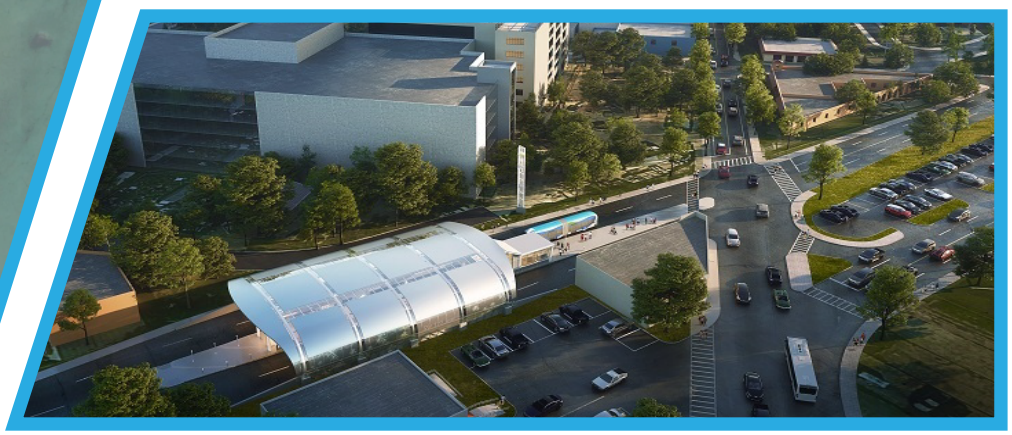
GPC VII- Work Order #44

US-1 Multimodal and Roadway Analysis

Dadeland South Metrorail Station to SW 344th Street/Palm Drive

Executive Summary

TPO
Miami-Dade Transportation
Planning Organization



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Executive Summary

The Miami-Dade Transportation Planning Organization (TPO) completed a three-tiered analysis approach to maximize the future capacity along the US-1 corridor from the Dadeland South Metrorail Station to SW 344th Street/Palm Drive, which includes – multimodal (nonmotorized) improvements, roadway improvements, and adoption of technology (SMART signals). The study analysis and recommendations were reviewed and acknowledged by a Project Working Group (PWG), which includes representatives from the Miami-Dade Department of Transportation and Public Works, Florida City, City of Homestead, Town of Cutler Bay, Village of Palmetto Bay, Village of Pinecrest, The Florida Department of Transportation (FDOT) District 6, Florida's Turnpike Enterprise (FTE) and their corresponding supporting teams.

Regarding multimodal improvements, this study reviewed transportation plans such as the Long-Range Transportation Plan (LRTP) and master plans from some of the municipalities along the corridor to determine connectivity and accessibility gaps for accessing the South-Dade Transitway stations. Based on the reviewed plans, a list of 19 pedestrian and bicycle improvement projects (e.g., sidewalk gaps, trail improvements, bicycle facility improvements) are recommended to move forward to the next phase of implementation (**Table 1**). The study also identified high trip generators (commercial properties, malls, libraries, schools, and colleges) within the First Mile/Last Mile service areas for each municipality and unincorporated areas along the corridor. The trip generators will serve as a resource tool for the Miami-Dade County and municipalities to identify opportunities for pick-up/drop-off stations/locations to extent existing on-demand services or introduce new services (e.g., micro-mobility) along the corridor.

Regarding roadway improvements, this study investigated existing operating condition of the 89 signalized intersections along the US-1 corridor and nearby cross streets. In order to maximize future roadway capacity, the study proposed 23 roadway improvements (e.g., adding left/right turn lanes or extending the length of the turn lane storage) at 12 signalized intersections along the corridor (**Table 2**). A before (without roadway improvements) and after (with roadway improvements) scenarios comparison was conducted in VISSIM to ensure the recommended improvements are likely to improve intersections delays, vehicle throughput, and queue lengths at the respective intersections. The study recommends moving roadway improvements projects into the next phase of implementation. A cost benefit analysis might be necessary to make a final determination on the feasibility of the improvements.

This study also recommends Miami-Dade County to prioritize the implementation of the SMART Signals along US-1 and busway. With upgraded ATMS central software, replacement of traffic controllers, and installation of additional detection systems, SMART Signals are expected to improve the flow of all transportation modes along the US-1 corridor and nearby cross streets.

Table 1: Pedestrian & Bicycle Improvements Recommendation

ID	Facility	Limits From	Limits To	Description	Lead Agency
1	SMART Terminal Connector - SW 344th St	South Transitway	SW 152nd Ave	Protected On-Road Bicycle Facility and Pedestrian Improvements	Miami-Dade County
2	Biscayne- Everglades Greenway (Seg 6)	South Transitway	Biscayne National Park	Trail Improvements	Miami-Dade County
3	SW 137th Ave	Turnpike	US-1	Dedicated On-Road Bicycle Facility Improvement	Miami-Dade County
4	SW 137th Ave	US-1	SW 184th St	Dedicated On-Road Bicycle Facility Improvement	Miami-Dade County
5	SW 216th St	SW 127th Ave	SW 112th Ave	Dedicated On-Road Bicycle Facility Improvement	Miami-Dade County
6	US-1	SW 112th Ave	SW 184th St	Pedestrian Promenade along the east side of US-1	Cutler Bay
7	Marlin Rd	US-1	Old Cutler Rd	Off-Road Bicycle and Pedestrian Facility Improvement	Cutler Bay
8	SW 97th Ave	US-1	Franjo Rd	Bike Lane	Cutler Bay
9	SW 184th St	US-1	Old Cutler Rd	Dedicated On-Road Bicycle	Palmetto Bay /Cutler Bay
10	SW 168th St	US-1	Old Cutler Rd	Dedicated On-Road Bicycle Facility Improvement	Miami-Dade County
11	SW 152nd St	US-1	SW 67th Ave	Dedicated On-Road Bicycle Facility Improvement	Palmetto Bay
12	SMART Trails – FPL Easement	SW 107 Ave	South Dade Transitway	Off-Road Bicycle and Pedestrian Facility Improvement	Miami-Dade County
13	SW 136th St	US-1	Old Cutler Rd	Dedicated On-Road Bicycle Facility Improvement	Miami-Dade County
14	US-1	SW 136th St	Dadeland North Station	Pedestrian Facility Enhancement or Expansion	Miami-Dade County
15	SW 132nd St	US-1	SW 57th Ave	North side Sidewalk	Pinecrest
16	SW 120th St	US-1	SW 57th Ave	Both sides Bicycle Lane	Pinecrest
17	SW 104th St	US-1	SW 57th Ave	Sharrows	Pinecrest
18	SW 102nd St	US-1	SW 75th Pl	South side Sidewalk	Pinecrest
19	SW 100th St	US-1	SW 72nd Ave	South side Sidewalk	Pinecrest

Table 2: Roadway Improvements Recommendation

Intersections	Roadway Ownership/ Lead Agency	Improvement Description	LRE Cost Estimates
US-1 and SW 104th Street	County	Adding an EBR lane of 50 ft	$25,442
	State	Extending SBL storage length by 300 ft	$310,819
	State	Extending SBR storage length by 300 ft	$187,655
US-1 and SW 112th Street/Killian Drive	State	Extending SBL storage length by 220 ft	$137,614
	State	Extending SBR storage length by 200 ft	$125,103
US-1 and SW 128th Street	State	Extending SBL storage length by 60 ft	$37,531
	State	Extending NBL storage length by 200 ft	$125,103
US-1 and SW 136th Street	State	Extending SBL storage length by 130 ft	$134,688
	County	Adding a WBR lane of 50 ft	$25,442
US-1 and SW 144th Street	State	Extending SBL storage length by 150 ft	$93,828
	Municipal	Adding a WBR lane of 50 ft	$25,442
US-1 and SW 152nd Street	State	Extending SBL storage length by 150 ft	$93,828
	State	Adding a SBR lane of 90 ft	$56,297
	Municipal	Extending WBL storage length by 130 ft	$7,506
	Municipal	Adding a WBR lane of 50 ft	$25,442
US 1 and SW 184th Street	County	Adding an EBR lane of 50 ft	$25,442
	County	Adding a WBR lane of 50 ft	$25,442
SW 10900 Block and Caribbean Boulevard	Private	Adding a SBR lane of 50 ft	$25,442
SW 11300 Block and SW 211th Street	County	Relocating/consolidating WB bus stops	N/A
US-1 and NE 15th Street/NE 12th Avenue	State	Extending SBL storage length by 260 ft	$162,635
Old Dixie Highway and NE 11th Street	Municipal	Adding a lane of 170 ft in NB approach	$86,502
SW 177th Avenue and N Flagler Avenue	Municipal	Extending EBL storage length to 250 ft	$14,434
	State	Adding a NBR lane of 60 ft	$3,464