

Chester Road Detailed Specific Area Plan

Nassau County, Florida

Submitted to **Nassau County Growth Management**

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Introduction

This report presents the transportation analysis completed for the Chester Road Detailed Specific Area Plan (DSAP), the second DSAP within the approved East Nassau Community Planning Area (ENCPA). The ENCPA is defined as 24,000 acres in Nassau County, generally located east of Interstate 95 and north of State Road 200/A1A/The Buccaneer Trail. The Chester Road DSAP is located north of Pages Dairy Road and west of Chester Road. This DSAP consists of 1,080 total acres with a development program comprised of 1,200 single family homes, 675 multi-family units, and 91,000 square feet of retail use.

During the Master Plan transportation analysis, mobility network improvements were identified that will support the build-out of the ENCPA. The mobility network improvements are provided in Appendix A. The objective of the transportation analysis for the Chester Road DSAP is to identify which of the mobility network improvements will be triggered by the build-out of the DSAP.

As required by Chapter 163.3245, F.S., the analysis will address the infrastructure impacts for the first five years and for build-out of the Chester Road DSAP. This report documents the existing data collected for the transportation network, the proposed development program land use impacts, and the future conditions analysis for the proposed transportation network. The short-term analysis is documented in the Chester Road Preliminary Development Plan (PDP) Transportation Impact Study, which satisfies Nassau County PDP requirements. The short-term analysis is provided in Appendix B.

The methodology used in this analysis is generally consistent with the methodology used in previous analysis for the Master Plan and the Employment Center DSAP. Because the Employment Center DSAP has been approved, the development associated with that DSAP was included in the background traffic projections. The remainder of this report documents the existing roadway network conditions, the future conditions without the Chester Road DSAP, the future conditions including the Chester Road DSAP, and the recommended mobility network improvements that will be needed to support the build-out of the Chester Road DSAP.

Existing Conditions

Study Area and Existing Roadways

The Chester Road Detailed Specific Area Plan (DSAP) is located in Nassau County. It consists of approximately 1,080 acres north of Pages Dairy Road and west of Chester Road. **Figure 1** shows the Chester Road DSAP location. The following is a description of the existing primary roadways in the vicinity of the Chester Road DSAP:

SR 200/A1A/The Buccaneer Trail is the primary east-west arterial roadway in Nassau County, connecting Interstate 95 to the population centers of Fernandina Beach and Amelia Island to the east. To the west of Interstate 95, SR 200/A1A extends to the rural community of Callahan. SR 200/A1A/The Buccaneer Trail is currently a four-lane divided roadway and is under the jurisdiction of FDOT.

Pages Dairy Road is a two-lane local roadway that parallels SR 200/A1A/The Buccaneer Trail between US 17 and Chester Road. The roadway provides access to adjacent residential areas, with some portions of the overall ENCPA fronting directly on it. Pages Dairy Road is currently a two-lane roadway with a rural cross section. The roadway is under the jurisdiction of Nassau County.

Chester Road is a local collector roadway that forms the eastern boundary for the overall ENCPA and the Chester Road DSAP. The roadway extends from SR 200/A1A/The Buccaneer Trail north to Blackrock Road and intersects with Pages Dairy Road. Chester Road is currently four lanes between SR 200/A1A/The Buccaneer Trail and Courtney Isles Way. It transitions to a two-lane facility north of Courtney Isles Way as Chester Road extends northward into residential areas. It is under the jurisdiction of Nassau County.

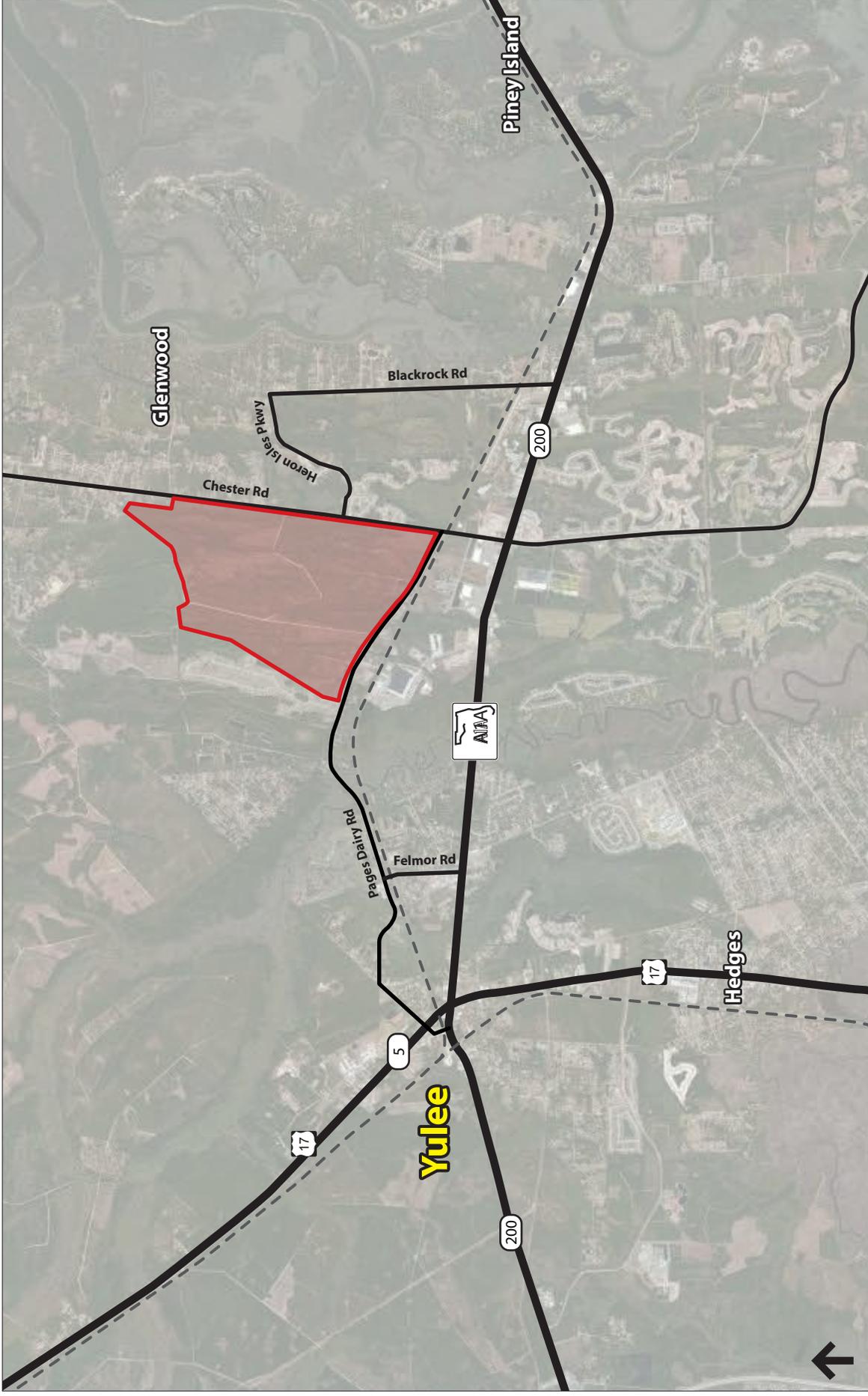


Figure 1
Project Location Map
Nassau County, Florida

Source Bing Maps



Programmed Improvements

Improvements to SR 200/A1A/The Buccaneer Trail and Chester Road are currently in the adopted FDOT Five Year Work Program. The widening of SR 200/A1A/The Buccaneer Trail from four to six lanes between Interstate 95 and west of Still Quarters Road is funded for construction in FY 2017. This widening project also includes major improvements to the at-grade portion of the Interstate 95 at SR 200/A1A interchange, changing the current diamond configuration to a diverging diamond interchange. The widening of the next section of SR 200/A1A/The Buccaneer Trail from four to six lanes between west of Still Quarters and west of Rubin Lane Road is currently under construction. In addition, the widening of the next section of SR 200/A1A/The Buccaneer Trail from four to six lanes between west of Rubin Lane to east of CR 107/Scott Road is funded for construction in FY 2016.

The widening of Chester Road from two to four lanes between Courtney Isles Way and Green Pine Road is funded for construction in FY 2019. Table 1 summarizes these improvements along with their funding commitments and implementation timeframe. Information regarding these improvements was obtained from the FDOT District 2 Five Year Work Program and can be found in Appendix C.

Table 1 Programmed Improvements - FDOT D2 Five Year Work Program

| FDOT Item No. | Roadway and Limits | Description | Phase | Year | Funding |
|---------------|--|-------------------------------|--------------|------|--------------|
| 210711-2 | SR 200/A1A from I-95 to west of Still Quarters Rd | Add lanes (widen from 4 to 6) | Construction | 2017 | \$47,059,958 |
| 210712-3 | SR 200/A1A from west of Still Quarters Rd. to west of Rubin Ln | Add lanes (widen from 4 to 6) | Construction | 2016 | \$4,014,234 |
| 210712-4 | SR 200/A1A from west of Rubin Ln to east of CR 107/Scott Rd | Add lanes (widen from 4 to 6) | Construction | 2016 | \$68,364,450 |
| 426031-2 | Chester Road from SR A1A to Green Pine Rd | Add lanes (widen from 2 to 4) | Construction | 2019 | \$10,018,516 |

Existing Roadway Segment Analysis

Table 2 summarizes the existing conditions for the study area roadways, which includes the number of lanes, daily volumes, and level of service (LOS) for each segment. The traffic counts shown were the latest available roadway volumes obtained from the FDOT Florida Traffic Online (2014) and from Nassau County Local Roads Traffic Counts (2006-2009). All volumes were grown using growth rates identified in the TIA Methodology Document's future growth section to the year 2016. For those roadway segments not included in the



TIA Methodology Document, the historical growth rate was calculated based on the data available from previous years' counts. A minimum annual growth rate of 2.0% was used in order to provide an appropriate forecast for 2016 volumes. The TIA Methodology Document that includes the annual growth rates can be found in Appendix D.

The analysis in **Table 2** assumes an Urban Area Type for Interstate 95 and all roads to the east to account for the planned development and urbanization of the area through the implementation of the ENCPA. The analysis presented is based on daily conditions, which is consistent with the mobility approach used by other jurisdictions such as Duval County and Alachua County. As seen in **Table 2**, all roadway segments within the ENCPA study area currently operate at a level of service C or better with the exception of the segment of SR 200/A1A/The Buccaneer Trail between Chester Road and Blackrock Road, which operates at a level of service F. It should be noted that, as mentioned above, this section of SR 200/A1A/The Buccaneer Trail is scheduled for widening from the current four lanes to six lanes. This widening will increase the service capacity volume of SR 200/A1A/The Buccaneer Trail to 62,900 vehicles per day and will address the existing deficiency between Chester Road and Blackrock Road. **Figure 2** shows the existing roadway network and the corresponding daily traffic volumes.

Table 2 Year 2016 Existing Roadway Network Analysis

| Roadway | Segment | No. Lanes | Adopted LOS Standard | Service Capacity Volume | Count Year | AADT | Annual Growth Rate | 2016 AADT | LOS | Source |
|------------------------------|------------------------------------|-----------|----------------------|-------------------------|------------|--------|--------------------|-----------|-----|--------|
| I-95 | Duval County Line to SR 200/A1A | 6D | D | 111,800 | 2014 | 60,000 | 2.94% | 63,528 | B | (1) |
| | SR 200/A1A to E-W Interchange Rd | 6D | D | 111,800 | 2014 | 45,000 | 3.12% | 47,808 | B | (1) |
| | E-W Interchange Rd to US 17 | 6D | D | 111,800 | 2014 | 45,000 | 3.12% | 47,808 | B | (1) |
| | US 17 to GA State Line | 6D | D | 111,800 | 2014 | 59,535 | 2.39% | 62,381 | B | (1) |
| SR 200/A1A | Griffin Rd to I-95 | 4D | D | 62,900 | 2014 | 11,400 | 6.39% | 12,857 | B | (1) |
| | I-95 to Old Yulee Rd | 4D | D | 65,600 | 2014 | 19,997 | 4.25% | 21,697 | B | (1) |
| | Old Yulee Rd to US 17 | 4D | D | 39,800 | 2014 | 19,997 | 4.09% | 21,633 | C | (1) |
| | US 17 to Chester Rd | 4D | D | 39,800 | 2014 | 33,500 | 2.00% | 34,840 | C | (1) |
| | Chester Rd to Blackrock Rd | 4D | D | 39,800 | 2014 | 38,500 | 2.00% | 40,040 | F | (1) |
| | Blackrock Rd to Amelia Island Pkwy | 4D | D | 65,600 | 2014 | 38,000 | 2.00% | 39,520 | C | (1) |
| CR 200A/ Pages Dairy Road | US 17 to Chester Rd | 2U | D | 17,700 | 2014 | 12,500 | 4.78% | 13,695 | C | (1) |
| CR 107N/ Blackrock Rd | Chester Rd to SR 200/A1A | 2U | D | 17,700 | 2014 | 1,600 | 2.00% | 1,664 | C | (1) |
| | SR 200/A1A to Amelia Concourse | 2U | D | 17,700 | 2014 | 8,600 | 2.00% | 8,944 | C | (1) |



| Roadway | Segment | No. Lanes | Adopted LOS Standard | Service Capacity Volume | Count Year | AADT | Annual Growth Rate | 2016 AADT | LOS | Source |
|-----------------------------|------------------------------------|-----------|----------------------|-------------------------|------------|--------|--------------------|-----------|-----|--------|
| CR 107S/ Old Nassauville Rd | Amelia Concourse to Santa Juana Rd | 2U | D | 17,700 | 2014 | 8,600 | 2.00% | 8,944 | C | (1) |
| Chester Road | SR 200/A1A to Pages Dairy Rd | 2U | D | 17,700 | 2014 | 12,500 | 2.00% | 13,000 | C | (1) |
| | Pages Dairy Rd to CR 108 Extension | 2U | D | 17,700 | 2014 | 4,900 | 2.00% | 5,096 | C | (1) |
| | CR 108 Extension to Blackrock Rd | 2U | D | 17,700 | 2014 | 4,900 | 2.00% | 5,096 | C | (1) |
| Amelia Concourse | SR 200/A1A to Old Nassauville Rd | 4D | D | 39,800 | 2014 | 10,400 | 2.00% | 10,816 | C | (1) |
| US 17 | Duval County Line to Harts Rd | 2U | D | 24,200 | 2014 | 12,500 | 3.67% | 13,418 | C | (1) |
| | Harts Rd to Sowell Rd | 2U | D | 24,200 | 2014 | 12,000 | 2.00% | 12,480 | C | (1) |
| | Sowell Rd to SR 200/A1A | 4D | D | 39,800 | 2014 | 12,000 | 2.00% | 12,480 | C | (1) |
| | SR 200/A1A to Pages Dairy Rd | 4D | D | 39,800 | 2014 | 12,200 | 2.00% | 12,688 | C | (1) |
| | Pages Dairy Rd to Interchange Rd | 2U | D | 17,700 | 2014 | 12,200 | 2.00% | 12,688 | C | (1) |
| | Interchange Rd to CR 108 | 2U | D | 17,700 | 2014 | 10,500 | 2.00% | 10,920 | C | (1) |
| | CR 108 to I-95 | 2U | D | 24,400 | 2014 | 3,200 | 2.00% | 3,328 | B | (1) |
| | I-95 to GA State Line | 2U | D | 24,400 | 2014 | 3,200 | 3.36% | 3,415 | B | (1) |
| I-95/SR A1A Interchange | NB I-95 to SR A1A Off-ramp | 1L | D | 10,620 | 2014 | 7900 | 5.44% | 8,760 | C | (1) |
| | SR A1A to NB I-95 On-ramp | 1L | D | 10,620 | 2014 | 2900 | 6.62% | 3,284 | C | (1) |
| | SB I-95 to SR A1A Off-ramp | 1L | D | 10,620 | 2014 | 1900 | 7.79% | 2,196 | C | (1) |
| | SR A1A to SB I-95 On-ramp | 1L | D | 10,620 | 2014 | 8000 | 5.42% | 8,867 | C | (1) |
| I-95/US 17 Interchange | NB I-95 to US 17 Off-ramp | 1L | D | 10,620 | 2014 | 450 | 7.74% | 520 | C | (1) |
| | US 17 to NB I-95 On-ramp | 1L | D | 10,620 | 2014 | 3,700 | 2.00% | 3,848 | C | (1) |
| | SB I-95 to US 17 Off-ramp | 1L | D | 10,620 | 2014 | 3,700 | 2.00% | 3,848 | C | (1) |
| | US 17 to SB I-95 On-ramp | 1L | D | 10,620 | 2014 | 350 | 7.91% | 405 | C | (1) |
| CR 108 | US 17 to I-95 Overpass | 2U | D | 24,200 | 2014 | 3,200 | 2.00% | 3,328 | B | (1) |

Source:

- (1) FDOT Florida Traffic Online (2014)
- (2) Nassau County Local Roads Traffic Counts (2009)

Baseline (No-Build) Roadway Network Analysis

To establish background roadway volumes in the study area, the Northeast Florida Regional Planning Model (NERPM) was run for baseline conditions without the Chester Road DSAP development. The NERPM-AB version 1.0 is the latest North Florida TPO adopted model and was recommended by FDOT to use for this analysis.

This model run reflects the 2035 Cost Feasible Model as adopted. In terms of land use, the model run includes the development within the Employment Center DSAP, which has been previously approved and the development associated with the Chester Road DSAP. Traffic generated by the Chester Road DSAP was subtracted from the total volume to obtain the Baseline (No-Build) volumes.

The model run was performed by FDOT and the outputs were provided for analysis. As noted above, the background volumes were generated by running a select zone analysis on the TAZs associated with the Chester Road DSAP. It should be noted that the select zone model output provided the total traffic and project traffic. The background volumes were calculated by subtracting the project traffic from the total traffic. The raw model volumes were then post-processed by applying one of four smoothing methods that take into account the accuracy of the 2035 model volumes as compared to the accuracy of the validation year model output. These smoothing methods are described as follows:

- A. Model AADT Method = Future Year RMV \times MOCF
- B. Difference Method = Validation Year AADT \times (Future Year RMV – Validation Year RMV) \times MOCF
- C. Ratio Method = Validation Year AADT \times (Future Year RMV / Validation Year RMV)
- D. Combined Method = Average of Difference Method AADT and Ratio Method AADT

Where:

RMV = Raw Model Volume

MOCF = Model Output Conversion Factor



Baseline Roadway Segment Analysis

Table 3 summarizes the 2035 raw model volumes, each of the smoothing methods, the selected smoothing method, the 2035 AADT, level of service, and volume to capacity ratio for each of the segments within the study area. The raw model volumes are provided in Appendix E. **Figure 3** shows the adjusted baseline volumes for the study area roadways.

As shown in **Table 3**, all of the study area roadways are projected to operate within their respective service capacity thresholds under the Baseline Conditions.

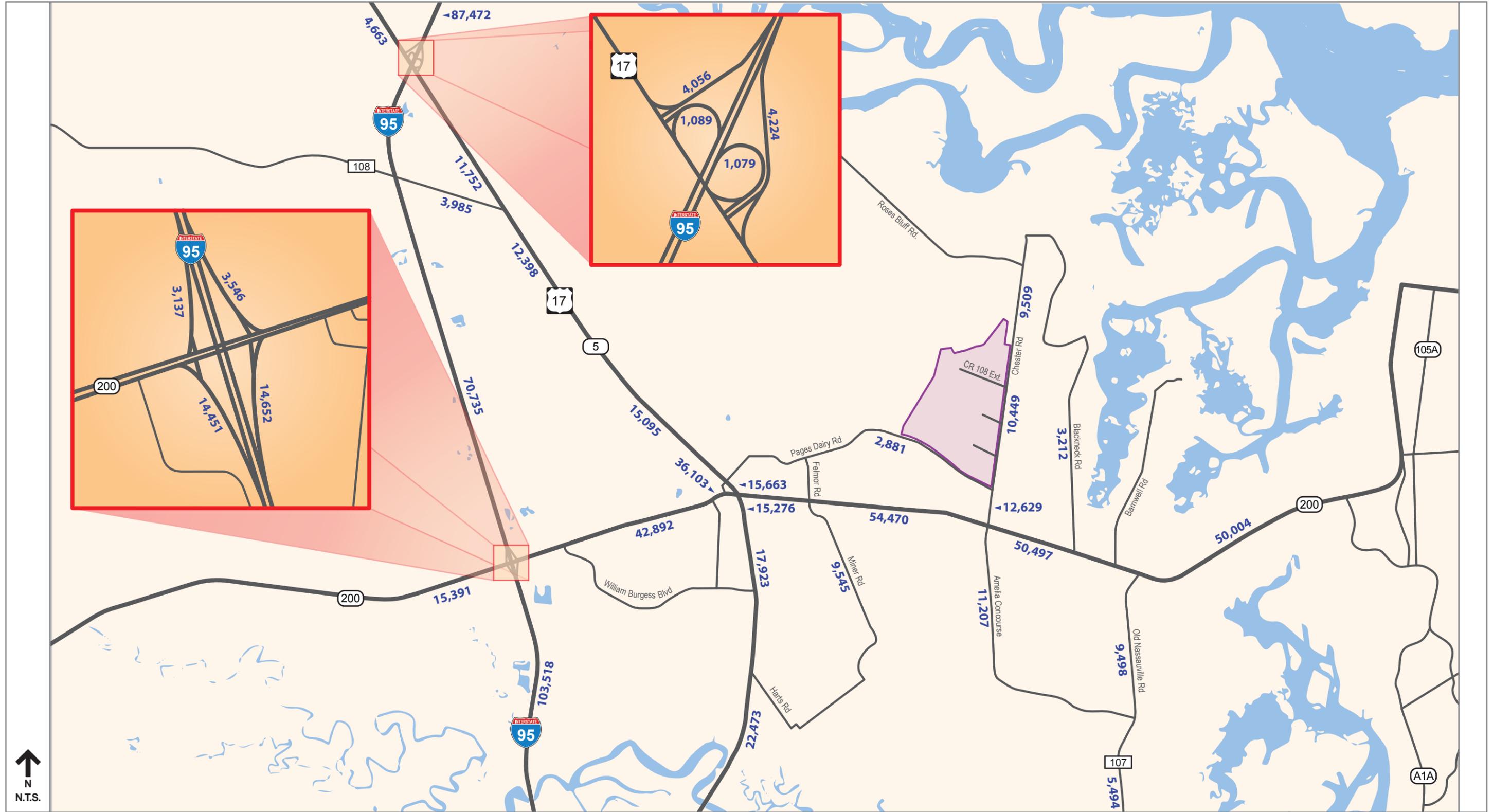


Table 3 Year 2035 Baseline Roadway Network Analysis

| Roadway | Segment | No Lanes | LOS Std | Service Capacity | 2035 RMV | Smoothing Method | | | | AADT Forecast Method | 2035 Background | | |
|-------------------------------|--|----------|---------|------------------|----------|------------------|---------|--------|---------|----------------------|-----------------|-----|------|
| | | | | | | A | B | C | D | | AADT | LOS | v/c |
| I-95 | Duval County Line to SR 200/A1A | 6D | D | 111,800 | 133,303 | 123,972 | 108,322 | 98,713 | 103,518 | D | 103,518 | D | 0.93 |
| | SR 200/A1A to E-W Interchange Rd | 6D | D | 111,800 | 90,228 | 83,912 | 73,551 | 67,918 | 70,735 | D | 70,735 | C | 0.63 |
| | E-W Interchange Rd to US 17 | 6D | D | 111,800 | 90,228 | 83,912 | 73,551 | 67,918 | 70,735 | D | 70,735 | C | 0.63 |
| | US 17 to GA State Line | 6D | D | 111,800 | 89,029 | 82,797 | 86,440 | 88,503 | 87,472 | D | 87,472 | C | 0.78 |
| SR 200/A1A | Griffin Rd to I-95 | 4D | D | 62,900 | 7,803 | 7,257 | 15,391 | 30,262 | 22,827 | B | 15,391 | B | 0.24 |
| | I-95 to Old Yulee Rd | 6D | D | 98,300 | 46,120 | 42,892 | 37,852 | 33,482 | 35,667 | A | 42,892 | B | 0.44 |
| | Old Yulee Rd to US 17 | 6D | D | 62,900 | 38,820 | 36,103 | 31,488 | 28,714 | 30,101 | A | 36,103 | C | 0.57 |
| | US 17 to Chester Rd | 6D | D | 62,900 | 48,860 | 45,440 | 52,471 | 56,469 | 54,470 | D | 54,470 | C | 0.87 |
| | Chester Rd to Blackrock Rd | 6D | D | 62,900 | 35,832 | 33,324 | 47,474 | 53,519 | 50,497 | D | 50,497 | C | 0.80 |
| | Blackrock Rd to Amelia Island Pkwy | 4D | D | 65,600 | 42,234 | 39,278 | 48,524 | 51,484 | 50,004 | D | 50,004 | C | 0.76 |
| CR 200A/ Pages Dairy Road | US 17 to Chester Rd | 2U | D | 17,700 | 1,221 | 1,136 | 2,993 | 2,769 | 2,881 | D | 2,881 | C | 0.16 |
| CR 107N/ Blackrock Road | Chester Rd to SR 200/A1A | 2U | D | 17,700 | 3,628 | 3,374 | 3,224 | 3,199 | 3,212 | D | 3,212 | C | 0.18 |
| CR 107S/ Old Nassauville Road | SR 200/A1A to Amelia Concourse | 2U | D | 17,700 | 10,213 | 9,498 | 8,134 | 7,857 | 7,996 | A | 9,498 | C | 0.54 |
| | Amelia Concourse to Santa Juana Rd | 2U | D | 17,700 | 5,908 | 5,494 | 7,909 | 8,476 | 8,193 | A | 5,494 | C | 0.31 |
| Chester Road | SR 200/A1A to Pages Dairy Rd | 4D | D | 39,800 | 11,223 | 10,437 | 12,107 | 13,151 | 12,629 | D | 12,629 | C | 0.32 |
| | Pages Dairy Rd to South Project Driveway | 4D | D | 39,800 | 8,429 | 7,839 | 9,819 | 11,078 | 10,449 | D | 10,449 | C | 0.26 |
| | South Project Driveway to North Project Driveway | 4D | D | 39,800 | 8,429 | 7,839 | 9,819 | 11,078 | 10,449 | D | 10,449 | C | 0.26 |
| | North Project Driveway to CR 108 Extension | 2U | D | 17,700 | 8,429 | 7,839 | 9,819 | 11,078 | 10,449 | D | 10,449 | C | 0.59 |
| Amelia Concourse | CR 108 Extension to Blackrock Rd | 2U | D | 17,700 | 3,259 | 3,031 | 7,947 | 11,070 | 9,509 | D | 9,509 | C | 0.54 |
| | SR 200/A1A to Old Nassauville Rd | 4D | D | 39,800 | 8,151 | 7,580 | 10,324 | 12,089 | 11,207 | D | 11,207 | C | 0.28 |
| US 17 | Duval County Line to Harts Rd | 2U | D | 24,200 | 20,428 | 18,998 | 21,139 | 23,806 | 22,473 | D | 22,473 | D | 0.93 |
| | Harts Rd to Sowell Rd | 2U | D | 24,200 | 15,941 | 14,825 | 17,060 | 18,785 | 17,923 | D | 17,923 | D | 0.74 |
| | Sowell Rd to SR 200/A1A | 4D | D | 39,800 | 10,827 | 10,069 | 14,158 | 16,393 | 15,276 | D | 15,276 | C | 0.38 |



| Roadway | Segment | No Lanes | LOS Std | Service Capacity | 2035 RMV | Smoothing Method | | | | AADT Forecast Method | 2035 Background | | |
|-------------------------|----------------------------------|----------|---------|------------------|----------|------------------|--------|--------|--------|----------------------|-----------------|-----|------|
| | | | | | | A | B | C | D | | AADT | LOS | v/c |
| US 17 | SR 200/A1A to Pages Dairy Rd | 4D | D | 39,800 | 9,749 | 9,067 | 15,663 | 22,966 | 19,315 | B | 15,663 | C | 0.39 |
| | Pages Dairy Rd to Interchange Rd | 2U | D | 24,200 | 9,987 | 9,288 | 15,095 | 22,149 | 18,622 | B | 15,095 | C | 0.62 |
| | Interchange Rd to CR 108 | 2U | D | 24,200 | 7,165 | 6,663 | 12,398 | 15,624 | 14,011 | B | 12,398 | C | 0.51 |
| | CR 108 to I-95 | 2U | D | 24,200 | 4,706 | 4,377 | 11,752 | 16,676 | 14,214 | B | 11,752 | C | 0.49 |
| | I-95 to GA State Line | 2U | D | 24,400 | 5,197 | 4,833 | 4,689 | 4,637 | 4,663 | D | 4,663 | B | 0.19 |
| I-95/SR A1A Interchange | NB I-95 to SR A1A Off-ramp | 1L | D | 23,900 | 22,286 | 20,726 | 16,444 | 12,860 | 14,652 | D | 14,652 | C | 0.61 |
| | SR A1A to NB I-95 On-ramp | 1L | D | 10,600 | 798 | 742 | 3,546 | 22,468 | 13,007 | B | 3,546 | C | 0.33 |
| | SB I-95 to SR A1A Off-ramp | 1L | D | 10,600 | 1,112 | 1,034 | 3,137 | 23,299 | 13,218 | B | 3,137 | C | 0.30 |
| | SR A1A to SB I-95 On-ramp | 1L | D | 23,900 | 22,699 | 21,110 | 16,450 | 12,451 | 14,451 | D | 14,451 | C | 0.60 |
| I-95/US 17 Interchange | NB I-95 to US 17 Off-ramp | 1L | D | 10,600 | 2,424 | 2,254 | 1,214 | 944 | 1,079 | D | 1,079 | C | 0.10 |
| | US 17 to NB I-95 On-ramp | 1L | D | 10,600 | 2,042 | 1,899 | 3,552 | 4,896 | 4,224 | D | 4,224 | C | 0.40 |
| | SB I-95 to US 17 Off-ramp | 1L | D | 10,600 | 1,941 | 1,805 | 3,458 | 4,654 | 4,056 | D | 4,056 | C | 0.38 |
| | US 17 to SB I-95 On-ramp | 1L | D | 10,600 | 2,452 | 2,280 | 1,228 | 949 | 1,089 | D | 1,089 | C | 0.10 |
| CR 108 Extension | Chester Rd to Project Driveway | 2U | D | 17,700 | 0 | 0 | 0 | 0 | 0 | D | 0 | A | 0.00 |
| CR 108 | US 17 to I-95 Overpass | 2U | D | 17,700 | 2,519 | 2,343 | 3,730 | 4,239 | 3,985 | D | 3,985 | C | 0.23 |



- Project Boundary
- 0,000 - Roadway Volumes

Figure 3
Chester Road DSAP
2035 Baseline Roadway Volumes
Nassau County, Florida

Source: VHB

Chester Road DSAP Project Description

Development Program and Trip Generation

The Chester Road DSAP is located north of Pages Dairy Road and west of Chester Road. This DSAP consists of 1,080 total acres with a development program comprised of 1,200 single family homes, 675 multi-family units, and 91,000 square feet of retail use. The allocation of the development program within the new traffic analysis zones (TAZs) in the travel demand model is depicted in Appendix F. In order to provide access to the entire DSAP, the extension of CR 108 that borders the northern portion of the Chester Road DSAP was added to the model roadway network.

Trip generation was estimated for the proposed development using the Institute of Transportation Engineer's (ITE) "Trip Generation" Manual, 9th Edition. The following ITE Land Use Codes (LUC) were deemed the most appropriate:

- LUC 210 – Single Family Residential
- LUC 220 – Multi-Family Residential
- LUC 820 – Shopping Center

Table 4 presents the total new vehicle trips anticipated from the proposed development. The proposed development is expected to add approximately 18,629 daily weekday trips, 1,267 weekday morning peak hour trips, and 1,723 weekday evening peak hour trips to the area roadway network. The trip generation estimates can be observed in Appendix G.



Table 4 Chester Road DSAP Trip Generation

| Land Use | ITE Land Use Code (LUC) | Intensity | Weekday Daily | Weekday AM | | | Weekday PM | | |
|------------------------|-------------------------|-------------|---------------|------------|------------|--------------|--------------|------------|--------------|
| | | | | Enter | Exit | Total | Enter | Exit | Total |
| Single Family | 210 | 1,200 d.u. | 10,331 | 213 | 637 | 850 | 619 | 364 | 983 |
| Multi-Family | 220 | 675 d.u. | 4,214 | 67 | 267 | 334 | 253 | 136 | 389 |
| Shopping Center | 820 | 91,000 s.f. | 6,387 | 91 | 56 | 147 | 270 | 292 | 562 |
| Total | | | 20,932 | 371 | 960 | 1,331 | 1,142 | 792 | 1,934 |
| Internal Capture Trips | | | 1,276 | 9 | 9 | 18 | 59 | 59 | 118 |
| Pass-by Trips | | | 1,027 | 23 | 23 | 46 | 47 | 46 | 93 |
| New Trips | | | 18,629 | 339 | 928 | 1,267 | 1,036 | 687 | 1,723 |

Chester Road DSAP Roadway Network Analysis Results

To determine the impacts of the site-generated traffic volumes on the surrounding roadway network, future traffic conditions were analyzed for the completion of the Chester Road DSAP. The future traffic volumes consist of the 2035 baseline volumes plus the project volumes determined from the ITE trip generation presented in the previous section.

Trip Distribution and Assignment

The directional distribution of site generated traffic is a function of population in surrounding areas, existing travel patterns, ease of access to the site, and traffic conditions on area roadways. For this analysis, the trip distribution was produced using the Northeast Florida Regional Planning Model (NERPM-AB v1.0).

The model originally assigned 40.1 percent of the westbound project trips to Pages Dairy Road and only 9.5 percent of the westbound project trips to SR 200/A1A/The Buccaneer Trail. Pages Dairy Road is a narrow, two-lane collector roadway; whereas, SR 200/A1A/The Buccaneer Trail is a major arterial that will be widened to six lanes in the near future. It is reasonable to assume that SR 200/A1A/The Buccaneer Trail will be more attractive to drivers than Pages Dairy Road; therefore, it does not seem likely that all of the westbound trips would choose Pages Dairy Road over SR 200/A1A/The Buccaneer Trail. Based on this, a post processing was performed that reassigned a portion of the westbound project trips away from Pages Dairy Road and onto SR 200/A1A/The Buccaneer Trail. As shown in Appendix H, 2,830 project trips (roughly 26% of the total modeled project trips) were transferred from Pages Dairy Road to SR 200/A1A/The Buccaneer Trail.

The original model also assigned a high percentage of project trips to the traffic analysis zone (TAZ) across Chester Road from the project site. This TAZ contains primarily residential development; therefore, it seems unlikely that 8.6 percent of project traffic would travel to this TAZ. As shown in Appendix H, 8 percent of the trips that were originally assigned to the TAZ across Chester Road from the project site were reassigned to the TAZ south of Pages Dairy Road, which is primarily retail development. The original modeled project trips (column A), the adjustments to these project trips along Pages Dairy



Road, SR 200/A1A/The Buccaneer Trail, and Chester Road (column B), and the resulting adjusted modeled project volumes (C) are shown in **Table 5**.

For the roadway network analysis for the build-out of the Chester Road DSAP, the project volumes calculated from the ITE trip generation are used to provide for a more conservative estimate of project trips. As shown in **Table 5**, the project distribution along each roadway segment was calculated as the percentage of project trips to the total modeled project trips (column D). This distribution was then used to calculate the adjusted project trips, which are provided in column E of **Table 5**.

Additional project trip adjustments were made along Chester Road to account for the internal capture trips that use the external roadway network. This adjustment is shown in column F of **Table 5**. The total project trips used in the roadway network analysis are provided in column G of **Table 5**.



Table 5 Chester Road DSAP Project Trip Adjustments

| Roadway | Segment | 2035 Project RMV (A) | Project Distrib. Adjustment (B) | Adjusted Project RMV (C) | Adjusted Project Distribution (D) | Adjusted Project Trips (E) | Internally Captured Trips (F) | Total Project Trips (G) |
|-------------------------------|--|----------------------|---------------------------------|--------------------------|-----------------------------------|----------------------------|-------------------------------|-------------------------|
| I-95 | Duval County Line to SR 200/A1A | 1,486 | 0 | 1,486 | 14% | 2,550 | 0 | 2,550 |
| | SR 200/A1A to E-W Interchange Rd | 0 | 0 | 0 | 0% | 0 | 0 | 0 |
| | E-W Interchange Rd to US 17 | 0 | 0 | 0 | 0% | 0 | 0 | 0 |
| | US 17 to GA State Line | 27 | 0 | 27 | 0% | 46 | 0 | 46 |
| SR 200/A1A | Griffin Rd to I-95 | 159 | 0 | 159 | 1% | 273 | 0 | 273 |
| | I-95 to Old Yulee Rd | 2,596 | 0 | 2,596 | 24% | 4,454 | 0 | 4,454 |
| | Old Yulee Rd to US 17 | 3,073 | 0 | 3,073 | 28% | 5,272 | 0 | 5,272 |
| | US 17 to Chester Rd | 1,383 | 2,830 | 4,213 | 39% | 7,228 | 0 | 7,228 |
| | Chester Rd to Blackrock Rd | 2,426 | 0 | 2,426 | 22% | 4,162 | 0 | 4,162 |
| | Blackrock Rd to Amelia Island Pkwy | 2,048 | 0 | 2,048 | 19% | 3,514 | 0 | 3,514 |
| CR 200A/ Pages Dairy Road | US 17 to Chester Rd | 4,359 | -2,830 | 1,529 | 14% | 2,623 | 0 | 2,623 |
| CR 107N/ Blackrock Road | Chester Rd to SR 200/A1A | 436 | 0 | 436 | 4% | 748 | 0 | 748 |
| CR 107S/ Old Nassauville Road | SR 200/A1A to Amelia Concourse | 83 | 0 | 83 | 1% | 142 | 0 | 142 |
| | Amelia Concourse to Santa Juana Rd | 0 | 0 | 0 | 0% | 0 | 0 | 0 |
| Chester Road | SR 200/A1A to Pages Dairy Rd | 4,473 | 3,699 | 8,172 | 75% | 14,021 | 0 | 14,021 |
| | Pages Dairy Rd to South Project Driveway | 3,083 | 0 | 3,083 | 28% | 5,289 | 0 | 5,289 |
| | South Project Driveway to North Project Driveway | 3,083 | 0 | 3,083 | 28% | 5,289 | 318 | 5,607 |
| | North Project Driveway to CR 108 Extension | 3,083 | 0 | 3,083 | 28% | 5,289 | 318 | 5,607 |
| | CR 108 Extension to Blackrock Rd | 3,320 | 0 | 3,320 | 31% | 5,696 | 318 | 6,014 |
| Amelia Concourse | SR 200/A1A to Old Nassauville Rd | 832 | 0 | 832 | 8% | 1,427 | 0 | 1,427 |
| US 17 | Duval County Line to Harts Rd | 533 | 0 | 533 | 5% | 914 | 0 | 914 |
| | Harts Rd to Sowell Rd | 551 | 0 | 551 | 5% | 945 | 0 | 945 |
| | Sowell Rd to SR 200/A1A | 516 | 0 | 516 | 5% | 885 | 0 | 885 |
| | SR 200/A1A to Pages Dairy Rd | 117 | 0 | 117 | 1% | 201 | 0 | 201 |
| | Pages Dairy Rd to Interchange Rd | 367 | 0 | 367 | 3% | 630 | 0 | 630 |
| | Interchange Rd to CR 108 | 66 | 0 | 66 | 1% | 113 | 0 | 113 |



| Roadway | Segment | 2035 Project RMV (A) | Project Distrib. Adjustment (B) | Adjusted Project RMV (C) | Adjusted Project Distribution (D) | Adjusted Project Trips (E) | Internally Captured Trips (F) | Total Project Trips (G) |
|-------------------------|--------------------------------|----------------------|---------------------------------|--------------------------|-----------------------------------|----------------------------|-------------------------------|-------------------------|
| US 17 | CR 108 to I-95 | 38 | 0 | 38 | 0% | 65 | 0 | 65 |
| | I-95 to GA State Line | 10 | 0 | 10 | 0% | 17 | 0 | 17 |
| I-95/SR A1A Interchange | NB I-95 to SR A1A Off-ramp | 711 | 0 | 711 | 7% | 1,220 | 0 | 1,220 |
| | SR A1A to NB I-95 On-ramp | 0 | 0 | 0 | 0% | 0 | 0 | 0 |
| | SB I-95 to SR A1A Off-ramp | 0 | 0 | 0 | 0% | 0 | 0 | 0 |
| | SR A1A to SB I-95 On-ramp | 775 | 0 | 775 | 7% | 1,330 | 0 | 1,330 |
| I-95/US 17 Interchange | NB I-95 to US 17 Off-ramp | 0 | 0 | 0 | 0% | 0 | 0 | 0 |
| | US 17 to NB I-95 On-ramp | 19 | 0 | 19 | 0% | 33 | 0 | 33 |
| | SB I-95 to US 17 Off-pramp | 8 | 0 | 8 | 0% | 14 | 0 | 14 |
| | US 17 to SB I-95 On-ramp | 0 | 0 | 0 | 0% | 0 | 0 | 0 |
| CR 108 Extension | Chester Rd to Project Driveway | | 208 | 0 | 208 | 2% | 357 | 675 |
| CR 108 | US 17 to I-95 Overpass | | 28 | 0 | 28 | 0% | 48 | 48 |



Roadway Segment Analysis

The results of the roadway segment analysis for the build-out of the Chester Road DSAP are presented in **Table 6**. The total roadway volumes are also depicted in **Figure 4**. Based on the analysis, all roadway segments in the study area will have available capacity after completion of the project.

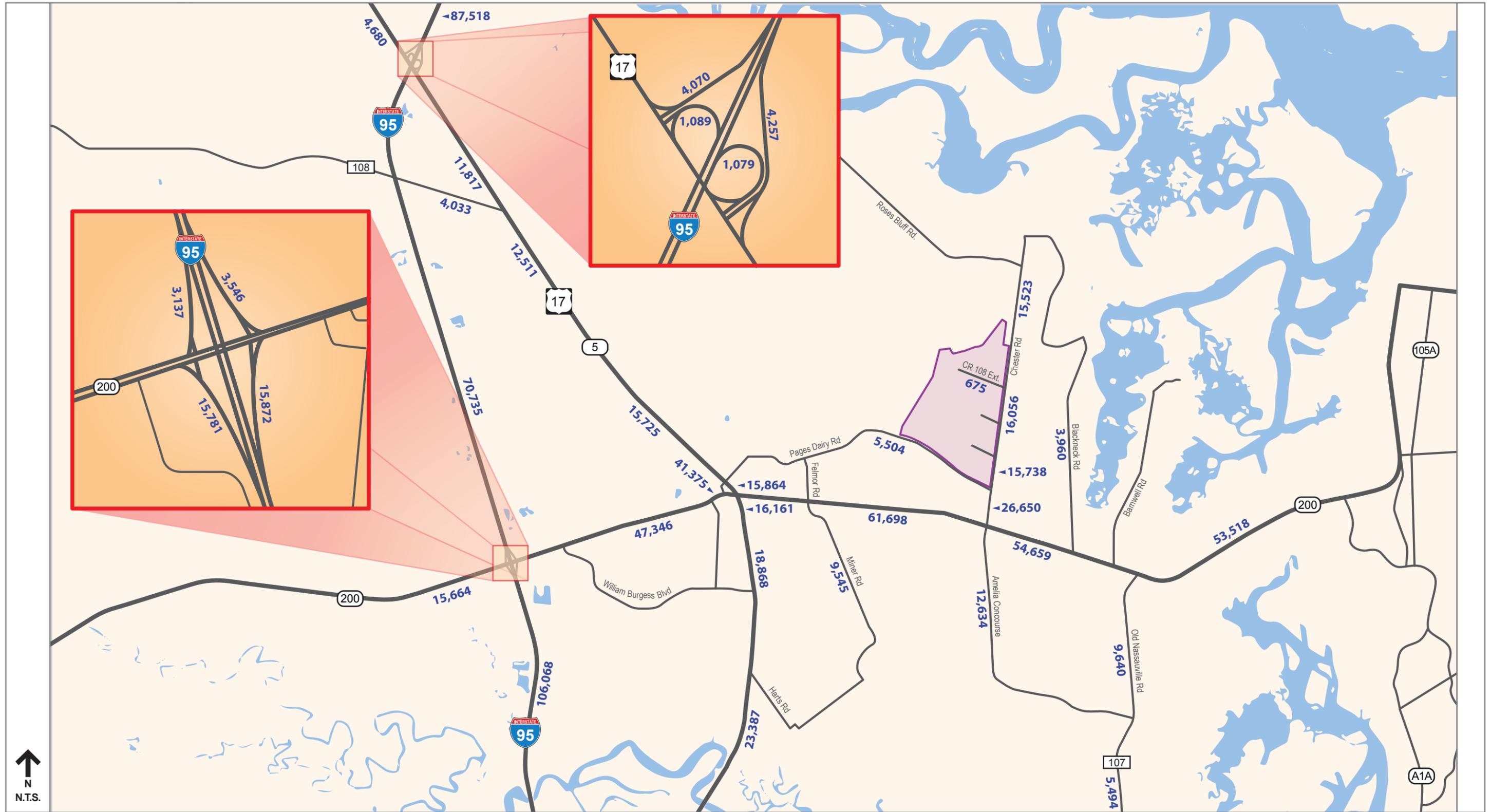


Table 6 Year 2035 Chester Road DSAP Roadway Network Analysis (Adjusted Project Traffic Distribution)

| Roadway | Segment | No Lanes | LOS Std | Service Capacity | 2035 Background AADT | Total Project Trips | 2035 With Project | | |
|---------------------------|--|----------|---------|------------------|----------------------|---------------------|-------------------|-----|------|
| | | | | | | | AADT | LOS | v/c |
| I-95 | Duval County Line to SR 200/A1A | 6D | D | 111,800 | 103,518 | 2,550 | 106,068 | D | 0.95 |
| | SR 200/A1A to E-W Interchange Rd | 6D | D | 111,800 | 70,735 | 0 | 70,735 | C | 0.63 |
| | E-W Interchange Rd to US 17 | 6D | D | 111,800 | 70,735 | 0 | 70,735 | C | 0.63 |
| | US 17 to GA State Line | 6D | D | 111,800 | 87,472 | 46 | 87,518 | C | 0.78 |
| SR 200/A1A | Griffin Rd to I-95 | 4D | D | 62,900 | 15,391 | 273 | 15,664 | B | 0.25 |
| | I-95 to Old Yulee Rd | 6D | D | 98,300 | 42,892 | 4,454 | 47,346 | B | 0.48 |
| | Old Yulee Rd to US 17 | 6D | D | 62,900 | 36,103 | 5,272 | 41,375 | C | 0.66 |
| | US 17 to Chester Rd | 6D | D | 62,900 | 54,470 | 7,228 | 61,698 | D | 0.98 |
| CR 200A/ Pages Dairy Road | Chester Rd to Blackrock Rd | 6D | D | 62,900 | 50,497 | 4,162 | 54,659 | C | 0.87 |
| | Blackrock Rd to Amelia Island Pkwy | 4D | D | 65,600 | 50,004 | 3,514 | 53,518 | D | 0.82 |
| | US 17 to Chester Rd | 2U | D | 17,700 | 2,881 | 2,623 | 5,504 | C | 0.31 |
| | Chester Rd to SR 200/A1A | 2U | D | 17,700 | 3,212 | 748 | 3,960 | C | 0.22 |
| CR 107N/ Blackrock Road | SR 200/A1A to Amelia Concourse | 2U | D | 17,700 | 9,498 | 142 | 9,640 | C | 0.54 |
| | Amelia Concourse to Santa Juana Rd | 2U | D | 17,700 | 5,494 | 0 | 5,494 | C | 0.31 |
| | SR 200/A1A to Pages Dairy Rd | 4D | D | 39,800 | 12,629 | 14,021 | 26,650 | C | 0.67 |
| | Pages Dairy Rd to South Project Driveway | 4D | D | 39,800 | 10,449 | 5,289 | 15,738 | C | 0.40 |
| Chester Road | South Project Driveway to North Project Driveway | 4D | D | 39,800 | 10,449 | 5,607 | 16,056 | C | 0.40 |
| | North Project Driveway to CR 108 Extension | 2U | D | 17,700 | 10,449 | 5,607 | 16,056 | C | 0.91 |
| | CR 108 Extension to Blackrock Rd | 2U | D | 17,700 | 9,509 | 6,014 | 15,523 | C | 0.88 |
| | SR 200/A1A to Old Nassauville Rd | 4D | D | 39,800 | 11,207 | 1,427 | 12,634 | C | 0.32 |
| US 17 | Duval County Line to Harts Rd | 2U | D | 24,200 | 22,473 | 914 | 23,387 | D | 0.97 |
| | Harts Rd to Sowell Rd | 2U | D | 24,200 | 17,923 | 945 | 18,868 | D | 0.78 |
| | Sowell Rd to SR 200/A1A | 4D | D | 39,800 | 15,276 | 885 | 16,161 | C | 0.41 |
| | SR 200/A1A to Pages Dairy Rd | 4D | D | 39,800 | 15,663 | 201 | 15,864 | C | 0.40 |



| Roadway | Segment | No Lanes | LOS Std | Service Capacity | 2035 Background AADT | Total Project Trips | 2035 With Project | | |
|-------------------------|----------------------------------|----------|---------|------------------|----------------------|---------------------|-------------------|-----|------|
| | | | | | | | AADT | LOS | v/c |
| US 17 | Pages Dairy Rd to Interchange Rd | 2U | D | 24,200 | 15,095 | 630 | 15,725 | C | 0.65 |
| | Interchange Rd to CR 108 | 2U | D | 24,200 | 12,398 | 113 | 12,511 | C | 0.52 |
| | CR 108 to I-95 | 2U | D | 24,200 | 11,752 | 65 | 11,817 | C | 0.49 |
| | I-95 to GA State Line | 2U | D | 24,400 | 4,663 | 17 | 4,680 | B | 0.19 |
| I-95/SR A1A Interchange | NB I-95 to SR A1A Off-ramp | 1L | D | 23,900 | 14,652 | 1,220 | 15,872 | C | 0.66 |
| | SR A1A to NB I-95 On-ramp | 1L | D | 10,600 | 3,546 | 0 | 3,546 | C | 0.33 |
| | SB I-95 to SR A1A Off-ramp | 1L | D | 10,600 | 3,137 | 0 | 3,137 | C | 0.30 |
| | SR A1A to SB I-95 On-ramp | 1L | D | 23,900 | 14,451 | 1,330 | 15,781 | C | 0.66 |
| I-95/US 17 Interchange | NB I-95 to US 17 Off-ramp | 1L | D | 10,600 | 1,079 | 0 | 1,079 | C | 0.10 |
| | US 17 to NB I-95 On-ramp | 1L | D | 10,600 | 4,224 | 33 | 4,257 | C | 0.40 |
| | SB I-95 to US 17 Off-ramp | 1L | D | 10,600 | 4,056 | 14 | 4,070 | C | 0.38 |
| | US 17 to SB I-95 On-ramp | 1L | D | 10,600 | 1,089 | 0 | 1,089 | C | 0.10 |
| CR 108 Extension | Chester Rd to Project Driveway | 2U | D | 17,700 | 0 | 675 | 675 | C | 0.04 |
| CR 108 | US 17 to I-95 Overpass | 2U | D | 17,700 | 3,985 | 48 | 4,033 | C | 0.23 |



- Project Boundary
- 0,000 - Roadway Volumes



Figure 4
 Chester Road DSAP
 2035 Chester Road DSAP Roadway Volumes
 Nassau County, Florida

Source: VHB



The roadway segment analysis for the build-out of the Chester Road DSAP was performed using the adjusted project traffic distribution. In addition, and to provide for a conservative analysis of Pages Dairy Road, an analysis was performed using the modeled project traffic distribution (all of the westbound project trips to Pages Dairy Road). The results of this analysis is provided in **Table 7**. As can be observed in **Table 7**, Pages Dairy Road would have excess capacity even if all of the westbound project trips were assigned to it.



Table 7 Year 2035 Chester Road DSAP Roadway Network Analysis (Modeled Project Traffic Distribution)

| Roadway | Segment | No Lanes | LOS Std | Service Capacity | 2035 Background AADT | Modeled Project Trips | Modeled Project Distribution | Total Project Trips | 2035 With Project | | |
|---------------------------|---------------------|----------|---------|------------------|----------------------|-----------------------|------------------------------|---------------------|-------------------|-----|------|
| | | | | | | | | | AADT | LOS | v/c |
| CR 200A/ Pages Dairy Road | US 17 to Chester Rd | 2U | D | 17,700 | 2,881 | 4,359 | 40% | 7,479 | 10,360 | C | 0.59 |



6

Conclusions

This transportation analysis has been prepared to evaluate the impacts associated with the build-out of the Chester Road DSAP. Based on the analysis results, the Chester Road DSAP will not trigger any of the improvements identified in the recommended Mobility Network. The portion of the CR 108 extension that borders the northern Chester Road DSAP boundary it is not needed for the DSAP to develop from a capacity or site access perspective; however, the developer may elect to construct this segment of CR 108 Extension with the objective of providing additional access to the development.

APPENDICES

APPENDIX A

Mobility Network Improvements

Figure B-5 (REVISED 9/26/14)
Recommended ENCPA Mobility Network

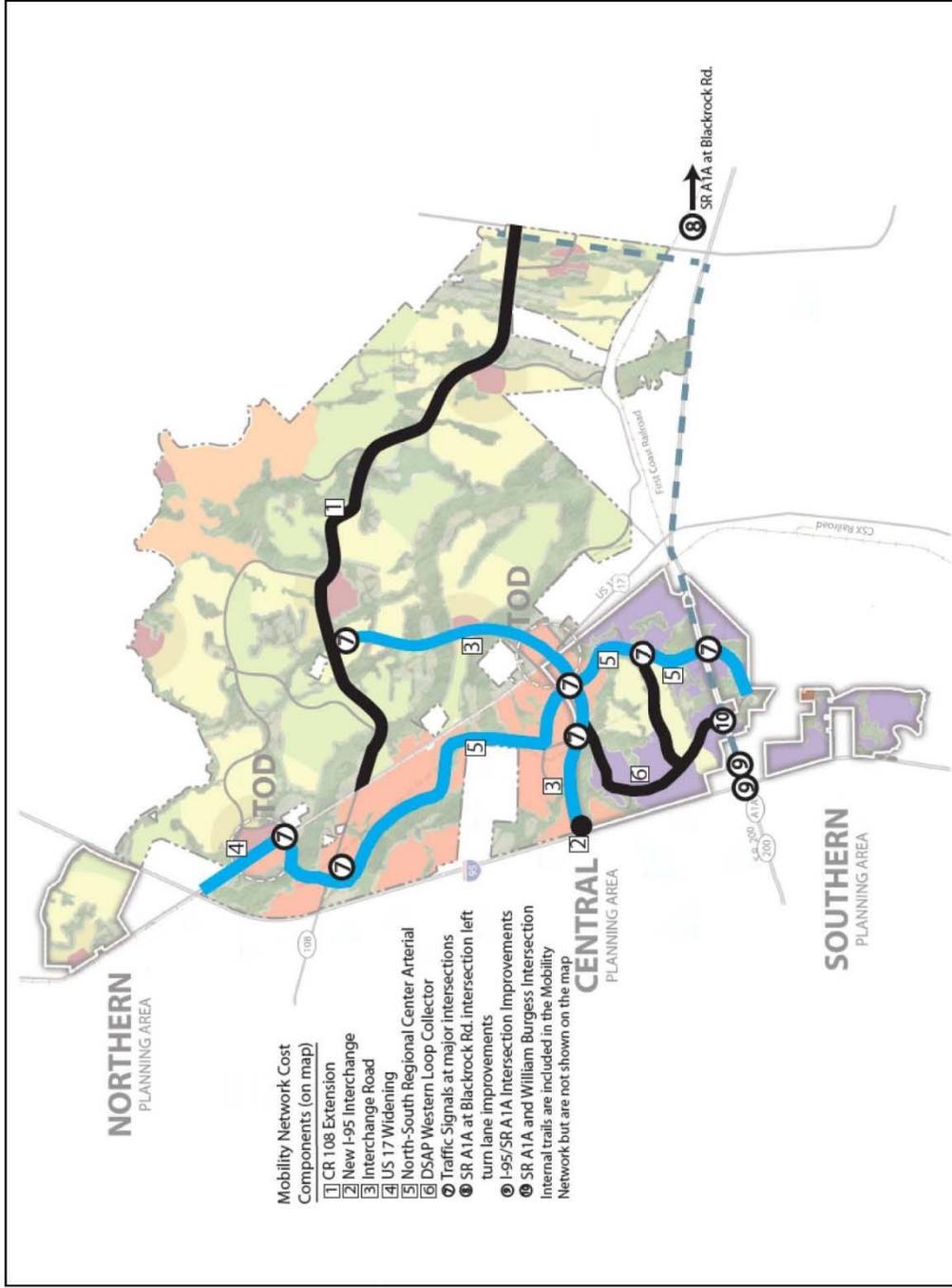


Table B-10 REVISED
Mobility Improvements Summary

| Roadway/Segment | Length (miles) | Improvement | Design and Construction Cost per Mile | | | Design and Construction Subtotal | ROW Subtotal | Total Cost |
|--|----------------|---------------------------------|---------------------------------------|----------------------|-----------|----------------------------------|--------------------|----------------------|
| | | | Roadway | Multi-Use Path (12') | Sidewalk | | | |
| CR 108 Extension | | | | | | | | |
| US 17 to Interchange Rd | 1.7 | New 2-lane road | \$3,027,000 | \$163,321 | \$102,285 | \$5,597,430 | \$498,000 | \$6,095,430 |
| Interchange Rd to Resort Area | 3.7 | New 2-lane road | \$3,027,000 | \$163,321 | \$102,285 | \$12,182,642 | \$1,083,000 | \$13,265,642 |
| Resort Area to Chester Rd | 1.6 | New 2-lane road | \$3,027,000 | \$163,321 | \$102,285 | \$5,268,170 | \$468,000 | \$5,736,170 |
| | | | | | | | | |
| Interchange Rd | | | | | | | | |
| I-95 to DSAP Western Loop Collector | 1.1 | New 4-lane road | \$4,644,000 | \$163,321 | \$102,285 | \$5,400,567 | \$322,000 | \$5,722,567 |
| DSAP Western Loop Collector to N-S Regional Arterial | 0.8 | New 4-lane road | \$4,644,000 | \$163,321 | \$102,285 | \$3,927,685 | \$234,000 | \$4,161,685 |
| N-S Regional Center Arterial to US 17 | 0.4 | New 4-lane road | \$4,644,000 | \$163,321 | \$102,285 | \$1,963,842 | \$117,000 | \$2,080,842 |
| US 17 to CR 108 | 2.1 | New 4-lane road | \$4,644,000 | \$163,321 | \$102,285 | \$10,310,173 | \$615,000 | \$10,925,173 |
| | | | | | | | | |
| Interchange Rd at I-95 | | | | | | | | |
| | | New interchange | | | | \$23,650,000 | \$75,000 | \$23,725,000 |
| | | | | | | | | |
| DSAP Western Loop Collector | | | | | | | | |
| | 3.7 | New 2-lane road | \$3,027,000 | \$163,321 | \$102,285 | \$12,182,642 | \$787,000 | \$12,969,642 |
| | | | | | | | | |
| N-S Regional Center Arterial | | | | | | | | |
| US 17 to CR 108 | 1.2 | New 4-lane road | \$4,644,000 | \$163,321 | \$102,285 | \$5,891,527 | \$351,000 | \$6,242,527 |
| CR 108 to Interchange Rd | 3.6 | New 4-lane road | \$4,644,000 | \$163,321 | \$102,285 | \$17,674,582 | \$1,054,000 | \$18,728,582 |
| Interchange Rd to SR 200/A1A | 1.9 | New 4-lane road | \$4,644,000 | \$163,321 | \$102,285 | \$9,328,251 | \$556,000 | \$9,884,251 |
| | | | | | | | | |
| US 17 | | | | | | | | |
| | 1.2 | Widen to 4 lanes | \$5,676,000 | \$163,321 | \$102,285 | \$7,129,927 | \$87,000 | \$7,216,927 |
| | | | | | | | | |
| Traffic Signals (at 8 major intersections) | | | | | | | | |
| | | Install new signal | | | | \$2,800,000 | | \$2,800,000 |
| | | | | | | | | |
| SR A1A Intersection Improvements | | | | | | | | |
| | | Dual left lanes at Blackrock Rd | | | | | | |
| | | | | | | | | |
| SR A1A/I-95 Interchange Improvements | | | | | | | | |
| | | Interchange improvements | | | | \$700,000 | | \$700,000 |
| | | | | | | | | |
| SR A1A/William Burgess Blvd Intersection Improvements | | | | | | | | |
| | | Intersection improvements | | | | \$500,000 | | \$500,000 |
| | | | | | | | | |
| Internal multi-use trail system | | | | | | | | |
| | 50 | New multi-use trail | | \$163,321 | | \$8,166,050 | | \$8,166,050 |
| | | | | | | | | |
| TOTAL | | | | | | \$132,673,488 | \$6,247,000 | \$138,920,488 |



APPENDIX B

**Chester Road Preliminary Development Plan
Transportation Impact Analysis**

Chester Road PDP

Nassau County, Florida

Submitted to **Nassau County Growth Management**

Prepared for **Raydient + Places, Inc.**

Prepared by ***VHB/Vanasse Hangen Brustlin, Inc.***

Landmark Center Two
225 E. Robinson Street, Suite 300
Orlando, Florida 32801

March 2016



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1

Introduction

VHB/Vanasse Hangen Brustlin, Inc. has been retained by Raydient Places + Properties, Inc. to conduct a transportation impact study for the first Preliminary Development Plan (PDP) within the Chester Road Detailed Specific Area Plan (DSAP). This PDP is to be located north of Pages Dairy Road and west of Chester Road in Nassau County, Florida within the East Nassau Community Planning Area (ENCPA). The project location is shown on Figure 1. This transportation impact study quantifies both the existing traffic conditions along area roadways surrounding the site and the projected future traffic conditions expected for the short term (Year 2021) build out of the development plan. The purpose of this study is to determine the point in time at which improvements already identified in the Mobility Network will be needed. This document provides a detailed description of the study methodology, analysis, and key findings.

Project Description

The proposed Chester Road PDP is approximately 317.5 acres in total area, located north of Pages Dairy Road and west of Chester Road. The PDP proposed development consists of 400 single family residential units, 300 multi-family residential units, and 31,000 square feet of retail.

The proposed project will be developed on currently vacant land. The development is anticipated to be completed in year 2021. There will be one new connection on Pages Dairy Road approximately one-quarter mile west of the intersection of Pages Dairy Road and Chester Road. There will also be two new connections along Chester Road approximately one-quarter mile and one-half mile north of the intersection of Pages Dairy Road and Chester Road. These connections will operate as unsignalized intersections.



Figure 1
Project Location Map
Nassau County, Florida

Source Bing Maps

Study Methodology

The purpose of this study is to determine the point in time at which improvements already identified in the Mobility Network will be needed. In addition, the results of this study are used to identify the recommended allocation of Mobility Fee funds towards the completion of the ENCPA Mobility Network improvements. The focus of this study is to evaluate near-term operating conditions on the roadways and intersections likely to be used for access to and from the site and the potential transportation impacts on these roadways and intersections. Additionally, the study identifies transportation impacts on these roadways and intersections and recommends actions and improvements aimed at addressing the project-related impacts on these roadways.

This transportation impact study analyzes traffic operating conditions during the morning and afternoon peak period for intersections within the study area, and analyzes daily traffic operating conditions for roadway segments within the study area per the Transportation Impact Analysis (TIA) Methodology document, which is contained in Appendix A.

To evaluate the potential traffic impacts of the proposed development, an analysis of traffic conditions for the 2016 Existing condition and the 2021 Build condition of the development plan was conducted and is presented in this report.

Analysis Area

Consistent with the project methodology, the primary analysis area for this traffic assessment includes all corridors and intersections within a one mile radius of the project site. (The one mile radius is based on the daily trip generation for the project, which is discussed under Section 3). The Analysis Area for this project is shown in Figure 2. The corridors adjacent to the site are Pages Dairy Road, Chester Road, and SR 200/A1A/The Buccaneer Trail. Intersections were selected for analysis based on a review of the project site in relation to the street network and consistent with the approved TIA methodology. Based on this review, the following intersections were analyzed:

- Pages Dairy Road and Chester Road
- SR 200/ A1A/ The Buccaneer Trail and Miner Road/Felmor Road
- SR 200/ A1A/ The Buccaneer Trail and Christian Way/Gene Lassere Blvd
- SR 200/ A1A/ The Buccaneer Trail and Chester Road
- SR 200/ A1A/ The Buccaneer Trail and Arrigo Blvd
- Pages Dairy Road and Project Driveway
- Chester Road and South Project Driveway
- Chester Road and North Project Driveway

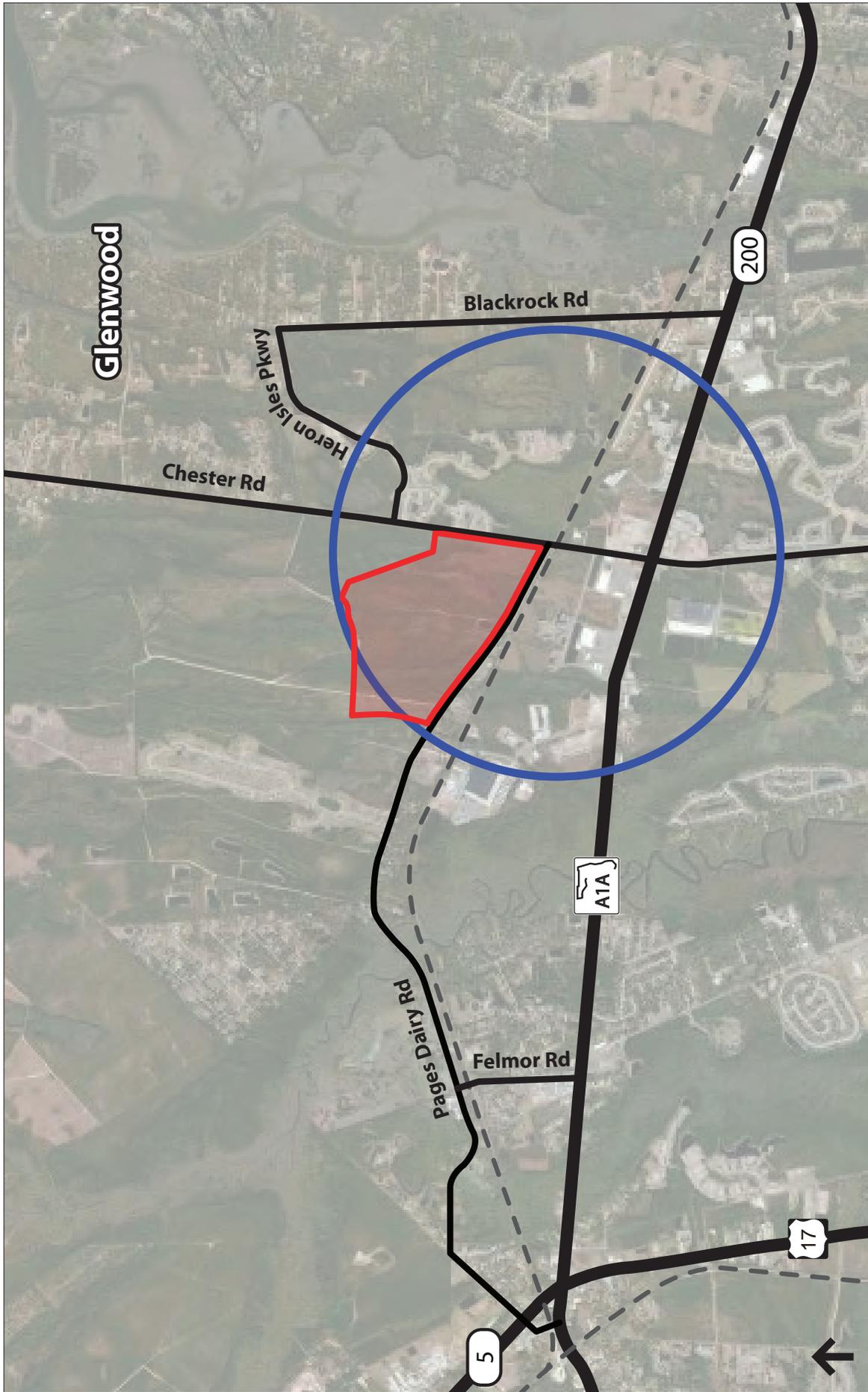


Figure 2
Analysis Area
Nassau County, Florida

Source Bing Maps



2

Existing Conditions

This section summarizes existing transportation conditions observed in the study area, including roadway and intersection geometry, existing traffic control, and daily and evening peak hour traffic volumes.

Existing Roadway Network

SR 200/A1A/The Buccaneer Trail is the primary east-west arterial roadway in Nassau County, connecting Interstate 95 to the population centers of Fernandina Beach and Amelia Island to the east. To the west of Interstate 95, SR A1A extends to the rural community of Callahan. SR 200/A1A /The Buccaneer Trail is currently a four-lane divided roadway and is under the jurisdiction of FDOT.

Pages Dairy Road is an alternative east-west facility to SR 200/A1A/The Buccaneer Trail. It is a two lane undivided roadway that connects US 17 to Chester Road.

Chester Road is currently four lanes between SR 200/A1A/The Buccaneer Trail and Courtney Isles Way. It transitions to a two-lane facility north of Courtney Isles as Chester Road extends northward into residential areas.

Programmed Improvements

Improvements to SR 200/A1A/The Buccaneer Trail and Chester Road are currently in the adopted FDOT Five Year Work Program. The widening of SR 200/A1A/The Buccaneer Trail from four to six lanes between west of Rubin Road to east of CR 107/Scott Road is funded for construction in FY 2016.

The widening of Chester Road from two to four lanes between Courtney Isles Way and Green Pine Road is funded for construction in FY 2019. The widening of Chester Road includes improvements to the intersection of Pages Dairy Road at Chester Road.

Information regarding these improvements was obtained from the Florida Department of Transportation District 2 Five Year Work Program and is included in Appendix B.



Table 1 Programmed Improvements - FDOT D2 Five Year Work program

| FDOT Item No. | Roadway and Limits | Description | Phase | Year | Funding |
|---------------|---|-------------------------------|--------------|------|--------------|
| 210712-4 | SR 200 (A1A) from west of Rubin Rd. to east of CR 107/Scott Rd. | Add lanes (widen from 4 to 6) | Construction | 2016 | \$68,364,450 |
| 426031-2 | Chester Road from SR A1A to Green Pine Rd | Add lanes (widen from 2 to 4) | Construction | 2019 | \$10,018,516 |

Existing Roadway Segment Analysis

To identify current traffic conditions along the major roadways serving the project analysis area, the latest available roadway volumes were collected from the FDOT Florida Traffic Online (2014) and from Nassau County Local Roads Traffic Counts (2006-2009). The latest available roadway data for Pages Dairy Road from the Nassau County Local Roads Traffic Counts is from 2009. All volumes were grown using growth rates identified in the TIA Methodology Document's future growth section to the year 2016. The 2016 weekday average annual daily traffic (AADT) roadway volume network is presented in Figure 3. The existing roadway segment analysis is shown in Table 2. All roadway segments in the analysis area currently operate at a level of service D or better.

Table 2 Existing Roadway Segment Capacity Analysis

| Roadway Segment | No. of Lanes | LOS Std | Service Capacity | Existing AADT | Annual Growth Rate | Background Volume | 2016 AADT | LOS |
|----------------------------------|--------------|---------|------------------|---------------|--------------------|-------------------|-----------|-----|
| SR 200/A1A | | | | | | | | |
| Miner Rd to Christian Way | 4D | D | 41,800 | 33,500 | 2.00% | 1,340 | 34,840 | C |
| Christian Way to Chester Rd | 4D | D | 41,800 | 33,500 | 2.00% | 1,340 | 34,840 | C |
| Chester Rd to Arrigo Blvd | 4D | D | 41,800 | 38,500 | 2.00% | 1,540 | 40,040 | D |
| Pages Dairy Rd | | | | | | | | |
| Felmor Rd to Chester Rd | 2U | D | 15,900 | 3,004 | 4.78% | 1,005 | 4,009 | C |
| Chester Rd | | | | | | | | |
| N Hampton Club Way to SR 200/A1A | 4D | D | 37,600 | 10,400 | 2.00% | 416 | 10,816 | C |
| SR 200/A1A to Pages Dairy Rd | 4D | D | 37,600 | 12,500 | 2.00% | 500 | 13,000 | C |
| Pages Dairy Rd to Green Pine Rd | 2U | D | 15,900 | 4,900 | 2.00% | 196 | 5,096 | C |
| Green Pine Rd to Blackrock Rd | 2U | D | 15,900 | 4,900 | 2.00% | 196 | 5,096 | C |



Figure 3
Traffic Impact Analysis
Existing Roadway Volumes
Nassau County, Florida

Project Boundary
Existing Roadway Volumes



Existing Unsignalized Intersection Capacity Analysis

To determine the existing traffic at the study intersections, VHB collected turning movement counts (TMCs) on November 19, 2015 for the study area intersections. AM and PM 2-hour turning movement counts were performed at the following intersections:

- Pages Dairy Road at Chester Road
- SR 200/A1A at Miner Rd/Felmor Rd
- SR 200/A1A at Christian Way/Gene Lassere Blvd
- SR 200/A1A at Amelia Concourse/Chester Rd
- SR 200/A1A at Arrigo Blvd

The AM and PM peak hour intersection TMCs that have been adjusted to 2016 average conditions are presented in Figure 4. A copy of the data collected is included in Appendix C.

The intersection of Pages Dairy Road and Chester Road is the only unsignalized intersection in the analysis area. Table 3 presents the intersection capacity analysis for this intersection. The analysis shows that all movements with the exception of the eastbound left movement, currently operate at a level of service D or better. The eastbound left turn currently experiences long delays (449.1 sec/veh) operating at level of service F with a volume to capacity ratio of 1.70 in the PM peak.

As noted in the Programmed Improvements section, the widening of Chester Road is included in the adopted FDOT Five Year Work Program. This widening project includes improvements to the Pages Dairy Road at Chester Road intersection. These intersection improvements will address the existing deficiencies shown in Table 3.

Table 3 Existing Unsignalized Intersection Capacity Analysis

| Intersection | Movement | 2016 AM Conditions | | | 2016 PM Conditions | | |
|----------------------------------|----------|--------------------|--------------------|------------------|--------------------|--------------------|------------------|
| | | v/c | Delay ^a | LOS ^b | v/c | Delay ^a | LOS ^b |
| Pages Dairy Road at Chester Road | EBL | 0.24 | 32.3 | D | 1.70 | 449.1 | F |
| | EBT | N/A | N/A | N/A | N/A | N/A | N/A |
| | EBR | 0.64 | 22.3 | C | 0.41 | 13.0 | B |
| | WBL | N/A | N/A | N/A | N/A | N/A | N/A |
| | WBT | N/A | N/A | N/A | N/A | N/A | N/A |
| | WBR | N/A | N/A | N/A | N/A | N/A | N/A |
| | NBL | 0.24 | 9.9 | A | 0.34 | 9.4 | A |
| | NBT | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 | Note1 |
| | NBR | N/A | N/A | N/A | N/A | N/A | N/A |
| | SBL | N/A | N/A | N/A | N/A | N/A | N/A |
| | SBT | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 | Note1 |
| | SBR | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 | Note1 |

Note 1: Unopposed Movement

Source: VHB, Inc. using HCM 2010 Methodology.

a Average delay in seconds per vehicle

b Level of Service



Existing Signalized Intersection Capacity Analysis

Table 4 shows the intersection capacity analysis for the remaining signalized intersections. This analysis results in several movements experiencing long delays and with volume to capacity ratios greater than 1.0. These movements have been highlighted in the table below. With the exception of the intersection of SR 200/A1A/The Buccaneer Trail at Miner Road/Felmor Road, all of the intersections currently operate at an overall level of service of D or better. The Miner Road intersection operates at an overall level of service E in the PM peak hour.

As noted in the Programmed Improvements section, the adopted FDOT Five Year Work Program includes the widening of SR 200/A1A/The Buccaneer Trail from four to six lanes. This widening project will address the existing deficiencies of those movements that experience volume to capacity ratios over 1.0.



Table 4 Existing Signalized Intersection Capacity Analysis

| Intersection | Movement | 2016 AM Conditions | | | 2016 PM Conditions | | |
|--|--------------|--------------------|--------------------|------------------|--------------------|--------------------|------------------|
| | | v/c | Delay ^a | LOS ^b | v/c | Delay ^a | LOS ^b |
| SR 200/ A1A at Miner Rd/Felmor Rd | EBL | 0.78 | 95.6 | F | 0.81 | 117.7 | F |
| | EBT | 0.93 | 49.5 | D | 0.92 | 46.3 | D |
| | EBR | 0.10 | 23.1 | C | 0.15 | 21.5 | C |
| | WBL | 0.89 | 75.9 | E | 1.21 | 176.6 | F |
| | WBT | 0.77 | 27.3 | C | 0.61 | 16.3 | B |
| | WBR | 0.11 | 15.3 | B | 0.16 | 10.7 | B |
| | NBL | 0.25 | 53.6 | D | 0.30 | 60.3 | E |
| | NBT/R | 1.22 | 196.7 | F | 1.25 | 215.1 | F |
| | SBL | 0.78 | 63.7 | E | 0.45 | 64.3 | E |
| | SBT/R | 0.54 | 57.0 | E | 0.47 | 68.0 | E |
| | TOTAL | N/A | 52.8 | D | N/A | 57.2 | E |
| SR 200/ A1A at Christian Way/Gene Lassere Blvd | EBL | 0.80 | 65.6 | E | 0.97 | 96.0 | F |
| | EBT | 0.74 | 12.5 | B | 0.75 | 15.3 | B |
| | EBR | 0.75 | 12.6 | B | 0.75 | 15.3 | B |
| | WBL | 0.79 | 75.0 | E | 0.72 | 77.2 | E |
| | WBT | 0.69 | 13.1 | B | 0.83 | 17.8 | B |
| | WBR | 0.04 | 6.7 | A | 0.02 | 7.3 | A |
| | NBL/T/R | 0.18 | 57.6 | E | 0.47 | 62.3 | E |
| | SBL | 0.12 | 53.7 | D | 0.23 | 52.9 | D |
| | SBT/R | 0.15 | 50.0 | D | 0.34 | 50.4 | D |
| | | TOTAL | N/A | 14.8 | B | N/A | 19.2 |
| SR 200/A1A at Amelia Concourse/Chester Rd | EBL | 0.69 | 61.0 | E | 0.80 | 66.0 | E |
| | EBT | 0.77 | 27.9 | C | 0.71 | 27.7 | C |
| | EBR | 0.27 | 18.8 | B | 0.44 | 23.0 | C |
| | WBL | 0.61 | 62.4 | E | 0.72 | 63.4 | E |
| | WBT | 0.72 | 28.1 | C | 0.82 | 33.1 | C |
| | WBR | 0.10 | 18.0 | B | 0.21 | 21.3 | C |
| | NBL | 0.85 | 59.7 | E | 0.87 | 72.9 | E |
| | NBT | 0.48 | 52.2 | D | 0.7 | 63.7 | E |
| | NBR | 0.85 | 80.1 | F | 0.46 | 54.3 | D |
| | SBL | 0.86 | 62.4 | E | 0.84 | 66.4 | E |
| | SBT | 0.55 | 62.1 | E | 0.75 | 75.3 | E |
| | SBR | 0.99 | 120.8 | F | 0.74 | 77.4 | E |
| | TOTAL | N/A | 42.2 | D | N/A | 42.8 | D |
| SR 200/A1A at Arrigo Blvd | EBL | 0.78 | 67.3 | E | 0.78 | 77.1 | E |
| | EBT | 0.79 | 18.0 | B | 0.74 | 22.5 | C |
| | EBR | 0.03 | 8.5 | A | 0.08 | 12.9 | B |
| | WBL | 0.67 | 61.3 | E | 0.80 | 67.1 | E |
| | WBT | 0.49 | 12.2 | B | 0.81 | 22.0 | C |
| | WBR | 0.01 | 7.8 | A | 0.00 | 9.4 | A |
| | NBL/T | 0.38 | 52.2 | D | 0.64 | 57.7 | E |
| | NBR | 0.82 | 77.2 | E | 1.06 | 140.2 | F |
| | SBL | 0.36 | 83.0 | F | 0.07 | 63.7 | E |
| | SBT/R | 0.00 | 0.0 | N/A | 0.40 | 72.4 | E |
| | TOTAL | N/A | 21.8 | C | N/A | 33.6 | C |

Source: VHB, Inc. using HCM 2010 Methodology.

a Average delay in seconds per vehicle

b Level of Service

Future Conditions Year 2021

To determine the impacts of the site-generated traffic volumes on the surrounding roadway network, future traffic conditions were analyzed for the completion of the PDP. The future condition for this analysis includes: 1) existing traffic volumes; 2) background traffic growth; 3) trips from approved ENCPA development within the analysis area; and 4) project trips assigned to the study area roadways and intersections. Anticipated site-generated traffic volumes were overlaid upon the No-Build traffic volumes to reflect the Build conditions in the study area.

Background Traffic Growth

Traffic growth on area roadways is a function of the expected land development, economic activity, changes to the transportation network, and changes in demographics. For this project, the background growth rates were assigned according to the TIA Methodology document, which can be found in Appendix A of this report.

For the study area roadway network, the proposed project trip generation was overlaid upon the existing roadway network volumes. The 2021 No-Build condition daily roadway volumes are presented in Figure 5, and the 2021 No-Build condition AM and PM peak hour intersection turning movement volumes (TMV) are presented in Figure 6. The No-Build volumes are the total of existing traffic volumes and background traffic growth, and do not include any project traffic.



Figure 5
Traffic Impact Analysis
2021 No-Build Roadway Volumes
Nassau County, Florida

Project Boundary
2021 No Build Roadway Volumes



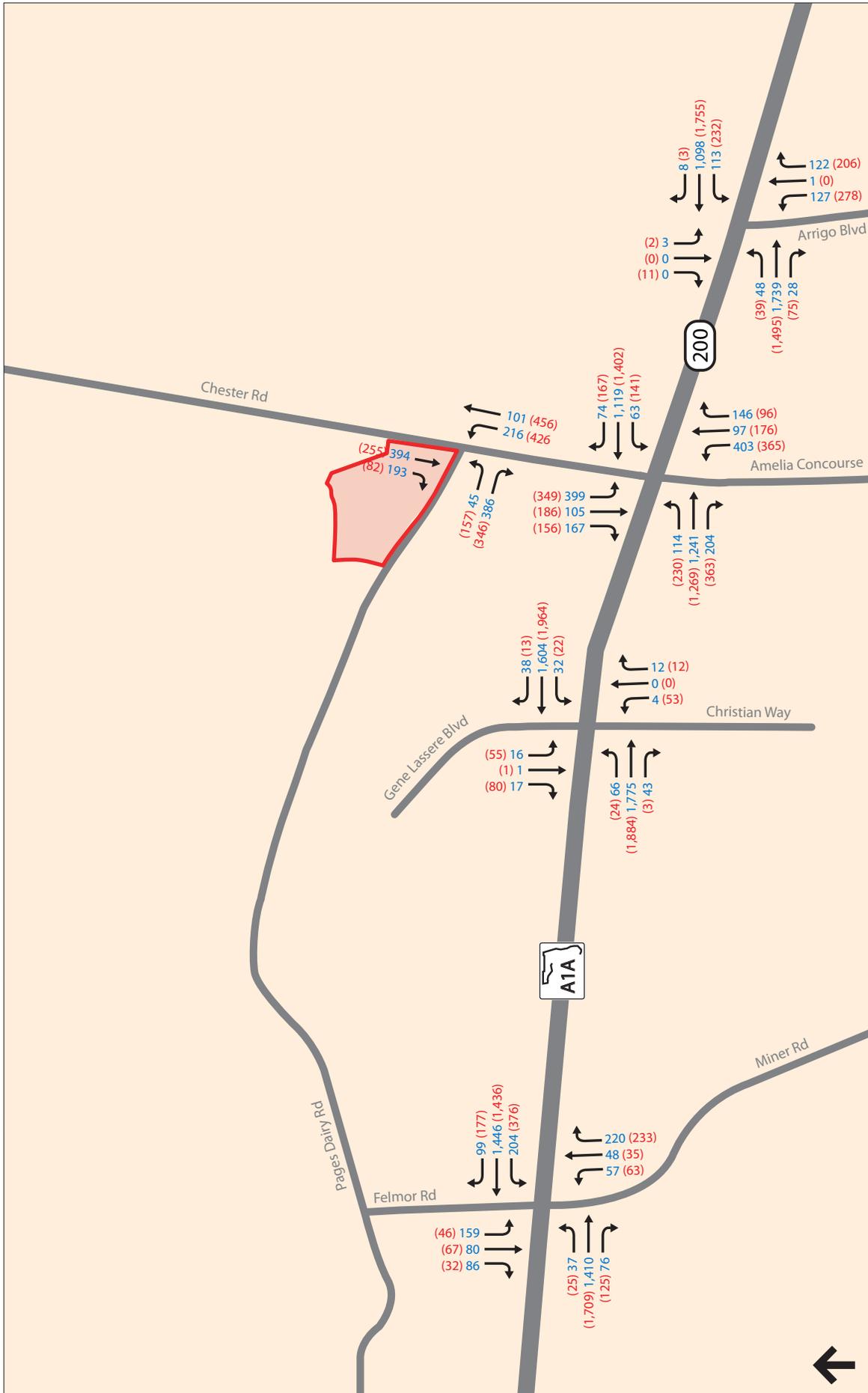


Figure 6
 Traffic Impact Analysis
 2021 No-Build Intersection Volumes
 Nassau County, Florida

- Project Boundary
- Traffic Movement
- # AM Peak Hour Turning Movement Volume (Year 2021 Background Volume)
- (#) PM Peak Hour Turning Movement Volume (Year 2021 Background Volume)



Site-Generated Traffic

Future year (2021 Build) traffic volumes for the study area roadways were determined by estimating site-generated traffic volumes and assigning these volumes to the study area roadways. The proposed site-generated traffic volumes were added to the 2021 No-Build network volumes to create the 2021 Build traffic volume networks. The following sections describe the procedures used to develop the Build network traffic volumes.



Trip Generation

Trip generation was estimated for the proposed development using the Institute of Transportation Engineer’s (ITE) “Trip Generation” Manual, 9th Edition. The following ITE Land Use Codes (LUC) were deemed the most appropriate:

- LUC 210 – Single Family Residential
- LUC 220 – Multi-Family Residential
- LUC 820 – Shopping Center



Trip Generation Summary

Table 5 presents the total new vehicle trips anticipated from the proposed development. The proposed development is expected to add approximately 7,039 daily weekday, 485 weekday morning peak hour trips, and 714 weekday evening peak hour trips to the area roadway network. Because the proposed development project will generate more than 1,000 daily weekday trips, an analysis radius of one mile was used, as discussed in Section 1. The trip generation estimate can be observed in Appendix D.



Table 5 Trip Generation

| Land Use | ITE Land Use Code (LUC) | Intensity | Weekday Daily | Weekday AM | | | Weekday PM | | |
|------------------------|-------------------------|-------------|---------------|------------|------------|------------|------------|------------|------------|
| | | | | Enter | Exit | Total | Enter | Exit | Total |
| Single Family | 210 | 400 d.u. | 3,760 | 73 | 217 | 290 | 231 | 135 | 366 |
| Multi-Family | 220 | 300 d.u. | 1,942 | 30 | 121 | 151 | 119 | 64 | 183 |
| Shopping Center | 820 | 31,000 s.f. | 3,172 | 47 | 29 | 76 | 131 | 142 | 273 |
| Total | | | 8,874 | 150 | 367 | 517 | 481 | 341 | 822 |
| Internal Capture Trips | | | 1,276 | 4 | 4 | 8 | 29 | 29 | 58 |
| Pass-by Trips | | | 559 | 12 | 12 | 24 | 25 | 25 | 50 |
| New Trips | | | 7,039 | 134 | 351 | 485 | 427 | 287 | 714 |

Source: ITE Trip Generation, 9th Edition.

Trip Distribution and Assignment

The directional distribution of site generated traffic is a function of population in surrounding areas, existing travel patterns, ease of access to the site, and traffic conditions on area roadways. For this analysis, the trip distribution was produced using the Northeast Florida Regional Planning Model (NERPM-AB v1.0). The model output project traffic distribution estimate and the manually adjusted project traffic distribution is documented in Appendix E.

The model originally assigned all of the westbound project trips to Pages Dairy Road. Pages Dairy Road is a narrow, two-lane collector roadway; whereas, SR 200/A1A/The Buccaneer Trail is a major arterial that will be widened to six lanes in the near future. It is reasonable to assume that SR 200/A1A/The Buccaneer Trail will be more attractive to drivers than Pages Dairy Road; therefore, it does not seem likely that all of the westbound trips would choose Pages Dairy Road over SR 200/A1A/The Buccaneer Trail. Based on this, a post processing was performed that reassigned a portion of the westbound project trips away from Pages Dairy Road and onto SR 200/A1A/The Buccaneer Trail. As shown in Appendix E, 21.1 percent of the project trips were transferred from Pages Dairy Road to SR 200/A1A/The Buccaneer Trail. The original model also assigned a high percentage of project trips to the traffic analysis zone (TAZ) across Chester Road from the project site. This TAZ contains primarily residential development; therefore, it seems unlikely that 11.6 percent of project traffic would travel to this TAZ. As shown in Appendix E, 10 percent of the trips that were originally assigned to the TAZ across Chester Road from the project site were reassigned to the TAZ south of Pages Dairy Road, which is primarily retail development. The adjusted distribution of trips to and from the site is summarized in Table 6 and shown graphically on Figure 7.

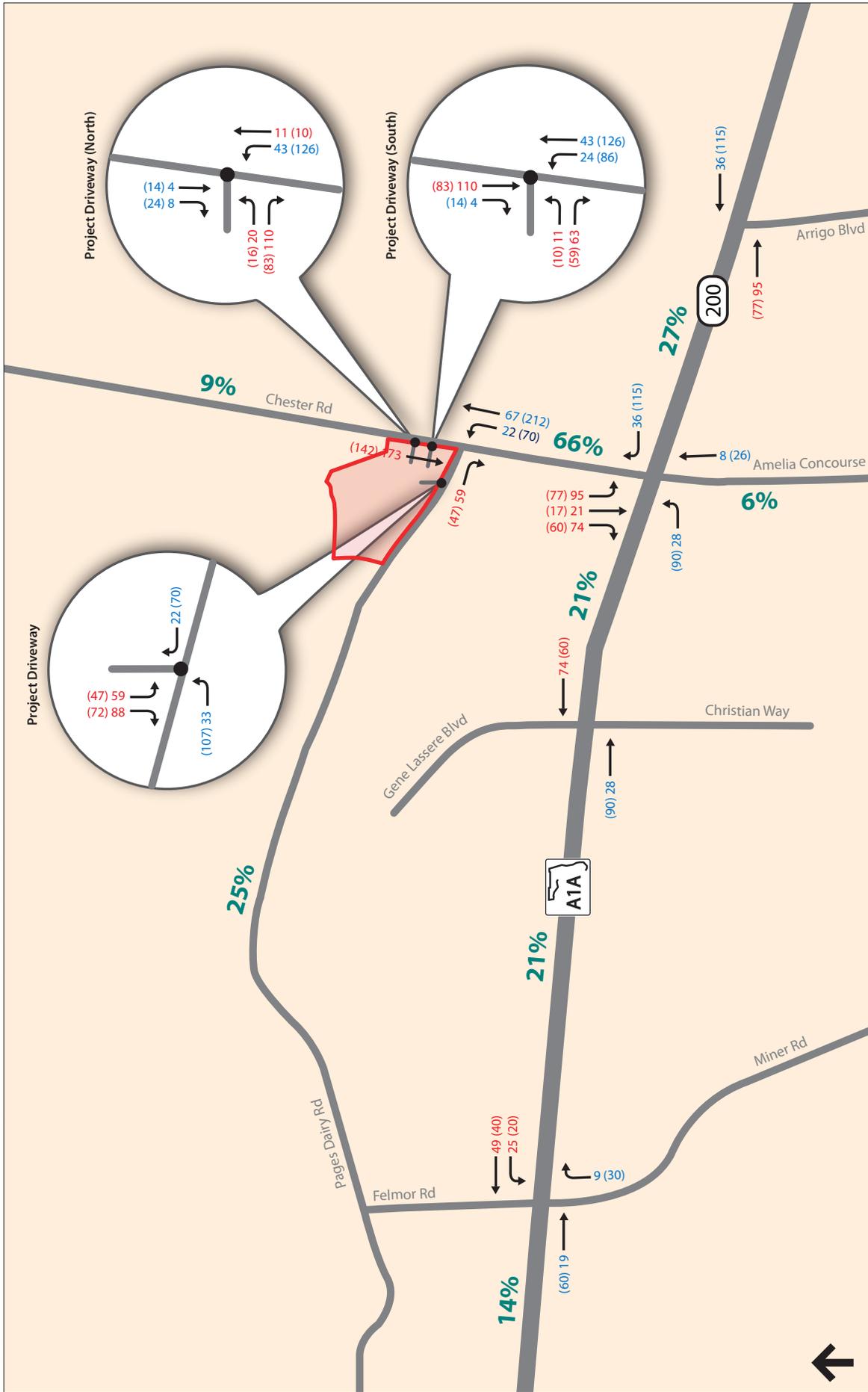


Figure 7

Traffic Impact Analysis
Project Trip Distribution & Assignment
Nassau County, Florida

- Project Boundary
- Traffic Movement
- Project Driveway
- xxx% Project Trip Distribution
- # AM Peak Hour Inbound (PM Peak Inbound)
- (#) AM Peak Hour Outbound (PM Peak Outbound)



Table 6 Trip Distribution Summary

| Travel Route | Direction | Modeled Percent of Site Traffic | Modeled Number of Project Trips | Adjusted Percent of Site Traffic | Adjusted Number of Project Trips |
|---------------------|------------------|--|--|---|---|
| Chester Road | North | 19% | 1,337 | 9% | 634 |
| | South | 35% | 2,464 | 66% | 4,645 |
| Pages Dairy Road | West | 46% | 3,238 | 25% | 1,760 |
| All Routes | Total | 100% | 7,039 | 100% | 7,039 |

Source: NERPM-AB v1.0 with manual adjustments

The new traffic generated by the proposed development was assigned to the area roadways based on the above trip distribution pattern.

The site-generated traffic was added to the 2021 No-Build weekday peak hour traffic volume network to establish the 2021 Build peak hour traffic volumes. The 2021 Build daily roadway traffic volumes are illustrated on Figure 8. The 2021 Build AM and PM peak hour intersection traffic volumes are illustrated in Figure 9. Appendix F provides the intersection volume calculations.

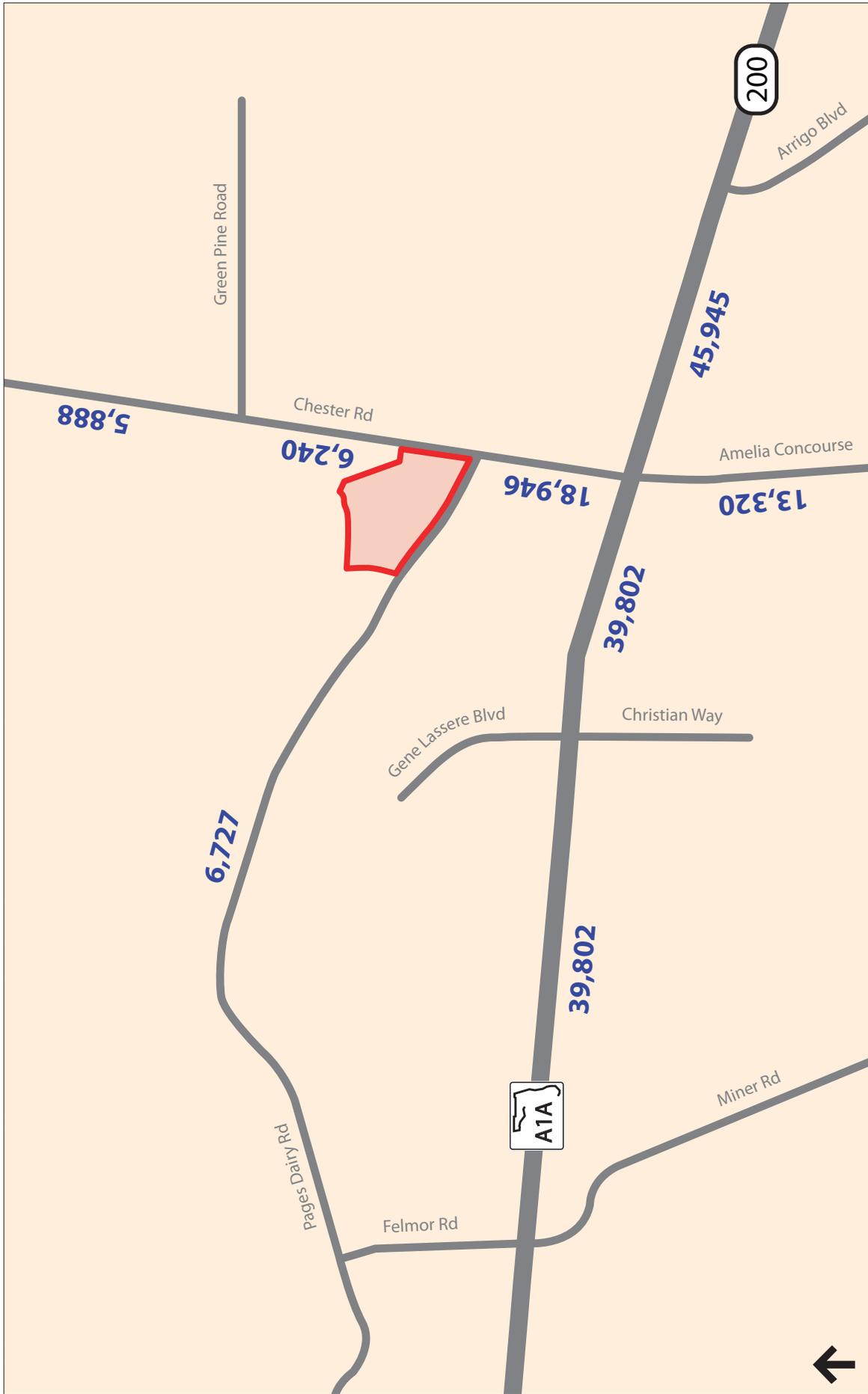


Figure 8

Traffic Impact Analysis
2021 Build Conditions Roadway Volumes
Nassau County, Florida

-  Project Boundary
-  # 2021 Build Conditions Roadway Volumes

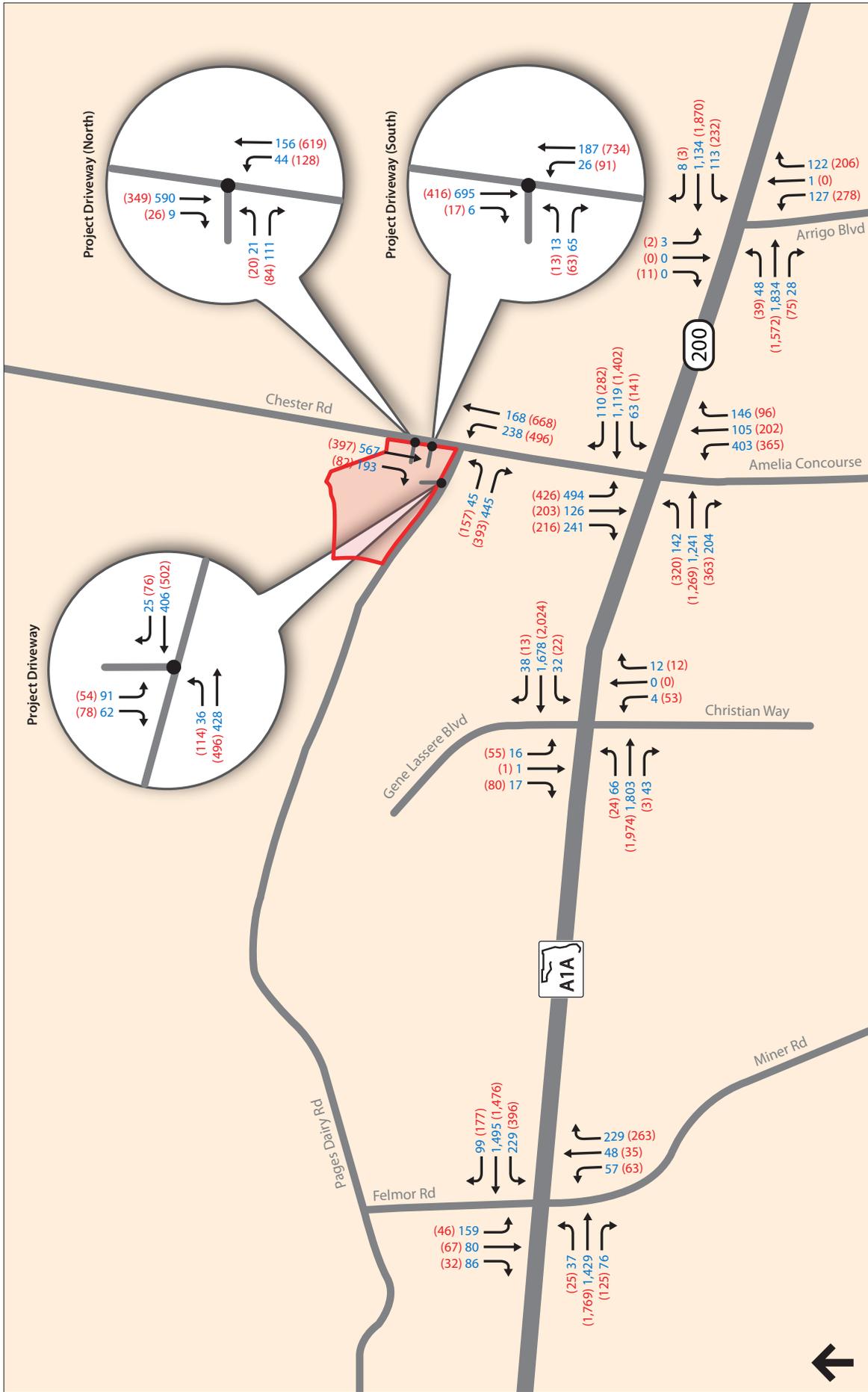


Figure 9

Traffic Impact Analysis
2021 Build Intersection Volumes
Nassau County, Florida

Traffic Operations

To assess the quality of traffic flow, roadway capacity analyses were conducted for existing and projected Build traffic volume conditions for the development program. Capacity analyses provide an indication of how well the roadway facilities serve the traffic demands placed upon them. The evaluation criteria contained in the 2010 Highway Capacity Manual¹ (HCM2010) were used to analyze study area intersections.

Level of Service Criteria

Level of service (LOS) is the term used to describe the different operating conditions which occur on a given roadway segment or intersection under various traffic volume loads. It is a qualitative measure of the effect of a number of factors including roadway geometrics, speed, travel delay, freedom to maneuver, and safety. Six levels of service are defined for each type of facility. Levels of service are given letter designations from A to F, with LOS A representing the best operating conditions and LOS F representing the worst.

The LOS designation is reported differently for signalized and unsignalized intersections. For signalized intersections, the analysis considers the operation of all traffic entering the intersection and the level of service designation is for overall conditions at the intersection. For unsignalized intersections, the analysis assumes that through traffic on the mainline does not stop and is not affected by traffic on the side streets. Instead, the LOS for unsignalized intersections is calculated only for the mainline left-turn or critical side street movements that are required to stop.

Roadway Segment Analysis

For each phase of the development, project traffic was assigned to the No-Build roadway network, and the results of the roadway segment analysis are presented in the tables below. The capacity of SR 200/A1A/The Buccaneer Trail reflects the programmed widening from 4 to 6 lanes within the study area. The capacity of Chester Road reflects the programmed widening from 2 to 4 lanes from Courtney Isles Way to Green Pine Road.



¹ Highway Capacity Manual 2010: Transportation Research Board, National Research Council, Washington, DC (2010).



Table 7 Year 2021 Roadway Segment Capacity Analysis (Adjusted Project Traffic Distribution)

| Roadway Segment | No. of Lanes | LOS Std | Service Capacity | 2016 AADT | Annual Growth Rate ⁽¹⁾ | Background Volume | 2021 No Build | Project Distribution | Project Traffic ⁽²⁾ | 2021 Build | LOS |
|----------------------------------|--------------|---------|------------------|-----------|-----------------------------------|-------------------|---------------|----------------------|--------------------------------|------------|-----|
| SR 200/A1A | | | | | | | | | | | |
| Miner Rd to Christian Way | 6D | D | 62,900 | 34,840 | 2.00% | 3,484 | 38,324 | 21% | 1,478 | 39,802 | C |
| Christian Way to Chester Rd | 6D | D | 62,900 | 34,840 | 2.00% | 3,484 | 38,324 | 21% | 1,478 | 39,802 | C |
| Chester Rd to Arrigo Blvd | 6D | D | 62,900 | 40,040 | 2.00% | 4,004 | 44,044 | 27% | 1,901 | 45,945 | C |
| Pages Dairy Rd | | | | | | | | | | | |
| Felmor Rd to Chester Rd | 2U | D | 15,900 | 4,009 | 4.78% | 958 | 4,967 | 25% | 1,760 | 6,727 | C |
| Chester Rd | | | | | | | | | | | |
| N Hampton Club Way to SR 200/A1A | 4D | D | 37,600 | 10,816 | 2.00% | 1,082 | 11,898 | 6% | 422 | 12,320 | C |
| SR 200/A1A to Pages Dairy Rd | 4D | D | 37,600 | 13,000 | 2.00% | 1,300 | 14,300 | 66% | 4,646 | 18,946 | C |
| Pages Dairy Rd to Green Pine Rd | 4D | D | 37,600 | 5,096 | 2.00% | 510 | 5,606 | 9% | 634 | 6,240 | C |
| Green Pine Rd to Blackrock Rd | 2U | D | 15,900 | 5,096 | 2.00% | 510 | 5,606 | 4% | 282 | 5,888 | C |

1. Source: TIA Methodology
2. PDP Trip Generation

Based on this analysis, all roadway segments within the analysis area will have available capacity after completion of the project.

The roadway analysis was performed using the adjusted project traffic distribution. In addition, and to provide for a conservative analysis of Pages Dairy Road, an analysis was performed using the modeled project traffic distribution (all of the westbound project trips to Pages Dairy Road). The results of this analysis are provided in Table 8 and it shows that Pages Dairy Road would have excess capacity even if all of the westbound project trips were assigned to it.

Table 8 Year 2021 Roadway Segment Capacity Analysis (Modeled Project Traffic Distribution)

| Roadway Segment | No. of Lanes | LOS Std | Service Capacity | 2016 AADT | Annual Growth Rate ⁽¹⁾ | Background Volume | 2021 No Build | Project Distribution | Project Traffic ⁽²⁾ | 2021 Build | LOS |
|-------------------------|--------------|---------|------------------|-----------|-----------------------------------|-------------------|---------------|----------------------|--------------------------------|------------|-----|
| Pages Dairy Rd | | | | | | | | | | | |
| Felmor Rd to Chester Rd | 2U | D | 15,900 | 4,009 | 4.78% | 958 | 4,967 | 46% | 3,238 | 8,205 | C |

1. Source: TIA Methodology
2. PDP Trip Generation

Unsignalized Intersection Capacity Analysis

Three new project driveways (unsignalized intersections) will be constructed to provide connections from Pages Dairy Road and Chester Road. There will be one new connection on Pages Dairy Road approximately one-quarter mile west of the intersection of Pages Dairy Road and Chester Road. There will also be two new connections along Chester Road approximately one-quarter mile and one-half mile north of the intersection of Pages Dairy Road and Chester Road. The results of the unsignalized intersection capacity analysis for the study area intersections for the development are summarized in Table 9. The Synchro printouts are provided in Appendix G.



Table 9 2021 Unsignalized Intersection Capacity Analysis

| Intersection | Movement | 2021 AM Build Conditions | | | 2021 PM Build Conditions | | |
|--|----------|--------------------------|--------------------|------------------|--------------------------|--------------------|------------------|
| | | v/c | Delay ^a | LOS ^b | v/c | Delay ^a | LOS ^b |
| Pages Dairy Road at Project Driveway | EBL | 0.035 | 8.3 | A | 0.121 | 9.0 | A |
| | EBT | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 |
| | EBR | N/A | N/A | N/A | N/A | N/A | N/A |
| | WBL | N/A | N/A | N/A | N/A | N/A | N/A |
| | WBT | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 |
| | WBR | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 |
| | NBL | N/A | N/A | N/A | N/A | N/A | N/A |
| | NBT | N/A | N/A | N/A | N/A | N/A | N/A |
| | NBR | N/A | N/A | N/A | N/A | N/A | N/A |
| | SBL | 0.254 | 23.2 | C | 0.394 | 44.1 | E |
| | SBT | N/A | N/A | N/A | N/A | N/A | N/A |
| | SBR | 0.161 | 12.0 | B | 0.158 | 12.9 | B |
| Chester Road at Project Driveway South | EBL | 0.054 | 19.5 | C | 0.071 | 24.4 | C |
| | EBT | N/A | N/A | N/A | N/A | N/A | N/A |
| | EBR | 0.115 | 11.6 | B | 0.089 | 10.2 | B |
| | WBL | N/A | N/A | N/A | N/A | N/A | N/A |
| | WBT | N/A | N/A | N/A | N/A | N/A | N/A |
| | WBR | N/A | N/A | N/A | N/A | N/A | N/A |
| | NBL | 0.033 | 9.4 | A | 0.091 | 8.6 | A |
| | NBT | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 |
| | NBR | N/A | N/A | N/A | N/A | N/A | N/A |
| | SBL | N/A | N/A | N/A | N/A | N/A | N/A |
| | SBT | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 |
| | SBR | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 |
| Chester Road at Project Driveway North | EBL | 0.078 | 18.3 | C | 0.105 | 24.3 | C |
| | EBT | N/A | N/A | N/A | N/A | N/A | N/A |
| | EBR | 0.18 | 11.5 | B | 0.114 | 10.1 | B |
| | WBL | N/A | N/A | N/A | N/A | N/A | N/A |
| | WBT | N/A | N/A | N/A | N/A | N/A | N/A |
| | WBR | N/A | N/A | N/A | N/A | N/A | N/A |
| | NBL | 0.051 | 9.1 | A | 0.121 | 8.6 | A |
| | NBT | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 |
| | NBR | N/A | N/A | N/A | N/A | N/A | N/A |
| | SBL | N/A | N/A | N/A | N/A | N/A | N/A |
| | SBT | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 |
| | SBR | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 | Note 1 |

Note 1: Unopposed Movement

Source: VHB, Inc. using HCM 2010 Methodology.

a Average delay in seconds per vehicle

b Level of Service



As can be observed in the Table above, all of the movements of the unsignalized intersections have a volume to capacity ratio of less than 1.0. With the exception of the southbound left turn movement at the Pages Dairy Road and Project Driveway during the PM peak hour, all of the movements will operate at level of service D or better. This movement operates at a level of service E with an average delay of 37.6 seconds per vehicle and a volume to capacity ratio of 0.394 (significantly lower than 1.0).

Signalized Intersection Capacity Analysis

Project traffic was assigned to the existing signalized intersections along SR 200/A1A/The Buccaneer Trail. Project traffic was also assigned to the intersection at Chester Road and Pages Dairy Road. This intersection is currently unsignalized; however, based on the existing volumes and the programmed widening of Chester Road from Pages Dairy Road to Green Pine Road, it was assumed that a signal will be installed as part of the widening project to better serve current traffic demand. A signalized intersection was assumed for this intersection.

The SR 200/A1A/The Buccaneer Trail widening to six lanes was incorporated into the signalized intersection analyses. The results of the signalized intersection capacity analysis for the study area intersections for the development area are summarized in Table 10. The Synchro printouts are provided in Appendix G.



Table 10 2021 Signalized Intersection Capacity Analysis

| Intersection | Movement | 2016 AM Conditions | | | 2016 PM Conditions | | |
|--|--------------|--------------------|--------------------|------------------|--------------------|--------------------|------------------|
| | | v/c | Delay ^a | LOS ^b | v/c | Delay ^a | LOS ^b |
| SR 200/ A1A at Miner Rd/Felmor Rd | EBL | 0.78 | 93.3 | F | 0.80 | 112.6 | F |
| | EBT | 0.86 | 47.9 | D | 0.99 | 67.7 | E |
| | EBR | 0.14 | 30.3 | C | 0.20 | 35.0 | D |
| | WBL | 0.92 | 87.9 | F | 0.99 | 97.3 | F |
| | WBT | 0.67 | 28.4 | C | 0.53 | 19.9 | B |
| | WBR | 0.13 | 19.5 | B | 0.20 | 15.4 | B |
| | NBL | 0.22 | 45.8 | D | 0.24 | 51.5 | D |
| | NBT/R | 0.94 | 94.5 | F | 1.00 | 114.9 | F |
| | SBL | 0.90 | 83.9 | F | 0.54 | 61.0 | E |
| | SBT/R | 0.47 | 50.1 | D | 0.34 | 58.3 | E |
| | TOTAL | N/A | 47.0 | D | N/A | 54.5 | D |
| SR 200/ A1A at Christian Way/Gene Lassere Blvd | EBL | 0.81 | 78.7 | E | 0.92 | 105.6 | F |
| | EBT | 0.54 | 8.6 | A | 0.57 | 11.9 | B |
| | EBR | 0.54 | 9.0 | A | 0.57 | 12.2 | B |
| | WBL | 0.78 | 88.0 | F | 0.80 | 104.3 | F |
| | WBT | 0.52 | 10.0 | A | 0.62 | 13.4 | B |
| | WBR | 0.04 | 6.3 | A | 0.02 | 7.3 | A |
| | NBL/T/R | 0.22 | 72.5 | E | 0.55 | 78.5 | E |
| | SBL | 0.15 | 68.1 | E | 0.26 | 65.3 | E |
| | SBT/R | 0.20 | 64.5 | E | 0.39 | 63.3 | E |
| | | TOTAL | N/A | 12.0 | B | N/A | 16.3 |
| SR 200/A1A at Amelia Concourse/Chester Rd | EBL | 0.78 | 77.2 | E | 0.88 | 83.6 | F |
| | EBT | 0.66 | 34.8 | C | 0.55 | 30.0 | C |
| | EBR | 0.33 | 28.9 | C | 0.49 | 30.1 | C |
| | WBL | 0.65 | 77.9 | E | 0.77 | 80.9 | F |
| | WBT | 0.63 | 36.8 | D | 0.68 | 38.4 | D |
| | WBR | 0.19 | 29.0 | C | 0.43 | 33.8 | C |
| | NBL | 0.88 | 73.8 | E | 0.88 | 83.1 | F |
| | NBT | 0.37 | 56.6 | E | 0.79 | 77.7 | E |
| | NBR | 0.61 | 62.5 | E | 0.44 | 64.2 | E |
| | SBL | 0.89 | 71.4 | E | 0.89 | 81.9 | F |
| | SBT | 0.39 | 56.1 | E | 0.70 | 68.8 | E |
| | SBR | 0.85 | 83.1 | F | 0.88 | 88.5 | F |
| | | TOTAL | N/A | 49.3 | D | N/A | 51.2 |
| SR 200/A1A at Arrigo Blvd | EBL | 0.78 | 82.4 | F | 0.78 | 93.0 | F |
| | EBT | 0.60 | 14.5 | B | 0.59 | 23.3 | C |
| | EBR | 0.03 | 8.6 | A | 0.09 | 16.0 | B |
| | WBL | 0.72 | 76.3 | E | 0.84 | 80.7 | F |
| | WBT | 0.37 | 10.8 | B | 0.65 | 20.4 | C |
| | WBR | 0.01 | 7.9 | A | 0.00 | 11.5 | B |
| | NBL/T | 0.40 | 64.7 | E | 0.55 | 63.5 | E |
| | NBR | 0.86 | 96.5 | F | 0.91 | 99.0 | F |
| | SBL | 0.36 | 98.6 | F | 0.06 | 78.2 | E |
| | SBT/R | 0.00 | 0.0 | N/A | 0.44 | 88.3 | F |
| | TOTAL | N/A | 21.1 | C | N/A | 32.1 | C |



| Intersection | Movement | 2016 AM Conditions | | | 2016 PM Conditions | | |
|-------------------------------------|--------------|--------------------|--------------------|------------------|--------------------|--------------------|------------------|
| | | v/c | Delay ^a | LOS ^b | v/c | Delay ^a | LOS ^b |
| Pages Dairy Road at Chester Road | EBL | 0.09 | 12.0 | B | 0.31 | 16.9 | B |
| | EBR | 0.87 | 21.8 | C | 0.87 | 29.7 | C |
| | NBL | 0.61 | 13.3 | B | 0.76 | 12.9 | B |
| | NBT | 0.12 | 7.9 | A | 0.36 | 7.5 | A |
| | SBT | 0.66 | 19.2 | B | 0.50 | 21.0 | C |
| | SBR | 0.50 | 18.3 | B | 0.23 | 19.4 | B |
| | TOTAL | N/A | 17.6 | B | N/A | 16.3 | B |

Source: VHB, Inc. using HCM Methodology.

a Average delay in seconds per vehicle

b Level of Service

This table shows that many of the movements will experience high delays, this is due to the long cycle lengths (150 seconds and 160 seconds during the AM and PM peak hours, respectively); however, none of the movements will operate with a volume to capacity ratio greater than 1.0. This indicates that no movement will operate over capacity; therefore, all movements are anticipated to be served during one cycle (i.e., no cycle failures). In addition, all of the intersections will operate at an overall level of service of D or better.

5

Recommended Mobility Network Improvements

Based on the analysis results, the Chester Road Preliminary Development Plan will not trigger any of the improvements identified in the recommended Mobility Network. The only improvements that will need to be made to the existing roadways are turn lanes at the project entrances described as follows:

- Pages Dairy Road at Project Driveway, to be located approximately one-quarter mile west of the intersection of Pages Dairy Road and Chester Road
 - Eastbound Left Turn Lane – 235' (including 50-foot taper)
 - Westbound Right Turn Lane – 185' (including 50-foot taper)
- Chester Road at Project Driveway South, to be located approximately one-quarter mile north of the intersection of Pages Dairy Road and Chester Road
 - Northbound Left Turn Lane – 235' (including 50-foot taper)
- Chester Road at Project Driveway North, to be located approximately one-half mile north of the intersection of Pages Dairy Road and Chester Road (directly across of Heron Isle Parkway)
 - Northbound Left Turn Lane – 235' (including 50-foot taper)

APPENDIX C

FDOT Committed Projects Information



TRANSPORTATION

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Five Year Work Program

| Selection Criteria | |
|---|---|
| District 02 (Updated: 2/20/2016-07.37.53) Category:Highways | 2016-2020 AD Nassau County Item Number:210711-2 |

- [Display current records in a Report Style](#)
- [Display current records in an Excel Document](#)

| Project Summary | | | | | |
|--|--------------------|---------------------|------------------|------------------|---|
| Transportation System: INTRASTATE STATE HIGHWAY | | | | | District 02 - Nassau County |
| Description: SR200(A1A) FROM I-95 TO W OF STILL QUARTERS RD/INCLUDES I95 LIGHTING | | | | | |
| Type of Work: ADD LANES & RECONSTRUCT - Concrete | | | | | View Scheduled Activities |
| Item Number: 210711-2 | | | | | SIS |
| Length: 2.167 | | | | | View Map of Item |
| Project Detail | | | | | |
| Fiscal Year: | 2016 | 2017 | 2018 | 2019 | 2020 |
| Highways/Preliminary Engineering | | | | | <i>(On-Going)</i> |
| Amount: | \$28,741 | | | | |
| Highways/Right of Way | | | | | <i>(On-Going)</i> |
| Amount: | \$1,631,831 | \$983,612 | \$500,000 | \$500,000 | |
| Highways/Railroad & Utilities | | | | | |
| Amount: | | \$245,056 | | | |
| Highways/Construction | | | | | <i>(On-Going)</i> |
| Amount: | \$4,497 | \$42,653,821 | \$252,720 | \$259,680 | |
| Highways/Environmental | | | | | <i>(On-Going)</i> |
| Amount: | | | | | |
| Item Total: | \$1,665,069 | \$43,882,489 | \$752,720 | \$759,680 | |

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Office of Work Program and Budget Lisa Saliba - Director

Five Year Work Program

| Selection Criteria | |
|---|---|
| District 02 (Updated: 1/31/2016-19.15.01) Category:Highways | 2016-2020 AD Nassau County Item Number:210712-4 |

- [Display current records in a Report Style](#)
- [Display current records in an Excel Document](#)

| Project Summary | | | | | |
|---|---------------------|-----------------------|---|-------------------|-------------------|
| Transportation System: INTRASTATE STATE HIGHWAY | | | District 02 - Nassau County | | |
| Description: SR 200 (A1A) FROM WEST OF RUBIN RD TO EAST OF CR 107/SCOTT RD | | | | | |
| Type of Work: ADD LANES & RECONSTRUCT | | | View Scheduled Activities | | |
| Item Number: 210712-4 | | | SIS Connector | | |
| Length: 4.878 | | | View Map of Item | | |
| Construction Contract Information | | | | | |
| Notice to Proceed Date | Work Begun Date | Present Contract Days | Contract Days Used | Percent Days Used | |
| 12/30/2015 | 01/24/2016 | 1200 | 0 | 0.00% | |
| Vendor Name: SUPERIOR CONSTRUCTION COMPANY O | | | | | |
| Project Detail | | | | | |
| Fiscal Year: | 2016 | 2017 | 2018 | 2019 | 2020 |
| Highways/Preliminary Engineering | | | | | <i>(On-Going)</i> |
| Amount: | | | | | |
| Highways/Right of Way | | | | | <i>(On-Going)</i> |
| Amount: | \$1,703,173 | | | | |
| Highways/Railroad & Utilities | | | | | |
| Amount: | \$3,949,192 | | | | |
| Highways/Construction | | | | | <i>(On-Going)</i> |
| Amount: | \$62,467,559 | \$68,675 | \$175,851 | | |
| Highways/Environmental | | | | | <i>(On-Going)</i> |
| Amount: | | | | | |
| Item Total: | \$68,119,924 | \$68,675 | \$175,851 | | |

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Office of Work Program and Budget Lisa Saliba - Director

Five Year Work Program

| Selection Criteria | |
|---|---|
| District 02 (Updated: 1/14/2016-00:18:55) Category:Highways | 2016-2020 AD Nassau County Item Number:426031-2 |

- [Display current records in a Report Style](#)
- [Display current records in an Excel Document](#)

| Project Summary | | | | | |
|--|-----------------|------|------|--------------------|---|
| Transportation System: NON-INTRASTATE OFF STATE HIGHW | | | | | District 02 - Nassau County |
| Description: CHESTER RD FROM SRA1A TO GREEN PINE RD | | | | | |
| Type of Work: ADD LANES & RECONSTRUCT | | | | | View Scheduled Activities |
| Item Number: 426031-2 | | | | | View Map of Item |
| Length: 2.343 | | | | | |
| Project Detail | | | | | |
| Fiscal Year: | 2016 | 2017 | 2018 | 2019 | 2020 |
| Highways/PD & E | | | | | <i>(On-Going)</i> |
| Amount: | \$866 | | | | |
| Highways/Preliminary Engineering | | | | | <i>(On-Going)</i> |
| Amount: | \$87,882 | | | | |
| Highways/Construction | | | | \$9,929,768 | |
| Amount: | | | | | |
| Item Total: | \$88,748 | | | \$9,929,768 | |

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APPENDIX D

Transportation Impact Analysis (TIA) Methodology

Exhibit "C"

Transportation Impact Analysis (TIA) Methodology

The following Exhibit summarizes the recommended methodology for completing Transportation Impact Analyses (TIAs) associated with Preliminary Development Plans (PDPs). The purpose of the TIA is to identify the short-term impacts associated with the incremental development of the East Nassau Community Planning Area (ENCPA) and the associated DSAPs. The results of the TIA are intended to identify needed transportation improvements and prioritize the use of mobility fee funds toward those improvements, consistent with the provisions of the applicable DSAP Development Order.

Analysis Area

The analysis area is defined as follows:

- For PDPs generating fewer than 500 daily trips - adjacent access points and nearest intersection included in the Mobility Network
- For PDPs generating between 500 and 1,000 daily trips - 1/2 mile radius from the project site
- For PDPs generating more than 1,000 daily trips - one mile radius from the project site

Within the ENCPA, the analysis includes all roadway segments included as part of the Mobility Network as well as major intersections. Site access points are also included in the analysis. Outside the ENCPA, the analysis should include all arterial and collector roadways within the required radius. Roadway segments and intersections outside the ENCPA are included in the analysis to identify potential mitigating improvements included in the ENCPA Mobility Network — for example, parallel roadway corridors or internal roadway connections. The list of ENCPA Mobility Network improvements is included at the end of this document.

Analysis Timeframe

An existing conditions analysis should be performed using the most recent available roadway counts. If no roadway counts are available from the past twelve (12) months, then the latest available roadway counts should be used and adjusted to the existing year using the model growth rates in this methodology document.

The analysis year shall be defined as the buildout year for the proposed PDP. The buildout year consistent with that used in the Future Conditions Analysis and should be reasonably achievable.

For roadway segments, the analysis should address daily conditions. For intersections, the analysis should address AM peak and PM peak conditions. Intersections should be analyzed using either the latest version of Highway Capacity Software (HCS) or Synchro.

Trip Generation

Trip generation calculations should use rates and equations from the current edition of the Institute of Transportation Engineers' Trip Generation. For land uses where ITE data may not represent local conditions, a trip generation study may replace published rates. The methodology for trip generation studies should follow the ITE Trip Generation Handbook, and a minimum of three sites should be surveyed. Reductions for internal capture, pass-by capture, or transit ~~should not~~ shall be applied to the trip generation for individual PDPs and have no impact on the Mobility Fee to be assessed to land uses included in the Individual PDPs (per unit in the case of residential land uses and per square foot in the case of non-residential developments), as these reductions have already been factored into the overall calculation of transportation impacts and fees for the ENCPA. ~~However, reductions for pass-by trips for retail uses may be applied.~~

Trip Distribution

The distribution of trips associated with the PDP should be estimated using the most current adopted version of the Northeast Florida Regional Planning Model (NERPM). For smaller PDPs generating fewer than 1,000 daily trips, the traffic distribution may be estimated based on existing traffic patterns. The model should be updated to reflect the transportation network and land use assumptions as follows:

- **Transportation Network Assumptions** - The transportation network should include existing arterial and collector roadways. Future facilities to be included in the analysis should be limited to roadway segments with committed construction funding within the next five (5) years. For analysis purposes, roadway segments with existing backlogs (based on actual traffic levels) shall be assumed to include necessary improvements to address the backlog.
- **Land Use Assumptions** - The land use data for the NERPM model should be developed through interpolation between the base and forecast years. Within the ENCPA, background development should be limited to the existing development at the time of the application, plus any other parcels with approved TIAs.

Trips from Other Approved ENCPA Development

Project trips from nearby approved PDPs within the analysis area should be added to the future background traffic volumes in determining the total build condition traffic volumes. The trips associated with these PDPs should be obtained from the associated TIA.

Future Conditions Analysis

The future conditions analysis should address operating conditions for roadway segments and

intersections within the analysis area for the PDP. The future conditions analysis year shall be the proposed buildout year for the PDP. The analysis should identify whether roadway segments and intersections will operate at the County's adopted Level of Service standard with the addition of traffic from the PDP. For intersections, the Level of Service standard shall be assumed to be the same as that of the adjacent roadway segments. Annual growth rates to be used for area roadway segment volumes and intersection volumes are found in the table below on the following page. The values are based on the ENCPA Mobility Analysis included with the Employment Center DSAP application. For any roadways not in the table, the growth rate for the nearest similar facility should be applied.

Summary of Annual Background Growth Rates

| Roadway | From/To | Growth Rate |
|-----------------------------|--|-------------|
| I-95 | Duval County Line to SR 200/A1A | 2.94% |
| | SR 200/A1A to E-W Interchange Rd. | 3.12% |
| | E-W Interchange Rd. to US 17 | 3.12% |
| | US 17 to GA State Line | 2.39% |
| SR 200/A1A | Griffen Rd. to I-95 | 6.39% |
| | I-95 to Old Yulee Rd. | 4.25% |
| | Old Yulee Rd. to US 17 | 4.09% |
| | US 17 to Chester Rd. | 2.00% |
| | Chester Rd. to Blackrock Rd. | 2.00% |
| CR 200A/Pages Dairy Rd. | Old Nassauville Rd. to Amelia Island Parkway | 2.00% |
| | US 17 to Chester Rd. | 4.78% |
| CR 107N/Blackrock Rd. | Chester Rd. to SR 200/A1A | 2.00% |
| CR 107S/Old Nassauville Rd. | SR 200/A1A to Amelia Concourse | 2.00% |
| | Amelia Concourse to Santa Juana Rd. | 2.00% |
| Chester Rd. | SR 200/A1A to Pages Dairy Rd. | 2.00% |
| | Pages Dairy Rd. to CR 108 Extension | 2.00% |
| | CR 108 Extension to Blackrock Rd. | 2.00% |
| US 17 | Duval County Line to Harts Rd. | 3.67% |
| | Sowell Rd. to SR 200/A1A | 2.00% |
| | SR 200/A1A to Pages Dairy Rd. | 2.00% |
| | Pages Dairy Rd. to Interchange Rd. | 2.00% |
| | Interchange Rd. to CR 108 | 2.00% |
| I-95/SR A1A Interchange | CR 108 to I-95 | 2.00% |
| | 1-95 to GA State Line | 3.36% |
| | NB I-95 to SR A1A Off-ramp | 5.44% |
| | SR A1A to NB I-95 On-ramp | 6.62% |
| I-95/US 17 Interchange | SB I-95 to SR A1A Off-ramp | 7.79% |
| | SR A1A to SB I-95 On-ramp | 5.42% |
| | NB I-95 to US 17 Off-ramp | 7.74% |
| | US 17 to NB I-95 On-ramp | 2.00% |
| | SB I-95 to US 17 Off-ramp | 2.00% |
| | US 17 to SB I-95 On-ramp | 7.91% |

Access Points

An intersection analysis shall be completed for all site access points (roadways or driveways) to adjacent roadways. An intersection analysis should also be completed for the nearest intersection where the site access connects to the ENCPA Mobility Network,

Recommended Improvements

The results of the TIA will be used to identify transportation improvements necessary to serve development in the associated PDP, consistent with the provisions of the applicable DSAP Development Order. Transportation improvements required in this process will be limited to roadway segments and intersections included in the ENCPA Mobility Network and applicable DSAP but may include improvements outside the analysis area. A PDP applicant may propose in its TIA to address transportation impacts by means of transportation or mobility improvements other than those in the ENCPA Mobility Network. Improvements identified or proposed in the TIA may be completed in phases—for example, the first two lanes of a four-lane roadway, or a portion of a roadway segment needed to provide site access. Also, such phasing may be tied to monitoring and/or development levels. Practical transportation improvements are encouraged, so as to maximize the efficiency of available infrastructure and minimize upfront infrastructure costs ahead of actual demand.

Attachment _____

Transportation Improvements Included in ENCPA Mobility Network

| Roadway/Segment | Improvement |
|--|--|
| CR 108 Extension US 17 to Interchange Rd Interchange Rd to Resort Area Resort Area to Chester Rd | New 2-lane road New 2-lane road New 2-lane road |
| Interchange Road Interstate 95 to N-S Regional Center Arterial <u>DSAP Western Loop</u> <u>Collector</u> <u>DSAP Western Loop Collector to N-S Regional Center Arterial</u> <u>East Frontage Rd/N-S Regional Center Arterial</u> to US 17 US 17 to CR 108 | New 4-lane road New 4-lane road New 4-lane road New 4-lane road |
| Interchange Road at I-95 | New Interchange |
| Employment Center Collector Roads <u>DSAP Western Loop Collector</u> | New 2-lane road |
| N-S Regional Center Arterial US 17 to CR 108 CR 108 to Interchange Road Interchange Road to SR 200/A1A | New 4-lane road New 4-lane road New 4-lane road |
| US 17 N-S Regional Center Arterial to I-95 | Widen to 4 lanes |
| Traffic Signals (at 8 new major intersections) | Install new signal |
| SR A1A / I-95 Interchange Improvements Dual westbound left turn lanes onto southbound ramp Dual southbound left turn lanes off southbound ramp Dual northbound right turn lanes off northbound ramp | <u>Interchange</u> <u>improvements</u> New turn lane New turn lane New turn lane |
| SR A1A Intersection Improvements (cost included with Traffic Signals at major intersections) Dual left turn lanes at SR A1A/Chester Rd Dual left turn lanes at SR A1A/Blackrock Rd | Dual left turn lanes at Blackrock Rd New turn lane New turn lane |
| Internal multi-use trail system (off-street) | |
| <u>SR A1A/William Burgess Blvd Intersection Improvements</u> | <u>Intersection</u> <u>improvements</u> |

APPENDIX E

Raw Model Volumes

2035 Raw Model Total Traffic Volumes

On: I-95 (NB)
From: Duval County Line
To: SR 200/A1A

| | Link | | | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 2035 RMV [veh/day] | 67,303.94 | 67,303.94 | 67,303.94 | 67,303.94 | 67,303.94 | 67,303.94 | 67,303.94 | 67,303.94 | 67,303.94 |
| Segment Length [miles] | 0.498440 | 1.604830 | 0.522530 | 1.002720 | 0.253380 | 0.090930 | 0.470480 | 0.044730 | 1.746000 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | 67,304 |

On: I-95 (SB)
From: Duval County Line
To: SR 200/A1A

| | Link | | | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 2035 RMV [veh/day] | 67,484.81 | 67,484.81 | 67,484.81 | 67,484.81 | 67,484.81 | 67,484.81 | 67,484.81 | 67,484.81 | 67,484.81 |
| Segment Length [miles] | 0.473770 | 1.601590 | 0.501160 | 1.022440 | 0.257530 | 0.167010 | 0.398890 | 0.040320 | 1.780280 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | 67,485 |

On: I-95 (NB)
From: SR 200/A1A
To: E-W Interchange Rd.

| | Link | | |
|---|-----------|-----------|---------------|
| | 1 | 2 | 3 |
| 2035 RMV [veh/day] | 45,104.61 | 45,104.61 | 45,104.61 |
| Segment Length [miles] | 0.649380 | 1.047890 | 1.412840 |
| 2035 RMV Weighted Avg. [veh/day] | | | 45,105 |

On: I-95 (SB)
From: SR 200/A1A
To: E-W Interchange Rd.

| | Link | | | |
|---|-----------|-----------|-----------|---------------|
| | 1 | 2 | 3 | 4 |
| 2035 RMV [veh/day] | 45,122.82 | 45,122.82 | 45,122.82 | 45,122.82 |
| Segment Length [miles] | 0.658550 | 0.512520 | 0.468030 | 1.440550 |
| 2035 RMV Weighted Avg. [veh/day] | | | | 45,123 |

On: I-95 (NB)
From: E-W Interchange Rd
To: US 17

| | Link | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|---------------|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 2035 RMV [veh/day] | 45,104.61 | 45,104.61 | 45,104.61 | 45,104.61 | 45,104.61 | 45,104.61 |
| Segment Length [miles] | 1.113760 | 0.193210 | 0.602650 | 0.512750 | 0.624500 | 0.062680 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | 45,105 |

On: I-95 (SB)
 From: E-W Interchange Rd
 To: US 17

| | Link | | | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 2035 RMV [veh/day] | 45,122.82 | 45,122.82 | 45,122.82 | 45,122.82 | 45,122.82 | 45,122.82 | 45,122.82 | 45,122.82 | 45,122.82 |
| Segment Length [miles] | 0.404730 | 0.610370 | 0.203690 | 0.684310 | 0.521340 | 0.232150 | 0.255990 | 0.155730 | 0.062320 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | 45,123 |

On: I-95 (NB)
 From: US 17
 To: GA State Line

| | Link | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|---------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2035 RMV [veh/day] | 44,741.19 | 44,741.19 | 44,741.19 | 44,741.19 | 44,437.14 | 44,437.14 | 44,437.14 |
| Segment Length [miles] | 0.083560 | 0.323620 | 0.106720 | 0.394580 | 1.119400 | 0.096990 | 0.352460 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | 44,549 |

On: I-95 (SB)
 From: US 17
 To: GA State Line

| | Link | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|---------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2035 RMV [veh/day] | 44,619.99 | 44,619.99 | 44,619.99 | 44,619.99 | 44,437.14 | 44,437.14 | 44,437.14 |
| Segment Length [miles] | 0.098760 | 0.225530 | 0.107030 | 0.392100 | 1.124490 | 0.091640 | 0.353690 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | 44,500 |

On: SR 200/A1A
 From: Griffin Rd.
 To: I-95

| | Link | | | | | | | | | | | | | | | | |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 2035 RMV [veh/day] | 7,882.66 | 7,882.66 | 7,882.66 | 7,882.66 | 7,882.66 | 7,882.66 | 7,882.66 | 6913.959 | 6913.959 | 6913.959 | 6913.959 | 7128.537 | 7128.537 | 7128.537 | 23242.98 | 23242.98 | 23242.98 |
| Segment Length [miles] | 0.155260 | 0.550020 | 0.201440 | 0.244820 | 0.074330 | 0.417710 | 0.557530 | 0.793400 | 0.739190 | 0.424620 | 0.631210 | 0.040800 | 0.075380 | 0.138190 | 0.051810 | 0.056870 | 0.065030 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | | | | | | | | 7,877 |

On: SR 200 /A1A (EB)
 From: I-95
 To: Old Yulee Rd

| | Link | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|---------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2035 RMV [veh/day] | 27,166.18 | 27,397.23 | 27,397.23 | 22,208.38 | 21,703.15 | 22,198.90 | 21,217.44 |
| Segment Length [miles] | 0.211150 | 0.254710 | 0.246860 | 0.512610 | 0.590330 | 0.333180 | 0.130170 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | 23,621 |

On: SR 200 /A1A (WB)
 From: I-95
 To: Old Yulee Rd

| | Link | | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 2035 RMV [veh/day] | 27,634.83 | 27,889.87 | 27,889.87 | 22,871.57 | 22,371.11 | 23,586.25 | 22,715.03 | 21,801.77 |
| Segment Length [miles] | 0.222960 | 0.252700 | 0.245700 | 0.510740 | 0.137630 | 0.448550 | 0.341560 | 0.129560 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | 24,454 |

On: SR 200 /A1A (EB)
 From: Old Yulee Rd
 To: US 17

| | Link | | | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 2035 RMV [veh/day] | 20,913.42 | 20,913.42 | 20,913.42 | 20,913.42 | 20,913.42 | 20,913.42 | 21,346.00 | 17,960.77 | 17,960.77 |
| Segment Length [miles] | 0.031270 | 0.062090 | 0.062910 | 0.090310 | 0.051160 | 0.042880 | 0.131490 | 0.109820 | 0.075280 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | 20,168 |

On: SR 200 /A1A (WB)
 From: Old Yulee Rd
 To: US 17

| | Link | | | | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2035 RMV [veh/day] | 21,516.90 | 21,516.90 | 21,516.90 | 21,516.90 | 21,516.90 | 21,516.90 | 21,957.35 | 18,587.02 | 18,587.02 | 18,587.02 |
| Segment Length [miles] | 0.039420 | 0.050780 | 0.057830 | 0.095710 | 0.050680 | 0.040770 | 0.136760 | 0.071120 | 0.046540 | 0.061510 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | 20,803 |

On: SR 200 /A1A (EB)
 From: US 17
 To: Chester Rd

| | Link | | | | | | | | | | | | | | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 2035 RMV [veh/day] | 19,100.99 | 22,128.90 | 22,128.90 | 22,128.90 | 22,128.90 | 22,128.90 | 22,128.90 | 22,128.90 | 22,128.90 | 22,128.90 | 22,128.90 | 23,030.44 | 26,516.25 | 26,247.32 | 26,247.32 | 26,247.32 | 26,137.01 | 26,137.01 | 25,978.75 | 25,978.75 |
| Segment Length [miles] | 0.082060 | 0.053980 | 0.048860 | 0.069510 | 0.109990 | 0.074290 | 0.199860 | 0.113510 | 0.057380 | 0.050760 | 0.054280 | 0.086230 | 0.158920 | 0.316510 | 0.287490 | 0.367230 | 0.459500 | 0.037820 | 0.271620 | 0.329300 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | | | | | | | | | | | 24,864 |

On: SR 200 /A1A (WB)
 From: US 17
 To: Chester Rd

| | Link | | | | | | | | | | | | | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 2035 RMV [veh/day] | 22,209.64 | 22,209.64 | 22,209.64 | 22,209.64 | 22,209.64 | 22,209.64 | 22,209.64 | 22,209.64 | 22,209.64 | 22,209.64 | 23,200.04 | 26,655.04 | 26,390.42 | 26,390.42 | 26,390.42 | 26,287.83 | 26,287.83 | 26,154.88 | 26,154.88 |
| Segment Length [miles] | 0.098530 | 0.047530 | 0.058980 | 0.061480 | 0.104140 | 0.280440 | 0.112110 | 0.051030 | 0.053880 | 0.058440 | 0.084020 | 0.159720 | 0.316990 | 0.287010 | 0.372800 | 0.461690 | 0.031300 | 0.272530 | 0.326190 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | | | | | | | | | | 25,066 |

On: **SR 200 /A1A (EB)**
 From: Chester Rd
 To: Blackrock Rd

| | Link | |
|---|---------------|-----------|
| | 1 | 2 |
| 2035 RMV [veh/day] | 19,210.24 | 18,951.00 |
| Segment Length [miles] | 0.703790 | 0.440430 |
| 2035 RMV Weighted Avg. [veh/day] | 19,110 | |

On: **SR 200 /A1A (WB)**
 From: Chester Rd
 To: Blackrock Rd

| | Link | |
|---|---------------|-----------|
| | 1 | 2 |
| 2035 RMV [veh/day] | 19,180.37 | 18,913.80 |
| Segment Length [miles] | 0.705510 | 0.438680 |
| 2035 RMV Weighted Avg. [veh/day] | 19,078 | |

On: **SR 200 /A1A (EB)**
 From: Blackrock Rd
 To: Amelia Island Parkway

| | Link | | | | | | | | | | | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 2035 RMV [veh/day] | 19,877.84 | 19,877.84 | 19,877.84 | 19,877.84 | 19,877.84 | 19,877.84 | 22,706.55 | 22,706.55 | 22,706.55 | 22,706.55 | 22,706.55 | 22,706.55 | 22,706.55 | 22,706.55 | 22,706.55 | 22,706.55 | 22,706.55 |
| Segment Length [miles] | 0.185890 | 0.065130 | 0.087030 | 0.095470 | 0.105490 | 0.350660 | 0.067450 | 0.487450 | 0.480880 | 0.058480 | 0.466350 | 0.227640 | 0.186700 | 0.035130 | 0.171340 | 0.587490 | 0.047290 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | | | | | | | | 22,027 |

On: **SR 200 /A1A (WB)**
 From: Blackrock Rd
 To: Amelia Island Parkway

| | Link | | | | | | | | | | | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 2035 RMV [veh/day] | 19,822.47 | 19,822.47 | 19,822.47 | 19,822.47 | 19,822.47 | 19,822.47 | 22,787.14 | 22,787.14 | 22,787.14 | 22,787.14 | 22,787.14 | 22,787.14 | 22,787.14 | 22,787.14 | 22,787.14 | 22,787.14 | 22,787.14 |
| Segment Length [miles] | 0.186380 | 0.065940 | 0.085190 | 0.061140 | 0.142670 | 0.358600 | 0.065810 | 0.479640 | 0.472810 | 0.061000 | 0.464690 | 0.229370 | 0.188120 | 0.034870 | 0.174120 | 0.593400 | 0.047310 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | | | | | | | | 22,068 |

On: **CR 200A**
 From: US 17
 To: Chester Rd

| | Link | | | | | | | | | | | | | | | |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 2035 RMV [veh/day] | 7,421.31 | 7,421.31 | 7,421.31 | 4,693.17 | 4,693.17 | 3,482.23 | 3,482.23 | 3,990.93 | 4,673.10 | 4,673.10 | 5,394.08 | 5,394.08 | 5,394.08 | 5,394.08 | 5,483.66 | 3,747.16 |
| Segment Length [miles] | 0.075570 | 0.041330 | 0.116110 | 0.082580 | 0.109780 | 0.125460 | 0.221560 | 0.383150 | 0.173840 | 0.547570 | 0.136280 | 0.014880 | 0.067720 | 0.070280 | 0.797680 | 0.858020 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | | | | | | | 4,681 |

On: CR 107N/Blackrock Rd
 From: Chester Rd
 To: SR200/A1A

| | Link | | | | | | | | | | | | | | | | | | | | | | |
|---|----------|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 2035 RMV [veh/day] | 5,554.33 | 5563.11914 | 5563.119 | 4263.348 | 4263.348 | 4263.348 | 4263.348 | 4263.348 | 4263.348 | 4263.348 | 4263.348 | 4263.348 | 4263.348 | 2567.86 | 2567.86 | 2567.86 | 2567.86 | 2567.86 | 2567.86 | 2567.86 | 2613.66 | 2613.66 | 2613.66 |
| Segment Length [miles] | 0.216860 | 0.726570 | 0.23228 | 0.24422 | 0.06876 | 0.05534 | 0.0978 | 0.14041 | 0.06834 | 0.08811 | 0.05399 | 0.03148 | 0.23409 | 0.08537 | 0.07986 | 0.19105 | 0.03367 | 0.03038 | 0.03543 | 0.06374 | 1.94559 | 0.16354 | 0.13749 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | | | | | | | | | | | | | | 3,654 |

On: Old NassauVile Rd
 From: SR 200/A1A
 To: Amelia Concourse

| | Link | | | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|----------|-----------|-----------|---------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 2035 RMV [veh/day] | 11,041.09 | 11,041.09 | 11,041.09 | 11,041.09 | 11,041.09 | 8,310.24 | 10,083.56 | 10,083.56 | 10,083.56 |
| Segment Length [miles] | 0.025620 | 0.175300 | 0.077050 | 0.129350 | 0.034000 | 0.030370 | 0.819320 | 0.189340 | 0.256150 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | 10,296 |

On: Old NassauVile Rd
 From: Amelia Concourse
 To: Santa Juan Rd

| | Link | | | | | | | | | | | |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 2035 RMV [veh/day] | 5,907.53 | 5,907.53 | 5,907.53 | 5,907.53 | 5,907.53 | 5,907.53 | 5,907.53 | 5,907.53 | 5,907.53 | 5,907.53 | 5,907.53 | 5,907.53 |
| Segment Length [miles] | 0.327930 | 0.132470 | 0.151490 | 0.183880 | 0.077430 | 0.137400 | 0.173510 | 0.207250 | 0.195720 | 0.049070 | 0.172540 | 0.167590 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | | | 5,908 |

On: Chester Rd
 From: SR 200/A1A
 To: Paiges Dairy

| | Link | |
|---|---------------|-----------|
| | 1 | 2 |
| 2035 RMV [veh/day] | 15,369.29 | 15,943.38 |
| Segment Length [miles] | 0.283500 | 0.169870 |
| 2035 RMV Weighted Avg. [veh/day] | 15,584 | |

On: Chester Rd
 From: Paiges Dairy
 To: CR 108 Extension

| | Link | | |
|---|-----------|-----------|---------------|
| | 1 | 2 | 3 |
| 2035 RMV [veh/day] | 13,907.90 | 10,267.54 | 10,345.90 |
| Segment Length [miles] | 0.477070 | 0.609030 | 0.786780 |
| 2035 RMV Weighted Avg. [veh/day] | | | 11,228 |

On: **Chester Rd**
 From: CR 108 Extention
 To: Blackrock Rd

| | Link | | | | | | |
|---|------------|------------|----------|----------|----------|----------|--------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2035 RMV [veh/day] | 8229.66016 | 8229.66016 | 8229.66 | 5497.41 | 2608.13 | 2613.66 | 2613.66 |
| Segment Length [miles] | 0.292410 | 0.100940 | 0.105480 | 0.231050 | 0.290200 | 0.337770 | 0.042120 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | 5,090 |

On: **Amelia Concourse**
 From: SR 200/A1A
 To: CR 107S/ NassauVille Rd

| | Link | | | | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|----------|--------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2035 RMV [veh/day] | 17,890.93 | 16,837.66 | 12,510.29 | 12,510.29 | 12,510.29 | 10,852.85 | 2285.742 | 2285.742 | 2285.742 | 2285.742 |
| Segment Length [miles] | 0.234140 | 0.518370 | 0.112720 | 0.223760 | 0.286480 | 0.716910 | 0.483580 | 0.489480 | 0.380420 | 0.374270 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | 8,492 |

On: **US 17**
 From: Duval county line
 To: Harts Rd

| | Link | | | |
|---|-----------|-----------|-----------|---------------|
| | 1 | 2 | 3 | 4 |
| 2035 RMV [veh/day] | 21,927.53 | 21,927.53 | 19,257.66 | 19,257.66 |
| Segment Length [miles] | 0.627980 | 0.899420 | 0.457030 | 0.409630 |
| 2035 RMV Weighted Avg. [veh/day] | | | | 20,961 |

On: **US 17**
 From: Harts Rd
 To: Sowell Rd

| | Link | | | | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|---------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2035 RMV [veh/day] | 19,257.66 | 19,257.66 | 18,655.91 | 18,655.91 | 17,189.82 | 17,189.82 | 20,823.40 | 20,823.40 | 12844.14 | 12844.14 |
| Segment Length [miles] | 0.061050 | 0.320130 | 0.229200 | 0.063710 | 0.146220 | 0.109290 | 0.195660 | 0.136000 | 0.897440 | 0.013290 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | 16,483 |

On: **US 17**
 From: Sowell Rd
 To: SR 200/A1A

| | Link | |
|---|---------------|----------|
| | 1 | 2 |
| 2035 RMV [veh/day] | 12,844.14 | 9,816.23 |
| Segment Length [miles] | 0.071590 | 0.086110 |
| 2035 RMV Weighted Avg. [veh/day] | 11,191 | |

On: **US 17 (NB)**
 From: SR 200/A1A
 To: Pages Dairy Rd

| | Link | | |
|---|----------|----------|--------------|
| | 1 | 2 | 3 |
| 2035 RMV [veh/day] | 4,900.37 | 4,900.37 | 4,900.37 |
| Segment Length [miles] | 0.100610 | 0.019880 | 0.116190 |
| 2035 RMV Weighted Avg. [veh/day] | | | 4,900 |

On: **US 17 (SB)**
 From: SR 200/A1A
 To: Pages Dairy Rd

| | Link | | | |
|---|----------|----------|----------|--------------|
| | 1 | 2 | 3 | 4 |
| 2035 RMV [veh/day] | 4,965.99 | 4,965.99 | 4,965.99 | 4,965.99 |
| Segment Length [miles] | 0.079300 | 0.013230 | 0.022990 | 0.108930 |
| 2035 RMV Weighted Avg. [veh/day] | | | | 4,966 |

On: **US 17**
 From: Pages Dairy Rd
 To: Interchange Rd

| | Link | | | | | | | | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|----------|---------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 2035 RMV [veh/day] | 11,075.23 | 11,075.26 | 11,794.25 | 11,794.25 | 11,794.25 | 11,794.25 | 11,213.90 | 11,213.90 | 11,213.90 | 11,213.90 | 7,191.50 | 7,280.04 | 7,280.04 | 7,280.04 |
| Segment Length [miles] | 0.092420 | 0.191350 | 0.023930 | 0.113210 | 0.206960 | 0.018410 | 0.229200 | 0.405980 | 0.186410 | 0.453720 | 0.117100 | 0.279550 | 0.016580 | 0.257940 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | | | | | 10,258 |

On: **US 17**
 From: Interchange Rd
 To: CR 108

| | Link | | | | |
|---|----------|----------|----------|----------|--------------|
| | 1 | 2 | 3 | 4 | 5 |
| 2035 RMV [veh/day] | 7,280.04 | 7,280.04 | 7,280.04 | 7,193.07 | 7,193.07 |
| Segment Length [miles] | 0.534110 | 0.167250 | 0.108530 | 0.910360 | 0.118640 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | 7,231 |

On: **US 17**
 From: CR 108
 To: I-95

| | Link | | | | |
|---|----------|----------|----------|----------|--------------|
| | 1 | 2 | 3 | 4 | 5 |
| 2035 RMV [veh/day] | 4,779.96 | 4,726.76 | 4,731.75 | 4731.753 | 4731.753 |
| Segment Length [miles] | 0.642550 | 0.926000 | 0.347300 | 0.101980 | 0.091200 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | 4,744 |

On: US 17
 From: I-95
 To: GA State Line

| | Link | | | | | |
|---|----------|----------|----------|----------|----------|--------------|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 2035 RMV [veh/day] | 5,376.51 | 5,376.51 | 5,341.03 | 5316.086 | 4780.56 | 4780.56 |
| Segment Length [miles] | 0.189870 | 0.881470 | 0.368990 | 0.173810 | 0.452330 | 0.153390 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | 5,203 |

On: I-95/SR A1A Interchange
 From: NB I-95
 To: SR A1A (Off Ramp)

| | Link |
|---|---------------|
| | 1 |
| 2035 RMV [veh/day] | 22,996.89 |
| Segment Length [miles] | 0.349100 |
| 2035 RMV Weighted Avg. [veh/day] | 22,997 |

On: I-95/SR A1A Interchange
 From: SR A1A
 To: NB I-95 (On Ramp)

| | Link |
|---|------------|
| | 1 |
| 2035 RMV [veh/day] | 797.56 |
| Segment Length [miles] | 0.341600 |
| 2035 RMV Weighted Avg. [veh/day] | 798 |

On: I-95/SR A1A Interchange
 From: SB I-95
 To: SR A1A (Off Ramp)

| | Link |
|---|--------------|
| | 1 |
| 2035 RMV [veh/day] | 1,111.61 |
| Segment Length [miles] | 0.318090 |
| 2035 RMV Weighted Avg. [veh/day] | 1,112 |

On: I-95/SR A1A Interchange
 From: SR A1A
 To: SB I-95 (On Ramp)

| | Link |
|---|---------------|
| | 1 |
| 2035 RMV [veh/day] | 23,473.60 |
| Segment Length [miles] | 0.313310 |
| 2035 RMV Weighted Avg. [veh/day] | 23,474 |

| | |
|---|-------------------------------|
| On: | I-95/US 17 Interchange |
| From: | NB I-95 |
| To: | US 17 (Off Ramp) |
| | Link |
| | 1 |
| 2035 RMV [veh/day] | 2,424.49 |
| Segment Length [miles] | 0.083560 |
| 2035 RMV Weighted Avg. [veh/day] | |
| | 2,424 |

| | |
|---|-------------------------------|
| On: | I-95/US 17 Interchange |
| From: | US 17 |
| To: | NB I-95 On Ramp |
| | Link |
| | 1 |
| 2035 RMV [veh/day] | 2,061.0630 |
| Segment Length [miles] | 0.265690 |
| 2035 RMV Weighted Avg. [veh/day] | |
| | 2,061 |

| | |
|---|-------------------------------|
| On: | I-95/US 17 Interchange |
| From: | SB I-95 |
| To: | US 17 Off Ramp |
| | Link |
| | 1 |
| 2035 RMV [veh/day] | 1,948.95 |
| Segment Length [miles] | 0.306390 |
| 2035 RMV Weighted Avg. [veh/day] | |
| | 1,949 |

| | |
|---|-------------------------------|
| On: | I-95/US 17 Interchange |
| From: | US 17 |
| To: | SB I-95 On Ramp |
| | Link |
| | 1 |
| 2035 RMV [veh/day] | 2,451.79 |
| Segment Length [miles] | 0.105480 |
| 2035 RMV Weighted Avg. [veh/day] | |
| | 2,452 |

| | | | | | | |
|---|-------------------------|-----------|-----------|-----------|-----------|--------------|
| On: | CR 108 Extension | | | | | |
| From: | US 17 | | | | | |
| To: | I-95 Overpass | | | | | |
| | Link | | | | | |
| | 1 2 3 4 5 6 | | | | | |
| 2035 RMV [veh/day] | 2,551.46 | 2,546.011 | 2,546.011 | 2,546.011 | 2,546.011 | 2,546.011 |
| Segment Length [miles] | 0.257430 | 0.592580 | 0.165440 | 0.025490 | 0.320830 | 0.059500 |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | 2,547 |

2035 Raw Model Project Traffic Volumes

On: I-95 (NB)
 From: Duval County Line
 To: SR 200/A1A

| | Link | | | | | | | | | MAX | |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------|-----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | |
| 2035 RMV [veh/day] | 710.99 | 710.99 | 710.99 | 710.99 | 710.99 | 710.99 | 710.99 | 710.99 | 710.99 | 710.99 | 711 |
| Segment Length [miles] | 0.498440 | 1.604830 | 0.522530 | 1.002720 | 0.253380 | 0.090930 | 0.470480 | 0.044730 | 1.746000 | | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | 711 | |

On: I-95 (SB)
 From: Duval County Line
 To: SR 200/A1A

| | Link | | | | | | | | | MAX | |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------|-----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | |
| 2035 RMV [veh/day] | 774.58 | 774.58 | 774.58 | 774.58 | 774.58 | 774.58 | 774.58 | 774.58 | 774.58 | 774.58 | 775 |
| Segment Length [miles] | 0.473770 | 1.601590 | 0.501160 | 1.022440 | 0.257530 | 0.167010 | 0.398890 | 0.040320 | 1.780280 | | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | 775 | |

On: I-95 (NB)
 From: SR 200/A1A
 To: E-W Interchange Rd.

| | Link | | | MAX |
|---|----------|----------|----------|----------|
| | 1 | 2 | 3 | |
| 2035 RMV [veh/day] | 0.00 | 0.00 | 0.00 | 0 |
| Segment Length [miles] | 0.649380 | 1.047890 | 1.412840 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | 0 |

On: I-95 (SB)
 From: SR 200/A1A
 To: E-W Interchange Rd.

| | Link | | | | MAX |
|---|----------|----------|----------|----------|----------|
| | 1 | 2 | 3 | 4 | |
| 2035 RMV [veh/day] | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| Segment Length [miles] | 0.658550 | 0.512520 | 0.468030 | 1.440550 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | 0 |

On: I-95 (NB)
 From: E-W Interchange Rd
 To: US 17

| | Link | | | | | | MAX |
|---|----------|----------|----------|----------|----------|----------|----------|
| | 1 | 2 | 3 | 4 | 5 | 6 | |
| 2035 RMV [veh/day] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| Segment Length [miles] | 1.113760 | 0.193210 | 0.602650 | 0.512750 | 0.624500 | 0.062680 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | 0 |

On: I-95 (SB)
 From: E-W Interchange Rd
 To: US 17

| | Link | | | | | | | | | MAX | |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | |
| 2035 RMV [veh/day] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| Segment Length [miles] | 0.404730 | 0.610370 | 0.203690 | 0.684310 | 0.521340 | 0.232150 | 0.255990 | 0.155730 | 0.062320 | | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | 0 | |

On: I-95 (NB)
 From: US 17
 To: GA State Line

| | Link | | | | | | | MAX |
|---|----------|----------|----------|----------|----------|----------|----------|-----------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 2035 RMV [veh/day] | 18.80 | 18.80 | 18.80 | 18.80 | 8.39 | 8.39 | 8.39 | 19 |
| Segment Length [miles] | 0.083560 | 0.323620 | 0.106720 | 0.394580 | 1.119400 | 0.096990 | 0.352460 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | 12 |

On: I-95 (SB)
 From: US 17
 To: GA State Line

| | Link | | | | | | | MAX |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 2035 RMV [veh/day] | 8.39 | 8.39 | 8.39 | 8.39 | 8.39 | 8.39 | 8.39 | 8 |
| Segment Length [miles] | 0.098760 | 0.225530 | 0.107030 | 0.392100 | 1.124490 | 0.091640 | 0.353690 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | 8 |

On: SR 200/A1A
 From: Griffin Rd.
 To: I-95

| | Link | | | | | | | | | | | | | | | | | MAX |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | |
| 2035 RMV [veh/day] | 70.71 | 70.71 | 70.71 | 70.71 | 70.71 | 70.71 | 70.71 | 70.71 | 70.71 | 70.71 | 70.71 | 70.71 | 70.71 | 70.71 | 158.5216 | 158.5216 | 158.5216 | 159 |
| Segment Length [miles] | 0.155260 | 0.550020 | 0.201440 | 0.244820 | 0.074330 | 0.417710 | 0.557530 | 0.793400 | 0.739190 | 0.424620 | 0.631210 | 0.040800 | 0.075380 | 0.138190 | 0.051810 | 0.056870 | 0.065030 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | | | | | | | | | 74 |

On: SR 200 /A1A (EB)
 From: I-95
 To: Old Yulee Rd

| | Link | | | | | | | MAX |
|---|----------|----------|----------|----------|----------|----------|----------|------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 2035 RMV [veh/day] | 787.19 | 820.58 | 820.58 | 833.81 | 976.91 | 1,146.36 | 1,253.77 | 1,254 |
| Segment Length [miles] | 0.211150 | 0.254710 | 0.246860 | 0.512610 | 0.590330 | 0.333180 | 0.130170 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | 933 |

On: SR 200 /A1A (WB)
 From: I-95
 To: Old Yulee Rd

| | Link | | | | | | | | MAX |
|---|----------|----------|----------|----------|----------|----------|----------|----------|--------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| 2035 RMV [veh/day] | 856.91 | 896.37 | 896.37 | 905.40 | 1,055.38 | 1,125.02 | 1,216.00 | 1,342.02 | 1,342 |
| Segment Length [miles] | 0.222960 | 0.252700 | 0.245700 | 0.510740 | 0.137630 | 0.448550 | 0.341560 | 0.129560 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | 1,022 |

On: SR 200 /A1A (EB)
 From: Old Yulee Rd
 To: US 17

| | Link | | | | | | | | | MAX |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| 2035 RMV [veh/day] | 1,253.77 | 1,253.77 | 1,253.77 | 1,253.77 | 1,253.77 | 1,253.77 | 1,502.74 | 319.61 | 319.61 | 1,503 |
| Segment Length [miles] | 0.031270 | 0.062090 | 0.062910 | 0.090310 | 0.051160 | 0.042880 | 0.131490 | 0.109820 | 0.075280 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | 1,040 |

1070.975

On: SR 200 /A1A (WB)
 From: Old Yulee Rd
 To: US 17

| | Link | | | | | | | | | | MAX |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| 2035 RMV [veh/day] | 1,342.02 | 1,342.02 | 1,342.02 | 1,342.02 | 1,342.02 | 1,342.02 | 1,570.20 | 327.84 | 327.84 | 327.84 | 1,570 |
| Segment Length [miles] | 0.039420 | 0.050780 | 0.057830 | 0.095710 | 0.050680 | 0.040770 | 0.136760 | 0.071120 | 0.046540 | 0.061510 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | | 1,111 |

1112.94

On: SR 200 /A1A (EB)
 From: US 17
 To: Chester Rd

| | Link | | | | | | | | | | | | | | | | | | | | MAX |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| 2035 RMV [veh/day] | 342.41 | 656.45 | 656.45 | 656.45 | 656.45 | 656.45 | 656.45 | 656.45 | 656.45 | 656.45 | 656.45 | 687.43 | 495.67 | 509.20 | 509.20 | 509.20 | 516.27 | 516.27 | 516.27 | 516.27 | 687 |
| Segment Length [miles] | 0.082060 | 0.053980 | 0.048860 | 0.069510 | 0.109990 | 0.074290 | 0.199860 | 0.113510 | 0.057380 | 0.050760 | 0.054280 | 0.086230 | 0.158920 | 0.316510 | 0.287490 | 0.367230 | 0.459500 | 0.037820 | 0.271620 | 0.329300 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | | | | | | | | | | | | 549 |

On: SR 200 /A1A (WB)
 From: US 17
 To: Chester Rd

| | Link | | | | | | | | | | | | | | | | | | | | MAX |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| 2035 RMV [veh/day] | 522.87 | 522.87 | 522.87 | 522.87 | 522.87 | 522.87 | 522.87 | 522.87 | 522.87 | 522.87 | 522.87 | 696.20 | 499.45 | 508.91 | 508.91 | 508.91 | 519.43 | 519.43 | 519.43 | 519.43 | 696 |
| Segment Length [miles] | 0.098530 | 0.047530 | 0.047530 | 0.058980 | 0.061480 | 0.104140 | 0.280440 | 0.112110 | 0.051030 | 0.053880 | 0.058440 | 0.084020 | 0.159720 | 0.316990 | 0.287010 | 0.372800 | 0.461690 | 0.031300 | 0.272530 | 0.326190 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | | | | | | | | | | | | 521 |

On: **SR 200 /A1A (EB)**
 From: Chester Rd
 To: Blackrock Rd

| | Link | | MAX |
|---|--------------|----------|-------|
| | 1 | 2 | |
| 2035 RMV [veh/day] | 1,199.01 | 1,108.69 | 1,199 |
| Segment Length [miles] | 0.703790 | 0.440430 | |
| 2035 RMV Weighted Avg. [veh/day] | 1,164 | | |

On: **SR 200 /A1A (WB)**
 From: Chester Rd
 To: Blackrock Rd

| | Link | | MAX |
|---|--------------|----------|-------|
| | 1 | 2 | |
| 2035 RMV [veh/day] | 1,227.47 | 1,136.11 | 1,227 |
| Segment Length [miles] | 0.705510 | 0.438680 | |
| 2035 RMV Weighted Avg. [veh/day] | 1,192 | | |

On: **SR 200 /A1A (EB)**
 From: Blackrock Rd
 To: Amelia Island Parkway

| | Link | | | | | | | | | | | | | | | | | MAX | |
|---|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | |
| 2035 RMV [veh/day] | 1,013.60 | 1,013.60 | 1,013.60 | 1,013.60 | 1,013.60 | 1,013.60 | 884.30 | 884.30 | 884.30 | 884.30 | 884.30 | 884.30 | 884.30 | 884.30 | 884.30 | 884.30 | 884.30 | 884.30 | 1,014 |
| Segment Length [miles] | 0.185890 | 0.065130 | 0.087030 | 0.095470 | 0.105490 | 0.350660 | 0.067450 | 0.487450 | 0.480880 | 0.058480 | 0.466350 | 0.227640 | 0.186700 | 0.035130 | 0.171340 | 0.587490 | 0.047290 | | |
| 2035 RMV Weighted Avg. [veh/day] | 915 | | | | | | | | | | | | | | | | | | |

On: **SR 200 /A1A (WB)**
 From: Blackrock Rd
 To: Amelia Island Parkway

| | Link | | | | | | | | | | | | | | | | | MAX | |
|---|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | |
| 2035 RMV [veh/day] | 1,033.99 | 1,033.99 | 1,033.99 | 1,033.99 | 1,033.99 | 1,033.99 | 918.25 | 918.25 | 918.25 | 918.25 | 918.25 | 918.25 | 918.25 | 918.25 | 918.25 | 918.25 | 918.25 | 918.25 | 1,034 |
| Segment Length [miles] | 0.186380 | 0.065940 | 0.085190 | 0.061140 | 0.142670 | 0.358600 | 0.065810 | 0.479640 | 0.472810 | 0.061000 | 0.464690 | 0.229370 | 0.188120 | 0.034870 | 0.174120 | 0.593400 | 0.047310 | | |
| 2035 RMV Weighted Avg. [veh/day] | 946 | | | | | | | | | | | | | | | | | | |

On: **CR 200A**
 From: US 17
 To: Chester Rd

| | Link | | | | | | | | | | | | | | | | MAX |
|---|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | |
| 2035 RMV [veh/day] | 2,811.82 | 2,811.82 | 2,811.82 | 2,811.82 | 2,811.82 | 2,811.82 | 2,811.82 | 3,049.01 | 4,073.91 | 4,073.91 | 4,208.46 | 4,208.46 | 4,208.46 | 4,208.46 | 4,359.43 | 2,622.93 | 4,359 |
| Segment Length [miles] | 0.075570 | 0.041330 | 0.116110 | 0.082580 | 0.109780 | 0.125460 | 0.221560 | 0.383150 | 0.173840 | 0.547570 | 0.136280 | 0.014880 | 0.067720 | 0.070280 | 0.797680 | 0.858020 | |
| 2035 RMV Weighted Avg. [veh/day] | 3,460 | | | | | | | | | | | | | | | | |

On: **CR 107N/Blackrock Rd**
 From: Chester Rd
 To: SR200/A1A

| | Link | | | | | | | | | | | | | | | | | | | | | | | MAX |
|---|-----------|----------|---------|---------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | |
| 2035 RMV [veh/day] | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 436.01 | 436.01 | 436 |
| Segment Length [miles] | 0.216860 | 0.726570 | 0.23228 | 0.24422 | 0.06876 | 0.05534 | 0.0978 | 0.14041 | 0.06834 | 0.08811 | 0.05399 | 0.03148 | 0.23409 | 0.08537 | 0.07986 | 0.19105 | 0.03367 | 0.03038 | 0.03543 | 0.06374 | 1.94559 | 0.16354 | 0.13749 | |
| 2035 RMV Weighted Avg. [veh/day] | 26 | | | | | | | | | | | | | | | | | | | | | | | |

On: Old NassauVille Rd
 From: SR 200/A1A
 To: Amelia Concourse

| | Link | | | | | | | | | MAX | |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | |
| 2035 RMV [veh/day] | 82.95 | 82.95 | 82.95 | 82.95 | 82.95 | 82.95 | 82.95 | 82.95 | 82.95 | 82.95 | 83 |
| Segment Length [miles] | 0.025620 | 0.175300 | 0.077050 | 0.129350 | 0.034000 | 0.030370 | 0.819320 | 0.189340 | 0.256150 | | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | 83 | |

On: Old NassauVille Rd
 From: Amelia Concourse
 To: Santa Juan Rd

| | Link | | | | | | | | | | | | MAX | |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | |
| 2035 RMV [veh/day] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| Segment Length [miles] | 0.327930 | 0.132470 | 0.151490 | 0.183880 | 0.077430 | 0.137400 | 0.173510 | 0.207250 | 0.195720 | 0.049070 | 0.172540 | 0.167590 | | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | | | | 0 | |

On: Chester Rd
 From: SR 200/A1A
 To: Paiges Dairy

| | Link | | MAX |
|---|----------|----------|--------------|
| | 1 | 2 | |
| 2035 RMV [veh/day] | 4,293.95 | 4,473.04 | 4,473 |
| Segment Length [miles] | 0.283500 | 0.169870 | |
| 2035 RMV Weighted Avg. [veh/day] | | | 4,361 |

On: Chester Rd
 From: Paiges Dairy
 To: CR 108 Extension

| | Link | | | MAX |
|---|----------|----------|----------|--------------|
| | 1 | 2 | 3 | |
| 2035 RMV [veh/day] | 2,068.91 | 3,004.31 | 3,082.67 | 3,083 |
| Segment Length [miles] | 0.477070 | 0.609030 | 0.786780 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | 2,799 |

On: Chester Rd
 From: CR 108 Extention
 To: Blackrock Rd

| | Link | | | | | | | MAX |
|---|----------|----------|----------|----------|----------|----------|----------|--------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 2035 RMV [veh/day] | 3017.25 | 3017.25 | 3017.25 | 3319.76 | 430.48 | 436.01 | 436.01 | 3,320 |
| Segment Length [miles] | 0.292410 | 0.100940 | 0.105480 | 0.231050 | 0.290200 | 0.337770 | 0.042120 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | 1,831 |

On: Amelia Concourse
 From: SR 200/A1A
 To: CR 107S/ NassauVille Rd

| | Link | | | | | | | | | | MAX |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| 2035 RMV [veh/day] | 831.76 | 795.11 | 456.40 | 456.40 | 456.40 | 375.53 | 82.70303 | 82.70303 | 82.70303 | 82.70303 | 832 |
| Segment Length [miles] | 0.234140 | 0.518370 | 0.112720 | 0.223760 | 0.286480 | 0.716910 | 0.483580 | 0.489480 | 0.380420 | 0.374270 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | | 341 |

On: US 17
 From: Duval county line
 To: Harts Rd

| | Link | | | | MAX |
|---|----------|----------|----------|----------|------------|
| | 1 | 2 | 3 | 4 | |
| 2035 RMV [veh/day] | 532.53 | 532.53 | 532.53 | 532.53 | 533 |
| Segment Length [miles] | 0.627980 | 0.899420 | 0.457030 | 0.409630 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | 533 |

On: **US 17**
 From: Harts Rd
 To: Sowell Rd

| | Link | | | | | | | | | | MAX | |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------|-----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | |
| 2035 RMV [veh/day] | 532.53 | 532.53 | 503.27 | 503.27 | 551.28 | 551.28 | 551.28 | 551.28 | 551.28 | 551.28 | 551.28 | 551 |
| Segment Length [miles] | 0.061050 | 0.320130 | 0.229200 | 0.063710 | 0.146220 | 0.109290 | 0.195660 | 0.136000 | 0.897440 | 0.013290 | | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | | 542 | |

On: **US 17**
 From: Sowell Rd
 To: SR 200/A1A

| | Link | | MAX |
|---|----------|----------|------------|
| | 1 | 2 | |
| 2035 RMV [veh/day] | 516.09 | 237.24 | 516 |
| Segment Length [miles] | 0.071590 | 0.086110 | |
| 2035 RMV Weighted Avg. [veh/day] | | | 364 |

On: **US 17 (NB)**
 From: SR 200/A1A
 To: Pages Dairy Rd

| | Link | | | MAX |
|---|----------|----------|----------|-----------|
| | 1 | 2 | 3 | |
| 2035 RMV [veh/day] | 25.52 | 25.52 | 25.52 | 26 |
| Segment Length [miles] | 0.100610 | 0.019880 | 0.116190 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | 26 |

On: **US 17 (SB)**
 From: SR 200/A1A
 To: Pages Dairy Rd

| | Link | | | | MAX |
|---|----------|----------|----------|----------|-----------|
| | 1 | 2 | 3 | 4 | |
| 2035 RMV [veh/day] | 90.53 | 90.53 | 90.53 | 90.53 | 91 |
| Segment Length [miles] | 0.079300 | 0.013230 | 0.022990 | 0.108930 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | 91 |

On: **US 17**
 From: Pages Dairy Rd
 To: Interchange Rd

| | Link | | | | | | | | | | | | | | MAX |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | |
| 2035 RMV [veh/day] | 366.92 | 366.92 | 366.92 | 366.92 | 366.92 | 366.92 | 329.98 | 329.98 | 329.98 | 329.98 | 66.03 | 66.03 | 66.03 | 66.03 | 367 |
| Segment Length [miles] | 0.092420 | 0.191350 | 0.023930 | 0.113210 | 0.206960 | 0.018410 | 0.229200 | 0.405980 | 0.186410 | 0.453720 | 0.117100 | 0.279550 | 0.016580 | 0.257940 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | | | | | | | | | 271 |

On: **US 17**
 From: Interchange Rd
 To: CR 108

| | Link | | | | | MAX |
|---|----------|----------|----------|----------|----------|-----------|
| | 1 | 2 | 3 | 4 | 5 | |
| 2035 RMV [veh/day] | 66.03 | 66.03 | 66.03 | 65.95 | 65.95 | 66 |
| Segment Length [miles] | 0.534110 | 0.167250 | 0.108530 | 0.910360 | 0.118640 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | 66 |

On: **US 17**
 From: CR 108
 To: I-95

| | Link | | | | | MAX |
|---|----------|----------|----------|----------|----------|-----------|
| | 1 | 2 | 3 | 4 | 5 | |
| 2035 RMV [veh/day] | 38.14 | 38.06 | 36.94 | 36.94 | 36.94 | 38 |
| Segment Length [miles] | 0.642550 | 0.926000 | 0.347300 | 0.101980 | 0.091200 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | 38 |

On: US 17
 From: I-95
 To: GA State Line

| | Link | | | | | | MAX |
|---|----------|----------|----------|----------|----------|----------|----------|
| | 1 | 2 | 3 | 4 | 5 | 6 | |
| 2035 RMV [veh/day] | 9.75 | 9.75 | 2.84 | 1.84 | 1.84 | 1.84 | 10 |
| Segment Length [miles] | 0.189870 | 0.881470 | 0.368990 | 0.173810 | 0.452330 | 0.153390 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | 6 |

On: I-95/SR A1A Interchange
 From: NB I-95
 To: SR A1A (Off Ramp)

| | Link | MAX |
|---|------------|-----|
| | 1 | |
| 2035 RMV [veh/day] | 710.99 | 711 |
| Segment Length [miles] | 0.349100 | |
| 2035 RMV Weighted Avg. [veh/day] | 711 | |

On: I-95/SR A1A Interchange
 From: SR A1A
 To: NB I-95 (On Ramp)

| | Link | MAX |
|---|----------|-----|
| | 1 | |
| 2035 RMV [veh/day] | 0.00 | 0 |
| Segment Length [miles] | 0.341600 | |
| 2035 RMV Weighted Avg. [veh/day] | 0 | |

On: I-95/SR A1A Interchange
 From: SB I-95
 To: SR A1A (Off Ramp)

| | Link | MAX |
|---|----------|-----|
| | 1 | |
| 2035 RMV [veh/day] | 0.00 | 0 |
| Segment Length [miles] | 0.318090 | |
| 2035 RMV Weighted Avg. [veh/day] | 0 | |

On: I-95/SR A1A Interchange
 From: SR A1A
 To: SB I-95 (On Ramp)

| | Link | MAX |
|---|------------|-----|
| | 1 | |
| 2035 RMV [veh/day] | 774.58 | 775 |
| Segment Length [miles] | 0.313310 | |
| 2035 RMV Weighted Avg. [veh/day] | 775 | |

| | | |
|---|-------------------------------|------------|
| On: | I-95/US 17 Interchange | |
| From: | NB I-95 | |
| To: | US 17 (Off Ramp) | |
| | Link | |
| | 1 | MAX |
| 2035 RMV [veh/day] | 0.00 | 0 |
| Segment Length [miles] | 0.083560 | |
| 2035 RMV Weighted Avg. [veh/day] | | |
| | 0 | |

| | | |
|---|-------------------------------|------------|
| On: | I-95/US 17 Interchange | |
| From: | US 17 | |
| To: | NB I-95 On Ramp | |
| | Link | |
| | 1 | MAX |
| 2035 RMV [veh/day] | 18.8000 | 19 |
| Segment Length [miles] | 0.265690 | |
| 2035 RMV Weighted Avg. [veh/day] | | |
| | 19 | |

| | | |
|---|-------------------------------|------------|
| On: | I-95/US 17 Interchange | |
| From: | SB I-95 | |
| To: | US 17 Off Ramp | |
| | Link | |
| | 1 | MAX |
| 2035 RMV [veh/day] | 8.39 | 8 |
| Segment Length [miles] | 0.306390 | |
| 2035 RMV Weighted Avg. [veh/day] | | |
| | 8 | |

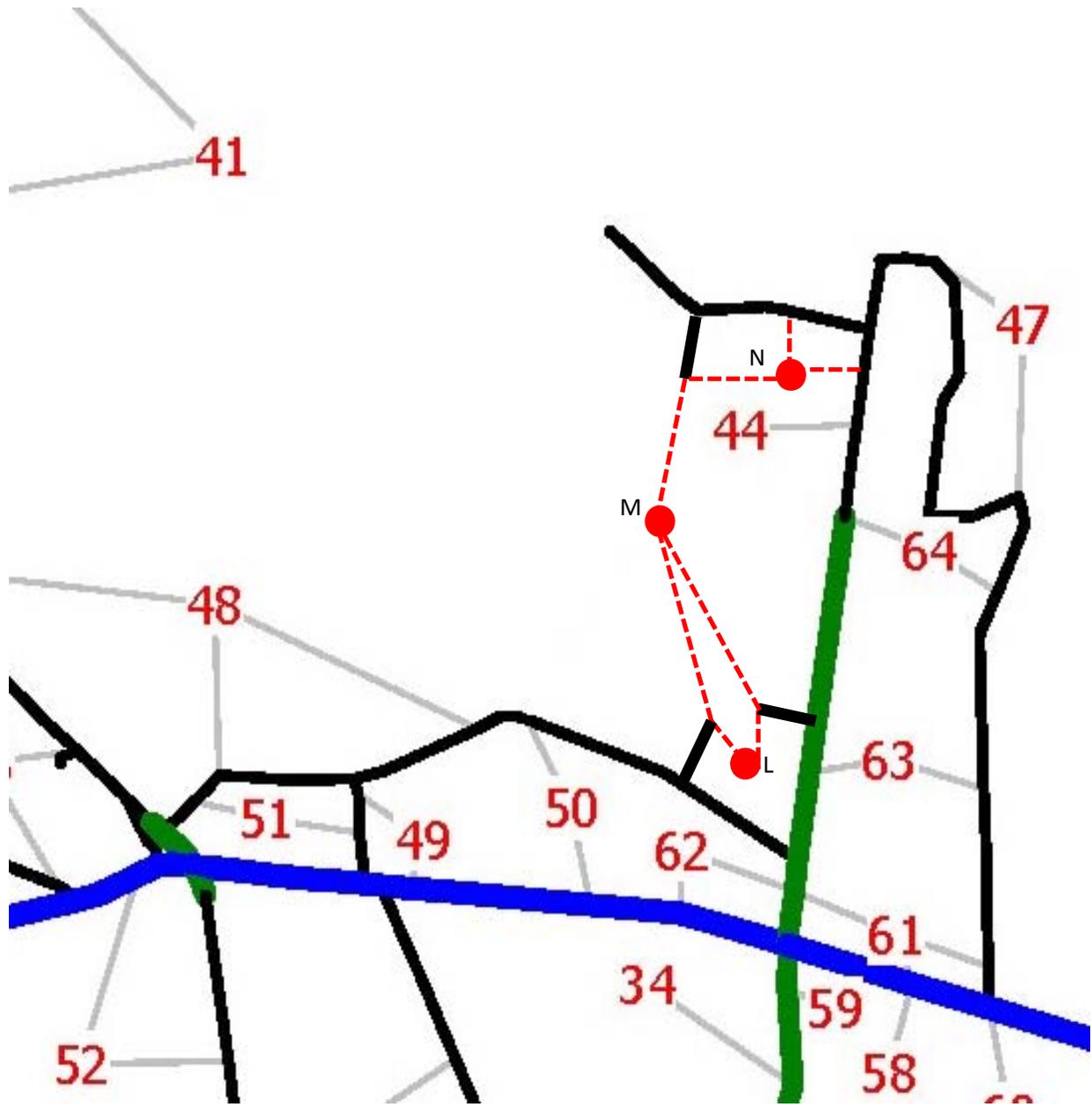
| | | |
|---|-------------------------------|------------|
| On: | I-95/US 17 Interchange | |
| From: | US 17 | |
| To: | SB I-95 On Ramp | |
| | Link | |
| | 1 | MAX |
| 2035 RMV [veh/day] | 0.00 | 0 |
| Segment Length [miles] | 0.105480 | |
| 2035 RMV Weighted Avg. [veh/day] | | |
| | 0 | |

| | | | | | | | |
|---|-------------------------|----------|----------|----------|----------|----------|------------|
| On: | CR 108 Extension | | | | | | |
| From: | US 17 | | | | | | |
| To: | I-95 Overpass | | | | | | |
| | Link | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | MAX |
| 2035 RMV [veh/day] | 27.810 | 27.810 | 27.810 | 27.810 | 27.810 | 27.810 | 28 |
| Segment Length [miles] | 0.257430 | 0.592580 | 0.165440 | 0.025490 | 0.320830 | 0.059500 | |
| 2035 RMV Weighted Avg. [veh/day] | | | | | | | |
| | | | | | | | |

APPENDIX F

Chester Road DSAP TAZ Network

Chester Road DSAP



Chester Road DSAP Development Quantities:

| Land Uses | TAZ L | TAZ M | TAZ N |
|---------------|----------|----------|----------|
| | SF/units | SF/units | SF/units |
| Office | 0 | 0 | 0 |
| Single Family | 0 | 1,200 | 0 |
| Apartments | 300 | 0 | 375 |
| Townhomes | 0 | 0 | 0 |
| Retail | 31,000 | 0 | 60,000 |
| Industrial | 0 | 0 | 0 |

APPENDIX G

Trip Generation Estimate

Build Out

| Land Use | ITE Land Use Code (LUC) | Intensity | Weekday Daily | Weekday AM | | | Weekday PM | | |
|------------------------|-------------------------|-----------|---------------|------------|------------|--------------|--------------|------------|--------------|
| | | | | Enter | Exit | Total | Enter | Exit | Total |
| Single Family | 210 | 1,200 du | 10,331 | 213 | 637 | 850 | 619 | 364 | 983 |
| Multi Family | 220 | 675 du | 4,214 | 67 | 267 | 334 | 253 | 136 | 389 |
| Retail | 820 | 91,000 sf | 6,387 | 91 | 56 | 147 | 270 | 292 | 562 |
| Total | | | 20,932 | 371 | 960 | 1,331 | 1,142 | 792 | 1,934 |
| Internal Capture Trips | | | 1,276 | 9 | 9 | 18 | 59 | 59 | 118 |
| Driveway Trips | | | 19,656 | 362 | 951 | 1,313 | 1,083 | 733 | 1,816 |
| Pass-by Trips | | | 1,027 | 23 | 23 | 46 | 47 | 46 | 93 |
| New Trips | | | 18,629 | 339 | 928 | 1,267 | 1,036 | 687 | 1,723 |

Internal Capture

Daily

| | | | Residential | | Retail | | Total |
|-------------|-----|--------|-------------|-------|--------|-------|-------|
| | | | In | Out | In | Out | |
| | | | 7,273 | 7,272 | 3,194 | 3,193 | |
| Residential | In | 7,273 | | | | 351 | 351 |
| | Out | 7,272 | | | 287 | | 287 |
| Retail | In | 3,194 | | 287 | | | 287 |
| | Out | 3,193 | 351 | | | | 351 |
| Total | | 20,932 | | | | | 1,276 |

AM Peak Hour

| | | | Residential | | Retail | | Total |
|-------------|-----|-------|-------------|-----|--------|-----|-------|
| | | | In | Out | In | Out | |
| | | | 280 | 904 | 91 | 56 | |
| Residential | In | 280 | | | | 4 | 4 |
| | Out | 904 | | | 5 | | 5 |
| Retail | In | 91 | | 5 | | | 5 |
| | Out | 56 | 4 | | | | 4 |
| Total | | 1,331 | | | | | 18 |

PM Peak Hour

| | | | Residential | | Retail | | Total |
|-------------|-----|-------|-------------|-----|--------|-----|-------|
| | | | In | Out | In | Out | |
| | | | 872 | 500 | 270 | 292 | |
| Residential | In | 872 | | | | 35 | 35 |
| | Out | 500 | | | 24 | | 24 |
| Retail | In | 270 | | 24 | | | 24 |
| | Out | 292 | 35 | | | | 35 |
| Total | | 1,934 | | | | | 118 |

Retail Pass-By Capture

Daily

Inbound: 3,194
Outbound: 3,193

Internal Capture

Inbound: 287
Outbound: 351

Driveway Trips

Inbound: 2,907
Outbound: 2,842

Pass-By Capture (34 percent)

Inbound: 977
Outbound: 977
Total: 1,954

10 Percent Limit

Chester Road north of Pages Dairy Road
AADT (2035): 10,274

10 Percent: 1,027

Pass By-Capture

Inbound: 514
Outbound: 513
Total: 1,027

AM Peak Hour

Inbound: 91
Outbound: 56

Internal Capture

Inbound: 5
Outbound: 4

Driveway Trips

Inbound: 86
Outbound: 52

Pass-By Capture (34 percent)

Inbound: 23
Outbound: 23
Total: 46

10 Percent Limit

K Factor: 0.09
Peak Hour Volume: 925
10 Percent: **93**

Pass By-Capture

Inbound: 23
Outbound: 23
Total: 46

PM Peak Hour

Inbound: 270
Outbound: 292

Internal Capture

Inbound: 24
Outbound: 35

Driveway Trips

Inbound: 246
Outbound: 257

Pass-By Capture (34 percent)

Inbound: 86
Outbound: 86
Total: 172

10 Percent Limit

K Factor: 0.09
Peak Hour Volume: 925
10 Percent: **93**

Pass By-Capture

Inbound: 47
Outbound: 46
Total: 93

APPENDIX H

Project Distribution Adjustments

Total Project Volume
(external)

$$= 0 + 430 + 655 + 935 + 4473 + 4359$$

$$= 10858$$

REASSIGNMENT

$$(1570 + 1503)(0.50) = 1536.5$$

$$+ 561.3$$

$$+ 742.4$$

$$\uparrow 2030$$

← transferred from Pages Dairy to SR 200/1A

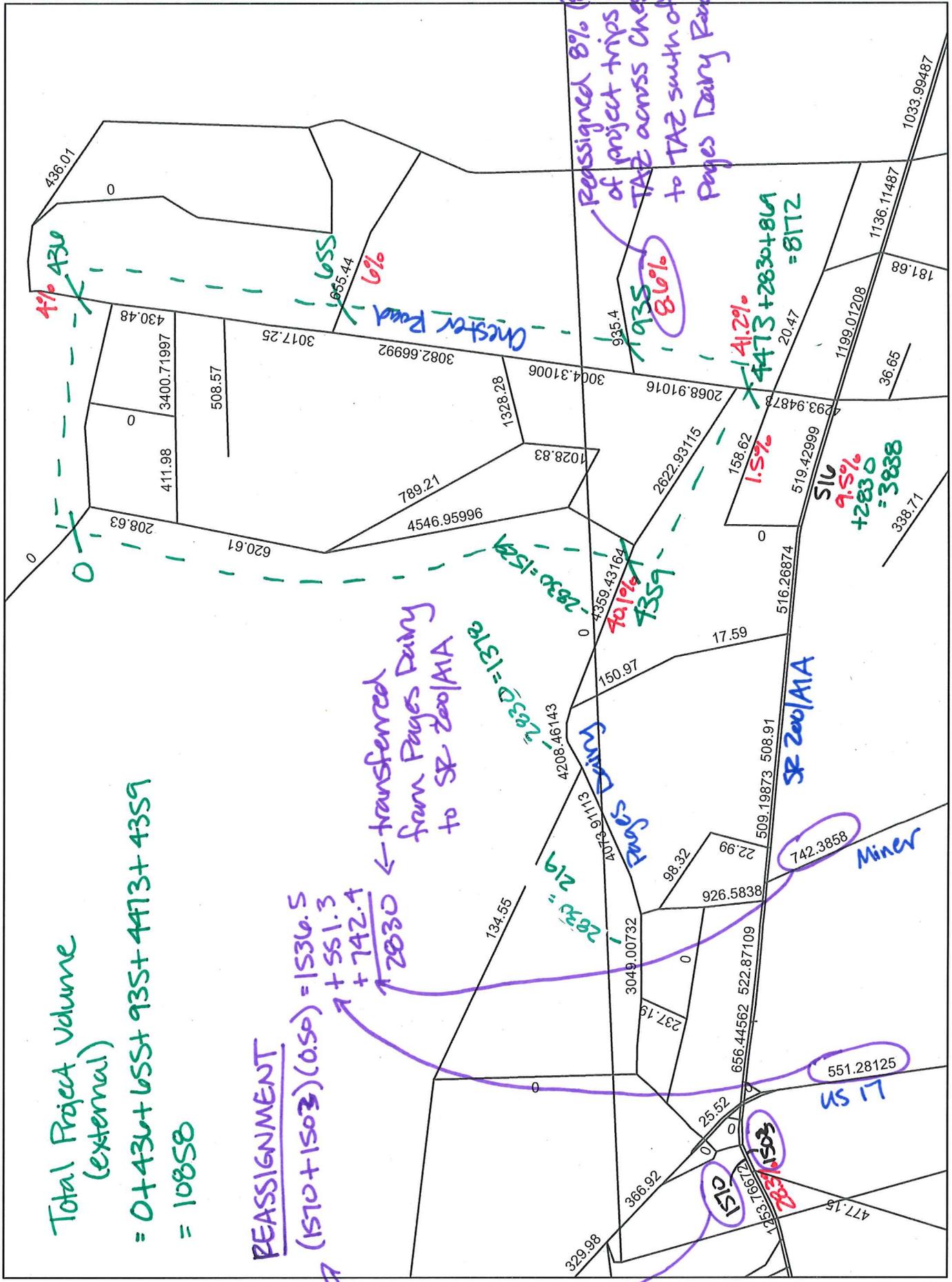
$$2030 \times 0.50 = 1015$$

Reassigned 8% (800) of project trips from TAZ across Chester Rd to TAZ south of Pages Dairy Road.

$$1935 \times 8.6\% = 166.4$$

$$4473 + 2830 + 800 = 8103$$

$$516 \times 9.5\% + 2830 = 3838$$



Internal Capture Adjustment

Daily

| | | | Residential (S) | | Residential (N) | | Residential SF | | Retail (S) | | Retail (N) | | Total |
|-----------------|-----|---------------|-----------------|-----|-----------------|-------|----------------|-------|------------|-------|------------|-------|--------------|
| | | | In | Out | In | Out | In | Out | In | Out | In | Out | |
| | | | 937 | 936 | 1,171 | 1,170 | 5,166 | 5,165 | 1,088 | 1,088 | 2,106 | 2,105 | |
| Residential (S) | In | 937 | | | | 0 | | 0 | | 120 | | 232 | 352 |
| | Out | 936 | | | 0 | | 0 | | 98 | | 190 | | 288 |
| Residential (N) | In | 1,171 | | 0 | | | 0 | | | 120 | | 232 | 352 |
| | Out | 1,170 | 0 | | | | 0 | | 98 | | 190 | | 288 |
| Residential SF | In | 5,166 | | 0 | | 0 | | | | 120 | | 232 | 352 |
| | Out | 5,165 | 0 | | 0 | | | | 98 | | 190 | | 288 |
| Retail (S) | In | 1,088 | | 98 | | 98 | | 98 | | | | 305 | 599 |
| | Out | 1,088 | 120 | | 120 | | 120 | | | | 326 | | 686 |
| Retail (N) | In | 2,106 | | 190 | | 190 | | 190 | | 326 | | | 896 |
| | Out | 2,105 | 232 | | 232 | | 232 | | 305 | | | | 1,001 |
| Total | | 20,932 | | | | | | | | | | | 5,102 |

1,276

25%

Adjusted Daily

| | | | Residential (S) | | Residential (N) | | Residential SF | | Retail (S) | | Retail (N) | | Total |
|-----------------|-----|----------|-----------------|-----|-----------------|-----|----------------|-----|------------|-----|------------|-----|--------------|
| | | | In | Out | In | Out | In | Out | In | Out | In | Out | |
| | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Residential (S) | In | 0 | | | | 0 | | 0 | | 30 | | 58 | 88 |
| | Out | 0 | | | 0 | | 0 | | 25 | | 47 | | 72 |
| Residential (N) | In | 0 | | 0 | | | 0 | | | 30 | | 58 | 88 |
| | Out | 0 | 0 | | | | 0 | | 25 | | 47 | | 72 |
| Residential SF | In | 0 | | 0 | | 0 | | | | 30 | | 58 | 88 |
| | Out | 0 | 0 | | 0 | | | | 25 | | 47 | | 72 |
| Retail (S) | In | 0 | | 25 | | 25 | | 25 | | | | 76 | 151 |
| | Out | 0 | 30 | | 30 | | 30 | | | | 82 | | 172 |
| Retail (N) | In | 0 | | 47 | | 47 | | 47 | | 82 | | | 223 |
| | Out | 0 | 58 | | 58 | | 58 | | 76 | | | | 250 |
| Total | | 0 | | | | | | | | | | | 1,276 |

Internally Captured Trips using External Roadway Network

Internally Captured Trips using External Roadway Network:

318