Exhibit P

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TRAFFIC IMPACT STATEMENT

FARRELL WELLINGTON – ESTATES WEST
VILLAGE OF WELLINGTON, FLORIDA

Prepared for:

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Job No. 21-196

Date: June 20, 2022
Revised: October 11, 2022
Revised: November 11, 2022

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1.0 SITE DATA

The subject parcel is located on the southwest corner of Forest Hill Boulevard and Polo Club Drive in the Village of Wellington and contains approximately 22.98 acres. The Property Control Numbers (PCNs) for the subject parcel are the following:

73-41-44-14-00-000-1020
73-41-44-14-00-000-1060
73-41-44-14-00-000-3070

The property is currently designated as Open Space Recreation in the Village of Wellington Comprehensive Plan. The property owner is requesting a change in the 22.98 acre parcel's designation to Residential "C" which allows 3 units per acre on the Village of Wellington's Comprehensive Plan.

The proposed plan of development is to consist of 27 single family dwelling units with a project build-out of 2026. Site access is proposed via two full access driveway connections to Sunnydale Drive. For additional information on site layout, please refer to the Site Plan prepared by Litterick Landscape Architecture.

2.0 PURPOSE OF STUDY

This study will analyze the proposed development's impact on the surrounding major thoroughfares within the project's radius of development influence in accordance with the Village of Wellington Traffic Performance Standards. Additionally, the study will include the analysis for the Land Use Plan Amendment (LUPA) change to Residential "C" – 3 dwelling units per acre.

3.0 TRAFFIC GENERATION

LUPA ANALYSIS

The increase in daily traffic generation due to the requested change in the 22.98 acre parcel's land use designation may be determined by taking the difference between the total traffic generated for the most intensive land use under the existing Open Space Recreation future land use designation and the proposed Residential "C" (3 dwelling units per acre) future land use designation:

Open Space Recreation
The most intensive land use for the existing Open Space Recreation land use designation is "Public Park". The maximum allowable intensity for the designated acreage under the existing Open Space Recreation land use designation is 22.98 acres.

Public Park (22.98 acres)
Table 1 shows the daily traffic generation, and Tables 2 and 3 show the AM and PM peak hour traffic generation, respectively, in peak hour trips (pht) for the property under the existing Open Space Recreation land use designation. The traffic generation has been calculated in accordance

3.0 TRAFFIC GENERATION (CONTINUED)

with the traffic generation rates listed in the ITE Trip Generation Manual, 11th Edition and may be summarized as follows:

Existing Future Land Use

Daily Traffic Generation	=	18 tpd
AM Peak Hour Traffic Generation (In/Out)	=	0 pht (0 In/0 Out)
PM Peak Hour Traffic Generation (In/Out)	=	3 pht (2 In/1 Out)

Residential "C" – 3 Dwelling Units per Acre

The most intensive land use for the proposed Residential "C" (3 DU/acre) land use designation is "Single Family Detached". Based on a maximum density of 3 dwelling units per acre and the site area consisting of 22.98 acres, the maximum allowable number of dwelling units for the designated acreage under the proposed Residential "C" (3 DU/acre) land use designation is 69 dwelling units calculated as follows:

$$22.98 \text{ Acre} \times \frac{3 \text{ Dwelling Units}}{\text{Acre}} = 68 \text{ Dwelling Units}$$

The trip generation for the maximum potential of 68 single family dwelling units is shown in Tables 4-6 and may be summarized as follows:

Proposed Future Land Use

Daily Traffic Generation	=	680 tpd
AM Peak Hour Traffic Generation (In/Out)	=	48 pht (12 In/36 Out)
PM Peak Hour Traffic Generation (In/Out)	=	64 pht (40 In/24 Out)

The change in traffic generation due to the requested change in the parcels' land use designations is shown in Table 7 and is summarized as follows:

LUPA Trip Difference

Daily Traffic Generation	=	662 tpd INCREASE
AM Peak Hour Traffic Generation	=	48 pht INCREASE
PM Peak Hour Traffic Generation	=	61 pht INCREASE

Table 8 represents the Year 2045 Analysis. The total anticipated Year 2045 traffic meets the adopted Level of Service requirements within the project's radius of influence, per the Palm Beach County 1989 Comprehensive Plan Policy 3.5-d.

ZONING TRAFFIC ANALYSIS

In addition to the LUPA traffic analysis, a trip generation analysis has also been performed for the proposed use. The trip generation for the proposed 27 single family dwelling units is shown in Tables 9-11 and may be summarized as follows:

Proposed Use

Daily Traffic Generation	=	270 tpd
AM Peak Hour Traffic Generation (In/Out)	=	19 pht (5 In/14 Out)
PM Peak Hour Traffic Generation (In/Out)	=	25 pht (16 In/9 Out)

4.0 PART TWO LINK ANALYSIS

Based on the Village of Wellington Unified Land Development Code Article 9, a project must address all Wellington roadway links on which the net directional trips are greater than 1% of the LOS D of the link affected on a peak hour directional basis. If no links are significantly impacted, an analysis shall be completed.

Figure 1 shows the trip distribution, which is based on the current and projected roadway geometry, a review of historical travel patterns for the area, and on the existing and anticipated traffic patterns.

Tables 12 and 13 show the project assignment as well as the applicable Level of Service Standard for each of the links within the project's radius of development influence. As shown in Tables 14 and 15, all impacted links meet the applicable Level of Service standard.

5.0 SITE RELATED IMPROVEMENTS

The AM and PM peak hour turning movement volumes and directional distributions at the project entrance(s) for the overall development are shown in Tables 10 and 11 and may be summarized as follows:

DIRECTIONAL DISTRIBUTION (TRIPS IN/OUT)

AM =	5 / 14
PM =	16 / 9

Figure 2 presents the AM and PM peak turning movement volume assignments at the project driveway based on the directional distributions. As previously stated, site access is proposed via two full access driveway connections to Sunnydale Drive. Based on the proposed trip generation and turning movement volumes and Palm Beach County turn lane requirements, no additional turn lanes appear warranted.

6.0 INTERSECTION ANALYSIS

As requested by the Village of Wellington, capacity analysis of the Forest Hill Boulevard at Royal Fern Drive/Polo Club Road intersection was performed and is included in Appendix D.

7.0 CONCLUSION

The proposed development of 27 single family dwelling units has been estimated to generate 270 trips per day, 19 AM peak hour trips, and 25 PM peak hour trips at project build-out in 2026. A brief review of the links within the project's radius of development influence reveals that the proposed development meets the requirements of the Village of Wellington Traffic Performance Standards.

APPENDIX A

LAND USE CHANGE TRAFFIC ANALYSIS

FARRELL WELLINGTON - ESTATES WEST

06/17/22

EXISTING OPEN SPACE RECREATION FUTURE LAND USE DESIGNATION - 22.98 ACRES

TABLE 1 - Daily Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips	Internalization %	Internalization Total	External Trips	Pass-by %	Pass-by Trips	Net Trips
Public Park	411	22.98	Dwelling Units	0.78			18		0	18	0%	0	18
			Grand Totals:				**18**	**0.0%**	**0**	**18**	**0%**	**0**	**18**

TABLE 2 - AM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips In	Gross Trips Out	Gross Trips Total	Internalization %	Internalization In	Internalization Out	Internalization Total	External Trips In	External Trips Out	External Trips Total	Pass-by %	Pass-by Trips	Net Trips In	Net Trips Out	Net Trips Total
Public Park	411	22.98	Dwelling Units	0.02	0.59	0.41	0	0	0	0.0%	0	0	0	0	0	0	0%	0	0	0	0
			Grand Totals:				**0**	**0**	**0**	**#DIV/0!**	**0**	**0**	**0**	**0**	**0**	**0**	**#DIV/0!**	**0**	**0**	**0**	**0**

TABLE 3 - PM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips In	Gross Trips Out	Gross Trips Total	Internalization %	Internalization In	Internalization Out	Internalization Total	External Trips In	External Trips Out	External Trips Total	Pass-by %	Pass-by Trips	Net Trips In	Net Trips Out	Net Trips Total
Public Park	411	22.98	Dwelling Units	0.11	0.55	0.45	2	1	3	0.0%	0	0	0	2	1	3	0%	0	2	1	3
			Grand Totals:				**2**	**1**	**3**	**0.0%**	**0**	**0**	**0**	**2**	**1**	**3**	**0%**	**0**	**2**	**1**	**3**

Based on the ITE Trip Generation Manual (11th edition).

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FARRELL WELLINGTON - ESTATES WEST

06/17/22
Revised 10/11/22

EXISTING RESIDENTIAL "C" FUTURE LAND USE DESIGNATION - 68 DWELLING UNITS

TABLE 4 - Daily Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips	Internalization %	Internalization Total	External Trips	Pass-by %	Pass-by Trips	Net Trips
Single Family Detached	210	68	Dwelling Units	10			680		0	680	0%	0	680
			Grand Totals:				**680**	**0.0%**	**0**	**680**	**0%**	**0**	**680**

TABLE 5 - AM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips In	Gross Trips Out	Gross Trips Total	Internalization %	Internalization In	Internalization Out	Internalization Total	External Trips In	External Trips Out	External Trips Total	Pass-by %	Pass-by Trips	Net Trips In	Net Trips Out	Net Trips Total
Single Family Detached	210	68	Dwelling Units	0.7	0.26	0.74	12	36	48	0.0%	0	0	0	12	36	48	0%	0	12	36	48
			Grand Totals:				**12**	**36**	**48**	**0.0%**	**0**	**0**	**0**	**12**	**36**	**48**	**0%**	**0**	**12**	**36**	**48**

TABLE 6 - PM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips In	Gross Trips Out	Gross Trips Total	Internalization %	Internalization In	Internalization Out	Internalization Total	External Trips In	External Trips Out	External Trips Total	Pass-by %	Pass-by Trips	Net Trips In	Net Trips Out	Net Trips Total
Single Family Detached	210	68	Dwelling Units	0.94	0.63	0.37	40	24	64	0.0%	0	0	0	40	24	64	0%	0	40	24	64
			Grand Totals:				**40**	**24**	**64**	**0.0%**	**0**	**0**	**0**	**40**	**24**	**64**	**0%**	**0**	**40**	**24**	**64**

Based on the ITE Trip Generation Manual (11th edition).

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TABLE 7
LAND USE PLAN AMENDMENT FROM OPEN SPACE RECREATION TO RESIDENTIAL "C"
TRAFFIC GENERATION INCREASE

	DAILY	AM PEAK HOUR			PM PEAK HOUR		
		TOTAL	IN	OUT	TOTAL	IN	OUT
EXISTING FUTURE LAND USE DESIGNATION =	18	0	0	0	3	2	1
PROPOSED FUTURE LAND USE DESIGNATION =	680	48	12	36	64	40	24
INCREASE =	**662**	**48**	**12**	**36**	**61**	**38**	**23**

TABLE 8

LAND USE PLAN AMENDMENT FROM OPEN SPACE RECREATION TO RESIDENTIAL "C"
(YEAR 2045)
MAXIMUM DEVELOPMENT INTENSITY - NET INCREASE

PROJECT: FARRELL WELLINGTON - ESTATES WEST
EXISTING FUTURE LAND USE DESIGNATION: OPEN SPACE RECREATION
EXISTING UNDERLYING FUTURE LAND USE DESIGNATION: NONE
TRIPS PER DAY = 18
PROPOSED FUTURE LAND USE DESIGNATION: RESIDENTIAL "C"
PROPOSED UNDERLYING FUTURE LAND USE DESIGNATION: NONE
TRIPS PER DAY = 680
TRIP INCREASE = 662

ROADWAY	FROM	TO	DISTRIBUTION (%)	PROJECT TRAFFIC	LANES	LOS D CAPACITY	TRIP INCREASE	2045 PBC MPO TRAFFIC VOLUME	TOTAL 2045 TRAFFIC	V/C RATIO	PROJECT SIGNIFICANCE*
FOREST HILL BOULEVARD	SOUTH SHORE BOULEVARD	SITE	30%	199	6	59,900	0.33%	52,800	52,999	0.88	NO
FOREST HILL BOULEVARD	SITE	SR 7	70%	463	6	59,900	0.77%	52,800	53,263	0.89	NO

* Project is significant when net trip increase is greater than 1% for v/c of 1.4 or more, 2% for v/c of 1.2 or more and 3% for v/c less than 1.2

SERPM 8 2045 Cost Feasible Adjusted Two-Way Traffic Volumes - Palm Beach County

PBC Station	FDOT Station	Roadway	From	To	Existing Lanes	Cost Feasible Lanes	2005 Counts	2010 Count	2015 Count	2018 Count	2015 Model	2045 Model	2045 Adjusted
1801	937363	DONALD ROSS RD	Prosperity Farms Rd	Ellison-Wilson Rd	4	6	27,337	26,081	27,134	30,207	9,981	14,807	32,000
1801	937363	DONALD ROSS RD	Ellison-Wilson Rd	US 1	4	6	27,337	26,081	27,134	30,207	9,981	14,807	32,000
	930701	DONALD ROSS RD	US 1	A1A	3	3	27,337		-	-	2,543	2,654	2,700
3638	937332	DREXEL RD	Okeechobee Bl	Belvedere Rd	2	2	10,638	10,286	9,989	10,698	14,509	12,234	7,700
	937619	DUDA RD	G2 Canal Rd	Cr-880	2	2			-	-	322	328	300
	937703	DYER BLVD	Haverhill Blvd	Military Tr	2	2			-	-	3,507	5,390	5,400
	937494	E CANAL ST	SR-717	SR-80	2	2			-	-	1,275	1,562	1,600
	937569	E OCEAN AVE	Seacrest Blvd	Federal Hwy	2	2			-	-	5,890	8,860	8,900
5634	937297	EL CLAIR RANCH RD	Lake Ida Rd	W Atlantic Ave	2	2	6,566	5,120	5,585	6,141	2,951	3,306	5,900
5636	937298	EL CLAIR RANCH RD	Woolbright Rd	Piper's Glen Blvd	2	2	8,001	7,414	7,080	7,093	4,941	4,853	7,000
5632	937296	EL CLAIR RANCH RD	Boynton Beach Blvd	Woolbright Rd	2	2	5,562	5,359	4,998	5,563	6,121	8,272	7,100
2844	937058	ELLISON-WILSON RD	PGA Blvd	Universe Blvd	2	2	11,653	13,804	10,237	10,985	8,630	10,355	12,300
2304	938519	ELLISON-WILSON RD	Universe Blvd	Donald Ross Rd	2	2	6,147	5,669	6,291	6,845	4,413	6,809	8,700
3661	937333	ELMHURST RD	Haverhill Rd	Military Tr	2	2	10,363	7,776	8,269	8,716	7,100	8,535	9,900
6850	937499	FAU BLVD	Glades Rd	20th St NW	4	4	9,953	-	10,400	6,900	7,521	17,482	20,400
6876	937499	FAU BLVD	20th St NW	Spanish River Blvd	2	2	11,757	13,691	10,400	17,771	7,521	17,482	20,400
4824	930221	FEDERAL HWY	6th Ave S	Lake Ave (LW)	2	2	13,121	9,333	9,428	9,200	4,932	6,289	10,800
4802	935056	FEDERAL HWY	Lucerne Ave	6th Ave N	2	2	14,217	9,925	10,693	9,300	7,398	8,538	11,800
3912	935081	FLAGLER DR	Forest Hill Blvd	Plymouth Rd	2	2	2,609	-	6,400	-	942	1,925	7,400
3894	935081	FLAGLER DR	Plymouth Rd	Southern Blvd	2	2	3,162	-	6,400	-	942	1,925	7,400
3870	938517	FLAGLER DR	Southern Blvd	Barcelona Rd	2	2	7,006	-	6,500	5,500	506	1,959	8,000
3854	938517	FLAGLER DR	Barcelona Rd	Okeechobee Bl	4	4	13,375	-	6,500	5,500	506	1,959	8,000
3852	938516	FLAGLER DR	Okeechobee Bl	Banyan Blvd	4	4	17,558	-	9,700	9,600	7,949	10,560	12,900
3838	938516	FLAGLER DR	Banyan Blvd	Loftin St	4	4	15,587	-	9,700	9,600	7,949	10,560	12,900
3832	938516	FLAGLER DR	Loftin St	Palm Beach Lakes Blvd	4	4	17,980	-	9,700	9,600	7,949	10,560	12,900
3824	938516	FLAGLER DR	Palm Beach Lakes Blvd	26th St	4	4	17,973	-	9,700	9,600	7,949	10,560	12,900
3808	938516	FLAGLER DR	26th St	36th St	2	2	11,294	-	9,700	9,600	7,949	10,560	12,900
PBC036	PBC036	FLAVOR PICT RD	SR-7	Lyons Rd	2	4			-	-	1,098	12,146	12,100
PBC035	PBC035	FLAVOR PICT RD	Lyons Rd	Hagen Ranch Rd	0	4			-	-	-	19,834	19,800
5663	937151	FLAVOR PICT RD	Hagen Ranch Rd	Jog Rd	2	2		5,343	6,827	7,559	6,670	9,901	10,100
5654	937151	FLAVOR PICT RD	Jog Rd	Military Tr	2	2	5,725	6,947	6,768	8,472	6,670	9,901	10,000
3840	938530	FLORIDA AVE / ROSEMARY	Banyan Blvd	Lakeview Ave	2	2	5,119	-	5,200	5,400	12,929	14,038	6,300
	937554	FLORIDA MANGO RD	Belvedere Rd	Old Okeechobee Rd	2	2			-	-	3,657	4,256	4,300
4212	937028	FLORIDA MANGO RD	10th Ave N	Forest Hill Blvd	2	3	14,340	10,014	10,995	11,389	9,089	9,548	11,600
3646	937027	FLORIDA MANGO RD	Forest Hill Blvd	Summit Blvd	2	3	8,650	6,565	6,289	6,876	4,051	6,294	8,500
3438	937326	FOLSOM RD	Crestwood Blvd	Okeechobee Bl	2	2	4,989	4,492	4,684	5,000	1,509	1,828	5,000
	937545	FORDHAM DR	N Dixie Hwy	Federal Hwy	2	2			-	-	2,310	2,519	2,500
3402	938524	FOREST HILL BLVD	Southern Blvd	Wellington Trace	6	6	39,091	34,180	35,877	39,500	21,164	30,642	45,400
3430	937087	FOREST HILL BLVD	Wellington Trc	South Shore Blvd	4	4	36,110	28,360	28,571	32,000	23,424	32,205	39,300
3407	937086	FOREST HILL BLVD	South Shore Blvd	SR-7	6	6	57,143	45,720	47,835	50,083	61,989	66,987	52,800

APPENDIX B

PART 2: LINK ANALYSIS

FARRELL WELLINGTON - ESTATES WEST

06/17/22
Revised 10/11/22

PROPOSED DEVELOPMENT - FOR TRAFFIC CONCURRENCY

TABLE 9 - Daily Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips	Internalization %	Internalization Total	External Trips	Pass-by %	Pass-by Trips	Net Trips
Single Family Detached	210	27	Dwelling Units	10			270		0	270	0%	0	270
			Grand Totals:				**270**	**0.0%**	**0**	**270**	**0%**	**0**	**270**

TABLE 10 - AM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips In	Gross Trips Out	Gross Trips Total	Internalization %	Internalization In	Internalization Out	Internalization Total	External Trips In	External Trips Out	External Trips Total	Pass-by %	Pass-by Trips	Net Trips In	Net Trips Out	Net Trips Total
Single Family Detached	210	27	Dwelling Units	0.7	0.26	0.74	5	14	19	0.0%	0	0	0	5	14	19	0%	0	5	14	19
			Grand Totals:				**5**	**14**	**19**	**0.0%**	**0**	**0**	**0**	**5**	**14**	**19**	**0%**	**0**	**5**	**14**	**19**

TABLE 11 - PM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips In	Gross Trips Out	Gross Trips Total	Internalization %	Internalization In	Internalization Out	Internalization Total	External Trips In	External Trips Out	External Trips Total	Pass-by %	Pass-by Trips	Net Trips In	Net Trips Out	Net Trips Total
Single Family Detached	210	27	Dwelling Units	0.94	0.63	0.37	16	9	25	0.0%	0	0	0	16	9	25	0%	0	16	9	25
			Grand Totals:				**16**	**9**	**25**	**0.0%**	**0**	**0**	**0**	**16**	**9**	**25**	**0%**	**0**	**16**	**9**	**25**

Based on the ITE Trip Generation Manual (11th edition).

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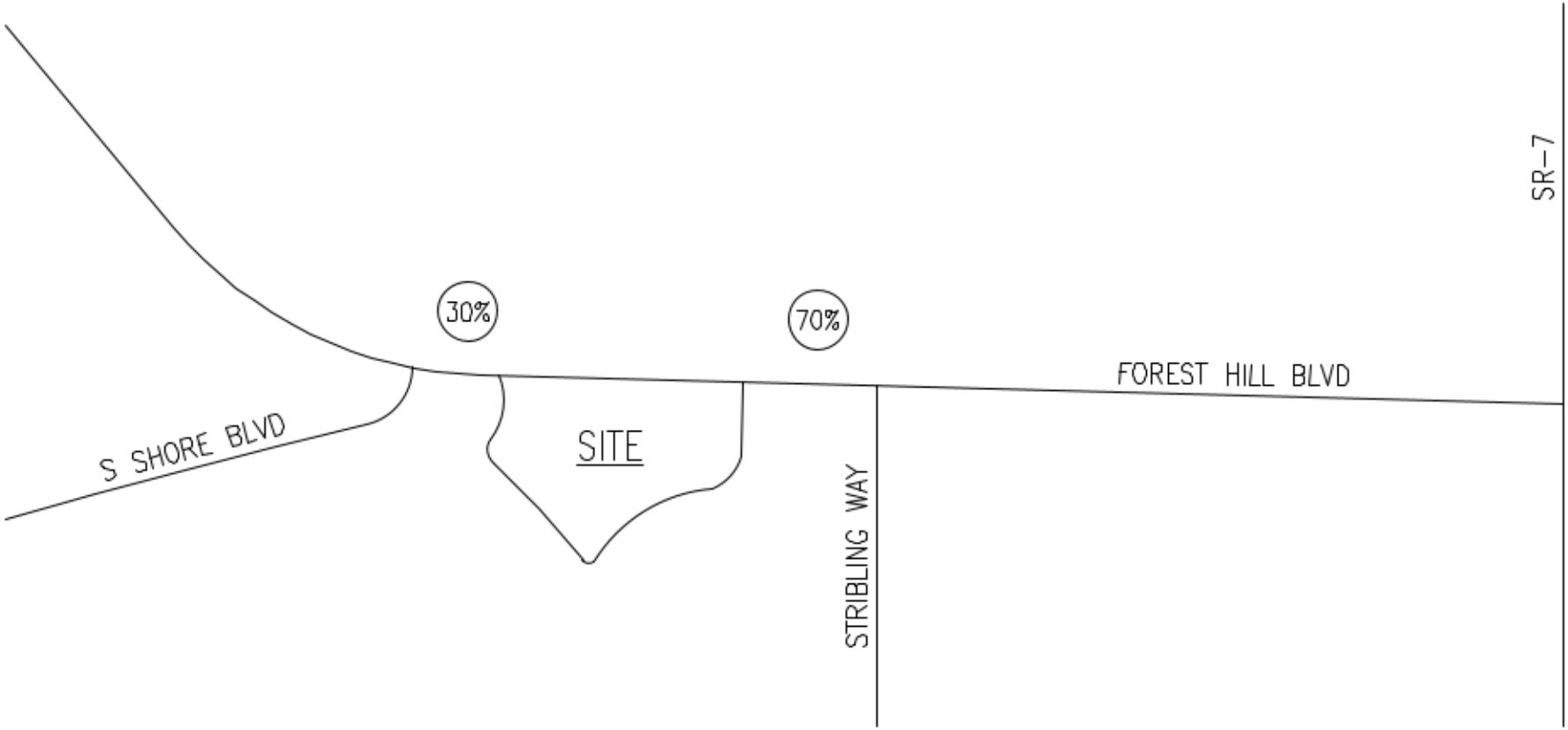

FIGURE 1
PROJECT DISTRIBUTION

LEGEND

(30%) PROJECT DISTRIBUTION

FARRELL WELLINGTON - ESTATES WEST

21-196 AL 06/17/22

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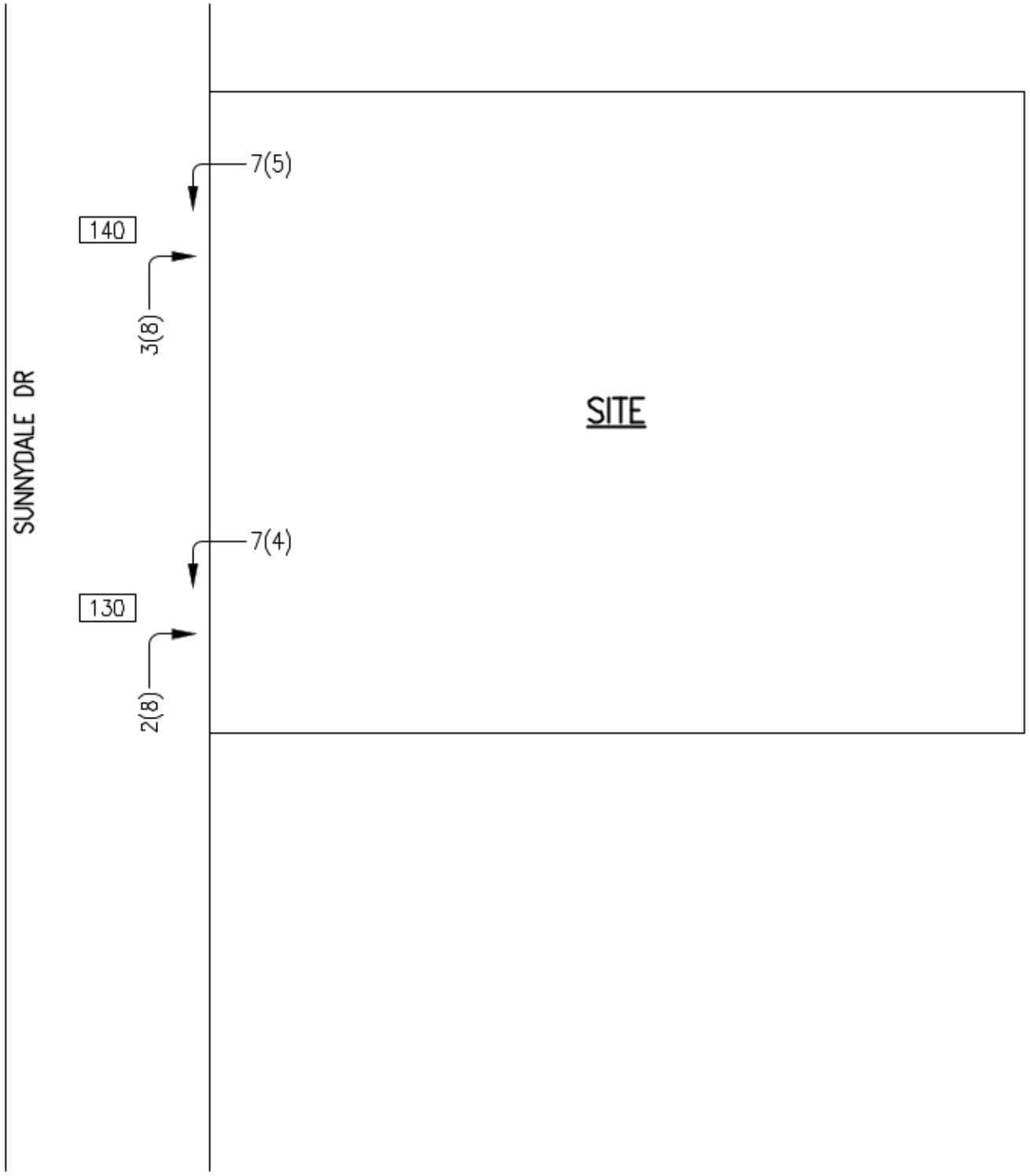


FIGURE 2
PROJECT TURNING MOVEMENTS

LEGEND

3 A.M. PEAK HOUR TURNING MOVEMENT
(9) P.M. PEAK HOUR TURNING MOVEMENT
133 A.A.D.T.

FARRELL WELLINGTON - ESTATES WEST

21-196 AL 06/17/22
REVISED 10/11/22

TABLE 12
PART TWO - PROJECT LINK SIGNIFICANCE CALCULATION
AM PEAK HOUR

2026 BUILD OUT
TOTAL AM PEAK HOUR PROJECT TRIPS (ENTERING) = 5
TOTAL AM PEAK HOUR PROJECT TRIPS (EXITING) = 14

STATION	ROADWAY	FROM	TO	PROJECT DISTRIBUTION	AM PEAK HOUR DIRECTIONAL PROJECT TRIPS	EXISTING LANES	CLASS	LOS D STANDARD	TOTAL PROJECT IMPACT	PROJECT SIGNIFICANT
3407	FOREST HILL BOULEVARD	SOUTH SHORE BOULEVARD	SITE	30%	4	6D	I	3020	0.13%	NO
3407	FOREST HILL BOULEVARD	SITE	SR 7	70%	10	6D	I	3020	0.33%	NO

TABLE 13
PART TWO - PROJECT LINK SIGNIFICANCE CALCULATION
PM PEAK HOUR

2026 BUILD OUT
TOTAL PM PEAK HOUR PROJECT TRIPS (ENTERING) = 16
TOTAL PM PEAK HOUR PROJECT TRIPS (EXITING) = 9

STATION	ROADWAY	FROM	TO	PROJECT DISTRIBUTION	PM PEAK HOUR DIRECTIONAL PROJECT TRIPS	EXISTING LANES	CLASS	LOS D STANDARD	TOTAL PROJECT IMPACT	PROJECT SIGNIFICANT
3407	FOREST HILL BOULEVARD	SOUTH SHORE BOULEVARD	SITE	30%	5	6D	I	3020	0.17%	NO
3407	FOREST HILL BOULEVARD	SITE	SR 7	70%	11	6D	I	3020	0.36%	NO

TABLE 14
AM PEAK HOUR - PART TWO

2026 BUILD OUT
TOTAL AM PEAK HOUR PROJECT TRIPS (ENTERING) = 5
TOTAL AM PEAK HOUR PROJECT TRIPS (EXITING) = 14

ROADWAY	FROM	TO	DIRECTION	TRAFFIC COUNT YEAR	AM PEAK HOUR TRAFFIC	PROJECT DISTRIBUTION	AM PEAK HOUR PROJECT TRIPS	LINK GROWTH RATE	LINK GROWTH	MAJOR PROJECT	FARRELL WELLINGTON ESTATES EAST	1.0% GROWTH	TOTAL BACKGROUNI TRAFFIC USED	2026 TRAFFIC WITHOUT PROJECT	2026 TOTAL TRAFFIC	ASSURED LANES	CLASS	LOS D	2026 WITHOUT PROJECT MEETS LOS STD.	MEETS LOS STD.
FOREST HILL BOULEVARD	SOUTH SHORE BOULEVARD	SITE	EB	2022	2546	30%	2	1.00%	103	215	1	103	319	2865	2867	6D	I	3020	YES	YES
			WB	2022	1622	30%	4	1.00%	66	161	2	66	229	1851	1855	6D	I	3020	YES	YES
FOREST HILL BOULEVARD	SITE	SR 7	EB	2022	2546	70%	10	1.00%	103	215	5	103	323	2869	2879	6D	I	3020	YES	YES
			WB	2022	1622	70%	4	1.00%	66	193	2	66	261	1883	1887	6D	I	3020	YES	YES

TABLE 15
PM PEAK HOUR - PART TWO

2026 BUILD OUT
TOTAL PM PEAK HOUR PROJECT TRIPS (ENTERING) = 16
TOTAL PM PEAK HOUR PROJECT TRIPS (EXITING) = 9

ROADWAY	FROM	TO	DIRECTION	TRAFFIC COUNT YEAR	PM PEAK HOUR TRAFFIC	PROJECT DISTRIBUTION	PM PEAK HOUR PROJECT TRIPS	LINK GROWTH RATE	LINK GROWTH	MAJOR PROJECT	FARRELL WELLINGTON ESTATES EAST	1.0% GROWTH	TOTAL BACKGROUNI TRAFFIC USED	2026 TRAFFIC WITHOUT PROJECT	2026 TOTAL TRAFFIC	ASSURED LANES	CLASS	LOS D	2026 WITHOUT PROJECT MEETS LOS STD.	MEETS LOS STD.
FOREST HILL BOULEVARD	SOUTH SHORE BOULEVARD	SITE	EB	2022	2330	30%	5	1.00%	95	194	2	95	291	2621	2626	6D	I	3020	YES	YES
			WB	2022	2202	30%	3	1.00%	89	211	2	89	302	2504	2507	6D	I	3020	YES	YES
FOREST HILL BOULEVARD	SITE	SR 7	EB	2022	2330	70%	6	1.00%	95	248	4	95	345	2675	2681	6D	I	3020	YES	YES
			WB	2022	2202	70%	11	1.00%	89	227	6	89	322	2524	2535	6D	I	3020	YES	YES

Exhibit 3A
Wellington Speed and Count Study
Traffic Volume and Growth - Weekday

Loc #	Road	From	To	Lanes	Daily Traffic Volumes			2022 AM Peak Hour [2]		2022 PM Peak Hour [2]	
					2018 [1]	2022 [2]	4-Yr Growth Rate	NB/EB	SB/WB	NB/EB	SB/WB
1	Flying Cow Ranch Road	Southern Boulevard	1 Mile South	2L	1,708	1,782	1.07% /Year	51	84	83	87
2	Flying Cow Ranch Road	1 Mile South	Rustic Road	2L	N/A	1,784	/Year	50	84	77	75
3	Binks Forest Drive	Southern Boulevard	Greenview Shores Boulevard	4LD	13,181	13,373	0.36% /Year	749	575	589	600
4	Aero Club Drive	Binks Forest Drive	Greenbriar Boulevard	2L	5,817	4,098	-8.38% /Year	115	213	194	150
5	Greenbriar Boulevard	Aero Club Drive	Greenview Shores Boulevard	2L	6,301	2,999	-16.94% /Year	192	167	216	168
6	Greenview Shores Boulevard	Binks Forest Drive	Wellington Trace	4LD	13,212	13,082	-0.25% /Year	484	430	651	608
7	Greenview Shores Boulevard	Wellington Trace	South Shore Boulevard	4LD	19,343	16,708	-3.59% /Year	641	824	722	731
8	Wellington Trace	Greenview Shores Boulevard	Big Blue Trace	4LD	24,104	23,493	-0.64% /Year	875	788	963	996
9	Wellington Trace	Big Blue Trace	Forest Hill Boulevard (North)	4LD	21,732	22,600	0.98% /Year	963	783	885	1,027
10	Wellington Trace	Forest Hill Boulevard (North)	Forest Hill Boulevard (South)	2L	6,033	5,900	-0.56% /Year	343	224	306	271
11	Paddock Drive	Greenview Shores Boulevard	Big Blue Trace	2L	2,438	2,667	2.27% /Year	120	110	187	131
12	Big Blue Trace	Southern Boulevard	Wellington Trace	2L/4L	11,465	8,443	-7.36% /Year	436	390	336	394
13	Big Blue Trace	Wellington Trace	South Shore Boulevard	2L	11,760	11,565	-0.42% /Year	271	506	481	480
14	Forest Hill Boulevard	Southern Boulevard	Wellington Trace	6LD	39,502	47,545	4.74% /Year	1,441	2,368	1,768	2,220
15	Forest Hill Boulevard [3]	Wellington Trace	South Shore Boulevard	4LD/6LD	30,258	28,664	-1.34% /Year	930	1,215	1,248	1,275
16	Forest Hill Boulevard	South Shore Boulevard	SR 7	6LD	49,836	53,987	2.02% /Year	2,546	1,622	2,330	2,202
17	Birkdale Drive	Forest Hill Boulevard	Wellington Trace	2L	4,229	3,303	-5.99% /Year	113	211	239	98
18	Stribling Way	Forest Hill Boulevard	Pierson Road	2L	13,259	13,303	0.08% /Year	265	799	610	651
19	Stribling Way	Pierson Road	SR 7	2L	16,078	14,618	-2.35% /Year	737	443	743	670
20	Stribling Way	SR 7	Lyons Road	2L	5,613	6,315	2.99% /Year	467	437	408	250
21	South Shore Boulevard [3]	Forest Hill Boulevard	Greenview Shores Boulevard	4LD	26,302	14,057	-14.50% /Year	639	716	627	501
22	South Shore Boulevard	Greenview Shores Boulevard	Pierson Road	4LD	23,417	19,837	-4.06% /Year	528	875	986	688
23	South Shore Boulevard	Pierson Road	Lake Worth Road	2LD	18,764	16,444	-3.25% /Year	486	733	816	598
24	40th Street South	Palm Beach Point Boulevard	Lake Worth Road	2L	N/A	2,187	/Year	39	94	131	78
25	Lake Worth Road	South Shore Boulevard	120th Avenue South	2L	12,936	11,164	-3.62% /Year	469	398	457	557
26	Pierson Road	South Shore Boulevard	Stribling Way	2L	4,743	4,238	-2.78% /Year	132	141	209	214
27	Pierson Road	Ousley Farms Road	South Shore Boulevard	2L	10,154	4,796	-17.10% /Year	166	245	214	165
28	South Shore Boulevard	Lake Worth Road	50th Street South	2L	5,202	4,600	-3.03% /Year	106	230	242	138
29	120th Avenue South	Pierson Road	Lake Worth Road	2L	1,056	4,001	39.52% /Year	149	114	274	168
30	120th Avenue South	Lake Worth Road	50th Street South	2L	3,461	1,800	-15.08% /Year	53	75	75	79
31	50th Street South	130th Avenue South	120th Avenue South	2L	3,523	4,029	3.41% /Year	146	159	199	146
32	Little Ranches Trail	Southern Boulevard	Acme Road	2L	2,381	2,304	-0.82% /Year	92	76	88	87

[1] Source: Wellington Traffic Counts and Analysis, April 11, 2018.
[2] See Appendix A for count data.
[3] Locations 15 and 21 were recounted in June and adjusted based on peak factors from control Location #9. See Appendix A. Use with caution.

APPENDIX C

PBC TPS DATABASE
LINK & INTERSECTION VOLUME SHEETS
(WITH APPROVED COMMITTED TRIPS)

A	B	C	D	E	F	G	H	I

Input Data

ROAD NAME: Forest Hill Blvd
CURRENT YEAR: 2020
ANALYSIS YEAR: 2026
GROWTH RATE: -0.17%
STATION: 3407
FROM: South Shore Blvd
TO: MIDPOINT
COUNT DATE: 03/03/2020
PSF: 1

Report Created
06/17/2022

Link Analysis

Time Period	AM			PM				
Direction	2-way	NB/EB	SB/WB	2-way	NB/EB	SB/WB		
Existing Volume	3379	1946	1479	3998	1773	2254		
Peak Volume	3379	1946	1479	3998	1773	2254		
Diversion(%)	0	0	0	0	0	0		
Volume after Diversion	3379	1946	1479	3998	1773	2254		
Committed Developments							Type	% Complete
Raising Canes	3	2	1	3	1	1	NR	75%
Palms West Medical	3	1	2	3	2	1	NR	92%
Groves at Royal Palm	0	0	0	0	0	0	NR	100%
Castellina	0	0	0	0	0	0	Res	100%
Oakmont Estates	0	0	0	0	0	0	Res	100%
Palms West Hospital	2	1	1	2	1	1	NR	95%
Western Plaza	17	9	8	47	23	24	NR	75%
Isla Verde	0	0	0	0	0	0	NR	100%
Southern Palm Crossing	3	2	1	7	4	4	NR	70%
Ching SR 7	0	0	0	0	0	0	NR	100%
Buena Vida	0	0	0	0	0	0	Res	100%
Olympia	0	0	0	0	0	0	Res	100%
Lotis of Wellington	53	29	24	106	55	52	NR	0%
Royal Palm Retail	0	0	0	0	0	0	NR	100%
Wellington Mall	12	6	6	45	23	21	NR	90%
Wellington Regional Medical Center	49	35	15	58	19	39	NR	80%
Southern Center	1	0	0	3	1	2	NR	90%
Wellington View	0	0	0	0	0	0	Res	100%
Pioneer Road Commercial / Residential	4	1	2	28	14	14	NR	50%
Village Green	11	7	5	28	13	15	NR	65%
278 ProffessionalWay	1	0	1	2	1	1	NR	65%
Enclave at Royal Palm Beach	0	0	0	0	0	0	Res	100%
Wellington Charter School	49	27	22	13	6	7	NR	65%
Alzheimers Community Care	6	3	3	7	3	4	NR	46%
Wellington Plaza	1	0	1	4	2	1	NR	97%
Flying Cow Ranch	0	0	0	0	0	0	Res	0%
Islepointe	0	0	0	0	0	0	Res	0%
Village Royale Charter School	182	111	71	38	17	22	Res	0%
Lotis II	20	4	16	26	17	9	Res	0%
Total Committed Developments	417	238	179	420	202	218		
Total Committed Residential	202	115	87	64	34	31		
Total Committed Non-Residential	215	123	92	356	168	187		
Double Count Reduction	43	25	18	16	9	8		
Total Discounted Committed Developments	374	213	161	404	193	210		
Historical Growth	-35	-20	-15	-41	-18	-23		
Comm Dev+1% Growth	582	333	252	650	302	349		
Growth Volume Used	582	333	252	650	302	349		
Total Volume	3961	2279	1731	4648	2075	2603		
Lanes	6LD							
LOS D Capacity	4880	2680	2680	4880	2680	2680		
Link Meets Test 1?	YES	YES	YES	YES	YES	YES		
LOS E Capacity	5150	2830	2830	5150	2830	2830		
Link Meets Test 2?	YES	YES	YES	YES	YES	YES		

Input Data

ROAD NAME: Forest Hill Blvd
CURRENT YEAR: 2020
ANALYSIS YEAR: 2026
GROWTH RATE: -0.17%
STATION: 3407
FROM: MIDPOINT
TO: Stribling Way
COUNT DATE: 03/03/2020
PSF: 1

Report Created
06/17/2022

Link Analysis

Time Period	AM			PM		
Direction	2-way	NB/EB	SB/WB	2-way	NB/EB	SB/WB
Existing Volume	3379	1946	1479	3998	1773	2254
Peak Volume	3379	1946	1479	3998	1773	2254
Diversion(%)	0	0	0	0	0	0
Volume after Diversion	3379	1946	1479	3998	1773	2254

Committed Developments							Type	% Complete
Raising Canes	3	2	1	3	1	1	NR	75%
Palms West Medical	3	1	2	3	2	1	NR	92%
Groves at Royal Palm	0	0	0	0	0	0	NR	100%
Castellina	0	0	0	0	0	0	Res	100%
Oakmont Estates	0	0	0	0	0	0	Res	100%
Palms West Hospital	2	1	1	2	1	1	NR	95%
Western Plaza	17	9	8	47	23	24	NR	75%
Isla Verde	0	0	0	0	0	0	NR	100%
Southern Palm Crossing	3	2	1	7	4	4	NR	70%
Ching SR 7	0	0	0	0	0	0	NR	100%
Buena Vida	0	0	0	0	0	0	Res	100%
Olympia	0	0	0	0	0	0	Res	100%
Lotis of Wellington	53	29	24	106	55	52	NR	0%
Royal Palm Retail	0	0	0	0	0	0	NR	100%
Wellington Mall	12	6	6	45	23	21	NR	90%
Wellington Regional Medical Center	49	35	15	58	19	39	NR	80%
Southern Center	1	0	0	3	1	2	NR	90%
Wellington View	0	0	0	0	0	0	Res	100%
Pioneer Road Commercial / Residential	4	1	2	28	14	14	NR	50%
Village Green	11	7	5	28	13	15	NR	65%
278 ProffessionalWay	1	0	1	2	1	1	NR	65%
Enclave at Royal Palm Beach	0	0	0	0	0	0	Res	100%
Wellington Charter School	49	27	22	13	6	7	NR	65%
Alzheimers Community Care	9	5	4	9	4	5	NR	46%
Wellington Plaza	1	0	1	4	2	1	NR	97%
Flying Cow Ranch	0	0	0	0	0	0	Res	0%
Islepointe	0	0	0	0	0	0	Res	0%
Village Royale Charter School	182	111	71	38	17	22	Res	0%
Lotis II	20	4	16	26	17	9	Res	0%
Total Committed Developments	420	240	180	422	203	219		
Total Committed Residential	202	115	87	64	34	31		
Total Committed Non-Residential	218	125	93	358	169	188		
Double Count Reduction	44	25	19	16	9	8		
Total Discounted Committed Developments	376	215	161	406	194	211		
Historical Growth	-35	-20	-15	-41	-18	-23		
Comm Dev+1% Growth	584	335	252	652	303	350		
Growth Volume Used	584	335	252	652	303	350		
Total Volume	3963	2281	1731	4650	2076	2604		

Lanes	6LD					
LOS D Capacity	4880	2680	2680	4880	2680	2680
Link Meets Test 1?	YES	YES	YES	YES	YES	YES
LOS E Capacity	5150	2830	2830	5150	2830	2830
Link Meets Test 2?	YES	YES	YES	YES	YES	YES

A	B	C	D	E	F	G	H	I
		Input Data						
ROAD NAME: Forest Hill Blvd			STATION: 3407					Report Created
CURRENT YEAR: 2020			FROM: Stribling Way					06/17/2022
ANALYSIS YEAR: 2026			TO: MIDPOINT					
GROWTH RATE: -0.17%			COUNT DATE: 03/03/2020					
			PSF: 1					
		Link Analysis						
Time Period		AM			PM			
Direction	2-way	NB/EB	SB/WB	2-way	NB/EB	SB/WB		
Existing Volume	3379	1946	1479	3998	1773	2254		
Peak Volume	3379	1946	1479	3998	1773	2254		
Diversion(%)	0	0	0	0	0	0		
Volume after Diversion	3379	1946	1479	3998	1773	2254		
Committed Developments							Type	% Complete
Raising Canes	3	2	1	3	1	1	NR	75%
Palms West Medical	3	1	2	3	2	1	NR	92%
Groves at Royal Palm	0	0	0	0	0	0	NR	100%
Castellina	0	0	0	0	0	0	Res	100%
Oakmont Estates	0	0	0	0	0	0	Res	100%
Palms West Hospital	2	1	1	2	1	1	NR	95%
Western Plaza	17	9	8	47	23	24	NR	75%
Isla Verde	0	0	0	0	0	0	NR	100%
Palomino Exec Park	0	0	0	0	0	0	NR	100%
Southern Palm Crossing	3	2	1	7	4	4	NR	70%
Ching SR 7	0	0	0	0	0	0	NR	100%
Buena Vida	0	0	0	0	0	0	Res	100%
Olympia	0	0	0	0	0	0	Res	100%
Lotis of Wellington	53	29	24	106	55	52	NR	0%
Royal Palm Retail	0	0	0	0	0	0	NR	100%
Wellington Mall	12	6	6	45	23	21	NR	90%
Wellington Regional Medical Center	54	16	38	63	43	21	NR	80%
Southern Center	1	0	0	3	1	2	NR	90%
Wellington View	0	0	0	0	0	0	Res	100%
Wellington Parc	7	4	3	7	3	4	NR	50%
Pioneer Road Commercial / Residential	5	2	4	41	20	20	NR	50%
Village Green	2	1	1	5	3	2	NR	65%
278 ProffessionalWay	1	0	1	2	1	1	NR	65%
Enclave at Royal Palm Beach	0	0	0	0	0	0	Res	100%
Cheddars Cafe	5	3	2	6	2	3	NR	75%
Wellington Charter School	45	25	20	12	6	7	NR	65%
Wellington Tennis Facility	0	0	0	0	0	0	Res	100%
Alzheimers Community Care	8	4	4	8	4	4	NR	46%
Anthony Groves Plaza-Lot 1	7	4	3	15	8	8	NR	60%
Flying Cow Ranch	0	0	0	0	0	0	Res	0%
Islepointe	0	0	0	0	0	0	Res	0%
Village Royale Charter School	182	111	71	38	17	22	Res	0%
Lotis II	22	5	17	28	18	10	Res	0%
Total Committed Developments	432	225	207	441	235	208		
Total Committed Residential	204	116	88	66	35	32		
Total Committed Non-Residential	228	109	119	375	200	176		
Double Count Reduction	46	22	22	17	9	8		
Total Discounted Committed Developments	386	203	185	424	226	200		
Historical Growth	-35	-20	-15	-41	-18	-23		
Comm Dev+1% Growth	594	323	276	670	335	339		
Growth Volume Used	594	323	276	670	335	339		
Total Volume	3973	2269	1755	4668	2108	2593		
Lanes				6LD				
LOS D Capacity	4880	2680	2680	4880	2680	2680		
Link Meets Test 1?	YES	YES	YES	YES	YES	YES		
LOS E Capacity	5150	2830	2830	5150	2830	2830		
Link Meets Test 2?	YES	YES	YES	YES	YES	YES		

Input Data

ROAD NAME: Forest Hill Blvd
CURRENT YEAR: 2020
ANALYSIS YEAR: 2026
GROWTH RATE: -0.17%
STATION: 3407
FROM: MIDPOINT
TO: S State Road 7
COUNT DATE: 03/03/2020
PSF: 1

Report Created
06/17/2022

Link Analysis

Time Period	AM			PM		
Direction	2-way	NB/EB	SB/WB	2-way	NB/EB	SB/WB
Existing Volume	3379	1946	1479	3998	1773	2254
Peak Volume	3379	1946	1479	3998	1773	2254
Diversion(%)	0	0	0	0	0	0
Volume after Diversion	3379	1946	1479	3998	1773	2254

Committed Developments							Type	% Complete
Raising Canes	3	2	1	3	1	1	NR	75%
Palms West Medical	3	1	2	3	2	1	NR	92%
Groves at Royal Palm	0	0	0	0	0	0	NR	100%
Palms West Hospital	2	1	1	2	1	1	NR	95%
Western Plaza	17	9	8	47	23	24	NR	75%
Isla Verde	0	0	0	0	0	0	NR	100%
Palomino Exec Park	0	0	0	0	0	0	NR	100%
Southern Palm Crossing	3	2	1	7	4	4	NR	70%
Ching SR 7	0	0	0	0	0	0	NR	100%
Buena Vida	0	0	0	0	0	0	Res	100%
Olympia	0	0	0	0	0	0	Res	100%
Lotis of Wellington	53	29	24	106	55	52	NR	0%
Royal Palm Retail	0	0	0	0	0	0	NR	100%
Wellington Mall	25	12	14	94	45	49	NR	90%
Wellington Regional Medical Center	56	17	39	66	44	22	NR	80%
Southern Center	1	0	0	3	1	2	NR	90%
Wellington View	0	0	0	0	0	0	Res	100%
Wellington Parc	7	4	3	7	3	4	NR	50%
Pioneer Road Commercial / Residential	5	2	4	41	20	20	NR	50%
278 ProffessionalWay	1	0	1	2	1	1	NR	65%
Enclave at Royal Palm Beach	0	0	0	0	0	0	Res	100%
Cheddars Cafe	5	3	2	6	2	3	NR	75%
Wellington Charter School	45	25	20	12	6	7	NR	65%
Wellington Tennis Facility	0	0	0	0	0	0	Res	100%
Alzheimers Community Care	8	4	4	8	4	4	NR	46%
Anthony Groves Plaza-Lot 1	7	4	3	15	8	8	NR	60%
Flying Cow Ranch	0	0	0	0	0	0	Res	0%
Islepointe	0	0	0	0	0	0	Res	0%
Village Royale Charter School	182	111	71	38	17	22	Res	0%
Lotis II	22	5	17	28	18	10	Res	0%
Total Committed Developments	445	231	215	488	255	235		
Total Committed Residential	204	116	88	66	35	32		
Total Committed Non-Residential	241	115	127	422	220	203		
Double Count Reduction	48	23	22	17	9	8		
Total Discounted Committed Developments	397	208	193	471	246	227		
Historical Growth	-35	-20	-15	-41	-18	-23		
Comm Dev+1% Growth	605	328	284	717	355	366		
Growth Volume Used	605	328	284	717	355	366		
Total Volume	3984	2274	1763	4715	2128	2620		

Lanes	6LD					
LOS D Capacity	4880	2680	2680	4880	2680	2680
Link Meets Test 1?	YES	YES	YES	YES	YES	YES
LOS E Capacity	5150	2830	2830	5150	2830	2830
Link Meets Test 2?	YES	YES	YES	YES	YES	YES

TABLE 6
AM PEAK HOUR - PART TWO

2026 BUILD OUT
TOTAL AM PEAK HOUR PROJECT TRIPS (ENTERING) = 3
TOTAL AM PEAK HOUR PROJECT TRIPS (EXITING) = 7

ROADWAY	FROM	TO	DIRECTION	TRAFFIC COUNT YEAR	AM PEAK HOUR TRAFFIC	PROJECT DISTRIBUTION	AM PEAK HOUR PROJECT TRIPS	LINK GROWTH RATE	LINK GROWTH	MAJOR PROJECT	FARRELL WELLINGTON ESTATES WEST	1.0% GROWTH	TOTAL BACKGROUND TRAFFIC USED	2026 TRAFFIC WITHOUT PROJECT	2026 TOTAL TRAFFIC	ASSURED LANES	CLASS	LOS D	2026 WITHOUT PROJECT MEETS LOS STD.	MEETS LOS STD.
FOREST HILL BOULEVARD	SOUTH SHORE BOULEVARD	SITE	EB	2022	2546	30%	1	1.00%	103	215	2	103	320	2866	2867	6D	I	3020	YES	YES
			WB	2022	1622	30%	2	1.00%	66	161	4	66	231	1853	1855	6D	I	3020	YES	YES
FOREST HILL BOULEVARD	SITE	SR 7	EB	2022	2546	70%	5	1.00%	103	215	10	103	328	2874	2879	6D	I	3020	YES	YES
			WB	2022	1622	70%	2	1.00%	66	193	4	66	263	1885	1887	6D	I	3020	YES	YES

TABLE 7
PM PEAK HOUR - PART TWO

2026 BUILD OUT
TOTAL PM PEAK HOUR PROJECT TRIPS (ENTERING) = 8
TOTAL PM PEAK HOUR PROJECT TRIPS (EXITING) = 5

ROADWAY	FROM	TO	DIRECTION	TRAFFIC COUNT YEAR	PM PEAK HOUR TRAFFIC	PROJECT DISTRIBUTION	PM PEAK HOUR PROJECT TRIPS	LINK GROWTH RATE	LINK GROWTH	MAJOR PROJECT	FARRELL WELLINGTON ESTATES WEST	1.0% GROWTH	TOTAL BACKGROUNI TRAFFIC USED	2026 TRAFFIC WITHOUT PROJECT	2026 TOTAL TRAFFIC	ASSURED LANES	CLASS	LOS D	2026 WITHOUT PROJECT MEETS LOS STD.	MEETS LOS STD.
FOREST HILL BOULEVARD	SOUTH SHORE BOULEVARD	SITE	EB	2022	2330	30%	2	1.00%	95	194	5	95	294	2624	2626	6D	I	3020	YES	YES
			WB	2022	2202	30%	2	1.00%	89	211	3	89	303	2505	2507	6D	I	3020	YES	YES
FOREST HILL BOULEVARD	SITE	SR 7	EB	2022	2330	70%	4	1.00%	95	248	6	95	347	2677	2681	6D	I	3020	YES	YES
			WB	2022	2202	70%	6	1.00%	89	227	11	89	327	2529	2535	6D	I	3020	YES	YES

APPENDIX D

INTERSECTION ANALYSIS

CMA INTERSECTION ANALYSIS
FARRELL WELLINGTON - ESTATES WEST
FOREST HILL BOULEVARD AT ROYAL FERN DRIVE/POLO CLUB ROAD

10/11/22
REVISED 11/11/22

TRIPS

	IN	OUT
AM	5	14
PM	16	9

INPUT DATA

Comments: Background traffic, without project, existing geometry

Growth Rate = 1.00% Peak Season = 1.03 Current Year = 2022 Buildout Year = 2026

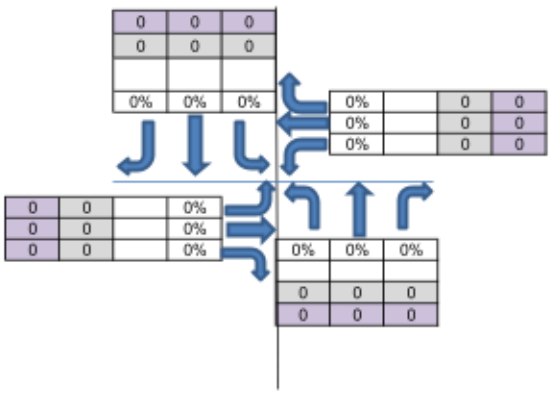
AM Peak Hour

INTERSECTION VOLUME DEVELOPMENT

	Northbound			Southbound			Eastbound			Westbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing Volume (2022)	33	2	60	355	5	193	140	2118	26	197	1329	216	
Peak Season Adjustment	1	0	2	11	0	6	4	64	1	6	40	6	
Background Traffic Growth	1	0	3	15	0	8	6	89	1	8	56	9	195
1.0% Background Growth	1	0	3	15	0	8	6	89	1	8	56	9	581
Major Projects Traffic*	0	0	0	0	0	0	0	215	0	0	161	0	
Farrell East Traffic	2	0	5	0	0	0	0	0	1	2	0	0	
1% BGR + Major Projects	3	0	8	15	0	8	6	304	2	10	217	9	
Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	
Total	**37**	**2**	**69**	**380**	**5**	**207**	**150**	**2485**	**29**	**213**	**1585**	**232**	
Approach Total		**109**			**593**			**2,664**			**2,030**		

CRITICAL VOLUME ANALYSIS

No. of Lanes	1	1	<	2	1	<	1	3	<	1	3	1
Per Lane Volume	37	71		190	212		150	838		213	528	232
Right on Red			10			10			10			0
Overlaps Left			213			150			37			190
Adj. Per Lane Volume	37	61		190	202		150	828		213	528	41
Through/Right Volume		61			202			828			528	
Opposing Left Turns		190			37			213			150	
Critical Volume for Approach		252			240			1041			679	
Critical Volume for Direction		252						1041				
Intersection Critical Volume	**1,293**											
STATUS?	**NEAR**											



PM Peak Hour

INTERSECTION VOLUME DEVELOPMENT

	Northbound			Southbound			Eastbound			Westbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing Volume (2022)	33	2	95	170	2	65	58	1878	39	107	2023	60	
Peak Season Adjustment	1	0	3	5	0	2	2	56	1	3	61	2	
Background Traffic Growth	1	0	4	7	0	3	2	79	2	4	85	3	190
1.0% Background Growth	1	0	4	7	0	3	2	79	2	4	85	3	609
Major Projects Traffic*	0	0	0	0	0	0	0	194	0	0	211	0	
Farrell East Traffic	2	0	4	0	0	0	0	0	2	6	0	0	
1% BGR + Major Projects	3	0	8	7	0	3	2	273	4	10	296	3	
Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	
Total	**37**	**2**	**106**	**182**	**2**	**70**	**62**	**2207**	**44**	**121**	**2379**	**64**	
Approach Total		**145**			**254**			**2,313**			**2,564**		

CRITICAL VOLUME ANALYSIS

No. of Lanes	1	1	<	2	1	<	1	3	<	1	3	1
Per Lane Volume	37	108		91	72		62	750		121	793	64
Right on Red			10			10			10			60
Overlaps Left			121			62			37			91
Adj. Per Lane Volume	37	98		91	62		62	740		121	793	0
Through/Right Volume		98			62			740			793	
Opposing Left Turns		91			37			121			62	
Critical Volume for Approach		189			99			861			855	
Critical Volume for Direction		189						861				
Intersection Critical Volume	**1,050**											
STATUS?	**UNDER**											

* Major projects traffic based on the TPS link report for Forest Hill Boulevard between South Shore Boulevard and Stribling Way (Station 3407).

X:\Documents\PROJECTS\2021\21-196 PB Polo Soccer Site\Traffic\Estates West_Traffic Calcs.rev2.xlsx
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10/11/22
REVISED 11/11/22

CMA INTERSECTION ANALYSIS
FARRELL WELLINGTON - ESTATES WEST
FOREST HILL BOULEVARD AT ROYAL FERN DRIVE/POLO CLUB ROAD

TRIPS	IN	OUT
AM	5	14
PM	16	9

INPUT DATA

Comments: Future traffic (WITH project), existing geometry

Growth Rate = 1.00% Peak Season = 1.03 Current Year = 2022 Buildout Year = 2026

AM Peak Hour

INTERSECTION VOLUME DEVELOPMENT

	Northbound			Southbound			Eastbound			Westbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing Volume (2022)	33	2	60	355	5	193	140	2118	26	197	1329	216	
Peak Season Adjustment	1	0	2	11	0	6	4	64	1	6	40	6	
Background Traffic Growth	1	0	3	15	0	8	6	89	1	8	56	9	195
1.0% Background Growth	1	0	3	15	0	8	6	89	1	8	56	9	581
Major Projects Traffic*	0	0	0	0	0	0	0	215	0	0	161	0	
Farrell East Traffic	2	0	5	0	0	0	0	0	1	2	0	0	
1% BGR + Major Projects	3	0	8	15	0	8	6	304	2	10	217	9	
Project Traffic	4	0	10	0	0	0	0	0	2	4	0	0	
Total	**41**	**2**	**79**	**380**	**5**	**207**	**150**	**2485**	**31**	**217**	**1585**	**232**	
Approach Total		**123**			**593**			**2,666**			**2,034**		

CRITICAL VOLUME ANALYSIS

No. of Lanes	1	1	<	2	1	<	1	3	<	1	3	1
Per Lane Volume	41	81		190	212		150	839		217	528	232
Right on Red			10			10			10			0
Overlaps Left			217			150			41			190
Adj. Per Lane Volume	41	71		190	202		150	829		217	528	41
Through/Right Volume		71			202			829			528	
Opposing Left Turns		190			41			217			150	
Critical Volume for Approach		262			244			1046			679	
Critical Volume for Direction		262						1046				
Intersection Critical Volume	**1,308**											
STATUS?	**NEAR**											

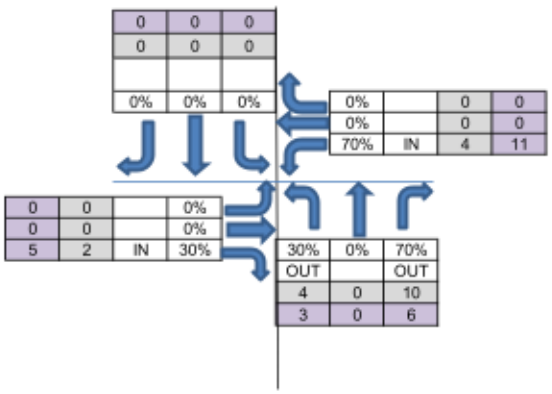
PM Peak Hour

INTERSECTION VOLUME DEVELOPMENT

	Northbound			Southbound			Eastbound			Westbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing Volume (2022)	33	2	95	170	2	65	58	1878	39	107	2023	60	
Peak Season Adjustment	1	0	3	5	0	2	2	56	1	3	61	2	
Background Traffic Growth	1	0	4	7	0	3	2	79	2	4	85	3	190
1.0% Background Growth	1	0	4	7	0	3	2	79	2	4	85	3	609
Major Projects Traffic*	0	0	0	0	0	0	0	194	0	0	211	0	
Farrell East Traffic	2	0	4	0	0	0	0	0	2	6	0	0	
1% BGR + Major Projects	3	0	8	7	0	3	2	273	4	10	296	3	
Project Traffic	3	0	6	0	0	0	0	0	5	11	0	0	
Total	**40**	**2**	**112**	**182**	**2**	**70**	**62**	**2207**	**49**	**132**	**2379**	**64**	
Approach Total		**154**			**254**			**2,318**			**2,575**		

CRITICAL VOLUME ANALYSIS

No. of Lanes	1	1	<	2	1	<	1	3	<	1	3	1
Per Lane Volume	40	114		91	72		62	752		132	793	64
Right on Red			10			10			10			60
Overlaps Left			132			62			40			91
Adj. Per Lane Volume	40	104		91	62		62	742		132	793	0
Through/Right Volume		104			62			742			793	
Opposing Left Turns		91			40			132			62	
Critical Volume for Approach		195			102			874			855	
Critical Volume for Direction		195						874				
Intersection Critical Volume	**1,069**											
STATUS?	**UNDER**											



* Major projects traffic based on the TPS link report for Forest Hill Boulevard between South Shore Boulevard and Stribling Way (Station 3407).

X:\Documents\PROJECTS\2021\21-196 PB Polo Soccer Site\Traffic\Estates West_Traffic Calcs.rev2.xlsx
AL

2021 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 9327 WEST-W OF SR7

MOCF: 0.95

WEEK	DATES	SF	PSCF
1	01/01/2021 - 01/02/2021	0.98	1.03
2	01/03/2021 - 01/09/2021	1.01	1.06
3	01/10/2021 - 01/16/2021	1.03	1.08
4	01/17/2021 - 01/23/2021	1.02	1.07
5	01/24/2021 - 01/30/2021	1.01	1.06
6	01/31/2021 - 02/06/2021	0.99	1.04
* 7	02/07/2021 - 02/13/2021	0.98	1.03
* 8	02/14/2021 - 02/20/2021	0.96	1.01
* 9	02/21/2021 - 02/27/2021	0.95	1.00
*10	02/28/2021 - 03/06/2021	0.94	0.99
*11	03/07/2021 - 03/13/2021	0.93	0.98
*12	03/14/2021 - 03/20/2021	0.92	0.97
*13	03/21/2021 - 03/27/2021	0.93	0.98
*14	03/28/2021 - 04/03/2021	0.94	0.99
*15	04/04/2021 - 04/10/2021	0.95	1.00
*16	04/11/2021 - 04/17/2021	0.95	1.00
*17	04/18/2021 - 04/24/2021	0.96	1.01
*18	04/25/2021 - 05/01/2021	0.97	1.02
*19	05/02/2021 - 05/08/2021	0.98	1.03
20	05/09/2021 - 05/15/2021	0.99	1.04
21	05/16/2021 - 05/22/2021	1.00	1.05
22	05/23/2021 - 05/29/2021	1.01	1.06
23	05/30/2021 - 06/05/2021	1.02	1.07
24	06/06/2021 - 06/12/2021	1.03	1.08
25	06/13/2021 - 06/19/2021	1.04	1.09
26	06/20/2021 - 06/26/2021	1.06	1.12
27	06/27/2021 - 07/03/2021	1.07	1.13
28	07/04/2021 - 07/10/2021	1.09	1.15
29	07/11/2021 - 07/17/2021	1.10	1.16
30	07/18/2021 - 07/24/2021	1.10	1.16
31	07/25/2021 - 07/31/2021	1.10	1.16
32	08/01/2021 - 08/07/2021	1.09	1.15
33	08/08/2021 - 08/14/2021	1.09	1.15
34	08/15/2021 - 08/21/2021	1.09	1.15
35	08/22/2021 - 08/28/2021	1.08	1.14
36	08/29/2021 - 09/04/2021	1.07	1.13
37	09/05/2021 - 09/11/2021	1.05	1.11
38	09/12/2021 - 09/18/2021	1.04	1.09
39	09/19/2021 - 09/25/2021	1.03	1.08
40	09/26/2021 - 10/02/2021	1.01	1.06
41	10/03/2021 - 10/09/2021	1.00	1.05
42	10/10/2021 - 10/16/2021	0.98	1.03
43	10/17/2021 - 10/23/2021	0.98	1.03
44	10/24/2021 - 10/30/2021	0.98	1.03
45	10/31/2021 - 11/06/2021	0.97	1.02
46	11/07/2021 - 11/13/2021	0.97	1.02
47	11/14/2021 - 11/20/2021	0.96	1.01
48	11/21/2021 - 11/27/2021	0.97	1.02
49	11/28/2021 - 12/04/2021	0.97	1.02
50	12/05/2021 - 12/11/2021	0.97	1.02
51	12/12/2021 - 12/18/2021	0.98	1.03
52	12/19/2021 - 12/25/2021	1.01	1.06
53	12/26/2021 - 12/31/2021	1.03	1.08

* PEAK SEASON

KMF Traffic Group, LLC
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Manual Traffic Count - All Traffic
Forest Hill Blvd & Polo Club/Royal Fern
Wellington, FL

File Name : FOPO
Site Code : SW2228
Start Date : 10/18/2022
Page No : 1

Groups Printed- All traffic

	Polo Club Rd NB				Royal Fern Dr SB				Forest Hill Blvd EB				Forest Hill Blvd WB				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Int. Total
07:00 AM	2	1	13	3	64	0	8	2	38	413	3	2	7	322	29	25	932
07:15 AM	8	0	4	2	69	1	49	2	47	484	5	1	6	286	46	39	1049
07:30 AM	10	0	10	1	109	2	54	0	41	571	5	2	5	375	50	29	1264
07:45 AM	6	2	24	0	87	2	57	0	37	503	8	1	18	360	105	55	1265
Total	26	3	51	6	329	5	168	4	163	1971	21	6	36	1343	230	148	4510
08:00 AM	9	0	22	0	90	0	33	1	11	560	8	0	29	308	15	16	1102
08:15 AM	7	0	7	1	53	1	7	0	24	549	8	0	18	344	17	9	1045
08:30 AM	6	3	13	0	42	2	18	0	21	440	9	0	24	320	27	8	933
08:45 AM	5	0	17	2	59	1	15	1	17	401	11	0	22	308	13	6	878
Total	27	3	59	3	244	4	73	2	73	1950	36	0	93	1280	72	39	3958
*** BREAK ***																	
04:00 PM	10	0	32	2	54	2	24	0	11	365	10	3	17	408	9	12	959
04:15 PM	16	0	32	1	27	0	17	1	17	429	5	1	17	439	15	4	1021
04:30 PM	9	0	31	0	38	0	11	0	10	488	12	0	21	510	14	9	1153
04:45 PM	9	2	27	1	45	0	14	0	15	457	6	0	15	434	21	10	1056
Total	44	2	122	4	164	2	66	1	53	1739	33	4	70	1791	59	35	4189
05:00 PM	9	0	18	0	42	1	20	1	18	512	12	0	21	532	7	9	1202
05:15 PM	6	0	19	0	45	1	20	1	15	421	9	0	15	547	18	7	1124
05:30 PM	11	1	24	1	61	0	14	0	4	377	5	0	17	467	8	7	997
05:45 PM	4	1	21	1	35	0	22	0	7	445	14	0	11	504	8	2	1075
Total	30	2	82	2	183	2	76	2	44	1755	40	0	64	2050	41	25	4398
Grand Total	127	10	314	15	920	13	383	9	333	7415	130	10	263	6464	402	247	17055
Apprch %	27.3	2.1	67.4	3.2	69.4	1	28.9	0.7	4.2	94	1.6	0.1	3.6	87.6	5.5	3.3	
Total %	0.7	0.1	1.8	0.1	5.4	0.1	2.2	0.1	2	43.5	0.8	0.1	1.5	37.9	2.4	1.4	

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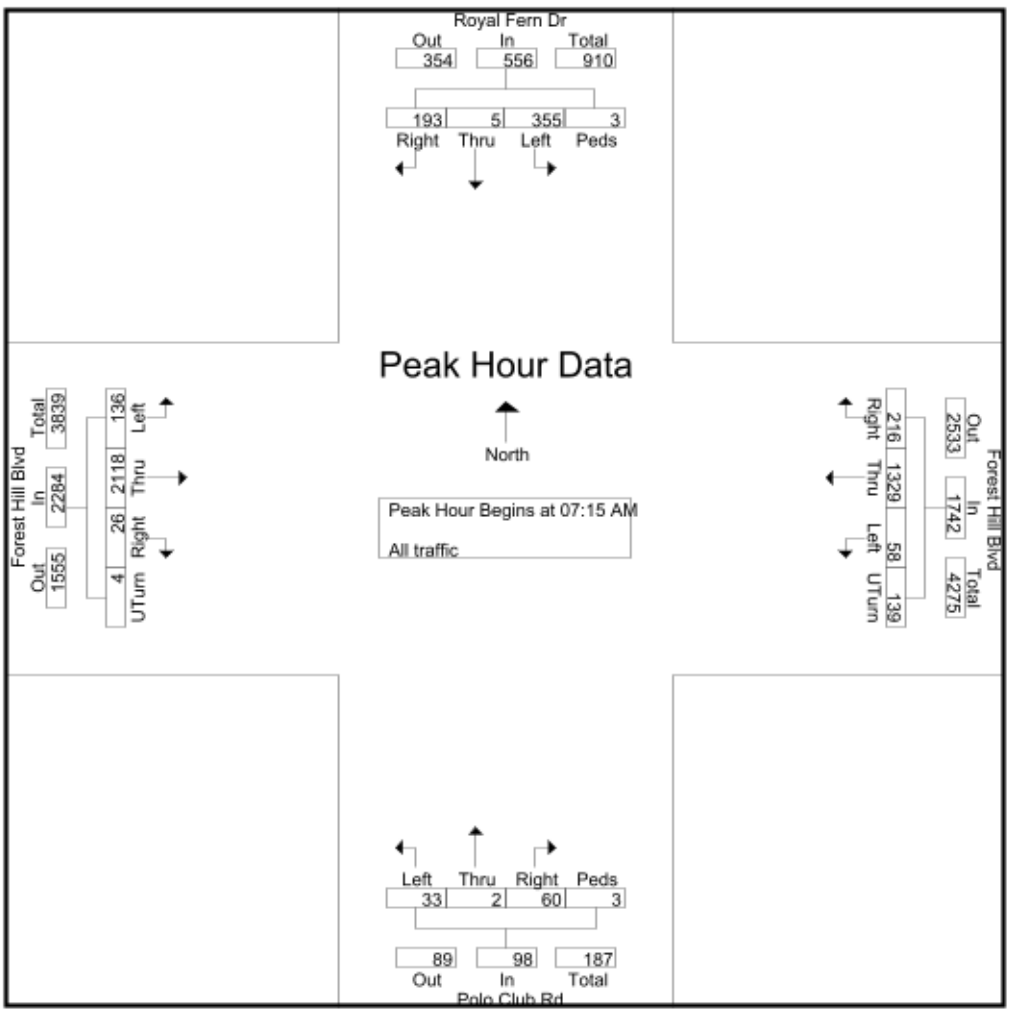
Manual Traffic Count - All Traffic
Forest Hill Blvd & Polo Club/Royal Fern
Wellington, FL

File Name : FOPO
Site Code : SW2228
Start Date : 10/18/2022
Page No : 2

	Polo Club Rd NB					Royal Fern Dr SB					Forest Hill Blvd EB					Forest Hill Blvd WB					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	UTurn	App. Total	Left	Thru	Right	UTurn	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	8	0	4	2	14	69	1	49	2	121	47	484	5	1	537	6	286	46	39	377	1049
07:30 AM	10	0	10	1	21	109	2	54	0	165	41	571	5	2	619	5	375	50	29	459	1264
07:45 AM	6	2	24	0	32	87	2	57	0	146	37	503	8	1	549	18	360	105	55	538	1265
08:00 AM	9	0	22	0	31	90	0	33	1	124	11	560	8	0	579	29	308	15	16	368	1102
Total Volume	33	2	60	3	98	355	5	193	3	556	136	2118	26	4	2284	58	1329	216	139	1742	4680
% App. Total	33.7	2	61.2	3.1		63.8	0.9	34.7	0.5		6	92.7	1.1	0.2		3.3	76.3	12.4	8		
PHF	.825	.250	.625	.375	.766	.814	.625	.846	.375	.842	.723	.927	.813	.500	.922	.500	.886	.514	.632	.809	.925



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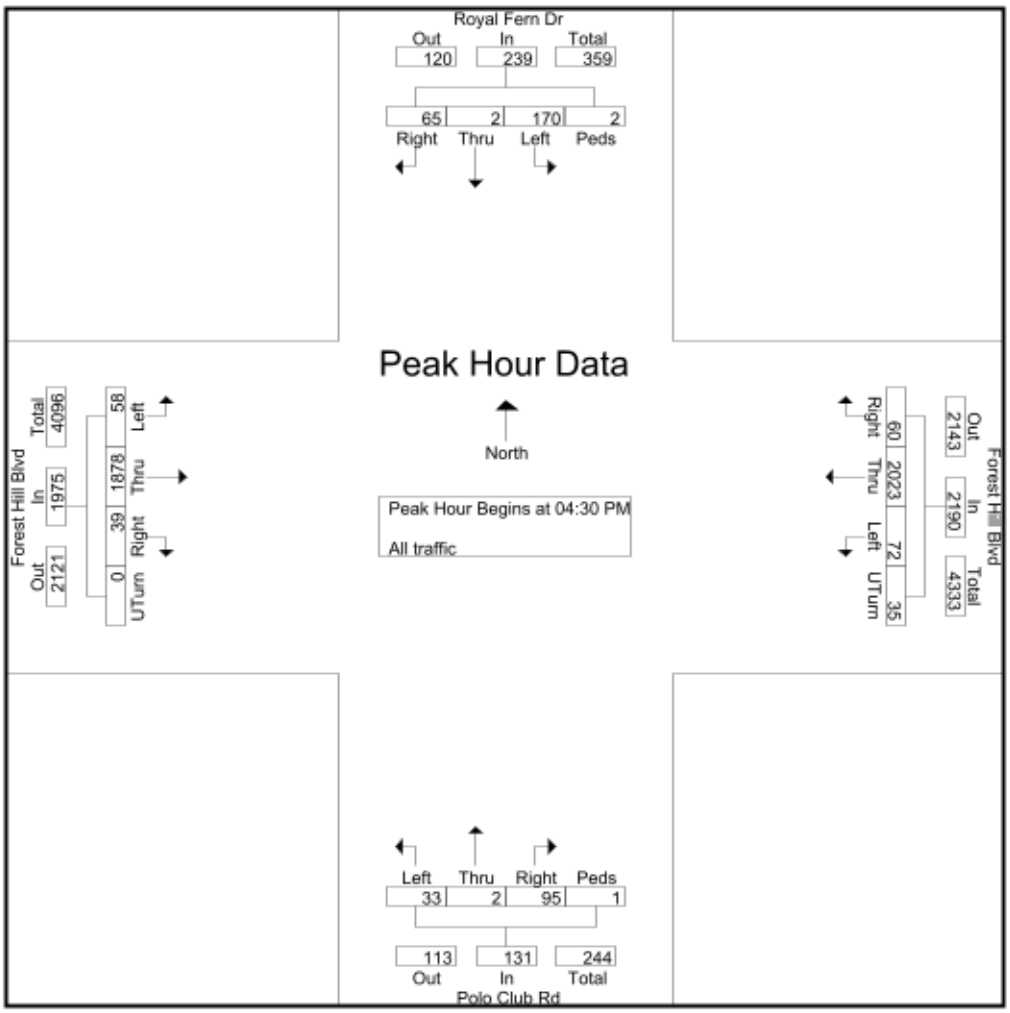
Manual Traffic Count - All Traffic
Forest Hill Blvd & Polo Club/Royal Fern
Wellington, FL

File Name : FOPO
Site Code : SW2228
Start Date : 10/18/2022
Page No : 3

	Polo Club Rd NB					Royal Fern Dr SB					Forest Hill Blvd EB					Forest Hill Blvd WB					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	UTurn	App. Total	Left	Thru	Right	UTurn	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 04:30 PM																					
04:30 PM	9	0	31	0	40	38	0	11	0	49	10	488	12	0	510	21	510	14	9	554	1153
04:45 PM	9	2	27	1	39	45	0	14	0	59	15	457	6	0	478	15	434	21	10	480	1056
05:00 PM	9	0	18	0	27	42	1	20	1	64	18	512	12	0	542	21	532	7	9	569	1202
05:15 PM	6	0	19	0	25	45	1	20	1	67	15	421	9	0	445	15	547	18	7	587	1124
Total Volume	33	2	95	1	131	170	2	65	2	239	58	1878	39	0	1975	72	2023	60	35	2190	4535
% App. Total	25.2	1.5	72.5	0.8		71.1	0.8	27.2	0.8		2.9	95.1	2	0		3.3	92.4	2.7	1.6		
PHF	.917	.250	.766	.250	.819	.944	.500	.813	.500	.892	.806	.917	.813	.000	.911	.857	.925	.714	.875	.933	.943



Palm Beach County **Signal Timing Sheet** **10/12/2022**

33380 : 2570 - Forest Hill Bl and Polo Club Rd (Standard File)

Phase [1.1.1]

	1 (EL)	2 (WT)	3 (SR)	4 (NR)	5 (WL)	6 (ET)	7	8	9	10	11	12	13	14	15	16
Walk	0	7	7	0	0	7	0	0	0	0	0	0	0	0	0	0
Ped Clearance	0	23	30	0	0	25	0	0	0	0	0	0	0	0	0	0
Min Green	4	20	6	6	4	20	0	0	0	0	0	0	0	0	0	0
Passage	2	4	2	2	2	4	0	0	0	0	0	0	0	0	0	0
Max1	25	45	35	25	30	45	0	0	0	0	0	0	0	0	0	0
Max2	5	45	8	8	5	45	0	0	0	0	0	0	0	0	0	0
Yellow	5	5	4	4	5	5	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red	2	2	2.5	2.5	2	2	0	0	0	0	0	0	0	0	0	0

Phase Option [1.1.2]

	1 (EL)	2 (WT)	3 (SR)	4 (NR)	5 (WL)	6 (ET)	7	8	9	10	11	12	13	14	15	16
Enable	ON	ON	ON	ON	ON	ON										
Auto Entry			ON													
Auto Exit		ON				ON										
Non Act1																
Non Act2																
Lock Call		ON				ON										
Min Recall		ON				ON										
Max Recall	ON	ON	ON	ON	ON	ON										
Ped Recall																
Dual Entry		ON				ON										
Sim Gap Enable																
Rest In Walk																

Detector, Vehicle Parameters 1-16 [5.1]

	1 (EL1)	2 (WT1)	3 (ST1)	4 (NT1)	5 (WL1)	6 (ET1)	7	8	9	10	11	12	13	14	15	16
Call Phase	1	2	2	2	3	3	3	5	6	6	6	0	4	4	0	0
Switch Phase	6	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters 17-32 [5.1]

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters 33-48 [5.1]

	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters 49-64 [5.1]

	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Approved By: Ron Tibbetts **Date:** _____

Palm Beach County **System Timing Sheet** **10/12/2022**

33380 : 2570 - Forest Hill Bl and Polo Club Rd (Standard File)

TB Coor, Day Plan[4.4]

Day Plan Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		6	7	8	9	13	14	15	19	21						
Minute			40	10		45	25	30								
Action	21	2	8	2	1	7	1	3	1	21						

Day Plan Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		9	14	20												
Minute																
Action	21	5	4	21												

Day Plan Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		10	14	18												
Minute		30		30												
Action	21	5	4	21												

Coordination, Pattern 1-16 [2.1]/Coordination, Alt Tables+[2.6]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	140	160	160	160	160		140	160			160	200	200			
Offset Time	12	65	50	15	15		12	65			70	30	60			
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	1	1	1	9	9	1	1	1	1	1	9	9	9	1	1	1
Ph Opt Alt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph Time Alt	1	2	3	5	4	0	3	2	0	0	0	0	0	0	0	0

Coordination, Splits [2.7.1]

Split Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	82	21	17	20	82		38								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	25	88	28	19	21	92		47								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	18	96	28	18	27	87		46								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	17	81	44	18	19	79		62								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	17	79	44	20	23	73		64								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	39	24	17	20	39		41								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Approved By: Ron Tibbetts **Date:** _____

Palm Beach County **Preempt & Overlap Timing Sheet** **10/12/2022**

33380 : 2570 - Forest Hill Bl and Polo Club Rd (Standard File)

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Flash						
Override Higher						
Flash Dwell						
Link						
Delay						
Min Duration						
Min Green			5	5	5	5
Min Walk			4	4	4	4
Ped Clear			22	22	22	22
Track Green						
Min Dwell			10	10	10	10
Max Presence			120	120	120	120
Track R1						
Track R2						
Track R3						
Track R4						
Dwell P1			2	2	3	4
Dwell P2			6	6		
Dwell P3						
Dwell P4						
Dwell P5						
Dwell P6						
Dwell P7						
Dwell P8						
Dwell P9						
Dwell P10						
Dwell P11						
Dwell P12						
Dwell Ped1						
Dwell Ped2						
Dwell Ped3						
Dwell Ped4						
Dwell Ped5						
Dwell Ped6						
Dwell Ped7						
Dwell Ped8						
Exit R1			2	2	2	2
Exit R2			6	6	6	6
Exit R3						
Exit R4						

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable			ON	ON	ON	ON
Type	EMERG	EMERG	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt						
Max2						
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell						
Pattern						
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1						
Track Over 2						
Track Over 3						
Track Over 4						
Track Over 5						
Track Over 6						
Track Over 7						
Track Over 8						
Track Over 9						
Track Over 10						
Track Over 11						
Track Over 12						
Dwell Over 1						
Dwell Over 2						
Dwell Over 3						
Dwell Over 4						
Dwell Over 5						
Dwell Over 6						
Dwell Over 7						
Dwell Over 8						
Dwell Over 9						
Dwell Over 10						
Dwell Over 11						
Dwell Over 12						
Ped Clear						
Yellow						
Red						
Return Min/Max						
Delay Inh						
Exit Time						
All Red B4						

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NORMAL	0	3.5	1.5
Overlap 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NORMAL	0	3.5	1.5
Overlap 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NORMAL	0	3.5	1.5
Overlap 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NORMAL	0	3.5	1.5
Overlap 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NORMAL	0	3.5	1.5
Overlap 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NORMAL	0	3.5	1.5
Overlap 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NORMAL	0	3.5	1.5
Overlap 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NORMAL	0	3.5	1.5
Overlap 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NORMAL	0	3.5	1.5
Overlap 10	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NORMAL	0	3.5	1.5
Overlap 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NORMAL	0	3.5	1.5
Overlap 12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NORMAL	0	3.5	1.5
Overlap 13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NORMAL	0	3.5	1.5
Overlap 14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NORMAL	0	3.5	1.5
Overlap 15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NORMAL	0	3.5	1.5
Overlap 16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NORMAL	0	3.5	1.5

Approved By: Ron Tibbetts **Date:** _____

Palm Beach County **Alternate Timing Sheet** **10/12/2022**

33380 : 2570 - Forest Hill Bl and Polo Club Rd (Standard File)

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped	Min	Passage	Max1	Max2	Yellow	Red	Assign	Bike

Alternate Phase Programx 2, Interval Times [1.1.6.1]

Phase	Walk	Ped	Min	Passage	Max1	Max2	Yellow	Red	Assign	Bike

		Clear	Green					Clear	Ph	Clear
1	0	0	4	2	17	0	5	2	1	0
2	7	23	20	4	79	0	5	2	2	0
3	7	30	6	2	18	0	4	2.5	3	0
4	0	0	6	2	14	0	4	2.5	4	0
5	0	0	4	2	17	0	5	2	5	0
6	7	25	20	4	79	0	5	2	6	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0

		Clear	Green					Clear	Ph	Clear
1	0	0	4	2	25	0	5	2	1	0
2	7	23	20	4	85	0	5	2	2	0
3	7	30	6	2	25	0	4	2.5	3	0
4	0	0	6	2	16	0	4	2.5	4	0
5	0	0	4	2	21	0	5	2	5	0
6	7	25	20	4	89	0	5	2	6	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 3, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	4	2	15	0	5	2	1	0
2	7	23	20	4	93	0	5	2	2	0
3	7	30	6	2	25	0	4	2.5	3	0
4	0	0	6	2	15	0	4	2.5	4	0
5	0	0	4	2	24	0	5	2	5	0
6	7	25	20	4	84	0	5	2	6	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 4, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	4	2	14	0	5	2	1	0
2	7	23	20	4	78	0	5	2	2	0
3	7	30	6	2	20	0	4	2.5	3	0
4	0	0	6	2	15	0	4	2.5	4	0
5	0	0	4	2	16	0	5	2	5	0
6	7	25	20	4	76	0	5	2	6	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 5, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	4	2	14	0	5	2	1	0
2	7	23	20	4	76	0	5	2	2	0
3	7	30	6	2	20	0	4	2.5	3	0
4	0	0	6	2	17	0	4	2.5	4	0
5	0	0	4	2	20	0	5	2	5	0
6	7	25	20	4	70	0	5	2	6	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0

TB Coor, Day Plan [4.4]

Day Plan Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		6	9	12	18											
Minute		30														
Action	100	4	5	6	4											

Day Plan Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		9	12	22												
Minute																
Action	100	4	5	4												

Day Plan Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Approved By: Ron Tibbetts **Date:** _____

Palm Beach County **Special System Timing Sheet** **10/12/2022**

33380 : 2570 - Forest Hill Bl and Polo Club Rd (Standard File)

Coordination, Splits [2.7.1]

Split Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	74	28	18	24	70		46								
Mode	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	25	75	42	18	24	76		60								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	18	75	47	20	24	69		67								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	113	47	20	24	109		67								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	16	119	47	18	16	119		65								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Approved By: Ron Tibbetts **Date:** _____

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	SW	Intersection	Forest Hill + Polo Club
Agency or Co.	Simmons & White	Area Type	All other areas
Date Performed	11/11/2022	Jurisdiction	VOW
Time Period	AM Peak - Existing Timings	Analysis Year	2026 - Background Volumes
		Project ID	21-196 Farrell West

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes, N_1	1	3	0	1	3	1	1	1	0	2	1	0
Lane Group	L	TR		L	T	R	L	TR		L	TR	
Volume, V (vph)	150	2485	29	213	1585	232	37	2	69	380	5	207
% Heavy Vehicles, %HV	2	2	2	2	2	2	2	2	2	2	2	2
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
Pretimed (P) or Actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up Lost Time, l_1	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Extension of Effective Green, e	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival Type, AT	3	3		3	3	3	3	3		3	3	
Unit Extension, UE	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Filtering/Metering, I	1.000	1.000		1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Initial Unmet Demand, Q_b	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Ped / Bike / RTOR Volumes	0	0	10	0	0	0	0	0	10	0	0	10
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking Maneuvers, N_m												
Buses Stopping, N_B	0	0		0	0	0	0	0		0	0	
Min. Time for Pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	Excl. Left	EB Only	EW Perm	04	SB Only	NB Only	07	08
Timing	G = 14.0	G = 4.0	G = 81.0	G =	G = 21.5	G = 12.5	G =	G =
	Y = 7	Y = 0	Y = 7	Y =	Y = 6.5	Y = 6.5	Y =	Y =

Duration of Analysis, T = 0.25 — Cycle Length, C = 160.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted Flow Rate, v	158	2636		224	1668	244	39	64		400	212	
Lane Group Capacity, c	351	2692		147	2569	1083	138	124		462	214	
v/c Ratio, X	0.45	0.98		1.52	0.65	0.23	0.28	0.52		0.87	0.99	
Total Green Ratio, g/C	0.71	0.53		0.56	0.51	0.68	0.08	0.08		0.13	0.13	
Uniform Delay, d_1	24.9	36.6		51.2	29.1	9.4	69.5	70.8		67.8	69.1	
Progression Factor, PF	1.000	1.000		1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Delay Calibration, k	0.11	0.48		0.50	0.23	0.11	0.11	0.12		0.40	0.49	
Incremental Delay, d_2	0.9	12.8		267.1	0.6	0.1	1.1	3.7		15.8	58.7	
Initial Queue Delay, d_3	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay	25.8	49.5		318.3	29.6	9.5	70.6	74.6		83.6	127.9	
Lane Group LOS	C	D		F	C	A	E	E		F	F	
Approach Delay	48.1			57.6			73.1			98.9		
Approach LOS	D			E			E			F		
Intersection Delay	57.7			X_C = 1.84			Intersection LOS			E		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *21-196 Farrell West*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*TR*		*L*	*T*	*R*	*L*	*TR*		*L*	*TR*	
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	
Flow Rate/Lane Group	*158*	*2636*		*224*	*1668*	*244*	*39*	*64*		*400*	*212*	
Satflow/Lane	*497*	*1860*		*260*	*1862*	*1583*	*1770*	*1592*		*1770*	*1590*	
Capacity/Lane Group	*351*	*2692*		*147*	*2569*	*1083*	*138*	*124*		*462*	*214*	
Flow Ratio	*0.3*	*0.5*		*0.9*	*0.3*	*0.2*	*0.0*	*0.0*		*0.1*	0.1	
v/c Ratio	*0.45*	*0.98*		*1.52*	*0.65*	*0.23*	*0.28*	*0.52*		*0.87*	*0.99*	
I Factor	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Arrival Type	*3*	*3*		*3*	*3*	*3*	*3*	*3*		*3*	*3*	
Platoon Ratio	*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	*1.00*	
PF Factor	*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	*1.00*	
Q_1	*2.2*	*42.0*		*4.6*	*20.0*	*4.0*	*1.6*	*2.7*		*8.9*	*9.4*	
k_B	*0.5*	*1.0*		*0.3*	*0.9*	*1.0*	*0.3*	*0.3*		*0.4*	*0.4*	
Q_2	*0.4*	*9.6*		*10.5*	*1.7*	*0.3*	*0.1*	*0.3*		*1.8*	*3.1*	
Q Average	*2.6*	*51.5*		*15.1*	*21.7*	*4.3*	*1.8*	*3.0*		*10.7*	*12.5*	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*	*1.5*		*1.8*	*1.7*	*2.0*	*2.0*	*2.0*		*1.8*	*1.8*	
Back of Queue	*5.3*	*79.1*		*26.5*	*36.4*	*8.6*	*3.6*	*6.1*		*19.7*	*22.5*	
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*	*25.0*	*25.0*	*25.0*		*25.0*	*25.0*	
Queue Storage	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Average Queue Storage Ratio												
95% Queue Storage Ratio												

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	SW	Intersection	Forest Hill + Polo Club
Agency or Co.	Simmons & White	Area Type	All other areas
Date Performed	11/11/2022	Jurisdiction	VOW
Time Period	PM Peak - Existing Timings	Analysis Year	2026 - Background Volumes
		Project ID	21-196 Farrell West

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes, N_1	1	3	0	1	3	1	1	1	0	2	1	0
Lane Group	L	TR		L	T	R	L	TR		L	TR	
Volume, V (vph)	62	2207	44	121	2379	64	37	2	106	182	2	70
% Heavy Vehicles, %HV	2	2	2	2	2	2	2	2	2	2	2	2
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
Pretimed (P) or Actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up Lost Time, l_1	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Extension of Effective Green, e	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival Type, AT	3	3		3	3	3	3	3		3	3	
Unit Extension, UE	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Filtering/Metering, I	1.000	1.000		1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Initial Unmet Demand, Q_b	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Ped / Bike / RTOR Volumes	0	0	10	0	0	60	0	0	10	0	0	10
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking Maneuvers, N_m												
Buses Stopping, N_B	0	0		0	0	0	0	0		0	0	
Min. Time for Pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	Excl. Left	EB Only	EW Perm	04	SB Only	NB Only	07	08
Timing	G = 11.0	G = 9.0	G = 80.0	G =	G = 21.5	G = 11.5	G =	G =
	Y = 7	Y = 0	Y = 7	Y =	Y = 6.5	Y = 6.5	Y =	Y =

Duration of Analysis, T = 0.25 — Cycle Length, C = 160.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted Flow Rate, v	65	2359		127	2504	4	39	103		192	65	
Lane Group Capacity, c	346	2816		113	2537	1073	127	114		462	214	
v/c Ratio, X	0.19	0.84		1.12	0.99	0.00	0.31	0.90		0.42	0.30	
Total Green Ratio, g/C	0.71	0.56		0.54	0.50	0.68	0.07	0.07		0.13	0.13	
Uniform Delay, d_1	28.3	29.5		39.1	39.5	8.3	70.5	73.7		63.5	62.5	
Progression Factor, PF	1.000	1.000		1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Delay Calibration, k	0.11	0.37		0.50	0.49	0.11	0.11	0.42		0.11	0.11	
Incremental Delay, d_2	0.3	2.4		121.9	14.9	0.0	1.4	55.3		0.6	0.8	
Initial Queue Delay, d_3	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay	28.6	31.9		161.0	54.4	8.3	71.8	129.0		64.1	63.3	
Lane Group LOS	C	C		F	D	A	E	F		E	E	
Approach Delay	31.8			59.4			113.3			63.9		
Approach LOS	C			E			F			E		
Intersection Delay	48.8			X_C = 0.93			Intersection LOS			D		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *21-196 Farrell West*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*TR*		*L*	*T*	*R*	*L*	*TR*		*L*	*TR*	
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	
Flow Rate/Lane Group	*65*	*2359*		*127*	*2504*	*4*	*39*	*103*		*192*	*65*	
Satflow/Lane	*485*	*1858*		*210*	*1862*	*1583*	*1770*	*1589*		*1770*	*1592*	
Capacity/Lane Group	*346*	*2816*		*113*	*2537*	*1073*	*127*	*114*		*462*	*214*	
Flow Ratio	*0.1*	*0.5*		*0.6*	*0.5*	*0.0*	*0.0*	*0.1*		*0.1*	0.0	
v/c Ratio	*0.19*	*0.84*		*1.12*	*0.99*	*0.00*	*0.31*	*0.90*		*0.42*	*0.30*	
I Factor	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Arrival Type	*3*	*3*		*3*	*3*	*3*	*3*	*3*		*3*	*3*	
Platoon Ratio	*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	*1.00*	
PF Factor	*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	*1.00*	
Q_1	*0.9*	*32.0*		*2.7*	*40.3*	*0.1*	*1.6*	*4.5*		*4.0*	*2.6*	
k_B	*0.5*	*1.0*		*0.3*	*0.9*	*1.0*	*0.3*	*0.3*		*0.4*	*0.4*	
Q_2	*0.1*	*4.3*		*3.1*	*9.6*	*0.0*	*0.1*	*1.3*		*0.3*	*0.2*	
Q Average	*1.0*	*36.3*		*5.8*	*50.0*	*0.1*	*1.8*	*5.8*		*4.3*	*2.8*	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*2.1*	*1.6*		*1.9*	*1.5*	*2.1*	*2.0*	*1.9*		*2.0*	*2.0*	
Back of Queue	*2.0*	*57.3*		*11.3*	*76.8*	*0.1*	*3.6*	*11.3*		*8.4*	*5.6*	

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*	*25.0*	*25.0*	*25.0*		*25.0*	*25.0*	
Queue Storage	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Average Queue Storage Ratio												
95% Queue Storage Ratio												

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	SW	Intersection	Forest Hill + Polo Club
Agency or Co.	Simmons & White	Area Type	All other areas
Date Performed	11/11/2022	Jurisdiction	VOW
Time Period	AM Peak	Analysis Year	2026 Background Vols w/Improvs
		Project ID	21-196 Farrell West - 2nd WBL, 3rd SBL

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes, N_1	1	3	0	2	3	1	1	1	0	3	1	0
Lane Group	L	TR		L	T	R	L	TR		L	TR	
Volume, V (vph)	150	2485	29	213	1585	232	37	2	69	380	5	207
% Heavy Vehicles, %HV	2	2	2	2	2	2	2	2	2	2	2	2
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
Pretimed (P) or Actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up Lost Time, l_1	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Extension of Effective Green, e	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival Type, AT	3	3		3	3	3	3	3		3	3	
Unit Extension, UE	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Filtering/Metering, I	1.000	1.000		1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Initial Unmet Demand, Q_b	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Ped / Bike / RTOR Volumes	0	0	10	0	0	0	0	0	10	0	0	10
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking Maneuvers, N_m												
Buses Stopping, N_B	0	0		0	0	0	0	0		0	0	
Min. Time for Pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	Excl. Left	EB Only	EW Perm	04	SB Only	NB Only	07	08
Timing	G = 10.0	G = 2.5	G = 81.0	G =	G = 27.0	G = 12.5	G =	G =
	Y = 7	Y = 0	Y = 7	Y =	Y = 6.5	Y = 6.5	Y =	Y =

Duration of Analysis, T = 0.25 — Cycle Length, C = 160.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted Flow Rate, v	158	2636		224	1668	244	39	64		400	212	
Lane Group Capacity, c	290	2645		1047	2569	1138	138	124		813	268	
v/c Ratio, X	0.54	1.00		0.21	0.65	0.21	0.28	0.52		0.49	0.79	
Total Green Ratio, g/C	0.67	0.52		0.54	0.51	0.72	0.08	0.08		0.17	0.17	
Uniform Delay, d_1	27.2	38.1		20.0	29.1	7.5	69.5	70.8		60.3	63.8	
Progression Factor, PF	1.000	1.000		1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Delay Calibration, k	0.14	0.50		0.11	0.23	0.11	0.11	0.12		0.11	0.34	
Incremental Delay, d_2	2.1	16.7		0.1	0.6	0.1	1.1	3.7		0.5	14.8	
Initial Queue Delay, d_3	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay	29.3	54.8		20.1	29.6	7.6	70.6	74.6		60.8	78.6	
Lane Group LOS	C	D		C	C	A	E	E		E	E	
Approach Delay	53.3			26.1			73.1			66.9		
Approach LOS	D			C			E			E		
Intersection Delay	44.9			X_C = 0.87			Intersection LOS			D		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *21-196 Farrell West - 2nd WBL, 3rd SBL*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*TR*		*L*	*T*	*R*	*L*	*TR*		*L*	*TR*	
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	
Flow Rate/Lane Group	*158*	*2636*		*224*	*1668*	*244*	*39*	*64*		*400*	*212*	
Satflow/Lane	*432*	*1860*		*1003*	*1862*	*1583*	*1770*	*1592*		*1769*	*1590*	
Capacity/Lane Group	*290*	*2645*		*1047*	*2569*	*1138*	*138*	*124*		*813*	*268*	
Flow Ratio	*0.4*	*0.5*		*0.1*	*0.3*	*0.2*	*0.0*	*0.0*		*0.1*	0.1	
v/c Ratio	*0.54*	*1.00*		*0.21*	*0.65*	*0.21*	*0.28*	*0.52*		*0.49*	*0.79*	
I Factor	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Arrival Type	*3*	*3*		*3*	*3*	*3*	*3*	*3*		*3*	*3*	
Platoon Ratio	*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	*1.00*	
PF Factor	*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	*1.00*	
Q_1	*2.5*	*42.8*		*2.4*	*20.0*	*3.6*	*1.6*	*2.7*		*5.9*	*9.0*	
k_B	*0.4*	*1.0*		*0.7*	*0.9*	*1.1*	*0.3*	*0.3*		*0.5*	*0.4*	
Q_2	*0.5*	*10.6*		*0.2*	*1.7*	*0.3*	*0.1*	*0.3*		*0.4*	*1.4*	
Q Average	*3.0*	*53.4*		*2.6*	*21.7*	*3.9*	*1.8*	*3.0*		*6.3*	*10.4*	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*	*1.5*		*2.0*	*1.7*	*2.0*	*2.0*	*2.0*		*1.9*	*1.8*	
Back of Queue	*6.0*	*81.8*		*5.2*	*36.4*	*7.7*	*3.6*	*6.1*		*12.2*	*19.2*	
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*	*25.0*	*25.0*	*25.0*		*25.0*	*25.0*	
Queue Storage	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Average Queue Storage Ratio												
95% Queue Storage Ratio												

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	SW	Intersection	Forest Hill + Polo Club
Agency or Co.	Simmons & White	Area Type	All other areas
Date Performed	11/11/2022	Jurisdiction	VOW
Time Period	PM Peak	Analysis Year	2026 Background Vols w/Improvs
		Project ID	21-196 Farrell West - 2nd WBL, 3rd SBL

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes, N_1	1	3	0	2	3	1	1	1	0	3	1	0
Lane Group	L	TR		L	T	R	L	TR		L	TR	
Volume, V (vph)	62	2207	44	121	2379	64	37	2	106	182	2	70
% Heavy Vehicles, %HV	2	2	2	2	2	2	2	2	2	2	2	2
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
Pretimed (P) or Actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up Lost Time, l_1	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Extension of Effective Green, e	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival Type, AT	3	3		3	3	3	3	3		3	3	
Unit Extension, UE	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Filtering/Metering, I	1.000	1.000		1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Initial Unmet Demand, Q_b	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Ped / Bike / RTOR Volumes	0	0	10	0	0	60	0	0	10	0	0	10
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking Maneuvers, N_m												
Buses Stopping, N_B	0	0		0	0	0	0	0		0	0	
Min. Time for Pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	Excl. Left	EB Only	EW Perm	04	SB Only	NB Only	07	08
Timing	G = 10.0	G = 3.0	G = 80.0	G =	G = 20.0	G = 20.0	G =	G =
	Y = 7	Y = 0	Y = 7	Y =	Y = 6.5	Y = 6.5	Y =	Y =

Duration of Analysis, T = 0.25 — Cycle Length, C = 160.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted Flow Rate, v	65	2359		127	2504	4	39	103		192	65	
Lane Group Capacity, c	268	2626		865	2537	1059	221	199		603	199	
v/c Ratio, X	0.24	0.90		0.15	0.99	0.00	0.18	0.52		0.32	0.33	
Total Green Ratio, g/C	0.67	0.52		0.53	0.50	0.67	0.13	0.13		0.13	0.13	
Uniform Delay, d_1	30.8	34.7		30.3	39.5	8.8	62.6	65.5		63.8	63.9	
Progression Factor, PF	1.000	1.000		1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Delay Calibration, k	0.11	0.42		0.11	0.49	0.11	0.11	0.12		0.11	0.11	
Incremental Delay, d_2	0.5	4.6		0.1	14.9	0.0	0.4	2.4		0.3	1.0	
Initial Queue Delay, d_3	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay	31.2	39.3		30.3	54.4	8.8	63.0	67.9		64.1	64.8	
Lane Group LOS	C	D		C	D	A	E	E		E	E	
Approach Delay	39.1			53.1			66.5			64.3		
Approach LOS	D			D			E			E		
Intersection Delay	47.8			X_C = 0.76			Intersection LOS			D		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *21-196 Farrell West - 2nd WBL, 3rd SBL*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*TR*		*L*	*T*	*R*	*L*	*TR*		*L*	*TR*	
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	
Flow Rate/Lane Group	*65*	*2359*		*127*	*2504*	*4*	*39*	*103*		*192*	*65*	
Satflow/Lane	*401*	*1858*		*838*	*1862*	*1583*	*1770*	*1589*		*1769*	*1592*	
Capacity/Lane Group	*268*	*2626*		*865*	*2537*	*1059*	*221*	*199*		*603*	*199*	
Flow Ratio	*0.2*	*0.5*		*0.1*	*0.5*	*0.0*	*0.0*	*0.1*		*0.0*	0.0	
v/c Ratio	*0.24*	*0.90*		*0.15*	*0.99*	*0.00*	*0.18*	*0.52*		*0.32*	*0.33*	
I Factor	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Arrival Type	*3*	*3*		*3*	*3*	*3*	*3*	*3*		*3*	*3*	
Platoon Ratio	*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	*1.00*	
PF Factor	*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	*1.00*	
Q_1	*1.0*	*34.7*		*1.4*	*40.3*	*0.1*	*1.6*	*4.3*		*2.8*	*2.6*	
k_B	*0.4*	*1.0*		*0.6*	*0.9*	*1.0*	*0.4*	*0.4*		*0.4*	*0.4*	
Q_2	*0.1*	*5.7*		*0.1*	*9.6*	*0.0*	*0.1*	*0.4*		*0.2*	*0.2*	
Q Average	*1.1*	*40.4*		*1.5*	*50.0*	*0.1*	*1.6*	*4.7*		*3.0*	*2.8*	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.1*	*1.6*		*2.1*	*1.5*	*2.1*	*2.0*	*2.0*		*2.0*	*2.0*	
Back of Queue	*2.3*	*63.2*		*3.0*	*76.8*	*0.1*	*3.3*	*9.2*		*6.1*	*5.7*	
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*	*25.0*	*25.0*	*25.0*		*25.0*	*25.0*	
Queue Storage	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Average Queue Storage Ratio												
95% Queue Storage Ratio												

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	SW	Intersection	Forest Hill + Polo Club
Agency or Co.	Simmons & White	Area Type	All other areas
Date Performed	11/11/2022	Jurisdiction	VOW
Time Period	AM Peak	Analysis Year	2026 w/ Improvements
		Project ID	21-196 Farrell West & 21-197 Farrell East - 2nd WBL, 3rd SBL

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes, N_1	1	3	0	2	3	1	1	1	0	3	1	0
Lane Group	L	TR		L	T	R	L	TR		L	TR	
Volume, V (vph)	150	2485	31	217	1585	232	41	2	79	380	5	207
% Heavy Vehicles, %HV	2	2	2	2	2	2	2	2	2	2	2	2
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
Pretimed (P) or Actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up Lost Time, l_1	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Extension of Effective Green, e	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival Type, AT	3	3		3	3	3	3	3		3	3	
Unit Extension, UE	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Filtering/Metering, I	1.000	1.000		1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Initial Unmet Demand, Q_b	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Ped / Bike / RTOR Volumes	0	0	10	0	0	0	0	0	10	0	0	10
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking Maneuvers, N_m												
Buses Stopping, N_B	0	0		0	0	0	0	0		0	0	
Min. Time for Pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	Excl. Left	EB Only	EW Perm	04	SB Only	NB Only	07	08
Timing	G = 10.0	G = 2.5	G = 81.0	G =	G = 27.0	G = 12.5	G =	G =
	Y = 7	Y = 0	Y = 7	Y =	Y = 6.5	Y = 6.5	Y =	Y =

Duration of Analysis, T = 0.25 — Cycle Length, C = 160.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted Flow Rate, v	158	2638		228	1668	244	43	75		400	212	
Lane Group Capacity, c	290	2645		1048	2569	1138	138	124		813	268	
v/c Ratio, X	0.54	1.00		0.22	0.65	0.21	0.31	0.60		0.49	0.79	
Total Green Ratio, g/C	0.67	0.52		0.54	0.51	0.72	0.08	0.08		0.17	0.17	
Uniform Delay, d_1	27.2	38.1		20.2	29.1	7.5	69.7	71.4		60.3	63.8	
Progression Factor, PF	1.000	1.000		1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Delay Calibration, k	0.14	0.50		0.11	0.23	0.11	0.11	0.19		0.11	0.34	
Incremental Delay, d_2	2.1	16.9		0.1	0.6	0.1	1.3	8.1		0.5	14.8	
Initial Queue Delay, d_3	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay	29.3	55.0		20.3	29.6	7.6	71.0	79.5		60.8	78.6	
Lane Group LOS	C	D		C	C	A	E	E		E	E	
Approach Delay	53.5			26.1			76.4			66.9		
Approach LOS	D			C			E			E		
Intersection Delay	45.1			X_C = 0.88			Intersection LOS			D		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *21-196 Farrell West & 21-197 Farrell East - 2nd WBL, 3rd SBL*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*TR*		*L*	*T*	*R*	*L*	*TR*		*L*	*TR*	
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	
Flow Rate/Lane Group	*158*	*2638*		*228*	*1668*	*244*	*43*	*75*		*400*	*212*	
Satflow/Lane	*432*	*1860*		*1005*	*1862*	*1583*	*1770*	*1591*		*1769*	*1590*	
Capacity/Lane Group	*290*	*2645*		*1048*	*2569*	*1138*	*138*	*124*		*813*	*268*	
Flow Ratio	*0.4*	*0.5*		*0.1*	*0.3*	*0.2*	*0.0*	*0.0*		*0.1*	0.1	
v/c Ratio	*0.54*	*1.00*		*0.22*	*0.65*	*0.21*	*0.31*	*0.60*		*0.49*	*0.79*	
I Factor	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Arrival Type	*3*	*3*		*3*	*3*	*3*	*3*	*3*		*3*	*3*	
Platoon Ratio	*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	*1.00*	
PF Factor	*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	*1.00*	
Q_1	*2.5*	*42.9*		*2.4*	*20.0*	*3.6*	*1.8*	*3.2*		*5.9*	*9.0*	
k_B	*0.4*	*1.0*		*0.7*	*0.9*	*1.1*	*0.3*	*0.3*		*0.5*	*0.4*	
Q_2	*0.5*	*10.6*		*0.2*	*1.7*	*0.3*	*0.1*	*0.4*		*0.4*	*1.4*	
Q Average	*3.0*	*53.6*		*2.6*	*21.7*	*3.9*	*1.9*	*3.6*		*6.3*	*10.4*	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*	*1.5*		*2.0*	*1.7*	*2.0*	*2.0*	*2.0*		*1.9*	*1.8*	
Back of Queue	*6.0*	*82.0*		*5.3*	*36.4*	*7.7*	*4.0*	*7.2*		*12.2*	*19.2*	
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*	*25.0*	*25.0*	*25.0*		*25.0*	*25.0*	
Queue Storage	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Average Queue Storage Ratio												
95% Queue Storage Ratio												

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	SW	Intersection	Forest Hill + Polo Club
Agency or Co.	Simmons & White	Area Type	All other areas
Date Performed	11/11/2022	Jurisdiction	VOW
Time Period	PM Peak	Analysis Year	2026 w/ Improvements
		Project ID	21-196 Farrell West & 21-197 Farrell East - 2nd WBL, 3rd SBL

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes, N_1	1	3	0	2	3	1	1	1	0	3	1	0
Lane Group	L	TR		L	T	R	L	TR		L	TR	
Volume, V (vph)	62	2207	49	132	2379	64	40	2	112	182	2	70
% Heavy Vehicles, %HV	2	2	2	2	2	2	2	2	2	2	2	2
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
Pretimed (P) or Actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up Lost Time, l_1	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Extension of Effective Green, e	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival Type, AT	3	3		3	3	3	3	3		3	3	
Unit Extension, UE	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Filtering/Metering, I	1.000	1.000		1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Initial Unmet Demand, Q_b	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Ped / Bike / RTOR Volumes	0	0	10	0	0	60	0	0	10	0	0	10
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking Maneuvers, N_m												
Buses Stopping, N_B	0	0		0	0	0	0	0		0	0	
Min. Time for Pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	Excl. Left	EB Only	EW Perm	04	SB Only	NB Only	07	08
Timing	G = 10.0	G = 3.0	G = 80.0	G =	G = 20.0	G = 20.0	G =	G =
	Y = 7	Y = 0	Y = 7	Y =	Y = 6.5	Y = 6.5	Y =	Y =

Duration of Analysis, T = 0.25 — Cycle Length, C = 160.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted Flow Rate, v	65	2364		139	2504	4	42	109		192	65	
Lane Group Capacity, c	268	2625		868	2537	1059	221	199		603	199	
v/c Ratio, X	0.24	0.90		0.16	0.99	0.00	0.19	0.55		0.32	0.33	
Total Green Ratio, g/C	0.67	0.52		0.53	0.50	0.67	0.13	0.13		0.13	0.13	
Uniform Delay, d_1	30.8	34.8		30.5	39.5	8.8	62.7	65.8		63.8	63.9	
Progression Factor, PF	1.000	1.000		1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Delay Calibration, k	0.11	0.42		0.11	0.49	0.11	0.11	0.15		0.11	0.11	
Incremental Delay, d_2	0.5	4.7		0.1	14.9	0.0	0.4	3.2		0.3	1.0	
Initial Queue Delay, d_3	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay	31.2	39.5		30.6	54.4	8.8	63.2	68.9		64.1	64.8	
Lane Group LOS	C	D		C	D	A	E	E		E	E	
Approach Delay	39.3			53.1			67.3			64.3		
Approach LOS	D			D			E			E		
Intersection Delay	47.9			X_C = 0.77			Intersection LOS			D		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *21-196 Farrell West & 21-197 Farrell East - 2nd WBL, 3rd SBL*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*TR*		*L*	*T*	*R*	*L*	*TR*		*L*	*TR*	
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	
Flow Rate/Lane Group	*65*	*2364*		*139*	*2504*	*4*	*42*	*109*		*192*	*65*	
Satflow/Lane	*401*	*1857*		*841*	*1862*	*1583*	*1770*	*1588*		*1769*	*1592*	
Capacity/Lane Group	*268*	*2625*		*868*	*2537*	*1059*	*221*	*199*		*603*	*199*	
Flow Ratio	*0.2*	*0.5*		*0.1*	*0.5*	*0.0*	*0.0*	*0.1*		*0.0*	0.0	
v/c Ratio	*0.24*	*0.90*		*0.16*	*0.99*	*0.00*	*0.19*	*0.55*		*0.32*	*0.33*	
I Factor	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Arrival Type	*3*	*3*		*3*	*3*	*3*	*3*	*3*		*3*	*3*	
Platoon Ratio	*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	*1.00*	
PF Factor	*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	*1.00*	
Q_1	*1.0*	*34.8*		*1.5*	*40.3*	*0.1*	*1.7*	*4.6*		*2.8*	*2.6*	
k_B	*0.4*	*1.0*		*0.6*	*0.9*	*1.0*	*0.4*	*0.4*		*0.4*	*0.4*	
Q_2	*0.1*	*5.8*		*0.1*	*9.6*	*0.0*	*0.1*	*0.4*		*0.2*	*0.2*	
Q Average	*1.1*	*40.6*		*1.6*	*50.0*	*0.1*	*1.8*	*5.0*		*3.0*	*2.8*	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.1*	*1.6*		*2.0*	*1.5*	*2.1*	*2.0*	*2.0*		*2.0*	*2.0*	
Back of Queue	*2.3*	*63.4*		*3.3*	*76.8*	*0.1*	*3.6*	*9.7*		*6.1*	*5.7*	
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*	*25.0*	*25.0*	*25.0*		*25.0*	*25.0*	
Queue Storage	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Average Queue Storage Ratio												
95% Queue Storage Ratio												