



North Miami

TRANSIT ORIENTED DEVELOPMENT FEASIBILITY STUDY

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Executive Summary

The City of North Miami is a municipality in northern Miami-Dade County. The majority of the land within the City, with the exception of the Biscayne Landing site, has been developed. Several emerging issues, such as overcrowding and affordable housing, have prompted the City to concentrate efforts on redevelopment. The City is working to redefine itself as a desirable urban place in which its residents, businesses, and visitors can live, work, shop, and relax.

On September 22, 2003, the City adopted a Transportation Concurrency Exception Area (TCEA) to ensure that redevelopment efforts were not hindered by transportation concurrency. Shortly after, the City designated the North Miami Community Redevelopment Area (CRA) and adopted a Community Redevelopment Plan (Plan). The transportation goals of both the TCEA and the Plan include increasing the transportation choices for residents and visitors, mitigating the City's traffic

congestion, and enhancing the streets.

As a condition of the TCEA, the City of North Miami is required to complete a land use and transportation study. The intent is to minimize and mitigate the impacts of the traffic concurrency exception. The purpose of this study — called the Transit Oriented Development (TOD) Feasibility Study (Study) — is to satisfy that condition by identifying transit nodes within the TCEA as potential transit oriented districts. The Study focuses on geographic locations within North Miami that have the potential to support TODs.

The Study involved a literature review that provided information on the current state of the practice of TODs in the United States; the



The City of North Miami
Community Redevelopment Plan
September 2004

characteristics, benefits, and success stories of implementation; and recommended policy framework for successful TODs. The literature review was used as a framework for developing guiding principles and criteria to evaluate the feasibility of TOD districts.

The existing transit system characteristics and service coverage within the City were also analyzed to identify transit nodes that have the potential to serve as

transit centers. The Miami-Dade Transit (MDT) transfer stops that enable transit riders to transfer between routes were chosen as preliminary transit nodes. The areas within a quarter mile radius of these transit nodes were identified as the preliminary candidates for TOD districts. These preliminary districts were evaluated based on the feasibility of the existing demographic and land use characteristics to support TODs.



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Nine candidate districts were selected and evaluated further.

The evaluation of the nine candidate districts was based upon a point scoring system to assess the TOD feasibility as defined by the following four characteristics:

- Transit System
- Existing Land Use
- Compactness and Connectivity of the Districts
- Future Land Use

These characteristics were chosen to reflect the most important considerations for development of TOD districts within the City. The districts that secured the highest scores were chosen as final candidate TOD districts.

The final TOD districts identified by the evaluation provide the City of North Miami an area in which to focus a TOD initiative. The recommendations suggest that the City first establish a community vision for TOD implementation. Broad-based community involvement will help develop key partnerships with community leaders, regional

transit agencies, and local businesses needed to successfully implement the TOD initiative. The TOD initiative should include an overlay district in the Future Land Use Element of the Comprehensive Plan and the Zoning Code specifying an appropriate mix of land uses, densities, and site design requirements supportive of TODs. The overlay district should also contain policies to develop a physical environment conducive to transit use, walking, and bicycling.

TOD has been gaining popularity in many parts of the United States due to increasing challenges to local

governments and regional planning authorities to provide for increasing transportation demands resulting from auto dependence. The City of North Miami is working to address its transportation issues and proactively develop a multimodal transportation system, including opportunities for innovative development forms including transit oriented development. The redevelopment initiatives of the Plan and the feasibility of TODs provide the City with an excellent opportunity to achieve its goals of becoming a great urban place. ◆



North Miami Arts District



Margolis Community Center, North Miami

I. Introduction

A. Study Purpose

In 2003, the City of North Miami established a Transportation Concurrency Exception Area (TCEA) to include all properties within its limits. The TCEA was adopted as an amendment to the Transportation Element of the City's Comprehensive Plan, as required by Florida Statutes. The purpose of the TCEA is to reduce the adverse impacts transportation concurrency may have on urban infill and redevelopment. The TCEA is consistent with Southeast Florida's "Eastward Ho!" initiative intended to concentrate future development and redevelopment within the existing urban core. The TCEA was also initiated to support the redevelopment efforts of the



West Dixie Highway

Community Redevelopment Agency's (CRA) Redevelopment Plan (Plan).

As part of the TCEA, the City of North Miami proposed to actively pursue transportation strategies to support and expand the City's multimodal transportation system including public transportation and pedestrian and bicycle circulation. The ultimate goal is to support a more sustainable, livable development pattern within the City that increases transportation choices for all residents.

The need for transportation strategies, ranging from public transportation initiatives to pedestrian and bicycle programs, was incorporated into the City's Transportation Element as goals, objectives, and policies (GOPs).



Traffic congestion on NE 125th Street

GOPs for the TCEA were adopted to:

- Mitigate the impacts of the TCEA on the transportation system
- Focus the City's transportation priorities on a multimodal transportation system
- Improve pedestrian and bicycle networks
- Support modifications to the City's Zoning Code to establish policies for development that support the multimodal transportation strategies



The complete GOPs for the City's Transportation Element are provided in Appendix B. Several policies relate to supporting public transportation and propose strategies for transit projects. For instance, Policy 3.1.3 (see inset) focuses on the connection between land use and transportation achieved through transit oriented development.

The purpose of this Transit Oriented Development (TOD) Feasibility Study (Study) is to complete the land use and transportation planning study and establish transit nodes within the TCEA (also the City Limits) as transit oriented centers.

B. Study Process

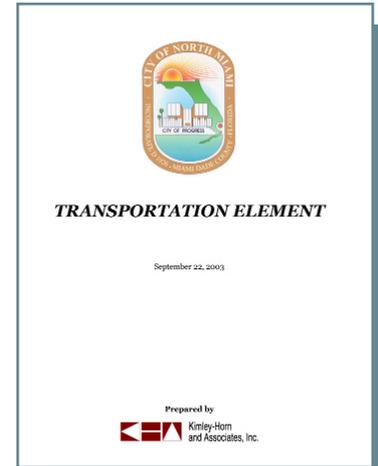
The focus of this Study is to identify areas within the City with the potential to be developed as TOD districts and to support the objectives and policies of the TCEA. The Study examines the existing population characteristics, residential densities, resident travel choices, quality of the transit system, and existing and future land use characteristics to determine the feasibility of implementing

*Policy 3.1.3:
Prior to submittal of the 2005 Evaluation and Appraisal Report (EAR), the City will complete a land use and transportation planning study aimed at establishing transit nodes within the TCEA as "transit oriented centers." Upon completion of the Study, the City will act on the conclusions and reasonable recommendations from the report to designate geographic specific areas within the City as transit oriented centers. Furthermore, the City will incorporate guidelines into its Comprehensive Plan as amended policies to encourage transit oriented design principles within these established transit nodes and will coordinate with Miami-Dade Transit, the Office of Public Transportation Management and the Miami-Dade County MPO to ensure adequate transit service is focused in these areas. Ideally, these transit oriented centers would evolve into having a 24-hour presence by providing housing, restaurants and cultural activities to encourage use beyond working hours and create a sense of place within the community.*

transit oriented development.

The initial phase of the Study begins with a literature review for information on the state of the practice of TODs, as well as lessons learned from other cities that have implemented TODs. The information gathered during the literature review (see Appendix A) establishes basic requirements and guiding principles for TODs and is used to develop criteria to evaluate the feasibility of TODs within specific geographic areas of the City. The guiding principles and evaluation criteria based on the literature review were defined using the following three characteristics:

- Quality of transit service and transit system
- Demographic
- Land use characteristics and policies



The Study then examines the existing transit systems within the City of North Miami and each of their components. The components of the transit systems include route alignments, headways, stop locations, transfer locations, and service days and duration. The major Miami-Dade Transit (MDT) transfer stops within the City were chosen as preliminary locations for TOD consideration. Once the components of the transit system were identified, the existing demographic characteristics based upon Census 2000 block group data were then analyzed — including population density, average household size, and mode of travel. These demographic characteristics were used to identify geographic areas that currently exhibit TOD supportive characteristics. Finally, the existing land use and the future land use plan, including the Community Redevelopment Plan, were reviewed to identify geographic

locations with land uses and densities that could support TODs. The above-mentioned elements were used to evaluate the feasibility of candidate districts. A final recommendation for TOD districts was then provided. The Study presents recommended policies and actions to implement TODs within North Miami. ♦



NE 6th Avenue and West Dixie Highway



II. What is a TOD?

The term *TOD* refers to “*transit oriented development*.” While there is no universal or standard definition for a TOD, it is generally defined as a development consisting of a mix of uses with varying densities within close proximity to a transit stop. The characteristics of this development form vary based upon its location, size of the project site or district, and type of transit service. The majority of successful TODs commonly share the following elements:

- Development close to, and well served by, transit, generally within a five-minute walk (approximately one-quarter-mile) of transit nodes, stops, or stations
- Compact, mixed-use development
- High concentrations of residential units
- Pedestrian- and bicycle-friendly environment

(Source: *Transit Oriented Development and Joint Development in the U.S.: A Literature Review*, October, 2002)

The goals of TODs are generally successful and sustainable development, increased transit ridership, and an increased quality-of-life.

For the purposes of this Study, a TOD is expected to contain the four elements presented above. For the evaluation of the feasibility of certain geographic areas within the City of North Miami, the Study focuses on a transit node — a transfer stop on the Miami-Dade Transit (MDT) system within North Miami. The transfer stop is a stop where a transit rider can switch from one route to another. The TOD districts evaluated as part of this Study are defined as the area within a one-quarter-mile radius of the transit node.



Transit Oriented Development Example
Source: *Mass Transit*, Volume XXV, No. 1 Feb/May 2004

For more information on transit oriented development, please refer to the articles, reports, and books referenced in the literature review provided in Appendix A. ♦

III. TOD Literature Review

While the concept of a TOD has changed over the years as a result of the varied perspectives of different researchers, TOD generally refers to a compact, mixed-use development offering a good mix of high-density residential, retail, and office uses, with a supporting network of bicycle and pedestrian ways, located around a major transit stop/station or along a major transportation corridor. In essence, a TOD promotes the concept of transit as a viable mode of transportation supported by a walkable environment. It also has the positive effect of reducing the number of automobile trips due to the proximity and mix of land uses within an area. TODs are typically within a one-quarter-mile radius of a transit stop, station, or an intermodal center. One-quarter mile is equivalent to the distance a person can comfortably walk in five minutes and is universally considered the typical threshold that someone will walk to a transit stop/station. Some of the other common

elements of TODs identified in the literature are:

- Intensified commercial development around transit stations or along transportation corridors
- Compact physical development in terms of smaller and uniform block sizes and buildings oriented towards the street
- Greater mix of land uses including commercial, office, and high-density residential, with public facilities and civic spaces
- Higher residential densities to generate ridership for transit service and support commercial developments
- Transit supportive land development regulations, zoning codes, and site development practices
- High quality transit service with a broader service area, reliability, shorter headways, longer hours of service, and greater provision



Major transit stop

of infrastructure amenities for transit riders

- Pedestrian- and bicycle-friendly environment of well-connected sidewalks and bike facilities to various parts of the community
- Provision for public facilities and civic spaces along with public amenities to provide a higher quality-of-life in the community

There is an extensive amount of research and literature available on TODs with varying terms used, such as transit friendly developments, transit focused developments, transit adjacent developments, transit villages, and transit supportive developments. TOD is used as an umbrella term for



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developments oriented towards a transit system in regional, urban, downtown or suburban settings.

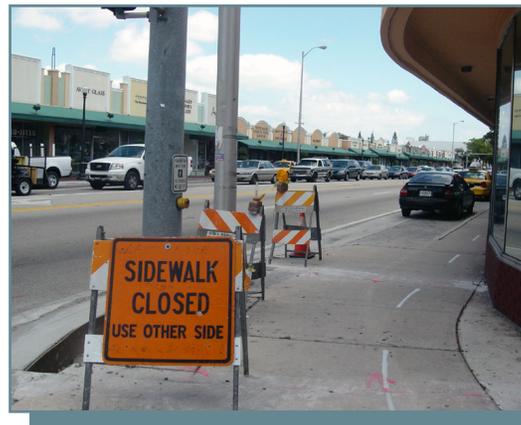
Several cities across the country have implemented and constructed TODs with a wide range of goals and varying levels of success. The literature provides case studies of several implemented TODs and identifies their common elements, benefits, and performance measures of success. Some of the benefits of TODs include increased transit ridership, improved quality-of-life, reduced household transportation expenses, reduced number of trips, reduced infrastructure costs, increased local economic development, real mitigation of traffic congestion, and increased housing affordability.

TOD is perceived in the literature as a very effective tool in promoting smart growth, leveraging economic development, and responding to housing market demands and lifestyle preferences. Local governments, redevelopment authorities, regional planning organizations, and transit agencies play an important role in the implementation of TODs and possess

several tools at their disposal to do so.

The information and case study experience gathered from the literature review is used in this Study to develop guiding principles and evaluation criteria to assess the feasibility of TODs at identified nodes within the City of North Miami. The evaluation focuses on several proposed districts and compares these areas with the principles and evaluation criteria derived from the literature to determine the feasibility of TODs within the City of North Miami. ◆

Elements of a TOD



IV. TOD Potential in North Miami

In order to evaluate the potential for TODs in the City of North Miami, a preliminary analysis was performed based on the existing transit system, demographic, and land use information.

The key element of any TOD is the location of the transit station or stop. Transit service in North Miami is provided by Miami-Dade County Transit (MDT) and the City of North Miami with its local transit circulator. There are several MDT transfer stops which facilitate transfer from one route to the other. For the purposes of the Study, the transfer stops are the “transit nodes” used to define the central point of the potential TOD districts. A one-quarter-mile radius around the transfer nodes was used as the basic geographic boundary of the potential TOD districts.

A. Preliminary Evaluation of TOD Districts

As previously mentioned, the guiding principles established to identify potential TOD districts within the City are based upon three main components of a TOD. Below are summaries of these components addressed in detail throughout this section:

- *Quality of transit service and transit system characteristics*

The transit system is the most critical element of a TOD. For a TOD to be successful, transit service must be fast, frequent, reliable, and comfortable. Headways should be at least 15 minutes or less, and service should be provided during longer service hours for a variety of users.

The bus is currently the major form of public transportation throughout the country. It provides flexibility and is used for



Miami-Dade transit stop

two-thirds of all transit trips. However, TODs based on bus stations/stops have not had much success in the United States as compared to rail-based TODs. Despite perceptions of bus services, bus routes, particularly routes with high ridership, provide opportunities for higher density development around the stops. (Source: *Ten Principles for Successful Development Around Transit*, 2003)

The City of North Miami’s TOD considerations are based upon the bus as the form of transit to support TODs.



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■ *Demographic characteristics*

The Study initially focuses on existing demographic characteristics of the City to determine if there are areas within the City that could support a TOD initiative with marginal changes to policies. The focus is on the existing population and residential unit density, along with public transit use by residents, as provided by the U.S. Census 2000 block group information. Higher population and residential unit density, typically seven units per acre minimum, is needed to support a transit system with



NE 7th Avenue at NE 125th Street

30-minute headways. Shorter headways require greater density requirements to support the transit system, unless there is higher-than-average transit use by residents within the district.

■ *Land use characteristics and policies*

Existing land use patterns and the future land use plans for the City are very important considerations when identifying a potential TOD district. Land use factors that support TOD include a sufficient mix of land uses consisting of higher commercial and residential densities to generate ridership to support the transit service. While the absence of a supporting land use makeup or a future land use plan does not completely deter an opportunity for a TOD, it adds an additional challenge in achieving this form of development.

The preliminary evaluation focuses on the three components summarized previously to identify potential areas within the City that exhibit potential to support a TOD.

1. *Transit Systems in North Miami*

Bus transit service in the City of North Miami is provided by NoMi Express, the local transit circulator, and Miami-Dade Transit, the County bus service.

a. *NoMi Express — Local Circulator*

NoMi Express provides four routes that currently split the City into four zones (see Figure 1). The routes are circular with connections to adjacent NoMi Express routes and with MDT routes. The service provides residents with additional access to MDT routes and serves areas of the City not served by MDT.



NoMi Express



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b. Miami-Dade Transit — County Bus Service

The City is served by 16 MDT regional routes connecting the City to other parts of Miami-Dade County (see Figure 2). The MDT routes through North Miami are mostly linear and provide good coverage within the City. The MDT routes serve all major corridors within the City, including NE/NW 125th Street, NE/NW 135th Street, Biscayne Boulevard, NW 7th Avenue, North Miami Avenue, NE 6th Avenue, NE 12th Avenue, and NE 16th Avenue. The routes provide several opportunities for transfer from one route to another and also from MDT routes to NoMi Express routes.

There are a few MDT routes that run along Interstate 95, but there are no opportunities for boarding or alighting on this route within the City Limit.

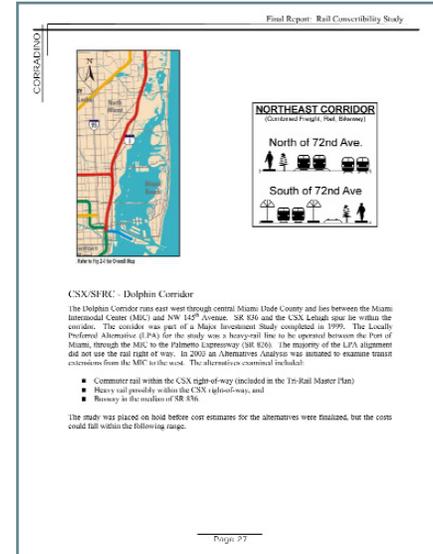


Miami-Dade transit

c. Regional Transit Systems

The two existing transit systems, NoMi Express and MDT, and the potential transit service on the FEC Corridor, provide excellent transportation options for residents as well as visitors and employees. Figure 3 shows all the transit routes within the City along with the potential FEC corridor. The City currently receives a tremendous benefit from the existing bus service, and the potential benefits from the proposed FEC Railway are significant. The FEC Railway is a unique opportunity because the corridor will be easily connected to other transit systems, adjacent to a mix of uses, and will provide a greater connection to Downtown Miami and the entire Tri-County Region.

Figure 3 shows all the NoMi Express and MDT transit routes within the City, as well as the location of the FEC Railway.

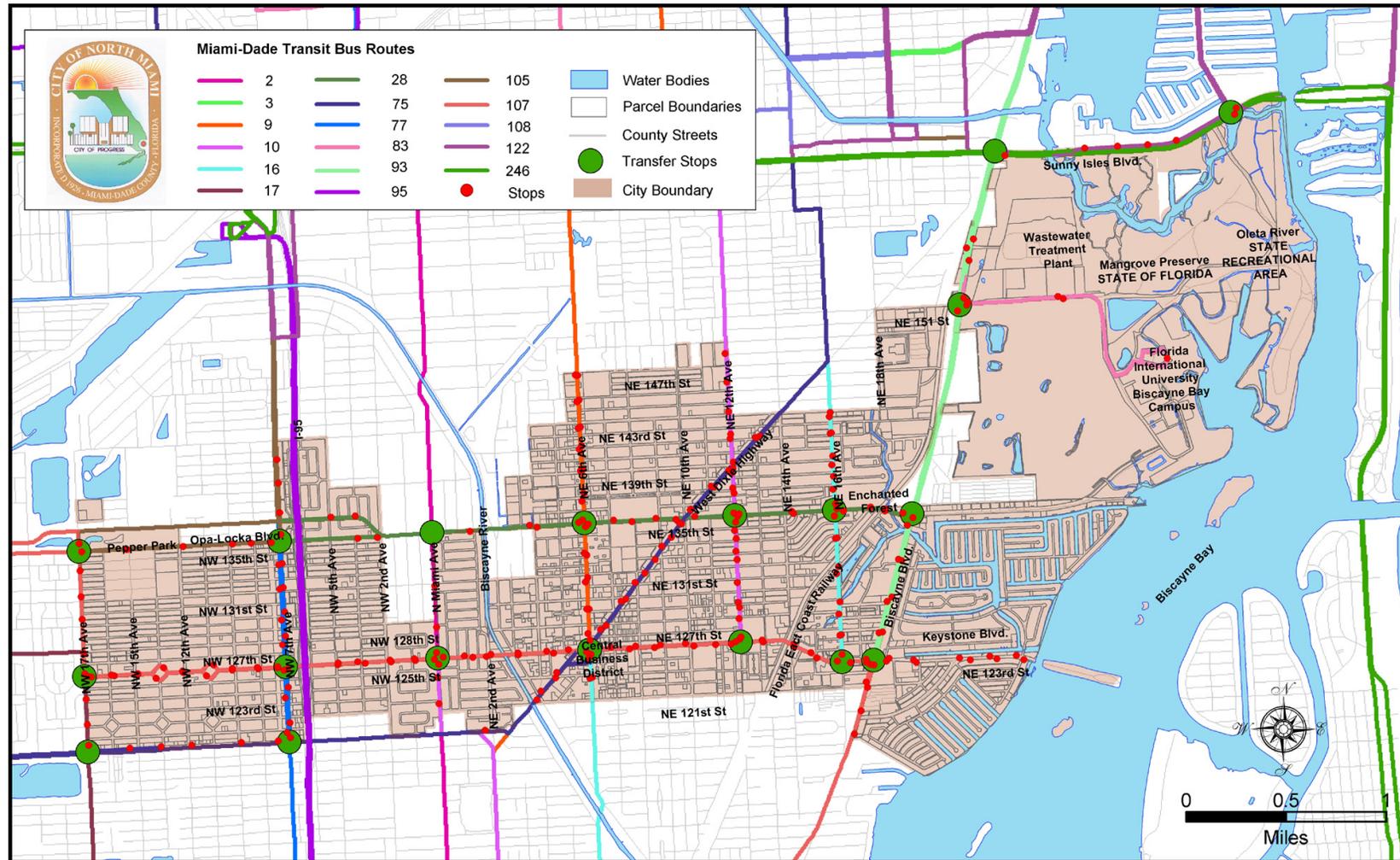


Excerpt from: Rail Feasibility Study, The Corradino Group



FEC Railway

Figure 2: Miami-Dade Transit Routes



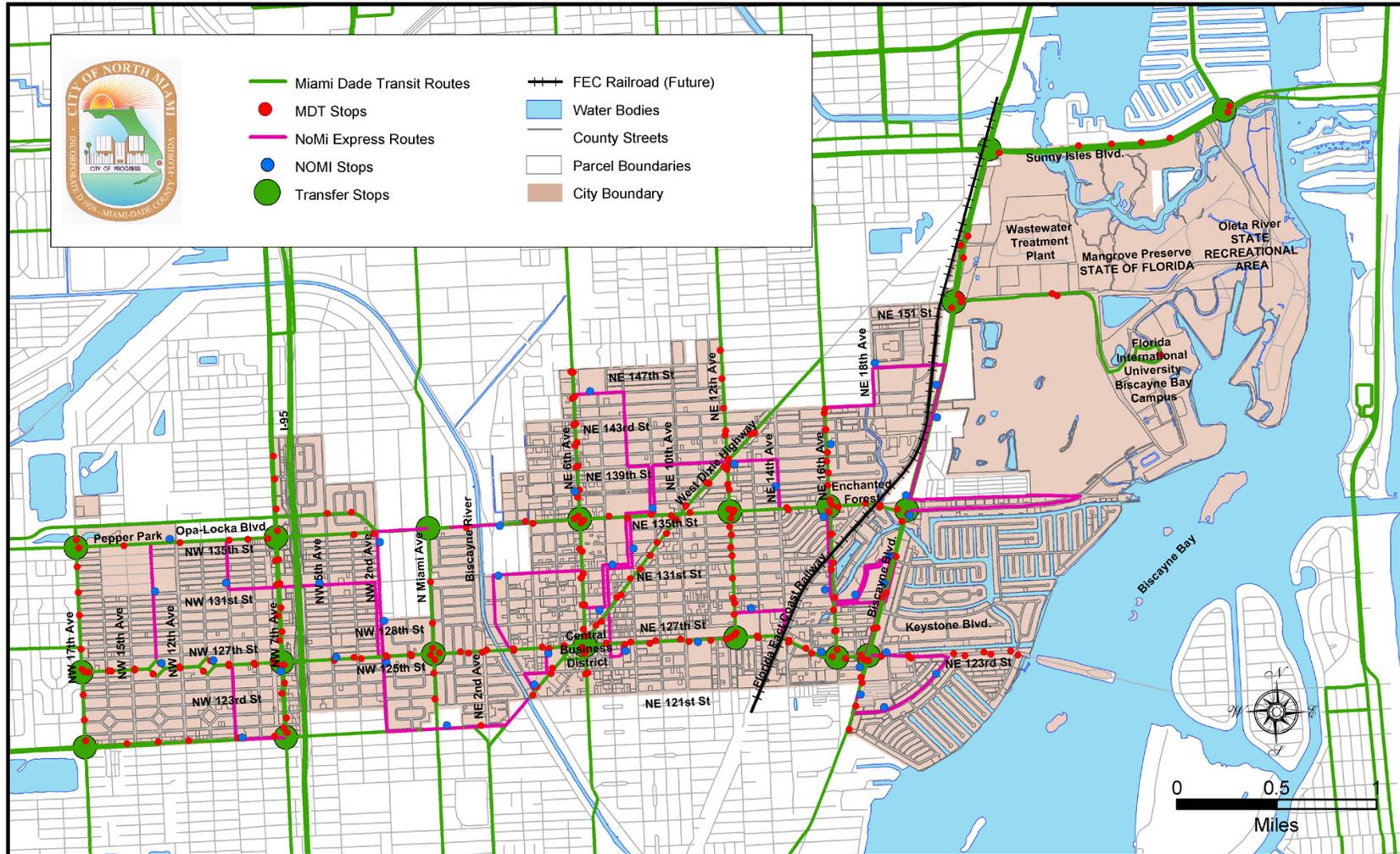
Source: Miami-Dade Transit Department
Map Date: March 15, 2005



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Figure 3: Regional Transit Systems



Source: City of North Miami & Miami-Dade Transit
Map Date: March 15, 2005

d. Transit System Characteristics

Figure 4 shows all NoMi Express and MDT stops within the City as well as transfer stops. As previously mentioned, the Study focuses on transfer stops as the nodal points for potential TOD districts. The transfer points are locations providing opportunities for transit riders to shift from one route to the other.

Overall, the City of North Miami has good coverage by transit, particularly the major transportation corridors within the City. Nonetheless, headways for certain routes could be improved to provide more convenient and reliable service. In addition, more focus is needed on transit infrastructure to improve the quality of the transit system as well as convenience and comfort for transit users.

The NoMi Express routes provide service on weekdays between 7:00 a.m. to 9:00 p.m. Their headways vary between 30 to 60 minutes. All the MDT routes, except Route 93 (Biscayne Max) and Route V (122), provide service seven days a week. Most of the routes provide service for more than 18 hours a day with varying headways between 7.5 to 60 minutes. Figure 5 shows all transit routes within the City for NoMi Express and MDT grouped by peak-hour headways.



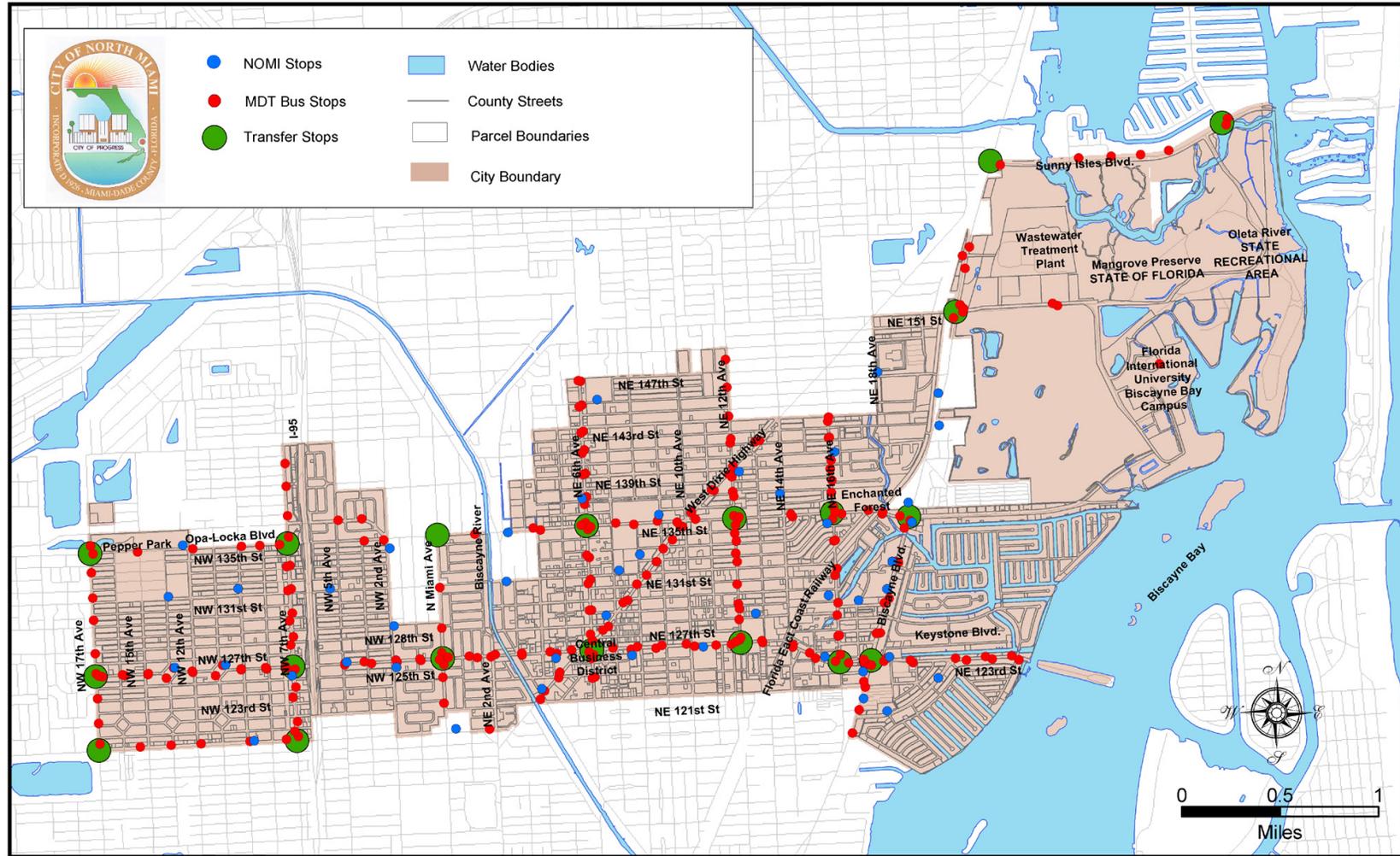
The City of North Miami is served by 16 MDT routes



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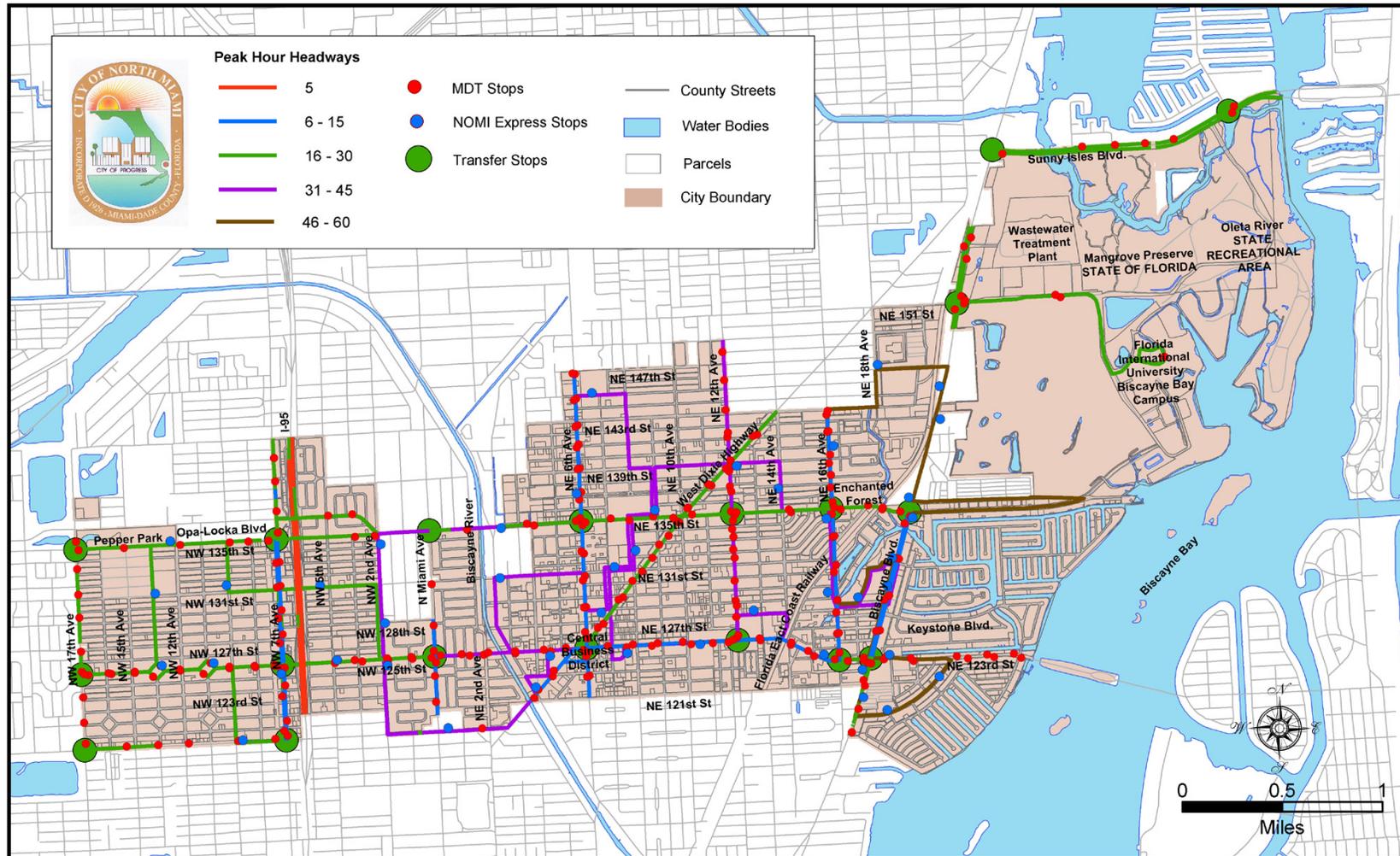
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Figure 4: Bus Stops and Transfers



Source: City of North Miami & Miami-Dade Transit
Map Date: March 15, 2005

Figure 5: Transit Headways



Source: City of North Miami & Miami-Dade Transit
Map Date: March 15, 2005



2. Demographic Characteristics

The Study analyzed the demographic characteristics and the built environment of the City to determine areas that could support TOD based upon the current population, residential dwelling unit density, and resident transit use. Characteristics from the United States Census 2000 block group information were evaluated.

a. Population Density — Population per Acre

Figure 6 shows the population density within the City represented as population per acre by Census block group. Based on the population densities, the City can be split into three subareas. The areas of the City to the east of Biscayne Boulevard have the lowest existing population densities — less than eight people per acre. The portions of the City to the west of Biscayne Boulevard and east of NE 2nd Avenue have medium (17-24 persons per acre) to medium-high (25-32 persons per acre) densities. However, the highest population density within this subarea (33-40 people per acre) is observed on a

very small Census block group just south of West Dixie Highway and north of NE 135th Street. The third subarea includes portions of the City to the west of NE 2nd Avenue and has low (less than eight people per acre) to low-medium (9-16 persons per acre) population densities.

The candidate TOD districts based on population density are shown in Figure 6. Candidate TODs are transfer stops with block groups surrounding it and have densities of 17-24 persons per acre or greater.

b. Residential Density — Dwelling Units per Acre

Figure 7 shows the dwelling unit density within the City represented as dwelling units (DU) per acre by Census block groups. Similar to the population density, the DU also divides the City into three subareas. The portions to the east of Biscayne Boulevard have low (less than one DU per acre) to low-medium (2-5 DU per acre) densities. This is due to the mostly undeveloped lands in the eastern portions of the City. The mid-section of the City between NE 2nd Avenue and Biscayne Boulevard has medium (6-8 DU per acre) to high (13-15 DU per acre) housing

densities. This is because of the relatively dense developments in this portion of the City in proximity to the Central Business District. The portions of the City west of NE 2nd Avenue have low (less than one DU per acre) to low-medium (2-5 DU per acre) housing densities.

The candidate TOD districts based on housing densities are shown in Figure 7 and are defined by a threshold of a minimum density of six units per acre.



Higher concentration of residential units

c. Travel to Work By Public Transportation

Figure 8 shows the percentage of people within each Census block group in North Miami that use public transportation as a mode of travel to work. The portions of the City east of Biscayne Boulevard have low (less than 4%) to low-medium (5-9%) public transit ridership. The mid-section of the City between NE 2nd Avenue and Biscayne Boulevard has medium (10-13%) to high (19-22%) level of transit ridership. The portions of the City west of NE 2nd Avenue also have medium (10-13%) to high (19-22%) level of transit ridership.

The selected candidate TOD districts based on the percentage of public transit use are defined by a threshold of a minimum of at least 10 percent or greater of people using transit as a means of travel to work (see Figure 8).

d. Household Size

Figure 9 illustrates the average household size within the City of North Miami by Census block group. The portions of the City to the east of Biscayne Boulevard have an average household size of two to three people. Most portions of the mid-section of the City between NE 2nd Avenue and Biscayne Boulevard have an average household size of three to four people, with some areas between two to three people. The portions of the City west of NE 2nd Avenue have the highest

average household sizes within the City. All of the census block groups within this portion of the City have greater than three to four people per household. Household size was not a factor in selecting candidate TOD districts because the household size distribution did not present any conclusive information to support or reject a candidate TOD district.

Several other demographic characteristics of the City were considered in the preliminary analysis but were not used in this Study in the report because of the minimal value provided to support TOD district identification. Additionally, such information was not available at the block group level and, therefore, did not provide any conclusions to analyze the feasibility of TODs. This information included:

- Household average income
- Percent of population using private mode of transportation
- Places of work



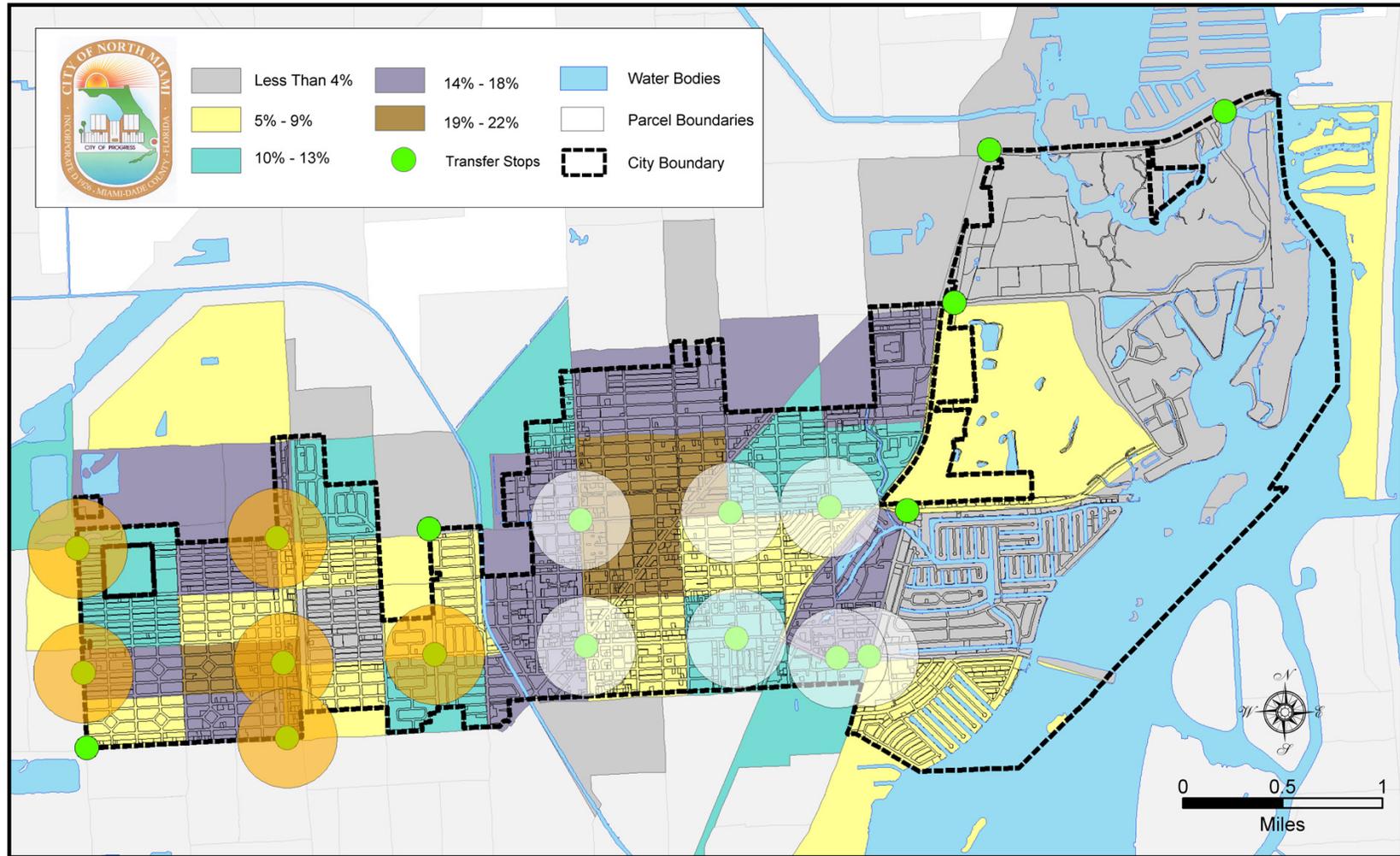
Bus stop at NE 125th Street



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Figure 8: Mode of Travel By Public Transit By Census Block Group



Source: United States Census 2000
Map Date: March 15, 2005



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3. Land Use

a. Existing Land Use

Land uses within close proximity to a transit node (stop, station, or transit hub) factor into the feasibility to support a TOD. One of the most important elements of a successful TOD is the mix of varied land uses that generate higher densities to support the transit service. The candidate TOD districts were plotted on the existing land use map of the City of North Miami to determine if the areas also offered a greater mix of land uses and higher residential densities (see *Figure 10*). The corridors within the City of North Miami that offer a mix of land uses are NW 7th Avenue, NE 6th Avenue, West Dixie Highway, NE 125th Street, and Biscayne Boulevard south of NE 135th Street. These corridors are comprised of commercial, office, and industrial land uses surrounded by low to low-medium density residential uses. The corridors offer great potential for TOD districts in

terms of mix of land uses but the residential densities are below the evaluation threshold of five dwelling units per acre to support premium quality transit service.



Land Uses within North Miami

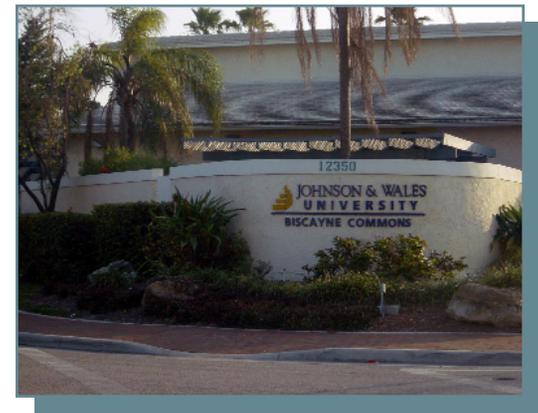
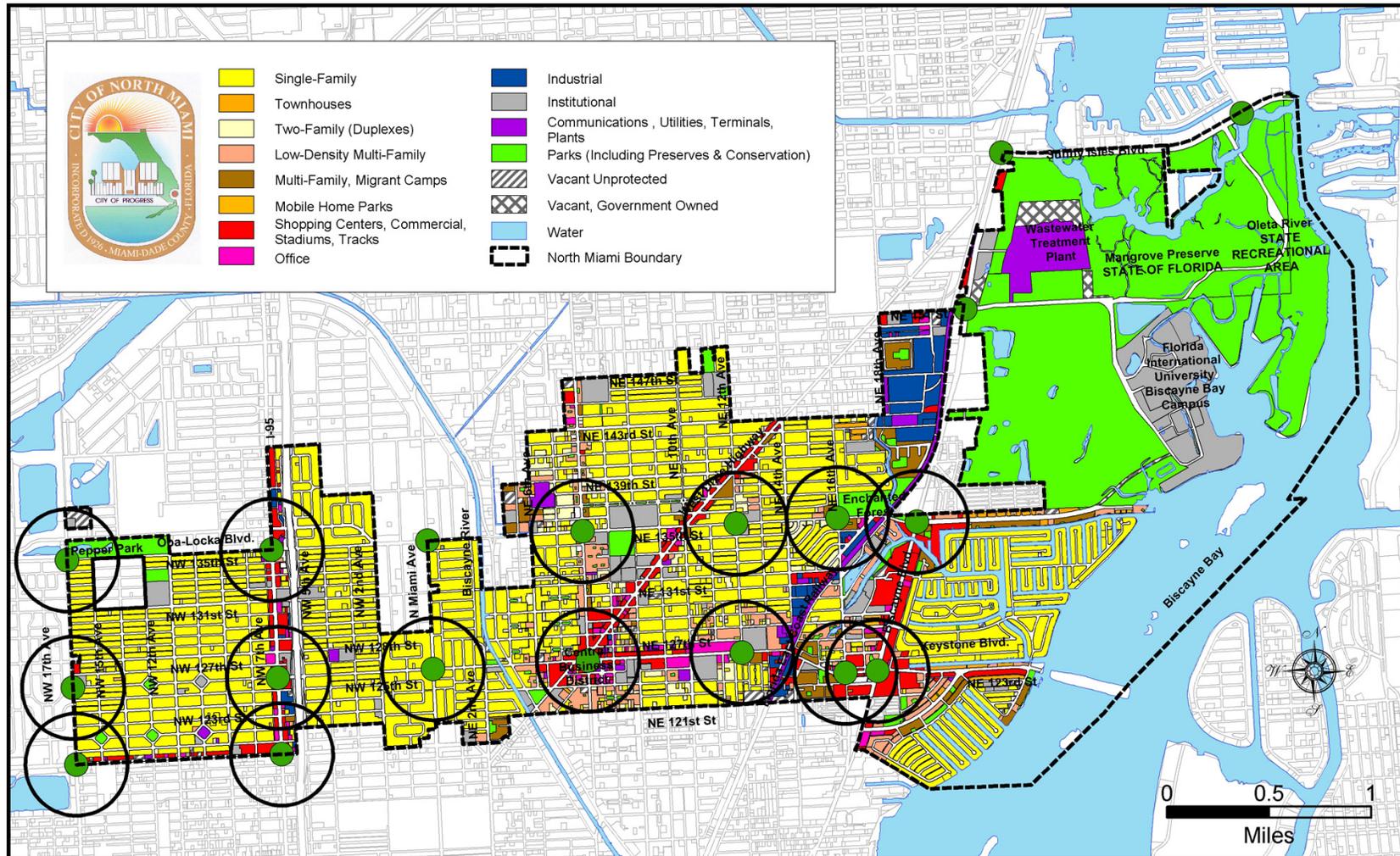


Figure 10: Existing Land Use Map



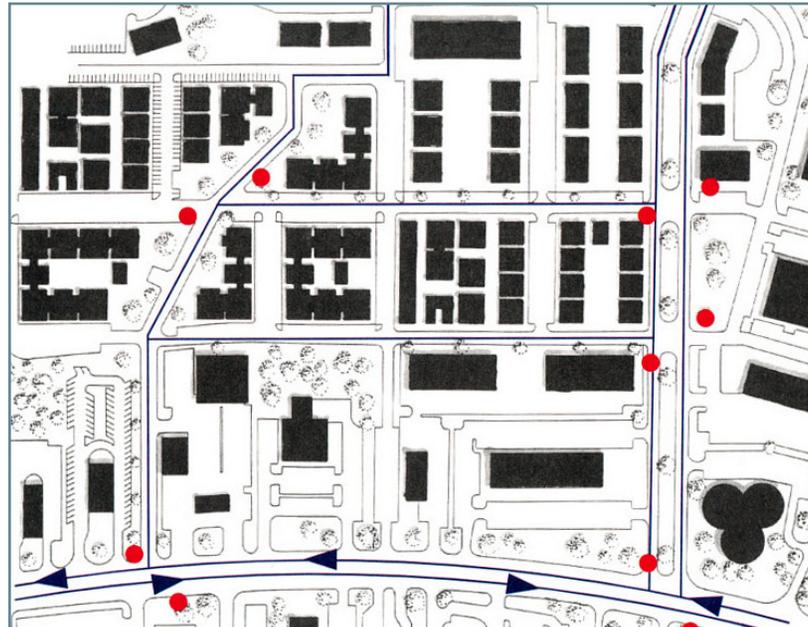
Source: Existing Land Use Information (2001) Miami-Dade Information Technology Department
 Map Date: March 15, 2005



b. Future Land Use

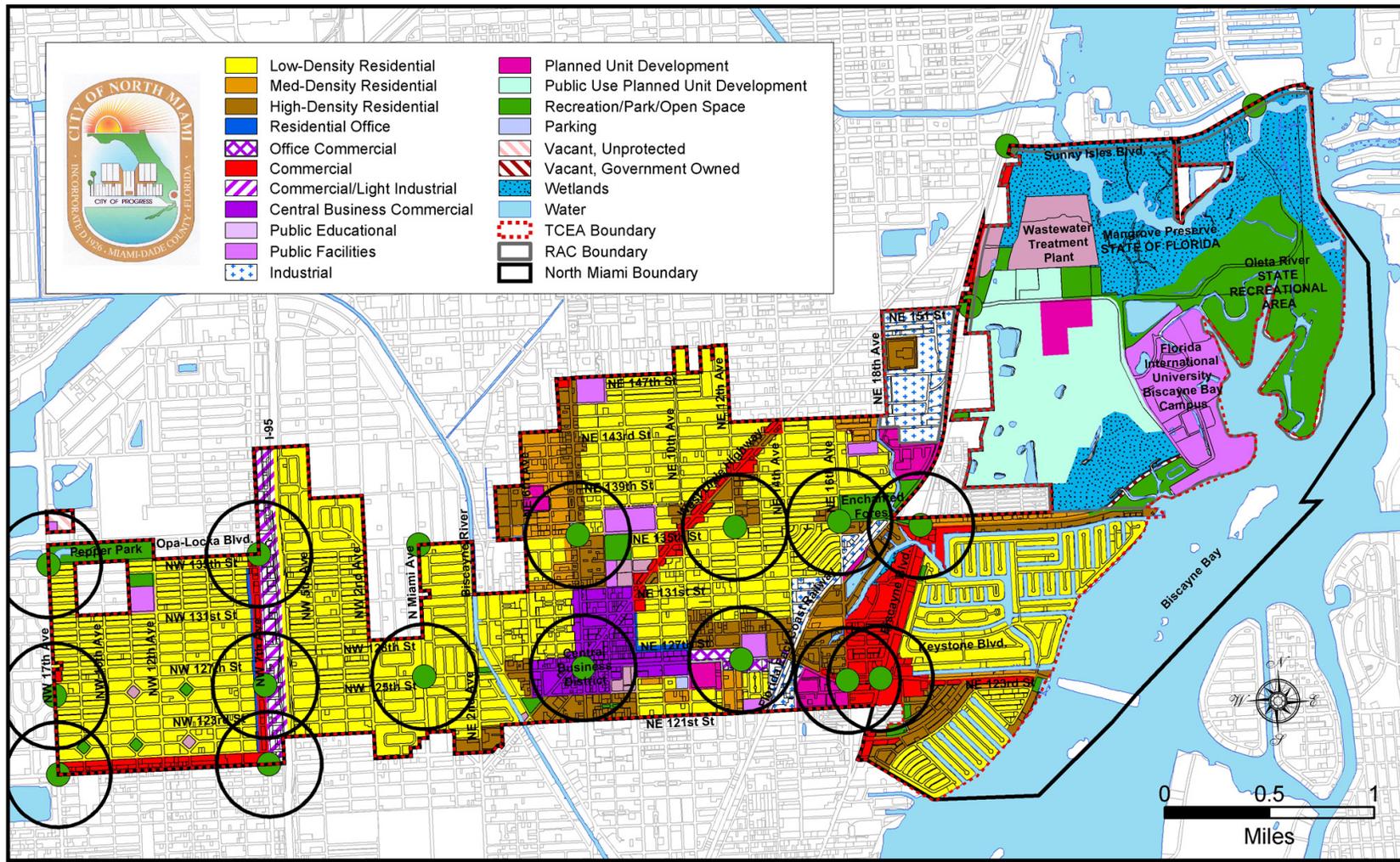
The Future Land Use Map (FLUM) adopted as part of the Future Land Use Element (FLUE) of the City's Comprehensive Plan was evaluated to identify areas that may support land uses and densities necessary for TODs in the future. The major transportation corridors like NE 125th Street, West Dixie Highway, and Biscayne Boulevard have a higher potential for a TOD under the future land use scenario due to their high residential densities of up to 25 dwelling units per acre. NW 7th Avenue remains the same in terms of residential and commercial uses and densities. However, the Central Business District (CBD) is categorized as a mixed-use district in the FLUM. Additionally, Biscayne Landing and other planned unit developments are being proposed along Biscayne Boulevard with mixed-uses and higher residential densities. High-density residential uses are being proposed along NE 6th Avenue and NE 125th Street which would have a positive impact on transit ridership.

Figure 11 shows the candidate districts identified on the future land use map that permit mixed-uses and high residential densities.



Mixed-use districts along arterials can be made more accessible to transit by reducing the block size and the need for out of direction travel. Bus stop locations are indicated by red dots on this plan. Bus routes are shown in blue.

Figure 11: Future Land Use Map



Source: City of North Miami
Map Date: March 15, 2005



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c. Updated Future Land Use — Including CRA Stage II Plan

The North Miami CRA has prepared a Redevelopment Plan that sets goals and objectives for redevelopment within the CRA and proposes changes to the FLUM to increase the size of the CBD, add areas of mixed-use, and increase the residential densities within certain corridors of the City. All of these objectives serve to further support TOD initiatives.

Figure 12 shows the Updated Future Land Use Map with the candidate TOD districts from the previous evaluations superimposed on the map. Figure 12 illustrates the CRA Stage II Redevelopment Plan as well as areas of the City not covered by the CRA.

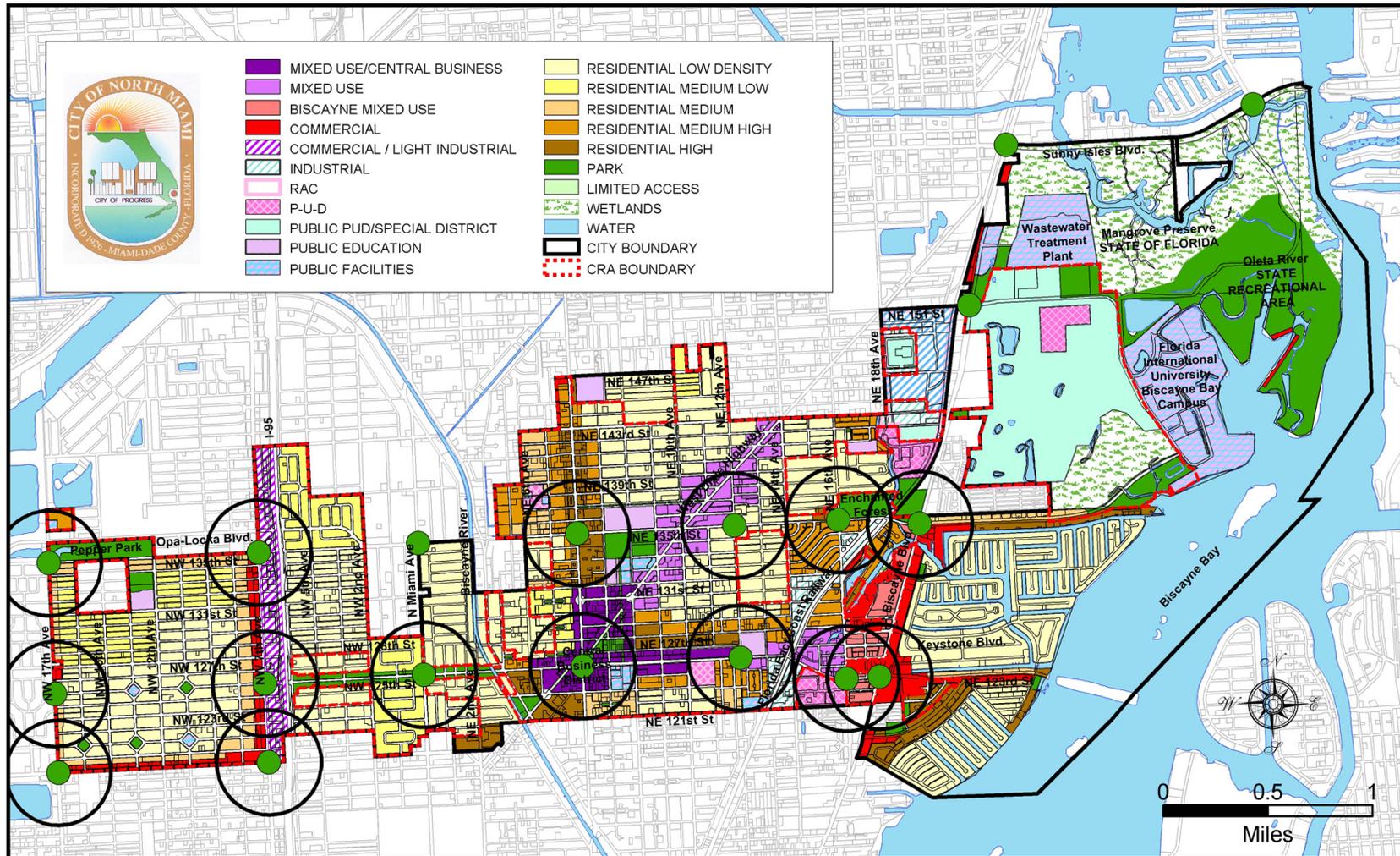
Under the CRA Stage II Plan, all of the Central Business District, portions of NE 125th Street east of the CBD, and all of West Dixie Highway north of the CBD have been categorized as mixed-use. NE 6th Avenue and areas north and south of NE 125th Street will contain high-density residential (25-40 DU per acre) that will support the mixed land uses. Additionally, Biscayne

Landing will further intensify the land uses along Biscayne Boulevard along with the additional planned unit developments and mixed-uses proposed along Biscayne Boulevard.

Examples of good TOD Elements



Figure 12: Updated Future Land Use Map with Stage II CRA Redevelopment Plan



Source: City of North Miami and the City of North Miami Community Redevelopment Plan (September 2004)
Map Date: March 15, 2005



4. TOD Preliminary Evaluation

The preliminary evaluation of candidate TOD districts was conducted using transit system characteristics, demographic characteristics, and land use characteristics. As shown in Figures 14 through 22, several of these candidate districts offer the potential for TODs based upon the evaluation thresholds for each characteristic. Transit nodes that did not meet minimum thresholds were eliminated from further consideration.

Several of the candidate districts were consolidated due to their proximity to one another, typically an overlap of boundaries.

Out of the 15 preliminary candidate districts, nine were selected for further evaluation (see Figure 13). The nine candidate districts are ranked against the evaluation criteria to determine the feasibility and priority for TODs in the next section.

B. Secondary TOD District Evaluation Criteria

As previously indicated, the potential TOD districts identified in the preliminary evaluation are the areas within a one-quarter-mile radius of a transfer stop with at least three of the following five characteristics:

- At least one bus transfer point
- Population per acre greater than 17 persons per acre
- Average dwelling units greater than 5 units per acre
- Public transportation use greater than 10 percent
- Mixed-use or central business district zoning

Secondary evaluation criteria were created to further assess the feasibility of the potential TOD districts and provide guidance for prioritization of the City's initiatives. These criteria have been grouped into four categories:

- Transit System
- Existing Land Use

- Compactness and Connectivity of the Districts
- Future Land Use

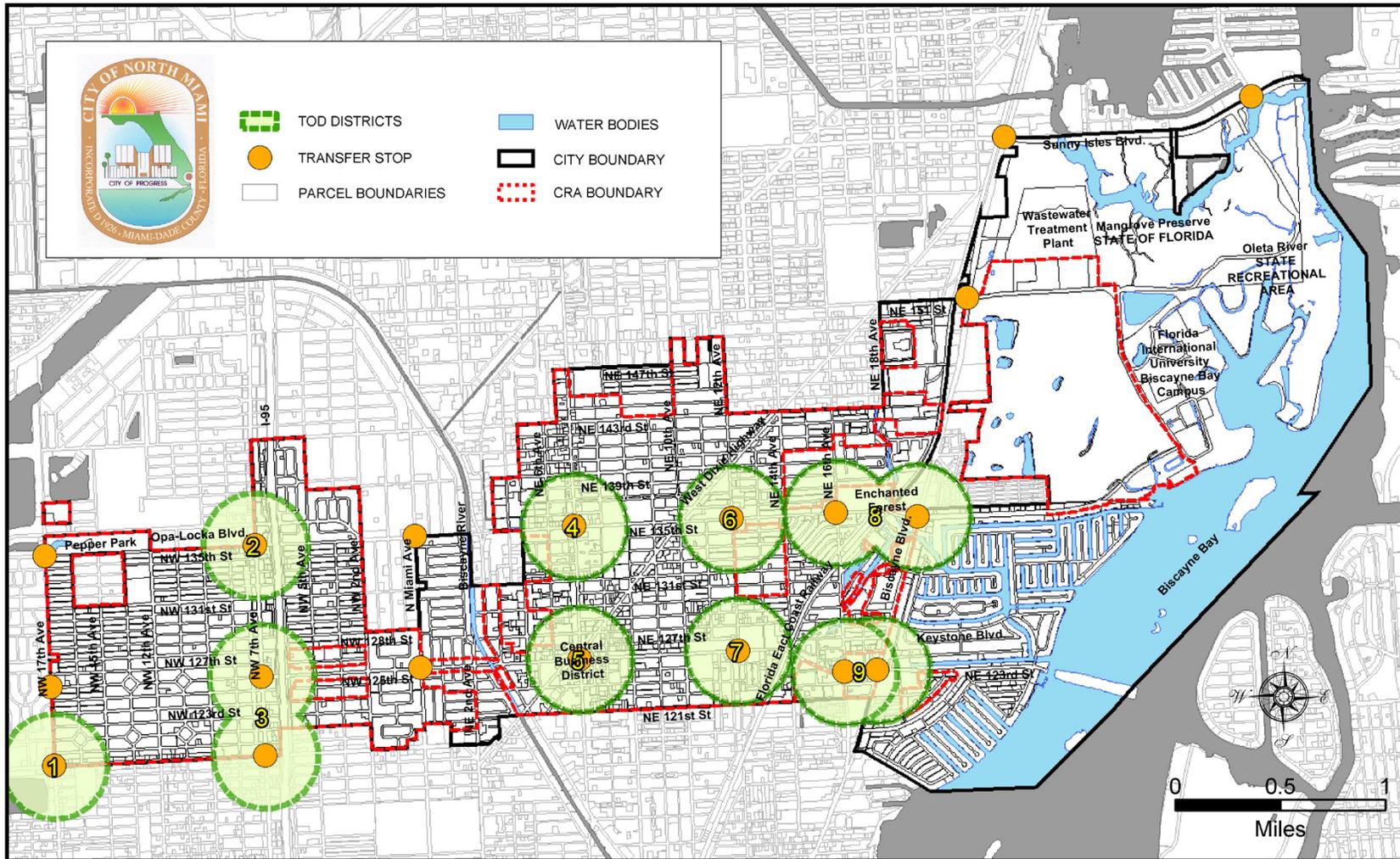
1. Transit System

The location and quality of the transit system is the basic element of a TOD. In most successful TODs, the center of the TOD has been a rail station. In the City of North Miami, however, transit service is provided by bus. The area of influence of a major bus stop is much smaller than that of a rail station due to its limited potential to attract ridership. The transit system criteria mentioned below are based on bus transit service.

a. Type of Service

The type of transit providing service to the TOD district has an impact on the magnitude of the development and economic potential of the TOD as well as the number of riders generated or provided by the development. For this Study, the following point system will be used for quantifying a district's TOD feasibility:

Figure 13: Nine Candidate Transit Oriented Development Districts



Source: City of North Miami and the City of North Miami Community Redevelopment Plan (September 2004)
Map Date: March 31, 2005



■ *Local bus or shuttle service (NoMi Express) — 1 point*

Local bus service is generally slower with more frequent stops and a smaller coverage area than the other transit services.

■ *County bus service (MDT) — 2 points*

This service has a greater coverage area, with transfers providing service to areas outside the City. It typically provides connections to other transit services such as Tri-Rail and Metro-Rail.

■ *Bus rapid transit service/light rail or commuter rail — 3 points*

Bus rapid transit or light rail has a wider coverage than local or regional routes. Light Rail often provides a more predictable service as the track is easy to locate and the route is permanent. Businesses tend to associate a greater economic potential from light rail than rubber-tire service due to this perception of permanence. However, bus rapid transit service is gaining greater

acceptance due to comparable service components such as state-of-the-art vehicles and more reliable service. Bus rapid transit service is also much less expensive than light rail and provides a greater degree of flexibility.

b. Number of Routes

The number of routes providing service to a TOD district is a strong indicator of the number of areas that have access to the TOD by transit as well as the number of destinations that can be traveled to by transit from the TOD.

The number of routes is calculated into a formula:

- *Local shuttle routes — 1 point per route*
- *Regional bus service — 2 points per route*
- *Bus rapid transit and light rail routes — 3 points per route*

c. Number of Stops

The number of stops within a TOD district is an indicator of the comfort and convenience of the transit service. For local transit, each stop will receive one point;

regional bus service will receive two points per stop; and rapid transit/light rail stops will receive three points per stop.

d. Transit Frequency (headways)

Headways, are the best indicator of a systems frequency and often reliability. Shorter headways provide transit users greater access and convenience of scheduling by decreasing wait times and increasing the convenience of the system. Peak period headways for routes providing service to a TOD district will be quantified by the following point system:

- *More than 45 minutes — 1 point*
- *31 to 45 minutes — 2 points*
- *16 to 30 minutes — 3 points*
- *6 to 15 minutes — 4 points*
- *Less than 5 minutes — 5 points*

e. Duration of Service (days/times)

The quality of transit service is often perceived as the system's capacity to serve longer hours during the day and more days during the week. This is directly correlated to the reliability of transit service from the transit rider's perspective.

The availability of service on days other than just weekdays increases the reliability of transit service because of the service availability for purposes other than workplace commuting. The following point system will be used to assess the availability of transit service based on the number of days of service in a week:

- *Monday - Friday — 1 point*
- *Including Saturday — 2 points*
- *Including Sunday — 3 points*

Good transit service with longer service hours throughout the day other than just peak hours makes transit available to riders for non-work based trip purposes like shopping, recreation, and other uses. Transit service should be available on days and times to serve passengers regardless of age, occupation, or other characteristics. The following point system will be used to assess the availability of transit service based on the hours of service for the routes providing service to the TOD nodes and districts:

- *Less Than 12 Hours — 1 point*

- *Between 12 and 15 Hours — 2 points*
- *Between 15 and 18 Hours — 3 points*
- *More than 18 hours — 4 points*

2. Existing Land Use

a. Mix of Uses

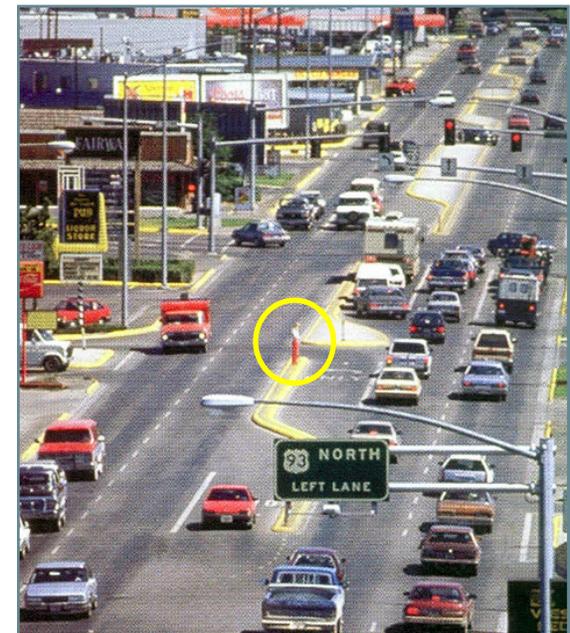
Part of the Study focuses on the City's existing potential for TOD opportunities based upon the existing development pattern and transit service. The existing mix of land uses within a proposed TOD district will have an effect on a district's TOD potential. The uses are generalized into residential, retail, office, and any other land use to determine a mix. For the quantitative evaluation, each of the four uses within a proposed TOD district will be given one point.

b. Residential Density

TOD literature suggests that the concentration of residential units within a proposed TOD district must be high enough to support the type of transit providing service to the area. The existing density of residential units within the proposed

TOD district will be ranked based upon the following scores:

- *Less than 5 units per acre — 0 points*
- *6 to 10 units per acre — 1 point*
- *11 to 15 units per acre — 2 points*
- *16 to 20 units per acre — 3 points*



Example of poor pedestrian environment



3. Compactness/Connectivity

The pedestrian environment within a TOD district is a critical component of a TOD and the transit system. The compactness or connectivity within a TOD district is a significant element of the pedestrian environment. Shorter blocks provide greater pedestrian connectivity and more convenient circulation which supports the transit service. The following criteria will be used to evaluate a district's compactness and connectivity.

a. Median Block Size

One of the basic elements of a walkable community is provision of smaller blocks for convenient, pleasant, and comfortable pedestrian environment. Smaller blocks provide a fine-grained network of streets. The ideal block perimeter within a TOD is considered to be no more than 1,350 feet (approximately one-quarter-mile) or about 350 feet on each side. This is the equivalent of a 5-minute walk. In order to provide a quantitative evaluation of the average block perimeter, the following scores will be used:

- Median block perimeter greater than 3,000 feet — 0 points
- Median block perimeter between 1,901 feet and 3,000 feet — 1 point
- Median block perimeter between 1,601 feet and 1,900 feet — 2 points
- Median block perimeter between 1,351 feet and 1,600 feet — 3 points
- Median block perimeter less than 1,350 feet — 4 points

b. Presence of Sidewalks

While small blocks are important, sidewalks are critical to creating a good pedestrian environment. In addition to small blocks, proposed TOD nodes and districts need to have a continuous sidewalk network in order to serve the pedestrian mode of travel. Once a sufficient sidewalk network within the TOD district is established, additional analysis will be required to determine the quality and level of service of the sidewalk links. This Study is focusing only on the presence of sidewalks based upon the following scores:

- Presence of sidewalks on less than 50 percent of the streets within the district — 0 points
- Presence of sidewalks on 51 to 70 percent of the streets within the district — 1 point
- Presence of sidewalks on 71 to 85 percent of the streets within the district — 2 points
- Presence of sidewalks on 86 to 100 percent of the streets within the district — 3 points

4. Future Land Use

For a TOD to be truly successful, the comprehensive plan for a community must include TOD initiatives. More importantly the zoning code and the land development regulations need to establish the densities, mix of uses, and urban design guidelines that are "transit oriented," such as higher residential densities, commercial and residential mixes, and site design requirements that are compact and pedestrian-oriented. Otherwise, these regulatory tools become obstacles instead of facilitators. The following criteria will be used to evaluate existing development rules

and will guide recommendations as to future regulations to improve the feasibility of proposed TOD nodes and districts.

The comprehensive plan provides the best information for evaluating the feasibility of TODs within a proposed district based upon two major characteristics — future land uses and residential density.

a. Land Uses

The following scores will be used to quantify future land uses within the proposed district:

- *Commercial, Office, or Retail — 1 point*
- *Residential — 2 points*
- *Mixed-Use — 3 points*

b. Potential Residential Density

The ability to increase residential density through redevelopment is a significant factor that increases the feasibility of TODs. Considering the redevelopment effort proposed in the CRA's Redevelopment Plan, there is significant opportunity for TODs in North Miami. Therefore, the potential density within a

proposed district is important in determining the feasibility of TOD. The following scores are the same as those used for the existing residential density:

- *Less than 5 units per acre — 0 points*
- *6 to 10 units per acre — 1 point*
- *11 to 15 units per acre — 2 points*
- *16 to 20 units per acre — 3 points*
- *21 to 30 units per acre — 4 points*
- *31 to 45 units per acre — 5 points*

5. Scoring Summary

The above-mentioned point system will be used to evaluate each of the candidate TOD districts based on four criteria groups:

- Transit System
- Existing Land Use
- Compactness and Connectivity of the Districts
- Future Land Use

These four components play an equally important role in the success of a TOD. The total score from each of the four categories was standardized to a score between 0 and 1 within each category to provide an equal weight for the overall feasibility score. The maximum score attainable by any candidate district is 4.0 assuming that it scores the full one point score in each of the criteria group. Based upon the feasibility score, a score of 3.0 points was determined to be the minimum score required to support TODs. The minimum score was set based on the hypothesis that a score of 3.0 out of 4.0 indicates that at the very least, three out of the four major components of a successful TOD would be accomplished. Table 1 shows the scoring method used for the evaluation of the candidate districts.

C. TOD District Evaluation

Secondary evaluations were performed for each of the nine TOD candidate districts previously identified in the preliminary evaluation. The evaluation of each of the nine candidate districts is provided on the following pages.



Table 1

| City of North Miami Transit Oriented Development Feasibility Study Scoring Method | | |
|---|--------------------------------------|----------|
| EVALUATION CRITERIA | RANGE | POINTS |
| 1. Quality of Transit Service | | |
| a) Type of service | North Miami (NoMi) Service | 1 |
| | Miami-Dade Transit (MDT) Service | 2 |
| b) Number of routes | Each NoMi Route | 1 |
| | Each MDT Route | 2 |
| c) Number of stops | Each NoMi Stop | 1 |
| | Each MDT Stop | 2 |
| d) Transit frequency | More than 45 minutes | 1 |
| | Between 31-45 minutes | 2 |
| | Between 16-30 minutes | 3 |
| | Between 6-15 minutes | 4 |
| | Less than 5 minutes | 5 |
| e) Duration of service - Days | Monday thru Friday | 1 |
| | Including Saturdays | 2 |
| | Including Sundays | 3 |
| | Less than 12 hours | 1 |
| | Between 12-15 hours | 2 |
| | Between 16-18 hours | 3 |
| | Between 18-24 hours | 4 |
| | Total Score | 1 |
| Transit Factor⁽²⁾ | | |
| 2. Existing Development Characteristics | | |
| a) Land Uses | Residential | 1 |
| | Retail | 1 |
| | Office | 1 |
| | Any other use | 1 |
| b) Residential Density | Less than 5 dwelling units/acre | 0 |
| | Between 6 - 10 dwelling units/acre | 1 |
| | Between 11 - 15 dwelling units/acre | 2 |
| | Between 16 - 20 dwelling units/acre | 3 |
| | Total Score | 1 |
| Existing Development Factor⁽²⁾ | | |
| 3. Compactness/Connectivity | | |
| a) Median Block Size | More than 3,000 feet | 0 |
| | Between 1,901 - 3,000 feet | 1 |
| | Between 1,601 - 1,900 feet | 2 |
| | Between 1,351 - 1,600 feet | 3 |
| | Less than 1,350 feet | 4 |
| b) Presence of sidewalks | Less than 50% sidewalk coverage | 0 |
| | Between 51% - 70% sidewalk coverage | 1 |
| | Between 71% - 85% sidewalk coverage | 2 |
| | Between 86% - 100% sidewalk coverage | 3 |
| | Total Score | 1 |
| Compactness/Connectivity Factor⁽²⁾ | | |
| 4. Future Development Potential | | |
| a) Allowable Land Uses | Office & Commercial/ Retail | 1 |
| | Residential | 2 |
| | Mixed Use | 3 |
| b) Residential Density | Less than 5 dwelling units/acre | 0 |
| | Between 6 - 10 dwelling units/acre | 1 |
| | Between 11 - 15 dwelling units/acre | 2 |
| | Between 16 - 20 dwelling units/acre | 3 |
| | Between 21 - 30 dwelling units/acre | 4 |
| | Between 31 - 45 dwelling units/acre | 5 |
| | Total Score | 1 |
| Future Development Factor⁽²⁾ | | |
| Proposed TOD District Feasibility Score⁽¹⁾ | | |
| | Total Score | 4 |

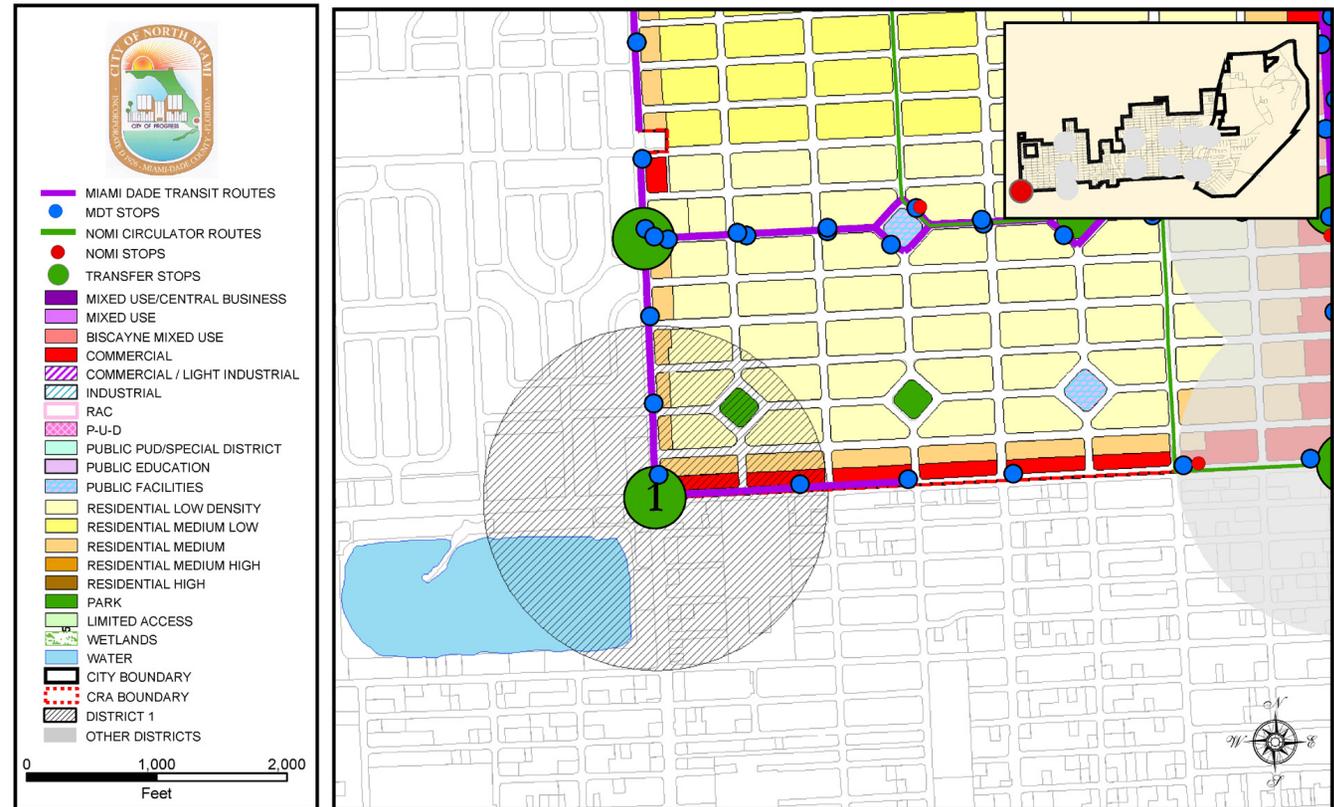
(1) The total score from each of the four components are factored to a point score of 1.0
 (2) Proposed TOD District Feasibility Score = Combination of transit, existing development, connectivity/compactness and future development factors. Maximum possible score is 4.
 P:\0420\39004\TOD Study\TODEvaluationMatrix.xls\final_scores (2)

1. TOD District 1 (D1)

Figure 14 shows the location and the future land use of District 1. The characteristics of District 1 are as follows:

- District 1 is located at the southwestern portion of the City around the intersection of NW 119th Street and NW 17th Avenue.
- Approximately 3/4 of the district is located outside the City limits.
- The district is not served by NoMi Express. It is served by Miami-Dade Transit (MDT) routes 17 and 75.
- MDT service is provided seven days a week within the district with 30-minute headways during the peak hour.
- The existing land uses are comprised of predominantly residential with commercial uses along NW 119th Street. The existing residential densities are less than five dwelling units per acre.
- The district consists of relatively small and uniform blocks with sidewalks.
- The future development potential according to the CRA Plan does not provide for densities and mix of uses necessary to support TODs.

Figure 14: Transit Oriented Development District 1



Source: City of North Miami, Miami-Dade Transit and the Community Redevelopment Plan (September 2004)
Map Date: March 15, 2005

District 1 Overall Score = 2.47

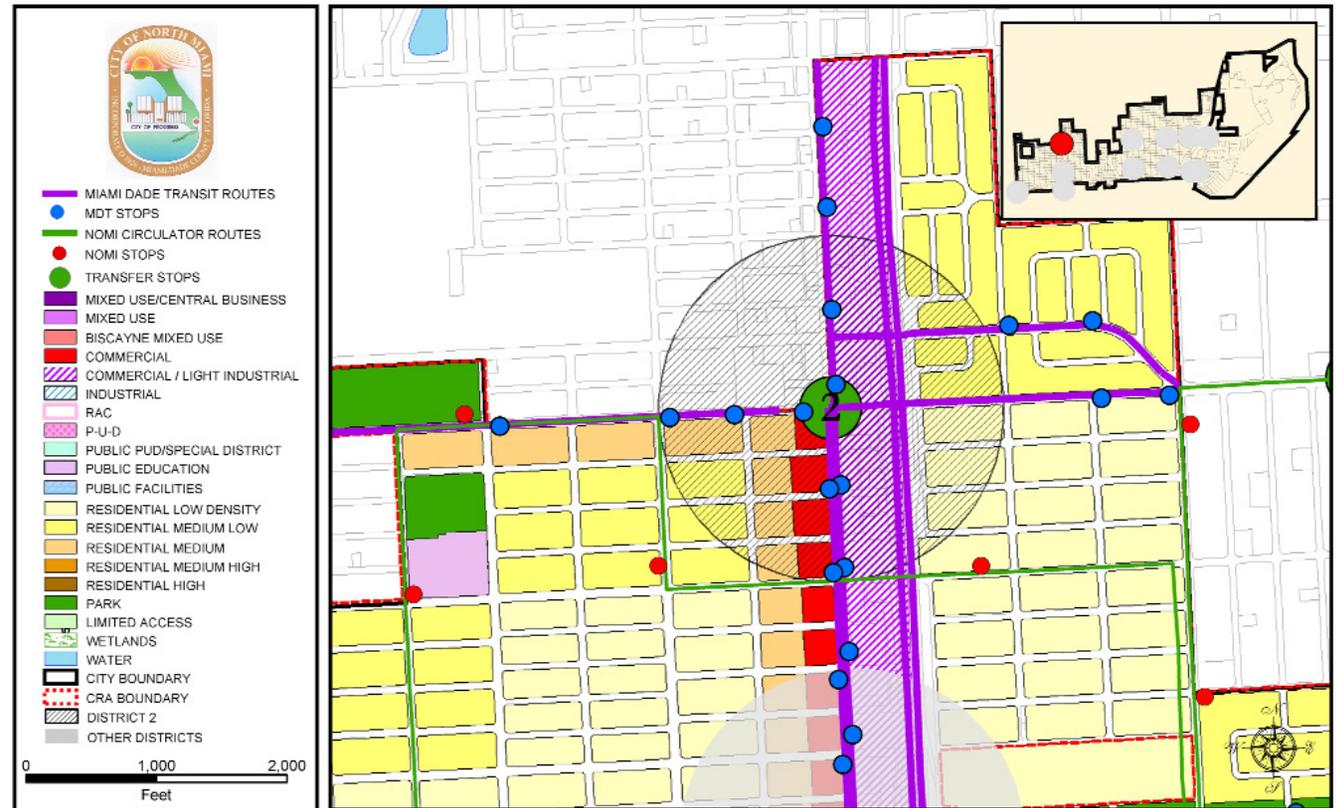


2. TOD District 2 (D2)

Figure 15 shows the location and the future land use of District 2. The characteristics of District 2 are as follows:

- District 2 is located around NW 135th Street and NW 7th Avenue.
- The district is served by NoMi Express route 1 and MDT routes 28, 77 and 105.
- The NoMi Express route provides service during the weekdays with 30-minute headways.
- MDT service is provided seven days a week with 7.5- to 30-minute headways during the peak hour.
- The existing land uses are comprised of commercial, office, and industrial uses along NW 7th Avenue with residential uses towards the periphery. The existing residential densities are less than five dwelling units per acre.
- The district consists of relatively small and uniform blocks with sidewalks.
- The future development potential according to the CRA Plan does not provide for densities and mix of uses necessary to support TODs.

Figure 15: Transit Oriented Development District 2



Source: City of North Miami, Miami-Dade Transit and the Community Redevelopment Plan (September 2004)
Map Date: March 15, 2005

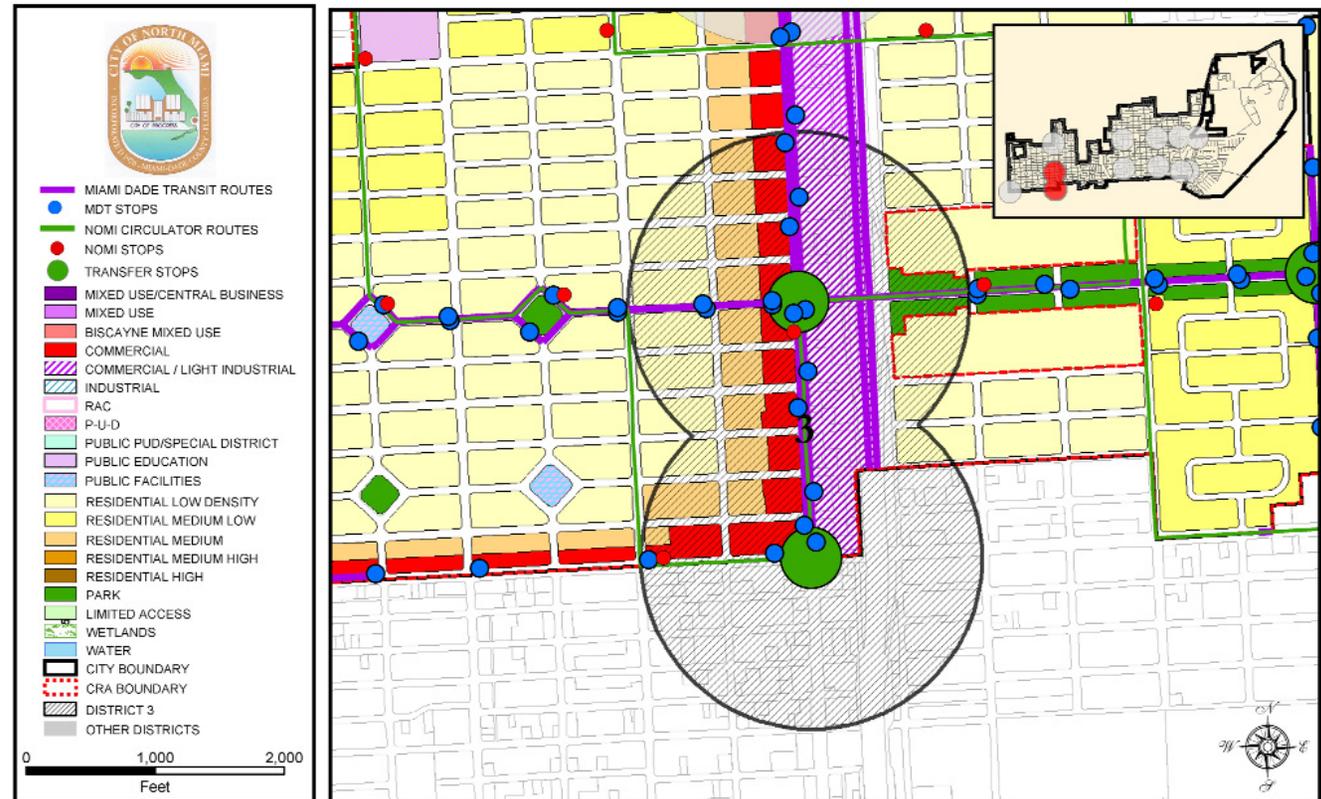
District 2 Overall Score = 2.67

3. TOD District 3 (D3)

Figure 16 shows the location and the future land use of District 3. The characteristics of District 3 are as follows:

- District 3 is located along NW 7th Avenue towards the southern boundary of the City.
- The district is served by NoMi Express route 1 and MDT routes 77 and 107.
- The NoMi Express route provides service during the weekdays with 30-minute headways.
- MDT service is provided seven days a week within the district with 7.5- to 30-minute headways during the peak hour.
- The existing land uses are comprised of commercial, office, institutional, and industrial uses along NW 7th Avenue with residential uses towards the periphery. Though there is a good mix of land uses within the district, the residential densities are less than five dwelling units per acre — less than the required density to support TODs.
- The district consists of relatively small and uniform blocks with sidewalks.
- The future development potential according to the CRA plan does not provide for densities and mix of uses necessary to support TODs. The characteristics of this district are similar to D1 and D2.

Figure 16: Transit Oriented Development District 3



Source: City of North Miami, Miami-Dade Transit and the Community Redevelopment Plan (September 2004)
Map Date: March 15, 2005

District 3 Overall Score = 2.72

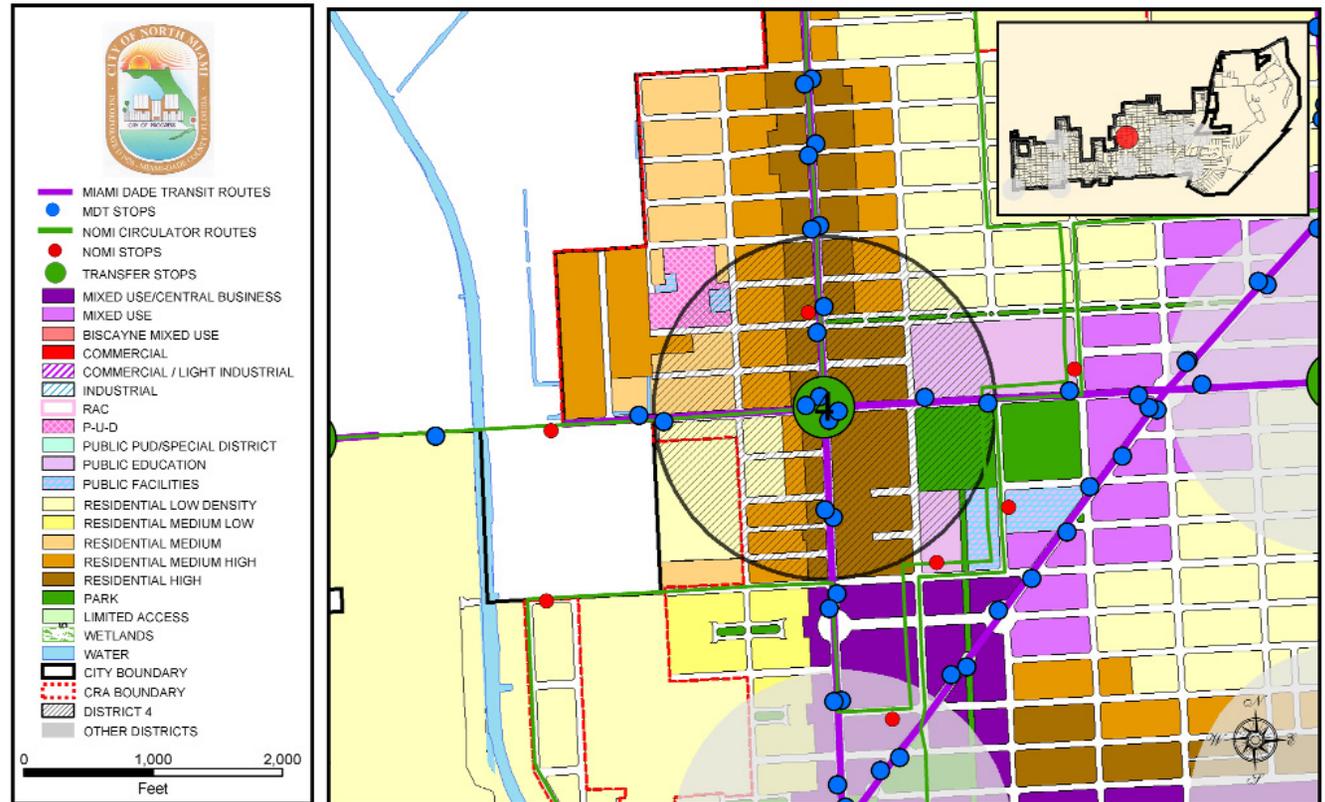


4. TOD District 4 (D4)

Figure 17 shows the location and the future land use of District 4. The characteristics of District 4 are as follows:

- District 4 is located around the intersection of NE 135th Street and NE 6th Avenue, close to the Central Business District (CBD).
- This district is served by NoMi Express route 2 and MDT routes 9 and 28.
- The NoMi Express route provides service during the weekdays at 45-minute headways.
- MDT service is provided seven days a week within the district with 12- to 30-minute headways during the peak hour.
- The existing land uses are comprised of predominantly residential uses with a small amount of institutional uses. The residential densities are higher than D1, D2, and D3, with six to 10 dwelling units per acre.
- The district consists of relatively small and uniform blocks towards the center, with bigger blocks towards the periphery. The sidewalk network in this district has gaps and missing segments.
- Future development according to the CRA Plan permits medium- to high-density residential with public education uses and planned unit developments. The CRA Plan permits residential densities between 31 and 45 dwelling units per acre but does not provide areas for mixed-use development.

Figure 17: Transit Oriented Development District 4



Source: City of North Miami, Miami-Dade Transit and the Community Redevelopment Plan (September 2004)
Map Date: March 15, 2005

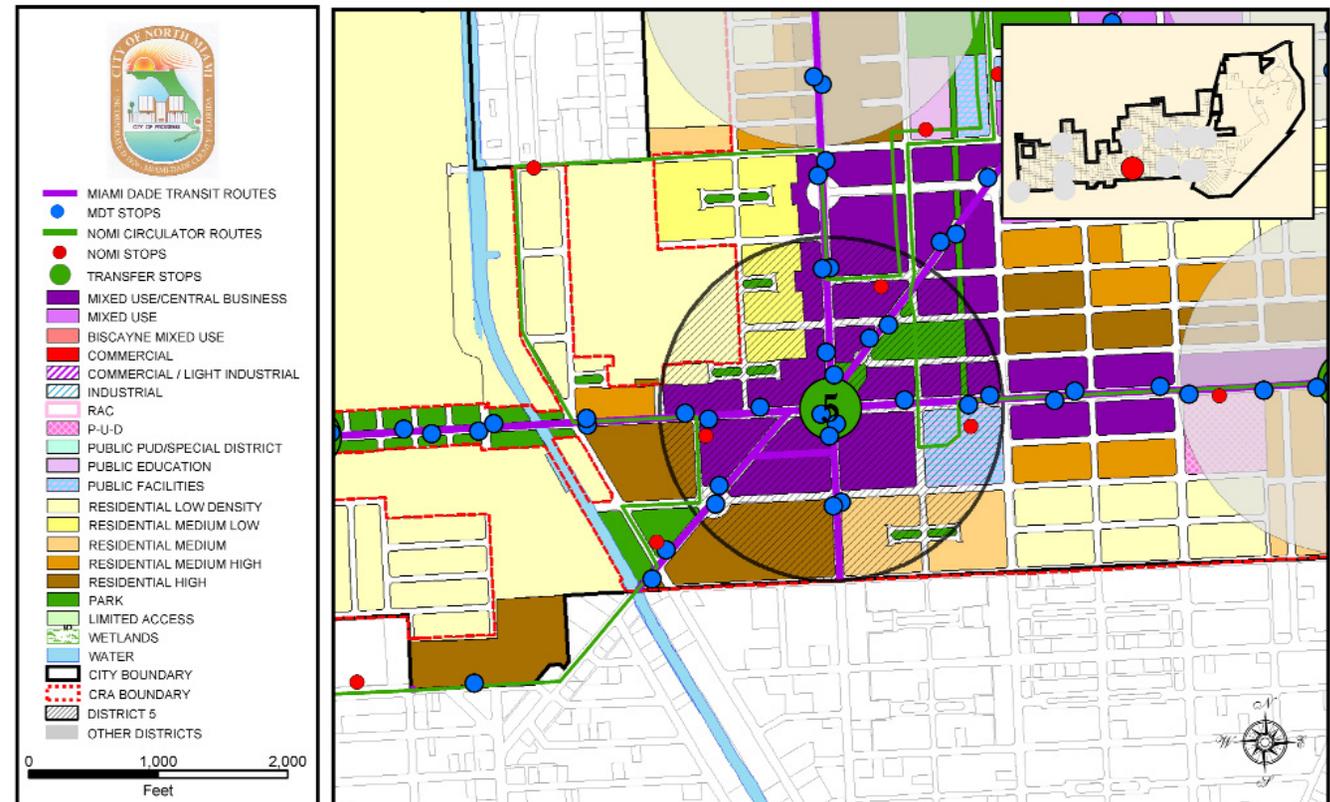
District 4 Overall Score = 2.43

5. TOD District 5 (D5)

Figure 18 shows the location and the future land use of District 5. The characteristics of District 5 are as follows:

- District 5 is located close to the CBD around the intersection of NE 125th Street and West Dixie Highway.
- This district is served by NoMi Express routes 2 and 3, and MDT routes 9, 10, 16, 75, and 107.
- The NoMi Express routes provide service during the week at 45-minute headways. This district has the highest score in terms of quality of transit service.
- MDT service is provided seven days a week within the district with 12- to 40-minute headways during the peak hour.
- The existing land uses are comprised of predominantly commercial with office, mixed-use, residential, and institutional uses. The existing residential densities are six to 10 dwelling units per acre.
- The district consists of small blocks towards the center with slightly larger blocks towards the periphery. The district also has good sidewalk coverage.
- Future development potential in this district provides excellent opportunities for mixed-uses as well as medium-high and high-density residential between 25 and 45 dwelling units per acre.

Figure 18: Transit Oriented Development District 5



Source: City of North Miami, Miami-Dade Transit and the Community Redevelopment Plan (September 2004)
Map Date: March 15, 2005

District 5 Overall Score = 3.91

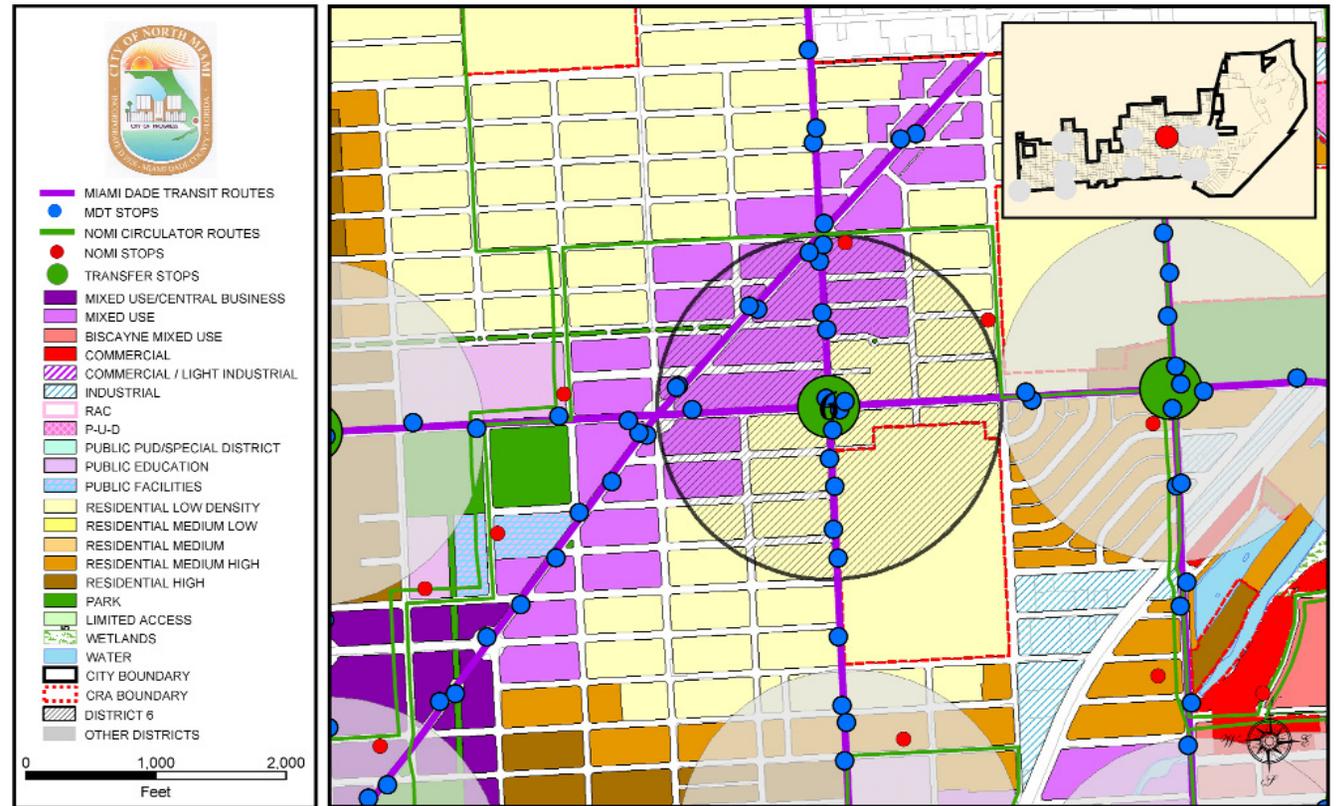


6. TOD District 6 (D6)

Figure 19 shows the location and the future land use of District 6. The characteristics of District 6 are as follows:

- District 6 is located northeast of the CBD around the intersection of NE 135th Street and NE 12th Avenue.
- This district is served by NoMi Express route 3 and MDT routes 10, 28, and 75.
- The NoMi Express route provides service during the week at 45-minute headways.
- MDT service is provided seven days a week within the district with 30- to 40-minute headways during the peak hour.
- The existing land uses are comprised of predominantly single-family residential with commercial, office, and high-density residential uses along West Dixie Highway. The existing residential densities are six to 10 dwelling units per acre.
- The district consists of relatively small and uniformly sized blocks. The sidewalk network in this district has gaps and missing lengths.
- The future development potential allows mixed-use development along West Dixie Highway with low-density residential uses around the area. It permits residential densities of six to 10 dwelling units per acre consistent with the existing densities.

Figure 19: Transit Oriented Development District 6



Source: City of North Miami, Miami-Dade Transit and the Community Redevelopment Plan (September 2004)
Map Date: March 15, 2005

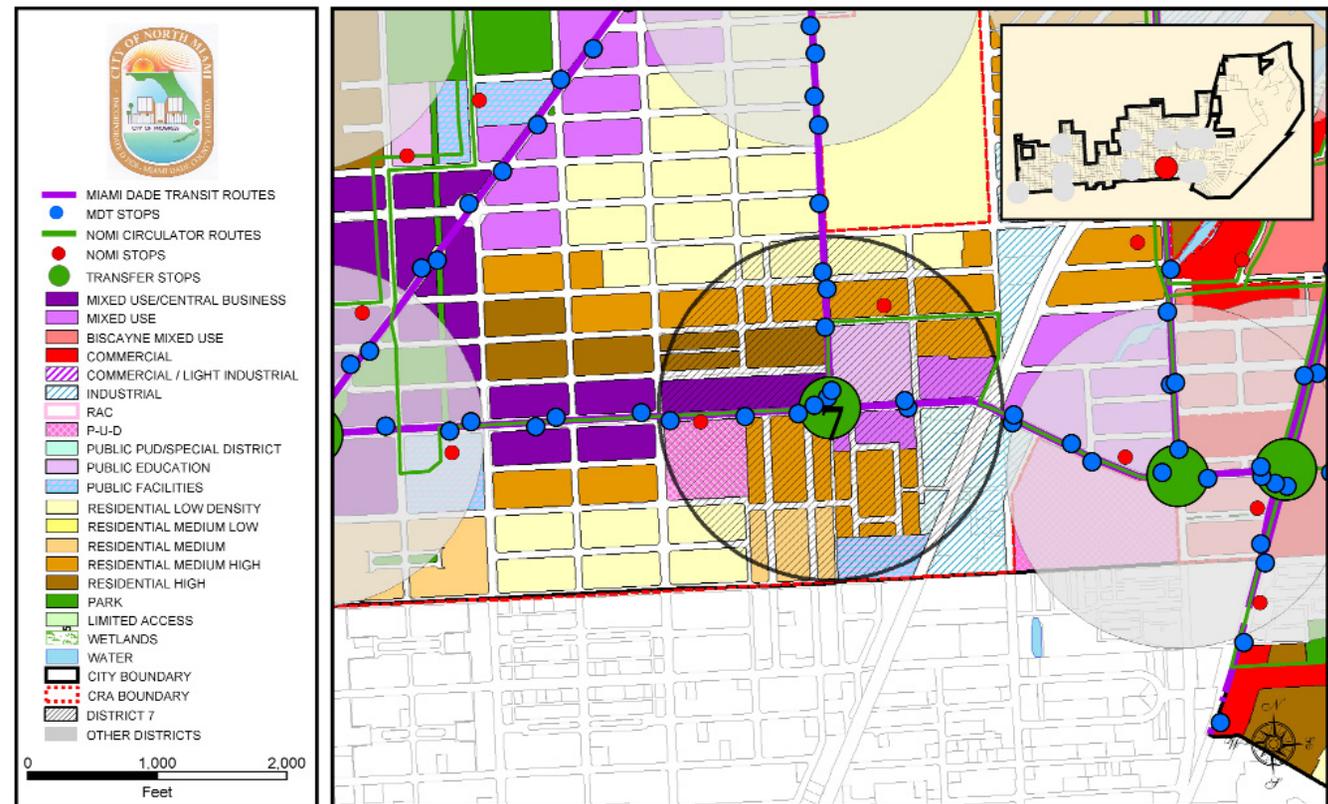
District 6 Overall Score = 2.86

7. TOD District 7 (D7)

Figure 20 shows the location and the future land use of District 7. The characteristics of District 7 are as follows:

- District 7 is located east of the CBD around the intersection of NE 125th Street and NE 12th Avenue.
- This district is served by NoMi Express route 3 and MDT routes 10, 16, and 107.
- The NoMi Express route provides service during the week at 45-minute headways.
- MDT service is provided seven days a week within the district with 15- to 40-minute headways during the peak hour.
- The existing land uses are comprised of commercial, office, industrial, institutional, and low- to high-density residential uses. The existing residential densities are six to 10 dwelling units per acre.
- The district consists of relatively small blocks. The sidewalk network in this district has gaps and missing segments.
- Future development according to the CRA plan provides areas of mixed-use along with medium- to high-density residential, public facilities, and planned unit developments. It permits residential densities of 31 to 45 dwelling units per acre.

Figure 20: Transit Oriented Development District 7



Source: City of North Miami, Miami-Dade Transit and the Community Redevelopment Plan (September 2004)
Map Date: March 15, 2005

District 7 Overall Score = 3.33

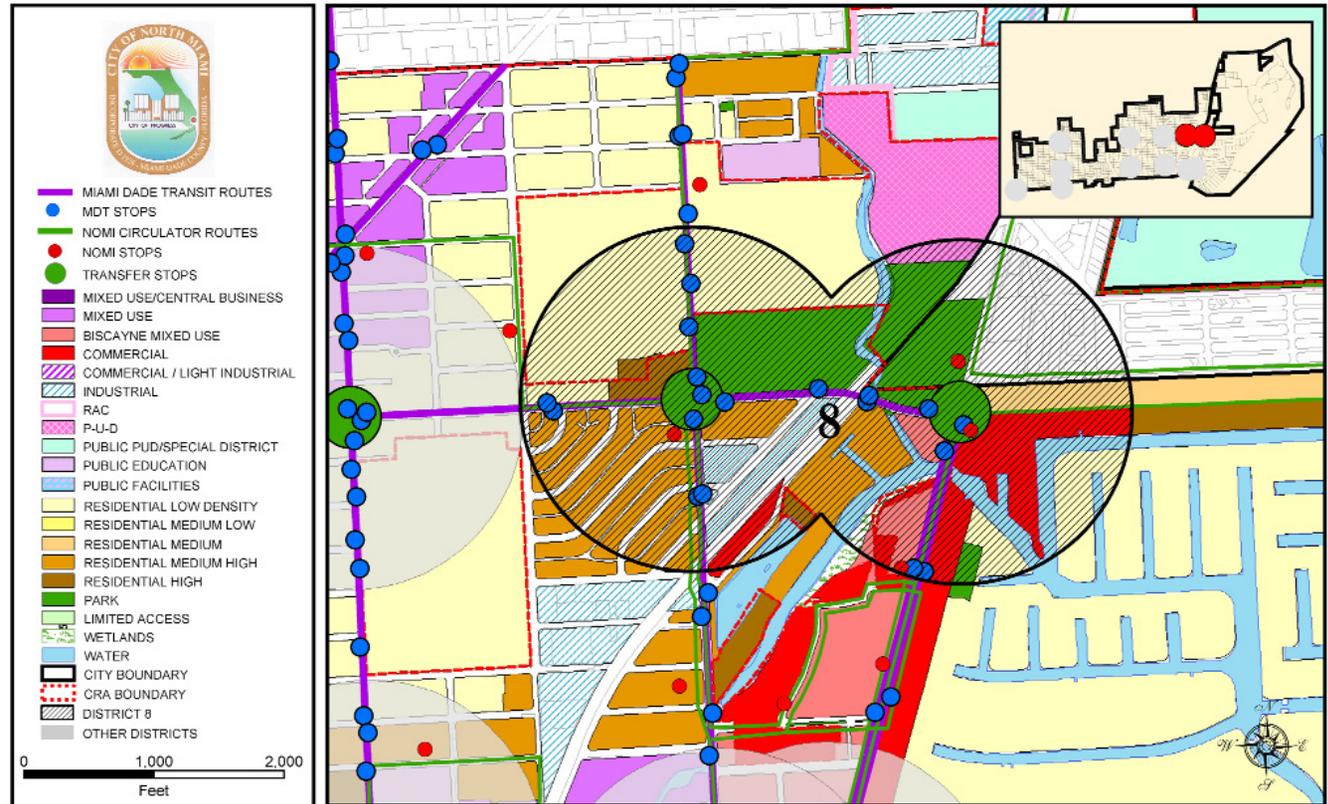


8. TOD District 8 (D8)

Figure 21 shows the location and the future land use of District 8. The characteristics of District 8 are as follows:

- District 8 is located along NE 135th Street and Biscayne Boulevard.
- This district is served by NoMi Express route 4 and MDT routes 3, 16, 28, and 93.
- The NoMi Express route provides service during the week at 60-minute headways.
- MDT service is provided seven days a week within the district with 15- to 30-minute headways during the peak hour.
- The existing land uses are comprised of commercial, office, industrial, and low- to high-density residential. The existing residential densities are six to 10 dwelling units per acre.
- The district consists of larger and non-uniform blocks with a deficient sidewalk network, thus scoring low on compactness/connectivity factor.
- Future land uses, according to the CRA plan, provides for mixed-uses including medium- to high-density residential, commercial, industrial and recreation uses and open spaces. It permits residential densities of 21 to 30 dwelling units per acre.

Figure 21: Transit Oriented Development District 8



Source: City of North Miami, Miami-Dade Transit and the Community Redevelopment Plan (September 2004)
Map Date: March 15, 2005

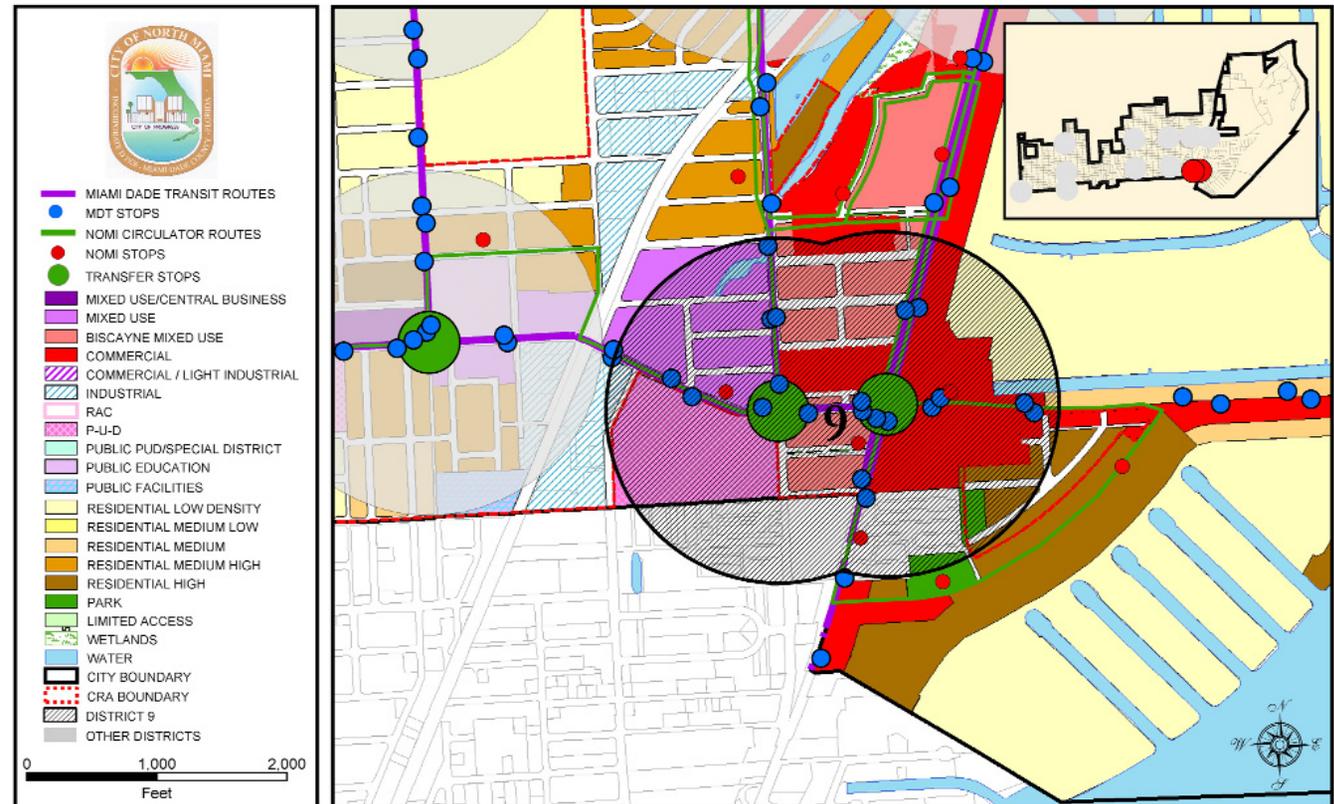
District 8 Overall Score = 2.99

9. TOD District 9 (D9)

Figure 22 shows the location and the future land use of District 9. The characteristics of District 9 are as follows:

- District 9 is located along NE 123rd/NE 125th Street and Biscayne Boulevard (US 1).
- The district is served by NoMi Express route 4 and MDT routes 3, 16, 93, and 107.
- The NoMi Express route provides service during the week at 60-minute headways.
- MDT service is provided seven days a week within the district with 15- to 30-minute headways during the peak hour.
- The existing land uses are comprised of predominantly commercial with medium- to high-density residential and limited office uses. The existing residential densities are six to 10 dwelling units per acre.
- The district consists of relatively small and uniformly sized blocks. The sidewalk network within this district has gaps and missing segments.
- This district is partially contained within the CRA. Future development potential is influenced by land uses within the proposed CRA plan as well as the existing Comprehensive Plan. Both plans provide mixed-use land uses including Biscayne Mixed-Use along with high-density residential and planned unit developments. The plans permit residential densities between 31 and 45 dwelling units per acre.

Figure 22: Transit Oriented Development District 9



Source: City of North Miami, Miami-Dade Transit and the Community Redevelopment Plan (September 2004)
Map Date: March 15, 2005

District 9 Overall Score = 3.63



Table 2

| Transit Oriented Development Feasibility Study Evaluation Matrix | | | | | | | | | |
|---|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| EVALUATION CRITERIA | PROPOSED TOD DISTRICTS | | | | | | | | |
| | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 |
| 1. Quality of Transit Service | | | | | | | | | |
| a) Type of Service | 2 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 |
| b) Number of Routes | 4 | 7 | 5 | 5 | 12 | 7 | 7 | 9 | 9 |
| c) Number of Stops | 6 | 18 | 34 | 23 | 41 | 38 | 24 | 42 | 46 |
| d) Transit Frequency | 6 | 13 | 10 | 9 | 20 | 10 | 11 | 16 | 16 |
| e) Duration of Service - Days | 6 | 10 | 7 | 7 | 17 | 10 | 10 | 11 | 11 |
| Duration of Service - Times | 20 | 24 | 24 | 20 | 57 | 30 | 34 | 32 | 36 |
| <i>Total Score</i> | <i>44</i> | <i>75</i> | <i>83</i> | <i>67</i> | <i>152</i> | <i>98</i> | <i>89</i> | <i>113</i> | <i>121</i> |
| Transit Factor⁽¹⁾ | 0.29 | 0.49 | 0.55 | 0.44 | 1.00 | 0.64 | 0.59 | 0.74 | 0.80 |
| 2. Existing Development Characteristics | | | | | | | | | |
| a) Land Uses | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 4 |
| b) Residential Density | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| <i>Total Score</i> | <i>4</i> | <i>4</i> | <i>4</i> | <i>3</i> | <i>5</i> | <i>5</i> | <i>5</i> | <i>5</i> | <i>5</i> |
| Existing Development Factor⁽¹⁾ | 0.80 | 0.80 | 0.80 | 0.60 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. Compactness/Connectivity | | | | | | | | | |
| a) Median Block Size | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 1 | 3 |
| b) Presence of Sidewalks | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 1 | 2 |
| <i>Total Score</i> | <i>5</i> | <i>5</i> | <i>5</i> | <i>4</i> | <i>6</i> | <i>4</i> | <i>5</i> | <i>2</i> | <i>5</i> |
| Compactness/Connectivity Factor⁽¹⁾ | 0.83 | 0.83 | 0.83 | 0.67 | 1.00 | 0.67 | 0.83 | 0.33 | 0.83 |
| 4. Future Development Potential | | | | | | | | | |
| a) Allowable Land Uses | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 6 | 6 |
| b) Residential Density | 3 | 3 | 3 | 5 | 5 | 1 | 5 | 4 | 5 |
| <i>Total Score</i> | <i>6</i> | <i>6</i> | <i>6</i> | <i>8</i> | <i>10</i> | <i>6</i> | <i>10</i> | <i>10</i> | <i>11</i> |
| Future Development Factor⁽¹⁾ | 0.55 | 0.55 | 0.55 | 0.73 | 0.91 | 0.55 | 0.91 | 0.91 | 1.00 |
| Proposed TOD District Feasibility Score⁽²⁾ | 2.47 | 2.67 | 2.72 | 2.43 | 3.91 | 2.86 | 3.33 | 2.99 | 3.63 |

(1) The total score from each of the four components are factored to a point score of 1.0
Individual factor = Total Score/Maximum Score. Example: Transit Factor for D1 = (Total D1 score / Maximum score of D1 thru D9) = (41 / 152) = 0.27

(2) Proposed TOD District Feasibility Score = Combination of transit, existing development, connectivity/compactness and future development factors. Maximum possible score is 4.
P:\0420\39004\TOD Study\TODEvaluationMatrix.xls\final_scores

D. Proposed TOD Districts and Priorities

The final scores for each of the candidate districts are shown in the Evaluation Matrix (see Table 2). The ranking of the districts according to their TOD feasibility scores are as follows:

| TOD District Feasibility Scores | |
|---------------------------------|-------------|
| District | Score |
| District 5 | 3.91 |
| District 9 | 3.63 |
| District 7 | 3.33 |
| District 8 | 2.99 |
| District 6 | 2.86 |
| District 3 | 2.72 |
| District 2 | 2.67 |
| District 1 | 2.47 |
| District 4 | 2.43 |

Districts 1, 2, and 3 do not have the characteristics to support TODs at this time and are not considered for future TOD initiatives. District 1 was eliminated because of its

location inefficiency and developmental constraints because a major portion of the district is located outside the City Limits. Districts 2 and 3 support a greater mix of land uses in terms of commercial, office, and residential uses but lack residential and mixed-use densities necessary to support a TOD.

District 4 has not been eliminated from further evaluation, in spite of having the lowest score, due to its location near the CBD. District 4 scored the lowest among all the districts mainly due to its low score on the compactness/connectivity factor. This is easily remedied, however, and, in fact, this district has a higher potential to support a TOD, due to its proximity to the CBD and the opportunity for higher residential densities.

Districts 5, 7, and 9 exceed the minimum score of 3.0 for TOD feasibility. However, Districts 6 and 8 are located close to the three districts and score close to the minimum to support a TOD initiative for the entire area. Based upon the results of the feasibility scores, five districts (D5, D6, D7, D8, and D9)

are identified as the geographic areas within the City of North Miami that could potentially support TODs. These districts are the focus of the recommendations provided in Section E, "Recommended TOD Districts."

District 5 scored the highest among all the candidate districts because it has the greatest potential within the City to support a TOD due to the mix of land uses, smaller block sizes, and higher densities.

District 9 has the second highest score due to the variety of land uses in the district combined with potential higher residential densities.



E. Recommended TOD District

As mentioned throughout the Study, one of the key elements of a TOD is a greater mix of land uses, including commercial, retail, and office, with higher residential densities. The results of the TOD district evaluation identified Districts 5, 6, 7, 8, and 9 as the areas within the City of North Miami with the greatest feasibility to support TODs. Due to the proximity of the five districts to one another it is recommended that the five districts be consolidated to form a larger TOD district. The larger district provides an opportunity to develop it as an overlay zone or a separate zoning category to include development regulations according to the TOD guiding principles that would enable future developments within the district to be transit friendly. The consolidated district would be comprised of two elements — transportation corridors and nodes. These elements are:

- *Corridors* — The major transportation corridors within the potential district serve as

the spine. These corridors include:

- *West Dixie Highway*
- *NE 125th Street*
- *NE 135th Street*
- *Biscayne Boulevard (US 1)*
- *FEC railroad (potential transit corridor)*

Based upon the existing FLUM and the proposed updated FLUM, the corridors contain commercial, office, and mixed-use land uses surrounded by high-density residential land use.

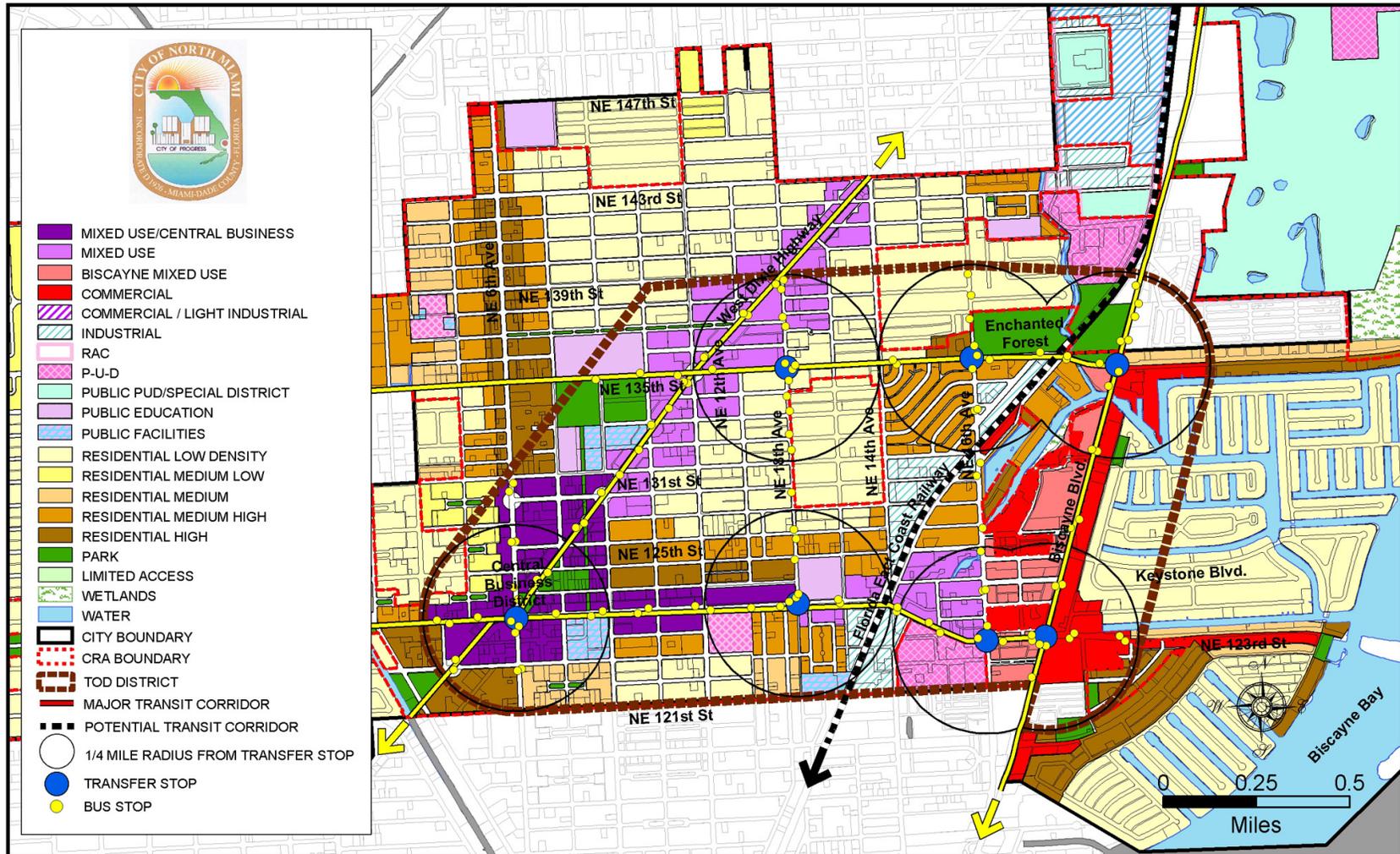
- *Nodes* — Transit transfer stops serve as the transportation nodes within the TOD district. These provide the central points for transit orientation. The nodes should serve as major centers around which the development is recommended to be focused.

See Figures 23 and 24. ◆





Figure 24: Recommended Transit Oriented Development District



Source: Kimley-Horn and Associates, Inc.
Map Date: April 5, 2005

V. Conclusions

The basic conclusion from evaluations in the Transit Oriented Development Feasibility Study is the City of North Miami has the necessary transit and land use characteristics to support transit oriented development in the near term and the long term. In addition, the City's efforts to redevelop through the CRA Redevelopment Plan — which proposes increased residential densities and expands the Mixed-Use and Central Business Districts along several major transportation corridors — further increases the opportunities for TODs. In addition, the City has adopted several policies supporting potential TOD efforts such as the Transportation Concurrency Exception Area (TCEA) with a focus on multimodal transportation and the CRA Redevelopment Plan, as previously mentioned.

The City has the foundation to establish a TOD initiative and begin implementing policies and programs to achieve the benefits of transit oriented development including:

- Increased transit ridership
- Increased mobility choices
- Reduced household transportation costs
- Increased economic opportunities and benefits

Specifically, the Study identified a potential TOD district (*see Figure 24*) in the heart of the City. The recommended district has the highest potential within the City to support transit oriented development as it encompasses the Central Business District and proposed expansion, the proposed Mixed-Use Districts, and higher residential densities. Additionally, this district is bisected by several major transportation corridors like NE 125th Street, NE 135th Street, W. Dixie Highway, and Biscayne Boulevard — all active commercial corridors which will increase with the redevelopment opportunities proposed by the CRA. These corridors have the potential to be developed as true multimodal corridors and will greatly contribute to the creation of transit oriented development.

The process of moving from identifying a TOD district through theoretical analysis to implementing a TOD initiative takes time, requires political diligence, and an attention to details. It is recommended that the City begin by establishing the recommended area shown in Figure 25 as a Transit Oriented Development (TOD) District in the City's Comprehensive Plan and developing supportive policies, including, for example, zoning, incentives and transfer of development rights. Additional actions supporting a TOD initiative are presented in Section VI, "Recommendations." ◆



VI. Recommendations

While transit oriented development is not a panacea for all transportation issues within the City of North Miami, these recommendations are first steps to implementing a TOD initiative. The recommendations are not intended to be an exhaustive list of all of the potential approaches to implementing transit oriented development. TOD is one of many tools that the City can utilize to address mobility issues.

A. Community Vision

The TOD initiative starts with a vision developed from extensive public participation during the planning, design, and implementation stages. Public and political support is necessary to ensure that the initiative is properly implemented and achieves the goals and objectives of the community. The following are steps toward a community vision:

- *Initiate broad-based public input*

Establish a community vision for the TOD initiative cultivated from broad-based public input through public involvement, including planning charrettes, citizen advisory committees, workshops, and neighborhood/community meetings. Public involvement should be maintained through planning, design, and implementation. The vision should include the goals and objectives of the TOD initiative as well as performance measures so that the community will be able to monitor the success of the initiative and ensure that the goals are being achieved.

- *Create a TOD District Master Plan*

In order to focus the City's efforts, a TOD District Master Plan should be developed, including design guidelines, development incentives, streetscape designs, public spaces designs, and transit infrastructure. The plan should be developed through a series of charrettes and include the public, business owners, property owners, and other

stakeholders. The master plan will serve as a guide for future development in the TOD district by identifying the appropriate mix of land uses, location of transit facilities and transit infrastructure, and other planning and design issues such as parking, architectural standards, connectivity, and public/private partnership opportunities.

The master plan should also begin to design station opportunities of the FEC Railway and develop plans for transit oriented development along the FEC corridor. The City should proactively address the potential TOD and redevelopment opportunities along the corridor in anticipation of the potential transit system.

- *Enlist a TOD champion*

Transit oriented development is a complex concept with a wide range of implications and an even wider range of planning and design elements that can impact the success of the developments. Any TOD initiative

will require community consensus and political support. Also, the complexity lengthens the amount of time and effort needed to maintain focus and, therefore, is best championed by an advocate.

- *Coordinate with key agencies*

The City should partner with state, regional, metropolitan planning and transit agencies to streamline TOD review. As mentioned, transit oriented development is typically more complex than standard development and requires assistance from all stakeholders to ensure a smooth process through planning, design, and implementation.

Coordination with the review state and regional planning and transit agencies to develop a process for streamlined development reviews will provide the development community with the confidence and predictability needed to overcome the additional risks that may be associated with TODs.

B. Policy Framework for the TOD District

Strategic planning that addresses zoning and land use regulations as well as TOD related policies are necessary to fully achieve the goals of a TOD initiative. Coordination and partnerships between the local government, transit agencies, and local businesses could be very effective in successfully implementing the TOD district.

The City should consider the following measures to create the policy framework for the TOD initiative:

- *Create an overlay district*

The City should create a TOD District overlay that establishes appropriate mix of land uses, densities, and site designs with the district. The overlay district does not change the existing land use and zoning, but it would create opportunities for potential developments to take advantage of initiatives and incentives provided in the TOD District. The overlay district

allows the TOD efforts to first function as an option, and once the program is proven effective and accepted by the development community and residents, it can become a requirement.

One approach for the district is to focus on the properties immediately adjacent to the major transportation corridors identified in Figure 24 and establish incentives for developments that utilize TOD design principles. As the success of the TOD District grows, so, too, does the radius of influence of the TOD District.

- *Develop key partnerships*

Developing key partnerships with local developers is one of the most effective implementation tools. The TOD district plans need to be based on real economic, financial, and market factors. The City should partner with the development community to develop incentives such as density bonuses, parking options, streamlined reviews that will meet economic, financial, and market criteria, and create real



interest and participation from developers.

The City will also need to develop key partnerships with Miami-Dade Transit, the Office of Public Transportation, the Florida Department of Transportation, and the Citizens' Independent Transportation Trust to coordinate the TOD initiative in the City with the transit and transportation projects and programs being developed by these agencies.

Several corridors, particularly Biscayne Boulevard and the FEC Railway, warrant consideration of a countywide TOD initiative that includes all of the cities along these corridors. The opportunities for TODs often fall between several jurisdictions and to fully achieve the benefits these areas would need a more regional perspective. The City of North Miami could lead this effort and work to establish a multi-jurisdictional TOD district at the intersection of NE 163rd Street and Biscayne Boulevard.

■ *Incorporate Community Redevelopment Plan*

The Community Redevelopment Plan should play a very important role in the implementation of a successful TOD district in the City of North Miami. The City should establish partnerships with the Community Redevelopment Agency (CRA) to capitalize on redevelopment opportunities that can be created in the CRA plan. The plan includes promising opportunities for developing the CRA district as a great urban space with an improved quality-of-life. As the City incorporates the CRA Redevelopment Plan into the Comprehensive Plan and modifies land development regulations, the TOD land use and design requirements could easily be included.

■ *Incorporate urban design guidelines*

The TOD overlay zone should incorporate urban design guidelines that emphasize "place-making," develop pedestrian and transit friendly environments, and require site design

performance standards that achieve the goals of TOD. The TOD district by design should be attractive and memorable at a human-scale and focused toward transit. The guidelines need to focus on site design, pedestrian connectivity, and streetscape standards in a comprehensive way, blending each parcel within the district into an integrated urban area.

C. TOD Supportive Improvements & Strategies

Identifying TOD supportive improvements and strategies that address the transportation system and physical environment increases the potential for success of the TOD initiative.

■ *Provide premium transit service*

The most critical element of a successful TOD is the provision of premium transit service. The City should coordinate with Miami-Dade Transit in order to develop strategies to improve

service within the City, especially the TOD district. A detailed analysis of the transit system's characteristics will also need to be undertaken in coordination with Miami Dade Transit and NoMi Express to identify specific improvements within the TOD district during the implementation process.

The transit service within the district should be appealing to all members of the public in order to draw the maximum amount of transit ridership. The transit service should have headways between 10 to 15 minutes with extended service hours.

Transit stops need to be clean, comfortable, and safe. The transit infrastructure needs to extend beyond the bus stop to ensure convenient and comfortable connections to adjacent buildings and areas throughout the district. The transit service should be coupled with transit facilities and amenities in order to make transit attractive to "choice riders." Choice riders are riders who do not depend on transit as

a mode of travel but are willing to use transit when the service is convenient, reliable, and comfortable.

Transit facilities in the TOD district should be exceptional and include bus shelters, benches, bicycles racks, water fountains, landscaping, and even public art. A successful TOD aims at attracting both choice and captive riders. The City could partner with local businesses and developers to provide transit shelters and provision of amenities for transit riders by offering them developer incentives. The buses also need to be clean, comfortable, and safe, as well as provide reliable service.

- *Improve the pedestrian environment*

The quality of the pedestrian environment in the district is also very important. A person begins and ends every trip as a pedestrian, particularly when using transit. The transit system should be supported by a well connected pedestrian

network to provide a comfortable walking environment. A direct and continuous pedestrian network combined with provision of transit facilities at the transit stops can have a significant impact on transit ridership.

The City of North Miami has good coverage in terms of sidewalk presence. However, the quality of the sidewalks should be evaluated in terms of width, separation from travel lanes, lighting, landscaping, and related infrastructure.

In addition, the City should maintain its excellent grid of streets and blocks. The size of the City's blocks contributes to pedestrian connectivity and increases the convenience of pedestrians, bicyclists, and transit users. The interconnected street network allows the City to develop a hierarchy of street types to serve all modes of travel.

- *Develop TOD incentives*

Transit oriented developments are very complex; thus this form



of development increases the risk for a developer and financial institutions; therefore, the City will need to develop various incentives to increase the attractiveness of transit oriented developments. Incentives include, but are not limited to, density bonuses, expedited development review process, impact fee reductions, and publicly funded infrastructure and other improvements.

D. Proactively Address Design Challenges

TODs are a very complex development form. The design and implementation of TODs will raise challenges that are not typically part of conventional development. In order to alleviate some of the risk to developers associated with the TOD form of development, the City should be prepared to proactively deal with design challenges and work directly with developers to create solutions.

- *Develop forward-looking plans that orchestrate how, when, and where a TOD will evolve*

The TOD master plans, as discussed earlier, should address the “how, what, when, and where” of development within the TOD district. The master plan for the district will provide guidance for development. Creation of the Master Plan can identify issues which the City can develop strategies to address design issues that may create project delays.

This proactive approach will provide the development community a greater level of confidence in the City’s interest in working with them to achieve the TOD goals. In addition, the design guidelines will ensure that the City’s investments are protected throughout the evolution of development in the district.

- *Focus on achieving a desired land use mix supported by the market within a transit oriented district*

The requirements for mixed land uses should be economically and

financially feasible. Too often, past TOD initiatives forced land use mixes not supported by the market that ultimately failed. This failure was translated into the failure of the TOD. Therefore, the developments need to be supported by the market while still providing design and orientation to support the transit system.

- *Develop flexible parking standards to reflect tendency of many TOD households to own fewer cars*

As TODs evolve, many residents will make a conscience decision to reduce the number of vehicles required for their household. Due to income levels, some residents are already limited in their vehicle ownership capabilities. The combination of the two scenarios will reduce the number of parking spaces required for residential developments.

One flexible parking concept that supports TODs related to parking provision is to “unbundle” the cost of parking from the cost of the residential unit, allowing residents to decide if

they need a parking space and wish to purchase one. This permits a reduction in the required number of parking spaces provided by the developer, ultimately reducing the total cost of the development.

Providing flexible parking standards may take some time to become an accepted practice and will also require education of developers and lenders. This is another form of incentive and should be considered comprehensively with other incentives provided by the City.

E. Future TOD Districts

The areas identified in the Study possess the land use and resident characteristics to support transit oriented development in the short and long term. Other areas prime for redevelopment based upon the CRA Plan and the projected development in these areas could potentially support TODs. The projections suggest that the areas will possess the mix of uses and residential densities to support TODs. Therefore, the City should

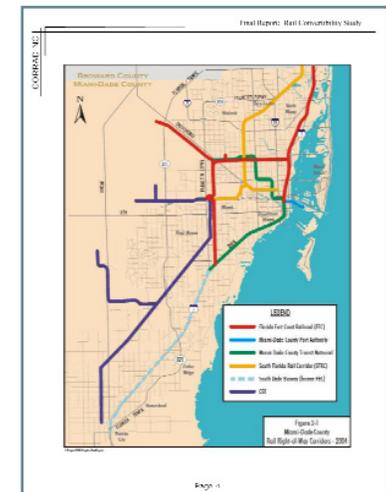
proactively pursue opportunities to develop these areas as TOD districts. Potential TOD locations include:

- NE 151st Street and Biscayne Boulevard
- NE 163rd Street/Sunny Isles Boulevard and Biscayne Boulevard
- Major street intersections along the FEC Railway

The proposed Biscayne Landing development, located at the southeast corner of NE 151st Street and Biscayne Boulevard, proposes approximately 4,500 residential units with current discussions to increase the number to 6,000 units. Additionally, the Community Redevelopment Plan proposed to develop areas along Biscayne Boulevard as mixed-use communities. This will generate a greater mix of land uses with higher residential densities. These factors suggest that the City could begin to develop TOD plans to address the connection between transit and development to have a significant impact on the City's mobility issues in these areas.

The FEC Railway and the projected transit systems along this corridor will greatly increase the transit potential within these two areas as areas designated for major stops. The City should proactively work with the Florida Department of Transportation, the South Florida Regional Transportation Authority, Miami-Dade Transit, and the Metropolitan Planning Organization to ensure that the transit system positively contributes to the City. The City should begin developing plans for transit hubs and coordinating with the CRA to consider acquiring properties for development as TOD centers along the corridor.

There is significant potential along the FEC, and while the transit system may be several years away, the planning for it should begin immediately. ◆



Source: Rail feasibility study, The Corradino Group



North Miami

TRANSIT ORIENTED DEVELOPMENT FEASIBILITY STUDY

Appendix A Literature Review/Bibliography



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TRANSIT ORIENTED DEVELOPMENT FEASIBILITY STUDY

Appendix B Transportation Element of the Comprehensive Plan Goals, Objectives, and Policies



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Appendix C TOD District Evaluations