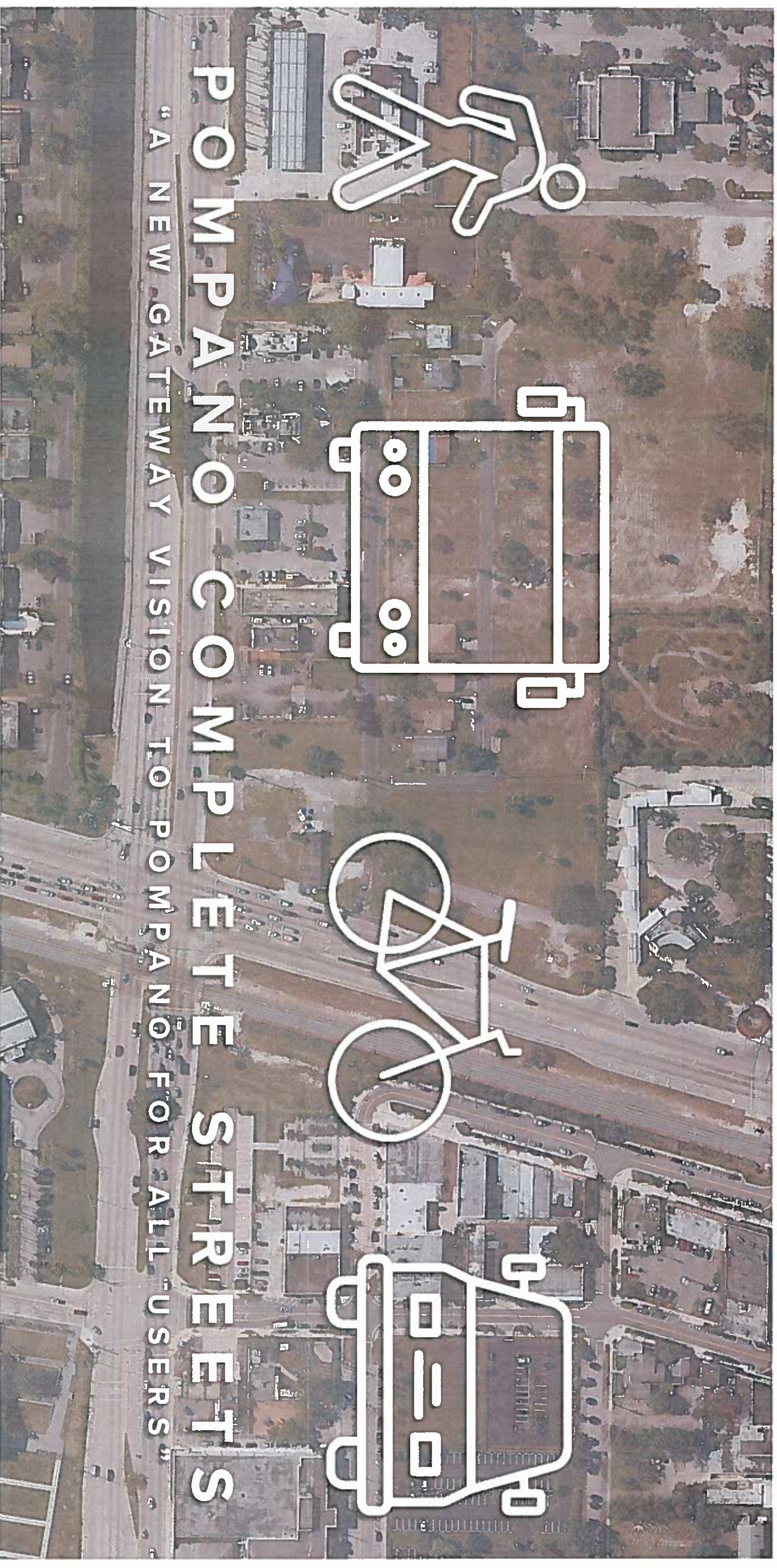


# EXHIBIT "A"

 **Kimley»Horn**  **CRA**  
ENGINEERING INC. POMPANO BEACH



POMPANO COMPLETE STREETS  
"A NEW GATEWAY VISION TO POMPANO FOR ALL USERS"

FINAL CONCEPTUAL DESIGN  
POMPANO BEACH, FLORIDA  
JULY 11, 2018



# INTRODUCTION



**Key Points**

- What are Complete Streets?
- What does a Complete Street look like?
- Why do we need Complete Streets?
- What are the benefits?

# SITE ANALYSIS



**Introduction to Site**

**Traffic Statistics**

- Traffic Data
- Traffic Network
- Regional Traffic Relocation

**Analysis**

- Infrastructure Analysis
- Design Constraints
- Design Opportunities

# PROPOSED CONCEPTUAL DESIGN



**Illustrative Site Plan**

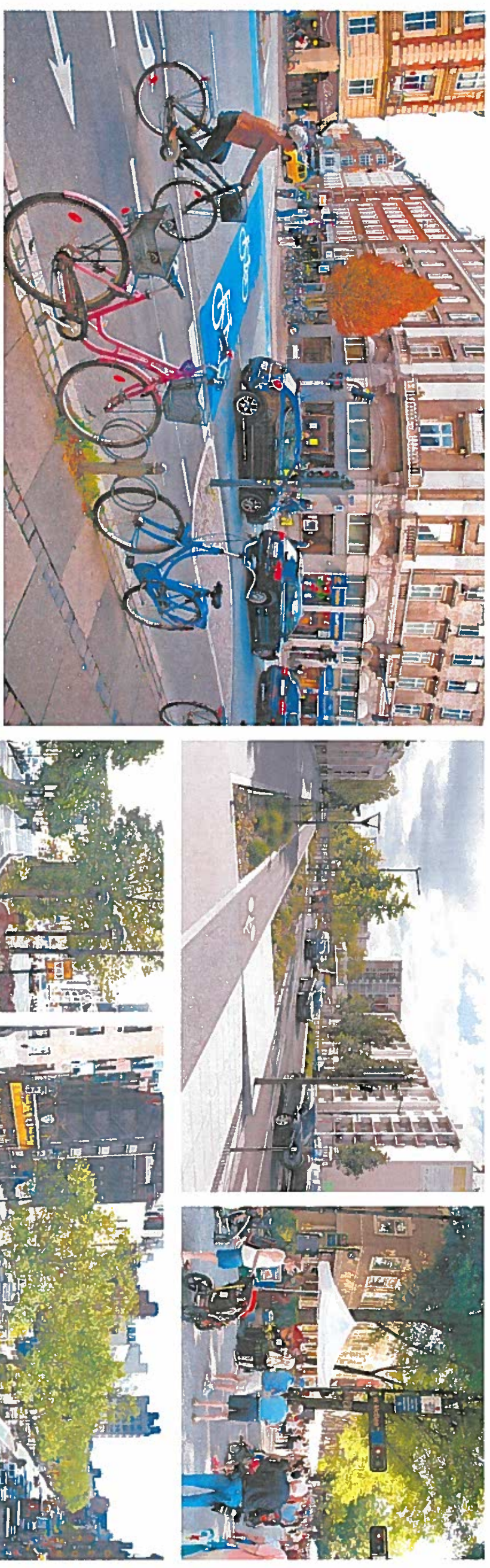
- Masterplan
- Enlargements
- Sections





# WHAT ARE COMPLETE STREETS?

Complete streets are for everyone. They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Complete streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from transit stations.



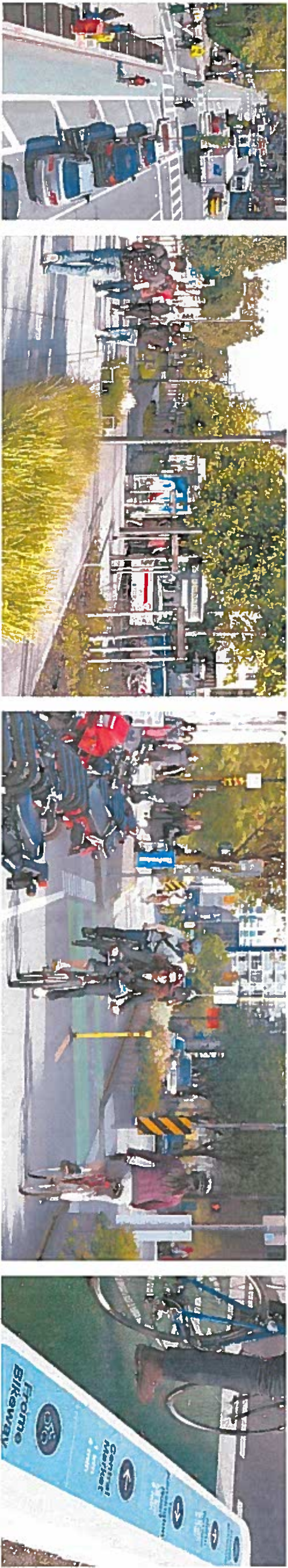
Various user groups for complete streets.

\*\*SOURCE: <https://smartgrowthamerica.org/program/national-complete-streets-coalition/what-are-complete-streets/>



# WHAT DOES A COMPLETE STREET LOOK LIKE?

There is no singular design for Complete Streets; each one is unique and responds to its **community context**. A complete street may include: sidewalks, bike lanes, special bus lanes, comfortable and accessible public transportation stops, frequent and safe crossing opportunities, median islands, accessible pedestrian signals, curb extensions, narrower travel lanes, roundabouts, and more.



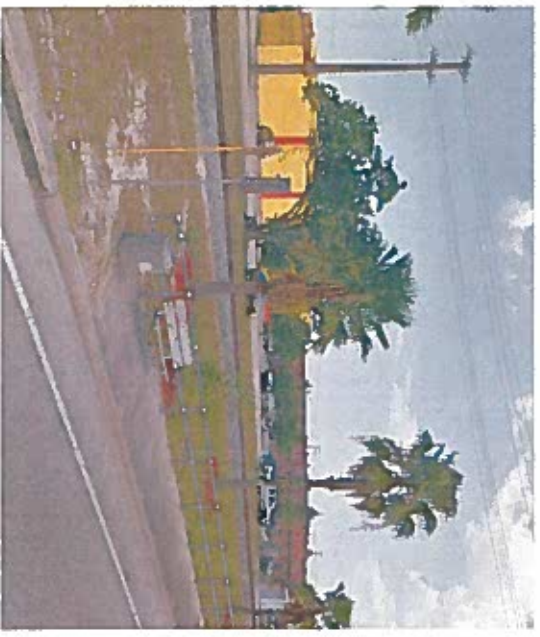
Alternative form approaches to complete streets.

\*\*SOURCE: <https://smartgrowthamerica.org/program/national-complete-streets-coalition/what-are-complete-streets/>



# WHY DO WE NEED COMPLETE STREETS?

**Incomplete streets** are designed with cars in mind and limit transportation choices by making walking, bicycling, and taking public transportation inconvenient, unattractive, and, too often, dangerous. Changing policy to routinely include the needs of people on foot, public transportation, and bicycles would make walking, riding bikes, riding buses and trains safer and easier.



Current Atlantic Boulevard & Dixie Highway conditions.

\*\*SOURCE: <http://old.smartgrowthamerica.org/complete-streets/complete-streets-fundamentals/complete-streets-faq>



# WHY DO WE NEED COMPLETE STREETS?

Complete Streets help create livable communities for various types of users, including children, people with disabilities, and older adults. Complete Streets improve equity, safety, and public health, while reducing transportation costs and traffic woes.



Elements of great complete streets.

\*\*SOURCE: <https://smartgrowthamerica.org/program/national-complete-streets-coalition/what-are-complete-streets/>



**COMPLETE STREETS STUDY AREA**

**I-95 INTERSECTION**

**ATLANTIC BOULEVARD**

**NW 6TH AVE**

**NW 3RD STREET**

**N DIXIE HIGHWAY**

**NE 1ST AVE**

**NE 2ND AVE**

**NE 3RD STREET**

**S CYPRESS ROAD**

**SW 1ST AVE**

**SW 2ND STREET**

**1ST COURT**

**CITY HALL**



## Build a downtown

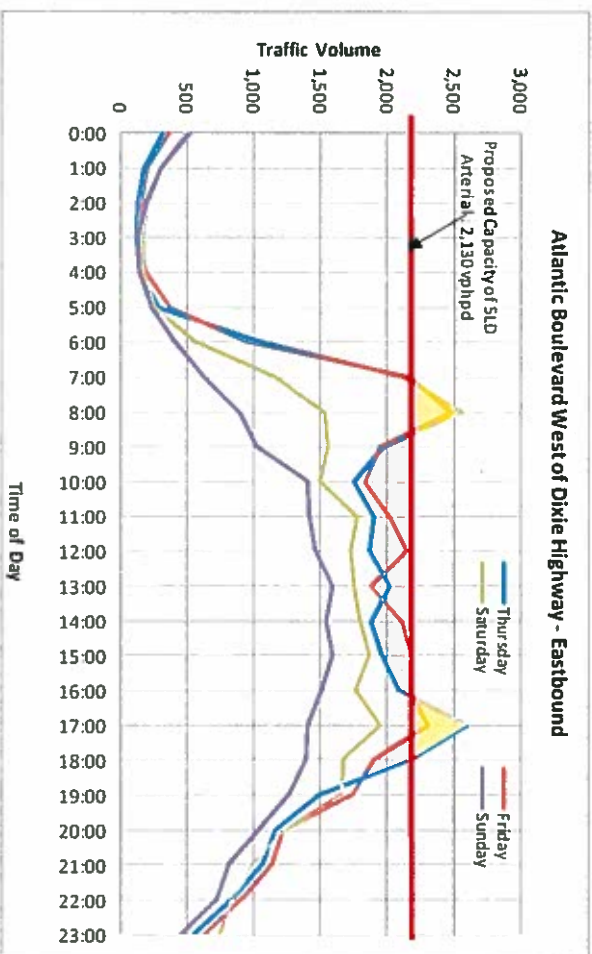
- Jobs
- Increased tax base
- Improved services

**Infrastructure improvement that catalyzes redevelopment**

## Adding walkability and sense of place



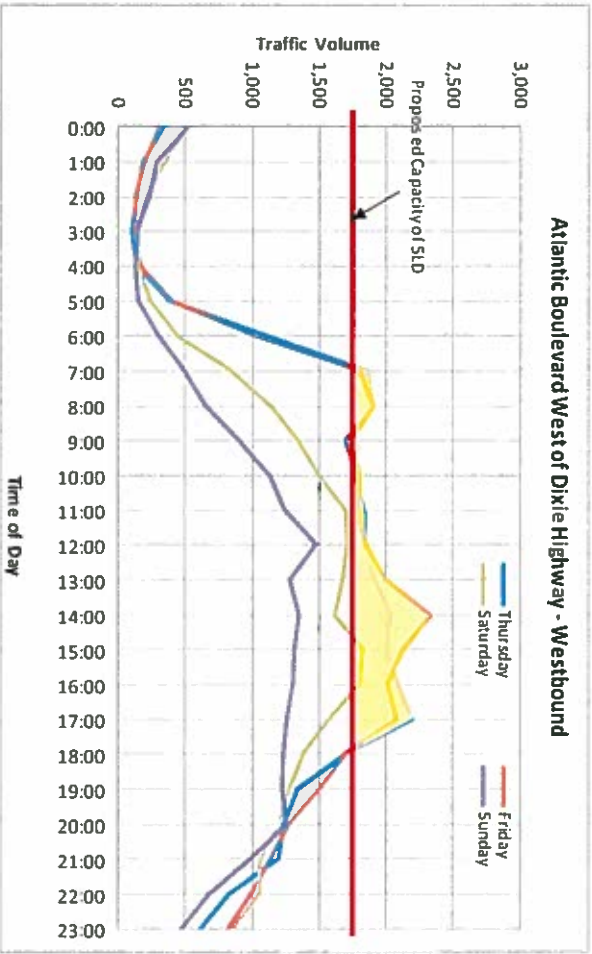
# TRAFFIC DATA: ATLANTIC BOULEVARD



## EASTBOUND

2 short periods of congestion

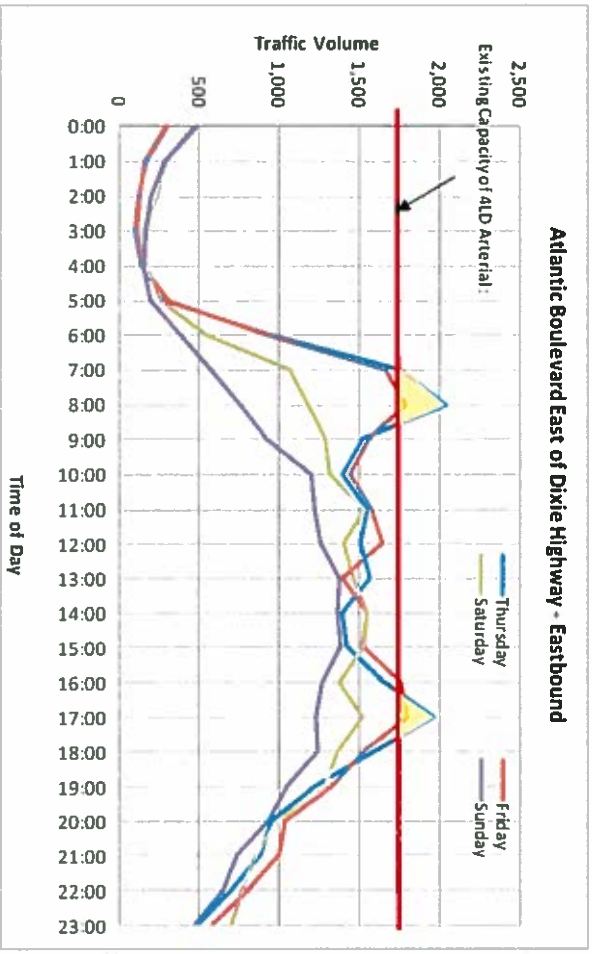
Type 6LD  
Capacity: 2,560 vphpd  
Speed: 35 mph  
State Signalized Arterial Class II



## WESTBOUND

1 period of congestion

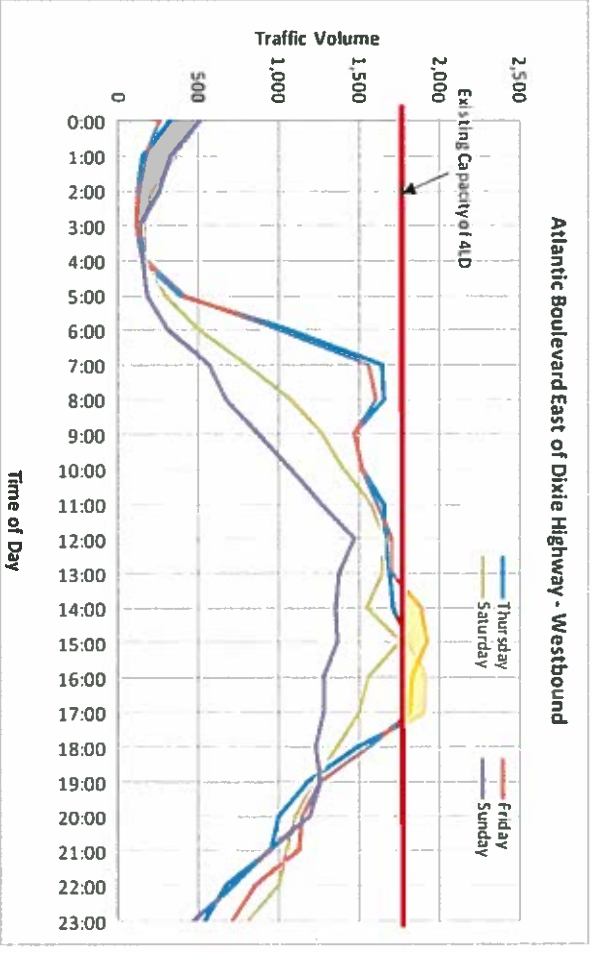
Type 6LD  
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Type 6LD  
Capacity: 2,560 vphpd  
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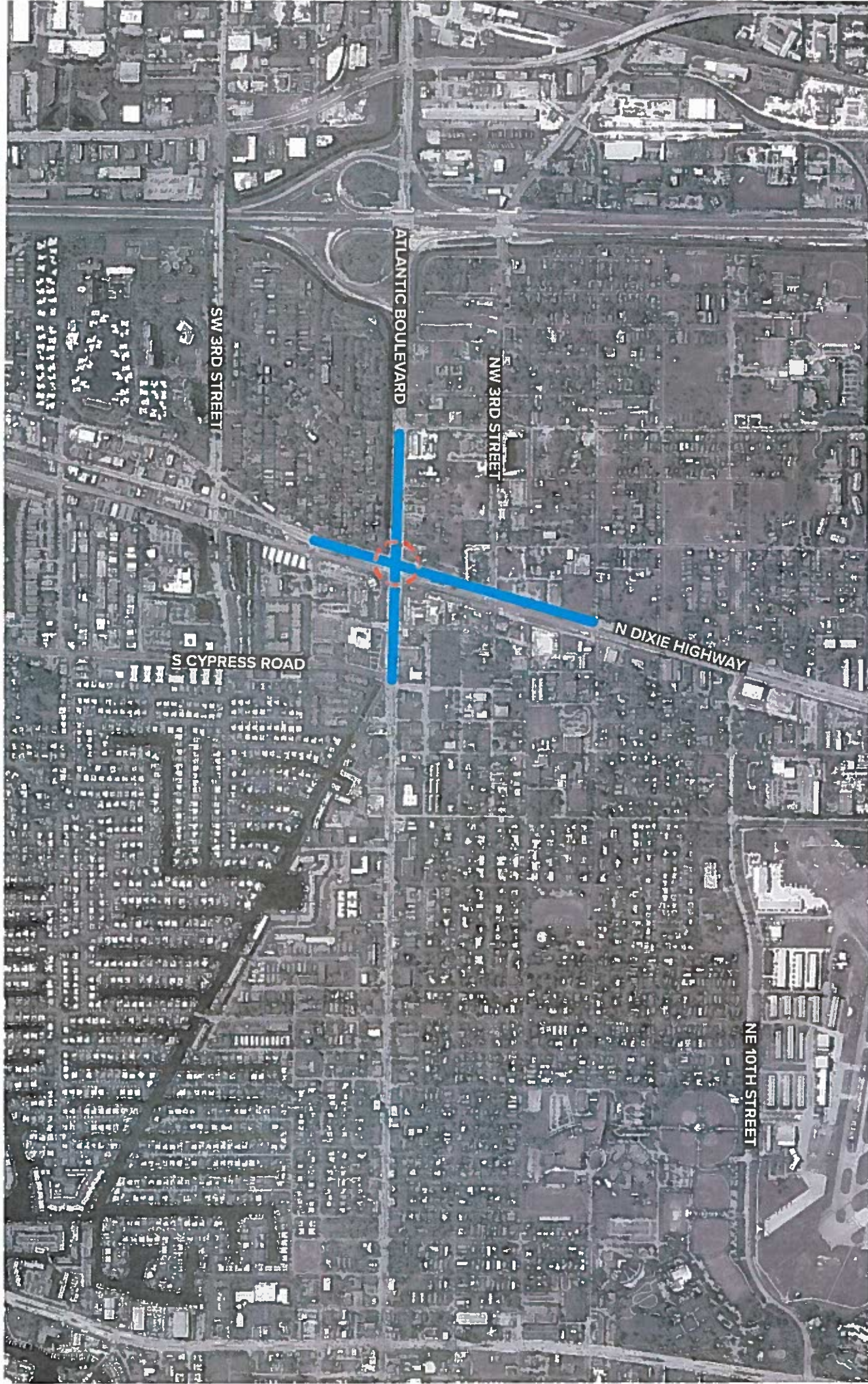
## WESTBOUND

1 short period of congestion

Type 6LD  
Capacity: 2,560 vphpd  
Speed: 35 mph  
State Signalized Arterial Class II

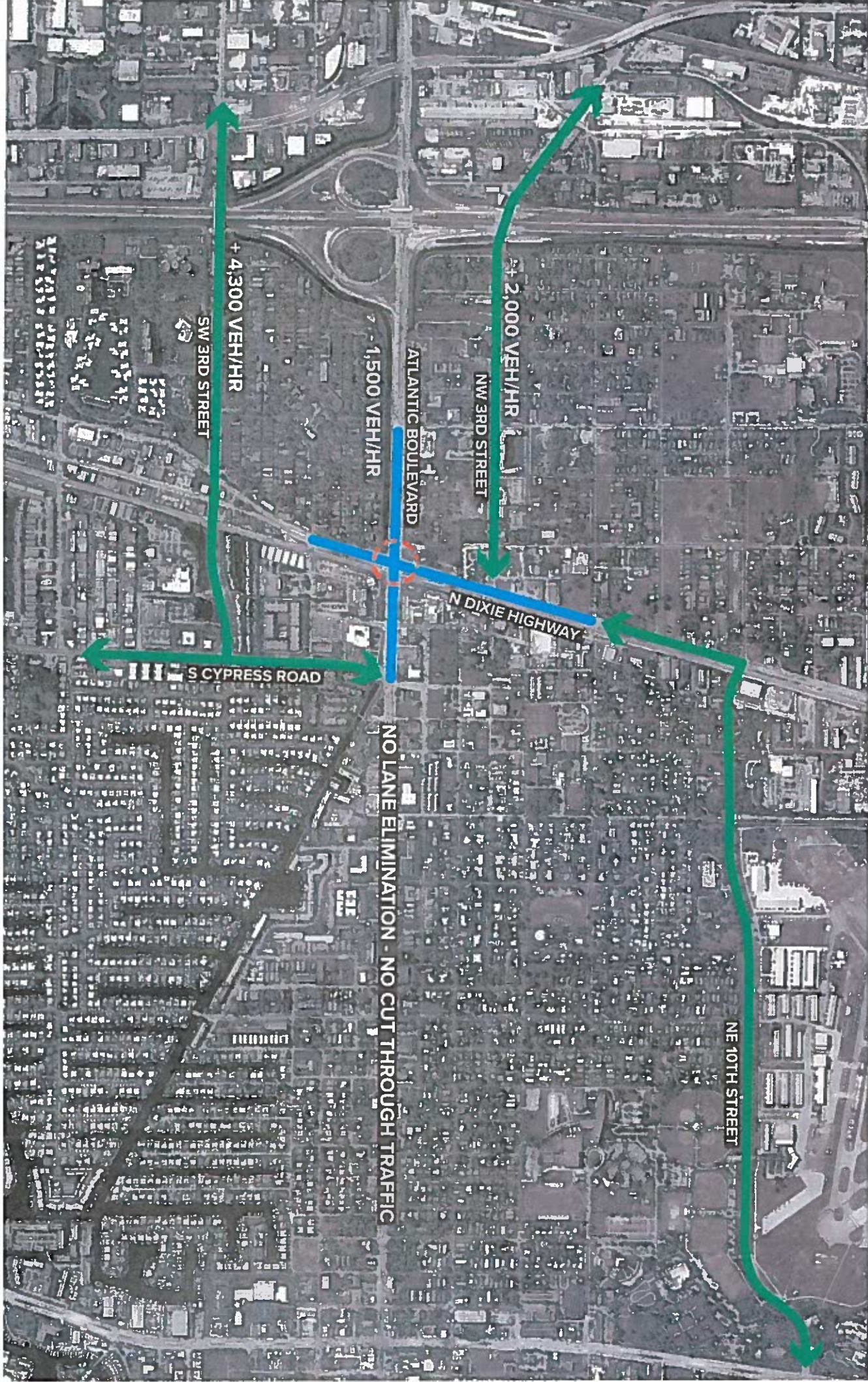


**TRAFFIC NETWORK: CRITICAL AREA**



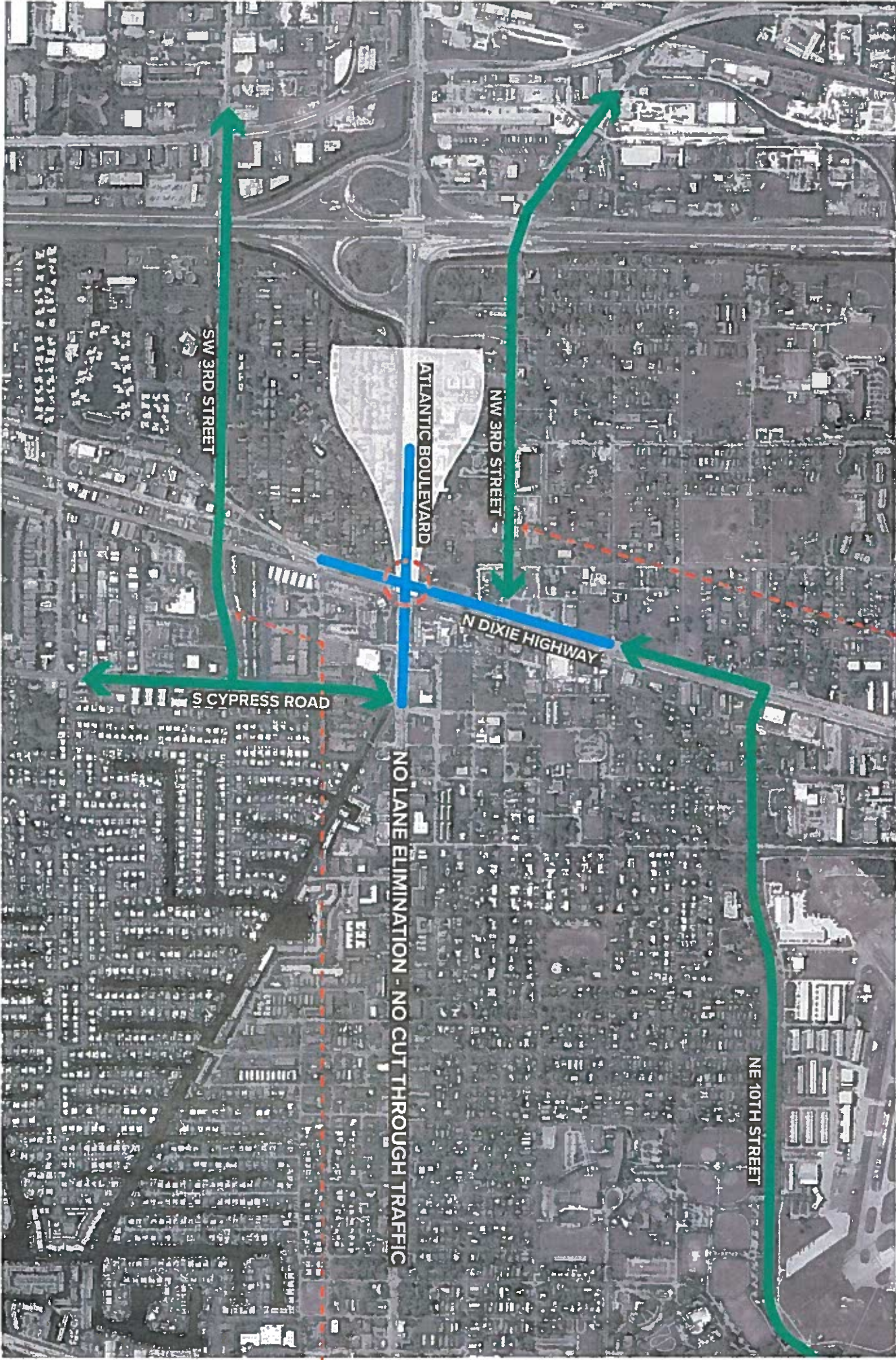


**TRAFFIC NETWORK: BYPASS ROUTES**





# TRAFFIC NETWORK: FUNNEL EFFECT



**MLK / NW 3RD STREET:**

Available surplus capacity to accommodate Atlantic Boulevard traffic diversion

**SW 3RD STREET:**

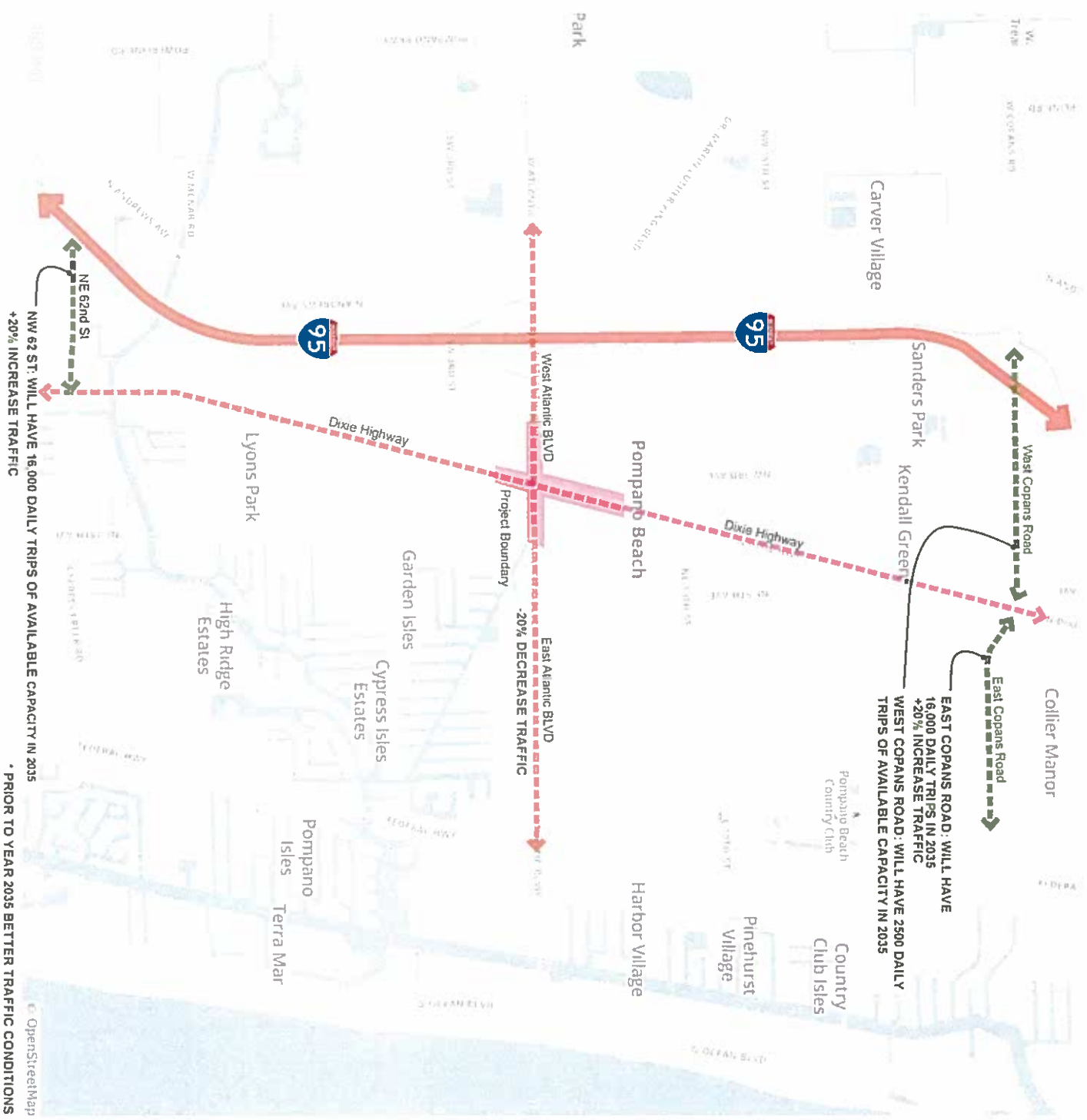
Available surplus capacity to accommodate Atlantic Boulevard traffic diversion

**NEIGHBORHOOD TRAFFIC:**

- Intrusion not anticipated
- Critical area is west of Dixie Highway
- Excess surplus capacity available west of Dixie Highway
- Traffic calming plan for local streets
- No lane elimination east of Cypress Road



# REGIONAL TRAFFIC RELOCATION



## ATLANTIC BOULEVARD:

- Posted speed limit of 35 mph
- Two travel lanes in each direction
- Current traffic volumes per day:
  - 64,300 - 24,700 vehicles west of Dixie Highway
  - 53,500 vehicles east of Dixie Highway
- The acceptable carrying capacity of Atlantic Boulevard ranges from 59,900 - 32,400 vehicles per day

## DIXIE HIGHWAY:

- Posted speed limit of 35 mph north of Atlantic Boulevard
- Posted speed limit of 30 mph south of Atlantic Boulevard
- Two travel lanes in each direction
- Current traffic volumes per day:
  - 26,300 vehicles south of Atlantic Boulevard
  - 30,800 vehicles north of Atlantic Boulevard
- The acceptable carrying capacity of Dixie Highway is 32,400 vehicles per day

Copans Road has excess capacity for Atlantic Boulevard diverted trips.  
Cypress Road has excess capacity for Atlantic Boulevard diverted trips.



# INFRASTRUCTURE ANALYSIS: ATLANTIC BOULEVARD



## CONSTRAINTS / CHALLENGES:

- Franchise **utility duct banks** (FPL and ATT) along the corridors must be carefully considered
- Existing **water supply wells** will have to be carefully protected with setbacks
- **Stormwater facilities** along Atlantic Boulevard may be located within a wellfield zone
- New **stormwater retention and detention** treatment methods may not be permitted in a wellfield zone
- The absence of **gravity sanitary sewer facilities** may limit potential development
- Existing **sewer mains** are approximately 30 years old
- Existing **water mains** date back to the 1980s and are most likely constructed out of cast iron
- Existing **6"-8" water mains** must be carefully considered
- Locations of **existing sewer, stormwater and water mains** must be carefully considered
- The **Florida East Coast Railway** right-of-way will require coordination and approval for utility crossings

## ASSETS / OPPORTUNITIES:

- **Infrastructure improvements** may be implemented
- The City's adopted **Capital Improvement Plan** allocates \$21,532,360 for water and wastewater and stormwater improvements
- **Water main replacements** correlate with the City's goals
- Upsizing of the **water supply system** will provide more capacity for the future
- Evaluate **irrigation systems or wells** and consider possible reuse
- Construction of a **new sewer system** will encourage development
- Interconnection of the **16-inch sanitary sewer force main** would be beneficial for future development
- A **sanitary sewer force main extension** would be beneficial to the redevelopment
- **Stormwater system improvements** can be made by upsizing of pipes, adding retention areas, and implementation of exfiltration
- New **sustainable design methods** will also continue improving the water quality
- Additional **landscape/greenspace areas** and **reducing paving** will improve stormwater quality



# INFRASTRUCTURE ANALYSIS: DIXIE HIGHWAY



## CONSTRAINTS / CHALLENGES:

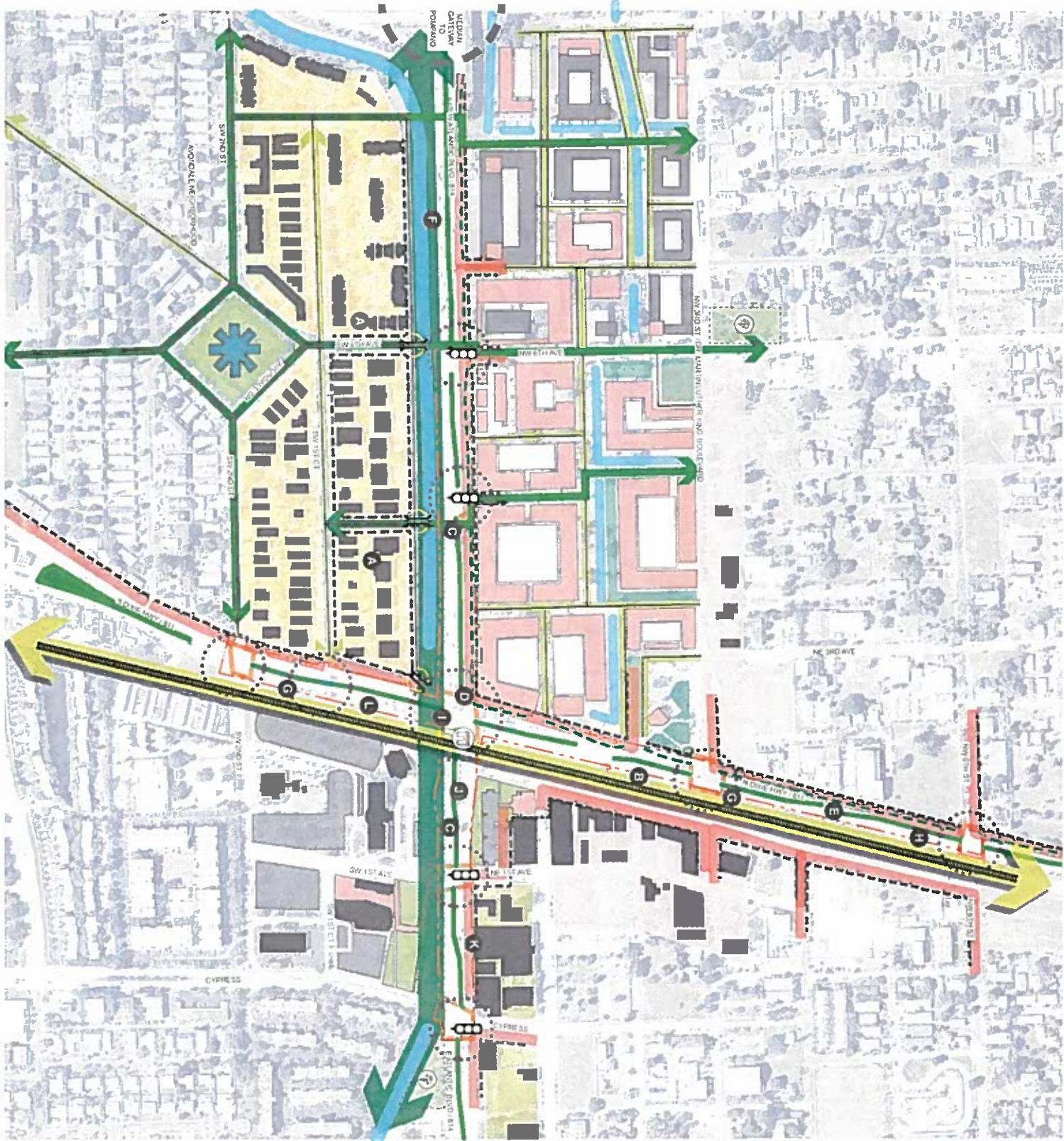
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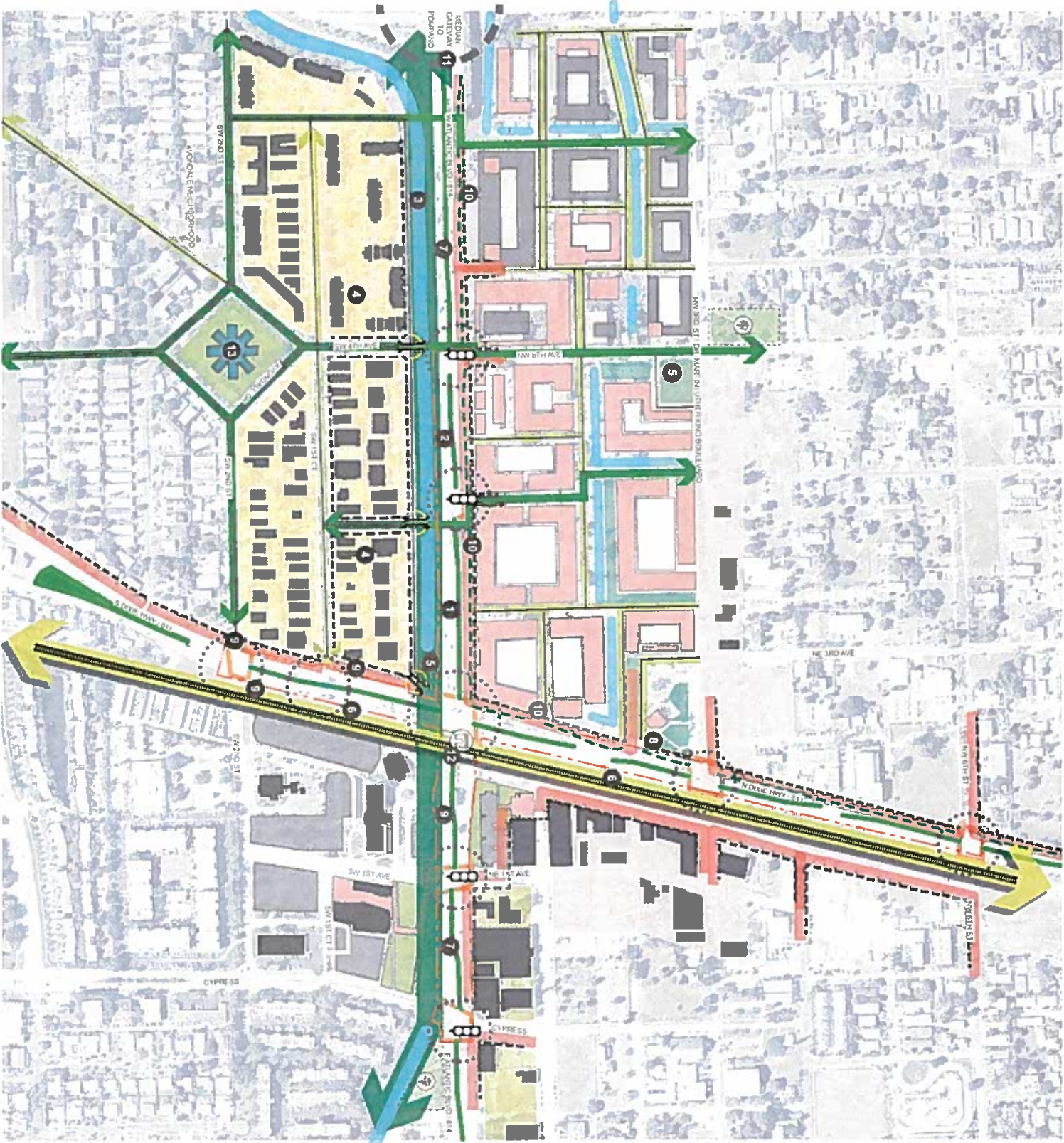
# SITE ANALYSIS: CONSTRAINTS



- LEGEND:**
- PROJECT ROW
  - FEC ROW / RAILROAD
  - URBAN GREENWAY
  - CANAL
  - GREEN MEDIANS
  - URBAN EDGE
  - PEDESTRIAN CROSSING IMPROVEMENTS
- DISTRICTS:**
- INTERSECTION IMPROVEMENTS
  - BRIDGES
  - SIGNALIZED INTERSECTIONS
  - PUBLIC PARKS
  - WELCOME STRUCTURE
  - ENTERTAINMENT
  - RESIDENTIAL
  - CULTURAL / CIVIC
- A** Lack of pedestrian connections from the Avondale neighborhood to Atlantic Boulevard
  - B** Lack of continuous walkway linkages along the east side of Dixie Highway
  - C** Bus and bike route crossing conflicts
  - D** Cantilevered traffic directional signage over walkways
  - E** Dedicated left turn lanes for transit center and private uses
  - F** Canal wall and revetment on south side of Atlantic Boulevard
  - G** Railing barriers along Dixie Highway
  - H** Right-of-way width limitations
  - I** Lack of pedestrian crossing refuges
  - J** Excessive travel lane and turn lane requirements
  - K** One sided street lighting
  - L** Narrow sidewalk widths



# SITE ANALYSIS: OPPORTUNITIES



**LEGEND:**

PROJECT ROW

FEC ROW / RAILROAD

URBAN GREENWAY

CANAL

GREEN MEDIANS

URBAN EDGE

URBAN EDGE DISTRICT

PEDESTRIAN CROSSING IMPROVEMENTS

INTERSECTION IMPROVEMENTS

BRIDGES

SIGNALIZED INTERSECTIONS

PUBLIC PARKS

WELCOME STRUCTURE

**DISTRICTS:**

ENTERTAINMENT

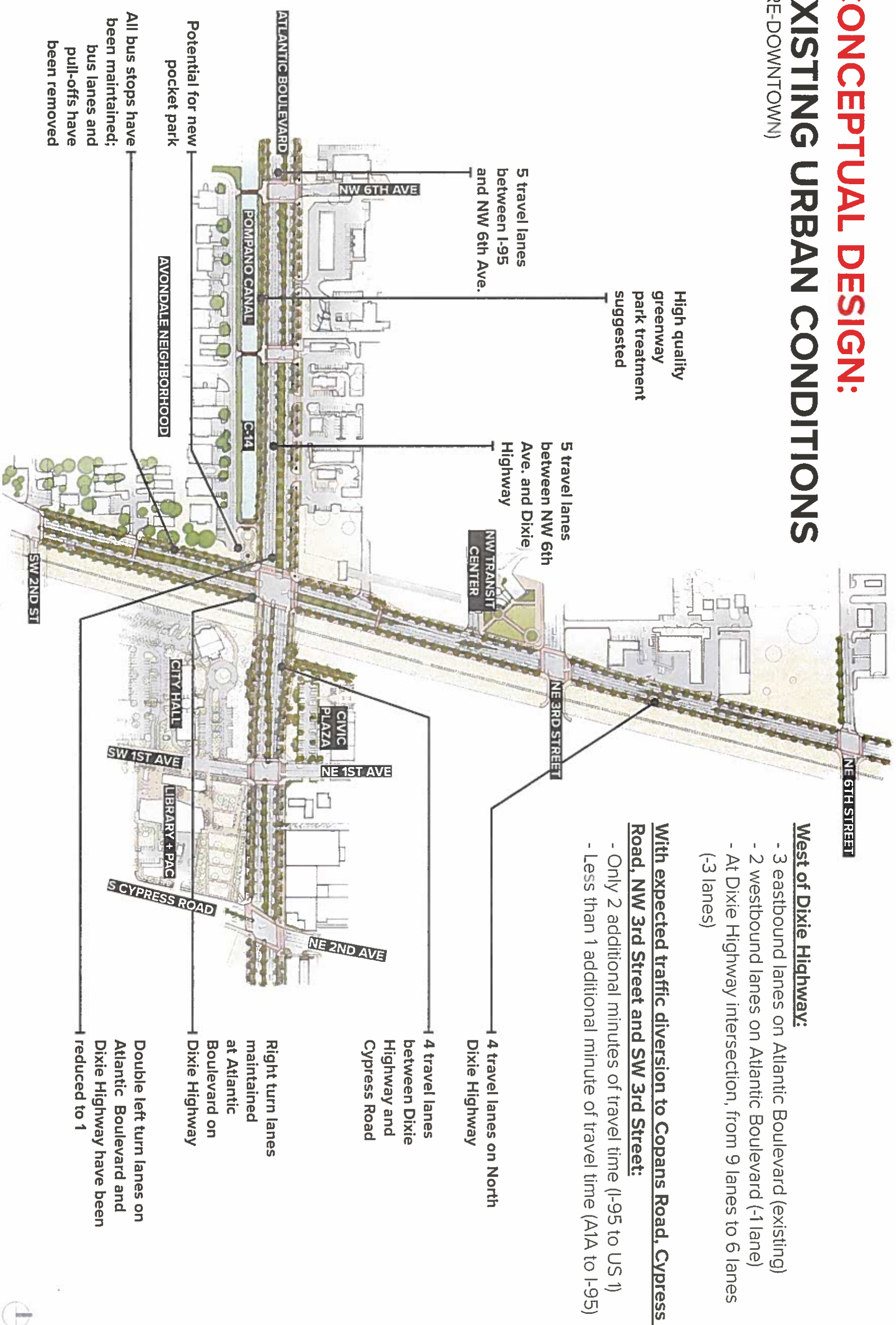
RESIDENTIAL

CULTURAL / CIVIC

- 1 Reduction in number of travel lanes on Atlantic Boulevard
- 2 Reduction in lane widths to minimums
- 3 Pompano Canal (C-14) greenway opportunity
- 4 Expand pedestrian connectivity to Avondale neighborhood
- 5 Pocket park opportunity
- 6 FEC edge greenway opportunity
- 7 Continuous & widened landscape medians / pedestrian refuges
- 8 Consider left turn lane access
- 9 Gateway transit stops
- 10 Office mixed-use district promenade opportunity
- 11 "Welcome to Pompano Beach" gateway
- 12 Railway signal gateway portal
- 13 Avondale neighborhood focal point



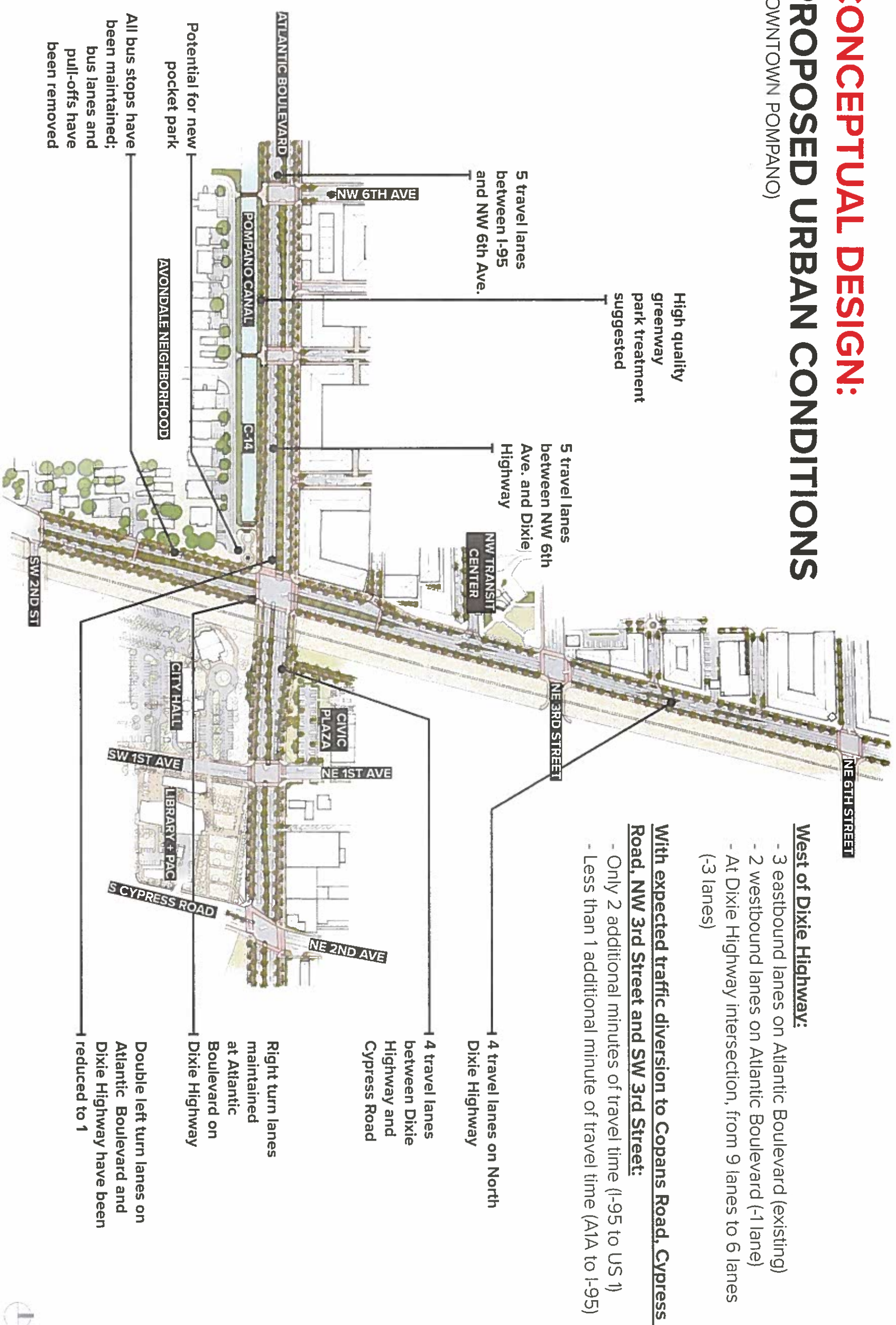
# CONCEPTUAL DESIGN: EXISTING URBAN CONDITIONS (PRE-DOWNTOWN)





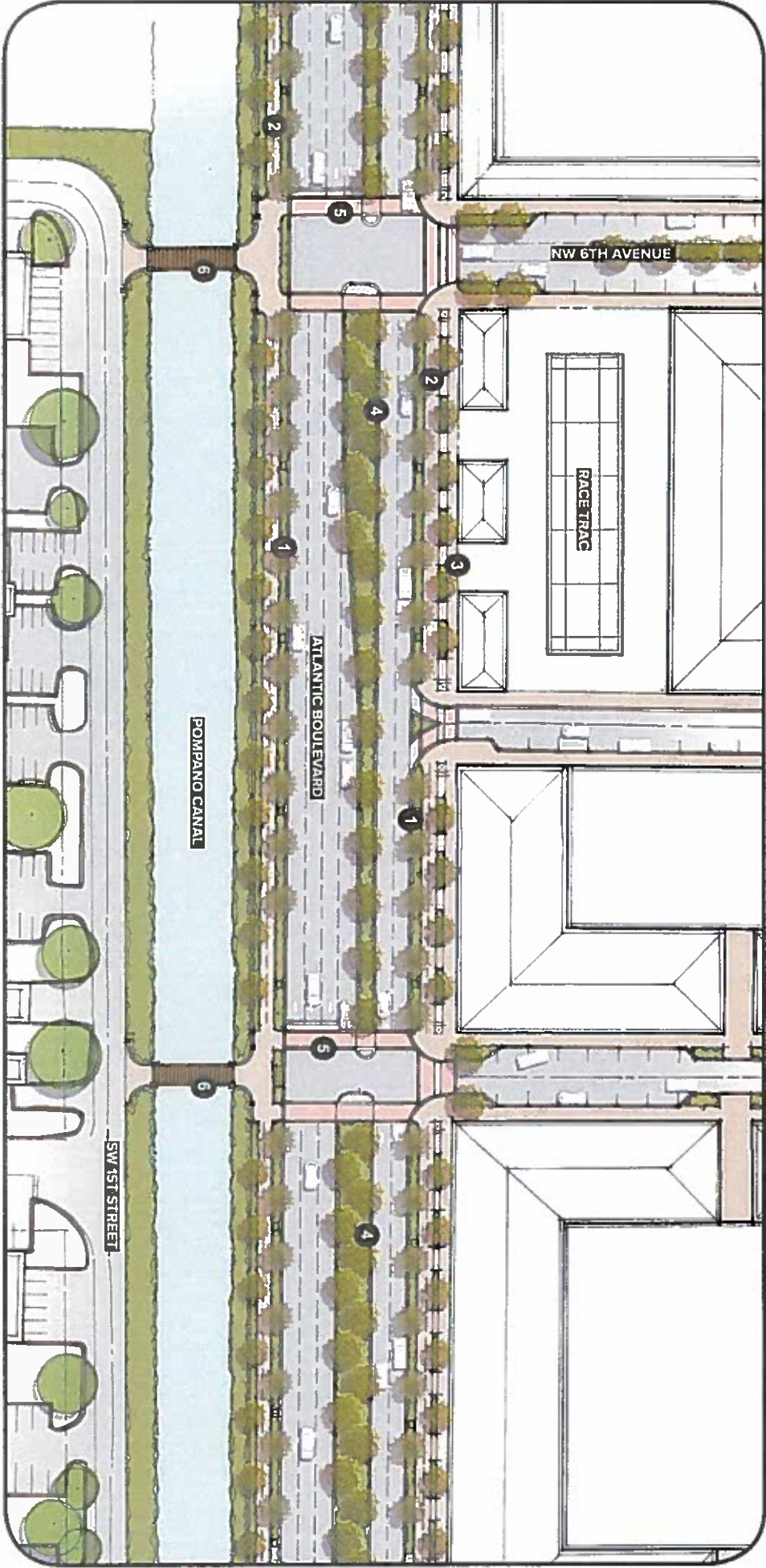
# CONCEPTUAL DESIGN: PROPOSED URBAN CONDITIONS

(DOWNTOWN POMPAÑO)





CONCEPTUAL DESIGN: ATLANTIC BOULEVARD



6 2 proposed pedestrian bridges over canal



1 Minimum 5 foot curbside tree lawn with street trees



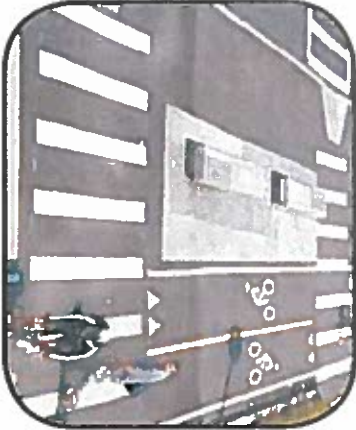
2 10-12 foot multi-use pedestrian and bike cultural trail



3 6-8 foot urban walkway



4 10-14 foot widened landscape medians

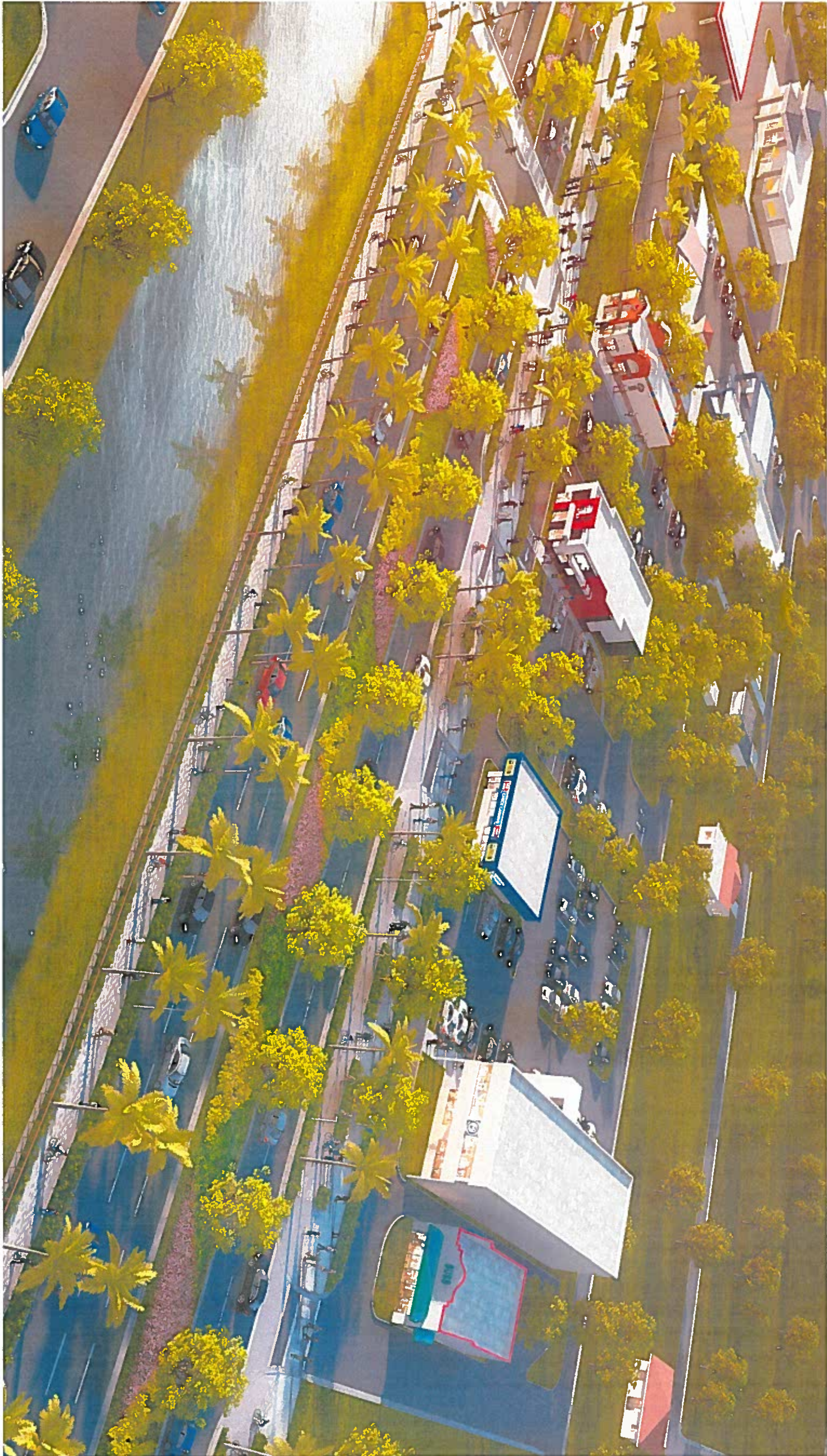


5 Newly defined crosswalks for cyclists and pedestrians





**CONCEPTUAL DESIGN: WEST ATLANTIC BOULEVARD**



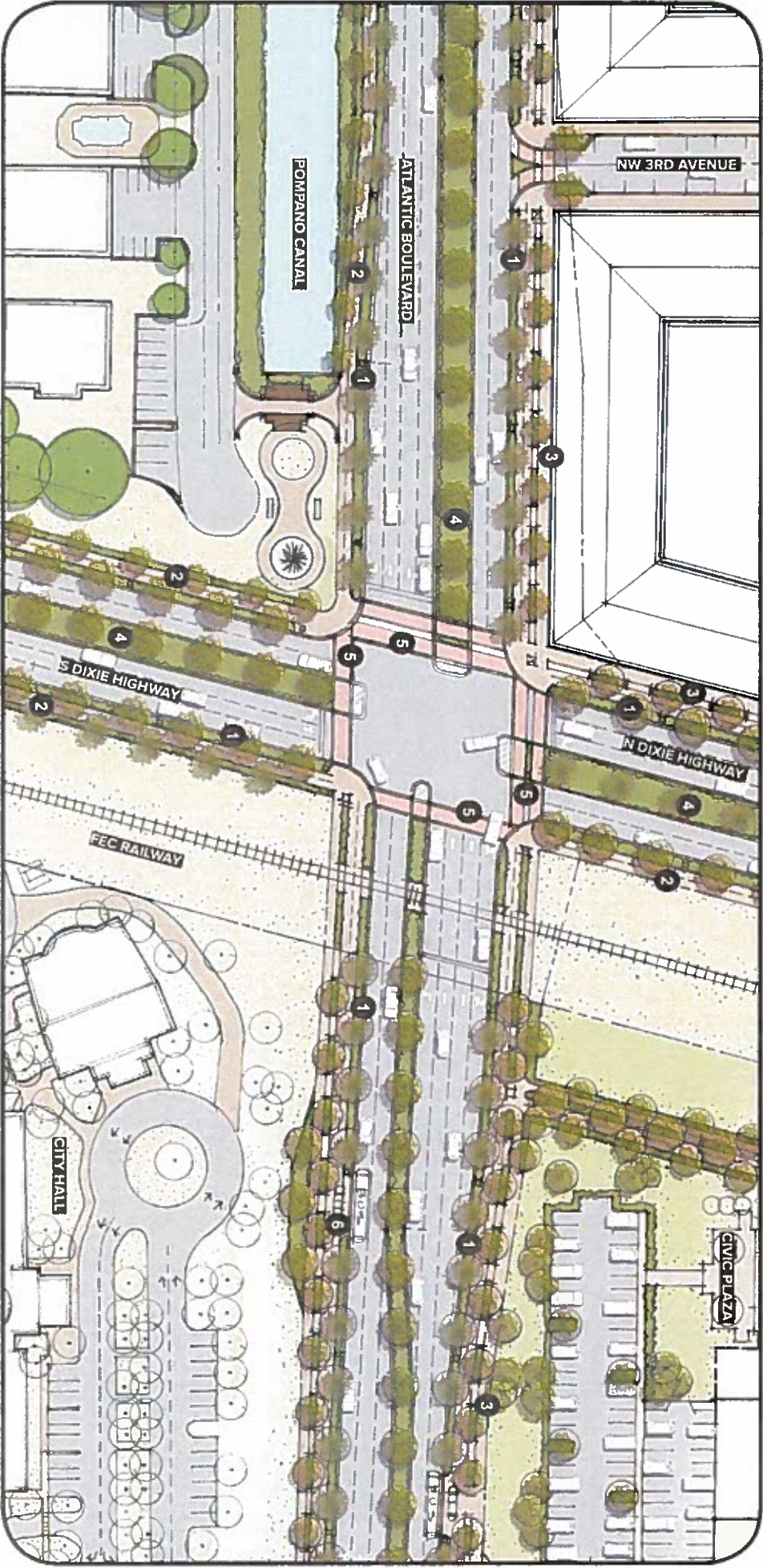


**CONCEPTUAL DESIGN: WEST ATLANTIC BOULEVARD**





# CONCEPTUAL DESIGN: NORTH DIXIE HIGHWAY



6 Transit shelter locations moved to curb



5 Newly defined crosswalks for cyclists and pedestrians



4 10-14 foot widened landscape medians



3 6-8 foot urban walkway



2 10-12 foot multi-use pedestrian and bike cultural trail



1 Minimum 5 foot curbside tree lawn with street trees

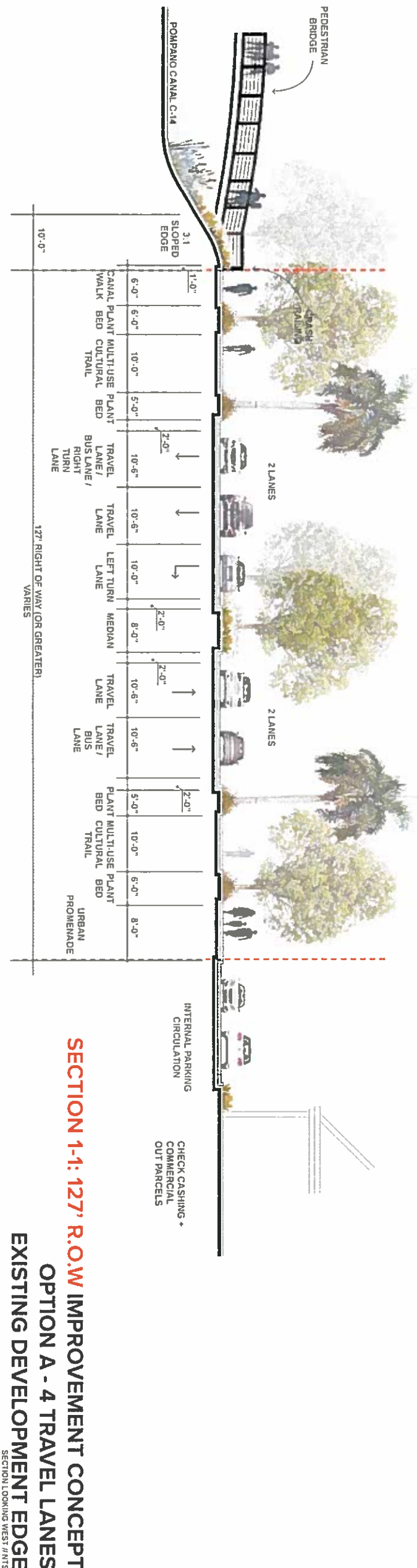
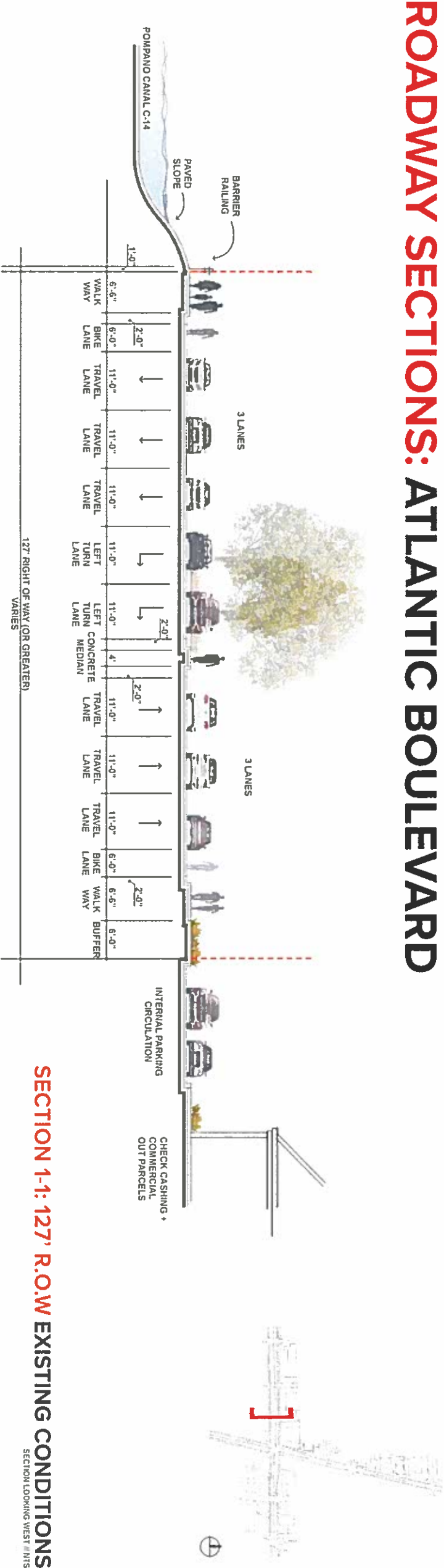


**CONCEPTUAL DESIGN: ATLANTIC BOULEVARD + DIXIE HIGHWAY**



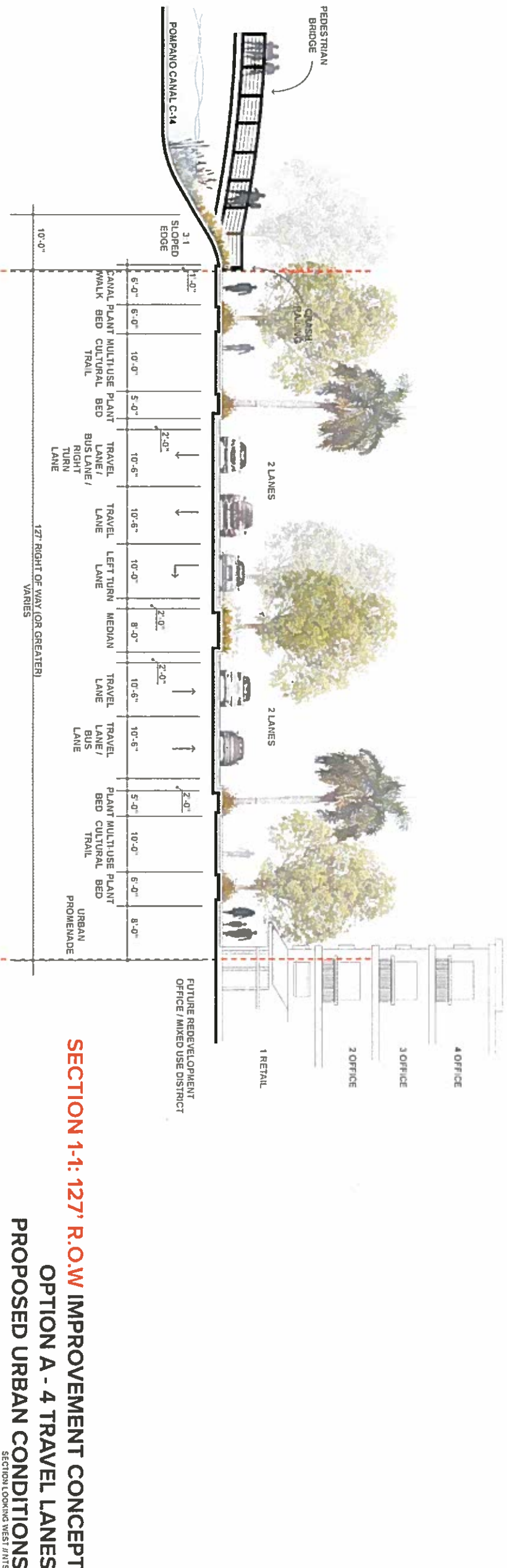
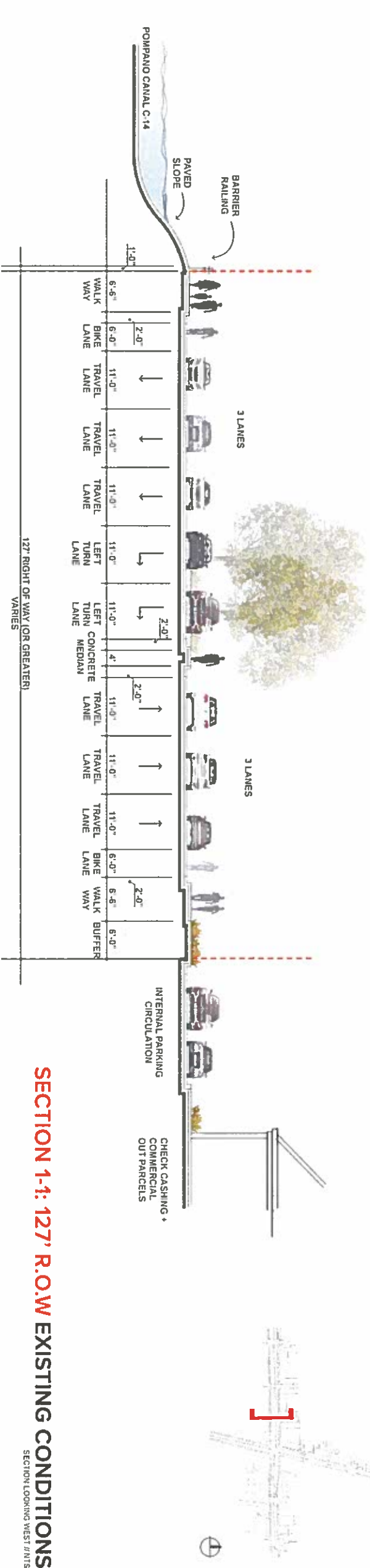


ROADWAY SECTIONS: ATLANTIC BOULEVARD



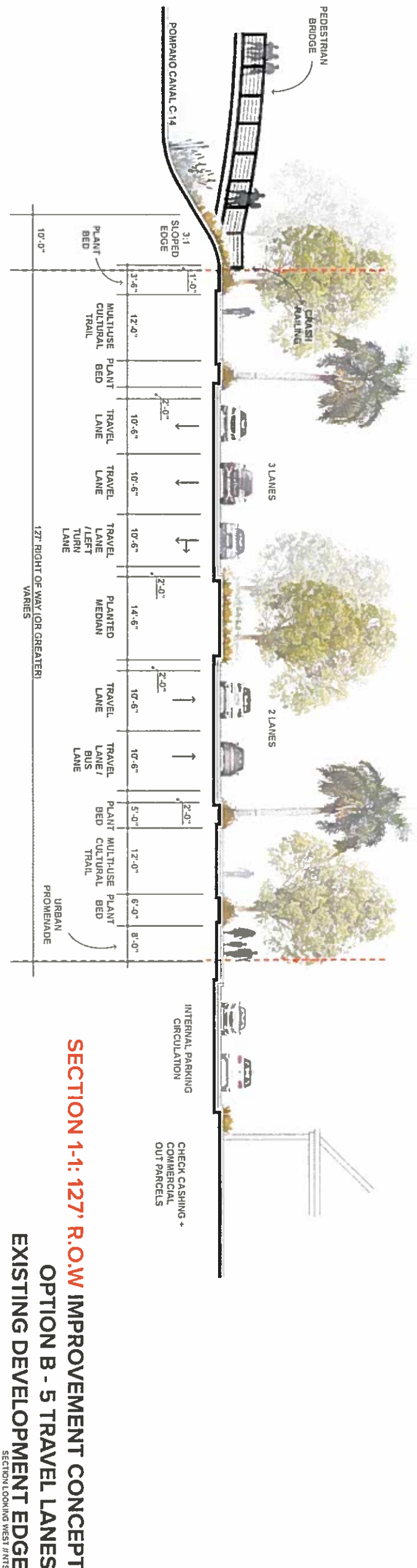
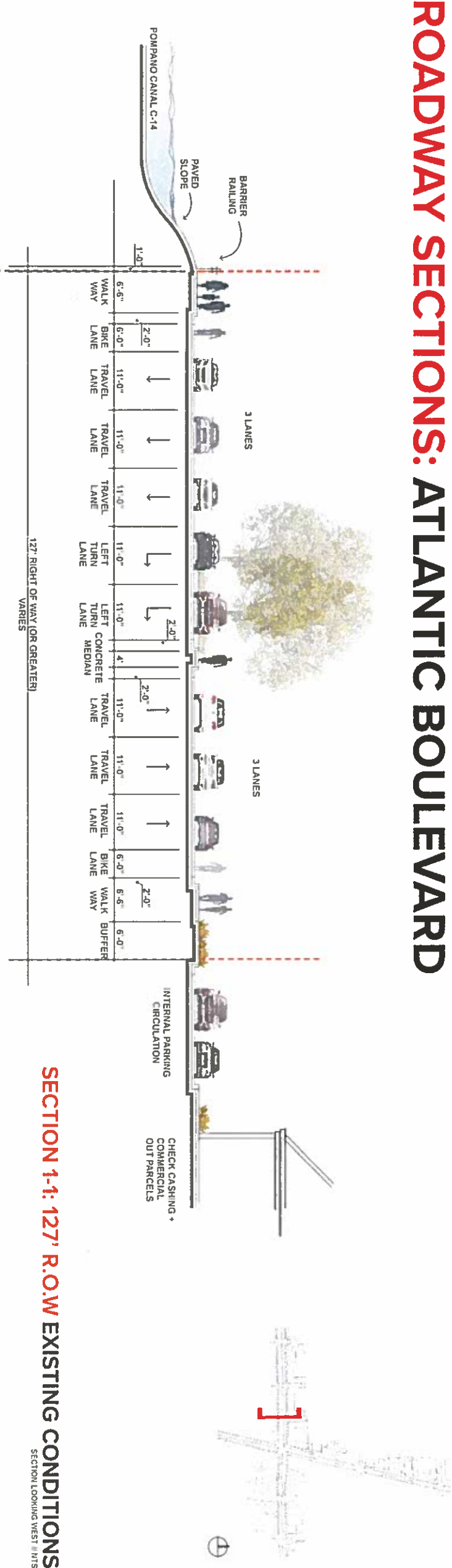


ROADWAY SECTIONS: ATLANTIC BOULEVARD



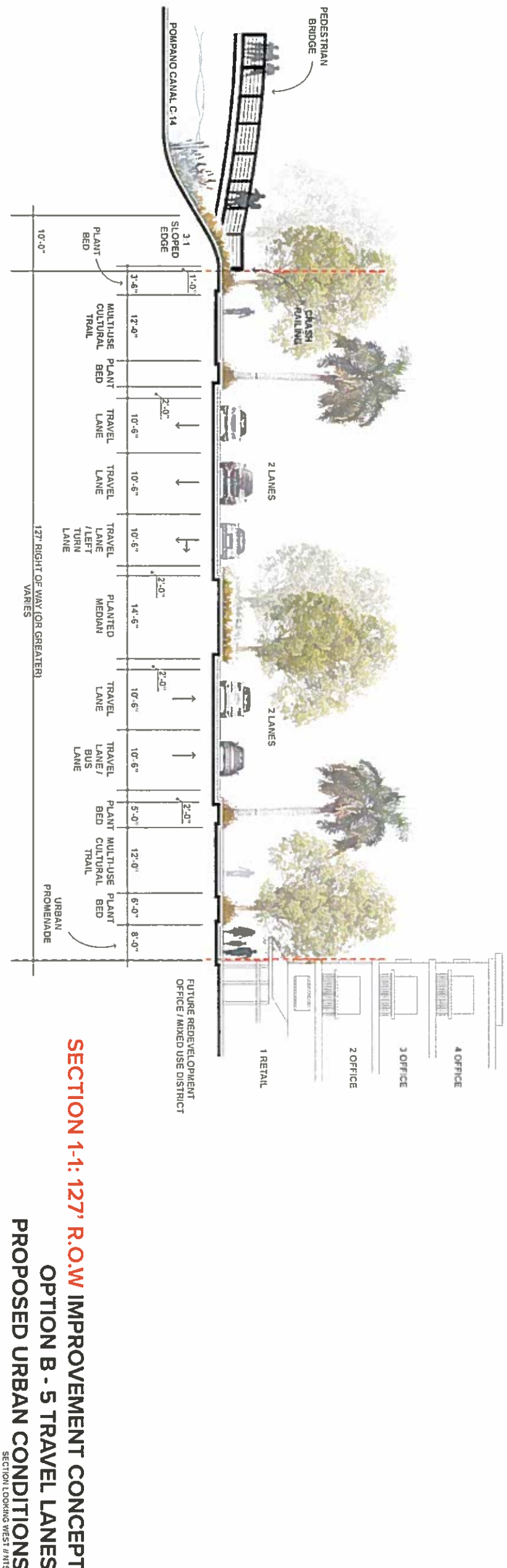
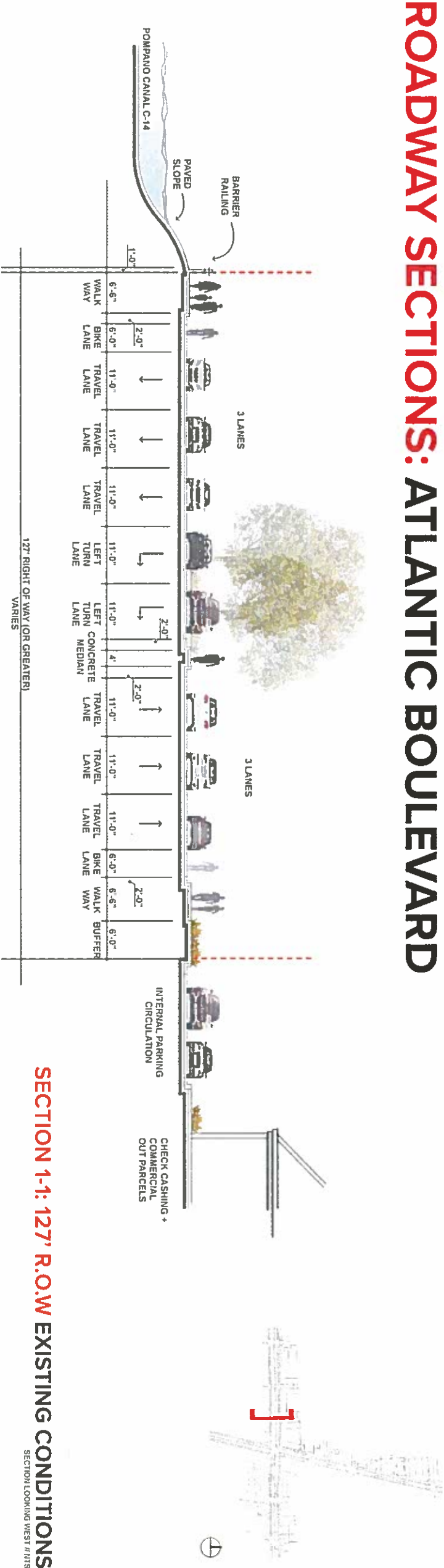


ROADWAY SECTIONS: ATLANTIC BOULEVARD





ROADWAY SECTIONS: ATLANTIC BOULEVARD





**CONCEPTUAL DESIGN: NORTH DIXIE HIGHWAY**



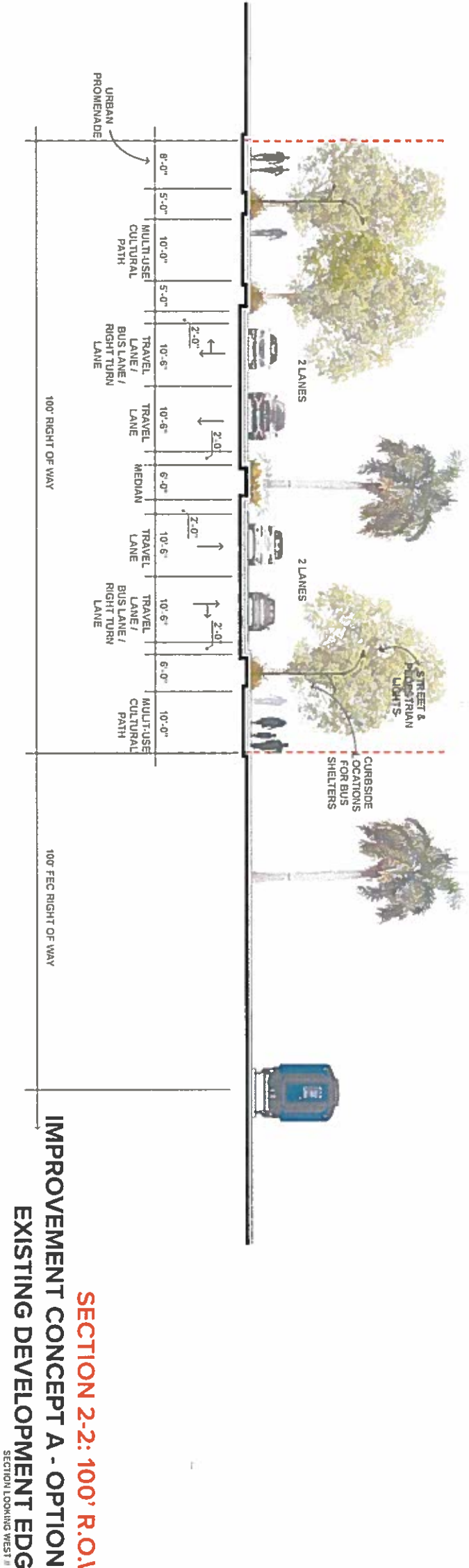
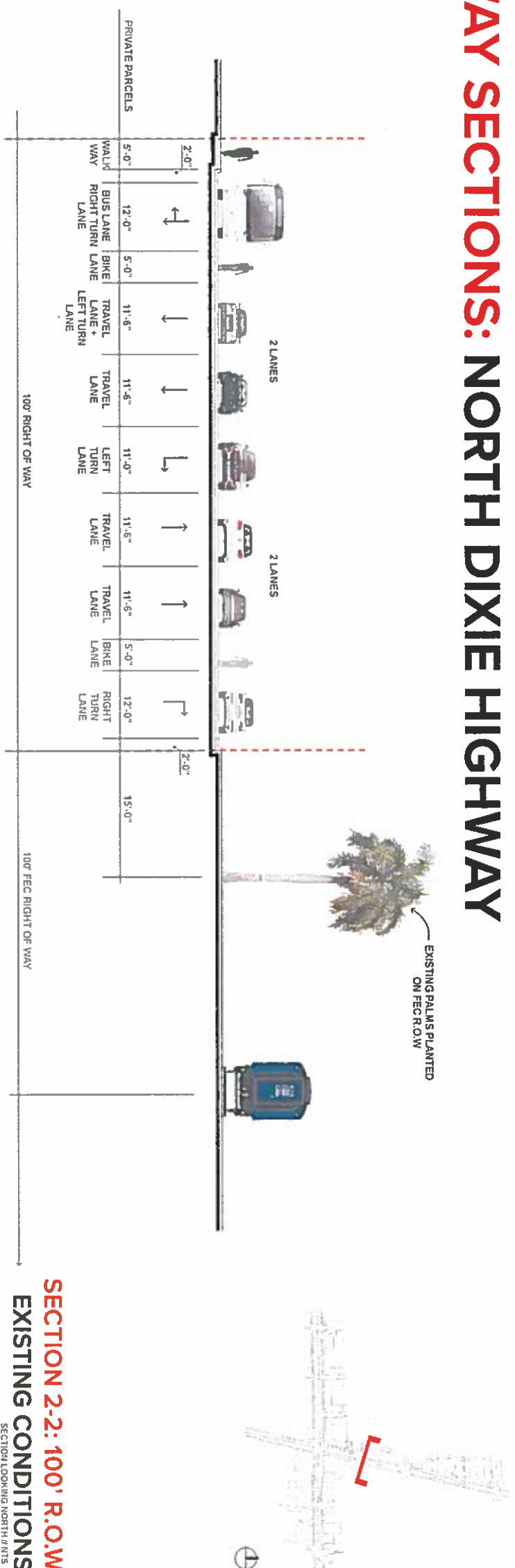


**CONCEPTUAL DESIGN: NORTH DIXIE HIGHWAY**





ROADWAY SECTIONS: NORTH DIXIE HIGHWAY

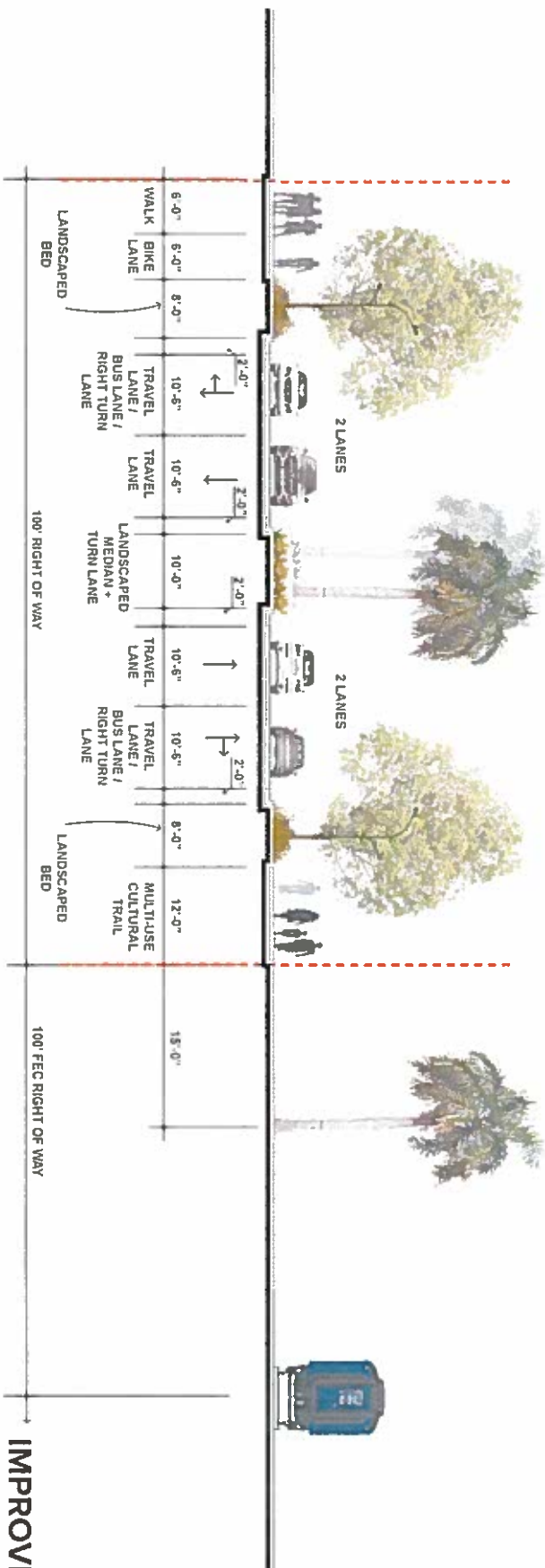
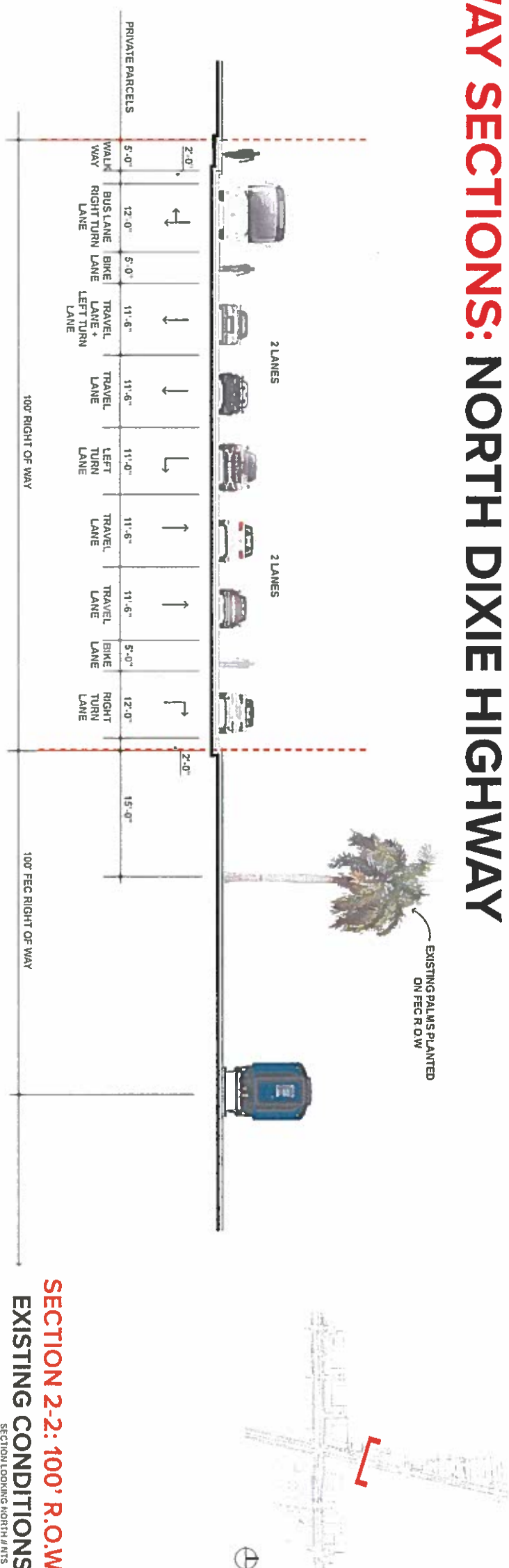








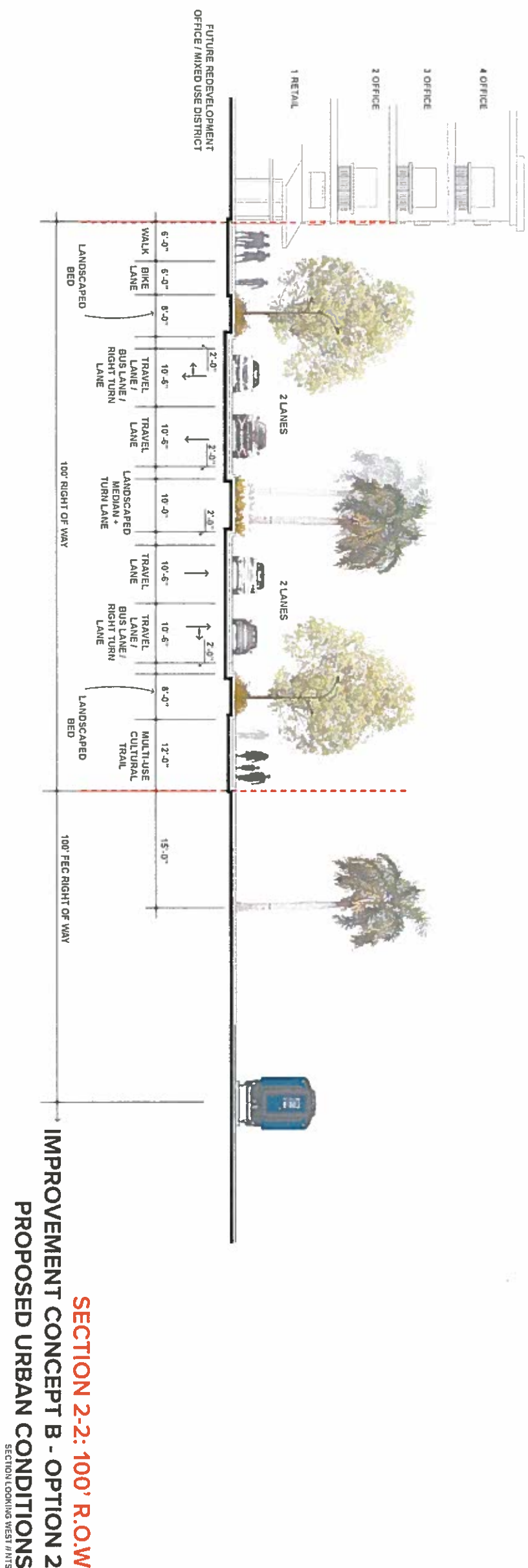
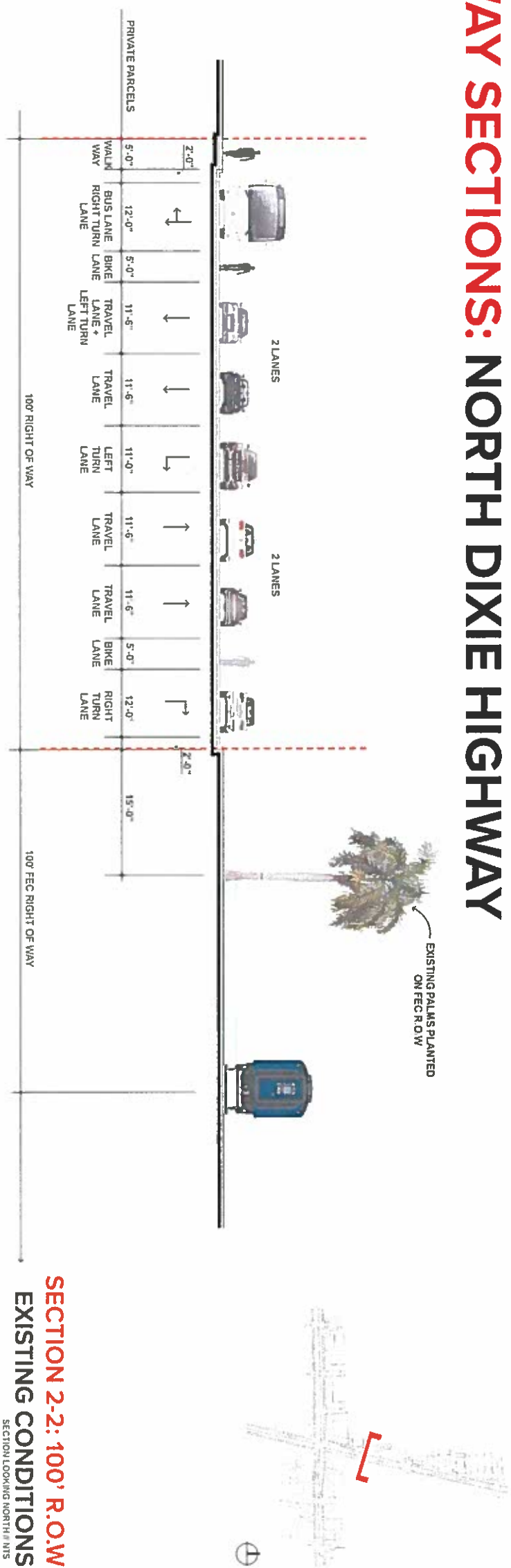
ROADWAY SECTIONS: NORTH DIXIE HIGHWAY



SECTION 2-2: 100' R.O.W  
IMPROVEMENT CONCEPT B - OPTION 1  
EXISTING DEVELOPMENT EDGE  
SECTION LOOKING WEST # RTS

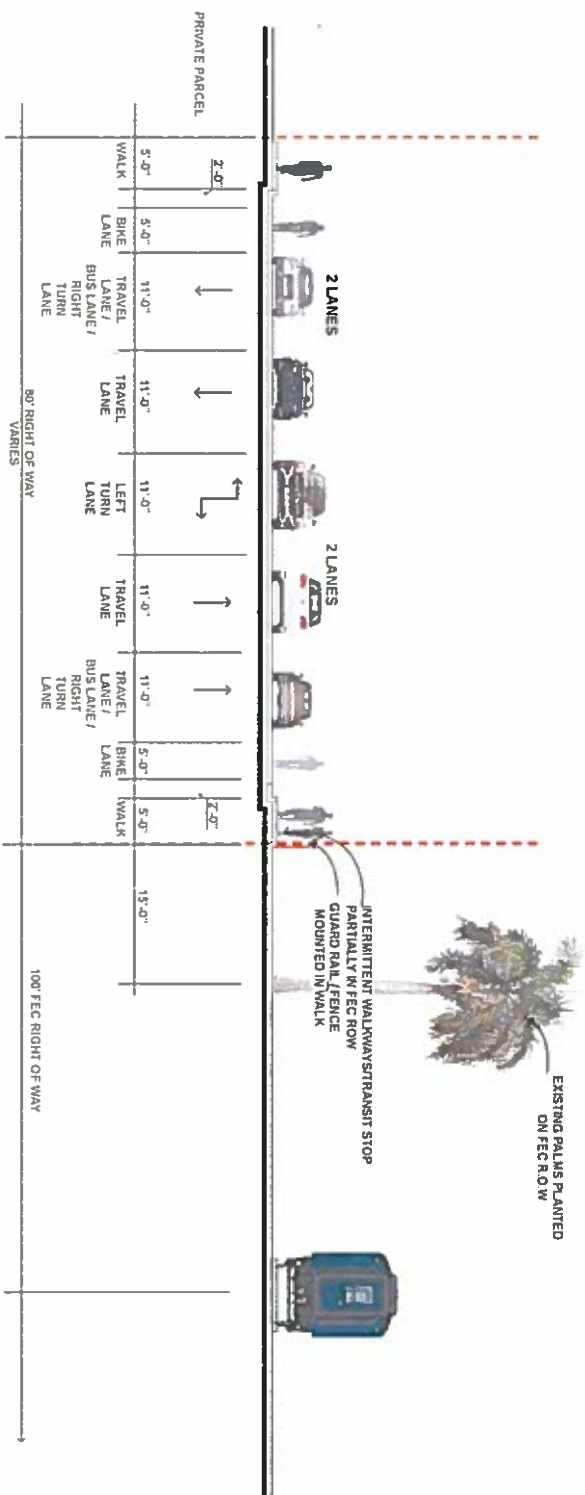


ROADWAY SECTIONS: NORTH DIXIE HIGHWAY

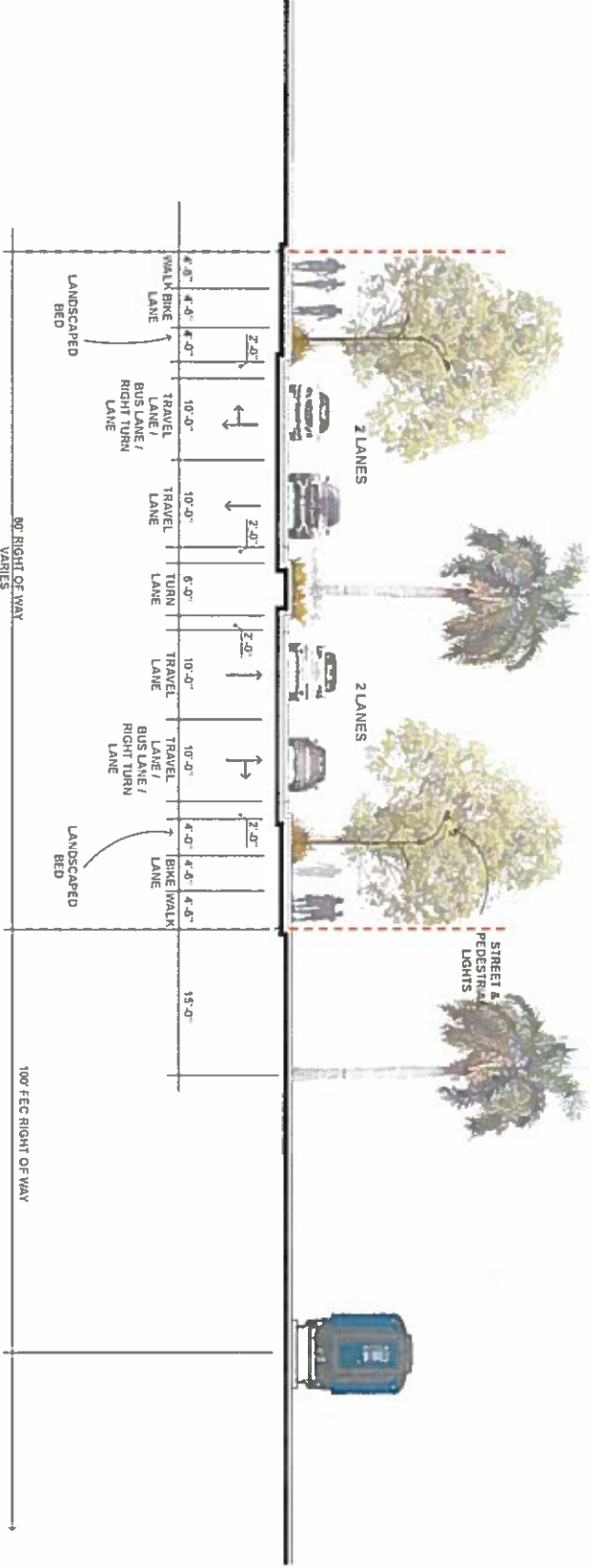




ROADWAY SECTIONS: NORTH DIXIE HIGHWAY



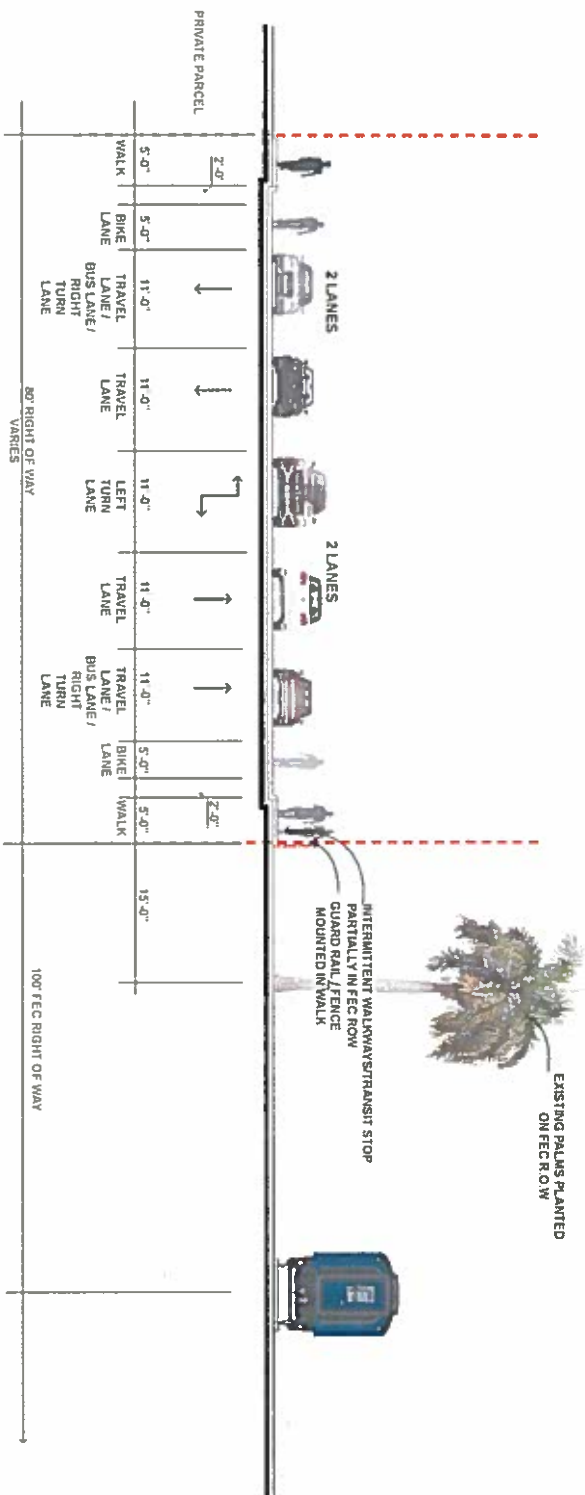
SECTION 3-3: 80' R.O.W  
EXISTING CONDITIONS  
SECTION LOOKING NORTH / NTS



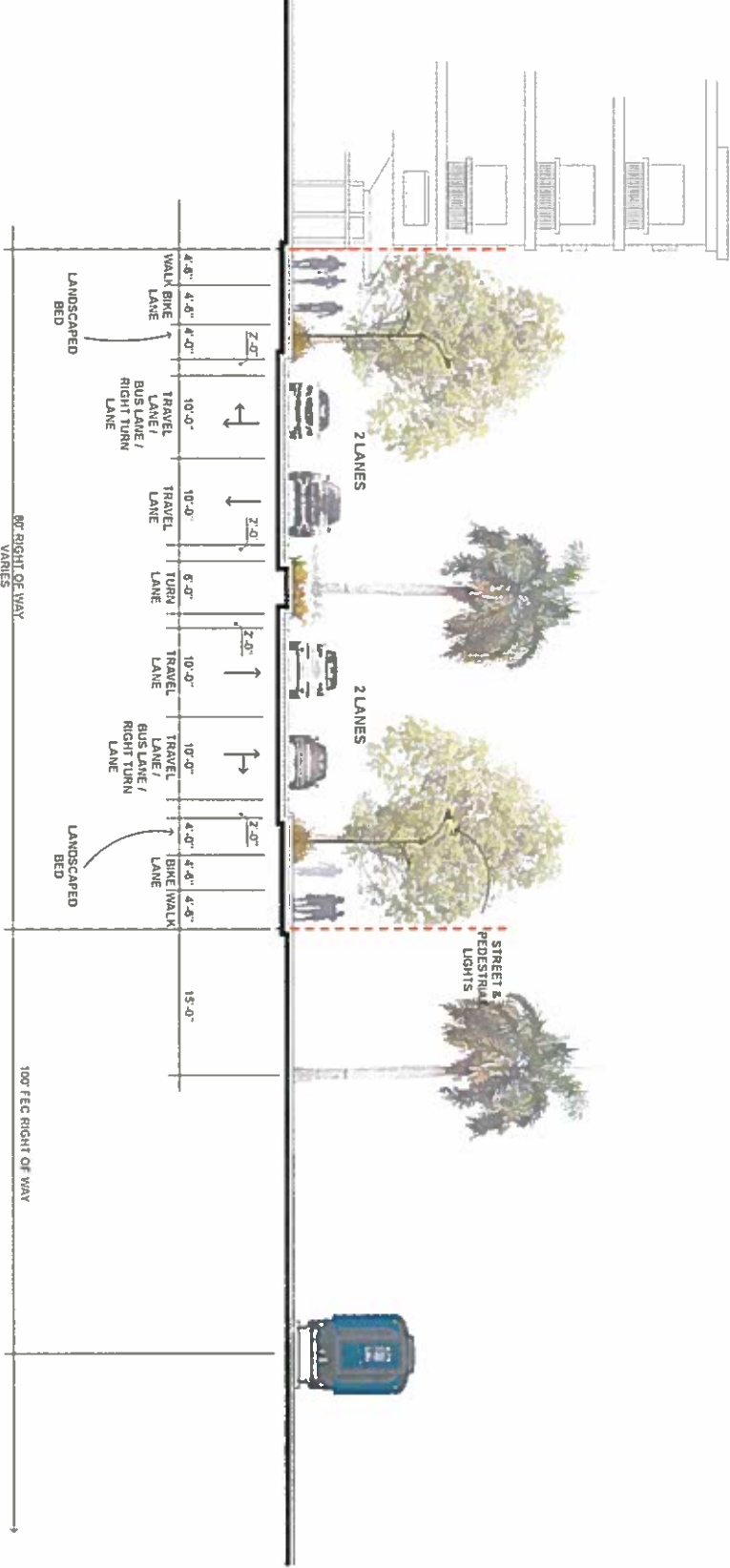
SECTION 3-3: 80' R.O.W  
IMPROVEMENT CONCEPT  
EXISTING DEVELOPMENT EDGE  
SECTION LOOKING WEST / NTS



ROADWAY SECTIONS: NORTH DIXIE HIGHWAY



SECTION 3-3: 80' R.O.W  
EXISTING CONDITIONS  
SECTION LOOKING NORTH / NTS



SECTION 3-3: 80' R.O.W  
IMPROVEMENT CONCEPT  
PROPOSED URBAN DEVELOPMENT  
SECTION LOOKING WEST / NTS

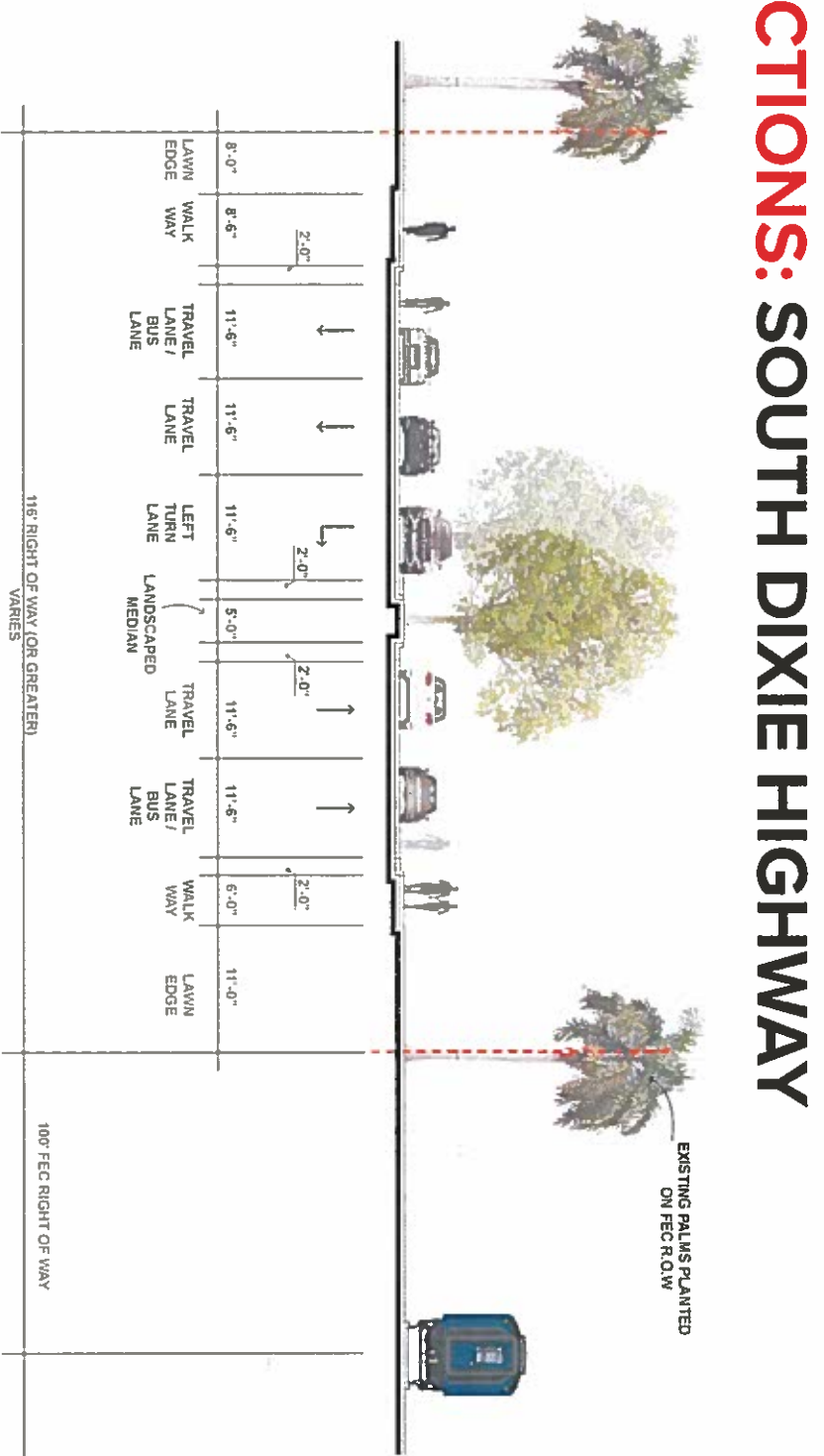


**CONCEPTUAL DESIGN: SOUTH DIXIE HIGHWAY**





ROADWAY SECTIONS: SOUTH DIXIE HIGHWAY



SECTION 4-4: 116' R.O.W  
EXISTING CONDITIONS  
SECTION LOOKING NORTH / NTS



SECTION 4-4: 116' R.O.W  
IMPROVEMENT CONCEPT  
SECTION LOOKING WEST / NTS



**NEXT STEPS:**

