MOVING WITH TRANSIT: CITY OF MIAMI
TRI-RAIL COASTAL LINK STATION AREA STUDIES
PUBLISHED MARCH 2019. MIAMI, FLORIDA.
The Tri-Rail Coastal Link project proposes reintroducing passenger rail service to the historic downtowns of South Florida along an 85-mile stretch of the Florida East Coast (FEC) Railway corridor between downtown Miami and Jupiter. This will include the centers of 28 densely-populated municipalities in eastern Miami-Dade, Broward and Palm Beach Counties.

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A special thanks to everyone who participated in the planning process.

MIAMI 21 | TODs
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# TABLE OF CONTENTS

## 1 INTRODUCTION
04 Project Focus
06 Miami Transportation History
08 How People Move in the City
10 Principles + Project Approach
16 Station Area Typologies

### [Regional Center]

### DOWNTOWN STATION
22 Introduction
24 Station Area Base Analysis
28 Accessibility Survey
44 Station Area Recommendations

### [Community Center]

### MIDTOWN STATION
64 Introduction
66 Station Area Base Analysis
70 Scenario Evaluation
86 Station Area Recommendations
92 Conclusion

### [Neighborhood Center]

### LITTLE RIVER STATION
96 Introduction
98 Station Area Base Analysis
102 Accessibility Survey
110 Engaging the Community
116 Recommendations

## 5 LESSONS LEARNED
136 Lessons Learned
Miami, the Magic City, has always been a vibrant urban center. A side effect of this vibrancy is its traffic congestion. In recent years, in an effort to improve mobility, the City has been presented with the opportunity to introduce public transit solutions that improve its connectivity, economic vitality and quality of life by investing on future TODs and the areas around future transportation stops. This study outlines strategies to enhance the future development around three of the proposed Tri-Rail Coastal Link Stations.

The **TRI-RAIL COASTAL LINK** Station Area Studies propose the reintroduction of passenger rail service to the historic downtowns of South Florida along a 85-mile stretch of the Florida East Coast (FEC) Railway corridor from downtown Miami to Jupiter.

The stations, within the boundaries of the City of Miami, that this study looks at are: Downtown, Midtown and Little River (79th Street).

The introduction of transit stations will undoubtedly result in new development and re-investment around these new transportation hubs. This study considers challenges and opportunities for each location, resulting in guidelines and recommendations that provide a holistic approach to improvements, encouraging Transit-Oriented Development that is in concert with new mobility options -- connecting safely and conveniently to increase ridership.

The Treasure Coast Regional Planning Council and the South Florida Regional Transportation Authority (SFRTA) are the regional partnership behind the project.
MIAMI LAND TRANSPORTATION HISTORY

After the big freeze in North Florida, Flagler visited Miami to consider the possibility of growing citrus. Julia Tuttle offered Flagler land if he would agree to extend his railroad to Miami, which he accepted, and a contract was signed.

Henry Flagler brought his railroad to what was a sparse settlement (today's City of Miami) occupied by no more than a dozen people. Flagler began developing the area around the station.

1800s - Electric streetcars began to emerge.

Flagler created the Royal Palm Park, the burgeoning City's first public gathering space. Lummus Park and Riverside Park followed shortly after.

Miami was connected to the rest of the state through Flagler's Florida East Coast Railway, and just three months later it was officially incorporated as the City of Miami.

1896 - Gottlieb Daimler builds the world's first four-wheeled motor vehicle in 1886. It was too expensive for most Americans.

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First big population boom: Miami grew from a town of about 5,500 to a city of 30,000.

By the beginning of the 1920s, Flagler Street, then known as Twelfth Street, became the city's hub of activity.

Florida East Coast Railway opened a new Miami station just north of the County Courthouse.

1912 - Henry Flagler arrived aboard the first train into Key West, marking the completion of the Florida East Coast (FEC) Railway's Over-Sea Railroad to Key West.

1913 - Henry Ford installs the first conveyor belt-based assembly line in his factory, reducing production costs and assembly time, thus making the car more affordable to Americans. He became the world's biggest car manufacturer.

Coral Gables abandons streetcars and implements new bus system.

The "Great Miami Hurricane" blew through Miami and abruptly burst the city's development bubble.

1926 - Henry Ford installs the first conveyor belt-based assembly line in his factory, reducing production costs and assembly time, thus making the car more affordable to Americans. He became the world's biggest car manufacturer.

1930 - Henry Ford installs the first conveyor belt-based assembly line in his factory, reducing production costs and assembly time, thus making the car more affordable to Americans. He became the world's biggest car manufacturer.

1935 - Henry Ford installs the first conveyor belt-based assembly line in his factory, reducing production costs and assembly time, thus making the car more affordable to Americans. He became the world's biggest car manufacturer.
The post-WWII years saw a dramatic boom in population and commerce. Downtown Miami had become a world famous destination, with shopping, entertainment, and a gorgeous waterfront.

1945 - Freeway Era: The introduction of the freeway allowed middle-class Americans the ability to move out of the inner city in mass numbers.

1956 - The Interstate Highway Act created a network of highways throughout the United States.
1958 - Planning for Metrorail began.

1963 - The FEC Downtown Miami station was demolished, November 12.

1965 - The national push to extend the federal highway system forced out thousands of African American families whose homes were condemned to make way for I-95 and I-395.

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1979 - Construction on the Metrorail began.

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1984 - The Metromover began service to the Downtown/Inner Loop.

1992 - Hurricane Andrew caused some 50 deaths and considerable property damage to areas of the county just south of Miami, although the city itself was largely spared.

1994 - The Omni and Brickell Loop extensions where added to the Metromover service on May 26, 1994.

1996 - The Metrorail Dadeland Station was constructed. On February 3, 1997, the South Dade Transitway began operating.

1998 - The Strategic Miami Area Rapid Transit Plan (SMART) is adopted by the Planning Organization (TPO) Governing Board on April 21, 2016.

2000 - Planning for Metrorail began.

2009 - Miami-Dade County broke ground on the AirportLink project, a 2.4-mile extension of Metrorail connecting the existing Earlington Heights station to the Miami Intermodal Center (MIC), located adjacent to Miami International Airport.

2016 - The Strategic Miami Area Rapid Transit Plan (SMART) is adopted by the Planning Organization (TPO) Governing Board on April 21, 2016.

2018 - Brightline, the higher speed train service, officially extended into Miami.
HOW PEOPLE MOVE IN THE CITY

CAR DEPENDENCY VS PUBLIC TRANSPORTATION USE
THE SHIFT TOWARDS PUBLIC TRANSPORT

The City of Miami was founded as a waterfront community, enjoying its identity as a small settlement where everything was within a comfortable walking distance, for a very short time. Its incorporation in 1896 gave the City a decade of pedestrian and non-motorized priority before the mass-production of automobiles in 1908 inundated the City and reconfigured its infrastructure to accommodate the growing demand for vehicular traffic. Since then, Miami has been auto-oriented, our walking habits have been auto-dependent, and our experience of the original small waterfront community has been dictated by lanes of asphalt. 16.3% of the City’s total area is dedicated to ROW alone.

In Miami, 72% of the population travels to work by car while only 5.3% uses transit. What are the reasons for this low walkability and transit usage? How can we improve walkability and expand choices so that car trips are not always the predominant mode but rather one of many choices for mobility? Surely the tropical heat and unpredictable weather is a main factor, but is that the only reason? What infrastructure improvements and land use options are there that could make walking, biking and transit ridership the preferred choice of mobility? Is it the lack of a complete cycling and pedestrian networks? Or proper street safety that is keeping us away from using our bicycles? How can public transit be more accessible? What do we need to improve to make transit a better choice, increasing ridership and reducing automobile-dependency and in turn the traffic congestion that is choking our City?

Other cities like New York, Boston, Chicago, and San Francisco experience extreme weather too, but many of their residents prefer walking, cycling, and public transit to get around. Their investment, not only on the transit system itself, but in the infrastructure to access those services has proven key to their systems’ success. Not surprisingly, these are considered the cities with the best public transit in the U.S., according to the new Transit Score® rankings. This poses two questions: is the City of Miami ready to become a multi-modal city, and what improvements need to be put in place in order to achieve a more balanced, democratic and accessible mobility system that these other major cities have achieved?

In recent years, the dense development concentrations in urban cores like downtown have been a reaction to people’s desire to live more urban lifestyles. Aided by the introduction of Miami’s zoning code, the Miami21, a Form-Based-Code that promotes centers and edges, the City’s urban fabric is slowly becoming more walkable and bikeable, with multiple centers and destinations - increasing the potential for mass-connectivity between multiple denser cores that can support transit. Distances to and from work and amenities are oftentimes within walking distance, and access to daily needs as well as feeling the vibrant atmosphere only a city center can offer are improving.

With multiple mixed-use projects being built, and the reduction of distances between land uses, the existing auto-centric infrastructure struggles to support the rapid population increase and becomes an impediment to trips that could be done on foot, bike or transit. Yet, many infrastructure improvements today are still focused on vehicular movement, striving to ease the current traffic patterns and conditions rather than enabling non-motorized or transit solutions to become the panacea to our grid-lock.

Short trip analysis and access to transit is arguably the best approach that cities like Miami have focused on to reduce and mitigate traffic congestion, as shown in cities around the globe that have faced the same rapid densification and traffic ills. The best option to improve traffic flow is to provide other mobility options, in essence -- reducing the number of cars on the streets. With new inter-city commuter options and the reinvestment in Miami-Dade County’s and the City’s public transportation systems, and improved access to those facilities will ultimately provide the choice to turn drivers into riders - essentially improving mobility throughout our metro area.

“In we are experiencing a mobility renaissance throughout the country - new transportation modes, a yearning for options and record-high living costs are making cities look to their past. Miami’s short history does not have an automobile free history, for this reason, we need to be innovative with solutions that make our city thrive overcoming the challenges that all world cities face today.”
STATISTICS AND FACTS

Today’s 20-something Americans drive approximately 20% less than their parents did when they were in their 20’s.**

Across the 50 largest metropolitan statistical areas, Millennials account for 29% of all heads of households in urban areas, compared to 18% in the suburbs and 16% in rural areas, according to the Urban Land Institute.**

29%

In Downtown Miami, Generation Z’s population has increased by 69% since 2010.**

33% of Millennials are taking advantage of share-based transportation programs & services.

20% of the median income in the City of Miami is spent on transportation. This is high compared to other cities in the US (Washington DC - 9%, Austin TX - 19%, New York NY - 9%).

$8,997 is the total cost of owning a car in Miami per year.*

The top five reasons/motivations to use public transit: 46% do it to save money, 46% believe it is the most convenient option, 44% strive a healthier lifestyle – as it allows them to exercise (walking, biking, riding, etc…) and 35% live in an area where it makes more sense to use transit.**

37% of Millennials cite environmental considerations and carbon footprint as a motivation factor when it comes to their transportation decisions.**

Sources: *Center for Neighborhood Technology
**American Public Transportation Association (APTA) and the Transit Cooperative Research Program (TCRP), Millennials & Mobility.
CITIES ARE NETWORKS THAT LINK PUBLIC AND PRIVATE LAND, THE BALANCE OF WHICH IS PARAMOUNT TO MAKE PLACES GREAT. This balance is symbiotic in that all elements are part of a system and they depend on each other to function. It is only when a district's components are well-tuned and calibrated that they make great places.

The concept of Complete Districts takes a holistic approach that balances a city’s public and private realms. The private realm includes our homes and indoor life, the spaces where only the invited can go. Properties and building facades are private. The public realm includes city streets, sidewalks, parks and plazas; civic spaces and places that everyone has the right to visit, following the concept of the common resources that are available to all members of a society.

Both public and private realms need to work together as an important component of a true city. Before the majority of America commuted by car, the public realm was the center of city life. Now that people demand a variety of travel modes, they are turning away from an automobile-centric public realm; they demand to take back their streets and sidewalks as public spaces.

Léon Krier’s “Civitas: A True City,” clarifies that the public realm and the civic buildings are an important part of a true city, and the street is an important part of the public realm - it is the connector between public spaces. In the midst of today’s increasing social problems, people’s constant interactions within their society are what will change civilizations for the better. Public spaces are the catalyst for this change.

“The architecture of the city and public space is a matter of common concern to the same degree as laws and language. They are the foundation of civility and civilization.” - Leon Krier

COMPLETE DISTRICTS IS THE APPROACH TO CREATE AND OFFER A WELL-BALANCED TRANSIT-ORIENTED DEVELOPMENT. The ultimate goal is to provide connections to stations for all users through a variety of travel modes, considering each user’s entire journey from origin to destination, and understanding that the transit experience extends beyond the stations influenced by the quality of the built environment that leads to them.
**COMPLETE DISTRICTS** acknowledge that streets must be a function of the uses they serve and how they serve them. As such, not every street is suitable for all uses and users; careful distinctions must be made to match certain modes of mobility contextually to provide safe, reliable and convenient service.

**PEDESTRIAN NETWORK** prioritizes people walking and people using mobility devices. Certain streets can be further enhanced to create vibrant public spaces.

**CYCLIST NETWORK** prioritizes comfort, safety and convenience for people biking.

**TRANSIT NETWORK** prioritizes streets and creates a complete local transit network that complements the regional transit network.

**MOTORIST NETWORK** promotes efficient auto and goods movement taking into consideration new vehicle technologies.
KEY CONCEPTS + DESIGN PRINCIPLES
NETWORKS
Accessible and interconnected multi-modal grid-system that allows users of all transportation modes to safely and conveniently move around the district. Network quality and completeness, route directness and access to destinations.

OBJECTIVES: Identify existing and potential networks and address barriers and discontinuity. Adopt policies to encourage accessibility and permeability through the districts to promote non-motorized mobility between station areas.

MOBILITY
Public Right-Of-Way (ROW) calibration to accommodate a variety of motorized and non-motorized mobility options operating in the same space providing users alternatives to reach their destinations safely and conveniently through well-connected and fully-integrated districts.

OBJECTIVES: Implement Complete Streets to enable safe access for all users, including pedestrians, bicyclists, motorists, and transit riders.

PUBLIC SPACE
Civic Spaces accessible to all that contribute to the health, quality of life, comfort, environmental resilience, and social connection of a district.

OBJECTIVES: Take a holistic approach to create a more complete network of public spaces (natural and urban) that encourage public social contact. It is essential to provide a variety of green spaces, squares, and plazas to improve health inequities within districts to advance environmental justice.

USES
A spectrum of mixed-use and mixed-income development within the district.

OBJECTIVES: Introduce, balance, and increase a mix of uses that support a wide range of services and amenities compatible with the area. Providing walkable access to resident and commuter needs improves the economic and social viability around the district, encouraging ridership and strengthening the sense of community.

DENSITY / INTENSITY
Measures of compactness and vibrancy within a specific area. Within a district, these measures require calibration and balance with the physical built environment.

OBJECTIVES: Optimize density / intensity and match transit-capacity to support high-quality transit, local services, economic viability, and public space activity.

CHARACTER / SCALE
Physical, cultural and social quality, traits and form of the built environment and its community.

OBJECTIVES: Respect and build upon the existing character of the district. Promote enduring and compatible design that responds to an evolving community, while allowing for growth and development.
The vast majority of transit users use active transportation networks and modes (walking, biking, wheelchair, etc.) to access the overall system; riders make at least one transfer to complete their one-way trip (automobile/walking, scooter etc. to transit). Currently there are a number of challenges transit users face when using existing networks; this include but are not limited to topics related to: access, safety, quality of life and maintenance. Consequently, MDC Ridership Technical Reports show a reduction in the overall system’s ridership, thus reducing the size/range/impact of the transit access sheds around stations and the discretionary use within current access sheds.

Access sheds are defined by the distance people travel in a set duration of time. For example, if pedestrians are willing to walk up to fifteen minutes to a given station (assuming they walk 4 m/hr), general policy defines the access shed by a half mile radius centered on the station. In reality this access shed is compromised by the street grid, its continuity, breaks in the network, location, number of street crossings, and fluctuations in the average speed of pedestrians due to traffic patterns, crossing characteristics, and sidewalk conditions.

The goal is to implement effective strategies that will work to increase, not only the physical size of access sheds but also the perceptual range around transit stations while improving access conditions within those sheds; permitting transit users to effectively and comfortably move around to their destination.

**POLICY:**

1/4 and 1/2 mile radii - Regardless of physical barriers (as the crow flies).

**REALITY:**

Physical and perceptual barriers reduce the actual travel range and affect accessibility.

**GOAL:**

Infrastructure improvements and the introduction of mobility options have the ability to outperform policy standards.
**Regional Centers** are places of economic and cultural significance, including downtowns and central business districts, which serve a regional travel market and contain a rich mix of transit types, ranging from high speed, heavy, or commuter rail, to BRT and local bus service. Usually emphasizing employment uses, Regional Centers are increasingly being sought out for residential uses in response to changing demographics and housing preferences. They 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.

**Community Centers** function as sub-regional or local centers of economic and community activity and include urban and town centers served by one or more transit types. Residential densities in Community Centers are typically lower than those of Regional Centers, but the mix of uses in them creates a greater balance 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. Parking is typically structured and located close to the transit stations.

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

PROJECT METHODOLOGY

[Regional Center] [Community Center] [Neighborhood Center]

DOWNTOWN MIDTOWN LITTLE RIVER

STATION AREA SCENARIOS

This fast developing area has become a destination in Miami with three different centers of activity: to the north, the Design District; to the south, Wynwood; and Midtown centered between the two. Edgewater to the east, also a high density development area along Biscayne Boulevard that will be served by the station.

The study looks at demographical data, physical constraints, and opportunities among the three nodes, examining potential future development patterns, regulations, and context along the rail line in an attempt to provide the most suitable location for a station.

STATION AREA PLAN

A context-rich Neighborhood Center with a strong potential to become a Regional Destination, the Little River Station Study looks at potential development patterns sensitive to the existing cultural, sociological, and morphological conditions present in the area today.

The study started with a community engagement and outreach effort that provided the basis of the recommendations. Best practices for TOD accessibility and development are used to provide a guide for future development, acknowledging large assemblages that create an opportunity for reinvestment and engaging the transit shed in a dense vibrant manner.

STATION AREA ACCESSIBILITY SURVEY

This study provides an assessment of the existing conditions of the infrastructure and built environment of the public and private realms within a quarter mile radius of Miami Central Station.

A set of strategies and recommendations are proposed to improve accessibility to, from and around the station. The goal of these recommendations is to encourage ridership and interconnectivity between modes by improving safety and comfort to users of all modes of transportation. The study also considers future mobility improvements that incorporate resilient investment strategies.
HOW TO USE THIS CHAPTER

Each chapter starts with a general introduction of the challenges and opportunities, background information, followed by recommendations + proposed action steps. These are, in turn, followed by conclusions and supporting graphics on the next page.
Miami Central Station in downtown Miami is the hub of South Florida’s urbanized region. It is considered the business, social and cultural epicenter of the Americas, which capitalizes on its unique position as a major world city in a tropical waterfront environment (Downtown Development Authority Master Plan 2025 Vision Statement).

This study considers opportunities and challenges to integrate the newly established Miami Central Station as it connects to other modes of transportation as well as the rest of the Downtown and its surrounding neighborhoods.

The station has the potential to affect how people arrive to Downtown and move within this dense urban hub. For this reason, it is important to assess and propose solutions to the new mobility challenges that this station will create.

Access and mobility to, from and around the station, specially by non-motorized modes is necessary to maximize comfort, safety and economic investment. To improve and capture this added value, the study recommends mobility improvements around Miami Central Station and its Transit Shed.

22 INTRODUCTION
24 STATION AREA BASE ANALYSIS
28 ACCESSIBILITY SURVEY
44 STATION AREA RECOMMENDATIONS
MiamiCentral Station in Downtown Miami is located around the Central Business District, Brickell Financial District, Historic District, Government Center, Omni and Park West. It is bordered by Midtown to the north, Biscayne Bay to the east, Civic Center + Overtown to the west, and the Miami River + Brickell to the south. Brickell Avenue, North Miami Avenue and Biscayne Boulevard are its main north-south thoroughfares, while Flagler Street is its main east-west thoroughfare.

This **REGIONAL CENTER** is located at the heart of the Miami urban core with the region's largest concentration of employment and the highest rates of walking and bus/rail transit ridership in Miami-Dade County. Significant redevelopment and increase in density have taken place in the past, and a similar trend is expected to continue in the future. This will likely strengthen downtown Miami's commercial base as well its competitiveness as a World City.

Miami Central Station will become the primary transit hub for Downtown Miami serving Brightline, and the Downtown Tri-Rail connection to existing Metrorail, Metromover, and Metrobus system. MiamiCentral Station will eventually provide inter-city, regional and commuter train services, further consolidating Downtown's role as the **primary transportation hub** for the region connecting millions of riders to various transit alternatives. The station will also be a 24-hour activity hub with retail, entertainment, business, and residential uses.

**RECENT STUDIES AND PLANNED IMPROVEMENTS**

- **Rethinking Parking Minimums**  
  
  ([ITE Journal]) February 2019

- **Flagler Street Reconstruction & Beautification**  
  
  ([Miami Downtown Development Authority, DDA]) June 2018

- **Downtown Miami Baywalk/Riverwalk**  
  
  ([Miami Downtown Development Authority, DDA]) August 2017

- **Biscayne Green**  
  
  ([Miami Downtown Development Authority, DDA]) January 2017

- **Complete Streets Design Guidelines**  
  
  ([Kimley Horn]) 2017

- **Strategic Miami Area Rapid Transit (SMART) Plan**  
  
  ([Transportation Planning Organization, TPO]) April 2016

- **Miami-Dade TPO Protected Bike Lanes Plan**  
  
  ([Martin Engineering]) August 2017

- **Overtown/Wynwood Bike+Ped Mobility Plan**  
  
  ([Kimley Horn]) 2014

- **Miami Bicycle Master Plan**  
  
  ([Street Plans Collaborative, HNTB]) September 2009

- **Miami-Dade 2040 Bicycle/Pedestrian Plan**  
  
  ([Kimley Horn]) 2009

- **Miami-Dade Street Tree Master Plan**  
  
  ([Miami-Dade County]) February 2007
STATION AREA
BASE ANALYSIS

REGIONAL CENTER GUIDELINES

MULTI-MODAL SERVICE:
• Pedestrian access as main priority
• Formal infrastructure for all modes: bike lanes, crosswalks, bus lanes, bike parking, etc

WALKABILITY:
• Strong connectivity on existing street network
• Ample public space network
• Infrastructure that supports high pedestrian use (e.g., wide sidewalks, mix of uses)
• Increase visibility and awareness of proximity to stations with repetitive wayfinding elements that are recognizable

DEVELOPMENT CHARACTERISTICS:
• High FLR
• 3-60 stories T6-T5
• 80-100% lot coverage
• Multi-family, mix of uses
• Street-level activity

KEYS TO SUCCESS:
• 24/7 mix of uses
• Multi-modal options
• Centralized parking structures for district-serving purposes instead surface parking lots

STUDY AREA EXISTING CONDITIONS

CONTEXT:
• Urban Downtown Station (HUB Station)

CORE INFRASTRUCTURE:
• Miami Central Station

TRANSIT (FEEDER) OPTIONS:
• Commuter Rail
• Metromover
• Bus
• Trolley
• Personal Mobility Devices

KEY FEATURES:
• Dense residential urban core
• Connected grid
• High employment center
• Entertainment and commercial destinations
• Traffic congested
• Active commercial area
• High population
• Zoned for maximum density and height
• Historic designation

(see diagram on the right and the existing conditions assessment for reference)
EXISTING CONDITIONS ASSESSMENT

*All numbers are based on the 1/2 Mile radius area.

**STREET TREE CANOPY**

52% OF THE STREETS HAVE LITTLE TO NO SHADE.

**CROSSWALKS + INTERSECTIONS**

19/140 (13%) CROSSINGS LACK MARKED CROSSWALKS.

**CYCLING COMFORT**

69.4% OF THE STREETS ARE NOT COMFORTABLE FOR CYCLING.

LEGEND:

- **No Trees**
- Small Trees/Palms (One Sides of Street)
- Small Trees/Palms (Both Sides of Street)
- Mature Trees (One Sides of Street)
- Mature Trees (Both Sides of Street)

LEGEND:

- No clear pedestrian crossings (19)
- Crossings (One or Two Sides of Street) (22)
- Crossings on all intersections (99)

LEGEND:

- High Comfort
- Low Comfort
17% of the land zoning around the station is institutional.

28% of the area is dedicated for civic uses, 5% employment centers and 11% commercial uses.

Approximately 73 acres (15% of the transit shed) of land dedicated to parking.
Downtown Miami is a multi-layered hyper-urban center that serves as the main hub for Miami-Dade County. Its urbanized condition provides clear challenges and opportunities that are quite different from other less established locations. For this reason, this study concentrates on both the public and private aspects of its built environment to assess the impact of the Miami Central Station and provides an assessment on the elements that need to be improved to encourage ridership, to capitalize on new transportation investment and to address changing mobility behavior as people move to, from and around the station.

Different methods of analysis have been used, among them: previous studies, land planning and development codes, Geographical Information Systems, aerial photography, available surveys, and the most important of all - personal observation and on-site measurements.

These last two methods are the best gauge we have to understand how people move and to assess the level of comfort and safety provided to encourage universal accessibility.
NW 2ND AVENUE

NW 2ND Avenue has the potential to become one of the main streets in Downtown, connecting people coming from the north and south to the train station. A portion of this street already has an abundant tree canopy between 1st and 3rd Streets, just west or next to the station.

There is a plaza and a number of green spaces that are underutilized. The street widens to include additional lanes for parallel parking and removes the trees on either side and is replaced by palm trees in some sections. This street is flanked by large buildings throughout but most lack the proper frontage to engage pedestrians on the sidewalk. This results in a highly inactive street, with people walking only to reach a destination at a short distance.
Sidewalks in poor state of repair.
Missing street trees.
Sidewalk obstruction due to poorly maintained street trees growing at an angle.

LEGEND:
- Wide drive lane width
- Non continuous commercial frontage
- Narrow sidewalk
- Missing traffic signal
- Missing street lighting for safety
- Bus stop without shelter and/or bench
- Sidewalk obstruction
- Missing ADA ramp
- Missing traffic-calming device
- Sidewalk under construction
- Missing Tree Canopy

Car 49%
People 27%
Bike 0%
Green 24%
Transit 0%
NW 1ST AVENUE

When Miami Central Station is finally completed and fully operational, the entrance to the station on NW 1st Avenue will be the main access point for vehicular drop-off. Today there are not enough safe crosswalks to access the station. The bus stop at the south of the station is relied on by many people each day as part of their commute, but currently does not provide shelter from the sun and rain.

Given the potential increase of use, this situation may worsen creating a conflict between people waiting for the bus and people moving along the sidewalk.

The open spaces and plazas adjacent to the station to the east are uninviting and in need of improvements. These spaces are extremely important around transportation hubs and require attention in order to maximize their use.
The entire perimeter and sidewalks of the station are under construction.

Building has extensive setbacks from the street and the surrounding public space/plaza is non-inviting due to its lack of active uses facing the street and unsuitable furnishings for gatherings, and proper landscape for shade and shelter.

This bus stop is typically very busy and does not have any shelter from the elements.

This portion of the road has a comfortable sidewalk and good trees that provide shade.

Parcel [Under Construction]

Legend:
- Wide drive lane width
- Non continuous commercial frontage
- Narrow sidewalk
- Missing traffic signal
- Missing street lighting for safety
- Bus stop without shelter and/or bench
- Sidewalk obstruction
- Missing ADA ramp
- Missing traffic-calming device
- Sidewalk under construction
- Missing Tree Canopy

Legend:
- Car 68%
- People 22%
- Bike 0%
- Green 0%
- Transit 0%
N MIAMI AVENUE

North Miami Avenue runs through the heart of Downtown Miami, connecting to Brickell in the south and OMNI to the north. Within the quarter mile area from the train station, the street starts as a three-lane, one-way corridor with parallel parking on either side. The street is fronted by long stretches of parking on either side. The handful of buildings that do front the street have vacant commercial spaces, which stunt much pedestrian activity. The street’s intersection with the rail tracks and most other intersections have large intersection boxes and are missing adequate signage. They are currently not safe for pedestrians or cyclists. Bus shelters along the street do not have any kind of shelter from the sun and rain. North of the intersection with N 5th Street, the street has one less travel lane, and one parallel parking zone.

As it approaches the core of Downtown, the intersections have adequate crosswalks, but the building frontages contain empty spaces that fail to engage the pedestrians.

View reference.
Pedestrian conditions become unsafe starting on NE 5th Street.

Sidewalks in poor state of repair.

Sidewalk obstruction due to poorly maintained street trees growing at an angle.

Missing street trees.

**LEGEND:**
- Wide drive lane width
- Non continuous commercial frontage
- Narrow sidewalk
- Missing traffic signal
- Missing street lighting for safety
- Bus stop without shelter and/or bench
- Sidewalk obstruction
- Missing ADA ramp
- Missing traffic-calming device
- Sidewalk under construction
- Missing Tree Canopy
NW/NE 6TH STREET

NW/NE 6th Street is a one-way street with two-lanes and parallel parking on both sides. This is one of the few streets that traverses under Miami Central station and provides a drop-off point to the terminal for both commuters arriving vehicles. This street provides a very direct access for pedestrians walking from neighborhoods on the west of I-95 to safely access the station.

The street is fronted by large swaths of surface parking and vacant land that will soon be under development. Buildings that do front the street have empty spaces or lack engagement, which consequently means lower pedestrian activity throughout.

NW/NE 6th Street is an important pedestrian connection to Biscayne Boulevard and to neighborhoods west of I-95 from the Station. As such, it must be treated to accommodate additional pedestrian traffic and future developments must be designed to provide active and engaging fronts at the ground level.

View reference.
Building with arcade on sidewalk is a good example of protection from the elements for pedestrians.

Drop-off/Access to Miami Central Station on both sides of the street.

Parking garage facade does not engage pedestrians.
NW/NE 5TH STREET

NW/NE 5th Street is a one-way street with three lanes. One row is dedicated to parallel parking on some portions and two rows are dedicated to parallel parking on others. The street, although very wide, still poses challenges for pedestrians crossing the sidewalks because most of its length is too narrow and there is no bicycle infrastructure.

Buildings, in general do not engage the sidewalk. They have blank facades, loading and wide curb-cuts or they are separated from the sidewalk by fences. The intersection of NW 5th Street with NW 1st Court lacks marked crosswalks and signals. In addition, the corner at this intersection is vacant and could benefit from becoming a pocket park to mirror the pedestrian passage across the street.
Street could use some trees to soften the blank façades of some of the buildings like the one in photo 5.

LEGEND:
- Wide drive lane width
- Non continuous commercial frontage
- Narrow sidewalk
- Missing traffic signal
- Missing street lighting for safety
- Bus stop without shelter and/or bench
- Sidewalk obstruction
- Sidewalk under construction
- Missing ADA ramp
- Missing traffic-calming device
- Missing Tree Canopy

Car 66%
People 34%
Bike 0%
Green 0%
Transit 0%
NW/NE 3RD STREET

NW/NE 3rd Street is one-way thoroughfare with two travel lanes and parallel parking from Biscayne Boulevard to NW 1st Avenue and a two-way with a combination of two lanes westbound and one and two lanes eastbound towards the station from I-95. This arrangement of lanes presents an opportunity for a road diet and to insert dedicated bike infrastructure along the entire street.

The predominant challenges in terms of mobility and accessibility are the continuous wide curb cuts for service and parking garage entrances that disrupt the path of the pedestrian. In addition, the physical protective barriers along the perimeter of the sidewalk along the courthouse seem temporary even though they have been there for over a decade. They affect the accessibility of the sidewalk and are an eyesore.

NW/NE 3rd Street is an important pedestrian connection from Biscayne Boulevard and neighborhoods West of I-95 and must be improved to accommodate pedestrian traffic to the station.
One-way service street from NE 4th St with parking under the Metro Mover structure. No direct frontage to this street.

Building has extensive setbacks from the street and the surrounding public space/plaza is not inviting due to lack of functions, unsuitable furnishing for gatherings, and inadequate landscape for shade and shelter.

Protective barriers on most of this block of NE 3rd St against the sidewalk disrupts accessibility.

Large area allocated to parking entrance without identifiable sidewalk.

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NW/NE 1ST STREET

NW/NE 1st Avenue is a one-way, two-lane street that turns into a three-lane when leaving Downtown Miami. In many cases, the street has shady, mature trees and good sidewalk conditions that run alongside its length. In other cases, the sidewalk narrows and/or there are uncoordinated impediments such as lamp posts and signs among others that make pedestrian mobility difficult.

Most of the buildings have good active frontages and uses, which encourage walkability. There are a number of vacant parcels and parking lots that would improve frontages once developed.

East of 2nd Avenue, the metro-mover structure takes a significant amount of space with its columns which reduces the available ROW.

View reference.
Opportunity to improve transit stop by adding more seating and shelter.

Opportunity to convert lanes into pedestrian plazas.

Multiple curb cuts that make walking unsafe.

Missing street lighting.

LEGEND:
- Wide drive lane width
- Non continuous commercial frontage
- Narrow sidewalk
- Missing traffic signal
- Missing street lighting for safety
- Bus stop without shelter and/or bench
- Sidewalk obstruction
- Missing ADA ramp
- Missing traffic-calming device
- Sidewalk under construction
- Missing Tree Canopy
RECOMMENDATIONS

METHODOLOGY

Based on the site conditions and accessibility survey, a set of strategies and recommendations are proposed to improve access to and around the station.

The goal of these recommendations is to improve safety + comfort, increase ridership and interconnectivity between modes and around the station.

The study also considers future mobility improvements that incorporate resilient investment strategies, as well as examples of other cities that faced with similar challenges have addressed them in different ways.

These recommendations are divided in the following categories identified during the Assessment and Analysis sections:

1. Mobility
2. Safety + Comfort
3. Public Space
4. Land Use + Resiliency

Some of these recommendations will require multi-agency coordination. Some of them are identified herein.

AGENCIES LEGEND

BD: Building Department  
CC: Code Compliance  
CIP: Capital Improvements Program  
DDA: Downtown Development Authority  
DREAM: Dept. of Real Estate & Asset Mgmt.  
ED: Elected Officials + City Commission  
FDOT: Florida Department of Transportation  
MDC: Miami-Dade County  
MPA: Miami Parking Authority  
ORS: Office of Resiliency and Sustainability  
PR: Parks and Recreation Department  
RPW: Resilience and Public Works Dept.  
PZ: Planning and Zoning Departments  
RS: Resilience and Sustainability  
WB: Wynwood BID
Downtown's right-of-ways were designed to accommodate vehicular traffic at the expense of limiting the space dedicated for the secure and safe movement of pedestrians and other non-motorized modes. The introduction of additional commuter transit modes creates a higher demand for non-motorized means of mobility. Therefore, the redesign of right-of-ways to accommodate new mobility options is necessary.

The following strategies are intended to create a well-connected network throughout the Downtown. These recommendations acknowledge the relationship between land use and transportation by considering context-sensitive street design. Furthermore, these recommendations address how to balance the needs for space on the streets including safety, mobility, creating vibrant frontages and attractive public spaces.

**1.1 RE-BALANCING STATION AREA’S ROWS**

Re-balance the streets by re-allocating space currently used for parking or travel lanes to other uses. Alternatively, travel or parking lanes that are too wide can simply be narrowed, slowing traffic down and creating more space for other uses. These can include wider sidewalks with space for trees, seating and other amenities, high-quality protected bike lanes, or transit priority lanes that improve bus operations. Reducing the space dedicated to cars also makes crossing the streets easier and safer for pedestrians and cyclists.

- NW/NE 5th Street is a high speed, one-way street with three lanes of traffic for cars and at times two parking rows. Removing a parking lane or a travel lane could accommodate a high-quality protected bike lane. The 2017 Miami-Dade TPO Protected Bike Lanes report recommended this change to NW/NE 5th Street as well as on NW/NE 6th Street, N/S Miami Avenue, and NE/SE 1st Avenue in Downtown Miami.

- Consider the use of permeable infrastructure to provide passive drainage during flooding events (travel, parking and sidewalk pavement, tree-wells, etc.).
Access to transportation is most often created through non-motorized modes like the bicycle and pedestrian. To improve access and increase ridership, we must re-think our streets. We must prioritize bicycle and pedestrian mobility to improve safety and comfort.

RE-BALANCING EXAMPLE:

**N MIAMI AVE**

**EXISTING**
- Car: 67%
- People: 33%
- Bike: 0%
- Green: 0%
- Transit: 0%

**PROPOSED**
- Car: 46%
- People: 33%
- Bike: 0%
- Green: 0%
- Transit: 21%

**NE 1ST ST**

**EXISTING**
- Car: 56%
- People: 44%
- Bike: 0%
- Green: 0%
- Transit: 0%

**PROPOSED**
- Car: 29%
- People: 71%
- Bike: 0%
- Green: 0%
- Transit: 0%

All Diagrams: Example of what re-balancing the street would look like if implemented. (Source: Plusurbia Design)
01. MOBILITY

1.2 SPEED MANAGEMENT
One of the biggest challenges to Downtown’s mobility is the existing street design that encourages high vehicular speeds, making non-motorized movement unsafe and uncomfortable. Because Downtown Miami is designed to accommodate peak-hour motor vehicle traffic, the wide multi-lane one-way streets that traverse it are often below capacity during the rest of the day, allowing for dangerously high speeds.

» Implement Pedestrian Priority Zone plan prepared by the Miami DDA to maintain safe speeds that make walking and cycling safer and more pleasant in Downtown.

» Consider lowering the vehicular speed limit to 20 mph or slower throughout the quarter mile radius from the station to increase safety between modes.

1.3 CONGESTION MANAGEMENT
Downtown’s livability and economy depends on its ability to provide fluid networks such as reliable transportation of goods, services and information which are key to the success of any city core. Congestion of these networks can seriously damage the functionality and reliability of the downtown, impairing its ability to be compete with other urban centers. Vehicular congestion in Downtown Miami has reached similar critical conditions as other major cities around the world. The following are policies that have proven successful to reduce congestion and pollution in urban centers:

» Establish non-motorized priority or exclusive zones. Like many cities facing extreme congestion, Downtown Miami could limit vehicular access in some areas to improve and create incentives for biking and walking. This strategy can be considered as a permanent ban, or during specific times of the day [see Madrid Pedestrian Plan, Brussels City Center and San Francisco 2017 Market Plan].

» Establish a Downtown CCZ (Congestion Charge Zone) policy. [see London CCZ]. This strategy will reduce congestion and improve traffic fluidity. Furthermore, as proven in other cities, it provides a source of funding that may be applied back into the network.

Diagram: This diagram illustrates the bicycle street grid around the Miami Central Station based off of existing conditions. The “High-Comfort Streets” typically run more local and have little to moderate volume of traffic. The “High-Stress Streets” on the other hand, are often more of the commuter avenues that support high volumes of traffic. As illustrated in the diagram above, the majority of streets in the study area that provide access to Miami Central Station are not conducive or safe to ride a bicycle. (Source: Plusurbia Design)
The advent of new mobility options require additional or new infrastructure to be installed. Holistic approaches serve best to make sure that any single intervention is an improvement, not an impediment.

» Establish schedule for large service vehicles to operate that does not conflict with peak traffic hours. Consider relief for small businesses service conditions to minimize impact to smaller commercial tenants.

» Limit access to local traffic only in certain areas at certain times. Similar to the strategies that could be used for non-motorized priority or exclusive zones, Limited Access Zones may use mechanical bollards and other traffic management elements to achieve this measure.

1.4 CYCLIST NETWORK
Downtown streets were surveyed based on speed limits, the number of lanes, the volume of traffic (cars and people), and whether or not they had protected or separate bike lanes. In our analysis of the 1/4 mile radius, 85% of the streets are identified as High-Stress Streets for cycling (see diagram 01).

Provide a well inter-connected and secure cycling network by:

» Identifying opportunities to accommodate high-quality bike infrastructure wherever possible and where the ROW conditions permit it.

» Providing clearly marked signage and stencils on pavement wherever any type of bike infrastructure exists, such as cycle lanes, shared streets or physically separated lanes.

» Enforce lane blocking sternly - blocked bicycle lanes are one of the major points of conflict and safety.

» Considering implementing traffic calming measures and speed control to maintain a target vehicular speed of 20 mph or less whenever sharing lanes with other modes. Example: NW 2nd Ave.

1.5 CYCLE/SCOOTER PARKING INFRASTRUCTURE

» Provide ample, secure, multi-space bicycle parking facilities at or near the transit station areas.

» Assign reserved curb space for bike/scooter-share parking to avoid “clutter” and avoid interference with people walking on the sidewalks. When space is not available on the sidewalks re-purpose on-street car parking spaces for bike-share parking.

» Include bicycle repair stations closer to stations to improve the reliability of cycling as a mode of transport or recreational activity.
1.6 SIDEWALKS

Although most streets in Downtown have sidewalks, many are narrow, broken, uneven and/or obstructed by poorly installed signage. In addition, many lack curb cuts creating accessibility problems for people with disabilities failing to provide adequate space for street trees, seating, or bus shelters. In addition, multiple curb-cuts for service and parking create uneven conditions that make walkability a challenge.

These action steps should be implemented to improve sidewalk conditions:

» Bring all sidewalks in Downtown into a good state of repair.

» Increase urban tree canopy by planting native shade trees in existing empty tree wells, and implement and activate public spaces.

» Remove poorly installed signage to increase usable sidewalk space and add curb cuts at locations where they are missing.

» Limit curb-cuts to new buildings, consolidating ingress and egress to a single location. Work in concert with Action Step 4.4 Shared Loading Strategy to minimize the number of sidewalk conflicts.

» Require sidewalk tapering closer to the curb edge. New standards need to be adopted in order to reduce turning speeds into sidewalks. Tighter curb tapering and edges slow traffic down and provides safer and more comfortable walkable conditions.

CURB CUTS

» Service future buildings avoiding a large amount of curb cuts by coordinating on a block wide level. Limit length and number of curb cuts for service access to buildings.

» Miami 21: The vehicular entrance of a parking Lot or garage on a Frontage shall be no wider than 25-30 feet and the minimum distance between vehicular entrances shall be sixty (60) feet, unless approved by Waiver.

1.7 CROSSWALKS

Some streets are missing secure crosswalks and/or faded markings.

» Install and improve higher visibility crosswalks, such as zebra style or material changes, at all intersections. Maximize driver visibility and ensure pedestrian and bicycle safety while crossing streets.
Trees and shading devices are very important elements for a successful walkable network, especially in a tropical environment.

» Implement advance-stop lines at intersections for motor vehicles to prevent crossing invasion from cars and reduce crossing conflicts.

» Prohibit right turns at red lights throughout the downtown area will help prevent crosswalk occupation by cars and reduce conflicts.

» Program Leading Pedestrian Interval (LPI’s) into traffic signals to give pedestrians - vulnerable to left turning vehicles - extra time to establish their presence in the crosswalk before motorists can start turning.

» All traffic signal crossings should be upgraded with Accessible Pedestrian Signals (APS) devices for pedestrians who are blind or who have low vision.

1.8 DESIGNATED RIDE-SHARE DROP-OFF LOCATIONS

» Provide intuitive clearly marked pick up and drop off areas that are easily accessible and visible to all users. Consider the station type and land use context in the specific design priorities for the station.

1.9 CHARGING STATIONS

The electric vehicle (EV) industry has expanded in recent years. The availability of public charging infrastructure is significantly linked to high EV adoption rates in cities. By facilitating access to charging stations, local government can benefit from the ecological and economic benefits it brings.

» Develop codes and policies to allow and encourage charging stations to be installed in more areas throughout the Station Area.

» Launch a pilot project to install EV charging stations throughout Downtown, and make them accessible to the public through web based maps or other EV-related apps which show the availability of public charging stations in an area.

» Develop EV ready code packages to ensure buildings and parking infrastructure can accommodate electric vehicles.

1.10 ACTIVE PARKING MANAGEMENT PROGRAM

Active parking management is the dynamic management of parking facilities in a region to optimize performance and utilization of those facilities while influencing travel behavior at various stages along the trip making process: i.e., from origin to destination.
02. SAFETY+ COMFORT

Safety and Comfort refer to infrastructure vital to quality of life, which includes the all the city’s systems. Its goal is to make transit users comfortable and safe while traveling. Adequate planning and maintenance of this infrastructure contributes to the health, comfort, environmental resilience, economic productivity, and social connectedness of Downtown. It includes both hard-scape and the natural environment, urban amenities, street-scape and outdoor spaces, which are key components in mitigating the impacts of climate change.

2.1 TREE CANOPY

High temperatures during much of the year in Miami can make walking and cycling an uncomfortable experience. Unshaded pavement and concrete retains and radiates heat, making it even hotter creating an urban heat island effect. Many streets in Downtown lack street trees and in some cases, where they are present, they are palm trees that offer little shade.

- Provide shade trees on all streets (only when trees are not possible other shading devices should be used). It is important that both sides of the streets have trees to maximize the tree canopies and make sidewalks more comfortable for pedestrians. Trees not only add shade to sidewalks, but they also add a myriad of additional benefits such as serving as a protective buffer between pedestrians and vehicular traffic, increasing the aesthetic quality of the street, and improving storm water management.
- Plant shade trees in public spaces and encourage developers to do the same on private and public land as part of their development.
- Protect mature trees from new development during construction.

2.2 SHADE AND SHELTER

Building arcades and awnings are effective ways of creating shade and shelter from the rain for people walking on sidewalks and should be encouraged in new development. Green roofs and green walls can also help reduce the urban heat island effect while incorporating greenery into built-out urban areas. The City and County could explore introducing green spaces on underutilized land at public buildings. They could also create incentives for private developments to do the same.

- See Land-Use recommendations for specific action steps
2.3 IMPLEMENT TRAFFIC CALMING MEASURES

High speed limits and poor street design allow for motorists to drive at dangerous speeds that are incompatible with a highly urban downtown setting where cars frequently mix with people walking or cycling. As vehicle speeds exceed 20 mph, the risk of serious injury or death to a person struck by a car increases dramatically. Additionally, the presence of loud, fast moving traffic degrades the quality of street life by discouraging walking or lingering on the street.

» On streets that lack space to introduce wider, high-quality bicycle infrastructure, traffic calming such as raised crosswalks, narrower travel lanes and curb extensions can maintain safe vehicle speeds and improve the experience of people walking and cycling.

» Planting shade trees along streets can also have a traffic calming effect by creating the perception that the street is narrower.

2.4 LIGHTING

» Increase safety and aid in night navigation for active transportation users. Lighting should consider safety for all modes. Typical Cobra head lighting, still found in many of the study area is not recommended for sidewalk safety. Instead, a variety of lighting solutions should be considered for sidewalks, bike lanes and signage among others.

» Require frontages to be transparent and lit at night. Boarded up ground levels are uninviting and unsafe.

2.5 EYES ON THE STREETS

» To contribute to an atmosphere of safety encourage “eyes on the street” to provide informal surveillance of the urban environment. Ample room for walking, frequent doors and windows with people inside at all hours of the day and attractive spaces are important key elements.

» Require frontages to be transparent and active. Create a “no-vacancy program” with property owners.
THE CITY OF MIAMI IS LISTED AMONG THE TOP 50 CITIES WHERE BICYCLE COMMUTING IS GROWING THE FASTEST. FROM 2005 TO 2015, THERE WAS AN INCREASE IN BICYCLE RIDERSHIP OF 133% - FROM 3,000 TO OVER 7,000 COMMUTERS.
Complete Districts takes a holistic approach balancing a city’s public and private realms. The public realm includes city streets, sidewalks, parks and plazas, civic spaces and places that everyone can visit, while the private realm includes our homes and indoor life, the spaces where only the invited can go. Building facades are private but they form the walls of our public realm’s living rooms.

Adding and enhancing public spaces that improve the quality of the urban street life and encourage walking and create lively urban neighborhoods is important for all the citizens and visitors to Downtown and plays an important role in increasing transit ridership. Downtown Miami has a large number of open spaces around institutional buildings but their design often discourages use. There is a need for more modestly scaled and inviting public spaces.

3.1 PUBLIC SPACES

In an effort to enhance the transportation experience and create a vibrant and vital station area open spaces need to be carefully analyzed and enhanced. New public spaces should be planned and created in partnership with the local community and businesses in order to ensure proper maintenance.

- Seek opportunities to create active public spaces such as pedestrian plazas or parklets by reclaiming underutilized street spaces.

**Example:** As part of the New York City Department of Transportation’s Plaza Program, this vacant triangular parking lot re-purposed an oversized portion of the right-of-way into a new public space. The location on Pearl Street boasts great views of the Manhattan Bridge and bike facilities that make the amenity not only pleasant but also convenient. According to a 2012 New York City Department of Transportation study, retail sales increased 172% after the parking triangle was converted into a pedestrian plaza.
3.2 LIMITED VEHICULAR ACCESS STREETS
With the increase use of public transportation, some streets may be repurposed as "Pedestrian Priority Streets" - limiting vehicular access to local traffic and loading.

Streets are the most prominent public space, oftentimes considered solely for mobility purposes. In reality, most of our daily public activity happens in streets: they are spaces where most often chance encounters occur. Streets should be always considered as an open space/public space asset in our cities.

Incrementing the walkable realm, the sidewalks, and even limiting vehicular access provides a safer environment and one of the most effective ways to increase open space.

3.3 CAR FREE ZONES
As mentioned in the Mobility section 1.3 one-way to manage congestion could be to establish strategic car free zones. This could increase the amount of space dedicated for pedestrians and bicyclists and incentivize the use of transit.

Downtown is approaching a level of density and intensity which would benefit from implementing car free zones to reduce congestion. Starting a program in downtown would increase pedestrian and bicycle safety.

3.4 OTHER PEDESTRIAN ONLY CONNECTIONS
In the same visionary manner the Highline transformed an abandoned rail line to a world class public space in the City of New York, the right-of way along the FEC - Port of Miami tracks provides a tremendous opportunity to create an elevated connection from the station to the Bayside waterfront and Bayfront Park via a more direct and safe route. Future development on either side could maintain its service oriented ground level (facing the rail line) and activate the floors above providing additional commercial opportunities.

» Consider a pedestrian-only structure over the FEC spur leading to the port between NE 6th and NE 7th Streets.
4.1 BALANCE LAND USE AROUND THE STATION

The land uses around the train station are mostly civic and institutional, currently lacking the residential density and commercial uses on the ground level to encourage transit use and foster urban street life. The institutional buildings contain large setbacks with vast, unused spaces that are uninviting and often unsafe for pedestrians.

» Develop stronger policies to encourage appropriate land uses and development near transit. All future construction should have residential and non-residential uses combined within the same block.

» Rezone underutilized Civic and Institutional uses into compatible zoning categories to promote redevelopment.

» Encourage integration of Civic and Institutional uses within mixed-use buildings to achieve better and more efficient use of land. Moving these uses within future development will also reactivate a large area around the station providing a 24-hour environment. Additionally, City and County may benefit from these new developments with revenue that can be re-invested as improvements on infrastructure and other elements necessary for the successful revitalization of the transit shed.

4.2 TAX ALLOCATION DISTRICT (TAD)

Establish a Tax Allocation District (TAD) in the 1/2 mile transit shed boundary to capture the value of new development for a certain period of time, so the value can be reinvested within the TOD and fund needed infrastructure improvements.

» The redevelopment of underdeveloped, blighted, and vacant properties will generate substantial new annual tax revenues from property taxes, sales taxes, business licenses and other sources.

» The TAD can fund projects to create new urban frameworks to support development, provide accessibility and mobility for pedestrians and vehicles, and improve the aesthetic and visual environment of the area. New appealing mixed-use development will broaden the area's appeal and increase its economic competitiveness.
Frontages need to be active, transparent and lit at night to create safe and inviting streets. Land use and zoning need to encourage these frontages to increase street life and mobility.

4.3 VACANT LAND
Vacant and/or underutilized land is one of the station area’s major problems. Lack of activity around within the transit shed discourages walkability as streets lack interest are often deemed unsafe.

In cities like Miami that have adopted Smart Growth models, and where land is scarce, urban centers such as Miami’s Downtown are where development makes most sense. Vacant and underutilized land pushes demand for development elsewhere, which in turn adds to the mobility issues the City faces today.

There are methods that have been used to discourage speculation, increase land value and revitalize those areas of downtown that are currently inactive. Some are achieved through incentives that provide advantageous limited-time development conditions for instance, and others, more aggressive, as part of a taxation model known as “Progressive Taxation of Vacant Land”. Examples of this method can be found in the 2018 British Columbia’s Speculation and Vacancy Tax Act (Bill 45) (SVTA) as well as Vacancy Registration Ordinances established in Pennsylvania cities and boroughs such as Reading, Lancaster, Harrisburg, Steelton and York.

4.4 BUILDING’S MINIMUM HEIGHT
Even though most development in the Downtown maximizes its capacity, it is also a predominant practice in the City to develop suburban single-story typologies in some T6 zoning designations. In most cases, it has been permitted to construct these single stories with a faux 2nd story on top of pharmacy chains and fast food restaurants.

Just as is the case with 4.2 Vacant Land, underutilization of land in the City center leads to development pressure elsewhere decentralizing activity and reducing the area’s economic vitality and capacity.

» Increase the minimum height from 2 stories to 5 stories to match the lower tier zoning category - T5 (mid-rise typologies).

4.5 BUILDING FRONTAGES
The immediate area around the station has a significant number of undeveloped lots and institutional buildings with blank facades and large setbacks that disrupt the pedestrian experience.

» Promote active frontages that invite pedestrians to participate in interior building activities. Well designed ground-floor spaces and transit supportive uses increase pedestrian safety and comfort.

» Establish a “no vacancy program” to ensure active frontages and reduce blight around the station.

» Similar to the responsibility that public agencies have to provide safe infrastructure to access private property, Frontages are an integral part to the safety and comfort for all users. Buildings need to be designed and retrofitted to provide interest, transparency, and especially light at night to reduce the actual and perceived sense of safety. Consider either a grant program for a storefront upgrade policy update to require buildings to contribute to the overall safety and comfort on the street, See the City of Arlington’s 2017 Storefront Vacancy Bylaw success.
04. LAND USE + RESILIENCY

4.6 PARKING

» Design parking garages so they can be adaptively reused in the future.
» Redevelop parking, especially surface lots, into uses that improve the public realm. Incentivize temporary commercial frontages.
» Where parking remains, recommend active uses for parking garage ground floors, better trees and urban greening to minimize the impact on the pedestrian experience of parking lots and provide shade to counteract the urban heat island effect these cause.
» Encourage residential use of office and commercial parking structures after hours.

4.7 SHARED LOADING ZONES

The Miami21 Zoning Code requires a large area of buildings in the urban core to be devoted to loading for commercial and residential uses. This condition has an adverse effect on the building footprints by taking a large portion of the usable ground floor for vehicle circulation. While all buildings need loading areas and refuse storage for collection, the code requires loading to occur within the building, which in most cases results in a reduced active commercial layer, frontage and large curb cuts that conflict with pedestrian mobility (see 2.5 Curb-Cuts).

» Create a loading and service plan that covers the current demand and is required to be revised every 3 years. This plan should work in concert with “1.2 Congestion Management”.

» Propose legislation to create a Downtown parking and loading fund whereby existing buildings and proposed development can pay-in lieu of loading areas internal to the project for the right to use public loading areas. This fund, similar to those already in place in Coconut Grove and the Wynwood NRD-1 could be managed by the Miami MPA or the Downtown DDA. Funds attained by this measure could further pay for improvements and or maintenance and operation of these loading and service areas.
Frontages need to be active, transparent and lit at night to create safe and inviting streets. Land use and zoning need to encourage these frontages to increase street life and mobility.

4.8 FLOOD RISKS
Flood hazard maps (Flood Insurance Rate Maps or FIRMs) show that the properties close to the Miami River in Downtown Miami lie at a flood zone designated as Zone AE (moderate to high flood risk) and is described as the flood insurance rate zone that corresponds to areas of shallow flooding with average depths between one and three feet (9 feet in Downtown Miami).

In some cases it is easier to accommodate access to the first floor by setting back the building facade. First floors that are far from the sidewalk are problematic for commercial streets where foot traffic and immediate access and visibility is integral to economic viability.

4.9 GROUND FLOORS
While adhering to new flood regulations can present obstacles to maintaining active ground floors, there are a number of ways property owners can still provide transparency and activity at the ground level.

> Where floor plan allows it, access should be solved inside the building envelope to preserve street-wall alignment, ensuring a visual connection to the sidewalk. Hybrid strategies are possible involving elevation of interior space with wet flood proofing of entrances and a shallow area near windows that can serve as display space.

> Consider changes to zoning maximums reflecting flexible ground floor heights to address flood elevation changes.

4.10 PERMEABILITY
As seen in recent flood events, major damage is caused in great part in the rate of absorption at which water permeates through the ground. Downtown Miami's coastal location has proven to be one of the City's most prone to flooding. As new infrastructure is put in place, consideration must be given to the shocks and stresses of flooding events.

> Future street improvements should use permeable materials to accelerate absorption to minimize property damage and time of recovery.

> All improvements and future private and publicly owned surfaces should be built with pervious materials to add to the absorption index of the area.
COMMUNITY CENTER
MIDTOWN
TRI-COASTAL LINK STATION AREA DEVELOPMENT RECOMMENDATIONS
Midtown, located north of Downtown Miami and south of the Miami Design District is sometimes used as catch-all name to describe the neighborhood areas of the Wynwood and Edgewater. It is roughly bound by NE 20th Street to the south, I-195 to the north, I-95 to the west and Biscayne Bay to the east.

The Midtown portion of this study evaluates two scenarios between siting a Midtown Tri-Rail Station on NE 29th Street (closer to Wynwood/Edgewater/Midtown) or on NE 36th Street (Design District/Midtown). The following scenarios evaluate opportunities and constraints at different scales: the ½ mile TOD shed and the station sites at the block scale. The ½ mile analysis primarily focuses on a Complete Districts approach that determines the best possible station location evaluating network connectivity, mobility, public spaces, uses, density, neighborhood scale and redevelopment potential (entitlements).

Additionally, a station (site) analysis at a block level focuses on the exploration of the existing conditions and the physical placement of the station's platforms and their accessibility, visibility and feasibility. The station platform dimensions were taken from the typical Tri-Rail 24' width by 450' length platforms on both sides of the tracks as defined by the SFRTA / Tri-Rail Station's Design Guidelines.

Two scenarios were studied. The first scenario assesses siting along the ROW of the FEC tracks, north and south of 36th Street, and the second scenario north and south of 29th Street.

**RECENT STUDIES AND PLANNED IMPROVEMENTS**

- **Midtown Tri-Rail Station Siting Study**  
  (Garcia-Pons+Associates) August 2018
- **Wynwood Business Improvement District**  
  (Wynwood BID) August 2018
- **Wynwood Streetscapes**  
  (Corradino) July 2017
- **Wynwood Woonerf**  
  (Corradino) July 2017
- **Mana Wynwood SAP**  
  (Greenberg Traurig) April 2015
- **Wynwood Neighborhood Revitalization District (NRD-1)**  
  (PlusUrbia Design) August 2015
- **Miami Design District Retail Street Special Area Plan (SAP)**  
  (Duany Plater-Zyberk & Co) June 2012
- **Midtown Major Use Special Permit (MUSP)**  
  (City of Miami) July 2014
- **South Florida East Coast Corridor (SFECC) Station Design Guidelines**  
  (EDSA) December 2009
STATION AREAS
BASE ANALYSIS

KEY GUIDELINES FOR A COMMUNITY CENTER STATION

MULTI-MODAL SERVICE:
• Enhance multi-modal access with infrastructure improvements
• Park and ride is not appropriate
• Enhance drop-off access at locations near main streets
• Connect to existing multi-modal networks including on-street transit

WALKABILITY:
• Provide safe and visible connections to the station
• Provide alternative pedestrian routes off fast-moving streets
• Reduce block sizes
• Increase visibility and awareness of proximity to stations with repetitive wayfinding elements

DEVELOPMENT CHARACTERISTICS:
• 3-5 stories
• 30-70% lot coverage
• Multi-family or townhouses
• Building design should match the feel/needs of the neighborhood
• Higher densities closer to the station

KEYS TO SUCCESS:
• Market transit connections
• Rebuild and reconnect pedestrian infrastructure.
• If vacancy is high, plan development and infrastructure for future density increase


STUDY AREA EXISTING CONDITIONS

CONTEXT:
• Community Center Station

AVAILABLE INFRASTRUCTURE:
• FEC railroad tracks

TRANSIT SERVICES:
• Bus
• Trolley

KEY FEATURES:
[MIDTOWN NORTH - 36TH ST]
• Transect of single-family, low/medium density development
• Mixed-use walkable district
• World-class retail and entertainment destination
• Good connections to transportation corridors.
• Established developments and maximum build-out capacity.
• Limited vacant land opportunities.

[MIDTOWN SOUTH - 29TH ST]
• Transect of medium/high to low density developments.
• Good connections to transportation corridors
• World-class entertainment destination
• Industrial underutilized warehouse buildings
• Superior density by zoning right
• Numerous vacant land and re-development opportunities

(see diagram on the right and the existing conditions assessment)
EXISTING CONDITIONS ASSESSMENT

*All numbers are based on the 1/2 Mile radius area.

**STREET TREE CANOPY**

36th St  52% of the streets within 1/2 mile radius have little to no shade.

29th St  62% of the streets within 1/2 mile radius have little to no shade.

**CROSSWALKS + INTERSECTIONS**

80% of the streets within 1/2 mile radius lack marked crosswalks.

85% of the streets within 1/2 mile radius lack marked crosswalks.

**CYCLING COMFORT**

38% of the streets within 1/2 mile radius are not comfortable for cycling.

34% of the streets within 1/2 mile radius are not comfortable for cycling.

**LEGEND:**
- No Trees
- Small Trees/Palms [One Sides of Street]
- Small Trees/Palms [Both Sides of Street]
- Mature Trees [One Sides of Street]
- Mature Trees [Both Sides of Street]
- Parks / Open Spaces

- No clear pedestrian crossings [80]
- Crossings [One or Two Sides of Street] [58]
- Crossings on all intersections [26]
2K dwelling units within 1/2 mile radius area.*

2.3K dwelling units within 1/2 mile radius area.*

16% of the area within 1/2 mile radius are dedicated to residential uses.

28% of the area within 1/2 mile radius are dedicated to residential uses.

12% more railroad right of way available near the proposed 29th St station than on 36th St.

* A 1% growth projection for both population and employment were added to the 2015 Census data to establish current (2018) baseline data. (Source: Garcia-Pons+Associates)
ANALYSIS METHODOLOGY

The study looks at the physical conditions: challenges and opportunities between the three districts examining potential future development patterns, regulations, and context along the FEC rail line and within the potential transit sheds to provide recommendations for the most suitable station location.

These recommendations are divided into the following categories:

1. Development Capacity Maximum Build-Out Analysis
2. Station Design Guidelines
3. Potential Station Area Evaluation
   • Network connectivity
   • Mobility
   • Public Spaces
   • Use
   • Density/Intensity
   • Parking
   • Spatial constraints
The Midtown Tri-Rail Station Siting Study by Garcia-Pons + Associates was commissioned by the Wynwood Business Improvement District (BID) on August 2018 to identify and address the future mobility needs of the Wynwood/Midtown/Edgewater district.

The intent of the Study was to explore demographic characteristics and development capacities within potential Transit Station Area sheds (areas within a ½ mile radius of a transit station) to help identify possible transit station locations along the existing FECI Corridor near Midtown Miami. The two Station Area Locations explored are located at the intersections of NE 36th (near the Design District), and NE 29th Streets, (near Wynwood/Edgewater), along the FECI Corridor.

The next step was to establish a Build-Out [Maximum] development capacity based on physical conditions and Miami 21 Zoning codes. The study shows that there is a significantly higher development capacity in the NE 29th Street shed than NE 36th Street shed. And, for the purpose of providing the greatest economic development benefits at the lowest cost to the public sector, a higher development capacity provides a sound statistical basis for siting a Midtown Tri-Rail Station nearer to NE 29th Street (closer to Wynwood/Edgewater/Midtown) than to NE 36th Street (Design District/Midtown).

Maximum Build-Out data sets for future potential Population, Households, Commercial and Employment shows that the 29th Street Station Area has a 50% higher future potential development capacity than the 36th Street Station Area. A further breakdown of the Station Area sheds shows that there is a significant overlap between the two Station Areas (generally the area including and surrounding Midtown) and that if this overlap area were to be reduced (i.e. moving the northern station further North or southern station further South), the disparity in development capacity would increase exponentially.

Given that the overlap data cancels itself out when comparing the two locations, the overlap area was excluded from each Station’s 1/2 mile shed’s computation. As a result, the southern portion of the 29th Street Station Area results in a 300% higher future potential development capacity - based on the current entitlements - than its equivalent northern portion of the 36th Street Station Area. The development capacity difference suggests the need to study future mobility solutions and investments further, including a potential new Transit Station to maximize ridership and adequately serve the rapidly growing needs of both communities.

The study concludes that for the proposed transit system to be economically viable, any new transit stations should be sited to serve, not only existing populations and workforces, but also future ones. Additionally, future transit hubs must be consistent with the goals of the City and County’s Comprehensive Plans and Zoning Codes, stations should be sited in communities with a high level of mixed-use development, limited parking requirements and higher densities to help catalyze investment and support the highest level of infill growth.

CURRENT [2018] BASELINE DATA

<table>
<thead>
<tr>
<th>MIDTOWN STATION AREAS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Station Area</strong></td>
</tr>
<tr>
<td>36th St</td>
</tr>
<tr>
<td>29th St</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Station Area</strong></th>
<th><strong>Employment</strong></th>
<th><strong>Commercial (gsf)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>36th St</td>
<td>7,400*</td>
<td>1,958,400 (265 gsf/employee)</td>
</tr>
<tr>
<td>29th St</td>
<td>6,700*</td>
<td>1,769,200 (265 gsf/employee)</td>
</tr>
</tbody>
</table>

*A 1% growth projection for both Population and Employment were added to the 2015 Census data to establish current (2018) baseline data. (Source: Garcia-Pons+Associates)
PROJECTED BUILD-OUT MAXIMUM DATA

**36TH ST. NORTHERN “CRESCE”NT**
[DESIGN DISTRICT]

**MIDTOWN “OVERLAP”**

**29TH ST. SOUTHERN “CRESCE”NT**
[WYNWOOD/EDGEWATER]

*Existing Built Area (in gross square feet) was sourced from the Miami-Dade County Property Appraiser’s website. Maximum Allowable Area (gross square feet) was extrapolated by taking each Lot by Transect Area and filtering them through the maximum allowable Density, Intensity and Height allowed under the Miami 21 zoning code. Projected Buildable Area (in gross square feet) was deduced by “building out” average sized Lots within each Transect Area, within each Station Area, using a standard typology subject to buildability constraints. The standard typology includes ground floor retail (T5 & T6 parcels), parking liners (T5 & T6 parcels) parking (including 30% parking reduction) and 1,200 square foot average dwelling units. (Source: Garcia-Pons+Associates)*

**Diagrams:** Text and graph information adapted from the Midtown Tri-Rail Station Siting Study, by Garcia-Pons+Associates.
The following specifications are taken from the SFRTA / Tri-Rail Station’s Design Guidelines that apply to side platforms in urban site conditions. All dimensions taken are not based on surveys, they were obtained from the City of Miami’s Open Source GIS files, the Miami-Dade Property Appraiser website and aerial imagery.

The following specifications were used to study the station location:

- **LENGTH OF PLATFORM** – 450-500 feet minimum.
- **WIDTH OF PLATFORM** – 25 feet minimum, with additional width as necessary to meet the “Platform Area”.
- **WIDTH OF ROW** – 76 feet minimum.
- **STATION ACCESS** – Stations should be sited at visible locations on collector roads or minor arterials and not on major arterials or residential sites.
- **ALIGNMENT** – Platforms should be located along tangent track.
- **SLOPE & CURVATURE** – Essentially level and flat.
- **STATION CONNECTIONS** – Avoid the “Up and Over” connection. This refers to the typical bridge that connects commuters to both sides of the platforms. These are costly and require additional space that is limited in urban locations.
- **DISTANCE BETWEEN STATIONS** – According to the guidelines, the ideal spacing between stations ranges from 3 to 4 miles, although a 2 to 3 miles minimum is allowable in some urban situations. These distances allow the train to pick up speed and come to a safe stop. Shorter distances result in slower and inefficient commuter rail service, thus possibly discouraging potential riders from choosing this mode of transit.

The aerial image below shows the general distances from the Miami Central Station to the 29th and 36th Street proposed stations. The distance from the Miami Central Station to the proposed 29th Street Station is 1.8 miles while the proposed 36th Street Station is 2.4 miles away.

Both distances are in the lower margins set by the SFRTA. While the 36th Street Station has additional distance to make the commuter rail more efficient, both urban sitings are within reasonable distances from their nearest station locations.

Additionally, since the study assumes the placement of the nearest station at 79th Street (3.2 miles from 29th street and 2.6 miles from 36th street), any additional stations considered between Midtown and 79th St will have a significant impact on train speeds (acceleration and deceleration), travel time and efficiency.
Diagram: Station area design at the Delray Beach Transit-Oriented Development Charrette. The design shows pedestrian access directly from the street to both of the station’s platforms, and visibility to the station area’s entrance and access points. (Source: Dana Little)

Diagram: Station area plan, based on Station Area Guidelines by the SFRTA. All dimensions displayed in this diagram are based on the minimum distances required by the SFRTA Station Design Guidelines and the State of Florida Department of Transportation. (Source: Plusurbia Design)

Diagram: Station area section. All dimensions displayed in this diagram are based on the minimum distances required by the SFRTA Station Design Guidelines and the State of Florida Department of Transportation. (Source: Plusurbia Design)
### NE 36TH STREET STATION

- **Network Connectivity**: Well-connected grid system, serviced by various modes of transit including bus/trolley and bicycle networks to the north and east. Conditions under the elevated I-195 create a barrier for commuters, as do some challenging intersections to access the potential station from the north and south. Bike/Ped improvements are necessary to improve accessibility.

- **Mobility**: Traffic congestion at the intersections of Biscayne Boulevard, NE 2nd Ave and Federal Hwy is a serious mobility challenge for accessibility at this location as it blocks the flow of pedestrians, cyclists and vehicles to and from the station. The FEC railroad line is also a physical barrier specially for pedestrians and bicycle users.

- **Open Spaces**: The proposed station area is within a 10-min walk (0.5 miles) to Stearns Park to the east and 12-min walk (0.6 miles) to Roberto Clemente Park to the west. The Miami Design District has a number of good quality open spaces and paseos that are accessible to the public.

- **Uses**: There is a mix of residential, business and office uses close to the proposed station area. The Design District is composed of a mix of luxury retail and office uses with single-family residential further north. Midtown is a mixed-use area with large big box retailers beneath high-density residential towers. Edgewater is made out of primarily high-density residential uses along a commercial corridor. The existing active ground floor uses are conducive to a good pedestrian environment.

- **Density/Intensity**: Mix of uses with high residential densities and intensities. The 1/2 mile radius captures a significant part of well-established low-density neighborhoods to the north and west (Morningside and Buena Vista and Wynwood North) reducing current and potential future ridership count.

- **Parking**: Public and private parking facilities are available within the transit shed and parking reduction incentives are available for new developments in exchange for payments into Parking Trust Funds.

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*Image: Aerial view of the proposed station area on NE 36th Street. (Source: Diagram by Placurbis Design, Aerial Image from Google Maps.)*

*Image: North Federal Highway, looking North. (Source: Google Maps)*

*Image: North Federal Highway, underneath I-195, looking South. (Source: Google Maps)*
**NE 29TH STREET STATION**

<table>
<thead>
<tr>
<th>Network Connectivity</th>
<th>Well-connected grid system serviced by various modes of transit including bus/trolley routes. No bicycle infrastructure present. No significant mobility impediments are found. Bike/Ped improvements are necessary to improve accessibility.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility</td>
<td>NE 29th Street is considered an important connection between NE 2nd Avenue and North Miami Avenue. Some congestion found during peak hours. The FEC railroad line is also a physical barrier, specially for pedestrians and bicycle users connecting to Edgewater.</td>
</tr>
<tr>
<td>Open Spaces</td>
<td>The proposed station area is within a 13-min walk (0.7 miles) to Roberto Clemente Park to the west. The Wynwood NRD-1 proposes areas for future open space including Pedestrian priority streets (currently under development).</td>
</tr>
<tr>
<td>Uses</td>
<td>Wynwood to the west is a diverse mixed use entertainment, restaurant and entertainment district with a high potential for development such as office, retail, hotel, education, institutional as residential uses. Midtown to the north is a mixed-use complex with large big box retailers below high density residential towers. Edgewater to the east is made out of primarily high density residential uses along a commercial corridor.</td>
</tr>
<tr>
<td>Density/Intensity</td>
<td>Mix of uses with high residential densities and commercial intensity. The Wynwood NRD-1 functions as a Zoning Overlay that restricts height, increases density and reduces parking requirements.</td>
</tr>
<tr>
<td>Parking</td>
<td>Public and private parking facilities are available within the transit shed and parking reduction incentives are available for new developments in exchange for payments into Parking Trust Funds.</td>
</tr>
</tbody>
</table>

![Image: Aerial view of the proposed station area on NE 29th Street. (Source: Diagram by Plusurbia Design, Aerial Image from Google Maps.)](image)

![Image: NE 29th Street looking West. (Source: Google Maps)](image)

![Image: Intersection on NE 29th Street with the FEC railroad line looking North. (Source: Google Maps)](image)
### Physical Station Area Evaluation

#### [36th Street - Midtown North]

<table>
<thead>
<tr>
<th>Criteria</th>
<th>North</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td>Platform Width</td>
<td>Width is not sufficient for platform placement.</td>
<td>Width is not sufficient for platform placement.</td>
</tr>
<tr>
<td>Platform Length</td>
<td>Length is sufficient for platform placement.</td>
<td>Length is sufficient for platform placement.</td>
</tr>
</tbody>
</table>
| Transit Network        | Both proposed station locations are served by direct access to trolley and bus service. | |}
| Traffic                | The intersection of NE 2nd Avenue, N Federal Hwy and NE 36th Street heavily prioritizes vehicular movement over the safety and comfort of other users. Pedestrian and bicycle access to this station is unsafe. Major improvements are required to achieve minimum accessibility. According to FDOT traffic data, the annual average daily traffic (AADT) for NE 36th St is double the traffic registered on NE 29th St. | |
| Pedestrian Access      | The intersection of NE 2nd Avenue, NE 36th Street, N Federal Hwy and the FEC rail road tracks is very dangerous for pedestrians. There are painted crossings but because NE 36th Street is so wide and cars come from all directions, it is difficult and unsafe to cross. Access across Federal Highway is similarly unsafe at NE 39th Street. This intersection is the main access to the Design District as it has a direct connection to the westbound I-195. | |
| Cycling Access         | There are bicycle networks north of NE 36th Street with bicycle lanes on NE 2nd Ave and N Federal Hwy and on the Julia Tuttle Causeway going east. Connections to the south are planned but not built on NE 2nd Ave. Connections to the West are non-existent or planned. | |
| Sidewalks              | All sidewalks close to the proposed station locations have a minimum width of 5 feet. Most sidewalks do not have trees. There is no space to add sidewalks parallel to the platform, adjacent to N Federal Highway. | |
| Access Frontage        | There are active frontages on NE 2nd Avenue, although single-use buildings limit the time of activity in the general vicinity. Facing N Federal Hwy is largely undeveloped and lacks any cohesive frontage. Most of the adjacent frontages around the potential station present unsafe conditions to future commuters accessing the train service. | The undeveloped parcel west of the tracks has the potential to include an open space entrance to the station. Frontages along NE 2nd Ave could be improved with frequent doors and windows and active uses to support a safe and comfortable access route to the station. | |
**NE 36TH STREET**

The intersection at NE 2nd Ave, N Federal Hwy and NE 36th St is currently dangerous for pedestrians and cyclists due to the current design, giving priority to high speed vehicle movement. This intersection forms a physical barrier that impedes access to the proposed station north or south of NE 36th St. Its 5 point configuration and wide vehicular lanes results in additional difficulty to cross and confusion for pedestrians as signalization sequence is long.

Curb radii at most intersections is very wide allowing vehicles to turn at high speeds.

There are bicycle lanes providing movement north-south but there are no bicycle lanes existing or planned connecting west.

Portions of the sidewalks at 1/2 mile radius from the proposed station are very narrow and lack trees.

The stretch between Federal Highway and Biscayne has less than 400’ (approx.) stacking distance which creates a bottleneck at the intersections which are often blocked.

Sidewalks on opposite sides or new development of NE 1st Ave and NE 1st Ct are in poor condition and are not continuous.

View reference.

There are bicycle lanes providing movement north-south but there are no bicycle lanes existing or planned connecting west.

There are bicycle lanes providing movement north-south but there are no bicycle lanes existing or planned connecting west.
**EXISTING STREET SECTION**

This island has no room to properly accommodate pedestrians.

Entrance/Exit to parking.

Sidewalk in poor condition.

Highway exit ramp crossing is dangerous for pedestrians.

Exposed parking frontage.

LEGEND:
- Wide drive lane width
- Non continuous commercial frontage
- Narrow sidewalk
- Missing traffic signal
- Missing street lighting for safety
- Bus stop without shelter and/or bench
- Sidewalk obstruction
- Missing ADA ramp
- Missing traffic-calming device
- Sidewalk under construction
- Missing Tree Canopy

Legend:
- Car 65%
- People 19%
- Bike 11%
- Green 05%
- Transit 00%
## [NE 29TH STREET - MIDTOWN SOUTH]

### PHYSICAL STATION AREA EVALUATION

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>NORTH</th>
<th>SOUTH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Platform Width</strong></td>
<td>Width is not sufficient for platform placement. There's limited space available for a station platform north of 29th St since both available parcels east and west of the FEC tracks are currently under construction.</td>
<td>Width is sufficient for platform placement. There's a 30 foot wide surplus area to the west of the tracks that could be used to cite and access a potential station platform.</td>
</tr>
<tr>
<td>Platform Length</td>
<td>Length is sufficient for platform placement.</td>
<td>Length is not available for platform placement. The space available is slightly less (by a few feet) than that the minimum required due to the crossing on NE 27th St.</td>
</tr>
<tr>
<td>Transit Network</td>
<td>The proposed station areas could be served by reconfiguring existing trolley [Wynwood and Biscayne Loop] and bus service.</td>
<td></td>
</tr>
<tr>
<td>Traffic</td>
<td>NE 29th Street is one of the few streets in Midtown that cross the railroad tracks connecting the east and the west. It is mainly used by people traveling from Edgewater to Wynwood and Allapattah. According to FDOT traffic data, the annual average daily traffic (AADT) for NE 29th St is half the traffic registered on NE 36th St.</td>
<td></td>
</tr>
<tr>
<td>Pedestrian Access</td>
<td>The physical conditions around the proposed NE 29th St station are more conducive to a safe pedestrian environment. Pedestrian intersections around the proposed station are shorter and vehicular speeds are lower. There are no marked pedestrian crossings at NE 1st Ave and NE 29th St making it difficult for pedestrians to connect south coming from the Midtown area.</td>
<td>There's no existing bicycle infrastructure that provides safe access to the proposed station location. Significant improvement needs to be made in order to achieve minimum service standards of connectivity.</td>
</tr>
<tr>
<td>Cycling Access</td>
<td>There's no existing bicycle infrastructure that provides safe access to the proposed station location. Significant improvement needs to be made in order to achieve minimum service standards of connectivity.</td>
<td></td>
</tr>
<tr>
<td>Sidewalks</td>
<td>All sidewalks around the proposed station area have minimum width of 5 feet. Most sidewalks do not have trees except for the sidewalk in front of Midtown 29 (180 NE 29th St). ROWs around the potential station location have enough width to be improved for optimal accessibility.</td>
<td></td>
</tr>
<tr>
<td>Access Frontage</td>
<td>Developments under construction on both sides of the tracks are designed with adequate frontage to NE 29th St but no frontage is given to the tracks because it is limited to a parking garage blank wall and a service road to the development.</td>
<td>New development east of the tracks has adequate active frontage on NE 29th St. The undeveloped parcel west of the tracks has the opportunity to be designed to face a potential open space and entrance at the proposed station.</td>
</tr>
</tbody>
</table>
NE 29TH STREET

High traffic speeds and width of this street create an unsafe environment for future transit users. Intersections prioritize automobile movement with large curb radii making crossing difficult and daunting.

Many crosswalk markings and signage along the street are missing and there is little if no pedestrian and bicycle infrastructure connecting the east (Wynwood) to the west (Edgewater).

Portions of sidewalk to station are narrow and lack shade trees.

Given that there is limited overall connectivity across the railroad tracks, most vehicular traffic load to access the district happens on NE 29th and NE 20th Streets - making this a busy thoroughfare. Future increased use due to siting of the station in this location will require special consideration for access of all modes.
Front loaded parking disrupts the sidewalk path.

Unsafe pedestrian crossing due to wide curb radii and faded markings.

LEGEND:
- Wide drive lane width
- Non continuous commercial frontage
- Narrow sidewalk
- Missing traffic signal
- Missing street lighting for safety
- Bus stop without shelter and/or bench
- Sidewalk obstruction
- Missing ADA ramp
- Missing traffic-calming device
- Sidewalk under construction
- Missing Tree Canopy

Car: 53%
People: 20%
Bike: 0%
Green: 28%
Transit: 0%

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Having evaluated the physical conditions for each proposed station location in the previous section, it is clear that none of the options presented meet ALL the requirements set forth by the SERTA / Tri-Rail Station’s Design Guidelines.

Some locations, due to available land or new construction encroaching on the minimum safety widths of platforms are unfeasible, while others are surrounded by infrastructure that becomes an impediment for the accessibility of the platforms.

This section seeks to show what improvements, deviations from the guidelines and other recommendations are necessary in order to meet minimum standards for those places where it is reasonably possible to locate the station.

The following recommendations identify those major improvements to the transit shed that need to be implemented in order to create the optimum station area environment that promotes ridership and creates a safe, comfortable and accessible experience.

Regardless of the station location, certain recommendations must be noted to assure the success of Transit Oriented Development such as, but not limited to the establishment of a Tax Allocation District (TAD) in the ½ mile circle surrounding a transit station to capture the value of new development for a certain period of time (typically 25 years), so the value can be reinvested in the neighborhood and fund necessary infrastructure improvements. This reinvestment could include but should not be limited to: transportation infrastructure, affordable housing, sidewalks and streetscape projects and redevelopment of blighted and vacant properties.
STATION AREAS RECOMMENDATIONS

NE 36TH STREET STATION [NORTH]

This location, beneath the Interstate 195 overpass, has been selected as the first "demonstration station" by Miami-Dade County transit officials, the Florida Department of Transportation, and the South Florida Regional Transportation Authority. The decision was based on using the existing I-195 overpass as shelter to reduce construction costs and to take advantage of the existing busy trolley stop at NE 2nd Avenue as well as nearby City of Miami-owned parking lots to serve commuters (some of these parking lots will have to be turned into the platform, sidewalk and drop off zones). Another consideration is the sufficient length for the platform from NE 36th to NE 39th Street without the requirement of additional street rail crossings.

If this location becomes permanent, the station design standards will need to be modified to fit the width of the station platform, and the intersection at NE 2nd Ave must be redesigned in order to improve the connectivity between neighborhoods north and south of I-195. Basic improvements should focus on encouraging transit use, expanding multimodal choices and making access to the station intuitive, safe, efficient, universally accessible and fun.

The area’s main challenge remains accessibility and mobility around the station. Major improvements will have to be made to the intersection to the south in order to provide safe and inviting access. Additionally, Federal Highway which runs parallel, adjacent to the northbound platform has significant vehicular traffic loads and it is too close to the platform.

Finally, given that the distance between 36th and 39th streets is approximately 800’, pedestrian access from intersections is longer than desired. Additional pedestrian crossings may be required closer to the platforms or fencing will have to be installed to assure crossing at designated locations.

LEGEND:
1. New pedestrian access to station (may require easements).
2. Drop-off area from NE 2nd Avenue and N Federal Hwy.
3. Improved crosswalks to access the station.

Diagram: Illustrative plan for the station area at NE 36th Street. (Source: Plusurbia Design)

Image: Kiss and Ride example. (Source: SFCC Station Design Guidelines)

Image: I-95 underpass parking lot urban art installation, Miami Parking Authority (MPA). (Source: miamiparking.com)
As the Physical Station Area Evaluation diagram for shows south of NE 29th Street location (p.80), this area is the one that meets most of the guidelines requirements. FEC right of way width is sufficient and land availability for redevelopment exists without infrastructure impediments.

At this location, the space on either side of the tracks varies from 20’ to 50’ foot and is made up of surface parking areas, vacant parcels and industrial buildings that can be fully integrated to the station design and be redeveloped following TOD guidelines. Future buildings should enhance and create a safe environment for commuters accessing the station.

The main limitation on this location is the length available between due to NE 29th and NE 27th Streets, which is slightly less (approximately 10’ less) than the minimum required for platform placement. General measurements show that this slightly smaller longitude is mostly due to the angle between the tracks and the E-W streets. Turning NE 27th Street into a pedestrian priority, shared street could be a potential solution to improve pedestrian and bicycle access and slowing vehicular mobility that could use the new thoroughfare to drop off passengers. A potential relocation of vehicular mobility further south (on 24th or 25th streets) could provide additional length needed for the platform while creating a new, more central, gateway to the district. NE 27th Street crossing could be retrofitted as a pedestrian only crossing creating safer access and an active, more comfortable environment for commuters.

An alternative to overcome the limitation of fitting the length of the station could be to either angle the platform ends or slightly reduce the required 450 ft minimum length of the platform to fit on the length available.

**LEGEND:**

1. New pedestrian access to station.
2. Potential new TOD development.
3. Open space and frontages to the Station area.
4. NE 27th Street pedestrian crossing.
**VEHICULAR CIRCULATION**

- Drop-Off Area
- Vehicular Circulation

**PEDESTRIAN CIRCULATION**

- Raised Crosswalks
- Pedestrian Circulation

**Diagram:** Illustrative section for the platform area at NE 29th Street. (Source: Plusurbia Design)

**Image:** Pedestrian zone, Woonerf example. (Source: Pinterest)

**Image:** Pedestrian-priority zone in Buenos Aires. (Source: Pinterest)
The City of Miami’s northern corridor, also known as the Biscayne Corridor has seen tremendous population and job growth in recent years. Developments in Midtown, Design District and Wynwood, together with continuous sporadic construction in the large Edgewater District are the best examples for the City’s future multi-centric cores. Both completed construction and planned development, including the development capacity in some of these centers, have and will further increase traffic congestion and demand other transportation options. Mobility along the corridor, which agencies such as the TPO and the SFRTA in collaboration with other municipalities, are looking to solve is paramount to the health and economic viability of the City. The Florida East Coast (FEC) Right of Way (ROW) provides a potentially, readily available solution for inner-city and commuter rail currently in use by Brightline, that may help solve grid-lock in these centers in concert with other options, such as Bus Rapid Transit (BRT) and other feeder modes such as buses (ideally on dedicated lanes for predictability and efficiency), Trolleys, Jitneys, car-share hubs among others.

Connectivity between the FEC line and these feeder modes (shorter distance mobility solutions) as well as a safe pedestrian and bike network require stations to be located close to collector streets such as 29th and 36th Streets. Significant improvements for accessibility will be necessary for the successful siting of stations since the increased automobile, bike and pedestrian traffic will change the way people move around the stations creating new points of conflict. None of the sites considered are currently suitable for this increased mobility demand.

This study focuses on the physical conditions of two scenarios with two station locations each: to the north on 36th Street and to the South on 29th Street. In order to generate a holistic assessment, it is important to note that while the three districts have become destinations, each in their own right, their development capacity has not been reached and the potential to create the right TOD environment is possible in all locations as long as future development and improvements are station and people centric.

Similarly, it is necessary to consider that since service depends greatly on demand, station locations must consider ridership to sustain their service. As evidenced in successful TODs around the country, ideal locations serve both residential and commercial uses creating a demand beyond peak hours of service. TODs that provide a good mix of uses, becoming both origin and destination throughout the day, function best, and service larger populations and employment centers. This demand, either existing or induced, is clear throughout the corridor. It is specially evident in the Midtown / Design District / Wynwood segment making this a perfect location from a current potential ridership stand point, which, today, is even on both locations. Considering future potential ridership as shown in the “Midtown Tri-Rail Station Siting Study” conducted by Garcia-Pons+Associates, projections show that growth capacity is much greater around the 29th Street intersection. And therefore, from a “maximum build-out” (capacity) standpoint, this location would serve, in the future, a larger commercial area, employment and 165% more population within its Transportation Shed (1/2 mile radius) compared to the Design District location.
The physical characteristics of all the locations considered is far from ideal. No location provides either enough length or width to allocate the station as recommended by the SFRTA / Tri-Rail Station’s Design Guidelines. Deviations from these guidelines and improvements, especially for pedestrian and bike networks are necessary to promote ridership and provide safe and comfortable access to the station.

**THE MIDTOWN/DESIGN DISTRICT STATION**

**North of 36th Street:** The location has significant physical limitations due to the limited space available along the FEC ROW and the location of the structural supports of I-195 that cannot accommodate the 25 foot wide typical platforms. Additionally, access to the station is removed from the intersection reducing its visibility as well as its limited access to the southbound platform due to adjacent properties making it even less conspicuous.

The five point intersection (NE 36thStreet, NE 2nd Ave and Federal Hwy) to the south creates challenging accessibility issues for this station. It is currently difficult vehicular intersection to navigate, further compounded by its proximity to Biscayne Boulevard (approximately 400 feet away), which creates a bottleneck during most of the day. This situation may worsen by the vehicular, pedestrian and bike traffic generated by the station, unless multi-modal mobility through and around the intersection is resolved.

In order to make this station location successful additional width should be allocated for a wider southbound platform, visibility, comfort and safe access from all the streets must be created and the I-195 structure must be improved to make the station not only inviting but also safe for riders.

**South of 36th Street:** The location is not recommended given the FEC ROW available. Adjacency to the already under-performing section of NE 2nd Avenue that feeds onto the intersection, as well as East Coast Avenue that serves new dense and intense development renders this option not viable.

**THE MIDTOWN/WYNWOOD STATION**

**North of NE 29th Street:** The location is impracticable due to new large scale development being built to the west, adjacent to the FEC ROW. This new development, whose frontage onto the FEC is an inactive parking garage, does not allow for enough width to allocate a platform or create a suitable frontage condition. Furthermore, set to break ground, multistory development to the east is designed to back onto the FEC line. Its perimeter access along the FEC is planned for wide turning loading, service and fire access. Access to the station would, as the development is designed, be restrictive and not conducive to a pleasant, safe and inviting experience.

**South the NE 29th Street:** As the diagram for the FEC Track ROW analysis shows, this location is where the most available space and width exists along the tracks; the space on either side of the tracks varies from 20 to 50 feet and is made up of surface parking areas, vacant parcels or industrial buildings that may be integrated to the station design and be developed following TOD guidelines. The analysis shows that the main negative to this location is the inactive garage frontage along the 20 foot potential northbound platform, from the corner at 29th street to NE 28th Street, a length approximately 200 feet. Additionally, the approximate longitudinal distance between 29th Street and 27th Street does not conform with the minimum required length of platforms by a slight margin.

Unlike other locations studied, the existing well-connected street grid makes access convenient - with the potential of improvement to provide multi-modal access to the site.

Nonetheless, if this location is selected, given the limited number of rail crossings into the District (3 in total: 29th, 27th and 20th Streets), 2 of which located to the north, it is recommended that 27th street be turned into a pedestrian priority street on either side of the station. These “shared/slow streets” or Woonerfs are already being implemented in the district and provide for a safe, active, comfortable and visible environments for commuters to access the station.

In turn, in the interest of maintaining the vehicular level of service to the District, 24th or 25th streets could be reconnected to provide a new entrance to Wynwood with a more direct access to its geographical core - arguably the intersection of NW 2nd Avenue and 25th Street.

Finally, any future development around the station should be designed with paseos and pedestrian ways to access the platforms from N. Miami Ave; thus providing a safer and protected passage for commuters to the station.

**FINAL OBSERVATIONS**

For any station location to succeed, comfortable multi-modal access must be resolved and improved significantly. All platforms need to be generous, accessible, safe and visible. All interventions and future development must not only transit-oriented and transit-centric, but ultimately make sure that they are all designed in relation to and consideration for the station in how they improve mobility and how they will encourage ridership. A Master Plan needs to be created to provide specific guidelines for coordinated development and improvements.

In addition, value capture mechanisms around stations for existing and future development that benefit from the location of the station may prove necessary for the continued success of these alternative transportation options.

«**TOD environments must ensure that future development and improvements are station and people-centric.**»
[NEIGHBORHOOD CENTER]

LITTLE RIVER
STATION AREA DEVELOPMENT RECOMMENDATIONS

<table>
<thead>
<tr>
<th>Page</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>96</td>
<td>INTRODUCTION</td>
</tr>
<tr>
<td>98</td>
<td>STATION AREA BASE ANALYSIS</td>
</tr>
<tr>
<td>102</td>
<td>ACCESSIBILITY SURVEY</td>
</tr>
<tr>
<td>110</td>
<td>ENGAGING THE COMMUNITY</td>
</tr>
<tr>
<td>1116</td>
<td>RECOMMENDATIONS</td>
</tr>
</tbody>
</table>
Little River is one of the City of Miami’s oldest neighborhoods: a historic commercial and entertainment district that encapsulates the close-knit community of Old Miami. The neighborhood namesake after the Little River that runs along its northern edge, is bordered to the north by the Village of El Portal, to the south by Little Haiti (Lemon City), to the east by the Palm Grove Historic District and to the west by West Little River.

Little River was established in the late 1800s as an agricultural community. A natural evolution led to its development into one of Miami’s most vibrant commercial, entertainment, and residential areas. Anchored by landmarks such as St. Mary’s Cathedral, the Rosetta Theater and the Florida East Coast Railroad, Little River evinces a unique sense of place underscored by its rich history.

It is home to a culturally diverse group of residents and a large immigrant population. The ethnic composition is predominantly from the Caribbean and Haiti. From a market standpoint, Little River is a low-income, high-poverty area, with large renter-occupied households. Housing units and homes are valued below County average home/rent values, making Little River a neighborhood with a high affordable housing index and local minority-owned businesses.

Today, this NEIGHBORHOOD CENTER, along with those that surround it (Lemon City, Little Haiti, West Little River, Village of El Portal and Palm Grove) is evolving one more time. This time, change is being led by creative entrepreneurs and a range of new local businesses. This influx of new investment has sparked the interest of younger generations, bringing activity and new life to the area.

The new neighborhood center station will provide heightened interest for relocation in proximity to new mobility options. As it has already happened with other TODs, it will spur re-development that could once again establish Little River as a metropolitan node for the region.

It is critical to establish the Little River Station shed development patterns that support future ridership, create safe and comfortable access to, from and around the station and establish zoning regulations that improve and encourage a walkable environment considering new mobility modes, and other elements consistent with a transit served neighborhood.

**RECENT STUDIES AND PLANNED IMPROVEMENTS**

- **Shorecrest Resilient Redesign**
  (City of Miami) February 2017

- **Little Haiti/Lemon City/Little River Industrial Priority Development Area (PDA) Analysis**

- **MiMo/Biscayne Boulevard Historic District**
  (City of Miami) June 2006

- **NE 2 Avenue Improvements**
  (Capital Improvements) June 2006
NEIGHBORHOOD CENTER GUIDELINES

MULTI-MODAL SERVICE:
- Intuitive clearly marked pick-up and drop-off areas easily accessible for all users
- Park and Ride is appropriate depending on the neighborhood.
- Connections to street network
- Improved intermodal connectivity

WALKABILITY:
- Provide safe, visible pedestrian connections around the station
- Provide connections to overcome barriers (man-made and natural)
- Provide alternative pedestrian routes such as pedestrian paths
- Increase visibility and awareness of proximity to stations with repetitive wayfinding elements that are recognizable

DEVELOPMENT CHARACTERISTICS:
- Multi-family or townhouses
- Building design should match the feel and needs of the specific neighborhood

KEYS TO SUCCESS:
- Provide nearby uses with good pedestrian connections from station and Park and Ride locations
- Match development with existing neighborhood
- Make nonresidential uses attractive to transit riders

STUDY AREA EXISTING CONDITIONS

CONTEXT:
- A mix of historic fabric as well as suburban commercial development exists in the center. Different low density neighborhoods lie in the perimeter. High volume ROWs go through the transit shed including Biscayne Boulevard, NE 2nd Avenue, 79th and 82nd Streets which form a couplet. 82nd Street serves as an evacuation route from Miami Beach and connects west to the industrial Town of Medley.

INFRASTRUCTURE:
- FEC railroad tracks

TRANSIT SERVICE:
- Bus
- Trolley

KEY FEATURES:
- Suburban Development
- Low/medium/high density
- Mostly residential uses
- Transportation Corridors
- Main streets
- Waterfront Access
- Vacant land and parking lots

(see diagram on the right and the existing conditions assessment for reference)

EXISTING CONDITIONS ASSESSMENT
*All numbers are based on the 1/2 Mile radius area.

**STREET TREE CANOPY**

37% of the streets have little to no shade.

**CROSSWALKS + INTERSECTIONS**

56% of the streets have 70/125 crossing lack marked crosswalks.

**CYCLING COMFORT**

54% of the streets are not comfortable for cycling.

**LEGEND:**
- No Trees
- Small Trees/Palms [One Sides of Street]
- Small Trees/Palms [Both Sides of Street]
- Mature Trees [One Sides of Street]
- Mature Trees [Both Sides of Street]
- Parks / Open Spaces
- High Comfort
- Low Comfort
ZONING + DENSITY

31% OF THE TRANSECT DESIGNATION IS T6.

LAND-USE

36% OF THE LAND USE AROUND THE STATION IS RESIDENTIAL; 12% IS COMMERCIAL.

VACANT + UNDERUTILIZED

15% OF AREA IS VACANT AND UNDERUTILIZED LAND.

LEGEND:
- T6-36 Urban Core
- T6-24 Urban Core
- T6-12 Urban Core
- T6-8 Urban Core
- T5 Urban Core
- T4 General Urban
- T3 Sub-Urban
- CI Civic Institutional
- D1 Industrial
- CS Civic Space / Parks

LEGEND:
- Single-Family
- Low-Density Multi-Family
- High-Density Multi-Family
- Residential-Government
- Commercial
- Office
- Mixed Use
- Institutional
- Industrial
- Industrial intensive
- Utilities
- Parks
- Vacant Land
- Underutilized
[SITE CONDITIONS]

ACCESSIBILITY SURVEY

ANALYSIS METHODOLOGY

The study of this area started with on-site visits and in-person assessments of the transit shed. This provided a personal understanding of the existing condition of the area.

Because of the highly contextual fabric and varied demographics, a series of stakeholder interviews as well as public outreach were conducted to accurately survey the neighborhood. The public outreach was focused into a workshop held at the Haitian American Community Development Corporation building on June 02, 2018.

The findings from the analysis interviews and feedback from the workshop help to guide the following recommendations.
NE 79TH STREET

NE 79th Street (SR 934) is a high-capacity commuter corridor that connects neighborhoods west of I-95 with employment centers mainly in Miami Beach. The corridor has four lanes with parallel parking on both sides (except east of the river between the FEC line and Biscayne Blvd). The lane configuration is divided as three east-bound lanes and one west-bound lane.

NE 79th Street is a major transit corridor, with one of Miami-Dade’s highest ridership bus lines. Despite this, buses lack dedicated lanes and shelters and/or seating at most stops to provide more reliable service.

Wide lanes encourage higher travel speeds worsening cycling and pedestrian conditions. Because of this, bikes often use the narrow (mostly 5 foot) sidewalks, sharing for the narrow sidewalks with pedestrians and commuters waiting for buses.
**EXISTING STREET SECTION**

Connection to future Flagler Trail network.

**LEGEND:**
- Wide drive lane width
- Non continuous commercial frontage
- Narrow sidewalk
- Missing traffic signal

**MIDPOINT MALL**

Parcel currently under construction.

**LEGEND:**
- Missing street lighting for safety
- Bus stop without shelter and/or bench
- Sidewalk obstruction
- Missing ADA ramp
- Missing traffic-calming device
- Sidewalk under construction
- Missing Tree Canopy

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NE 79TH STREET | 105
NE 82ND STREET

NE 82nd Street (State Road 934) is a major FDOT thoroughfare that serves commuters traveling inland from Miami Beach. It is also considered an evacuation route to leave the islands. It is primarily one-way going west with two-lanes, an unprotected bike lane, and parallel parking on both sides.

Land Use in along the State Road is high density and intensity, zoned T6-8, and even though it has the potential to become a thriving commercial corridor, vehicular speeds and narrow pedestrian areas curtail that potential.

Pedestrian and generally non-vehicular use is minimal. It was observed that pedestrians preferred to use alternative streets due to the unfriendly nature of the street environment: with narrow sidewalks blocked in many cases by a variety of impediments. Nonetheless, given the location of the bus stops, pedestrians are made to wait in unpleasant, unprotected, unsheltered locations.

Bicycle infrastructure is not protected and the very few riders that use it ride too close to high speed traffic.

Dangerous area for pedestrians as vehicles in this section pick up speed as they travel over the FEC tracks. There’s also low visibility of pedestrians as vehicles travel downhill from the raised tracks.

Length of front loaded parking disrupts the sidewalk path.

The location of powerlines prevent trees from being planted on this side of the street.

No sidewalks present on both sides of the street.
The location of power lines prevent trees from being planted on this side of the street.

Extensive length of front loaded parking disrupts the sidewalk path.

Wide parallel parking.

The location of power lines prevent trees from being planted on this side of the street.

Wide parallel parking.

Extensive length of front loaded parking disrupts the sidewalk path.

LEGEND:
- Wide drive lane width
- Non continuous commercial frontage
- Narrow sidewalk
- Missing traffic signal
- Missing street lighting for safety
- Bus stop without shelter and/or bench
- Sidewalk obstruction
- Sidewalk under construction
- MissingTree Canopy
- Missing traffic-calming device

Car 71%
People 20%
Bike 09%
Green 00%
Transit 00%
The highest concentration of businesses in Little River are located on NE 2nd Avenue from the edge of the river with the Village of El Portal on the north to the intersection with NE 82nd St. This artery is made up of mostly mom and pop shops like barbershops and small food establishments. The street is currently undergoing significant re-construction. For this reason, an analysis of the street has not been conducted. Historically, this portion of NE 2nd Avenue was considered Little River’s main street.

It included examples of Miami’s Art Deco architecture. An example is the old Little River First Federal and Loan association building, which was recently renovated into a multi-purpose structure that keeps many of its architectural details intact. Similarly, other smaller buildings have been converted into restaurants and commercial uses, which help to reactivate the street.
COMMUNITY OBSERVATIONS:

MAINTAIN CULTURAL IDENTITY
BECOME A MULTI-MODAL NEIGHBORHOOD
CONNECT TO NATURAL ASSETS
REINFORCE COMMUNITY PARTICIPATION
PROVIDE AFFORDABLE HOUSING
MORE PUBLIC SPACES
PROMOTE INCLUSIVE DEVELOPMENT
CREATE A WALKABLE NEIGHBORHOOD
BUILD CONTEXT SENSITIVE DEVELOPMENT
MAKE LITTLE RIVER A DESTINATION
DESIGN A RESILIENT NEIGHBORHOOD
ENGAGING THE COMMUNITY

PUBLIC VISIONING WORKSHOP

WHERE: HAITIAN AMERICAN COMMUNITY DEVELOPMENT CORPORATION
WHEN: JUNE 02, 2018
COMMUNITY OUTREACH

In order to achieve a holistic approach for this plan, outreach was accomplished through a variety of methods, but mainly: stakeholder interviews and a publicly advertised workshop held in the neighborhood. The information gathered from these sessions, in conjunction with the research conducted for this study, provided the team with a clear overview of current challenges and translated into recommendations as the main objective of this document.

This section reflects the vision and ideas of a diverse group of residents, stakeholders, and business owners. The public visioning workshop along with the meetings with individual stakeholders and community members provided us invaluable insight and feedback for their community vision.

In order to gather additional input, a user-friendly online survey that was publicly shared online for 5 months. Over 188 people took the survey, sharing their personal experiences, goals and priorities.

This report compiles opinions from people invested in the well-being of Little River and provides recommendations as a plan of action to serve as a guideline for future improvement and development for the area.

«In order to carry a positive action we must develop here a positive vision.»

-Dalai Lama

Images: Workshop Invitation, published in English, Spanish and Haitian Creole.
Community members share their vision for the proposed train station area.

**TOP PRIORITIES**
- Improve sidewalks and streetscape.
- Redevelop vacant parcels.
- Improve access to the parks and the waterfront.

The most popular future uses polled for the surrounding train station area were restaurants and cafes at 73%, followed by cultural venues at 54%, “mom and pop” (sole proprietor) stores at 50%, residential live/work homes 48%, and shopping at 40%.

**AGE**
- 2% 0 - 24 years
- 25% 25 - 44 years
- 7% 45 - 64 years
- 38% 65+ years

**LIVE**
- 57% Little River, within study area
- 23% Little River, elsewhere in the neighborhood
- 20% Other

**RESPONDENTS + RESPONSES**

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Residents and stakeholders joined our team at a half-day, hands-on workshop hosted at the Haitian American Community Development Corporation. Participants were from many different backgrounds -- renters, home/business owners, activists, newcomers and longtime residents. The workshop was held on a weekend in order to welcome as many local community members as possible. Many who attended the workshop were familiar with pedestrian, transit, housing, small business, parking, civic space and other relevant issues. The team focused on facilitating input from diverse community members and stakeholders, so ideas could be created organically.

The first exercise was the S.L.O.W. exercise. This exercise was a board-like input gathering exercise in which each participant wrote down one Strength, Limitation, Opportunity and Weakness of the area. Everyone took turns around the table moving one ‘opinion’ from each section forward. What soon became clear were the shared concerns among participants, as different opinions from each category slowly moved to the ‘priority center’.

The second exercise involved discussion around aerial base-maps that were distributed between three tables. Each group gathered with a visioning team facilitator to discuss their needs, wants, and overall vision. Each table came together to share their thoughts, jotting down issues as well as big ideas for the 1/2 mile radius area around the future station. Representatives from each table presented their thoughts, concerns and big ideas.

When all three marked-up base maps were completed, the maps were displayed at the workshop’s website. Attendees of the workshop marked their preferences for: opportunities, areas of improvement and things to be protected. The design team tabulated the votes and used the results as referential guidelines in the study.

«Community participation is necessary to understand those elements in a plan that will create positive change.»
WHAT PEOPLE SAID:

STRENGTHS

» Location. Proximity to both I-95 and Biscayne Boulevard and the Rail Road
» Geography
» Proximity to employment
» Accessible
» Cross roads
» Great potential

» Pedestrian scale exists already
» Narrow streets
» Culture
» Small lots
» Mix of uses
» Arts and culture
» High, dry, nearby

LIMITATIONS

» Concentration of poverty
» No Walkability
» Lack of trees
» No shade or protection from elements
» Affordable housing
» Many property owners/opinions
» Lack of cohesiveness
» Doesn’t function as group

» Socio-economic gentrification, a displacement of long-term residents
» Vehicle speeds
» Economically disadvantaged
» Gentrification
» House, work missing probable more expensive
» Economically disadvantaged

OPPORTUNITIES

» Develop a community while people stay
» No gentrification
» Ability to attract new investment
» Meeting the community where you know they want to be present
» Location
» Redevelopment
» Work Opportunities

» Investment / infill
» Good major streets grid
» Non-displaced improvement
» True urban district (live–work–play)
» Promotion of local contents
» Good location
» Neighborhood has the bones to become a walkable neighborhood

WEAKNESSES

» Housing stock
» No accessible transit
» Bad sidewalks
» Streetscape
» Local unemployment
» Inclusive development for residents already here - unwanted displacement
» Elimination of slum to plighted conditions

» Preservation of affordable housing
» Lack of employment opportunities
» No bike lanes
» Not enough public spaces for residents to enjoy
» Need for better housing stock
» Lack of affordable housing (rent)
Based on the site conditions, accessibility survey, interviews, workshop and online survey, a set of strategies and recommendations were created with the intention of improving access and establishing guidelines for development around the future station.

The study also makes use of the 2012 guidebook “A Framework for Transit Oriented Development in Florida” created by the Treasure Coast Regional Council for The Florida Department of Transportation (FDOT). The TOD Framework serves as a “how-to” manual for local governments and agencies to implement TOD’s in the Florida context and provides land development patterns and model regulations that apply to Little River for its transformation to a TOD neighborhood.

The following recommendations are meant to be supplemental to the information provided in the Florida TOD Guidebook and adapted to the specific study area.

These recommendations are divided in the following categories:
1. Mobility
2. Safety + Comfort
3. Public Space
4. Land Use + Resiliency

Some of these recommendations will require multi-agency coordination. Some of them are identified herein.
Little River is a well connected neighborhood as it lies in between major transportation corridors moving people all over the city from North to South by NE 2nd Ave and Biscayne Boulevard and East to West by NW 79th and 82nd St. These corridors are a mobility asset to the community but they become pedestrian barriers that divide the neighborhood. The proposed station presents an opportunity to make these major corridors safer and more inviting for all modes, but more importantly for potential riders: pedestrians and bicyclists.

To prepare the neighborhood for the impact that the new station will have on this diverse area between NW 79th and 82nd Street, it was important to create a plan and establish a series of recommendations that are integral to preserve and guide the transformation of the area into a Transit Oriented Neighborhood through a holistic approach.

In meetings with stakeholders and during the community workshop, the team noted the unique local character, scale, and affordability of the neighborhood. Concerns for sea-level rise, public safety, and the need to create new green spaces for the neighborhood were stressed.

The Little River Conceptual Transit Area Plan is meant to illustrate the future potential of the neighborhood around the 1/4 mile radius of the station and responds to those concerns and opportunities voiced during the workshop and stakeholder meetings.

The plan shows potential new open green spaces that take advantage of the riverfront and presents infill opportunities on vacant lots, mainly west of the tracks, where the existing scale and density is lower than east of the station. The plan also proposes mixed-use developments on large underutilized parcels that could increase the population density needed to support public commuter transit. The plan also shows new connections to shorten walking distances and facilitates pedestrian access to the station.

The accompanying recommendations to the plan are descriptive and intended to depict the strategies needed for the evolution of the area surrounding the station. The recommendations focus around the concept of mobility, safety and comfort, public space, land use, and character and scale, to satisfy current needs and establish long term tools for the positive transformation of the neighborhood.

The area is highly vulnerable to flooding but new development can implement resilient design strategies that mitigate the impact of sea level rise or extreme weather.

Some of the physical challenges when creating the Station Area Plan where:

- The FEC track is elevated by approximately 5 to 6 feet from NE 4th Ave, which would have to be resolved by providing access ramps to the platform.

- The distance, West of the tracks, from the rail to the street edge is approximately 30’. The distance meets the required width for the station platform but additional space for the drop-off and sidewalk would require a reduction of the platform width or a street realignment of NE 4th Ave.

**LEGEND:**
1. New pedestrian access to station
2. Riverfront Access and Pedestrian bridge Connection to station
3. RiverFront Park and access to station
4. Adaptive reuse warehouse building to a riverfront restaurant
5. Station Area Drop-Off
6. Future Site for TOD Development with public parking
7. Mixed-Use Infill opportunity
8. Future TOD Development in Midpoint Mall

9. Future Site for TOD Development
10. NW 2nd Ave Main Street
11. Flagler Trail
12. Historic neighborhood

Diagram: Illustrative Plan of the Station Area (1/4 mile radius), showing the core urban design principles of a TOD.
(Source: Plusurbia Design)
The following strategies encourage multi-modal connectivity and access to high-quality transit service to boost ridership and decrease automobile dependency. These recommendations also address the reconfigurations of streets to balance the competing needs for space of all modes of transportation in a safe, comfortable and accessible manner.

1.1 CONNECTIONS TO/FROM THE STATION AREA

» Improve connection to neighborhoods within a half mile from the station. Focus specially on improvements within a quarter mile to create clear and intuitive pedestrian and bicycle connections to and from the station, to help reinforce the idea that the area is a walkable Neighborhood center.

» Improve connections to and from North Miami Ave and Biscayne Boulevard. Strengthen bicycle and pedestrian connections by focusing on improvements such as wider sidewalks, safe crosswalks, protected bike lanes and pedestrian amenities.

» Consider NE 2nd Ave, NE 79th St, and NE 82nd St as gateways to the Station Area. Public realm and private development along the corridors should support their function as multi-modal last-mile connections between the Station Area and Miami’s primary north-south transportation link.

» It is critical that the connections be intuitive, safe and comfortable, especially for pedestrians and bicyclists. Addressing physical barriers such as the river and the rail line should be carefully analyzed and improved.

» Minimize physical barriers for accessing the station.

1.2 RE-BALANCE EXISTING RIGHT-OF-WAYS

» Re-balance the Right-of-Ways by retrofitting parking or travel lanes to other uses giving priority to pedestrians and bicyclists. Alternatively, travel or parking lanes that are too wide can simply be narrowed, slowing traffic down and creating more space for other uses. These can include wider sidewalks with space for trees, seating and other amenities, high quality protected bike lanes, or transit priority or dedicated lanes that improve the quality and reliability of bus operations. Reducing the space dedicated to vehicles also makes crossing the street safer and easier.
Mobility must be intuitive, safe and comfortable, especially for pedestrians and bicyclists to access the station. Repurposing the space within ROW will improve the overall mobility.

1.3 SPEED MANAGEMENT

» NE 2nd Ave, NE 79th St, NE 82nd St and Biscayne Blvd within 1/2 mile from the station should be “reduced speed zones”. Consider “traffic calming” measures on these streets and intersections in order to reduce vehicle speed and increase bicycle and pedestrian safety. Traffic calming measures may include narrowing/reducing lanes, designing bulb-outs, and on-street parking.

1.4. SAFE CROSSWALKS

» Maximize driver visibility and ensure pedestrian safety while crossing the streets and rail lines. Pedestrians should have priority over all motorized and non-motorized vehicles around the station area. Focus on safe pedestrian and bicycle crossings NE 2nd Ave, NE 79th St, NE 82nd St, and Biscayne Blvd. Pedestrians crosswalks with sufficient countdown time and audible cues should be installed.

» Install and improve higher visibility crosswalks, such as zebra style or material changes, at all intersections. Maximize driver visibility and ensure pedestrian and bicycle safety while crossing streets.

1.5 SIDEWALKS

» Offer pedestrians enough spaces to walk, stand, socialize to increase pedestrian safety and comfort. Together with proper lighting, street trees and vibrant street walls, they contribute to proper placemaking and help activate a walkable environment that will link people to the station. Increasing sidewalk widths on main arteries should be a priority to improve access to the station.

» Limit curb-cuts to new buildings, consolidating ingress and egress to a single location.

» Remove poorly installed signage to increase usable sidewalk space and add curb cuts at locations where they are missing.

» Increase urban tree canopy by planting native shade trees in existing empty tree wells, and implement and activate public spaces.

» Require sidewalk tapering closer to the curb edge. New standards need to be adopted in order to reduce turning speeds into sidewalks. Tighter curb tapering and edges slow traffic down and provides safer and more comfortable walkable conditions.

Image: Swann Avenue, Complete street design in Tampa, FL. (Source: www.tampagov.net)

Image: Raised cycle track, Cambridge MA. (Source: www.nacto.org)
1.6 CYCLIST ACCESS
Provide direct intuitive bicycle routes to the station increasing bicycle safety and comfort:

» Increase safety and encourage the use of bicycles by providing clear uninterrupted bicycle paths and lanes with markers to/from the station area. Enforce vehicular lane blocking sternly.

» Include safe and secure cycle parking facilities at station areas to securely store bicycles while users commute and work.

» Maximize driver visibility and ensure bicycle safety while crossing streets especially at the main arteries.

» Include bicycle repair stations closer to the stations to improve the reliability of cycling as a mode of transport or recreational activity.

» Implement bike sharing programs to bridge the gap between destinations and rapid transit.

1.7 FEEDER TRANSIT SERVICES

» Service integration should be encouraged to maximize available transit service, especially along shared corridors into the transit station. The station should serve as a hub to the existing trolley and bus lines traversing the neighborhood and should be reconfigured to capitalize on the new high-speed service. This will reduce the demand for commuter parking supply. (See 1.8)

» Establish minimum service standards to ensure transit service is available during rapid transit service hours.

1.8 PARKING

» Assess commuter parking needs for the station and strategically locate parking where land is available. Note that commuter parking does not have to be directly adjacent to the station entrance as long as a pedestrian connections and safe and comfortable environment is ensured.
The station should become and serve as a hub to the existing trolley and bus lines that traverse the neighborhood. Their routes should be reconfigured to capitalize on the new commuter service.

- Limit commuter parking expansion need by prioritizing feeder transit services to the station.
- Ensure that vehicular parking design contributes to an efficient, intuitive and safe circulation system giving priority to pedestrians, bicyclists and transit. Ideally parking should be within a convenient walking distance and hidden behind active uses. (See 3.2)

1.9 PICK UP - DROP OFF AREAS
- Provide intuitive clearly marked pick up and drop off areas that are easily accessible and visible to all users. Consider the station type and land use context in the specific design priorities for a given station.

1.10 RIDE SHARE, VAN POOL AND TAXIS
- Incorporate different mobility options and allow them to operate seamlessly within the station area by providing clearly marked pick up and drop off areas that are easily accessible and visible to all users. Give priority to pedestrians and cyclists to minimize conflict.

1.11 WAYFINDING SIGNAGE
- Implement standards of wayfinding specific for the transit shed in and around the station to increase visibility and awareness of proximity to the station. Focus on pedestrian scale signage, accessibility signage and parking signage to improve flow.
- Maintain consistent identifiable terminology throughout the transit system to improve navigation.
Safety and comfort refers to infrastructure vital to quality of life, which includes the systems and facilities for all. The goal of this section is to provide recommendations to make active transportation users comfortable and safe while traveling. Adequate planning and maintenance of local infrastructure will help contribute to the health, comfort, environmental resilience, economic productivity, and social connectedness of Little River.

2.1 TRAFFIC CALMING MEASURES

Poor street design allows motorists to drive at dangerous speeds that are incompatible with a safe walkable neighborhood. Where vehicle speeds exceed 20 mph, the risk of serious injury or death to a person struck by a car increases dramatically. Future additional pedestrian and bicycle users in the area as a result of the station requires changes to improve safety within the transit shed.

- Build or retrofit the network of streets to create a balance between the movement of pedestrians, cyclists, transit and vehicles. Adopt Complete Street design standards that ensure safe movement of all users giving priority to pedestrians and cyclists.
- Identify and evaluate allocation of ROW space to carry "persons" instead of "vehicles". Introduce protected bicycle infrastructure and traffic calming measures such raised crosswalks, narrower travel lanes, tightening turning radii and curb extensions to improve walking and cycling safety and comfort.
- Planting shade trees along streets can also have a traffic calming effect by creating the perception that the street is narrower.

2.2 LIGHTING

- Increase safety and aid in night navigation for active transportation users by incorporating pedestrian-scale lighting at regular intervals in areas of high pedestrian activity and at crosswalks, bus stops and corners.

2.3 EYES ON THE STREETS

- To contribute to an atmosphere of safety encourage "eyes on the street" to provide informal surveillance of the urban environment.
Ample room for walking, frequent doors and windows with people inside at all hours of the day as well as lit frontages at night are important key elements to improve safety. Provide diverse mix of uses including housing, employment, regional attractions and public spaces to create a high quality urban environment close to the transit station.

2.4 TREE CANOPY
High temperatures during much of the year in Miami can make walking and cycling an uncomfortable experience. Unshaded pavement and concrete retains and radiates heat, making it even hotter. NE 79th and NE 82nd streets lack shade trees within a 1/2 mile of the station and beyond making this area uncomfortable for walking and cycling especially in the summer months.

» Plant shade trees on right-of-ways giving priority to the main pedestrian access routes. It’s important that both sides of the streets have trees to maximize the tree canopies and make sidewalks more comfortable for pedestrians. Trees not only add shade to sidewalks but they add a myriad of additional benefits such as serving as a protective buffer between pedestrians (2.1) and vehicular traffic, increasing the aesthetic quality of the street, and improving storm water management.

» Plant shade trees in public spaces and encourage developers to do the same on private land.

2.5 SHADE AND SHELTER
Building arcades and awnings are effective ways of creating shade and shelter from the rain for people walking on sidewalks and should be encouraged in new development.

» Green roofs and green walls can help reduce the urban heat island effect while incorporating greenery into built-out urban areas. The City and County could explore introducing green spaces on underutilized land at public buildings. They could also create incentives for private developments to do the same.

» Improve bus and transit waiting areas with shade structures and seating to bring comfort to transit users.

» See Land-Use recommendations for related action steps.
Streets, sidewalks, and buildings are the physical infrastructure of placemaking and the quality of their design can directly affect the liveliness of a transit station area. In a station area, streets and sidewalks are interconnected by different transportation modes such as walking, cycling and transit. To ensure safety of pedestrians and cyclists a balance between these modes is necessary.

In addition to high-quality streetscapes, a the transit station area should plan for parks, courtyards, forecourts and open spaces. A diversity of these public places encourages social interaction and community participation. These spaces should be highly visible, convenient and accessible along pedestrian corridors in the station area.

3.1 OPEN SPACES

- Encourage a plazas and open space at the station entrance. A well designed functional and attractive entry plaza can complement the proposed land uses and create a sense of place and serve as a focal point to the station area. It is important to focus on a public realm that is sensitive to the surrounding built context and community vision.
- Create a Bonus Program to promote publicly accessible open spaces on private land. Developers could provide open spaces on-site or pay into a Public Benefits Trust Fund in exchange for additional stories or increased lot coverage.
- Protect and embrace the river’s edge and establish a park network to create a high quality urban environment close to the transit station.

3.2 TYPOLOGIES

- Consider a variety of spaces within the transit shed that compliment and are respectful of their context. Given the varied nature of this neighborhood transit center, different open space typologies should be use to improve the area not only for commuters, but also to benefit the existing communities.
3.2 THE RIVERFRONT

The Little River Waterway is an incredible asset to the communities it traverses. At the same time, flooding and maintenance can be an issue over time.

- Improve and design open spaces along the river improving its visibility and accessibility for the enjoyment of the community and commuters.
- Consider designs that allow for water to easily enter during flood events. A barrier free - oftentimes lower elevation park design mitigates flooding on the surrounding more sensitive areas, reducing the risk and cost of potential water damage to property.
- Use solely permeable surface materials to increase the absorption index to speeding up recovery after flooding events.
- Design the edge with erosion resistant materials to minimize maintenance and damage overtime.
- Make use of native plants to reduce maintenance costs and improve and restore the Little River Eco-system
- Consider refuge areas for manatees.

New open space and other interventions should be used to improve the area not only for commuters, but also to benefit the existing communities.

Image: Chicago Riverwalk integrated storm water management system to enable appropriate soil volumes and irrigation. (Source Kate Joyce, overlay Courtesy of Sasaki)
4.1 MIX OF USES
Mix uses are key to keep streets active for long periods of time. They are the cornerstone for effective Transit oriented development.

» Incorporating both vertical and horizontal mix of uses within the ½ mile transit shed is recommended to allow residents to meet all of their daily needs within a short walking distance. This mix should include commercial (retail, restaurants and offices), residential, recreational and civic uses.

» Propose and integrate increased transit-supportive densities at, and around, the transit station area to create a compact built form and a critical mass of activity, while ensuring appropriate transitions to the surrounding community.

» Encourage ground-level activity and uses along main streets, key intersections, station area and parking structures to accommodate retail and other active uses on the ground floor.

4.2 PARKING

» Design Parking Structures for future reuse. With ride-share, bike-share, car-share and increasing transit options, and fully automated vehicles on the horizon, cities and developers are less eager to allocate valuable space for parked cars. With this in mind parking garages should be designed to adapt to these changes and allow for them to be retrofitted to other uses.

» Establish a No Parking Minimum Zoning requirement or a buy-down parking fund within a quarter mile from the station.

» Consider implementing commuter parking pricing with incentives for carpooling and alternative fuel vehicles.

» Consider developing parking maximums to limit excess parking supply.

» Consider centralized parking structures to provide parking for new development minimizing parking podiums and surface parking lots on new structures.

» Parking should be screened by active uses to maintain continuity of the pedestrian environment.
Propose and integrate increased transit-supportive densities at, and around, the transit station area to create a compact built form and a critical mass of activity, while ensuring appropriate transitions to the surrounding community.

4.3 MIAMI 21 CALIBRATION
» Make revisions to the code within the TOD standards to allow context sensitive development to support and enhance commercial activity and ridership.
» Courtyards, paseos, and arcades should be encouraged through development incentives to extend the pedestrian realm and offer alternate pedestrian routes within the Station Area.
» Consider density and height incentives in exchange for public open spaces, mobility, or station area improvements near the station.

4.4 ENCOURAGE REDEVELOPMENT OF LARGE SUBURBAN TRACTS
» Ensure that development is sensitive to the local context and builds upon the existing character of the area.
» New development should take advantage of the site’s maximum potential and achieve a density that supports public transit.
» Development on the site should improve and enhance pedestrian and bicycle connections to the station. Connections should be direct, intuitive and safe.
» Ensure that future open space requirements benefit the community and enhance the accessibility to the station.
» Incorporate a diversity of housing choices that includes a mix of types, styles, price ranges and tenure to ensure a diverse and large number of residents have access to transit.

4.5 PROMOTE INCLUSIVE GROWTH
Little River has seen a burst of new development and interest from real estate investors and developers due to its central location in Miami. New development could make the neighborhood vulnerable to character changes and displacement. In order to mitigate this effect policies and incentives should be considered to promote “inclusive growth” such as: Contextual Infill and Gentle Density techniques wherever possible.
The scale of development relates to the size of buildings in relation to their context (buildings around them) and the pedestrian. The proportions of doors and windows, the height of each story, and the details of the buildings all impact whether a building is at a scale that feels right to a person or not.

The following set of recommendations outlines how future development can reflect the diversity of scale and form, adding visual interest and complexity to the urban environment, and creating new opportunities to strengthen the station area’s character as well as the neighborhoods around it.

4.6 BUILDING FORM
Context sensitive development solutions should be explored to make sure the existing scale and character is respected and preserved in order to increase the presence of pedestrians on the streets and support commercial activity and transit ridership.

- Provide transitions between the station area and the surrounding neighborhoods by stepping down, reducing lot coverage and increasing open space. New development should not overwhelm the scale of existing buildings and neighborhoods and should blend in with its surroundings.
- Avoid monolithic building mases. Careful volume design can be integrated better to historic communities that were built over time and that have a granular fabric.
- Encourage Roof Terraces and Green Roofs. Roof terraces offer opportunities for riverfront and views that strengthen the visual connection from the Station Area and the river and the Intra-coastal. Encourage roof terraces that are accessible to the public and that interact with the street.

4.7 BUILDING’S MINIMUM HEIGHT
Even though most development maximizes its capacity, it is also a predominant practice in the City to develop suburban single-story typologies in higher capacity zoning designations. Furthermore, underutilization of land around stations leads to development pressure elsewhere decentralizing activity and reducing the area’s economic vitality and capacity, as well as a potential reduction in ridership.

- Increase the minimum height from 2 stories to 5 stories to match the lower tier zoning category - T5 (mid-rise typologies).

4.8 VACANT LAND
Vacant and/or underutilized land is one of the station area’s major problems. Lack of activity around within the transit shed discourages walkability as streets lack interest are often deemed unsafe.

In cities like Miami that have adopted Smart Growth models, and where land is scarce, vacant and underutilized land pushes demand for development elsewhere, which in turn adds to the mobility issues the City faces today.

- Consider increased limited-time development rights to de-incentivize vacant land and improve the areas around the station.
Diversity of scale and form adds visual interest and complexity to the urban environment, and creates new opportunities to strengthen the station area’s character as well as the neighborhoods around it.

4.9 TAX ALLOCATION DISTRICT (TAD)

Establish a Tax Allocation District (TAD) in the 1/2 mile transit shed boundary to capture the value of new development for a certain period of time, so the value can be reinvested within the TOD and fund needed infrastructure improvements.

- The redevelopment of underdeveloped, blighted, and vacant properties will generate substantial new annual tax revenues from property taxes, sales taxes, business licenses and other sources.
- The TAD can fund projects to create new urban frameworks to support development, provide accessibility and mobility for pedestrians and vehicles, and improve the aesthetic and visual environment of the area. New appealing mixed-use development will broaden the area’s appeal and increase its economic competitiveness.

4.10 BUILDING FRONTAGES

Frontages reinforce the public realm and enhance the pedestrian experience as well as encouraging walkable station areas that promotes the use of transit.

- Strengthen a balance of articulations on facades - especially on the ground floor. Incorporate outdoor seating, display merchandise or planters in front of the facade without blocking the pedestrian clearway, to fosters a connection between shopper and merchandise on the ground floor.
- Encourage awnings and arcades that provide protection from the sun and rain and create a comfortable space for pedestrians. Awnings should be required where there is a commercial frontage (if no arcades are present). Awnings should be limited to areas above doors and windows. One continuous awning that extends across the entire facade should be avoided.
- Encourage balconies to add value to the urban environment by improving safety with constant eyes on the street. Balconies play an important role in social life in an urban setting because they provide a connection between the private and public realm improve safety.
- Create a TOD Architectural Guidelines, focusing on signage, awnings, arcade character, materials, etc.. These will help reinforce all other recommendations in this document to promote a safe and comfortable environment for pedestrian activity and enhance the identity and character of the neighborhood and station area.
4.11 RESILIENT DESIGN STRATEGIES

This criteria supports strategies, which look to solve problems across multiple scales, addressing short and long term needs, shocks and stresses.

- Create a Tree Succession and Maintenance Plan. Create a long term tree succession plan extending to the 1/2 mile radius, to plant new trees throughout the neighborhood over the next few years. Address tree maintenance as part of the plan to clear up sidewalks of tree bracing and soil watering rings, as well as watering and maintenance of the trees after planting.

- Create a Storm-water Management Plan. Wider sidewalks will give space for swales and storm-water management, thus reducing pollution running off into the river. Reducing on-street parking and the width of the street allows for the reduction of impervious cover in the neighborhood. This space can be used to expand swales and planters and allow for the implementation of rain gardens and bioswales, which help to filtrate water and reduce additional storm-water runoff while reducing the pollution flowing directly into the bay.

- Mitigate flooding risks by implementing resiliency design strategies. Info on Flood Prevention plans: in the floodprone Shorecrest neighborhood, city employees plan to install a temporary dam at the waterfront Little River pocket park, which doesn’t have a sea wall, along with the three neighborhood backflow preventers and four plugs along 79th Street. Also on the street, a flashing sign warns neighbors to expect flooding soon.

- Design Parks and especially waterfront spaces as part of a stormwater management plan. Use these spaces to protect from future flooding events and contribute to the absorption of rain water reducing the effect of these events on properties around them.
4.12 FLOOD RISKS
Flood hazard maps (Flood Insurance Rate Maps or FIRMs) show that many properties close to the Little River, specially to the East lie in a flood zone designated as Zone AE (moderate to high flood risk) and is described as the flood insurance rate zone that corresponds to areas of shallow flooding with average depths between one and three feet. Future development needs to consider resilient solutions that protect them from reoccurring flood events in the area.

4.13 GROUND FLOORS
While adhering to new flood regulations can present obstacles to maintaining active ground floors, there are a number of ways property owners can still provide transparency and activity at the ground level.

» Where floor plan allows it, access should be solved inside the building envelope to preserve street-wall alignment, ensuring a visual connection to the sidewalk. Hybrid strategies are possible involving elevation of interior space with wet flood proofing of entrances and a shallow area near windows that can serve as display space.

» Consider changes to zoning maximums reflecting flexible ground floor heights to address flood elevation changes.

4.14 PERMEABILITY
As seen in recent flood events, major damage is caused in great part in the rate of absorption at which water permeates through the ground. Little River’s waterfront condition requires new resilient infrastructure to be considered when making any improvements in the private and public realms that reduces the impacts of shocks and stresses.

» Future street improvements should use permeable materials to accelerate absorption to minimize property damage and time of recovery.

» All improvements and future private and publicly owned surfaces should be built with pervious materials to add to the absorption index of the area.
In the introduction of this report, we acknowledge that there is a significant national shift from private automobile dependency to mass transit. It is shown how through the use of Guidelines such as Complete Districts, we may achieve a more democratic way to move in the city by implementing principles that balance infrastructure with transportation modes and Land Uses.

Skeptics have said that the American Dream resides in car dependent suburban developments that get built because that is how people want to live. This was once true, but this view is beginning to shift because communities across the nation, have proven that there are many variations on the American Dream. Younger demographics have demonstrated that transit-oriented development supports the timeless essence of the American Dream: the dream of owning a home; of living in an attractive, thriving neighborhood; of setting down roots and feeling part of a community; of enjoying the walk to a neighborhood coffee shop or a short train ride to see a movie. This is what makes a Complete District so effective; it views CITIES AS HOLISTIC NETWORKS THAT LINK PEOPLE, PUBLIC AND PRIVATE LAND, THE BALANCE OF WHICH IS PARAMOUNT TO MAKE PLACES GREAT. This balance is symbiotic in that all elements are part of a system and they depend on each other to function. It is only when a district’s components are well-tuned and calibrated that they make great places for us to live.

In less than a decade, Downtown Miami has seen a resurgence and a desirability among younger generations to come live, work, and entertain. Some claim that the “Manhattanization” of Downtown Miami is well underway and while we continue to encourage housing affordability as a key element to the ultimate success of Downtown, we are encouraged by the fact that our downtown is becoming a more walkable and attractive place for people to work and live. This process has since been augmented from the day when Miami Central Station opened and instantly connected people from other major cities in our metro area directly to Downtown. Therefore, our focus was on providing actionable steps to enhance the commuter experience to and from the station.

In the Midtown area, four fast growing Districts (The Design District, Midtown, Wynwood and Edgewater) will benefit from having the station; thus our analysis viewed the physical challenges and opportunities of each likely station location based on station design criteria and considered data from other studies to establish where the most feasible site with the greatest potential for ridership can be found today and as future development occurs.

The Little River Station Transit Shed has the potential to become a true transit oriented commuter district given that a great percentage of the surrounding land use is prime for redevelopment. Future transit oriented development in this location needs to consider the context sensitive realities of Little River; surrounded by low scale residential uses, a historic main street and an environmentally sensitive waterway. As the Station will undoubtedly bring positive changes to this location, there is an urgent need to protect the surrounding existing scale, character, and cultural identity of the neighborhoods.

At the same time, the opportunity to redevelop the existing suburban shopping center site - largely buffered by the river and major roadways - into a dense TOD that supports transit, that is well connected to the station and that provides riverfront open space opportunities for the community at large makes this station location ideal.

The arrival of commuter rail will certainly bring many positive changes and present many challenges to all station areas studied in this report. These recommendations are intended to serve as actionable steps, guiding principles and aspirational solutions during the evolutionary process that each of these communities will undergo, transforming into thriving transportation hubs. In the end, the prospects for these communities to become twenty-first century versions of the American Dream are bright. One shaped by transit that provides mobility options - reducing the already cost-burdened Miami family. One that provides a diverse with mix of uses, serving the growing appetite for more affordable, walkable and healthier neighborhoods in our cities.

LESSONS LEARNED

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Lessons Learned | 137

Image: Tri-Rail's Pompano station going green. (Source: Sun Sentinel/article)

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THE BEST WAY TO PREDICT THE FUTURE IS TO CREATE IT.

- ABRAHAM LINCOLN
  President of the United States