



Consulting

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March 23, 2012

CNY Raceway Park

PO Box 564

Central Square, NY 13036-0564

Attn: Mr. Glenn Donnelly

**Re: Traffic Impact Assessment – CNY Raceway Park
Interim NYSDOT Submission – Study Methodology Approval
Town of Hastings, NY**

Dear Mr. Donnelly:

I have completed the preliminary work associated with the traffic impact assessment for the proposed CNY Raceway Park on Route 11 in the Town of Hastings, NY. This document summarizes the work completed to date for submission to NYSDOT in order to obtain concurrence on the traffic assessment methodology.

Data Collection

Turning movement counts were collected at the following 17 study area intersections between 7-8am, 10:30-11:30am and 5-6pm on Saturday, March 3rd, 2012:

1. State Route 11 @ State Route 49 & County Route 12
2. State Route 11 @ Webb Avenue
3. State Route 11 @ Gildner Road
4. State Route 11 @ Central Square Middle School Driveway
5. State Route 11 @ County Route 37
6. State Route 11 @ Guy Young Road & Washington Street
7. State Route 11 @ Bartell Road & Plaza Driveway
8. State Route 11 @ Miller Road
9. State Route 11 @ Orangeport Road
10. State Route 49 @ Webb Place
11. State Route 49 @ Walmart Driveway
12. State Route 49 @ I-81 Southbound Ramps
13. State Route 49 @ I-81 Northbound Ramps
14. State Route 49 @ County Route 37
15. Bartell Road @ I-81 Southbound Ramps
16. Bartell Road @ I-81 Northbound Ramps
17. Bartell Road @ Madison Avenue

These study area intersections were agreed upon with NYSDOT and the Hastings Town Engineer with the exception of the intersection of Route 11 with Guy Young Road/Washington Street, which was added since it is a signalized intersection in the study area. The hours of data collection coincide with the anticipated peak hours of traffic generation for the site. Participation events will have peak arrival

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between 7-8am and peak departure between 5-6pm while larger race events are expected to have peak arrival between 10:30-11:30am and peak departure between 5-6pm.

In addition to turning movement counts, other data needed to study traffic operations including intersection geometric data, intersection spacing, speed limits and sight distances at the proposed driveway locations was also collected. Signal timing data for the signalized intersections in the study area has been obtained from NYSDOT to ensure that the signals are properly modeled in the capacity analysis.

Accident data for the entire study area from May 1st 2008 through April 30th 2011 has been received from NYSDOT to complete an accident analysis for the study.

The March 2012 peak hour traffic volumes have been attached as Figures 1-3 (southern study area on subfigure A and northern study area on subfigure B).

Seasonal Adjustment

As discussed with both NYSDOT and the Hastings Town Engineer, the March traffic counts have been seasonally adjusted to represent peak summer volumes expected in July. Based on seasonal data available from NYSDOT, using Factor Group 40, the March counts were divided by a factor of 0.903 to convert them to the average annual daily traffic volume and then multiplied by a factor of 1.182 for the resultant volumes expected in July. The seasonally adjusted July 2012 traffic volumes for the three peak hours have been attached as Figures 4-6.

Background Growth

The anticipated build out year for the proposed development is 2014. In order to fully understand the impacts of a development on the adjacent roadway system, analysis of the operations immediately before the project completion must first be identified. The existing traffic volumes must be adjusted by a growth rate to account for any unknown development that may occur prior to the project opening.

Historical traffic volumes along Route 11 and Route 49 from the 2010 NYSDOT Traffic Data Report were reviewed in order to identify an appropriate background growth rate to use in the study. Long term growth rates between 1997 and 2010 on both roadways are in the range of 0.0% per year to 0.2% per year. Based on this data, we are recommending using a 0.5% growth rate to grow the July traffic volumes a total of 1% from 2012 to 2014. The background growth calculations have been attached.

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Trip Generation Estimate

The following trip generation assumptions have been made for the two types of Saturday events in the summer as well as for the restaurant:

- Participation Events - Typical weekend event during summer months
 - Expected to generate approximately 600 people.
 - Average vehicle occupancy is expected to be 3 people per vehicle as drivers tend to bring their helpers with them, therefore 200 trips per event expected.
 - Events typically start around 8:30am and end around 4:30pm.
 - 90% of trips generated enter during early peak (7-8am) and exit during the late peak (5-6pm).
- Large Events – Approximately 8 per year during summer months.
 - Expected to generate approximately 6,000 people.
 - Average vehicle occupancy is anticipated to be around 3 people per vehicle, therefore 2,000 trips per event expected.
 - Events will typically start around 12pm and end around 5pm.
 - People expected to arrive over a 2-3 hour period before the race, therefore 60% of trips generated assumed during midday peak = 1,200 trips.
 - A portion of the visitors will leave early, therefore 85% of trips generated assumed during the evening peak = 1,700 trips.
 - 90% of trips generated enter during midday peak (10:30-11:30am) and exit during the late peak (5-6pm).
- Restaurant – 350 seats.
 - Trips generated estimated using ITE Trip Generation – Land Use 932 – High Turnover Sit Down Restaurant – Saturday peak hour of generator.
 - 50% of peak hour trips will be generated during the early peak (7-8am), 70% during the midday peak (10:30-11:30am) and 100% during the late peak (5-6pm)
 - 40% reduction in trips generated for internal trips during participation events and 60% reduction for internal trips during large events.
 - 40% pass-by credit taken after internal trip reduction.

It is assumed that banquet events would not overlap with race events, therefore no trip generation is assumed for the banquet hall.

The following tables summarize the proposed trip generation estimates for the two primary traffic generation events, participation events and large events.

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Trip Generation Summary – Participation Events

	Early Peak		Late Peak	
	Entering	Exiting	Entering	Exiting
Racing Event	180	20	20	180
Restaurant Trips	49	44	98	87
Restaurant Internal Trips	<u>-20</u>	<u>-17</u>	<u>-39</u>	<u>-35</u>
Total Trip Generated	209	47	79	232
<i>Pass-by Trips</i>	<u>-11</u>	<u>-11</u>	<u>-22</u>	<u>-22</u>
Total New Trips Generated	198	36	57	210

Trip Generation Summary – Large Events

	Early Peak		Late Peak	
	Entering	Exiting	Entering	Exiting
Racing Event	1,080	120	170	1,530
Restaurant Trips	69	61	98	87
Restaurant Internal Trips	<u>-41</u>	<u>-37</u>	<u>-59</u>	<u>-52</u>
Total Trip Generated	1,108	144	209	1,565
<i>Pass-by Trips</i>	<u>-10</u>	<u>-10</u>	<u>-15</u>	<u>-15</u>
Total New Trips Generated	1,098	134	194	1,550

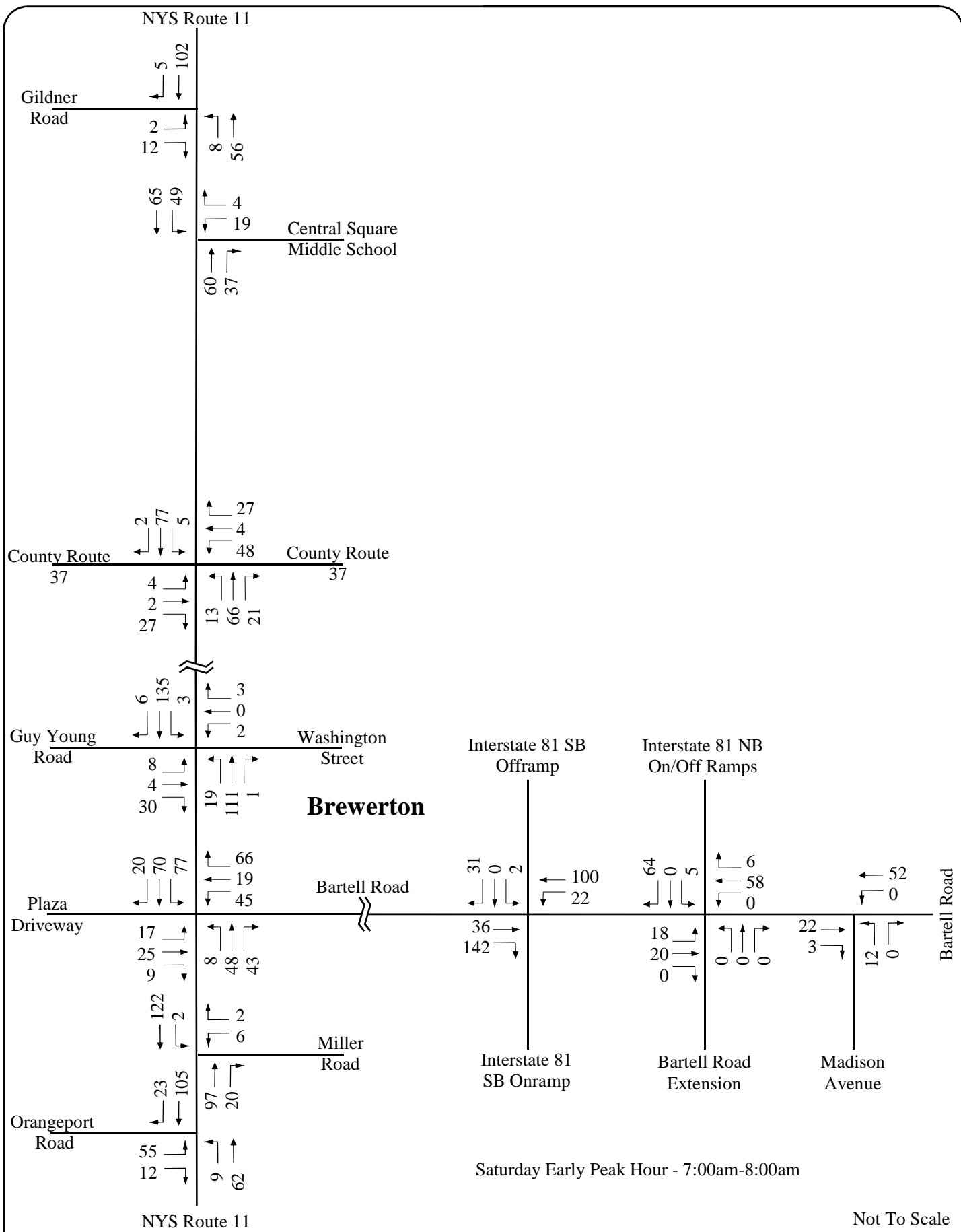
Trip Distribution

The existing roadway network and populations centers in the area were reviewed in order to develop the following expected distribution of trips for the proposed development:

- 40% to/from south on I-81 via Bartell Road
- 20% to/from north on I-81 via Central Square
- 15% to/from the south via Route 11
- 10% to/from northwest (Fulton/Oswego) via Route 49
- 5% to/from north via Route 11
- 5% to/from the east via Route 49
- 5% to/from the west (Phoenix) via County Route 37

Based on existing traffic patterns passing the site on Route 11 during the three peak hours, it is anticipated that pass-by trips will be split 50/50 from the northbound and southbound traffic.

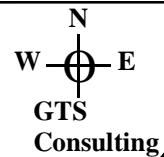
The proposed southern main driveway will used for participation events while the both the southern main driveway and northern secondary driveways will be used for large events. The proposed trip

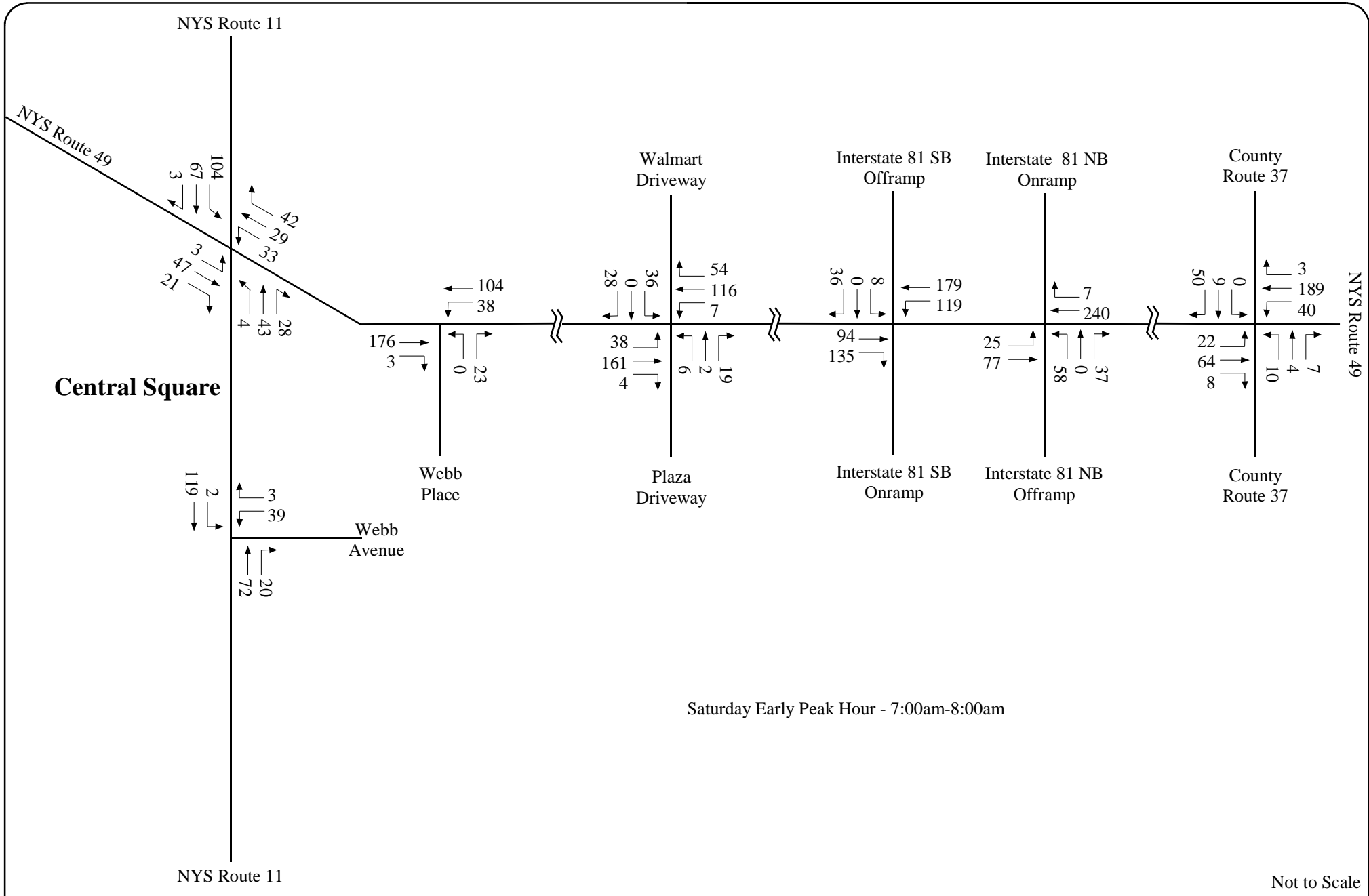


Not To Scale

Proposed CNY Raceway Park - Town of Hastings, NY
 2012 Existing Traffic Volumes - Southern Study Area - March Counts
 Saturday Early Peak Hour

Figure 1A

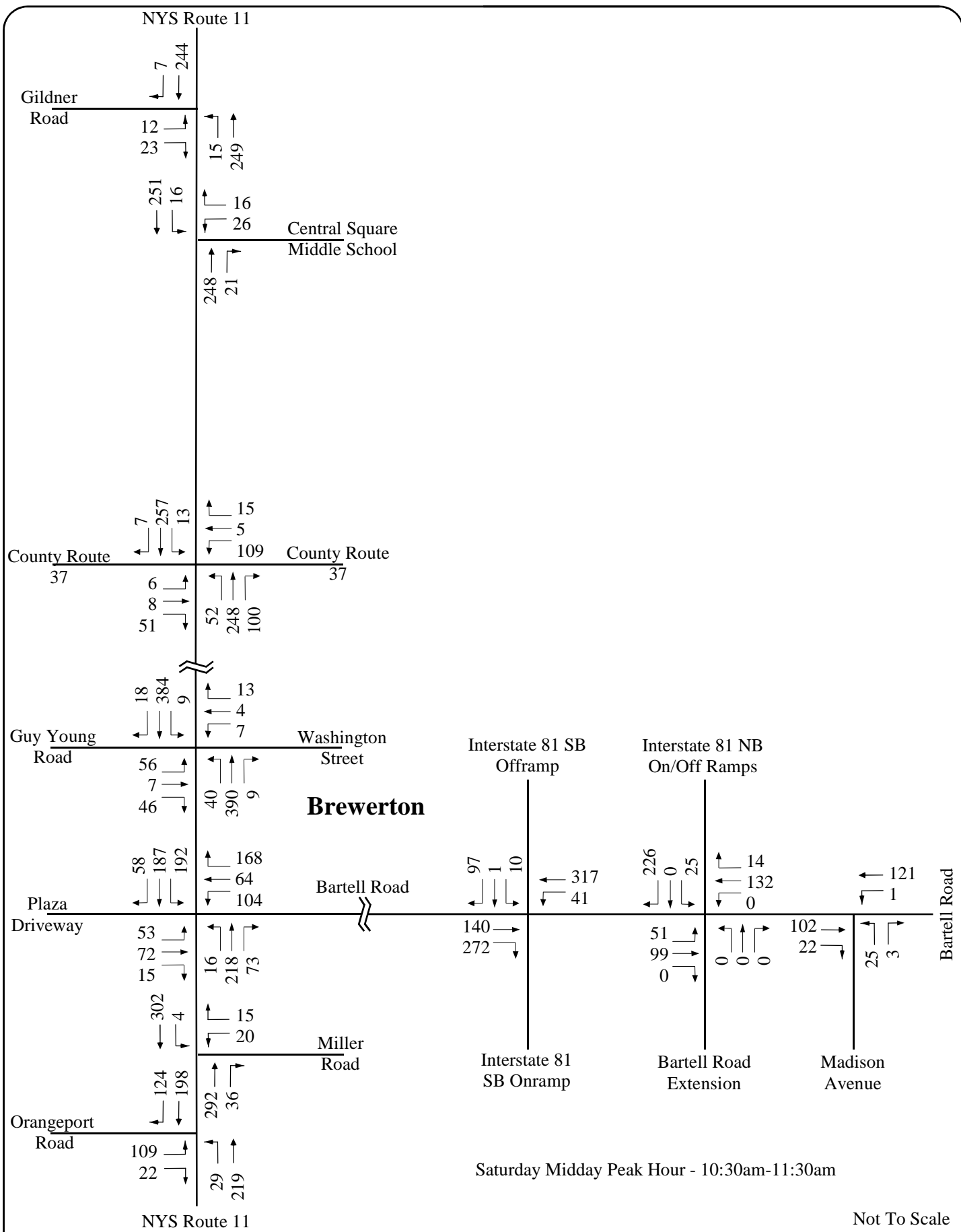




Proposed CNY Raceway Park - Town of Hastings, NY
 2012 Existing Traffic Volumes - Northern Study Area - March Counts
 Saturday Early Peak Hour

Figure 1B

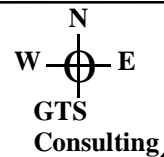


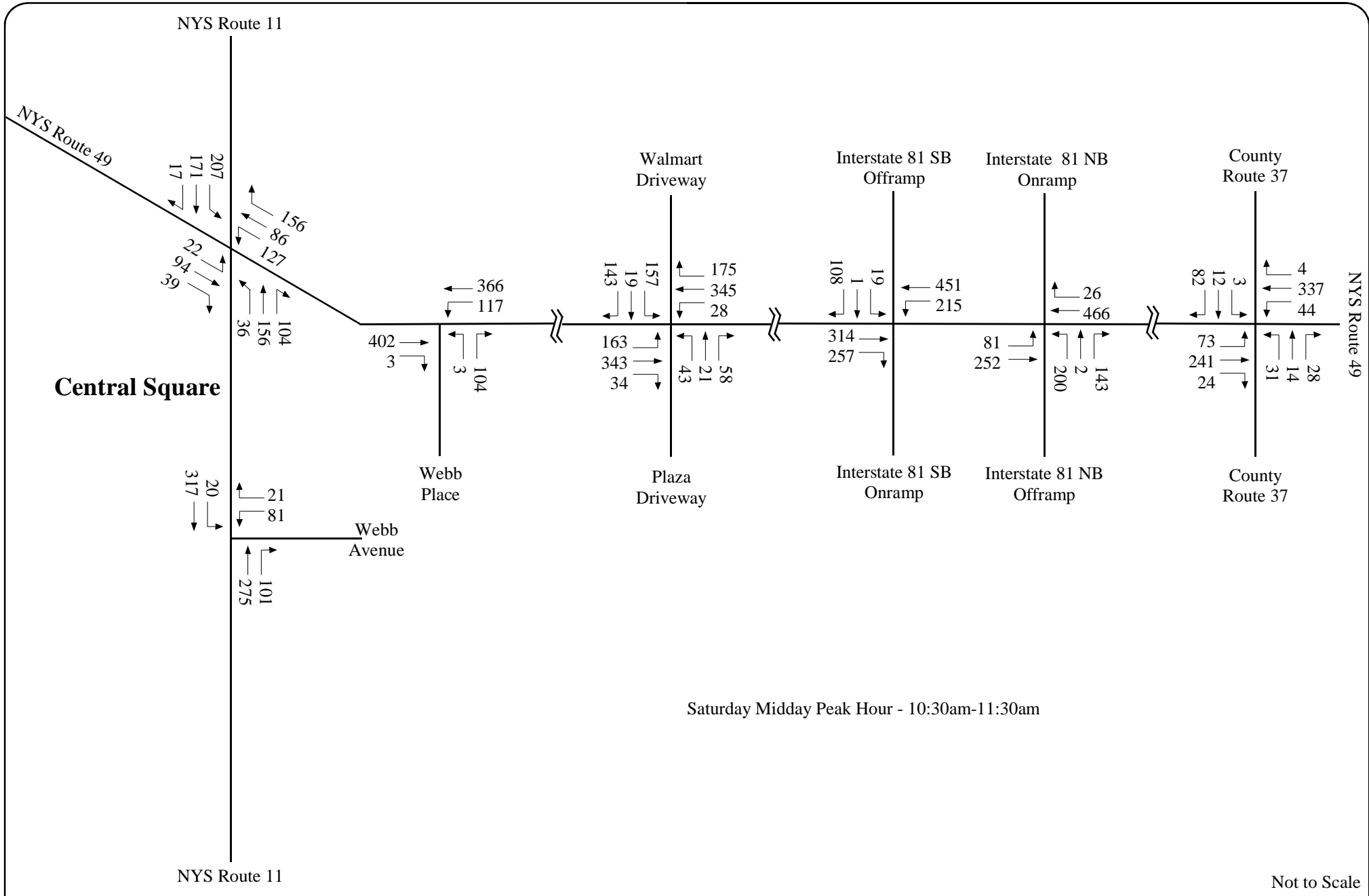


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Proposed CNY Raceway Park - Town of Hastings, NY
 2012 Existing Traffic Volumes - Southern Study Area - March Counts
 Saturday Midday Peak Hour

Figure 2A

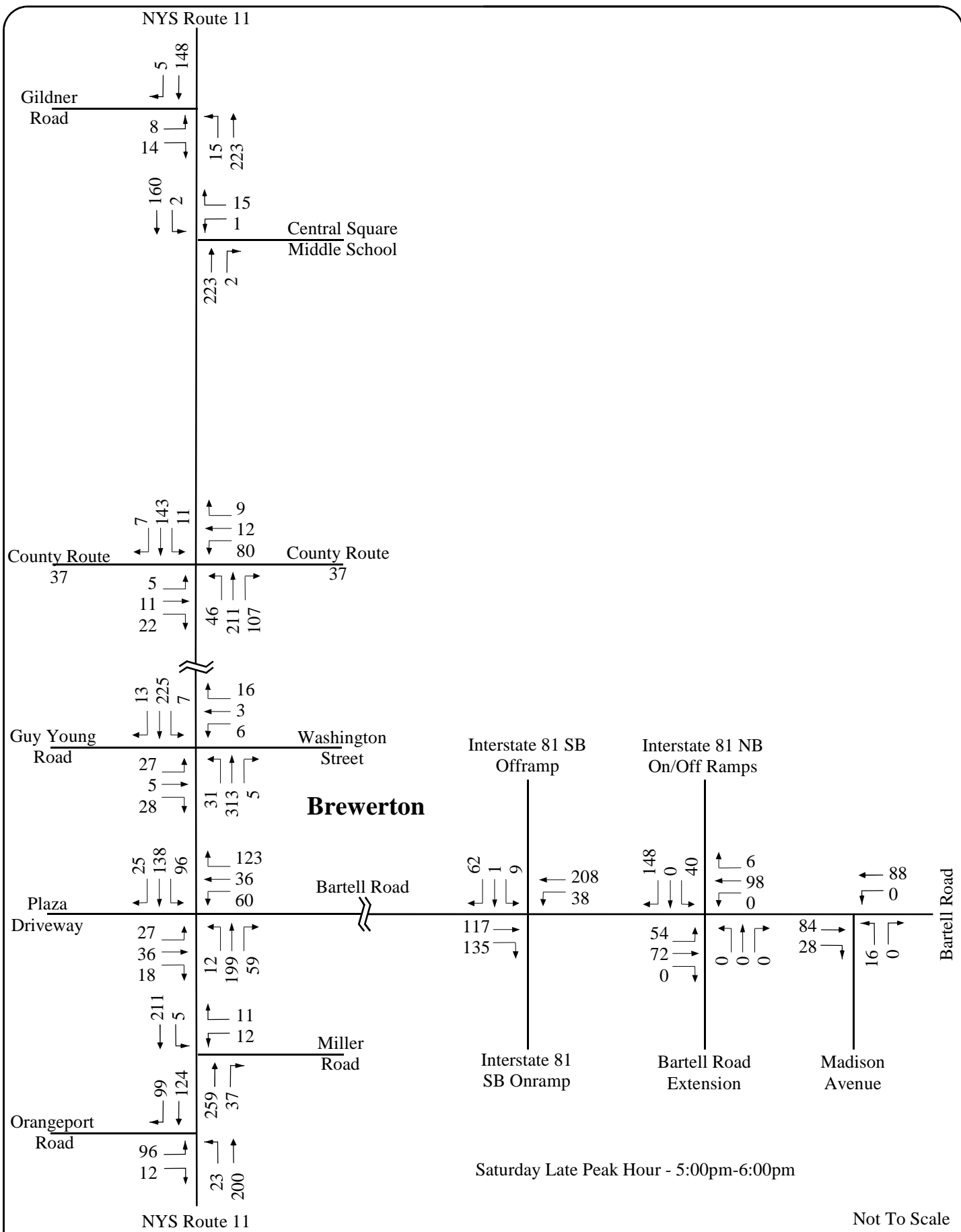




Proposed CNY Raceway Park - Town of Hastings, NY
 2012 Existing Traffic Volumes - Northern Study Area - March Counts
 Saturday Midday Peak Hour

Figure 2B

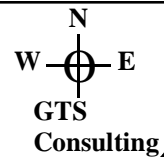


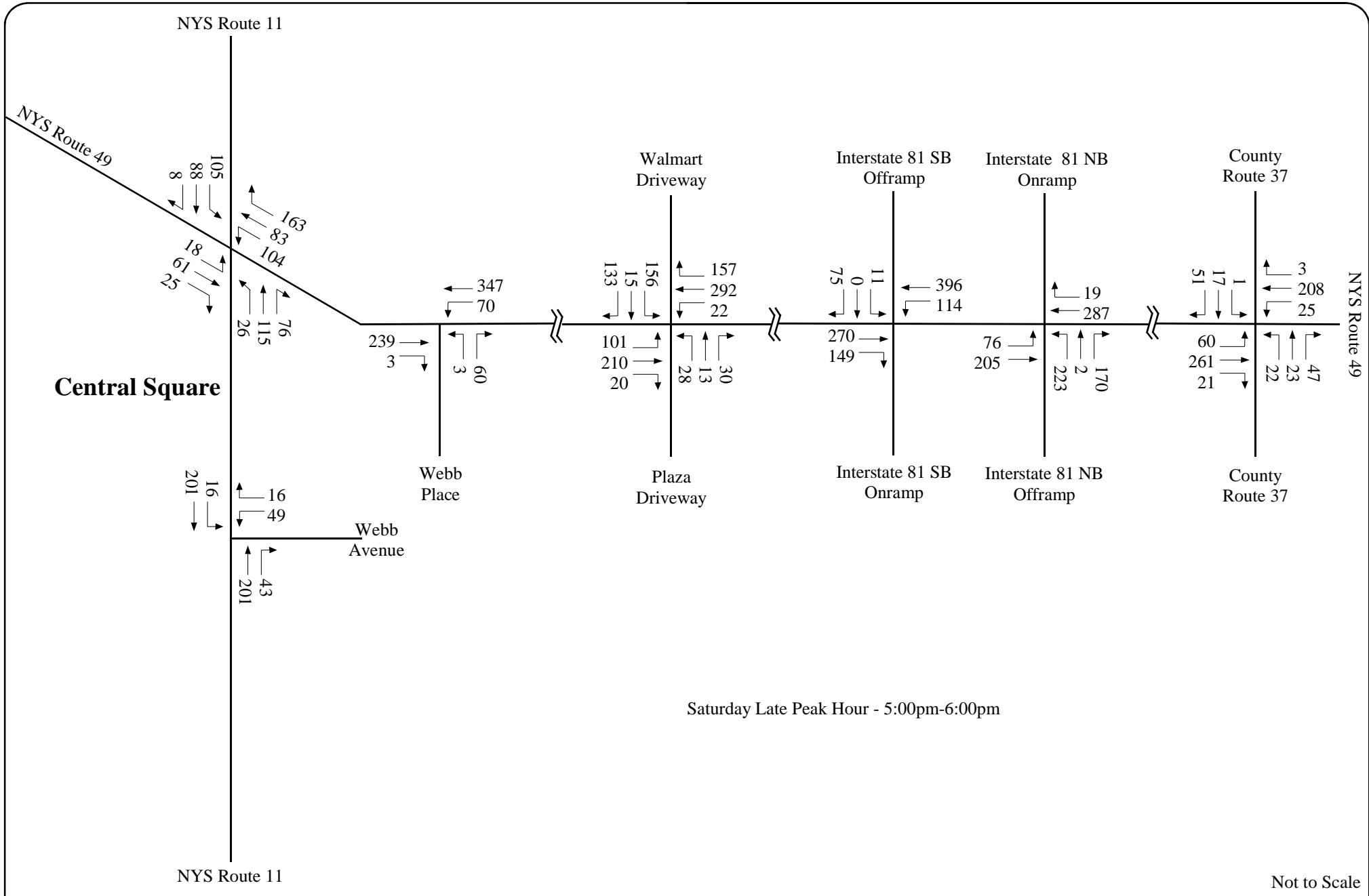


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Proposed CNY Raceway Park - Town of Hastings, NY
 2012 Existing Traffic Volumes - Southern Study Area - March Counts
 Saturday Late Peak Hour

Figure 3A

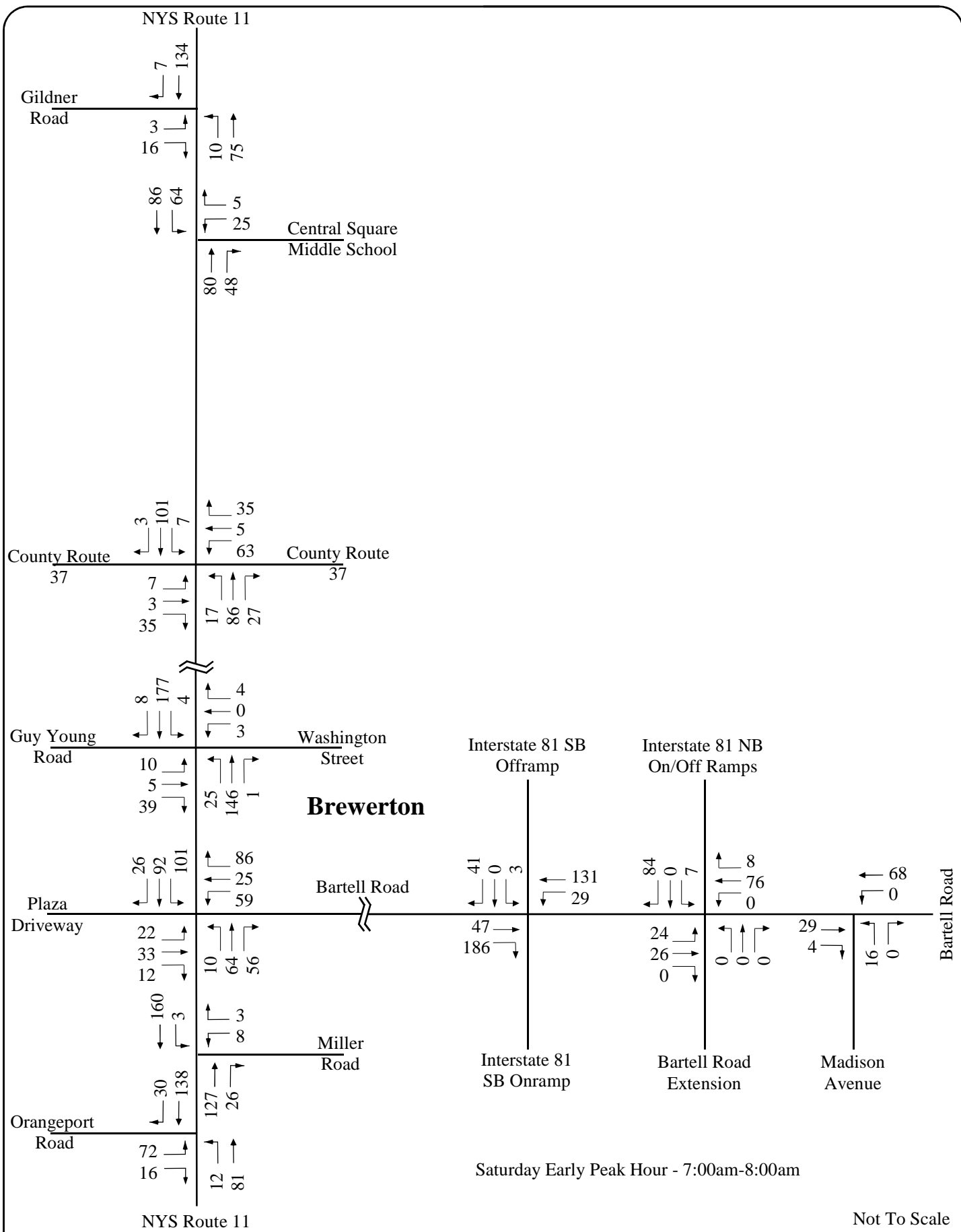




Proposed CNY Raceway Park - Town of Hastings, NY
 2012 Existing Traffic Volumes - Northern Study Area - March Counts
 Saturday Late Peak Hour

Figure 3B



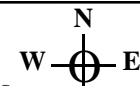


Proposed CNY Raceway Park - Town of Hastings, NY

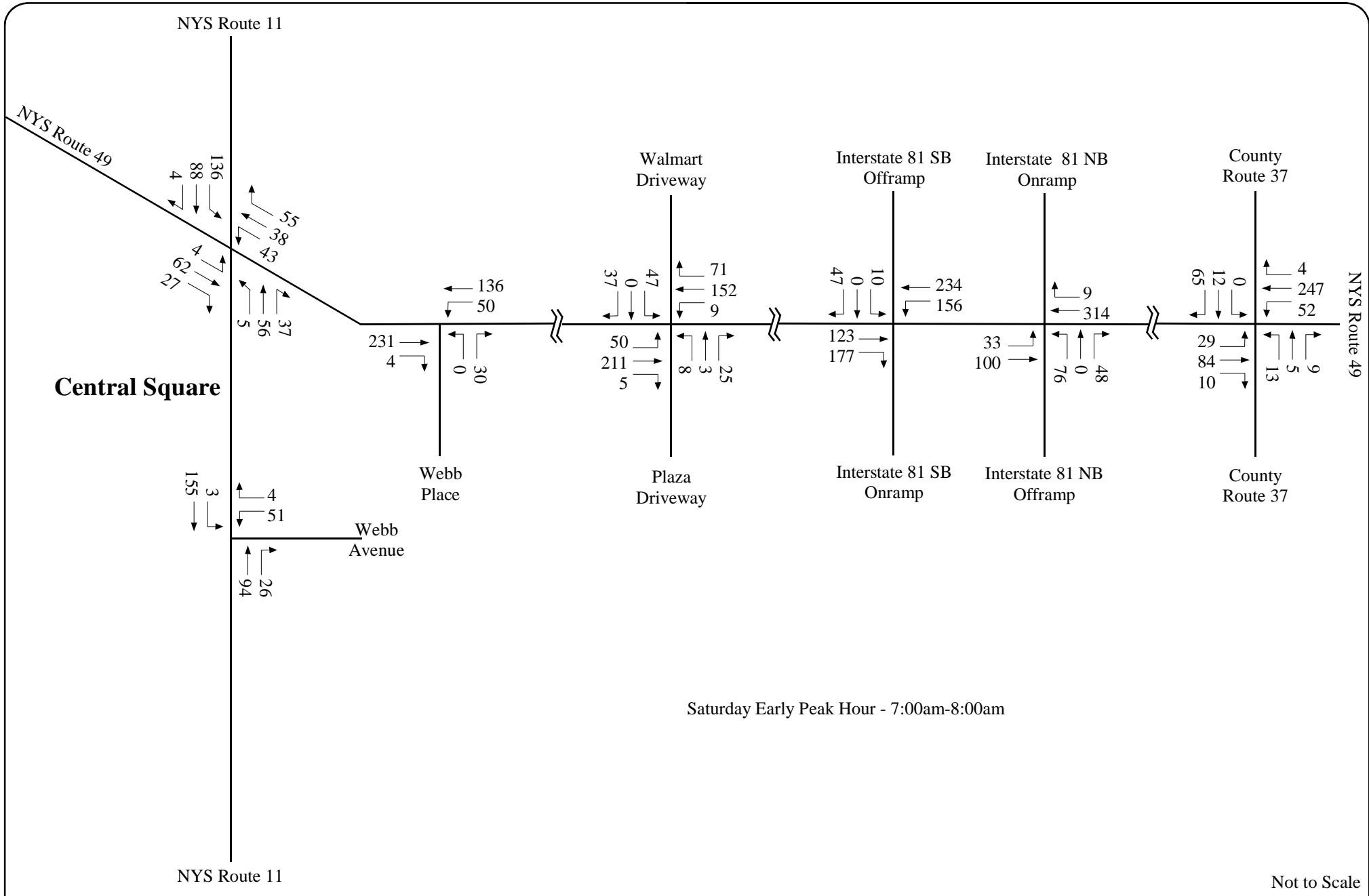
2012 Existing Traffic Volumes - Southern Study Area - Seasonally Adjusted to July Volumes
 Saturday Early Peak Hour

Figure 4A

Not To Scale



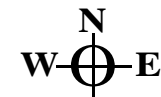
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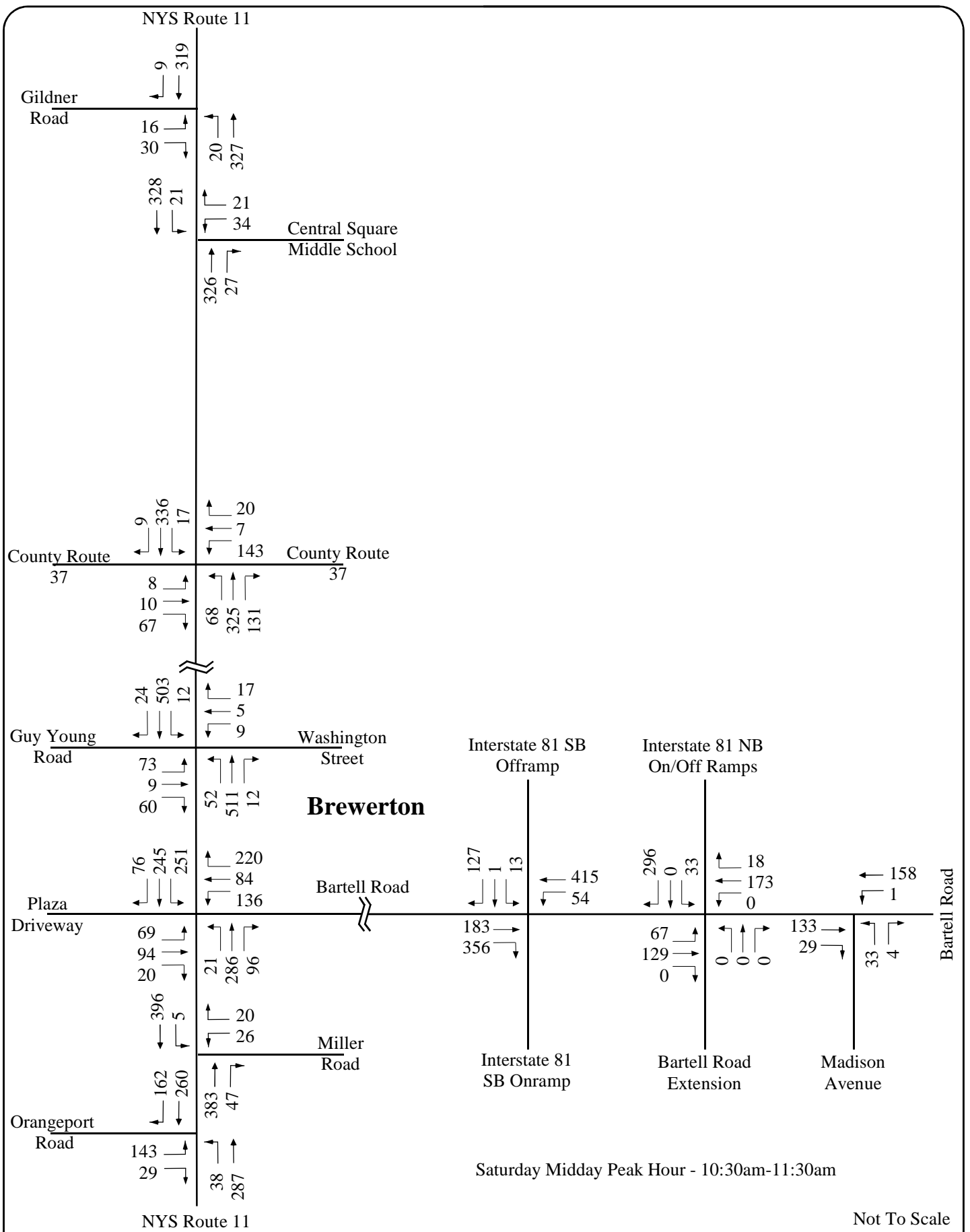
Proposed CNY Raceway Park - Town of Hastings, NY

2012 Existing Traffic Volumes - Northern Study Area - Seasonally Adjusted to July Volumes
 Saturday Early Peak Hour

Figure 4B



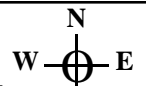
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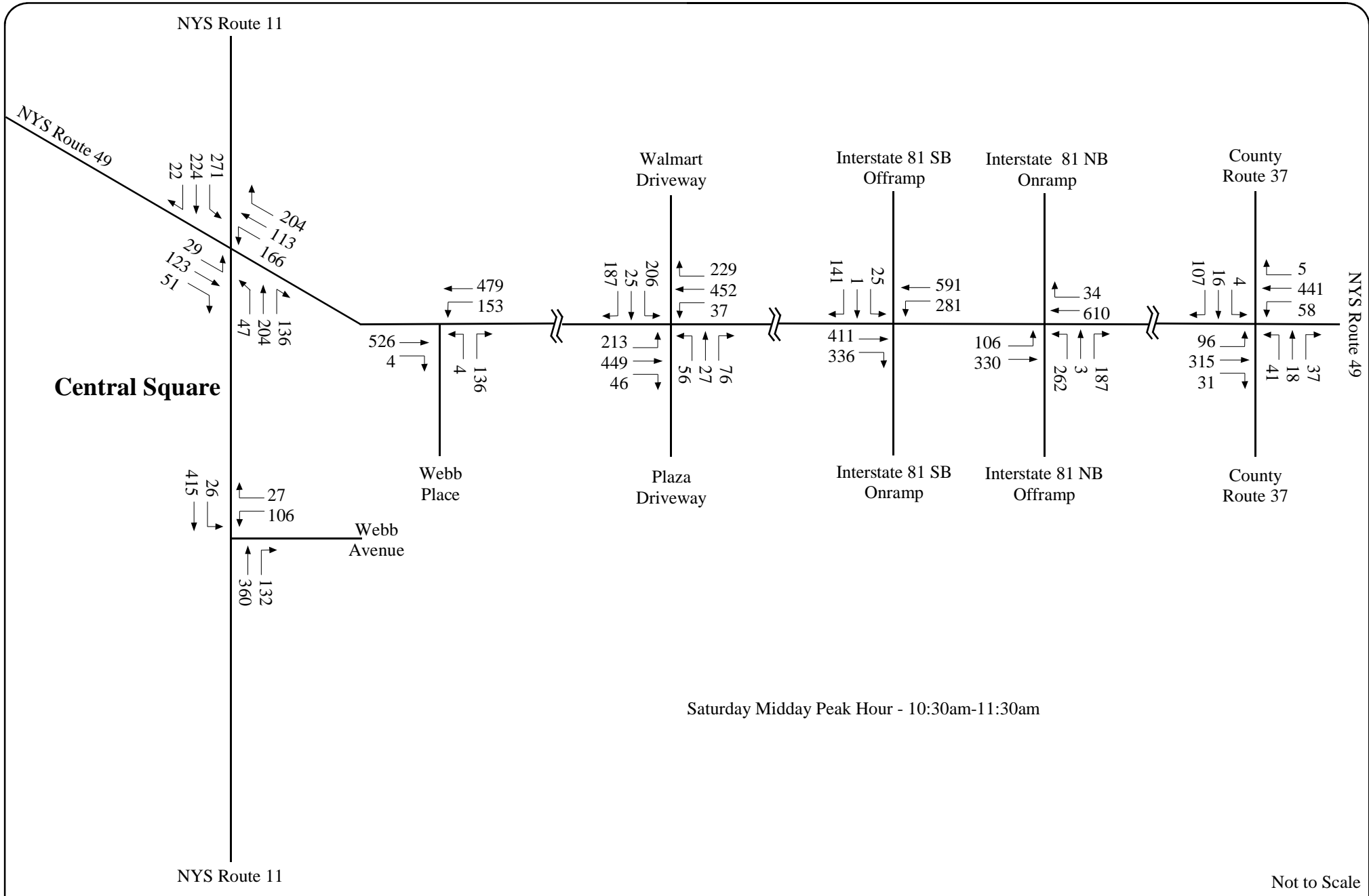
Proposed CNY Raceway Park - Town of Hastings, NY

2012 Existing Traffic Volumes - Southern Study Area - Seasonally Adjusted to July Volumes
 Saturday Midday Peak Hour



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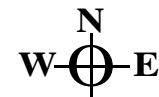
Figure 5A



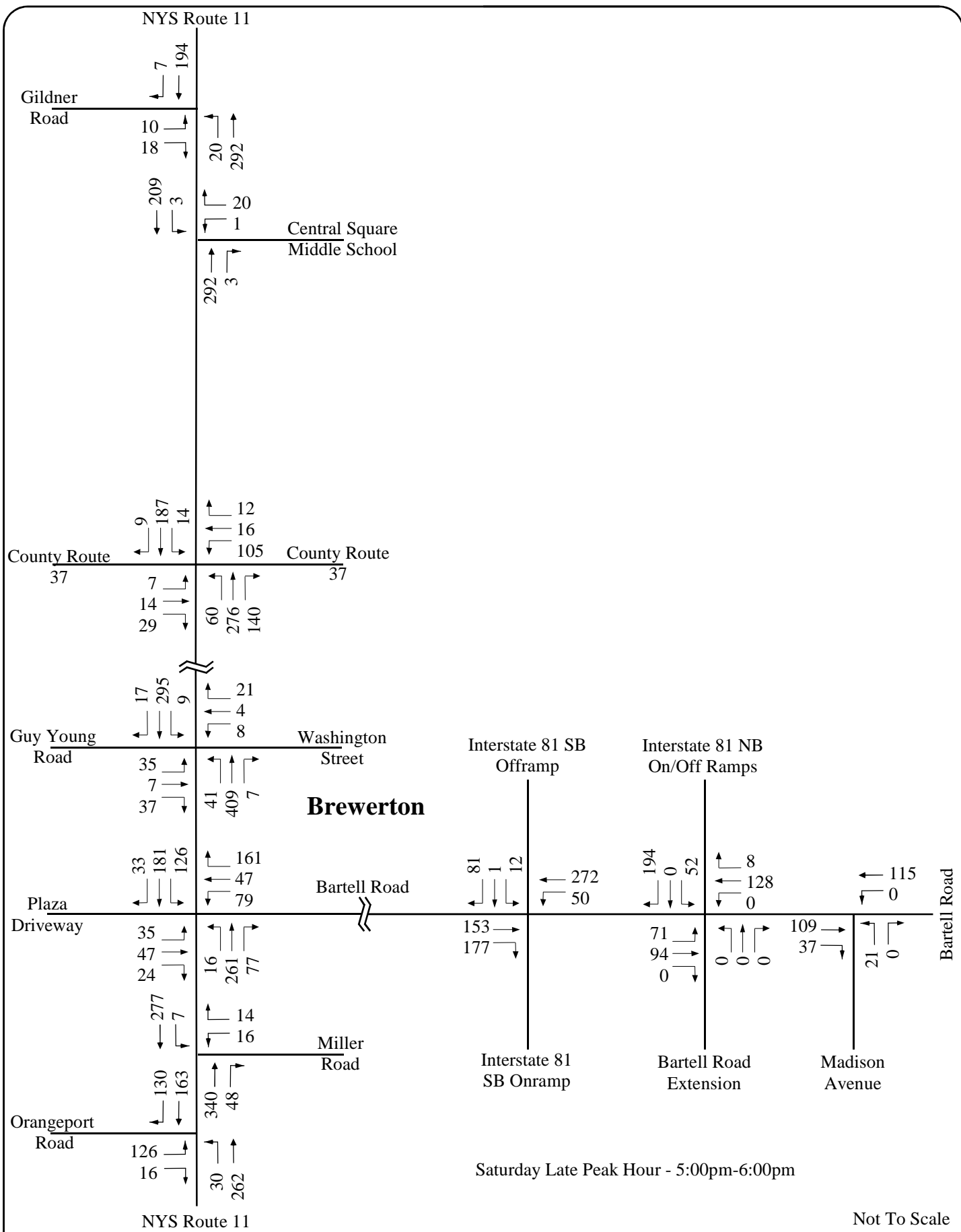
Proposed CNY Raceway Park - Town of Hastings, NY

2012 Existing Traffic Volumes - Northern Study Area - Seasonally Adjusted to July Volumes
 Saturday Midday Peak Hour

Figure 5B



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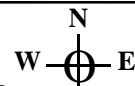


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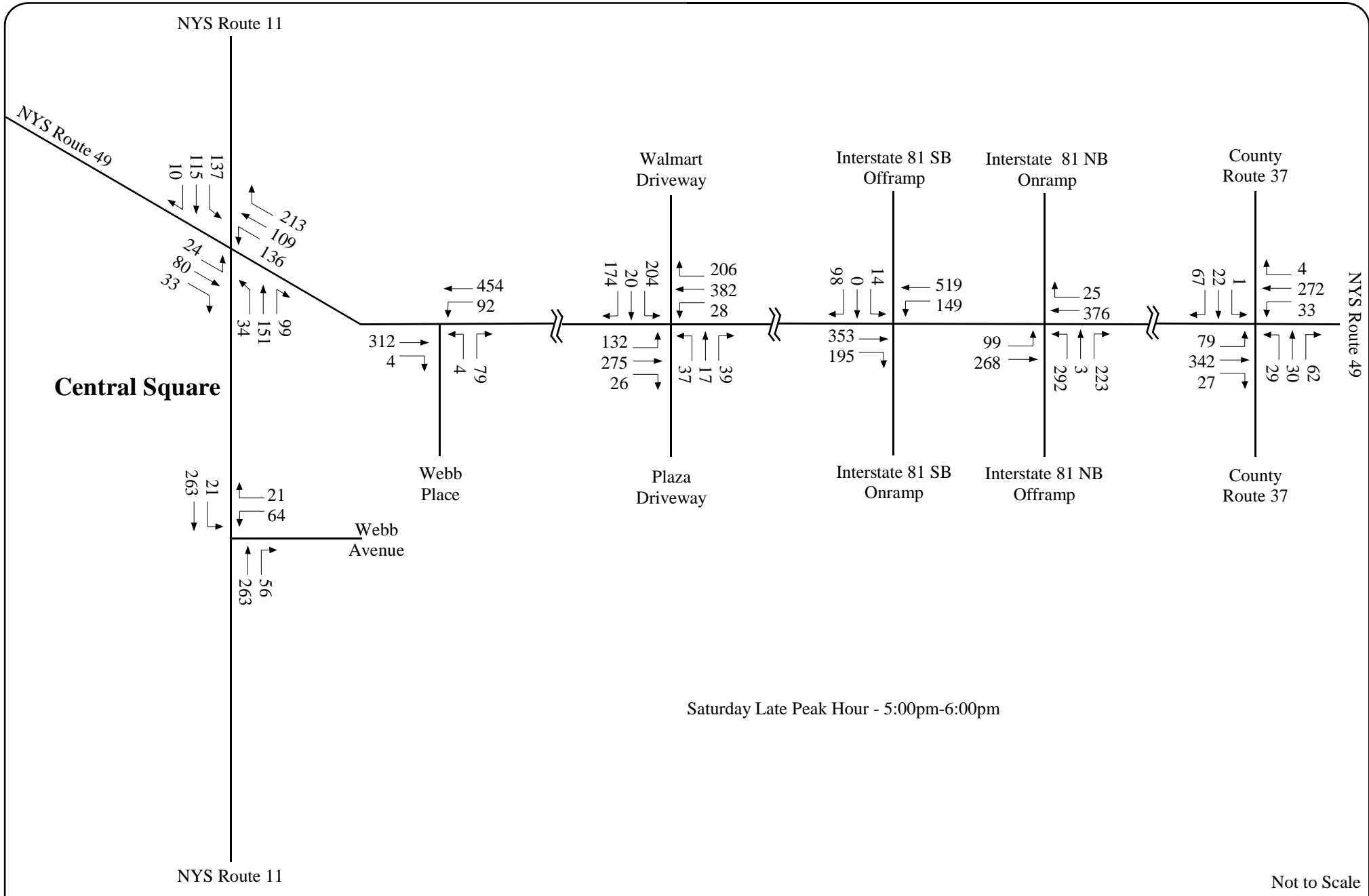
Proposed CNY Raceway Park - Town of Hastings, NY

2012 Existing Traffic Volumes - Southern Study Area - Seasonally Adjusted to July Volumes
 Saturday Late Peak Hour

Figure 6A



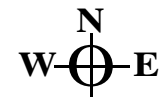
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Proposed CNY Raceway Park - Town of Hastings, NY

2012 Existing Traffic Volumes - Northern Study Area - Seasonally Adjusted to July Volumes
 Saturday Late Peak Hour

Figure 6B



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Background Traffic Growth Calculations

CNY Raceway Park - Town of Hastings, NY

2010 NYSDOT Traffic Data Report

Route 11 - Between Bartell Road and Oswego County Line

2010 (Est)	2006	2002	1997
13,520 veh	13,420 veh	13,010 veh	13,280 veh
+0.2% per year		+0.8% per year	
+0.5% per year		-0.4% per year	
+0.1% per year			

Route 11 - Between Oswego County Line and Route 49

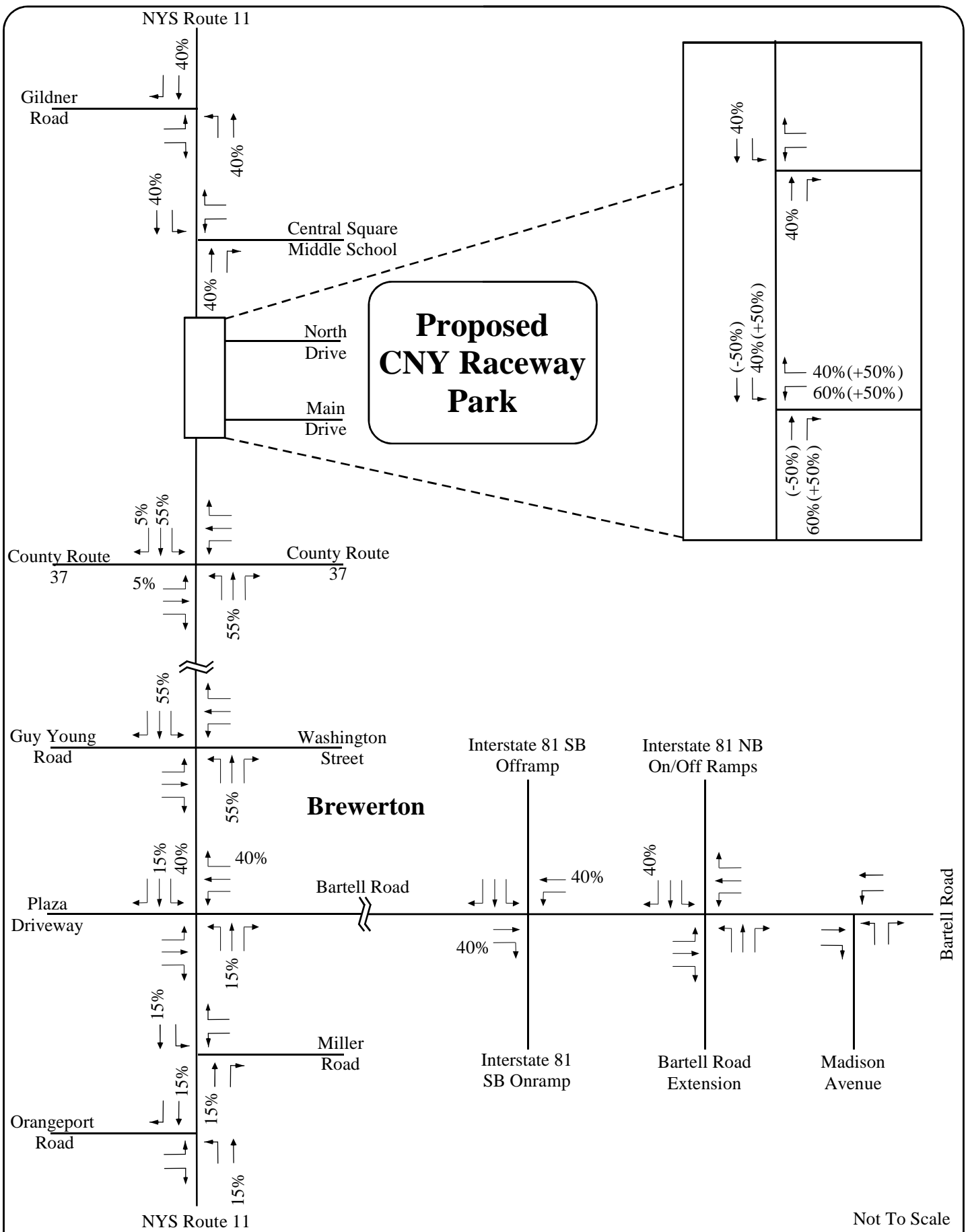
2010 (Est)	2008	2005	2002
7,210 veh	7,270 veh	8,720 veh	7,080 veh
-0.4% per year		-5.5% per year	
-3.5% per year		+7.7% per year	
+0.2% per year			

Route 49 - Between Route 11 and I-81 Access

2010	2007	2004	2001
12,310 veh	14,350 veh	11,150 veh	12,260 veh
-4.7% per year		+9.6% per year	
+1.7% per year		-3.0% per year	
+0.0% per year			

NYSDOT estimates assume negative or minimal growth in estimates

Assume +0.5% annual growth in traffic



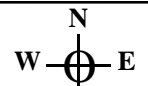
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Proposed CNY Raceway Park - Town of Hastings, NY

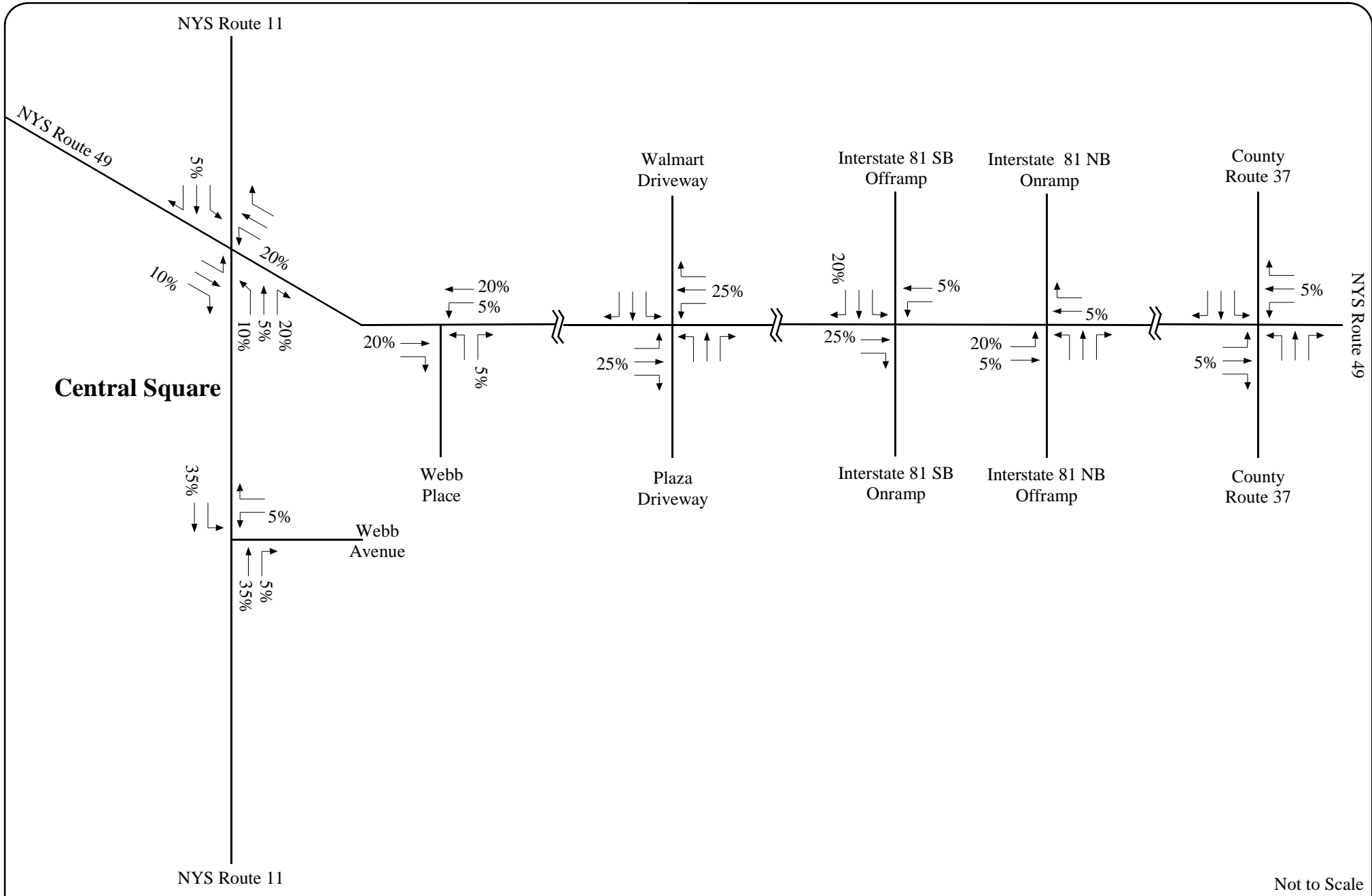
Arrival / Departure Distribution - Participation Events

New (Pass-by) Trip Percentage

Figure 7A



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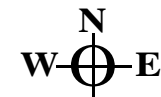


Proposed CNY Raceway Park - Town of Hastings, NY

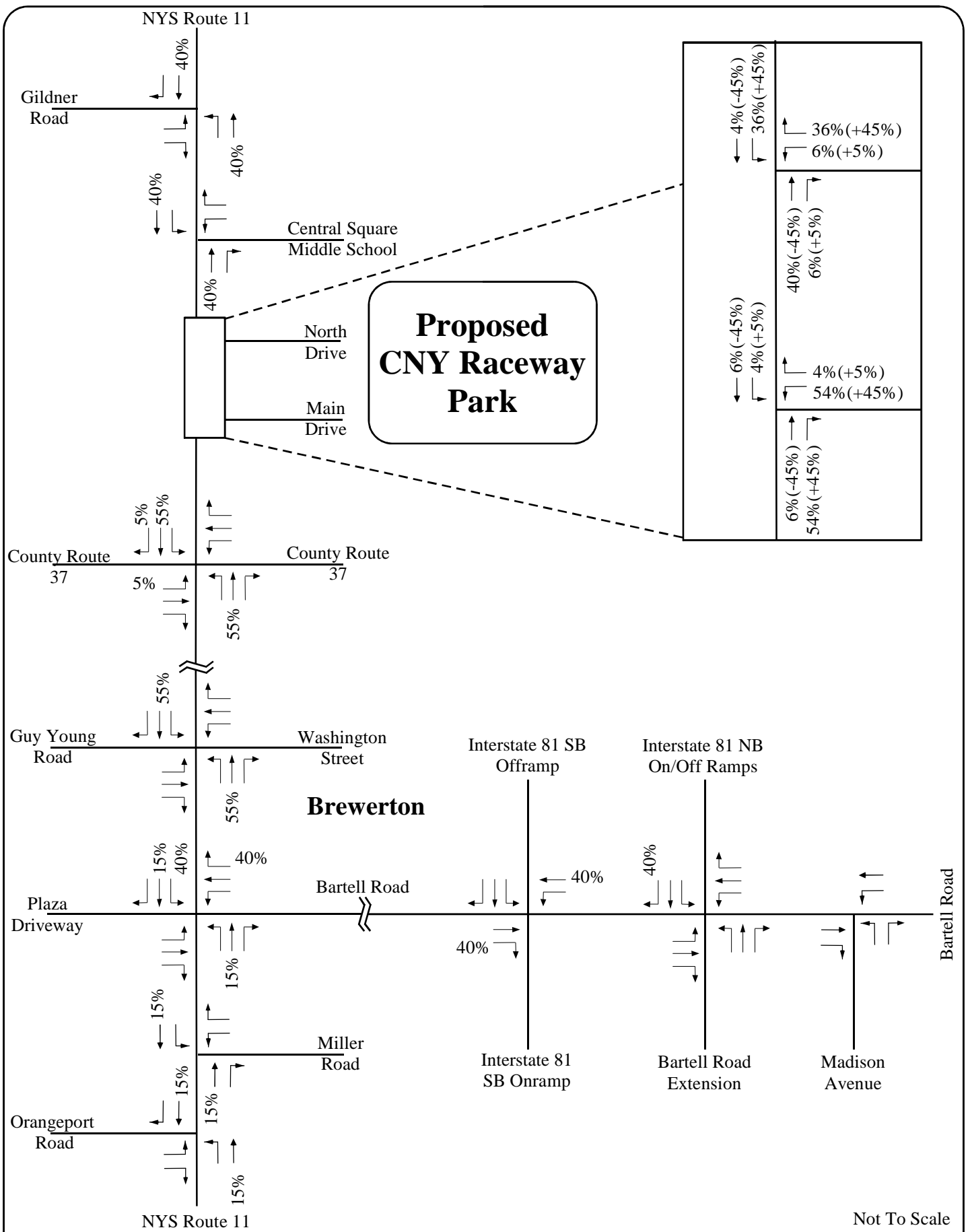
Arrival / Departure Distribution - Participation Events

New (Pass-by) Trip Percentage

Figure 7B



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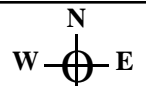


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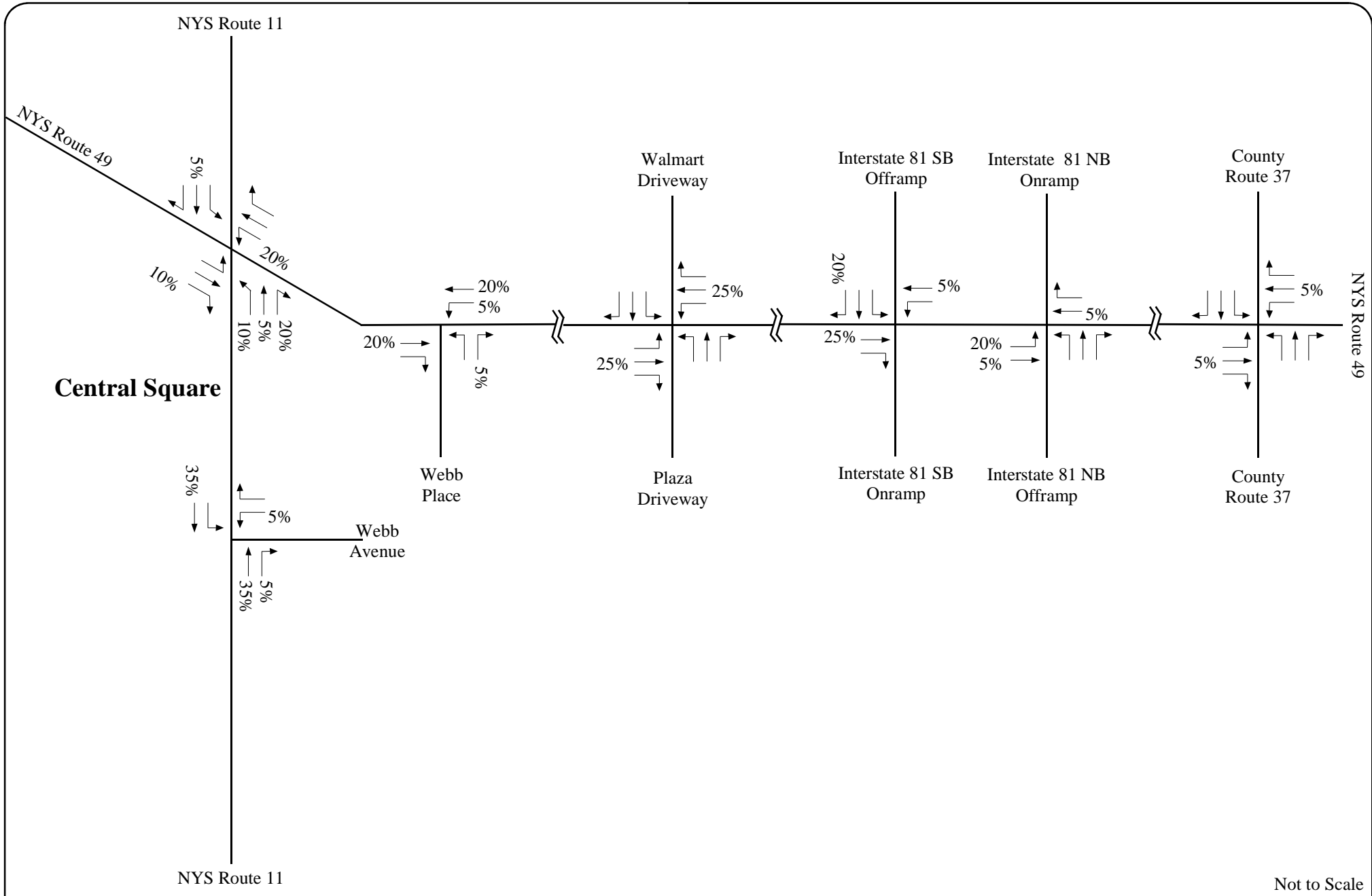
Proposed CNY Raceway Park - Town of Hastings, NY

Arrival / Departure Distribution - Large Events
 New (Pass-by) Trip Percentage

Figure 8A



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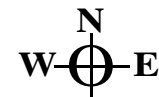


Proposed CNY Raceway Park - Town of Hastings, NY

Arrival / Departure Distribution - Large Events

New (Pass-by) Trip Percentage

Figure 8B



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