MIAMI-DADE

SMART PLAN

DEMONSTRATION PROGRAM

EVALUATION CRITERIA & MONITORING

EXECUTIVE SUMMARY

Background

The SMART Demonstration Program seeks to advance elements of the SMART Plan through demonstration projects conceptualized by project-sponsors such as municipal governments and transit agencies. This program was authorized by TPO Board Resolution #29-18, endorsing the SMART Plan Demonstration Projects and approving identified funding framework to advance said Demonstration Projects for inclusion in the 2020-2024 TPO Program Priorities. Project types include new transit service, new stations, and transit facilities. Projects considered for this program are pilots with a duration of up to three years, and a commitment to continue the project if deemed successful by the project sponsor.

The purpose of the SMART Demonstration Program Evaluation Criteria & Monitoring Study is to **establish common criteria to monitor, evaluate, and assess the success** of the projects which compose the SMART Demonstration Program.

To achieve this goal, the study team set out to evaluate best practices at the local, state, and national levels. Based on this research, the team developed an evaluation process which includes both qualitative and quantitative aspects of a projects contributions to the transit environment. A monitoring program was developed to evaluate the success of implemented SMART Demonstration projects, and test evaluations were performed for each type of project currently in operation, including On-Demand Responsive services, Fixed Routes, and Park-and-Ride Stations . This study documents that process.

Study Advisory Group

Invitations to join the Study Advisory Group (SAG) were extended to representatives from all SMART Demonstration projects, including project sponsors and operators. Representatives include state funding partners and transit operators from regional, county, and local municipalities. The SAG met three times throughout the development of this study to review the progress of work and provide feedback. One-on-one interviews were also held with key individuals including Department of Transportation and Public Works (DTPW), municipal representatives, and on-demand service providers.

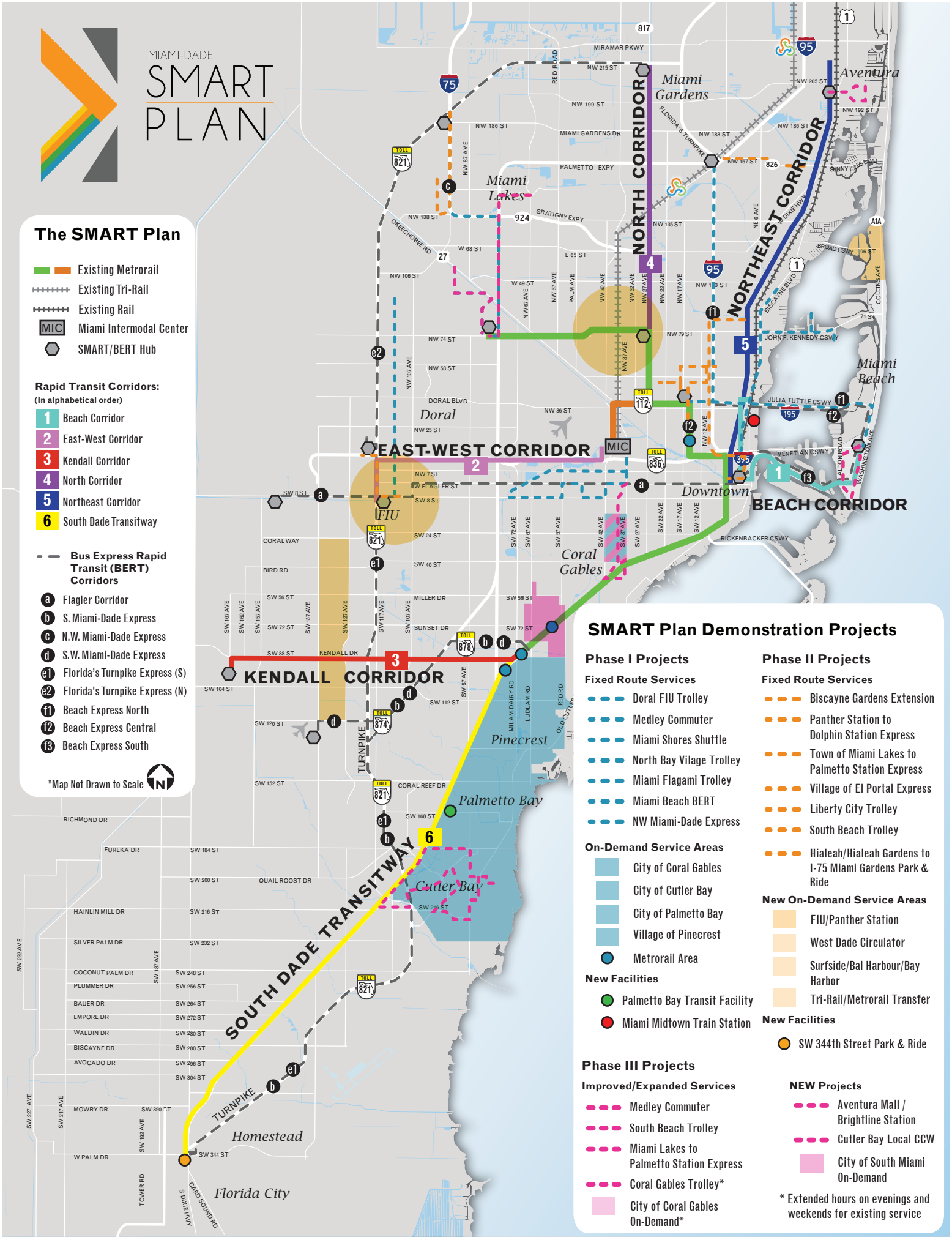
Approved Projects

Numerous SMART Demonstration projects have already been advanced in the first two phases of the program. Projects which were in service during 2019 were able to provide more than half a million trips during the calendar year. Approved projects and their planned opening dates are listed in the table below.

Phase I Projects (Approved 2018)	***Opening***
City of Miami Flagami Trolley	July 2018
Doral FIU Trolley	Sept. 2018
Coral Gables Flex Service	Jan. 2019
Pinecrest Transitway Circulator	Jan. 2019
N. Bay Village SMART Feeder Route	July 2019
Palmetto Bay Transit Service	July 2019
Palmetto Bay Transit Facility	July 2019
Medley Central Commuter Route	Winter 2020
Cutler Bay Express Service	Fall 2020
Metrorail Station Areas On-Demand Service (Civic Center, South Miami, Dadeland North & South)	Fall 2020
NE Corridor Demonstration Station (Capital Funding)	FY 2022
NE Corridor Demonstration Train Service	FY 2023

Phase II Projects (Approved 2019)	***Opening***
City of Miami Beach South Beach Trolley	Jan. 2018, Adjusted 2019
City of Miami Liberty City Trolley	Aug. 2019
Biscayne Gardens Transit Extension	Fall 2020
Tri-Rail/Metrorail Transfer Station On-Demand Service	Spring 2021
West Dade Circulator On-Demand Service	Winter 2020
SW 344th Park and Ride Station (Construction)	TBD
Panther Station to Dolphin Station Express Service	TBD
Miami Lakes Express to Palmetto Metrorail Station	Fall 2020
Surfside/Bal Harbour/Bay Harbor On-Demand Service	Winter 2020
Village of El Portal Express Service	January 2021
FIU/Panther Station On-Demand Service	Sept. 2020
City of Hialeah/Hialeah Gardens to I-75 Miami Gardens Park -and-Ride	Spring 2021
West Miami On-Demand Service	Aug. 2020

Phase III Projects have been adopted by the TPO Governing Board on June 23, 2020, but at the time of completion of this report, are being coordinated for implementation with funding agencies.


MIAMI-DADE
SMART PLAN
The SMART Plan
Existing Metrorail
Existing Tri-Rail
Existing Rail
MIC Miami Intermodal Center
SMART/BERT Hub
Rapid Transit Corridors:
(In alphabetical order)
1 Beach Corridor
2 East-West Corridor
3 Kendall Corridor
4 North Corridor
5 Northeast Corridor
6 South Dade Transitway
Bus Express Rapid Transit (BERT) Corridors
a Flagler Corridor
b S. Miami-Dade Express
c N.W. Miami-Dade Express
d S.W. Miami-Dade Express
e1 Florida's Turnpike Express (S)
e2 Florida's Turnpike Express (N)
f1 Beach Express North
f2 Beach Express Central
f3 Beach Express South
*Map Not Drawn to Scale
NORTH CORRIDOR
NORTHEAST CORRIDOR
EAST-WEST CORRIDOR
KENDALL CORRIDOR
BEACH CORRIDOR
SOUTH DADE TRANSITWAY
Miami Gardens
Miami Lakes
Aventura
Doral
FIU
Downtown
Miami Beach
Coral Gables
Pinecrest
Palmetto Bay
Cutler Bay
Homestead
Florida City
SMART Plan Demonstration Projects
Phase I Projects
Fixed Route Services
Doral FIU Trolley
Medley Commuter
Miami Shores Shuttle
North Bay Vilage Trolley
Miami Flagami Trolley
Miami Beach BERT
NW Miami-Dade Express
On-Demand Service Areas
City of Coral Gables
City of Cutler Bay
City of Palmetto Bay
Village of Pinecrest
Metrorail Area
New Facilities
Palmetto Bay Transit Facility
Miami Midtown Train Station
Phase II Projects
Fixed Route Services
Biscayne Gardens Extension
Panther Station to Dolphin Station Express
Town of Miami Lakes to Palmetto Station Express
Village of El Portal Express
Liberty City Trolley
South Beach Trolley
Hialeah/Hialeah Gardens to I-75 Miami Gardens Park & Ride
New On-Demand Service Areas
FIU/Panther Station
West Dade Circulator
Surfside/Bal Harbour/Bay Harbor
Tri-Rail/Metrorail Transfer
New Facilities
SW 344th Street Park & Ride
Phase III Projects
Improved/Expanded Services
Medley Commuter
South Beach Trolley
Miami Lakes to Palmetto Station Express
Coral Gables Trolley*
City of Coral Gables On-Demand*
NEW Projects
Aventura Mall / Brightline Station
Cutler Bay Local CCW
City of South Miami On-Demand
* Extended hours on evenings and weekends for existing service

Structure of the Performance Framework

The Performance Framework establishes a method of evaluation which assists transit agencies in monitoring projects and determining what measures should be used to determine if a project is successful, or if a service needs to be revised to better capture the needs of the community. The performance framework was based on an extensive review of literature from international, federal, state and local sources which include research reports, guidelines, manuals, best practices guidebooks, and conference presentations. Examples of evaluation criteria used by other localities across the country were also studied to provide a robust perspective on the state of the industry.

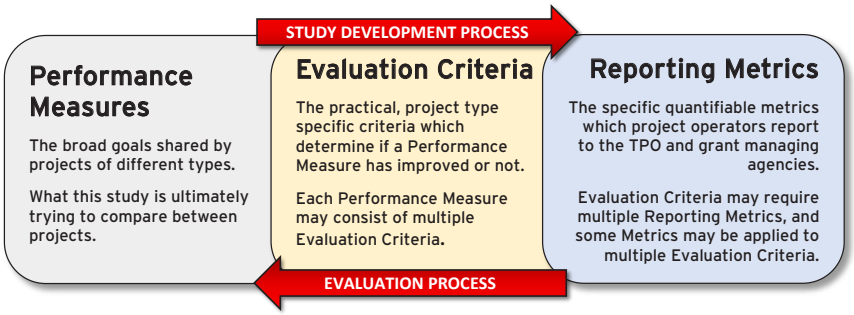
To evaluate the program of projects included in the SMART Demonstration Program, they were first categorized as service or facility projects. Transit service projects include Fixed Route Service or On-Demand Responsive Service. Transit facility projects include two sub-categories, with some projects fitting both: Rapid Transit Stations, and Park-and-Ride Facilities.

Challenge: How to compare projects which **address similar problems** in **different ways**

All of the SMART Demonstration Projects aim to enhance the core goals of the SMART Plan: to "increase regional mobility, reduce congestion, and consider the transportation needs of all residents". However different areas within the county have different gaps in their transportation network which need to be filled in unique ways to meet these goals, making it difficult to compare them against one another for the purpose of determining funding from the SMART Demonstration Program.

The solution to this challenge is to evaluate projects through both **qualitative and quantitative lenses**.

To achieve this balance, a Performance Framework was developed using **Performance Measures** based on the goals of the SMART Plan, which were characteristically qualitative. These were associated with quantifiable **Evaluation Criteria** which represent the factors that determine if the Performance Measure was met or not. Specific **Reporting Metrics** were selected for the most accurate measurement of these criteria with the data available from project sponsors and operators. Thresholds for success were established for each Evaluation Criteria based on the transit environment in Miami-Dade.



Performance Measures

Performance Measures were selected to satisfy the goals of the SMART Plan for "a comprehensive mobility network that increases regional mobility, reduces congestion, and considers the transportation needs of all residents within the County"

Commuter Experience was selected to ensure that transit decisions aimed at reducing congestion are considering the transportation needs of all residents during peak periods, not exclusively the transit users.

Rider Satisfaction was selected to address the experience of transit riders themselves.

Return on Transit Investment was selected because the more efficiently transit service can be delivered, the more money is available to increase regional mobility with other transit services.

Connection to SMART Corridors and the BERT Network was selected as a prerequisite because these corridors represent the greatest need for congestion mitigation and enhanced regional mobility.

Convenience was selected to attract choice riders, which reduces congestion through mode-shift to transit.

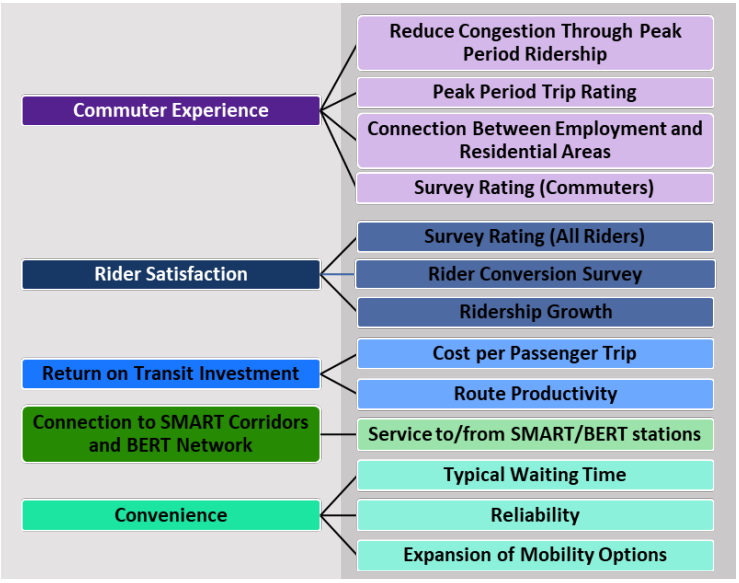
Amenities for transit facilities were also selected to attract choice riders, and satisfy typical needs of all transit users.

Facility Demand & Use was selected to indicate if a facility is right-sized for the location and need.

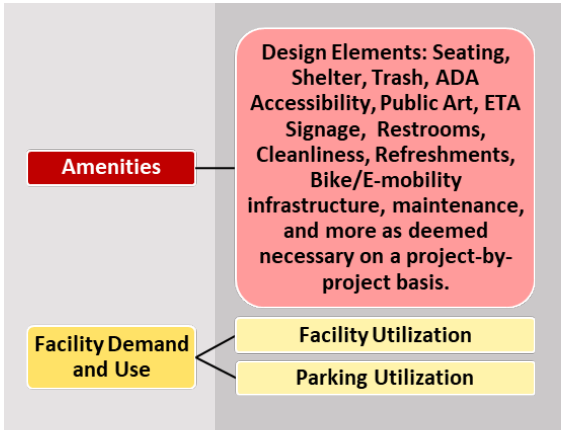
Evaluation Criteria

Each Performance Measure was individually analyzed to determine the best criteria for their success. Based on the literature review and careful consideration of the local transit environment, the following relationships were established:

Transit Services



Transit Facilities



Recommendations

It is recommended that performance evaluations take place on a quarterly basis to assist the TPO and operating agencies to monitor projects and adjust supply to meet the changing demands of the project, may that be additional vehicles, additional service hours, or additional amenities for stations or facilities. While the purpose of these evaluations is to have up-to-date information on the performance of demonstration projects, it also assists agencies with decisions to continue funding of feasible projects. It is recommended that a phased approach be used to roll-out these evaluations. The first phase should consist of three Performance Measures and their seven associated Evaluation Criteria:

Rider Satisfaction, Return on Transit Investment, and Facility Demand and Use.

Additionally, it is recommended that projects which apply for funding as a part of the SMART Demonstration Program coordinate with the TPO to include their project information in the list of program priorities, state their project goals and objectives and how they correlate with the Performance Framework, and commit to collecting all data recommended in the Performance Framework through APC devices for fixed-routes, robust automated data reporting for on-demand transit services, and measured parking utilization for park-and-ride facilities.

Conclusions

No established off-the-shelf analytical framework could be applied to SMART Demonstration Program, so a customized framework for technical evaluation targeted at supporting the goals of the SMART Plan was developed. Funding for these projects is provided through federal, state, and local sources, and the program of projects is prioritized annually in the TPO's List of Program Priorities. The next step towards implementation is working with FDOT within the current process for transit project applications and the TPO's List of Program Priorities to incorporate the recommendations of this study into the project implementation process. Based on the recommendations provided in this study, the TPO will continue providing guidance to implementing agencies on the best way to monitor the performance of these projects so that they can be continually improved in response to changing transportation market demands.


TPO
Miami-Dade Transportation
Planning Organization