

Background and Purpose

Several municipalities have developed Municipal Transit Programs (MTPs) to provide more localized transit services to their residents made possible in large part by the proceeds from the Charter County Transit System Sales Surtax passed by voters in 2002. As additional municipalities are designing and implementing MTPs, there is a need to provide unified guidance and increase local transit planning capacity to achieve the ultimate goal of an integrated countywide system.

The *Guidelines for Municipal Transit Programs in Miami-Dade County* was developed by the Miami-Dade Metropolitan Planning Organization (MPO) in coordination with Miami-Dade Transit (MDT) and other partner agencies. **The objective of the guidelines is to provide the basic service and design guidelines for the MTPs in Miami-Dade County to facilitate safe, secure, reliable, attractive, efficient, and integrated services.**

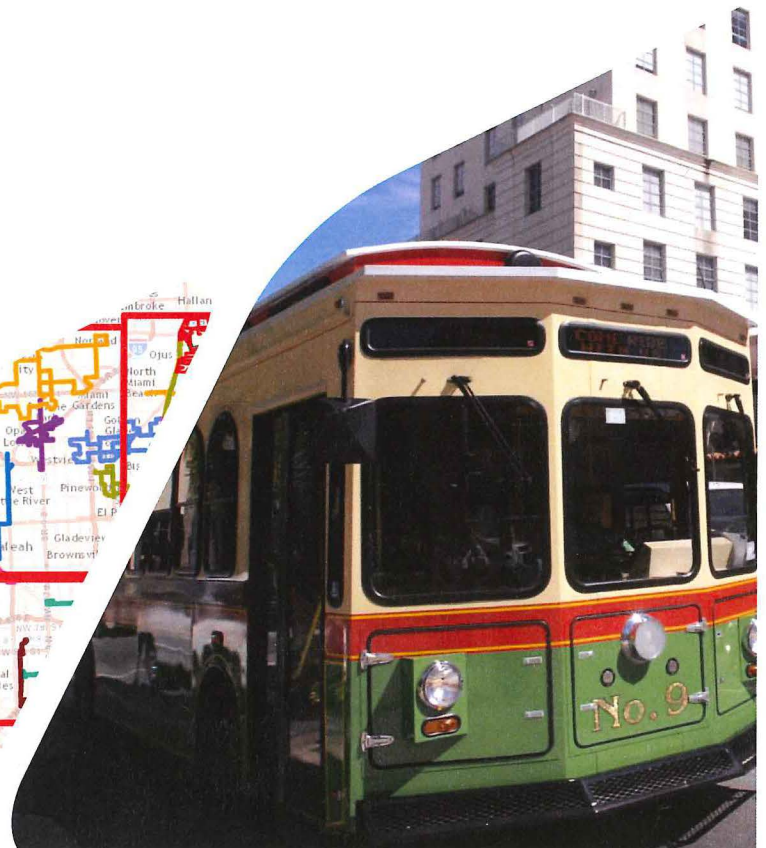
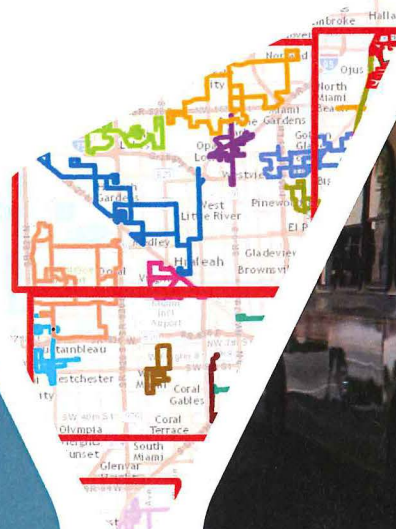
There are three purposes to the guidelines:

1. Identify and promote best practices
2. Provide tools and framework for more integration with MDT services to better serve community needs
3. Assist Citizens' Independent Transportation Trust (CITT) and local jurisdictions with knowledge dissemination

The guidelines identify best practices of the MTPs by analyzing the existing systems, developing performance measures, and generating recommended thresholds for the performance measures. The existing MTPs were evaluated through an extensive data collection effort that included an online survey and research of publicly available data, and is summarized within the guidelines. Using the collected data, performance measures were identified and thresholds were established to promote best practices. These performance measures were then developed into recommended service and design guidelines to facilitate information sharing and knowledge dissemination. The issue-based guidelines were customized for local conditions based on feedback from the jurisdictions through Study Advisory Committee (SAC) meetings in a “listen and respond” type approach.

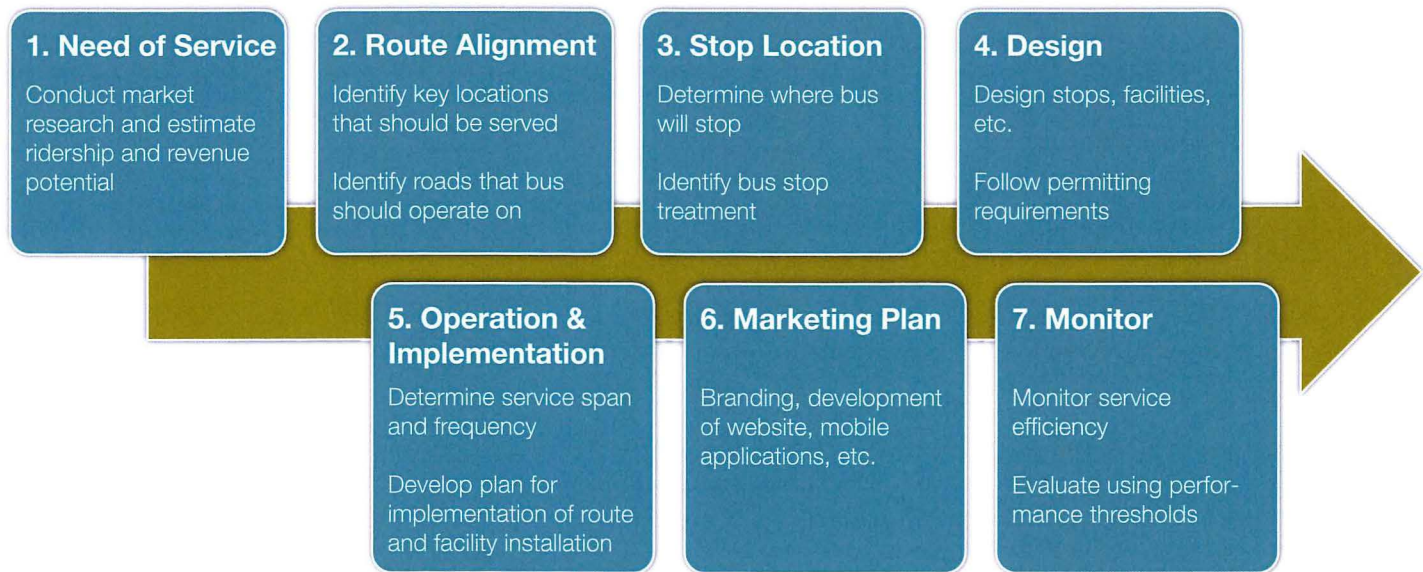
Major elements of the guidelines include:

- **Route Design Guidelines**
- **Design Guidelines**
- **System Facts**
- **Performance Measure Guidelines**
- **Policy and Service Guidelines**



Route Design Guidelines

Implementing a new route consists of seven key steps.



A driving factor in route design is the purpose of a new service. Though a service may serve several purposes, there is a primary objective that guides the route design often based on location and demographic characteristics. A few common roles of MTPs include:

- **Provide first/last mile connectivity**
- **Extend reach of regional and county transit system**
- **Provide circulator services within a community**
- **Provide lifeline services**

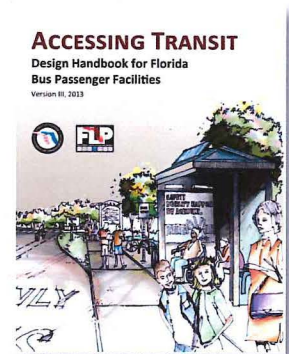
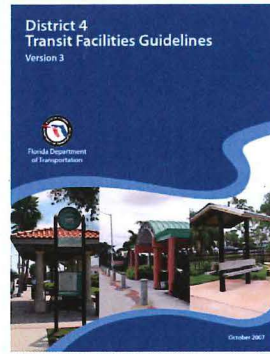
The table below summarizes the route design guidelines based on the different service purpose.

Service Purpose	Route Length	PrimaryRoute Destinations	Primary Roadway Choice
First/Last Mile Connectivity	< 5 miles	Transit Stations, Residential, Employment	Collector, Arterial
Extension of Regional Transit System	< 10 miles	Transit stations, High-density residential, Recreational/shopping, City centers	Arterials
Community Circulator	< 5-10 miles	Recreational/shopping, City centers, Government buildings	Collector, Arterial
Lifeline Services	< 10 miles	Assisted living, Medical clinics/hospitals, Government buildings, Grocery stores	Local, Collector

Table 1: Route Alignment Guidelines

Design Guidelines

Published guidelines exist for many aspects of station design. The intent of these guidelines was to provide additional background and direct users to available resources, in lieu of recreating existing published guidelines. Considerations such as road types, bus types and amenities were summarized. Definitions and examples of different bus stop treatments such as bus bays, and bus bulb-outs were presented and summarized. Implementation guidelines and permitting considerations were also provided, specifically summarizing the MDT process for bus benches and bus shelter requirements.



System Facts

System information was gathered for these guidelines from an online survey, publically available websites, and CITT documents. The online survey was distributed to the jurisdictions for their feedback and input and included the following sections:

- **Identification of Need for Service**
- **Organization and Institutional Information**
- **Financial Information**
- **System Information**
- **Title VI Information**

Survey information was complemented with publically available information and CITT documents. System facts were also developed using Geographic Information System (GIS) data to calculate population, service overlap and other distance information. The consolidated information was summarized into system fact sheets unique for each MTP. A summary of the ranges of the system facts is provided in Table 2.

System Fact	Range (estimate)	Average (rounded)
Service Area		
Population Being Served	2,300 - 399,000	54,800
Service Supplied		
Service Frequency	10 minutes - 120 minutes	50 minutes
Number of Vehicles in Service	1 vehicle - 26 vehicles	4 vehicles
Annual Service Miles	19,000 - 902,600	138,750
Annual Service Hours	1,950 - 134,500	16,100
Number of Routes	1 - 7	2
Service Consumed		
Annual Boardings	7,300 - 3,600,000	455,900
Financial Information		
Total Capital Costs (to date)	\$5,000 - \$6,800,000	\$1,270,800
Annual O&M Costs	\$89,500 - \$4,575,000	\$762,800

Table 2: Summary of the Ranges of System Facts

Performance Measures Guidelines

Performance measures were developed from the system facts in order to evaluate system performance. The system performance measures can incorporate a variety of different individual measures and were based on the results reported and calculated for the individual MTPs. For purposes of these guidelines, performance measures in three main categories were summarized: Service Efficiency, Service Effectiveness, and Asset Management (Reliability). For each of the performance measures the range values for each MTP was assessed to determine a baseline threshold that should be achieved by MTPs as well as a goal threshold based on values obtained by the top MTPs. A summary of the recommended performance thresholds and the established baseline thresholds is provided in Table 3.

Performance Measure	Baseline Threshold
Service Efficiency	
O&M Expense per Resident	\$23.55
O&M Expense per Passenger Boarding	\$6.85
Subsidy per Passenger Boarding	\$6.20
O&M Expense per Service Mile	\$7.15
O&M Expense per Service Hour	\$70.70
Service Effectiveness	
Boardings per Service Mile	0.67
Boardings per Service Hour	6.90
Asset Management (Reliability)	
Peak-to-Base Vehicle Ratio	1.2
Spare-to-Peak Vehicle Ratio	0.2
Average Vehicle Fleet Age	3 years / 75,000 miles
Oldest Vehicle Age	6 years / 150,000 miles

Table 3: Recommended Performance Thresholds

Policy and Service Guidelines

Throughout the development of the guidelines, several challenges and opportunities were identified. Guidelines related to policy and service were developed and are categorized into the following key areas to address the challenges and opportunities.

- **Data Collection and Reporting** – Many MTPs collect limited data, as no reporting requirements exist. Improved and consistent data collection efforts are recommended to provide a database for future comparisons and assessment with the goal of helping MTPs to refine the service they provide. The System Profile Sheets created as a part of the guidelines can be used as a starting point.
- **Local Transit Planning Capacity** - Many MTPs lack personnel resources to provide planning support. Through the development of the guidelines Miami-Dade Transit (MDT) voiced their desire to serve as a resource for jurisdictions to help supplement their resources. Continued coordination and resource sharing between the MTPs and MDT is recommended.
- **Integrated Transit Systems** – An integrated transit system at the county-level is desired by the County with an overall desire to “complement but not complete”. However, due to the independent nature of each individual municipality and their leadership, full integration of MTPs is a challenge. To improve system integration, the integration of information and potentially common branding elements may be beneficial. Other recommendations include, maximizing connections, optimizing transfer schedules, fare consistency, and development of common minimum standards such as bus stop and vehicle design.