NW 7th Avenue Traffic and Pedestrian Study

Work Order No. GPC III-41

EXECUTIVE SUMMARY

Submitted to:
Miami-Dade County MPO

Submitted by:
THE CORRADINO GROUP, INC.

May, 2010

7TH AVENUE TRAFFIC AND PEDESTRIAN STUDY

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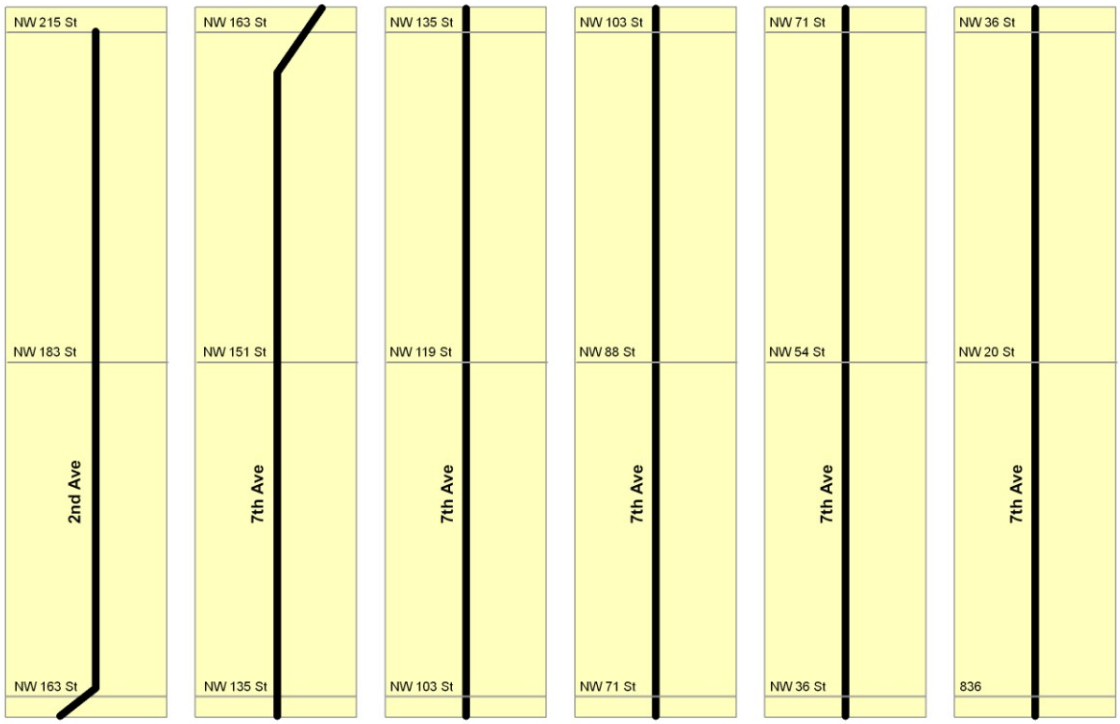
Introduction

The objectives of the NW 7th Avenue Traffic and Pedestrian Study are to document the need for pedestrian improvements along NW 7th Avenue and to document the impacts of the new federal immigration facility at NW 7th Avenue and NW 88th Street.

The existing conditions analysis was the basis for the evaluation, and lead to the ultimate recommendations focused on issues surrounding the new immigration facility, general pedestrian improvements along the corridor, areas of specific pedestrian activity and improvements for roadway and transit along the corridor.

Figure 1: Study Area Segments



To develop an existing conditions analysis, a variety of reports and studies relevant to this study were reviewed. Right-of-way, geometry, other traffic and pedestrian data were reviewed collected from existing sources. Transit data was gathered for the routes along 7th Avenue and those that crossed and stopped along 7th Avenue. A detailed land use map of the area within a ¼ mile radius of the federal immigration facility was prepared, and a complete inventory of all on- and off-street parking in the vicinity of that facility including a mid-day occupancy count was undertaken. Additionally, traffic and turning movement counts at the intersection of NW 88th Street and NW 7th Avenue were taken. The Miami Dade County Department of Planning and Zoning was met with to identify future activity centers in the corridor, as was FDOT District IV to identify outputs from the regional travel model being developed. Multiple site visits were taken to examine sidewalk locations and widths along the corridor, as well as other pedestrian amenities,

including identification of areas of high pedestrian activity. Ultimately this resulted in necessary intersection modifications related to the traffic generated by the immigration facility, in addition to parking access, transit, pedestrian and safety improvements related to that facility. For the corridor as a whole were made.

Immigration Facility

The Immigration Facility is located in the northeast corner of NW 7th Avenue and NW 88th Street. The building area is approximately 70,000 square feet. There are a total of 380 parking spaces with 130 allotted for employees and 250 for customers. It is estimated that when the facility is fully occupied and operational over 4,800 trips will be generated daily with 412 of those generated during the AM peak hour and 85 trips during the PM peak hour. It is projected that by the year 2015 the facility will be operating at it maximum capacity. The traffic impact of the facility on the LOS of 7th Avenue is negligible. Suggestions have been made for how to mitigate the background deterioration of level of service in the vicinity of the facility.

The United States Citizenship and Immigration Services (USCIS) District 9 office is located on the second floor; and the USCIS Miami Field Office is located on the first floor. The facility employs about 110 employees in the building; consisting of federal and contract employees.

The facility operates Monday through Friday from 7:00am to 3:30pm with the exception of federal holidays. At maximum capacity they can accommodate about 950 applicants per day; plus family members, attorneys, and interpreters. The USCIS is a benefit based organization and does not perform law enforcement functions.

Table 1 - Immigration Facility Trip Generation

ITE Land Use Code	Condition	Size (sf)	AM Peak Hour Trips			PM Peak Hour Trips		
			TOTAL	IN	OUT	TOTAL	IN	OUT
820	Proposed	70,000	**412**	347	65	**85**	27	58
			100%	84%	16%	**100%**	31%	69%
	Existing (YR 2009)	70,000	**144**	100	44	**18**	4	14
			100%	70%	30%	**100%**	23%	77%
	Difference	70,000	**268**	247	21	**67**	23	44
			100%	93%	7%	**100%**	35%	65%

As can be seen from the table above, the existing AM trips are 144 our of 412 possible generated trips, about 35% of the projected total trips when the facility is at maximum capacity and the existing PM trips are 18 out of 85 possible trips approximately 20% of the anticipated PM peak hour trips once the facility is at full capacity.

Based on the analysis, the intersections are operating at acceptable levels-of-service (LOS) for the Existing and Year 2015 conditions. However, the north and southbound approaches to NW 79th Street may be at LOS F.

By the Year 2030, the intersections of NW 79th Street and NW 95th Street with NW 7th Avenue may be operating at LOS F.

Operational issues at major intersections such as delays can be addressed by adding roadway capacity, by separating intersection turn movements from the through movements or by removing trips from the roadway network.

The proposed alternative recommends:

- Periodic traffic signal optimization for all signalized intersections within the area of influence of the Immigration Facility;
- Increasing the left-turn lanes storage capacity by year 2015 to meet the demands of Year 2030.

Additional strategies to reduce delays and improve roadway level of service include:

- Add roadway capacity by procuring right-of-way and adding through lanes or lanes to separate turning movements from through movements;
- Transportation System Management strategies such as revision of speed limit throughout corridor, review pavement markings at major intersections, review street lighting with focus on crosswalks, restrict on-street parking;
- Travel Demand Management Strategies such as ridesharing, increased transit service, encourage vanpooling and carpooling, provide a guaranteed ride home to those who take transit, provide showers and other necessary amenities to those who bike to work, flex-time, coordinate bus routes and scheduling and other methods to decrease the peak period traffic demand;
- Study increased visibility for pedestrians, bicyclists and drivers, reduction of conflicts at intersection which can enhance, minimally, corridor output at major intersections;
- Provide alternative walking and biking routes to remove non-motorized and pedestrian traffic from major intersections, this could provide relief for peak period traffic delays due to pedestrians and vehicular conflicts at intersections;
- Remove pedestrian and bicycle traffic from grade crossings;
- Manage driveway access along roadway segment by combining adjacent driveways and allowing adjacent properties to share property line driveways and provide shared parking policies incentives;
- Design and construct lighting that not only serves the private vehicle drivers and buses but as well as the pedestrians and bicyclists;
- Design and construct right-turn in/out channelization at key driveways with high volumes of traffic;
- Procure right-of-way, design and construct additional lanes at NW 95th and NW 79th Streets to install dual left-turns north and southbound.

Pedestrian Activity Areas

Areas of higher pedestrian activity were identified through an initial site visit. This was done to evaluate general sidewalk locations and widths along the corridor, as well as other pedestrian amenities, including identification of areas of high pedestrian activity, as well as the evaluation of transit activity and land use.

Typically the corridor is a 5 to 7 lane facility with turning lanes, moderate vehicular volumes, keeping the level of service at a generally acceptable level. Transit is prevalent with Rt. 77 and the various cross routes using NW 7th Avenue. Nine intersections along the corridor account for over half of the total ons and offs along the corridor. The land uses are commercial along the corridor and low density residential off of the corridor. Pedestrian level of service is generally high, yet pedestrian activity is sparse along the entire length of the corridor.

Areas of intensity of use, either in commercial or residential activity were sought to be selected as specific study areas.

Over all there were pedestrian counts at 25 intersections along the corridor. These range from a high of 209 pedestrian crossings at 79th Street to a low of 15 pedestrian crossings at 66 St. In order to determine locations that warranted further study, it was decided to examine intersections where pedestrian activity exceeded 1% of vehicular volume at individual intersections.

As a result of on-site observation, the analysis of existing potential pedestrian activity from higher intensity land uses planned in the corridor, and the analysis of transit on and off activity, and actual pedestrian counts, 14 intersections were selected for more intensive study in Task 4: Analysis of Pedestrian Activity and Needs. These include:

1. 17 St
2. 20 St
3. 23 St
4. 32 St
5. 46 St
6. 54 St
7. 62 St
8. 69 St
9. 75 St
10. 79 St
11. 88 St
12. 95 St
13. 125 St
14. 183 St

Many of these intersections have adequate facilities for the most part. However, many of the intersections are lacking and some are seriously behind the standards that they should have. It is recommended that many stops have ADA/FDOT-approved shelters, benches,

trash cans, and signs. Some intersections are busier than others and would justify the need for an emergency phone as well as pedestrian countdown signals. This is one of the most traveled pedestrian corridors in all of Miami and it should be safe for pedestrians so that the neighboring communities and businesses have ample opportunity to flourish.

This corridor has limited on street parking, which is restricted during the peak period in the peak direction, yet parked cars are scattered throughout the corridor and they are, for the most part, not ticketed or shown any form of enforcement. These cars make it difficult for drivers and thus it takes away some of their attention for the near by pedestrians. It is recommended that enforcement of these rules take place.

Another major concern was that of the crosswalks. First, all major intersections should have thermoplastic paver like crosswalks across all 4 legs of the intersection. This gives the intersection high visibility and thus makes it safer for crossing pedestrians. Second, it is suggested that these crosswalks also have some sort of reflective device so as to make them visible to drivers at night time. This will enhance the crosswalk from an aesthetic point of view as well.

Future Impacts

Traffic impacts of a future land use/growth scenario along the Corridor were examined. The Miami Dade County Department of Planning and Zoning (DPZ) was consulted and it was determined to examine the future land use scenario which is currently mapped in the Miami Dade County Comprehensive Plan's Future Land Use Map. The analysis consisted of assessing impact of future growth and mitigating that impact through roadway or transit projects. Because the facility is constrained and few opportunities exist for additional lanes, several scenarios were examined. These included existing and future conditions. In the future a no-build scenario was tested, as were alternatives examining mitigation through the additional of physical capacity, the addition of improved bus service.

It is observed for the existing condition (Year 2009) all the roadway segments operate within the allowable threshold of LOS E+ 20%. In the future no build scenario, the roadway LOS analysis indicates that the eight segments of the corridor exceed the allowable threshold and operate at LOS F. This degradation of LOS is due to ambient growth and not the immigration facility. To mitigate these capacity deficits through traditional means, additional lanes were tested. Essentially, the failing segments could be brought into compliance through the addition of one lane in each direction. In order to improve the LOS in the study corridor without increasing the number of lanes, improved bus service was introduced in mixed traffic, as well as in exclusive lanes. It was observed that by introducing improved transit service at 7.5 and 15 minute headways, all the roadway segments operate within the allowable standards of LOS E+ 50%.

Formal Recommendations

Recommendations from each task of the study were used to develop a formal set of recommendations for mitigating the effects of the pedestrian, bicycle and vehicular traffic generated as well as to improve the existing conditions of transit facilities. The tasks included extensive field observations, data collection, simulation models and scenario analyses. These included recommendations in the following areas:

- Intersection Modifications in the Vicinity of the Immigration Facility
- Immigration Facility Parking Access Improvements
- Bus Stop Improvements in the Vicinity of the Immigration Building
- Pedestrian and Safety Improvements in the Vicinity of the Immigration Building
- General Pedestrian Guidelines for the Entire Corridor
- Specific Improvements in Major Pedestrian Areas
- Roadway and Transit Improvements