



TECHNICAL MEMORANDUM

Date: December 1st, 2021

To: Rita Carbonell, Transportation Manager, City of Doral

From: Elio R. Espino, Ph.D., P.E., Sr. Project Manager, APCTE
Yerily Diaz, E.I., Traffic Engineering Analyst, APCTE

Subject: Traffic Calming Request - Landmark at Doral Community
NW 66th Street from NW 102nd Avenue to NW 107th Avenue
Request for Evaluation of Pedestrian/Bicycle Safety of
Shared-Use Path Crossings at NW 62nd Street, NW 66th Street, and NW 104th Path
(Work Order No. 17)

1 INTRODUCTION

A&P Consulting Transportation Engineers, Corp. (APCTE) was retained by the City of Doral to assess traffic conditions along NW 66th Street from NW 102nd Avenue to NW 107th Avenue and to determine whether the roadway segment is eligible for traffic calming installation and if so, which device would be appropriate for the current roadway conditions.

As part of this study, APCTE will also assess and document pedestrian/bicycle's safety and operation of the shared-use path crossings located at NW 62nd Street, NW 66th Street, and NW 104th Path to provide recommendations for safety enhancement. **Figure 1** presents the study area.

1.1 Background

The City of Doral Public Works Department has received requests from residents of Landmark at Doral Community located at 6500 NW 105th Court, Doral, FL 33178 to install traffic calming devices to slow down vehicles along NW 66th Street between NW 102nd Avenue and NW 107th Avenue. The residents have expressed concerns with high vehicle speeds along this road and the proximity of on-street parking and residences' entrance to the street. The City has also received a request to increase pedestrians/bicyclists' safety at the crossings located at NW 62nd Street, NW 66th Street, and NW 104th Path along the existing shared-use path that runs parallel to NW 107th Avenue.



Figure 1. Study Area

As part of the City involvement in this project, a virtual Public Workshop was held on Wednesday, March 4th, 2021 to gather input from residents and the Doral Police Department regarding the existing speeding concerns and ongoing speed enforcement efforts in the area. The Meeting Minutes are included in **Appendix A**. The following key points associated with this study were obtained from the Minutes:

- 45 residents were concerned about speeding along NW 66th Street
- Speeding through the intersection of NW 66th Street and NW 104th Avenue and violations of traffic signs (stop signs) by eastbound vehicles
- Need to make NW 66th Street safe for all modes of traffic including pedestrian and bicyclists who live in the area
- In the last month alone, there was one incident of a hit-and-run of a household pet and three (3) almost accidents due to speeding
- Speeding on the alleyways of NW 104th Path, NW 104th Avenue, and NW 66th Street
- The bike path on NW 66th Street is very dangerous. Vehicles stop abruptly because someone is crossing; it is a blind spot. Need a solution before there is a crash or someone gets hit by a car.

1.2 Methodology

The study methodology follows the standards and guidelines from Miami-Dade County (MDC) Complete Streets Design Guidelines, the MDC Policy on Traffic Calming Measures, the City of Doral Traffic Calming Criteria, the Florida Design Manual (FDM) Chapter 202, Speed Management, the Manual on Uniform Traffic Control Devices (MUTCD), and the Traffic Engineering Manual (TEM).

2 STUDY APPROACH

The study approach to perform this study includes the necessary tasks to evaluate traffic operations and safety along NW 66th Street from NW 107th Avenue to NW 102nd Avenue and identify the need and proper implementation of traffic calming devices based on Miami Dade County Policy on Traffic Calming Measures and City of Doral Traffic Calming Criteria. The scope of work includes the following tasks:

- Retrieve crash data for the last three years from Signal Four Analytics and review crash police reports to identify speed related crashes
- Perform 72-hour bi-directional counts and spot speed studies along the following roadway links:
 - 1) NW 66th Street from NW 102nd Avenue to NW 107th Avenue
 - 2) NW 104th Avenue from NW 66th Street to NW 74th Street
 - 3) NW 104th Path from NW 62nd Street to NW 66th Street
 - 4) NW 62nd Street from NW 107th Avenue to NW 104th Path
- Perform 12-hour pedestrian counts for three consecutive typical days at the intersection of NW 66th Street and NW 104th Avenue

- Field reviews of the intersection at NW 66th Street and NW 104th Avenue during the AM and PM peak traffic periods and during the hour of highest frequency of crashes to assess traffic operations and pedestrian safety
- Field review on a typical weekday and a Saturday from 11:00 AM to 12:00 PM at the two existing crossings along the shared-use path located at NW 62nd Street and NW 66th Street to assess pedestrians/bicyclists' safety
- Evaluation of the need for traffic calming measures and pedestrian/bicycle safety enhancements at the two crossings located on the shared-use path

3 EXISTING CONDITIONS

A description of the existing roadway conditions of each study segment is provided in the upcoming sections.

3.1 NW 66th Street between NW 107th Avenue and NW 102nd Avenue

Within the study limits, NW 66th Street is a two-way, four-lane roadway running in the east-west directions. The road is classified as a Collector street and has a posted speed limit of 30 MPH. Its typical section consists of an 11-foot inside through lane and a 13-foot outside through lane in both travel directions divided by a 12-foot raised landscaped median with auxiliary left-turn lanes in at least one travel direction. On-street parking ranging from 6 to 10-feet and sidewalks of approximately 6-feet are provided on both sides of the roadway. The surrounding land use on both sides of the roadway is residential (Landmark at Doral Community). **Figure 2** presents the typical section of NW 66th Street.

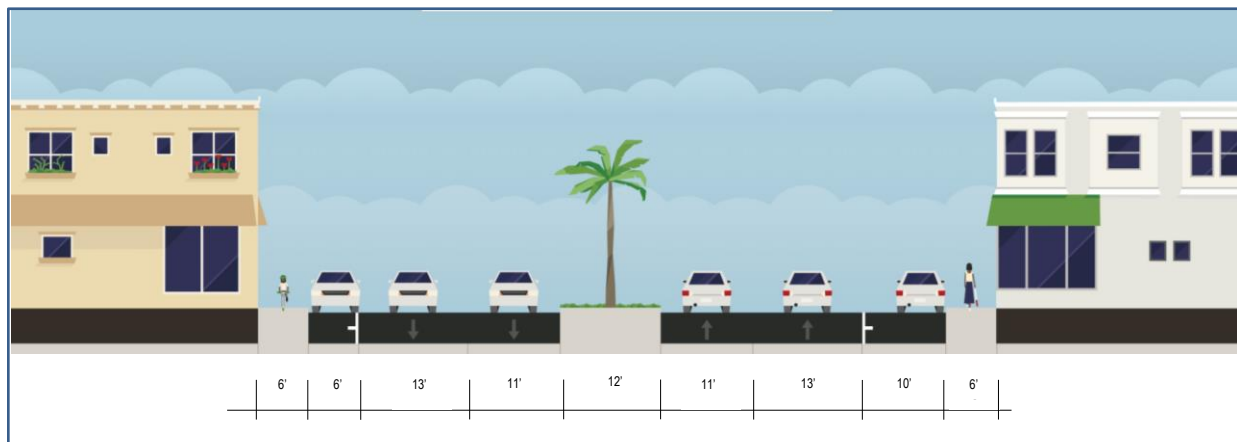


Figure 2. Typical Section – NW 66th Street

There is a marked crosswalk at the junction of the shared-use path with NW 66th Street. The crosswalk provides high emphasis crosswalk markings and is located over the auxiliary left-turn lane just east of the signalized intersection at NW 107th Avenue.

3.1.1 Intersection of NW 66th Street and NW 104th Avenue

The intersection of NW 66th Street and NW 104th Avenue is a stop-controlled T-intersection with high emphasis crosswalks, curb ramps and pedestrian crossing signs. The high emphasis crosswalks are located on the north and west legs of the intersection. The stop controls are located on all approaches. The following is a description of the lane configuration for each approach:

- Southbound (NW 104th Avenue): This approach consists of one (1) bike-lane, one (1) right-turn lane and one (1) auxiliary left-turn lane.
- Eastbound (NW 66th Street): This approach consists of two (2) through lanes and one (1) auxiliary left turn lane.
- Westbound (NW 66th Street): This approach consists of one (1) through lane and one (1) shared through/right turn lane.

The marked crosswalks also serve as additional school crossings for Doral International Math & Science Academy during arrival and dismissal times. School arrival and dismissal times are 8:00 AM and 3:00 PM for Grades 2-4, 8:15 AM and 2:30 PM for Grades K-1 and 8:30 AM and 3:30 PM for Grades 5-8. It should be noted that school crossing guards are present during school arrival and dismissal times.

3.2 NW 104th Avenue from NW 66th Street to NW 74th Street

Within the study limits, NW 104th Avenue is a two-way, two lane roadway running in the north-south directions. Its typical section consists of a 12-foot through lane in both travel directions divided by a 6-foot raised median with auxiliary left-turn lanes in at least one-travel direction. Bicycle lanes of 4 feet width are provided on both sides of the road except for the segment between NW 68th Terrace and NW 70th Terrace where no dedicated bicycle lanes are provided. On-street parking is not provided within this segment. Sidewalks of 8 feet width are provided on both sides of the roadway with exception of the aforementioned un-divided segment which only has a sidewalk on the west side of the road.

The surrounding land use on both sides of the roadway is mostly residential (Landmark at Doral, Mansions at Doral, Neovita Estates South and North, Vintage Estates and Atlantic at Doral) with one school (Doral International Math & Science Academy) located north of NW 66th Street. There is a vacant parcel on the east side of NW 104th Avenue between NW 69th Street and NW 70th Street. School crossings are provided on the south leg of NW 67th Street and south of entrance to Neovita Estates South. There are no posted speed limit signs along this segment.

3.3 NW 104th Path from NW 62nd Street to NW 66th Street

Within the study limits, NW 104th Path is a two-way, two-lane local roadway running in the north-south directions. Its typical section consists of a 15-foot through lane in each travel direction divided by an approximately 60-foot green area including 6-foot sidewalks on both sides. This area is used as a linear park by Landmark. Bicycle lanes of 4-feet are also provided on both sides of the roadway along with on-street parking ranging from 6 to 7 feet. Sidewalks of approximately

6 feet are also provided on both sides of the roadway. The surrounding land use is residential (Landmark at Doral Community) on both sides of the roadway. The posted speed limit is 20 MPH.

A marked crosswalk is provided at the south end of NW 104th Path at the shared-use path (Limestone Trail) intersection with NW 104th Path. The crosswalk is located over the southbound auxiliary left turn lane and has standard marked crosswalk markings with “Yield Here to Pedestrians” (R1-5) signs in both travel directions.

3.4 NW 62nd Street from NW 107th Avenue to NW 104th Path

Within the study limits, NW 62nd Street is a two-way, two-lane local roadway running in the east-west directions. Its typical section consists of an 11-foot through lane in each travel direction divided by paved painted medians with one left-turn lane in the southbound direction. Sidewalks 5-foot wide are provided on both sides of the roadway. On-street parking is not provided. The abutting land use is vacant with green/landscape area on the northwest side of the road and residential (Landmark at Doral) on the south side of the road. The posted speed limit is 30 MPH.

There is a marked crosswalk provided at the shared-use path crossing of NW 62nd Street east of the intersection of NW 107th Avenue. The crosswalk is provided over the westbound auxiliary left-turn lane and have standard marked crosswalk markings with “Yield Here to Pedestrians” (R1-5) signs in both travel directions.

4 CRASH DATA

The crash data of the most recent three years (from January 2018 to December 2020) for the segment of NW 66th Street from NW 102nd Avenue to NW 107th Avenue was retrieved from Signal Four Analytics and reviewed to identify speed related crashes. The crash summary sheet obtained from Signal Four Analytics is provided in **Appendix B**.

A total of 30 crashes, including one (1) fatal crash was obtained. However, only one (1) crash was reported along the study segment of NW 66th Street and it was not a speed related crash. Twenty-eight out of the 30 crashes occurred at the intersection of NW 66th Street and NW 107th Avenue, and one crash (fatal crash) occurred at the intersection of NW 66th Street and NW 102nd Avenue.

According to the crash police report, the fatality occurred during night-time conditions at 3:37 AM on 03/30/2019 as a motorcycle traveling northbound on NW 102nd Avenue hit the barricades utilized to block off the construction area north of the intersection of NW 66th Street and continued northbound colliding into the right side of a Caterpillar front loader. The driver was pronounced deceased on scene.

5 DATA COLLECTION

Data collection for this study consisted of 72-hour bi-directional counts, spot speed studies and 12-hour pedestrian counts.

5.1 72-Hour Bi-Directional Counts

The 72-hour bi-directional counts were performed at four locations on three-consecutive typical weekdays (Tuesday, Wednesday, and Thursday). These counts included vehicles, buses, and trucks. A summary of the counts for each location is shown in **Tables 1** and **2**. The raw vehicle count data by 15-min intervals is provided in **Appendix C**.

Table 1. NW 66th Street Summary of Bi-directional Count Data

Location	Count Date	Eastbound	Westbound	Combined Total	3-Day Average	Peak Hour	Peak Hour Volume
NW 66 th St btw NW 104 th Ave and NW 102 nd Ave	Tuesday 01/26/2021	2822	2952	5774	5833	5:15 PM	626
	Wednesday 01/27/2021	2912	2887	5799		5:30 PM	569
	Thursday 01/28/2021	2982	2944	5926		5:00 PM	594
NW 66 th St btw NW 107 th Ave and NW 104 th Ave	Tuesday 01/26/2021	2227	2633	4860	4910	3:00 PM	477
	Wednesday 01/27/2021	2248	2622	4870		2:15 PM	426
	Thursday 01/28/2021	2296	2705	5001		3:00 PM	482

The results of the bi-directional counts along NW 66th Street between NW 104th Avenue and NW 102nd Avenue showed that eastbound and westbound daily traffic were similar and the peak period each day varied between 5:00 PM and 5:30 PM.

The results of the bi-directional counts along NW 66th Street between NW 107th Avenue and NW 104th Avenue showed that daily westbound traffic was significantly higher than eastbound traffic and the peak period each day varied between 2:15 PM and 3:00 PM.

Table 2. NW 104th Avenue/Path Summary of Bi-directional Count Data

Location	Count Date	Northbound	Southbound	Combined Total	3-Day Average	Peak Hour	Peak Hour Volume
NW 104 th Ave btw NW 66 th St and NW 74 th St	Tuesday 01/26/2021	2174	2662	4836	4988	7:45 AM	523
	Wednesday 01/27/2021	2205	2809	5014		7:45 AM	528
	Thursday 01/28/2021	2267	2847	5114		7:45 AM	524
NW 104 th Path at Limestone Trail	Tuesday 01/26/2021	330	237	567	565	6:45 PM	57
	Wednesday 01/27/2021	343	238	581		7:45 AM	61
	Thursday 01/28/2021	317	231	548		5:15 PM	51

The results of the bi-directional counts along NW 104th Avenue between NW 66th Street and NW 74th Street showed that daily southbound traffic was significantly higher than northbound traffic and the peak period each day was at 7:45 AM.

The results of the bi-directional counts along NW 104th Path at Limestone Trail showed that daily northbound traffic was higher than southbound traffic and the peak period each day varied

significantly. The peak periods reported on Tuesday and Thursday occurred at 6:45 PM and 5:15 PM, respectively. The peak period reported on Wednesday occurred at 7:45 AM.

5.2 Spot Speed Studies

Spot speed studies were performed at five locations during Tuesday, February 9th, Thursday, February 11th, Thursday, February 25th, and Wednesday, March 10th, 2021. **Tables 3 and 4** show a summary of the 85th Percentile Speed, 10 MPH Pace and the difference between the 85th percentile speed and the posted speed limit. The raw data collection sheet for each location is provided in **Appendix D**.

Table 3. NW 66th Street Spot Speed Study Data Summary

Segment	Location	Posted Speed Limit (MPH)	85th Percentile (MPH)		10 Mile Pace (MPH)		Difference b/w Speed Limit and 85th Percentile Speed (MPH)	
			East	West	East	West	East	West
1	NW 66 th St East of NW 104 th Ave	30	35	37	28-38	28-38	5	7
2	NW 66 th St West of NW 104 th Ave	30	35	39	26-36	26-36	5	9

Table 4. NW 104th Avenue/Path Spot Speed Study Data Summary

Segment	Location	Posted Speed Limit (MPH)	85th Percentile (MPH)		10 Mile Pace (MPH)		Difference b/w Speed Limit and 85th Percentile Speed (MPH)	
			North	South	North	South	North	South
3	NW 104th Ave btw NW 66th St and NW 74th St	30	33	37	22-32	28-38	3	7
4	NW 104th Path btw NW 66th St and Limestone Trail	20	23	27	12-22	18-28	3	7
5	NW 104th Path btw NW 107th Ave and Limestone Trail	30	33	33	22-32	24-34	3	3

The results of the spot speed studies showed that vehicle speeds at both locations along NW 66th Street exceeded the posted speed limit of 30 MPH by 5 MPH and 9 MPH in the eastbound and westbound directions, respectively.

The 85th percentile speed results for the segment along NW 104th Avenue between NW 66th Street and NW 74th Street and the segment along NW 104th Path between NW 66th Street and Limestone Trail were 7 MPH (southbound only) higher than the posted speed limit of 30 MPH and 20 MPH, respectively.

The 85th percentile speed results for the segment along NW 104th Path between NW 107th Avenue and Limestone Trail were 3 MPH higher than the posted speed limit of 30 MPH. Please note that guidelines from the Department's latest Speed Zoning Manual, Section 9.3 states that 85th percentile speeds within +/- 3 mph of the posted speed limit are acceptable and will not need to be investigated.

5.3 12-Hour Pedestrian/Bicycle Counts

The 12-hour pedestrian/bicycle counts were performed for three consecutive typical days (Tuesday, Wednesday, and Thursday) at the intersection of NW 66th Street and NW 104th Avenue. The counts consisted of pedestrians and bicyclists crossing on the north and west crosswalks. The pedestrian/bicycle count raw data by 15-min intervals for each weekday per crosswalk is provided in **Appendix E**.

Table 5. NW 66th Street and NW 104th Avenue Pedestrian/Bicycle Count Summary

Day	Peak Period	Time of Day	No. of Pedestrians/Bicyclists		Total Count for Intersection
			North Leg Crosswalk	West Leg Crosswalk	
Tuesday 02/23/21	AM	7:45 AM – 8:45 AM	8	44	52
	PM	2:45 PM – 3:45 PM	0	43	43
Wednesday 02/24/21	AM	7:45 AM – 8:45 AM	10	52	62
	PM	2:45 PM – 3:45 PM	3	34	37
Thursday 02/25/21	AM	7:30 AM – 8:30 AM	14	40	54
	PM	2:45 PM – 3:45 PM	5	33	38

Based on the results of the pedestrian/bicycle count data, the west leg crosswalk experienced the highest volumes of pedestrian/bicyclists crossing at the intersection with peak hour volumes ranging from 33 to 52 crossings. The peak hours were from 7:45 AM to 8:45 AM or 7:30 AM to 8:30 AM and 2:45 PM to 3:45 PM for each day.

It should be noted that the peak hours (AM and PM) coincide with school arrival and dismissal times. School arrival and dismissal times are 8:00 AM and 3:00 PM for Grades 2-4, 8:15 AM and 2:30 PM for Grades K-1 and 8:30 AM and 3:30 PM for Grades 5-8.

6 FIELD REVIEWS

A total of five (5) field reviews were conducted by qualified traffic engineers. The field reviews were performed during the AM and PM peak traffic periods for the intersection of NW 66th Street and NW 104th Avenue. Since there was not a time-of-day period with high frequency of crashes, a field review was performed during the AM peak traffic period for the crossing at NW 66th Street along the shared-use path. Two other field reviews were performed from 11:00 AM to 12:00 PM on a Saturday and a typical weekday (Tuesday) for the crossings at 62nd and 66th Streets along the shared-use path. The focus of all the field reviews was to assess traffic operations and pedestrian/bicyclist's safety.

6.1 NW 66th Street and NW 104th Avenue Intersection

6.1.1 AM Peak (7:45 AM - 8:45 AM) – Wednesday, March 16th, 2021

- Traffic volumes were high during this period.
- Vehicles traveling eastbound or westbound on NW 66th Street were observed either making a rolling stop or not stopping at the intersection on several occasions.
- Vehicles were observed not complying with school crossing guard on occasions (See **Photos 1-2**).



Photo 1 – Vehicle not stopping as cross guard instructed

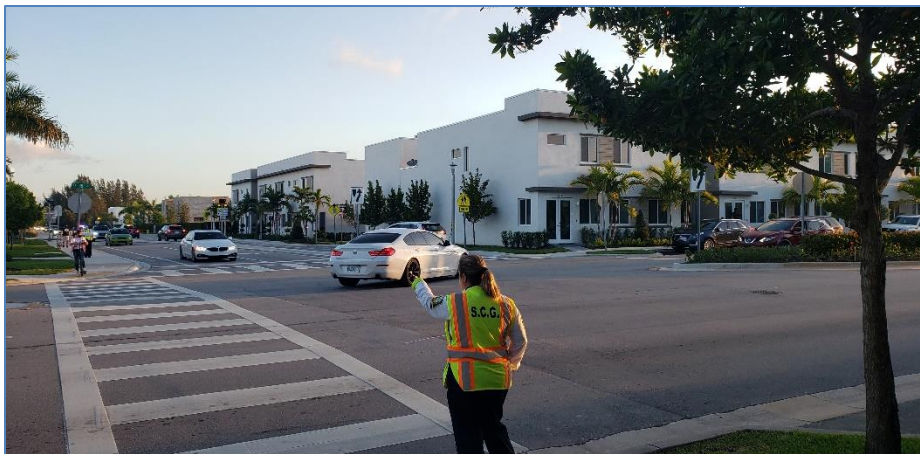


Photo 2 – Vehicle leaving intersection

- Conflicts were observed between eastbound left-turning vehicles and westbound through vehicles on some occasions.
- Vehicles were observed hesitating (at stand-still) on when to proceed on some occasions (See **Photo 3**).



Photo 3 – Vehicles at standstill at intersection

- Vehicles traveling eastbound on NW 66th Street made U-Turns at intersection on several occasions (See **Photos 4-5**).



Photo 4 – Vehicle making U-Turn at eastbound NW 66th Street

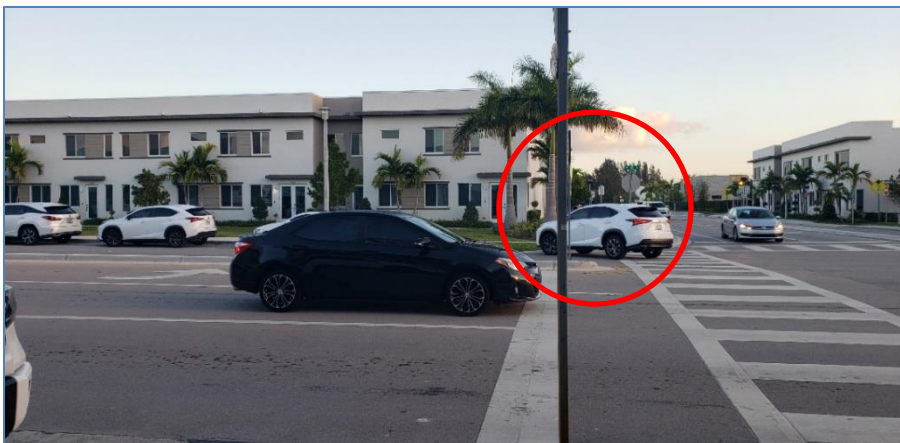


Photo 5 – Vehicle making U-Turn at eastbound NW 66th Street

- Northbound vehicle queues on left-turn lane along NW 104th Avenue north of NW 66th Street to enter school spilled onto westbound approach (See **Photos 6-7**).



Photo 6 – Northbound queue on left-turn lane along NW 104th Avenue extending to westbound approach at NW 66th Street



Photo 7 – Northbound queue on left-turn lane along NW 104th Avenue extending to westbound approach at NW 66th Street

- Northbound queues on left-turn lane along NW 104th Avenue also contributed to vehicle queues on left-turn lane on eastbound approach at NW 66th Street (See **Photos 8-9**).



Photo 8 – Vehicle queue on left-turn lane at NW 66th Street (eastbound)



Photo 9 – Vehicle queue on left-turn lane at NW 66th Street (eastbound)

- High pedestrian crossing activity was observed (40-50 peds/hr).
- Crossing pedestrians mostly consisted of students with parents crossing on west leg of intersection heading to school (See **Photos 10-11**).

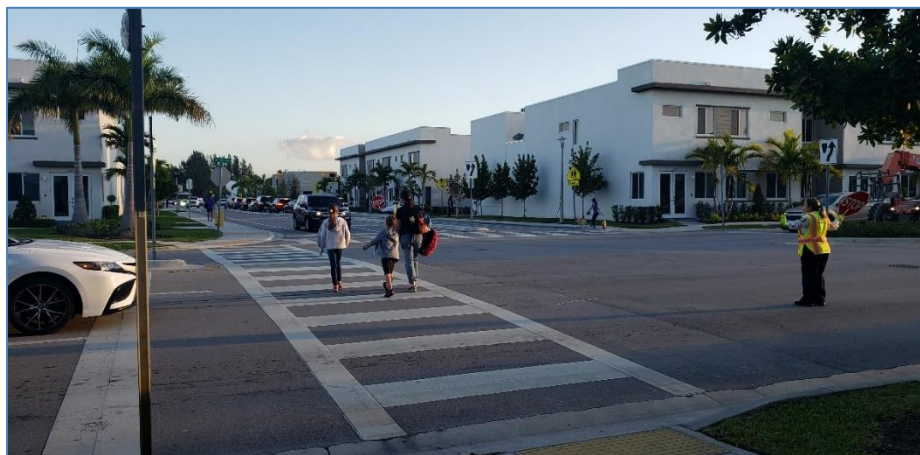


Photo 10 – Students and parent using west leg crosswalk



Photo 11 – Students with parent crossing on west leg

- Pedestrian activity along NW 66th Street included residents walking their dogs, joggers and bicyclists (See **Photos 12-13**).



Photo 12 – Pedestrian walking dog crossing NW 66th Street near NW 104th Path

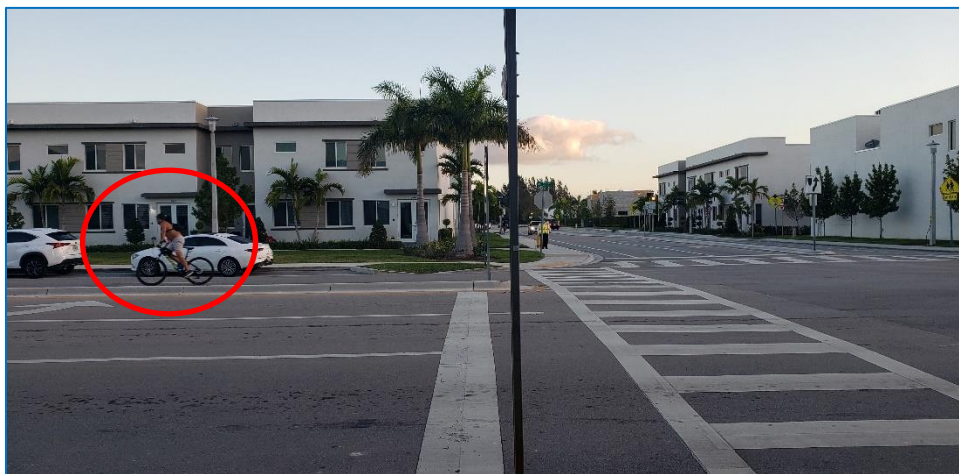


Photo 13 – Bicyclist riding bike westbound along NW 66th Street

6.1.2 PM Peak (3:00 PM - 4:00 PM) - Tuesday, March 9th, 2021

- Traffic volumes were high during this period.
- Vehicles traveling eastbound or westbound on NW 66th Street made rolling stops or did not stop at the intersection on several occasions similar to AM peak.
- Drivers hesitated to proceed at intersection (standstills) similar to AM peak.
- Vehicle conflicts were observed between eastbound left-turning vehicles and westbound through vehicles on some occasions.
- Vehicles traveling eastbound along NW 66th Street were observed making U-Turns at intersection similar to AM peak (See **Photos 14-15**).



Photo 14 – Vehicle making U-Turn at NW 66th Street (eastbound)

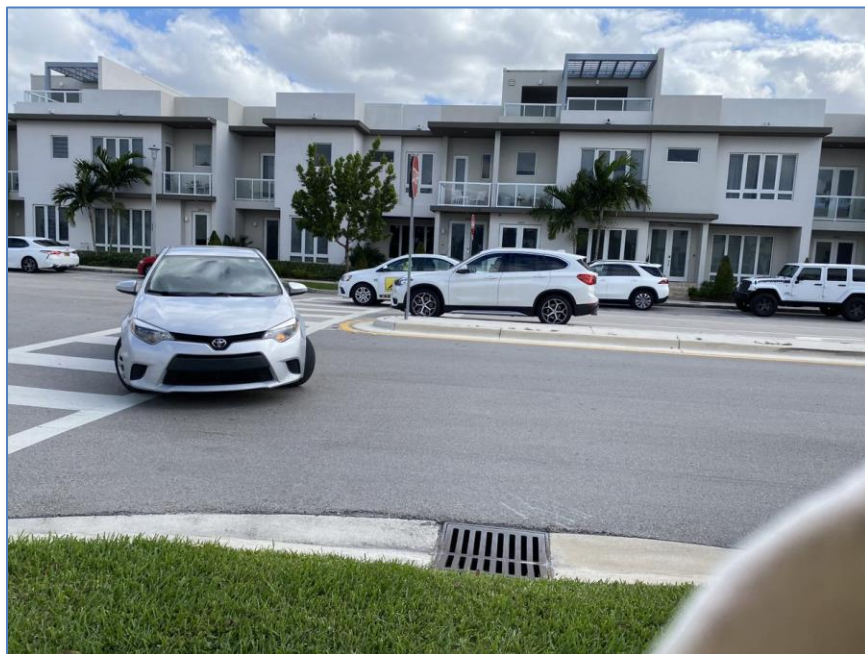


Photo 15 – Vehicle making U-Turn at NW 66th Street (eastbound)

- Northbound vehicle queues on left-turn lane to enter school along NW 104th Avenue north of NW 66th Street were observed spilling onto westbound NW 66th Street similar to AM peak (See **Photos 16-17**)



Photo 16 – Extended northbound queue along NW 104th Avenue on left-turn lane



Photo 17 – Queue on westbound approach outside lane at NW 66th Street

- Northbound queues on left-turn lane along NW 104th Avenue also contributed to vehicle queues on eastbound left-turn lane at NW 66th Street (See **Photo 18**).



Photo 18 – Queue on eastbound left-turn lane at NW 66th Street

- High pedestrian crossing activity was observed similar to AM peak (40-50 peds/hr).
- The pedestrian crossing activity mostly consisted of students crossing on west leg of intersection with help of cross guard (See **Photos 19-20**).



Photo 19 – Students crossing on west leg of NW 66th Street



Photo 20 – Students crossing on west leg of NW 66th Street

- Several students who crossed on west leg of intersection waited for parent pick up on the south side of NW 66th Street (See **Photo 21**).



Photo 21 – Students waiting for parent pick up on south side of NW 66th Street

6.2 NW 66th and NW 62nd Street Crossings at Shared-Use Path

6.2.1 Friday (7:30 AM – 8:30 AM) March 5th, 2021

- Traffic volumes were moderate at NW 66th Street crossing.
- High pedestrian crossing activity was observed at the NW 66th Street crossing (40-50 peds/hour).
- The crossing activity at NW 66th Street mostly consisted of joggers, bicyclists, and residents walking their dogs (See **Photos 22-24**).



Photo 22 – Jogger crossing at NW 66th Street crossing



Photo 23 – Bicyclists crossing at NW 66th Street crossing

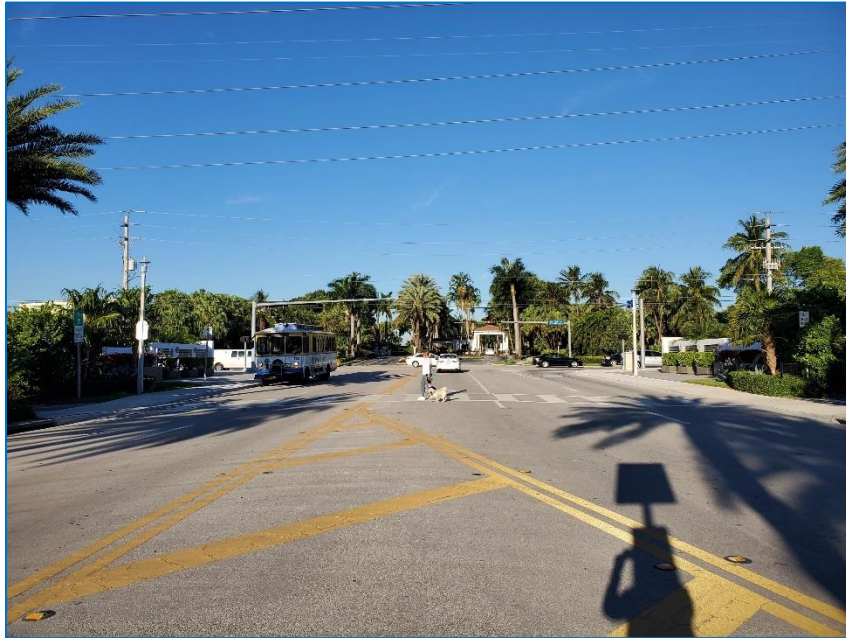


Photo 24 – Resident walking their dog crossing at NW 66th Street crossing

- Pedestrian-vehicle conflicts were observed at crossing on NW 66th Street.
- Pedestrians were observed having to stop oncoming eastbound traffic to be able to cross at NW 66th Street crossing (See **Photos 25-27**)

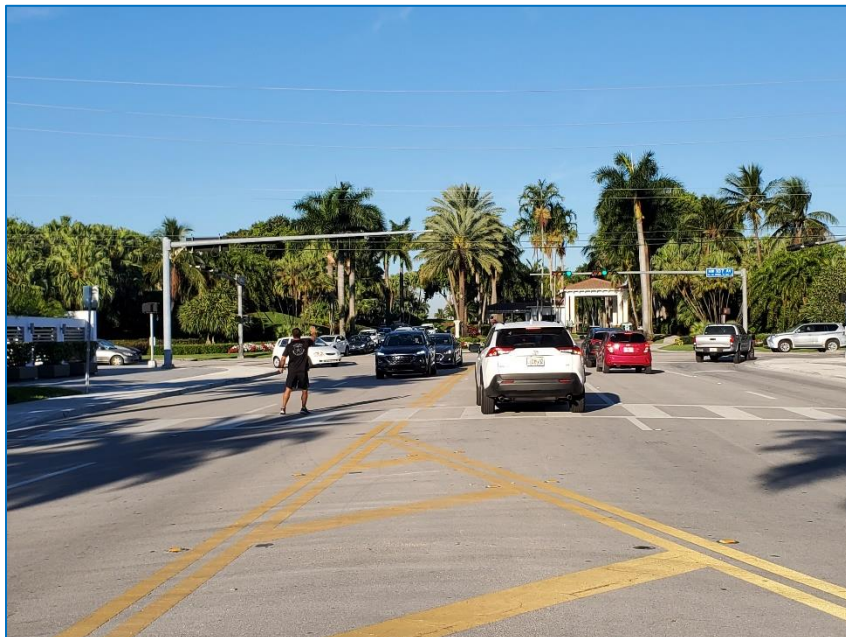


Photo 25 – Pedestrian stopping oncoming eastbound traffic at NW 66th Street crossing



Photo 26 – Pedestrians beginning to cross at NW 66th Street crossing

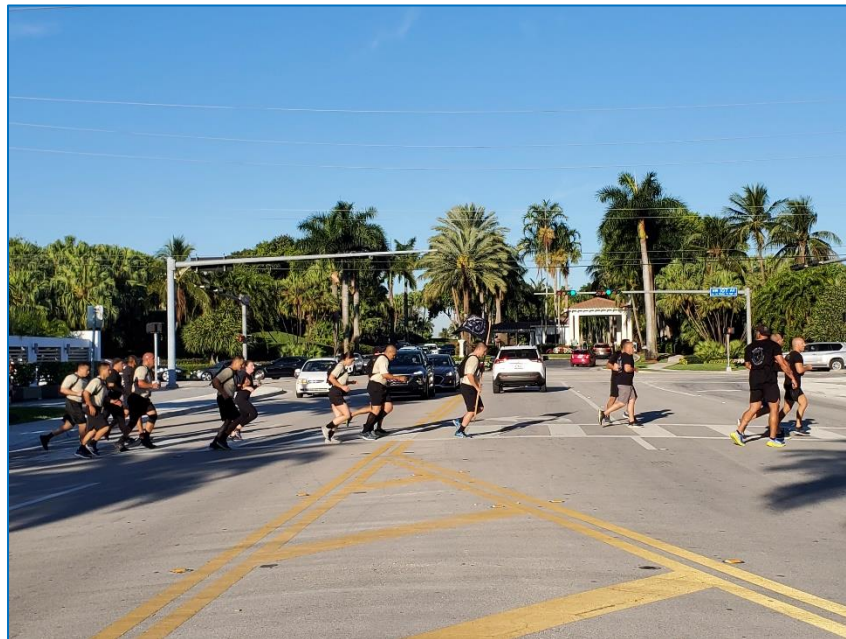


Photo 27 – Pedestrians crossing at NW 66th Street crossing

- Westbound left turning vehicles frequently stop over the crosswalk.
- Pedestrians were observed crossing between stopped cars (See **Photos 28-29**).



Photo 28 – Pedestrian crossing between stopped cars at NW 66th Street crossing



Photo 29 – Pedestrians crossing between stopped cars at NW 66th Street crossing

- A transit patron was observed boarding Doral trolley at the trolley stop located west of NW 66th Street crossing (See **Photo 30**). It should be noted that the current location of the bus stop may create a multiple threat crash scenario where the bus masks visibility of the crossing pedestrian from eastbound vehicles.



Photo 30 – Transit patron about to board Doral Trolley

- Westbound queue spill back and vehicle stop blocking the crosswalk at NW 66th Street (See **Photo 31**).



Photo 31 – Westbound queue spill back at intersection of NW 66th Street and NW 107th Avenue

6.2.2 Saturday (11:00 AM – 12:00 PM) March 6th, 2021

Based on residents' feedback during the Public Workshop meeting, the field review also included the crossing located at the south end of NW 104th Path (Limestone Trail crossing).

- Traffic volumes were low at both crossing locations along NW 62nd Street.
- Pedestrian activity was observed at the Limestone Trail crossing south of NW 104th Path.
- The pedestrian activity at the Limestone trail crossing consisted of joggers and cyclists (See **Photos 32-33**).



Photo 32 – Cyclists crossing at Limestone Trail crossing



Photo 33 – Jogger crossing at Limestone Trail crossing

- Regulatory “Yield Here to Peds” (R1-5) signs are provided at the Limestone Trail crossing in both travel directions (See **Photos 34-35**). Please note that this is not the MUTCD standard for this type of crossing.

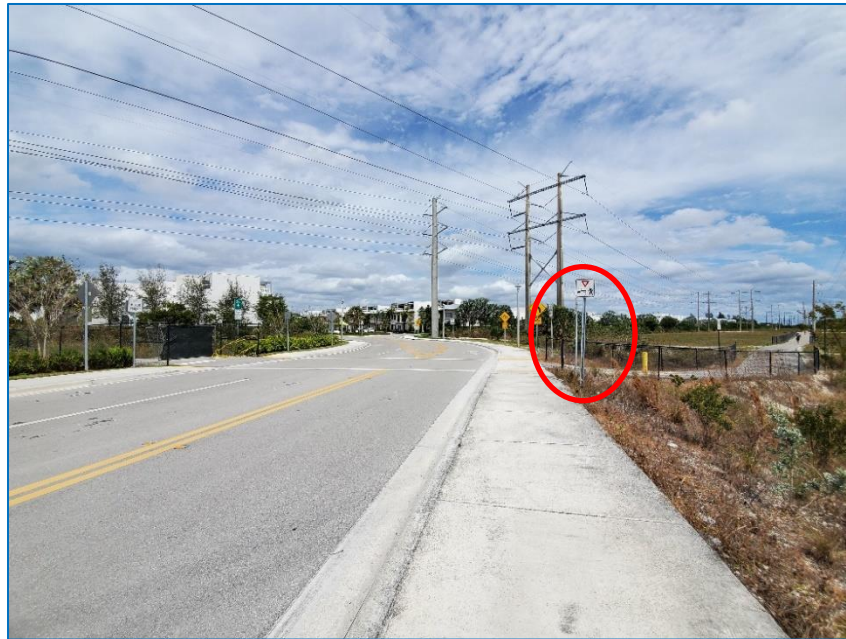


Photo 34 – Regulatory sign on northbound direction



Photo 35 – Regulatory sign on southbound direction

- The landscaped area adjacent to NW 104th Path on the west side creates a sight distance restriction for southbound vehicles along NW 104th Path approaching Limestone Trail crossing; arrow pointing at crossing location and circle on sight distance restriction (See **Photo 36**).

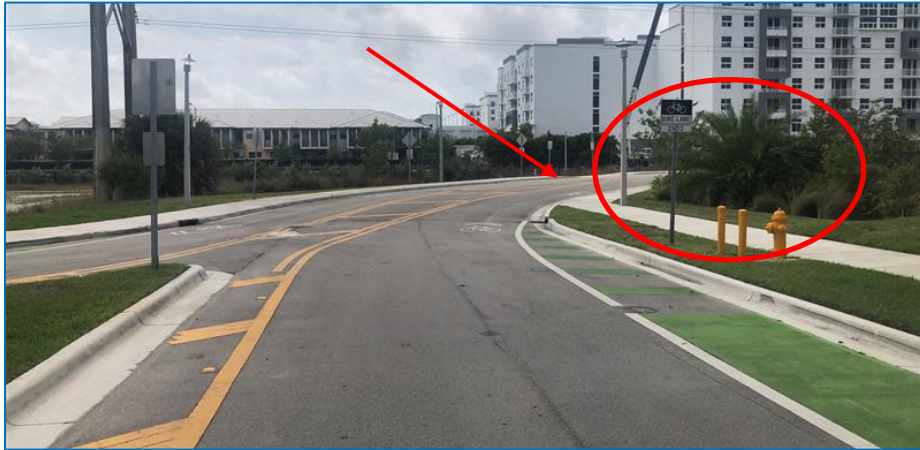


Photo 36 – Sight distance restriction for southbound approach to Limestone Trail crossing

- Regulatory “Yield Here to Peds” (R1-5) signs are provided in both travel directions for crossing at NW 62nd Street. Please note that this is not the MUTCD standard for this type of crossing. Regulatory sign for westbound approach is covered by landscape (See **Photos 37-38**).

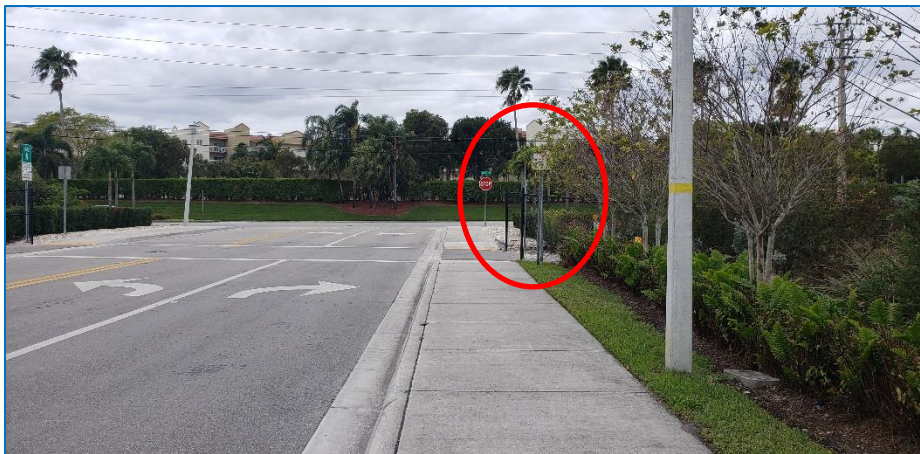


Photo 37 – NW 62nd Street crossing westbound with regulatory sign covered by landscape



Photo 38 – Regulatory sign at NW 62nd Street crossing eastbound

6.2.3 Tuesday (11:00 AM – 12:00 PM) March 9th, 2021

- Traffic volumes were moderate at NW 66th Street crossing and low at NW 62nd Street crossing.
- Low pedestrian crossing activity was observed for both crossings (3-6 peds/hr.).
- Pedestrian crossing activity consisted of joggers and cyclists.
- Pedestrian-vehicle conflicts were observed at NW 66th Street crossing.
- No pedestrian-vehicle conflicts were observed at NW 62nd Street crossing.
- In one occasion, a pedestrian was rushed to cross at NW 66th Street crossing by oncoming eastbound vehicle (See **Photo 39**).

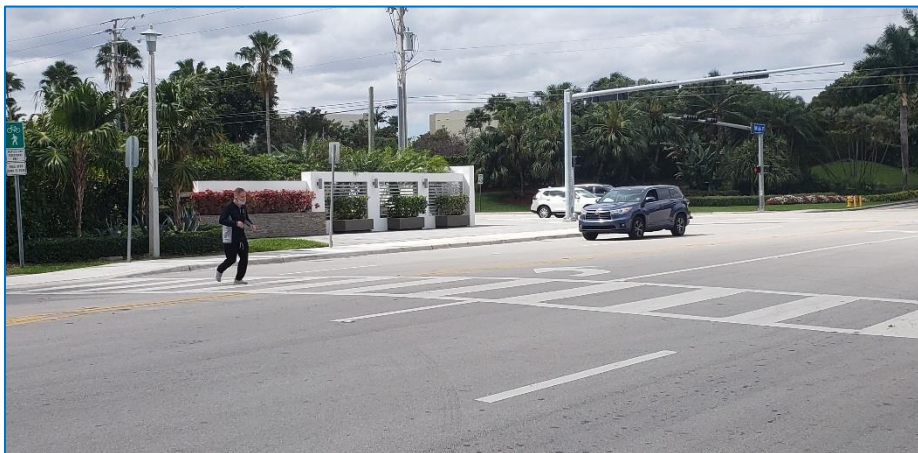


Photo 39 – Pedestrian rushing to cross NW 66th Street crossing

- Oncoming westbound vehicle stopped abruptly for crossing pedestrian at NW 66th Street crossing (See **Photo 40**).



Photo 40 – Oncoming vehicle stopped abruptly for crossing pedestrian at NW 66th Street crossing

- There are no pedestrian warning signs provided in either travel direction for the crossing at NW 66th Street (See **Photos 41-42**).



Photo 41 – NW 66th Street crossing (looking west)

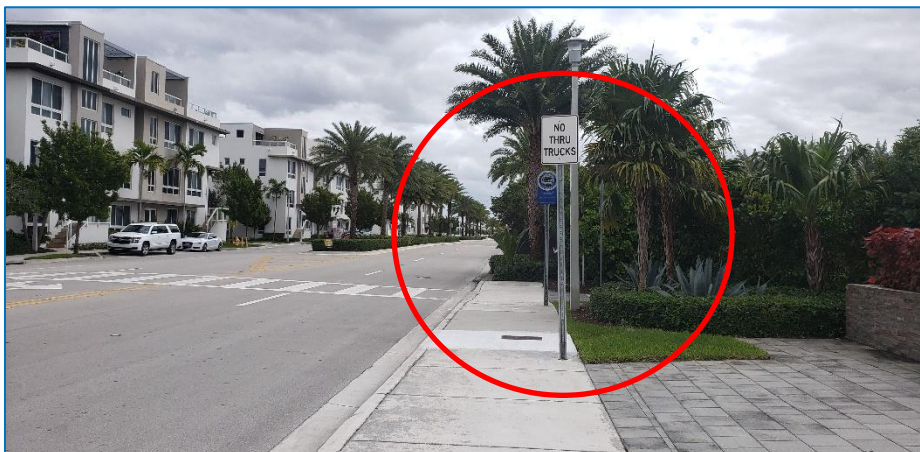


Photo 42 – NW 66th Street crossing (looking east)

7 EVALUATION OF TRAFFIC OPERATIONS - COMPLETE STREETS APPROACH

The evaluation of traffic operations along the study segment of NW 66th Street follows a Complete Streets approach. The Complete Streets approach calls for streets to be designed and operated to enable safe and convenient travel for all users including pedestrians, bicyclists, and transit riders. Also, a complete street is context sensitive. That is, the roadway design and operation align with the land use or surrounding environment.

7.1 NW 66th Street between NW 107th Avenue and NW 102nd Avenue

Based on roadway capacity and functional characteristics, the roadway segment of NW 66th Street is classified as a Collector street. This functional classification typically represents the role of the road in serving motor vehicles. Traditionally, the functional classification dictates the roadway design features, which focused on moving vehicles without consideration of the surrounding neighborhood.

The study segment of NW 66th Street traverses the residential community of Landmark at Doral, which is a newly developed neighborhood that offers pedestrian-oriented amenities and appears to be designed to enjoy the outdoors. The community has plenty of green spaces, a clubhouse featuring a pool, an amphitheater, a fitness center, etc. In addition, there is a shared use path that runs parallel to NW 107th Avenue bordering the community on the west side. All these attractions generate numerous trips on foot and bicycle use.

However, the NW 66th Street design features such as wide travel lanes, presence of continuous median, and long blocks with widely spaced intersections may encourage high speeds. With the construction of Landmark at Doral community featuring short setbacks abutting townhomes, on-street parking, and pedestrian oriented amenities, the street no longer aligns with the purpose it should serve. The lack of bicycle lanes and designated crosswalks, for example, may translate in higher vehicle speeds within the community.

The results of the speed study conducted along NW 66th Street revealed that the 85th percentile speed in the westbound direction was approximately 9 MPH higher than the 30 MPH posted speed limit. In order to obtain a reduction of operating speeds, some Complete Streets principles, including traffic calming measures were explored. This study focused on implementing appropriate roadway modifications so that the target speed of 30 MPH along NW 66th Street is achieved.

The Florida Design Manual describes some speed management strategies acknowledging that, in some cases, existing operating speeds exceed the target speed for conditions. Note in **Photo 43** how the drivers view of the street ahead appears limitless while traveling along NW 66th Street. As a speed management strategy, creating short blocks would influence the driver's perspective of the road ahead as motorists' expectations of encountering pedestrians and bicyclists, and even other vehicles increases. As a result, drivers tend to travel at a lower speed to be able to react and decide whether to stop or not.



Photo 43 – Note limitless view of drivers' perspective

The study segment was analyzed to determine the appropriate location to provide shorter street blocks with the implementation of marked crosswalks, which at the same time will provide convenient and accessible facilities for pedestrians. Based on the FDOT Context Classification Guide, July 2020 edition, this roadway segment would fall within a C4 (Urban General) category, which does not require a minimum volume of pedestrians for consideration of a marked crosswalk.

Two marked crosswalks were considered, each located approximately halfway between existing controlled intersections, one between NW 107th Avenue and NW 104th Avenue and the other one between NW 104th Avenue and NW 102nd Avenue. The west crossing would provide direct access to the Landmark Park/Playground Area located at NW 104th Path. The east crossing would serve as a designated crossing closer to the Landmark Clubhouse located near NW 102nd Avenue.

Since a marked crosswalk alone will not be sufficient for this roadway configuration, other treatments must be added to provide safety for pedestrians. The selection of additional treatments was based on guidance from the Manual on Uniform Traffic Control Devices (MUTCD), FDOT Traffic Engineering Manual (TEM), and the Florida Highway Administration (FHWA) Table 1 “Application of Pedestrian Countermeasures by Roadway Feature”. Table 1 is included in **Appendix F**.

Based on the TEM guidelines for the installation of pedestrian treatments, Rectangular Rapid Flashing Beacons (RRFB) would be the lowest level of traffic control device that may be considered. However, a number of factors may negatively affect the effectiveness of this treatment. Please note that FHWA Table 1 indicates that RRFB is a candidate treatment for a four-lane road with raised median when posted speeds are 35 MPH or less.

Although the posted speed in this segment is 30 MPH, the speed studies showed the 85th percentile speed close to 40 MPH. Please note in the same table that RRFB is not considered an appropriate treatment for this combination of roadway configuration and vehicle speed of 40 MPH. Therefore, a higher level of traffic control was considered.

Pedestrian Hybrid Beacon (PHB) is a more restrictive device than an RRFB. An example of an RRFB and a PHB are depicted in Figures 3 and 4, respectively. PHB warrants require a minimum of 20 pedestrians per hour. Although pedestrian counts were not performed along this segment, it is expected that with the high pedestrian activity in the area, with the provision of new crossings, a considerable number of pedestrians may choose to cross at the new controlled pedestrian crossings.

The greatest benefit of the PHB over RRFB is that it provides a “red” indication for vehicles to stop. On the contrary, the flashing yellow of the RRFB may be disregarded, especially by higher speed approaching vehicles that will simply not be able to stop on time. Therefore, a PHB is considered the appropriate traffic control device to be installed at the new considered marked crosswalks.



Figure 2. Rectangular Rapid Flashing Beacon



Figure 3. Pedestrian Hybrid Beacon

7.2 Intersection of NW 66th Street and NW 104th Avenue

As part of the analysis of speed management along NW 66th Street, the operation of the stop-controlled intersection of NW 66th Street and NW 104th Avenue was reviewed. During the field review, it was noticed that some eastbound vehicles either make a rolling stop or do not stop at the intersection. Two hours of the recorded videos for Tuesday, February 23rd were reviewed to observe the drivers' compliance at the stop location. The following is a summary of the observations:

- Between the hours of 10:00 AM and 11:00 AM
 - There was a total of 92 vehicles traveling eastbound during the period from 10:00 AM to 11:00 AM with approximately 42% of those vehicles not sufficiently stopping at the stop sign.
 - Nine (9) eastbound vehicles showed little to no deceleration in speed when going through the stop location.
 - Twenty-nine (29) eastbound vehicles performed a rolling stop.
- Between the hours of 11:00 AM and 12:00 PM
 - There was a total of 91 vehicles traveling eastbound during the period from 11:00 AM to 12:00 PM with approximately 35% of vehicles not sufficiently stopping at the stop sign.
 - Nine (9) eastbound vehicles showed little to no deceleration in speed when going through the stop location.
 - Twenty-two (22) eastbound vehicles performed a rolling stop.

The field review performed during school hours also revealed that there was hesitation at the stop location as to which vehicle should go first after making their stop at the intersection since there are seven approaching lanes at the intersection. Note that due to the higher traffic volume during school hours, a higher number of vehicles arrive at the intersection at the same time when compared to other hours during the day. Some conflicts between the eastbound left turning vehicles and westbound through vehicles were observed. This condition is exacerbated due to the high number of pedestrians using the crosswalk during the same period, especially school children. Although the school crossing guard is present during arrival and dismissal periods, the high vehicle and pedestrian traffic appears to warrant a higher level of traffic control device.

Based on Warrant 5, *School Crossing* of the MUTCD, a traffic signal should be considered when 1) the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period and 2) there are a minimum of 20 schoolchildren during the highest crossing hour. Since this is stop controlled intersection, the condition associated with available gaps is not applicable. The second condition, which requires 20 school children during the highest crossing hour is met. In this case, consideration for traffic signal installation is primarily made on the basis of improving pedestrian safety, especially the safety of schoolchildren at the intersection. A traffic signal would also assign the right of way to vehicles, eliminating driver confusion and hesitation during the hours of higher traffic volumes. Considering these factors, a traffic signal is recommended for installation as it would improve the overall safety and operation of the intersection.

8 TRAFFIC CALMING EVALUATION

The evaluation of the need and applicability of traffic calming measures along the study segments follows both the Miami-Dade County Criteria for Traffic Calming Measures as well as the City of Doral Traffic Calming Criteria. The latter expands on the existing MDC Criteria and it emphasizes pedestrian safety. As such, vehicle speeds and the environs (context of the street) are more heavily weighted. Even so, the MDC criteria must be met in order to determine whether traffic calming measures are warranted. Based on the results of the speed studies, three roadway segments were analyzed:

- NW 66th Street from NW 102nd Avenue to NW 107th Avenue
- NW 104th Avenue from NW 66th Street to NW 74th Street
- NW 104th Path from NW 62nd Street to NW 66th Street

The following subsections provide the detailed review of each roadway segment for traffic calming need and applicability.

8.1 NW 66th Street between NW 107th Avenue and NW 102nd Avenue

The MDC Policy on Traffic Calming Measures is summarized in **Table 6**. In order for the Public Works Department to consider traffic calming measures, the street must meet the first criteria (i.e., Vehicular Volume) and at least one of the remaining criterions.

It should be noted that existing standards allow a reduction in traffic volume and 85th percentile speed requirements for communities within the County that fund their respective traffic calming programs, which is the case of City of Doral. These reduced threshold values are also included in Table 6.

Table 6. Miami-Dade County Policy on Traffic Calming Measures

Criterion	Residential Local Street	Residential Collector Street
Minimum Traffic Volume ¹ (Miami-Dade County)	>1,500 VPD <3,000	>3,000 VPD <8,000
	>150 VPH <300	>300 VPH <800
Minimum Traffic Volume (City of Doral)	>1,050 VPD <3,000	>2,100 VPD <8,000
	>105 VPH <300	>210 VPH <800
85th Percentile Speed ¹ (Miami-Dade County)	10 mph > speed limit	10 mph > speed limit
85th Percentile Speed (City of Doral)	5 mph > speed limit	5 mph > speed limit
Correctable Accidents per year	>3	>6
Cut-through Traffic during the a.m. or p.m. peak hour	>25%	>50%
Pedestrian Crossing Volume during the a.m. or p.m. peak hour	>25	>50
Concurrence from affected residents/property owners	2/3 of returned ballots	2/3 of returned ballots

Based on roadway capacity and functional characteristics, NW 66th Street is classified as a Residential Collector Street. According to Table 6, the minimum traffic volume for this type of street must be greater than 3,000 vpd. The traffic data collection conducted for three consecutive days indicates that NW 66th Street had an average daily volume of 5,833 vpd east of NW 104th Avenue and 4,910 vpd west of NW 104th Avenue.

The pedestrian crossing volume criterion (> 50 pph) is also met with a maximum of 52 pedestrians crossing NW 66th Street during the morning peak hour on Wednesday, February 23rd, 2021. It is worth noticing that the 85th percentile speed along this segment (39 MPH) is only one (1) MPH shy of meeting the speed criterion. Therefore, the segment of NW 66th Street between NW 107th Avenue and NW 102nd Avenue meets the MDC eligibility criteria for traffic calming measures. The City of Doral criteria on the same table is also met.

The City of Doral Criteria was also reviewed to determine whether the street can qualify for traffic calming installation based mostly on pedestrian safety and livability factors. The City of Doral criteria is a point-based system as shown in **Table 7**. The street must score 10 points or more for traffic calming consideration.

Based on the data collection, the study segment of NW 66th Street meets the criteria for the implementation of traffic calming measures with a score of 13.5 points. It should be noted that speed is the main factor contributing to this score accounting for eight (8) points out of the total 13.5 points.

Table 7. City of Doral Traffic Calming Criteria and Thresholds

	Narrow Residential Local Street	Residential Local Street	Residential Local Collector Street	Points
Daily Volume	0 to 500 VPD	0 to 1,000 VPD	0 to 2,000 VPD	0
	501 to 750 VPD	1,001 to 1,250 VPD	2,001 to 2,500 VPD	1
	751 to 1,100 VPD	1,251 to 1,750 VPD	2,501 to 3,000 VPD	2
	1,101 to 1,700 VPD	1,751 to 2,500 VPD	3,001 to 4,000 VPD	3
	1,701 to 2,300 VPD	2,501 to 3,000 VPD	4,001 to 5,000 VPD	4
	> 2,300 VPD	> 3,000 VPD	5,001 to 8,000 VPD	5
85th Percentile Speed	0 to 1.0 MPH > speed limit			0
	1.1 to 2.0 MPH > speed limit			1
	2.1 to 3.0 MPH > speed limit			2
	3.1 to 4.0 MPH > speed limit			3
	4.1 to 5.0 MPH > speed limit			4
	5.1 to 6.0 MPH > speed limit			5
	6.1 to 7.0 MPH > speed limit			6
	7.1 to 8.0 MPH > speed limit			7
	8.1 to 9.0 MPH > speed limit			8
	9.1 to 10.0 MPH > speed limit			9
	> 10.0 MPH > speed limit			10
Presence of Pedestrian Facilities	Both sides			0
	One side			1.5
	None			3
Pedestrian Generators	Schools within 0.5 mile (each)			1
	Parks within 0.5 mile (each)			0.5
	Transit lines with stops within 0.5 mile (each)			0.5
Driveway Density	≥ 10 Driveways per 500 feet (Circular driveways should be considered as one)			1
Number of correctable crashes	≥ 3 per year		≥ 6 per year	5

The review of the City of Doral Criteria indicates that speeds higher than the posted speed along this segment of NW 66th Street is a safety issue, especially due to the short setback of the abutting houses and the presence of a school and park/walking areas in the community, which attract and generate considerable pedestrian traffic. Several traffic calming measures were reviewed in detail. Their applicability and other considerations are summarized in **Table 8**.

Table 8. Traffic Calming Measures

Traffic Calming Measure	Applicability	Considerations
Speed Feedback Signs	Applicable	Possible treatment with relatively low implementation cost
Speed Hump/Speed Table	Not Applicable	FHWA, MDC, and City of Doral Criteria limits their use to two lane road (one lane in each direction) See Appendix G for excerpts of MDC criteria
Traffic Circle/Mini Roundabout	Not Applicable	Limited right of way and land use built out to the maximum extent
Chicanes	Not Applicable	Limited right of way and land use built out to the maximum extent
Road Diet	Applicable	Possible treatment when reducing lane width. Road diet that requires lane elimination must follow MDC Policy
Raised Intersection	Not Applicable	MDC Policy on Traffic calming measures does not include this treatment
Multi-Way Stop Control	Applicable	This treatment is possible only if MUTCD warrants are met. Based on field observations, intersection traffic volumes are low and would not meet MUTCD warrants. See Appendix G for excerpts of MDC criteria

Based on Table 8, traffic calming measures that are candidate treatments for installation along the study segment of NW 66th Street are Speed Feedback Signs, Road Diet, and Multi-Way Stop Control. Considering that the obtained 85th percentile speed was 39 MPH in the westbound direction and 35 MPH in the eastbound direction, speed feedback signs should be considered for installation on both travel directions.

The Road Diet measure was reviewed in more detail. The lane width reduction and possibility of installing a 4-foot bike lane was analyzed. The TEM specifies that when on-street parking is present, the provision of a bike lane requires a 3-foot buffer between the parking lane and bicycle lane to minimize impacts with parked vehicles (e.g., door zone avoidance). Since the available roadway pavement is 24 feet, only 17 feet will be left if a bicycle lane were to be installed, which is not enough to provide two through lanes. Therefore, the Road Diet treatment is not feasible in this case.

The Multi-Way Stop Control option was also considered in response to the Landmark at Doral Public Comment and Final Request document (See **Appendix H**). The petition references the intersections of NW 66th Street at NW 102nd Path and NW 66th Street at NW 105th Ct. However, the use of this regulatory traffic device is restricted to locations where MUTCD warrants are met. Field observations revealed that side street traffic is low and would not meet MUTCD volume warrants. The MUTCD warrants also requires a history of crashes at the location in order to consider the use of Multi-Way Stop Control as a safety measure. The review of crash history along NW 66th Street showed no crashes at these locations. For these reasons, the installation of Multi-Way Stop Control is not recommended at this time.

8.2 NW 104th Avenue from NW 66th Street to NW 74th Street

The speed study showed that the 85th percentile speed along this segment of NW 104th Avenue was 37 MPH in the southbound direction. The speed limit along this segment is 30 MPH. The adjacent land use consists of gated communities on both sides of the road and two vacant parcels on the east side, one halfway between NW 66th Street and NW 74th Street and one closer to NW 74th Street. The townhomes inside the communities are setback a considerable distance from the traveled way. The roadway segment does not meet the MDC criteria.

It should be noted that there is no speed limit signs within this segment. In addition, the field review did not reveal a considerable pedestrian activity along NW 104th Avenue, except for the school area near NW 66th Street during arrival and dismissal times. Therefore, it is recommended to install speed limit signs (30 MPH) along this segment of NW 104th Avenue as a first stage on reducing operating speeds.

The City should monitor the speed after the installation of speed limit signs, and if the high speeds continue to be an issue, speed feedback signs should be considered for installation.

8.3 NW 104th Path between NW 66th Street and Limestone Trail

The speed study showed that the 85th percentile speed was 27 MPH in the southbound direction within this segment of NW 104th Path. The posted speed limit for this segment is 20 MPH. The context of this segment is similar to NW 66th Street, but the roadway is classified as a Residential Local Street.

A review of the MDC requirements for traffic calming installation indicates that this segment does not meet the MDC criteria (Table 6). The reduced volume criterion established by City of Doral shown in Table 6 and the City of Doral Traffic Calming volume criterion in Table 7 are not met. Traffic volumes do not reach the minimum requirement of 1,000 vpd. The maximum vehicular volume obtained on this road was 581 vehicles per day. It is important to note that current traffic volumes might not be a true reflection of normal conditions due to the impacts of the coronavirus pandemic. Thus, considering the unique surroundings of this road, which has a wide median (60 feet) that functions as a park/recreational area, the on-street parking, the bicycle lane and pedestrian crossings, the roadway should be considered for traffic calming installation.

The MDC guidelines for speed hump/bump was used as a guide to determine whether speed humps would be a proper traffic calming device for this road. Since NW 104th Path is a one lane road in each direction, speed humps may be a potential device. Although the eligibility criteria also require concurrency of two-thirds of the residents and approval of potentially affected agencies such as the Fire Department, the potential location of speed humps was analyzed in case a decision is made to proceed with the implementation process. The potential location of speed humps takes into consideration the existing location of fire hydrant, parking spaces, manholes, light poles, etc. as shown in **Figure 4** on the next page.



Figure 4. Speed Hump Advance Warning Markings

9 SAFETY EVALUATION OF SHARED-USE PATH CROSSINGS

A Shared-use path stretches approximately one (1) mile and runs parallel to NW 107th Avenue on the east side from NW 58th Street to NW 74th Street. The pedestrians/bicyclists safety at the junctions of the shared use path with NW 66th Street and NW 62nd Street was evaluated and it is documented in the following sections.

9.1 Shared Use Path Crossing at NW 66th Street

The shared-use path crosswalk on NW 66th Street is located approximately 100 ft east of the signalized intersection at NW 107th Avenue and it is placed over the westbound left turn lane at the intersection. Several vehicle-pedestrian conflicts were observed during the field review period. No warning signs or crosswalk visibility measures/enhancements other than high emphasis crosswalk markings are provided. The short distance to the NW 107th Avenue intersection makes it very difficult for pedestrians to find an adequate and safe gap to cross as there are numerous potential conflict points at the crosswalk location and standing queues from the signal blocks the crosswalk frequently.

The option of signalizing the shared-use path crosswalk was evaluated. The intent was to provide a signalized control of the crosswalk coordinated with the signal at the intersection of NW 107th Avenue. The signal operating plans/timings were reviewed to determine the feasibility of this option. Note that this would require the installation of stop bar for eastbound and westbound vehicles at the path crossing, and a signal structure for placement of the overhead traffic signals. To provide adequate visibility to drivers, the MUTCD requires a minimum distance of 40-feet between the signal heads and stop bar, leaving little space between the intersection and crosswalk stop bar for eastbound vehicles. This is a major drawback of this option. The northbound right turning vehicles would have to stop immediately after completing their turn, which may cause rear end crashes on that lane due to the unexpected stop of the first vehicle at the stop bar. Also, extended westbound queues at the intersection may potentially end up sitting on top of the path crosswalk during peak traffic periods. Therefore, considering the downsides and that this operation may have much more of an impact than the existing conditions, this option was not further evaluated.

Alternatively, the realignment of the shared-use path was also evaluated. Crossing NW 66th Street at the signalized intersection of NW 107th Avenue would allow the removal of the path crosswalk and would eliminate the existing safety issues at the current path crossing location. At the intersection, pedestrians and bicyclists would have a clear assignment of right of way and would be more visible to northbound right turning vehicles and southbound left turning vehicles during the permissive phase operation. It should be noted that the intersections north and south of NW 66th Street along NW 107th Avenue (NW 74th Street and NW 58th Street) both provide a shared-use path alignment where users are brought to the controlled crosswalk location. It is also noted that Landmark entry feature at the intersection may be impacted by the implementation of this alternative.

9.2 Shared Use Path Crossing at NW 62nd Street

The shared use path crosswalk is located approximately 80 feet from the east crosswalk at the unsignalized intersection of NW 62nd Street and NW 107th Avenue. Standard (parallel lines) crosswalk pavement markings are provided. Also, Yield Here to Pedestrians (R1-5) signs are provided on both the eastbound and westbound approaches of the crossing. It is noted that the use of these signs does not conform to MUTCD standards for a shared-use path crossing.

Field review observations revealed that westbound traffic volumes at the intersection of NW 62nd Street and NW 107th Avenue were low. Sight distance for pedestrians/bicyclists to see oncoming traffic is adequate. However, visibility of the existing signs for westbound vehicles is limited due to overgrown landscape.

It should be noted that this shared use path crossing has less pedestrian/bicyclist demand than the adjacent shared-use path crossing located approximately 600 feet to the east at Limestone Trail. No conflicts between vehicles and pedestrians/bicyclists were observed at this location during the field review periods.

Based on the field review observations, it is recommended to install Bicycle/Pedestrian (W11-15) sign, Trail Crossing Plaque (W11-15P), and Downward Diagonal Arrow Plaque (W16-7P) at the path crossing facing traffic on the eastbound and westbound approaches. Also, as a pedestrian safety enhancement, it is recommended to provide high emphasis crosswalk markings to increase visibility of the crosswalk. In addition, trimming of the adjacent landscape that is obstructing visibility of the signs for westbound vehicles is recommended.

9.3 Shared Use Path Crossing at Limestone Trail

The shared use path crosswalk is located within an existing horizontal curve at the south end of NW 104th Path. Standard (parallel lines) crosswalk pavement markings are provided at this location. Also, Yield Here to Pedestrians (R1-5) signs are provided on both the northbound and southbound approaches of the crossing. Curve (W1-2) signs with 20 MPH advisory speed plaque (W13-1P) are provided for northbound and southbound traffic. However, the Curve sign and advisory speed plaque assembly for southbound vehicles are obstructed by landscaped area on the west side of the road.

Noticeable pedestrian/bicyclist activity was observed at this crosswalk location. Therefore, it is recommended to realign/redesign shared use path so that the crosswalk is not within the horizontal curve. As a short-term solution, it is recommended to remove the landscaping area on the west side of the road that is obstructing the pedestrian/bicyclist's view. It is also recommended to install high emphasis crosswalk markings to increase visibility of the crossing.

10 SUMMARY OF FINDINGS AND RECOMMENDATIONS

This report includes the data gathering efforts and analysis to determine the need and proper implementation of traffic calming devices along NW 66th Street. It also includes an operations and safety evaluation of the shared-use path crossings on NW 66th Street and the two crossings on NW 62nd Street. The analysis followed a Complete Streets approach, in which the safety and accommodation of all road users is considered based on the surrounding environments.

The speed studies revealed that the 85th percentile speed of westbound vehicles along the roadway segment of NW 66th Street was 9 MPH higher than the posted speed limit of 30 MPH. The 85th percentile speed for the other two study segments along NW 104th Avenue and NW 104th Path was each 7 MPH higher than the posted speed limit of 30 MPH and 20 MPH, respectively.

The MDC and City of Doral Traffic Calming Criteria were reviewed to determine whether traffic calming measures are warranted along these three (3) segments:

- 1) NW 66th Street from NW 102nd Avenue to NW 107th Avenue
- 2) NW 104th Avenue from NW 66th Street to NW 74th Street
- 3) NW 104th Path from NW 62nd Street to NW 66th Street

The review indicated that the segment along NW 66th Street meets both the MDC criteria and the City of Doral criteria for traffic calming installation. Speed feedback signs were considered as a potential traffic calming measure to be installed along NW 66th Street on both travel directions.

The Complete Streets evaluation revealed that the existing roadway configuration might be a contributing factor for the high vehicle speeds. That is, the widely spaced intersections, continuous median, straight flat sections and the lack of designated crosswalks and bicycle facilities along NW 66th Street may encourage high speeds.

In order to provide access and facilitate crossings of NW 66th Street, two marked crosswalks equipped with Pedestrian Hybrid Beacons were considered for installation. It should be noted that the implementation of those two crossings would also help reduce vehicles speed along the segment of NW 66th Street by creating shorter blocks that limit the driver's perspective of the street ahead.

As part of the evaluation, traffic operations and pedestrian safety at the stop-controlled intersection of NW 66th Street and NW 104th Avenue was reviewed. Field review and video recording observations revealed that a considerable number of vehicles either made a rolling stop or did not stop at the intersection. Furthermore, vehicles were observed hesitating (at stand-still) on when to proceed after making a stop since multiple vehicles arrive at the intersection at the same time.

This condition is exacerbated during the school (Doral International Math and Science Academy) arrival and dismissal periods when a significant number of schoolchildren and parents are crossing NW 66th Street at the intersection. During this period, the northbound left turn lane extended queue from the school creates long standing queues on the eastbound left turn lane and westbound outside lane at the intersection. Conflicts between eastbound left turning vehicles

and westbound through vehicles occurred since left turning vehicles “compete” with the westbound right turning vehicles for a place at the northbound built-up queue from the school. Furthermore, some drivers were observed disregarding the school cross guard instructions to fully stop at the intersection.

Based on these findings, a traffic signal control was considered to replace the existing All Way Stop controlled operation at the intersection. A traffic signal would effectively assign the right of way to vehicles eliminating driver confusion and hesitation during the hours of higher vehicle and pedestrian traffic volumes. It would also improve pedestrians/bicyclist’s safety at the intersection.

The operation and safety review of the shared use path crossing at NW 66th Street indicated that the current location (~ 100 feet from NW 107th Avenue intersection) of the crossing makes it very difficult for pedestrians to find a safe and adequate gap to cross NW 66th Street. At this location, there are multiple pedestrian-vehicle conflict points. To add on, westbound left turning vehicles at the intersection occasionally block the crossing. It is also noted that the existing signage (regulatory signs) is not the MUTCD standard pedestrian yellow warning signage for this type of crossing.

Similarly, the other two shared use path crossings on NW 62nd Street are provided with the same type of signage as the one on NW 66th Street. It should be noted that the Limestone Trail crossing is located on a horizontal curve where adjacent landscape restricts sight distance to pedestrians at the crossing. The field review revealed that this crossing has more pedestrian/bicyclist activity than the one closer to NW 107th Avenue. No conflicts or safety issues were identified at the crossing located near NW 107th Avenue.

Based on the analysis, the following recommendations are made to improve operations and safety along the study segments and the shared use path crossings:

Segment NW 66th Street from NW 107th Avenue to NW 102nd Avenue

- ✓ Install high emphasis crosswalk equipped with Pedestrian Hybrid Beacon at
 - NW 66th Street and NW 104th Path
 - NW 66th Street b/w NW 103rd PI and NW 102nd Path

Please note that the installation of these crossings requires elimination of some on-street parking spaces on both sides of the road.

- ✓ Install Traffic Signal with pedestrian push button at the intersection of NW 66th Street and NW 104th Avenue
- ✓ Install shared lane markings (Sharrows) on both travel directions along NW 66th Street
- ✓ Consider installing speed feedback signs along NW 66th Street for both travel directions

Segment NW 104th Path from NW 66th Street to Limestone Trail

- ✓ Install Speed Humps for northbound and southbound travel directions (see Figure 3)
 - Midblock b/w NW 66th Street and NW 64th Ln
 - Midblock b/w NW 64th Ln and south end of NW 104th Path

Segment NW 104th Avenue from NW 66th Street to NW 74th Street

- ✓ Install Speed Limit Signs (30 MPH) for northbound and southbound traffic
- ✓ Monitor speed and if speeds continue to be an issue, install Speed Feedback signs

Shared Use Path crossing at NW 66th Street

- ✓ Realign/Redesign shared use path so that pedestrians/bicyclists use the east crosswalk at the signalized intersection of NW 107th Avenue

Shared Use Path crossing at NW 62nd Street

- ✓ Install high emphasis crosswalk markings
- ✓ Install Bicycle/Pedestrian (W11-15) sign, Trail Crossing Plaque (W11-15P), and Downward Diagonal Arrow Plaque (W16-7P) at the path crossing facing eastbound and westbound traffic (per MUTCD Chapter 9, Section 9B.18)
- ✓ Regular trimming of trees adjacent to the signs located on the north side of NW 62nd Street to improve visibility of the signs for westbound vehicles

Shared Use Path crossing at Limestone Trail

- ✓ Realign/Redesign shared use path so that the crosswalk is not within the horizontal curve
- ✓ As a short-term solution, remove landscaping on the west side of NW 104th Path that is restricting sight distance for pedestrians at the crosswalk and install high emphasis crosswalk markings and standard signs for shared use path per MUTCD Section 9B.18

Reviewed by:



APPENDIX A

Public Workshop Meeting Minutes



MINUTES

CITY OF DORAL

LANDMARK TRAFFIC CALMING STUDY – PUBLIC WORKSHOP

Wednesday, March 4, 2021

6:00 pm

VIRTUAL - GoToMeeting

1. Meeting was called to order at: 6:05 PM

2. Individuals present:

Carlos Arroyo – Public Works Director
Eugene Collings-Bonfill – Public Works Assistant Director/Chief of Engineering
Rita Carbonell – Transportation Manager
Javier Gonzalez – Acting Planning & Zoning Director
Sargent Javier De La Paz – Doral Police Department
Officer Luis Martinez – Doral Police Department
Dr. Elio Espino – A&P Consulting Transportation Engineers
Residents (*see attached sign-in sheet generated by GoToMeeting*)

3. Item(s) discussed:

The Public Workshop began with Rita Carbonell introducing the project team and welcoming the participants for attending the Public Workshop and setting the ground rules for the virtual meeting. Rita then introduced Dr. Elio Espino.

Elio Espino gave a brief presentation discussing the study purpose and objective, the previous involvement with the community, previous data collection efforts, the study process, and the project's next steps. Attendees were also given the opportunity to ask questions or provide their concerns.

The following notes/comments were record as express by the attendees:

- 45 residents have a concern of speeding on NW 66 Street from 3-4 PM, sometimes 4-6 PM, and more frequently than not 1-4 AM and concerns of vehicles having muffler modifications that sound like a “gunshot”
- Speeding on NW 66 St/NW 104 Avenue and violations of traffic signs on traffic traveling eastbound on NW 66 Street
- Traffic jams on NW 102 Avenue leading vehicles to cut through traffic and speeding the community
- Speeding increases probability of accidents
- In the last month alone, there was one incident of a hit-and-run of a household pet and three (3) almost accidents due to speeding
- There is an opinion that it is only a matter of time before it escalates from a household pet incident to a child or resident
- The Neighborhood Action Group (NAG) has prepared a report that they will share
- Speeding on the alleyways of NW104 Path, NW 104 Avenue, NW 66 Street, NW105 Court, and NW 67 Street
- Based on evidence on their experience, a raised intersection is recommended on NW 66 Street/NW 104 Avenue, speed tables on NW 66 Street, reduce speed limit to 20 MPH on all major arteries, add 2-3 more stop signs on NW105 Court, NW 63 Terrace, and NW 67 Street, reduce the sides of NW 66 Street to add new bike lanes, add 2-3 more crosswalk on NW 66 Street, add pedestrian or cycling beacon lights at the bike path of NW 66 Street/NW 107 Avenue and at Limestone Trail Entrance (NW 104 Path/NW 107 Avenue), and lastly additional lights and roundabout to the connector of NW 66 Street
- Is it possible to get more signs around the whole community?
- The bike path on NW 66 Street is very dangerous. Cars stop abruptly because someone is crossing, it is a blind spot. Need a solution before there is a crash or someone gets hit by a car.
- Plan is great and happy that there is something in the works, but we need something in the meantime. We need a temporary solution now.
- Doral Police suggest holding an association meeting to discuss the speeding problem and bringing awareness to the community which may be causing the speeding.
- How long before we can expect the final results? In the meantime, something the City can do.
- Is there any way Police could do enforcement during the morning and afternoon in the community?
- Is there any possibility of implementing the signs and enforcing the rules?
- A suggestion for an all-way stop at the intersections of NW 66 Street/NW 102 Court and NW 66 Street/NW 105 Court.
- The Community can hire a traffic consultant through the CDD to conduct study on the private roadways.
- What is the expected timeline for this process in terms of a concrete date?
- What are the expectations of the construction of these traffic calming devices?
- Doral Police stated that the main intent of NW 66 Street and NW 104 Avenue is to provide connection from the major roadway arteries.
- We need to make NW 66 Street safe for all modes of traffic including pedestrian and bicyclists who live in the area.

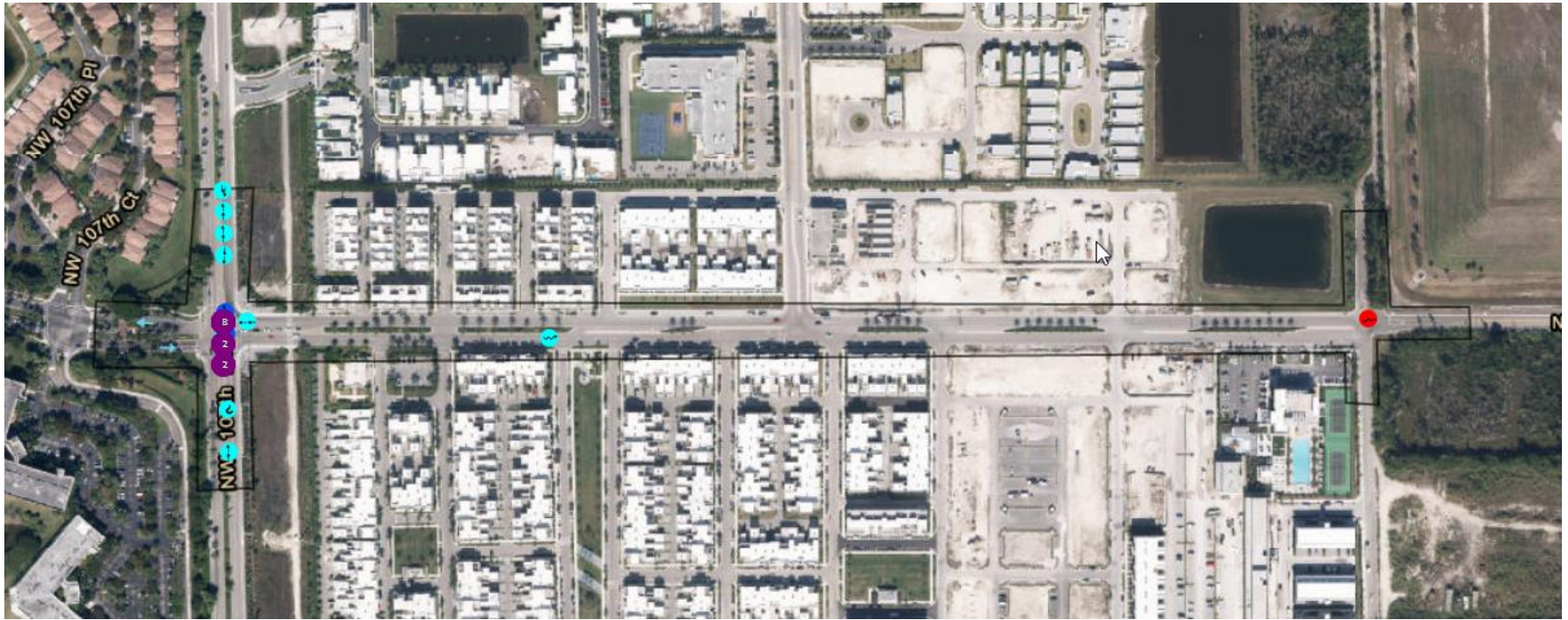
- The remaining avenue and alleyways that feed into NW 66 Street are not collectors and are part of the community. The impact of NW 66 Street impacts these other streets.
- Education is key but if people do not attend the education session nothing will happen. People are impacted by the information when they need to pay tickets or get points on their licenses.
- The data was collected in May when traffic was impacted by COVID.
- What are the interim solutions, before construction can take place?
- In the project schedule, you will be going to Council and then back to the community?
- What is the temporary solution of the crosswalk heading westbound closer to NW 107 Avenue on NW 66 Street to minimize the speeding over the crosswalk?
- Can residents create signs to remind drivers that there are blind spots, precede with caution, slow down, or stop when pedestrians are crossing the road, as a reminder to be more patient?
- During school hours, the intersection of NW 104 Avenue/NW 66 Street, was that considered in the survey because during the afternoon school hours that road is blocked? Since NW 104 Avenue is one lane, so people trying to go through the community cannot because the lanes are blocked and causes traffic to drive in the opposing lanes. On NW 66 Street, the turning lane is blocked trying to head to NW 104 Avenue and this causes cars that are waiting behind to speed through the stop sign and possibly causing dangers there. Was this considered in the survey as well?
- At 2:30 PM or 3:30 PM when the school on NW 104 Avenue is dismissing, the parents will come along NW 66 Street and block the intersection of NW 66 Street/NW 104 Avenue. There is police in front of the school but there is no one on /NW 104 Avenue/NW 66 Street to prevent them from parking on the turning lane and prevents other cars from going north on NW 104 Avenue.
- What can the City do to lessen the congestion during school dismissal?

4. The meeting adjourned at: 7:30 PM

APPENDIX B

Signal Four Analytics Crash Data

HSMV_Report_Number	Agency_Report_Number	Reporting_Agency	Crash_Date	Crash_Time	City	County	Crash_Street	Intersecting_Street	Crash_Type	Vehicles	Non_Motorists	Fatalities	Injuries	Weather_Condition	Light_Condition	Crash_Severity	Type_of_Shoulder	Road_Surf_Cond
87003489	1.80E+11	Doral PD	1/8/2018	1:52 PM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Rear End	2	0	0	1	Clear	Daylight	Injury	Paved	Dry
87003810	1.80E+11	Doral PD	2/8/2018	9:17 PM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Left Turn	3	0	0	0	Clear	Dark - Lighted	Property Damage Only	Paved	Dry
87003970	1.80E+11	Doral PD	2/26/2018	8:16 AM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Rear End	2	0	0	0	Clear	Daylight	Property Damage Only	Curb	Dry
87722528	1.80E+11	Doral PD	3/21/2018	8:06 AM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Rear End	2	0	0	0	Clear	Daylight	Property Damage Only	Paved	Dry
87722742	1.80E+11	Doral PD	4/13/2018	10:04 AM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Rear End	2	0	0	0	Clear	Daylight	Property Damage Only	Paved	Dry
87723264	1.81E+11	Doral PD	6/2/2018	3:00 PM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Off Road	1	0	0	0	Clear	Daylight	Property Damage Only	Paved	Dry
87723474	1.81E+11	Doral PD	6/26/2018	1:44 PM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Sideswipe	2	0	0	0	Clear	Daylight	Property Damage Only	Paved	Dry
87724279	1.81E+11	Doral PD	9/15/2018	8:18 PM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Angle	2	0	0	0	Clear	Dark - Lighted	Property Damage Only	Paved	Dry
87724724	1.81E+11	Doral PD	10/25/2018	5:44 PM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Rear End	2	0	0	2	Clear	Daylight	Injury	Paved	Dry
87725219	1.81E+11	Doral PD	12/10/2018	3:09 PM	Doral	Miami-Dade	NW 66TH ST	NW 107TH AVE	Pedestrian	1	1	0	2	Clear	Daylight	Injury	Curb	Dry
87725265	1.81E+11	Doral PD	12/13/2018	4:38 PM	Doral	Miami-Dade	NW 66TH ST	NW 107TH AVE	Bicycle	1	1	0	0	Clear	Daylight	Property Damage Only	Curb	Dry
88807761	1.90E+11	Doral PD	1/8/2019	4:39 PM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Sideswipe	2	0	0	0	Clear	Daylight	Property Damage Only	Curb	Dry
88807964	1.90E+11	Doral PD	1/28/2019	7:45 AM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Rear End	2	0	0	0	Cloudy	Dusk	Property Damage Only	Paved	Dry
88808618	190330-005927	Doral PD	3/30/2019	3:37 AM	Doral	Miami-Dade	NW 102ND AVE	UK	Other	1	0	1	0	Clear	Dark - Lighted	Fatality	Paved	Dry
88808835	1.90E+11	Doral PD	4/18/2019	6:00 PM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Rear End	2	0	0	0	Clear	Daylight	Property Damage Only	Paved	Dry
88809633	1.91E+11	Doral PD	7/3/2019	3:30 PM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Rear End	2	0	0	0	Cloudy	Daylight	Property Damage Only	Paved	Dry
88810125	1.91E+11	Doral PD	8/22/2019	10:19 AM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Rear End	2	0	0	0	Clear	Daylight	Property Damage Only	Paved	Dry
88810392	1.91E+11	Doral PD	9/16/2019	6:11 PM	Doral	Miami-Dade	NW 66TH ST	NW 107TH AVE	Rear End	2	0	0	0	Clear	Daylight	Property Damage Only	Paved	Dry
89324446	1.91E+11	Doral PD	10/6/2019	2:32 AM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Angle	2	0	0	0	Rain	Dark - Lighted	Property Damage Only	Paved	Wet
89324653	1.91E+11	Doral PD	10/26/2019	11:50 AM	Doral	Miami-Dade	NW 66TH ST	NW 107TH AVE	Other	1	0	0	0	Clear	Daylight	Property Damage Only	Curb	Dry
89324682	1.91E+11	Doral PD	10/29/2019	5:45 PM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Rear End	2	0	0	0	Clear	Daylight	Property Damage Only	Paved	Dry
89325365	2.00E+11	Doral PD	1/6/2020	8:12 AM	Doral	Miami-Dade	NW 66TH ST		Other	1	0	0	0	Clear	Daylight	Property Damage Only	Paved	Dry
89326496	2.01E+11	Doral PD	6/25/2020	3:20 PM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Rear End	2	0	0	1	Clear	Daylight	Injury	Paved	Dry
89326656	2.01E+11	Doral PD	7/30/2020	12:21 AM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Angle	2	0	0	1	Clear	Dark - Lighted	Injury	Paved	Dry
89326685	2.01E+11	Doral PD	8/3/2020	7:41 AM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Rear End	2	0	0	0	Clear	Daylight	Property Damage Only	Paved	Dry
89326706	2.01E+11	Doral PD	8/6/2020	3:53 PM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Sideswipe	2	0	0	0	Rain	Daylight	Property Damage Only	Paved	Wet
89327015	2.01E+11	Doral PD	10/1/2020	7:00 PM	Doral	Miami-Dade	NW 66TH ST	NW 107TH AVE	Sideswipe	2	0	0	0	Rain	Dark - Lighted	Property Damage Only	Paved	Wet
89327021	2.01E+11	Doral PD	10/2/2020	2:45 PM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Rear End	2	0	0	0	Rain	Daylight	Property Damage Only	Paved	Wet
89327088	2.01E+11	Doral PD	10/11/2020	9:29 PM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Other	1	0	0	0	Clear	Dusk	Property Damage Only	Paved	Dry
89327301	2.01E+11	Doral PD	11/8/2020	12:52 AM	Doral	Miami-Dade	NW 107TH AVE	NW 66TH ST	Angle	3	0	0	2	Rain	Dark - Lighted	Injury	Paved	Wet



Signal Four Analytics Crash Diagram

APPENDIX C

72-Hour Bi-Directional Counts

A & P Consulting Transportation
 10305 Nw 41St St., Suite 115
 Miami, Florida, United States 33178
 (305)592-7283 edsanchez@apcte.com

Count Name: NW 66th St Btwn NW 104th Ave
 and NW 102nd Ave
 Site Code: NW 66th St Btwn NW 104th Ave and
 NW 102nd Ave
 Start Date: 01/26/2021
 Page No: 1

Direction (Westbound)

Start Time	Lights	Buses	Trucks	Total
01/26/2021 12:00 AM	5	0	0	5
12:15 AM	4	0	0	4
12:30 AM	3	0	0	3
12:45 AM	2	0	0	2
1:00 AM	7	0	0	7
1:15 AM	3	0	0	3
1:30 AM	3	0	0	3
1:45 AM	2	0	0	2
2:00 AM	1	0	0	1
2:15 AM	2	0	0	2
2:30 AM	2	0	0	2
2:45 AM	2	0	0	2
3:00 AM	3	0	0	3
3:15 AM	0	0	0	0
3:30 AM	0	0	0	0
3:45 AM	1	0	0	1
4:00 AM	1	0	0	1
4:15 AM	0	0	0	0
4:30 AM	0	0	0	0
4:45 AM	0	0	0	0
5:00 AM	1	0	0	1
5:15 AM	0	0	0	0
5:30 AM	0	0	0	0
5:45 AM	1	0	0	1
6:00 AM	8	0	0	8
6:15 AM	4	0	0	4
6:30 AM	8	0	0	8
6:45 AM	14	0	0	14
7:00 AM	27	0	0	27
7:15 AM	25	0	1	26
7:30 AM	28	0	1	29
7:45 AM	49	0	1	50
8:00 AM	44	0	0	44
8:15 AM	47	0	0	47
8:30 AM	35	0	0	35
8:45 AM	38	0	0	38
9:00 AM	26	0	1	27
9:15 AM	26	0	0	26
9:30 AM	25	0	1	26
9:45 AM	22	0	0	22
10:00 AM	24	0	0	24
10:15 AM	19	0	0	19

10:30 AM
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11:15 PM

21	0	1	22
33	0	1	34
22	0	0	22
24	0	2	26
45	0	0	45
20	0	1	21
33	0	0	33
39	0	0	39
35	0	0	35
35	0	1	36
37	0	2	39
38	0	0	38
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47	0	2	49
52	0	0	52
56	0	0	56
60	0	1	61
55	0	1	56
62	0	0	62
64	0	0	64
69	0	0	69
65	0	1	66
51	0	0	51
69	0	0	69
64	0	0	64
110	0	0	110
89	1	0	90
96	1	1	98
90	0	1	91
88	0	0	88
72	0	0	72
58	0	0	58
74	0	0	74
60	0	0	60
52	0	0	52
43	0	0	43
38	0	0	38
43	0	0	43
32	0	0	32
31	0	0	31
34	0	0	34
23	0	0	23
19	0	0	19
26	0	0	26
19	0	0	19
15	0	0	15
16	0	0	16
20	0	0	20
15	0	0	15
8	0	0	8

11:30 PM
11:45 PM
01/27/2021 12:00 AM
12:15 AM
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7	0	0	7
8	0	0	8
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8	0	0	8
4	0	0	4
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3	0	0	3
2	0	0	2
3	0	0	3
3	0	0	3
2	0	0	2
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1	0	0	1
2	0	0	2
0	0	0	0
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1	0	0	1
0	0	0	0
1	0	0	1
0	0	0	0
0	0	0	0
4	0	0	4
5	1	0	6
7	0	0	7
16	0	0	16
30	0	0	30
17	0	0	17
31	0	0	31
40	0	0	40
47	0	0	47
46	0	1	47
31	0	1	32
36	0	0	36
27	0	1	28
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22	0	0	22
24	0	1	25
19	0	0	19
38	0	2	40
24	0	1	25
13	0	1	14
27	0	0	27
30	0	0	30
26	0	0	26
38	0	0	38
35	0	0	35
29	0	0	29

12:30 PM
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01/28/2021 12:00 AM
12:15 AM
12:30 AM
12:45 AM
1:00 AM
1:15 AM

32	0	0	32
48	0	0	48
32	0	0	32
47	0	0	47
47	0	1	48
42	0	0	42
43	1	2	46
45	0	0	45
43	0	2	45
66	0	1	67
51	0	0	51
54	0	1	55
63	0	1	64
52	0	0	52
46	0	1	47
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69	0	0	69
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90	0	0	90
92	0	0	92
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77	0	0	77
63	0	0	63
72	1	0	73
55	0	0	55
38	0	1	39
56	0	0	56
50	0	0	50
37	0	0	37
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26	0	0	26
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17	0	0	17
18	0	0	18
24	0	0	24
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7	0	0	7
8	0	0	8
9	0	0	9
6	0	0	6
6	0	0	6
4	0	0	4
3	0	0	3
1	0	0	1

1:30 AM
1:45 AM
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2:00 PM
2:15 PM

7	0	0	7
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1	0	0	1
3	0	0	3
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1	0	0	1
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1	0	0	1
1	0	0	1
2	0	0	2
1	0	0	1
0	0	1	1
0	0	0	0
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17	0	1	18
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40	0	0	40
41	1	1	43
42	0	0	42
27	0	0	27
25	0	0	25
32	0	0	32
20	0	0	20
15	0	1	16
22	0	2	24
25	0	0	25
18	0	0	18
21	0	0	21
29	0	0	29
21	0	2	23
21	0	1	22
28	0	1	29
28	0	0	28
37	0	1	38
26	0	0	26
27	0	1	28
46	0	0	46
39	0	0	39
42	0	0	42
33	0	0	33
40	0	0	40
45	0	0	45
45	0	1	46

2:30 PM	43	1	0	44
2:45 PM	71	0	1	72
3:00 PM	50	0	0	50
3:15 PM	71	0	0	71
3:30 PM	60	0	1	61
3:45 PM	52	0	2	54
4:00 PM	56	0	1	57
4:15 PM	76	0	0	76
4:30 PM	65	0	1	66
4:45 PM	71	0	0	71
5:00 PM	81	0	1	82
5:15 PM	98	0	0	98
5:30 PM	89	0	0	89
5:45 PM	92	0	0	92
6:00 PM	84	0	0	84
6:15 PM	71	0	0	71
6:30 PM	73	0	0	73
6:45 PM	83	0	0	83
7:00 PM	70	0	0	70
7:15 PM	50	0	0	50
7:30 PM	62	0	0	62
7:45 PM	55	0	0	55
8:00 PM	48	0	0	48
8:15 PM	45	0	0	45
8:30 PM	40	0	0	40
8:45 PM	40	0	0	40
9:00 PM	35	0	0	35
9:15 PM	33	0	0	33
9:30 PM	23	0	0	23
9:45 PM	17	0	0	17
10:00 PM	18	0	0	18
10:15 PM	24	0	0	24
10:30 PM	16	0	0	16
10:45 PM	17	0	0	17
11:00 PM	11	0	0	11
11:15 PM	7	0	0	7
11:30 PM	17	0	0	17
11:45 PM	18	0	0	18
Total	8710	7	66	8783
Total %	99.2	0.1	0.8	100.0
AM Times	7:45 AM	7:30 AM	10:00 AM	7:45 AM
AM Peaks	175	1	4	176
PM Times	5:15 PM	5:00 PM	1:45 PM	5:15 PM
PM Peaks	385	2	5	389

A & P Consulting Transportation
 10305 Nw 41St St., Suite 115
 Miami, Florida, United States 33178
 (305)592-7283 edsanchez@apcte.com

Count Name: NW 66th St Btwn NW 104th Ave
 and NW 102nd Ave
 Site Code: NW 66th St Btwn NW 104th Ave and
 NW 102nd Ave
 Start Date: 01/26/2021
 Page No: 7

Direction (Eastbound)

Start Time	Lights	Buses	Trucks	Total
01/26/2021 12:00 AM	3	0	0	3
12:15 AM	4	0	0	4
12:30 AM	4	0	0	4
12:45 AM	1	0	0	1
1:00 AM	2	0	0	2
1:15 AM	4	0	0	4
1:30 AM	2	0	0	2
1:45 AM	0	0	0	0
2:00 AM	3	0	0	3
2:15 AM	0	0	0	0
2:30 AM	1	0	0	1
2:45 AM	1	0	0	1
3:00 AM	0	0	0	0
3:15 AM	2	0	0	2
3:30 AM	1	0	0	1
3:45 AM	0	0	0	0
4:00 AM	0	0	0	0
4:15 AM	4	0	0	4
4:30 AM	2	0	0	2
4:45 AM	3	0	0	3
5:00 AM	2	0	0	2
5:15 AM	4	0	0	4
5:30 AM	9	0	0	9
5:45 AM	13	0	0	13
6:00 AM	16	0	0	16
6:15 AM	6	0	1	7
6:30 AM	24	0	0	24
6:45 AM	36	0	0	36
7:00 AM	33	0	0	33
7:15 AM	32	0	1	33
7:30 AM	46	0	0	46
7:45 AM	91	0	0	91
8:00 AM	93	0	0	93
8:15 AM	85	1	0	86
8:30 AM	76	0	0	76
8:45 AM	70	0	0	70
9:00 AM	45	0	0	45
9:15 AM	50	0	1	51
9:30 AM	40	0	1	41
9:45 AM	42	0	1	43
10:00 AM	36	0	1	37
10:15 AM	37	0	0	37

10:30 AM
10:45 AM
11:00 AM
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38	0	1	39
33	0	0	33
36	0	1	37
33	0	0	33
30	0	0	30
36	0	0	36
30	0	0	30
32	0	1	33
33	0	1	34
32	0	0	32
38	0	0	38
41	0	2	43
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12	0	0	12
9	0	0	9
13	0	0	13
13	0	0	13
8	0	0	8
8	0	0	8
13	0	0	13
9	0	0	9

11:30 PM
11:45 PM
01/27/2021 12:00 AM
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4	0	0	4
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1	0	0	1
1	0	0	1
1	0	0	1
4	0	0	4
2	0	0	2
2	0	0	2
12	0	0	12
3	0	0	3
16	0	0	16
11	0	1	12
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39	0	0	39
40	0	0	40
25	0	0	25
40	0	2	42
93	0	1	94
91	0	0	91
85	1	0	86
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39	0	0	39
44	0	2	46
38	1	1	40
37	0	1	38
44	0	0	44
51	0	1	52
34	0	0	34
43	0	0	43

12:30 PM
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01/28/2021 12:00 AM
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27	0	2	29
35	0	0	35
35	0	0	35
27	0	0	27
64	0	0	64
35	0	1	36
51	0	0	51
36	0	2	38
56	0	1	57
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35	0	1	36
36	0	0	36
24	0	0	24
22	0	0	22
20	1	0	21
25	0	0	25
20	0	0	20
22	0	0	22
21	0	0	21
10	0	0	10
18	0	0	18
11	0	0	11
12	0	0	12
8	0	0	8
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9	0	0	9
6	0	0	6
5	0	0	5
4	0	0	4
4	0	0	4
4	0	0	4
1	0	0	1
3	0	0	3

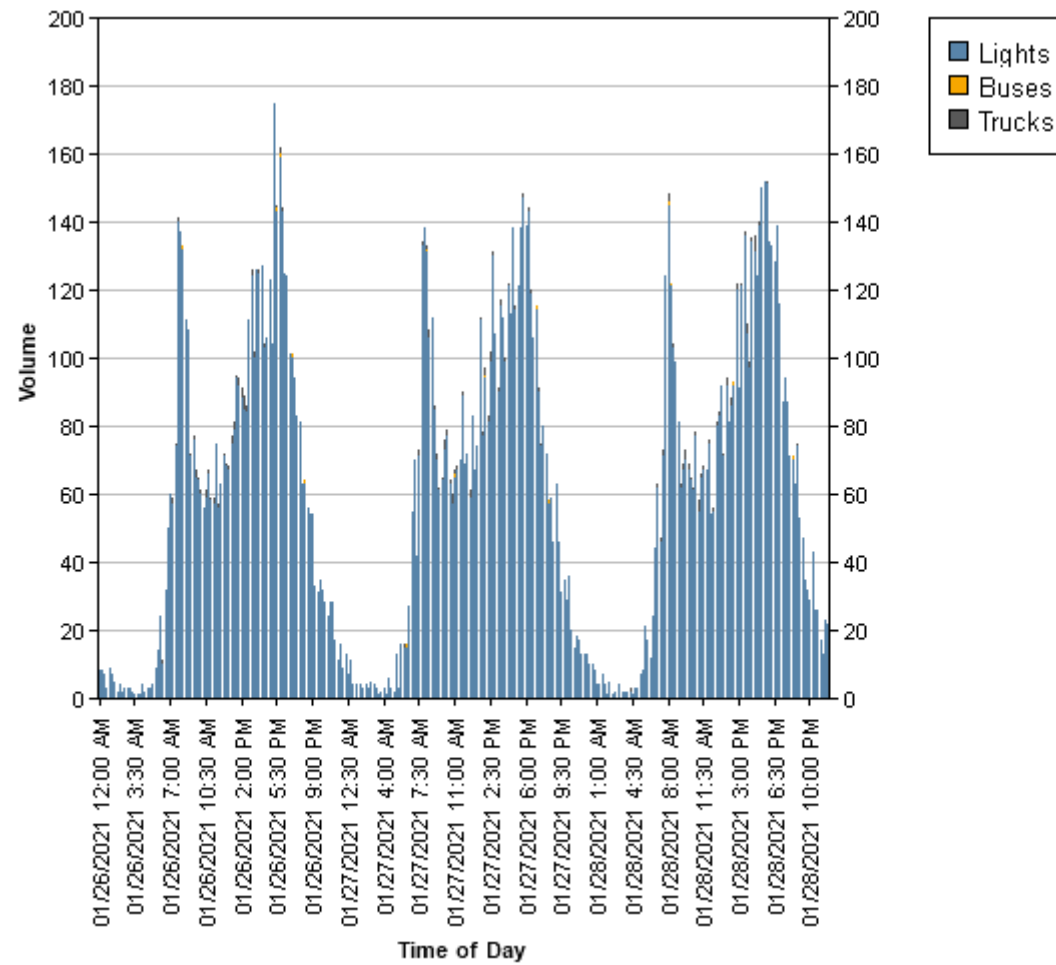
1:30 AM
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2	0	0	2
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2	0	0	2
1	0	0	1
1	0	0	1
0	0	0	0
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104	0	1	105
79	1	0	80
76	0	1	77
74	0	0	74
49	0	0	49
42	0	1	43
52	0	1	53
48	0	1	49
42	0	2	44
46	0	1	47
40	0	1	41
48	0	1	49
34	0	1	35
44	0	0	44
39	0	0	39
39	0	0	39
38	0	0	38
28	0	0	28
28	0	0	28
34	0	1	35
44	0	1	45
50	0	0	50
38	0	1	39
52	0	2	54
36	0	0	36
41	0	1	42

2:30 PM	49	0	0	49
2:45 PM	49	0	1	50
3:00 PM	41	0	0	41
3:15 PM	50	0	1	51
3:30 PM	76	0	0	76
3:45 PM	55	0	1	56
4:00 PM	41	0	1	42
4:15 PM	58	0	1	59
4:30 PM	66	0	4	70
4:45 PM	53	0	0	53
5:00 PM	58	0	0	58
5:15 PM	52	0	0	52
5:30 PM	63	0	0	63
5:45 PM	59	0	1	60
6:00 PM	50	0	0	50
6:15 PM	62	0	0	62
6:30 PM	55	0	0	55
6:45 PM	56	0	0	56
7:00 PM	46	0	0	46
7:15 PM	37	0	0	37
7:30 PM	32	0	0	32
7:45 PM	32	0	0	32
8:00 PM	23	0	0	23
8:15 PM	25	1	0	26
8:30 PM	23	0	0	23
8:45 PM	34	0	1	35
9:00 PM	18	0	0	18
9:15 PM	14	0	0	14
9:30 PM	12	0	0	12
9:45 PM	15	0	0	15
10:00 PM	11	0	0	11
10:15 PM	19	0	0	19
10:30 PM	10	0	0	10
10:45 PM	9	0	0	9
11:00 PM	6	0	0	6
11:15 PM	6	0	0	6
11:30 PM	6	0	0	6
11:45 PM	4	0	0	4
Total	8629	8	79	8716
Total %	99.0	0.1	0.9	100.0
AM Times	7:45 AM	7:30 AM	10:00 AM	7:45 AM
AM Peaks	345	1	5	346
PM Times	5:15 PM	5:00 PM	1:45 PM	5:15 PM
PM Peaks	235	0	6	237

A & P Consulting Transportation
10305 Nw 41St St., Suite 115
Miami, Florida, United States 33178
(305)592-7283 edsanchez@apcte.com

Count Name: NW 66th St Btwn NW 104th Ave
and NW 102nd Ave
Site Code: NW 66th St Btwn NW 104th Ave and
NW 102nd Ave
Start Date: 01/26/2021
Page No: 13



A & P Consulting Transportation
 10305 Nw 41St St., Suite 115
 Miami, Florida, United States 33178
 (305)592-7283 edsanchez@apcte.com

Count Name: NW 66th St Btwn NW 107th Ave
 and NW 104th Ave
 Site Code: NW 66th St Btwn NW 107th Ave and
 NW 104th Ave
 Start Date: 01/26/2021
 Page No: 1

Direction (Westbound)

Start Time	Lights	Buses	Trucks	Total
01/26/2021 12:00 AM	6	0	0	6
12:15 AM	4	0	0	4
12:30 AM	4	0	0	4
12:45 AM	3	0	0	3
1:00 AM	6	0	0	6
1:15 AM	1	0	0	1
1:30 AM	2	0	0	2
1:45 AM	5	0	0	5
2:00 AM	4	0	0	4
2:15 AM	1	0	0	1
2:30 AM	1	0	0	1
2:45 AM	1	0	0	1
3:00 AM	2	0	0	2
3:15 AM	0	0	0	0
3:30 AM	2	0	0	2
3:45 AM	0	0	0	0
4:00 AM	0	0	0	0
4:15 AM	0	0	0	0
4:30 AM	2	0	0	2
4:45 AM	0	0	0	0
5:00 AM	2	0	0	2
5:15 AM	0	0	0	0
5:30 AM	0	0	0	0
5:45 AM	5	0	0	5
6:00 AM	12	0	0	12
6:15 AM	10	0	1	11
6:30 AM	7	0	0	7
6:45 AM	22	2	0	24
7:00 AM	30	0	0	30
7:15 AM	28	1	2	31
7:30 AM	25	0	2	27
7:45 AM	41	0	1	42
8:00 AM	67	1	0	68
8:15 AM	73	1	0	74
8:30 AM	39	1	0	40
8:45 AM	31	0	1	32
9:00 AM	34	0	1	35
9:15 AM	26	1	1	28
9:30 AM	31	1	1	33
9:45 AM	25	0	0	25
10:00 AM	26	1	0	27
10:15 AM	24	0	0	24

10:30 AM
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17	1	0	18
31	1	0	32
29	1	0	30
37	0	1	38
37	0	0	37
25	1	0	26
29	0	1	30
40	1	1	42
36	0	0	36
36	1	1	38
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42	2	3	47
76	1	0	77
33	0	2	35
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72	2	0	74
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43	1	1	45
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51	2	0	53
71	0	0	71
58	1	1	60
69	0	0	69
55	0	1	56
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57	0	0	57
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41	0	0	41
42	0	1	43
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33	0	0	33
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17	0	0	17
13	0	0	13
14	0	0	14
10	0	0	10
9	0	0	9
13	0	0	13
13	0	0	13
5	0	0	5

11:30 PM
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01/27/2021 12:00 AM
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5	0	0	5
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2	0	0	2
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0	0	0	0
1	0	0	1
7	0	0	7
7	0	0	7
9	0	1	10
10	0	0	10
17	2	0	19
27	0	0	27
18	1	0	19
26	0	0	26
39	0	0	39
65	1	0	66
68	1	0	69
36	1	1	38
44	0	0	44
37	0	0	37
37	1	0	38
29	1	0	30
26	1	1	28
16	0	1	17
32	0	1	33
32	1	1	34
25	1	1	27
28	1	2	31
25	0	1	26
28	0	0	28
39	1	0	40
39	2	1	42
36	0	0	36

12:30 PM
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23	0	0	23
45	1	0	46
35	0	0	35
45	0	1	46
32	3	1	36
45	0	1	46
39	1	2	42
41	0	1	42
59	1	2	62
42	1	2	45
66	1	0	67
48	0	1	49
75	0	1	76
43	2	1	46
39	0	0	39
51	0	1	52
55	1	0	56
59	0	1	60
52	2	0	54
46	0	1	47
55	1	0	56
61	0	0	61
61	0	0	61
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6	0	0	6
7	0	0	7
11	0	0	11
7	0	0	7
4	0	0	4
5	0	0	5
0	0	0	0
4	0	0	4

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7	0	0	7
4	0	0	4
4	0	0	4
2	0	0	2
2	0	0	2
0	0	0	0
3	0	0	3
0	0	0	0
0	0	0	0
1	0	0	1
0	0	0	0
0	0	0	0
2	0	0	2
2	0	0	2
0	0	0	0
4	0	0	4
1	0	0	1
4	0	0	4
8	0	0	8
9	0	0	9
8	0	0	8
19	2	0	21
20	0	2	22
29	1	0	30
26	0	1	27
40	1	0	41
60	1	0	61
77	1	0	78
42	1	0	43
39	0	0	39
42	0	0	42
31	2	1	34
22	0	0	22
26	1	1	28
22	0	2	24
28	0	1	29
28	1	0	29
27	1	0	28
26	0	3	29
27	1	1	29
27	0	1	28
47	2	0	49
31	0	0	31
36	1	1	38
26	0	2	28
29	1	0	30
24	0	0	24
38	0	0	38
36	3	0	39
30	0	1	31
30	1	1	32
42	0	2	44

2:30 PM	54	1	1	56
2:45 PM	50	1	0	51
3:00 PM	77	0	0	77
3:15 PM	63	1	1	65
3:30 PM	92	0	0	92
3:45 PM	57	1	0	58
4:00 PM	53	1	0	54
4:15 PM	56	1	0	57
4:30 PM	54	0	0	54
4:45 PM	49	0	0	49
5:00 PM	43	2	0	45
5:15 PM	59	0	1	60
5:30 PM	52	1	1	54
5:45 PM	49	0	1	50
6:00 PM	52	0	0	52
6:15 PM	59	1	0	60
6:30 PM	57	1	0	58
6:45 PM	58	0	0	58
7:00 PM	48	0	0	48
7:15 PM	37	0	0	37
7:30 PM	44	0	0	44
7:45 PM	41	0	0	41
8:00 PM	33	0	0	33
8:15 PM	32	0	0	32
8:30 PM	34	0	0	34
8:45 PM	31	0	0	31
9:00 PM	32	0	0	32
9:15 PM	25	0	0	25
9:30 PM	26	0	0	26
9:45 PM	9	0	0	9
10:00 PM	20	0	0	20
10:15 PM	15	0	0	15
10:30 PM	13	0	0	13
10:45 PM	9	0	0	9
11:00 PM	10	0	0	10
11:15 PM	17	0	0	17
11:30 PM	7	0	0	7
11:45 PM	12	0	0	12
Total	7786	93	81	7960
Total %	97.8	1.2	1.0	100.0
AM Times	7:45 AM	6:30 AM	10:30 AM	7:45 AM
AM Peaks	220	3	5	224
PM Times	3:00 PM	1:30 PM	2:00 PM	3:00 PM
PM Peaks	289	4	5	292

A & P Consulting Transportation
10305 Nw 41St St., Suite 115
Miami, Florida, United States 33178
(305)592-7283 edsanchez@apcte.com

Count Name: NW 66th St Btwn NW 107th Ave
and NW 104th Ave
Site Code: NW 66th St Btwn NW 107th Ave and
NW 104th Ave
Start Date: 01/26/2021
Page No: 7

Direction (Eastbound)

Start Time	Lights	Buses	Trucks	Total
01/26/2021 12:00 AM	9	0	0	9
12:15 AM	7	0	0	7
12:30 AM	7	0	0	7
12:45 AM	2	0	0	2
1:00 AM	3	0	0	3
1:15 AM	3	0	0	3
1:30 AM	4	0	0	4
1:45 AM	5	0	0	5
2:00 AM	1	0	0	1
2:15 AM	3	0	0	3
2:30 AM	1	0	0	1
2:45 AM	0	0	0	0
3:00 AM	0	0	0	0
3:15 AM	1	0	0	1
3:30 AM	0	0	0	0
3:45 AM	0	0	0	0
4:00 AM	0	0	1	1
4:15 AM	1	0	0	1
4:30 AM	4	0	0	4
4:45 AM	3	0	0	3
5:00 AM	2	0	0	2
5:15 AM	3	0	0	3
5:30 AM	6	0	0	6
5:45 AM	4	0	0	4
6:00 AM	3	0	0	3
6:15 AM	2	0	0	2
6:30 AM	12	0	0	12
6:45 AM	14	0	0	14
7:00 AM	23	0	0	23
7:15 AM	33	3	1	37
7:30 AM	22	0	1	23
7:45 AM	59	1	0	60
8:00 AM	61	0	0	61
8:15 AM	43	1	1	45
8:30 AM	42	1	0	43
8:45 AM	36	0	0	36
9:00 AM	29	0	0	29
9:15 AM	26	1	0	27
9:30 AM	27	0	1	28
9:45 AM	23	1	0	24
10:00 AM	25	0	0	25
10:15 AM	20	0	0	20

10:30 AM
10:45 AM
11:00 AM
11:15 AM
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10:30 PM
10:45 PM
11:00 PM
11:15 PM

24	1	1	26
23	0	0	23
23	0	0	23
20	1	0	21
24	0	0	24
24	1	0	25
21	0	1	22
18	1	1	20
31	0	1	32
21	1	0	22
28	0	0	28
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16	0	0	16
13	0	0	13
16	0	0	16
14	0	0	14
11	0	0	11
9	0	0	9
12	0	0	12
16	0	0	16

11:30 PM
11:45 PM
01/27/2021 12:00 AM
12:15 AM
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6	0	0	6
3	0	0	3
5	0	0	5
2	0	0	2
5	0	0	5
5	0	0	5
0	0	0	0
2	0	0	2
2	0	0	2
3	0	0	3
2	0	0	2
2	0	0	2
0	0	0	0
0	0	0	0
2	0	0	2
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3	0	0	3
0	0	0	0
2	0	0	2
0	0	0	0
1	0	0	1
6	0	0	6
0	0	0	0
3	0	0	3
7	0	1	8
6	0	1	7
10	0	0	10
23	0	0	23
17	0	0	17
24	1	1	26
30	0	1	31
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40	1	0	41
43	0	0	43
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20	2	0	22
26	0	2	28
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24	1	4	29
22	0	2	24
22	1	2	25
20	0	1	21
25	0	1	26
25	1	0	26
30	0	1	31
31	1	0	32

12:30 PM
12:45 PM
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01/28/2021 12:00 AM
12:15 AM
12:30 AM
12:45 AM
1:00 AM
1:15 AM

18	1	1	20
31	1	1	33
30	0	0	30
23	1	1	25
32	0	1	33
29	0	0	29
39	1	2	42
52	2	0	54
48	1	2	51
62	0	0	62
41	1	1	43
43	0	0	43
39	0	1	40
35	1	0	36
33	0	0	33
40	0	0	40
37	1	0	38
43	0	0	43
40	1	0	41
39	0	0	39
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31	0	0	31
50	0	0	50
14	0	0	14
25	0	0	25
32	0	0	32
36	0	0	36
30	0	0	30
29	0	0	29
24	0	0	24
25	0	0	25
27	0	0	27
11	0	0	11
14	0	0	14
16	0	0	16
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13	0	0	13
10	0	0	10
11	0	0	11
6	0	0	6
8	0	0	8
3	0	0	3
5	0	0	5
4	0	0	4
4	0	0	4
4	0	0	4

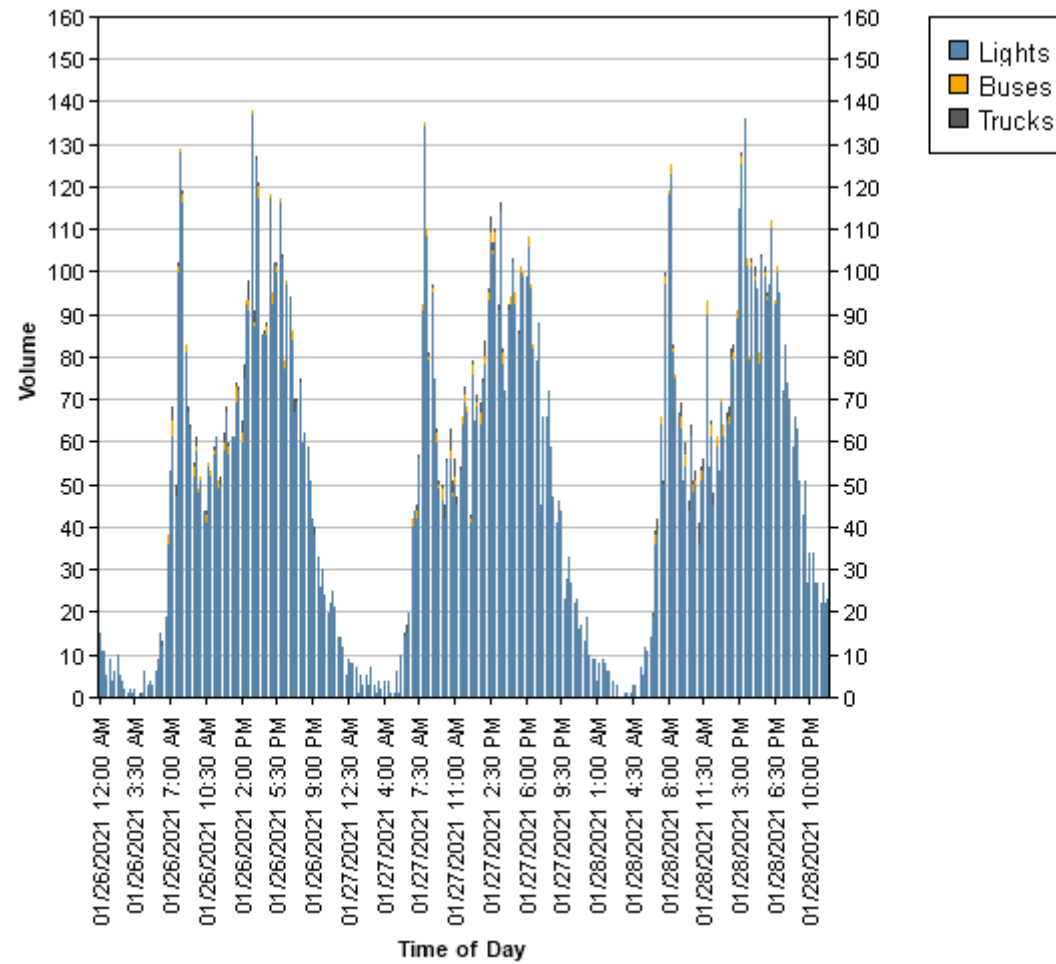
1:30 AM
1:45 AM
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2	0	0	2
4	0	0	4
2	0	0	2
4	0	0	4
2	0	0	2
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	1
1	0	0	1
1	0	0	1
1	0	0	1
0	0	0	0
3	0	0	3
4	0	0	4
8	0	0	8
3	0	0	3
5	0	0	5
11	0	1	12
17	0	1	18
18	0	2	20
35	1	0	36
24	0	0	24
57	1	1	59
58	0	0	58
46	1	0	47
39	0	1	40
36	1	0	37
25	0	0	25
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20	1	1	22
23	0	2	25
10	0	2	12
24	1	0	25
26	0	2	28
43	1	0	44
23	0	0	23
25	2	0	27
19	0	1	20
30	1	0	31
29	0	0	29
31	1	0	32
25	0	0	25
35	0	1	36
34	1	1	36
38	0	0	38

2:30 PM	25	1	1	27
2:45 PM	39	1	0	40
3:00 PM	38	0	0	38
3:15 PM	62	1	0	63
3:30 PM	44	0	0	44
3:45 PM	44	1	0	45
4:00 PM	26	0	0	26
4:15 PM	45	0	1	46
4:30 PM	44	1	2	47
4:45 PM	47	0	0	47
5:00 PM	35	1	0	36
5:15 PM	44	0	0	44
5:30 PM	47	0	0	47
5:45 PM	44	1	0	45
6:00 PM	45	0	0	45
6:15 PM	51	1	0	52
6:30 PM	35	0	0	35
6:45 PM	42	1	0	43
7:00 PM	47	0	0	47
7:15 PM	35	0	0	35
7:30 PM	39	0	0	39
7:45 PM	33	0	0	33
8:00 PM	37	0	0	37
8:15 PM	27	0	0	27
8:30 PM	32	0	0	32
8:45 PM	32	0	0	32
9:00 PM	19	0	0	19
9:15 PM	18	0	0	18
9:30 PM	25	0	0	25
9:45 PM	18	0	0	18
10:00 PM	14	0	0	14
10:15 PM	19	0	0	19
10:30 PM	14	0	0	14
10:45 PM	18	0	0	18
11:00 PM	12	0	0	12
11:15 PM	10	0	0	10
11:30 PM	15	0	0	15
11:45 PM	11	0	0	11
Total	6618	74	79	6771
Total %	97.7	1.1	1.2	100.0
AM Times	7:45 AM	6:30 AM	10:30 AM	7:45 AM
AM Peaks	205	3	9	209
PM Times	3:00 PM	1:30 PM	2:00 PM	3:00 PM
PM Peaks	188	3	6	190

A & P Consulting Transportation
10305 Nw 41St St., Suite 115
Miami, Florida, United States 33178
(305)592-7283 edsanchez@apcte.com

Count Name: NW 66th St Btwn NW 107th Ave
and NW 104th Ave
Site Code: NW 66th St Btwn NW 107th Ave and
NW 104th Ave
Start Date: 01/26/2021
Page No: 13



A & P Consulting Transportation
 10305 Nw 41St St., Suite 115
 Miami, Florida, United States 33178
 (305)592-7283 edsanchez@apcte.com

Count Name: NW 104th Ave Btwn NW 66th St
 and NW74th St
 Site Code: NW 104th Ave Btwn NW 66th St and
 NW74th St
 Start Date: 01/26/2021
 Page No: 1

Direction (Southbound)

Start Time	Lights	Buses	Trucks	Total
01/26/2021 12:00 AM	2	0	0	2
12:15 AM	3	0	0	3
12:30 AM	2	0	0	2
12:45 AM	1	0	0	1
1:00 AM	1	0	0	1
1:15 AM	4	0	0	4
1:30 AM	2	0	0	2
1:45 AM	3	0	0	3
2:00 AM	4	0	0	4
2:15 AM	0	0	0	0
2:30 AM	0	0	0	0
2:45 AM	1	0	0	1
3:00 AM	2	0	0	2
3:15 AM	0	0	0	0
3:30 AM	1	0	0	1
3:45 AM	1	0	0	1
4:00 AM	0	0	0	0
4:15 AM	1	0	0	1
4:30 AM	1	0	0	1
4:45 AM	0	0	0	0
5:00 AM	2	0	0	2
5:15 AM	0	0	0	0
5:30 AM	3	0	0	3
5:45 AM	9	0	0	9
6:00 AM	8	0	0	8
6:15 AM	4	0	0	4
6:30 AM	18	1	0	19
6:45 AM	30	1	0	31
7:00 AM	17	1	0	18
7:15 AM	15	0	1	16
7:30 AM	31	0	2	33
7:45 AM	80	0	1	81
8:00 AM	96	1	0	97
8:15 AM	88	2	0	90
8:30 AM	52	0	1	53
8:45 AM	52	0	1	53
9:00 AM	33	0	2	35
9:15 AM	27	1	0	28
9:30 AM	31	1	0	32
9:45 AM	31	1	1	33
10:00 AM	27	0	0	27
10:15 AM	26	0	1	27

10:30 AM
10:45 AM
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36	1	1	38
29	1	0	30
40	1	1	42
34	0	1	35
32	0	0	32
26	1	1	28
28	1	0	29
27	1	1	29
31	0	2	33
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39	0	0	39
19	0	0	19
60	2	1	63
42	0	0	42
72	1	1	74
38	0	0	38
65	0	0	65
62	2	2	66
61	0	0	61
39	1	0	40
43	1	1	45
49	2	0	51
47	1	0	48
63	1	1	65
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16	0	0	16
18	0	0	18
16	0	0	16
14	0	0	14
9	0	0	9
11	0	0	11
11	0	0	11
7	0	0	7

11:30 PM
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01/27/2021 12:00 AM
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4	0	0	4
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0	0	0	0
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0	0	0	0
4	0	0	4
1	0	0	1
2	0	0	2
0	0	0	0
1	0	0	1
2	0	0	2
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0	0	0	0
1	0	0	1
0	0	0	0
1	0	0	1
1	0	0	1
1	0	0	1
0	0	0	0
7	0	0	7
2	0	0	2
8	0	0	8
8	0	0	8
8	0	0	8
9	0	0	9
28	2	0	30
23	1	0	24
14	0	2	16
35	0	0	35
80	0	0	80
98	1	0	99
88	1	0	89
57	1	0	58
48	0	0	48
39	0	0	39
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29	1	3	33
41	0	4	45
29	0	1	30
28	1	2	31
37	1	1	39
28	2	0	30
34	0	0	34
35	0	2	37
38	1	0	39
33	3	0	36
42	0	1	43

12:30 PM
12:45 PM
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01/28/2021 12:00 AM
12:15 AM
12:30 AM
12:45 AM
1:00 AM
1:15 AM

27	0	0	27
36	1	1	38
39	1	1	41
32	0	3	35
38	3	0	41
36	1	1	38
43	0	0	43
28	0	1	29
64	1	3	68
35	1	1	37
72	1	0	73
36	0	0	36
64	0	0	64
45	2	0	47
50	0	1	51
50	1	0	51
49	0	2	51
47	0	2	49
54	2	0	56
52	0	0	52
57	2	1	60
68	1	0	69
64	0	0	64
44	1	0	45
56	1	0	57
60	0	0	60
46	0	0	46
48	0	1	49
38	0	0	38
45	0	0	45
30	0	0	30
23	1	0	24
46	0	0	46
20	0	0	20
27	0	0	27
21	0	0	21
13	0	0	13
17	0	0	17
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9	0	0	9
12	0	0	12
17	0	0	17
11	0	0	11
13	0	0	13
4	0	0	4
7	0	0	7
7	0	0	7
8	0	0	8
7	0	0	7
3	0	0	3
4	0	0	4
4	0	0	4

1:30 AM
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2:00 AM
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2:00 PM
2:15 PM

1	0	0	1
3	0	0	3
4	0	0	4
1	0	0	1
0	0	0	0
2	0	0	2
0	0	0	0
1	0	0	1
1	0	0	1
1	0	0	1
0	0	0	0
3	0	0	3
0	0	0	0
3	0	0	3
1	0	0	1
2	0	0	2
2	0	0	2
8	0	0	8
7	0	0	7
7	0	0	7
10	1	0	11
20	1	0	21
21	0	0	21
22	1	2	25
32	0	1	33
73	1	0	74
97	1	0	98
85	0	1	86
69	1	0	70
41	0	0	41
39	0	0	39
35	2	1	38
38	1	0	39
39	0	0	39
25	0	3	28
36	0	1	37
34	1	1	36
32	1	0	33
33	0	1	34
37	2	2	41
30	0	1	31
46	2	0	48
33	0	0	33
25	1	0	26
30	0	2	32
29	2	0	31
39	0	0	39
43	1	0	44
28	2	2	32
45	1	2	48
23	0	1	24
34	0	0	34

2:30 PM	71	2	1	74
2:45 PM	29	0	0	29
3:00 PM	68	1	0	69
3:15 PM	38	1	2	41
3:30 PM	85	0	0	85
3:45 PM	49	1	0	50
4:00 PM	49	1	0	50
4:15 PM	52	1	0	53
4:30 PM	64	0	1	65
4:45 PM	40	0	0	40
5:00 PM	66	2	0	68
5:15 PM	55	0	0	55
5:30 PM	49	1	0	50
5:45 PM	62	0	2	64
6:00 PM	51	0	0	51
6:15 PM	63	1	0	64
6:30 PM	58	1	0	59
6:45 PM	55	0	0	55
7:00 PM	50	0	0	50
7:15 PM	49	0	0	49
7:30 PM	41	0	0	41
7:45 PM	32	0	0	32
8:00 PM	38	0	0	38
8:15 PM	28	1	0	29
8:30 PM	28	0	0	28
8:45 PM	42	1	0	43
9:00 PM	24	0	0	24
9:15 PM	19	0	0	19
9:30 PM	20	0	0	20
9:45 PM	18	0	0	18
10:00 PM	18	0	0	18
10:15 PM	20	0	0	20
10:30 PM	12	0	0	12
10:45 PM	9	0	0	9
11:00 PM	7	0	0	7
11:15 PM	10	0	0	10
11:30 PM	4	0	0	4
11:45 PM	8	0	0	8
Total	8118	109	91	8318
Total %	97.6	1.3	1.1	100.0
AM Times	7:45 AM	10:15 AM	9:45 AM	7:45 AM
AM Peaks	323	4	10	326
PM Times	5:15 PM	1:15 PM	1:00 PM	5:15 PM
PM Peaks	232	4	5	238

A & P Consulting Transportation
 10305 Nw 41St St., Suite 115
 Miami, Florida, United States 33178
 (305)592-7283 edsanchez@apcte.com

Count Name: NW 104th Ave Btwn NW 66th St
 and NW74th St
 Site Code: NW 104th Ave Btwn NW 66th St and
 NW74th St
 Start Date: 01/26/2021
 Page No: 7

Direction (Northbound)

Start Time	Lights	Buses	Trucks	Total
01/26/2021 12:00 AM	2	0	0	2
12:15 AM	3	0	0	3
12:30 AM	3	0	0	3
12:45 AM	0	0	0	0
1:00 AM	4	0	0	4
1:15 AM	3	0	0	3
1:30 AM	3	0	0	3
1:45 AM	3	0	0	3
2:00 AM	1	0	0	1
2:15 AM	3	0	0	3
2:30 AM	1	0	0	1
2:45 AM	1	0	0	1
3:00 AM	0	0	0	0
3:15 AM	0	0	0	0
3:30 AM	0	0	0	0
3:45 AM	0	0	0	0
4:00 AM	1	0	1	2
4:15 AM	1	0	0	1
4:30 AM	1	0	0	1
4:45 AM	1	0	0	1
5:00 AM	0	0	0	0
5:15 AM	1	0	0	1
5:30 AM	0	0	0	0
5:45 AM	2	0	0	2
6:00 AM	6	0	0	6
6:15 AM	3	0	1	4
6:30 AM	3	0	0	3
6:45 AM	11	0	0	11
7:00 AM	21	0	0	21
7:15 AM	21	0	0	21
7:30 AM	24	0	0	24
7:45 AM	66	1	0	67
8:00 AM	53	0	0	53
8:15 AM	50	0	0	50
8:30 AM	31	1	0	32
8:45 AM	27	0	1	28
9:00 AM	22	0	0	22
9:15 AM	19	1	0	20
9:30 AM	26	0	0	26
9:45 AM	24	1	0	25
10:00 AM	22	0	1	23
10:15 AM	19	0	0	19

10:30 AM
10:45 AM
11:00 AM
11:15 AM
11:30 AM
11:45 AM
12:00 PM
12:15 PM
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20	1	1	22
25	0	1	26
14	0	0	14
19	1	0	20
29	0	1	30
21	1	0	22
22	0	1	23
24	1	1	26
29	0	1	30
22	1	0	23
25	0	1	26
33	1	0	34
20	0	1	21
28	0	0	28
31	2	1	34
23	0	1	24
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31	0	0	31
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50	0	0	50
28	0	0	28
54	1	0	55
40	0	0	40
38	0	0	38
33	0	0	33
30	0	0	30
37	0	0	37
27	0	0	27
19	0	0	19
29	0	0	29
19	0	0	19
15	0	0	15
10	0	0	10
19	0	0	19
13	0	0	13
14	0	0	14
10	0	0	10
12	0	0	12
6	0	0	6

11:30 PM
11:45 PM
01/27/2021 12:00 AM
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10	0	0	10
7	0	0	7
7	0	0	7
3	0	0	3
5	0	0	5
0	0	0	0
3	0	0	3
2	0	0	2
0	0	0	0
3	0	0	3
1	0	0	1
3	0	0	3
2	0	0	2
1	0	0	1
0	0	0	0
1	0	0	1
0	0	0	0
0	0	0	0
2	0	0	2
1	0	0	1
0	0	0	0
1	0	0	1
1	0	0	1
0	0	0	0
2	0	0	2
7	0	0	7
6	0	0	6
1	0	0	1
15	0	0	15
16	0	0	16
23	1	1	25
38	0	0	38
60	1	0	61
52	0	0	52
54	0	0	54
31	1	3	35
33	0	0	33
20	0	1	21
15	1	0	16
18	0	1	19
20	0	1	21
14	0	0	14
24	0	1	25
18	1	4	23
11	0	0	11
21	1	0	22
24	0	0	24
22	0	1	23
24	1	0	25
28	0	1	29
22	1	0	23

12:30 PM
12:45 PM
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01/28/2021 12:00 AM
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12:30 AM
12:45 AM
1:00 AM
1:15 AM

30	1	0	31
20	0	1	21
28	0	1	29
25	1	0	26
25	0	2	27
25	0	2	27
30	1	1	32
37	0	0	37
41	1	1	43
31	0	0	31
56	1	1	58
33	0	0	33
35	0	0	35
27	1	0	28
40	0	1	41
45	1	1	47
35	0	0	35
48	0	0	48
45	1	0	46
39	0	0	39
53	1	1	55
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47	0	0	47
46	0	0	46
31	0	0	31
26	0	0	26
32	0	0	32
16	0	0	16
23	0	0	23
16	0	0	16
17	0	0	17
17	0	0	17
10	0	0	10
10	0	0	10
9	0	0	9
9	0	0	9
4	0	0	4
8	0	0	8
10	0	0	10
4	0	0	4
11	0	0	11
4	0	0	4
3	0	0	3
2	0	0	2

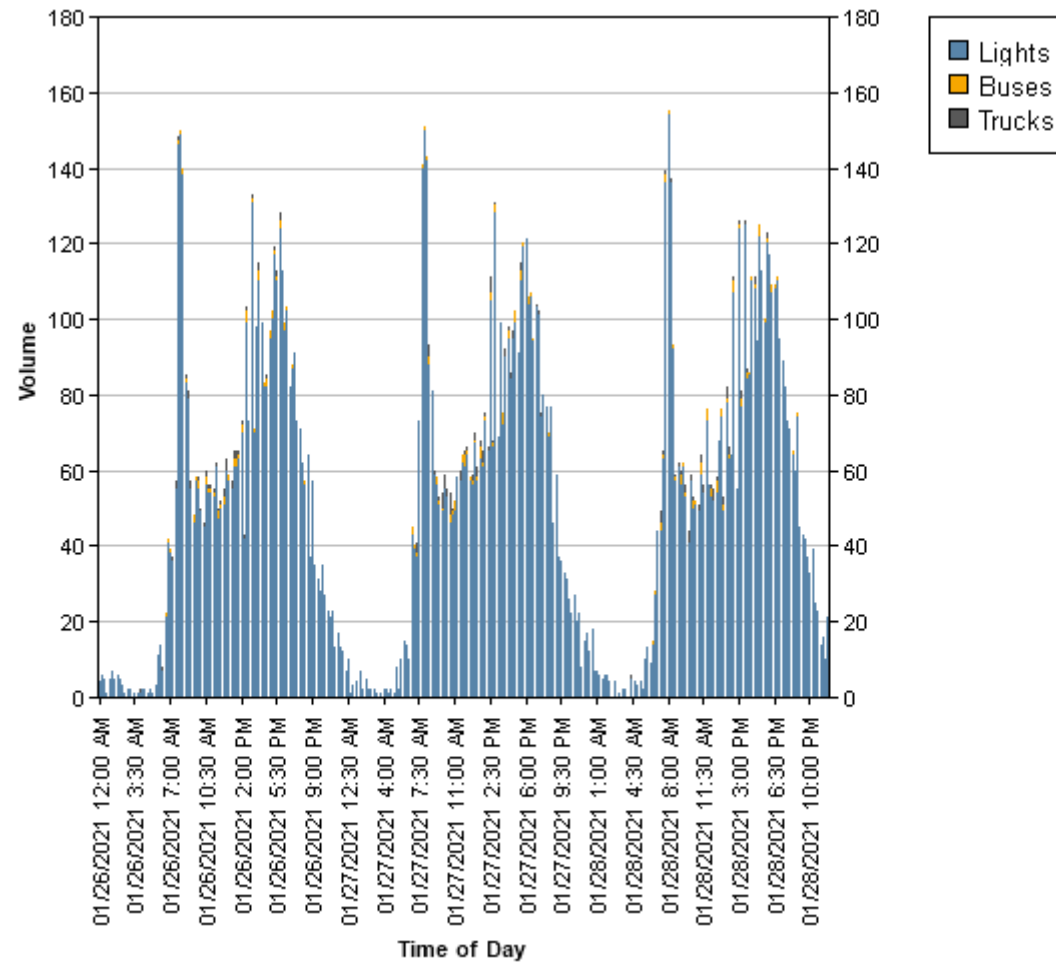
1:30 AM
1:45 AM
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12:45 PM
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4	0	0	4
3	0	0	3
2	0	0	2
3	0	0	3
0	0	0	0
2	0	0	2
0	0	0	0
0	0	0	0
1	0	0	1
1	0	0	1
0	0	0	0
2	0	1	3
0	0	0	0
1	0	0	1
2	0	0	2
2	0	0	2
0	0	0	0
2	0	0	2
6	0	0	6
2	0	0	2
4	0	0	4
7	0	0	7
23	0	0	23
22	1	1	24
31	1	0	32
63	1	1	65
57	0	0	57
51	0	0	51
23	0	0	23
16	1	1	18
22	0	1	23
21	1	0	22
23	0	0	23
14	1	2	17
16	0	0	16
21	0	1	22
16	1	0	17
19	0	0	19
16	0	1	17
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27	1	0	28
23	0	0	23
28	1	1	30
22	0	1	23
25	1	1	27
29	0	0	29
31	1	0	32
21	0	0	21
33	0	1	34
40	1	1	42
30	0	0	30

2:30 PM	36	1	0	37
2:45 PM	26	0	0	26
3:00 PM	56	0	1	57
3:15 PM	39	1	0	40
3:30 PM	40	0	1	41
3:45 PM	35	1	1	37
4:00 PM	36	0	0	36
4:15 PM	58	0	0	58
4:30 PM	44	1	1	46
4:45 PM	54	0	0	54
5:00 PM	56	1	0	57
5:15 PM	58	0	0	58
5:30 PM	50	0	0	50
5:45 PM	58	1	0	59
6:00 PM	66	0	0	66
6:15 PM	44	1	0	45
6:30 PM	50	0	0	50
6:45 PM	55	1	0	56
7:00 PM	45	0	0	45
7:15 PM	40	0	0	40
7:30 PM	41	0	0	41
7:45 PM	41	0	0	41
8:00 PM	33	0	0	33
8:15 PM	36	0	0	36
8:30 PM	32	0	0	32
8:45 PM	32	0	0	32
9:00 PM	21	0	0	21
9:15 PM	24	0	0	24
9:30 PM	22	0	0	22
9:45 PM	19	0	0	19
10:00 PM	15	0	0	15
10:15 PM	19	0	0	19
10:30 PM	13	0	0	13
10:45 PM	14	0	0	14
11:00 PM	7	0	0	7
11:15 PM	6	0	0	6
11:30 PM	6	0	0	6
11:45 PM	13	0	0	13
Total	6523	60	63	6646
Total %	98.1	0.9	0.9	100.0
AM Times	7:45 AM	10:15 AM	9:45 AM	7:45 AM
AM Peaks	197	2	6	202
PM Times	5:15 PM	1:15 PM	1:00 PM	5:15 PM
PM Peaks	232	3	5	235

A & P Consulting Transportation
10305 Nw 41St St., Suite 115
Miami, Florida, United States 33178
(305)592-7283 edsanchez@apcte.com

Count Name: NW 104th Ave Btwn NW 66th St
and NW74th St
Site Code: NW 104th Ave Btwn NW 66th St and
NW74th St
Start Date: 01/26/2021
Page No: 13



A & P Consulting Transportation
 10305 Nw 41St St., Suite 115
 Miami, Florida, United States 33178
 (305)592-7283 edsanchez@apcte.com

Count Name: NW 104th Path at Limestone Trail
 Site Code: NW 104th Path Btwn NW 66th St and
 Limestone Trail
 Start Date: 01/26/2021
 Page No: 1

Direction (Southbound)

Start Time	Lights	Buses	Trucks	Total
01/26/2021 12:00 AM	0	0	0	0
12:15 AM	0	0	0	0
12:30 AM	1	0	0	1
12:45 AM	1	0	0	1
1:00 AM	0	0	0	0
1:15 AM	0	0	0	0
1:30 AM	0	0	0	0
1:45 AM	1	0	0	1
2:00 AM	0	0	0	0
2:15 AM	0	0	0	0
2:30 AM	0	0	0	0
2:45 AM	0	0	0	0
3:00 AM	0	0	0	0
3:15 AM	0	0	0	0
3:30 AM	0	0	0	0
3:45 AM	0	0	0	0
4:00 AM	0	0	0	0
4:15 AM	0	0	0	0
4:30 AM	0	0	0	0
4:45 AM	0	0	0	0
5:00 AM	0	0	0	0
5:15 AM	0	0	0	0
5:30 AM	1	0	0	1
5:45 AM	1	0	0	1
6:00 AM	1	0	0	1
6:15 AM	1	0	0	1
6:30 AM	1	0	0	1
6:45 AM	8	0	0	8
7:00 AM	2	0	0	2
7:15 AM	1	0	0	1
7:30 AM	3	0	0	3
7:45 AM	9	0	0	9
8:00 AM	6	0	0	6
8:15 AM	6	0	0	6
8:30 AM	3	0	0	3
8:45 AM	5	0	0	5
9:00 AM	6	0	0	6
9:15 AM	6	0	0	6
9:30 AM	7	0	0	7
9:45 AM	1	0	0	1
10:00 AM	1	0	0	1
10:15 AM	1	0	0	1

10:30 AM	4	0	0	4
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	3	0	0	3
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	1	0	0	1
12:30 PM	6	0	0	6
12:45 PM	2	0	0	2
1:00 PM	3	0	0	3
1:15 PM	3	0	0	3
1:30 PM	2	0	0	2
1:45 PM	1	0	0	1
2:00 PM	6	0	0	6
2:15 PM	4	0	0	4
2:30 PM	7	0	0	7
2:45 PM	6	0	0	6
3:00 PM	3	0	0	3
3:15 PM	4	0	0	4
3:30 PM	3	0	0	3
3:45 PM	3	0	1	4
4:00 PM	3	0	0	3
4:15 PM	2	0	0	2
4:30 PM	9	0	0	9
4:45 PM	6	0	1	7
5:00 PM	3	0	0	3
5:15 PM	5	0	0	5
5:30 PM	6	0	0	6
5:45 PM	2	0	0	2
6:00 PM	1	0	0	1
6:15 PM	3	0	0	3
6:30 PM	3	0	0	3
6:45 PM	3	0	0	3
7:00 PM	8	0	0	8
7:15 PM	9	0	0	9
7:30 PM	2	0	0	2
7:45 PM	7	0	0	7
8:00 PM	1	0	0	1
8:15 PM	4	0	0	4
8:30 PM	2	0	0	2
8:45 PM	4	0	0	4
9:00 PM	4	0	0	4
9:15 PM	1	0	0	1
9:30 PM	2	0	0	2
9:45 PM	3	0	0	3
10:00 PM	2	0	0	2
10:15 PM	1	0	0	1
10:30 PM	4	0	0	4
10:45 PM	0	0	0	0
11:00 PM	0	0	0	0
11:15 PM	1	0	0	1

11:30 PM
11:45 PM
01/27/2021 12:00 AM
12:15 AM
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11:15 AM
11:30 AM
11:45 AM
12:00 PM
12:15 PM

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0	0	0	0
0	0	0	0
1	0	0	1
1	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
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2	0	0	2
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3	0	0	3
3	0	0	3
1	0	0	1
0	0	1	1
2	0	0	2
3	0	0	3
0	0	0	0
4	0	0	4
1	0	0	1
3	0	0	3
2	0	0	2

12:30 PM	1	0	0	1
12:45 PM	2	0	0	2
1:00 PM	0	0	1	1
1:15 PM	1	0	0	1
1:30 PM	6	0	0	6
1:45 PM	2	0	0	2
2:00 PM	6	0	0	6
2:15 PM	6	0	0	6
2:30 PM	2	0	0	2
2:45 PM	2	0	0	2
3:00 PM	3	0	0	3
3:15 PM	2	0	0	2
3:30 PM	8	0	0	8
3:45 PM	5	0	0	5
4:00 PM	2	0	0	2
4:15 PM	5	0	0	5
4:30 PM	9	0	0	9
4:45 PM	5	0	0	5
5:00 PM	7	0	0	7
5:15 PM	4	0	0	4
5:30 PM	8	0	0	8
5:45 PM	9	0	0	9
6:00 PM	6	0	0	6
6:15 PM	1	0	0	1
6:30 PM	2	0	0	2
6:45 PM	4	0	0	4
7:00 PM	4	0	0	4
7:15 PM	5	0	0	5
7:30 PM	3	0	0	3
7:45 PM	4	0	0	4
8:00 PM	2	0	0	2
8:15 PM	4	0	0	4
8:30 PM	1	0	0	1
8:45 PM	0	0	0	0
9:00 PM	2	0	0	2
9:15 PM	2	0	0	2
9:30 PM	1	0	0	1
9:45 PM	1	0	0	1
10:00 PM	1	0	0	1
10:15 PM	2	0	0	2
10:30 PM	0	0	0	0
10:45 PM	0	0	0	0
11:00 PM	1	0	0	1
11:15 PM	0	0	0	0
11:30 PM	1	0	0	1
11:45 PM	1	0	0	1
01/28/2021 12:00 AM	0	0	0	0
12:15 AM	1	0	0	1
12:30 AM	0	0	0	0
12:45 AM	2	0	0	2
1:00 AM	1	0	0	1
1:15 AM	1	0	0	1

1:30 AM	0	0	0	0
1:45 AM	0	0	0	0
2:00 AM	0	0	0	0
2:15 AM	0	0	0	0
2:30 AM	1	0	0	1
2:45 AM	0	0	0	0
3:00 AM	0	0	0	0
3:15 AM	0	0	0	0
3:30 AM	0	0	0	0
3:45 AM	0	0	0	0
4:00 AM	0	0	0	0
4:15 AM	0	0	0	0
4:30 AM	0	0	0	0
4:45 AM	0	0	0	0
5:00 AM	0	0	0	0
5:15 AM	0	0	0	0
5:30 AM	0	0	0	0
5:45 AM	2	0	0	2
6:00 AM	0	0	0	0
6:15 AM	1	0	0	1
6:30 AM	2	0	0	2
6:45 AM	1	0	1	2
7:00 AM	1	0	0	1
7:15 AM	0	0	0	0
7:30 AM	2	0	0	2
7:45 AM	5	0	0	5
8:00 AM	8	0	0	8
8:15 AM	5	0	0	5
8:30 AM	6	0	0	6
8:45 AM	5	0	0	5
9:00 AM	5	0	0	5
9:15 AM	4	0	0	4
9:30 AM	4	0	0	4
9:45 AM	1	0	0	1
10:00 AM	3	0	0	3
10:15 AM	2	0	0	2
10:30 AM	0	0	0	0
10:45 AM	3	0	0	3
11:00 AM	4	0	0	4
11:15 AM	5	0	0	5
11:30 AM	4	0	1	5
11:45 AM	1	0	0	1
12:00 PM	0	0	0	0
12:15 PM	1	0	0	1
12:30 PM	4	0	0	4
12:45 PM	2	0	0	2
1:00 PM	8	0	0	8
1:15 PM	5	0	0	5
1:30 PM	1	0	0	1
1:45 PM	3	0	0	3
2:00 PM	3	0	0	3
2:15 PM	3	0	0	3

2:30 PM	5	0	0	5
2:45 PM	1	0	0	1
3:00 PM	2	0	1	3
3:15 PM	6	0	0	6
3:30 PM	6	0	0	6
3:45 PM	3	0	0	3
4:00 PM	4	0	0	4
4:15 PM	5	0	0	5
4:30 PM	4	0	0	4
4:45 PM	6	0	0	6
5:00 PM	4	0	0	4
5:15 PM	7	0	0	7
5:30 PM	5	0	0	5
5:45 PM	9	0	0	9
6:00 PM	7	0	0	7
6:15 PM	1	0	0	1
6:30 PM	0	0	0	0
6:45 PM	2	0	0	2
7:00 PM	1	0	0	1
7:15 PM	4	0	0	4
7:30 PM	3	0	0	3
7:45 PM	3	0	0	3
8:00 PM	1	0	0	1
8:15 PM	0	0	0	0
8:30 PM	4	0	0	4
8:45 PM	4	0	0	4
9:00 PM	3	0	0	3
9:15 PM	2	0	0	2
9:30 PM	5	0	0	5
9:45 PM	3	0	0	3
10:00 PM	2	0	0	2
10:15 PM	1	0	0	1
10:30 PM	1	0	0	1
10:45 PM	0	0	0	0
11:00 PM	2	0	0	2
11:15 PM	1	0	0	1
11:30 PM	0	0	0	0
11:45 PM	1	0	0	1
Total	699	0	7	706
Total %	99.0	0.0	1.0	100.0
AM Times	7:45 AM	12:00 AM	8:30 AM	7:45 AM
AM Peaks	33	0	0	33
PM Times	5:00 PM	12:00 PM	1:00 PM	5:00 PM
PM Peaks	28	0	1	28

A & P Consulting Transportation
 10305 Nw 41St St., Suite 115
 Miami, Florida, United States 33178
 (305)592-7283 edsanchez@apcte.com

Count Name: NW 104th Path at Limestone Trail
 Site Code: NW 104th Path Btwn NW 66th St and
 Limestone Trail
 Start Date: 01/26/2021
 Page No: 7

Direction (Northbound)

Start Time	Lights	Buses	Trucks	Total
01/26/2021 12:00 AM	1	0	0	1
12:15 AM	0	0	0	0
12:30 AM	1	0	0	1
12:45 AM	0	0	0	0
1:00 AM	1	0	0	1
1:15 AM	0	0	0	0
1:30 AM	1	0	0	1
1:45 AM	0	0	0	0
2:00 AM	1	0	0	1
2:15 AM	0	0	0	0
2:30 AM	0	0	0	0
2:45 AM	0	0	0	0
3:00 AM	0	0	0	0
3:15 AM	0	0	0	0
3:30 AM	0	0	0	0
3:45 AM	0	0	0	0
4:00 AM	0	0	0	0
4:15 AM	0	0	0	0
4:30 AM	0	0	0	0
4:45 AM	0	0	0	0
5:00 AM	0	0	0	0
5:15 AM	0	0	0	0
5:30 AM	0	0	0	0
5:45 AM	0	0	0	0
6:00 AM	1	0	0	1
6:15 AM	0	0	0	0
6:30 AM	1	0	0	1
6:45 AM	0	0	0	0
7:00 AM	3	0	1	4
7:15 AM	1	0	0	1
7:30 AM	6	0	0	6
7:45 AM	4	0	0	4
8:00 AM	7	0	0	7
8:15 AM	9	0	0	9
8:30 AM	5	0	0	5
8:45 AM	2	0	0	2
9:00 AM	1	0	0	1
9:15 AM	8	0	2	10
9:30 AM	0	0	0	0
9:45 AM	5	0	0	5
10:00 AM	2	0	0	2
10:15 AM	7	0	0	7

10:30 AM	0	0	0	0
10:45 AM	0	0	1	1
11:00 AM	1	0	0	1
11:15 AM	2	0	0	2
11:30 AM	4	0	0	4
11:45 AM	4	0	0	4
12:00 PM	6	0	0	6
12:15 PM	9	0	0	9
12:30 PM	4	0	0	4
12:45 PM	4	0	0	4
1:00 PM	11	0	0	11
1:15 PM	6	0	0	6
1:30 PM	1	0	0	1
1:45 PM	3	0	0	3
2:00 PM	4	0	0	4
2:15 PM	5	0	0	5
2:30 PM	7	0	0	7
2:45 PM	7	0	0	7
3:00 PM	8	0	0	8
3:15 PM	9	0	0	9
3:30 PM	3	0	0	3
3:45 PM	7	0	0	7
4:00 PM	6	0	0	6
4:15 PM	8	0	0	8
4:30 PM	5	0	0	5
4:45 PM	6	0	0	6
5:00 PM	10	0	0	10
5:15 PM	2	0	0	2
5:30 PM	6	0	0	6
5:45 PM	5	0	0	5
6:00 PM	4	0	0	4
6:15 PM	9	0	0	9
6:30 PM	5	0	0	5
6:45 PM	10	0	0	10
7:00 PM	8	0	0	8
7:15 PM	9	0	0	9
7:30 PM	8	0	0	8
7:45 PM	5	0	0	5
8:00 PM	4	0	0	4
8:15 PM	6	0	0	6
8:30 PM	9	0	0	9
8:45 PM	3	0	0	3
9:00 PM	7	0	0	7
9:15 PM	4	0	0	4
9:30 PM	0	0	0	0
9:45 PM	0	0	0	0
10:00 PM	6	0	0	6
10:15 PM	2	0	0	2
10:30 PM	1	0	0	1
10:45 PM	2	0	0	2
11:00 PM	1	0	0	1
11:15 PM	1	0	0	1

01/27/2021 12:00 AM

11:30 PM
11:45 PM
12:15 AM
12:30 AM
12:45 AM
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10:15 AM
10:30 AM
10:45 AM
11:00 AM
11:15 AM
11:30 AM
11:45 AM
12:00 PM
12:15 PM

1	0	0	1
1	0	0	1
0	0	0	0
1	0	0	1
1	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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2	0	0	2
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3	0	0	3
4	0	0	4
3	0	0	3
2	0	0	2
3	0	0	3
2	0	0	2
5	0	1	6
4	0	0	4
5	0	0	5
3	0	0	3
5	0	1	6
9	0	0	9
3	0	0	3

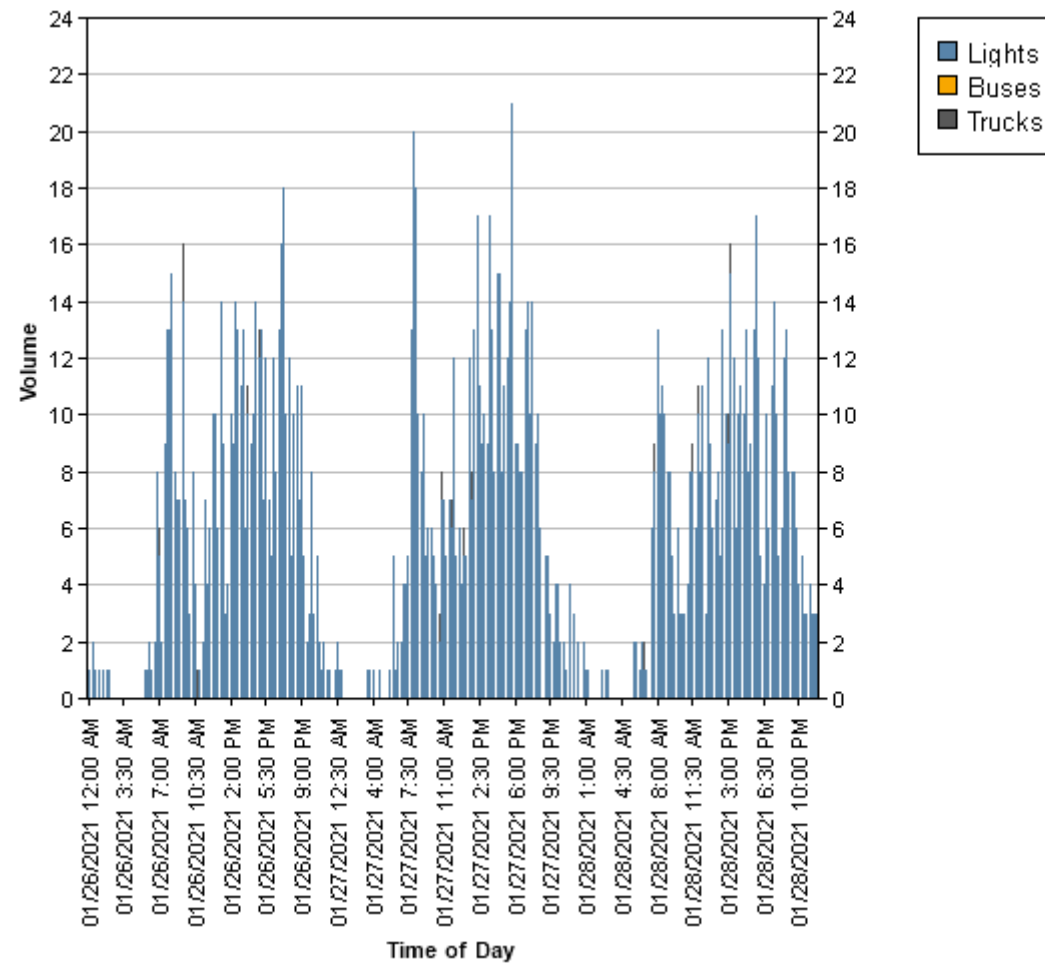
12:30 PM
12:45 PM
1:00 PM
1:15 PM
1:30 PM
1:45 PM
2:00 PM
2:15 PM
2:30 PM
2:45 PM
3:00 PM
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11:15 PM
11:30 PM
11:45 PM
01/28/2021 12:00 AM
12:15 AM
12:30 AM
12:45 AM
1:00 AM
1:15 AM

5	0	0	5
2	0	0	2
5	0	0	5
4	0	0	4
6	0	0	6
5	0	1	6
7	0	0	7
11	0	0	11
9	0	0	9
7	0	0	7
7	0	0	7
7	0	0	7
9	0	0	9
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9	0	0	9
7	0	0	7
10	0	0	10
7	0	0	7
6	0	0	6
5	0	0	5
0	0	0	0
3	0	0	3
3	0	0	3
2	0	0	2
1	0	0	1
3	0	0	3
2	0	0	2
2	0	0	2
2	0	0	2
0	0	0	0
0	0	0	0
3	0	0	3
2	0	0	2
0	0	0	0
1	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

2:30 PM	8	0	0	8
2:45 PM	9	0	0	9
3:00 PM	7	0	0	7
3:15 PM	9	0	1	10
3:30 PM	6	0	0	6
3:45 PM	3	0	0	3
4:00 PM	6	0	0	6
4:15 PM	6	0	0	6
4:30 PM	6	0	0	6
4:45 PM	7	0	0	7
5:00 PM	4	0	0	4
5:15 PM	2	0	0	2
5:30 PM	8	0	0	8
5:45 PM	8	0	0	8
6:00 PM	5	0	0	5
6:15 PM	4	0	0	4
6:30 PM	4	0	0	4
6:45 PM	8	0	0	8
7:00 PM	5	0	0	5
7:15 PM	7	0	0	7
7:30 PM	11	0	0	11
7:45 PM	7	0	0	7
8:00 PM	4	0	0	4
8:15 PM	6	0	0	6
8:30 PM	8	0	0	8
8:45 PM	9	0	0	9
9:00 PM	5	0	0	5
9:15 PM	6	0	0	6
9:30 PM	3	0	0	3
9:45 PM	3	0	0	3
10:00 PM	2	0	0	2
10:15 PM	4	0	0	4
10:30 PM	2	0	0	2
10:45 PM	3	0	0	3
11:00 PM	2	0	0	2
11:15 PM	2	0	0	2
11:30 PM	3	0	0	3
11:45 PM	2	0	0	2
Total	980	0	10	990
Total %	99.0	0.0	1.0	100.0
AM Times	7:45 AM	12:00 AM	8:30 AM	7:45 AM
AM Peaks	28	0	2	28
PM Times	5:00 PM	12:00 PM	1:00 PM	5:00 PM
PM Peaks	30	0	1	30

A & P Consulting Transportation
10305 Nw 41St St., Suite 115
Miami, Florida, United States 33178
(305)592-7283 edsanchez@apcte.com

Count Name: NW 104th Path at Limestone Trail
Site Code: NW 104th Path Btwn NW 66th St and
Limestone Trail
Start Date: 01/26/2021
Page No: 13



APPENDIX D

Spot Speed Study Data

State of Florida Department of Transportation

VEHICLE SPOT SPEED STUDY

Form 750-010-03
TRAFFIC ENGINEERING
March 2020

General Information				Site Information			
Analyst/Observer: Javier Rodriguez / Alexis Glez				Location: NW 66th St East of NW 104th Ave			
Agency or Company: APCTE				City: Doral County: Miami Dade			
Date Performed: Wednesday, March 10, 2021				Roadway ID: 			
Time Period From: 10:00 AM To: 11:00 AM				Milepost: Posted Speed (mph): 30			
Weather/Road Condition: CLEAR/DRY				Remarks: 			

Vehicles traveling		East bound				Speed (mph)	Vehicles traveling				West bound				Both Directions	
Cum Total	Total	20	15	10	5		5	10	15	20	Total	Cum Total	Total	Cum Total		
	0					≥ 80					0				226	
	0					78 - 79.9					0				226	
	0					76 - 77.9					0				226	
	0					74 - 75.9					0				226	
	0					72 - 73.9					0				226	
	0					70 - 71.9					0				226	
	0					68 - 69.9					0				226	
	0					66 - 67.9					0				226	
	0					64 - 65.9					0				226	
	0					62 - 63.9					0				226	
	0					60 - 61.9					0				226	
	0					58 - 59.9					0				226	
	0					56 - 57.9					0				226	
	0					54 - 55.9					0				226	
	0					52 - 53.9					0				226	
	0					50 - 51.9					0				226	
	0					48 - 49.9					0				226	
	0					46 - 47.9					0				226	
	0					44 - 45.9	1				1	113	1		226	
	0					42 - 43.9	1				1	112	1		225	
113	1					40 - 41.9	1	1	1	1	1	1	7	111	8	224
112	3					38 - 39.9	1	1	1	1	1	1	7	104	10	216
109	10					36 - 37.9	1	1	1	1	1	1	1	1	1	206
99	20	1	1	1	1	34 - 35.9	2	2	2	1	1	1	1	1	1	177
79	18		1	1	1	32 - 33.9	2	1	1	1	1	1	1	1	1	133
61	18		1	1	1	30 - 31.9	1	1	1	1	1	1	1	1	1	94
43	18		1	1	1	28 - 29.9	1	1	1	1	1	1	1	1	1	66
25	10					26 - 27.9	1	1	1	1	1	1	1	1	1	38
15	7					24 - 25.9	1	1	1							19
8	3					22 - 23.9	1									9
5	3					20 - 21.9										5
2	1					18 - 19.9										2
1	1					16 - 17.9										1
	0					14 - 15.9										
	0					12 - 13.9										
	0					10 - 11.9										
0	0					≤ 10					0					

113	TOTALS							113	226
Travel Direction 1 →		East	Speed Data Summary		West	← Travel Direction 2		Both Directions	
		96	85 th Percentile Vehicle		96		85 th Percentile Vehicle	192	
		35	85 th Percentile Speed		37		85 th Percentile Speed	37	
		57	50 th Percentile Vehicle		57		50 th Percentile Vehicle	113	
		31	50 th Percentile Speed		35		50 th Percentile Speed	33	
		28-38	10 mph pace		28-38		10 mph pace	28-38	
		Warning: Multiple 10 mph paces. Highest range shown				OK			OK

State of Florida Department of Transportation

VEHICLE SPOT SPEED STUDY

Form 750-010-03
TRAFFIC ENGINEERING
March 2020

General Information														Site Information													
Analyst/Observer: Javier Rodriguez / Alexis Glez														Location: NW 66th St West of NW 104th Ave													
Agency or Company: APCTE														City: Doral County: Miami Dade													
Date Performed: Wednesday, March 10, 2021														Roadway ID: 													
Time Period From: 11:00 AM To: 12:00 PM														Milepost: Posted Speed (mph): 30													
Weather/Road Condition: CLEAR/DRY														Remarks: 													

Vehicles traveling <u>East</u> bound														Speed (mph)	Vehicles traveling <u>West</u> bound														Both Directions							
Cum Total	Total	20				15				10					5				5	10				15				20				Total	Cum Total	Total	Cum Total	
	0															≥ 80													0			222				
	0															78 - 79.9													0			222				
	0															76 - 77.9													0			222				
	0															74 - 75.9													0			222				
	0															72 - 73.9													0			222				
	0															70 - 71.9													0			222				
	0															68 - 69.9													0			222				
	0															66 - 67.9													0			222				
	0															64 - 65.9													0			222				
	0															62 - 63.9													0			222				
	0															60 - 61.9													0			222				
	0															58 - 59.9													0			222				
	0															56 - 57.9													0			222				
	0															54 - 55.9													0			222				
	0															52 - 53.9													0			222				
	0															50 - 51.9	1												1	111	1	222				
	0															48 - 49.9	1												1	110	1	221				
	0															46 - 47.9	1												1	109	1	220				
	0															44 - 45.9	1	1	1										3	108	3	219				
	0															42 - 43.9	1	1											2	105	2	216				
111	4															40 - 41.9	1	1	1	1	1								5	103	9	214				
107	2															38 - 39.9	1	1	1	1	1	1	1						8	98	10	205				
105	6															36 - 37.9	1	1	1	1	1	1	1	1	1				9	90	15	195				
99	12															34 - 35.9	1	1	1	1	1	1	1	1	1	1	1		12	81	24	180				
87	19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	32 - 33.9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	69	37	156			
68	18		1	1	1	1	1	1	1	1	1	1	1	1	1	30 - 31.9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	51	35	119			
50	20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	28 - 29.9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	34	37	84			
30	16				1	1	1	1	1	1	1	1	1	1	1	26 - 27.9	1	1	1	1	1	1	1	1	1	1	1		10	17	26	47				
14	7									1	1	1	1	1	1	24 - 25.9	1	1	1	1	1								5	7	12	21				
7	4													1	1	22 - 23.9	1												1	2	5	9				
3	2														1	20 - 21.9	1												1	1	3	4				
1	1														1	18 - 19.9													0		1	1				
	0															16 - 17.9													0							
	0															14 - 15.9													0							
	0															12 - 13.9													0							
	0															10 - 11.9													0							
0	0															≤ 10													0							
111																TOTALS																111				222

Travel Direction 1 →	East	Speed Data Summary	West	← Travel Direction 2	Both Directions
	94	85 th Percentile Vehicle	94	85 th Percentile Vehicle	189
	35	85 th Percentile Speed	39	85 th Percentile Speed	37
	56	50 th Percentile Vehicle	56	50 th Percentile Vehicle	111
	31	50 th Percentile Speed	33	50 th Percentile Speed	31
	26-36	10 mph pace	26-36	10 mph pace	26-36
	OK		OK		OK

State of Florida Department of Transportation

VEHICLE SPOT SPEED STUDY

Form 750-010-03
TRAFFIC ENGINEERING
March 2020

General Information				Site Information			
Analyst/Observer: Javier Rodriguez / Alexis Glez				Location: NW 104th Ave Btwn NW 74th St and NW 66th St			
Agency or Company: APCTE				City: Doral County: Miami Dade			
Date Performed: Tuesday, February 9, 2021				Roadway ID: 			
Time Period From: 10:00 AM To: 11:00 AM				Milepost: 			
Weather/Road Condition: CLEAR/DRY				Remarks: 			

Vehicles traveling		North bound				Speed (mph)	Vehicles traveling				South bound				Both Directions	
Cum Total	Total	20	15	10	5		5	10	15	20	Total	Cum Total	Total	Cum Total		
	0					≥ 80						0			220	
	0					78 - 79.9						0			220	
	0					76 - 77.9						0			220	
	0					74 - 75.9						0			220	
	0					72 - 73.9						0			220	
	0					70 - 71.9						0			220	
	0					68 - 69.9						0			220	
	0					66 - 67.9						0			220	
	0					64 - 65.9						0			220	
	0					62 - 63.9						0			220	
	0					60 - 61.9						0			220	
	0					58 - 59.9						0			220	
	0					56 - 57.9						0			220	
	0					54 - 55.9						0			220	
	0					52 - 53.9						0			220	
	0					50 - 51.9						0			220	
	0					48 - 49.9						0			220	
	0					46 - 47.9						0			220	
	0					44 - 45.9	1					1	110	1	220	
	0					42 - 43.9	1					1	109	1	219	
110	1					40 - 41.9	1	1	1			3	108	4	218	
109	5					38 - 39.9	1	1	1			3	105	8	214	
104	3					36 - 37.9	1	1	1	1	1	1	1	1	1	206
101	6					34 - 35.9	1	1	1	1	1	1	1	1	1	191
95	8					32 - 33.9	1	1	1	1	1	1	1	1	1	177
87	9					30 - 31.9	2	2	1	1	1	1	1	1	1	156
78	18	1	1	1	1	28 - 29.9	1	1	1	1	1	1	1	1	1	125
60	14					26 - 27.9	1	1	1	1	1	1	1	1	1	94
46	17	1	1	1	1	24 - 25.9	1	1	1	1						69
29	11					22 - 23.9	1	1	1	1	1	1				47
18	8					20 - 21.9	1	1	1	1						29
10	6					18 - 19.9	1	1	1	1	1					16
4	4					16 - 17.9									4	4
	0					14 - 15.9										
	0					12 - 13.9										
	0					10 - 11.9										
0	0					≤ 10						0				

110	TOTALS										110	220
Travel Direction 1 →		North	Speed Data Summary		South	← Travel Direction 2		Both Directions				
		94	85 th Percentile Vehicle		94	85 th Percentile Vehicle		187				
		33	85 th Percentile Speed		37	85 th Percentile Speed		35				
		55	50 th Percentile Vehicle		55	50 th Percentile Vehicle		110				
		27	50 th Percentile Speed		31	50 th Percentile Speed		29				
		22-32	10 mph pace		28-38	10 mph pace		24-34				
		OK			OK			OK				

State of Florida Department of Transportation

VEHICLE SPOT SPEED STUDY

Form 750-010-03
TRAFFIC ENGINEERING
March 2020

General Information				Site Information			
Analyst/Observer: Javier Rodriguez / Alexis Glez				Location: NW104 Path Btwn NW 66 St & Limestone Trail			
Agency or Company: APCTE				City: Doral County: Miami Dade			
Date Performed: Thursday, February 25, 2021				Roadway ID: 			
Time Period From: 10:45 AM To: 1:00 PM				Milepost: Posted Speed (mph): 20			
Weather/Road Condition: CLEAR/DRY				Remarks: 50 samples per bound			

Vehicles traveling		North bound				Speed (mph)	Vehicles traveling				South bound				Both Directions	
Cum Total	Total	20	15	10	5		5	10	15	20	Total	Cum Total	Total	Cum Total		
	0					≥ 80										100
	0					78 - 79.9										100
	0					76 - 77.9										100
	0					74 - 75.9										100
	0					72 - 73.9										100
	0					70 - 71.9										100
	0					68 - 69.9										100
	0					66 - 67.9										100
	0					64 - 65.9										100
	0					62 - 63.9										100
	0					60 - 61.9										100
	0					58 - 59.9										100
	0					56 - 57.9										100
	0					54 - 55.9										100
	0					52 - 53.9										100
	0					50 - 51.9										100
	0					48 - 49.9										100
	0					46 - 47.9										100
	0					44 - 45.9										100
	0					42 - 43.9										100
	0					40 - 41.9										100
	0					38 - 39.9										100
	0					36 - 37.9										100
	0					34 - 35.9	1									100
	0					32 - 33.9										99
50	1					30 - 31.9	1									99
	0					28 - 29.9	1	1	1	1						98
49	2					26 - 27.9	1	1	1	1	1					94
47	3					24 - 25.9	1	1	1	1	1					86
44	3					22 - 23.9	1	1	1	1	1	1	1	1		78
41	11			1	1	20 - 21.9	1	1	1	1	1	1	1	1		66
30	9			1	1	18 - 19.9	1	1	1	1	1	1	1	1		46
21	8			1	1	16 - 17.9	1	1								29
13	6			1	1	14 - 15.9	1	1	1							19
7	4			1	1	12 - 13.9	1	1								10
3	1					10 - 11.9	1									4
2	2				1	≤ 10	1									3

50	TOTALS						50	100
Travel Direction 1 →		North	Speed Data Summary	South	← Travel Direction 2		Both Directions	
		43	85 th Percentile Vehicle	43		85 th Percentile Vehicle	85	
		23	85 th Percentile Speed	27		85 th Percentile Speed	25	
		25	50 th Percentile Vehicle	25		50 th Percentile Vehicle	50	
		19	50 th Percentile Speed	21		50 th Percentile Speed	21	
		12-22	10 mph pace	18-28		10 mph pace	14-24	
		OK		OK		OK		

State of Florida Department of Transportation

VEHICLE SPOT SPEED STUDY

Form 750-010-03
TRAFFIC ENGINEERING
March 2020

General Information				Site Information			
Analyst/Observer: Javier Rodriguez / Alexis Glez				Location: NW104 Path Btwn NW 107 Ave&Limestone Trail			
Agency or Company: APCTE				City: Doral County: Miami Dade			
Date Performed: Thursday, February 11, 2021				Roadway ID: 			
Time Period From: 10:45 AM To: 1:00 PM				Milepost: Posted Speed (mph): 30			
Weather/Road Condition: CLEAR/DRY				Remarks: 			

Vehicles traveling		North bound				Speed (mph)	Vehicles traveling				South bound				Both Directions	
Cum Total	Total	20	15	10	5		5	10	15	20	Total	Cum Total	Total	Cum Total		
	0					≥ 80						0			212	
	0					78 - 79.9						0			212	
	0					76 - 77.9						0			212	
	0					74 - 75.9						0			212	
	0					72 - 73.9						0			212	
	0					70 - 71.9						0			212	
	0					68 - 69.9						0			212	
	0					66 - 67.9						0			212	
	0					64 - 65.9						0			212	
	0					62 - 63.9						0			212	
	0					60 - 61.9						0			212	
	0					58 - 59.9						0			212	
	0					56 - 57.9						0			212	
	0					54 - 55.9						0			212	
	0					52 - 53.9						0			212	
	0					50 - 51.9						0			212	
	0					48 - 49.9						0			212	
	0					46 - 47.9						0			212	
	0					44 - 45.9						0			212	
	0					42 - 43.9						0			212	
	0					40 - 41.9						0			212	
106	1					38 - 39.9	1	1				2	106	3	212	
105	1					36 - 37.9	1	1				2	104	3	209	
104	7				1	34 - 35.9	1	1	1	1	1	9	102	16	206	
97	10			1	1	32 - 33.9	1	1	1	1	1	13	93	23	190	
87	11			1	1	30 - 31.9	1	1	1	1	1	13	80	24	167	
76	9			1	1	28 - 29.9	1	1	1	1	1	17	67	26	143	
67	12		1	1	1	26 - 27.9	1	1	1	1	1	15	50	27	117	
55	14		1	1	1	24 - 25.9	1	1	1	1	1	12	35	26	90	
41	11		1	1	1	22 - 23.9	1	1	1	1		6	23	17	64	
30	10		1	1	1	20 - 21.9	1	1	1	1		6	17	16	47	
20	8			1	1	18 - 19.9	1	1	1	1		7	11	15	31	
12	7			1	1	16 - 17.9	1	1	1			3	4	10	16	
5	3				1	14 - 15.9						0		3	6	
2	2				1	12 - 13.9	1					1	1	3	3	
	0					10 - 11.9						0				
0	0					≤ 10						0				

106	TOTALS						106	212
Travel Direction 1 →		North	Speed Data Summary	South	← Travel Direction 2		Both Directions	
		90	85 th Percentile Vehicle	90		85 th Percentile Vehicle	180	
		33	85 th Percentile Speed	33		85 th Percentile Speed	33	
		53	50 th Percentile Vehicle	53		50 th Percentile Vehicle	106	
		25	50 th Percentile Speed	29		50 th Percentile Speed	27	
		22-32	10 mph pace	24-34		10 mph pace	24-34	
		OK		OK		OK		

APPENDIX E

12-Hour Pedestrian Counts

A & P Consulting Transportation
10305 Nw 41St St., Suite 115
Miami, Florida, United States 33178
(305)592-7283 edsanchez@apcte.com

Count Name: NW 66th Street at NW 104th Ave
Site Code: NW 66th Street at NW 104th Ave
North Leg
Start Date: 02/23/2021
Page No: 1

West Leg North-South (Southbound)

Start Time	Pedestrians	Bicycles	Total
7:00 AM	1	0	1
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	4	0	4
8:00 AM	6	0	6
8:15 AM	3	0	3
8:30 AM	2	0	2
8:45 AM	0	0	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	0	1	1
10:30 AM	1	0	1
10:45 AM	0	0	0
11:00 AM	0	0	0
11:15 AM	0	0	0
11:30 AM	0	0	0
11:45 AM	4	0	4
12:00 PM	0	0	0
12:15 PM	0	0	0
12:30 PM	0	0	0
12:45 PM	0	0	0
1:00 PM	0	0	0
1:15 PM	0	0	0
1:30 PM	1	1	2
1:45 PM	0	0	0
2:00 PM	3	0	3
2:15 PM	1	1	2
2:30 PM	6	1	7
2:45 PM	6	0	6
3:00 PM	2	0	2
3:15 PM	3	0	3
3:30 PM	19	0	19
3:45 PM	0	0	0
4:00 PM	1	0	1
4:15 PM	0	0	0
4:30 PM	0	0	0
4:45 PM	1	0	1
5:00 PM	0	0	0
5:15 PM	3	0	3

5:30 PM
5:45 PM
6:00 PM
6:15 PM
6:30 PM
6:45 PM
7:00 AM
7:15 AM
7:30 AM
7:45 AM
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1	0	1
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3	0	3
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0	1	1
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0	0	0
2	1	3
4	0	4
7	0	7
2	0	2
3	0	3
1	0	1
1	1	2
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0	0	0
2	0	2
6	0	6
9	0	9
3	0	3
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15	0	15
2	1	3
0	1	1
0	0	0
2	0	2
2	0	2
0	0	0
1	2	3
1	3	4
1	0	1
4	2	6
3	0	3

6:30 PM	2	0	2
6:45 PM	1	0	1
7:00 AM	0	0	0
7:15 AM	0	0	0
7:30 AM	2	0	2
7:45 AM	2	2	4
8:00 AM	7	0	7
8:15 AM	4	0	4
8:30 AM	0	0	0
8:45 AM	0	0	0
9:00 AM	0	1	1
9:15 AM	0	0	0
9:30 AM	1	0	1
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	0	0	0
10:30 AM	0	0	0
10:45 AM	1	0	1
11:00 AM	0	0	0
11:15 AM	0	0	0
11:30 AM	0	0	0
11:45 AM	0	0	0
12:00 PM	0	0	0
12:15 PM	0	0	0
12:30 PM	2	0	2
12:45 PM	1	0	1
1:00 PM	0	0	0
1:15 PM	0	0	0
1:30 PM	0	0	0
1:45 PM	0	0	0
2:00 PM	0	0	0
2:15 PM	2	0	2
2:30 PM	4	1	5
2:45 PM	7	0	7
3:00 PM	4	0	4
3:15 PM	0	0	0
3:30 PM	14	0	14
3:45 PM	0	0	0
4:00 PM	0	0	0
4:15 PM	0	0	0
4:30 PM	0	0	0
4:45 PM	1	0	1
5:00 PM	0	0	0
5:15 PM	3	0	3
5:30 PM	5	0	5
5:45 PM	4	0	4
6:00 PM	4	0	4
6:15 PM	1	0	1
6:30 PM	5	0	5
6:45 PM	3	1	4
Total	233	22	255
Total %	91.4	8.6	100.0

AM Times	7:45 AM	7:45 AM	7:45 AM
AM Peaks	16	2	16
PM Times	2:45 PM	5:15 PM	2:45 PM
PM Peaks	30	7	30

A & P Consulting Transportation
10305 Nw 41St St., Suite 115
Miami, Florida, United States 33178
(305)592-7283 edsanchez@apcte.com

Count Name: NW 66th Street at NW 104th Ave
Site Code: NW 66th Street at NW 104th Ave
North Leg
Start Date: 02/23/2021
Page No: 5

West Leg North-South (Northbound)

Start Time	Pedestrians	Bicycles	Total
7:00 AM	0	1	1
7:15 AM	0	0	0
7:30 AM	2	0	2
7:45 AM	9	0	9
8:00 AM	11	0	11
8:15 AM	3	0	3
8:30 AM	6	0	6
8:45 AM	0	0	0
9:00 AM	1	0	1
9:15 AM	1	0	1
9:30 AM	1	0	1
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	0	0	0
10:30 AM	0	0	0
10:45 AM	0	0	0
11:00 AM	0	0	0
11:15 AM	1	0	1
11:30 AM	0	0	0
11:45 AM	0	0	0
12:00 PM	0	0	0
12:15 PM	0	0	0
12:30 PM	0	0	0
12:45 PM	0	0	0
1:00 PM	0	0	0
1:15 PM	0	0	0
1:30 PM	0	0	0
1:45 PM	0	0	0
2:00 PM	3	0	3
2:15 PM	1	0	1
2:30 PM	2	0	2
2:45 PM	5	1	6
3:00 PM	1	0	1
3:15 PM	1	0	1
3:30 PM	5	0	5
3:45 PM	0	0	0
4:00 PM	0	0	0
4:15 PM	1	0	1
4:30 PM	0	0	0
4:45 PM	0	0	0
5:00 PM	0	0	0
5:15 PM	1	0	1

5:30 PM
5:45 PM
6:00 PM
6:15 PM
6:30 PM
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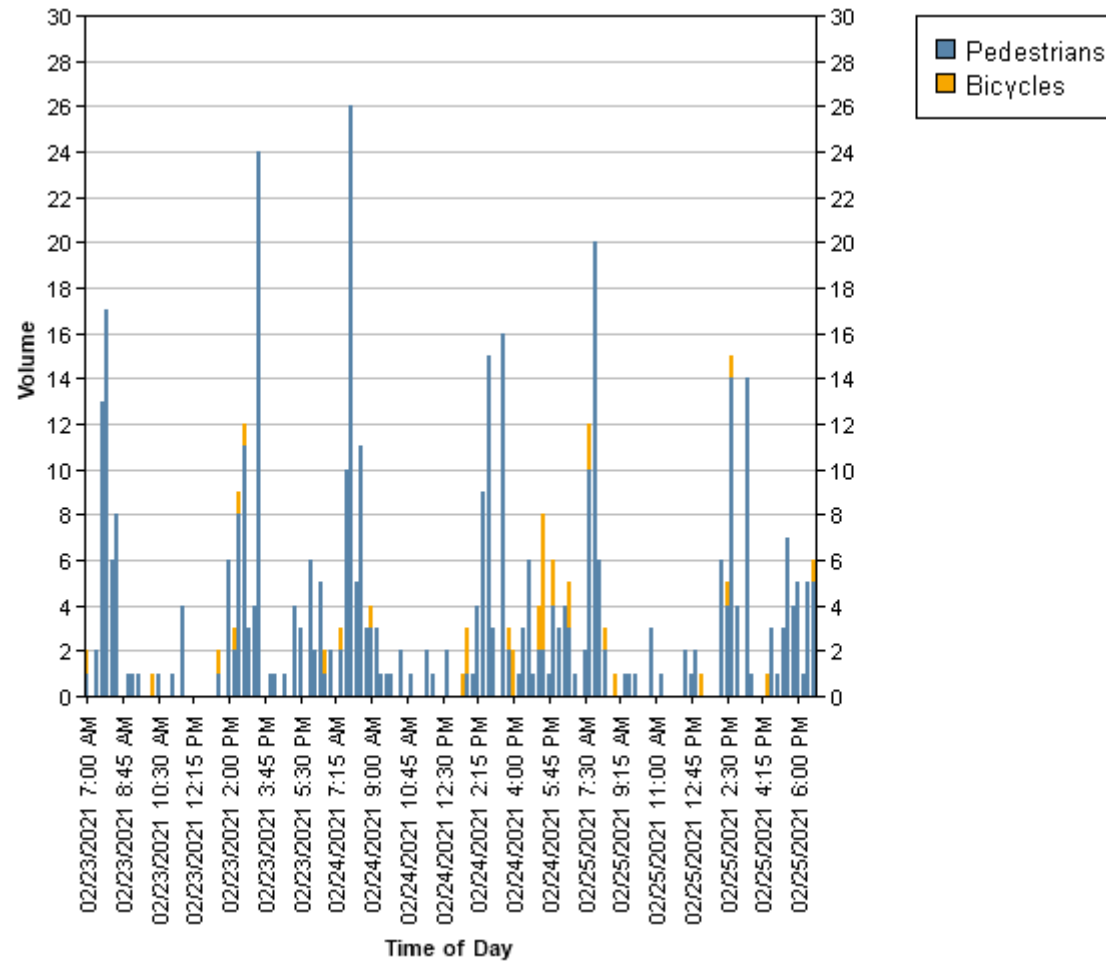
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1	0	1
2	0	2
0	0	0
0	0	0
6	0	6
19	0	19
3	0	3
8	0	8
2	0	2
2	0	2
1	0	1
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0	0	0
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0	0	0
1	2	3
1	0	1
2	0	2
3	0	3
6	0	6
0	0	0
0	0	0
1	0	1
0	0	0
0	1	1
1	0	1
1	0	1
4	0	4
1	0	1
1	0	1
1	0	1
0	0	0
0	0	0
0	0	0
0	0	0
1	0	1
1	3	4
0	0	0
0	0	0
0	0	0

6:30 PM	2	0	2
6:45 PM	2	2	4
7:00 AM	1	0	1
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	8	0	8
8:00 AM	13	0	13
8:15 AM	2	0	2
8:30 AM	2	1	3
8:45 AM	0	0	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	1	0	1
10:00 AM	1	0	1
10:15 AM	0	0	0
10:30 AM	0	0	0
10:45 AM	2	0	2
11:00 AM	0	0	0
11:15 AM	1	0	1
11:30 AM	0	0	0
11:45 AM	0	0	0
12:00 PM	0	0	0
12:15 PM	0	0	0
12:30 PM	0	0	0
12:45 PM	0	0	0
1:00 PM	2	0	2
1:15 PM	0	1	1
1:30 PM	0	0	0
1:45 PM	0	0	0
2:00 PM	0	0	0
2:15 PM	4	0	4
2:30 PM	0	0	0
2:45 PM	7	1	8
3:00 PM	0	0	0
3:15 PM	0	0	0
3:30 PM	0	0	0
3:45 PM	1	0	1
4:00 PM	0	0	0
4:15 PM	0	0	0
4:30 PM	0	1	1
4:45 PM	2	0	2
5:00 PM	1	0	1
5:15 PM	0	0	0
5:30 PM	2	0	2
5:45 PM	0	0	0
6:00 PM	1	0	1
6:15 PM	0	0	0
6:30 PM	0	0	0
6:45 PM	2	0	2
Total	193	14	207
Total %	93.2	6.8	100.0

AM Times	7:45 AM	7:45 AM	7:45 AM
AM Peaks	36	1	36
PM Times	2:45 PM	5:15 PM	2:45 PM
PM Peaks	12	3	13

A & P Consulting Transportation
10305 Nw 41St St., Suite 115
Miami, Florida, United States 33178
(305)592-7283 edsanchez@apcte.com

Count Name: NW 66th Street at NW 104th Ave
Site Code: NW 66th Street at NW 104th Ave
North Leg
Start Date: 02/23/2021
Page No: 9



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(305)592-7283 edsanchez@apcte.com

Count Name: NW 66th Street at NW 104th Ave
Site Code: NW 66th Street at NW 104th Ave
North Leg
Start Date: 02/23/2021
Page No: 1

North Leg East -West (Westbound)

Start Time	Pedestrians	Bicycles	Total
7:00 AM	1	0	1
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	3	0	3
8:00 AM	0	0	0
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	0	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	0	0	0
10:30 AM	0	0	0
10:45 AM	4	0	4
11:00 AM	0	0	0
11:15 AM	1	0	1
11:30 AM	0	0	0
11:45 AM	2	0	2
12:00 PM	0	0	0
12:15 PM	0	0	0
12:30 PM	0	0	0
12:45 PM	2	0	2
1:00 PM	0	1	1
1:15 PM	3	0	3
1:30 PM	0	0	0
1:45 PM	0	0	0
2:00 PM	0	0	0
2:15 PM	1	0	1
2:30 PM	1	0	1
2:45 PM	0	0	0
3:00 PM	0	0	0
3:15 PM	0	0	0
3:30 PM	0	0	0
3:45 PM	0	0	0
4:00 PM	1	1	2
4:15 PM	0	0	0
4:30 PM	1	0	1
4:45 PM	0	1	1
5:00 PM	0	0	0
5:15 PM	1	0	1

5:30 PM
5:45 PM
6:00 PM
6:15 PM
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1	0	1
1	0	1
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1	0	1
2	1	3
3	0	3
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0	2	2
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6:30 PM	0	0	0
6:45 PM	2	0	2
7:00 AM	0	0	0
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	2	0	2
8:00 AM	5	0	5
8:15 AM	2	0	2
8:30 AM	1	0	1
8:45 AM	0	0	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	1	0	1
10:15 AM	2	0	2
10:30 AM	1	0	1
10:45 AM	0	0	0
11:00 AM	0	0	0
11:15 AM	0	0	0
11:30 AM	0	0	0
11:45 AM	3	0	3
12:00 PM	0	0	0
12:15 PM	0	0	0
12:30 PM	2	0	2
12:45 PM	0	0	0
1:00 PM	0	0	0
1:15 PM	0	0	0
1:30 PM	0	1	1
1:45 PM	0	0	0
2:00 PM	0	0	0
2:15 PM	0	0	0
2:30 PM	0	0	0
2:45 PM	2	0	2
3:00 PM	1	0	1
3:15 PM	0	0	0
3:30 PM	0	0	0
3:45 PM	0	0	0
4:00 PM	0	0	0
4:15 PM	0	0	0
4:30 PM	0	0	0
4:45 PM	0	0	0
5:00 PM	0	0	0
5:15 PM	2	0	2
5:30 PM	1	0	1
5:45 PM	1	1	2
6:00 PM	1	0	1
6:15 PM	1	0	1
6:30 PM	0	0	0
6:45 PM	0	0	0
Total	72	12	84
Total %	85.7	14.3	100.0

AM Times	7:30 AM	10:00 AM	7:30 AM
AM Peaks	9	3	9
PM Times	5:00 PM	3:15 PM	5:00 PM
PM Peaks	3	1	4

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Count Name: NW 66th Street at NW 104th Ave
Site Code: NW 66th Street at NW 104th Ave
North Leg
Start Date: 02/23/2021
Page No: 5

North Leg East -West (Eastbound)

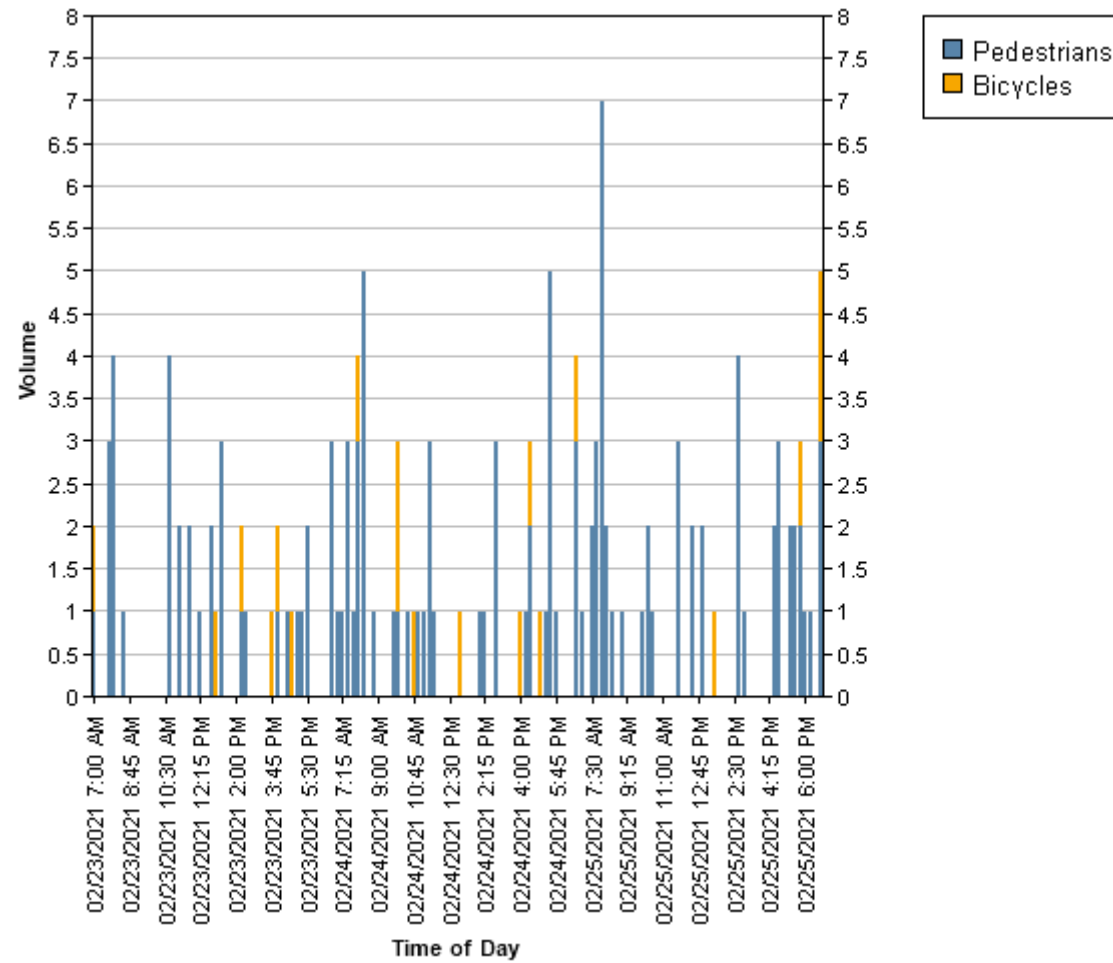
Start Time	Pedestrians	Bicycles	Total
7:00 AM	0	1	1
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	0	0	0
8:00 AM	4	0	4
8:15 AM	0	0	0
8:30 AM	1	0	1
8:45 AM	0	0	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	0	0	0
10:30 AM	0	0	0
10:45 AM	0	0	0
11:00 AM	0	0	0
11:15 AM	1	0	1
11:30 AM	0	0	0
11:45 AM	0	0	0
12:00 PM	0	0	0
12:15 PM	1	0	1
12:30 PM	0	0	0
12:45 PM	0	0	0
1:00 PM	0	0	0
1:15 PM	0	0	0
1:30 PM	0	0	0
1:45 PM	0	0	0
2:00 PM	0	0	0
2:15 PM	0	1	1
2:30 PM	0	0	0
2:45 PM	0	0	0
3:00 PM	0	0	0
3:15 PM	0	0	0
3:30 PM	0	0	0
3:45 PM	0	1	1
4:00 PM	0	0	0
4:15 PM	0	0	0
4:30 PM	0	0	0
4:45 PM	0	0	0
5:00 PM	1	0	1
5:15 PM	0	0	0

5:30 PM
5:45 PM
6:00 PM
6:15 PM
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7:00 AM
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1	0	1
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0	0	0
0	0	0
0	0	0
2	1	3
0	0	0
0	0	0
0	0	0
4	0	4
0	0	0
0	0	0

6:30 PM	0	0	0
6:45 PM	1	1	2
7:00 AM	1	0	1
7:15 AM	0	0	0
7:30 AM	2	0	2
7:45 AM	1	0	1
8:00 AM	2	0	2
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	0	0
9:00 AM	1	0	1
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	0	0	0
10:30 AM	0	0	0
10:45 AM	0	0	0
11:00 AM	0	0	0
11:15 AM	0	0	0
11:30 AM	0	0	0
11:45 AM	0	0	0
12:00 PM	0	0	0
12:15 PM	0	0	0
12:30 PM	0	0	0
12:45 PM	0	0	0
1:00 PM	2	0	2
1:15 PM	0	0	0
1:30 PM	0	0	0
1:45 PM	0	0	0
2:00 PM	0	0	0
2:15 PM	0	0	0
2:30 PM	0	0	0
2:45 PM	2	0	2
3:00 PM	0	0	0
3:15 PM	0	0	0
3:30 PM	0	0	0
3:45 PM	0	0	0
4:00 PM	0	0	0
4:15 PM	0	0	0
4:30 PM	2	0	2
4:45 PM	3	0	3
5:00 PM	0	0	0
5:15 PM	0	0	0
5:30 PM	1	0	1
5:45 PM	1	0	1
6:00 PM	0	0	0
6:15 PM	0	0	0
6:30 PM	0	0	0
6:45 PM	3	2	5
Total	53	7	60
Total %	88.3	11.7	100.0

AM Times	7:30 AM	10:00 AM	7:30 AM
AM Peaks	5	0	5
PM Times	5:00 PM	3:15 PM	5:00 PM
PM Peaks	4	1	4



APPENDIX F

FHWA Table1 Application of Pedestrian Crash Countermeasures by Roadway Feature

Table 1. Application of pedestrian crash countermeasures by roadway feature.

Roadway Configuration	Posted Speed Limit and AADT								
	Vehicle AADT <9,000			Vehicle AADT 9,000–15,000			Vehicle AADT >15,000		
	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph
2 lanes (1 lane in each direction)	① 2 4 5 6 7 9	① 5 6 7 9	① 5 6 7 9	① 4 5 6 7 9	① 5 6 7 9	① 5 6 7 9	① 4 5 6 7 9	① 5 6 7 9	① 5 6 7 9
3 lanes with raised median (1 lane in each direction)	① 2 3 4 5 7 9	① 3 5 7 9	① 3 5 7 9	① 3 4 5 7 9	① 3 5 7 9	① 3 5 7 9	① 3 4 5 7 9	① 3 5 7 9	① 3 5 7 9
3 lanes w/o raised median (1 lane in each direction with a two-way left-turn lane)	① 2 3 4 5 6 7 9	① 3 5 6 7 9	① 3 5 6 7 9	① 3 4 5 6 7 9	① 3 5 6 7 9	① 3 5 6 7 9	① 3 4 5 6 7 9	① 3 5 6 7 9	① 3 5 6 7 9
4+ lanes with raised median (2 or more lanes in each direction)	① 3 5 7 8 9	① 3 5 7 8 9	① 3 5 8 9	① 3 5 7 8 9	① 3 5 7 8 9	① 3 5 8 9	① 3 5 7 8 9	① 3 5 8 9	① 3 5 8 9
4+ lanes w/o raised median (2 or more lanes in each direction)	① 3 5 6 7 8 9	① 3 5 6 7 8 9	① 3 5 6 8 9	① 3 5 6 7 8 9	① 3 5 6 7 8 9	① 3 5 6 8 9	① 3 5 6 7 8 9	① 3 5 6 8 9	① 3 5 6 8 9

Given the set of conditions in a cell,

- # Signifies that the countermeasure is a candidate treatment at a marked uncontrolled crossing location.
- Signifies that the countermeasure should always be considered, but not mandated or required, based upon engineering judgment at a marked uncontrolled crossing location.
- Signifies that crosswalk visibility enhancements should always occur in conjunction with other identified countermeasures.*

The absence of a number signifies that the countermeasure is generally not an appropriate treatment, but exceptions may be considered following engineering judgment.

- High-visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting levels, and crossing warning signs
- Raised crosswalk
- Advance Yield Here To (Stop Here For) Pedestrians sign and yield (stop) line
- In-Street Pedestrian Crossing sign
- Curb extension
- Pedestrian refuge island
- Rectangular Rapid-Flashing Beacon (RRFB)**
- Road Diet
- Pedestrian Hybrid Beacon (PHB)**

APPENDIX G

Excerpts from Street Closure/Traffic Flow Modifications
Procedure (MDC Criteria)

APPENDIX III

POLICY ON SPEED HUMPS

PURPOSE: The purpose of this policy is to provide guidelines for the installation of speed humps along local residential streets within Miami-Dade County.

POLICY: Speed humps will be considered, on a case-by-case basis, and only on local residential streets, which meet the following criterion:

CRITERION:

- The street must be a local residential street. **Speed hump shall not be constructed on collector and arterial roadways.**
- The street shall not have more than one traffic lane in each direction.
- The street must be at least 750 feet long, with no intersecting roadways in between.
- Traffic volumes on the street must equal or exceed 750 vehicles per day.
- The street is posted at or has a speed limit of 30 MPH or less.
- The traffic engineering study has determined that the 85th percentile speed on the street is at least 10 MPH over the speed limit.
- The speed humps will not be considered within 250 feet of a traffic signal, within 50 feet of an intersection, in front of a driveway, within an intersection or adjacent to fire hydrants.
- The speed humps will not be considered in, or on the approaches to, a horizontal or a vertical curve where visibility of the hump is restricted.
- The street should not be located along an emergency response route, regional transit or school bus route and must be approved by the respective agencies for the installation of speed humps.
- Installation of these devices shall not cause the traffic to divert to other neighborhood streets.
- 2/3 of the residents/property owners of the block(s) concur with the installation of the speed hump.
- The District Commissioner approves the use of PTP funding for the installation.

APPENDIX IV


REPORT ON SPEED HUMPS

Memorandum



Date: December 14, 2006

To: Honorable Chairman Carlos A. Gimenez
and Members, Regional Transportation Committee

From: George M. Burgess
County Manager 

Subject: Speed Tables/Humps Report

RTC

Agenda Item No. 7(J)

This memorandum is in response to a request by Commissioner Gimenez for a report on the pros and cons of speed humps. A speed hump is a traffic calming tool designed to slow traffic or control the volume of through traffic. It is a raised area in the pavement surface extending transversely across the roadway. Speed humps normally have a minimum height of 3 to 4 inches and a travel length between 12 feet to 22 feet. In some cases, the speed hump may raise the roadway surface to the height of the adjacent curb for a short distance.

Advantages of Speed Humps

The main advantage of speed humps is speed reduction. Reductions in cut-through traffic are also a major benefit of these devices. Based on a report done by the Center for Transportation Research and Education, Iowa State University, a number of studies have evaluated differences in speeds at a location before and after a speed hump was installed. Review of the various studies indicate that the magnitude of speed reduction depends on a number of factors, including the design and spacing where the speed difference was collected in relationship to the traffic calming device, the surrounding environment, and vehicle mix. Speeds between humps have been observed to be reduced between 20 and 25 percent on average.

Studies also indicate that traffic volumes are reduced on average by 18 percent depending on alternative routes available. Additionally, collisions have been reduced on average by 13 percent on streets where installations have occurred.

Disadvantages of Speed Bumps

Among disadvantages attributed to speed humps are the potential lawsuits brought against several jurisdictions as a result of speed hump installations. Also, although speed humps are effective in reducing traffic speed, they also reduce the speed of emergency vehicles and delay response times substantially. The amount of delay that is incurred depends on the type of emergency vehicle and the desired operating speed. This can be as much as 10 seconds per device. In a study done in the USA, it was calculated that more deaths would arise from delayed arrival of ambulances than lives could be saved by any possible accident reduction. Several studies have evaluated the impact of speed humps on emergency response times. In general, there is an approximate delay of between 3 and 5 seconds per speed hump for fire trucks and up to 10 seconds for an ambulance with a patient. In addition, traversing speed humps provides major discomfort to ambulance passengers and emergency personnel.

Speed humps have also been documented to cause accidents and injuries. Experimental devices placed on a street to protect children at local schools in Portland, Maine, resulted in an increase in crashes of 35 percent. Bicyclists and motorcyclists are more prone to be physically impacted. If bicyclists hit a speed hump too quickly while still within the speed limit, they may be

/

Honorable Chairman Carlos A. Gimenez
And Members, Regional Transportation Committee
Page 2

launched into the air losing total control of their bicycle. Drivers have also been observed to be distracted by the humps, therefore, ignoring other hazards such as children. Therefore, speed humps may be a potential safety hazard.

Other disadvantages are:


- Increase in air pollution and fuel usage as traffic travels in a lower gear using significantly more fuel per mile.
- Increases in vehicle wear and tear because speed humps frequently cause damage to vehicles even at normal speed levels.
- An increase in roadway maintenance costs because the road surface before and after a hump tends to develop potholes after a few years.
- Accidental automobile air bag deployment

Recommendation

A reduction in vehicle speed and volume may be accomplished either by horizontal controls, such as traffic circles or vertical controls such as the speed humps or tables.

Our current policy favors horizontal control over vertical control since they are safer and can provide comfortable maneuvering for people with disabilities and those transported on emergency vehicles. As such, our current policy on the vertical controls, as described in Attachment A, is limited to those low volume local residential streets where there is no intersecting street within a distance of 750 feet, and where the speed is determined to be at least 10 MPH over the posted speed limit.


Assistant County Manager


Date

2

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ATTACHMENT A

POLICY ON SPEED HUMPS

PURPOSE:

The purpose of this policy is to provide guidelines for the installation of speed humps along local residential streets within Miami-Dade County.

POLICY:

Miami-Dade County has the sole discretion, subject to all applicable laws, to approve, modify, remove, continue or deny speed hump(s) request regardless of any support or lack thereof via the petition process. The approval or denial issued by the Director of PWD for a speed hump(s) is final. Speed humps will be considered on a case-by-case basis, only on local residential streets which meet the following criteria.

CRITERION:

- The street must strictly be a local residential road, specifically excluding arterial or collector roadways.
- The street shall not have more than one traffic lane in each direction.
- The street must be at least 750 feet long with no intersecting roadways in between.
- Traffic volumes on the street must range between 750 and 1500 vehicles per day.
- The street is posted at or has a speed limit of 30 MPH or less.
- The traffic engineering study has determined that the 85th percentile speed on the street is at least 10 MPH over the speed limit.
- The speed humps will not be considered within 250 feet of a traffic signal, within 50 feet of an intersection, in front of a driveway, within an intersection or adjacent to fire hydrants.
- The speed humps will not be considered in or on the approach to a horizontal or a vertical curve where visibility of the hump is restricted.
- The street should not be located along an emergency response route, transit route, school bus route or truck route, and must be approved by the respective agencies for the installation of speed humps.
- Installation of these devices shall not cause the traffic to divert to other neighborhood streets.
- 100% of the residents/property owners immediately adjacent to the proposed speed humps (one vote per residence) and two-thirds of the residents/property owners of the block(s) shall concur with the installation of the speed humps.

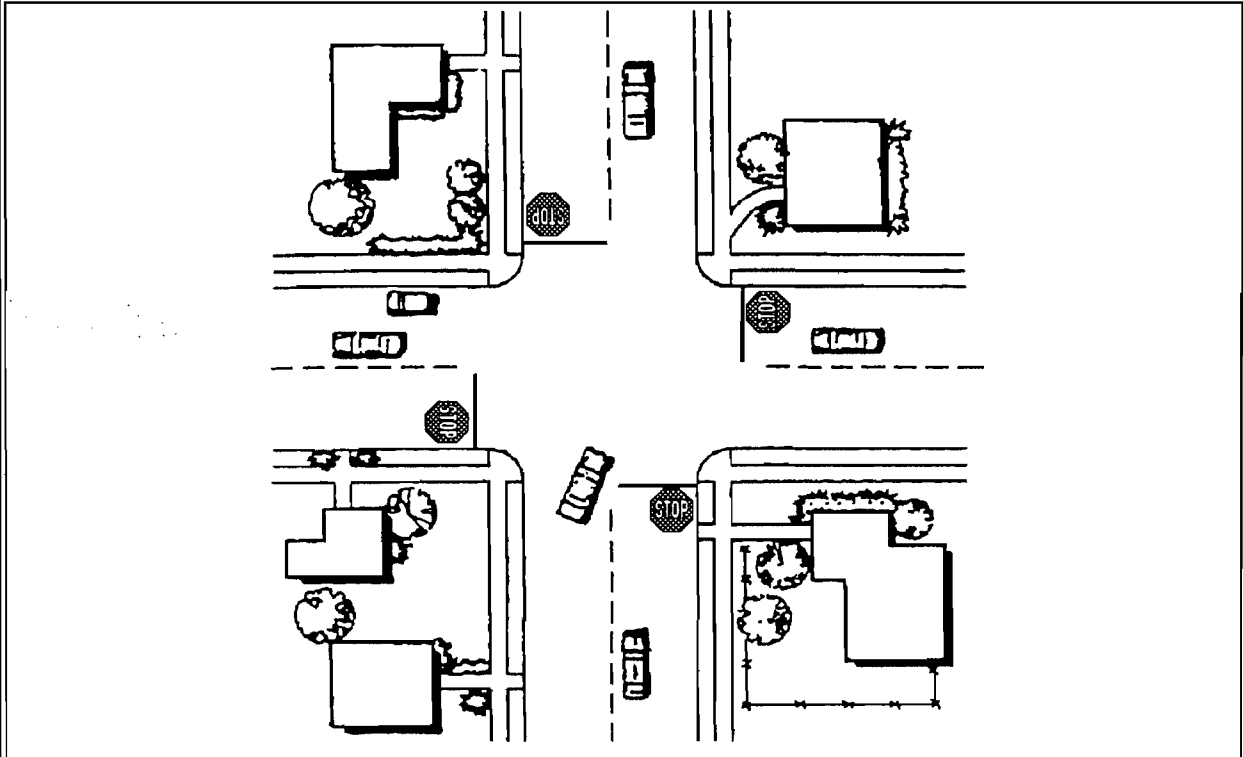
APPLICATION PROCEDURE:

- Individual residents, neighborhood associations or the entity having municipal jurisdiction over the area may initiate the request for a speed hump installation. The applicant must submit a request, in writing, to the Chief of the Traffic Engineering Division, Miami-Dade Public Works Department, 111 NW 1 Street, Suite 1510, Miami, Florida, 33128-1970.

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MULTI-WAY STOP SIGNS



Source: City of Boulder, Colorado Neighborhood Traffic Mitigation Program and Frederic R. Harris, Inc.

Description:

Stop signs are intended for use where traffic is required to stop with the purpose of assigning right of way and improving safety. Stop signs should be used only where warranted because they cause a substantial inconvenience to motorists. Traffic volumes and accident history needed for multi-way stop control precedes the installation warrants for a traffic signal.

Suggested Design Reference:

- Manual on Uniform Traffic Control Devices

Design Objectives:

- Regulatory traffic device to improve safety at an intersection by assigning right of way.

Design Considerations:

- Sign placement
- Pavement markings
- Traffic volumes
- Accident history
- Advance warning

APPENDIX H

Landmark at Doral Speed Calming Study Public Comment & Final Request





Friday, June 16, 2021

Landmark Neighborhood Action Group

Email: Info@landmarknag.com

Re: Landmark at Doral Speed Calming Study: Public Comment & Final Request

Mayor Juan Carlos Bermudez

JuanCarlos.Bermudez@cityofdoral.com

Council of the City of Doral

Vice Mayor Pete Cabrera

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Councilwoman Digna Cabral

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Councilwoman Claudia Mariaca

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Councilman Oscar Puig-Corve

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City Management

City Manager Hernan Organvitez

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Deputy City Manager Mari Gallet

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Department of Public Works

Public Works Director Carlos Arroyo

Carlos.Arroyo@cityofdoral.com

Transportation Manager Rita Carbonell

Rita.Carbonell@cityofdoral.com

Dear Mayor Bermudez, Council Members, City Management, Public Works (c/o Rita Carbonell):

On behalf of 800 homeowners of the Landmark Doral community (see Exhibit A), which represents a significant taxpayer base, we submit our feedback to the speed calming study conducted in our community. Since 2016, we, the residents, have voiced our concerns relating to the significant speeding problem in our community (see Exhibit B).

During the first public workshop conducted on March 4, 2021, we, the community, read upon enumerated concerns and guidance that has since been continuously shared with supporting evidence to various City of Doral departments. Notwithstanding, we are of the opinion, the City of Doral's recommendation presented on June 26, 2021, did not adequately address the vehicular speeding, no-thru trucks and pedestrian safety concerns highlighted by various community members. Furthermore, we feel it disregarded our requests altogether (except for the recommendation proposed for NW 104th Path).

Therefore, we express our collective disappointment in the disregard of our guidance and propose the City of Doral implement the six (6) areas of concern without further delay to improve the safety of the Landmark at Doral residential community.

1. On NW 66 Street between NW 107 Ave and NW 102 Ave

- **Road Diet:** Reduce 4 lanes to total of 2 lanes (refer to NW 78 St, NW 88 St, NW 82 St at Park Central)
 - Currently, City Consultant states an average of **5,375 vehicles** per day use the roadway
 - Current NW 66 St. roadway is over engineered and causing speeding
 - Level of Service C for NW 66 St. roadway:
 - A four-lane roadway has capacity for 14,500 vehicles per day
 - A two-lane roadway has capacity for a **7,665 vehicles** per day
 - As a result, there is more than enough capacity for a roadway diet on the facility and modification at intersections can be done to provide additional capacity for nearby school traffic movements
- Create dedicated bike lanes both east bound and west bound (refer to bike paths on NW 104 Path)
- Reduce posted speed limit from 30 MPH to 25 MPH (refer to RESOLUTION No. 20-179)

2. At NW 102nd Ave and NW 66 Street

- Install four-way traffic light
- Install speed table at the entrance of community (refer to RESOLUTION No. 19-195)
 - If speed tables are not possible then provide a treatment of pavers and narrowing of traffic lanes*
- Install illuminated crosswalk signage

3. At NW 102nd Path and NW 66 Street

- Install 4-way STOP signage
- Install speed table (refer to RESOLUTION No. 19-195)
 - If speed tables are not possible then provide a treatment of pavers and narrowing of traffic lanes*
- Install illuminated crosswalk signage

4. At NW 104th Ave and NW 66 Street

- Install speed table (refer to RESOLUTION No. 19-195)
 - If speed tables are not possible then provide a treatment of pavers and narrowing of traffic lanes*

- Install illuminated crosswalk signage

5. At NW 105th Ct and NW 66 Street

- Install 4-way STOP signage
 - Possible need for leg turn lane on both directions of SW 66 St, requiring the median to be retrofitted.
- Install speed table (refer to RESOLUTION No. 19-195)
 - If speed tables are not possible then provide a treatment of pavers and narrowing of traffic lanes*
- Install illuminated crosswalk signage

6. At NW 107th Ave and NW 66 Street

- Install speed table at the entrance of community (refer to RESOLUTION No. 19-195)
 - If speed tables are not possible then provide a treatment of pavers and narrowing of traffic lanes*
- Install illuminated crosswalk signage

**Denotes: refer to South Miami Sunset Drive west of US-1 (between SW 62 Ave and US-1)*

Sincerely yours,

/s/ Landmark Neighborhood Action Group (NAG)
On behalf of Landmark at Doral residents



Exhibit A. Map of Landmark at Doral Community

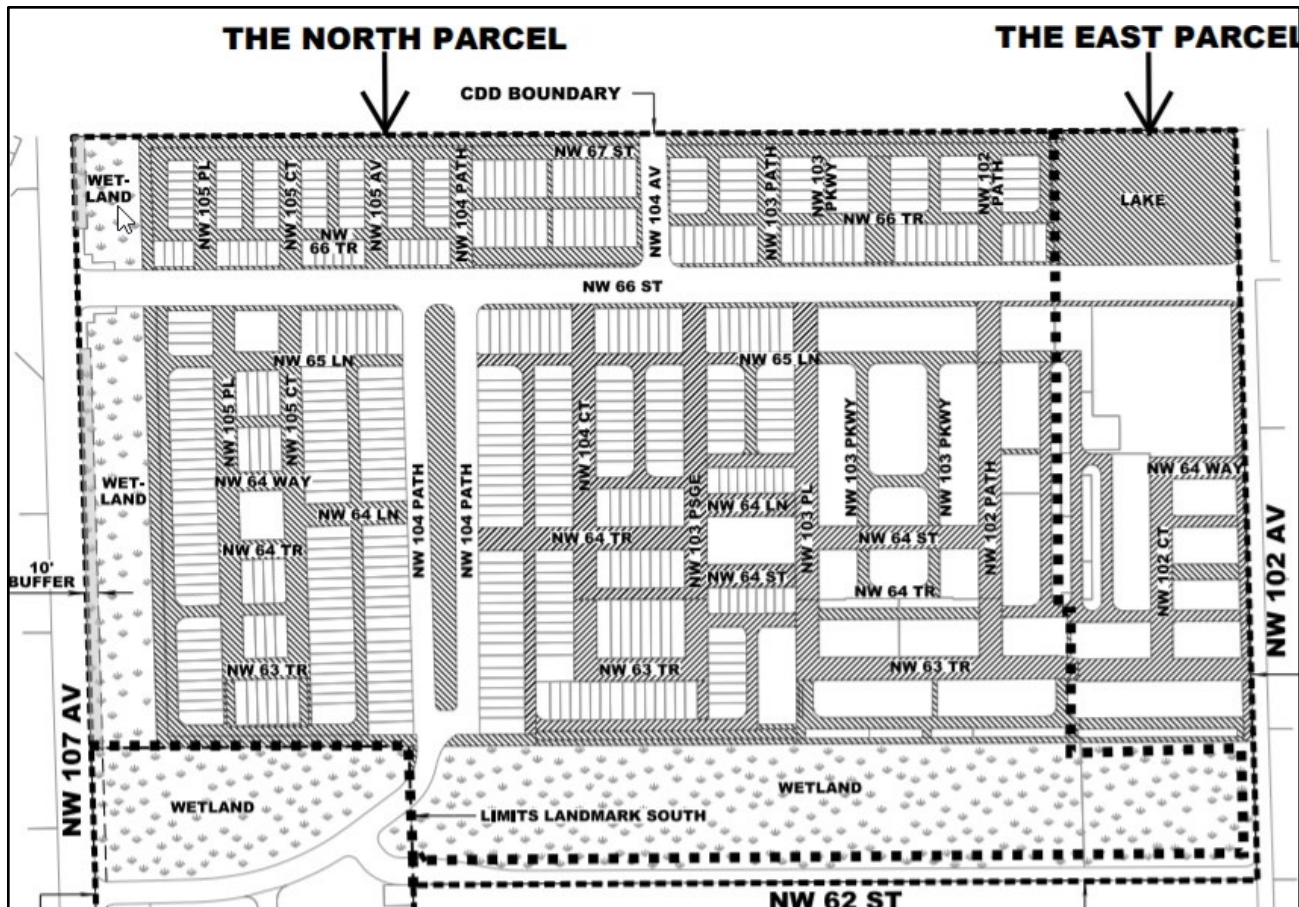


Exhibit B. Timeline

- Initial Resident Complaint: Approx. 2016
- Data Collection: Approx. May 2019
- Speed Calming Study Approved: Approx. Jan. 2021
- 1st Public Workshop: March 4, 2021
- 2nd Public Workshop: June 26, 2021