Application No.: ModRes-2020-002

Attachment "B"

Town Consultant's Traffic Report

Mater Academy Cutler Bay

Modification of Conditions

A RESOLUTION OF THE MAYOR AND TOWN COUNCIL OF THE TOWN OF CUTLER BAY, FLORIDA, APPROVING A MODIFICATION TO A CONDITION IN RESOLUTION 16-37 FOR MATER ACADEMY CUTLER BAY LOCATED AT 22025 SW 87 AVENUE, AS LEGALLY DESCRIBED IN EXHIBIT "A", CONSISTING OF APPROXIMATELY 44.03 ACRES; AND PROVIDING FOR AN EFFECTIVE DATE.

MATER ACADEMY
TRAFFIC IMPACT STUDY

CGA Project No. 16-8664

Prepared for:

TOWN OF CUTLER BAY

June 26, 2020

By:

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS™

PROFESSIONAL ENGINEER CERTIFICATE

I hereby certify that I am a registered professional engineer in the State of Florida practicing with Calvin, Giordano & Associates, Inc., a corporation authorized to operate as an engineering business, EB 00006500, by the State of Florida Department of Professional Regulation, Board of Professional Engineers.

I have prepared or approved the evaluation, findings, opinions, conclusions, or technical advice hereby for:

- PROJECT: Mater Academy School Expansion
- LOCATION: Town of Cutler Bay, Florida

The data adjustments and evaluation techniques used to develop the opinions are standard to the professional practice of transportation engineering and conform as closely as is practicable with the Town's Traffic Impact Analysis Methodology Standards, as applied through professional judgment and experience.

Unavailable for this study or the responsibility of others:

- Insights gained from observation of the site during normal school operation.
- Supervision of driveway counts.
- Supervision of vehicle accumulation counts in existing conditions.
- Opinion of site capacity to hold the projected vehicle accumulation.
- Supervision of offsite turning movement counts.
- The Traffic Operation Plan

NAME: Gavin Jones, PE, AICP

FL PE NO.: 52676

DATE: 6/26/2020

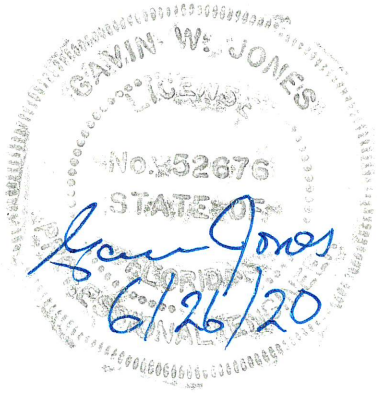


TABLE OF CONTENTS

LIST OF FIGURES

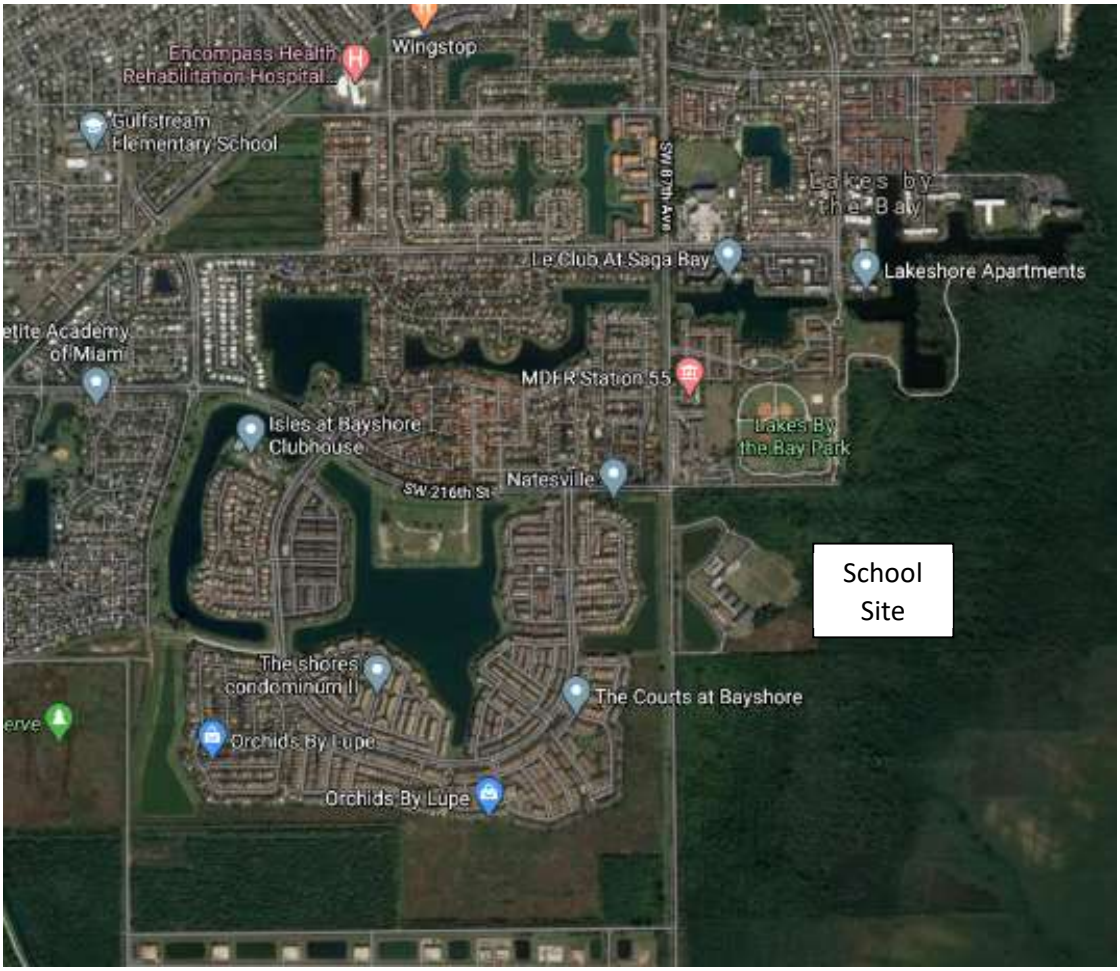
LIST OF TABLES

APPENDICES

Introduction

The Mater Academy Charter School is located at 22025 SW 87th Avenue, Cutler Bay, Florida. The site location is shown in Figure 1. The school's current enrollment is 1,154 students. The school is proposing to increase potential enrollment to 1,600 students. All traffic enters at the southern driveway (SW 224th Street) and exits from the northern driveway (SW 220th Street).

Figure 1 – Site Location



Methodology

The Town of Cutler Bay recently moved to a system whereby the Town's consultants prepare traffic impact studies that accompany development approval applications instead of the applicant's consultant. The Town has also adopted Traffic Impact Analysis Methodology Standards to guide this type of analysis.

Before this occurred, the applicant's consultant conducted a traffic impact methodology meeting with Miami Dade County in November, 2019, when the proposed future enrollment was 1,450 students and the estimated new traffic was 292 vehicles in the AM Peak hour. The County agreed to the methodology with that intensity.

Subsequent to that meeting, the applicant increased the proposed enrollment to 1,600 students (new traffic 439 vehicles in the AM Peak hour) and submitted a methodology memorandum consistent with that intensity to the Town. Both methodology memos are in Appendix A.

The analysis that follows includes analysis of the intersections agreed to in the county methodology meeting:

- SW 87th Avenue at SW 208th Street
- SW 87th Avenue at SW 212th Street
- SW 87th Avenue at SW 216th Street
- Old Cutler Road at SW 216th Street
- SW 87th Avenue at SW 220th St./N School Access
- SW 87th Avenue at SW 224th St./S School Access
- SW 87th Avenue at SW 232nd Street

The existing conditions analysis is for 2019, given that the 2020 peak season was cancelled by the pandemic. The future year analyzed is 2022.

Data Collection

Before the pandemic, on November 19, 2019 the applicant's consultant supervised the collection of AM peak hour turning movement counts at the agreed offsite intersections and the site access intersections, and counts of vehicle accumulations on the site during the afternoon student pick up period. The pandemic that struck in early 2020 precludes any credible data gathering of background traffic conditions for the foreseeable future. All traffic data are in Appendix B. The vehicle accumulation data are in Appendix C.

Trip Generation

The estimated new traffic due to the school's proposed expansion is based on the turning movements into and out of the site collected in November, 2019 as shown in Table 1. The expansion is projected to generate an additional 439 AM peak hour trips, for a total of 1,576 AM peak hour trips.

Table 1 – Trip Generation

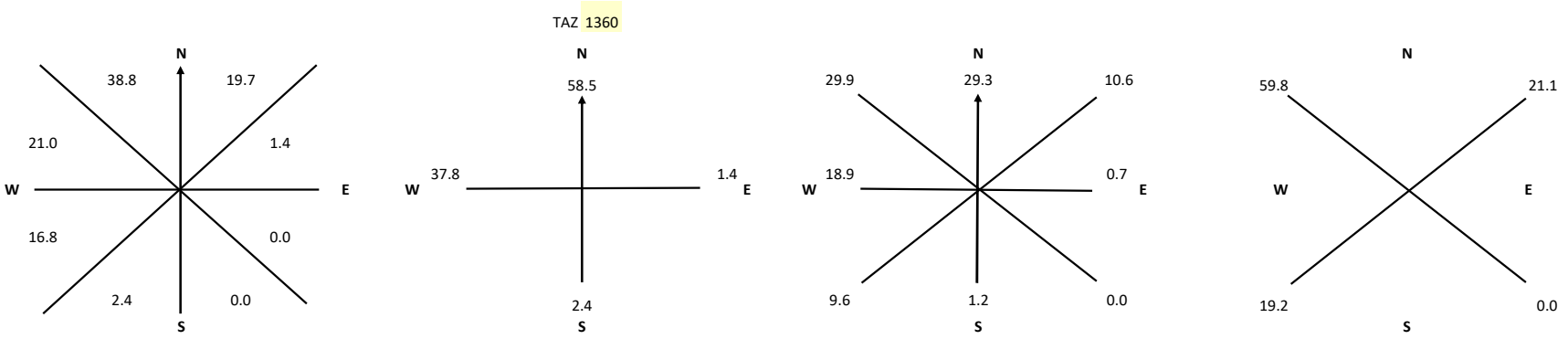
Start Time	15 minute counts		60 minutes		
	Enter/ S Drive	Exit/ N Drive	In	Out	Total
7:00	65	45			
7:15	145	102			
7:30	202	147			
7:45	126	136	538	430	968
8:00	143	136	616	521	1137
8:15	104	121	575	540	1115
8:30	90	117	463	510	973
8:45	7	18	344	392	736
		Peak	616	521	1137
		PHF	0.762	0.886	
Current Enrollment		1,154			
Proposed Enrollment		1,600			
Multiplier		1.39			
Proposed Total			854	722	1576
New Trips			**238**	**201**	**439**
Percent Split			54%	46%	100%

Source: Nationwide Traffic Data 11-19-19

Trip Distribution

The methodology standards normally require distributing new project traffic according to the cardinal patterns published by the county and based on the regional travel demand model. The school resides in Traffic Analysis Zone (TAZ) 1360 and possible patterns for that TAZ are shown in Figure 2. For school expansions another method is to utilize the zipcodes of existing students, though that was not available for this study. The turning movements counted at the driveways did reveal that an average of 28 percent of the trips entering and exiting the site was to and from the south, so that percentage was kept. The remaining 72 percent observed to and from the north were distributed proportional to the cardinal percentages from the county. The resulting percentages of entering and exiting new trips are contained in Appendix D (pages D-6 and D-8) along with other figures of traffic volumes.

Figure 2 – 2010 Cardinal Patterns TAZ 1360



Roadway Features

Table 2 contains information about the roads in the project's vicinity needed to establish minimum standard service volumes.

Table 2 – Roadway Features

Roadway	Limits	Config-uration	State Road	Speed Limit	Arterial Class	Adopt-ed LOS Stand-ard	Peak Hour Two-Way Mini-mum Stand-ard Service Volume	Direct-ion	Exclus-ive LT Lane	Exclus-ive RT lane	Peak Hour Peak Direct-ion Mini-mum Stand-ard Service Volume
SW 87th Ave	SW 232nd Street to South Entrance	2U	No	35mph	II	D	958	N	N	N	675
								S	N	N	675
	North Entrance to SW 216th Street	2U	No	35mph	II	D	958	N	Y	N	709
								S	N	N	675
	SW 216th Street to SW 212th Street	2U	No	35mph	II	D	1257	N	Y	N	709
								S	Y	N	709
	SW 212th Street to SW 208th Street	2U	No	35mph	II	D	1257	N	Y	N	709
								S	Y	Y	750
	SW 208th Street to Old Cutler Road	2U	No	35mph	II	D	1257	N	Y	Y	709
								S	N	Y	709
SW 232nd Street	West of SW 87th Ave	2U	No	30mph	II	D	958	E	N	N	675
								W	N	N	675
SW 216th Street	Old Cutler Road to SW 87th Ave	4D	No	30 mph	II	D	2920	E	Y	Y	1630
								W	Y	Y	1630
	West of Old Cutler Road	4D	No	35mph	II	D	2759	E	Y	Y	1630
								W	Y	N	1540
SW 212th Street	West of SW 87th Ave	4D	No	35mph	II	D	2759	E	Y	N	1540
								W	Y	N	1540
SW 208th Street	West of SW 87th Ave	2D	No	35mph	II	D	1257	E	Y	Y	750
								W	Y	N	709

Notes: Urbanized Area Class II Base 2-Way SVs: 1330 2L, 2920 4L. Source FDOT 2012 LOS Table 4
Urbanized Area Class II Base Pk Dir SVs: 750 2L, 1630 4L. Source FDOT 2012 LOS Table 7
Non-state adjustment - * .9
Non-state, no LT or RT - *.9*.8
Non-state, w LT only - *.9*1.05
Non-state w LT & RT - Base SV
2-Way SVs adjusted for most retrictive directional condition

Project Impact

The Town's methodology standards determine the study influence area by comparing estimated project traffic with the road's minimum standard service volume, and studying the road segment and the intersections on it if the project traffic represents more than three percent of the service volume. Table 3 contains that comparison for adjacent roadway segments. The project traffic volumes in the table can be viewed in Appendix D, page D-10. A de-minimis impact means the project traffic represents less than one percent of the service volume.

Table 3 – Project Impact

Roadway	Limits	Project Traffic Two-Way (1)	Peak Hour Two-Way Minimum Standard Service Volume (2)	Project Traffic as a Percentage of Service Volume	De-Minimis?	Significant? (3)
SW 87th Ave	SW 232nd Street to South Entrance	246	958	25.7%	NO	YES
	North Entrance to SW 216th Street	317	958	33.1%	NO	YES
	SW 216th Street to SW 212th Street	238	1257	18.9%	NO	YES
	SW 212th Street to SW 208th Street	210	1257	16.7%	NO	YES
	SW 208th Street to Old Cutler Road	188	1257	15.0%	NO	YES
SW 232nd Street	West of SW 87th Ave	123	958	12.8%	NO	YES
SW 216th Street	Old Cutler Road to SW 87th Ave	79	2920	2.7%	NO	NO
	West of Old Cutler Road	61	2759	2.2%	NO	NO
SW 212th Street	West of SW 87th Ave	22	2759	0.8%	YES	NO
SW 208th Street	West of SW 87th Ave	22	1257	1.8%	NO	NO

Notes: 1) From Total Project Traffic Figure, Appendix D
2) Roadway Features Table 2
3) Exceeds 3% per Traffic Impact Methodology Standards

By the Town's standards, the segment of SW 87th Avenue from SW 208th Street to Old Cutler Road should be analyzed. Some reasons to accept the analysis without it:

1. No data was collected at the intersection of SW 87th Avenue and Old Cutler Road, no data could be collected now, and no recent data collected in other studies was available.
2. The Town's standards normally require ignoring trip attenuation (the tendency for trip makers to find their destination between successive intersections) which tends to reduce the calculated significance as one moves further from the project site. However, attenuation does exist, particularly for school traffic, which tends to be local. The aforementioned analysis of student zipcodes could be used to quantify it.
3. An analysis to follow of average travel speeds along SW 87th Avenue reveals acceptable level of service as far north as SW 208th Street.

Conversely, the Town's standards would not require an analysis of SW 216th Street west of SW 87th Avenue or it's intersection with Old Cutler Road. However, because the turning movement counts were collected at that intersection the level of service for the segment and intersection are reported here for information purposes.

Analysis Scenarios

In the tables that follow, Existing Conditions represents 2019 peak season average. The counts collected in November 2019 were adjusted to average peak season condition using the FDOT 2019 peak season conversion factor (PSCF) for the week the counts were collected. The driveway counts at the school were not adjusted in this way.

Three Florida Department of Transportation (FDOT) traffic count stations provided historic growth patterns in traffic volumes. The count reports, trend analyses and summary table are all in Appendix B. These trends were used to inflate the 2019 peak season volumes to 2022 peak season condition. The driveway counts at the school were not adjusted in this way.

One approved but unbuilt project, Shoppes at Cutler Bay, is projected to add traffic to two of the study intersections and those volumes were added to the 2022 estimates to form the Future Background condition.

Adding the project traffic creates the Future Total condition. Appendix D contains figures depicting all these volumes. Appendix E contains the volume development tables consistent with the figures in Appendix D.

Intersection level of Service

Intersections were analyzed in Synchro version 10. Reports of the analyses for Existing, Future Background, and Future Total scenarios are in Appendices F through H respectively.

Table 4 contains summary level of service information for the study intersections in all three scenarios. Of those required, all offsite intersections are operating and are projected to operate at acceptable level of service. At the school site exit (SW 224th St.), delays to left turning vehicles (headed south) creates

unacceptable level of service in the future total condition. The applicant will need to modify their Traffic Operation Plan (TOP – discussed in a later section) to ensure the presence of a traffic control officer at this intersection during school arrival period.

Table 4 – Intersection Level of Service Summary

Intersection	Current Control	LOS			Delay (sec.)		
		Existing	Future Back-ground	Future Total	Existing	Future Back-ground	Future Total
SW 87th Avenue at SW 208th Street	Unsignalized	A	A	B	8.4	15.5	31.2
SW 87th Avenue at SW 212th Street	Signalized	C	C	C	26.0	26.6	31.7
SW 87th Avenue at SW 216th Street	Signalized	C	C	C	24.9	26.3	26.5
Old Cutler Road at SW 216th Street	Signalized	D	E	E	53.8	63.4	66.8
SW 87th Avenue at SW 220th St./N School Access	Unsignalized	C	C	F	24.3	27.9	132.9
SW 87th Avenue at SW 224th St./S School Access	Unsignalized	A	A	A	5.2	5.1	9.9
SW 87th Avenue at SW 232nd Street	Unsignalized	A	A	A	5.7	5.9	7.6

Intersection level of service detail tables are in Appendix I

Roadway Level of Service

In Table 5, the roadway link volumes are the average volumes between the intersections, found on the traffic figures in Appendix D. The minimum standard service volumes are from Table 2. Comparing the two provides a quick, crude, and conservative estimate of level of service on roadway segments. By this method, several deficiencies are apparent. For this reason, consistent with Town's standards, a second and more accurate approach was used to estimate average travel speed, using that and the Highway Capacity Manual's exhibit 18-1 (Figure 3) to more accurately estimate level of service.

Figure 3 – Highway Capacity Manual Exhibit 18-1

LOS	Travel Speed Threshold by Base Free-Flow Speed (mi/h)							Volume-to-Capacity Ratio[a]
	55	50	45	40	35	30	25	
A	>44	>40	>36	>32	>28	>24	>20	≤ 1.0
B	>37	>34	>30	>27	>23	>20	>17	
C	>28	>25	>23	>20	>18	>15	>13	
D	>22	>20	>18	>16	>14	>12	>10	
E	>17	>15	>14	>12	>11	>9	>8	
F	≤17	≤15	≤14	≤12	≤11	≤9	≤8	
F	Any							> 1.0

Note: [a] Volume-to-capacity ratio of through movement at downstream boundary intersection.

Table 5 – Roadway Level of Service Analysis

Roadway	Limits	Direct-ion	Peak Hour Peak Direct-ion Mini-mum Stand-ard Service Volume (1)	2019 Exist-ing Cond-ition Traffic Volume (2)	V/C	Accept-able?	2022 Future Back-ground Traffic Volume (2)	V/C	Accept-able?	2022 Future Total Traffic Volume (2)	V/C	Accept-able?
SW 87th Ave	SW 232nd Street to South Entrance	N	675	390	0.58	YES	405	0.60	YES	472	0.70	YES
		S	675	239	0.35	YES	253	0.37	YES	309	0.46	YES
	North Entrance to SW 216th Street	N	709	605	0.85	YES	624	0.88	YES	769	1.08	NO
		S	675	546	0.81	YES	570	0.84	YES	741	1.10	NO
	SW 216th Street to SW 212th Street	N	709	618	0.87	YES	644	0.91	YES	752	1.06	NO
		S	709	417	0.59	YES	432	0.61	YES	560	0.79	YES
	SW 212th Street to SW 208th Street	N	709	667	0.94	YES	690	0.97	YES	786	1.11	NO
		S	750	389	0.52	YES	403	0.54	YES	517	0.69	YES
	SW 208th Street to Old Cutler Road	N	709	785	1.11	NO	837	1.18	NO	923	1.30	NO
		S	709	387	0.55	YES	430	0.61	YES	532	0.75	YES
SW 232nd Street	West of SW 87th Ave	E	675	251	0.37	YES	259	0.38	YES	326	0.48	YES
		W	675	138	0.20	YES	143	0.21	YES	199	0.29	YES
SW 216th Street	Old Cutler Road to SW 87th Ave	E	1630	622	0.38	YES	659	0.40	YES	702	0.43	YES
		W	1630	749	0.46	YES	794	0.49	YES	830	0.51	YES
	West of Old Cutler Road	E	1630	698	0.43	YES	784	0.48	YES	817	0.50	YES
		W	1540	1217	0.79	YES	1308	0.85	YES	1336	0.87	YES

Notes: 1) From Roadway Features table 2
2) Appendix E Volume Development Tables or Appendix D Traffic Figures

Tables 6 through 8 contain the average travel speed estimations for the three scenarios. Intersection delays are from the Synchro reports in Appendices G through H.

Table 6 – SW 87th Avenue Average Travel Speed – Existing Condition

Direct-ion	Intersection	Dis-tance (mi.)	Travel Time (sec.) (1)	Inter-section Delay (sec.) (2)	Total Time (sec.)	Average Travel Speed (mph)	LOS (3)
North-bound	SW 232nd Street (4)						
	South Entrance	0.51	45.9	0.0	45.9	40.0	A
	North Entrance	0.24	21.6	0.0	21.6	40.0	A
	SW 216th Street	0.07	6.3	13.4	19.7	12.8	E
	SW 212th Street	0.45	40.5	37.6	78.1	20.7	C
	SW 208th Street	0.25	22.5	0.0	22.5	40.0	A
	Total	1.52			187.8	29.1	**B**
South-bound	SW 208th Street (4)						
	SW 212th Street	0.25	22.5	14.3	36.8	24.5	C
	SW 216th Street	0.45	40.5	17.7	58.2	27.8	B
	North Entrance	0.07	6.3	0.0	6.3	40.0	A
	South Entrance	0.24	21.6	11.9	33.5	25.8	C
	SW 232nd Street	0.51	45.9	0.0	45.9	40.0	A
	Total	1.52			180.7	30.3	**B**

Notes: 1) Freeflow speed 40 mph based on speed limit 35 mph
2) Through movement delay from Synchro Analysis
3) Based on Highway Capacity Manual 6th ed. Exhibit 18-1
4) Segment initial intersection delay not included in HCM analysis

Table 7 – SW 87th Avenue Average Travel Speed – Future Background Condition

Direct-ion	Intersection	Dis-tance (mi.)	Travel Time (sec.) (1)	Inter-section Delay (sec.) (2)	Total Time (sec.)	Average Travel Speed (mph)	LOS
North-bound	SW 232nd Street (4)						
	South Entrance	0.51	45.9	0.0	45.9	40.0	A
	North Entrance	0.24	21.6	0.0	21.6	40.0	A
	SW 216th Street	0.07	6.3	13.8	20.1	12.5	E
	SW 212th Street	0.45	40.5	37.6	78.1	20.7	C
	SW 208th Street	0.25	22.5	0.0	22.5	40.0	A
	Total	1.52			188.2	29.1	**B**
South-bound	SW 208th Street (4)						
	SW 212th Street	0.25	22.5	12.7	35.2	25.6	C
	SW 216th Street	0.45	40.5	18.4	58.9	27.5	B
	North Entrance	0.07	6.3	0.0	6.3	40.0	A
	South Entrance	0.24	21.6	12.1	33.7	25.6	C
	SW 232nd Street	0.51	45.9	0.0	45.9	40.0	A
	Total	1.52			180	30.4	**B**

Notes: 1) Freeflow speed 40 mph based on speed limit 35 mph

2) Through movement delay from Synchro Analysis

3) Based on Highway Capacity Manual 6th ed. Exhibit 18-1

4) Segment initial intersection delay not included in HCM analysis

Table 8 – SW 87th Avenue Average Travel Speed – Future Total Condition

Direct-ion	Intersection	Dis-tance (mi.)	Travel Time (sec.) (1)	Inter-section Delay (sec.) (2)	Total Time (sec.)	Average Travel Speed (mph)	LOS
North-bound	SW 232nd Street (4)						
	South Entrance	0.51	45.9	0.0	45.9	40.0	A
	North Entrance	0.24	21.6	0.0	21.6	40.0	A
	SW 216th Street	0.07	6.3	15.5	21.8	11.6	F
	SW 212th Street	0.45	40.5	50.5	91	17.8	D
	SW 208th Street	0.25	22.5	0.0	22.5	40.0	A
	Total	1.52			202.8	27.0	**C**
South-bound	SW 208th Street (4)						
	SW 212th Street	0.25	22.5	14.6	37.1	24.3	C
	SW 216th Street	0.45	40.5	22.8	63.3	25.6	C
	North Entrance	0.07	6.3	0.0	6.3	40.0	A
	South Entrance	0.24	21.6	21.3	42.9	20.1	C
	SW 232nd Street	0.51	45.9	0.0	45.9	40.0	A
	Total	1.52			195.5	28.0	**B**

Notes: 1) Freeflow speed 40 mph based on speed limit 35 mph

2) Through movement delay from Synchro Analysis

3) Based on Highway Capacity Manual 6th ed. Exhibit 18-1

4) Segment initial intersection delay not included in HCM analysis

As seen in Tables 6 through 8, roadway levels of service are projected to be acceptable in the Future Total condition.

Afternoon Peak Accumulation

The accumulation data observed in the afternoon pick up period and calculations for projected accumulation are in Appendix C. The applicant asserts that there will be space on site for 218 vehicles, which exceeds the estimated accumulation o f 206 vehicles during the afternoon pick up period.

Traffic Operation Plan (TOP)

The applicant has prepared a Traffic Operation Plan (Appendix J) that needs to be modified to include traffic control at the school's exit in the AM Peak period. PM peak hour turning movements would need to be collected during normal school operations to determine if such control is necessary in PM peak period.

Site Improvements

The applicant has committed to construct a southbound left turn lane on SW 87th Avenue at the school's entrance/SW 220 Street. A preliminary plan set is in Appendix K.

Conclusion

With the addition of traffic control at the school exit/SW 224th Street, the school drive intersections and all offsite intersections will operate at acceptable level of service in 2022 with the addition of new traffic from the expanded enrollment of 1,600 students.

SW 87th Avenue from SW 232nd Street north to SW 208th Street is projected to operate at acceptable level of service in 2022 with the addition of new traffic from the expanded enrollment of 1,600 students.

APPENDIX A

METHODOLOGY

APPENDIX A

LANGAN

Technical Excellence
Practical Experience
Client Responsiveness

18 November 2019

Samael Estevez, P.E.
Miami-Dade County Department of Transportation and Public Works
Traffic Engineering Division
111 NW 1st Street, Suite 1510
Miami, FL 33120-6064

Re: Traffic Analysis Methodology
Mater Bay Academy—Cutler Bay
Cutler Bay, Florida
Langan Project No.: 330016803

Dear Mr. Estevez:

Civica retained Langan Engineering and Environmental Services, Inc. (Langan) to prepare a traffic-impact study for the proposed expansion of the Mater Bay Academy at 22025 SW 87th Avenue, Cutler Bay, Florida. The school is requesting a short-term increase to 1,450 students, but is also preparing a masterplan for an ultimate student enrollment of 3,000. **Figure 1** below shows the site location. Copies of the preliminary short-term site plan and conceptual masterplan are included in **Attachment A**. This letter summarizes the traffic-impact analysis methodology for this project.

Figure 1 – Aerial Photograph of Site

Trip Generation and Vehicle Accumulation

We will collect morning peak-hour trip-generation data and afternoon vehicle-accumulation data at the surrogate school to determine its morning trip generation and afternoon vehicle accumulation. We will apply a multiplier to the collected data based on the difference between the current and proposed enrollment. We will apply a multimodal-reduction factor, based on data collected at the school or based on the available census data, to the trip-generation and vehicle-accumulation calculations. We will use the county's accumulation calculation methodology to determine afternoon vehicle accumulation for the school.

Data

We will collect intersection-turning movements while schools are in session between 7:00 and 9:00 AM at the following intersections:

- SW 87th Avenue and SW 208th Street
- SW 87th Avenue and SW 212th Street
- SW 87th Avenue and SW 216th Street
- Old Cutler Road and SW 216th Street
- SW 87th Avenue and SW 232nd Street

We will use FDOT seasonal factors to convert the traffic data into peak season data.

Project Distribution

We will develop the distribution of traffic based on the data collected on site and based on school data. We will assign project traffic proportionally to the study intersections based on the collected data.

Future Traffic

We will use FDOT historical data from traffic count stations near the project to determine a growth rate. A one-half percent annual growth rate will be used if a negative growth rate is determined. The analysis will include any committed roadway and intersection improvements. Roadway improvement projects scheduled to begin construction within three years will be accounted for in the analysis. We will include any approved and unbuilt projects, if the county can provide copies of the approved traffic studies.

Intersection Analysis

We will analyze the study intersections for existing (2019) and future (2022) morning peak-hour conditions using Synchro software. The school's driveway connections to SW 87th Avenue from SW 220th and SW 224th streets will be analyzed for 2022 build conditions. The overall LOS and delay for the intersections will be summarized and tabulated. We will include the Synchro summary reports in the report appendices.

School Zone

We will evaluate the need to improve the current school zone signalization, signing, crossing and pavement markings with the latest standards from the Florida Department of Transportation (FDOT).

Report

We will prepare a report, signed and sealed by a Florida registered professional engineer, which will include the methodology, data, analysis, findings and recommendations. The report will include a Traffic Operations Plan and county TOP document as an appendix.

We hope that you find this methodology acceptable. Please contact me to verify your approval or to discuss any proposed changes.

Sincerely,
Langan Engineering and Environmental Services, Inc.

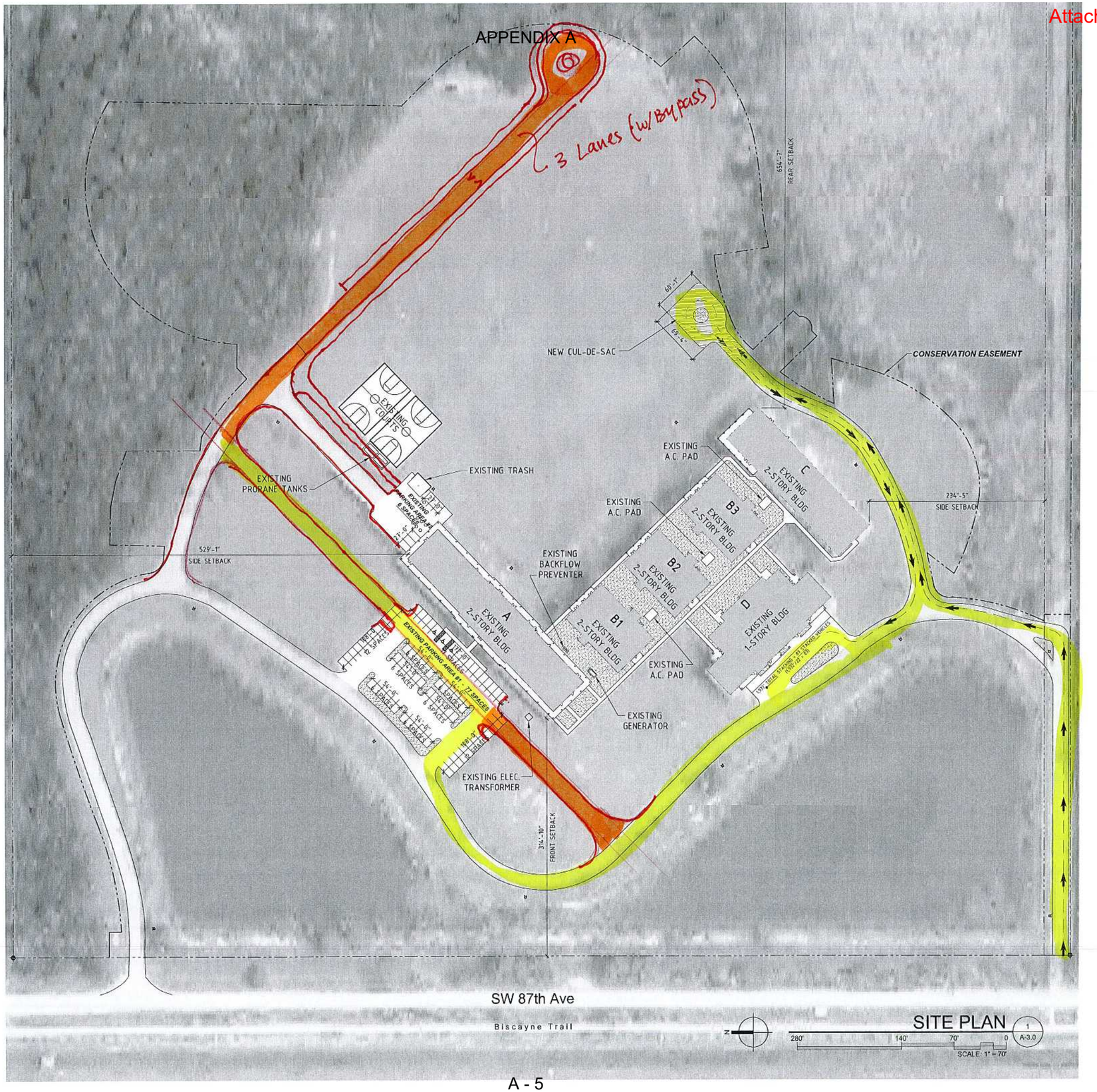
John P. Kim, P.E., PTOE
Senior Project Manager

JPK:jpk
Attachment - Site Plan

Florida Certificate of Authorization No. 6601

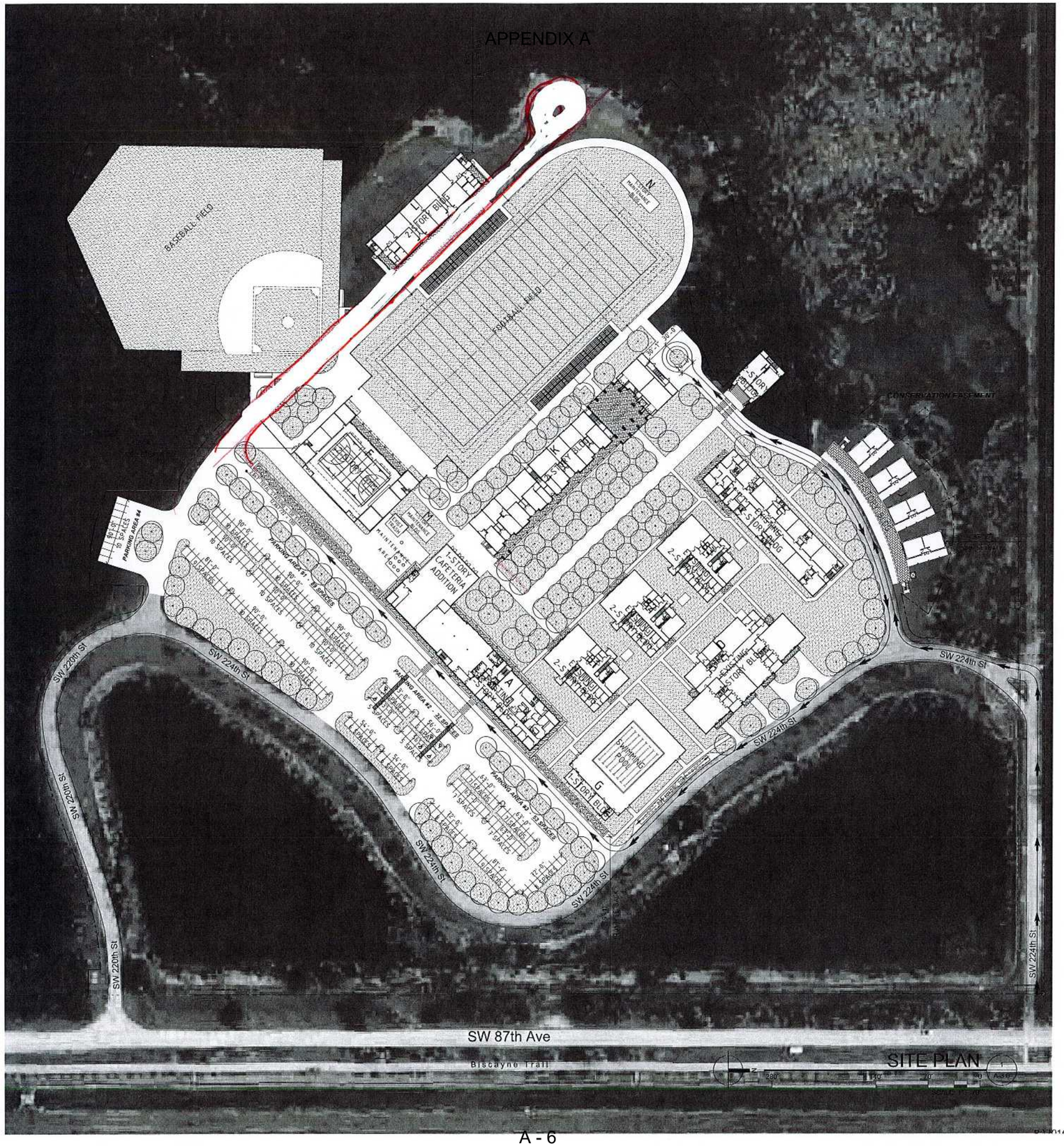
ATTACHMENT A
SITE PLANS

APPENDIX A



EXISTING ON-SITE Q.

ADDITIONAL ON-SITE Q. FOR 8/2020



PROPOSED MASTER PLAN FOR 3,000 st. stg. K-12.

APPENDIX A

LANGAN

Technical Excellence
Practical Experience
Client Responsiveness

25 March 2020

Alex A. David, AICP
Town of Cutler Bay
Planning and Zoning
Cutler Bay Town Center
10720 Caribbean Boulevard, Suite 105
Cutler Bay, FL 33189

Re: Traffic Analysis Methodology
Mater Academy—Cutler Bay
Cutler Bay, Florida
Langan Project No.: 330016803

Dear Mr. David:

Civica retained Langan Engineering and Environmental Services, Inc. (Langan) to prepare a traffic-impact study for the proposed expansion of the Mater Academy at 22025 SW 87th Avenue, Cutler Bay, Florida. The school is approved for 1,200 students and is requesting an increase to 1,600 students. **Figure 1** below shows the site location. Copies of the preliminary short-term site plan and conceptual masterplan are included in **Attachment A**. This letter summarizes the traffic-impact analysis methodology for this project which has been approved by Miami-Dade County.

Figure 1 – Aerial Photograph of Site

Trip Generation and Vehicle Accumulation

We will collect morning peak-hour trip-generation data and afternoon vehicle-accumulation data at the surrogate school to determine its morning trip generation and afternoon vehicle accumulation. We will apply a multiplier to the collected data based on the difference between the current and proposed enrollment. We will apply a multimodal-reduction factor, based on data collected at the school or based on the available census data, to the trip-generation and vehicle-accumulation calculations. We will use the county's accumulation calculation methodology to determine afternoon vehicle accumulation for the school.

Data

We will collect intersection-turning movements while schools are in session between 7:00 and 9:00 AM at the following intersections:

- SW 87th Avenue and SW 208th Street
- SW 87th Avenue and SW 212th Street
- SW 87th Avenue and SW 216th Street
- Old Cutler Road and SW 216th Street
- SW 87th Avenue and SW 232nd Street

We will use FDOT seasonal factors to convert the traffic data into peak season data.

Project Distribution

We will develop the distribution of traffic based on the data collected on site and based on school data. We will assign project traffic proportionally to the study intersections based on the collected data.

Future Traffic

We will use FDOT historical data from traffic count stations near the project to determine a growth rate. A one-half percent annual growth rate will be used if a negative growth rate is determined. The analysis will include any committed roadway and intersection improvements. Roadway improvement projects scheduled to begin construction within three years will be accounted for in the analysis. We will include any approved and unbuilt projects, if the county can provide copies of the approved traffic studies.

Intersection Analysis

We will analyze the study intersections for existing (2019) and future (2022) morning peak-hour conditions using Synchro software. The school's driveway connections to SW 87th Avenue from SW 220th and SW 224th streets will be analyzed for 2022 build conditions. The overall LOS and delay for the intersections will be summarized and tabulated. We will include the Synchro summary reports in the report appendices.

Travel Time Delay Study

We will perform a travel time delay study for the roadway segments of SW 87th Avenue between SW 216th and SW 208th streets for the existing and build conditions.

School Zone

We will evaluate the need to improve the current school zone signalization, signing, crossing and pavement markings with the latest standards from the Florida Department of Transportation (FDOT).

Report

We will prepare a report, signed and sealed by a Florida registered professional engineer, which will include the methodology, data, analysis, findings and recommendations. The report will include a Traffic Operations Plan and county TOP document as an appendix.

We hope that you find this methodology acceptable. Please contact me to verify your approval or to discuss any proposed changes.

Sincerely,
Langan Engineering and Environmental Services, Inc.

John P. Kim, P.E., PTOE
Senior Project Manager

JPK:jpk
Attachment - Site Plan

Florida Certificate of Authorization No. 6601

ATTACHMENT A
SITE PLAN

APPENDIX A

NEW PARKING PLAN 1 SP-3

240' 120' 60' 0

SCALE: 1" = 60'

A - 11

CIVICA
ARCHITECTURE & URBAN DESIGN
8323 NW 12th St. Suite 106
Doral, FL 33126
tel: 305.593.9959
AA #26001093
www.civicagroup.com
info@civicagroup.com

PROJECT:

MATER ACADEMY
BAY ELEMENTARY
22025 SW 87TH AVE
MIAMI, FL 33190

APPLICANT:

MATER ACADEMY INC.

ISSUED FOR:

SITE PLAN APPROVAL

CIVICA PROJECT No :

160103

No.	DATE	REVISION	BY

DRAWN BY	APPROVED BY
AD.	RL
DATE	SCALE:
JAN. 29, 2020	AS SHOWN

SEAL/SIGNATURE

ROLANDO LLANES
AR - 0013160

SHEET TITLE

NEW PARKING PLAN

SHEET NUMBER

SP-3

APPENDIX B

TRAFFIC DATA

APPENDIX B

Nationwide Traffic Data

Intersection Turning Movement Count

Location: SW 87th Ave & SW 208th St
City: Cutler Bay
Control: 1-Way Stop(EB)

Project ID: 19-1055-001
Date: 11/19/2019

Total

NS/EW Streets:	SW 87th Ave				SW 87th Ave				SW 208th St				SW 208th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	9	172	0	0	0	58	5	0	26	0	11	0	0	0	0	0	281
7:15 AM	11	119	0	0	0	76	12	0	25	0	7	0	0	0	0	0	250
7:30 AM	14	173	0	0	0	77	12	0	30	0	21	0	0	0	0	0	327
7:45 AM	33	152	0	0	0	91	17	0	34	0	23	0	0	0	0	0	350
8:00 AM	10	134	0	0	0	59	18	0	33	0	6	0	0	0	0	0	260
8:15 AM	7	151	0	0	0	77	14	0	33	0	9	0	0	0	0	0	291
8:30 AM	9	149	0	0	0	62	13	0	25	0	10	0	0	0	0	0	268
8:45 AM	6	123	0	0	0	61	2	0	23	0	6	0	0	0	0	0	221
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	99	1173	0	0	0	561	93	0	229	0	93	0	0	0	0	0	2248
APPROACH %'s :	7.78%	92.22%	0.00%	0.00%	0.00%	85.78%	14.22%	0.00%	71.12%	0.00%	28.88%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	64	610	0	0	0	304	61	0	130	0	59	0	0	0	0	0	1228
PEAK HR FACTOR :	0.485	0.882	0.000	0.000	0.000	0.835	0.847	0.000	0.956	0.000	0.641	0.000	0.000	0.000	0.000	0.000	0.877
		0.901				0.845				0.829							

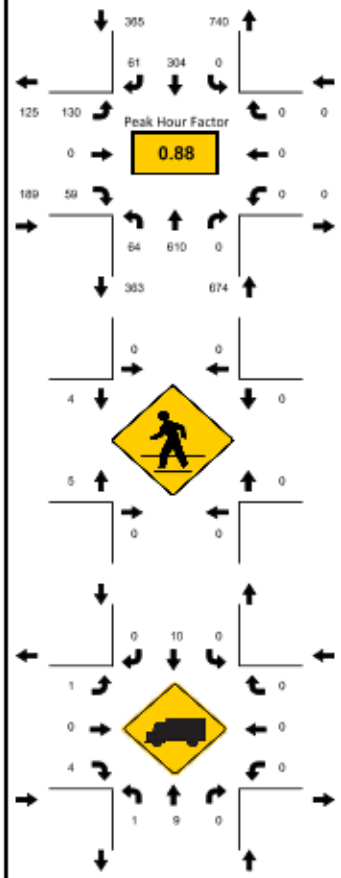
APPENDIX B

Nationwide Traffic Data

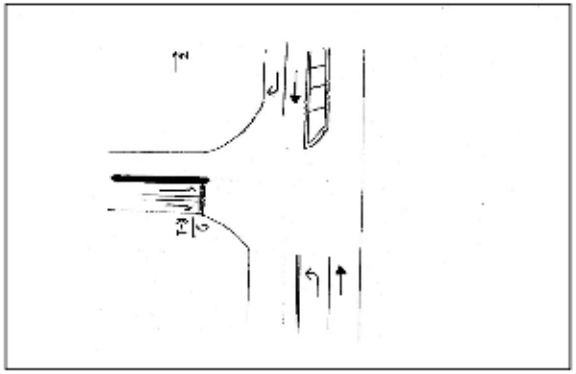
LOCATION: SW 87th Ave & SW 208th St
CITY/STATE: Cutler Bay, FL

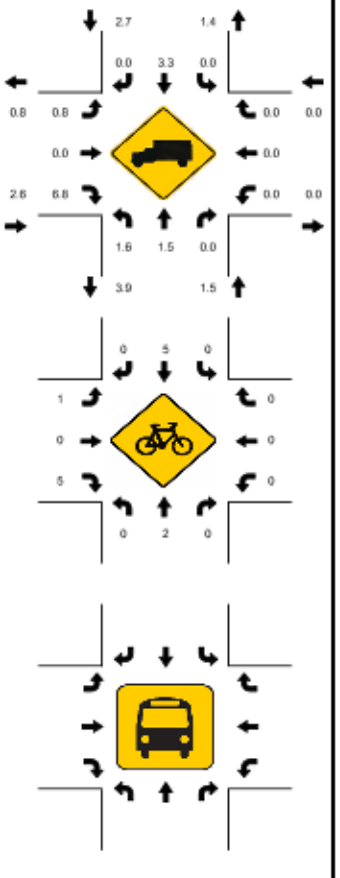
Intersection Turning Movement Count

PROJECT ID: 19-1055-001
DATE: 11/19/2019



Peak-Hour: 07:30 AM - 08:30 AM
Peak 15-Minute: 07:45 AM - 08:00 AM





15-Min Count Period Beginning At	SW 87th Ave Northbound					SW 87th Ave Southbound					SW 208th St Eastbound					SW 208th St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	9	172	0	0		0	58	5	0		26	0	11	0		0	0	0	0		281	1208
07:15 AM	11	119	0	0		0	76	12	0		25	0	7	0		0	0	0	0		250	1187
07:30 AM	14	173	0	0		0	77	12	0		30	0	21	0		0	0	0	0		327	1228
07:45 AM	33	152	0	0		0	91	17	0		34	0	23	0		0	0	0	0		350	1169
08:00 AM	10	134	0	0		0	59	18	0		33	0	6	0		0	0	0	0		260	1040
08:15 AM	7	151	0	0		0	77	14	0		33	0	9	0		0	0	0	0		291	780
08:30 AM	9	149	0	0		0	62	13	0		25	0	10	0		0	0	0	0		268	489
08:45 AM	6	123	0	0		0	61	2	0		23	0	6	0		0	0	0	0		221	221
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	132	692	0	0		0	364	72	0		136	0	92	0		0	0	0	0		**1488**	
Heavy Trucks	4	12	0			0	24	0			4	0	8			0		0	0		**52**	
Pedestrians		0						0				20					0				**20**	
Bicycles	0	4	0			0	8	0			4	0	12			0		0	0		**28**	
Railroad																						
Stopped Buses																						

APPENDIX B

Nationwide Traffic Data

Intersection Turning Movement Count

Location: SW 87th Ave & SW 212th St
City: Cutler Bay
Control: Signalized

Project ID: 19-1055-002
Date: 11/19/2019

Total

NS/EW Streets:	SW 87th Ave				SW 87th Ave				SW 212th St				SW 212th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	137	14	0	4	57	9	0	19	12	9	0	21	14	12	0	309
7:15 AM	3	104	22	0	5	66	7	0	12	29	10	1	13	21	9	0	302
7:30 AM	10	100	18	0	19	68	8	0	20	68	13	0	21	37	41	1	424
7:45 AM	15	89	26	0	29	66	16	0	10	89	11	0	18	53	34	1	457
8:00 AM	11	102	17	0	4	52	7	0	8	16	11	0	31	18	16	0	293
8:15 AM	19	131	25	0	11	71	20	0	17	9	12	0	26	14	16	0	371
8:30 AM	12	119	14	0	7	52	9	0	16	8	2	0	9	24	13	0	285
8:45 AM	3	98	10	0	7	48	14	0	7	5	2	0	6	9	18	0	227
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	74	880	146	0	86	480	90	0	109	236	70	1	145	190	159	2	2668
APPROACH %'s :	6.73%	80.00%	13.27%	0.00%	13.11%	73.17%	13.72%	0.00%	26.20%	56.73%	16.83%	0.24%	29.23%	38.31%	32.06%	0.40%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	55	422	86	0	63	257	51	0	55	182	47	0	96	122	107	2	1545
PEAK HR FACTOR :	0.724	0.805	0.827	0.000	0.543	0.905	0.638	0.000	0.688	0.511	0.904	0.000	0.774	0.575	0.652	0.500	0.845
		0.804				0.836				0.645				0.771			

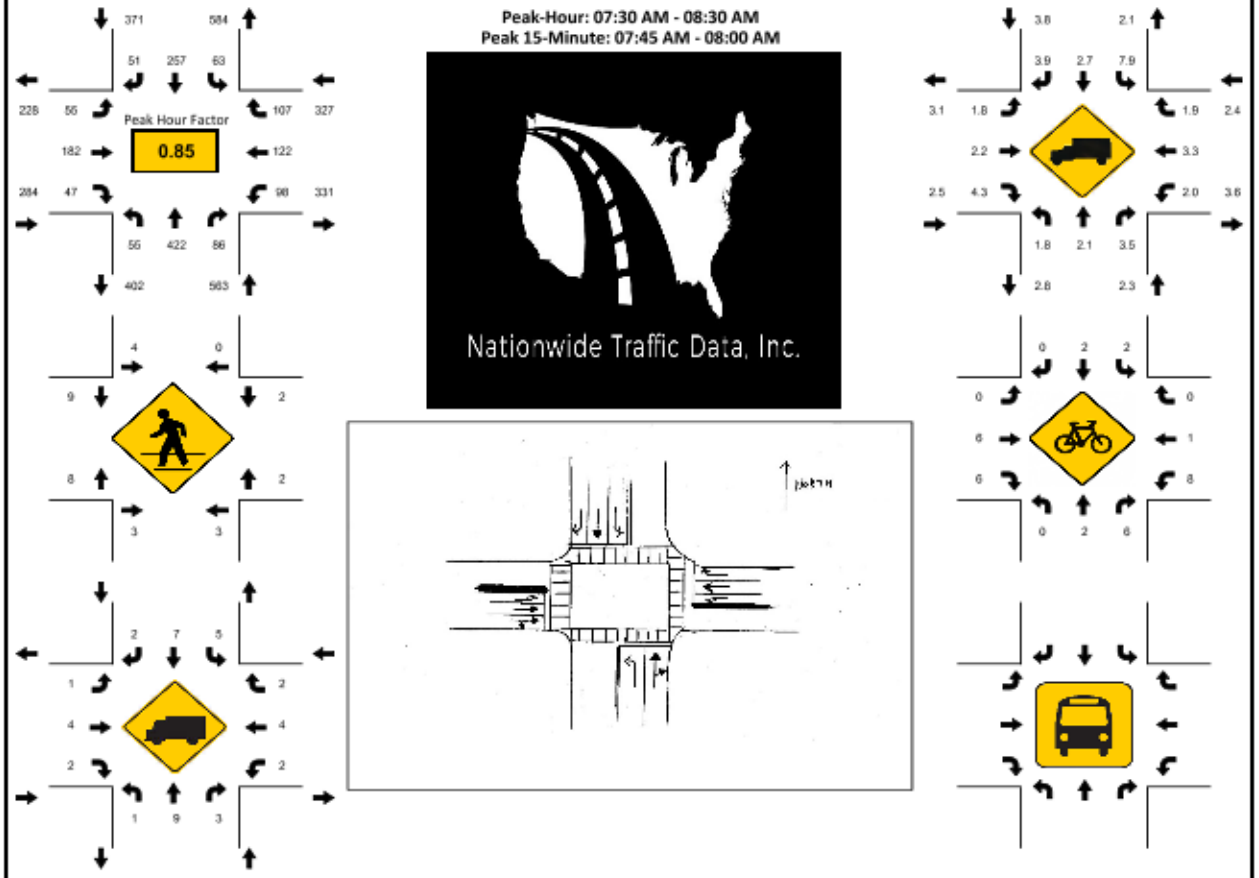
APPENDIX B

Nationwide Traffic Data

LOCATION: SW 87th Ave & SW 212th St
CITY/STATE: Cutler Bay, FL

Intersection Turning Movement Count

PROJECT ID: 19-1055-002
DATE: 11/19/2019



15-Min Count Period Beginning At	SW 87th Ave Northbound					SW 87th Ave Southbound					SW 212th St Eastbound					SW 212th St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	1	137	14	0		4	57	9	0		19	12	9	0		21	14	12	0		309	1492
07:15 AM	3	104	22	0		5	66	7	0		12	29	10	1		13	21	9	0		302	1476
07:30 AM	10	100	18	0		19	68	8	0		20	68	13	0		21	37	41	1		424	1545
07:45 AM	15	89	26	0		29	66	16	0		10	89	11	0		18	53	34	1		457	1406
08:00 AM	11	102	17	0		4	52	7	0		8	16	11	0		31	18	16	0		293	1176
08:15 AM	19	131	25	0		11	71	20	0		17	9	12	0		26	14	16	0		371	883
08:30 AM	12	119	14	0		7	52	9	0		16	8	2	0		9	24	13	0		285	512
08:45 AM	3	98	10	0		7	48	14	0		7	5	2	0		6	9	18	0		227	227
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	76	524	104	0		116	284	80	0		80	356	52	0		124	212	164	4		**2176**	
Heavy Trucks	4	16	8			12	20	8			4	8	4			4	8	4			**100**	
Pedestrians		12					8					24					8				**52**	
Bicycles	0	4	12			4	4	0			0	12	24			20	4	0			**84**	
Railroad																						
Stopped Buses																						

APPENDIX B

Nationwide Traffic Data

Intersection Turning Movement Count

Location: SW 87th Ave & SW 216th St
City: Cutler Bay
Control: Signalized

Project ID: 19-1055-003
Date: 11/19/2019

Total

NS/EW Streets:	SW 87th Ave				SW 87th Ave				SW 216th St				SW 216th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	19	78	3	0	4	68	17	0	71	5	37	0	1	3	1	0	307
7:15 AM	42	106	5	0	4	54	20	0	56	5	86	0	0	2	3	0	383
7:30 AM	48	79	3	0	1	65	33	0	62	13	77	0	2	12	3	0	398
7:45 AM	59	94	4	0	7	53	46	0	60	10	64	0	0	8	3	0	408
8:00 AM	57	75	4	0	5	56	42	0	59	10	58	0	4	10	3	0	383
8:15 AM	46	91	2	0	3	50	46	0	67	9	42	0	4	8	9	0	377
8:30 AM	53	71	0	0	3	37	45	0	48	2	29	0	1	0	3	0	292
8:45 AM	8	46	1	0	2	27	25	0	65	1	12	0	0	2	2	0	191
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	332	640	22	0	29	410	274	0	488	55	405	0	12	45	27	0	2739
APPROACH %'s :	33.40%	64.39%	2.21%	0.00%	4.07%	57.50%	38.43%	0.00%	51.48%	5.80%	42.72%	0.00%	14.29%	53.57%	32.14%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	206	354	16	0	17	228	141	0	237	38	285	0	6	32	12	0	1572
PEAK HR FACTOR :	0.873	0.835	0.800	0.000	0.607	0.877	0.766	0.000	0.956	0.731	0.828	0.000	0.375	0.667	1.000	0.000	0.963
		0.917				0.910				0.921				0.735			

PEAK HR :	7:30 AM - 8:30 AM																TOTAL
PEAK HR VOL :	210	339	13	0	16	224	167	0	248	42	241	0	10	38	18	0	1566

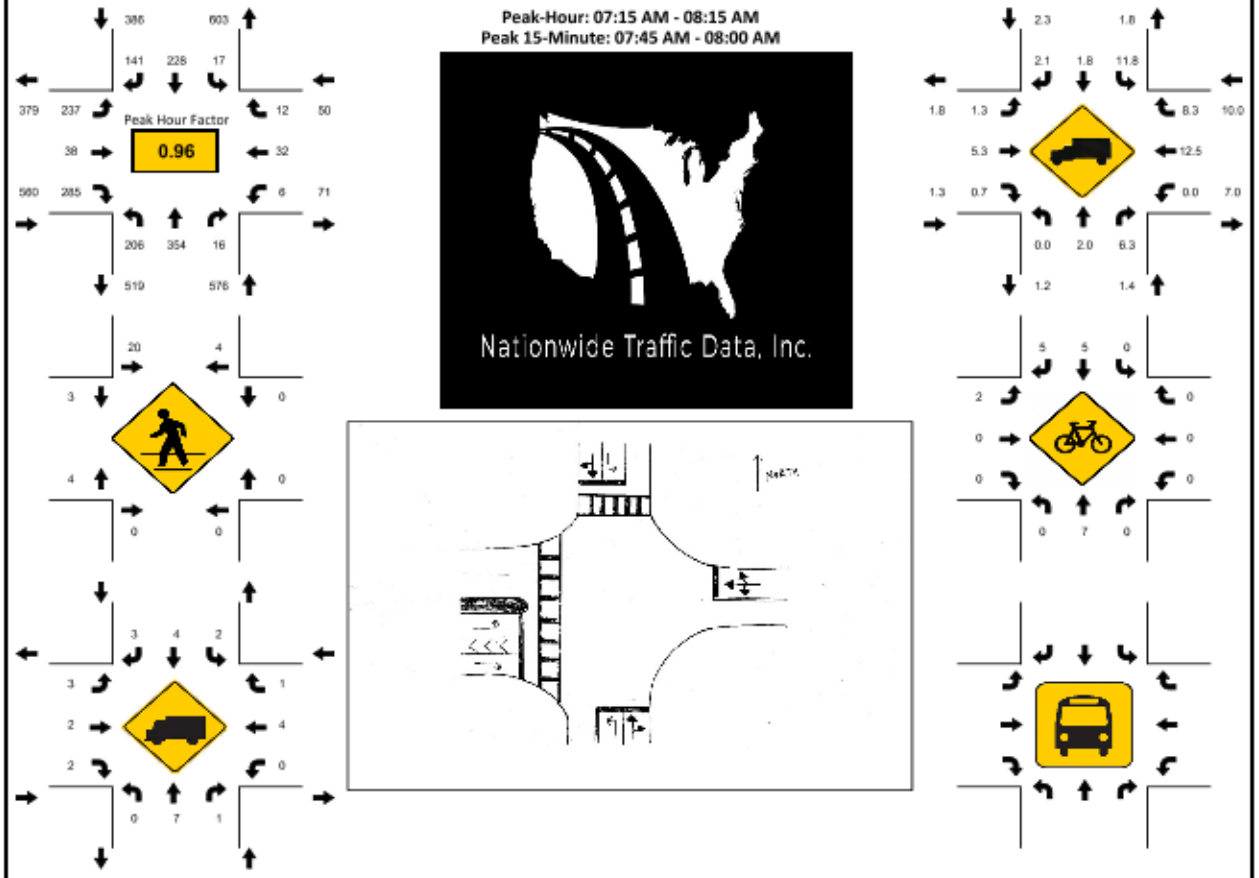
APPENDIX B

Nationwide Traffic Data

LOCATION: SW 87th Ave & SW 216th St
CITY/STATE: Cutler Bay, FL

Intersection Turning Movement Count

PROJECT ID: 19-1055-003
DATE: 11/19/2019



15-Min Count Period Beginning At	SW 87th Ave Northbound					SW 87th Ave Southbound					SW 216th St Eastbound					SW 216th St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	19	78	3	0		4	68	17	0		71	5	37	0		1	3	1	0		307	1496
07:15 AM	42	106	5	0		4	54	20	0		56	5	86	0		0	2	3	0		383	1572
07:30 AM	48	79	3	0		1	65	33	0		62	13	77	0		2	12	3	0		398	1566
07:45 AM	59	94	4	0		7	53	46	0		60	10	64	0		0	8	3	0		408	1460
08:00 AM	57	75	4	0		5	56	42	0		59	10	58	0		4	10	3	0		383	1243
08:15 AM	46	91	2	0		3	50	46	0		67	9	42	0		4	8	9	0		377	860
08:30 AM	53	71	0	0		3	37	45	0		48	2	29	0		1	0	3	0		292	483
08:45 AM	8	46	1	0		2	27	25	0		65	1	12	0		0	2	2	0		191	191
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	236	424	20	0		28	260	184	0		248	52	344	0		16	48	12	0		**1872**	
Heavy Trucks	0	12	4			4	8	8			4	4	4			0	8	4			**60**	
Pedestrians		0					36					12					0				**48**	
Bicycles	0	12	0			0	12	20			4	0	0			0	0	0			**48**	
Railroad Stopped Buses																						

APPENDIX B

Nationwide Traffic Data

Intersection Turning Movement Count

Location: SW 87th Ave & SW 232nd St
City: Cutler Bay
Control: 1-Way Stop(EB)

Project ID: 19-1055-004
Date: 11/19/2019

Total

NS/EW Streets:	SW 87th Ave				SW 87th Ave				SW 232nd St				SW 232nd St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	30	0	0	0	17	29	0	39	0	2	0	0	0	0	0	118
7:15 AM	0	44	0	0	0	15	20	0	56	0	0	0	0	0	0	0	135
7:30 AM	2	41	0	0	0	28	25	0	70	0	0	0	0	0	0	0	166
7:45 AM	0	21	0	0	0	33	46	0	54	0	3	0	0	0	0	0	157
8:00 AM	0	24	0	0	0	17	37	0	52	0	2	0	0	0	0	0	132
8:15 AM	1	21	0	0	0	17	35	0	56	0	1	0	0	0	0	0	131
8:30 AM	0	21	0	0	0	18	34	0	45	0	2	0	0	0	0	0	120
8:45 AM	0	15	0	0	0	15	21	0	29	0	1	0	0	0	0	0	81
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	4	217	0	0	0	160	247	0	401	0	11	0	0	0	0	0	1040
APPROACH %'s :	1.81%	98.19%	0.00%	0.00%	0.00%	39.31%	60.69%	0.00%	97.33%	0.00%	2.67%	0.00%					
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	2	130	0	0	0	93	128	0	232	0	5	0	0	0	0	0	590
PEAK HR FACTOR :	0.250	0.739	0.000	0.000	0.000	0.705	0.696	0.000	0.829	0.000	0.417	0.000	0.000	0.000	0.000	0.000	0.889
		0.750				0.699				0.846							

PEAK HR :	7:30 AM - 8:30 AM																TOTAL
PEAK HR VOL :	3	107	0	0	0	95	143	0	232	0	6	0	0	0	0	0	586

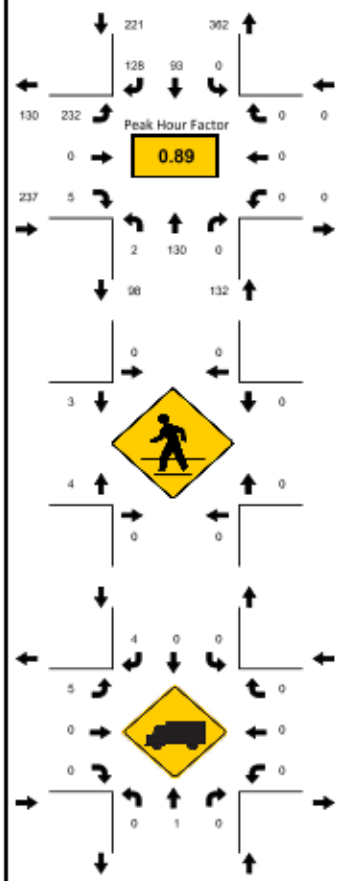
APPENDIX B

Nationwide Traffic Data

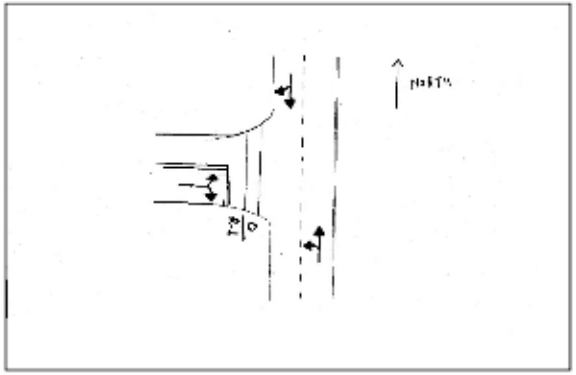
LOCATION: SW 87th Ave & SW 232nd St
CITY/STATE: Cutler Bay, FL

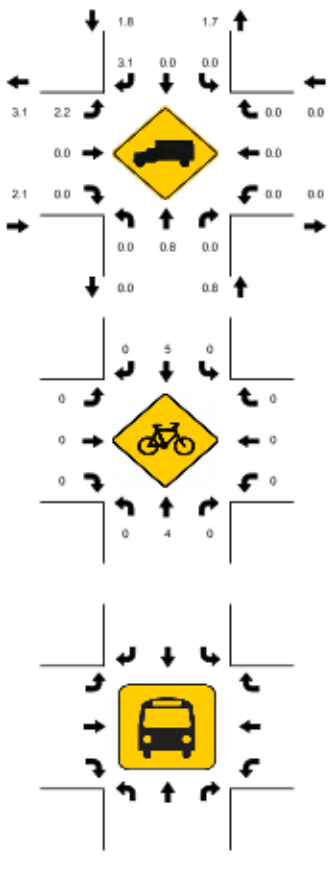
Intersection Turning Movement Count

PROJECT ID: 19-1055-004
DATE: 11/19/2019



Peak-Hour: 07:15 AM - 08:15 AM
Peak 15-Minute: 07:30 AM - 07:45 AM





15-Min Count Period Beginning At	SW 87th Ave Northbound					SW 87th Ave Southbound					SW 232nd St Eastbound					SW 232nd St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	1	30	0	0		0	17	29	0		39	0	2	0		0	0	0	0		118	576
07:15 AM	0	44	0	0		0	15	20	0		56	0	0	0		0	0	0	0		135	590
07:30 AM	2	41	0	0		0	28	25	0		70	0	0	0		0	0	0	0		166	586
07:45 AM	0	21	0	0		0	33	46	0		54	0	3	0		0	0	0	0		157	540
08:00 AM	0	24	0	0		0	17	37	0		52	0	2	0		0	0	0	0		132	464
08:15 AM	1	21	0	0		0	17	35	0		56	0	1	0		0	0	0	0		131	332
08:30 AM	0	21	0	0		0	18	34	0		45	0	2	0		0	0	0	0		120	201
08:45 AM	0	15	0	0		0	15	21	0		29	0	1	0		0	0	0	0		81	81
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	8	176	0	0		0	132	184	0		280	0	12	0		0	0	0	0		**792**	
Heavy Trucks	0	4	0			0	0	8			12	0	0			0		0	0		**24**	
Pedestrians		0					0					16					0				**16**	
Bicycles	0	12	0			0	12	0			0	0	0			0		0	0		**24**	
Railroad Stopped Buses																						

APPENDIX B

Nationwide Traffic Data

Intersection Turning Movement Count

Location: Old Cutler Rd/Old Cutler Trail & SW 216th St
City: Miami
Control: Signalized

Project ID: 19-1055-005
Date: 11/19/2019

Total

NS/EW Streets:	Old Cutler Rd/Old Cutler Trail				Old Cutler Rd/Old Cutler Trail				SW 216th St				SW 216th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	8	118	25	0	2	35	44	0	36	66	3	0	35	185	19	0	576
7:15 AM	4	111	39	0	8	38	50	0	52	130	0	0	22	194	15	0	663
7:30 AM	7	125	33	0	5	54	77	0	57	123	1	0	44	189	19	0	734
7:45 AM	3	123	36	0	11	58	93	0	52	103	1	0	39	218	21	0	758
8:00 AM	7	130	30	0	13	54	80	0	46	84	8	2	25	224	24	0	727
8:15 AM	6	104	17	0	16	57	75	0	57	82	4	0	20	193	26	0	657
8:30 AM	2	77	12	0	5	56	74	0	71	90	2	0	14	168	22	0	593
8:45 AM	6	108	16	0	10	56	58	0	69	51	1	1	14	126	25	0	541
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	43	896	208	0	70	408	551	0	440	729	20	3	213	1497	171	0	5249
APPROACH %'s :	3.75%	78.12%	18.13%	0.00%	6.80%	39.65%	53.55%	0.00%	36.91%	61.16%	1.68%	0.25%	11.32%	79.59%	9.09%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	21	489	138	0	37	204	300	0	207	440	10	2	130	825	79	0	2882
PEAK HR FACTOR :	0.750	0.940	0.885	0.000	0.712	0.879	0.806	0.000	0.908	0.846	0.313	0.250	0.739	0.921	0.823	0.000	0.951
		0.970				0.835				0.905				0.930			

PEAK HR :	7:30 AM - 8:30 AM																TOTAL
PEAK HR VOL :	23	482	116	0	45	223	325	0	212	392	14	2	128	824	90	0	2876

APPENDIX B

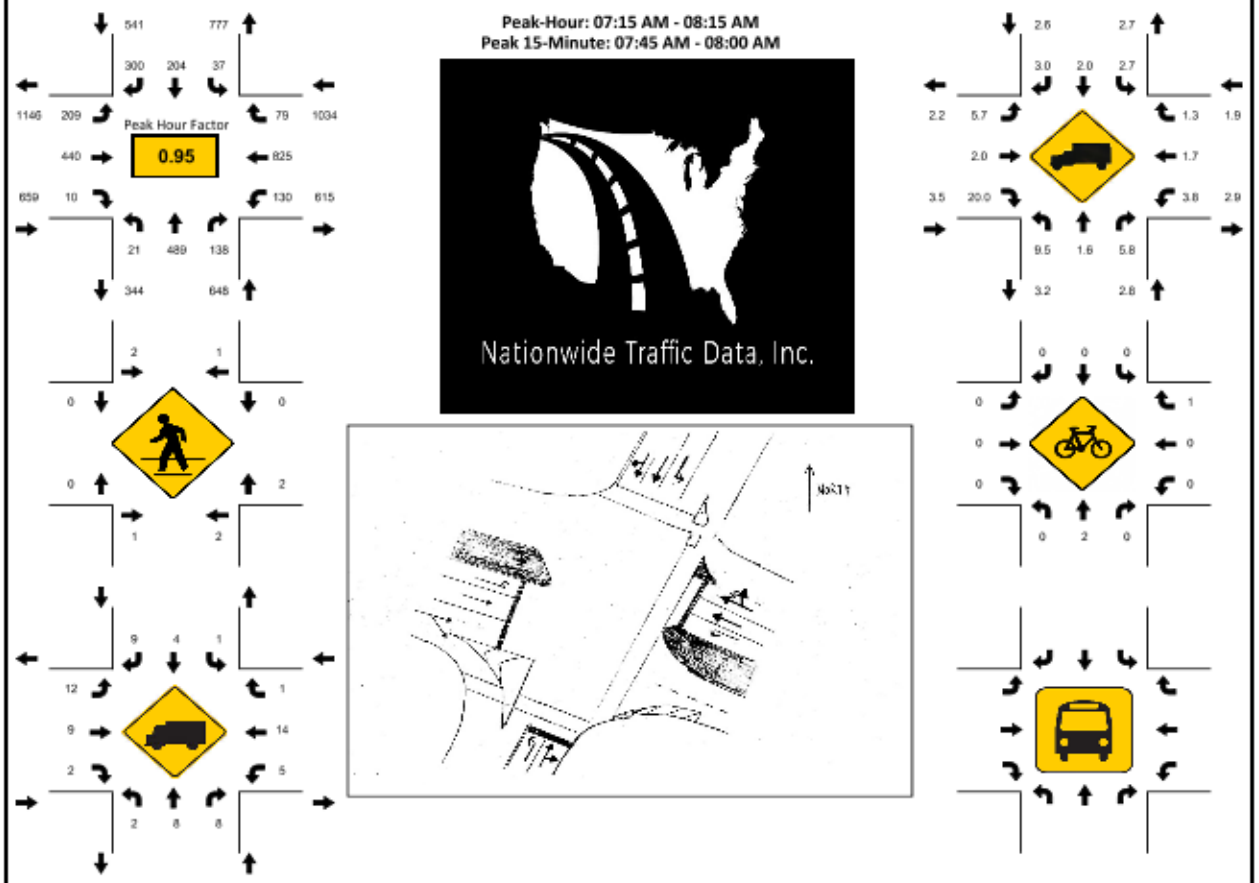
Nationwide Traffic Data

LOCATION: Old Cutler Rd/Old Cutler Trail & SW 216th St
CITY/STATE: Miami, FL

Intersection Turning Movement Count

PROJECT ID: 19-1055-005
DATE: 11/19/2019

Peak-Hour: 07:15 AM - 08:15 AM
Peak 15-Minute: 07:45 AM - 08:00 AM



15-Min Count Period Beginning At	Old Cutler Rd/Old Cutler Trail Northbound					Old Cutler Rd/Old Cutler Trail Southbound					SW 216th St Eastbound					SW 216th St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	8	118	25	0		2	35	44	0		36	68	3	0		35	185	19	0		576	2731
07:15 AM	4	111	39	0		8	38	50	0		52	130	0	0		22	194	15	0		663	2882
07:30 AM	7	125	33	0		5	54	77	0		57	123	1	0		44	189	19	0		734	2876
07:45 AM	3	123	36	0		11	58	93	0		52	103	1	0		39	218	21	0		758	2735
08:00 AM	7	130	30	0		13	54	80	0		46	84	8	2		25	224	24	0		727	2518
08:15 AM	6	104	17	0		16	57	75	0		57	82	4	0		20	193	26	0		657	1791
08:30 AM	2	77	12	0		5	56	74	0		71	90	2	0		14	168	22	0		593	1134
08:45 AM	6	108	16	0		10	56	58	0		69	51	1	1		14	126	25	0		541	541
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	28	520	156	0		52	232	372	0		228	520	32	8		176	896	96	0		**3316**	
Heavy Trucks	8	12	12			4	8	20			20	20	4			8	20	4			**140**	
Pedestrians		12					8					0					4				**24**	
Bicycles	0	4	0			0	0	0			0	0	0			0	0	4			**8**	
Railroad Stopped Buses																						

APPENDIX B
Nationwide Traffic Data

Intersection Turning Movement Count

Location: SW 87th Ave & SW 220th St/Mater Academy Bay North Dwy
City: Cutler Bay
Control: 1-Way Stop(WB)

Project ID: 19-1055-001
Date: 11/19/2019

Total

NS/EW Streets:	SW 87th Ave				SW 87th Ave				SW 220th St/Mater Academy Bay North Dwy				SW 220th St/Mater Academy Bay North Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	2	0	42	0	45
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	18	0	84	0	102
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	36	0	111	0	147
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	43	0	93	0	136
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	29	0	107	0	136
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	33	0	88	0	121
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	29	0	88	0	117
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	15	0	18
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	0	0	0	0	0	0	0	193	0	628	0	822
APPROACH %'s :					100.00%	0.00%	0.00%	0.00%					23.51%	0.00%	76.49%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	141	0	399	0	540
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.820	0.000	0.899	0.000	0.918
															0.918		

SW 87th Ave & SW 220th St/Mater Academy Bay North Dwy

Peak Hour Turning Movement Count

ID: 19-1055-001
City: Cutler Bay

Day: Tuesday
Date: 11/19/2019

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	07:00 AM - 09:00 AM
NONE	NONE
NONE	NONE

SW 87th Ave — SOUTHBOUND

AM	0	0	0	0	399	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND — 20th St/Mater Academy Bay North

AM	NOON	PM
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

WESTBOUND — 20th St/Mater Academy Bay North

PM	NOON	AM
0	0	399
0	0	0
0	0	141
0	0	0
0	0	0

CONTROL

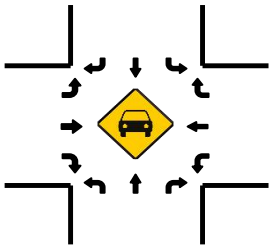
1-Way Stop(WB)

TEV	540	0	0
	AM	NOON	PM
PHF	0.92		

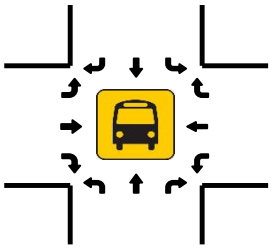
NORTHBOUND — SW 87th Ave

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	141	0	0	0	0	AM

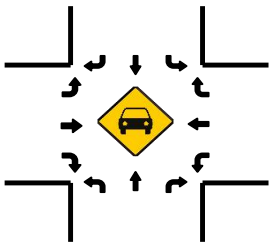
Total Vehicles (AM)



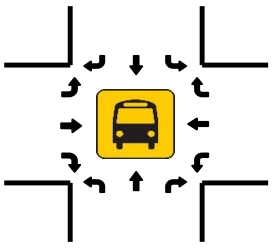
Total Vehicles (AM)



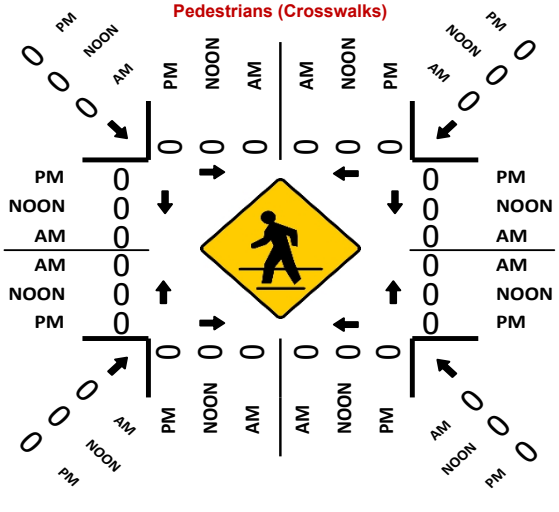
Total Vehicles (NOON)



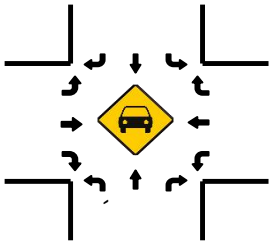
Total Vehicles (NOON)



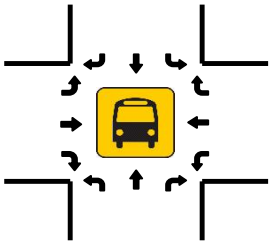
Pedestrians (Crosswalks)



Total Vehicles (PM)



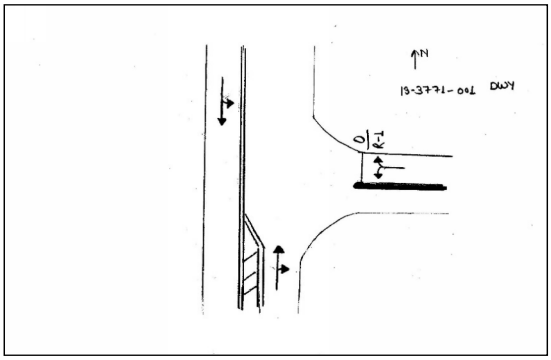
Total Vehicles (PM)

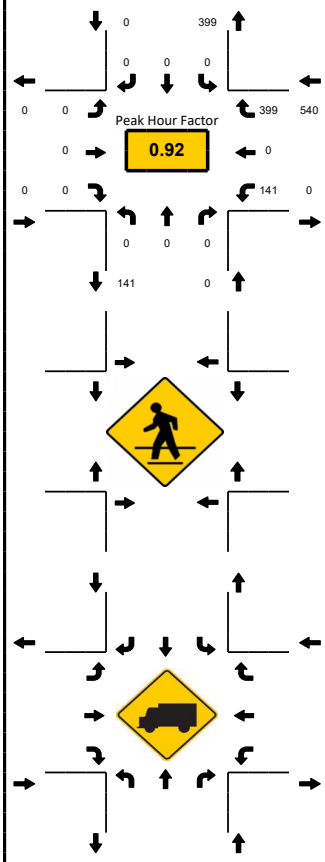


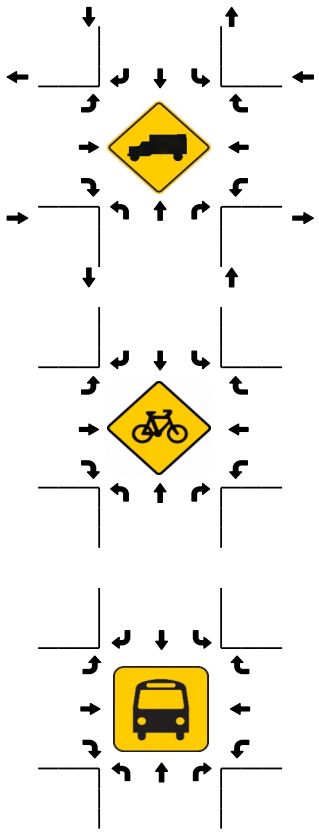
APPENDIX B

LOCATION: SW 87th Ave & SW 220th St/Mater Academy Bay North Dwy
CITY/STATE: Cutler Bay, FL
PROJECT ID: 19-1055-001
DATE: 11/19/2019

Peak-Hour: 07:30 AM - 08:30 AM
Peak 15-Minute: 07:30 AM - 07:45 AM







15-Min Count Period Beginning At	SW 87th Ave Northbound					SW 87th Ave Southbound					0th St/Mater Academy Bay Nort Eastbound					0th St/Mater Academy Bay Nort Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	0	0	0	0		1	0	0	0		0	0	0	0		2	0	42	0		45	430
07:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		18	0	84	0		102	521
07:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		36	0	111	0		147	540
07:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		43	0	93	0		136	510
08:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		29	0	107	0		136	392
08:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		33	0	88	0		121	256
08:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		29	0	88	0		117	135
08:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		3	0	15	0		18	18
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**						
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Total	
All Vehicles	0	0	0	0		0	0	0	0		0	0	0	0		172	0	444	0		**616**	
Heavy Trucks																					**0**	
Pedestrians																					**0**	
Bicycles																					**0**	
Railroad																						
Stopped Buses																						

Nationwide Traffic Data

Intersection Turning Movement Count

Location: SW 87th Ave & SW 224th St/Mater Academy Bay South Dwy
City: Cutler Bay
Control: No Control

Project ID: 19-1055-002
Date: 11/19/2019

Total

NS/EW Streets:	SW 87th Ave				SW 87th Ave				SW 224th St/Mater Academy Bay South Dwy				SW 224th St/Mater Academy Bay South Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	0	0	14	0	51	0	0	0	0	0	0	0	0	0	0	0	65
7:15 AM	0	0	36	0	109	0	0	0	0	0	0	0	0	0	0	0	145
7:30 AM	0	0	63	0	139	0	0	0	0	0	0	0	0	0	0	0	202
7:45 AM	0	0	42	0	84	0	0	0	0	0	0	0	0	0	0	0	126
8:00 AM	0	0	41	0	102	0	0	0	0	0	0	0	0	0	0	0	143
8:15 AM	0	0	39	0	65	0	0	0	0	0	0	0	0	0	0	0	104
8:30 AM	0	0	25	0	65	0	0	0	0	0	0	0	0	0	0	0	90
8:45 AM	0	0	2	0	5	0	0	0	0	0	0	0	0	0	0	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	262	0	620	0	0	0	0	0	0	0	0	0	0	0	882
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%									
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	182	0	434	0	0	0	0	0	0	0	0	0	0	0	616
PEAK HR FACTOR :	0.000	0.000	0.722	0.000	0.781	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.762
			0.722				0.781										

SW 87th Ave & SW 224th St/Mater Academy Bay South Dwy

Peak Hour Turning Movement Count

ID: 19-1055-002
City: Cutler Bay

Day: Tuesday
Date: 11/19/2019

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	07:00 AM - 09:00 AM
NONE	NONE
NONE	NONE

SW 87th Ave — SOUTHBOUND

AM	0	0	434	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND — 24th St/Mater Academy Bay South

AM	NOON	PM
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

WESTBOUND — 24th St/Mater Academy Bay South

PM	NOON	AM
0	0	0
0	0	0
0	0	0
0	0	0
0	0	616

CONTROL

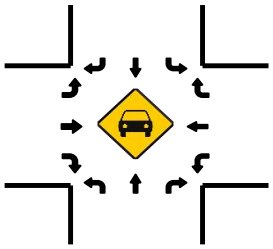
No Control

TEV	616	0	0
	AM	NOON	PM
PHF	0.76		

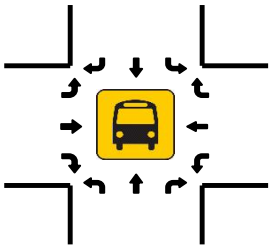
NORTHBOUND — SW 87th Ave

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	182	AM

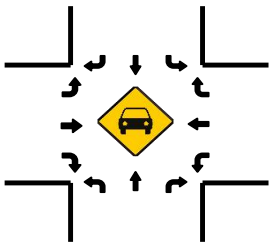
Total Vehicles (AM)



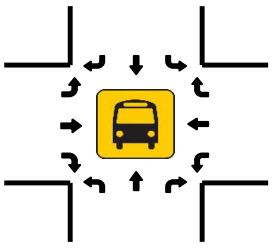
Total Vehicles (AM)



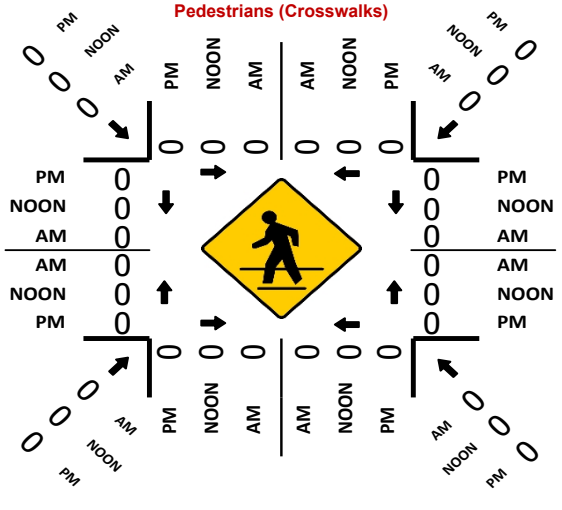
Total Vehicles (NOON)



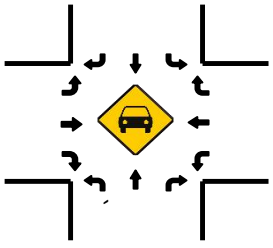
Total Vehicles (NOON)



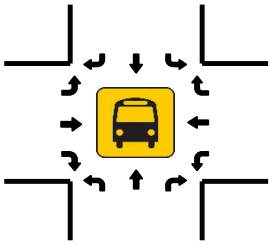
Pedestrians (Crosswalks)



Total Vehicles (PM)

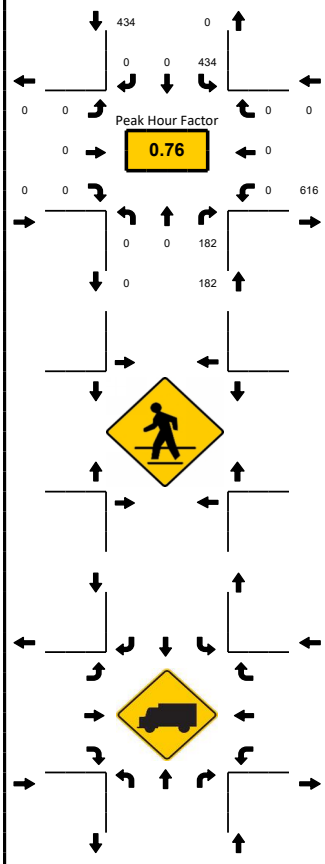


Total Vehicles (PM)

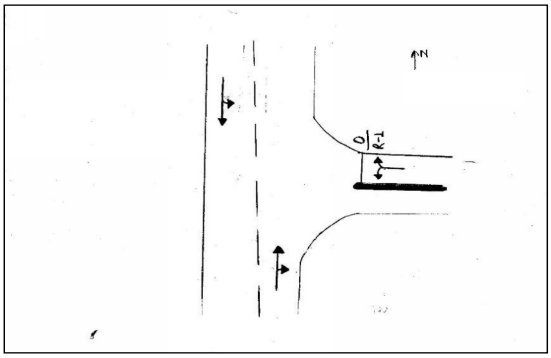


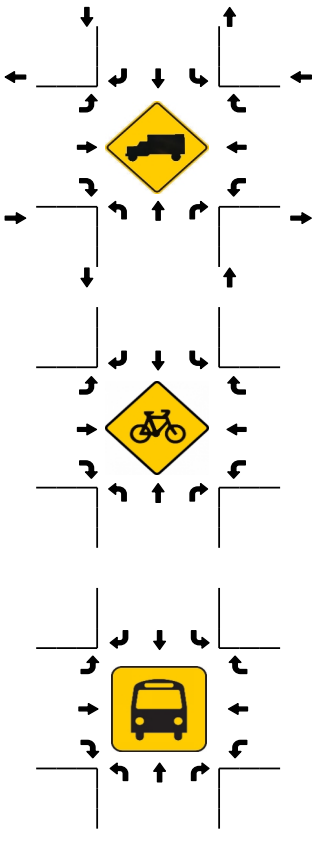
APPENDIX B

LOCATION: SW 87th Ave & SW 224th St/Mater Academy Bay South Dwy
CITY/STATE: Cutler Bay, FL
PROJECT ID: 19-1055-002
DATE: 11/19/2019



Peak-Hour: 07:15 AM - 08:15 AM
Peak 15-Minute: 07:30 AM - 07:45 AM





15-Min Count Period Beginning At	SW 87th Ave Northbound					SW 87th Ave Southbound					4th St/Mater Academy Bay Sout Eastbound					4th St/Mater Academy Bay Sout Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	0	0	14	0		51	0	0	0		0	0	0	0		0	0	0	0		65	538
07:15 AM	0	0	36	0		109	0	0	0		0	0	0	0		0	0	0	0		145	616
07:30 AM	0	0	63	0		139	0	0	0		0	0	0	0		0	0	0	0		202	575
07:45 AM	0	0	42	0		84	0	0	0		0	0	0	0		0	0	0	0		126	463
08:00 AM	0	0	41	0		102	0	0	0		0	0	0	0		0	0	0	0		143	344
08:15 AM	0	0	39	0		65	0	0	0		0	0	0	0		0	0	0	0		104	201
08:30 AM	0	0	25	0		65	0	0	0		0	0	0	0		0	0	0	0		90	97
08:45 AM	0	0	2	0		5	0	0	0		0	0	0	0		0	0	0	0		7	7
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**						
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	**Total**	
All Vehicles	0	0	252	0		556	0	0	0		0	0	0	0		0	0	0	0		**808**	
Heavy Trucks																					**0**	
Pedestrians																					**0**	
Bicycles																					**0**	
Railroad																						
Stopped Buses																						

APPENDIX B

TOD Schedule Report

for 4184: Old Cutler Rd&SW 216 St

Print Date: 9/24/2019

Print Time: 8:09 PM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
4184	Old Cutler Rd&SW 216 St	DOW-3		N/A	0	0	N/A	0	Max 0

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
-	SBT	EBL	WBT	-	NBT	WBL	EBT
0	0	0	0	0	0	0	0

Active Phase Bank: Phase Bank 1

Phase	Walk (Phase Bank 1 2 3)	Don't Walk (1 2 3)	Min Initial (1 2 3)	Veh Ext (1 2 3)	Max Limit (1 2 3)	Max 2 (1 2 3)	Yellow	Red
1 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
2 SBT	0 - 0 - 0	0 - 0 - 0	16 - 16 - 16	1 - 1 - 1	35 - 35 - 40	0 - 50 - 43	4	3.1
3 EBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 4 - 2	7 - 20 - 15	26 - 25 - 20	4	2
4 WBT	0 - 0 - 0	0 - 0 - 0	7 - 7 - 7	3.5 - 3.5 - 2.5	25 - 30 - 25	60 - 50 - 22	4	2
5 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
6 NBT	0 - 0 - 0	0 - 0 - 0	16 - 16 - 16	1 - 1 - 1	35 - 35 - 40	0 - 50 - 43	4	3.1
7 WBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	7 - 20 - 15	20 - 25 - 20	4	2
8 EBT	0 - 0 - 0	0 - 0 - 0	7 - 7 - 7	3.5 - 3.5 - 2.5	25 - 30 - 25	60 - 50 - 22	4	2

Last In Service Date: unknown

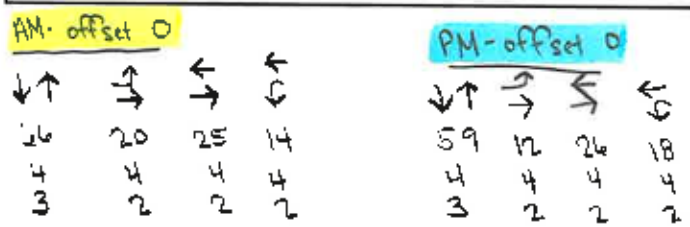
Permitted Phases

	12345678
Default	-234-678
External Permit 0	-------
External Permit 1	-2-4-6-8
External Permit 2	-2-4-6-8

Current TOD Schedule	Plan	Cycle	Green Time 1 -	2 SBT	3 EBL	4 WBT	5 -	6 NBT	7 WBL	8 EBT	Ring Offset	Offset
	3	150	0	66	20	45	0	66	14	50	0	0
	6	100	0	46	8	27	0	46	8	27	0	0
	9	110	0	48	13	30	0	48	13	30	0	0
	11	140	0	59	12	50	0	59	18	44	0	0
	19	100	0	48	8	25	0	48	8	25	0	0
	21	110	0	48	13	30	0	48	13	30	0	0

Local TOD Schedule

Time	Plan	DOW
0000	Free	M T W Th F
0600	3	M T W Th F
0700	19	Su S
0900	6	M T W Th F
1330	9	M T W Th F
1500	21	Su S
1530	11	M T W Th F
2000	Free	M T W Th F
2000	Free	Su S



TOD Schedule Report

for 4184: Old Cutler Rd&SW 216 St

Print Date: 9/24/2019

Print Time: 8:09 PM

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S

Local Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S

*** Settings**

Blank - FREE - Phase Bank 1, Max 1
Blank - Plan - Phase Bank 1, Mex 2
1 - Phase Bank 2, Max 1
2 - Phase Bank 2, Max 2
3 - Phase Bank 3, Max 1
4 - Phase Bank 3, Max 2
5 - EXTERNAL PERMIT 1
6 - EXTERNAL PERMIT 2
7 - X-PED OMIT
8 - TBA

No Calendar Defined/Enabled

APPENDIX B

TOD Schedule Report

for 5811: Galloway Rd&SW 216 St

Print Date: 9/24/2019

Print Time: 11:21 PM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
5811	Galloway Rd&SW 216 St	DOW-3		N/A	0	0	N/A	0	Max 0

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
NBL	SBT	EBT	WBT	SBL	NBT	-	-
0	0	0	0	0	0	0	0

Active Phase Bank: Phase Bank 1

Phase	Walk (Phase Bank 1 2 3)	Don't Walk (1 2 3)	Min Initial (1 2 3)	Veh Ext (1 2 3)	Max Limit (1 2 3)	Max 2 (1 2 3)	Yellow	Red
1 NBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 3.5 - 3	11 - 11 - 5	11 - 11 - 5	4	2
2 SBT	0 - 0 - 0	0 - 0 - 0	15 - 15 - 15	1 - 1 - 1	60 - 68 - 40	40 - 80 - 40	4	2
3 EBT	0 - 0 - 0	0 - 0 - 0	7 - 7 - 7	3.5 - 4.5 - 3.5	30 - 45 - 18	25 - 48 - 20	4	2
4 WBT	0 - 0 - 0	0 - 0 - 0	7 - 7 - 7	2.5 - 3.5 - 3	30 - 18 - 12	18 - 27 20	4	2
5 SBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 3 - 3	11 - 11 - 5	11 - 11 - 5	4	2
6 NBT	0 - 0 - 0	0 - 0 - 0	15 - 15 - 15	1 - 1 - 1	60 - 68 - 40	40 - 80 - 40	4	2
7 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
8 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0

Last In Service Date: unknown

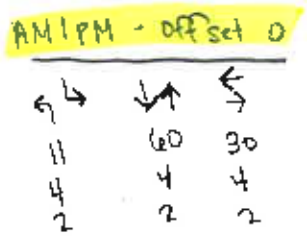
Permitted Phases

	12345678
Default	123456--
External Permit 0	--------
External Permit 1	123456--
External Permit 2	123456--

Current TOD Schedule	Plan	Cycle	1 NBL	2 SBT	3 EBT	4 WBT	5 SBL	6 NBT	7 -	8 -	Ring Offset	Offset

Local TOD Schedule

Time	Plan	DOW
0000	Free	Su M T W Th F S



APPENDIX B

TOD Schedule Report

for 5811: Galloway Rd&SW 216 St

Print Date: 9/24/2019

Print Time: 11:21 PM

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	----3--	SuM T W ThF S
0715	TOD OUTPUTS	-------1	M T W ThF
0900	TOD OUTPUTS	----3--	M T W ThF
1330	TOD OUTPUTS	-------1	M T W ThF
1530	TOD OUTPUTS	--------	M T W ThF
2100	TOD OUTPUTS	-----3--	SuM T W ThF S

Local Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	----3--	SuM T W ThF S
0700	TOD OUTPUTS	----4---	Su S
0715	TOD OUTPUTS	-------1	M T W ThF
0900	TOD OUTPUTS	----3--	M T W ThF
1330	TOD OUTPUTS	-------1	M T W ThF
1530	TOD OUTPUTS	--------	M T W ThF
2100	TOD OUTPUTS	-----3--	SuM T W ThF S
2200	TOD OUTPUTS	-----3--	Su S

* Settings

Blank - FREE - Phase Bank 1, Max 1
Blank - Plan - Phase Bank 1, Max 2
1 - Phase Bank 2, Max 1
2 - Phase Bank 2, Max 2
3 - Phase Bank 3, Max 1
4 - Phase Bank 3, Max 2
5 - EXTERNAL PERMIT 1
6 - EXTERNAL PERMIT 2
7 - X-PED OMIT
8 - TBA

No Calendar Defined/Enabled

APPENDIX B

TOD Schedule Report

for 6487: Galloway Rd&SW 212 St

Print Date: 9/25/2019

Print Time: 12:09 AM

Asset	Intersection	TOD Schedule	On Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
6487	Galloway Rd&SW 212 St	DOW-4		N/A	0	0	N/A	0	Max 0

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
-	SBT	-	WBT	SBL	NBT	-	EBT
0	0	0	0	0	0	0	0

Active Phase Bank: Phase Bank 1

Phase	Walk			Don't Walk			Min Initial			Veh Ext			Max Limit			Max 2			Yellow	Red
Phase Bank	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3		
1 -	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 SBT	0	7	7	0	28	28	15	7	7	1	1	1	68	45	40	60	55	34	4	2
3 -	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 WBT	0	7	7	0	20	20	7	7	7	3	-2.5	2.5	40	22	25	32	40	15	4	2
5 SBL	0	0	0	0	0	0	5	5	5	2	2	2	12	12	11	18	18	11	4	2
6 NBT	0	7	7	0	28	28	15	7	7	1	1	1	68	45	40	60	55	34	4	2
7 -	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 EBT	0	7	7	0	20	20	7	7	7	3	-2.5	2.5	40	22	25	32	40	15	4	2

Last In Service Date: unknown

Permitted Phases

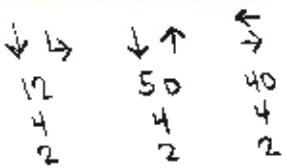
	12345678
Default	-23456-8
External Permit 0	--------
External Permit 1	-2-4-6-8
External Permit 2	-2-4-6-8

Current TOD Schedule	Plan	Cycle	1 -	2 SBT	3 -	4 WBT	5 SBL	6 NBT	7 -	8 EBT	Ring Offset	Offset

Local TOD Schedule

Time	Plan	DOW
0000	Free	Su M T W Th F S

AM1 PH: Offset 0



TOD Schedule Report

for 6487: Galloway Rd&SW 212 St

Print Date: 9/25/2019

Print Time: 12:09 AM

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	-7-----1	SuM T W ThF S
0715	TOD OUTPUTS	--------	M T W ThF
0845	TOD OUTPUTS	-7-----1	M T W ThF
1500	TOD OUTPUTS	------2-	M T W ThF
1630	TOD OUTPUTS	-7-----1	M T W ThF

Local Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	-7-----1	SuM T W ThF S
0715	TOD OUTPUTS	--------	M T W ThF
0845	TOD OUTPUTS	-7-----1	M T W ThF
1500	TOD OUTPUTS	------2-	M T W ThF
1630	TOD OUTPUTS	-7-----1	M T W ThF

*** Settings**

Blank - FREE - Phase Bank 1, Max 1
Blank - Plan - Phase Bank 1, Max 2
1 - Phase Bank 2, Max 1
2 - Phase Bank 2, Max 2
3 - Phase Bank 3, Max 1
4 - Phase Bank 3, Max 2
5 - EXTERNAL PERMIT 1
6 - EXTERNAL PERMIT 2
7 - X-PED OMIT
8 - TBA

No Calendar Defined/Enabled

2019 PEAK SEASON FACTOR CATEGORY REPORT REPORT TYPE: ALL
CATEGORY: 8701 MIAMI-DADE SOUTH

MOCF: 0.97

WEEK	DATES	SF	PSCF
1	01/01/2019 - 01/05/2019	1.04	1.07
2	01/06/2019 - 01/12/2019	1.02	1.05
3	01/13/2019 - 01/19/2019	1.00	1.03
4	01/20/2019 - 01/26/2019	0.99	1.02
5	01/27/2019 - 02/02/2019	0.98	1.01
* 6	02/03/2019 - 02/09/2019	0.97	1.00
* 7	02/10/2019 - 02/16/2019	0.96	0.99
* 8	02/17/2019 - 02/23/2019	0.96	0.99
* 9	02/24/2019 - 03/02/2019	0.97	1.00
*10	03/03/2019 - 03/09/2019	0.97	1.00
*11	03/10/2019 - 03/16/2019	0.97	1.00
*12	03/17/2019 - 03/23/2019	0.97	1.00
*13	03/24/2019 - 03/30/2019	0.97	1.00
*14	03/31/2019 - 04/06/2019	0.96	0.99
*15	04/07/2019 - 04/13/2019	0.96	0.99
*16	04/14/2019 - 04/20/2019	0.96	0.99
*17	04/21/2019 - 04/27/2019	0.97	1.00
*18	04/28/2019 - 05/04/2019	0.98	1.01
19	05/05/2019 - 05/11/2019	0.98	1.01
20	05/12/2019 - 05/18/2019	0.99	1.02
21	05/19/2019 - 05/25/2019	1.00	1.03
22	05/26/2019 - 06/01/2019	1.00	1.03
23	06/02/2019 - 06/08/2019	1.01	1.04
24	06/09/2019 - 06/15/2019	1.01	1.04
25	06/16/2019 - 06/22/2019	1.01	1.04
26	06/23/2019 - 06/29/2019	1.02	1.05
27	06/30/2019 - 07/06/2019	1.02	1.05
28	07/07/2019 - 07/13/2019	1.03	1.06
29	07/14/2019 - 07/20/2019	1.03	1.06
30	07/21/2019 - 07/27/2019	1.03	1.06
31	07/28/2019 - 08/03/2019	1.02	1.05
32	08/04/2019 - 08/10/2019	1.02	1.05
33	08/11/2019 - 08/17/2019	1.01	1.04
34	08/18/2019 - 08/24/2019	1.01	1.04
35	08/25/2019 - 08/31/2019	1.02	1.05
36	09/01/2019 - 09/07/2019	1.02	1.05
37	09/08/2019 - 09/14/2019	1.03	1.06
38	09/15/2019 - 09/21/2019	1.03	1.06
39	09/22/2019 - 09/28/2019	1.03	1.06
40	09/29/2019 - 10/05/2019	1.02	1.05
41	10/06/2019 - 10/12/2019	1.02	1.05
42	10/13/2019 - 10/19/2019	1.01	1.04
43	10/20/2019 - 10/26/2019	1.02	1.05
44	10/27/2019 - 11/02/2019	1.02	1.05
45	11/03/2019 - 11/09/2019	1.03	1.06
46	11/10/2019 - 11/16/2019	1.03	1.06
47	11/17/2019 - 11/23/2019	1.03	1.06
48	11/24/2019 - 11/30/2019	1.03	1.06
49	12/01/2019 - 12/07/2019	1.04	1.07
50	12/08/2019 - 12/14/2019	1.04	1.07
51	12/15/2019 - 12/21/2019	1.04	1.07
52	12/22/2019 - 12/28/2019	1.02	1.05
53	12/29/2019 - 12/31/2019	1.00	1.03

* PEAK SEASON

14-FEB-2020 15:39:30 830UPD 6_8701_PKSEASON.TXT

APPENDIX B

AADT Growth Trends			
Location	**FDOT Site**	**Linear 5-Year Trend**	**Applied**
SW 87th Ave., N of SW 216th St.	8374	1.2%	1.2%
SW 216th St, W of SW 98th Ave	8123	2.2%	2.2%
Old Cutler Road, S of Franjo Rd.	8310	-0.2%	0.5%
	Range	2.4%	
	Average	1.0%	

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8374 - SW 87 AVE, 500 FT N OF SW 216TH ST, CUTLER RIDGE (2011 OFFSYS)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	8700 S	N 3700	S 5000	9.00	56.00	3.80
2018	8900 F	N 3800	S 5100	9.00	54.30	2.80
2017	9900 C	N 4200	S 5700	9.00	59.30	3.60
2016	8300 T	N 3400	S 4900	9.00	56.10	1.70
2015	8500 S	N 3500	S 5000	9.00	57.40	5.10
2014	8600 F	N 3500	S 5100	9.00	59.30	15.30
2013	8600 C	N 3500	S 5100	9.00	58.90	16.20
2012	4800 C	N 0	S 0	9.00	59.70	16.00

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

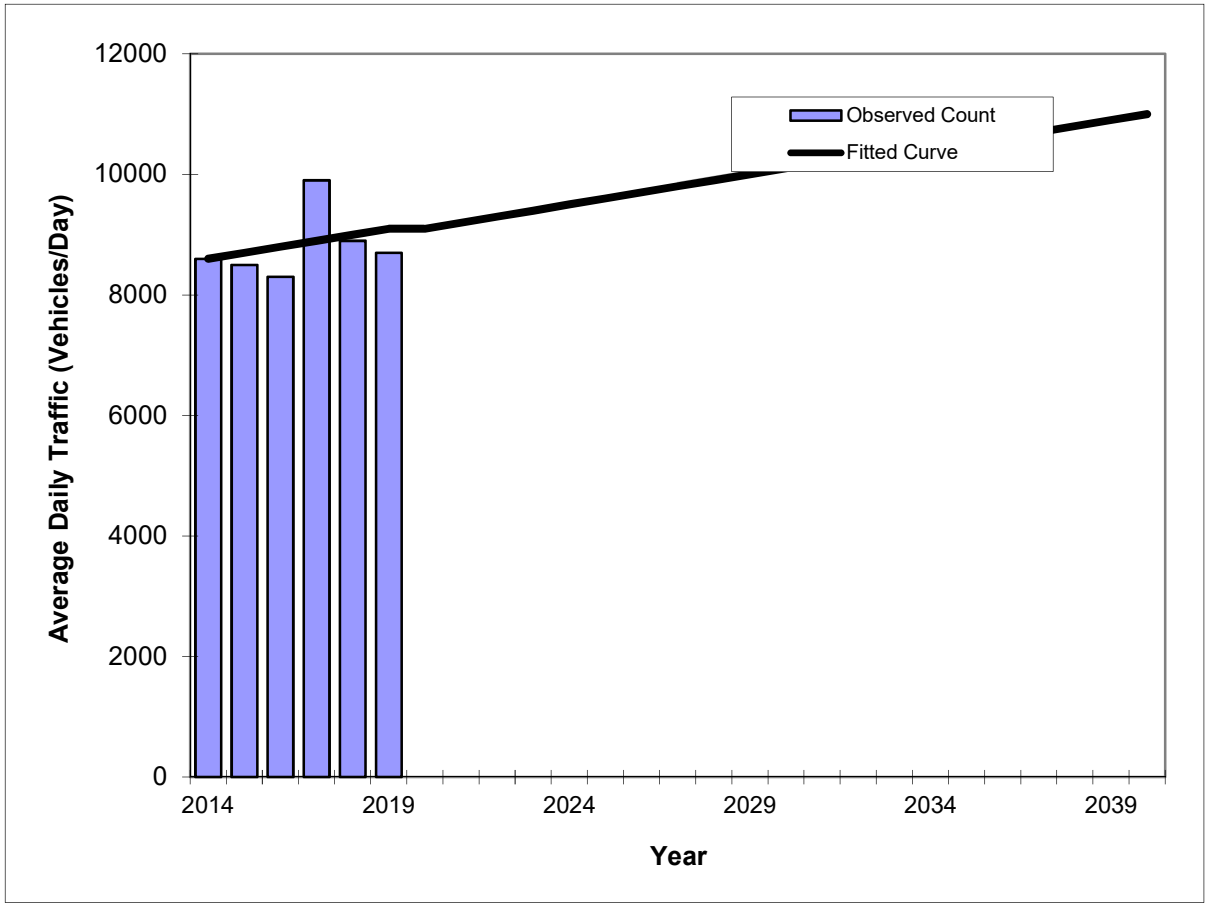
APPENDIX B

Traffic Trends - V03.a

SW 87th Ave, N of 216th St. --

FIN#	1234
Location	1

County:	Miami-Dade (87)
Station #:	8374
Highway:	SW 87th Ave, N of 216th St.



Year	Traffic (ADT/AADT) Count*	Trend**
2014	8600	8600
2015	8500	8700
2016	8300	8800
2017	9900	8900
2018	8900	9000
2019	8700	9100
2022 Opening Year Trend		
2022	N/A	9300
2031 Mid-Year Trend		
2031	N/A	10200
2040 Design Year Trend		
2040	N/A	11000
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

** Annual Trend Increase:	94
Trend R-squared:	9.67%
Trend Annual Historic Growth Rate:	1.16%
Trend Growth Rate (2019 to Design Year):	0.99%
Printed:	19-Jun-20
Straight Line Growth Option	

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8123 - SW 216TH ST, 200' WEST OF SW 98TH AVENUE

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	17600 C	E 8200	W 9400	9.00	56.00	1.80
2018	18800 C	E 8900	W 9900	9.00	54.30	2.80
2017	17000 C	E 8400	W 8600	9.00	59.30	2.70
2016	16900 C	E 8100	W 8800	9.00	56.10	1.70
2015	18000 C	E 8600	W 9400	9.00	57.40	3.80
2014	15600 C	E 8200	W 7400	9.00	59.30	15.30
2013	16500 C	E 7700	W 8800	9.00	58.90	16.20
2012	14700 F	E 7200	W 7500	9.00	59.70	16.00
2011	14500 C	E 7100	W 7400	9.00	58.20	14.70

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

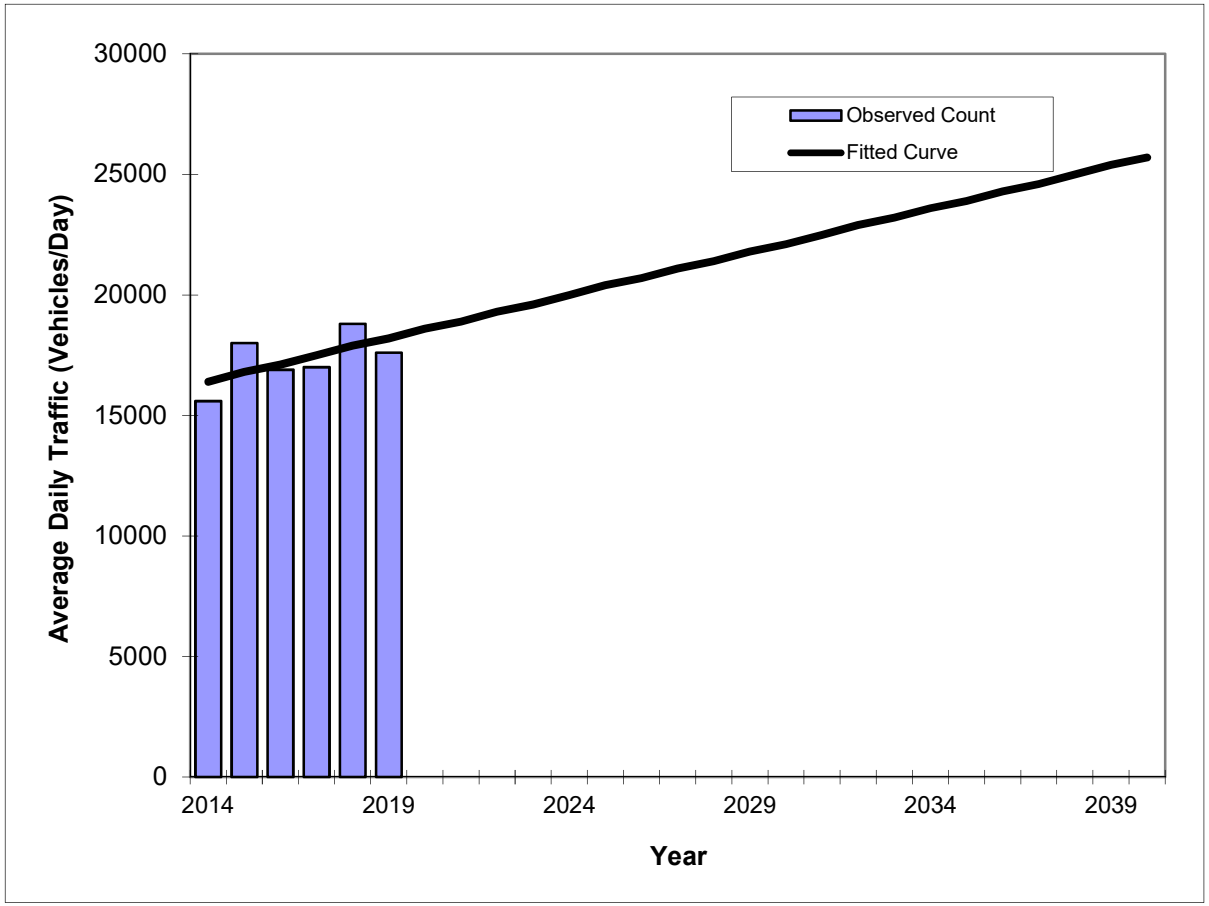
APPENDIX B

Traffic Trends - V03.a

SW 216th St., W of SW 98th Ave. --

FIN#	1234
Location	1

County:	Miami-Dade (87)
Station #:	8123
Highway:	SW 216th St., W of SW 98th Ave.



Year	Traffic (ADT/AADT) Count*	Trend**
2014	15600	16400
2015	18000	16800
2016	16900	17100
2017	17000	17500
2018	18800	17900
2019	17600	18200
2022 Opening Year Trend		
2022	N/A	19300
2031 Mid-Year Trend		
2031	N/A	22500
2040 Design Year Trend		
2040	N/A	25700
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

** Annual Trend Increase:	357
Trend R-squared:	37.40%
Trend Annual Historic Growth Rate:	2.20%
Trend Growth Rate (2019 to Design Year):	1.96%
Printed:	19-Jun-20

Straight Line Growth Option

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8310 - OLD CUTLER RD, 200' SOUTH OF FRANJO RD

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	15700 T	N 7800	S 7900	9.00	56.00	11.00
2018	15900 S	N 7900	S 8000	9.00	54.30	12.10
2017	17700 F	N 8800	S 8900	9.00	55.70	12.60
2016	17900 C	N 8900	S 9000	9.00	56.10	13.50
2015	15800 T	N 8100	S 7700	9.00	57.40	13.70
2014	16000 S	N 8200	S 7800	9.00	59.30	17.40
2013	16200 F	N 8300	S 7900	9.00	58.90	16.20
2012	16200 C	N 8300	S 7900	9.00	59.70	16.00

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

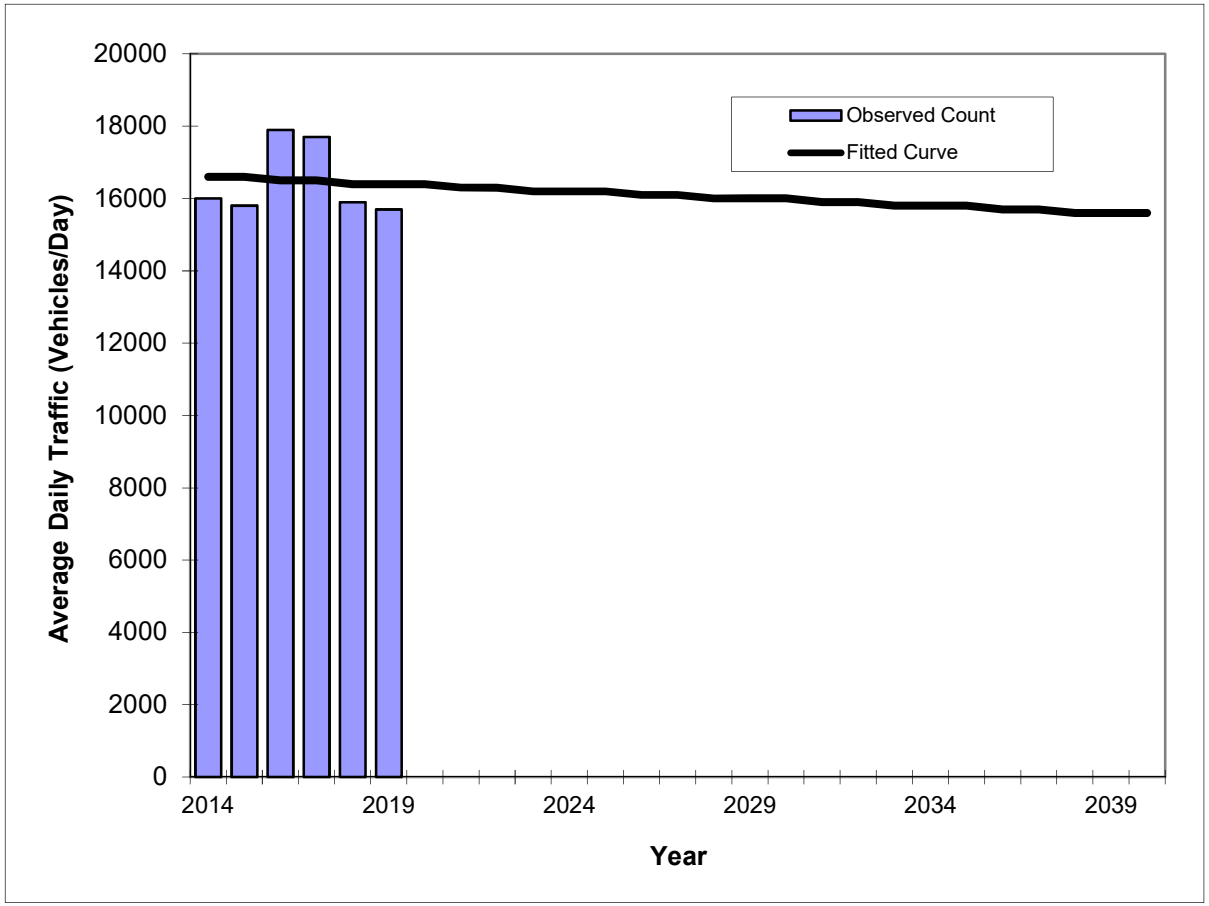
APPENDIX B

Traffic Trends - V03.a

OLD CUTLER Road, S of Franjo Rd. --

FIN#	1234
Location	1

County:	Miami-Dade (87)
Station #:	8310
Highway:	OLD CUTLER Road, S of Franjo Rd.

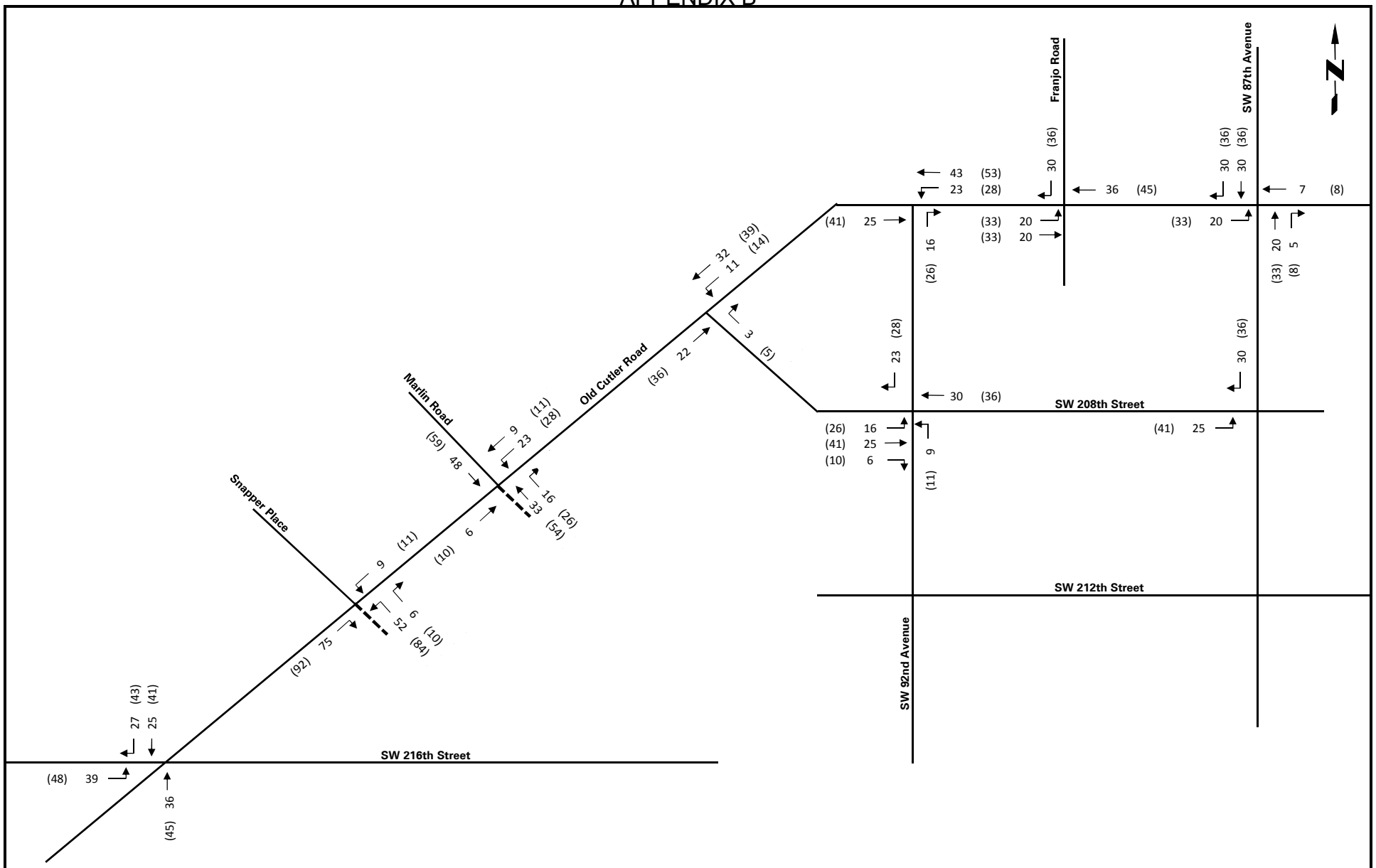


Year	Traffic (ADT/AADT) Count*	Trend**
2014	16000	16600
2015	15800	16600
2016	17900	16500
2017	17700	16500
2018	15900	16400
2019	15700	16400
2022 Opening Year Trend		
2022	N/A	16300
2031 Mid-Year Trend		
2031	N/A	15900
2040 Design Year Trend		
2040	N/A	15600
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-40
Trend R-squared:	0.54%
Trend Annual Historic Growth Rate:	-0.24%
Trend Growth Rate (2019 to Design Year):	-0.23%
Printed:	19-Jun-20
Straight Line Growth Option	

***Axle-Adjusted**

APPENDIX B



LEGEND
AM Peak Hour
(##) PM Peak Hour

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES
15150 NW 79th Court, Suite 200, Miami Lakes, FL 33016
P: 786.264.7221 F: 786.264.7201 www.langan.com
FL CERTIFICATE OF AUTHORIZATION No. 00006601

Project	Figure Title	Project No.	
SHOPPES AT CUTLER BAY CUTLER BAY MIAMI DADE FLORIDA	PROJECT TRAFFIC ASSIGNMENT	330038801 Date 8/29/2018 Scale NTS	FIGURE 6

APPENDIX B

TABLE 4

Generalized **Peak Hour Two-Way** Volumes for Florida's **Urbanized Areas**[1]

12/18/12

INTERRUPTED FLOW FACILITIES

STATE SIGNALIZED ARTERIALS

Class I (40 mph or higher posted speed limit)

Lanes	Median	B	C	D	E
2	Undivided	*	1,510	1,600	**
4	Divided	*	3,420	3,580	**
6	Divided	*	5,250	5,390	**
8	Divided	*	7,090	7,210	**

Class II (35 mph or slower posted speed limit)

Lanes	Median	B	C	D	E
2	Undivided	*	660	1,330	1,410
4	Divided	*	1,310	2,920	3,040
6	Divided	*	2,090	4,500	4,590
8	Divided	*	2,880	6,060	6,130

Non-State Signalized Roadway Adjustments

(Alter corresponding state volumes by the indicated percent.)

Non-State Signalized Roadways - 10%

Median & Turn Lane Adjustments

Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
2	Divided	Yes	No	+5%
2	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
–	–	–	Yes	+ 5%

One-Way Facility Adjustment

Multiply the corresponding two-directional volumes in this table by 0.6

BICYCLE MODE[2]

(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/Bicycle Lane Coverage	B	C	D	E
0-49%	*	260	680	1,770
50-84%	190	600	1,770	>1,770
85-100%	830	1,770	>1,770	**

PEDESTRIAN MODE[2]

(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	B	C	D	E
0-49%	*	*	250	850
50-84%	*	150	780	1,420
85-100%	340	960	1,560	>1,770

BUS MODE (Scheduled Fixed Route)[3]

(Buses in peak hour in peak direction)

Sidewalk Coverage	B	C	D	E
0-84%	> 5	≥ 4	≥ 3	≥ 2
85-100%	> 4	≥ 3	≥ 2	≥ 1

UNINTERRUPTED FLOW FACILITIES

FREEWAYS

Lanes	B	C	D	E
4	4,120	5,540	6,700	7,190
6	6,130	8,370	10,060	11,100
8	8,230	11,100	13,390	15,010
10	10,330	14,040	16,840	18,930
12	14,450	18,880	22,030	22,860

Freeway Adjustments

Auxiliary Lanes Present in Both Directions	Ramp Metering
+ 1,800	+ 5%

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Median	B	C	D	E
2	Undivided	770	1,530	2,170	2,990
4	Divided	3,300	4,660	5,900	6,530
6	Divided	4,950	6,990	8,840	9,790

Uninterrupted Flow Highway Adjustments

Lanes	Median	Exclusive left lanes	Adjustment factors
2	Divided	Yes	+5%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

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

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

[3] Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

* Cannot be achieved using table input value defaults.

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

Source:
Florida Department of Transportation
Systems Planning Office
www.dot.state.fl.us/planning/systems/sm/los/default.shtm

APPENDIX B

TABLE 4
(continued)

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

12/18/12

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities			Interrupted Flow Facilities					
				State Arterials				Class I	
	Freeways	Highways		Class I		Class II		Bicycle	Pedestrian
ROADWAY CHARACTERISTICS									
Area type (lu, u)	lu	u	u	u	u	u	u	u	u
Number of through lanes (both dir.)	4-12	2	4-6	2	4-8	2	4-8	4	4
Posted speed (mph)	70	50	50	45	50	30	30	45	45
Free flow speed (mph)	75	55	55	50	55	35	35	50	50
Auxiliary lanes (n,y)	n								
Median (n, nr, r)		n	r	n	r	n	r	r	r
Terrain (l,r)	l	l	l	l	l	l	l	l	l
% no passing zone		80							
Exclusive left turn lane impact (n, y)		[n]	y	y	y	y	y	y	y
Exclusive right turn lanes (n, y)				n	n	n	n	n	n
Facility length (mi)	4	5	5	2	2	1.9	1.8	2	2
Number of basic segments	4								
TRAFFIC CHARACTERISTICS									
Planning analysis hour factor (K)	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090
Directional distribution factor (D)	0.547	0.550	0.550	0.550	0.560	0.565	0.560	0.565	0.565
Peak hour factor (PHF)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Base saturation flow rate (pcphpl)		1,700	2,100	1,950	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	4.0	2.0	2.0	1.0	1.0	1.0	1.0	2.5	2.0
Local adjustment factor	0.91	0.97	0.98						
% left turns				12	12	12	12	12	12
% right turns				12	12	12	12	12	12
CONTROL CHARACTERISTICS									
Number of signals				4	4	10	10	4	6
Arrival type (1-6)				3	3	4	4	4	4
Signal type (a, c, p)				c	c	c	c	c	c
Cycle length (C)				120	150	120	120	120	120
Effective green ratio (g/C)				0.44	0.45	0.44	0.44	0.44	0.44
MULTIMODAL CHARACTERISTICS									
Paved shoulder/bicycle lane (n, y)								n, 50%, y	n
Outside lane width (n, t, w)								t	t
Pavement condition (d, t, u)								t	
On-street parking (n, y)								n	n
Sidewalk (n, y)									n, 50%, y
Sidewalk/roadway separation (a, t, w)									t
Sidewalk protective barrier (n, y)									n

LEVEL OF SERVICE THRESHOLDS

Level of Service	Freeways	Highways		Arterials		Bicycle	Ped	Bus
	Density	Two-Lane %ffs	Multilane Density	Class I ats	Class II ats	Score	Score	Buses/hr.
B	≤ 17	> 83.3	≤ 17	> 31 mph	> 22 mph	≤ 2.75	≤ 2.75	≤ 6
C	≤ 24	> 75.0	≤ 24	> 23 mph	> 17 mph	≤ 3.50	≤ 3.50	≤ 4
D	≤ 31	> 66.7	≤ 31	> 18 mph	> 13 mph	≤ 4.25	≤ 4.25	< 3
E	≤ 39	> 58.3	≤ 35	> 15 mph	> 10 mph	≤ 5.00	≤ 5.00	< 2

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

APPENDIX B

TABLE 7

Generalized **Peak Hour Directional** Volumes for Florida's **Urbanized Areas**[1]

12/18/12

INTERRUPTED FLOW FACILITIES

STATE SIGNALIZED ARTERIALS

Class I (40 mph or higher posted speed limit)

Lanes	Median	B	C	D	E
1	Undivided	*	830	880	**
2	Divided	*	1,910	2,000	**
3	Divided	*	2,940	3,020	**
4	Divided	*	3,970	4,040	**

Class II (35 mph or slower posted speed limit)

Lanes	Median	B	C	D	E
1	Undivided	*	370	750	800
2	Divided	*	730	1,630	1,700
3	Divided	*	1,170	2,520	2,560
4	Divided	*	1,610	3,390	3,420

Non-State Signalized Roadway Adjustments

(Alter corresponding state volumes by the indicated percent.)

Non-State Signalized Roadways - 10%

Median & Turn Lane Adjustments

Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
1	Divided	Yes	No	+5%
1	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
–	–	–	Yes	+ 5%

One-Way Facility Adjustment

Multiply the corresponding directional volumes in this table by 1.2

BICYCLE MODE[2]

(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/Bicycle Lane Coverage	B	C	D	E
0-49%	*	150	390	1,000
50-84%	110	340	1,000	>1,000
85-100%	470	1,000	>1,000	**

PEDESTRIAN MODE[2]

(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	B	C	D	E
0-49%	*	*	140	480
50-84%	*	80	440	800
85-100%	200	540	880	>1,000

BUS MODE (Scheduled Fixed Route)[3]

(Buses in peak hour in peak direction)

Sidewalk Coverage	B	C	D	E
0-84%	> 5	≥ 4	≥ 3	≥ 2
85-100%	> 4	≥ 3	≥ 2	≥ 1

UNINTERRUPTED FLOW FACILITIES

FREEWAYS

Lanes	B	C	D	E
2	2,260	3,020	3,660	3,940
3	3,360	4,580	5,500	6,080
4	4,500	6,080	7,320	8,220
5	5,660	7,680	9,220	10,360
6	7,900	10,320	12,060	12,500

Freeway Adjustments

Auxiliary Lane	Ramp Metering
+ 1,000	+ 5%

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Median	B	C	D	E
1	Undivided	420	840	1,190	1,640
2	Divided	1,810	2,560	3,240	3,590
3	Divided	2,720	3,840	4,860	5,380

Uninterrupted Flow Highway Adjustments

Lanes	Median	Exclusive left lanes	Adjustment factors
1	Divided	Yes	+5%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

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

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

[3] Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

* Cannot be achieved using table input value defaults.

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

Source:
Florida Department of Transportation
Systems Planning Office
www.dot.state.fl.us/planning/systems/sm/los/default.shtm

TABLE 7
(continued)

Generalized **Peak Hour Directional** Volumes for Florida's
Urbanized Areas

12/18/12

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities			Interrupted Flow Facilities					
				State Arterials				Class I	
	Freeways	Highways		Class I		Class II		Bicycle	Pedestrian
ROADWAY CHARACTERISTICS									
Area type (lu, u)	lu	u	u	u	u	u	u	u	u
Number of through lanes (both dir.)	4-12	2	4-6	2	4-8	2	4-8	4	4
Posted speed (mph)	70	50	50	45	50	30	30	45	45
Free flow speed (mph)	75	55	55	50	55	35	35	50	50
Auxiliary lanes (n,y)	n								
Median (n, nr, r)		n	r	n	r	n	r	r	r
Terrain (l,r)	l	l	l	l	l	l	l	l	l
% no passing zone		80							
Exclusive left turn lane impact (n, y)		[n]	y	y	y	y	y	y	y
Exclusive right turn lanes (n, y)				n	n	n	n	n	n
Facility length (mi)	4	5	5	2	2	1.9	1.8	2	2
Number of basic segments	4								
TRAFFIC CHARACTERISTICS									
Planning analysis hour factor (K)	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090
Directional distribution factor (D)	0.547	0.550	0.550	0.550	0.560	0.565	0.560	0.565	0.565
Peak hour factor (PHF)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Base saturation flow rate (pcphpl)		1,700	2,100	1,950	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	4.0	2.0	2.0	1.0	1.0	1.0	1.0	2.5	2.0
Local adjustment factor	0.91	0.97	0.98						
% left turns				12	12	12	12	12	12
% right turns				12	12	12	12	12	12
CONTROL CHARACTERISTICS									
Number of signals				4	4	10	10	4	6
Arrival type (1-6)				3	3	4	4	4	4
Signal type (a, c, p)				c	c	c	c	c	c
Cycle length (C)				120	150	120	120	120	120
Effective green ratio (g/C)				0.44	0.45	0.44	0.44	0.44	0.44
MULTIMODAL CHARACTERISTICS									
Paved shoulder/bicycle lane (n, y)								n, 50%, y	n
Outside lane width (n, t, w)								t	t
Pavement condition (d, t, w)								t	
On-street parking (n, y)								n	n
Sidewalk (n, y)									n, 50%, y
Sidewalk/roadway separation (a, t, w)									t
Sidewalk protective barrier (n, y)									n

LEVEL OF SERVICE THRESHOLDS

Level of Service	Freeways	Highways		Arterials		Bicycle	Ped	Bus
	Density	Two-Lane %ffs	Multilane Density	Class I ats	Class II ats	Score	Score	Buses/hr.
B	≤ 17	> 83.3	≤ 17	> 31 mph	> 22 mph	≤ 2.75	≤ 2.75	≤ 6
C	≤ 24	> 75.0	≤ 24	> 23 mph	> 17 mph	≤ 3.50	≤ 3.50	≤ 4
D	≤ 31	> 66.7	≤ 31	> 18 mph	> 13 mph	≤ 4.25	≤ 4.25	< 3
E	≤ 39	> 58.3	≤ 35	> 15 mph	> 10 mph	≤ 5.00	≤ 5.00	< 2

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

APPENDIX B

Miami-Dade 2010 Directional Distribution Summary

Origin TAZ			Cardinal Directions								Total
County TAZ	Regional TAZ		NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW	
1354	4254	TRIPS	772	139	56	130	317	390	359	487	2,650
1354	4254	PERCENT	29.1	5.3	2.1	4.9	12.0	14.7	13.6	18.4	
1355	4255	TRIPS	1,441	39	114	303	465	507	512	993	4,374
1355	4255	PERCENT	32.9	0.9	2.6	6.9	10.6	11.6	11.7	22.7	
1356	4256	TRIPS	988	61	16	251	279	837	538	927	3,897
1356	4256	PERCENT	25.4	1.6	0.4	6.4	7.2	21.5	13.8	23.8	
1357	4257	TRIPS	151	0	0	8	63	71	91	141	525
1357	4257	PERCENT	28.8	0.0	0.0	1.5	12.0	13.5	17.3	26.9	
1358	4258	TRIPS	806	3	13	238	90	316	562	982	3,010
1358	4258	PERCENT	26.8	0.1	0.4	7.9	3.0	10.5	18.7	32.6	
1359	4259	TRIPS	700	5	0	0	14	414	414	841	2,388
1359	4259	PERCENT	29.3	0.2	0.0	0.0	0.6	17.3	17.3	35.2	
1360	4260	TRIPS	904	65	0	0	111	769	963	1,780	4,592
1360	4260	PERCENT	19.7	1.4	0.0	0.0	2.4	16.8	21.0	38.8	
1361	4261	TRIPS	1,058	33	0	0	39	207	448	871	2,656
1361	4261	PERCENT	39.8	1.2	0.0	0.0	1.5	7.8	16.9	32.8	
1362	4262	TRIPS	601	131	0	0	46	174	440	749	2,141
1362	4262	PERCENT	28.1	6.1	0.0	0.0	2.2	8.1	20.6	35.0	
1363	4263	TRIPS	1,113	103	0	40	43	463	584	869	3,215
1363	4263	PERCENT	34.6	3.2	0.0	1.2	1.3	14.4	18.2	27.0	
1364	4264	TRIPS	1,341	161	191	71	348	759	745	1,251	4,867
1364	4264	PERCENT	27.6	3.3	3.9	1.5	7.2	15.6	15.3	25.7	
1365	4265	TRIPS	900	198	84	51	353	382	466	837	3,271
1365	4265	PERCENT	27.5	6.1	2.6	1.6	10.8	11.7	14.3	25.6	
1366	4266	TRIPS	865	54	57	220	169	440	502	658	2,965
1366	4266	PERCENT	29.2	1.8	1.9	7.4	5.7	14.8	16.9	22.2	
1367	4267	TRIPS	1,586	202	242	149	315	712	536	1,260	5,002
1367	4267	PERCENT	31.7	4.0	4.8	3.0	6.3	14.2	10.7	25.2	
1368	4268	TRIPS	922	71	171	212	313	292	443	435	2,859
1368	4268	PERCENT	32.3	2.5	6.0	7.4	11.0	10.2	15.5	15.2	
1369	4269	TRIPS	1,773	294	456	386	1,128	650	688	1,133	6,508
1369	4269	PERCENT	27.2	4.5	7.0	5.9	17.3	10.0	10.6	17.4	
1370	4270	TRIPS	1,163	466	437	214	1,118	389	616	901	5,304
1370	4270	PERCENT	21.9	8.8	8.2	4.0	21.1	7.3	11.6	17.0	
1371	4271	TRIPS	640	243	156	140	444	102	279	537	2,541
1371	4271	PERCENT	25.2	9.6	6.1	5.5	17.5	4.0	11.0	21.1	
1372	4272	TRIPS	75	0	20	0	50	38	58	49	290
1372	4272	PERCENT	25.9	0.0	6.9	0.0	17.2	13.1	20.0	16.9	
1373	4273	TRIPS	83	23	13	13	22	25	35	29	243
1373	4273	PERCENT	34.2	9.5	5.4	5.4	9.1	10.3	14.4	11.9	
1374	4274	TRIPS	1,589	387	169	0	343	262	524	880	4,154

APPENDIX C

PM PERIOD VEHICLE ACCUMULATION

APPENDIX C

ACCUMULATION ASSESSMENT

Three (3) Arrival/Dismissal Shifts

(This form is used to assess the impact of the accumulation of loading vehicles staged at dismissal time)

New School Name	**MATER ACADEMY CUTLER BAY**	
Surrogate School Name[1]	**MATER ACADEMY CUTLER BAY**	
Date / Day / Time	**11-Feb-20**	(collect maximum accumulation of staged loading vehicles at or around
of Data Collection	**2:00 to 4:00 PM**	dismissal time on Tuesday, Wednesday or Thursday for elementary, middle, and/or high schools)
Surrogate Enrollment	**1,154**	students, E (verified by school staff on same date as data collection)
Capacity of New School	**1600**	student stations,C: (max # students for each separate dismissal period @ 30 minute intervals, imposed p/u 'window' and 30% to aftercare.)
Multiplier[2]	**1.39**	[C / E]
Surrogate Accumulations[3]	**148**	passenger vehicles (including commercial vans)
	0	large school buses
	0	student vehicles (for high schools only)
Projected Accumulations	**206**	passenger vehicles
	0	large school buses
	0	student vehicles
Provided Spaces[4]	**218**	passenger vehicles (legal staging areas on and contiguous to site)
	0	large school buses
	0	student vehicles (legal parking on and contiguous to site)
Percent Accommodated[5]	**106%**	passenger vehicles

[2] This figure is used to determine projected accumulations at the new school by applying it to existing surrogate school accumulations. It is calculated by dividing the new school student station capacity by the surrogate school student enrollment at the time of accumulation data collection.

[3] These are all school related loading vehicles which are, legally or illegally, staged or parked, on or neighboring the school site.

[4] Information must be obtained from a field survey or proposed site plan indicating the total spaces to be provided for each vehicle type at 22 linear feet per passenger vehicle and/or commercial van, and 50 linear feet per large school bus. Credit may be taken for legal parking in paved swale areas along school property frontage. A sketch or site plan (maximum 40 scale) showing the location of these spaces, the type of spaces in each area, and linear footage provided for each area including the width of bus bays is **required**. Onstreet bus loading bays are required to have a minimum 14 foot width, onstreet passenger vehicle loading bays are required to have a minimum 10 foot width, and onstreet passenger vehicle parking areas are required to have a minimum 8 foot width, unless otherwise allowed.

[5] This is calculated as, [(Provided Spaces / Projected Accumulations) x 100], for each vehicle type. MDPWD requires all of the large school bus and student vehicle (if applicable) accumulations to be accommodated. The Department also expects l00 % of the passenger vehicle accumulation to be accommodated depending on adjacent roadway design and classification, and limitations of the school site.

address, and telephone number:

_____

Signature of Data Collector

_____
_____
_____
_____
_____

APPENDIX C

Prepared by Nationwide Traffic Data

Queue Study

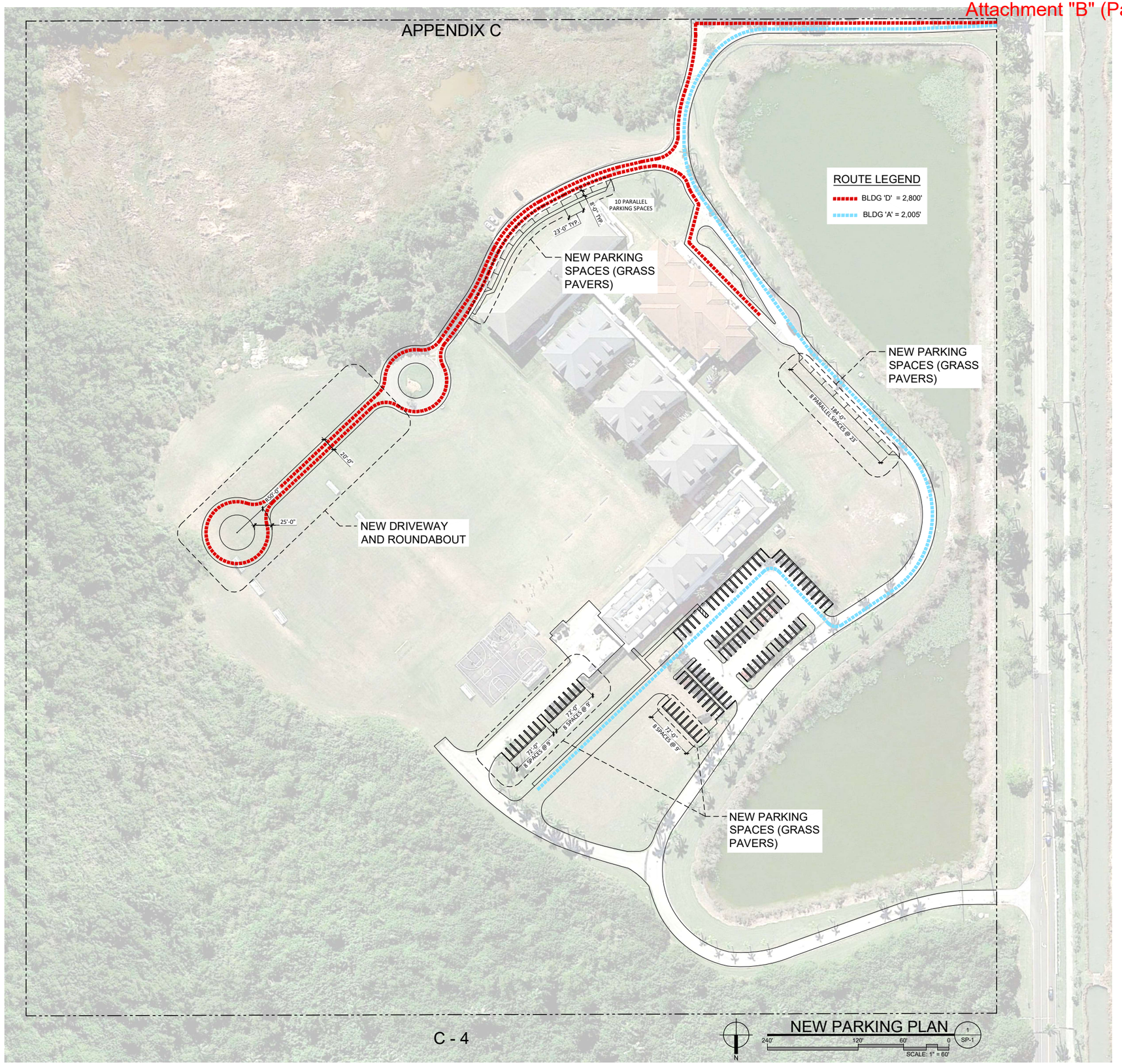
Location: Mater Bay Academy
City: Cutler Bay ,FL

Date: 2/11/2020
Day: Tuesday

Street Name	Zone on Kmz	Queue	14:00	14:05	14:10	14:15	14:20	14:25	14:30	14:35	14:40	14:45	14:50	14:55	15:00	15:05	15:10	15:15	15:20	15:25	15:30	15:35	15:40	15:45	15:50	15:55	Notes	
Southbound On 87Th	Fuschia	001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0		3
Northbound On 87Th	Blue	001	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0		5
School Entrance 2 Lanes	Red	003	0	0	0	0	0	0	0	0	0	0	0	0	9	21	15	18	17	6	0	0	0	0	0	0		86
School Entrance 2 Lanes	Yellow	004	8	14	21	31	10	0	15	0	0	0	0	0	10	28	18	4	0	0	0	0	0	0	0	0		159
Building C School Pickup	Orange	005	28	34	40	22	2	4	7	12	17	22	28	37	49	67	71	45	33	21	2	2	1	4	4	2		554
Building A School Pickup	Cyan	006	21	21	21	21	31	18	30	42	42	34	7	13	23	24	23	9	21	20	10	6	8	5	8	5		463
Building A School Pickup	Cyan	Extended Queue (Cyan Box On Kmz)	0	0	0	0	0	0	7	10	10	10	4	3	5	3	4	4	6	4	4	4	6	5	5	3		
Vehicles Parked On Side Of Road - 87Th Avenue	Green	South	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	0	0	0	0	0	0		
Vehicles Parked On Side Of Road - 87Th Avenue	Green	North	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total Vehicle Accumulation			57	69	82	74	43	22	59	64	69	66	39	53	96	148	136	82	79	53	16	12	15	14	17	10		

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 2 2 2 2 0 0 0 0 0 0

APPENDIX C



C - 4

CIVICA
ARCHITECTURE & URBAN DESIGN
8323 NW 12th St. Suite 106
Doral, FL 33126
tel: 305.593.9959
AA #26001093
www.civicagroup.com
info@civicagroup.com

PROJECT:

MATER ACADEMY
BAY ELEMENTARY
22025 SW 87TH AVE
MIAMI, FL 33190

APPLICANT:

MATER ACADEMY INC.

ISSUED FOR:
SITE PLAN APPROVAL

CIVICA PROJECT No :
160103

No.	DATE	REVISION	BY

DRAWN BY	APPROVED BY
AD	RL
DATE	SCALE:
JAN. 29, 2020	AS SHOWN

SEAL/SIGNATURE

ROLANDO LLANES
AR - 0013160

SHEET TITLE

NEW PARKING PLAN

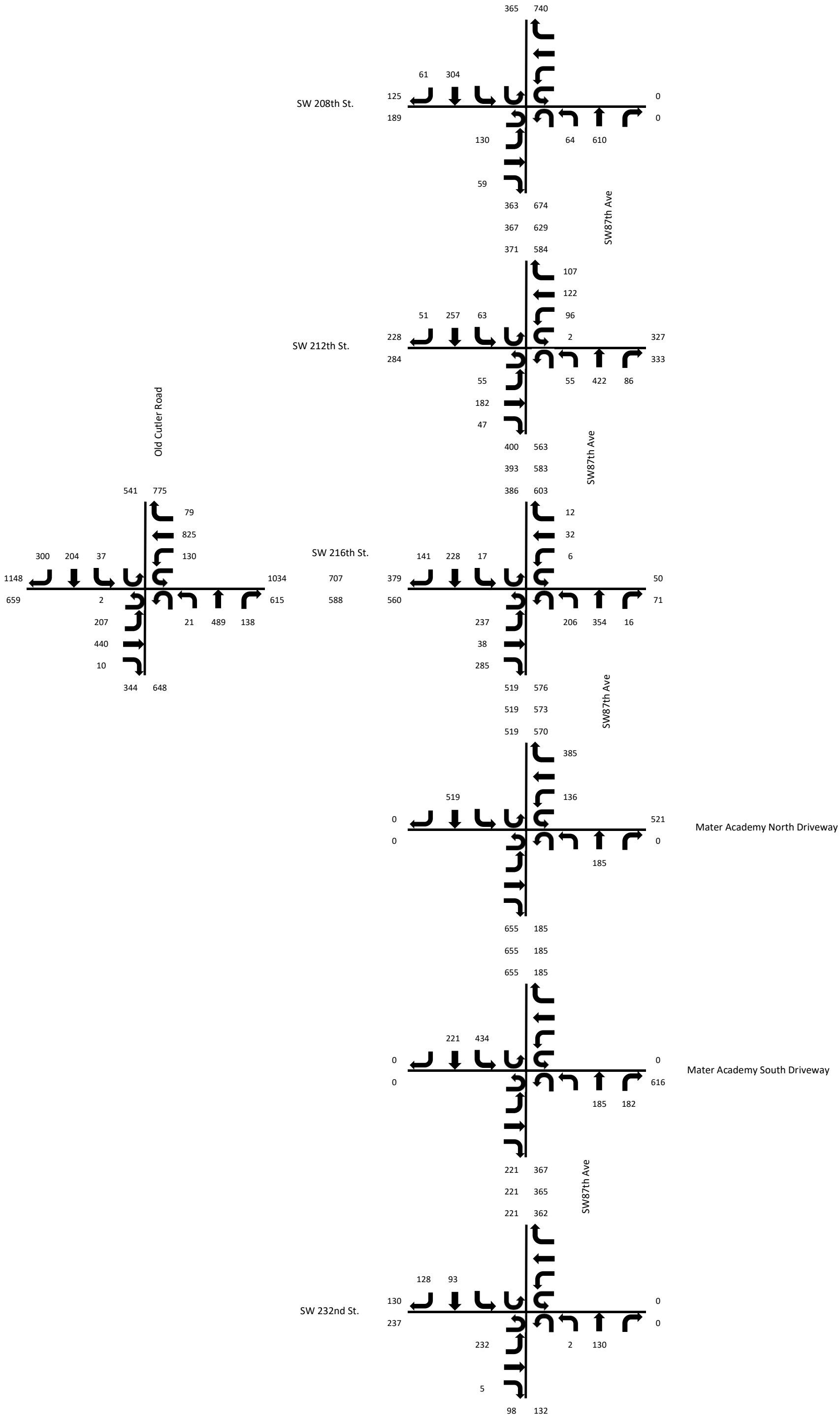
SHEET NUMBER
SP-1

APPENDIX D

TRAFFIC FIGURES

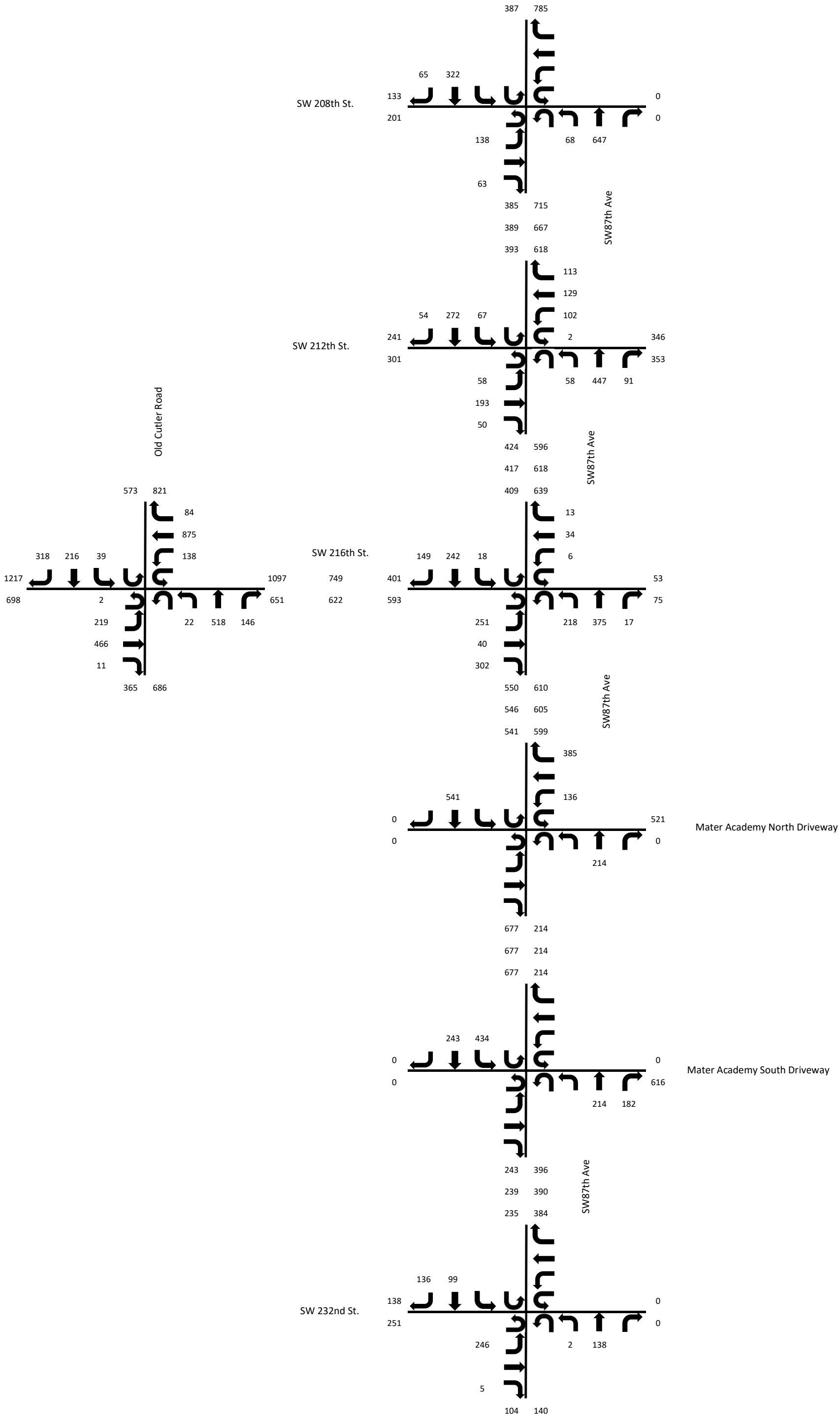
APPENDIX D

AM Raw Count



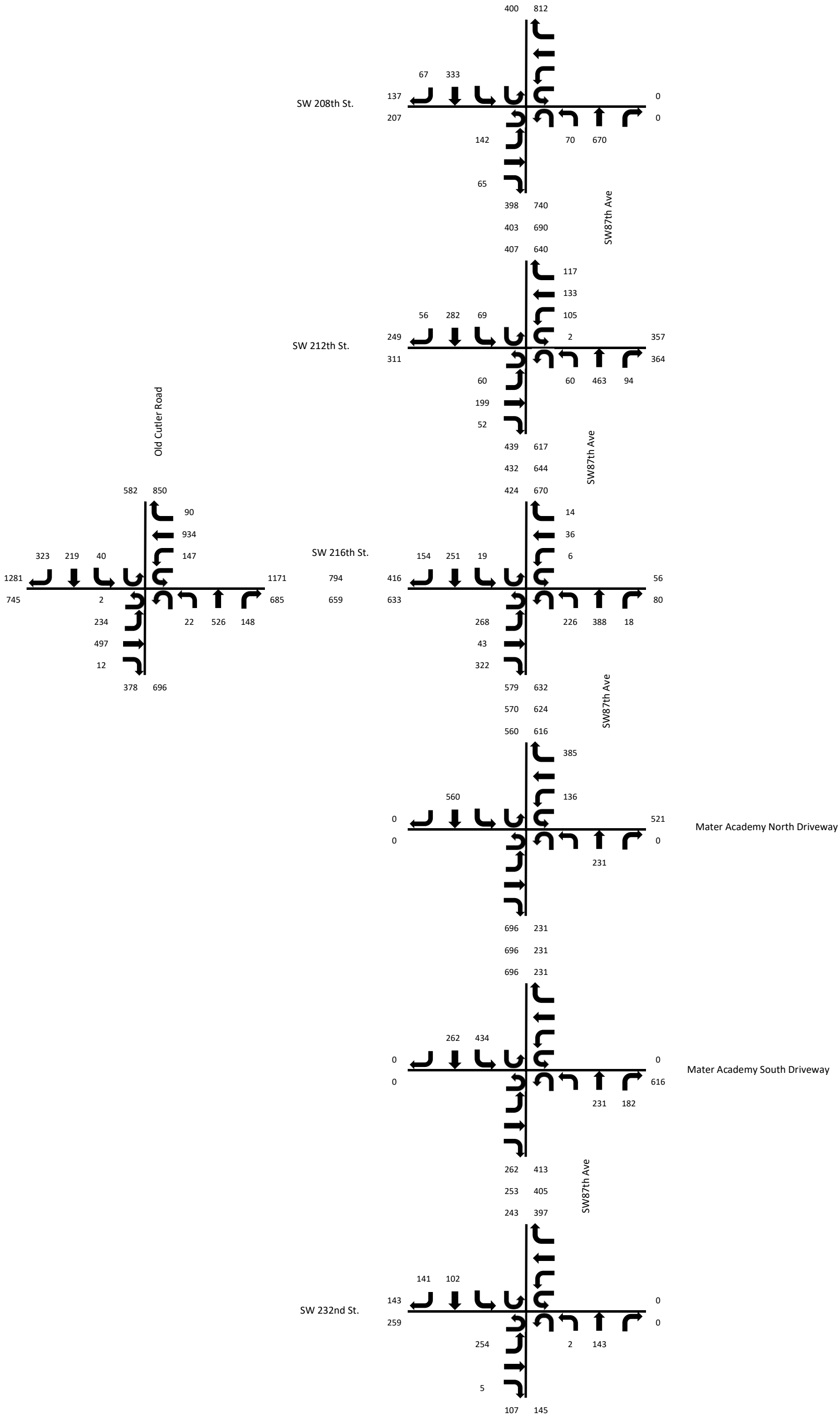
APPENDIX D

AM Existing Peak Season Traffic



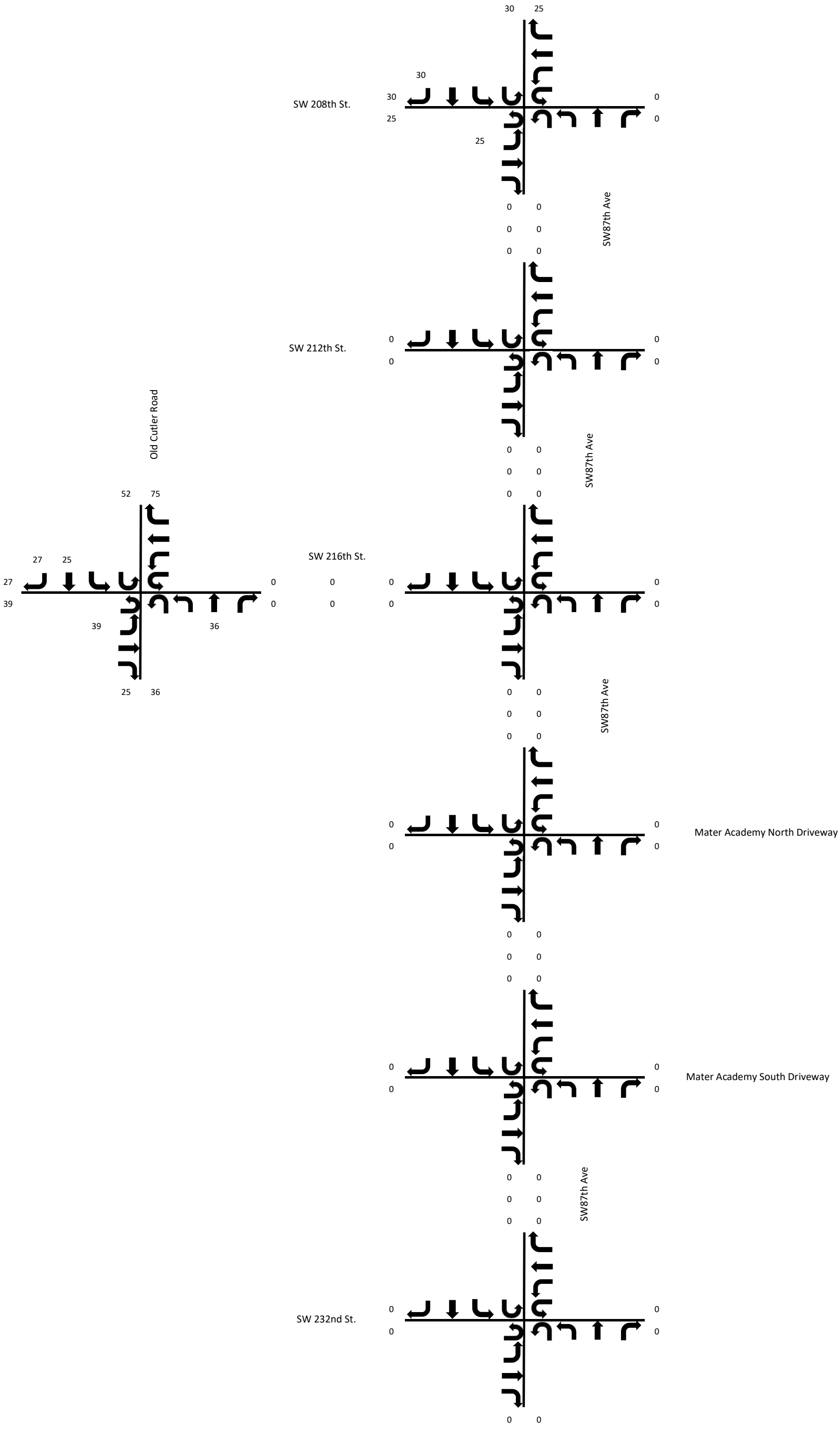
APPENDIX D

AM Future Background Traffic



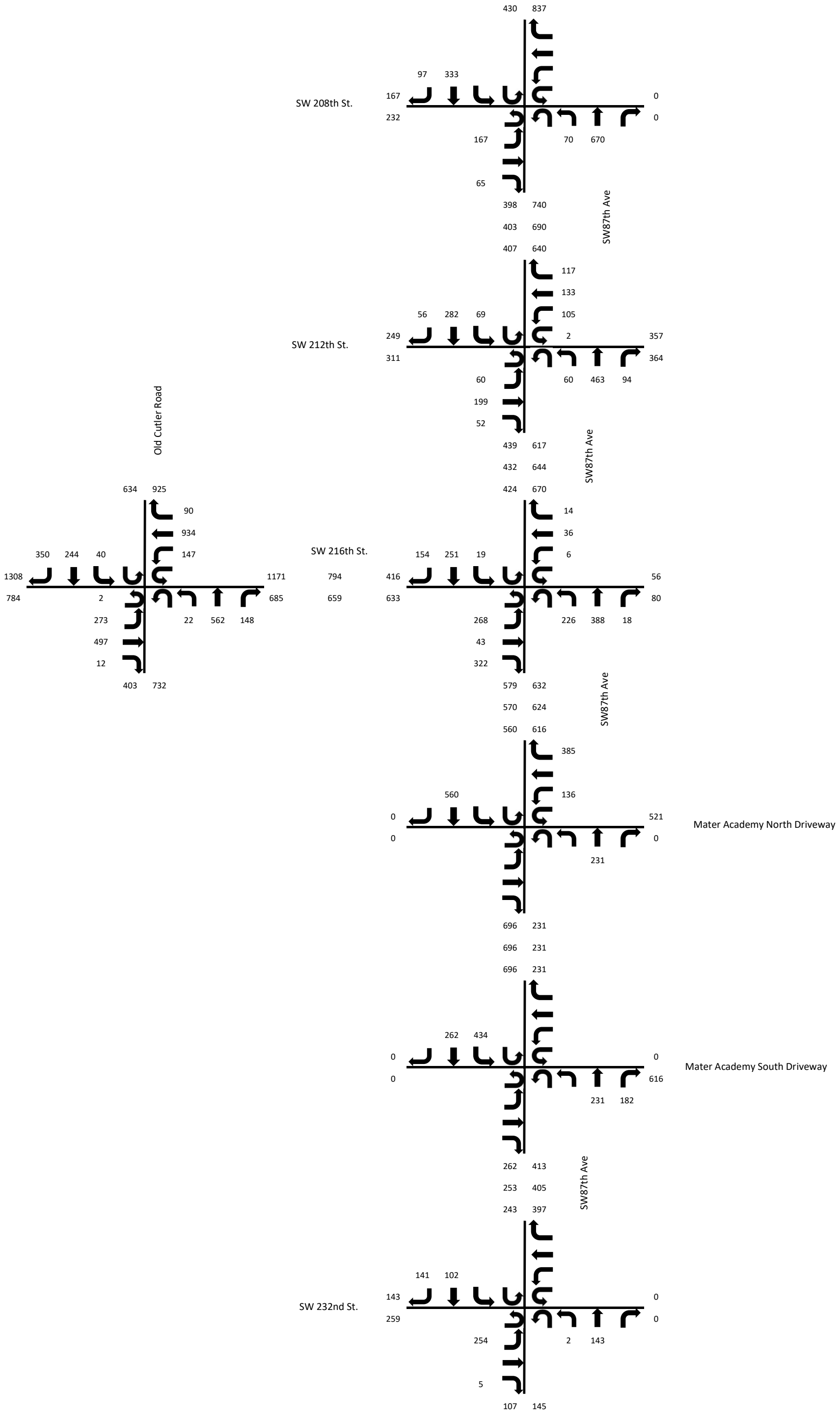
APPENDIX D

AM Committed Development Trips



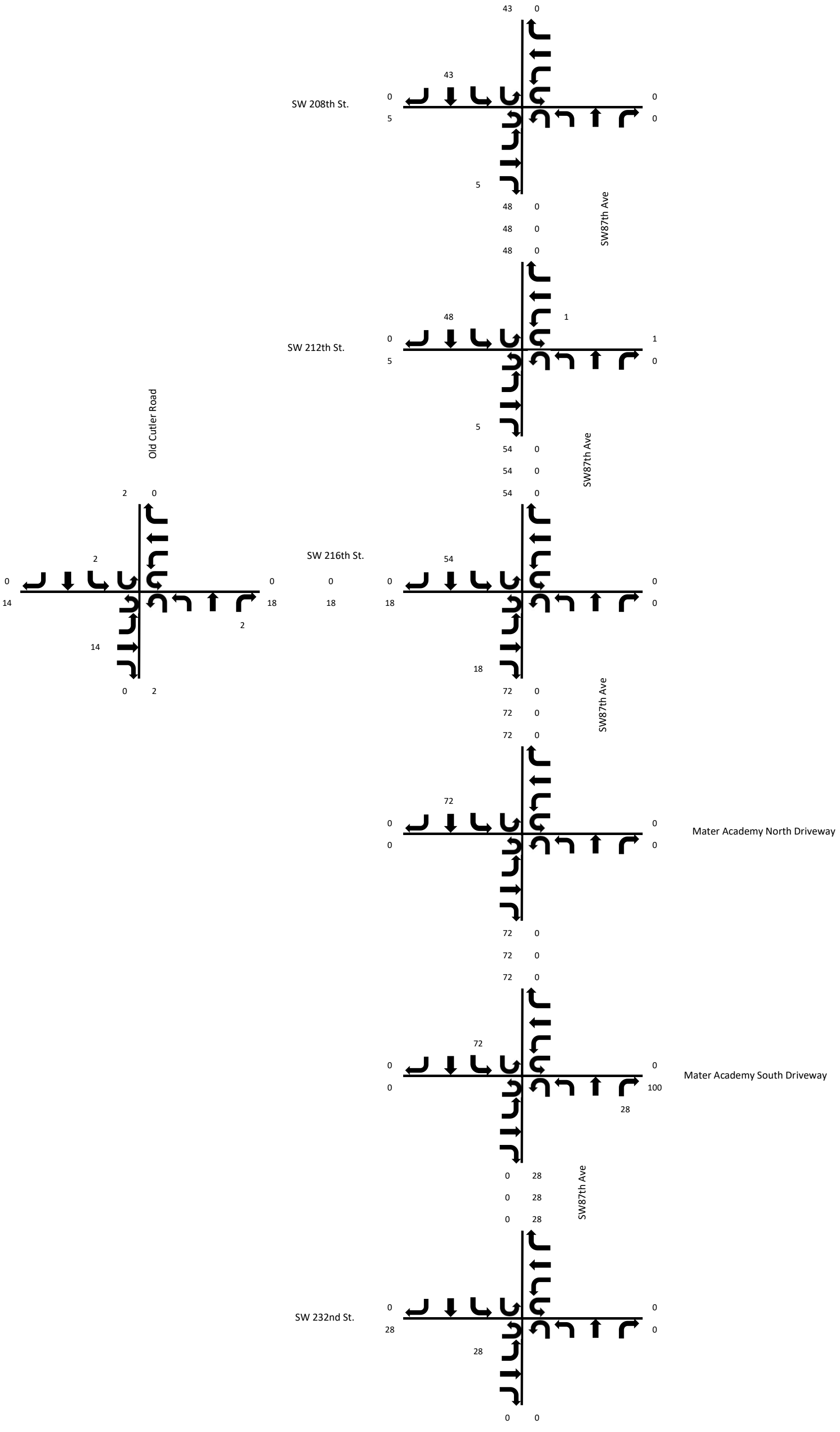
APPENDIX D

AM Future Background + Committed Traffic



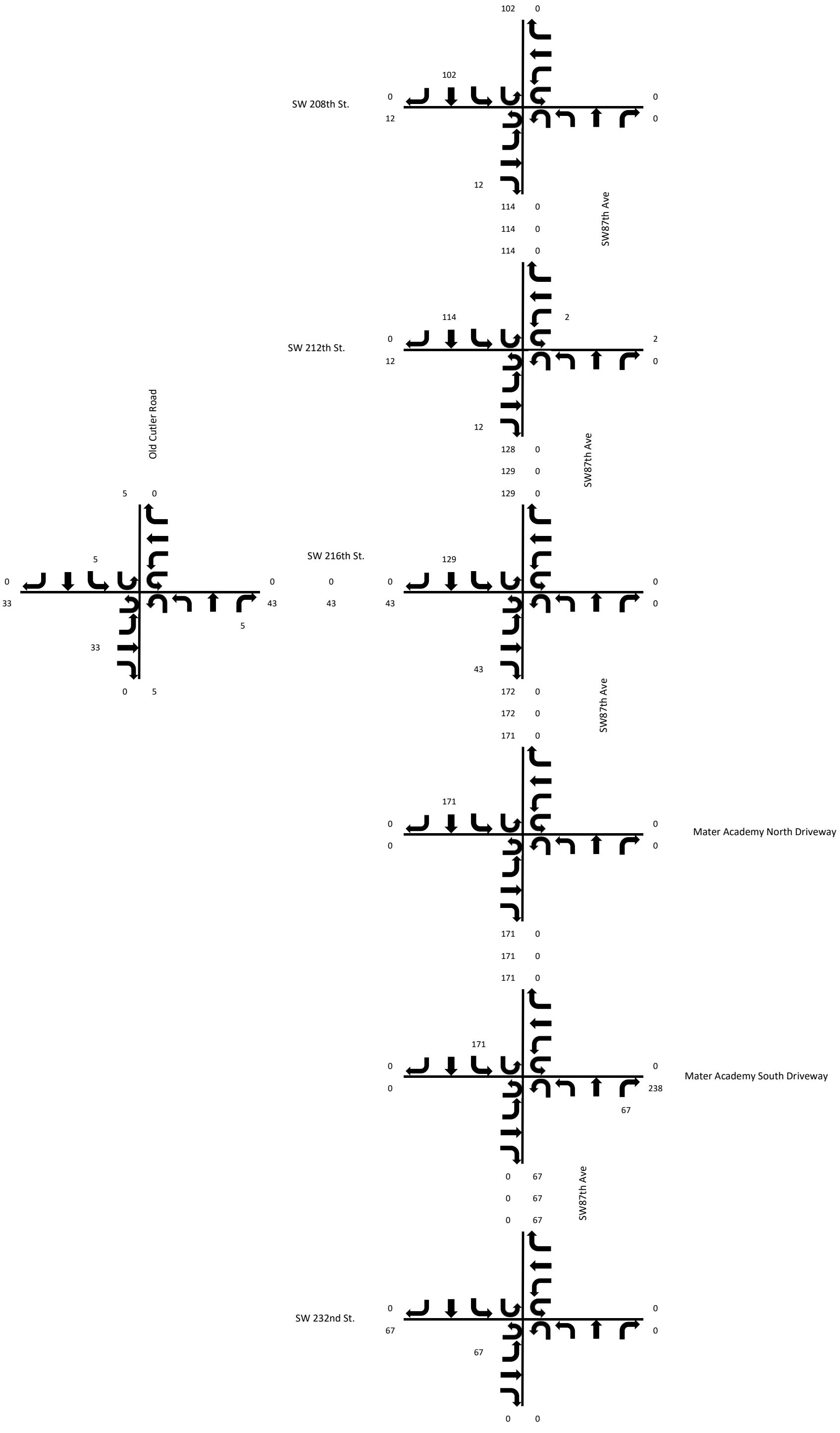
APPENDIX D

AM Project Traffic Percent In



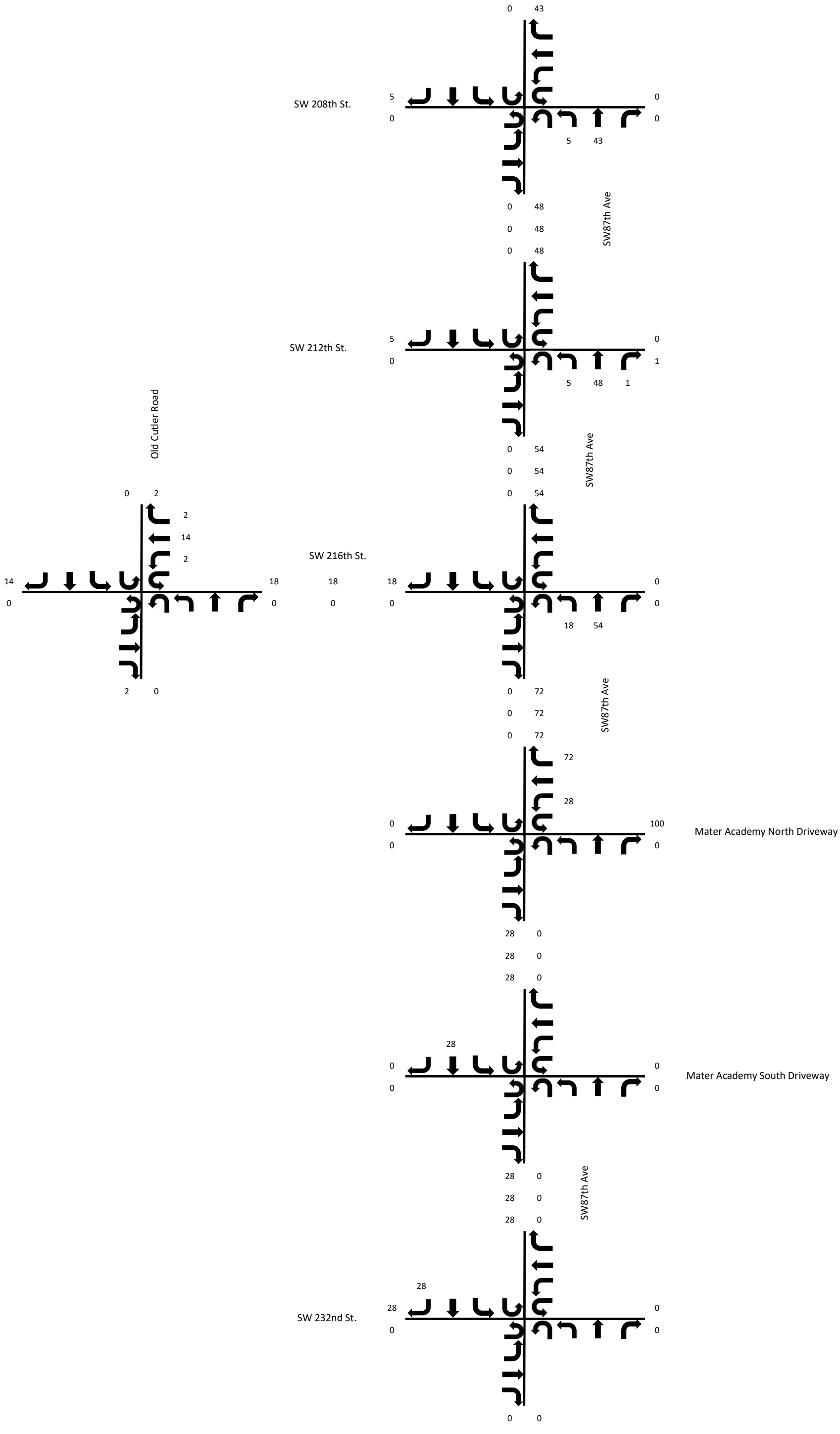
APPENDIX D

AM Project Traffic In Excluding Passby



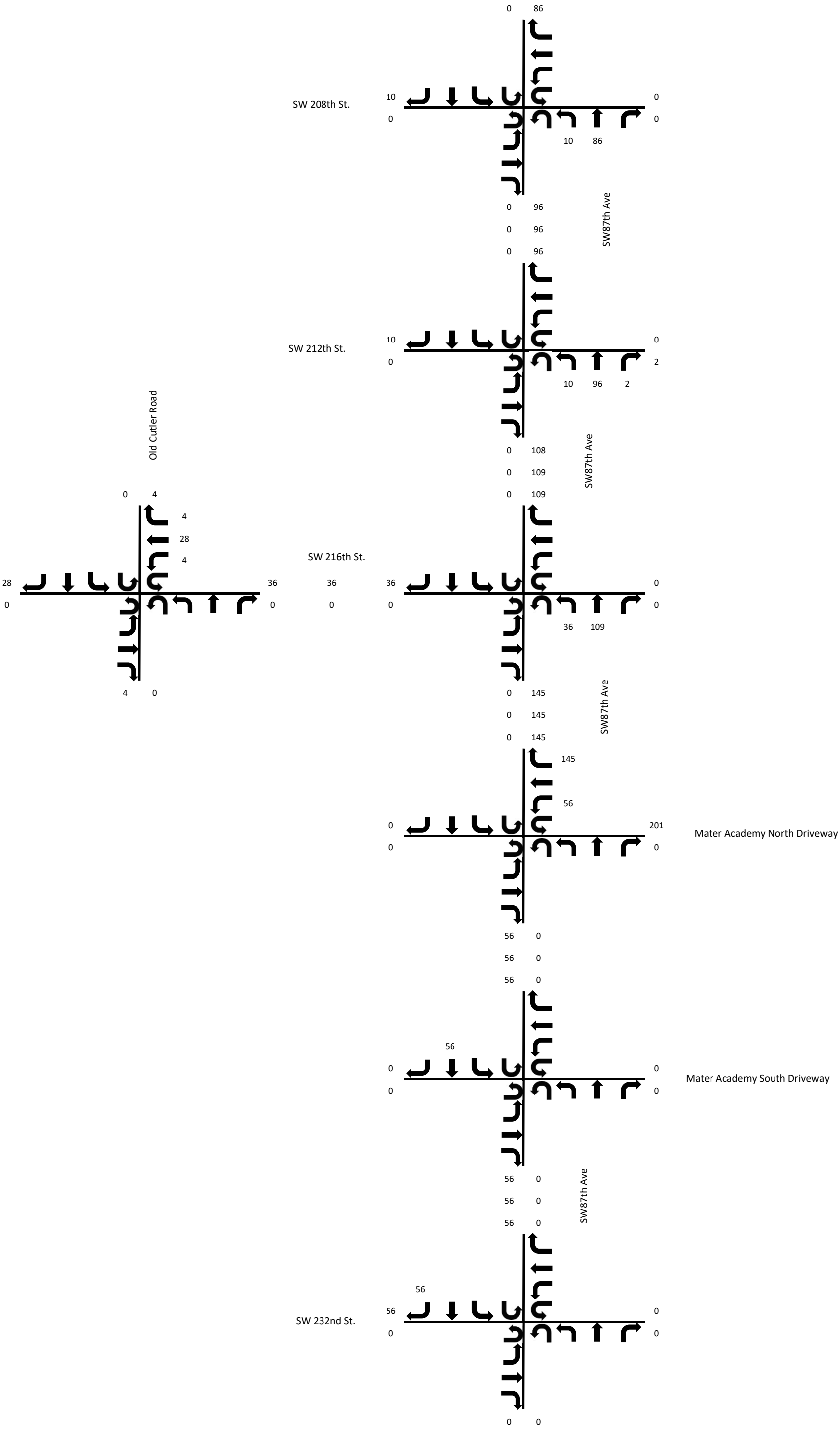
APPENDIX D

AM Project Traffic Percent Out



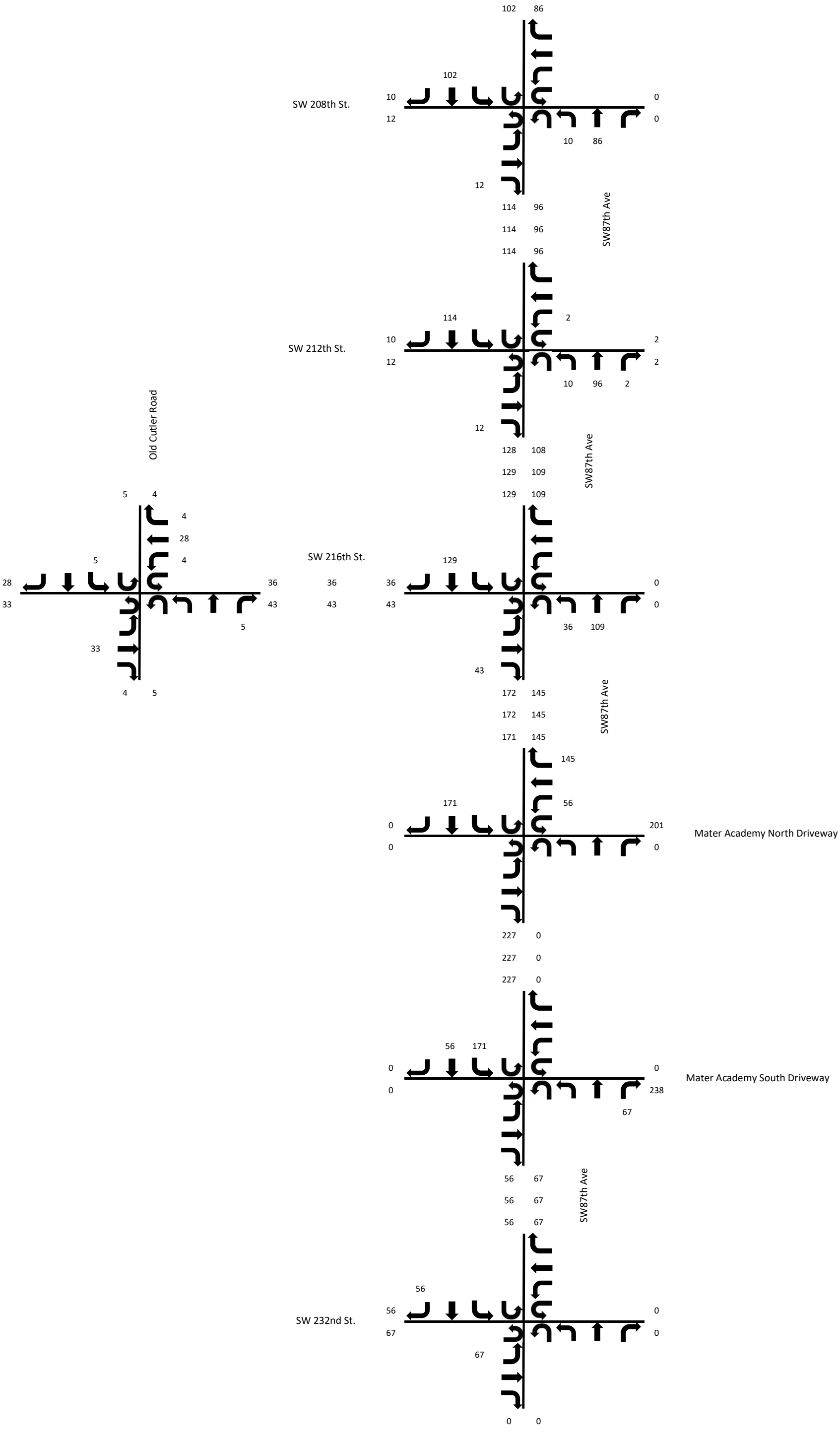
APPENDIX D

AM Project Traffic Out Excluding Passby



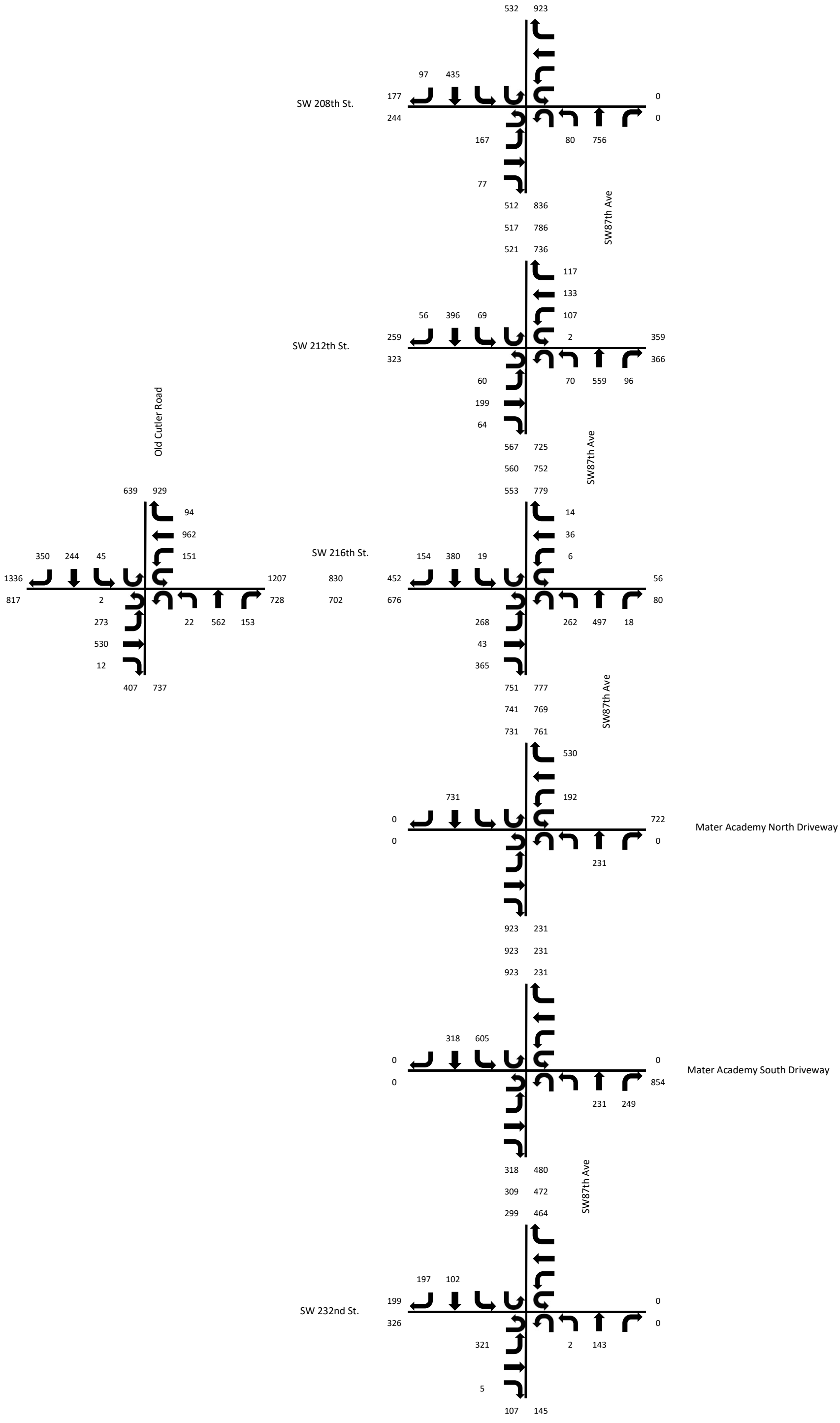
APPENDIX D

AM Total Project Traffic Excluding Passby



APPENDIX D

AM Future Total Traffic Excluding Passby



Mater Academy North Driveway

Mater Academy South Driveway

APPENDIX E

VOLUME DEVELOMENT TABLES

APPENDIX E

Intersection	Period	Measure/Scenario	Value/ Total	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR
SW 87th Ave & SW 208th St.	AM	Count date	11/19/2019																
	AM	Count Year	2019																
	AM	Existing Year	2019																
	AM	Future Year	2022																
SW 87th Ave & SW 208th St.	AM	Raw Count			64	610				304	61		130		59				
	AM	PSCF	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
	AM	Count Year Peak Season Traffic		0	68	647	0	0	0	322	65	0	138	0	63	0	0	0	0
	AM	Annual Growth to Existing Year			1.2%	1.2%				1.2%	1.2%		1.0%		1.0%				
	AM	Existing Peak Season Traffic		0	68	647	0	0	0	322	65	0	138	0	63	0	0	0	0
	AM	Annual Growth to Future Year			1.2%	1.2%				1.2%	1.2%		1.0%		1.0%				
	AM	Future Background Traffic		0	70	670	0	0	0	333	67	0	142	0	65	0	0	0	0
	AM	Shoppes at Cutler Bay									30		25						
	AM	Future Background + Committed Traffic		0	70	670	0	0	0	333	97	0	167	0	65	0	0	0	0
	AM	Project Traffic Percent In								43					5				
	AM	Project Traffic In Including Passby	238	0	0	0	0	0	0	102	0	0	0	0	12	0	0	0	0
	AM	Project Traffic In Excluding Passby	238	0	0	0	0	0	0	102	0	0	0	0	12	0	0	0	0
	AM	Project Traffic Percent Out			5	43													
	AM	Project Traffic Out Including Passby	201	0	10	86	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM	Project Traffic Out Excluding Passby	201	0	10	86	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM	Total Project Traffic Including Passby		0	10	86	0	0	0	102	0	0	0	0	12	0	0	0	0
	AM	Total Project Traffic Excluding Passby		0	10	86	0	0	0	102	0	0	0	0	12	0	0	0	0
	AM	Future Total Traffic Including Passby		0	80	756	0	0	0	435	97	0	167	0	77	0	0	0	0
	AM	Future Total Traffic Excluding Passby		0	80	756	0	0	0	435	97	0	167	0	77	0	0	0	0

APPENDIX E

Intersection	Period	Measure/Scenario	Value/ Total	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR
SW 87th Ave & SW 212th St.	AM	Count date	11/19/2019																
	AM	Count Year	2019																
	AM	Existing Year	2019																
	AM	Future Year	2022																
SW 87th Ave & SW 212th St.	AM	Raw Count			55	422	86		63	257	51	0	55	182	47	2	96	122	107
	AM	PSCF	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
	AM	Count Year Peak Season Traffic		0	58	447	91	0	67	272	54	0	58	193	50	2	102	129	113
	AM	Annual Growth to Existing Year			1.2%	1.2%	1.2%		1.2%	1.2%	1.2%		1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
	AM	Existing Peak Season Traffic		0	58	447	91	0	67	272	54	0	58	193	50	2	102	129	113
	AM	Annual Growth to Future Year			1.2%	1.2%	1.2%		1.2%	1.2%	1.2%		1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
	AM	Future Background Traffic		0	60	463	94	0	69	282	56	0	60	199	52	2	105	133	117
	AM	Committed Development Trips		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM	Future Background + Committed Traffic		0	60	463	94	0	69	282	56	0	60	199	52	2	105	133	117
	AM	Project Traffic Percent In								48					5		1		
	AM	Project Traffic In Including Passby	238	0	0	0	0	0	0	114	0	0	0	0	12	0	2	0	0
	AM	Project Traffic In Excluding Passby	238	0	0	0	0	0	0	114	0	0	0	0	12	0	2	0	0
	AM	Project Traffic Percent Out			5	48	1												
	AM	Project Traffic Out Including Passby	201	0	10	96	2	0	0	0	0	0	0	0	0	0	0	0	0
	AM	Project Traffic Out Excluding Passby	201	0	10	96	2	0	0	0	0	0	0	0	0	0	0	0	0
	AM	Total Project Traffic Including Passby		0	10	96	2	0	0	114	0	0	0	0	12	0	2	0	0
	AM	Total Project Traffic Excluding Passby		0	10	96	2	0	0	114	0	0	0	0	12	0	2	0	0
	AM	Future Total Traffic Including Passby		0	70	559	96	0	69	396	56	0	60	199	64	2	107	133	117
	AM	Future Total Traffic Excluding Passby		0	70	559	96	0	69	396	56	0	60	199	64	2	107	133	117

APPENDIX E

Intersection	Period	Measure/Scenario	Value/ Total	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR
SW 87th Ave & SW 216th St.	AM	Count date	11/19/2019																
	AM	Count Year	2019																
	AM	Existing Year	2019																
	AM	Future Year	2022																
SW 87th Ave & SW 216th St.	AM	Raw Count			206	354	16		17	228	141		237	38	285		6	32	12
	AM	PSCF	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
	AM	Count Year Peak Season Traffic		0	218	375	17	0	18	242	149	0	251	40	302	0	6	34	13
	AM	Annual Growth to Existing Year		1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%
	AM	Existing Peak Season Traffic		0	218	375	17	0	18	242	149	0	251	40	302	0	6	34	13
	AM	Annual Growth to Future Year		1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%
	AM	Future Background Traffic		0	226	388	18	0	19	251	154	0	268	43	322	0	6	36	14
	AM	Committed Development Trips		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM	Future Background + Committed Traffic		0	226	388	18	0	19	251	154	0	268	43	322	0	6	36	14
	AM	Project Traffic Percent In								54					18				
	AM	Project Traffic In Including Passby	238	0	0	0	0	0	0	129	0	0	0	0	43	0	0	0	0
	AM	Project Traffic In Excluding Passby	238	0	0	0	0	0	0	129	0	0	0	0	43	0	0	0	0
	AM	Project Traffic Percent Out			18	54													
	AM	Project Traffic Out Including Passby	201	0	36	109	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM	Project Traffic Out Excluding Passby	201	0	36	109	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM	Total Project Traffic Including Passby		0	36	109	0	0	0	129	0	0	0	0	43	0	0	0	0
	AM	Total Project Traffic Excluding Passby		0	36	109	0	0	0	129	0	0	0	0	43	0	0	0	0
	AM	Future Total Traffic Including Passby		0	262	497	18	0	19	380	154	0	268	43	365	0	6	36	14
	AM	Future Total Traffic Excluding Passby		0	262	497	18	0	19	380	154	0	268	43	365	0	6	36	14

APPENDIX E

Intersection	Period	Measure/Scenario	Value/ Total	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR
SW 87th Ave & SW 232nd St.	AM	Count date	11/19/2019																
	AM	Count Year	2019																
	AM	Existing Year	2019																
	AM	Future Year	2022																
SW 87th Ave & SW 232nd St.	AM	Raw Count			2	130				93	128		232		5				
	AM	PSCF	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
	AM	Count Year Peak Season Traffic		0	2	138	0	0	0	99	136	0	246	0	5	0	0	0	0
	AM	Annual Growth to Existing Year		1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
	AM	Existing Peak Season Traffic		0	2	138	0	0	0	99	136	0	246	0	5	0	0	0	0
	AM	Annual Growth to Future Year		1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
	AM	Future Background Traffic		0	2	143	0	0	0	102	141	0	254	0	5	0	0	0	0
	AM	Committed Development Trips		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM	Future Background + Committed Traffic		0	2	143	0	0	0	102	141	0	254	0	5	0	0	0	0
	AM	Project Traffic Percent In											28						
	AM	Project Traffic In Including Passby	238	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0
	AM	Project Traffic In Excluding Passby	238	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0
	AM	Project Traffic Percent Out									28								
	AM	Project Traffic Out Including Passby	201	0	0	0	0	0	0	0	56	0	0	0	0	0	0	0	0
	AM	Project Traffic Out Excluding Passby	201	0	0	0	0	0	0	0	56	0	0	0	0	0	0	0	0
	AM	Total Project Traffic Including Passby		0	0	0	0	0	0	0	56	0	67	0	0	0	0	0	0
	AM	Total Project Traffic Excluding Passby		0	0	0	0	0	0	0	56	0	67	0	0	0	0	0	0
	AM	Future Total Traffic Including Passby		0	2	143	0	0	0	102	197	0	321	0	5	0	0	0	0
	AM	Future Total Traffic Excluding Passby		0	2	143	0	0	0	102	197	0	321	0	5	0	0	0	0

APPENDIX E

Intersection	Period	Measure/Scenario	Value/ Total	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR
Old Cutler Road & SW 216th St.	AM	Count date	11/19/2019																
	AM	Count Year	2019																
	AM	Existing Year	2019																
	AM	Future Year	2022																
Old Cutler Road & SW 216th St.	AM	Raw Count			21	489	138		37	204	300	2	207	440	10		130	825	79
	AM	PSCF	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
	AM	Count Year Peak Season Traffic		0	22	518	146	0	39	216	318	2	219	466	11	0	138	875	84
	AM	Annual Growth to Existing Year		0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%
	AM	Existing Peak Season Traffic		0	22	518	146	0	39	216	318	2	219	466	11	0	138	875	84
	AM	Annual Growth to Future Year		0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%
	AM	Future Background Traffic		0	22	526	148	0	40	219	323	2	234	497	12	0	147	934	90
	AM	Shoppes at Cutler Bay				36				25	27		39						
	AM	Future Background + Committed Traffic		0	22	562	148	0	40	244	350	2	273	497	12	0	147	934	90
	AM	Project Traffic Percent In					2		2					14					
	AM	Project Traffic In Including Passby	238	0	0	0	5	0	5	0	0	0	0	33	0	0	0	0	0
	AM	Project Traffic In Excluding Passby	238	0	0	0	5	0	5	0	0	0	0	33	0	0	0	0	0
	AM	Project Traffic Percent Out															2	14	2
	AM	Project Traffic Out Including Passby	201	0	0	0	0	0	0	0	0	0	0	0	0	0	4	28	4
	AM	Project Traffic Out Excluding Passby	201	0	0	0	0	0	0	0	0	0	0	0	0	0	4	28	4
	AM	Total Project Traffic Including Passby		0	0	0	5	0	5	0	0	0	0	33	0	0	4	28	4
	AM	Total Project Traffic Excluding Passby		0	0	0	5	0	5	0	0	0	0	33	0	0	4	28	4
	AM	Future Total Traffic Including Passby		0	22	562	153	0	45	244	350	2	273	530	12	0	151	962	94
	AM	Future Total Traffic Excluding Passby		0	22	562	153	0	45	244	350	2	273	530	12	0	151	962	94

APPENDIX E

Intersection	Period	Measure/Scenario	Value/ Total	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR
SW 87th Ave & Mater Academy N. Driveway	AM	Count date	11/19/2019																
	AM	Count Year	2019																
	AM	Existing Year	2019																
	AM	Future Year	2022																
SW 87th Ave & Mater Academy N. Driveway	AM	Raw Count				185				519							136		385
	AM	PSCF	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.00	1.06	1.00
	AM	Count Year Peak Season Traffic		0	0	214	0	0	0	541	0	0	0	0	0	0	136	0	385
	AM	Annual Growth to Existing Year				1.2%				1.2%									
	AM	Existing Peak Season Traffic		0	0	214	0	0	0	541	0	0	0	0	0	0	136	0	385
	AM	Annual Growth to Future Year				1.2%				1.2%									
	AM	Future Background Traffic		0	0	231	0	0	0	560	0	0	0	0	0	0	136	0	385
	AM	Committed Development Trips		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM	Future Background + Committed Traffic		0	0	231	0	0	0	560	0	0	0	0	0	0	136	0	385
	AM	Project Traffic Percent In								72									
	AM	Project Traffic In Including Passby	238	0	0	0	0	0	0	171	0	0	0	0	0	0	0	0	0
	AM	Project Traffic In Excluding Passby	238	0	0	0	0	0	0	171	0	0	0	0	0	0	0	0	0
	AM	Project Traffic Percent Out															28.0		72.0
	AM	Project Traffic Out Including Passby	201	0	0	0	0	0	0	0	0	0	0	0	0	0	56	0	145
	AM	Project Traffic Out Excluding Passby	201	0	0	0	0	0	0	0	0	0	0	0	0	0	56	0	145
	AM	Total Project Traffic Including Passby		0	0	0	0	0	0	171	0	0	0	0	0	0	56	0	145
	AM	Total Project Traffic Excluding Passby		0	0	0	0	0	0	171	0	0	0	0	0	0	56	0	145
	AM	Future Total Traffic Including Passby		0	0	231	0	0	0	731	0	0	0	0	0	0	192	0	530
	AM	Future Total Traffic Excluding Passby		0	0	231	0	0	0	731	0	0	0	0	0	0	192	0	530

APPENDIX E

Intersection	Period	Measure/Scenario	Value/ Total	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR
SW 87th Ave & Mater Academy S. Driveway	AM	Count date	11/19/2019																
	AM	Count Year	2019																
	AM	Existing Year	2019																
	AM	Future Year	2022																
SW 87th Ave & Mater Academy S. Driveway	AM	Raw Count				185	182		434	221									
	AM	PSCF	1.06	1.06	1.06	1.06	1.00	1.06	1.00	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
	AM	Count Year Peak Season Traffic		0	0	214	182	0	434	243	0	0	0	0	0	0	0	0	0
	AM	Annual Growth to Existing Year				1.2%				1.2%									
	AM	Existing Peak Season Traffic		0	0	214	182	0	434	243	0	0	0	0	0	0	0	0	0
	AM	Annual Growth to Future Year				1.2%				1.2%									
	AM	Future Background Traffic		0	0	231	182	0	434	262	0	0	0	0	0	0	0	0	0
	AM	Committed Development 1																	
	AM	Committed Development 2																	
	AM	Committed Development 3																	
	AM	Committed Development Trips		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM	Future Background + Committed Traffic		0	0	231	182	0	434	262	0	0	0	0	0	0	0	0	0
	AM	Project Traffic Percent In					28.0		72.0										
	AM	Project Traffic In Including Passby	238	0	0	0	67	0	171	0	0	0	0	0	0	0	0	0	0
	AM	Project Traffic In Excluding Passby	238	0	0	0	67	0	171	0	0	0	0	0	0	0	0	0	0
	AM	Project Traffic Percent Out								28									
	AM	Project Traffic Out Including Passby	201	0	0	0	0	0	0	56	0	0	0	0	0	0	0	0	0
	AM	Project Traffic Out Excluding Passby	201	0	0	0	0	0	0	56	0	0	0	0	0	0	0	0	0
	AM	Total Project Traffic Including Passby		0	0	0	67	0	171	56	0	0	0	0	0	0	0	0	0
	AM	Total Project Traffic Excluding Passby		0	0	0	67	0	171	56	0	0	0	0	0	0	0	0	0
	AM	Future Total Traffic Including Passby		0	0	231	249	0	605	318	0	0	0	0	0	0	0	0	0
	AM	Future Total Traffic Excluding Passby		0	0	231	249	0	605	318	0	0	0	0	0	0	0	0	0

APPENDIX F

EXISTING CONDITIONS SYNCHRO REPORTS

Mater Academy - Cutler Bay
1: SW 87th Avenue & SW 208th Street

2019 Existing Traffic
AM Peak Hour

Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	138	63	68	647	322	65
Future Vol, veh/h	138	63	68	647	322	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	115	-	-	83
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	150	68	74	703	350	71

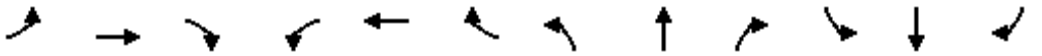
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1201	350	421	0	-	0
Stage 1	350	-	-	-	-	-
Stage 2	851	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	204	693	1138	-	-	-
Stage 1	713	-	-	-	-	-
Stage 2	419	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	191	693	1138	-	-	-
Mov Cap-2 Maneuver	191	-	-	-	-	-
Stage 1	667	-	-	-	-	-
Stage 2	419	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	51.7	0.8	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1138	-	191	693	-	-
HCM Lane V/C Ratio	0.065	-	0.785	0.099	-	-
HCM Control Delay (s)	8.4	-	70.4	10.8	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.2	-	5.4	0.3	-	-

Mater Academy - Cutler Bay
2: SW 87th Avenue & SW 212th Street

2019 Existing Traffic
AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	193	50	104	129	113	58	447	91	67	272	54
Future Volume (vph)	58	193	50	104	129	113	58	447	91	67	272	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	203		0	92		0	173		173
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	150			90			90			163		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.969				0.850		0.975				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3429	0	1770	1863	1583	1770	1816	0	1770	1863	1583
Flt Permitted	0.655			0.579			0.579			0.177		
Satd. Flow (perm)	1220	3429	0	1079	1863	1583	1079	1816	0	330	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29				123		10				59
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2108			1572			2376			1344	
Travel Time (s)		41.1			30.6			46.3			26.2	
Peak Hour Factor	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)	63	210	54	113	140	123	63	486	99	73	296	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	264	0	113	140	123	63	585	0	73	296	59
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		6
Minimum Split (s)	24.0	24.0		24.0	24.0	24.0	24.0	24.0		12.0	24.0	24.0
Total Split (s)	46.0	46.0		46.0	46.0	46.0	56.0	56.0		18.0	74.0	74.0
Total Split (%)	38.3%	38.3%		38.3%	38.3%	38.3%	46.7%	46.7%		15.0%	61.7%	61.7%
Maximum Green (s)	40.0	40.0		40.0	40.0	40.0	50.0	50.0		12.0	68.0	68.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0			0	0
Act Effct Green (s)	40.0	40.0		40.0	40.0	40.0	50.0	50.0		68.0	68.0	68.0
Actuated g/C Ratio	0.33	0.33		0.33	0.33	0.33	0.42	0.42		0.57	0.57	0.57
v/c Ratio	0.16	0.23		0.31	0.23	0.20	0.14	0.77		0.22	0.28	0.06

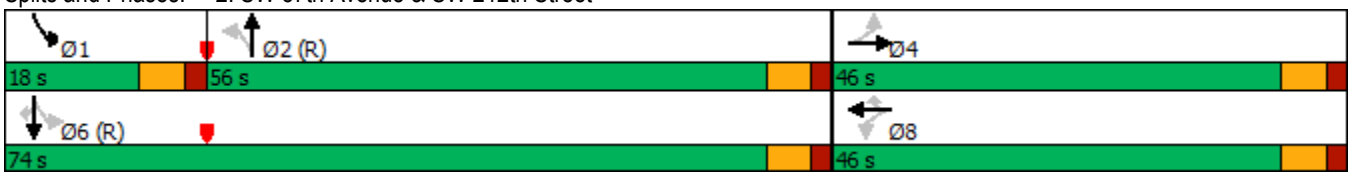
Mater Academy - Cutler Bay
2: SW 87th Avenue & SW 212th Street

2019 Existing Traffic
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	29.5	26.2		32.9	30.1	5.7	22.8	37.6		13.4	14.3	3.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	29.5	26.2		32.9	30.1	5.7	22.8	37.6		13.4	14.3	3.1
LOS	C	C		C	C	A	C	D		B	B	A
Approach Delay		26.8			22.9			36.1			12.6	
Approach LOS		C			C			D			B	
Queue Length 50th (ft)	34	68		65	78	0	30	376		24	113	0
Queue Length 95th (ft)	70	102		117	130	42	61	526		47	166	19
Internal Link Dist (ft)		2028			1492			2296			1264	
Turn Bay Length (ft)	120			203			92			173		173
Base Capacity (vph)	406	1162		359	621	609	449	762		331	1055	922
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.16	0.23		0.31	0.23	0.20	0.14	0.77		0.22	0.28	0.06

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 65	
Control Type: Pretimed	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 26.0	Intersection LOS: C
Intersection Capacity Utilization 66.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: SW 87th Avenue & SW 212th Street



Mater Academy - Cutler Bay
3: SW 87th Avenue & SW 216th Street

2019 Existing Traffic
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	251	40	302	6	34	13	218	375	17	18	242	149
Future Volume (vph)	251	40	302	6	34	13	218	375	17	18	242	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	325		0	240		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			50			50		
Lane Util. 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
Frt			0.850		0.966			0.993			0.943	
Flt Protected		0.959			0.995		0.950			0.950		
Satd. Flow (prot)	0	1786	1583	0	1790	0	1770	1850	0	1770	1757	0
Flt Permitted		0.717			0.958		0.393			0.515		
Satd. Flow (perm)	0	1336	1583	0	1724	0	732	1850	0	959	1757	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			315		14			3			38	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1922			1683			400			2376	
Travel Time (s)		43.7			38.3			7.8			46.3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	261	42	315	6	35	14	227	391	18	19	252	155
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	303	315	0	55	0	227	409	0	19	407	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		

Mater Academy - Cutler Bay
3: SW 87th Avenue & SW 216th Street

2019 Existing Traffic
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0		11.0	24.0		11.0	23.5	
Total Split (s)	36.0	36.0	36.0	36.0	36.0		17.0	66.0		17.0	66.0	
Total Split (%)	30.3%	30.3%	30.3%	30.3%	30.3%		14.3%	55.5%		14.3%	55.5%	
Maximum Green (s)	30.0	30.0	30.0	30.0	30.0		11.0	60.0		11.0	60.5	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0	6.0		6.0		6.0	6.0		6.0	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.5	3.5	3.5	2.5	2.5		2.0	1.0		2.0	1.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0			0			0	
Act Effct Green (s)		29.0	29.0		29.0		77.8	73.4		67.4	62.7	
Actuated g/C Ratio		0.24	0.24		0.24		0.65	0.62		0.57	0.53	
v/c Ratio		0.93	0.51		0.13		0.40	0.36		0.03	0.43	
Control Delay		80.1	7.0		27.8		10.6	13.4		8.2	17.7	
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay		80.1	7.0		27.8		10.6	13.4		8.2	17.7	
LOS		F	A		C		B	B		A	B	
Approach Delay		42.8			27.8			12.4			17.3	
Approach LOS		D			C			B			B	
Queue Length 50th (ft)		226	0		24		65	130		5	172	
Queue Length 95th (ft)		#392	72		59		100	247		13	255	
Internal Link Dist (ft)		1842			1603			320			2296	
Turn Bay Length (ft)							325			240		
Base Capacity (vph)		336	634		445		574	1143		664	943	
Starvation Cap Reductn		0	0		0		0	0		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.90	0.50		0.12		0.40	0.36		0.03	0.43	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 119
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 24.9 Intersection LOS: C
Intersection Capacity Utilization 71.2% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.

Mater Academy - Cutler Bay
3: SW 87th Avenue & SW 216th Street

2019 Existing Traffic
AM Peak Hour

Queue shown is maximum after two cycles.

Splits and Phases: 3: SW 87th Avenue & SW 216th Street

Mater Academy - Cutler Bay
4: Old Cutler Road & SW 216th Street

2019 Existing Traffic
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	221	466	11	138	875	84	22	518	146	39	216	318
Future Volume (vph)	221	466	11	138	875	84	22	518	146	39	216	318
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	105		0	152		0	145		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	200			115			85			40		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.996			0.987			0.967			0.911	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3525	0	1770	3493	0	1770	1801	0	1770	3224	0
Flt Permitted	0.465			0.467			0.378			0.121		
Satd. Flow (perm)	866	3525	0	870	3493	0	704	1801	0	225	3224	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			7			12			319	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1360			1500			795			8394	
Travel Time (s)		30.9			34.1			18.1			190.8	
Peak Hour Factor	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)	233	491	12	145	921	88	23	545	154	41	227	335
Shared Lane Traffic (%)												
Lane Group Flow (vph)	233	503	0	145	1009	0	23	699	0	41	562	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2			6		

Mater Academy - Cutler Bay
4: Old Cutler Road & SW 216th Street

2019 Existing Traffic
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		16.0	16.0		16.0	16.0	
Minimum Split (s)	11.0	24.0		11.0	24.0		25.0	25.0		25.0	25.0	
Total Split (s)	26.0	57.0		20.0	51.0		73.0	73.0		73.0	73.0	
Total Split (%)	17.3%	38.0%		13.3%	34.0%		48.7%	48.7%		48.7%	48.7%	
Maximum Green (s)	20.0	51.0		14.0	45.0		66.0	66.0		66.0	66.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	4.0	3.5		2.0	3.5		1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)		7.0			7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	28.3	28.3		45.1	45.1		66.3	66.3		66.3	66.3	
Actuated g/C Ratio	0.19	0.19		0.30	0.30		0.44	0.44		0.44	0.44	
v/c Ratio	0.83	0.76		0.30	0.96		0.07	0.87		0.41	0.35	
Control Delay	80.2	64.7		45.3	70.2		25.3	50.5		44.5	11.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	80.2	64.7		45.3	70.2		25.3	50.5		44.5	11.9	
LOS	F	E		D	E		C	D		D	B	
Approach Delay		69.6			67.1			49.7			14.1	
Approach LOS		E			E			D			B	
Queue Length 50th (ft)	216	246		109	510		13	607		27	75	
Queue Length 95th (ft)	295	295		171	#652		33	#848		73	120	
Internal Link Dist (ft)		1280			1420			715			8314	
Turn Bay Length (ft)	225			105			152			145		
Base Capacity (vph)	283	1199		480	1053		310	802		99	1602	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.82	0.42		0.30	0.96		0.07	0.87		0.41	0.35	

Intersection Summary

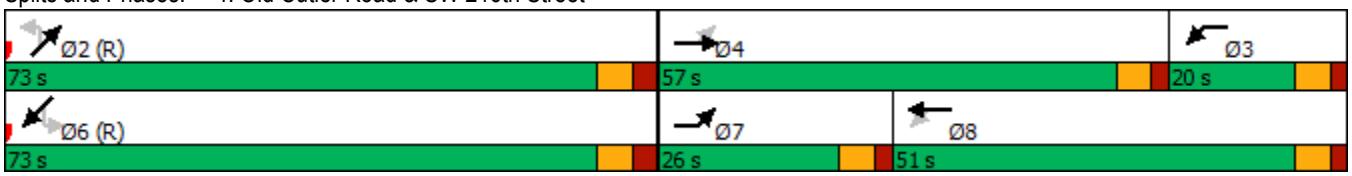
Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 53.8 Intersection LOS: D
Intersection Capacity Utilization 91.1% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.

Mater Academy - Cutler Bay
4: Old Cutler Road & SW 216th Street

2019 Existing Traffic
AM Peak Hour

Queue shown is maximum after two cycles.

Splits and Phases: 4: Old Cutler Road & SW 216th Street



Intersection	
Int Delay, s/veh	24.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	136	385	214	0	0	541
Future Vol, veh/h	136	385	214	0	0	541
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	153	433	233	0	0	588

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	821	233	0	0	233	0
Stage 1	233	-	-	-	-	-
Stage 2	588	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	344	806	-	-	1335	-
Stage 1	806	-	-	-	-	-
Stage 2	555	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	344	806	-	-	1335	-
Mov Cap-2 Maneuver	344	-	-	-	-	-
Stage 1	806	-	-	-	-	-
Stage 2	555	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	58.4	0	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	597	1335	-
HCM Lane V/C Ratio	-	-	0.981	-	-
HCM Control Delay (s)	-	-	58.4	0	-
HCM Lane LOS	-	-	F	A	-
HCM 95th %tile Q(veh)	-	-	14.1	0	-

Intersection	
Int Delay, s/veh	5.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	214	182	434	243
Future Vol, veh/h	0	0	214	182	434	243
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	76	76	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	233	239	571	264

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1759	353	0	0	472	0
Stage 1	353	-	-	-	-	-
Stage 2	1406	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	93	691	-	-	1090	-
Stage 1	711	-	-	-	-	-
Stage 2	227	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	36	691	-	-	1090	-
Mov Cap-2 Maneuver	36	-	-	-	-	-
Stage 1	711	-	-	-	-	-
Stage 2	88	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	8.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1090	-
HCM Lane V/C Ratio	-	-	-	0.524	-
HCM Control Delay (s)	-	-	0	11.9	0
HCM Lane LOS	-	-	A	B	A
HCM 95th %tile Q(veh)	-	-	-	3.1	-

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	246	5	2	138	99	136
Future Vol, veh/h	246	5	2	138	99	136
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	267	5	2	150	108	148

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	336	182	256	0	-	0
Stage 1	182	-	-	-	-	-
Stage 2	154	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	659	861	1309	-	-	-
Stage 1	849	-	-	-	-	-
Stage 2	874	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	658	861	1309	-	-	-
Mov Cap-2 Maneuver	658	-	-	-	-	-
Stage 1	847	-	-	-	-	-
Stage 2	874	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.2	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1309	-	661	-	-
HCM Lane V/C Ratio	0.002	-	0.413	-	-
HCM Control Delay (s)	7.8	0	14.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	2	-	-

APPENDIX G

FUTURE BACKGROUND SYNCHRO REPORTS

Mater Academy - Cutler Bay
1: SW 87th Avenue & SW 208th Street

2022 Background + Commited Trips
AM Peak Hour

Intersection	
Int Delay, s/veh	15.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	167	65	70	670	333	97
Future Vol, veh/h	167	65	70	670	333	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	115	-	-	83
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	182	71	76	728	362	105

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1242	362	467	0	-	0
Stage 1	362	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	193	683	1094	-	-	-
Stage 1	704	-	-	-	-	-
Stage 2	406	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 180	683	1094	-	-	-
Mov Cap-2 Maneuver	~ 180	-	-	-	-	-
Stage 1	655	-	-	-	-	-
Stage 2	406	-	-	-	-	-

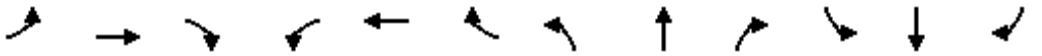
Approach	EB	NB	SB
HCM Control Delay, s	91	0.8	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1094	-	180	683	-	-
HCM Lane V/C Ratio	0.07	-	1.008	0.103	-	-
HCM Control Delay (s)	8.5	-	122.2	10.9	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.2	-	8.3	0.3	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Mater Academy - Cutler Bay
2: SW 87th Avenue & SW 212th Street

2022 Background + Commited Trips
AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	199	52	107	133	117	60	463	94	69	282	56
Future Volume (vph)	60	199	52	107	133	117	60	463	94	69	282	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	203		0	92		0	173		173
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	150			90			90			163		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.969				0.850		0.975				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3429	0	1770	1863	1583	1770	1816	0	1770	1863	1583
Flt Permitted	0.648			0.570			0.573			0.160		
Satd. Flow (perm)	1207	3429	0	1062	1863	1583	1067	1816	0	298	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29				127		10				61
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2108			1572			2376			1344	
Travel Time (s)		41.1			30.6			46.3			26.2	
Peak Hour Factor	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)	65	216	57	116	145	127	65	503	102	75	307	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	65	273	0	116	145	127	65	605	0	75	307	61
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		6
Minimum Split (s)	24.0	24.0		24.0	24.0	24.0	24.0	24.0		12.0	24.0	24.0
Total Split (s)	46.0	46.0		46.0	46.0	46.0	56.0	56.0		18.0	74.0	74.0
Total Split (%)	38.3%	38.3%		38.3%	38.3%	38.3%	46.7%	46.7%		15.0%	61.7%	61.7%
Maximum Green (s)	40.0	40.0		40.0	40.0	40.0	50.0	50.0		12.0	68.0	68.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0			0	0
Act Effct Green (s)	40.0	40.0		40.0	40.0	40.0	50.0	50.0		68.0	68.0	68.0
Actuated g/C Ratio	0.33	0.33		0.33	0.33	0.33	0.42	0.42		0.57	0.57	0.57
v/c Ratio	0.16	0.23		0.33	0.23	0.21	0.15	0.79		0.24	0.29	0.07

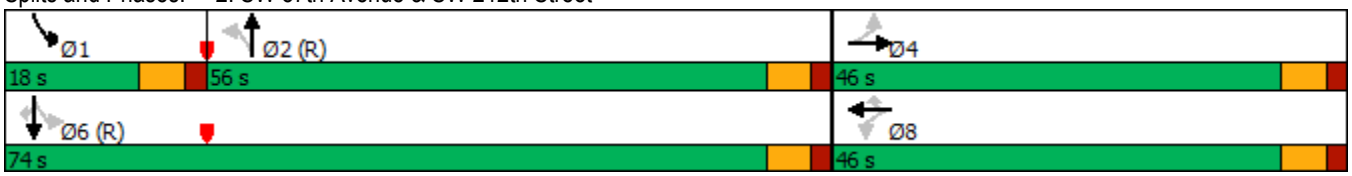
Mater Academy - Cutler Bay
2: SW 87th Avenue & SW 212th Street

2022 Background + Commited Trips
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	29.6	26.4		33.2	30.2	5.6	22.9	39.2		13.7	14.4	3.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	29.6	26.4		33.2	30.2	5.6	22.9	39.2		13.7	14.4	3.1
LOS	C	C		C	C	A	C	D		B	B	A
Approach Delay		27.0			23.1			37.6			12.7	
Approach LOS		C			C			D			B	
Queue Length 50th (ft)	35	71		67	81	0	31	396		25	117	0
Queue Length 95th (ft)	71	106		120	134	43	62	552		48	173	19
Internal Link Dist (ft)		2028			1492			2296			1264	
Turn Bay Length (ft)	120			203			92			173		173
Base Capacity (vph)	402	1162		354	621	612	444	762		316	1055	923
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.16	0.23		0.33	0.23	0.21	0.15	0.79		0.24	0.29	0.07

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Pretimed			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 26.6		Intersection LOS: C	
Intersection Capacity Utilization 67.3%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: SW 87th Avenue & SW 212th Street



Mater Academy - Cutler Bay
3: SW 87th Avenue & SW 216th Street

2022 Background + Commited Trips
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	268	43	322	6	36	14	226	388	18	19	251	154
Future Volume (vph)	268	43	322	6	36	14	226	388	18	19	251	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	325		0	240		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			50			50		
Lane Util. 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
Frt			0.850		0.966			0.993			0.943	
Flt Protected		0.959			0.995		0.950			0.950		
Satd. Flow (prot)	0	1786	1583	0	1790	0	1770	1850	0	1770	1757	0
Flt Permitted		0.724			0.960		0.378			0.502		
Satd. Flow (perm)	0	1349	1583	0	1727	0	704	1850	0	935	1757	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			335		14			3			38	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1922			1683			400			2376	
Travel Time (s)		43.7			38.3			7.8			46.3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	279	45	335	6	38	15	235	404	19	20	261	160
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	324	335	0	59	0	235	423	0	20	421	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		

Mater Academy - Cutler Bay
3: SW 87th Avenue & SW 216th Street

2022 Background + Commited Trips
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0		11.0	24.0		11.0	23.5	
Total Split (s)	36.0	36.0	36.0	36.0	36.0		17.0	66.0		17.0	66.0	
Total Split (%)	30.3%	30.3%	30.3%	30.3%	30.3%		14.3%	55.5%		14.3%	55.5%	
Maximum Green (s)	30.0	30.0	30.0	30.0	30.0		11.0	60.0		11.0	60.5	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0	6.0		6.0		6.0	6.0		6.0	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.5	3.5	3.5	2.5	2.5		2.0	1.0		2.0	1.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0			0			0	
Act Effct Green (s)		29.8	29.8		29.8		77.1	72.7		66.4	61.7	
Actuated g/C Ratio		0.25	0.25		0.25		0.65	0.61		0.56	0.52	
v/c Ratio		0.96	0.52		0.13		0.43	0.37		0.04	0.45	
Control Delay		84.8	6.9		28.2		11.1	13.8		8.3	18.4	
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay		84.8	6.9		28.2		11.1	13.8		8.3	18.4	
LOS		F	A		C		B	B		A	B	
Approach Delay		45.2			28.2			12.8			17.9	
Approach LOS		D			C			B			B	
Queue Length 50th (ft)		246	0		27		68	136		5	181	
Queue Length 95th (ft)		#428	74		62		104	256		14	266	
Internal Link Dist (ft)		1842			1603			320			2296	
Turn Bay Length (ft)							325			240		
Base Capacity (vph)		340	649		445		554	1130		644	929	
Starvation Cap Reductn		0	0		0		0	0		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.95	0.52		0.13		0.42	0.37		0.03	0.45	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 119
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 26.3 Intersection LOS: C
Intersection Capacity Utilization 73.5% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: SW 87th Avenue & SW 216th Street

Mater Academy - Cutler Bay
4: Old Cutler Road & SW 216th Street

2022 Background + Commited Trips
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	273	497	12	147	934	90	22	562	148	40	244	350
Future Volume (vph)	273	497	12	147	934	90	22	562	148	40	244	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	105		0	152		0	145		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	200			115			85			40		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.996			0.987			0.969			0.912	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3525	0	1770	3493	0	1770	1805	0	1770	3228	0
Flt Permitted	0.408			0.453			0.341			0.077		
Satd. Flow (perm)	760	3525	0	844	3493	0	635	1805	0	143	3228	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			7			11			309	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1360			1500			795			8394	
Travel Time (s)		30.9			34.1			18.1			190.8	
Peak Hour Factor	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)	287	523	13	155	983	95	23	592	156	42	257	368
Shared Lane Traffic (%)												
Lane Group Flow (vph)	287	536	0	155	1078	0	23	748	0	42	625	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2			6		

Mater Academy - Cutler Bay
4: Old Cutler Road & SW 216th Street

2022 Background + Commited Trips
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		16.0	16.0		16.0	16.0	
Minimum Split (s)	11.0	24.0		11.0	24.0		25.0	25.0		25.0	25.0	
Total Split (s)	26.0	57.0		20.0	51.0		73.0	73.0		73.0	73.0	
Total Split (%)	17.3%	38.0%		13.3%	34.0%		48.7%	48.7%		48.7%	48.7%	
Maximum Green (s)	20.0	51.0		14.0	45.0		66.0	66.0		66.0	66.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	4.0	3.5		2.0	3.5		1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)		7.0			7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	29.8	29.8		45.0	45.0		66.0	66.0		66.0	66.0	
Actuated g/C Ratio	0.20	0.20		0.30	0.30		0.44	0.44		0.44	0.44	
v/c Ratio	1.01	0.76		0.33	1.02		0.08	0.94		0.68	0.39	
Control Delay	111.2	63.7		46.4	84.8		25.6	59.1		85.9	14.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	111.2	63.7		46.4	84.8		25.6	59.1		85.9	14.3	
LOS	F	E		D	F		C	E		F	B	
Approach Delay		80.3			80.0			58.1			18.8	
Approach LOS		F			E			E			B	
Queue Length 50th (ft)	~274	263		117	~586		13	681		32	103	
Queue Length 95th (ft)	#363	312		182	#728		33	#951		#109	152	
Internal Link Dist (ft)		1280			1420			715			8314	
Turn Bay Length (ft)	225			105			152			145		
Base Capacity (vph)	285	1199		470	1052		279	800		62	1593	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.01	0.45		0.33	1.02		0.08	0.94		0.68	0.39	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 63.5 Intersection LOS: E
Intersection Capacity Utilization 98.2% ICU Level of Service F
Analysis Period (min) 15

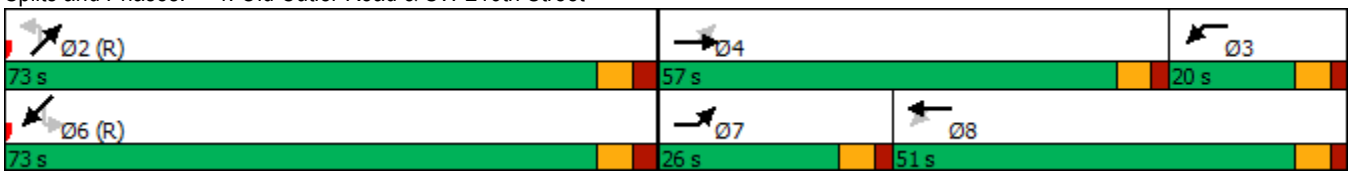
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 4: Old Cutler Road & SW 216th Street



Intersection	
Int Delay, s/veh	27.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	136	385	231	0	0	560
Future Vol, veh/h	136	385	231	0	0	560
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	153	433	251	0	0	609

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	860	251	0	0	251	0
Stage 1	251	-	-	-	-	-
Stage 2	609	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	326	788	-	-	1314	-
Stage 1	791	-	-	-	-	-
Stage 2	543	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	326	788	-	-	1314	-
Mov Cap-2 Maneuver	326	-	-	-	-	-
Stage 1	791	-	-	-	-	-
Stage 2	543	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	69	0	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	575	1314	-
HCM Lane V/C Ratio	-	-	1.018	-	-
HCM Control Delay (s)	-	-	69	0	-
HCM Lane LOS	-	-	F	A	-
HCM 95th %tile Q(veh)	-	-	15.5	0	-

Intersection	
Int Delay, s/veh	5.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	231	182	434	262
Future Vol, veh/h	0	0	231	182	434	262
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	76	76	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	251	239	571	285

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1798	371	0	0	490	0
Stage 1	371	-	-	-	-	-
Stage 2	1427	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	88	675	-	-	1073	-
Stage 1	698	-	-	-	-	-
Stage 2	221	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	32	675	-	-	1073	-
Mov Cap-2 Maneuver	32	-	-	-	-	-
Stage 1	698	-	-	-	-	-
Stage 2	81	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	8.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1073	-
HCM Lane V/C Ratio	-	-	-	0.532	-
HCM Control Delay (s)	-	-	0	12.1	0
HCM Lane LOS	-	-	A	B	A
HCM 95th %tile Q(veh)	-	-	-	3.2	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	254	5	2	143	102	141
Future Vol, veh/h	254	5	2	143	102	141
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	276	5	2	155	111	153

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	347	188	264	0	-	0
Stage 1	188	-	-	-	-	-
Stage 2	159	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	650	854	1300	-	-	-
Stage 1	844	-	-	-	-	-
Stage 2	870	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	649	854	1300	-	-	-
Mov Cap-2 Maneuver	649	-	-	-	-	-
Stage 1	842	-	-	-	-	-
Stage 2	870	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.7	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1300	-	652	-	-
HCM Lane V/C Ratio	0.002	-	0.432	-	-
HCM Control Delay (s)	7.8	0	14.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	2.2	-	-

APPENDIX H

FUTURE TOTAL SYNCHRO REPORTS

Mater Academy - Cutler Bay
1: SW 87th Avenue & SW 208th Street

2022 Build Conditions
AM Peak Hour

Intersection	
Int Delay, s/veh	31.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	167	77	80	756	435	97
Future Vol, veh/h	167	77	80	756	435	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	115	-	-	83
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	182	84	87	822	473	105

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1469	473	578	0	-	0
Stage 1	473	-	-	-	-	-
Stage 2	996	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 140	591	996	-	-	-
Stage 1	627	-	-	-	-	-
Stage 2	357	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 128	591	996	-	-	-
Mov Cap-2 Maneuver	~ 128	-	-	-	-	-
Stage 1	572	-	-	-	-	-
Stage 2	357	-	-	-	-	-

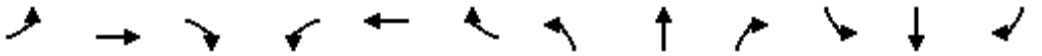
Approach	EB	NB	SB
HCM Control Delay, s	202.9	0.9	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	996	-	128	591	-	-
HCM Lane V/C Ratio	0.087	-	1.418	0.142	-	-
HCM Control Delay (s)	9	-	290.9	12.1	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.3	-	12.2	0.5	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Mater Academy - Cutler Bay
2: SW 87th Avenue & SW 212th Street

2022 Build Conditions
AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	199	64	109	133	117	70	559	96	69	396	56
Future Volume (vph)	60	199	64	109	133	117	70	559	96	69	396	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	203		0	92		0	173		173
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	150			90			90			163		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.963				0.850		0.978				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3408	0	1770	1863	1583	1770	1822	0	1770	1863	1583
Flt Permitted	0.648			0.558			0.512			0.072		
Satd. Flow (perm)	1207	3408	0	1039	1863	1583	954	1822	0	134	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39				127		9				61
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2108			1572			2376			1344	
Travel Time (s)		41.1			30.6			46.3			26.2	
Peak Hour Factor	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)	65	216	70	118	145	127	76	608	104	75	430	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	65	286	0	118	145	127	76	712	0	75	430	61
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		6
Minimum Split (s)	24.0	24.0		24.0	24.0	24.0	24.0	24.0		12.0	24.0	24.0
Total Split (s)	46.0	46.0		46.0	46.0	46.0	56.0	56.0		18.0	74.0	74.0
Total Split (%)	38.3%	38.3%		38.3%	38.3%	38.3%	46.7%	46.7%		15.0%	61.7%	61.7%
Maximum Green (s)	40.0	40.0		40.0	40.0	40.0	50.0	50.0		12.0	68.0	68.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0			0	0
Act Effct Green (s)	40.0	40.0		40.0	40.0	40.0	50.0	50.0		68.0	68.0	68.0
Actuated g/C Ratio	0.33	0.33		0.33	0.33	0.33	0.42	0.42		0.57	0.57	0.57
v/c Ratio	0.16	0.25		0.34	0.23	0.21	0.19	0.93		0.31	0.41	0.07

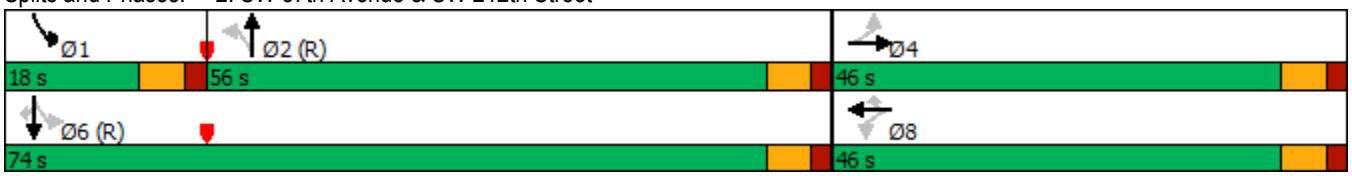
Mater Academy - Cutler Bay
2: SW 87th Avenue & SW 212th Street

2022 Build Conditions
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	29.6	25.6		33.6	30.2	5.6	23.9	53.4		15.5	16.1	3.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	29.6	25.6		33.6	30.2	5.6	23.9	53.4		15.5	16.1	3.1
LOS	C	C		C	C	A	C	D		B	B	A
Approach Delay		26.3			23.2			50.5			14.6	
Approach LOS		C			C			D			B	
Queue Length 50th (ft)	35	72		68	81	0	37	513		25	179	0
Queue Length 95th (ft)	71	107		123	134	43	73	#763		50	253	19
Internal Link Dist (ft)		2028			1492			2296			1264	
Turn Bay Length (ft)	120			203			92			173		173
Base Capacity (vph)	402	1162		346	621	612	397	764		239	1055	923
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.16	0.25		0.34	0.23	0.21	0.19	0.93		0.31	0.41	0.07

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 70			
Control Type: Pretimed			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 31.7		Intersection LOS: C	
Intersection Capacity Utilization 73.0%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 2: SW 87th Avenue & SW 212th Street



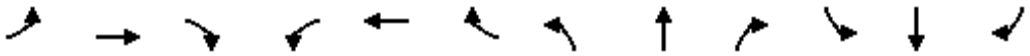
Mater Academy - Cutler Bay
3: SW 87th Avenue & SW 216th Street

2022 Build Conditions
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	268	43	365	6	36	14	262	497	18	19	380	154
Future Volume (vph)	268	43	365	6	36	14	262	497	18	19	380	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	325		0	240		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			50			50		
Lane Util. 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
Frt			0.850		0.966			0.995			0.957	
Flt Protected		0.959			0.995		0.950			0.950		
Satd. Flow (prot)	0	1786	1583	0	1790	0	1770	1853	0	1770	1783	0
Flt Permitted		0.723			0.960		0.276			0.410		
Satd. Flow (perm)	0	1347	1583	0	1727	0	514	1853	0	764	1783	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			380		14			2			25	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1922			1683			400			2376	
Travel Time (s)		43.7			38.3			7.8			46.3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	279	45	380	6	38	15	273	518	19	20	396	160
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	324	380	0	59	0	273	537	0	20	556	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		

Mater Academy - Cutler Bay
3: SW 87th Avenue & SW 216th Street

2022 Build Conditions
AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0		11.0	24.0		11.0	23.5	
Total Split (s)	36.0	36.0	36.0	36.0	36.0		17.0	66.0		17.0	66.0	
Total Split (%)	30.3%	30.3%	30.3%	30.3%	30.3%		14.3%	55.5%		14.3%	55.5%	
Maximum Green (s)	30.0	30.0	30.0	30.0	30.0		11.0	60.0		11.0	60.5	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0	6.0		6.0		6.0	6.0		6.0	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.5	3.5	3.5	2.5	2.5		2.0	1.0		2.0	1.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0			0			0	
Act Effct Green (s)		29.9	29.9		29.9		76.9	72.5		65.8	61.1	
Actuated g/C Ratio		0.25	0.25		0.25		0.65	0.61		0.55	0.51	
v/c Ratio		0.96	0.56		0.13		0.62	0.48		0.04	0.60	
Control Delay		83.9	7.0		28.2		15.3	15.5		8.3	22.8	
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay		83.9	7.0		28.2		15.3	15.5		8.3	22.8	
LOS		F	A		C		B	B		A	C	
Approach Delay		42.4			28.2			15.5			22.3	
Approach LOS		D			C			B			C	
Queue Length 50th (ft)		246	0		27		81	188		5	280	
Queue Length 95th (ft)		#429	78		62		121	348		14	396	
Internal Link Dist (ft)		1842			1603			320			2296	
Turn Bay Length (ft)							325			240		
Base Capacity (vph)		339	683		445		447	1129		552	928	
Starvation Cap Reductn		0	0		0		0	0		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.96	0.56		0.13		0.61	0.48		0.04	0.60	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 119
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 26.5 Intersection LOS: C
Intersection Capacity Utilization 82.2% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: SW 87th Avenue & SW 216th Street

Mater Academy - Cutler Bay
4: Old Cutler Road & SW 216th Street

2022 Build Conditions
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	273	530	12	151	962	94	22	562	153	45	244	350
Future Volume (vph)	273	530	12	151	962	94	22	562	153	45	244	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	105		0	152		0	145		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	200			115			85			40		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.997			0.987			0.968			0.912	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3529	0	1770	3493	0	1770	1803	0	1770	3228	0
Flt Permitted	0.348			0.437			0.341			0.072		
Satd. Flow (perm)	648	3529	0	814	3493	0	635	1803	0	134	3228	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			7			12			309	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1360			1500			795			8394	
Travel Time (s)		30.9			34.1			18.1			190.8	
Peak Hour Factor	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)	287	558	13	159	1013	99	23	592	161	47	257	368
Shared Lane Traffic (%)												
Lane Group Flow (vph)	287	571	0	159	1112	0	23	753	0	47	625	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2			6		

Mater Academy - Cutler Bay
4: Old Cutler Road & SW 216th Street

2022 Build Conditions
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		16.0	16.0		16.0	16.0	
Minimum Split (s)	11.0	24.0		11.0	24.0		25.0	25.0		25.0	25.0	
Total Split (s)	26.0	57.0		20.0	51.0		73.0	73.0		73.0	73.0	
Total Split (%)	17.3%	38.0%		13.3%	34.0%		48.7%	48.7%		48.7%	48.7%	
Maximum Green (s)	20.0	51.0		14.0	45.0		66.0	66.0		66.0	66.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	4.0	3.5		2.0	3.5		1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)		7.0			7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	31.5	31.5		45.0	45.0		66.0	66.0		66.0	66.0	
Actuated g/C Ratio	0.21	0.21		0.30	0.30		0.44	0.44		0.44	0.44	
v/c Ratio	1.01	0.77		0.35	1.06		0.08	0.94		0.81	0.39	
Control Delay	109.9	62.7		47.3	93.5		25.6	60.1		113.7	14.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	109.9	62.7		47.3	93.5		25.6	60.1		113.7	14.3	
LOS	F	E		D	F		C	E		F	B	
Approach Delay		78.5			87.7			59.1			21.2	
Approach LOS		E			F			E			C	
Queue Length 50th (ft)	~272	280		120	~623		13	689		39	103	
Queue Length 95th (ft)	#367	326		186	#765		33	#963		#127	152	
Internal Link Dist (ft)		1280			1420			715			8314	
Turn Bay Length (ft)	225			105			152			145		
Base Capacity (vph)	285	1201		457	1052		279	800		58	1593	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.01	0.48		0.35	1.06		0.08	0.94		0.81	0.39	

Intersection Summary

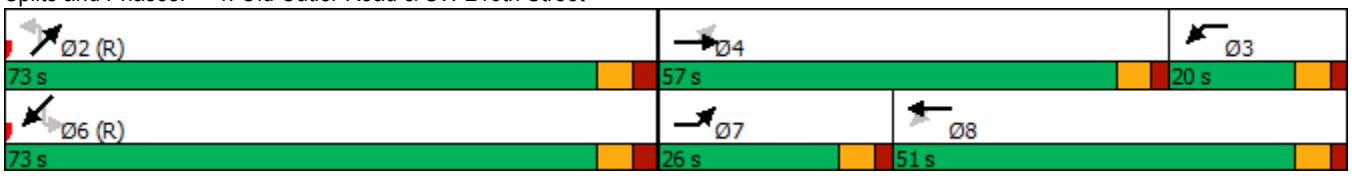
Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.06
Intersection Signal Delay: 66.8 Intersection LOS: E
Intersection Capacity Utilization 99.4% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.

Mater Academy - Cutler Bay
4: Old Cutler Road & SW 216th Street

2022 Build Conditions
AM Peak Hour

Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Old Cutler Road & SW 216th Street



Intersection	
Int Delay, s/veh	132.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	192	530	231	0	0	731
Future Vol, veh/h	192	530	231	0	0	731
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	216	596	251	0	0	795

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1046	251	0	0	251	0
Stage 1	251	-	-	-	-	-
Stage 2	795	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	253	788	-	-	1314	-
Stage 1	791	-	-	-	-	-
Stage 2	445	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	253	788	-	-	1314	-
Mov Cap-2 Maneuver	253	-	-	-	-	-
Stage 1	791	-	-	-	-	-
Stage 2	445	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 304.2	0	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	504	1314	-
HCM Lane V/C Ratio	-	-	1.61	-	-
HCM Control Delay (s)	-	-	$ 304.2	0	-
HCM Lane LOS	-	-	F	A	-
HCM 95th %tile Q(veh)	-	-	45.1	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Mater Academy - Cutler Bay
6: SW 87th Avenue & SW 224th Street

2022 Build Conditions
AM Peak Hour

Intersection	
Int Delay, s/veh	9.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	231	249	605	318
Future Vol, veh/h	0	0	231	249	605	318
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	76	76	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	251	328	796	346

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2353	415	0	0	579	0
Stage 1	415	-	-	-	-	-
Stage 2	1938	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	39	637	-	-	995	-
Stage 1	666	-	-	-	-	-
Stage 2	123	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	0	637	-	-	995	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	666	-	-	-	-	-
Stage 2	1	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	14.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	995	-
HCM Lane V/C Ratio	-	-	-	0.8	-
HCM Control Delay (s)	-	-	0	21.3	0
HCM Lane LOS	-	-	A	C	A
HCM 95th %tile Q(veh)	-	-	-	8.9	-

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	321	5	2	143	102	197
Future Vol, veh/h	321	5	2	143	102	197
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	349	5	2	155	111	214

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	377	218	325	0	-	0
Stage 1	218	-	-	-	-	-
Stage 2	159	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	625	822	1235	-	-	-
Stage 1	818	-	-	-	-	-
Stage 2	870	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	624	822	1235	-	-	-
Mov Cap-2 Maneuver	624	-	-	-	-	-
Stage 1	816	-	-	-	-	-
Stage 2	870	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1235	-	626	-	-
HCM Lane V/C Ratio	0.002	-	0.566	-	-
HCM Control Delay (s)	7.9	0	18	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	3.5	-	-

APPENDIX I

INTERSECTION LEVEL OF SERVICE DETAILS

SW 87th Avenue and SW 208th Street - AM Peak Period														
Movement		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Overall
Storage length		115					83							
Existing Con-ditions	LOS	A						F		B				A
	Delay (s)	8.4						70.4		10.8				8.4
	Queue (vehicles)	1						6		1				N/A
	Queue (feet)													N/A
	Exceeds Capacity?	N												N/A
Future Back-ground	LOS	A						F		B				A
	Delay	8.5						122.2		10.9				15.5
	Queue (vehicles)	1						9		1				N/A
	Queue (feet)													N/A
	Exceeds Capacity?	N												N/A
Future Total	LOS	A						F		B				B
	Delay	9						290.9		12.1				31.2
	Queue (vehicles)	1						13		1				N/A
	Queue (feet)													N/A
	Exceeds Capacity?	N												N/A

SW 87th Avenue and SW 212th Street - AM Peak Period														
Movement		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Overall
Storage length		92			173		173	120			203			
Existing Con-ditions	LOS	C	D		B	B	A	C	C		C	C	A	C
	Delay (s)	22.8	37.6		13.4	14.3	3.1	29.5	26.2		32.9	30.1	5.7	26.0
	Queue (vehicles)	3			2		1	3			6		2	N/A
	95th Queue (feet)	61	526		47	166	19	70	102		117	130	42	N/A
	Exceeds Capacity?	N			N		N	N			N			N/A
Future Back-ground	LOS	C	D		B	B	A	C	C		C	C	A	C
	Delay	22.9	39.2		13.7	14.4	3.1	29.6	26.4		33.2	30.2	5.6	26.6
	Queue (vehicles)	3			2		1	3			5		2	N/A
	95th Queue (feet)	62	552		48	173	19	71	106		120	134	43	N/A
	Exceeds Capacity?	N			N		N	N			N			N/A
Future Total	LOS	C	D		B	B	A	C	C		C	C	A	C
	Delay	23.9	53.4		15.5	16.1	3.1	29.6	25.6		33.6	30.2	5.6	31.7
	Queue (vehicles)	3			2		1	3			5		2	N/A
	95th Queue (feet)	73	#763		50	253	19	71	107		123	134	43	N/A
	Exceeds Capacity?	N			N		N	N			N			N/A

SW 87th Avenue and SW 216th Street - AM Peak Period														
Movement		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Overall
Storage length		325			240									
Existing Con-ditions	LOS	B	B		A	B			F	A		C		C
	Delay (s)	10.6	13.4		8.2	17.7			80.1	7		27.8		24.9
	Queue (vehicles)	4			1									N/A
	95th Queue (feet)	100	247		13	255			#392	72		59		N/A
	Exceeds Capacity?	N			N									N/A
Future Back-ground	LOS	B	B		A	B			F	A		C		C
	Delay (s)	11.1	13.8		8.3	18.4			84.8	6.9		28.2		26.3
	Queue (vehicles)	4			1									N/A
	95th Queue (feet)	104	256		14	266			#428	74		62		N/A
	Exceeds Capacity?	N			N									N/A
Future Total	LOS	B	B		A	C			F	A		C		C
	Delay	15.3	15.5		8.3	22.8			83.9	7		28.2		26.5
	Queue (vehicles)	5			1									N/A
	95th Queue (feet)	121	348		14	396			#429	78		62		N/A
	Exceeds Capacity?	N			N									N/A

SW 87th Avenue and SW 232nd Street - AM Peak Period														
Movement		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Overall
Storage length														
Existing Con-ditions	LOS	A	A					B						A
	Delay	7.8	0					14.2						5.7
	Queue (vehicles)	0						2						N/A
	Queue (feet)													N/A
	Exceeds Capacity?													N/A
Future Back-ground	LOS	A	A					B						A
	Delay	7.8	0					14.7						5.9
	Queue (vehicles)	0						3						N/A
	Queue (feet)													N/A
	Exceeds Capacity?													N/A
Future Total	LOS	A	A					C						A
	Delay	7.9	0					18						7.6
	Queue (vehicles)	0						4						N/A
	Queue (feet)													N/A
	Exceeds Capacity?													N/A

SW 216th Street and Old Cutler Road - AM Peak Period														
Movement		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Overall
Storage length		152			145			225			105			
Existing Con-ditions	LOS	C	D		D	B		F	E		D	E		D
	Delay (s)	25.3	50.5		44.5	11.9		80.2	64.7		45.3	70.2		53.8
	Queue (vehicles)	2			3			12			7			N/A
	95th Queue (feet)	33	#848		73	120		295	295		171	#652		N/A
	Exceeds Capacity?	N			N			Y			Y			N/A
Future Back-ground	LOS	C	E		F	B		F	E		D	F		E
	Delay	25.6	59.1		85.9	14.3		111.2	63.7		46.4	84.8		63.5
	Queue (vehicles)	2			5			15			8			N/A
	95th Queue (feet)	33	#951		#109	152		#363	312		182	#728		N/A
	Exceeds Capacity?	N			N			Y			Y			N/A
Future Total	LOS	C	E		F	B		F	E		D	F		E
	Delay	25.6	60.1		113.7	14.3		109.9	62.7		47.3	93.5		66.8
	Queue (vehicles)	2			6			15			8			N/A
	95th Queue (feet)	33	#963		#127	152		#367	326		186	#765		N/A
	Exceeds Capacity?	N			N			Y			Y			N/A

SW 87th Avenue and North School Entrance - AM Peak Period														
Movement		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Overall
Storage length														
Existing Con-ditions	LOS										E			C
	Delay										58.4			24.3
	Queue (vehicles)										15			N/A
	Queue (feet)													N/A
	Exceeds Capacity?													N/A
Future Back-ground	LOS										E			C
	Delay										69.0			27.9
	Queue (vehicles)										16			N/A
	Queue (feet)													N/A
	Exceeds Capacity?													N/A
Future Total	LOS										F			F
	Delay										304.2			132.9
	Queue (vehicles)										46			N/A
	Queue (feet)													N/A
	Exceeds Capacity?													N/A

SW 87th Avenue and South School Entrance - AM Peak Period														
Movement		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Overall
Storage length														
Existing Con-ditions	LOS				B									A
	Delay				11.9									5.2
	Queue (vehicles)				4									N/A
	Queue (feet)													N/A
	Exceeds Capacity?													N/A
Future Back-ground	LOS				B									A
	Delay				12.1									5.1
	Queue (vehicles)				4									N/A
	Queue (feet)													N/A
	Exceeds Capacity?													N/A
Future Total	LOS				C									A
	Delay				21.3									9.9
	Queue (vehicles)				9									N/A
	Queue (feet)													N/A
	Exceeds Capacity?													N/A

APPENDIX J

TRAFFIC OPERATION PLAN

School Traffic Operation Plan (TOP) Form

This form has been created by Miami-Dade County Department of Transportation and Public Works (DTPW) to document a school's traffic operations and commitments. All form worksheets and illustrations have been completed for the operation at Mater Academy - Cutler Bay Charter School

Contents

1.0 Definitions

For the purpose of this document, the following definitions for terms used herein shall apply to all sections unless the context clearly indicates otherwise:

(1) *Educational program:* A planned curriculum with specific instructional beginning, progression and ending for the enrolled students.

(2) *Schedule Shift:* A period of time when students are anticipated to be at the school facility to engage in programed activities

(2.1) *Instructional Shift*: A period of time when students enrolled in a particular educational program must be in attendance. The beginning of this shift is often referred to as the "first bell" and the ending of this shift is often referred to as a "last bell."

(2.2) *Early Arrival Shift*: A period of time when students are allowed into the facility prior to the start of an instructional shift. This period may include other types of programs (e.g. breakfast, before care, etc.).

(2.3) *After School Shift*: A period of time when students are allowed to remain at the facility after the end of all instructional shifts. This period may include other types of programs (e.g. after care, extra-curricular, sports, etc.)

(2.4) *Study Hall:* A scheduled period of time, which begins with the school's first instructional shift (arrival time) and ends at the school's last instructional shift (dismissal time), where car-pooling students that arrive prior to their instructional shift and/or are dismissed earlier than their pick-up time (due to co-passenger students) are provided free of charge care.

(2.5) *Arrival Period*: A time or period of time when students come to school to participate in an educational program. The time or period of time is set by the beginning of one or more instructional shifts.

(2.6) *Dismissal Period:* A time or period of time when students leave school due to the end of an educational program. The time or period of time is set by the end of one or more instructional shifts.

(3) *Vehicle Route*: A maneuverable continuous vehicle path that provides access to the stacking and staging spaces.

(4) *Vehicle Stacking Space:* A space in which pickup and delivery of children can take place.

(5) *Vehicle Queuing Space***:** A space where a vehicle can idle while waiting to enter into a stacking space.

(6) *Vehicle Staging Space*: A space where a service vehicle may remain idle while providing their service.

(7) *Parked Stacking Space*: A parking space designated for student drop-off and pick-up use during the arrival and dismissal operations.

(8) *By-Pass Lane:* A minimum 10 foot wide vehicle travel lane adjacent to stacking and queuing spaces whose direction of travel is in the same direction as the stacking and queuing vehicles.

(9) *Open Parking Space*: A parking space that has no assigned use during the arrival and dismissal operations.

(10) *Staff Parking Space*: A parking space designated for staff use during the school's hours of operation.

(12) *Student Parking*: A parking space designated for student use during the school's hours of operation.

(13) *Pedestrian Route***:** A continuous exclusive walking path that provides access from the public right-of-way to a school building entrance.

(14) *Bicycle Route:* A continuous biking path that provides access from the public right-of-way to the school's bicycle storage.

(15) *Bicycle Storage*: A designated area where bicycles may be secured and remain in place for the school day.

(16) *School Traffic Personnel:* A school employee who reinforces the onsite traffic operations by guiding vehicles and pedestrians along designated routes within the school property.

(17) *Traffic Control Officer:* An individual who has been authorized by a police department to direct traffic or operate a traffic control device as per section 316.640 of Florida Statute.

(18) *School Special Event:* An organized event at a school facility that generates a peak vehicle trip count or a vehicle accumulation demand greater than the traffic parameters established by the school traffic operation plan.

(19) *School Crossing:* An official school student crossing on an adopted school route plan of a school safety program. Any crossing not so officially designated is termed a "pedestrian crossing."

Mater Academy - Cutler Bay Charter School
School Traffic Operations Plan (TOP) Form

2.0 School Location

Specify the school's name, site address, folio and hours of operation within the **Table 2.0-1**.

3.0 Educational Program and Enrollment

A school provides instructions to students through its *educational programs* (Elementary, Middle, High, ect*)*. Specify the school's educational programs and maximum enrollment by completing **Table 3.0-1**. Indicate the school's programs by entering the student enrollment associated with each program and/or enter "None" for student enrollment if a particular program does not operate at the school.

School may offer educational programs that vary substantially from programs typically offered in schools. Provide a description of the school's educational programs in **Table 3.0-2.**

4.0 School Schedule

A school schedule is composed of *schedule shifts*. A schedule shift may be classified as either a non-instructional shift (Breakfast Program, After School Care, or Extra Curricular Activity) or an *instructional shift*. The educational programs are scheduled by *instructional shifts*. Therefore, every schedule will include at least one instructional shift. A school's *arrival period*, as well as *dismissal period*, should not exceed 1.5 hours because of its effect on school speed zone hours. The different educational programs may be scheduled independently or concurrently, but an educational program may not be divided by multiple instructional shifts. Instructional shifts must be scheduled a minimum of 20 minutes apart to have their vehicle accumulation events be considered as independent events. The schedule may also include an *early arrival shift* and an *after school shift*. A school that proposes to operate with multiple instructional shifts must enact the multiple shifts from inauguration, regardless of student enrollment. For example, a K-8 school, which has two educational programs (K-5 and 6-8), may operate with one or two instructional shifts, but may not operate with three instructional shifts.

A school's schedule may often be influenced by the site's vehicle accumulation capacity and other off-site traffic operational factors. A site's vehicle accumulation capacity and other factors are typically defined within a traffic study conducted by the school.

Schools that operate with multiple instructional shifts are required to operate a "*study hall*" period. The study hall period begins with the school's first arrival time and ends at the school's last dismissal time. This period must be provided free of charge for car-pooling students that arrive prior to their instructional shift and/or are dismissed earlier than their pick-up time due to co-passenger students.

4.1 School Schedule Commitment

The school schedule will maintain the maximum number of students allowed per instructional shift and operate with the number of instructional shifts stated in **Table 4.1-1,** with a minimum 20 minute separation between any two instructional shifts. Parental vehicular access to onsite passenger loading facilities shall be open a minimum of 30 minutes prior to all arrival and dismissal time(s).

The school will operate a "study hall" period when its schedule has more than one instructional shift.

4.2 School Schedule Example

The school is required to maintain the schedule commitment at all times. This commitment will define the school staggered shift schedule format, but actual start and end times may differ. Provide an example of the school schedule at full capacity in **Table 4.2-1**.

School may offer educational programs that vary substantially from programs typically offered in schools. Provide a description of the school's schedule shifts in **Table 4.22.**

5.0 Vehicle Operations

A school has various vehicle types that access the site regularly. These vehicle types may include automobiles, school buses, and service vehicles such as food delivery trucks and trash collecting trucks. The various vehicles require clear traffic patterns to maintain the site's safety and maneuverability when accessing the site. These patterns are termed *vehicle routes*. Once vehicles are on site, they accumulate as parking, *stacking*, *queuing*, or *staging*. The following section will formally define these vehicle routes and spaces within the TOP.

5.1 Vehicle Routes

Vehicle routes consist of an entry, a pathway, and an exit. All routes must provide the appropriate geometry (e.g. lane width, effective radii) to accommodate the intended vehicles. The route should minimize the number of conflict throughout its pathway. Each portion of the route must be identified using the following formats stated below.

Vehicle Route Naming Format: Each route must be assigned a name that indicates its intended "purpose" and "service". Use the abbreviations contained in **Table 5.1-1** to appropriately name the routes. For example, a curbside automobile passenger loading zone that is to be used by parents dropping-off elementary school students would be named "A(K-5)".

Table 5.1-1 Route Name Key

"Purpose"		"Service"	
A	**Automobile Loading Zone**	**K-12**	**Student Passengers –specify grade range**
B	**Bus Loading Zone**	**Food**	**Food Delivery**
P	**Parking**	**Trash**	**Garbage Pick-up**
S	**Service Vehicle**	**Delivery**	**General Delivery**
PED	**Pedestrian Pathway**		
BIK	**Bicycle Pathway**		

Route Entry and Exit Label Format: Each route's entry and exit location must be assigned a label. Each location label will be composed of an abbreviated location type and a number. Use **Table 5.1-2** to provide the correct abbreviated location type and number. **Route names, entries, and exits must be illustrated in a plan view and attached to this document**.

Table 5.1-2 Route Entry and Exit Location - Labeling Key

Location Type		Number
DW	Driveway accessing the site	Number all the locations sequentially for each "location type" set. Start with the number 1. Begin numbering from the NE corner of the plan and increase the numbers sequentially in a clock-wise direction until all locations are labeled.
P	Point located within a plan	
E	Pedestrian and Bicycle Entrance and/or Exit	

Example: The entry and exit locations for a site that has two driveways (DW-1, DW-2) connecting to the public right-of-way, an internal drive aisle (P-1) connecting to the adjacent property, and a sidewalk connecting the main entrance (E-1) to the public right-of-way (E-2); will have three vehicle locations labeled as DW-1, DW-2, and P-1 and two pedestrian locations labeled E1 and E2.

Entry and exit points along the vehicle route may have operational restrictions. The restrictions may be in place permanently or only during the times when the TOP is in effect. Use **Table 5.1-3** to better understand the restriction notes to be used throughout this form.

Table 5.1-3 Route Restrictions Note Key

Restriction Note	Description
Right In Only	Vehicles may only enter into this location via a right turn movement.
One Way Only	All traffic is moving solely in one direction at this location.
Right Out Only	Vehicles may only exit out of this location via a right turn movement.

5.2 Vehicle Stacking and Staging Spaces

All stacking and staging spaces must be accessed through a vehicle route. The stacking, queuing, and staging spaces along a vehicle route may not impede the operations of any other concurrently operating vehicle route or space operation. For example, a stacked or queued vehicle may not be located within the maneuvering "back-out" area of a parking space designated as a *parked stacking space*.

Vehicle stacking spaces within passenger loading zones must have a passenger landing area for entering and exiting the vehicle. A 10 foot minimum *by-pass lane* must be provided for passenger loading zones whose combined stacking and queuing spaces are longer than 3 consecutive vehicle spaces. Parking spaces may be designated as stacking spaces. Access to the vehicle stacking spaces must be opened 30 minutes before the first scheduled time of use.

5.3 Automobile Curbside Passenger Loading Zone Operations

An automobile passenger loading zone is a designated area for stacking automobiles and vans to load and unload passengers to and from a prescribed landing area. The pedestrian landing area for automobile loading zones must be located on the right side of the vehicle and should have a minimum size of 5 feet by 5 feet. Typically these landing areas are considered curbside passenger loading areas because the vehicles stack adjacent to a curbed sidewalk. Automobile passenger loading zones that have a by-pass lane should taper the head of the zone (the front space of the stacking line) towards the by-pass lane to merge the exiting stacked vehicles into the by-pass lane.

Specify if the school operates one or more automobile passenger loading zones by providing information of the vehicle route that provides access to the zone within the **Table 5.3-1**, or indicate no zone by entering "None" for the route name. **The vehicle route must be illustrated in a plan view and attached to this document**.

The use of automobile passenger loading zones are limited to automobiles and vans only. Each vehicle space is measured at 22 feet long and 8 feet wide. If the school operates with an automobile passenger loading zone, indicate its capacity in **Table 5.3-2.** Enter zero (0) for the total capacity if the school does not have an automobile passenger loading zone.

5.4 School Bus Passenger Loading Zone Operations

A school bus passenger loading zone is a designated zone for stacking school buses to load and unload passengers to and from a prescribed landing area. The pedestrian landing area for school bus passenger loading zones must be located on the right side of the vehicle and should have a minimum size of 8 feet by 8 feet.

Specify if the school operates one or more school bus passenger loading zones by providing information of the vehicle route that provides access to the zone within the **Table 5.4-1**, or indicate no zone by entering "None" for the route name. **The vehicle route must be illustrated in a plan view and attached to this document**.

The use of school bus passenger loading zones are limited to only school buses during arrival and dismissal operations. Each bus vehicle space measures 50 feet long and 10 feet wide unless otherwise stated in **Table 5.4a-2**. If the school operates with a school bus passenger loading zone, indicate its capacity in **Table 5.4-2.** Enter zero (0) for the total capacity if the school does not have a school bus passenger loading zone.

The school's bus operations may be voluntary, recommended in a traffic study, and/or mandated by zoning resolution. Complete the section 5.4a to specify the minimum number of school buses required to operate at the school.

5.4a School Bus Commitment

Specify the school's busing commitment by completing **Table 5.4a-1** and **Table 5.4a-2**. Report zero (0) number of buses if the school has no busing commitment. Standard bus types have been provided in **Table 5.4a-2** for convenience.

The school is required to provide a school bus program that maintains the required minimum bus ridership participation reported in **Table 5.4a-1** and **Table 5.4a-2**; and manage the program to ensure that bus accumulations are contained within the designated bus stacking and queuing spaces.

5.5 Parking Stall Operations

All parking spaces used during the school's operation must be identified. The parking spaces must meet all governing parking stall codes.

Parked stacking spaces must have an unobstructed vehicle route to access these spaces during arrival and dismissal shifts. Parking spaces that have no assigned use during arrival and dismissal operations due to vehicle route obstructions will be termed *open parking spaces*. A cross parking agreement is required for all off-site privately managed parking spaces.

Specify the school's parking space usage and quantities by completing **Table 5.5-1**. **The parking spaces must be illustrated in a plan view and attached to this document.**

If the school has parked stacking spaces or *student parking spaces*, specify the route information that provides access to those spaces within the **Table 5.5-2**, or indicate no routes by entering "None" for the route name. **The vehicle route must be illustrated in a plan view and attached to this document.**

5.6 Service Vehicle Operations

Schools often require service vehicles to enter and maneuver within the site to provide facility services. Specify the school's service vehicle routes by providing the vehicle route information within the **Table 5.6-1**, or indicate no routes by entering "None" for the route name. **The vehicle route must be illustrated in a plan view and attached to this document.**

6.0 Pedestrian and Bicycle Facilities

A *pedestrian route* originating from the public right-of-way must be provided to all school building entrances. The route should be a minimum of 5 feet wide and have all the required elements when crossing a motorized vehicle travel lane (crosswalk, pedestrian ramp, etc.). All student entrances to the school site and buildings must be labeled by using **Table 5.1-2**. Only the main entrance is required to be labeled when multiple buildings are interconnected with pedestrian pathways.

Bicycle routes that are combined with pedestrian traffic must have an eight (8) foot minimum width.

For sites that have a bicycle storage area and that only provide standard pedestrian path widths are required to instate the following policy: "*All bicyclists must dismount their bicycles and walk their bicycles to the designated bicycle storage when entering or exiting to the school site.*"

Specify the pedestrian routes by providing the route information within the **Table 6.0-1**. **The pedestrian route must be illustrated in a plan view and attached to this document.**

Specify the bicycle routes by providing the route information within the **Table 6.0-2**, or indicate no routes by entering "None" for the route name. **The bicycle route must be illustrated in a plan view and attached to this document.**

Identify the *bicycle storage* locations throughout the site by labeling each location according to the following instructions: Each location must be label with the letters BS followed by a number (e.g. BS1). Begin with number 1. Do not repeat any location labels. List the storage locations and its capacity in **Table 6.0-3**. Enter "none" for the location to indicate no bicycle storage. **The bicycle storage location must be illustrated in a plan view and attached to this document.**

7.0 Onsite Traffic Personnel & Devices

A functioning school TOP requires adherence to the prescribed routes and operations. Often *school traffic personnel* is required to guide pedestrians within passenger loading zones, assist with traffic flow at route conflict points, and encourage adherence to prescribed routes in areas not defined by the infrastructure's geometry. The school shall supply staff to direct any vehicles which may stage or stack in through travel lanes or non-designated parking areas within the public rights-of-way onto the school site.

School traffic personnel should be stationed and assigned the following duties at the corresponding locations: assist students entering and exiting vehicles at loading zones (loading); guide traffic at points where active route pathways intersect (conflict); and encourage adherence at pathway decision points along the route (diverting). School traffic personnel school be on duty at least 30 minutes prior to scheduled shifts.

Identify the school traffic personnel stations throughout the site by labeling each station according to the following instructions: Each station must be label with the letter S followed by a number (e.g. S1). Begin with number 1. Do not repeat any station labels. List the station locations and personnel duties in **Table 7.0-1**. Enter "none" for the location to indicate no school traffic personnel stations. **The school traffic personnel stations must be illustrated in a plan view and attached to this document.**

Temporary traffic control devices (e.g. parking cones) may be useful at points within the routes that are not defined by the infrastructure's geometry and where school traffic personnel are not stationed. These temporary traffic devices may not be used in the public right-of-way unless managed by a traffic control officer.

Identify the temporary traffic control devices located throughout the site by labeling each location according to the following instructions: Each location must be label with the letter C followed by a number (e.g. C1). Begin with number 1. Do not repeat any station labels. List the device location and description in **Table 7.0-2.** Enter "none" for the location to indicate that no devices will be used. **The device locations must be illustrated in a plan view and attached to this document.**

7.1 School Personnel Commitment

The school is required to provide the school traffic personnel and temporary traffic control devices stated in **Table 7.0-1** and **Table 7.0-2**. School traffic personnel must direct the school's traffic into onsite by-pass lanes or any available vehicle staging spaces during peak traffic generation periods to create additional onsite accumulation capacity when school related vehicle are queuing within non-designated areas of the right-of-way and/or through travel lanes.

8.0 School Zone and Crossings

School zones may be provided for schools to alert drivers that they will be traveling near a school. A school zone is composed of signs and pavement markings. The school zone may also include a speed zone component that requires driver to reduce their travel speed. The speed zone is often enacted to provide control at designated *school crossings* serving elementary and middle schools. The school speed zone component may be composed of signs, pavement markings, and flashing beacons (as per the governing standard). The speed zone is required to be installed for school crossings when applicable.

Indicate the existing and/or proposed school crossing(s) serving the school site within **Table 8.0-1**. Enter "none" for the road name to indicate that no school crossing exists or is proposed for this school. **The school crossing locations must be illustrated in a plan view and attached to this document.**

Indicate the existing and/or proposed school zones associated with the school site within **Table 8.0-2**. Enter "none" for the road name to indicate that no school zone exists or is proposed for this school. Indicate if a speed zone is a component of the school zone by marking the appropriate check box.

A school speed zone should not have a continuous duration longer than two hours. If this school is served by a school speed zone, then specify the zone's posted hours in **Table 8.0-3**. Enter "none" for the period to indicate no posted hours. Use DTPW School Speed Zone Policy to determine appropriate time periods. Note that if the school is located in close proximity to an existing school speed zone (less than 300 feet), the zone and time period may be modified to cover both schools. Indicate below if the times are paired. If paired, provide areal illustrating adjacent school(s).

9.0 Offsite Traffic Control Officers

Enforcement of the TOP routes and operations within the public right-of-way may only be performed by *traffic control officers* as per section 316.640 of the Florida Statute. Traffic control officers should be present during the start of each semester (first two weeks) to reinforce the traffic patterns established by the TOP. Specify the number, location, and duration of traffic control officers required to adequately enforce the TOP within **Table 9.0-1**.

The school's endorsement of the traffic control officer enforcement plan must be stated within **Table 9.0-2**.

A traffic control officer may be stationed at an intersection to improve vehicle delays and operations during a peak traffic demand period. Schools may be required to provide the officer, or may do so voluntarily. Specify the commitment, location, and duration of the traffic control officer stations required for LOS management within **Table 9.0-3**. Enter "none" for the intersection to indicate that no officer management is voluntarily offered or required.

9.1 State Crossing Guards

A school may implement a crossing guard program to assist young (K-8) students traversing school crossings when walking to and from school. A crossing guard is not traffic control officer, unless the guard is trained as a traffic control officer and employed subject to the conditions described in section 316.640, F.S. Specify the crossing guard stations and duration within **Table 9.1-1**. Enter "none" for the station to indicate that no crossing guards are stationed to serve the school.

10.0 School Special Events

Planned school events, such as sporting events, school assemblies, and ceremonies may often generate larger peak traffic volumes and vehicle accumulations than a typical school day. The school will be required to manage the traffic impacts produced by a *school special event* within its neighborhood. Specify the special event types and provisions selected to mitigate its traffic impacts within **Table 10.0-1.** Enter "none" for event type to indicate that no school special events will planned at the school site.

Mater Academy - Cutler Bay Charter School
School Traffic Operations Plan (TOP) Form

11.0 Parent Traffic Handbook

The Parent Traffic Handbook specifies a parent's child safety responsibilities and commitment to achieve an efficient traffic flow during the arrival and dismissal times. Parents of new students should be issued a Parent Traffic Handbook containing this TOP and are required to sign a contract with the school, which includes adherence to pick-up and drop-off procedures. Additionally, parents should be reissued the Parent Traffic Handbook and contract each new school year. The handbook and contract should be reviewed and signed during Parent Orientation prior to the start of school. **A sample of the Parent Traffic Handbook and contact must be attached to this document.**

12.0 Table Worksheets

Complete this worksheet as per the instructions provided in sections 1.0 through 11.0 of this document.

Educational Program Worksheet

Table 2.0-1 School Location

Name	Mater Academy - Cutler Bay Charter School
Address	22025 SW 87th Avenue, Cutler Bay, FL 33190
Folio Number(s)	36-6015-000-0040
Hours of Operations	7:45am-3:15pm

Table 3.0-1 Educational Program and Enrollment

Educational Program	Grades	Average Maximum Enrollment per Grade	Maximum Enrollment
Elementary	K to 5th	143	860
Middle School	6th to 8th	150	450
High School	9th to 12th	96	290
Total Facility Enrollment			1,600

Table 3.0-2 Educational Program Descriptions

Educational Program	Description
Elementary	PK-5th Grade – Typical Elementary
Middle School	6th-8th Grade – Typical Middle
High School	9th-12th Grade – Typical High

Mater Academy - Cutler Bay Charter School
School Traffic Operations Plan (TOP) Form

School Schedule Worksheet

Table 4.1-1 School Schedule Commitment

Period	Maximum Number of Students Allowed within a Schedule Shift	Minimum Number of Instructional Shifts at Full Enrollment
Arrival	740	3
Dismissal	740	3

Table 4.2-1 School Schedule Example at Full Capacity

Schedule Shift	Grades	Days [M, Tu, W, Th, F]	Begin Time	End Time	No. of Students
K to 1st Grade Shift	K to 1st	M-F	7:45 - 8:15	2:15 - 2:45	288
2nd to 5th Grade Shift	2nd to 5th	M-F	8:15 - 8:45	3:15 - 3:45	572
6th to 12th Grade Shift	6th to 12th	M-F	7:15 - 7:45	2:45 - 3:15	740

Mater Academy - Cutler Bay Charter School

School Traffic Operations Plan (TOP) Form

Automobile Passenger Curbside Loading Zone Worksheet

Table 5.3-1 Automobile Loading Zone Route Description

Route Name	Entrance Point	[X]	Restriction	Exit Point	[X]	Restriction	Description
A-1	DW-1	☐	Right In Only	DW-2	☐	Right Out Only	Stacking Area along Building D
		☐	One Way Only		☐	One Way Only	
A-2	DW-1	☐	Right In Only	DW-2	☐	Right Out Only	Stacking Area along Building A
		☐	One Way Only		☐	One Way Only	
		☐	Right In Only		☐	Right Out Only	
		☐	One Way Only		☐	One Way Only	
		☐	Right In Only		☐	Right Out Only	
		☐	One Way Only		☐	One Way Only	

Table 5.3-2 Automobile Loading Zone Vehicle Capacity Summary (Automobiles and Vans)

Route Name	Stacking Space Capacity	Queuing Spaces Capacity	Total Capacity
A-1	11	80	91
A-2	9	118	127
		Total Queuing and Stacking Capacity	218

Mater Academy - Cutler Bay Charter School
School Traffic Operations Plan (TOP) Form

Bus Passenger Loading Zone Worksheet

Table 5.4-1 School Bus Passenger Loading Zone Route Description

Route Name	Entrance Point	[X]	Restriction	Exit Point	[X]	Restriction
N/A		☐	Right In Only		☐	Right Out Only
		☐	One Way In		☐	One Way Out
		☐	Right In Only		☐	Right Out Only
		☐	One Way In		☐	One Way Out
		☐	Right In Only		☐	Right Out Only
		☐	One Way In		☐	One Way Out

Table 5.4-2 Bus Loading Zone Vehicle Accumulation Capacity Summary

Route Name	Stacking Spaces Capacity	Queuing Spaces Capacity	Bus Capacity
N/A			

Table 5.4a-1 Bussing Commitment

Minimum Number of Inbound Buses Required During the Arrival Period	Minimum Number of Outbound Buses Required During the Dismissal Period
N/A	N/A

Table 5.4a-2 Bus Type and Capacity

Quantity	Bus Type	Length	Width	Capacity	Student Total by Type
	S-BUS-11 [S-BUS-36]	45	10	65	
	S-BUS-12 [S-BUS-40]	50	10	84	
				Students Grand Total	N/A

Mater Academy - Cutler Bay Charter School
School Traffic Operations Plan (TOP) Form

Parking Summary Worksheet

Table 5.5-1 Proposed Parking Use Summary

Parking Space Use	Onsite			Offsite
	Req. by Code	Req. by Study	Provided	Provided
Staff	106		106	
Student	24		24	
Parked Stacking				
Open	16		18	
Total	146		148	

Table 5.5-2 Parked Loading Zone Route Description

Route Name	Entrance Point	[X]	Restriction	Exit Point	[X]	Restriction
		☐	Right In Only		☐	Right Out Only
		☐	One Way In		☐	One Way Out
		☐	Right In Only		☐	Right Out Only
		☐	One Way In		☐	One Way Out
		☐	Right In Only		☐	Right Out Only
		☐	One Way In		☐	One Way Out

Mater Academy - Cutler Bay Charter School
School Traffic Operations Plan (TOP) Form

Service Vehicle, Pedestrian and Bicycle Routes Worksheet

Table 5.6-1 Service Vehicle Route Description

Route Name	Entrance Point	[X]	Restriction	Exit Point	[X]	Restriction	Operation Period (times)
S-1	DW-1	☐	Right In Only	DW-2	☐	Right Out Only	10am-1pm / 4pm-6pm
		☐	One Way In		☐	One Way Out	
		☐	Right In Only		☐	Right Out Only	
		☐	One Way In		☐	One Way Out	
		☐	Right In Only		☐	Right Out Only	
		☐	One Way In		☐	One Way Out	

Table 6.0-1 Pedestrian Route Description

Route Name	Off-Site Entrance Point	Building Entrance Point	Operation Period (0:00-0:00)

Table 6.0-2 Bicycle Route Description

Route Name	Entrance Point	Exit Point	Operation Period (0:00 – 0:00)

Table 6.0-3 Bicycle Storage Description

Bicycle Storage Location	Bicycle Capacity

Mater Academy - Cutler Bay Charter School
School Traffic Operations Plan (TOP) Form

Traffic Personnel, Equipment, Enforcement Worksheet

Table 7.0-1 Onsite School Traffic Personnel

Station Label	Personnel Duties (Loading, Conflict, Diverting)	Arrival Duty Period		Dismissal Duty Period	
		From	To	From	To
SP1	Unloading / Loading Vehicles	6:45	8:45	2:15	3:45
SP2	Guide Traffic/Diverting	6:45	8:45	2:15	3:45

Table 7.0-2 Onsite Temporary Traffic Control Devices

Location Label	Device Description (Number of Cones, Barricades, or Gates)	Arrival Duty Period		Dismissal Duty Period	
		From	To	From	To

Table 8.0-1 School Crossing Description

Location	East-West	North-South	Mid-Block	Uncontrolled
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐

Mater Academy - Cutler Bay Charter School
School Traffic Operations Plan (TOP) Form

Table 8.0-2 School Zone Description

Location	Existing [x]	Proposed [x]	Signs & Markings [x]	Speed Zone [x]	Flashing Beacons [x]
SW 87th Avenue; s/o SW 216th Street	☑	☐	☑	☑	☑
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐

Table 8.0-3 School Speed Zone Posted Times **Is this a paired Zone? No ☐ Yes ☐**

Days of the Week	Arrival Period AM		Dismissal Period PM	
	From	To	From	To
Monday	6:45	8:45	1:45	3:45
Tuesday	6:45	8:45	1:45	3:45
Wednesday	6:45	8:45	1:45	3:45
Thursday	6:45	8:45	1:45	3:45
Friday	6:45	8:45	1:45	3:45

Table 9.0-1 Traffic Control Officer Enforcement Plan

No. of Officers	Intersection or Segment with Boundaries	Arrival	Dismissal	Semester Start	All Year
	N/A	☐	☐	☐	☐
		☐	☐	☐	☐
		☐	☐	☐	☐
		☐	☐	☐	☐

Table 9.0-2 Traffic Control Officer Reinforcement Commitment

Check Box [x]	Reinforcement Commitment
☐	By marking this check box, the school agrees to provide all necessary resources to ensure traffic control officers will be present to enforce the TOP, as stated in **Table 9.0-1.**

Table 9.0-3 Traffic Control Officer Stations for LOS Management Plan

Intersection	Required (R) Voluntarily (V)	Arrival Time Period		Dismissal Time Period	
		From	To	From	To
N/A					

School Traffic Operations Plan (TOP) Form

Table 9.1-1 Crossing Guard Stations

No. of Guards	School Crossing Station (Intersection)	Arrival AM Time Period		Dismissal PM Time Period	
		From	To	From	To

Table 10.0-1 School Special Event Provisions

Event Type	Provision Descriptions
REQUIRED ON-SITE EVENTS	Events requiring School attendance shall not coincide with peak traffic and shall be divided into sessions so as no to exceed parking available.

Mater Academy - Cutler Bay Charter School
School Traffic Operations Plan (TOP) Form

13.0 Attachments

The following documents are required to be attached to the TOP.

1. A plan sheet showing all required illustrations stated within this TOP form. (It is suggested that TOP operations that vary by instructional shifts be shown in independent plan sheets.)
2. A Parent Traffic Handbook and contract sample.
3. A Cross-parking agreement (if utilized).

14.0 Endorsement

By signing below, the school owner agrees to operate the school as prescribed within this document and will uphold all commitments specified herein.

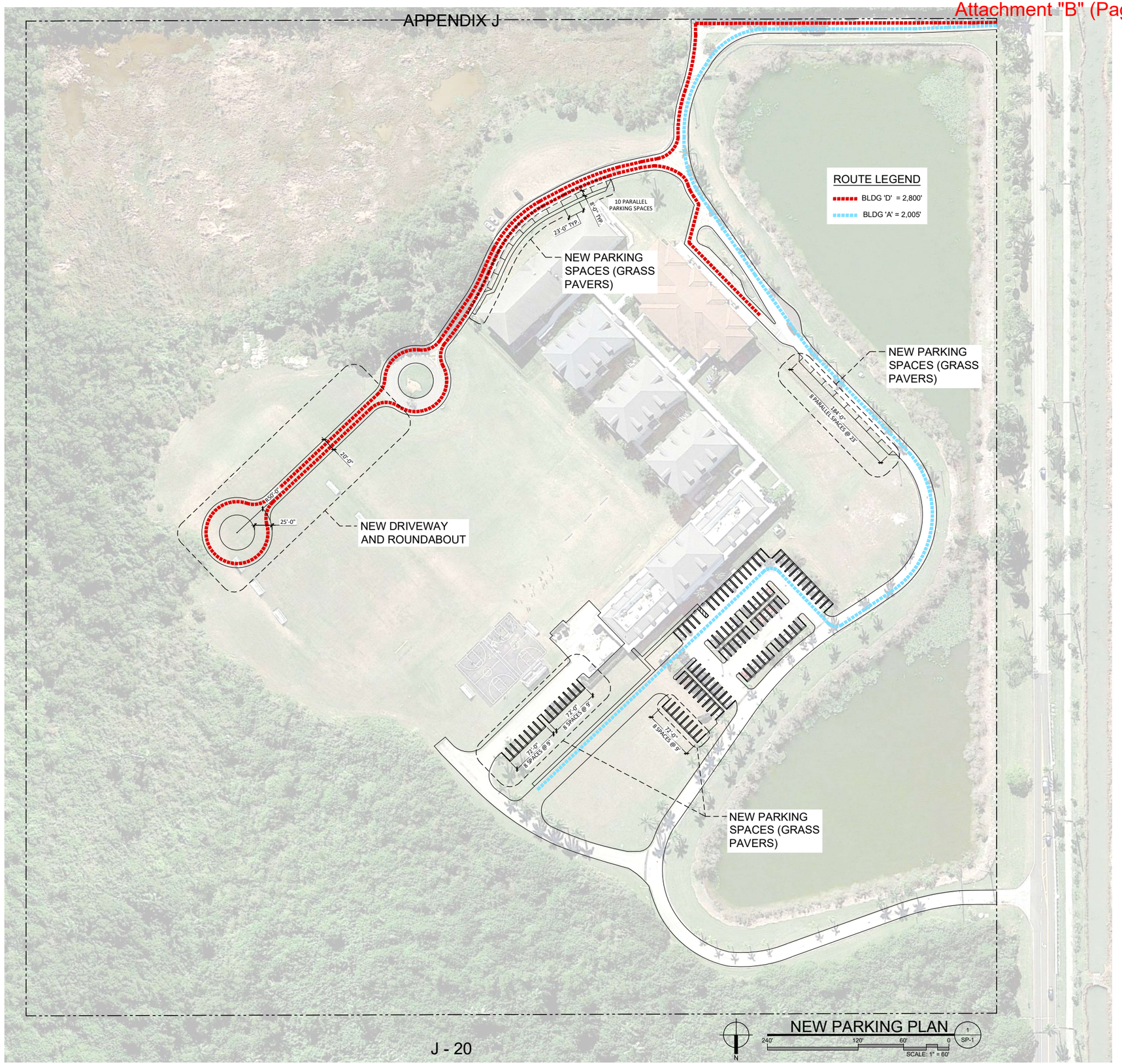
Signature

05/11/2020 May 11, 2020

Date

Brenda Cruz, B.

Print Owner Name



CIVICA
ARCHITECTURE & URBAN DESIGN
8323 NW 12th St. Suite 106
Doral, FL 33126
tel: 305.593.9959
AA #26001093
www.civicagroup.com
info@civicagroup.com

PROJECT:

MATER ACADEMY
BAY ELEMENTARY
22025 SW 87TH AVE
MIAMI, FL 33190

APPLICANT:

MATER ACADEMY INC.

ISSUED FOR:
SITE PLAN APPROVAL

CIVICA PROJECT No :
160103

No.	DATE	REVISION	BY

DRAWN BY: AD
APPROVED BY: RL
DATE: JAN. 29, 2020
SCALE: AS SHOWN

SEAL/SIGNATURE

ROLANDO LLANES
AR - 0013160

SHEET TITLE

NEW PARKING PLAN

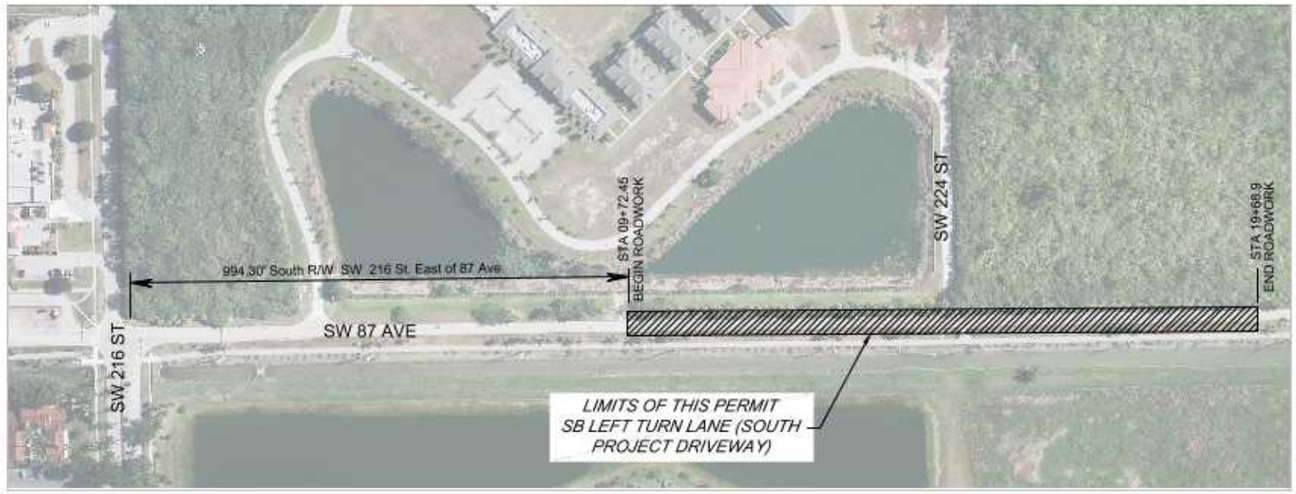
SHEET NUMBER
SP-1

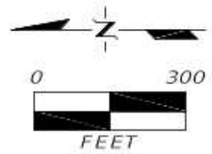
APPENDIX K

SW 87TH AVE SOUTHBOUND LEFT TURN LANE ROADWAY PLAN

MATER BAY POINT CHARTER SCHOOL
SOUTH BOUND LEFT TURN LANE
SW 87th AVE AT SW 224th ST
MIAMI-DADE COUNTY

INDEX OF DRAWINGS





ROAD WAY SHOP DRAWING TO BE SUBMITTED TO:

RODOLFO IBARRA P.E.
RODOLFO IBARRA P.E. P.A.
12301 SW 128 CT, SUITE 106
MIAMI, FL 33186
P: (305) 281-8746

PLANS PREPARED BY:

RODOLFO IBARRA P.E.
RODOLFO IBARRA P.E. P.A.
12301 SW 128 CT, SUITE 106
MIAMI, FL 33186
P: (305) 281-8746

GOVERNING STANDARDS AND SPECIFICATIONS:

Florida Department of Transportation, January 2016 Design Standards and revised Index Drawings as appended herein, and July 2016 Standard Specification for Road and Bridge Construction, as amended by Contract Documents.

For Design Standards click on the "Design Standards" link at the following web site:

http://www.dot.state.fl.us/rddesign/

For the Standard Specification for Road and Bridge Construction click on the "Specification" link at the following web site:

http://www.dot.state.fl.us/specificationsoffice/

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGE DUE TO REPRODUCTION

SUBMITTALS AND REVISIONS		
DATE	BY	DESCRIPTION
12-15-17	RI	PERMIT SET
11-14-18	RI	GAZEBO REMOVAL
01-22-20	RI	Add C & G

RODOLFO IBARRA P.E. P.A.
12301 SW 128 CT. # 106
MIAMI, FLORIDA 33186
TEL: (305) 281-8746
PE: 45901 EB: 7820

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K - 1

MATER BAY POINT CHARTER SCHOOL
CUTLER BAY
22025 SW 87th Ave, Cutler Bay, FL 33190

KEY SHEET

SHEET NO.
C-100

APPENDIX K

R/W
62.5'
CENTER LINE OF R/W
STA 09+72.45 BEGIN ROADWAY WORK
BEGIN MILLING & RESURFACING
BEGIN WIDENING
994.30' SOUTH OF SOUTH R/W SW 216 ST
(NORTH LINE SOUTH 1635.00 OF THE
NORTH 1/2 SEC. 15-56-40
AS PER P.B. 141 -PG. 2)
18' Clear Zone
Relocate all trees outside the clear zone
Prop EOP
Exist EOP
10+00
11+00
12+00
SW 87 AVE
125' SFWMD PROPERTY
N00°50'34"W
20' ASPHALT PAVEMENT
BASELINE
10.04'
0.71'
10.21'
30.17'
8.02
7.89
8.05
7.60
7.98
7.86
7.90
7.60
34.02'
10.62'
Remove Tree
Slope .005 Flow Channel
TEMPORARY BENCHMARK # 4
STATION: 9+82.28
OFFSET: 34.03 LEFT CENTERLINE
N: 446,731.14
E: 876,535.27
(TBM #4)
CENTERLINE OF EXISTING ROADWAY
BASELINE OF CONSTRUCTION
51.34'
50.29'
STA 10+50
BEGIN TYPE "F"
CURB & GUTTER
STA 11+00
PROP FLUME PER
FDOT INDEX 283
STA 12+00
PROP FLUME PER
FDOT INDEX 283
46.90'
STA: 12+50 MATCH LINE / CONTINUE SHEET C-202
TOP OF BANK
EDGE OF WATER
DRAINAGE DITCH
BOTTOM OF DITCH EL 1.0
DEPTH AT THIS POINT 1.2'

PROP. ROADWAY WIDENING MIN 24" LR BASE. MIN 2" SP-12.5 AND 1" FC-9.5 ASPHALT

LIMIT OF MILLING & RESURFACING VIA VARIABLE MILLING AND BUILD UP TO NEW GRADES. Mill 1"Average Depth. RESURFACE Min 1" FC-9.5 Asphalt

0 20
FEET

SUBMITTALS AND REVISIONS		
DATE	BY	DESCRIPTION
12-15-17	RI	PERMIT SET
11-14-18	RI	GAZEBO REMOVAL
01-22-20	RI	Add C & G

RODOLFO IBARRA P.E. P.A.
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TEL: (305) 281-8746
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RODOLFO IBARRA LICENSE No. 45901 STATE OF FLORIDA PROFESSIONAL ENGINEER

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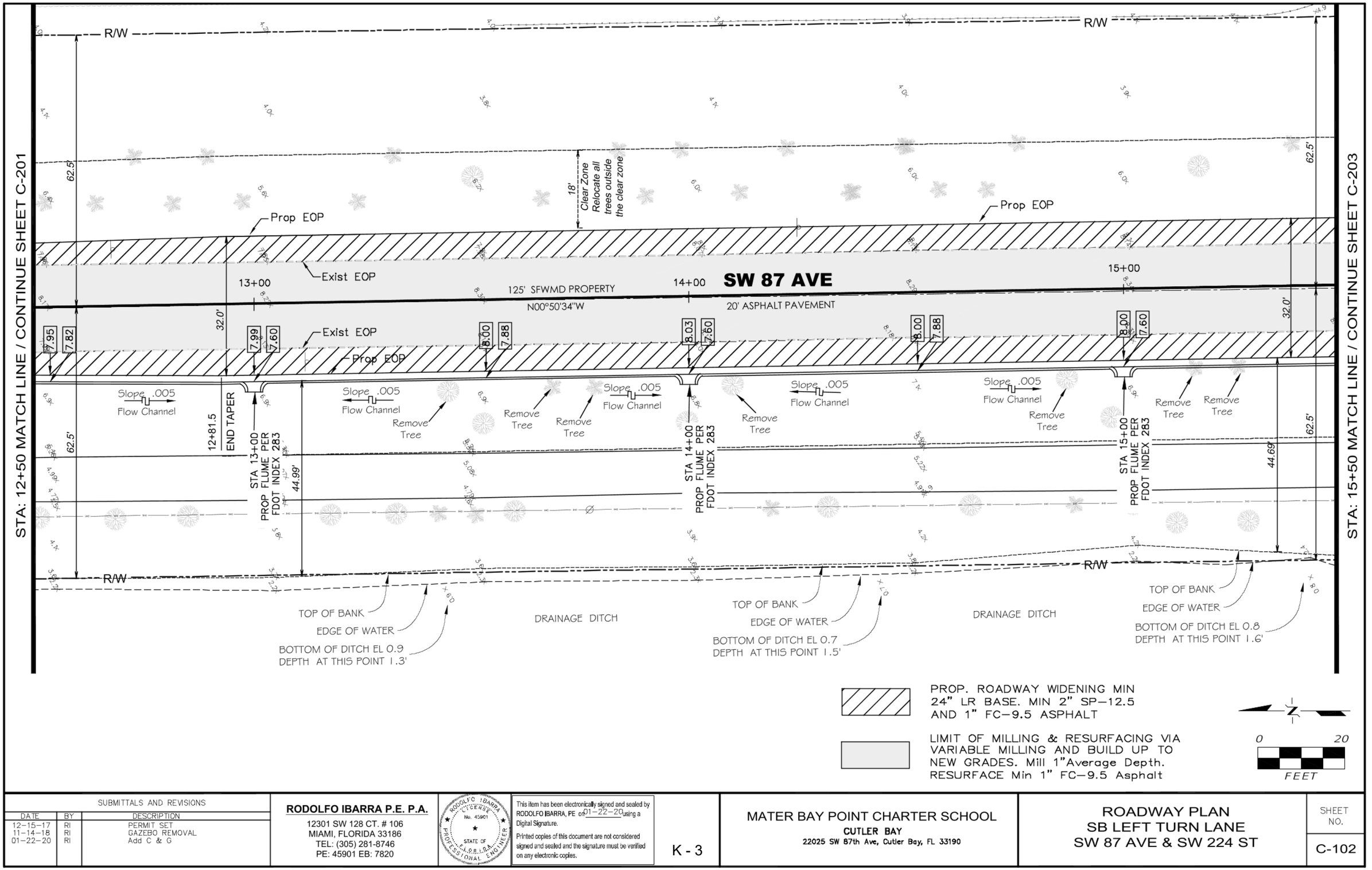
K - 2

MATER BAY POINT CHARTER SCHOOL
CUTLER BAY
22025 SW 87th Ave, Cutler Bay, FL 33190

ROADWAY PLAN
SB LEFT TURN LANE
SW 87 AVE & SW 224 ST

SHEET NO.
C-101

APPENDIX K



SUBMITTALS AND REVISIONS		
DATE	BY	DESCRIPTION
12-15-17	RI	PERMIT SET
11-14-18	RI	GAZEBO REMOVAL
01-22-20	RI	Add C & G

RODOLFO IBARRA P.E. P.A.
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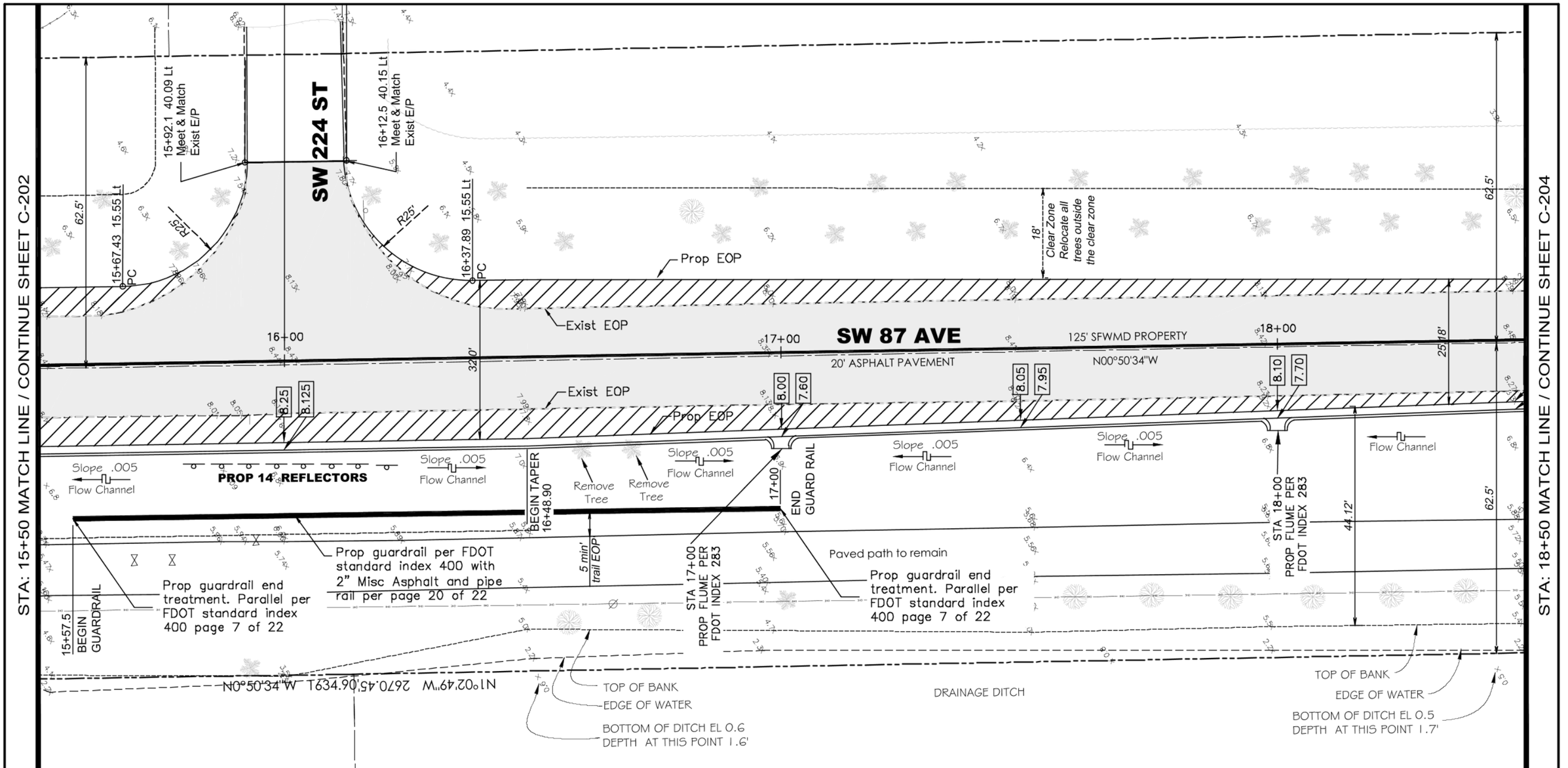
K - 3

MATER BAY POINT CHARTER SCHOOL
CUTLER BAY
22025 SW 87th Ave, Cutler Bay, FL 33190

ROADWAY PLAN
SB LEFT TURN LANE
SW 87 AVE & SW 224 ST

SHEET NO.
C-102

APPENDIX K



SUBMITTALS AND REVISIONS		
DATE	BY	DESCRIPTION
12–15–17	RI	PERMIT SET
11–14–18	RI	GAZEBO REMOVAL
01–22–20	RI	Add C & G

RODOLFO IBARRA P.E. P.A.
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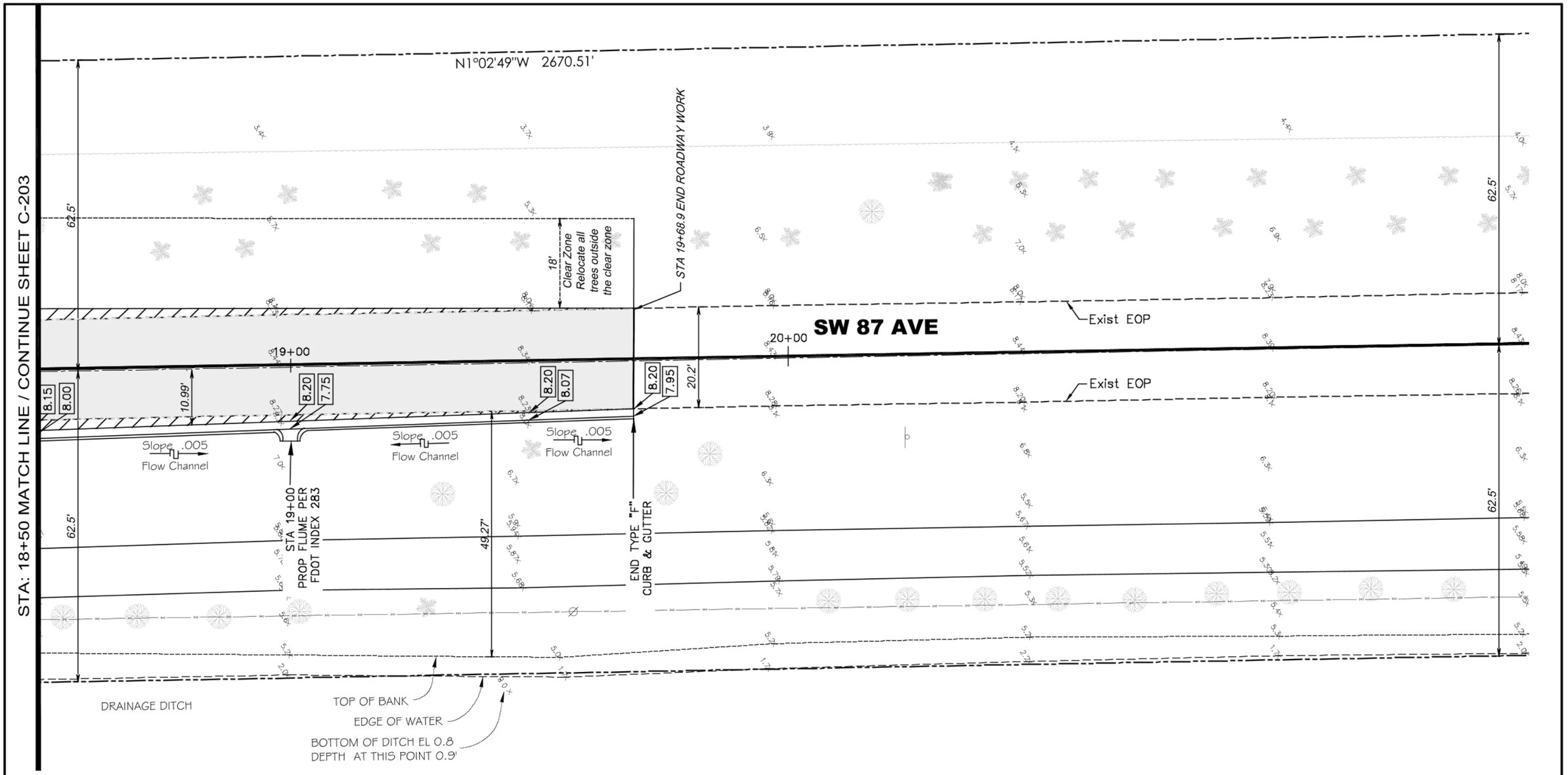
K - 4

MATER BAY POINT CHARTER SCHOOL
CUTLER BAY
22025 SW 87th Ave, Cutler Bay, FL 33190

ROADWAY PLAN
SB LEFT TURN LANE
SW 87 AVE & SW 224 ST

SHEET NO.
C-103

APPENDIX K



PROP. ROADWAY WIDENING MIN 24" LR BASE. MIN 2" SP–12.5 AND 1" FC–9.5 ASPHALT

LIMIT OF MILLING & RESURFACING VIA VARIABLE MILLING AND BUILD UP TO NEW GRADES. Mill 1"Average Depth. RESURFACE Min 1" FC–9.5 Asphalt

0 20
FEET

SUBMITTALS AND REVISIONS		
DATE	BY	DESCRIPTION
12–15–17	RI	PERMIT SET
11–14–18	RI	GAZEBO REMOVAL
01–22–20	RI	Add C & G

RODOLFO IBARRA P.E. P.A.
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TEL: (305) 281-8746
PE: 45901 EB: 7820

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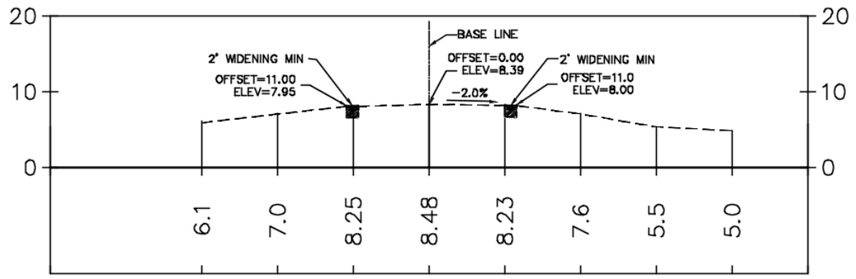
K - 5

MATER BAY POINT CHARTER SCHOOL
CUTLER BAY
22025 SW 87th Ave, Cutler Bay, FL 33190

ROADWAY PLAN
SB LEFT TURN LANE
SW 87 AVE & SW 224 ST

SHEET NO.
C-104

APPENDIX K



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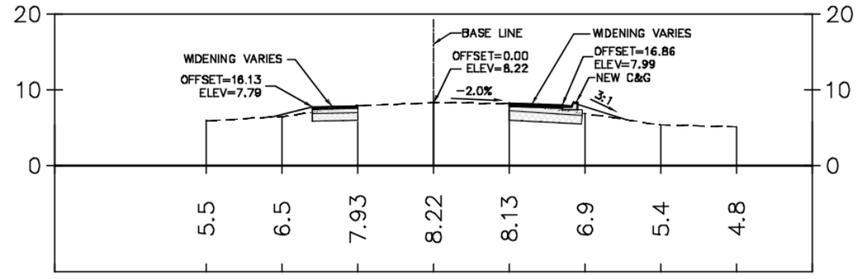

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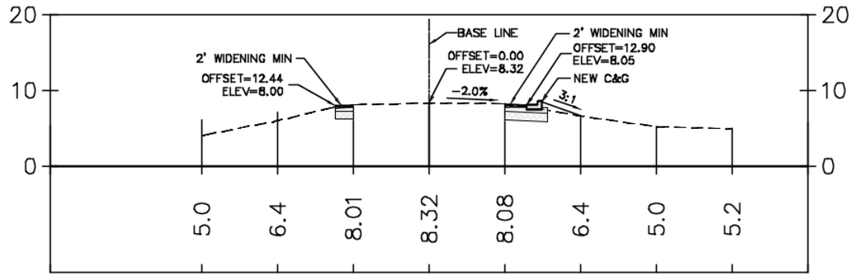

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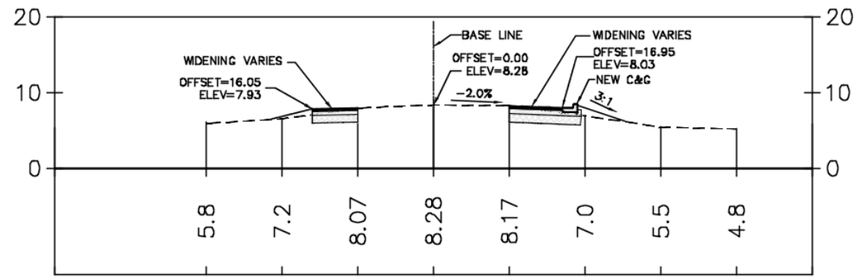

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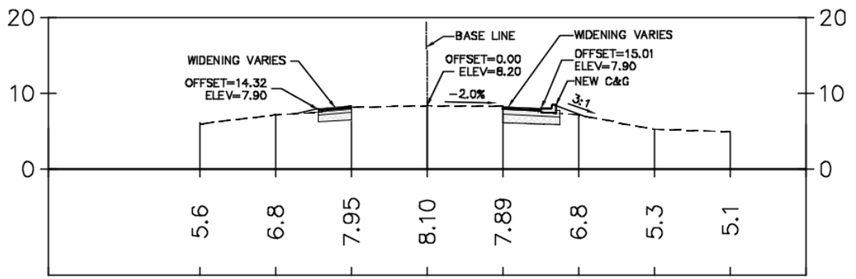

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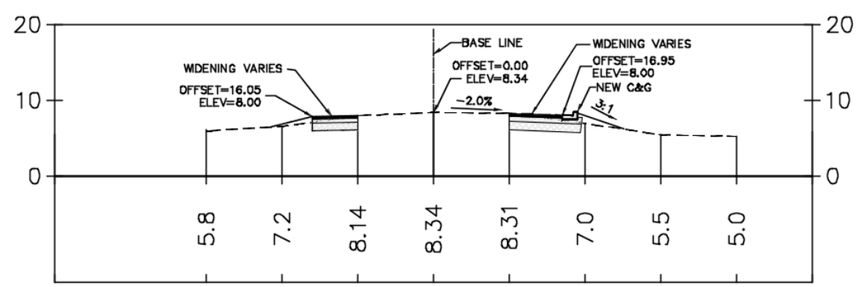

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SUBMITTALS AND REVISIONS		
DATE	BY	DESCRIPTION
12-15-17	RI	PERMIT SET
11-14-18	RI	GAZEBO REMOVAL
01-22-20	RI	Add C & G

RODOLFO IBARRA P.E. P.A.
12301 SW 128 CT. # 106
MIAMI, FLORIDA 33186
TEL: (305) 281-8746
PE: 45901 EB: 7820

RODOLFO IBARRA LICENSED No. 45901 STATE OF FLORIDA PROFESSIONAL ENGINEER

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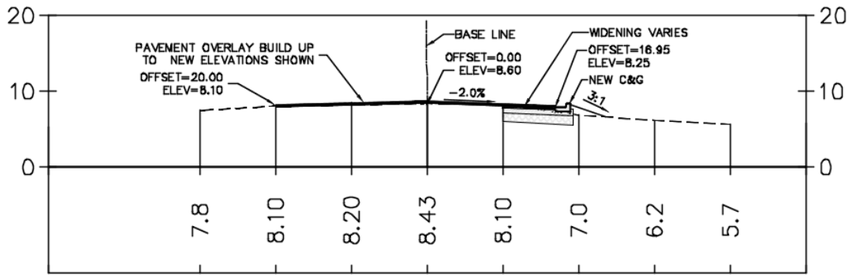
K - 6

MATER BAY POINT CHARTER SCHOOL
CUTLER BAY
22025 SW 87th Ave, Cutler Bay, FL 33190

ROADWAY SECTIONS
SB LEFT TURN LANE
SW 87 AVE & SW 224 ST

SHEET NO.
C-105

APPENDIX K



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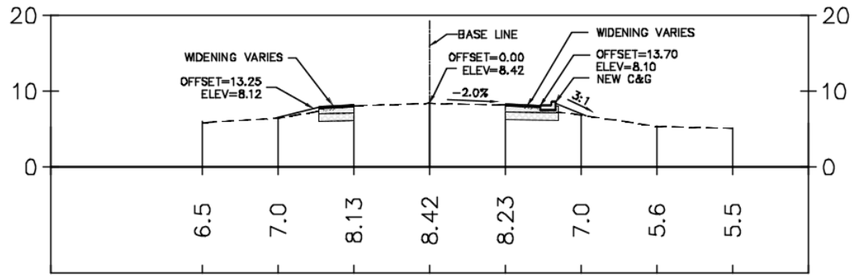

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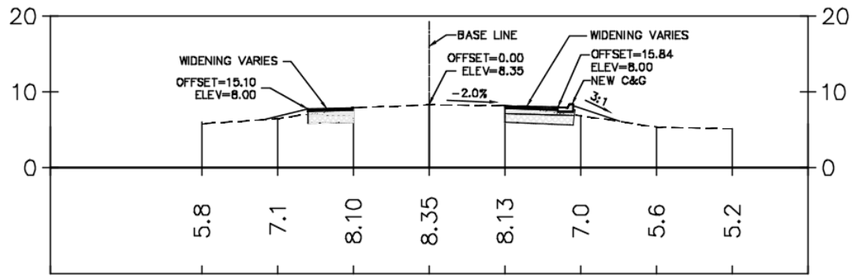

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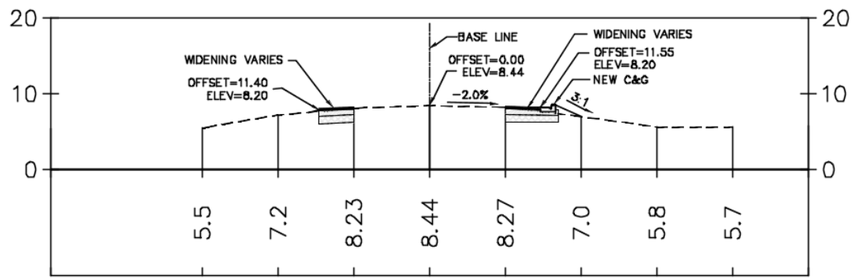

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SUBMITTALS AND REVISIONS		
DATE	BY	DESCRIPTION
12-15-17	RI	PERMIT SET
11-14-18	RI	GAZEBO REMOVAL
01-22-20	RI	Add C & G

RODOLFO IBARRA P.E. P.A.
12301 SW 128 CT. # 106
MIAMI, FLORIDA 33186
TEL: (305) 281-8746
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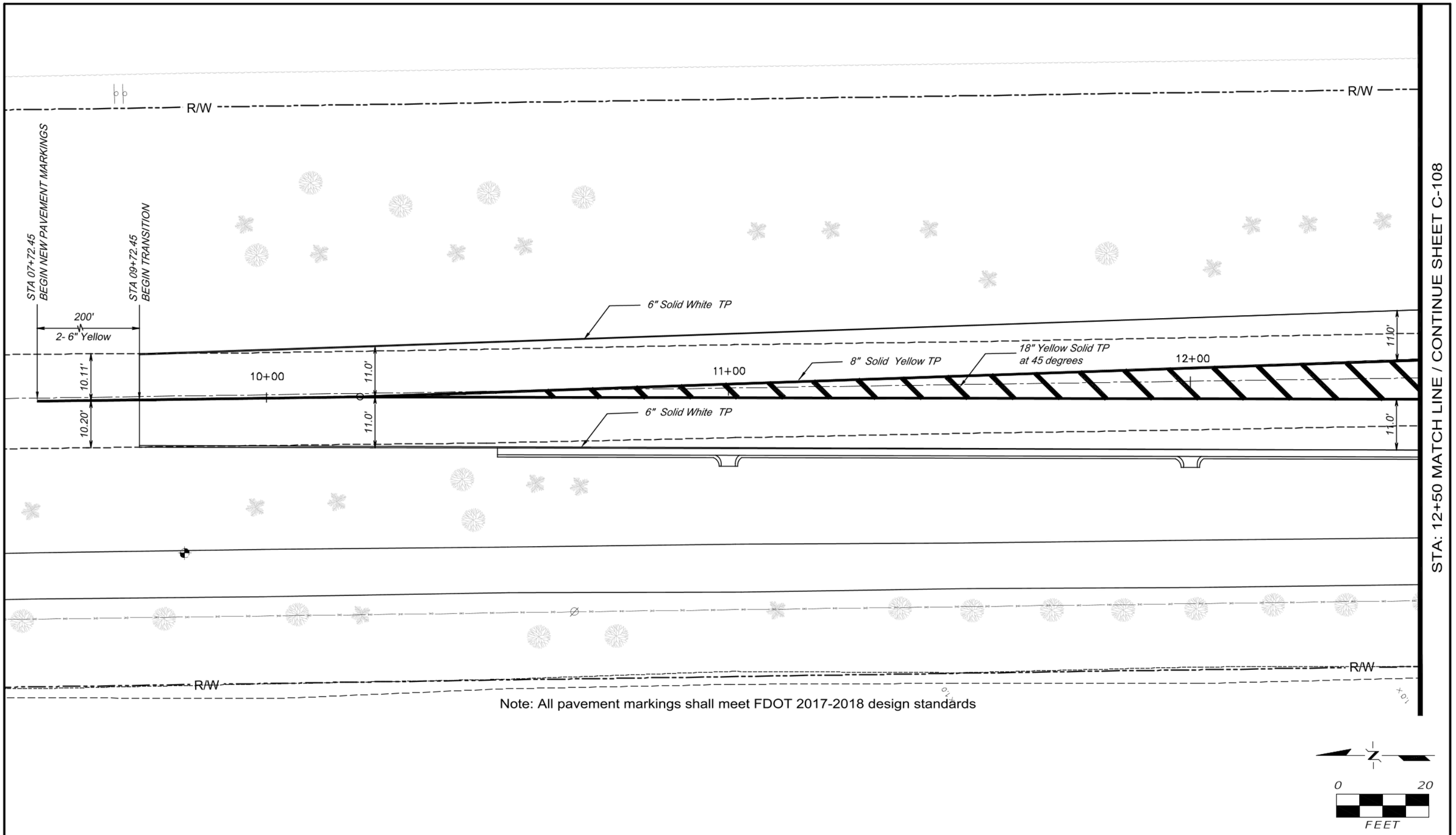
K - 7

MATER BAY POINT CHARTER SCHOOL
CUTLER BAY
22025 SW 87th Ave, Cutler Bay, FL 33190

ROADWAY SECTIONS
SB LEFT TURN LANE
SW 87 AVE & SW 224 ST

SHEET NO.
C-106

APPENDIX K



Note: All pavement markings shall meet FDOT 2017-2018 design standards

SUBMITTALS AND REVISIONS		
DATE	BY	DESCRIPTION
12-15-17	RI	PERMIT SET
11-14-18	RI	GAZEBO REMOVAL
01-22-20	RI	Add C & G

RODOLFO IBARRA P.E. P.A.
12301 SW 128 CT. # 106
MIAMI, FLORIDA 33186
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RODOLFO IBARRA LICENSE No. 45901 STATE OF FLORIDA PROFESSIONAL ENGINEER

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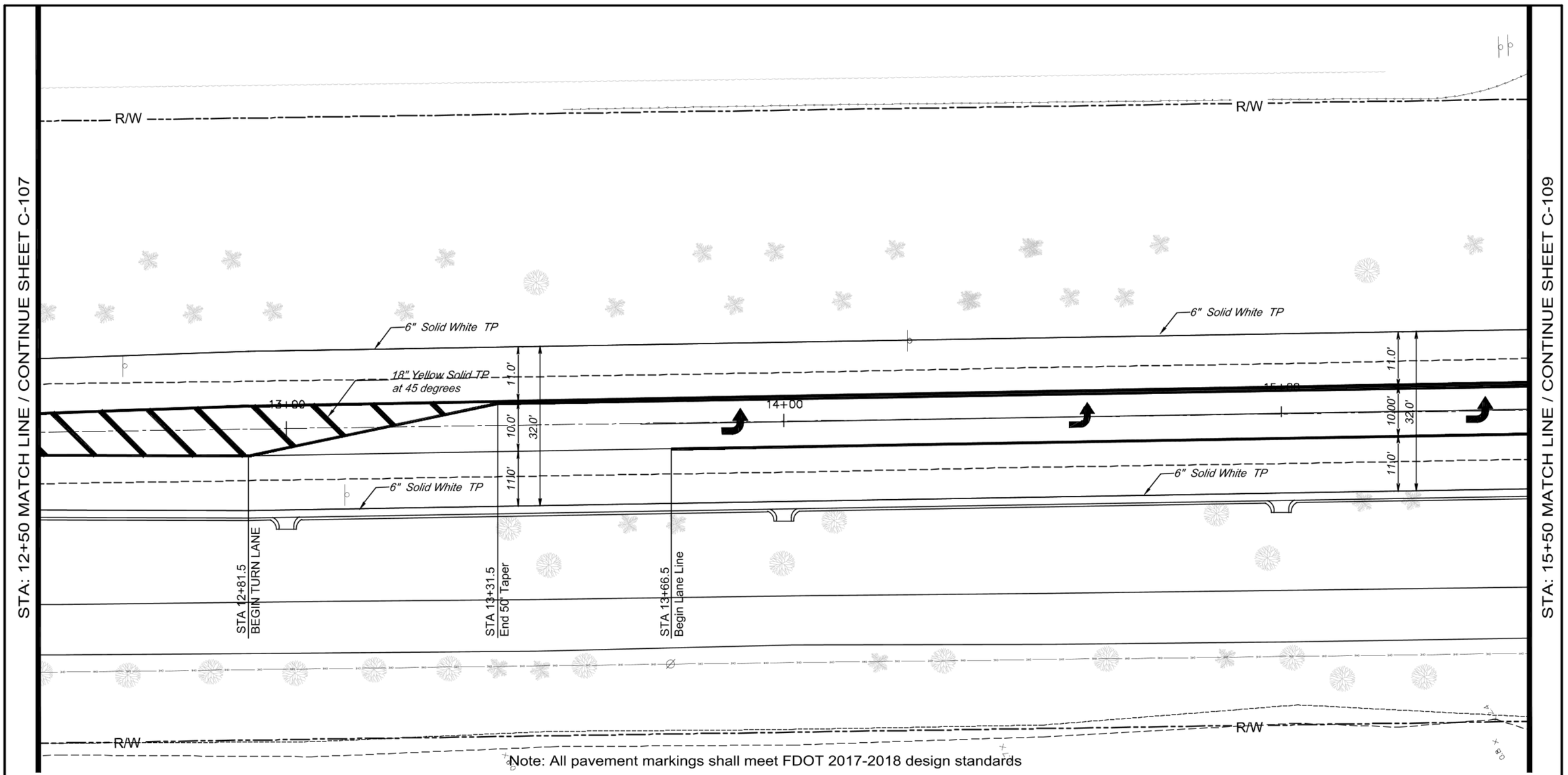
K - 8

MATER BAY POINT CHARTER SCHOOL
CUTLER BAY
22025 SW 87th Ave, Cutler Bay, FL 33190

PAVEMENT MARKINGS
SB LEFT TURN LANE
SW 87 AVE & SW 224 ST

SHEET NO.
C-107

APPENDIX K



Note: All pavement markings shall meet FDOT 2017-2018 design standards

0 20
FEET

SUBMITTALS AND REVISIONS		
DATE	BY	DESCRIPTION
12-15-17	RI	PERMIT SET
11-14-18	RI	GAZEBO REMOVAL
01-22-20	RI	Add C & G

RODOLFO IBARRA P.E. P.A.
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MIAMI, FLORIDA 33186
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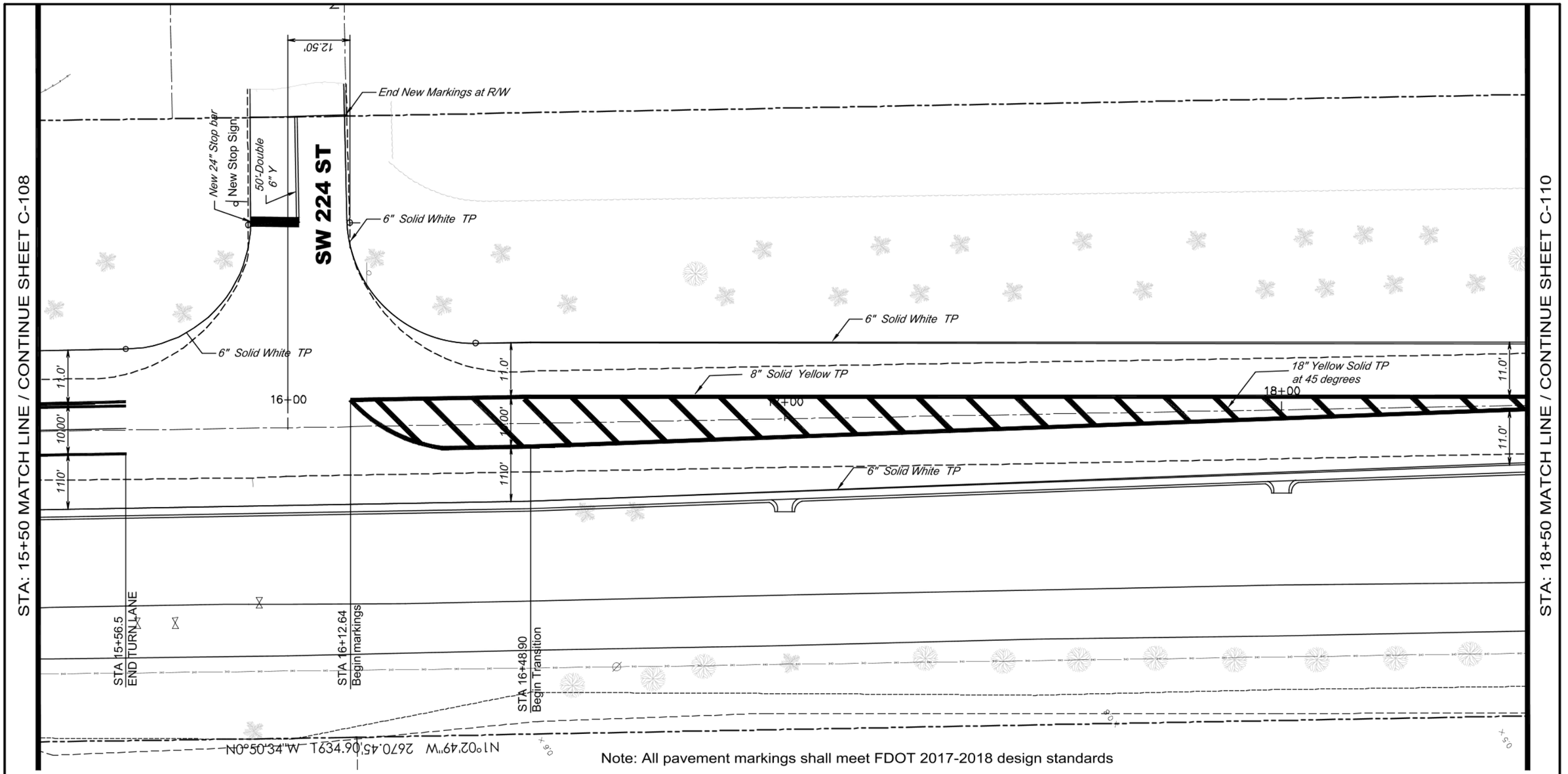
K - 9

MATER BAY POINT CHARTER SCHOOL
CUTLER BAY
22025 SW 87th Ave, Cutler Bay, FL 33190

PAVEMENT MARKINGS
SB LEFT TURN LANE
SW 87 AVE & SW 224 ST

SHEET NO.
C-108

APPENDIX K



SUBMITTALS AND REVISIONS		
DATE	BY	DESCRIPTION
12-15-17	RI	PERMIT SET
11-14-18	RI	GAZEBO REMOVAL
01-22-20	RI	Add C & G

RODOLFO IBARRA P.E. P.A.
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MIAMI, FLORIDA 33186
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RODOLFO IBARRA LICENSE No. 45901 STATE OF FLORIDA PROFESSIONAL ENGINEER

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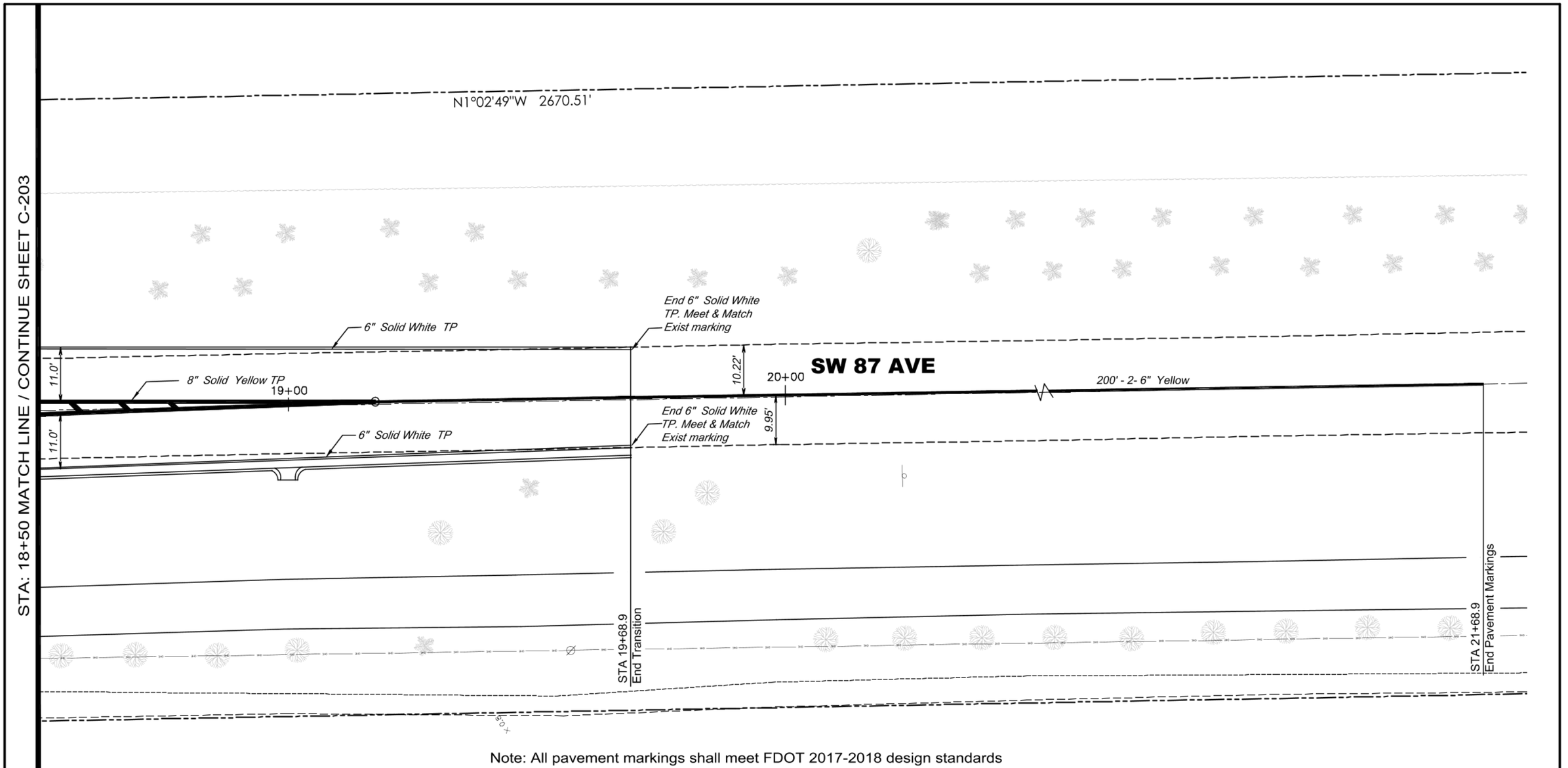
K - 10

MATER BAY POINT CHARTER SCHOOL
CUTLER BAY
22025 SW 87th Ave, Cutler Bay, FL 33190

PAVEMENT MARKINGS
SB LEFT TURN LANE
SW 87 AVE & SW 224 ST

SHEET NO.
C-109

APPENDIX K



Note: All pavement markings shall meet FDOT 2017-2018 design standards

0 20
FEET

SUBMITTALS AND REVISIONS		
DATE	BY	DESCRIPTION
12-15-17	RI	PERMIT SET
11-14-18	RI	GAZEBO REMOVAL
01-22-20	RI	Add C & G

RODOLFO IBARRA P.E. P.A.
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MIAMI, FLORIDA 33186
TEL: (305) 281-8746
PE: 45901 EB: 7820

RODOLFO IBARRA LICENSED No. 45901 STATE OF FLORIDA PROFESSIONAL ENGINEER

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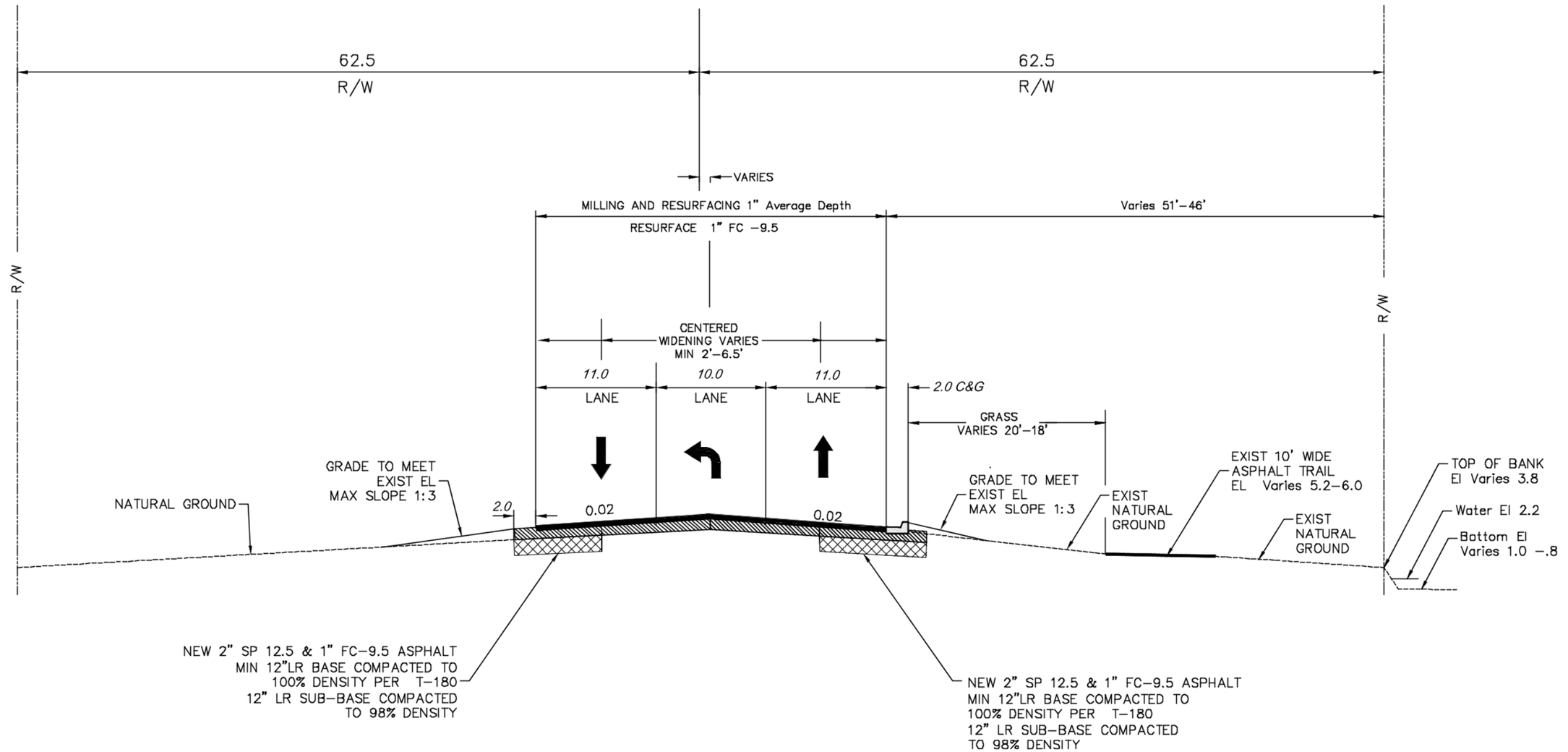
K - 11

MATER BAY POINT CHARTER SCHOOL
CUTLER BAY
22025 SW 87th Ave, Cutler Bay, FL 33190

PAVEMENT MARKINGS
SB LEFT TURN LANE
SW 87 AVE & SW 224 ST

SHEET NO.
C-110



TYPICAL SECTION SW 87 AVE

MIAMI DADE COUNTY
POSTED SPEED 35 MPH

0 10
FEET

SUBMITTALS AND REVISIONS		
DATE	BY	DESCRIPTION
12-15-17	RI	PERMIT SET
11-14-18	RI	GAZEBO REMOVAL
01-22-20	RI	Add C & G

RODOLFO IBARRA P.E. P.A.
12301 SW 128 CT. # 106
MIAMI, FLORIDA 33186
TEL: (305) 281-8746
PE: 45901 EB: 7820

RODOLFO IBARRA LICENSE No. 45901 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been electronically signed and sealed by RODOLFO IBARRA, PE on 01-22-20 using a Digital Signature.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

K - 12

MATER BAY POINT CHARTER SCHOOL
CUTLER BAY
22025 SW 87th Ave, Cutler Bay, FL 33190

TYPICAL SECTION
SB LEFT TURN LANE
SW 87 AVE & SW 224 ST

SHEET NO.
C-111