Market Street PDP

Nassau County, Florida

Submitted to **Nassau County Growth Management**

Prepared for **TerraPointe Services, Inc.**

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1

Introduction

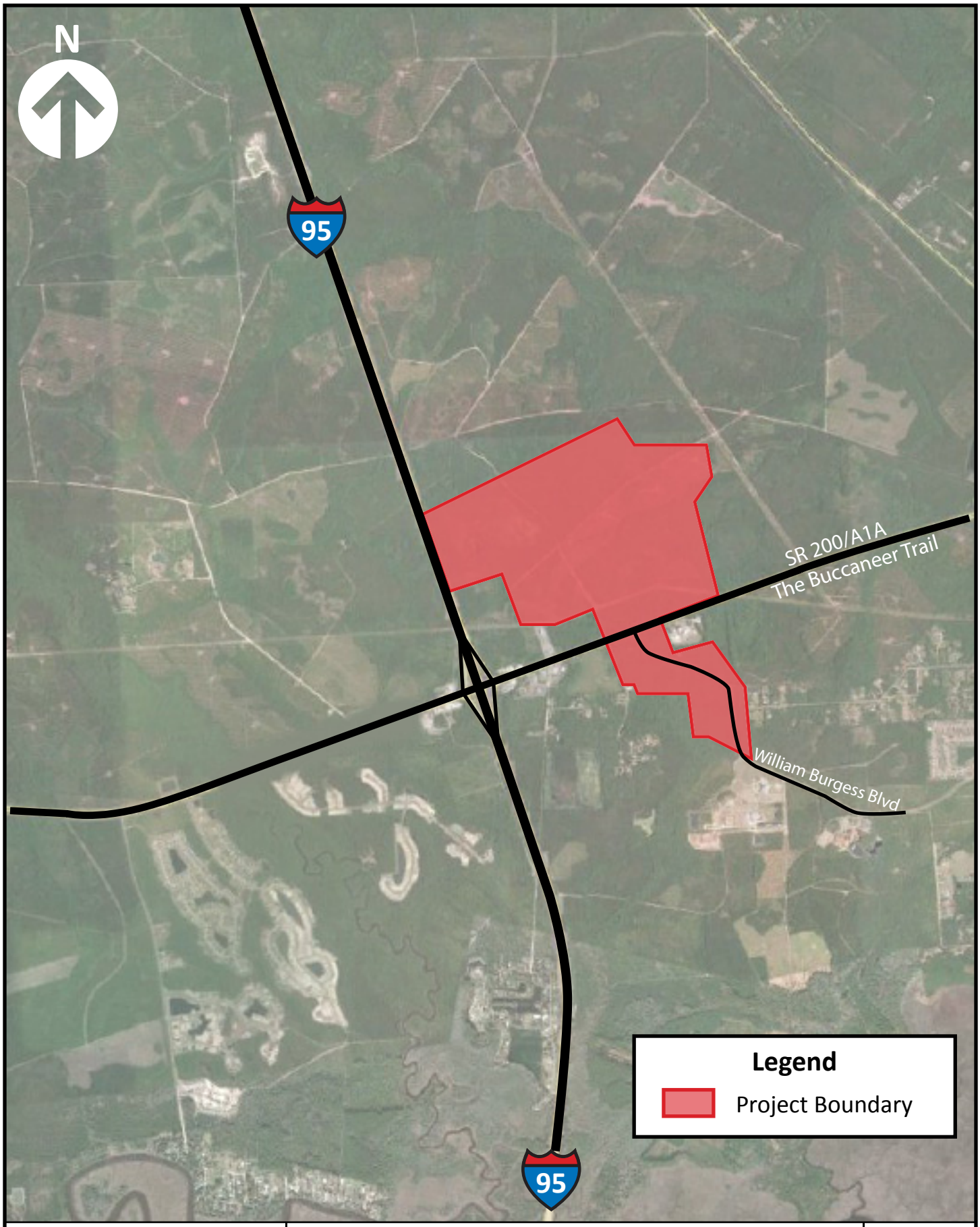
VHB/Vanasse Hangen Brustlin, Inc. has been retained by TerraPointe Services, Inc. to conduct a transportation impact study for the Employment Center DSAP Market Street Preliminary Development Plan (PDP) to be located along SR 200/A1A, east of Interstate 95 in Nassau County, Florida within the East Nassau 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 three phases 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 Market Street PDP is approximately 559.84 acres in total area. Approximately 466.21 acres are located north of SR 200/A1A/The Buccaneer Trail near the intersection of William Burgess Boulevard and approximately 93.63 acres are located south of SR 200/A1A/The Buccaneer Trail. The proposed development consists of three phases:

- Phase One consists of an elementary school with an approximate enrollment of 800 students to be located on the portion of the property located north of SR 200/A1A/The Buccaneer Trail.
- Phase Two consists of an elementary school with an enrollment of 800 students, 100 single family residential units, 250 multi-family residential units, 80,000 square feet of office, and 40,000 square feet of retail. All development during this phase is proposed to be located north of SR 200/A1A/The Buccaneer Trail.
- Phase Three will complete the PDP and consists of:
    - North of SR 200/A1A/The Buccaneer Trail: elementary school with an enrollment of 800 students, 536 single family residential units, 381 multi-family residential units, 100,000 square feet of office, and 125,000 square feet of retail.
    - South of SR 200/A1A/The Buccaneer Trail: 150,000 square feet of office, and 75,000 square feet of retail.

The proposed project will be developed on currently vacant land. Phase One is anticipated to be completed in year 2017; Phase Two is anticipated to be completed in 2019; and Phase Three is anticipated to be completed in year 2024. Each phase includes previous phases; therefore, the analysis is cumulative. A two lane access road (the DSAP Western Loop Collector) will be constructed connecting the development to the intersection of SR 200/A1A/The Buccaneer Trail and William Burgess Boulevard. To accommodate the traffic during Phase Three, two additional connections will also be constructed to connect the northern portion of the development to SR 200/A1A/The Buccaneer Trail. These connections will operate as unsignalized intersections and will be located at the existing median openings adjacent to the William Burgess Boulevard intersection (Sheriff's Office Complex on the East and Harper Chapel Road on the West).



Vanasse Hangen Brustlin, Inc.

TRAFFIC IMPACT ANALYSIS
Project Location Map
Nassau County, Florida

FIGURE 1

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.

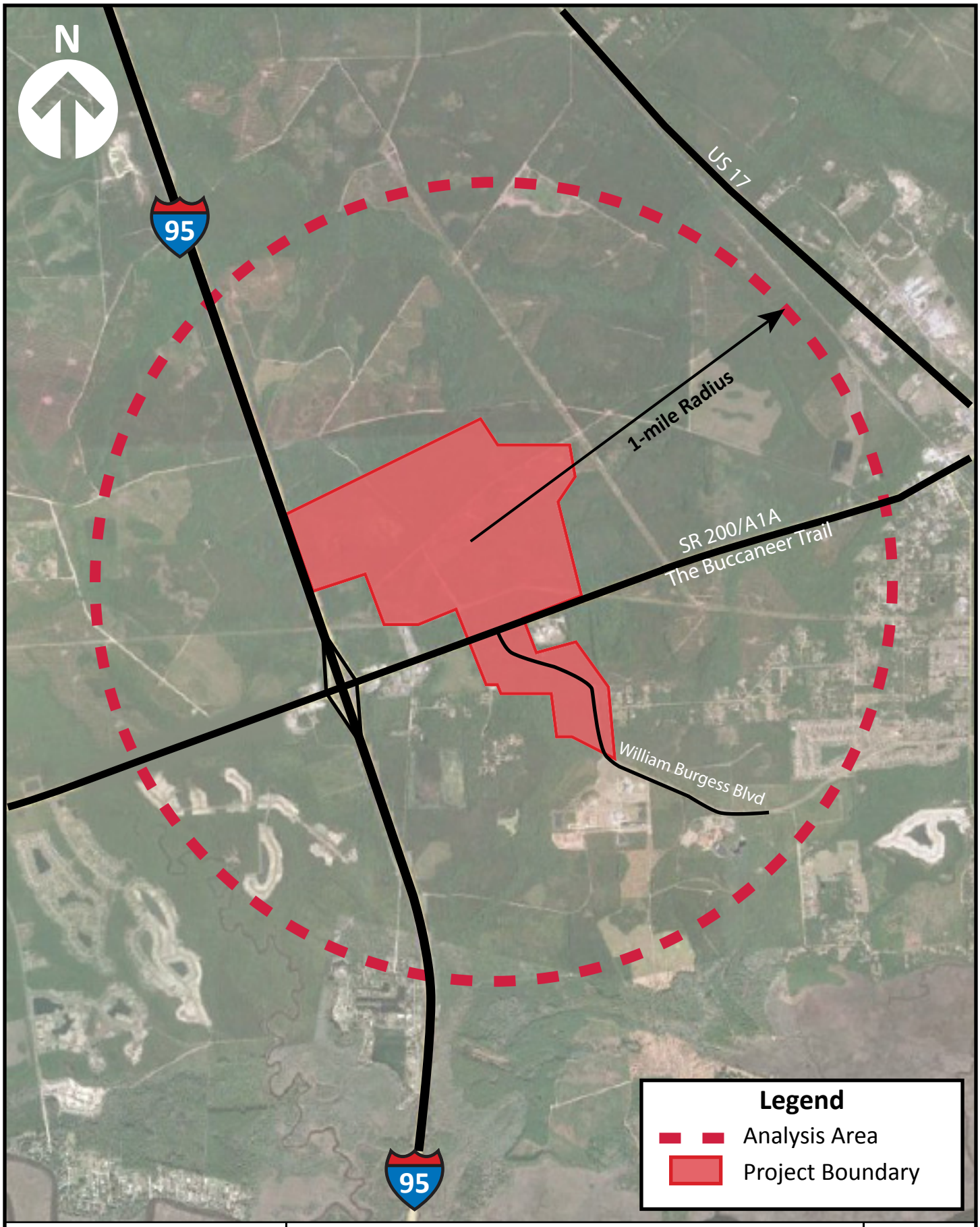
This transportation impact study analyzes traffic operating conditions during the morning and afternoon peak period for intersections within the study area, and analyzes daily traffic operating conditions for roadway segments within the study area per the Transportation Impact Analysis (TIA) Methodology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

To evaluate the potential traffic impacts of the proposed development, an analysis of traffic conditions for the 2014 Existing condition and the Build conditions for each phase 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 corridor adjacent to the site is The Buccaneer Trail (SR 200/ A1A). Intersections were selected for analysis based on a review of the project site in relation to the street network and consistent with the project methodology. Based on this review, the following intersections were analyzed:

- SR 200/ A1A/ The Buccaneer Trail and I-95 northbound ramps
- SR 200/ A1A/ The Buccaneer Trail and I-95 southbound ramps
- SR 200/ A1A/ The Buccaneer Trail and West Driveway
- SR 200/ A1A/ The Buccaneer Trail and William Burgess Boulevard
- SR 200/ A1A/ The Buccaneer Trail and East Driveway



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TRAFFIC IMPACT ANALYSIS
Analysis Area
Nassau County, Florida

FIGURE 2

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 is currently a four-lane divided roadway and is under the jurisdiction of FDOT.

William Burgess Blvd. is a two-lane collector roadway under the jurisdiction of Nassau County. The roadway connects SR 200/ A1A and US 17 and provides access to the Nassau County Courthouse to the south of SR 200/ A1A.

Programmed Improvements

Improvements to SR 200/ A1A are currently in the adopted FDOT Five Year Work Program. The widening of SR 200/ A1A from four to six lanes between Interstate 95 and to 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. Information regarding this improvement obtained from the Florida Department of Transportation District 2 is included in Appendix B.

Table 1 Programmed Improvements

FDOT Item No.	Roadway and Limits	Description	Phase	Year	Funding
210711-2	SR 200/ A1A from I-95 to W. of Still Quarters Rd.	Add lanes (widen from 4 to 6)	Construction	2017	$35,280,000

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 (2013) and from Nassau County Local Roads Traffic Counts (2006-2009). The latest available roadway data for William Burgess Blvd. from the Nassau County Local Roads Traffic Counts is from 2006. All volumes were grown using growth rates identified in the TIA Methodology Document's future growth section to the year 2014. The 2014 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	2014 AADT	LOS
Interstate 95								
S. of SR 200/A1A	6F	D	110,300	62,333	2.94%	1,829	64,162	B
N. of SR 200/A1A	6F	D	110,300	44,000	3.12%	1,371	45,371	B
SR 200/A1A								
W. of I-95	4D	D	58,800	10,000	6.39%	639	10,639	B
E. of I-95	4D	D	36,700	19,214	4.25%	816	20,030	B
William Burgess Blvd.								
S. of SR 200/A1A	2U	D	13,900	1,192	4.25%	405	1,597	C
I-95/SR A1A Interchange								
NB I-95 to SR A1A Off-Ramp	1U	D	11,100	7,500	5.44%	408	7,908	D
SR A1A to NB I-95 On-Ramp	1U	D	11,100	2,200	6.62%	146	2,346	B
SB I-95 to SR A1A Off-Ramp	1U	D	11,100	1,700	7.79%	132	1,832	B
SR A1A to SB I-95 On-Ramp	1U	D	11,100	7,700	5.42%	417	8,117	D

Existing Unsignalized Intersection Capacity Analysis

To determine the existing traffic at the study intersections, VHB retained Peggy Malone and Associates to perform data collection for the study area intersections. AM and PM 2-hour turning movement counts were performed at the intersection of SR 200/ A1A and William Burgess Boulevard and the northbound and southbound interchange ramps at SR 200/ A1A and Interstate 95. The AM and PM peak hour intersection turning movement counts (TMC) adjusted to 2014 average conditions are presented in Figure 4. A copy of the data collected is included in Appendix C.

The intersection of SR 200/ A1A and William Burgess Boulevard 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 currently operate at a level of service D or better.

Table 3 Existing Unsignalized Intersection Capacity Analysis

Intersection	Movement	2014 AM Conditions			2014 PM Conditions		
		v/c	Delay [a]	LOS [b]	v/c	Delay [a]	LOS [b]
SR 200/ A1A at William Burgess Boulevard	EBL	N/A	N/A	N/A	N/A	N/A	N/A
	EBT	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1
	EBR	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1
	WBL	0.08	10.3	B	0.05	11.6	B
	WBT	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1
	WBR	N/A	N/A	N/A	N/A	N/A	N/A
	NBL	0.24	26.2	D	0.36	32.8	D
	NBT	N/A	N/A	N/A	N/A	N/A	N/A
	NBR	0.02	10.8	B	0.08	12.4	B
	SBL	N/A	N/A	N/A	N/A	N/A	N/A
	SBT	N/A	N/A	N/A	N/A	N/A	N/A
	SBR	N/A	N/A	N/A	N/A	N/A	N/A

Note 1: Unopposed Movement
Source: VHB, Inc. using HCS software.
a Average delay in seconds per vehicle
b Level of Service

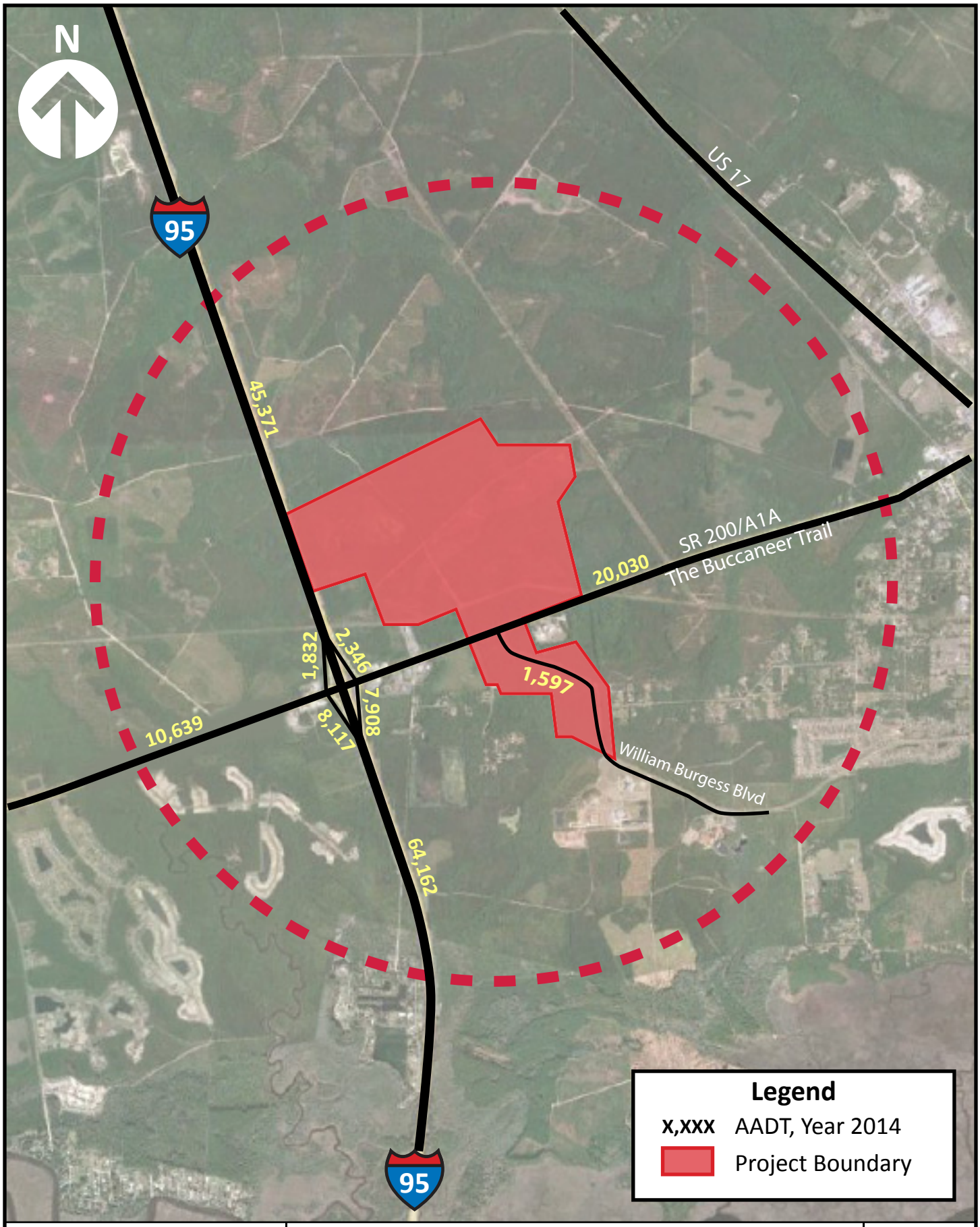
Existing Signalized Intersection Capacity Analysis

Table 4 shows the intersection capacity analysis for the signalized intersections at SR 200/ A1A and the Interstate 95 ramps. This analysis results in one failing movement – the northbound right turn at the I-95 Northbound Ramps in the p.m. peak hour condition. All other movements currently operate at a level of service D or better.

Table 4 Existing Signalized Intersection Capacity Analysis

Intersection	Movement	2014 AM Conditions			2014 PM Conditions		
		v/c	Delay [a]	LOS [b]	v/c	Delay [a]	LOS [b]
SR 200/ A1A at I-95 Northbound Ramps	EBL	0.35	9.5	A	0.66	25.3	C
	EBT	0.25	5.6	A	0.20	11.2	B
	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	0.77	17.0	B	0.80	26.0	C
	WBR	0.05	9.6	A	0.04	15.9	B
	NBL	0.11	20.3	C	0.30	18.8	B
	NBT	N/A	N/A	N/A	N/A	N/A	N/A
	NBR	0.63	26.5	C	1.13	103.1	F
	SBL	N/A	N/A	N/A	N/A	N/A	N/A
	SBT	N/A	N/A	N/A	N/A	N/A	N/A
	SBR	N/A	N/A	N/A	N/A	N/A	N/A
	TOTAL	0.69	16.1	B	0.94	50.6	D
SR 200/ A1A at I-95 Southbound Ramps	EBL	N/A	N/A	N/A	N/A	N/A	N/A
	EBT	0.83	41.0	D	0.42	14.9	B
	EBR	0.14	27.4	C	0.06	13.2	B
	WBL	0.91	23.9	C	0.69	7.2	A
	WBT	0.12	2.0	A	0.28	3.4	A
	WBR	N/A	N/A	N/A	N/A	N/A	N/A
	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	0.40	36.5	D	0.34	19.8	B
	SBT	N/A	N/A	N/A	N/A	N/A	N/A
	SBR	0.05	33.8	C	0.09	18.5	B
	TOTAL	0.83	26.2	C	0.61	8.9	A

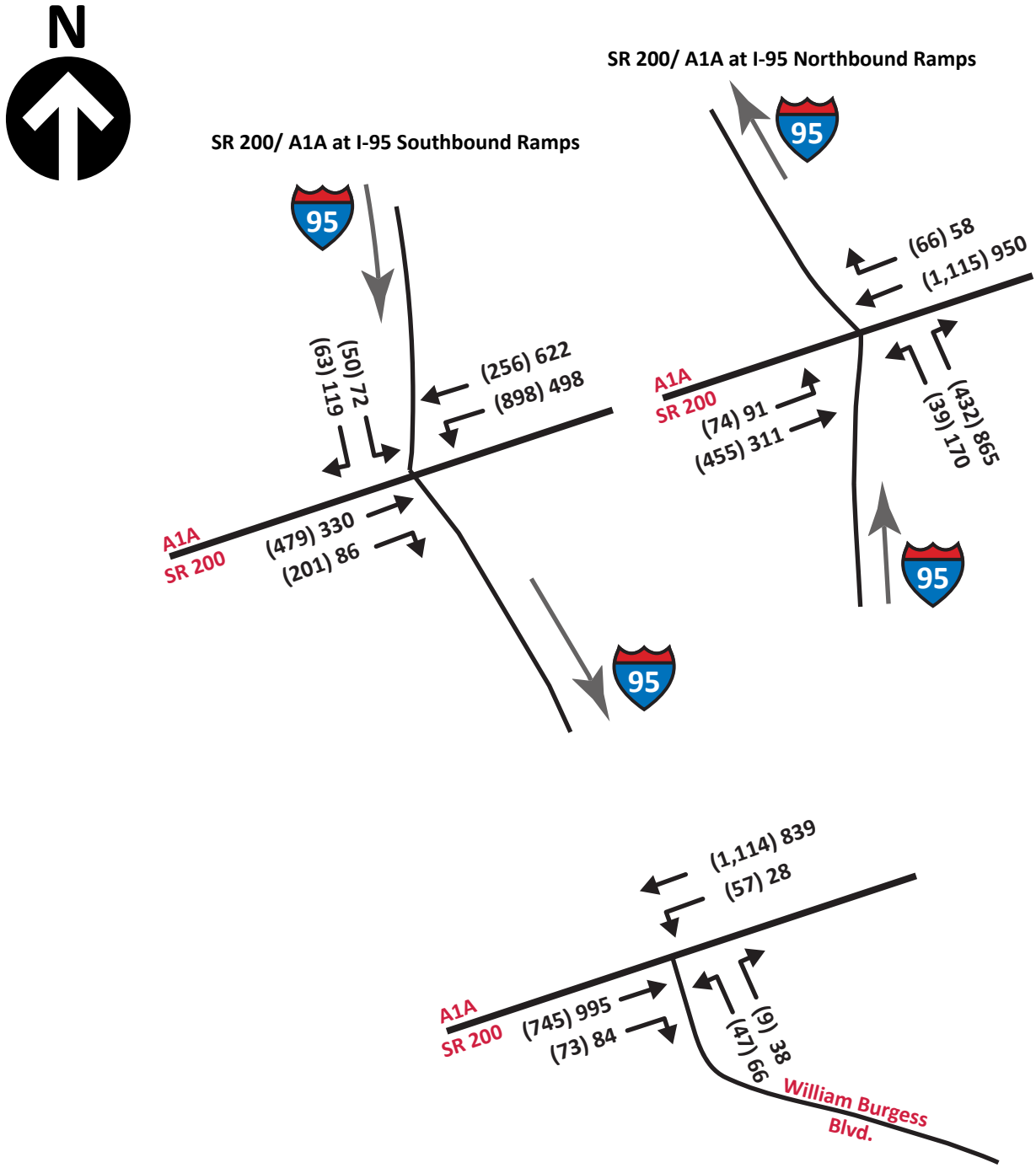
Source: VHB, Inc. using HCS software.
a Average delay in seconds per vehicle
b Level of Service



Vanasse Hangen Brustlin, Inc.

TRAFFIC IMPACT ANALYSIS
Existing Roadway Volumes
Nassau County, Florida

FIGURE 3



Legend

(XXX) XXX Existing (AM) PM TMC, Year 2014

VHB Vanasse Hangen Brustlin, Inc.	**TRAFFIC IMPACT ANALYSIS** **Existing Intersection Volumes** **Nassau County, Florida**	**FIGURE** **4**

3a

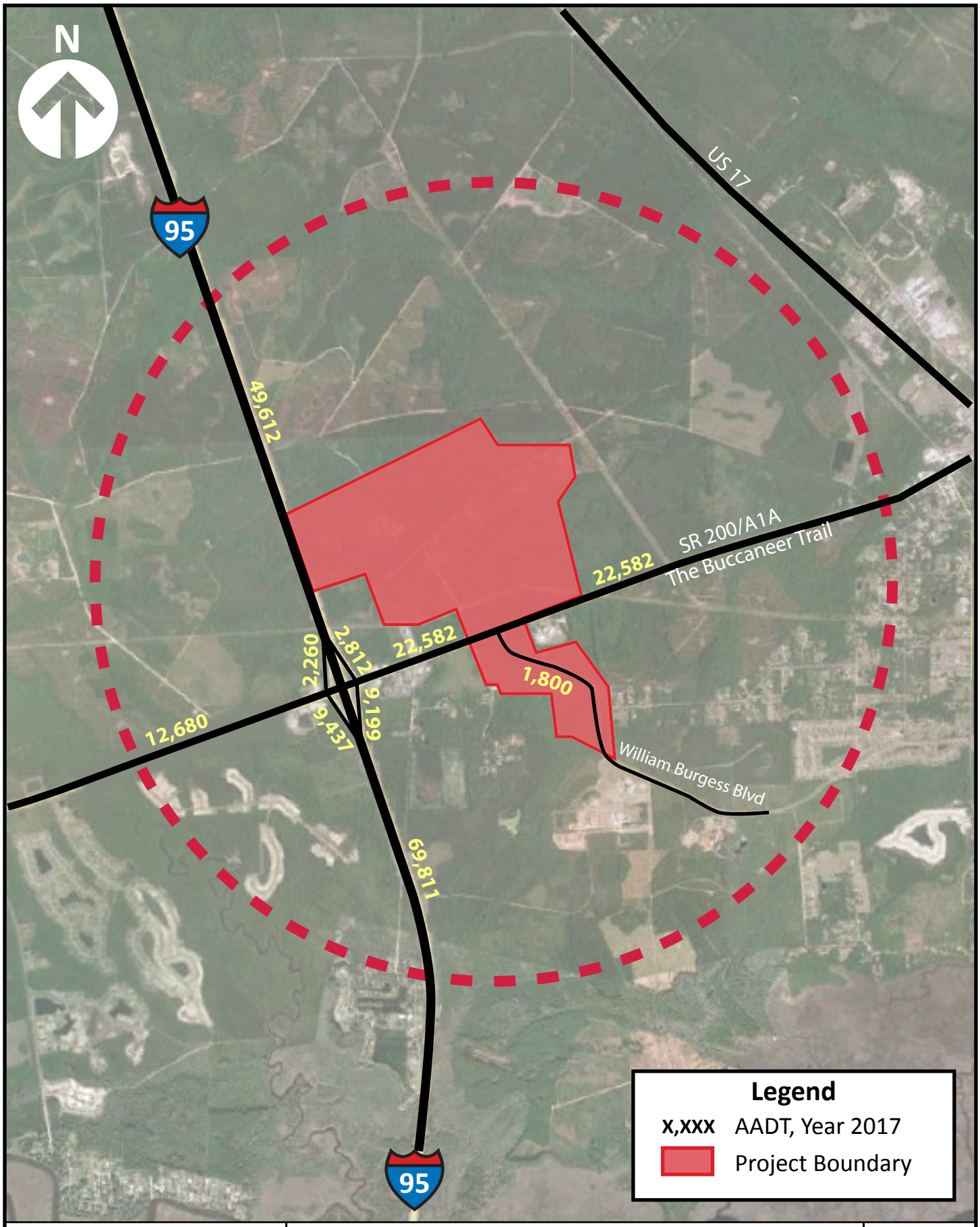
Future Conditions (Phase 1 - Year 2017)

To determine the impacts of the site-generated traffic volumes on the surrounding roadway network, future traffic conditions were analyzed for the completion of each phase. 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 and approved project traffic volumes were overlaid upon the No-Build traffic volumes to reflect the Build conditions in the study area for each phase.

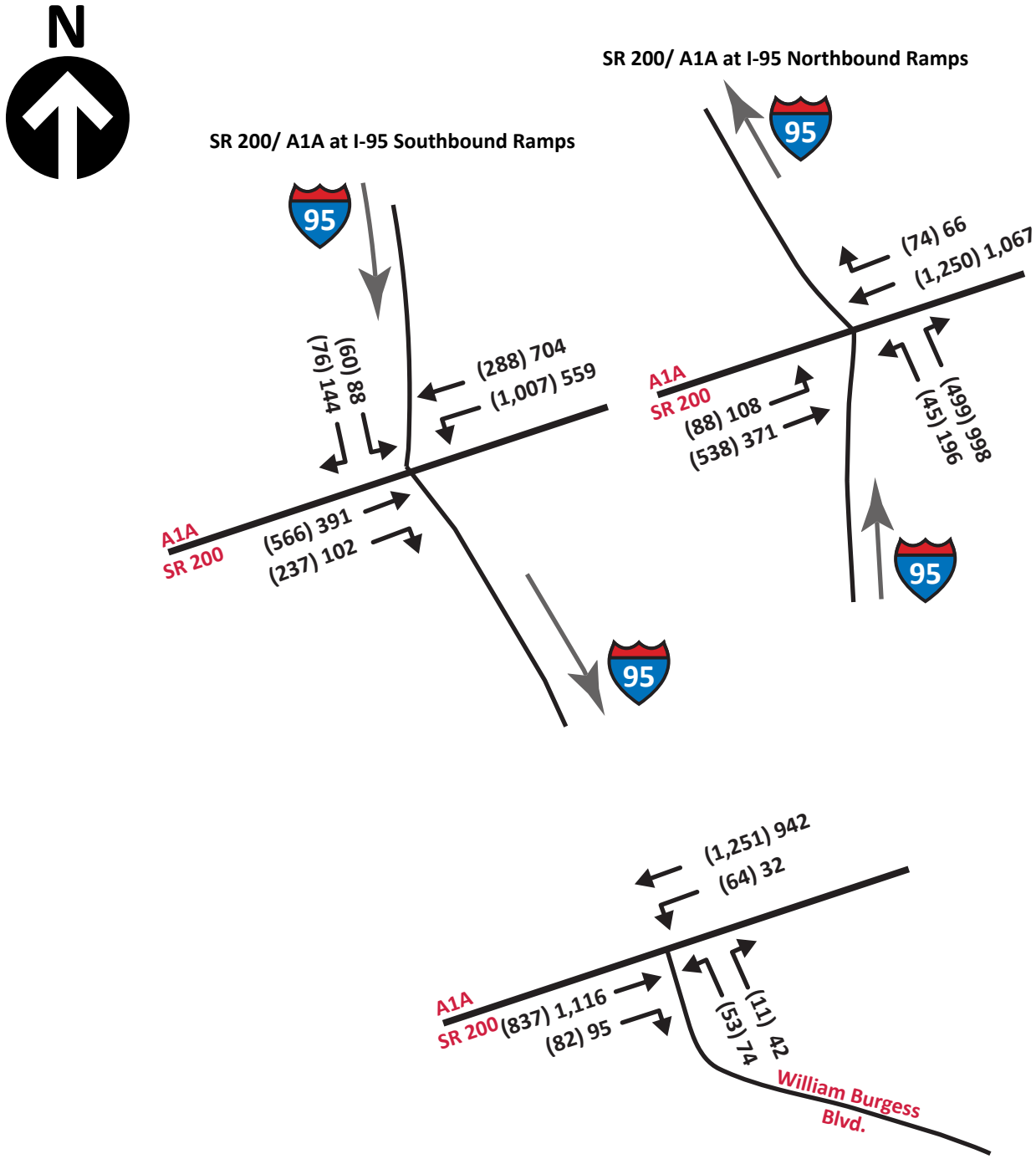
Background Traffic Growth

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 2017 No-Build condition daily roadway volumes are presented in Figure 5, and the 2017 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.



VHB Vanasse Hangen Brustlin, Inc.	**TRAFFIC IMPACT ANALYSIS** **2017 No Build Roadway Volumes** **Nassau County, Florida**	**FIGURE 5**



Legend

(XXX) XXX (AM) PM TMV, Year 2017

VHB Vanasse Hangen Brustlin, Inc.	**TRAFFIC IMPACT ANALYSIS** **2017 No Build Intersection Volumes** **Nassau County, Florida**	**FIGURE 6**

Site-Generated Traffic

Future year (2017 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 2017 No-Build network volumes to create the 2017 Build traffic volume networks. The following sections describe the procedures used to develop the Build networks.

■

Trip Generation

Trip generation was calculated for Phase 1 of 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 for Phase 1:

- LUC 520 – Elementary School

■

Trip Generation Summary

Table 5 presents the total new vehicle trips anticipated from Phase 1 of the proposed development. The proposed development is expected to add approximately 1,032 daily weekday, 360 weekday morning peak hour trips, and 120 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 for the elementary school was calculated as the full build out of 800 students. During the initial phase of the Market Street PDP, all trips to and from the elementary school are anticipated to be external trips because the residential development within the PDP will not be built. As the additional phases of the development program are built, the school will begin serving the development and the trips to generate from within the development. To provide a conservative analysis, the additional phases assume 100 percent of the school trips will continue to come from outside of the development area and use the external roadway network.

Table 5 Phase 1 Trip Generation

Land Use	ITE Land Use Code (LUC)	Intensity	Weekday Daily	Weekday AM			Weekday PM		
				Enter	Exit	Total	Enter	Exit	Total
Phase 1									
Elementary School	520	800 students	1,032	198	162	360	59	61	120

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). The distribution of trips to and from the site is summarized in Table 6 and shown graphically on Figure 7. The project traffic distribution estimate is documented in Appendix C. SR 200/ A1A/ The Buccaneer Trail is the primary route for accommodating regional traffic demand and will be used by vehicles accessing the proposed development.

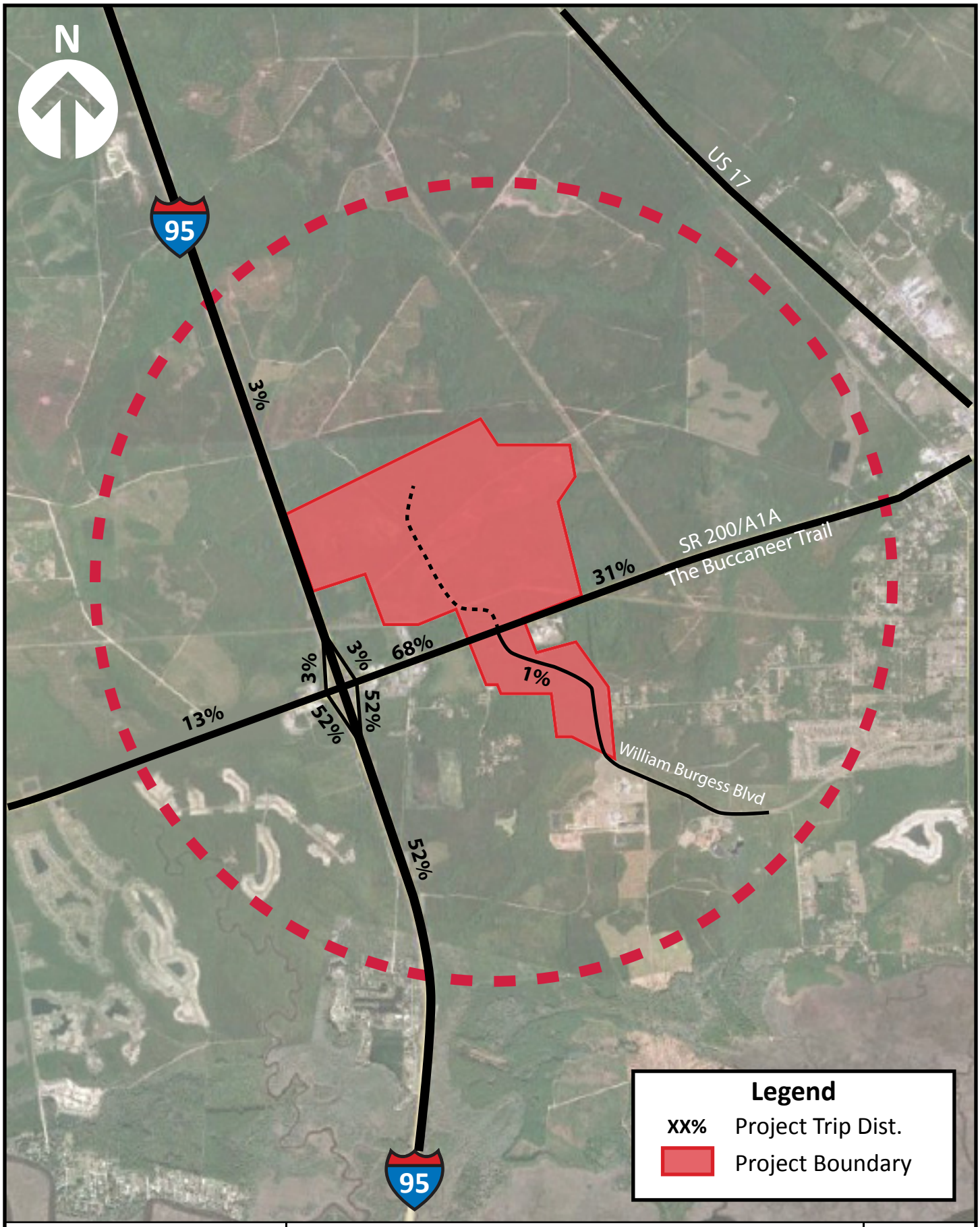
Table 6 Trip Distribution Summary

Travel Route	Direction	Percent of Site Traffic
SR 200/ A1A/ The Buccaneer Trail	West	68%
	East	31%
William Burgess Blvd.	South	1%
Interstate 95	North	3%
	South	52%
All Routes	**Total**	**100%**

Source: NERPM

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

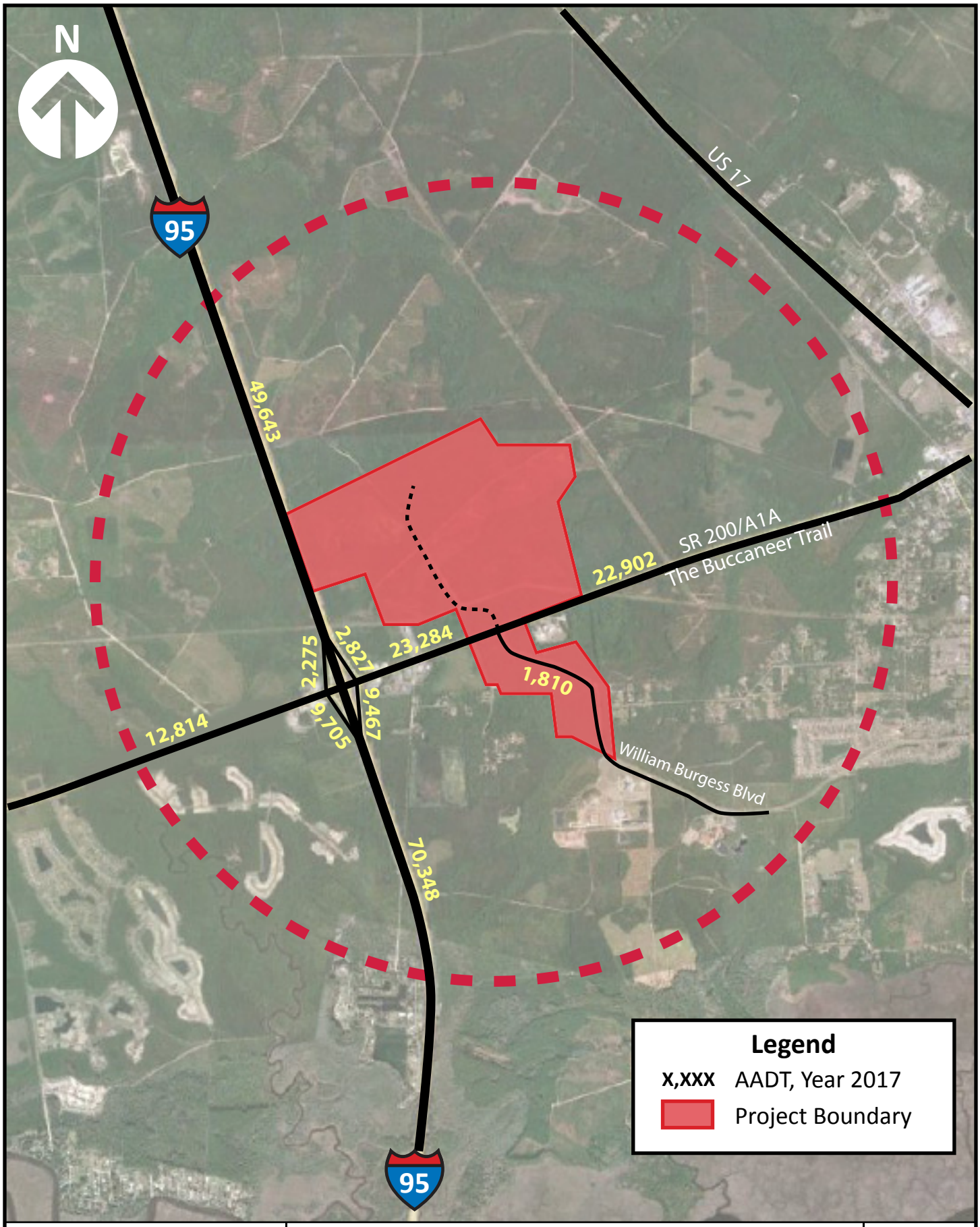
The site-generated traffic was added to the 2017 No-Build weekday peak hour traffic volume network to establish the 2017 Build peak hour traffic volumes. The site-generated trips and the 2017 Build daily roadway traffic volumes are illustrated on Figure 8. The site-generated AM and PM peak hour trips and the 2017 Build peak hour intersection traffic volumes are illustrated in Figure 9.



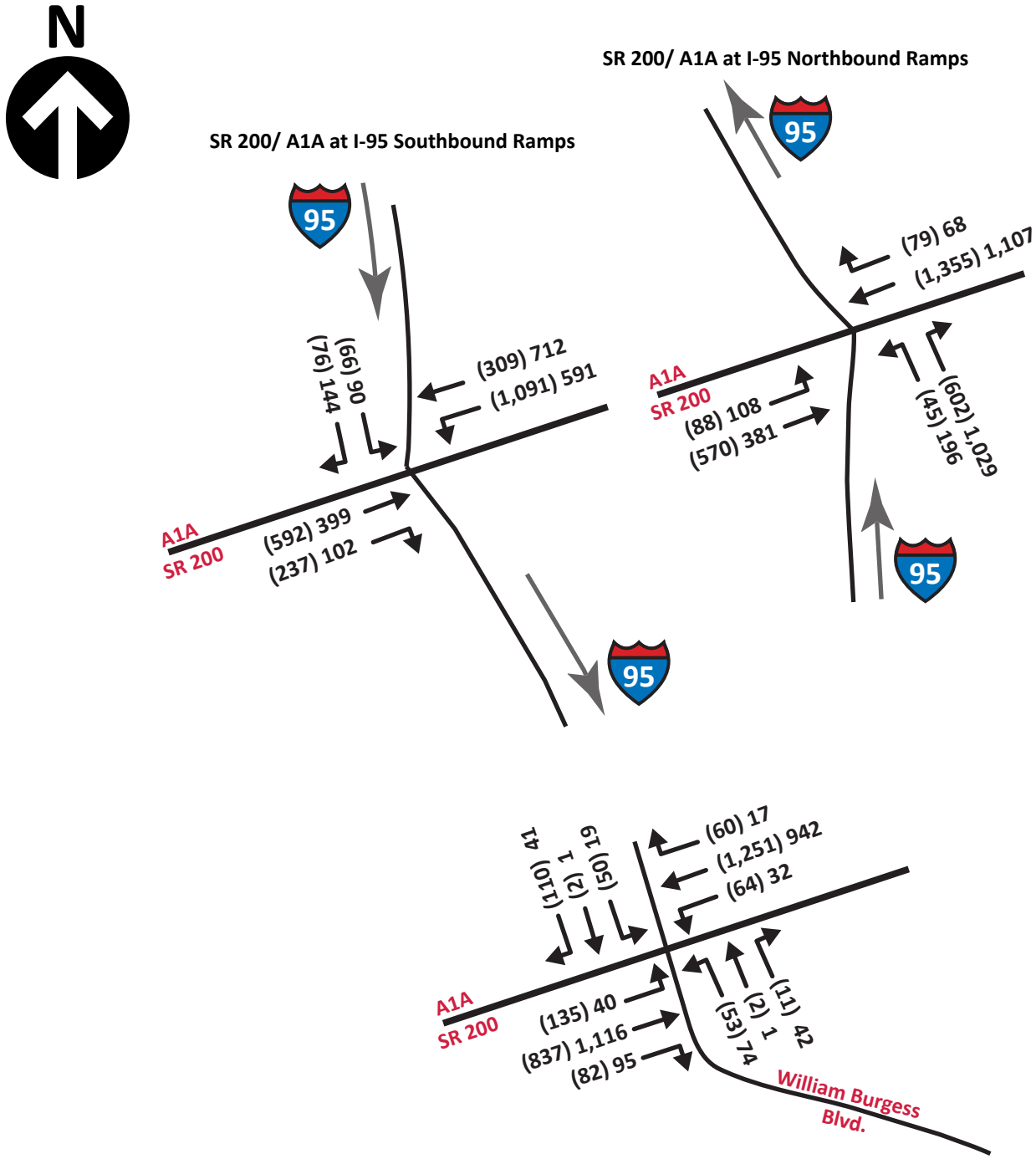
Vanasse Hangen Brustlin, Inc.

TRAFFIC IMPACT ANALYSIS
Phase 1 (2017) Project Trip Distribution
Nassau County, Florida

FIGURE 7



VHB Vanasse Hangen Brustlin, Inc.	**TRAFFIC IMPACT ANALYSIS** **Phase 1 (2017) Build Roadway Volumes** **Nassau County, Florida**	**FIGURE 8**



Legend

(XXX) XXX (AM) PM TMV, Year 2017

VHB Vanasse Hangen Brustlin, Inc.	**TRAFFIC IMPACT ANALYSIS** **Phase 1 (2017) Peak Hour Build Intersection Volumes** **Nassau County, Florida**	**FIGURE 9**

3b

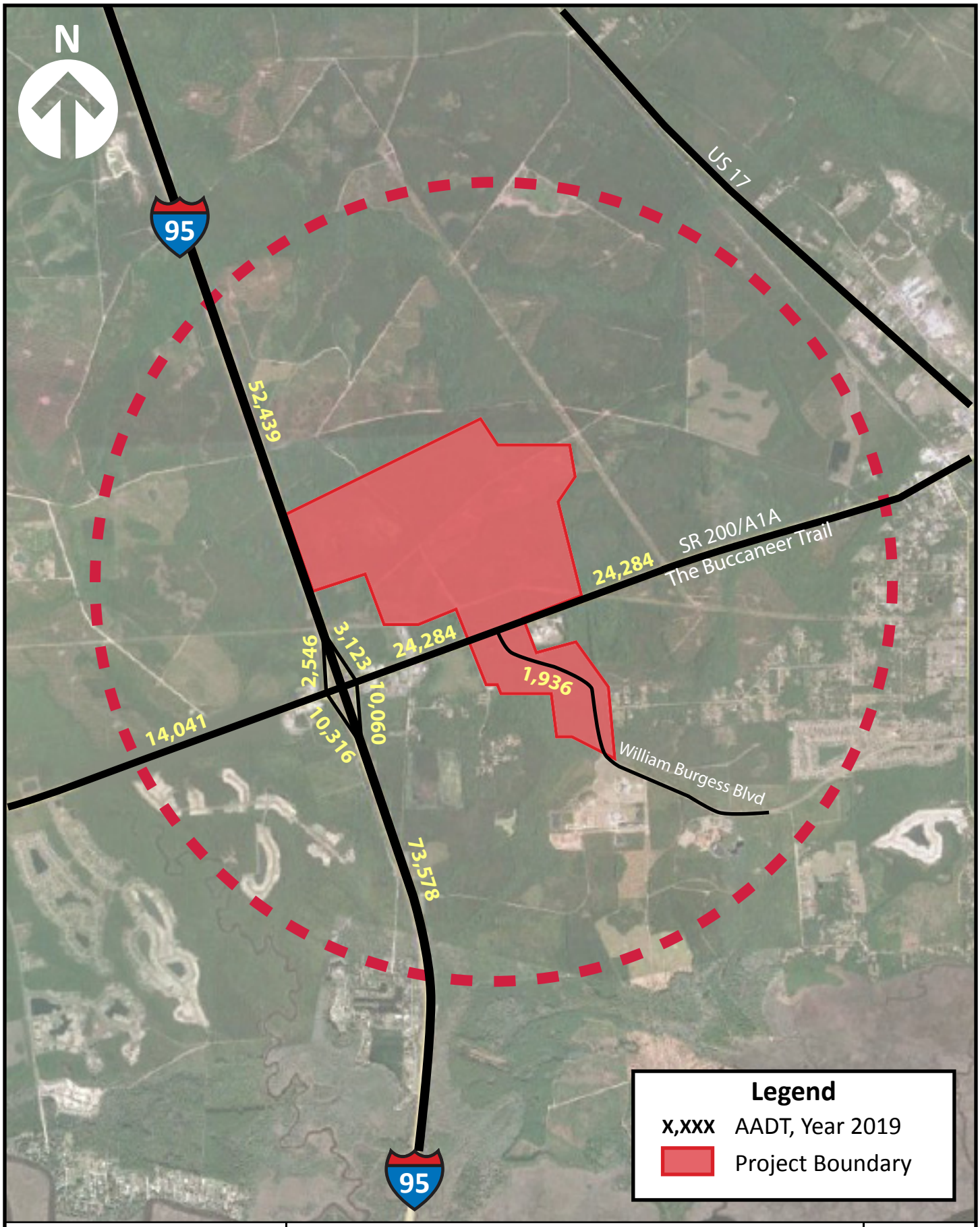
Future Conditions (Phase 2 - Year 2019)

To determine the impacts of the site-generated traffic volumes on the surrounding roadway network, future traffic conditions were analyzed for the completion of each phase. 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 and approved project traffic volumes were overlaid upon the No-Build traffic volumes to reflect the Build conditions in the study area for each phase.

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.

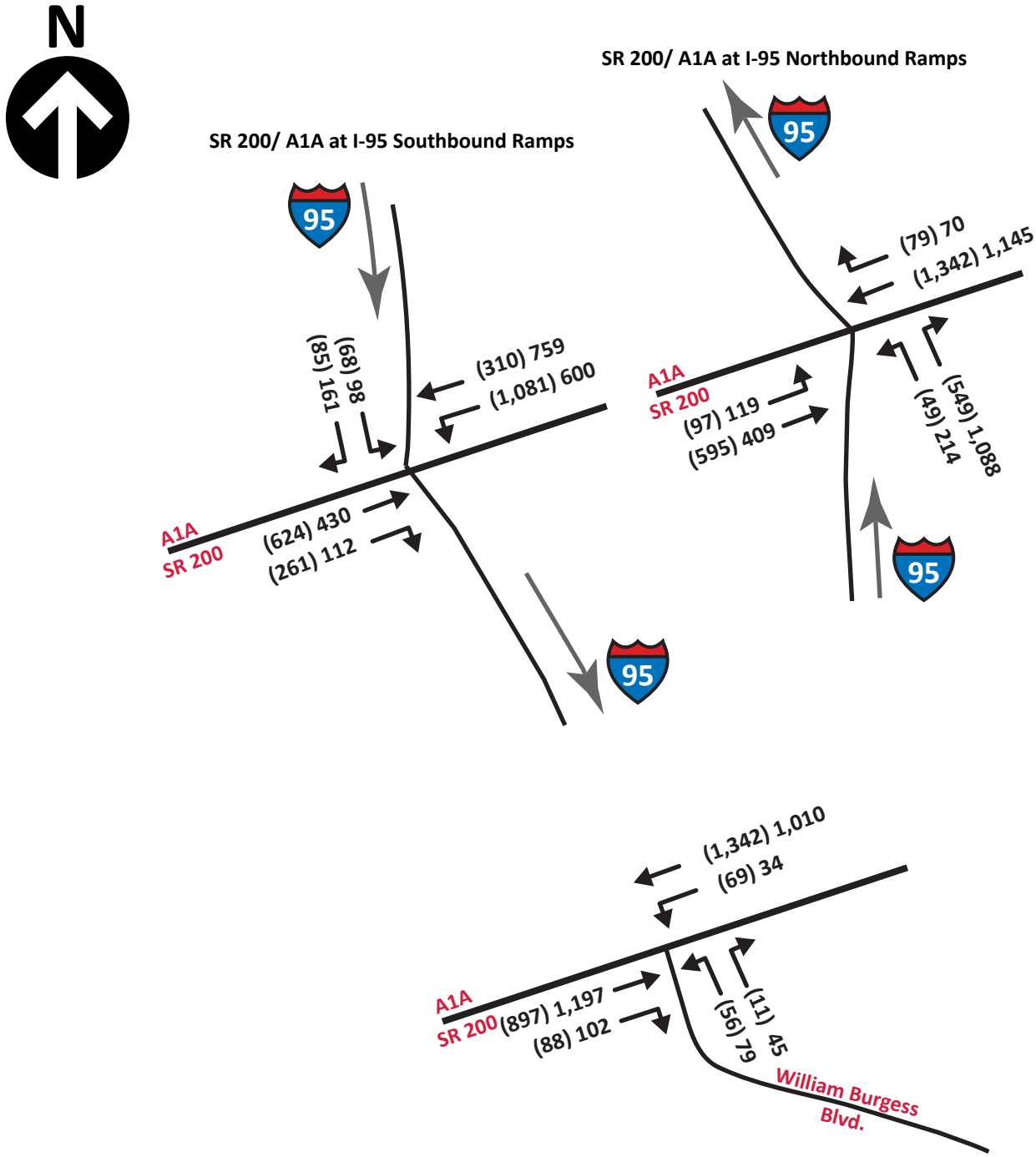
For the study area roadway network, the proposed project trip generation was overlaid upon the existing roadway network volumes. The 2019 No-Build condition daily roadway volumes are presented in Figure 10, and the 2019 No-Build condition AM and PM peak hour intersection turning movement volumes (TMV) are presented in Figure 11. The No-Build volumes are the total of existing traffic volumes and background traffic growth, and do not include any project traffic.



Vanasse Hangen Brustlin, Inc.

TRAFFIC IMPACT ANALYSIS
2019 No Build Roadway Volumes
Nassau County, Florida

FIGURE 10



Legend

(XXX) XXX (AM) PM TMV, Year 2019

VHB Vanasse Hangen Brustlin, Inc.	**TRAFFIC IMPACT ANALYSIS** **2019 No Build Intersection Volumes** **Nassau County, Florida**	**FIGURE 11**

Site-Generated Traffic

Future year (2019 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 2019 No-Build network volumes to create the 2019 Build traffic volume networks. The following sections describe the procedures used to develop the Build networks.

■

Trip Generation

Trip generation was calculated for Phase 2 of 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 for Phase 2:

- LUC 520 – Elementary School
- LUC 210 – Single Family Residential
- LUC 220 – Multi-Family Residential
- LUC 710 – General Office Building
- LUC 820 – Shopping Center

■

Trip Generation Summary

Table 7 presents the total new vehicle trips anticipated from Phase 2 of the proposed development. The proposed development is expected to add approximately 6,439 daily weekday, 771 weekday morning peak hour trips, and 686 weekday evening peak hour trips to the area roadway network. Because the 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.

The trip generation for the elementary school was calculated as the full build out of 800 students. As mentioned in the Trip Generation analysis for Phase One, as the residential development is built, the school will begin to serve the internal residential units and the external trips will decrease. However, to provide a conservative assessment, this analysis assumes that 100 percent of the trips associated with the school will generate from outside of the PDP and will continue to use the external roadway network. This is assumed for both Phase Two and Phase Three.

Table 7 Phase 2 Trip Generation

Land Use	ITE Land Use Code (LUC)	Intensity	Weekday Daily	Weekday AM			Weekday PM		
				Enter	Exit	Total	Enter	Exit	Total
Phase 2									
Elementary School	520	800 students	1,032	198	162	360	59	61	120
Single Family Residential	210	100 units	1,050	20	60	80	66	39	105
Multi-Family Residential	220	250 units	1,639	25	101	126	101	54	155
General Office Building	710	80,000 sf	1,108	141	19	160	29	139	168
Retail	820	40,000 sf	3,743	55	34	89	156	168	324
Total			8,572	439	376	815	411	461	872
Internal Capture Trips			*1,032*	*8*	*8*	*16*	*45*	*45*	*90*
Pass-by Trips			*1,101*	*14*	*14*	*28*	*48*	*48*	*96*
Net New Trips			**6,439**	**417**	**354**	**771**	**318**	**368**	**686**

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). The distribution of trips to and from the site is summarized in Table 8 and shown graphically on Figure 12. The project traffic distribution estimate is documented in Appendix C. SR 200/ A1A/ The Buccaneer Trail is the primary route for accommodating regional traffic demand and will be used by vehicles accessing the proposed development.

Table 8 Trip Distribution Summary

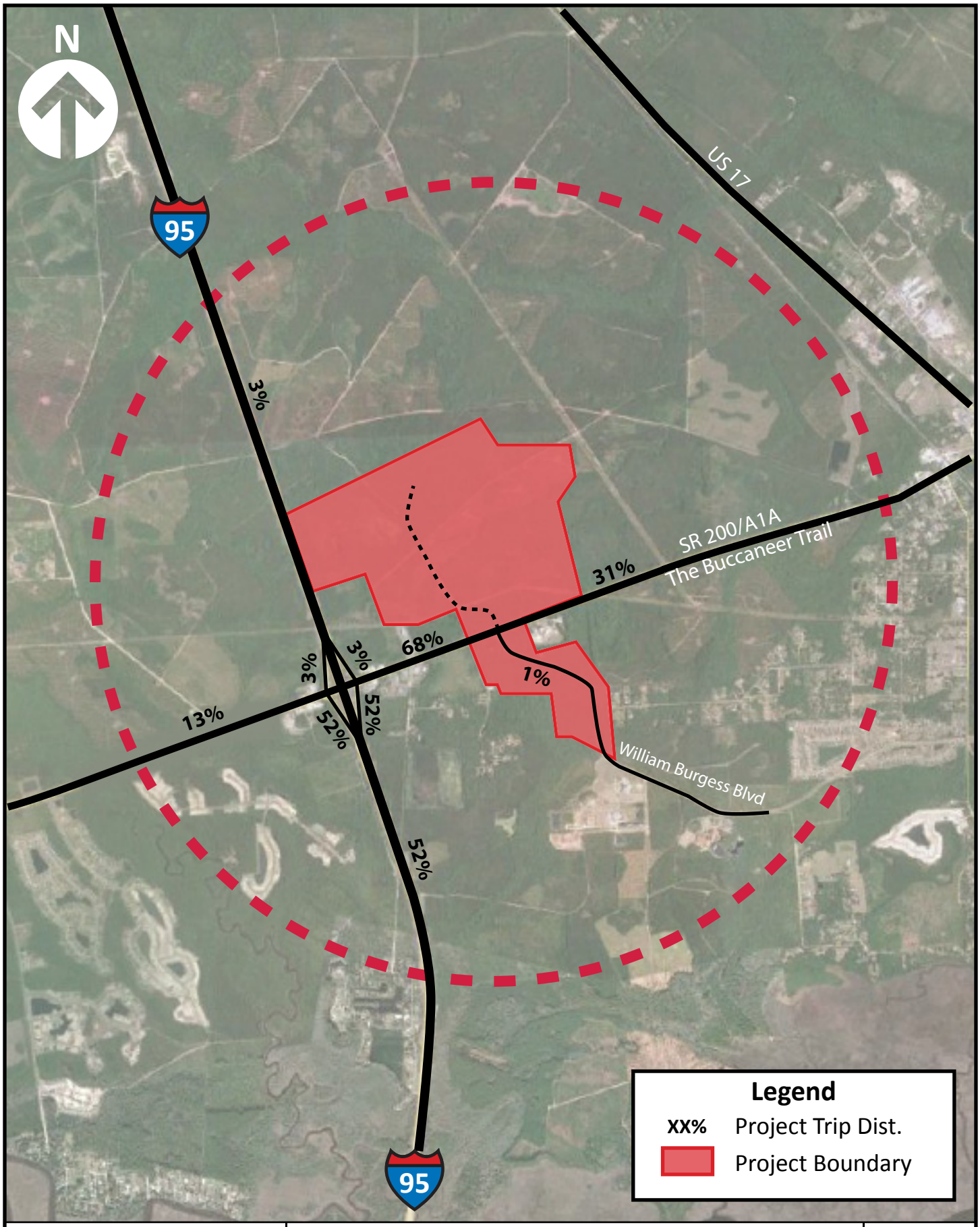
Travel Route	Direction	Percent of Site Traffic
SR 200/ A1A/ The Buccaneer Trail	West	68%
	East	31%
William Burgess Blvd.	South	1%
Interstate 95	North	3%
	South	52%
All Routes	**Total**	**100%**

Source: NERPM

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 2019 No-Build weekday peak hour traffic volume network to establish the 2019 Build peak hour traffic volumes. The site-generated trips and the 2019

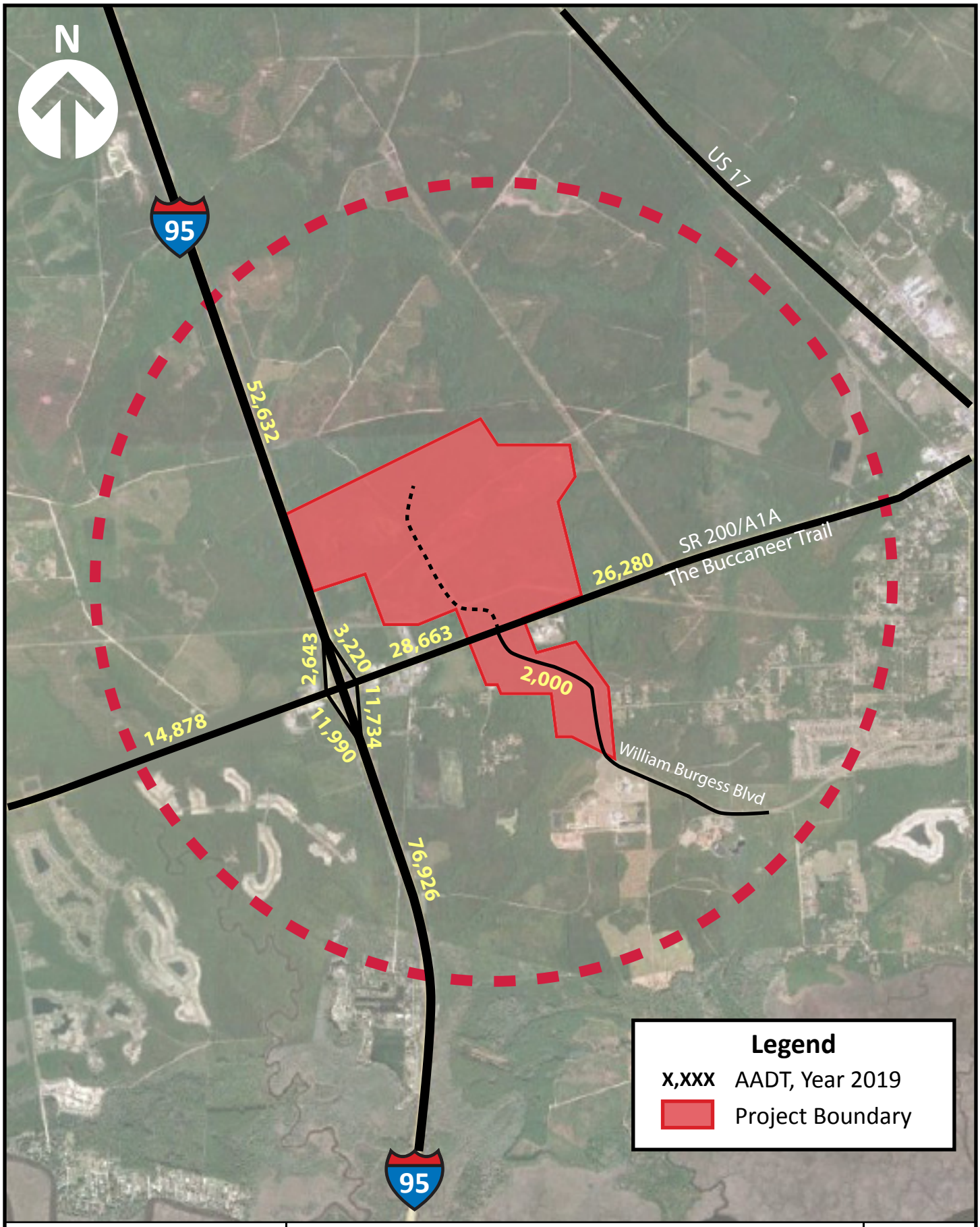
Build daily roadway traffic volumes are illustrated on Figure 13. The site-generated AM and PM peak hour trips and the 2019 Build peak hour intersection traffic volumes are illustrated in Figure 14.



Vanasse Hangen Brustlin, Inc.

TRAFFIC IMPACT ANALYSIS
Phase 2 (2019) Project Trip Distribution
Nassau County, Florida

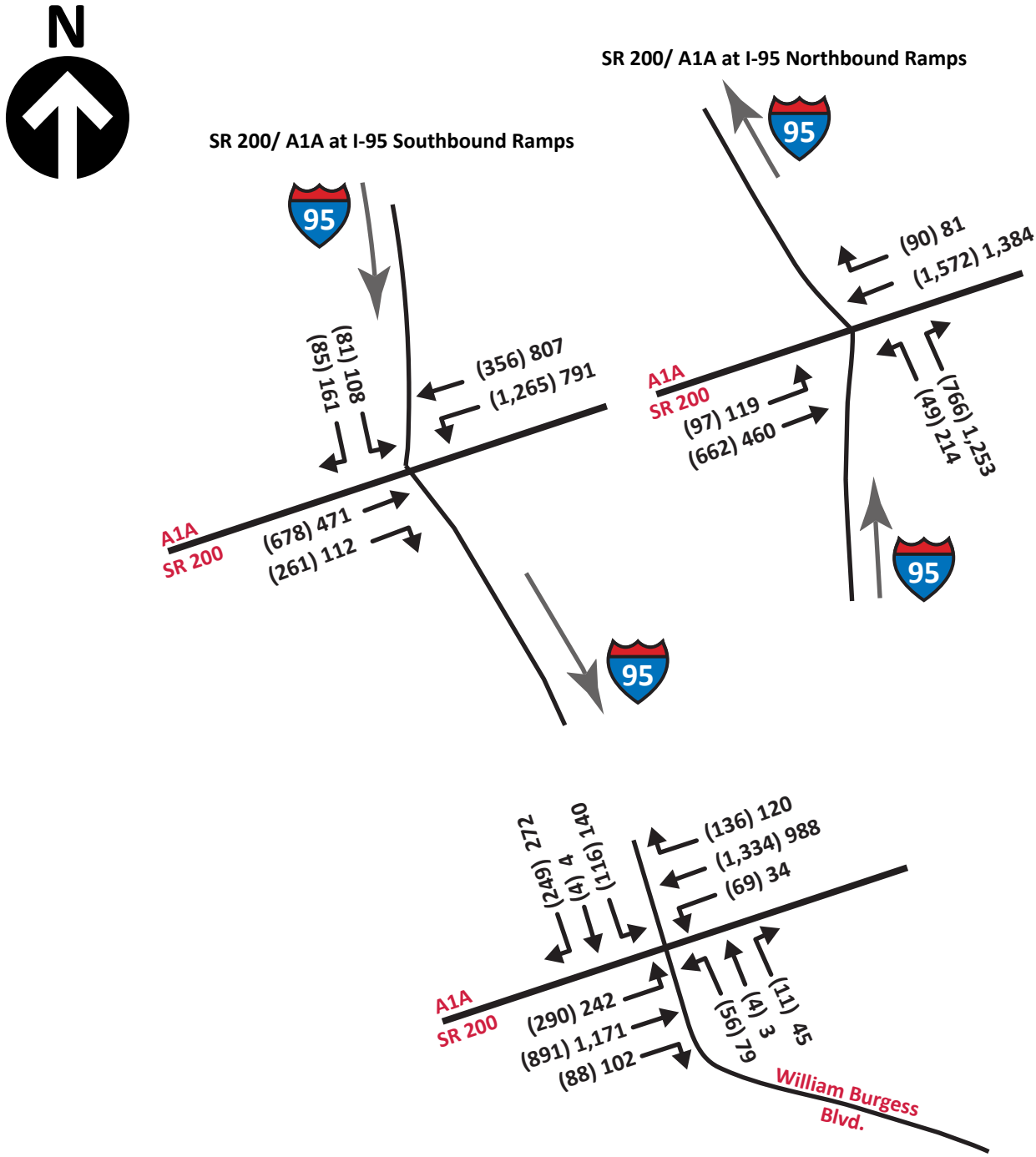
FIGURE 12



Vanasse Hangen Brustlin, Inc.

TRAFFIC IMPACT ANALYSIS
Phase 2 (2019) Build Roadway Volumes
Nassau County, Florida

FIGURE 13



Legend

(XXX) XXX (AM) PM TMV, Year 2019

VHB Vanasse Hangen Brustlin, Inc.	**TRAFFIC IMPACT ANALYSIS** **Phase 2 (2019) Peak Hour Build Intersection Volumes** **Nassau County, Florida**	**FIGURE 14**

3c

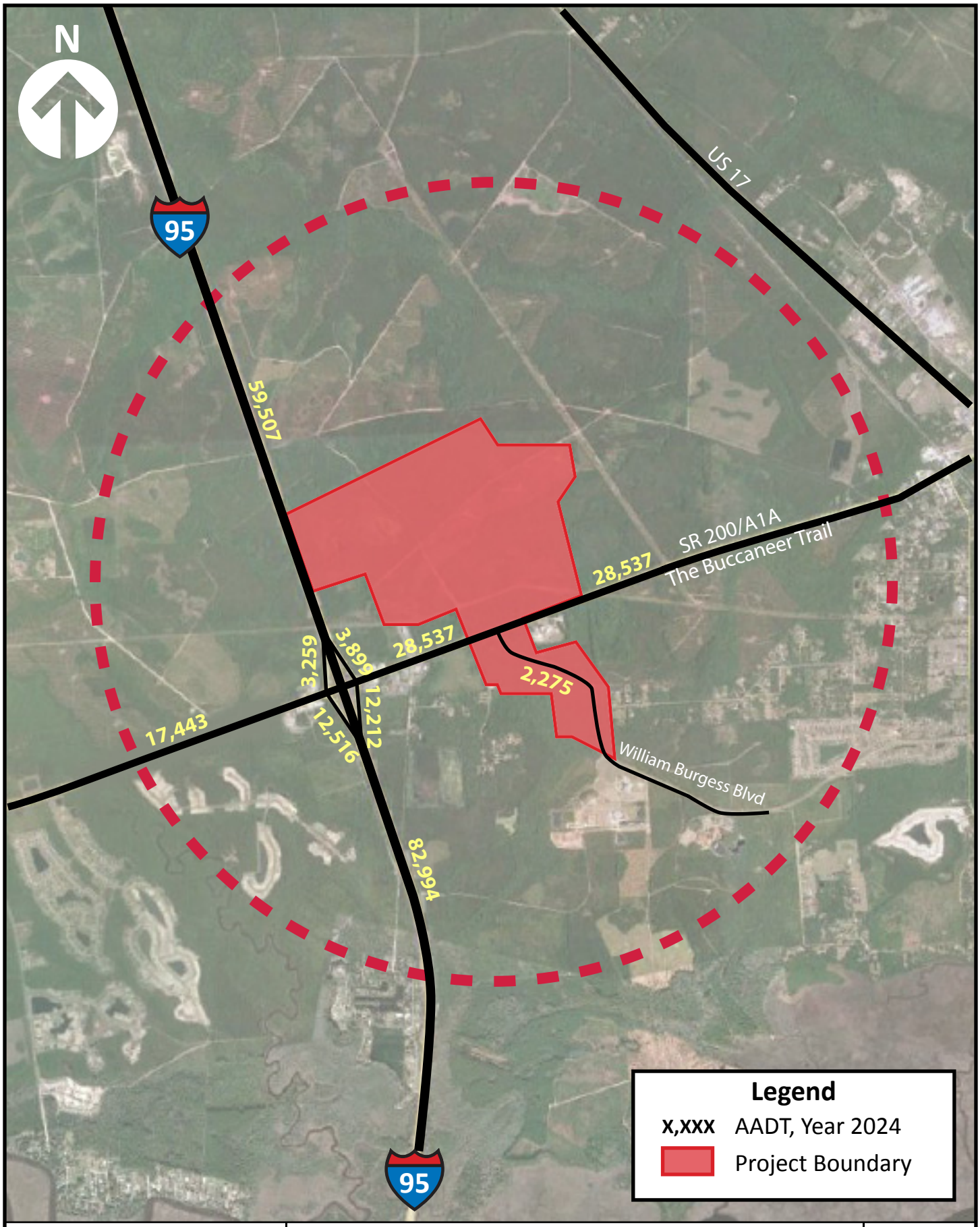
Future Conditions (Phase 3 - Year 2024)

To determine the impacts of the site-generated traffic volumes on the surrounding roadway network, future traffic conditions were analyzed for the completion of each phase. 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 and approved project traffic volumes were overlaid upon the No-Build traffic volumes to reflect the Build conditions in the study area for each phase.

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.

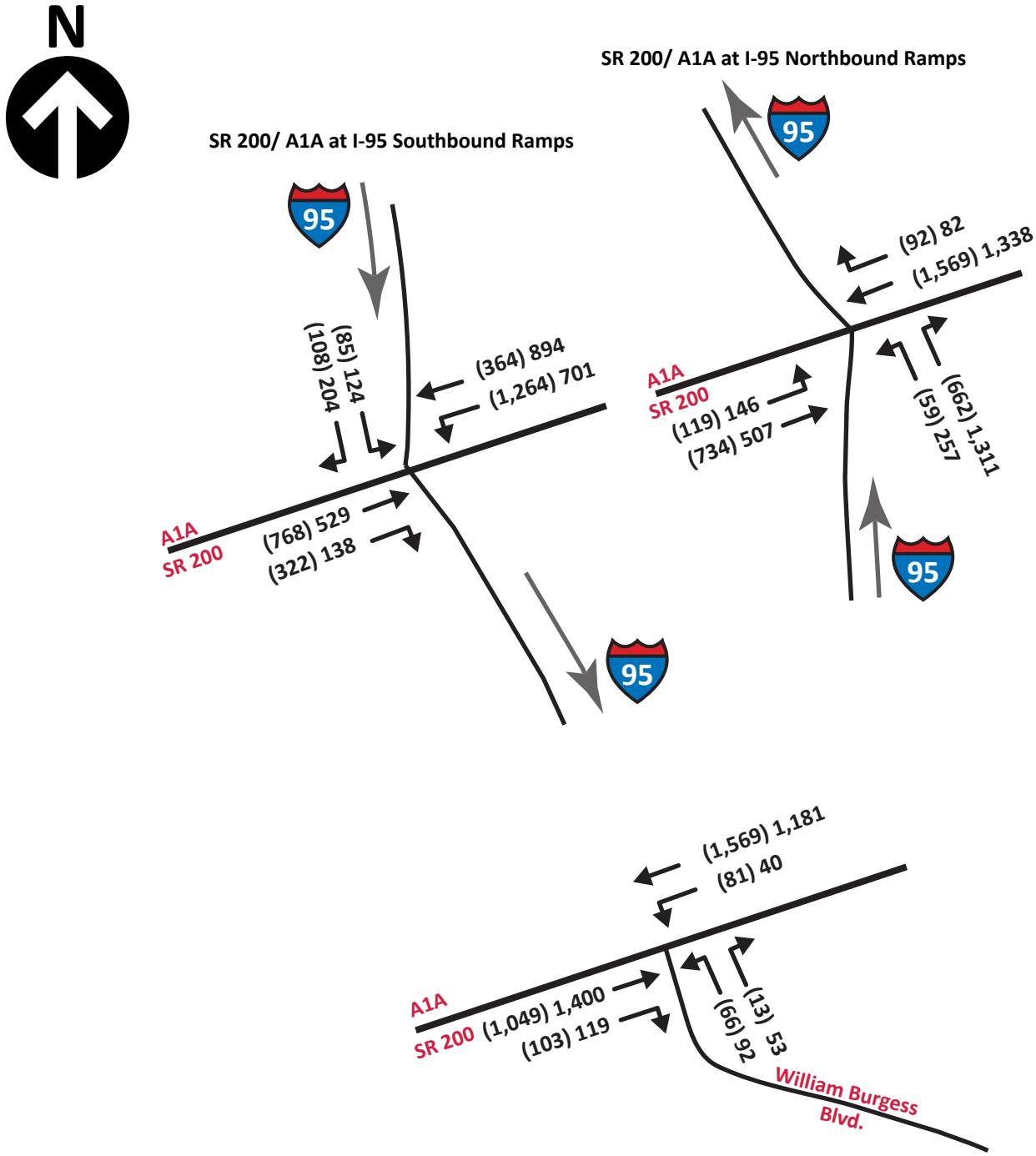
For the study area roadway network, the proposed project trip generation was overlaid upon the existing roadway network volumes. The 2024 No-Build condition daily roadway volumes are presented in Figure 15, and the 2024 No-Build condition AM and PM peak hour intersection turning movement volumes (TMV) are presented in Figure 16. The No-Build volumes are the total of existing traffic volumes and background traffic growth, and do not include any project traffic.



Vanasse Hangen Brustlin, Inc.

TRAFFIC IMPACT ANALYSIS
2024 No Build Roadway Volumes
Nassau County, Florida

FIGURE 15



Legend

(XXX) XXX (AM) PM TMV, Year 2024

VHB Vanasse Hangen Brustlin, Inc.	**TRAFFIC IMPACT ANALYSIS** **2024 No Build Intersection Volumes** **Nassau County, Florida**	**FIGURE 16**

Site-Generated Traffic

Future year (2024 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 2024 No-Build network volumes to create the 2024 Build traffic volume networks. The following sections describe the procedures used to develop the Build networks.

■

Trip Generation

Trip generation was calculated for Phase 3 of 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 for Phase 3:

- LUC 520 – Elementary School
- LUC 210 – Single Family Residential
- LUC 220 – Multi-Family Residential
- LUC 710 – General Office Building
- LUC 820 – Shopping Center

■

Trip Generation Summary

Table 9 presents the total new vehicle trips anticipated from the proposed development. The proposed development is expected to add approximately 16,734 daily weekday, 1,546 weekday morning peak hour trips, and 1,773 weekday evening peak hour trips to the area roadway network. Because the 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 9 Phase 3 Trip Generation

Land Use	ITE Land Use Code (LUC)	Intensity	Weekday Daily	Weekday AM			Weekday PM		
				Enter	Exit	Total	Enter	Exit	Total
Phase 3									
Elementary School	520	800 students	1,032	198	162	360	59	61	120
Single Family Residential	210	536 units	4,922	96	289	385	300	176	476
Multi-Family Residential	220	381 units	2,432	38	152	190	148	79	227
General Office Building – North	710	100,000 sf	1,313	168	23	191	32	158	190
General Office Building – South	710	150,000 sf	1,787	233	32	265	42	204	246
Retail – North	820	125,000 sf	7,851	111	68	179	334	362	696
Retail – South	820	75,000 sf	5,633	81	50	131	237	257	494
Total			24,970	925	776	1,701	1,152	1,297	2,449
Internal Capture Trips			*3,704*	*30*	*30*	*60*	*162*	*162*	*324*
Pass-by Trips – Retail North			*2,636*	*27*	*27*	*54*	*102*	*102*	*204*
Pass-by Trips – Retail South			*1,896*	*21*	*20*	*41*	*74*	*74*	*148*
Net New Trips			**16,734**	**847**	**699**	**1,546**	**814**	**959**	**1,773**

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). The distribution of trips to and from the site is summarized in Table 10 and shown graphically on Figure 17. The project traffic distribution estimate is documented in Appendix C. SR 200/ A1A/ The Buccaneer Trail is the primary route for accommodating regional traffic demand and will be used by vehicles accessing the proposed development.

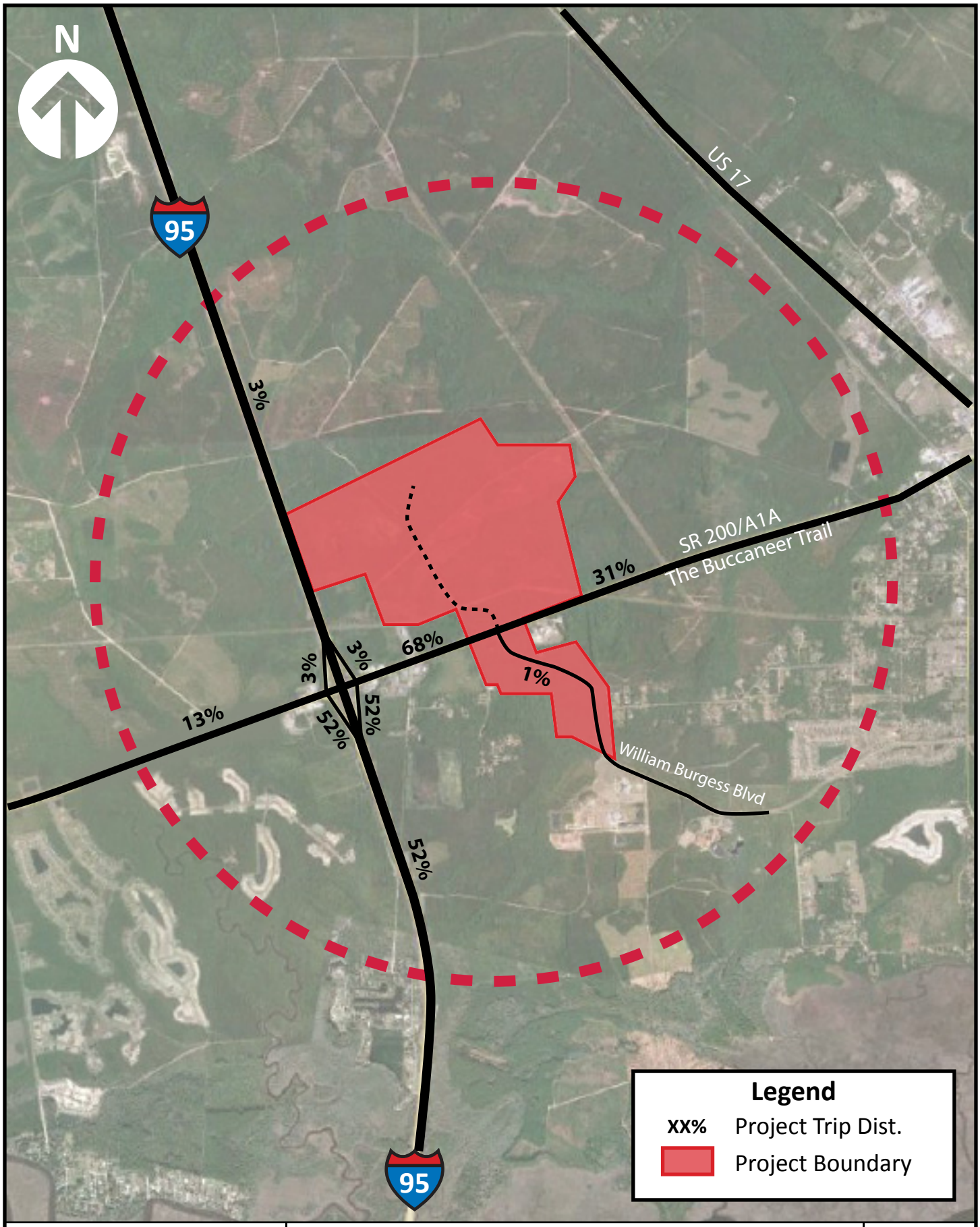
Table 10 Trip Distribution Summary

Travel Route	Direction	Percent of Site Traffic
SR 200/ A1A/ The Buccaneer Trail	West	68%
	East	31%
William Burgess Blvd.	South	1%
Interstate 95	North	3%
	South	52%
All Routes	**Total**	**100%**

Source: NERPM

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

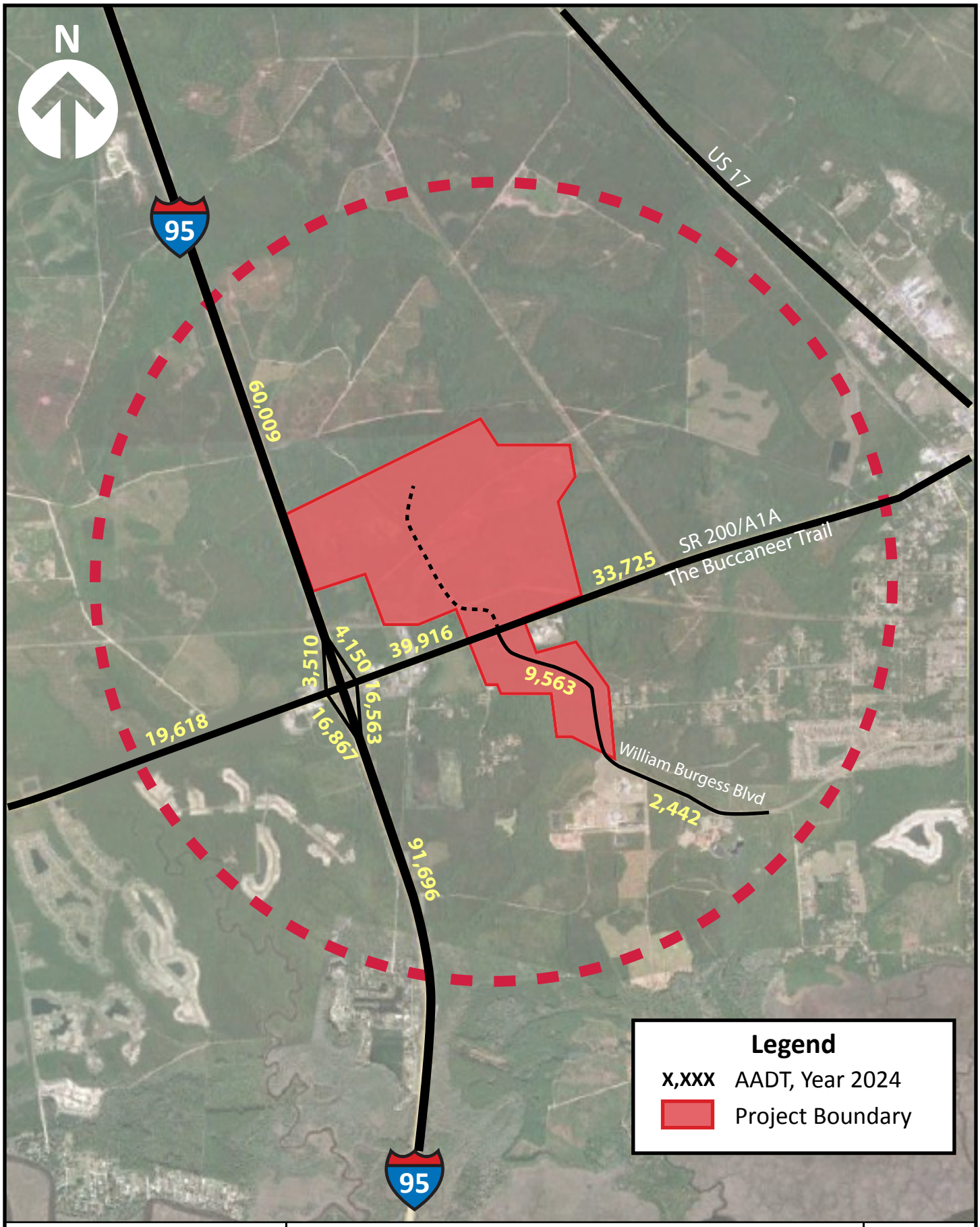
The site-generated traffic was added to the 2024 No-Build weekday peak hour traffic volume network to establish the 2024 Build peak hour traffic volumes. The site-generated trips and the 2024 Build daily roadway traffic volumes are illustrated on Figure 18. The site-generated AM and PM peak hour trips and the 2024 Build peak hour intersection traffic volumes are illustrated in Figures 19.



Vanasse Hangen Brustlin, Inc.

TRAFFIC IMPACT ANALYSIS
Phase 3 (2024) Project Trip Distribution
Nassau County, Florida

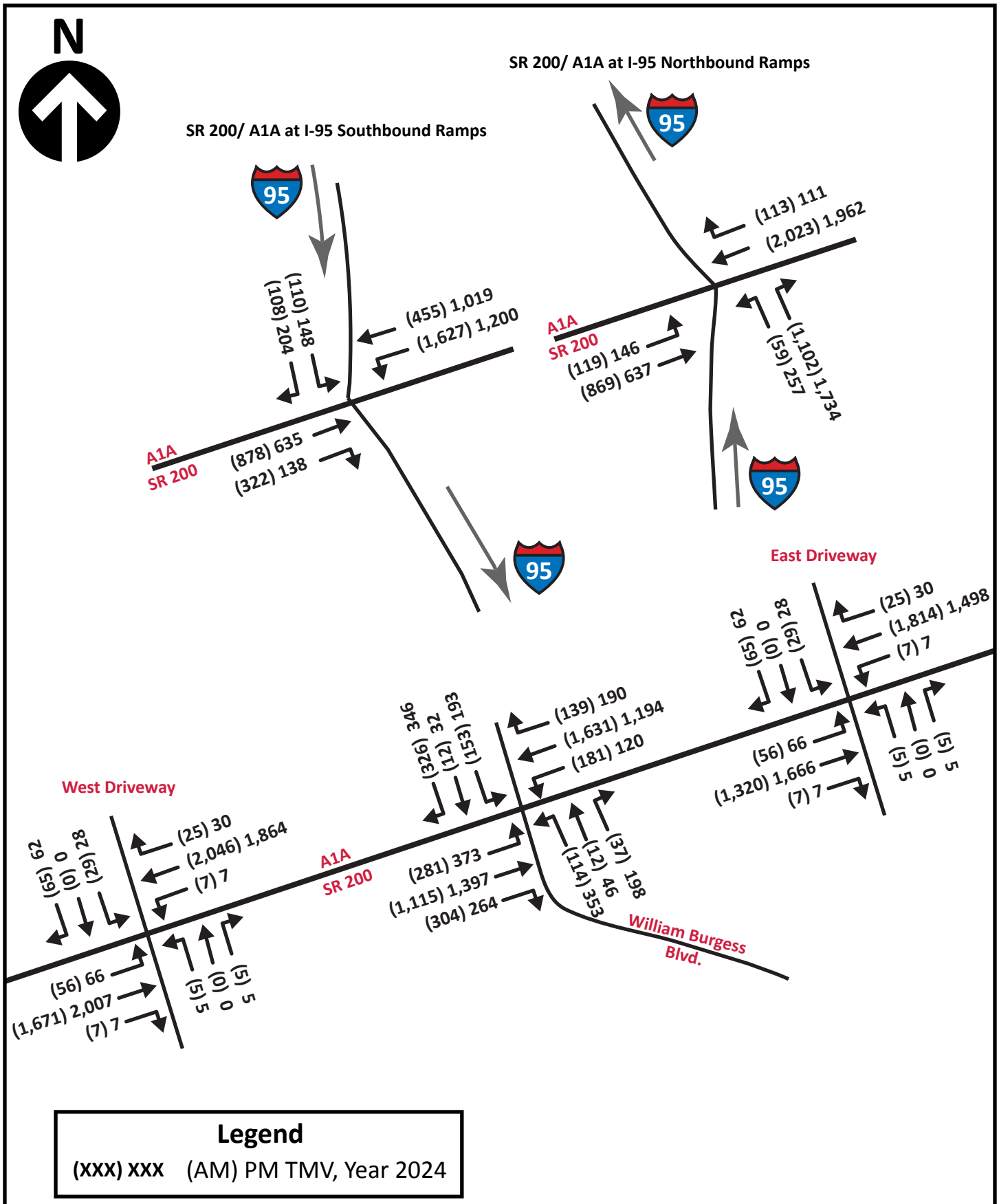
FIGURE 17



Vanasse Hangen Brustlin, Inc.

TRAFFIC IMPACT ANALYSIS
Phase 3 (2024) Build Roadway Volumes
Nassau County, Florida

FIGURE 18



Legend

(XXX) XXX (AM) PM TMV, Year 2024

VHB Vanasse Hangen Brustlin, Inc.	**TRAFFIC IMPACT ANALYSIS** **Phase 3 (2024) Peak Hour Build Intersection Volumes** **Nassau County, Florida**	**FIGURE 19**

4

Traffic Operations

To assess the quality of traffic flow, roadway capacity analyses were conducted for existing and projected Build traffic volume conditions for each phase of 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 2000 Highway Capacity Manual[1] (HCM2000) 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 reflects the programmed widening from 4 to 6 lanes east of Interstate 95.

t

[1] Highway Capacity Manual 2000; Transportation Research Board, National Research Council, Washington, DC (2000).

Table 11 Phase 1 - Year 2017 Roadway Segment Capacity Analysis

Roadway Segment	No. of Lanes	LOS Std	Service Capacity	2014 AADT	Annual Growth Rate (1)	Background Volume	2017 No Build	Project Distribution	Project Traffic	2017 Build	LOS
Interstate 95											
S. of SR 200/A1A	6F	D	110,300	64,162	2.94%	5,649	69,811	52%	537	70,348	C
N. of SR 200/A1A	6F	D	110,300	45,371	3.12%	4,241	49,612	3%	31	49,643	B
SR 200/A1A											
W. of I-95	4D	D	58,800	10,639	6.39%	2,041	12,680	13%	134	12,814	B
I-95 to William Burgess Blvd	6D	D	55,300	20,030	4.25%	2,552	22,582	68%	702	23,284	B
E. of William Burgess Blvd.	6D	D	55,300	20,030	4.25%	2,552	22,582	31%	320	22,902	B
William Burgess Blvd.											
S. of SR 200/A1A	2U	D	13,900	1,597	4.25%	203	1,800	1%	10	1,810	B
I-95/SR A1A Interchange											
NB I-95 to SR A1A Off-Ramp	2U	D	32,150	7,908	5.44%	1,291	9,199	52%	268	9,467	B
SR A1A to NB I-95 On-Ramp	1U	D	11,100	2,346	6.62%	466	2,812	3%	15	2,827	B
SB I-95 to SR A1A Off-Ramp	1U	D	11,100	1,832	7.79%	428	2,260	3%	15	2,275	B
SR A1A to SB I-95 On-Ramp	2U	D	32,150	8,117	5.42%	1,320	9,437	52%	268	9,705	B
DSAP Western Loop Collector											
N. of SR 200/A1A	2U	D	13,700	0	N/A	N/A	0	(2)	1,032	1,032	B

1. Source: TIA Methodology
2. PDP Trip Generation

Table 12 Phase 2 - Year 2019 Roadway Segment Capacity Analysis

Roadway Segment	No. of Lanes	LOS Std	Service Capacity	2014 AADT	Annual Growth Rate (1)	Background Volume	2019 No Build	Project Distribution	Project Traffic	2019 Build	LOS
Interstate 95											
S. of SR 200/A1A	6F	D	110,300	64,162	2.94%	9,416	73,578	52%	3,348	76,926	C
N. of SR 200/A1A	6F	D	110,300	45,371	3.12%	7,068	52,439	3%	193	52,632	B
SR 200/A1A											
W. of I-95	4D	D	58,800	10,639	6.39%	3,402	14,041	13%	837	14,878	B
I-95 to William Burgess Blvd	6D	D	55,300	20,030	4.25%	4,254	24,284	68%	4,379	28,663	B
E. of William Burgess Blvd.	6D	D	55,300	20,030	4.25%	4,254	24,284	31%	1,996	26,280	B
William Burgess Blvd.											
S. of SR 200/A1A	2U	D	13,900	1,597	4.25%	339	1,936	1%	64	2,000	B
I-95/SR A1A Interchange											
NB I-95 to SR A1A Off-Ramp	2U	D	32,150	7,908	5.44%	2,152	10,060	52%	1,674	11,734	B
SR A1A to NB I-95 On-Ramp	1U	D	11,100	2,346	6.62%	777	3,123	3%	97	3,220	B
SB I-95 to SR A1A Off-Ramp	1U	D	11,100	1,832	7.79%	714	2,546	3%	97	2,643	B
SR A1A to SB I-95 On-Ramp	2U	D	32,150	8,117	5.42%	2,199	10,316	52%	1,674	11,990	B
DSAP Western Loop Collector											
N. of SR 200/A1A	2U	D	13,700	0	N/A	N/A	0	(2)	8,310	8,310	B

1. Source: TIA Methodology
2. PDP Trip Generation minus Office-Retail Internal Capture

Table 13 Phase 3 - Year 2024 Roadway Segment Capacity Analysis

Roadway Segment	No. of Lanes	LOS Std	Service Capacity	2014 AADT	Annual Growth Rate (1)	Background Volume	2024 No Build	Project Distribution	Project Traffic	2024 Build	LOS
Interstate 95											
S. of SR 200/A1A	6F	D	110,300	64,162	2.94%	18,832	82,994	52%	8,702	91,696	D
N. of SR 200/A1A	6F	D	110,300	45,371	3.12%	14,136	59,507	3%	502	60,009	B
SR 200/A1A											
W. of I-95	4D	D	58,800	10,639	6.39%	6,804	17,443	13%	2,175	19,618	B
I-95 to William Burgess Blvd	6D	D	55,300	20,030	4.25%	8,507	28,537	68%	11,379	39,916	B
E. of William Burgess Blvd.	6D	D	55,300	20,030	4.25%	8,507	28,537	31%	5,188	33,725	B
William Burgess Blvd.											
SR 200/A1A to end of PDP	2U	D	13,900	1,597	4.25%	678	2,275	(2)	7,288	9,563	D
S. of PDP	2U	D	13,900	1,597	4.25%	678	2,275	1%	167	2,442	B
I-95/SR A1A Interchange											
NB I-95 to SR A1A Off-Ramp	2U	D	32,150	7,908	5.44%	4,304	12,212	52%	4,351	16,563	B
SR A1A to NB I-95 On-Ramp	1U	D	11,100	2,346	6.62%	1,553	3,899	3%	251	4,150	C
SB I-95 to SR A1A Off-Ramp	1U	D	11,100	1,832	7.79%	1,427	3,259	3%	251	3,510	B
SR A1A to SB I-95 On-Ramp	2U	D	32,150	8,117	5.42%	4,399	12,516	52%	4,351	16,867	B
DSAP Western Loop Collector											
N. of SR 200/A1A	2U	D	13,700	0	N/A	N/A	0	(3)	12,199	12,199	D

1. Source: TIA Methodology
2. South Portion of the PDP Trip Generation minus South Office-South Retail Internal Capture
3. North Portion of the PDP Trip Generation assigned to Main Driveway (DSAP Western Loop Collector) minus North Office-North Retail Internal Capture

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

Unsignalized Intersection Capacity Analysis

The intersection of SR 200/ A1A/ The Buccaneer Trail was initially analyzed as an unsignalized intersection to assess whether the intersection could operate sufficiently during Phase One. Phase Two does not include any unsignalized intersections. For Phase Three, two new project driveways (unsignalized intersections) will be constructed to provide connections from the northern portion of the Market Street PDP to SR 200/ A1A/ The Buccaneer Trail. These intersections will be located at the existing median openings adjacent to the William Burgess Boulevard intersection (Sheriff's Office Complex to the East and Harper Chapel Road to the West). The results of the unsignalized intersection capacity analysis for the study area intersections for each phase of the development are summarized in the tables below.

It should be noted that the HCM 2000 methodology for unsignalized intersections is limited to four-lane divided roadways. This is a very well-known limitation in the methodology that is overcome by modeling six lane divided roadway as four lane divided and adjusting volumes to 2/3 of the total volume. As mentioned previously in the report, FDOT will be widening SR 200/ A1A/ The Buccaneer Trail from the current four lane configuration to six lanes in the year 2017. In order to be able to

analyze the unsignalized intersections along SR 200/ A1A/ The Buccaneer Trail after the widening is completed the following methodology was followed:

- SR 200/ A1A/ The Buccaneer Trail was coded as a four lane divided roadway
- SR 200/ A1A/ The Buccaneer Trail peak hour through volumes were reduced to 2/3 of the total volume (to account for the inclusion of four lanes instead of six lanes in the analysis)
- SR 200/ A1A/ The Buccaneer Trail peak hour through volumes were adjusted to reflect the different lane utilization factors found on six lane roads vs. four lane roads (through volumes were multiplied by 0.95 – four lane roadway lane utilization factor – and divided by 0.91 – six lane road lane utilization factor)

Table 14 Phase 1 Unsignalized Intersection Capacity Analysis

Intersection	Movement	2017 AM Build Conditions			2017 PM Build Conditions		
		v/c	Delay [a]	LOS [b]	v/c	Delay [a]	LOS [b]
SR 200/ AIA at William Burgess Boulevard	EBL	0.22	11.9	B	0.05	9.4	A
	EBT	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1
	EBR	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1
	WBL	0.08	9.5	A	0.05	10.4	B
	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	0.55	74.0	F	0.43	37.6	E
	NBT	0.04	16.8	C	0.08	11.6	B
	NBR	N/A	N/A	N/A	N/A	N/A	N/A
	SBL	0.44	55.4	F	0.10	24.0	C
	SBT	0.23	13.6	B	0.07	11.1	B
	SBR	N/A	N/A	N/A	N/A	N/A	N/A

Note 1: Unopposed Movement
Source: VHB, Inc. using HCS software.
a Average delay in seconds per vehicle
b Level of Service

As can be observed in the Table above, there are movements at the SR 200/ A1A at William Burgess Boulevard that are anticipated to operate deficiently in Phase 1 of the development. During the AM peak hour, the Southbound left turn movement (vehicles leaving the elementary school) is anticipated to operate at LOS F with an average delay of 55.4 seconds per vehicle. Also during the AM peak hour, the Northbound left turn movement is anticipated to operate at LOS F with an average delay of 74.0 seconds per vehicle. In addition, it should be noted that the PM peak hour for the elementary school (dismissal time) does not coincide with the overall PM peak period; therefore, the conditions documented above may not reflect the worst condition for the Southbound approach.

Based on the above, a signal at the SR 200/ A1A at William Burgess Boulevard will be required. Therefore, this intersection was analyzed as signalized in the next section.

Table 15 Phase 3 Unsignalized Intersection Capacity Analysis

Intersection	Movement	2024 AM Build Conditions			2024 PM Build Conditions		
		v/c	Delay [a]	LOS [b]	v/c	Delay [a]	LOS [b]
SR 200/ A1A at West Driveway	EBL	0.11	12.7	B	0.12	12.0	B
	EBT	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1
	EBR	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1
	WBL	0.01	11.5	B	0.02	13.1	B
	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	0.05	25.7	D	0.07	34.0	D
	NBR	N/A	N/A	N/A	N/A	N/A	N/A
	SBL	0.24	42.7	E	0.23	42.7	E
	SBT	0.09	10.1	B	0.08	9.8	A
	SBR	N/A	N/A	N/A	N/A	N/A	N/A
SR 200/ A1A at East Driveway	EBL	0.12	13.1	B	0.11	11.6	B
	EBT	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1
	EBR	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1
	WBL	0.01	9.5	A	0.01	10.4	B
	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	0.04	19.8	C	0.04	21.1	C
	NBR	N/A	N/A	N/A	N/A	N/A	N/A
	SBL	0.24	43.5	E	0.18	32.0	D
	SBT	0.15	14.4	B	0.12	12.9	B
	SBR	N/A	N/A	N/A	N/A	N/A	N/A

Note 1: Unopposed Movement
Source: VHB, Inc. using HCS software.
a Average delay in seconds per vehicle
b Level of Service

Signalized Intersection Capacity Analysis

Project traffic was assigned to the two existing signalized intersections at SR 200/ A1A and the Interstate 95 ramps. Project traffic was also assigned to the intersection at SR 200/ A1A and William Burgess Blvd. This intersection is currently unsignalized; however, based on the unsignalized intersection capacity analysis documented above, it was found that a signal will be needed to accommodate the volumes to be generated by the elementary school. A signalized intersection was assumed for the William Burgess Boulevard intersection.

A connector road between SR 200/ A1A to the project site will need to be constructed, and this road will align with the existing William Burgess Blvd. The following turn lanes will be added at this intersection:

- Phase 1:
    - SR 200/A1A Eastbound Left-turn lane (to be constructed as part of FDOT's widening project)
    - SR 200/A1A Westbound Right-turn lane
    - DSAP Western Loop Collector (Southbound Approach) to consist of one shared southbound right/through lane and one southbound left turn lane. The left turn lane will taper, and the new extension will be a two lane road from there north.
- Phase 2:
    - Same access configuration as Phase 1
- Phase 3:
    - William Burgess Boulevard (Northbound Approach): northbound through lane to be added. The approach will consist of one northbound left turn lane, one northbound through lane, and one northbound right turn lane.
    - DSAP Western Loop Collector (Southbound Approach): southbound through lane to be added. The approach will consist of one southbound left turn lane, one southbound through lane, and one southbound right turn lane.

It should be noted that in Phase 3, in addition to the DSAP Western Loop Collector full access, there will be two unsignalized intersections adjacent to the William Burgess Boulevard intersection. Additional right-in/right-out connections to SR 200/ A1A are also anticipated. However, the number of these accesses and final locations are still not defined. A conservative scenario was assumed in the analysis and approximately 71 percent of the traffic volume to be generated by the development was assigned to the SR 200/ A1A at William Burgess Boulevard intersection. The remaining traffic was assigned to the two unsignalized intersections.

The SR 200/ A1A 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 each of the three phases are summarized in the tables below.

Table 16 Phase 1 Signalized Intersection Capacity Analysis

Intersection	Movement	2017 AM Build Conditions			2017 PM Build Conditions		
		v/c	Delay [a]	LOS [b]	v/c	Delay [a]	LOS [b]
SR 200/ A1A at I-95 Northbound Ramps	EBL	N/A	N/A	N/A	N/A	N/A	N/A
	EBT	0.36	10.0	B	0.23	13.0	B
	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	0.47	15.9	B	0.38	14.9	B
	WBR	N/A	N/A	N/A	N/A	N/A	N/A
	NBL	0.04	20.2	C	0.17	21.5	C
	NBT	N/A	N/A	N/A	N/A	N/A	N/A
	NBR	0.38	15.0	B	0.61	18.0	B
	SBL	N/A	N/A	N/A	N/A	N/A	N/A
	SBT	N/A	N/A	N/A	N/A	N/A	N/A
	SBR	N/A	N/A	N/A	N/A	N/A	N/A
	TOTAL	N/A	N/A	N/A	N/A	N/A	N/A
SR 200/ A1A at I-95 Southbound Ramps	EBL	N/A	N/A	N/A	N/A	N/A	N/A
	EBT	0.29	22.6	C	0.21	21.7	C
	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	0.22	7.7	A	0.43	11.4	B
	WBR	N/A	N/A	N/A	N/A	N/A	N/A
	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	0.05	12.3	B	0.06	12.4	B
	SBT	N/A	N/A	N/A	N/A	N/A	N/A
	SBR	0.07	20.6	C	0.12	21.3	C
	TOTAL	N/A	N/A	N/A	N/A	N/A	N/A
SR 200/ A1A at William Burgess Blvd	EBL	0.48	13.8	B	0.16	9.1	A
	EBT	0.43	16.3	B	0.56	14.1	B
	EBR	0.06	13.4	B	0.07	10.7	B
	WBL	0.21	13.5	B	0.16	9.4	A
	WBT	0.72	23.9	C	0.49	13.4	B
	WBR	0.04	16.4	B	0.01	10.4	B
	NBL	0.21	30.0	C	0.25	19.5	B
	NBT	0.02	34.3	C	0.03	23.9	C
	NBR	N/A	N/A	N/A	N/A	N/A	N/A
	SBL	0.14	22.6	C	0.11	26.7	C
	SBT	0.08	30.8	C	0.04	28.4	C
	SBR	N/A	N/A	N/A	N/A	N/A	N/A
	TOTAL	0.55	20.7	C	0.42	14.2	B

Source: VHB, Inc. using HCS software.

a Average delay in seconds per vehicle

b Level of Service

Table 17 Phase 2 Signalized Intersection Capacity Analysis

Intersection	Movement	2019 AM Build Conditions			2019 PM Build Conditions		
		v/c	Delay [a]	LOS [b]	v/c	Delay [a]	LOS [b]
SR 200/ A1A at I-95 Northbound Ramps	EBL	N/A	N/A	N/A	N/A	N/A	N/A
	EBT	0.42	10.4	B	0.28	13.0	B
	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	0.54	16.8	B	0.47	15.9	B
	WBR	N/A	N/A	N/A	N/A	N/A	N/A
	NBL	0.04	20.2	C	0.19	21.6	C
	NBT	N/A	N/A	N/A	N/A	N/A	N/A
	NBR	0.48	16.1	B	0.74	20.9	C
	SBL	N/A	N/A	N/A	N/A	N/A	N/A
	SBT	N/A	N/A	N/A	N/A	N/A	N/A
	SBR	N/A	N/A	N/A	N/A	N/A	N/A
	TOTAL	N/A	N/A	N/A	N/A	N/A	N/A
SR 200/ A1A at I-95 Southbound Ramps	EBL	N/A	N/A	N/A	N/A	N/A	N/A
	EBT	0.34	23.1	C	0.24	22.1	C
	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	0.25	7.5	A	0.49	11.3	B
	WBR	N/A	N/A	N/A	N/A	N/A	N/A
	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	0.06	12.4	B	0.07	12.4	B
	SBT	N/A	N/A	N/A	N/A	N/A	N/A
	SBR	0.07	20.7	C	0.20	22.3	C
	TOTAL	N/A	N/A	N/A	N/A	N/A	N/A
SR 200/ A1A at William Burgess Blvd	EBL	0.81	37.9	D	0.62	15.4	B
	EBT	0.40	15.4	B	0.54	17.1	B
	EBR	0.06	12.7	B	0.07	13.1	B
	WBL	0.22	15.4	B	0.16	17.0	B
	WBT	0.74	26.9	C	0.64	25.1	C
	WBR	0.09	18.7	B	0.08	19.6	B
	NBL	0.30	40.6	D	0.37	34.1	C
	NBT	0.06	45.2	D	0.06	38.1	D
	NBR	N/A	N/A	N/A	N/A	N/A	N/A
	SBL	0.30	27.4	C	0.34	23.0	C
	SBT	0.18	35.5	D	0.19	30.9	C
	SBR	N/A	N/A	N/A	N/A	N/A	N/A
	TOTAL	0.62	24.8	C	0.50	21.6	C

Source: VHB, Inc. using HCS software.
a Average delay in seconds per vehicle
b Level of Service

Table 18 Phase 3 Signalized Intersection Capacity Analysis

Intersection	Movement	2024 AM Build Conditions			2024 PM Build Conditions		
		v/c	Delay [a]	LOS [b]	v/c	Delay [a]	LOS [b]
SR 200/ A1A at I-95 Northbound Ramps	EBL	N/A	N/A	N/A	N/A	N/A	N/A
	EBT	0.53	11.2	B	0.37	13.6	B
	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	0.68	18.9	B	0.64	18.3	B
	WBR	N/A	N/A	N/A	N/A	N/A	N/A
	NBL	0.05	20.3	C	0.22	22.0	C
	NBT	N/A	N/A	N/A	N/A	N/A	N/A
	NBR	0.67	19.3	B	0.99	43.1	D
	SBL	N/A	N/A	N/A	N/A	N/A	N/A
	SBT	N/A	N/A	N/A	N/A	N/A	N/A
	SBR	N/A	N/A	N/A	N/A	N/A	N/A
	TOTAL	N/A	N/A	N/A	N/A	N/A	N/A
SR 200/ A1A at I-95 Southbound Ramps	EBL	N/A	N/A	N/A	N/A	N/A	N/A
	EBT	0.42	24.1	C	0.32	22.9	C
	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	0.31	7.4	A	0.60	11.5	B
	WBR	N/A	N/A	N/A	N/A	N/A	N/A
	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	0.08	12.5	B	0.09	12.6	B
	SBT	N/A	N/A	N/A	N/A	N/A	N/A
	SBR	0.09	20.9	C	0.33	24.3	C
	TOTAL	N/A	N/A	N/A	N/A	N/A	N/A
SR 200/ A1A at William Burgess Blvd	EBL	0.79	41.3	D	0.85	44.1	D
	EBT	0.49	18.6	B	0.64	23.0	C
	EBR	0.20	15.6	B	0.18	17.3	B
	WBL	0.58	17.7	B	0.54	23.4	C
	WBT	0.85	32.9	C	0.81	37.5	D
	WBR	0.09	19.8	B	0.13	26.3	C
	NBL	0.54	47.1	D	0.86	50.4	D
	NBT	0.10	49.4	D	0.17	40.9	D
	NBR	0.02	48.8	D	0.13	40.6	D
	SBL	0.42	33.4	C	0.55	38.4	D
	SBT	0.04	40.2	D	0.16	44.1	D
	SBR	0.37	43.3	D	0.30	45.5	D
	TOTAL	0.70	28.8	C	0.87	33.6	C

Source: VHB, Inc. using HCS software.
a Average delay in seconds per vehicle
b Level of Service

This table shows that all movements at the interchange ramps will operate at acceptable levels of service with the addition of project traffic. Additionally, all movements will operate with a volume to capacity (v/c) ratio less than 1.0. V/c ratios of less than 1.0 indicate movements that are under capacity.

5

Recommended Mobility Network Improvements

Based on the analysis results, the following Mobility Network improvements are needed to provide access to the proposed development:

- Phase 1:
  - DSAP Western Loop Collector – construct a two lane roadway from SR 200/ A1A north to accommodate development in the Employment Center DSAP Market Street Preliminary Development Plan (PDP)
  - SR 200/ A1A and DSAP Western Loop Collector Intersection:
    - Install traffic signal
    - SR 200/ A1A Eastbound Left-turn lane (to be constructed as part of FDOT's widening project)
    - SR 200/ A1A Westbound Right-turn lane
    - DSAP Western Loop Collector (Southbound Approach) to consist of one shared southbound right/through lane and one southbound left turn lane. The left turn lane will taper, and the new extension will be a two lane road from there north.
- Phase 2:
  - Same access configuration as Phase 1, no additional improvements are required.
- Phase 3:
  - William Burgess Boulevard (Northbound Approach): northbound through lane to be added. The approach will consist of one northbound left turn lane, one northbound through lane, and one northbound right turn lane.
  - DSAP Western Loop Collector (Southbound Approach): southbound through lane to be added. The approach will consist of one southbound left turn lane, one southbound through lane, and one southbound right turn lane.
  - East Unsignalized Intersection along SR 200/ A1A: to be located at the existing median opening aligned with the Sheriff's Office Complex.
    - SR 200/ A1A Eastbound Left-turn lane (to be constructed as part of FDOT's widening project)
    - The southbound approach will consist of one left turn lane and one shared right/through lane.

- West Unsignalized Intersection along SR 200/ A1A: to be located at the existing median opening aligned with Harper Chapel Road.
    - SR 200/ A1A Eastbound Left-turn lane (to be constructed as part of FDOT's widening project)
    - The southbound approach will consist of one left turn lane and one shared right/through lane.

Technical Appendices

A. 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 – ½ 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 or transit should not be applied to the trip generation for individual PDPs, 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 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%
	Old Nassauville Rd. to Amelia Island Parkway	2.00%
CR 200A/Pages Dairy Rd.	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%
	CR 108 to I-95	2.00%
	I-95 to GA State Line	3.36%
I-95/SR A1A Interchange	NB I-95 to SR A1A Off-ramp	5.44%
	SR A1A to NB I-95 On-ramp	6.62%
	SB I-95 to SR A1A Off-ramp	7.79%
	SR A1A to SB I-95 On-ramp	5.42%
I-95/US 17 Interchange	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.

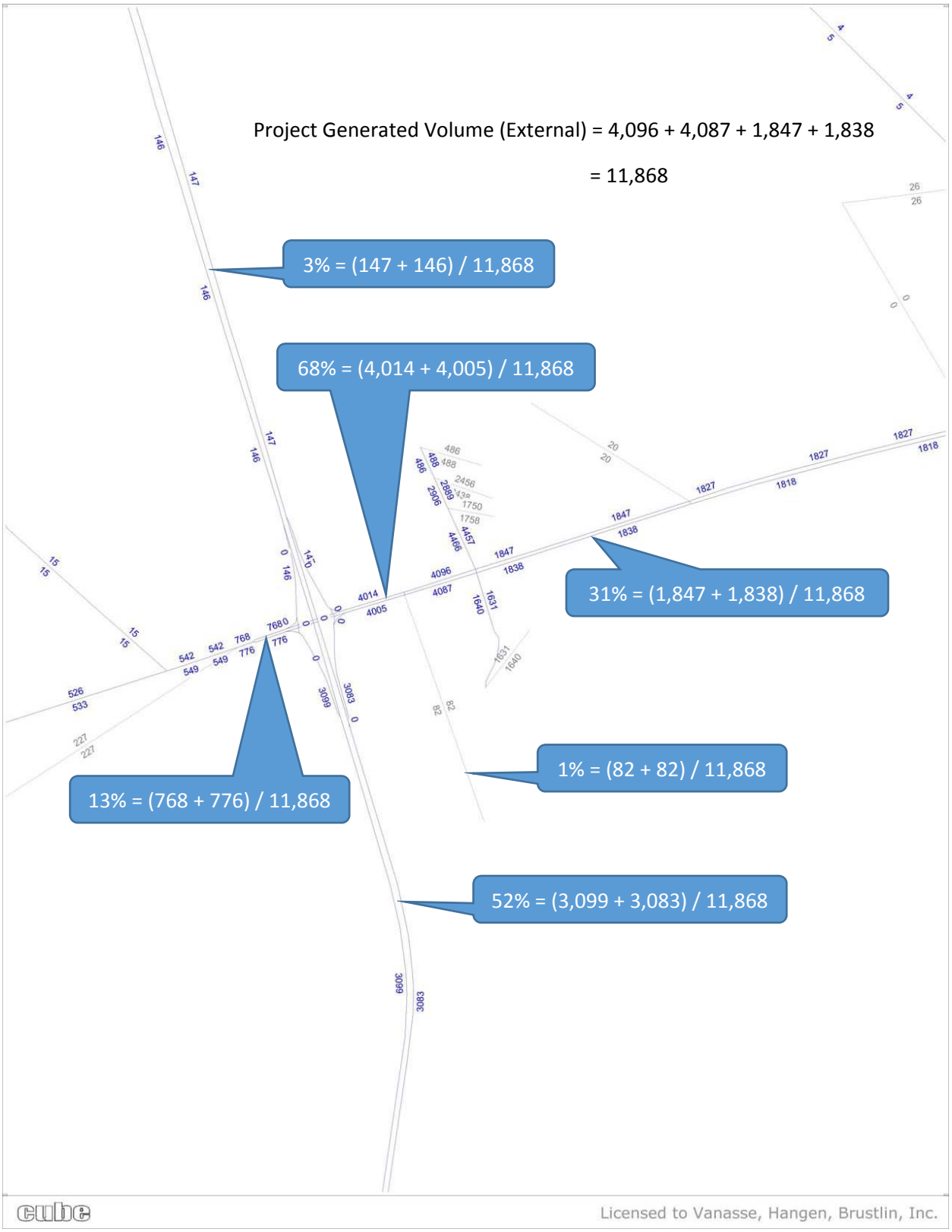
Recommended Improvements

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.

B. SR A1A / 200 Widening Project Information

SR 200/A1A Widening Improvement Project

C. Project Distribution


Project Generated Volume (External) = 4,096 + 4,087 + 1,847 + 1,838
= 11,868
3% = (147 + 146) / 11,868
68% = (4,014 + 4,005) / 11,868
31% = (1,847 + 1,838) / 11,868
13% = (768 + 776) / 11,868
1% = (82 + 82) / 11,868
52% = (3,099 + 3,083) / 11,868
cube
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D. Trip Generation Estimate

Phase 2 - Internal Capture

Daily

			Residential		General Office Buidling		Retail		
			In	Out	In	Out	In	Out	
			1,345	1,344	554	554	1,872	1,871	
Residential	In	1,345				11		206	217
	Out	1,344			0		168		168
General Office Buidling	In	554		0				56	56
	Out	554	11				75		86
Retail	In	1,872		168		75			243
	Out	1,871	206		56				262
Total									1,032

AM Peak Hour

			Residential		General Office Buidling		Retail		
			In	Out	In	Out	In	Out	
			45	161	141	19	55	34	
Residential	In	45				0		2	2
	Out	161			0		3		3
General Office Buidling	In	141		0				1	1
	Out	19	0				2		2
Retail	In	55		3		2			5
	Out	34	2		1				3
Total									16

PM Peak Hour

			Residential		General Office Buidling		Retail		
			In	Out	In	Out	In	Out	
			167	93	29	139	156	168	
Residential	In	167				3		20	23
	Out	93			0		14		14
General Office Buidling	In	29		0				5	5
	Out	139	3				3		6
Retail	In	156		14		3			17
	Out	168	20		5				25
Total									90

Phase 2 - Pass-By Capture

Daily		**AM Peak Hour**		**PM Peak Hour**	
Retail		Retail		Retail	
Inbound:	1,872	Inbound:	55	Inbound:	156
Outbound:	1,871	Outbound:	34	Outbound:	168
Total:	3,743	Total:	89	Total:	324
Internal Capture		**Internal Capture**		**Internal Capture**	
Inbound:	243	Inbound:	5	Inbound:	17
Outbound:	262	Outbound:	3	Outbound:	25
Total:	505	Total:	8	Total:	42
Net Trips		**Net Trips**		**Net Trips**	
Inbound:	1,629	Inbound:	50	Inbound:	139
Outbound:	1,609	Outbound:	31	Outbound:	143
Total:	3,238	Total:	81	Total:	282
Pass-By Capture (34%)		**Pass-By Capture (34%)**		**Pass-By Capture (34%)**	
Inbound:	551	Inbound:	14	Inbound:	48
Outbound:	550	Outbound:	14	Outbound:	48
Total:	1101	Total:	28	Total:	96

Phase 3 - Internal Capture

Daily

			Residential		General Office Buidling		Retail		
			In	Out	In	Out	In	Out	
			3,677	3,677	1,550	1,550	6,742	6,742	
Residential	In	3,677				31		742	773
	Out	3,677			0		607		607
General Office Buidling	In	1,550		0				202	202
	Out	1,550	31				270		301
Retail	In	6,742		607		270			877
	Out	6,742	742		202				944
Total									3,704

AM Peak Hour

			Residential		General Office Buidling		Retail		
			In	Out	In	Out	In	Out	
			134	441	401	55	192	118	
Residential	In	134				0		8	8
	Out	441			0		10		10
General Office Buidling	In	401		0				4	4
	Out	55	0				8		8
Retail	In	192		10		8			18
	Out	118	8		4				12
Total									60

PM Peak Hour

			Residential		General Office Buidling		Retail		
			In	Out	In	Out	In	Out	
			448	255	74	362	571	619	
Residential	In	448				7		74	81
	Out	255			0		51		51
General Office Buidling	In	74		0				19	19
	Out	362	7				11		18
Retail	In	571		51		11			62
	Out	619	74		19				93
Total									324

Phase 3 - Pass-By Capture

Daily

Retail - North		Retail - South	
Inbound:	3,926	Inbound:	2,817
Outbound:	3,925	Outbound:	2,816
Total:	7,851	Total:	5,633
Internal Capture		**Internal Capture**	
Inbound:	39	Inbound:	23
Outbound:	58	Outbound:	35
Total:	97	Total:	58
Net Trips		**Net Trips**	
Inbound:	3,887	Inbound:	2,794
Outbound:	3,867	Outbound:	2,781
Total:	7,754	Total:	5,575
Pass-By Capture (34%)		**Pass-By Capture (34%)**	
Inbound:	1,318	Inbound:	948
Outbound:	1,318	Outbound:	948
Total:	2,636	Total:	1,896

AM Peak Hour

Retail - North		Retail - South	
Inbound:	111	Inbound:	81
Outbound:	68	Outbound:	50
Total:	179	Total:	131
Internal Capture		**Internal Capture**	
Inbound:	11	Inbound:	7
Outbound:	8	Outbound:	4
Total:	19	Total:	11
Net Trips		**Net Trips**	
Inbound:	100	Inbound:	74
Outbound:	60	Outbound:	46
Total:	160	Total:	120
Pass-By Capture (34%)		**Pass-By Capture (34%)**	
Inbound:	27	Inbound:	21
Outbound:	27	Outbound:	20
Total:	54	Total:	41

PM Peak Hour

Retail - North		Retail - South	
Inbound:	334	Inbound:	237
Outbound:	362	Outbound:	257
Total:	696	Total:	494
Internal Capture		**Internal Capture**	
Inbound:	39	Inbound:	23
Outbound:	58	Outbound:	35
Total:	97	Total:	58
Net Trips		**Net Trips**	
Inbound:	295	Inbound:	214
Outbound:	304	Outbound:	222
Total:	599	Total:	436
Pass-By Capture (34%)		**Pass-By Capture (34%)**	
Inbound:	102	Inbound:	74
Outbound:	102	Outbound:	74
Total:	204	Total:	148

E. Data Collection

Peggy Malone & Associates, Inc.

File Name : I-95 NB Ramps and A1A AM
Site Code :
Start Date : 1/23/2013
Page No : 1

Groups Printed- Car

	A1A Westbound					I-95 NB Off Ramp Northbound					A1A Eastbound				
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	12	206	0	0	218	66	0	10	0	76	93	17	0	110	404
07:15 AM	18	244	0	0	262	82	0	7	0	89	85	18	0	103	454
07:30 AM	16	247	0	0	263	103	0	5	0	108	101	13	0	114	485
07:45 AM	9	242	0	0	251	96	0	10	0	106	77	9	0	86	443
Total	55	939	0	0	994	347	0	32	0	379	356	57	0	413	1786
08:00 AM	6	219	1	0	226	73	0	3	0	76	78	9	0	87	389
08:15 AM	10	206	0	0	216	86	0	7	0	93	90	15	0	105	414
08:30 AM	11	156	0	0	167	83	0	10	0	93	90	8	0	98	358
08:45 AM	15	167	0	0	182	81	0	4	0	85	59	13	0	72	339
Total	42	748	1	0	791	323	0	24	0	347	317	45	0	362	1500
Grand Total	97	1687	1	0	1785	670	0	56	0	726	673	102	0	775	3286
Apprch %	5.4	94.5	0.1	0		92.3	0	7.7	0		86.8	13.2	0		
Total %	3	51.3	0	0	54.3	20.4	0	1.7	0	22.1	20.5	3.1	0	23.6	

	A1A Westbound				I-95 NB Off Ramp Northbound				A1A Eastbound			
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1												
Peak Hour for Entire Intersection Begins at 07:00 AM												
07:00 AM	12	206	0	218	66	0	**10**	76	93	17	110	404
07:15 AM	**18**	244	0	262	82	0	7	89	85	**18**	103	454
07:30 AM	16	**247**	0	**263**	**103**	0	5	**108**	**101**	13	**114**	**485**
07:45 AM	9	242	0	251	96	0	10	106	77	9	86	443
Total Volume	55	939	0	994	347	0	32	379	356	57	413	1786
% App. Total	5.5	94.5	0		91.6	0	8.4		86.2	13.8		
PHF	.764	.950	.000	.945	.842	.000	.800	.877	.881	.792	.906	.921

Peggy Malone & Associates, Inc.

File Name : I-95 NB Ramps and A1A AM
Site Code :
Start Date : 1/23/2013
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Groups Printed- Truck

	A1A Westbound					I-95 NB Off Ramp Northbound					A1A Eastbound				
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	1	7	0	0	8	11	0	0	0	11	8	1	0	9	28
07:15 AM	1	16	0	0	17	7	0	1	0	8	14	0	0	14	39
07:30 AM	0	13	0	0	13	14	0	1	0	15	14	5	0	19	47
07:45 AM	2	24	0	0	26	4	0	1	0	5	6	2	0	8	39
Total	4	60	0	0	64	36	0	3	0	39	42	8	0	50	153
08:00 AM	3	14	0	0	17	11	0	1	0	12	7	3	0	10	39
08:15 AM	1	16	0	0	17	8	0	2	0	10	15	2	0	17	44
08:30 AM	0	16	0	0	16	16	0	2	0	18	12	5	0	17	51
08:45 AM	2	11	0	0	13	8	0	1	0	9	10	4	0	14	36
Total	6	57	0	0	63	43	0	6	0	49	44	14	0	58	170
Grand Total	10	117	0	0	127	79	0	9	0	88	86	22	0	108	323
Apprch %	7.9	92.1	0	0		89.8	0	10.2	0		79.6	20.4	0		
Total %	3.1	36.2	0	0	39.3	24.5	0	2.8	0	27.2	26.6	6.8	0	33.4	

	A1A Westbound				I-95 NB Off Ramp Northbound				A1A Eastbound			
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1												
Peak Hour for Entire Intersection Begins at 07:45 AM												
07:45 AM	2	**24**	0	**26**	4	0	1	5	6	2	8	39
08:00 AM	**3**	14	0	17	11	0	1	12	7	3	10	39
08:15 AM	1	16	0	17	8	0	**2**	10	**15**	2	**17**	44
08:30 AM	0	16	0	16	**16**	0	2	**18**	12	**5**	17	**51**
Total Volume	6	70	0	76	39	0	6	45	40	12	52	173
% App. Total	7.9	92.1	0		86.7	0	13.3		76.9	23.1		
PHF	.500	.729	.000	.731	.609	.000	.750	.625	.667	.600	.765	.848

Peggy Malone & Associates, Inc.

File Name : I-95 NB Ramps and A1A AM
Site Code :
Start Date : 1/23/2013
Page No : 1

Groups Printed- Combined

	A1A Westbound					I-95 NB Off Ramp Northbound					A1A Eastbound				
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	13	213	0	0	226	77	0	10	0	87	101	18	0	119	432
07:15 AM	19	260	0	0	279	89	0	8	0	97	99	18	0	117	493
07:30 AM	16	260	0	0	276	117	0	6	0	123	115	18	0	133	532
07:45 AM	11	266	0	0	277	100	0	11	0	111	83	11	0	94	482
Total	59	999	0	0	1058	383	0	35	0	418	398	65	0	463	1939
08:00 AM	9	233	1	0	243	84	0	4	0	88	85	12	0	97	428
08:15 AM	11	222	0	0	233	94	0	9	0	103	105	17	0	122	458
08:30 AM	11	172	0	0	183	99	0	12	0	111	102	13	0	115	409
08:45 AM	17	178	0	0	195	89	0	5	0	94	69	17	0	86	375
Total	48	805	1	0	854	366	0	30	0	396	361	59	0	420	1670
Grand Total	107	1804	1	0	1912	749	0	65	0	814	759	124	0	883	3609
Apprch %	5.6	94.4	0.1	0		92	0	8	0		86	14	0		
Total %	3	50	0	0	53	20.8	0	1.8	0	22.6	21	3.4	0	24.5	

	A1A Westbound				I-95 NB Off Ramp Northbound				A1A Eastbound			
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1												
Peak Hour for Entire Intersection Begins at 07:00 AM												
07:00 AM	13	213	0	226	77	0	10	87	101	**18**	119	432
07:15 AM	**19**	260	0	**279**	89	0	8	97	99	18	117	493
07:30 AM	16	260	0	276	**117**	0	6	**123**	**115**	18	**133**	**532**
07:45 AM	11	**266**	0	277	100	0	**11**	111	83	11	94	482
Total Volume	59	999	0	1058	383	0	35	418	398	65	463	1939
% App. Total	5.6	94.4	0		91.6	0	8.4		86	14		
PHF	.776	.939	.000	.948	.818	.000	.795	.850	.865	.903	.870	.911

Peggy Malone & Associates, Inc.

File Name : I-95 NB Ramps and A1A PM
Site Code :
Start Date : 1/23/2013
Page No : 1

Groups Printed- Car

	A1A Westbound					I-95 NB Off Ramp Northbound					A1A Eastbound				
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	17	158	1	0	176	137	0	17	0	154	76	9	0	85	415
04:15 PM	7	177	0	0	184	152	0	42	0	194	72	8	0	80	458
04:30 PM	16	179	2	0	197	150	0	24	0	174	64	16	0	80	451
04:45 PM	22	158	0	0	180	134	0	32	0	166	68	14	0	82	428
Total	62	672	3	0	737	573	0	115	0	688	280	47	0	327	1752
05:00 PM	16	218	0	0	234	153	0	32	0	185	60	7	0	67	486
05:15 PM	9	191	1	0	201	196	0	36	0	232	66	12	0	78	511
05:30 PM	11	237	0	0	248	220	0	38	0	258	67	18	0	85	591
05:45 PM	13	176	0	0	189	178	0	39	0	217	56	16	0	72	478
Total	49	822	1	0	872	747	0	145	0	892	249	53	0	302	2066
Grand Total	111	1494	4	0	1609	1320	0	260	0	1580	529	100	0	629	3818
Apprch %	6.9	92.9	0.2	0		83.5	0	16.5	0		84.1	15.9	0		
Total %	2.9	39.1	0.1	0	42.1	34.6	0	6.8	0	41.4	13.9	2.6	0	16.5	

	A1A Westbound				I-95 NB Off Ramp Northbound				A1A Eastbound			
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1												
Peak Hour for Entire Intersection Begins at 05:00 PM												
05:00 PM	**16**	218	0	234	153	0	32	185	60	7	67	486
05:15 PM	9	191	**1**	201	196	0	36	232	66	12	78	511
05:30 PM	11	**237**	0	**248**	**220**	0	38	**258**	**67**	**18**	**85**	**591**
05:45 PM	13	176	0	189	178	0	**39**	217	56	16	72	478
Total Volume	49	822	1	872	747	0	145	892	249	53	302	2066
% App. Total	5.6	94.3	0.1		83.7	0	16.3		82.5	17.5		
PHF	.766	.867	.250	.879	.849	.000	.929	.864	.929	.736	.888	.874

Peggy Malone & Associates, Inc.

File Name : I-95 NB Ramps and A1A PM
Site Code :
Start Date : 1/23/2013
Page No : 1

Groups Printed- Truck

	A1A Westbound					I-95 NB Off Ramp Northbound					A1A Eastbound				
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	2	22	0	0	24	8	0	1	0	9	6	1	0	7	40
04:15 PM	0	21	0	0	21	3	0	0	0	3	8	5	0	13	37
04:30 PM	1	17	0	0	18	5	0	1	0	6	6	9	0	15	39
04:45 PM	0	10	0	0	10	4	0	0	0	4	5	5	0	10	24
Total	3	70	0	0	73	20	0	2	0	22	25	20	0	45	140
05:00 PM	1	12	0	0	13	5	0	3	0	8	6	7	0	13	34
05:15 PM	1	7	0	0	8	9	0	0	0	9	8	4	0	12	29
05:30 PM	0	7	0	0	7	2	0	0	0	2	2	6	0	8	17
05:45 PM	1	5	0	0	6	3	0	2	0	5	8	10	0	18	29
Total	3	31	0	0	34	19	0	5	0	24	24	27	0	51	109
Grand Total	6	101	0	0	107	39	0	7	0	46	49	47	0	96	249
Apprch %	5.6	94.4	0	0		84.8	0	15.2	0		51	49	0		
Total %	2.4	40.6	0	0	43	15.7	0	2.8	0	18.5	19.7	18.9	0	38.6	

	A1A Westbound				I-95 NB Off Ramp Northbound				A1A Eastbound			
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1												
Peak Hour for Entire Intersection Begins at 04:00 PM												
04:00 PM	**2**	**22**	0	**24**	**8**	0	**1**	**9**	6	1	7	**40**
04:15 PM	0	21	0	21	3	0	0	3	**8**	5	13	37
04:30 PM	1	17	0	18	5	0	1	6	6	**9**	**15**	39
04:45 PM	0	10	0	10	4	0	0	4	5	5	10	24
Total Volume	3	70	0	73	20	0	2	22	25	20	45	140
% App. Total	4.1	95.9	0		90.9	0	9.1		55.6	44.4		
PHF	.375	.795	.000	.760	.625	.000	.500	.611	.781	.556	.750	.875

Peggy Malone & Associates, Inc.

File Name : I-95 NB Ramps and A1A PM
Site Code :
Start Date : 1/23/2013
Page No : 1

Groups Printed- Combined

	A1A Westbound					I-95 NB Off Ramp Northbound					A1A Eastbound				
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	19	180	1	0	200	145	0	18	0	163	82	10	0	92	455
04:15 PM	7	198	0	0	205	155	0	42	0	197	80	13	0	93	495
04:30 PM	17	196	2	0	215	155	0	25	0	180	70	25	0	95	490
04:45 PM	22	168	0	0	190	138	0	32	0	170	73	19	0	92	452
Total	65	742	3	0	810	593	0	117	0	710	305	67	0	372	1892
05:00 PM	17	230	0	0	247	158	0	35	0	193	66	14	0	80	520
05:15 PM	10	198	1	0	209	205	0	36	0	241	74	16	0	90	540
05:30 PM	11	244	0	0	255	222	0	38	0	260	69	24	0	93	608
05:45 PM	14	181	0	0	195	181	0	41	0	222	64	26	0	90	507
Total	52	853	1	0	906	766	0	150	0	916	273	80	0	353	2175
Grand Total	117	1595	4	0	1716	1359	0	267	0	1626	578	147	0	725	4067
Apprch %	6.8	92.9	0.2	0		83.6	0	16.4	0		79.7	20.3	0		
Total %	2.9	39.2	0.1	0	42.2	33.4	0	6.6	0	40	14.2	3.6	0	17.8	

	A1A Westbound				I-95 NB Off Ramp Northbound				A1A Eastbound			
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1												
Peak Hour for Entire Intersection Begins at 05:00 PM												
05:00 PM	**17**	230	0	247	158	0	35	193	66	14	80	520
05:15 PM	10	198	**1**	209	205	0	36	241	**74**	16	90	540
05:30 PM	11	**244**	0	**255**	**222**	0	38	**260**	69	24	**93**	**608**
05:45 PM	14	181	0	195	181	0	**41**	222	64	**26**	90	507
Total Volume	52	853	1	906	766	0	150	916	273	80	353	2175
% App. Total	5.7	94.2	0.1		83.6	0	16.4		77.3	22.7		
PHF	.765	.874	.250	.888	.863	.000	.915	.881	.922	.769	.949	.894

Peggy Malone & Associates, Inc.

File Name : I-95 SB Ramps and A1A AM
Site Code :
Start Date : 1/23/2013
Page No : 1

Groups Printed- Car

	I-95 SB Off Ramp Southbound					A1A Westbound				A1A Eastbound				
Start Time	Right	Thru	Left	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
07:00 AM	3	0	7	0	10	36	169	0	205	49	101	0	150	365
07:15 AM	11	0	8	0	19	44	217	0	261	41	101	0	142	422
07:30 AM	13	0	7	0	20	47	201	0	248	48	107	0	155	423
07:45 AM	11	0	14	0	25	54	202	0	256	36	70	0	106	387
Total	38	0	36	0	74	181	789	0	970	174	379	0	553	1597
08:00 AM	7	0	10	0	17	40	179	0	219	35	77	0	112	348
08:15 AM	14	0	8	0	22	47	164	0	211	26	97	0	123	356
08:30 AM	9	0	10	0	19	53	112	0	165	28	87	0	115	299
08:45 AM	9	0	8	0	17	41	127	0	168	20	59	0	79	264
Total	39	0	36	0	75	181	582	0	763	109	320	0	429	1267
Grand Total	77	0	72	0	149	362	1371	0	1733	283	699	0	982	2864
Apprch %	51.7	0	48.3	0		20.9	79.1	0		28.8	71.2	0		
Total %	2.7	0	2.5	0	5.2	12.6	47.9	0	60.5	9.9	24.4	0	34.3	

	I-95 SB Off Ramp Southbound				A1A Westbound			A1A Eastbound			
Start Time	Right	Thru	Left	App. Total	Thru	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 07:00 AM											
07:00 AM	3	0	7	10	36	169	205	**49**	101	150	365
07:15 AM	11	0	8	19	44	**217**	**261**	41	101	142	422
07:30 AM	**13**	0	7	20	47	201	248	48	**107**	**155**	**423**
07:45 AM	11	0	**14**	**25**	**54**	202	256	36	70	106	387
Total Volume	38	0	36	74	181	789	970	174	379	553	1597
% App. Total	51.4	0	48.6		18.7	81.3		31.5	68.5		
PHF	.731	.000	.643	.740	.838	.909	.929	.888	.886	.892	.944

Peggy Malone & Associates, Inc.

File Name : I-95 SB Ramps and A1A AM
Site Code :
Start Date : 1/23/2013
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Groups Printed- Truck

	I-95 SB Off Ramp Southbound					A1A Westbound				A1A Eastbound				
Start Time	Right	Thru	Left	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
07:00 AM	7	0	0	0	7	8	1	0	9	1	10	0	11	27
07:15 AM	2	0	3	0	5	9	5	0	14	0	11	0	11	30
07:30 AM	5	0	3	0	8	9	5	0	14	1	14	0	15	37
07:45 AM	2	0	1	0	3	21	5	0	26	1	7	0	8	37
Total	16	0	7	0	23	47	16	0	63	3	42	0	45	131
08:00 AM	4	0	0	0	4	12	5	0	17	1	11	0	12	33
08:15 AM	0	0	0	0	0	9	7	0	16	2	20	0	22	38
08:30 AM	1	0	1	0	2	11	8	0	19	0	15	0	15	36
08:45 AM	4	0	1	0	5	9	4	0	13	1	12	0	13	31
Total	9	0	2	0	11	41	24	0	65	4	58	0	62	138
Grand Total	25	0	9	0	34	88	40	0	128	7	100	0	107	269
Apprch %	73.5	0	26.5	0		68.8	31.2	0		6.5	93.5	0		
Total %	9.3	0	3.3	0	12.6	32.7	14.9	0	47.6	2.6	37.2	0	39.8	

	I-95 SB Off Ramp Southbound				A1A Westbound			A1A Eastbound			
Start Time	Right	Thru	Left	App. Total	Thru	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 07:30 AM											
07:30 AM	**5**	0	**3**	**8**	9	5	14	1	14	15	37
07:45 AM	2	0	1	3	**21**	5	**26**	1	7	8	37
08:00 AM	4	0	0	4	12	5	17	1	11	12	33
08:15 AM	0	0	0	0	9	**7**	16	**2**	**20**	**22**	**38**
Total Volume	11	0	4	15	51	22	73	5	52	57	145
% App. Total	73.3	0	26.7		69.9	30.1		8.8	91.2		
PHF	.550	.000	.333	.469	.607	.786	.702	.625	.650	.648	.954

Peggy Malone & Associates, Inc.

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	I-95 SB Off Ramp Southbound					A1A Westbound				A1A Eastbound				
Start Time	Right	Thru	Left	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
07:00 AM	10	0	7	0	17	44	170	0	214	50	111	0	161	392
07:15 AM	13	0	11	0	24	53	222	0	275	41	112	0	153	452
07:30 AM	18	0	10	0	28	56	206	0	262	49	121	0	170	460
07:45 AM	13	0	15	0	28	75	207	0	282	37	77	0	114	424
Total	54	0	43	0	97	228	805	0	1033	177	421	0	598	1728
08:00 AM	11	0	10	0	21	52	184	0	236	36	88	0	124	381
08:15 AM	14	0	8	0	22	56	171	0	227	28	117	0	145	394
08:30 AM	10	0	11	0	21	64	120	0	184	28	102	0	130	335
08:45 AM	13	0	9	0	22	50	131	0	181	21	71	0	92	295
Total	48	0	38	0	86	222	606	0	828	113	378	0	491	1405
Grand Total	102	0	81	0	183	450	1411	0	1861	290	799	0	1089	3133
Apprch %	55.7	0	44.3	0		24.2	75.8	0		26.6	73.4	0		
Total %	3.3	0	2.6	0	5.8	14.4	45	0	59.4	9.3	25.5	0	34.8	

	I-95 SB Off Ramp Southbound				A1A Westbound			A1A Eastbound			
Start Time	Right	Thru	Left	App. Total	Thru	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 07:00 AM											
07:00 AM	10	0	7	17	44	170	214	**50**	111	161	392
07:15 AM	13	0	11	24	53	**222**	275	41	112	153	452
07:30 AM	**18**	0	10	**28**	56	206	262	49	**121**	**170**	**460**
07:45 AM	13	0	**15**	28	**75**	207	**282**	37	77	114	424
Total Volume	54	0	43	97	228	805	1033	177	421	598	1728
% App. Total	55.7	0	44.3		22.1	77.9		29.6	70.4		
PHF	.750	.000	.717	.866	.760	.907	.916	.885	.870	.879	.939

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Groups Printed- Car

	I-95 SB Off Ramp Southbound					A1A Westbound				A1A Eastbound				
Start Time	Right	Thru	Left	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
04:00 PM	27	0	20	0	47	90	98	0	188	11	62	0	73	308
04:15 PM	18	0	14	0	32	111	96	0	207	13	67	0	80	319
04:30 PM	18	0	18	0	36	102	111	0	213	25	57	0	82	331
04:45 PM	24	0	17	0	41	106	90	0	196	22	63	0	85	322
Total	87	0	69	0	156	409	395	0	804	71	249	0	320	1280
05:00 PM	22	0	13	0	35	126	105	0	231	18	54	0	72	338
05:15 PM	16	0	18	0	34	121	114	0	235	22	57	0	79	348
05:30 PM	25	0	13	0	38	136	113	0	249	13	72	0	85	372
05:45 PM	13	0	11	0	24	117	85	0	202	13	59	0	72	298
Total	76	0	55	0	131	500	417	0	917	66	242	0	308	1356
Grand Total	163	0	124	0	287	909	812	0	1721	137	491	0	628	2636
Apprch %	56.8	0	43.2	0		52.8	47.2	0		21.8	78.2	0		
Total %	6.2	0	4.7	0	10.9	34.5	30.8	0	65.3	5.2	18.6	0	23.8	

	I-95 SB Off Ramp Southbound				A1A Westbound			A1A Eastbound			
Start Time	Right	Thru	Left	App. Total	Thru	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 04:45 PM											
04:45 PM	24	0	17	**41**	106	90	196	**22**	63	**85**	322
05:00 PM	22	0	13	35	126	105	231	18	54	72	338
05:15 PM	16	0	**18**	34	121	**114**	235	22	57	79	348
05:30 PM	**25**	0	13	38	**136**	113	**249**	13	**72**	85	**372**
Total Volume	87	0	61	148	489	422	911	75	246	321	1380
% App. Total	58.8	0	41.2		53.7	46.3		23.4	76.6		
PHF	.870	.000	.847	.902	.899	.925	.915	.852	.854	.944	.927

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Groups Printed- Truck

	I-95 SB Off Ramp Southbound					A1A Westbound				A1A Eastbound				
Start Time	Right	Thru	Left	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
04:00 PM	3	0	0	0	3	12	10	0	22	2	7	0	9	34
04:15 PM	4	0	1	0	5	11	11	0	22	1	13	0	14	41
04:30 PM	7	0	0	0	7	7	10	0	17	1	14	0	15	39
04:45 PM	3	0	0	0	3	5	6	0	11	0	10	0	10	24
Total	17	0	1	0	18	35	37	0	72	4	44	0	48	138
05:00 PM	3	0	1	0	4	5	7	0	12	0	12	0	12	28
05:15 PM	6	0	1	0	7	3	7	0	10	1	13	0	14	31
05:30 PM	4	0	0	0	4	2	5	0	7	0	8	0	8	19
05:45 PM	3	0	2	0	5	5	4	0	9	0	16	0	16	30
Total	16	0	4	0	20	15	23	0	38	1	49	0	50	108
Grand Total	33	0	5	0	38	50	60	0	110	5	93	0	98	246
Apprch %	86.8	0	13.2	0		45.5	54.5	0		5.1	94.9	0		
Total %	13.4	0	2	0	15.4	20.3	24.4	0	44.7	2	37.8	0	39.8	

	I-95 SB Off Ramp Southbound				A1A Westbound			A1A Eastbound			
Start Time	Right	Thru	Left	App. Total	Thru	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 04:00 PM											
04:00 PM	3	0	0	3	**12**	10	**22**	**2**	7	9	34
04:15 PM	4	0	**1**	5	11	**11**	22	1	13	14	**41**
04:30 PM	**7**	0	0	**7**	7	10	17	1	**14**	**15**	39
04:45 PM	3	0	0	3	5	6	11	0	10	10	24
Total Volume	17	0	1	18	35	37	72	4	44	48	138
% App. Total	94.4	0	5.6		48.6	51.4		8.3	91.7		
PHF	.607	.000	.250	.643	.729	.841	.818	.500	.786	.800	.841

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	I-95 SB Off Ramp Southbound					A1A Westbound				A1A Eastbound				
Start Time	Right	Thru	Left	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
04:00 PM	30	0	20	0	50	102	108	0	210	13	69	0	82	342
04:15 PM	22	0	15	0	37	122	107	0	229	14	80	0	94	360
04:30 PM	25	0	18	0	43	109	121	0	230	26	71	0	97	370
04:45 PM	27	0	17	0	44	111	96	0	207	22	73	0	95	346
Total	104	0	70	0	174	444	432	0	876	75	293	0	368	1418
05:00 PM	25	0	14	0	39	131	112	0	243	18	66	0	84	366
05:15 PM	22	0	19	0	41	124	121	0	245	23	70	0	93	379
05:30 PM	29	0	13	0	42	138	118	0	256	13	80	0	93	391
05:45 PM	16	0	13	0	29	122	89	0	211	13	75	0	88	328
Total	92	0	59	0	151	515	440	0	955	67	291	0	358	1464
Grand Total	196	0	129	0	325	959	872	0	1831	142	584	0	726	2882
Apprch %	60.3	0	39.7	0		52.4	47.6	0		19.6	80.4	0		
Total %	6.8	0	4.5	0	11.3	33.3	30.3	0	63.5	4.9	20.3	0	25.2	

	I-95 SB Off Ramp Southbound				A1A Westbound			A1A Eastbound			
Start Time	Right	Thru	Left	App. Total	Thru	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 04:45 PM											
04:45 PM	27	0	17	**44**	111	96	207	22	73	**95**	346
05:00 PM	25	0	14	39	131	112	243	18	66	84	366
05:15 PM	22	0	**19**	41	124	**121**	245	**23**	70	93	379
05:30 PM	**29**	0	13	42	**138**	118	**256**	13	**80**	93	**391**
Total Volume	103	0	63	166	504	447	951	76	289	365	1482
% App. Total	62	0	38		53	47		20.8	79.2		
PHF	.888	.000	.829	.943	.913	.924	.929	.826	.903	.961	.948

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Groups Printed- Car

	A1A Westbound				William Burgess Blvd. Northbound				A1A Eastbound					
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	203	1	0	204	1	12	0	13	7	146	0	0	153	370
07:15 AM	239	4	0	243	0	11	0	11	9	143	0	0	152	406
07:30 AM	245	10	0	255	2	10	0	12	10	194	0	0	204	471
07:45 AM	235	21	0	256	4	9	0	13	19	148	0	0	167	436
Total	922	36	0	958	7	42	0	49	45	631	0	0	676	1683
08:00 AM	209	16	0	225	2	11	0	13	25	115	0	0	140	378
08:15 AM	163	21	0	184	2	17	0	19	30	139	0	0	169	372
08:30 AM	160	15	0	175	5	10	0	15	17	144	0	0	161	351
08:45 AM	151	21	0	172	3	12	0	15	25	103	0	0	128	315
Total	683	73	0	756	12	50	0	62	97	501	0	0	598	1416
Grand Total	1605	109	0	1714	19	92	0	111	142	1132	0	0	1274	3099
Apprch %	93.6	6.4	0		17.1	82.9	0		11.1	88.9	0	0		
Total %	51.8	3.5	0	55.3	0.6	3	0	3.6	4.6	36.5	0	0	41.1	

	A1A Westbound			William Burgess Blvd. Northbound			A1A Eastbound				
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 07:15 AM											
07:15 AM	239	4	243	0	**11**	11	9	143	0	152	406
07:30 AM	**245**	10	255	2	10	12	10	**194**	0	**204**	**471**
07:45 AM	235	**21**	**256**	**4**	9	**13**	19	148	0	167	436
08:00 AM	209	16	225	2	11	13	**25**	115	0	140	378
Total Volume	928	51	979	8	41	49	63	600	0	663	1691
% App. Total	94.8	5.2		16.3	83.7		9.5	90.5	0		
PHF	.947	.607	.956	.500	.932	.942	.630	.773	.000	.813	.898

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Groups Printed- Truck

	A1A Westbound				William Burgess Blvd. Northbound				A1A Eastbound					
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	7	0	0	7	0	0	0	0	0	21	0	0	21	28
07:15 AM	15	0	0	15	0	0	0	0	0	18	0	0	18	33
07:30 AM	11	0	0	11	0	0	0	0	0	25	0	0	25	36
07:45 AM	25	0	0	25	0	1	0	1	1	10	0	0	11	37
Total	58	0	0	58	0	1	0	1	1	74	0	0	75	134
08:00 AM	20	0	0	20	0	0	0	0	1	15	0	0	16	36
08:15 AM	13	0	0	13	1	0	0	1	3	25	0	0	28	42
08:30 AM	17	1	0	18	1	0	0	1	2	24	0	0	26	45
08:45 AM	13	0	0	13	0	0	0	0	0	25	0	0	25	38
Total	63	1	0	64	2	0	0	2	6	89	0	0	95	161
Grand Total	121	1	0	122	2	1	0	3	7	163	0	0	170	295
Apprch %	99.2	0.8	0		66.7	33.3	0		4.1	95.9	0	0		
Total %	41	0.3	0	41.4	0.7	0.3	0	1	2.4	55.3	0	0	57.6	

	A1A Westbound			William Burgess Blvd. Northbound			A1A Eastbound				
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 08:00 AM											
08:00 AM	**20**	0	**20**	0	0	0	1	15	0	16	36
08:15 AM	13	0	13	**1**	0	**1**	**3**	**25**	0	**28**	42
08:30 AM	17	**1**	18	1	0	1	2	24	0	26	**45**
08:45 AM	13	0	13	0	0	0	0	25	0	25	38
Total Volume	63	1	64	2	0	2	6	89	0	95	161
% App. Total	98.4	1.6		100	0		6.3	93.7	0		
PHF	.788	.250	.800	.500	.000	.500	.500	.890	.000	.848	.894

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Groups Printed- Combined

	A1A Westbound				William Burgess Blvd. Northbound				A1A Eastbound					
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	210	1	0	211	1	12	0	13	7	167	0	0	174	398
07:15 AM	254	4	0	258	0	11	0	11	9	161	0	0	170	439
07:30 AM	256	10	0	266	2	10	0	12	10	219	0	0	229	507
07:45 AM	260	21	0	281	4	10	0	14	20	158	0	0	178	473
Total	980	36	0	1016	7	43	0	50	46	705	0	0	751	1817
08:00 AM	229	16	0	245	2	11	0	13	26	130	0	0	156	414
08:15 AM	176	21	0	197	3	17	0	20	33	164	0	0	197	414
08:30 AM	177	16	0	193	6	10	0	16	19	168	0	0	187	396
08:45 AM	164	21	0	185	3	12	0	15	25	128	0	0	153	353
Total	746	74	0	820	14	50	0	64	103	590	0	0	693	1577
Grand Total	1726	110	0	1836	21	93	0	114	149	1295	0	0	1444	3394
Apprch %	94	6	0		18.4	81.6	0		10.3	89.7	0	0		
Total %	50.9	3.2	0	54.1	0.6	2.7	0	3.4	4.4	38.2	0	0	42.5	

	A1A Westbound			William Burgess Blvd. Northbound			A1A Eastbound				
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 07:15 AM											
07:15 AM	254	4	258	0	**11**	11	9	161	0	170	439
07:30 AM	256	10	266	2	10	12	10	**219**	0	**229**	**507**
07:45 AM	**260**	**21**	**281**	**4**	10	**14**	20	158	0	178	473
08:00 AM	229	16	245	2	11	13	**26**	130	0	156	414
Total Volume	999	51	1050	8	42	50	65	668	0	733	1833
% App. Total	95.1	4.9		16	84		8.9	91.1	0		
PHF	.961	.607	.934	.500	.955	.893	.625	.763	.000	.800	.904

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Groups Printed- Car

	A1A Westbound				William Burgess Blvd. Northbound				A1A Eastbound					
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	170	4	0	174	8	13	0	21	19	171	0	0	190	385
04:15 PM	154	4	0	158	11	11	0	22	21	190	1	0	212	392
04:30 PM	158	3	0	161	15	10	0	25	18	181	0	0	199	385
04:45 PM	158	5	0	163	6	8	0	14	16	156	0	0	172	349
Total	640	16	0	656	40	42	0	82	74	698	1	0	773	1511
05:00 PM	174	5	0	179	19	23	0	42	20	190	0	0	210	431
05:15 PM	205	5	0	210	6	8	0	14	14	217	0	0	231	455
05:30 PM	199	7	0	206	5	16	0	21	23	246	0	0	269	496
05:45 PM	137	8	0	145	4	11	0	15	19	195	0	0	214	374
Total	715	25	0	740	34	58	0	92	76	848	0	0	924	1756
Grand Total	1355	41	0	1396	74	100	0	174	150	1546	1	0	1697	3267
Apprch %	97.1	2.9	0		42.5	57.5	0		8.8	91.1	0.1	0		
Total %	41.5	1.3	0	42.7	2.3	3.1	0	5.3	4.6	47.3	0	0	51.9	

	A1A Westbound			William Burgess Blvd. Northbound			A1A Eastbound				
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 05:00 PM											
05:00 PM	174	5	179	**19**	**23**	**42**	20	190	0	210	431
05:15 PM	**205**	5	**210**	6	8	14	14	217	0	231	455
05:30 PM	199	7	206	5	16	21	**23**	**246**	0	**269**	**496**
05:45 PM	137	**8**	145	4	11	15	19	195	0	214	374
Total Volume	715	25	740	34	58	92	76	848	0	924	1756
% App. Total	96.6	3.4		37	63		8.2	91.8	0		
PHF	.872	.781	.881	.447	.630	.548	.826	.862	.000	.859	.885

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Groups Printed- Truck

	A1A Westbound				William Burgess Blvd. Northbound				A1A Eastbound					
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	28	0	0	28	0	0	0	0	0	11	0	0	11	39
04:15 PM	17	0	0	17	0	0	0	0	0	9	0	0	9	26
04:30 PM	19	0	0	19	0	0	0	0	0	13	0	0	13	32
04:45 PM	7	0	0	7	0	0	0	0	0	9	0	0	9	16
Total	71	0	0	71	0	0	0	0	0	42	0	0	42	113
05:00 PM	12	0	0	12	0	0	0	0	0	12	0	0	12	24
05:15 PM	9	0	0	9	0	1	0	1	0	17	0	0	17	27
05:30 PM	8	0	0	8	0	0	0	0	0	6	0	0	6	14
05:45 PM	8	0	0	8	0	0	0	0	0	9	0	0	9	17
Total	37	0	0	37	0	1	0	1	0	44	0	0	44	82
Grand Total	108	0	0	108	0	1	0	1	0	86	0	0	86	195
Apprch %	100	0	0		0	100	0		0	100	0	0		
Total %	55.4	0	0	55.4	0	0.5	0	0.5	0	44.1	0	0	44.1	

	A1A Westbound			William Burgess Blvd. Northbound			A1A Eastbound				
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 04:00 PM											
04:00 PM	**28**	0	**28**	0	0	0	0	11	0	11	**39**
04:15 PM	17	0	17	0	0	0	0	9	0	9	26
04:30 PM	19	0	19	0	0	0	0	**13**	0	**13**	32
04:45 PM	7	0	7	0	0	0	0	9	0	9	16
Total Volume	71	0	71	0	0	0	0	42	0	42	113
% App. Total	100	0		0	0		0	100	0		
PHF	.634	.000	.634	.000	.000	.000	.000	.808	.000	.808	.724

Peggy Malone & Associates, Inc.

File Name : William Burgess and A1A PM
Site Code :
Start Date : 1/23/2013
Page No : 1

Groups Printed- Combined

	A1A Westbound				William Burgess Blvd. Northbound				A1A Eastbound					
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	198	4	0	202	8	13	0	21	19	182	0	0	201	424
04:15 PM	171	4	0	175	11	11	0	22	21	199	1	0	221	418
04:30 PM	177	3	0	180	15	10	0	25	18	194	0	0	212	417
04:45 PM	165	5	0	170	6	8	0	14	16	165	0	0	181	365
Total	711	16	0	727	40	42	0	82	74	740	1	0	815	1624
05:00 PM	186	5	0	191	19	23	0	42	20	202	0	0	222	455
05:15 PM	214	5	0	219	6	9	0	15	14	234	0	0	248	482
05:30 PM	207	7	0	214	5	16	0	21	23	252	0	0	275	510
05:45 PM	145	8	0	153	4	11	0	15	19	204	0	0	223	391
Total	752	25	0	777	34	59	0	93	76	892	0	0	968	1838
Grand Total	1463	41	0	1504	74	101	0	175	150	1632	1	0	1783	3462
Apprch %	97.3	2.7	0		42.3	57.7	0		8.4	91.5	0.1	0		
Total %	42.3	1.2	0	43.4	2.1	2.9	0	5.1	4.3	47.1	0	0	51.5	

	A1A Westbound			William Burgess Blvd. Northbound			A1A Eastbound				
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 05:00 PM											
05:00 PM	186	5	191	**19**	**23**	**42**	20	202	0	222	455
05:15 PM	**214**	5	**219**	6	9	15	14	234	0	248	482
05:30 PM	207	7	214	5	16	21	**23**	**252**	0	**275**	**510**
05:45 PM	145	**8**	153	4	11	15	19	204	0	223	391
Total Volume	752	25	777	34	59	93	76	892	0	968	1838
% App. Total	96.8	3.2		36.6	63.4		7.9	92.1	0		
PHF	.879	.781	.887	.447	.641	.554	.826	.885	.000	.880	.901

F. Intersection Volumes and Level of Service Analysis Printouts

Intersection Volumes

Intersection: SR A1A at I-95 Ramps
Time Period: AM Peak Hour

Year 2013 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
TMC	35	0	383	43	0	54	65	356	177	805	194	59	2,171
SF													1.07
Average	37	0	410	46	0	58	70	381	189	861	208	63	2,323

Average Annual Growth Rate

	NB	SB	EB	WB
	5.44%	7.79%	6.39%	4.25%

Year 2014 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	39	0	432	50	0	63	74	405	201	898	217	66	2,445

Year 2017 Volume - Background

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	45	**0**	**499**	**60**	**0**	**76**	**88**	**478**	**237**	**1,007**	**243**	**74**	**2,807**

PDP Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													198
Distrib.	0%	0%	52%	3%	0%	0%	0%	13%	0%	0%	0%	0%	68%
Volume	0	0	103	6	0	0	0	26	0	0	0	0	135
Outbound													162
Distrib.	0%	0%	0%	0%	0%	0%	0%	0%	0%	52%	13%	3%	68%
Volume	0	0	0	0	0	0	0	0	0	84	21	5	110
Total	**0**	**0**	**103**	**6**	**0**	**0**	**0**	**26**	**0**	**84**	**21**	**5**	**245**

2017 Total Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	45	**0**	**602**	**66**	**0**	**76**	**88**	**504**	**237**	**1,091**	**264**	**79**	**3,052**

Intersection: SR A1A at I-95 Ramps
Time Period: PM Peak Hour

Year 2013 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
TMC	150	0	766	63	0	103	80	210	76	447	406	52	2,353
SF													1.07
Average	161	0	820	67	0	110	86	225	81	478	434	56	2,518

Average Annual Growth Rate

	NB	SB	EB	WB
	5.44%	7.79%	6.39%	4.25%

Year 2014 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	170	0	865	72	0	119	91	239	86	498	452	58	2,650

Year 2017 Volume - Background

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	196	**0**	**998**	**88**	**0**	**144**	**108**	**283**	**102**	**559**	**508**	**66**	**3,052**

PDP Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													59
Distrib.	0%	0%	52%	3%	0%	0%	0%	13%	0%	0%	0%	0%	68%
Volume	0	0	31	2	0	0	0	8	0	0	0	0	41
Ountbound													61
Distrib.	0%	0%	0%	0%	0%	0%	0%	0%	0%	52%	13%	3%	68%
Volume	0	0	0	0	0	0	0	0	0	32	8	2	42
Total	**0**	**0**	**31**	**2**	**0**	**0**	**0**	**8**	**0**	**32**	**8**	**2**	**83**

2017 Total Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	196	**0**	**1,029**	**90**	**0**	**144**	**108**	**291**	**102**	**591**	**516**	**68**	**3,135**

Intersection: SR A1A at William Burgess Blvd.
Time Period: AM Peak Hour

Year 2013 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
TMC	42	0	8	0	0	0	0	668	65	51	999	0	1,833
SF													1.07
Average	45	0	9	0	0	0	0	715	70	55	1,069	0	1,963

Average Annual Growth Rate

	NB	SB	EB	WB
	4.25%	0.00%	4.25%	4.25%

Year 2014 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	47	0	9	0	0	0	0	745	73	57	1,114	0	2,045

Year 2017 Volume - Background

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	53	**0**	**11**	**0**	**0**	**0**	**0**	**837**	**82**	**64**	**1,251**	**0**	**2,298**

PDP Volume (School)

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													198
Distrib.	0%	1%	0%	0%	0%	0%	68%	0%	0%	0%	0%	31%	100%
Volume	0	2	0	0	0	0	135	0	0	0	0	60	197
Ountbound													162
Distrib.	0%	0%	0%	31%	1%	68%	0%	0%	0%	0%	0%	0%	100%
Volume	0	0	0	50	2	110	0	0	0	0	0	0	162
Total	**0**	**2**	**0**	**50**	**2**	**110**	**135**	**0**	**0**	**0**	**0**	**60**	**359**

2017 Total Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	53	**2**	**11**	**50**	**2**	**110**	**135**	**837**	**82**	**64**	**1,251**	**60**	**2,657**

HCS Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	53	**2**	**11**	**50**	**2**	**110**	**135**	**583**	**82**	**64**	**871**	**60**	**2,023**

Intersection: SR A1A at William Burgess Blvd.
Time Period: PM Peak Hour

Year 2013 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
TMC	59	0	34	0	0	0	0	892	76	25	752		1,838
SF													1.07
Average	63	0	36	0	0	0	0	954	81	27	805	0	1,966

Average Annual Growth Rate

	NB	SB	EB	WB
	4.25%	0.00%	4.25%	4.25%

Year 2014 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	66	0	38	0	0	0	0	995	84	28	839	0	2,050

Year 2017 Volume - Background

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	74	**0**	**42**	**0**	**0**	**0**	**0**	**1,116**	**95**	**32**	**942**	**0**	**2,301**

PDP Volume (School)

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													59
Distrib.	0%	1%	0%	0%	0%	0%	68%	0%	0%	0%	0%	31%	100%
Volume	0	1	0	0	0	0	40	0	0	0	0	17	58
Ountbound													61
Distrib.	0%	0%	0%	31%	1%	68%	0%	0%	0%	0%	0%	0%	100%
Volume	0	0	0	19	1	41	0	0	0	0	0	0	61
Total	**0**	**1**	**0**	**19**	**1**	**41**	**40**	**0**	**0**	**0**	**0**	**17**	**119**

2017 Total Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	74	**1**	**42**	**19**	**1**	**41**	**40**	**1,116**	**95**	**32**	**942**	**17**	**2,420**

HCS Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	74	**1**	**42**	**19**	**1**	**41**	**40**	**777**	**95**	**32**	**656**	**17**	**1,795**

Intersection: SR A1A at I-95 Ramps
Time Period: AM Peak Hour

Year 2013 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
TMC	35	0	387	43	0	54	65	356	177	805	194	59	2,175
SF													1.07
Average	37	0	414	46	0	58	70	381	189	861	208	63	2,327

Average Annual Growth Rate

	NB	SB	EB	WB
	5.44%	7.79%	6.39%	4.25%

Year 2014 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	39	0	437	50	0	63	74	405	201	898	217	66	2,450

Year 2019 Volume - Background

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	49	**0**	**549**	**68**	**0**	**85**	**97**	**527**	**261**	**1,081**	**261**	**79**	**3,057**

PDP Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													417
Distrib.	0%	0%	52%	3%	0%	0%	0%	13%	0%	0%	0%	0%	68%
Volume	0	0	217	13	0	0	0	54	0	0	0	0	284
Ountbound													354
Distrib.	0%	0%	0%	0%	0%	0%	0%	0%	0%	52%	13%	3%	68%
Volume	0	0	0	0	0	0	0	0	0	184	46	11	241
Total	**0**	**0**	**217**	**13**	**0**	**0**	**0**	**54**	**0**	**184**	**46**	**11**	**525**

2019 Total Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	49	**0**	**766**	**81**	**0**	**85**	**97**	**581**	**261**	**1,265**	**307**	**90**	**3,582**

Intersection: SR A1A at I-95 Ramps
Time Period: PM Peak Hour

Year 2013 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
TMC	150	0	766	63	0	103	80	210	76	447	406	52	2,353
SF													1.07
Average	161	0	820	67	0	110	86	225	81	478	434	56	2,518

Average Annual Growth Rate

	NB	SB	EB	WB
	5.44%	7.79%	6.39%	4.25%

Year 2014 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	170	0	865	72	0	119	91	239	86	498	452	58	2,650

Year 2019 Volume - Background

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	214	**0**	**1,088**	**98**	**0**	**161**	**119**	**311**	**112**	**600**	**545**	**70**	**3,318**

PDP Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													318
Distrib.	0%	0%	52%	3%	0%	0%	0%	13%	0%	0%	0%	0%	68%
Volume	0	0	165	10	0	0	0	41	0	0	0	0	216
Ountbound													368
Distrib.	0%	0%	0%	0%	0%	0%	0%	0%	0%	52%	13%	3%	68%
Volume	0	0	0	0	0	0	0	0	0	191	48	11	250
Total	**0**	**0**	**165**	**10**	**0**	**0**	**0**	**41**	**0**	**191**	**48**	**11**	**466**

2019 Total Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	214	**0**	**1,253**	**108**	**0**	**161**	**119**	**352**	**112**	**791**	**593**	**81**	**3,784**

Intersection: SR A1A at William Burgess Blvd.
Time Period: AM Peak Hour

Year 2013 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
TMC	42	0	8	0	0	0	0	668	65	51	999	0	1,833
SF													1.07
Average	45	0	9	0	0	0	0	715	70	55	1,069	0	1,963

Average Annual Growth Rate

	NB	SB	EB	WB
	4.25%	0.00%	4.25%	4.25%

Year 2014 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	47	0	9	0	0	0	0	745	73	57	1,114	0	2,045

Year 2019 Volume - Background

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	56	**0**	**11**	**0**	**0**	**0**	**0**	**897**	**88**	**69**	**1,342**	**0**	**2,463**

PDP Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													417
Distrib.	0%	1%	0%	0%	0%	0%	68%	0%	0%	0%	0%	31%	100%
Volume	0	4	0	0	0	0	284	0	0	0	0	128	416
Ountbound													354
Distrib.	0%	0%	0%	31%	1%	68%	0%	0%	0%	0%	0%	0%	100%
Volume	0	0	0	110	4	241	0	0	0	0	0	0	355
Total	**0**	**4**	**0**	**110**	**4**	**241**	**284**	**0**	**0**	**0**	**0**	**128**	**771**

Pass-By Captured

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
from West	0	0	0	6	0	0	6	-6	0	0	0	0	**6**
from East	0	0	0	0	0	8	0	0	0	0	-8	8	**8**
Total	**0**	**0**	**0**	**6**	**0**	**8**	**6**	**-6**	**0**	**0**	**-8**	**8**	**14**

2019 Total Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	56	**4**	**11**	**116**	**4**	**249**	**290**	**891**	**88**	**69**	**1,334**	**136**	**3,248**

Intersection: SR A1A at William Burgess Blvd.
Time Period: PM Peak Hour

Year 2013 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
TMC	59	0	34	0	0	0	0	892	76	25	752	0	1,838
SF													1.07
Average	63	0	36	0	0	0	0	954	81	27	805	0	1,966

Average Annual Growth Rate

	NB	SB	EB	WB
	4.25%	0.00%	4.25%	4.25%

Year 2014 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	66	0	38	0	0	0	0	995	84	28	839	0	2,050

Year 2019 Volume - Background

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	79	**0**	**45**	**0**	**0**	**0**	**0**	**1,197**	**102**	**34**	**1,010**	**0**	**2,467**

PDP Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													318
Distrib.	0%	1%	0%	0%	0%	0%	68%	0%	0%	0%	0%	31%	100%
Volume	0	3	0	0	0	0	216	0	0	0	0	98	317
Ountbound													368
Distrib.	0%	0%	0%	31%	1%	68%	0%	0%	0%	0%	0%	0%	100%
Volume	0	0	0	114	4	250	0	0	0	0	0	0	368
Total	**0**	**3**	**0**	**114**	**4**	**250**	**216**	**0**	**0**	**0**	**0**	**98**	**685**

Pass-By Captured

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
from West	0	0	0	26	0	0	26	-26	0	0	0	0	**26**
from East	0	0	0	0	0	22	0	0	0	0	-22	22	**22**
Total	**0**	**0**	**0**	**26**	**0**	**22**	**26**	**-26**	**0**	**0**	**-22**	**22**	**48**

2019 Total Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	79	**3**	**45**	**140**	**4**	**272**	**242**	**1,171**	**102**	**34**	**988**	**120**	**3,200**

Intersection: SR A1A at I-95 Ramps
Time Period: AM Peak Hour

Year 2013 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
TMC	35	0	387	43	0	54	65	356	177	805	194	59	2,175
SF													1.07
Average	37	0	414	46	0	58	70	381	189	861	208	63	2,327

Average Annual Growth Rate

	NB	SB	EB	WB
	5.44%	7.79%	6.39%	4.25%

Year 2014 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	39	0	437	50	0	63	74	405	201	898	217	66	2,450

Year 2024 Volume - Background

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	59	**0**	**662**	**85**	**0**	**108**	**119**	**649**	**322**	**1,264**	**305**	**92**	**3,665**

PDP Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													847
Distrib.	0%	0%	52%	3%	0%	0%	0%	13%	0%	0%	0%	0%	68%
Volume	0	0	440	25	0	0	0	110	0	0	0	0	575
Ountbound													699
Distrib.	0%	0%	0%	0%	0%	0%	0%	0%	0%	52%	13%	3%	68%
Volume	0	0	0	0	0	0	0	0	0	363	91	21	475
Total	**0**	**0**	**440**	**25**	**0**	**0**	**0**	**110**	**0**	**363**	**91**	**21**	**1,050**

2024 Total Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	59	**0**	**1,102**	**110**	**0**	**108**	**119**	**759**	**322**	**1,627**	**396**	**113**	**4,715**

Intersection: SR A1A at I-95 Ramps
Time Period: PM Peak Hour

Year 2013 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
TMC	150	0	766	63	0	103	80	210	76	447	406	52	2,353
SF													1.07
Average	161	0	820	67	0	110	86	225	81	478	434	56	2,518

Average Annual Growth Rate

	NB	SB	EB	WB
	5.44%	7.79%	6.39%	4.25%

Year 2014 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	170	0	865	72	0	119	91	239	86	498	452	58	2,650

Year 2024 Volume - Background

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	257	**0**	**1,311**	**124**	**0**	**204**	**146**	**383**	**138**	**701**	**637**	**82**	**3,983**

PDP Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													814
Distrib.	0%	0%	52%	3%	0%	0%	0%	13%	0%	0%	0%	0%	68%
Volume	0	0	423	24	0	0	0	106	0	0	0	0	553
Ountbound													959
Distrib.	0%	0%	0%	0%	0%	0%	0%	0%	0%	52%	13%	3%	68%
Volume	0	0	0	0	0	0	0	0	0	499	125	29	653
Total	**0**	**0**	**423**	**24**	**0**	**0**	**0**	**106**	**0**	**499**	**125**	**29**	**1,206**

2024 Total Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	257	**0**	**1,734**	**148**	**0**	**204**	**146**	**489**	**138**	**1,200**	**762**	**111**	**5,189**

Intersection: SR A1A at West Project Driveway (Harper Chapel Rd.)
Time Period: AM Peak Hour

Year 2013 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
TMC	5	0	5	0	0	0	0	733	5	5	1,041	0	1,794
SF													1.07
Average	5	0	5	0	0	0	0	784	5	5	1,114	0	1,918

Average Annual Growth Rate

	NB	SB	EB	WB
	0.00%	0.00%	4.25%	4.25%

Year 2014 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	5	0	5	0	0	0	0	817	5	5	1,161	0	1,998

Year 2024 Volume - Background

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	5	**0**	**5**	**0**	**0**	**0**	**0**	**1,151**	**7**	**7**	**1,635**	**0**	**2,810**

PDP Volume (North)

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													563
Distrib.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	58.0%	0.0%	0.0%	0.0%	4.5%	72.5%
Volume	0	0	0	0	0	0	56	327	0	0	0	25	408
Ountbound													646
Distrib.	0.0%	0.0%	0.0%	4.5%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	58.0%	0.0%	72.5%
Volume	0	0	0	29	0	65	0	0	0	0	375	0	469
Total	**0**	**0**	**0**	**29**	**0**	**65**	**56**	**327**	**0**	**0**	**375**	**25**	**877**

PDP Volume (South)

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													284
Distrib.	0%	0%	0%	0%	0%	0%	0%	68%	0%	0%	0%	0%	68%
Volume	0	0	0	0	0	0	0	193	0	0	0	0	193
Ountbound													53
Distrib.	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	68%	0%	68%
Volume	0	0	0	0	0	0	0	0	0	0	36	0	36
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**193**	**0**	**0**	**36**	**0**	**229**

2024 Total Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	5	**0**	**5**	**29**	**0**	**65**	**56**	**1,671**	**7**	**7**	**2,046**	**25**	**3,916**

HCS Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	5	**0**	**5**	**29**	**0**	**65**	**56**	**1,163**	**7**	**7**	**1,424**	**25**	**2,786**

Intersection: SR A1A at West Project Driveway (Harper Chapel Rd.)
Time Period: PM Peak Hour

Year 2013 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
TMC	5	0	5	0	0	0	0	968	5	5	811	0	1,799
SF													1.07
Average	5	0	5	0	0	0	0	1,036	5	5	868	0	1,924

Average Annual Growth Rate

	NB	SB	EB	WB
	0.00%	0.00%	4.25%	4.25%

Year 2014 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	5	0	5	0	0	0	0	1,080	5	5	905	0	2,005

Year 2024 Volume - Background

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	5	**0**	**5**	**0**	**0**	**0**	**0**	**1,520**	**7**	**7**	**1,274**	**0**	**2,818**

PDP Volume (North)

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													661
Distrib.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	58.0%	0.0%	0.0%	0.0%	4.5%	73%
Volume	0	0	0	0	0	0	66	383	0	0	0	30	479
Ountbound													624
Distrib.	0.0%	0.0%	0.0%	4.5%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	58.0%	0.0%	73%
Volume	0	0	0	28	0	62	0	0	0	0	362	0	452
Total	**0**	**0**	**0**	**28**	**0**	**62**	**66**	**383**	**0**	**0**	**362**	**30**	**931**

PDP Volume (South)

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													153
Distrib.	0%	0%	0%	0%	0%	0%	0%	68%	0%	0%	0%	0%	68%
Volume	0	0	0	0	0	0	0	104	0	0	0	0	104
Ountbound													335
Distrib.	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	68%	0%	68%
Volume	0	0	0	0	0	0	0	0	0	0	228	0	228
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**104**	**0**	**0**	**228**	**0**	**332**

2024 Total Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	5	**0**	**5**	**28**	**0**	**62**	**66**	**2,007**	**7**	**7**	**1,864**	**30**	**4,081**

HCS Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	5	**0**	**5**	**28**	**0**	**62**	**66**	**1,397**	**7**	**7**	**1,297**	**30**	**2,904**

Intersection: SR A1A at William Burgess Blvd.
Time Period: AM Peak Hour

Year 2013 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
TMC	42	0	8	0	0	0	0	668	65	51	999	0	1,833
SF													1.07
Average	45	0	9	0	0	0	0	715	70	55	1,069	0	1,963

Average Annual Growth Rate

	NB	SB	EB	WB
	4.25%	0.00%	4.25%	4.25%

Year 2014 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	47	0	9	0	0	0	0	745	73	57	1,114	0	2,045

Year 2024 Volume - Background

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	66	**0**	**13**	**0**	**0**	**0**	**0**	**1,049**	**103**	**81**	**1,569**	**0**	**2,881**

PDP Volume (North)

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													563
Distrib.	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	48.0%	10.0%	0.0%	0.0%	4.5%	22.0%	85.5%
Volume	0	6	0	0	0	0	270	56	0	0	25	123	480
Ountbound													646
Distrib.	0.0%	0.0%	0.0%	22.0%	1.0%	48.0%	0.0%	4.5%	0.0%	0.0%	10.0%	0.0%	86%
Volume	0	0	0	142	6	310	0	29	0	0	65	0	552
Total	**0**	**6**	**0**	**142**	**6**	**310**	**270**	**85**	**0**	**0**	**90**	**123**	**1,032**

PDP Volume (South)

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													284
Distrib.	0%	0%	0%	0%	0%	0%	0%	0%	68%	31%	0%	0%	99%
Volume	0	0	0	0	0	0	0	0	193	88	0	0	281
Ountbound													53
Distrib.	68%	0%	31%	0%	0%	0%	0%	0%	0%	0%	0%	0%	99%
Volume	36	0	16	0	0	0	0	0	0	0	0	0	52
Total	**36**	**0**	**16**	**0**	**0**	**0**	**0**	**0**	**193**	**88**	**0**	**0**	**333**

Pass-By Captured

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
North													
from West	0	0	0	11	0	0	11	-11	0	0	0	0	**11**
from East	0	0	0	0	0	16	0	0	0	0	-16	16	**16**
South													
from West	0	0	8	0	0	0	0	-8	8	0	0	0	**8**
from East	12	0	0	0	0	0	0	0	0	12	-12	0	**12**
Total	**12**	**0**	**8**	**11**	**0**	**16**	**11**	**-19**	**8**	**12**	**-28**	**16**	**47**

Internal Capture
North-South

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Res.-Off.	0	0	0	0	0	0	0	0	0	0	0	0	0
Res.-Ret.	0	3	0	0	4	0	0	0	0	0	0	0	7
Off.-Ret.	0	3	0	0	2	0	0	0	0	0	0	0	5
Total	**0**	**6**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**12**

2024 Total Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	114	**12**	**37**	**153**	**12**	**326**	**281**	**1,115**	**304**	**181**	**1,631**	**139**	**4,305**

Intersection: SR A1A at William Burgess Blvd.
Time Period: PM Peak Hour

Year 2013 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
TMC	59	0	34	0	0	0	0	892	76	25	752	0	1,838
SF													1.07
Average	63	0	36	0	0	0	0	954	81	27	805	0	1,966

Average Annual Growth Rate

	NB	SB	EB	WB
	4.25%	0.00%	4.25%	4.25%

Year 2014 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	66	0	38	0	0	0	0	995	84	28	839	0	2,050

Year 2024 Volume - Background

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	92	**0**	**53**	**0**	**0**	**0**	**0**	**1,400**	**119**	**40**	**1,181**	**0**	**2,885**

PDP Volume (North)

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													661
Distrib.	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	48.0%	10.0%	0.0%	0.0%	4.5%	22.0%	86%
Volume	0	7	0	0	0	0	317	66	0	0	30	144	564
Ountbound													624
Distrib.	0.0%	0.0%	0.0%	22.0%	1.0%	48.0%	0.0%	4.5%	0.0%	0.0%	10.0%	0.0%	86%
Volume	0	0	0	137	6	300	0	28	0	0	62	0	533
Total	**0**	**7**	**0**	**137**	**6**	**300**	**317**	**94**	**0**	**0**	**92**	**144**	**1,097**

PDP Volume (South)

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													153
Distrib.	0%	0%	0%	0%	0%	0%	0%	0%	68%	31%	0%	0%	99%
Volume	0	0	0	0	0	0	0	0	104	47	0	0	151
Ountbound													335
Distrib.	68%	0%	31%	0%	0%	0%	0%	0%	0%	0%	0%	0%	99%
Volume	228	0	104	0	0	0	0	0	0	0	0	0	332
Total	**228**	**0**	**104**	**0**	**0**	**0**	**0**	**0**	**104**	**47**	**0**	**0**	**483**

Pass-By Captured

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
North													
from West	0	0	0	56	0	0	56	-56	0	0	0	0	**56**
from East	0	0	0	0	0	46	0	0	0	0	-46	46	**46**
South													
from West	0	0	41	0	0	0	0	-41	41	0	0	0	**41**
from East	33	0	0	0	0	0	0	0	0	33	-33	0	**33**
Total	**33**	**0**	**41**	**56**	**0**	**46**	**56**	**-97**	**41**	**33**	**-79**	**46**	**176**

Internal Capture
North-South

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Res.-Off.	0	4	0	0	0	0	0	0	0	0	0	0	4
Res.-Ret.	0	28	0	0	19	0	0	0	0	0	0	0	47
Off.-Ret.	0	7	0	0	7	0	0	0	0	0	0	0	14
Total	**0**	**39**	**0**	**0**	**26**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**65**

2024 Total Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	353	**46**	**198**	**193**	**32**	**346**	**373**	**1,397**	**264**	**120**	**1,194**	**190**	**4,706**

Intersection: SR A1A at East Project Driveway (Sheriff's Office Complex)
Time Period: AM Peak Hour

Year 2013 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
TMC	5	0	5	0	0	0	0	676	5	5	1,050	0	1,746
SF													1.07
Average	5	0	5	0	0	0	0	723	5	5	1,124	0	1,867

Average Annual Growth Rate

	NB	SB	EB	WB
	0.00%	0.00%	4.25%	4.25%

Year 2014 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	5	0	5	0	0	0	0	754	5	5	1,172	0	1,946

Year 2024 Volume - Background

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	5	**0**	**5**	**0**	**0**	**0**	**0**	**1,061**	**7**	**7**	**1,649**	**0**	**2,734**

PDP Volume (North)

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													563
Distrib.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	26.5%	4.5%	41%
Volume	0	0	0	0	0	0	56	0	0	0	149	25	230
Ountbound													646
Distrib.	0.0%	0.0%	0.0%	4.5%	0.0%	10.0%	0.0%	26.5%	0.0%	0.0%	0.0%	0.0%	41%
Volume	0	0	0	29	0	65	0	171	0	0	0	0	265
Total	**0**	**0**	**0**	**29**	**0**	**65**	**56**	**171**	**0**	**0**	**149**	**25**	**495**

PDP Volume (South)

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													284
Distrib.	0%	0%	0%	0%	0%	0%	0%	31%	0%	0%	0%	0%	31%
Volume	0	0	0	0	0	0	0	88	0	0	0	0	88
Ountbound													53
Distrib.	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	31%	0%	31%
Volume	0	0	0	0	0	0	0	0	0	0	16	0	16
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**88**	**0**	**0**	**16**	**0**	**104**

2024 Total Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	5	**0**	**5**	**29**	**0**	**65**	**56**	**1,320**	**7**	**7**	**1,814**	**25**	**3,333**

HCS Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	5	**0**	**5**	**29**	**0**	**65**	**56**	**919**	**7**	**7**	**1,262**	**25**	**2,380**

Intersection: SR A1A at East Project Driveway (Sheriff's Office Complex)
Time Period: PM Peak Hour

Year 2013 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
TMC	5	0	5	0	0	0	0	926	5	5	777	0	1,723
SF													1.07
Average	5	0	5	0	0	0	0	991	5	5	831	0	1,842

Average Annual Growth Rate

	NB	SB	EB	WB
	0.00%	0.00%	4.25%	4.25%

Year 2014 Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	5	0	5	0	0	0	0	1,033	5	5	866	0	1,919

Year 2024 Volume - Background

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	5	**0**	**5**	**0**	**0**	**0**	**0**	**1,454**	**7**	**7**	**1,219**	**0**	**2,697**

PDP Volume (North)

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													661
Distrib.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	26.5%	4.5%	41%
Volume	0	0	0	0	0	0	66	0	0	0	175	30	271
Ountbound													624
Distrib.	0.0%	0.0%	0.0%	4.5%	0.0%	10.0%	0.0%	26.5%	0.0%	0.0%	0.0%	0.0%	41%
Volume	0	0	0	28	0	62	0	165	0	0	0	0	255
Total	**0**	**0**	**0**	**28**	**0**	**62**	**66**	**165**	**0**	**0**	**175**	**30**	**526**

PDP Volume (South)

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
Inbound													153
Distrib.	0%	0%	0%	0%	0%	0%	0%	31%	0%	0%	0%	0%	31%
Volume	0	0	0	0	0	0	0	47	0	0	0	0	47
Ountbound													335
Distrib.	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	31%	0%	31%
Volume	0	0	0	0	0	0	0	0	0	0	104	0	104
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**47**	**0**	**0**	**104**	**0**	**151**

2024 Total Volume

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	5	**0**	**5**	**28**	**0**	**62**	**66**	**1,666**	**7**	**7**	**1,498**	**30**	**3,374**

HCS Volumes

	NB			SB			EB			WB			Total
	L	T	R	L	T	R	L	T	R	L	T	R	
	5	**0**	**5**	**28**	**0**	**62**	**66**	**1,159**	**7**	**7**	**1,043**	**30**	**2,412**

Existing Conditions

Level of Service Analysis Printouts

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*VHB*
Agency/Co.	*VHB*
Date Performed	*11/4/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Intersection	*SR200/A1A at William Burgess*
Jurisdiction	*Nassau County*
Analysis Year	*2014 Existing*

Project Description *TerraPointe PDP*

East/West Street: *SR200/A1A* | North/South Street: *William Burgess Blvd*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*745*	*73*	*57*	*1114*	
Peak-Hour Factor, PHF	*1.00*	*0.90*	*0.90*	*0.90*	*0.90*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*827*	*81*	*63*	*1237*	*0*
Percent Heavy Vehicles	*0*	--	--	*2*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*0*	*2*	*1*	*1*	*2*	*0*
Configuration		*T*	*R*	*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*47*		*9*			
Peak-Hour Factor, PHF	*0.90*	*1.00*	*0.90*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*52*	*0*	*10*	*0*	*0*	*0*
Percent Heavy Vehicles	*2*	*0*	*2*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*0*	*1*	*0*	*0*	*0*
Configuration	*L*		*R*			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*	*L*		*R*			
v (veh/h)		*63*	*52*		*10*			
C (m) (veh/h)		*745*	*221*		*636*			
v/c		*0.08*	*0.24*		*0.02*			
95% queue length		*0.28*	*0.89*		*0.05*			
Control Delay (s/veh)		*10.3*	*26.2*		*10.8*			
LOS		*B*	*D*		*B*			
Approach Delay (s/veh)	--	--	*23.7*					
Approach LOS	--	--	*C*					

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HCM Signalized Intersection Capacity Analysis
1: SR200/A1A & I-95 NB On Ramp

2014 Existing - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	74	455	0	0	1115	66	39	0	432	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0	5.0	5.0		5.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	1.00		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1612	3252			3406	1509	1656		1482			
Flt Permitted	0.11	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	191	3252			3406	1509	1656		1482			
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	81	500	0	0	1225	73	43	0	475	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	39	0	0	263	0	0	0
Lane Group Flow (vph)	81	500	0	0	1225	34	43	0	212	0	0	0
Heavy Vehicles (%)	12%	11%	2%	2%	6%	7%	9%	2%	9%	2%	2%	2%
Turn Type	pm+pt					Perm	custom		custom			
Protected Phases	7	4			8							
Permitted Phases	4					8	2		2			
Actuated Green, G (s)	40.7	40.7			30.6	30.6	14.9		14.9			
Effective Green, g (s)	40.7	40.7			30.6	30.6	14.9		14.9			
Actuated g/C Ratio	0.62	0.62			0.47	0.47	0.23		0.23			
Clearance Time (s)	5.0	5.0			5.0	5.0	5.0		5.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Grp Cap (vph)	229	2018			1589	704	376		337			
v/s Ratio Prot	c0.03	0.15			c0.36							
v/s Ratio Perm	0.19					0.02	0.03		c0.14			
v/c Ratio	0.35	0.25			0.77	0.05	0.11		0.63			
Uniform Delay, d1	8.6	5.6			14.6	9.6	20.1		22.9			
Progression Factor	1.00	1.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	0.9	0.1			2.4	0.0	0.1		3.7			
Delay (s)	9.5	5.6			17.0	9.6	20.3		26.5			
Level of Service	A	A			B	A	C		C			
Approach Delay (s)		6.2			16.5			26.0			0.0	
Approach LOS		A			B			C			A	

Intersection Summary			
HCM Average Control Delay	16.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	65.6	Sum of lost time (s)	15.0
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	479	201	898	256	0	0	0	0	50	0	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0	5.0	5.0					5.0		5.0
Lane Util. Factor		0.95	1.00	1.00	0.95					1.00		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		3282	1583	1770	2983					1556		1242
Flt Permitted		1.00	1.00	0.20	1.00					0.95		1.00
Satd. Flow (perm)		3282	1583	374	2983					1556		1242
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	510	214	955	272	0	0	0	0	53	0	67
RTOR Reduction (vph)	0	0	174	0	0	0	0	0	0	0	0	61
Lane Group Flow (vph)	0	510	40	955	272	0	0	0	0	53	0	6
Heavy Vehicles (%)	2%	10%	2%	2%	21%	2%	2%	2%	2%	16%	2%	30%
Turn Type			Perm	pm+pt						custom		custom
Protected Phases		4		3	8							
Permitted Phases			4	8						6		6
Actuated Green, G (s)		14.9	14.9	63.2	63.2					6.9		6.9
Effective Green, g (s)		14.9	14.9	63.2	63.2					6.9		6.9
Actuated g/C Ratio		0.19	0.19	0.79	0.79					0.09		0.09
Clearance Time (s)		5.0	5.0	5.0	5.0					5.0		5.0
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		611	294	1050	2354					134		107
v/s Ratio Prot		0.16		c0.49	0.09							
v/s Ratio Perm			0.03	c0.23						c0.03		0.00
v/c Ratio		0.83	0.14	0.91	0.12					0.40		0.05
Uniform Delay, d1		31.4	27.2	12.5	2.0					34.6		33.6
Progression Factor		1.00	1.00	1.00	1.00					1.00		1.00
Incremental Delay, d2		9.6	0.2	11.3	0.0					1.9		0.2
Delay (s)		41.0	27.4	23.9	2.0					36.5		33.8
Level of Service		D	C	C	A					D		C
Approach Delay (s)		37.0			19.0			0.0			35.0	
Approach LOS		D			B			A			D	

Intersection Summary			
HCM Average Control Delay	26.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	80.1	Sum of lost time (s)	10.0
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*VHB*
Agency/Co.	*VHB*
Date Performed	*11/4/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*SR200/A1A at William Burgess*
Jurisdiction	*Nassau County*
Analysis Year	*2014 Existing*

Project Description *TerraPointe PDP*

East/West Street: *SR200/A1A* | North/South Street: *William Burgess Blvd*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*995*	*84*	*28*	*839*	
Peak-Hour Factor, PHF	*1.00*	*0.90*	*0.90*	*0.90*	*0.90*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*1105*	*93*	*31*	*932*	*0*
Percent Heavy Vehicles	*0*	--	--	*2*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*0*	*2*	*1*	*1*	*2*	*0*
Configuration		*T*	*R*	*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*66*		*38*			
Peak-Hour Factor, PHF	*0.90*	*1.00*	*0.90*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*73*	*0*	*42*	*0*	*0*	*0*
Percent Heavy Vehicles	*2*	*0*	*2*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*0*	*1*	*0*	*0*	*0*
Configuration	*L*		*R*			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*	*L*		*R*			
v (veh/h)		*31*	*73*		*42*			
C (m) (veh/h)		*578*	*201*		*531*			
v/c		*0.05*	*0.36*		*0.08*			
95% queue length		*0.17*	*1.56*		*0.26*			
Control Delay (s/veh)		*11.6*	*32.8*		*12.4*			
LOS		*B*	*D*		*B*			
Approach Delay (s/veh)	--	--	*25.3*					
Approach LOS	--	--	*D*					

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HCM Signalized Intersection Capacity Analysis
1: SR200/A1A & I-95 NB On Ramp

2014 Existing - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	91	311	0	0	950	58	170	0	865	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0	5.0	5.0		5.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	1.00		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1347	3374			3471	1524	1752		1583			
Flt Permitted	0.11	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	153	3374			3471	1524	1752		1583			
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	102	349	0	0	1067	65	191	0	972	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	40	0	0	313	0	0	0
Lane Group Flow (vph)	102	349	0	0	1067	25	191	0	659	0	0	0
Heavy Vehicles (%)	34%	7%	2%	2%	4%	6%	3%	2%	2%	2%	2%	2%
Turn Type	pm+pt					Perm	custom		custom			
Protected Phases	7	4			8							
Permitted Phases	4					8	2		2			
Actuated Green, G (s)	42.4	42.4			32.1	32.1	30.7		30.7			
Effective Green, g (s)	42.4	42.4			32.1	32.1	30.7		30.7			
Actuated g/C Ratio	0.51	0.51			0.39	0.39	0.37		0.37			
Clearance Time (s)	5.0	5.0			5.0	5.0	5.0		5.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Grp Cap (vph)	154	1722			1341	589	647		585			
v/s Ratio Prot	c0.04	0.10			c0.31							
v/s Ratio Perm	0.30					0.02	0.11		c0.42			
v/c Ratio	0.66	0.20			0.80	0.04	0.30		1.13			
Uniform Delay, d1	15.1	11.1			22.6	15.9	18.5		26.2			
Progression Factor	1.00	1.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	10.2	0.1			3.4	0.0	0.3		76.9			
Delay (s)	25.3	11.2			26.0	15.9	18.8		103.1			
Level of Service	C	B			C	B	B		F			
Approach Delay (s)		14.4			25.4			89.3			0.0	
Approach LOS		B			C			F			A	

Intersection Summary			
HCM Average Control Delay	50.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	83.1	Sum of lost time (s)	15.0
Intersection Capacity Utilization	70.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	330	86	498	622	0	0	0	0	72	0	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0	5.0	5.0					5.0		5.0
Lane Util. Factor		0.95	1.00	1.00	0.95					1.00		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		3139	1583	1703	3505					1752		1392
Flt Permitted		1.00	1.00	0.39	1.00					0.95		1.00
Satd. Flow (perm)		3139	1583	696	3505					1752		1392
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	347	91	524	655	0	0	0	0	76	0	125
RTOR Reduction (vph)	0	0	67	0	0	0	0	0	0	0	0	109
Lane Group Flow (vph)	0	347	24	524	655	0	0	0	0	76	0	16
Heavy Vehicles (%)	2%	15%	2%	6%	3%	2%	2%	2%	2%	3%	2%	16%
Turn Type			Perm	pm+pt						custom		custom
Protected Phases		4		3	8							
Permitted Phases			4	8						6		6
Actuated Green, G (s)		12.5	12.5	31.5	31.5					6.1		6.1
Effective Green, g (s)		12.5	12.5	31.5	31.5					6.1		6.1
Actuated g/C Ratio		0.26	0.26	0.66	0.66					0.13		0.13
Clearance Time (s)		5.0	5.0	5.0	5.0					5.0		5.0
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		824	416	757	2319					225		178
v/s Ratio Prot		0.11		c0.20	0.19							
v/s Ratio Perm			0.02	c0.25						c0.04		0.01
v/c Ratio		0.42	0.06	0.69	0.28					0.34		0.09
Uniform Delay, d1		14.6	13.1	4.5	3.3					18.9		18.3
Progression Factor		1.00	1.00	1.00	1.00					1.00		1.00
Incremental Delay, d2		0.3	0.1	2.7	0.1					0.9		0.2
Delay (s)		14.9	13.2	7.2	3.4					19.8		18.5
Level of Service		B	B	A	A					B		B
Approach Delay (s)		14.5			5.1			0.0			19.0	
Approach LOS		B			A			A			B	

Intersection Summary			
HCM Average Control Delay	8.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	47.6	Sum of lost time (s)	10.0
Intersection Capacity Utilization	70.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Phase 1 - 2017

Level of Service Analysis Printouts

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*VHB*
Agency/Co.	*VHB*
Date Performed	*11/4/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Intersection	*SR200/A1A at William Burgess*
Jurisdiction	*Nassau County*
Analysis Year	*2017 Phase 1*

Project Description *TerraPointe PDP*

East/West Street: *SR200/A1A* | North/South Street: *William Burgess Blvd*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*135*	*583*	*82*	*64*	*871*	*60*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*150*	*647*	*91*	*71*	*967*	*66*
Percent Heavy Vehicles	*2*	--	--	*2*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*1*	*1*	*2*	*1*
Configuration	*L*	*T*	*R*	*L*	*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*53*	*2*	*11*	*50*	*2*	*110*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*58*	*2*	*12*	*55*	*2*	*122*
Percent Heavy Vehicles	*2*	*2*	*2*	*2*	*2*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*1*	*1*	*0*
Configuration	*L*		*TR*	*L*		*TR*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*	*L*	*L*		*TR*	*L*		*TR*
v (veh/h)	*150*	*71*	*58*		*14*	*55*		*124*
C (m) (veh/h)	*668*	*864*	*106*		*320*	*124*		*542*
v/c	*0.22*	*0.08*	*0.55*		*0.04*	*0.44*		*0.23*
95% queue length	*0.86*	*0.27*	*2.55*		*0.14*	*1.95*		*0.88*
Control Delay (s/veh)	*11.9*	*9.5*	*74.0*		*16.8*	*55.4*		*13.6*
LOS	*B*	*A*	*F*		*C*	*F*		*B*
Approach Delay (s/veh)	--	--	*62.9*			*26.4*		
Approach LOS	--	--	*F*			*D*		

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HCM Signalized Intersection Capacity Analysis
3: SR200/A1A WB & SR200/A1A EB

2017 Phase 1 - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	1355	0	0	0	0	0	570	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					6.0						6.0	
Lane Util. Factor					0.86						0.91	
Frt					1.00						1.00	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					6166						4673	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					6166						4673	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	1473	0	0	0	0	0	620	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1473	0	0	0	0	0	620	0
Heavy Vehicles (%)	2%	2%	2%	2%	6%	2%	2%	2%	2%	2%	11%	2%
Turn Type												
Protected Phases					1						2	
Permitted Phases												
Actuated Green, G (s)					51.0						37.0	
Effective Green, g (s)					51.0						37.0	
Actuated g/C Ratio					0.51						0.37	
Clearance Time (s)					6.0						6.0	
Vehicle Extension (s)					3.0						3.0	
Lane Grp Cap (vph)					3145						1729	
v/s Ratio Prot					c0.24						c0.13	
v/s Ratio Perm												
v/c Ratio					0.47						0.36	
Uniform Delay, d1					15.8						22.9	
Progression Factor					1.00						0.41	
Incremental Delay, d2					0.1						0.6	
Delay (s)					15.9						10.0	
Level of Service					B						B	
Approach Delay (s)		0.0			15.9			0.0			10.0	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM Average Control Delay	14.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	40.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Volume (vph)	0	592	0	0	66	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0	
Lane Util. Factor		0.86			0.97	
Frt		1.00			1.00	
Flt Protected		1.00			0.95	
Satd. Flow (prot)		5942			3019	
Flt Permitted		1.00			0.95	
Satd. Flow (perm)		5942			3019	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	643	0	0	72	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	643	0	0	72	0
Heavy Vehicles (%)	2%	10%	2%	2%	16%	2%
Turn Type						
Protected Phases		2			1	
Permitted Phases						
Actuated Green, G (s)		37.0			51.0	
Effective Green, g (s)		37.0			51.0	
Actuated g/C Ratio		0.37			0.51	
Clearance Time (s)		6.0			6.0	
Vehicle Extension (s)		3.0			3.0	
Lane Grp Cap (vph)		2199			1540	
v/s Ratio Prot		c0.11			c0.02	
v/s Ratio Perm						
v/c Ratio		0.29			0.05	
Uniform Delay, d1		22.3			12.3	
Progression Factor		0.11			1.00	
Incremental Delay, d2		0.3			0.0	
Delay (s)		2.8			12.3	
Level of Service		A			B	
Approach Delay (s)		2.8	0.0		12.3	
Approach LOS		A	A		B	

Intersection Summary			
HCM Average Control Delay	3.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.15		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	28.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	570	0	0	0	0	602
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0					6.0
Lane Util. Factor	0.91					0.76
Frt	1.00					0.85
Flt Protected	1.00					1.00
Satd. Flow (prot)	4673					3378
Flt Permitted	1.00					1.00
Satd. Flow (perm)	4673					3378
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	620	0	0	0	0	654
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	620	0	0	0	0	654
Heavy Vehicles (%)	11%	2%	2%	2%	2%	9%
Turn Type						custom
Protected Phases	2					1
Permitted Phases						
Actuated Green, G (s)	37.0					51.0
Effective Green, g (s)	37.0					51.0
Actuated g/C Ratio	0.37					0.51
Clearance Time (s)	6.0					6.0
Vehicle Extension (s)	3.0					3.0
Lane Grp Cap (vph)	1729					1723
v/s Ratio Prot	c0.13					c0.19
v/s Ratio Perm						
v/c Ratio	0.36					0.38
Uniform Delay, d1	22.9					14.9
Progression Factor	0.06					1.00
Incremental Delay, d2	0.6					0.1
Delay (s)	2.0					15.0
Level of Service	A					B
Approach Delay (s)	2.0			0.0	15.0	
Approach LOS	A			A	B	

Intersection Summary			
HCM Average Control Delay	8.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	40.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (vph)	0	0	0	1355	45	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0	
Lane Util. Factor				0.86	0.97	
Frt				1.00	1.00	
Flt Protected				1.00	0.95	
Satd. Flow (prot)				6166	3213	
Flt Permitted				1.00	0.95	
Satd. Flow (perm)				6166	3213	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	1473	49	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1473	49	0
Heavy Vehicles (%)	2%	2%	2%	6%	9%	2%
Turn Type						
Protected Phases				1	2	
Permitted Phases						
Actuated Green, G (s)				51.0	37.0	
Effective Green, g (s)				51.0	37.0	
Actuated g/C Ratio				0.51	0.37	
Clearance Time (s)				6.0	6.0	
Vehicle Extension (s)				3.0	3.0	
Lane Grp Cap (vph)				3145	1189	
v/s Ratio Prot				c0.24	c0.02	
v/s Ratio Perm						
v/c Ratio				0.47	0.04	
Uniform Delay, d1				15.8	20.2	
Progression Factor				0.11	1.00	
Incremental Delay, d2				0.1	0.1	
Delay (s)				1.9	20.2	
Level of Service				A	C	
Approach Delay (s)	0.0			1.9	20.2	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	2.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	39.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	592	0	0	0	0	0	309	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						6.0				
Lane Util. Factor		0.86						0.95				
Frt		1.00						1.00				
Flt Protected		1.00						1.00				
Satd. Flow (prot)		5942						2983				
Flt Permitted		1.00						1.00				
Satd. Flow (perm)		5942						2983				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	643	0	0	0	0	0	336	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	643	0	0	0	0	0	336	0	0	0	0
Heavy Vehicles (%)	2%	10%	2%	2%	2%	2%	2%	21%	2%	2%	2%	2%
Turn Type												
Protected Phases		2						1				
Permitted Phases												
Actuated Green, G (s)		37.0						51.0				
Effective Green, g (s)		37.0						51.0				
Actuated g/C Ratio		0.37						0.51				
Clearance Time (s)		6.0						6.0				
Vehicle Extension (s)		3.0						3.0				
Lane Grp Cap (vph)		2199						1521				
v/s Ratio Prot		c0.11						c0.11				
v/s Ratio Perm												
v/c Ratio		0.29						0.22				
Uniform Delay, d1		22.3						13.5				
Progression Factor		1.00						0.56				
Incremental Delay, d2		0.3						0.1				
Delay (s)		22.6						7.7				
Level of Service		C						A				
Approach Delay (s)		22.6			0.0			7.7			0.0	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM Average Control Delay	17.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	30.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations			↑↑			↱
Volume (vph)	0	0	309	0	0	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.0			6.0
Lane Util. Factor			0.95			1.00
Frt			1.00			0.86
Flt Protected			1.00			1.00
Satd. Flow (prot)			2983			1264
Flt Permitted			1.00			1.00
Satd. Flow (perm)			2983			1264
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	336	0	0	83
RTOR Reduction (vph)	0	0	0	0	0	52
Lane Group Flow (vph)	0	0	336	0	0	31
Heavy Vehicles (%)	2%	2%	21%	2%	2%	30%
Turn Type						custom
Protected Phases			1			
Permitted Phases						2
Actuated Green, G (s)			51.0			37.0
Effective Green, g (s)			51.0			37.0
Actuated g/C Ratio			0.51			0.37
Clearance Time (s)			6.0			6.0
Vehicle Extension (s)			3.0			3.0
Lane Grp Cap (vph)			1521			468
v/s Ratio Prot			c0.11			
v/s Ratio Perm						c0.02
v/c Ratio			0.22			0.07
Uniform Delay, d1			13.5			20.3
Progression Factor			0.08			1.00
Incremental Delay, d2			0.1			0.3
Delay (s)			1.1			20.6
Level of Service			A			C
Approach Delay (s)		0.0	1.1		20.6	
Approach LOS		A	A		C	

Intersection Summary			
HCM Average Control Delay	5.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.16		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	30.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	135	837	82	64	1251	60	53	2	11	50	2	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.87		1.00	0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	4759	1568	1770	4848	1583	1770	1623		1770	1588	
Flt Permitted	0.10	1.00	1.00	0.29	1.00	1.00	0.68	1.00		0.52	1.00	
Satd. Flow (perm)	185	4759	1568	535	4848	1583	1262	1623		971	1588	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	150	930	91	71	1390	67	59	2	12	56	2	122
RTOR Reduction (vph)	0	0	49	0	0	40	0	11	0	0	101	0
Lane Group Flow (vph)	150	930	42	71	1390	27	59	3	0	56	23	0
Heavy Vehicles (%)	2%	9%	3%	2%	7%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8			4		
Actuated Green, G (s)	51.6	40.6	40.6	41.3	35.3	35.3	17.4	10.8		26.8	15.5	
Effective Green, g (s)	51.6	40.6	40.6	41.3	35.3	35.3	17.4	10.8		26.8	15.5	
Actuated g/C Ratio	0.58	0.46	0.46	0.47	0.40	0.40	0.20	0.12		0.30	0.17	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	310	2178	718	333	1929	630	285	198		395	277	
v/s Ratio Prot	c0.06	0.20		0.01	c0.29		c0.02	0.00		c0.02	0.01	
v/s Ratio Perm	0.22		0.03	0.08		0.02	c0.03			0.02		
v/c Ratio	0.48	0.43	0.06	0.21	0.72	0.04	0.21	0.02		0.14	0.08	
Uniform Delay, d1	12.6	16.2	13.4	13.2	22.5	16.3	29.6	34.3		22.4	30.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.2	0.1	0.0	0.3	1.4	0.0	0.4	0.0		0.2	0.1	
Delay (s)	13.8	16.3	13.4	13.5	23.9	16.4	30.0	34.3		22.6	30.8	
Level of Service	B	B	B	B	C	B	C	C		C	C	
Approach Delay (s)		15.8			23.1			30.8			28.2	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM Average Control Delay	20.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	88.7	Sum of lost time (s)	25.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*VHB*
Agency/Co.	*VHB*
Date Performed	*11/4/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*SR200/A1A at William Burgess*
Jurisdiction	*Nassau County*
Analysis Year	*2017 Phase 1*

Project Description *TerraPointe PDP*

East/West Street: *SR200/A1A* | North/South Street: *William Burgess Blvd*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*40*	*777*	*95*	*32*	*656*	*17*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*44*	*863*	*105*	*35*	*728*	*18*
Percent Heavy Vehicles	*2*	--	--	*2*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*1*	*1*	*2*	*1*
Configuration	*L*	*T*	*R*	*L*	*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*74*	*1*	*42*	*19*	*1*	*41*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*82*	*1*	*46*	*21*	*1*	*45*
Percent Heavy Vehicles	*2*	*2*	*2*	*2*	*2*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*1*	*1*	*0*
Configuration	*L*		*TR*	*L*		*TR*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*	*L*	*L*		*TR*	*L*		*TR*
v (veh/h)	*44*	*35*	*82*		*47*	*21*		*46*
C (m) (veh/h)	*858*	*707*	*190*		*591*	*210*		*636*
v/c	*0.05*	*0.05*	*0.43*		*0.08*	*0.10*		*0.07*
95% queue length	*0.16*	*0.16*	*1.99*		*0.26*	*0.33*		*0.23*
Control Delay (s/veh)	*9.4*	*10.4*	*37.6*		*11.6*	*24.0*		*11.1*
LOS	*A*	*B*	*E*		*B*	*C*		*B*
Approach Delay (s/veh)	--	--	*28.1*			*15.2*		
Approach LOS	--	--	*D*			*C*		

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HCS+™ Version 5.6 Generated: 11/6/2014 7:25 AM

HCM Signalized Intersection Capacity Analysis
3: SR200/A1A WB & SR200/A1A EB

2017 Phase 1 - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑						↑↑↑↑	
Volume (vph)	0	0	0	0	1107	0	0	0	0	0	381	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					6.0						6.0	
Lane Util. Factor					0.86						0.91	
Frt					1.00						1.00	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					6285						4848	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					6285						4848	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	1203	0	0	0	0	0	414	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1203	0	0	0	0	0	414	0
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%	2%	2%	2%	2%	7%	2%
Turn Type												
Protected Phases					1						2	
Permitted Phases												
Actuated Green, G (s)					51.0						37.0	
Effective Green, g (s)					51.0						37.0	
Actuated g/C Ratio					0.51						0.37	
Clearance Time (s)					6.0						6.0	
Vehicle Extension (s)					3.0						3.0	
Lane Grp Cap (vph)					3205						1794	
v/s Ratio Prot					c0.19						c0.09	
v/s Ratio Perm												
v/c Ratio					0.38						0.23	
Uniform Delay, d1					14.8						21.7	
Progression Factor					1.00						0.58	
Incremental Delay, d2					0.1						0.3	
Delay (s)					14.9						13.0	
Level of Service					B						B	
Approach Delay (s)		0.0			14.9			0.0			13.0	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM Average Control Delay	14.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	36.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Volume (vph)	0	399	0	0	90	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0	
Lane Util. Factor		0.86			0.97	
Frt		1.00			1.00	
Flt Protected		1.00			0.95	
Satd. Flow (prot)		5683			3400	
Flt Permitted		1.00			0.95	
Satd. Flow (perm)		5683			3400	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	434	0	0	98	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	434	0	0	98	0
Heavy Vehicles (%)	2%	15%	2%	2%	3%	2%
Turn Type						
Protected Phases		2			1	
Permitted Phases						
Actuated Green, G (s)		37.0			51.0	
Effective Green, g (s)		37.0			51.0	
Actuated g/C Ratio		0.37			0.51	
Clearance Time (s)		6.0			6.0	
Vehicle Extension (s)		3.0			3.0	
Lane Grp Cap (vph)		2103			1734	
v/s Ratio Prot		c0.08			c0.03	
v/s Ratio Perm						
v/c Ratio		0.21			0.06	
Uniform Delay, d1		21.5			12.4	
Progression Factor		0.12			1.00	
Incremental Delay, d2		0.2			0.0	
Delay (s)		2.7			12.4	
Level of Service		A			B	
Approach Delay (s)		2.7	0.0		12.4	
Approach LOS		A	A		B	

Intersection Summary			
HCM Average Control Delay	4.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.12		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	30.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	381	0	0	0	0	1029
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0					6.0
Lane Util. Factor	0.91					0.76
Frt	1.00					0.85
Flt Protected	1.00					1.00
Satd. Flow (prot)	4848					3610
Flt Permitted	1.00					1.00
Satd. Flow (perm)	4848					3610
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	414	0	0	0	0	1118
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	414	0	0	0	0	1118
Heavy Vehicles (%)	7%	2%	2%	2%	2%	2%
Turn Type						custom
Protected Phases	2					1
Permitted Phases						
Actuated Green, G (s)	37.0					51.0
Effective Green, g (s)	37.0					51.0
Actuated g/C Ratio	0.37					0.51
Clearance Time (s)	6.0					6.0
Vehicle Extension (s)	3.0					3.0
Lane Grp Cap (vph)	1794					1841
v/s Ratio Prot	c0.09					c0.31
v/s Ratio Perm						
v/c Ratio	0.23					0.61
Uniform Delay, d1	21.7					17.4
Progression Factor	0.06					1.00
Incremental Delay, d2	0.3					0.6
Delay (s)	1.5					18.0
Level of Service	A					B
Approach Delay (s)	1.5			0.0	18.0	
Approach LOS	A			A	B	

Intersection Summary			
HCM Average Control Delay	13.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	44.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (vph)	0	0	0	1107	196	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0	
Lane Util. Factor				0.86	0.97	
Frt				1.00	1.00	
Flt Protected				1.00	0.95	
Satd. Flow (prot)				6285	3400	
Flt Permitted				1.00	0.95	
Satd. Flow (perm)				6285	3400	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	1203	213	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1203	213	0
Heavy Vehicles (%)	2%	2%	2%	4%	3%	2%
Turn Type						
Protected Phases				1	2	
Permitted Phases						
Actuated Green, G (s)				51.0	37.0	
Effective Green, g (s)				51.0	37.0	
Actuated g/C Ratio				0.51	0.37	
Clearance Time (s)				6.0	6.0	
Vehicle Extension (s)				3.0	3.0	
Lane Grp Cap (vph)				3205	1258	
v/s Ratio Prot				c0.19	c0.06	
v/s Ratio Perm						
v/c Ratio				0.38	0.17	
Uniform Delay, d1				14.8	21.2	
Progression Factor				0.12	1.00	
Incremental Delay, d2				0.1	0.3	
Delay (s)				1.9	21.5	
Level of Service				A	C	
Approach Delay (s)	0.0			1.9	21.5	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	4.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	36.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	399	0	0	0	0	0	712	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						6.0				
Lane Util. Factor		0.86						0.95				
Frt		1.00						1.00				
Flt Protected		1.00						1.00				
Satd. Flow (prot)		5683						3505				
Flt Permitted		1.00						1.00				
Satd. Flow (perm)		5683						3505				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	434	0	0	0	0	0	774	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	434	0	0	0	0	0	774	0	0	0	0
Heavy Vehicles (%)	2%	15%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%
Turn Type												
Protected Phases		2						1				
Permitted Phases												
Actuated Green, G (s)		37.0						51.0				
Effective Green, g (s)		37.0						51.0				
Actuated g/C Ratio		0.37						0.51				
Clearance Time (s)		6.0						6.0				
Vehicle Extension (s)		3.0						3.0				
Lane Grp Cap (vph)		2103						1788				
v/s Ratio Prot		c0.08						c0.22				
v/s Ratio Perm												
v/c Ratio		0.21						0.43				
Uniform Delay, d1		21.5						15.4				
Progression Factor		1.00						0.73				
Incremental Delay, d2		0.2						0.2				
Delay (s)		21.7						11.4				
Level of Service		C						B				
Approach Delay (s)		21.7			0.0			11.4			0.0	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM Average Control Delay	15.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	39.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	0	0	712	0	0	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.0			6.0
Lane Util. Factor			0.95			1.00
Frt			1.00			0.86
Flt Protected			1.00			1.00
Satd. Flow (prot)			3505			1417
Flt Permitted			1.00			1.00
Satd. Flow (perm)			3505			1417
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	774	0	0	157
RTOR Reduction (vph)	0	0	0	0	0	93
Lane Group Flow (vph)	0	0	774	0	0	64
Heavy Vehicles (%)	2%	2%	3%	2%	2%	16%
Turn Type						custom
Protected Phases			1			
Permitted Phases						2
Actuated Green, G (s)			51.0			37.0
Effective Green, g (s)			51.0			37.0
Actuated g/C Ratio			0.51			0.37
Clearance Time (s)			6.0			6.0
Vehicle Extension (s)			3.0			3.0
Lane Grp Cap (vph)			1788			524
v/s Ratio Prot			c0.22			
v/s Ratio Perm						c0.05
v/c Ratio			0.43			0.12
Uniform Delay, d1			15.4			20.8
Progression Factor			0.06			1.00
Incremental Delay, d2			0.2			0.5
Delay (s)			1.0			21.3
Level of Service			A			C
Approach Delay (s)		0.0	1.0		21.3	
Approach LOS		A	A		C	

Intersection Summary			
HCM Average Control Delay	4.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	39.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	1116	95	32	942	17	74	1	42	19	1	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	4940	1583	1770	4759	1583	1770	1589		1770	1589	
Flt Permitted	0.22	1.00	1.00	0.16	1.00	1.00	0.41	1.00		0.73	1.00	
Satd. Flow (perm)	405	4940	1583	299	4759	1583	760	1589		1352	1589	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.92
Adj. Flow (vph)	44	1240	106	36	1047	19	82	1	47	21	1	45
RTOR Reduction (vph)	0	0	58	0	0	10	0	39	0	0	41	0
Lane Group Flow (vph)	44	1240	48	36	1047	9	82	9	0	21	5	0
Heavy Vehicles (%)	2%	5%	2%	2%	9%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8			4		
Actuated Green, G (s)	34.7	31.0	31.0	34.7	31.0	31.0	19.0	11.6		8.8	6.4	
Effective Green, g (s)	34.7	31.0	31.0	34.7	31.0	31.0	19.0	11.6		8.8	6.4	
Actuated g/C Ratio	0.51	0.45	0.45	0.51	0.45	0.45	0.28	0.17		0.13	0.09	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	278	2229	714	230	2147	714	322	268		188	148	
v/s Ratio Prot	c0.01	c0.25		0.01	0.22		c0.03	0.01		0.00	0.00	
v/s Ratio Perm	0.07		0.03	0.07		0.01	c0.04			0.01		
v/c Ratio	0.16	0.56	0.07	0.16	0.49	0.01	0.25	0.03		0.11	0.04	
Uniform Delay, d1	8.8	13.8	10.7	9.1	13.3	10.4	19.0	23.9		26.4	28.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	0.3	0.0	0.3	0.2	0.0	0.4	0.1		0.3	0.1	
Delay (s)	9.1	14.1	10.7	9.4	13.4	10.4	19.5	23.9		26.7	28.4	
Level of Service	A	B	B	A	B	B	B	C		C	C	
Approach Delay (s)		13.7			13.3			21.1			27.9	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	14.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	68.7	Sum of lost time (s)	15.0
Intersection Capacity Utilization	51.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Phase 2 - 2019

Level of Service Analysis Printouts

HCM Signalized Intersection Capacity Analysis
3: SR200/A1A WB & SR200/A1A EB

2019 Phase 2 - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑						↑↑↑	
Volume (vph)	0	0	0	0	1572	0	0	0	0	0	662	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					6.0						6.0	
Lane Util. Factor					0.86						0.91	
Frt					1.00						1.00	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					6166						4673	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					6166						4673	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	1709	0	0	0	0	0	720	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1709	0	0	0	0	0	720	0
Heavy Vehicles (%)	2%	2%	2%	2%	6%	2%	2%	2%	2%	2%	11%	2%
Turn Type												
Protected Phases					1						2	
Permitted Phases												
Actuated Green, G (s)					51.0						37.0	
Effective Green, g (s)					51.0						37.0	
Actuated g/C Ratio					0.51						0.37	
Clearance Time (s)					6.0						6.0	
Vehicle Extension (s)					3.0						3.0	
Lane Grp Cap (vph)					3145						1729	
v/s Ratio Prot					c0.28						c0.15	
v/s Ratio Perm												
v/c Ratio					0.54						0.42	
Uniform Delay, d1					16.6						23.5	
Progression Factor					1.00						0.41	
Incremental Delay, d2					0.2						0.7	
Delay (s)					16.8						10.4	
Level of Service					B						B	
Approach Delay (s)		0.0			16.8			0.0			10.4	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM Average Control Delay	14.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	45.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Volume (vph)	0	678	0	0	81	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0	
Lane Util. Factor		0.86			0.97	
Frt		1.00			1.00	
Flt Protected		1.00			0.95	
Satd. Flow (prot)		5942			3019	
Flt Permitted		1.00			0.95	
Satd. Flow (perm)		5942			3019	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	737	0	0	88	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	737	0	0	88	0
Heavy Vehicles (%)	2%	10%	2%	2%	16%	2%
Turn Type						
Protected Phases		2			1	
Permitted Phases						
Actuated Green, G (s)		37.0			51.0	
Effective Green, g (s)		37.0			51.0	
Actuated g/C Ratio		0.37			0.51	
Clearance Time (s)		6.0			6.0	
Vehicle Extension (s)		3.0			3.0	
Lane Grp Cap (vph)		2199			1540	
v/s Ratio Prot		c0.12			c0.03	
v/s Ratio Perm						
v/c Ratio		0.34			0.06	
Uniform Delay, d1		22.7			12.4	
Progression Factor		0.11			1.00	
Incremental Delay, d2		0.4			0.0	
Delay (s)		2.9			12.4	
Level of Service		A			B	
Approach Delay (s)		2.9	0.0		12.4	
Approach LOS		A	A		B	

Intersection Summary			
HCM Average Control Delay	3.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.17		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	28.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	662	0	0	0	0	766
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0					6.0
Lane Util. Factor	0.91					0.76
Frt	1.00					0.85
Flt Protected	1.00					1.00
Satd. Flow (prot)	4673					3378
Flt Permitted	1.00					1.00
Satd. Flow (perm)	4673					3378
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	720	0	0	0	0	833
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	720	0	0	0	0	833
Heavy Vehicles (%)	11%	2%	2%	2%	2%	9%
Turn Type						custom
Protected Phases	2					1
Permitted Phases						
Actuated Green, G (s)	37.0					51.0
Effective Green, g (s)	37.0					51.0
Actuated g/C Ratio	0.37					0.51
Clearance Time (s)	6.0					6.0
Vehicle Extension (s)	3.0					3.0
Lane Grp Cap (vph)	1729					1723
v/s Ratio Prot	c0.15					c0.25
v/s Ratio Perm						
v/c Ratio	0.42					0.48
Uniform Delay, d1	23.5					15.9
Progression Factor	0.06					1.00
Incremental Delay, d2	0.7					0.2
Delay (s)	2.1					16.1
Level of Service	A					B
Approach Delay (s)	2.1			0.0	16.1	
Approach LOS	A			A	B	

Intersection Summary			
HCM Average Control Delay	9.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	45.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (vph)	0	0	0	1572	49	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0	
Lane Util. Factor				0.86	0.97	
Frt				1.00	1.00	
Flt Protected				1.00	0.95	
Satd. Flow (prot)				6166	3213	
Flt Permitted				1.00	0.95	
Satd. Flow (perm)				6166	3213	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	1709	53	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1709	53	0
Heavy Vehicles (%)	2%	2%	2%	6%	9%	2%
Turn Type						
Protected Phases				1	2	
Permitted Phases						
Actuated Green, G (s)				51.0	37.0	
Effective Green, g (s)				51.0	37.0	
Actuated g/C Ratio				0.51	0.37	
Clearance Time (s)				6.0	6.0	
Vehicle Extension (s)				3.0	3.0	
Lane Grp Cap (vph)				3145	1189	
v/s Ratio Prot				c0.28	c0.02	
v/s Ratio Perm						
v/c Ratio				0.54	0.04	
Uniform Delay, d1				16.6	20.2	
Progression Factor				0.11	1.00	
Incremental Delay, d2				0.2	0.1	
Delay (s)				2.0	20.2	
Level of Service				A	C	
Approach Delay (s)	0.0			2.0	20.2	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	2.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	42.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	678	0	0	0	0	0	356	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						6.0				
Lane Util. Factor		0.86						0.95				
Frt		1.00						1.00				
Flt Protected		1.00						1.00				
Satd. Flow (prot)		5942						2983				
Flt Permitted		1.00						1.00				
Satd. Flow (perm)		5942						2983				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	737	0	0	0	0	0	387	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	737	0	0	0	0	0	387	0	0	0	0
Heavy Vehicles (%)	2%	10%	2%	2%	2%	2%	2%	21%	2%	2%	2%	2%
Turn Type												
Protected Phases		2						1				
Permitted Phases												
Actuated Green, G (s)		37.0						51.0				
Effective Green, g (s)		37.0						51.0				
Actuated g/C Ratio		0.37						0.51				
Clearance Time (s)		6.0						6.0				
Vehicle Extension (s)		3.0						3.0				
Lane Grp Cap (vph)		2199						1521				
v/s Ratio Prot		c0.12						c0.13				
v/s Ratio Perm												
v/c Ratio		0.34						0.25				
Uniform Delay, d1		22.7						13.8				
Progression Factor		1.00						0.54				
Incremental Delay, d2		0.4						0.1				
Delay (s)		23.1						7.5				
Level of Service		C						A				
Approach Delay (s)		23.1			0.0			7.5			0.0	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM Average Control Delay	17.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	30.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	0	0	356	0	0	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.0			6.0
Lane Util. Factor			0.95			1.00
Frt			1.00			0.86
Flt Protected			1.00			1.00
Satd. Flow (prot)			2983			1264
Flt Permitted			1.00			1.00
Satd. Flow (perm)			2983			1264
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	387	0	0	92
RTOR Reduction (vph)	0	0	0	0	0	58
Lane Group Flow (vph)	0	0	387	0	0	34
Heavy Vehicles (%)	2%	2%	21%	2%	2%	30%
Turn Type						custom
Protected Phases			1			
Permitted Phases						2
Actuated Green, G (s)			51.0			37.0
Effective Green, g (s)			51.0			37.0
Actuated g/C Ratio			0.51			0.37
Clearance Time (s)			6.0			6.0
Vehicle Extension (s)			3.0			3.0
Lane Grp Cap (vph)			1521			468
v/s Ratio Prot			c0.13			
v/s Ratio Perm						c0.03
v/c Ratio			0.25			0.07
Uniform Delay, d1			13.8			20.4
Progression Factor			0.08			1.00
Incremental Delay, d2			0.1			0.3
Delay (s)			1.1			20.7
Level of Service			A			C
Approach Delay (s)		0.0	1.1		20.7	
Approach LOS		A	A		C	

Intersection Summary			
HCM Average Control Delay	4.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.18		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	30.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	290	891	88	69	1334	136	56	4	11	116	4	249
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.89		1.00	0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	4759	1568	1770	4848	1583	1770	1653		1770	1588	
Flt Permitted	0.09	1.00	1.00	0.29	1.00	1.00	0.95	1.00		0.43	1.00	
Satd. Flow (perm)	172	4759	1568	545	4848	1583	1774	1653		810	1588	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	305	938	93	73	1404	143	59	4	12	122	4	262
RTOR Reduction (vph)	0	0	47	0	0	87	0	11	0	0	219	0
Lane Group Flow (vph)	305	938	46	73	1404	56	59	5	0	122	47	0
Heavy Vehicles (%)	2%	9%	3%	2%	7%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8			4		
Actuated Green, G (s)	59.9	48.7	48.7	44.6	38.4	38.4	11.0	4.2		27.8	16.0	
Effective Green, g (s)	59.9	48.7	48.7	44.6	38.4	38.4	11.0	4.2		27.8	16.0	
Actuated g/C Ratio	0.61	0.50	0.50	0.46	0.39	0.39	0.11	0.04		0.28	0.16	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	375	2372	782	327	1905	622	199	71		413	260	
v/s Ratio Prot	c0.14	0.20		0.01	0.29		0.02	0.00		c0.06	0.03	
v/s Ratio Perm	c0.36		0.03	0.09		0.04	0.01			c0.03		
v/c Ratio	0.81	0.40	0.06	0.22	0.74	0.09	0.30	0.06		0.30	0.18	
Uniform Delay, d1	25.3	15.3	12.7	15.1	25.3	18.7	39.8	44.9		27.0	35.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	12.7	0.1	0.0	0.3	1.5	0.1	0.8	0.4		0.4	0.3	
Delay (s)	37.9	15.4	12.7	15.4	26.9	18.7	40.6	45.2		27.4	35.5	
Level of Service	D	B	B	B	C	B	D	D		C	D	
Approach Delay (s)		20.4			25.6			41.6			33.0	
Approach LOS		C			C			D			C	

Intersection Summary			
HCM Average Control Delay	24.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	97.7	Sum of lost time (s)	10.0
Intersection Capacity Utilization	80.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
3: SR200/A1A WB & SR200/A1A EB

2019 Phase 2 - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑						↑↑↑	
Volume (vph)	0	0	0	0	1384	0	0	0	0	0	460	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					6.0						6.0	
Lane Util. Factor					0.86						0.91	
Frt					1.00						1.00	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					6285						4848	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					6285						4848	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	1504	0	0	0	0	0	500	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1504	0	0	0	0	0	500	0
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%	2%	2%	2%	2%	7%	2%
Turn Type												
Protected Phases					1						2	
Permitted Phases												
Actuated Green, G (s)					51.0						37.0	
Effective Green, g (s)					51.0						37.0	
Actuated g/C Ratio					0.51						0.37	
Clearance Time (s)					6.0						6.0	
Vehicle Extension (s)					3.0						3.0	
Lane Grp Cap (vph)					3205						1794	
v/s Ratio Prot					c0.24						c0.10	
v/s Ratio Perm												
v/c Ratio					0.47						0.28	
Uniform Delay, d1					15.8						22.1	
Progression Factor					1.00						0.57	
Incremental Delay, d2					0.1						0.4	
Delay (s)					15.9						13.0	
Level of Service					B						B	
Approach Delay (s)		0.0			15.9			0.0			13.0	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM Average Control Delay	15.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	40.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Volume (vph)	0	471	0	0	108	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0	
Lane Util. Factor		0.86			0.97	
Frt		1.00			1.00	
Flt Protected		1.00			0.95	
Satd. Flow (prot)		5683			3400	
Flt Permitted		1.00			0.95	
Satd. Flow (perm)		5683			3400	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	512	0	0	117	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	512	0	0	117	0
Heavy Vehicles (%)	2%	15%	2%	2%	3%	2%
Turn Type						
Protected Phases		2			1	
Permitted Phases						
Actuated Green, G (s)		37.0			51.0	
Effective Green, g (s)		37.0			51.0	
Actuated g/C Ratio		0.37			0.51	
Clearance Time (s)		6.0			6.0	
Vehicle Extension (s)		3.0			3.0	
Lane Grp Cap (vph)		2103			1734	
v/s Ratio Prot		c0.09			c0.03	
v/s Ratio Perm						
v/c Ratio		0.24			0.07	
Uniform Delay, d1		21.8			12.4	
Progression Factor		0.11			1.00	
Incremental Delay, d2		0.3			0.0	
Delay (s)		2.8			12.4	
Level of Service		A			B	
Approach Delay (s)		2.8	0.0		12.4	
Approach LOS		A	A		B	

Intersection Summary			
HCM Average Control Delay	4.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.14		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	30.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	460	0	0	0	0	1253
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0					6.0
Lane Util. Factor	0.91					0.76
Frt	1.00					0.85
Flt Protected	1.00					1.00
Satd. Flow (prot)	4848					3610
Flt Permitted	1.00					1.00
Satd. Flow (perm)	4848					3610
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	500	0	0	0	0	1362
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	500	0	0	0	0	1362
Heavy Vehicles (%)	7%	2%	2%	2%	2%	2%
Turn Type						custom
Protected Phases	2					1
Permitted Phases						
Actuated Green, G (s)	37.0					51.0
Effective Green, g (s)	37.0					51.0
Actuated g/C Ratio	0.37					0.51
Clearance Time (s)	6.0					6.0
Vehicle Extension (s)	3.0					3.0
Lane Grp Cap (vph)	1794					1841
v/s Ratio Prot	c0.10					c0.38
v/s Ratio Perm						
v/c Ratio	0.28					0.74
Uniform Delay, d1	22.1					19.3
Progression Factor	0.06					1.00
Incremental Delay, d2	0.4					1.6
Delay (s)	1.6					20.9
Level of Service	A					C
Approach Delay (s)	1.6			0.0	20.9	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	15.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	49.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (vph)	0	0	0	1384	214	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0	
Lane Util. Factor				0.86	0.97	
Frt				1.00	1.00	
Flt Protected				1.00	0.95	
Satd. Flow (prot)				6285	3400	
Flt Permitted				1.00	0.95	
Satd. Flow (perm)				6285	3400	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	1504	233	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1504	233	0
Heavy Vehicles (%)	2%	2%	2%	4%	3%	2%
Turn Type						
Protected Phases				1	2	
Permitted Phases						
Actuated Green, G (s)				51.0	37.0	
Effective Green, g (s)				51.0	37.0	
Actuated g/C Ratio				0.51	0.37	
Clearance Time (s)				6.0	6.0	
Vehicle Extension (s)				3.0	3.0	
Lane Grp Cap (vph)				3205	1258	
v/s Ratio Prot				c0.24	c0.07	
v/s Ratio Perm						
v/c Ratio				0.47	0.19	
Uniform Delay, d1				15.8	21.3	
Progression Factor				0.11	1.00	
Incremental Delay, d2				0.1	0.3	
Delay (s)				1.9	21.6	
Level of Service				A	C	
Approach Delay (s)	0.0			1.9	21.6	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	4.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	40.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	471	0	0	0	0	0	807	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						6.0				
Lane Util. Factor		0.86						0.95				
Frt		1.00						1.00				
Flt Protected		1.00						1.00				
Satd. Flow (prot)		5683						3505				
Flt Permitted		1.00						1.00				
Satd. Flow (perm)		5683						3505				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	512	0	0	0	0	0	877	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	512	0	0	0	0	0	877	0	0	0	0
Heavy Vehicles (%)	2%	15%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%
Turn Type												
Protected Phases		2						1				
Permitted Phases												
Actuated Green, G (s)		37.0						51.0				
Effective Green, g (s)		37.0						51.0				
Actuated g/C Ratio		0.37						0.51				
Clearance Time (s)		6.0						6.0				
Vehicle Extension (s)		3.0						3.0				
Lane Grp Cap (vph)		2103						1788				
v/s Ratio Prot		c0.09						c0.25				
v/s Ratio Perm												
v/c Ratio		0.24						0.49				
Uniform Delay, d1		21.8						16.0				
Progression Factor		1.00						0.69				
Incremental Delay, d2		0.3						0.2				
Delay (s)		22.1						11.3				
Level of Service		C						B				
Approach Delay (s)		22.1			0.0			11.3			0.0	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM Average Control Delay	15.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	42.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	0	0	807	0	0	161
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.0			6.0
Lane Util. Factor			0.95			1.00
Frt			1.00			0.86
Flt Protected			1.00			1.00
Satd. Flow (prot)			3505			1417
Flt Permitted			1.00			1.00
Satd. Flow (perm)			3505			1417
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	877	0	0	175
RTOR Reduction (vph)	0	0	0	0	0	71
Lane Group Flow (vph)	0	0	877	0	0	104
Heavy Vehicles (%)	2%	2%	3%	2%	2%	16%
Turn Type						custom
Protected Phases			1			
Permitted Phases						2
Actuated Green, G (s)			51.0			37.0
Effective Green, g (s)			51.0			37.0
Actuated g/C Ratio			0.51			0.37
Clearance Time (s)			6.0			6.0
Vehicle Extension (s)			3.0			3.0
Lane Grp Cap (vph)			1788			524
v/s Ratio Prot			c0.25			
v/s Ratio Perm						c0.07
v/c Ratio			0.49			0.20
Uniform Delay, d1			16.0			21.4
Progression Factor			0.05			1.00
Incremental Delay, d2			0.2			0.9
Delay (s)			1.1			22.3
Level of Service			A			C
Approach Delay (s)		0.0	1.1		22.3	
Approach LOS		A	A		C	

Intersection Summary			
HCM Average Control Delay	4.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	42.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	242	1171	102	34	988	120	79	3	45	140	4	272
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.86		1.00	0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	4940	1583	1770	4759	1583	1770	1600		1770	1587	
Flt Permitted	0.15	1.00	1.00	0.21	1.00	1.00	0.62	1.00		0.41	1.00	
Satd. Flow (perm)	273	4940	1583	398	4759	1583	1164	1600		758	1587	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	255	1233	107	36	1040	126	83	3	47	147	4	286
RTOR Reduction (vph)	0	0	57	0	0	83	0	44	0	0	234	0
Lane Group Flow (vph)	255	1233	50	36	1040	43	83	6	0	147	56	0
Heavy Vehicles (%)	2%	5%	2%	2%	9%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8			4		
Actuated Green, G (s)	50.0	40.7	40.7	34.4	30.1	30.1	13.4	6.4		27.9	15.9	
Effective Green, g (s)	50.0	40.7	40.7	34.4	30.1	30.1	13.4	6.4		27.9	15.9	
Actuated g/C Ratio	0.57	0.46	0.46	0.39	0.34	0.34	0.15	0.07		0.32	0.18	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	409	2287	733	223	1630	542	226	116		431	287	
v/s Ratio Prot	c0.11	0.25		0.01	0.22		0.03	0.00		c0.06	0.04	
v/s Ratio Perm	c0.25		0.03	0.06		0.03	0.03			c0.04		
v/c Ratio	0.62	0.54	0.07	0.16	0.64	0.08	0.37	0.06		0.34	0.19	
Uniform Delay, d1	12.4	16.9	13.1	16.6	24.3	19.5	33.1	37.9		22.5	30.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.0	0.2	0.0	0.3	0.8	0.1	1.0	0.2		0.5	0.3	
Delay (s)	15.4	17.1	13.1	17.0	25.1	19.6	34.1	38.1		23.0	30.9	
Level of Service	B	B	B	B	C	B	C	D		C	C	
Approach Delay (s)		16.6			24.3			35.6			28.2	
Approach LOS		B			C			D			C	

Intersection Summary			
HCM Average Control Delay	21.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	87.9	Sum of lost time (s)	10.0
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Phase 3 - 2024

Level of Service Analysis Printouts

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*VHB*
Agency/Co.	*VHB*
Date Performed	*11/3/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*SR200/A1A at West Driveway*
Jurisdiction	*Nassau County*
Analysis Year	*2024 - Phase 3*

Project Description *TerraPointe PDP*

East/West Street: *SR200/A1A* | North/South Street: *West Driveway*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*56*	*1163*	*7*	*7*	*1424*	*25*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*58*	*1224*	*7*	*7*	*1498*	*26*
Percent Heavy Vehicles	*2*	--	--	*2*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*1*	*2*	*0*
Configuration	*L*	*T*	*TR*	*L*	*T*	*TR*
Upstream Signal		*0*			*1*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*5*	*0*	*5*	*29*	*0*	*65*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*5*	*0*	*5*	*30*	*0*	*68*
Percent Heavy Vehicles	*2*	*2*	*2*	*2*	*2*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration		*LTR*		*L*		*TR*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*	*L*		*LTR*		*L*		*TR*
v (veh/h)	*58*	*7*		*10*		*30*		*68*
C (m) (veh/h)	*523*	*562*		*184*		*125*		*770*
v/c	*0.11*	*0.01*		*0.05*		*0.24*		*0.09*
95% queue length	*0.37*	*0.04*		*0.17*		*0.88*		*0.29*
Control Delay (s/veh)	*12.7*	*11.5*		*25.7*		*42.7*		*10.1*
LOS	*B*	*B*		*D*		*E*		*B*
Approach Delay (s/veh)	--	--	*25.7*			*20.1*		
Approach LOS	--	--	*D*			*C*		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*VHB*
Agency/Co.	*VHB*
Date Performed	*11/3/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*SR200/A1A at East Driveway*
Jurisdiction	*Nassau County*
Analysis Year	*2024 - Phase 3*

Project Description *TerraPointe PDP*

East/West Street: *SR200/A1A* | North/South Street: *East Driveway*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*56*	*919*	*7*	*7*	*1262*	*25*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*58*	*967*	*7*	*7*	*1328*	*26*
Percent Heavy Vehicles	*2*	--	--	*2*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*1*	*2*	*0*
Configuration	*L*	*T*	*TR*	*L*	*T*	*TR*
Upstream Signal		*1*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*5*	*0*	*5*	*29*	*0*	*65*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*5*	*0*	*5*	*30*	*0*	*68*
Percent Heavy Vehicles	*2*	*2*	*2*	*2*	*2*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration		*LTR*		*L*		*TR*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*	*L*		*LTR*		*L*		*TR*
v (veh/h)	*58*	*7*		*10*		*30*		*68*
C (m) (veh/h)	*504*	*802*		*253*		*123*		*451*
v/c	*0.12*	*0.01*		*0.04*		*0.24*		*0.15*
95% queue length	*0.39*	*0.03*		*0.12*		*0.90*		*0.53*
Control Delay (s/veh)	*13.1*	*9.5*		*19.8*		*43.5*		*14.4*
LOS	*B*	*A*		*C*		*E*		*B*
Approach Delay (s/veh)	--	--	*19.8*			*23.3*		
Approach LOS	--	--	*C*			*C*		

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HCM Signalized Intersection Capacity Analysis
3: SRA1A/200 WB & SR200/A1A

2024 Phase 3 - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑						↑↑↑↑	
Volume (vph)	0	0	0	0	2023	0	0	0	0	0	869	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					6.0						6.0	
Lane Util. Factor					0.86						0.91	
Frt					1.00						1.00	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					6166						4673	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					6166						4673	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	0	2129	0	0	0	0	0	915	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	2129	0	0	0	0	0	915	0
Heavy Vehicles (%)	2%	2%	2%	2%	6%	2%	2%	2%	2%	2%	11%	2%
Turn Type												
Protected Phases					1						2	
Permitted Phases												
Actuated Green, G (s)					51.0						37.0	
Effective Green, g (s)					51.0						37.0	
Actuated g/C Ratio					0.51						0.37	
Clearance Time (s)					6.0						6.0	
Vehicle Extension (s)					3.0						3.0	
Lane Grp Cap (vph)					3145						1729	
v/s Ratio Prot					c0.35						c0.20	
v/s Ratio Perm												
v/c Ratio					0.68						0.53	
Uniform Delay, d1					18.3						24.7	
Progression Factor					1.00						0.41	
Incremental Delay, d2					0.6						1.1	
Delay (s)					18.9						11.2	
Level of Service					B						B	
Approach Delay (s)		0.0			18.9			0.0			11.2	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM Average Control Delay	16.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	56.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Volume (vph)	0	878	0	0	110	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0	
Lane Util. Factor		0.86			0.97	
Frt		1.00			1.00	
Flt Protected		1.00			0.95	
Satd. Flow (prot)		5942			3019	
Flt Permitted		1.00			0.95	
Satd. Flow (perm)		5942			3019	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	924	0	0	116	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	924	0	0	116	0
Heavy Vehicles (%)	2%	10%	2%	2%	16%	2%
Turn Type						
Protected Phases		2			1	
Permitted Phases						
Actuated Green, G (s)		37.0			51.0	
Effective Green, g (s)		37.0			51.0	
Actuated g/C Ratio		0.37			0.51	
Clearance Time (s)		6.0			6.0	
Vehicle Extension (s)		3.0			3.0	
Lane Grp Cap (vph)		2199			1540	
v/s Ratio Prot		c0.16			c0.04	
v/s Ratio Perm						
v/c Ratio		0.42			0.08	
Uniform Delay, d1		23.5			12.5	
Progression Factor		0.11			1.00	
Incremental Delay, d2		0.5			0.0	
Delay (s)		3.1			12.5	
Level of Service		A			B	
Approach Delay (s)		3.1	0.0		12.5	
Approach LOS		A	A		B	

Intersection Summary			
HCM Average Control Delay	4.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	32.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	869	0	0	0	0	1102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0					6.0
Lane Util. Factor	0.91					0.76
Frt	1.00					0.85
Flt Protected	1.00					1.00
Satd. Flow (prot)	4673					3378
Flt Permitted	1.00					1.00
Satd. Flow (perm)	4673					3378
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	915	0	0	0	0	1160
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	915	0	0	0	0	1160
Heavy Vehicles (%)	11%	2%	2%	2%	2%	9%
Turn Type						custom
Protected Phases	2					1
Permitted Phases						
Actuated Green, G (s)	37.0					51.0
Effective Green, g (s)	37.0					51.0
Actuated g/C Ratio	0.37					0.51
Clearance Time (s)	6.0					6.0
Vehicle Extension (s)	3.0					3.0
Lane Grp Cap (vph)	1729					1723
v/s Ratio Prot	c0.20					c0.34
v/s Ratio Perm						
v/c Ratio	0.53					0.67
Uniform Delay, d1	24.7					18.3
Progression Factor	0.06					1.00
Incremental Delay, d2	1.0					1.1
Delay (s)	2.4					19.3
Level of Service	A					B
Approach Delay (s)	2.4			0.0	19.3	
Approach LOS	A			A	B	

Intersection Summary			
HCM Average Control Delay	11.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	56.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (vph)	0	0	0	2023	59	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0	
Lane Util. Factor				0.86	0.97	
Frt				1.00	1.00	
Flt Protected				1.00	0.95	
Satd. Flow (prot)				6166	3213	
Flt Permitted				1.00	0.95	
Satd. Flow (perm)				6166	3213	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	2129	62	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	2129	62	0
Heavy Vehicles (%)	2%	2%	2%	6%	9%	2%
Turn Type						
Protected Phases				1	2	
Permitted Phases						
Actuated Green, G (s)				51.0	37.0	
Effective Green, g (s)				51.0	37.0	
Actuated g/C Ratio				0.51	0.37	
Clearance Time (s)				6.0	6.0	
Vehicle Extension (s)				3.0	3.0	
Lane Grp Cap (vph)				3145	1189	
v/s Ratio Prot				c0.35	c0.02	
v/s Ratio Perm						
v/c Ratio				0.68	0.05	
Uniform Delay, d1				18.3	20.2	
Progression Factor				0.10	1.00	
Incremental Delay, d2				0.4	0.1	
Delay (s)				2.2	20.3	
Level of Service				A	C	
Approach Delay (s)	0.0			2.2	20.3	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	2.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	878	0	0	0	0	0	455	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						6.0				
Lane Util. Factor		0.86						0.95				
Frt		1.00						1.00				
Flt Protected		1.00						1.00				
Satd. Flow (prot)		5942						2983				
Flt Permitted		1.00						1.00				
Satd. Flow (perm)		5942						2983				
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	924	0	0	0	0	0	479	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	924	0	0	0	0	0	479	0	0	0	0
Heavy Vehicles (%)	2%	10%	2%	2%	2%	2%	2%	21%	2%	2%	2%	2%
Turn Type												
Protected Phases		2						1				
Permitted Phases												
Actuated Green, G (s)		37.0						51.0				
Effective Green, g (s)		37.0						51.0				
Actuated g/C Ratio		0.37						0.51				
Clearance Time (s)		6.0						6.0				
Vehicle Extension (s)		3.0						3.0				
Lane Grp Cap (vph)		2199						1521				
v/s Ratio Prot		c0.16						c0.16				
v/s Ratio Perm												
v/c Ratio		0.42						0.31				
Uniform Delay, d1		23.5						14.3				
Progression Factor		1.00						0.51				
Incremental Delay, d2		0.6						0.1				
Delay (s)		24.1						7.4				
Level of Service		C						A				
Approach Delay (s)		24.1			0.0			7.4			0.0	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	0	0	455	0	0	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.0			6.0
Lane Util. Factor			0.95			1.00
Frt			1.00			0.86
Flt Protected			1.00			1.00
Satd. Flow (prot)			2983			1264
Flt Permitted			1.00			1.00
Satd. Flow (perm)			2983			1264
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	479	0	0	114
RTOR Reduction (vph)	0	0	0	0	0	72
Lane Group Flow (vph)	0	0	479	0	0	42
Heavy Vehicles (%)	2%	2%	21%	2%	2%	30%
Turn Type						custom
Protected Phases			1			
Permitted Phases						2
Actuated Green, G (s)			51.0			37.0
Effective Green, g (s)			51.0			37.0
Actuated g/C Ratio			0.51			0.37
Clearance Time (s)			6.0			6.0
Vehicle Extension (s)			3.0			3.0
Lane Grp Cap (vph)			1521			468
v/s Ratio Prot			c0.16			
v/s Ratio Perm						c0.03
v/c Ratio			0.31			0.09
Uniform Delay, d1			14.3			20.5
Progression Factor			0.07			1.00
Incremental Delay, d2			0.1			0.4
Delay (s)			1.2			20.9
Level of Service			A			C
Approach Delay (s)		0.0	1.2		20.9	
Approach LOS		A	A		C	

Intersection Summary			
HCM Average Control Delay	5.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	281	1115	304	181	1631	139	114	12	37	153	12	326
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	4759	1568	1770	4848	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.08	1.00	1.00	0.21	1.00	1.00	0.75	1.00	1.00	0.45	1.00	1.00
Satd. Flow (perm)	144	4759	1568	397	4848	1583	1395	1863	1583	837	1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	296	1174	320	191	1717	146	120	13	39	161	13	343
RTOR Reduction (vph)	0	0	160	0	0	85	0	0	36	0	0	251
Lane Group Flow (vph)	296	1174	160	191	1717	61	120	13	3	161	13	92
Heavy Vehicles (%)	2%	9%	3%	2%	7%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Actuated Green, G (s)	71.3	56.0	56.0	57.0	46.7	46.7	15.6	7.5	7.5	30.5	17.4	17.4
Effective Green, g (s)	71.3	56.0	56.0	57.0	46.7	46.7	15.6	7.5	7.5	30.5	17.4	17.4
Actuated g/C Ratio	0.64	0.50	0.50	0.51	0.42	0.42	0.14	0.07	0.07	0.27	0.16	0.16
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	377	2384	785	329	2025	661	222	125	106	379	290	246
v/s Ratio Prot	c0.14	0.25		0.05	c0.35		0.04	0.01		c0.07	0.01	
v/s Ratio Perm	0.36		0.10	0.24		0.04	0.04		0.00	c0.05		0.06
v/c Ratio	0.79	0.49	0.20	0.58	0.85	0.09	0.54	0.10	0.02	0.42	0.04	0.37
Uniform Delay, d1	31.1	18.5	15.5	15.1	29.3	19.7	44.4	49.0	48.7	32.6	40.1	42.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	10.3	0.2	0.1	2.6	3.5	0.1	2.7	0.4	0.1	0.8	0.1	1.0
Delay (s)	41.3	18.6	15.6	17.7	32.9	19.8	47.1	49.4	48.8	33.4	40.2	43.3
Level of Service	D	B	B	B	C	B	D	D	D	C	D	D
Approach Delay (s)		21.9			30.5			47.6			40.1	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM Average Control Delay	28.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	111.8	Sum of lost time (s)	15.0
Intersection Capacity Utilization	74.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*VHB*
Agency/Co.	*VHB*
Date Performed	*11/3/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*SR200/A1A at West Driveway*
Jurisdiction	*Nassau County*
Analysis Year	*2024 - Phase 3*

Project Description *TerraPointe PDP*

East/West Street: *SR200/A1A* | North/South Street: *West Driveway*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*66*	*1397*	*7*	*7*	*1297*	*30*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*69*	*1470*	*7*	*7*	*1365*	*31*
Percent Heavy Vehicles	*2*	--	--	*2*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*1*	*2*	*0*
Configuration	*L*	*T*	*TR*	*L*	*T*	*TR*
Upstream Signal		*0*			*1*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*5*	*0*	*5*	*28*	*0*	*62*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*5*	*0*	*5*	*29*	*0*	*65*
Percent Heavy Vehicles	*2*	*2*	*2*	*2*	*2*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration		*LTR*		*L*		*TR*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*	*L*		*LTR*		*L*		*TR*
v (veh/h)	*69*	*7*		*10*		*29*		*65*
C (m) (veh/h)	*584*	*452*		*134*		*124*		*809*
v/c	*0.12*	*0.02*		*0.07*		*0.23*		*0.08*
95% queue length	*0.40*	*0.05*		*0.24*		*0.85*		*0.26*
Control Delay (s/veh)	*12.0*	*13.1*		*34.0*		*42.7*		*9.8*
LOS	*B*	*B*		*D*		*E*		*A*
Approach Delay (s/veh)	--	--	*34.0*			*20.0*		
Approach LOS	--	--	*D*			*C*		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*VHB*
Agency/Co.	*VHB*
Date Performed	*11/3/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*SR200/A1A at East Driveway*
Jurisdiction	*Nassau County*
Analysis Year	*2024 - Phase 3*

Project Description *TerraPointe PDP*

East/West Street: *SR200/A1A* | North/South Street: *East Driveway*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*56*	*919*	*7*	*7*	*1262*	*25*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*58*	*967*	*7*	*7*	*1328*	*26*
Percent Heavy Vehicles	*2*	--	--	*2*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*1*	*2*	*0*
Configuration	*L*	*T*	*TR*	*L*	*T*	*TR*
Upstream Signal		*1*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*5*	*0*	*5*	*29*	*0*	*65*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*5*	*0*	*5*	*30*	*0*	*68*
Percent Heavy Vehicles	*2*	*2*	*2*	*2*	*2*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration		*LTR*		*L*		*TR*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*	*L*		*LTR*		*L*		*TR*
v (veh/h)	*58*	*7*		*10*		*30*		*68*
C (m) (veh/h)	*504*	*802*		*253*		*123*		*451*
v/c	*0.12*	*0.01*		*0.04*		*0.24*		*0.15*
95% queue length	*0.39*	*0.03*		*0.12*		*0.90*		*0.53*
Control Delay (s/veh)	*13.1*	*9.5*		*19.8*		*43.5*		*14.4*
LOS	*B*	*A*		*C*		*E*		*B*
Approach Delay (s/veh)	--	--	*19.8*			*23.3*		
Approach LOS	--	--	*C*			*C*		

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HCM Signalized Intersection Capacity Analysis
3: SR200/A1A WB & SR200/A1A EB

2024 Phase 3 - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑						↑↑↑	
Volume (vph)	0	0	0	0	1962	0	0	0	0	0	637	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					6.0						6.0	
Lane Util. Factor					0.86						0.91	
Frt					1.00						1.00	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					6285						4848	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					6285						4848	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	0	2065	0	0	0	0	0	671	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	2065	0	0	0	0	0	671	0
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%	2%	2%	2%	2%	7%	2%
Turn Type												
Protected Phases					1						2	
Permitted Phases												
Actuated Green, G (s)					51.0						37.0	
Effective Green, g (s)					51.0						37.0	
Actuated g/C Ratio					0.51						0.37	
Clearance Time (s)					6.0						6.0	
Vehicle Extension (s)					3.0						3.0	
Lane Grp Cap (vph)					3205						1794	
v/s Ratio Prot					c0.33						c0.14	
v/s Ratio Perm												
v/c Ratio					0.64						0.37	
Uniform Delay, d1					17.9						23.0	
Progression Factor					1.00						0.57	
Incremental Delay, d2					0.5						0.6	
Delay (s)					18.3						13.6	
Level of Service					B						B	
Approach Delay (s)		0.0			18.3			0.0			13.6	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM Average Control Delay	17.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Volume (vph)	0	635	0	0	148	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0	
Lane Util. Factor		0.86			0.97	
Frt		1.00			1.00	
Flt Protected		1.00			0.95	
Satd. Flow (prot)		5683			3400	
Flt Permitted		1.00			0.95	
Satd. Flow (perm)		5683			3400	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	668	0	0	156	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	668	0	0	156	0
Heavy Vehicles (%)	2%	15%	2%	2%	3%	2%
Turn Type						
Protected Phases		2			1	
Permitted Phases						
Actuated Green, G (s)		37.0			51.0	
Effective Green, g (s)		37.0			51.0	
Actuated g/C Ratio		0.37			0.51	
Clearance Time (s)		6.0			6.0	
Vehicle Extension (s)		3.0			3.0	
Lane Grp Cap (vph)		2103			1734	
v/s Ratio Prot		c0.12			c0.05	
v/s Ratio Perm						
v/c Ratio		0.32			0.09	
Uniform Delay, d1		22.5			12.6	
Progression Factor		0.11			1.00	
Incremental Delay, d2		0.4			0.0	
Delay (s)		2.9			12.6	
Level of Service		A			B	
Approach Delay (s)		2.9	0.0		12.6	
Approach LOS		A	A		B	

Intersection Summary			
HCM Average Control Delay	4.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.19		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	30.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	637	0	0	0	0	1734
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0					6.0
Lane Util. Factor	0.91					0.76
Frt	1.00					0.85
Flt Protected	1.00					1.00
Satd. Flow (prot)	4848					3610
Flt Permitted	1.00					1.00
Satd. Flow (perm)	4848					3610
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	671	0	0	0	0	1825
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	671	0	0	0	0	1825
Heavy Vehicles (%)	7%	2%	2%	2%	2%	2%
Turn Type						custom
Protected Phases	2					1
Permitted Phases						
Actuated Green, G (s)	37.0					51.0
Effective Green, g (s)	37.0					51.0
Actuated g/C Ratio	0.37					0.51
Clearance Time (s)	6.0					6.0
Vehicle Extension (s)	3.0					3.0
Lane Grp Cap (vph)	1794					1841
v/s Ratio Prot	c0.14					c0.51
v/s Ratio Perm						
v/c Ratio	0.37					0.99
Uniform Delay, d1	23.0					24.3
Progression Factor	0.06					1.00
Incremental Delay, d2	0.6					18.9
Delay (s)	1.8					43.1
Level of Service	A					D
Approach Delay (s)	1.8			0.0	43.1	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	32.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	62.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (vph)	0	0	0	1962	257	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0	
Lane Util. Factor				0.86	0.97	
Frt				1.00	1.00	
Flt Protected				1.00	0.95	
Satd. Flow (prot)				6285	3400	
Flt Permitted				1.00	0.95	
Satd. Flow (perm)				6285	3400	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	2065	271	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	2065	271	0
Heavy Vehicles (%)	2%	2%	2%	4%	3%	2%
Turn Type						
Protected Phases				1	2	
Permitted Phases						
Actuated Green, G (s)				51.0	37.0	
Effective Green, g (s)				51.0	37.0	
Actuated g/C Ratio				0.51	0.37	
Clearance Time (s)				6.0	6.0	
Vehicle Extension (s)				3.0	3.0	
Lane Grp Cap (vph)				3205	1258	
v/s Ratio Prot				c0.33	c0.08	
v/s Ratio Perm						
v/c Ratio				0.64	0.22	
Uniform Delay, d1				17.9	21.6	
Progression Factor				0.10	1.00	
Incremental Delay, d2				0.3	0.4	
Delay (s)				2.2	22.0	
Level of Service				A	C	
Approach Delay (s)	0.0			2.2	22.0	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	4.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	48.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	635	0	0	0	0	0	1019	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						6.0				
Lane Util. Factor		0.86						0.95				
Frt		1.00						1.00				
Flt Protected		1.00						1.00				
Satd. Flow (prot)		5683						3505				
Flt Permitted		1.00						1.00				
Satd. Flow (perm)		5683						3505				
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	668	0	0	0	0	0	1073	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	668	0	0	0	0	0	1073	0	0	0	0
Heavy Vehicles (%)	2%	15%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%
Turn Type												
Protected Phases		2						1				
Permitted Phases												
Actuated Green, G (s)		37.0						51.0				
Effective Green, g (s)		37.0						51.0				
Actuated g/C Ratio		0.37						0.51				
Clearance Time (s)		6.0						6.0				
Vehicle Extension (s)		3.0						3.0				
Lane Grp Cap (vph)		2103						1788				
v/s Ratio Prot		c0.12						c0.31				
v/s Ratio Perm												
v/c Ratio		0.32						0.60				
Uniform Delay, d1		22.5						17.3				
Progression Factor		1.00						0.64				
Incremental Delay, d2		0.4						0.5				
Delay (s)		22.9						11.5				
Level of Service		C						B				
Approach Delay (s)		22.9			0.0			11.5			0.0	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM Average Control Delay	15.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	0	0	1019	0	0	204
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.0			6.0
Lane Util. Factor			0.95			1.00
Frt			1.00			0.86
Flt Protected			1.00			1.00
Satd. Flow (prot)			3505			1417
Flt Permitted			1.00			1.00
Satd. Flow (perm)			3505			1417
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	1073	0	0	215
RTOR Reduction (vph)	0	0	0	0	0	42
Lane Group Flow (vph)	0	0	1073	0	0	173
Heavy Vehicles (%)	2%	2%	3%	2%	2%	16%
Turn Type						custom
Protected Phases			1			
Permitted Phases						2
Actuated Green, G (s)			51.0			37.0
Effective Green, g (s)			51.0			37.0
Actuated g/C Ratio			0.51			0.37
Clearance Time (s)			6.0			6.0
Vehicle Extension (s)			3.0			3.0
Lane Grp Cap (vph)			1788			524
v/s Ratio Prot			c0.31			
v/s Ratio Perm						c0.12
v/c Ratio			0.60			0.33
Uniform Delay, d1			17.3			22.6
Progression Factor			0.06			1.00
Incremental Delay, d2			0.5			1.7
Delay (s)			1.4			24.3
Level of Service			A			C
Approach Delay (s)		0.0	1.4		24.3	
Approach LOS		A	A		C	

Intersection Summary			
HCM Average Control Delay	5.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	373	1397	264	120	1194	190	353	46	198	193	32	346
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	4940	1583	1770	4759	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.10	1.00	1.00	0.15	1.00	1.00	0.56	1.00	1.00	0.73	1.00	1.00
Satd. Flow (perm)	182	4940	1583	271	4759	1583	1047	1863	1583	1352	1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	393	1471	278	126	1257	200	372	48	208	203	34	364
RTOR Reduction (vph)	0	0	148	0	0	135	0	0	176	0	0	308
Lane Group Flow (vph)	393	1471	130	126	1257	65	372	48	32	203	34	56
Heavy Vehicles (%)	2%	5%	2%	2%	9%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Actuated Green, G (s)	65.6	51.5	51.5	45.1	36.0	36.0	33.9	17.0	17.0	25.9	13.0	13.0
Effective Green, g (s)	65.6	51.5	51.5	45.1	36.0	36.0	33.9	17.0	17.0	25.9	13.0	13.0
Actuated g/C Ratio	0.59	0.47	0.47	0.41	0.33	0.33	0.31	0.15	0.15	0.23	0.12	0.12
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	462	2302	738	234	1550	516	432	287	244	366	219	186
v/s Ratio Prot	c0.19	0.30		0.04	0.26		c0.13	0.03		0.06	0.02	
v/s Ratio Perm	c0.32		0.08	0.18		0.04	c0.13		0.02	0.07		0.04
v/c Ratio	0.85	0.64	0.18	0.54	0.81	0.13	0.86	0.17	0.13	0.55	0.16	0.30
Uniform Delay, d1	30.2	22.4	17.2	21.0	34.1	26.2	34.5	40.6	40.4	36.6	43.8	44.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	14.0	0.6	0.1	2.4	3.3	0.1	16.0	0.3	0.2	1.8	0.3	0.9
Delay (s)	44.1	23.0	17.3	23.4	37.5	26.3	50.4	40.9	40.6	38.4	44.1	45.5
Level of Service	D	C	B	C	D	C	D	D	D	D	D	D
Approach Delay (s)		26.1			34.9			46.4			43.0	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM Average Control Delay	33.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	110.5	Sum of lost time (s)	15.0
Intersection Capacity Utilization	82.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group