

North Ponce De Leon Boulevard

Median Evaluation

Executive Summary

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EXECUTIVE SUMMARY

The City of Coral Gables is considering the construction of a raised, landscaped median on Ponce de Leon Boulevard between Alcazar Avenue and SW 8 Street. The City has requested a feasibility study to assess the effects of constructing such a median. Construction of the median will cause smoother traffic flow, the creation of turn lanes, improved signalization, cause fewer accidents, provide better aesthetics for the corridor, and a safer and friendlier pedestrian environment. This traffic study is a continuation of the median evaluation done for the south section of Ponce de Leon between Alhambra Circle and Almeria Avenue. For traffic analysis purposes, the study area has been defined as SW 8 Street to the north, Galiano Street to the east, Alcazar Avenue to the south, and Salzedo Street to the west (see Exhibit 1).

Ponce de Leon Boulevard within the study is a two-way, four-lane roadway from Navarre Avenue to SW 8 Street. Just south of Minorca Avenue, Ponce de Leon Boulevard is a six-lane roadway. Ponce de Leon Boulevard is presently operating with numerous undesirable features. The lack of exclusive left turn lanes results in many left turn, rear end, and angle accidents, as well as reduced roadway capacity. The roadway capacity is greatly affected by the disruption of traffic flow caused by the lack of left turn lanes.

A concept for constructing a raised, landscaped median was developed for the segment of Ponce de Leon Boulevard from Alcazar Avenue to SW 8 Street. This concept implements exclusive left turn lanes at the intersections of Alcazar Avenue, Madeira Avenue, Salamanca Avenue, and Calabria Avenue. For access management control, the median concept calls for access closures at the intersections of Navarre Avenue, Mendoza Avenue, Sidonia Avenue, and Antiquera Avenue. Additionally, traffic signals are recommended at the intersections of Madeira Avenue and Calabria Avenue to promote pedestrian crossing.

The construction of the median along Ponce de Leon Boulevard between Alcazar Avenue and SW 8 Street will necessitate geometric and operational improvements. Operational improvements would include traffic signal modifications such as additional phases or timing changes and signage. Geometric improvements would include constructing turn lanes, the redesigning of the on-street parking, and the addition of traffic signals.

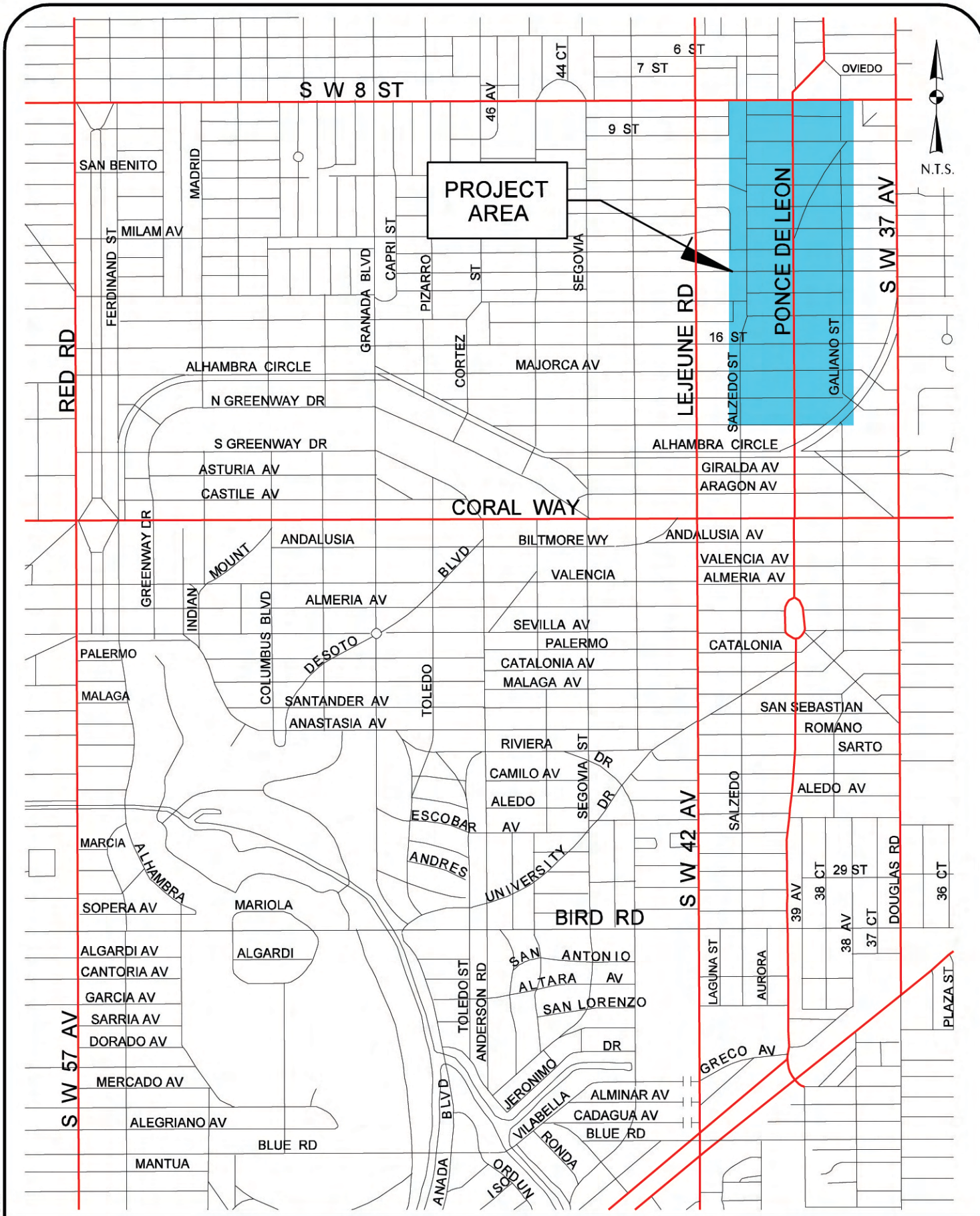
General improvements along this segment of Ponce de Leon Boulevard include the conversion of existing on-street, angled parking spaces into parallel parking spaces. The existing on-street parking spaces have a vehicular projection (distance from the face of the curb to the edge of the parking stall) of 14 feet wide. The proposed parallel parking spaces will be 8 feet wide. The additional space within the right-of-way will allow the implementation of the conceptual median. Segments with exclusive left turns will have 10 feet wide turning lanes, 11 feet wide center and outside lanes, and a 6 feet wide median. The other segments, which not have exclusive left turn lanes, will have 11 feet wide lanes and a 16 feet wide median. Exhibit 2 shows a segment of the proposed plan and typical cross-sections.

The lane group capacity along Ponce de Leon Boulevard increases 18 percent with the proposed median concept. The increase in capacity is due to a combination of features. Implementing left turn lanes at signalized intersections (existing and proposed) provides storage for vehicles waiting to turn left -- so there will be more efficient use of the through lanes. By implementing median closures at some intersections, through traffic will flow smoother and left-turn and angle collisions can be controlled. Not only will the landscaped median provide better aesthetics, it will promote a safer pedestrian environment by providing a protected waiting area and a limited storage capacity for left turns at unsignalized intersections.

A preliminary cost estimate has been prepared for the recommended improvements to the corridor. The cost estimate was developed using unit costs from recently completed construction

projects within the city. The cost to construct the recommended improvements is estimated at \$1.8 - \$1.95 million.

Results of the capacity analysis show an 18 percent increase in lane group capacity along Ponce de Leon Boulevard. The increase in capacity is due to the combination of features. Implementing left turn lanes provides storage for vehicles waiting to turn left -- so there will be more efficient use of the through lanes. By implementing access management tools (i.e. median closures) at some intersections, through traffic will flow smoother and left-turn and angle collisions can be controlled. To promote pedestrian crossing it is recommended that the intersections of Madeira Avenue and Calabria Avenue be signalized, but a signal warrant study must be performed to determine if a signal is warranted at these intersections. Not only will the landscaped median provide an aesthetic and pleasant surrounding, but it also will promote a comfortable pedestrian environment by providing a protected waiting area.



PROJECT:

NORTH PONCE DE LEON BOULEVARD
MEDIAN EVALUATION

TITLE:

LOCATION MAP

EXHIBIT No.

ES1

