

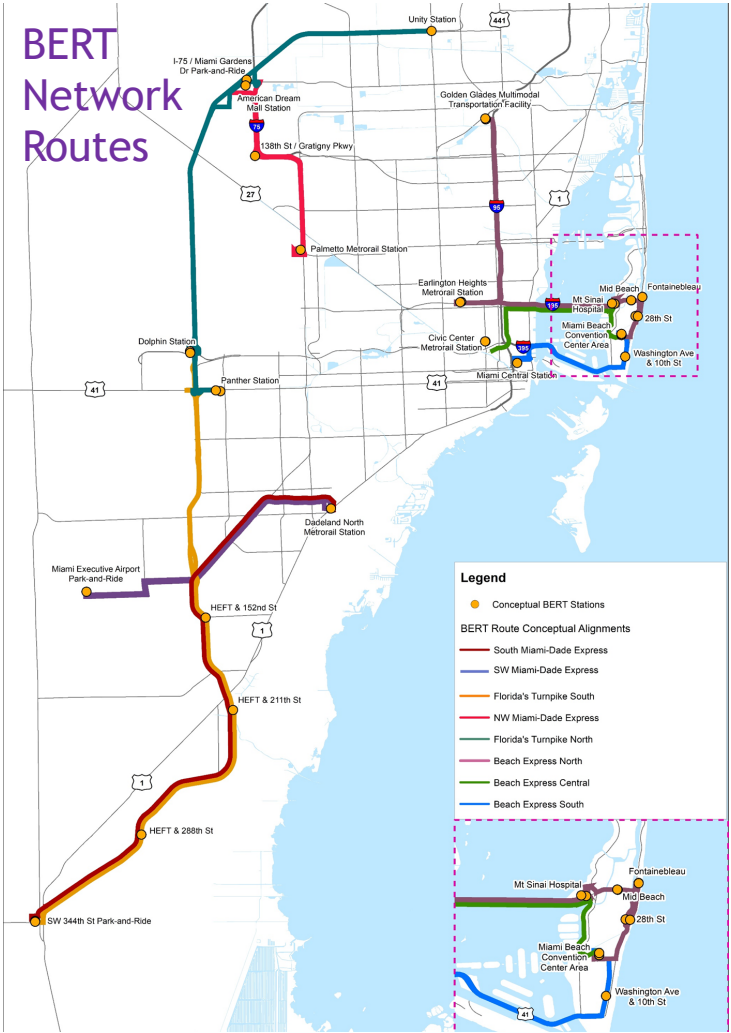
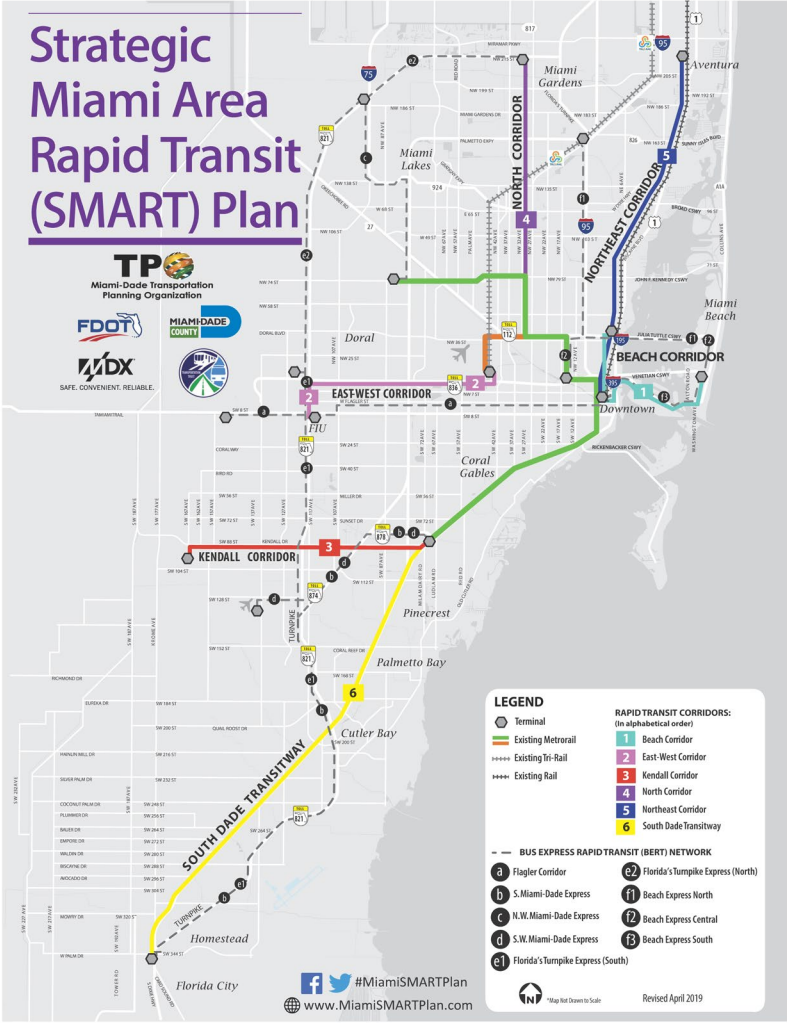
Miami-Dade County SMART Plan

Bus Express Rapid Transit (BERT) Network

Implementation Plan

Miami-Dade County Department of Transportation and Public Works
Status Update
May 12, 2020

SMART Plan



Bus Express Rapid Transit System

BERT Network

- Express bus on freeways and express lanes
 - Extends SMART corridors
 - Planned using mostly existing infrastructure and ROW, limited infrastructure improvements

Route	Name	Start/End	Interim Stop	Proposed Facility
B	S Miami-Dade Express	344 St. Busway Station –Dadeland North Metrorail Station	HEFT/288th St. Park-and-Ride, HEFT/211th St., HEFT/SW 152nd St.	FTP Express Lanes
C	NW Miami-Dade Express	Palmetto Metrorail Station - I-75/Miami Gardens Dr Park-and-Ride	American Dream Station	I-75 & SR 826 Express Lanes
D	SW Miami-Dade Express	Miami Executive Airport Park-and-Ride - Dadeland North Metrorail Station	-	SR 874, SR 878
E1	Florida Turnpike (South)	344 St. Transitway Station - Dolphin Station	Panther Station	FTP Express Lanes
E2	Florida Turnpike (North)	Panther Station – Unity Station	I-75/Miami Gardens Dr. Park-and-Ride, American Dream Station	FTP Express Lanes
F1	Beach Express North	Golden Glades Intermodal Terminal - Miami Beach Convention Center	Earlington Heights Metrorail Station and Mt. Sinai Terminal	I-95 Express Lanes, I-195 shoulder
F2	Beach Express Central	Civic Center - Miami Beach Convention Center Terminal	Mt. Sinai Terminal	I-195 shoulder
F3	Beach Express South	Miami Central - Miami Beach Convention Center Terminal	-	I-395/ MacArthur Causeway

BERT Route Estimated Implementation

Route	Name	Estimated Implementation Year	Assumptions
B	S Miami-Dade Express	2020	Completion of HEFT Managed Lanes SW 184th St to SW 104th St Spring 2020
C	NW Miami-Dade Express	November 18, 2019	-
D	SW Miami-Dade Express	2023	Assumes terminal can be completed by 2023
E1	Florida Turnpike (South)	2021	Completion of HEFT Managed Lanes SW 40th St to SR 836 Spring 2021; interim FIU Panther stop anticipated completion in 2022
E2	Florida Turnpike (North)	TBD	HEFT Managed Lanes north of SR 836 currently in bid review; prior estimate 2027
F1	Beach Express North	2023*	Completion of the I-195 inside shoulder construction (FDOT) delayed due to I-395
F2	Beach Express Central	2023	Completion of I-195 inside shoulder construction (FDOT) delayed due to I-395; also assumes terminal activity can be accommodated in Civic Center
F3	Beach Express South	2023	Assumes terminal activity can be accommodated in Convention Center area

**Interim service is proposed for the Beach Express North Route, projected to start in early 2021.*

BERT Implementation Analysis - Progress

	Beach North (f1)	BERT Network
– Market analysis	✓	✓
– Travel times	✓	✓
– Ridership estimates	✓	✓
– Service plan refinement	✓	✓
– Community coordination	→	→
– Terminal operations	✓	→
– Engineering and Traffic analysis	✓	→
– Environmental analysis	✓	→
– Vehicle needs	✓	✓
– Cost estimates	✓	✓

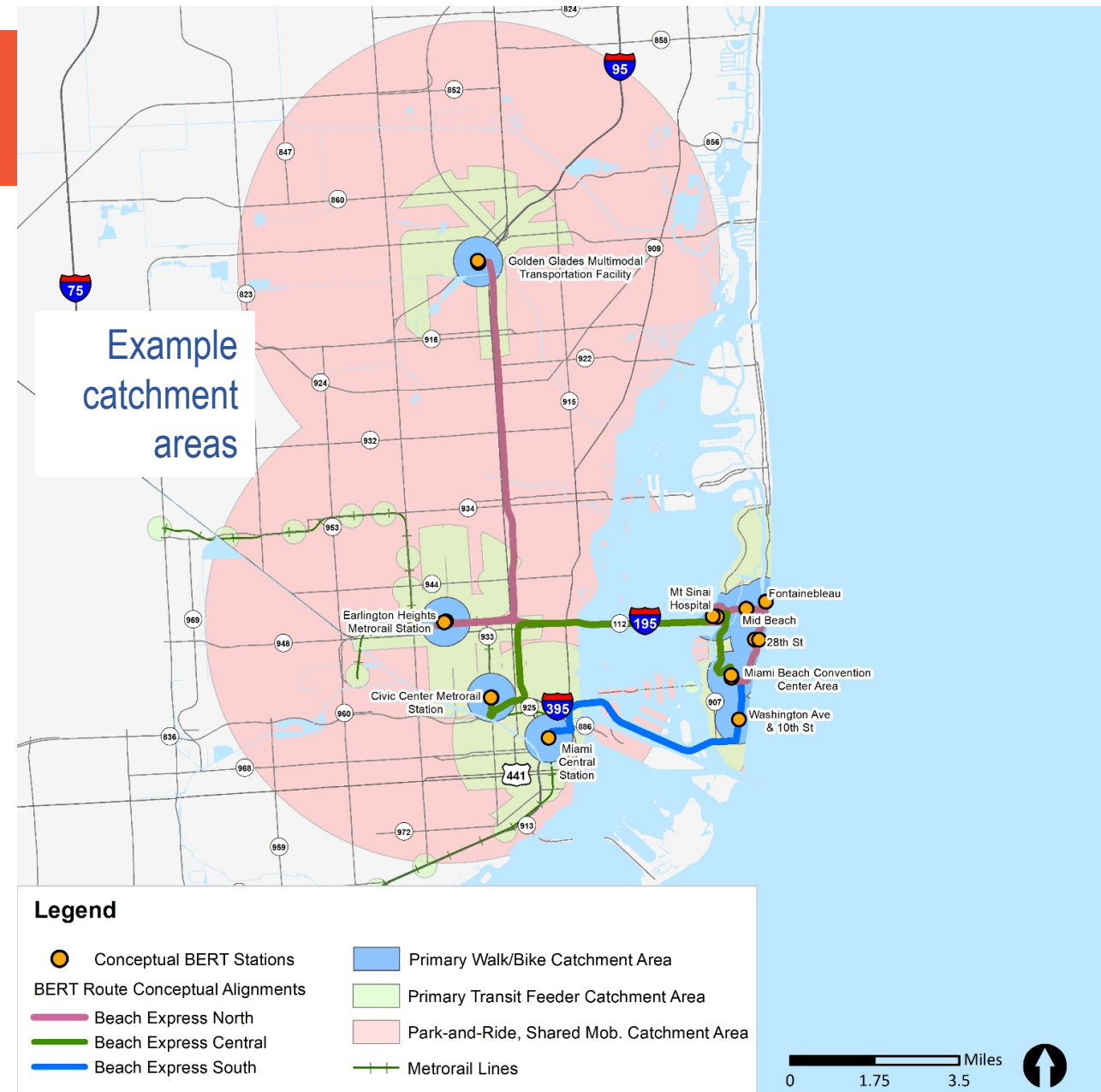
KEY

- ✓ Completed
- Ongoing

Market Analysis

- Socioeconomic profile
 - Demographics
 - Transit propensity
- Commute Patterns
 - LEHD (Census)
- Transit Propensity
 - Findings

High	Route f1- Beach Express North Route f3 - Beach Express South
Moderate	Route f2- Beach Express Central Route b - South Miami-Dade Express Route e1- Florida's Turnpike South
Low	Route d - Southwest Miami-Dade Express Route c - Northwest Miami-Dade Express Route e2 - Florida's Turnpike North

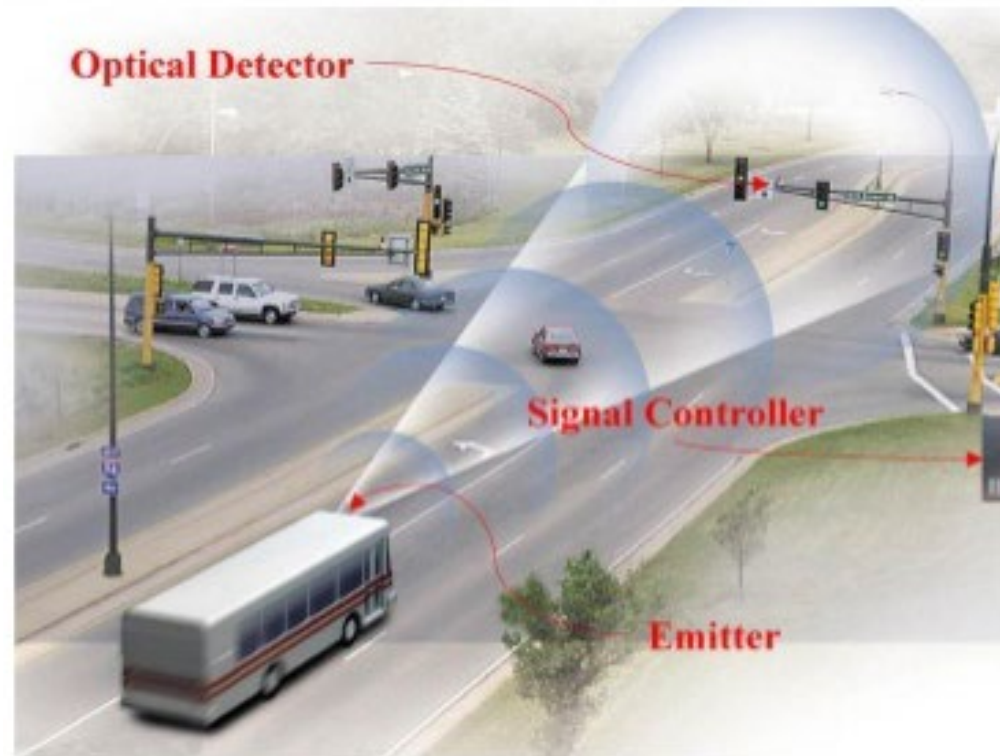


Traffic Signal Recommendations

Route	Intersection	Recommendation
South Miami Dade Express	<ul style="list-style-type: none"> HEFT @ 117th and 152nd Avenues 	Early green/green extension
Beach Express North <i>(same signal recommendations for Beach Express Central for City of Miami Beach)</i>	<ul style="list-style-type: none"> Old Alton Rd @ 41 Street 41 Street @ Indian Creek Dr Collins Ave @ Lincoln Rd. 	Early green/green extension Early green/green extension Early green/green extension
SW Miami Dade Express	<ul style="list-style-type: none"> SW 137th Avenue @ SW 128th Street 	Early green/green extension
Northwest Miami Dade Express	<ul style="list-style-type: none"> SR 826 @ NW 74 street On/Off ramps NW 77 Ct. @ NW 74 Street 	Signal phase insertion for transit use Early green/green extension
Turnpike Express South	<ul style="list-style-type: none"> HEFT @ SW 8th Street ramps Snapper Creek Rd. @ SW 8th Street SW 8th Street @ SW 109 and SW 112 Ave 	Early green/green extension Early green/green extension Early green/green extension
Turnpike Express North	<ul style="list-style-type: none"> HEFT @ NW 27th Avenue ramps 	Early green/green extension
Beach Express Central	<ul style="list-style-type: none"> NW 12th Avenue @ NW 14 and NW 12 St 	Early green/green extension
Beach Express South	<ul style="list-style-type: none"> Biscayne Blvd. @ NE 8th, 9th, 10th, 13 St and 11 Terrace TSP at each Miami Beach signalized intersection 	Early green/green extension

Traffic Signal Improvements- Early Green/Green Extension

Early Green/Green extension is a form of Transit Signal Priority. This phase is only activated by a transit vehicle, it is not a pre-programmed signal phase.



Kamila Widulinski and Matthew Lapointe (2013)

- Green extension
Early Green
- (a) An onboard priority request generator
TSP request is sent when:
1) on-route,
2) doors are closed, and
3) >30 seconds late.
- (b) A detection system that receives the priority request and informs the traffic controller

(c) A priority control strategy at the signal controller determines whether to grant a TSP phase, which TSP phase should be granted, and when the TSP phase should start and end

Traffic Signal Recommendations



**Beach Express North
Transit Signal Priority**

Early Green/Green
extension activated by bus.

Beach Express North – Interim Service Update

- DTPW has been in coordination with the City of Miami Beach, the City of Miami, FDOT and FHWA to implement interim service for Route F1, prior to the official launch of the service in 2023.
- Interim service for Route F1 is contingent on the following:
 - DTPW will prepare the Concept of Operations to justify the use of shoulders with FHWA,
 - FDOT will prepare the outside shoulder for safe bus operations,
 - DTPW must conduct outreach with the cyclists to notify them of the reserved use of the outside shoulder for transit operations,
 - DTPW will provide buses for the interim service,
 - DTPW will work with the City of Miami Beach to confirm the interim route for the service
 - Funding for the O&M costs for the interim service is still pending.

Service is anticipated to begin in early 2021, or upon completion of the above items.

For more information

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