

MDX SR 836/DOLPHIN EXPRESSWAY  
SOUTHWEST EXTENSION  
Project Development and Environment

# PD&E Study

Miami-Dade County, Florida

ETDM No.: 11482

MDX PROGRAM No.: 83618

# WELCOME TO THE CORRIDOR WORKSHOP

June 30, 2016



# **Title VI of the Civil Rights Act of 1964**

is a national law that protects persons from discrimination based on their race, color, or national origin.

Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability or family status.

Persons wishing to express their concerns about Title VI may do so by contacting either:

Contact: Tere Garcia, Public Information Officer  
Phone: 786-277-9292  
E-Mail: [tgarcia@mdxway.com](mailto:tgarcia@mdxway.com)

Contact: Mayra Diaz, Planning Manager  
Phone: 305-637-3277  
E-Mail: [mdiaz@mdxway.com](mailto:mdiaz@mdxway.com)

**MIAMI-DADE EXPRESSWAY AUTHORITY**  
**3790 N.W. 21 Street, Miami, FL 33142**  
**[www.mdxway.com](http://www.mdxway.com)**

**TITLE VI**



# 1

ALTERNATIVE CORRIDOR EVALUATION (ACE)

# PROJECT BACKGROUND and HISTORY

Start

YOU  
• ARE •  
HERE

## Exhibit Area 1

Learn about the project's background and history and how the initial concept study corridors were developed. This Exhibit Area also includes an overview of the PD&E process and schedule.

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End



836

MDX SR 836/DOLPHIN EXPRESSWAY  
SOUTHWEST EXTENSION

Project Development and Environment (PD&E) Study

Miami-Dade County, Florida



STUDY AREA



MICCOSUKEE  
RESORT &  
GAMING

TAMIAMI TRAIL / SW 8TH ST.

CORAL WAY / SW 24TH ST.

BIRD ROAD / SW 42ND ST.

MILLER DR. / SW 56TH ST.

SUNSET DR. / SW 72ND ST.

KENDALL DR. / SW 88TH ST.

KILLIAN DR. / SW 104TH ST.

SW 120TH ST.

SW 136TH ST.

MIAMI EXECUTIVE  
AIRPORT

EVERGLADES NATIONAL PARK

KROME AVE. / SW 177TH AVE.

SW 167TH AVE.

SW 157TH AVE.



**LEGEND**

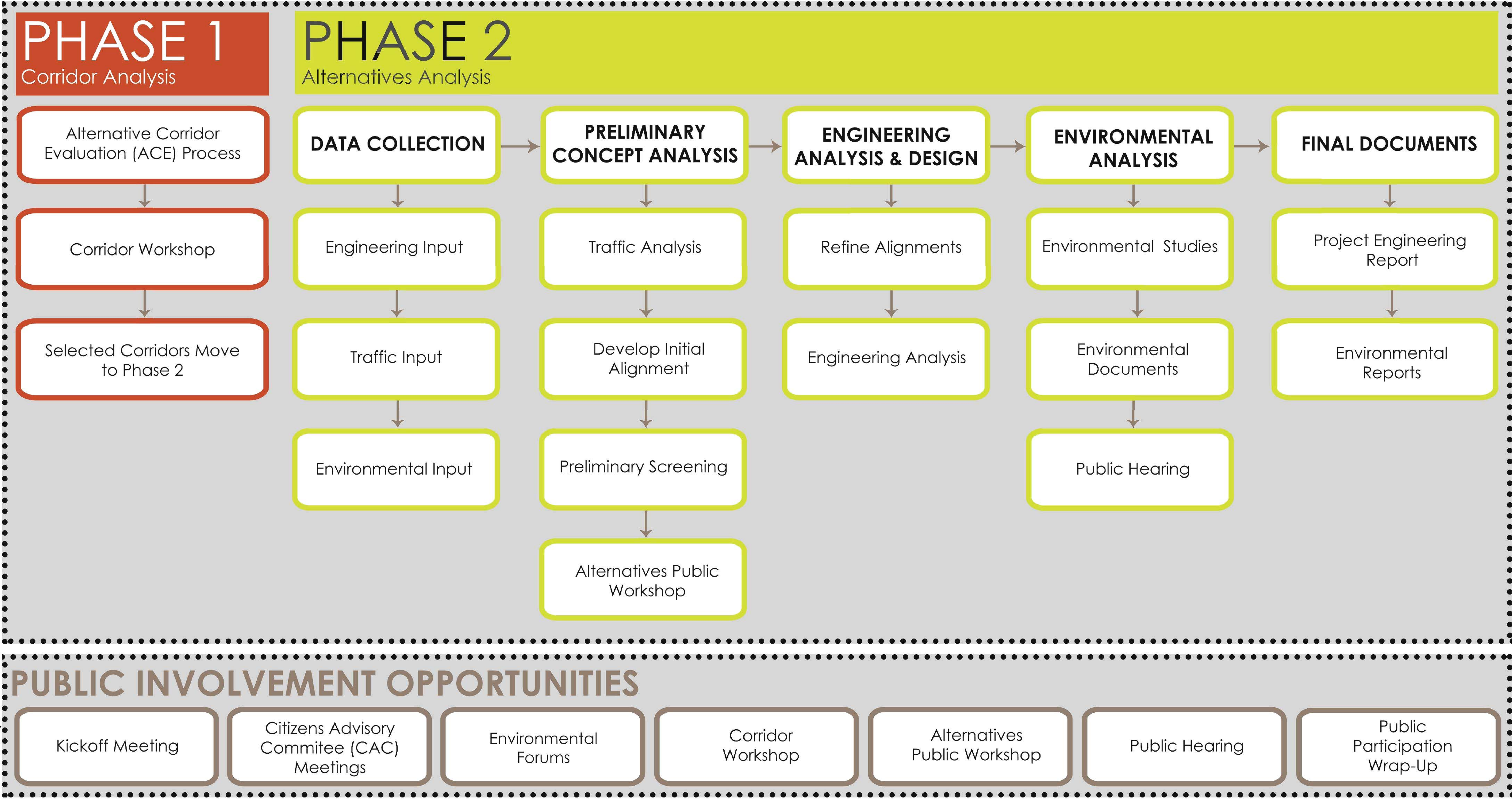
- 2020 Urban Development Boundary
- 2030 Urban Expansion Area
- 2008 CONCEPT REPORT (Initial Concept from Previous Study)
- Concept Study Corridor 1
- Concept Study Corridor 2
- Concept Study Corridor 3
- PROPOSED BY PUBLIC (NOT EVALUATED)
- Concept Study Corridor 4



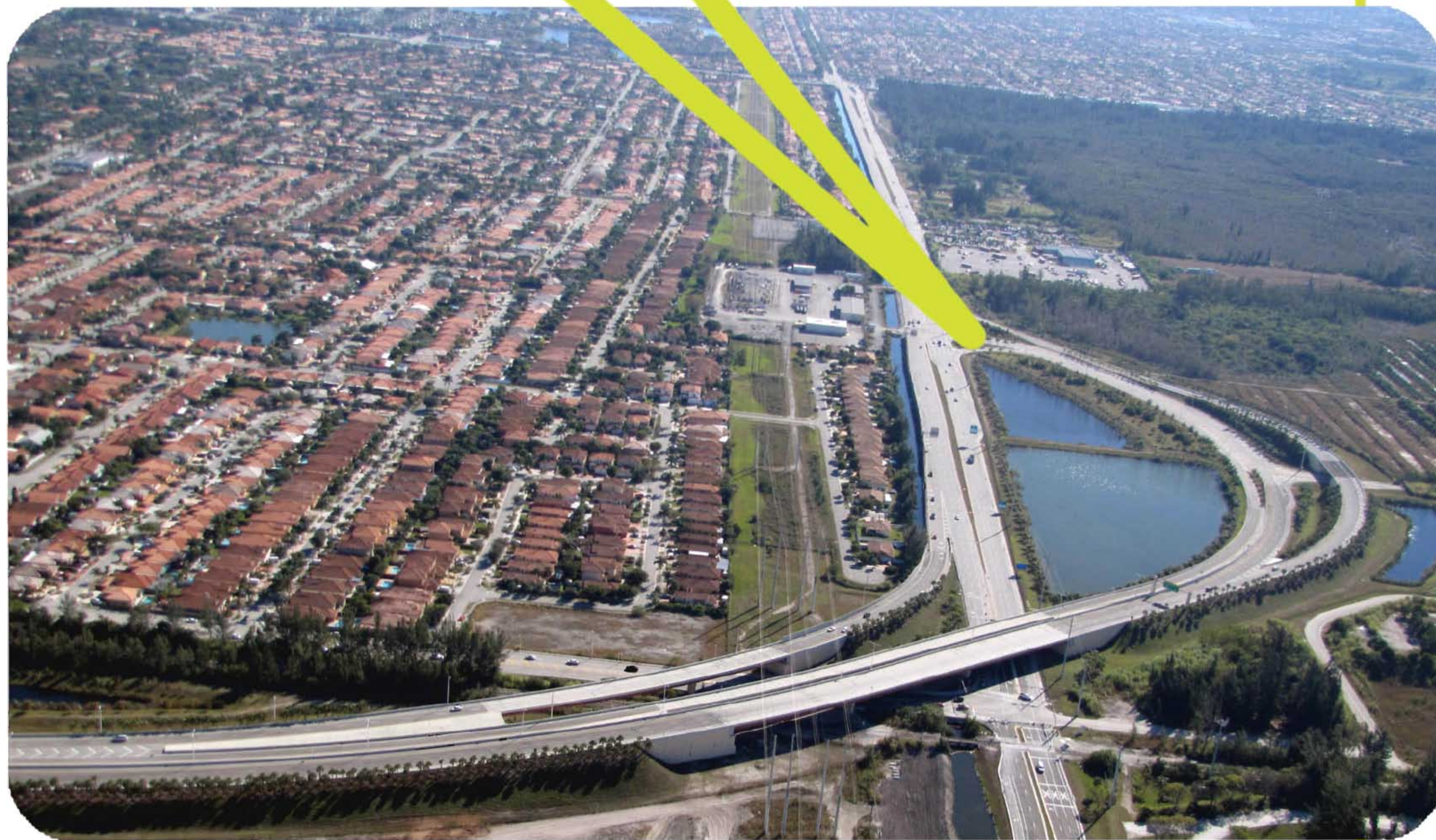
# CONCEPT STUDY CORRIDORS

TRANSPORTATION PROCESS

- 1 PLANNING
- 2 PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
- 3 DESIGN
- 4 RIGHT OF WAY ACQUISITION
- 5 CONSTRUCTION
- 6 MAINTENANCE



Current  
Terminus of  
SR 836 at  
SW 137th  
Avenue

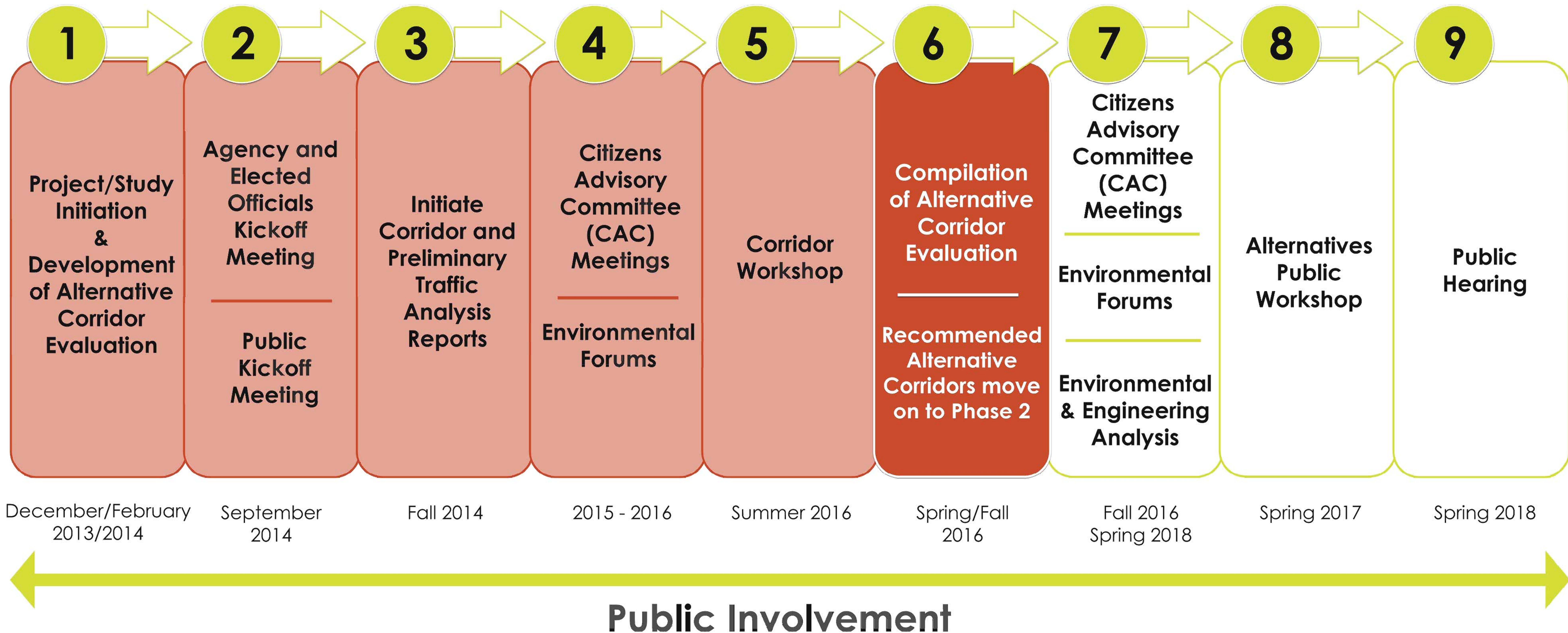


View facing South

- Improve connectivity in the area
- Improve access to and from major employment, educational and commercial centers
- Provide north/south expressway access to serve existing and future travel demand
- Improve hurricane/emergency evacuation routes and travel times
- Evaluate multimodal transportation opportunities

## PHASE 1: Corridor Analysis

## PHASE 2: Alternatives Analysis



2

ALTERNATIVE CORRIDOR EVALUATION (ACE)

# ALTERNATIVE CORRIDOR EVALUATION (ACE) PROCESS

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End

836

**MDX SR 836/DOLPHIN EXPRESSWAY  
SOUTHWEST EXTENSION**

Project Development and Environment (PD&amp;E) Study

Miami-Dade County, Florida

ALTERNATIVE  
CORRIDOR  
EVALUATION  
METHODOLOGY  
MEMORANDUM



ENVIRONMENTAL  
TECHNICAL ADVISORY TEAM  
REVIEW OF ALTERNATIVE  
CORRIDOR EVALUATION  
METHODOLOGY MEMORANDUM  
THROUGH THE ENVIRONMENTAL  
SCREENING TOOL



PURPOSE AND NEED



ENGINEERING



ENVIRONMENTAL

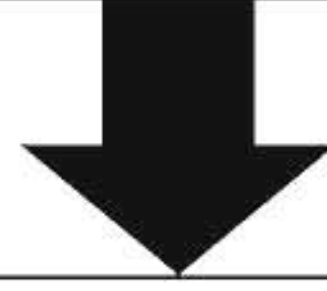


UNIQUE ISSUES

PRELIMINARY ANALYSIS



ALTERNATIVE CORRIDOR  
WORKSHOP TO SOLICIT PUBLIC  
INPUT



ENVIRONMENTAL TECHNICAL  
ADVISORY TEAM REVIEW  
THROUGH THE ENVIRONMENTAL  
SCREENING TOOL



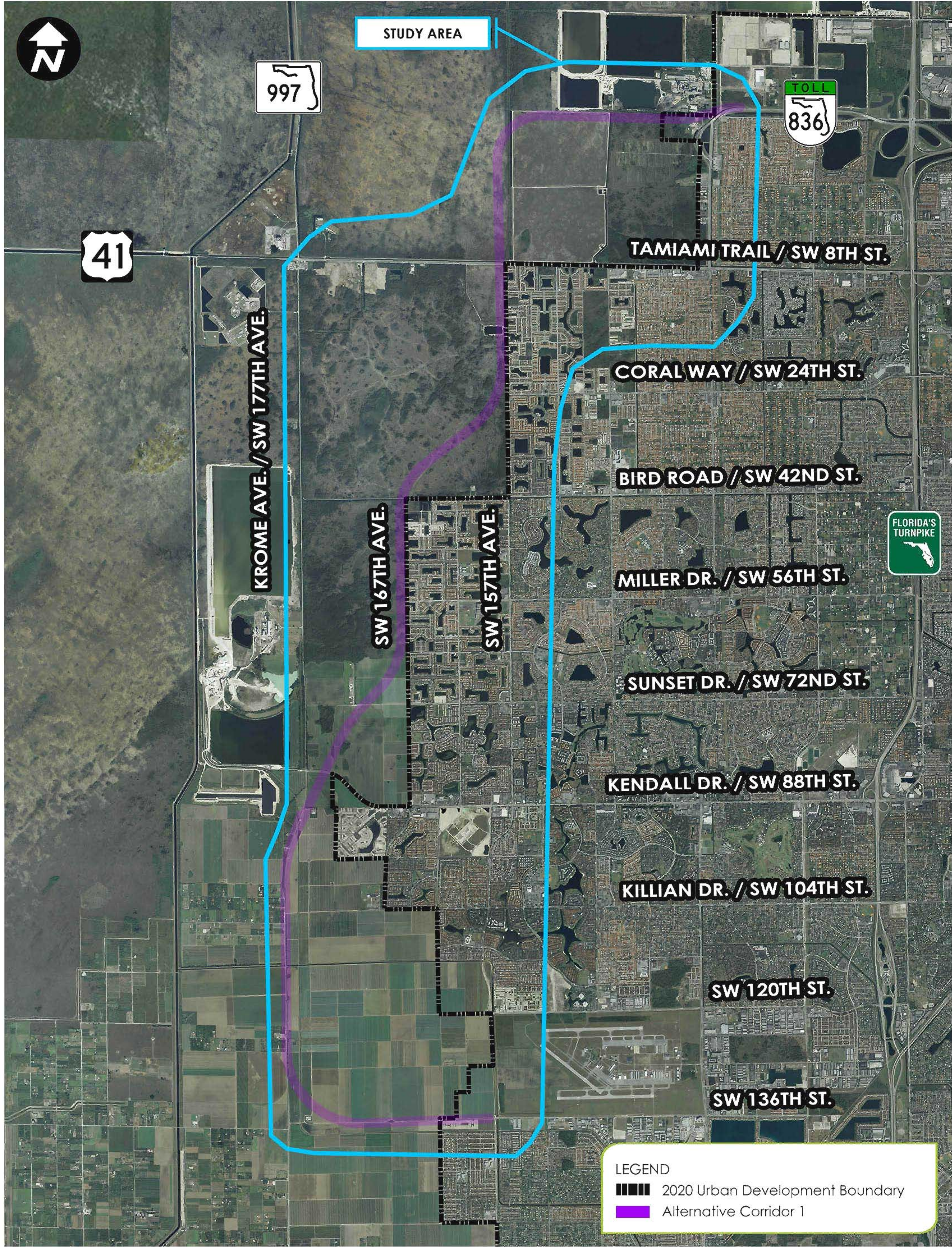
FINAL ALTERNATIVE CORRIDOR  
EVALUATION REPORT



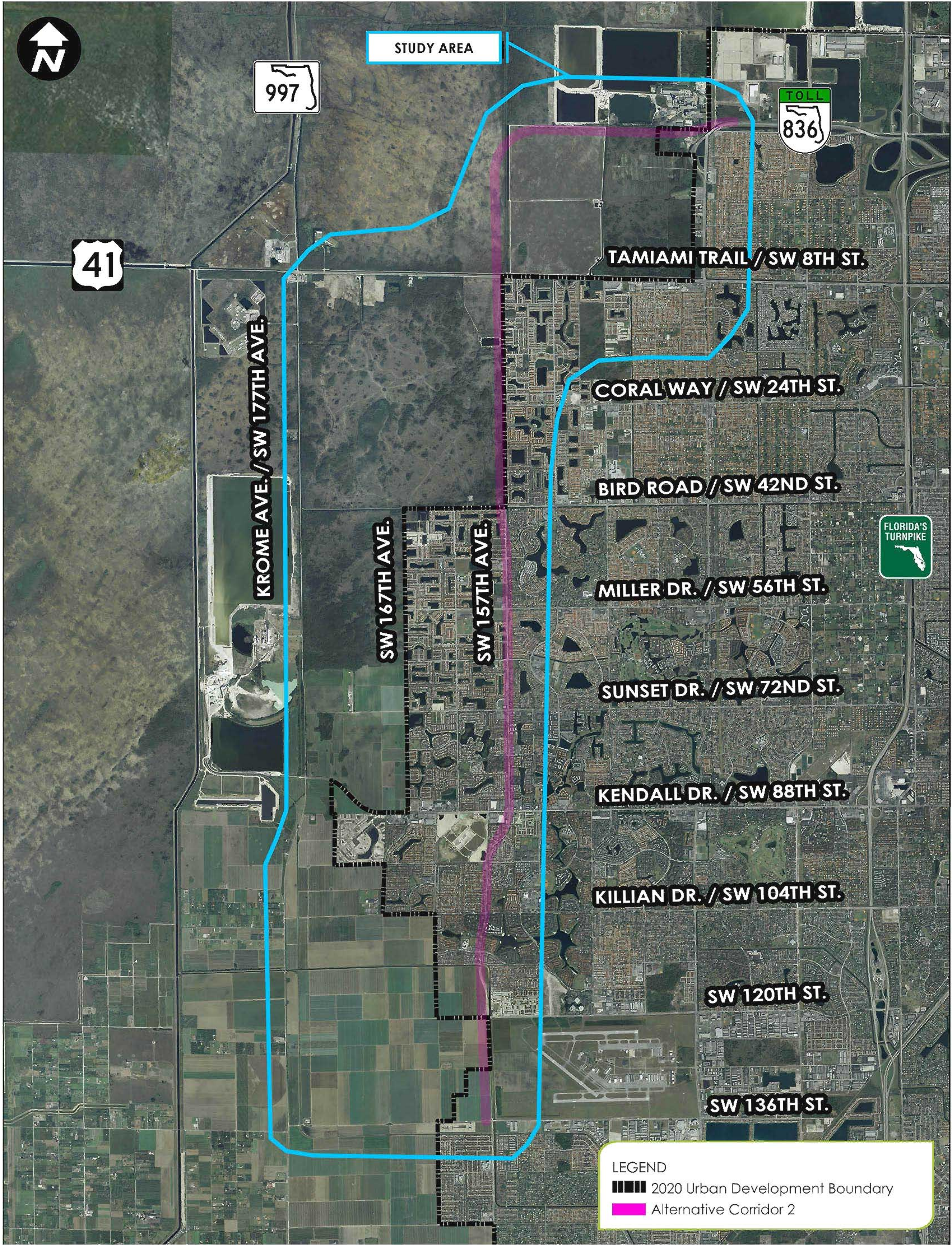
SELECTED  
CORRIDOR(S)  
MOVE ON TO  
PHASE 2



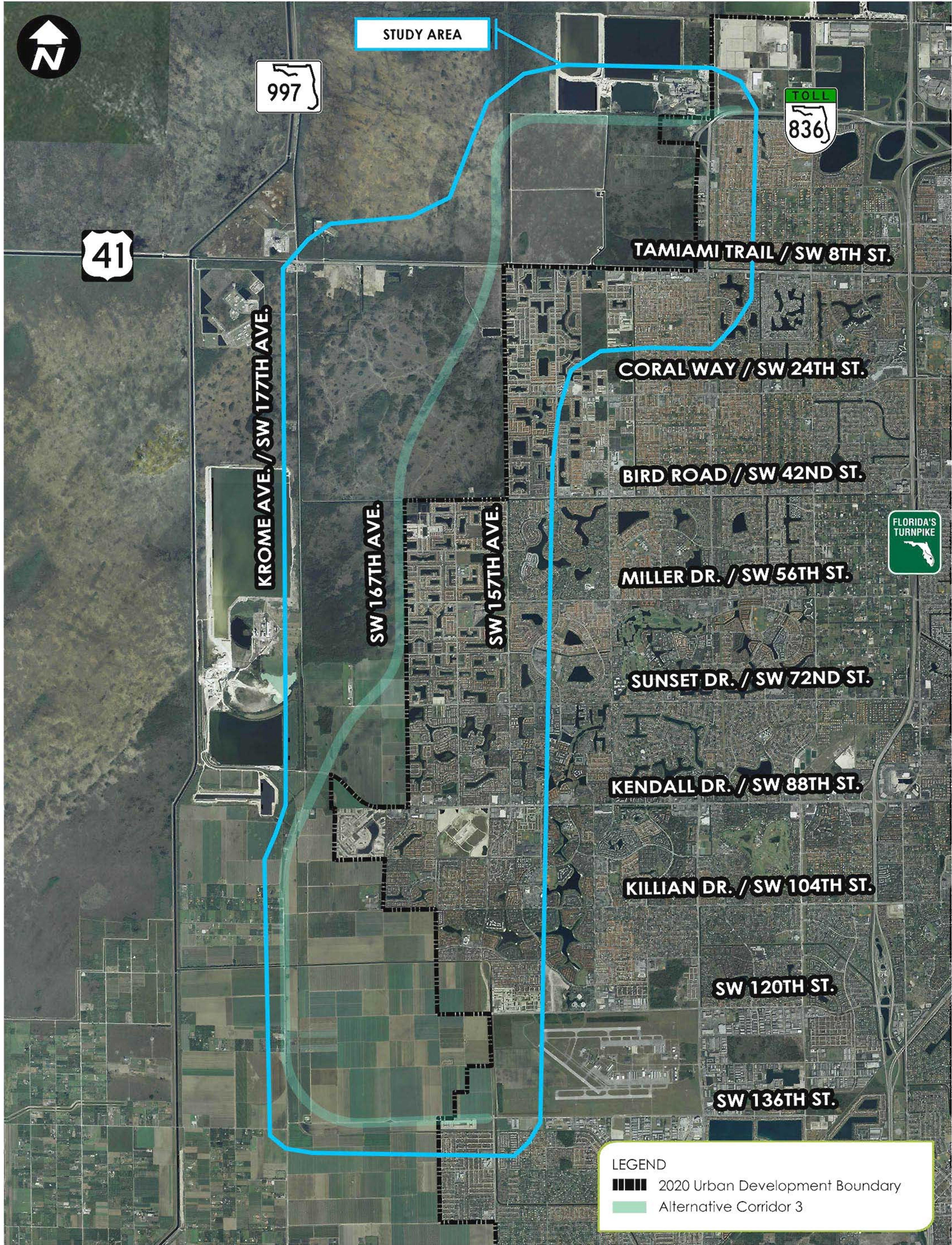
# ALTERNATIVE CORRIDOR 1



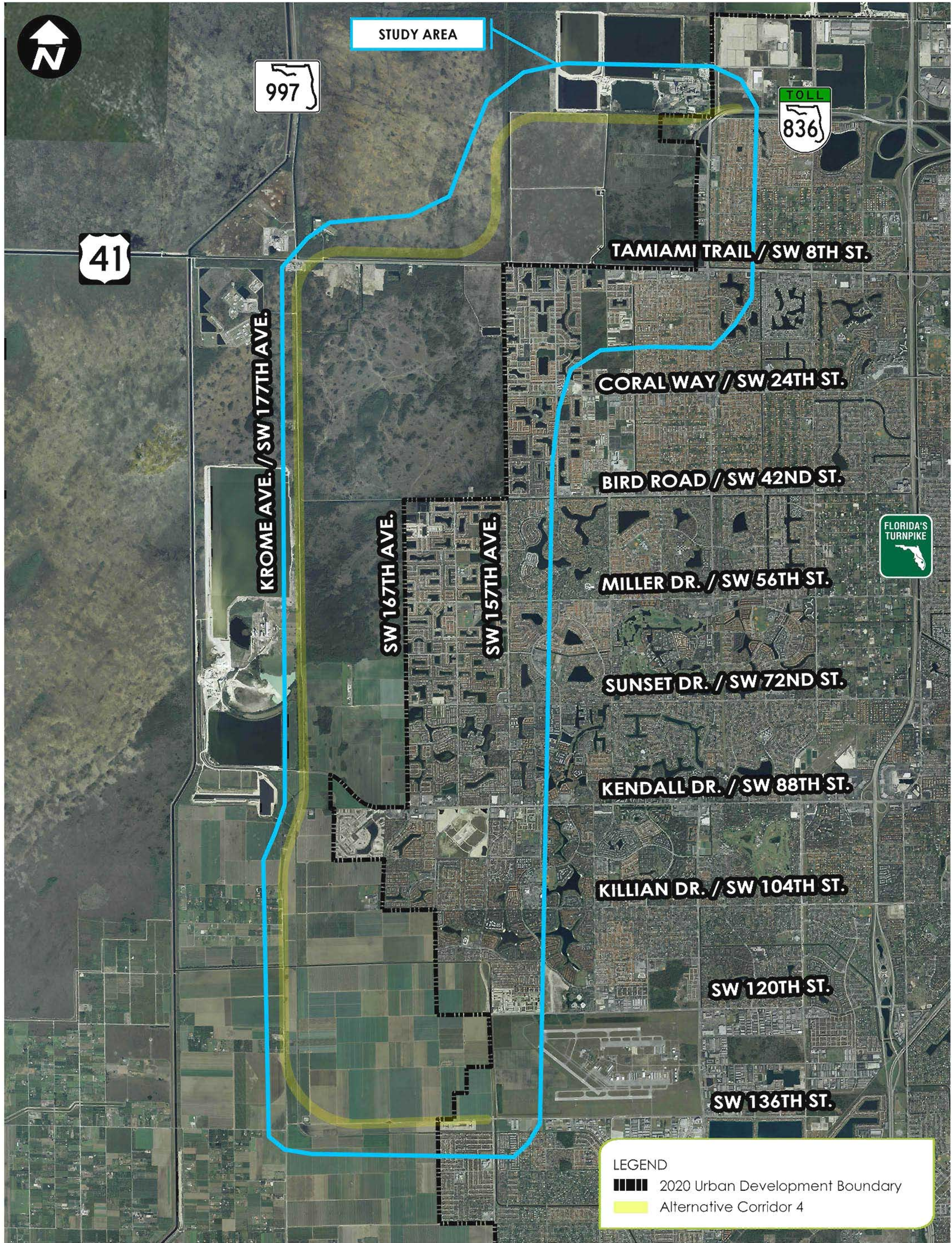
# ALTERNATIVE CORRIDOR 2



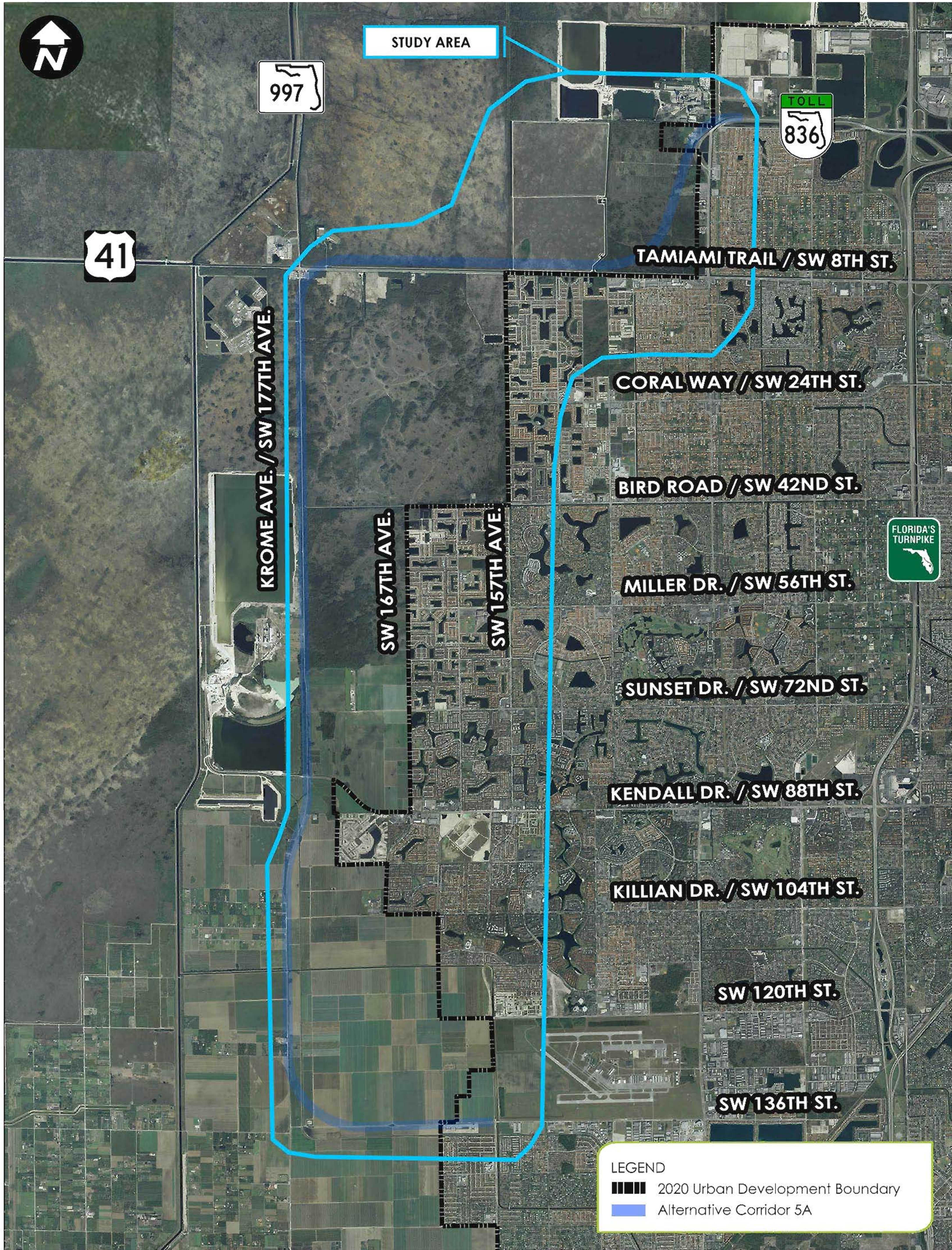
# ALTERNATIVE CORRIDOR 3



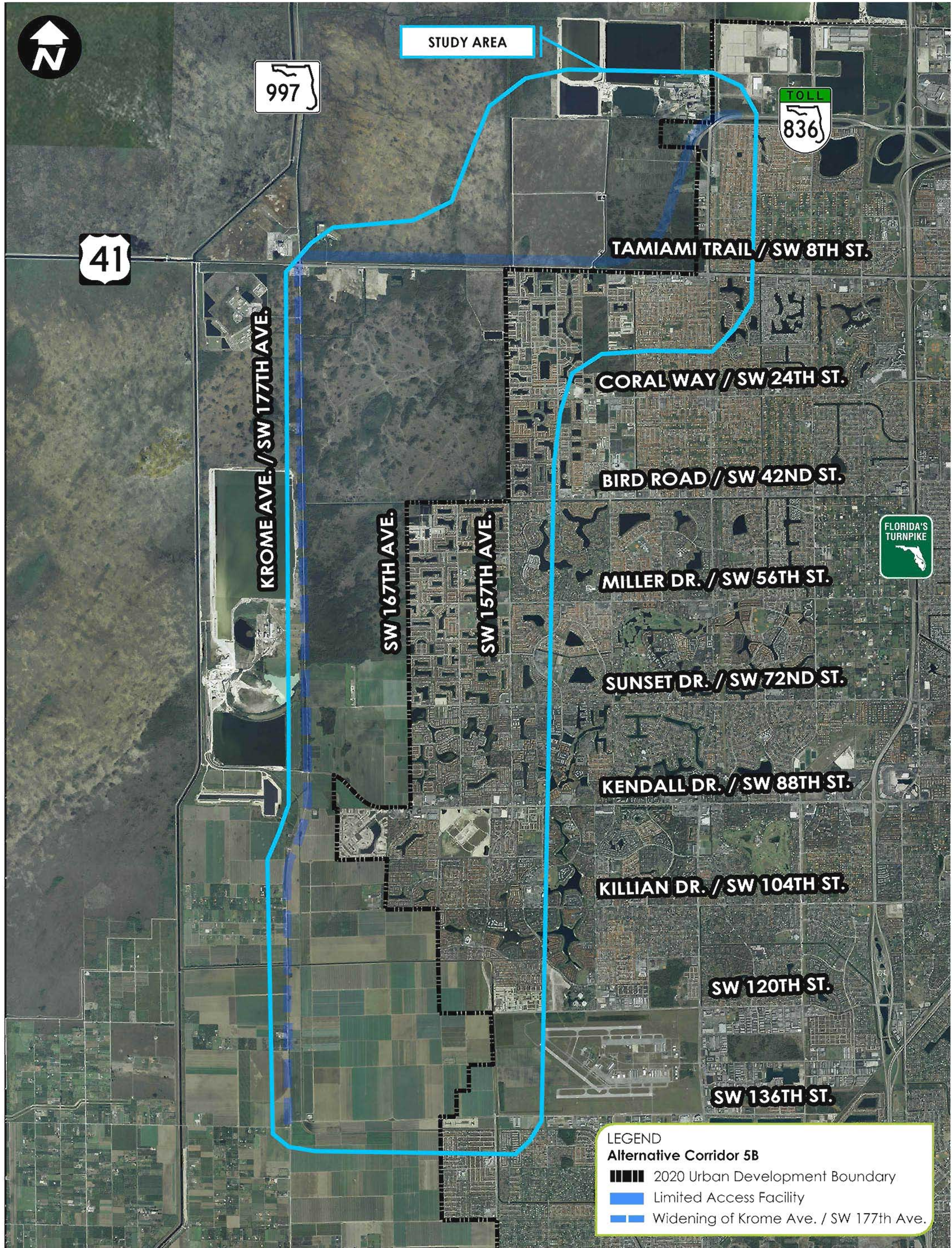
# ALTERNATIVE CORRIDOR 4



# ALTERNATIVE CORRIDOR 5A

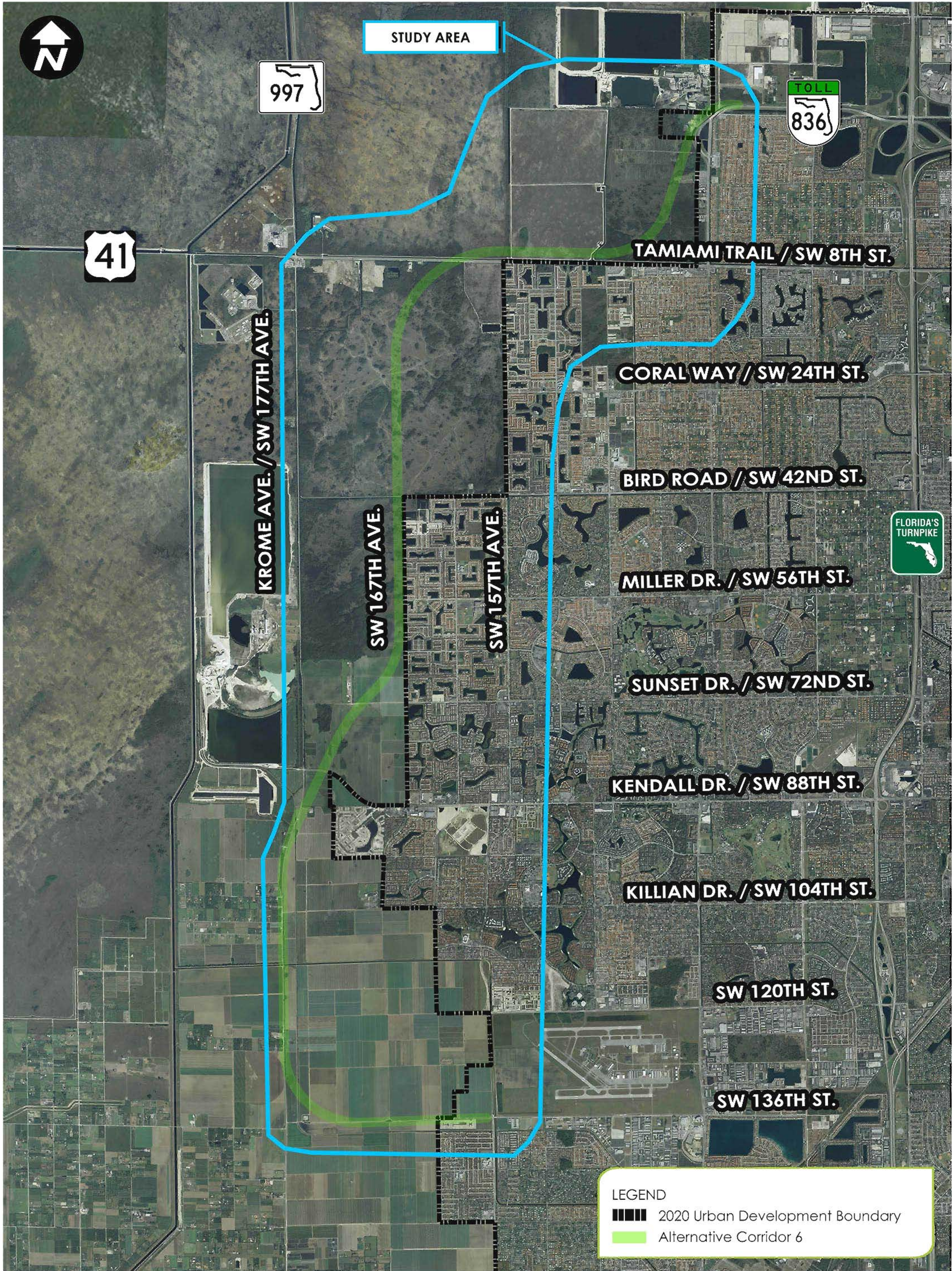


# ALTERNATIVE CORRIDOR 5B

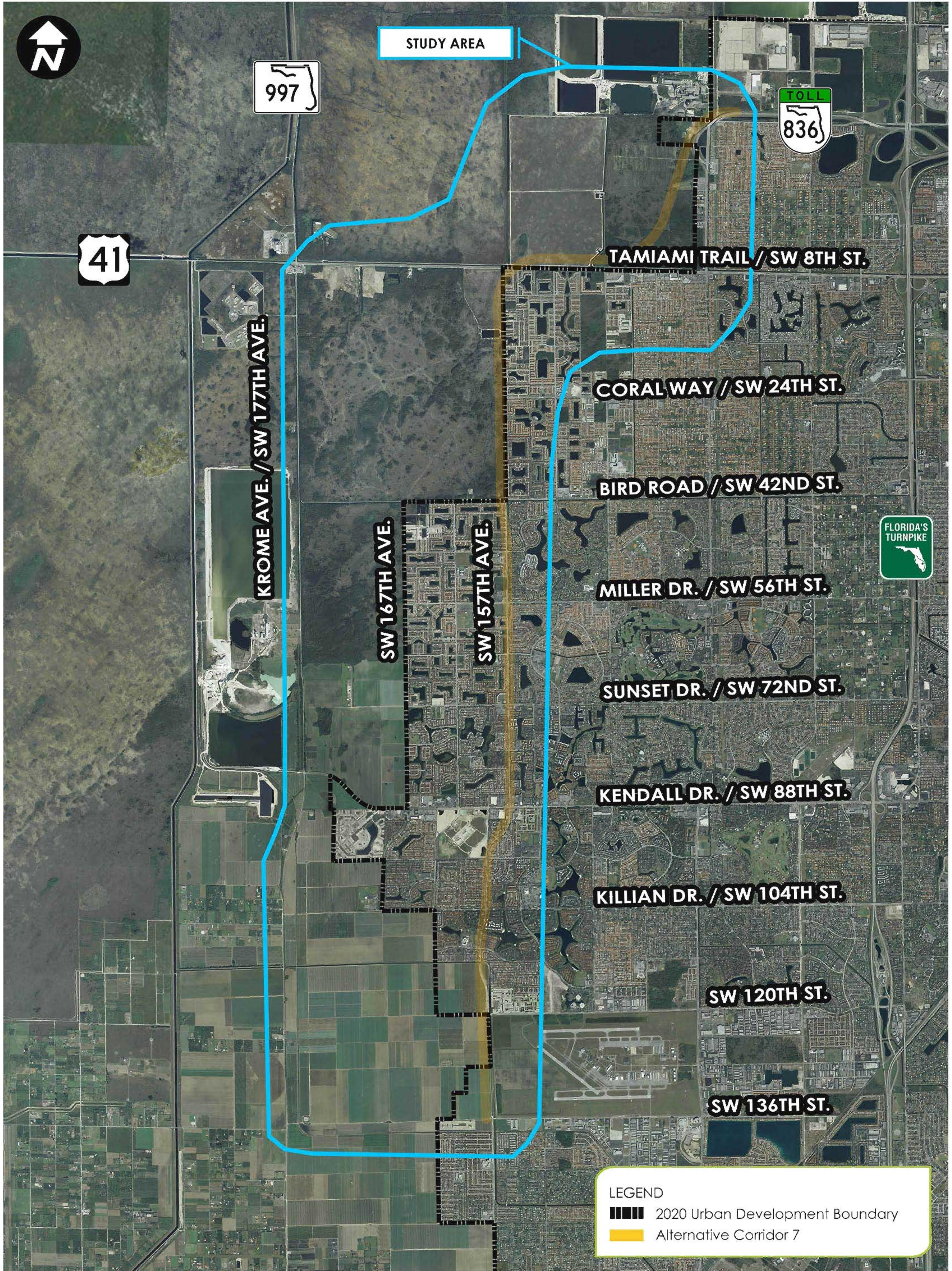


# ALTERNATIVE CORRIDORS 5A and 5B

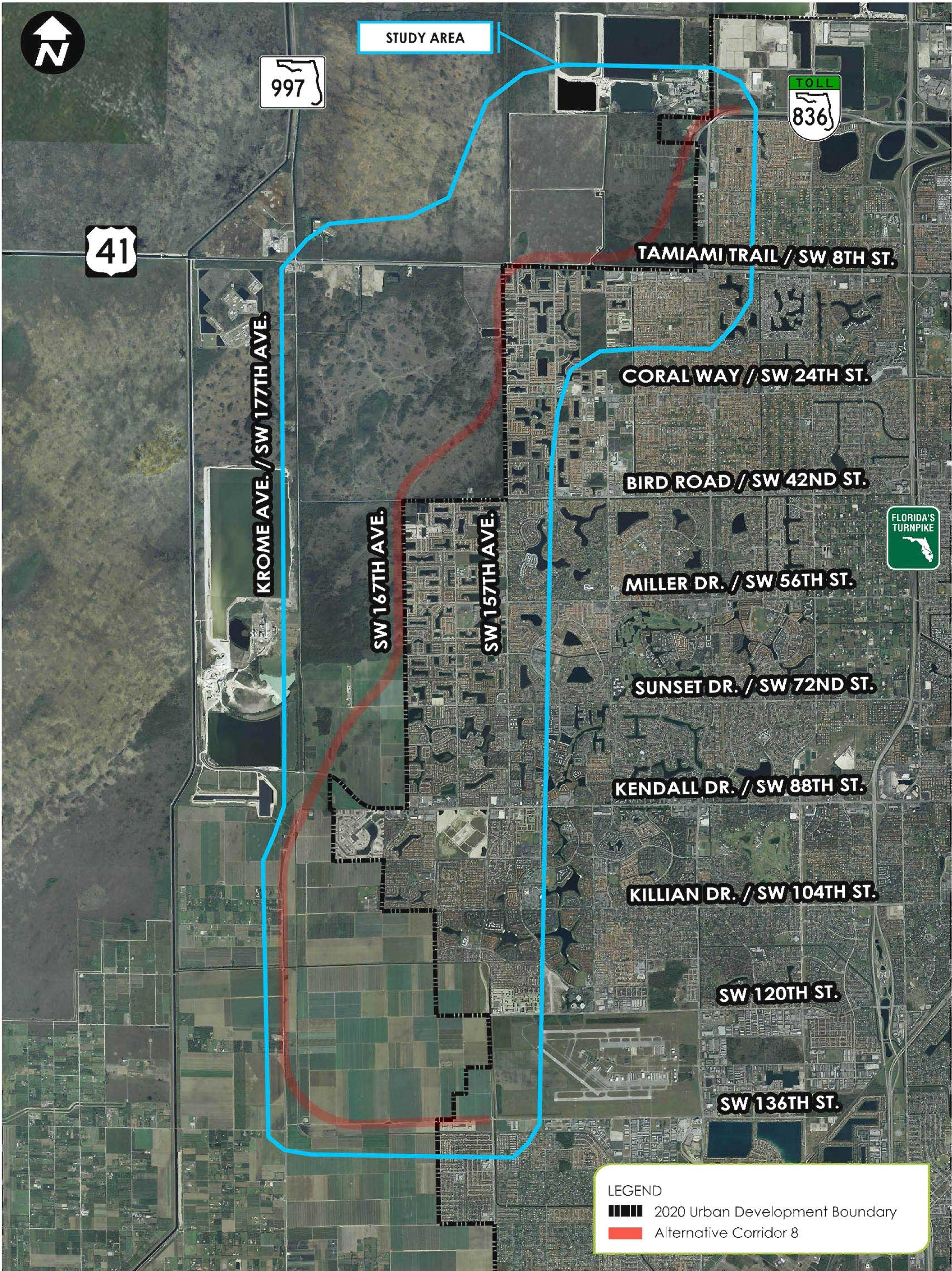
# ALTERNATIVE CORRIDOR 6



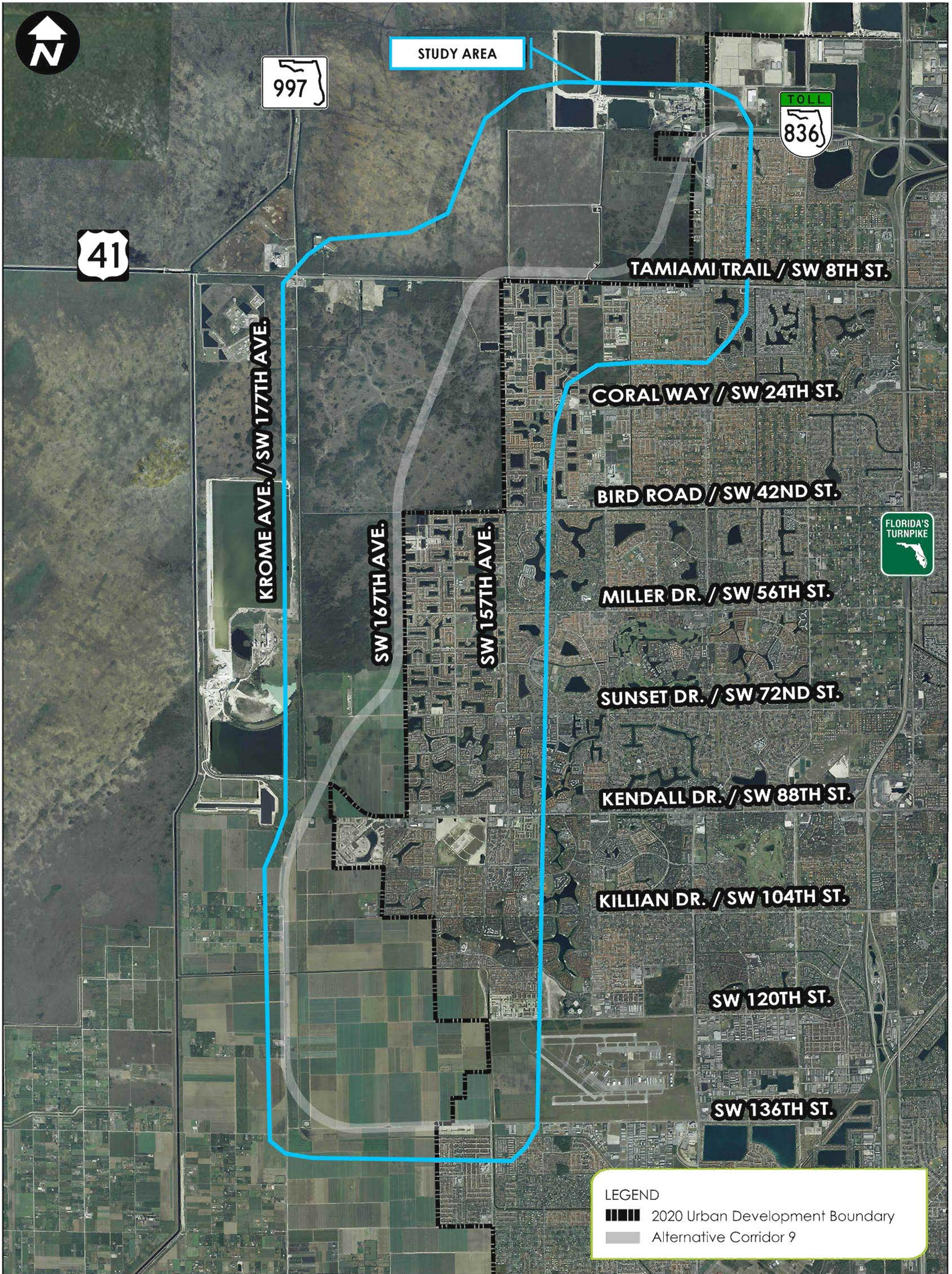
# ALTERNATIVE CORRIDOR 7



# ALTERNATIVE CORRIDOR 8



# ALTERNATIVE CORRIDOR 9

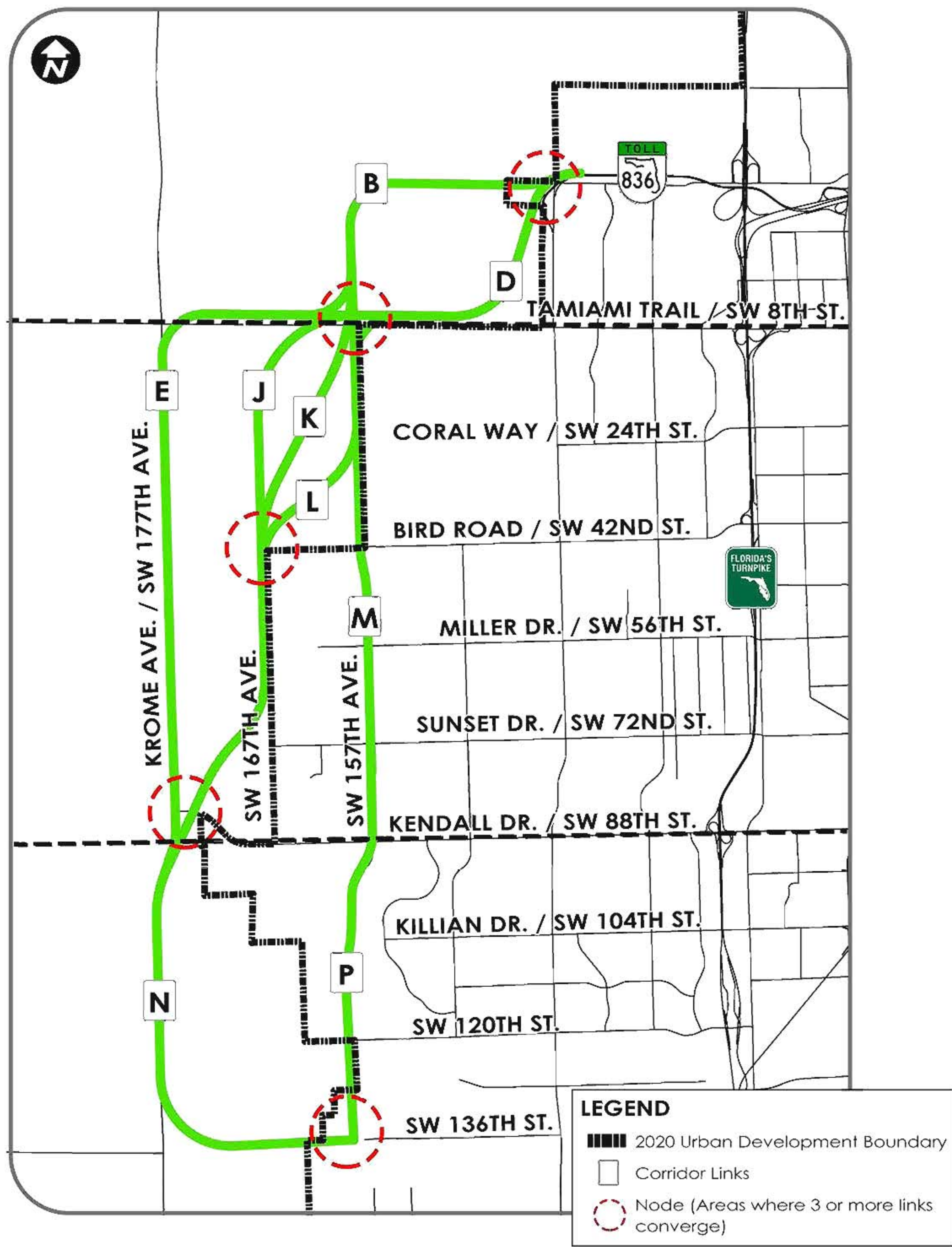


## ALTERNATIVE CORRIDORS 8 and 9

SEGMENT I

SEGMENT II

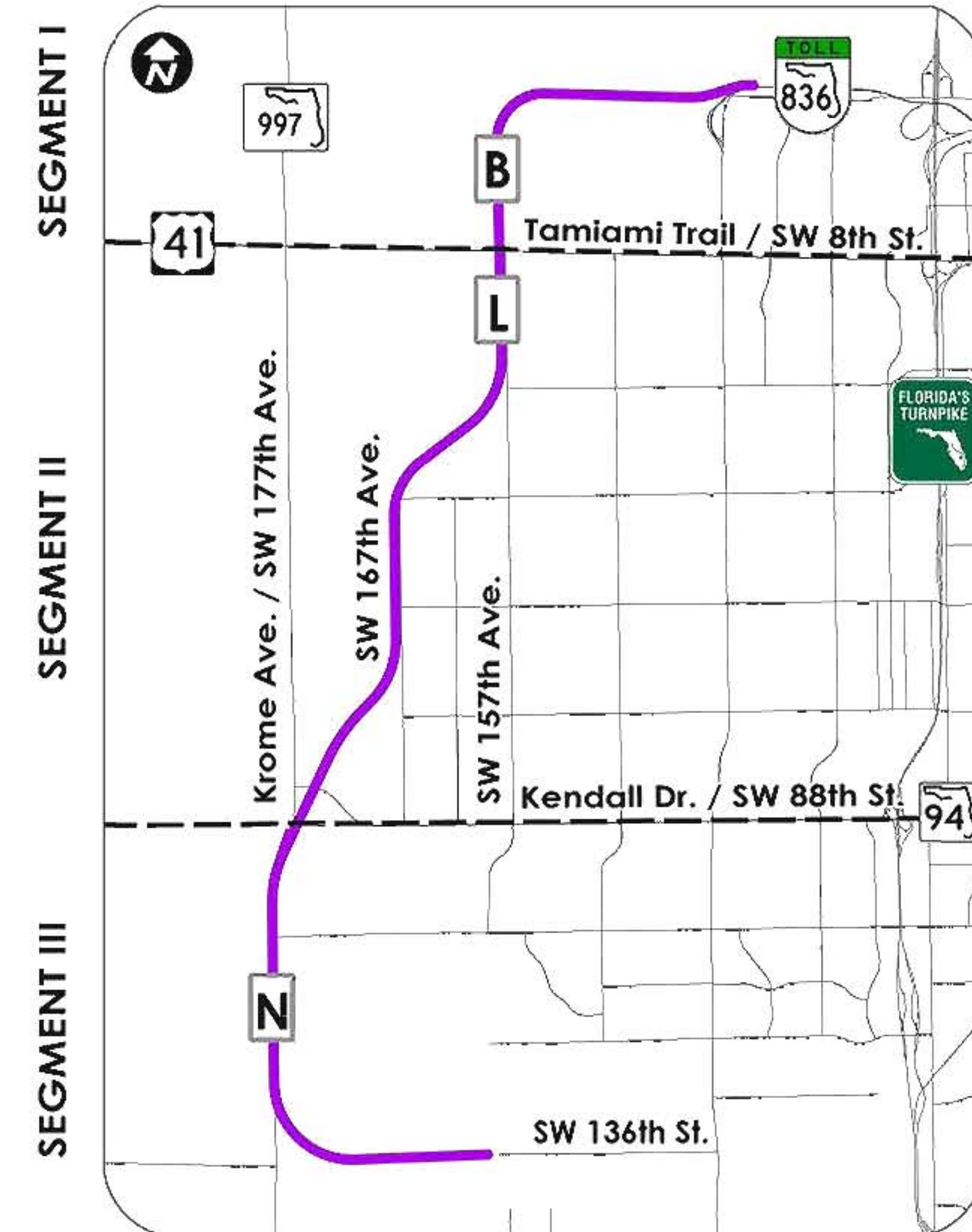
SEGMENT III



Refined Alternatives based on 46 potential corridors, made up of 16 interchangeable links.

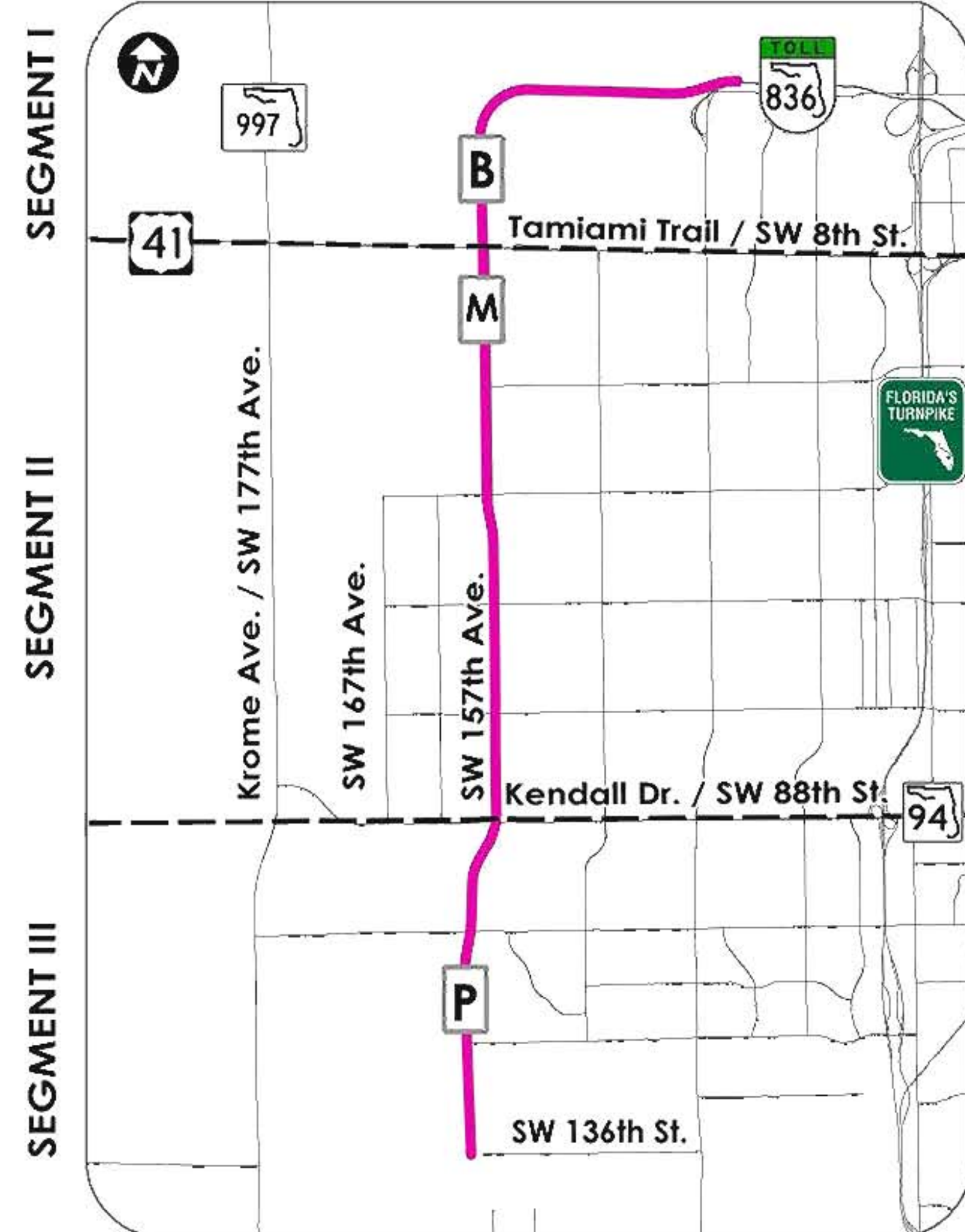
| SEGMENT I | SEGMENT II | SEGMENT III | Alternative Corridors |
|-----------|------------|-------------|-----------------------|
| Link      | Link       | Link        |                       |
| B         | L          | N           | Corridor 1            |
| B         | M          | P           | Corridor 2            |
| B         | K          | N           | Corridor 3            |
| B         | E          | N           | Corridor 4            |
| D         | E          | N           | Corridor 5A           |
| D         | E          | -           | Corridor 5B           |
| D         | J          | N           | Corridor 6            |
| D         | M          | P           | Corridor 7            |
| D         | L          | N           | Corridor 8            |
| D         | K          | N           | Corridor 9            |

#### ALTERNATIVE CORRIDOR 1



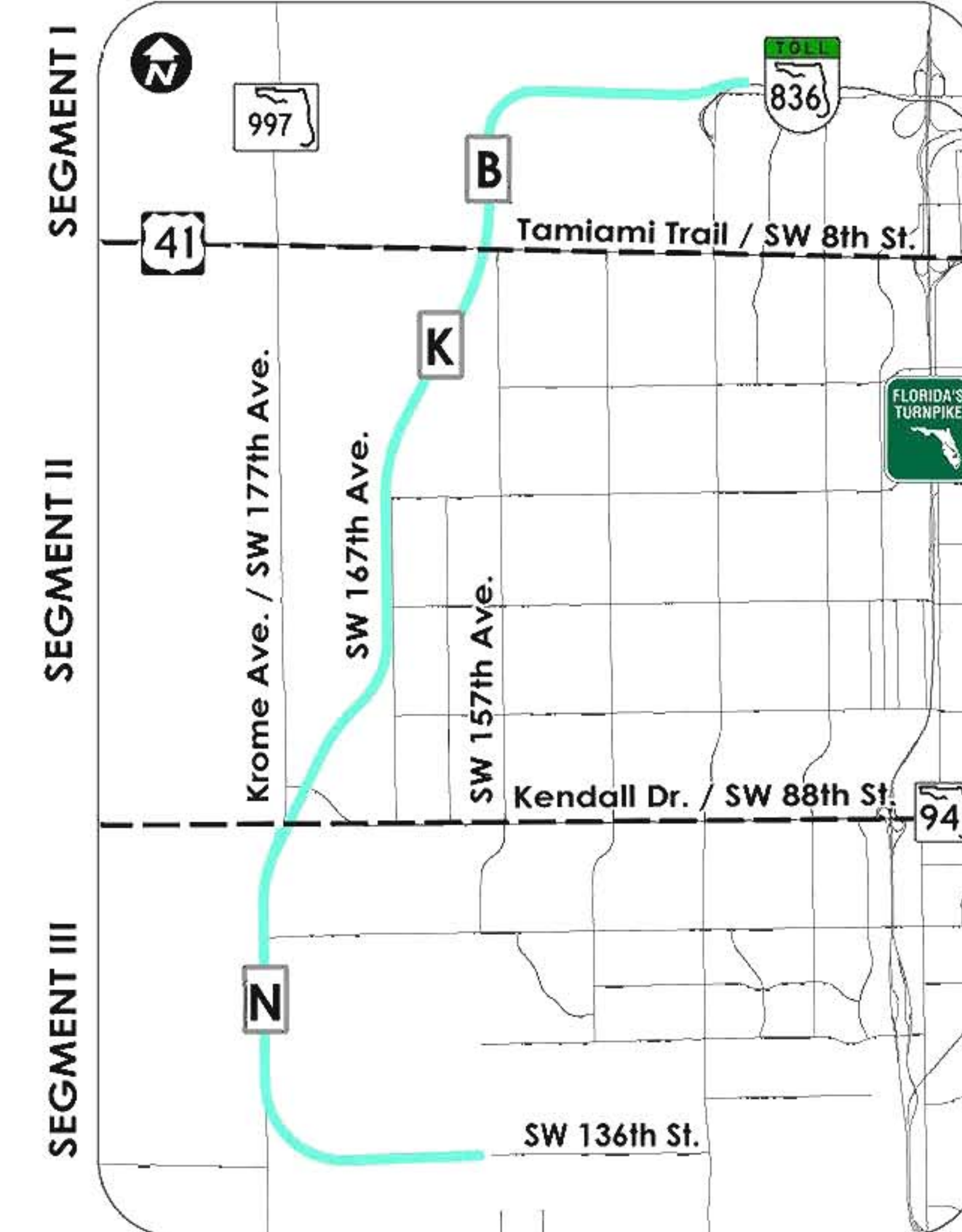
**LEGEND**  
Alternative Corridor 1  
Corridor Links

#### ALTERNATIVE CORRIDOR 2



**LEGEND**  
Alternative Corridor 2  
Corridor Links

#### ALTERNATIVE CORRIDOR 3



**LEGEND**  
Alternative Corridor 3  
Corridor Links

#### ALTERNATIVE CORRIDOR 4



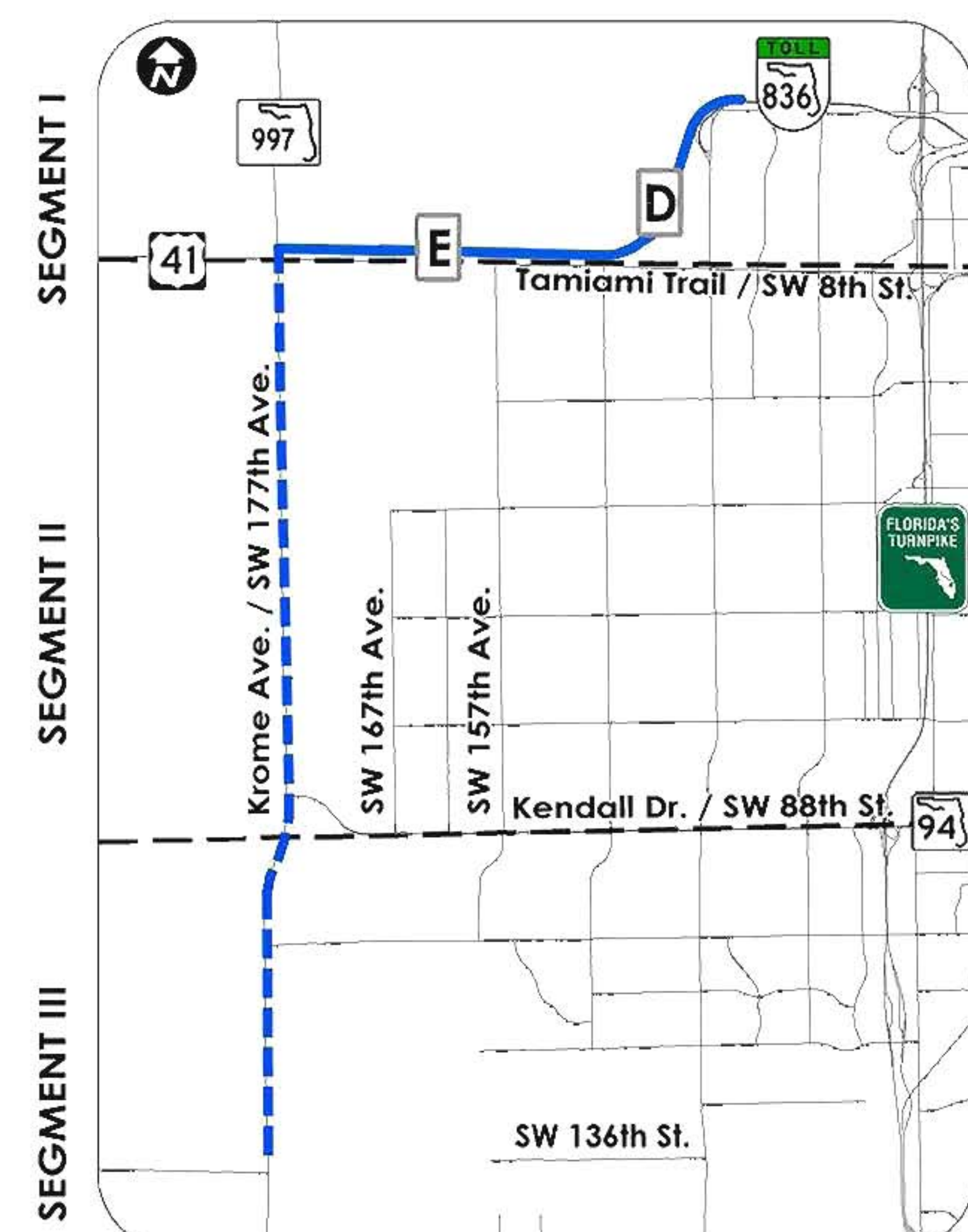
**LEGEND**  
Alternative Corridor 4  
Corridor Links

#### ALTERNATIVE CORRIDOR 5A



**LEGEND**  
Alternative Corridor 5A  
Corridor Links

#### ALTERNATIVE CORRIDOR 5B



**LEGEND**  
Alternative 5B  
Limited Access Facility  
Widening of Krome Ave. / SW 177th Ave.  
Corridor Links

#### ALTERNATIVE CORRIDOR 6



**LEGEND**  
Alternative Corridor 6  
Corridor Links

#### ALTERNATIVE CORRIDOR 7



**LEGEND**  
Alternative Corridor 7  
Corridor Links

#### ALTERNATIVE CORRIDOR 8



**LEGEND**  
Alternative Corridor 8  
Corridor Links

#### ALTERNATIVE CORRIDOR 9



**LEGEND**  
Alternative Corridor 9  
Corridor Links

3

ALTERNATIVE CORRIDOR EVALUATION (ACE)

# ACE PURPOSE and NEED EVALUATION

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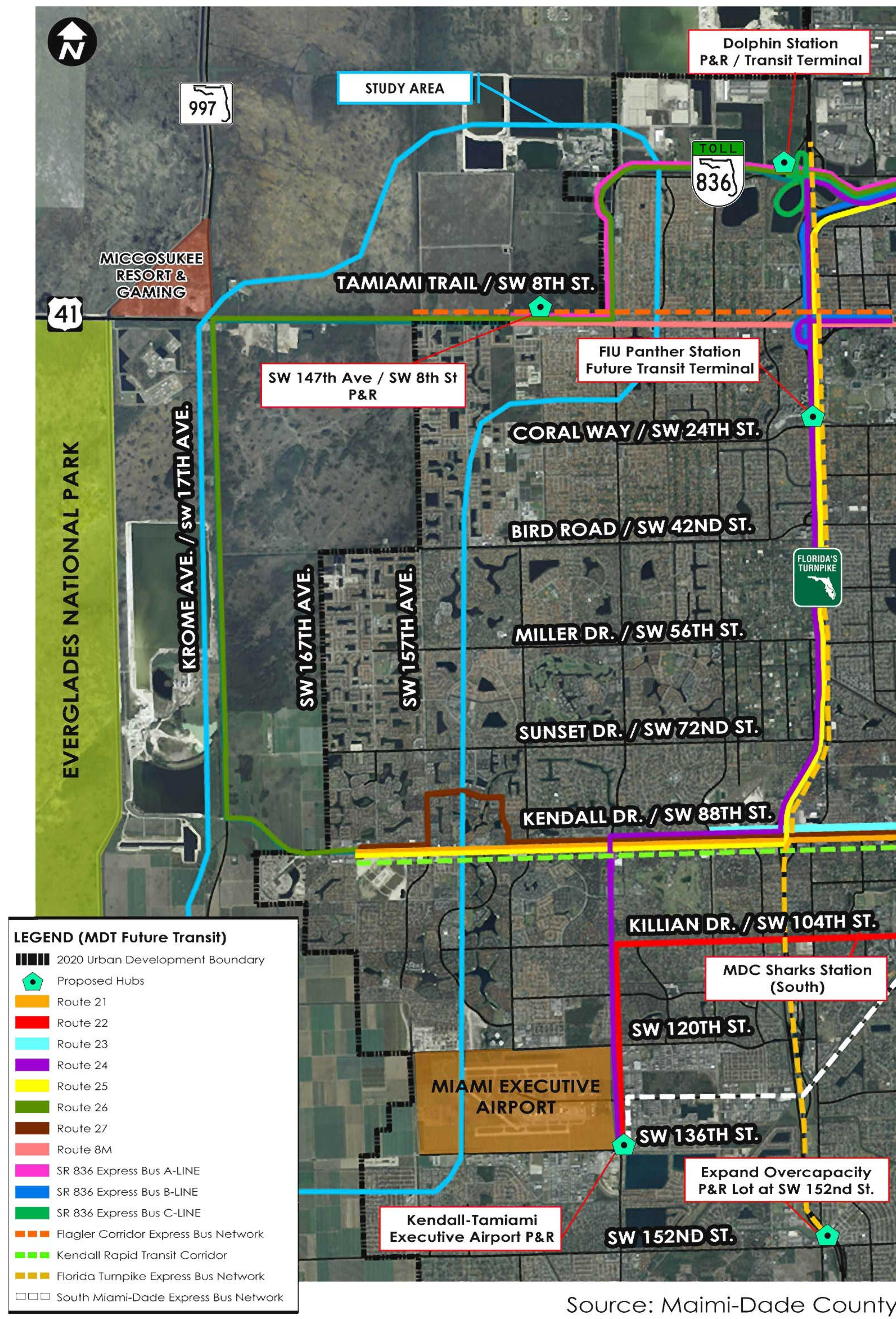
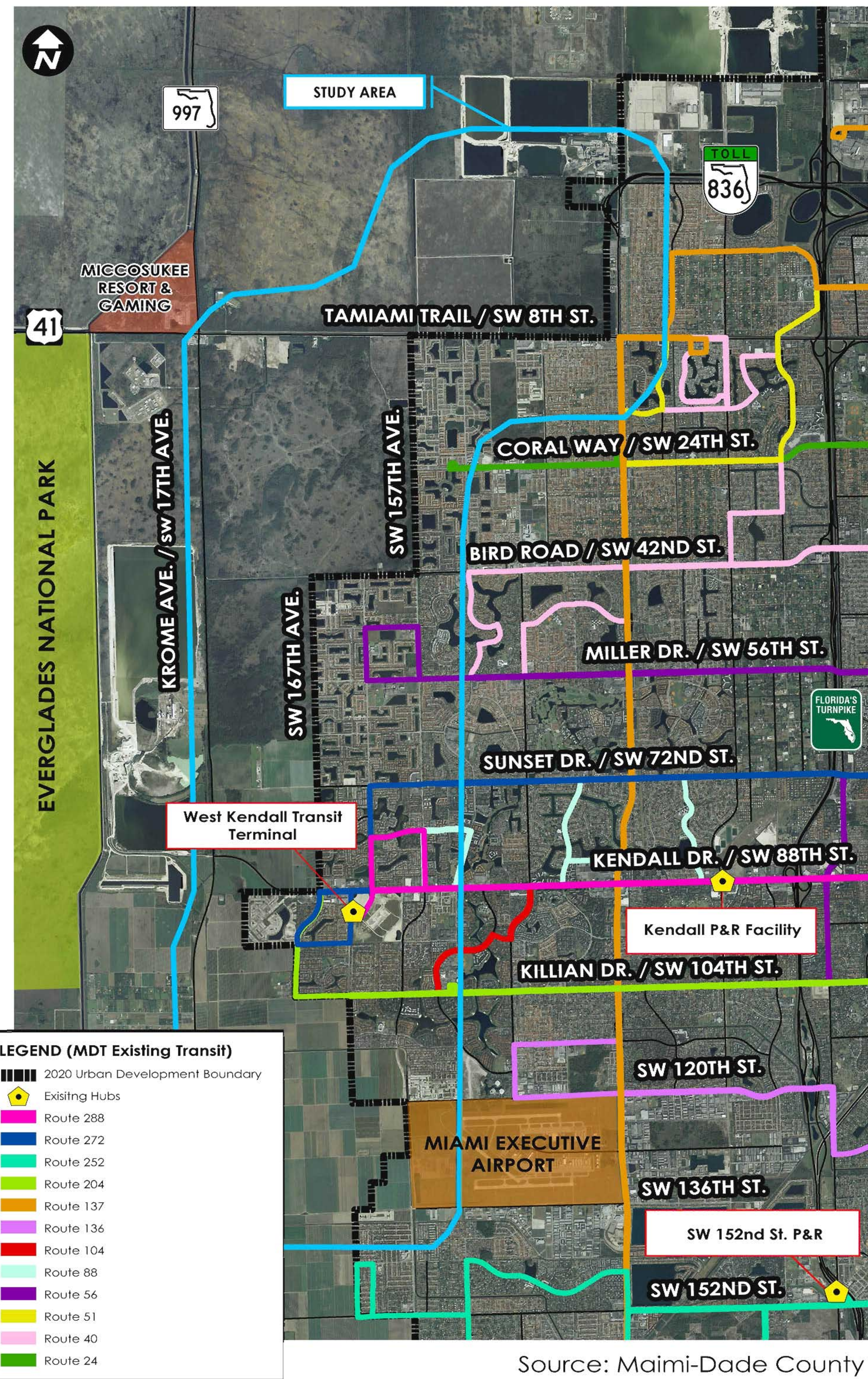
End

836

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SOUTHWEST EXTENSION

Project Development and Environment (PD&E) Study

Miami-Dade County, Florida



Existing Multi-Use Trail along SR 836 between NW 107th Avenue and NW 87th Avenue

MDX will further evaluate in Phase II the potential to incorporate the following multimodal improvements:

- Facilitate future Department of Transportation and Public Works (DTPW) (Formerly Miami Dade Transit) Express Bus service providing connectivity to the other express bus routes such as the SR 836 Express along SR 836 and similar services along SW 8th Street (Tamiami Trail) and Flagler Street.
- Potential park and ride facilities can be strategically located near proposed interchanges to facilitate Express Bus service transfers.
- The footprint for the SR 836/Dolphin Expressway Southwest Extension could incorporate a future Multi-Use Trail which may be used as a buffer between developed areas and the expressway. This could provide pedestrian and bicycle access to the park and ride facilities and help build Miami-Dade County's Greenway system supporting the County's policies to further enhance connections within the community while promoting multimodal travel.



Proposed Dolphin Station Park & Ride / Transit Terminal

# ENHANCED MULTIMODAL CONNECTIVITY



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# ACE ENVIRONMENTAL EVALUATION

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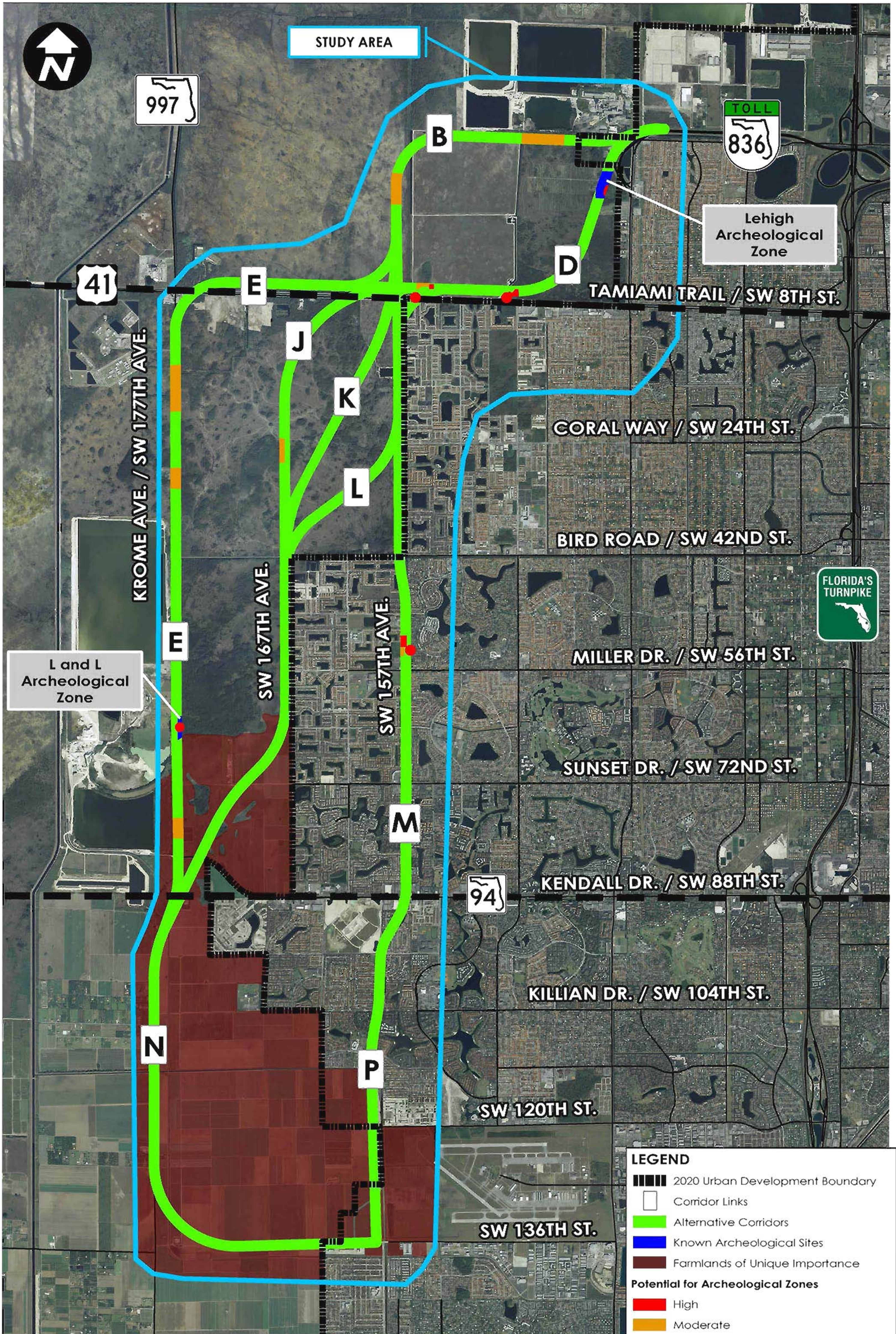
Project Development and Environment (PD&E) Study

Miami-Dade County, Florida

SEGMENT I

SEGMENT II

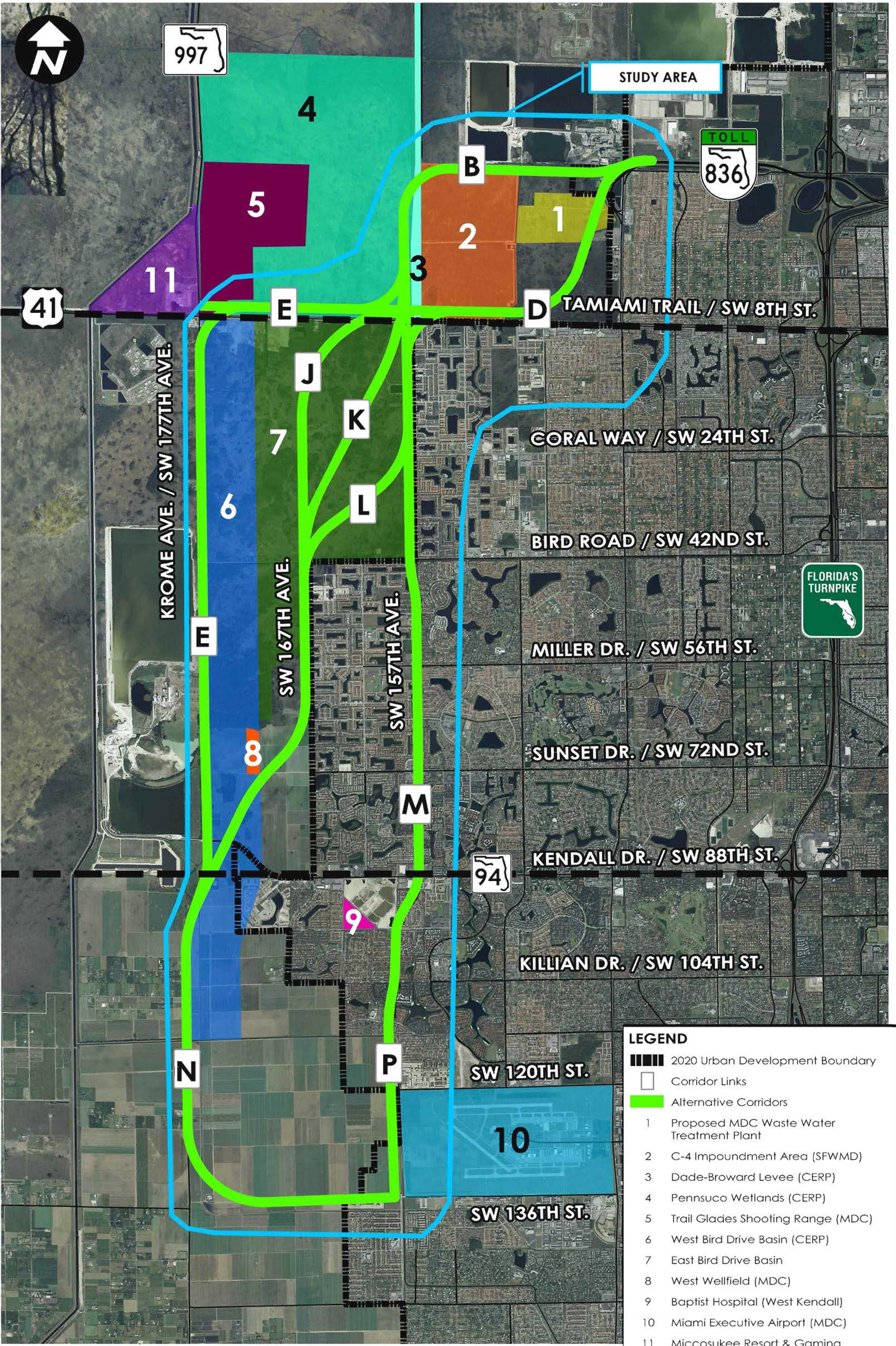
SEGMENT III



SEGMENT I

SEGMENT II

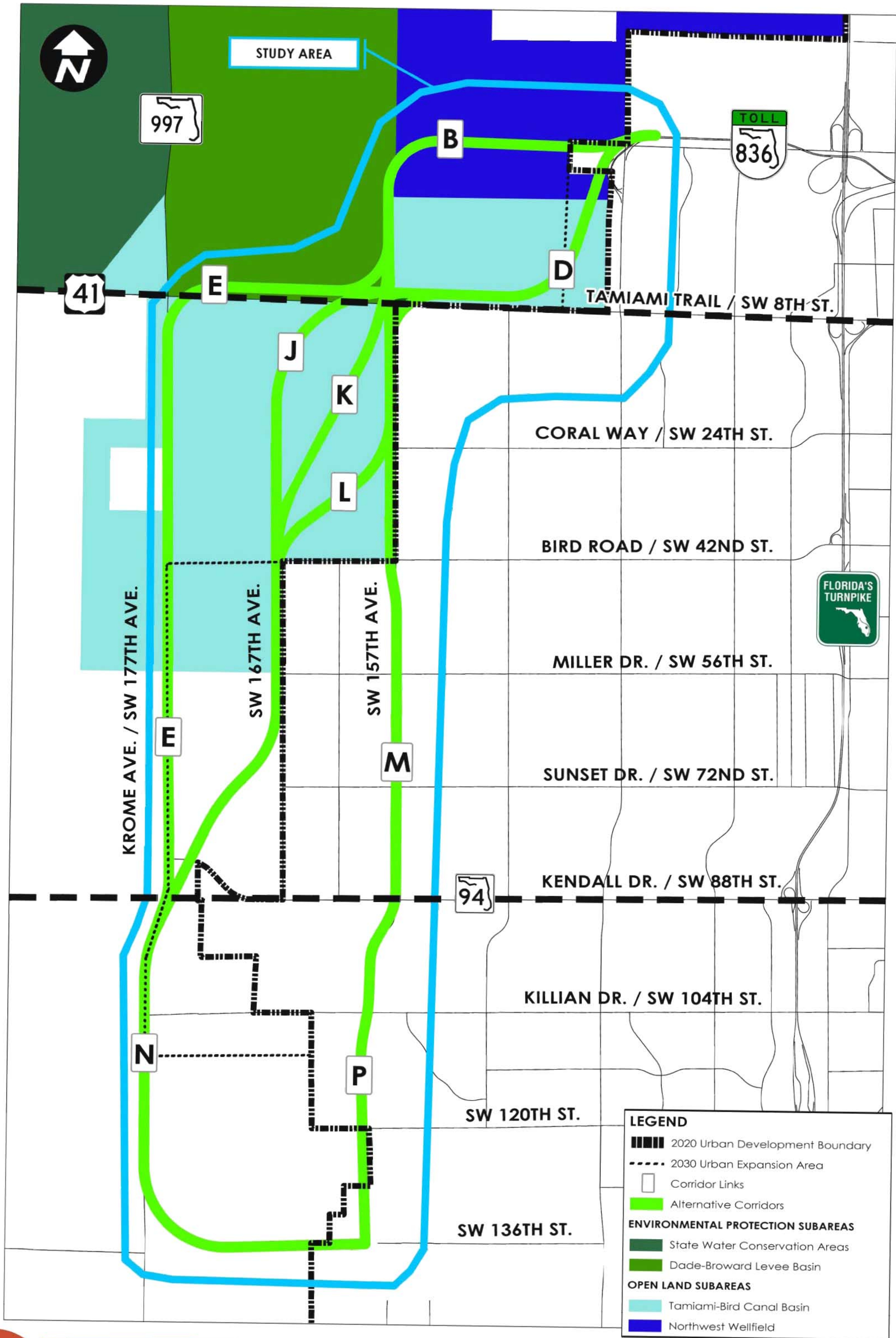
SEGMENT III



SEGMENT I

SEGMENT II

SEGMENT III



| Environmental Evaluations Results |           |       |            |       |             |       |                                               |
|-----------------------------------|-----------|-------|------------|-------|-------------|-------|-----------------------------------------------|
| Alternative Corridors             | SEGMENT I |       | SEGMENT II |       | SEGMENT III |       | Ordinal Rank<br>(Higher Rank, Higher Benefit) |
|                                   | Link      | Score | Link       | Score | Link        | Score |                                               |
| 1                                 | B-1       | 85    | L-1        | 100.5 | N           | 62.5  | 4                                             |
| 2                                 | B-1       | 85    | M-1        | 80.5  | P           | 44.5  | 2                                             |
| 3                                 | B-2       | 83    | K-1        | 116   | N           | 62.5  | 8                                             |
| 4                                 | B-3       | 78    | E-1        | 112   | N           | 62.5  | 5                                             |
| 5A                                | D-1       | 86    | E-2        | 112.5 | N           | 62.5  | 6                                             |
| 5B                                | D-1       | 86    | E-3        | 112.5 | N           | 62.5  | 6                                             |
| 6                                 | D-1       | 86    | J          | 118   | N           | 62.5  | 10                                            |
| 7                                 | D-2       | 66.5  | M-2        | 81.5  | P           | 44.5  | 1                                             |
| 8                                 | D-2       | 66.5  | L-2        | 101   | N           | 62.5  | 3                                             |
| 9                                 | D-3       | 85.5  | K-2        | 116   | N           | 62.5  | 9                                             |

- The environmental evaluation was finalized by ordinal ranking the cumulative scores of the 10 Alternative Corridors.
- Any Alternative Corridors with equal cumulative scores received the same ordinal rank.
- The higher the ordinal rank, the higher the benefit to the project (or in this case the lower the potential for environmental impacts).

**Alternative Corridor Evaluation (ACE) Study Note:**  
The ACE results presented here tonight are based on preliminary analysis conducted to allow a planning level comparison among Alternative Corridors. Phase 2 involves the detailed analysis of the recommended corridors.

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Project Development and Environment (PD&E) Study

Miami-Dade County, Florida

- Original ranking was used to score the **Construction Cost, Right of Way (ROW) Cost, and User Benefits** of the 10 Alternative Corridors.
- Any Alternative Corridors with equal Construction, ROW, or User Benefit cost ratio received the same ordinal ranking.

### Construction Cost Summary

| Alternative Corridors | Roadway Cost (Millions) | Structure Cost (Millions) | Total Cost (Millions) | Ordinal Rank (Higher Rank, Higher Benefit) |
|-----------------------|-------------------------|---------------------------|-----------------------|--------------------------------------------|
| 1                     | \$166                   | \$195                     | \$698                 | 5                                          |
| 2                     | \$176                   | \$195                     | \$718                 | 3                                          |
| 3                     | \$165                   | \$195                     | \$696                 | 7                                          |
| 4                     | \$204                   | \$195                     | \$772                 | 1                                          |
| 5A                    | \$204                   | \$195                     | \$772                 | 1                                          |
| 5B                    | \$99                    | \$117                     | \$418                 | 10                                         |
| 6                     | \$159                   | \$195                     | \$685                 | 9                                          |
| 7                     | \$176                   | \$195                     | \$718                 | 3                                          |
| 8                     | \$166                   | \$195                     | \$698                 | 5                                          |
| 9                     | \$165                   | \$195                     | \$696                 | 7                                          |

### Right of Way Cost Summary

| Alternative Corridors | Number of Parcels | Total Cost (Millions) | Ordinal Rank (Higher Rank, Higher Benefit) |
|-----------------------|-------------------|-----------------------|--------------------------------------------|
| 1                     | 291               | \$77                  | 8                                          |
| 2                     | 2,062             | \$1,062               | 2                                          |
| 3                     | 116               | \$77                  | 8                                          |
| 4                     | 105               | \$82                  | 5                                          |
| 5A                    | 117               | \$88                  | 4                                          |
| 5B                    | 24                | \$33                  | 10                                         |
| 6                     | 114               | \$82                  | 5                                          |
| 7                     | 2,102             | \$1,078               | 1                                          |
| 8                     | 231               | \$93                  | 3                                          |
| 9                     | 118               | \$82                  | 5                                          |

### User Benefits Summary

| Alternative Corridors | Benefits (NPV) | Cost (NPV) | Benefit Cost Ratio | Ordinal Rank (Higher Rank, Higher Benefit) |
|-----------------------|----------------|------------|--------------------|--------------------------------------------|
| 1                     | 441.1          | 439.1      | 1.0                | 6                                          |
| 2                     | 524.8          | 985.9      | 0.53               | 1                                          |
| 3                     | 441.1          | 437.8      | 1.01               | 8                                          |
| 4                     | 436.6          | 483.3      | 0.90               | 3                                          |
| 5A                    | 436.6          | 486.5      | 0.90               | 3                                          |
| 5B                    | 312.7          | 253.6      | 1.23               | 10                                         |
| 6                     | 441.1          | 433.9      | 1.02               | 9                                          |
| 7                     | 524.8          | 994.5      | 0.53               | 1                                          |
| 8                     | 441.1          | 447.7      | 0.99               | 5                                          |
| 9                     | 441.1          | 440.3      | 1.0                | 6                                          |

## ENGINEERING EVALUATION RESULTS:

The engineering evaluation was finalized by ordinal ranking the cumulative score of the 10 Alternative Corridors.

### Engineering Evaluation Results

| Alternative Corridors | Construction Cost | Right of Way Cost | User Benefits | Cumulative Score | Ordinal Rank (Higher Rank, Higher Benefit) |
|-----------------------|-------------------|-------------------|---------------|------------------|--------------------------------------------|
| 1                     | 5                 | 8                 | 6             | 19               | 7                                          |
| 2                     | 3                 | 2                 | 1             | 6                | 2                                          |
| 3                     | 7                 | 8                 | 8             | 23               | 8                                          |
| 4                     | 1                 | 5                 | 3             | 9                | 4                                          |
| 5A                    | 1                 | 4                 | 3             | 8                | 3                                          |
| 5B                    | 10                | 10                | 10            | 30               | 10                                         |
| 6                     | 9                 | 5                 | 9             | 23               | 8                                          |
| 7                     | 3                 | 1                 | 1             | 5                | 1                                          |
| 8                     | 5                 | 3                 | 5             | 13               | 5                                          |
| 9                     | 7                 | 5                 | 6             | 18               | 6                                          |

Any Alternative Corridors with equal cumulative scores received the same ordinal ranking. The higher ordinal rank, the higher benefit for the project.

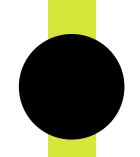
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# ACE RESULTS and RECOMMENDATIONS

Start



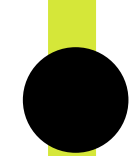
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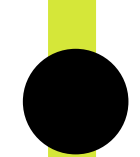
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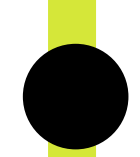
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Learn about the engineering evaluation. This Exhibit Area summarizes the engineering analyses conducted related to construction and right of way costs and User Benefits.



## Exhibit Area 6

Learn about the ACE Recommendations. This Exhibit Area summarizes the qualitative and quantitative analyses and presents the recommended Alternative Corridors moving on to Phase 2.

End

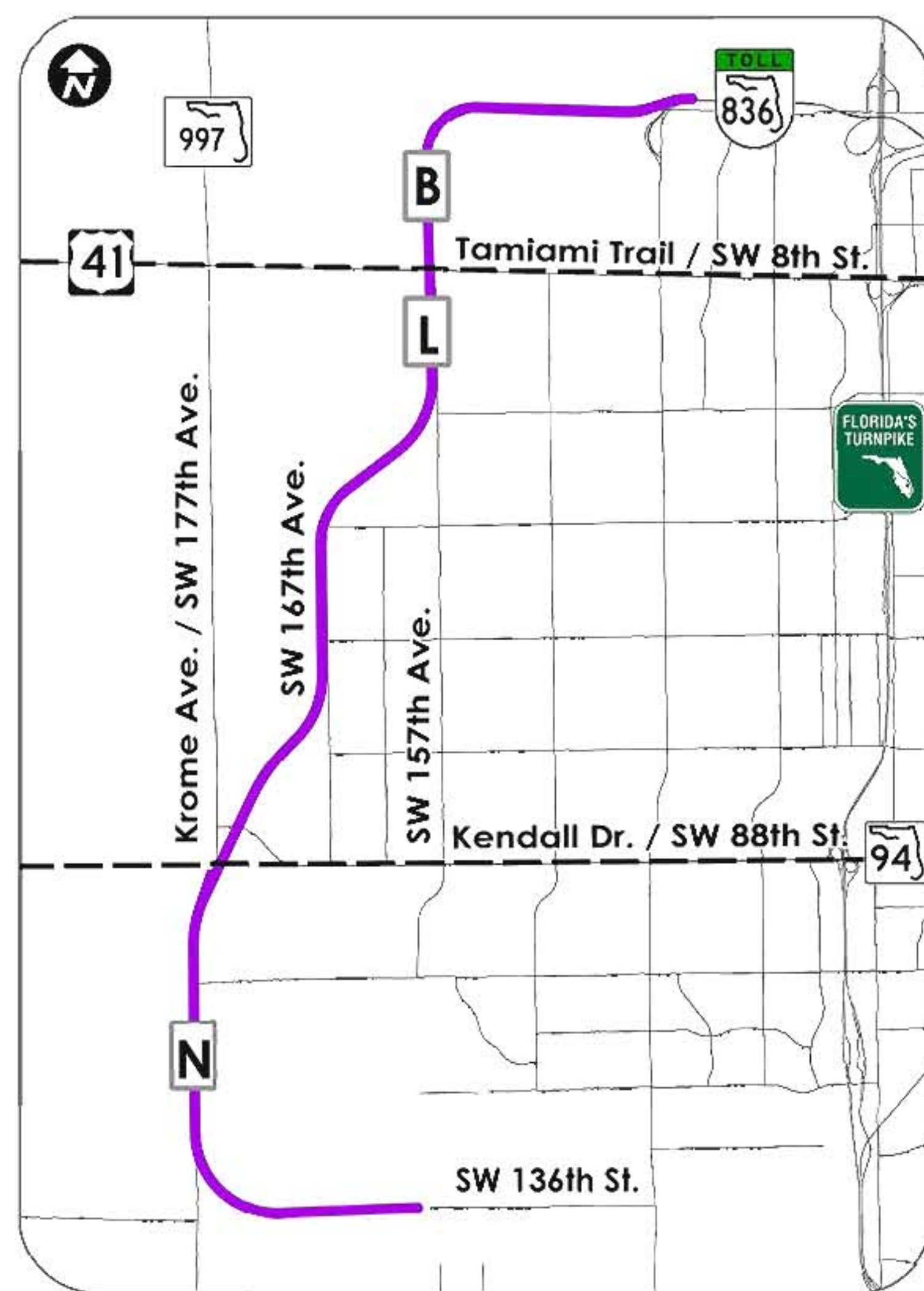


MDX SR 836/DOLPHIN EXPRESSWAY  
SOUTHWEST EXTENSION

Project Development and Environment (PD&E) Study

Miami-Dade County, Florida

ALTERNATIVE CORRIDOR 1



LEGEND

- Alternative Corridor 1
- Corridor Links

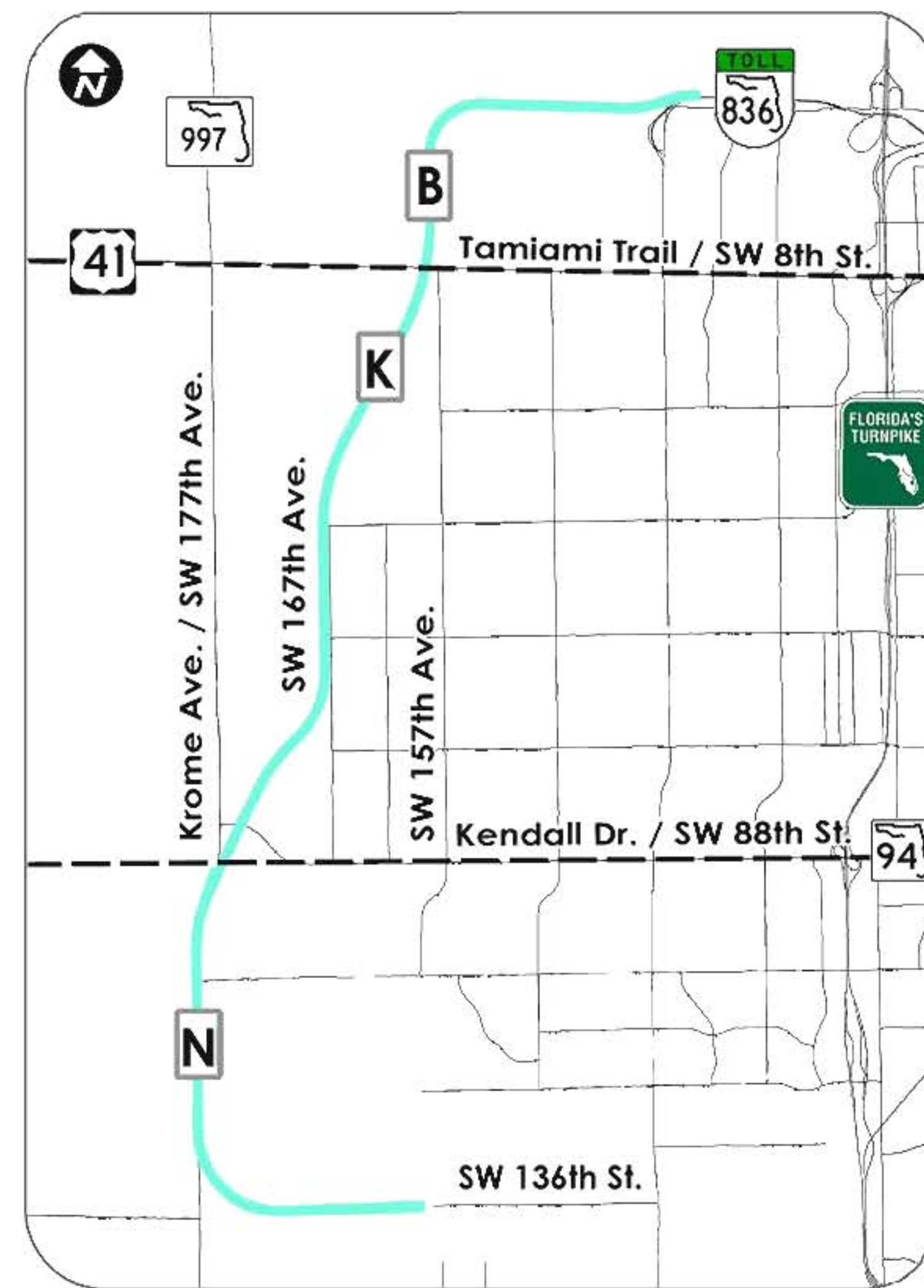
ALTERNATIVE CORRIDOR 2



LEGEND

- Alternative Corridor 2
- Corridor Links

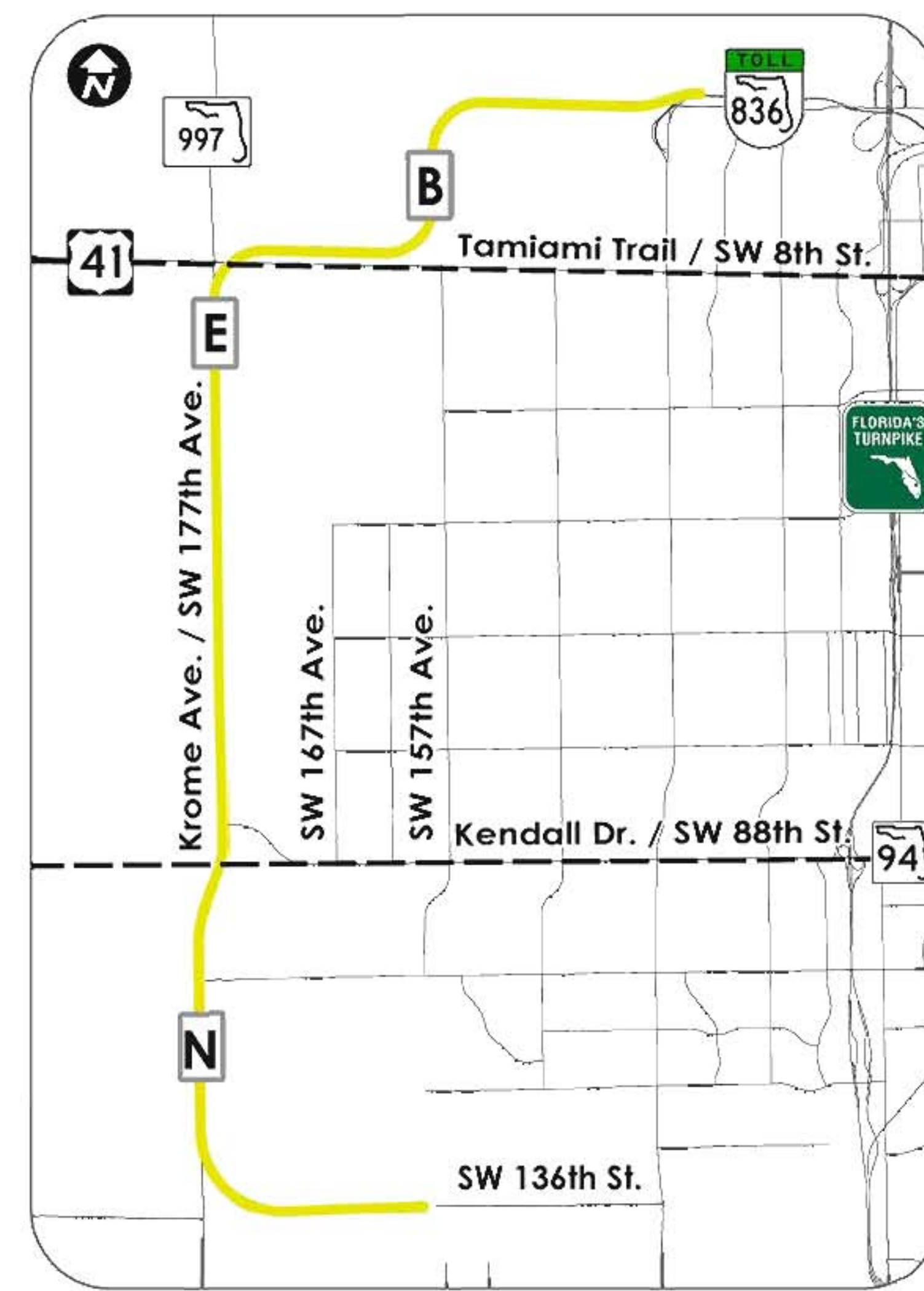
ALTERNATIVE CORRIDOR 3



LEGEND

- Alternative Corridor 3
- Corridor Links

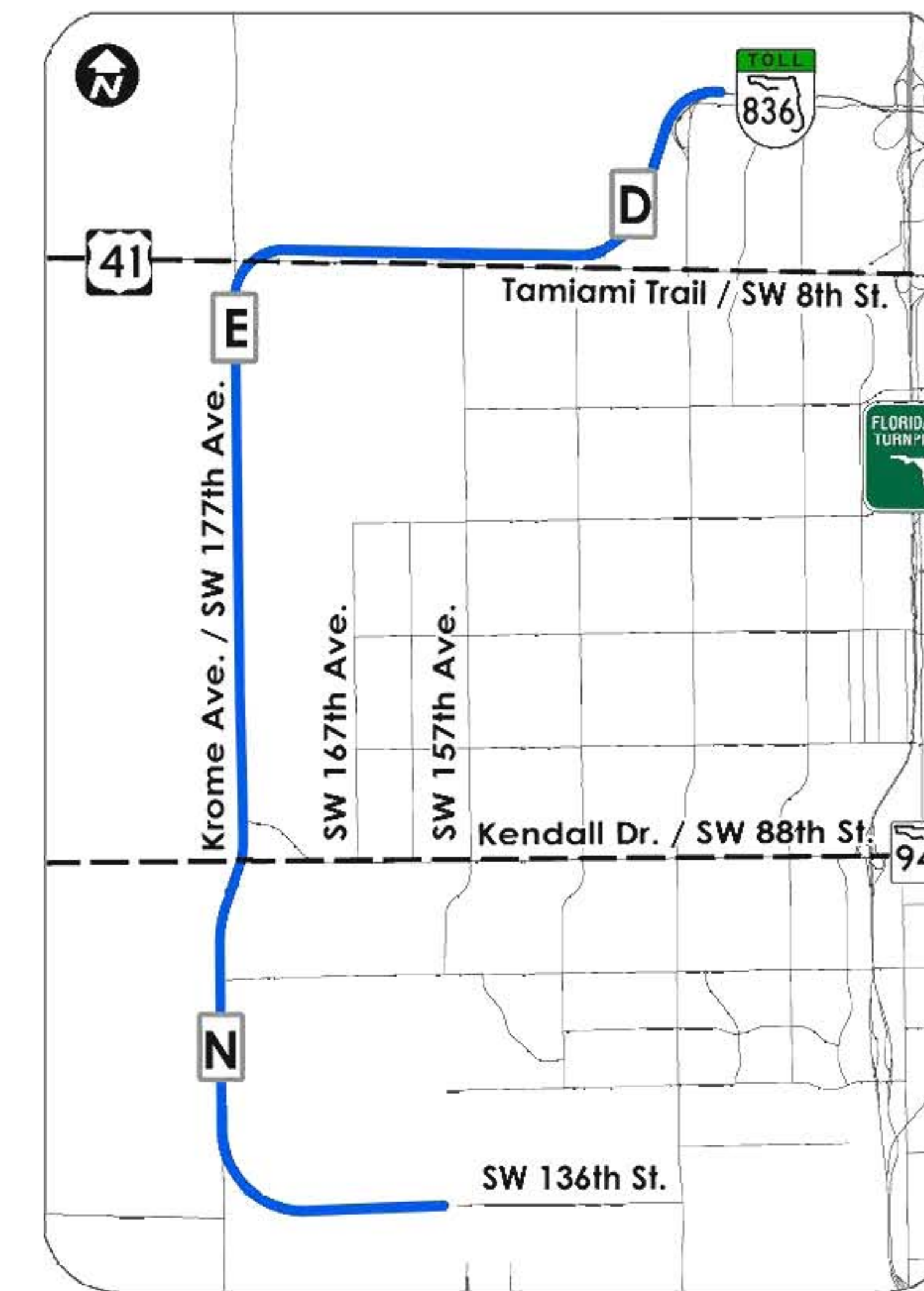
ALTERNATIVE CORRIDOR 4



LEGEND

- Alternative Corridor 4
- Corridor Links

ALTERNATIVE CORRIDOR 5A



LEGEND

- Alternative Corridor 5A
- Corridor Links

ALTERNATIVE CORRIDOR 5B



LEGEND

Alternative Corridor 5B

- Limited Access Facility
- - - Potential Widening of Krome Ave. / SW 177th Ave.
- Corridor Links

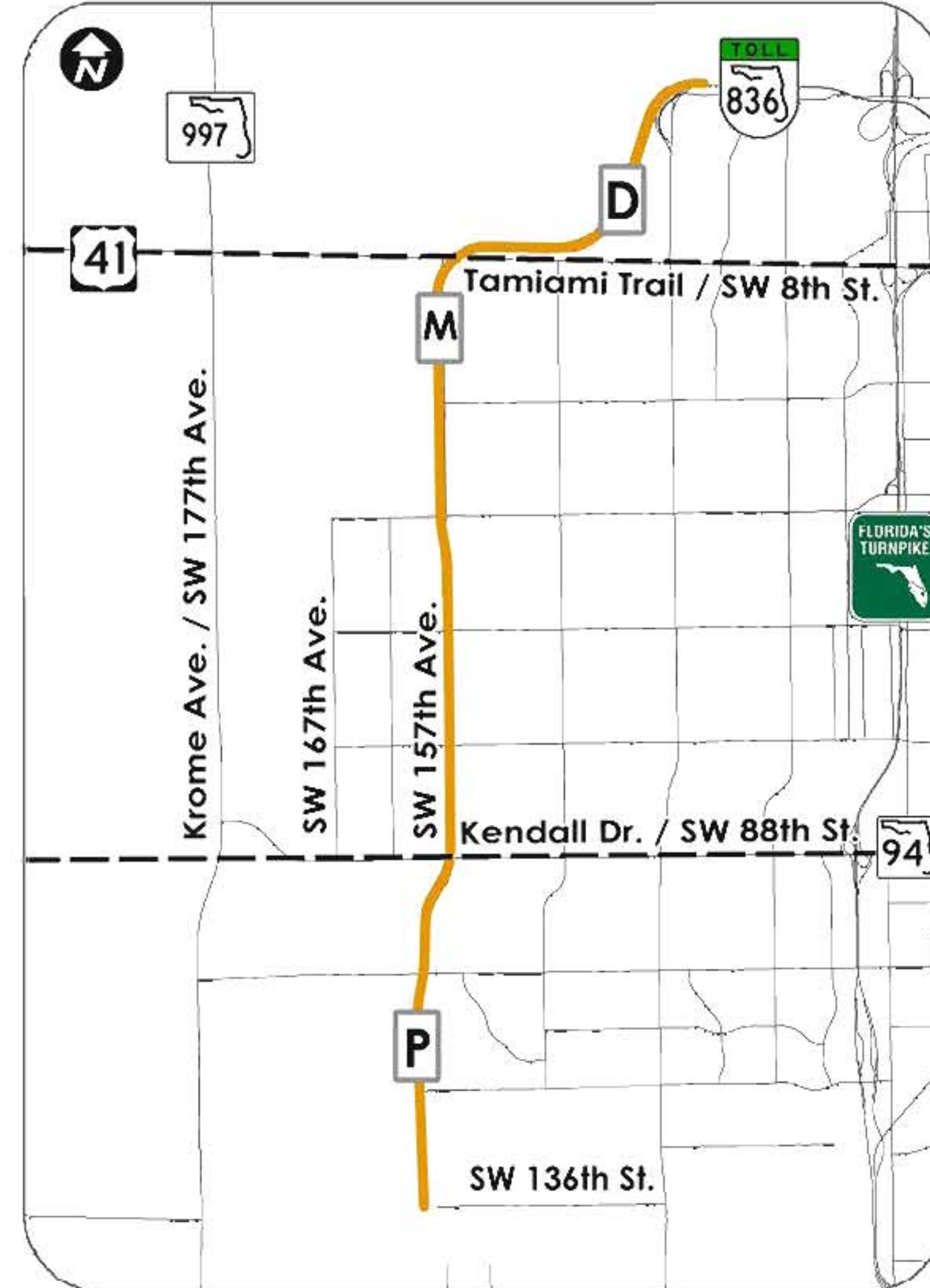
ALTERNATIVE CORRIDOR 6



LEGEND

- Alternative Corridor 6
- Corridor Links

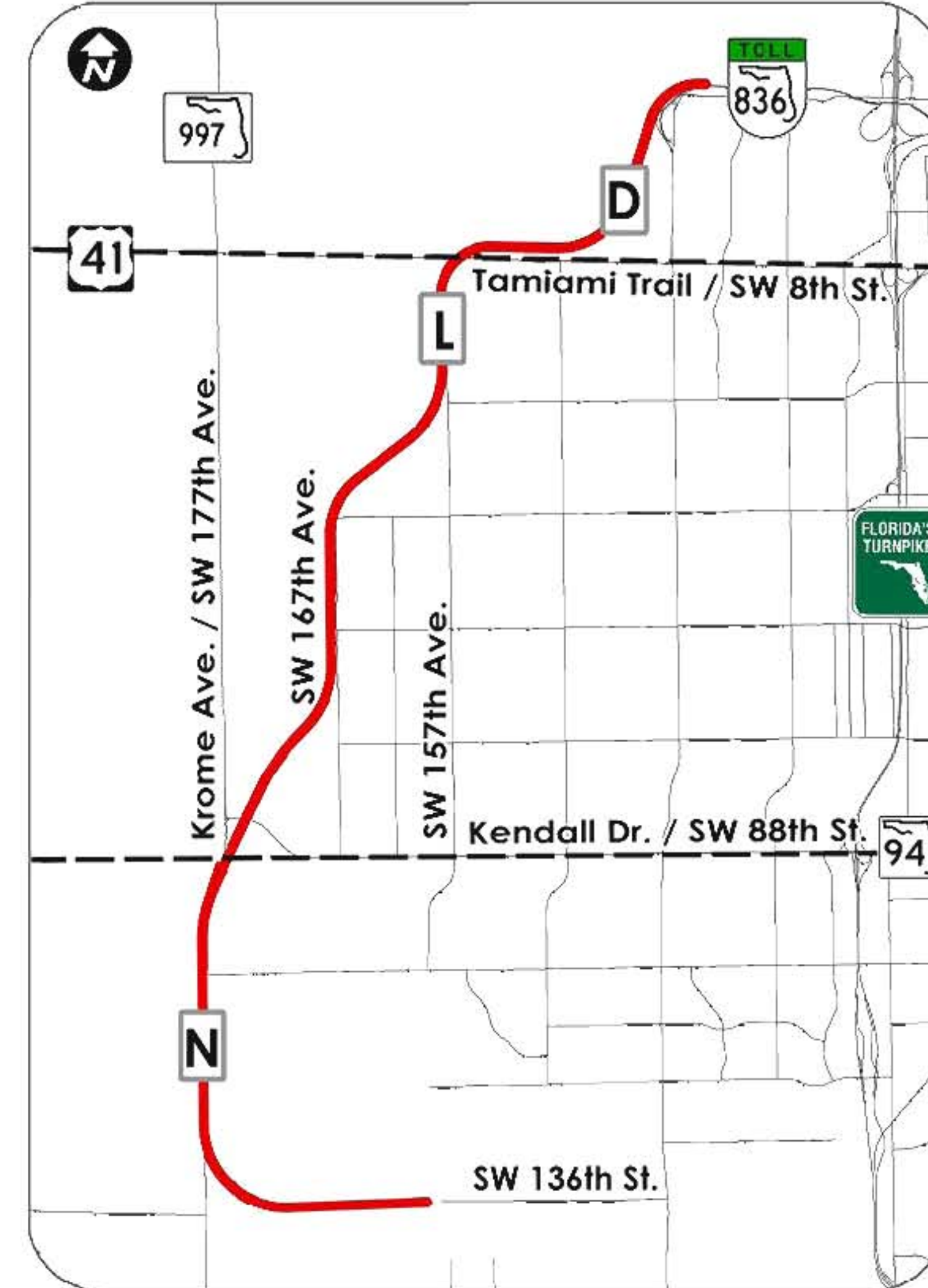
ALTERNATIVE CORRIDOR 7



LEGEND

- Alternative Corridor 7
- Corridor Links

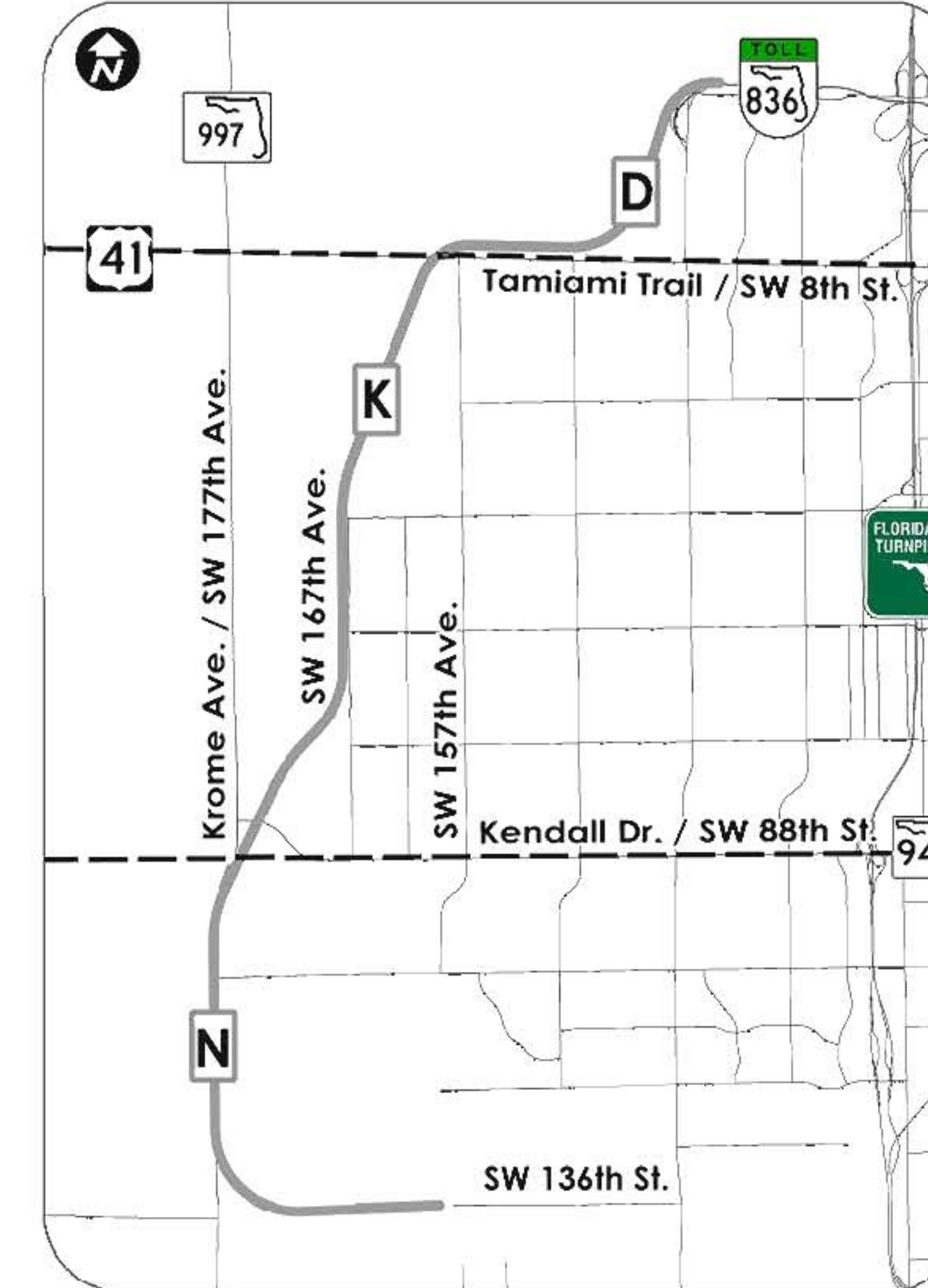
ALTERNATIVE CORRIDOR 8



LEGEND

- Alternative Corridor 8
- Corridor Links

ALTERNATIVE CORRIDOR 9



LEGEND

- Alternative Corridor 9
- Corridor Links



STUDY AREA

997

836

41

KROME AVE. / SW 177TH AVE.

J

K

D

TAMIAMI TRAIL / SW 8TH ST.

CORAL WAY / SW 24TH ST.

BIRD ROAD / SW 42ND ST.

MILLER DR. / SW 56TH ST.

SUNSET DR. / SW 72ND ST.

KENDALL DR. / SW 88TH ST.

KILLIAN DR. / SW 104TH ST.

SW 120TH ST.

SW 136TH ST.

N

SW 167TH AVE.

SW 157TH AVE.

94



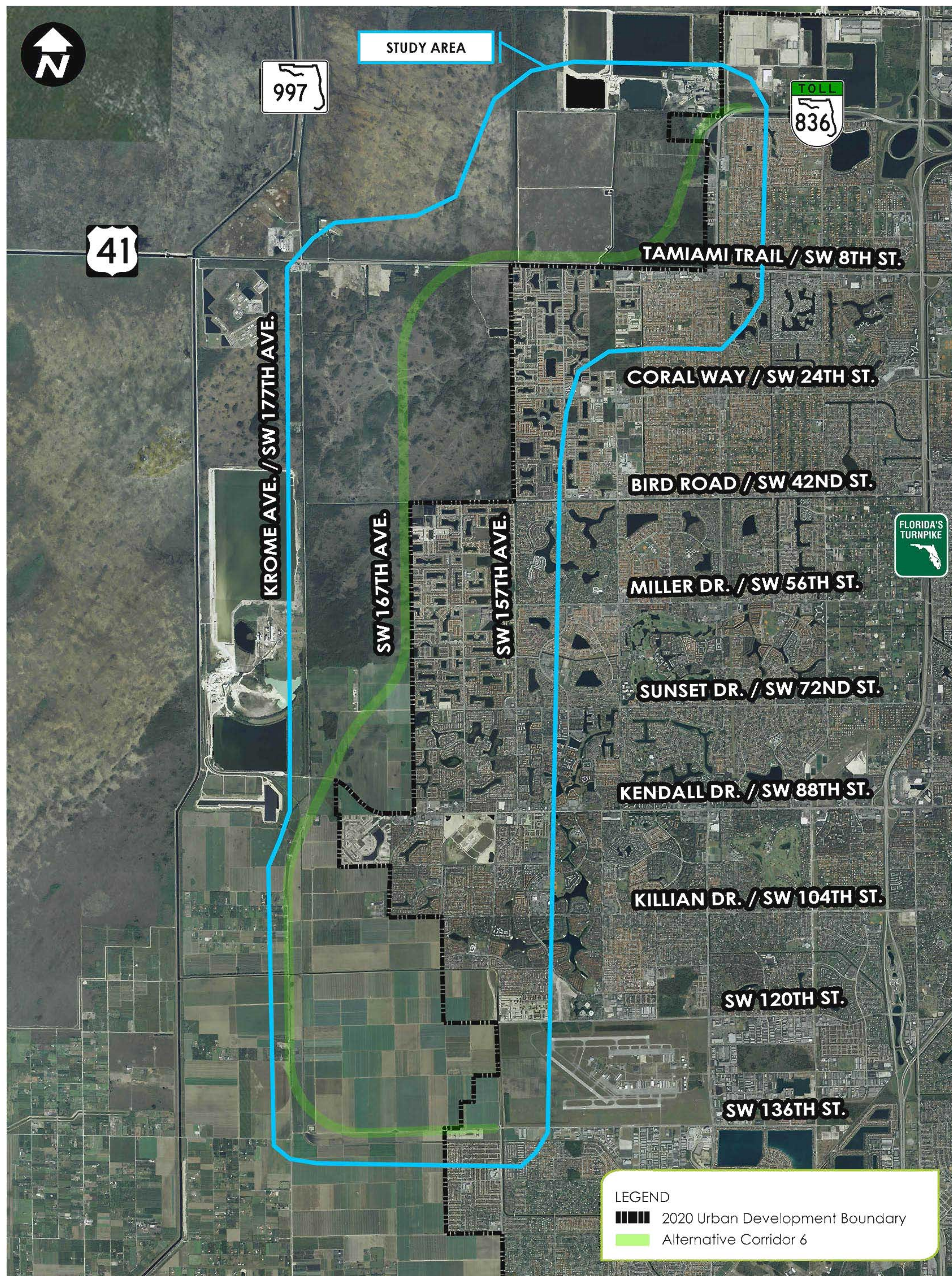
LEGEND

- 2020 Urban Development Boundary
- 2030 Urban Expansion Area
- Corridor Links
- Recommended Alternative Corridor 6
- Recommended Alternative Corridor 9

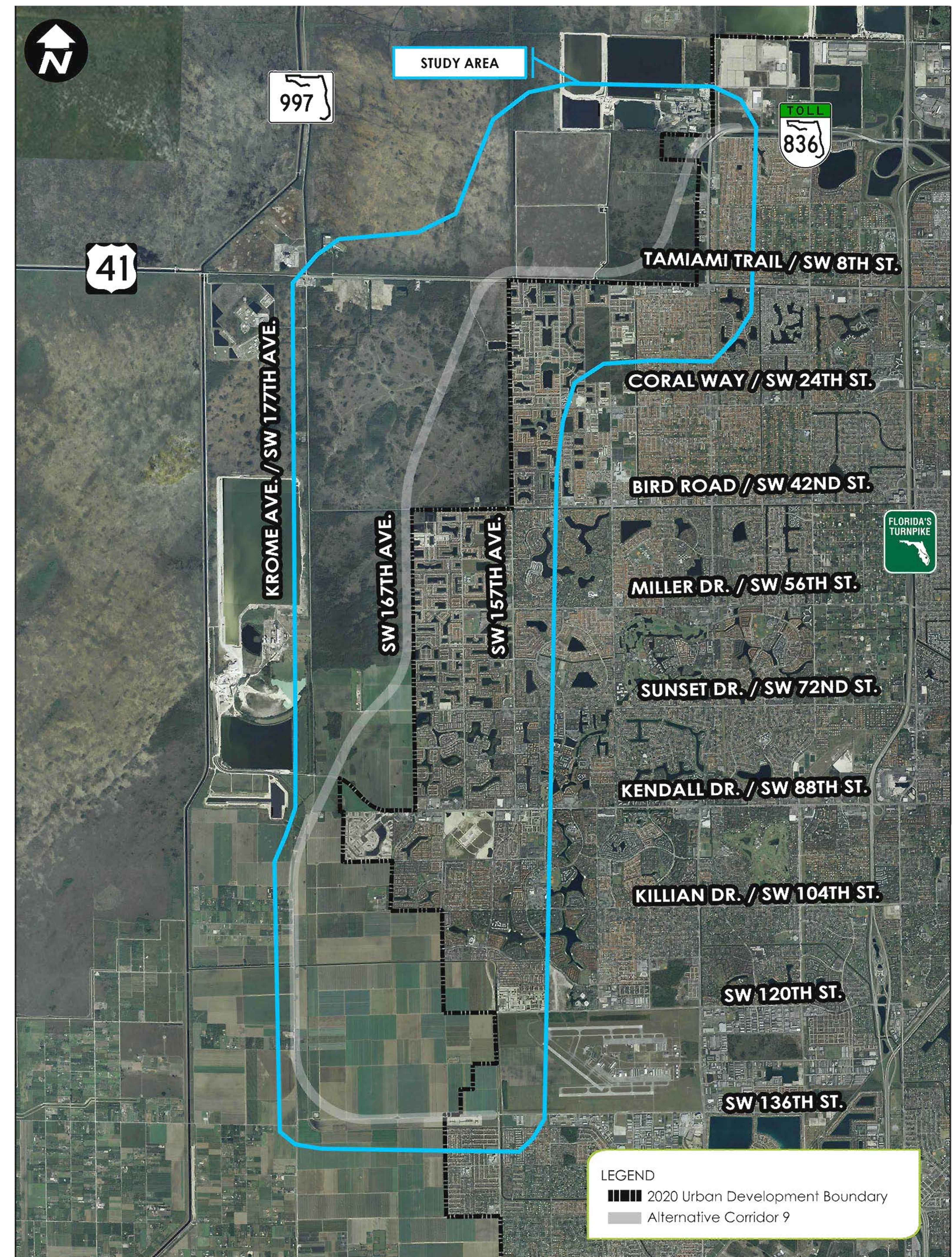
836

RECOMMENDED ALTERNATIVE  
CORRIDORS 6 and 9

# ALTERNATIVE CORRIDOR 6



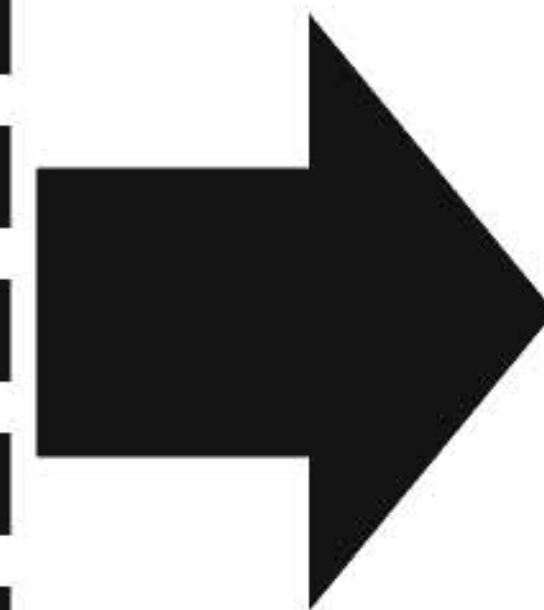
# ALTERNATIVE CORRIDOR 9



| ALTERNATIVE CORRIDOR | PURPOSE AND NEED                                                                                                                                                             | ENVIRONMENTAL CONSIDERATIONS                                                                                                                     |                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                | ENGINEERING CONSIDERATIONS        |                                                                   |                                                | UNIQUE ISSUES                                     |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------|------------------------------------------------|---------------------------------------------------|
|                      |                                                                                                                                                                              | Social and Economic                                                                                                                              | Cultural                                                                                                                                                                                                                                                                                     | Natural & Physical                                                                                                                                                                                                                                                                                             | Construction Cost                 | Right of Way Cost                                                 | User Benefits                                  |                                                   |
| 1                    | <b>HIGH TO MODERATE BENEFIT:</b>                                                                                                                                             | <b>MODERATE BENEFIT:</b>                                                                                                                         | <b>HIGH BENEFIT:</b>                                                                                                                                                                                                                                                                         | <b>MODERATE TO LOW BENEFIT:</b>                                                                                                                                                                                                                                                                                | <b>MODERATE BENEFIT:</b>          | <b>MODERATE BENEFIT:</b>                                          | <b>HIGH TO MODERATE BENEFIT:</b>               | <b>MODERATE BENEFIT:</b>                          |
|                      | Moderate improvement of mobility for people and goods and highest benefit to the remaining parameters.                                                                       | Moderate number of affected residential parcels and neighborhoods.                                                                               | Involvement with moderate probability archeological zones.                                                                                                                                                                                                                                   | Greatest potential for impacts to Pennsuco Wetlands. Moderate potential for impacts to wetlands in Segment II. Greatest potential impacts to farmlands. Potential for conflict with eastern Bird Drive Recharge Area CERP Project.                                                                             | Third highest construction cost.  | Alternative Corridors 1, 3, 4, 5A, 6, 8, 9 have similar ROW cost. | User Benefit Cost ratio equal to or above 1.0. | Moderate potential to induce development.         |
| 2                    | <b>HIGH BENEFIT:</b>                                                                                                                                                         | <b>LOW BENEFIT:</b>                                                                                                                              | <b>MODERATE TO LOW BENEFIT:</b>                                                                                                                                                                                                                                                              | <b>HIGH BENEFIT:</b>                                                                                                                                                                                                                                                                                           | <b>MODERATE TO LOW BENEFIT:</b>   | <b>LOW BENEFIT:</b>                                               | <b>LOW BENEFIT:</b>                            | <b>HIGH BENEFIT:</b>                              |
|                      | Highest benefit on all Purpose and Need parameters.                                                                                                                          | Greatest number of affected residential parcels and community facilities. Greatest potential to impact community cohesion.                       | Potential impact to 1 recorded archeological site and involvement with moderate and high probability archeological zones.                                                                                                                                                                    | Lowest potential for impacts to natural features in Segment II. Greatest potential for impacts to Pennsuco Wetlands. Least potential for impacts to farmlands. Greatest potential for noise impacts.                                                                                                           | Second highest construction cost. | Highest ROW cost.                                                 | User Benefit Cost ratio below 0.6.             | Lowest potential to induce development.           |
| 3                    | <b>HIGH TO MODERATE BENEFIT:</b>                                                                                                                                             | <b>HIGH BENEFIT:</b>                                                                                                                             | <b>HIGH BENEFIT:</b>                                                                                                                                                                                                                                                                         | <b>MODERATE TO LOW BENEFIT:</b>                                                                                                                                                                                                                                                                                | <b>MODERATE BENEFIT:</b>          | <b>MODERATE BENEFIT:</b>                                          | <b>HIGH TO MODERATE BENEFIT:</b>               | <b>MODERATE TO LOW BENEFIT:</b>                   |
|                      | Moderate improvement of mobility for people and goods and highest benefit to the remaining parameters.                                                                       | Low number of affected residential parcels and neighborhoods. Low potential to impact community cohesion.                                        | Involvement with moderate probability archeological zones.                                                                                                                                                                                                                                   | Greatest potential for impacts to Pennsuco Wetlands. Moderate potential for impacts to wetlands in Segment II. Greatest potential impacts to farmlands. Potential for conflict with Bird Drive Recharge Area CERP Project.                                                                                     | Third highest construction cost.  | Alternative Corridors 1, 3, 4, 5A, 6, 8, 9 have similar ROW cost. | User Benefit Cost ratio equal to or above 1.0. | High to moderate potential to induce development. |
| 4                    | <b>MODERATE BENEFIT:</b>                                                                                                                                                     | <b>HIGH BENEFIT:</b>                                                                                                                             | <b>MODERATE TO LOW BENEFIT:</b>                                                                                                                                                                                                                                                              | <b>LOW BENEFIT:</b>                                                                                                                                                                                                                                                                                            | <b>LOW BENEFIT:</b>               | <b>MODERATE BENEFIT:</b>                                          | <b>MODERATE BENEFIT:</b>                       | <b>LOW BENEFIT:</b>                               |
|                      | Moderate benefit to Support Economic Development, Improve Mobility for People and Goods and Enhance Multimodal Connectivity and highest benefit to the remaining parameters. | Low number of affected residential parcels and neighborhoods. Low potential to impact community cohesion.                                        | Potential impact to 1 recorded archeological site and to the L and L Archeological Zone, which are directly adjacent to the corridor. Involvement with several areas of moderate probability archeological zones.                                                                            | Greatest potential for impacts to Pennsuco Wetlands. Greatest potential for conflict with reformulated Bird Drive recharge Area CERP project. Highest amount of railroad involvement (number of crossings). Greatest potential for wetland impacts in Segment II. Potential for moderate impacts to farmlands. | Highest construction cost.        | Alternative Corridors 1, 3, 4, 5A, 6, 8, 9 have similar ROW cost. | User Benefit Cost ratio between 0.90 to 0.99.  | High potential to induce development.             |
| 5A                   | <b>MODERATE BENEFIT:</b>                                                                                                                                                     | <b>HIGH BENEFIT:</b>                                                                                                                             | <b>MODERATE TO LOW BENEFIT:</b>                                                                                                                                                                                                                                                              | <b>MODERATE BENEFIT:</b>                                                                                                                                                                                                                                                                                       | <b>LOW BENEFIT:</b>               | <b>MODERATE BENEFIT:</b>                                          | <b>MODERATE BENEFIT:</b>                       | <b>LOW BENEFIT:</b>                               |
|                      | Moderate benefit to Support Economic Development, Improve Mobility for People and Goods and Enhance Multimodal Connectivity.                                                 | Low number of affected residential parcels and neighborhoods. Low potential to impact community cohesion.                                        | Potential impact to 2 recorded archeological sites and to the Lehigh Archeological Zone. Also potential involvement with the L and L Site and Archaeological Zone, which are directly adjacent to the corridor. Involvement with moderate and high probability archeological zones.          | Greatest potential for conflict with reformulated Bird Drive recharge Area CERP project. Highest amount of railroad involvement (number of crossings). Greatest potential for wetland impacts in Segment II. Potential for moderate impacts to farmlands.                                                      | Highest construction cost.        | Alternative Corridors 1, 3, 4, 5A, 6, 8, 9 have similar ROW cost. | User Benefit Cost ratio between 0.90 to 0.99.  | High potential to induce development.             |
| 5B                   | <b>LOW BENEFIT:</b>                                                                                                                                                          | <b>HIGH BENEFIT:</b>                                                                                                                             | <b>LOW BENEFIT:</b>                                                                                                                                                                                                                                                                          | <b>MODERATE BENEFIT:</b>                                                                                                                                                                                                                                                                                       | <b>HIGH BENEFIT:</b>              | <b>HIGH BENEFIT:</b>                                              | <b>HIGH BENEFIT:</b>                           | <b>MODERATE BENEFIT:</b>                          |
|                      | Minimal benefits to Support Economic Development and Improve Mobility for People and Goods and moderate benefits to the remaining parameters.                                | Low number of affected residential parcels and neighborhoods. Low potential to impact community cohesion.                                        | Potential impact to 2 recorded archeological sites and to the Lehigh Archaeological Zone. Also potential impact to the L and L Site and Archeological Zone, which is directly adjacent to the corridor. Involvement with several areas of moderate and high probability archeological zones. | Assumes widening of Krome Avenue to 6 lanes is required. Greatest potential for conflict with reformulated Bird Drive recharge Area CERP project. Greatest potential for wetland impacts in Segment II. Potential for moderate impacts to farmlands.                                                           | Lowest construction cost.         | Lowest ROW cost.                                                  | Highest User Benefit Cost Ratio.               | Moderate potential to induce development.         |
| 6                    | <b>HIGH TO MODERATE BENEFIT:</b>                                                                                                                                             | <b>HIGH TO MODERATE BENEFIT:</b>                                                                                                                 | <b>MODERATE TO LOW BENEFIT:</b>                                                                                                                                                                                                                                                              | <b>HIGH TO MODERATE BENEFIT:</b>                                                                                                                                                                                                                                                                               | <b>HIGH TO MODERATE BENEFIT:</b>  | <b>MODERATE BENEFIT:</b>                                          | <b>HIGH TO MODERATE BENEFIT:</b>               | <b>MODERATE TO LOW BENEFIT:</b>                   |
|                      | Moderate improvement of mobility for people and goods and highest benefit to the remaining parameters.                                                                       | Low to moderate number of affected residential parcels and neighborhoods. Low potential to impact community cohesion.                            | Potential impacts to 2 recorded archeological sites and to the Lehigh Archeological Zone. Involvement with moderate to high probability archeological zones.                                                                                                                                 | Potential for conflict with eastern Bird Drive recharge Area CERP project. Moderate impacts to wetlands in Segment II. Greatest potential for impacts to farmlands.                                                                                                                                            | Fourth highest construction cost. | Alternative Corridors 1, 3, 4, 5A, 6, 8, 9 have similar ROW cost. | User Benefit Cost ratio equal to or above 1.0. | High to moderate potential to induce development. |
| 7                    | <b>HIGH BENEFIT:</b>                                                                                                                                                         | <b>LOW BENEFIT:</b>                                                                                                                              | <b>LOW BENEFIT:</b>                                                                                                                                                                                                                                                                          | <b>HIGH BENEFIT:</b>                                                                                                                                                                                                                                                                                           | <b>MODERATE TO LOW BENEFIT:</b>   | <b>LOW BENEFIT:</b>                                               | <b>LOW BENEFIT:</b>                            | <b>HIGH BENEFIT:</b>                              |
|                      | Highest benefit on all Purpose and Need parameters.                                                                                                                          | Greatest number of affected residential parcels and community facilities. Greatest potential to impact community cohesion.                       | Potential Impacts to 3 recorded archeological sites and to the Lehigh Archeological Zone. Involvement with moderate and high probability archeological zones.                                                                                                                                | Lowest potential for impacts to natural features in Segment II. Greatest potential for noise impacts. Least potential for impacts to farmlands.                                                                                                                                                                | Second highest construction cost. | Highest ROW cost.                                                 | User Benefit ratio below 0.6.                  | Lowest potential to induce development.           |
| 8                    | <b>HIGH TO MODERATE BENEFIT:</b>                                                                                                                                             | <b>MODERATE TO LOW BENEFIT:</b>                                                                                                                  | <b>MODERATE TO LOW BENEFIT:</b>                                                                                                                                                                                                                                                              | <b>HIGH TO MODERATE BENEFIT:</b>                                                                                                                                                                                                                                                                               | <b>MODERATE BENEFIT:</b>          | <b>MODERATE BENEFIT:</b>                                          | <b>MODERATE BENEFIT:</b>                       | <b>HIGH TO MODERATE BENEFIT:</b>                  |
|                      | Moderate improvement of mobility for people and goods and highest benefit to the remaining parameters.                                                                       | High to Moderate number of affected residential parcels and neighborhoods.                                                                       | Potential Impacts to 2 recorded archeological sites and to the Lehigh Archeological Zone. Involvement with moderate and high probability archeological zones.                                                                                                                                | Potential for conflict with eastern Bird Drive recharge Area CERP project. Moderate potential for impacts to wetlands in Segment II. Greatest potential impacts to farmlands.                                                                                                                                  | Third highest construction cost.  | Alternative Corridors 1, 3, 4, 5A, 6, 8, 9 have similar ROW cost. | User Benefit Cost ratio between 0.90 to 0.99.  | Moderate to low potential to induce development.  |
| 9                    | <b>HIGH TO MODERATE BENEFIT:</b>                                                                                                                                             | <b>HIGH TO MODERATE BENEFIT:</b>                                                                                                                 | <b>MODERATE TO LOW BENEFIT:</b>                                                                                                                                                                                                                                                              | <b>HIGH TO MODERATE BENEFIT:</b>                                                                                                                                                                                                                                                                               | <b>MODERATE BENEFIT:</b>          | <b>MODERATE BENEFIT:</b>                                          | <b>HIGH TO MODERATE BENEFIT:</b>               | <b>MODERATE BENEFIT:</b>                          |
|                      | Moderate improvement of mobility for people and goods and highest benefit to the remaining parameters.                                                                       | Low number of affected residential parcels and affected neighborhoods. Potential impacts to a low to moderate number of non-residential parcels. | Potential Impacts to 2 recorded archeological sites and to the Lehigh Archeological Zone. Involvement with moderate and high probability archeological zones.                                                                                                                                | Potential for conflict with eastern Bird Drive recharge Area CERP project. Moderate impacts to wetlands in Segment II. Greatest potential for impacts to farmlands.                                                                                                                                            | Third highest construction cost.  | Alternative Corridors 1, 3, 4, 5A, 6, 8, 9 have similar ROW cost. | User Benefit Cost ratio equal to or above 1.0. | Moderate potential to induce development.         |

**LEGEND:**  HIGH BENEFIT  HIGH TO MODERATE BENEFIT  MODERATE BENEFIT  MODERATE TO LOW BENEFIT  LOW BENEFIT

**Study Note:**  
The ACE results presented here tonight are based on preliminary analysis conducted to allow a planning level comparison among Alternative Corridors. Phase 2 involves the detailed analysis of the recommended corridors.



| ALTERNATIVE CORRIDOR SUMMARY EVALUATION |                  |                              |                            |               |             |                                                |                                       |
|-----------------------------------------|------------------|------------------------------|----------------------------|---------------|-------------|------------------------------------------------|---------------------------------------|
| ALTERNATIVE CORRIDOR                    | Purpose and Need | Environmental Considerations | Engineering Considerations | Unique Issues | Total Score | FINAL RANKING<br>(Higher Rank, Higher Benefit) | Recommended for Further Consideration |
| 1                                       | 4                | 4                            | 7                          | 6             | 21          | 5                                              | NO                                    |
| 2                                       | 9                | 2                            | 2                          | 9             | 22          | 7                                              | NO                                    |
| 3                                       | 4                | 8                            | 8                          | 4             | 24          | 8                                              | NO                                    |
| 4                                       | 2                | 5                            | 4                          | 1             | 12          | 1                                              | NO                                    |
| 5a                                      | 2                | 6                            | 3                          | 3             | 14          | 2                                              | NO                                    |
| 5b                                      | 1                | 6                            | 10                         | 1             | 18          | 3                                              | NO                                    |
| 6                                       | 4                | 10                           | 8                          | 4             | 26          | 10                                             | YES                                   |
| 7                                       | 9                | 1                            | 1                          | 10            | 21          | 5                                              | NO                                    |
| 8                                       | 4                | 3                            | 5                          | 8             | 20          | 4                                              | NO                                    |
| 9                                       | 4                | 9                            | 6                          | 6             | 25          | 9                                              | YES                                   |

**Alternative Corridor Evaluation (ACE) Study Note:**

The ACE results presented here tonight are based on preliminary analysis conducted to allow a planning level comparison among Alternative Corridors. Phase 2 involves the detailed analysis of the recommended corridors.