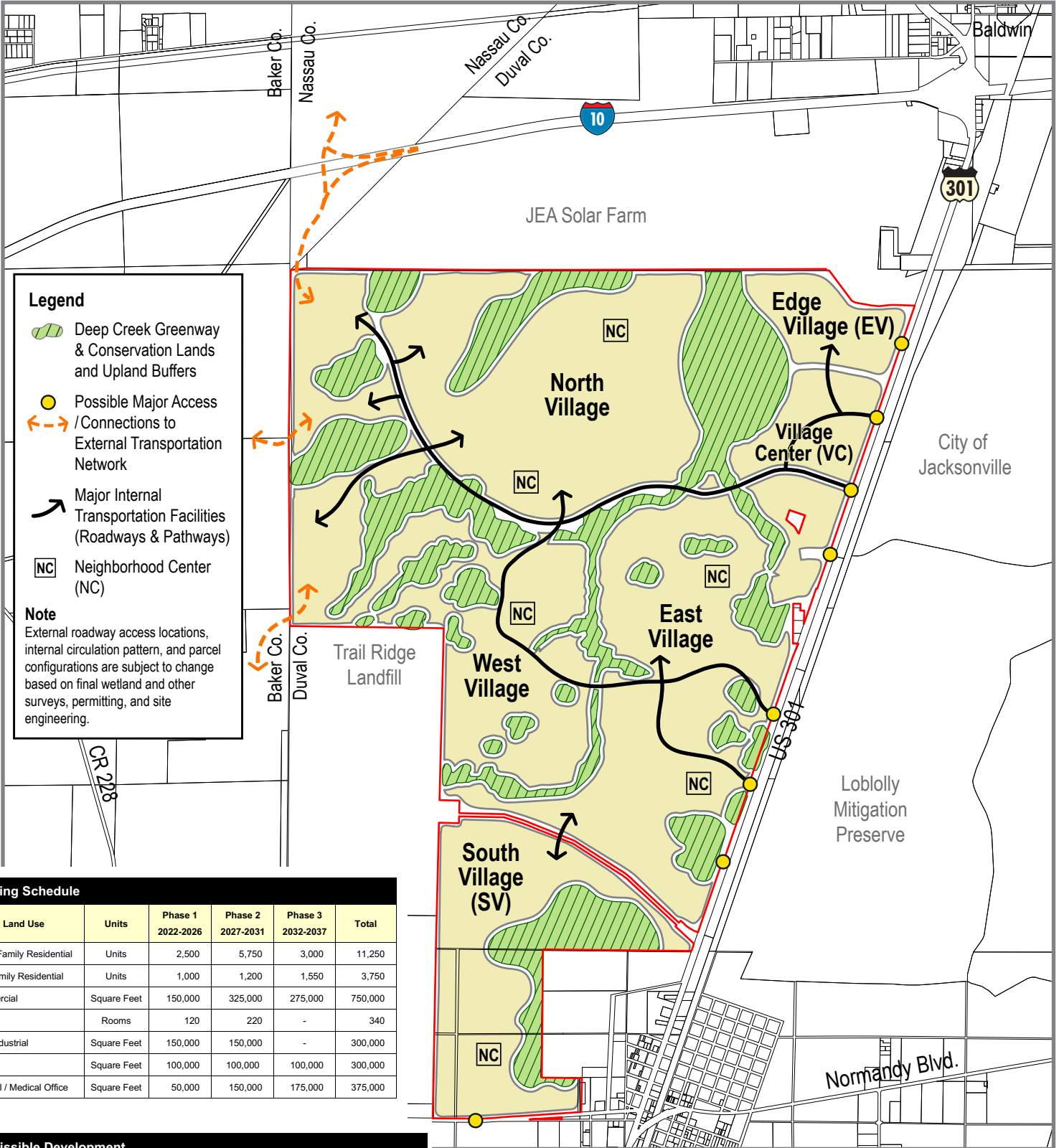


301 Villages

Conceptual Master Plan



Legend

- Deep Creek Greenway & Conservation Lands and Upland Buffers
- Possible Major Access / Connections to External Transportation Network
- Major Internal Transportation Facilities (Roadways & Pathways)
- Neighborhood Center (NC)

Note
External roadway access locations, internal circulation pattern, and parcel configurations are subject to change based on final wetland and other surveys, permitting, and site engineering.

Phasing Schedule

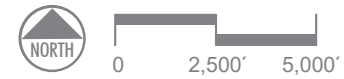
Land Use	Units	Phase 1 2022-2026	Phase 2 2027-2031	Phase 3 2032-2037	Total
Single Family Residential	Units	2,500	5,750	3,000	11,250
Multi-family Residential	Units	1,000	1,200	1,550	3,750
Commercial	Square Feet	150,000	325,000	275,000	750,000
Hotel	Rooms	120	220	-	340
Light Industrial	Square Feet	150,000	150,000	-	300,000
Office	Square Feet	100,000	100,000	100,000	300,000
Hospital / Medical Office	Square Feet	50,000	150,000	175,000	375,000

Permissible Development

Land Use	Single Family (Units)	Multi-family (Units)	Commercial (Sq. Feet)	Office (Sq. Feet)	Flex Industrial (Sq. Feet)	Hotel (Rooms)	Hospital/Medical (Sq. Feet)
Total	11,250	3,750	750,000	300,000	300,000	340	375,000
Edge Village		•	•		•		
Village Center	•	•	•	•	•	•	•
West Village	•	•	•	•	•		
North Village	•	•	•	•			
East Village	•	•	•	•		•	
South Village	•	•			•		

• Denotes land use is permissible within the village

August 30, 2021



PROSSER

119063.01

Permissible Development							
Land Use	Single Family (Units)	Multi-family (Units)	Commercial (Sq. Feet)	Office (Sq. Feet)	Flex Industrial (Sq. Feet)	Hotel (Rooms)	Hospital/ Medical (Sq. Feet)
Total	11,250	3,750	750,000	300,000	300,000	340	375,000
Edge Village		•	•		•		
Village Center	•	•	•	•	•	•	•
West Village	•	•	•	•	•		
North Village	•	•	•	•			
East Village	•	•	•	•		•	
South Village	•	•			•		

- Denotes land use is permissible within the village

Phasing Schedule					
Land Use	Units	Phase 1 2022-2026	Phase 2 2027-2031	Phase 3 2032-2036	Total
Single Family Residential	Units	2,500	5,750	3,000	11,250
Multi-family Residential	Units	1,000	1,200	1,550	3,750
Commercial	Square Feet	150,000	325,000	275,000	750,000
Hotel	Rooms	120	220	-	340
Light Industrial	Square Feet	150,000	150,000	-	300,000
Office	Square Feet	100,000	100,000	100,000	300,000
Hospital / Medical Office	Square Feet	50,000	150,000	175,000	375,000

Notes:

- (1) Unused development rights from a particular phase carry over into the subsequent phase until build-out.
- (2) The Developer shall be permitted to convert between land uses based on the conversion table contained in the PUD-MU that allows for the exchange of land uses based upon trip generation for each land use.

The entire Property shall be subject to a PUD-MU district that will provide the land use controls for the distribution, location, densities, and intensities of permissible residential and non-residential development. Incremental development plans shall be submitted for individual portions of the 301 Villages in conjunction with corresponding construction plans. These plans must demonstrate consistency with the Conceptual Master Plan and compliance with all sections of the PUD-MU district subject to the City’s PUD verification process.

In the event future development plans necessitate revising the Conceptual Master Plan, an amendment may be sought by the owner of the parcel which is the subject of the amendment but only with the written consent of the Master Developer of Record. Amendment to the adopted PUD-MU district may be accomplished through either an administrative modification, minor modification to the PUD, or by filing an application for rezoning as authorized by the PUD-MU or by Section 656.341 of the *Zoning Code*.

Conservation areas are shown as generalized areas on the Conceptual Master Plan and are subject to final design, road crossings, surveys and permitting. A key element of the Conceptual Master Plan is the preservation and enhancement of the Deep Creek Swamp and its tributaries. To protect water quality and preserve natural wetland functions, the Developer shall maintain a minimum fifteen (15) foot-wide upland buffer between developed areas contiguous to Category I and II Wetlands, except for those circumstances where an averaging of the buffer width, because of an unavoidable buffer reduction, achieves a greater overall upland buffer width.

The Developer shall provide a site within the Property to serve the water and sewer service needs of 301 Villages for potable water and wastewater. Centralized utilities for water and sewer service will be provided by a utility service system authorized by law. The projected water and wastewater demand are specified below. Prior to the commencement of Phase 1 development, the City shall amend its Water Supply Facilities Work Plan to identify phased facilities to provide water and wastewater service for 301 Villages.

	Potable Water Demand (MGD)	Non-Potable Water (Irrigation) Demand (MGD)	Total Water Demand (MGD)	Total Wastewater Generation (MGD)
Phase 1	0.937	0.547	1.483	1.013
Phases 1 & 2	2.787	1.742	4.529	3.053
Build-out	4.017	2.441	6.458	4.369

To create a mobility-friendly community, the project’s transportation network will accommodate the intensity and density of development that is interconnected through a network of pedestrian amenities and roadway network. The plan seeks to reduce the travel distance necessary for day-to-day activities. The plan consists of Villages, and a larger mix-use Village Center. Each Village will have multiple residential neighborhoods connected to one or more Neighborhood Centers that will support the Villages. The Villages will be linked to the Village Center by roadways and a pedestrian system consisting of sidewalks and multi-purpose paths. The major parkways(s) from US 301 will access all the Villages as well as the Village Center. The parkways(s) will include a multi-purpose pathway on one side with an extensive street tree and landscape treatment.

Coordination will continue with the FDOT and the City pursuant to the letter dated July 7, 2021 (attached). The Applicant conducted a traffic impact assessment dated September 2, 2021 (attached) of the existing and expected roadway operating conditions of the immediately surrounding transportation network for the Conceptual Master Plan. The methodologies and assumptions were agreed upon by the City and FDOT.

Coordination will continue with the FFWCC pursuant to the letter dated January 21, 2021 (attached) providing technical assistance information in the design of the Conceptual Master Plan and for future project planning.



Florida Department of Transportation

RONDESANTIS
GOVERNOR

2198 Edison Avenue MS 2806
Jacksonville, FL 32204-2730

KEVIN J. THIBAUT, P.E.
SECRETARY

July 7, 2021

Kristen Reed, Chief
Community Planning Division
City of Jacksonville
214 North Hogan Street
Edward Ball Building, Suite 300
Jacksonville, FL 32202

SUBJECT: City of Jacksonville Proposed Comprehensive Plan Amendment (20-16ESR)

Dear Ms. Reed,

Per your request, this letter serves as documentation that I did speak with Prosser, Inc regarding the traffic analysis requirements for the above-mentioned Comprehensive Plan Amendment. Per the City's standard procedures for the Mixed Use land use, within one year of adoption of L-5457-20A, a traffic impact assessment will be required and initiated as part of the conceptual master plan. The assessment will include analysis of existing and expected roadway operating conditions of the immediately surrounding transportation network impacted by the development outlined in the Detailed Conceptual Master Plan. The analysis will also include identification of the major internal transportation facilities necessary to serve the future land uses and how the major internal roadways will connect to the external transportation network. Identification of methodologies and assumptions shall be agreed upon by the City and FDOT and the analysis shall be completed within 3 years after it begins.

Thank you.

If you have any questions, please do not hesitate to contact me by email:
brian.austin@dot.state.fl.us or call: (904) 360-5664.

Sincerely,

Brian Austin
Transportation Planner
FDOT District Two

Improve Safety, Enhance Mobility, Inspire Innovation
www.fdot.gov

1



**Florida Fish
and Wildlife
Conservation
Commission**

Commissioners
Rodney Barreto
Chairman
Coral Gables

Michael W. Sole
Vice Chairman
Tequesta

Steven Hudson
Fort Lauderdale

Gary Lester
Oxford

Gary Nicklaus
Jupiter

Sonya Rood
St. Augustine

Robert A. Spottwood
Key West

Office of the
Executive Director
Eric Sutton
Executive Director

Thomas H. Eason, Ph.D.
Assistant Executive Director

Jennifer Fitzwater
Chief of Staff

Division of Habitat and
Species Conservation
Melissa Tucker
Director

(850) 488-3831
(850) 921-7793 FAX

Managing fish and wildlife
resources for their long-
term well-being and the
benefit
of people.

620 South Meridian Street
Tallahassee, Florida
32399-1600
Voice: 850-488-4676

Hearing/speech-impaired:
800-965-8771 (T)
800-965-8770 (V)

MyFWC.com

January 21, 2021

Kristen Reed
City of Jacksonville
214 North Hogan Street
Edward Ball Building, Suite 300
Jacksonville, FL 32202
kreed@coj.net

Re: Duval-Jacksonville 20-16ESR (2020-598-E), Comprehensive Plan Amendment

Dear Ms. Reed:

Florida Fish and Wildlife Conservation Commission (FWC) staff reviewed the above-referenced comprehensive plan amendment package and provides the following comments and recommendations for your consideration in accordance with Chapter 163.3184, Florida Statutes. While there are no objections to the amendment, the following technical assistance information is provided to assist the Department of Economic Opportunity, the County, and any applicants during the amendment review and future project planning.

Project Description

This amendment would result in a change to the Future Land Use Map of the City of Jacksonville Comprehensive Plan wherein approximately 7,002 acres of lands currently designated as Agriculture-1, Agriculture-2, and Agriculture-3 will be designated as Multi-Use. This amendment would allow for a planned mixed-use development consisting of 11,250 single family residences, 3,750 multi-family residences, 340 rooms of hotel/lodging, 750,000 square feet of commercial, 300,000 square feet of office, 300,000 square feet of light industrial, and 375,000 square feet of hospital. The project area is located west of and adjacent to US 301 and approximately 1.3 miles south of the US 301 and I-10 interchange. The dominant land covers on the site consist of coniferous plantation (3,573.7 acres), mixed hardwood coniferous swamps (1,018.2 acres), hydric pine flatwoods (917.3 acres), improved pasture (386.5 acres), field crops (314.1 acres), and mixed wetland hardwoods (284.2 acres).

Potentially Affected Resources

A *Listed Wildlife and Habitat Assessment Report* (September 2020) by LG2 Environmental Solutions, Inc. was provided in support of the application. Following a review of online databases, general wildlife surveys were conducted on the project area on September 3-4, 2020, to assess the potential presence of listed and managed wildlife and their associated habitats. Field surveys confirmed the presence of the bald eagle (*Haliaeetus leucocephalus*) and Florida sandhill crane (*Antigone canadensis pratensis*, State Threatened [ST]) on-site. The potential for the following species was also addressed:

Kristen Reed
Page 2
January 21, 2021

- Gopher tortoise (*Gopherus polyphemus*, ST),
- Florida sandhill crane (*Antigone canadensis pratensis*, ST),
- Black Creek crayfish (*Procambarus pictus*, ST)
- Eastern indigo snake (*Drymarchon corais couperi*, Federally Threatened [FT])
- Frosted flatwoods salamander (*Ambystoma cingulatum*, FT)
- Red-cockaded woodpecker (*Picoides borealis*, Federally Endangered)
- Wood stork (*Mycteria americana*, FT)
- Rufa red knot (*Calidris canutus rufa*, FT)

FWC staff conducted a geographic information system analysis of the project area which found that the project area is also located near, within, or adjacent to:

- Potential habitat for state-listed species:
 - Little blue heron (*Egretta caerulea*, ST)
 - Tricolored heron (*Egretta tricolor*, ST)
- Potential habitat for the Florida black bear (*Ursus americanus floridanus* – North Bear Management Unit)

Comments and Recommendations

Gopher Tortoise

The project area has potential habitat for the gopher tortoise and FWC has issued approximately 40 gopher tortoise relocation permits within 2 miles of the project site. The applicant should refer to the FWC's Gopher Tortoise Permitting Guidelines (Revised July 2020) (<http://www.myfwc.com/license/wildlife/gopher-tortoise-permits/>) for survey methodology and permitting guidance prior to any development activity. Specifically, the permitting guidelines include methods for avoiding impacts as well as options and state requirements for minimizing, mitigating, and permitting potential impacts of the proposed activities. If you have any questions regarding gopher tortoise permitting, please contact Eric Seckinger by phone at (850) 921-1029 or at Eric.Seckinger@MyFWC.com.

Florida Sandhill Crane

The applicant's consultants observed Florida sandhill cranes during the site assessment, which occurred outside of the nesting season. The improved pasture and field crops on-site may provide foraging habitat for Florida sandhill crane and the scrub-shrub wetlands and marshes on-site may provide potential nesting habitat for this species. FWC staff recommends that surveys for nesting Florida sandhill cranes be conducted prior to construction activities and during the December through August breeding season. If construction occurs over several years, it may be necessary to conduct surveys each year as Florida sandhill cranes do not nest in the same location every year. If active nests are identified on-site, the Florida Sandhill Crane Species Conservation Measures and Permitting Guidelines recommend that the nest site be buffered by 400 feet to avoid disturbance by human activities. If nesting is discovered after construction has begun or

Kristen Reed
Page 3
January 21, 2021

if maintaining the recommended buffer is not possible, the applicant can contact FWC staff identified below to discuss potential permitting needs. Additional information and guidance for conducting Florida sandhill crane surveys can be found in the Florida Sandhill Crane Species Conservation Measures and Permitting Guidelines (<https://myfwc.com/media/11565/final-florida-sandhill-crane-species-guidelines-2016.pdf>).

State-listed Wading Birds

The potential exists for wading bird nesting activity in the wetlands on the project site. FWC staff recommends that specific surveys be conducted for wading birds in potential nesting areas prior to the commencement of any clearing, grading, or filling activities. Surveys should be conducted during their breeding season, which extends from March through August. Additional information and guidance for conducting surveys can be found in the Species Conservation Measures and Permitting Guidelines for state-threatened wading birds (<https://myfwc.com/media/18634/threatenedwadingbirds-guidelines.pdf>). If there is evidence of nesting during this period, FWC staff recommends that any wading bird nest sites be buffered by 100 meters (330 feet) to avoid disturbance by human activities. If nesting is discovered after site activities have begun, if the removal or trimming of trees with active nests is unavoidable, or if maintaining the recommended buffer is not possible, the applicant may contact the FWC staff identified below to discuss potential permitting alternatives.

This project may create or maintain appropriate habitat for wading birds on-site and the following guidelines may be used to help enhance this habitat within the development:

- Maintain vegetated visual buffers around nesting colonies and feeding areas to protect birds from human disturbance,
- Include islands with suitable nesting habitat when constructing new ponds,
- Leave shrubs around the edges of ponds to provide nesting and foraging habitat and for bank stabilization, and
- Minimize fertilizer, herbicide, and pesticide runoff into wetlands.

Black Creek Crayfish

Black Creek crayfish inhabit freshwater streams nearby in Duval and Clay Counties. Specifically, there have been 16 documented observations of the species within 5 miles of the project site and the species could also be found within Deep Creek, a stream that is present within the project area. The Black Creek crayfish requires perennial streams that have cool, highly oxygenated water, sufficient streamside vegetation for cover and food, and canopy to regulate water temperature. The presence of vegetation within and along creek banks as well as tree roots and submerged detritus are important shelter and food sources for the crayfish. This species is particularly susceptible to pollution, changes in water temperature, siltation, and other changes in water quality. FWC staff recommends dipnet surveying for Black Creek crayfish if construction activities have the potential to impact areas of suitable habitat within Deep Creek. If Deep Creek is found to have the Black Creek crayfish or suitable habitat, FWC staff recommends the applicant refer to the 2018 Species Conservation Measures and Permitting Guidelines for the Black Creek Crayfish (<https://myfwc.com/media/11560/black-creek-crayfish-guidelines.pdf>).

Kristen Reed
Page 4
January 21, 2021

Florida Black Bear

The FWC has received 31 reports of human-bear conflicts within a 5-mile radius of the project site since 2002. Florida black bears are common in this area which is within the North Bear Management Unit identified in the 2019 Bear Management Plan. While black bears tend to shy away from people, they are adaptable and will take advantage of human-provided food sources. This includes sources that are currently available near this site, sources that may be available during construction, and sources available after construction, including unsecured garbage, pet food, and bird seed. Once bears become accustomed to finding food around people, their natural wariness is reduced to the point that there can be an increased risk to public safety or private property.

Proactive planning may help prevent or reduce future conflicts with bears. Site designs for larger developments should locate conservation areas along the borders of developed areas to avoid encouraging bears to forage within developed areas (<http://myfwc.com/wildlifehabitats/managed/bear/crossings/>). If a homeowners' association or community covenants are planned, by-laws that would require residents to take measures to prevent attracting bears into the neighborhood are recommended. Sample by-law language used by other Florida communities is available at (<http://myfwc.com/wildlifehabitats/managed/bear/living/community-group/bylaw/>).

During construction, construction sites should be kept clean, with refuse that might attract bears kept separate from construction debris and stored securely in bear-resistant containers or removed daily from the construction site before dark. Refuse that might attract bears includes all food and drink-related materials, as well as any items with strong scents like cleaning agents. Once the development is completed, residents should be provided with bear-resistant garbage cans as part of their regular waste service, and any larger waste storage containers should also be bear-resistant. Providing residents with information on how to avoid human-bear conflicts is also recommended. This information can include:

- Options for keeping garbage secure can include using bear-resistant garbage containers, modifying regular containers to be bear-resistant, or keeping containers secure in a garage or sturdy shed and then placing garbage on the curb the morning of pick-up rather than the night before (<http://myfwc.com/wildlifehabitats/managed/bear/living/attractants/>);
- Removing bird and wildlife feeders, or modifying them to exclude bears (<http://myfwc.com/wildlifehabitats/managed/bear/wildlife-feeders/>);
- Using electric fencing to secure outdoor attractants like fruiting trees/shrubs, gardens, compost, and small livestock (<https://myfwc.com/media/1886/electricfence.pdf>);
- Proper composting in bear range (<https://myfwc.com/media/1888/howtocompostinbearcountry.pdf>);
- Keeping pets safe (<https://myfwc.com/wildlifehabitats/wildlife/bear/living/protect-pets/>); and
- Cleaning and securing barbecue grills.

Kristen Reed
Page 5
January 21, 2021

Information should also include guidelines for how residents should respond to bears in the area, such as

- What to do if they encounter a bear, whether from a distance or at close range,
- How to keep pets and livestock safe in bear range, and
- When and how to contact the FWC regarding a bear issue.

FWC staff is available to assist with residential planning to incorporate the above features. Additional information about Florida black bears can be found on FWC's website at <http://www.myfwc.com/wildlifehabitats/managed/bear>.

Conceptual Master Plan

Based on discussions with the City of Jacksonville staff, the applicant will be required by the Comprehensive Plan to produce a conceptual master plan prior to the start of development. FWC staff provide technical assistance during development of master plans throughout Florida to avoid, minimize, or mitigate for any potential impacts to federally or state-listed species. Early coordination can also reduce the need for listed species permitting. To initiate coordination with FWC regarding the conceptual master plan, the applicant may submit a request to ConservationPlanningServices@MyFWC.com.

Lakes and Ponds

Based on the type of development proposed within the application, the applicant will likely create or modify several lakes and ponds for stormwater management, to support conservation lands, or for resident use. The creation of these waterbodies could provide potential wildlife habitat as well as a recreational area for fishing and wildlife viewing. Ponds can be managed for both fish production and wildlife habitat, including wading birds and waterfowl. Pond construction at a 3:1 slope to two (2) feet below normal water levels and with the slope seeded and mulched to minimize erosion is ideal for wildlife use. The addition of native wetland plants along this gradual slope could provide a vegetated littoral fringe which could increase the habitat value of the site and possibly provide foraging or nesting areas for several wading bird species. Littoral fringe habitat may also provide spawning habitat for fish which would enhance future recreational fishing opportunities for the community. FWC staff recommend a commitment to long-term maintenance and development of a plan for managing exotic invasive plant species that can significantly degrade habitat values and impact ponds, wetlands and nearby natural areas. The Florida Wildlife Conservation Guide provides more information on this topic with suggested guidelines for construction and management of stormwater ponds (<http://myfwc.com/conservation/you- conserve/recreation/pond-management/>).

Federal Species

This site may also contain habitat suitable for the federally listed species identified above. FWC staff recommends that the applicant coordinates with the USFWS North Florida Ecological Services Office (ESO) as necessary for information regarding potential impacts to these species. The USFWS North Florida ESO can be contacted at (904) 731-3336 for additional information.

Kristen Reed
Page 6
January 21, 2021

FWC staff appreciates the opportunity to review these projects and will continue to be available to assist throughout the permitting process. For specific technical questions regarding the content of this letter, please contact Sean Greene at (386) 406-0814 or by email at Sean.Greene@MyFWC.com. All other inquiries may be directed to ConservationPlanningServices@MyFWC.com.

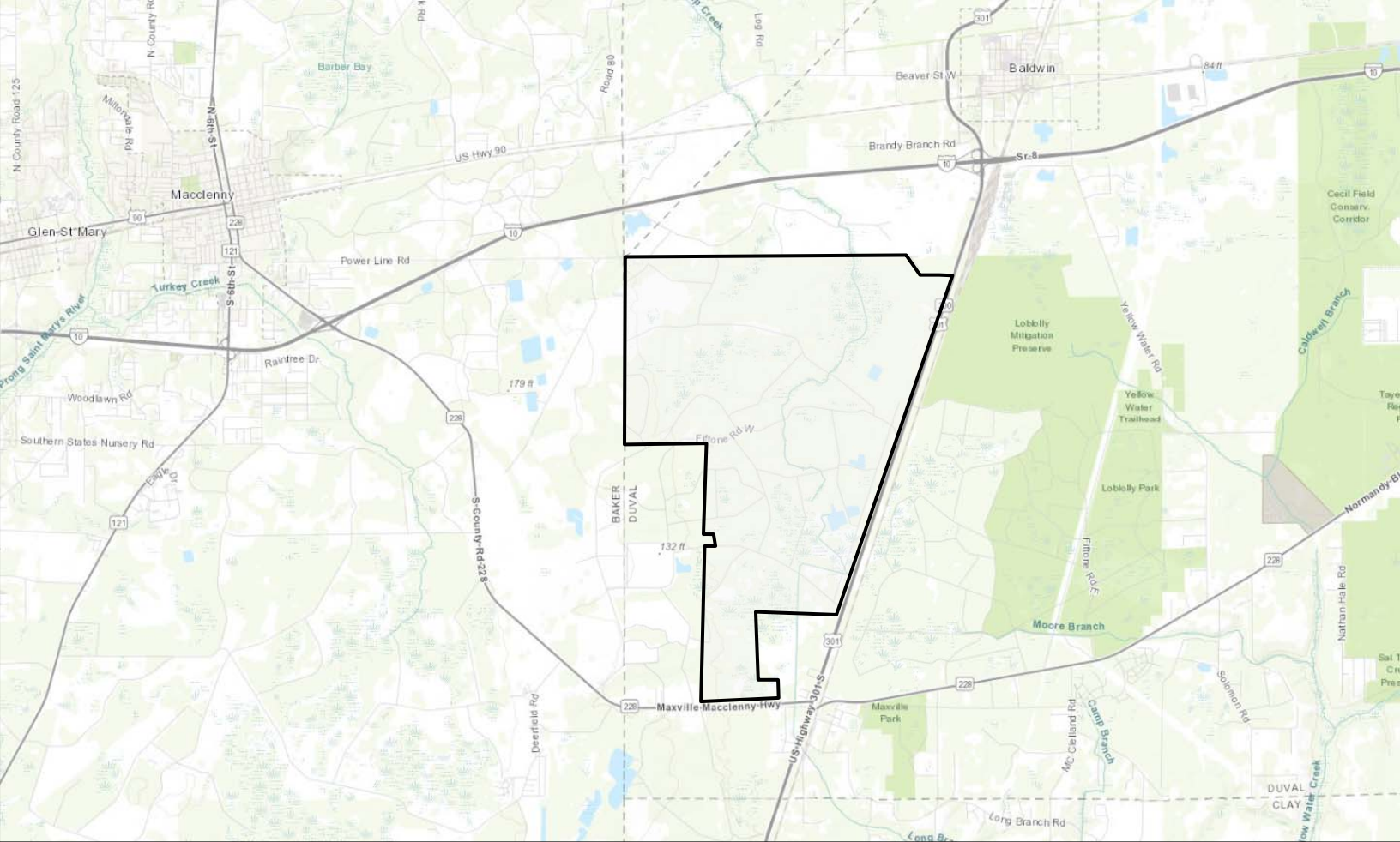
Sincerely,



Jason Hight
Land Use Planning Program Administrator
Office of Conservation Planning Services

jh/spg
Duval-Jacksonville 20-16ESR_43085_01212021

cc: Ray Eubanks, Florida Department of Economic Opportunity,
DCPexternalagencycomments@deo.myflorida.com



Prepared for:

301 Capital Partners

&



Prepared by:



Chindalur Traffic Solutions, Inc.
8833 Perimeter Park Boulevard, Suite 103
Jacksonville, FL 32216
904.619.3368

301 Villages

**Traffic Impact
Assessment**

Duval County, Florida

Project No.: 1138-210-039
Date: 09/02/2021

Table of Contents

	Introduction	1
	Project Development Plan	1
	Study Area and Existing Conditions	2
	Trip Generation	2
	Future Background Traffic Volumes	3
	Project Traffic Distribution and Assignment	3
	Build-Out Conditions Roadway Segment Analysis	3
	Operational Analysis	4
	Summary and Conclusions	5
	Figures	
Figure 01	Location Map	
Figure 02	Year 2026 Phase 01 Development – Project Traffic Distribution and Assignment	
Figure 03	Year 2031 Phase 02 Development – Project Traffic Distribution and Assignment	
Figure 04	Year 2037 Phase 03 Development – Project Traffic Distribution and Assignment	
	Tables	
Table 01	Development Quantities and Project Schedule	
Table 02	Study Area Roadway Segments and Existing Conditions	
Table 03	Phase 01 Year 2026 Trip Generation	
Table 04	Phase 02 Year 2031 (Cumulative) Trip Generation	
Table 05	Phase 03 Year 2037 (Cumulative) Trip Generation	
Table 06	Study Roadway Segments – Future Background Traffic Volumes (AADTS)	
Table 07	Study Roadway Segments – Project Traffic Distribution and Daily Traffic Assignment	
Table 08	Year 2026 Phase 01 Development – Roadway Segment Analysis	
Table 09	Year 2031 Phase 02 Development – Roadway Segment Analysis	
Table 10	Year 2037 Phase 03 Development – Roadway Segment Analysis	
Table 11	Mobility Fee Calculations	
	Appendix	
Attachment A	301 Villages – Conceptual Site Plan (Source: Prosser, Inc.)	
Attachment B	Methodology Document	
Attachment C	FDOT Traffic Counts, LOS Summary Reports & Generalized Service Volume Tables	
Attachment D	Internal Capture Worksheets	
Attachment D1	Phase 01 Year 2026 Development Internal Capture Worksheets	
Attachment D2	Phase 02 Year 2031 Development Internal Capture Worksheets	
Attachment D3	Phase 03 Year 2037 Development Internal Capture Worksheets	
Attachment E	Socio-Economic Zdata Variables	
Attachment F	Travel Demand Model Plots	
Attachment F1	Year 2025 Travel Demand Model Plots	
Attachment F2	Year 2030 Travel Demand Model Plots	
Attachment F3	Year 2035 Travel Demand Model Plots	
Attachment G	FDOT D2 Long Range Cost Feasible Plan FY 2029 - 2045	

Introduction:

A mixed-use development anticipated to include 11,250 single-family dwelling units, 3,750 multi-family dwelling units, 750,000 SF commercial/retail, 340 rooms hotel, 300,000 SF light industrial, 300,000 SF office and 375,000 SF hospital/medical office uses is proposed for construction. The project will be built in three (3) phases. The proposed development will be located on the southwest quadrant of I-10 and US 301 interchange. Access to the proposed development will be provided via several driveways and roadways on US 301. **Figure 01** shows the location of the proposed development. A copy of the conceptual site plan provided by Prosser, Inc. is included as **Attachment A**.

The proposed development is seeking Concept Site Plan approved by the City of Jacksonville (COJ). A traffic study determining the project impacts on the roadway segments in the vicinity of the proposed development is required to be submitted to COJ for approvals. This traffic study is consistent with the methodology that was submitted to COJ and Florida Department of Transportation (FDOT) on 07/16/2021. A copy of the methodology is included as **Attachment B**.

Project Development Plan:

The proposed development is planned for construction in three (3) phases. **Table 02** shows a summary of the project phasing schedule.

Phase 01 development (2022 – 2026) is anticipated to include the following:

- 150,000 SF of General Light Industrial
- 2,500 Single-family Dwelling Units
- 1,000 Multi-family Dwelling Units
- 150,000 SF Commercial/Retail
- 100,000 SF Office
- 120 Rooms Hotel
- 50,000 SF Medical Office

Phase 02 (2027 – 2031) development is anticipated to include the following:

- 150,000 SF of General Light Industrial
- 5,750 Single-family Dwelling Units
- 1,200 Multi-family Dwelling Units
- 325,000 SF Commercial/Retail
- 100,000 SF Office
- 220 Rooms Hotel
- 150,000 SF Hospital/Medical Office

Phase 03 (2032 – 2037) development is anticipated to include the following:

- 3,000 Single-family Dwelling Units
- 1,550 Multi-family Dwelling Units
- 275,000 SF Commercial/Retail
- 100,000 SF Office
- 175,000 SF Medical Office

Study Area and Existing Conditions:

As discussed at the methodology meeting and included in the document, the study includes the following roadway segments.

- US 301 – South of Normandy Boulevard
- US 301 – Normandy Boulevard to I-10
- US 301 – I-10 to Beaver Street
- Normandy Boulevard – US 301 to CR 217
- Normandy Boulevard – CR 217 to Yellow Water Road
- Normandy Boulevard – Yellow Water Road to POW-MIA Memorial Parkway
- I-10 – West of Baker County Line
- I-10 – Baker County Line to Duval County Line
- I-10 – Duval County Line to US 301
- I-10 – US 301 to SR 23 (First Coast Expressway)
- I-10 – SR 23 (First Coast Expressway) to Chaffee Road
- I-10 – Chaffee Road to Hammond Boulevard
- I-10 – Hammond Boulevard to I-295

The existing conditions details of the above stated study segments were obtained from the FDOT Traffic Counts Online Portal and FDOT D2 LOS Manual. **Table 02** summarizes the existing conditions for the above stated roadway segments. The FDOT D2 LOS Manual provides the roadway segments adopted LOS Standard and the peak hour Maximum Service Volumes (MSVs). The corresponding Daily MSVs were obtained from the FDOT Q-LOS Generalized Standard Volumes Tables. **Attachment C** includes copies of the traffic counts data obtained from the FDOT Traffic Counts Online Portal, FDOT D2 LOS Manual and the FDOT Q-LOS Generalized Standard Volumes Tables.

Trip Generation:

Daily, AM peak and PM peak trip generation for the proposed development under each of the development phases was estimated using the rates and equations included in the Trip Generation Manual 10th Edition, published by the Institute of Transportation Engineers.

Due to the mixed-use nature of the proposed development, internal capture trips were estimated

using the internal capture rates included in the Trip Generation Manual. Internal capture trips were estimated using the NCHRP Report 684 Internal Capture Estimator for mixed-use developments. Pass-by trips for the commercial development was estimated using the pass-by rates included in the Trip Generation Manual. ITE does not provide daily pass-by trip rates. Hence, the average rate of Mid-Day and PM peak pass-by trip rate was used to determine the daily pass-by trips.

Tables 03, 04 and 05 summarizes the Daily, AM Peak and PM Peak trip generation, internal capture and pass-by trips for each of the three (3) project development phases. **Attachment D** includes NCHRP 684 Internal Capture Worksheets.

Future Background Traffic Volumes:

The year 2026, 2031 and 2037 background conditions AADT were estimated using the year 2025, 2030, 2035 and 2040 AADT projections included in the FDOT D2 LOS Manual. **Table 06** summarizes the year 2026, 2031 and 2037 background conditions AADT and LOS on each of the study area roadway segments. Previously stated **Attachment C** includes the FDOT D2 LOS summary for each of the study area roadway segments.

Project Traffic Distribution and Assignment:

Project traffic distribution for the proposed development under each of the three (3) phases was determined by running the interim year 2025, year 2030 and year 2035 model sets of the NERPM_AB travel demand model developed as part of the Year 2045 Long Range Transportation Plan by the North Florida Transportation Planning Organization (NFTPO).

Each of the interim year model sets was verified to ensure the Trails Mixed Use development (on the southside of Normandy Boulevard and east of US 301) was included. Additionally, the proposed 301 Villages development under each of the development phases was included to the travel demand model. **Attachment E** includes the socio-economic variables data that were verified and included in each of the interim year 2025, year 2030 and year 2035 travel demand model sets.

Table 07 summarizes the project traffic distribution and daily traffic assignment on each of the study roadway segments under each of the three (3) project development phases. **Attachment F** includes copies of the travel demand model plots showing project traffic distribution each of the project development phases. The project traffic distribution for each of the development phases was multiplied by the daily net external trips for each of the project development phases estimated in previously stated **Tables 03, 04 and 05** respectively. **Figures 02, 03 and 04** summarize the project traffic distribution and daily traffic assignment on each of the study roadway segments.

Build-Out Conditions Roadway Segment Analysis:

Build-out conditions Roadway Segment Analysis includes the future year background traffic volumes and project traffic assignment on each of the study roadway segments under each of the three (3) development phases.

Table 08 summarizes the year 2026 Phase 01 development conditions roadway segments analysis. As summarized in this table, all of the study roadway segments are anticipated to operate under the adopted level of service with the exception of I-10 between US 301 to SR 23 (First Coast Expressway).

Table 09 summarizes the year 2031 Phase 02 development conditions roadway segments analysis. As summarized in this table, all of the study roadway segments are anticipated to operate under the adopted level of service with the exception of the following roadway segments:

- US 301 - 301 Villages Project Entrances to I-10
- I-10 - West of Baker County Line
- I-10 - US 301 to SR 23 (First Coast Expressway)
- I-10 - SR 23 (First Coast Expressway) to Chaffee Road
- I-10 - Chaffee Road to Hammond Boulevard/Greenland Avenue/I-295
- I-10 - Hammond Boulevard/Greenland Avenue to I-295

Table 10 summarizes the year 2037 Phase 03 development conditions roadway segments analysis. As summarized in this table, all of the study roadway segments are anticipated to operate under the adopted level of service with the exception of the following roadway segments:

- US 301 - 301 Villages Project Entrances to I-10
- I-10 - West of Baker County Line
- I-10 - US 301 to SR 23 (First Coast Expressway)
- I-10 - SR 23 (First Coast Expressway) to Chaffee Road
- I-10 - Chaffee Road to Hammond Boulevard/Greenland Avenue/I-295
- I-10 - Hammond Boulevard/Greenland Avenue to I-295

Please note that FDOT’s Long Range Cost Feasible Plan (FY 2029 -2045) includes widening of I-10 between CR 125 and I-295 between the year 2040 and 2045. **Attachment G** includes a copy of the FDOT D2 Long Range Cost Feasible Plan FY – 2029 – 2045.

Please note that the development quantities used in this analysis is under the maximum development density worst-case scenario and the proposed development density may not be possible.

Table 11 shows potential mobility fee calculations for the proposed development. These fees could be potentially used to provide some of the impacted roadway segments.

Operational Analysis:

A detailed operational analysis at all the project access intersections on US 301 will be submitted to both FDOT and COJ at the time of 10-set review submittals.

Summary and Conclusions:

A mixed-use development anticipated to include 11,250 single-family dwelling units, 3,750 multi-Family dwelling units, 750,000 SF commercial/retail, 340 rooms hotel, 300,000 SF light industrial, 300,000 SF office and 375,000 SF hospital/medical office uses is proposed for construction. The project will be built in three (3) phases. The proposed development will be located on the southwest quadrant of I-10 and US 301 interchange. Access to the proposed development will be provided via several driveways and roadways on US 301.

The proposed development is seeking Concept Site Plan approved by the City of Jacksonville (COJ). A traffic study determining the project impacts on the roadway segments in the vicinity of the proposed development is required to be submitted to COJ for approvals.

The existing conditions details of the above stated study segments were obtained from the FDOT Traffic Counts Online Portal and FDOT D2 LOS Manual. The FDOT D2 LOS Manual provides the roadway segments adopted LOS Standard and the peak hour Maximum Service Volumes (MSVs). The corresponding Daily MSVs were obtained from the FDOT Q-LOS Generalized Standard Volumes Tables.

Daily, AM peak and PM peak trip generation, internal capture and pass-by trips for the proposed development under each of the development phases was estimated using the rates and equations included in the Trip Generation Manual 10th Edition, published by the Institute of Transportation Engineers.

The year 2026, 2031 and 2037 background conditions AADT were estimated using the year 2025, 2030, 2035 and 2040 AADT projections included in the FDOT D2 LOS Manual.

Project traffic distribution for the proposed development under each of the three (3) phases was determined by running the interim year 2025, year 2030 and year 2035 model sets of the NERPM_AB travel demand model developed as part of the Year 2045 Long Range Transportation Plan by the North Florida Transportation Planning Organization (NFTPO).

Build-out conditions Roadway Segment Analysis includes the future year background traffic volumes and project traffic assignment on each of the study roadway segments under each of the three (3) development phases.

Under the year 2026 Phase 01 development conditions, all of the study roadway segments are anticipated to operate under the adopted level of service with the exception of I-10 between US 301 to SR 23 (First Coast Expressway).

Under the year 2031 Phase 02 development conditions, all of the study roadway segments are anticipated to operate under the adopted level of service with the exception of the following roadway segments:

- US 301 - 301 Villages Project Entrances to I-10
- I-10 - West of Baker County Line
- I-10 - US 301 to SR 23 (First Coast Expressway)
- I-10 - SR 23 (First Coast Expressway) to Chaffee Road
- I-10 - Chaffee Road to Hammond Boulevard/Greenland Avenue/I-295
- I-10 - Hammond Boulevard/Greenland Avenue to I-295

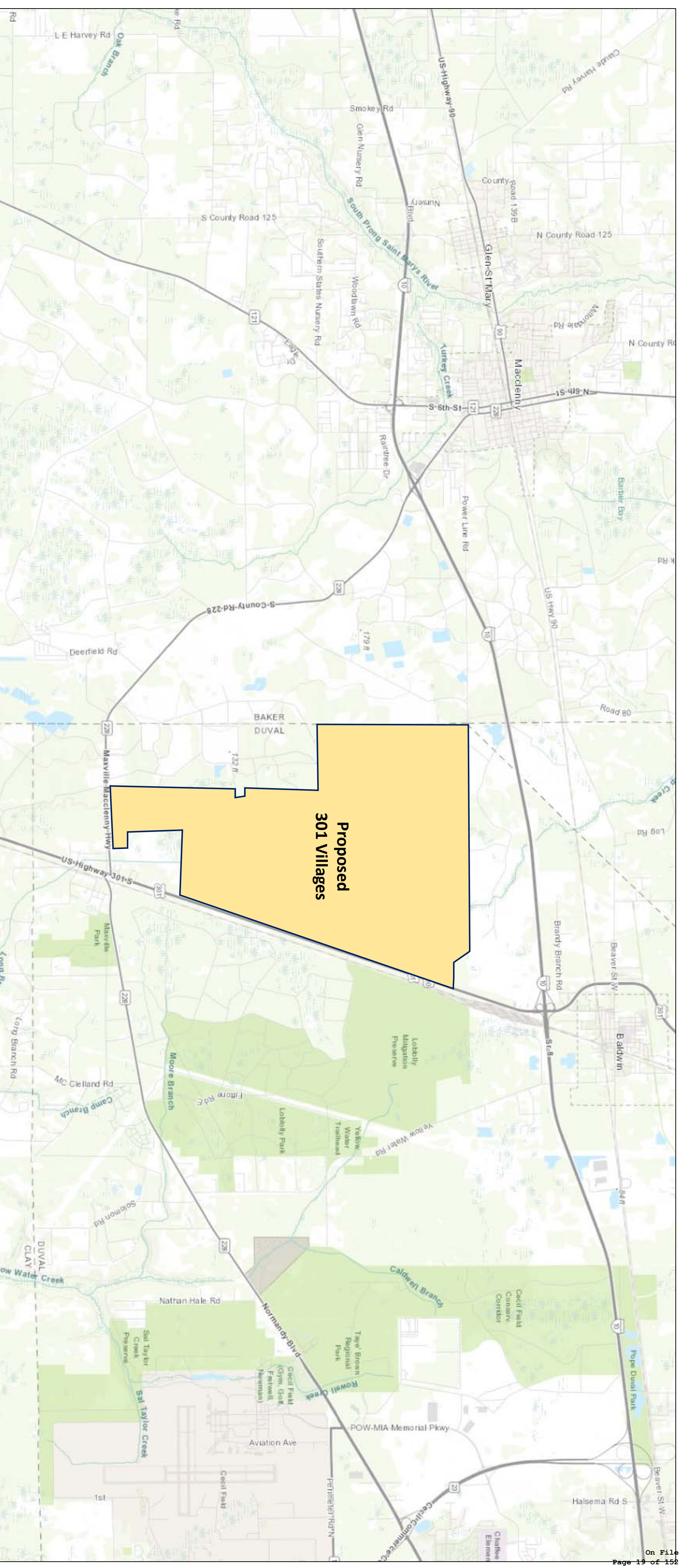
Under the year 2037 Phase 03 development conditions, all of the study roadway segments are anticipated to operate under the adopted level of service with the exception of the following roadway segments:

- US 301 - 301 Villages Project Entrances to I-10
- I-10 - West of Baker County Line
- I-10 - US 301 to SR 23 (First Coast Expressway)
- I-10 - SR 23 (First Coast Expressway) to Chaffee Road
- I-10 - Chaffee Road to Hammond Boulevard/Greenland Avenue/I-295
- I-10 - Hammond Boulevard/Greenland Avenue to I-295

Please note that FDOT's Long Range Cost Feasible Plan (FY 2029 -2045) includes widening of I-10 between CR 125 and I-295 between the year 2040 and 2045.

Please note that the development quantities used in this analysis is under the maximum development density worst-case scenario and the proposed development density may not be possible.

A detailed operational analysis at all the project access intersections on US 301 will be submitted to both FDOT and COJ at the time of 10-set review submittals.



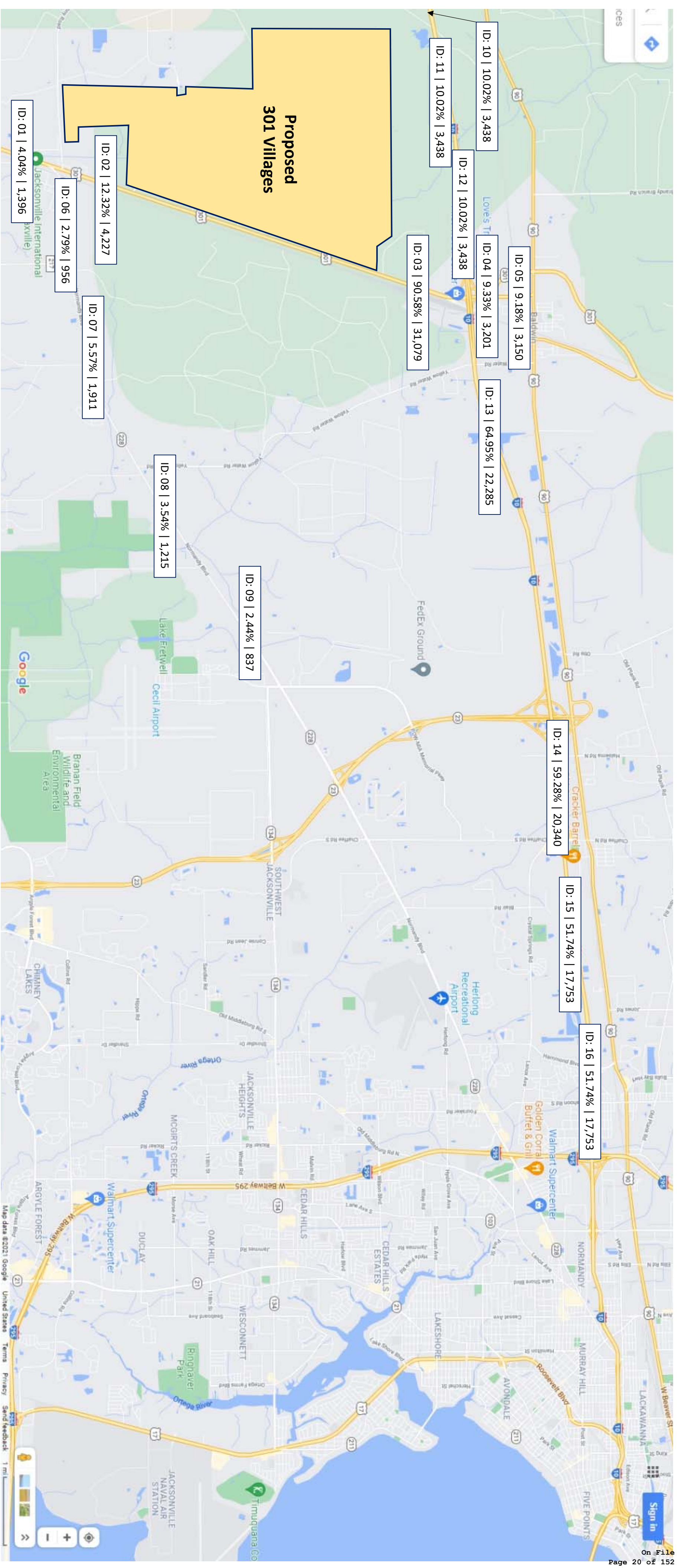
**Proposed
301 Villages**

Figure 01 – Project Location Map

301 Villages – Traffic Impact Assessment
Duval County, Florida



Chindalur Traffic Solutions, Inc.
8833 Perimeter Park Blvd., Suite 103
Jacksonville FL 32216
(904) 619-3368 | www.ctrffcsolutions.com



XX - Roadway Segment ID
 XX% - Project Traffic Distribution
 XXXX - Project Traffic Assignment

Figure 02 – Year 2026 Phase 01 Project Traffic Distribution and Assignment
 301 Villages – Traffic Impact Assessment
 Duval County, Florida

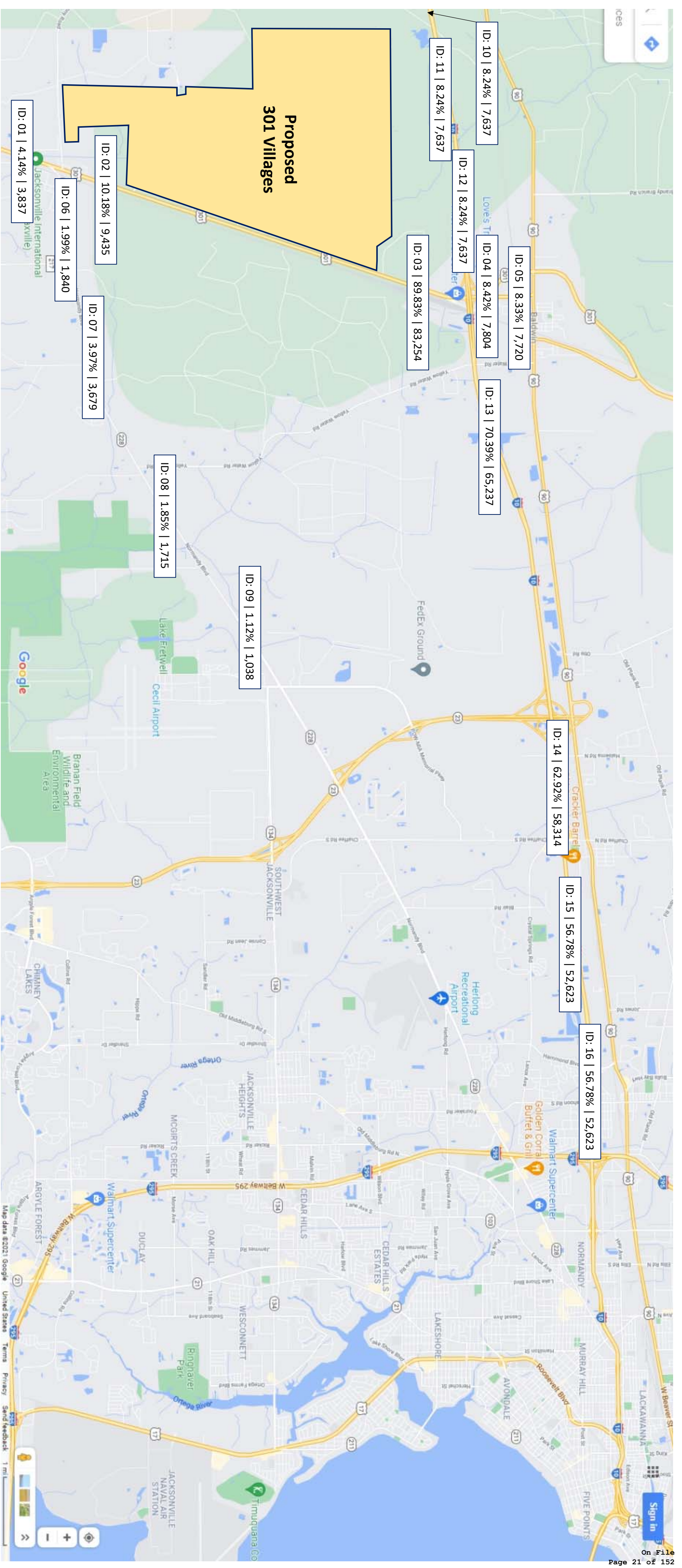
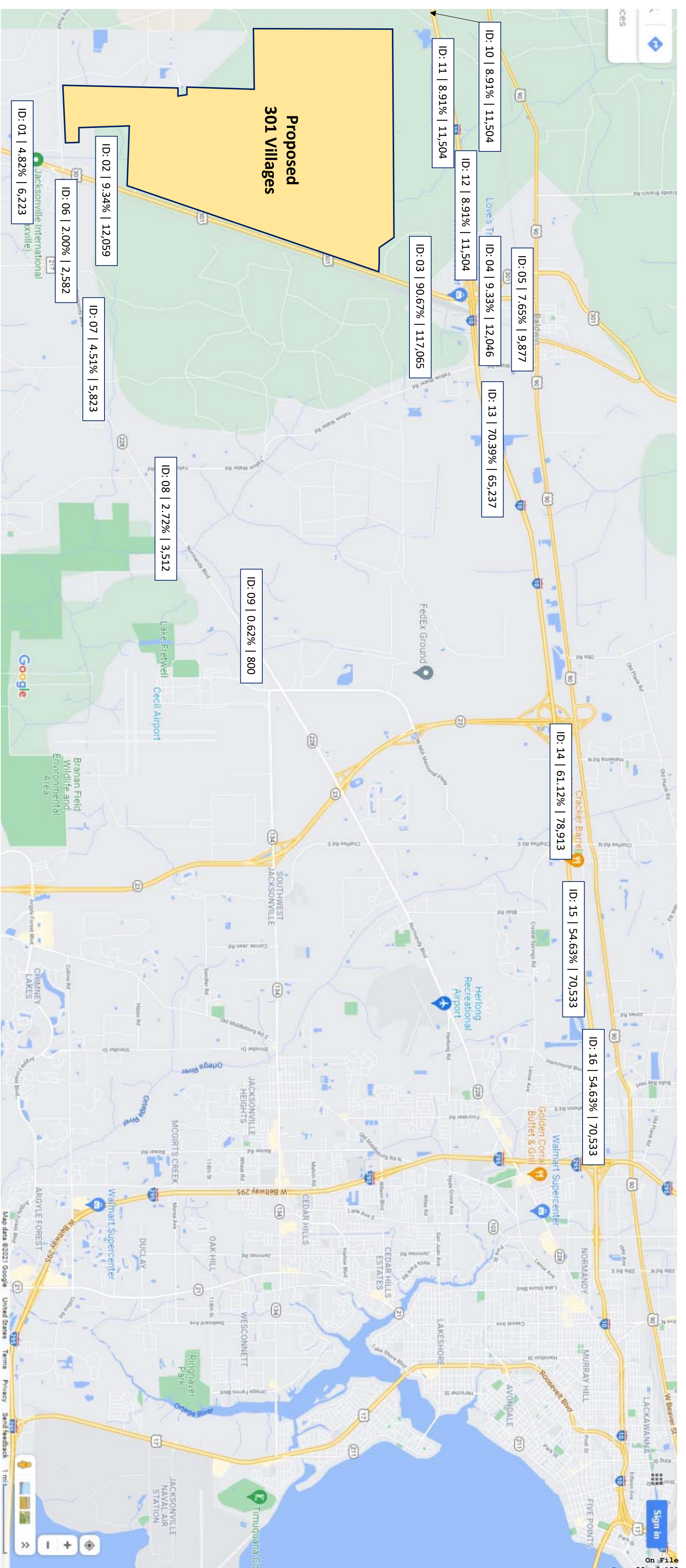


Figure 03 – Year 2031 Phase 02 Project Traffic Distribution and Assignment

301 Villages – Traffic Impact Assessment
 Duval County, Florida

XX - Roadway Segment ID
 XX% - Project Traffic Distribution
 XXXX - Project Traffic Assignment



XX - Roadway Segment ID
 XX% - Project Traffic Distribution
 XXXX - Project Traffic Assignment

Figure 04 – Year 2037 Phase 03 Project Traffic Distribution and Assignment

301 Villages – Traffic Impact Assessment
 Duval County, Florida

Table 01
Project Phasing Schedule
301 Villages - Traffic Impact Assessment, Duval County, FL

Land Use	Units	Phase 01	Phase 2	Phase 3	Total
		2022-2026	2027-2031	2032-2037	
Single Family Residential	Dwelling Units	2,500	5,750	3,000	11,250
Multi-family Residential	Dwelling Units	1,000	1,200	1,550	3,750
Commercial	Square Feet	150,000	325,000	275,000	750,000
Hotel	Rooms	120	220	-	340
Light Industrial	Square Feet	150,000	150,000	-	300,000
Office	Square Feet	100,000	100,000	100,000	300,000
Hospital/Medical Office	Square Feet	50,000	150,000	175,000	375,000

Source: Attachment A - Site Plan

Table 02
Study Roadway Segments - Existing Conditions and Future Conditions
301 Villages - Traffic Impact Assessment

Road ID	Roadway	Termini	Number of Lanes	Roadway Classification	Area Type	FDOT Adopted LOS Standard	Adopted Peak Hour MSV	Adopted Daily MSV	2019 AADT	2020 AADT	2025 AADT	2030 AADT	2035 AADT	2040 AADT
1	US 301	South of Normandy Boulevard	4	Highway	Urban	D	5,960	66,200	19,800	21,500	22,104	24,024	25,945	27,865
2	US 301	Normandy Boulevard to Project Entrance	4	Highway	Urban	D	5,960	66,200	15,100	17,800	17,322	19,174	21,026	22,878
3	US 301	Project Entrance to I-10	4	Highway	Urban	D	5,960	66,200	15,100	17,800	17,322	19,174	21,026	22,878
4	US 301	I-10 to City Limit of Baldwin	4	Arterial	Urban	D	3,580	39,800	7,400	7,900	11,744	12,421	13,098	13,775
5	US 301	City Limit of Baldwin to Beaver Street	4	Arterial	Urban	D	3,580	39,800	8,300	8,200	9,276	10,458	11,639	12,821
6	Normandy Boulevard	US 301 Ramp	2	Highway	Urban	D	2,180	24,200	6,400	5,300	7,027	7,549	8,071	8,593
7	Normandy Boulevard	US 301 Ramp to McClelland Road	2	Highway	Urban	D	2,180	24,200	12,000	11,000	12,519	13,515	14,511	15,507
8	Normandy Boulevard	McClelland Road to Jax Equestrian Center	2	Highway	Urban	D	2,180	24,200	13,200	12,400	14,368	15,726	17,083	18,441
9	Normandy Boulevard	Jax Equestrian Center to POW-MIA Memorial Pkwy	4	Highway	Urban	D	5,960	66,200	13,200	12,400	14,717	16,078	17,439	18,800
10	I-10	West of Baker County Line	4	Freeway	Rural	C	5,040	48,000	38,000	35,000	40,189	42,085	43,980	45,876
11	I-10	Baker County Line to Duval County Line	4	Freeway	Transitioning	C	5,780	59,000	38,000	35,000	40,280	42,180	44,080	45,980
12	I-10	Duval County Line to US 301	4	Freeway	Transitioning	C	5,780	59,000	38,000	35,000	40,280	42,180	44,080	45,980
13	I-10	US 301 to SR 23 (First Coast Expressway)	4	Freeway	Urban	D	6,800	83,200	56,000	52,500	60,378	64,148	67,918	71,689
14	I-10	SR 23 (First Coast Expressway) to Chaffee Road	6	Freeway	Urban	D	10,220	123,600	56,000	52,500	63,695	70,107	76,520	82,932
15	I-10	Chaffee Road to Hammond Boulevard/Greenland Avenue/I-295	6	Freeway	Urban	D	10,220	123,600	82,500	75,500	91,710	100,432	109,154	117,876
16	I-10	Hammond Boulevard/Greenland Avenue to I-295	6	Freeway	Urban	D	10,220	123,600	102,000	95,500	104,204	105,093	105,982	106,871

Source: FDOT Traffic Counts Online Portal and FDOT D2 LOS Summary Reports (Attachment C)

Table 03
 Trip Generation - Phase 01
 301 Villages - Traffic Impact Assessment, Duval County, FL

ITE Land Use Code	Description	Quantity	Units	Time Period	Rate or Equation	Percent Traffic		Project Trips		Internal Capture		Percent		External Trips		Pass-by		Net External Trips	
						Entering	Exiting	Total	Entering	Exiting	Total	Entering	Exiting	Percent	Trips	Percentage	Trips	Total	Entering
110	General Light Industrial	150,000	SF	Daily	$T = 3.79(X) + 57.96$	50%	50%	626	313	-	-	0.00%	626	0%	-	626	-	313	313
210	Single Family Home Detached	2,500	Dwelling Units	Daily	$\ln(T) = 0.92 \ln(X) + 2.71$	50%	50%	20,093	10,047	414	413	4.12%	19,266	0%	-	19,266	-	9,633	9,633
220	Multi-Family Residential (Townhomes)	1,000	Dwelling Units	Daily	$T = 7.56(X) - 40.86$	50%	50%	7,519	3,760	155	154	4.11%	7,210	0%	-	7,210	-	3,605	3,605
820	Commercial/Retail	150,000	SF	Daily	$\ln(T) = 0.68 \ln(X) + 5.57$	50%	50%	7,921	3,961	933	933	23.56%	6,055	30%	1,817	4,238	2,119	2,119	2,119
710	General Office	100,000	SF	Daily	$T = 9.74(X)$	50%	50%	974	487	88	87	17.93%	799	0%	-	799	-	400	399
310	Hotel	120	Rooms	Daily	$T = 11.29(X) - 426.97$	50%	50%	928	464	93	92	19.90%	743	0%	-	743	-	372	371
720	Medical Office Building	50,000	SF	Daily	$T = 38.42(X) - 87.62$	50%	50%	1,833	917	202	202	22.06%	1,429	0%	-	1,429	-	715	714
Total								39,894	19,949	1,885	1,881	9.44%	36,128		1,817	34,311		17,157	17,154
110	General Light Industrial	150,000	SF	AM Peak	$\ln(T) = 0.74 \ln(X) + 0.39$	88%	12%	60	53	-	-	0.00%	60	0%	-	60	-	53	7
210	Single Family Home Detached	2,500	Dwelling Units	AM Peak	$T = 0.71(X) + 4.80$	25%	75%	1,780	445	9	18	1.54%	1,753	0%	-	1,753	-	438	1,315
220	Multi-Family Residential (Townhomes)	1,000	Dwelling Units	AM Peak	$\ln(T) = 0.95 \ln(X) - 0.51$	23%	77%	425	98	2	5	1.53%	418	0%	-	418	-	96	322
820	Commercial/Retail	150,000	SF	AM Peak	$T = 0.50(X) + 151.78$	62%	38%	227	141	32	19	22.47%	176	26%	46	130	81	49	49
710	General Office	100,000	SF	AM Peak	$T = 1.16(X)$	86%	14%	116	100	10	4	12.74%	101	0%	-	101	-	87	14
310	Hotel	120	Rooms	AM Peak	$T = 0.50(X) - 5.34$	59%	41%	55	32	-	9	16.36%	46	0%	-	46	-	27	19
720	Medical Office Building	50,000	SF	AM Peak	$\ln(T) = 0.89 \ln(X) + 1.31$	78%	22%	121	94	10	8	14.24%	104	0%	-	104	-	81	23
Total								2,784	963	63	63	4.53%	2,658		46	2,612		863	1,749
110	General Light Industrial	150,000	SF	PM Peak	$\ln(T) = 0.69 \ln(X) + 0.43$	13%	87%	49	6	-	-	0.00%	49	0%	-	49	-	6	43
210	Single Family Home Detached	2,500	Dwelling Units	PM Peak	$\ln(T) = 0.96 \ln(X) + 0.20$	63%	37%	2,233	1,407	85	64	6.69%	2,084	0%	-	2,084	-	1,313	771
220	Multi-Family Residential (Townhomes)	1,000	Dwelling Units	PM Peak	$\ln(T) = 0.89 \ln(X) - 0.02$	63%	37%	458	289	18	13	6.69%	427	0%	-	427	-	269	158
820	Commercial/Retail	150,000	SF	PM Peak	$\ln(T) = 0.74 \ln(X) + 2.89$	48%	52%	734	352	68	113	24.66%	553	34%	188	365	175	190	190
710	General Office	100,000	SF	PM Peak	$T = 1.15(X)$	16%	84%	115	18	13	14	23.12%	88	0%	-	88	-	14	74
310	Hotel	120	Rooms	PM Peak	$T = 0.75(X) - 26.02$	51%	49%	64	33	10	5	23.44%	49	0%	-	49	-	25	24
720	Medical Office Building	50,000	SF	PM Peak	$T = 3.39(X) + 2.02$	28%	72%	172	48	33	18	29.89%	121	0%	-	121	-	34	87
Total								3,825	2,153	227	227	11.87%	3,371		188	3,183		1,836	1,347

Mid-Day Peak Pass-by for Commercial 26%
 PM Peak Pass-by for Commercial 34%
 Daily Pass-by for Commercial 30%
 Source: Trip Generation Manual, 10th Edition, ITE
 Internal Capture Calculations - Attachment C

Table 04
 Trip Generation - Phase 02 (Cumulative)
 301 Villages - Traffic Impact Assessment, Duval County, FL

ITE Land Use Code	Description	Quantity	Units	Time Period	Rate or Equation	Percent Traffic		Project Trips				Internal Capture				External Trips		Pass-by		Net External Trips			
						Entering	Exiting	Total	Entering	Exiting	Total	Entering	Exiting	Percent	Trips	Percentage	Trips	Total	Entering	Exiting			
110	General Light Industrial	300,000	SF	Daily	$T = 3.79(X) + 57.96$	50%	50%	1,195	598	597	-	-	-	-	-	-	-	-	-	1,195	598	597	
210	Single Family Home Detached	8,250	Dwelling Units	Daily	$\ln(T) = 0.92 \ln(X) + 2.71$	50%	50%	60,266	30,133	30,133	1,955	983	982	0.00%	1,195	0%	-	-	-	58,301	29,151	29,150	
220	Multi-Family Residential (Townhomes)	2,200	Dwelling Units	Daily	$T = 7.56(X) - 40.86$	50%	50%	16,591	8,296	8,295	541	271	270	3.26%	16,050	0%	-	-	-	16,050	8,025	8,025	
820	Commercial/Retail	475,000	SF	Daily	$\ln(T) = 0.68 \ln(X) + 5.57$	50%	50%	17,345	8,673	4,337	5,056	2,528	2,528	29.15%	12,289	30%	3,687	-	-	8,602	4,301	4,301	
710	General Office	200,000	SF	Daily	$T = 9.74(X)$	50%	50%	1,948	974	487	360	180	180	18.48%	1,588	0%	-	-	-	1,588	794	794	
310	Hotel	340	Rooms	Daily	$T = 11.29(X) - 426.97$	50%	50%	3,412	1,706	853	628	314	314	18.41%	2,784	0%	-	-	-	2,784	1,392	1,392	
720	Medical Office Building	50,000	SF	Daily	$T = 38.42(X) - 87.62$	50%	50%	1,833	917	459	410	205	205	22.35%	1,423	0%	-	-	-	1,423	712	711	
610	Hospital	150,000	SF	Daily	$T = 5.88(X) + 2723.70$	50%	50%	3,616	1,808	904	880	440	440	24.34%	2,736	0%	-	-	-	2,736	1,368	1,368	
Total								106,206	53,105	46,065	9,840	4,921	4,919	9.27%	96,366				3,687	92,679	46,341	46,338	
110	General Light Industrial	300,000	SF	AM Peak	$\ln(T) = 0.74 \ln(X) + 0.39$	88%	12%	101	89	12	-	-	-	0.00%	101	0%	-	-	-	5,796	1,449	89	
210	Single Family Home Detached	8,250	Dwelling Units	AM Peak	$T = 0.71(X) + 4.80$	25%	75%	5,862	1,466	4,396	66	18	48	1.12%	5,796	0%	-	-	-	889	204	120	
220	Multi-Family Residential (Townhomes)	2,200	Dwelling Units	AM Peak	$\ln(T) = 0.95 \ln(X) - 0.51$	23%	77%	899	207	692	10	3	7	1.12%	889	0%	-	-	-	889	204	685	
820	Commercial/Retail	475,000	SF	AM Peak	$T = 0.50(X) + 151.78$	62%	38%	389	241	148	128	89	39	32.90%	261	26%	68	-	-	193	120	73	
710	General Office	200,000	SF	AM Peak	$T = 1.16(X)$	86%	14%	232	200	32	29	20	9	12.60%	203	0%	-	-	-	203	174	29	
310	Hotel	340	Rooms	AM Peak	$T = 0.50(X) - 5.34$	59%	41%	165	97	68	24	24	24	14.55%	141	0%	-	-	-	141	83	58	
720	Medical Office Building	50,000	SF	AM Peak	$\ln(T) = 0.89 \ln(X) + 1.31$	78%	22%	121	94	27	17	10	8	14.13%	104	0%	-	-	-	104	81	23	
610	Hospital	150,000	SF	AM Peak	$T = 0.74(X) + 126.36$	68%	32%	237	161	76	38	16	21	15.89%	199	0%	-	-	-	199	136	63	
Total							8,006	2,555	5,451	312	156	156	3.90%	7,694					68	7,626	2,336	5,290	
110	General Light Industrial	300,000	SF	PM Peak	$\ln(T) = 0.69 \ln(X) + 0.43$	13%	87%	79	10	69	-	-	-	0.00%	79	0%	-	-	-	6,646	1,187	69	
210	Single Family Home Detached	8,250	Dwelling Units	PM Peak	$\ln(T) = 0.96 \ln(X) + 0.20$	63%	37%	7,025	4,426	2,599	379	214	165	5.40%	6,646	0%	-	-	-	875	551	2,459	
220	Multi-Family Residential (Townhomes)	2,200	Dwelling Units	PM Peak	$\ln(T) = 0.89 \ln(X) - 0.02$	63%	37%	925	583	342	50	28	22	5.40%	875	0%	-	-	-	875	551	324	
820	Commercial/Retail	475,000	SF	PM Peak	$\ln(T) = 0.74 \ln(X) + 2.89$	48%	52%	1,721	826	895	437	166	271	25.39%	1,284	34%	437	-	-	847	407	440	
710	General Office	200,000	SF	PM Peak	$T = 1.15(X)$	16%	84%	230	37	193	56	25	31	24.36%	174	0%	-	-	-	174	28	146	
310	Hotel	340	Rooms	PM Peak	$T = 0.75(X) - 26.02$	51%	49%	229	117	112	51	34	17	22.27%	178	0%	-	-	-	178	91	87	
720	Medical Office Building	50,000	SF	PM Peak	$T = 3.39(X) + 2.02$	28%	72%	172	48	124	53	33	20	30.56%	119	0%	-	-	-	119	33	86	
610	Hospital	150,000	SF	PM Peak	$T = 0.84(X) + 100.56$	32%	68%	227	73	154	74	50	25	32.78%	153	0%	-	-	-	153	49	104	
Total							10,608	6,120	4,488	1,100	550	550	10.37%	9,508					437	9,071	5,356	3,715	

Mid-Day Peak Pass-by for Commercial 26%
 PM Peak Pass-by for Commercial 34%
 Daily Pass-by for Commercial 30%
 Source: Trip Generation Manual, 10th Edition, ITE
 Internal Capture Calculations - Attachment C

Table 05
 Trip Generation - Phase 03 (Cumulative)
 301 Villages - Traffic Impact Assessment, Duval County, FL

ITE Land Use Code	Description	Quantity	Units	Time Period	Rate or Equation	Percent Traffic		Project Trips		Internal Capture		Percent	External		Pass-by		Net External Trips			
						Entering	Exiting	Total	Entering	Exiting	Entering		Exiting	Trips	Percentage	Trips	Total	Entering	Exiting	
110	General Light Industrial	300,000	SF	Daily	$T = 3.79(X) + 57.96$	50%	50%	1,195	598	597	-	0.00%	1,195	0%	-	1,195	598	597		
210	Single Family Home Detached	11,250	Dwelling Units	Daily	$\ln(T) = 0.92 \ln(X) + 2.71$	50%	50%	80,168	40,084	40,084	2,703	3.37%	77,465	0%	-	77,465	38,733	38,732		
220	Multi-Family Residential (Townhomes)	3,750	Dwelling Units	Daily	$T = 7.56(X) - 40.86$	50%	50%	28,309	14,155	14,154	954	3.37%	27,355	0%	-	27,355	13,678	13,677		
820	Commercial/Retail	750,000	SF	Daily	$\ln(T) = 0.68 \ln(X) + 5.57$	50%	50%	23,663	11,832	5,916	6,950	29.37%	16,713	30%	5,014	11,699	5,850	5,849		
710	General Office	300,000	SF	Daily	$T = 9.74(X)$	50%	50%	2,922	1,461	731	513	17.56%	2,409	0%	-	2,409	1,205	1,204		
310	Hotel	340	Rooms	Daily	$T = 11.29(X) - 426.97$	50%	50%	3,412	1,706	853	708	20.75%	2,704	0%	-	2,704	1,352	1,352		
720	Medical Office Building	100,000	SF	Daily	$T = 38.42(X) - 87.62$	50%	50%	3,754	1,877	939	804	21.40%	2,950	0%	-	2,950	1,475	1,475		
610	Hospital	275,000	SF	Daily	$T = 5.88(X) + 2723.70$	50%	50%	4,351	2,176	1,088	1,017	23.38%	3,334	0%	-	3,334	1,667	1,667		
	Total							147,774	73,889	64,362	13,649		6,826	6,823	9,249%	134,125	5,014	129,111	64,558	64,553
110	General Light Industrial	300,000	SF	AM Peak	$\ln(T) = 0.74 \ln(X) + 0.39$	88%	12%	101	89	12	-	0.00%	101	0%	-	101	89	12		
210	Single Family Home Detached	11,250	Dwelling Units	AM Peak	$T = 0.71(X) + 4.80$	25%	75%	7,992	1,998	5,994	89	1.11%	7,903	0%	-	7,903	1,976	5,927		
220	Multi-Family Residential (Townhomes)	3,750	Dwelling Units	AM Peak	$\ln(T) = 0.95 \ln(X) - 0.51$	23%	77%	1,492	343	1,149	16	1.11%	1,476	0%	-	1,476	339	1,137		
820	Commercial/Retail	750,000	SF	AM Peak	$T = 0.50(X) + 151.78$	62%	38%	527	327	200	179	33.97%	348	26%	90	258	160	98		
710	General Office	300,000	SF	AM Peak	$T = 1.16(X)$	86%	14%	348	299	49	44	12.56%	304	0%	-	304	262	42		
310	Hotel	340	Rooms	AM Peak	$T = 0.50(X) - 5.34$	59%	41%	165	97	68	31	18.79%	134	0%	-	134	79	55		
720	Medical Office Building	100,000	SF	AM Peak	$\ln(T) = 0.89 \ln(X) + 1.31$	78%	22%	223	174	49	31	13.98%	192	0%	-	192	150	42		
610	Hospital	275,000	SF	AM Peak	$T = 0.74(X) + 126.36$	68%	32%	330	224	106	52	15.79%	278	0%	-	278	189	89		
	Total							11,178	3,551	7,627	442		221	221	3.95%	10,736	90	10,646	3,244	7,402
110	General Light Industrial	300,000	SF	PM Peak	$\ln(T) = 0.69 \ln(X) + 0.43$	13%	87%	79	10	69	-	0.00%	79	0%	-	79	10	69		
210	Single Family Home Detached	11,250	Dwelling Units	PM Peak	$\ln(T) = 0.96 \ln(X) + 0.20$	63%	37%	9,462	5,961	3,501	533	5.64%	8,929	0%	-	8,929	5,625	3,304		
220	Multi-Family Residential (Townhomes)	3,750	Dwelling Units	PM Peak	$\ln(T) = 0.89 \ln(X) - 0.02$	63%	37%	1,487	937	550	84	5.64%	1,403	0%	-	1,403	884	519		
820	Commercial/Retail	750,000	SF	PM Peak	$\ln(T) = 0.74 \ln(X) + 2.89$	48%	52%	2,414	1,159	1,255	598	24.77%	1,816	34%	617	1,199	576	623		
710	General Office	300,000	SF	PM Peak	$T = 1.15(X)$	16%	84%	345	55	290	78	22.56%	267	0%	-	267	43	224		
310	Hotel	340	Rooms	PM Peak	$T = 0.75(X) - 26.02$	51%	49%	229	117	112	52	22.71%	177	0%	-	177	90	87		
720	Medical Office Building	100,000	SF	PM Peak	$T = 3.39(X) + 2.02$	28%	72%	341	95	246	98	28.83%	243	0%	-	243	68	175		
610	Hospital	275,000	SF	PM Peak	$T = 0.84(X) + 100.56$	32%	68%	332	106	226	103	30.97%	229	0%	-	229	73	156		
	Total							14,689	8,440	6,249	1,546		773	773	10.52%	13,143	617	12,526	7,369	5,157

Mid-Day Peak Pass-by for Commercial 26%
 PM Peak Pass-by for Commercial 34%
 Daily Pass-by for Commercial 30%
 Source: Trip Generation Manual, 10th Edition, ITE
 Internal Capture Calculations - Attachment C

Table 06
Study Roadway Segments - Future Background Traffic Volumes
301 Villages - Traffic Impact Assessment

Road ID	Roadway	Termini	Number of Lanes	Roadway Classification	Area Type	FDOT Adopted LOS Standard	Adopted Daily MSV	Year 2026 Background AADT	Year 2026 Background LOS	Year 2031 Background AADT	Year 2031 Background LOS	Year 2037 Background AADT	Year 2037 Background LOS
1	US 301	South of Normandy Boulevard	4	Highway	Urban	D	66,200	22,488	B	24,408	B	26,713	B
2	US 301	Normandy Boulevard to Project Entrance	4	Highway	Urban	D	66,200	17,692	B	19,544	B	21,767	B
3	US 301	Project Entrance to I-10	4	Highway	Urban	D	66,200	17,692	B	19,544	B	21,767	B
4	US 301	I-10 to City Limit of Baldwin	4	Arterial	Urban	D	39,800	11,879	C	12,556	C	13,369	C
5	US 301	City Limit of Baldwin to Beaver Street	4	Arterial	Urban	D	39,800	9,512	C	10,694	C	12,112	C
6	Normandy Boulevard	US 301 Ramp	2	Highway	Urban	D	24,200	7,131	B	7,653	B	8,280	B
7	Normandy Boulevard	US 301 Ramp to McClelland Road	2	Highway	Urban	D	24,200	12,718	C	13,714	C	14,909	C
8	Normandy Boulevard	McClelland Road to Jax Equestrian Center	2	Highway	Urban	D	24,200	14,640	C	15,997	C	17,626	C
9	Normandy Boulevard	Jax Equestrian Center to POW-MIA Memorial Pkwy	4	Highway	Urban	D	66,200	14,989	B	16,350	B	17,983	B
10	I-10	West of Baker County Line	4	Freeway	Rural	C	48,000	40,568	C	42,464	C	44,738	C
11	I-10	Baker County Line to Duval County Line	4	Freeway	Transitioning	C	59,000	40,660	B	42,560	B	44,840	B
12	I-10	Duval County Line to US 301	4	Freeway	Transitioning	C	59,000	40,660	B	42,560	B	44,840	B
13	I-10	US 301 to SR 23 (First Coast Expressway)	4	Freeway	Urban	D	83,200	61,132	C	64,902	C	69,426	C
14	I-10	SR 23 (First Coast Expressway) to Chaffee Road	6	Freeway	Urban	D	123,600	64,977	B	71,390	C	79,085	C
15	I-10	Chaffee Road to Hammond Boulevard/Greenland Avenue/I-295	6	Freeway	Urban	D	123,600	93,454	C	102,176	D	112,643	D
16	I-10	Hammond Boulevard/Greenland Avenue to I-295	6	Freeway	Urban	D	123,600	104,382	D	105,271	D	106,338	D

Source: Table 02
Year 2026 Traffic Volumes Interpolated from Year 2025 and Year 2030 AADT
Year 2031 Traffic Volumes Interpolated from Year 2030 and Year 2035 AADT
Year 2037 Traffic Volumes Interpolated from Year 2035 and Year 2040 AADT

Table 07
Study Roadway Segments - Project Traffic Distribution and Daily Traffic Assignment
301 Villages - Traffic Impact Assessment

Road ID	Roadway	Termini	Project Traffic Distribution			Daily Project Traffic Assignment		
			A	B	C	34,311		
			2025	2030	2035	Phase 01 Year 2026	Phase 02 Year 2031	Phase 03 Year 2037
1	US 301	South of Normandy Boulevard	4.07%	4.14%	4.82%	1,396	3,837	6,223
2	US 301	Normandy Boulevard to Project Entrance	12.32%	10.18%	9.34%	4,227	9,435	12,059
3	US 301	Project Entrance to I-10	90.58%	89.83%	90.67%	31,079	83,254	117,065
4	US 301	I-10 to City Limit of Baldwin	9.33%	8.42%	9.33%	3,201	7,804	12,046
5	US 301	City Limit of Baldwin to Beaver Street	9.18%	8.33%	7.65%	3,150	7,720	9,877
6	Normandy Boulevard	US 301 Ramp	2.79%	1.99%	2.00%	956	1,840	2,582
7	Normandy Boulevard	US 301 Ramp to McClelland Road	5.57%	3.97%	4.51%	1,911	3,679	5,823
8	Normandy Boulevard	McClelland Road to Jax Equestrian Center	3.54%	1.85%	2.72%	1,215	1,715	3,512
9	Normandy Boulevard	Jax Equestrian Center to POW-MIA Memorial Pkwy	2.44%	1.12%	0.62%	837	1,038	800
10	I-10	West of Baker County Line	10.02%	8.24%	8.91%	3,438	7,637	11,504
11	I-10	Baker County Line to Duval County Line	10.02%	8.24%	8.91%	3,438	7,637	11,504
12	I-10	Duval County Line to US 301	10.02%	8.24%	8.91%	3,438	7,637	11,504
13	I-10	US 301 to SR 23 (First Coast Expressway)	64.95%	70.39%	69.70%	22,285	65,237	89,990
14	I-10	SR 23 (First Coast Expressway) to Chaffee Road	59.28%	62.92%	61.12%	20,340	58,314	78,913
15	I-10	Chaffee Road to Hammond Boulevard/Greenland Avenue/I-295	51.74%	56.78%	54.63%	17,753	52,623	70,533
16	I-10	Hammond Boulevard/Greenland Avenue to I-295	51.74%	56.78%	54.63%	17,753	52,623	70,533

Source: Attachment F and Tables 03, 04 and 05

Table 08
Phase 01 Development - Roadway Segment Analysis
301 Villages - Traffic Impact Assessment

Road ID	Roadway	Termini	Number of Lanes	Roadway Classification	Area Type	FDOT Adopted LOS Standard	Adopted Daily MSV	A		B		C		D	
								Year 2026 Background AADT	Year 2026 Background LOS	Year 2026 Project Traffic Distribution	Year 2026 Project Traffic Assignment	Year 2026 Phase 01 Total Traffic AADT	Year 2026 Phase 01 Total Traffic LOS		
1	US 301	South of Normandy Boulevard	4	Highway	Urban	D	66,200	22,488	B	4.07%	1,396	23,884	B		
2	US 301	Normandy Boulevard to Project Entrance	4	Highway	Urban	D	66,200	17,692	B	12.32%	4,227	21,919	B		
3	US 301	Project Entrance to I-10	4	Highway	Urban	D	66,200	17,692	B	90.58%	31,079	48,771	C		
4	US 301	I-10 to City Limit of Baldwin	4	Arterial	Urban	D	39,800	11,879	C	9.33%	3,201	15,080	C		
5	US 301	City Limit of Baldwin to Beaver Street	4	Arterial	Urban	D	39,800	9,512	C	9.18%	3,150	12,662	C		
6	Normandy Boulevard	US 301 Ramp	2	Highway	Urban	D	24,200	7,131	B	2.79%	956	8,087	B		
7	Normandy Boulevard	US 301 Ramp to McClelland Road	2	Highway	Urban	D	24,200	12,718	C	5.57%	1,911	14,629	C		
8	Normandy Boulevard	McClelland Road to Jax Equestrian Center	2	Highway	Urban	D	24,200	14,640	C	3.54%	1,215	15,855	C		
9	Normandy Boulevard	Jax Equestrian Center to POW-MIA Memorial Pkwy	4	Highway	Urban	D	66,200	14,989	B	2.44%	837	15,826	B		
10	I-10	West of Baker County Line	4	Freeway	Rural	C	48,000	40,568	C	10.02%	3,438	44,006	C		
11	I-10	Baker County Line to Duval County Line	4	Freeway	Transitioning	C	59,000	40,660	B	10.02%	3,438	44,098	B		
12	I-10	Duval County Line to US 301	4	Freeway	Transitioning	C	59,000	40,660	B	10.02%	3,438	44,098	B		
13	I-10	US 301 to SR 23 (First Coast Expressway)	4	Freeway	Urban	D	83,200	61,132	C	64.95%	22,285	83,417	E		
14	I-10	SR 23 (First Coast Expressway) to Chaffee Road	6	Freeway	Urban	D	123,600	64,977	B	59.28%	20,340	85,317	C		
15	I-10	Chaffee Road to Hammond Boulevard/Greenland Avenue/I-295	6	Freeway	Urban	D	123,600	93,454	C	51.74%	17,753	111,207	D		
16	I-10	Hammond Boulevard/Greenland Avenue to I-295	6	Freeway	Urban	D	123,600	104,382	D	51.74%	17,753	122,135	D		

Source: Tables 02, 06 and 07

Table 09
Phase 02 Development - Roadway Segment Analysis (Cumulative)
301 Villages - Traffic Impact Assessment

Road ID	Roadway	Termini	Number of Lanes	Roadway Classification	Area Type	FDOT Adopted LOS Standard	Adopted Daily MSV	Year 2031 Background AADT	Year 2031 Background LOS	Year 2031 Project Traffic Distribution	Year 2031 Project Traffic Assignment	Year 2031 Phase 02 Total Traffic AADT	Year 2031 Phase 02 Total Traffic LOS
							Table 02	Table 02		Table 07	B * 92,679	A + C	
1	US 301	South of Normandy Boulevard	4	Highway	Urban	D	66,200	24,408	B	4.14%	3,837	28,245	B
2	US 301	Normandy Boulevard to Project Entrance	4	Highway	Urban	D	66,200	19,544	B	10.18%	9,435	28,979	B
3	US 301	Project Entrance to I-10	4	Highway	Urban	D	66,200	19,544	B	89.83%	83,254	102,798	F
4	US 301	I-10 to City Limit of Baldwin	4	Arterial	Urban	D	39,800	12,556	C	8.42%	7,804	20,360	C
5	US 301	City Limit of Baldwin to Beaver Street	4	Arterial	Urban	D	39,800	10,694	C	8.33%	7,720	18,414	C
6	Normandy Boulevard	US 301 Ramp	2	Highway	Urban	D	24,200	7,653	B	1.99%	1,840	9,493	B
7	Normandy Boulevard	US 301 Ramp to McClelland Road	2	Highway	Urban	D	24,200	13,714	C	3.97%	3,679	17,393	C
8	Normandy Boulevard	McClelland Road to Jax Equestrian Center	2	Highway	Urban	D	24,200	15,997	C	1.85%	1,715	17,712	C
9	Normandy Boulevard	Jax Equestrian Center to POW-MIA Memorial Pkwy	4	Highway	Urban	D	66,200	16,350	B	1.12%	1,038	17,388	B
10	I-10	West of Baker County Line	4	Freeway	Rural	C	48,000	42,464	C	8.24%	7,637	50,101	D
11	I-10	Baker County Line to Duval County Line	4	Freeway	Transiting	C	59,000	42,560	B	8.24%	7,637	50,197	C
12	I-10	Duval County Line to US 301	4	Freeway	Transiting	C	59,000	42,560	B	8.24%	7,637	50,197	C
13	I-10	US 301 to SR 23 (First Coast Expressway)	4	Freeway	Urban	D	83,200	64,902	C	70.39%	65,237	130,139	F
14	I-10	SR 23 (First Coast Expressway) to Chaffee Road	6	Freeway	Urban	D	123,600	71,390	C	62.92%	58,314	129,704	E
15	I-10	Chaffee Road to Hammond Boulevard/Greenland Avenue/I-295	6	Freeway	Urban	D	123,600	102,176	D	56.78%	52,623	154,799	F
16	I-10	Hammond Boulevard/Greenland Avenue to I-295	6	Freeway	Urban	D	123,600	105,271	D	56.78%	52,623	157,894	F

Source: Tables 02, 06 and 07

Table 10
Phase 03 Development - Roadway Segment Analysis (Cumulative)
301 Villages - Traffic Impact Assessment

Road ID	Roadway	Terminals	Number of Lanes	Roadway Classification	Area Type	FDOT Adopted LOS Standard	Adopted Daily MSV	A		B		C		D	
								Year 2037 Background AADT	Year 2037 Background LOS	Year 2037 Project Traffic Distribution	Year 2031 Project Traffic Assignment	Year 2031 Phase 02 Total Traffic AADT	Year 2031 Phase 02 Total Traffic LOS		
1	US 301	South of Normandy Boulevard	4	Highway	Urban	D	66,200	24,408	B	4.82%	6,223	30,631	B		
2	US 301	Normandy Boulevard to Project Entrance	4	Highway	Urban	D	66,200	19,544	B	9.34%	12,059	31,603	B		
3	US 301	Project Entrance to I-10	4	Highway	Urban	D	66,200	19,544	B	90.67%	117,065	136,609	F		
4	US 301	I-10 to City Limit of Baldwin	4	Arterial	Urban	D	39,800	12,556	C	9.33%	12,046	24,602	C		
5	US 301	City Limit of Baldwin to Beaver Street	4	Arterial	Urban	D	39,800	10,694	C	7.65%	9,877	20,571	C		
6	Normandy Boulevard	US 301 Ramp	2	Highway	Urban	D	24,200	7,653	B	2.00%	2,582	10,235	B		
7	Normandy Boulevard	US 301 Ramp to McClelland Road	2	Highway	Urban	D	24,200	13,714	C	4.51%	5,823	19,537	D		
8	Normandy Boulevard	McClelland Road to Jax Equestrian Center	2	Highway	Urban	D	24,200	15,997	C	2.72%	3,512	19,509	D		
9	Normandy Boulevard	Jax Equestrian Center to POW-MIA Memorial Pkwy	4	Highway	Urban	D	66,200	16,350	B	0.62%	800	17,150	B		
10	Normandy Boulevard	West of Baker County Line	4	Freeway	Rural	C	48,000	42,464	C	8.91%	11,504	53,968	D		
11	I-10	Baker County Line to Duval County Line	4	Freeway	Transitional	C	59,000	42,560	B	8.91%	11,504	54,064	C		
12	I-10	Duval County Line to US 301	4	Freeway	Transitional	C	59,000	42,560	B	8.91%	11,504	54,064	C		
13	I-10	US 301 to SR 23 (First Coast Expressway)	4	Freeway	Urban	D	83,200	64,902	C	69.70%	89,990	154,892	F		
14	I-10	SR 23 (First Coast Expressway) to Chaffee Road	6	Freeway	Urban	D	123,600	71,390	C	61.12%	78,913	150,303	E		
15	I-10	Chaffee Road to Hammond Boulevard/Greenland Avenue/I-295	6	Freeway	Urban	D	123,600	102,176	D	54.63%	70,533	172,709	F		
16	I-10	Hammond Boulevard/Greenland Avenue to I-295	6	Freeway	Urban	D	123,600	105,271	D	54.63%	70,533	175,804	F		

Source: Tables 02, 06 and 07

Table 11
Preliminary Mobility Fee Calculations
301 Villages - Traffic Impact Assessment

Project Phase	Daily Net External Trip Generation	Mobility Zone	Year 2021 Base Cost Per VMT	Internal VMT Factor	Development Area	VMT Per Development Area	Estimated Mobility Fees Cumulative (Year 2021 \$)
Phase 01	34,311	6	\$ 79.04	0.61	Rural	7.71	\$ 12,754,803.49
Phase 02 (Cumulative)	92,679	6	\$ 79.04	0.61	Rural	7.71	\$ 34,452,578.84
Phase 03 (Cumulative)	129,111	6	\$ 79.04	0.61	Rural	7.71	\$ 47,995,844.88

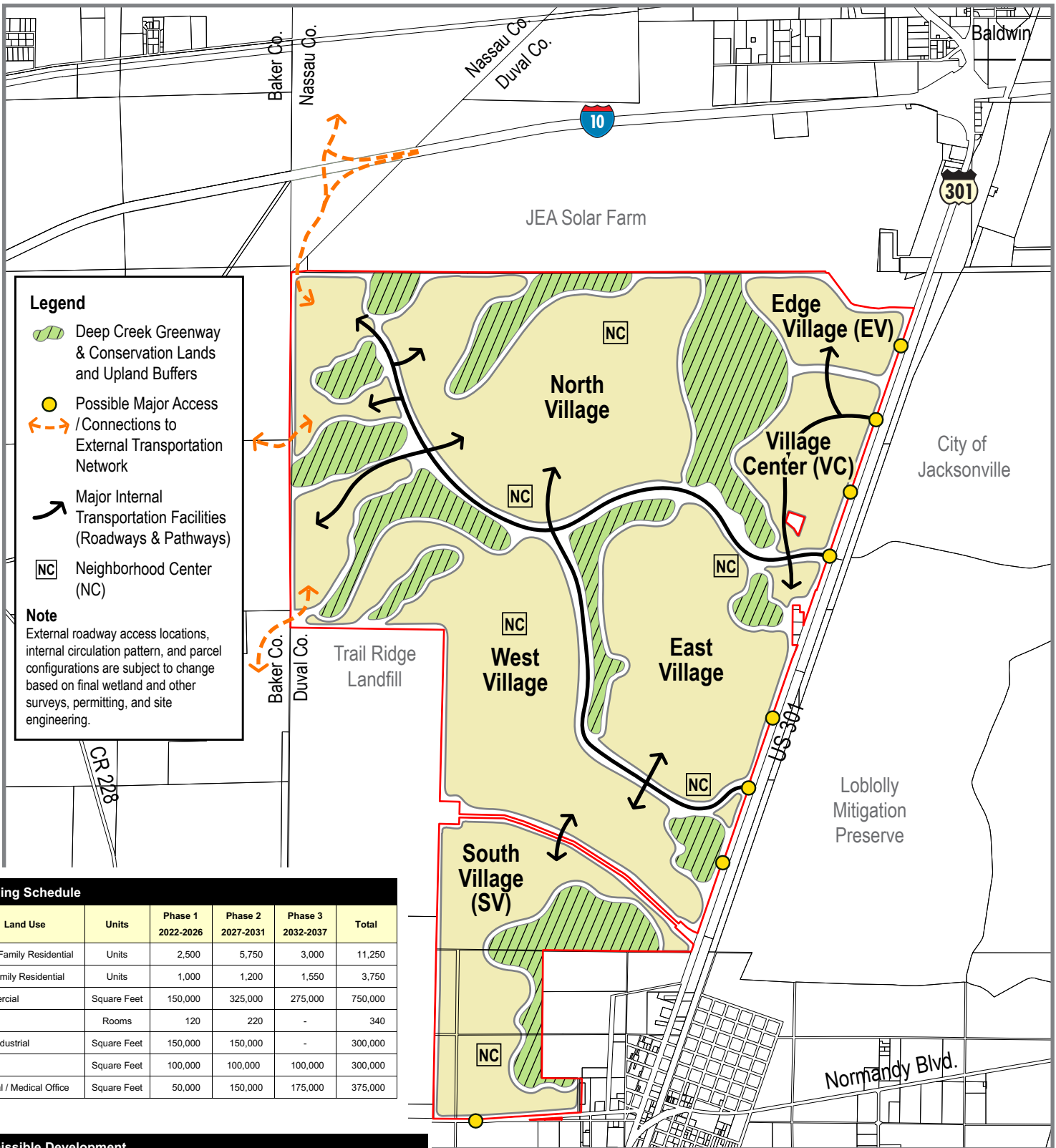
A yearly inflation factor of 3.3% will be applied for future payments

Attachment A

Conceptual Site Plan
(Source: Prosser, Inc.)

301 Villages

Conceptual Master Plan



Phasing Schedule					
Land Use	Units	Phase 1 2022-2026	Phase 2 2027-2031	Phase 3 2032-2037	Total
Single Family Residential	Units	2,500	5,750	3,000	11,250
Multi-family Residential	Units	1,000	1,200	1,550	3,750
Commercial	Square Feet	150,000	325,000	275,000	750,000
Hotel	Rooms	120	220	-	340
Light Industrial	Square Feet	150,000	150,000	-	300,000
Office	Square Feet	100,000	100,000	100,000	300,000
Hospital / Medical Office	Square Feet	50,000	150,000	175,000	375,000

Permissible Development							
Land Use	Single Family (Units)	Multi-family (Units)	Commercial (Sq. Feet)	Office (Sq. Feet)	Flex Industrial (Sq. Feet)	Hotel (Rooms)	Hospital/Medical (Sq. Feet)
Total	11,250	3,750	750,000	300,000	300,000	340	375,000
Edge Village		•	•		•		
Village Center	•	•	•	•	•	•	•
West Village	•	•	•	•	•		
North Village	•	•	•	•			
East Village	•	•	•	•		•	
South Village	•	•			•		

• Denotes land use is permissible within the village

June 14, 2021



PROSSER

119063.01

Attachment B

Study Methodology Document

City of Jacksonville

Laurie Santana
Chief of Transportation Planning Division
LSantana@coj.net

Christopher W. LeDew, P.E.
Chief of Traffic Engineering
CLedew@coj.net

John Kolczynski E.I.
Traffic Technician Senior
JohnFK@coj.net

Florida Department of Transportation

Tom Cavin, P.E.
Jacksonville Studies Engineer/Access Management
Tom.cavin@dot.state.fl.us

Julian McKinley P.E.
Maintenance Program Engineer/D2 Jax Maintenance
Julian.McKinley@dot.state.fl.us

A mixed-use development anticipated to include 11,250 single-family dwelling units, 3,750 multi-family dwelling units, 750,000 SF commercial/retail, 340 rooms hotel, 300,000 SF light industrial, 300,000 SF office and 375,000 SF hospital/medical office uses is proposed for construction. The project will be built in 3 phases. The proposed development will be located on the southwest quadrant of I-10 and US 301 interchange.

A site location and conceptual master plan (Provided by Prosser, Inc.) is attached. The City of Jacksonville (COJ) Planning Department is requiring a traffic impact memo summarizing an assessment of the currently identified and expected roadway operating conditions of the immediately surrounding transportation network. This memo provides a summary of the methodology that will be adopted in performing the traffic impact assessment.

Trip Generation:

Trip generation and internal capture for the proposed development will be estimated using the rates, equations and procedures included in the Trip Generation Manual, 10th Edition published by the Institute of Transportation Engineers (ITE).

Study Area:

The study will include the following roadway segments:

- US 301 – South of Normandy Boulevard
- US 301 – Normandy Boulevard to I-10
- US 301 – I-10 to Beaver Street
- Normandy Boulevard – US 301 to CR 217
- Normandy Boulevard – CR 217 to Yellow Water Road
- Normandy Boulevard – Yellow Water Road to POW-MIA Memorial Parkway
- I-10 – West of Baker County Line
- I-10 – Baker County Line to Duval County Line
- I-10 – Duval County Line to US 301

- I-10 – US 301 to SR 23 (First Coast Expressway)
- I-10 – SR 23 (First Coast Expressway) to Chaffee Road
- I-10 – Chaffee Road to Hammond Boulevard
- I-10 – Hammond Boulevard to I-295

Planned and Programmed Improvements:

The Northeast Florida Transportation Planning Organization (NFTPO) Long Range Transportation Plan (LRTP), Priority Projects List (PPL), Transportation Improvement Program (TIP) and the Florida Department of Transportation (FDOT) Work Program will be reviewed to identify any roadway projects within the vicinity of the study area of the proposed development and incorporated in the analysis.

Analysis Time Period:

Analysis for the proposed development will be performed based on daily traffic volumes under existing year 2021, year 2026 (Phase 01), year 2031 (Phase 02) and year 2036 (Phase 03) development conditions.

Data Collection:

Existing traffic AADTs will be obtained from the Florida Traffic Online (FTO) website and COJ Planning Department. Future conditions AADT on the study area roadway segments will be obtained from the FDOT LOS Summary Manual

Project Traffic Distribution and Assignment:

Project traffic distribution for the proposed development will be provided using the Northeast Regional Planning Model Activity-Based (NERPMAB) travel demand model. This distribution will be used to determine the project traffic assignment on the study segments. The travel demand model will be validated to include the following projects:

- The Trails PUD: Mixed use development with approximately 4,850 DU and 230,000 square feet commercial located south of Normandy Boulevard (SR 228) between Maxville-Middleburg Road and Solomon Road

Background and Build-Out Traffic Volumes:

Background traffic volumes will be estimated by applying a growth factor obtained from the NERPMAB travel demand model to the existing traffic volumes. Buildout traffic volumes will include background traffic volumes and project traffic assignment for the proposed development.

Roadway Segment Analysis:

Segment analysis of the above stated roadway segment will include future background conditions traffic plus the project traffic from the proposed development. Any impacts to the study area roadway segments will be identified and summarized.

Access and Study Area Intersection Analysis:

Project access intersections and study area intersection analysis will be provided during project PUD and 10-set submittal process.

Traffic Study Report:

A traffic study report summarizing the above tasks and the study findings will be submitted to FDOT and COJ for review and approval.

Thank you and please let me know if you have any questions.

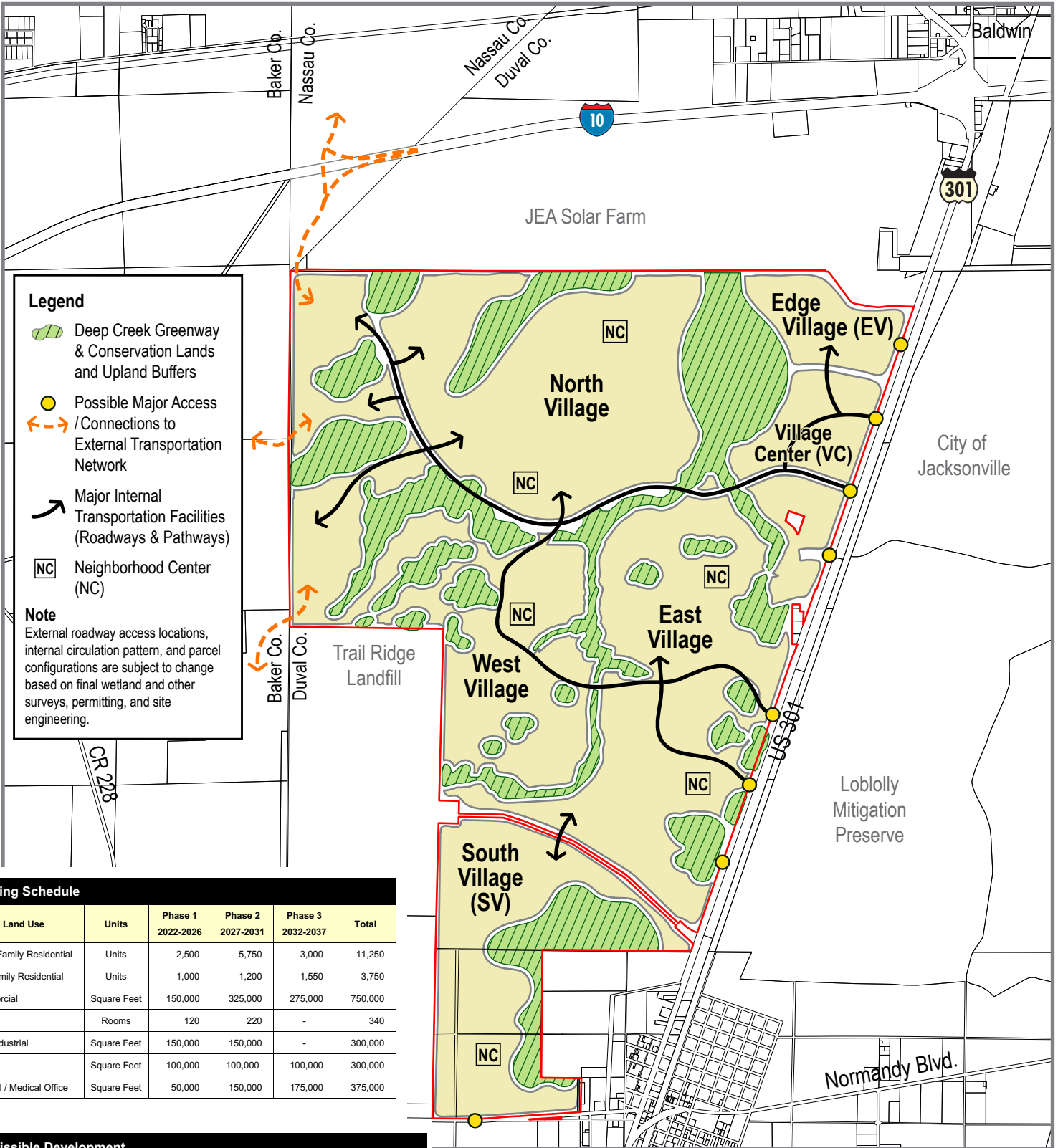
Sincerely,
Chindalur Traffic Solutions, Inc.

A handwritten signature in black ink, appearing to read 'R. Chindalur', with a horizontal line underneath.

Rajesh Chindalur, P.E., PTOE
Chindalur Traffic Solutions, Inc.
8833 Perimeter Park Boulevard, Suite 103, Jacksonville, FL 32216
chindalur@ctrfficsolutions.com

301 Villages

Conceptual Master Plan



Phasing Schedule					
Land Use	Units	Phase 1 2022-2026	Phase 2 2027-2031	Phase 3 2032-2037	Total
Single Family Residential	Units	2,500	5,750	3,000	11,250
Multi-family Residential	Units	1,000	1,200	1,550	3,750
Commercial	Square Feet	150,000	325,000	275,000	750,000
Hotel	Rooms	120	220	-	340
Light Industrial	Square Feet	150,000	150,000	-	300,000
Office	Square Feet	100,000	100,000	100,000	300,000
Hospital / Medical Office	Square Feet	50,000	150,000	175,000	375,000

Permissible Development							
Land Use	Single Family (Units)	Multi-family (Units)	Commercial (Sq. Feet)	Office (Sq. Feet)	Flex Industrial (Sq. Feet)	Hotel (Rooms)	Hospital/Medical (Sq. Feet)
Total	11,250	3,750	750,000	300,000	300,000	340	375,000
Edge Village		•	•		•		
Village Center	•	•	•	•	•	•	•
West Village	•	•	•	•	•		
North Village	•	•	•	•			
East Village	•	•	•	•		•	
South Village	•	•			•		

• Denotes land use is permissible within the village

August 30, 2021

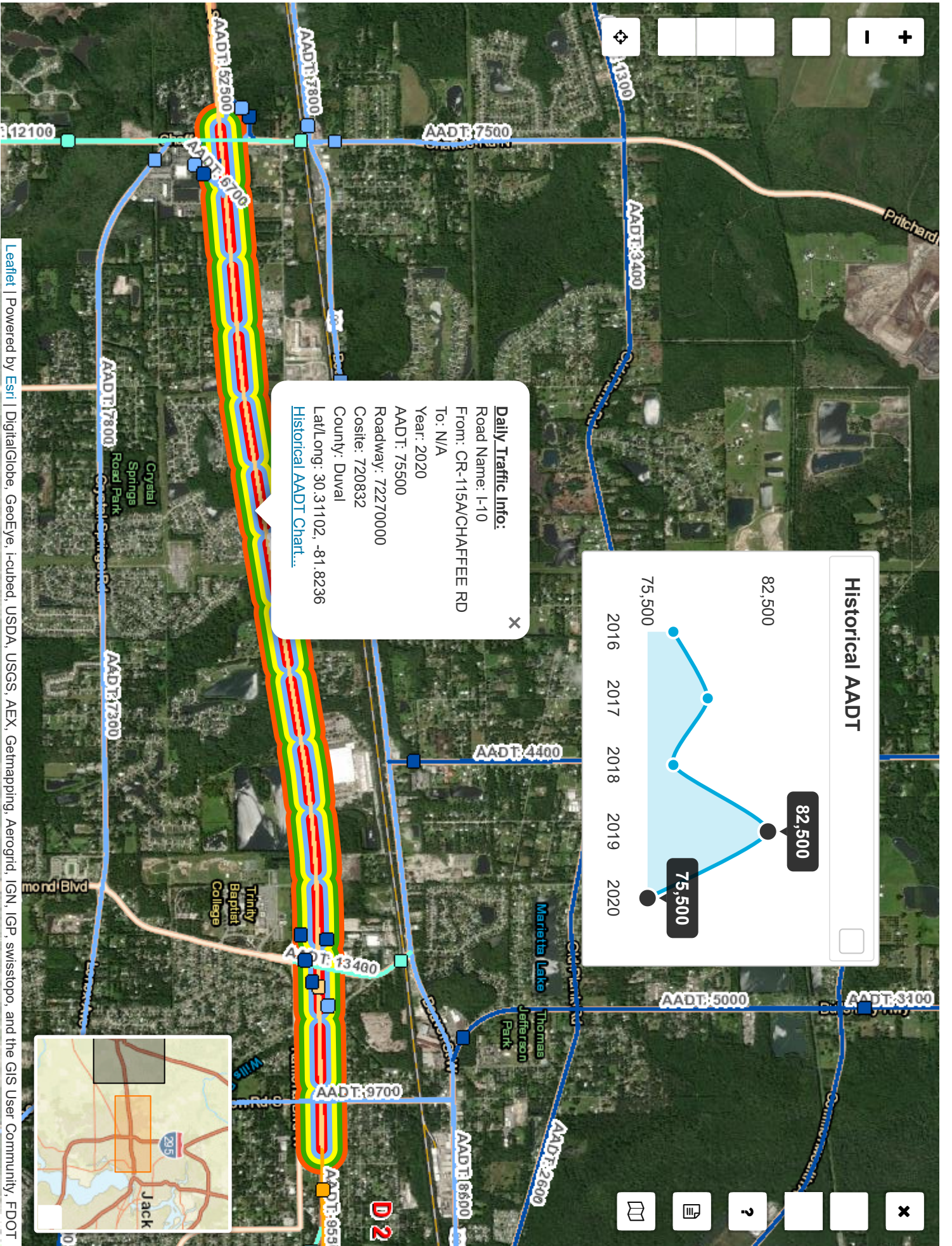


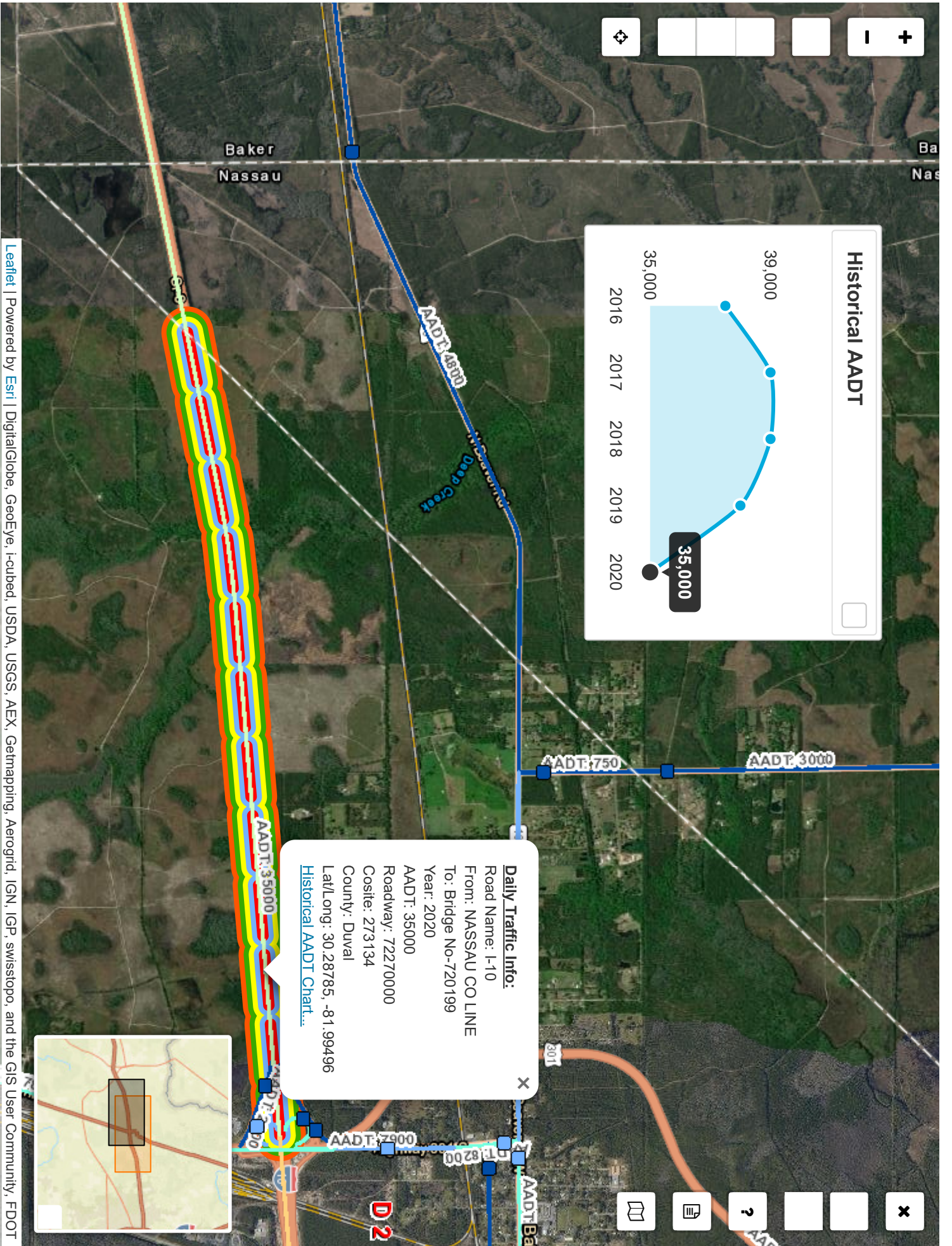
PROSSER

119063.01

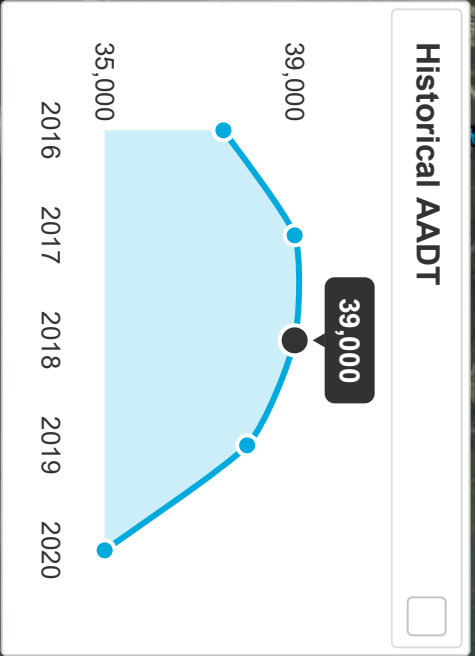
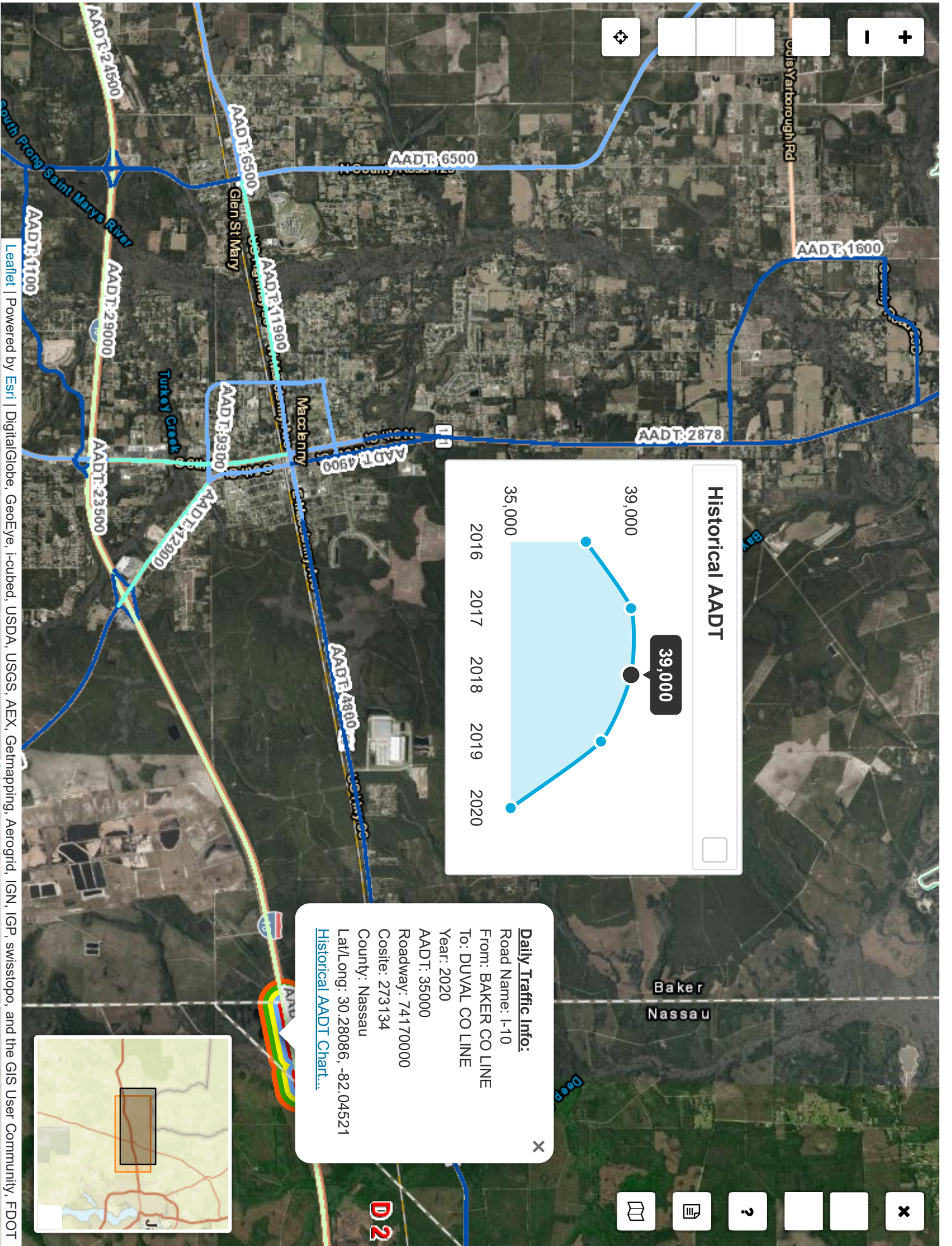
Attachment C

FDOT Traffic Counts Data,
Historical AADT, FDOT D2 LOS
Summary Reports, QLOS
Generalized Service Volumes
Tables



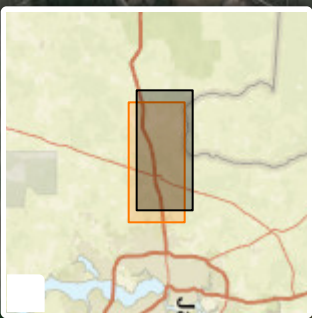


Leaflet | Powered by Esri | DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community, FDOT



Daily Traffic Info:

Road Name: I-10
 From: BAKER CO LINE
 To: DUVAL CO LINE
 Year: 2020
 AADT: 35000
 Roadway: 74170000
 Cosite: 273134
 County: Nassau
 Lat/Long: 30.28086, -82.04521
[Historical AADT Chart...](#)

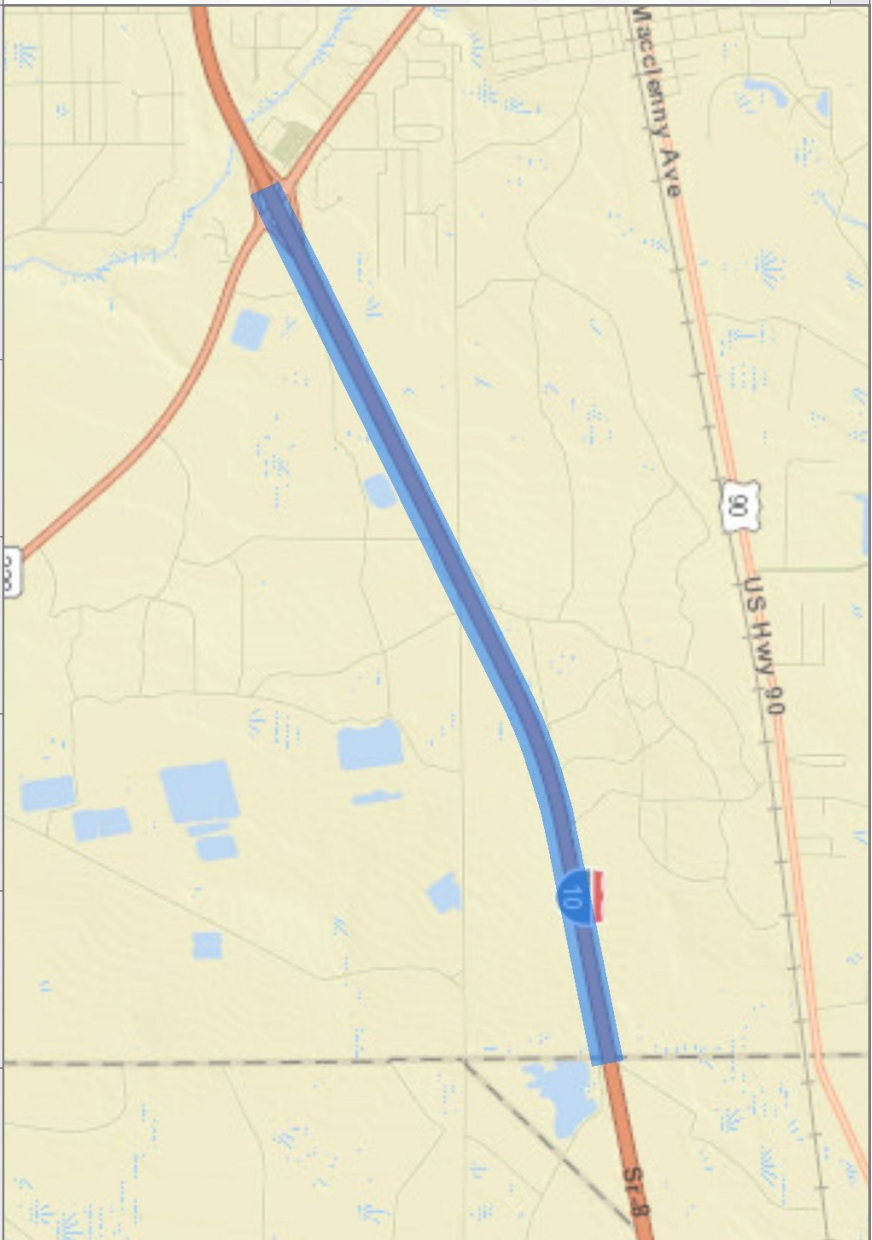


Leaflet | Powered by Esri | DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community, FDOT



I-10 from SR 228 to Nassau Co. Line

Attribute	Value										
Segment ID:	1043										
Segment Length (miles):	3.600 mi										
Location:	Baker County										
County:	Baker										
Roadway ID:	27090000										
Begin MP:	21.862										
End MP:	25.462										
SIS:	Yes										
SIS Type:	SIS Highway Corridor										
Median Treatment:	Divided										
Directionality:	Two-Way										
Posted Speed:	70 mph										
Facility Type:	Freeway										
Area Type:	Rural										
Standard K:	10.5%										
FDOT LOS Standard:	C										
Max. Service Vol. Adj. Factor:	0.00										
Data Sources: RCI; TCI; NERPM AB; GUATS; FLSWM Google Street View: http://maps.google.com/maps?q=&layer=c&chll=30.2739993998687,-82.0781764266482											
Projected Values		2019	2020	2025	2030	2035	2040	2045			
Number of Lanes		4	4	4	4	4	8	8			
AADT		37,914	38,293	40,189	42,085	43,980	45,876	47,772			
Peak Hour Maximum Service Volume at LOS Standard		5,040	5,040	5,040	5,040	5,040	9,490	9,490			
Peak Hour Traffic Volume		3,981	4,021	4,220	4,419	4,618	4,817	5,016			
Peak Hour LOS		C	C	C	C	C	B	B			



Notes: Eight lanes by 2040 per CFP (add four lanes); Managed lanes were treated as general purpose lanes to simplify the capacity.



I-10 from SR 23 to Chaffee Rd

Attribute	Value	Map View						
Segment ID:	3030							
Segment Length (miles):	1.741 mi							
Location:	Jacksonville							
County:	Duval							
Roadway ID:	72270000							
Begin MP:	9.514							
End MP:	11.256							
SIS:	Yes							
SIS Type:	SIS Highway Corridor							
Median Treatment:	Divided							
Directionality:	Two-Way							
Posted Speed:	70 mph							
Facility Type:	Freeway							
Area Type:	Urbanized							
Standard K:	9.0%							
FDOT LOS Standard:	D							
Max. Service Vol. Adj. Factor:	0.00							
Data Sources: RCI; TCI; NERPM AB; GUATS; FLSWM								
Google Street View: http://maps.google.com/maps?q=&layer=c&cbll=30.3076369771431,-81.8674131737383								
Projected Values	2019	2020	2025	2030	2035	2040	2045	
Number of Lanes	6	6	6	6	6	10	10	
AADT	56,000	57,282	63,695	70,107	76,520	82,932	89,344	
Peak Hour Maximum Service Volume at LOS Standard	10,220	10,220	10,220	10,220	10,220	17,040	17,040	
Peak Hour Traffic Volume	5,040	5,155	5,733	6,310	6,887	7,464	8,041	
Peak Hour LOS	B	B	B	C	C	B	B	

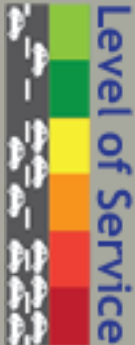
Notes: Ten lanes by 2040 per CFP (add four lanes); Managed lanes were treated as general purpose lanes to simplify the capacity.



SR 228 / Normandy Blvd. from US 301 to McClelland Rd

Attribute	Value	Map						
Segment ID:	4481							
Segment Length (miles):	0.372 mi							
Location:	Jacksonville							
County:	Duval							
Roadway ID:	72120201							
Begin MP:	0.000							
End MP:	0.373							
SIS:	Yes							
SIS Type:	SIS Highway Corridor							
Median Treatment:	Undivided							
Directionality:	Two-Way							
Posted Speed:	35 mph							
Facility Type:	Highway							
Area Type:	Urbanized							
Standard K:	9.0%							
FDOT LOS Standard:	D							
Max. Service Vol. Adj. Factor:	0.00							
Data Sources: RCI; TCI; NERPM AB; GUATS; FLSWM Google Street View: http://maps.google.com/maps?q=&layer=c&cbll=-30.2016255242882,-82.0125828183902								
Projected Values		2019	2020	2025	2030	2035	2040	2045
Number of Lanes		2	2	2	2	2	2	2
AADT		6,400	6,504	7,027	7,549	8,071	8,593	9,115
Peak Hour Maximum Service Volume at LOS Standard		2,180	2,180	2,180	2,180	2,180	2,180	2,180
Peak Hour Traffic Volume		576	585	632	679	726	773	820
Peak Hour LOS		B	B	B	B	B	B	B

Notes:



I-10 from Greenland Ave to I-295

Attribute	Value	Map View						
Segment ID:	4547							
Segment Length (miles):	0.586 mi							
Location:	Jacksonville							
County:	Duval							
Roadway ID:	722270000							
Begin MP:	15.601							
End MP:	16.187							
SIS:	Yes							
SIS Type:	SIS Highway Corridor							
Median Treatment:	Divided							
Directionality:	Two-Way							
Posted Speed:	55 mph							
Facility Type:	Freeway							
Area Type:	Urbanized							
Standard K:	9.0%							
FDOT LOS Standard:	D							
Max. Service Vol. Adj. Factor:	0.00							
Data Sources: RCI; TCI; NERPM AB; GUATS; FLSWM								
Google Street View: http://maps.google.com/maps?q=&layer=c&chll=30.3150344425531,-81.7757269472387								
Projected Values		2019	2020	2025	2030	2035	2040	2045
Number of Lanes		6	6	6	6	6	10	10
AADT		103,137	103,315	104,204	105,093	105,982	106,871	107,760
Peak Hour Maximum Service Volume at LOS Standard		10,220	10,220	10,220	10,220	10,220	17,040	17,040
Peak Hour Traffic Volume		9,282	9,298	9,378	9,458	9,538	9,618	9,698
Peak Hour LOS		D	D	D	D	D	B	B

Notes: Ten lanes by 2040 per CFP (add four lanes); Managed lanes were treated as general purpose lanes to simplify the capacity.



SR 228 / Normandy Blvd. from US 301 to McClelland Rd

Attribute	Value
Segment ID:	481
Segment Length (miles):	2.652 mi
Location:	Jacksonville
County:	Duval
Roadway ID:	72120000
Begin MP:	2.576
End MP:	5.228
SIS:	No
SIS Type:	Non SIS
Median Treatment:	Undivided
Directionality:	Two-Way
Posted Speed:	45-60 mph
Facility Type:	Highway
Area Type:	Urbanized
Standard K:	9.0%
FDOT LOS Standard:	D
Max. Service Vol. Adj. Factor:	0.00

Data Sources: RCI; TCI; NERPM AB; GUATS; FLSWM
 Google Street View: <http://maps.google.com/maps?q=&layer=c&cbll=30.2046451400147,-81.9881277824091>

Projected Values	2019	2020	2025	2030	2035	2040	2045
Number of Lanes	2	2	2	2	2	2	2
AADT	11,323	11,522	12,519	13,515	14,511	15,507	16,504
Peak Hour Maximum Service Volume at LOS Standard	2,180	2,180	2,180	2,180	2,180	2,180	2,180
Peak Hour Traffic Volume	1,019	1,037	1,127	1,216	1,306	1,396	1,485
Peak Hour LOS	B	B	C	C	C	C	C

Notes:



SR 228 / Normandy Blvd. from Jax Equestrian Center to SR 134

Attribute	Value
Segment ID:	482
Segment Length (miles):	1.180 mi
Location:	Jacksonville
County:	Duval
Roadway ID:	72120000
Begin MP:	9.606
End MP:	10.787
SIS:	No
SIS Type:	Non SIS
Median Treatment:	Divided
Directionality:	Two-Way
Posted Speed:	50-55 mph
Facility Type:	Highway
Area Type:	Urbanized
Standard K:	9.0%
FDOT LOS Standard:	D
Max. Service Vol. Adj. Factor:	0.00

Data Sources: RCI; TCI; NERPM AB; GUATS; FLSWM
 Google Street View: <http://maps.google.com/maps?q=&layer=c&cbll=30.244229223904,-81.8948876710151>

Projected Values	2019	2020	2025	2030	2035	2040	2045
Number of Lanes	4	4	4	4	4	4	4
AADT	13,084	13,356	14,717	16,078	17,439	18,800	20,161
Peak Hour Maximum Service Volume at LOS Standard	5,960	5,960	5,960	5,960	5,960	5,960	5,960
Peak Hour Traffic Volume	1,178	1,202	1,325	1,447	1,569	1,692	1,814
Peak Hour LOS	B	B	B	B	B	B	B

Notes:



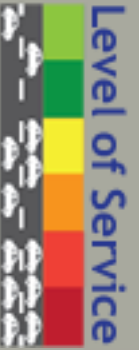
I-10 from Nassau Co. Line to US 301

Attribute	Value
Segment ID:	545
Segment Length (miles):	3.220 mi
Location:	Jacksonville
County:	Duval
Roadway ID:	72270000
Begin MP:	0.000
End MP:	3.220
SIS:	Yes
SIS Type:	SIS Highway Corridor
Median Treatment:	Divided
Directionality:	Two-Way
Posted Speed:	70 mph
Facility Type:	Freeway
Area Type:	Transition
Standard K:	10.5%
FDOT LOS Standard:	C
Max. Service Vol. Adj. Factor:	0.00

Data Sources: RCI; TCI; NERPM AB; GUATS; FLSWM
 Google Street View: <http://maps.google.com/maps?q=&layer=c&chll=-30.2867679698219,-82.0114642985243>

Projected Values	2019	2020	2025	2030	2035	2040	2045
Number of Lanes	4	4	4	4	4	8	8
AADT	38,000	38,380	40,280	42,180	44,080	45,980	47,880
Peak Hour Maximum Service Volume at LOS Standard	5,780	5,780	5,780	5,780	5,780	11,220	11,220
Peak Hour Traffic Volume	3,990	4,030	4,229	4,429	4,628	4,828	5,027
Peak Hour LOS	B	B	B	C	C	B	B

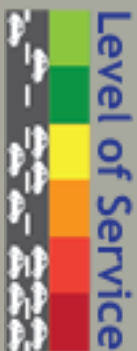
Notes: Eight lanes by 2040 per CFP (add four lanes); Managed lanes were treated as general purpose lanes to simplify the capacity.



I-10 from US 301 to SR 23

Attribute	Value	Map View									
Segment ID:	546										
Segment Length (miles):	6.293 mi										
Location:	Jacksonville										
County:	Duval										
Roadway ID:	72270000										
Begin MP:	3.220										
End MP:	9.514										
SIS:	Yes										
SIS Type:	SIS Highway Corridor										
Median Treatment:	Divided										
Directionality:	Two-Way										
Posted Speed:	70 mph										
Facility Type:	Freeway										
Area Type:	Urbanized										
Standard K:	9.0%										
FDOT LOS Standard:	D										
Max. Service Vol. Adj. Factor:	0.00										
Data Sources: RCI; TCI; NERPM AB; GUATS; FLSWM Google Street View: http://maps.google.com/maps?q=&layer=c&chll=30.298797229445,-81.9337018700864											
Projected Values		2019	2020	2025	2030	2035	2040	2045			
Number of Lanes		4	4	4	4	4	8	8			
AADT		55,854	56,608	60,378	64,148	67,918	71,689	75,459			
Peak Hour Maximum Service Volume at LOS Standard		6,800	6,800	6,800	6,800	6,800	13,620	13,620			
Peak Hour Traffic Volume		5,027	5,095	5,434	5,773	6,113	6,452	6,791			
Peak Hour LOS		C	C	C	D	D	B	B			

Notes: Eight lanes by 2040 per CFP (add four lanes); Managed lanes were treated as general purpose lanes to simplify the capacity.



I-10 from Chaffee Rd. to Greenland Ave

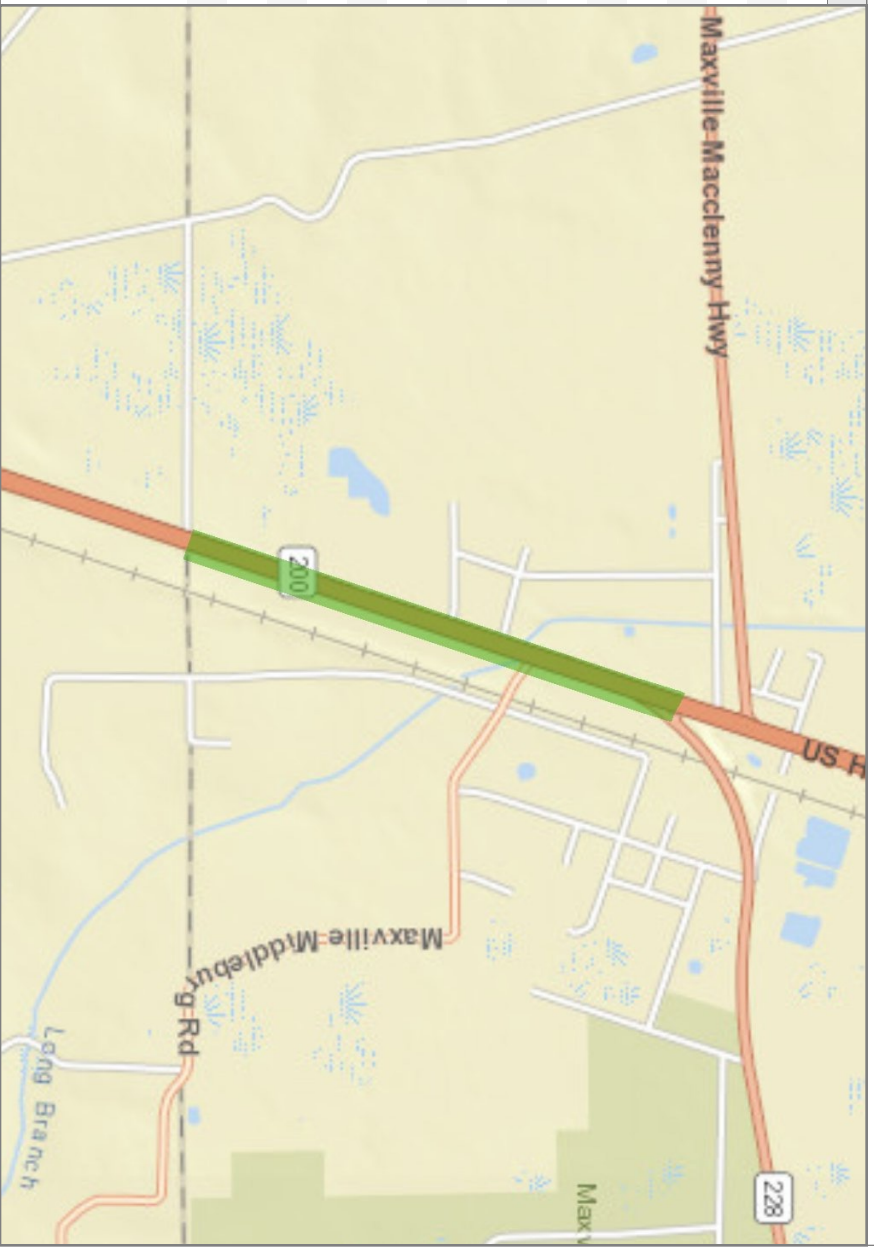
Attribute	Value	Map						
Segment ID:	547							
Segment Length (miles):	4.345 mi							
Location:	Jacksonville							
County:	Duval							
Roadway ID:	72270000							
Begin MP:	11.256							
End MP:	15.601							
SIS:	Yes							
SIS Type:	SIS Highway Corridor							
Median Treatment:	Divided							
Directionality:	Two-Way							
Posted Speed:	55-70 mph							
Facility Type:	Freeway							
Area Type:	Urbanized							
Standard K:	9.0%							
FDOT LOS Standard:	D							
Max. Service Vol. Adj. Factor:	0.00							
Data Sources: RCI; TCI; NERPM AB; GUATS; FLSWM								
Google Street View: http://maps.google.com/maps?q=&layer=c&chll=30.3124610484389,-81.8168060548441								
Projected Values		2019	2020	2025	2030	2035	2040	2045
Number of Lanes		6	6	6	6	6	10	10
AADT		81,244	82,988	91,710	100,432	109,154	117,876	126,598
Peak Hour Maximum Service Volume at LOS Standard		10,220	10,220	10,220	10,220	10,220	17,040	17,040
Peak Hour Traffic Volume		7,312	7,469	8,254	9,039	9,824	10,609	11,394
Peak Hour LOS		C	C	C	D	D	C	C

Notes: Ten lanes by 2040 per CFP (add four lanes); Managed lanes were treated as general purpose lanes to simplify the capacity.



US 301 from Clay Co. Line to SR 228 / Normandy Blvd

Attribute	Value								
Segment ID:	602								
Segment Length (miles):	0.989 mi								
Location:	Jacksonville								
County:	Duval								
Roadway ID:	72140000								
Begin MP:	0.000								
End MP:	0.989								
SIS:	Yes								
SIS Type:	SIS Highway Corridor								
Median Treatment:	Divided								
Directionality:	Two-Way								
Posted Speed:	45-60 mph								
Facility Type:	Highway								
Area Type:	Urbanized								
Standard K:	9.0%								
FDOT LOS Standard:	D								
Max. Service Vol. Adj. Factor:	0.00								
Data Sources: RCI; TCI; NERPM AB; GUATS; FLSWM									
Google Street View: http://maps.google.com/maps?q=&layer=c&cbll=30.1935032531446,-82.0176799449741									
Projected Values		2019	2020	2025	2030	2035	2040	2045	
Number of Lanes		4	4	4	4	4	4	4	
AADT		19,800	20,184	22,104	24,024	25,945	27,865	29,785	
Peak Hour Maximum Service Volume at LOS Standard		5,960	5,960	5,960	5,960	5,960	5,960	5,960	
Peak Hour Traffic Volume		1,782	1,817	1,989	2,162	2,335	2,508	2,681	
Peak Hour LOS		B	B	B	B	B	B	B	



Notes:



US 301 from SR 228 / Normandy Blvd to I-10

Attribute	Value
Segment ID:	603
Segment Length (miles):	6.424 mi
Location:	Jacksonville
County:	Duval
Roadway ID:	72140000
Begin MP:	0.989
End MP:	7.413
SIS:	Yes
SIS Type:	SIS Highway Corridor
Median Treatment:	Divided
Directionality:	Two-Way
Posted Speed:	45-65 mph
Facility Type:	Highway
Area Type:	Urbanized
Standard K:	9.0%
FDOT LOS Standard:	D
Max. Service Vol. Adj. Factor:	0.00

Data Sources: RCI; TCI; NERPM AB; GUATS; FLSWM
 Google Street View: <http://maps.google.com/maps?q=&layer=c&chll=-30.2445622422753,-81.9980365123601>

Projected Values	2019	2020	2025	2030	2035	2040	2045
Number of Lanes	4	4	4	4	4	4	4
AADT	15,100	15,470	17,322	19,174	21,026	22,878	24,729
Peak Hour Maximum Service Volume at LOS Standard	5,960	5,960	5,960	5,960	5,960	5,960	5,960
Peak Hour Traffic Volume	1,359	1,392	1,559	1,726	1,892	2,059	2,226
Peak Hour LOS	B	B	B	B	B	B	B

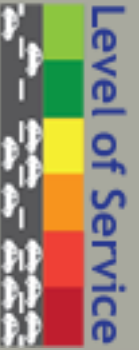
Notes:



US 301 from I-10 to S. City Limit of Baldwin

Attribute	Value	Map						
Segment ID:	604							
Segment Length (miles):	0.435 mi							
Location:	Jacksonville							
County:	Duval							
Roadway ID:	72140000							
Begin MP:	7.413							
End MP:	7.849							
SIS:	Yes							
SIS Type:	SIS Highway Corridor							
Median Treatment:	Divided							
Directionality:	Two-Way							
Posted Speed:	45 mph							
Facility Type:	Arterial							
Area Type:	Urbanized							
Standard K:	9.0%							
FDOT LOS Standard:	D							
Max. Service Vol. Adj. Factor:	0.00							
Data Sources: RCI; TCI; NERPM AB; GUATS; FLSWM								
Google Street View: http://maps.google.com/maps?q=&layer=c&chll=-30.2922491230002,-81.982828396909								
Projected Values		2019	2020	2025	2030	2035	2040	2045
Number of Lanes		4	4	4	4	4	4	4
AADT		10,932	11,067	11,744	12,421	13,098	13,775	14,452
Peak Hour Maximum Service Volume at LOS Standard		3,580	3,580	3,580	3,580	3,580	3,580	3,580
Peak Hour Traffic Volume		984	996	1,057	1,118	1,179	1,240	1,301
Peak Hour LOS		C	C	C	C	C	C	C

Notes:



I-10 from Baker Co. Line to Duval Co. Line

Attribute	Value
Segment ID:	746
Segment Length (miles):	0.675 mi
Location:	Nassau County
County:	Nassau
Roadway ID:	74170000
Begin MP:	0.000
End MP:	0.676
SIS:	Yes
SIS Type:	SIS Highway Corridor
Median Treatment:	Divided
Directionality:	Two-Way
Posted Speed:	70 mph
Facility Type:	Freeway
Area Type:	Transition
Standard K:	10.5%
FDOT LOS Standard:	C
Max. Service Vol. Adj. Factor:	0.00

Data Sources: RCI; TCI; NERPM AB; GUATS; FLSWM
 Google Street View: <http://maps.google.com/maps?q=&layer=c&cbll=-30.2823775647025,-82.0436267562776>

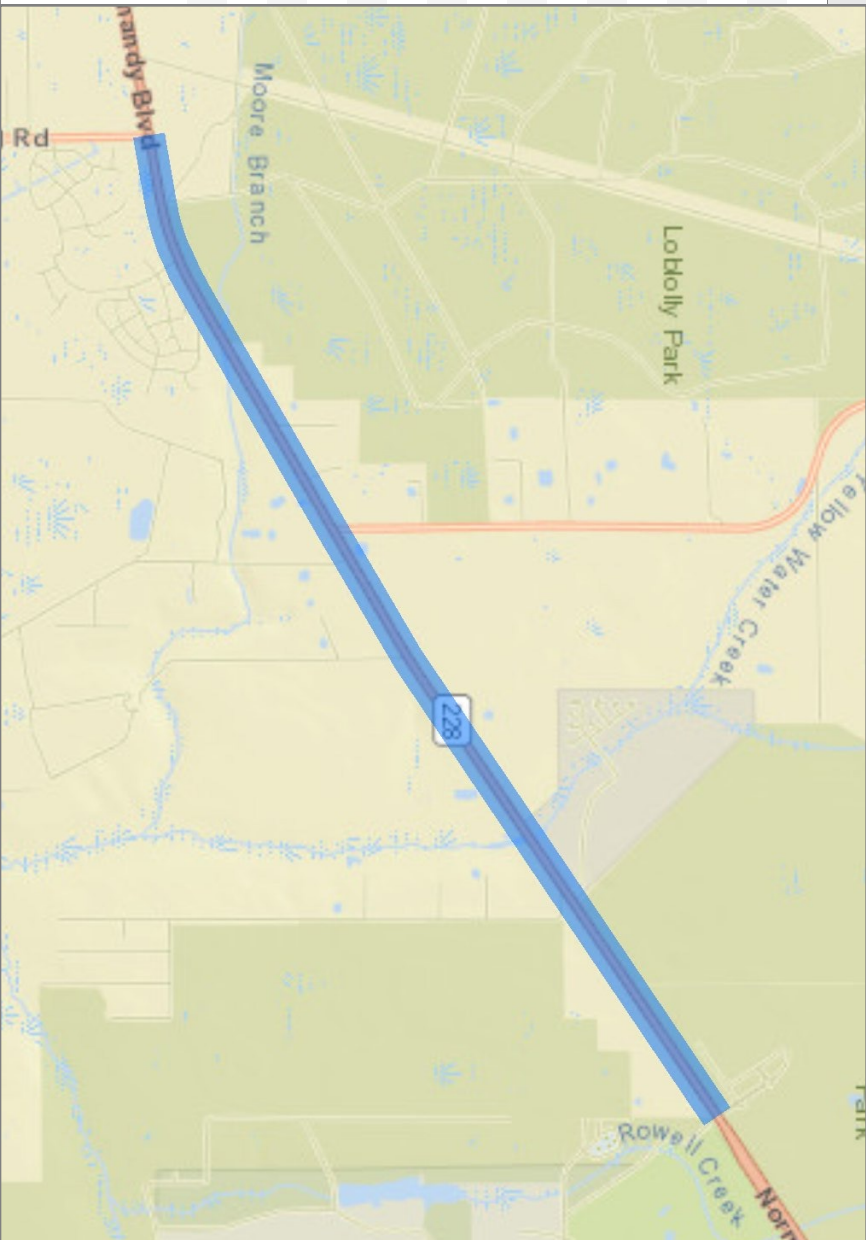
Projected Values	2019	2020	2025	2030	2035	2040	2045
Number of Lanes	4	4	4	4	4	8	8
AADT	38,000	38,380	40,280	42,180	44,080	45,980	47,880
Peak Hour Maximum Service Volume at LOS Standard	5,780	5,780	5,780	5,780	5,780	11,220	11,220
Peak Hour Traffic Volume	3,990	4,030	4,229	4,429	4,628	4,828	5,027
Peak Hour LOS	B	B	B	C	C	B	B

Notes: Eight lanes by 2040 per CFP (add four lanes); Managed lanes were treated as general purpose lanes to simplify the capacity.



SR 228 / Normandy Blvd. from McClelland Rd to Jax Equestrian Center

Attribute	Value										
Segment ID:	7481										
Segment Length (miles):	4.377 mi										
Location:	Jacksonville										
County:	Duval										
Roadway ID:	72120000										
Begin MP:	5.228										
End MP:	9.606										
SIS:	No										
SIS Type:	Non SIS										
Median Treatment:	Undivided										
Directionality:	Two-Way										
Posted Speed:	55-60 mph										
Facility Type:	Highway										
Area Type:	Urbanized										
Standard K:	9.0%										
FDOT LOS Standard:	D										
Max. Service Vol. Adj. Factor:	0.00										
Data Sources: RCI; TCI; NERPM AB; GUATS; FLSWM											
Google Street View: http://maps.google.com/maps?q=&layer=c&cbll=30.2219480710645,-81.9336434914948											
Projected Values		2019	2020	2025	2030	2035	2040	2045			
Number of Lanes	2	2	2	2	2	2	2	2	2	2	
AADT	12,739	13,011	14,368	15,726	17,083	18,441	19,799				
Peak Hour Maximum Service Volume at LOS Standard	2,180	2,180	2,180	2,180	2,180	2,180	2,180				
Peak Hour Traffic Volume	1,147	1,171	1,293	1,415	1,538	1,660	1,782				
Peak Hour LOS	C	C	C	C	C	D	D				



Notes:



US 301 from S. City Limit (580' S. of Lyons Ln) to US 90

Attribute	Value
Segment ID:	7604
Segment Length (miles):	0.505 mi
Location:	Baldwin
County:	Duval
Roadway ID:	72140000
Begin MP:	7.849
End MP:	8.354
SIS:	Yes
SIS Type:	SIS Highway Corridor
Median Treatment:	Divided
Directionality:	Two-Way
Posted Speed:	35-45 mph
Facility Type:	Arterial
Area Type:	Urbanized
Standard K:	9.0%
FDOT LOS Standard:	D
Max. Service Vol. Adj. Factor:	0.00

Data Sources: RCI; TCI; NERPM AB; GUATS; FLSWM
 Google Street View: <http://maps.google.com/maps?q=&layer=c&cbll=30.2990817756942,-81.9829158517044>

Projected Values	2019	2020	2025	2030	2035	2040	2045
Number of Lanes	4	4	4	4	4	4	4
AADT	7,858	8,094	9,276	10,458	11,639	12,821	14,002
Peak Hour Maximum Service Volume at LOS Standard	2,920	2,920	2,920	2,920	2,920	2,920	2,920
Peak Hour Traffic Volume	707	728	835	941	1,048	1,154	1,260
Peak Hour LOS	C	C	C	C	C	C	C

Notes:

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2020 HISTORICAL AADT REPORT

COUNTY: 72 - DUVAL

SITE: 0002 - SR 200 .1 MI. N. OF BRANDY BRANCH RD.

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	7900 C	N 3900	S 4000	9.00	54.00	33.10
2019	7400 C	N 3800	S 3600	9.00	53.60	30.50
2018	9600 C	N 5000	S 4600	9.00	53.50	29.30
2017	9600 C	N 4800	S 4800	9.00	54.20	26.10
2016	9800 C	N 5200	S 4600	9.00	53.90	28.90
2015	7400 C	N 3900	S 3500	9.00	54.00	29.50
2014	8600 C	N 4400	S 4200	9.00	54.30	28.20
2013	7800 C	N 4200	S 3600	9.00	56.10	30.30
2012	7800 C	N 4100	S 3700	9.00	54.60	33.00
2011	8500 C	N 4500	S 4000	9.00	55.90	29.40
2010	7400 C	N 3900	S 3500	10.26	59.82	27.80
2009	7600 C	N 4000	S 3700	10.44	58.40	29.50
2008	9400 C	N 5700	S 3600	10.42	58.89	31.00
2007	9600 C	N 5100	S 4500	10.41	58.88	31.80
2006	8100 C	N 4200	S 3900	10.57	59.47	27.90
2005	9700 C	N 5000	S 4700	10.60	58.50	26.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE

S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

*K FACTOR: STARTING WITH YEAR 2011 IS STANDARD, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2020 HISTORICAL AADT REPORT

COUNTY: 72 - DUVAL

SITE: 0109 - SR-8/I-10,@CR-217 OVERPASS,E. OF BALDWIN,DUVAL CO.

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	52500 X	0	0	8.00	54.70	15.20
2019	56000 E	0	0	8.00	54.60	13.50
2018	55000 S	0	0	9.00	54.80	20.80
2017	53000 F	0	0	9.00	54.20	20.80
2016	51094 C	E	W	9.00	54.20	20.80
2015	50626 C	E	W	9.00	54.20	20.80
2014	47284 C	E	W	9.00	54.10	19.10
2013	44500 F	E	W	9.00	54.20	20.60
2012	43700 C	E	W	9.00	54.20	20.60
2011	43827 C	E	W	9.00	54.50	19.80
2010	44967 C	E	W	9.58	54.22	20.00
2009	44483 C	E	W	9.53	55.46	20.50
2008	43854 C	E	W	9.27	54.92	21.00
2007	48745 C	E	W	9.27	54.92	20.50
2006	49337 C	E	W	9.27	54.92	22.40
2005	47674 C	E	W	9.10	60.80	23.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE

S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE

V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

*K FACTOR: STARTING WITH YEAR 2011 IS STANDARD, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2020 HISTORICAL AADT REPORT

COUNTY: 72 - DUVAL

SITE: 0736 - SR 228 .1 MI. W. OF YELLOW WATER RD.

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	11000 C	0	0	9.00	55.40	6.70
2019	12000 C	0	0	9.00	55.90	6.80
2018	10500 C	0	0	9.00	55.80	7.00
2017	11000 C	0	0	9.00	56.10	6.60
2016	9900 C	0	0	9.00	56.20	6.00
2015	8600 C	0	0	9.00	56.30	5.70
2014	8100 C	0	0	9.00	56.40	5.30
2013	8000 C	0	0	9.00	57.10	5.60
2012	7100 C	0	0	9.00	57.80	6.00
2011	7800 C	0	0	9.00	56.60	4.80
2010	8100 C	0	0	9.75	56.38	4.90

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

*K FACTOR: STARTING WITH YEAR 2011 IS STANDARD, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2020 HISTORICAL AADT REPORT

COUNTY: 72 - DUVAL

SITE: 0140 - SR 228 W. OF PINE ST.

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	6000 C	0	0	9.00	55.40	6.70
2019	7300 C	0	0	9.00	55.90	6.80
2018	6500 C	0	0	9.00	55.80	7.00
2017	6200 C	0	0	9.00	56.10	6.60
2016	5400 C	0	0	9.00	56.20	6.00
2015	4700 C	0	0	9.00	56.30	5.70
2014	4600 C	0	0	9.00	56.40	5.30
2013	4500 C	0	0	9.00	57.10	5.60
2012	4300 C	0	0	9.00	57.80	6.00
2011	4600 C	0	0	9.00	56.60	4.80
2010	4800 C	0	0	9.75	56.38	4.90
2009	5300 C	0	0	9.48	57.48	4.60
2008	4900 C	0	0	9.68	57.27	6.20
2007	5600 C	0	0	9.26	57.87	5.70
2006	6600 C	0	0	9.52	57.03	1.50
2005	5300 C	0	0	9.00	56.50	5.30

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
 *K FACTOR: STARTING WITH YEAR 2011 IS STANDARD, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2020 HISTORICAL AADT REPORT

COUNTY: 72 - DUVAL

SITE: 1006 - SR 228 E. OF JAX EQUESTRIAN CENTER

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	12400 C	E 6300	W 6100	9.00	55.40	6.70
2019	13200 C	E 7200	W 6000	9.00	55.90	6.80
2018	12800 C	E 6700	W 6100	9.00	55.80	7.00
2017	13400 C	E 7000	W 6400	9.00	56.10	6.60
2016	12500 C	E 6400	W 6100	9.00	56.20	6.00
2015	10200 C	E 5200	W 5000	9.00	56.30	5.70
2014	9800 C	E 5000	W 4800	9.00	56.40	5.30
2013	9800 C	E 5000	W 4800	9.00	57.10	5.60
2012	9400 C	E 4800	W 4600	9.00	57.80	6.00
2011	11800 C	E 5800	W 6000	9.00	56.60	4.80
2010	10500 C	E 5400	W 5100	9.75	56.38	4.90
2009	11200 C	E 5800	W 5400	9.48	57.48	4.60
2008	10500 C	E 5500	W 5000	9.68	57.27	6.20
2007	11300 C	E 5700	W 5600	9.26	57.87	5.70
2006	12500 C	E 6300	W 6200	9.52	57.03	1.50
2005	12600 C	E 6500	W 6100	9.00	56.50	5.30

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
 *K FACTOR: STARTING WITH YEAR 2011 IS STANDARD, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2020 HISTORICAL AADT REPORT

COUNTY: 72 - DUVAL

SITE: 0612 - SR 200/US 301 .3 MI. N. OF SR 228

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	17800 C	N 9000	S 8800	9.00	54.00	32.20
2019	15100 C	N 8100	S 7000	9.00	53.60	31.10
2018	16200 C	N 8600	S 7600	9.00	53.50	30.10
2017	18000 C	N 8900	S 9100	9.00	54.20	25.80
2016	15800 C	N 7700	S 8100	9.00	53.90	29.50
2015	14100 C	N 8200	S 5900	9.00	54.00	29.50
2014	14000 C	N 7100	S 6900	9.00	54.30	28.20
2013	13700 C	N 7300	S 6400	9.00	56.10	30.30
2012	12600 C	N 6200	S 6400	9.00	54.60	33.00
2011	12300 C	N 6200	S 6100	9.00	55.90	31.00
2010	13400 C	N 6700	S 6700	10.26	59.82	31.60
2009	14300 C	N 7600	S 6700	10.44	58.40	29.50
2008	15700 C	N 8500	S 7200	10.42	58.89	31.00
2007	16500 C	N 8800	S 7700	10.41	58.88	31.80
2006	16700 C	N 8200	S 8500	10.57	59.47	27.90
2005	15400 F	N 8100	S 7300	10.60	58.50	35.10

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE

S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE

V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

*K FACTOR: STARTING WITH YEAR 2011 IS STANDARD, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2020 HISTORICAL AADT REPORT

COUNTY: 27 - BAKER

SITE: 3134 - I-10 200' E. OF SR 228

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	35000 C	E 17500	W 17500	10.50	54.70	34.20
2019	38000 C	E 19000	W 19000	10.50	54.80	34.90
2018	39000 C	E 19500	W 19500	9.50	54.80	35.70
2017	39000 C	E 19500	W 19500	9.50	55.00	35.80
2016	37500 C	E 19000	W 18500	10.50	54.60	29.70
2015	35500 C	E 18000	W 17500	10.50	54.90	27.10
2014	20000 C	E 10000	W 10000	10.50	54.70	33.90
2013	21000 C	E 10500	W 10500	10.50	54.90	32.00
2012	21500 C	E 11000	W 10500	10.50	54.10	30.60
2011	28000 C	E 14500	W 13500	10.50	53.80	29.00
2010	31500 C	E 16000	W 15500	12.38	54.01	24.50
2009	31500 C	E 16000	W 15500	12.02	58.35	26.50
2008	25000 C	E 12500	W 12500	12.29	59.86	35.80
2007	28000 C	E 14500	W 13500	11.44	61.76	34.40
2006	44000 C	E 21500	W 22500	11.42	53.10	29.70
2005	26500 F	E 13500	W 13000	11.90	57.40	26.50

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE

S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE

V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

*K FACTOR: STARTING WITH YEAR 2011 IS STANDARD, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2020 HISTORICAL AADT REPORT

COUNTY: 72 - DUVAL

SITE: 3547 - SR 200 .1 MI. S. OF SR 228 (NORMANDY BLVD)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	21500 C	N 11000	S 10500	9.00	54.00	32.20
2019	19800 C	N 9900	S 9900	9.00	53.60	31.10
2018	21500 C	N 11000	S 10500	9.00	53.50	30.10
2017	22500 C	N 11500	S 11000	9.00	54.20	25.80
2016	20500 C	N 10500	S 10000	9.00	53.90	29.50
2015	15000 C	N 8200	S 6800	9.00	54.00	29.50
2014	16300 C	N 8500	S 7800	9.00	54.30	28.20
2013	17100 C	N 9000	S 8100	9.00	56.10	30.30
2012	14900 C	N 7500	S 7400	9.00	54.60	33.00
2011	15600 C	N 8100	S 7500	9.00	55.90	31.00
2010	16200 C	N 8500	S 7700	10.26	59.82	31.60
2009	17800 C	N 9400	S 8400	10.44	58.40	29.50
2008	15900 C	N 8500	S 7400	10.42	58.89	31.00
2007	19400 C	N 9900	S 9500	10.41	58.88	31.80
2006	18800 C	N 8300	S 10500	10.57	59.47	27.90
2005	21000 F	N 11000	S 10000	10.60	58.50	5.30

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE

S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE

V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

*K FACTOR: STARTING WITH YEAR 2011 IS STANDARD, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2020 HISTORICAL AADT REPORT

COUNTY: 72 - DUVAL

SITE: 5020 - I-10 500' WEST OF I-295 RAMPS

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	95500 C	E 47000	W 48500	8.00	54.70	15.20
2019	102000 C	E 51000	W 51000	8.00	54.60	13.50
2018	100000 C	E 50000	W 50000	9.00	54.80	13.70
2017	98500 C	E 49500	W 49000	9.00	55.00	13.60
2016	96500 C	E 48500	W 48000	9.00	54.20	17.10
2015	72500 C	E 36500	W 36000	9.00	54.20	17.10
2014	66500 C	E 33500	W 33000	9.00	54.10	16.40
2013	62500 C	E 31000	W 31500	9.00	54.70	10.60
2012	64000 C	E 32500	W 31500	9.00	54.20	15.00
2011	72000 T	0	0	9.00	54.00	16.30
2010	74000 S	E 37000	W 35000	10.99	53.09	16.40
2009	74000 F	E 38000	W 36000	10.82	57.31	16.70
2008	76500 C	E 39500	W 37000	12.29	59.86	17.80
2007	79000 C	E 40500	W 38500	11.44	61.76	20.50
2006	87500 C	E 44000	W 43500	10.39	53.93	22.40
2005	67500 C	E 31500	W 36000	10.50	60.40	23.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE

S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE

V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

*K FACTOR: STARTING WITH YEAR 2011 IS STANDARD, PRIOR YEARS ARE K30 VALUES

TABLE 1

Generalized **Annual Average Daily** Volumes for Florida's Urbanized Areas

January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
STATE SIGNALIZED ARTERIALS						FREEWAYS					
Class I (40 mph or higher posted speed limit)						Core Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	16,800	17,700	**	4	47,600	66,400	83,200	87,300	
4	Divided	*	37,900	39,800	**	6	70,100	97,800	123,600	131,200	
6	Divided	*	58,400	59,900	**	8	92,200	128,900	164,200	174,700	
8	Divided	*	78,800	80,100	**	10	115,300	158,900	203,600	218,600	
						12	136,500	192,400	246,200	272,900	
Class II (35 mph or slower posted speed limit)						Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	7,300	14,800	15,600	4	45,900	62,700	75,600	85,400	
4	Divided	*	14,500	32,400	33,800	6	68,900	93,900	113,600	128,100	
6	Divided	*	23,300	50,000	50,900	8	91,900	125,200	151,300	170,900	
8	Divided	*	32,000	67,300	68,100	10	115,000	156,800	189,300	213,600	
Non-State Signalized Roadway Adjustments (Alter corresponding state volumes by the indicated percent.)						Freeway Adjustments					
Non-State Signalized Roadways - 10%						Auxiliary Lanes Present in Both Directions + 20,000					
						Ramp Metering + 5%					
Median & Turn Lane Adjustments						UNINTERRUPTED FLOW HIGHWAYS					
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		Lanes	Median	B	C	D	E
2	Divided	Yes	No	+5%		2	Undivided	11,700	18,000	24,200	32,600
2	Undivided	No	No	-20%		4	Divided	36,300	52,600	66,200	75,300
Multi	Undivided	Yes	No	-5%		6	Divided	54,600	78,800	99,400	113,100
Multi	Undivided	No	No	-25%		Uninterrupted Flow Highway Adjustments					
-	-	-	Yes	+ 5%		Lanes	Median	Exclusive left lanes	Adjustment factors		
One-Way Facility Adjustment Multiply the corresponding two-directional volumes in this table by 0.6						2	Divided	Yes	+5%		
						Multi	Undivided	Yes	-5%		
						Multi	Undivided	No	-25%		
BICYCLE MODE² (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)						¹ Values shown are presented as two-way annual average daily volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.					
Paved Shoulder/Bicycle Lane Coverage						² Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.					
		B	C	D	E	³ Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.					
0-49%		*	2,900	7,600	19,700	* Cannot be achieved using table input value defaults.					
50-84%		2,100	6,700	19,700	>19,700	** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.					
85-100%		9,300	19,700	>19,700	**	Source: Florida Department of Transportation Systems Implementation Office https://www.fdot.gov/planning/systems/					
PEDESTRIAN MODE² (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
Sidewalk Coverage											
		B	C	D	E						
0-49%		*	*	2,800	9,500						
50-84%		*	1,600	8,700	15,800						
85-100%		3,800	10,700	17,400	>19,700						
BUS MODE (Scheduled Fixed Route)³ (Buses in peak hour in peak direction)											
Sidewalk Coverage											
		B	C	D	E						
0-84%		> 5	≥ 4	≥ 3	≥ 2						
85-100%		> 4	≥ 3	≥ 2	≥ 1						

TABLE 1
(continued)

Generalized **Annual Average Daily** Volumes for Florida's
Urbanized Areas

January 2020

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities			Interrupted Flow Facilities						
	Freeways	Core Freeways	Highways	State Arterials				Class I		
				Class I	Class II	Bicycle	Pedestrian			
ROADWAY CHARACTERISTICS										
Area type (urban, rural)	urban	urban								
Number of through lanes (both dir.)	4-10	4-12	2	4-6	2	4-8	2	4-8	4	4
Posted speed (mph)	70	65	50	50	45	50	30	30	45	45
Free flow speed (mph)	75	70	55	55	50	55	35	35	50	50
Auxiliary Lanes (n,y)	n	n								
Median (d, twlt, n, nr, r)				d	n	r	n	r	r	r
Terrain (l,r)	l	l	l	l	l	l	l	l	l	l
% no passing zone			80							
Exclusive left turn lane impact (n, y)			[n]	y	y	y	y	y	y	y
Exclusive right turn lanes (n, y)					n	n	n	n	n	n
Facility length (mi)	3	3	5	5	2	2	1.9	1.8	2	2
TRAFFIC CHARACTERISTICS										
Planning analysis hour factor (K)	0.090	0.085	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090
Directional distribution factor (D)	0.55	0.55	0.55	0.55	0.550	0.560	0.565	0.560	0.565	0.565
Peak hour factor (PHF)	0.95	0.95	0.95	0.95	1.000	1.000	1.000	1.000	1.000	1.000
Base saturation flow rate (pcphpl)	2,400	2,400	1,700	2,200	1,950	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	4.0	4.0	2.0	2.0	1.0	1.0	1.0	1.0	2.5	2.0
Speed Adjustment Factor (SAF)	0.975	0.975		0.975						
Capacity Adjustment Factor (CAF)	0.968	0.968		0.968						
% left turns					12	12	12	12	12	12
% right turns					12	12	12	12	12	12
CONTROL CHARACTERISTICS										
Number of signals					4	4	10	10	4	6
Arrival type (1-6)					3	3	4	4	4	4
Signal type (a, c, p)					c	c	c	c	c	c
Cycle length (C)					120	150	120	120	120	120
Effective green ratio (g/C)					0.44	0.45	0.44	0.44	0.44	0.44
MULTIMODAL CHARACTERISTICS										
Paved shoulder/bicycle lane (n, y)									n, 50%, y	n
Outside lane width (n, t, w)									t	t
Pavement condition (d, t, u)									t	
On-street parking (n, y)										
Sidewalk (n, y)										n, 50%, y
Sidewalk/roadway separation(a, t, w)										t
Sidewalk protective barrier (n, y)										n
LEVEL OF SERVICE THRESHOLDS										
Level of Service	Freeways	Highways		Arterials		Bicycle	Ped	Bus		
	Density	Two-Lane	Multilane	Class I	Class II	Score	Score	Buses/hr.		
		%ffs	Density						ats	ats
B	≤ 17	> 83.3	≤ 17	> 31 mph	> 22 mph	≤ 2.75	≤ 2.75	≤ 6		
C	≤ 24	> 75.0	≤ 24	> 23 mph	> 17 mph	≤ 3.50	≤ 3.50	≤ 4		
D	≤ 31	> 66.7	≤ 31	> 18 mph	> 13 mph	≤ 4.25	≤ 4.25	< 3		
E	≤ 39	> 58.3	≤ 35	> 15 mph	> 10 mph	≤ 5.00	≤ 5.00	< 2		

% ffs = Percent free flow speed ats = Average travel speed

TABLE 2

Generalized **Annual Average Daily** Volumes for Florida's
 Transitioning Areas and
 Areas Over 5,000 Not In Urbanized Areas¹

January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES							
STATE SIGNALIZED ARTERIALS						FREEWAYS							
Class I (40 mph or higher posted speed limit)						Lanes	B	C	D	E			
Lanes	Median	B	C	D	E	4	45,100	59,000	70,300	72,600			
2	Undivided	*	14,400	16,200	**	6	65,300	86,600	104,100	108,900			
4	Divided	*	34,000	35,500	**	8	85,900	114,500	138,100	145,300			
6	Divided	*	52,100	53,500	**	10	101,600	135,600	161,900	181,800			
Class II (35 mph or slower posted speed limit)						Freeway Adjustments							
Lanes	Median	B	C	D	E	Auxiliary Lanes			Ramp				
2	Undivided	*	6,500	13,300	14,200	Present in Both Directions			Metering				
4	Divided	*	9,900	28,800	31,600	+ 20,000			+ 5%				
6	Divided	*	16,000	44,900	47,600								
Non-State Signalized Roadway Adjustments (Alter corresponding state volumes by the indicated percent.)													
Non-State Signalized Roadways - 10%													
Median & Turn Lane Adjustments													
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors									
2	Divided	Yes	No	+5%									
2	Undivided	No	No	-20%									
Multi	Undivided	Yes	No	-5%									
Multi	Undivided	No	No	-25%									
-	-	-	Yes	+ 5%									
One-Way Facility Adjustment Multiply the corresponding two-directional volumes in this table by 0.6													
BICYCLE MODE² (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)													
Paved Shoulder/Bicycle Lane Coverage													
		B	C	D	E								
	0-49%	*	2,600	6,100	19,500								
	50-84%	1,900	5,500	18,400	>19,500								
	85-100%	7,500	19,500	>19,500	**								
PEDESTRIAN MODE² (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)													
Sidewalk Coverage													
		B	C	D	E								
	0-49%	*	*	2,800	9,400								
	50-84%	*	1,600	8,600	15,600								
	85-100%	3,800	10,500	17,100	>19,500								
BUS MODE (Scheduled Fixed Route)³ (Buses in peak hour in peak direction)													
Sidewalk Coverage													
		B	C	D	E								
	0-84%	> 5	≥ 4	≥ 3	≥ 2								
	85-100%	> 4	≥ 3	≥ 2	≥ 1								
						UNINTERRUPTED FLOW HIGHWAYS							
						Lanes	Median	B	C	D	E		
						2	Undivided	11,300	17,300	23,400	31,600		
						4	Divided	34,600	49,900	63,000	71,700		
						6	Divided	51,700	74,800	94,600	107,400		
						Uninterrupted Flow Highway Adjustments							
						Lanes	Median	Exclusive left lanes	Adjustment factors				
						2	Divided	Yes	+5%				
						Multi	Undivided	Yes	-5%				
						Multi	Undivided	No	-25%				
						¹ Values shown are presented as two-way annual average daily volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.							
						² Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.							
						³ Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.							
						* Cannot be achieved using table input value defaults.							
						** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.							
						Source: Florida Department of Transportation Systems Implementation Office https://www.fdot.gov/planning/systems/							

TABLE 2
(continued)

Generalized **Annual Average Daily** Volumes for Florida's
Transitioning Areas and
Areas Over 5,000 Not In Urbanized Areas

January 2020

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities			Interrupted Flow Facilities					
	Freeways	Highways		State Arterials			Class I		
				Class I	Class II		Bicycle	Pedestrian	
ROADWAY CHARACTERISTICS									
Area type (urban, rural)	urban								
Number of through lanes (both dir.)	4-10	2	4-6	2	4-6	2	4-6	4	4
Posted speed (mph)	70	50	50	45	50	30	30	45	45
Free flow speed (mph)	75	55	55	50	55	35	35	50	50
Auxiliary lanes (n,y)	n								
Median (d, n, nr, r)			d	n	y	n	y	r	r
Terrain (l,r)	l	l	l	l	l	l	l	l	l
% no passing zone		60							
Exclusive left turn lane impact (n, y)		[n]	y	y	y	y	y	y	y
Exclusive right turn lanes (n, y)				n	n	n	n	n	n
Facility length (mi)	6	5	5	1.8	2	2	2	2	2
TRAFFIC CHARACTERISTICS									
Planning analysis hour factor (K)	0.098	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090
Directional distribution factor (D)	0.55	0.55	0.55	0.550	0.570	0.570	0.565	0.570	0.570
Peak hour factor (PHF)	0.92	0.92	0.92	1.000	1.000	1.000	1.000	1.000	1.000
Base saturation flow rate (pcphpl)	2,400	1,700	2,200	1,950	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	9.0	4.0	4.0	2.0	3.0	2.0	3.0	3.0	3.0
Speed Adjustment Factor (SAF)	0.975		0.975						
Capacity Adjustment Factor (CAF)	0.968		0.968						
% left turns				12	12	12	12	12	12
% right turns				12	12	12	12	12	12
CONTROL CHARACTERISTICS									
Number of signals				5	4	10	10	4	6
Arrival type (1-6)				4	3	4	4	4	4
Signal type (a, c, p)				c	c	c	c	c	c
Cycle length (C)				120	150	120	150	120	120
Effective green ratio (g/C)				0.44	0.45	0.44	0.45	0.44	0.44
MULTIMODAL CHARACTERISTICS									
Paved shoulder/bicycle lane (n, y)								n, 50%, y	n
Outside lane width (n, t, w)								t	t
Pavement condition (d, t, u)								t	
On-street parking (n, y)								n	n
Sidewalk (n, y)									n, 50%, y
Sidewalk/roadway separation (a, t, w)									t
Sidewalk protective barrier (n, y)									n
LEVEL OF SERVICE THRESHOLDS									
Level of Service	Freeways	Highways		Arterials		Bicycle	Ped	Bus	
	Density	Two-Lane % ffs	Multilane Density	Class I ats	Class II ats	Score	Score	Buses/hr.	
B	≤ 17	> 83.3	≤ 17	> 31 mph	> 22 mph	≤ 2.75	≤ 2.75	≤ 6	
C	≤ 24	> 75.0	≤ 24	> 23 mph	> 17 mph	≤ 3.50	≤ 3.50	≤ 4	
D	≤ 31	> 66.7	≤ 31	> 18 mph	> 13 mph	≤ 4.25	≤ 4.25	< 3	
E	≤ 39	> 58.3	≤ 35	> 15 mph	> 10 mph	≤ 5.00	≤ 5.00	< 2	

% ffs = Percent free flow speed ats = Average travel speed

TABLE 3

Generalized **Annual Average Daily** Volumes for Florida's
Rural Undeveloped Areas and
Developed Areas Less Than 5,000 Population¹

January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
STATE SIGNALIZED ARTERIALS						FREEWAYS					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	12,900	14,200	**	4	34,800	48,000	56,700	63,200	
4	Divided	*	29,300	30,400	**	6	48,900	69,000	82,600	94,800	
6	Divided	*	45,200	45,800	**	8	62,900	90,400	108,400	126,400	
Non-State Signalized Roadway Adjustments (Alter corresponding state volumes by the indicated percent.) Non-State Signalized Roadways - 10%						Freeway Adjustments Auxiliary Lanes Present in Both Directions + 20,000					
Median & Turn Lane Adjustments						UNINTERRUPTED FLOW HIGHWAYS					
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		Rural Undeveloped					
2	Divided	Yes	No	+5%		Lanes	Median	B	C	D	E
2	Undivided	No	No	-20%		2	Undivided	4,600	8,600	14,000	28,500
Multi	Undivided	Yes	No	-5%		4	Divided	31,200	44,900	55,700	62,700
Multi	Undivided	No	No	-25%		6	Divided	46,800	67,600	83,500	94,200
-	-	-	Yes	+ 5%		Developed Areas					
One-Way Facility Adjustment Multiply the corresponding two-directional volumes in this table by 0.6						Lanes	Median	B	C	D	E
						2	Undivided	10,300	15,700	21,300	28,500
						4	Divided	29,300	42,300	54,000	61,600
						6	Divided	44,000	63,600	81,200	92,400
						Passing Lane Adjustments Alter LOS B-D volumes in proportion to the passing lane length to the highway segment length					
BICYCLE MODE² (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)						Uninterrupted Flow Highway Adjustments					
Rural Undeveloped						Lanes	Median	Exclusive left lanes	Adjustment factors		
Paved Shoulder/Bicycle Lane Coverage						2	Divided	Yes	+5%		
0-49%						Multi	Undivided	Yes	-5%		
50-84%						Multi	Undivided	No	-25%		
85-100%											
Developed Areas											
Paved Shoulder/Bicycle Lane Coverage											
0-49%											
50-84%											
85-100%											
PEDESTRIAN MODE² (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
Sidewalk Coverage											
0-49%											
50-84%											
85-100%											

¹Values shown are presented as two-way annual average daily volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.

²Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.

* Cannot be achieved using table input value defaults.

** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:
Florida Department of Transportation
Systems Implementation Office
<https://www.fdot.gov/planning/systems/>

TABLE 3
(continued)

Generalized **Annual Average Daily** Volumes for Florida's
Rural Undeveloped Areas and
Developed Areas Less Than 5,000 Population

January 2020

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities					Interrupted Flow Facilities				
	Freeways	Highways				Arterials	Bicycle	Pedestrian		
		Undeveloped	Developed	Undeveloped	Developed					
ROADWAY CHARACTERISTICS										
Area type (urban, rural)	rural									
Number of through lanes (both dir.)	4-8	2	4-6	2	4-6	2	4-6	4	4	2
Posted speed (mph)	70	55	55	50	50	45	45	55	45	45
Free flow speed (mph)	75	60	60	55	55	50	50	60	50	50
Auxiliary lanes (n,y)	n									
Median (d, n, nr, r)			d		d	n	r	r	r	n
Terrain (l,r)	1	1	1	1	1	1	1	1	1	1
% no passing zone		20		60						
Exclusive left turn lanes (n, y)		[n]	y	[n]	y	y	y	y	y	y
Exclusive right turn lanes (n, y)						n	n	n	n	n
Facility length (mi)	18	10	10	5	5	1.9	2.2	4	2	2
TRAFFIC CHARACTERISTICS										
Planning analysis hour factor (K)	0.105	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095
Directional distribution factor (D)	0.55	0.55	0.55	0.55	0.55	0.550	0.550	0.570	0.570	0.550
Peak hour factor (PHF)	0.88	0.88	0.88	0.88	0.88	1.000	1.000	1.000	1.000	1.000
Base saturation flow rate (pcphpl)	2,400	1,700	2,200	1,700	2,200	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	12.0	5.0	12.0	5.0	8.0	3.0	3.0	6.0	3.5	3.0
Speed Adjustment Factor (SAF)	0.975		0.975		0.975					
Capacity Adjustment Factor (CAF)	0.968		0.968		0.968					
% left turns						12	12		12	12
% right turns						12	12		12	12
CONTROL CHARACTERISTICS										
Number of signals						5	6	2	4	4
Arrival type (1-6)						3	3	3	3	3
Signal type (a, c, p)						c	c	a	a	a
Cycle length (C)						90	90	60	90	90
Effective green ratio (g/C)						0.44	0.44	0.37	0.44	0.44
MULTIMODAL CHARACTERISTICS										
Paved shoulder/bicycle lane (n, y)								n,50%,y	n,50%,y	n
Outside lane width (n, t, w)								t	t	t
Pavement condition (d, t, u)								t	t	
Sidewalk (n, y)										n,50%,y
Sidewalk/roadway separation(a, t,w)										t
Sidewalk protective barrier (n, y)										n
LEVEL OF SERVICE THRESHOLDS										
Level of Service	Freeways	Highways								
		Two-Lane ru		Two-Lane rd	Multilane ru	Multilane rd				
	Density	%tsf	ats	%ffs	Density	Density				
B	≤ 14	≤ 50	≤ 55	> 83.3	≤ 14	≤ 14				
C	≤ 22	≤ 65	≤ 50	> 75.0	≤ 22	≤ 22				
D	≤ 29	≤ 80	≤ 45	> 66.7	≤ 29	≤ 29				
E	≤ 36	> 80	≤ 40	> 58.3	≤ 34	≤ 34				
Level of Service	Arterials		Bicycle		Pedestrian					
	Major City/Co.(ats)		Score		Score					
B	> 31 mph		≤ 2.75		≤ 2.75					
C	> 23 mph		≤ 3.50		≤ 3.50					
D	> 18 mph		≤ 4.25		≤ 4.25					
E	> 15 mph		≤ 5.00		≤ 5.00					

%tsf = Percent time spent following %ffs = Percent of free flow speed ats = Average travel speed ru = Rural undeveloped rd = Rural developed

TABLE 4

Generalized **Peak Hour Two-Way** Volumes for Florida's Urbanized Areas¹

January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
STATE SIGNALIZED ARTERIALS						FREEWAYS					
Class I (40 mph or higher posted speed limit)						Core Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	1,510	1,600	**	4	4,050	5,640	6,800	7,420	
4	Divided	*	3,420	3,580	**	6	5,960	8,310	10,220	11,150	
6	Divided	*	5,250	5,390	**	8	7,840	10,960	13,620	14,850	
8	Divided	*	7,090	7,210	**	10	9,800	13,510	17,040	18,580	
						12	11,600	16,350	20,930	23,200	
Class II (35 mph or slower posted speed limit)						Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	660	1,330	1,410	4	4,130	5,640	7,070	7,690	
4	Divided	*	1,310	2,920	3,040	6	6,200	8,450	10,510	11,530	
6	Divided	*	2,090	4,500	4,590	8	8,270	11,270	13,960	15,380	
8	Divided	*	2,880	6,060	6,130	10	10,350	14,110	17,310	19,220	
Non-State Signalized Roadway Adjustments						Freeway Adjustments					
(Alter corresponding state volumes by the indicated percent.)						Auxiliary Lanes Present in Both Directions + 1,800					
Non-State Signalized Roadways - 10%						Ramp Metering + 5%					
Median & Turn Lane Adjustments						UNINTERRUPTED FLOW HIGHWAYS					
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		Lanes	Median	B	C	D	E
2	Divided	Yes	No	+5%		2	Undivided	1,050	1,620	2,180	2,930
2	Undivided	No	No	-20%		4	Divided	3,270	4,730	5,960	6,780
Multi	Undivided	Yes	No	-5%		6	Divided	4,910	7,090	8,950	10,180
Multi	Undivided	No	No	-25%		Uninterrupted Flow Highway Adjustments					
-	-	-	Yes	+ 5%		Lanes	Median	Exclusive left lanes	Adjustment factors		
One-Way Facility Adjustment						2	Divided	Yes	+5%		
Multiply the corresponding two-directional volumes in this table by 0.6						Multi	Undivided	Yes	-5%		
						Multi	Undivided	No	-25%		
BICYCLE MODE²						¹ Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.					
(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)						² Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.					
Paved						³ Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.					
Shoulder/Bicycle						* Cannot be achieved using table input value defaults.					
Lane Coverage	B	C	D	E		** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.					
0-49%	*	260	680	1,770		<i>Source:</i>					
50-84%	190	600	1,770	>1,770		Florida Department of Transportation					
85-100%	830	1,700	>1,770	**		Systems Implementation Office					
						https://www.fdot.gov/planning/systems/					
PEDESTRIAN MODE²											
(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
Sidewalk Coverage	B	C	D	E							
0-49%	*	*	250	850							
50-84%	*	150	780	1,420							
85-100%	340	960	1,560	>1,770							
BUS MODE (Scheduled Fixed Route)³											
(Buses in peak hour in peak direction)											
Sidewalk Coverage	B	C	D	E							
0-84%	> 5	≥ 4	≥ 3	≥ 2							
85-100%	> 4	≥ 3	≥ 2	≥ 1							

TABLE 4
(continued)

Generalized **Peak Hour Two-Way** Volumes for Florida's
Urbanized Areas

January 2020

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities				Interrupted Flow Facilities					
				State Arterials			Class I			
	Freeways	Core Freeways	Highways	Class I	Class II	Bicycle	Pedestrian			
ROADWAY CHARACTERISTICS										
Area type (urban, rural)	urban	urban								
Number of through lanes (both dir.)	4-10	4-12	2	4-6	2	4-8	2	4-8	4	4
Posted speed (mph)	70	65	50	50	45	50	30	30	45	45
Free flow speed (mph)	75	70	55	55	50	55	35	35	50	50
Auxiliary Lanes (n,y)	n	n								
Median (d, twlt, n, nr, r)				d	n	r	n	r	r	r
Terrain (l,r)	l	l	l	l	l	l	l	l	l	l
% no passing zone			80							
Exclusive left turn lane impact (n, y)			[n]	y	y	y	y	y	y	y
Exclusive right turn lanes (n, y)					n	n	n	n	n	n
Facility length (mi)	3	3	5	5	2	2	1.9	1.8	2	2
TRAFFIC CHARACTERISTICS										
Planning analysis hour factor (K)	0.090	0.085	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090
Directional distribution factor (D)	0.55	0.55	0.55	0.55	0.550	0.560	0.565	0.560	0.565	0.565
Peak hour factor (PHF)	0.95	0.95	0.95	0.95	1.000	1.000	1.000	1.000	1.000	1.000
Base saturation flow rate (pcphpl)	2,400	2,400	1,700	2,200	1,950	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	4.0	4.0	2.0	2.0	1.0	1.0	1.0	1.0	2.5	2.0
Speed Adjustment Factor (SAF)	0.975	0.975		0.975						
Capacity Adjustment Factor (CAF)	0.968	0.968		0.968						
% left turns					12	12	12	12	12	12
% right turns					12	12	12	12	12	12
CONTROL CHARACTERISTICS										
Number of signals					4	4	10	10	4	6
Arrival type (1-6)					3	3	4	4	4	4
Signal type (a, c, p)					c	c	c	c	c	c
Cycle length (C)					120	150	120	120	120	120
Effective green ratio (g/C)					0.44	0.45	0.44	0.44	0.44	0.44
MULTIMODAL CHARACTERISTICS										
Paved shoulder/bicycle lane (n, y)									n, 50%, y	n
Outside lane width (n, t, w)									t	t
Pavement condition (d, t, u)									t	
On-street parking (n, y)										
Sidewalk (n, y)										n, 50%, y
Sidewalk/roadway separation(a, t, w)										t
Sidewalk protective barrier (n, y)										n
LEVEL OF SERVICE THRESHOLDS										
Level of Service	Freeways	Highways		Arterials		Bicycle	Ped	Bus		
	Density	Two-Lane	Multilane	Class I	Class II	Score	Score	Buses/hr.		
		%ffs	Density						ats	ats
B	≤ 17	> 83.3	≤ 17	> 31 mph	> 22 mph	≤ 2.75	≤ 2.75	≤ 6		
C	≤ 24	> 75.0	≤ 24	> 23 mph	> 17 mph	≤ 3.50	≤ 3.50	≤ 4		
D	≤ 31	> 66.7	≤ 31	> 18 mph	> 13 mph	≤ 4.25	≤ 4.25	< 3		
E	≤ 39	> 58.3	≤ 35	> 15 mph	> 10 mph	≤ 5.00	≤ 5.00	< 2		

% ffs = Percent free flow speed ats = Average travel speed

TABLE 5

Generalized **Peak Hour Two-Way** Volumes for Florida's
 Transitioning Areas and
 Areas Over 5,000 Not In Urbanized Areas¹

January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES						
STATE SIGNALIZED ARTERIALS						FREEWAYS						
Class I (40 mph or higher posted speed limit)						Lanes	B	C	D	E		
Lanes	Median	B	C	D	E	4	4,420	5,780	6,890	7,110		
2	Undivided	*	1,300	1,460	**	6	6,400	8,490	10,200	10,670		
4	Divided	*	3,060	3,200	**	8	8,420	11,220	13,530	14,240		
6	Divided	*	4,690	4,820	**	10	9,960	13,290	15,870	17,820		
Class II (35 mph or slower posted speed limit)						Freeway Adjustments						
Lanes	Median	B	C	D	E	Auxiliary Lanes			Ramp			
2	Undivided	*	580	1,200	1,280	Present in Both Directions			Metering			
4	Divided	*	890	2,590	2,850	+ 1,800			+ 5%			
6	Divided	*	1,440	4,040	4,280							
Non-State Signalized Roadway Adjustments (Alter corresponding state volumes by the indicated percent.)												
Non-State Signalized Roadways - 10%												
Median & Turn Lane Adjustments												
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors								
2	Divided	Yes	No	+5%								
2	Undivided	No	No	-20%								
Multi	Undivided	Yes	No	-5%								
Multi	Undivided	No	No	-25%								
-	-	-	Yes	+ 5%								
One-Way Facility Adjustment Multiply the corresponding two-directional volumes in this table by 0.6												
BICYCLE MODE² (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)												
Paved Shoulder/Bicycle Lane Coverage						B	C	D	E			
0-49%						*	140	550	1,760			
50-84%						170	500	1,650	>1,760			
85-100%						670	1,760	>1,760	**			
PEDESTRIAN MODE² (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)												
Sidewalk Coverage						B	C	D	E			
0-49%						*	*	250	850			
50-84%						*	150	780	1,410			
85-100%						340	950	1,540	>1,760			
BUS MODE (Scheduled Fixed Route)³ (Buses in peak hour in peak direction)												
Sidewalk Coverage						B	C	D	E			
0-84%						> 5	≥ 4	≥ 3	≥ 2			
85-100%						> 4	≥ 3	≥ 2	≥ 1			
						UNINTERRUPTED FLOW HIGHWAYS						
						Lanes	Median	B	C	D	E	
						2	Undivided	1,020	1,560	2,110	2,840	
						4	Divided	3,110	4,490	5,670	6,450	
						6	Divided	4,650	6,730	8,510	9,670	
						Uninterrupted Flow Highway Adjustments						
						Lanes	Median	Exclusive left lanes	Adjustment factors			
						2	Divided	Yes	+5%			
						Multi	Undivided	Yes	-5%			
						Multi	Undivided	No	-25%			
						¹ Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.						
						² Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.						
						³ Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.						
						* Cannot be achieved using table input value defaults.						
						** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.						
						Source: Florida Department of Transportation Systems Implementation Office https://www.fdot.gov/planning/systems/						

TABLE 5
(continued)

Generalized **Peak Hour Two-Way** Volumes for Florida's
Transitioning Areas and
Areas Over 5,000 Not In Urbanized Areas

January 2020

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities			Interrupted Flow Facilities					
	Freeways	Highways		State Arterials		Class I			
				Class I	Class II	Bicycle	Pedestrian		
ROADWAY CHARACTERISTICS									
Area type (urban, rural)	urban								
Number of through lanes (both dir.)	4-10	2	4-6	2	4-6	2	4-6	4	4
Posted speed (mph)	70	50	50	45	50	30	30	45	45
Free flow speed (mph)	75	55	55	50	55	35	35	50	50
Auxiliary lanes (n,y)	n								
Median (d, n, nr, r)			d	n	y	n	y	r	r
Terrain (l,r)	l	l	l	l	l	l	l	l	l
% no passing zone		60							
Exclusive left turn lane impact (n, y)		[n]	y	y	y	y	y	y	y
Exclusive right turn lanes (n, y)				n	n	n	n	n	n
Facility length (mi)	6	5	5	1.8	2	2	2	2	2
TRAFFIC CHARACTERISTICS									
Planning analysis hour factor (K)	0.098	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090
Directional distribution factor (D)	0.55	0.55	0.55	0.550	0.570	0.570	0.565	0.570	0.570
Peak hour factor (PHF)	0.92	0.92	0.92	1.000	1.000	1.000	1.000	1.000	1.000
Base saturation flow rate (pcphpl)	2,400	1,700	2,200	1,950	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	9.0	4.0	4.0	2.0	3.0	2.0	3.0	3.0	3.0
Speed Adjustment Factor (SAF)	0.975		0.975						
Capacity Adjustment Factor (CAF)	0.968		0.968						
% left turns				12	12	12	12	12	12
% right turns				12	12	12	12	12	12
CONTROL CHARACTERISTICS									
Number of signals				5	4	10	10	4	6
Arrival type (1-6)				4	3	4	4	4	4
Signal type (a, c, p)				c	c	c	c	c	c
Cycle length (C)				120	150	120	150	120	120
Effective green ratio (g/C)				0.44	0.45	0.44	0.45	0.44	0.44
MULTIMODAL CHARACTERISTICS									
Paved shoulder/bicycle lane (n, y)								n, 50%, y	n
Outside lane width (n, t, w)								t	t
Pavement condition (d, t, u)								t	
On-street parking (n, y)								n	n
Sidewalk (n, y)									n, 50%, y
Sidewalk/roadway separation (a, t, w)									t
Sidewalk protective barrier (n, y)									n
LEVEL OF SERVICE THRESHOLDS									
Level of Service	Freeways	Highways		Arterials		Bicycle	Ped	Bus	
	Density	Two-Lane %ffs	Multilane Density	Class I ats	Class II ats	Score	Score	Buses/hr.	
B	≤ 17	> 83.3	≤ 17	> 31 mph	> 22 mph	≤ 2.75	≤ 2.75	≤ 6	
C	≤ 24	> 75.0	≤ 24	> 23 mph	> 17 mph	≤ 3.50	≤ 3.50	≤ 4	
D	≤ 31	> 66.7	≤ 31	> 18 mph	> 13 mph	≤ 4.25	≤ 4.25	< 3	
E	≤ 39	> 58.3	≤ 35	> 15 mph	> 10 mph	≤ 5.00	≤ 5.00	< 2	

% ffs = Percent free flow speed ats = Average travel speed

TABLE 6

Generalized **Peak Hour Two-Way** Volumes for Florida's
Rural Undeveloped Areas and
Developed Areas Less Than 5,000 Population¹

January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
STATE SIGNALIZED ARTERIALS						FREEWAYS					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	1,220	1,350	**	4	3,650	5,040	5,950	6,640	
4	Divided	*	2,790	2,890	**	6	5,130	7,250	8,670	9,950	
6	Divided	*	4,300	4,350	**	8	6,600	9,490	11,380	13,270	
Non-State Signalized Roadway Adjustments (Alter corresponding state volumes by the indicated percent.) Non-State Signalized Roadways - 10%						Freeway Adjustments Auxiliary Lanes Present in Both Directions + 1,800					
Median & Turn Lane Adjustments						UNINTERRUPTED FLOW HIGHWAYS					
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		Rural Undeveloped					
2	Divided	Yes	No	+5%		Lanes	Median	B	C	D	E
2	Undivided	No	No	-20%		2	Undivided	440	820	1,330	2,710
Multi	Undivided	Yes	No	-5%		4	Divided	2,960	4,270	5,290	5,960
Multi	Undivided	No	No	-25%		6	Divided	4,450	6,420	7,930	8,950
-	-	-	Yes	+5%		Developed Areas					
One-Way Facility Adjustment Multiply the corresponding two-directional volumes in this table by 0.6						Lanes	Median	B	C	D	E
						2	Undivided	980	1,490	2,020	2,710
						4	Divided	2,780	4,020	5,130	5,850
						6	Divided	4,180	6,040	7,710	8,780
BICYCLE MODE² (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)						Passing Lane Adjustments Alter LOS B-D volumes in proportion to the passing lane length to the highway segment length					
Rural Undeveloped						Uninterrupted Flow Highway Adjustments					
Paved Shoulder/Bicycle Lane Coverage						Lanes	Median	Exclusive left lanes	Adjustment factors		
						2	Divided	Yes	+5%		
						Multi	Undivided	Yes	-5%		
						Multi	Undivided	No	-25%		
						¹ Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.					
						² Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.					
						* Cannot be achieved using table input value defaults.					
						** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.					
						Source: Florida Department of Transportation Systems Implementation Office https://www.fdot.gov/planning/systems/					
Developed Areas						PEDESTRIAN MODE² (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)					
Paved Shoulder/Bicycle Lane Coverage						B	C	D	E		
						*	220	460	1,480		
						170	430	1,270	>1,760		
						560	1,760	>1,760	**		
						B	C	D	E		
						*	*	220	840		
						*	120	780	1,390		
						320	940	1,560	>1,820		

TABLE 6
(continued)

**Generalized Peak Hour Two-Way Volumes for Florida's
Rural Undeveloped Areas and
Developed Areas Less Than 5,000 Population**

January 2020

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities					Interrupted Flow Facilities				
	Freeways	Highways				Arterials	Bicycle	Pedestrian		
		Undeveloped	Developed	Undeveloped	Developed					
ROADWAY CHARACTERISTICS										
Area type (urban, rural)	rural									
Number of through lanes (both dir.)	4-8	2	4-6	2	4-6	2	4-6	4	4	2
Posted speed (mph)	70	55	55	50	50	45	45	55	45	45
Free flow speed (mph)	75	60	60	55	55	50	50	60	50	50
Auxiliary lanes (n,y)	n									
Median (d, n, nr, r)			d		d	n	r	r	r	n
Terrain (l,r)	l	l	l	l	l	l	l	l	l	l
% no passing zone		20		60						
Exclusive left turn lanes (n, y)		[n]	y	[n]	y	y	y	y	y	y
Exclusive right turn lanes (n, y)						n	n	n	n	n
Facility length (mi)	18	10	10	5	5	1.9	2.2	4	2	2
TRAFFIC CHARACTERISTICS										
Planning analysis hour factor (K)	0.105	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095
Directional distribution factor (D)	0.55	0.55	0.55	0.55	0.55	0.550	0.550	0.570	0.570	0.550
Peak hour factor (PHF)	0.88	0.88	0.88	0.88	0.88	1.000	1.000	1.000	1.000	1.000
Base saturation flow rate (pcphpl)	2,400	1,700	2,200	1,700	2,200	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	12.0	5.0	12.0	5.0	8.0	3.0	3.0	6.0	3.5	3.0
Speed Adjustment Factor (SAF)	0.975		0.975		0.975					
Capacity Adjustment Factor (CAF)	0.968		0.968		0.968					
% left turns						12	12		12	12
% right turns						12	12		12	12
CONTROL CHARACTERISTICS										
Number of signals						5	6	2	4	4
Arrival type (1-6)						3	3	3	3	3
Signal type (a, c, p)						c	c	a	a	a
Cycle length (C)						90	90	60	90	90
Effective green ratio (g/C)						0.44	0.44	0.37	0.44	0.44
MULTIMODAL CHARACTERISTICS										
Paved shoulder/bicycle lane (n, y)								n,50%,y	n,50%,y	n
Outside lane width (n, t, w)								t	t	t
Pavement condition (d, t, u)								t	t	
Sidewalk (n, y)										n,50%,y
Sidewalk/roadway separation(a, t,w)										t
Sidewalk protective barrier (n, y)										n
LEVEL OF SERVICE THRESHOLDS										
Level of Service	Freeways	Highways								
		Two-Lane ru		Two-Lane rd	Multilane ru	Multilane rd				
		Density	%tsf	ats	%ffs	Density	Density			
B	≤ 14	≤ 50	≤ 55	> 83.3	≤ 14	≤ 14				
C	≤ 22	≤ 65	≤ 50	> 75.0	≤ 22	≤ 22				
D	≤ 29	≤ 80	≤ 45	> 66.7	≤ 29	≤ 29				
E	≤ 36	> 80	≤ 40	> 58.3	≤ 34	≤ 34				
Level of Service	Arterials		Bicycle		Pedestrian					
	Major City/Co.(ats)		Score		Score					
	B	> 31 mph	≤ 2.75		≤ 2.75					
C	> 23 mph	≤ 3.50		≤ 3.50						
D	> 18 mph	≤ 4.25		≤ 4.25						
E	> 15 mph	≤ 5.00		≤ 5.00						

%tsf = Percent time spent following %ffs = Percent of free flow speed ats = Average travel speed ru = Rural undeveloped rd = Rural developed

Attachment D

Internal Capture Worksheets

Attachment D1

Phase 01 Year 2026 Development
Internal Capture Worksheets

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	301 Villages	Organization:	Chindalur Traffic Solutions
Project Location:	Duval County, FL	Performed By:	Rajesh Chindalur
Scenario Description:	Phase 01	Date:	8/15/2021
Analysis Year:	2022 - 2026	Checked By:	
Analysis Period:	AM Street Peak Hour	Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	710 & 720	150,000	SF	237	194	43
Retail	820	150,000	SF	227	141	86
Restaurant				0		
Cinema/Entertainment				0		
Residential	210 & 220	3,500	Dwelling Units	2,205	543	1,662
Hotel	210	120	Rooms	55	32	23
All Other Land Uses ²	110	150,000	SF	60	53	7
				2,784	963	1,821

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		12	0	0	0	0
Retail	8		0	0	11	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	6	17	0	0		0
Hotel	6	3	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	2,784	963	1,821
Internal Capture Percentage	5%	7%	3%
External Vehicle-Trips ⁵	2,658	900	1,758
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	10%	28%
Retail	23%	22%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	2%	1%
Hotel	0%	39%

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	301 Villages
Analysis Period:	AM Street Peak Hour

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	194	194	1.00	43	43
Retail	1.00	141	141	1.00	86	86
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	543	543	1.00	1662	1662
Hotel	1.00	32	32	1.00	23	23

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		12	27	0	0	0
Retail	25		11	0	12	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	33	17	332	0		0
Hotel	17	3	2	0	0	

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		45	0	0	0	0
Retail	8		0	0	11	0
Restaurant	27	11		0	27	1
Cinema/Entertainment	0	0	0		0	0
Residential	6	24	0	0		0
Hotel	6	6	0	0	0	

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	20	174	194	174	0	0
Retail	32	109	141	109	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	11	532	543	532	0	0
Hotel	0	32	32	32	0	0
All Other Land Uses ³	0	53	53	53	0	0

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	12	31	43	31	0	0
Retail	19	67	86	67	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	23	1639	1662	1639	0	0
Hotel	9	14	23	14	0	0
All Other Land Uses ³	0	7	7	7	0	0

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A
²Person-Trips
³Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	301 Villages	Organization:	Chindalur Traffic Solutions
Project Location:	Duval County, FL	Performed By:	Rajesh Chindalur
Scenario Description:	Phase 01	Date:	8/15/2021
Analysis Year:	2022 - 2026	Checked By:	
Analysis Period:	PM Street Peak Hour	Date:	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	710 & 720	150,000	SF	287	66	221
Retail	820	150,000	SF	734	352	382
Restaurant				0		
Cinema/Entertainment				0		
Residential	210 & 220	3,500	Dwelling Units	2,691	1,696	995
Hotel	210	120	Rooms	64	33	31
All Other Land Uses ²	110	150,000	SF	49	6	43
				3,825	2,153	1,672

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		28	0	0	4	0
Retail	8		0	0	99	6
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	38	35	0	0		4
Hotel	0	5	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	3,825	2,153	1,672
Internal Capture Percentage	12%	11%	14%
External Vehicle-Trips ⁵	3,371	1,926	1,445
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	70%	14%
Retail	19%	30%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	6%	8%
Hotel	30%	16%

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	301 Villages
Analysis Period:	PM Street Peak Hour

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	66	66	1.00	221	221
Retail	1.00	352	352	1.00	382	382
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	1696	1696	1.00	995	995
Hotel	1.00	33	33	1.00	31	31

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		44	9	0	4	0
Retail	8		111	15	99	19
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	40	418	209	0		30
Hotel	0	5	21	0	1	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		28	0	0	68	0
Retail	20		0	0	780	6
Restaurant	20	176		0	271	23
Cinema/Entertainment	4	14	0		68	0
Residential	38	35	0	0		4
Hotel	0	7	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	46	20	66	20	0	0
Retail	68	284	352	284	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	103	1593	1696	1593	0	0
Hotel	10	23	33	23	0	0
All Other Land Uses ³	0	6	6	6	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	32	189	221	189	0	0
Retail	113	269	382	269	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	77	918	995	918	0	0
Hotel	5	26	31	26	0	0
All Other Land Uses ³	0	43	43	43	0	0

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

²Person-Trips

³Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

Attachment D2

Phase 02 Year 2031 Development
Internal Capture Worksheets

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	301 Villages	Organization:	Chindalur Traffic Solutions
Project Location:	Duval County, FL	Performed By:	Rajesh Chindalur
Scenario Description:	Phase 01	Date:	8/15/2021
Analysis Year:	2022 - 2026	Checked By:	
Analysis Period:	AM Street Peak Hour	Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	B10, 710 & 720	400,000	SF	590	455	135
Retail	820	475,000	SF	389	241	148
Restaurant				0		
Cinema/Entertainment				0		
Residential	210 & 220	10,450	Dwelling Units	6,761	1,673	5,088
Hotel	210	340	Rooms	165	97	68
All Other Land Uses ²	110	300,000	SF	101	89	12
				8,006	2,555	5,451

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		38	0	0	0	0
Retail	18		0	0	21	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	14	41	0	0		0
Hotel	14	10	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	8,006	2,555	5,451
Internal Capture Percentage	4%	6%	3%
External Vehicle-Trips ⁵	7,694	2,399	5,295
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	10%	28%
Retail	37%	26%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	1%	1%
Hotel	0%	35%

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	301 Villages
Analysis Period:	AM Street Peak Hour

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	455	455	1.00	135	135
Retail	1.00	241	241	1.00	148	148
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	1673	1673	1.00	5088	5088
Hotel	1.00	97	97	1.00	68	68

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		38	85	0	1	0
Retail	43		19	0	21	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	102	51	1018	0		0
Hotel	51	10	6	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		77	0	0	0	0
Retail	18		0	0	33	0
Restaurant	64	19		0	84	4
Cinema/Entertainment	0	0	0		0	0
Residential	14	41	0	0		0
Hotel	14	10	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	46	409	455	409	0	0
Retail	89	152	241	152	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	21	1652	1673	1652	0	0
Hotel	0	97	97	97	0	0
All Other Land Uses ³	0	89	89	89	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	38	97	135	97	0	0
Retail	39	109	148	109	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	55	5033	5088	5033	0	0
Hotel	24	44	68	44	0	0
All Other Land Uses ³	0	12	12	12	0	0

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A
²Person-Trips
³Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	301 Villages	Organization:	Chindalur Traffic Solutions
Project Location:	Duval County, FL	Performed By:	Rajesh Chindalur
Scenario Description:	Phase 01	Date:	8/15/2021
Analysis Year:	2022 - 2026	Checked By:	
Analysis Period:	PM Street Peak Hour	Date:	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	510, 710 & 720	400,000	SF	629	158	471
Retail	820	475,000	SF	1,721	826	895
Restaurant				0		
Cinema/Entertainment				0		
Residential	210 & 220	10,450	Dwelling Units	7,950	5,009	2,941
Hotel	210	340	Rooms	229	117	112
All Other Land Uses ²	110	300,000	SF	79	10	69
				10,608	6,120	4,488

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		66	0	0	9	0
Retail	18		0	0	233	20
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	90	83	0	0		14
Hotel	0	17	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	10,608	6,120	4,488
Internal Capture Percentage	10%	9%	12%
External Vehicle-Trips ⁵	9,508	5,570	3,938
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	68%	16%
Retail	20%	30%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	5%	6%
Hotel	29%	15%

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Project Name:	301 Villages
Analysis Period:	PM Street Peak Hour

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	158	158	1.00	471	471
Retail	1.00	826	826	1.00	895	895
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	5009	5009	1.00	2941	2941
Hotel	1.00	117	117	1.00	112	112

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		94	19	0	9	0
Retail	18		260	36	233	45
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	118	1235	618	0		88
Hotel	0	18	76	0	2	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		66	0	0	200	0
Retail	49		0	0	2304	20
Restaurant	47	413		0	801	83
Cinema/Entertainment	9	33	0		200	1
Residential	90	83	0	0		14
Hotel	0	17	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	108	50	158	50	0	0
Retail	166	660	826	660	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	242	4767	5009	4767	0	0
Hotel	34	83	117	83	0	0
All Other Land Uses ³	0	10	10	10	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	75	396	471	396	0	0
Retail	271	624	895	624	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	187	2754	2941	2754	0	0
Hotel	17	95	112	95	0	0
All Other Land Uses ³	0	69	69	69	0	0

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

²Person-Trips

³Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

Attachment D3

Phase 03 Year 2037 Development
Internal Capture Worksheets

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	301 Villages	Organization:	Chindalur Traffic Solutions
Project Location:	Duval County, FL	Performed By:	Rajesh Chindalur
Scenario Description:	Phase 01	Date:	8/15/2021
Analysis Year:	2022 - 2026	Checked By:	
Analysis Period:	AM Street Peak Hour	Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	310, 710 & 720	675,000	SF	901	697	204
Retail	820	750,000	SF	527	327	200
Restaurant				0		
Cinema/Entertainment				0		
Residential	210 & 220	15,000	Dwelling Units	9,484	2,341	7,143
Hotel	210	340	Rooms	165	97	68
All Other Land Uses ²	110	300,000	SF	101	89	12
				11,178	3,551	7,627

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		57	0	0	0	0
Retail	28		0	0	28	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	21	56	0	0		0
Hotel	21	10	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	11,178	3,551	7,627
Internal Capture Percentage	4%	6%	3%
External Vehicle-Trips ⁵	10,736	3,330	7,406
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	10%	28%
Retail	38%	28%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	1%	1%
Hotel	0%	46%

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	301 Villages
Analysis Period:	AM Street Peak Hour

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	697	697	1.00	204	204
Retail	1.00	327	327	1.00	200	200
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	2341	2341	1.00	7143	7143
Hotel	1.00	97	97	1.00	68	68

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		57	129	0	2	0
Retail	58		26	0	28	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	143	71	1429	0		0
Hotel	51	10	6	0	0	

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		105	0	0	0	0
Retail	28		0	0	47	0
Restaurant	98	26		0	117	4
Cinema/Entertainment	0	0	0		0	0
Residential	21	56	0	0		0
Hotel	21	13	0	0	0	

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	70	627	697	627	0	0
Retail	123	204	327	204	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	28	2313	2341	2313	0	0
Hotel	0	97	97	97	0	0
All Other Land Uses ³	0	89	89	89	0	0

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	57	147	204	147	0	0
Retail	56	144	200	144	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	77	7066	7143	7066	0	0
Hotel	31	37	68	37	0	0
All Other Land Uses ³	0	12	12	12	0	0

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A
²Person-Trips
³Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	301 Villages	Organization:	Chindalur Traffic Solutions
Project Location:	Duval County, FL	Performed By:	Rajesh Chindalur
Scenario Description:	Phase 01	Date:	8/15/2021
Analysis Year:	2022 - 2026	Checked By:	
Analysis Period:	PM Street Peak Hour	Date:	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	510, 710 & 720	675,000	SF	1,018	256	762
Retail	820	750,000	SF	2,414	1,159	1,255
Restaurant				0		
Cinema/Entertainment				0		
Residential	210 & 220	15,000	Dwelling Units	10,949	6,898	4,051
Hotel	210	340	Rooms	229	117	112
All Other Land Uses ²	110	300,000	SF	79	10	69
				14,689	8,440	6,249

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		93	0	0	15	0
Retail	25		0	0	326	20
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	146	116	0	0		14
Hotel	0	18	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	14,689	8,440	6,249
Internal Capture Percentage	11%	9%	12%
External Vehicle-Trips ⁵	13,143	7,667	5,476
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	67%	14%
Retail	20%	30%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	5%	7%
Hotel	29%	16%

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Project Name:	301 Villages
Analysis Period:	PM Street Peak Hour

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	256	256	1.00	762	762
Retail	1.00	1159	1159	1.00	1255	1255
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	6898	6898	1.00	4051	4051
Hotel	1.00	117	117	1.00	112	112

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		152	30	0	15	0
Retail	25		364	50	326	63
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	162	1701	851	0		122
Hotel	0	18	76	0	2	

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		93	0	0	276	0
Retail	79		0	0	3173	20
Restaurant	77	580		0	1104	83
Cinema/Entertainment	15	46	0		276	1
Residential	146	116	0	0		14
Hotel	0	23	0	0	0	

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	171	85	256	85	0	0
Retail	227	932	1159	932	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	341	6557	6898	6557	0	0
Hotel	34	83	117	83	0	0
All Other Land Uses ³	0	10	10	10	0	0

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	108	654	762	654	0	0
Retail	371	884	1255	884	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	276	3775	4051	3775	0	0
Hotel	18	94	112	94	0	0
All Other Land Uses ³	0	69	69	69	0	0

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P
²Person-Trips
³Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

Attachment E

Socio-Economic Data Variables

Tree Trails Trip Generation

Parcel	LUC	Size	Unit	ADT	Passby	AM		PM		NEW PM PHT		Total	
						Enter (%)	Exit (%)	Enter (%)	Exit (%)	Enter	Exit		Enter
A	210	48	SFDU	529	0%	529	25%	10	29	39	63%	19	50
B	820	180,000	SF	8,966	34%	5,918	38%	150	92	242	48%	402	839
C	820	30,000	SF	2,651	34%	1,750	38%	103	64	167	48%	107	223
D	210	744	SFDU	6,588	0%	6,588	75%	133	400	533	63%	439	698
E	210	804	SFDU	7,076	0%	7,076	75%	144	432	576	63%	473	751
F	820	20,000	SF	2,012	34%	1,328	38%	100	62	162	48%	79	165
G	210	222	SFDU	2,166	0%	2,166	75%	40	122	162	63%	137	218
H	210	1,850	SFDU	15,231	0%	15,231	75%	329	989	1,318	63%	1,053	1,672
I	210	1,097	SFDU	9,417	0%	9,417	75%	196	588	784	63%	638	1,013
J	210	78	SFDU	827	0%	827	75%	15	45	60	63%	30	80
K	210	7	SFDU	90	0%	90	75%	2	8	10	63%	3	8
				55,553		50,919		1,222	2,831	4,053		3,414	5,717
												3,214	2,086
													5,300

Source: City of Jacksonville, Planning Department

MEETING SUMMARY

The Trails PUD | SR 228 Corridor Study

December 7, 2020

2:00 PM – 2:31 PM

Attendees:	<p>COJ: Laurie Santana, Soliman Salem, John Kolczynski</p> <p>FDOT: Scott Clem, Brian Austin</p> <p>Benesch: Martha Moore</p> <p>Absent: Chris LeDew, Tom Cavin</p>
-------------------	---

DISCUSSION ITEMS:

1. Status of data collection and study

Martha Moore: The study limits are SR 228 from US 301 to SR 23. At the request of Scott Clem, we also included the intersection of SR 134 (103rd St) at POW-MIA Pkwy (fka New World Ave) and at SR 23.

The turning movement counts (TMCs) were conducted on September 23, 2020. Pre Covid volume counts (February 2020) on SR 228 were obtained from FDOT. These counts were in proximity to the proposed count locations in the scope and were used in lieu of new counts.

A TMC was taken at the SR 228 and Winding Mare Blvd intersection, which is the entrance to the Winchester Ridge subdivision. The directional distribution will be used to assign traffic from The Trails project; counts indicate that 85%-90% of trips will originate to the east.

Scott Clem stated that he is comfortable with the study area, which focuses on SR 228 and not US 301. He also stated that traffic from The Trails will head east to reach I-10 rather than west.

2. Covid adjustment for traffic counts

Martha Moore: The date of the TMCs is after the start of school and two days prior to the declaration by Governor Ron DeSantis of the beginning of the Phase 3 of the Reopening Plan on September 25, 2020. As per a prior discussion with Tom Cavin, FDOT is not requiring Covid adjustment in Phase 3. This means that the study counts are likely close to baseline. As a check for the validity of the count data, Benesch compared the peak hours and volumes from the pre-Covid FDOT SR 228 counts to the study counts.

- AM – The AM peak hours counted occurred 15-30 minutes later than the pre-Covid AM peaks. The Benesch counts were an average of 16% lower than the FDOT pre-Covid counts so all the AM counts will be adjusted up by 16%.
- PM – The Benesch SR 228 counts were an average of 7% higher than the FDOT pre-Covid counts. The PM peak hour was similar as well. No adjustment is proposed in the PM.

Laurie Santana: Summarize and discuss the methodology with Chris LeDew, since he is not in the meeting.

[UPDATE FROM MARTHA] Martha and Chris discussed the methodology on December 31, 2020. Chris is agreeable to it.

3. Socioeconomic data included in NERPM.

Soliman Salem confirmed that The Trails data is in the NERPM-AB.

4. Status of I-10/US 301 development (301 Capital Partners) FLUM

Soliman Salem confirmed that the Prosser plan (attached) is not in the NERPM-AB.

Scott Clem: Some level of development, maybe not all, for 301 Villages should be included in the socioeconomic data. How much is the decision of the City.

Laurie Santana will check with Bill Killingsworth and forward the information. Soliman has a tool to edit the DAYSIM files and will coordinate with Benesch on how to use it.

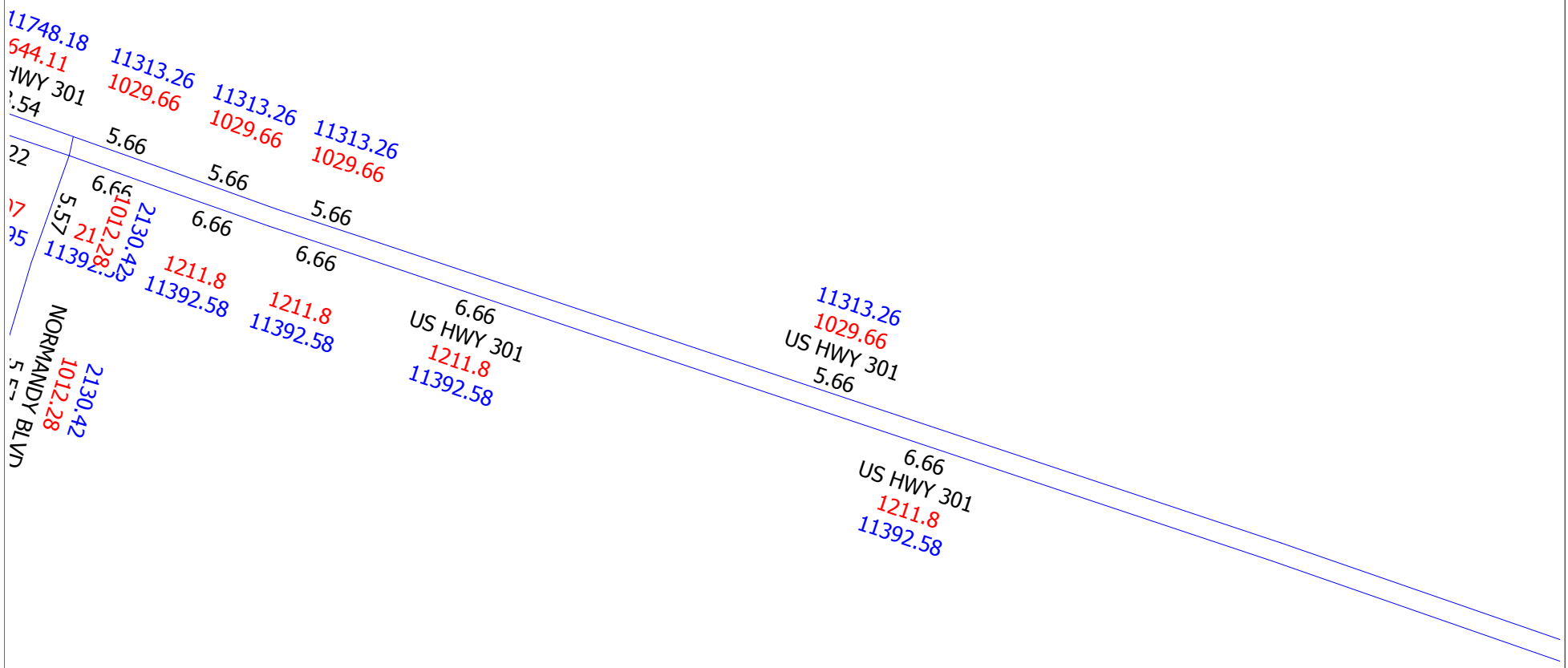
[UPDATE FROM LAURIE] Bill Killingsworth wants all the 301 Village development included. As per Scott Clem, the interchange with I-10 will not be added to the model.

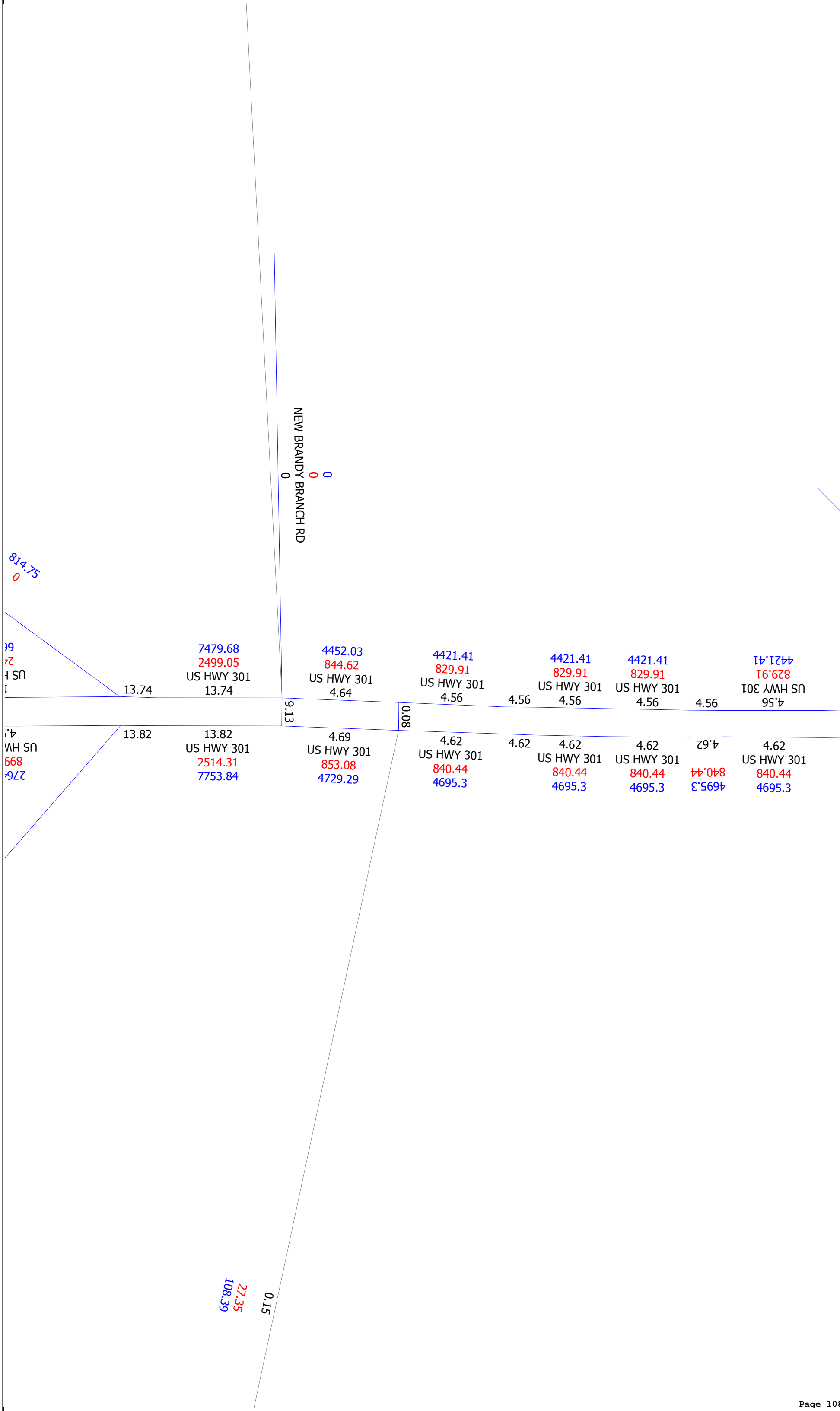
Attachment F

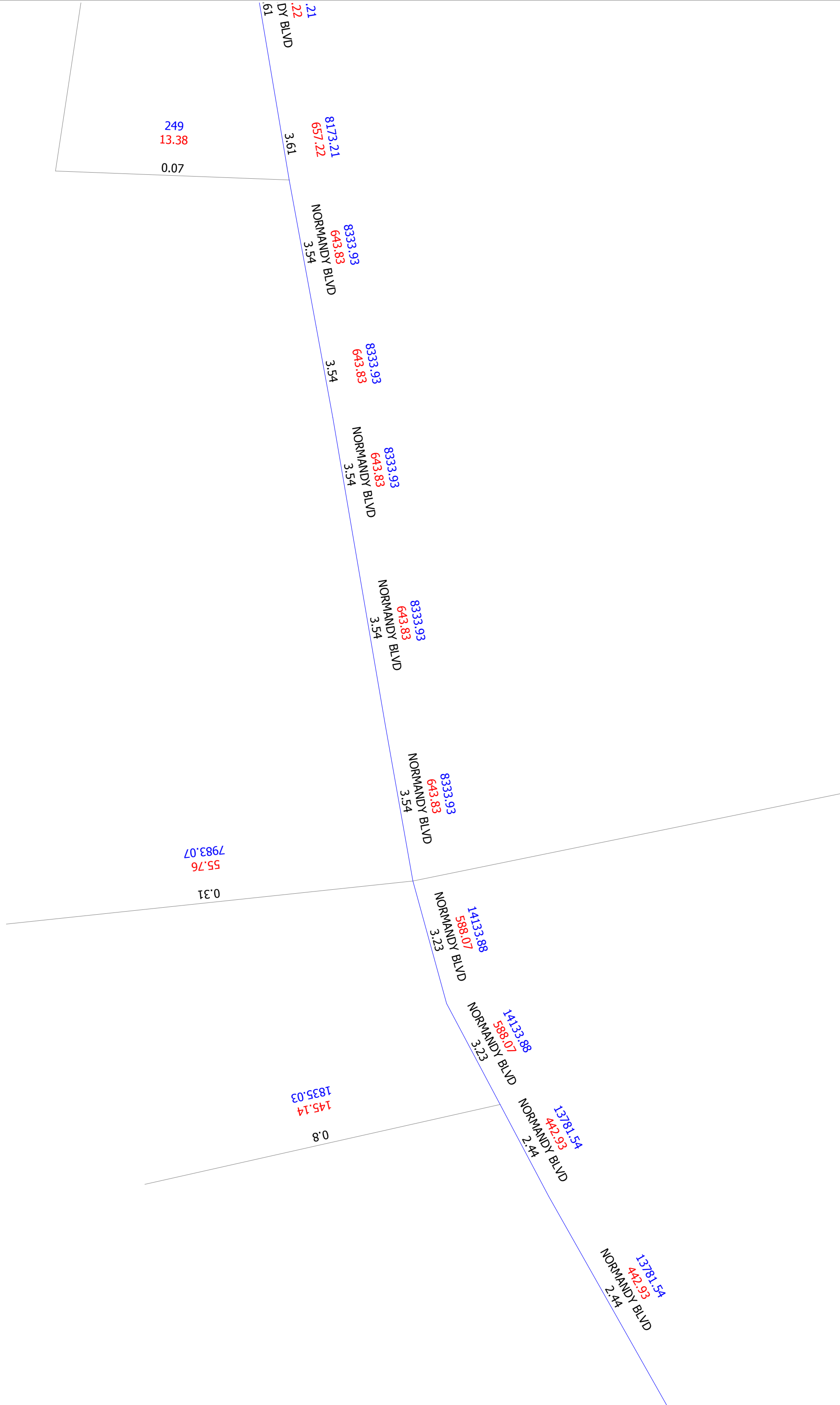
NERPM_Abv3 Travel Demand Model Plots

Attachment F1

Year 2025 NERPM_Abv3 Travel
Demand Model Plots







29.34
1-10
5335.49
35472.28

29691.81
3927.37
1-10
21.59

11100.59
1891.93
10.4

3.62
659.14
4804.15

29691.81
3927.37
1-10
21.59

11100.59
1891.93
10.4

3.62
659.14
4804.15

39923.44
4817.05
I-10
26.49

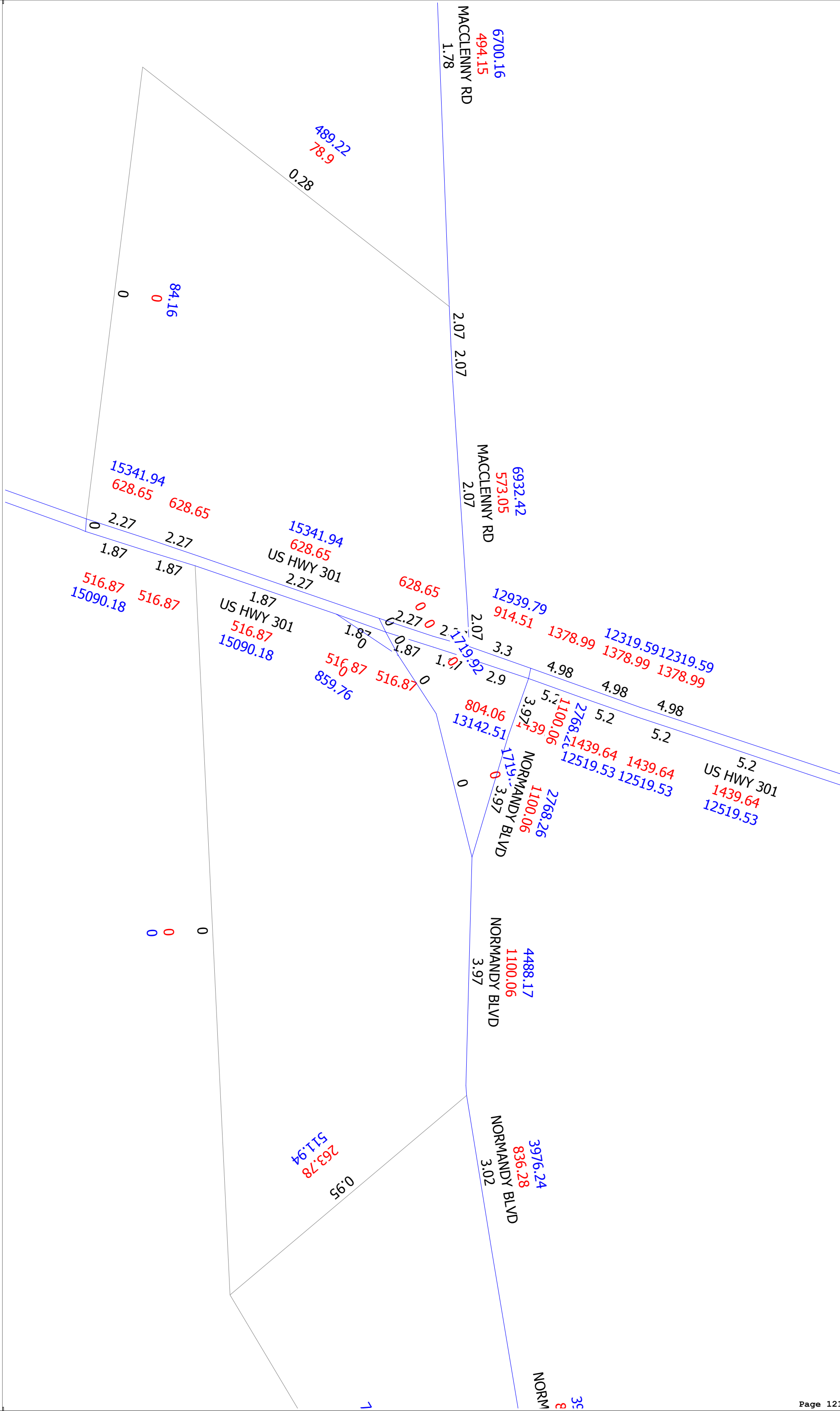
7913.36
551.63

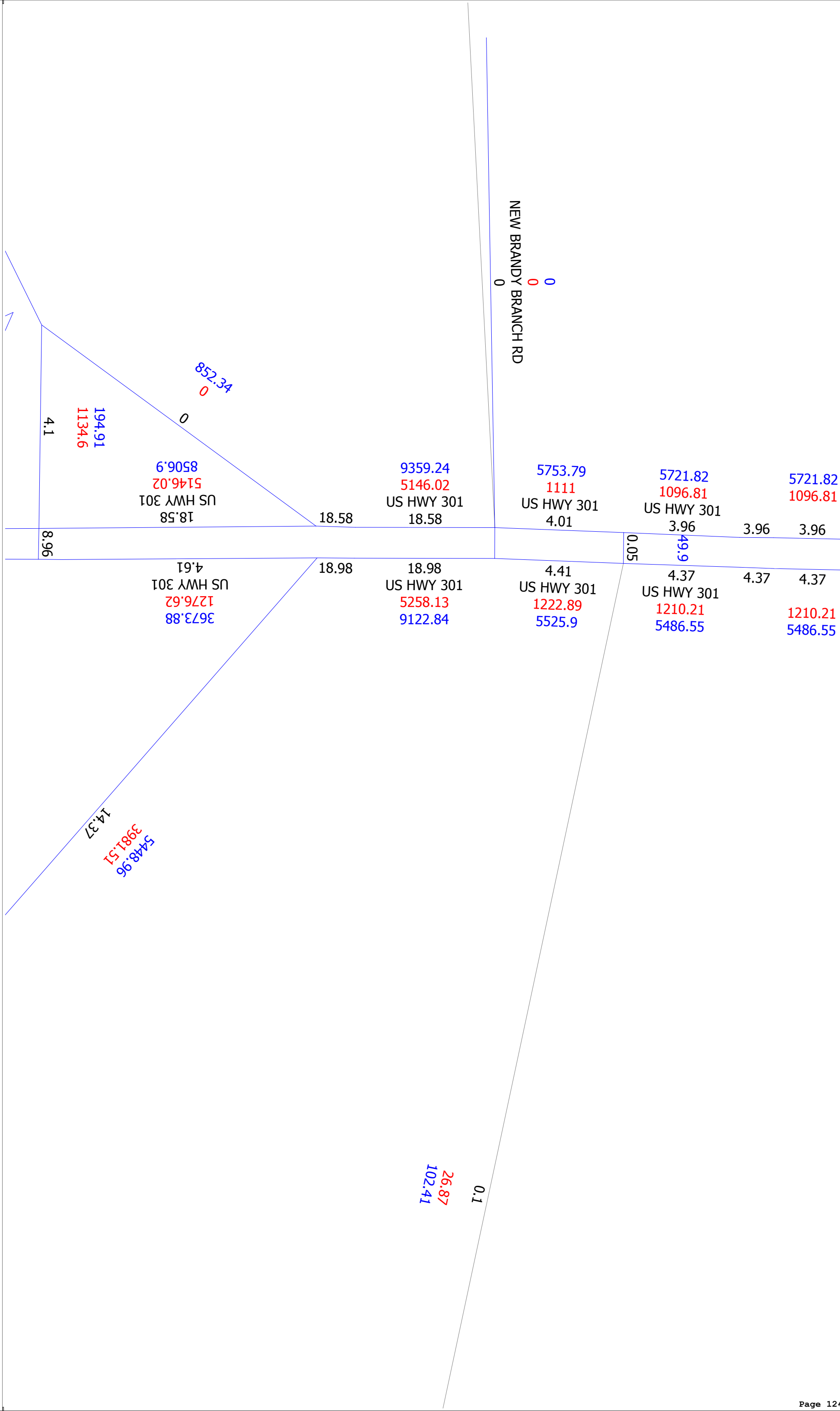
3.62
659.14
11564.84
26.14
I-10
4753.93
38257.7

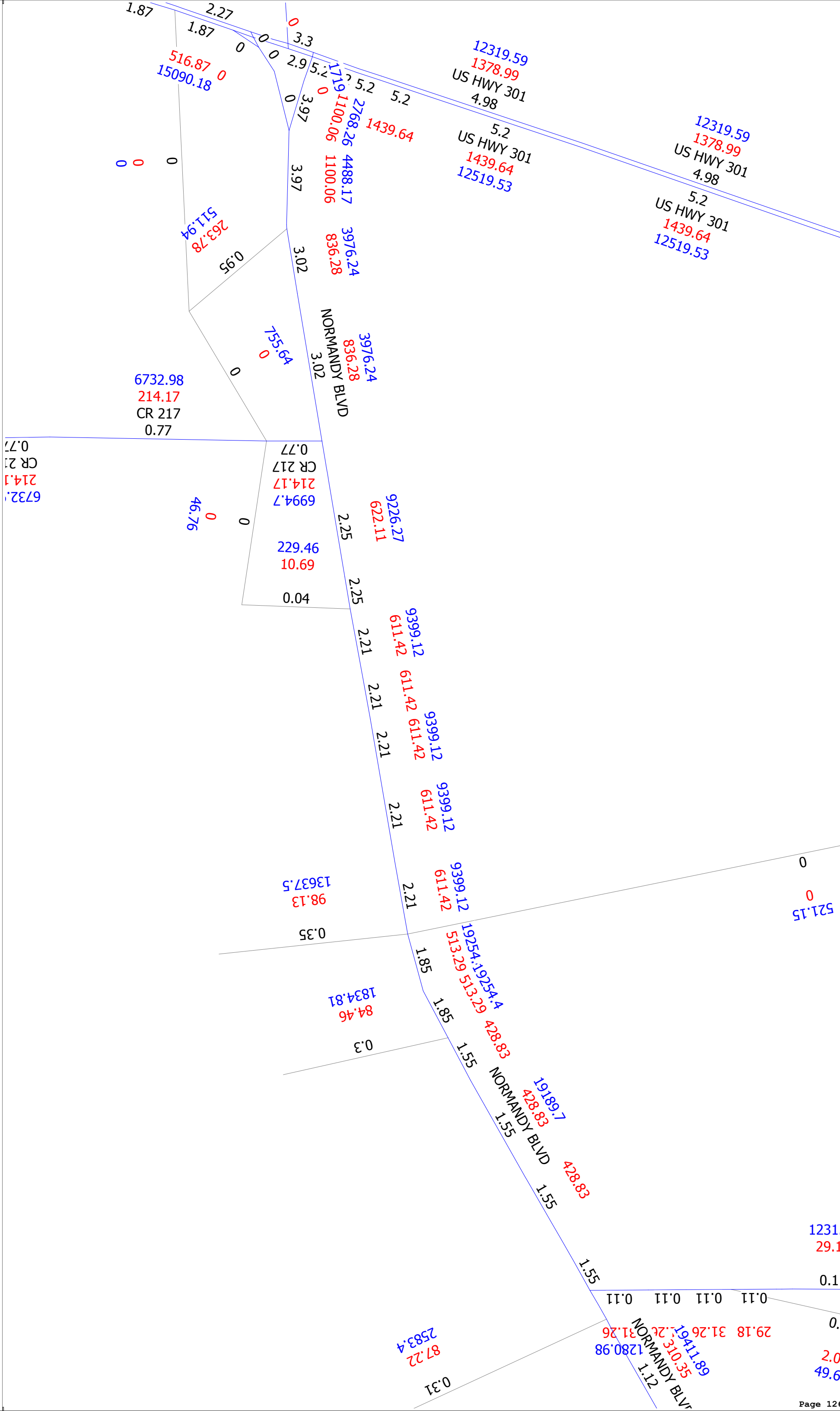
3.03

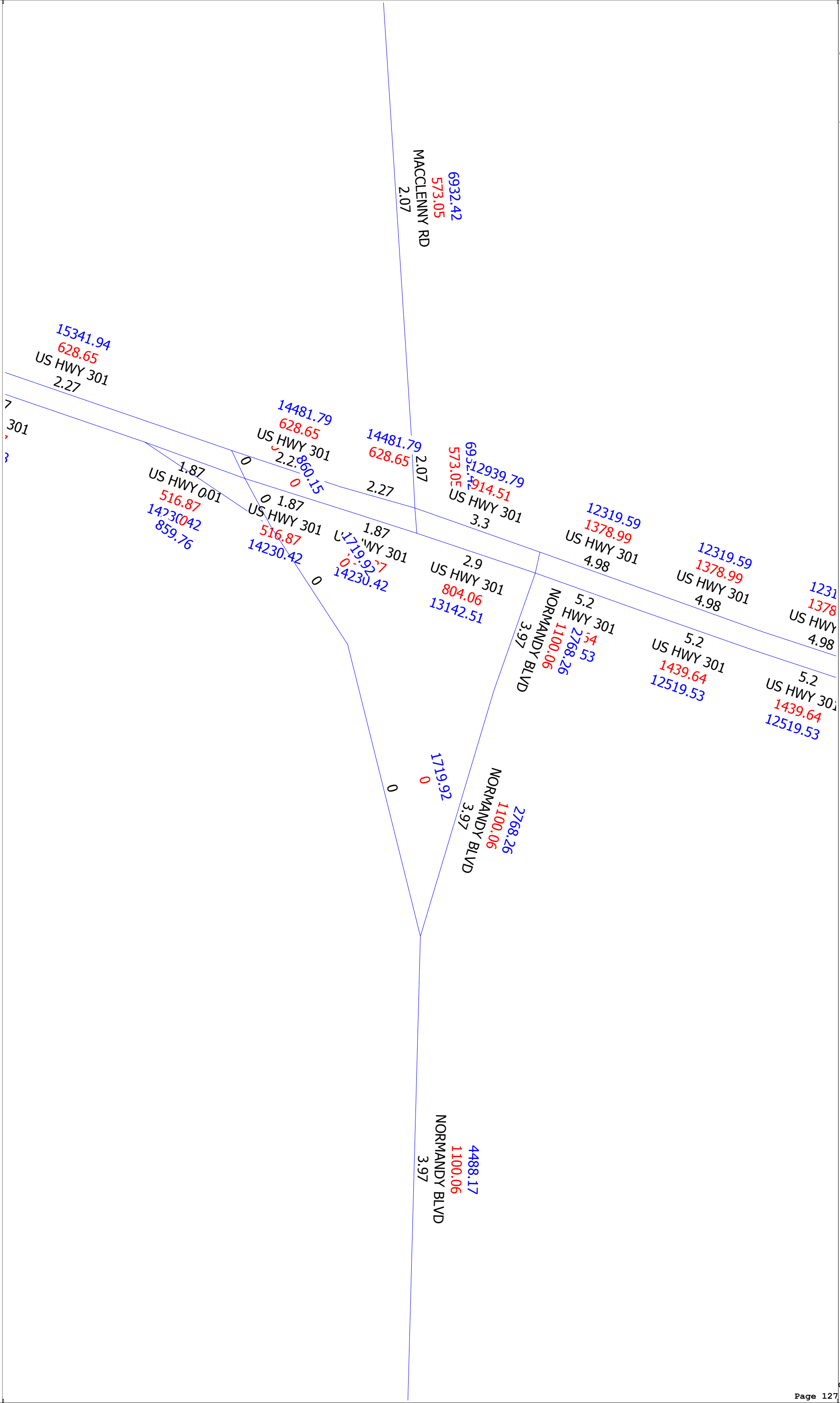
Attachment F2

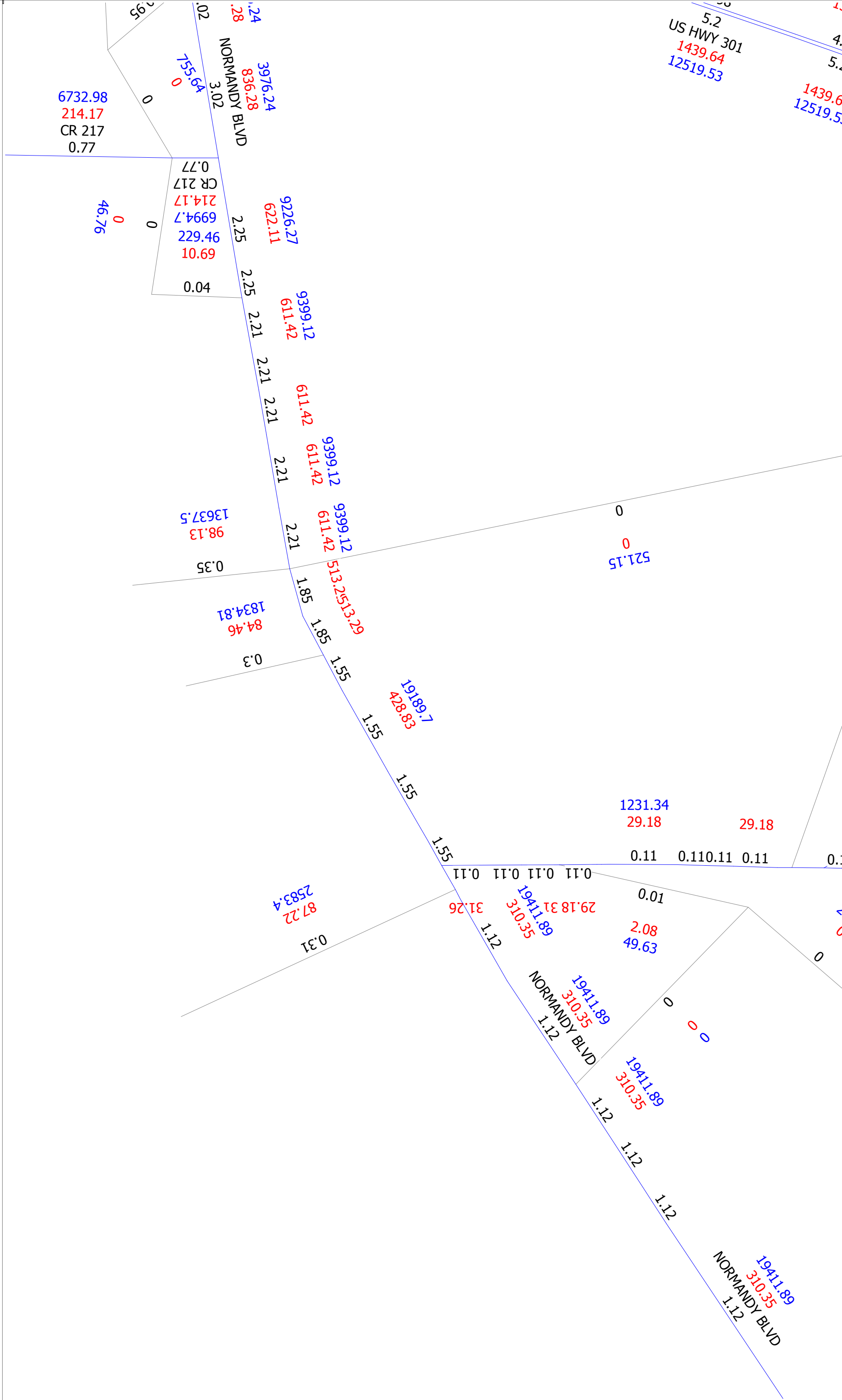
Year 2030 NERPM_Abv3 Travel
Demand Model Plots











9426.39	0	22796.9	1134.6
0	0	I-10	4.1
0	0	4.14	
0	0	I-10	
5680.79	0	1146.93	
		26013.24	

9426.39	0	22796.9	1134.6
0	0	I-10	4.1
0	0	4.14	
0	0	I-10	
5680.79	0	1146.93	
		26013.24	

29.54
I-10
8181.45
35699.53

29945.62
6337.52
1-10
22.88

12845.79
3423.59
12.36

5.61
1552.83
7017.95

41872.05
7798.56
I-10
28.15

9359.58
986.63

5.61
25.6
I-10
7092.25
1552.83
15127.99
38807.14

3.56

25
7.14

48005.2
6871.81
I-10
24.81

9359.58
986.63

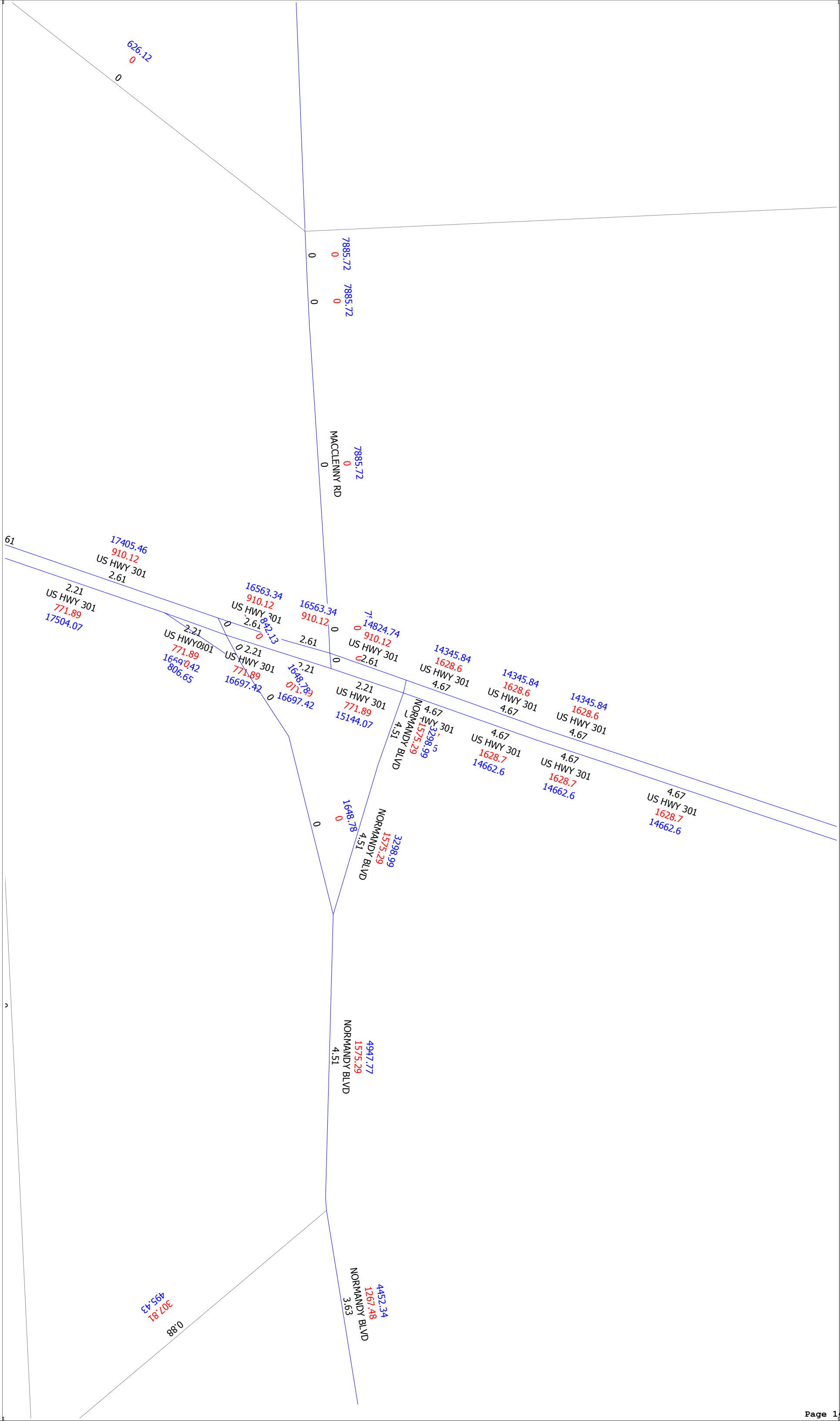
5.61

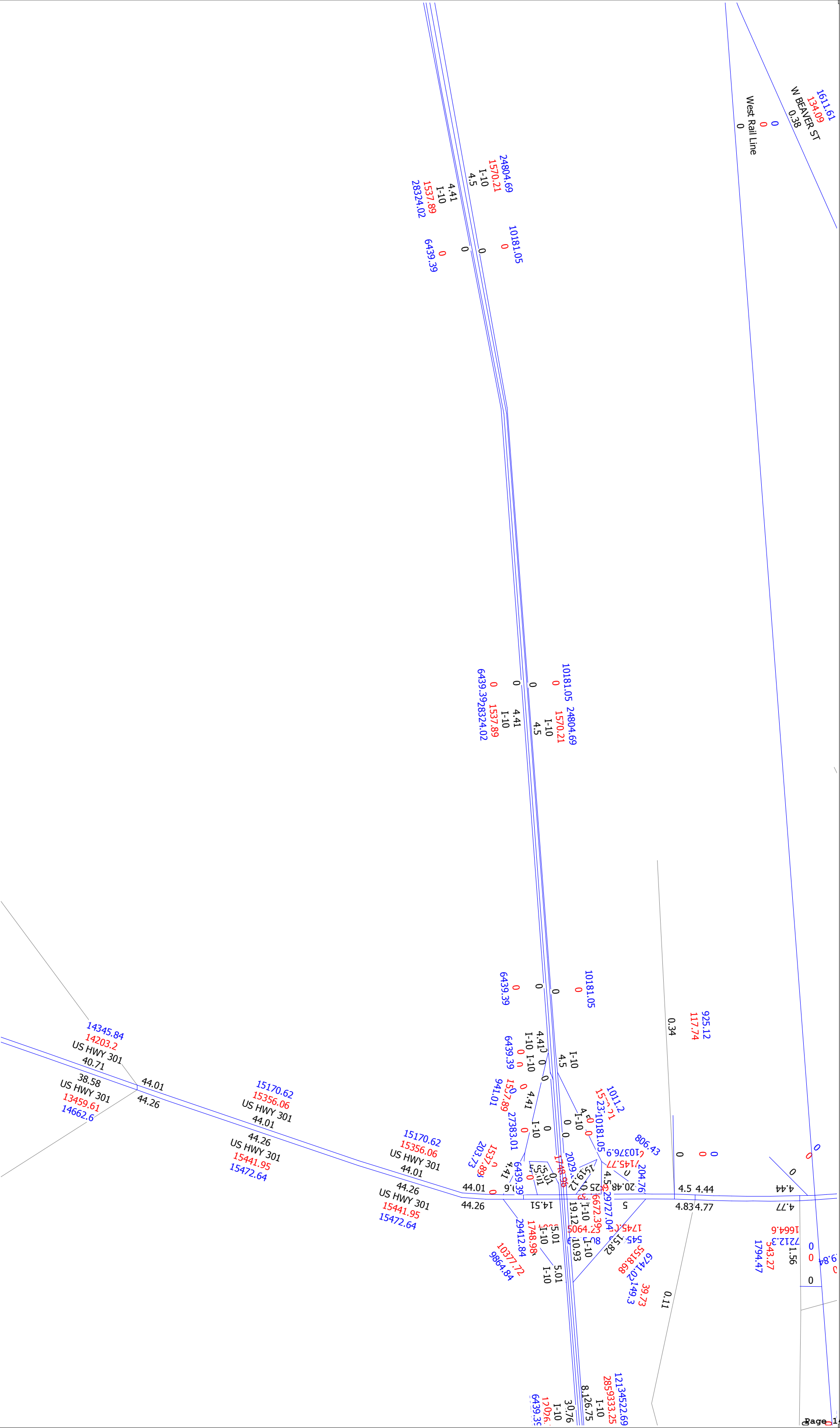
3.56

22.8 1552.83
I-10 15127.99
6314.29
46515.52

Attachment F3

Year 2037 NERPM_Abv3 Travel
Demand Model Plots





Attachment G

FDOT D2 Long Range Cost
Feasible Plan FY 2029 - 2045

ID	FACILITY	FROM	TO	Design		Right of Way / Construction			P3 Funds		Other Funds	IMPRV TYPE
				PDE	PE	TOTAL	ROW	CON	TOTAL	COST		
965		W of SR-121	Nassau C/L		4,250	921	135,510					MGLANE
3303		SR-23	I-295		21,250	3,950	433,542					MGLANE
950		US-301	SR 23-Cecil Commerce Ctr Pkwy		10,250		266,968					MGLANE
3309		at SR-121			5,000	5,000	29,932					M-INCH
946		W of CR-125	W of SR-121		5,050	5,391	125,873					MGLANE
947		Baker C/L	Duval C/L		860	2,900	31,287					MGLANE
948		Duval C/L	US-301			3,588	128,645					MGLANE
1167		N of Commonwealth	N of New Kings Rd		3,450	2,699	90,268					MGLANE
3261		I-95	Southside Connector/SR-113		126,781							MGLANE
1169		N of Collins Rd Interchange	N of Commonwealth	750	3,765	16,204	486,269					MGLANE
1168		N of New Kings Rd	S of I-95 N Interchange		16,538	3,785	382,345					MGLANE
1154		at SR-121 (Williston Rd)				8,136	14,629					M-INCH
3419		N of US-90	N of I-10 Interchange	1,515	15,523							MGLANE
3301		SR-222 (NW 39th Ave)	US-441 (Alachua)	1,515	13,159	5,365						MGLANE
3418		SR-121 (Williston Rd)	SR-222 (NW 39th Ave)		33,096	5,789	802,843					MGLANE
3312		US 441 (Alachua)	US-41/US-441 Ellisville	1,515	17,936	1,856						MGLANE
3314		US-41/US-441 (Ellisville)	N of US-90	1,515	36,690	12,055						MGLANE
3305		Marion/Alachua County Line	SR-121/Williston Rd		21,253	5,278	534,742					MGLANE
3445		N of SR-115 (MLK)	S of SR-105	1,515	20,937							MGLANE
3308		S of Duval Co Line	SR-202 (JT Butler Blvd)			11,602	670,829					MGLANE
3311		I-10	S of SR-115 (MLK)		12,184		202,046					A4-12
3310		at SR-16			750		11,462					M-INCH
911	SR 26	Gilchrist C/L- CR-337	CR-26A-Newberry Lane				29,454					A2-4
3302	US 17	Collins Rd	NAS Birmingham Gate		1,125	1,250	40,052					A1-AUX
Funded CFP Totals						378,172	4,512,465	Total CFP Funds= 4,890,637				

LEGEND

FY 2028/2029 - 2034/2035
FY 2035/2036 - 2039/2040
FY 2040/2041 - 2044/2045
Mega Projects Phased Over Time

NOTES

- (1) Values in thousands of dollars in the year of expenditure, inflated to the middle year of each band.
- (2) All phase costs shown as supplied by each District.
- (3) CON includes both Construction (CON52) and Construction Support (CEI).
- (4) ROW includes both Right-of-Way Acquisition/Mitigation (ROW43/45) and Right-of-Way Support.
- (5) "P3 Funds" - Used to fund Public-Private Partnership projects over a specified number of years.
- (6) Revenue forecast provides separate values for PDE and PE than for ROW and CON.
- (7) Other Funds - assumed to be toll revenue or partner funded.

IMPROVEMENT TYPES

- A1-3: Add 1 Lane to Build 3
- A2-4: Add 2 Lanes to Build 4
- A2-6: Add 2 Lanes to Build 6
- A2-8: Add 2 Lanes to Build 8
- A4-12: Add 4 Lanes to Build 12
- A1-AUX: Add 1 Auxiliary Lane
- A4-SUL: Add 4 Special Use Lanes

- ACCESS: Access
- BRIDGE: Bridge
- FRTCAP: Freight Capacity
- GRASEP: Grade Separation
- HWYCAP: Highway Capacity
- PTERM: Passenger Terminal
- ITS: Intelligent Transp. Sys
- MGLANE: Managed Lanes
- M-INCH: Modify Interchange
- N-INCH: New Interchange
- NR: New Road
- PDE: Project Dev. Env.
- SERVE: Add Svc/Front/CD System
- STUDY: Study
- UP: Ultimate Plan

Long Range Cost Feasible Plan

FY 2029-2045

District 2

LEGEND

**Bridge, Interchange, Intersection Improvements
(Project with highest phase funded)**

- Construction & Mega Projects (CON)
- Right of Way (ROW)
- Preliminary Engineering (PE)
- Project Development and Environmental (PDE)

**Add Lanes, New Roads, etc. Improvements
(Project with highest phase funded)**

- Construction & Mega Projects (CON)
- Right of Way (ROW)
- Preliminary Engineering (PE)
- Project Development and Environmental (PDE)

- 1234 Green Band - FY 2028/2029 to FY 2034/2035
- 1234 Yellow Band - FY 2035/2036 to FY 2039/2040
- 1234 Blue Band - FY 2040/2041 to FY 2044/2045
- 1234 Mega Projects Phased Over Time

- Interstate Highway
- U.S. Highway
- State Highway
- Toll Roads

Existing Conditions for SIS Highways

- SIS Highways
- Other State roads
- Planned Add

