Traffic Engineering Study Windsor Parkway Pedestrian Crossing

Prepared for: City of Sandy Springs, GA

Prepared by: Michael Baker International, Inc.

June 10, 2019



© 2019 City of Sandy Springs. All rights reserved. The contents of this publication reflect the views of the author(s), who is (are) responsible for the facts and accuracy of the data presented herein. This publication does not constitute a standard, specification, or regulation.



TABLE OF CONTENTS

1.0	PURPOSE	1
2.0	CONTEXT AND CHARACTER OF AREA	3
3.0	SITE VISIT	4
3.1	Field Evaluation: Site distance measurements	4
3.2	Field Evaluation: Presence of Street Lighting	6
3.3	Field Evaluation: Vegetation and Slopes on North Side of Windsor Parkway	6
3.4	Field Evaluation: Existing signage related to pedestrians	6
3.5	Field Evaluation: Potential locations for a pedestrian crossing	6
3.6	Field Evaluation: Observed gaps in traffic for pedestrian crossings	6
3.7	Field Evaluation: Speed Study	7
3.8	Field Evaluation: Likely Pedestrian Need	7
40	SITE DISTANCE MEASUREMENTS BASED ON DESIGN PLANS	8
5.0	REVIEW OF CRASH HISTORY	0
5.0 6.0	MIDBI OCK CROSSINGS I ITERATURE REVIEW	10
70	ALL WAY STOP FVALUATION	10
8.0	CONCLUSIONS	13
9.0	RECOMMENDATIONS	15
ло Арря	NDIX A - SPEED AND VOLUME TRAFFIC COUNTS	A
	NDIX B - SIGHT DISTANCE DIAGRAM	1 R



LIST OF TABLES

Table 1:	Required Stopping Sight Distance	4
Table 2:	Measured Sight Distances	6
Table 3:	Post-Sidewalk Construction Sight Distance	8

LIST OF FIGURES

Figure 1:	Study Area Map	2
Figure 2:	West of Highgrove Pointe; Looking East	3
Figure 3:	East of Highgrove Pointe; Looking East	3
Figure 4:	Field Measured Sight Distance (1/2)	5
Figure 5:	Field Measured Sight Distance (2/2)	5
Figure 6:	Crashes in Area	9
Figure 7:	Potential Crossing Locations	3

1.0 PURPOSE

The City of Sandy Springs requested a review of potential pedestrian crossing locations along Windsor Parkway in the vicinity of Highgrove Pointe and Mabry Place (see Figure 1). The City is constructing a sidewalk improvement project along Windsor Parkway that will add curb, gutter, and sidewalk on the south side of the road, connecting to existing sidewalk to the west. The north side of Windsor Parkway does not have continuous sidewalk connected to any other pedestrian facility. A segment of sidewalk between Highgrove Pointe and Mabry Place exists but does not fully connect the two subdivisions.

The residents on the north side of Windsor Parkway have requested a pedestrian crosswalk between the north and south side of the roadway, to provide a safe connection. The City of Sandy Springs has expressed their intention to complete a sidewalk extension on the north side of Windsor Parkway that would fully connect Highgrove Pointe to Mabry, and provide walking access to a pedestrian crossing, if one is recommended and constructed.

This memo examines the context and character of the area with respect to pedestrian crossings, briefly examines the literature concerning pedestrian crossings, and makes a recommendation.







Source: Google, Inc.

2.0 CONTEXT AND CHARACTER OF AREA

Windsor Parkway through this area is a two-lane Collector roadway providing an important east-west connection between the City of Sandy Springs and the City of Brookhaven. The roadway connects Peachtree Dunwoody Road and Roswell Road (SR 9) to the west with Ashford Dunwoody Road, Osborne Road, and, through connections, Peachtree Road to the east. The measured ADT of the roadway was 12,574 on April 30, 2019.

The study area is 100% residential properties in a closely wooded area. Through the study area are two horizontal curves that serve to block line of sight due to trees/shrubs/slopes.



Figure 2: West of Highgrove Pointe; Looking East

Source: Michael Baker International, Inc.





Source: Michael Baker International, Inc.

3.0 SITE VISIT

Michael Baker engineers visited the site on Tuesday, April 30, 2019 between 11:00 AM and 12:00 PM to make field observations and measurements. Specific items of information collected were:

- Site distance measurements
- Presence of street lighting
- Vegetation and slopes on the north side of Windsor Parkway
- Existing signage related to pedestrians
- Potential locations for a pedestrian crossing
- Observed gaps in traffic for pedestrian crossings

3.1 Field Evaluation: Site distance measurements

An important question of pedestrian safety lies outside the control of the pedestrian and is particularly relevant to this study: Can a driver approaching a potential crossing see a pedestrian in time to stop? This question is answered based upon the American Association of State Highway and Transportation Officials (AASHTO) publication, "A Policy on Geometric Design of Highways and Streets." Otherwise known as the "Green Book" this policy presents design guidelines for roadways and other types of transportation facilities. Contained within Chapter 3.2.2 of the most recent edition of the Green Book is the description of Stopping Sight Distance. To quote from the Green Book:

3.2.2 Stopping Sight Distance

Sight distance is the length of the roadway ahead that is visible to the driver. The available sight distance on a roadway should be sufficiently long to enable a vehicle traveling at or near the design speed to stop before reaching a stationary object in its path.

Stopping sight distance is the sum of two distances: (1) the distance traversed by the vehicle from the instant the driver sights an object necessitating a stop to the instant the brakes are applied, and (2) the distance needed to stop the vehicle from the instant brake application begins. These are referred to as brake reaction distance and braking distance, respectively.

The required stopping sight distance for relevant design speeds on Windsor Parkway is summarized in Table 1.

Stopping Sight Distance							
Per AASHTO Green Book							
MPH	Feet Required						
30	200						
35	250						
40	305						

Table 1: Required Stopping Sight Distance

Source: AASHTO Green Book

Michael Baker investigated the stopping sight distance along Windsor Parkway from several locations where a pedestrian crossing might be placed. The sight distance measurements were taken using Green Book viewing and target heights¹, although it is noted that no vertical curves exist on this section of Windsor Parkway that could block sight distance. The only vertical element that was a factor in sight distance measurements was the slope identified in Figure 2. All other sight distance blockages were caused by the horizontal curvature of the roadway and vegetation that occluded the view.

Figure 4 and Figure 5 show a plan view of where the sight distance measurements were taken. The thick red lines are the approximate distances measured in the field. A larger version of these figures is available in the Appendix.



Figure 4: Field Measured Sight Distance (1/2)

Figure 5: Field Measured Sight Distance (2/2)



Note that all sight distance measurements in Figure 5 were conducted based on existing field conditions and not those that will exist after the Windsor Parkway Sidewalks project removes some trees and shrubbery and installs a turn-down sidewalk with decorative handrail.

The table of measurements for sight distance is shown in Table 2. The sight distances are color coded to show if they meet stopping sight distance criteria for 30 MPH (orange), 35 MPH

¹ 3.5 foot viewing height and 2 foot target height.

(yellow) or 40 MPH (green). See Table 1. A grey cell is an area where a field measurement was not taken because, by inspection, it was greater than 350 feet.

Measured Sight Distance										
		Traveling Fastbound	Traveling Westbound							
Point #	Side of Road for Target (Pedestrian)	Approximate	Distance (ft)							
1	North	225								
2	North	235								
2	South	365								
3	North	275								
4	North	380	>350							
5	North	370	205							
6	South	365	305							
7	South		275							
8	South	>350	270							
9	South		280							
10	South		305							
	Every Sight Distance east of 9 is longer than 400'									

Table 2: Measured Sight Distances

3.2 Field Evaluation: Presence of Street Lighting

Two luminaires were observed on Georgia Power utility poles along the south side of Windsor Parkway. One across from Highgrove Pointe, and one across from Mabry Place.

3.3 Field Evaluation: Vegetation and Slopes on North Side of Windsor Parkway

As shown in Figure 1, there is a significant block to viewing distance due to a slope and existing trees/shrubs just to the west of Highgrove Pointe. This area appears to be within the right of way of Windsor Parkway.

3.4 Field Evaluation: Existing signage related to pedestrians

No signage was observed related to pedestrians.

3.5 Field Evaluation: Potential locations for a pedestrian crossing

Areas between approximately 400 feet to the west of Highgrove Pointe to the Sandy Springs/Brookhaven city limit were observed for crossing potential. More information regarding candidate locations is found in the conclusions and recommendations sections.

3.6 Field Evaluation: Observed gaps in traffic for pedestrian crossings

During the 11:00 AM to 12:00 PM hour that Michael Baker was on site, the field engineers crossed Windsor Parkway several times. Approximately half of these crossings required waiting for at least two (2) oncoming vehicles to pass. Gaps in traffic were adequate during the observation time for an adult with no mobility impairments to cross safely.

3.7 Field Evaluation: Speed Study

A speed and volume traffic count was conducted on April 30, 2019. Based on the data gathered the 85th percentile speed on Windsor Parkway in this area is 37.5 MPH. This speed has an impact on which Green Book speed level (MPH) is used to determine acceptable stopping sight distance. See Table 1.

3.8 Field Evaluation: Likely Pedestrian Need

The subdivisions of Highgrove Pointe and Mabry Place together comprise twenty-four (24) single family residences. To the west is another set of homes with approximately fifteen (15) housing units. These homes are the ones most likely to generate pedestrian trips that cross Windsor Parkway at a crosswalk inside the study area.

During the field visit, between 11:00 AM and 12:00 PM, no pedestrians were observed. This lack of pedestrians should not be overvalued due to the current lack of acceptable pedestrian facilities along Windsor Parkway.

Pedestrian destinations within one half mile of the study area are limited. These include soccer fields and other residential neighborhoods. Most pedestrian traffic is anticipated to be recreationally in nature, e.g. evening walks and exercise-type trips. Further information on his topic is not available inside the scope of this study.

The maximum anticipated daily pedestrian demand for this crossing can be assumed to include all thirty-nine (39) residences in the study area, on the north side of Windsor Parkway. Good data pedestrian trip generation based on residences is not available, but for purposes of this study, we assume one quarter (25%) of residences will generate a daily pedestrian trip and that the homes are representative of the median household population as determined by the US Census (2.53 persons per household)². This equates to 24.67 trips per day.

² Average Number of People per Household, by Race and Hispanic Origin1, Marital Status, Age, and Education of Householder: 2018

4.0 SITE DISTANCE MEASUREMENTS BASED ON DESIGN PLANS

Michael Baker evaluated the sight distance of the various potential crossings identified in Figure 4 and Figure 5 based on the design plans for the Windsor Parkway Sidewalks. The results are shown in Table 3. Again, the color coding is to show if the measurements meet stopping sight distance criteria for 30 MPH (orange), 35 MPH (yellow) or 40 MPH (green).

Design Sight Distance Post Windsor Parkway Sidewalk Construction									
		Traveling Traveling Eastbound Westbound							
Point #	Side of Road for Target (Pedestrian)	Approximate	Distance (ft)						
1	North	225*	370						
2	North	235*	400						
2	South	365*	380						
3	North	275*	445						
4	North	380*	475						
5	North	370*	205*						
6	South	365*	255						
7	South	375	215						
8	South	445	275						
9	South	470	280						
10	South	520	485						
* Same as Measured Sight Distance; no work being conducted on north side of Windsor Parkway during sidewalk construction.									

Source: Michael Baker International, Inc.

Michael Baker also examined the site distance for Point 5 if the backslope just west of Highgrove Pointe were removed or reduced. If the slope were pulled back toward the right of way line nine (9) feet, that would achieve 250 feet of sight distance. A seventeen (17) foot removal would achieve 305 feet. This removal would help sight distance for all other points (1 through 3) that are occluded by the backslope on the inside of this curve. However, at this time, we have not evaluated what right of way, construction, or landscaping impact this proposed slope reduction might have.

5.0 REVIEW OF CRASH HISTORY

The most recent six (6) full years of crashes were queried in the study area. Figure 6 shows the locations of sixteen (16) crashes between January 1, 2013 and December 31, 2018. Seven (7) of the crashes were run-off-the-road type crashes. One (1) crash involved a bicycle. All others were crashes involving motor vehicles. No pedestrian crashes were reported.

Figure	6:	Crashes	in	Area
L'IGUIC	v .	Grabileo	***	1 II Cu



GEARS Website

6.0 MIDBLOCK CROSSINGS LITERATURE REVIEW

The Federal Manual on Uniform Traffic Control Devices (MUTCD) discusses the application of pedestrian crossings away from a signalized or stop controlled intersection in Chapter 3B.18. This chapter of the MUTCD spells out the minimum necessary factors to be considered for a crosswalk.

Important quotes from this chapter are included here:

Section 3B.18 Crosswalk Markings

Support:

01 Crosswalk markings provide guidance for pedestrians who are crossing roadways by defining and delineating paths on approaches to and within signalized intersections, and on approaches to other intersections where traffic stops.

02 In conjunction with signs and other measures, crosswalk markings help to alert road users of a designated pedestrian crossing point across roadways at locations that are not controlled by traffic control signals or STOP or YIELD signs.

Guidance:

08 Crosswalk lines should not be used indiscriminately. An engineering study should be performed before a marked crosswalk is installed at a location away from a traffic control signal or an approach controlled by a STOP or YIELD sign. The engineering study should consider the number of lanes, the presence of a median, the distance from adjacent signalized intersections, the pedestrian volumes and delays, the average daily traffic (ADT), the posted or statutory speed limit or 85th-percentile speed, the geometry of the location, the possible consolidation of multiple crossing points, the availability of street lighting, and other appropriate factors.

The Federal Highway Administration (FHWA) published a report in 2005 entitled "Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations." The study report had the following recommendations:

GUIDELINES FOR CROSSWALK INSTALLATION

Marked pedestrian crosswalks may be used to delineate preferred pedestrian paths across roadways under the following conditions:

- At locations with stop signs or traffic signals to direct pedestrians to those crossing locations and to prevent vehicular traffic from blocking the pedestrian path when stopping for a stop sign or red light.
- At nonsignalized street crossing locations in designated school zones. Use of adult crossing guards, school signs and markings, and/or traffic signals with pedestrian signals (when warranted) should be considered in conjunction with the marked crosswalk, as needed.
- At nonsignalized locations where engineering judgment dictates that the number of motor vehicle lanes, pedestrian exposure, average daily traffic (ADT), posted speed

limit, and geometry of the location would make the use of specially designated crosswalks desirable for traffic/pedestrian safety and mobility.

Marked crosswalks alone (i.e., without traffic-calming treatments, traffic signals and pedestrian signals when warranted, or other substantial crossing improvement) are insufficient and should not be used under the following conditions:

- Where the speed limit exceeds 64.4 km/h (40 mi/h).
- On a roadway with four or more lanes without a raised median or crossing island that has (or will soon have) an ADT of 12,000 or greater.
- On a roadway with four or more lanes with a raised median or crossing island that has (or soon will have) an ADT of 15,000 or greater.

The Georgia Department of Transportation (GDOT) has no general guidelines for minimum pedestrian movements for a pedestrian crossing outside of the warrants for a signalized intersection or for a hybrid pedestrian beacon (HPB), however District 7 of GDOT uses a pedestrian volume of 15 per hour to allow for the installation of a rectangular rapid flashing beacon (RRFB).

7.0 ALL WAY STOP EVALUATION

The Federal Manual on Uniform Traffic Control Devices (MUTCD) allows the placement of a pedestrian crosswalk at locations that are controlled by a traffic signal, or an all-way stop. In order to add an all-way stop at either Highgrove Pointe or Mabry Place, the following minimum requirements must be met per MUTCD chapter 2B.07.

Guidance:

03 The decision to install multi-way stop control should be based on an engineering study.

04 The following criteria should be considered in the engineering study for a multi-way STOP sign installation:

- A. Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.
- *B.* Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.
- C. Minimum volumes:
 - 1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and
 - 2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but
 - 3. If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.
- D. Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.

For both the Highgrove Pointe and Mabry Place intersections, neither condition A or B are met. For condition C, the major street (Windsor Parkway) volumes are met, but the volumes for the side street are insufficient to meet the 200 per hour, even with the volume reductions provided for in C.3.

An all-way stop is not warranted at either Highgrove Pointe or Mabry Place.

Michael Baker

INTERNATIONAL

8.0 CONCLUSIONS

The volume of pedestrian traffic in the study area is unlikely to exceed the thresholds necessary to warrant a traffic signal or a hybrid pedestrian beacon. This volume will not be apparent until after construction of the Windsor Parkway sidewalks is complete.

There have been sixteen (16) crashes over six (6) years in the study area. No particular hot spot was observed.

The 85th percentile speed along Windsor Parkway at this location is 37.5 MPH. The 40 MPH Green Book site distance criteria should be used when evaluating crossing locations.

All-way stop warrants are not met at either Highgrove Pointe or Mabry Place.

There are multiple locations available under current conditions, or proposed build conditions, for a crosswalk that will have adequate sight distance based on 40 MPH approach speeds. Note that two locations have worse site distance after Windsor Parkway sidewalk construction is complete. Points 6 and 7 will have their view blocked by the proposed turn-down sidewalk and ancillary decorative hand rail. The site distance will reduce by approximately 50 feet.

There are two (2) locations where a crosswalk would have adequate site distance from both approaches. These are points 4 and 10, shown in Figure 7.



Figure 7: Potential Crossing Locations

Point 4 would require additional grading and sidewalk construction to access, with possible impacts to the landscaping of Highgrove Pointe. Point 10 is over 250 feet east of Highgrove Pointe and is unlikely to be used by residents of Highgrove who wish to travel west.

It is likely that pedestrians starting or ending at Highgrove Pointe and proceeding to/from the west will not use a crosswalk at Point 10; they will cross Windsor Parkway at the most

convenient location available to them outside Highgrove Pointe. This behavior is well documented at other locations and in other studies.

Conversely, for pedestrians travelling to and from the east, it is unlikely that a crosswalk at point 4 will be used.

Per the FHWA publication, "Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations," a crosswalk at Point 4 or 10 is unlikely to increase the number of pedestrian collisions so long as additional measures are employed to alert drivers to presence of pedestrians.

Michael Baker

INTERNATIONAL

9.0 RECOMMENDATIONS

- 1. It is recommended that a marked crosswalk be installed at Pointe 10, at the western radius return of the intersection of Windsor Parkway and Mabry Place. This crosswalk should adhere to City of Sandy Springs requirements for striping to ensure visibility. Furthermore, the crosswalk should be located to minimize the crossing distance of pedestrians and maximize the viewing distance of approaching drivers.
- 2. It is recommended that MUTCD code W11-2 pedestrian warning signs be installed in advance of the crossing in both directions and that W11-2 and supplemental W16-7p plaques be located at the crossing itself.
- 3. It is recommended that an R560-5, "State Law Stop for Pedestrians in Crosswalk" sign, per GDOT Detail T-5A be erected on each approach to the crosswalk.
- 4. It is recommended that a letter, pamphlet, brochure, or brochure be distributed to the homes likely to use this crosswalk, explaining the nature and use of a mid-block crossing and how to use it safely.
- 5. It is recommended that this crossing be illuminated adequately for drivers to see pedestrians in the crosswalk at night. The local streetlighting may not be adequate.
- 6. It is not recommended that the location be signalized with either stop-and-go traffic signals or hybrid pedestrian beacon. It is also not recommended that a rectangular rapid flashing beacon be installed at this time.



APPENDIX A - SPEED AND VOLUME TRAFFIC COUNTS

Prepared by National Data & Surveying Services

SPEED

Windsor Pkwy Bet. HighGrove Pointe & Mabry Pl NE

Day: Tuesday Date: 4/30/2019 City: Sandy Springs
Project #: GA19_9332_001e

East Bound														
Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	2	0	4	3	4	0	0	0	0	0	0	13
01:00	0	0	0	0	1	4	2	0	0	0	0	0	0	7
02:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
03:00	0	0	0	0	0	3	1	1	0	0	0	0	0	5
04:00	0	0	0	0	4	7	1	1	0	0	0	0	0	13
05:00	0	0	0	0	9	11	6	1	0	0	0	0	0	27
06:00	0	0	1	7	33	37	14	0	0	0	0	0	0	92
07:00	0	3	14	49	116	92	8	0	0	0	0	0	0	282
08:00	0	0	2	101	174	45	1	0	0	0	0	0	0	323
09:00	0	0	3	42	153	97	10	0	0	0	0	0	0	305
10:00	0	1	5	35	178	107	14	0	0	0	0	0	0	340
11:00	0	3	6	60	183	79	9	1	0	0	0	0	0	341
12:00 PM	1	1	11	68	160	115	9	1	0	0	0	0	0	366
13:00	1	1	0	52	199	122	8	0	0	0	0	0	0	383
14:00	0	1	4	47	200	145	15	2	0	0	0	0	0	414
15:00	3	6	23	81	236	107	11	2	0	0	0	0	0	469
16:00	1	15	51	140	269	121	10	1	0	0	0	0	0	608
17:00	144	57	98	146	128	58	2	0	0	0	0	0	0	633
18:00	67	44	57	121	197	105	9	0	0	0	0	0	0	600
19:00	0	1	6	41	222	142	13	1	0	0	0	0	0	426
20:00	0	2	13	27	120	84	1/	1	0	0	0	0	0	264
21:00	0	0	0	9	58	38	12	3	0	0	0	0	0	120
22:00	0	0	0	12	35	25	6	1	0	0	0	0	0	79
Z3:00 Totals	217	U 135	296	1042	8 2687	1562	184	16	0	0	0	0	0	28 6139
% of Totals	4%	2%	5%	17%	44%	25%	3%	0%						100%
AM Volumes	0	7	33	294	855	485	71	4	0	0	0	0	0	1749
% AM		0%	1%	5%	14%	8%	1%	0%						28%
AM Peak Hour		07:00	07:00	08:00	11:00	10:00	06:00	03:00						11:00
Volume		3	14	101	183	107	14	1						341
PM Volumes	217	128	263	748	1832	1077	113	12	0	0	0	0	0	4390
% PM	4%	2%	4%	12%	30%	18%	2%	0%						72%
PM Peak Hour	17:00	17:00	17:00	17:00	16:00	14:00	20:00	21:00						17:00
Volume	144	57	98	146	269	145	17	3						633
Dir	rectional Pe	ak Periods		AM 7-9			NOON 12-2			PM 4-6		Off	Peak Volur	nes
		All Speeds	Volume		%	Volume		%	Volume		%	Volume		%
			605	\longleftrightarrow	10%	749	\longleftrightarrow	12%	1241	\leftrightarrow	20%	3544	\leftrightarrow	58%

Street Name	Direction	Percentiles							
Street Name	Direction	15th	50th	Average	85th	95th	ADT		
Windsor Pkwy	East Bound	26	33	32	38	40	6139		
Windsor Pkwy	West Bound	20	32	30	37	39	6435		

Prepared by National Data & Surveying Services

SPEED

Windsor Pkwy Bet. HighGrove Pointe & Mabry Pl NE

Day: Tuesday Date: 4/30/2019 City: Sandy Springs Project #: GA19_9332_001w

West Bound

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	1	6	2	0	0	0	0	0	0	0	9
01:00	0	0	0	0	3	0	0	0	0	0	0	0	0	3
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	2	0	0	1	0	0	0	0	0	3
04:00	0	0	0	0	3	3	2	0	0	0	0	0	0	8
05:00	0	0	0	2	23	16	4	1	0	0	0	0	0	46
06:00	0	0	0	4	75	97	11	0	0	0	0	0	0	187
07:00	121	157	40	43	162	121	4	0	0	0	0	0	0	648
08:00	245	323	74	24	24	5	0	0	0	0	0	0	0	695
09:00	19	18	4	46	238	157	12	1	0	0	0	0	0	495
10:00	0	0	2	35	173	120	13	0	0	0	0	0	0	343
11:00	1	0	5	58	165	79	7	0	0	0	0	0	0	315
12:00 PM	0	0	1	27	196	119	15	0	0	0	0	0	0	358
13:00	0	0	6	45	192	108	15	0	0	0	0	0	0	366
14:00	0	2	1	32	232	136	8	0	0	0	0	0	0	411
15:00	4	46	80	79	179	105	5	0	0	0	0	0	0	498
16:00	0	4	9	56	255	114	6	0	0	0	0	0	0	444
17:00	0	2	15	103	253	72	6	0	0	0	0	0	0	451
18:00	0	1	12	63	237	102	4	0	0	0	0	0	0	419
19:00	0	0	1	3/	151	91	6	0	0	0	0	0	0	286
20:00	0	1	0	25	115	66	10	0	0	0	0	0	0	21/
21:00	0	0	1	13	/0	50	2	1	0	0	0	0	0	13/
22:00	0	0	0	6	40	26	2	0	0	0	0	0	0	/4
Z3:00	0	0	0	0	2007	1505	3	0	0	0	0	0	0	21
rotals % of Totals	590	554 0%	251	11%	2807	1595	155	4						100%
76 OF TOTAIS	078	970	478	11/0	4478	2376	270	078						10078
AM Volumes	386	498	125	213	875	600	53	3	0	0	0	0	0	2753
% AM	6%	8%	2%	3%	14%	9%	1%	0%						43%
AM Peak Hour	08:00	08:00	08:00	11:00	09:00	09:00	10:00	03:00						08:00
Volume	245	323	74	58	238	157	13	1						695
PM Volumes	4	56	126	486	1932	995	82	1	0	0	0	0	0	3682
% PM	0%	1%	2%	8%	30%	15%	1%	0%						57%
PM Peak Hour	15:00	15:00	15:00	17:00	16:00	14:00	12:00	21:00						15:00
Volume	4	46	80	103	255	136	15	1						498
Dir	rectional Pe	ak Periods		AM 7-9			NOON 12-2			PM 4-6		Off	Peak Volur	nes
		All Speeds	Volume		%	Volume		%	Volume		%	Volume		%
			1343	\leftrightarrow	21%	724	${\longleftrightarrow}$	11%	895	\leftrightarrow	14%	3473	\leftrightarrow	54%

Street Name	Direction	Percentiles							
Street Name	Direction	15th	50th	Average	85th	95th	ADT		
Windsor Pkwy	East Bound	26	33	32	38	40	6139		
Windsor Pkwy	West Bound	20	32	30	37	39	6435		

Prepared by National Data & Surveying Services

SPEED

Windsor Pkwy Bet. HighGrove Pointe & Mabry Pl NE

Day: Tuesday Date: 4/30/2019 City: Sandy Springs Project #: GA19_9332_001

Time <15	Summary														
00:00 AM 0	Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
01:00 2 3 1 0 0 0 0 0 2 03:00 0 0 0 2 3 1 0 0 0 0 0 7 0 3 1 0 <	00:00 AM	0	0	2	1	10	5	4	0	0	0	0	0	0	22
02:00 0 <td>01:00</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>4</td> <td>4</td> <td>2</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>10</td>	01:00	0	0	0	0	4	4	2	0	0	0	0	0	0	10
03:00 0 0 0 0 0 7 10 3 1 2 0 0 0 0 0 12 05:00 0 0 0 1 11 108 134 25 0 0 0 0 0 0 73 06:00 121 160 54 92 278 123 12 0 <td>02:00</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>1</td> <td>0</td> <td>1</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>2</td>	02:00	0	0	0	0	1	0	1	0	0	0	0	0	0	2
04:00 0 0 0 0 0 7 10 3 1 0 0 0 0 7 05:00 0 0 11 108 134 22 0	03:00	0	0	0	0	2	3	1	2	0	0	0	0	0	8
05:00 0 0 0 1 11 108 134 25 0 0 0 0 0 0 0 279 07:00 121 160 54 92 278 213 112 0 0 0 0 0 0 0 0 0 0 0 930 08:00 124 323 75 125 198 50 1 0	04:00	0	0	0	0	7	10	3	1	0	0	0	0	0	21
06:00 0 <td>05:00</td> <td>0</td> <td>0</td> <td>0</td> <td>2</td> <td>32</td> <td>27</td> <td>10</td> <td>2</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>73</td>	05:00	0	0	0	2	32	27	10	2	0	0	0	0	0	73
07:00 121 160 54 92 278 213 12 0 0 0 0 0 0 0 930 08:00 245 323 76 125 198 50 1 0	06:00	0	0	1	11	108	134	25	0	0	0	0	0	0	279
08:00 245 323 76 125 198 50 1 0	07:00	121	160	54	92	278	213	12	0	0	0	0	0	0	930
09:00 19 18 77 88 391 254 22 1 0	08:00	245	323	76	125	198	50	1	0	0	0	0	0	0	1018
10:00 0 1 7 70 351 227 27 0 0 0 0 0 0 66 11:00 1 11 118 348 158 16 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 724 13:00 1 11 16 97 391 230 23 0 0 0 0 0 0 0 724 14:00 0 3 5 79 432 231 23 20 0 0 0 0 0 0 274 15:00 1 19 60 156 524 235 16 1 0 <t< td=""><td>09:00</td><td>19</td><td>18</td><td>7</td><td>88</td><td>391</td><td>254</td><td>22</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>800</td></t<>	09:00	19	18	7	88	391	254	22	1	0	0	0	0	0	800
11:00 1 3 11 118 348 158 16 1 0 0 0 0 0 656 12:00 PM 1 1 12 95 356 234 24 1 0 0 0 0 0 0 0 0 0 0 724 13:00 1 1 6 97 391 230 23 0 0 0 0 0 0 0 0 724 14:00 0 3 5 79 432 281 23 16 1 0	10:00	0	1	7	70	351	227	27	0	0	0	0	0	0	683
12:00 PM 1 1 12 95 356 234 24 1 0 0 0 0 724 13:00 1 1 66 97 432 230 23 2 0 0 0 0 0 0 0 0 0 0 749 14:00 0 752 103 160 415 212 16 2 0 0 0 0 0 0 0 957 16:00 1 19 60 124 381 213 16 11 0	11:00	1	3	11	118	348	158	16	1	0	0	0	0	0	656
13:00 1 1 6 97 391 230 23 0 0 0 0 0 0 0 749 14:00 0 3 5 79 432 281 23 2 0 0 0 0 0 0 0 0 0 825 15:00 1 19 60 196 524 235 16 1 0 1019 15:00 0 1 7 78 373 233 19 1 0 0 0 0 0 1019 19:00 0 1 77 78 373 233 19 1 0 0 0 0 0 233 23 131 <t< td=""><td>12:00 PM</td><td>1</td><td>1</td><td>12</td><td>95</td><td>356</td><td>234</td><td>24</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>724</td></t<>	12:00 PM	1	1	12	95	356	234	24	1	0	0	0	0	0	724
14:00 0 3 5 79 432 281 23 2 0 0 0 0 0 825 15:00 7 52 103 160 415 223 16 2 0 <	13:00	1	1	6	97	391	230	23	0	0	0	0	0	0	749
15:00 7 5.2 103 160 415 2.12 16 2 0 0 0 0 0 967 16:00 1 19 60 196 5.24 2.23 16 1 0	14:00	0	3	5	79	432	281	23	2	0	0	0	0	0	825
16:00 1 19 60 196 524 235 16 1 0 0 0 0 0 0 0 1052 17:00 144 59 113 249 381 130 8 0 0 0 0 0 0 0 0 0 1052 19:00 0 1 7 78 373 233 19 1 0	15:00	7	52	103	160	415	212	16	2	0	0	0	0	0	967
17:001445911324938113080000000108418:006744566918443320713000000101919:000177837322315027100000071220:000011727837323515027100000048121:00000111221288814444000000025722:00000187551814100000015323:0000014549315511814000000125723:00000174549431531922000000125733:00006395471741549431573192201212574% of total3865051585071730108512470000000000000000000000 </td <td>16:00</td> <td>1</td> <td>19</td> <td>60</td> <td>196</td> <td>524</td> <td>235</td> <td>16</td> <td>1</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>1052</td>	16:00	1	19	60	196	524	235	16	1	0	0	0	0	0	1052
18:006745691844342071300000000101919:000177837337323319100000071220:0003135223515027100000048121:0000018755181440000025722:000001875518140000004923:00000420214000000497 tots60766854717415494315731920000000497 tots5%5%4%14%25%3192000000012574% of tots5%5%5%5%1741549431573192000000000% of tots5%5%5%5%17415494315731920000000000000000000000000	17:00	144	59	113	249	381	130	8	0	0	0	0	0	0	1084
19:00 0 1 7 7 8 373 233 19 1 0 0 0 0 0 0 0 712 20:00 0 3 13 52 235 150 27 1 0 153 22:00 0 0 0 0 0 0 0 0 0 0 0 0 0 153 23:00 0<	18:00	67	45	69	184	434	207	13	0	0	0	0	0	0	1019
20:00 0 3 13 52 235 150 27 1 0 237 22:00 0 0 0 18 75 51 8 14 0 0 0 0 0 0 0 9 313 23:00 0 0 0 14 240 21 4 0 0 0 0 0 9 9 23:00 607 683 547 1741 549 3157 319 20 0 0 0 0 0 9 9 9 4 74 144 259 315 319 20 0	19:00	0	1	7	78	373	233	19	1	0	0	0	0	0	712
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	20:00	0	3	13	52	235	150	27	1	0	0	0	0	0	481
22:00 0 0 18 75 51 8 1 0 0 0 0 0 133 23:00 0 0 0 4 20 21 4 0 0 0 0 0 0 0 0 49 Total 607 689 547 1741 5494 3157 319 20 40 12574 ψ of Total 5% 5% 4% 14% 24% 25% 3% 0% 12574 AM Volumes 386 505 158 507 1730 1085 124 7 0	21:00	0	0	1	22	128	88	14	4	0	0	0	0	0	257
23:00 12574 % of Totals 5% 5% 4% 14% 25% 3% 0% 12574 % of Totals 5% 5% 4% 14% 25% 3% 0% 100% M Volume 38 505 158 507 1730 1085 124 7 0	22:00	0	0	0	18	75	51	8	1	0	0	0	0	0	153
Totals 607 689 547 1741 5494 3157 319 20 12574 % of Totals 5% 5% 4% 14% 44% 25% 3% 0% 100% 100% M Volumes 386 505 158 507 1730 1085 124 7 0 0 0 0 4502 % AM 3% 4% 14% 9% 12% 0% 4502 36% AM Peak Hour 08:00 08:00 08:00 09:00 09:00 10:00 03:00 607 608:00 08:00 <t< td=""><td>23:00</td><td>0</td><td>0</td><td>0</td><td>4</td><td>20</td><td>21</td><td>4</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>49</td></t<>	23:00	0	0	0	4	20	21	4	0	0	0	0	0	0	49
% of Totals 5% 5% 4% 14% 44% 25% 3% 0% 10% AM Volumes 386 505 118 507 1730 1085 124 7 0 0 0 0 0 450 AM Volumes 386 505 118 507 1730 1085 124 7 0 0 0 0 0 450 450 AM Peak Hour 08:00 08:00 08:00 09:00 09:00 10:00 03:00 0 0 0 0 0 0 0 0 0 08:00 Volume 245 323 76 125 391 254 27 2 0 0 0 0 08:00 Volume 242 184 389 1234 376 2072 135 0 0 0 0 08:02 08:02 PM Volumes 221 184 389 10% 36% 16% 20% 0% 0 0 0	Totals	607	689	547	1741	5494	3157	319	20						12574
AM Volumes 386 505 158 507 1730 1088 124 7 0.0 0.0 0.0 0.0 450 % AM 3% 4% 1% 4% 14% 9% 11% 0.0% 0.0 0.0 0.0 0.0 450 AM Peak Hour 08:00 08:00 08:00 08:00 08:00 08:00 09:00 09:00 01:00 03:00 0.	% of Totals	5%	5%	4%	14%	44%	25%	3%	0%						100%
Mit Odditie 360	AM Volumes	386	505	158	507	1730	1085	124	7	0	0	0	٥	0	4502
AM Peak Hour 0.00 </td <td>% AM</td> <td>300</td> <td>JUJ 4%</td> <td>1%</td> <td>/%</td> <td>1/%</td> <td>Q%</td> <td>1%</td> <td>0%</td> <td>0</td> <td>0</td> <td>0</td> <td>U</td> <td>0</td> <td>36%</td>	% AM	300	JUJ 4%	1%	/%	1/%	Q%	1%	0%	0	0	0	U	0	36%
Number of the defined Output Output <t< td=""><td>AM Peak Hour</td><td>08.00</td><td>08.00</td><td>08.00</td><td>08.00</td><td>09.00</td><td>09.00</td><td>10.00</td><td>03.00</td><td></td><td></td><td></td><td></td><td></td><td>08.00</td></t<>	AM Peak Hour	08.00	08.00	08.00	08.00	09.00	09.00	10.00	03.00						08.00
PM Volumes 221 184 389 1234 3764 2072 195 13 0 0 0 0 0 0 0 8772 % PM 2% 1% 3% 10% 3764 2072 195 13 0 0 0 0 0 8772 % PM 2% 1% 3% 10% 3764 2072 195 13 0 0 0 0 0 8772 % PM 2% 1% 3% 10% 30% 16% 2% 0% 0 0 0 0 0 64% PM Peak Hour 17:00 17:00 16:00 14:00 20:00 21:00 0 0 0 0 0 1084 Volume 113 249 524 281 27 4 0 0 0 0 0 0 0 0 0 0 0 0 0 </td <td>Volume</td> <td>245</td> <td>323</td> <td>76</td> <td>125</td> <td>391</td> <td>254</td> <td>27</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1018</td>	Volume	245	323	76	125	391	254	27	2						1018
Mill Mill <t< td=""><td>PM Volumes</td><td>213</td><td>184</td><td>389</td><td>1234</td><td>3764</td><td>2072</td><td>195</td><td>13</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>8072</td></t<>	PM Volumes	213	184	389	1234	3764	2072	195	13	0	0	0	0	0	8072
PM Peak Hour 17:00 17:00 17:00 17:00 16:00 14:00 20:00 21:00 Constrained	% PM	2%	1%	3%	10%	30%	16%	2%	0%	Ũ	Ũ	6	Ũ	Ũ	64%
Volume 144 59 113 249 524 281 27 4 6 108 1084 Directional Peak Periods AM 7-9 AM 7-9 NOON 12-2 PM 4-6 Off Peak Volumes 0 1084 All Speeds Volume % Volume % <td>PM Peak Hour</td> <td>17:00</td> <td>17:00</td> <td>17:00</td> <td>17:00</td> <td>16:00</td> <td>14:00</td> <td>20:00</td> <td>21:00</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>17:00</td>	PM Peak Hour	17:00	17:00	17:00	17:00	16:00	14:00	20:00	21:00						17:00
Directional Peak Periods AM 7-9 NOON 12-2 PM 4-6 Off Peak Volumes All Speeds Volume % Volume % Volume %	Volume	144	59	113	249	524	281	27	4						1084
All Speeds Volume % Volume % Volume %	Directional Peak Periods		ak Periods	110	AM 7-9	324	201	NOON 12-7			PM 4-6		Off	Peak Volun	nes
	All Speeds		Volume		%	Volume		%	Volume	· · · · •	%	Volume		%	
$1948 \longleftrightarrow 15\% 1473 \longleftrightarrow 12\% 2136 \longleftrightarrow 17\% 7017 \longleftrightarrow 56\%$				1948	\longleftrightarrow	15%	1473	\longleftrightarrow	12%	2136	\longleftrightarrow	17%	7017	\longleftrightarrow	56%

Street Nome	Direction	Percentiles											
Street Name		15th	50th	Average	85th	95th	ADT						
Windsor Pkwy	Summary	25	32	31	38	40	12574						

Prepared by NDS/ATD Prepared by National Data & Surveying Services

VOLUME

Windsor Pkwy Bet. HighGrove Pointe & Mabry Pl NE

Day: Tuesday Date: 4/30/2019

City: Sandy Springs Project #: GA19_9332_001

$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						NB		SB		EB	١	VB					Te	otal
AM Period NB SB EB WB TOTAL PM Period NB SB EB WB TOTAL 00:00 0 0 2 3 5 12:00 0 96 73 175 00:15 0 0 3 13 1 9 4 22 12:30 0 95 76 171 00:05 0 0 1 0 1 3:300 0 92 366 104 358 196 724 01:30 0 0 2 1 3 13:30 0 98 107 205 01:45 0 0 2 7 1 3 13:30 0 98 388 36 178 79 176 176 178 176 178 176 176 178 176 176 178 176 176 178 176 176 178 176 1		DAI	LTIUTALS			0		0		6,139	6,	435					12	,574
00:00 00:15 00:30 00:45 00:0 0 0 2 3 5 12:05 12:15 12:30 0 0 96 0 79 0:35 0 175 00:36 0 175 00:36 0 175 00:37 0 175 00:37 0 175 00:37 0 175 00:38 0 175 00:38 0 175 00:38 0 175 00:37 0 175 00:38 0 175 00:38 0 175 00:38 0 175 00:38 0 175 00:38 0 175 00:38 0 175 00:38 0 181 00 175 00:38 0 181 00 181 00	AM Period	NB	SB	EB		WB		ТО	TAL	PM Period	NB	S	B EB		WB		TC	TAL
00:35 0 0 3 3 6 12:35 0 0 93 79 172 00:45 0 0 5 2 7 12:30 0 0 95 696 58 79 172 00:45 0 0 1 1 13:00 0 0 92 366 104 358 190 1 01:43 0 0 2 1 3 13:15 0 0 379 178 749 02:05 0 0 2 1 3 10 13:45 0 0 379 178 749 02:05 0 0 1 0 1 14:45 0 0 111 189 111 240 209 101 111 180 111 240 111 180 111 240 111 180 111 240 111 125 27 111 125 27 111 125 27 111 126 23 26	00:00	0	0	2		3		5		12:00	0	0	96		79		175	
00:30 0 0 5 2 7 12:30 0 0 85 96 181 00:45 0 0 1 1 13:00 0 0 98 92 13:1 01:15 0 2 1 3 13:15 0 0 98 92 13:0 01:13 0 2 7 1 3 10 13:15 0 0 38 107 20 02:20 0 0 1 1 1 1 14:15 0 0 38 107 20 9 02:23 0 0 0 1 1 1 14:45 0 0 111 98 12:30 90 02:23 0 0 1 1 1 1:50 0 12:30 10 36 11 12:50 0 12:50 0 12:50 0 12:51 0	00:15	0	0	3		3		6		12:15	0	0	93		79		172	
00:05 0 0 0 1 <th>00:30</th> <th>0</th> <th>0</th> <th>5</th> <th></th> <th>2</th> <th>-</th> <th>7</th> <th></th> <th>12:30</th> <th>0</th> <th>0</th> <th>85</th> <th></th> <th>96</th> <th></th> <th>181</th> <th></th>	00:30	0	0	5		2	-	7		12:30	0	0	85		96		181	
0.100 0 0 1 1300 0 0 93 93 92 190 0.1130 0 0 2 1 3 1313 0 0 97 79 79 70 <	00:45	0	0	3	13	1	9	4	22	12:45	0	0	92	366	104	358	196	724
0 0 0 2 1 3 13:30 0 0 90<	01:00	0	0	1		0		1		13:00	0	0	98		92		190	
01320 0 0 2 7 1 3 3 10 13-24 0 0 90 383 88 366 179 749 02301 0 0 0 0 0 1 14115 0 0 851 1057 139 749 02303 0 0 0 1 1 1 2 14453 0 0 111 148 809 749 02305 0 0 0 1 1 1 2 14455 0 0 111 140 209 741 741 749 749 741 741 749 743 741 741 749 743 744 747 743 744 744 747 7430 744 743 744 747 743 744 747 743 744 747 7430 744 747 7430 744 749 743 744 749 744 749 744 749 749 749 749	01:15	0	0	2		1		3		13:15	0	0	97		107		1/6	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	01:30	0	0	2	7	1	З	3	10	13.30	0	0	90	383	88	366	178	749
02:15 0 0 1 0 1 14:15 0 0 101 110 211 02:36 0 0 0 1 1 1 2 14:45 0 0 111 98 411 245 825 03:00 0 0 3 0 3 5 15:15 0 0 1128 116:0 234 03:30 0 1 5 1 3 2 8 15:15 0 0 1128 124 234 03:30 0 1 5 1 3 2 8 15:45 0 0 1124 237 04:45 0 0 0 1 1 16:15 0 0 134 236 0 134 237 234 237 04:45 0 0 6 13 4 8 10 21 16:43 0 0 163 608 93 444 256 1052 05:45 0	02:00	0	0	0	,	0	5		10	14:00	0	0	85	505	105	300	190	745
02:30 0 0 0 11:30 0 0 111 98 209 02:45 0 0 0 1 1 1 2 14:45 0 0 117 414 98 411 215 825 03:05 0 0 1 1 2 15:50 0 0 128 106 234 03:35 0 0 1 1 2 8 15:50 0 0 118 98 412 21 98 03:35 0 0 1 1 2 8 15:50 0 0 138 98 423 66 04:35 0 0 0 3 3 6 16:30 0 0 134 127 265 1052 05:05 0 0 0 1 17 18 17:30 0 0 159 113 272 265 1052 05:05 0 0 1 17 18 17:30	02:15	0	0	1		0		1		14:15	0	0	101		110		211	
0 0 0 1 1 1 1 2 1445 0 0 117 244 98 411 215 825 03:00 0 3 0 3 15:15 0 0 117 244 98 723 97 03:30 0 1 5 1 3 2 8 15:15 0 0 110 160 27 93 04:00 0 1 5 1 3 2 8 15:15 0 0 102 499 121 498 23 95 04:00 0 0 1 1 1 16:15 0 0 133 24 29 23 97 04:15 0 0 6 13 4 8 10 21 16:45 0 0 163 608 93 444 26 103 27 26 27 27 103 27 26 103 27 26 103 27 27 <th>02:30</th> <th>0</th> <th>0</th> <th>0</th> <th></th> <th>0</th> <th></th> <th></th> <th></th> <th>14:30</th> <th>0</th> <th>0</th> <th>111</th> <th></th> <th>98</th> <th></th> <th>209</th> <th></th>	02:30	0	0	0		0				14:30	0	0	111		98		209	
03:00 0 0 0 1 1 15:00 0 0 128 111 240 03:15 0 0 1 1 2 15:50 0 0 128 116 20 03:45 0 0 1 1 2 8 15:50 0 0 128 128 128 128 128 127 23 957 04:00 0 0 1 1 2 8 15:50 0 0 138 93 93 44 256 16:50 0 0 138 93 444 256 1052 04:35 0 0 6 13 4 8 10 21 16:45 0 0 163 688 344 256 1052 05:30 0 0 1 27 18 17:15 0 0 153 233 269 108 06:31 0 0 11 27 18 17:15 0 0 15	02:45	0	0	0	1	1	1	1	2	14:45	0	0	117	414	98	411	215	825
03:15 0 0 1 1 1 2 15:15 0 0 128 106 270 03:30 0 0 1 5 1 3 2 8 15:30 0 0 110 160 270 04:00 0 0 4 0 4 16:00 0 0 128 283 286 04:15 0 0 0 3 3 6 16:30 0 0 134 297 263 04:45 0 0 6 13 4 8 10 21 16:45 0 0 134 280 105 05:15 0 0 6 9 15 17:15 0 0 157 13 272 27 05:30 0 0 11 27 18 46 29 73 17:45 0 0 157 13 272 1050 06:45 0 0 11 27 18 46	03:00	0	0	0		1		1		15:00	0	0	129		111		240	
03:30 0 0 1 1 1 2 15:30 0 0 110 160 270 273 04:00 0 0 4 0 4 16:00 0 138 98 223 967 04:00 0 0 3 3 6 16:15 0 0 173 124 297 04:30 0 0 6 13 4 8 0 16:15 0 0 134 129 263 - 04:45 0 0 6 13 4 8 0 16:45 0 0 163 608 13 272 263 05:15 0 0 1 17 18 17:15 0 0 159 113 272 266 273 17:45 0 0 161 123 284 260 10 133 272 266 133 42 273 17:45 0 0 161 123 284 1084 272 <	03:15	0	0	3		0		3		15:15	0	0	128		106		234	
03:45 0 0 102 4493 121 498 23 967 04:15 0 0 0 1 1 16:15 0 0 138 98 223 967 04:15 0 0 0 1 1 16:15 0 0 133 124 297 203 04:30 0 0 6 13 4 8 10 21 16:45 0 0 134 127 263 04:30 0 0 6 9 11 17:05 0 0 163 608 115 272 05:30 0 0 11 27 18 17:45 0 149 633 120 451 127 103 260 103 272 103 260 103 272 103 260 103 272 103 260 103 272 103 260 103 272 103 272 103 272 103 272 103 272	03:30	0	0	1	_	1	-	2		15:30	0	0	110		160		270	
04:15 0 0 0 138 98 245 04:15 0 0 1 1 16:15 0 0 133 124 297 04:30 0 0 3 3 6 16:35 0 0 134 129 263 04:45 0 0 6 13 4 8 0 21 16:45 0 0 163 608 93 444 256 1052 05:00 0 0 6 9 15 17:15 0 0 159 113 220 05:30 0 0 11 17 18 17:30 0 149 633 120 451 269 1084 06:15 0 0 117 38 55 18:15 0 0 161 123 284 284 266 1084 265 244 265 244 265 264 1084 272 1084 0 0 161 123 123	03:45	0	0	1	5	1	3	2	8	15:45	0	0	102	469	121	498	223	967
04:30 0 0 0 1 <th>04:00</th> <th>0</th> <th>0</th> <th>4</th> <th></th> <th>0</th> <th></th> <th>4</th> <th></th> <th>16:00</th> <th>0</th> <th>0</th> <th>138</th> <th></th> <th>98</th> <th></th> <th>236</th> <th></th>	04:00	0	0	4		0		4		16:00	0	0	138		98		236	
04:45 0 0 6 13 4 8 10 21 16:45 0 0 133 60 93 444 256 1052 05:00 0 0 0 9 2 11 17:00 0 0 168 115 283 272 05:30 0 0 1 17 18 17:35 0 0 155 113 272 269 1084 05:45 0 0 11 27 18 46 29 73 17:45 0 0 159 113 220 451 269 1084 06:30 0 0 17 38 55 18:15 0 0 161 123 284 244 266 109 108 113 272 18:30 0 113 60 88 419 219 1019 107 138 200 131 60 88 419 219 1019 100 131 60 65 166 164	04:15	0	0	2		1		1		16:15	0	0	1/3		124		297	
0:10:0 0 0 10 10 17:0 0 0 168 000 15 13 202 05:10 0 0 6 9 15 17:15 0 0 168 015 13 272 05:30 0 0 11 17:15 0 0 159 113 272 05:30 0 0 11 27 18 46 29 73 17:45 0 0 149 633 120 451 260 06:30 0 0 17 38 55 18:15 0 0 149 95 244 06:30 0 0 38 92 79 18 17 279 18:45 0 0 118 70 188 07:15 0 0 63 184 272 19:30 0 0 110 85 195 07:30	04.30	0	0	6	13	4	8	10	21	16:45	0	0	163	608	93	444	203	1052
05:15 0 0 6 9 15 17:15 0 0 153 113 277 05:30 0 0 1 17 18 17:15 0 0 153 113 277 05:30 0 0 11 27 18 6 29 73 17:45 0 0 149 633 120 451 269 1084 06:00 0 0 10 20 30 18:00 0 0 159 113 272 260 06:15 0 0 17 38 55 18:15 0 0 161 123 274 06:30 0 0 65 109 165 19:00 0 0 118 70 188 07:15 0 0 63 184 277 19:30 0 0 108 266 165 712 07:30 <th>05:00</th> <th>0</th> <th>0</th> <th>9</th> <th>15</th> <th>2</th> <th>0</th> <th>11</th> <th>21</th> <th>17:00</th> <th>0</th> <th>0</th> <th>163</th> <th>008</th> <th>115</th> <th>444</th> <th>230</th> <th>1052</th>	05:00	0	0	9	15	2	0	11	21	17:00	0	0	163	008	115	444	230	1052
05:30 0 0 1 17 18 17:30 0 0 157 103 260 05:45 0 0 11 27 18 46 29 73 17:45 0 0 157 103 269 108 06:15 0 0 17 38 55 18:15 0 0 161 1123 284 284 06:30 0 0 27 50 77 18:30 0 0 161 123 284 284 06:45 0 0 38 92 79 187 117 279 18:45 0 0 118 70 188 07:30 0 0 63 184 272 19:30 0 0 110 85 165 172 07:30 0 0 63 184 272 19:30 0 0 100 426 65 266 164 165 07:30 0 0 62 177 <	05:15	0	Ő	6		9		15		17:15	Ő	0	159		113		272	
05:45 0 0 149 633 120 451 269 1084 06:00 0 0 139 113 272 30 18:00 0 0 159 113 272 50 06:30 0 0 173 38 55 18:15 0 0 161 123 284 273 107 18:30 0 0 149 95 244 06:30 0 0 0 38 92 79 187 177 18:30 0 0 149 95 244 06:45 0 0 0 118 70 18:30 0 0 111 85 1915 0 0 110 85 1915 0 0 110 85 195 1916 07:35 0 0 66 144 272 19:30 0 0 100 426 65 286 165 712 07:45 0 0 75 282 171 648	05:30	0	0	1		17		18		17:30	0	0	157		103		260	
06:00 0 0 10 20 30 18:00 0 159 113 272 06:15 0 0 17 38 55 18:15 0 0 161 123 284 06:30 0 0 147 75 18:30 0 0 149 95 244 06:45 0 0 31 600 88 419 219 1019 07:00 0 0 56 109 165 19:00 0 0 1118 77 18:85 07:30 0 0 63 184 277 19:30 0 0 110 85 195 07:30 0 0 62 177 239 20:00 0 0 104 426 5 26:00 0 0 24 136 08:00 0 0 164 255 20:015 0 0	05:45	0	0	11	27	18	46	29	73	17:45	0	0	149	633	120	451	269	1084
06:15 0 0 17 38 55 18:15 0 0 161 12.3 284 06:30 0 0 27 50 77 18:30 0 0 149 95 284 06:45 0 0 38 92 79 187 117 279 18:45 0 0 113 600 88 419 219 1019 07:00 0 0 63 184 247 19:15 0 0 110 85 19:5 07:30 0 0 66 164 246 930 19:45 0 0 100 426 65 286 165 712 08:00 0 0 62 177 239 20:00 0 0 88 66 154 136 08:01 0 0 87 323 183 695 270 1018 20:45	06:00	0	0	10		20		30		18:00	0	0	159		113		272	
06:30 0 0 10 149 95 244 06:45 0 0 38 92 79 187 117 279 18:45 0 0 131 600 88 419 219 1019 07:00 0 0 63 184 247 19:15 0 0 110 85 195 07:30 07:30 0 0 88 184 272 19:30 0 0 110 85 195 07:30 0 0 0 0 0 242 19:30 0 0 100 426 65 286 165 712 08:00 0 0 62 177 239 20:00 0 0 88 66 154 0 0 77 136 0 0 73 137 217 21:00 0 0 0 38 217 96 481	06:15	0	0	17		38		55		18:15	0	0	161		123		284	
06:45 0 0 38 92 79 187 117 279 18:45 0 0 131 600 88 419 219 1019 07:00 0 0 56 109 165 19:00 0 0 111 70 188 07:15 0 0 63 184 247 19:15 0 0 110 85 195 07:30 0 0 88 184 272 19:30 0 0 98 66 164 07:45 0 0 75 282 177 239 20:00 0 0 088 66 154 08:00 0 0 83 171 254 20:30 0 0 48 264 38 217 96 481 09:00 0 0 87 323 183 695 270 1018 20:45 0 <	06:30	0	0	27		50		77		18:30	0	0	149		95		244	
07:00 0 0 0 0 118 70 188 70 188 07:15 0 0 0 88 184 247 19:15 0 0 118 70 188 70 188 07:30 0 0 88 184 272 19:30 0 0 98 66 164 07:45 0 0 75 282 171 648 246 930 19:45 0 0 100 426 65 286 165 712 08:00 0 0 64 255 20:15 0 0 72 64 136 08:30 0 0 83 171 254 20:30 0 0 46 49 95 08:45 0 0 80 137 217 21:00 0 0 30 43 73 09:15 0 0 73 122 197 21:15 0 0 33 107 25 137	06:45	0	0	38	92	79	187	117	279	18:45	0	0	131	600	88	419	219	1019
07:15 0 0 63 184 272 19:15 0 0 110 85 195 07:45 0 0 75 282 171 648 246 930 19:45 0 0 98 66 164 07:45 0 0 0 62 177 239 20:00 0 0 88 66 154 08:00 0 0 91 164 255 20:15 0 0 72 64 136 08:15 0 0 83 171 254 20:30 0 0 46 49 95 08:45 0 0 83 137 217 21:00 0 0 30 43 73 09:15 0 0 75 122 197 21:15 0 0 30 40 7 96 481 09:15 0 0 72 122 197 21:130 0 0 27 29 56 <	07:00	0	0	56		109		165		19:00	0	0	118		70		188	
07:30 0 0 0 0 0 0 0 0 0 0 0 0 104 104 07:30 0 0 0 0 0 0 0 0 0 0 0 104 25 123 0 0 0 0 0 426 65 216 712 08:00 0 0 0 62 177 239 20:00 0 0 88 66 154 136 08:15 0 0 91 164 255 20:15 0 0 72 64 136 95 08:30 0 0 83 171 254 20:30 0 0 72 64 81 137 217 21:00 0 0 30 43 73 09:00 0 0 75 122 197 21:15 0 0 30 40 70 70 09:30 0 0 72 126 198 2	07:15	0	0	03		104		247		19:15	0	0	110		85		195	
08:00 0 0 62 171 040 230 20:00 0 0 430 420 530 130 430 420 530 141 08:00 0 0 91 164 255 20:15 0 0 72 64 136 08:30 0 0 83 171 254 20:30 0 0 46 49 95 08:45 0 0 87 323 183 695 270 1018 20:45 0 0 58 264 38 217 96 481 09:00 0 0 75 122 197 21:15 0 0 30 40 70 09:15 0 0 73 305 110 495 188 800 21:45 0 0 33 120 25 137 58 257 10:00 0 0 7	07:45	0	0	00 75	282	171	648	272	030	19:45	0	0	98 100	126	65	286	165	712
08:15 0 0 91 164 255 20:15 0 0 72 64 136 08:30 0 0 83 171 254 20:30 0 0 46 49 95 08:45 0 0 87 323 183 695 270 1018 20:45 0 0 58 264 38 217 96 481 09:00 0 0 87 323 183 695 270 1018 20:45 0 0 58 264 38 217 96 481 09:00 0 0 75 122 197 21:15 0 0 30 40 70 09:30 0 0 72 126 198 21:30 0 0 33 120 25 137 58 257 10:00 0 0 75 72 147 22:00	08:00	0	0	62	202	177	040	239	550	20:00	0	0	88	420	66	200	154	/12
08:30 0 0 83 171 254 20:30 0 0 46 49 95 08:45 0 0 87 323 183 695 270 1018 20:45 0 0 58 264 38 217 96 481 09:00 0 0 0 80 137 217 21:00 0 0 30 43 73 09:15 0 0 75 122 197 21:15 0 0 30 43 73 09:30 0 0 78 305 110 495 188 800 21:30 0 0 33 120 25 137 58 257 10:00 0 0 81 110 191 22:00 0 0 23 20 43 58 257 10:00 0 0 83 87 170 22:30 0 0 13 19 23 23 0 13 170 14 <th>08:15</th> <th>0</th> <th>0</th> <th>91</th> <th></th> <th>164</th> <th></th> <th>255</th> <th></th> <th>20:15</th> <th>0</th> <th>0</th> <th>72</th> <th></th> <th>64</th> <th></th> <th>136</th> <th></th>	08:15	0	0	91		164		255		20:15	0	0	72		64		136	
08:45 0 0 58 264 38 217 96 481 09:00 0 0 80 137 217 217 21:00 0 0 30 43 73 73 09:15 0 0 75 122 197 21:15 0 0 30 40 70 70 09:30 0 0 72 126 198 21:30 0 0 27 29 56 58 257 09:45 0 0 78 305 110 495 188 800 21:45 0 0 33 120 25 137 58 257 10:00 0 0 81 110 191 22:00 0 0 23 20 43 43 43 43 43 43 23:00 0 0 14 29 43 44 14 29 43 44 14 29 43 44 14 29 43 44 15	08:30	0	0	83		171		254		20:30	0	0	46		49		95	
09:00 0 0 80 137 217 21:00 0 0 30 43 73 73 09:15 0 0 75 122 197 21:00 0 0 30 40 70 70 09:30 0 0 72 126 198 21:30 0 0 27 29 56 09:45 0 0 78 305 110 495 188 800 21:45 0 0 33 120 25 137 58 257 10:00 0 0 75 72 147 22:00 0 0 23 20 43 45 10:15 0 0 75 72 147 22:15 0 0 23 20 43 4	08:45	0	0	87	323	183	695	270	1018	20:45	0	0	58	264	38	217	96	481
09:15 0 0 75 122 197 21:15 0 0 30 40 70 09:30 0 0 72 126 198 21:30 0 0 30 40 70 56 09:45 0 0 73 305 110 495 188 800 21:45 0 0 33 120 25 137 58 257 10:00 0 0 81 110 191 22:00 0 0 23 20 137 58 257 10:00 0 0 75 72 147 22:00 0 0 23 20 58 57 10:30 0 0 73 87 170 22:30 0 0 13 79 10 74 23 153 10:30 0 0 71 77 148 23:00 0 0 13 79 10 74 23 153 11:00 0 0	09:00	0	0	80		137		217		21:00	0	0	30		43		73	
09:30 0 0 72 126 198 21:30 0 0 27 29 56 09:45 0 0 78 305 110 495 188 800 21:30 0 0 27 29 56 09:45 0 0 78 305 110 495 188 800 21:45 0 0 33 120 25 137 58 257 10:00 0 0 81 110 191 22:00 0 0 23 20 43 10:15 0 0 75 72 147 22:15 0 0 23 0 54 257 10:30 0 0 83 87 170 22:30 0 0 15 14 29 163 10:45 0 0 71 77 148 23:00 0 0 12 8 20 11:10 0 0 85 81 166 23:15 0	09:15	0	0	75		122		197		21:15	0	0	30		40		70	
09:45 0 0 78 305 110 495 188 800 21:45 0 0 33 120 25 137 58 257 10:00 0 0 81 110 191 22:00 0 0 23 20 43 10:15 0 0 75 72 147 22:15 0 0 28 30 58 58 10:30 0 0 83 87 170 22:30 0 0 13 79 10 74 23 153 10:45 0 0 0 74 343 175 683 22:45 0 0 13 79 10 74 23 153 11:00 0 0 71 77 148 23:00 0 0 12 8 20 111 11 13 0 0 8 4 12 12 13 14 12 12 13 14 12 12 11 11 <th>09:30</th> <th>0</th> <th>0</th> <th>72</th> <th></th> <th>126</th> <th></th> <th>198</th> <th></th> <th>21:30</th> <th>0</th> <th>0</th> <th>27</th> <th></th> <th>29</th> <th></th> <th>56</th> <th></th>	09:30	0	0	72		126		198		21:30	0	0	27		29		56	
10:00 0 0 0 0 23 20 43 10:15 0 0 75 72 147 22:15 0 0 28 30 58 10:30 0 0 83 87 170 22:30 0 0 15 14 29 10:45 0 0 101 340 74 343 175 683 22:45 0 0 13 79 10 74 23 153 11:00 0 0 71 77 148 23:00 0 0 12 8 20 13 11:10 0 0 85 81 166 23:15 0 0 12 8 20 11 11:30 0 0 82 80 162 23:30 0 0 8 4 12 11:45 0 0 103 341 77 315 180 656 23:45 0 0 3 28 21 6 </th <th>09:45</th> <th>0</th> <th>0</th> <th>78</th> <th>305</th> <th>110</th> <th>495</th> <th>188</th> <th>800</th> <th>21:45</th> <th>0</th> <th>0</th> <th>33</th> <th>120</th> <th>25</th> <th>137</th> <th>58</th> <th>257</th>	09:45	0	0	78	305	110	495	188	800	21:45	0	0	33	120	25	137	58	257
10:15 0 0 0 28 30 58 10:30 0 0 83 87 170 22:30 0 0 15 14 29 10:45 0 0 11 340 74 343 175 683 22:45 0 0 15 14 29 10:45 0 0 01 340 74 343 175 683 22:45 0 0 13 79 10 74 23 153 11:00 0 0 71 77 148 23:00 0 0 12 8 2 153 11:15 0 0 85 81 166 23:15 0 0 12 64 12 11:30 0 0 82 80 162 23:30 0 0 3 28 3 21 6 49 11:45 0 0 103 341 77 315 180 656 23:45 0 <t< th=""><th>10:00</th><th>0</th><th>U</th><th>81</th><th></th><th>110</th><th></th><th>191</th><th></th><th>22:00</th><th>0</th><th>0</th><th>23</th><th></th><th>20</th><th></th><th>43</th><th></th></t<>	10:00	0	U	81		110		191		22:00	0	0	23		20		43	
10:30 0 0 0 10 33 175 683 22:45 0 0 13 79 10 74 23 153 10:45 0 0 11 340 74 343 175 683 22:45 0 0 13 79 10 74 23 153 11:00 0 0 71 77 148 23:00 0 0 12 8 2 0 11:15 0 0 85 81 166 23:15 0 0 12 8 2 0 11:30 0 0 82 80 162 23:30 0 0 8 4 12 11:45 0 0 103 341 77 315 180 656 23:45 0 0 3 28 3 21 6 49 TOTALS 1749 2753 4502 TOTALS 54.4% 45.6% 64.2% </th <th>10:15</th> <th>0</th> <th>0</th> <th>/5</th> <th></th> <th>/2</th> <th></th> <th>147</th> <th></th> <th>22:15</th> <th>0</th> <th>0</th> <th>28</th> <th></th> <th>30</th> <th></th> <th>58 20</th> <th></th>	10:15	0	0	/5		/2		147		22:15	0	0	28		30		58 20	
10.45 0 0 101 340 74 343 175 005 12 13 75 10 74 23 135 11:00 0 0 71 77 148 23:00 0 0 12 8 23 11 11:15 0 0 85 81 166 23:15 0 0 12 8 23 23 11:15 0 0 82 80 162 23:15 0 0 5 6 11 11:30 0 0 82 80 162 23:30 0 0 8 4 12 11:45 0 0 103 341 77 315 180 656 23:45 0 0 3 28 3 21 6 49 TOTALS 1749 2753 4502 TOTALS 4390 3682 8072 SPLIT % 38.8% 61.2% 35.8% SPLIT % 54.4% 45.6% 64.2% <th>10:30</th> <th>0</th> <th>0</th> <th>05 101</th> <th>340</th> <th>0/ 7/</th> <th>3/13</th> <th>175</th> <th>683</th> <th>22.30</th> <th>0</th> <th>0</th> <th>13</th> <th>70</th> <th>14</th> <th>74</th> <th>29</th> <th>153</th>	10:30	0	0	05 101	340	0/ 7/	3/13	175	683	22.30	0	0	13	70	14	74	29	153
11:15 0 0 85 81 166 23:15 0 0 5 6 11 11:30 0 0 82 80 162 23:30 0 0 5 6 11 11:45 0 0 103 341 77 315 180 656 23:45 0 0 3 28 3 21 6 49 TOTALS 1749 2753 4502 TOTALS TOTALS 4390 3682 8072 SPLIT % 38.8% 61.2% 35.8% SPLIT % 54.4% 45.6% 64.2%	11:00	0	0	71	540	77	545	148	005	23:00	0	0	13	15	8	74	20	100
11:30 0 0 82 80 162 23:30 0 0 8 4 12 11:45 0 0 103 341 77 315 180 656 23:45 0 0 3 28 3 21 6 49 TOTALS 1749 2753 4502 TOTALS 4390 3682 8072 SPLIT % 38.8% 61.2% 35.8% SPLIT % 54.4% 45.6% 64.2%	11:15	ŏ	õ	85		81		166		23:15	õ	0	5		6		11	
11:45 0 0 103 341 77 315 180 656 23:45 0 0 3 28 3 21 6 49 TOTALS 1749 2753 4502 TOTALS 4390 3682 8072 SPLIT % 38.8% 61.2% 35.8% SPLIT % 54.4% 45.6% 64.2%	11:30	0	Ō	82		80		162		23:30	0	0	8		4		12	
TOTALS 1749 2753 4502 TOTALS 4390 3682 8072 SPLIT % 38.8% 61.2% 35.8% SPLIT % 54.4% 45.6% 64.2%	11:45	0	0	103	341	77	315	180	656	23:45	0	0	3	28	3	21	6	49
SPLIT % 38.8% 61.2% 35.8% SPLIT % 54.4% 45.6% 64.2%	TOTALS				1749		2753		4502	TOTALS				4390		3682		8072
	SPLIT %				38.8%		61.2%		35.8%	SPLIT %				54.4%		45.6%		64.2%

ΠΑΙΙ Υ ΤΟΤΑΙ S				NB	SB	EB	WB				Total
	DAILT TO	TALS		0	0	6,139	6,435				12,574
AM Peak Hour			11:45	07:15	08:00	PM Peak Hour			16:45	15:30	16:15
AM Pk Volume			377	716	1018	PM Pk Volume			647	503	1099
Pk Hr Factor			0.915	0.973	0.943	Pk Hr Factor			0.963	0.786	0.925
7 - 9 Volume	0	0	605	1343	1948	4 - 6 Volume	0	0	1241	895	2136
7 - 9 Peak Hour			08:00	07:15	08:00	4 - 6 Peak Hour			16:45	16:15	16:15
7 - 9 Pk Volume			323	716	1018	4 - 6 Pk Volume			647	461	1099
Pk Hr Factor			0.887	0 973	0 9/3	Pk Hr Factor			0.963	0 803	0 925





APPENDIX B - SIGHT DISTANCE DIAGRAM



Measured Sight Distance									
	Traveling	Traveling							
	Eastbound	Westbound							
of Road for Target strian)	Approximate	Distance (ft)							
North	225								
North	235								
South	365								
North	275								
North	380	>350							
North	370	205							
South	365	305							
South		275							
South	>350	270							
South		280							
South		305							
very Sight Distance east of 9 is longer than 400'									











Calculations of Sight Distance



Calculations of Sight Distance based on Windsor Parkway Sidewalks design plans. 113+00 3 SIDEW \mathfrak{S} 112+00 3 3 \mathfrak{S} B 3 FAT&T C&G MA AT&T B CONSTE STOP-SIGN et/ CONC S E3 6 EXTST.R/W B B S 3 S CON S RQ



Calculations of Sight Distance based on Windsor Parkway Sidewalks design plans. 113+00 S 3 112*00 S ß \mathfrak{S} S Ø AT&T 00*111 AT&T STOP-3 3 10+00 00+60 EXTST. R/W Ø. 375 FT 6 6 6 6 6 -13--13-G \mathfrak{S} \mathfrak{O}_{i} G 3 \mathfrak{S} ----ō S 3 3 G LANDSCAPED AREA CHAINLINK FENCE e e^e 3 201 CHAINLINK FENCE CONC. BOX INV=913.907 CURVE - AHE ÁD SIGN *MATL BOX HEADWALL -INV=909.79' TOP_OF_BANK-FE 8 8 -NON-TYP. HW INV=914.48' 0 0 0 Ø 3 CHAINLINK FENCE TOP_OF_BANK_ TOP OF BANK-INV=909.93-CONC. TOP STONE







Calculations of Sight Distance based on Windsor Parkway Sidewalks design plans.

TOP_ 0

CHAINLINK FENCE

INV - 909. 9 STON WALL

P

. ann. 3

X AHE

CHĂINLINK FENCE

00

Ø

WALL

LETL OF DITCH

RR TIE WALL HEADWALL INV-921.22



00.911

WALL

FRENCH

27.81' N=924.00' NT=923.80

солс