

**New York City Department of Transportation
Office of School Safety Engineering**



School Safety Engineering Project

FINAL REPORT: J.H.S 72 (Catherine and Count Basie Middle School), Queens



**Prepared by
The RBA Group and URBITRAN Associates Inc.**



November 17, 2006

**School Safety Engineering Project
Final Report: J.H.S. 72, Bronx**

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SPEED SURVEY DATAA1-A4

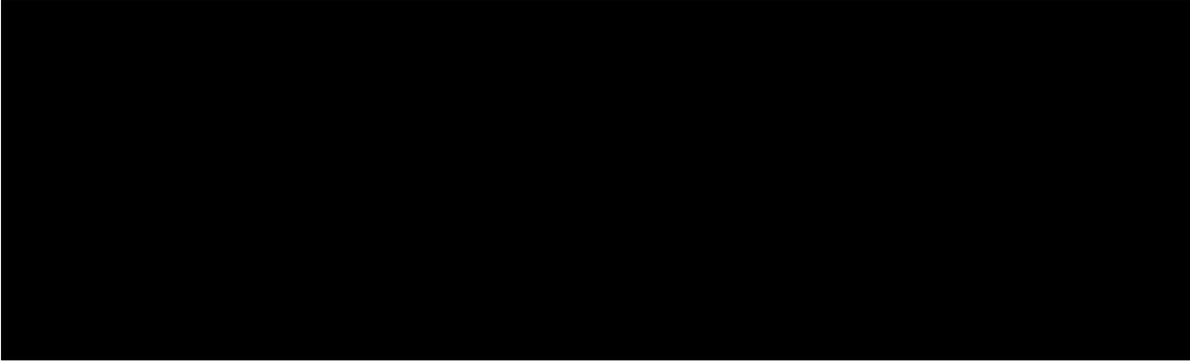
1. INTRODUCTION

1.1 PROJECT DESCRIPTION

The Department of Transportation (DOT) 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). J.H.S. 72 (Catherine and Count Basie Middle School) in Queens is one of the 135 “priority” schools identified by the New York City Department of Transportation, Office of School Safety Engineering.

2. BACKGROUND—EXISTING CONDITIONS AND ANALYSIS

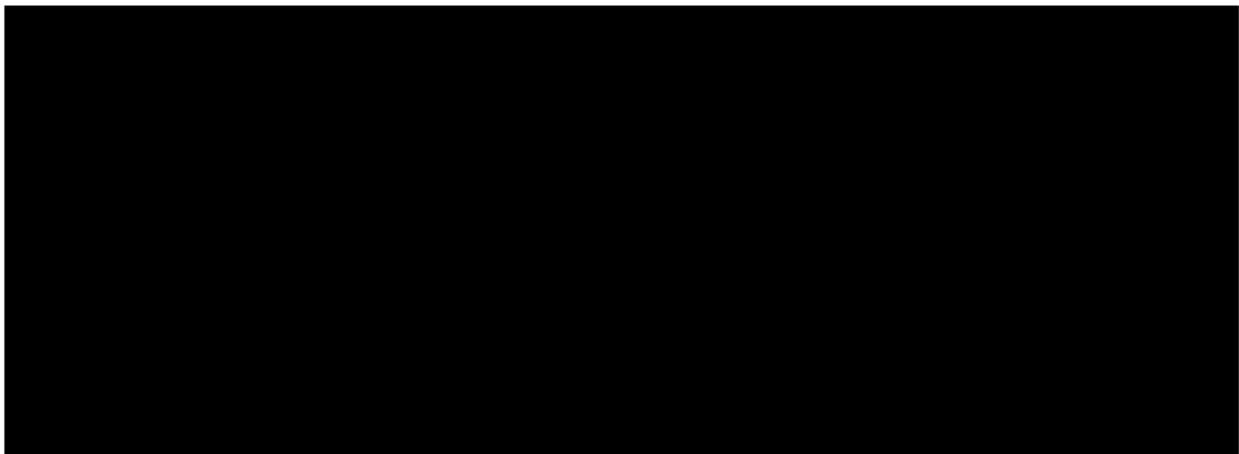


2.2 NEIGHBORHOOD DESCRIPTION

Exhibit 1 shows an aerial view of the neighborhood surrounding the school. J.H.S. 72 is located on a super-block bounded by Baisley Boulevard to the northwest, 137th Avenue to the southeast, Guy R. Brewer Boulevard to the southwest, and Bedell Street to the northeast. The school is located in an area of Jamaica that is predominately residential, with some commercial uses.

2.3 MEETING WITH SCHOOL REPRESENTATIVES

Consultant team members were unable to arrange a meeting with school administrators at J.H.S. 72 to identify problems and concerns related to improving school pedestrian safety. However, an independent field visit was conducted on June 24, 2004, without input from school administrators, to identify deficiencies in the vicinity of the school. It should be noted that the information presented in this report was not verified by school officials.



2.6 PRIMARY MODES OF TRANSPORT TO AND FROM SCHOOL

The school's "catchment area" as defined by the Department of Education is shown in Exhibit 2 at the end of this section. This section of the report typically identifies the estimated modes of travel used by students to and from the school, as identified by school officials. However, school officials at J.H.S. 72 did not provide this estimate.

2.7 ADDITIONAL STUDENT PEDESTRIAN TRAFFIC GENERATORS

There are a variety of commercial land uses, including a deli located on the west side of Guy R. Brewer Boulevard, south of 134th Avenue, that attract J.H.S. 72 student pedestrians. Additional commercial land uses are located on the east side of Guy R. Brewer Boulevard, north of Baisley Boulevard. In addition, a shopping mall is located on the southeast corner of the Guy R. Brewer Boulevard and Baisley Boulevard intersection.

Furthermore, there are three schools relatively close to J.H.S. 72 that generate additional pedestrian and vehicular traffic in the vicinity of the school. These include August Martin High School (located on Baisley Boulevard, approximately one-half mile to the northwest), P.S. 30 (located on Bedell Street, approximately one-half mile to the north), and P.S. 80 (located on 137th Avenue, approximately one-quarter mile to the southeast).

2.8 CROSSING GUARD LOCATION

During the field visit, it was noted that one crossing guard is assigned to J.H.S. 72. The crossing guard is stationed at the signalized mid-block crossing of Guy R. Brewer Boulevard, near the main entrance to the school, and assists in facilitating safe crossings of this roadway for the school's younger (Grade 6) students, as well as other pedestrians crossing at this location. Exhibit 4 shows the location of this crossing guard.

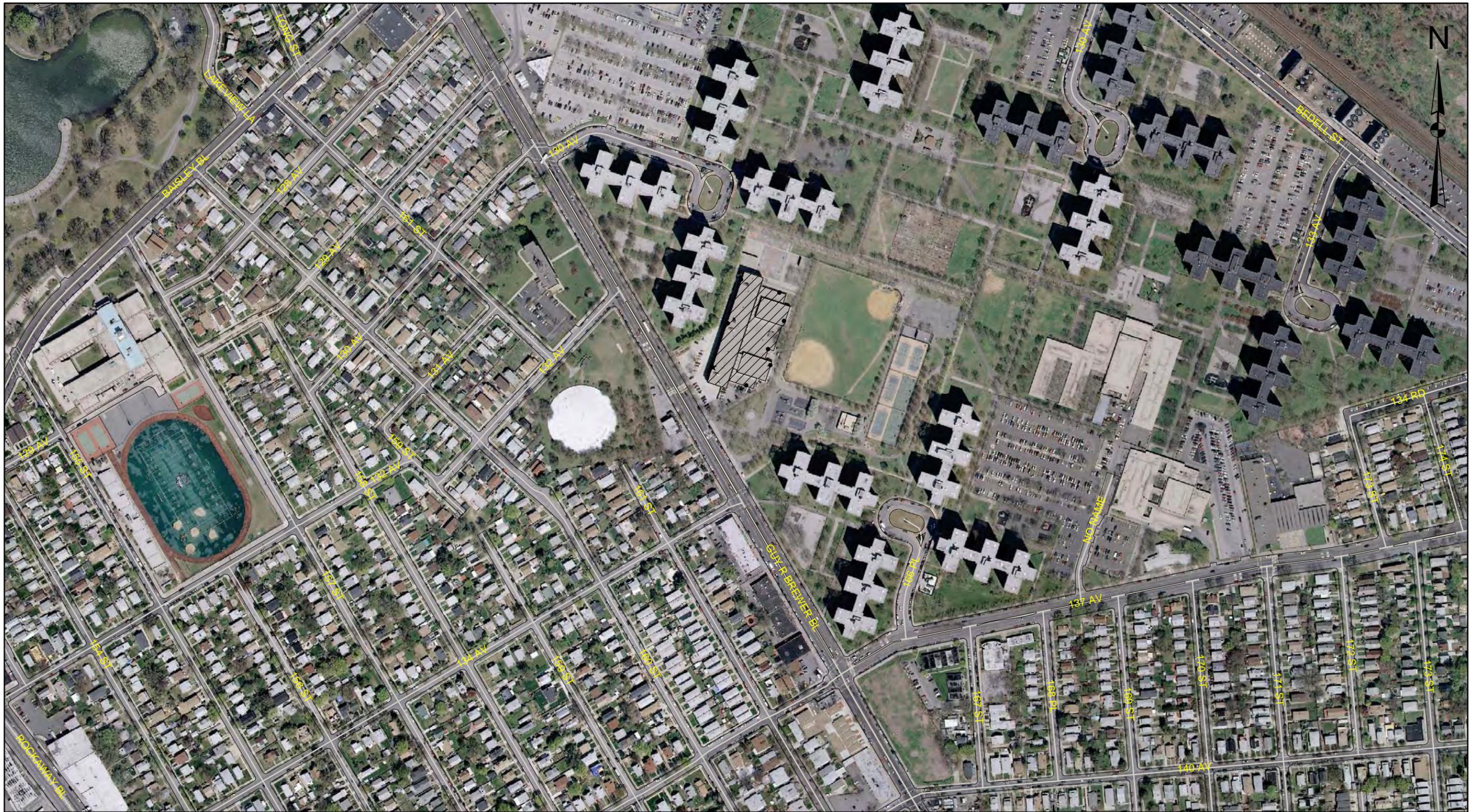
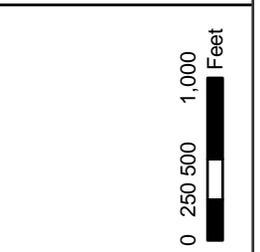


EXHIBIT 1
J.H.S. 72 QUEENS
CATHERINE & COUNT BASIE JHS
AERIAL PHOTOGRAPH

0 250 500 1,000 Feet



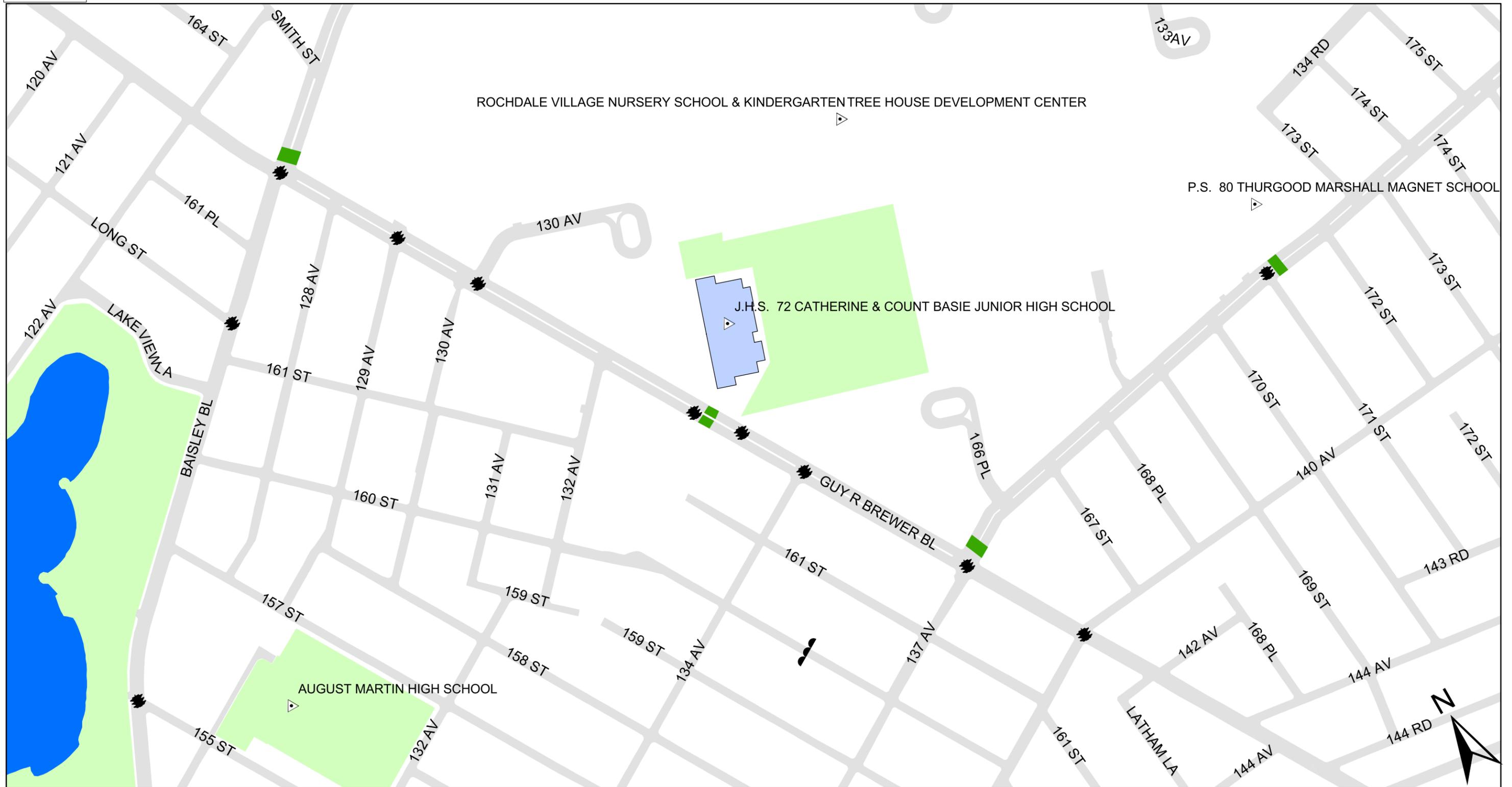
EXHIBIT 2
J.H.S. 72 QUEENS
CATHERINE & COUNT BASIE JHS
CATCHMENT AREA



LEGEND:
 CATCHMENT AREA; (DEPARTMENT OF EDUCATION DESIGNATED AREA FROM WITHIN WHICH STUDENTS ARE ENTITLED TO ATTEND J.H.S. 72)



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

MS 72 Queens
CATHERINE & COUNT BASIE MIDDLE SCHOOL

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

Map created on 11/17/2006

EXHIBIT 3

COMM. BOARD: 412
 PRECINCT: 113

3. TRAFFIC OPERATIONS

3.1 SCHOOL BUS OPERATIONS

Because members of the consultant team were unable to schedule a meeting with school administrators, this information is not available.

3.2 PARENT DROP-OFF OPERATIONS

Because members of the consultant team were unable to schedule a meeting with school administrators, this information is not available.

3.3 PARKING REGULATIONS

Directly in front of J.H.S. 72 on Guy R. Brewer Boulevard, the existing parking regulation is “NO STANDING 7AM – 4PM SCHOOL DAYS. Existing parking regulations, for other locations around the school block, are shown in Exhibit 5.

3.4 EXISTING SCHOOL SIGNS AND MARKINGS

Exhibit 3 shows the existing signals and pavement markings around J.H.S. 72. It should be noted that a citywide signage program is currently underway to upgrade school signage to current Federal Manual on 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 in Exhibit 8.

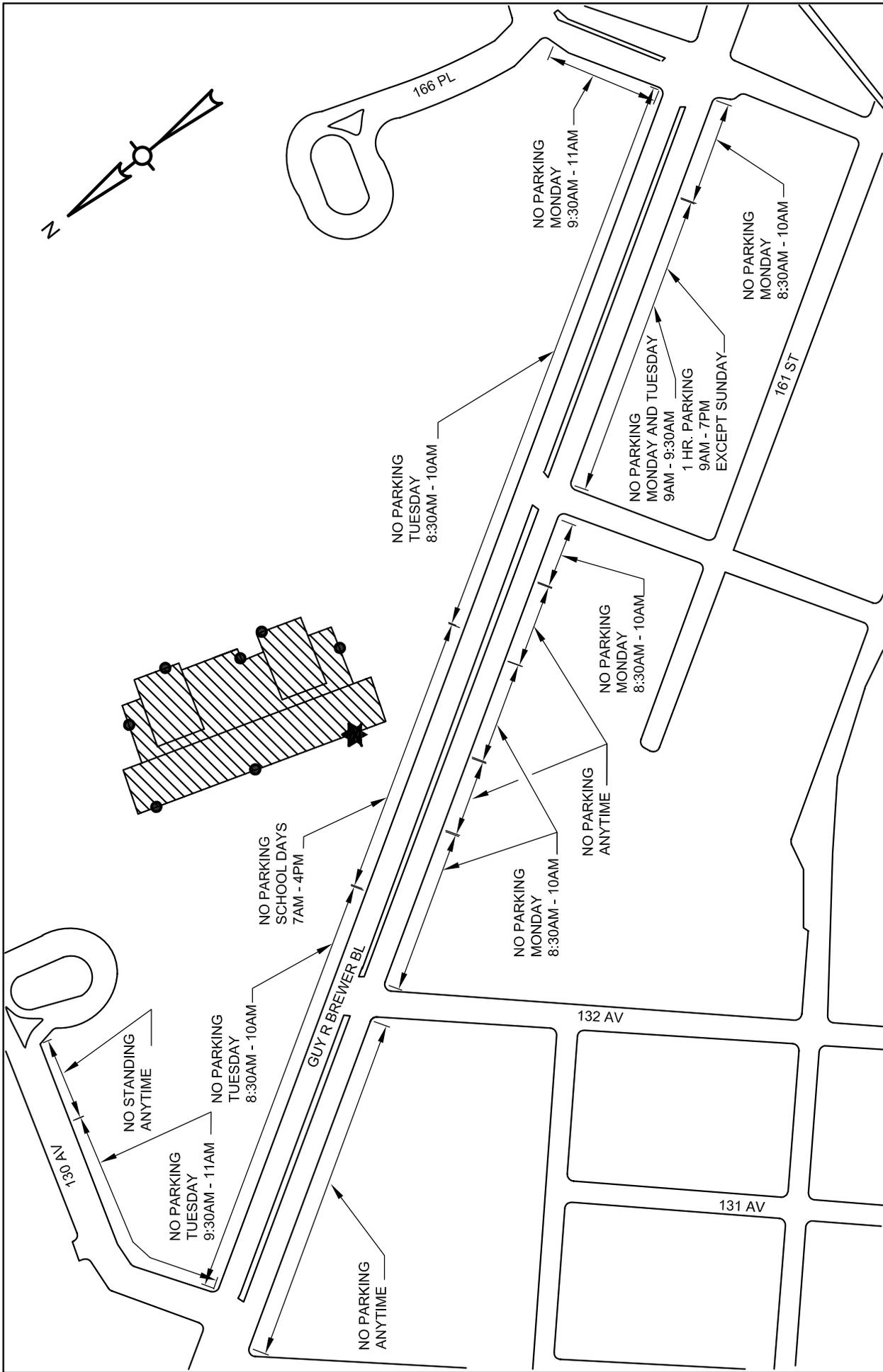
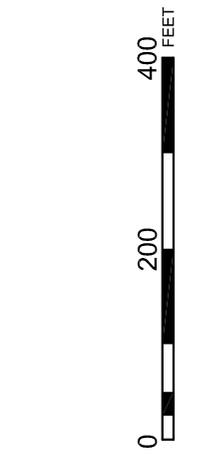


EXHIBIT 6
 J.H.S. 72 QUEENS
 CATHERINE & COUNT BASIE JHS
 EXISTING PARKING REGULATIONS



- LEGEND:**
- ★ MAIN ENTRANCE
 - ENTRANCE

3.5 ACCIDENT SUMMARY

Exhibit 6 and Table 1 show a summary of accidents, as obtained from the New York State Department of Motor Vehicles (DMV), in the vicinity of J.H.S. 72 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 an accident. Table 2 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 1: ACCIDENT SUMMARY OF NYS DMV DATA (1998-2000)				
INTERSECTION	TOTAL ACCIDENTS	PEDESTRIAN ACCIDENTS	PEDESTRIAN FATALITIES	SCHOOL-RELATED ACCIDENTS*
Guy R. Brewer Boulevard and Baisley Boulevard	100	5	0	0
Guy R. Brewer Boulevard in front of J.H.S. 72 (mid-block between 132 nd Avenue and 134 th Avenue)	11	2	0	1
Guy R. Brewer Boulevard and 134 th Avenue	36	4	0	2
Guy R. Brewer Boulevard and 137 th Avenue	39	2	0	0
TOTAL	186	13	0	3

TABLE 2: ACCIDENT SUMMARY OF NYPD DATA (2001-2004)				
INTERSECTION	TOTAL ACCIDENTS	PEDESTRIAN ACCIDENTS	PEDESTRIAN FATALITIES	SCHOOL-RELATED ACCIDENTS*
Guy R. Brewer Boulevard and Baisley Boulevard	129	13	1	1
Guy R. Brewer Boulevard and 134 th Avenue	56	7	0	2
Guy R. Brewer Boulevard and 137 th Avenue	66	7	0	1
TOTAL	251	27	1	4

* School-related accidents are defined as accidents involving school-age pedestrians (age 4 to 14), occurring on weekdays during the school year.

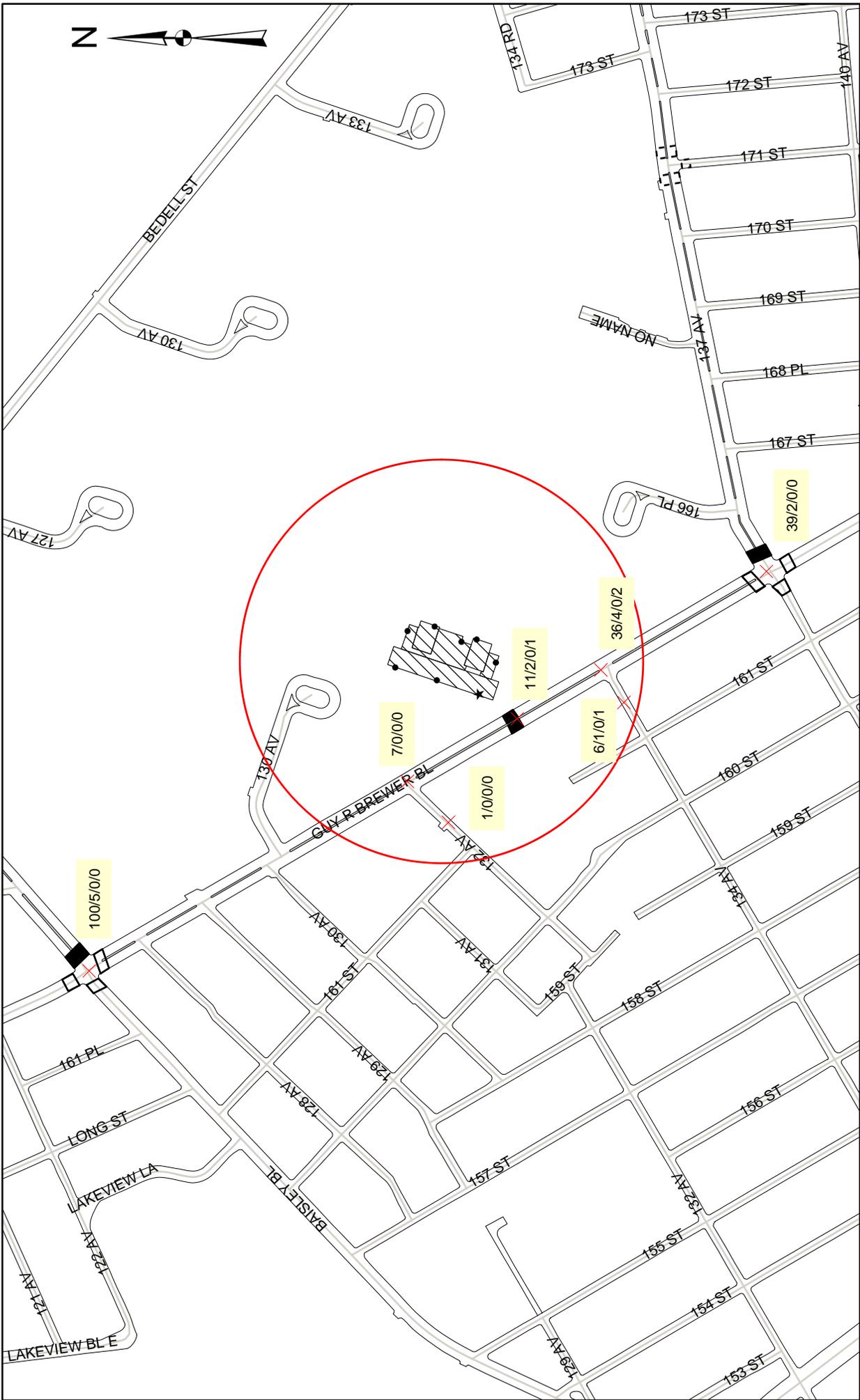


EXHIBIT 6

**J.H.S. 72 QUEENS
CATHERINE AND COUNT BASIE JHS
ACCIDENT SUMMARY (1998-2001)**



LEGEND:

- ACCIDENT LOCATION
- SCHOOL CROSSWALK
- SCHOOL CROSSWALK ASSIGNED TO ANOTHER SCHOOL
- BORDER OF 700 FEET
- X/X/X

TOTAL ACCD	PED ACCD	PED FATAL	SCHOOL_PED ACCD
/	/	/	/

3.6 TRAFFIC OPERATIONS AND ISSUES

The specific roadway-related physical conditions for each location within the school's vicinity directly affect the safety and efficiency of operations for both pedestrian and vehicular traffic. These conditions are required information when analyzing a location, and are the starting point for any revisions that may be considered to improve safety and/or efficiency.

The following sub-sections outline the physical conditions and issues concerning traffic operations and accidents at the intersections in the vicinity of J.H.S. 72.

3.6.1 Guy R. Brewer Boulevard and Baisley Boulevard

This is a four-leg signalized intersection with a school crosswalk located across the east leg of Baisley Boulevard, and pedestrian crosswalks located across the north and south legs of Guy R. Brewer Boulevard and the west leg of Baisley Boulevard. South of the intersection with Baisley Boulevard, Guy R. Brewer Boulevard is a two-way street with two travel lanes and one on-street parking lane on each side of the roadway, and a raised concrete median (approximately four feet wide) located along the center of the roadway, separating northbound and southbound traffic (see Figure 1). North of the intersection, Guy R. Brewer Boulevard is a two-way street with one travel lane and one on-street parking lane on each side of the roadway, and no center median.

East of the intersection with Guy R. Brewer Boulevard, Baisley Boulevard is a two-way street with two travel lanes and one on-street parking lane on each side of the roadway, and a raised concrete median (approximately six feet wide) aligned along the center of the roadway, separating eastbound and westbound traffic (see Figure 2). West of the intersection, Baisley Boulevard is an undivided two-way street with one travel lane and one on-street parking lane on each side of the roadway. However, on the eastbound approach to the intersection with Guy R. Brewer Boulevard, Baisley Boulevard has one exclusive left-turn lane and one shared through/right-turn lane, and no on-street parking lane. There is also no raised concrete median on Baisley Boulevard, west of the intersection.

There was a total of 100 accidents reported at this intersection between 1998 and 2000, including five pedestrian accidents, none of which were school-related (Table 1). There were no pedestrian fatalities reported at this intersection between 1998 and 2000.



Figure 1: Looking north on Guy R. Brewer Boulevard to the intersection with Baisley Boulevard.



Figure 2: Looking west along Baisley Boulevard to the intersection with Guy R. Brewer Boulevard.

To help assess conditions at the signalized intersection of Guy R. Brewer Boulevard and Baisley Boulevard, vehicular turning movement and pedestrian crossing counts were conducted at the intersection from 7:30 to 9:00 am on Thursday, October 6, 2005. The

results of the vehicle and pedestrian counts during the weekday morning peak hour (7:30 to 8:30 am) are shown in Tables 3 and 4, respectively, and in Exhibit 7A.

TABLE 3: VEHICULAR TURNING MOVEMENT VOLUMES (7:30 - 8:30 AM)												
INTERSECTION	Guy R. Brewer Boulevard NORTHBOUND			Guy R. Brewer Boulevard SOUTHBOUND			Baisley Boulevard EASTBOUND			Baisley Boulevard WESTBOUND		
	Left	Straight	Right	Left	Straight	Right	Left	Straight	Right	Left	Straight	Right
Guy R. Brewer Boulevard and Baisley Boulevard	58	518	39	49	689	74	63	470	100	65	345	57
TOTAL	615			812			633			467		

TABLE 4: PEDESTRIAN CROSSING VOLUMES (7:30 - 8:30 AM)				
INTERSECTION	Crossing Guy R. Brewer Boulevard NORTH-LEG CROSSWALK	Crossing Guy R. Brewer Boulevard SOUTH-LEG CROSSWALK	Crossing Baisley Boulevard EAST-LEG CROSSWALK	Crossing Baisley Boulevard WEST-LEG CROSSWALK
Guy R. Brewer Boulevard and Baisley Boulevard	221 (34 / 187) *	137 (32 / 105) *	95 (27 / 68) *	47 (12 / 35) *

* Numbers in parenthesis indicate (adults / students).

3.6.2 Mid-block pedestrian crossing of Guy R. Brewer Boulevard (in front of J.H.S. 72)

This is a signalized school crosswalk located mid-block on Guy R. Brewer Boulevard between 132nd Avenue and 134th Avenue. Guy R. Brewer Boulevard is a two-way street with two travel lanes and one on-street parking lane on each side of the roadway, and a raised concrete median (approximately four feet wide) aligned along the center of the roadway, separating northbound and southbound traffic. The school crosswalk is located approximately 50 feet north of the driveway entrance to J.H.S. 72 on the east side of Guy R. Brewer Boulevard (see Figures 3, 4, and 5).

There was a total of 11 accidents reported at this intersection between 1998 and 2000, including two pedestrian accidents, one of which was school-related (Table 1). There were no pedestrian fatalities reported at this intersection between 1998 and 2000.



Figure 3: Looking east across Guy R. Brewer Boulevard at the mid-block crosswalk in front of J.H.S. 72.

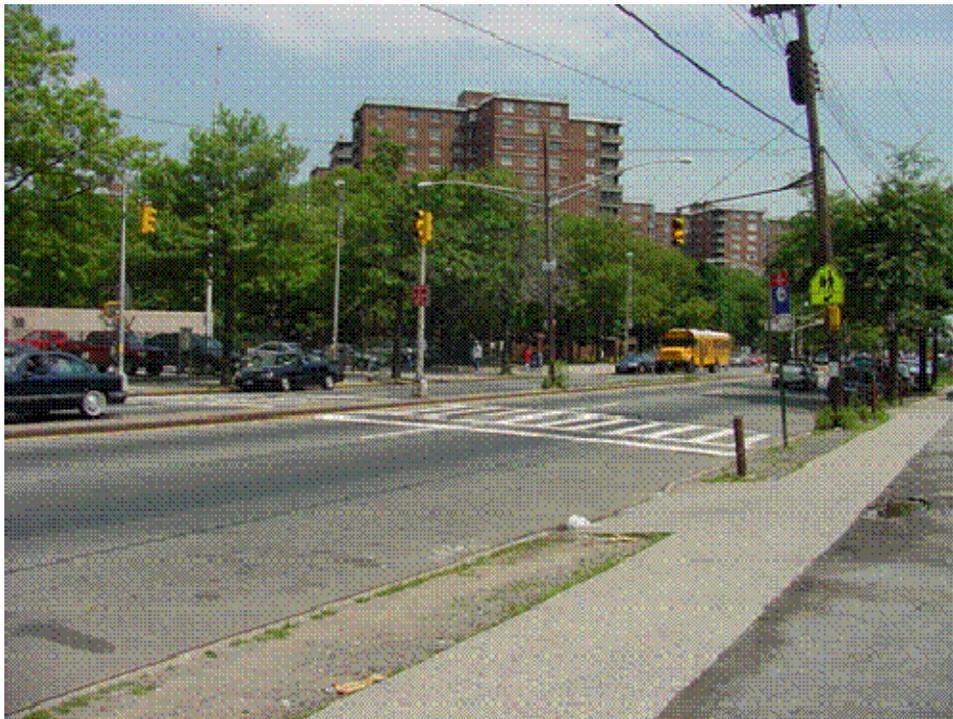


Figure 4: Looking south on Guy R. Brewer Boulevard to the mid-block crosswalk in front of J.H.S. 72.



Figure 5: Looking north on Guy R. Brewer Boulevard to the mid-block crosswalk in front of J.H.S. 72.

To more fully assess traffic and pedestrian conditions in the vicinity of J.H.S. 72, the consultant team searched NYCDOT records for any warrant studies that were performed at any of the study intersections. This search indicated that a warrant study was completed in February 2005 for the unsignalized intersection of Guy R. Brewer Boulevard and 132nd Avenue to determine the need for a traffic signal installation. The study involved a comprehensive warrant analysis, including vehicle and pedestrian counts, an analysis of the intersection's accident history, and a speed study. The warrant study was conducted partly in response to several requests from J.H.S. 72 students complaining of a speeding problem on Guy R. Brewer Boulevard in the vicinity of the school. It should be noted that there are currently no crosswalks at this intersection. The study concluded that traffic signal control was unwarranted at that time. However, the study did indicate an existing speeding problem on Guy R. Brewer Boulevard, with 85th percentile speeds of 43 miles per hour (mph) in the northbound direction and 41 mph in the southbound direction.

In addition, during the consultant team's site visit, the school crossing guard indicated that there was a speeding problem on Guy R. Brewer Boulevard. Therefore, spot speed surveys were conducted on Guy R. Brewer Boulevard between 137th Avenue and Baisley Boulevard in front of the school in order to verify the existence of a speeding problem and to determine its extent.

Spot speed surveys are used to identify the 85th percentile speed, which is considered to be the representative speed for a specified street segment. By definition, 85 percent of the surveyed vehicles are traveling below this speed and 15 percent of the surveyed

vehicles are traveling above this speed. 85th percentile speeds above 30 mph indicate a potential speeding problem that may require appropriate traffic calming measures.

The results of the spot speed study indicated that northbound vehicles on this segment of Guy R. Brewer Boulevard were traveling at an 85th percentile speed of 41 mph, and southbound vehicles on this same section of Guy R. Brewer Boulevard were traveling at an 85th percentile speed of 43 mph. These findings suggest the need for speed reduction measures in both directions on this section of Guy R. Brewer Boulevard. However, since this roadway is a local bus route (for Jamaica Buses 111 and 113), the use of speed reducers in the roadway would not be feasible.

The detailed results of the spot speed survey on Guy R. Brewer Boulevard are shown in the Appendix at the end of this document.

3.6.3 Guy R. Brewer Boulevard and 134th Avenue

This is a three-leg signalized intersection with pedestrian crosswalks located across all three legs. Guy R. Brewer Boulevard is a two-way street with two travel lanes and one on-street parking lane on each side of the roadway, and a raised concrete median (approximately four feet wide) located along the center of the roadway, separating northbound and southbound traffic. 134th Avenue is a two-way street with one travel lane and one on-street parking lane on each side of the roadway.

There was a total of 36 accidents reported at this intersection between 1998 and 2000, including four pedestrian accidents, two of which were school-related (Table 1). There were no pedestrian fatalities reported at this intersection between 1998 and 2000.

3.6.4 Guy R. Brewer Boulevard and 137th Avenue

This is a four-leg signalized intersection with a school crosswalk located across the east leg of 137th Avenue, and pedestrian crosswalks located across the north and south legs of Guy R. Brewer Boulevard and the west leg of 137th Avenue. North of the intersection with 137th Avenue, Guy R. Brewer Boulevard is a two-way street with two travel lanes and one on-street parking lane on each side of the roadway, and a raised concrete median (approximately four feet wide) aligned along the center of the roadway, separating northbound and southbound traffic (see Figure 6). South of the intersection, Guy R. Brewer Boulevard is a two-way street with one travel lane and one on-street parking lane on each side of the roadway.

East of the intersection with Guy R. Brewer Boulevard, 137th Avenue is a two-way street with two travel lanes and one on-street parking lane on each side of the roadway, and a raised concrete median (approximately four feet wide) aligned along the center of the roadway, separating eastbound and westbound traffic (see Figure 7). West of the intersection, 137th Avenue is a two-way street with one travel lane and one on-street parking lane on each side of the roadway, and no concrete median.

There was a total of 39 accidents reported at this intersection between 1998 and 2000, including two pedestrian accidents, neither of which was school-related (Table 1). There were no pedestrian fatalities reported at this intersection between 1998 and 2000.



Figure 6: Looking south on Guy R. Brewer Boulevard to the intersection with 137th Avenue.



Figure 7: Looking west on 137th Avenue to the intersection with Guy R. Brewer Boulevard.

To help assess conditions at the signalized intersection of Guy R. Brewer Boulevard and 137th Avenue, vehicular turning movement and pedestrian crossing counts were conducted at the intersection from 7:30 to 9:00 am on Monday, October 3, 2005. The results of these counts during the weekday morning peak hour (7:30 to 8:30 am) are shown in Tables 5 and 6, and in Exhibit 7B.

TABLE 5: VEHICULAR TURNING MOVEMENT VOLUMES (7:30 - 8:30 AM)												
INTERSECTION	Guy R. Brewer Boulevard NORTHBOUND			Guy R. Brewer Boulevard SOUTHBOUND			137 th Avenue EASTBOUND			137 th Avenue WESTBOUND		
	Left	Straight	Right									
Guy R. Brewer Boulevard and 137 th Avenue	28	791	52	185	464	18	15	84	37	53	195	236
TOTAL	871			667			136			484		

TABLE 6: PEDESTRIAN CROSSING VOLUMES (7:30 - 8:30 AM)				
INTERSECTION	Crossing Guy R. Brewer Boulevard NORTH-LEG CROSSWALK	Crossing Guy R. Brewer Boulevard SOUTH-LEG CROSSWALK	Crossing 137 th Avenue. EAST-LEG CROSSWALK	Crossing 137 th Avenue WEST-LEG CROSSWALK
Guy R. Brewer Boulevard and 137 th Avenue	85 (53 / 32) *	31 (20 / 11) *	30 (18 / 12) *	23 (14 / 9) *

* Numbers in parenthesis indicate (adults / students).

3.7 SIGNAL TIMING

Pedestrian crossing times were field-verified for crosswalks at signalized intersections in the vicinity of J.H.S. 72, and were found to be adequate for most directions and approaches based upon a child pedestrian walking at the rate of three feet per second, with two exceptions. The first exception is the mid-block crosswalk across Guy R. Brewer Boulevard directly in front of the school. The second exception is the north leg of the Guy R. Brewer Boulevard and 137th Avenue intersection. The existing and required pedestrian signal times are shown in Table 7.

TABLE 7: PEDESTRIAN CROSSING TIMES AT SIGNALIZED INTERSECTIONS				
INTERSECTION	CROSSWALK LENGTH (FEET)	PEDESTRIAN TIME ACTUAL (SECONDS)	PEDESTRIAN TIME REQUIRED (SECONDS)	TIMING ADJUSTMENT REQUIRED?
Guy R. Brewer Boulevard and Baisley Boulevard				
crossing Guy R. Brewer Boulevard (north leg)	49	30	20	NO
crossing Guy R. Brewer Boulevard (south leg)	74	30	28	NO
crossing Baisley Boulevard	70	30	26	NO
Guy R. Brewer Boulevard in front of J.H.S. 72				
crossing Guy R. Brewer Boulevard	70	24	26	YES
Guy R. Brewer Boulevard and 137th Avenue				
crossing Guy R. Brewer Boulevard (north leg)	73	24	27	YES
crossing Guy R. Brewer Boulevard (south leg)	73	24	27	YES
crossing 137 th Avenue	73	36	27	NO

Note: A child pedestrian walking rate of 3 feet/second, plus 3 seconds reaction time, was utilized to calculate the required pedestrian crossing time.

3.8 PHYSICAL CONDITIONS

3.8.1 Roadways and Sidewalks

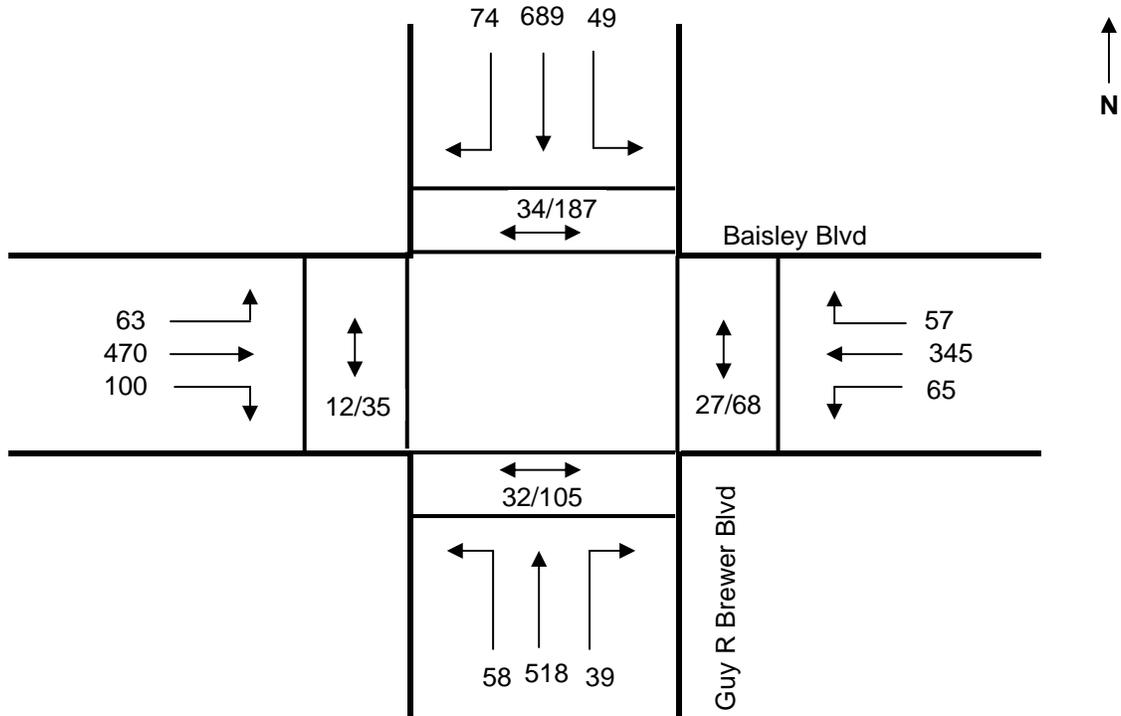
The roadways in the vicinity of J.H.S. 72 were observed to be in fair condition. Sidewalks within the vicinity of the school are in fair condition, and range in width between 10 and 15 feet in the immediate vicinity of the school, and between five and seven feet in other areas.

3.8.2 Pedestrian Ramps

Pedestrian ramps in the vicinity of the school appear to be standard, with the following exceptions:

- Pedestrian ramps are missing on each side of Guy R. Brewer Boulevard as well as on the raised concrete median for the signalized school crosswalk located mid-block between 132nd Avenue and 134th Avenue (near the entrance to J.H.S. 72).
- For the crosswalk located across the east leg of 137th Avenue, the pedestrian ramps on the northeast and southeast corners of the signalized Guy R. Brewer Boulevard and 137th Avenue intersection have slopes that are steeper than standard.

One Hour Traffic Volumes
Thursday, October 6th, 2005 7:30am - 8:30am

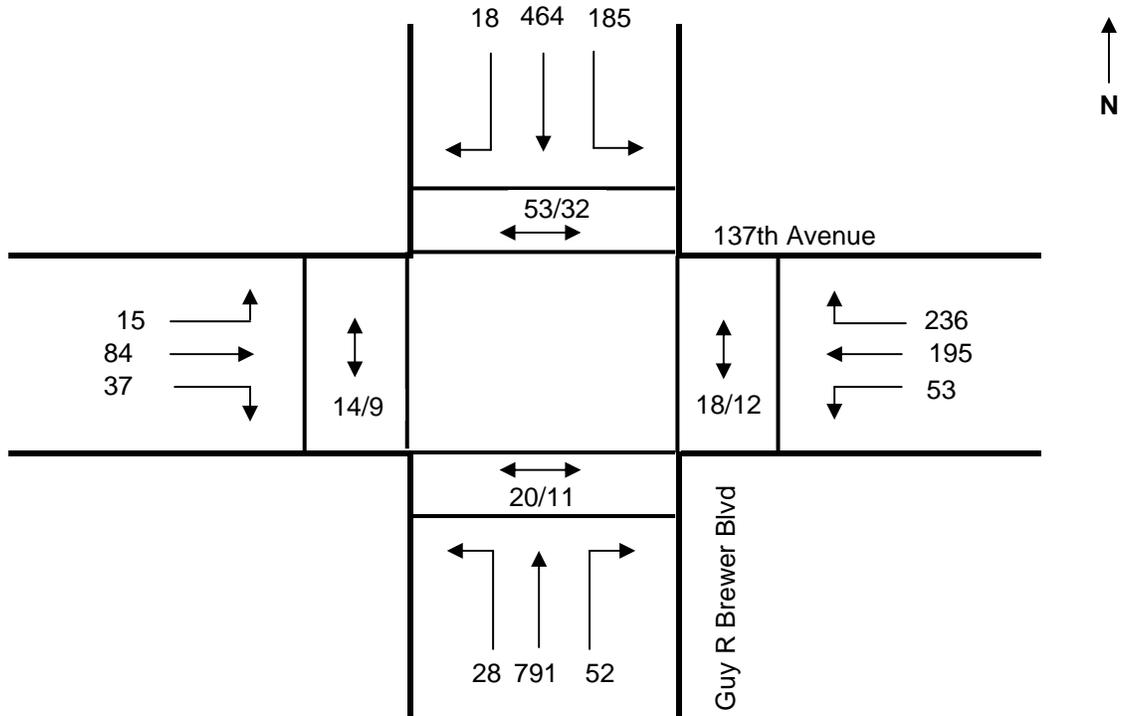


Intersection of Guy R Brewer Boulevard and Baisley Boulevard

<u>Legend</u>	
XX / XX	(Adult / Child)
←→	Pedestrian Counts
—↑	Vehicle Movement

EXHIBIT 7A
J.H.S. 72 QUEENS
TRAFFIC AND PEDESTRIAN COUNTS

One Hour Traffic Volumes
Monday, October 3rd, 2005 7:30am - 8:30am



Intersection of Guy R Brewer Boulevard and 137th Avenue

<u>Legend</u>	
XX / XX	(Adult / Child)
←→	Pedestrian Counts
—↑	Vehicle Movement

EXHIBIT 7B
J.H.S. 72 QUEENS
TRAFFIC AND PEDESTRIAN COUNTS

4. POTENTIAL MEASURES TO IMPROVE STUDENT PEDESTRIAN SAFETY

This section describes the proposed measures to improve school pedestrian safety around J.H.S. 72. The proposed recommendations are divided into short-term and long-term measures. Short-term measures are those that potentially can be performed in-house. Long-term measures involve capital improvements. Each of the short- and long-term measures recommended for J.H.S. 72 is discussed as follows, and is shown in more detail in Exhibit 8 at the end of this section.

4.1 SHORT-TERM MEASURES

➤ *Install “NO STANDING 7AM - 4PM SCHOOL DAYS” signs*

Signs should be installed reading “NO STANDING 7AM - 4PM SCHOOL DAYS” for a distance of 30 feet in front of the main entrance to the school. (This is a typical requirement for all NYC schools in order to provide for emergency access to and from the school.)

➤ *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.

➤ *Re-designate pedestrian crosswalk as school crosswalk*

The signalized intersection of Guy R. Brewer Boulevard and 130th Avenue has four pedestrian crosswalks, one across each leg of the intersection. The pedestrian crosswalk located across the east leg of this intersection (130th Avenue) is on the same side of the roadway as J.H.S. 72. There are school crosswalks located at either end of this super-block for student pedestrian crossings of both Baisley Boulevard and 137th Avenue. Because students walk along the east side of Guy R. Brewer Boulevard when traveling to school, the existing pedestrian crosswalk across the east leg of the Guy R. Brewer Boulevard and 130th Avenue intersection should also be designated as a school crosswalk.

Therefore, the following action is recommended:

- Designate the pedestrian crosswalk located across the east leg of 130th Avenue at the intersection with Guy R. Brewer Boulevard as a school crosswalk and install all appropriate advance warning signs and pavement markings

➤ Designate school crosswalk

The signalized intersection of Guy R. Brewer Boulevard and 129th Avenue has pedestrian crosswalks located across the north, south, and west legs, but no crosswalk across the east leg. The east leg of this intersection (a private driveway serving a shopping center) is on the same side of the roadway as J.H.S. 72. There are school crosswalks located at either end of this super-block for student pedestrian crossings of both Baisley Boulevard and 137th Avenue. Because students walk along the east side of Guy R. Brewer Boulevard when traveling to school, a school crosswalk should be designated across the east leg of the Guy R. Brewer Boulevard and 129th Avenue intersection.

Therefore, the following action is recommended:

- Designate a school crosswalk across the east leg of 129th Avenue at the intersection with Guy R. Brewer Boulevard, and install all appropriate advance warning signs and pavement markings

➤ Extend pedestrian crossing times

The required time for a child pedestrian to cross Guy R. Brewer at two locations exceeds the time available (assuming a child pedestrian walking rate of three feet/second, plus a three second reaction time). The first location is the mid-block crosswalk on Guy R. Brewer Boulevard directly in front of J.H.S. 72, where 26 seconds are required for a child pedestrian to completely cross Guy R. Brewer Boulevard, but only 24 seconds are available. The second location is the north leg of the Guy R. Brewer Boulevard and 137th Avenue intersection, where 27 seconds are required for a child pedestrian to completely cross Guy R. Brewer Boulevard, but only 24 seconds are available.

Therefore, the following actions are recommended:

- Extend the walk time for the mid-block crosswalk across Guy R. Brewer Boulevard to 30 seconds to accommodate child pedestrian crossings of Guy R. Brewer Boulevard
- Extend the walk time to cross Guy R. Brewer Boulevard at 137th Avenue to 30 seconds to accommodate child pedestrian crossings of Guy R. Brewer Boulevard

Note: It should be noted that at time of report release, NYCDOT had made the recommended signal timing modifications.

4.2 LONG-TERM MEASURES

➤ Extend raised concrete medians through marked crosswalks

The raised concrete medians located along the center of Guy R. Brewer Boulevard and 137th Avenue (see Section 3.6) do not intersect with marked crosswalks at several intersections. The crosswalks at these intersections can be made safer for pedestrians by extending the raised concrete medians through the marked crosswalks. Such a configuration offers greater protection to any pedestrians who may find themselves unable to complete their crossing in the allotted time, and requires drivers to go around the raised median to complete their turns.

Therefore, the following actions are recommended:

- Raised concrete medians should be extended through marked crosswalks at the following locations:
 - The south and east legs of the signalized Guy R. Brewer Boulevard and Baisley Avenue intersection
 - The south leg of the signalized Guy R. Brewer Boulevard and 129th Avenue intersection
 - The south leg of the signalized Guy R. Brewer Boulevard and 130th Avenue intersection.
 - The north and south legs of the signalized Guy R. Brewer Boulevard and 134th Avenue intersection
 - The north and east legs of the signalized Guy R. Brewer Boulevard and 137th Avenue intersection

➤ Consider installing curb extensions at the following locations:

Consideration should be given to installing curb extensions at the following locations, provided that the Final Design confirms that construction of the recommended curb extensions would be feasible and 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.

- The northwest and southeast corners of the signalized Guy R. Brewer Boulevard and Baisley Boulevard intersection, for the crosswalks located across the west and east legs of Baisley Boulevard

- The southwest corner of the signalized Guy R. Brewer Boulevard and 134th Avenue intersection, for the crosswalk located across the west leg of 134th Avenue
- The northeast and southeast corners of the signalized Guy R. Brewer Boulevard and 137th Avenue intersection, for the crosswalk located across the east leg of 134th Avenue

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. These curb extensions would not eliminate or reduce the width of any moving lanes.

➤ Construct pedestrian ramps

Pedestrian ramps are missing on each side of Guy R. Brewer Boulevard, as well as on the raised concrete median, for the signalized school crosswalk located mid-block between 132nd Avenue and 134th Avenue (near the entrance to J.H.S. 72). Therefore, the following actions are recommended:

- Construct pedestrian ramps on the east and west sides of Guy R. Brewer Boulevard for the signalized school crosswalk located mid-block between 132nd Avenue and 134th Avenue (near the entrance to J.H.S. 72).
- Construct a pedestrian “cut-through” in the raised concrete median on Guy R. Brewer Boulevard, for the signalized school crosswalk located mid-block between 132nd Avenue and 134th Avenue (near the entrance to J.H.S. 72).

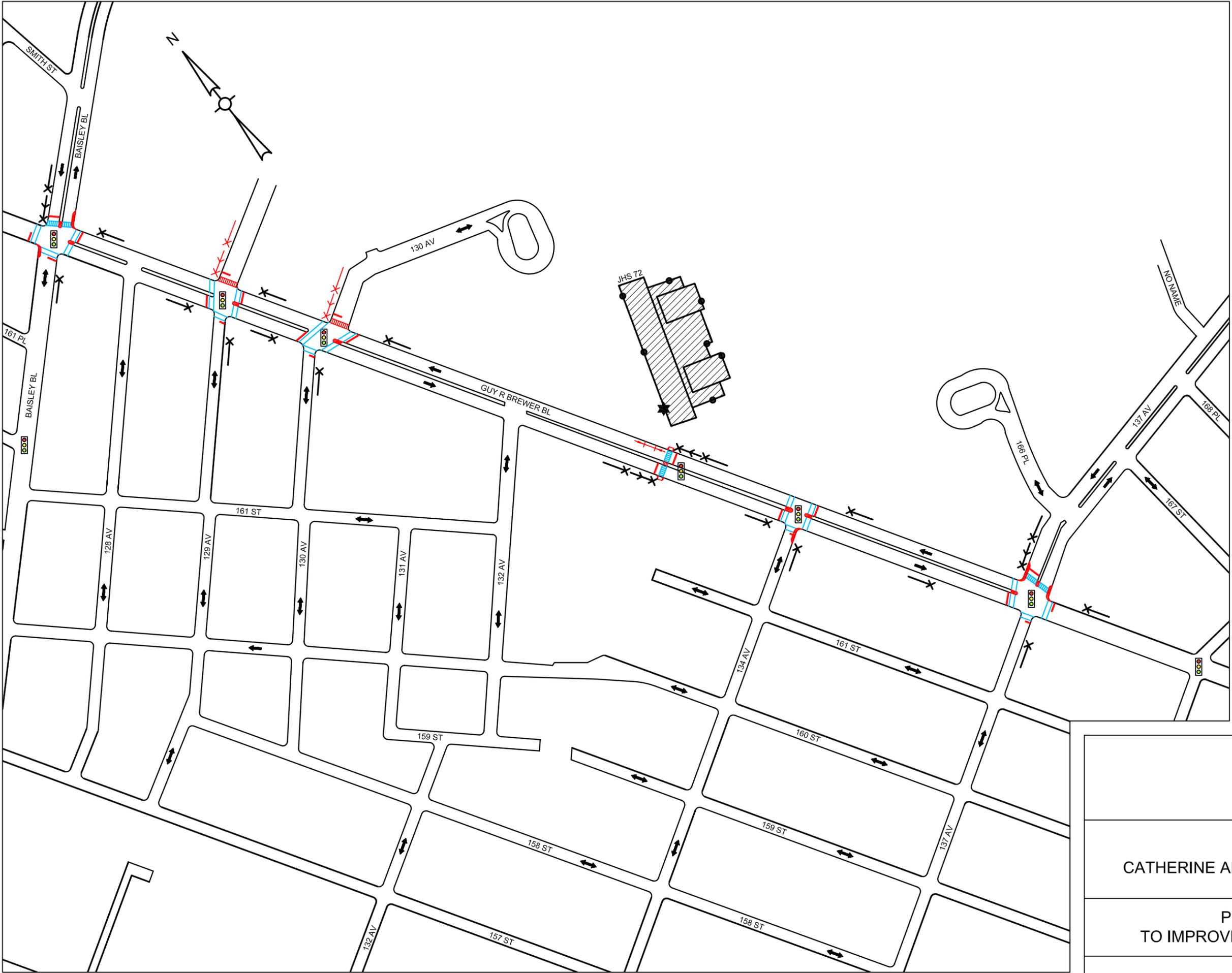
➤ Reconstruct pedestrian ramps

Several pedestrian ramps have slopes that are steeper than standard. Therefore, the following actions are recommended:

- Reconstruct the pedestrian ramps on the northeast and southeast corners of the Guy R. Brewer Boulevard and 137th Avenue intersection, for the crosswalk located across the east leg of 137th Avenue, to provide a standard slope from the roadway pavement to the sidewalk landing area
- Reconstruct the pedestrian ramp on the northeast corner of the Guy R. Brewer Boulevard and 137th Avenue intersection, for the crosswalk located across the north leg of Guy R. Brewer Boulevard, to provide a standard slope from the roadway pavement to the sidewalk landing area

Several pedestrian ramps have slopes that are steeper than standard. Therefore, the following actions are recommended:

- Reconstruct the pedestrian ramps on the northeast and southeast corners of the Guy R. Brewer Boulevard and 137th Avenue intersection, for the crosswalk located across the east leg of 137th Avenue, to provide a standard slope from the roadway pavement to the sidewalk landing area
- Reconstruct the pedestrian ramp on the northeast corner of the Guy R. Brewer Boulevard and 137th Avenue intersection, for the crosswalk located across the north leg of Guy R. Brewer Boulevard, to provide a standard slope from the roadway pavement to the sidewalk landing area.



LEGEND

-  MAIN ENTRANCE
-  OTHER ENTRANCES
-  EXISTING TRAVEL DIRECTION
-  EXISTING ADVANCE WARNING SIGN OR SCHEDULED TO BE INSTALLED
-  EXISTING SCHOOL CROSSWALK WARNING ASSEMBLY OR SCHEDULED TO BE INSTALLED
-  EXISTING SIGNALIZED LOCATION
-  EXISTING SCHOOL CROSSWALK
-  EXISTING PEDESTRIAN CROSSWALK
-  PROPOSED ADVANCE WARNING SIGN
-  PROPOSED SCHOOL CROSSWALK WARNING ASSEMBLY
-  PROPOSED SCHOOL CROSSWALK
-  PROPOSED TRAFFIC SIGN
-  PROPOSED STOP LINE IN ADVANCE OF SCHOOL CROSSWALK
-  PROPOSED "NO STANDING 7:00AM - 4:00PM SCHOOL DAYS"
-  PEDESTRIAN RAMP TO BE RECONSTRUCTED
-  PROPOSED PEDESTRIAN RAMP
-  PROPOSED MEDIAN EXTENSION
-  PROPOSED CURB EXTENSION (NECKDOWN)

1" = 200'

EXHIBIT 8

**J.H.S. 72 QUEENS
CATHERINE AND COUNT BASIE MIDDLE SCHOOL**

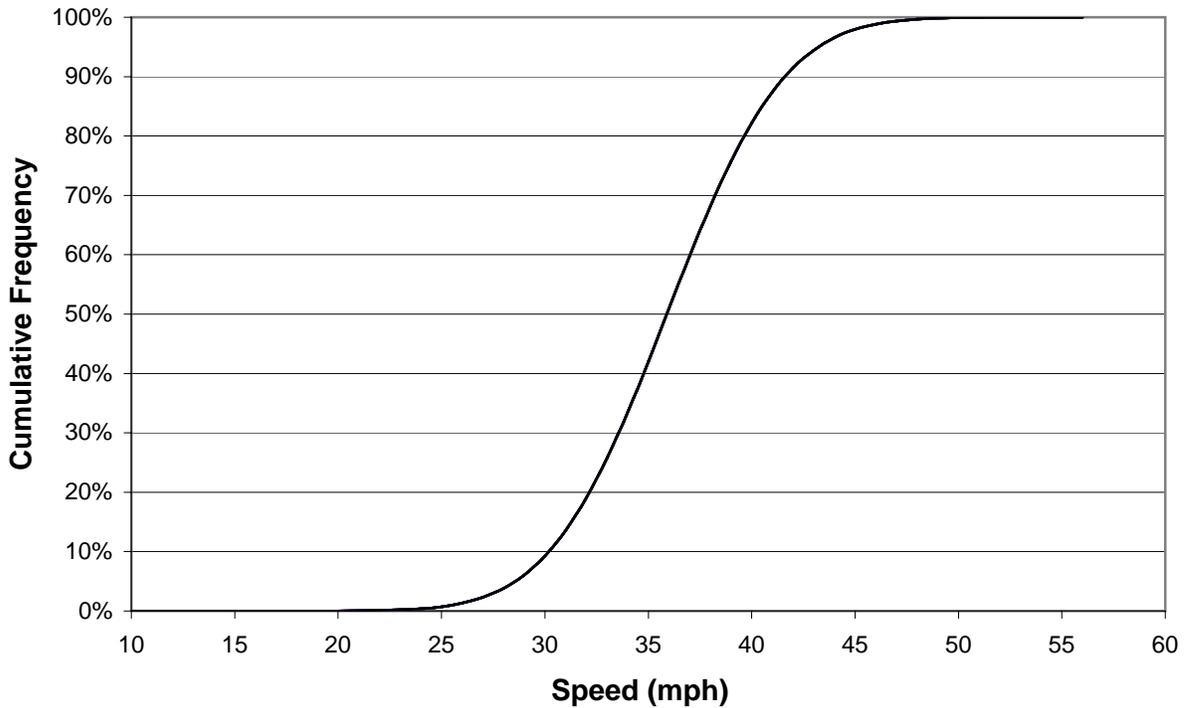
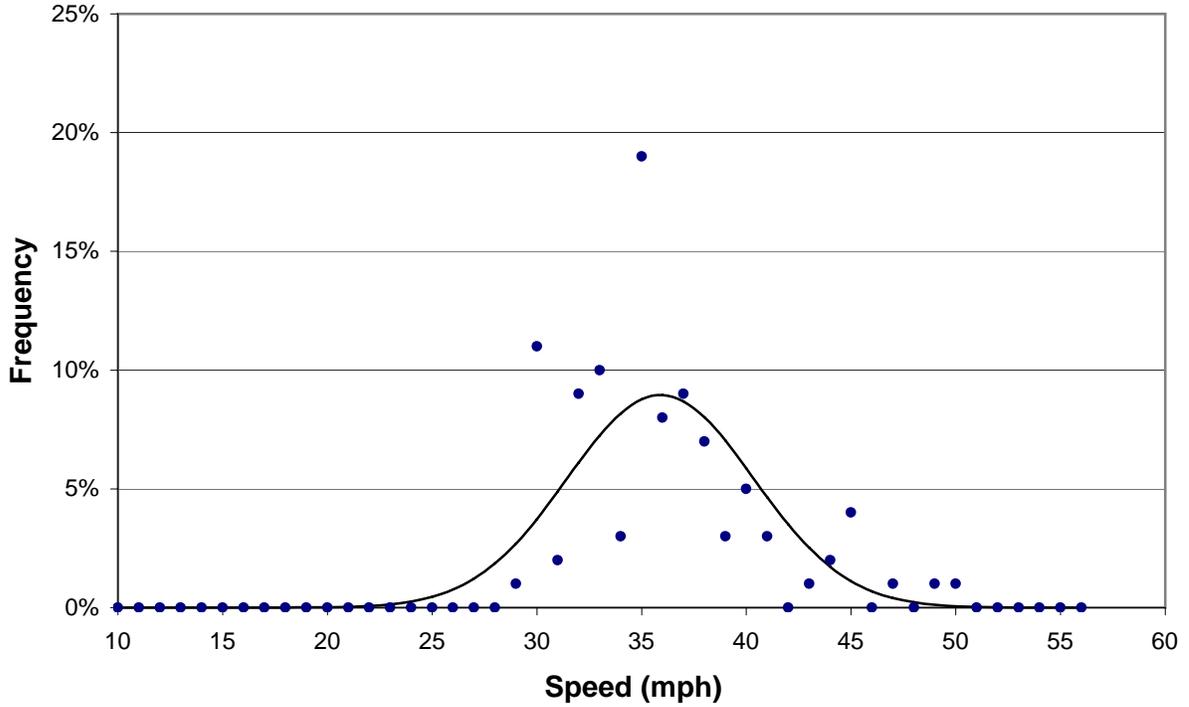
**PROPOSED MEASURES
TO IMPROVE SCHOOL PEDESTRIAN SAFETY**

APPENDIX

SPOT SPEED STUDY

Date: 10-3-05 Time: 9:30 am School: J.H.S. 72
Location: Gur R Brewer Blvd between Baisley Blvd & 137th Ave (in front of the s Direction: NB
Surveyor: R. Calvache/H. Salinas Comments:

Mean Speed = 35.9 mph Median Speed = 35.9 mph
Standard Deviation = 4.5 mph 15th Percentile Speed = 31.3 mph
Margin of Error (95% Confidence) = ± 0.9 mph 85th Percentile Speed = 40.5 mph



SPOT SPEED STUDY

Date: 10-3-05 Time: 9:30 am School: J.H.S. 72
Location: Gur R Brewer Blvd between Baisley Blvd & 137th Ave (in front of the s Direction: SB
Surveyor: R. Calvache/H. Salinas Comments:

Mean Speed = 37.5 mph Median Speed = 37.5 mph
Standard Deviation = 5.6 mph 15th Percentile Speed = 31.7 mph
Margin of Error (95% Confidence) = ± 1.1 mph 85th Percentile Speed = 43.2 mph

