October 15, 2007

Mr. David Henderson  
Bicycle Pedestrian Coordinator  
Miami-Dade MPO  
111 N.W. 1st Street, Suite 910  
Miami, FL 33136

Mr. Sabrina Raisi, AIA, AICP  
Planning Director  
Miami-Dade County  
111 N.W. 1st Street, 11th Floor  
Miami, FL 33136

Dear David and Sabrina:

We are pleased to submit the final report of the Miami-Dade County Typical Roadway Section and Zoned Right-of-Way Update Study. We hope that you, the MPO and the County are as excited about receiving it as the Kimley-Horn team has been preparing it. The Study is an important component of the County’s vision of providing a comprehensive multimodal transportation network. We believe it is the beginning of a sound in design of roadways that is sensitive to the land use context the roadway is located in and centers well to all modes of transportation.

The entire study process, especially the participation from the Study Advisory Committee, was a pleasant and valuable experience for us. We commend the Committee for its active involvement in this inclusive process and providing insights into the relevant issues in designing roadways within the County.

We sincerely appreciate being a part of this outstanding effort and look forward to the successful implementation of the study recommendations. We also hope that the County undertakes the next steps to implement the recommendations in the study.

Very truly yours,

Kimley-Horn and Associates, Inc.

Timothy Stillings, AICP  
Project Manager

Poona Bhutwala, AICP  
Project Planner

October 15, 2007
# Table of Contents

**FOREWORD** .................................................................................................................. i
**INTRODUCTION** ............................................................................................................... 1
**SECTION 1: BEST PRACTICES** ......................................................................................... 2
  - Survey of Best Practices ................................................................................................. 3
  - Study Advisory Committee (SAC) ................................................................................. 3
  - SAC Preference Questionnaire ...................................................................................... 3
  - Existing Roadway Sections ............................................................................................ 6
**SECTION 2: PLANNING CONCEPTS** ............................................................................... 7
  - Context Zones ................................................................................................................ 8
  - Roadway Types ............................................................................................................... 16
  - Relationship between Functional Classification and Roadway Types ....................... 18
**SECTION 3: TYPICAL SECTIONS AND DESIGN GUIDELINES** ..................................... 19
  - Developing a Cross Section .......................................................................................... 21
  - Components of a Roadway ............................................................................................ 22
  - High-Speed Boulevard ................................................................................................. 25
  - Low-Speed Boulevard ................................................................................................. 29
  - Avenue ........................................................................................................................... 33
  - Street .............................................................................................................................. 39
    - General Street ............................................................................................................ 40
    - Main Street ................................................................................................................ 41
    - Residential Street ..................................................................................................... 44
    - Commercial Street .................................................................................................... 46
    - Industrial Street ........................................................................................................ 48
  - Highway, Drive, and Road .............................................................................................. 50
**SECTION 4: ROADSIDE GUIDELINES** .......................................................................... 55
  - Boulevard Options ........................................................................................................ 57
  - Avenue and Street Options ........................................................................................... 58
**SECTION 5: ZONED RIGHT-OF-WAYS** ........................................................................ 59
**CONCLUSION** ................................................................................................................. 70
**APPENDIX A: BEST PRACTICES SUMMARY** .................................................................
**APPENDIX B: EXISTING CROSS SECTIONS** .................................................................
**APPENDIX C: ZONED RIGHT-OF-WAY ORDINANCE**
The Miami-Dade County Typical Roadway Section and Zoned Right-of-Way Update Study (Study) is an important component of the County’s vision of providing a comprehensive multimodal transportation network. The network must be sensitive to the needs of the users for all modes of transportation, while also meeting the long-term transportation demands of the County. This is one of the biggest challenges faced by the County planning and engineering staff. The overall intent of the Study is to provide clearer direction for the County’s roadways and right-of-ways to achieve the vision. A Study Advisory Committee (SAC) was established consisting of representatives from various County departments and the Miami-Dade Metropolitan Planning Organization (MPO).

The two major goals for this Study were:

1. To identify a list of area types and roadway types representative of the land use and transportation mix within the County, and develop typical sections for each roadway type for future application within the County.
2. To identify and preserve the right-of-way needed for future transportation capacity improvements identified in the MPO’s 2030 Long Range Transportation Plan through the County’s zoned ROW ordinance.

To achieve these goals, the Study began with a review of (1) Miami-Dade County’s public works manual, specifically the standard roadway details, (2) existing County roadway cross sections for roadways identified by the SAC, (3) the zoned right-of-ways included within the Miami-Dade County Code of Ordinances, and (4) several transportation planning documents comprising the “best practices” around the nation. The culmination of the review, along with input from the SAC, is this Study.

This Study presents a set of ideas, concepts, and design elements for typical roadway sections. These typical sections are intended for use in designing roadways that provide the best possible accommodation for all users. Presented by area and street type, each of the typical sections includes roadway elements consisting of vehicle travel lanes, designated bicycle lanes, on-street parking, sidewalk furnishing areas and pedestrian-friendly sidewalks.

Many roadways in the County are physically or politically constrained. Due to the limitations, certain roadways must be designed through prioritization of needs and user accommodation based upon the space available and community direction. Since this occurs in several areas of the county, this Study also provides a list of priority and optional design elements. The priority design elements are those elements that are strongly recommended to be included in a roadway section. The optional design elements represent those elements that are beneficial, if adequate right-of-way is available. Recommendations for constrained roadways are also provided in the Study which refer to the absolute minimum requirements that should be provided on a particular roadway type.

This Study is intended as a framework to guide future roadway improvement projects within the County. The typical sections recommended for the various roadway types are positive statements intended to be flexible. They were designed to be interpreted based on sound professional judgment, utilizing the recommendations presented in this Study. There can be several variants of the typical sections in this Study, depending on the design elements that are used. The appropriate combination needs to be decided by the designer based on the context of the surrounding area and the goals of the community. A range of design standards are also provided for the various design elements of a typical section, which provides the flexibility for the designer.

It is suggested that the designer understand the concepts presented in this Study and use them to develop typical sections specific to the community’s needs, within the framework presented.

An additional part of this Study is to provide recommendations for changing the adopted zoned right-of-ways for corridors that are planned for future capacity improvements within the MPO’s 2030 Long Range Transportation Plan. The recommended changes to the zoned right-of-ways have been calculated based on the typical sections presented in this Study. The zoned right-of-way recommendations will help the County preserve and eventually secure right-of-ways for future improvements. A draft ordinance recommending changes to Miami-Dade County Code Ordinances Section 33-133 is provided in this Study.

This Study should serve as one of the first steps to memorialize the County’s vision of a comprehensive, multimodal transportation system. The next steps should include presenting the proposed zoned right-of-way ordinance to the Planning Board and County Commission for adoption, along with updating the Public Works Manual to include the typical sections within the Study. It will also be useful for right-of-way identification, presentation, and acquisition for the County to create a database of the existing right-of-way dimensions in GIS to track opportunities and changes. Finally, the County should establish typical drawings for intersections that include existing cross sections and proposed typical sections, as well as, develop typical drawings for transitions between the different street types.
Communities across the nation are adopting a shift in philosophy with regard to transportation planning and design. Many are moving from an auto-oriented approach to a complete street approach. Miami-Dade is taking the steps to achieve the shift. The definition of a “complete street” is one that provides mobility, convenience, and safety for all users of the roadway including pedestrians, bicyclists, transit users, and motorists. This paradigm shift can be attributed to the renewed awareness that a street’s purpose is not just to move cars, but to enhance the livability and the urban environment of the communities. Some other terms for a complete street as coined by respected transportation professionals, include context sensitive streets and great streets. A quote from Allan Jacobs’ famous book Great Streets, defines a great street as follows:

“A great street should be the most desirable place to be, to spend time, to live, to play, to work, at the same time that it markedly contributes to what a city should be.”

The Federal Highway Administration (FHWA), the State Departments of Transportation, and professionals and academicians in the transportation industry have been promoting a renewed and comprehensive approach to transportation planning and design. One in which roadway improvements reflect the context within which they are located and the needs of the community. This approach focuses on ensuring there are provisions for all modes of transportation.

Miami-Dade County has continued to experience significant growth in population, especially within the urban areas. Consequently, the demand for transportation infrastructure and services has increased considerably, putting a strain on the existing infrastructure. The County’s Comprehensive Development Master Plan (CDMP) has designated several major urban areas as “urban centers” which are intended to be dense, compact, mixed-use areas with a high quality pedestrian environment. The CDMP requires the urban centers to offer a variety of transportation options and to be designed primarily for people and secondarily for automobiles and other motorized modes.

Many of the roadways in the County, especially within these urban centers, are auto-oriented and do not provide sufficient right-of-way for all users. The urban areas are built-out, further limiting right-of-way available to serve all the competing interests and users on the roadway. As these urban centers continue to develop into denser, mixed-use communities, there is a need to increase the comfort and safety of all modes using the roadways, especially pedestrians, bicyclists and transit users.

The County Commission has adopted several policies supporting the development of a multimodal transportation system consistent with the complete street approach. In its broadest interpretation, multimodal transportation refers to an interconnected transportation system where the trips on the roadway are distributed among different modes. There are still elements of the county’s planning and engineering policies and programs which need to be modified to be consistent with the goal of developing a multimodal transportation system. One specific example is the current public works manual.

The current Miami-Dade County Public Works Manual (Manual) contains roadway design standards that are auto-oriented. The Manual does not provide design standards for developing a multimodal transportation system and does not address the context of the roadway such as within dense mixed-use urban areas. The Public Works Manual is more than 50 years old and in need of an update to reflect the current transportation planning direction of the County. This Study serves as a guide for updating the manual.

Integration of transportation and land use planning activities, especially within urban areas, is an important goal for the County as contained in the CDMP. Often there is a lack of connection between the design of a roadway and the land uses along the roadway. The design of a roadway needs to take into account the land uses that it will serve and the context, the predominant mode of transportation, and the activities that will occur on the roadway. For example, an arterial roadway that passes through a predominantly retail corridor may need to provide on-street parking and wide pedestrian walkways to support the retail activities, while an arterial passing through a residential neighborhood might need narrower travel lanes and a sidewalk separated from travel lanes by landscaping.

The primary objective of this Study is to develop and recommend typical sections for roadways that are consistent with the goal of a multimodal transportation system. The typical sections presented in this Study accommodate all modes and are context sensitive. This Study contains recommended Typical Roadway Sections and Guidelines that are a comprehensive approach to designing roadways within Miami-Dade County. The guidelines and the typical sections will provide the framework for Miami-Dade County to create a better transportation and land use connection, enhancing the livability of its communities.

The secondary objective of the Study is to recommend updates to the zoned right-of-ways contained in Section 13-133 of the Miami-Dade County Code of Ordinances. The recommendations are based on the anticipated improvements contained in the MPO’s 2030 Long Range Transportation Plan and the proposed typical sections resulting from the Study. The recommended changes to the zoned right-of-ways will enable the County to preserve and potentially acquire the necessary right-of-way to implement the programmed improvements and develop a multimodal transportation network.

The Study is divided into the following major sections:

Section 1 – Best Practices
Section 2 – Planning Concepts
Section 3 – Typical Sections and Design Guidelines
Section 4 – Roadside Guidelines
Section 5 – Zoned Right-of-Ways

Typical Roadway Section and Zoned Right-of-Way Update Study
SECTION 1
BEST PRACTICES
To aid in the development of the area types, roadway types, typical sections, and the design guidelines for Miami-Dade County, a search was performed to identify communities across the nation that have developed multimodal roadway design standards. A summary of best practices was compiled. To understand the existing right-of-way conditions in Miami-Dade County, the County’s Public Works Manual, existing County roadway cross sections, and the zoned right-of-way included within Section 31-133 of the Miami-Dade County Code of Ordinances were reviewed. A Study Advisory Committee (SAC) was also established to provide input for the development of the cross sections. The SAC meetings also helped establish consensus early in the process.

SURVEY OF BEST PRACTICES

It is always useful to build upon the successes of other communities that share the same planning direction and philosophies. The project team reviewed a number of transportation planning documents from jurisdictions across the United States that have adopted multimodal roadway design standards. The following eight documents represent a cross section of transportation planning efforts that were referenced during the Study. A more detailed report summarizing the eight studies is included as Appendix A.

1. Alachua County, FL, Corridor Design Manual (2002): This manual provides design guidelines for six roadway types within seven land use classifications along with the required and optional design elements for each roadway type.

2. Arlington County, VA, Master Transportation Plan – Streets Element (2006): This plan re-examines streets in a comprehensive way to provide a master plan that safely accommodates multiple surface transportation modes.


4. City of Dallas, TX, Forward Dallas! Thoroughfare Plan (draft, 2005): The current update to the Dallas Thoroughfare Plan integrates context design into the planning and design process for the City’s streets and roadways. The plan provides standards for various land-use-based street types within the context of the existing functional classification.

5. City of Denver, CO, Blueprint Denver Land Use and Transportation Plan (2002): The transportation component of Denver’s blueprint plan presents transportation modes and initiatives as tools to the successful development of the city and its neighborhoods. The plan overlays existing functional classification on roadway types within its land use context.

6. City of Portland, OR, Transportation System Plan 2004 Technical Update (2004): This technical update refined the street design typology that was developed in the region’s transportation plan. The plan provides various classifications for roadway, transit, truck, bicycle, and pedestrian infrastructure.

7. City of San Diego, CA, Street Design Manual (2002): The manual provides information and guidelines for the design of a public right-of-way that recognizes the many and varied purposes that a street serves. It provides detailed guidelines for roadway design, pedestrian design, traffic calming, street lighting, parkway configurations, and design standards.

8. City of Sarasota, FL, Downtown Master Plan 2020 (2001): This master plan provides a consolidated plan for downtown Sarasota to help guide and implement various planning initiatives that preceded this document. Although the master plan was developed as primarily a land planning document, it provides design standards and recommendations for roadways within the downtown, as well as new functional classifications for thoroughfare types.

STUDY ADVISORY COMMITTEE (SAC)

To provide multiple perspectives for this project, a SAC was formed comprising of staff representatives from the Miami-Dade Metropolitan Planning Organization (MPO), Florida Department of Transportation (FDOT), and several County departments including Planning, Public Works, Fire, Parks, and Miami-Dade Expressway. The SAC met four times during the development of the Study, beginning with the Study kick-off meeting on January 17, 2007. The SAC members are directly involved in the planning and design of roadways within Miami-Dade County. Their review and input was integral to the development of the Study. These individuals will also be critical to the implementation of the recommendations and the incremental development of the multimodal transportation system.

SAC PREFERENCE QUESTIONNAIRE

A questionnaire was distributed to the SAC members at the beginning of the Study to gain insight regarding the key elements of “great streets” within Miami-Dade County. The challenges facing the SAC regarding roadway design and transportation planning were also a major focus of the questionnaire. The questionnaire provided an opportunity for SAC members to share valuable input on what they consider the “most desirable” and “least desirable” streets within the County.
Questionnaire

The questionnaire contained seven open-ended questions designed to solicit input from the SAC members. The questions included the following:

- Name three streets in Miami-Dade County that you would consider "great streets". What characterizes each as a great street?
- Name three streets in Miami-Dade County that you would consider examples of bad streets. Why?
- What are the most important considerations in street design (i.e. drainage, landscaping, etc.)?
- Rank the elements in order of importance for each street type: urban arterial/collector, suburban arterial/collector, and residential street.
- How would you describe mobility? What are your expectations about providing mobility?
- Is the current Public Works Manual adequate to address the multimodal needs for the County’s roadways?
- What are some of the most common challenges of implementing street typical sections in the current Public Works Manual?

Questionnaire Results

1. Which streets are considered "great" or "bad" streets in Miami-Dade County.

The streets that were repeatedly identified as the “most desirable” streets by the SAC include:

- Miracle Mile (east of LeJeune Road) in Coral Gables
- Coral Way (from SW 37th Avenue to SW 57th Avenue)
- Alhambra Street (from Douglas Road to Bird Road)
- US 1 (Brickell Avenue)
- Biscayne Boulevard (north and south of downtown Miami)
- Old Cutler Road (from Cocoplum Road to Galloway Road)

A majority of the respondents cited the following as integral qualities that make up "great streets" — human scale elements, enhanced landscaping, mix of land uses, on-street parking, pedestrian amenities including wide sidewalks and street furniture, wide outside lanes for bicyclists, and adequate traffic capacity.
The following streets were repeatedly identified as "bad" streets within the County:

- SW 27th Avenue (from US 1 to Bayshore Avenue)
- Biscayne Boulevard (within downtown Miami)
- West Flagler Street
- Douglas Road (from US 1 to SW 8th Street)
- Okeechobee Road (from SR 826 to the Turnpike)
- US 441 (north of Golden Glades)

A majority of the responses by the SAC cited the following as the characteristics that are attributable to the "least desirable" streets — narrow sidewalks, traffic congestion, minimal landscaping or decorative elements, insufficient transportation options, too much concrete/pavement, suicide or two-way center left-turn lanes, interrupted sidewalks, lack of bicycle lanes, narrow outside lanes, and too much development.
Key Design Elements

2. Identify the key elements that should be considered during the street design process.

The design elements that were considered to be integral components of great streets included:

- Enhanced landscaping: street trees, median treatments, and landscaping buffers between roadway and sidewalks
- Pedestrian facilities: lighting, wide sidewalks, and pedestrian-friendly street crossings (corner and mid-block)
- Transit facilities: transit priority lanes, bus pull-outs/bays, ITS
- Other key elements within right-of-way including on-street parking, drainage, multi-use paths, and bike lanes
- Traffic calming treatments and operational enhancements, including roundabouts

The following table lists key design elements identified by the SAC as important components for the various types of roadways:

<table>
<thead>
<tr>
<th>Urban Arterial/Collector</th>
<th>Suburban Arterial/Collector</th>
<th>Residential Street</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sidewalks</td>
<td>Sidewalks</td>
<td>Traffic Calming Elements</td>
</tr>
<tr>
<td>On-Street Parking</td>
<td>Sidewalks</td>
<td>Sidewalks</td>
</tr>
<tr>
<td>Street Lighting</td>
<td>Mid-block pedestrian crossings</td>
<td>Planting strip between sidewalk and road</td>
</tr>
<tr>
<td>Transit Priority Lanes</td>
<td>Bike Lanes</td>
<td>On-Street Parking</td>
</tr>
<tr>
<td>Planting strip between sidewalk and road</td>
<td>Bus Pull-Outs/Bays</td>
<td>Street Lighting</td>
</tr>
</tbody>
</table>

Mobility

3. Define mobility and how it relates to “great streets.”

A majority of the SAC responses identified mobility as a major concern in Miami-Dade County. Some referred to the automobile capacity of a roadway and travel speeds as measures of mobility, while others referred to multimodal accommodations as a better measure. Generally, the responses included the following characteristics of mobility:

- Quality, quantity, accessibility and utilization of transportation services and infrastructure
- Ability to travel efficiently from origin to destination
- Inclusion of facilities and amenities for motorists, pedestrians, bicyclists, and transit users
- Safe routes
- Reduced travel delay

Adequacy of the Public Works Manual

4. Does the current Public Works Manual contain the necessary guidance and standards to facilitate “great street” design?

There was a general consensus from the SAC that the current Public Works Manual does not adequately address all travel modes within the County. Many suggested inadequate right-of-way as an impediment to good roadway design. Other comments about the design standards in the Public Works Manual include:

- Minimal sidewalk widths and lack of guidance for pedestrian crossings
- Inadequate bicycle accommodations
- Lack of landscaping recommendations
- Lack of land use context for types of roadways

The SAC members stated that many aspects of the Public Works Manual need to be revised, including right-of-way provisions to accommodate multimodal needs to enhance mobility. They also identified a need to adopt non-conventional methods of assessing mobility.

The results of the questionnaire suggest that although “great streets” have been developed in Miami-Dade County, the current Public Works Manual needs to be revised to address the County’s emerging multimodal needs. Further, it is clear from the responses that an update to the Public Works Manual must include not only the necessary design elements to enhance mobility, but it must also be supplemented by policies that help provide the necessary tools to facilitate the implementation of the design elements.

EXISTING ROADWAY SECTIONS

The project team performed a field review of several roadways within the County that were identified as either “great streets” or “bad streets” by the SAC. The cross-sections are presented as Appendix B. These were also compared to their respective zoned right-of-ways to evaluate the difference between zoned right-of-way and actual right-of-way.
SECTION 2
PLANNING CONCEPTS
As mentioned earlier, the philosophy of context sensitive design has been incorporated in the concepts of this Study. According to the Institute of Transportation Engineers’ (ITE) publication titled *Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities*, context sensitive design is defined as the process of developing transportation projects that serve all users and are compatible with the community and the environment through which they travel. Context sensitive design balances safety, mobility, community and environmental goals; incorporates aesthetics as an integral part of design, and provides flexibility in design standards. This section explains the planning concepts used in this Study. It includes a description of the proposed context zones, proposed roadway types, and the relationship between traditional functional classification and the proposed roadway types.

**PROPOSED CONTEXT ZONES**

The Study utilizes context zones to identify areas with distinct characteristics based upon the land use and location within the County. The current functional classification system of roadways defines contexts as either rural or urban. This Study follows the New Urbanism nomenclature of context zones which include:

- Rural
- Suburban
- Urban
- Urban Center
- Urban Core

The urban area is further divided into distinct contexts zones ranging from lower to higher density and intensity of development. The context zones may appear like a continuum in terms of development densities and intensities, from very low densities in the rural zone to very high densities in the urban core. In reality, however, they are dispersed patterns reflecting the complexity of the County.

The following page presents the context zones in a continuum to illustrate the increase in densities and intensities from the rural zone to the urban core. The pages following the illustration describe each of the context zones in further detail.
Rural

The rural context zone is the area west of Miami-Dade County’s urban development boundary and consists primarily of agricultural land uses with scattered residential developments at low to very low densities. The agricultural land in this zone includes some ancillary uses of supportive agricultural activities, such as packing houses. The residential uses in this zone are primarily farm residences with densities that are less than one residential unit per five acres. The rural context zone may also include other ancillary uses that are supportive of the rural residential community, including houses of worship, business and industrial. The business and industrial uses in the rural context zone are approved only if deemed supportive of local agricultural production.

Suburban

The suburban context zone is the most prevalent zone throughout Miami-Dade County. It is located between the rural and urban context zones in the western and the southern portions of the County. This zone is typically denser than the rural zone, but not as dense as the urban zone. This zone is also characterized by large areas of low to medium density residential uses with small pockets of commercial and/or other retail activities at major roadway nodes. Residential neighborhoods within the suburban context zone are characterized by detached buildings with landscaped yards and varying setbacks. The commercial areas within the suburban context zone consist primarily of business, office, and industrial uses, with some residential. Typical buildings within this zone are one to two stories in height and consist of street frontages such as lawns and/or porches.

Urban

The urban context zone is generally denser than the suburban zone and slightly less dense than an urban center. This zone is located along Miami-Dade County’s east coast and within the northern half of the County. It consists of mixed uses from low, medium, and high density residential, with a range of commercial and civic activity at the neighborhood and community scale. The most commonly occurring uses within the urban context zone include low to high density residential, retail trade, business, professional and financial services, restaurants, and cultural and entertainment uses.

Urban Center

Urban centers are located throughout Miami-Dade County and generally coincide with the urban centers identified on the Miami-Dade County Future Land Use Map. Urban centers are characterized by physical cohesionness, accessibility to various transportation options, and a high quality urban design. They are designed to be developed in a compact, mixed-use manner by accommodating moderate to high intensity development that promotes walkability. A major goal for development within an urban center is to create a distinctive sense of place through proper planning and design. Therefore, the urban center is designed to encourage convenient alternatives to automobile travel, promote more efficient uses of land, and create identifiable “town centers” for the county’s diverse communities. The mix of uses found in an urban center includes business, office, civic, and a variety of high or moderate density residential housing types, all within walking distance of each other.

Urban Core

There is only one identified urban core within Miami-Dade County, which is the Downtown Miami Central Business District. The urban core is located south of the Julia Tuttle Causeway east of the Miami International Airport, north of SW 7th Street, and west of the Intracoastal Waterway. This area features the most dense/ intense development in Miami-Dade County, containing the county’s largest concentration of high-rise buildings and employment.
Rural Context Zone

The rural context zone is the area west of Miami-Dade County’s urban development boundary and consists primarily of agricultural land uses with dispersed residential developments at low to very low densities. The agricultural land in this zone includes some ancillary uses supportive of agricultural activities, such as packing houses. The residential consists of primarily farm residences with densities that are less than one residential unit per five acres. The rural context zone may also include other ancillary uses that are supportive of the area’s rural residential community, including houses of worship, business, and industrial.

General characteristics of the rural context zone include:

1. Land Use Designations – As identified in the Miami-Dade CDMP, the land use designations include: agriculture, open land, and estate density residential.

2. Residential Density – The residential density is up to a maximum of 2.5 dwelling units per acre. Although residential uses in this zone are typically farm residences, there are enclaves of estate residential uses which were approved or grandfathered in prior to April 2001.

3. Non-Residential/Agricultural Uses – These uses are generally sporadic and lack development intensity. This development type is supplementary to the residential and agricultural uses and includes minor business and industrial.

These pictures illustrate the existing rural areas in Miami-Dade County.
Suburban Context Zone

The suburban context zone is the most prevalent zone in Miami-Dade County. It is located between the rural and urban context zones in the western and the southern portions of the County. This zone is typically denser than the rural zone, but not as dense as the urban zone. This zone is also characterized by large areas of low to medium density residential uses with small pockets of commercial and/or other retail activities at major roadway nodes. Residential neighborhoods within the suburban context zone are characterized by detached buildings with landscaped yards and varying setbacks. The commercial areas consist primarily of business, office, and industrial uses, with some residential. Typical buildings are one to two stories in height and consist of street frontages such as lawns and/or porches.

The suburban zone can be divided into two land use patterns: either predominantly commercial or predominantly residential. Predominantly commercial refers to areas where a majority of the uses fronting the street are associated with retail uses — generally mixed use developments. Predominantly residential are those areas where the majority of parcels fronting the street contain residential units. General characteristics of the suburban context zone include:

1. Land Use Designations — As identified in the Miami-Dade CDMP, the land use designations include: estate density residential, low density residential, low-medium density residential, medium density residential, business and office, and industrial and office.

2. Residential Density — The residential density is between one to 1.3 dwelling units per acre, which are typically detached single family homes.

3. Non-Residential Uses — Non-residential uses occur primarily along major thoroughfares with moderate intensity development (i.e., commercial and office strip centers).

These four pictures are examples of existing suburban residential and suburban commercial areas within Miami-Dade County.
Urban Context Zone

The urban context zone is generally denser than the suburban zone and slightly less dense than an urban center. This zone is located along Miami-Dade County’s east coast and within the northern half of the County. It consists of mixed uses from low, medium, and high density residential, with a range of commercial and civic activity at the neighborhood and community scale. The most commonly occurring uses include low to high density residential, retail trade, business, professional and financial services, restaurants, and cultural and entertainment uses.

There can be a large variation between land uses within an urban context zone. Some areas are simply a denser version of a suburban area, or are areas that maintain an urban mixed-use pattern. Similar to the suburban context zone, this zone is made up of two land use patterns: either predominantly commercial or predominantly residential.

General characteristics of the urban context zone include:

1. Land Use Designation – As identified in the Miami-Dade CDMP, land use designations include: low-medium density residential, medium density residential, medium-high density residential, high density residential, business and office, office/residential, and industrial and office.

2. Residential Density – The residential density is between 13 to 60 dwelling units per acre, which are typically multi-family attached housing units.

3. Non-Residential Uses – Non-residential uses are developed at high intensities, sometimes containing multiple stories.

These four pictures are examples of existing urban residential and urban commercial areas within Miami-Dade County.
Urban Center

Urban centers are located throughout Miami-Dade County and generally coincide with the urban centers identified on the Miami-Dade County Future Land Use Map of the CDMP. Urban centers are characterized by physical cohesiveness, accessibility to various transportation options, and a high quality urban design. They are designed to be developed in a compact, mixed-use manner by accommodating moderate to high intensity development that promotes walkability. A major goal for development within an urban center is to create a distinctive sense of place through proper planning and design. Therefore, the urban center is designed to encourage convenient alternatives to automobile travel, promote more efficient uses of land, and create identifiable "town centers" for the County's diverse communities. The mix of uses found in an urban center includes business, office, civic, and a variety of high or moderate density residential housing types, all within walking distance of each other.

General characteristics of an urban center are identified below:

1. Land Use Designation – As identified in the Miami-Dade CDMP, land use designations include: medium density residential, medium-high Density residential, high density residential, business and office, and office/residential.

2. Residential Density – The residential density in an urban center is up to 125 dwelling units per acre in community urban centers and up to 250 dwelling units per acre in the metropolitan urban centers.

3. Non-Residential Uses – Non-residential uses are developed at high intensities, usually containing multiple stories. These zones are noted for having a mixed-use character and promoting pedestrian activities.

These four pictures are examples of existing urban centers within Miami-Dade County.
Urban Core

There is only one identified urban core within Miami-Dade County: the Downtown Miami Central Business District. The urban core is located south of the Julia Tuttle Causeway, east of the Miami International Airport, north of SW 7th Street, and west of the Intracoastal Waterway. This area features the most dense/intense development in Miami-Dade County, containing the County’s largest concentration of high-rise buildings and employment. General characteristics of the urban core include:

1. Land Use Designation – As identified in the Miami-Dade CDMP, land use designations that occur include: medium-high density residential, high density residential, business and office, office/residential, and institutional.

2. Residential Density – The residential densities in the urban core are allowed up to 1,000 dwelling units per acre, which are typically multi-family attached housing units.

3. Non-Residential Uses – Non-residential uses are developed at high intensities, usually containing multiple stories. The urban core features the most intense development of residential and non-residential uses and similar to an urban center, is typically mixed-use in character and pedestrian-friendly.

As part of the Study and the recommendations for the zoned right-of-ways, these context zones were laid out geographically within the County. The "Concept Zone Map" is a recommended delineation of the future land use areas of the County based upon the five context zones established for this Study. It is important to understand that the boundaries of these zones are fluid and change over time as development patterns change. Therefore, the design of a roadway within the County should consider the existing context zone as represented in the figure, identify if the zone is likely to change in the future, and provide the street elements to address the ultimate context zone.

These two pictures are examples of the urban core area of Miami-Dade County. The context zone boundaries are fluid and will change over time. While designing a particular roadway, the designer in consultation with Miami-Dade County, should determine the appropriate context zone to be applied. A preliminary context zone map has been prepared to provide initial guidance for context zone selection. The conceptual figure illustrating the various context zones within the County is provided on the following page.
ROADWAY TYPES

Conventionally, roadway design elements and standards have been determined based on the functional classification of a roadway. The functional classification defines a roadway’s level of hierarchy in the overall network. As defined by American Association of State Highway and Transportation Officials (AASHTO), the functional classification of roadways includes arterials, collectors and local roadways. The following is a brief description of each functional classification:

• Arterials – Arterials provide a high level of mobility and a lower level of land access. They carry higher speeds on long distance regional trips and have limited access. Arterials are generally classified into two categories: principal and minor.

• Collectors – Collectors carry regional and local trips of moderate length and relatively lower speeds. They have moderate access to adjacent lands and provide connections to arterials.

• Local Roads – Local roads carry low speed and short distance trips. A local road’s primary function is to provide access to adjacent lands. They have a low priority of providing mobility.

The graphic below illustrates the level of access and mobility provided by the three roadway functional classifications.

Definitions and example photos of each of the proposed roadway types are provided on the following page.

The “street” designation is further classified into the following:

• Main Street
• Low-Density Residential Street
• Medium-Density Residential Street
• High-Density Residential Street
• Commercial Street – Narrow
• Commercial Street – Wide
• Industrial Street – Narrow
• Industrial Street – Wide

The Study includes typical section recommendations for each of the proposed roadway types.

PROPOSED ROADWAY TYPES

To break away from the conventional functional classification system, a new roadway classification is proposed based on context sensitive design principles. The new roadway types correspond to the previous classifications, but take into consideration the surrounding context to determine the physical configuration of the roadway.

Within the rural context three roadway types have been proposed:

• Highway
• Drive
• Road

Within the other context zones including, suburban, urban, urban centers and urban core, the proposed roadway types include:

• High-speed Boulevard
• Low-speed Boulevard
• Avenue
• Street
PLANNING CONCEPTS

**Rural**
- **Highway**
  - A highway is similar in character to an arterial in that it is a long-distance, high-speed, through-trunk route traversing the countryside. Highways are relatively free of intersections and driveways.
- **Drive**
  - A drive is a thoroughfare carrying relatively moderate traffic volume and an average travel speed that distributes traffic between a highway and a road.
- **Road**
  - A road is a small-scale, low-speed, non-arterial local thoroughfare providing frontage for low-density buildings. A road tends to be rural in character without curbs or on-street parking, and has clustered planting and paths instead of sidewalks.

**Suburban**
- **High-Speed Boulevard**
  - A high-speed boulevard is a divided arterial throughfare intended to move significant long-distance traffic from one region to the other. Boulevards are primary goods movement and emergency response routes and use various access management techniques to manage access and maintain traffic flow. High-speed (40 to 45 mph) boulevards carry primarily higher-speed, long-distance traffic and typically have four to eight lanes with limited access to land. They may be transit corridors and accommodate pedestrians, but some high-speed boulevards may not provide any pedestrian facilities. These boulevards emphasize traffic movement, and signalized pedestrian crossings and cross-streets may be widely spaced. Bicycle lanes may be accommodated with bike lanes or on separate paths. Buildings or parking lots adjacent to boulevards typically have large landscaped setbacks.
- **Low-Speed Boulevard**
  - A low-speed (35 mph or less) boulevard is a divided thoroughfare in walkable suburban/urban environments designed to carry both through and local traffic, pedestrians, and bicyclists. Boulevards may be long corridors, typically four lanes but sometimes wider, serve longer trips and provide limited access to land. Boulevards may be high-rideship transit corridors. Boulevards are oriented towards automobiles while also accommodating pedestrians and cyclists safely. It is recommended to have frontage streets on boulevards that are located along land uses with high pedestrian volumes to maintain pedestrian safety. On high volume boulevards, if adequate right-of-way is available, it is also recommended to place on-street parking along the frontage roads. On boulevards with off-street parking, during off-peak hours and special occasions, one of the traveled lanes can be used as a parking lane.
- **Avenue**
  - An avenue is a low-to-medium-speed urban thoroughfare, and shorter in length than a boulevard. Avenues have higher access to shopping land than boulevards with speeds of 30 to 35 mph. Avenues serve as primary pedestrian and bicycle routes and may serve local transit routes. Avenues do not exceed four lanes and access to land is a primary function. Some avenues feature a raised landscaped median and usually provide curb parking. Avenues are the most commonly occurring roadway type and serve a wide variety of land uses. Avenues carry a significant amount of traffic, while also providing high-quality bicycle and pedestrian accommodations. They provide a great balance for all modes of transportation unlike boulevards with higher priority for automobiles.
- **Street**
  - A street is a walkable, low-speed (25 mph) thoroughfare primarily serving shopping property. Streets collect and distribute traffic between local roads or arterial roads and serve as a linkage between land access and mobility needs. Local streets are designed to connect residential neighborhoods with each other, connect neighborhoods with commercial and other districts, and connect local streets to arterials.
RELATIONSHIP BETWEEN FUNCTIONAL CLASSIFICATION AND ROADWAY TYPES

The table at right illustrates the relationship between the conventional functional classification and the proposed roadway types. More detailed descriptions of the roadway types are provided in Section 3 of this Study.

Rural Context: Within the rural context, a highway can be a primary arterial or a minor arterial. A drive can be a minor arterial or a collector. A road can be a collector street or a local street.

Suburban, Urban, Urban Centers and Urban Core Contexts:
Generally, boulevards serve an arterial function, avenues may be arterials or collectors, and streets may serve a collector or local function. A high-speed boulevard is equivalent to a principal arterial while a low-speed boulevard can serve as a principal or a minor arterial.

When developing roadway typical sections it is important to identify the roadway’s functional classification since it serves as the determining factor for design criteria.
SECTION 3
TYPICAL SECTIONS AND DESIGN GUIDELINES
This section provides the design criteria and elements for developing typical sections to guide future roadway design within the County. These typical sections and design guidelines are meant to be used as a tool for the design of roadways in the County. Standards for various elements recommended in this Study should be created.

The roadway design guidelines presented in this Study are based on the following three principles:

1. Create typical sections and design guidelines that accommodate all modes of transportation including pedestrians, bicyclists, transit, and automobiles. Within the urban centers especially, a need was identified to create more pedestrian- and transit-friendly roadways that are supportive of compact and dense land uses. This further reflects the paradigm shift from an auto-orientated transportation system to a multimodal transportation system.

2. Develop typical sections and design guidelines that create a balance between land use and transportation or are “context sensitive.” The land use context should determine the elements contained within the right-of-way. For example, a roadway that passes through a rural agricultural area will have completely different characteristics than a roadway passing through a downtown mixed-use district. A road in the rural area will most likely be characterized by higher speeds (40 – 55 mph), low access management features, swale drainage, and separated sidewalks/usability paths. A road passing through a downtown district will be characterized by lower speeds (15 – 25 mph), on-street parking, wide sidewalks, curb and gutter drainage, pedestrian-friendly lighting, and other pedestrian-friendly features. It is important that roadway designs reflect the varied needs within the various land use contexts within Miami-Dade County.

3. Develop more flexible cross sections with a range of dimensions and design elements. The existing Miami-Dade Public Works Manual contains typical sections for fixed right-of-ways (50’, 60’, 70’, 110’, etc.) with alternatives for swale drainage or curb and gutter. The typical sections recommended in this Study provide flexibility in choosing the specific combination of elements based upon the context and related influences. The successful implementation of these roadway design characteristics rely upon the discretion of the designer in choosing necessary design elements within a typical section based on site specific needs and community goals.

The typical sections and design guidelines recommended in this Study are modeled after the recommendations contained in the Institute of Transportation Engineers’ (ITE) ballot publication titled Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities. The Study has also incorporated the concepts and ideas from the following publications and the literature review materials described in Section 1.

- State of Florida Department of Transportation’s (FDOT), Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (commonly referred to as the Florida Green Book)
- ITE’s Neighborhood Street Design Guidelines
- ITE’s Residential Streets
- U.S. Department of Transportation’s Selecting Roadway Design Treatments to Accommodate Bicycles
**DEVELOPING A CROSS SECTION**

The roadway types and associated typical sections and design elements recommended in this Study are based on the context zones discussed in Section 2. Therefore, the first step is to identify the context for the roadway being considered. This step is detailed below along with the subsequent steps to develop a proposed cross section for a roadway utilizing the proposed context sensitive typical sections and design guidelines.

**Step 1a: Identify appropriate context zone**

Review Section 2 to identify which context zone best describes the area within which the proposed roadway is located, based on the illustrated context zone graphic. The determination of a context zone should be done in consultation with County staff.

**Step 1b: Refine context zone**

If the proposed roadway is located within the suburban or urban context zone, determine whether the predominant land uses ... In addition to the existing land use, it is also recommended to identify the land use from the Future Land Use Map.

**Step 2: Identify appropriate roadway type**

Review Section 2 to identify which roadway description best fits the roadway that is proposed to be improved or constructed. The roadway type will provide the initial guidance for the cross section and design elements. It may be necessary to first define the functional classification using the conventional classification system and then determine which roadway type is best suited.

**Step 3: Select appropriate typical section based on the refined context zone and roadway type selection**

If the proposed roadway is located within a suburban commercial context zone and should be designed as a 6-lane divided high-speed boulevard, go to the high-speed boulevard recommendation. Use design guidelines in the section to develop the cross section. For constrained roadways, use the recommendations for constrained ROW irrespective of the context zone.

**Step 4: Make appropriate adjustments to the design elements for the roadway**

This step should take into consideration each of the required, optional, and incompatible elements as detailed in the recommended typical sections.

**Step 5: Determine roadside design**

The roadside consists of the edge zone, sidewalk, and frontage zone. These areas are detailed in Section 4 of the Study. The roadside is largely the pedestrian zone and should be carefully designed to ensure adequate space for the anticipated level of pedestrian and business activity within this area as guided by the context zone.

**Step 6: Refine design of roadway to meet site specific requirements and goals of the project**

This is the final step to creating a cross section for the proposed corridor that incorporates all of the design guidelines for the roadway and roadside.

As previously mentioned, these design guidelines are intended to further the concept of context sensitive roadway design that is both sensitive to its surroundings and accommodates all modes of transportation. The typical sections recommended in this guidebook include the best possible accommodations for all modes of transportation. For example, all typical sections illustrated in this guidebook include designated bicycle lanes, wide sidewalks, on-street parking, and sidewalk furnishings. It is recommended that all future roadway enhancements and new roadways incorporate as many modes of transportation as possible.

Note: In cases where there are physical constraints on the right-of-way, it may not be possible to incorporate all of the elements that are recommended. Under each recommended typical section there are descriptions for required, optional, and incompatible elements. This flexibility provides options to meet the specific demands of the project, the constraints of the corridor, and ultimately the context.
A roadway typical section comprises the following components as illustrated on the following page:

Development Zone
Development zone describes the area immediately adjacent to the right-of-way. The characteristics of the development zone influence the design considerations of the roadway. The development zone consists of the land use, building placement, building setbacks, and building design. For example, retail storefronts have small setbacks, wide sidewalks, sidewalk amenities with tree grates, street furniture and other pedestrian amenities, and on-street parking facilities. However, a single family residential neighborhood has large setbacks, sidewalks, and planting strips separating vehicular traffic from sidewalks.

Frontage Zone
Frontage zone is the area of the right-of-way immediately adjacent to the property line defined by a building facade, landscaping, fence, or screened parking area. Generally, pedestrians do not feel comfortable moving at a full pace immediately adjacent to a building facade or wall, hence the effective width of the throughway (sidewalk through zone) is limited by the tendency of pedestrians to shy away from the sidewalk next to the property line. This width at the edge of the private property line is the frontage zone, sometimes called the “sky zone”. The recommended width of the frontage zone ranges between 0 to 2.5 feet depending on the context zone and the roadway type. In residential areas along lawn and ground cover, the frontage zone may be 0 feet; along low walls, fences and hedges, the frontage zone may be one foot; along firebreaks and tall walls it may be 1.5 feet; and along heavy retail corridors it may be up to 2.5 feet. National research and standards suggest that a frontage zone or a sky zone is important to provide a buffer between pedestrians on the sidewalk and the property line (window shoppers in retail areas and fences in residential areas).

Sidewalk Through Zone
This refers to the unobstructed pedestrian area on the roadside that provides for through movement of pedestrians. This zone must remain free and clear of obstacles and amenities to enable free movement of pedestrians.

Sidewalk Furnishing Zone
This area of the roadside provides a buffer between pedestrians and vehicular traffic. In residential areas, the furnishing zone includes a continuous planting strip along the sidewalks with shade trees. In commercial areas, the furnishing zone consists of continuous pavement between the curb and the building line with tree grates/wells, street furniture, street lighting, public signage, transit stops, utilities, etc. In the graphic on the previous page, the right side illustrates a residential area with planting strips and the left side represents a commercial area with continuous pavement.

Edge Zone
This is the area between the face of the curb and the furnishing zone. This is a required area of clearance between parked vehicles and appurtenances or landscaping.

Parking Zone
This is the area of on-street parking adjacent to the curb. This zone is strongly recommended in commercial areas to support the retail activities at the ground level and is optional in residential areas. On-street parking also provides a buffer between the roadside and the vehicle zone.

Bicycle Zone
This is the area within the right-of-way that accommodates bicyclists. The bicycle zone may include designated bicycle lanes or wide outer lanes that accommodate bicyclists. The bicycle zone should consider bicyclists of all skill levels. USDOT’s publication titled Selecting Roadway Design Treatments to Accommodate Bicycles, categorizes advanced bicyclists as Group A, basic bicyclists as Group B, and children as Group C bicyclists. The report suggests that Group A bicyclists are best served by providing wide outside lanes on collector and arterial streets in an urban area and usable shoulders on highways built within a rural area. Group B and C bicyclists are best served by providing a network of designated bicycle facilities through arterial and collector and usable roadway shoulders on rural highways. All typical sections illustrated in this Study include provisions for Group B and C bicyclists; however, this may not be appropriate for all roadways. The designer should use discretion in determining which skill level to cater to and which bicycle facilities to provide on a specific roadway.

Vehicle Zone
This refers to the area within the right-of-way that accommodates automobiles, trucks, and transit. This zone typically occupies more area within the right-of-way than any other zone.

Median Zone
This zone is applicable only to divided roadways. Medians provide separation between opposing flows of traffic, enhance the aesthetic appearance of a roadway, provide additional green space, and allow for pedestrian refuge.

Each roadway type recommended in this Study has different modal priorities. For example the modal priority on a boulevard is oriented towards motor vehicles while the modal priority on an avenue is balanced between all modes. The table below shows the modal priority for the various roadway types within the suburban, urban, urban centers, and urban core.

The roadway cross-section on the following page illustrates the various components of the roadway described above. The pages following the graphic describe each of the roadway types in detail along with the proposed typical sections and design elements.
COMPONENTS OF A ROADWAY

Typical Roadway Section and Zoned Right-of-Way Update Study

NOT TO SCALE
The remainder of this section provides detailed descriptions of each of the proposed roadway types recommended for Miami-Dade County along with the recommended typical sections and design guidelines. As mentioned earlier, the Study uses the concept of context zones and roadway types to determine the appropriate typical section for a roadway. The context zones include – rural, suburban, urban, urban center, and urban core. Detailed descriptions of these context zones are provided in Section 2.

The nomenclature for the proposed roadway types are based on the various context zones (see Section 2 for detailed descriptions). Within the rural context zone, the proposed roadway types include:

- Highway
- Drive
- Road

Within the other context zones (suburban, urban, urban center, and urban core) the roadway types include:

- High-Speed Boulevard
- Low-Speed Boulevard
- Avenue
- Street

The "street" designation is further divided into the following types:

- Street – General
- Main – Street
- Street – Neighborhood
  - Low-Density Residential
  - Medium-Density Residential
  - High-Density Residential
  - Commercial – Narrow
  - Commercial – Wide
  - Industrial – Narrow
  - Industrial – Wide

Pages 25 through 54 describe the characteristics of each roadway type along with the recommended typical sections and design guidelines. The following is a sample scenario of the application of the roadway type and recommendations.

The Miami-Dade County 2030 Long Range Transportation Plan has a planned improvement for widening SW 107th Avenue from SW 8th Street to Flagler Street from a four-lane to a six-lane arterial. This scenario illustrates the process of developing a cross section using the steps outlined on page 21.

**Step 1a:** Identify the context zone for the proposed roadway using the context zone map on page 15 and descriptions on pages 9-14. In this example, the proposed roadway is located within the urban context zone.

**Step 1b:** The Miami-Dade County Future Land Use Map indicates that the majority of the land uses along the roadway segment are residential. Therefore, the appropriate context zone is urban adjacent to predominantly residential land use.

**Step 2:** Based on the descriptions of the proposed roadway types (pages 16 – 17) and the relationship between functional classification and roadway types (page 18), the proposed roadway is initially classified as a low-speed boulevard.

**Step 3:** Refer to page 29 of Section 3 for a more detailed description of a low-speed boulevard. Page 30 contains recommendations for a six-lane, low-speed boulevard within an urban residential context zone.

**Step 4:** Page 32 contains recommendations for the required, optional, and incompatible design elements within the typical section. Depending on the available ROW, the design elements are selected or eliminated from the cross section.

**Step 5:** Section 4 provides detailed recommendations for the roadside. Refer to page 56 and 57 for the various elements within the roadside and their design criteria.

**Step 6:** Reline the roadway cross section based on site-specific requirements.

It is essential that these guidelines are not used as a substitute for the exercise of sound engineering judgment. The designer should have an understanding of all guidelines contained in this Study before selecting design parameters for the subject roadway.

The following pages present detailed descriptions of each of the proposed roadway types along with the recommended typical sections and design elements. During the development of the Study, SAC members expressed concerns about right-of-way limitations within urban centers that physically or legally prevent additional right-of-way acquisition. Therefore, the Study recommends typical sections for constrained roadways, with the best possible accommodations for all modes. It should be noted however, that these standards apply only to physically constrained roadways and not to other roadways.
High-speed boulevards are the most automobile-oriented of all the proposed roadway types. Their primary function is to facilitate higher speeds (40 to 45 mph) and longer distance trips. High-speed boulevards typically have four to eight lanes with very limited access. High-speed boulevards are closest to the AASHTO’s definition of principle arterials.

These boulevards are primarily divided roadways that typically occur within the suburban context zones, and sometimes within the urban context zones. High-speed boulevards are best suited for areas with land uses that are more auto-oriented. These roadways are most common in large industrial and office parks, airports, regional malls, and other large developments. These roadways may carry significant truck traffic depending on the adjacent land uses.

High-speed boulevards may also serve as regional transit corridors. High-speed boulevards primarily emphasize traffic movement, while also accommodating other modes including pedestrians, bicyclists, and transit. High-speed boulevards may accommodate pedestrians with sidewalks or separated paths. Pedestrian accommodations may include signalized pedestrian crossings at cross-streets which may be widely spaced. Bicycles may be accommodated with bike lanes or on bike paths separated from the roadway.

High-speed boulevards are generally accessed managed with appropriate treatments for intersecting roadways, driveway access, and turning lanes. The landscaping or buffer treatments along high-speed boulevards should provide adequate separation between the vehicle zone and the pedestrian zone, as well as between the right-of-way and adjacent development.

The modal priority for high-speed boulevards is automobiles while also accommodating pedestrians and bicyclists as safely as possible. High-speed boulevards that are located along land uses with high pedestrian volumes sometimes have frontage roads to enhance safety and comfort for pedestrians and bicyclists. For boulevards with high volumes of traffic, on-street parking, sidewalks, and bike lanes are recommended along the frontage roads, if adequate right-of-way is available. A high-speed boulevard with frontage roads has not been illustrated in this Study.

The typical section of a high-speed boulevard is applicable for roadways with a posted speed of 35 to 45 mph (design speed of 40 to 50 mph) with curbs and gutter. A high-speed boulevard is limited to application within the suburban and urban context zones only. A high-speed boulevard does not apply within the rural, urban center, and urban core context zones. For any roadway within the urban and suburban context with a posted speed greater than 45 mph, the Study recommends using the typical section of a “Highway” (pages 11 and 22) under the rural context. The highway provides for swales on either side of the roadway.

The usage of the term “Boulevard” is generally limited to urban areas with curb and gutter as the preferred drainage treatment. The typical section recommended for high-speed boulevards are represented with curb and gutter. To represent a boulevard with a swale will dilute the concept of a boulevard. According to the Florida Green Book, the use of curb and gutter is safely allowed up to a posted speed of 45 mph (design speed of 50 mph). Since the focus of the Study is on providing multimodal roadway typical sections with a focus on urban centers and to stress the importance of walkable communities, it is referred to as a high-speed boulevard. As mentioned earlier, if a roadway within the suburban and urban context is proposed with swale treatment, refer to the typical section for “Highway.”

The typical section recommended for high-speed boulevards does not vary by the context zone. The following pages illustrate the typical sections for a six-lane and a four-lane high-speed boulevard followed by a description of the required, optional, and incompatible design elements. Required elements refer to the design elements that are integral to the design of the referenced roadway type. Optional elements refer to the design elements that are encouraged to be included in the typical section, but can be removed if adequate right-of-way is not available. Incompatible elements refer to the design elements that should not be included in the design of the referenced roadway type. The minimum dimensions for physically constrained roadways are also provided.
HIGH-SPEED BOULEVARD
MODAL PRIORITY: AUTOMOBILES

Six-Lane Divided

Right-of-Way
Roadside

Curb-to-Curb

Roadside

Sidewalk Furnishing Billboard Lane Lane Lane Median Lane Lane Lane Billboard Furnishing Sidewalk Curb to Curb ROW

5' 6' 12' 10'-12' 11'-12' 11'-12' 12' 5'-6' 8' 10'-12' 12'-13'

* Billboard width does not include gate.
Curb to Curb distance from face of curb to face of curb.

Constrained ROW

5' 6' 11' 11' 11' 11' 11' 10' 8' 10' 10'-11'

[Legend: Required, Optional]

NOT TO SCALE
Required Elements

Number of Lanes
Generally two to three lanes in each direction (four to six lanes total). In some cases they can be up to four lanes in each direction (eight lanes total), if determined through transportation demand analysis.

Lane Width
Typically, 11 feet to 12 feet wide lanes. Generally, 12 feet is recommended due to the higher speeds along the roadway, but in constrained conditions 11 feet is acceptable. Outer lanes can be up to 13 feet if it is a heavily used transit route.

Posted Speed
Generally 35 – 45 mph. In some cases the speed limit can be up to a maximum of 50 mph; however, additional design considerations apply in accordance with the Florida Greenbook.

Median
A 16 feet to 18 feet wide median should be provided on high-speed boulevards. At least a 15.5 feet wide median is preferred, to allow for a minimum of four feet for a pedestrian refuge at intersections. Under constrained conditions, a minimum of 10 feet can be used.

Median Planting
Median should be landscaped with trees as recommended in the Miami-Dade County Street Tree Master Plan.

Sidewalk Furnishings
In cases where sidewalks are placed adjacent to the vehicle zone, they must be separated by a continuous planting strip of at least eight feet in width to provide a buffer between traffic and pedestrians. Under constrained conditions, a minimum of five feet can be used.

Optional Elements

Bike Lane
Bike lanes can be provided along high-speed boulevards when necessary for network connectivity or where indicated on the Bicycle Master Plan. When provided, it should be a minimum of five feet wide (not including curb and gutter) and preferably six feet wide if right-of-way is available.

Curb and Gutter
Either curb and gutter or drainage swales are allowable. When swales are provided, refer to the typical section for highways on page 51-52.

Sidewalks
Sidewalks should be placed in a separated parallel facility along with bicycle facilities. Sidewalks should be at least five feet wide, preferably six feet.

Incompatible Elements

On-Street Parking
On-street parking is not appropriate on high-speed boulevards due to higher traffic volumes and speeds. When the adjacent land uses are predominantly retail, on-street parking can be provided along frontage roads.
Low-speed boulevards are divided thoroughfares intended to accommodate higher volumes of vehicles for primarily regional trips and occasionally local trips. Low-speed boulevards are found generally in walkable suburban and urban environments. The typical travel speed along low-speed boulevards is 35 mph or less.

Low-speed boulevards are typically four lanes, but can be up to six lanes. They provide limited access to land and may also serve as high ridership transit corridors. Low-speed boulevards are closest to the AASHTO’s definition of arterials. Various access management techniques are used to manage access and maintain traffic flow. Access along low-speed boulevards should be managed through measures including medians, appropriate treatments for intersecting roadways, driveway access, and turning lanes.

The modal priority on low-speed boulevards is auto-oriented, while also safely accommodating pedestrians and bicyclists. Low-speed boulevards generally are found in predominantly mixed use areas with higher density urban and suburban environments; in some cases, they are also found in residential areas in urban and suburban environments.

Low-speed boulevards typically have a wide landscaped median providing separation for traffic flow and pedestrian refuge at crossings. Appropriate landscaping along the median and on the roadside is encouraged to increase the walkability of the roadway.

The typical section recommended for a low-speed boulevard varies by the context zone. Suburban and urban context zones contain aggregated areas of residential and commercial developments in the form of neighborhoods and retail areas. As such, the typical sections for suburban and urban context zones are further divided into two categories – predominantly residential and predominantly commercial. The primary differences between the residential and the commercial typical sections are:

- On-street parking is optional along residential sections, but is strongly recommended on commercial sections.
- Residential sections have continuous planting strips between the road and the sidewalk and the commercial sections have continuous pavement from the road to the sidewalk with tree grates or tree wells as furnishings.

Urban centers and urban core typically contain predominantly mixed uses. Only one typical section is recommended for these two context zones, which closely resembles the typical sections for the predominantly commercial urban and suburban typical sections except the roadside is much wider within the urban center and urban core. The roadside elements and dimensions are illustrated in detail in Section 4.

The following pages illustrate the typical sections for a six-lane and four-lane low-speed boulevard followed by a description of the required, optional, and incompatible design elements. Required elements refer to the design elements that are integral to the design of the referenced roadway type. Optional elements refer to the design elements that are recommended in the typical section, but can be excluded if adequate right-of-way is not available. Incompatible elements refer to the design elements that should not be included in the design of the referenced roadway type. The minimum dimensions for physically constrained roadways are also provided.
LOW-SPEED BOULEVARD

Priority – Required Elements

**Number of Lanes**
Generally two lanes in each direction (four lanes total), but sometimes may be up to three lanes (six lanes total).

**Lane Width**
Typically, 11-foot to 12-foot-wide lanes for predominantly commercial sections and 10 feet to 11 feet for predominantly residential sections. In constrained conditions and under the “livable communities” designation, the Florida Greenbook allows for up to 10-foot-wide lanes. Outer lanes can be up to 13 feet wide if it is a heavily used transit route.

**Posted Speed**
Typically, 35 mph or less. If on-street parking is not provided, then the posted speed can be up to a maximum of 40 mph. The design speed can be 5 – 10 mph above the posted speed.

**Median**
15.5 feet to 22 feet wide. At least a 15.5-foot-wide median is preferred to allow for a minimum of four feet of pedestrian refuge at intersections. Under constrained conditions, the median can be as narrow as ten feet wide; however, additional design considerations apply in accordance with the Florida Greenbook.

**Median Planting**
Medians should be landscaped with trees as recommended in the Miami-Dade County Street Tree Master Plan.

**Bike Lane**
Bike lanes are desirable along low-speed boulevards to allow less skilled bicyclists to safely operate. Bike lanes are specifically recommended on roadways that are on the County’s bicycle network or where necessary to provide continuity for bike routes. When provided, the lane should be a minimum of four feet wide (not including curb and gutter) in residential areas and five feet wide in commercial areas (preferably five feet if right-of-way is available).

**Sidewalks**
Pedestrian activity is encouraged along low-speed boulevards due to the lower speeds on the roadways and the multimodal priority. Sidewalk widths vary depending on the context zones and are described in detail in Section 4.

**Sidewalk Furnishings**
In predominantly residential areas, sidewalks are separated from the vehicle zone through a continuous planting strip with appropriate connections from the curb to the sidewalk. In predominantly commercial areas, the sidewalks are separated from the vehicle zone through sidewalk furnishings including tree grates/free wells.

**On-street Parking**
On-street parking is allowed on low-speed boulevards due to the lower speeds along the roadway. On-street parking is optional in predominantly residential areas and is strongly desirable in predominantly commercial areas due to the increased pedestrian activity.

Optional Elements

**Curb Extensions**
Curb extensions are often recommended at mid-block pedestrian crossings. It provides for reduced pedestrian crossing distances and increased visibility while also providing increased opportunities for landscaping and street furniture. The curb extensions are typically the same width as that of the parking lane.

Incompatible Elements

**Shoulder**
Curb and gutter is the preferred roadway edge treatment for boulevards.
AVENUES

Avenues are the most common of all street types. Avenues are generally low-to-medium speed thoroughfares, generally shorter in length than boulevards. Avenues accommodate trips of moderate lengths for city-wide or regional travel. Avenues have higher access to abutting properties than boulevards and generally have speeds of 25 to 35 mph. Avenues are never more than two lanes in each direction (four lanes total); however, sometimes they may be two lanes in each direction with a center two-way turn lane (five lanes total). Providing access to adjacent lands is a very important function for avenues.

It should be noted that the proposed street type nomenclature of “avenue” is not related to the current roadway naming convention in Miami-Dade County. In Miami-Dade County, north-south roadways are referred to as “streets” and east-west roadways as “avenues.”

The majority of roadways within Miami-Dade County can be classified as avenues. Avenues are designed to provide a balance of all transportation modes with high quality pedestrian access, high quality bicycle accommodations, high quality transit, while also carrying a significant amount of traffic. They provide a great balance for all modes of transportation unlike boulevards with a higher priority for automobiles. Avenues serve as primary pedestrian and bicycle routes and may serve as local transit routes.

An avenue can be either an undivided street or a divided street featuring a raised landscaped median, and usually provide on-street parking. The lower speeds on avenues provide for mobility for automobiles while providing for safe on-street parking. The lower speed limits along avenues also allow for safe and comfortable movement for pedestrians and bicycle activity along these streets.

Avenues can serve as important transit routes since they are heavily traveled pedestrian corridors. The location of transit stops and transit amenities needs to be carefully planned along avenues to provide pedestrian accessibility and comfort.

The typical section recommended for an avenue varies by the context zone within which it is located. Suburban and urban context zones contain aggregated areas of residential and commercial developments in the form of neighborhoods and retail areas. The typical sections for suburban and the urban context zones are further divided into two categories — predominantly residential and predominantly commercial. The primary differences between the residential and the commercial typical sections are:

- On-street parking is optional along residential sections, but is strongly recommended on commercial sections.
- Residential sections have continuous planting strips between the road and the sidewalk and the commercial sections have continuous pavement from the road to the sidewalk with tree grates or tree wells as furnishings.

Urban centers and urban core typically contain predominantly mixed uses. Only one typical section is recommended for these two context zones, which closely resembles the typical sections for the predominantly commercial urban and suburban typical sections except the roadway is much wider within the urban center and urban core. The roadside elements and dimensions are illustrated in detail in Section 4.

The following pages illustrate the typical sections for the following roadways:

- Four-Lane Avenue
- Four-Lane Avenue with a Center Turn Lane
- Two-Lane Avenue
- Two-Lane Avenue with a Center Turn Lane

The typical section illustrations are followed by a description of the required, optional, and incompatible design elements. Required elements refer to the design elements that are integral to the design of the referenced roadway type. Optional elements refer to the design elements that are recommended in the typical section, but can be excluded if adequate right-of-way is not available. Incompatible elements refer to the design elements that should not be included in the design of the referenced roadway type. The minimum dimensions for physically constrained roadways are also provided.
### Four-Lane

#### Typical Roadway Section and Zoned Right-of-Way Update Study

*AVENUES MODAL PRIORITY: MULTIMODAL*

**NOT TO SCALE**

---

**Suburban - Commercial**
- Road Side: 12'
- Parking: 7' - 8'
- Bike: 5 - 6'
- Lane: 10' - 11'
- Lane: 12' - 11'
- Median: 15.5' Optional
- Lane: 12' - 11'
- Lane: 12' - 11'
- Parking: 5 - 6'
- Road Side: 15'

**Suburban - Residential**
- Road Side: 12' - 13'
- Parking: 7' - 8'
- Bike: 4' - 5'
- Lane: 10' - 11'
- Lane: 10' - 11'
- Median: 15.5' Optional
- Lane: 10' - 11'
- Lane: 10' - 11'
- Parking: 4' - 5'
- Road Side: 12' - 13'

**Urban - Commercial**
- Road Side: 16'
- Parking: 7' - 8'
- Bike: 5 - 6'
- Lane: 10' - 11'
- Lane: 10' - 11'
- Median: 15.5' Optional
- Lane: 10' - 11'
- Lane: 10' - 11'
- Parking: 5 - 6'
- Road Side: 16'

**Urban - Residential**
- Road Side: 18.5'
- Parking: 7' - 8'
- Bike: 4' - 5'
- Lane: 10' - 11'
- Lane: 10' - 11'
- Median: 15.5' Optional
- Lane: 10' - 11'
- Lane: 10' - 11'
- Parking: 4' - 5'
- Road Side: 19.5'

**Urban Center/Core**
- Road Side: 20.5'
- Parking: 7' - 8'
- Bike: 5 - 6'
- Lane: 10' - 11'
- Lane: 10' - 11'
- Median: 15.5' Optional
- Lane: 10' - 11'
- Lane: 10' - 11'
- Parking: 5 - 6'
- Road Side: 21.5'

---

1. For urban & suburban residential, with a median and no on-street parking, the minimum pavement on either side of median should be 10'.
2. For avenues that are collectors with target speed of 35 mph or less, bike lanes can be substituted with wider outer lanes of 14' -16'.

---

**Constrained ROW**

<table>
<thead>
<tr>
<th></th>
<th>0'</th>
<th>5'</th>
<th>10' - 11'</th>
<th>10' - 11'</th>
<th>10' - 11'</th>
<th>10' - 11'</th>
<th>10' - 11'</th>
<th>9'</th>
<th>3'- 4'</th>
<th>6'- 8'</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Required</td>
<td>Optional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

* Minimum P assumes use of 1.5' gutter pan

** If required when adjacent to on-street parking or between right turn lane and through lane

Curb-to-curb denotes front of curb to front of curb
AVENUES
MODAL PRIORITY: MULTIMODAL

Four-Lane with Two-Way Center Turn Lane

Typical Roadway Section and Zoned Right-of-Way Update Study
Typical Roadway Section and Zoned Right-of-Way Update Study

AVENUES
MODAL PRIORITY: MULTIMODAL

Two-Lane

<table>
<thead>
<tr>
<th>Roadside</th>
<th>Parking</th>
<th>Bike¹</th>
<th>Lane</th>
<th>Median</th>
<th>Bike²</th>
<th>Parking</th>
<th>Curb to Curb</th>
<th>ROW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suburban - Commercial</td>
<td>10'</td>
<td>7'</td>
<td>6'</td>
<td>10-11'</td>
<td>10</td>
<td>4.5'</td>
<td>10</td>
<td>44.66</td>
</tr>
<tr>
<td>Suburban - Residential</td>
<td>10.5'</td>
<td>7'</td>
<td>6'</td>
<td>10-11'</td>
<td>10</td>
<td>4.5'</td>
<td>10</td>
<td>44.66</td>
</tr>
<tr>
<td>Urban - Commercial</td>
<td>10.6'</td>
<td>7'</td>
<td>6'</td>
<td>10-11'</td>
<td>10</td>
<td>4.5'</td>
<td>10</td>
<td>44.66</td>
</tr>
<tr>
<td>Urban - Residential</td>
<td>10.6'</td>
<td>7'</td>
<td>6'</td>
<td>10-11'</td>
<td>10</td>
<td>4.5'</td>
<td>10</td>
<td>44.66</td>
</tr>
<tr>
<td>Urban Center/Core</td>
<td>10.5'</td>
<td>7'</td>
<td>6'</td>
<td>10-11'</td>
<td>10</td>
<td>4.5'</td>
<td>10</td>
<td>44.66</td>
</tr>
</tbody>
</table>

¹ Minimum 7 assumes use of 1.5' gutter pan
² 6' required when adjacent to on-street parking or between right turn lane and through lane
³ Curb to curb distance front of curb to front of curb

Bike lane may be optional. If does not exist or bike route plan, 6' to accommodate bike lane in the travel lane

Constrained ROW

| 9' | 11-12' | 11-12' | 9' | 22-24' | 42-42' |

Required

Optional
### Two-Lane with Two-Way Center Turn Lane

**Typical Roadway Section and Zoned Right-of-Way Update Study**

<table>
<thead>
<tr>
<th>Road Side</th>
<th>Parking</th>
<th>Bike</th>
<th>Lane</th>
<th>Center Turn Lane</th>
<th>Lane</th>
<th>Bike</th>
<th>Parking</th>
<th>Road Side</th>
<th>Curb to Curb</th>
<th>ROW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suburban - Commercial</td>
<td>19'</td>
<td>7' Optional</td>
<td>9'</td>
<td>12'-11&quot;</td>
<td>10'</td>
<td>18'-11&quot;</td>
<td>6'</td>
<td>7'</td>
<td>19'</td>
<td>54'-8&quot;</td>
</tr>
<tr>
<td>Suburban - Residential</td>
<td>11.5'</td>
<td>7' Optional</td>
<td>4'-6&quot;</td>
<td>10'-11&quot;</td>
<td>10'</td>
<td>18'-11&quot;</td>
<td>4'-6&quot;</td>
<td>7'</td>
<td>11.5'</td>
<td>38'-6&quot;</td>
</tr>
<tr>
<td>Urban - Commercial</td>
<td>10'</td>
<td>7'</td>
<td>5'</td>
<td>13'-11&quot;</td>
<td>10'</td>
<td>19'-11&quot;</td>
<td>5'</td>
<td>7'</td>
<td>10'</td>
<td>54'-0&quot;</td>
</tr>
<tr>
<td>Urban - Residential</td>
<td>11.5'</td>
<td>7'</td>
<td>4'-6&quot;</td>
<td>12'-11&quot;</td>
<td>10'</td>
<td>19'-11&quot;</td>
<td>4'-6&quot;</td>
<td>7'</td>
<td>11.5'</td>
<td>38'-6&quot;</td>
</tr>
<tr>
<td>Urban Center/Core</td>
<td>10'</td>
<td>7'-8&quot;</td>
<td>5'-8&quot;</td>
<td>13'-11&quot;</td>
<td>10'</td>
<td>19'-11&quot;</td>
<td>5'-8&quot;</td>
<td>7'-8&quot;</td>
<td>10'</td>
<td>54'-0&quot;</td>
</tr>
</tbody>
</table>

*Minimum 7' assures use of 1/2 center lane.
**If required when adjacent to on-street parking or between right turn lane and through lane.

Curb-to-curb designates curb to curb front of curb.

1 Bike lane may be optional if it does not exist on bike route plan. If no on-street parking is provided, the outer lanes can be 14' to accommodate bike lane in the travel lane.

**Constrained ROW**

| 8' | 12'-11" | 10' | 18'-11" | 9' | 30'-32" | 57'-63" |

**AVENUES**

**MODAL PRIORITY: MULTIMODAL**
AVENUES

Required – Priority Elements

Number of Lanes
Two lanes in each direction with a two-way center turn lane (five lanes total) and two lanes in each direction (four lanes total) for avenues that are either minor arterials or collectors. One lane in each direction with a two-way center turn lane (three lanes total) and one lane in each direction (two lanes total) for avenues that are collectors.

Lane Width
Eleven-foot-wide lanes are ideal, but 10-foot-wide lanes are acceptable. Outer lanes can be up to 14 feet to accommodate the bicyclist in the outer travel lane, where on-street is not provided.

Posted Speed
Typically, 25 – 35 mph. The design speed can be 5 – 10 mph above posted speed.

Sidewalks
Pedestrian activity is highly encouraged along avenues due to the lower speeds on the roadways and the focus on balancing all modes of transportation. Sidewalk widths vary depending on the context zones and are described in detail in Section 4.

Sidewalk Furnishings
In predominantly residential areas, sidewalks are separated from the vehicle zone through a continuous planting strip with appropriate connections from the curb to the sidewalk. In predominantly commercial areas, the sidewalks are separated from the vehicle zone through sidewalk furnishings including tree grates/tree wells.

Curb and Gutter
Generally, curb and gutter is preferred within urban locations, but drainage swales are allowable in some suburban areas. A minimum of a two-foot-wide curb and gutter should be used on the outside lane, but 1.5 feet is allowable on inside, median lanes.

On-street Parking
On-street parking is desirable on avenues that are located in predominantly commercial areas due to the increased retail use. On-street parking is optional in predominantly residential areas.

Optional Elements

Median
Medians are optional along avenues. Where provided, the median can be a width of 10 feet to 15.5 feet wide. A 15.5-foot-wide median in preferred to allow for a minimum of a four-foot-wide pedestrian refuge at intersections. Under constrained conditions, the median can be as narrow as six feet wide; however, additional design considerations apply in accordance with the Florida Greenbook.

Median Planting
Medians should be landscaped with trees as recommended in the Miami-Dade County Street Tree Master Plan and in accordance with sight distance requirements.

Bike Lane
Bike lanes are desirable along avenues to allow less skilled bicyclists to safely operate at higher speeds. They are specifically recommended on roadways that are on the County’s bicycle network or where necessary to provide continuity for bike routes. When provided, the lane should be a minimum of four feet wide (not including curb and gutter) in residential areas and five feet wide in commercial areas (preferably five feet wide if ROW permits).

Incompatible Elements

Shoulder
Curb and gutter are preferred for avenues.
Streets are the most pedestrian-oriented and access-oriented streets. Streets can either be collector streets or local streets. It should be noted that the proposed nomenclature of “street” is not related to the current roadway naming convention in Miami-Dade County. In Miami-Dade County, north-south roadways are referred to as “streets” and east-west roadways as “avenues.”

Streets are never more than one lane in each direction (two lanes total). The main function of a street is to provide access to adjacent properties. Streets also provide connections between neighborhoods, as well as from neighborhoods and business parks to regional roadways. Streets are the most common roadway type within Miami-Dade County in terms of total miles.

Streets, as presented in this section, are classified as follows based on the adjacent land uses along the street:

• Street – General
• Main Street
• Residential Street
• Commercial Street
• Industrial Street

The following pages illustrate the typical section for each of the streets followed by a description of the required, optional, and incompatible design elements. Required elements refer to the design elements that are integral to the design of the referenced roadway type. Optional elements refer to the design elements that are recommended in the typical section, but can be excluded if adequate right-of-way is not available. Incompatible elements refer to the design elements that should not be included in the design of the referenced roadway type. The minimum dimensions for physically constrained roadways are also provided.
## Two-Lane Undivided

**Residential**

<table>
<thead>
<tr>
<th>Road Side</th>
<th>Parking</th>
<th>Bike¹</th>
<th>Lane</th>
<th>Lane</th>
<th>Bike¹</th>
<th>Parking</th>
<th>Road Side</th>
<th>Curb to Curb</th>
<th>ROW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suburban - Commercial</td>
<td>14</td>
<td>7&quot;-8&quot;</td>
<td>5'-6&quot;</td>
<td>10'-11&quot;</td>
<td>15'-11&quot;</td>
<td>5'-6&quot;</td>
<td>7&quot;-8&quot;</td>
<td>14&quot;</td>
<td>44'-02&quot;</td>
</tr>
<tr>
<td>Suburban - Residential</td>
<td>10.5</td>
<td>7&quot; optional</td>
<td>4'-6&quot;**</td>
<td>10'-11&quot;</td>
<td>15'-11&quot;</td>
<td>4'-6&quot;**</td>
<td>7&quot; optional</td>
<td>10.5&quot;</td>
<td>39'-08&quot;</td>
</tr>
<tr>
<td>Urban - Commercial</td>
<td>14</td>
<td>7&quot;-8&quot;</td>
<td>5'-6&quot;</td>
<td>10'-11&quot;</td>
<td>15'-11&quot;</td>
<td>5'-6&quot;</td>
<td>7&quot;-8&quot;</td>
<td>14&quot;</td>
<td>44'-02&quot;</td>
</tr>
<tr>
<td>Urban - Residential</td>
<td>10.5</td>
<td>7&quot; optional</td>
<td>4'-6&quot;**</td>
<td>10'-11&quot;</td>
<td>15'-11&quot;</td>
<td>4'-6&quot;**</td>
<td>7&quot; optional</td>
<td>10.5&quot;</td>
<td>39'-08&quot;</td>
</tr>
<tr>
<td>Urban Central/Core</td>
<td>10</td>
<td>7&quot;-8&quot;</td>
<td>5'-6&quot;</td>
<td>10'-11&quot;</td>
<td>15'-11&quot;</td>
<td>5'-6&quot;</td>
<td>7&quot;-8&quot;</td>
<td>10&quot;</td>
<td>44'-02&quot;</td>
</tr>
</tbody>
</table>

¹ Minimum 7 assumes use of 1.5" gutter pan
² \# required when adjacent to on-street parking or between right lane and through lane
³ Curb to curb denotes front of curb to front of curb

Bike lane may be optional if it does not exist on bike route plan; if no on-street parking is provided, the outer lanes can be 14" to accommodate bike lane in the traveled lane

### Constrained ROW

<table>
<thead>
<tr>
<th>Bike</th>
<th>9&quot;</th>
<th>10'-11&quot;</th>
<th>15'-11&quot;</th>
<th>5'-6&quot;</th>
<th>7&quot;-8&quot;</th>
<th>14&quot;</th>
<th>44'-02&quot;</th>
<th>22'-08&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Main Streets provide access to destinations for social, retail, and civic activity in town centers. Traditionally, main streets are found in the downtown areas of Miami-Dade County. New Main streets are now commonly developed within urban centers and urban cores. The new main streets typically occur in large, mixed use developments serving as centers for busy retail and institutional activities. Main streets are predominantly pedestrian-oriented with vehicular mobility serving as a secondary function. Main streets generally occur within urban centers and the County’s urban core.

The developments along main streets are predominantly retail on the ground level with optional residential or retail on the upper levels. The buildings along main streets are oriented towards and situated in close proximity to the street. The building frontage on a main street typically abuts the sidewalk.

The modal priority on main streets is oriented to pedestrians providing the highest level of comfort to the walking mode. The Main Street typically contains one lane in each direction (two lanes total) with on-street parking that serves the heavy retail activity on the ground level. Main streets are generally narrow in width to provide a shorter distance for pedestrian crossings. The posted speeds are generally 25 mph or less to provide safety and comfort for pedestrian movement.

The pedestrian zone is the most important element of a main street and must be carefully designed. Due to the high pedestrian volumes and increased civic activity along a main street, the pedestrian zone should be clearly marked and identifiable by all modes of transportation. Pedestrian features include wide sidewalks and several pedestrian amenities in the furnishings zone. Sidewalks along a main street are typically eight to 10 feet of clear unobstructed space. Sidewalk amenities include pedestrian scaled lighting, signage, furniture, public art, street trees, transit shelters, and trash receptacles.

Main streets have shorter block lengths of approximately 400 feet to 600 feet to provide for short walking experiences and frequent pedestrian crossings. Access along main streets should be carefully planned; vehicular access is ideally provided on the rear side of buildings.

Main Streets are anticipated within the urban centers and the urban core. The typical section recommended for a Main Street does not vary by context zone. Since Main Streets have predominantly retail uses adjacent to the street, on-street parking is required. Additionally, the roadside dimension is the widest on a Main Street compared to other roadway types.

The following pages illustrate the typical section for a Main Street followed by a description of the required, optional, and incompatible design elements. Required elements refer to the design elements that are integral to the design of the referenced roadway type. Optional elements refer to the design elements that are recommended in the typical section, but can be excluded if adequate right-of-way is not available. Incompatible elements refer to the design elements that should not be included in the design of the referenced roadway type. The minimum dimensions for physically constrained roadways are also provided.
Required – Priority Elements

**Number of Lanes**
One lane in each direction (two lanes total). Occasionally a third center turn lane may be provided where the block lengths are short (400 to 600 feet). Where block lengths are longer, a third lane may still be provided, however, it should be intermittently broken with landscaping or other features.

**Lane Width**
Should ideally provide at least 14 feet of width for lanes adjacent to on-street parking to allow for adequate space for opening car doors and to provide adequate width to accommodate bicycles, transit, and commercial vehicles. Even in constrained conditions, lanes adjacent to parking should not be less than 12 feet in width. A lane width of 10 feet is acceptable for the center turn lane.

**Posted Speed**
Set at 25 mph. The design speed can be 5 – 10 mph above posted speed.

**Sidewalk Zone**
Sidewalks are the most crucial design element along a main street due to the increased focus on pedestrian activity. Sidewalks are recommended to be at least 10 feet of unobstructed width to allow two couples to pass comfortably. Under constrained conditions, the sidewalks should be a minimum of five feet wide.

**Sidewalk Furnishings**
Furnishings and amenities in the sidewalk zone enhance the pedestrian environment of the main street. This zone should be a minimum of eight feet wide (not including the sidewalk). The furnishing zone along a main street consists of continuous pavement from the curb to the building frontage with tree grates or tree wells at even intervals. Even under constrained conditions, the sidewalk furnishing zone should be a minimum of six to six feet wide. Sidewalk amenities include pedestrian scaled lighting, signage, furniture, public art, street trees, transit shelters, and trash receptacles.

**On-street Parking**
On-street parking is desirable along main streets to support the intense retail activities at the ground level. Additionally, it provides a buffer between vehicles and pedestrians along the sidewalk. The width of the parking lane should be at least eight feet wide, including the gutter pan.

**Curb and Gutter**
Typical sections should always include curb and gutter.

Optional Elements

**Bike Lane**
Main Street provides for a wide travel lane of 14 feet to accommodate bicyclists. Significant volumes of bicyclists are neither expected nor encouraged on a Main Street. The U.S. Department of Transportation’s (USDOT) Selecting Roadway Design Treatments to Accommodate Bicycles recommends using wide outside lanes to accommodate bicyclist on lower speed roads unless designated bicycle lanes are warranted to complete the bicycle network. Designated bicycle lanes for the advanced bicyclist should be accommodated outside of the downtown areas and away from Main Streets. However, if the Main Street is a part of the bicycle network, designated bicycle lanes of 4 to 5 feet are allowed.

The provision of a designated bicycle lane will increase the perceived width of the roadway thus creating conditions for the motorist to drive at higher speeds, thereby making it unpleasant for pedestrians and retailers. It is best not to provide a bicycle lane in the heart of what is a pedestrian-oriented roadway, and instead have bicyclists share the travel lane with slower-moving cars.

**Median**
Medians are generally not recommended on main streets since they increase the pedestrian crossing distance. They may be allowable under certain circumstances for aesthetic purposes, pedestrian safety, or to provide intermittent breaks in the center turn lane.

**Median Planting**
Medians should be landscaped with trees as recommended in the Miami-Dade County Street Tree Master Plan and in accordance with sight distance requirements.

**Curb Extensions**
Curb extensions are often recommended at mid-block pedestrian crossings. They reduce pedestrian crossing distances and increase visibility while also providing increased opportunities for landscaping and street furniture. The curb extensions are typically the same width as the parking lane.

Incompatible Elements

**Planting Strips**
Planting strips are generally incompatible on a main street because they reduce the usable space that could otherwise be used for pedestrian amenities. It is beneficial to provide continuous access from on-street parking to sidewalks.

**Driveways**
Driveways should not be provided on a main street since they increase the opportunity of conflict between pedestrians and motor vehicles. Parking access should be provided on the rear side of the buildings.
Residential streets provide access to residential neighborhoods within the suburban and urban zones. The land uses along residential streets range from single-family developments to multi-family developments of varying range of densities. The typical sections for residential streets and their associated elements, and their dimensions recommended within the typical sections, are based on residential densities. The following three typical sections are recommended for residential streets:

- Low-Density Residential
- Medium-Density Residential
- High-Density Residential

It is important to note that these typical sections are recommended for neighborhood streets only. Residential streets accommodate relatively low volumes of traffic at lower speeds. They primarily carry neighborhood traffic of shorter trip lengths. The lower speeds along residential streets provide a comfortable and safe walking and bicycling environment. In some parts of Miami-Dade County, especially older parts of the County, residential streets have continuous sidewalks separated from the vehicle zone through wide planting strips with shade trees, providing a pleasant walking experience along these roadways.

The modal priority along residential streets is oriented towards pedestrians and bicyclists. Transit service is not typical along residential streets, but may be available along streets with high residential densities. Vehicular speeds are controlled along residential streets through use of traffic calming measures including speed humps, speed tables, chicanes, medians, and landscaping. However, properly designed residential streets should naturally ensure lower speeds, thus reducing the necessity to provide traffic calming features as an afterthought.

The residential streets standards included in the Study are in accordance with the Institute of Transportation Engineers’ (ITE) Neighborhood Street Design Guidelines. The Study recommends three different typical sections based on residential densities along these streets – low, medium, and high density. It is important to note that these are local streets only. Different typical sections are provided for boulevards, avenues, and general streets within predominantly residential areas. The low density residential local street is expected to occur only in suburban areas where the residential densities are less than two dwelling units per acre. The medium and high-density local street is anticipated occur within the urban zones. Within the urban core, local streets are not anticipated.

The ITE Neighborhood Street Design Guidelines introduces the concept of channels in designing a roadway. The report explains that when a neighborhood street is perceived by the designer as consisting of individual lanes of parked and moving vehicles, then each lane is allocated a fixed width making the street wider than necessary. Instead they recommend assuming sharing of space between potential street users rather than assuming exclusive portions of street space by individual users. The term “channel” refers to the sharing of space on neighborhood streets. For example, along a low-density street with adequate off-street parking, the likelihood of on-street parking is low and the vehicular traffic on the street is also low. Therefore, two channels of moving vehicles, with one also used occasionally by parked vehicles, is sufficient. Most of the time, both channels of moving vehicles will be open. In some instances, there will be intermittent parked vehicles, but the traffic volume is so low that there needs to be a single travel channel with yield movement. Similarly, in the medium-density residential neighborhoods, three channels should be sufficient and in high-density residential, four channels are necessary due to more regular parking on both sides of the street. The respective typical sections illustrate the purpose of the channels.

Below are the descriptions of the required, optional, and incompatible design elements for a local residential street. Required elements refer to the design elements that are integral to the design of the referenced roadway type. Optional elements refer to the design elements that are recommended in the typical section, but can be excluded if adequate right-of-way is not available. Incompatible elements refer to the design elements that should not be included in the design of the referenced roadway type.

**Optional Elements**

**Bus Stops**
Bus stops can be provided on local residential street if it is a designated transit route.

**Median**
Medians are not generally recommended along residential streets. However, if they are provided, the width of pavement on either side of the median should be a minimum of 16 feet wide including curb and gutter.

**Incompatible Elements**

**Bicycle Lanes**
Bicycle lanes are generally incompatible on local residential streets due to the lower traffic volume and lower speeds. Bicyclists can share the same right-of-way as that of vehicular traffic. Local streets may serve as bicycle routes, but separate bicycle lanes need not be provided.

**Shoulder**
Shoulders are generally incompatible on a local residential street due to the lower speeds and traffic volumes.

**Mid-Block Pedestrian Crossings**
Generally incompatible on residential streets due to the shorter width and lower speeds.

**Required Elements**

**Number of Lanes**
One lane in each direction (two lanes total).

**Posted Speed**
Less than 25 mph. Design speed should be equal to the posted speed.

**Lane Width**
Typically 10 feet in width.

**On-Street Parking**
On-street parking is generally provided along residential streets. Parking is allowable on one side of the road along low density residential streets and on either side along medium and high density residential streets.

**Sidewalk Furnishings**
Planting strips are essential along residential streets to provide separation between vehicular traffic and pedestrians. Planting strips should be a minimum of seven feet wide. Landscaping on the planting strips should be provided in accordance with the Miami-Dade County Street Tree Master Plan.

**Sidewalks**
Sidewalks are a crucial component of local residential streets. Sidewalks should be a minimum of five feet in width and should provide unobstructed space for pedestrian movements. For residential densities higher than 15 dwelling units per acre, sidewalks are recommended to be a minimum of eight feet of unobstructed width.
It is essential that these guidelines for pavement width are not used as a substitute for the exercise of engineering judgment. The designer should have an understanding of all guidelines contained in this Study before selecting element widths for a local street.
Local commercial streets provide direct access to commercial, office and mixed use sites. Sometimes they serve as lower order streets within business parks. The recommended typical sections for commercial streets, their elements, and their dimensions are based on floor area ratios. There are two typical sections that are recommended for commercial streets as follows:

- Narrow Commercial Streets
- Wide Commercial Streets

Commercial streets carry relatively low traffic volumes at lower speeds. The modal priority along local commercial streets is oriented towards commercial vehicles while also accommodating pedestrians safely.

The narrow typical section for a local commercial street does not provide for on-street parking while the wider typical section provides for on-street parking on both sides. The narrow typical sections will apply to commercial areas with low intensities where truck loading, unloading and parking may already be provided on site. In those areas, provision of continuous on-street parking on either side may not be necessary. In areas with high intensity commercial uses, the wide typical sections are recommended to be used.

The following paragraphs provide the description of the required, optional, and incompatible design elements for a local residential street. Required elements refer to the design elements that are integral to the design of the referenced roadway type. Optional elements refer to the design elements that are recommended in the typical section, but can be excluded if adequate right-of-way is not available. Incompatible elements refer to the design elements that should not be included in the design of the referenced roadway type.

<table>
<thead>
<tr>
<th><strong>Required Elements</strong></th>
<th><strong>Optional Elements</strong></th>
<th><strong>Incompatible Elements</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of Lanes</strong></td>
<td><strong>Median</strong></td>
<td><strong>Shoulder</strong></td>
</tr>
<tr>
<td>One lane in each direction (two lanes total).</td>
<td>Medians are not generally recommended along local commercial streets. However, if they are provided, the width of pavement on either side of the median should be a minimum of 16 feet wide including curb and gutter.</td>
<td>Shoulders are generally incompatible on a local commercial street due to the lower speeds and traffic volumes.</td>
</tr>
<tr>
<td><strong>Posted Speed</strong></td>
<td><strong>Bus Stops</strong></td>
<td></td>
</tr>
<tr>
<td>25 mph.</td>
<td>Bus stops can be provided on a local commercial street if it is a designated transit route.</td>
<td></td>
</tr>
<tr>
<td><strong>Lane Width</strong></td>
<td><strong>Bicycle Lanes</strong></td>
<td></td>
</tr>
<tr>
<td>Typically is recommended to accommodate trucks.</td>
<td>Bicycle lanes are generally optional on local commercial streets due to the lower traffic volume and lower speeds. Bicyclists can share the same right-of-way as that of vehicular traffic.</td>
<td></td>
</tr>
<tr>
<td><strong>On-Street Parking</strong></td>
<td><strong>Sidewalk Furnishings</strong></td>
<td></td>
</tr>
<tr>
<td>On-street parking is provided along either side of the road on a wide commercial typical section. The on-street parking lane is a width of nine feet including a 1.5 feet gutter pan.</td>
<td>Sidewalk furnishings provide separation between vehicular traffic and pedestrians and can consist of planting strips or pavement with tree grates or tree wells. Planting strips should be a minimum of seven feet wide. Landscaping on the planting strips should be provided in accordance with the Miami-Dade County Street Tree Master Plan.</td>
<td></td>
</tr>
<tr>
<td><strong>Sidewalks</strong></td>
<td><strong>Sidewalks</strong></td>
<td></td>
</tr>
<tr>
<td>Sidewalks are a crucial component of local commercial streets. Sidewalks should be a minimum of five feet in width and should provided unobstructed space for pedestrian movement. In higher density mixed use projects, sidewalks can be wider than five feet.</td>
<td>Sidewalks are a crucial component of local commercial streets. Sidewalks should be a minimum of five feet in width and should provided unobstructed space for pedestrian movement. In higher density mixed use projects, sidewalks can be wider than five feet.</td>
<td></td>
</tr>
</tbody>
</table>
It is essential that these guidelines for pavement width are not used as a substitute for the exercise of engineering judgment. The designer should have an understanding of all guidelines contained in this Study before selecting elements widths for a local street.
Local industrial streets provide direct access to predominantly industrial uses and distribution facilities. Sometimes they serve as lower order streets within industrial parks. The modal priority along industrial streets is oriented towards accommodating large volumes of trucks and heavy vehicles while also accommodating other modes. The design elements along industrial streets and their dimensions are designed to accommodate the size and maneuverability requirements of large trucks. Industrial streets are generally wider than residential and commercial streets and require larger curb radii due to the large number of commercial vehicles.

The following two typical sections are recommended for industrial streets:

- Narrow Industrial Streets
- Wide Industrial Streets

The narrow typical section for a local industrial street provides for on-street parking on one side only while the wider typical section provides for on-street parking on both sides. The narrow typical sections will apply to industrial areas with low intensities where truck loading, unloading and parking may already be provided on site. In these areas, provision of continuous on street parking on either side may not be necessary. In areas with high intensity industrial uses, the wide typical sections are recommended to be used.

The following paragraphs provide the description of the required, optional, and incompatible design elements for a local residential street. Required elements refer to the design elements that are integral to the design of the referenced roadway type. Optional elements refer to the design elements that are recommended in the typical section, but can be excluded if adequate right-of-way is not available. Incompatible elements refer to the design elements that should not be included in the design of the referenced roadway type.

**Required Elements**

- **Number of Lanes**
  One lane in each direction (two lanes total).

- **Posted Speed**
  25 mph.

- **Lane Width**
  Typically, 12 feet of width for narrow streets and up to 14 feet for wide streets to accommodate large trucks.

- **On-Street Parking**
  On-street parking is generally provided to allow for truck parking when necessary. Parking is provided on one side of the roadway on the narrow typical section and on both sides of the roadway on a wide industrial typical section. The on-street parking lane is a width of eight feet including a 1.5-foot wide gutter pan.

- **Sidewalks**
  Even though pedestrian traffic may not be as high on an industrial street, pedestrians must still be accommodated. Sidewalks should be a minimum of five feet in width and should provided unobstructed space for pedestrian movement.

**Optional Elements**

- **Sidewalk Furnishings**
  Sidewalk furnishings provide separation between vehicular traffic and pedestrians and can consist of planting strips or pavement with tree grates or tree wells. However, they are an optional element along industrial streets. When provided, planting strips should be a minimum of seven feet wide. Landscaping on the planting strips should be provided in accordance with the Miami-Dade County Street Tree Master Plan.

- **Bus Stops**
  Bus stops can be provided on a local industrial street if it is a designated transit route.

- **Bicycle Lanes**
  Bicycle lanes are generally optional on local industrial streets. Bicyclists can share the same right-of-way as that of vehicular traffic.

**Incompatible Elements**

- **Median**
  Medians are not appropriate on local industrial streets due to the demands on space by large vehicles.

- **Shoulder**
  Shoulders are generally incompatible on a local industrial street due to the lower speeds and traffic volumes.

- **Mid-Block Pedestrian Crossings**
  Generally incompatible on local industrial streets.
**STREET – INDUSTRIAL**
**MODAL PRIORITY: COMMERCIAL VEHICLES**

**Industrial Street - Narrow**
- Two 13' travel lanes with 8' parking allowed on one side only
- 8' parking lane width (including 1.5' gutter pan)

**Industrial Street - Wide**
- Two 14' travel lanes with parking on either side
- 8' parking lane width (including 1.5' gutter pan)
- If median is provided, there should be a minimum of 16' of pavement on either side of median

It is essential that these guidelines for pavement width are not used as a substitute for the exercise of engineering judgment. The designer should have an understanding of all guidelines contained in this Study before selecting elements widths for a local street.

**NOT TO SCALE**
The three roadway types proposed within the rural context include highway, road, and drive. In its relationship with the traditional functional classification, a highway can be a primary arterial or a minor arterial. A drive can be a minor arterial or a collector. A road can be a collector street or a local street.

A highway is a long-distance, speed movement thoroughfare traversing the countryside. It carries primarily regional trips between countrysides or from the countryside to urban areas. Highways are relatively free of intersections and driveways and hence do not maintain access management controls. The modal priority on a highway is predominately towards automobiles and pedestrian accommodations can be very little to none. Some highways serve as scenic routes and hence may accommodate bicycle and pedestrian facilities on separated but adjacent defined space.

A drive is a roadway carrying relatively moderate traffic volume and average travel speed. It collects regional trips from the highways and distributes to local roads.

A road is a small scale, slow movement, local thoroughfare providing access to adjacent land uses (predominantly low density buildings). A road may serve low-density residential clusters located within the rural community.

The following paragraphs provide the description of the required, optional, and incompatible design elements for a local residential street. Required elements refer to the design elements that are integral to the design of the referenced roadway type. Optional elements refer to the design elements that are compatible with the referenced roadway type. Incompatible elements refer to the design elements that should not be included in the design of the referenced roadway type.

### Required Elements

**Number of Lanes**
Generally two lanes in each direction (four lanes total) along highways and one lane in each direction (two lanes total) along drives and roads.

**Lane Width**
Typically, 12-foot-wide lanes for highways and drives due to higher speeds and 11 foot to 12-foot-wide roads.

**Posted Speed**
Generally, 45 – 50 mph along highways, 35 – 45 mph along drives, and 25 – 35 mph along roads.

**Median**
Medians are recommended along highways and drives and not on roads. However, some drive may also have medians. The width of a median along a highway ranges between 22 feet to 50 feet depending upon the available right-of-way.

**Median Planting**
Medians should be landscaped with trees as recommended in the Miami-Dade County Street Tree Master Plan.

**Shoulder**
Shoulders are recommended along highways and drives due to the higher speeds; they are optional on roads due to the lower speeds. The shoulder serves several essential functions including providing support to the edge of the traveled portion of the roadway, providing a safety area for drivers to regain control of vehicles if forced to leave the road surface, and draining water from the road surface to the swale. Shoulders can accommodate bicyclists.

**Swales**
Drainage swales are the preferred edge treatment along highways, drives and roads.

### Optional Elements

**Bike Lane**
Bicyclists can be accommodated on the shoulders along highways and drives. However, separate bicycle paths or multiuse paths may be provided as a parallel facility to the roadway.

Other optional elements include planting strips, lighting, and shade trees.

### Incompatible Elements

**Sidewalks**
Sidewalks adjacent to the vehicle travelway should not be provided along highways and drives due to the higher speeds. They may be provided on roads if required. Pedestrians can be accommodated on separate multi-use paths along with bicyclists on a parallel facility.

**On-street Parking**
On-street parking is not appropriate on highways, drives, and roads due to the low densities in the rural context.

**Curb and Gutter**
Curb and gutter should not be provided on roadways within the rural context.

The following pages illustrate the typical sections for highways, drives, and roads.
Six-Lane

<table>
<thead>
<tr>
<th>Swale</th>
<th>Shoulder</th>
<th>Lane</th>
<th>Lane</th>
<th>Lane</th>
<th>Median</th>
<th>Lane</th>
<th>Lane</th>
<th>Lane</th>
<th>Shoulder</th>
<th>Swale</th>
<th>ROW</th>
<th>Edge to Edge?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varies</td>
<td>0' - 10'</td>
<td>12'</td>
<td>12'</td>
<td>12'</td>
<td>20' and above</td>
<td>12'</td>
<td>12'</td>
<td>12'</td>
<td>0' - 10'</td>
<td>Varies</td>
<td>Varies</td>
<td>105' - 114'</td>
</tr>
</tbody>
</table>

1 Refers to edge of roadway to edge of roadway

NOT TO SCALE
Four-Lane

<table>
<thead>
<tr>
<th>Swale</th>
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<th>Lane</th>
<th>Lane</th>
<th>Median</th>
<th>Lane</th>
<th>Lane</th>
<th>Shoulder</th>
<th>Swale</th>
<th>Edge to Edge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Various</td>
<td>6–10'</td>
<td>12'</td>
<td>12'</td>
<td>32' and above</td>
<td>12'</td>
<td>12'</td>
<td>6–10'</td>
<td>Various</td>
<td>80'–90'</td>
</tr>
</tbody>
</table>

* Refers to edge of roadway to edge of roadway.

NOT TO SCALE
MODAL PRIORITY: AUTOMOBILES

Two-Lane

<table>
<thead>
<tr>
<th>Swale</th>
<th>Shoulder</th>
<th>Lane</th>
<th>Lane</th>
<th>Shoulder</th>
<th>Swale</th>
<th>Multi-use Path</th>
<th>Edge to Edge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varies</td>
<td>6'</td>
<td>11' - 12'</td>
<td>11' - 12'</td>
<td>6'</td>
<td>Varies</td>
<td>12'</td>
<td>34'-36' dunes</td>
</tr>
</tbody>
</table>

1 Refer to edge of roadway to edge of roadway

NOT TO SCALE
Two-Lane

Right-of-Way

Edge of Roadway to Edge of Roadway

<table>
<thead>
<tr>
<th>Scale</th>
<th>Lane</th>
<th>Lane</th>
<th>Scale</th>
<th>Edge to Edge</th>
<th>ROW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varies</td>
<td>11'-12&quot;</td>
<td>11'-12&quot;</td>
<td>Varies</td>
<td>20'-24&quot;</td>
<td>Varies</td>
</tr>
</tbody>
</table>

* Refer to edge of roadway to edge of roadway
SECTION 4
ROADSIDE GUIDELINES
The roadside is the portion of the right-of-way that accommodates the business and social activities of the roadway. It is the area between the face of the curb to the edge of the right-of-way. In commercial areas, it extends from the face of the curb to the face of the buildings or storefronts. In residential areas, it extends from the face of the curb to the edge of private property (fences, walls, lawns, porches, etc.)

A well-designed roadside is crucial to the roadway’s function as a civic place. Most streets that are considered great streets have well designed roadides that accommodate the activities of the street. This section provides principles and guidance for the design of roadside and the specific elements that comprise the roadside. It addresses how the design of the roadside varies with change in context. The guidance in this section is used in conjunction with the guidance in Section 3.

The roadside consists of the following four distinct functional zones:

**Edge Zone**
This is the area between the face of the curb and the furnishing zone. This is a required area of clearance between parked vehicles and appurtenances or landscaping.

**Sidewalk Furnishing Zone**
This area of the roadside provides a buffer between pedestrians and vehicular traffic. In residential areas, the furnishing zone includes a continuous planting strip along the sidewalks with shade trees providing comfort to the pedestrian environment. In commercial areas, the furnishing zone consists of continuous pavement between the curb and the building line with tree grates/wells, street furniture, street lighting, public signage, transit stops, utilities, etc. In the graphic illustrated on the previous page, the right side illustrates a residential area with planting strips and the left side refers to a commercial area with continuous pavement.

**Sidewalk Through Zone**
This is the unobstructed pedestrian area on the roadside that provides for through movement of pedestrians. This zone must remain free and clear of obstacles and amenities to enable free movement of pedestrians.

**Frontage Zone**
Frontage zone is the area of the right-of-way immediately adjacent to the property line defined by a building facade, landscaping, fence, or screened parking area. Generally, pedestrians do not feel comfortable moving at a full pace immediately adjacent to a building facade or wall; hence the effective width of the throughway (sidewalk through zone) is limited by the tendency for pedestrians to shy away from the sidewalk next to the property line. This width at the edge of the private property line is the frontage zone, sometimes called the “shy zone”. The recommended width of the frontage zone ranges between 0 to 2.5 feet depending on the context zone and the roadway type. In residential areas along lawn and ground cover, the frontage zone may be 0 feet; along low walls, fences and hedges, the frontage zone may be one foot; along facades and tall walls it may be 1.5 feet; and along heavy retail corridors, it may be up to 2.5 feet. National research and standards suggest that a frontage zone or a shy zone is important to provide a buffer between pedestrians on the sidewalk and the property line (window shoppers in retail areas and fences in residential areas).

The graphic below illustrates the four zones using an example of a roadside in a commercial area. The elements within a roadside can contain a variety of elements including pedestrian furniture, cafes, seating area, transit stops, trees, public art, plazas, pedestrian lighting, etc.

A majority of the typical sections provided in Section 3, with the exception of high-speed boulevards, main streets, and local streets represent the total dimension of the roadside. This section provides detailed dimensions and guidelines of the various elements within the roadside. Roadside design is especially important along low speed boulevards, avenues and streets since these roadways provide high priority for pedestrians. The following graphics provide some visual examples of roadides within the various context zones to give the reader an understanding of roadside design. They also provide recommended dimensions for the various components of the roadside along boulevards, avenues and streets.

**NOT TO SCALE**

**SECTION 4: ROADSIDE GUIDELINES**

**COMMERCIAL / RESIDENTIAL MIXED**

**RETAIL / SHOPS / CAFES / RESTAURANTS**

**FURNISHINGS**

**EDGE ZONE**

**THROUGHWAY ZONE**

**FRONTAGE ZONE**

**DEVELOPMENT ZONE**

**NOT TO SCALE**
ROADSIDE – BOULEVARD

Typical Roadway Section and Zoned Right-of-Way Update Study

High Speed Boulevard

Suburban/Urban Residential Low-Speed Boulevard

Suburban/Urban Commercial Low-Speed Boulevard

Urban Center/Urban Core Low-Speed Boulevard

NOT TO SCALE

<table>
<thead>
<tr>
<th>Content/Land Use Zone</th>
<th>Roadside</th>
<th>Recommended Total Roadside (per side)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Edge</td>
<td>Furnishings</td>
</tr>
<tr>
<td>Suburban</td>
<td>1.5</td>
<td>6</td>
</tr>
<tr>
<td>Low Speed Residential Boulevard</td>
<td>1.0</td>
<td>5</td>
</tr>
<tr>
<td>Low Speed Commercial Boulevard</td>
<td>1.0</td>
<td>5</td>
</tr>
<tr>
<td>High Speed Boulevard</td>
<td>1.0</td>
<td>4</td>
</tr>
<tr>
<td>Urban</td>
<td>1.5</td>
<td>6</td>
</tr>
<tr>
<td>Low Speed Residential Boulevard</td>
<td>1.0</td>
<td>5</td>
</tr>
<tr>
<td>Low Speed Commercial Boulevard</td>
<td>1.0</td>
<td>5</td>
</tr>
<tr>
<td>High Speed Boulevard</td>
<td>1.0</td>
<td>4</td>
</tr>
<tr>
<td>Urban Center/Core</td>
<td>1.5</td>
<td>10</td>
</tr>
</tbody>
</table>

Notes:
1. When angle parking is provided, the edge of roadway is recommended to be 2.5 feet wide.
2. Planting strips are recommended along residential and high-speed commercial roads, and concrete walls are provided along commercial roads.
3. Where medians are contained, it is recommended that a minimum of 8 feet be provided along residential medians and 13 feet be provided along commercial medians to include the desired median amenities.
ROADSIDE – AVENUE & STREET

Typical Roadway Section and Zoned Right-of-Way Update Study

Suburban/Urban Residential

Suburban/Urban Commercial

Industrial Street

NOT TO SCALE

Main Street

AVENUE

Continti, inuse Zone | Recommended Total Roadside (per side) |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>USA</td>
</tr>
<tr>
<td>Commercial</td>
<td>USA</td>
</tr>
<tr>
<td>Urban Residential</td>
<td>USA</td>
</tr>
<tr>
<td>Commercial</td>
<td>USA</td>
</tr>
<tr>
<td>Mixed Use</td>
<td>USA</td>
</tr>
</tbody>
</table>

STREET-GENERAL

Continti, inuse Zone | Recommended Total Roadside (per side) |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>USA</td>
</tr>
<tr>
<td>Commercial</td>
<td>USA</td>
</tr>
<tr>
<td>Urban Residential</td>
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</tr>
<tr>
<td>Commercial</td>
<td>USA</td>
</tr>
<tr>
<td>Mixed Use</td>
<td>USA</td>
</tr>
</tbody>
</table>

Notes:
1. Whenangle parking is provided, the edge of roadway is recommended to be 2.5 feet wide.
2. Parking strips (F W) are recommended along residential and high-speed commercial roads. and tree wails (F S) are recommended along commercial roads.
3. When medians are installed, it is recommended that a minimum of 5 feet be provided along residential medians and 12 feet be provided along commercial medians to include the desired median amenities.
SECTION 5
ZONED RIGHT-OF-WAYS
The second component of the Miami-Dade County Typical Roadway Section and Zoned Right-of-Way Study is the recommendation of modifications to Section 33-133 of the Miami-Dade Code of Ordinances. This component consists of a review of the Miami-Dade MPO 2030 Long Range Transportation Plan (LRTP) to identify roadway improvements in the long-term and to identify whether adequate right-of-way is available to implement the improvements based upon the proposed typical sections and design guidelines within this Study.

The following graphic and the table represent all the roadway improvements contained within the MPO’s LRTP. Each improvement is identified by a unique identification number and is labeled on the graphic. The table provides the description of the improvements. The improvements are presented in the order of priority groupings based on relative need and funding availability contained in the LRTP. The priority numbers correspond to the following implementation time frames:

- **Priority I** – Projects are scheduled to be funded by 2009
- **Priority II** – Projects are planned to be funded between 2010 and 2015
- **Priority III** – Projects are planned to be funded between 2016 and 2020
- **Priority IV** – Projects are planned to be funded between 2021 and 2030
- **Priority IV Unfunded** – Projects that have been identified as needed, but revenues are not available

This information has been utilized to develop a draft ordinance to amend Section 33-133 of the Code of Ordinances.
The recommended changes to the zoned right-of-ways, found in Section 33-133 of the Miami-Dade Code of Ordinances, include additions and modifications to the road segments, along with adjustments to the right-of-way dimensions. The recommended changes to the right-of-way dimensions provide a right-of-way range and a preferred right-of-way. The preferred right-of-way dimensions are provided to establish future right-of-ways based upon the proposed typical sections and design guidelines. The preferred right-of-ways should be utilized for new developments or along corridors that are incrementally changing.

The right-of-way range and the preferred right-of-ways were calculated based on the right-of-way recommendations from Section 3. A context zone was assigned to each of the LRTP improvements based on the context zone map provided in Section 2. A roadway type designation was also assigned to each of the LRTP improvements based on their traffic characteristics and context zone. The graphics on the following pages illustrate the context zones and the roadway types of the LRTP improvements. Once these two were identified, the appropriate ROW range recommended in Section 3 was applied to identify the necessary right-of-way to implement the capacity improvement. For example, if an improvement was identified to be an “avenue” in an “urban” context zone, and the future land use was predominantly commercial in the County’s future land use map, then the recommended ROW for an Urban Predominantly Commercial Avenue is indicated as the proposed ROW range. The maximum value of the range is provided in the “preferred ROW” column.

Once the preferred ROWs were identified, each improvement was assigned one of the following priority levels or was adequate:

- “Acceptable – No Change”: When the zoned ROW is more than what is recommended by the proposed typical sections.
- “High”: Roadways without an adopted zoned ROW or a zoned ROW considerably lower than the minimum recommendation of the proposed ROW.
- “Medium”: Roadways with a zoned ROW near the low end of the recommended range.
- “Low”: Roadways with current zoned ROW within the recommended range.

The graphics in the following pages are arranged in the order listed below:
1. Existing Zoned Right-of-Way–Map
2. LRTP Improvements by Context Zone–Map
3. LRTP Improvements by Roadway Type–Map
4. Proposed Zoned Right-of-Way for LRTP Improvements–Map
5. Proposed Zoned Right-of-Way for LRTP Improvements–Table

The revised Section 33-133 of the Miami-Dade Code of Ordinances is provided as Appendix C.
Miami-Dade County Roadway Typical Sections and Zoned Right-of-Way Update Study

Existing Zoned Right-of-Way Map

Typical Roadway Section and Zoned Right-of-Way Update Study

ZONED RIGHT-OF-WAY UPDATE
Miami-Dade County Roadway Typical Sections and Zoned Right-of-Way Update Study

LRTP Improvements by roadway type
Miami-Dade County Roadway Typical Sections and Zoned Right-of-Way Update Study

Proposed Zoned Right-of-Way Map

Legend
- Miami-Dade County
- Everglades and Coastal Wetlands
- Biscayne Bay

Transportation Network
- Railroads
- Other TOD/Corridor

Proposed Zoned Right-of-Way Widths
- Less than 10'
- Less than 20'
- Less than 50'
- Less than 100'
- Less than 150'
- Less than 180'
- 180' to 300'

Note: Average right-of-way widths are calculated based on the recommended typal sections.

Data Sources: Florida Department of Transportation, 2005, Florida Geographic Data Library, Florida Department of Environmental Protection, 2005.
## Zoned Right-of-Way Update

### Miami-Dade County Roadway Typical Sections

**Zoned Right-of-Way Update Study**

#### Long Range Transportation Plan Roadway Improvements

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<th>Link ID</th>
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<th>Project Description</th>
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**Notes:**
- When the zoned ROW is more than what is recommended by the proposed typical sections, no changes to zoned ROW.
- Changes to zoned ROW are considered to be less than the minimum recommendation of the proposed ROW.

**Contact Zone:**
- Rural: 660 - 730
- Urban: 620 - 660
- High-speed Boulevard: 680 - 730
- Suburban: 620 - 660
- Low-speed Boulevard: 660 - 730
- Rural: 630 - 670
- Urban: 620 - 660
- High-speed Boulevard: 680 - 730
- Suburban: 620 - 660
- Low-speed Boulevard: 660 - 730

**Priority for Acquisition:**
- High: 60 - 65
- Medium: 50 - 55
- Low: 40 - 45

**Roadway Type:**
- Rural: 630 - 670
- Urban: 620 - 660
- High-speed Boulevard: 680 - 730
- Suburban: 620 - 660
- Low-speed Boulevard: 660 - 730

**Disclosure:**
- Data reflects the final report as of January 2021.
- Changes to zoned ROWs are not currently included in Section 33-133 Zoned Right of Way of the Code of Ordinances.
- For Highway, Drive and Road: The Study recommends dimensions from edge of pavement to edge of pavement, hence a width of 25 feet is assumed on either side of the pavement to identify required ROW.

**Note:**
- The zoned ROW may not correspond to the actual ROW under the jurisdiction of the County, DOT, or local municipalities. Confirmation of the existing ROW will be required to verify the priority levels for future acquisition.
ZONED RIGHT-OF-WAY UPDATE

Miami-Dade County Roadway Typical Sections
and Zoned Right-of-Way Update Study

Long Range Transportation Plan Roadway Improvements

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Notes:
- When the zoned ROW is more than what is recommended by the proposed typical sections, no changes to zoned ROW.
- High Priority Roadways without an adopted zoned ROW or a zoned ROW considerably less than the minimum recommendation of the proposed ROW.
- Medium Priority Roadways with a zoned ROW near the line of the recommended range.
- Low Priority Roadways with current zoned ROW within the recommended range.

For Highway, Drive and Road the Study recommends dimensions from edge of pavement to edge of pavement. Hence a width of 11.5 feet is assumed on either side of the pavement to identify required ROW.

Note: The zoned ROW may not connect to the actual ROW under the jurisdiction of the County, FDOT, or local municipalities. Confirmation of the existing ROW will be required to verify the priority levels for future acquisition.

Contact Zone: R = Rural
Roadway Type: HSB = High-speed Boulevard
High-speed: Low-speed: HSB = Suburban
Low-speed: Urban
Urban Center = Center
CORR: Corridor
Highway = R
Road = D

MIAMI-DADE COUNTY
Conclusion

This Study presents a set of ideas, concepts, and design elements for typical sections which are intended for designing roadways that provide the best possible accommodation for all users. Many roadways in the County are physically and/or financially constrained, we realize that not all roadways can be designed to provide the best possible accommodations for all modes of transportation. Hence this Study also provides a list of priority and optional design elements. The priority design elements are those elements that are strongly recommended to be included in a roadway section; the optional design elements represent those elements that are beneficial to include, if adequate right-of-way is available. Recommendations for constrained conditions for physically or financially constrained roadways are also provided in the Study.

The standards recommended for the various roadway types are not intended to be rigid. They were designed to be interpreted based on sound planning and engineering judgment, by utilizing the suggested combination of design elements presented. There can be several variants of the typical sections in this Study, depending on the design elements that are included in each typical section. The appropriate combination needs to be decided by the roadway designer based on the surrounding area in which the roadway is located and the goals of the specific project. A range of design standards are also provided for the various design elements of a typical section, in order to provide flexibility to the designer.

This Study is neither intended to replace the Public Works Manual nor function as a strict set of standards, but rather as a framework to guide future roadway improvement projects within the County. It is suggested that the roadway designer understand the concepts presented in this Study and uses it to develop typical sections specific to the community needs, within the framework presented.

The zoned right-of-way recommendations will help the County preserve and secure right-of-ways for future improvements. A draft ordinance is provided in this Study to amend the Miami-Dade County Code of Ordinances Section 33-133 to incorporate the recommendations.

Next Steps

This Study should serve as one of the first steps to memorialize the County’s vision of a comprehensive, multimodal transportation system. The next steps should include presenting the proposed zoned right-of-way ordinance to the Planning Board and County Commission for adoption, along with updating the Public Works Manual to include the typical sections within the Study. It will also be useful for right-of-way identification, presentation, and acquisition for the County to create a database of the existing right-of-way dimensions in GIS to track opportunities and changes. Finally, the County should also establish typical drawings for intersections that include existing cross sections and proposed typical sections, as well as, develop typical drawings for transitions between the different street types.
BEST PRACTICES SUMMARY
### APPENDIX A  TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>A3</td>
</tr>
<tr>
<td>1 – Alachua County Corridor Design Manual</td>
<td>A4</td>
</tr>
<tr>
<td>2 – Arlington County Master Transportation Plan</td>
<td>A5</td>
</tr>
<tr>
<td>3 – Urban Street Design Guidelines</td>
<td>A6</td>
</tr>
<tr>
<td>4 – Forward Dallas! Comprehensive Plan</td>
<td>A8</td>
</tr>
<tr>
<td>5 – Blueprint Denver – An Integrated Land Use and Transportation Plan</td>
<td>A10</td>
</tr>
<tr>
<td>6 – City of Portland Transportation System Plan</td>
<td>A12</td>
</tr>
<tr>
<td>7 – The City of San Diego Street Design Manual</td>
<td>A13</td>
</tr>
<tr>
<td>8 – City of Sarasota Downtown Master Plan 2020</td>
<td>A14</td>
</tr>
<tr>
<td>Summary of Best Practices</td>
<td>A15</td>
</tr>
<tr>
<td>Context-Sensitive Street Design</td>
<td>A16</td>
</tr>
<tr>
<td>Applicability to Miami-Dade County</td>
<td>A17</td>
</tr>
</tbody>
</table>
Several communities across the nation are adopting a shift in philosophy with regard to roadway planning and design from an auto-oriented approach to a complete street planning approach. A “complete street” is one that provides mobility, convenience and safety for all users of the roadway including pedestrians, bicyclists, transit users and motorists. The complete street planning approach ensures that the entire right-of-way is designed and operated to enable safe access for all users. This paradigm shift can be attributed to the awareness that the purpose of streets is not just to move cars, but to enhance the livability and urban environment of communities. A quote from Allan Jacobs’ famous book, “Great Streets” defines a great street as:

“A great street should be the most desirable place to be, to spend time, to live, to play, to work, at the same time that it markedly contributes to what a city should be.” - Allan B. Jacobs

Miami-Dade County has continued to experience significant growth in population, especially in the urban areas. Consequently, the demand for transportation infrastructure and services has increased considerably. The County’s Comprehensive Development Master Plan (CDMP) has designated several major urban areas as “urban centers” which are dense, compact, mixed-use areas with a high quality pedestrian environment. The CDMP requires the urban centers to offer convenient alternatives to travel by automobile and to be designed primarily for people and secondarily for automobiles and other motorized modes.

Over the years, the Miami-Dade County Board of County Commissioners has adopted several policies supporting the development of a multimodal roadway system that is sensitive to the needs of all users. In its broadest interpretation, multimodalism refers to a holistic view of transportation consisting of an interconnected multimodal transportation network where the trips on the roads are distributed among different modes. Miami-Dade County has a well connected roadway system consisting of a grid pattern of arterials, collectors, and local streets. The grid system provides alternative travel paths for individual trip pairs, and an easily defined functional hierarchy centered on section and half-section line roadways.

Despite the efficiency of the grid system, traffic volumes in Miami-Dade County have exceeded the carrying capacity of many roadways due to continued growth and population increase. To implement the County’s vision to establish an efficient multimodal system, the modal split of transit, bicycling and walking needs to increase significantly. In order for people to use these modes safely, roadways that currently cater to automobile users need to be modified to accommodate bicyclists, pedestrians, and transit. Currently, the Public Works Manual contains street standards that are representative of suburban conditions and does not address design standards for dense mixed use corridors supportive of a multimodal transportation system. The objective of this study is to update the street standards in the Public Works Manual to provide for street sections that are inclusive of users of all modes of travel.

To aid in the development of the update, it is important to build upon the successes of other communities where careful consideration of roadway users and successful stakeholder involvement have resulted in planning efforts that provide new solutions to roadway design. The project team has reviewed a number of transportation planning documents from jurisdictions across the United States that have adopted multimodal street design standards. The following eight documents represent a cross section of transportation planning efforts that will be referenced during the upcoming Miami-Dade County Typical Roadway Section Update:

1. Alachua County, FL, Corridor Design Manual (2002): This manual provides design guidelines for six roadway types within seven land use classifications along with the required and optional design elements for each roadway type.
2. Arlington County, VA, Master Transportation Plan – Streets Element (2006): The MTP re-examines streets in a comprehensive way to provide a master plan to safely accommodate multiple surface transportation modes.
4. City of Dallas, TX, Forward Dallas! Thoroughfare Plan (draft, 2005): The current update to the Dallas Thoroughfare Plan integrates context design into the planning and design process for the City’s streets and roadways. The plan provides standards for various land use based street types within the context of the existing functional classification.
5. City of Denver, CO, Blueprint Denver Land Use and Transportation Plan (2002): The transportation component of Denver’s blueprint plan presents transportation modes and initiatives as tools to the successful development of the city and its neighborhoods. The plan overlays existing functional classification on roadway types within its land use context.
6. City of Portland, OR, Transportation System Plan 2004 Technical Update (2004): The technical update refined the street design typology that had been developed in the region’s transportation plan. The plan provides various classifications for roadway, transit, truck, bicycle, and pedestrian infrastructure.
7. City of San Diego, CA, Street Design Manual (2002): The manual provides information and guidelines for the design of a public right-of-way that recognizes the many and varied purposes that a street serves. The City’s manual provides design guidelines for roadway design, pedestrian design, traffic calming, street lighting, parkway configurations, and design standards.
8. City of Sarasota, FL, Downtown Master Plan 2020 (2001): The master plan provides a consolidated plan for downtown Sarasota to help guide and implement various planning initiatives that preceded this document. Although the master plan was developed as primarily a land planning document, it provided design standards and recommendation for roadways within the downtown and new functional classifications for thoroughfare types.
PURPOSE:
The intent of the design manual is to serve as a tool for citizens, developers and, public officials while participating in the development of streets within Alachua County. In addition, the manual will serve as a resource for influencing updates to the County’s current land development regulations and land development approval process.

PRODUCT:
The manual is organized into three sections: 1) policy and design principles – an overview of transportation concepts and the interaction between transportation investments, land use decision, and community building, 2) design guidelines – provides guidelines and recommended corridor designs that are linked to land use contexts served by the corridor, and 3) design process – outlines a process intended to refine the Corridor Design Guidelines to support the local context, community character, and future vision for the County, at specific sites.

The design guidelines are provided for six corridor types:
1. **Arterials** – provide mobility, facilitate regional commerce, provide controlled access, serve as premium transit corridor, and facilitate pedestrian/bicycle activity with facilities in separate, defined space
2. **Collectors** – reinforce the character of a district, provide access, facilitate pedestrian/bicycle activity with facilities in a separate, defined space, and support neighborhood/district commerce
3. **Farm To Market Roads** – provide mobility, scenic views, safe vehicular and bicycle travel and serve as recreational pathways
4. **Main Street** – serve as focal point for a community, facilitate commerce, form part of the public realm, and reinforce the local identity
5. **Neighborhood Street** – focus on safety, provide access to adjacent uses, function as part of the public space, and support recreational activities/extension of front yards
6. **Bicycle and Pedestrian Trails** – provide mobility, access to adjacent uses, serve as recreational pathways, and serve a specific user group

The land use classifications that are used to provide context to each of the above corridor types includes:
- **Urban Activity Center** – compact multi-purpose, mixed use centers that include commercial, residential, civic buildings, and open space
- **Industrial** – includes a range of industrial activities such as fabrication, manufacturing, transportation warehousing, and distribution of goods
- **Village Center** – neighborhood scale, compact, mixed use areas
- **Neighborhood Center** – consist of community facilities, integrated into neighborhoods
- **Neighborhoods** – include a range of areas that balance the range of human needs
- **Rural Cluster** – small settlements located outside of urban areas
- **Rural Agricultural** – includes uses that grow crops, grazing lands, and orchards
### DESIGN STANDARDS:

<table>
<thead>
<tr>
<th>Roadway Types</th>
<th>Applicable Land Uses</th>
<th>ROW Width (ft)</th>
<th>Curb-to-Curb Width (ft)</th>
<th>Sidewalk Width (ft)</th>
<th>Speed (mph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arterial</td>
<td>Urban Activity Center</td>
<td>80-130</td>
<td>55-68</td>
<td>8-12</td>
<td>35-45</td>
</tr>
<tr>
<td>4-Lane w/ center turn lane and median</td>
<td>Industrial</td>
<td>50-130</td>
<td>64-70</td>
<td>N/A</td>
<td>45-55</td>
</tr>
<tr>
<td>2-Lane undivided</td>
<td>Rural Cluster</td>
<td>50-70</td>
<td>20-24</td>
<td>N/A</td>
<td>30-35</td>
</tr>
<tr>
<td>4-Lane divided</td>
<td>Rural Agricultural</td>
<td>100-140</td>
<td>74-114</td>
<td>N/A</td>
<td>45-60</td>
</tr>
<tr>
<td>Collector</td>
<td>Urban Activity Center</td>
<td>40-80</td>
<td>28-56</td>
<td>5+</td>
<td>30-35</td>
</tr>
<tr>
<td>2-Lane w/ options of bike lane, on-street</td>
<td>Rural Agricultural</td>
<td>50-80</td>
<td>28-50</td>
<td>5-8</td>
<td>30-35</td>
</tr>
<tr>
<td>parking, median</td>
<td>Rural Cluster</td>
<td>50-80</td>
<td>28-46</td>
<td>5-8</td>
<td>30-35</td>
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<tr>
<td>2-Lane w/ options of sidewalk</td>
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<td>28-56</td>
<td>5+</td>
<td>30-35</td>
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<tr>
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<td>Rural Agricultural</td>
<td>50-70</td>
<td>32</td>
<td>5-8</td>
<td>25</td>
</tr>
<tr>
<td>and bike lanes</td>
<td>Rural Cluster</td>
<td>50-70</td>
<td>16-24</td>
<td>5-8</td>
<td>20</td>
</tr>
<tr>
<td>2-Lane w/ sidewalk, bike lanes, and on-</td>
<td>Rural Cluster</td>
<td>50-70</td>
<td>16-24</td>
<td>5-6</td>
<td>20</td>
</tr>
<tr>
<td>street parking</td>
<td>Rural Agricultural</td>
<td>50-70</td>
<td>16-24</td>
<td>5-6</td>
<td>20</td>
</tr>
<tr>
<td>Main Street</td>
<td>Urban Activity Center, Village Center, Rural Cluster</td>
<td>54-70</td>
<td>32</td>
<td>5-8</td>
<td>25</td>
</tr>
<tr>
<td>2-Lane w/ on-street parking and options</td>
<td>Village Center</td>
<td>54-70</td>
<td>32</td>
<td>5-8</td>
<td>20</td>
</tr>
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<td>2-Lane w/ on-street parking</td>
<td>Neighborhood, Neighborhood Center</td>
<td>36-58</td>
<td>16-24</td>
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<td>Farm-To-Market</td>
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<td>16-24</td>
<td>5-6</td>
<td>20</td>
</tr>
<tr>
<td>2-Lane</td>
<td>Rural Agricultural</td>
<td>60-100</td>
<td>20-24</td>
<td>N/A</td>
<td>45-50</td>
</tr>
</tbody>
</table>

### INNOVATIVE IDEAS:

The manual provides a five-step process to develop and implement corridor master plans using the corridor design guidelines that are provided. A general description of the process follows:

- **Step One** – define the study area, form a corridor advisory group, define study goals, and organize the public involvement process;
- **Step Two** – determine the future land use context based on land use definitions provided above;
- **Step Three** – establish a vision for the corridor, identify opportunities, and create design sketches;
- **Step Four** – provide design guidelines based on manual, develop alternatives to present as options, hold public meetings, and refine alternatives; and
- **Step Five** – create an action plan to implement the corridor master plan defining short- and long-term implementation strategies.
PURPOSE:
The 2006 Master Transportation Plan (MTP) is an update of the County’s 1986 Master Transportation Plan and provides a framework for addressing and managing these often conflicting street uses. The MTP re-examines streets in a comprehensive way to provide a master plan to safely accommodate multiple surface transportation modes.

PRODUCT:
A paradigm shift from the conventional idea of moving traffic on streets to developing complete streets was the highlight of the MTP. The plan replaces the existing functional classification of controlled access, other principal arterial, minor arterial, neighborhood principal street and neighborhood minor street with street typologies that are reflective of the land use context and the multimodal functions of the streets. Arlington’s street typologies include:

- **Urban Center Retail** is an arterial street segment that serves a dense commercial area and is fronted by predominantly high-intensity, ground-level retail and consumer services, and is highly-oriented to pedestrian, bicycle and transit access.

- **Urban Center Mixed-Use** is an arterial street segment that serves a dense mixed-use area that is fronted by a variety of commercial, institutional, government and/or residential uses, and emphasizes pedestrian, transit and bicycle travel.

- **Commercial Primary** is an arterial street segment that serves a low or medium density commercial area that may also be less oriented to retail services and more service or industrial in nature. It emphasizes transit, and motor vehicle travel, including commercial vehicle movement.

- **Medium-High Density Residential** is an arterial street segment that serves a primarily residential neighborhood with medium to high densities, such as high rise or multi-story garden apartments, condos, or coops. It emphasizes pedestrian, transit, bicycle travel, and motor vehicle access.

- **Low Density Residential** is an arterial street that serves traverses a low density, primarily single-family home residential neighborhood, and is fronted by residential, park, or institutional property. It emphasizes bicycle and pedestrian travel, local motor vehicle travel, and transit access.

- **Regional Connector** is an arterial street with a combination of a free-flow ramp and signalized points of access. It primarily provides mobility through Arlington for regional motor vehicle, truck, and commuter bus traffic, as well as access to major destinations within Arlington. Bicycle and pedestrian access is secondary, but not optional and should emphasize convenient safe bicycle and pedestrian access across the facility.

- **The Urban Center Local Street** is a non-arterial street segment located in a medium or high-density residential, commercial, or mixed-use area. These secondary streets, typically called side streets, may include ground level retail, but do not have the same level of pedestrian and vehicular activity as primary streets. In some locations, these streets provide service, utility, and emergency vehicles access to alleys, loading docks, and building service areas for loading and unloading goods, recyclables, and refuse. Access to the street system from off-street or garage parking may also be located on Urban Center Local Streets.

- **Neighborhood Principal Streets** occur in lower-density areas and provide access for fronting properties and links to adjacent streets. Neighborhood Principal Streets have no more than two travel lanes and can vary from 28 to 36 feet in width. Like Urban Center Local Streets, they provide a way to travel to and from home, connections to local resources, and a shared space in the neighborhood for walking, biking, talking with neighbors, and conducting everyday activities.

- **Neighborhood Minor Streets** occur in low and medium density residential areas. These streets are very similar to Neighborhood Principals in form and function. The distinctive feature of these streets is their nearly exclusive orientation to providing access to residences. Since residential streets typically have low traffic volumes with infrequent travel by large vehicles, all users other than pedestrians can be accommodated within a relatively narrow travelway. On-street parking is usually provided and sidewalks are needed along at least one side of the street.
INNOVATIVE IDEAS:

Arlington MTP sets modal priorities for all major roadways within the County. The plan assigns a particular travel mode that will be given priority on a particular roadway.
PURPOSE:
The intent of the guidelines is to help the City accommodate growth by supporting a variety of City policies and planning documents. The City’s goal is to focus on more compact growth, expanded travel choices, and integration of mixed use development. The guidelines are intended to work as overlays to existing street classifications, which have typically indicated only the traffic function of the street. A roadway labeled thoroughfare from a functional standpoint, could be labeled as an Avenue depending on the anticipated use and the surrounding land uses. The guidelines address the challenges regarding the overlay approach in context to the traditional thoroughfare planning process, which is still employed by the NCDOT. Therefore, in their most recent Comprehensive Transportation Plan (CTP), they have proposed a new set of roadway classifications to better reflect multi-modal and context-based designs. The Urban Street Design Guidelines work in tandem with the CTP.

PROCESS:
The City held stakeholder interviews early in the development of the guidelines resulting in a list of the most and least favorite streets. A key finding from the interviews was that the older streets (pre-automobile dominance) where considered the “most favorite,” which included abundant tree canopy and pedestrian facilities. In addition, follow-up internet based surveys were provided to almost 1,000 people to identify the most least favorable streets.

PRODUCT:
The final document was a draft provided for public review and included roadway design guidelines that integrated land use and transportation. The following five street types were chosen to classify streets within Charlotte:

1. Main Streets – most pedestrian/civic oriented
2. Avenues – provide access to/from residential and commercial areas
3. Boulevards – move large numbers of vehicles from one part of the city to another
4. Parkways – most automobile oriented, favoring the automobile mode over all others
5. Local Streets – provide direct access to residential, industrial, or commercial districts

The document was divided into six chapters: Chapter 1: Introduction to Redefining Charlotte’s Streets, Chapter 2: Designing Streets for Multiple Users, Chapter 3: Applying the Guidelines, Chapter 4: Segments, Chapter 5: Intersections, and Chapter 6: Glossary.
### DESIGN STANDARDS:

<table>
<thead>
<tr>
<th>Roadway Types</th>
<th>ROW Width (ft)</th>
<th>Curb-to-Curb Width (ft)</th>
<th>Speed (mph)</th>
<th>Sidewalk width (ft)</th>
<th>Applicable Land Uses</th>
<th>Block Length (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Streets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 2 Lane w/ on-street parking, (and center turn lane)</td>
<td>91+</td>
<td>41+</td>
<td>25</td>
<td>7+ per side</td>
<td>Institutional, Retail, Office, Public Gathering Places, and upper story residential</td>
<td>400</td>
</tr>
<tr>
<td><strong>Avenues</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 2 Lane w/ on-street parking, bike lanes (and center turn lane or median)</td>
<td>51+</td>
<td>41+</td>
<td>25-35</td>
<td>3+ per side</td>
<td>Single-family, multi-family, Institutional, Commercial, Office, Mixed-use</td>
<td>600</td>
</tr>
<tr>
<td><strong>Boulevards</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 4 Lane w/ bike lanes (and center turn lane or median)</td>
<td>84+</td>
<td>72+</td>
<td>35-40</td>
<td>6+ per side</td>
<td>Variety of land uses similar to Avenues, except setback from roadway</td>
<td>1,000+</td>
</tr>
<tr>
<td><strong>Parkways</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 4-6 Lane w/ center turn lane or median)</td>
<td>117+</td>
<td>77+</td>
<td>45-50</td>
<td>5+ per side</td>
<td>Automobile oriented uses set back away from Parkway</td>
<td>2,640+</td>
</tr>
<tr>
<td><strong>Local Residential Streets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 2 Way w/ on-street parking (widths-narrow, medium, wide)</td>
<td>46, 53, 63+</td>
<td>17, 26, 34+</td>
<td>25 and below</td>
<td>5+ per side</td>
<td>Residential</td>
<td>400-600</td>
</tr>
<tr>
<td><strong>Local Office/Commercial Streets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 2 Way w/ on-street parking (widths-narrow, medium, wide)</td>
<td>51, 69+</td>
<td>24, 40+</td>
<td>25</td>
<td>6+ per side</td>
<td>Office/Commercial/Mixed use</td>
<td>400-600</td>
</tr>
<tr>
<td><strong>Local Industrial Streets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 2 Way w/ on-street parking</td>
<td>61+</td>
<td>34+</td>
<td>25</td>
<td>5+ per side</td>
<td>Industrial</td>
<td>1,000</td>
</tr>
</tbody>
</table>

### INNOVATIVE IDEAS:

- As part of the process to identify the most and least desirable streets, the developers of the manual conducted internet surveys with approximately 1,000 people to obtain a large sample of what stakeholders perceived as good and bad streets.
- Each typical roadway section was broken down into what were described as zones to help further evaluate the necessary design requirements. The different zones included the development zone (private property), pedestrian zone (public space), green zone (transition space between the parking space), parking zone (on-street parking area), and mixed vehicle zone (roadway).
PURPOSE:
The City of Dallas’ old method for thoroughfare planning placed an emphasis on the need to move regional traffic and did not efficiently balance the goals of transportation mobility and land use planning. Dallas took a policy decision to design streets in a manner that complements the surrounding environment and balances the needs of pedestrians, bicyclists, motorists and transit users. Dallas adopted a new paradigm of street design that involves a holistic approach that at its core embraces the adjacent land use while simultaneously providing mobility for the automobile.

PROCESS:
The planning process was a collaborative interdisciplinary process involving several stakeholders. The planning team obtained input from citizens through public workshops conducted throughout the plan development process. Citizen input along with an evaluation of the City’s street design policies resulted in the creation of a new street typology that reflects the mobility requirements and the land use context of streets. The approach integrates context sensitive design principles into the thoroughfare planning process.

PRODUCT:
The new thoroughfare plan contains a new subset of designations to supplement the functional classifications for the city’s streets. The goal is to create a connection between land use and transportation in Dallas and this is achieved by matching the new set of context-based street typologies with the existing functional classification of arterials, collectors and local streets. The context-based street typologies were developed by using the various land use categories within the community.

The street typologies developed for the study include – Downtown Street, Mixed Use Street, Transit Street, Main Street, Industrial Street, Commercial Street and Residential Street. Typical sections were developed for each of these street types within the context of the existing functional classification.
### DESIGN STANDARDS:

<table>
<thead>
<tr>
<th>Functional Classification</th>
<th>Description</th>
<th>ROW Width (ft)</th>
<th>Curb-to-Curb Width (ft)</th>
<th>Speed (MPH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal Arterial (Six Lanes, Divided)</td>
<td>6 Lanes w/ sidewalk, landscaping and center turn lane or median</td>
<td>104’-120’</td>
<td>81’-98’</td>
<td>35-45</td>
</tr>
<tr>
<td>Principal/Minor Arterial (Four Lanes, Divided)</td>
<td>4 Lanes w/ on-street parking, sidewalk, landscaping and center turn lane or median</td>
<td>80’-112’</td>
<td>60’-81’</td>
<td>35-45</td>
</tr>
<tr>
<td>Principal/Minor Arterial (Four Lanes, Undivided)</td>
<td>4 Lanes w/ on-street parking, sidewalk, and landscaping</td>
<td>60’-92’</td>
<td>44’-62’</td>
<td>35-45</td>
</tr>
<tr>
<td>Collector Street (Four Lanes, Divided)</td>
<td>4 Lanes w/ on-street parking, sidewalk, landscaping and center turn lane or median</td>
<td>80’-100’</td>
<td>59’-69’</td>
<td>25-35</td>
</tr>
<tr>
<td>Collector Street (Four Lanes, Undivided)</td>
<td>4 Lanes w/ on-street parking, sidewalk, and landscaping</td>
<td>60’-90’</td>
<td>42’-64’</td>
<td>25-35</td>
</tr>
<tr>
<td>Collector Street (Two Lanes, Undivided)</td>
<td>2 Lanes w/ on-street parking, sidewalk, and landscaping</td>
<td>50’-84’</td>
<td>36’-60’</td>
<td>25-35</td>
</tr>
<tr>
<td>Local Street (Two Lanes, Divided)</td>
<td>2 Lanes w/ on-street parking, sidewalk, landscaping and center turn lane or median</td>
<td>50’-70’</td>
<td>38’-51’</td>
<td>20-25</td>
</tr>
<tr>
<td>Local Street (Two Lanes, Undivided)</td>
<td>2 Lanes w/ on-street parking, sidewalk, and landscaping</td>
<td>50’-58’</td>
<td>32’-36’</td>
<td>20-25</td>
</tr>
<tr>
<td>Couplet Street (Four Lanes, One-way)</td>
<td>4 Lanes w/ on-street parking, sidewalk, and landscaping</td>
<td>60’-90’</td>
<td>44’-52’</td>
<td>35-45</td>
</tr>
<tr>
<td>Couplet Street (Three Lanes, One-way)</td>
<td>3 Lanes w/ on-street parking, sidewalk, and landscaping</td>
<td>50’-80’</td>
<td>33’-40’</td>
<td>35-45</td>
</tr>
<tr>
<td>Couplet Street (Two Lanes, One-way)</td>
<td>2 Lanes w/ on-street parking, sidewalk, and landscaping</td>
<td>50’-56’</td>
<td>24’-36’</td>
<td>35-45</td>
</tr>
</tbody>
</table>

### INNOVATIVE IDEAS:

The Forward Dallas! Plan identifies four “realms” within the street corridor. The plan recommends design elements for each of the street types. The four realms and two overlap zones that together comprise the thoroughfare and its surroundings are listed as:

- **Context Realm:** Properties and activities adjacent to the public right-of-way with surroundings (buildings, landscaping, open spaces, transit stations and parking) are included in the context realm.
- **Pedestrian Realm:** Public right-of-way from curb to the front property line of adjoining parcels typically including planting area, sidewalk, street furnishings zone, and retail frontage as well as bus shelters, waiting areas, and bicycle parking.
- **Travelway Realm:** Public right-of-way from curb to curb including parking lanes, roadways, medians, transit stops and loading/unloading zones.
- **Intersection Realm:** Public right-of-way and a portion of abutting private property that together form the intersection at its center.
- **Context/Pedestrian Overlap:** Ground floor building frontage, any overhanging elements (arcades, awnings, etc), and walkways on private property adjoining the thoroughfare are all part of the overlap between the private development in the context realm and the public space of the pedestrian realm.
- **Pedestrian/Travelway Overlap:** The areas are those within the travelway where pedestrians are common, such as parking lanes, crosswalks, and transit stops.

Within these realms, a priority matrix is also provided describing elements to be used in these realms to maximize the use of the public ROW. The matrix also identifies elements that should be emphasized in the context zone outside of the public ROW.
PURPOSE:
“Blueprint Denver” was the first step in a process of realizing the City’s 2000 Comprehensive Plan and 2020 Vision Plan, calling for cooperative and conjunctive planning efforts for transportation and land use. The plan encourages and promotes more efficient use of transportation systems and expanded transportation choices to help channel new growth into targeted development areas and to provide service without disturbing the established and stable areas of the City.

PROCESS:
The effort to develop “Blueprint Denver” was headed by a 46-member Land Use and Transportation Advisory Committee (LUTAC) that provided numerous outlets for public input – 19 open houses and eight hands-on workshops held in various neighborhoods across the city – as well as opportunities for comments through newsletters and websites. The plan was developed over a period of 20 months. Ideas solicited during the comment period and at the meetings were reviewed, tested, and in many cases incorporated in the Plan by the LUTAC.

PRODUCT:
Through its first integrated transportation and land use plan, Denver retains its historical functional classification system of arterials, collectors, and local streets but overlays these classifications with "street types" based on adjacent land use. The retention of historic functional classification is based on the broad purpose of the street such as the need to primarily move vehicles or primarily provide land access.

Downtown Access Streets have been added as an addition to the street function designation due to its uniqueness. The overlaying of land use based street types is based on the premise that regardless of the street's function (e.g., arterial or collector), it must serve the level of activity of the adjacent land use with appropriate design elements and varying modal emphasis. The following street types are used in the Denver Plan.

- **Residential Streets** can be local or arterial streets which provide a balance of multimodal mobility with land use or collectors and emphasizes walking, bicycling, and land use over mobility. Generally consist of two to four travel lanes, but place a higher priority on pedestrian and bicycle friendliness than on auto mobility.

<table>
<thead>
<tr>
<th>Street Type</th>
<th>Functional Class</th>
<th>arterial</th>
<th>Collector</th>
<th>Mixed Use</th>
<th>Commercial Street</th>
<th>Industrial Street</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residence</td>
<td>Residential</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Residential</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Residential</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Residential</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The street interface is divided into three components – travelway area needed to move vehicles, the pedestrian area needed to move people and transition people between vehicles and land uses or from one land use to another, and the land use and urban design area where land uses meet the street.

The Denver Plan specifies the characteristics of each of the above-mentioned street types along with recommendations for the first and second priority design elements and traffic management features for each of the street types.
The plan looks at the relationship between land use and transportation, and advocates that land use and transportation decisions be made in conjunction with each other. The Denver Plan presents land use and transportation strategies in a cohesive and balanced manner, recognizing that the two systems are interdependent and should be developed together to achieve a more sustainable and livable community.

### Street Type Design Elements:

<table>
<thead>
<tr>
<th>Street Type</th>
<th>Initial Priority Design Elements</th>
<th>Secondary Priority Design Elements</th>
<th>Traffic Management Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Streets</td>
<td>Sidewalks</td>
<td>Number &amp; width of travel lanes</td>
<td>Medians</td>
</tr>
<tr>
<td></td>
<td>Tree lawns</td>
<td>Landscaped medians</td>
<td>On-street parking</td>
</tr>
<tr>
<td></td>
<td>On-street parking</td>
<td></td>
<td>Street trees</td>
</tr>
<tr>
<td></td>
<td>Bicycle lanes</td>
<td></td>
<td>Narrower travel lanes</td>
</tr>
<tr>
<td></td>
<td>Alleys &amp; rear-facing garages</td>
<td></td>
<td>Traffic circles &amp; roundabouts</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Reduced pedestrian crossing distances at intersections using curb extensions, traffic islands, etc.,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Diverters</td>
</tr>
<tr>
<td>Main Streets</td>
<td>Wide sidewalks with transit access and pedestrian plazas</td>
<td>Number &amp; width of travel lanes</td>
<td>Narrower travel lanes</td>
</tr>
<tr>
<td></td>
<td>Well-marked pedestrian crosswalks and signals</td>
<td>Landscaped medians</td>
<td>Alternative paving material</td>
</tr>
<tr>
<td></td>
<td>Bicycle facilities</td>
<td></td>
<td>Tree planters in parking lane</td>
</tr>
<tr>
<td></td>
<td>Curb extensions</td>
<td></td>
<td>On-street parking</td>
</tr>
<tr>
<td></td>
<td>Tree lawns/amenity zones</td>
<td></td>
<td>Reduced pedestrian crossing distances at intersections using curb extensions, traffic islands, etc.,</td>
</tr>
<tr>
<td></td>
<td>On-street parking</td>
<td></td>
<td>Raised intersections</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>High-visibility crosswalks</td>
</tr>
<tr>
<td>Mixed-Use Streets</td>
<td>Wide sidewalks with transit access and pedestrian plazas</td>
<td>Number &amp; width of travel lanes</td>
<td>Landscaped medians</td>
</tr>
<tr>
<td></td>
<td>Well-marked pedestrian crosswalks and signals</td>
<td>Landscaped medians</td>
<td>On-street parking</td>
</tr>
<tr>
<td></td>
<td>Bicycle lanes</td>
<td></td>
<td>Street trees</td>
</tr>
<tr>
<td></td>
<td>Bicycle facilities</td>
<td></td>
<td>Narrower travel lanes</td>
</tr>
<tr>
<td></td>
<td>Curb extensions</td>
<td></td>
<td>Traffic circles &amp; roundabouts</td>
</tr>
<tr>
<td></td>
<td>Tree lawns/amenity zones</td>
<td></td>
<td>Reduced pedestrian crossing distances at intersections using curb extensions, traffic islands, etc.,</td>
</tr>
<tr>
<td></td>
<td>On-street parking</td>
<td></td>
<td>Diverters</td>
</tr>
<tr>
<td>Commercial Streets</td>
<td>Number &amp; width of travel lanes</td>
<td>Bicycle facilities</td>
<td>Medians</td>
</tr>
<tr>
<td></td>
<td>Medians</td>
<td>Tree lawns</td>
<td>Consolidated driveways</td>
</tr>
<tr>
<td></td>
<td>Pedestrian facilities</td>
<td>Two-way center left-turn lanes</td>
<td>Synchronization of traffic signals</td>
</tr>
<tr>
<td></td>
<td>Transit accommodations</td>
<td>On-street parking</td>
<td>On-street parking</td>
</tr>
<tr>
<td></td>
<td>Limited driveways and other access points</td>
<td></td>
<td>Narrower travel lanes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Reduced pedestrian crossing distances at intersections using curb extensions, traffic islands, etc.,</td>
</tr>
<tr>
<td>Industrial Streets</td>
<td>Wider travel lanes</td>
<td>Medians</td>
<td>Parking restrictions</td>
</tr>
<tr>
<td></td>
<td>Sidewalks</td>
<td>Bicycle lanes</td>
<td>Wider turning radius at intersections &amp; access points</td>
</tr>
<tr>
<td></td>
<td>Wider turning radius at intersection</td>
<td>On-street parking</td>
<td>Acceleration &amp; deceleration lanes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of lanes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tree lawns</td>
<td></td>
</tr>
</tbody>
</table>

### Innovative Ideas:

The Denver Plan presents land use and transportation components as tools for creating the type of development envisioned for Denver’s future. In the context of transportation, the tools are transit systems, pedestrian facilities, bicycle facilities, parking, traffic demand management, and transportation systems management. By implementing funding and construction of these types of facilities and operational tools, the goal of making more of Denver’s street network more efficient and safe is enhanced. The Denver Blueprint Plan provides an overarching guidance that will help direct planning efforts of citizens, city staff, developers, and local officials at the individual project level.

### Design Standards:

<table>
<thead>
<tr>
<th>Roadway Types</th>
<th>Description</th>
<th>ROW Width (ft)</th>
<th>Curb-to-Curb Width (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Arterial</td>
<td>4 Lanes w/ on-street parking, sidewalk, tree lawn and center turn lane or median</td>
<td>112’</td>
<td>78’</td>
</tr>
<tr>
<td>Residential Collector</td>
<td>2 Lanes w/ on-street parking, sidewalk, tree lawn</td>
<td>64’</td>
<td>36’</td>
</tr>
<tr>
<td>Residential Local</td>
<td>2 Lanes w/ on-street parking, sidewalk, tree lawn</td>
<td>60’</td>
<td>30’</td>
</tr>
<tr>
<td>Main Street &amp; Mixed Use Arterial</td>
<td>4 Lanes w/ on-street parking, sidewalk, tree lawn</td>
<td>92’</td>
<td>60’</td>
</tr>
<tr>
<td>Main Street &amp; Mixed Use Collector &amp; Local</td>
<td>2 Lanes w/ on-street parking, sidewalk, tree lawn</td>
<td>64’</td>
<td>36’</td>
</tr>
<tr>
<td>Mixed Use Downtown Access</td>
<td>3 Lanes w/ on-street parking, sidewalk, tree lawn</td>
<td>80’</td>
<td>48’</td>
</tr>
<tr>
<td>Commercial Arterial</td>
<td>4 Lanes w/ sidewalk, tree lawn and center turn lane or median</td>
<td>110’</td>
<td>68’</td>
</tr>
<tr>
<td>Industrial Collector</td>
<td>2 Lanes w/ on-street parking, sidewalk, landscaping</td>
<td>72’</td>
<td>44’</td>
</tr>
<tr>
<td>Industrial Local</td>
<td>2 Lanes w/ on-street parking, sidewalk, landscaping</td>
<td>64’</td>
<td>36’</td>
</tr>
</tbody>
</table>
PURPOSE:
Portland has for many years been exemplary in modern planning practices, not excluding transportation. With a population of 531,600 in the city itself and nearly 2 million in the region, the City of Portland started the process of developing its first comprehensive transportation plan in 1995, a process that was completed in 2000. The 2004 update revamped several elements of the plan, including additions to its street design classification system.

PRODUCT:
In addition to traffic functional classifications, the Portland plan develops classification based on transit, bicycle facilities, pedestrian facilities, freight movement, and emergency response routes. While each of these classification layers the Portland street system with multimodal designations, the city’s street design classifications play a significant role in how they affect a roadway’s design criteria and elements. The classifications are based partly on adjacent land use and vary in their modal priorities.

A regional corridor, for example, balances all modes of travel but places a slightly higher emphasis on auto travel in industrial and commercial corridors. In contrast, a community main street prioritizes pedestrian orientation in retail and residential districts. Each street classification prioritizes its design elements/components to ensure the street is designed to its emphasis in constrained right-of-way conditions. Portland’s street design classifications include:

- **Urban Highways** connect major activity centers in the region. Highways may have a mix of grade-separated and at-grade intersections. Land access is restricted with few buildings facing the roadway. On-street parking is prohibited, but highways may include bike lanes and sidewalks with a landscape buffer.

- **Regional Main Streets** serve the multimodal travel needs of the region’s most intensely developed activity centers. Regional Boulevards consist of four or more vehicle travel lanes, a balanced multimodal function, and a broad right-of-way. They may include on-street parking, bicycle lanes, narrower travel lanes, more intensive land use oriented to the street, wide sidewalks, and a landscaped median.

- **Community Main Streets** serve the multimodal travel needs of the region’s most intensely developed activity centers. Community Boulevards exist primarily in regional and town centers, station communities, and as some main streets. These boulevards consist of four or fewer vehicle travel lanes, a balanced multimodal function, landscaped medians, on-street parking, narrower travel lanes, more intensive land use oriented to the street, and wide sidewalks.

- **Regional Corridors** serve the multimodal travel needs of corridors, inner and outer residential neighborhoods, and some main streets. Regional Streets consist of four or more vehicle lanes, a balanced multimodal function, broad right-of-way, limited on-street parking, wider travel lanes, corridor land uses set back from the street, sidewalks with pedestrian buffering, and a raised landscaped median.

- **Community Corridors** serve the multimodal travel needs of corridors, inner and outer residential neighborhoods, and some main streets. Community Streets consist of two or fewer lanes, a balanced multimodal function, narrower right-of-way, on-street parking, and residential

neighborhood or corridor land uses set back from the street. These streets are located within low-density inner and outer residential neighborhoods to more densely developed commercial corridors and main streets where buildings are oriented toward the street at major intersections and transit stops.

- **Urban Roads** serve low-density industrial and employment areas as primary freight routes. Urban Roads carry significant vehicle traffic while providing for some transit, bicycle, and pedestrian travel.

- **Greenscape Streets** are designated as arterials where natural or informal landscapes are prevalent along the length of the street. The classification encourages the preservation of the natural features and any viewscapes.

- **Local Streets** represent all other streets not classified and designed to suit their surroundings and multimodal traffic.

- **Multimodal Intersections** are those crossroads where special attention needs to be paid to pedestrians, cyclists, or transit users through geometric and traffic control designs.

These designations, when considered in conjunction with the street’s traffic, transit, pedestrian, and freight classifications, offer a truly complete detail of the objectives for the streets in the Portland system.

INNOVATIVE IDEAS:
Portland’s mode-specific classification systems extend beyond most communities designations for truck and non-motorized traffic, and aid the city in determining the appropriateness of improvements, adjacent land development proposals, and funding priorities.

- **Traffic Classifications**
  - Regional Trafficways
  - Major City Traffic Streets
  - Traffic Access Streets
  - District Collectors
  - Neighborhood Collectors
  - Local Service Traffic Streets

- **Transit Classifications**
  - Regional Transitways
  - Major Transit Priority Streets
  - Transit Access Streets
  - Community Transit Streets
  - Local Service Transit Streets
  - Transit Stations
PURPOSE:
The purpose of the manual is to provide information and guidance for the design of the public right-of-way that recognizes the many and varied purposes that a street services. It is also intended to assist in the implementation of the City's planning, policy, and regulatory documents. The manual is for illustrative and planning purposes only (i.e. not construction plans).

PRODUCT:
The City's manual is divided into six sections: Roadway Design, Pedestrian Design, Traffic Calming, Street Lighting, Landscape Design, and Roadside Design. The manual contains design parameters for each of the roadway types defined in the manual and includes the parkway options for each.

INNOVATIVE IDEAS:
• The manual has been designed to provide multiple design options depending on the roadway type and land use being considered. Each roadway type contains a graphic to illustrate the appropriate design elements, including appropriate parkway options and traffic calming treatments, making the presentation of the guidelines easy to follow and understand.
• The manual provides multiple parkway options for each roadway type that focus on the pedestrian realm, which is dependent on the roadway type and land use. Each parkway option contains a pictorial representation of the essential elements.

DESIGN STANDARDS:

<table>
<thead>
<tr>
<th>Roadway Type</th>
<th>ROW Width (ft)</th>
<th>CURB IN CURB Width (ft)</th>
<th>Design Curve S/Speed</th>
<th>Min Curve Radius</th>
<th>Application &amp; Land Use</th>
<th>Parkway Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alley</td>
<td>20</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Residential</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cul-de-sac</td>
<td>64</td>
<td>40</td>
<td>0</td>
<td>100</td>
<td>Residential, Open Space</td>
<td>U1, U2</td>
</tr>
<tr>
<td>Low Volume</td>
<td>50</td>
<td>30</td>
<td>700</td>
<td>100</td>
<td>Residential, Open Space, School, Church, or Public Building</td>
<td>U1, U2</td>
</tr>
<tr>
<td>Local Street</td>
<td>52</td>
<td>32</td>
<td>1,500</td>
<td>100</td>
<td>Residential, Open Space, School, Church, or Public Building</td>
<td>U1, U2</td>
</tr>
</tbody>
</table>

Commercial

| Local Street | 60            | 40-44.52 (parking options) | 2,000               | 290             | Commercial, Open Space, School, Church, or Public Building | U2, U5(a), U6(a) |

Industrial

| Local Street | 64            | 44                      | 2,000               | 290             | Industrial | U2, U5(a), U6(a) |

Collector

| Two Lane Sub-Collector | 54            | 44                      | 2,000               | 450             | Residential, Commercial, Open Space, School, Church, or Public Building | U2, U3, U5(a), U6(a) |

| Two Lane Collector | 60-70          | 36-46                  | 6,500               | 450             | Residential, Commercial, Open Space, School, Church, or Public Building | U2, U3, U5(a), U6(a) |

| Two Lane Collector w/ Two Way Left-turn | 78            | 54                      | 13,000              | 380-620         | Residential, Commercial, Open Space, School, Church, or Public Building, Urban Village, Pedestrian-Oriented Retail | U2, U3, U5(a), U6(a) |

| Two Lane Industrial Collector | 80            | 60                      | 6,500               | 450             | Industrial | U2, U3, U5(a), U6(a) |

| Four Lane Collector w/ Two Way Left-turn | 110-122       | 82                      | 25,000              | 380-620         | Residential, Commercial, Open Space, School, Church, or Public Building, Urban Village, Pedestrian-Oriented Retail | U2, U3, U5(a), U6(a) |

Major Streets

| Four Lane Urban Major | 118-130       | 90                      | 35,000              | 660-1,090       | Residential, Commercial, Open Space, School, Church, or Public Building | U2, U3, U5(a), U6(a) |

| Four Lane Major | 120            | 76                      | 35,000              | 1,850           | Residential, Commercial, Open Space, School, Church, or Public Building, Industrial | U4(b) |

| Six Lane Urban Major | 140-152       | 112                    | 45,000              | 660-1,090       | Residential, Commercial, Open Space, School, Church, or Public Building, Industrial | U4(b) |

| Four Lane Primary Arterial | 142            | 98                      | 55,000              | 1,850           | Residential, Commercial, Open Space, School, Church, or Public Building, Industrial | U4(b) |

| Rural Roads |               |                         |                      |                 |                        |                 |
| Rural Local Road | 60            | 24                      | 1,500               | 300-430         | Residential, Agriculture, Open Space | U1, U2, U4 |
| Rural Collector Road | 80-96        | 24                      | 7,500               | 300-430         | Residential, Agriculture, Open Space | U1, U2, U4 |

Width has provisions to be either increased or decreased depending on the length of the block and/or if there is a single access point.
PURPOSE:
The intent of the master plan was to provide a consolidated and more precise plan for downtown Sarasota to help guide and implement various planning initiatives that preceded this document. The study originated with the City’s need to update its Community Redevelopment Area (also known as the Downtown Sarasota Master Plan for Tomorrow).

PROCESS:
The master plan was developed using a design charrette with the public to build upon previous planning initiatives and to identify new issues that had emerged. The design charrette took place over eight days and facilitated participation by all stakeholders.

PRODUCT:
The final document was a 20-year plan that provided guidance, identified specific projects, and made recommendations for implementation. Although the master plan was developed as primarily a land planning document, it provided design standards and recommendations for roadways within the downtown. The following functional thoroughfare types are used to describe streets within Sarasota:

- **Boulevards (BV)** – free movement thoroughfare traversing urbanized areas with on-street parking, sidewalks, and parkways
- **Avenues (AV)** – free movement thoroughfare connecting civic locations within urbanized areas
- **Streets (ST)** – slow moving thoroughfares suitable for residential and commercial areas with raised curbs, sidewalks, street trees, and on-street parking
- **Commercial Streets (CS)** – slow moving thoroughfares suitable for Center and Core Zones providing frontage to higher mixed use buildings
- **Alleys (AL)** – narrow access way in the rear of more urban buildings
- **Lane (LA)** – vehicular access way located in the rear of rural lots, providing access to parking
- **Path (PT)** – a pedestrian way connecting with sidewalk networks
- **Passage (PS)** – a pedestrian connector between buildings

In addition to the functional thoroughfare types described above, roadways were also classified as “A” or “B” streets in an attempt to define a system of walkable streets. “A” streets have a pedestrian emphasis and “B” streets have an automobile emphasis.

INNOVATIVE IDEAS:
The study recommends broadening the traditional method used to determine level of service to reflect the available transportation service provided by all modes of transportation based on the new road configurations. The study offers two additional roadway classifications for streets, which are referred to as “A” and “B” streets such that the roadways are evaluated on their walkability rather than their automobile level of service classification. “A” streets have a pedestrian emphasis and are evaluated based on their walkability rather than an automobile level of service, while “B” streets have an automobile emphasis. As a result, the design requirements along “A” streets become extremely important as these streets must encourage and facilitate the use of alternative modes of transportation.

<table>
<thead>
<tr>
<th>STREET TYPE</th>
<th>DESIGN SPEED</th>
<th>RIGHT-OF-WAY WIDTH</th>
<th>PAVEMENT WIDTH</th>
<th>TRAFFIC FLOW</th>
<th>ON-STREET PARKING</th>
<th>SIDEWALK WIDTH / PLACEMENT</th>
<th>BIKEWAY TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lane (LA-20)</td>
<td>15 mph</td>
<td>20 ft.</td>
<td>8 ft.</td>
<td>One Way</td>
<td>None</td>
<td>None</td>
<td>Route</td>
</tr>
<tr>
<td>Alley (AV-20)</td>
<td>20 mph</td>
<td>20 ft.</td>
<td>20 ft.</td>
<td>Two Ways</td>
<td>5 ft.</td>
<td>None</td>
<td>Route</td>
</tr>
<tr>
<td>Residential Street (ST-20-20)</td>
<td>20 mph</td>
<td>20 ft.</td>
<td>20 ft.</td>
<td>Two Ways</td>
<td>None</td>
<td>5 ft.</td>
<td>None</td>
</tr>
<tr>
<td>Residential Street (ST-40-40)</td>
<td>15 mph</td>
<td>40 ft.</td>
<td>24 ft.</td>
<td>Two Ways</td>
<td>One side</td>
<td>5 ft.</td>
<td>None</td>
</tr>
<tr>
<td>Residential Street (ST-50-40)</td>
<td>15 mph</td>
<td>50 ft.</td>
<td>24 ft.</td>
<td>Two Ways</td>
<td>Both sides, eliminating</td>
<td>5 ft.</td>
<td>None</td>
</tr>
<tr>
<td>Residential Street (ST-50-24)</td>
<td>20 mph</td>
<td>50 ft.</td>
<td>24 ft.</td>
<td>Two Ways</td>
<td>One side</td>
<td>5 ft.</td>
<td>None</td>
</tr>
<tr>
<td>Residential Street (ST-40-0)</td>
<td>30 mph</td>
<td>50 ft.</td>
<td>27 ft.</td>
<td>Two Ways</td>
<td>One side</td>
<td>10 ft.</td>
<td>None</td>
</tr>
<tr>
<td>Residential Street (ST-60-34)</td>
<td>30 mph</td>
<td>58 ft.</td>
<td>34 ft.</td>
<td>Two Ways</td>
<td>Both sides</td>
<td>10 ft.</td>
<td>None</td>
</tr>
<tr>
<td>Commercial Street (CS-60-40)</td>
<td>20 mph</td>
<td>60 ft.</td>
<td>42 ft.</td>
<td>Two Ways</td>
<td>One side</td>
<td>10 ft.</td>
<td>None</td>
</tr>
<tr>
<td>Commercial Street (CS-60-50)</td>
<td>20 mph</td>
<td>60 ft.</td>
<td>50 ft.</td>
<td>Two Ways</td>
<td>Both sides</td>
<td>10 ft.</td>
<td>None</td>
</tr>
<tr>
<td>Commercial Street (CS-80-60)</td>
<td>30 mph</td>
<td>80 ft.</td>
<td>60 ft.</td>
<td>Two Ways</td>
<td>A 4-lane</td>
<td>10 ft.</td>
<td>None</td>
</tr>
<tr>
<td>Commercial Avenue (AV-60-24)</td>
<td>30 mph</td>
<td>60 ft.</td>
<td>17 ft. and 17 ft.</td>
<td>One Way</td>
<td>Each side</td>
<td>10 ft.</td>
<td>None</td>
</tr>
<tr>
<td>Commercial Boulevard (BV-80-50)</td>
<td>20 mph</td>
<td>84 ft.</td>
<td>18 ft. and 18 ft.</td>
<td>One Way</td>
<td>Each side</td>
<td>10 ft.</td>
<td>None</td>
</tr>
<tr>
<td>Commercial Boulevard (BV-100-60)</td>
<td>35 mph</td>
<td>100 ft.</td>
<td>30 ft. and 30 ft.</td>
<td>One Way</td>
<td>Each side</td>
<td>10 ft.</td>
<td>None</td>
</tr>
</tbody>
</table>
The project team reviewed multimodal street design standards and best management practices that have been successfully implemented in other jurisdictions throughout the country. The eight studies reviewed provide a snapshot of two counties and six cities that have refined and reclassified their street and thoroughfare networks. The documents range from public works manuals to comprehensive plans to transportation master plans. The Dallas and Portland studies included the transportation element of their respective comprehensive plans. These studies contained detailed street typologies and design characteristics of each. Alachua County, Arlington County, Charlotte, Denver, and Sarasota were transportation studies that contain street typologies and their respective design guidelines. The recommendations from these studies were later incorporated into their public works manuals. The San Diego study was their public works manual that contains detailed typical sections and design elements for each roadway type. The common themes of the studies are presented in the following paragraphs.

Roadway Classification:
Alachua County, Arlington County, Dallas, Denver, and San Diego maintained the conventional functional classifications of arterials, collectors, and local streets for their roadway types with some additions or modifications based on the urban, suburban, and rural characteristics of their jurisdictions. Charlotte and Sarasota adopted traditional roadway nomenclature of boulevards, avenues, streets, and alleys while defining their relationship with the conventional functional classifications. Portland developed new roadway types that are different from the conventional and the traditional nomenclature. Their roadway types are based on the mobility and land access functions of roadways within the city.

Land Use Classification:
All of the studies were based on the premise that street decisions and land use decisions should be mutually reinforcing to create effective synergy between streets and land uses. The roadway types that were developed were then overlaid on the land use classifications to determine the characteristics and design elements of the roadways. Charlotte, Dallas, Denver, and San Diego developed their land use types based on the various land use categories from their comprehensive plans such as residential, commercial, industrial, etc. Alachua and Arlington counties used land use classifications that were based on broader development zones versus individual land uses. Some examples include urban activity centers, village centers, neighborhood centers, urban center retail, urban center mixed-use, etc. Portland and Sarasota’s classifications were not strictly land use, but land use based street types. For example, the classification of community main streets in Portland makes certain assumptions about the intrinsic land use character and the roadway character. For example, the classification of pedestrian oriented street makes the assumption that certain streets are required to be friendlier to pedestrians based on the land use character of the roadway. The table on page 31 illustrates the land use classifications included in each of the eight studies.

Street Typology:
Each of the eight jurisdictions developed their street typologies based on the land use context through which the roadway segment passes. The underlying philosophy of each of these studies is that the same roadway when passing through different land uses should take on different characteristics based on the adjacent land use. For example, a roadway segment that passes through a town center should be different from another segment that passes through an industrial district even though they are segments of the same roadway. This concept is illustrated with the following diagram in the Dallas plan where a roadway passing through various land use zones varies in character based on the quality of the zone.

In the diagram, the land use classification is overlaid on the street typology. For example, a roadway segment passing through a commercial corridor is designed differently than a roadway segment passing through a residential neighborhood.

Design Elements:
Design elements are one of the most important considerations of street design. The selection of design elements depends on the users of a roadway. For example, the design elements favored by pedestrians include street furniture, landscaping, textures, walking surface, etc., while those favored by transit users include accessible bus stops, bus shelters, transit priority lanes, etc. Alachua County, Charlotte, Denver, and San Diego provide a list of design elements that are recommended and optional for each of the street types.
While these planning efforts were happening around the country, the Institute of Transportation Engineers and Congress for New Urbanism were working on developing context-sensitive street design standards for urban thoroughfares. A design guidebook titled Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities has been drafted and is currently in the adoption process. Context Sensitive Solutions (CSS) is a collaborative, multidisciplinary, and holistic approach to transportation planning that results in the development of transportation projects that serve all users and are compatible with the surroundings and environment. It is a set of innovative and inclusive approaches that integrate and balance community, aesthetic, historic, and environmental values along with transportation safety, maintenance and performance goals. The guidebook offers guidance on selecting appropriate thoroughfare types and corresponding design parameters and criteria for selecting of design elements for various land use contexts. The CSS process places a huge emphasis on pedestrian oriented planning and design within urban areas.

The study deviates from the conventional functional classification of arterials, collectors, and local roads and adopts the more traditional thoroughfare types of boulevards, avenues, and streets. The guidebook provides design characteristics for each of these thoroughfare types along with recommended roadway design elements. This guidebook will be very valuable while developing street sections for Miami-Dade County, especially within the urban areas.

<table>
<thead>
<tr>
<th>Land Use Classifications</th>
<th>Roadway Classifications:</th>
<th>Land Use Classifications</th>
<th>Land Use Classifications:</th>
<th>Land Use Classifications:</th>
<th>Land Use Classifications:</th>
<th>Land Use Classifications:</th>
<th>Land Use Classifications:</th>
<th>Land Use Classifications:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban Activity Center</td>
<td>• Urban Center Retail</td>
<td>• Residential Street</td>
<td>• Residential Streets</td>
<td>• Urban Throughways</td>
<td>• Urban Residential</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial</td>
<td>• Urban Center Mixed-Use</td>
<td>• Commercial Street</td>
<td>• Main Streets</td>
<td>• Urban Commercial</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Village Center</td>
<td>• Neighborhood Primary</td>
<td>• Commercial Office</td>
<td>• Mixed-Use Streets</td>
<td>• Urban Residential</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighborhood Center</td>
<td>• Neighborhood Mixed-Use</td>
<td>• Industrial Street</td>
<td>• Downtown Street</td>
<td>• Urban Industrial</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighborhoods</td>
<td>• Rural Cluster</td>
<td>• Mixed Use Street</td>
<td>• Industrial Streets</td>
<td>• Urban Residential</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>• Residential Density</td>
<td>• Transit Street</td>
<td>• Landmark Streets</td>
<td>• Urban Residential</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural</td>
<td>• Low Density Residential</td>
<td>• Main Street</td>
<td>• One-way Complets</td>
<td>• Urban Residential</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Thoroughfare Types

<table>
<thead>
<tr>
<th>Functional Classification</th>
<th>Freeway/Interstate</th>
<th>Rural-Area Highway</th>
<th>Arterial</th>
<th>Collector</th>
<th>Local</th>
<th>Gathering Places</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeway/Interstate</td>
<td>F2</td>
<td>F2</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Rural-Area Highway</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Arterial</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Collector</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Local</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

### Land Use Classifications

| Urban Center Retail      | Residential Street  | • Urban Center Retail |
| Urban Center Mixed-Use   | Commercial Office   | • Urban Center Mixed-Use |
| Neighborhood Primary     | Industrial Street   | • Neighborhood Primary |
| Neighborhood Mixed-Use   | Commercial Street   | • Neighborhood Mixed-Use |
| Rural Cluster            | Transit Street      | • Rural Cluster      |
| Residential Density      | Main Street         | • Residential Density |
| Low Density Residential  | Gathering Places    | • Low Density Residential |
| Regional Connector       | Landmark Streets    | • Regional Connector |
| Urban Center Local Street| One-way Complets    | • Urban Center Local Street |
| Neighborhood Principal Streets | • One-way Complets |
| Neighborhood Minor Streets| • Neighborhood Minor Streets | • Neighborhood Minor Streets |
APPLICABILITY TO MIAMI-DADE COUNTY

With an understanding of the street design efforts from across the country and the ongoing planning efforts within Miami-Dade County, the County has the opportunity to embrace new design philosophies that integrate both transportation planning/engineering and land use planning principles to develop street designs that accommodate all users of a roadway. By creating a context for both design criteria and land use interaction for streets, cities like Charlotte and Denver have developed a process in which street improvement projects must consider how people move and interact within the street space and not just how vehicles travel between points in the network. Redesigning Miami-Dade’s streets with the combined philosophies of multimodalism and context-sensitive design can lead to streets:

- that function well within the context of adjacent land uses;
- that serve multiple functions;
- that serve users of all modes of transportation;
- that support a high mobility index, not just high level-of-service for vehicles;
- that are walkable and livable; and
- that are complete in their form and function.

One of the major tasks in developing street sections for Miami-Dade County will include identification of roadway types that are reflective of the land use patterns and the appropriate roadway elements for each roadway type. Miami-Dade County currently uses the roadway classification system of arterials, collectors, and local roads. Continuing the current functional classifications provides consistency with current transportation planning efforts and standard operating procedures related to funding issues. By additionally overlaying a context-based set of street typologies, Miami-Dade County will be able to program the street improvements in a fashion that will allow them to prioritize design elements in relation to adjacent land uses and their functional classes.

Recommended Planning Approach:
The Charlotte plan recommends a six-step planning approach to roadway design for primarily planning and designing major streets. According to the six-step approach, the classification and ultimate design of any street should reflect both the existing and anticipated future land use contexts. The transportation assessment should consider both the existing and anticipated future conditions of the transportation network adjacent to or affecting the street to be designed. Once the land use and transportation contexts are clearly defined and understood from an area-wide perspective, the design team should identify any deficiencies that need to be addressed by the new or modified street. The information from the previous steps is used to define objectives for the street project, which will form the basis for the street classification and design. This is followed by recommending the appropriate street typology and the initial cross section based on the previous steps. If the initial preferred cross-section can be applied, then it becomes the recommended cross-section. In many cases, though, the initial cross-section will need to be refined to better address the land use and transportation objectives, given the constraints identified in Step 5. In that case, these multiple alternatives should be presented to the stakeholders and the final recommended cross-section identified. This six-step approach is also applicable to Miami-Dade County while selecting street typologies and their respective cross sections.

Anticipated Product:
The update of the Miami-Dade County Typical Street Section will focus on developing and refining a street design typology as well the different typical sections for each street type. In addition, the recommended and optional design elements will be prescribed for each of the street types. A planning approach for designing a new roadway or modifying an existing one will also be developed in tandem with the typical street sections.
EXISTING CROSS SECTIONS
EXISTING TYPICALS

NORTH MIAMI AVE.
(from 79th St. North to Memorial Hwy. / Griffing Blvd.)

Zoned ROW = 100'

Comments:
1. Sidewalks too close to vehicle lanes.
2. No provisions for bicycling
3. Physical obstructions in the sidewalk.
EXISTING TYPICALS

NE 2ND AVE / GRIFFING BLVD. / MEMORIAL HWY. NW 2 AVE.
(from NE 6 Ave. North to Golden Glades Dr.)

Zoned ROW = 70'

Comments:
1. Excellent shade/landscaping.
2. No sidewalks.
EXISTING TYPICALS

STATE ROAD 7
(from Golden Glades Dr. North to Canal)

Zoned ROW = 100'

Comments:
1. No buffer between pedestrians and vehicle lanes.
2. Parallel access lane.
3. Inadequate landscaping on median.
EXISTING TYPICALS

NW 7TH AVE.
(from Golden Glades Dr. extended North to County Line)

Zoned ROW = 70'

Comments:
1. Sidewalks too close to edge of the right-of-way line.
2. Physical obstacles in the sidewalk.
3. Landscaping unkempt.
EXISTING TYPICALS

Bad Streets

WEST SIDE OF NW 27TH AVE.
(from 36TH ST, SOUTH TO CENTER LINE OF 20TH ST.)

Comments:
1. Sidewalks too close to vehicle lanes.
2. Lack of pedestrian amenities.
**EXISTING TYPICALS**

**Bad Streets**

**NW 25TH ST**  
(from NW 72 AVE. TO NW 107 AVE.)

**Comments:**  
1. Sidewalks too close to vehicle lanes.  
2. No bicycling accommodations.
**EXISTING TYPICALS**

*Bad Streets*

**STATE ROAD 7**
(between County Line & NW 199th St.)

Zoned ROW = 100'

**Comments:**
1. Sidewalks too close to vehicle lanes.
2. No bicycling accommodations.
3. No transit provisions.
EXISTING TYPICALS

Good Streets

MIRACLE MILE
(East of LeJune Road)

Comments:
1. Provision of on-street parking and sidewalk furnishings to buffer pedestrians.
2. Pleasant landscaping along median.
3. Lower speeds.
4. Building facades well articulated.
EXISTING TYPICALS

Good Streets

OLD CUTLER ROAD
(North of SW 80th St)

Zoned ROW = 100'

Comments:
1. Excellent shade/landscaping.
2. Multi-use paths accommodate pedestrians and bicyclists.
3. Scenic experience.
EXISTING TYPICALS

Bad Streets

NW 119TH ST. / GRATIGNY PARKWAY
(East of NW 32nd Ave.)

Comments:
1. No sidewalks.
2. No bicycle accommodations.
MAIN STREET, DOWNTOWN MIAMI LAKES
(West of on-street parking)

Comments:
1. On-street parking provides buffer for pedestrians.
2. Building facade and pedestrian amenities compliments the street.
EXISTING TYPICALS

79TH ST
(East of N-S Expressway)

Comments:
1. Sidewalks too close to vehicular lanes.
2. Poorly maintained sidewalk surface with obstacles to pedestrian movement.
3. Poor street lighting.
EXISTING TYPICALS

Bad Streets

81st ST
(East of N-S Expressway)

Comments:
1. Sidewalks too close to vehicular lanes.
2. On-street parking serves as buffer to pedestrians.
APPENDIX C

SECTION 33-133
PROPOSED ZONED RIGHT-OF-WAY ORDINANCE
ORDINANCE NO.

ORDINANCE PERTAINING TO ZONING; AMENDING
SECTION 33-133 OF THE CODE OF MIAMI-DADE COUNTY,
FLORIDA PERTAINING TO RIGHT-OF-WAY PLAN AND
MINIMUM WIDTH OF STREETS AND WAYS; PROVIDING
SEVERABILITY, INCLUSION IN THE CODE AND AN
EFFECTIVE DATE.

WHEREAS, the roadway network in Miami-Dade County is comprised of a hierarchical grid system of streets comprised primarily of half-section and section line roadways. To preserve the roadway network and its associated right-of-ways, Miami-Dade County adopted the “Right-of-way plan and minimum width of streets and ways”, or also known as the zoned right-of-way. The adopted zoned right-of-ways were initially put in place in the 1950s and have been incrementally amended to date; and

WHEREAS, the County’s planning direction is shifting toward a focus on pedestrian-oriented urban centers with an emphasis on multimodal transportation. The current zoned right-of-ways do not fully represent the spatial demands of multimodal transportation facilities; and

WHEREAS, the proposed zoned right-of-ways are based on the recommendations from the Miami-Dade County Roadway Typical Section and Zoned Right of Way Update Study. The Study incorporates the concept of context zones and land uses overlaid on roadway types to identify the appropriate roadway designation for streets within the County and the corresponding zoned rights-of-way.

BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS
OF MIAMI-DADE COUNTY, FLORIDA:

Section 1. Section 33-133 of the Code of Miami-Dade County, Florida is hereby amended as follows:

Sec. 33-133. Right-of-way plan and minimum width of streets and ways.

The minimum right-of-way widths for streets, roads and public ways for the unincorporated area of the County shall be as follows:

(A) NORTH AND SOUTH HIGHWAYS (Avenues).

<table>
<thead>
<tr>
<th>Preferred</th>
<th>Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>North-South East Highway (Avenues)</td>
<td></td>
</tr>
<tr>
<td>(1) North Miami Avenue from 79 St. to North to Memorial Hwy. (Griffing Blvd.) (unincorporated areas)</td>
<td>1060</td>
</tr>
<tr>
<td>From State Road #9 to Miami-Dade County North Line</td>
<td>1060</td>
</tr>
<tr>
<td>(2) North Miami Avenue from Memorial Hwy. (Griffing Blvd.) to State Road #9 (unincorporated areas)</td>
<td>1060</td>
</tr>
<tr>
<td>NE 2 Ave. from North Limits of Miami Shores North to State Rd. #9 (unincorporated area)</td>
<td>90</td>
</tr>
<tr>
<td>(3) W. Dixie Hwy. from NE 2 Ave. to 174 St. (unincorporated area), except—See No. 5 below</td>
<td>290</td>
</tr>
<tr>
<td>(4) W. Dixie Hwy. from NE 119 St. to NE 121 St.</td>
<td>290</td>
</tr>
<tr>
<td>(5) W. Dixie Hwy. from NE 174 St. North to County Line (unincorporated areas)</td>
<td>460</td>
</tr>
<tr>
<td>NE 6 Ave. North Limits of Miami Shores North to Griffing Blvd.</td>
<td>30</td>
</tr>
<tr>
<td>(6) NE 2 Ave. (Griffing Blvd.) (Memorial Hwy. NW 2 Ave.) from NE 6 Ave. North to Golden Glades Dr</td>
<td>30</td>
</tr>
<tr>
<td>(7) (a) State Rd. #5 from NE 36 St. to South limits of North Miami Beach (unincorporated areas)</td>
<td>1060</td>
</tr>
<tr>
<td>(b) State Rd. #5 from North limits of North Miami Beach to North County Line (unincorporated areas)</td>
<td>116</td>
</tr>
<tr>
<td>(c) State Rd. #5 from South limits of South Miami, South to Tennessee Rd. (unincorporated areas)</td>
<td>116</td>
</tr>
<tr>
<td>(8) State Rd. #5 from South limits of Florida City to South County Line</td>
<td>100 to 350</td>
</tr>
</tbody>
</table>

Words stricken through and/or [[double bracketed]] shall be deleted. Words underscored and/or >>double arrowed<< constitute the amendment proposed. Remaining provisions are now in effect and remain unchanged.
ZONED ROW ORDNANCE

Agenda Item No. 11

(See State Dept. of Transportation r/w Map Project #2339-5240)

11. State Rd. 65 from Tennessee Rd. in Sec. 8-57-39 South to the North
limits of Homestead

12. Ingraham Hwy. (State Rd. 427) from Longview Rd. to Cape Sable

13. Ingraham Hwy. (SW 217 Ave.) from Mowry Dr. South to State Rd.

14. Longview Dr. from Mowry Dr. South to State Rd. 427

15. Old Cutler Rd. through U.S. Dept. of Agriculture property in Sec. 24-
55-40 to Chapman Field at Mitchell Dr. and Old Cutler Rd. (Ingraham
Hwy.) from Coral Reef Dr. South to Silver Palm Dr

16. Card Sound Road from U.S. 81 (in Sec. 30, Twp. 37S, Rge. 39E going
Slyly to the Monroe County Line (being the East line of Sec. 13, Twp.
39S, Rge. 39E). Said right-of-way traversing the following Sections: 30
and 31, Twp. 37S, Rge. 39E; 6, 8, 16, 17, 22, 27, 34 and 35, Twp.
38S, Rge. 39E; 2, 11, 12 and 13, Twp. 39S, Rge. 39E). Said right-of-
way to be measured 55’ each side from the centerline of existing
pavement

17. State Rd. M A Bakers Haulover North to County Line

18. Rickenbacker Causeway Rd. from South end of Crandon Park South to
Cape Florida Lighthouse

19. Bayshore Dr. (Biscayne Bay) from Cape Florida Lighthouse North to
waterway and then East to North and South Highway

20. Reserve*

*Editor’s note: Ord. No. 65-27, § 1, enacted April 20, 1965, repealed items 20. The number has been
reserved to maintain continuity.

21. Seaboard Turnpike from Galloway Road to Krome Avenue

On portions of Sections 28, 32 and 33 in Township 54 South, Range
40 East, Sections 5, 7, 8 and 18 in Township 55 South, Range 40 East,
Sections 13, 23, 24, 26, 27, 33 and 34 in Township 55 South, Range 39
East, and Sections 4, 5, 7, 8, and 18 in Township 56 South, Range 39
East, bounded on the northwesterly side of the Seaboard Airline
Railway southeasterly right-of-way line and on the southeasterly side
by a line parallel to the Seaboard Airline Railway southeasterly right-
of-way line, and one hundred twenty-five (125) feet southeasterly there

Words stricken through and/or [[double bracketed]] shall be deleted. Words underscored and/or
>>>double arrowed<<< constitute the amendment proposed. Remaining provisions are now in effect and
remain unchanged.

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Agenda Item No. 4

from as measured on a perpendicular from the southeasterly Seaboard
Airline Railway right-of-way line.

22. NE 15 Ave from NE 151 St to NE 167 St

23. NE 15 Ave from NE 159 St to Miami Gardens Drive

North-South East Highways (Avenues)

23k.4 State Rd. No. 7 Golden Glades Dr. north to County Line

23k.23 NW 7th Ave. (State Rd. No. 7) from NW 79th St. to south
limits of North Miami and from north limits of North Miami to
Golden Glades Dr. Cleared

24k.26 NW 7th Ave. from Golden Glades Dr. extended north to
County Line

25k.27 State Hwy. No. 9 from 27th Ave. north to north county Line

26k.28 NW 12th Ave.–Extension from NW 71st St. north to south
limits of North Miami and north limits of North Miami to Opa
Locka Blvd

27k.29 NW 7th Ave.–From NW 71st St. north to Opa Locka Blvd

28k.30 NW 22nd Ave.–From NW 38th St., north to Miami-Dade

29k.31 NW 27th Ave.–From NW 36th St. to Miami-Dade County

30k.32 West side of NW 27th Ave.–From 36th St., south to center
line of 26th St.

31k.33 NW 37th Ave.–From NW 28th St. to County Line

--(b) NW 37th Ave. - From NW North River Dr. to NW 79th St

--(b) NW 47th Ave. (Bougainvillea Ave.)–From Gratigny

Road to Opa Locka Blvd

--(b) NW 47th Ave. from Miami Gardens Dr. to Miami-Dade

Broward County Line

33k.35 Le Jeune Road from the north Miami-Dade County Line to the
north boundary of the City of Opa Locka (NW 151st Street)

Le Jeune Road from NW 36th Street to NW 20th Street

Le Jeune Road from Tamiami Trail to 75 feet south of SW

---

Words stricken through and/or [[double bracketed]] shall be deleted. Words underscored and/or
>>>double arrowed<<< constitute the amendment proposed. Remaining provisions are now in effect and
remain unchanged.
ZONED ROW ORDINANCE

Typical Roadway Section and Zoned Right-of-Way Update Study

Agenda Item No. 6

Page 5

16th Terrace (unincorporated)

a) Red Rd. (State Rd. No. 819) from NW 138th Street SW

7th to 8th, north to NW 183rd Street (unincorporated area)

Said 100 feet right-of-way to be measured equidistant from the section lines except in that portion from NW 183rd Street to the North County Line where the right-of-way shall be established as follows:

East 100 feet of the west 130 feet of Section 6, Township 52 South, Range 41 East; east 100 feet of the west 130 feet of the south 1256 feet of Section 31, Township 51 South, Range 41 East; the east 100 feet of west 145 feet of Section 31, Township 51 South, Range 41 East, less the south 1265 feet thereof.

b) Red Rd. (State Rd. No. 819) from NW 103rd Street, north to NW 118th Street (unincorporated area)

c) Red Rd. (State Rd. No. 819) from NW 74th Street, north to NW 103rd Street (unincorporated area)

(34a.3) (d) Red Rd. (State Rd. No. 819) from Old Cutler Road north to SW 74th Street (unincorporated area)

(34b.2) (e) SW 62nd Ave. from Coral Way (SW 24th St.) south to SW 30th St. (unincorporated area)

(35q.17) (f) Ludlam Road from International Airport South to State Rd. No. 5 (unincorporated area)

(36a.3) (g) Ludlam Road from Mitchell Road south to Coral Reef Dr.

(37a.9) (h) Ludlam Road from Mitchell Road north to 160 feet south of North Kendall Drive.

(b) Ludlam Road from 160 feet south of North Kendall Drive to 150 feet north of SW 85th Street.

The 80 feet to be measured 40 feet on each side of the following centerline: Beginning at a point on the W line of northwest quarter of Section 1-55-40, said point being 200 feet S of the NW corner of said Section 1 and being the point of curvature of a circular curve; thence run northerly and northeasterly along the arc of a circular curve to the

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Word struck through and/or [double bracketed] shall be deleted. Words underscored and/or [double underscored] constitute the amendment proposed. Remaining provisions are now in effect and remain unchanged.

Page 6

Agenda Item No. 7

right, said curve being tangent to the West line of the northwest quarter of said Section 1 and having a radius of 818.51 feet through a central angle of 54 degrees 01 minutes 53 seconds for an arc distance of 771.88 feet to the point of tangency; thence run northeasterly along a line tangent to the last described curve for a distance of 100 feet to the point of curvature of a circular curve to the left; thence run northeasterly and northerly along the arc of said circular curve to the left having a radius of 818.51 feet through a central angle of 53 degrees 48 minutes 33 seconds for an arc distance of 768.70 feet to the point of tangency with the E line of the southeast quarter of Section 35-54-40, said point of tangency being 1178.54 feet N of the SE corner of said Section 35 and being the end of the centerline herein described...

(46a.17) (a) Millam Road (NW 72nd Avenue) from Tamiami Canal

(Miami city limits) to NW 74th Street (Town of Medley limits)

(Ord. No. 65-73, § 1, 9-0-63)

(b) Millam Road (NW 72nd Avenue) from NW 74th St. to Oleckneer Road

(c) Millam Road (NW 72nd Avenue) from NW 122nd St. to 66th St.

(d) Millam Road (From Coral Way south to Bird Rd. 62 112 feet on the west side of section line, 62112 feet on east side of section line)

(e) Palmetto Rd. From Bird Rd. south to Kendall Rd.-35 feet on the west side of the section line and 90 feet on the east side of the section line.

From Kendall Road to SW 98th Street, 40 feet on either side of the following described center line: Beginning at the NW corner of the northwest quarter of

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Word struck through and/or [double bracketed] shall be deleted. Words underscored and/or [double underscored] constitute the amendment proposed. Remaining provisions are now in effect and remain unchanged.
<table>
<thead>
<tr>
<th>Agenda Item No.</th>
<th>Page 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 2-55-40, thence, run South along the West line of said northwest quarter of Section 2 for 2250 feet, thence deflecting 12 degrees 20 minutes to the left run southeasterly along a straight line for 1050 feet more or less to the point of intersection with the S line of the northwest quarter, northwest quarter, southwest quarter, of Section 2, said point being the end of the center line herein described.</td>
<td>46/125</td>
</tr>
<tr>
<td>NW 112 Avenue from NW 106th Street to NW 122 Street, Miami-Dade County, Florida, provided continuation of the existing use, or substantially similar future use, of the lands abutting the right-of-way on the effective date of this ordinance (June 28, 2002). Right-of-way plan and minimum width requirements for this half-section line roadway shall revert to 70 feet after a change in use or a determination by the Director that the current use has been abandoned.</td>
<td>46/125</td>
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<th>Agenda Item No.</th>
<th>Page 8</th>
</tr>
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<tbody>
<tr>
<td>Said 80-foot right-of-way shall be measured westward of the westward line of the 140 foot wide Black Creek Canal (C-1W) right-of-way as constructed in the SE 1/4 of said Section 8, Township 55 South, Range 39 East and shall transition northerly through said SE 1/4 of said Section 8 to meet the existing alignment for SW 157th Avenue at theoretical SW 112th Street, on the north side of said Black Creek Canal (C-1W). Said transition shall meet with the approval of the Directors of the Departments of Planning and Zoning and Public Works.</td>
<td>46/125</td>
</tr>
<tr>
<td>SW 157 Avenue from SW 120 Street to SW 136 Street</td>
<td>46/125</td>
</tr>
<tr>
<td>Said 80-foot right-of-way shall be measured westward of the westward line of the 150 foot wide Black Creek Canal (C-1W) right-of-way as constructed across Section 17, Township 55 South, Range 39 East.</td>
<td>46/125</td>
</tr>
<tr>
<td>Krome Avenue from north limits of Homestead north to intersection of Krome Avenue and S.A. right-of-way</td>
<td>125</td>
</tr>
</tbody>
</table>

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### ZONED ROW ORDINANCE

**Typical Roadway Section and Zoned Right-of-Way Update Study**

<table>
<thead>
<tr>
<th>Agenda Item No.</th>
<th>Page</th>
</tr>
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<tr>
<td>(b) Krome Avenue</td>
<td>900</td>
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</table>

**Krome Avenue (177 Avenue) [300-foot right-of-way]:** The 300-foot right-of-way as shown on the State of Florida right-of-way map for Krome Avenue as recorded in Plat Book 83 at page 22 of the Public Records of Miami-Dade County, Florida.

- (c) Krome Ave. from US 1 to SW 296th St. | 209 |

**480(31) SW 192 Avenue (Tower Road) from Coconut Palm Drive (SW 248 Street) to Palm Drive (SW 344 Street) | 486,225**

The east 43 feet of the west 112 of each of the following sections:

- Sections 26 and 35 of Township 56 South, Range 38 East
- Sections 2, 11, 14, and 23 of Township 57 South, Range 38 East
- Sections 2, 11, 14, 23 of Township 57 South, Range 38 East

1. **SW 27th Ave., from US No. 1 to Bayshore Dr. | 52**

2. **(a) SW 97th Ave., from SW 40th St. to SW 36th St. | 92**
   - (b) SW 97th Ave., from SW 40th St. to SW 36th St. | 92
   - (c) NW 97th Ave., from NW 41st St. to NW 35th St. | 120
   - (d) NW 97th Ave., from NW 38th St. to NW 90th St. | 120
   - (e) NW 97th Ave. from NW 138th St. to NW 131st St. | 80

3. **W 24th Ave., from W 52nd St. to W 76th St. | 110**

4. **(a) NW 107th Ave., from Okerechee Rd. to NW 138th St. | 110**
   - (b) NW 107th Ave., from NW 138th St. to NW 170th St. | 90
   - (c) NW 107th Ave., from NW 41st St. to NW 106th St. | 109
   - (d) NW 107th Ave., from NW 21st St. to NW 41st St. | 113

5. **(a) NW 62nd Ave., from NW 150th St. to NW 131st St. | 92**

6. **NW 127th Ave., from SW 80th St. to SW 25th St. | 109**

7. **SW 87th Ave., from SW 168th St. to SW 216th St. | 120**

8. **(a) SW 157th Ave., from SW 140th St. to SW 152nd St. | 120**

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1. Words struck through and/or [[double bracketed]] shall be deleted. Words underscored and/or >=double underlined<= constitute the amendment proposed. Remaining provisions are now in effect and remain unchanged.

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**Typical Roadway Section and Zoned Right-of-Way Update Study**

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<tr>
<td>(b) Krome Avenue</td>
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**Krome Avenue (177 Avenue) [300-foot right-of-way]:** The 300-foot right-of-way as shown on the State of Florida right-of-way map for Krome Avenue as recorded in Plat Book 83 at page 22 of the Public Records of Miami-Dade County, Florida.

- (c) Krome Ave. from US 1 to SW 296th St. | 209 |

**480(31) SW 192 Avenue (Tower Road) from Coconut Palm Drive (SW 248 Street) to Palm Drive (SW 344 Street) | 486,225**

The east 43 feet of the west 112 of each of the following sections:

- Sections 26 and 35 of Township 56 South, Range 38 East
- Sections 2, 11, 14, and 23 of Township 57 South, Range 38 East
- Sections 2, 11, 14, 23 of Township 57 South, Range 38 East

1. **SW 27th Ave., from US No. 1 to Bayshore Dr. | 52**

2. **(a) SW 97th Ave., from SW 40th St. to SW 36th St. | 92**
   - (b) SW 97th Ave., from SW 40th St. to SW 36th St. | 92
   - (c) NW 97th Ave., from NW 41st St. to NW 35th St. | 120
   - (d) NW 97th Ave., from NW 38th St. to NW 90th St. | 120
   - (e) NW 97th Ave. from NW 138th St. to NW 131st St. | 80

3. **W 24th Ave., from W 52nd St. to W 76th St. | 110**

4. **(a) NW 107th Ave., from Okerechee Rd. to NW 138th St. | 110**
   - (b) NW 107th Ave., from NW 138th St. to NW 170th St. | 90
   - (c) NW 107th Ave., from NW 41st St. to NW 106th St. | 109
   - (d) NW 107th Ave., from NW 21st St. to NW 41st St. | 113

5. **(a) NW 62nd Ave., from NW 150th St. to NW 131st St. | 92**

6. **NW 127th Ave., from SW 80th St. to SW 25th St. | 109**

7. **SW 87th Ave., from SW 168th St. to SW 216th St. | 120**

8. **(a) SW 157th Ave., from SW 140th St. to SW 152nd St. | 120**

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1. Words struck through and/or [[double bracketed]] shall be deleted. Words underscored and/or >=double underlined<= constitute the amendment proposed. Remaining provisions are now in effect and remain unchanged.
The centerline of this 70-foot official right-of-way shall be located along the north line of the north 95 feet of Section 31, Township 53 South, Range 40 East, for the portion between NW 107 Avenue and NW 117 Avenue.

(a) NW 25 Street from NW 117 Avenue to NW 127 Avenue
(b) NW 36 Street from 37 Avenue west to Milam Road
(c) NW 36 Street Extension and NW 41 Street, from NW 117 Avenue to NW 79 Avenue

The centerline of this 110-foot official right-of-way shall be as follows: Begin at the northwest corner of Section 28, Township 53 South, Range 40 East; thence run north 89° 55’ 01” east along the north line of the northwest 114 of Section 30 for 2631.75 feet to the northeast corner of the northwest 114 of Section 30; thence run north 89° 52’, 11” east along the north line of the northeast 114 of Section 30 for 2639.41 feet to the northeast corner of Section 30; thence run north 89° 58’, 49” east along the north line of the northwest 114 of Section 29, Township 53 South, Range 40 East for 2633.66 feet to the northeast corner of the NW 114 of Sec 29; thence run North 89° 59’, 38” east along the North line of the NE 114 of Sec 29 for 2640.78’, to the NE corner of Sec 29; thence run North 89° 51’, 57” east along the North line of the NW 114 of Sec 28, Twp. 53S, Rge. 40E for 2640.10’, to the NE corner of the NW 114 of Sec 28; then run North 89° 51’, 67” east along the North line of the NE 114 of Sec 28 for 964.04’, to the point of curvature of a circular curve to the right; thence run southeasterly along the arc of said circular curve to the right having a radius of 1999.86’, through a central angle of 30° 30’, 51” for an arc distance of 1017.14’; thence run South 59° 38’, 02” east along a line which is tangent to the previously described curve for 264.83’, to the point of curvature of a circular curve to the left; thence run southeasterly along the arc of said circular curve to the left having a radius of 1999.86’, through a central angle of 30° 00’, 00” for an arc distance of 1007’, to the point of tangency with the South line of Tract 31 in Sec 27, Twp. 53S, Rge. 40E.
ZONED ROW ORDINANCE

Agenda Item No. 14
Page 13

Extension of the Florida Turnpike, Miami-Dade County, Florida, provided continuation of the existing use, or substantially similar future use, of the lands abutting the right-of-way on the effective date of this ordinance (June 28, 2002). Right-of-way plans and minimum width requirements for this half section line roadway shall revert to 70 feet after a change in use or a determination by the Director that the current use has been abandoned.

14(13) (a) Gratiot Rd. (NW and NE 119 St.) from NW 27 Ave. East to West Dixie Highway.
   ——— (b) Gratiot Rd. West of NW of NW 27 Ave. 26/10/02

14(14) (a) NW 135 St. from West limits of Opa Locka West continuing into Atlantic Rd. as far as Okeechobee Rd.
   ——— (b) NW 138 St. (All South of Section lines). (135 St. jogs to 139 St.) West of Red Road.

14(17) Golden Glades Dr. (Sunny Isles Rd. - State Rd. 828) from State Rd. A1A West to Okeechobee Rd. (unincorporated areas)

Except from St. Rd. A1A to US #1, the same width as established on State Dept. of Transportation r/w Project #5155, State Rd. #826 as shown in Plat Book 38, Page 73, P# 44, Page 3, and as shown of Bells Vista Sub., 2nd Rev. Plat, Plat Book 50, Page 76.

14(18) (a) Miami Gardens Rd. US 61 to Red Rd. (NW 67 Ave. to NE 6th Ave.)
   ——— (b) Miami Gardens Rd. (NW 136 St.) from NE 6th Ave. to SR 91 Florida Turnpike

14(19) (a) Miami Gardens Rd. (NW 136 St.) from NE 6th Ave. to SR 91 Florida Turnpike
   ——— (b) Miami Gardens Rd. (NW 138 St.) from SR 91 Florida Turnpike to NW 27 Ave.
   ——— (c) Miami Gardens Rd. (NW 138 St.) from NW 27 Ave. to Red Rd. (NW 57 Ave.)
   ——— (d) Miami Gardens Rd. (NW 138 St.) from Red Rd. (NW 57 Ave.) to Sl Rd. 025 / Okeechobee Rd. L75
   ——— (e) Miami Gardens Rd. (NW 138 St.) from Sl Rd. 025 / Okeechobee Rd. L75 to Sl Rd. 025 / Okeechobee Rd. L13

14(20) (a) Iron Dairy Rd. between St. Rd. 89 to NE 14 Ave.

And from SW 74 Ave. to Palmetto Road (SW 77 Ave.) as previously dedicated and indicated on the amended plat of Miami Gateway Sub. (PIB 28, Pg. 4), except as modified by acquisition of right-of-way for Palmetto Bypass, as shown on Florida DOT right-of-way map recorded in PI 68, P# 7, and from Palmetto Road (SW 77 Ave.) to SW 82 Ave. as follows:

And from the northwest quarter of the northeast quarter of Section 10, Township 54 South, Range 40 East, which lies north of a line that is 125 feet south of and parallel to the base line survey as shown on the Florida State Department of Transportation right-of-way map recorded in PI 72, Pg. 85 of the Public Records of Miami-Dade County, Florida, and west of SW 82 Ave. to the County line as the same is shown on the Florida State Department of Transportation right-of-way map on file with the Miami-Dade County Public Works Department known as Section 8711, Project 6692, and Section 8712, Project 6699.

14(21) (a) Coral Way (SW 24 St.) from Red Road (SW 57 Ave.) to Snapper Creek Canal
   ——— (b) Coral Way (SW 24 St.) from SW 87 Ave. to SW 117 Ave.
Said right-of-way to be measured as follows: That portion of Sections 9 through 16 inclusive, Township 54 South, Range 39 East lying within a uniform strip of land 100 feet wide, 50 feet on each side of as measured at right angles and radially to the following described center line: Begin at the SW corner of Section 7-54-40; thence run westerly along a line parallel to the south line of Section 12-54-39 for a distance of 1144.53 feet to the point of curvature of a circular curve to the left; thence run southwesterly along the arc of said circular curve to the left having a radius of 1145.92 feet through a central angle of 40 degrees 43 minutes 44 seconds for an arc distance of 814.58 feet to a point of tangency; thence run south 49 degrees 16 minutes 16 seconds west along a line tangent to the last described curve for a distance 200 feet to the point of curvature of a circular curve to the right; thence run southwesterly along the arc of said circular curve to the right having a radius of 1145.92 feet through a central angle of 40 degrees 43 minutes 44 seconds for an arc distance of 814.58 feet to a point of tangency on the south line of Section 12-54-39, said point being 150 feet west of the SE corner of the southwest quarter of Section 12-54-39; thence run westerly along the south line of the southwest quarter of said Section 12 to the SW corner of said Section 12; thence run westerly along the south line of said Section 11 to the SW corner of said Section 11; thence run westerly along the south line of said Section 10 to the SW corner of said Section 10; thence run westerly along the south line of said Section 9 to the SW corner of said Section 9, said SW corner of said Section 9 being the end of the herein described center line.

(a) Bird Drive (SW 40 St.) from State Road No. 5 (unincorporated area) to Snapper Creek Canal
(b) Bird Drive (SW 42 St.) from a point 125 feet West of the center line of SW 125 Avenue to SW 177 Ave

Said 110 feet to be measured as follows: The south 110 feet of the west

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ZONED ROW ORDINANCE

Typical Roadway Section and Zoned Right-of-Way Update Study

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Agenda Item No. 10

Page 17

(b) Sunset Drive (SW 72 St.) from SW 118 Avenue to SW 157 Ave

(c) SW 112nd St. from SW 176th Ave. to SW 197th Ave.

(c) Zoned row ordinance

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Agenda Item No. 11

Page 18

(a) SW 312th St. from SW 176th Ave. to SW 197th Ave.

(c) Except as may be provided in Sections 33-131(A) and (B) hereof, on all section lines, one hundred and twenty-five (125) feet shall be the minimum right-of-way width, and on all other half-sections (also known as quarter-section lines), one hundred and fifty (150) feet shall be the minimum official right-of-way width. The provisions of this subsection shall not apply to those properties described in Section 33-131(A), herein with the exceptions of S.W. 136 Street from S.W. 187 Avenue to S.W. 209 Avenue; S.W. 168 Street from Levee L-31 N to S.W. 237 Avenue; S.W. 237 Avenue from S.W. 168 Street to S.W. 160 Street; Ingraham Highway (formerly S.R. 27); and that portion of N.W. 87 Avenue from N.W. 197 Terrace north to the North County Line. Furthermore the provisions of this subsection shall not apply to that portion of S.W. 122 Avenue which lies within the S.E. 114 of the S.W. 114 of Section 36, Township 54, Range 39, nor shall the provisions of this subsection apply to that portion of the South 40 feet of N.W. 106 Street which lies between N.W. 112 Avenue and N.W. 117 Avenue or that portion of N.W. 122 Avenue south of N.W. 23 Street to theoretical N.W.

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1 Words stricken through and/or [double struck] shall be deleted. Words underscored and/or >>double arrowed<< constitute the amendment proposed. Remaining provisions are now in effect and remain unchanged.
21 Terrace; nor shall the provisions of this subsection apply to that portion of S.W. 102 Avenue which lies between Black Creek Canal and SW 232 Street; nor to the portion of Red Road (57 Avenue), north of Old Cutler Road to S.W. 74 Street (unincorporated area).

(D) On all interior subdivision streets, fifty (50) feet shall be the official minimum right-of-way width, except as further modified by Chapter 28 of this Code. The provisions of this subsection shall not apply to those properties described in Section 33B-13(a) herein with the exception of S.W. 136 Street from S.W. 187 Avenue to S.W. 209 Avenue; S.W. 168 Street from Levee L-31 N to S.W. 237 Avenue; S.W. 237 Avenue from S.W. 168 Street to S.W. 160 Street; and Ingraham Highway (formerly S.R. 27). Furthermore, the provisions of this subsection shall not apply to that portion of S.W. 123 Avenue which lies within the South 314 of the S.E. 114 of the S.W. 114 of Section 36-54-39, or to that portion of S.W. 124 Avenue which lies within the North 5.00 feet of the South 314 of the S.E. 114 of the S.W. 114 of Section 36, Township 54, Range 39.

(E) All five-acre fractional lines shall be deemed interior subdivision streets unless otherwise provided in this chapter, or unless waived by the Director and the Director of the Public Works Department. The provisions of this subsection shall not apply to those properties described in Section 33B-13(a) herein with the exception of S.W. 136 Street from S.W. 187 Avenue to S.W. 209 Avenue; S.W. 168 Street from Levee L-31 N to S.W. 237 Avenue; S.W. 237 Avenue from S.W. 168 Street to S.W. 160 Street; and Ingraham Highway (formerly S.R. 27).

(F) On all alleys, twenty (20) feet shall be the official minimum width. The center line of all streets, roads and highways shall be approved and (or) established by the Director of Public Works; in all cases where the right-of-

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Section 2. If any section, subsection, sentence, clause or provision of this ordinance is held invalid, the remainder of this ordinance shall not be affected by such invalidity.

Section 3. It is the intention of the Board of County Commissioners, and it is hereby ordained that the provisions of this ordinance, including any sunset provision, shall become and be made part of the Code of Miami-Dade County, Florida. The sections of this ordinance may be re-numbered or re-lettered to accomplish such intention, and the word “ordinance” may be changed to “section,” “article,” or other appropriate word.

Section 4. This ordinance shall become effective ten (10) days after the date of enactment unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this Board.

Section 5. This ordinance does not sunset.