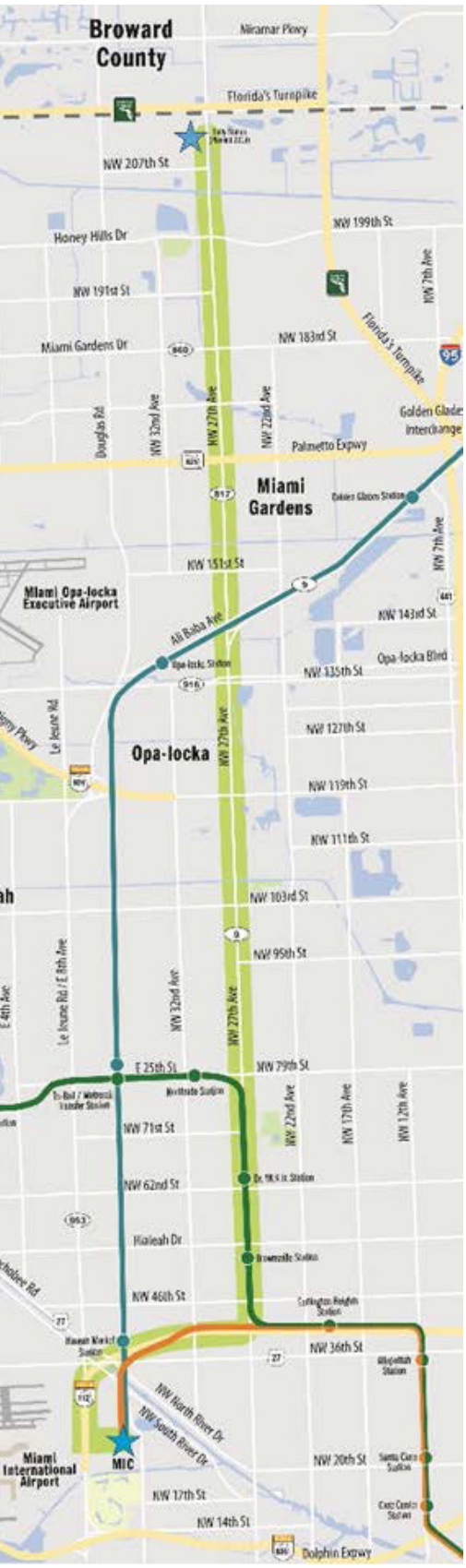
Miami-Dade Transportation Planning Organization

SMART PLAN CORRIDOR INVENTORY
NORTH CORRIDOR



OCTOBER 2017

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Prepared for
Miami-Dade Transportation Planning Organization

Miami-Dade Transportation Planning Organization

Prepared by:

THE CORRADINO GROUP

OCTOBER 2017

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1. EXECUTIVE SUMMARY

The North Corridor inventory is a comprehensive evaluation of the area focused on understanding the essential components that are critical to land use and transportation developments. It provides an overview of local demographics, employment, existing land use and transportation facilities. It examines and summarizes the corridor sub areas, including all of the cities, the Community Redevelopment Areas, and Miami Dade County that administer land use and zoning.

This document examines local land values, existing building-to-land ratios, vacant parcels, and land-to-building ratios. It has examined land in the context of the Corridor's major generators, including educational and civic facilities, parks and entertainment areas, and government-owned parcels.

Traffic and roadway level-of-service (LOS) is examined as is parking. Improvements to the transportation system were researched from the Long-Range Transportation Plan and the Transportation Improvement Program.

A literature review is present first addressing specific planning activities in each of the communities' comprehensive plans and land development codes. Outside sources which guide planning and implementation of land use and transportation are also covered.

1.1 THE CORRIDOR

The SMART Plan North Corridor, which centers on NW 27th Avenue, is about 13 miles long, 1 mile wide (0.5-mile on each side of NW 27th Avenue). Currently, the corridor is classified as a low-density urban/suburban area. One measure of density is "floor-area ratio" (FAR), determined by dividing the total, or gross, floor area of a building by the gross area of the lot on which it sit. A higher ratio is more likely to indicate denser development. Rail transit-oriented FAR's should be between 3.0 and 10.0. The study area's Floor-Area Ratio (FAR), excluding vacant parcels, averages 0.24, indicating low density. Less than 1% of all parcels within the North Corridor is at a FAR of 1:0 or above, with only 19 of almost 20,000 parcels at or above a FAR of 1.5.

Residential uses account for 41.9% of all land uses in the Corridor. Housing is "low density", providing homes to approximately 120,000 residents in 36,000 households. Single-family housing accounts for about one-third of the Corridor's land use. Multi-family housing is only three (3) percent of the Corridor; mixed-uses occupy three (3) acres of the area. This equates to about 4 dwelling units per acre. Transit-oriented dwelling units per acer should be between 15 and 35.

The corridor includes portions of Miami, Miami Springs, Hialeah, Opa-Locka, Miami Gardens, and unincorporated Miami-Dade County. Miami Dade County represents 53% of the land area, while Miami Gardens represents 32% of the land.

1.2 DEMOGRAPHICS

The population within the corridor is primarily Black and Hispanic. Similar to the rest of Miami-Dade County, the elderly population of the Corridor is about 14% of the total population. However, the North Corridor has a higher proportion of children (25% of total population). Corridor residents tend to live in households with two (2) or more people, in single-family, detached housing. Sixty percent (60%) of the households earn less than $50,000/year. Fifteen percent (15%) of local households are in assisted/affordable housing. The Corridor's population is expected to grow from 111,908 in 2015 to 159,878 in 2040, an increase of approximately 43%.

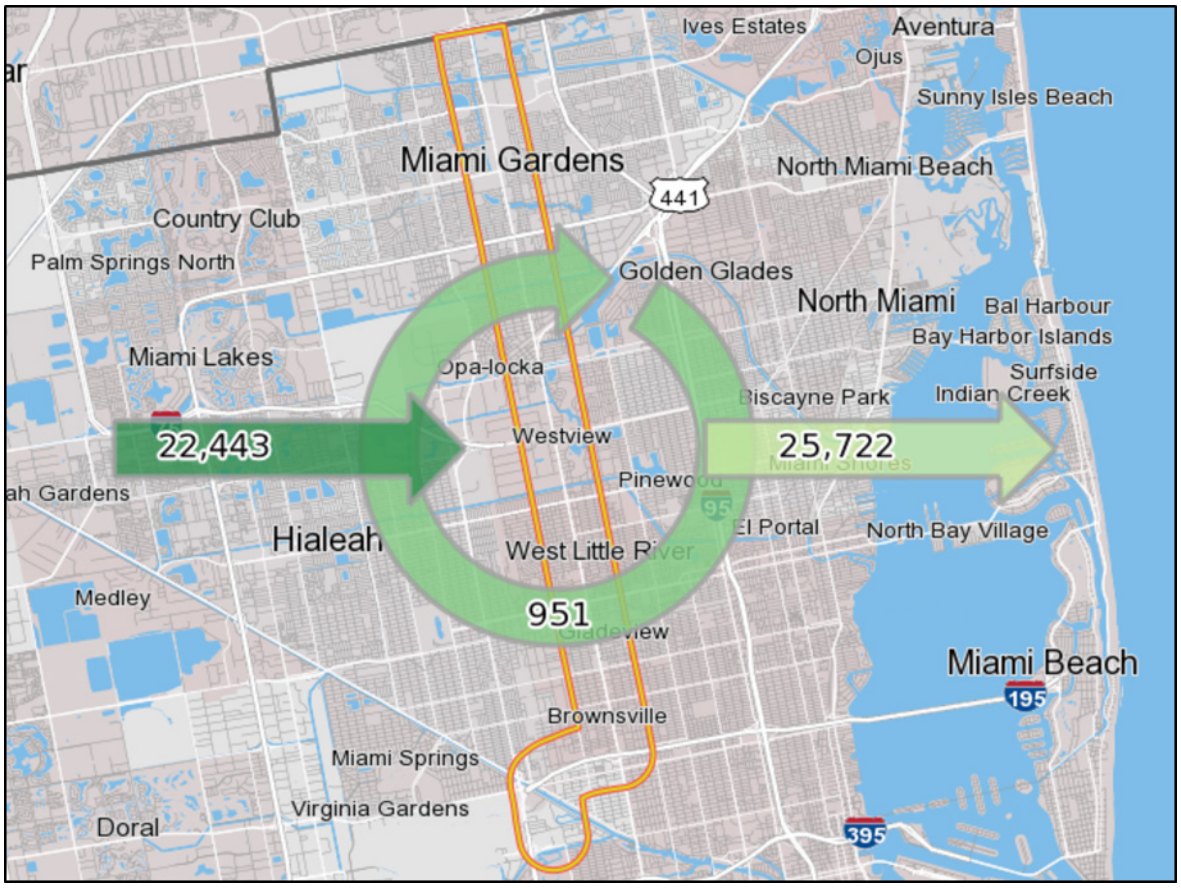
1.3 FACILITIES

Currently, 31 assisted-living and affordable-housing developments are located within the North Corridor, accounting for 5,008 units. Assuming one unit is equal to one household, assisted and affordable housing represents approximately 15% of all North Corridor households. Over three dozen educational facilities are located within the North Corridor. One post office, the Miami Gardens City Hall, and the Opa-Locka City Hall are in the Corridor, along with two police stations, but there are no hospitals.

1.4 LAND USES

Other land uses include Commercial (13.6%), Institutional (10.6%), and Industrial (9.1%). They provide for about 23,000 jobs within the Corridor, primarily filled by employees living outside of the area. Fewer than 1,000 workers live and work in the Corridor. The area accounts for approximately 49,000 employment trips regionally. Local businesses primarily are retail and service-based. Commercial uses account for one-third of the employment in the Corridor, with one-sixth of the employment in industrial jobs. Employment in the Corridor is projected to increase from 64,682 to 89,976 by 2040.

Employement - Inflow/Outflow



1.5 JOB/HOUSEHOLD RATIOS AND LINKAGES

Job-to-household's ratios (Job/Household) provide one metric of evaluating whether trips can be local. Low Job/Household ratios (<1) generally indicate the need to travel outside of the area for work. A very high Job/Household ratio indicates travel into the area to work places.
Using this metric, 36% of the Corridor currently supports rapid transit. If rapid transit is to be supported by future development in the Corridor, it must consider the distribution of housing and employment growth throughout the Corridor to balance overall employment-based, origin-destination patterns.

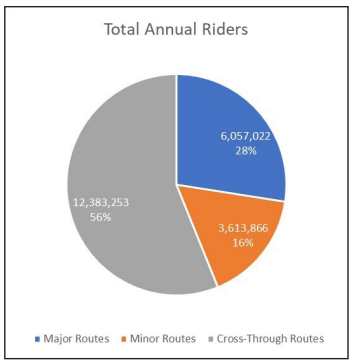
1.6 VALUE

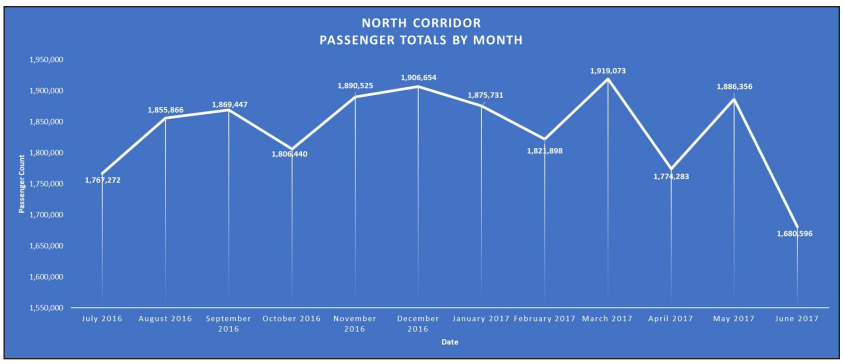
The assessed value of properties within the North Corridor is $4 billion. The 2016 assessed taxable value of Corridor parcels that are within the three CRAs are $855 million; $127 million; and approximately $600 million, respectively. About 3,000 acres, or 35% of the Corridor, has a Building-to-Land Value ratio of 1.5 or less and could be considered land for future redevelopment.

1.7 TRANSPORTATION

The area is centrally located and connected, with access to Florida's Turnpike, the Palmetto Expressway, the Gratigny Expressway, and the Airport Expressway. Major section-line and half-section-line roads make up the surface network.

There are 32 transit bus routes that serve the area, along with existing access to Metrorail, Amtrak and Greyhound Bus. Ridership is trending down. The total number of annual riders for all routes within the North Corridor was 22 million in 2016, which is down 8% from the prior year. The total number of annual riders for Major Routes within the Corridor was 6 million in 2016, down 6.5% from 2015. The total number of annual riders for Minor Routes within the North Corridor was 3.6 million in 2016, roughly 10% lower than in 2015.





SOURCE: MIAMI-DADE DEPARTMENT OF PUBLIC WORKS AND TRANSIT

There are plans to construct a county-operated park-and-ride lot in the northernmost portion of the Corridor. Unity Station – at the intersection of NW 27th Avenue and NW 215th Street – is planned to be constructed on a 14-acre parcel located at the southwest quadrant of the intersection. The transit station will include bus bays, passenger shelters, and a park-and-ride lot; facilities are meant to match the county's upcoming plans to enhance bus transit along NW 27th Avenue. Remaining space on the parcel is recommended to be designated Community

Urban Center (CUC), which allows for moderate- to high-Intensity, mixed-use development (e.g. institutional, office, and retail that encourages pedestrian activity). The anticipated opening date for Unity Station is 2019.

NW 27th Avenue is the main road in the corridor. It was evaluated for its existing Level of Service. Most of the southern section of NW 27th Avenue (from 36th Street to 119th Street) shows low levels of congestion. The northern section (from 119th Street to 215th Street) is considered to be operating at LOS C, an acceptable level of congestion. The middle section of 27th Avenue (from 46th Street to 103rd Street) has LOS D, or lower, and, therefore, has more congestion. Yet, even this is acceptable in an urban environment.

		Segment							
Road	Intersection (Loc)	From	To	24-Hour Combined	Grade	Combined Peak	Grade	Peak	Grade
NW 27th Avenue	36th Street (N)	36th Street	41st Street	33,933	C	2,758	C	1,545	C
NW 27th Avenue	41st Street (N)	41st Street	46th Street	33,505	C	2,530	C	1,608	C
NW 27th Avenue	54th Street (S)	46th Street	54th Street	33,144	E	2,463	D	1,536	D
NW 27th Avenue	62nd Street (N)	54th Street	75th Street	30,223	D	2,365	D	1,377	D
NW 27th Avenue	79th Street (S)	75th Street	87th Street	34,871	C	2,541	C	1,666	C
NW 27th Avenue	103rd Street (S)	87th Street	103rd Street	40,252	F	3,666	F	2,714	F
NW 27th Avenue	119th Street (S)	103rd Street	119th Street	46,410	C	3,491	C	2,218	C
NW 27th Avenue	119th Street (N)	119th Street	127th Street	42,430	C	3,419	C	1,937	C
NW 27th Avenue	Btw. Ali Baba (S) / SR 9 (N)	127th Street	151st Street	37,828	D	3,054	D	1,892	D
NW 27th Avenue	167th Street (S)	151st Street	167th Street	45,245	D	3,405	D	2,256	D
NW 27th Avenue	183rd Street (S)	167th Street	183rd Street	45,626	C	3,522	C	2,317	C
NW 27th Avenue	183rd Street (N)	183rd Street	199th Street	57,013	C	3,830	C	2,295	C
NW 27th Avenue	199th Street (N)	199th Street	203rd Street	54,801	C	3,652	C	2,073	C
NW 27th Avenue	215th Street (S)	203rd Street	215th Street	53,952	C	3,823	C	2,076	C

SOURCE: FLORIDA DEPARTMENT OF TRANSPORTATION, THE CORRADINO GROUP, INC.

1.8 PARKING

Within the North Corridor, there are currently no county-owned or -managed parking lots, facilities, or spaces. Streetside parking and shared parking (e.g. commercial or private property spaces) generally do not exist within the Corridor; no on-street parking is allowed on NW 27th Avenue. As noted earlier, there are plans to construct a county-operated park-and-ride lot in the northernmost portion of the Corridor at Unity Station.

1.9 ADDITIONAL CONSIDERATIONS

The North Corridor has varying zoning conditions restricting height which place the constraints on density. Additionally, building heights in certain areas of the North Corridor are constrained by two airport clear zones: one at Miami International Airport, and the other at Opa-Locka Executive Airport.

The Opa-Locka Mixed Use Overlay District (MXUOD) provides the opportunity for service-oriented retail and commercial uses and mixed-income housing within a pedestrian-friendly neighborhood with sustainable and environmentally-responsive buildings and infrastructure. The MXUOD includes both Residential/Commercial and Commercial/Industrial Mixed-use subareas, and allows for heights of 4 to 8 stories, though this is constrained in actual application by the aforementioned airport clear zone at Opa-Locka Executive Airport.

Within the Miami Garden's portion of the North Corridor, parcels immediately adjacent to NW 27th Avenue are zoned Entertainment Overlay (EO), allowing for 15 stories. Outside the overlay zone, however, the zoning generally provides for 2-3 stories of maximum height for the other parcels within the study area.

Generally, CRAs use tax increment financing (TIF) as a catalyst for development/redevelopment. For example, a CRA area suffering from high crime rates, real or perceived, may consider security programs to be added to the development areas based on TIF. The age and maturity of a CRA may also make conventional bond issues a source of financing of infrastructure projects.

2. LITERATURE REVIEW

The Corradino Group (Corradino) reviewed a number of documents as part of the SMART Plan North Corridor literature search including two specifically assigned by the TPO: (1) State of New Jersey Future in Transportation ToolKit A (NJFIT); and, (2) USDOT-Federal Highway administration: Toolkit for Intergrading Transportation and Land Use. The following section summarizes these two documents and all others reviewed.

2.1 NEW JERSEY FIT: FUTURE IN TRANSPORTATION

NJFIT is the umbrella program for several quality-of-life initiatives such as Smart Transportation, Context Sensitive Design, Sustainability and Complete Streets, with eight FITness goals guiding the program.

FITness goals of the NJFIT program include:

- Healthy streets and communities;
- Lively Main Streets;
- Streets for communities;
- Sensible land use and sustainability;
- Economic vitality;
- Safe streets;
- More ways to travel; and,
- Lasting investments.

Various programs are utilized under the NJFIT program to provide technical support to local communities. These include encouragement of local zoning, master planning, and site development and redevelopment planning as core elements of all transportation project planning. The Local Technical Assistance program provides a team of on-call consultants made available to local municipalities, with additional support from funding sources, such as the Transportation Enhancement Program and the Urban Transit Hub Tax Credit program, which provide assistance to the current nine urban transit hubs located within a half-mile of NJTransit, PATH, or PATCO stations.

2.1.1 "FITness Equipment" Toolbox

To improve on the FITness goals and community qualities, NJDOT uses eight elements in its toolbox of "FITness equipment":

1. Access Improvement and Management
   - Use Access Management to encourage nodal development — Limit the number and placement of entry points to promote compact development.
   - Build compact, mixed-use walkable downtowns — A connected street network increases access by making routes more direct and travel choices more flexible.

2. Complete Streets
   - Save room for pedestrians and bicyclists – Design roads with pedestrians and bicyclists in mind.
   - Create more compact, mixed-use downtowns with connected street networks to bring destinations closer together – Shorter blocks encourage people to walk or bike instead of drive.
   - Reduce the width of streets – Reduce the widths of travel lanes to improve safety and encourage more walking and biking.
   - Connect transportation modes, particularly around transit – Offer shuttle buses to the train station and areas to park and lock bicycles, to increase transit convenience.

3. Context Sensitive Design
   - Actively seek public involvement early and continuously.
   - Develop designs that meet the needs of specific locations.
   - Preserve and enhance historically, culturally, or architecturally significant features.
   - Work collaboratively and build partnerships.
   - Design streets and roads to support the function they serve:
     - √ If the road is used for regional travel, it should include as few curb-cuts and intersections as possible. Its purpose should be to expedite through traffic.
     - √ If the road is a commercial street, it should be designed to encourage drivers to pull over and shop. Making streets more "local," with slower traffic, sidewalks, and bike lanes encourages pedestrian activity.
     - √ If the road is in a residential neighborhood, it should encourage slower traffic by reducing lane widths and adding signage. It should also provide safe routes to school, where possible.
   - Use the flexibility contained in the current design guidelines (FHWA Flexibility in Highway Design, 1997).

4. Main Street Design
   - Roadway area design – Main Streets should pay special attention to street design and make sure that supporting elements are included that reflect the community's unique identity. These elements may include reduced travel lane widths, textured crosswalks, bike lanes, on-street parking, and signing.
   - Sidewalk area design – Design features to consider include six- to 14-foot sidewalks, pedestrian level lighting, street furniture (i.e., benches, waste receptacles, bike racks, and transit shelters), street trees, and landscaping and curb extensions.
   - Surrounding land uses and design – Although road and sidewalk areas should enhance the look and feel of a community's Main Street, it is equally important that building design be at a human scale: buildings set to the front property line; inviting building facades and windows; and, street level entrances. An appropriate mix of land uses, including residential, will encourage an active downtown and improve the safety of Main Street after business hours. Achieving a healthy mix of land uses may require communities to change existing zoning codes, tax policies, and utility charge policies because these regulations were often adopted with the explicit goal of segregating uses.

- Encourage infill development – Town officials and community leaders should create incentives for developers to build new buildings on these sites to create a more pleasant lively downtown. Ideally, these buildings would include activities and services that involve frequent public interaction—such as retail, professional services, or civic offices—on the ground floor, with office or residential activities above.

5. Mobility and Community Form (MCF)
   There are seven patterns of mobility and community life identified as part of the MCF program, with these considerations linked to the other elements, such as context sensitive design and main street design as applicable:
   - Circulation;
   - Shopping streets;
   - Parking;
   - Transit stops;
   - Neighborhoods;
   - Public places; and,
   - Natural environment.

6. NJ TRANSIT Village and Hubs
   Hubs and Transit Villages in New Jersey are recommended to have the following elements under the NJFIT program:
   - Mix residential, office, institutional and other land uses – TOD communities should include homes, shops, schools, civic institutions, and other amenities within walking distance of transit. This encourages the creation of lively and safe transit-friendly neighborhoods.
   - Make streets friendly to pedestrians and bicyclists – People should be able to conveniently walk or bike to surrounding shops and transit station. Providing safe streets and adequate facilities that include sidewalks, bike lanes and places to store and lock bicycles at the station is necessary.
   - Build compact development – To justify frequent transit service and create an active street life with supporting commercial businesses, TOD requires a minimum of seven residential units per acre (or 25 employees per acre in commercial centers).
   - Manage parking – Parking facilities should be used to encourage more efficient use of land and more efficient travel. Parking lots can be shared between institutions with different peak demand hours (such as restaurants and offices or schools and theaters). Strategies to reduce demand for parking—charging parking fees or improving biking and walking facilities—should be explored.

   A key element of this element in application is the Transit Village Initiative. Under an application process, cities may apply for Transit Village status with the New Jersey Department of Transportation. Designated Transit Villages receive technical assistance and priority in project funding. Thirty-two transit villages are currently designated, three of which are also Urban Transit Centers. To qualify, an application is prepared by taking the following steps:
   - Attend a pre-application meeting with the Transit Village Coordinator.
   - Identify existing transit.

- Demonstrate municipal willingness to grow.
- Adopt a transit-oriented development (TOD) redevelopment plan or TOD zoning ordinance:
  - √ Include transit-supportive site design guidelines;
  - √ Include transit-supportive architectural design guidelines; and,
  - √ Include transit-supportive parking regulation.
- Identify specific TOD sites and projects:
  - √ Document ready-to-go projects; and,
  - √ Include affordable housing in the transit village district.
- Identify bicycle and pedestrian improvements.
- Identify "place making" efforts near transit station:
  - √ Establish a management organization;
  - √ Identify annual community events and celebrations; and,
  - √ Identify arts, entertainment and cultural events.

The application and scoring guide are enclosed as **APPENDICES A** and **B,** respectively.

7. Smart Transportation Guidebook
Developed and released in 2008 with the Pennsylvania Department of Transportation, the Smart Transportation Guidebook provides a toolbox geared towards matching different land use and transportation systems, offering details in design guidelines for roadways, and a template of flexible design values. Smart Transportation as summarized in the guidebook consists of six principles:
   - Tailor solutions to the context;
   - Tailor the approach;
   - Plan all projects in collaboration with the community;
   - Plan for alternative transportation modes;
   - Use sound professional judgment to develop solutions; and,
   - Scale the solution to the size of the problem.

8. Traffic Calming
NJFIT supports the use of traffic calming techniques and includes in its toolbox the following as ways to slow traffic and improve road safety:
   - Narrow traffic lanes;
   - Two-way streets (conversion from one-way streets) to reduce car speeds and travel distance;
   - Raised crosswalks;
   - Speed humps;
   - Center islands; and,
   - Use visual cues to influence driver actions.

2.2 FHWA'S TOOLKIT FOR INTEGRATING TRANSPORTATION AND LAND USE

This document provides brief descriptions of a wide array of approaches and tools practitioners employ to integrate transportation and land use, with implementation examples and sources of additional information, in the following areas.

2.2.1 Planning Activities and Programs

- Development Management and Urban Design: Planners use a wide array of tools in zoning codes to focus development at specific transportation nodes and along corridors.
  - √ Corridor Planning;
  - √ District, Sector, and Neighborhood Planning;
  - √ Interchange Area Planning; and,
  - √ Transit Oriented Development and Station Area Planning.
- Transportation Demand Management: Transportation demand management encompasses a broad set of strategies intended to relieve pressure on the transportation system during peak times:
  - √ Parking Management;
  - √ Ridesharing/Carpooling; and,
  - √ Location Efficient Development Policies and Incentives.

2.2.2 Project Development and Programming

- Project Prioritization and Funding Strategies: Funding agencies use capital grants, technical assistance programs, incentives, and funding mechanisms and approaches to integrate land use and transportation decisions.
  - √ State and Regional Capital Grants and Technical Assistance Programs;
  - √ State and Regional Project Prioritization/Selection Criteria;
  - √ State Fiscal and Regulatory Incentives;
  - √ Transit Corridor and Station Area Development Programs; and,
  - √ Parking Benefits Districts.
- Roadway Design Guidelines and Standards: Planners and engineers craft roadway design guidelines and standards to help ensure accessibility for all modes and improve neighborhood livability.
  - √ Access Management;
  - √ Complete Streets/Routine Accommodation;
  - √ Context Sensitive Design/Solutions;
  - √ Urban Freight Guidelines and Intermodal Freight Centers;
  - √ Local Road Design Guidelines;
  - √ Pedestrian and Bicycle Facilities Design Guidelines/Programs;
  - √ Road Diets; and,
  - √ Road Swaps and Transfers.

2.2.3 Stakeholder Engagement and Visioning

- Public Involvement: Planners use a variety of public involvement techniques to help the public understand the implications of decisions and make more informed choices based on community preferences.
  - √ Community Outreach Toolkits and Facilitation Tools;
  - √ Community Visioning Workshops and Charrettes; and,
  - √ Visualization/Simulation Techniques.
- Visioning and Scenario Planning: Planners host processes with stakeholders to develop regional visions and conceive of and pursue possible land use and transportation scenarios.
  - √ Regional Visioning;
  - √ Land Use Scenario Development; and,
  - √ Scenario Planning Software.

2.2.4 Analytical Tools

- GIS & Technical Analysis: Planners uses a variety of software tools to visualize and analyze land use and transportation connections at multiple scales.
  - √ Environmental Mapping and Analysis;
  - √ GIS Development Opportunity, Housing, and Accessibility Analyses;
  - √ Rural Traffic Shed Model; and,
  - √ Space Syntax.

2.2.5 Emerging Topics

- Linking Planning to the Environmental Review Process: Planners and environmental professionals are increasingly combining planning and environmental review processes to streamline project development.
  - √ Environmental Processes; and,
  - √ Environmental Permits and Plans.
- Linking Planning and Public Health: Professionals from a wide array of fields may collaborate to develop transportation planning tools, policies, and incentives in order to improve public health outcomes
  - √ Coordination between Planning and Health Departments;
  - √ Health Impact Assessment Tools; and,
  - √ Statewide Healthy Transportation Planning and Coordination.

After reviewing the entire document, the following practices are presented here, in summary form, as applicable in the all SMART Plan corridors.

2.3 TRANSIT ORIENTED DEVELOPMENT OR DEVELOPMENT ORIENTED TRANSIT: NJ TRANSIT'S PERSPECTIVE, NEW JERSEY TRANSIT, 2013[1]

2.3.1 Key Success Factors that Enable TOD

NJ TRANSIT assists communities to take advantage of NJ's multi-modal, interconnected transit network to ensure a sustainable land use/transportation connection. The factors to successfully enable transit oriented development are:

- Stable local political environment;
- Local "champion(s)";
- Open, transparent, engagement of local officials and community as a whole;
- Active management of the effort; professional guidance and expertise must be offered (many communities don't have it readily available);
- Key partnerships – Engagement and funding between/among state agencies, MPOs, counties, municipalities, not-for-profits, private sector, etc.); and,
- Developers ARE part of the partnership.

2.3.2 TOD Lessons Learned

TOD is an economic empowering strategy that improves access to transit. TOD can be a win-win for a community if the correct, helpful approach is taken.

- Education and partnerships are central to success AND ongoing;
- TOD cannot be mandated or pushed on communities – push back will occur in the form of anti-growth policies and actions.
- Transit providers need TOD to succeed to survive …
  - √ Fostering infill and/or new development within closer walking and biking distances to transit stops;
  - √ Providing environments where walking and biking are attractive access alternatives to cars;
  - √ Encouraging communities to deploy effective shuttle bus and van systems to connect transit riders living farther out; and,
  - √ Thoughtfully locating parking around systems to achieve a comfortable accommodation with host communities.

Land Use CommunityVIZ

What is It?

A decision support software that evaluates competing future land use scenarios.

Benefits

- Time savings
- Customized to local/regional context
- Allows side-by-side comparisons
- Quick updates
- Incremental adjustments
- On-going testing/evaluation

2.3.3 Next Gen Land Use/Transit Connections—Key Principles

- Engage not-for-profit developers and community development finance institutions (CFDIs) in TOD;
- Use a regional corridor approach;
- Pursue bus/bus rapid transit TOD opportunities;
- Reconnect jobs to transit;
- Expand partnerships to leverage ALL available funds;
- Develop understanding of sustainable benefits of TOD (Green House Gas reduction, green land use, brown/greyfield reuse, walkable environments, and environmental impacts); and,

[1] http://www.apta.com/mc/rail/previous/2013/program/Documents/BakerV_TOD-NJ-TRANSIT-Perspective.pdf

- Understand and exploit trends … increasing senior population, increasing demand by Gen Y and "Millennials" for housing within walking distance of transit.

2.4 SMART PLAN – NORTH CORRIDOR

The SMART Plan North Corridor runs from the MIC on the south to NW 125th Street on the north **(Figure 1**). Prior NEPA documents identified eight stops/stations **(Table 1)**. Presented here are a few case studies to further inform the issues that may need to be addressed at each stop/station.

For each of the following North Corridor stops/stations a brief overview of a comparable situation is presented:

- MLK Station at Metrorail – Mission-Meridan in Pasadena, Calif.;
- NW 82nd Street – Clarendon in Alexandria, Va.;
- Miami-Dade College/North Campus – University Corridor, Houston, Texas;
- Opa-Locka (Ali Baba Avenue/NW 27th Street) – Scaley Park, Charlotte, N.C.;
- NW 166th Street – Fruitvale, Bay Area Rapid Transit;
- NW 183rd Street – Clarendon in Alexandria, Va.; and,
- NW 199th Street – Minneapolis Metro Blue Line

Figure 1: SMART Plan – North Corridor Stop/ Station Overview

SOURCE: THE CORRADINO GROUP

Table 1: North Corridor Station Overview and Case Study – Perspectives

Proposed Stop	Typology (Current), Cursory overview	Case StudyStation/Corridor	Similarities in Qualities	Similarities/Differences in Challenges
Dr. Martin Luther King Jr. MetroRail Station	T3, Community Center	Mission Street, Pasadena; LA Metro Gold Line	In need of rehabilitation of uses at the end of what could be a local development corridor (i.e. compare Mission Street station as edge of a downtown district to Metrorail Station area as north edge for a potential corridor district extending north from Brownsville Transit Village)	Mid corridor station with adjacent land uses and some local uses
NW 82nd Street	T3-T4, Major activity Center corridor at convergence of multiple linkages	Clarendon, Alexandria County, MD (DC Captial Region)	Existing Activity Center Geared towards both local and corridor usage.	Both had/have the potential to be designated as an Urban Village type of TOD development.
Miami-Dade College - North Campus	T3-T4, Activity Center Type Station; Connects to university, County designated Activity Center	Houston LRT (UH, TSU Station)	Educational Activity Center (and all that entails). Clarendon was Arlington's Downtown. NW 82nd Street provides the suburban version of the retail uses of a downtown area.	Highly dependent on Corridor Analysis, and determination of cross corridor transit usage considerations.
Opa-Locka (Ali Baba Ave and NW 27th Ave)	Transect: T3, Aspires to T4 typology. Community Center Station Type.	ScaleyBark, Charlotte NC	T3 is highly suburban. Large industrial sites in Northeast quadrant of Opa-Locka and narrow, neighborhood oriented commerical zoning/land use vs. Scaleybark's commercial, industrial.	Underutilized land, some of which requires land asembly. Small parcels, land use and zoning changes needed.
NW 166th St	T3; Some commercial	Fruitvale, SF BART		Develop area limited by highway barrier. Need for socially equitable devleopment given local conditions. Local network of roadways and other factors indicate both need/needed high emphasis on specific urban design elements, including new linkages and land use patterning, as particularly critical to success.
NW 183rd St	Transect T3/T4; Community Center, Downtown Area. Retail and restaurant destination potential (Carol City) with corridor commericial surrounded by low density residential.	Clarendon, Alexandria County, MD (DC Captial Region)	Existing Activity Center Geared towards both local and corridor usage.	Urban center typology potential.
NW 199th St	T/3, T/4 edge. Regional Activity Center, Stadium Area. East/West Corridor divide. Commerical to South of NW 199th St.	Inglewood, CA (?); Minneapolis Metro Blue Line US Bank Station or Target Field Station		Connectivity
NW 215th St	Terminus, T3/T4, Major Regional Center; Entertainment District Type			

2.4.1 MLK Station At Metrorail – Mission-Meridian In Pasadena, California

Mission Meridian Village is the result of an innovative public-private partnership between Creative Housing Associates (CHA), the City of South Pasadena, The Los Angeles County Metropolitan Transportation Authority (MTA), and the California Department of Transportation (Caltrans). According to Michael Dieden, developer and founder of CHA, the likelihood of success at project inception in 1997 was close to zero. The community was concerned about negative impacts of the train—noise and interference with traffic—and it feared higher density and mixed-use developments would bring unwanted residents and change the quality-of-life of the neighborhood.

To counter the not-in-my-backyard sentiment, CHA conducted aggressive outreach by presenting the project and TOD best practices to the community, and by conducting educational trips to show courtyard housing of various densities so community members could better judge how the proposed project would look and feel.

CHA sponsored a series of 23 public meetings and workshops between November 1998 and April 2002, in addition to personal meetings and informal discussions with local businesses and community representatives. By engaging the community early on, CHA was able to build trust with the community and minimize any opposition.

Mission-Meridian Village was developed on a bonus site within the Mission Street Specific Plan area and the project received an intensity bonus in the form of an increased FAR and increased height allowance in exchange for providing public parking to transit users. The project provided 95 public parking spaces, in excess of the minimum of 47 spaces required for the proposed density.

The City Planning Council approved the project unanimously and Mission-Meridian Village was completed in the fall of 2005. The total project value was $25 million. Public agencies sweetened the deal by investing nearly $5 million in public transportation funds to offset a portion of the land acquisition and construction costs associated with the public parking garage and underground utility relocation.

The development process was a success because of three factors: Mission Meridian Village's exceptional architectural design that complemented the neighborhood; a proactive developer who engaged the community through outreach; and, the city's highly transparent approach to policy-making. The Mission Meridian Village project has done extremely well, continually outperforming competing properties in South Pasadena.

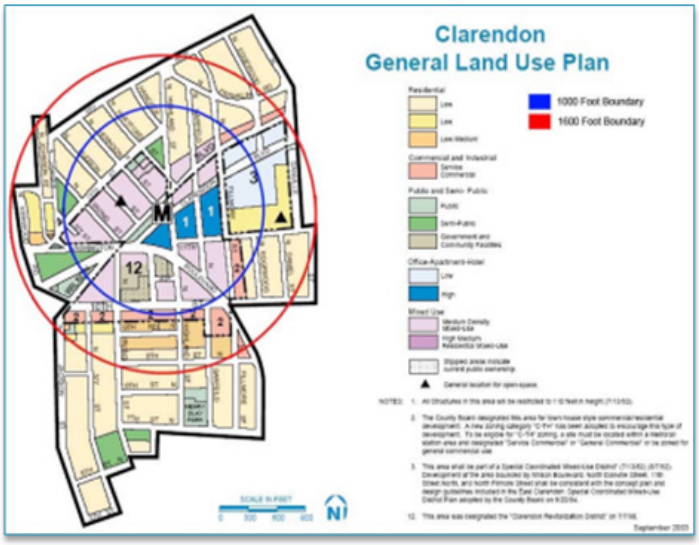
2.4.2 NW 82nd Street And NW 183rd Street – Clarendon In Alexandria, Va.

Metro Station Area Development in the Clarendon Metro station area, in Alexandria, Va., has occurred linearly on Wilson and Clarendon Boulevards. Because of the linear development, the majority of the area within 1,000 feet of the station is planned as a special district, the Clarendon Revitalization District. The designation promotes development near Metro, restricts building heights, and ensures a smooth transition between the new commercial and residential projects and the older surrounding neighborhoods.

This area is planned for medium density mixed use development, and high office-apartment-hotel. Many of the buildings in this area do not reach their planned maximum intensities. Within the 1,600-foot boundary are other planned districts that further reinforce the transition between land uses and encourage high-quality development standards to any large-scale development. These districts include the Commercial Townhouse District and the Special Coordinated Mixed-Use District. In these areas, development transitions to the lower-density residential neighborhoods with retail and townhouse development.

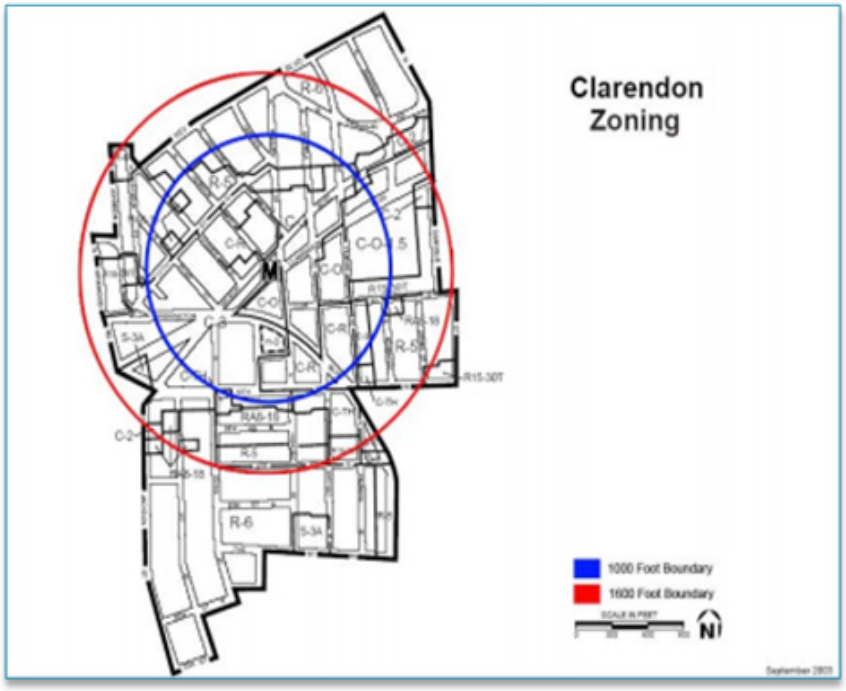
The Market Common project includes retail and residential development, townhouses behind it, and Whole Foods and Baha Fresh stores. Developed as one unit, some of the unused intensity from one parcel (Whole Foods) was transferred to another parcel (Barnes and Nobles), to increase the actual built intensity of the main block. A significant amount of open space was dedicated to the County as parkland and a planned buffer to the surrounding areas. See **Figures 2 and 3** for further detail on the 1,000 and 1,600-foot boundary line and parcel land use. A substantial amount of this residential is low density development at one to ten du/ac. The pie charts in **Figure 4** express the types of land use present or under construction and the amount of land area that these uses cover, as of June 2005.

Figure 2: 1,000–1,600 Foot Delineations Of Rosslyn-Ballston Corridor, General Land Use Map Plan And Zoning



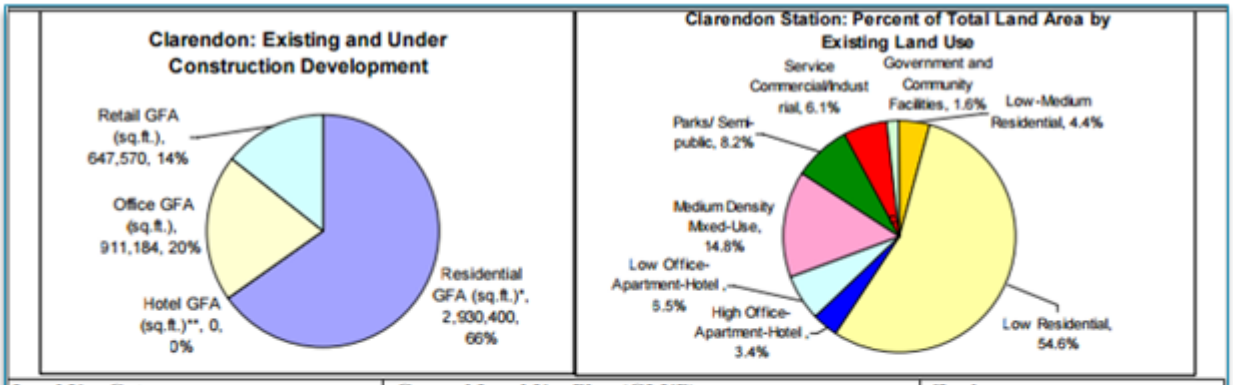
SOURCE: FAIRFAX COUNTY DEPARTMENT OF PLANNING & ZONING, AUGUST 2005

Figure 3: Clarendon Zoning Map



SOURCE: FAIRFAX COUNTY DEPARTMENT OF PLANNING & ZONING

Figure 4: Clarendon Zoning Map



Land Use Category	General Land Use Plan (GLUP)	Zoning
High Residential (High Res./ HOA)	4.8 FAR Residential, 3.8 FAR Hotel	RA-H-3.2, C-O
High-Medium Residential	3.24 FAR Residential	RA-4.8
Medium Residential	32-72 du/ac	RA-7-16; RA6-15; RA-H
Low-Medium Residential	16-36 du/ac	R15-30T; RA14-26; RA8-18
Low Residential	1-10 du/ac	R-20;R-10;R-10T;R-8;R-6;R-5
High Office-Apartment-Hotel	3.8 FAR Office; <4.8 FAR Apartment; <3.8 FAR Hotel	C-O, RA-H-3.2, C-O
Medium Office-Apartment-Hotel	2.5 FAR Office; <115 du/ac Apartment; <180 du/acHotel	C-O-2.5
Parks/ Semi-public		S-3A, S-D
Commercial/Industrial (Gen./Serv.)		C1-R, C-2, C-O 2.5; C-3;
Government and Community Facilities		S-3A

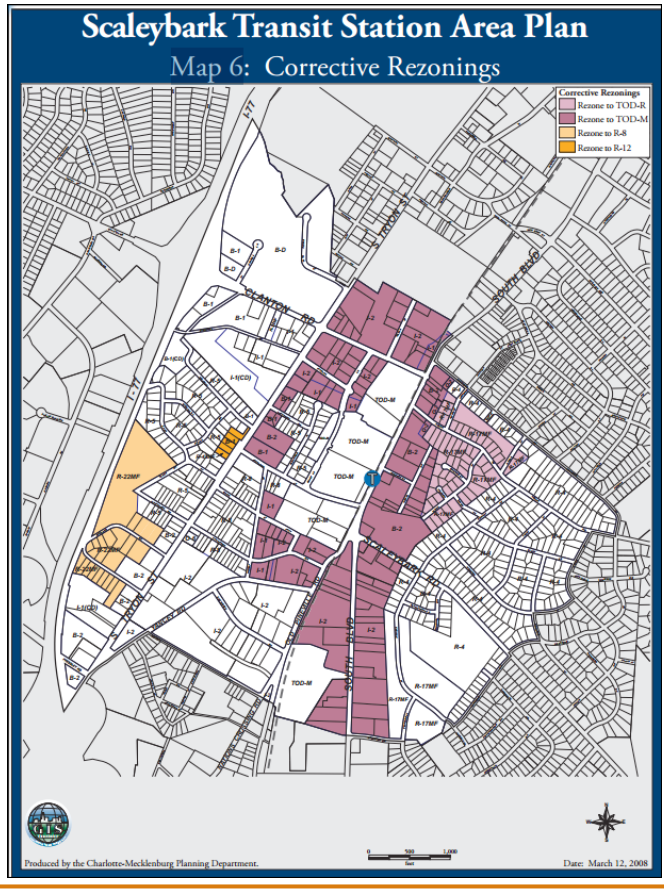
SOURCE: FAIRFAX COUNTY DEPARTMENT OF PLANNING & ZONING, AUGUST 2005

2.4.3 Miami-Dade College/North Campus – University Corridor, Houston, Texas

The Metropolitan Transit Authority of Harris County, Texas, (METRO) planned the University Corridor Light Rail Transit (LRT) project to provide a rapid transit option to link residents on the east end of the corridor with major employment centers on the corridor's west end as well as major activity centers mid-way through the corridor. The proposed LRT line would provide transfer connections to METRO's existing Red LRT line and the Southeast Corridor LRT line, and include 10.6 miles of semi-exclusive at-grade right-of-way, 0.33 miles below grade in retained fill, and 0.36 miles of aerial guideway over a Union Pacific Railroad right-of-way and US Highway 59. Thirty-two light rail vehicles would be purchased. Service would be provided every six minutes during peak and off-peak periods.

The University Corridor has extensive transit service, including 15 local bus routes (57,000 current daily boardings) and seven express park-and-ride routes (15,000 current daily boardings). The current bus network provides combined bus headways that range from three minutes to five minutes during peak periods and ten to 15 minutes during off-peak periods. However, due to high traffic volumes, narrow lanes, increasing delays at traffic signals and inadequate roadway capacity, current bus speeds range from 7.5 to 11.5 miles per hour. Current travel time by bus from the Hillcroft Transit Center to the University of Houston-Central Campus can take approximately 60 to 65 minutes and requires a transfer. The University LRT line would provide a direct connection to the corridor's east and west ends, improving mobility for transit riders to the Greenway Plaza and Uptown/Galleria areas—two of the region's largest activity centers. The LRT line would also offer transfer links, via the existing Red Line, to Downtown Houston, the Texas Medical Center and the Reliant Stadium complex, among other major activity centers.

2.4.4 Opa-Locka (Ali Baba Avenue/NW 27Th Street – Scaleybark, Charlotte, N.C.



The Scaleybark Transit Station, in Charlotte, N.C., is the ninth station heading south from Center City along the South Corridor Light Rail Transit (LRT) line, also known as the LYNX Blue Line. The Scaleybark Transit Station Area Plan was the second of a series of plans for areas around the stations south of South End. The Introduction to the South Corridor Station Area Plans laid the foundation for the station area plans. It first analyzes current conditions in the area around the station. A Concept Plan then makes recommendations to bring the right mix of development to complement the transit investment, and to optimize the land use and infrastructure within the wider surrounding area to support its continued viability. The Concept Plan is the only section of this document to be adopted by City Council.

The plan examines the area within approximately 1/2 mile of the Scaleybark Transit Station. The actual station is within the median of South Boulevard near the intersection of Whitton Street. However, the study area for the plan

covers a much larger area, extending from I-77 to the Colonial Village neighborhood, Clanton Road to Nations Crossing Road. It is mostly in a Growth Corridor, as envisioned by the City's Centers, Corridors and Wedges growth framework, but also includes a portion of the adjoining neighborhoods, in a Wedge.

The Scaleybark study area is distinguished from other South Corridor station areas by its uniquely visible station location, and by several large assembled parcels currently vacant and/or under development right at the station. The study area is challenged by existing land uses that do not generate transit activity, its relatively poor pedestrian environment, and its disconnected street network. The desired future for the study area is that the Scaleybark study area will become one of a series of vibrant, high-density transit villages along the South Corridor. Within its boundaries, there will be three distinct areas:

- Transit Station Area: The core of the study area will transform into an urban and pedestrian-oriented center for the larger Scaleybark plan area. It will include opportunities for living, working, shopping and recreating.
- General Corridor Area: The area between the Transit Station Area and I-77 will include a range of uses appropriate for a Growth Corridor. Existing light industrial, warehouse and office uses will remain, especially in the areas close to the I-77 interchanges. Lower density single family neighborhoods will be preserved and protected from incompatible uses.
- Wedge Neighborhood Area: The lower density residential character of the existing Colonial Village, Collingwood, and York Road neighborhoods will be maintained.

The final plan contained a number of recommendations related to Land Use and Community Design within each of the three areas noted above including:

- Promote mix of transit supportive land uses in Transit Station Area, generally within one-half-mile of the station; support more intense development of CATS Park & Ride lot.
- Provide active, ground floor, non-residential uses such as retail or office, at key locations.
- Create urban plazas near the Transit Station.
- Ensure that development adjacent to single-family neighborhoods provide good transition.

2.4.5 NW 166th Street – Fruitvale, Bay Area Rapid Transit

When BART announced plans in June 1991 to construct a multi-level parking facility adjacent to the Fruitvale BART station, the community's response was less than enthusiastic. As it was, the area around the station was increasingly distressed. The station's crime rate was the second highest in the entire BART system. At a public meeting organized by BART to present its proposal, community residents and business owners complained that the proposed new facility would worsen crime and blight, exacerbate existing air quality and traffic problems, and cut off pedestrian access from the station to the downtown business district.

When it became obvious that the project did not have the support of the Fruitvale community, BART withdrew its proposal and agreed to work with community leaders on an alternative plan for the area.

The vocal and sometimes contentious meetings between BART and community representatives that followed helped give birth to the idea for the Fruitvale Transit Village.

In February 1992, the City of Oakland awarded $185,000 in Community Development Block Grant (CDBG) funds to initiate a community planning process for revitalizing the area around the Fruitvale BART station. That year, the local community held a series of workshops bringing together different stakeholder groups from around the community.

Impressed with the local community involvement strategy and ongoing progress, the U.S. DOT awarded a $470,000 FTA planning grant for the Fruitvale Transit Village in April 1993. The local community used the money to conduct a series of community workshops and carry out economic, traffic, and engineering studies about the immediate station area.

In May 1993, the local community partnered with the University of California at Berkeley's National Transit Access Center (UC NTRAC) to sponsor a community design symposium at which architects translated ideas of participants into a plan for the station area. One of the main themes articulated by participants was the need for revitalization of existing neighborhood businesses and a plan to better integrate businesses into transit station development.

As the scale of the Transit Village project continued to grow. In 1994, the local community BART, and the City of Oakland signed a Memorandum of Understanding establishing the Fruitvale Policy Committee to guide further planning and development activities at the station. The Policy Committee was a very different approach to project development for BART and one of several ways that BART exhibited flexibility and innovation during the planning and design phase of the project.

In the spring and summer of 1995, the local community organized a series of site planning workshops to help stakeholders reach a consensus on a conceptual site plan. Through this process, the project components of the Fruitvale Transit Village were more or less settled. The Village would be located on the existing BART parking lot, a nine-acre site adjacent to the station. The centerpiece of the project would be an elegant, tree-lined pedestrian plaza connecting the BART station entrance with the 12th Street business district one block away. The plaza would be lined with restaurants and shops and serve as a venue for neighborhood festivals and concerts. The surrounding area would include a mixture of retail development, housing, and social service agencies, all easily accessible by foot from the BART station.

2.4.6 NW 199th Street – Minneapolis Metro Blue Line

The METRO Blue Line Extension (Bottineau LRT) project is a proposed 13-mile expansion of the existing METRO Blue Line in the Twin Cities area of Minnesota that will extend from downtown Minneapolis through north Minneapolis, Golden Valley, Robbinsdale, Crystal, and Brooklyn Park, serving the northwest Twin Cities metro. The LRT will link to local and express bus routes, and will seamlessly connect to the regional transitway system at Target Field Station in downtown Minneapolis.

The Hennepin County Bottineau LRT Community Works program was established in 2014 to leverage this important regional transit investment by partnering with cities along the Bottineau LRT line to help plan for and implement critical changes "beyond the rails."

Program goals:

- Re-envision the Bottineau corridor as a multi-modal transit corridor that supports LRT, pedestrian and bicycle connections;
- Maximize and strategically align public and private investments in the corridor to support transit oriented development through catalytic investments in life-cycle housing, commercial development, and public infrastructure;
- Promote economic opportunity by improving access to jobs and supporting business recruitment and expansion along the corridor; and,
- Enhance livability in the corridor by improving public spaces, supporting the creation of healthy communities, and connecting people to key destinations, including employment centers, educational institutions, and regional amenities.

Station area planning is the first step in the Bottineau LRT Community Works planning and implementation process and is designed to coordinate with, and run parallel to, the planning and engineering of the LRT line. Transportation features such as highways, roads and sidewalks are all part of community design. While the health costs and benefits of these features are not always considered when planning a transportation project, this is changing.

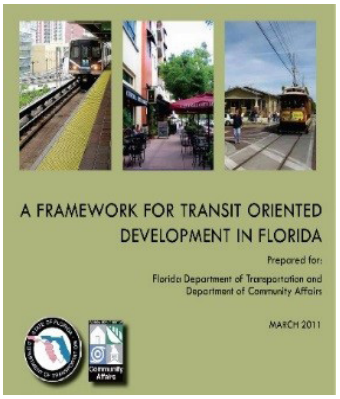
Planning for the METRO Blue Line Extension (Bottineau LRT) is considering these impacts, first in a study called the Bottineau Transitway Health Impact Assessment (HIA) and now in the process for planning the areas around each Bottineau LRT station.

The Bottineau HIA found that the transit line offers real potential to improve health for people in communities near the transit stations as well as for transit users from around the region, by improving physical activity levels, job access, housing and transportation costs, traffic safety, education access and access to healthy food. Some healthy community design features are listed below. How should station area planning address these features? Which are most important to you?

- Housing for different incomes and different stages of life;
- Easy connections to the public transit system;
- Mixed-land use: homes, shops, schools, and work located close together;
- Socially equitable and accessible community;
- Jobs and education are accessible within and from the community;
- Safe and comfortable places for walking and biking;
- Safe public places for social interaction;
- Green spaces and parks that are easy to get to; and,
- Outlets for fresh, healthy food.

2.5 FLORIDA TOD GUIDEBOOK FLORIDA BY DEPARTMENT OF TRANSPORTATION, DECEMBER 2011[2]

2.5.1 A Framework for TOD in Florida



The Florida Department of Transportation (FDOT), in conjunction with the former Florida Department of Community Affairs and a state-wide TOD committee, developed *"A Framework for Transit Oriented Development in Florida"* in 2011. The purpose of the document is to address how TOD can be a part of transforming Florida's existing auto-oriented, largely suburban patterns of development into more compact, livable patterns that support walking, biking, transit, and shorter-length auto trips. Other goals of the TOD Framework are to support significant investments in multimodal systems and to help local governments and agencies respond to increasing interest in TOD from elected officials, partner agencies, developers/investors, and the public. While the Framework focuses on the general concepts and characteristics of successful TOD, the TOD Guidebook is intended to provide a "how-to" manual for Florida's local governments and agencies to implement TOD in the Florida context.

Figure 4: Planning Terms Associated with A Transit Station

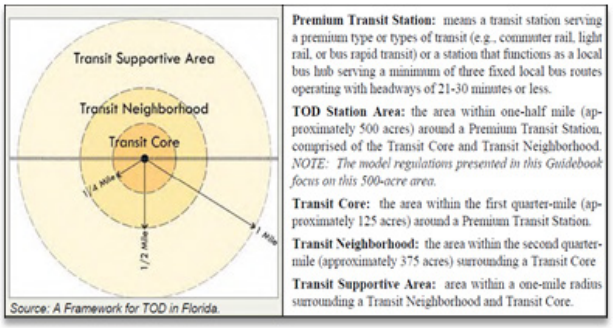


Figure 4 illustrates the relationship of these components surrounding stations. It should be noted the focus of the Guidebook is on the Transit Core and Transit Neighborhood, which together comprise the "TOD Station Area."

Florida Statutes define "Transit Oriented Development" as follows:

> *"Transit-oriented development" means a project or projects, in areas identified in a local government comprehensive plan, that is or will be served by existing or planned transit service. These designated areas shall be compact, moderate to high density developments, of mixed-use character, interconnected with other land uses, bicycle and pedestrian friendly, and designed to support frequent transit service operating through, collectively or separately, rail, fixed guideway, streetcar, or bus systems on dedicated facilities or available roadway connections (Chapter 163.3164(46), F.S.).*

The Framework also establishes that development characteristics within a TOD, including the mix of uses and the density or intensity of development, will vary depending on the type of premium transit service (either planned or in place) that services the area (e.g., commuter rail, heavy rail, light rail, modern streetcar, bus rapid transit, local/express bus) as well as the station spacing and phasing along a transit corridor, community context, and transit ridership goals. For example, a TOD at the end of a commuter rail line that connects outer neighborhoods to a downtown job center may contain significant residential development of moderate density, along with an ample supply of parking. In contrast, a TOD in a downtown core may function as an end-of-the-line collection point in a transit system, providing substantial jobs along with higher intensities and densities of development but limited parking.

[2] www.fltod.com/renaissance/docs/Products/FrameworkTOD_0715.pdf

Transit Oriented Development:

- Encourages a more sustainable transportation system over the long-term by creating viable options for people to get to destinations other than automobile.
- Reduces reliance on the traditional strategy of building new roadways or widening existing roadways to meet transportation needs as Florida continues to grow.
- Provides a design-and-development strategy that will help convert suburban, auto-dominated patterns into more urban, compact, walkable patterns.
- Reduces the costs of delivering public services by encouraging infill and redevelopment in existing urban areas with existing infrastructure.
- Creates incentives, such as reduced parking requirements and increased intensities or densities, to promote private sector investment and economic development in existing urban areas
- Creates opportunities for diverse housing options with a range of prices located within walking distance, an easy transit ride, or a shorter-length auto trip to a variety of destinations.
- Reduces combined housing and transportation costs for households by providing options to auto travel.
- Provides new locations for housing options that reflect Florida-specific demographic trends.
- Encourages more healthy lifestyles by creating a pattern of development in which walking, and biking are a part of everyday travel behaviors.
- Reduces vehicles miles traveled (VMT), dependence on fossil fuels, and associated greenhouse gas emissions through increases in walking and biking, transit trips, and shorter-length auto trips.
- Provides a more compact development pattern overall that preserves open space and natural resources and protects Florida's critical groundwater recharge areas and wildlife habitats.
- Provides a positive impact on property values—both residential and commercial property values rise with proximity to transit stations (source: Sustainable Cities Institute).

2.5.2 TOD Place Types: The Florida Typology

Typology means classifying things according to specific types. TOD is not a "one-size-fits-all" development pattern, but rather, TOD exists in varying types, forms, and compositions relative to the setting in which it is located. Accordingly, to enable TOD to be implemented in Florida's diverse conditions, the TOD Framework sets forth three TOD Place Types – Regional Centers, Community Centers, and Neighborhood Centers. For each TOD Place Type, targets to be achieved at build-out have been established for levels of density and intensity, mix of use, urban form, street networks, and parking. Each Place Type is further differentiated according to different types of transit to help illustrate the relationships among cost, ridership, and development. The higher the cost of the transit investment (typically increasing from rubber-tire technologies to BRT to fixed-rail systems), the higher the desired ridership, and, consequently, the more intense and dense the level of development.

The TOD Place Types consider three major areas of influence: Activity and Accessibility, Transit Type, and Community Context, as discussed below.

- Activity and Accessibility: Access to a transit station and the desired level of activity within a Station Area helps determine the appropriate scale for a TOD along with its position within a larger network. A Regional Center tends to have a high concentration and mix of uses, thereby requiring more transit modes and regional accessibility. On the other hand, a Neighborhood Center tends to have a lesser concentration of uses, often tending towards residential versus workplace, which reduces the scale of accessibility.

- Transit Type: Transit mode and service characteristics also influence ridership potential and station area design. For purposes of the Framework and this Guidebook, the focus is on "premium transit" modes, which include fixed-rail modes (e.g., heavy rail, commuter rail, intercity passenger rail, light rail, streetcar), other fixed-guideway modes (e.g., bus rapid transit), and high frequency local/express bus. These modes represent a range of transit investment costs, station design features, and operating characteristics that influence station area intensities, densities, and mix of uses.

- Community Context: The location of Station Areas within urban, suburban, or transitional (mix of urban and suburban characteristics) settings is a third general influence on design and development/redevelopment of TOD. Given the extensive review of Florida Place Types, Florida's development patterns can be grouped into three broad "context categories": Urban Infill, Suburban Retrofit, and Greenfield/Rural. Each of these contexts can influence urban form, interconnectivity, and the ability to accommodate density, intensity, and a mix of uses within Station Areas. Further, the existing context of Station Areas can influence the degree of challenge for developing station area concept plans and gaining consensus among property owners, agencies, and other stakeholders.

2.5.2.1 Regional Center


Metrorail Station, Downtown Miami, Florida

SOURCE: A FRAMEWORK FOR TRANSIT ORIENTED DEVELOPMENT IN FLORIDA

has a concentration of economic and cultural significance, including downtowns and central business districts, which serve a regional travel market and are served by a rich mix of transit types ranging from high speed, heavy or commuter rail to BRT to local bus service. Usually emphasizing employment uses, Regional Centers increasingly are being sought out for residential uses in response to changing demographics and housing preferences. Regional Centers are larger in size than Community Centers and Neighborhood Centers and tend to contain more than one transit station and multiple bus stops. Small block sizes, more lot coverage, higher intensities and densities of development, civic open spaces, and minimal surface parking result in a highly urban development pattern in Regional Centers **(Figure 5).**

Figure 5: TOD Place Type Targets – Regional Centers

		1	2	3
		Regional Center		
		Heavy Rail	Commuter/Light Rail	Bus Rapid Transit/Bus
STATION AREA MEASURES	**Gross Intensity/Density**			
	Station Area Employment and Residential Units	70,000 - 95,000	45,000 - 70,000	23,000 - 45,000
	Station Area Total Residential Units	10,000 - 15,000	5,000 - 10,000	3,000 - 5,000
	Gross Residential Density (Dus/Acre)	55 - 75	35 - 55	20 - 35
	Station Area Total Employment	60,000 - 80,000	40,000 - 60,000	20,000 - 40,000
	Gross Employment Density (Jobs/Acre)	200 - 250	100 - 200	50 - 125
	Jobs/Housing Ratio (Jobs:Residential Units)	6 : 1		
	Mix of Uses			
	Mix of Uses - % Residential / % Non-Residential	35% / 65%		
SITE LEVEL MEASURES	**Net Intensity/Density**			
	Net Commercial Floor Area Ratio (FAR)	4.0 - 6.0	2.0 - 4.0	1.5 - 3.0
	Net Residential Density (Dwelling Units per Acre)	85 - 115	55 - 85	30 - 55
	Street Network and Building Design			
	Grid Density - Blocks per Square Mile for Vehicular, Bicycle, and Pedestrian Street Network	> 350	> 350	>230
	Building Height (in Floors)	> 4	> 3	> 2
	Maximum Lot Coverage	80% - 90%	80% - 90%	60% - 70%
	Minimum Street Frontage	80% - 90%	80% - 90%	70% - 80%
	Parking			
	Maximum Residential Parking - Spaces per Residential Unit	1	1	1.5
	Maximum Non-Residential Parking - Spaces per 1,000 square feet	1	1	2
	Park & Ride	No	No	No

SOURCE: A FRAMEWORK FOR TRANSIT ORIENTED DEVELOPMENT IN FLORIDA

2.5.2.2 Community Center

Functions as sub-regional or local node of economic and community activity and includes urban and town centers served by one or more transit types. Residential densities in Community Centers are typically lower than residential densities in Regional Centers, but the mix of uses in them is more balanced between residential and employment uses. More intense and dense development in Community Centers tends to be concentrated within walking distance of the transit station. The pattern of development in Community Centers ranges from urban to suburban. Block sizes, lot coverage, and development intensities and densities all tend to be moderate **(Figure 6)**. Parking is typically structured and located close to the transit stations.

2.5.2.3 Neighborhood Center

Is dominated by residential uses and served by some type of premium transit. Non-residential uses in them are limited to local-serving retail and services. Residential densities in Neighborhood Centers tend to be lower than in Community Centers and at their highest within walking distance of the transit station **(Figure 7)**. Neighborhood Centers are found in older urban areas and newer suburban developments. Open space is usually abundant, and parking is mostly in surface lots.

Figure 6: TOD Place Type Targets – Community Centers

		4	5	6
		Community Center		
		Heavy Rail	Commuter/Light Rail	Bus Rapid Transit/Bus
STATION AREA MEASURES	**Gross Intensity/Density**			
	Station Area Employment and Residential Units	23,000 - 30,000	15,000 - 23,000	7,000 - 15,000
	Station Area Total Residential Units	5,000 - 6,000	3,000 - 5,000	1,000 - 3,000
	Gross Residential Density (Dus/Acre)	35 - 65	25 - 35	10 - 20
	Station Area Total Employment	18,000 - 24,000	12,000 - 18,000	6,000 - 12,000
	Gross Employment Density (Jobs/Acre)	65 - 90	45 - 65	20 - 45
	Jobs/Housing Ratio (Jobs:Residential Units)	3 : 1		
	Mix of Uses			
	Mix of Uses - % Residential / % Non-Residential	45% / 55%		
SITE LEVEL MEASURES	**Net Intensity/Density**			
	Net Commercial Floor Area Ratio (FAR)	4.0 - 6.0	2.0 - 4.0	1.0 - 2.0
	Net Residential Density (Dwelling Units per Acre)	60 - 80	40 - 60	20 - 40
	Street Network and Building Design			
	Grid Density - Blocks per Square Mile for Vehicular, Bicycle, and Pedestrian Street Network	> 350	>230	>150
	Building Height (in Floors)	> 3	> 2	> 2
	Maximum Lot Coverage	80% - 90%	60% - 70%	40% - 50%
	Minimum Street Frontage	80% - 90%	70% - 80%	60% - 70%
	Parking			
	Maximum Residential Parking - Spaces per Residential Unit	1	1.5	2
	Maximum Non-Residential Parking - Spaces per 1,000 square feet	1	2	3
	Park & Ride	No	No	No

Figure 7: TOD Place Type Targets – Neighborhood Centers

		7	8	9
		Neighborhood Center		
		Heavy Rail	Commuter/Light Rail	Bus Rapid Transit/Bus
STATION AREA MEASURES	**Gross Intensity/Density**			
	Station Area Employment and Residential Units	5,000 - 8,000	4,000 - 6,000	2,000 - 4,000
	Station Area Total Residential Units	3,000 - 4,500	2,000 - 3,000	1,000 - 2,000
	Gross Residential Density (Dus/Acre)	12 - 15	9 - 12	7 - 9
	Station Area Total Employment	2,000 - 3,500	2,000 - 3,000	1,000 - 2,000
	Gross Employment Density (Jobs/Acre)	20 - 30	15 - 20	10 - 15
	Jobs/Housing Ratio (Jobs:Residential Units)	1 : 1		
	Mix of Uses			
	Mix of Uses - % Residential / % Non-Residential	75% / 25%		
SITE LEVEL MEASURES	**Net Intensity/Density**			
	Net Commercial Floor Area Ratio (FAR)	1.5 - 2.0	1.0 - 1.5	0.5 - 1.0
	Net Residential Density (Dwelling Units per Acre)	15 - 20	12 - 15	10 - 12
	Street Network and Building Design			
	Grid Density - Blocks per Square Mile for Vehicular, Bicycle, and Pedestrian Street Network	> 230	> 150	> 150
	Building Height (in Floors)	> 2	> 2	> 1
	Maximum Lot Coverage	60% - 70%	40% - 50%	40% - 50%
	Minimum Street Frontage	70% - 80%	60% - 70%	60% - 70%
	Parking			
	Maximum Residential Parking - Spaces per Residential Unit	1.5	2	2
	Maximum Non-Residential Parking - Spaces per 1,000 square feet	2	3	3
	Park & Ride	Yes	Yes	Yes

2.5.3 Station Area Planning

In considering station area planning, land use, transit accommodations, accessibility and connectivity, and physical design were noted by the Florida TOD report to be key focuses. In determining land use, questions of economic activity, connections between the land uses within the station area, development and redevelopment potential, and other key questions for successful station area planning can then be answered. The area noted should be one-half mile in distance from the station. **(Figure 8)** provides one example, Ballston Metro Station in Arlington, Virginia, used to demonstrate how the components of a station area land use analysis.

Figure 8: Land Use Analysis Example

TRANSIT ORIENTED DEVELOPMENT (TOD)
LAND USE ANALYSIS

Renaissance Planning Group

Use	Acres	Land Cover
First 1/4 Mile		
Streets	26	21%
Civic	1	1%
Parks	2	2%
Residential	46	37%
Non-Residential	50	40%
Total	***126***	***100%***
Second 1/4 Mile		
Streets	49	16%
Civic	36	12%
Parks	0	0%
Residential	136	44%
Non-Residential	89	29%
Total	***310***	***100%***
Total Area		
Streets	75	17%
Civic	37	9%
Parks	2.4	1%
Residential	182	42%
Non-Residential	139	32%
	436	***100%***

SOURCE: A FRAMEWORK FOR TRANSIT ORIENTED DEVELOPMENT IN FLORIDA

These include categories of Civic, Parks, Streets, Residential, and Non-Residential Uses.

2.6 ORIENTED DENVER, TRANSIT ORIENTED DEVELOPMENT STRATEGIC PLAN 2014, CITY OF DENVER[3]

WHAT IS A TYPOLOGY?

One of the most valuable planning outcomes of Denver's 2006 TOD Strategic Plan was the establishment of a typology of station types that helped set expectations for station development. At the time, many stations lacked a plan to provide guidance, and the typology provided a launching point for planning activity within 21 station areas. These plans establish the vision for individual station areas and provide recommendations to achieve implementation.

In 2010, the City adopted a new city-wide form- and context-based zoning code. The new zoning code is a valuable tool to better implement the vision in the station area plans, set clear expectations for development, and provides predictability for property owners. The zoning code's neighborhood contexts set expectations similar to the typology established in 2006 for station areas. This update builds upon the existing typology, with revisions to mesh with the neighborhood context established in the Denver zoning code, reflect the vision established in the various station area plans, and acknowledge other neighborhood interests or development activity around the stations.

Denver's Station Typology classifies each station area into one of five context types based on characteristics commonly found in places served by rail transit. These characteristics group into five categories:

- Land use mix
- Street and block pattern
- Building placement and location
- Building heights
- Mobility

In addition, some stations receive a functional overlay designation that establishes a key functional aspect to the station area context and their associated expectations. The purpose of the station typology is three-fold:

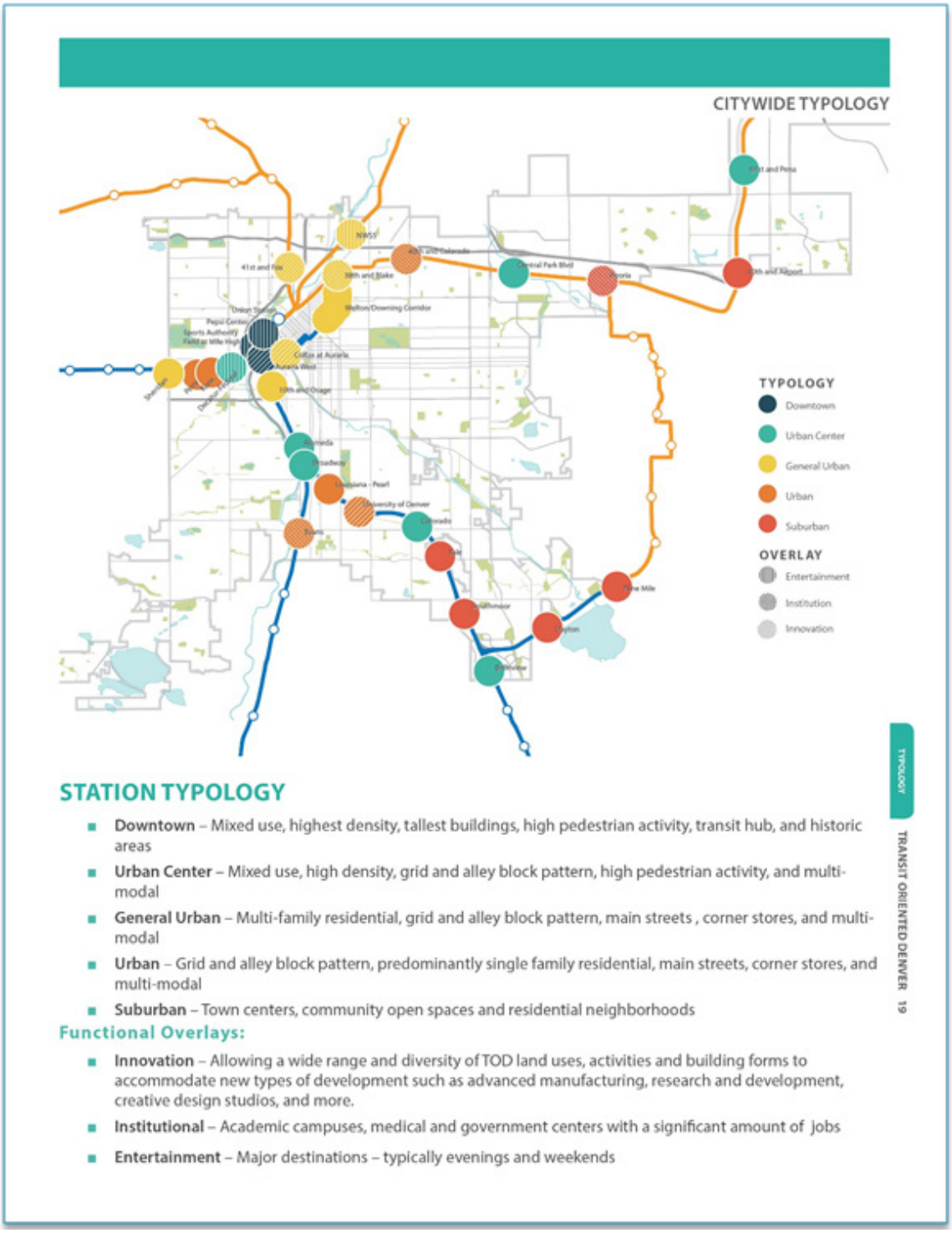
- Provide a snapshot of aspirational character
- Set expectations for development
- Establish a level of magnitude for possible investments

TYPOLOGY

TRANSIT ORIENTED DENVER 18

SOURCE: TRANSIT ORIENTED DENVER, TRANSIT ORIENTED DEVELOPMENT STRATEGIC PLAN 2014, CITY OF DENVER

[3] http://www.apta.com/mc/rail/previous/2013/program/Documents/BakerV_TOD-NJ-TRANSIT-Perspective.pdf



SOURCE: TRANSIT ORIENTED DENVER, TRANSIT ORIENTED DEVELOPMENT STRATEGIC PLAN 2014, CITY OF DENVER

TOD CONTINUUM

TOD CONTINUUM CATEGORIES

The TOD continuum is a tool that provides a quick snapshot of the current potential for development at stations and monitor outcomes of future action items. The stations are grouped, based on the station evaluation results, into the three continuum categories – Strategize, Catalyze, Energize – each with a specialized tool kit to guide planning, policy, and infrastructure decisions. Each station has more specific action items with the intention to remove barriers to development and strengthen the station area's market potential.

STRATEGIZE

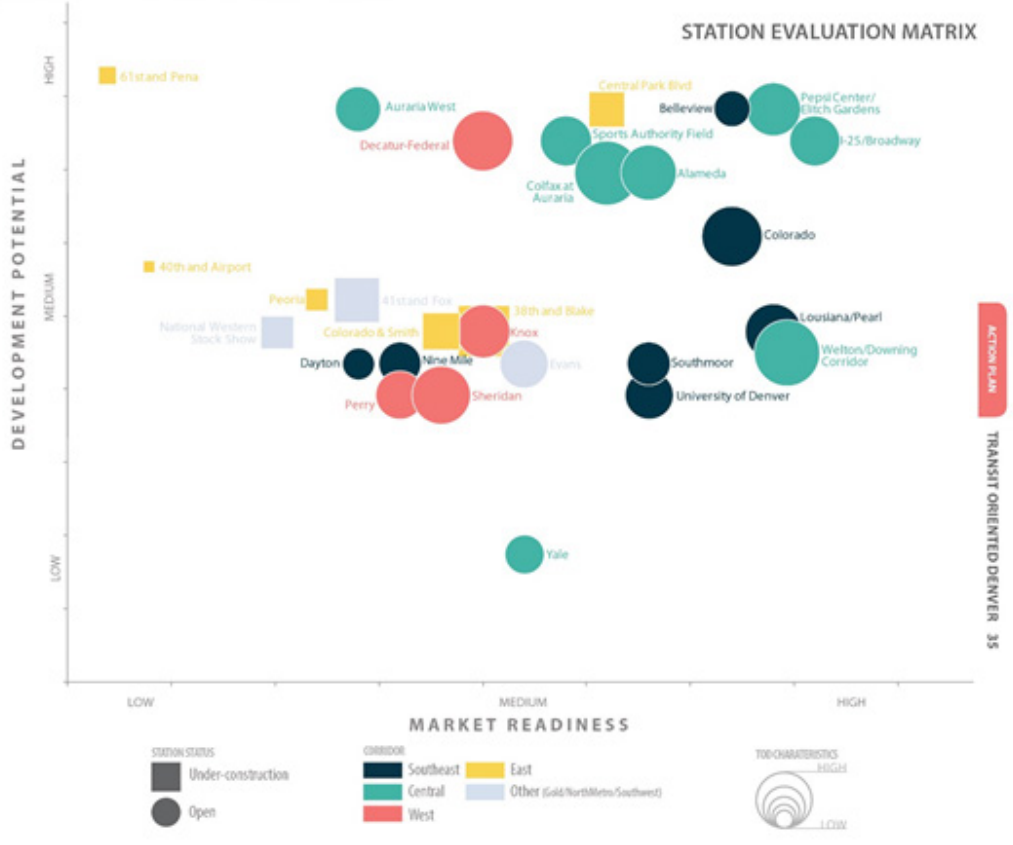
Stations that are still in pre-development planning phases either because the rail line is not complete or due to market or development factors that make TOD unlikely in the near term. Station areas with low market potential in the near term and current conditions indicate low development readiness. Planning is needed to guide future investment and infrastructure projects in these stations.

CATALYZE

Station areas with above average market conditions for TOD, but with a need for specific infrastructure or amenity improvements to achieve the desired type of development. Catalytic infrastructure and amenity investments are needed, and should yield the sought-after TOD results.

ENERGIZE

Station areas where there are above average market conditions for TOD and no significant development or infrastructure deficiencies impeding TOD from occurring. These station areas typically need more targeted, short term actions to achieve intensified TOD activity.



SOURCE: TRANSIT ORIENTED DENVER, TRANSIT ORIENTED DEVELOPMENT STRATEGIC PLAN 2014, CITY OF DENVER

2.7 HOW TO … LINK LAND USE AND TRANSPORTATION PLANNING[4]

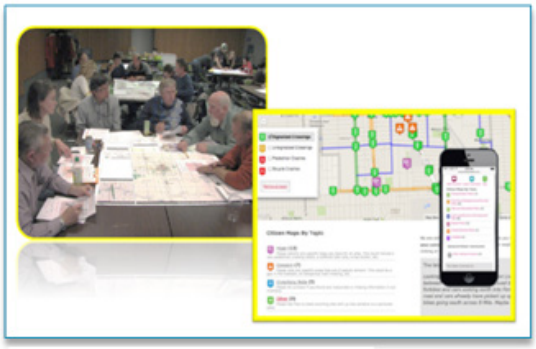
Local Master Plans describe a community's vision for the future and how to achieve it. A well-developed transportation section of the Master Plan will define how the community's transportation system relates to the regional system, the vision for growth, and the intended function of the local transportation network. The transportation section for a Master Plan might include:

- Policies (i.e., what you want to achieve or commitments to do something—in the form of goals, principles and standards).
- Implementation Strategies (i.e., how you intend to achieve it).
- Background research and analysis for the policies and implementation programs including:
  - √ Description of existing conditions: types of roads; public transportation; location and condition of transportation facilities, bike routes, and sidewalks; the community's place in the region; and, issues of regional concern.
  - √ Traffic counts for major roads and intersections.
  - √ Identification of any community roads being considered for Scenic Road designation.
  - √ Description of existing sidewalk and trail network, whom do they service, and what are their conditions?
  - √ Identification of current problems with access (driveways) on roadways by examining crash patterns.
  - √ Consideration of Master Plan land uses, zoning, and current land use as they relate to the intended function of a roadway.
  - √ Identification of nodal development/zoning strategies to limit the amount of development along less developed, rural roads.
  - √ Incorporation of access management strategies as part of site plan review and subdivision regulations to ensure that development along highways does not significantly reduce traffic safety and road carrying capacity.
  - √ Recommendation for traffic impact analysis for all Site Plan Review and Subdivision applications exceeding a prescribed threshold.

[4] Prepared by Strafford, Conn., Regional Planning Commission.

2.8 PLANNING FOR TRANSIT-ORIENTED DEVELOPMENT WITH 3D VISUALIZATIONS [5]

The Boston Green Line subway was proposed to expand resulting in new transit stations in Somerville and Medford, Massachusetts. The prospect of new transit stations raised concerns about the challenges—and opportunities—it would create for the neighborhoods it will serve.



SOURCE: THE CORRADINO GROUP, INC.

The planning process in Medford and Somerville demonstrated the power of new tools to facilitate an informed discussion, such as keypad polling, 3D modeling, and interactive workshops.

The CommunityViz tool, which includes 3D models along with benefit and impact assumptions for various alternatives, was used. The model generated indicators for each scenario examined, such as housing units, office square footage, job creation, tax revenue, etc. Participants were able to see how their choices affected the indicators and were then able to weigh those choices based on what was more important to them. Use of CommunityViz generated discussions among community members about the perceived versus actual benefits and impacts of land use and development decisions.

The process resulted in a vision for the station area that emphasized neighborhood connections, housing, jobs, and tax revenues from new mixed-use development.

2.9 STAKEHOLDER ENGAGEMENT, MEMPHIS, TN, MPO 2040 LONG RANGE TRANSPORTATION PLAN, 2015[6]

2.9.1 Outreach Techniques

SOURCE: STAKEHOLDER ENGAGEMENT, MEMPHIS, TN, MPO 2040 LONG RANGE TRANSPORTATION PLAN, 2015

"Traditional" forms of outreach often limit public involvement to the highly-specific times of Town Hall-type meetings, where constraints on personal schedules and responsibilities, including work and child care, often limit the participation of many members of the public. To be more inclusive, the Memphis, TN., Livability 2040 public engagement process provided for an increased online presence including Twitter, Facebook, a regularly-updated website, online surveys, and a public participatory GIS tool, such as "Community Remarks."

2.9.2 Meeting Outreach

Notification of public meetings was distributed by postal and electronic mail. Seven thousand five hundred (7,500) postcards were produced per meeting site, of which more than 5,300 were mailed to local businesses, community groups, and residents located within a one-half-mile radius of each meeting location, with the remainder provided to the MPO and Regional Transportation Plan Advisory Committee members for further distribution. In addition, email blasts were sent to approximately 450 community groups and individuals for further dissemination. The meetings were also publicized on the Memphis MPO's website, Twitter,

[5] Jacob Smith, March 14, 2012 (http://placematters.org/blog/tag/communityviz/)
[6] https://shelbycountytn.gov/466/Metropolitan-Planning-Organization

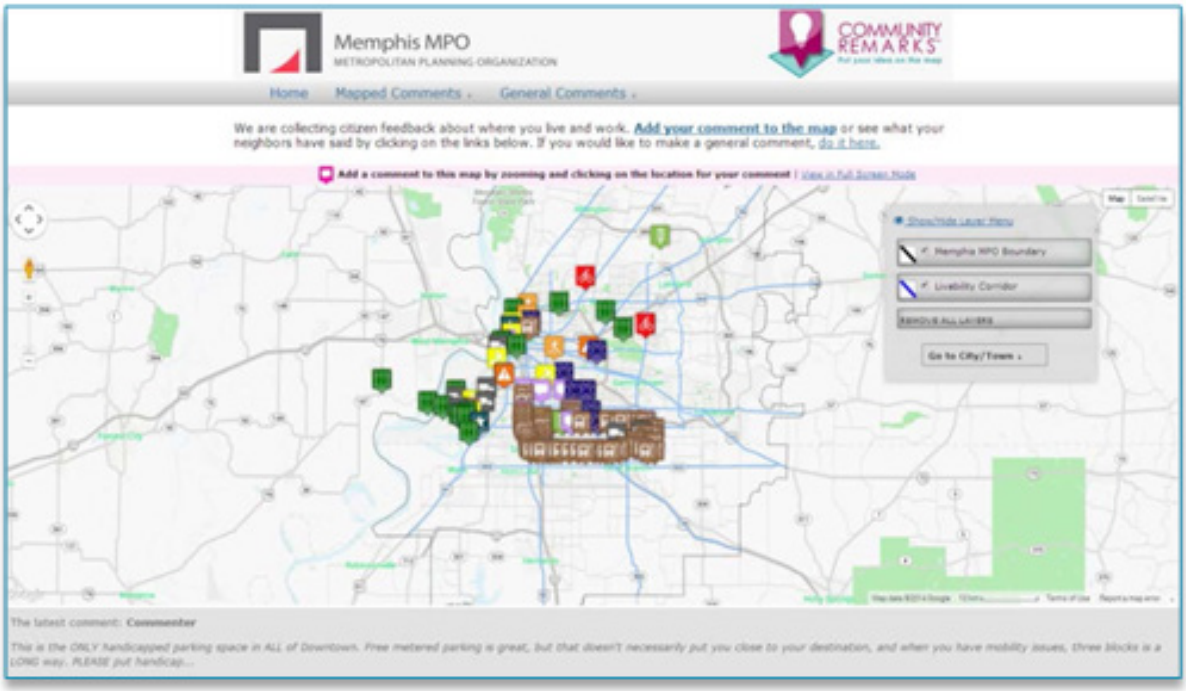
and Facebook accounts. Further public outreach methods included press releases, newspaper advertisements, and ads on Memphis Area Transit Authority (MATA) buses. The RTP was covered in local newspaper articles as well as TV news.

2.9.3 Communication Tools

Electronic Voting Devices

At each meeting, a presentation was given detailing the RTP process along with a brief video describing the concept of "livability." Citizens were introduced to various ways available to keep informed and remain involved throughout the process, including the Livability2040 Website and the Community Remarks public participatory Geographic Information System (GIS).

Community Remarks is an online mapping application which allows members of the public to provide geolocated comments, with an additional option to upload site pictures. Each presentation also included an interactive session with the public, which was conducted via a real-time survey utilizing the touch-pad system known as Turning Point, followed by a question and answer session which incorporated the results of the just completed survey to guide the discussion. Turning Point is an interactive meeting tool which allows for real-time audience polling to gain feedback and transition to discussions.



Above: Community Remarks page, with geo-located comments. Over 200 comments were generated from constituents in the region.

2.9.4 Online Outreach

An interactive website (www.livability2040.com) was launched with regular updates, to provide the public with the ability to remain involved in the process, even if people were unable to attend the public meetings.

Comments and suggestions submitted online became part of the official record and were forwarded to the appropriate agency for a response.

By visiting the website, the public obtained a schedule of upcoming meetings, viewed details of the study as they emerged, and provided feedback via the online survey link as well as geo-located comments via Community Remarks. The website also included language translation capabilities allowing for increased involvement from non-English or limited English proficiency users.

2.9.5 On-Line Survey

To provide a platform for public feedback as part of the outreach plan, the MPO developed a questionnaire which was available online and printed for distribution at events.

Twitter and Facebook

Public outreach was also conducted via Twitter and Facebook with links to the survey, the public outreach meeting locations, and other aspects of the Livability 2040 plan.

2.10 CREATING WALKABLE + BIKEABLE COMMUNITIES: A USER GUIDE TO DEVELOPING PEDESTRIAN AND BICYCLE MASTER PLANS[7]

This document provides guidance on crafting recommendations for policy changes, new bicycle and/or pedestrian infrastructure, and support programs. The process of generating and evaluating alternatives, then prioritizing final recommendations, can take a variety of forms.

The approach will depend on: identified needs, opportunities, and constraints; the size and complexity of the geographic area; and, budget. In all cases, the vision, goals, and objectives should drive the process.

EXAMPLE EVALUATION CRITERIA: NORMAL, CALIFORNIA BIKE/PED MASTER PLAN

CRITERION	MEASUREMENT
OVERCOMES BARRIERS	How well does the project overcome a barrier in the current bicycle and/or pedestrian network?
SYSTEM CONNECTIVITY	To what extent does the project fill a missing gap in the bicycle and/or pedestrian system?
COMMUNITY SUPPORT	To what degree do residents desire the proposed project? This criterion takes into account oral and written feedback received at the community workshops, questionnaires, as well as previously proposed bike/ped projects.
USER GENERATOR	To what degree will the project likely generate transportation or recreational usage based on population, corridor aesthetics, etc.?
LAND USES	How many user generators does the project connect to within reasonable walking or bicycling distance, such as schools, parks, employment centers, etc.?
SAFETY AND COMFORT	Can the project potentially improve bicycling and walking at locations with perceived or documented safety issues? This criterion takes into account available crash data as well as feedback from all committees and the public.
REGIONAL BENEFIT	To what degree does the project offer potential benefits to the wider regional community by offering opportunities for increased connectivity to surrounding communities, other regional walkways/bikeways, etc.?
COST	What financial resources are needed to implement the project? Is the project cost prohibitive, or can it be implemented through grant funding or other opportunities?
EASE OF IMPLEMENTATION	How difficult will it be to implement the project? This criterion takes into account constraints like topography, existing development, presence or lack of available right-of-way, and environmental and political issues.

SOURCE: INITIATIVE FOR BICYCLE AND PEDESTRIAN INNOVATION, CENTER FOR TRANSPORTATION STUDIES, PORTLAND STATE UNIVERSITY

[7] Initiative for Bicycle and Pedestrian Innovation, Center for Transportation Studies, Portland State University, http://ppms.trec.pdx.edu/media/project_files/IBPI%20Master%20Plan%20Handbook%20FINAL.pdf

2.10.1 Develop Evaluation Criteria

Evaluation criteria allow a systematic assessment of policies, projects, and programs based on their respective likelihood of achieving a goal or objective. By creating a direct link between plan goals and objectives and potential actions, evaluation criteria provide a rational explanation by which to judge recommendations. Developing evaluation criteria, before discussing individual plan recommendations, promotes efficient exploration of potential options and helps focus the process of creating, selecting, and prioritizing recommendations.

Establishing evaluation criteria also increases the legitimacy of recommendations by providing a non-biased methodology for project selection and phasing, allowing public officials to stand on solid ground. A perception of bias or inequity during development of the priority project list can ignite controversy, and if planners are unable to point to a systematic method embedded in the process, this can undermine public support of a plan.

Evaluation criteria may include:

- Overcoming barriers (physical or psychological);
- Current or future demand for walking and/or bicycling;
- Attracting “interested but concerned” bicyclists;
- Increasing safety and comfort;
- Filling existing gaps;
- Improving aesthetics;
- Improving health;
- Increasing social equity;
- Reducing vehicle miles traveled/air pollution/greenhouse gas emissions;
- Cost or cost-effectiveness; and,
- Technical and political feasibility.

The criteria should be specific enough to provide clear guidance, but flexible enough to allow for professional interpretation and enable dialogue about core community values.

2.10.2 Brainstorm Policy Changes

Policy recommendations are intended to guide future actions. Policies may apply to the sponsoring agency, to other government departments or agencies, or to private sector actors such as building owners, developers, schools, and companies. Each policy recommendation should relate to the vision and work toward achieving a specific goal. It is not uncommon for plans to include multiple objectives or strategies aimed at increasing the pedestrian and bicycle friendliness in specific areas, such as transportation planning/engineering, land use planning, and law enforcement.

Because there are many factors that affect the appeal of walking and bicycling, there are a wide variety of possibilities. For example, developing a policy that mandates striping bicycle lanes during regularly scheduled street re-paving is a strategic, low-cost way to begin building a bikeway network.

2.11 TRADITIONAL NEIGHBORHOOD DEVELOPMENT HANDBOOK, FLORIDA DEPARTMENT OF TRANSPORTATION, 2011[8]

Urban network types are frequently characterized as either traditional or conventional. Traditional networks (TNs) are typically characterized by a pattern of short blocks and straight streets with a high density of intersections that support all modes of travel in a balanced fashion. Advantages of TNs include:

1. Distribution of traffic over a network of streets, reducing the need to widen roads;

2. A highly-interconnected network providing a choice of multiple routes for travel for all modes, including emergency services;

3. More direct routes between origin and destination points, which generate fewer vehicle miles of travel (VMT) than conventional suburban networks;

4. Smaller block sizes in a network that are highly supportive to pedestrian, bicycle and transit modes of travel; and,

5. A block structure that provides greater flexibility for land use to evolve over time.

The principles for designing streets in TN communities are similar in many respects to designing streets for conventional transportation.

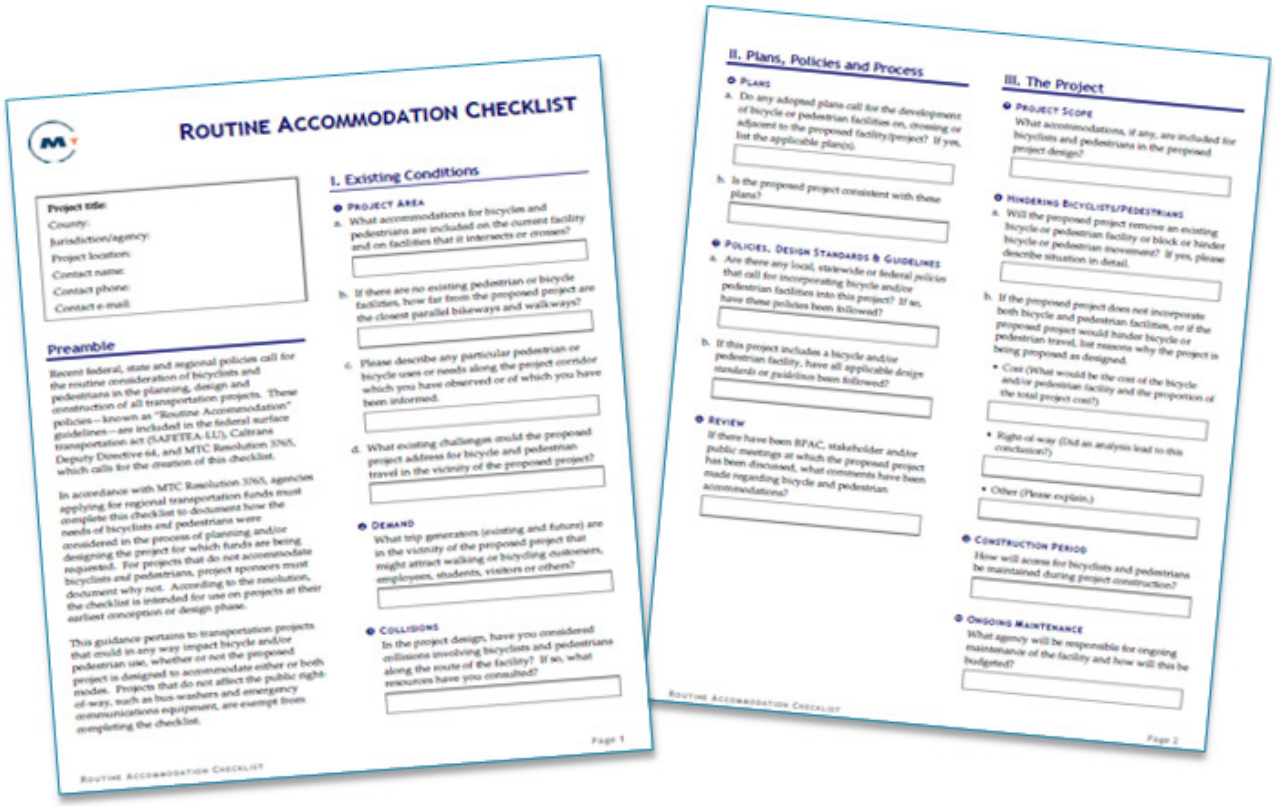
- Providing mobility for users;
- Creating safe streets for users;
- Accommodating movement of goods;
- Providing access for emergency services, transit, waste management, and delivery trucks;
- Providing access to property.

When designing features and streets for TN communities in an infill or redevelopment site, flexibility is required. Creativity and careful attention to safety for pedestrians and bicyclists must be balanced with the operational needs of motor vehicles.

[8] http://www.fdot.gov/roadway/floridagreenbook/tnd-handbook.pdf

2.12 SAN FRANCISCO COMPLETE STREETS CHECKLIST, METROPOLITAN TRANSPORTATION COMMISSION, SEPTEMBER, 2014[9]

San Francisco Metropolitan Transportation Commission (MTC) Resolution 3765 calls for all projects funded through MTC's programs and fund sources to consider the accommodations of bicyclists and pedestrians in planning, design and construction. The resolution specifies that project sponsors complete the when the project is submitted to MTC for funding. The checklist is intended for use on projects at their earliest conception or design phase so that any pedestrian or bicycle consideration is included in the project budget. This is the two-page checklist document:



ROUTINE ACCOMMODATION CHECKLIST

Project title:
County:
Jurisdiction/agency:
Project location:
Contact name:
Contact phone:
Contact e-mail:

Preamble

Recent federal, state and regional policies call for the routine consideration of bicyclists and pedestrians in the planning, design and construction of all transportation projects. These policies—known as "Routine Accommodation" guidelines—are included in the federal surface transportation act (SAFETEA-LU), Caltrans Deputy Directive 64, and MTC Resolution 3765, which calls for the creation of this checklist.

In accordance with MTC Resolution 3765, agencies applying for regional transportation funds must complete this checklist to document how the needs of bicyclists and pedestrians were considered in the process of planning and/or designing the project for which funds are being requested. For projects that do not accommodate bicyclists and pedestrians, project sponsors must document why not. According to the resolution, the checklist is intended for use on projects at their earliest conception or design phase.

This guidance pertains to transportation projects that could in any way impact bicycle and/or pedestrian use, whether or not the proposed project is designed to accommodate either or both modes. Projects that do not affect the public right-of-way, such as bus washers and emergency communications equipment, are exempt from completing the checklist.

I. Existing Conditions

Project Area

a. What accommodations for bicycles and pedestrians are included on the current facility and on facilities that it intersects or crosses?

b. If there are no existing pedestrian or bicycle facilities, how far from the proposed project are the closest parallel bikeways and walkways?

c. Please describe any particular pedestrian or bicycle uses or needs along the project corridor which you have observed or of which you have been informed.

d. What existing challenges could the proposed project address for bicycle and pedestrian travel in the vicinity of the proposed project?

Demand

What trip generators (existing and future) are in the vicinity of the proposed project that might attract walking or bicycling customers, employees, students, visitors or others?

Collisions

In the project design, have you considered collisions involving bicyclists and pedestrians along the route of the facility? If so, what resources have you consulted?

Routine Accommodation Checklist — Page 1

II. Plans, Policies and Process

Plans

a. Do any adopted plans call for the development of bicycle or pedestrian facilities on, crossing or adjacent to the proposed facility/project? If yes, list the applicable plan(s).

b. Is the proposed project consistent with these plans?

Policies, Design Standards & Guidelines

a. Are there any local, statewide or federal policies that call for incorporating bicycle and/or pedestrian facilities into this project? If so, have these policies been followed?

b. If this project includes a bicycle and/or pedestrian facility, have all applicable design standards or guidelines been followed?

Review

If there have been BPAC, stakeholder and/or public meetings at which the proposed project has been discussed, what comments have been made regarding bicycle and pedestrian accommodations?

III. The Project

Project Scope

What accommodations, if any, are included for bicyclists and pedestrians in the proposed project design?

Hindering Bicyclists/Pedestrians

a. Will the proposed project remove an existing bicycle or pedestrian facility or block or hinder bicycle or pedestrian movement? If yes, please describe situation in detail.

b. If the proposed project does not incorporate both bicycle and pedestrian facilities, or if the proposed project would hinder bicycle or pedestrian travel, list reasons why the project is being proposed as designed.

- Cost (What would be the cost of the bicycle and/or pedestrian facility and the proportion of the total project cost?)
- Right-of-way (Did an analysis lead to this conclusion?)
- Other (Please explain.)

Construction Period

How will access for bicyclists and pedestrians be maintained during project construction?

Ongoing Maintenance

What agency will be responsible for ongoing maintenance of the facility and how will this be budgeted?

Routine Accommodation Checklist — Page 2

2.13 TEN PRINCIPLES FOR SUCCESSFUL DEVELOPMENT AROUND TRANSIT BY URBAN LAND INSTITUTE

2.13.1 Principle 1. Make It Better with a Vision

To succeed, a vision should be:

- Oriented toward the future but based in reality;
- Stakeholder centered;
- Collaborative and educational;
- Focused on implementation; and,
- Flexible.

[9] (http://toolkit.valleyblueprint.org/sites/default/files/03_complete-streets-checklist_mtc__.pdf_0.pdf)

[10] Robert Dunphy, Deborah Myerson, and Michael Pawlukiewicz, 2003 (http://www.fltod.com/research/general_tod/ten_principles_for_successful_development_around_transit.pdf)

2.13.2 Principle 2. Apply the Power of Partnerships

A successful partnership relies on the strengths of each partner. The public sector has the power to resolve land-assembly problems, ensure that the site is development-ready, ease the entitlement process, and contribute land or infrastructure costs, or both. Private developers bring the real estate savvy, the contacts with end users, and the understanding of financial resources. Smoothing the entitlement process keeps the developer confident, on track, and on schedule—and helps make it possible for the private sector to assume the risks and to produce an outcome that reflects both the community vision and the market reality.

2.13.3 Principle 3. Think Development When Thinking about Transit

Most new development near transit will be built on private property by private developers. To help these projects succeed, the public must be attuned to the needs of the private sector—which may be a difficult adjustment in communities that have historically had adversarial relations with developers. Being sensitive to the needs of the private sector does not mean compromising public goals, however; it simply means recognizing that those goals need to work for the developer as well.

2.13.4 Principle 4. Get the Parking Right

Parking is a big factor in determining the layout of the station area. How a transit station is connected with, or separated from, the surrounding community will largely determine the station's footprint and parking requirements. For example, to extend transit's reach into a wider, more auto-dependent travel region, terminal stations often serve as the primary location for parking lots. At closer-in stations, a greater share of transit riders frequently arrives on foot, or by bus or bicycle. On newer transit systems, stations adjacent to major roads often include extensive parking. The transit agency must find the balance between providing parking and allocating sufficient land for the types of adjacent development that will generate walk-on users.

2.13.5 Principle 5. Build a Place, Not a Project

Use design principles that support the creation of a genuine sense of place. Among these principles are the following:

- Locate the transit stop at the center of the neighborhood rather than on its periphery. The new station will connect an entire regional transit system to the surrounding community, and its location should reflect the centrality of its role.
- Design and position the station to foster the creation of an activity center that surrounds the station on all sides.
- Ensure that the design of the station is of high quality and reflects the character of the surrounding community.
- Include engaging public spaces, attractive street furniture, and public art. Public space is important in the creation of place; among other things, it allows for events such as concerts, markets, exhibits, and celebrations—events that bring people and vitality to the area and stimulate economic activity.
- Promote pedestrian connections by creating compact blocks, pleasant walkways, and comfortable, well-marked, and continuous street-front experiences. The appeal of the pedestrian environment strengthens the sense of place and supports retail spending.

- Create attractive landmarks and gateways to the development.
- To ensure round-the-clock activity, incorporate a variety of residential uses.

2.13.6 Principle 6. Make Retail Development Market Driven, Not Transit Driven

Although retail is a desirable element in a community and a valuable generator of tax revenues, it may not be supported by market demand, and public agencies must resist the temptation to require retail as part of a project. If stores remain dark and businesses fail, the whole transit village will suffer the stigma of failure. Far better to have a few busy, successful stores than dark and empty ones. With that in mind, development plans for the area surrounding the station should reflect the volume that retail developers need; the rules specifying the distance that people will travel to any particular store are immutable. High-density office or residential developments may be ideal sources of transit riders, but they cannot be counted upon to support retail. If there is an existing market for retail, then developing retail first and subsequently adding residential or office space can help reinforce the retail demand.

2.13.7 Principle 7. Mix Uses, but Not Necessarily in the Same Place

A good mix of uses generates a vibrant assortment of people going about their business at many hours of the day. But the creation of an attractive community does not require that uses be mixed on the same site, or even at each station. Integrated mixed-use projects are difficult to finance and complex to build. A transit corridor that offers an advantageous mix of uses, however, can be used to integrate separate activity nodes, particularly when the various uses are close together, easily accessible, and support each other. It is possible, for example, to live at one station, work at another, and shop at a third, with transit making possible the connections among all three. The accessibility of the uses along the corridor will render it attractive, and the diverse kinds of trips generated by the activity nodes may help prevent the typical peak-demand patterns that are common to transit.

2.13.8 Principle 8. Make Buses a Great Idea

Rail is often associated with white-collar commuters; buses, in contrast, are viewed as the mode of travel for the poor, for students, and for others with few transportation choices. If buses are to generate development in transit corridors, they need to serve a strong cross-section of the community—including middleclass riders. Successfully attracting middle-class riders will improve service for all and will also provide a diverse market to encourage developers to build around bus stops.

2.13.9 Principle 9. Encourage Every Price Point to Live Around Transit

It is important for developers and their market consultants to know the demographic profiles of those who are seeking to live close to transit; these groups include

- People who are tired of fighting traffic and are willing to give up their second car;
- People from a variety of age groups who are looking for opportunities to move up or down in housing size, depending on where they are in their lives; and,
- Seniors who want an independent lifestyle and to reduce their dependence on the automobile.

Residential development around transit, especially when it is part of a mixed-use strategy, can be so successful that it attracts wealthier households, resulting in escalating real estate values, numerous upscale conversions, and rising rents.

Preserving and expanding affordable housing is important as well and is a special concern for development around transit because lower-income transit users often represent the core of the ridership. Local agencies should link transit funding with the provision of affordable housing so that transit and housing can reinforce each other.

2.13.10 Principle 10. Engage Corporate Attention

Corporations can play an influential role in stimulating development around transit. If corporations see transit as a slow and unreliable means of getting to work, executives in charge of location decisions will pay scant attention to transit access. If transit is viewed, however, as a valuable tool for recruiting scarce talent, companies will include "good transit access" on their checklist of considerations for site selection. More companies are focusing on transit access for workers, even if management does not plan to use it. David Houck, senior vice president of the Staubach Company, notes that public transportation is, or should be, a critical factor in locating call centers, which require large numbers of low-wage employees. Some companies that have moved to remote sites accessible only by car have found it so difficult to recruit workers that they moved back to closer-in sites. In Atlanta, when corporations were asked to name the most serious impediment to business in the metropolitan area, the overwhelming answer was "traffic congestion." In response to the Atlanta area's growing traffic problems, BellSouth Corporation is consolidating all its suburban offices into three central locations accessible from MARTA (Metropolitan Atlanta Rapid Transit Authority), the city's rail system.

2.13.11 Development Potential and Transit Modes

Transit options can take a variety of forms—local buses, light rail, heavy rail, commuter rail, people movers, and bus rapid transit. Some cities have many different modes, providing high levels of mobility for users. San Francisco, for example, has maintained its original streetcars, the cable cars, an extensive bus system, the Bay Area Rapid Transit (BART) heavy-rail system, old and new light-rail lines, two commuter-rail lines (Caltrain and Altamont Commuter Express), and ferries. Such rich transit capacity can support extensive nearby development, particularly at the points in San Francisco and Oakland where many of these transit modes converge.

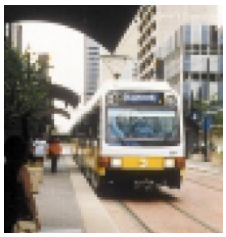
In most regions, however, especially the fast-growing communities in the South and West, the transit system is limited to buses and possibly light rail, and development opportunities must be scaled to the transit capacity and the local market. The sections that follow summarize the types of development suitable for each of the primary transit modes (the site may be served by secondary modes as well). The first rule, however, is that the local real estate market determines what kind of development would be appropriate near transit—the type of transit mode generally responds to development density.

2.13.11.1 Heavy Rail

Heavy rail, also known as rapid rail, subway, or metro, consists of high-capacity, higher-speed trains operating on separate rights-of-way or in tunnels. Heavy-rail stations are generally spaced farther apart than light- rail stops, especially on the outer segments of lines. North America's early heavy-rail systems are in Boston, Chicago, New York, Philadelphia, and Toronto. Newer systems have been built since the 1960s in Atlanta, Los Angeles, Miami, Montreal, the San Francisco Bay

area, and Washington, D.C.—all of which are mature, higher-density regions, with development potential for high-density office and mixed-use projects in their downtowns, and for relatively high-density residential and commercial development in their suburbs. While the high capacity of heavy rail supports high-density development, it is no guarantee that a given site will necessarily be attractive for development; there may be other factors that impede real estate development, such as lack of market potential, environmental constraints, inadequate infrastructure, or neighborhood opposition.

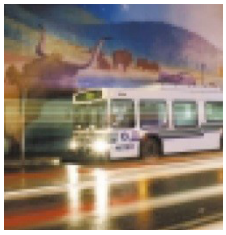
2.13.11.2 Light Rail



Light-rail vehicles are faster than buses but slower than heavy rail and may travel either on existing streets or on separate rights-of-way. Development adjacent to light rail is generally less dense than development adjacent to heavy rail.

Seven North American cities have maintained their original light-rail systems: Boston, Philadelphia, San Francisco, Toronto (all of which also are heavy-rail cities), Cleveland, Newark, and Pittsburgh. All these cities are older, higher-density communities, typically with low growth to no growth. A number of cities have created new light-rail systems, including Dallas, San Diego, San Jose, St. Louis, and Portland, Oregon. Several other cities have projects in the proposal stage.

2.13.11.3 Buses

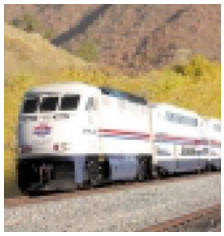


The workhorse of public transit is the bus, making up in flexibility what it lacks in excitement. Buses serve two-thirds of the transit trips in the United States.

Frequent stops make local service slow but ubiquitous, offering riders short walks to and from bus stops. Bus routes rarely figure in discussions of transit-oriented development. In fact, transit agencies often find businesses resistant to bus stops because of stereotypes about bus riders *("rail riders linger; bus riders loiter"*).

Although bus routes, even busy ones, probably hold little appeal to most developers, given the fact that buses are the dominant transit mode in the United States and carry a significant share of travelers in some markets, there are opportunities for higher-density development around bus routes. Seattle, the city and inner suburbs, have been developed at relatively high densities, all supported by bus transit. Such opportunities may not exist in smaller communities—especially today, when there is so much dependence on the auto—but should be sought, where possible. Undeveloped land near high-service bus corridors should be appropriately planned to facilitate higher-density development—a bonus that can be hard for a developer or landowner to pass up.

2.13.11.4 Commuter Rail



Commuter-rail lines provide high-speed service to downtowns in many metropolitan areas, but typically only for inbound and outbound commuters and at less frequent service intervals than heavy rail, which operates in both directions during both peak and off-peak hours. The Long Island Railroad and Chicago's Metra are examples of traditional commuter-rail operations. A number of communities, such as Dallas, Seattle, San Diego and in South Florida, have established commuter-rail service. Often, commuter-rail stations are simple platforms surrounded by parking, which limits development potential. However, communities near Chicago, and in New Jersey, are rediscovering the potential of their train stations as town centers, and commuter-rail services in newer communities are considering development options concurrently with service planning.

2.13.11.5 Express Buses and Bus Rapid Transit

Express bus service operates with few stops, and often on freeways, thus offering faster trips than local buses. Houston's extensive express-bus system, for example, picks up passengers at park-and-ride lots near freeway exits and takes them, via the freeway, to downtown, sometimes on express lanes. Riders have only a short drive to the pickup point and the convenience of nonstop freeway service to downtown. Because they are often surrounded by parking, express-bus operations have the same development limitations as commuter rail.

Bus rapid transit (BRT), an emerging transit option, has many of the features of a rail system and achieves average speeds that are two to three times that of light rail. With attractively designed buses and transit terminals, BRT can offer the look and feel of light-rail service at a substantially lower cost. Recent bus rapid transit projects in the United States cost an average of $13 million per mile for exclusive busways, compared with $35 million per mile for light rail. BRT has been popularized in Curitiba, Brazil, where it was a central strategy for expanding transit services to successfully compete with automobiles. Ottawa, Canada, is one of the few cities with extensive experience creating development around express-bus services, but new projects are being developed in a number of other cities. The permanence of an express-bus terminal gives developers a more substantial presence, which can support adjacent development.

2.14 EMPTY SPACES—THE REAL PARKING NEED AT FIVE TODS BY THE DEPARTMENT OF CITY AND METROPOLITAN PLANNING, THE UNIVERSITY OF UTAH, JANUARY, 2017[11]

It is clear that TODs require less parking than development without transit, or transit without development. This study sought to gather information about how much parking is used at TOD to help developers and engineers make more-informed decisions in the future.

To do that, researchers at the University of Utah College of Architecture + Planning selected five TODs across the country, each with a slightly different approach to development and parking: Englewood, CO in the Denver region; Wilshire/Vermont station in Los Angeles, CA; Fruitvale Transit Village in Oakland, CA; the Redmond, WA station in the Seattle region; and, Rhode Island Row in Washington, DC.

Consistent with other research, the TODs included in this study generated many fewer vehicle trips than standard formulas indicate and used less parking than many regulations require for similar land uses. All five TODs generated fewer vehicle trips than guidelines, such as those of the Institute of Transportation Engineers (ITE), would expect **(Table 2)**. In one case, actual vehicle trips were just one third of what ITE guidelines estimate.

With so many other ways to get to these stations, it is not surprising that fewer people drove to these TODs than ITE's guidelines expect. The developers of these TODs recognized this, and built parking accordingly. All TODs included in this study built less parking than recommended by

Table 2 - Estimated Vehicle Trips Versus Actual Vehicle Trips

TOD	ITE vehicle trip estimates	Actual vehicle trips	Actual trips as percentage of ITE estimates
Englewood, CO	13,544	9,460	69.8%
Wilshire/Vermont	5,180	2,228	43.0%
Fruitvale Village	5,899	3,056	51.8%
Redmond, WA	1,767	661	37.4%
Rhode Island Row	5,808	2,017	34.7%

SOURCE: EMPTY SPACES—THE REAL PARKING NEED AT FIVE TODS BY THE DEPARTMENT OF CITY AND METROPOLITAN PLANNING, THE UNIVERSITY OF UTAH, JANUARY 2017

[11] https://smartgrowthamerica.org/app/uploads/2017/01/empty-spaces.pdf

between 23 to 61 percent of ITE's guidelines. Yet even this reduced amount of parking peak occupancy fell below capacity supplied. The ratio of demand to actual supply was between 58 and 84 percent. The actual parking supply was less than recommended supply according to ITE, and the actual peak occupancy was much less than the ITE supply guidelines, in a range between only 19 to 46 percent **(Table 3)**.

Table 3 - Peak Parking Occupancy as Percentage of Supply and ITE Guidelines

TOD	Peak parking occupancy as percentage of supply	Peak parking occupancy as percentage of ITE guidelines
Englewood, CO[3]	58.3%	45.8%
Fruitvale Village	84.0%	19.0%
Redmond, WA	73.5%	41.6%
Rhode Island Row	63.6%	32.7%
Wilshire/Vermont	66.8%	33.0%

SOURCE: EMPTY SPACES—THE REAL PARKING NEED AT FIVE TODS BY THE DEPARTMENT OF CITY AND METROPOLITAN PLANNING, THE UNIVERSITY OF UTAH, JANUARY 2017

Evidence of fewer vehicle trips is one likely reason why parking occupancy rates were lower than ITE's recommendations. Another reason is that parking is shared between commercial and residential uses at two TODs, is shared between transit and park-and-ride use at one TOD, is unbundled with apartment rents at two TODs, and is priced at market rates for commercial users at three TODs.

Table 4: Average Mode Shares for TODs Studies

		Share of all trips					
TOD	Observed trip count	Walk	Bike	Bus	Rail	Auto	Other
Englewood, CO	14,073	19.2%	3.8%	3.3%	13.6%	59.7%	0.2%
Wilshire/Vermont	11,043	27.4%	2.2%	21.1%	20.1%	25.9%	3.4%
Fruitvale Village	16,558	28.3%	4.3%	15.2%	26.1%	23.0%	3.1%
Redmond, WA	1,981	18.9%	1.7%	13.0%	N/A	64.9%	1.5%
Rhode Island Row	8,451	16.6%	0.3%	9.3%	27.2%	42.5%	4.0%
Simple averages	N/A	22.1%	2.5%	12.4%	21.8%	43.2%	2.4%

2 Measures are aggregate.

3 The Denver region's Englewood station remains the one exception or outlier in these findings. In an effort to generate tax revenue from big box retailers, the City of Englewood made the decision to build a "hybrid-TOD" that divides the development into zones of TOD and of big box retail. The resulting parking supply and vehicular trip generation exceed the other TODs in this study. Even so, the study found the peak demand for parking at the hybrid-TOD still to be much lower than suggested in ITE's guidelines.

SOURCE: EMPTY SPACES—THE REAL PARKING NEED AT FIVE TODS BY THE DEPARTMENT OF CITY AND METROPOLITAN PLANNING, THE UNIVERSITY OF UTAH, JANUARY 2017

One other possible reason is that ITE's data do not fully account for other travel modes that are available and actively encouraged at TODs. In each of the five TODs studied, at least 33 percent of trips were taken by modes other than driving **(Table 4)**. At the Fruitvale Village TOD, 74 percent of trips were by modes other than driving.

Going forward, additional data will need to be collected and formulas refined to account for the varying amounts of residential uses in combination with the commercial uses. However, it is clear that parking utilization and vehicle trip generation rates are both far below identical land uses assembled in a less-walkable and more suburban manner.

These findings underscore the obvious need for developers, regulators, and practitioners to rethink how they use parking guidelines intended for suburban development not served by transit.

2.15 PARKING BENEFIT DISTRICTS—PLANETIZEN AND KEYSTONE CROSSROADS, MARCH, 2016[12]

When commercial corridors begin attracting more customers, or neighborhoods see an influx of infill housing, residents who once had an easy time parking for free, on the curb, increasingly find those spaces occupied by visitors or new residents.

But policies that turn free parking into paid parking or raise existing parking prices to free spaces through turnover are unpopular for two main reasons: people don't like to pay for what they're used to getting for free, and the revenue typically doesn't fund any immediately tangible benefits. Some cities have discovered that it's much easier, politically speaking, to introduce new parking meters or permits when the impacted areas are allowed to keep some of the revenue generated to pay for extra public improvements and services within the neighborhood. The prospect of a dedicated, ongoing local revenue stream for neighborhood projects becomes enticing enough to residents and businesses, and they become a countervailing force in support of parking meters. Those public improvements, in turn, attract even more visitors, which generates more parking revenue in a virtuous cycle of redevelopment.

In different cities, Parking Benefit Districts (PBDs) come in different shapes and sizes, but what they all have in common is that they fund visible local public improvements in the places where the revenue is raised. Examples include:

2.15.1 Pittsburgh

Without much slack in the city's general fund, officials began exploring the idea of extending parking meter hours and dedicating the additional revenue to services in the district—more police presence, pedestrian improvements, wayfinding signage—which presumably would be paid mostly by evening revelers from outside the neighborhood. Unlike some other types of Parking Benefit Districts that have direct control over the use of revenue, the funds for Pittsburgh's South Side stay in a separate account and aren't granted to third-party organizations and non-profits.

2.15.2 Austin

Parking Benefit Districts in Austin, Texas, are distinct in two ways. First, about half the revenue goes to the city's general fund. After city expenses are covered, 51 percent of the proceeds are set aside for the district, and 49 percent becomes general revenue for the city. The minimum size for a district is 96 spaces, and there's a process for the neighborhood and the city to vet proposed districts. Second, city law requires that the revenue be used to "promote walking, cycling, and public transit use within the district." It can also be used in conjunction with other city funds for larger projects.

Austin began experimenting with Parking Benefit Districts in 2011 in response to West Campus neighbors near the University of Texas who reached out to the city seeking relief from students "stashing" their cars long-term on residential streets.

2.15.3 Old Pasadena

For years, city planners had been urging elected officials to introduce paid parking in the downtown to create more turnover, but the idea was a political non-starter.

In the late 1980s, the City Manager at the time championed a plan to build a large downtown parking garage to address parking needs. It was built, but by the early '90s the garage was a money-loser, costing the city around $1 million a year.

[12] https://crossroads.newsworks.org/index.php/keystone-crossroads/latest/item/92318-ideas-worth-stealing-parking-benefit-districts

With curb parking unpriced, motorists had little financial incentive to choose garage parking.

The Mayor at the time decided the city could no longer avoid installing paid street parking, but when he broached the topic at a meeting with downtown merchants, they went "absolutely berserk," he recalls.

That is, until he suggested spending the meter revenue in the district devoting the revenue to three things: police foot patrols and horse patrols, daily street sweeping, and monthly steam cleaning of the sidewalks. If there were money remaining, Old Pasadena could use it to plant trees, fix sidewalks, install lighting and benches, and more. Business owners were in charge of allocating the money.

The city installed parking meters in 1993 and floated a $5 million bond to finance the "Old Pasadena Streetscape and Alleyways Project," with dedicated the meter revenue to repay the debt. The bond proceeds funded street furniture, trees and tree grates, decorative lighting, and alley restoration. To build support for the meters, the city launched a marketing campaign showcasing the improvements visitors were funding, complete with meter signage reminding motorists "your meter money makes a difference."

In the five years after the Parking Meter Zone was established, property tax revenue tripled, and sales tax revenues quadrupled over the same period.

2.16 MASSACHUSETTS COMMERCIAL AREA TRANSIT NODE HOUSING PROGRAM RENTAL HOUSING PROGRAM APPLICATION GUIDELINES, MASSACHUSETTS DEPARTMENT OF HOUSING & COMMUNITY DEVELOPMENT, 2013[13]

The Commercial Area Transit Node Housing Program (CATNHP) was authorized by the Massachusetts legislature in 2002 and reauthorized in 2008. The CATNHP authorizing legislation includes a funding set-aside for Transit-Oriented Developments. The program is administered by the Massachusetts Department of Housing and Community Development (DHCD) and is intended to produce housing units in commercial areas served by public transit. The DHCD has developed the guidelines to govern the allocation of funds available through the CATNHP in accordance with the Act.

CATNHP may be used to finance the development of rental units located either within a neighborhood commercial area, for projects with 25 units or less, or a transit-oriented development located proximate to a public transit node, for projects with greater than 25 units. At least 50 percent of the units in a project receiving CATNHP financial support are to be occupied by and affordable to households at or below 80 percent of the area median income as determined by the U.S. Department of Housing and Urban Development (HUD).

CATNHP applicants may seek funds in the form of zero-interest loans, low-interest loans (i.e., typically no higher than 2%), deferred payment loans or other DHCD-approved terms.

The total amount of CATNHP funds requested per eligible project may not exceed $1,000,000 or $50,000 per unit. The CATNHP guidelines are intended to be consistent or compatible with existing DHCD rental housing programs, including the Low-income Housing Tax Credit Program (LIHTC), the HOME Investment Partnerships Program, the Housing Innovations Fund, the Facilities Consolidation Fund, the Housing Stabilization Fund, the Affordable Housing Trust Fund, and the Community-Based Housing Program.

[13] https://www.mass.gov/hed/docs/dhcd/hd/catnhp/catnhpguidelines.pdf

2.16.1 Eligible Commercial Area Transit Node Housing Program Projects

CATNHP may be used to finance the development of residential rental housing units, including residential units above commercial space, located either within a Neighborhood Commercial Area, limited to projects 25 units or less, or a Transit-Oriented Development located Proximate to a Public Transit Node, for projects containing more than 25 units, as defined below:

"Neighborhood Commercial Areas" – Areas characterized by a predominance of commercial land uses, a high daytime or business population or a high concentration of daytime traffic and parking, including "Main Street" areas.

"Proximate to Public Transit Nodes" – A project is deemed to be within one-quarter-mile of an existing Public Transit Node if the proposed project is located within that distance of any part of the Public Transit Node, including, but not limited to, parking areas proximate to the Public Transit Node, entrance gates, and ticket dispensers. An "Eligible Location" must have adequate access to the Public Transit Node or have adequate access resulting from the proposed project.

"Public Transit Node" – An existing transit station or planned public transit station, including a commuter rail station, subway station, ferry terminal, bus station, bus rapid transit station, or covered bus stop.

"Transit-Oriented Development" – One or more planned, proposed, or existing housing developments around a Public Transit Node characterized by a predominance of the following: higher density, a mix of uses, pedestrian-oriented design, facilities for non-motorized transportation such as bicycle transportation, parking ratios that reflect access to transit, and direct and convenient access to a Public Transit Node.

At least 50 percent of the units in a project receiving CATNHP funding must be available and affordable to households at or below 80 percent of the area median income as determined by HUD.

The project sponsor must be in good standing with the DHCD and its programs as measured by its prior performance in carrying out previously awarded programs funded by the DHCD.

In the case of CATNHP funding for residential housing units located within Neighborhood Commercial Areas, the DHCD gives priority to developments for which municipalities have adopted a housing tax increment financing plan in an Urban Center Housing Zone, as defined by regulations

2.16.2 Threshold Criteria

To be considered for CATNHP funds, a project must meet the following thresholds:

1. **Project Location**
   Projects must be located either within a Neighborhood Commercial Area or a Transit-Oriented Development located proximate to a Public Transit Node as described above. Additionally, applications for CATNHP funding for projects located within a Neighborhood Commercial Area must contain 25 or fewer units. Applications for CATNHP funding for projects with greater than 25 units must meet the definition of a Transit-Oriented Development located proximate to a Public Transit Node. Projects must conform to these definitions to be considered for CATNHP funding.

2. **Evidence of Local Financial Support**
A project sponsor must demonstrate to DHCD that the community in which the project is located is willing to participate financially in the proposed project. The DHCD recognizes that some communities have more resources than others. Regardless, each community must make a financial contribution. Evidence of the community's contribution must be submitted to DHCD for review and approval.

3. **Evidence of Site Control**
Project sponsors must demonstrate to DHCD's satisfaction that they have control over the site on which the housing will be constructed (i.e. purchase and sale agreement, option to purchase, mortgage, etc.).

4. **Evidence of Zoning**
The application must contain evidence that the project is consistent with local zoning requirements or that the applicant has begun the formal process for seeking zoning relief for the project. Applicants and communities are encouraged to consider the advantages of a cooperative comprehensive permit strategy in achieving zoning relief. Because CATNHP funding is limited, DHCD will give priority to projects with appropriate zoning in place.

5. **Identification of Proposed Financing and Project Feasibility**
Project sponsors must identify funding sources sufficient to cover all development and operating costs and must include funding commitments in the funding application to DHCD.

6. **Commitment to Affordability**
In accordance with the enabling statute, at least 50 percent of the units assisted by the CATNHP program must benefit persons earning not more than 80 percent of the area median income. The CATNHP program requires a loan term of 30 years, during which the affordability restrictions apply. A loan term may be extended by mutual agreement of the owner and DHCD and, if extended, the affordability restriction must also be extended.

7. **Good Standing with DHCD**
Project sponsors must be in good standing with DHCD and its programs as measured by prior performance in carrying out previously awarded funds through other DHCD programs.

2.16.3 Evaluation Criteria for Projects

To receive CATNHP funds from the DHCD, a project must competitively satisfy all of the following evaluation criteria:

1. **Quality of Site**
Neighborhood Commercial Area (limited to projects 25 units or less)

Projects seeking CATNHP funds with 25 units or less must be located within Neighborhood Commercial Areas located proximate to a Public Transit Node. Such projects are evaluated on the extent to which the project will increase transit use, improve public access to transit, and increase opportunities to walk, bicycle, or use other non-motorized transportation to conduct daily activities, such as shopping and commuting.

Transit-Oriented Development located Proximate to a Public Transit Node (projects containing more than 25 units)

Projects greater than 25 units must meet the definition of Transit-Oriented Development projects located proximate to a Public Transit Node. Transit-oriented development is characterized by a predominance of the following: higher density; a mix of uses (such as residential commercial, institutional and other, that provide for a variety of activities (such as living, working, shopping, educational) throughout the day); pedestrian-oriented design; facilities for non-motorized transportation; site that provides mobility choice; parking ratios that reflect access to transit; and direct and convenient access to transit. Applications will also be evaluated on the extent to which the proposed project will enhance, expand, or otherwise create new transit oriented development and the relationship between the project and local and regional plans.

2. Characteristics of the Project

Preference is given to projects that maximize consistency with the Commonwealth's Principles for Sustainable Development. Characteristics such as increased density, mixed uses, adaptive re-use of vacant or underutilized buildings, incorporation of transportation demand management (TDM) methods, pedestrian access, shared parking or parking ratios that encourage transit use and site amenities in support of transit use (dedicated or covered access to transit, secure bicycle facilities, for example) increase the competitiveness of a proposal.

Project designs that use energy efficient technologies, recycled and/or non-/low-toxic materials, exceed energy codes and otherwise result in waste reduction and conservation of resources are preferable. So are mixed-use transit-oriented development projects that:

- Improve housing choice
- Create jobs
- Promote small business
- Generate pedestrian activity
- Improve public safety
- Incentivize private investment
- Increase tax revenue
- Strengthen local economies
- Reduce car dependency
- Encourage public transit ridership, and
- Reduce environmental impacts by concentrating development.

3. Readiness to Proceed

The readiness of a project to proceed to construction is evaluated based on submission of materials indicating design, engineering, specifications and contracting progress. All projects need to demonstrate the ability to begin construction within six months of funding.

To demonstrate readiness to proceed and ensure maximum project competitiveness, the sponsor must meet as many of the following criteria and submit as much of the following documentation as possible:

1. Narratives indicating that the proposed project is consistent with the principles of sustainable development;
2. All other sources of funding must be committed and no project-related demolition, remediation and/or construction begun prior to DHCD application submittal;
3. Evidence of zoning approvals;
4. Evidence of site control for all parcels and buildings (i.e., deed, purchase-and-sale agreement, purchase options or designated developer agreement);
5. Comprehensive Sources and Uses evidence that addresses such areas as bonding, security, etc.;
6. Reasonable developer fees with projects that include market-rate units;
7. "Draft" plans and specifications for design of the site and building(s);
8. Estimates for construction from a general contractor or professional cost estimator;
9. ASTM Phase I environmental report completed within the last twelve months; lead paint report for both structures and soil; and, radon tests for all structures (if any of the reports recommend remediation, the sponsor must submit a soil remediation plan);
10. Submission of as-is appraisal;
11. Sign-off from Massachusetts Historic Commission (this is required for all projects including new construction);
12. Detailed resident selection plan;
13. Detailed marketing plan, including detail on affirmative fair housing marketing;
14. Narrative describing how the marketing, resident-selection and other applicable policies will incorporate the DHCD Fair Housing Principles, including outreach to households least likely to apply;
15. Data demonstrating marketability of the affordable and market-rate units (including comps, demographic data, and property management information);
16. Evidence of neighborhood support; and,
17. Photographs of the buildings or parcels.

2.17 RECOMMENDATIONS FOR MASSDOT PROJECT SELECTION CRITERIA, THE PROJECT SELECTION ADVISORY COUNCIL, 2015 [14]

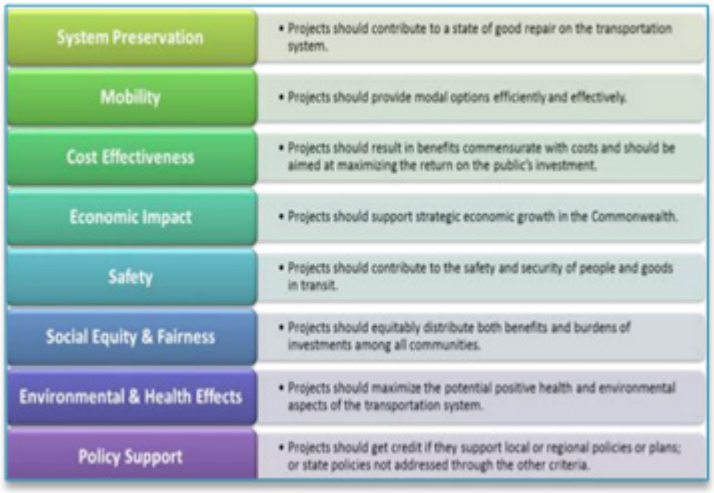
The Project Selection Advisory Council (the Council) was established by the Massachusetts legislature in 2013 and, "charged with developing uniform project selection criteria to be used in developing a comprehensive state transportation plan." Given aging transportation infrastructure, changing demographics, and evolving travel preferences, strategically prioritized investments to achieve policy goals were made a top priority. The full universe of projects considered included:

- Modernization Projects – defined as those where the primary goal is to rehabilitate or replace existing assets in poor condition that have outlived their useful lives but are leveraged to "modernize" the asset to the greatest extent practicable.
- Capacity Projects – those that add new connections to, or expand, the existing transportation network.

[14] (https://www.massdot.state.ma.us/Portals/0/docs/PSAC/Report_Recom.pdf)

Criteria/Goals – The Council defined a set of overarching goals or "criteria" to guide transportation investment decision-making, as shown in **Figure 9**.

Figure 9: MassDOT Transportation Investment Criteria



SOURCE: RECOMMENDATIONS FOR MASSDOT PROJECT SELECTION CRITERIA, THE PROJECT SELECTION ADVISORY COUNCIL, 2015

Scoring Systems – The Council recognized that developing a single scoring system that could accurately and appropriately evaluate every project would likely have unintended consequences, including potentially disadvantaging certain important project types. Another challenge was that different project types—modernization vs. capacity—help advance different sets of goals.

The Council ultimately recognized that the creation of separate scoring systems for different project categories would be necessary to fairly and effectively prioritize projects. The six scoring system categories are as follows:

- Roads and Paths Modernization;
- Roads and Paths Capacity;
- MBTA Modernization;
- MBTA Capacity;
- Regional Transit Modernization; and,
- Regional Transit Capacity.

Weights – In determining how best to create a project prioritization formula based on the recommended goals/criteria for each of the scoring categories, the Council adhered to the following principles:

- Focus on criteria that differentiate between projects;
- Limit redundancy; and,
- Maximize simplicity.

To address these principles, applying different weights when scoring different types of projects was recommended as follows:

Goals/Criteria	Roads & Paths Modernization	MBTA/Regional Transit Modernization[3]	Roads & Paths Capacity	MBTA/Regional Transit Capacity
Cost Effectiveness	15	20	20	25
Economic Impact	10		15	20
Environmental & Health Effects	10	5	10	10
Mobility	10	30	25	25
Policy Support	10	10	10	10
Safety	10	10	10	
Social Equity			10	10
System Preservation	35	25		
Total	**100**	**100**	**100**	**100**

SOURCE: RECOMMENDATIONS FOR MASSDOT PROJECT SELECTION CRITERIA, THE PROJECT SELECTION ADVISORY COUNCIL, 2015

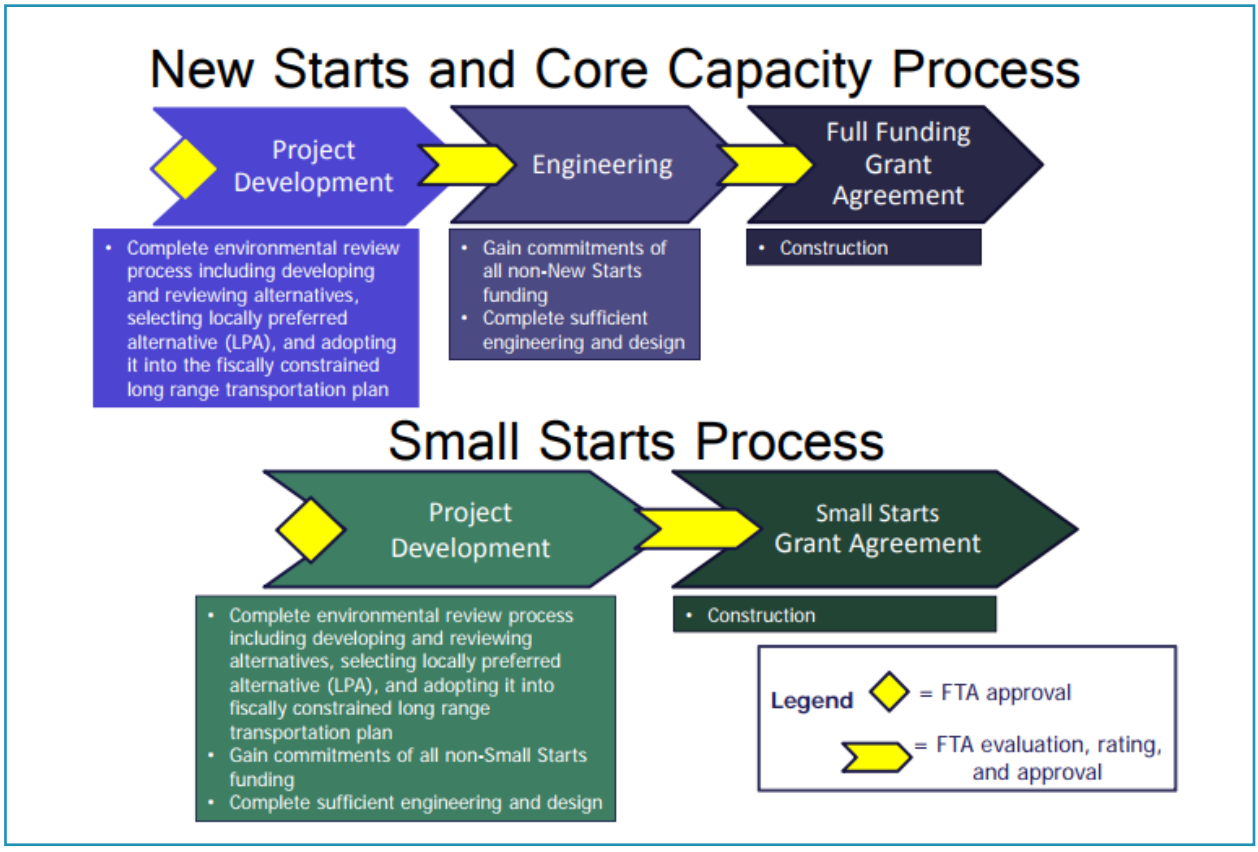
2.18 NEW STARTS RULES

The U.S. Federal Transit Administration (FTA) is required by federal law to evaluate and rate all projects seeking capital investment grant program funding (more commonly known as New Starts and Small Starts funding). Project sponsors applying for New Starts and Small Starts funding are required to submit materials to FTA on each criterion as described in FTA's Reporting *programs/capital-investments/about-program*. Instructions found in **Appendix A** and on the FTA website at:

https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FAST_Updated_Interim_Policy_Guidance_June%20_2016.pdf

Those evaluation and rating criteria are summarized in below.

Evaluation and Rating Criteria for New Starts and Small Starts Funding



SOURCE: *HTTPS://WWW.TRANSIT.DOT.GOV/SITES/FTA.DOT.GOV/FILES/ DOCS/FAST_UPDATED_INTERIM_POLICY_GUIDANCE_JUNE%20_2016.PDF*

2.18.1 New Starts/Small Starts: Project Justification

FTA's decision is based on the following measures, which are discussed below. Because there are some differences between the New Starts and Small Starts, the language in the final rules (2016) are presented verbatim.

- Mobility;
- Environmental benefits;
- Economic development;
- Land use;
- Congestion relief;
- Cost effectiveness (cost per trip); and,
- Local financial commitment—acceptable degree of local financial commitment including evidence of stable and dependable financing sources.

2.18.2 FTA Funding Decision

FTA's decision to recommend a project for funding in the President's Budget is driven by a number of factors, including:

- "Readiness" of the project for capital funding;
- The project's overall rating;
- Geographic equity; and,
- Amount of available funds versus the number and size of the projects in the pipeline.

2.18.2.1 Mobility Improvements Measure

New Starts & Small Starts – FTA evaluates mobility improvements for New Starts projects as the total number of linked trips using the proposed project, with a weight of two given to trips that would be made on the project by transit dependent persons. Linked trips using the proposed project include all trips made on the project whether or not the rider boards or alights on the project or elsewhere in the transit system. If a project sponsor chooses to estimate trips using STOPS, then trips made by transit-dependent persons are trips made by persons in households that do not own a car. If a project sponsor chooses to estimate trips using their local travel forecasting model, trips made by transit-dependent persons are defined in local travel models generally in one of two ways: as trips made by persons in households having no cars, or as trips made by persons living in households in the lowest income bracket as defined locally. If a project sponsor chooses to develop project trip forecasts based on inputs for a horizon year in addition to forecasts based on current year inputs, each is given 50 percent weight when establishing the overall mobility improvements rating. The trips measure is an absolute value rather than an incremental value, so a basis for comparison is not required.

SOURCE: HTTPS://WWW.TRANSIT.DOT.GOV/SITES/FTA.DOT.GOV/FILES/ DOCS/FAST_UPDATED_INTERIM_POLICY_GUIDANCE_JUNE%20_2016.PDF

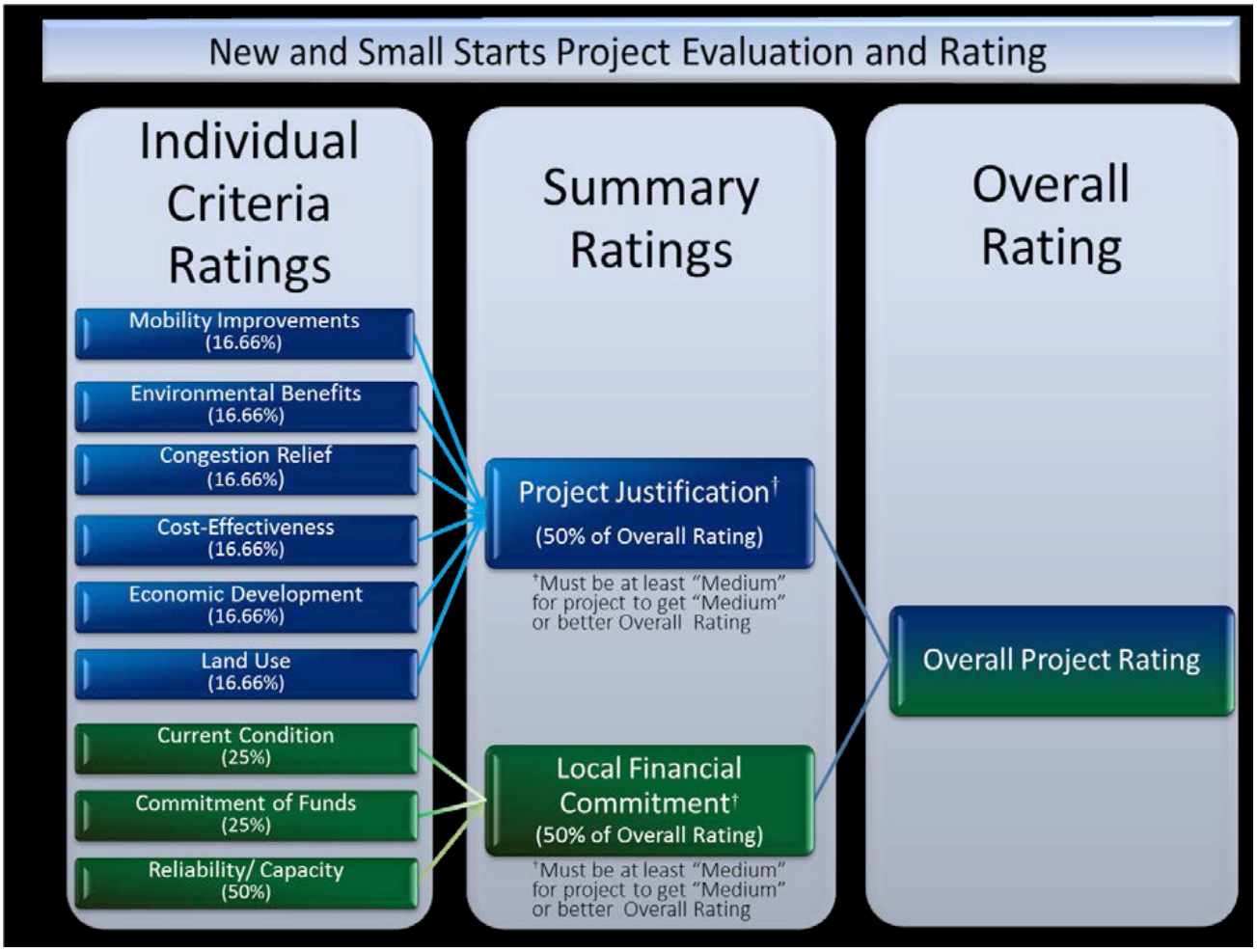
2.18.2.2 Economic Development Effects Measures

New Starts & Small Starts – The measure of economic development effects is the extent to which a proposed project is likely to induce additional, transit-supportive development in the future based on a qualitative examination of the existing local plans and policies to support economic development proximate to the project.

2.18.2.3 Environmental Benefits Measures

New Starts – FTA evaluates and rates the environmental benefits criterion for New Starts projects based upon the dollar value of the anticipated direct and indirect benefits to human health, safety, energy, and the air quality environment scaled by the annualized capital and operating

cost of the project. These benefits are computed based on the change in vehicle miles traveled (VMT) resulting from implementation of the proposed project.



Because change in VMT is an incremental measure, a point of comparison is necessary to calculate environmental benefits. To calculate the measures for the current year, the point of comparison is the existing transit system. If the project sponsor also opts to calculate the measures based on ten-year horizon forecasts, the point of comparison is the no-build transit system (which includes the existing transportation system as well as those transportation investments committed in the Transportation Improvement Plan [TIP] pursuant to 23 CFR Part 450). If the project sponsor chooses to calculate the measures based on 20-year horizon forecasts, the point of comparison is the projects identified in the Metropolitan Planning Organization's fiscally constrained long-range plan (excluding the proposed build alternative.) The estimated environmental benefits are monetized and compared to the same annualized capital and operating cost of the proposed New Starts project as used in the cost effectiveness calculation.

Small Starts – For Small Starts projects, FAST requires that the benefits be compared to the federal share of the project rather than the total cost. Thus, FTA evaluates and rates the environmental benefits criterion for Small Starts projects based upon the dollar value of the anticipated direct and indirect benefits to human health, safety, energy, and the air quality environment scaled by

the federal share of the project. These benefits are computed based on the change in vehicle miles traveled (VMT) resulting from implementation of the proposed project. Because change in VMT is an incremental measure, a point of comparison is necessary to calculate environmental benefits. To prepare current year calculations of the measures, the point of comparison is the existing transit system. If the project sponsor also opts to calculate the measures based on ten-year horizon forecasts, the point of comparison is the no-build transit system (which includes the existing transportation system as well as those transportation investments committed in the Transportation Improvement Plan [TIP] pursuant to 23 CFR Part 450). If the project sponsor chooses to calculate the measures based on 20-year horizon forecasts, the point of comparison is the existing transportation network plus all projects identified in the Metropolitan Planning Organization's fiscally constrained long-range plan (excluding the proposed build alternative.) The estimated environmental benefits are monetized and compared to the proposed annualized federal share of the project. The federal share includes not only the Small Starts funds being sought, but also any other capital sources of federal funding.

2.18.2.4 Land Use Measures

New Starts & Small Starts – The land use measure includes an examination of existing corridor and station area development; existing corridor and station area development character; existing station area pedestrian facilities, including access for persons with disabilities; existing corridor and station area parking supply; and, the proportion of existing "legally binding affordability restricted" housing within one-half-mile of station areas to the proportion of "legally binding affordability restricted" housing in the counties through which the project travels.

A legally binding affordability restriction is a lien, deed of trust, or other legal instrument attached to a property and/or housing structure that restricts the cost of housing units to be affordable to households at specified income levels for a defined period of time and requires that households at these income levels occupy these units. This definition, includes, but is not limited to, state or federally supported public housing, and housing owned by organizations dedicated to providing affordable housing. For the land use measure looking at existing affordable housing, FTA is seeking legally binding affordability restricted units to renters with incomes below 60 percent of the area median income and/or owners with incomes below the area median that are within one-half-mile of station areas and in the counties through which the project travels.

One reason FTA chose to include affordable housing in the land use criterion was to ensure that neighborhoods surrounding proposed transit stations have the fundamentals in place to ensure that, as service is improved over time, there is a mix of housing options for existing and future residents. One measure of the readiness of a community to accept a new transit investment and avoid significant gentrification that can occur over time is the presence of "legally binding affordability restricted" units. These units have protections in place to ensure that they will continue to be available to low- and moderate-income households as changes in the corridor occur.

In this context, FTA believes this to be a first step in developing a worthwhile measure that encourages project sponsors to locate projects where a higher share of "legally binding affordability restricted" housing exists in their area. The metric selected evaluates the proportional share of existing "legally binding affordability restricted" housing in the corridor compared to the share in the surrounding county or counties. FTA believes use of this ratio is appropriate to help normalize the results since we are not comparing projects to one another but rather to the circumstances in each local area where projects are proposed. However, FTA recognizes the use of a ratio for this measure can have some drawbacks, particularly where the surrounding county or counties are quite large in land area and/or have quite large amounts of "legally binding affordability restricted" housing. Therefore, FTA intends to boost the rating for this sub-factor one level if the denominator shows the surrounding counties to have greater than a five percent share of "legally binding affordability restricted" housing.

2.18.2.5 Cost Effectiveness Measures

New Starts – FAST requires that the cost-effectiveness criterion for New Starts projects be based on a cost-per-trip measure. Therefore, the cost-effectiveness measure for New Starts projects is the annual capital and operating and operating plus maintenance (O&M) costs per trip on the project. The number of trips on the project is not an incremental measure but simply total estimated trips on the project.

The cost part of the New Starts cost-effectiveness calculation is an incremental measure requiring a point of comparison. For current year calculations, the annualized capital and O&M costs for the proposed project is compared to the existing transit system. If a project sponsor also chooses to calculate the measure based on ten-year horizon forecasts, the annualized capital and O&M cost of the proposed project is compared to the no-build transit system (which includes the existing transportation system as well as those transportation investments committed in the Transportation Improvement Plan [TIP] pursuant to 23 CFR Part 450.) If a project sponsor chooses to calculate the measure based on 20-year horizon forecasts, the annual capital and O&M cost of the proposed project is compared to the annual capital and O&M cost of the projects identified in the Metropolitan Planning Organization's fiscally constrained long- range plan (excluding the proposed build alternative.)

Small Starts – The law requires FTA to evaluate cost effectiveness for Small Starts projects based on a federal share per trip measure. Therefore, the cost-effectiveness measure for Small Starts projects is the annualized capital federal share of the project per trip on the project. The federal share is all federal funding, not just CIG funding. The number of trips on the project is not an incremental measure, but simply total estimated trips on the project.

2.18.2.6 Congestion Relief

New Starts – FTA evaluates congestion relief based on the number of new weekday linked transit trips resulting from implementation of the proposed project. FTA recognizes that this is an indirect measure of roadway congestion relief resulting from implementation of a transit project, but it serves as an indicator of potential cars taken off the road. Additionally, it keeps FTA from double counting the total transit trips evaluated under the mobility criterion or the vehicle miles traveled evaluated under the environmental benefits criterion. FTA believes its virtues are that it is simple to calculate, simple to explain to various decision-makers, and easily understood. Additionally, it continues to allow project sponsors the option of using FTA's simplified ridership forecasting tool entitled STOPS, which can save considerable time and expense. If a project sponsor chooses to develop new weekday linked transit trips based on a horizon year in addition to current year, each is given 50 percent weight when establishing the overall congestion relief rating.

Small Starts – FTA uses the percent increase in capacity in the corridor resulting from the proposed project to evaluate congestion relief. Core Capacity projects, by definition, are intended to reduce congestion on the existing transit line by increasing capacity by at least ten percent.

2.18.2.7 Local Financial Commitment Measures

New Starts – The law requires that proposed New Starts projects be supported by an acceptable degree of local financial commitment, including evidence of stable and dependable financing sources to construct, maintain, and operate the transit system or extension, and maintain and operate the entire public transportation system without requiring a reduction in existing services. Project sponsors must prepare a financial plan and 20-year cash flow statement in accordance with FTA's Guidance for Transit Financial Plans found on our website.

The measures FTA uses for the evaluation of local financial commitment for proposed New Starts projects are:

- The proposed share of total project capital costs from sources other than the Section 5309 CIG program;
- The current financial condition, both capital and operating, of the project sponsor and/or relevant project partners when more than one entity is involved in construction or operations;
- The commitment of funds for both the capital cost of the proposed project and the ongoing transit system operation and maintenance, including consideration of whether there is significant private participation; and,
- The reasonableness of the financial plan, including planning assumptions, cost estimates, and the capacity to withstand funding shortfalls or cost overruns.

Small Starts — FAST requires that proposed Core Capacity projects be supported by an acceptable degree of local financial commitment. FTA uses the following measures to evaluate this:

- The proposed share of total project capital costs from sources other than the Section 5309 CIG program;
- The current financial condition, both capital and operating, of the project sponsor and/or relevant project partners when more than one entity is involved in construction or operations;
- The commitment of funds for both the capital cost of the proposed project and the ongoing transit system's operation and maintenance, including consideration of whether there is significant private participation; and,
- The reasonableness of the financial plan, including planning assumptions, cost estimates, and the capacity to withstand funding shortfalls or cost overruns.

Core Capacity projects may qualify for a highly simplified financial evaluation if they are less than $250 million in total cost, and the project sponsor can demonstrate the following:

- A reasonable plan to secure funding for the local share of capital costs or sufficient available funds for the local share;
- The additional operating and maintenance cost to the agency of the proposed Core Capacity project is less than five percent of the project sponsor's current year operating budget; and,
- The project sponsor is in reasonably good financial condition, as demonstrated by the past three years' audited financial statements indicating a positive cash flow over the period, a reasonable current ratio, and no material findings.

Core Capacity projects that meet the items above and request greater than 50 percent Core Capacity funding receive a local financial commitment rating of Medium. Core Capacity projects that meet the items above and that request 50 percent or less in Core Capacity funding receive a High rating for local financial commitment.

2.18.3 Example Application Of FTA Land Use Measure

The Corradino Group has been assigned the North Corridor of the SMART Plan under TPO Work Order #GPC VI-30. Under TPO Work Order #GPC VI-VV, Corradino examined the major corridors and hubs within South Miami-Dade, consistent with the county's growth strategy, recognizing that to effectively implement a mass transit system in a relatively undeveloped, low-density area requires land use, zoning, economic development, and transit investments in the corridor and at hubs they serve. To most effectively support the SMART Plan, in this and other corridors, residential and employment uses should be more closely balanced and consolidated into development nodes along the corridors. This would serve to increase transit ridership, free roadway capacity, and redirect some roadway infrastructure investments to transit.

Table 5 - FTA Quantitative Element Rating Guide for Land Use Criterion

	Station Area Development		Parking Supply	
Rating	Employment served by system[7]	Avg. Population density (persons/square mile)[8]	CBD typical cost per day[9]	CBD spaces per employee[10]
High	> 220,000	> 15,000	> $16	< 0.2
Medium-High	140,000-219,999	9,600 - 15,000	$12 - $16	0.2 – 0.3
Medium	70,000-139,999	5,760 – 9,599	$8 - $12	0.3 – 0.4
Medium-Low	40,000-69,999	2,561 – 5,759	$4 - $8	0.4 – 0.5
Low	<40,000	< 2,560	< $4	> 0.5

SOURCE: HTTPS://WWW.TRANSIT.DOT.GOV/SITES/FTA.DOT.GOV/FILES/ DOCS/FAST_UPDATED_INTERIM_POLICY_GUIDANCE_JUNE%20_2016.PDF

Table 6 - Example Application of FTA Land Use Measure For Smart South Corridor

Category--Existing Land Use	Measurements		Evaluation
Station Area Development	***FTA Standards (1/2 Mile)***	***Case Area (1/2 Mile)***	***Dadeland South Rating***
Employment served by system	High - >220,000; Medium-High 140,000-219,999; Medium 70,000-139,999; Medium-Low 40,000-69,999; Low < 40,000	16,987*	Low
Average population density (persons per square mile)	High >15,000; Medium-High 9,600 - 15,000; Medium 5,760 -9,599; Medium-Low 2,561-5,759; Low < 2,560	7208**	Medium
Parking Supply	***FTA***	***Case Area***	***Dadeland South Rating***
CBD--Typical cost per day	High >$16; Medium-High $12 - $16; Medium $8 -$12; Medium-Low $4 - $8; Low < $4	4.5***	Medium-Low
CBD--Spaces per employee	High < 0.2; Medium-High 0.2 - 0.3; Medium 0.3 - 0.4; Medium-Low 0.4 - 0.5; Low > 0.5	0.075****	High
		Average Rating	Medium

SOURCE: THE CORRADINO GROUP, US CENSUS BUREAU (2014)

With this background, Corradino has data to compare South Miami-Dade Corridor characteristics to the FTA Land Use criterion **(Table 5)** to illustrate the challenges and opportunities for high-type transit in this corridor. The "CBD"—Central Business District—in this case is the Dadeland south station area of Metrorail **(Table 6)**.

This example indicates for three of four criteria—employment, population density, and CBD daily parking cost—the corridor performs at the medium and/or low levels, while performing at the high level for the criterion of CBD spaces per employee. This example suggests that land use planning for the future has the significant potential to elevate this corridor into the "high" performance range, with "medium" performance being the lowest to be experienced in an FTA review.

2.19 LESSONS LEARNED

2.19.1 What is a Transit Oriented Development?

Transit-oriented developments (TOD) has the goals of reducing sprawl, lowering the reliance on car usage in favor of mass transit, and revitalizing local communities. Review of examples, such as the Reston-Ballston transit line in Alexandria, Va., along with a few other Federal Transit Administration-funded systems, indicates developing TODs requires three forms of balance: 1) within each station area: 2) within the corridor (its primary market) in which the station is located; and, 3) within the region, which acts as both a secondary market and, at the same time, is the TOD area's competition. Taking these three balances into account, evaluation of alternative development scenarios, and subsequent decision making, can be based on an area's development potential and market readiness.

2.19.2 Corridor vs. Station Area

Practical application of land use changes to encourage station-area development generally involves: 1) rewriting an existing zoning district's regulations; 2) rezoning of specific parcels; and/or, 3) enacting an overlay or new district. Zoning must be tied to the future land use designation, which, in turn, is tied to expected levels of growth. In corridors, evaluations of market potential involve a qualitative discussion of economic incentives tied to zoning, with growth being transferred to the corridor from other areas of the region, not necessarily "created." The literature review of these three approaches indicates the majority of examples involve some form of mixed-use development occurring horizontally and vertically. In addressing district design, it is important to note consideration must be given to walkability and general station area mobility, the roadway grid/connections to the parcels in the area as well as the size of the parcels.

Assignment of station typology allows for a more cohesive corridor, which, based on travel time, creates a market shed for each station. This can be seen in Denver, Los Angeles, and Maryland. Within corridors, the most-effective development occurs when the stations complement each other based on market factors. The more successful TOD examples generally are based on public/transparent visioning exercises, as is the case with Reston-Ballston line.

Within the same market, however, these station areas support each other. A balance can be created among transit station locations by first assessing the overall buildout for the corridor, and then distributing against this "cap", as needed, through "control policies" for the stations.

2.19.3 Market Factors and Development Potential

Evaluating density and employment is an important factor in TOD development. However, differences in land use density allowances (floor-area ratios, height limitations), local land values, as well as programs for affordable housing and adaptive reuse, affect development potential. Affordability by the market population, and potential development costs versus revenue, also affect development potential. The market shed for the corridor, as affected by travel time, also affects market potential of development in the TOD area.

Planning for TOD will involve creating a transit-supportive environment, but TOD generally proceeds with economic development, affordable housing, and land use being key inputs, more so than rezoning and waiting for development to occur. Strategies utilized include financial tools such as Priority Funding Areas (Maryland), Smart Growth Revolving Fund and Transit Investment Gap Financing Program (Charlotte, NC), Tax Increment Financing (Various); public-private partnerships (Minneapolis and various), development bonuses to FARs and height limits (various), among others.

The North Corridor faces challenges because it traverses multiple jurisdictions with varying land use, zoning and economic development policies. An approach the may be applicable is the Southeast Rail Line in Denver, where local neighborhoods helped enact policies and "ground rules' influencing award of developments by station area.

2.19.4 What comes first – transportation or land use?

The answer to this "chicken or egg" question is that development of a TOD is an iterative process, but one more likely attuned to economic development. Ultimately, the more-successful districts are developed with sensitivity to their surroundings, and with the understanding of development needs. Local political stability and key champions will also drive the process as a result. In a phrase, successful TODs will not be supportive by the concept of "if you build it, they will come".

3. EXISTING CONDITIONS ASSESSMENT AND ANALYSIS

The SMART Plan North Corridor is approximately 13 miles long. This study primarily focuses on a 0.5-mile buffer on each side of NW 27th Avenue. The corridor is anchored by the Miami International Airport and Intermodal Center, in the south, and a planned Unity Station by Hard Rock Stadium, home to the Miami Dolphins, in the north. Currently, the corridor is a low-density urban/suburban area, and includes portions of Miami, Miami Springs, Hialeah, Opa-Locka, Miami Gardens, and unincorporated Miami-Dade County. Other key destinations within the corridor include Miami-Dade College/North Campus.

3.1 CORRADINO PROFILE

3.1.1 Local Demographics

The Corridor is home to approximately 110,000 residents in 36,000 households **(Table 7)**. Approximately 23,000 jobs are within the Corridor, primarily filled by employees living outside of it. Fewer than 1,000 workers live and also work in the Corridor, which overall contributes approximately 49,000 employment trips regionally. Workers within the Corridor mostly originate in Hialeah, City of Miami, Sweetwater, or the Fontainebleau area of unincorporated Miami-Dade County. Resident workers are primarily employed in Downtown Miami, Aventura, Miami Beach, and Doral's southeastern, industrial/warehouse district.

Similar to the rest of Miami-Dade County, the elderly population of the Corridor is about 14% of the total population. However, the North Corridor has a higher proportion of children (24.9% of Corridor population vs. 20.9% for Miami-Dade County). The population within the corridor is primarily Caucasian, Latino, and Black. Corridor residents tend to live in households with two (2) or more people, in single-family, detached housing. Sixty percent (60%) of the households earn less than $50,000/year. Fourteen percent (14%) of local households are in assisted/affordable housing.

Table 7 - North Corridor Study Area Demographics

HOUSEHOLDS	
Total Households	35842
Household w/ 1 Person	7643
Household w/ 2 People	8343
Household w/ 3 People	6892
Household w/ 4+ People	12964
Households w/ income < $25,000	14154
Households w/ income $25,000 - $50,000	10745
Households w/ income $50,000 - $75,000	6062
Households w/ income $75,000 - $100,000	2917
Households w/ income > $100,000	1964
Households with 0 workers	10192
Households with 1 workers	13725
Households with 2 workers	8779
Households with 3+ workers	3146
Single Family Housing Units	23668
Multi-Family Units	11321
Mobile Homes	853
HH with No Children	21156
HH with Children	14686
GENDER	
MALE	54437
FEMALE	57471
RACE	
Hispanic	46540
White	2769
Black	0
Native American	0
Asian	0
Pacific Islander	0
Race-Other	62599
Mixed-Race	0
POPULATION	
AGE 0 TO 17	27911
AGE 18 TO 24	12827
AGE 25 TO 34	14581
AGE 35 TO 49	22241
AGE 50 TO 64	19988
AGE 65 TO 79	11036
AGE 80 PLUS	3324
TOTAL	**111908**

SOURCE: SERPM 7, THE CORRADINO GROUP, INC.

3.1.2 Existing Land Use

The North Corridor's top land uses are Residential (41.9%), Commercial (13.6%), Institutional (10.6%), and Industrial (9.1%) (as shown in **(Table 8 and figure 10)**. Residential land use is primarily low-density, with single-family housing accounting for about one-third of the Corridor's land use. Multi-family housing is only three (3) percent of the Corridor; housing and mixed-uses occupy three (3) acres of the area.

About eight percent (8%) of the parcels within the Corridor are vacant (approximately 575 acres). All vacant land within the Corridor allows for future development, given no specific restrictions on usage. No other category of land use comprises more than 5% of the overall corridor; parks/ open space falls within this category.

The North Corridor's area includes land within Opa-Locka (7.8% of corridor), Miami Gardens (32.1% of corridor), Miami Springs (1.0% of corridor), Miami (5.0% of corridor), and Hialeah (2.2% of corridor). Unincorporated Miami-Dade accounts for 52.9% of the corridor's land.

About 3,000 acres, or 35% of the study area, has a building-to-land ratio of no more than 1.5, or less, and accounts for about 4,600 of the study area's 19,788 parcels. Many of these parcels are located within one of the three Community Redevelopment Agency (CRA) areas within the North Corridor (79th Street CRA, Opa-Locka CRA, Miami-Gardens CRA). Vacant land accounts for 575 acres.

3.1.3 Transportation Facilities

Major transportation facilities providing access to the Corridor include SR91/Florida's Turnpike, SR 826/Palmetto Expressway and SR 112/Airport Expressway. The SR 924/Gratigny Expressway is easily accessible via NW 119th Street, and is less than one mile from the Corridor. Major east-west arterials intersecting the Corridor include NW 36th Street, NW 54th Street, NW 79th Street, NW 103rd Street, NW 119th Street, NW 135th Street, State Route 9, and Miami Gardens Drive.

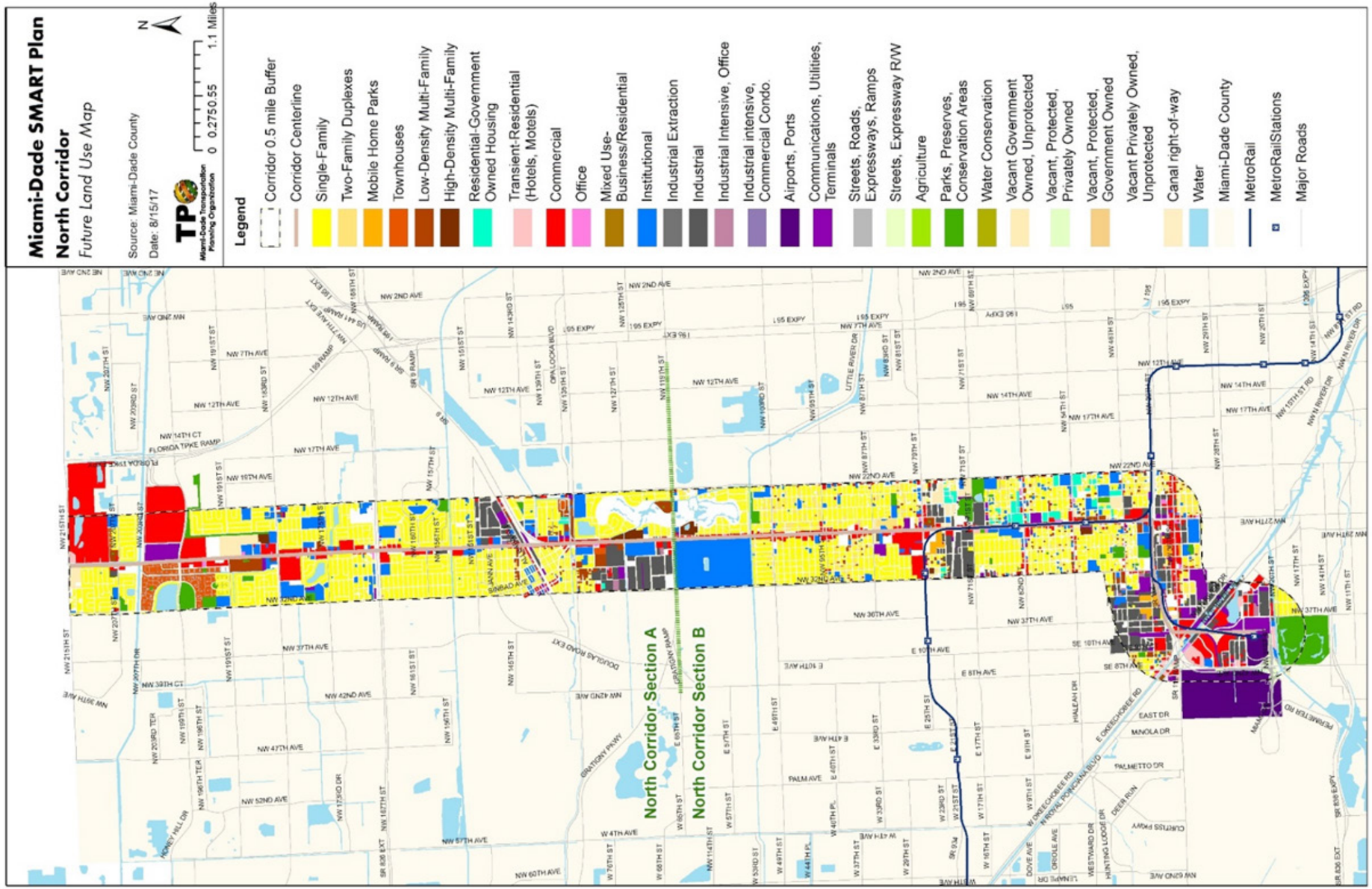
Local transit options that intersect the corridor include Miami-Dade Department of Transportation and Public Works (DTPW) bus routes, 7, 12, 17, 19, 21, 22, 27, 32, 33, 36, 37, 42, 46, 54, 57, 62, 75, 79, 95, 99, 107, 110, 112, 132, 135, 150, 183, 217, 238, 246, 254, 297, and 338 (See Figure 1C), as well as Metrorail at the Martin Luther King Jr. Station. Routes 27 and 297 generally run North-South along the corridor. Access to Tri-Rail is provided at Hialeah Market Station and the Miami Intermodal Center (MIC) in the southern half of the Corridor, and at Opa-Locka Station in the northern half of the corridor. Megabus and Greyhound buses service the MIC. However, while a park-and-ride lot is being planned by Hard Rock Stadium, the only existing park-and-ride facilities serve the MIC Tri-Rail Station or the Hialeah Market Station. No on-street parking exists on NW 27th Avenue, nor is there dedicated parking for Miami-Dade Transit routes.

Table 8 - Existing Land Use

North Corridor (NW 27th Avenue) Existing Land Use			
Land Use	**Description**	**Area (acres)**	Percent of Total
Residential			
10	Single-Family, Med.-Density (2-5 DU/Gross Acre).	1,879.30	26.9%
11	Single-Family, High Density (Over 5 DU/Gross Acre, other than Townhouses, Duplexes and Mobile Homes).	402.95	5.8%
12	Townhouses.	105.49	1.5%
13	Single-Family, Low-Density (Under 2 DU/Gross Acre).	15.19	0.2%
20	Two-Family (Duplexes).	199.75	2.9%
30	Multi-Family, Low-Density (Under 25 DU/Gross Acre).	164.69	2.4%
35	Multi-Family, High Density (Over 25 DU/Gross Acre).	40.68	0.6%
61	Mobile Home Parks and Permanent Mobile Homes.	38.97	0.6%
65	Residential SF--government-owned or government subsidized single-family residential or elderly housing	25.14	0.4%
69	Residential MF-- government-owned or government subsidized multi-family residential or elderly housing	50.65	0.7%
Commercial & Service			
110	Sales and Services (Wholesale facilities, Spot commercial, strip commercial, neighborhood shopping centers	553.26	7.9%
112	Marine commercial (includes private commercial [non-recreational] marinas and repair yards on public or p	9.37	0.1%
113	Office Building.	25.17	0.4%
115	Sports Stadiums, Arenas, and Tracks.	357.42	5.1%
170	Office and/or Business and other services (ground level) / Residential (upper levels). Low-density < 15 dwell	1.96	0.0%
180	Residential predominantly (condominium/ rental apartments with lower floors Office and/or Retail. High d	1.16	0.0%
Transient-Residential (Hotel-Motel)			
200	Transient-Residential (Hotel-Motel)	38.52	0.6%
Industrial			
320	Industrial Intensive, heavy-light manufacturing, and warehousing-storage type of use	523.20	7.5%
339	Industrial Extensive	77.98	1.1%
342	Industrial Intensive, Office type of use	15.00	0.2%
345	Industrial intensive, Commercial Condominium type of use	3.60	0.1%
370	Junk Yard.	10.97	0.2%
Institutional			
411	Public Schools, Including Playgrounds (K-12, Vocational Ed., Day Care and Child Nurseries).	164.45	2.4%
412	Private Schools, Including Playgrounds (K-12, Vocational Ed., Day Care and Child Nurseries).	31.60	0.5%
414	Colleges and Universities, Including Research Centers, Public and Private.	237.92	3.4%
420	Cultural (auditoriums, convention centers, exhibition centers, museums, art galleries, libraries).	6.95	0.1%
430	Hospitals, clinics, medical offices and/or dental facilities	23.47	0.3%
435	Nursing homes, Assisted living facilities, and Adult congregate living quarters	10.28	0.1%
440	Houses of Worship and Religious, and associated uses (parking, retreat houses, residencies, childcare, etc.).	119.64	1.7%
450	Governmental/Public Administration (Other than Military or Penal).	114.31	1.6%
451	Military Facilities.	6.15	0.1%
460	Penal and Correctional.	15.98	0.2%
470	Social Services, and Charitable institutions (Shrines, Elks, Moose, Lions Club).	5.67	0.1%
Parks and Recreational Open Space (Including Preserves and Conservation Areas)			
510	Municipal Operated Parks	83.06	1.2%
517	Private Recreational Facilities Associated with private Residential Developments, except marinas/yacht bas	5.75	0.1%
530	Golf courses, Public and Private.	124.39	1.8%
540	Cemeteries.	16.35	0.2%
550	County Operated Parks.	88.05	1.3%
Transportation, Communication, and Utilities			
610	Airports (other than Military and Small Grass Airports).	316.41	4.5%
612	Ocean Ship Terminals and Port Facilities, Bay and River Based.	6.40	0.1%
613	Bus/Truck/Freight Forwarding Terminals.	39.46	0.6%
620	Railroads - Terminals, Trackage, and Yards.	53.39	0.8%
630	Electric Power (Generator and Substation, and Service Yards).	10.21	0.1%
632	Oil and Gas Storage (Tank Farms).	0.29	0.0%
633	Communications (Radio, TV, Cable, and Phone), excluding Antenna Arrays.	6.92	0.1%
635	Water Supply Plants.	2.62	0.0%
636	Sewerage Treatment Plants.	5.14	0.1%
640	Streets and Roads, except Expressways and Private Drives.	49.60	0.7%
641	Paved Highways, Expressways and Ramps.	17.54	0.3%
642	Private Drives.	16.03	0.2%
645	Highways and Expressways right-of-way and associated open and landscaped areas excluding paved expres	12.87	0.2%
646	Street right-of-way and entrance features both public and private, and utility easements.	1.55	0.0%
650	Parking - Public and Private Garages and Lots.	83.12	1.2%
660	Solid Waste Disposal and Transfer (Includes Dumps, Solid Waste Land Fills, Resource Recovery Plants and Fa	4.24	0.1%
670	Road Maintenance and Storage Yards, and Motor Pools.	43.85	0.6%
Undeveloped			
801	Vacant Government owned or controlled.	149.90	2.1%
804	Vacant, Non-Protected, Privately-Owned.	424.43	6.1%
805	Major Approved Projects.	8.93	0.1%
Inland Water			
910	Rivers and Canals.(Water)	14.38	0.2%
911	Canal right-of-way.	0.71	0.0%
917	Inland water bodies (Lakes, Rock Pits) associated with extraction, excavation, quarrying and rock-mining ac	0.01	0.0%
918	Inland water bodies (Lakes, Watercourses) associated with residential developments.	30.71	0.4%
920	Other inland water bodies (Lakes, Ponds, Watercourses other than rivers and canals), including road borrov	80.53	1.2%
		6,973.68	

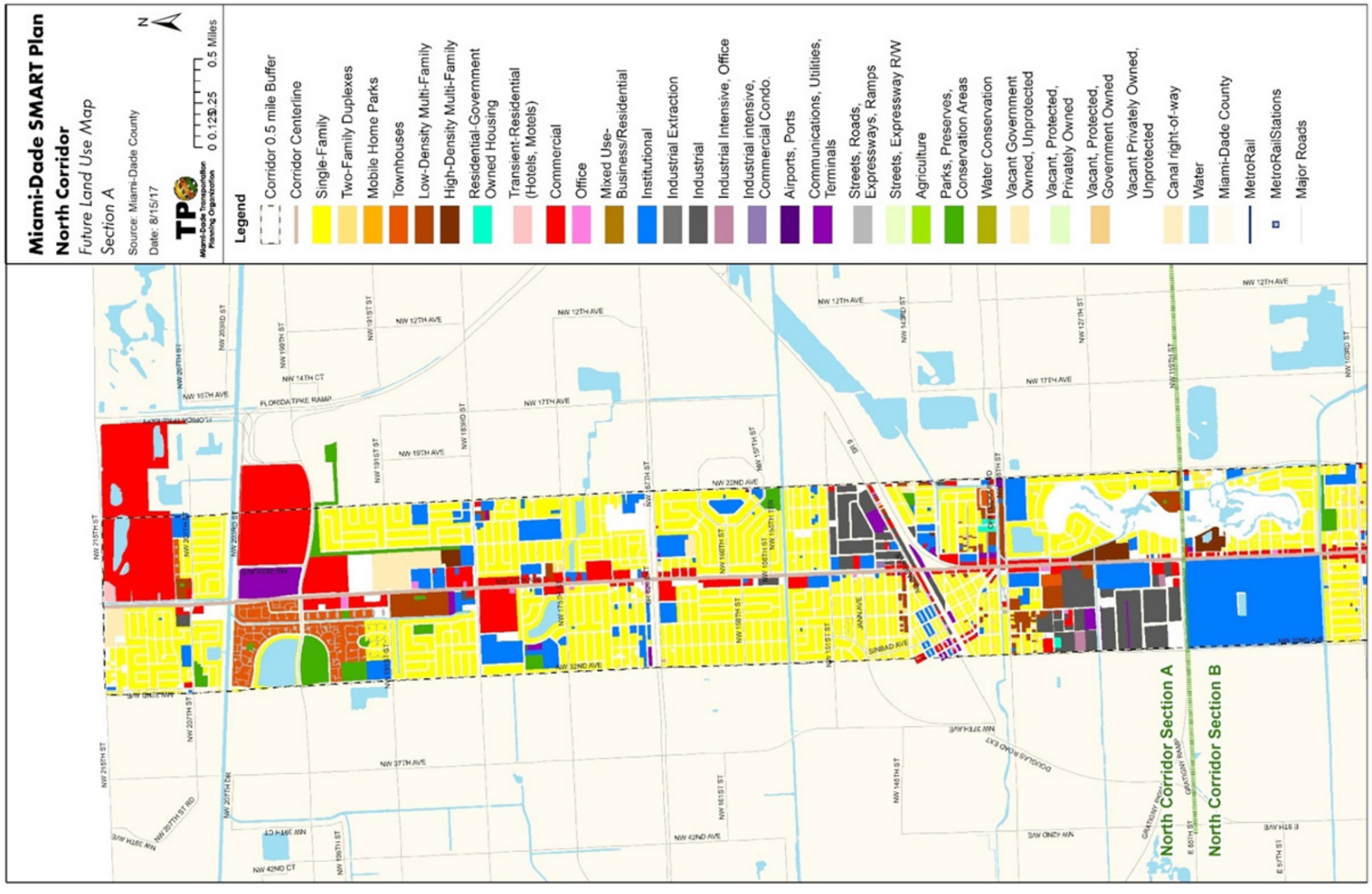
SOURCE: MIAMI-DADE PROPERTY APPRAISER

Figure 10: Future Land Use Map – Whole Corridor



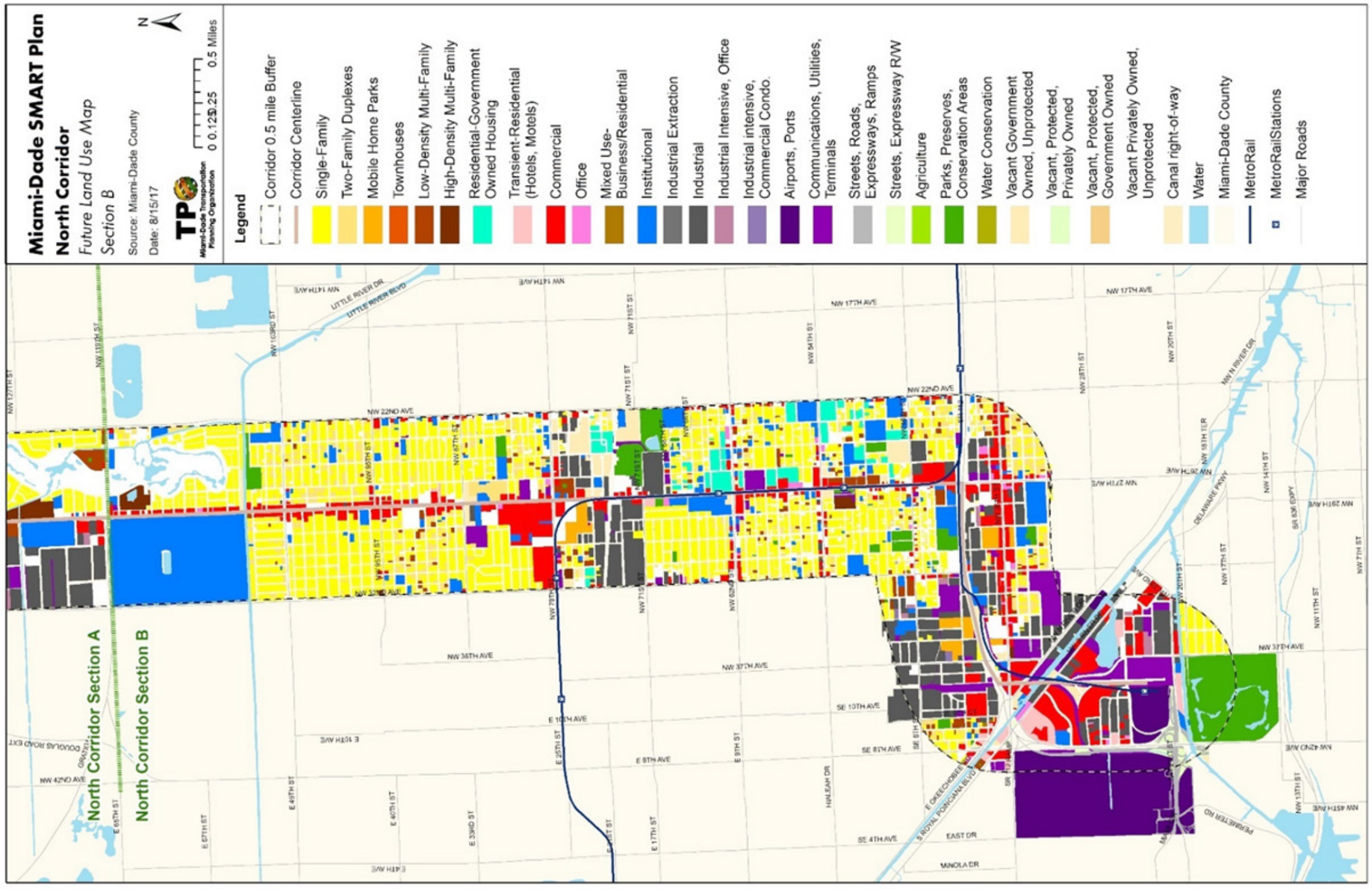
SOURCE: MIAMI-DADE TPO, THE CORRADINO GROUP, INC.

FIGURE 10-A FUTURE LAND USE MAP – SECTION A



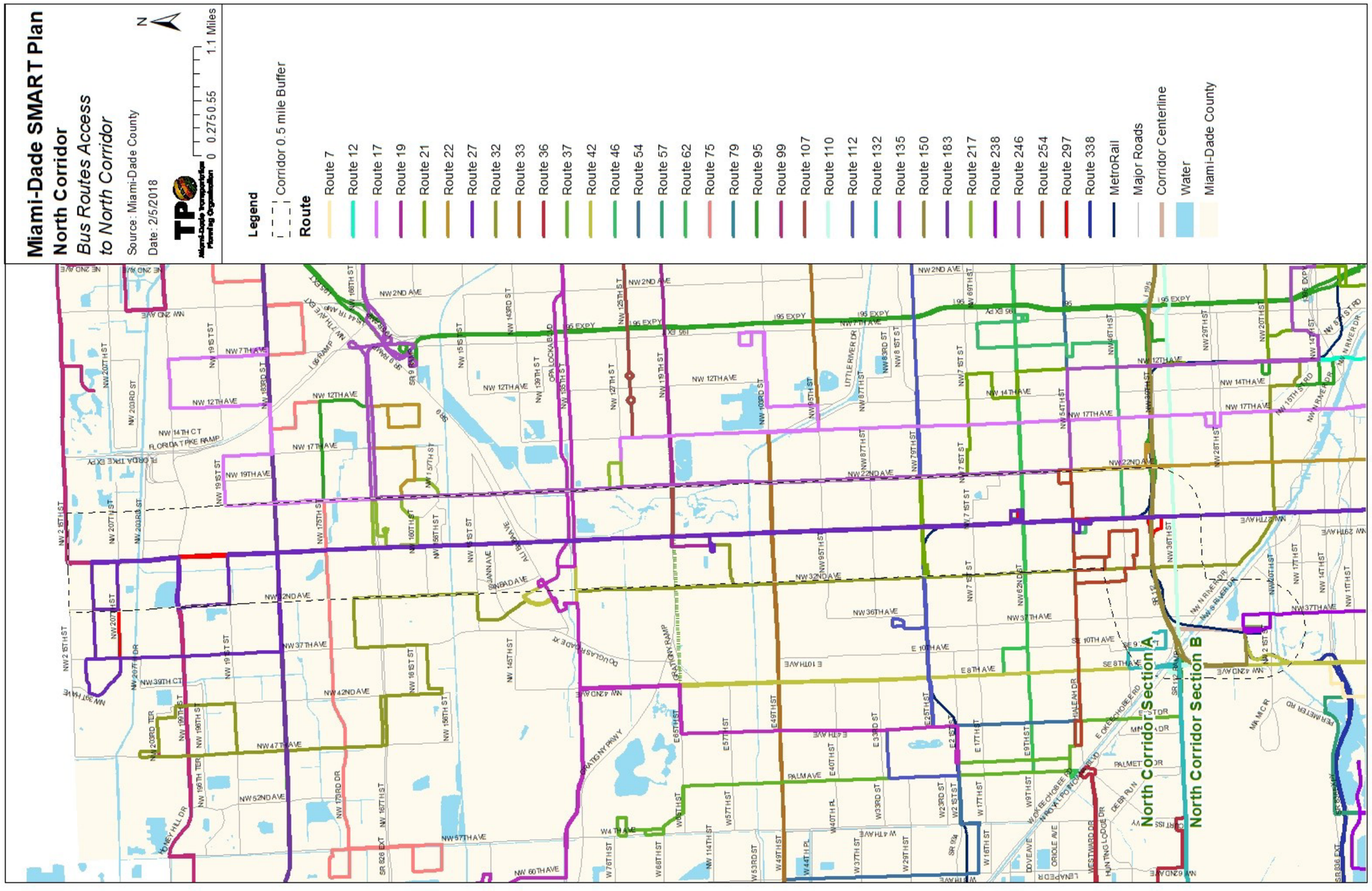
SOURCE: MIAMI-DADE TPO, THE CORRADINO GROUP, INC.

FIGURE 10-B FUTURE LAND USE MAP – SECTION B



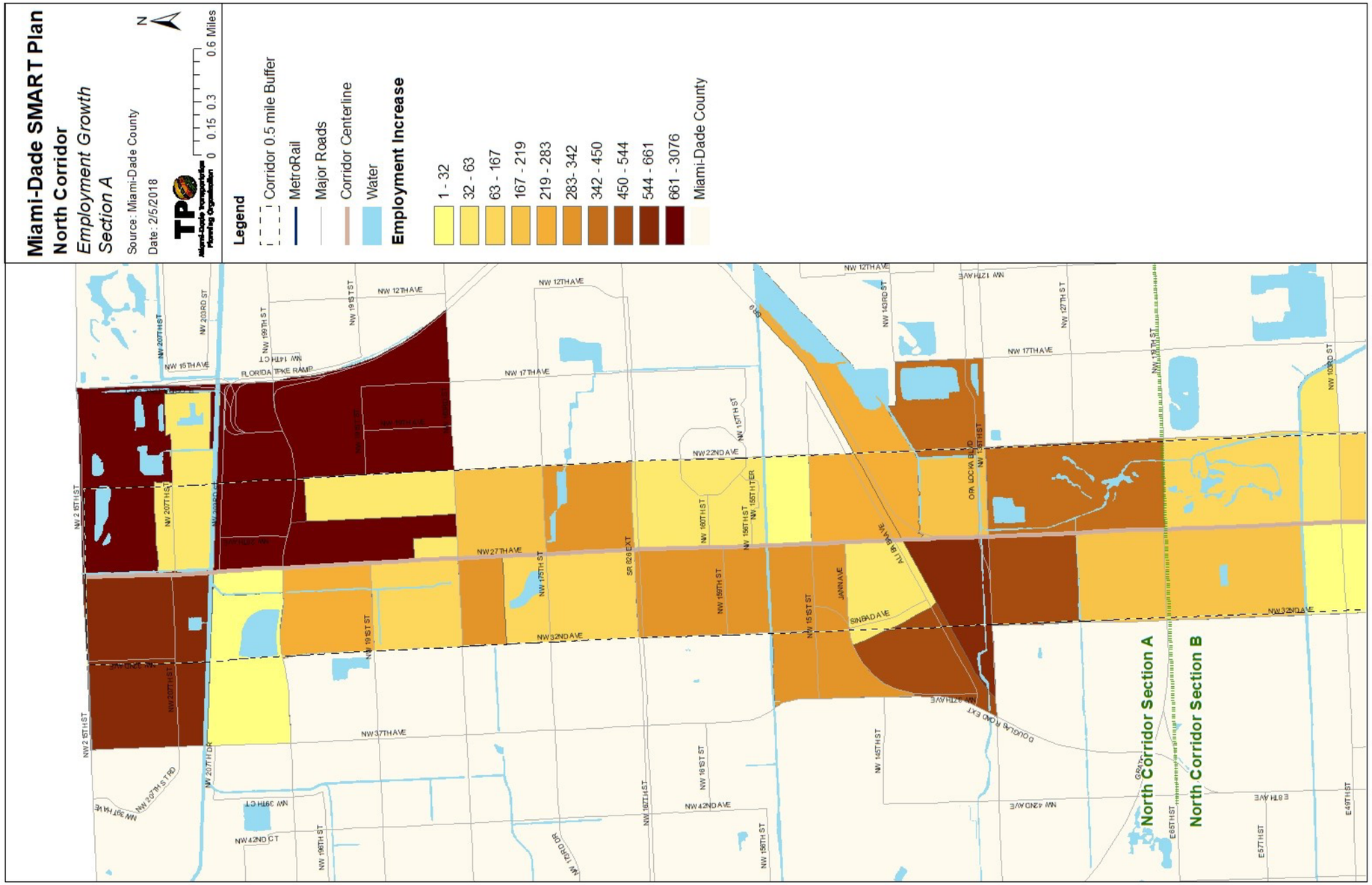
SOURCE: MIAMI-DADE TPO, THE CORRADINO GROUP, INC.

FIGURE 10-C MIAMI-DADE BUS ROUTES



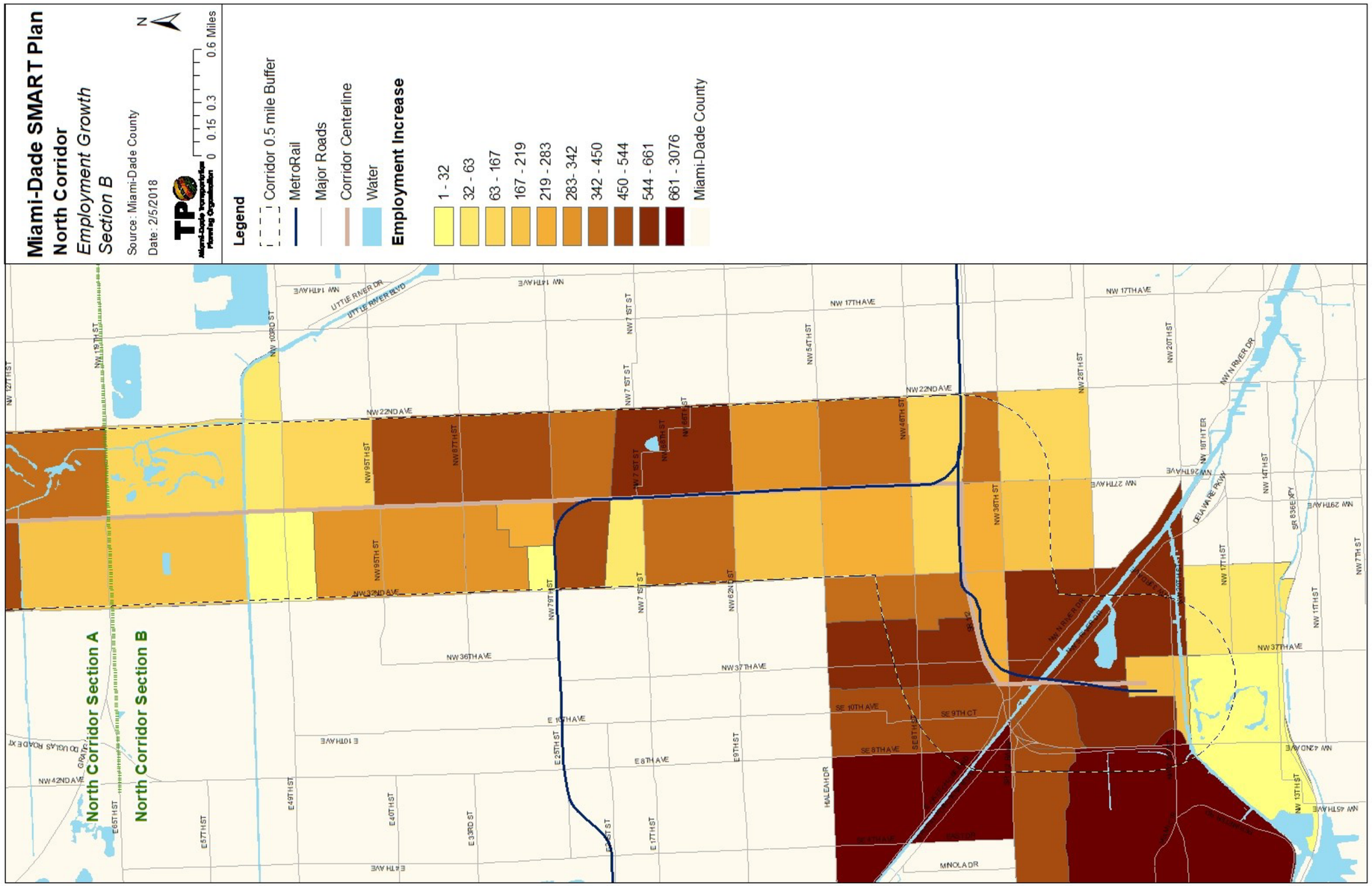
SOURCE: MIAMI-DADE TPO, THE CORRADINO GROUP, INC.

FIGURE 10-D ESTIMATED JOBS GROWTH 2010 - 2040 – SECTION A



SOURCE: MIAMI-DADE COUNTY, SERPM 7.0.

FIGURE 10-E ESTIMATED JOBS GROWTH 2010 - 2040 – SECTION B



SOURCE: MIAMI-DADE COUNTY, SERPM 7.0.

3.1.4 Employment

Local businesses primarily are retail and service-based. Commercial uses account for one-third of the employment in the Corridor, with one-sixth of the employment in industrial jobs. Employment in the Corridor is projected to increase from 64,682 to 89,976 by 2040 (Source: Miami-Dade County, SERPM 7.0). While there is some growth along the entire corridor, this growth is primarily concentrated on the Airport and the Stadium areas, major economic drivers in the area with potential for further growth **(See Figures 10D and 10E)**. However, areas currently deemed as underutilized, such as the industrial sections of Opa-Locka, and the high number vacant parcels also contribute to the overall growth. This notable increase noted in the regional planning model results from the estimated potential inherent in the development of locally underutilized or vacant parcels. The population is expected to grow at a more modest rate, from 111,908 in 2015 to 159,878 in 2040, an increase of approximately 43%.

3.1.5 Zoning

Zoning in the Corridor is diverse and dependent on local factors. It is likely to change based on desired future development. **Table 9** presents the type of zoning, by municipality and district type, for parcels within the North Corridor.

3.1.6 Assisted Living/Affordable Housing

Currently, 31 assisted living and affordable housing developments are located within the North Corridor study area, accounting for 5,008 units (Shimberg Center for Housing Studies) **(Table 10)**. Assuming one unit is equal to one household, assisted and affordable housing represents approximately 15% of all North Corridor households.

Table 10 and **Figures 11-A and 11-B** detail these units, including units and the population it serves, as well as its location within the North Corridor.

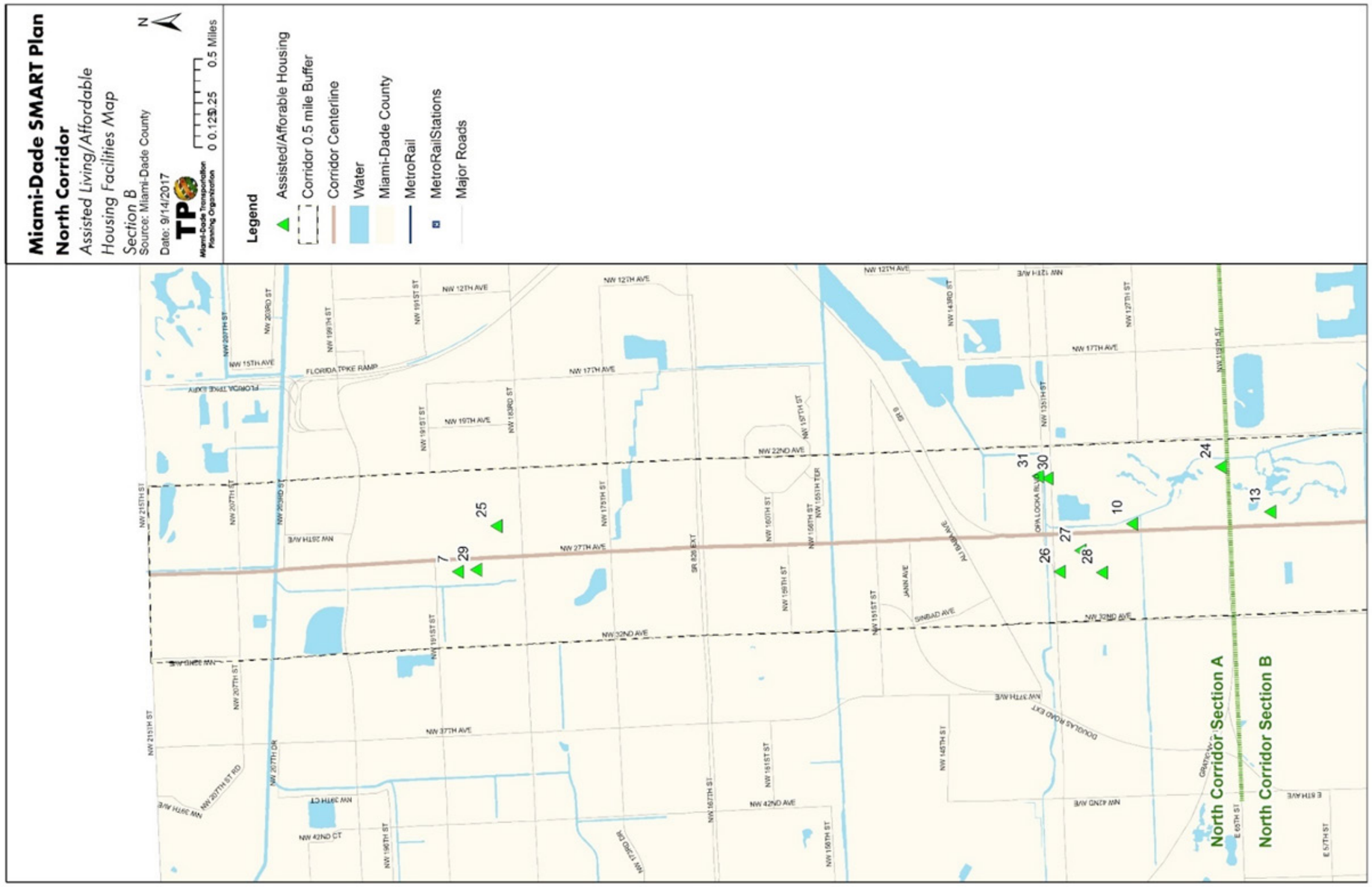
Table 9 - Local Zoning – North Corridor

NORTH CORRIDOR (NW 27TH AVENUE) - 1/2 MILE BUFFER | CURRENT ZONING -NOVEMBER 2016											
MUNICIPALITY NAME	ZONING	ZONING DESCRIPTION	MIN LOT SIZE	DENSITY	FAR	MIN LOT WIDTH	MAX HIGH	MIXED USE	GENERAL LAND USE TYPE	MAX LOT COVERAGE	ZONING AREA (ACRES)
HIALEAH	C-2	LIBERAL RETAIL COMMERCIAL DISTRICT				50	6	No	C	40	11.88
HIALEAH	C-3	EXTENDED LIBERAL COMMERCIAL DISTRICT				50	3	No	C	40	4.16
HIALEAH	M-1	INDUSTRIAL DISTRICT	435600			175	2	No	I	75	95.72
HIALEAH	M-3	INDUSTRIAL PLANNED DEVELOPMENT				175	2	No	I	75	0.13
HIALEAH	NONE	NONE	0	0	0	0	0			0	1.03
HIALEAH	R-1	SINGLE FAMILY RESIDENTIAL DISTRICT	7500	5		75	2	No	RSF	90	14.38
HIALEAH	R-2	ONE AND TWO FAMILY RESIDENTIAL DISTRICT	7500	10		75	2	No	RSF	70	4.23
HIALEAH	R-3-1	MULTIPLE FAMILY DISTRICT, NO MORE THAN ONE STORY		15		25	1	No	RMF	70	0.98
HIALEAH	R-3-2	MULTIPLE FAMILY DISTRICT, NO MORE THAN TWO STORIES		20		25	2	No	RMF	70	5.98
HIALEAH	R-3-3	MULTIPLE FAMILY DISTRICT, NO MORE THAN THREE STORIES		24		25	3	No	RMF	70	0.40
HIALEAH	R-3-5	MULTIPLE FAMILY DISTRICT, UNLIMITED HEIGHT		32		25	3	No	RMF	70	0.82
HIALEAH	R-3	MULTIPLE FAMILY DISTRICT		32		25	1	No	RMF	70	1.23
MIAMI	C1	CIVIC INSTITUTION			0	50	6	No	IPA	80	3.24
MIAMI	CS	CIVIC ZONE SPACE			0	50	6	No	P	80	154.43
MIAMI	D1	WORK PLACE DISTRICT ZONE	5000	36	0	50	8	Yes	RC	80	9.33
MIAMI	NONE	NONE	0	0	0	0	0			0	0.01
MIAMI	T3-L	SUBURBAN ZONE	5000	9	0	50	2	No	RSF	50	21.80
MIAMI	T3-O	SUBURBAN ZONE	5000	18	0	50	2	No	RSF	50	29.26
MIAMI	T5-L	URBAN CENTER ZONE	5000	65	0	50	5	Yes	RC	80	9.64
MIAMI	T6-8-O	URBAN CORE ZONE	5000	150	5	50	8	Yes	RC	80	57.47
MIAMI GARDENS	AU	AGRICULTURAL AND UTILITIES DISTRICT	43560	5	0.5	150	2	No	AG	70	229.98
MIAMI GARDENS	GP	GOVERNMENT PROPERTIES DISTRICT	0	0	0	50	0	No	IPA	0	182.22
MIAMI GARDENS	NC	NEIGHBORHOOD COMMERCIAL DISTRICT	5000	0	0.5	50	2	No	C	70	13.73
MIAMI GARDENS	NONE	NONE	0	0	0	0	0			0	1.26
MIAMI GARDENS	OF	OFFICE DISTRICT	5000	0	0.5	50	2	No	0	70	1.87
MIAMI GARDENS	PCD	PLANNED CORRIDOR DEVELOPMENT DISTRICT	45000	150	3	150	20	Yes	RC	90	424.49
MIAMI GARDENS	R-1	SINGLE FAMILY DWELLING RESIDENTIAL DISTRICT	7500	6	0	75	2	No	RSF	40	1,074.34
MIAMI GARDENS	R-15	MULTI-FAMILY DWELLING RESIDENTIAL DISTRICT	10000	15	0	100	3	No	RMF	70	182.80
MIAMI GARDENS	R-2	TWO FAMILY DWELLING RESIDENTIAL DISTRICT	7500	6	0	75	2	No	RSF	40	1.20
MIAMI GARDENS	R-25	MULTI-FAMILY DWELLING RESIDENTIAL DISTRICT	10000	25	0	100	4	No	RMF	60	47.52
MIAMI GARDENS	R-50	MULTI-FAMILY DWELLING RESIDENTIAL DISTRICT	10000	50	0	100	10	No	RMF	60	16.99
MIAMI SPRINGS	AT	ABRAHAM TRACT DISTRICT			3		10	No	C	0	40.75
MIAMI SPRINGS	NW 36	NORTHWEST 36TH STREET DISTRICT		20	3	0	8	Yes	RC	0	12.00
MIAMI SPRINGS	R-3C	MULTIPLE FAMILY MEDIUM DENSITY	10000	18.2		75	3	No	RMF	30	1.52
OPA-LOCKA	B-1	COMMERCIAL NEIGHBORHOOD BUSINESS	5000		0.9	150	3	No	C	80	8.62
OPA-LOCKA	B-2	COMMERCIAL LIBERAL BUSINESS	5000		2.4	150	4	No	C	80	64.85
OPA-LOCKA	B-3	COMMERCIAL INTENSIVE BUSINESS	10000		3	150	6	No	C	80	14.97
OPA-LOCKA	B-O	BUSINESS OFFICE	5000		0.5	150	2	No	O	80	15.51
OPA-LOCKA	C	CIVIC			3	50	6	No	IPA	80	24.68
OPA-LOCKA	I-1	LIGHT INDUSTRIAL	10000		3	50	3	No	I	15	24.34
OPA-LOCKA	I-2	INDUSTRIAL PLANNED	20000		1	50	3	No	I	75	107.86
OPA-LOCKA	P	PARK				50	2	No	IPA	70	2.40
OPA-LOCKA	R-1	SINGLE-FAMILY RESIDENTIAL	5000	9.0		40	2	No	RSF	60	202.52
OPA-LOCKA	R-2	TWO-FAMILY RESIDENTIAL	3750	12		50	2	No	RSF	60	12.33
OPA-LOCKA	R-3	MODERATE DENSITY RESIDENTIAL	10000	16		100	4	No	RMF	80	44.63
OPA-LOCKA	R-4	HIGH DENSITY RESIDENTIAL	20000	18		100	6	No	RMF	70	9.11
OPA-LOCKA	R-TH	RESIDENTIAL TOWNHOUSE	10000	16		100	3	No	RSF	80	10.11
UNINCORPORATED MIAMI-DADE	BU-1	BUSINESS DISTRICTS, NEIGHBORHOOD	5000		0.51	50	2	Yes	C	40	3.50
UNINCORPORATED MIAMI-DADE	BU-1A	BUSINESS DISTRICTS, LIMITED	5000		0.73	50	4	Yes	C	40	22.28
UNINCORPORATED MIAMI-DADE	BU-2	BUSINESS DISTRICTS, SPECIAL	5000		0.4	50	4	Yes	C	40	52.48
UNINCORPORATED MIAMI-DADE	BU-3	BUSINESS DISTRICTS, LIBERAL (WHOLESALE) INCLUDES MECHANICAL GARAGE AND USED CAR LOTS	5000			50	4	No	C	40	39.36
UNINCORPORATED MIAMI-DADE	GU	INTERIM DISTRICT - USES DEPEND ON CHARACTER OF NEIGHBORHOOD, OTHERWISE EU-2 STANDARDS APPLY		0.23		50	2	Yes	GU	15	588.19
UNINCORPORATED MIAMI-DADE	IU-1	INDUSTRIAL DISTRICTS, LIGHT MANUFACTURING	5000			75	1	No	I	75	351.23
UNINCORPORATED MIAMI-DADE	IU-2	INDUSTRIAL DISTRICTS, HEAVY MANUFACTURING	5000			75	1	No	I	75	210.49
UNINCORPORATED MIAMI-DADE	IU-3	INDUSTRIAL DISTRICTS, UNLIMITED MANUFACTURING	5000			75	1	No	I	75	34.96
UNINCORPORATED MIAMI-DADE	MCUCD	MODEL CITY URBAN CENTER DISTRICT	1200	125		20	15	Yes	UC	75	204.41
UNINCORPORATED MIAMI-DADE	NCUAD	NORTH CENTRAL URBAN AREA DISTRICT	1200	125		20	15	Yes	UC	70	502.89
UNINCORPORATED MIAMI-DADE	NONE	NO ZONING DESIGNATED				0	0			0	2.14
UNINCORPORATED MIAMI-DADE	PLMUC	PALMER LAKE METROPOLITAN URBAN CENTER	2000	250		20	20	Yes	UC	90	158.72
UNINCORPORATED MIAMI-DADE	RU-1	SINGLE-FAMILY RESIDENTIAL DISTRICT 7,500 FT2 NET	7500	5.2		75	2	No	RSF	40	849.59
UNINCORPORATED MIAMI-DADE	RU-1MA	MODIFIED SINGLE-FAMILY RESIDENTIAL DISTRICT 5,000 FT2 NET	5000	8.7		50	2	No	RSF	45	3.13
UNINCORPORATED MIAMI-DADE	RU-1M8	MODIFIED SINGLE-FAMILY RESIDENTIAL DISTRICT 6,000 FT2 NET	6000	8.7		60	2	No	RSF	45	1.68
UNINCORPORATED MIAMI-DADE	RU-1Z	SINGLE-FAMILY RESIDENTIAL ZERO LOT LINE 4,500 FT2 NET	4500	9.68		45	2	No	RSF	50	0.85
UNINCORPORATED MIAMI-DADE	RU-2	TWO-FAMILY RESIDENTIAL DISTRICT, 7,500 FT2 NET	7500	10.4		75	2	No	RSF	30	556.12
UNINCORPORATED MIAMI-DADE	RU-3	FOUR-UNIT APARTMENT DISTRICT, 7,500 FT2 NET	7500	23	0.75	75	3	No	RMF	40	29.03
UNINCORPORATED MIAMI-DADE	RU-3B	BUNGALOW COURT DISTRICT, 10,000 FT2 NET	10000	23		100	3	No	RMF	40	111.16
UNINCORPORATED MIAMI-DADE	RU-3M	MINIMUM APARTMENT HOUSE 12.9 UNITS / NET ACRE	16884	12.9	0.5	100	2	No	RMF	30	1.35
UNINCORPORATED MIAMI-DADE	RU-4	HIGH-DENSITY APARTMENT HOUSE DISTRICT, 50 UNITS / NET ACRE	10000	50	2	100	2	No	RMF	40	48.63
UNINCORPORATED MIAMI-DADE	RU-4A	RU-4A RU-4 OR HOTEL/MOTEL DISTRICT, 75 UNITS / NET ACRE	10000	50		100	2	No	RMF	40	0.90
UNINCORPORATED MIAMI-DADE	RU-4L	LIMITED APARTMENT HOUSE DISTRICT, 23 UNITS / NET ACRE	10000	23	0.9	100	6	No	RMF	30	1.52
UNINCORPORATED MIAMI-DADE	RU-5	SEMI-PROFESSIONAL OFFICES AND APARTMENT DISTRICT	10000	23	0.6	100	2	Yes	RO	40	0.32
											6,973.68

Table 10 - Assisted Living/Affordable Housing Facilities in the North Corridor

	Development	Address	City	State	Zip Code	Housing Type	Total Units	Assisted Units	Target Population	Year Built	Owner Type
1	LeJeune Gardens	1190 SE 8th Avenue	Hialeah	Florida	33010	Extremely Low Income; Predevelopment Loan Program; SAIL	18	18	Family; Persons w/Disabilities	not available	Non-Profit
2	Anchorage	2320 NW 62nd Street	Miami	Florida	33147	Housing Credits 4%; State Bonds	22	22	Family	2013	For-Profit
3	Brownsville Transit Village II	5225 NW 29th Avenue	Miami	Florida	33142	Exchange	100	100	Elderly; Family	2011	For-Profit
4	Brownsville Transit Village III	5275 NW 29th Avenue	Miami	Florida	33142	Exchange; Housing Credits 9%	103	103	Elderly; Family; Link	2011	For-Profit
5	Brownsville Transit Village IV	2704 NW 52nd Street	Miami	Florida	33142	Exchange; Housing Credits 9%	102	102	Family; Link	2011	For-Profit
6	Covenant Palms	8400 NW 25th Avenue	Miami	Florida	33147	Rental Assistance/HUD; Section 202 Direct Loan	137	136	Elderly	not available	Non-Profit
7	Eagle's Landing	18800 NW 27th Avenue	Miami	Florida	33056	Housing Credits 9%	321	321	Family	2000	For-Profit
8	Everett Stewart Sr. Village	5255 NW 29th Avenue	Miami	Florida	33142	Exchange; Extremely Low Income	96	96	Family	2011	For-Profit
9	Hampton Village	2800 NW 43rd Terrace	Miami	Florida	33142	Housing Credits 4%; Local Bond	100	100	Family	not available	For-Profit
10	Kings Terrace	12555 NW 27th Avenue	Miami	Florida	33169	Housing Credits 4%; State Bonds; State HOME	300	300	Family	not available	For-Profit
11	Mildred and Claude Pepper Tower	2350 NW 54th Street	Miami	Florida	3312	Exchange; Housing Credits 9%; Rental Assistance/HUD; Section 221(d)(4) MKT	151	150	Elderly; Family; Link	1980	For-Profit
12	Northside Transit Village I	3101 NW 77th Street	Miami	Florida	33147	Housing Credits 4%; Local Bonds	100	100	Family	not available	For-Profit
13	Palm Lake	2575 NW 115th Street	Miami	Florida	33167	Housing Credits 4%; Local Bonds	300	300	Family	1967	For-Profit
14	Pinnacle Heights	3530 & 3586 NW 36th Street	Miami	Florida	33142	Housing Credits 9%	105	105	Family; Link	not available	For-Profit
15	Pinnacle Plaza	3650 NW 36th Street	Miami	Florida	33142	Housing Credits 9%	132	132	Family	2009	For-Profit
16	Scott Carver IIA - IIB	2341 NW 74th Street	Miami	Florida	33147	Housing Credits 4%; Local Bonds	220	220	Family	not available	For-Profit
17	Scott Carver IIC	7343 NW 23rd Court	Miami	Florida	33147	Housing Credits 4%; Local Bonds; Public Housing	134	134	Family	not available	For-Profit
18	Scott Carver Phases 2a & b	2144 NW 75th Street	Miami	Florida	33147	Public Housing	220	110	not available	not available	Public Housing Authority
19	Site 120	2200 NW 54th Street	Miami	Florida	33142	Public Housing	268	265	not available	1975	Public Housing Authority
20	Site 140	2440 NW 63rd Street	Miami	Florida	33147	Public Housing	599	597	not available	1966	Public Housing Authority
21	Site 190	2404 NW 64th Street	Miami	Florida	33147	Public Housing	248	245	not available	not available	Public Housing Authority
22	Valencia Pointe	7755 NW 27th Avenue	Miami	Florida	33147	Extremely Low Income; Housing Credits 4%; SAIL; State Bonds	148	148	Family	2009	For-Profit
23	Ward Towers Assisted Living Facility	5301 NW 23rd Avenue	Miami	Florida	33142	Housing Credits 4%; Local Bonds; Public Housing	100	100	Elderly; Family	1975	For-Profit
24	Westview Garden	2341 NW 119th Street	Miami	Florida	33167	Housing Credits 9%	160	160	Elderly; Family	2000	For-Profit
25	Pelican Cove - Miami Gardens	2460 NW 185th Terrace	Miami	Florida	33056	Housing Credits 4%; State Bonds; State HOME	112	112	Family	not available	For-Profit
26	135th Street Apartments	2860 NW 135th Street, Apt 117	Opa-Locka	Florida	33054	Rental Assistance/HUD	65	64	Family	1968	For-Profit
27	Archbishop McCarthy Residence	13201 NW 28th Avenue	Opa-Locka	Florida	33054	Rental Assistance/HUD; Section 207/223(f)	114	113	Elderly	not available	Non-Profit
28	Aswan Village	13105 NW 30th Avenue	Opa-Locka	Florida	33054	Housing Credits 4%; Local Bond; SAIL	216	216	Family	2003	Non-Profit
29	Crossings at University	18740 NW 27th Avenue	Opa-Locka	Florida	33056	Housing Credits 4%; State Bonds	320	320	Family	1999	For-Profit
30	Lock Towns Ind. Living Apartments	2351 NW 135th Street	Opa-Locka	Florida	33054	Rental Assistance/HUD; Section 202 Direct Loan	20	20	Persons w/Disabilities	1995	Non-Profit
31	Royal Palm Apartments	2375 Opa-Locka Blvd	Opa-Locka	Florida	33054	Rental Assistance/HUD; Section 202 Capital Advance	100	99	Elderly	2006	Non-Profit

FIGURE 11-A: ASSISTED/AFFORDABLE LIVING FACILITIES MAP – SECTION A



SOURCE: SHIMBERG CENTER FOR HOUSING STUDIES, UNIVERSITY OF FLORIDA

Figure 11-B: Assisted/Affordable Living Facilities Map – Section B

SOURCE: SHIMBERG CENTER FOR HOUSING STUDIES, UNIVERSITY OF FLORIDA

3.1.5 Corridor Subareas

3.1.5.1 Opa-Locka
Opa-Locka's portion of the North Corridor is primarily residential (51.9%) and industrial (22.5%), with a small commercial strip. The latter accounts for its smaller commercial use area (8.4%). About two (2) percent of the area in Opa-Locka's segment of the overall Corridor is vacant land.

3.1.5.2 Miami Gardens
The Miami Gardens segment of the North Corridor is approximately one-third of the Corridor's area. About 52 percent of this segment is residential, consisting of low-density, single-family, detached housing. The next highest uses are commercial (23.2%), which includes the Hard Rock Stadium, and institutional (8.2%). More than 90% of all townhouses, and more than half of all commercial uses in the entire North Corridor are located within Miami Gardens.

3.1.5.3 Miami Springs
Though only one (1.0) percent of the overall area, the Miami Springs portion has close to half the acreage of transient, residential housing (hotels-motels) of the entire Corridor. This can be explained by the area's proximity to the MIC and Miami International Airport (MIA). Overall, the land uses in this portion of the corridor accommodate jobs and out-of-town visitors.

3.1.5.4 City of Miami
The City of Miami accounts for 5% of the overall Corridor area; it is a mix of low-density residential, commercial, and preserved lands near Metrorail.

3.1.5.5 Hialeah
Hialeah's portion of the corridor is 2.2% and is predominantly industrial.

3.1.5.6 Unincorporated Miami-Dade County
Unincorporated Miami-Dade County accounts for more than half (53%) of the study area. Low-density housing represents approximately a third of the land uses within the Corridor area. The next two highest uses are institutional (13.7%) and industrial (10.9%). Commercial and office uses provide a minor portion (7.4%) of the land uses within unincorporated Miami-Dade County segment of the North Corridor, which is approximately 11% vacant land.

As planned, future lands use in the Corridor are expected to be very similar to those that exist today, both in type and in levels of use intensity **(See figures 10, 10A and 10B)**.

3.1.6 Community Redevelopment Areas

3.1.6.1 NW 79th Street Community Redevelopment Agency
The Community Redevelopment Agency (CRA) south boundary along NW 27th Avenue is Martin Luther King Boulevard (NW 62nd Street) and the north boundary is NW 86th Terrace. The existing zoning breakdown is 54% residential, 24% commercial and 21% industrial. The mix of land use within the area will require reconfiguration, as uses that are generally incompatible with each other, such as junkyards in the vicinity of residential designed parcels. The majority of the residents in the area are Black or African American (74%), and households below poverty are 49% (35% make less than $10,000 and 70% make less than $35,000). Median income was $16,448, less than half of the County median (2014). Homeownership in the CRA is 39%, almost 20% lower than the County rate. Conversely, the renter rate is higher than the County's overall rate. The area is densely populated. There is a higher number of persons per household (3.4) than the County (2.9), and overcrowded units (36%) exceed the County Rate of 20%. The area contains conditions that erode the quality of life. Vacant land comprises twenty (20) percent of the area

and is scattered throughout, making it difficult to assemble parcels. Vacant lots are used for illegal dumping, are not maintained, and attract vermin. Nine (9) percent of the parcels with residential structures are deteriorating and dilapidated. There is inadequate and outdated building density; average residential lot size is 0.14 acres. Almost one quarter of the dwellings units are mobile homes, all located next to industrial uses, and most are deteriorating and dilapidated. A significant number of undersized units exists. Crime in the area is six (6) times higher than the County, and Building Code violations are three times as high as the County rate; violations were mostly for junk, trash and overgrown grass, abandoned property and minimum housing maintenance. The Northside Shopping Center, located at the corner of NW 79th and NW 27th Avenue, is a significant commercial center for the area. The vacancy rate in the Center is 34 percent. Forty (40) percent of all commercial land in the Corridor is vacant. There is a lack of existing office uses, and office zoning (14 parcels, out of 3,413). (Sources: US Census American Factfinder, NW 79th Street Community Redevelopment Agency Findings of Necessity Report).

3.1.6.2 Opa-Locka Community Redevelopment Agency

NW 27th Avenue runs through the City of Opa-Locka for several miles; however, the area considered as part of the CRA is bounded on the south by Burlington Street, and on the north by NW 151st Street. The City population has remained the same for the last 20 years. The ethnic make-up of the City is primarily African-American (97%), with a growing Hispanic population. This area has the highest concentration of minorities in Miami-Dade County.

Opa-Locka is a predominately low-income community. The median household income is half that of the County; 32% of families in Opa-Locka live below the poverty level. The housing stock is older; nearly all homes are over 25 years old, and over a third of the units are more than 50 years old. Thirty percent (30%) of the households are considered in substandard condition, and approximately 1,420 units in the City are overcrowded. Most of the housing units are in disrepair and decaying, many of the units are either unsanitary or unsafe. Despite relatively low housing costs, most of the City's residents still cannot afford to live in the community, approximately 3,000 households were cost-burdened and homeownership rates are only 36%. Crime is a serious factor for the City; in 2003 and 2004 the FBI ranked Opa-Locka as the most dangerous city of its size.

There are 190 vacant parcels in the CRA (more than half of all vacant property in the City) and many of the uses are incompatible or outdated. Heavy industrial abuts residential. Flooding has become a major issue in the City. The drainage system throughout the City must be updated, as well as the water pipes and meter systems. Other infrastructure needing improvements are roadways, curbs, gutters and swales. Roads have potholes and standing water, and many lack sidewalks (a survey identified 100,000 linear feet of new sidewalk is needed). Thirty (30) percent of the households are without an automobile, and residents rely heavily on the public transit system. (Sources: US Census American Factfinder, Opa-Locka Community Redevelopment Agency Findings of Necessity Report).

3.1.6.3 Miami Gardens Community Redevelopment Agency

The NW 27th Avenue subarea in Miami Gardens is between NW 215th Street (County Line Road) and SR 826 (Palmetto Expressway). It is bounded by NW 47th Avenue to the west and includes properties north of the Snake Creek Canal, excluding the residential area between NW 37th Avenue north of NW 207th Street and NW 27th Avenue, and Calder Race Course and Casino to the east.

Residential uses comprise 18% of the land in the area, evenly divided between single-family and multi-family. Commercial uses comprise 38%, while industrial uses are 10% of the area. The demographic make-up for the study area consists of 74% Black, 20% Hispanic, 2% White and 2% Other. The median household income for the study area is $45,000, which is 10% lower than Miami-Dade County. While 21% of the population is below the poverty level, Miami Gardens has

a slightly higher education attainment rate than the County. The area is densely populated, and homes are overcrowded. There is a higher number of persons per household rate (3.5) than the County (2.9) and overcrowded units (23%) exceed the County (20%). The majority of the structures in the study area were constructed between 1950 and 1970. There are 10 unsafe structures in the study area and numerous abandoned buildings, especially on major corridors. The area has faulty lot layouts, consisting of smaller parcels with poor vehicular access and reduced frontage resulting from widening of corridors. Residential and commercial vacancy rates (20%) are higher in the study area than the County. Twenty (20) percent of the City's code violations, mostly relating to junk and trash, are within the study area. There is approximately one (1) crime per acre in the study area, compared to one (1) crime per three (3) acres citywide. The infrastructure is in a deteriorating condition, including insufficient drainage, damaged swales, and crumbling sidewalks. (Sources: US Census American Factfinder, Miami Gardens Community Redevelopment Agency Findings of Necessity Report).

3.1.7 Local Value

The 2016 assessed taxable value of all properties in the North Corridor study area is approximately $4 billion (Miami-Dade Property Appraisers). The market value of properties within the North Corridor is $4.6 billion.

Three CRAs provide for Tax-increment Financing (TIF) for local governments. The 2016 assessed taxable value of the North Corridor parcels within these CRAs is $1.6 Billion.

3.1.8 Existing Building-To-Land Ratio

Parcels in the North Corridor study area vary in building-to-land ratios from 0 (vacant, no buildings) to 4.86.

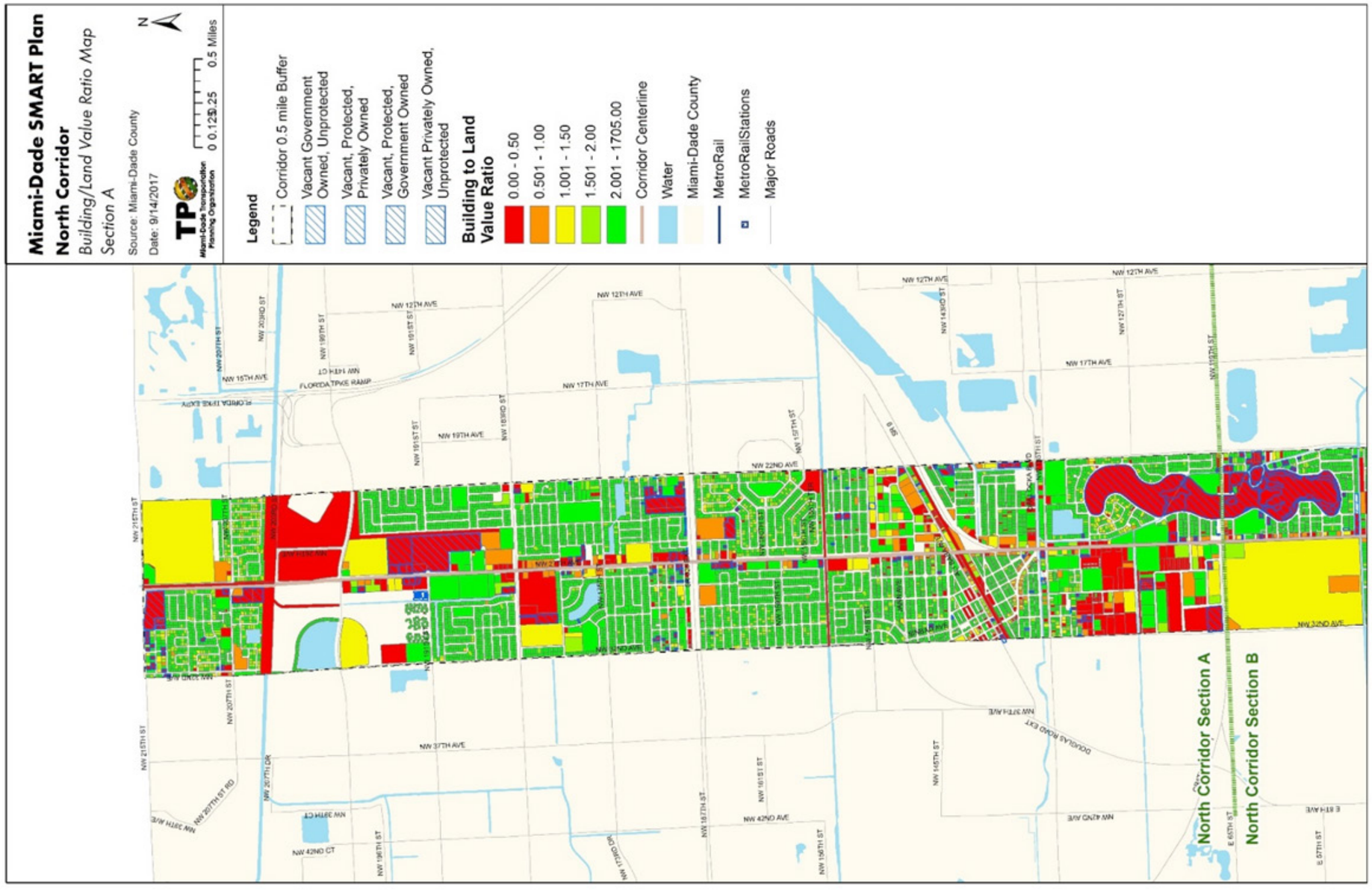
The study area's Floor-Area Ratio (FAR), excluding vacant parcels, averages 0.24, indicating low density. Less than 1% of all parcels within the North Corridor have a FAR of at best 1:0, with only 19 of almost 20000 parcels at or above a 1.5 FAR.

FARs provide a measure of "use density." Generally, transit-supportive settings in a suburban area have a minimum FAR of 2, with FARs of 3+ in denser urban settings.

3.1.9 Vacant Parcels and Building-To-Land Value Ratios

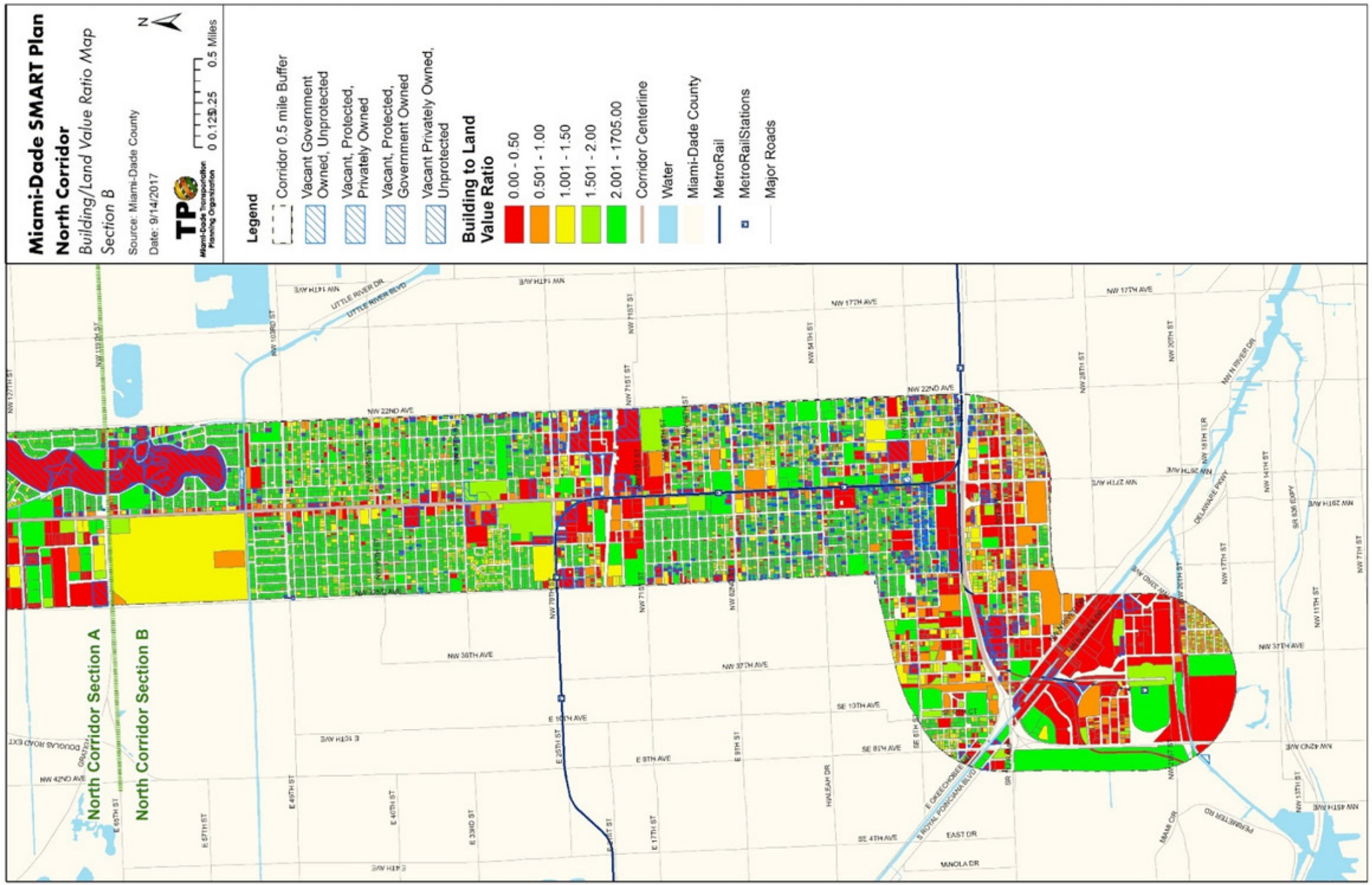
The Building-to-Land Value ratio serves as a measure of existing conditions for fulfilment of market potential. A low ratio indicates potential for redevelopment, and, in conjunction with an inventory of vacant parcels, provides insight into potential land bank and assembly opportunities. About 3,000 acres, or 35% of the Corridor, has a Building-to-Land Value ratio of 1.5 or less and could be considered land for future redevelopment. Figures 12-A and 12-B depict the location of these parcels, as well as the location of the vacant parcels within the Corridor. Parcels noted as red, orange, and yellow may be underutilized. Vacant parcels are colored red due to the lack of buildings on the site. However, not all red sites are underutilized. Some vacant parcels may be dedicated to conservation or parks; they need further evaluation of redevelopment potential.

FIGURE 12-A: BUILDING/LAND VALUE RATIO MAP – SECTION A



SOURCE: MIAMI-DADE PROPERTY APPRAISER, MIAMI-DADE COUNTY, THE CORRADINO GROUP

Figure 12-B: Building/Land Value Ratio Map – Section B



SOURCE: MIAMI-DADE PROPERTY APPRAISER, MIAMI-DADE COUNTY, THE CORRADINO GROUP

3.1.10 LOCAL POINTS OF INTEREST

3.1.10.1 Educational Facilities

Over three dozen educational facilities are located within the North Corridor **(Table 11)**. Miami-Dade College's North Campus is located within the corridor. Other educational facilities include four libraries, and public and private K-12 schools.

Table 11 - Education Facility in North Corridor

EDUCATIONAL FACILITY	
New Birth Baptist Church School	Crestview Elementary School
Small Kids Christian Academy	Lorahpark Elementary School
New Life Christian Academy	Miami-Dade Cnty Library-North Dade Regional
Dr Robert B Ingram Elementary School	Earlington Heights Elementary School
Miami-Dade Library-Model City Branch	Mount Hermon Community Education
Nathan B Young Elementary School	Brownsville Middle School
Brentwood Elementary School	500 Role Model Academy
Poinciana Park Elementary School	Myrtle Grove Elementary School
Parkway Middle School	Miami Park Elementary School
Golden Glades Elementary School	School for Advanced Studies
Dyma Kids Academy	West Little River Elementary School
Robert J Renick Educational Center	Windsor Academy
Melrose Elementary School	Bunche Park Elementary School
Miami-Dade North Central Library	Grace Academy International
Ombudsman Educational Services	Academy of Knowledge Preschool
Troy Foundation	Emmanuel Kin Dergar Ten School
Miami Dade College-North	Richard Allen Leadership Academy
Sprouting to Success	Rivercities Community Charter School
Opa-Locka Branch Library	

SOURCE: FLORIDA DEPARTMENT OF TRANSPORTATION

3.1.10.2 Civic Facilities

Two police stations, one post office, the Miami Gardens City Hall, and the Opa-Locka City Hall are located within the North Corridor. No hospitals are in the Corridor.

3.1.10.3 Parks and Entertainment

Over two dozen parks and entertainment facilities are located in the North Corridor **(Table 12)**. These include 16 parks, one theater at Miami-Dade College/North Campus. Hard Rock Stadium is a major destination at the north end of the North Corridor, along with Calder Casino. At the south end of the Corridor is the Miami Jai-Alai facility.

Table 12 - Parks and Entertainment Facilities in North Corridor

Rocky Creek Park	International Links Miami-Melreese
Betty T Ferguson Recreation Complex	Joe Robbie Stadium
Brentwood Park	Lehman Theater
Brentwood Pool	Little River Park
Brownsville Park	Marva Y Bannerman Park
Buccaneer Park	Melrose Park
Bunche Park	Miami Jai-Alai
Calder Race Course	Myrtle Grove Park
Claire Rosichan Park	Northwest Highlands Park
Dolphin Center Park	Pro Player Stadium
Gladeview Park	Segal Park
Glenwood Park	Southeast Park
Hard Rock Stadium	West Little River Park

SOURCE: FLORIDA DEPARTMENT OF TRANSPORTATION

3.1.10.4 County-Owned Parcels

About five dozen parcels within the Corridor are owned by the County and could potentially be used for future corridor development **(Table 13)**.

Table 13: County-Owned Parcels

Map Number	Folio Number	ON Street	Closest Major Intersection	Size of Parcel (square feet)	Geometric Potential	Commission District	City/ Unincorporated	Current Zoning	Developed or Vacant	Property Type/Notes
1	3031200180519	Airport Expy	Airport Expy & US 27	3,188	na	2	Unincorporated	IU-1	NA	ROW/ Appears to be under Metrorail
2	3031200180580	Airport Expy	Airport Expy & US 27	2,100	NA	2	Unincorporated	IU-1	NA	ROW/ Appears to be under Metrorail
3	3031210001509	Airport Expy	Airport Expy & US 27	9,728	NA	2	Unincorporated	IU-2	NA	Miami Intermodal Center/ Appears to be under Metrorail
4	3031210001209	Airport Expy	Airport Expy & US 27	17,765	NA	2	Unincorporated	IU-2	NA	Miami Intermodal Center/ Appears to be under Metrorail
5	3031210001269	Airport Expy	Airport Expy & US 27	14,607	NA	2	Unincorporated	IU-2	NA	Miami Intermodal Center/ Appears to be under Metrorail
6	3031210001259	Airport Expy	Airport Expy & US 27	6,653	NA	2	Unincorporated	IU-2	NA	Vacant Land/ Appears to be under Metrorail
7	3031210000901	Airport Expy	Airport Expy & US 27	30,057	NA	2	Unincorporated	IU-2	Vacant	Not determined/ Appears to be under Metrorail
8	3031210440010	Airport Expy	Airport Expy & US 27	127,270	P-N-R/Station	2	Unincorporated	IU-2	Vacant	Not determined/ Vacant Lot
9	3031210001316	NW 27th Ave	NW 27th & Airport Expy	36,162	Stop/Station	3	Unincorporated	MCUCD	Developed	Improved Property/ Looks like new public housing
10	3031210230400	NW 4th St	NW 27th Ave & NW 46th St	8,968	NA	3	Unincorporated	MCUCD	Vacant	Vacant Land/ behind vacant parcel on 27th
11	3031220150140	NW 27th Ave	NW 27th Ave & NW 46th St	2,250	Stop/Station	3	Unincorporated	MCUCD	Developed	Vacant Land/ 1 of 10 adjacent parcels
12	3031220150150	NW 27th Ave	NW 27th Ave & NW 46th St	2,250	Stop/Station	3	Unincorporated	MCUCD	Developed	Vacant Land/ 2 of 10 adjacent parcels
13	3031220150040	NW 27th Ave	NW 27th Ave & NW 46th St	2,250	Stop/Station	3	Unincorporated	MCUCD	Developed	Vacant Land/ 3 of 10 adjacent parcels
14	3031220150120	NW 27th Ave	NW 27th Ave & NW 46th St	6,300	Stop/Station	3	Unincorporated	MCUCD	Vacant	Vacant Land/ 4 of 10 adjacent parcels
15	3031220150110	NW 27th Ave	NW 27th Ave & NW 46th St	2,544	Stop/Station	3	Unincorporated	MCUCD	Vacant	Vacant Land/ 5 of 10 adjacent parcels
16	3031220600020	NW 27th Ave	NW 27th Ave & NW 46th St	11,130	Stop/Station	3	Unincorporated	MCUCD	Vacant	Vacant Land/ 6 of 10 adjacent parcels
17	3031220150050	NW 27th Ave	NW 27th Ave & NW 46th St	3,150	Stop/Station	3	Unincorporated	MCUCD	Vacant	Vacant Land/ 7 of 10 adjacent parcels
18	3031220150060	NW 27th Ave	NW 27th Ave & NW 46th St	3,150	Stop/Station	3	Unincorporated	MCUCD	Vacant	Vacant Land/ 8 of 10 adjacent parcels
19	3031220150070	NW 27th Ave	NW 27th Ave & NW 46th St	2,510	Stop/Station	3	Unincorporated	MCUCD	Vacant	Vacant Land/ 9 of 10 adjacent parcels
20	3031220600010	NW 27th Ave	NW 27th Ave & NW 46th St	11,025	Stop/Station	3	Unincorporated	MCUCD	Vacant	Vacant Land/ 10 of 10 adjacent parcels
21	3031210590011	NW 29th Ave	NW 27th Ave & NW 54th St	47,526	Stop/Station	3	Unincorporated	MCUCD	Developed	New Multi-family Housing connected to Station

Table 13: County-Owned Parcels (Continued)

Map Number	Folio Number	ON Street	Closest Major Intersection	Size of Parcel (square feet)	Geometric Potential	Commission District	City/ Unincorporated	Current Zoning	Developed or Vacant	Property Type/Notes
22	3031210590015	NW 27th Ave	NW 27th Ave & NW 54th St	159,622	Stop/Station	3	Unincorporated	MCUCD	Developed	Existing Station Area
23	3031150500010	NW 27th Ave	NW 27th Ave & NW 62nd St	11,326	NA	2	Unincorporated	MCUCD	Developed	Not determined
24	3031150530010	NW 27th Ave	NW 27th Ave & NW 62nd Ave	346,189	P-N-R/Station	2	Unincorporated	MCUCD	Developed	Not determined/ Existing metro and bus station with parking facilities
25	3031160000040	NW 27th Ave	NW 27th Ave & NW 62nd Ave	20,117	Stop/Station	2	Unincorporated	MCUCD	Developed	Vacant Land/ Parking and existing transit stop at park
26	3031160000070	NW 62nd Ave	NW 27th Ave & NW 62nd Ave	30,092	Stop/Station	2	Unincorporated	MCUCD	Developed	Vacant Land/ Parking and park
27	3031160000061	NW 27th Ave	NW 27th Ave & NW 62nd Ave	4,150	Stop/Station	2	Unincorporated	MCUCD	Developed	Not determined/ Part of Metro Station Area
28	3031160000051	NW 27th Ave	NW 27th Ave & NW 62nd Ave	78,843	Stop/Station	2	Unincorporated	NCUAD	Developed	Fire Station
29	3031160000050	NW 27th Ave	NW 27th Ave & NW 62nd Ave	220,205	P-N-R/Station	2	Unincorporated	NCUAD	Developed	Affordable Housing Rentals/ Large Parking Area/Google earth shows BAC funding corporation with freight vehicles present
30	3031160000012	NW 27th Ave	NW 27th Ave & NW 62nd Ave	35,525	Stop/Station	2	Unincorporated	NCUAD	Developed	Park/ Parking for County Boxing Center
31	3031160000011	NW 27th Ave	NW 27th Ave & NW 62nd Ave	24,570	Stop/Station	2	Unincorporated	NCUAD	Developed	Park/ County Boxing Center
32	3031100730020	NW 27th Ave	NW 27th Ave & NW 79th Ave	63,336	P-N-R/Station	2	Unincorporated	NCUAD	Vacant	Vacant Land
33	3031100730030	NW 75th St	NW 75th St & NW 25th Ave	74,008	P-N-R	2	Unincorporated	NCUAD	Developed	Vacant Land/New facility there
34	3031100730040	NW 74th St	NW 75th St & NW 25th Ave	75,533	P-N-R	2	Unincorporated	IU-2	Vacant	Vacant Land/ Not adjacent to rail corridor, 1 of 3 on NW 74th St
35	3031100730060	NW 74th St	NW 75th St & NW 25th Ave	136,476	P-N-R/Station	2	Unincorporated	IU-2	Vacant	Vacant Land/ Adjacent to rail corridor, 2 of 3 on NW 74th St
36	3031100730050	NW 74th St	NW 75th St & NW 25th Ave	77,450	P-N-R/Station	2	Unincorporated	IU-2	Vacant	Vacant Land/ Not adjacent to rail corridor, 3 of 3 on NW 74th St
37	3031090080070	NW 27th Ave	NW 27th Ave & NW 79th Ave	19,521	Stop/Station	2	Unincorporated	NCUAD	Vacant	Not determined
38	3031100730010	NW 27th Ave	NW 27th Ave & NW 79th Ave	50,747	P-N-R/Station	2	Unincorporated	NCUAD	Vacant	Vacant Land
39	3031090000675	NW 27th Ave	NW 27th Ave & NW 79th Ave	29,733	Stop/Station	2	Unincorporated	NCUAD	NA	Vacant Land
40	3031100020010	NW 27th Ave	NW 27th Ave & NW 79th Ave	213,008	Stop/Station	2	Unincorporated	NCUAD	Developed	Homeless Shelter
41	3031040032010	NW 27th Ave	NW 27th Ave & NW 95th St	24,840	Stop/Station	2	Unincorporated	NCUAD	Developed	Not Determined/ Library
42	3021340000081	NW 27th Ave	NW 27th Ave & NW 103rd St	1,572	NA	2	Unincorporated	NCUAD	Developed	ROW
43	821210072360	Opa Locka Blvd	Opa Locka Blvd & SR 916 W	3,758	Transfer Stop	2	Opa-Locka	B-2	Developed	ROW/ Awkward location but may provide a small station/transfer area
44	821220260010	NW 27th Ave	NW 27th Ave & NW 147th St	44,959	P-N-R/Station	1	Opa-Locka	I-1	Developed	Health Clinic/ Station potential high, vacant real estate across street also

Table 13: County-Owned Parcels (Continued)

Map Number	Folio Number	ON Street	Closest Major Intersection	Size of Parcel (square feet)	Geometric Potential	Commission District	City/ Unincorporated	Current Zoning	Developed or Vacant	Property Type/Notes
45	821220250590	NW 27th Ave	NW 27th Ave & NW 147th St	43,000	P-N-R/Station	1	Opa-Locka	I-2	Developed	Health Clinic/ Station potential high, vacant real estate across street also
46	821220250580	NW 27th Ave	NW 27th Ave & NW 147th St	43,000	P-N-R/Station	1	Opa-Locka	I-2	Developed	Health Clinic/ Station potential high, vacant real estate across street also
47	821220250540	NW 27th Ave	NW 27th Ave & NW 151st St	96,718	Stop/Station	1	Opa-Locka	I-2	Developed	Health Clinic
48	3421160021019	NW 27th Ave	NW 27th Ave & NW 152nd Ter	57,120	Stop/Station	1	Miami Gardens	GP	Developed	Fire Station
49	3421160130080	NW 27th Ave	NW 27th Ave & NW 159 St	23,532	Stop/Station	1	Miami Gardens	GP	Developed	Vacant Building/ Small structure, potential station or bus bay to split route
50	3421150000030	NW 25th Ave	Palmetto Expy & NW 27th Ave	213,444	NA	1	Miami Gardens	GP	Developed	Miami Gardens Neighborhood Service Center
51	3421150000010	NW 25th Ave	Palmetto Expy & NW 27th Ave	534,484	NA	1	Miami Gardens	GP	Developed	Miami Gardens Neighborhood Service Center
52	3421150020040	Palmetto Expy Ramp	Palmetto Expy & NW 27th Ave	375	Stop/Station	1	Miami Gardens	R-25	Vacant	ROW/ Potential Express Stops-very small
53	3421100080300	Palmetto Expy Ramp	Palmetto Expy & NW 27th Ave	3,673	Stop/Station	1	Miami Gardens	GP	Vacant	ROW/ Potential Express Stops-very small
54	3421100070810	NW 167th St	Palmetto Expy & NW 27th Ave	6,237	Stop/Station	1	Miami Gardens	R-1	Vacant	1 of 3 adjacent to 167th Ave
55	3421100070800	NW 167th St	Palmetto Expy & NW 27th Ave	4,235	Stop/Station	1	Miami Gardens	R-1	Vacant	2 of 3 adjacent to 167th Ave
56	3421100070780	NW 167th St	Palmetto Expy & NW 27th Ave	3,157	Stop/Station	1	Miami Gardens	R-1	Vacant	3 of 3 adjacent to 167th Ave
57	3421030010700	NW 27th Ave	NW 27th Ave & NW 187th St	40,000	Stop/Station	1	Miami Gardens	GP	Developed	Miami-Dade Fire Rescue Station
58	3421030290010	NW 27th Ave	NW 27th Ave & NW 187th St	272,686	Stop/Station	1	Miami Gardens	GP	Developed	Miami-Dade Police Station
59	3411340110040	NW 199th St	NW 27th Ave & NW 199th St	1,140,401	NA	1	Miami Gardens	R-15	Vacant	Vegetation Buffer
60	3411330030017	NW 27th Ave	NW 27th Ave & FL Turnpike	5,227	P-N-R/Station	1	Miami Gardens	R-15	Vacant	Vacant Land/ Large potential for transfer station and P-N-R
61	3411330030010	NW 27th Ave	NW 27th Ave & FL Turnpike	603,742	P-N-R/Station	1	Miami Gardens	R-15	Vacant	Not Determined/ Large potential for transfer station and P-N-R

SOURCE: MIAMI-DADE PROPERTY APPRAISER

3.2 ANALYSIS

3.2.1 Traffic/Level-Of-Service (Los)

The Florida Department of Transportation's (FDOT) analysis of traffic framework provides "a quantitative stratification of quality of service into six letter grades" based on a variety of factors to determine Level-of-Service (LOS). In doing so, automobile traffic counts are compared to calculated roadway capacities based on traffic lanes, speed limits, and a few other factors. Each road, or road segment, is then assigned a grade from A to F to designate no congestion (LOS A) to virtually grid lock LOS F). NW 27th Avenue is the main thoroughfare in the North Corridor and warrants a LOS analysis.

Data are available from the FDOT at 13 locations along NW 27th Avenue, typically in close proximity to major intersections. Based on these data points, the avenue was divided into 13 segments, with each data point representing each segment. Daily traffic volume totals of both lanes, peak hour traffic volumes of both lanes, and peak directional volumes were compared to FDOT LOS tables, and corresponding grades were determined for each segment. The findings are that: most of the southern section of NW 27th Avenue (from 36th Street to 119th Street) show low levels of congestion. The northern section (from 119th Street to 215th Street) is considered to be operating at LOS C, a high LOS. The middle section of 27th Avenue (from 46th Street to 103rd Street) has LOS D, or lower, and, therefore, has more congestion. Yet even this is acceptable in an urban environment. Nonetheless, with additional residents, workers, and commuters in the future, roadways will continue to see increased congestion.

Table 14 displays LOS along NW 27th Avenue.

TABLE 14: TRAFFIC LEVEL-OF-SERVICE ANALYSIS OF NW 27TH AVENUE

		Segment							
Road	Intersection (Loc)	From	To	24-Hour Combined	Grade	Combined Peak	Grade	Peak	Grade
NW 27th Avenue	36th Street (N)	36th Street	41st Street	33,933	C	2,758	C	1,545	C
NW 27th Avenue	41st Street (N)	41st Street	46th Street	33,505	C	2,530	C	1,608	C
NW 27th Avenue	54th Street (S)	46th Street	54th Street	33,144	E	2,463	D	1,536	D
NW 27th Avenue	62nd Street (N)	54th Street	75th Street	30,223	D	2,365	D	1,377	D
NW 27th Avenue	79th Street (S)	75th Street	87th Street	34,871	C	2,541	C	1,666	C
NW 27th Avenue	103rd Street (S)	87th Street	103rd Street	40,252	F	3,666	F	2,714	F
NW 27th Avenue	119th Street (S)	103rd Street	119th Street	46,410	C	3,491	C	2,218	C
NW 27th Avenue	119th Street (N)	119th Street	127th Street	42,430	C	3,419	C	1,937	C
NW 27th Avenue	Btw. Ali Baba (S) / SR 9 (N)	127th Street	151st Street	37,828	D	3,054	D	1,892	D
NW 27th Avenue	167th Street (S)	151st Street	167th Street	45,245	D	3,405	D	2,256	D
NW 27th Avenue	183rd Street (S)	167th Street	183rd Street	45,626	C	3,522	C	2,317	C
NW 27th Avenue	183rd Street (N)	183rd Street	199th Street	57,013	C	3,830	C	2,295	C
NW 27th Avenue	199th Street (N)	199th Street	203rd Street	54,801	C	3,652	C	2,073	C
NW 27th Avenue	215th Street (S)	203rd Street	215th Street	53,952	C	3,823	C	2,076	C

SOURCE: FLORIDA DEPARTMENT OF TRANSPORTATION, THE CORRADINO GROUP, INC.

3.2.2 PUBLIC PARKING

3.2.2.1 Existing Conditions

Within the North Corridor, there are currently no county-owned or -managed parking lots, facilities, or spaces. Streetside parking and shared parking (e.g. commercial or private property spaces) generally do not exist within the Corridor; no street parking is allowed on NW 27th Avenue, the main thoroughfare in the North Corridor.

At the airport end of the study area there are five lots; however, four are for air travelers. The fifth lot near the airport is operated by the South Florida Regional Transit Authority, and consists of 164 spaces, with bicycle parking on site. It serves as the park-and-ride lot for the Tri-Rail Hialeah Market Station. Parking at Miami Intermodal Station exists for day travelers on Tri-Rail. Most other lots and individual spaces are tied to their respective parcels, meaning that ownership or availability is subject to change, especially with future redevelopment. Local parking regulations will influence the amount of available parking in the Corridor in the future.

3.2.2.2 Future Plans

There are plans to construct a county-operated, park-and-ride lot in the northernmost portion of the Corridor. Unity Station – at the intersection of NW 27th Avenue and NW 215th Street – is planned to be constructed on a 14-acre parcel located at the southwest quadrant of the intersection. This transit station will include bus bays, passenger shelters, plus the park-and-ride lot; facilities are meant to match the county's upcoming plans to enhance bus transit along NW 27th Avenue. Remaining space on the parcel is recommended to be designated Community Urban Center (CUC), which allows for moderate- to high-intensity, mixed-use development (e.g. institutional, office, and retail uses that encourage pedestrian activity). The anticipated opening date for Unity Station is 2019.

3.2.3 Existing Transit

There are 32 bus routes that intersect with the North Corridor study area, although some only touch tangentially or briefly cross through the Corridor. They are categorized into Major Routes and Minor Routes. Categorization is a function of mileage within the Corridor, strategic spatial location (e.g. Airport, MIC), and service provided within the Corridor:

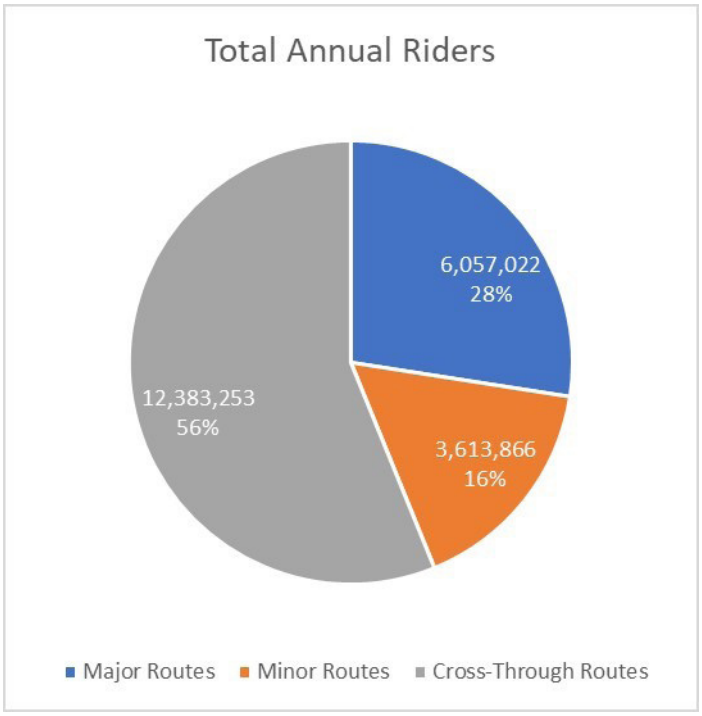
Major Routes:
Route 17 (SW 17th Avenue),
Route 27 (NW 27th Avenue),
Route 37 (37th Avenue),
Route 150 (Miami Beach Airport Flyer),
Route 254 (Brownsville Circulator),
And Route 297 (27th Avenue Orange Max).

Minor Routes:
Route 32 (NW 32nd Avenue)
Route 42 (Opa-Locka Tri-Rail)
Route 95 (I-95 Golden Glades Express)
Route 107 (125th Street)
Route 110 (Miami Beach via 36th Street)
Route 132 (Doral via 36th Street)
Route 135 (135th Street Crosstown)
Route 238 (East-West Connection)
Route 246 (Night Owl)
Route 338 (Weekend Express)

Total Riders

The total number of annual riders for all routes within the North Corridor was 22 million in 2016 **(Figure 13)**, down 8% from the prior year. The annual ridership for Major Routes was 6 million in 2016, down 6.5% from 2015. Annual riders by Minor Routes was 3.6 million in 2016, roughly 10% lower than in 2015.

Figure 13: Total Annual Riders



SOURCE: MIAMI-DADE DEPARTMENT OF PUBLIC WORKS AND TRANSIT

Peak Months

Trends show that November and December 2016, and March and June 2017, had the highest ridership across all routes **(Figures 14 and 15)**. The period from June – July showed low ridership; this may be due to either lower levels of school travel needs, higher temperatures, or a combination of these factors.

Figure 14: North Corridor Passenger Totals By Month

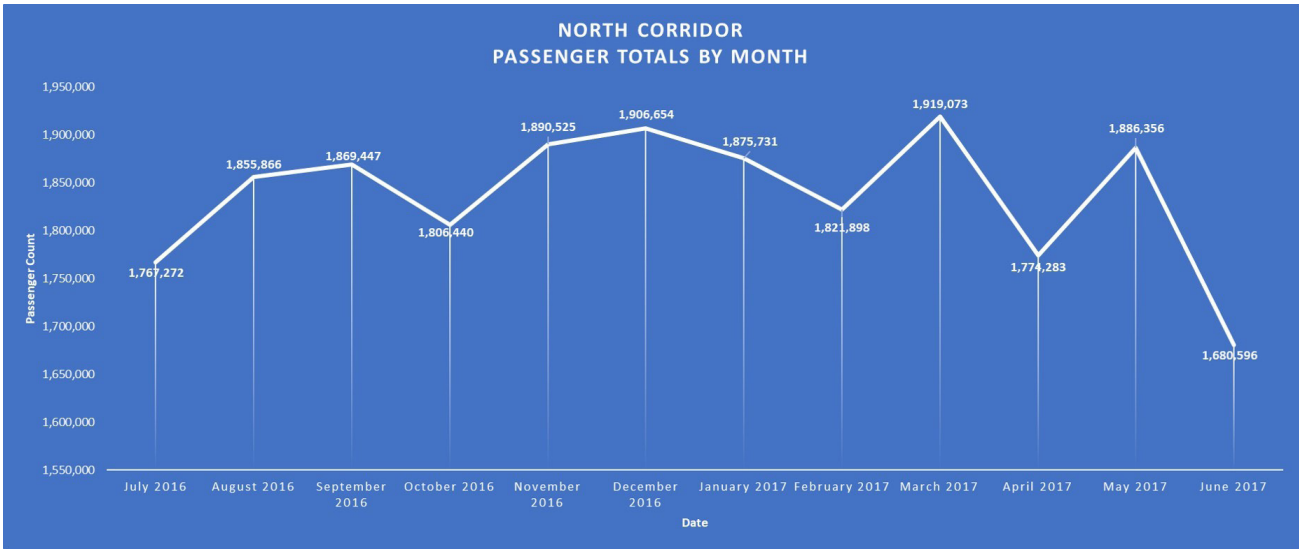
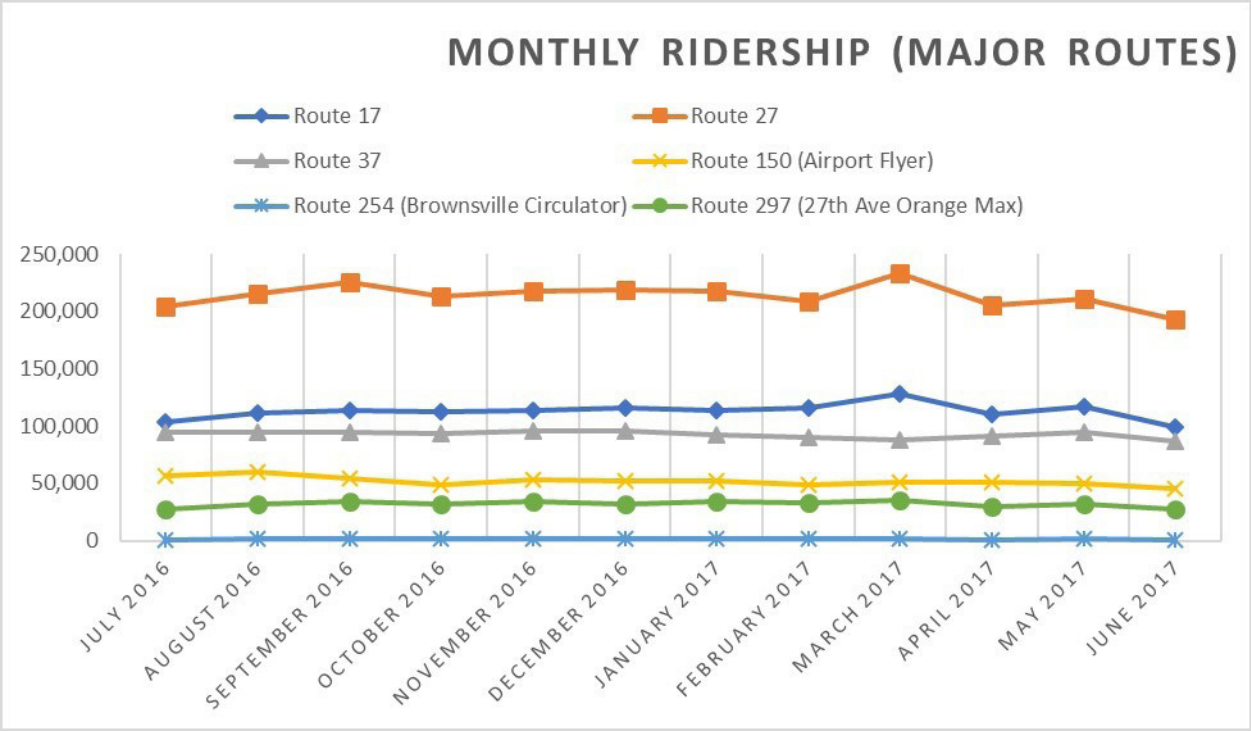


Figure 15: Monthly Ridership By Route



Ridership Days

About one-third of the routes within the North Corridor did not provide weekend (Saturday or Sunday) service. Routes providing weekday and weekend service tend to have higher ridership during the week than during the weekends. However, the Airport Flyer route had consistent ridership rates for Weekdays, Saturdays, and Sundays; the Weekend Express route only offered service on Saturdays and Sundays.

3.2.4 Planned Transportation Improvements (LRTP, TIP)

The North Corridor contains a number of projects in the Miami-Dade Transportation Improvement Program (TIP) (Table 8), and the Long-Range Transportation Plan (LRTP) (Table 9). Each of these plans ties projects to specific time period for implementation: the TIP ranges from 2016 – 2021; the LRTP from 2015 – 2040.

TABLE 14 - NUMBER OF PROJECTS WITHIN 1/2 MILE OF THE CORRIDOR (TIP)

Corridor	Boundaries		Fiscal Year					
	From	To	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	Total
North	MIC	NW 215th Street	26	21	14	15	11	87

TABLE 15 - NUMBER OF PROJECTS WITHIN 1/2 MILE OF THE CORRIDOR (LRTP)							
(Priority) Fiscal Year							
(1) 2015-2020	(2) 2021-2025	(3) 2026-2030	(4) 2031-2040	Total	(UF) Unfunded	(P) Partial (Private?)	Total (+UF +P)
7	9	14	5	35	20	3	58

3.2.5 Local Employment And Workforce

3.2.5.1 Employment 2015

Data from the Southeast Florida Regional Planning Model/Version 7 (SERPM 7) model provides employment data for the Traffic Analysis Zones (TAZs) intersecting the North Corridor (Table 14). Current employment is primarily retail and services-oriented, accounting for approximately one-third of the 23,000 jobs in the area. Industrial employment accounts for about one-sixth of all jobs in the Corridor; this is expected to increase as Amazon builds a new warehouse in Opa-Locka in the vicinity of the North Corridor.

TABLE 14 - NORTH CORRIDOR EMPLOYMENT FROM SERPM 7	
Self-Employed	0
Agriculture	28
Construction Non-Building Production	2901
Construction Non-Building Office Support	0
Utilities Production	14
Utilities Office Support	0
Construction of Buildings Production	0
Construction of Buildings Office Support	0
Manufacturing Production	2738
Manufacturing Office Support	0
Wholesale and Warehousing	2410
Transportation Activity	1980
Retail Activity	5225
Professional and Business Services	3232
Professional and Business Services (Building Maintenance)	0
Private Education K-12	0
Private Education Post-Secondary (Post K-12) and Other	90
Health Services	1556
Personal Services Office Based	2942
Amusement Services	1041
Hotels and Motels	811
Restaurant and Bars	2564
Personal Services Retail Based	0
Religious Activity	0
Private Households	0
State and Local Government Enterprise Activity	1759
Scrap Other	0
Federal Non-Military Activity	0
Federal Military Activity	0
State and Local Government Non-Education Activity Production	0
State and Local Government Non-Education Office Support	0
Public Education K-12 and Other	1570
Owner-Occupied Dwellings Management and Maintenance	0
Federal Government Accounts	0
State and Local Government Accounts	0
Capital Accounts	0
Total Employment	30815

SOURCE: SERPM 7, THE CORRADINO GROUP, INC.

3.2.5.2 Projected Employment (2040)

Employment in the Corridor is projected in SERPM 7 to increase from 30,815 to 89,976 by 2040, an increase of approximately 200%. The population is expected to grow at a more modest rate, from 111,908 in 2015 to 159,878 in 2040, an increase of approximately 43%.

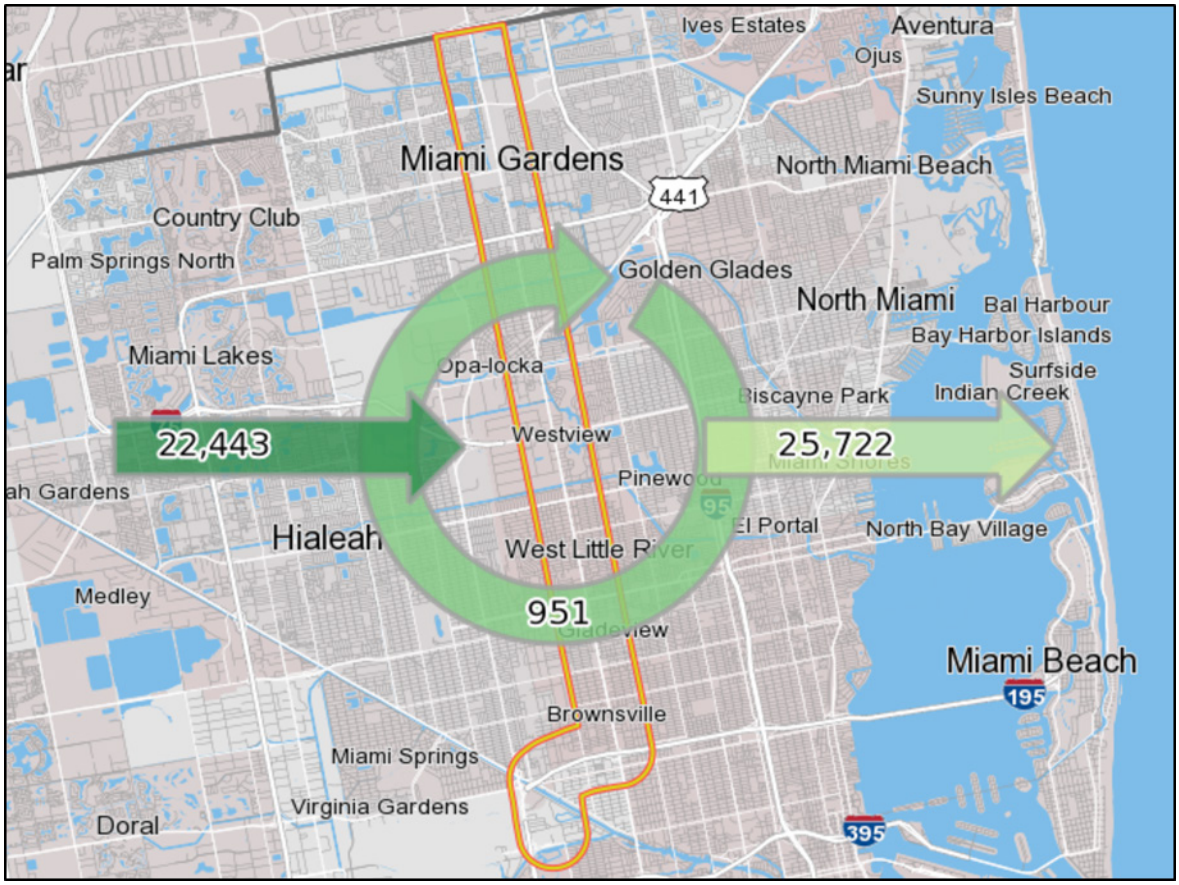
2040	
Households	55168
Population	159878
Employment	89976

2040	
HH Density	3.99
Pop Density	11.56
Employment Density	6.51

3.2.5.3 US Census LEHD Data – Origin/Destination (2014)

US Census Longitudinal Household-Employer Dynamic (LEHD) Data (2014) indicates that the study area is home to approximately 26,673 workers, of which 951 work within the Corridor and 25,722 work in other parts of the region. About 22,500 people live outside of the corridor and work within the corridor (Figure 14).

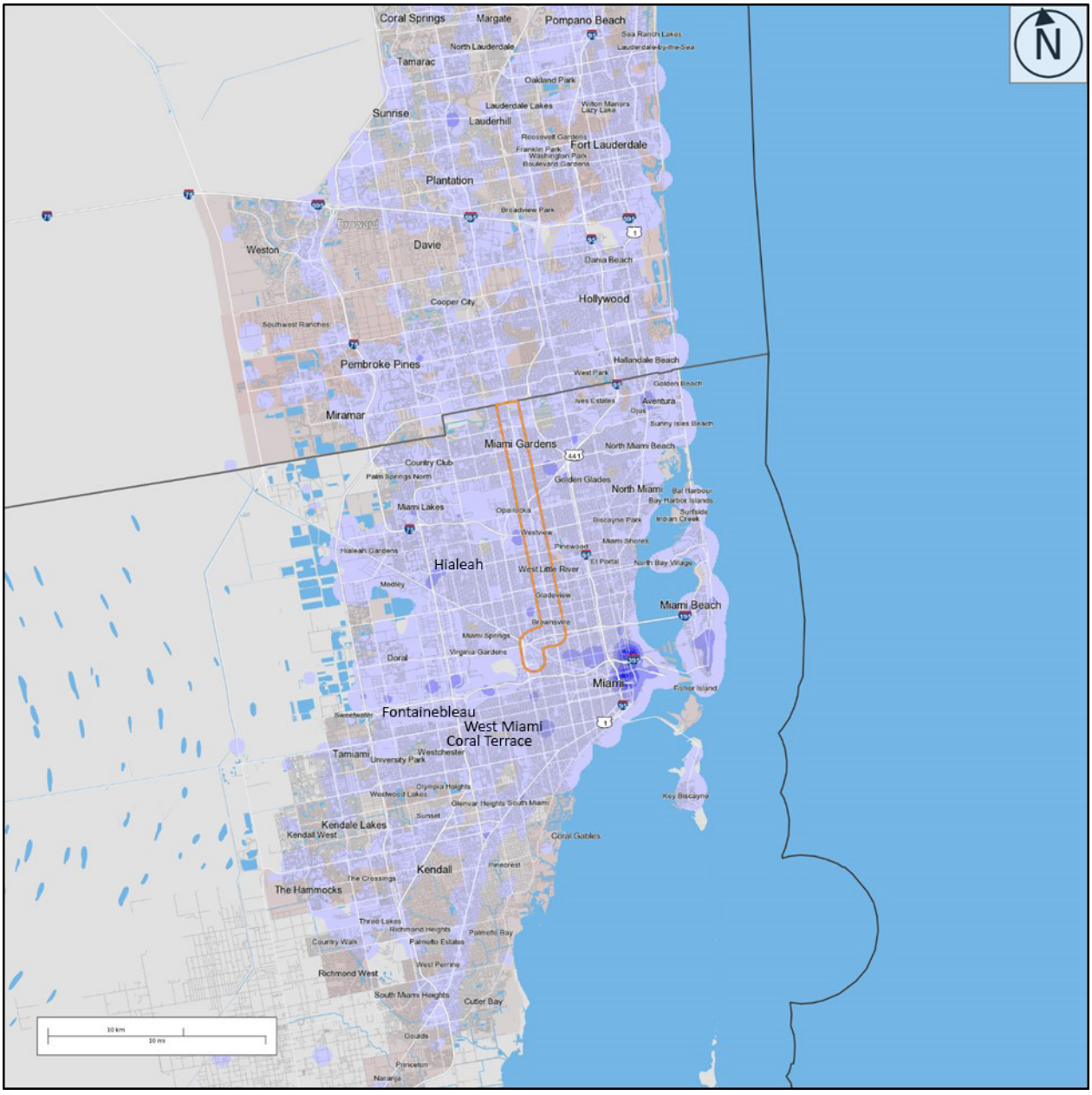
Figure 15 - INFLOW-outflow analysis



SOURCE: US CENSUS ONTHEMAP

Figure 16 shows the employment locations of the 26,673 workers who live within the North Corridor. Concentrations of employment are in Downtown Miami, Aventura, Miami Beach, and Doral's southeastern, industrial/warehouse districts.

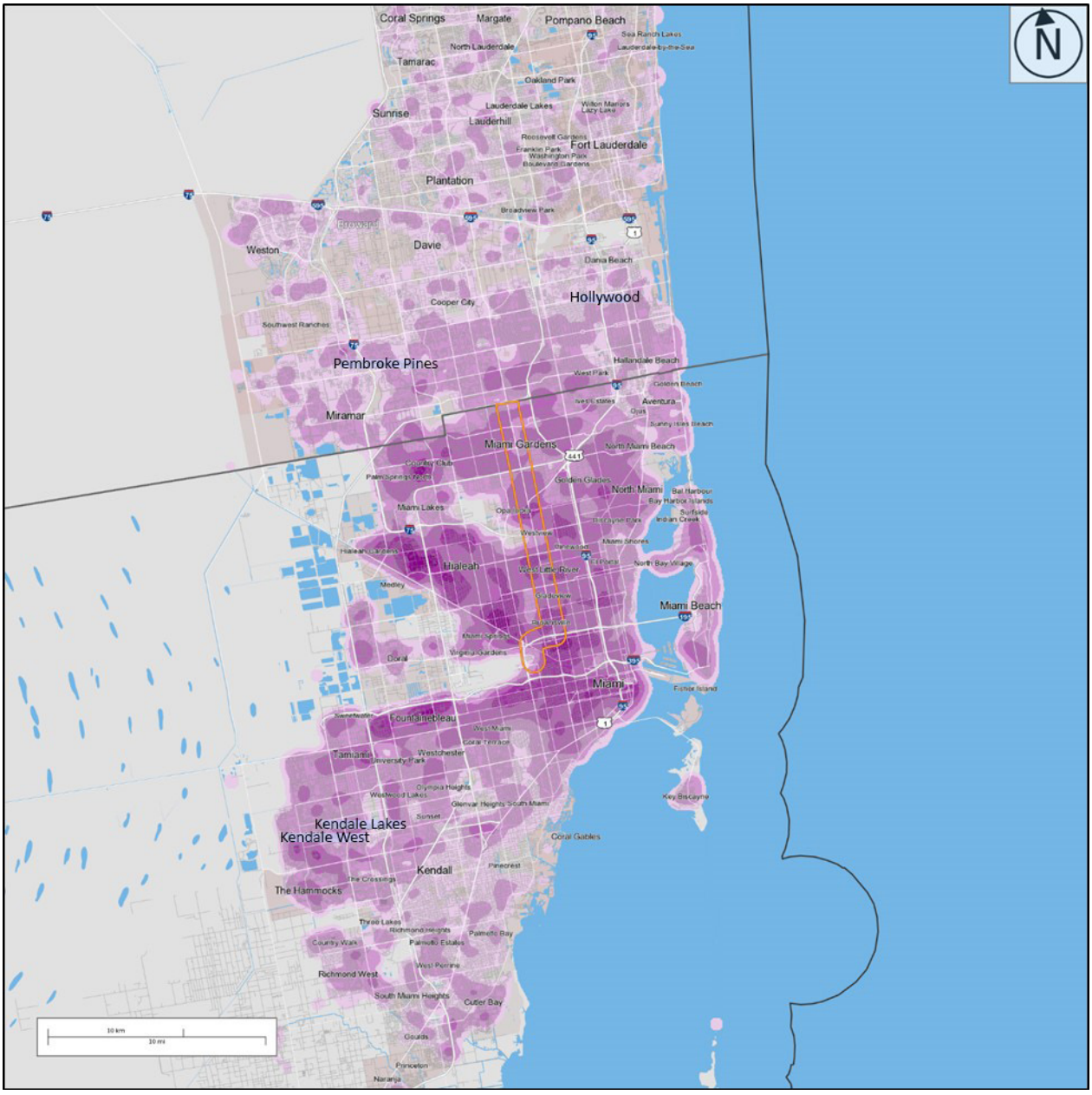
Figure 16: Work Locations For Working Residents Of The North Corridor



SOURCE: US CENSUS ONTHEMAP

Figure 17 illustrates the origins of the 23,394 workers who are employed within the North Corridor. These workers primarily originate in Hialeah, The City of Miami, Sweetwater, or the Fontainebleau area of unincorporated Miami-Dade County.

Figure 17: Home Locations For Workers Employed Within The North Corridor



SOURCE: US CENSUS ONTHEMAP

3.2.5.4 Job/Household Ratios and Linkages

Job-to-households ratios (Job/Household) provide one metric of evaluating whether trips can be local. Low Job/Household ratios (<1) generally indicate the need to travel outside of the area for work. A very high Job/Household ratio indicates travel into the area for work and may indicate a lack of residential development in the area. Florida Transit Oriented Development (TOD) guidelines for Job/Household ratios supportive of rapid transit have targets of a minimum of 1 job:1 household in suburban areas, 5 jobs:1 household in T4 Urban areas, and 10 jobs:1 household in T5/T6 urban areas **(Figure 18)**.

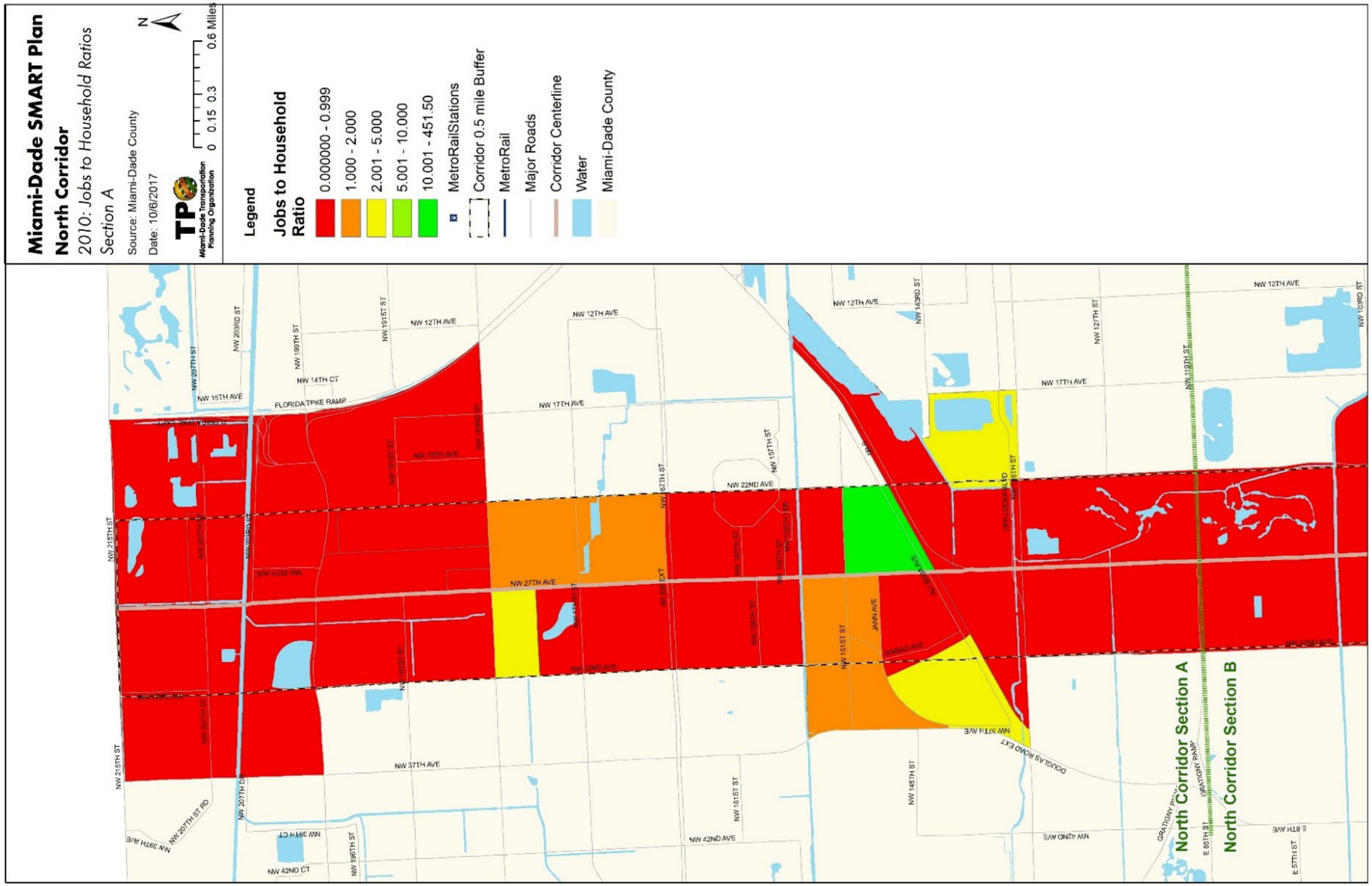
T4, T5 and T6 designate the general urban zone (T4), urban center zone (T5), and urban core zone (T6) typical of major metropolitan areas such as Miami-Dade County. Each T4 urban zone allows for transition between single-family development, typically found in more spread out, suburban developments (T3) and multi-family housing, as well as small neighborhood businesses. The North Corridor's current level of development and baseline levels of future development place it in the T4 category.

Figure 18: Urban Design Typology

SOURCE: TRANSECT.ORG

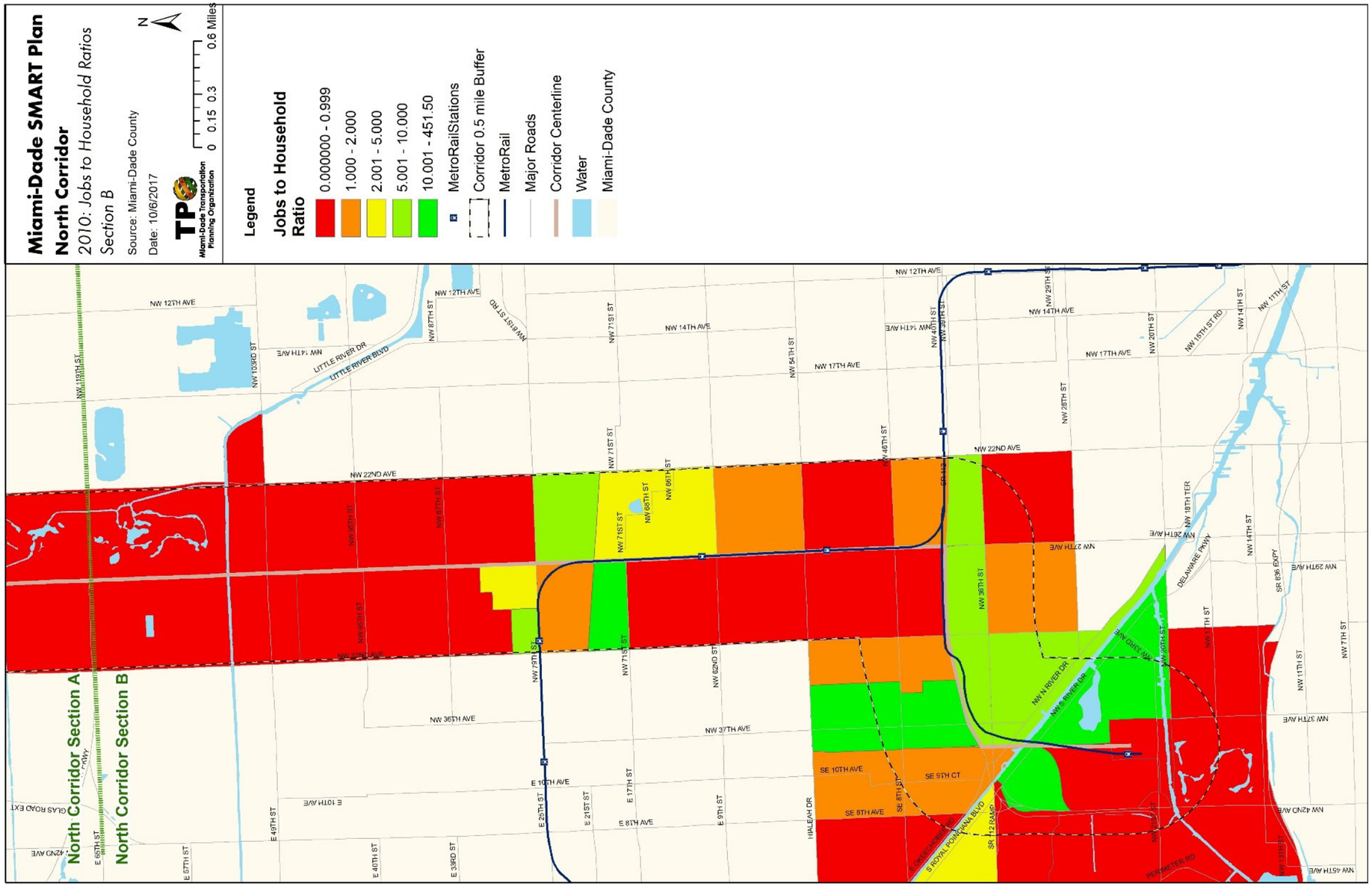
Figures 19-A and 19-B provide 2010 Job/Household ratios for the North Corridor by Traffic Analysis Zone (TAZ). Using this metric, 36% of the corridor is currently supportive of rapid transit; these areas are colored orange, yellow, or green.

FIGURE 19-A



SOURCE: SERPM 7, THE CORRADINO GROUP, INC.

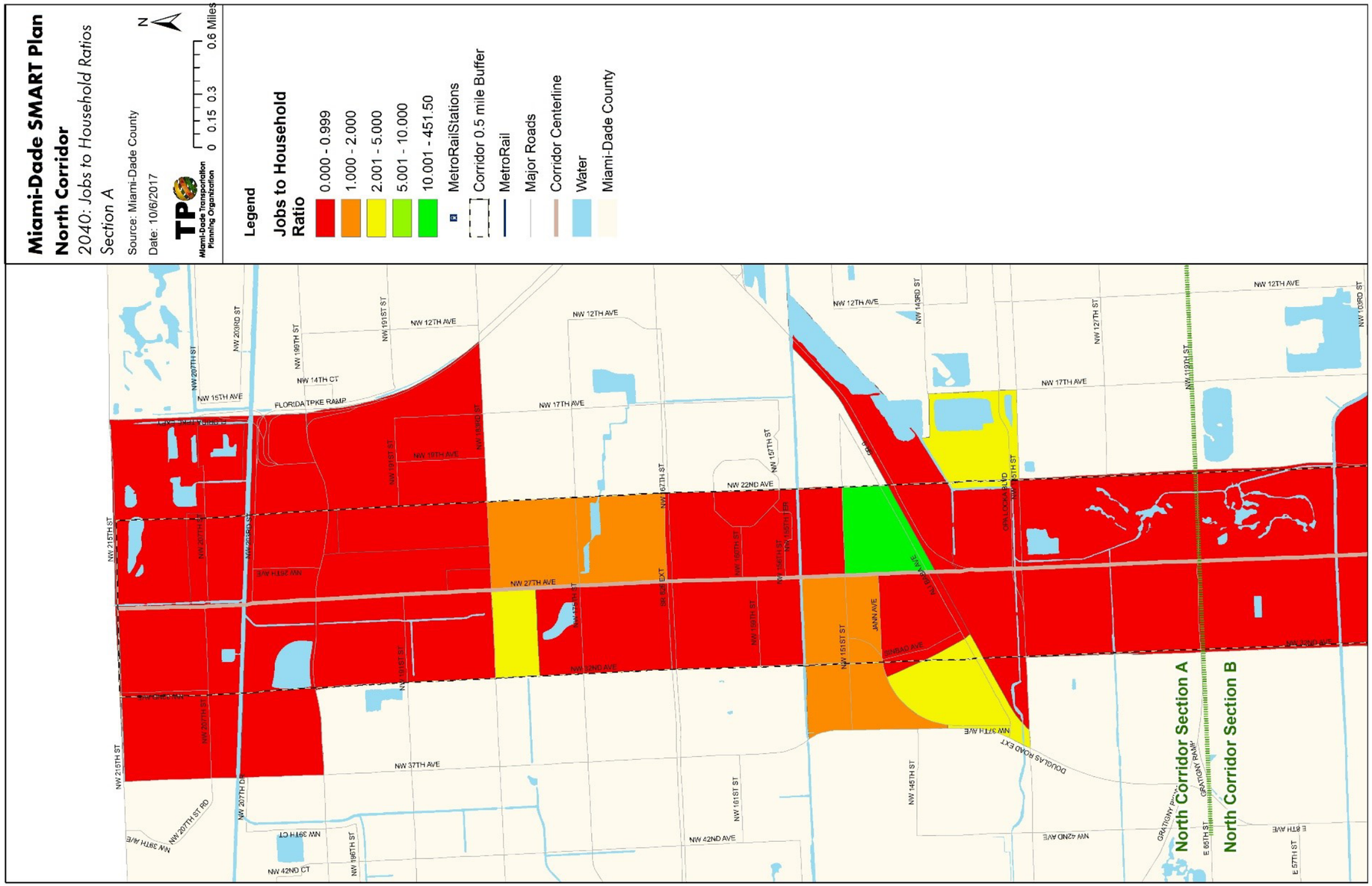
FIGURE 19-B



SOURCE: SERPM 7, THE CORRADINO GROUP, INC.

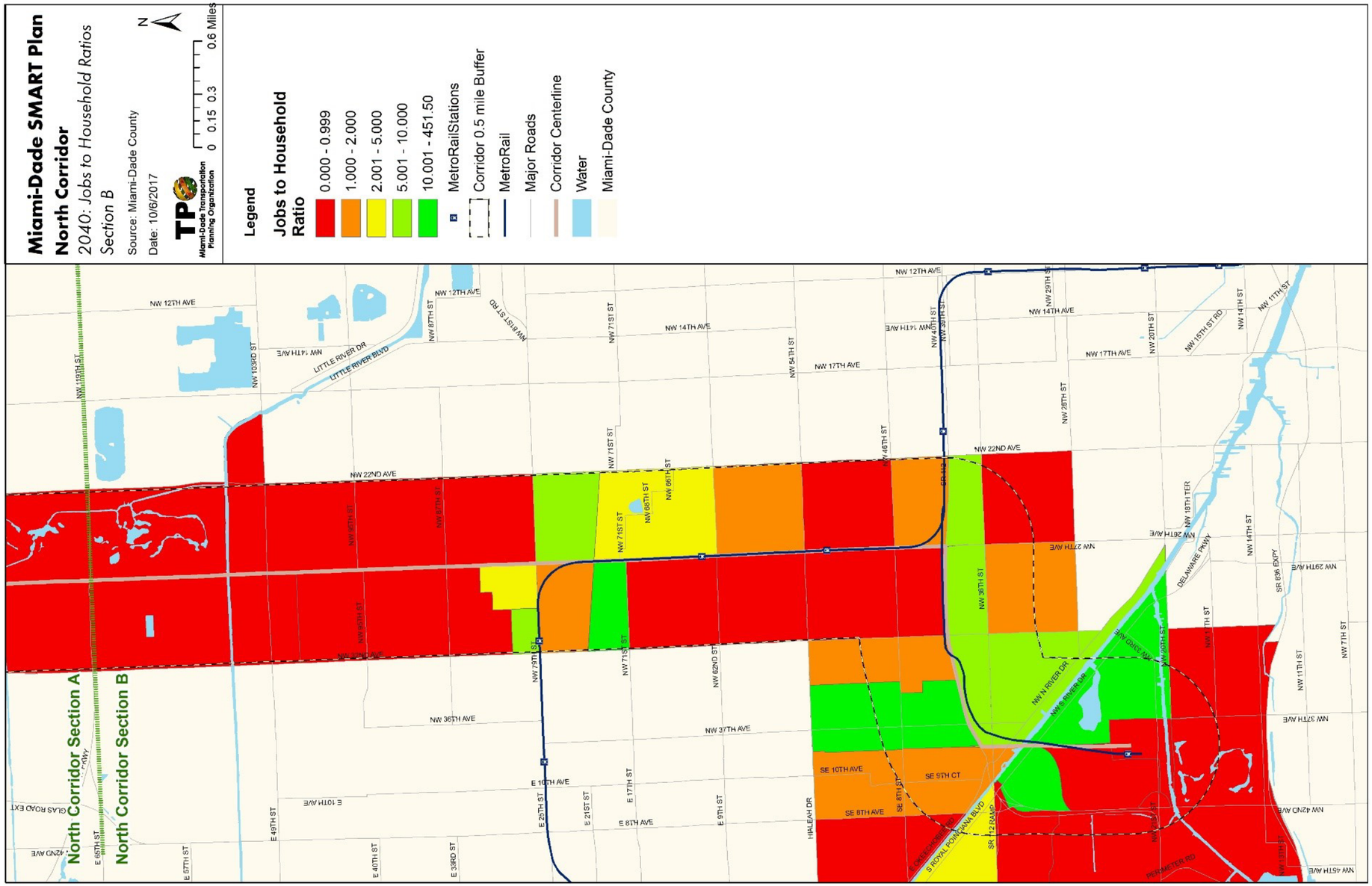
Figures 20-A and 20-B illustrate 2040 Job/Household ratios. There is no difference between 2010 and 2040 data indicating that growth is projected to be heavily concentrated in the TAZs that are now naturally supportive of transit development. If high-type transit is to be supported by future development in the Corridor, it must consider the distribution of housing and employment growth in the TAZs with low Job/Household ratios, I.e., the balance of overall employment-based, origin-destination patterns in the corridor. Further evaluation will address the land use and economic policies in those areas not supportive of rapid transit.

FIGURE 20-A



SOURCE: SERPM 7, THE CORRADINO GROUP, INC.

FIGURE 20-B



SOURCE: SERPM 7, THE CORRADINO GROUP, INC.

3.2.6 Additional Considerations For Future Planning And Economic Development

The North Corridor has varying zoning conditions restricting height which place constraints on density. Additionally, building heights in certain areas of the North Corridor are constrained by two airport's clear zones.

3.2.6.1 Airport Zones

The North Corridor intersects clear zones of two airports: Opa-Locka Executive Airport in the north, and Miami International Airport in the south. Federal Aviation Administration requirements restrict building heights. The Opa-Locka Executive Airport affects building heights of future development in southern Miami Gardens, Opa-Locka, and areas of unincorporated Miami-Dade south of Opa-Locka. Miami International Airport's clear zones affect portions of the southern part of the North Corridor, though not as severely as the sections impacted by the Opa-Locka Executive Airport.

It is noted that their building height, airport clear zones, and associated land planning, have other use restrictions.

3.2.6.2 Opa-Locka

Mixed Use Overlay District (MXUOD)

The MXUOD district provides the opportunity for service-oriented retail and commercial uses and mixed-income housing within a pedestrian-friendly neighborhood with sustainable and environmentally-responsive buildings and infrastructure. The MXUOD includes both Residential/ Commercial and Commercial/Industrial Mixed-use subareas, and allows for heights of 4 to 8 stories, depending on conditions of the development. Providing for the appropriate thresholds of affordable housing, for example, provides for density bonuses to allow for a higher FAR (Floor-Area Ratio) and 8 stories maximum height.

3.2.6.3 Miami-Gardens

Within the Miami Garden's portion of the North Corridor, parcels immediately adjacent to NW 27th Avenue are zoned Entertainment Overlay (EO), allowing for 15 stories. Outside the overlay zone, however, the zoning generally provides for 2-3 stories of maximum height for the other parcels within the study area.

3.2.6.4 Available Development Incentives

Development Incentives within the corridor vary from financial incentives/programs to local infrastructure improvements. The main development incentives for the North Corridor can be found in the CRAs. Other incentives are found in Opa-Locka's mixed-use and transit-oriented overlay zones.

Generally, CRAs use tax increment financing (TIF) as a catalyst for development. For example, a CRA area suffering from high crime rates, real or perceived, may consider security programs to be added to the development areas based on TIF. The age and maturity of a CRA may also make conventional bond issues a source of financing of infrastructure projects.

In the 79th Street CRA, the Master Plan includes rehabilitation and provision of land subsidies, using local TIF as tax or permitting rebates, and creation of Business Development Programs.

Opa-Locka's CRA plan looks to rehabilitating vacant structures, improving lighting, repairing streets, improving façades, and accessibility. The CRA Master Plan calls for financial incentives in land assembly, removal of existing structures, performing environmental analyses, rehabilitating

storefronts, and incentives for employee hiring. New architectural standards are to be adopted, to include the "Arabian Nights" theme.

Miami Gardens' Master Plan is being prepared. Incentives should be included as planning for the North Corridor progresses.

4. CONCLUSION/NEXT STEPS

The North Corridor is a diverse neighborhood, and the land use within the corridor not only varies but is not consistent with uses that one would expect for TOD. As a whole, the Corridor will require much more retail and commercial space to generate employment necessary to sustain investment in the area, and to counter current trends of blight and unemployment already noted in local planning, namely the CRAs in the Findings of Necessity Reports. Repurposing land in the area to guide investment into the corridor will require detailed market studies, as well as detailed plans and specific authority and direction in land assembly efforts. Considerations of general land use categories geared towards mixed-use and TOD development need to be evaluated for specific parcels, by geographical area, to counter the lack of opportunity posed by current land use schemes. The following action steps should be undertaken in the Corridor as next steps:

1. Conduct market analysis, SWOT analysis, and begin engaging the various communities on branding and marketing as part of this effort.

2. Evaluate specific parcels for re-designation of land use; explore the industrial designations to determine if live/work opportunities, such as artists' lofts, are viable, and if code revisions are needed to accomplish these initiatives.

3. Encourage an increase in residential and employment density in the area, as well as connections on a live/work/play concept, through better integration of land uses, taking into account a mix of uses both vertically (in the same building) and horizontally (integration with neighbors), and redesignation of land uses as needed.

4. Focus on methods for improving local Jobs/Housing Ratio and connectivity.

APPENDIX A

NJDOT TRANSIT VILLAGE INITIATIVE APPLICATION

TRANSIT VILLAGE INITIATIVE

Statement of Qualification for Transit Village Designation

Revised November 2012

Introduction

Thank you for your interest in the Transit Village Initiative and Transit Village designation. For a municipality to be considered for designation, all the criteria must be addressed and this form must be completed and returned to the NJ Department of Transportation (NJDOT). The Transit Village Task Force will determine if all the criteria have been satisfactorily addressed. They are as follows:

1. Attend a pre-application meeting
2. Identify existing transit that serves the municipality
3. Demonstrate municipal willingness to grow around the transit facility in a transit-supportive manner
4. Adopt a transit-oriented development (TOD) redevelopment plan and/or TOD zoning ordinance which includes a residential component
5. Identify individual sites where TOD real estate projects are anticipated
6. Identify bicycle and pedestrian improvements
7. Identify "Placemaking" efforts near transit

For additional guidance in meeting the criteria, refer to the "Transit Village Criteria and Scoring Guide" at www.state.nj.us/transportation/community/village.

Note that designations are made at the discretion of the Transit Village Task Force and NJDOT Commissioner. The number of designations may be limited by the capacity of the State of New Jersey to accommodate and financially support additional Transit Villages. While the receipt of funding is not guaranteed, once designated, a municipality is eligible for technical assistance and priority consideration from many of the agencies that make up the Task Force.

Directions

1. To apply for Transit Village designation, a municipality must complete this "Statement of Qualification" and return it to NJDOT. An electronic version of this application form is available at www.state.nj.us/transportation/community/village.

2. There are three parts to this Statement of Qualification: A, B and C. Be sure to answer all questions and supply all required maps, resolutions and ordinances, etc.
3. In order to make answers easy to read, please **bold** answers or otherwise differentiate them from the questions.
4. Regarding maps, consider carefully how this information is presented and organized so it is easy to understand. Common online electronic maps (i.e., Google maps) may be used. Include a graphic scale whenever possible.
5. For adopted master plans and ordinances that are located on a municipal website, it is sufficient to provide a link to that document, providing that the application directs the reader to the appropriate section or page.
6. You may submit paper or electronic submissions; however, electronic submissions are preferred. Email your electronic submission to Transit.Village@dot.state.nj.us . If submitting paper applications or CDs, provide 10 copies and mail to:

Transit Village Coordinator
NJDOT
P.O. Box 600
1035 Parkway Avenue
Trenton, NJ 08625

7. There is no deadline for submission. Applications will be accepted at any time.
8. Upon receipt of a complete submission, the Transit Village Coordinator will forward the application to the Transit Village Task Force for review and discussion. If the Task Force finds that the Transit Village Criteria have satisfactorily been met, a recommendation for designation will be forwarded to the NJDOT Commissioner. If the application was found unsatisfactory, you will be notified.
9. If you have any other questions, contact the Transit Village Coordinator, at Transit.Village@dot.state.nj.us or 609-530-2884.

Municipal Contact Information:

Municipality / County:

Person Responsible for Preparing this Form:
Phone:
Email:

Primary Contact Person:
Phone:
Email:

Municipal Planner:
Phone:
Email:

PART A - Meeting the Transit Village Criteria

1. **ATTEND a PRE-APPLICATION MEETING**
   a. Before applying for Transit Village designation, a municipality must have had a pre-application with the NJDOT Transit Village Coordinator no more than six months prior to submitting this application. Provide the date of the pre-application meeting.
   Answer

2. **IDENTIFY EXISTING TRANSIT that SERVES the MUNICIPALITY**
   a. List and describe modes of transit that currently serve the community and the transit village district. What steps has the municipality taken to integrate these modes in order to help transit riders easily transfer from one to another?
   Answer

3. **DEMONSTRATE MUNICIPAL WILLINGNESS to GROW around a TRANSIT FACILITY in a TRANSIT-SUPPORTIVE MANNER**
   a. To be considered for designation, the governing body must demonstrate its commitment to growth in jobs, housing and population within the transit village district. Provide a copy of an adopted Transit Village Resolution (See Appendix A at the back of this document for sample resolution.)
   Answer

   b. Describe and document the visioning process, with stakeholder engagement, for the transit village district.
   Answer

   c. Identify or provide sections of the adopted master plan that articulate the municipal plan for growing around the transit facility in a transit-supportive manner.
   Answer

   d. Provide a map indicating the proposed limits of the transit village district (no further than a half-mile radius from transit facility) [1]. Describe the rationale for the district limits.
   Answer

   e. Provide a current zoning map identifying all the current zones in the transit village district along with the applicable zoning codes and land development ordinances.
   Answer

[1] *The half-mile radius is the national standard for pedestrian catchment around a transit facility; roughly a ten minute walk. Large cities and denser locales may choose to plan/zone for a larger transit village district, however, it is important to note that for the purposes of the Transit Village Initiative, State funding and assistance will be directed inside the half-mile radius.*

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4. ADOPT a TOD REDEVELOPMENT PLAN and/or TOD ZONING ORDINANCE which includes a RESIDENTIAL COMPONENT

a. List and describe all adopted TOD redevelopment plans and/or TOD zoning ordinances in the transit village district that call for compact, mixed-use, pedestrian-friendly, transit-supportive development, with a residential component at a scale and intensity appropriate for the area. Provide copies of, or link to, the adopted documents.

Answer

b. Provide a map clearly indicating the location and limits of any adopted TOD redevelopment plans and/or TOD zoning ordinances.

Answer

c. Provide copies of, or links to, the transit-supportive site design guidelines that have been enacted for the transit village district.

Answer

d. Provide copies of, or links to, the transit-supportive architectural design guidelines that have been enacted for the transit village district.

Answer

e. List and describe the transit-supportive parking measures enacted for the transit village district, such as a parking management system and/or parking requirements. Provide documentation.

Answer

5. IDENTIFY INDIVIDUAL SITES where TOD REAL ESTATE PROJECTS are ANTICIPATED

a. List each individual TOD real estate project that is anticipated or envisioned for the transit village district. Describe each site and project (block, lot, address, acreage, current use, ownership, existing zoning, proposed development, etc.) Provide an accompanying map with project locations.

Answer

b. From the list of potential projects [from (a) above], identify which have already been submitted to the planning/zoning board for approvals and, for all other sites, summarize the proactive steps taken by municipal representatives to help move the projects along.

Answer

c. List and describe the existing and proposed affordable housing efforts in the transit village district. Provide a map showing the locations. Describe the municipality's history with the Council on Affordable Housing (COAH) and meeting its affordable housing obligation. In addition, the following statement must be added to the land development regulations for the transit village district.

> *"All new development within the transit village district shall adhere to the affordable housing requirements of the State of New Jersey that are in place at the time the development receives municipal site plan approvals."*

Answer

6. IDENTIFY BICYCLE and PEDESTRIAN IMPROVEMENTS

a. What formal commitment has the municipality made to improve the general bicycle and pedestrian friendliness of the transit village district? Identify the adopted municipal documents (municipal policies, redevelopment objectives, bike-pedestrian master plan, complete streets policy, etc.) and submit copies for review.

Answer

b. What bicycle and/or pedestrian infrastructure projects has the municipality *implemented* in the transit village district?

Answer

c. What bicycle and/or pedestrian infrastructure projects has the municipality *planned* for the transit village district? Provide plans, funding sources and timelines for completion.

Answer

d. What type of amenities are currently available for bicycles, bicyclists and/or pedestrians at or near the transit facility? What physical barriers currently exist that make walking or biking to the transit facility from outlying neighborhoods difficult? What steps could the municipality take to increase the number of households that could walk or bike to the transit facility?

Answer

7. IDENTIFY "PLACEMAKING" EFFORTS near TRANSIT

Note: A municipality must satisfy (a) and (b) below, and at least two from (c) through (f) below.

a. List and describe existing and/or planned public amenities at the transit facility that were initiated by the municipality. Examples are: park or plaza with seating, civic building, sculpture or statue, ornamental clock, fountain, memorial, information kiosk, wayfinding signage, etc. Provide photos. If an amenity is planned for the future, the municipality must provide plans, funding information, implementation details and timeline for completion.

Answer

b. Describe the management organization (such as chamber of commerce, Main Street organization, improvement district) or other form of organized stewardship that exists in the municipality. Does it include all or part of the transit village district? Provide a map showing the location/boundaries of the management district in relation to the location/boundaries of the transit village district. If the management organization is only in the planning stages, provide location map, budget, work plan and timeline for implementation.

List and describe all organized efforts for prescribed or directed care, maintenance or beautification of the transit facility and the surrounding neighborhood. Describe what procedures the municipality has implemented to handle such things as garbage pick-up, litter and graffiti removal, cleaning, repairs, etc., around the transit facility.

Describe community policing efforts established or planned for the district, as well as partnerships, proactive problem solving techniques, and/or community engagement efforts that address crime, fear of crime, and community issues.

Answer

Note: Meet at least two from (c) through (f) below.

c. List and describe at least two regularly scheduled community events (such as a farmers market, street fair, memorial event, parade or similar) that are initiated by the municipality and take place within sight of the transit facility. Provide documentation of the events and a location map showing where the events take place in relationship to the transit facility.

Answer

d. List and describe what steps the municipality has taken to maintain and enhance the historic character of the transit village district as development and/or redevelopment takes place. Examples include: adopted historic design guidelines, an historic district or an architectural review board. Provide documentation.

Answer

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e. List and describe existing or planned performing arts centers, theaters, art galleries, museums, public art installations, programmable open space, cultural arts districts, arenas and other arts and cultural facilities and venues within the transit village district. Provide location map showing where they are situated in relationship to the transit facility. For anything currently in the planning stages, provide location map, description, budget, funding source, and timeline for completion.

List and describe any ongoing programmed arts, arts education, community arts activities or cultural events (such as concerts, poetry readings, dance classes, etc.) that take place in the transit village district. Provide documentation for each.

Answer

f. List and describe all the restaurants, shops, offices, etc., within sight of the transit facility that remain open beyond 5 pm and provide "eyes on the street." [2] Provide photos and location map showing where the establishments are situated in relationship to the transit facility. Include business hours.

Answer

PART B - Transit Village Statement

Directions: Explain how, when and why the municipality first became interested in the concept of becoming a designated Transit Village. Talk about when the idea was first discussed publicly by the mayor and/or governing body, what was the catalyst for exploring this new direction and how the designation could help transform the municipality.

Identify the community leader who was primarily responsible for championing the transit village concept. In addition, identify the person who will work to implement the vision after designation is awarded.

Answer

PART C - State Assistance Needed

Directions: Along with NJDOT and NJ TRANSIT, the Transit Village Task Force is made up of the Council on the Arts, the Department of Community Affairs, the Department of Environmental Protection, the Economic Development Authority, the Housing and Mortgage Finance Agency, the Office for Planning Advocacy, Main Street New Jersey and the Redevelopment Authority. In the space below, indicate which agencies you would like to meet with regarding issues in your Transit Village. Be sure to specify the type of assistance you are seeking as well as your time frame.

Answer

~ ~ ~

[2] *"Eyes on the street" is a term that refers to people and activity at street level that provide natural surveillance which results in a safe and lively environment for pedestrians.*

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APPENDIX A
Model Resolution

WHEREAS, the NJ Department of Transportation (NJDOT) has created a Smart Growth community revitalization and redevelopment program known as the Transit Village Initiative; and

WHEREAS, the Transit Village Initiative supports Smart Growth, revitalization and redevelopment within walking distance of transit for the purpose of increasing transit ridership, reducing automobile congestion and improving air quality in the State of New Jersey; and

WHEREAS, the NJDOT along with NJ TRANSIT, the Department of Community Affairs, the Department of Environmental Protection, the Redevelopment Authority, the Council on the Arts, Main Street New Jersey, the Economic Development Authority, the Office for Planning Advocacy and the Housing and Mortgage Finance Agency are partners in the Transit Village Initiative and make up the Transit Village Task Force; and

WHEREAS, the NJDOT may designate a Transit Village after the municipality has achieved the Transit Village Criteria established by the Transit Village Task Force; and

WHEREAS, once a municipality has been deemed a Transit Village, the Transit Village Task Force will provide that municipality with (1) a contact person in each of the state agencies that make up the Transit Village Task Force; (2) technical assistance from each agency; (3) up-to-date information on grants, loans, programs or other opportunities; (4) priority funding where feasible; and (5) access to special information meetings, educational programs and research information; and

WHEREAS, the governing body of (municipality) desires to apply to the NJDOT for Transit Village designation.

NOW THEREFORE BE IT RESOLVED by the governing body of (municipality), in the county of (county), State of New Jersey, that (municipality) requests to be considered for Transit Village designation; and

BE IT FURTHER RESOLVED that the governing body of (municipality) is committed to Smart Growth and is willing to accept meaningful growth in terms of jobs, housing and population within the transit village development district; and

BE IT FURTHER RESOLVED that the governing body of (municipality) hereby commits to the implementation of the compact, mixed-use, transit-supportive vision as represented in the Transit Village Statement of Qualification; and

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BE IT FURTHER RESOLVED that the governing body of (municipality) has identified (municipal staff person), who is knowledgeable in municipal planning, development and/or economic issues, to be the primary contact person to the Transit Village Task Force; and

BE IT FURTHER RESOLVED that if designated a Transit Village, the governing body of (municipality) will commit to submitting annual updates as required by the Transit Village Task Force; and

BE IT FURTHER RESOLVED that if designated, the governing body of (municipality) will continuously strive to improve the quality of the transit village district; and

BE IT FURTHER RESOLVED that in the event that the Transit Village Task Force determines that a designated Transit Village is no longer acting consistently with the Transit Village program goals, the Transit Village Task Force may suspend designation and/or withhold program benefits.

DATE: _____

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APPENDIX B

NJDOT TRANSIT VILLAGE INITIATIVE SCORING GUIDE

NJDOT Transit Village Criteria and Scoring Guide *Revised November 2012*

Shown below are the criteria that a municipality must meet to be eligible for Transit Village designation. Note that all the criteria must be addressed to the satisfaction of the Transit Village Task Force and the NJDOT Commissioner. To formally apply for designation or to learn more, go to www.state.nj.us/transportation/community/village/.

Criteria	Basis for Meeting the Criteria
1. Attend a pre-application meeting	❑ (a) The municipality has participated in a pre-application meeting with the Transit Village Coordinator no more than six months prior to submitting an application.
2. Identify existing transit that serves the municipality	❑ (a) The municipality has identified existing transit that serves the community; either rail, light rail, bus or ferry.
3. Demonstrate municipal willingness to grow around its transit facility in a transit-supportive manner	❑ (a) The municipality has submitted a resolution by the governing body stipulating its willingness to grow in jobs, housing and population around the transit facility. ❑ (b) The municipality has documented its visioning process, with stakeholder engagement, for the transit village district. ❑ (c) The municipality has provided the portions of its master plan that articulate the plan to grow around its transit facility in a transit-supportive manner. ❑ (d) The municipality has provided a map indicating boundaries of the proposed "transit village district" so that they fall no further than a half-mile[A] radius from the transit facility. ❑ (e) The municipality has provided a current zoning map identifying all zones in the transit village district along with the applicable zoning codes and land development ordinances.
4. Adopt a transit-oriented development (TOD) redevelopment plan and/or a TOD zoning ordinance which includes a residential component	❑ (a) At least one TOD redevelopment plan or TOD zoning ordinance has been adopted that calls for compact, mixed-use, pedestrian-friendly, transit-supportive development, including a residential component at a scale and intensity appropriate for the area. ❑ (b) The municipality has provided a clear map indicating the location of the TOD redevelopment area(s) and/or TOD zone(s). ❑ (c) Each TOD redevelopment plan or zoning ordinance includes or refers to transit-supportive site design guidelines.[B] ❑ (d) Each TOD redevelopment plan or zoning ordinance includes or refers to transit-supportive architectural design guidelines.[C] ❑ (e) The municipality has enacted and documented a parking management system and/or transit-supportive parking requirements[D] for new development near the transit facility.

1

NJDOT Transit Village Criteria and Scoring Guide *Revised November 2012*

Criteria	Basis for Meeting the Criteria
5. Identify individual sites where TOD real estate projects are anticipated	❑ (a) The municipality has provided a map showing the location of sites where TOD real estate projects are anticipated. Include description of each (block, lot, address, acreage, current use, ownership, existing zoning, proposed development, etc.) ❑ (b) The municipality has provided project details and status of projects, from (a) above, that have already been submitted to the planning/zoning board for approvals, and for all other sites provided a summary of proactive steps taken by municipal representatives to help move the project along.[E] ❑ (c) The municipality has made provisions for the production of affordable housing and included the following statement in the land development regulations for each TOD site: ***"All new development within the transit village district shall adhere to the affordable housing requirements of the State of New Jersey that are in place at the time the development receives municipal site plan approvals."***
6. Identify bicycle and pedestrian improvements	❑ (a) The municipality has demonstrated a commitment to improving the general bicycle and pedestrian friendliness of the transit village district through adopted municipal policies, redevelopment objectives, a bike/ped master plan, a complete streets policy, etc. ❑ (b) The municipality has implemented at least one bike/ped infrastructure project in the transit village district such as shared use paths, dedicated bicycle lanes, traffic calming, removal of barriers, sidewalk improvements, etc. ❑ (c) The municipality has planned at least one bike/ped infrastructure project in the transit village district such as shared use paths, dedicated bicycle lanes, traffic calming, removal of barriers, sidewalk improvements, etc. If such a project is planned, the municipality must provide plans, funding source and time frame for completion.

NJDOT Transit Village Criteria and Scoring Guide *Revised November 2012*

Criteria	Basis for Meeting the Criteria
7. Identify Placemaking[F] efforts near transit	❑ (a) The municipality has added value to the station area with at least one existing or planned amenity such as: public park or plaza with seating, civic building, sculpture or statue, ornamental clock, fountain, memorial, information kiosk, wayfinding signage, etc. If an amenity is planned for the future the municipality must provide plans, funding information, implementation details and timeline. ❑ (b) A management organization (such as chamber of commerce, a Main Street organization, improvement district) or other form of organized stewardship is in place or planned for the transit village district. If planned, the municipality must provide a budget, a work plan and time frame for implementation. *Meet at least two of the following:* ❑ (c) The municipality has documented at least two regularly scheduled community events (farmers markets, street fairs, memorial events, parades or similar) that take place within view of the transit facility. ❑ (d) Steps have been taken to maintain and enhance historic character of the district by establishing at least one of the following: historic design guidelines, historic district or architectural review board. ❑ (e) The municipality has documented at least two examples of ongoing arts, entertainment or cultural activities (theater, concerts, poetry readings, arts exhibitions, dance classes, etc.) that take place within half-mile of the transit facility. ❑ (f) If the blocks/streets closest to the transit facility remain pleasantly active after dark, the municipality has provided a list of all businesses, restaurants, stores, etc. within sight of the transit facility that provide "eyes on the street"[G] beyond 5 pm. Provide map and business hours.

A The half-mile radius is the national standard for catchment around a transit facility; roughly a ten minute walk. Large cities and denser locales may choose to plan/zone for a larger transit village district; however, it is important to note that for the purposes of the Transit Village Initiative, State funding and assistance will be directed inside the half-mile radius.

B Examples can be obtained from the Transit Village Coordinator or NJ Transit's Planning for Transit Friendly Land Use Handbook.

C Examples of transit-supportive architectural design guidelines can be obtained from the Transit Village Coordinator or NJ Transit's Planning for Transit Friendly Land Use Handbook.

D Examples of transit-supportive parking regulations can be obtained from the Transit Village Coordinator or NJ Transit's Planning for Transit Friendly Land Use Handbook.

E A municipality can proactively advance a project by pursuing funds for infrastructure improvements, marketing the project to developers, considering joint ventures, offering tax abatements, investigating financing options, etc.

F Placemaking is the concerted effort of transforming a public place into a meaningful, attractive, vibrant and memorable space that attracts residents and visitors for fun, relaxation, and/or civic celebration.

G "Eyes on the street" occurs when there is a sufficient amount of people and activity at street level to provide natural surveillance which results in a safe and pleasant environment for pedestrians.