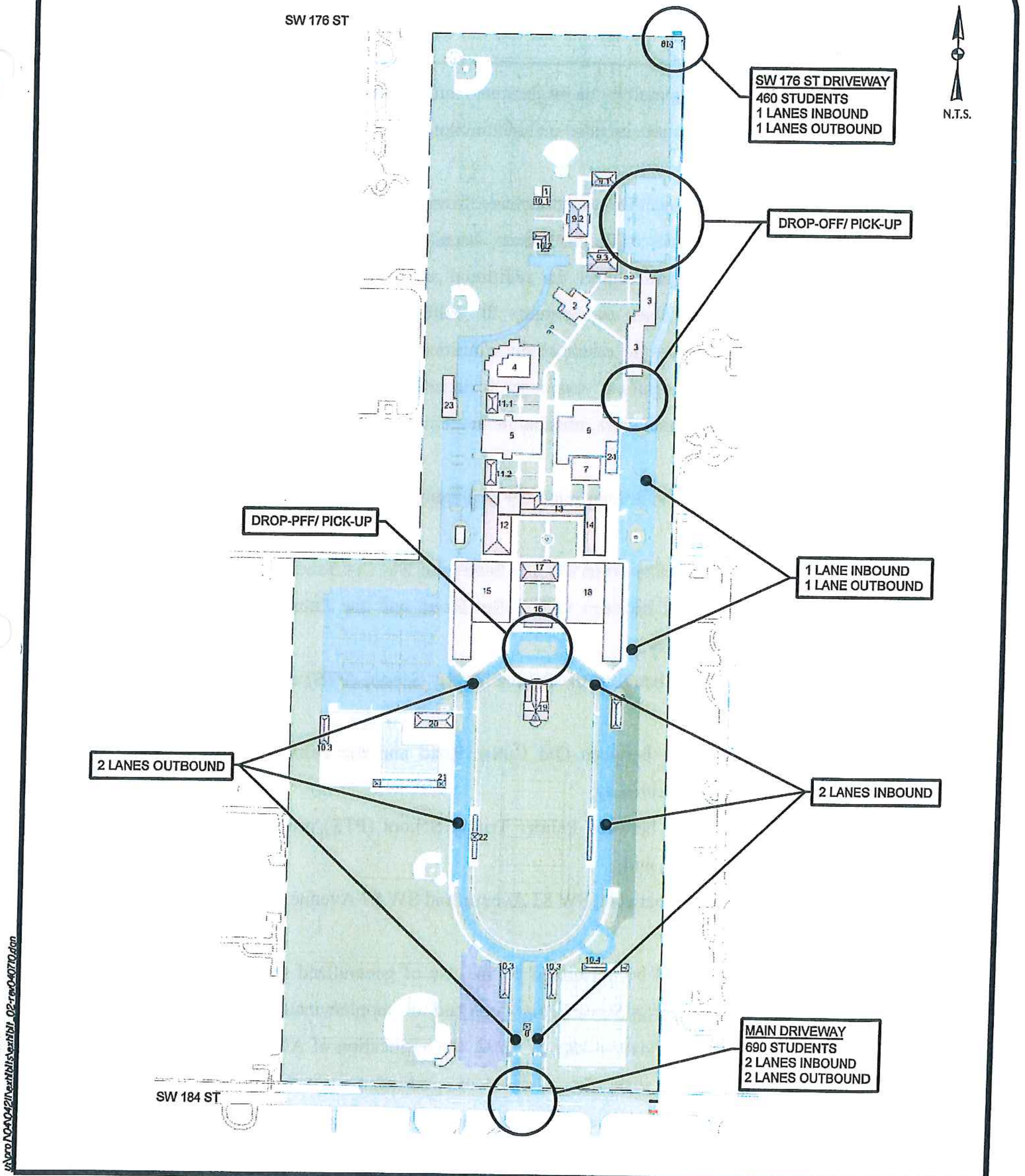


PROJECT:	TITLE:	EXHIBIT No.
PALMER TRINITY TRAFFIC IMPACT STUDY	MASTER PLAN SITE ACCESS AND CIRCULATION	2

2007. Responses were prepared by the project team and forwarded to MDC on August 21, 2007. These comments and responses are also included in Appendix A.

In November 2007, the project file was transferred from MDC to the Village of Palmetto Bay for their review. The Village's traffic consultant issued their comments on February 14, 2008. These review comments and request for additional analyses were transmitted to the Palmer Trinity School consultant team on February 20, 2008. A meeting was held the morning of February 25, 2008 to discuss the extent of the additional work requested. The comments issued by the Village's traffic consultant, responses to these comments, as well as the agreed upon methodology of the additional work, are also included in Appendix A.

It was established that the following roadway segments will be analyzed for AM and PM peak hour conditions:

- Old Cutler Road between SW 176 Street and SW 184 Street;
- SW 176 Street between Old Cutler Road and the Palmer Trinity School (PTS) existing driveway;
- SW 176 Street between the Palmer Trinity School (PTS) existing driveway and SW 83 Avenue;
- SW 184 Street between Old Cutler Road and the Palmer Trinity School (PTS) proposed east driveway;
- SW 184 Street between Palmer Trinity School (PTS) proposed east driveway and SW 83 Avenue; and,
- SW 184 Street between SW 83 Avenue and SW 87 Avenue.

Roadway link analysis will be performed by the use of generalized service volumes obtained from the *2002 Quality/Level of Service Handbook* and the supplemental *Level of Service Issues – 2002 QLOS Handbook Addendum-May 17 2007,* the application of ART_PLAN to the specific factors documented for a particular road, or by performing travel time and delay studies consistent with the methodologies established in the *Highway Capacity Manual*.

The following intersections will be analyzed for AM and PM peak hour conditions:

- Old Cutler Road /SW 176 Street;
- Old Cutler Road /SW 184 Street;
- SW 176 Street /SW 82 Avenue;
- SW 176 Street /SW 83 Avenue;
- SW 184 Street /SW 82 Avenue;
- SW 184 Street /SW 83 Avenue.

In addition, driveway analysis will be performed for AM, Midday (student discharge period) and PM peak hour. The actual peak hour factor (PHF) for the existing driveway approach obtained from the traffic counts will be used in the analysis of future traffic conditions at both driveways. The existing approach PHF will be used in the analysis of all intersections as well. The HCS+ detailed report will be included in the appendix showing intersection capacity analysis worksheets.

In March 2010, the Village of Palmetto Bay requested that the traffic study be updated. A meeting was held and was attended by representatives of both the Village and PTS. It was agreed that the traffic counts used in the previous studies would be updated, using the background growth rate, to current (2010) conditions.

The revised traffic study includes the following tasks requested:

1. The latest site plan will be included in the study including project boundaries, driveway locations, and lane geometry.
1. An Accumulation Assessment will be performed for the expansion of the school (for each dismissal period) at the existing facility. Existing maximum accumulation (drop-off and pick-up) will be documented to establish usage based on existing conditions. The accumulation study will be expanded to reflect future conditions. Queue lengths will be compared to available stacking to ensure that the site can accommodate projected demand.

2. Internal circulation will be further described including drop-off and pick-up locations, bus usage, if applicable, and pedestrian circulation on site.
3. Other comments in the Village's February 14, 2008, and April 11, 2008 reviews will be addressed in the revised Traffic Impact Study.

1.3 School Operations

Palmer Trinity School's current 600 students (grades six through 12) begin school at 8:00 AM. Dismissal is at 3:00 PM on Mondays, Thursday and Friday; and at 3:25 PM on Tuesdays and Wednesdays. Students have the option to stay at school to participate in sports teams, after school activities, and/or study hall until 6:00 PM. Approximately 55% of the school population leaves at the discharge time (between 3:00-4:00 PM). The rest leave the school during the PM peak period (4:00-6:00 PM).

Drop-off and pick-up occurs in front of the school courtyard adjacent to the existing visitor parking. Vehicles enter the existing driveway on SW 176 Street, and form a queue to drop-off and pick-up students. Data was gathered during the drop-off/pick-up times, and no queue spillback to SW 176 Street was observed.

The school provides parking for students and staff. There are approximately 106 paved student parking spots for students. Some parking is also allowed in non-paved areas within the school. Detailed parking utilization of the existing facility has been thoroughly analyzed and projected for the future master plan at a later section of this study. Some students arrive and leave the school by bus service. Based on information provided by the school, the vehicles currently providing services at the school are provided in Exhibit 3.

An existing gatehouse serves as a security check into the school during off-peak hours. To expedite access to parents and/or students, decals are distributed to be displayed in the windshield of their vehicles. During off-peak periods, only vehicles without a decal are stopped at the gatehouse. This system will be implemented in the future when the expansion is in place.

Exhibit 3
Existing Bus Service
Palmer Trinity School

Provider	Type of Service	Destination/Name of Service Provider	# of Students Serviced	Drop-Off & Pick-Up Operation
FRANMAR BUS SERVICE	Large yellow school buses	*Bus 1*: Salvadore Park and Coral Pine *Bus 2*: Dante Fascell Park	75 students use the morning transportation service; 2-28 student buses (3:45 and 6:00) provide afternoon transportation.	Buses drop-off and pick-up students in the back of school behind the tennis courts. They are not a part of the AM or PM queue.
PRIVATE BUS COMPANIES	15-passenger extended vans	Cindy's Transportation	2 morning and 1 afternoon buses (average 9 students per bus ride)	Morning and afternoon buses drop off and pick up students in the back of school behind the tennis courts. These buses are not a part of the morning or afternoon queue.
		All Around Transportation	1 morning and 1 afternoon buses (average 8 students per bus ride)	
		Layla's	1 morning bus (8 students) and 1 afternoon bus (average 9 students)	
		AJ Mengo	2 morning buses and 2 afternoon buses (average 12 students per bus ride)	

When the school expands, different color decals will be distributed and assigned to a specific driveway. The security gatehouse at each driveway will monitor the proper use of these decals. Violators will be contacted by the school to ensure proper enforcement of these measures. In addition, 24-hour automatic recorder machine counts and/or turning movement counts will be taken at each driveway each semester to monitor compliance of the use of each driveway.

2.0 EXISTING TRAFFIC CONDITIONS

2.1 Data Collection

Data collection for this study included roadway characteristics, intersection data, intersection volumes, and signal timing. The data collection effort is described in detail in the following sections.

2.1.1 Roadway Characteristics

Old Cutler Road

The Village of Palmetto Bay Comprehensive Plan classifies Old Cutler Road as a County Minor Arterial with a level of service standard of LOS D. It provides north/south access throughout the Village. Within the jurisdiction limits, Old Cutler Road is a two-way, 2-lane undivided roadway. Exclusive left turn lanes are provided at major signalized intersections. The posted speed limit is 40 mph.

Eureka Drive (SW 184 Street)

The Village of Palmetto Bay Comprehensive Plan classifies SW 184 Street (Eureka Drive) as a County Minor Arterial with a level of service standard of LOS D. It provides east/west access throughout the Village. Within the jurisdiction limits, SW 184 Street is a two-way, 2-lane undivided roadway. Exclusive left turn lanes are provided at major signalized intersections. The posted speed limit is 40 mph.

SW 176 Street

SW 176 Street is two-way 2-lane local road providing access between Old Cutler Road and SW 83 Avenue. The *Village of Palmetto Bay Transportation Master Plan* did not evaluate this local access/collector road. The level of service standard is LOS E. The posted speed limit is 30 mph.

2.1.2 Traffic Counts

Morning and school afternoon peak period vehicle turning movement counts were collected in January 2007 for the intersections originally studied. Counts of the additional intersections requested were taken February 26 and 27, 2008. In addition, 24 hour automatic recorder machine counts were taken at the roadway segments to the analyzed. Weekly volume adjustment factors were obtained from FDOT and the factor corresponding to the dates of the counts was used to adjust the raw traffic counts to average weekly conditions.

Traffic counts are provided in Appendix B. Existing volumes in the study area are graphically portrayed in Exhibit 4. Counts taken in 2007 and 2008 were adjusted to 2010 traffic conditions using the background growth rate described in a later section.

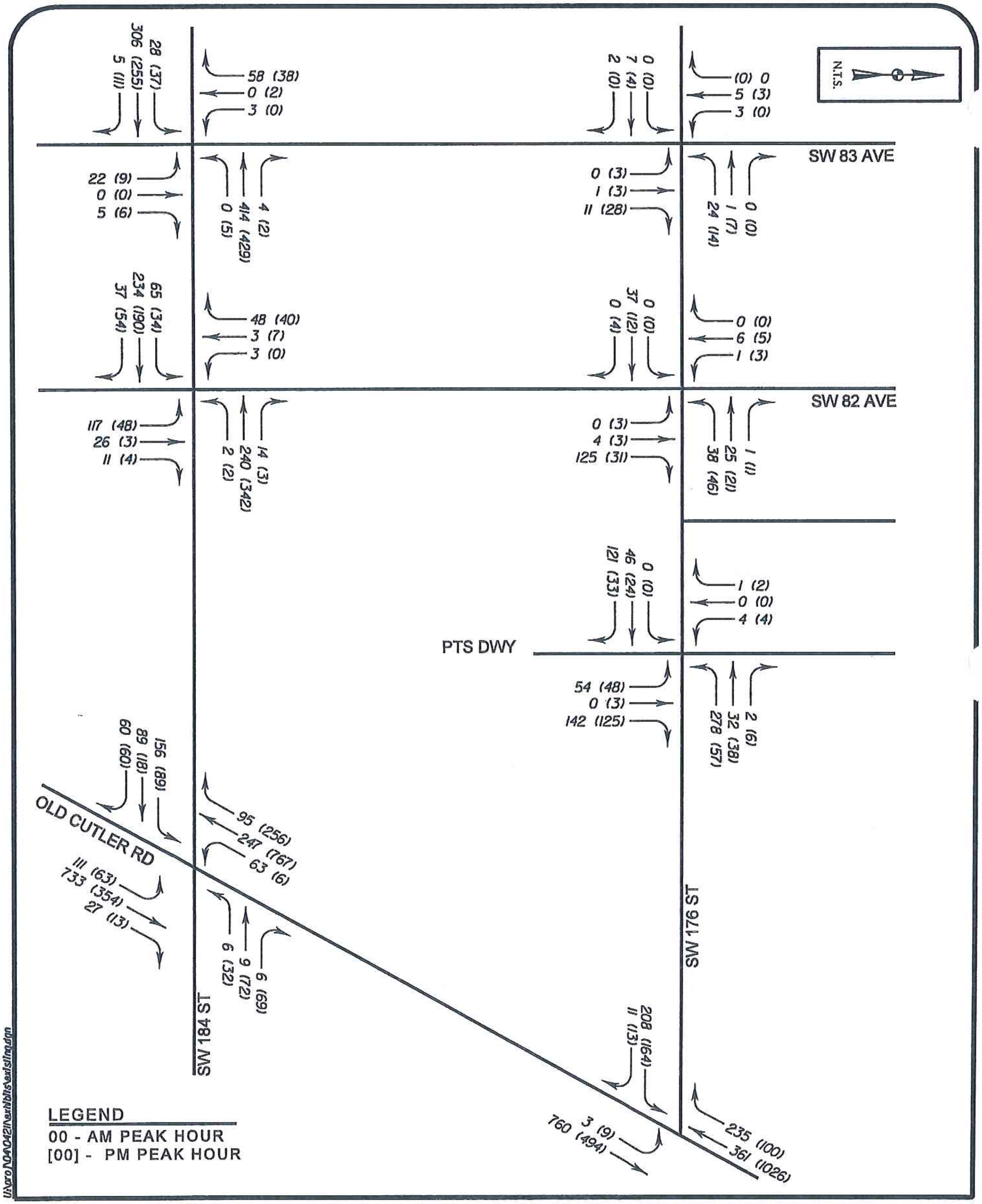
2.1.3 Intersection Data

A field survey was conducted to determine the lane configurations for the roadways and intersections under study. Existing signal timing data was obtained from Miami-Dade County for the analyzed intersection. This information provided the signal phasing and timing used in the intersection analysis. Signal information is included in Appendix B. Exhibit 5 shows the existing lane configurations for the intersections and roadways analyzed.

2.2 Roadway Segment Analysis

Existing traffic conditions for the project area roadway segments is shown in Exhibits 6 for AM and PM peak hour conditions. Service volumes were obtained from the Transportation Element of the Village of Palmetto Bay Comprehensive Plan. A travel time and delay study was performed for the segment of Old Cutler Road analyzed. A description of the study, as well as calculation worksheets, are provided in *Appendix C, Travel Time and Delay Study*. The results are summarized in Exhibit 6.

Exhibit 7 shows the resulting LOS for existing conditions at the intersections under study; analysis worksheets are included in Appendix B. All intersections analyzed presently operate within the LOS standard adopted by the Village.



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PROJECT:

PALMER TRINITY
TRAFFIC IMPACT STUDY

TITLE:

EXISTING (2010)
TRAFFIC VOLUMES

EXHIBIT No.

4

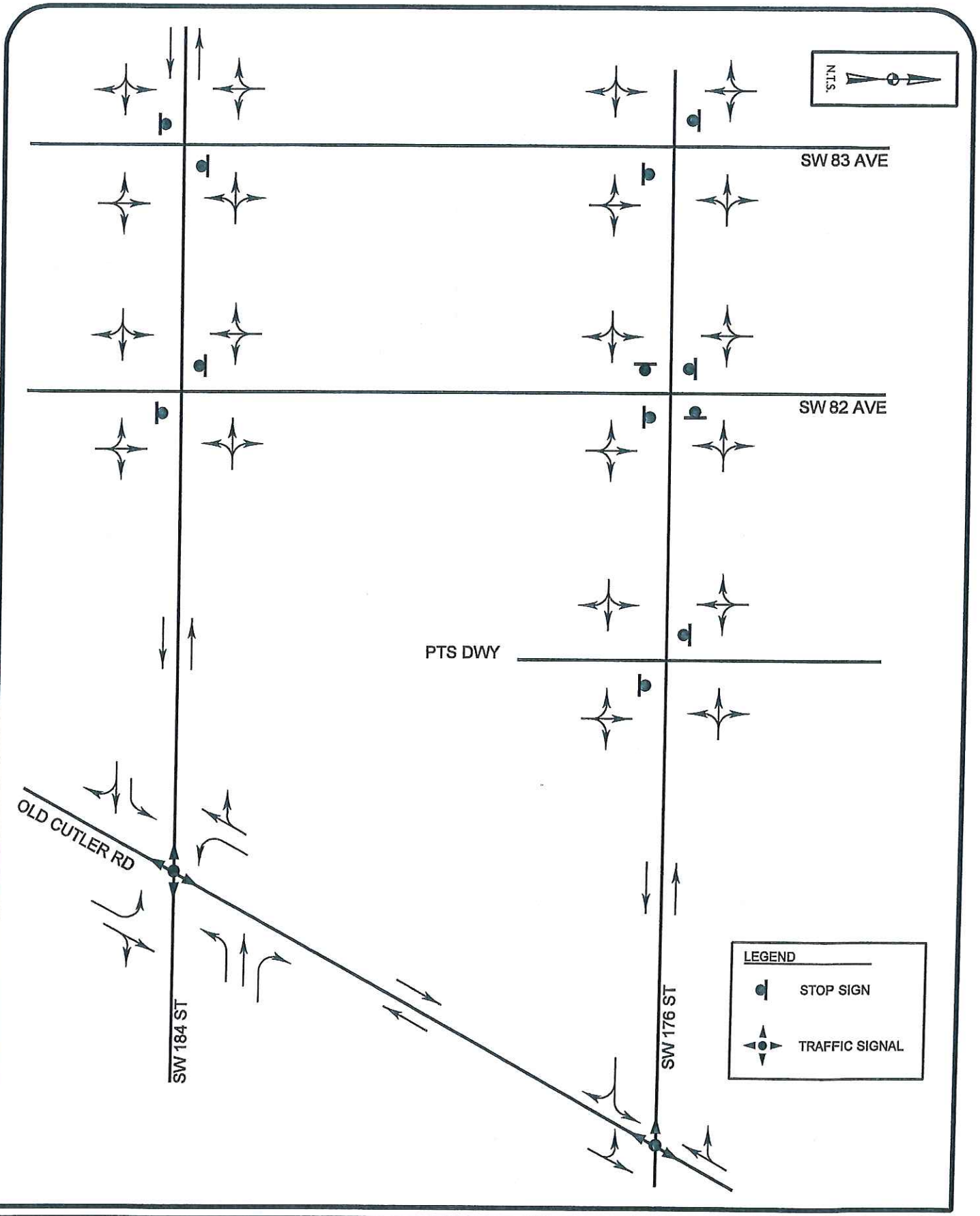

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Exhibit 6
Existing (2010) Roadway Segment Analysis
Palmer Trinity School

Roadway	Limits		Roadway Type	Direction	Number of Lanes	LOS Standard	Service Volume	2010 AM Pk Hr Volume	Meets LOS Std?	2010 PM Pk Hr Volume	Meets LOS Std?
	From	To									
Old Cutler Rd	SW 184 Street	SW 176 St	County Minor Arterial	NB	1LU	D	NA	896	Yes [1]	512	Yes [1]
				SB	1LU	D	NA	404	Yes [1]	1,030	Yes [1]
SW 184 St	SW 87 Avenue	SW 83 Avenue	County Minor Arterial	EB	1LU	D	810	339	Yes	303	Yes
				WB	1LU	D	810	494	Yes	476	Yes
	SW 83 Avenue	Proposed Palmer Trinity Dwy	County Minor Arterial	EB	1LU	D	810	249	Yes	194	Yes
				WB	1LU	D	810	256	Yes	348	Yes
	Proposed Palmer Trinity Dwy	Old Cutler Road	County Minor Arterial	EB	1LU	D	810	305	Yes	167	Yes
				WB	1LU	D	810	215	Yes	391	Yes

(1) See Travel Time and Delay Study in Appendix C.

Source: David Plummer and Associates, Inc.

Exhibit 7
Intersection Analysis Results - Weekday AM and PM Peak Hour
Existing (2008) Conditions

Intersection	Signalized/ Unsignalized	Movement	LOS Standard	AM Peak Hour LOS	PM Peak Hour LOS
Old Cutler Road / SW 176 Street	S	Overall	D (NB/SB)	B	B
Old Cutler Road / Eureka Drive	S	Overall	D	C	C
SW 176 Street / SW 83 Avenue	U	NB	E	A	A
		SB	E	A	A
SW 176 Street / SW 82 Avenue	U	NB	E	A	A
		SB	E	A	A
SW 184 Street / SW 83 Avenue	U	Main Street - EB	D	A	A
		Main Street - WB	D	A	A
		Minor Street - NB	E	C	C
		Minor Street - SB	E	B	B
SW 184 Street / SW 82 Avenue	U	Main Street - EB	D	A	A
		Main Street - WB	D	A	A
		Minor Street - NB	E	E	C
		Minor Street - SB	E	B	B

U= unsignalized S= signalized

Source: DPA

It should be noted that analysis presented in the previous traffic study for PTS identified the intersection of Old Cutler Road/SW 176 Street as not meeting LOS standards for existing conditions. The study recommended an increase in cycle length, as well as signal timing adjustments at the intersection, in order to meet these standards for existing conditions. Recently, Miami-Dade County has increased the cycle length and adjusted the signal timing at