

NEW YORK CITY DEPARTMENT OF TRANSPORTATION
Office of School Safety Engineering



School Safety Engineering Project

FINAL REPORT: Our Lady of Perpetual Help School, Brooklyn



Prepared by
The RBA Group/Urbitran Associates



NOVEMBER 10, 2006

**School Safety Engineering Project
Our Lady of Perpetual Help, Brooklyn**

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1. INTRODUCTION

1.1 PROJECT DESCRIPTION

The Department of Transportation has developed school safety maps for 1,471 schools throughout the City. Schools currently in the program are primarily elementary and intermediate schools with an enrollment of at least 250 students. The safety plans include the designation of official school crosswalks, identified by prominent warning signs and roadway markings. DOT also designates curbside locations for school bus loading and unloading and other parking controls to improve conditions for students. In addition, nearly 600 speed reducers (humps) have been installed in the immediate vicinity of schools.

Under this consultant study, the School Safety Engineering Project, accident data in the vicinity of all program schools was reviewed. As a result, schools were ranked in terms of pedestrian safety, and 135 “priority” schools were identified Citywide. At each of these priority schools safety improvements are being recommended (e.g., new school crosswalks, new traffic signals and signal timing modifications, new speed reducers). In addition, 32 of these schools will receive further investigation to design physical improvements (e.g., raised center medians, widened sidewalks, “neckdowns” or “bulbouts” at intersections). Our Lady of Perpetual Help School in Brooklyn is one of the 135 priority schools.

2. BACKGROUND – EXISTING CONDITIONS AND ANALYSIS



2.2 NEIGHBORHOOD DESCRIPTION

Located at 5902 Sixth Avenue in Brooklyn, Our Lady of Perpetual Help is part of a complex of buildings belonging to Our Lady of Perpetual Help Church that occupies the city block between Fifth and Sixth Avenues, and 59th and 60th Street. The school's main entrance faces Sixth Avenue.

The surrounding land uses are primarily two-to-three-story residential buildings. (See Exhibit 1 for Aerial Photograph).



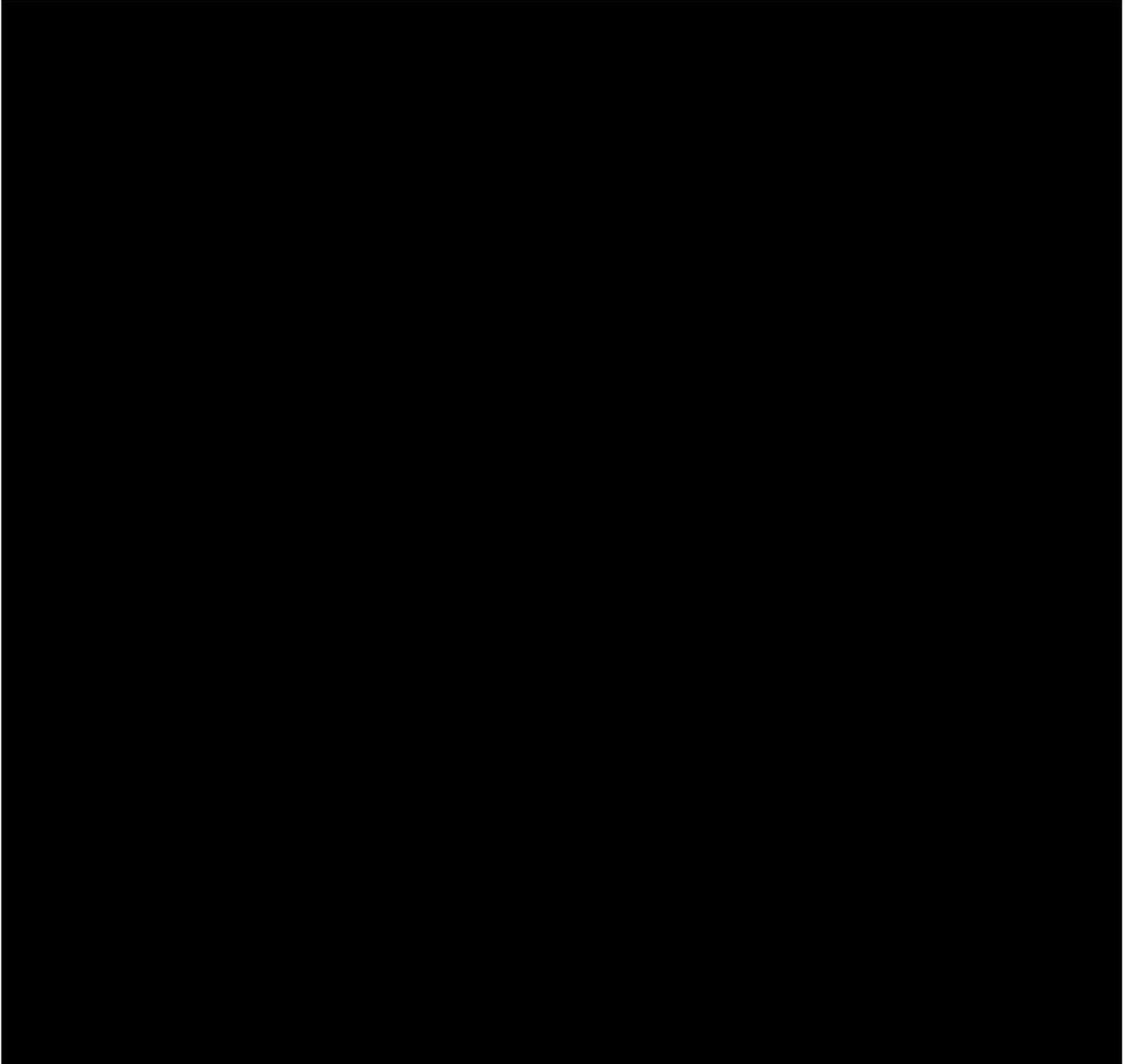
Figure 1- Sixth Avenue in front of Our Lady of Perpetual Help School

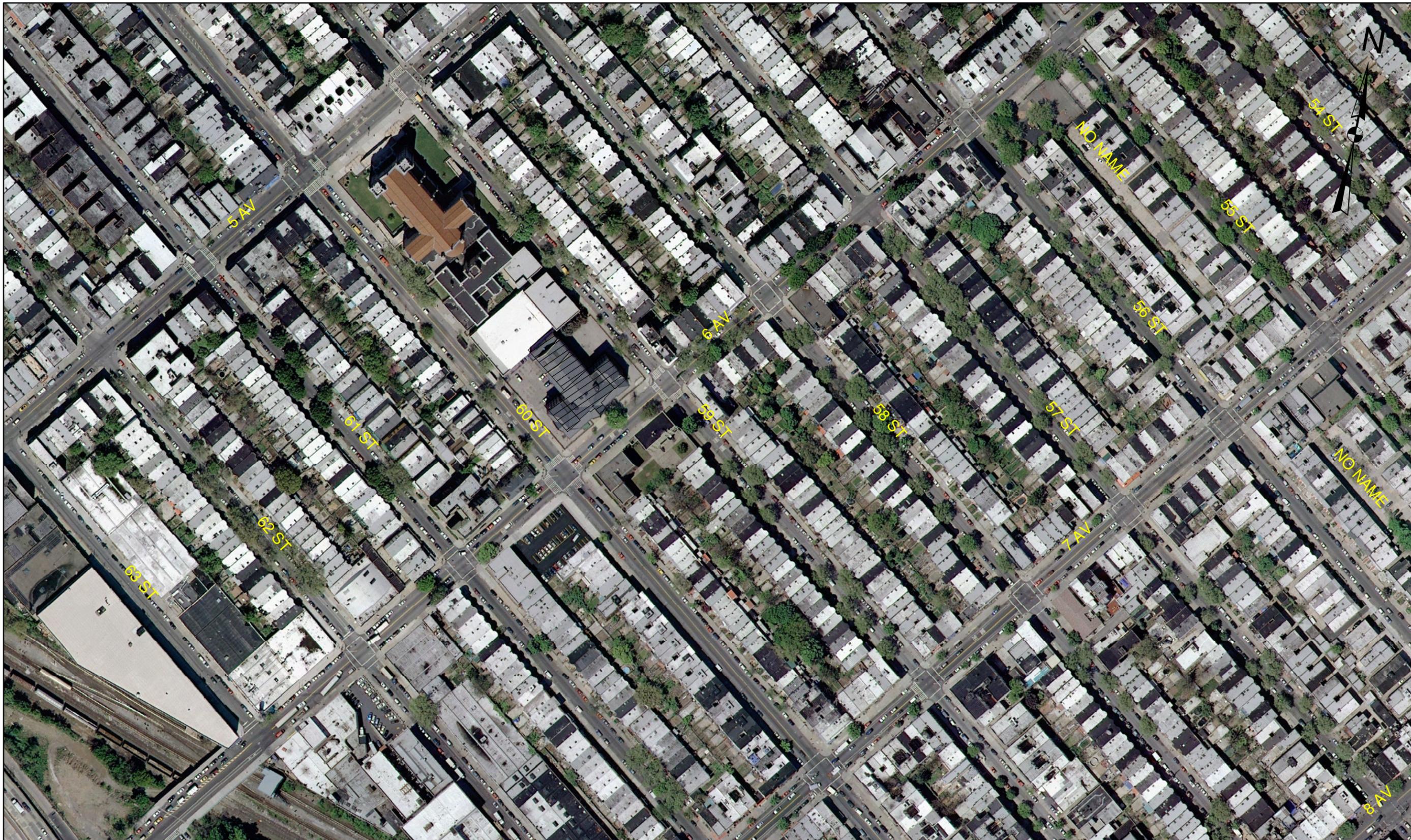
2.3 MEETING WITH SCHOOL REPRESENTATIVES

Representatives from the Brooklyn Borough Commissioner's Office, the consultant team, and staff from Our Lady of Perpetual Help met at the school on May 3, 2004. (See the Appendix for a list of attendees).

According to representatives of the school, the identifiable problems that student pedestrians encounter on a regular basis include the following:

- Vehicles speeding on Sixth Avenue
- Left-turning vehicles conflicting with crossing pedestrians at Sixth Avenue intersections with 59th and 60th Streets
- Illegal stopping of passenger vans and non-compliance with traffic rules at Sixth Avenue and 60th Street intersection
- Congestion on Sixth Avenue during arrival and dismissal times



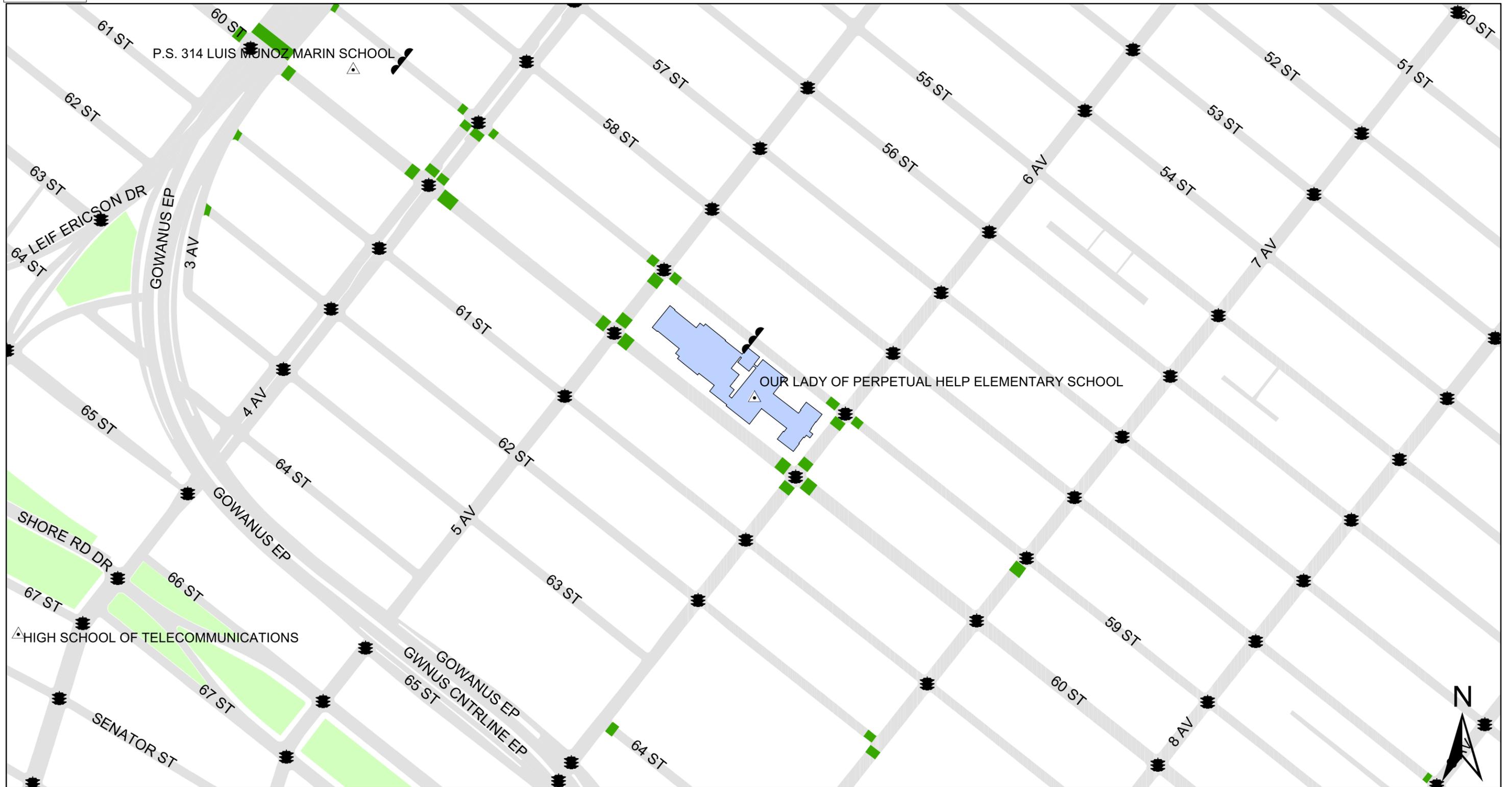


1 inch equals 183 feet

EXHIBIT 1
OUR LADY OF PERPETUAL HELP
BROOKLYN
AERIAL PHOTOGRAPH



School Traffic Safety Map



The School Traffic Safety Map was established to help provide the maximum degree of safety for children going to and from school - by indicating the location of speed reducers, school crosswalks and some traffic control devices. (While virtually all intersections in NYC benefit from traffic control devices - such as stop signs, traffic signals, yield signs, and all way stop signs - this map shows only traffic signals and all way stop signs.) The school crosswalks that are shown are ladder striped and make the crosswalk more visible to drivers and help make the intersection safer. These crosswalks are where school children are recommended to cross.

Note: Every attempt has been made to provide complete and accurate information that is updated regularly. The City's streets are constantly changing and it is not always possible to present information without error.

LEGEND:

SCHOOL LOCATION 	TRAFFIC SIGNAL 
SCHOOL CROSSWALK 	ALL - WAY STOP 
	SPEED REDUCER 

Brooklyn
OUR LADY OF PERPETUAL HELP ES

Prepared by the NEW YORK CITY DEPARTMENT OF TRANSPORTATION, Iris Weinsall, COMMISSIONER.

Map created on 11/16/2006

COMM. BOARD: 307
 PRECINCT: 72

EXHIBIT 2

1.5.1

2.6 PRIMARY MODES OF TRANSPORT TO AND FROM SCHOOL

According to school officials, approximately 25% of students walk to Our Lady of Perpetual Help School, 5% arrive via public transportation, and 70% are driven by parents or guardians. See Table 1 for the school’s estimate of the modes of travel.

TABLE 1: MODES OF TRAVEL (AS ESTIMATED BY SCHOOL OFFICIALS)	
Description	Percentage
Walk	25%
Driven by car, livery cab or mini-bus	70%
School bus	0
MTA bus or subway	5%
TOTAL	100%

2.7 OTHER STUDENT PEDESTRIAN TRAFFIC GENERATORS

The Guild School for Exceptional Children is located on 59th Street immediately next to Our Lady of Perpetual Help. Buses drop off and pick up students every two to three hours between 8:00 am and 3:30 pm. All children attending the Guild School for Exceptional Children are transported by school bus. School buses intentionally block 59th Street while picking up and dropping off students (see Figure 3).



Figure 3 – School buses from Guild School picking up students on 59th Street

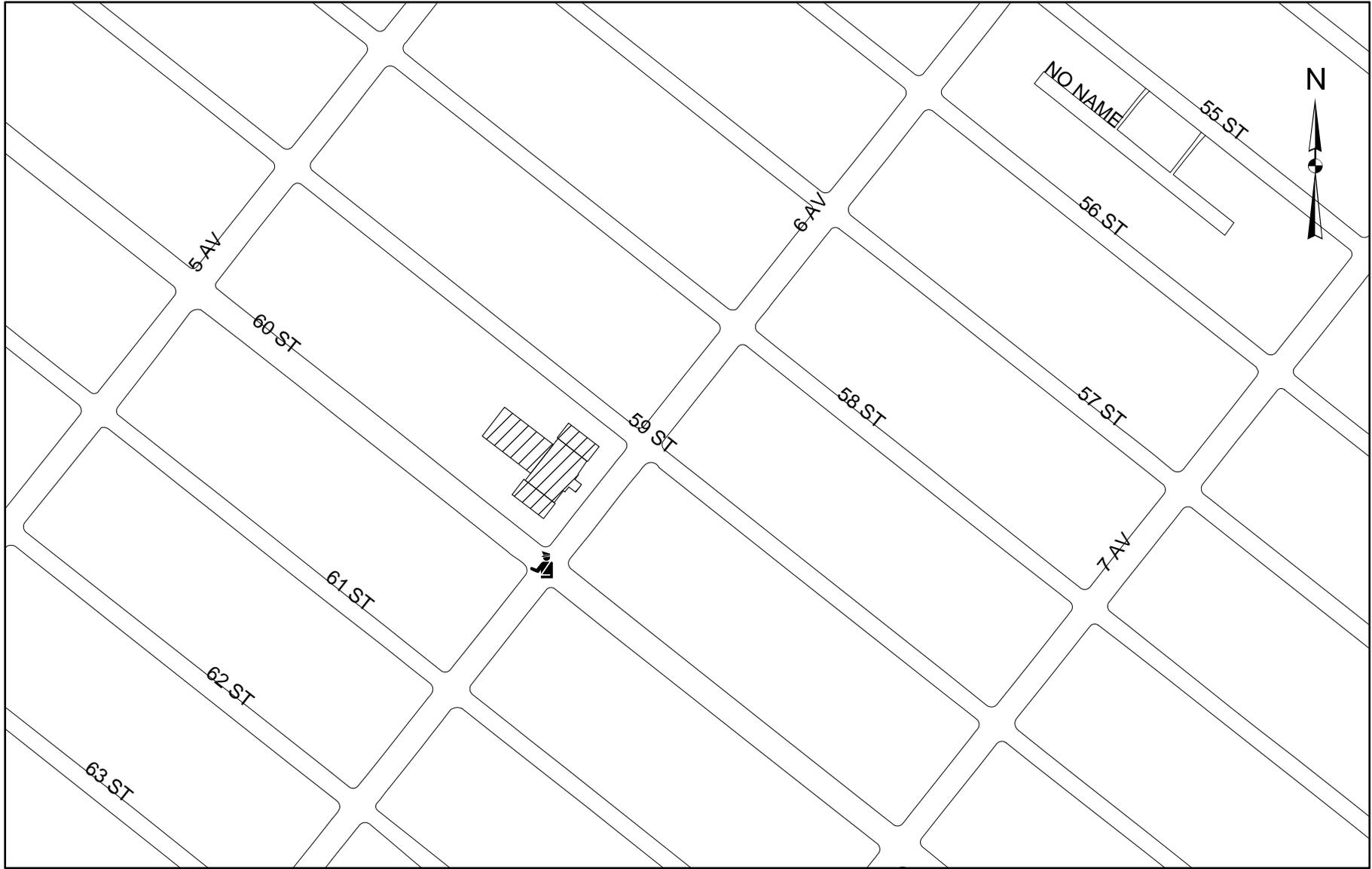
2.8 CROSSING GUARD LOCATIONS

According to field observations, Our Lady of Perpetual Help School has one assigned crossing guard. The crossing guard is stationed at Sixth Avenue and 60th Street (see Figure 4).

The crossing guard is present at the intersection from 7:30 am – 9:00 am, 10:45 am – 12:00 pm, and 1:00 pm – 3:00 pm. The school crossing guard location is shown in Exhibit 3.



Figure 4 – Crossing guard at Sixth Avenue and 60th Street during dismissal time



1 inch equals 250 feet



Crossing guard assigned to Our Lady of Perpetual Help

EXHIBIT 3
OUR LADY OF PERPETUAL HELP ES & ANNEX
BROOKLYN
CROSSING GUARDS

3. TRAFFIC OPERATIONS

3.1 SCHOOL BUS OPERATIONS

According to school officials, there are no school buses assigned to Our Lady of Perpetual Help School.

3.2 PARENT DROP-OFF OPERATIONS

School officials have indicated that parents transport approximately 70% of students. There is no defined drop-off or pick-up area for this school. During school commuting times, vehicles typically double park along Sixth Avenue, 59th Street and 60th Street, on both sides of the street (see Figure 5). In cases of bad weather when all children are dismissed at the main entrance, double parked vehicles extend to adjacent intersections, which results in traffic congestion.



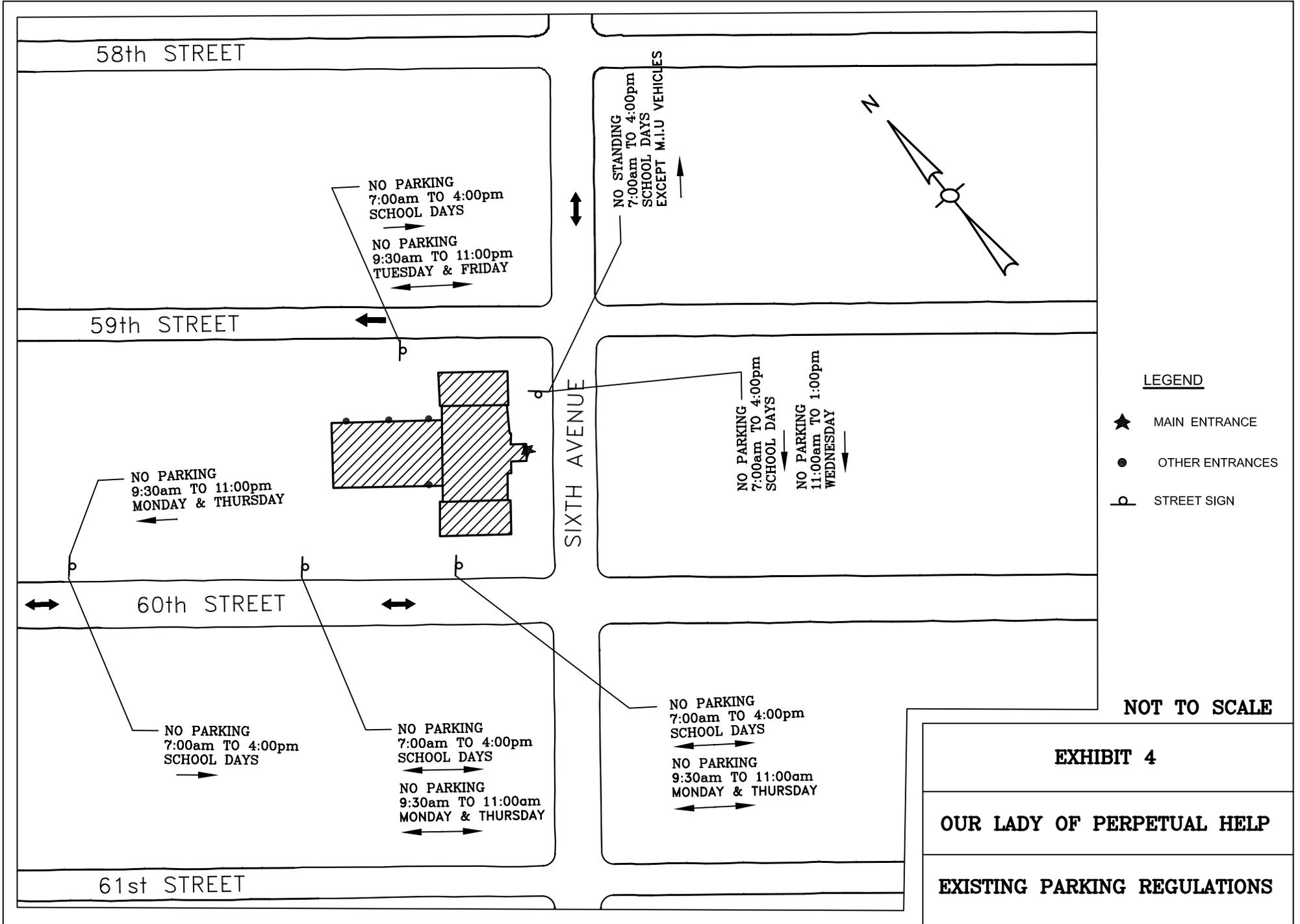
Figure 5 – Double parked parents on Sixth Avenue during dismissal time

3.3 PARKING REGULATIONS

“NO PARKING, 7:00 AM – 4:00 PM, SCHOOL DAYS” parking regulation signs are posted on Sixth Avenue, 59th Street and 60th Street in front of school entrances. Parking is prohibited on alternating sides of the three roadways facing the school between 9:30 am and 11:00 am on 59th and 60th Streets, and 11:00 am and 1:00 pm on Sixth Avenue. According to the school principal, 5-6 parking spaces are provided for school staff parking on 59th Street. Additionally, approximately 10 parking spaces are reserved for school staff at a parking lot across Sixth Avenue. Parking regulations are shown in Exhibit 4.

3.4 EXISTING SCHOOL SIGNS AND MARKINGS

The Traffic Safety Map, Exhibit 3, shows existing signals and school crosswalk pavement markings. It is noted that a citywide signage program is currently underway to upgrade school signage to current Federal Manual of Uniform Traffic Control Devices (MUTCD) standards of fluorescent yellow-green signs accompanied by downward pointing arrows. Signs scheduled to be installed under this program are shown as “existing” on Exhibit 7.



3.5 ACCIDENT SUMMARY

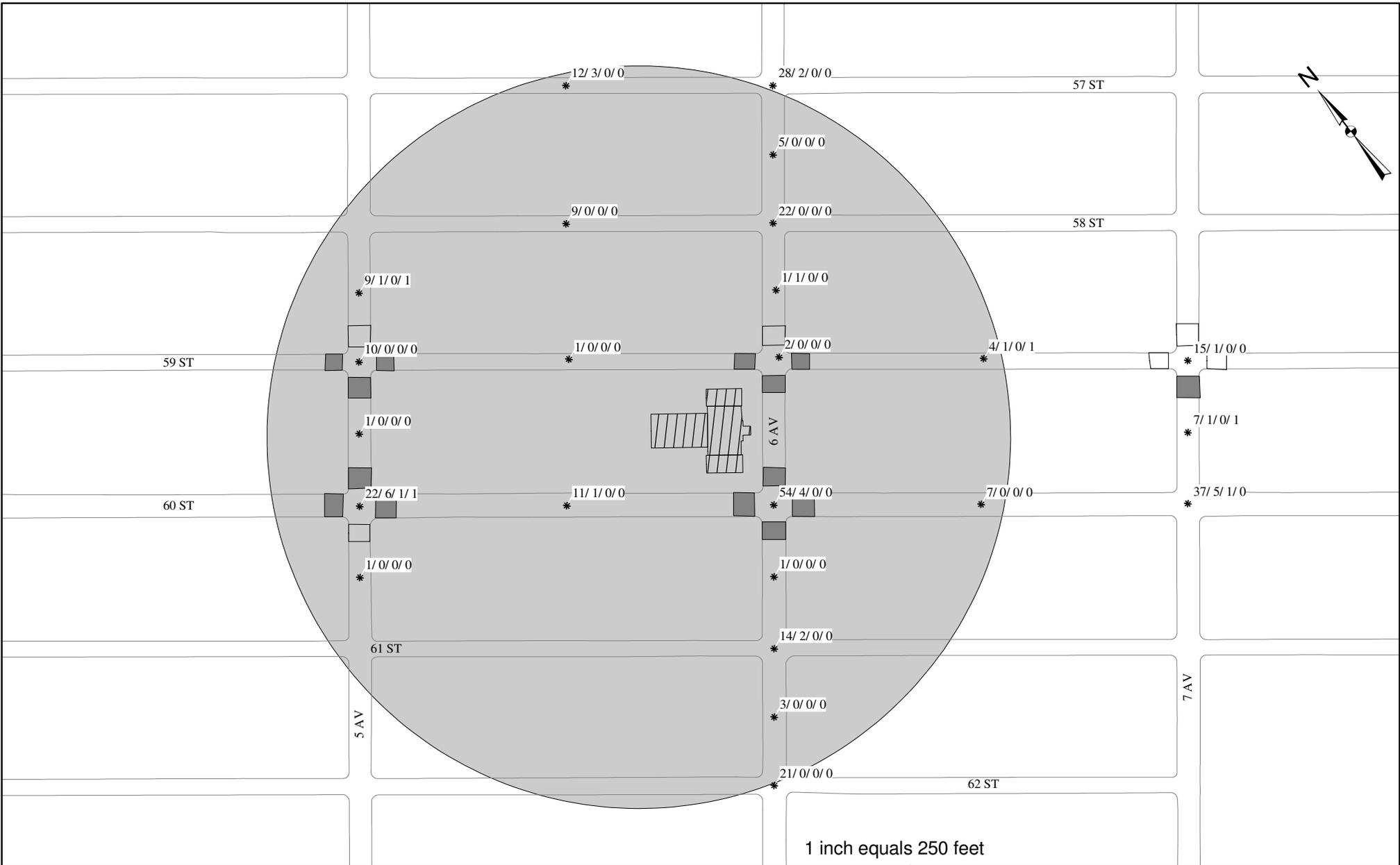
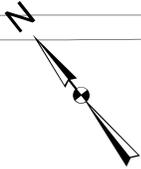
Exhibit 5 and Table 2 show a summary of accidents, as obtained from the New York State Department of Motor Vehicles (DMV), in the vicinity of Our Lady of Perpetual Help School for the three-year period from January 1, 1998 through December 31, 2000. The DMV data provides some detail relating to the circumstances and cause of the accidents. Table 3 is a summary of more recent accident data obtained from the NYC Police Department (NYPD). Though current through 2004, the NYPD data does not provide the same level of detail as the DMV data.

This report targets intersections closest to the school where the highest concentration of student pedestrians occurs. Intersections farther from the school and locations for which detailed data was not available at the time of this study will be addressed with the ongoing work of DOT's School Safety Engineering Program. DMV accident data is discussed in Section 3.6, Traffic Operations and Issues.

TABLE 2: DMV THREE-YEAR ACCIDENT SUMMARY (1998-2000)				
INTERSECTION	TOTAL ACCIDENTS	PEDESTRIAN ACCIDENTS	PEDESTRIAN FATALITIES	SCHOOL-RELATED* ACCIDENTS
Sixth Avenue and 59 th Street	2	0	0	0
Sixth Avenue and 60 th Street	54	4	0	0
Sixth Avenue and 61 st Street	14	2	0	0
Fifth Avenue and 59 th Street	10	0	0	0
Fifth Avenue and 60 th Street	22	6	1	1
Seventh Avenue and 59 th Street	15	1	0	0
Seventh Avenue and 60 th Street	37	5	1	0
TOTAL	154	18	2	1

TABLE 3: NYPD FOUR-YEAR ACCIDENT SUMMARY (2001-2004)				
INTERSECTION	TOTAL ACCIDENTS	PEDESTRIAN ACCIDENTS	PEDESTRIAN FATALITIES	SCHOOL-RELATED* ACCIDENTS
Sixth Avenue and 59 th Street	19	4	0	0
Sixth Avenue and 60 th Street	57	3	0	0
Sixth Avenue and 61 st Street	32	1	0	0
Fifth Avenue and 59 th Street	19	2	0	0
Fifth Avenue and 60 th Street	38	4	0	0
Seventh Avenue and 59 th Street	22	1	0	0
Seventh Avenue and 60 th Street	55	6	0	0
TOTAL	242	21	0	0

* School-Related Accidents are defined as accidents involving school-age pedestrians (age 4 – 14), occurring weekdays during the school year.



1 inch equals 250 feet

ACCIDENT LOCATION

SCHOOL CROSSWALK ASSIGNED TO OUR LADY OF PERPETUAL HELP

SCHOOL CROSSWALK ASSIGNED TO ANOTHER SCHOOL

CROSSWALK

X/X/X/X

TOTAL ACCIDENTS	PED ACCIDENTS	PED FATAL	SCHOOL_PED ACCIDENTS
	/	/	

*



EXHIBIT 5

OUR LADY OF PERPETUAL HELP

BROOKLYN

ACCIDENT SUMMARY

THREE YEAR PERIOD

1998-2000

3.6 TRAFFIC OPERATIONS AND ISSUES

The following outlines traffic accidents and operations issues at intersections in the vicinity of Our Lady of Perpetual Help School.

3.6.1 - Sixth Avenue and 59th Street

Sixth Avenue is a 43-foot wide, two-way roadway with one travel lane in each direction and parking on both sides. 59th Street is a 30-foot wide, one-way roadway with one travel lane and parking on both sides. This is a signalized intersection. There are school crosswalks on the east, west and south legs of the intersection.

Two accidents occurred at this intersection during the 1998-2000 study period. No pedestrians were struck during this time. However, school officials identified this intersection as a safety concern for pedestrians. It was noted that approximately two years ago (prior to meeting with the school) a schoolteacher was struck, while crossing Sixth Avenue with the signal. Although the pedestrian crossing time was determined to be sufficient for pedestrians to cross the street, school officials felt that vehicles turning left from 59th Street onto Sixth Avenue rarely yield to pedestrians. In addition, a 10-year old student pedestrian was struck in the mid-block of 59th Street between Sixth Avenue and Seventh Avenue. No further information is available regarding this accident.

To determine the level of pedestrian-vehicle conflict a one hour traffic count was performed at this intersection between the hours of 7:30 am and 8:30 am on September 15, 2004 with the results shown in Exhibit 6A. Traffic counts at this intersection indicate that there were 42 vehicles/hour turning left from 59th Street onto southbound Sixth Avenue. During the same period, 85 pedestrians crossed Sixth Avenue at the southern crosswalk. Installation of a Leading Pedestrian Interval (LPI) was considered at this intersection. However, existing moderate traffic and pedestrian volumes do not meet DOT's LPI criteria.



Figure 6 – Pedestrians crossing during “Don’t Walk” phase at Sixth Avenue and 59th Street intersection (looking east)

3.6.2 - Sixth Avenue and 60th Street

60th Street is a 43-foot wide, two-way roadway with one travel lane in each direction and parking on both sides. There are school crosswalks on all four legs of the intersection.

This intersection was noted as the principal area of concern by the school principal and the school crossing guard. A total of 54 accidents occurred at this location during the 1998-2001 study period. Four accidents involved pedestrians. There were no school related accidents during this time. According to the accident data, three pedestrians were struck by turning vehicles, while crossing with the signal. All three accidents were attributed to driver error due to inattention and/or failure to yield to pedestrians. The fourth pedestrian was struck while crossing against the signal.

This is a congested intersection with a high number of trucks turning south from 60th Street onto Sixth Avenue. Sixth Avenue is a designated truck route south of 60th Street. Pedestrian crossing times were observed to be sufficient in both the north-south and east-west pedestrian crossing directions. However, left-turning vehicles conflicting with crossing pedestrians represents the primary concern. Also, according to the crossing guard, unlicensed private passenger “dollar” vans use this intersection to load and unload their passengers. Occasionally, they block crosswalks or make illegal turns at the intersection. Currently, “YIELD TO PEDESTRIANS” signs are posted at both the east and west approaches to the intersection.

To determine the level of pedestrian-vehicle conflict a one-hour traffic count was performed at this intersection on September 15, 2004 between the hours of 7:30 –8:30 am with results as shown in Exhibit 6A. Traffic counts indicate that 138 vehicles/hour turned left from westbound 60th Street onto southbound Sixth Avenue. During the same hour, 77 pedestrians crossed the south leg of the intersection. Installation of a Leading Pedestrian Interval (LPI) was considered at this intersection. However, existing moderate traffic and pedestrian volumes do not meet DOT’s LPI criteria.



Figure 7 – The intersection of Sixth Avenue and 60th Street (looking west)

3.6.3- Fifth Avenue and 60th Street

Fifth Avenue is a busy street with numerous commercial establishments. It is a 43-foot wide street, with one travel lane in each direction and parking on both sides. There are school crosswalks on the east, west and north legs of the intersection.

A total of 22 accidents occurred at this intersection during the 1998-2000 study period. Six accidents involved pedestrians, one of which was school-related. There was one fatal accident involving a 33-year old pedestrian. This accident occurred on January 20, 2000. According to the accident data, the pedestrian was crossing with the signal when struck and killed by a northbound right turning vehicle. Two pedestrians, including a 14-year-old student, were struck while crossing against the signal. Another two pedestrians were struck while crossing with the signal. The sixth pedestrian was struck by a right turning vehicle.

This is a busy intersection, with high vehicular and pedestrian volumes. It was observed during field observations that many pedestrians tend to jaywalk instead of waiting for the signal to cross the street. According to a Department of Transportation attendee at the meeting (see list of attendees in the Appendix), Fifth Avenue is scheduled for reconstruction in 2008, and curb extensions and LPIs (leading pedestrian interval) are considered as options at this intersection.



Figure 8 – “Yield to Peds” sign at Fifth Avenue and 60th Street



Figure 9 – The intersection of Fifth Avenue and 60th Street (looking south)

3.6.4 - Fifth Avenue and 59th Street

This is a signalized intersection. There are school crosswalks on the east, west and south legs of the intersection.

Ten accidents occurred at this intersection during the 1998-2000 study period. No pedestrians were struck during this time. However, an 11-year old student was struck in the mid-block of Fifth Avenue between 59th Street and 58th Street on September 15, 2006. According to the accident data, this pedestrian was struck by a vehicle attempting to back-up.

As noted previously Fifth Avenue is proposed for reconstruction in 2008, the recommendations proposed by NYCDDC in the Capital Project should be coordinated with the recommendations in this report.



Figure 10 – Fifth Avenue and 59th Street

3.6.5 - Seventh Avenue and 59th Street

Seventh Avenue is 43-foot wide two-way roadway, with one travel lane and parking on both sides. This is a signalized intersection. There is a school crosswalk on the south leg of the intersection.

A total of fifteen accidents occurred at this intersection during the 1998-2000 study period. One pedestrian was struck during this time. According to the accident data, this pedestrian was crossing with the signal when struck by a left turning vehicle. In addition, a 10-year old student was struck in the mid-block of Seventh Avenue between 59th Street and 60th Street. No further information is available regarding this accident.

3.6.6 - Seventh Avenue and 60th Street

This intersection currently does not have school crosswalks on any legs of the intersection. However, school officials noted that a significant number of students from Our Lady of Perpetual Help utilize this intersection en route to school.

A total of 37 accidents occurred at this intersection during the 1998-2000 study period. Five accidents involved pedestrians, none of which were school related. On March 26, 1998 a 29-year old pedestrian was struck and killed by a southbound traveling vehicle. According to the accident data, this pedestrian was crossing against the signal and outside of the crosswalk. Another two pedestrians were struck while crossing against the signal. Two pedestrians were struck by turning vehicles while crossing with the signal.

To determine the level of pedestrian-vehicle conflict a one-hour turning movement count was conducted on March 30, 2005. The sample count indicates that large numbers of vehicles and pedestrians use this intersection during the 7:30 am - 8:30 am time period. Exhibit 6B shows the traffic count results.

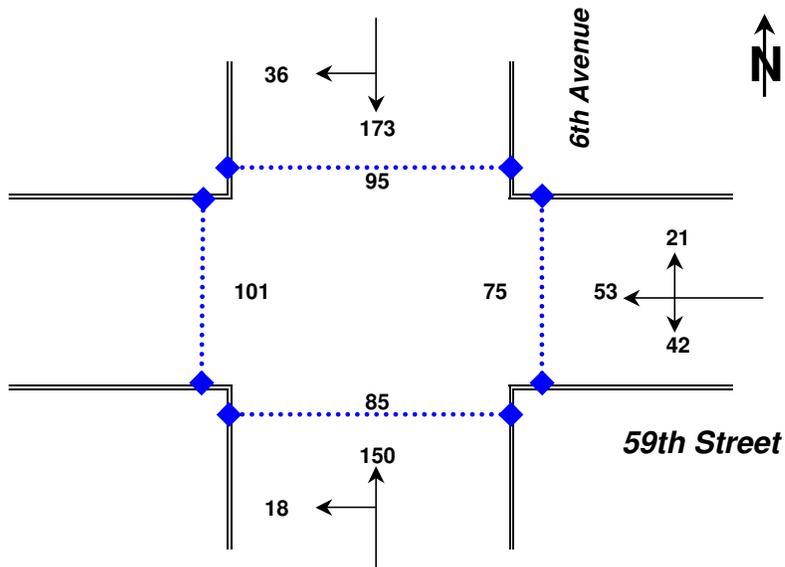
3.6.7 – Speed Reducer (Hump) on 59th Street between Fifth and Sixth Avenues

A speed reducer is in place on 59th Street between Fifth and Sixth Avenues. It is located in front of main entrance of the Guild School for Exceptional Children. All advance signs and pavement markings for the speed reducer were in place and in good condition at the time of field observations.

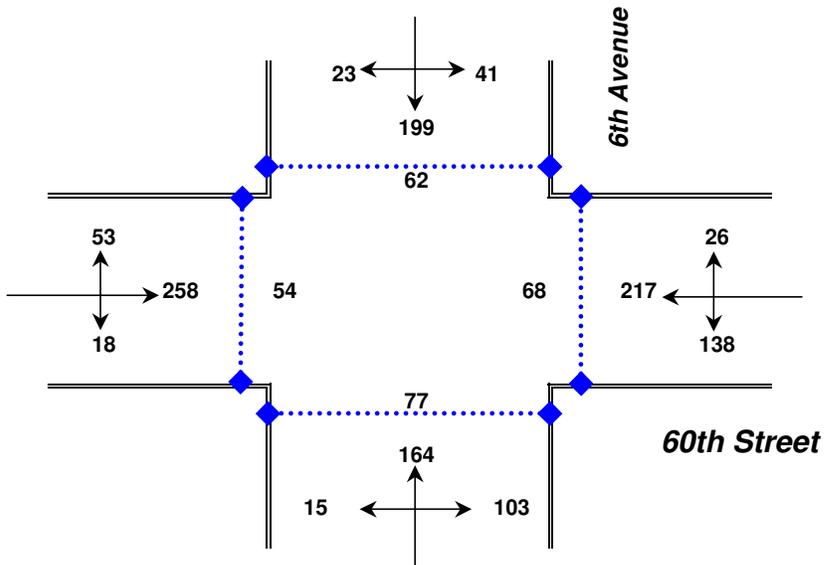


Figure 11 – Speed Reducer on 59th Street

One Hour Traffic Count Volumes
(7:30 AM - 8:30 AM September 15, 2004)



Intersection of 6th Avenue and 59th Street

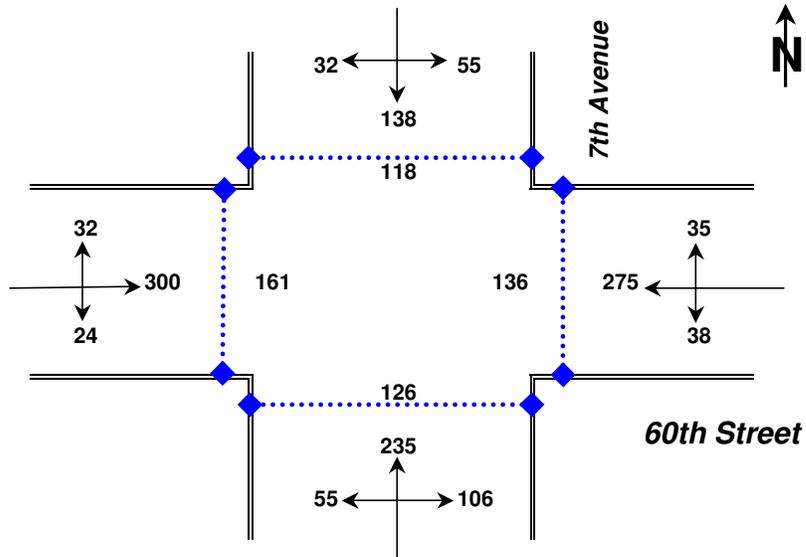


Intersection of 6th Avenue and 60th Street

- Number of Pedestrians
- Pedestrian Crossing
- Vehicle Movement
- Number of Vehicles

EXHIBIT 6A
OUR LADY OF PERPETUAL HELP SCHOOL
TURNING MOVEMENT COUNTS

One Hour Traffic Count Volumes
 (7:30 AM - 8:30 AM March 30, 2005)



Intersection of 7th Avenue and 60th Street

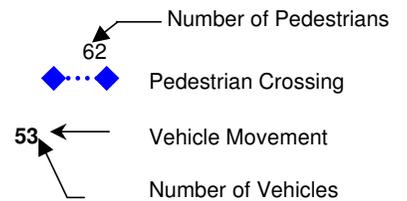


EXHIBIT 6B
OUR LADY OF PERPETUAL HELP SCHOOL BROOKLYN
TURNING MOVEMENT COUNTS

3.7 SIGNAL TIMING: PEDESTRIAN PHASE

Pedestrian crossing time was field verified at all signalized intersections in the vicinity of Our Lady of Perpetual Help School, and found to be adequate for a child pedestrian walking rate of three feet per second plus three second reaction time in all directions and approaches.

TABLE 4: PEDESTRIAN CROSSING TIME AT SIGNALIZED INTERSECTIONS				
Intersection Name	Crosswalk Length (Feet)	Ped. Phase Actual (Seconds)	Ped. Phase Req'd (Seconds)	Timing Adjustment? (Yes/No)
Sixth Avenue and 59 th Street				
Crossing Sixth Avenue	43	30	17	NO
Crossing 59 th Street	30	50	13	NO
Sixth Avenue and 60 th Street				
Crossing Sixth Avenue	43	50	17	NO
Crossing 60 th Street	43	30	17	NO
Fifth Avenue and 59 th Street				
Crossing Fifth Avenue	43	30	17	NO
Crossing 59 th Street	32	50	13	NO
Fifth Avenue and 60 th Street				
Crossing Fifth Avenue	43	30	17	NO
Crossing 60 th Street	43	50	17	NO
Seventh Avenue and 59 th				
Crossing Seventh Avenue	43	20	17	NO
Crossing 59 th Street	30	30	13	NO

Note – A rate of 3 ft/sec plus 3 seconds reaction time was utilized as the child pedestrian walking rate

3.8 PHYSICAL CONDITIONS (ROADWAYS AND SIDEWALKS)

The sidewalk in front of the school on Sixth Avenue is approximately 18 ft wide, while sidewalks on 59th and 60th street are typically 10 feet wide. The roadways and sidewalks in the vicinity of the school were generally observed to be in good condition.

Pedestrian ramps at the study intersections observed are in good condition and do not need to be replaced.

4. POTENTIAL MEASURES TO IMPROVE STUDENT PEDESTRIAN SAFETY

This section describes potential countermeasures. These countermeasures are divided into short-term and long-term measures. Short-term measures are those that potentially can be performed in-house, long term measures are proposed capital improvements.

4.1 SHORT-TERM MEASURES

- *No-Standing Zone on Sixth Avenue*

Existing “No parking 7 am – 4 pm, school days” parking regulations on Sixth Avenue between 59th Street and 60th Street should be upgraded to “No standing 7 am – 4 pm, school days” from 59th Street to 60th Street to provide additional frontage for vehicles to drop-off and pick-up students during the morning arrival and afternoon dismissal times.

- *Administer student pedestrian safety education program*

It is recommended that the NYCDOT Safety Education Program work with the school to educate students on pedestrian safety, including crossing the street with the WALK phase, and the meaning of WALK - FLASHING DON'T WALK - DON'T WALK pedestrian signal sequence. It is also recommended that the students be educated not to cross at mid-block locations.

- *Install school crossings at the following intersections:*

- Sixth Avenue and 58th Street – east and west legs
- Sixth Avenue and 61st Street – east and west legs
- Seventh Avenue and 59th Street – west leg
- Seventh Avenue and 60th Street – west and north legs

Based on feedback from school officials these intersections are utilized by Our Lady of Perpetual Help School students en route to school. Therefore, it is recommended that all four intersections have school crosswalks installed (see Exhibit 7 for detail). All four intersections are signalized.

- *Place stop bars ten feet in advance of school crosswalks*

The MUTCD and New York City DOT standard for placement of a stop bar is four feet in advance of a marked crosswalk. At signalized (or stop controlled) crosswalks, the vehicle stop line can be placed farther back from the crosswalk in order to maximize visibility of pedestrians and to minimize the potential for pedestrian/vehicle conflicts. Therefore, it is recommended that stop bars be placed ten feet in advance of all school crosswalks.

- Narrow Sixth Avenue using striped buffers

School officials noted that vehicles were traveling at excessive speeds along Sixth Avenue in the vicinity of Our Lady of Perpetual Help School. In order to determine operating vehicular speeds along Sixth Avenue, spot speed data was collected on Sixth Avenue between 59th and 60th Street on March 30, 2005.

The speed study results are shown Table 5 and in the Appendix. The 85th percentile speed was found to be 34 mph, which is above the legal speed limit of 30 mph.

Speed reducers are not feasible for this street due to short blocks (approximately 230 feet) with intersections signalized at both ends of the block. Therefore as an alternative, it is recommended that the travel way be narrowed with a striped buffer on both sides of the street as shown in Exhibit 7. Narrowing the effective width of the roadway is expected to help the effects of speeds on this street. The full roadway width would still be available for emergency and other service vehicles.

TABLE 5: SPOT SPEED STUDY (SIXTH AVENUE)		
LOCATION	MEDIAN SPEED (MPH)	85TH PERCENTILE SPEED (MPH)
Sixth Avenue btw. 59 th Street and 60 th Street	30	34

4.2 LONG-TERM MEASURES

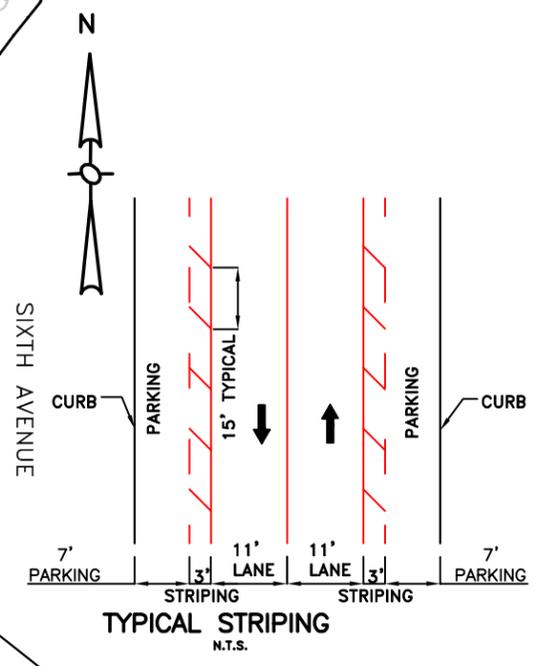
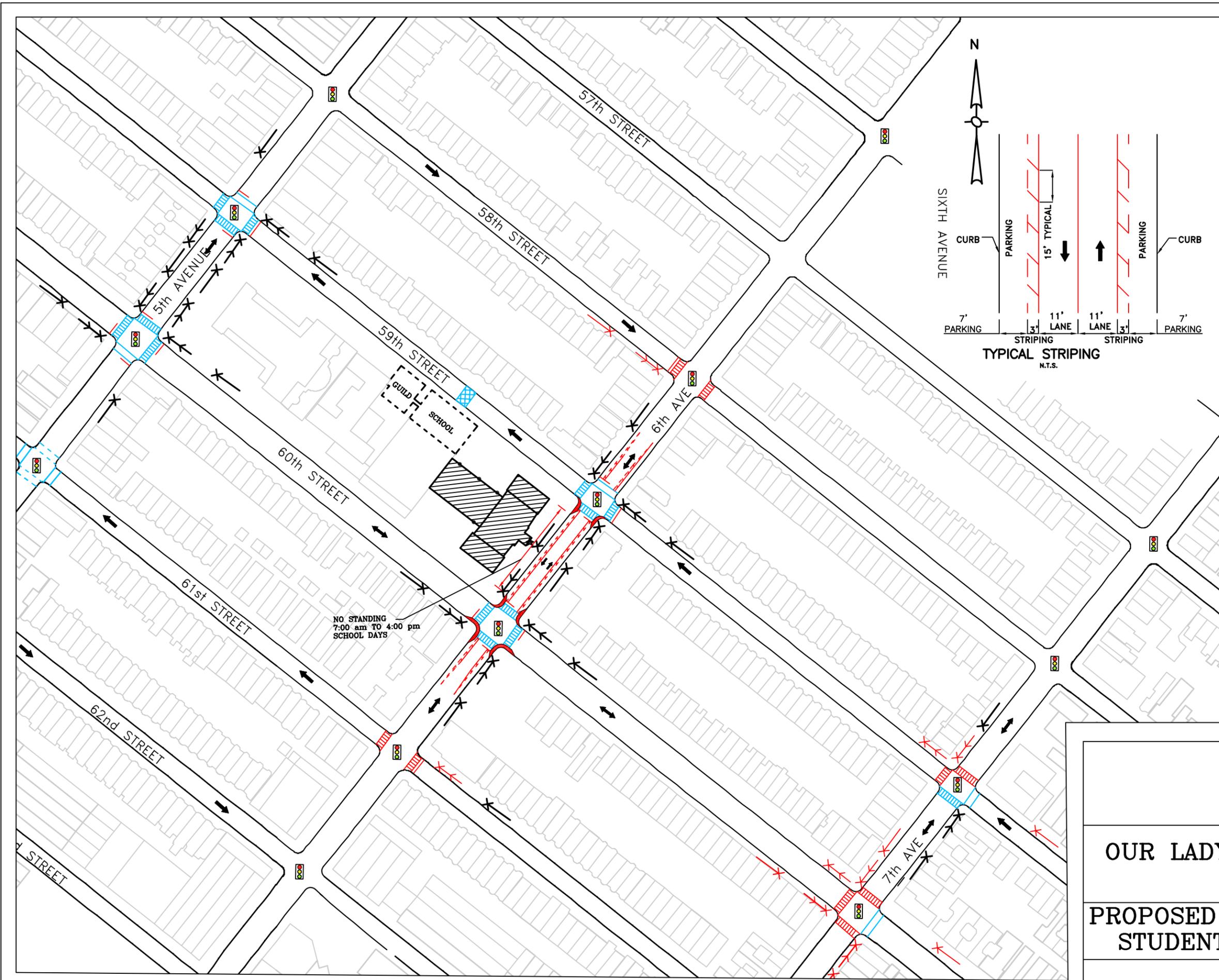
- Install curb extensions at the following intersections

Consideration should be given to installing curb extensions at the following locations, provided that the Final Design confirms that construction of the recommended curb extension would be feasible and would not interfere with traffic operations. Final details pertaining to the number, location and geometry of curb extensions will be developed during the Final Design/Contract Document preparation.

- Sixth Avenue and 59th Street – southwest corner
- Sixth Avenue and 60th Street – northwest corner

Curb extensions should be installed at the corners as shown in Exhibit 7.

The purpose of the curb extensions is to shorten the crossing distance for pedestrians, and to reduce speeds of vehicles approaching and turning at these heavily utilized school crosswalks (or intersections). These curb extensions would not eliminate or reduce the width of any moving lanes.



- LEGEND**
- MAIN ENTRANCE
 - OTHER ENTRANCES
 - EXISTING ADVANCE WARNING SIGN
 - EXISTING (OR SCHEDULED TO BE INSTALLED BY DOT) ADVANCE WARNING SIGN WITH ARROW
 - EXISTING TRAVEL DIRECTION
 - SIGNALIZED INTERSECTION
 - EXISTING SCHOOL CROSSWALK
 - EXISTING STANDARD (NON-SCHOOL) CROSSWALK
 - EXISTING SCHOOL CROSSWALK ASSOC. WITH OTHER SCHOOL
 - EXISTING SPEED REDUCER (HUMP)
 - PROPOSED ADVANCE WARNING SIGN WITH ARROW
 - PROPOSED ADVANCE WARNING SIGN
 - PROPOSED STOP LINE
 - PROPOSED SCHOOL CROSSWALK
 - PROPOSED TRAFFIC SIGN
 - PROPOSED PARKING REGULATIONS
 - PROPOSED CURB EXTENSION (NECKDOWN)
 - PROPOSED STRIPING

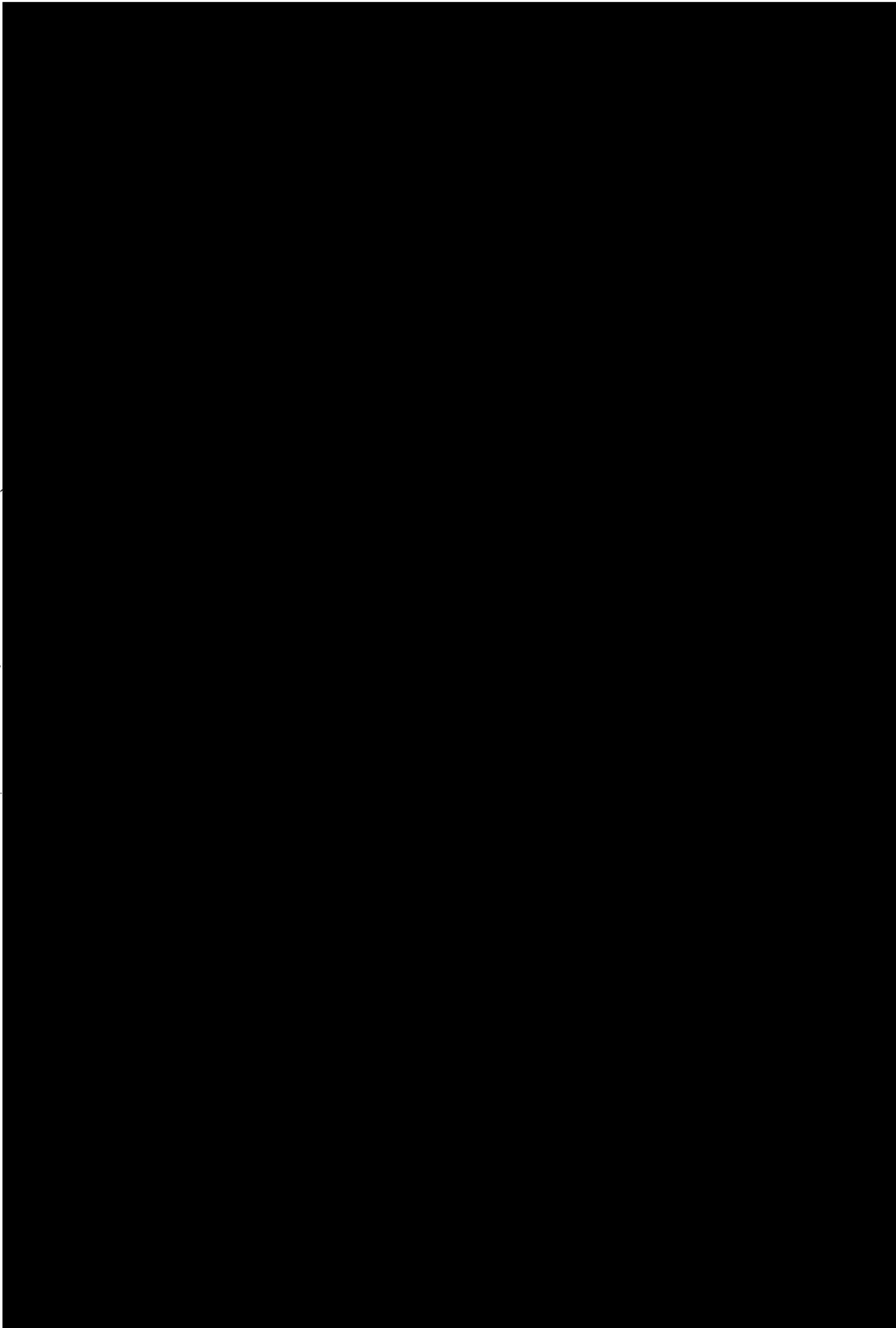
SCALE: 1" : 160'

EXHIBIT 7

**OUR LADY OF PERPETUAL HELP
BROOKLYN**

**PROPOSED MEASURES TO IMPROVE
STUDENT PEDESTRIAN SAFETY**

APPENDIX



SCHOOL SAFETY ENGINEERING

SEPT. 15, 2004

Title1 : SCHOOL SAFETY ENGINEERING
 Title2 : BOROUGH OF BROOKLYN
 Title3 : NYC-DOT

Site:
 Date: 09/15/04

Combined
 *Peds not included in table data

Begin Time	Total	6 AVENUE			60 STREET			6 AVENUE			60 STREET		
		SB-R	SB-T	SB-L	WB-R	WB-T	WB-L	NB-R	NB-T	NB-L	EB-R	EB-T	EB-L
07:30:00	271	2	44	14	6	41	32	28	28	5	4	62	5
07:45:00	317	1	52	9	7	60	40	22	38	4	2	69	13
08:00:00	335	7	60	6	5	65	29	32	45	5	8	60	13
08:15:00	332	13	43	12	8	51	37	21	53	1	4	67	22
1,255		23	199	41	26	217	138	103	164	15	18	258	53

Peak Volume Periods (1 hour Res:15 min.)					
Period			Peak Period		Volume
AM	05:00:00	To 10:00:00	07:30:00	To 08:30:00	1,255
Noon	10:00:00	To 15:00:00	NA	To NA	0
PM	15:00:00	To 20:00:00	NA	To NA	0

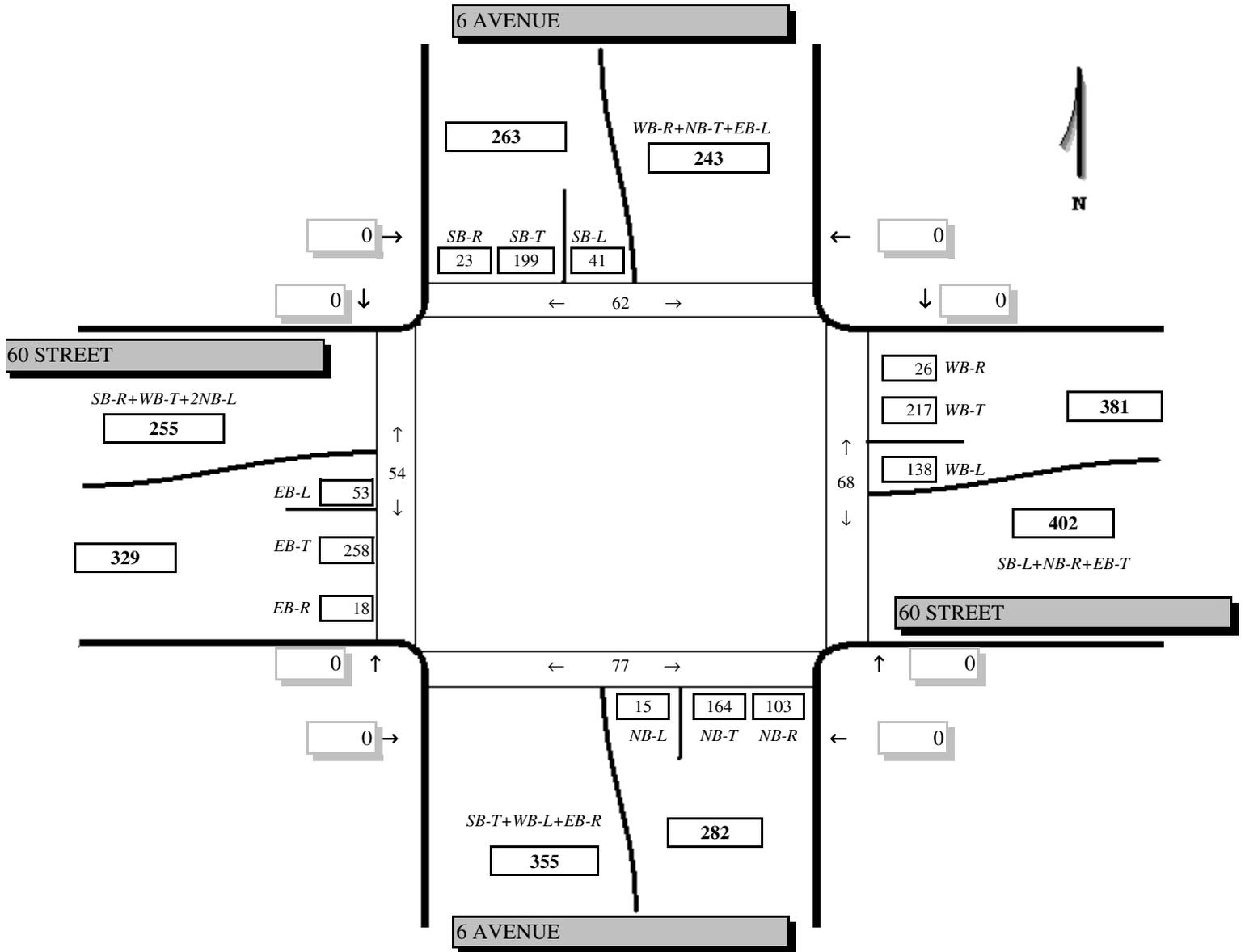
SCHOOL SAFETY ENGINEERING

SEPT. 15, 2004

Title1 : SCHOOL SAFETY ENGINEERING
 Title2 : BOROUGH OF BROOKLYN
 Title3 : NYC-DOT

Site:
 Date: 09/15/04

Combined
 *Peds not included in table data

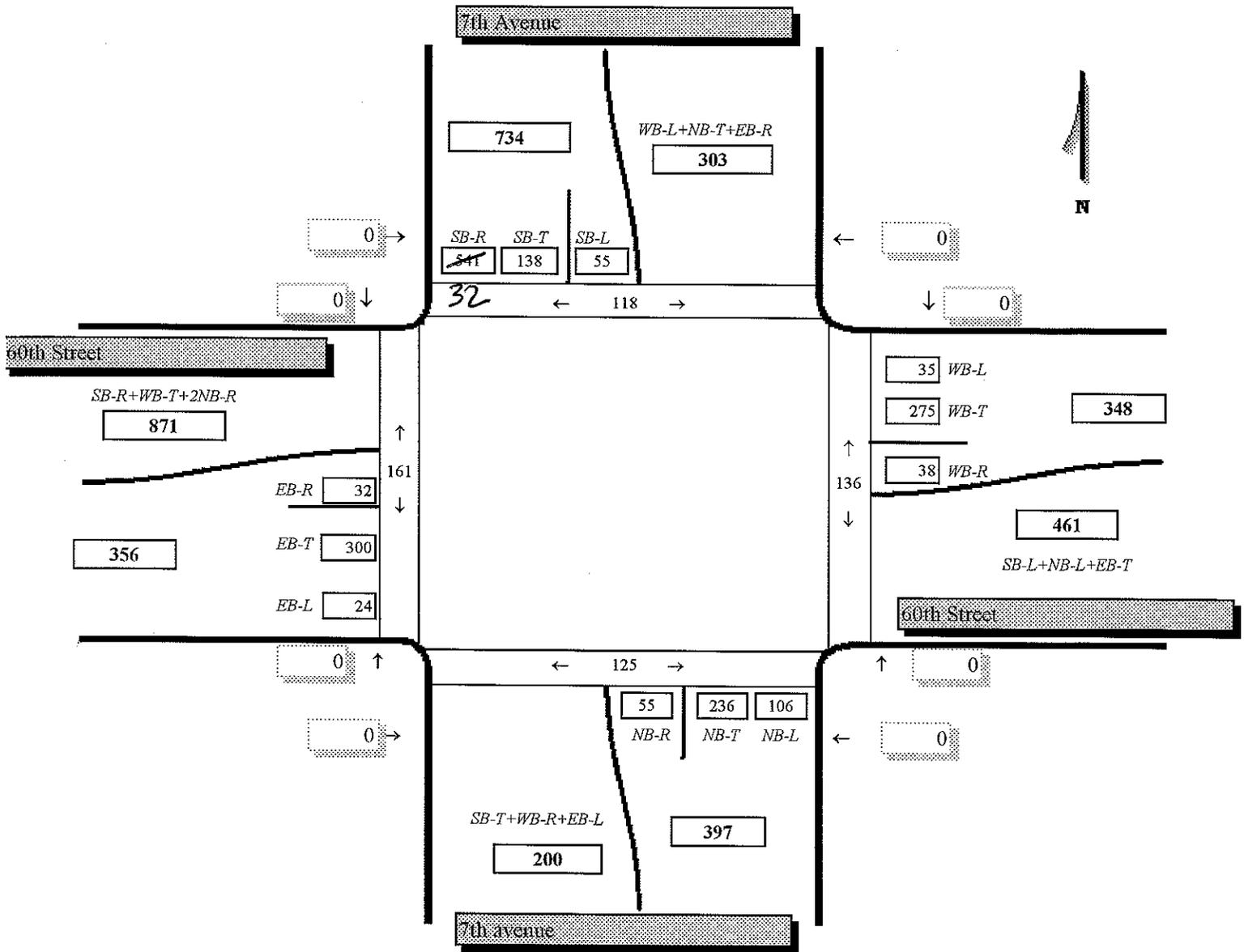


SCHOOL SAFETY ENGINEERING
MARCH 30, 2005

Title1 : SCHOOL SAFETY ENGINEERING
Title2 : BROOKLYN BOROUGH
Title3 : NYC-DOT

Site: 03/30/05
Date: 03/30/05

Combined
*Peds not included in table data



SCHOOL SAFETY ENGINEERING

MARCH 30, 2005

Title1 : SCHOOL SAFETY ENGINEERING
 Title2 : BROOKLYN BOROUGH
 Title3 : NYC-DOT

Site:
 Date: 03/30/05

Combined
 *Peds not included in table data

Begin Time	Total	7th Avenue			60th Street			7th Avenue			60th Street		
		SB-R	SB-T	SB-L	WB-L	WB-T	WB-R	NB-L	NB-T	NB-R	EB-L	EB-T	EB-R
07:30:00	281	7	38	6	5	35	11	17	51	15	6	65	5
07:45:00	375	9	37	15	10	91	6	33	63	8	12	82	9
08:00:00	325	3	29	12	8	62	12	33	59	20	3	76	8
08:15:00	854	22/9	34	22	12	67	9	23	63	12	3	77	10
	1,835	31	138	55	35	275	38	106	236	55	24	300	32

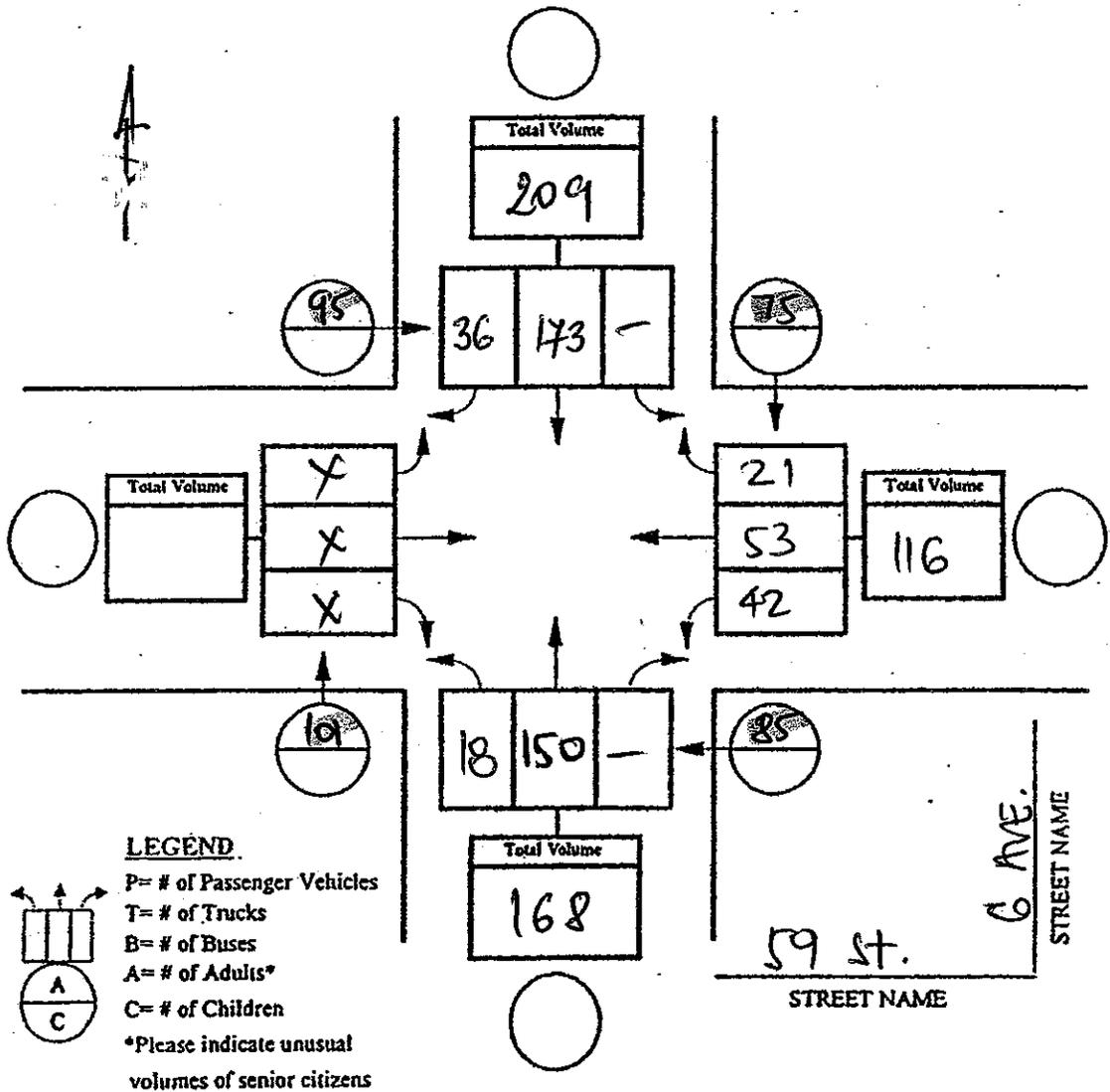
32

Peak Volume Periods <small>(1 hour Res 15 min)</small>					
	Period		Peak Period		Volume
AM	05:00:00	To 10:00:00	07:30:00	To 08:30:00	1,835
Noon	10:00:00	To 15:00:00	NA	To NA	0
PM	15:00:00	To 20:00:00	NA	To NA	0

VOLUME CLASSIFICATION AND TURNING COUNTS

DATE: SEPT. 15, 2004
 DAY: WED.

TIME: 7³⁰ - 8³⁰
 INSPECTOR: _____



COMMENTS:

Majority of pedestrians are
school students and parents.

MAJOR	
MINOR	
PEDS	
SC	
Other	

SPOT SPEED STUDY

Date: 5/30/05

Time: 1:00 PM - 2:00 PM

School: OUR LADY OF PERPETUA

Location: SIXTH AVENUE BETWEEN 59TH AND 60TH STREETS

Direction: NORTH-SOUTH

Surveyor: T.S.

Comments:

Mean Speed = 29.9 mph
Standard Deviation = 4.0 mph
Margin of Error (95% Confidence) = ± 1.1 mph

Median Speed = 29.9 mph
15th Percentile Speed = 25.7 mph
85th Percentile Speed = 34.1 mph

