

# Coral Gables Trolley Route Expansion Study

## Project Background

In November 2003, the City of Coral Gables launched an intra-city circulator, known as the Coral Gables Trolley, to help relieve localized traffic congestion, increase transit ridership, offset parking shortages, and improve the pedestrian environment of the city's Central Business District (CBD). The Coral Gables Trolley's main route is along Ponce de Leon Boulevard from SW 8 Street to the Douglas Road Metrorail station.

The Coral Gables Trolley has been extremely successful and surpassing many projections within the first year. Ridership during the 2005 calendar year was over 700,000 boardings. With the tremendous success of the existing trolley system, the City of Coral Gables has requested a feasibility study of expanding the existing trolley service to other areas in Coral Gables. The City wants to explore the feasibility of expanding the existing Ponce de Leon Boulevard Route north to the Flagler Street corridor and south (across US-1) to the MacFarlane Homestead Historic District. Other routes considered include a new route along Ponce de Leon Boulevard from the Douglas Metrorail station to the University of Miami, Red Road and/or the Riviera Business District (see Exhibit 1 for location map).

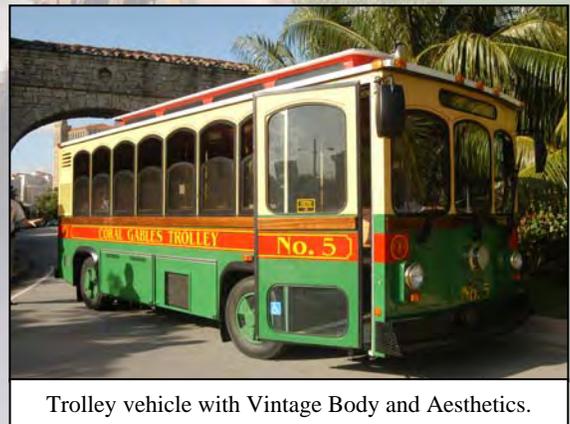
The success of the existing trolley system can be attributed to several specific factors that should also be taken into account when considering the potential route expansion. Those factors include:

- Short headways
- Interconnectivity between the trolley and existing mass transit system (i.e., Metrorail)
- Free fare
- Connectivity to major activity centers

## Preliminary Analysis

As part of this study, five distinct areas were preliminarily analyzed to determine the feasibility of extending the trolley. These five areas are: the area between SW 8 Street and Flagler Street, the MacFarlane Homestead Historic District, the University of Miami, the Red Road area, and the Riviera Business District.

The area bounded by Flagler Street on the north, SW 8 Street on the south, Douglas Road to the east, and LeJeune Road on the west is predominantly residential and has a number of street closures to prevent cut-through traffic. However, Ponce de Leon Boulevard traverses the area providing a direct connection to the businesses on SW 8 Street and those just north of Flagler Street. This area also provides an opportunity for connectivity to the existing bus routes on Flagler Street.



Trolley vehicle with Vintage Body and Aesthetics.

The MacFarlane Homestead Historic District is a small residential area located on the east side of US-1, north of Grand Avenue. To provide access to this historic neighborhood from the existing trolley route, the route has to be diverted to either SW 37 Avenue or Grand Avenue.

The University of Miami area provides an opportunity to connect to one of the major activity centers within the city. The University of Miami has a population of approximately 15,000 students and 10,000 employees. The Red Road area is primarily residential with some businesses that provide services to the University and its students. Access to and from the area is cumbersome because of the difficulty of crossing Red Road. The Riviera Business District area consists primarily of office buildings and commercial uses. The area is also near the Shop at Sunset Place and the South Miami central business district. This area is also considered a major activity center.

After a preliminary analysis of the areas described above, it was determined that the MacFarlane Homestead Historic District and the Red Road area did not provide the necessary potential ridership to justify the extension of the trolley route.

The Red Road area will get limited trolley service if the Riviera Business District route is chosen. This is because the River Business District route will run on Ponce de Leon Boulevard to South Alhambra Circle before crossing US-1 and northbound on Red Road to Ponce de Leon Boulevard.

The MacFarlane Homestead Historic District can be served by the existing Coconut Grove Circulator. This circulator currently runs from the Coconut Grove Metrorail Station to the Douglas Road Metrorail Station via SW 27 Avenue, South Bayshore Drive, Grand Avenue, and SW 37 Avenue. MDT would need to expand this route west to either Brooker Street or Jefferson Street.

## Routes / Alignments

After the selection of the areas where potential ridership, as well as defined activity centers exist, three specific trolley routes were developed. These routes are the Flagler Street Route, the University of Miami Route, and the Riviera Business District route. The Flagler Street Route is a direct extension of the existing route that runs along Ponce de Leon Boulevard between SW 8 Street and the Douglas Road Metrorail station. Whereas the other two reviewed routes will run independently from the existing route in order to maintain the headways on the existing trolley route.



Exhibit 1 – Location Map

The extension of the existing trolley route to the Flagler Street corridor only led to one possible alignment due to the demographics and connectivity in the area. Two distinct alignments and routes were developed for the southwest leg of Ponce de Leon Boulevard routes. However after examining the two routes and meeting with the University of Miami and the City of Coral Gables Trolley Manager, the Riviera Business District Route was the only route considered to connect the Coral Gables CBD, the University of Miami and the Riviera Business District.

The proposed Flagler Street Route will run north and south along Ponce de Leon Boulevard between SW 8 Street and Flagler Street. This route will provide a connection between the existing trolley route and the medical office buildings just north of SW 8 Street and the Flagler Street corridor.

The Riviera Business District Route was developed to provide convenient access from/to the Riviera District and surrounding attractions and offices with the University of Miami. The route will also connect to the existing Ponce de Leon Route at the Douglas Metrorail station. The Riviera Business District Route will run along the southwest leg of Ponce de Leon and cross US-1 via Alhambra Circle. The alignment of the Riviera Business District Route south of US-1, which is centered upon the largest and most concentrated of commercial areas. The route connects back to Ponce de Leon Boulevard by crossing US-1 via Red Road. Exhibits 2 and 3 illustrate on a base aerial of the Coral Gables area, the proposed route alignments for the Flagler Street Route and the Riviera Business District Route respectively.

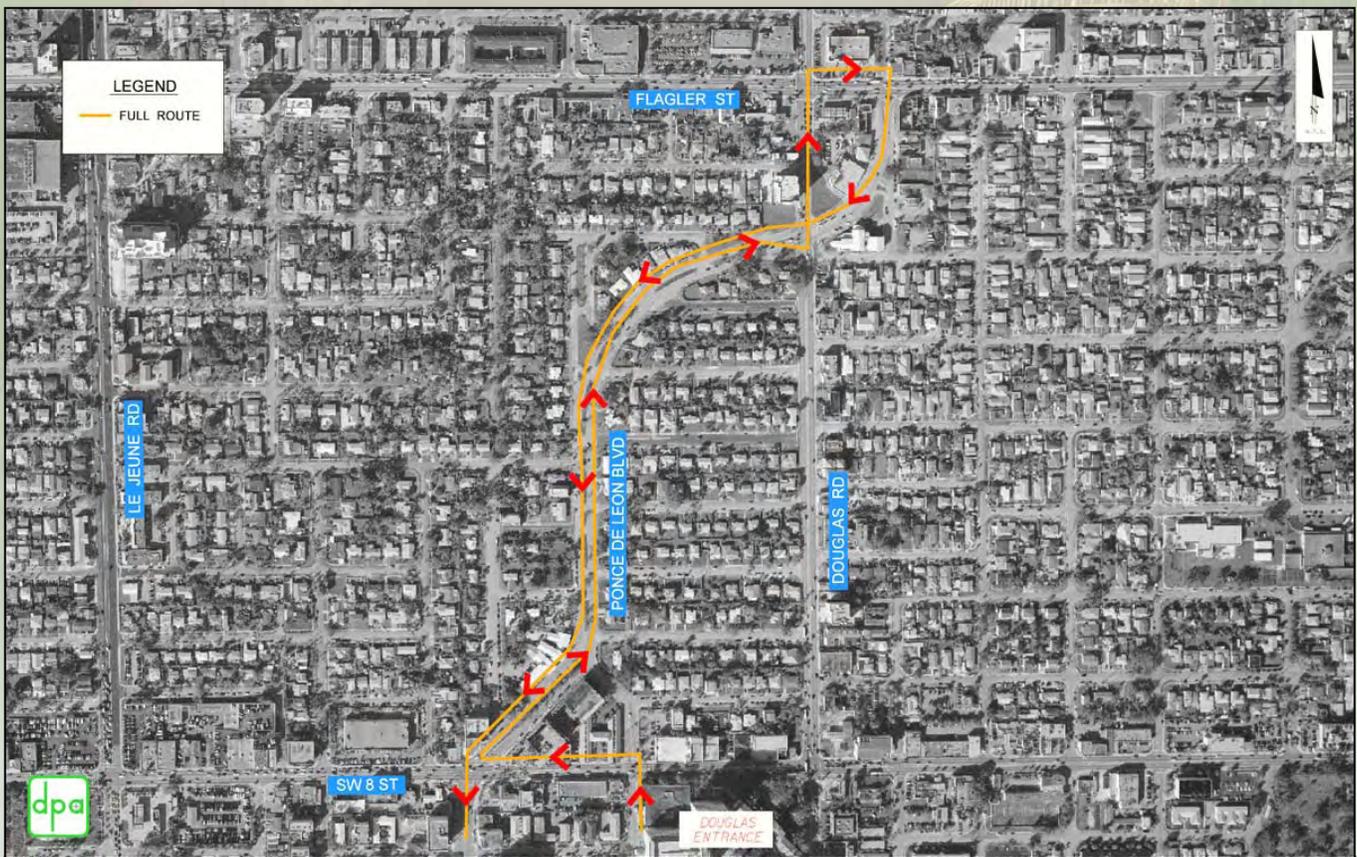


Exhibit 2 – Flagler Street Route

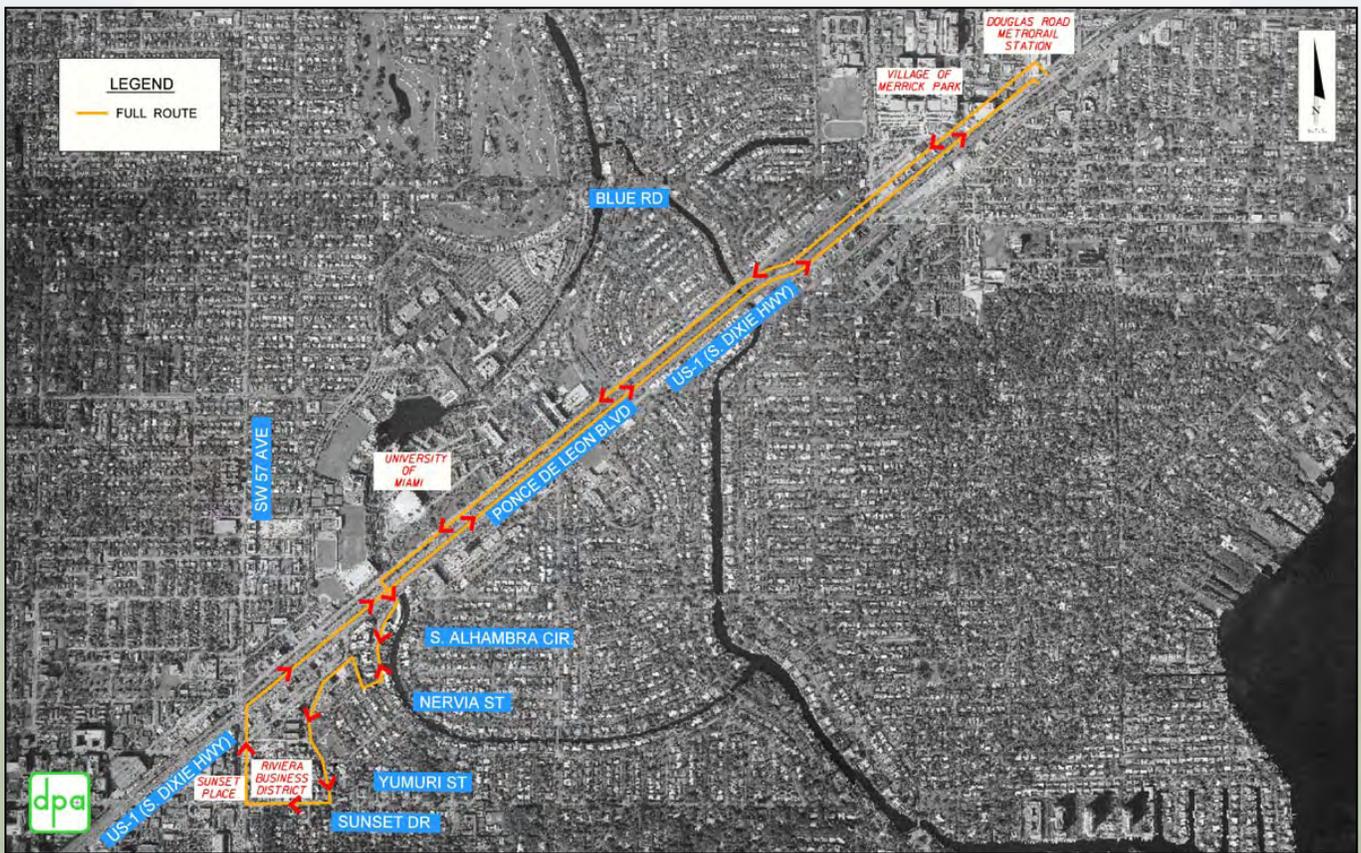


Exhibit 3 – Riviera Business District Route

## Conclusions and Recommendations

Since the Flagler Street Route is an extension of the existing Ponce de Leon Boulevard trolley route, the hour of operations and headways are recommended to remain the same, operating Monday through Thursday from 6:30 AM to 8:00 PM and Fridays from 6:30 AM to 10:00 PM, with approximate 8 minute headway. It is estimated that the Flagler Street Route will have between 10,000 - 30,000 yearly boardings. In order to maintain the existing 8-minute headways for the existing trolley route, the Flagler Street extension would require one additional vehicle.

The Riviera Business District Route will primary serve as a connection between the University of Miami to the Riviera Business District and Coral Gables CBD and it is recommended that the operating hours be from 10:00 AM - 8:00 PM Monday through Friday and have a 15 - 20 minute headway. It is estimated that the Riviera Business District Route will have between 40,000 - 60,000 yearly boardings. In order to maintain the desired 15 -20 minute headways, the City would need to obtain two vehicles.

As discussed with the City's Trolley Manager, the circulator will continue to be a free service. The benefits of having a free circulator system are apparent. Free fare gives the system the opportunity to maximize its ridership, reflecting the City's desire for a successful system. Also, there would be less potential for operational delays along the route. The desired headways would therefore be easier to maintain.

The costs of extending the trolley system were estimated with assistance from the City's Trolley Manager. The approximate capital costs associated with both routes are \$1,000,000 to 1,200,000 and the approximate annual maintenance and operations costs are \$500,000 to \$600,000.