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Can buses that run like trains alleviate Miami-Dade's transit woes?





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Forget Metrorail expansion. Miami-Dade is instead moving with all deliberate speed to deploy a different kind of rapid-transit system to connect downtown Miami to the county's far western reaches, starting as soon as next year, and it will consist of ... buses.

But not just any buses. By the end of 2017, Miami-Dade's transit agency plans to start running a system of rapid express buses along State Road 836 between downtown Miami and a new park-and-ride station just west of the Florida Turnpike that's about to start construction. The state-of-the-art hybrid buses would beat traffic because they can run unimpeded on the expressway's inside shoulders, which the Miami-Dade Expressway Authority is now retrofitting to accommodate them.

Within a few years, the agency also hopes to institute a Bus Rapid Transit system — which operates much like a train but at a fraction of the cost of rail — along 20 miles of Flagler Street starting in downtown Miami. This week, the Florida Department of Transportation and Miami-Dade launched a two-year study of the potential route to explore, among other questions, whether the buses could run on dedicated lanes in each direction, or use a reversible lane that would run east during morning rush hour, and west during the evening peak time.

The bus-transit solution

Miami-Dade's transit agency is turning to fast buses that operate on dedicated lanes as an alternative to expensive rail. The first of three planned routes on State Road 836 could be running by the end of 2017 between downtown Miami and a new Dolphin park-and-ride station that's about to start construction. A study to bring train-like bus systems known as Bus Rapid Transit to Flagler Street is now under way.



The idea here: The county can't afford to extend its heavy commuter rail or install cheaper light rail out to the suburbs any time soon. In the meantime, express and BRT buses are relatively simple, quick and inexpensive to set up and run so the county can begin offering traffic-beleaguered commuters — not to mention those who don't own cars — a faster, dependable alternative to driving.

"We have to provide reliable options, and this is something immediate that can be in place within a year and a half to two years, as a precursor to a larger plan," said Javier Rodriguez, MDX's executive director.

Rodriguez and other transportation officials stress that getting the buses up and running doesn't preclude someday converting the routes to light rail, a less costly alternative to the heavy rail of the Metrorail system. But the bus systems can help build ridership and support for transit while testing the feasibility of rail conversion at some point, they say. That approach was blessed earlier this year by the county's umbrella transportation-planning agency, the Metropolitan Planning Organization, under the title of Strategic Miami Area Rapid Transit Plan, or SMART.

Next up, county transit agency officials say: Studies to look at deploying BRT along Kendall Drive and along Northwest 27th Avenue. If spaced frequently enough, experts say, BRT buses can carry as many passengers as light rail.

Under a deal with the county transit agency, MDX will build the new Dolphin station, which will have an air-conditioned waiting room, and a dedicated ramp from 836 for the express buses. As part of an ongoing reconstruction of 836 interchanges between Red Road and the Miami River, the agency is also widening and beefing up the pavement on the shoulder lanes for the buses, which would use them when traffic on the regular lane slows because of congestion.

The express and BRT buses would enjoy a significant advantage over cars because they wouldn't have to run in regular traffic. In full-fledged, or "gold standard" BRT systems like that contemplated for Flagler Street, traffic lights turn green as buses approach, and bus stops consist of stations where passengers pay before boarding. To further speed boarding, the platforms are level with the bus floor and the buses have multiple doors, like trains.

"You can save time by zipping by congested traffic," said Miami-Dade transit chief Alice Bravo. "We think that will attract riders. And for every rider, that's one less car on the road. So the people riding this will be part of the solution to traffic congestion."

BRT originated in Brazil and quickly spread across the rest of South American and into Asia. It's been slower to catch on in the United States, where light-rail has proven more popular, but Cleveland has instituted a well-regarded system and Chicago launched a line around its downtown Loop last year. Neither of the two has all the features of full-fledged BRT.

Miami-Dade's forthcoming SR 836 buses have only some of the features of BRT, including dedicated lanes and enclosed stations, and are instead classed as an express or premium service. True BRT can qualify for federal funding — something the county hopes to get in the case of the contemplated Flagler line.

The downtown-Dolphin Station route is the first of three planned express-bus lines along 836. One line will run from downtown Miami to a new Tamiami Station at Northwest 147th Avenue.

The third line will connect the Miami Intermodal Center, next to Miami International Airport, to a new 10-bay bus terminal inside an already finished parking garage at Florida International University's main campus on the Tamiami Trail. That means the express line would link up to Metrorail, the airport, Amtrak and Tri-Rail at the MIC.

That line will use a dedicated lane along Southwest Eighth Street and enjoy turning priority at intersections as it approaches and leaves the Panther Station.

The county bought 11 articulated diesel-electric hybrid buses, equipped with WiFi capability, to service the Dolphin station line at a total cost of nearly \$10.5 million. The cost of building the three new stations, to be split with FDOT, is \$38 million, according to the transit agency. The next two 836 lines will require purchase of additional buses.

While those 836 lines start operating, the county will also be studying a more complex undertaking — establishing full-fledged BRT along Flagler, the city's historic east-west spine, which in most places could be wide enough to accommodate the hoped-for bus-only lanes.

But finding space for dedicated lanes without adding to existing congestion along the corridor could be tricky, especially in some stretches where the roadway is just two lanes in each direction — a concern expressed by some people at a public presentation Wednesday evening at FDOT headquarters in West Miami-Dade.

"It's going to be a balancing act," said Marie-Elsie Dowell, an engineer with Parsons Brinckerhoff, which is conducting the Flagler study for FDOT and the county. "We have some challenges."

The Flagler line would run from downtown Miami to 107th Avenue, where it would split, with one line going up to 112th Street past Dolphin Mall to the new Dolphin Station, and a second going south to the Tamiami Trail and then west to the planned 147th Avenue park-and-ride.

The concept is that the BRT lines would operate "in layers" with the 836 lines. The 836 lines would be strictly point-to-point, with no intermediate stops. But the Flagler routes would have local stops, though how many is yet to be determined. The BRT would not replace existing regular bus service. The 836 and Flagler routes would connect up at the Dolphin, FIU, 147th Avenue and downtown stations.

"The idea is to have a cohesive system," Dowell said.

Dowell said the consultants will develop a conceptual design to send to federal transit authorities for possible funding help. The team won't have any cost estimates until then, she said.



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