MIAMI-DADE COUNTY STATE OF TRANSIT

FEBRUARY 2021

Alice N. Bravo, P.E., Director Department of Transportation and Public Works





99 BUS ROUTES

with over 800 buses (90 bus routes operating)

22-MILE exclusive bus TransitWay

25-MILE elevated heavy rail

4.4-MILE

automated people mover



MOBILITY MANAGEMENT AGENCY

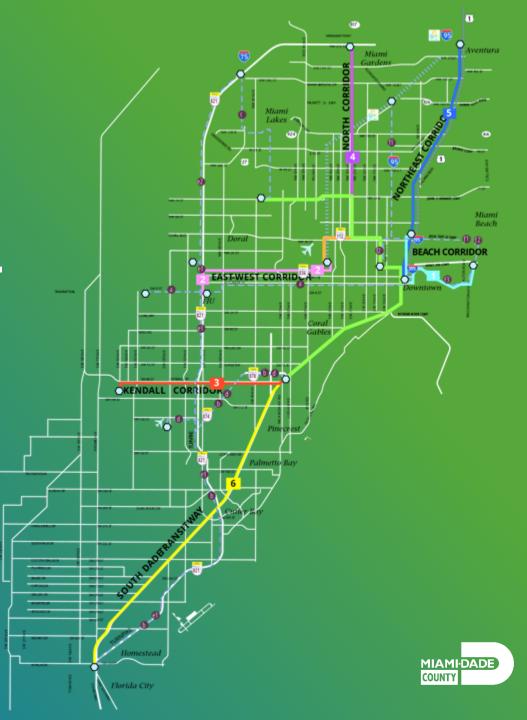




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RAPID TRANSIT CORRIDORS

South Corridor Northeast Corridor North Corridor Kendall Corridor East-West Corridor Beach Corridor



SMART PLAN

The Strategic Miami Area Rapid Transit (SMART) Plan will expand the existing fixed guideway system, comprised of a 25-mile Metrorail and downtown Metromover, with six rapid transit corridors that add over 70 miles of rapid transit network and link major local and regional activity centers. The SMART Plan is funded through a <u>40-year</u> proforma which is pivotal for allowing projects to move forward in parallel. A bold infrastructure program of projects:

- Significantly improves transportation mobility
- Promotes economic growth and job creation
- Increases the region's international competitiveness

TPO's SMART Plan video: https://youtu.be/Sw8xKaHd4XI



SOUTH CORRIDOR



BUS RAPID TRANSIT (BRT)

Chosen as Locally Preferred Alternative by the Transportation Planning Organization (TPO) on August 30, 2018

- Feb. 2020 FTA issues overall "high" rating
- May 2020 FTA awards \$100M
- Sept. 2020 Contract Award
- Feb. 2, 2021 DTPW issues NTP
- Jan. 2023 Anticipated Start of Revenue Service

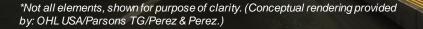


VISION / CRITERIA

- Maximize rider comfort
- Architecturally iconic and memorable
- Branded as a recognizable component of the overall transit system
- Expandable and flexible to meet the needs of potential future transportation systems
- Relate to the neighborhood context through color, graphics and signage



*Not all elements, shown for purpose of clarity. (Conceptual rendering provided by: OHL USA/Parsons TG/Perez & Perez.)



HAMIDADE

OUNT



*Not all elements, shown for purpose of clarity. (Conceptual rendering provided by: OHL USA/Parsons TG/Perez & Perez.)



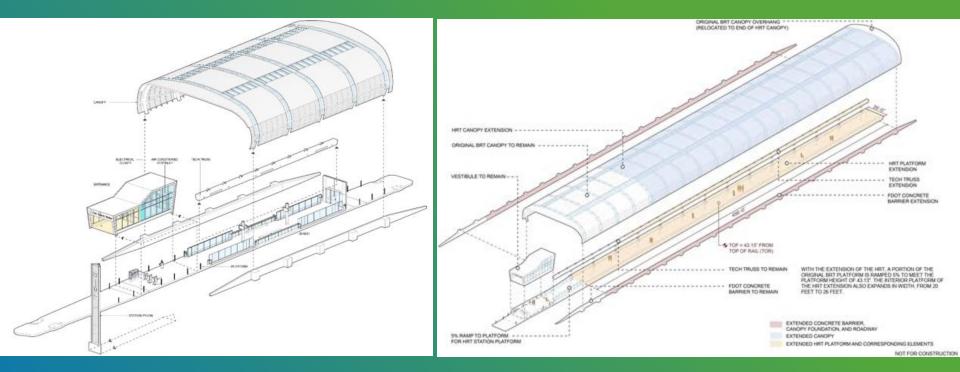
*Not all elements, shown for purpose of clarity. Rendering from Indicative Concept Plans

PROJECT DESCRIPTION

- Provide frequent Local & Limited Stop Service
- 14 BRT Stations with center platforms, rehabilitate remaining 16 existing stations
- Terminal station improvements
 - Dadeland South Metrorail Station
 - SW 344th Street Park and Ride / Bus Terminal Station
- Pavement rehabilitation
- Upgrade 46 signalized intersections (transit signal preemption with gate arms)
- Rehabilitate existing shared-use path



EXPANDABLE AND FLEXIBLE



Bus Rapid Transit (Today)

- Center platform
- Approx. 120' platform
- Metrorail-like performance

Heavy Rail (Future conversion to at-grade Metrorail)

- Extensions of center platform and roof structure
- Approx. 330' platform
- Metrorail performance



*Not all elements, shown for purpose of clarity. (Conceptual renderings provided by: OHL USA/Parsons TG/Perez & Perez.)

SOUTH CORRIDOR TRANSITWAY & SW 168 STREET PARK & RIDE/GARAGE (ADJACENT TO THE SW 168 ST BRT STATION)

Phase of Project: Project is part of the South Corridor DB

Project Description: The project includes the design and construction of a park and ride/garage at SW 168th Street (adjacent to the SW 168th Street BRT Station) to accommodate approximately 670 parking spaces. The park-and-ride/garage includes local bus stops, a kiss and ride area, restroom facilities, bicycle storage facilities and a driver relief station.

Construction Cost: \$35M (FTA/PTP) \$4.5M Federal (Pending \$4.5M additional) Balance PTP

Start Date: NTP to Design Build Firm Feb. 2021

Estimated Completion Date: Revenue service date scheduled for January 2023



SOUTH CORRIDOR - SW 112 AVE PARK AND RIDE

Phase of Project: Design

Project Description:

- Currently 450 parking spaces available at location
- DTPW acquired the property in April 2018
- Project will rehabilitate the existing Park and Ride Lot to include milling & resurfacing, minor widening of the pavement, construction of new sidewalks, upgrades to existing pedestrian ramps and crosswalks, lighting upgrades, installation of passenger shelters and sodding

Construction Cost: \$950,000

Estimated Start Date:

NTP anticipated for December 2021

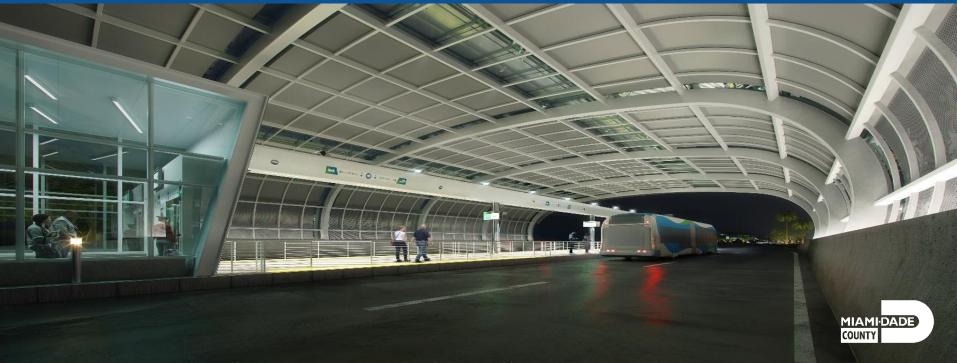
Estimated Completion Date: TBD

• September 2022



KEY BRT BENEFITS RECAP

- Greater operational flexibility and better frequency than rail
- Enable passing capability at each station and implement layered service
- Better frequency adjustable to demand
- Begin operation in 3 to 4 years compared to 8 to 10 years for rail
- Build ridership towards future rail



*Not all elements, shown for purpose of clarity. (Conceptual rendering provided by: OHL USA/Parsons TG/Perez & Perez.)



- Aventura Station will open by 2022
- Commuter Service plan: 30-minute headways in peak / 60minute off-peak
- Currently working with the FTA to determine NEPA Class of Action
- Established framework for negotiations. Tentative agreement regarding access fee and other project elements. Developing agreements.



NORTH CORRIDOR TIMELINE

- ✓ Fall 2018 Identified Recommended Alternative
- December 2018 Miami-Dade TPO Governing Board selected an elevated fixed guideway transit system as the LPA for the North Corridor
- ✓ March 2019 FTA Class of Action Determination (Environmental Assessment)
- ✓ October 2019 HRT selected as the preferred Transit Technology by the Miami-Dade TPO Governing Board
- ✓ March 2020 Optimized concepts and costs presented to Miami-Dade TPO Governing Board
- ✓ June 2020 Release an RFP for the design build operate and maintain service for the North Corridor
- Spring 2021 Proposals due

ELEVATED FIXED GUIDEWAY TRANSIT TECHNOLOGIES



Monorail



Maglev



Automated Guideway Transit



Heavy Rail Transit (HRT)





KENDALL CORRIDOR

STUDY PREPARED BY FDOT. ANTICIPATED LPA SELECTION BY THE TPO IN EARLY 2021.



Bus Rapid Transit (BRT)



Heavy Rail Transit (HRT)



Light Rail Transit (LRT)



BRT with Reversible Lanes

- ✓ Winter 2019 Identified Recommended Alternative
- 1st Quarter 2021 TPO Endorsement of Recommended Alternative
- 1st Quarter 2021 Class of Action Determination
- Winter 2021 Request Entry into FTA Project Development



EAST-WEST CORRIDOR



- The East-West Corridor is a 17mile corridor connecting the Tamiami Park-and-Ride/Transit Terminal station at SW 8th Street and 147th Ave to Miami Intermodal Center (MIC) at Miami International Airport (MIA).
- Phase I of the project will provide BRT service between Tamiami Station and the MIC with center platforms accessible from the SR836 inside shoulders, which are designated for bus-onshoulder operations. Phase II of the project will extend the BRT service to the Mall of Americas and Blue Lagoon area.
- ✓ Oct. 2020 -<u>TPO Adoption of</u> BRT as the Locally <u>Preferred Alternative</u>
- Mar. 2021 FTA Class of Action Determination
- Aug. 2021 FTA Small Starts Application



BEACH CORRIDOR

ELEVATED RUBBER TIRE TECHNOLOGY FOR THE BEACH CORRIDOR TRUNKLINE



- ✓ Mar. 2020 Proposal received
- ✓ Oct. 2020 Board of County Commissioners approved the contract award for the Interim Agreement (IA) for the Beach Corridor Trunk Line. The IA became effective on Oct 31, 2020
- Pre-development activities ongoing and negotiation of the final Project Agreement by end of 2020



2015

No clear path for transit projects FTA suspended electronic draw down of grants due to issues identified in 2010

2020

 Fully developed and viable SMART Plan with projects in various phases of implementation





PARK AND RIDE TRANSIT FACILITIES

Dolphin Park and Ride Station

- 820 parking spaces, 12 bus bays
- Construction cost: \$16.9M
- Launched 836 Express Bus Service March 2020

I-75 Park and Ride Station (FDOT)

Launched 175 Express Bus Service November 2019



TAMIAMI STATION PARK & RIDE/BUS TERMINAL SW CORNER OF SW 8TH ST & SW 147TH AVE

Phase of Project: Contractor Procurement Phase

Project Description: The SR 836 Express Bus Services – Park-and-Ride/Bus Terminal (Tamiami Station) project is located at the Southwest quadrant of SW 8 Street and SW 147 Avenue. This project will serve as a terminus for the planned SR 836 Express Bus Services and existing local bus routes serving western Miami-Dade County. Tamiami Station will also serve as an integral component of the East-West and Flagler corridors and will provide premium transit connections between western portion of Miami-Dade County to the Miami Intermodal Center (MIC) and downtown Miami. Construction Start Date: February 10, 2020

Cost: \$11M (\$6.3M PTP)

Estimated Construction Completion Date: September 2021





PANTHER STATION PARK & RIDE/BUS TERMINAL 11200 SW 8 STREET

Phase of Project: Final Design Phase

Project Description: construction of a new Bus terminal facility integrated into the ground floor pf PG-6 on the FIU Modesto A Maidique Campus, located along SW 8th Street and Between SW 109 Avenue and SW 112th Avenue.

Construction Cost: \$11.5 M (\$6.8M PTP and \$4.7M FTA

Estimated Construction: NTP to the construction firm anticipated for June 2022

Estimated Construction Completion Date: Revenue service date scheduled for September 2023





Motion at Dadeland



Brickell City Centre



TRANSIT ORIENTED DEVELOPMENTS (TODs)

COMPLETE

- Caribbean Village
- Eighth Street Brickell City Centre Metromover Station
- Motion at Dadeland
- 1010 Brickell

IN PROGRESS

- Block 45
- Grove Central
- LINK at Douglas
- Freedom Tower Metromover Station integration into Miami Worldcenter
- Miami Intermodel Center joint development of 21.97 acres adjacent to MIC
- Northside Transit Village
- Okeechobee Metrorail Station mixeduse project
- Park West Metromover Station enhancement of station by Miami Worldcenter developer
- South Miami Metrorail Station student housing and retail
- Southwest 184th Street (Quail Roost Drive) – housing and commercial

- Earlington Heights Metrorail Station -600 workforce housing units and community day care
- Dolphin Station Mixed use development over 40 acres
- Vizcaya Residential Building
- Gables Station Residential Building with Underline amenities and connectivity
- The Collection Retail Building with
 Underline amenities and connectivity



Caribbean Transit Village





METRORAIL STATION IMPROVEMENTS

New elevators

- Additional (2) and refurbishment of existing (4) elevators at the Dadeland North parking garage
- Currently preparing Design Criteria Package; NTP to Design-Build Firm is currently scheduled for February 2021

New escalators

- Replacement of existing escalators at five Metrorail stations
- NTP to Design-Build Firm is currently scheduled for April 2021; estimated completion by April 2025

Government Center Station re-roofing

- Re-roofing and lighting protection, replacement of existing skylights, new roof structures at four (4) existing stair towers & replacement of existing fire suppression system.
- NTP to Design Criteria Professional was issued June 2019



DADELAND SOUTH INTERMODAL METRORAIL STATION

Phase of Project: Preparation of the Design Criteria Package.

Project Description: The project plans to improve and enhance the infrastructure, operations and safety at the Dadeland South Station - the southernmost station of the existing Metrorail system and the northern terminal station of the South Dade TransitWay. Enhancements and improvements include better station safety and operating efficiency; address existing station deficiencies in multimodal connectivity and seamlessly integrate BRT operations with the existing transit services (Metrorail and local bus service). Construction Cost: \$42M (100% PTP)

Estimated Start Date: NTP to the Design-Build Firm scheduled for January 2022

Estimated Completion Date: Revenue Service date scheduled for December 2023





CLEAN, SAFE, RELIABLE AND CONVENIENT SERVICE

Increased cleaning efforts at our Metrorail stations to improve travel experience

- Pressure cleaning
- Heavy cleaning throughout the stations, escalators and elevators
- Weekly inspections
- Installation of pigeon mesh/deterrent
- Refurbishment of original architectural elements, such as fountains at the University and Vizcaya stations
- Better landscape maintenance



DAYTIME CLEANING

100



HOW IT STARTED

HOW IT'S GOING











COVID-19 SAFETY MEASURES

Steps were taken to help protect our transit staff and create a safe space for all by providing Personal Protective Equipment (PPE) to all operators and maintenance personnel at all divisions.



PPE PROVIDED TO EMPLOYEES

- Daily face mask to bus and rail operators (different types)
- Face shields to bus operators (one time)
- Daily gloves to bus and rail operators
- Daily disinfecting wipes to bus and rail operators
- Daily face mask to operations and maintenance staff (or as needed)
- Hand sanitizer to all operators (they're able to refill at the dispatcher's area)



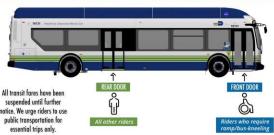
COVID-19 SAFETY MEASURES

The following actions have been taken to ensure the safety of transit operators, employees and riders:

- Suspended fares for all Miami-Dade Transit services, including parking fees.
- Required rear-door boarding on Metrobus vehicles. Accommodations for riders in need of the wheelchair accessible ramp, including the elderly, will continue to be made
- Cabin partitions for operators converted into a full-enclosure shield on all 767 Metrobuses.
- Blocked seats closer to operator's cabins.
- Distributed PPE to transit operators, maintenance and construction employees.
- Increased cleaning schedules for all vehicles, which are also being disinfected several times a day.
- Employees over 65 or with underlying medical conditions were offered to stay at home with pay or work from home.
- Began temperature checks for all employees and visitors at all garages and facilities.
- Purchased additional tables and rented tents for bus maintenance garages to enable social distancing between employees.

Miami-Dade County Department of Transportation and Public Works Mar 30, 2020 · 😪

Metrobus riders, remember to enter and exit via the rear door. Front door boarding is limited to those who need assistance. We appreciate those riders who are staying home to help flatten the curve and using public transit for essential trips only. We're in this together.









PLEXI SHIELDS ON BUSES

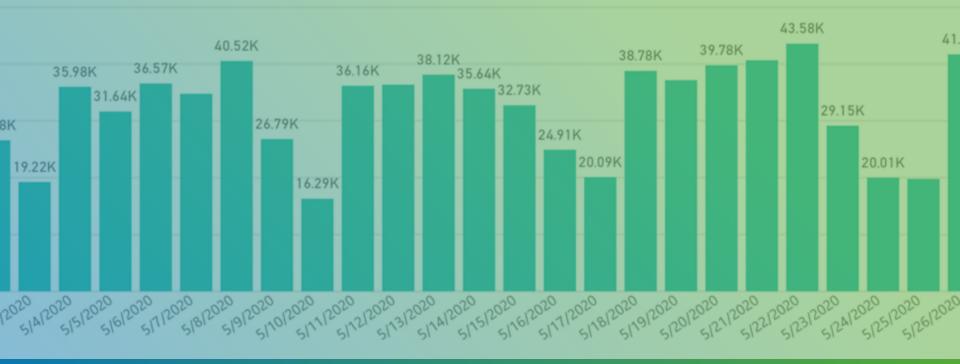




PLEXI SHIELDS ON BUSES







UP-TO-DATE DAILY MONITORING OF TRANSIT RIDERSHIP



ast Refresh:Wed May 27 2020 22:43:24 GMT-0400 (EDT)

earch:

22:42:42

18177

119

| Time | Bus # | Route ID | Run | Apc Count | Direction |
|----------|-------|----------|------|-----------|------------|
| 21:32:00 | 15115 | 108 | 5253 | 1 | NORTHBOUND |
| 22:39:56 | 19247 | 52 | 3193 | 0 | NORTHBOUND |
| 22:41:42 | 16505 | 38 | 3140 | 12 | SOUTHBOUND |
| 22:41:51 | 15105 | 17 | 5107 | 6 | NORTHBOUND |
| 22:41:59 | 4121 | 11 | 3066 | 10 | WESTBOUND |
| 22:42:10 | 19265 | 73 | 3209 | 1 | SOUTHBOUND |
| 22:42:18 | 5169 | 38 | 3143 | 6 | SOUTHBOUND |
| 22:42:18 | 19191 | 119 | 1279 | 0 | NORTHBOUND |
| 22:42:31 | 20170 | 99 | 5228 | 1 | WESTBOUND |
| 22:42:32 | 19109 | 27 | 1051 | 2 | SOUTHBOUND |
| 22:42:33 | 6170 | 19 | 5115 | 5 | NORTHBOUND |
| 22:42:33 | 18219 | 54 | 1143 | 6 | EASTBOUND |
| 22:42:37 | 19187 | 52 | 3191 | 7 | SOUTHBOUND |
| 00.40.40 | 10177 | 110 | 1001 | 7 | |

1281

SOUTHBOUND

REAL-TIME PASSENGER LOADS

Adopted new technologies to monitor passenger loads in realtime

Supplemental Service

- Added over 100 external vehicles
- One of the only transit systems in the country to add supplemental vehicles to support social distancing



BETTER BUS NETWORK

The Better Bus Network Project aims to increase accessibility to more areas of the County and will help passengers get to their destinations faster.

2021 PROJECT TIMELINE

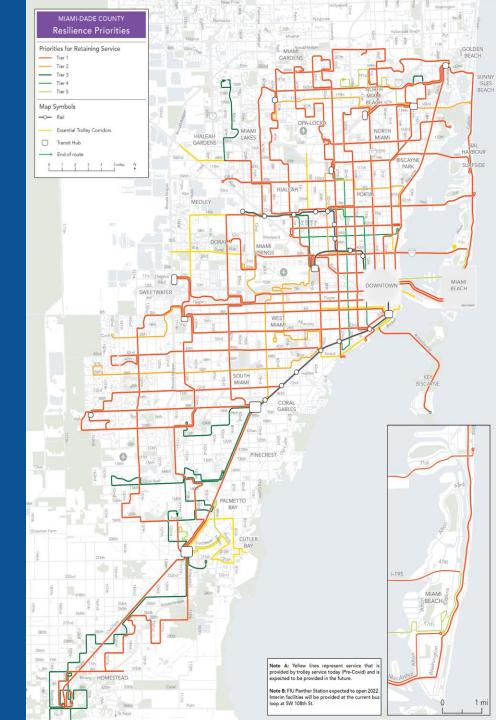
Feb - Consultant kick-off for outreach and service equity analysis

- Mar Community outreach
- Apr Public hearing
- May Final BCC approval

Jun through Oct – Internal preparations:

 Scheduling, operator review, training, communications materials etc.

Nov - Expected implementation





NEW METROBUS FLEET BUS REPLACEMENT PROGRAM

- **550** CNG BUSES // \$525 MILLION OVER 5-YRS **33** (AND UP TO A MAXIMUM OF 75) 40-FOOT ELECTRIC BUSES AND INSTALLATION OF DEPOT CHARGERS AT EACH OF THE 3 GARAGES





NEW METRORAIL FLEET 136 NEW RAILCARS // DELIVERED BY EARLY 2021





METROMOVER COMPREHENSIVE WAYSIDE SYSTEM OVERHAUL PROJECT

Phase of Project: Contractor Procurement Phase

Project description:

- Replacement of fixed block relay-based Train Control
 System with Communication Based Train Control (CBTC)
 CITIFLO650
- Complete replacement of Central Control including Mimic Boards, Displays, Consoles and Workstations
- Retrofit of all the Metromover Vehicles with CBTC
 Equipment
- Replacement of all low-voltage Traction Power Circuit Breakers (600V)
- Replacement of all Switch Logic Control Cabinets (SLCC)
- Overhaul of all Guideway Switches
- Replacement of all Gap Station Transfer Switches
- Replacement of all Guideway Switch Grounding Cabinets
- New Remote Central Control Workstation installed in the Maintenance Facility
- Switches for contra flow flexibility
- New CBTC System would allow for new routes and ondemand service: ex. Express, Shuttle and Failure routes

Estimated Start Date: NTP scheduled for Summer 2021

Cost: \$183.3M





TRANSIT LOVES THE ARTS AND MARKETING PARTNERSHIPS





DTPW developed multiple partnerships with private mobility providers in order to increase transit visibility while providing more options to move around with ease.



IN-APP FEATURES

- Journey Planning •
- **Real-Time Tracking** •
- Mobile Barcode •
- Account Management •
- Transit Watch •
- **Rewards Program** •

CONVENIENCE & FLEXIBILITY

Among the first transit systems in the country to launch open payment as well as rewards programs for riders

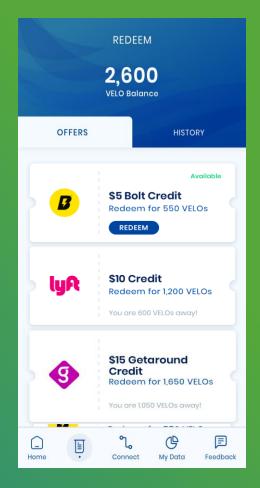


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INTRODUCING MOBILITY REWARDS







Users earn points for riding public transit that can later be redeemed for transportation credits.





OPEN PAYMENT

DEBIT CARD

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Open payment technology allows passengers to easily tap and pay for their journeys.

CREDIT CARP

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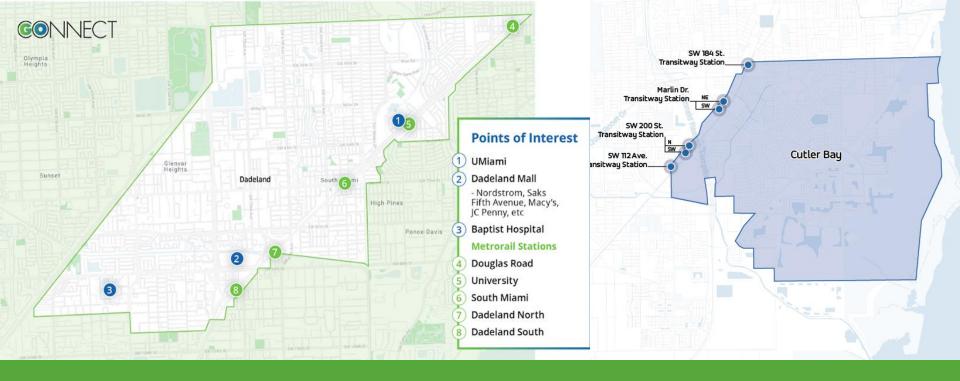
COUNT



GO Connect powered by Via

- Book, track and pay a ride using a smartphone app (Call center option available).
- Integrated ticketing (payment) to allow use of smartphone app to pay ride with credit card, debit card, or prepaid cards, including EASY Card.
- Rides will be free until fare collection is resumed.
- Fare will be in accordance with Miami-Dade Transit Passenger Fare Structure, regular (\$2.25) or discounted (\$1.25).





INITIAL SERVICE AREAS

SERVICE DAYS

- Dadeland and South Miami: 7 days a week
- Town of Cutler Bay: Monday Friday

SERVICE HOURS

Dadeland and South Miami:

- Monday Friday: 6:30 a.m. 7 p.m.
- Saturday: 8 a.m. 8 p.m.
- Sunday: 8 p.m. 5 p.m.

Town of Cutler Bay:

Monday – Friday: 5:30 a.m. - 8 p.m.

FLAT RATES

- Dadeland and South Miami: \$2.25
 Free rides until fare collection is resumed
- Town of Cutler Bay: Free

NEW SERVICE AREAS: Starting February 17, 2021

- Civic Center area
- West Kendall area





GO NIGHTLY

As a result of necessary service changes due to the impacts of COVID-19, DTPW temporarily suspended overnight bus routes in April 2020. The Go Nightly program was immediately implemented to ensure that those transit riders who are using the system between midnight and 5 a.m. are able to continue to rely on Miami-Dade Transit to get where they need to go safely.

GO Nightly has provided more than 50,000 rides.





THE POWER OF ARTIFICIAL INTELLIGENCE

UNLEASH

- Introduced Artificial Intelligence (AI) technology over current CCTV camera system to obtain passenger counts at all Metromover stations immediately after suspending fare collection
- Exploring how to apply same Al technology for monitoring social distancing and face mask adherence



MODERNIZATION OF THE TRAFFIC MANAGEMENT CENTER

Built in 1976, the TCC had seen little change for 40 years. There had been small changes to the furniture, but the TCC remained largely the same since it was first built.









In 2016 the Modernization Project upgraded operations and arterial management throughout the County:

- Increased the operating capacity of the TCC from 6 to 23 traffic engineers
- Provided a significant technology upgrade; including workstations and state-of-the art video wall
- Enabled Engineers to monitor traffic in real time through 125 CCTV cameras deployed at signalized intersections and over 250 Sunguide Cameras
- Allowed for Active Arterial Management strategies to improve traffic along the most congested roads
- Provided for center-to-center coordination and communication (FDOT Sunguide Center and Traffic Control Center) in order to quickly respond to traffic situations and accidents
- Provided a controller testing facility for the development of new traffic signal timing and operations



TRAFFIC SIGNAL MODERNIZATION PROJECT Project objectives:

- Congestion Mitigation and improvement of Travel Time Reliability
- Upgraded legacy equipment at 300 signalized intersections located along 11 strategic congestion management corridors
- Implement Adaptive Signal Control Technology enabling traffic signals to adapt to varying traffic demand in real-time
- Procurement completed for the remaining 2,500 signals
- Implementation of Smart Signals throughout Miami-Dade County to commence Spring of 2021



TIME SAVINGS REALIZED Smart Signals Pilot Project

| NO. | CORRIDOR | % WEEKDAY TRAVEL TIME REDUCTION | |
|-----|---|------------------------------------|----------------|
| | | AM PEAK | PM PEAK |
| 1 | SR 860 (Miami Gardens Dr) - East of I-75 to East of Bob-O-Link Dr | 10 | 5 |
| 2 | US-1 - SR 826 to I-95 | 18 | 18 |
| 3 | Biscayne Blvd from NE 82nd St to I-395 | 9.7 | 17.4 |
| 4 | LeJeune Rd from Tamiami Trail to Bird Rd | 11.2 | 9.9 |
| 5 | SR 826 from NW 2nd Ave to NE 19th Ave | 5.4 | 7.7 |
| 6 | Flagler St from Milam Dairy Road to LeJeune Rd | 9.3 | 4.1 |
| 7 | SW 27th Avenue from Tamiami Trail to S Bayshore Dr | 9.7 | 17.4 |
| 8 | a- SRA1A from 63rd St. to 88th Street – South Bound | 15.2 | 4.8 |
| | b- SRA1A from 63rd St. to 88th Street – North Bound | 12.2 | 33.3 |
| 9 | NW 41st Street from Ronald Reagan Turnpike to Galloway Road | 8.4 | 11.8 |

• Advance Transit Signal Priority (TSP) on Transitway yielded average savings of 15 minutes

- Results are pending for 2 Corridors:
 - Kendall Drive (From Krome Avenue to US-1)
 - and US-1 South (From SW 104th St to Palm Dr)





ROADWAY RESURFACING

- Miami-Dade County currently has approximately 7,700 lane miles of roadways under its maintenance jurisdiction
- · An improved roadway surface facilitates driving conditions and contributes to efficient traffic flow
- Typical roadway resurfacing work also includes adjustment of valve boxes and manholes, upgrading of ADA pedestrian ramps and connectors, and improved pavement markings and signage
- More than 715 linear miles of roadway were resurfaced throughout Miami-Dade County during the last 6 years





REPLACEMENT OF THE TAMIAMI CANAL SWING BRIDGE OVER THE MIAMI RIVER

- Replacement of the existing Swing Bridge for a new bascule bridge. The old bridge was built in 1921 and later moved during the 1940's to the Tamiami Canal.
- As part of this project, the historic structure was relocated and converted into a pedestrian bridge over the Comfort Canal for future generations to enjoy at its new location connecting Fern Isle to PBA Park.
- The new bridge includes a new four traffic lane bascule bridge, roadway drainage improvements and roadway lighting. The project was completed in September 2019.





WATERBORNE TRANSPORTATION

- Ports: From the Hyatt Regency/James L. Knight Center (City of Miami side) to the Bentley Bay Marina (City of Miami Beach side)
- 25-minute headway
- Private enterprise without County or municipal subsidy
- Service will commence with 1 vessel will augment as ridership increases
- · Both locations provide excellent multi-modal connectivity
- · Vessels are air conditioned, have restrooms, offer free Wi-Fi, snack bar, bar and TV





FORD SMART MOBILITY

In partnership with Miami-Dade County, Ford Motor Company launched its first self-driving vehicle business in South Florida in 2018.



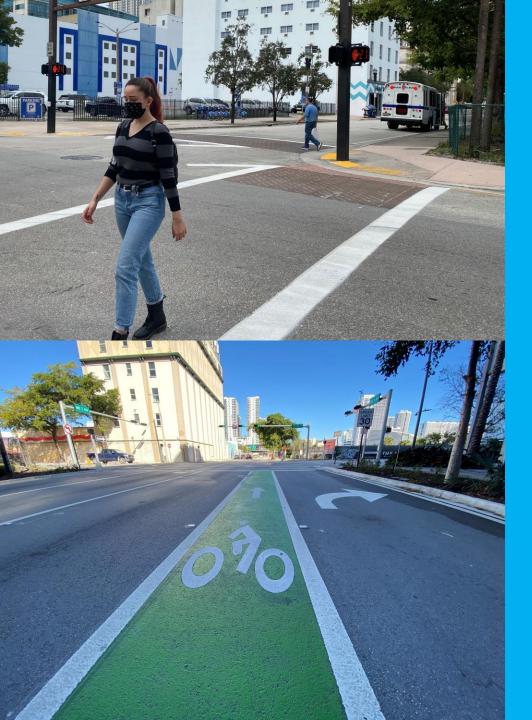


THE UNDERLINE

The Underline will be Miami-Dade County's first true mobility corridor, uniting all modes of transportation and enhancing accessibility to eight Metrorail stations within its path and the neighboring communities.

- The project is a public-private partnership with the nonprofit Friends of The Underline (FUL)
- FUL began the movement and had the concept, and DTPW is designing and implementing using local, state, and federal funds
- Once completed, FUL will maintain and operate The Underline
- The 10-mile multi-modal corridor stretches from the Miami River to the Dadeland South Metrorail station
- The first phase of construction, Brickell Backyard, is expected to open to the public Spring 2021
- The Underline is expected to be completed by 2025





VISION ZERO

A systematic approach to implement safety countermeasures and policies to reduce, and ultimately eliminate fatalities and serious injuries related to mobility in Miami-Dade County.

- Building on the Vision Zero Plan developed by the TPO
- Complete Streets Guidelines
- Peer Exchange
- Bike Lane Network
- Pedestrian Safety



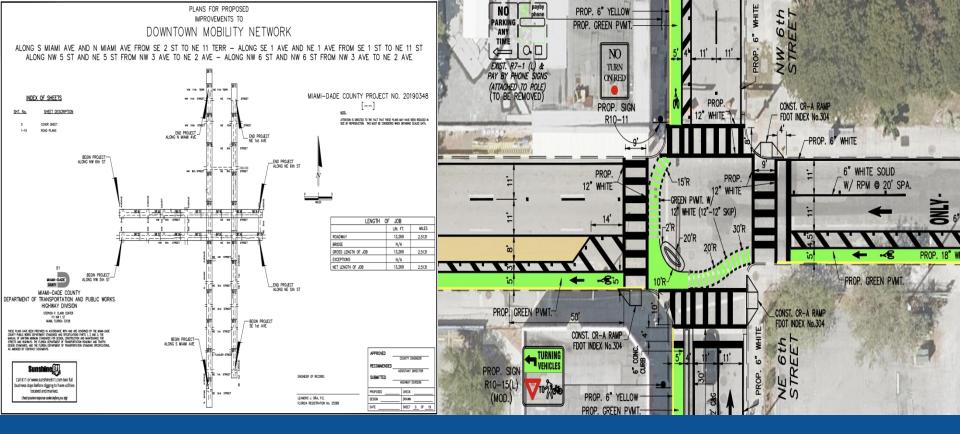


HIGH INJURY NETWORKS AND PRIORITY CORRIDORS IDENTIFIED

The high-injury network identifies intersections and segments where severe or fatal injuries occurred between 2015 and 2019. The crash* score was calculated for people driving separately from people walking and biking, then combined for a total intersection crash score and segment crash score. High injury network uses the crash score distributed into four classifications from high to highest injury locations.

*Crashes involving people driving under the influence are not included in this analysis.

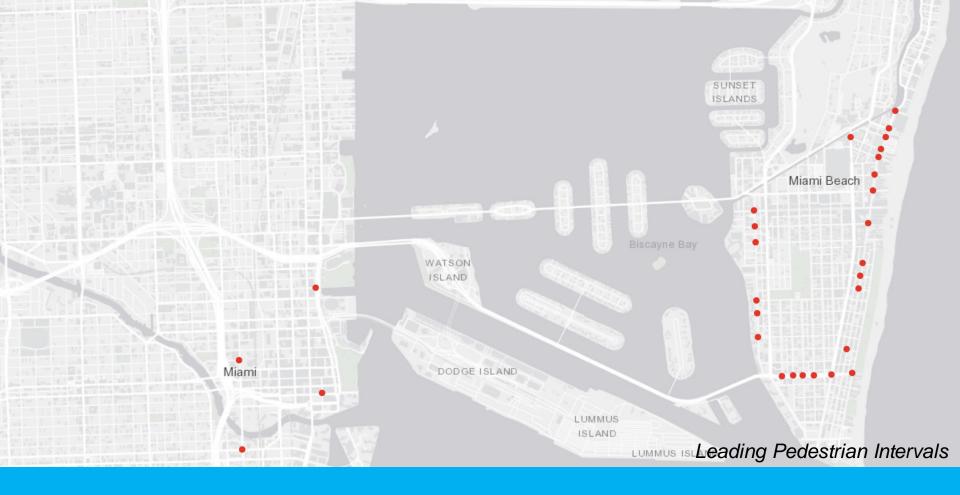




DOWNTOWN MICROMOBILITY NETWORK

- DTPW joined efforts with the City of Miami and the Downtown Development Authority to create a fully connected network of separated and protected bike lanes in Downtown Miami
- SW 1 Street from SW 2 Avenue to Biscayne Boulevard (existing), N Miami Avenue from S 1 Street to N 8 Street, NE 1 Avenue from SE 1 Street to NE 6 Street, NE 5 Street from N Miami Avenue to NE 2 Avenue, and NE 6 Street from N Miami Avenue to NE 2 Avenue





PEDESTRIAN PRIORITIZATION AT SIGNALS

DTPW has implemented *Leading Pedestrian Intervals (LPIs)* and exclusive pedestrian phases at certain locations with high pedestrian volumes. Our team will continue to build on this strong foundation to improve pedestrian safety throughout Miami-Dade County.





PEDESTRIAN PRIORITIZATION AT SIGNALS

DTPW has implemented *Exclusive Pedestrian Phase on recall on more than* 300 signals within the urban areas of Miami-Dade County. Some examples include areas in Miami Beach and Downtown Miami.





PEDESTRIAN PRIORITIZATION AT SIGNALS

The department just recently reinstated the concept of *"scramble crosswalks."* A marked diagonal crosswalk or scramble crosswalk encourages diagonal pedestrian crossings through the intersection. This allows pedestrians to cross in one diagonal phase rather than in two perpendicular phases.

COUNT

TURNKEY DELIVERY OF A FULLY INTEGRATED SUITE OF STREETLIGHTS, NETWORKS, SENSORS, AND DATA/ANALYTIC PLATFORMS WILL CREATE THE FIRST TRUE SMART COUNTY IN THE WORLD

- Smart, connected outdoor LED street lighting system for enhanced public safety and operational savings
- 5G and fiber optic infrastructure network along all priority transit and congestion corridors with virtually unlimited capacity for Smart County expansion
- State-of-the-art smart mobility platform, 4K video cameras, and IoT sensors for real-time situational awareness, monitoring, and centralized control of all smart assets
- Iconic architectural lighting for Rickenbacker Causeway and SPCC 3D video mapping and image projection for a significant night presence
- Holistic solution will diminish the digital divide while vastly enhancing quality of life, economic prosperity, and environmental stewardship
- Cost-neutral funding model empowers DTPW to transform mobility and interconnect communities, businesses, citizens, and visitors Countywide

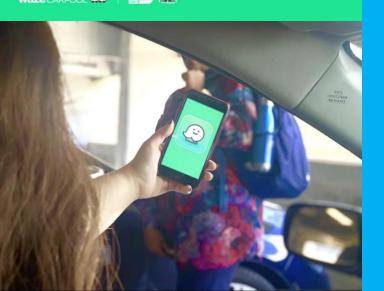
Miami-Dade will become one of the world's most desirable, safest, and best managed Smart Counties to live, work, and play in





Miamians who carpool together, beat football traffic together





APP-BASED CARPOOL

Carpooling applications simplify commute by connecting a community of people looking to carpool. Both drivers and riders can plan their schedule and connect with people in real-time right from their phone.

No blind matching. The app shows who's available to carpool for a given commute. The best matches, those closest to your route, will appear at the top of the list. YOU CHOOSE the person you want to carpool with based on detailed profiles, star ratings, and connections like same workplace and mutual friends, as well as price and distance off route.

Partnership. The Department of Transportation and Public Works, Waze Carpool and the South Florida Commuter Services joined efforts to promote Carpool in Miami-Dade County. Target areas included access to Metrorail Stations, Downtown Area and other large employment centers.





THANK YOU

