristi.savio@rsandh.com	Environmental Management Office	Kristi Savio	Nelson Mora	Noted. Thank you.
12	Attached are typical sections from the Kendall Dr widening project (100% plans, not the final). Recommend to ask Permits for the final plans (or as-builts), and consider omitting the guardrail. *ATTACHMENT PROVIDED ON ERC*	Traffic Control	Raul Alessandri	Nelson Mora	Thank you for the information. Final plans/as-builts will be requested to reflect existing conditions from newly constructed segment. The intent of providing a guardrail is to provide a physically protected path for all user types.
13	Based on review of the planning study/conceptual plot, it is anticipated that no historic properties will be affected by the proposed improvements. However, the project will need to be revisited during design once the footprint of improvements is more clearly defined. Please be aware that any future federal involvement (funding, permits, etc.) with this project would require that the Planning and Environmental Management Office (PEMO) notify the State Historic Preservation Officer (SHPO) of this finding.	Cultural Resources	Max Imberman	Nelson Mora	Noted. Information will be reflected within final document to ensure it is considered during subsequent project phases.
14	Please be aware that a historic roadway and the reservation lands of the Miccosukee Tribe or Indians are located in the vicinity of the recommended improvements, but are anticipated to be outside of the project area of potential effect. During design, the Planning and Environmental Management Office (PEMO) will revisit the proposed improvements in relation to these resources and any potentially historic resources to ensure no historic properties are affected by the recommended improvements.	Cultural Resources	Max Imberman	Nelson Mora	Noted. Information will be reflected within final document to ensure it is considered during subsequent project phases.
15	Contact Information: If you have any questions or require clarification for these comments, please contact Max Adriel Imberman at 813-330-9111 /max.imberman@dot.state.fl.us	Cultural Resources	Max Imberman	Nelson Mora	Noted. Thank you.
16	This new user shared path will greatly contribute to the impervious areas within the RW. Please, at a further phase of the project, submit water quality/quantity calculations to handle all the impervious area runoff.	Drainage	Javier Veliz	Nelson Mora	
17	Thank you for your comment. A comment resolution meeting is scheduled for 2/2/2022 from 2:30 pm - 3:30 pm.	Bicycle/Pedestrian	Shereen Yee Fong	Nelson Mora	Agree.
18	This corridor has been identified as a Priority 2 corridor for Fiber as part of the TSM&O Master Plan currently under development. This project may be a good candidate project to deploy TSM&O infrastructure and the inclusion of the identified fiber need. Provision of communications infrastructure could also assist in enhancing the shared-use path through effective ITS devices such as CCTVs and detection for usage statistics.	Intelligent Transportation	Stefan Escanes	Nelson Mora	Agree. This would be a great opportunity to combine proposed improvements from different FDOT departments within one standalone project. Will continue coordination with ITS to synchronize proposed improvements and project implementation phases.
19	Based on a review of the project corridor, desktop aerial imagery, and National Wetlands Inventory, no wetlands and/or surface waters fall within the project limits.	Environmental Permits	Kate Nelson	Nelson Mora	Noted. Information will be reflected within final document to ensure it is considered during subsequent project phases.
20	Please be advised that the proposed typical section 3 of the planning study/conceptual plot proposes new travel lanes which would require a SFWMD Individual ERP.	Environmental Permits	Kate Nelson	Nelson Mora	Section 3 proposes the number of lanes within the current condition of new reconstructed segment as part of the Kendall Commons roadway improvements. This information will be noted within the final document.
21	Work proposed outside the FODT R/W is subject to the local and county permitting requirements.	Environmental Permits	Kate Nelson	Nelson Mora	The proposed improvements are being recommended within the existing ROW. The final document will include information regarding permit requirements if proposed improvements are to be modified to go beyond existing ROW.
22	This planning study/conceptual plot has been reviewed by the Environment Permits Section and has been determined that this project will need to be revisited during design once the full scope of work is established. This information is needed to confirm the appropriate level of permitting requirements with local, state and/or federal agencies	Environmental Permits	Kate Nelson	Nelson Mora	Noted. Information will be reflected within final document to ensure it is considered during subsequent project phases.
23	Should you have any questions or require clarification regarding these environmental comments, please contact me (Kate Nelson) at 561-839-1748 or kate.nelson@wginc.com	Environmental Permits	Kate Nelson	Nelson Mora	Noted. Thank you.

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Appendix C



Protected Shared-Use Path on SR 94/Kendall Drive from SR 997/Krome Ave./SW 177 Ave. to SW 162 Ave.	On SR 94	On SW 162 Ave. W
Subtotal	\$ 943,334.44	\$164,144.64
Mobilization (7%)	\$ 66,033.41	\$ 11,490.13
Maintenance of Traffic (10%)	\$ 94,333.44	\$ 16,414.46
Utilities (2%) Utility work within FDOT ROW is not reimbursable, however, a percentage has been added to conservatively estimate any potential reimbursable utility work	\$ 18,866.69	\$ 3,282.89
Lighting (10%)	\$ 94,333.44	\$ 16,414.46
Drainage (10%)	\$ 94,333.44	\$ 16,414.46
Design (10%) Design percentage assumed based on engineering judgement of the complexity of the project	\$ 94,333.44	\$ 16,414.46
Geotechnical (15% of Design)	\$ 14,150.02	\$ 2,462.17
Survey (15% of Design)	\$ 14,150.02	\$ 2,462.17
CEI (8%)	\$ 75,466.76	\$ 13,131.57
Contingency (15%)	\$ 141,500.17	\$ 24,621.70
Total (Rounded to Nearest Thousand)	\$ 1,651,000.00	\$288,000.00

Protected Shared-Use Path on SR 94/Kendall Drive from SR 977/Krome Ave./SW 177 Ave. to SW 162 Ave.

Roadway							
Item Number	Item	Unit	Quantity	Unit Price	Amount	Source	Source Date
0104 18	Inlet Protection System	EA		\$ 183.89	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0110 1 1	Clearing & Grubbing	AC	3.02	\$ 10,178.04	\$ 30,763.84	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0110 23	Tree Removal	EA	20.00	\$ 1,558.52	\$ 31,170.40	historical-item-averages-market-area-14	From 2021/02/01 to 2022/01/31
0110 4 10	Removal of Existing Concrete	Y	1797.72	\$ 16.41	\$ 29,500.58	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0120 1	Regular Excavation	CY		\$ 4.49	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0120 6	Embankment (Fill)	CY		\$ 14.42	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0160 4	Type B Stabilization (Share-Use Path)	SY	8598.08	\$ 0.78	\$ 6,706.50	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0160 4	Type B Stabilization (Share-Use Path) Side Street	SY		\$ 0.78	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0285 701	Optional Base Group 01 (Share-Use Path)	SY	8598.08	\$ 15.22	\$ 130,862.73	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0285 701	Optional Base Group 01 (Share-Use Path) Side Street	SY		\$ 15.22	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0327 70 1	Milling Existing Asphalt Pavement, 2" Avg. Depth (Shoulder for Guardrail)	SY		\$ 2.02	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0334 1 11	Superpave Asphaltic Concrete, Traffic A (Share-Use Path)	TN	1418.68	\$ 112.63	\$ 159,786.23	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0334 1 11	Superpave Asphaltic Concrete, Traffic A (Share-Use Path) Side Street	TN	0.00	\$ 112.63	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0334 1 53	Superpave Asphaltic Concrete, Traffic C, PG76-22	TN		\$ 123.11	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0337 7 83	Asphalt Concrete Friction Course, Traffic C, FC-12.5, PG 76-22 (Guardrail)	TN	281.20	\$ 148.42	\$ 41,735.67	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0400 0 11 1	Concrete Class NS, Gravity Wall Index 400-011 (For Shared-Use Path Thickened Edge)	CY	106.67	\$ 572.68	\$ 61,085.87	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0400 0 11 1	Concrete Class NS, Gravity Wall Index 400-011 (For Sidewalk Gravity Wall)	CY		\$ 572.68	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0515 4 2	Bullet Rail - Double Rail	LF		\$ 45.00	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0520 1 10	Concrete Curb & Gutter, Type F	LF	8729.00	\$ 22.41	\$ 195,616.89	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0520 2 4	Concrete Curb & Gutter, Type D	LF	31.00	\$ 27.20	\$ 843.20	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0520 6	Shoulder Gutter - Concrete	LF		\$ 21.15	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0522 1	Concrete Sidewalk and Driveways, 4" Thick	SY		\$ 38.75	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0522 2	Concrete Sidewalk and Driveways, 6" Thick	SY	443.49	\$ 63.19	\$ 28,024.15	historical-item-averages-market-area-14	From 2021/02/01 to 2022/01/31
0527 2	Detectable Warnings	SF	576.90	\$ 27.69	\$ 15,974.26	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0536 1 1	Guardrail - Roadway, General TL-3	LF	7618.00	\$ 22.00	\$ 167,596.00	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0570 1 2	Performance Turf, Sod	SY	1765.67	\$ 2.49	\$ 4,396.51	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
523 1	Patterned Pavement, Vehicular Areas (Green Colored Pavement)	SY	211.67	\$ 117.00	\$ 24,765.00	historical-item-averages-2020	From 2020/01/01 to 2020/12/31
Subtotal					\$ 928,827.82		

Signing and Pavement Markings

Item Number	Item	Unit	Quantity	Unit Price	Amount	Source	Source Date
0710 11 101	Painted Pavement Markings, STD, White, Solid, 6"	GM	0.95	\$ 805.69	\$ 768.46	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 102	Painted Pavement Markings, STD, White, Solid for Interchange and Urban Island, 8"	GM		\$ 1,111.13	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 123	Painted Pavement Markings, STD, White, Solid, 12" for Crosswalk	LF	1480.00	\$ 0.44	\$ 651.20	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 124	Painted Pavement Markings, STD, White, Solid, 18" Diagonals or Chevron	LF		\$ 0.94	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 125	Painted Pavement Markings, STD, White, Solid, 24" for Stop Line and Crosswalk	LF	74.00	\$ 0.81	\$ 59.94	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 131	Painted Pavement Markings, STD, White, Skip, 10-30 or 3-9 Skip, 6" Wide	GM		\$ 347.41	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 141	Painted Pavement Markings, STD, White, 2-4 Dotted Guideline/6-10 Dotted Extension, 6"	GM		\$ 352.04	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 160	Painted Pavement Markings, STD, White, Message or Symbol	EA		\$ 40.51	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 170	Painted Pavement Markings, STD, White, Arrows	EA		\$ 25.11	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 201	Painted Pavement Markings, STD, Yellow, Solid, 6"	GM	0.01	\$ 872.76	\$ 6.61	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 202	Painted Pavement Markings, STD, Yellow, Solid for Interchange and Urban Island, 8"	GM		\$ 975.50	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 224	Painted Pavement Markings, STD, Yellow, Solid, 18" Diagonals or Chevron	LF		\$ 0.78	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 231	Painted Pavement Markings, STD, Yellow, Skip, 10-30 or 3-9 Skip, 6" Wide	GM		\$ 361.59	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 241	Painted Pavement Markings, STD, Yellow, 2-4 Dotted Guideline/6-10 Dotted Extension, 6"	GM		\$ 363.04	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 90	Painted Pavement Markings, Final Surface	LS		\$ 16,763.19	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 102	Thermoplastic, STD, White, Solid for Interchange and Urban Island, 8"	GM		\$ 5,632.54	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 123	Thermoplastic, STD, White, Solid, 12" for Crosswalk	LF	1480.00	\$ 1.62	\$ 2,397.60	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 124	Thermoplastic, STD, White, Solid, 18" for Diagonals and Chevrons	LF		\$ 2.36	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 125	Thermoplastic, STD, White, Solid, 24" for Stop Line	LF	74.00	\$ 3.33	\$ 246.42	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 141	Thermoplastic, STD, White, 2-4 Dotted Guideline/6-10 Dotted Extension, 6"	GM		\$ 1,343.80	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 160	Thermoplastic, STD, White, Message or Symbol	EA		\$ 84.79	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 170	Thermoplastic, STD, White, Arrows	EA		\$ 52.40	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 224	Thermoplastic, STD, Yellow, Solid, 18" for Diagonals and Chevrons	LF		\$ 2.32	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 241	Thermoplastic, STD, Yellow, 2-4 Dotted Guideline/6-10 Dotted Extension, 6"	GM		\$ 1,480.74	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 14 125	Thermoplastic, Preformed, White, Solid, 24" for High Emphasis Crosswalk	LF	456.00	\$ 14.82	\$ 6,757.92	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 14 160	Thermoplastic, Preformed, White, Message	EA		\$ 341.29	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 14 170	Thermoplastic, Preformed, White, Arrow	EA		\$ 240.57	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 16 101	Thermoplastic, STD-Other Surfaces, White, Solid, 6"	GM	0.95	\$ 3,763.34	\$ 3,589.43	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 16 102	Thermoplastic, STD-Other Surfaces, White, Solid, 8"	GM		\$ 4,843.63	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 16 131	Thermoplastic, STD-Other Surfaces, White, Skip, 6", 10-30 Skip or 3-9 Lane Drop	GM		\$ 1,225.71	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 16 201	Thermoplastic, STD-Other Surfaces, Yellow, Solid, 6"	GM	0.01	\$ 3,833.83	\$ 29.04	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 16 102	Thermoplastic, STD-Other Surfaces, Yellow, Solid, 8"	GM		\$ 4,843.63	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 17 1	Thermoplastic, Remove Existing Thermoplastic Pavement Markings-Surface to Remain	SF		\$ 0.86	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
Subtotal					\$ 14,506.62		

Signals							
Item Number	Item	Unit	Quantity	Unit Price	Amount	Source	Source Date
0653 1 11	Pedestrian Signal, Furnish & Install Led Countdown, 1 Way	AS		\$ 836.57	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0653 1 12	Pedestrian Signal, Furnish & Install Led Countdown, 2 Ways	AS		\$ 1,112.15	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
Subtotal					\$ -		

Subtotal \$ 943,334.44



Protected Shared-Use Path on SR 94/Kendall Drive from SR 997/Krome Ave./SW 177 Ave. to SW 162 Ave.

Roadway							
Item Number	Item	Unit	Quantity	Unit Price	Amount	Source	Source Date
0104 18	Inlet Protection System	EA		\$ 183.89	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0110 1 1	Clearing & Grubbing	AC	0.00	\$ 10,178.04	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0110 23	Tree Removal	EA	20.00	\$ 1,558.52	\$ 31,170.40	historical-item-averages-market-area-14	From 2021/02/01 to 2022/01/32
0110 4 10	Removal of Existing Concrete	SY	5910.00	\$ 16.41	\$ 96,983.10	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0120 1	Regular Excavation	CY		\$ 4.49	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0120 6	Embankment (Fill)	CY		\$ 14.42	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0160 4	Type B Stabilization (Share-Use Path)	SY	0.00	\$ 0.78	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0160 4	Type B Stabilization (Share-Use Path) Side Street	SY	1396.78	\$ 0.78	\$ 1,089.49	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0285 701	Optional Base Group 01 (Share-Use Path)	SY	0.00	\$ 15.22	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0285 701	Optional Base Group 01 (Share-Use Path) Side Street	SY	1396.78	\$ 15.22	\$ 21,258.96	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0327 70 1	Milling Existing Asphalt Pavement, 2" Avg. Depth (Shoulder for Guardrail)	SY		\$ 2.02	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0334 1 11	Superpave Asphaltic Concrete, Traffic A (Share-Use Path)	TN	0.00	\$ 112.63	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0334 1 11	Superpave Asphaltic Concrete, Traffic A (Share-Use Path) Side Street	TN	0.00	\$ 112.63	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0334 1 53	Superpave Asphaltic Concrete, Traffic C, PG76-22	TN		\$ 123.11	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0337 7 83	Asphalt Concrete Friction Course, Traffic C, FC-12.5, PG 76-22 (Guardrail)	TN	0.00	\$ 148.42	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0400 0 11 1	Concrete Class NS, Gravity Wall Index 400-011 (For Shared-Use Path Thickened Edge)	CY	60.19	\$ 572.68	\$ 34,466.85	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0400 0 11 1	Concrete Class NS, Gravity Wall Index 400-011 (For Sidewalk Gravity Wall)	CY		\$ 572.68	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0515 4 2	Bullet Rail - Double Rail	LF		\$ 45.00	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0520 1 10	Concrete Curb & Gutter, Type F	LF	0.00	\$ 22.41	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0520 2 4	Concrete Curb & Gutter, Type D	LF	0.00	\$ 27.20	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0520 6	Shoulder Buildup - Concrete	LF		\$ 21.15	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0522 1	Concrete Sidewalk and Driveways, 4" Thick	SY		\$ 38.75	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0522 2	Concrete Sidewalk and Driveways, 6" Thick	SY	17.11	\$ 63.19	\$ 1,081.25	historical-item-averages-market-area-14	From 2021/02/01 to 2022/01/32
0527 2	Detectable Warnings	SF	16.00	\$ 27.69	\$ 443.04	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0536 1 1	Guardrail - Roadway, General TL-3	LF	0.00	\$ 22.00	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0570 1 2	Performance Turf, Sod	SY	0.00	\$ 2.49	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
523 1	Patterned Pavement, Vehicular Areas (Green Colored Pavement)	SY	0.00	\$ 117.00	\$ -	historical-item-averages-2020	From 2020/01/01 to 2020/12/31
Subtotal					\$ 164,144.64	\$	22,348.44

Signing and Pavement Markings							
Item Number	Item	Unit	Quantity	Unit Price	Amount	Source	Source Date
0710 11 101	Painted Pavement Markings, STD, White, Solid, 6"	GM	0.00	\$ 805.69	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 102	Painted Pavement Markings, STD, White, Solid for Interchange and Urban Island, 8"	GM		\$ 1,111.13	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 123	Painted Pavement Markings, STD, White, Solid, 12" for Crosswalk	LF	0.00	\$ 0.44	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 124	Painted Pavement Markings, STD, White, Solid, 18" Diagonals or Chevron	LF		\$ 0.94	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 125	Painted Pavement Markings, STD, White, Solid, 24" for Stop Line and Crosswalk	LF	0.00	\$ 0.81	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 131	Painted Pavement Markings, STD, White, Skip, 10-30 or 3-9 Skip, 6" Wide	GM		\$ 347.41	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 141	Painted Pavement Markings, STD, White, 2-4 Dotted Guideline/6-10 Dotted Extension, 6"	GM		\$ 352.04	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 160	Painted Pavement Markings, STD, White, Message or Symbol	EA		\$ 40.51	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 170	Painted Pavement Markings, STD, White, Arrows	EA		\$ 25.11	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 201	Painted Pavement Markings, STD, Yellow, Solid, 6"	GM	0.00	\$ 872.76	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 202	Painted Pavement Markings, STD, Yellow, Solid for Interchange and Urban Island, 8"	GM		\$ 975.50	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 224	Painted Pavement Markings, STD, Yellow, Solid, 18" Diagonals or Chevron	LF		\$ 0.78	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 231	Painted Pavement Markings, STD, Yellow, Skip, 10-30 or 3-9 Skip, 6" Wide	GM		\$ 361.59	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 11 241	Painted Pavement Markings, STD, Yellow, 2-4 Dotted Guideline/6-10 Dotted Extension, 6"	GM		\$ 363.04	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0710 90	Painted Pavement Markings, Final Surface	LS		\$ 16,763.19	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 102	Thermoplastic, STD, White, Solid for Interchange and Urban Island, 8"	GM		\$ 5,632.54	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 123	Thermoplastic, STD, White, Solid, 12" For Crosswalk	LF	0.00	\$ 1.62	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 124	Thermoplastic, STD, White, Solid, 18" for Diagonals and Chevrons	LF		\$ 2.36	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 125	Thermoplastic, STD, White, Solid, 24" for Stop Line	LF	0.00	\$ 3.33	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 141	Thermoplastic, STD, White, 2-4 Dotted Guideline/6-10 Dotted Extension, 6"	GM		\$ 1,343.80	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 160	Thermoplastic, STD, White, Message or Symbol	EA		\$ 84.79	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 170	Thermoplastic, STD, White, Arrows	EA		\$ 52.40	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 224	Thermoplastic, STD, Yellow, Solid, 18" For Diagonals and Chevrons	LF		\$ 2.32	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 11 241	Thermoplastic, STD, Yellow, 2-4 Dotted Guideline/6-10 Dotted Extension, 6"	GM		\$ 1,480.74	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 14 125	Thermoplastic, Preformed, White, Solid, 24" for High Emphasis Crosswalk	LF	0.00	\$ 14.82	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 14 160	Thermoplastic, Preformed, White, Message	EA		\$ 341.29	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 14 170	Thermoplastic, Preformed, White, Arrow	EA		\$ 240.57	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 16 101	Thermoplastic, STD-Other Surfaces, White, Solid, 6"	GM	0.00	\$ 3,763.34	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 16 102	Thermoplastic, STD-Other Surfaces, White, Solid, 8"	GM		\$ 4,843.63	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 16 131	Thermoplastic, STD-Other Surfaces, White, Skip, 6", 10-30 Skip or 3-9 Lane Drop	GM		\$ 1,225.71	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 16 201	Thermoplastic, STD-Other Surfaces, Yellow, Solid, 6"	GM	0.00	\$ 3,833.83	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 16 102	Thermoplastic, STD-Other Surfaces, Yellow, Solid, 8"	GM		\$ 4,843.63	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0711 17 1	Thermoplastic, Remove Existing Thermoplastic Pavement Markings-Surface to Remain	SF		\$ 0.86	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
Subtotal					\$ -		

Signals							
Item Number	Item	Unit	Quantity	Unit Price	Amount	Source	Source Date
0653 1 11	Pedestrian Signal, Furnish & Install Led Countdown, 1 Way	AS		\$ 836.57	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
0653 1 12	Pedestrian Signal, Furnish & Install Led Countdown, 2 Ways	AS		\$ 1,112.15	\$ -	historical-item-averages-market-area-13	From 2021/02/01 to 2022/01/31
Subtotal					\$ -		

Subtotal \$ 164,144.64

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