



In summary, the Gaming Facility will generate less peak hour traffic than the permitted de Laet's Landing project. Please see Exhibit VIII.C.17.d for a Traffic Assessment completed by the Applicant's engineer.

A few recommendations are suggested to enhance the overall transportation environment for the project including:

- Reconstruct the site driveway/access to provide for two entering and exiting lanes.
- Retime/optimize all the traffic signals along Broadway to adjust to the new traffic patterns associated with the Gaming Facility development.
- Based on market conditions, develop shuttle services aimed at transporting patrons between the Project site and the nearby Albany/Rensselaer Amtrak train station. Consider shuttle services for other transit hubs in the vicinity of the project site.
- Based on market conditions, coordinate with the Capital District Transit Authority (CDTA) to identify potential route changes that could bring a bus line into (or near) the development. Currently, the 114 Neighborhood Route (Madison/Washington) travels along Broadway near the site.
- Continue to work with the New York Department of Transportation and the City of Rensselaer to enhance and promote the use of the riverfront area as an asset for the site and the surrounding land uses.

For more details on potential roadway and traffic improvements, please see Section 3.8 of the FGEIS, as well as the Traffic Impact Study in Appendix H. Please also see VHB's traffic memorandum for an updated assessment of potential roadway and traffic improvements for the proposed project.

Attached to this exhibit, please find a traffic memo from VHB, which provides a recent assessment of recommended roadway and traffic improvements.



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Memorandum

To: NYS Funding LLC
c/ o Och-Ziff Real Estate
9 West 57th Street – 39th Floor
New York, NY 10019

Date: June 23, 2014

Project No.: 29266.00

From: Robert L. Nagi, PE
Principal, Transportation Planning &
Operations

Re: Potential Casino Development
Rensselaer, NY
Transportation Assessment

Vanasse Hangen Brustlin, Inc. (VHB) has prepared this technical memorandum to summarize our evaluation of the traffic impacts and potential off-site roadway infrastructure needs associated with the development of the Van Rensselaer Site on Broadway in Rensselaer, NY (the “Site”) as a resort casino project.

The purpose of this technical memorandum is to summarize the prior history of development proposals on this site and its impacts as they relate to the transportation environment, identify the transportation-related impacts associated with the currently proposed casino development, and outline any mitigation measures needed to address the project’s impacts on the surrounding roadway network.

PROJECT DESCRIPTION

The approximately 24-acre Site is located adjacent to the Hudson River along Broadway, just north of the Dunn Memorial Bridge (Routes 9 & 20). An Amtrak station/ rail yard abuts the site to the north. The site was formerly occupied by Rensselaer High School, which has been relocated. Currently, the site is undeveloped.

Prior plans for the Site included a mixed-use project referred to as the “Rensselaer Waterfront Redevelopment” project. This redevelopment project was originally presented back in 2008 and was proposed to include 165,000± sf retail space, 250,000± s.f. of office space, 515 residential units (low-rise and high-rise condominium townhouse units), and a 300 room hotel. Collectively in this document, this will be referred to as the “Mixed-Use Proposal”.

The current development proposal has been defined as a resort-style casino that includes a gaming area which can support up to 1,950 gaming positions (approx. 1,650 slot machines¹ and 50 table games, each with six seats), the potential for two restaurants, and a 100-room hotel. Approximately 1,500 parking spaces are anticipated to support the development which will be

¹ Note: the proposed development program will include 1,500 slot machines. For the purposes of this traffic evaluation, the total number of slot machines has been increased by 10% (1,650 total) and analyzed to provide some flexibility in the final number of gaming positions.

accommodated in a surface parking area with some additional off-site options. Collectively, this is referred to as the "Project".

SITE HISTORY

The Site was previously permitted for the mixed-use Rensselaer Waterfront Redevelopment through the New York State Environmental Quality Review (SEQR) process. In 2009, a Final Generic Environmental Impact Statement (FEIS) was filed and found complete. As noted previously, that project included the following elements:

- 165,000± sf retail space,
- 250,000± s.f. of office space,
- 515 residential units (low-rise and high-rise condominium townhouse units), and
- a 300 room hotel.

The transportation impacts of that development were identified through the SEQR process in the EIS submissions and through discussions with the City of Rensselaer and County. The focus of the EIS's transportation study² area concentrated on the following six primary intersections:

- Broadway/ Columbia Turnpike (Signalized)
- Broadway/ Third Avenue/ Route 9 & 20 On-Ramp (Signalized)
- Broadway/ Route 9 & 20 Off-Ramp (Signalized)
- Broadway/ Herrick Street (Unsignalized at time of FEIS filing)
- Broadway/ John Elvis Boulevard (Signalized)
- Broadway / Partition Street (Signalized)

Trip Generation

Trip generation estimates for the Mixed Use Proposal presented in the TIS utilized standard Institute of Transportation Engineers (ITE) Trip Generation methodology³. To account for potential market variability, the Mixed Use Proposal considered a potential increase of 30-percent, or 49,500 square feet, in retail space (and a corresponding reduction in office space) as an alternative development scenario. This development scenario generates higher daily and peak hour traffic volumes and was therefore used as the basis of the analysis.

By virtue of the mixed-use nature of the proposal, the study also considered the impacts of internal trip credits, mode share implications, and pass-by trips to develop total 'net-new' trips to the Site. The resulting gross trips and net new trips are summarized in Table 1 below. As shown, the Mixed Use Proposal was projected to generate approximately 828 weekday morning and 1,278 weekday evening new peak hour trips.

² Rensselaer Waterfront Redevelopment Final Generic Environmental Impact Statement (FEIS) Appendix H - Traffic Impact Study (TIS); SRF Associates; October 2008.

³ Institute of Transportation Engineers, Trip Generation, Seventh Edition, Washington DC.

Table 1: Previous Proposal Trip Generation Estimate

Condition	Gross Trips	Net New Trips
Daily^a	n/a	n/a
AM Peak Hour^b		
Enter	585	483
Exit	418	345
Total	1,003	828
PM Peak Hour^b		
Enter	829	581
Exit	988	697
Total	1,817	1,278

Source: Rensselaer Waterfront Redevelopment TIS

a vehicle trips / day

b vehicle trips per hour

Mitigation

To address project impacts, the Mixed Use Proposal committed to several mitigation measures⁴ aimed at addressing the traffic impacts associated with the overall project development. Since the publication and acceptance of the FEIS, the City of Rensselaer undertook an \$11 million reconstruction project focused on the Broadway Corridor. The project included an update and restoration effort focused on the Broadway Viaduct Bridge over the Amtrak rail lines. This upgrade included new curbing, sidewalks, bridge decks, drainage upgrades, improvements to pedestrian facilities, traffic signals, landscaping, waterlines, and the sanitary sewer. Many of the mitigation actions identified in the FEIS were addressed in this NYDOT and Division of Housing and Community Renewal-sponsored project.

In summary, the following mitigation measures were identified in the FEIS as being needed to support the Mixed-Use Development project:

- **Columbia Street /Broadway:** Signal timing adjustments/ optimization.
- **Third Avenue/Broadway:** Signal timing adjustments/ optimization
- **Route 9 & 20 Off-Ramp/Broadway:** Signal timing adjustments/ optimization
- **Herrick Street I Broadway:** Install a traffic signal. – *Completed as part of the Broadway Reconstruction*
- **Partition Street /Broadway:** Signal timing adjustments/ optimization
- **Broadway/New Broadway:** Reconfigure intersection and add turning lanes – *Completed as part of the Broadway Reconstruction.*

With the majority of the Broadway Corridor having already been upgraded, many of the remaining efforts (signal timing adjustments and optimization) will still be required. Figure 1 notes where the project is in relation to the surrounding roadway network.

⁴ Rensselaer Waterfront Redevelopment Final Generic Environmental Impact Statement (FEIS) Findings Statement, 2009.

CURRENT DEVELOPMENT PROPOSAL

As discussed above, the current Project envisions a resort style casino that includes a gaming area, several restaurants, and a hotel. In addition, approximately 1,500 on-site parking spaces would be provided in a garage and/ or surface lots. A site plan is attached elsewhere in this submission.

Access to the site will be provided via a single driveway located along Broadway (at its intersection with the viaduct bridge) and will be designed to accommodate the various access needs of the public roadway system and site development.

Existing Traffic Volumes

For this development proposal, manual turning movement counts were conducted at the six study area intersections noted previously on weekday evenings to identify if any changes to the underlying assumption contained in the 2008 EIS. VHB collected traffic volume data in June 2014 at the six study area intersections to coincide with the critical analysis periods discussed below. The data was collected on a Thursday from 4:00 to 6:00 PM and on a Friday from 5:00 to 7:00 PM. The traffic count data is included as an attachment to this memorandum.

A review of the 2014 data indicates that traffic volumes have not grown since the 2007 data collection effort to support the Mixed Use Proposal. In fact, the total entering volumes at all six study area intersections have grown by virtually nothing (0.0-percent) from 2007 to 2014 in the weekday evening peak hour. Friday traffic volume are approximately 15-percent lower than collected 2007 weekday evening peak hour volumes. Based on the traffic counts conducted, the peak hour for the Broadway corridor runs from about 4:45 to 5:45 pm.

Moreover, both the weekday evening and Friday peak hour observed traffic patterns are consistent with data collected in 2007 (i.e. no one movement saw significant growth while another movement declined). Based on this finding, the prior 2007 analysis conducted and presented in the traffic study portion of the prior EIS remains consistent with current 2014 observations.

Selection of Analysis Peak Hour

As part of this analysis, VHB researched several casino-related traffic reports that were provided as “similar in nature” to the Project under consideration. Similarly, VHB also utilized previous research efforts that were conducted for other Resort-style casino developments in the Northeast. Almost all of the reports concluded that the Saturday peak hour is the largest generator of traffic for casino-based projects. However, they also identified the weekday evening peak hour as the typical critical analysis peak (the combination of commuter traffic and casino-based traffic is at its highest point during these times). In observing traffic conditions throughout the Project’s study area, VHB has concluded that the weekday evening peak hour condition should be considered the “design” condition for the Project, although the Saturday peak hour will also present some challenges associated with different traffic patterns and will ultimately need to be studied in more depth, if needed.

Trip Generation

A critical component of the preliminary analysis is defining how much traffic could potentially be generated by the Project. Identifying the volume of daily and peak hour volume will help to define the scope and magnitude of traffic improvements needed to support the project’s access needs and define the study area that will ultimately need to be considered for the project.

Trip-generating characteristics for proposed developments are typically determined based on trip generation rates published by the Institute of Transportation Engineers (ITE) in Trip Generation⁵. A review of the ITE manual indicated that it includes Casino/ Video Lottery Establishment (Land Use Code [LUC] 473) as one of the land uses in its database.

However, a close review of the data points in the ITE manual indicated that the trip rates for the land use are based on survey of establishments ranging from 600 sf to 2,400 sf that was conducted in South Dakota in the 1990's. The manual described the land use as comprising of establishments that provide electronic or manually controlled slot machines, and that they do not represent full services casinos or casino/ hotel facilities. Based on the information reviewed, VHB determined that ITE LUC 473 is 'helpful' in defining the traffic impacts of a project of this magnitude, but is ultimately not an appropriate land use code for estimating the trip generation for the Project.

Therefore, in lieu of using ITE rates, VHB obtained empirical trip generation data which is based on actual traffic counts conducted at existing casino sites in the United States. In addition, VHB has a database of publically available information from other casino projects across the country⁶, each with its own unique description and characteristics and surrounding demographics. It should be noted that each of the studies that were obtained on-line relied on data collected at several existing casinos of various types and configurations and not the ITE data.

Not surprisingly, developments of this type rely on an integrated combination of land uses to bring together the experience for their patrons. While the casino and gaming floor is the main 'attraction' of the development, the other land uses on the site all play a role in creating a positive experience for the visitors to the site. For example, it is expected that the restaurant uses and hotel on the site will primarily be used by visitors to the casino. That's not to suggest that someone could come to the restaurant and not go to the gaming floor, but it's unlikely that this would be the majority of the visitors.

It is VHB's opinion that the information below provides for a reasonable approximation for the basis for the preparation of this analysis. Should the specific tenant provide any additional information at a later date that would suggest that the trip rates are different from VHB's estimates; the analysis could be revised to reflect the new data. That said, VHB believes that these trip estimates are conservatively high for a project of this magnitude.

Table 2 below shows the peak hour trip generation estimates for the Project. A tabulation of trip rates from record documents reviewed for the preparation of this analysis is included in the attachment to this memorandum.

⁵ Institute of Transportation Engineers, Trip Generation, Eighth Edition, Washington DC.

⁶ Traffic Impact & Access Study, Hard Rock Racino at Northfield Park, provided by the Client via an e-mail dated 5/ 19/ 2014

Table 2: Trip Generation Estimate *

Condition	Average Thursday	Average Friday	Average Saturday
Daily^a			
Enter	6,450	9,800	10,000
Exit	<u>6,450</u>	<u>9,800</u>	<u>10,000</u>
Total	12,900	19,600	20,000
AM Peak Hour^b			
Enter	175	305	210
Exit	<u>65</u>	<u>120</u>	<u>80</u>
Total	240	425	290
PM Peak Hour^c			
Enter	405	555	520
Exit	<u>375</u>	<u>515</u>	<u>480</u>
Total	780	1,070	1,000
Site Peak Hour^d			
Enter	445	785	740
Exit	<u>415</u>	<u>730</u>	<u>685</u>
Total	860	1,515	1,425

- a customer vehicle trips / day
- b customer vehicle trips per hour, from 8 AM - 9 AM
- c customer vehicle trips per hour (5 PM - 6 PM on Thursday and Friday; 2 PM - 3 PM on Saturday)
- d customer vehicle trips per hour, from 9 PM - 10 PM

As indicated in Table 2, the Project analyzed included 1,950 gaming positions⁷, restaurant space, and a hotel of up to 100 rooms would be expected to result in a Saturday peak hour trip generation of approximately 1,425 vehicles per hour. On the critical weekday evening peak hour, the estimate is 1,070 vehicle trips. As noted, the weekday evening peak hour will serve as the basis for this preliminary assessment.

Comparison to the Mixed-Use Project

One important factor in evaluating the readiness of the site and the surrounding roadway network to support this development is to compare the previously approved Mixed Use Project (which received SEQR approval) with the proposed Project.

During the critical weekday evening peak hour, the Project is expected to generate approximately **16-percent fewer trips** than the Previous Mixed-Use Proposal. It should be noted that the Project trip generation estimates for the Casino Project do not take any internal and/ or pass-by trip credits.

⁷ Note: the proposed development program will include 1,500 slot machines. For the purposes of this traffic evaluation, the total number of slot machines has been increased by 10% (1,650 total) and analyzed to provide some flexibility in the final number of gaming positions.

Further, the Site is located adjacent to an active Amtrak train station. It is likely that the Project trip generation estimates presented above could be reduced to account for transit mode choice among casino visitors and/ or employees.

Trip Distribution

The directional distribution of site-generated traffic approaching and departing the Site is a function of population densities, existing travel patterns, competing opportunities, and the efficiency of the existing roadway system to carry the new traffic. In the case of projects such as casinos, the trip distribution analysis is typically based on detailed market studies. While VHB did not have access to the specific market studies that may have been prepared for the Project, a potential trip distribution pattern for the regional highway system serving the Site was developed based on the population densities surrounding the facility and known travel routes. This distribution is summarized in Table 3 below and shown graphically in Figure 2.

Table 3: Regional Trip Distribution Summary

Direction From *	Roadway	% of Site Traffic
Northeast	Broadway	20%
East/Southeast	Third Street	5%
East/South East	Columbia Turnpike	5%
West	Route 9 and 20 EB	70%
TOTAL		100 %

* Return trip assumed to be the reverse of the arrival route

As shown in Table 3, the trip distribution estimates suggests that 70-percent of the Project-related traffic will arrive using a portion of the interstate highway system to Route 9 and 20 eastbound. The remaining 30-percent of the Project-related traffic will arrive and depart from the region using Broadway, Third St, or Columbia Turnpike.

Assigning the projected site-generated traffic volumes from Table 2 to the roadway system results in an “order-of-magnitude” level of impact on the nearby study area intersections and roadway links. Table 4 shows the overall weekday and Friday evening peak hour estimates of vehicular traffic on these roadways.

Table 4: Project Related New Traffic by Direction

Direction From *	Roadway	Thursday PM Peak	Friday PM Peak
Northeast	Broadway	155	210
East/Southeast	Third Street	40	55
East/South East	Columbia Turnpike	40	55
West	Route 9 and 20 EB	545	750
TOTAL		780	1,070

* Return trip assumed to be the reverse of the arrival route

Of note, is that the Dunn Memorial Bridge will see approximately 545 new peak hour Thursday evening trips and 750 new Friday evening Project-related trips.

Analysis Results

Using the updated traffic counts as a basis for analysis, VHB prepared updated traffic capacity analyses for the corridor’s six study area intersections. The results of that updated analysis are provided below in Table 5:

Table 5 / Intersection Capacity Analysis Summary

Location	Movement	2014 Build Condition				
		v/c ¹	Delay ²	LOS ³	Q50 ⁴	Q95 ⁵
Columbia Street at Broadway	EB-LT	0.16	6	A	8	22
	EB-TH	0.72	10	B	210	274
	EB-RT	0.02	4	A	0	5
	WB-LT	0.04	5	A	1	4
	WB-TH	0.40	7	A	85	114
	WB-RT	0.05	5	A	1	12
	NB-LT	0.31	26	C	25	65
	NB-TH-RT	0.08	27	C	6	31
	SB-LT	0.46	27	C	37	89
	SB-TH-RT	0.06	26	C	5	26
Overall	0.67	10	A			
Third Avenue at Broadway and Route 9/20 On-Ramp	WB-LT-TH	0.60	14	B	54	90
	WB-RT	0.05	11	B	0	19
	NB-LT-TH- RT	0.19	6	A	14	37
	SB-LT-TH	1.03	56	E	~163	#307
	SB-RT	0.75	15	B	87	#247
	Overall	0.88	26	C		
Route 9/20 Off-Ramp at Broadway	EB-LT	0.93	35	C	216	#411
	EB-RT	0.60	15	B	93	177
	NB-TH	0.25	12	B	44	83
	SB-TH	1.05	62	E	~342	#534
	Overall	0.99	39	D		
Herrick Street at Broadway	WB-LT-RT	0.56	24	C	64	109
	NB-TH-RT	0.72	11	B	161	#437
	SB-LT	0.06	4	A	1	m9
	SB-TH	0.47	7	A	122	207
	Overall	0.68	11	B		
John Elvis Blvd at Broadway	EB-LT	0.34	24	C	27	59
	EB-RT	0.18	11	B	0	34
	NB-LT	0.71	20	B	114	#215
	NB-TH	0.21	4	A	66	55
	SB-TH	0.28	14	B	48	90
	SB-RT	0.05	12	B	0	23
	Overall	0.44	13	B		
Partition Street at Broadway	WB-LT-RT	0.47	36	D	37	82
	NB-TH-RT	0.26	3	A	38	84
	SB-LT-TH	0.16	3	A	22	51
	Overall	0.29	9	A		

Source: VHB, Inc. using Synchro 7 (Build 773, Rev 8) software.
 Note: Shaded cells denote LOS E/F conditions.
 1 volume to capacity ratio
 2 average delay in seconds per vehicle
 3 level of service
 4 50th Percentile Queue
 5 95th Percentile Queue
 # 95th Percentile volume exceeds capacity, queue may be longer

As illustrated in Table 5, the 2014 traffic conditions, with the Casino-related traffic overlaid on it, indicate that all intersections are operating at Level-of-Service D or better and that virtually all movements and approaches throughout the study area are currently operating at acceptable Level-of-Service D or better conditions during the weekday evening peak hour.

SUMMARY AND RECOMMENDATIONS

This technical memorandum has been prepared to identify and support the concept of a Casino development within the City of Rensselaer to be located off of Broadway near the Broadway Viaduct and Amtrak rail yards.

The previously reviewed and approved Mixed-Use development at the site went through a full environmental review as part of the SEQR process and was ultimately approved for development. The currently proposed Casino-project would generate approximately 15-percent less peak hour traffic during the peak hour conditions.

The Proponent of the Casino development should continue to carry forward the same mitigation commitment for the development as was proposed with the prior project so as to address any outstanding mitigation actions required to support the project. Additionally, a few recommendations are suggested to enhance the specific transportation environment associated with the Casino development:

- Reconstruct the site driveway/ access to provide for two entering and exiting lanes. This will require minor widening of the driveway approach to provide the full four lane cross-section and minor modifications to the Broadway northbound approach (which has been contemplated in the design of the intersection).
- Retime/ optimize all the traffic signals along Broadway to adjust to the new traffic patterns associated with the Casino development. Continue to monitor and adjust these timings, as needed, following the initial occupancy of the development to provide for continued coordination and optimal traffic flow.
- Develop shuttle services aimed at transporting patrons between the Project site and the nearby Albany/ Rensselaer Amtrak train station. Consider shuttle services for other transit hubs in the vicinity of the project site.
- Identify off-site parking opportunities for support staff and employees to remotely park and ride to the project site.
- Coordinate with the Capital District Transit Authority (CDTA) to identify potential route changes that could bring a bus line into (or near) the development. Currently, the 114 Neighborhood Route (Madison/ Washington) travels along Broadway near the site.
- Continue to work with the New York Department of Transportation and the City of Rensselaer to enhance and promote the use of the riverfront area as an asset for the site and the surrounding land uses.

With these physical improvements in place, along with the operational changes suggested, the transportation infrastructure supporting the project will be able to safely and efficiently accommodate the resulting traffic impacts of the Casino project.

ATTACHMENTS

- Trip Distribution Calculations
- 2014 Traffic Volume Data
 - Weekday Evening
 - Friday Evening
- Synchro Results

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Trip Distribution

City/Town	County	State	Radius from Site (miles)	Population	Factor	Factored Population	Columbia Turnpike Via Route 9 to Route 20	Columbia Turnpike Via I-90 WB to Route 20	Third Street to I-90 WB to Third Street	Route 9 and 20 via I-90 EB to I-787 SB	Route 9 and 20 via I-47 SB to I-787 SB	Route 9 and 20 via I-84 EB to I-87 NB to I-787 NB	Brookside via I-47 SB to I-90 EB	Route 9 and 20 via I-84 EB to I-87 NB to I-787 NB	Route 7 WB (NY) to I-787 SB
CONNAN	CT	CT	50	1,234	0.5	617		40%	20%						
COVENTRY	CT	CT	50	1,709	0.5	854.5		40%	20%						
NORTH CANAAN	CT	CT	50	3,315	0.5	1,657.5		40%	20%						
SALISBURY	MA	MA	50	3,741	0.5	1,870.5		40%	20%						
ADAMS	MA	MA	50	8,485	0.5	4,242.5		40%	20%						
ALFORD	MA	MA	50	494	0.5	247		40%	20%						
ASHFIELD	MA	MA	50	1,737	0.5	868.5		40%	20%						
BECKET	MA	MA	50	1,729	0.5	864.5		40%	20%						
BLANDFORD	MA	MA	50	1,729	0.5	864.5		40%	20%						
BUCKLAND	MA	MA	50	1,653	0.5	826.5		40%	20%						
CHARLEWONT	MA	MA	50	1,653	0.5	826.5		40%	20%						
CHESHIRE	MA	MA	50	3,335	0.5	1,667.5		40%	20%						
CHESTER	MA	MA	50	1,337	0.5	668.5		40%	20%						
CHESTERFIELD	MA	MA	50	1,337	0.5	668.5		40%	20%						
CLARKSBURG	MA	MA	50	1,702	0.5	851		40%	20%						
COLMAN	MA	MA	50	1,671	0.5	835.5		40%	20%						
CUMMINGTON	MA	MA	50	872	0.5	436		40%	20%						
DALTON	MA	MA	50	6,756	0.5	3,378		40%	20%						
DALTON	MA	MA	50	1,225	0.5	612.5		40%	20%						
EGREMONT	MA	MA	50	732	0.5	376		40%	20%						
GOSHEN	MA	MA	50	1,054	0.5	527		40%	20%						
GREAT BRIDGE	MA	MA	50	717	1	717		40%	20%						
HANTOCK	MA	MA	25	337	0.5	168.5		40%	20%						
HEATH	MA	MA	50	706	0.5	353		40%	20%						
HUNTINGTON	MA	MA	50	2,032	0.5	1,016		40%	20%						
HUNTINGTON	MA	MA	50	2,180	0.5	1,090		40%	20%						
LANESBOROUGH	MA	MA	25	3,091	1	3,091		40%	20%						
LEE	MA	MA	50	3,943	0.5	1,971.5		40%	20%						
LENOX	MA	MA	50	3,025	0.5	1,512.5		40%	20%						
MIDDLEFIELD	MA	MA	50	211	0.5	105.5		40%	20%						
MONROE	MA	MA	50	951	0.5	475.5		40%	20%						
MONTELEONE	MA	MA	50	1,671	0.5	835.5		40%	20%						
MOUNT WASHINGTON	MA	MA	25	228	1	228		40%	20%						
NEW ASHFORD	MA	MA	50	1,509	0.5	754.5		40%	20%						
NEW MARLBOROUGH	MA	MA	50	13,708	0.5	6,854		40%	20%						
NORTH ADAMS	MA	MA	50	1,612	0.5	806		40%	20%						
OTTIS	MA	MA	50	847	0.5	423.5		40%	20%						
PERU	MA	MA	25	44,737	1	44,737		40%	20%						
PITTSFIELD	MA	MA	150	648	0.5	324		40%	20%						
PLAINFIELD	MA	MA	25	1,475	1	1,475		40%	20%						
RICHMOND	MA	MA	50	393	0.5	196.5		40%	20%						
ROVER	MA	MA	50	915	0.5	457.5		40%	20%						
SANDSFIELD	MA	MA	50	692	0.5	346		40%	20%						
SHREFFIELD	MA	MA	50	3,257	0.5	1,628.5		40%	20%						
STOCKBRIDGE	MA	MA	50	1,987	0.5	993.5		40%	20%						
TOLLAND	MA	MA	50	485	0.5	242.5		40%	20%						
TYNGSHAM	MA	MA	50	327	0.5	163.5		40%	20%						
WASHINGTON	MA	MA	50	338	0.5	169		40%	20%						
WILLIAMSTOWN	MA	MA	25	3,308	0.5	1,654		40%	20%						
WINDSOR	MA	MA	50	749	0.5	374.5		40%	20%						
WORTHINGTON	MA	MA	150	869	0.5	434.5		40%	20%						
Albany	NY	NY	25	97,856	0.5	48,928		40%	20%						
Amsterdam	NY	NY	25	24,186	1	24,186		40%	20%						
Anconam	NY	NY	50	1,573	0.5	786.5		40%	20%						
Arville	NY	NY	50	3,782	0.5	1,891		40%	20%						
Ashland	NY	NY	50	784	0.5	392		40%	20%						
Athens	NY	NY	25	4,089	1	4,089		40%	20%						
Aueritz	NY	NY	25	1,654	1	1,654		40%	20%						
Balscon	NY	NY	25	9,776	1	9,776		40%	20%						
Benson	NY	NY	25	192	0.5	96		40%	20%						
Berlin	NY	NY	25	1,880	1	1,880		40%	20%						
Berne	NY	NY	25	2,794	1	2,794		40%	20%						
Blithen	NY	NY	25	33,656	1	33,656		40%	20%						
Broeder	NY	NY	50	533	0.5	266.5		40%	20%						
Brookfield	NY	NY	50	377	0.5	188.5		40%	20%						
Brookshill	NY	NY	50	5,280	0.5	2,640		40%	20%						
Bronze	NY	NY	150	973	0.5	486.5		40%	20%						

City/Town	County	State	Radius from Site (miles)	Population	Factor	Factor ²	Estimated Population	Columbia Turnpike Via Route 9 to Route 20	Route 9 and 20 via I-90 WB to I-190 SB	Route 9 and 20 via I-90 EB to I-190 SB	Third Street via I-90 WB to Third Street	Route 9 and 20 via I-90 EB to I-190 SB	Brookway via I-90 EB to Brookway	Route 9 and 20 via I-87 NB to I-190 SB	Route 9 and 20 via I-87 SB to I-190 SB	Route 9 and 20 via I-87 NB to I-190 SB	Route 9 and 20 via I-87 SB to I-190 SB
Brunswick	Rensselaer	NY	25	11,941	1	1	13,941										
Cairo	Greene	NY	25	6,670	1	1	6,670										
Chambridge	Washington	NY	25	2,021	1	1	2,021										
Chatham	Columbia	NY	25	17,100	1	1	17,100	75%									
Chenango	Montgomery	NY	25	3,730	0.5	0.25	2,865										
Chloride	Schoharie	NY	25	1,948	0.5	0.25	974										
Cleaves	Greene	NY	25	1,205	0.5	0.25	602.5										
Cockkill	Greene	NY	25	1,775	0.5	0.25	887.5										
Chateaufort	Montgomery	NY	25	4,138	0.5	0.25	1,034.5										
Chatham	Saratoga	NY	25	4,138	0.5	0.25	1,034.5										
Cherry Valley	Chenango	NY	25	1,223	0.5	0.25	305.75										
Claverack	Columbia	NY	25	6,021	0.5	0.25	1,505.25										
Clawson	Columbia	NY	25	1,965	0.5	0.25	491.25										
Clinton Park	Saratoga	NY	25	36,705	1	1	36,705	75%									
Clinton	Dutchess	NY	25	4,132	0.5	0.25	1,033										
Cobleskill	Schoharie	NY	25	6,625	0.5	0.25	1,656.25										
Colbath	Albany	NY	25	7,418	1	1	7,418										
Colts	Albany	NY	25	16,168	1	1	16,168										
Conestoga	Schoharie	NY	25	8,159	1	1	8,159										
Cornwall	Columbia	NY	25	734	0.5	0.25	367										
Copake	Columbia	NY	25	3,615	0.5	0.25	903.75										
Cornwall	Saratoga	NY	25	6,531	0.5	0.25	1,632.75										
Coxsack	Greene	NY	25	8,918	1	1	8,918										
Croft	Saratoga	NY	25	856	0.5	0.25	214										
Deer Park	Ontario	NY	25	353	0.5	0.25	88.25										
Delmar	Schenectady	NY	25	6,122	1	1	6,122										
Delmar	Greene	NY	25	2,725	1	1	2,725										
East Greenbush	Westchester	NY	25	16,473	1	1	16,473										
Easton	Saratoga	NY	25	2,336	0.5	0.25	584										
Edinburg	Albany	NY	25	1,624	0.5	0.25	406										
Edinburg	Albany	NY	25	2,016	0.5	0.25	504										
Essex	Montgomery	NY	25	2,666	0.5	0.25	666.5										
Florida	Washington	NY	25	6,371	0.5	0.25	1,592.75										
Fort Edward	Washington	NY	25	1,442	0.5	0.25	360.5										
Fulton	Schoharie	NY	25	1,668	0.5	0.25	417										
Gallatin	Columbia	NY	25	3,545	0.5	0.25	886.25										
Galway	Saratoga	NY	25	1,954	0.5	0.25	488.5										
Germanatown	Columbia	NY	25	5,402	1	1	5,402										
Ghent	Columbia	NY	25	1,307	0.5	0.25	326.75										
Gilboa	Schoharie	NY	25	2,507	0.5	0.25	626.75										
Glen	Montgomery	NY	25	14,700	0.5	0.25	3,675										
Glen Falls	Warren	NY	25	25,480	1	1	25,480										
Glenville	Schenectady	NY	25	15,665	0.5	0.25	3,916.25										
Greenville	Fulton	NY	25	2,130	1	1	2,130										
Greenville	Rensselaer	NY	25	2,690	1	1	2,690										
Greenville	Saratoga	NY	25	7,775	0.5	0.25	1,943.75										
Greenville	Greene	NY	25	4,165	1	1	4,165										
Greenville	Washington	NY	25	2,759	1	1	2,759										
Greenville	Greene	NY	25	3,942	0.5	0.25	985.5										
Hadley	Saratoga	NY	25	258	0.5	0.25	64.5										
Halcott	Greene	NY	25	21,535	1	1	21,535										
Halfmoon	Saratoga	NY	25	1,577	0.5	0.25	394.25										
Harpersfield	Delaware	NY	25	1,833	0.5	0.25	458.25										
Hebron	Washington	NY	25	1,927	0.5	0.25	481.75										
Hillside	Columbia	NY	25	963.5	0.5	0.25	240.875										
Hopkirk	Rensselaer	NY	25	6,924	1	1	6,924										
Hope	Hamilton	NY	25	403	0.5	0.25	100.75										
Hudson	Columbia	NY	25	6,713	0.5	0.25	1,678.25										
Hunter	Greene	NY	25	2,732	0.5	0.25	683										
Hunter	Greene	NY	25	6,314	0.5	0.25	1,578.5										
Hurley	Ulster	NY	25	1,800	0.5	0.25	450										
Jackson	Washington	NY	25	1,410	0.5	0.25	352.5										
Jefferson	Schoharie	NY	25	953	0.5	0.25	238.25										
Jewett	Greene	NY	25	8,743	0.5	0.25	2,185.75										
Johnstown	Fulton	NY	25	7,098	0.5	0.25	1,774.5										
Johnstown	Fulton	NY	25	8,498	1	1	8,498										
Keenok	Columbia	NY	25	6,498	1	1	6,498										
Keenok	Columbia	NY	25	12,671	0.5	0.25	3,167.75										

City/Town	County	State	Radius from Site (miles)	Population	Factor	Recorded Population	Columbia Turnpike via Route 9 to Route 20	Columbia Turnpike via I-90 WB to Route 20 WB	Third Street via I-90 WB to Third Street	Route 9 and 20 via I-90 EB to I-787 SB	Brookway via I-90 EB to Brookway	Route 9 and 20 via I-47 NB to I-787 SB	Route 9 and 20 via I-47 NB to I-787 SB	Brookway via I-47 SB to I-90 EB	Route 9 and 20 via I-44 EB to I-47 NB	Route 9 and 20 via I-787 NB	Route 9 and 20 via I-47 NB to I-787 SB	Route 9 and 20 via I-47 NB to I-787 SB	
Xington	Ulster	NY	50	23,893	0.5	119,465													
Kingston	Ulster	NY	50	889	0.5	444.5													
Knox	Albany	NY	25	2,692	1	2,692													
Lake Luzerne	Warren	NY	50	3,347	0.5	1,673.5													
Livingston	Greene	NY	50	805	0.5	402.5													
Malone	Columbia	NY	50	3,646	0.5	1,823													
Malone	Madison	NY	25	14,785	1	14,785													
Malone	Madison	NY	25	6,495	0.5	3,247.5													
Mechanicville	Montgomery	NY	25	5,196	1	5,196													
Mechanicville	Schoharie	NY	25	3,746	1	3,746													
Middleburgh	Dutchess	NY	50	7,750	0.5	3,875													
Middleburgh	Dutchess	NY	50	15,570	0.5	7,785													
Milton	Saratoga	NY	50	4,127	0.5	2,063.5													
Milton	Montgomery	NY	50	18,570	0.5	9,285													
Mindon	Montgomery	NY	50	4,127	0.5	2,063.5													
Mohawk	Montgomery	NY	50	3,844	0.5	1,922													
Mohawk	Saratoga	NY	50	14,728	0.5	7,364													
Nassau	Rensselaer	NY	25	4,789	1	4,789													
New Baltimore	Greene	NY	25	3,370	1	3,370													
New Lebanon	Columbia	NY	25	2,305	1	2,305													
New Scotland	Albany	NY	25	8,648	1	8,648													
North Greenbush	Schenectady	NY	25	21,781	1	21,781													
Northampton	Rensselaer	NY	25	12,075	1	12,075													
Northampton	Rensselaer	NY	25	2,670	0.5	1,335													
Northampton	Fulton	NY	50	5,087	0.5	2,543.5													
Northampton	Fulton	NY	50	3,031	0.5	1,515.5													
Northampton	Ulster	NY	50	4,419	0.5	2,209.5													
Northampton	Ulster	NY	50	3,240	0.5	1,620													
Northampton	Ulster	NY	50	1,925	1	1,925													
Northampton	Ulster	NY	50	2,473	0.5	1,236.5													
Northampton	Ulster	NY	50	3,755	1	3,755													
Northampton	Ulster	NY	50	4,580	1	4,580													
Northampton	Ulster	NY	50	2,115	0.5	1,057.5													
Northampton	Ulster	NY	50	1,995	0.5	997.5													
Northampton	Ulster	NY	50	27,903	0.5	13,951.5													
Northampton	Ulster	NY	50	11,319	0.5	5,659.5													
Northampton	Ulster	NY	25	9,392	1	9,392													
Northampton	Ulster	NY	25	1,843	1	1,843													
Northampton	Ulster	NY	50	7,548	0.5	3,774													
Northampton	Ulster	NY	50	2,610	0.5	1,305													
Northampton	Ulster	NY	50	1,715	0.5	857.5													
Northampton	Ulster	NY	50	711	0.5	355.5													
Northampton	Ulster	NY	50	29,094	1	29,094													
Northampton	Ulster	NY	50	2,502	0.5	1,251													
Northampton	Ulster	NY	50	2,715	0.5	1,357.5													
Northampton	Ulster	NY	25	8,530	1	8,530													
Northampton	Ulster	NY	50	5,674	0.5	2,837													
Northampton	Ulster	NY	50	26,586	0.5	13,293													
Northampton	Ulster	NY	50	19,482	0.5	9,741													
Northampton	Ulster	NY	25	7,679	1	7,679													
Northampton	Ulster	NY	25	65,135	1	65,135													
Northampton	Ulster	NY	25	12,794	1	12,794													
Northampton	Ulster	NY	50	1,725	0.5	862.5													
Northampton	Ulster	NY	50	3,085	0.5	1,542.5													
Northampton	Ulster	NY	50	1,846	0.5	923													
Northampton	Ulster	NY	50	1,631	0.5	815.5													
Northampton	Ulster	NY	50	2,267	0.5	1,133.5													
Northampton	Ulster	NY	50	3,823	0.5	1,911.5													
Northampton	Ulster	NY	25	2,993	1	2,993													
Northampton	Ulster	NY	25	8,287	1	8,287													
Northampton	Ulster	NY	25	2,815	1	2,815													
Northampton	Ulster	NY	25	2,027	1	2,027													
Northampton	Ulster	NY	50	1,148	0.5	574													
Northampton	Ulster	NY	50	1,310	0.5	655													
Northampton	Ulster	NY	25	50,129	1	50,129													
Northampton	Ulster	NY	50	12,377	0.5	6,188.5													
Northampton	Ulster	NY	25	8,423	1	8,423													
Northampton	Albany	NY	25	10,254	1	10,254													

City/Town	County	State	Radius from Site (miles)	Population	Factor	Favored Population	Columbia Turnpike via Route 9 to Route 20	Columbia Turnpike via Route 9 and 20 via I-90 WB to I-787 SB	Route 9 and 20 via I-90 EB to I-787 SB	Third Street via I-90 WB to Third Street	Route 9 and 20 via I-90 EB to I-787 SB	Brookway via I-90 EB to Brookway	Route 9 and 20 via I-87 NB to I-787 NB	Route 9 and 20 via I-87 SB to I-787 SB	Brookway via I-87 SB to I-90 EB	Route 9 and 20 via Route 7 WB (NY) to I-787 SB	
Westerlo	Albany	NY	25	3,361	1	3361											
White Creek	Washington	NY	50	3,356	0.5	1678											
Wilson	Saratoga	NY	50	16,173	0.5	8086.5									50%	50%	
Willsdam	Greene	NY	50	1,703	0.5	851.5									50%	50%	
Woodstock	Ulster	NY	50	5,884	0.5	2942											
Wurtsboro	Cosgo	NY	50	2,220	0.5	1110											
Wurtsville	Warner	NY	25	1,539	1	1539											
ARLINGTON	Schoharie	NY	50	2,517	0.5	1158.5								100%			
BENNINGTON	VT	VT	50	1,794	0.5	782								100%			
DOVER	VT	VT	50	1,124	0.5	522											
GLASTENBURY	VT	VT	50	1,794	0.5	782											
HALIFAX	VT	VT	50	78	0.5	4											
MANCHESTER	VT	VT	50	4,331	0.5	2185.5											
MARLBORO	VT	VT	50	1,078	0.5	522											
POWNAH	VT	VT	25	3,527	1	3527											
READSBORO	VT	VT	50	763	0.5	381.5											
RUPERT	VT	VT	50	714	0.5	357											
SANDGATE	VT	VT	50	109	0.5	202.5											
SEARSBURG	VT	VT	50	405	0.5	202.5											
SHAFTSBURY	VT	VT	50	3,530	0.5	1795											
SOMERSET	VT	VT	50	3	0.5	1.5											
STAMFORD	VT	VT	50	824	0.5	412											
STRATTON	VT	VT	50	216	0.5	108											
SUNDERLAND	VT	VT	50	956	0.5	478											
WINDSOR	VT	VT	50	900	0.5	450											
WINDSORHAM	VT	VT	50	1,357	0.5	678.5											
WINDSORMOUNTAIN	VT	VT	50	1,876	0.5	938											
WINDSORVILLE	VT	VT	50	789	0.5	384.5											
WOODSBOURNE	VT	VT	50	424	0.5	212											
Total				1,502,313		1,294,281	1%	6%	5%	7%	8%	8%	16%	8%	25%	9%	7%

29266.00 - Rensselaer Casino

6/23/2014

Route	Total Percentage on Route
Columbia Turnpike	6%
Route 20 and 9	71%
Breadway	17%
THRD	5%

2014 Synchro Output - Weekday PM Build Condition

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↖	↖	↖	↖↖	↖	↖	↖	↖	↖	↖	↖
Volume (vph)	51	1458	40	4	805	67	65	14	12	97	11	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		265	50		50	50		0	50		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		434			379			328			596	
Travel Time (s)		9.9			8.6			7.5			13.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	55	1585	43	4	875	73	71	28	0	105	20	0
Turn Type	Perm		pm+ov	Perm		Perm	pm+pt			pm+pt		
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	5	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	11.0	11.0	3.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	
Minimum Split (s)	21.0	21.0	8.0	21.0	21.0	21.0	8.0	8.0		8.0	8.0	
Total Split (s)	59.0	59.0	8.0	59.0	59.0	59.0	8.0	13.0	0.0	8.0	13.0	0.0
Total Split (%)	73.8%	73.8%	10.0%	73.8%	73.8%	73.8%	10.0%	16.3%	0.0%	10.0%	16.3%	0.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag			Lag				Lag	Lead		Lag	Lead	
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	Max		None	Max	
v/c Ratio	0.16	0.72	0.04	0.04	0.40	0.07	0.27	0.12		0.41	0.09	
Control Delay	6.3	10.4	0.8	5.2	6.6	1.7	28.3	23.9		31.4	25.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.3	10.4	0.8	5.2	6.6	1.7	28.3	23.9		31.4	25.7	
Queue Length 50th (ft)	8	210	0	1	85	1	25	6		37	5	
Queue Length 95th (ft)	22	274	5	4	114	12	65	31		89	26	
Internal Link Dist (ft)		354			299			248			516	
Turn Bay Length (ft)	100		265	50		50	50			50		
Base Capacity (vph)	441	2836	1144	144	2836	1282	260	231		259	229	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.12	0.56	0.04	0.03	0.31	0.06	0.27	0.12		0.41	0.09	

Intersection Summary

Area Type: Other

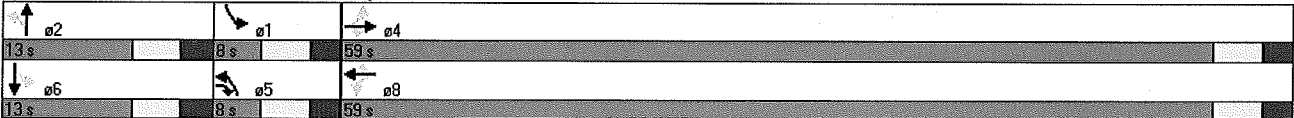
Cycle Length: 80

Actuated Cycle Length: 66.6

Natural Cycle: 50

Control Type: Semi Act-Uncoord

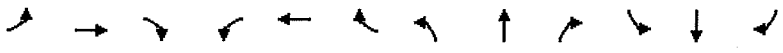
Splits and Phases: 1: Columbia Street & Broadway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↖	↖	↖	↖↖	↖	↖	↖	↖	↖	↖	↖
Volume (vph)	51	1458	40	4	805	67	65	14	12	97	11	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.93		1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1733		1770	1751	
Flt Permitted	0.29	1.00	1.00	0.10	1.00	1.00	0.74	1.00		0.74	1.00	
Satd. Flow (perm)	549	3539	1583	179	3539	1583	1386	1733		1377	1751	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	1585	43	4	875	73	71	15	13	105	12	8
RTOR Reduction (vph)	0	0	15	0	0	25	0	11	0	0	7	0
Lane Group Flow (vph)	55	1585	28	4	875	48	71	17	0	105	13	0
Turn Type	Perm		pm+ov	Perm		Perm	pm+pt			pm+pt		
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	41.6	41.6	43.8	41.6	41.6	41.6	10.6	8.4		10.6	8.4	
Effective Green, g (s)	41.6	41.6	43.8	41.6	41.6	41.6	10.6	8.4		10.6	8.4	
Actuated g/C Ratio	0.62	0.62	0.65	0.62	0.62	0.62	0.16	0.12		0.16	0.12	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	340	2191	1150	111	2191	980	231	217		230	219	
v/s Ratio Prot		c0.45	0.00		0.25		0.01	0.01		c0.01	0.01	
v/s Ratio Perm	0.10		0.02	0.02		0.03	0.04			c0.06		
v/c Ratio	0.16	0.72	0.02	0.04	0.40	0.05	0.31	0.08		0.46	0.06	
Uniform Delay, d1	5.4	8.8	4.1	5.0	6.5	5.0	25.1	26.0		25.8	25.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	1.2	0.0	0.1	0.1	0.0	0.8	0.7		1.4	0.5	
Delay (s)	5.6	10.0	4.1	5.1	6.6	5.0	25.9	26.7		27.2	26.4	
Level of Service	A	B	A	A	A	A	C	C		C	C	
Approach Delay (s)		9.7			6.5			26.1			27.1	
Approach LOS		A			A			C			C	
Intersection Summary												
HCM Average Control Delay			10.0									
HCM Volume to Capacity ratio			0.67									
Actuated Cycle Length (s)			67.2						15.0			
Intersection Capacity Utilization			62.8%									
Analysis Period (min)			15									
c Critical Lane Group												

Rensselaer Casino
2: Route 9/20 On-Ramp & Broadway

Build
Timing Plan: Weekday evening

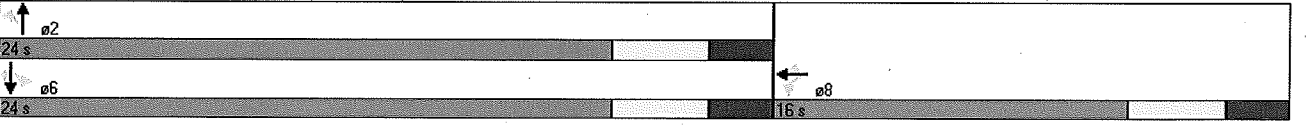


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↕			↖	↗
Volume (vph)	0	0	0	13	491	67	19	95	44	449	120	571
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		125	0		0	0		75
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		280			836			596			618	
Travel Time (s)		6.4			19.0			13.5			14.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	548	73	0	172	0	0	618	621
Turn Type				Perm		Perm	Perm			Perm		Perm
Protected Phases					8			2			6	
Permitted Phases				8		8	2			6	6	6
Detector Phase				8	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)				21.0	21.0	21.0	16.0	16.0		16.0	16.0	16.0
Total Split (s)	0.0	0.0	0.0	16.0	16.0	16.0	24.0	24.0	0.0	24.0	24.0	24.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	40.0%	60.0%	60.0%	0.0%	60.0%	60.0%	60.0%
Yellow Time (s)				3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				None	None	None	Max	Max		Max	Max	Max
v/c Ratio				0.60	0.16	0.16	0.21	0.21		1.03	1.03	0.77
Control Delay				15.8	4.9	4.9	5.4	5.4		63.2	63.2	16.6
Queue Delay				0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay				15.8	4.9	4.9	5.4	5.4		63.2	63.2	16.6
Queue Length 50th (ft)				54	0	0	14	14		~163	~163	87
Queue Length 95th (ft)				90	19	19	37	37		#307	#307	#247
Internal Link Dist (ft)		200		756			516	516		538		538
Turn Bay Length (ft)						125						75
Base Capacity (vph)				994	497	497	817	817		598	598	811
Starvation Cap Reductn				0	0	0	0	0		0	0	0
Spillback Cap Reductn				0	0	0	0	0		0	0	0
Storage Cap Reductn				0	0	0	0	0		0	0	0
Reduced v/c Ratio				0.55	0.15	0.15	0.21	0.21		1.03	1.03	0.77

Intersection Summary

Area Type: Other
 Cycle Length: 40
 Actuated Cycle Length: 39.2
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Route 9/20 On-Ramp & Broadway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↕			↕	↗
Volume (vph)	0	0	0	13	491	67	19	95	44	449	120	571
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0	5.0		5.0			5.0	5.0
Lane Util. Factor					0.95	1.00		1.00			1.00	1.00
Fr _t					1.00	0.85		0.96			1.00	0.85
Flt Protected					1.00	1.00		0.99			0.96	1.00
Satd. Flow (prot)					3535	1583		1782			1792	1583
Flt Permitted					1.00	1.00		0.91			0.66	1.00
Satd. Flow (perm)					3535	1583		1633			1231	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	14	534	73	21	103	48	488	130	621
RTOR Reduction (vph)	0	0	0	0	0	54	0	25	0	0	0	42
Lane Group Flow (vph)	0	0	0	0	548	19	0	147	0	0	618	579
Turn Type				Perm	Perm	Perm			Perm		Perm	Perm
Protected Phases					8			2			6	
Permitted Phases				8		8	2		6		6	6
Actuated Green, G (s)					10.1	10.1		19.0			19.0	19.0
Effective Green, g (s)					10.1	10.1		19.0			19.0	19.0
Actuated g/C Ratio					0.26	0.26		0.49			0.49	0.49
Clearance Time (s)					5.0	5.0		5.0			5.0	5.0
Vehicle Extension (s)					3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)					913	409		794			598	769
v/s Ratio Prot												
v/s Ratio Perm					0.16	0.01		0.09			0.50	0.37
v/c Ratio					0.60	0.05		0.19			1.03	0.75
Uniform Delay, d1					12.7	10.9		5.7			10.1	8.1
Progression Factor					1.00	1.00		1.00			1.00	1.00
Incremental Delay, d2					1.1	0.0		0.5			45.7	6.7
Delay (s)					13.8	10.9		6.2			55.7	14.9
Level of Service					B	B		A			E	B
Approach Delay (s)		0.0			13.5			6.2	0.0		35.3	
Approach LOS		A			B			A			D	

Intersection Summary			
HCM Average Control Delay	26.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	39.1	Sum of lost time (s)	10.0
Intersection Capacity Utilization	70.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Rensselaer Casino
3: Route 9/20 Off-Ramp & Broadway

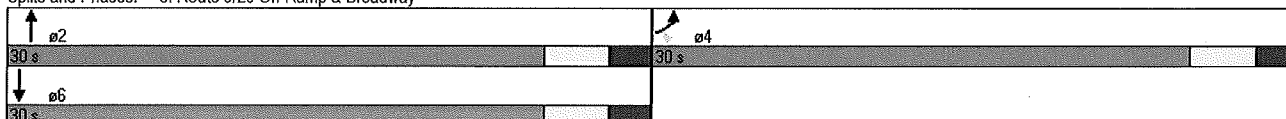
Build
Timing Plan: Weekday evening

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↑	↑	↖
Volume (vph)	615	396	0	180	761	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	569			618	247	
Travel Time (s)	12.9			14.0	5.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	668	430	0	196	827	0
Turn Type		Perm				
Protected Phases	4			2	6	
Permitted Phases		4				
Detector Phase	4	4		2	6	
Switch Phase						
Minimum Initial (s)	4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None		Max	Max	
v/c Ratio	0.93	0.62		0.25	1.05	
Control Delay	39.3	15.9		12.4	66.3	
Queue Delay	0.0	0.0		0.0	162.3	
Total Delay	39.3	15.9		12.4	228.6	
Queue Length 50th (ft)	216	93		44	~342	
Queue Length 95th (ft)	#411	177		83	#534	
Internal Link Dist (ft)	489			538	167	
Turn Bay Length (ft)						
Base Capacity (vph)	751	716		790	790	
Starvation Cap Reductn	0	0		0	209	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.89	0.60		0.25	1.42	

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 59
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Route 9/20 Off-Ramp & Broadway





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗		↑	↑	
Volume (vph)	615	396	0	180	761	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	
Fr't	1.00	0.85		1.00	1.00	
Flt Protected	0.95	1.00		1.00	1.00	
Satd. Flow (prot)	1770	1583		1863	1863	
Flt Permitted	0.95	1.00		1.00	1.00	
Satd. Flow (perm)	1770	1583		1863	1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	668	430	0	196	827	0
RTOR Reduction (vph)	0	46	0	0	0	0
Lane Group Flow (vph)	668	384	0	196	827	0
Turn Type		Perm				
Protected Phases	4			2	6	
Permitted Phases		4				
Actuated Green, G (s)	24.0	24.0		25.0	25.0	
Effective Green, g (s)	24.0	24.0		25.0	25.0	
Actuated g/C Ratio	0.41	0.41		0.42	0.42	
Clearance Time (s)	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	720	644		789	789	
v/s Ratio Prot	c0.38			0.11	c0.44	
v/s Ratio Perm		0.24				
v/c Ratio	0.93	0.60		0.25	1.05	
Uniform Delay, d1	16.7	13.7		10.9	17.0	
Progression Factor	1.00	1.00		1.00	1.00	
Incremental Delay, d2	18.0	1.5		0.8	45.4	
Delay (s)	34.7	15.2		11.7	62.4	
Level of Service	C	B		B	E	
Approach Delay (s)	27.1			11.7	62.4	
Approach LOS	C			B	E	

Intersection Summary			
HCM Average Control Delay	39.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	59.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	82.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Rensselaer Casino
4: Herrick Street & Broadway

Build
Timing Plan: Weekday evening

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑		↓	↑
Volume (vph)	177	6	594	173	14	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Right Turn on Red		Yes		Yes		
Link Speed (mph)	30		30			30
Link Distance (ft)	624		247			340
Travel Time (s)	14.2		5.6			7.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	199	0	834	0	15	554
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	4.0		4.0		4.0	4.0
Minimum Split (s)	21.0		21.0		21.0	21.0
Total Split (s)	23.0	0.0	37.0	0.0	37.0	37.0
Total Split (%)	38.3%	0.0%	61.7%	0.0%	61.7%	61.7%
Yellow Time (s)	3.0		3.0		3.0	3.0
All-Red Time (s)	2.0		2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0	4.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		C-Min		C-Min	C-Min
v/c Ratio	0.57		0.72		0.06	0.47
Control Delay	27.1		13.1		5.5	7.7
Queue Delay	0.0		30.0		0.0	0.2
Total Delay	27.1		43.1		5.5	7.9
Queue Length 50th (ft)	64		161		1	122
Queue Length 95th (ft)	109		#437		m9	207
Internal Link Dist (ft)	544		167			260
Turn Bay Length (ft)						
Base Capacity (vph)	533		1162		265	1184
Starvation Cap Reductn	0		365		0	121
Spillback Cap Reductn	0		0		0	0
Storage Cap Reductn	0		0		0	0
Reduced v/c Ratio	0.37		1.05		0.06	0.52

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Herrick Street & Broadway



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↖		↑		↗	↑
Volume (vph)	177	6	594	173	14	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0		5.0	5.0
Lane Util. Factor	1.00		1.00		1.00	1.00
Frt	1.00		0.97		1.00	1.00
Flt Protected	0.95		1.00		0.95	1.00
Satd. Flow (prot)	1769		1806		1770	1863
Flt Permitted	0.95		1.00		0.22	1.00
Satd. Flow (perm)	1769		1806		416	1863
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	192	7	646	188	15	554
RTOR Reduction (vph)	2	0	14	0	0	0
Lane Group Flow (vph)	197	0	820	0	15	554
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Actuated Green, G (s)	11.9		38.1		38.1	38.1
Effective Green, g (s)	11.9		38.1		38.1	38.1
Actuated g/C Ratio	0.20		0.64		0.64	0.64
Clearance Time (s)	5.0		5.0		5.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	351		1147		264	1183
v/s Ratio Prot	c0.11		c0.45			0.30
v/s Ratio Perm					0.04	
v/c Ratio	0.56		0.72		0.06	0.47
Uniform Delay, d1	21.7		7.3		4.1	5.7
Progression Factor	1.00		1.00		0.89	0.95
Incremental Delay, d2	2.0		3.8		0.4	1.3
Delay (s)	23.7		11.2		4.1	6.7
Level of Service	C		B		A	A
Approach Delay (s)	23.7		11.2			6.6
Approach LOS	C		B			A
Intersection Summary						
HCM Average Control Delay			11.1		HCM Level of Service	B
HCM Volume to Capacity ratio			0.68			
Actuated Cycle Length (s)			60.0		Sum of lost time (s)	10.0
Intersection Capacity Utilization			60.3%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↑	↑	↗
Volume (vph)	75	300	325	268	184	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	389			92	603	
Travel Time (s)	8.8			2.1	13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	82	326	353	291	200	87
Turn Type		custom	Prot			Perm
Protected Phases	8	8	5	2	6	
Permitted Phases		5				6
Detector Phase	8	8	5	2	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	8.0	8.0	8.0	8.0	8.0
Total Split (s)	21.0	21.0	12.0	39.0	27.0	27.0
Total Split (%)	35.0%	35.0%	20.0%	65.0%	45.0%	45.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	Max	C-Max	C-Max	C-Max
v/c Ratio	0.34	0.35	0.71	0.21	0.28	0.13
Control Delay	26.7	2.4	23.4	4.7	14.1	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.7	2.4	23.4	4.7	14.1	4.0
Queue Length 50th (ft)	27	0	114	66	48	0
Queue Length 95th (ft)	59	34	m#215	m55	90	23
Internal Link Dist (ft)	309			12	523	
Turn Bay Length (ft)						
Base Capacity (vph)	502	934	497	1361	714	660
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.35	0.71	0.21	0.28	0.13

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 39 (65%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 40
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: John Elvis Boulevard & Broadway





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘	↗	↘	↗	↗	↘
Volume (vph)	75	300	325	268	184	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	1583	1770	1863	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	82	326	353	291	200	87
RTOR Reduction (vph)	0	190	0	0	0	54
Lane Group Flow (vph)	82	136	353	291	200	33
Turn Type	custom		Prot		Perm	
Protected Phases	8	8	5	2	6	
Permitted Phases		5				6
Actuated Green, G (s)	8.2	25.0	16.8	43.8	23.0	23.0
Effective Green, g (s)	8.2	25.0	16.8	43.8	23.0	23.0
Actuated g/C Ratio	0.14	0.42	0.28	0.73	0.38	0.38
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	242	765	496	1360	714	607
v/s Ratio Prot	c0.05	0.02	c0.20	0.16	c0.11	
v/s Ratio Perm		0.06				0.02
v/c Ratio	0.34	0.18	0.71	0.21	0.28	0.05
Uniform Delay, d1	23.4	11.0	19.4	2.6	12.8	11.7
Progression Factor	1.00	1.00	0.71	1.50	1.00	1.00
Incremental Delay, d2	0.8	0.1	5.9	0.2	1.0	0.2
Delay (s)	24.3	11.1	19.7	4.1	13.8	11.8
Level of Service	C	B	B	A	B	B
Approach Delay (s)	13.8			12.7	13.2	
Approach LOS	B			B	B	

Intersection Summary			
HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	41.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Rensselaer Casino
6: Partition Street & Broadway

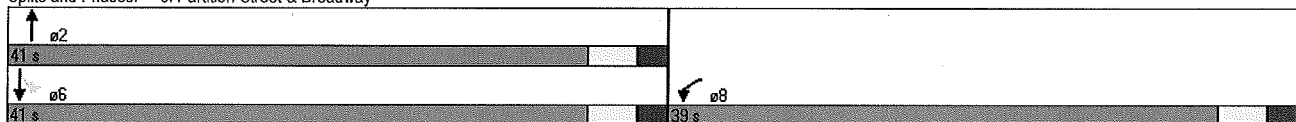
Build
Timing Plan: Weekday evening

	↙	↖	↑	↗	↘	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙		↑			↓
Volume (vph)	72	42	245	98	29	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Right Turn on Red		Yes		Yes		
Link Speed (mph)	30		30			30
Link Distance (ft)	653		603			400
Travel Time (s)	14.8		13.7			9.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	124	0	373	0	0	210
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	4.0		4.0		4.0	4.0
Minimum Split (s)	21.0		21.0		21.0	21.0
Total Split (s)	39.0	0.0	41.0	0.0	41.0	41.0
Total Split (%)	48.8%	0.0%	51.3%	0.0%	51.3%	51.3%
Yellow Time (s)	3.0		3.0		3.0	3.0
All-Red Time (s)	2.0		2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0	4.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		C-Min		C-Min	C-Min
v/c Ratio	0.51		0.26			0.15
Control Delay	28.6		3.4			3.3
Queue Delay	0.0		0.0			0.0
Total Delay	28.6		3.4			3.3
Queue Length 50th (ft)	37		38			22
Queue Length 95th (ft)	82		84			51
Internal Link Dist (ft)	573		523			320
Turn Bay Length (ft)						
Base Capacity (vph)	756		1434			1368
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.16		0.26			0.15

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 45
 Control Type: Actuated-Coordinated

Splits and Phases: 6: Partition Street & Broadway



Rensselaer Casino
6: Partition Street & Broadway

Build
Timing Plan: Weekday evening

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘		↗			↖
Volume (vph)	72	42	245	98	29	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0			5.0
Lane Util. Factor	1.00		1.00			1.00
Frt	0.95		0.96			1.00
Flt Protected	0.97		1.00			0.99
Satd. Flow (prot)	1716		1791			1849
Flt Permitted	0.97		1.00			0.92
Satd. Flow (perm)	1716		1791			1716
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	78	46	266	107	32	178
RTOR Reduction (vph)	41	0	8	0	0	0
Lane Group Flow (vph)	83	0	365	0	0	210
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Actuated Green, G (s)	8.2		61.8			61.8
Effective Green, g (s)	8.2		61.8			61.8
Actuated g/C Ratio	0.10		0.77			0.77
Clearance Time (s)	5.0		5.0			5.0
Vehicle Extension (s)	3.0		3.0			3.0
Lane Grp Cap (vph)	176		1384			1326
v/s Ratio Prot	c0.05		c0.20			
v/s Ratio Perm						0.12
v/c Ratio	0.47		0.26			0.16
Uniform Delay, d1	33.9		2.6			2.4
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	2.0		0.5			0.3
Delay (s)	35.8		3.1			2.6
Level of Service	D		A			A
Approach Delay (s)	35.8		3.1			2.6
Approach LOS	D		A			A
Intersection Summary						
HCM Average Control Delay			8.7		HCM Level of Service	A
HCM Volume to Capacity ratio			0.29			
Actuated Cycle Length (s)			80.0		Sum of lost time (s)	10.0
Intersection Capacity Utilization			48.2%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

2014 Traffic Counts (weekday evening)

Tri-State Traffic Data, Inc.

610 466-1469

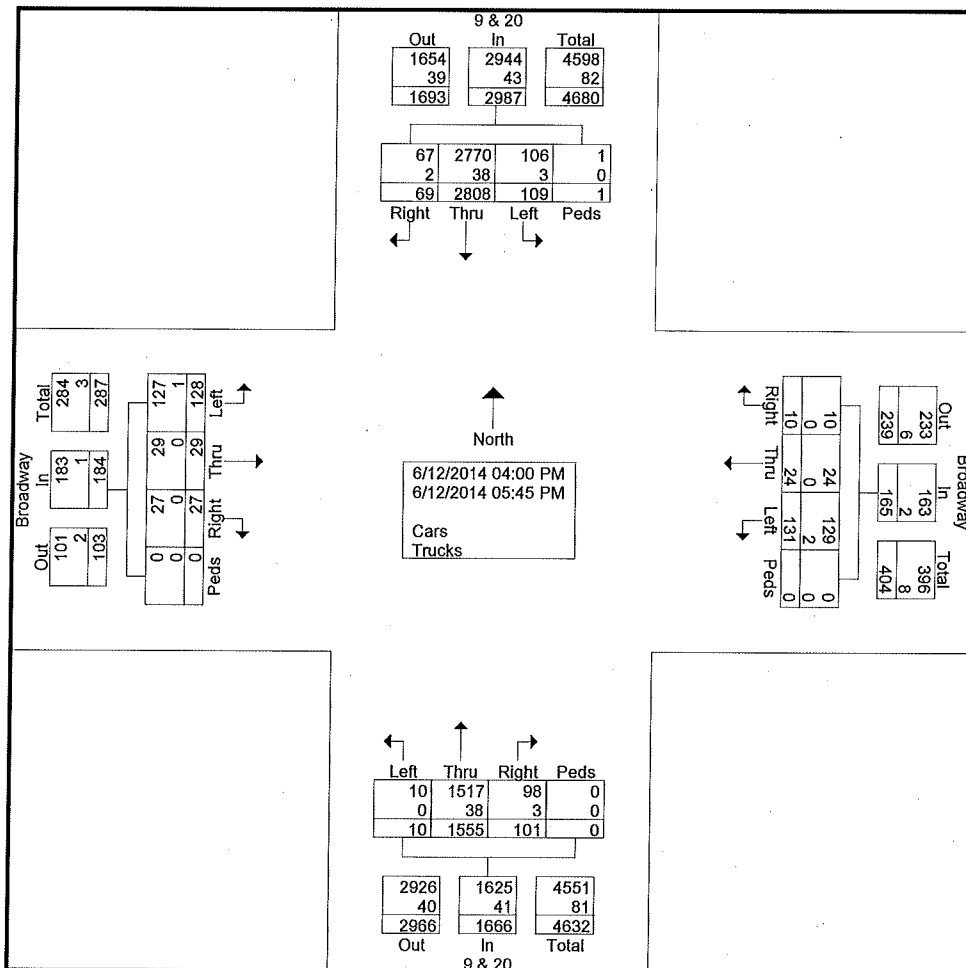
TSTData.com

Location: Rensselaer, New York
 Intersection: Braodway @ 9&20
 Date Thursday, June 12, 2014
 Counter: MioVision

File Name : Broadway 1 Weekday Final
 Site Code : 0001
 Start Date : 6/12/2014
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	9 & 20 Southbound					Broadway Westbound					9 & 20 Northbound					Broadway Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
04:00 PM	12	337	14	0	363	1	3	20	0	24	16	189	1	0	206	2	0	11	0	13	606
04:15 PM	7	386	11	0	404	2	3	17	0	22	16	204	1	0	221	1	7	17	0	25	672
04:30 PM	6	366	16	0	388	2	4	19	0	25	11	217	0	0	228	6	4	21	0	31	672
04:45 PM	15	369	10	0	394	2	1	21	0	24	4	195	2	0	201	3	3	16	0	22	641
Total	40	1458	51	0	1549	7	11	77	0	95	47	805	4	0	856	12	14	65	0	91	2591
05:00 PM	12	413	17	0	442	1	5	19	0	25	17	204	0	0	221	3	7	19	0	29	717
05:15 PM	4	398	18	1	421	1	1	10	0	12	18	190	4	0	212	3	2	19	0	24	669
05:30 PM	6	286	13	0	305	1	3	9	0	13	8	181	2	0	191	4	3	14	0	21	530
05:45 PM	7	253	10	0	270	0	4	16	0	20	11	175	0	0	186	5	3	11	0	19	495
Total	29	1350	58	1	1438	3	13	54	0	70	54	750	6	0	810	15	15	63	0	93	2411
Grand Total	69	2808	109	1	2987	10	24	131	0	165	101	1555	10	0	1666	27	29	128	0	184	5002
Apprch %	2.3	94	3.6	0		6.1	14.5	79.4	0		6.1	93.3	0.6	0		14.7	15.8	69.6	0		
Total %	1.4	56.1	2.2	0	59.7	0.2	0.5	2.6	0	3.3	2	31.1	0.2	0	33.3	0.5	0.6	2.6	0	3.7	
Cars	67	2770	106	1	2944	10	24	129	0	163	98	1517	10	0	1625	27	29	127	0	183	4915
% Cars	97.1	98.6	97.2	100	98.6	100	100	98.5	0	98.8	97	97.6	100	0	97.5	100	100	99.2	0	99.5	98.3
Trucks	2	38	3	0	43	0	0	2	0	2	3	38	0	0	41	0	0	1	0	1	87
% Trucks	2.9	1.4	2.8	0	1.4	0	0	1.5	0	1.2	3	2.4	0	0	2.5	0	0	0.8	0	0.5	1.7



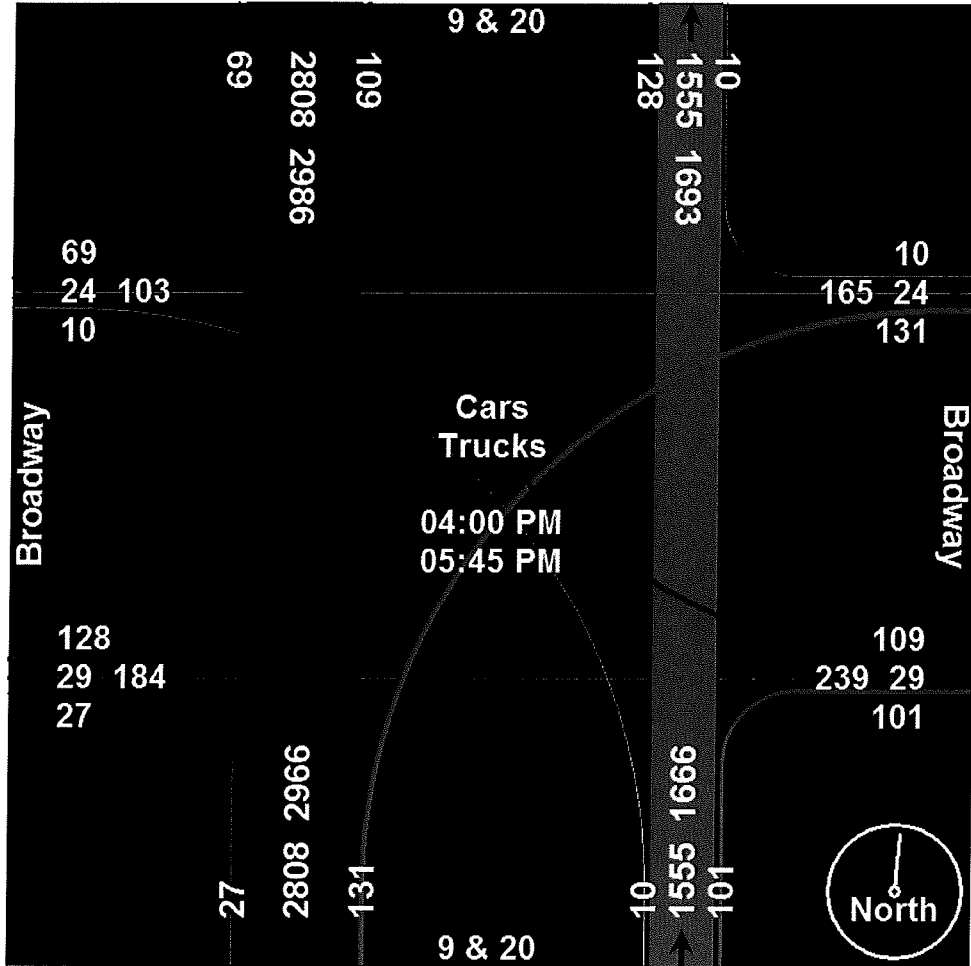
Tri-State Traffic Data, Inc.

610 466-1469

TSTData.com

Location: Rensselaer, New York
Intersection: Braodway @ 9&20
Date Thursday, June 12, 2014
Counter: MioVision

File Name : Broadway 1 Weekday Final
Site Code : 0001
Start Date : 6/12/2014
Page No : 2



Tri-State Traffic Data, Inc.

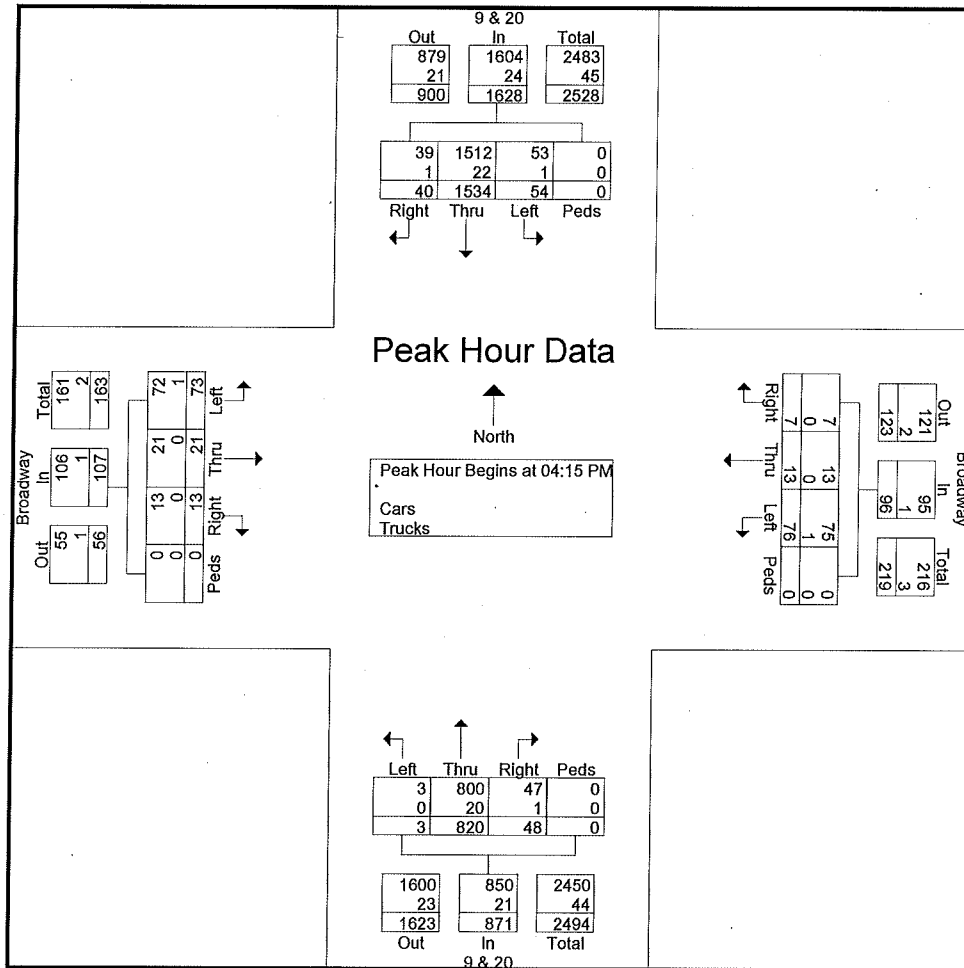
610 466-1469

TSTData.com

Location: Rensselaer, New York
 Intersection: Braodway @ 9&20
 Date Thursday, June 12, 2014
 Counter: MioVision

File Name : Broadway 1 Weekday Final
 Site Code : 0001
 Start Date : 6/12/2014
 Page No : 3

Start Time	9 & 20 Southbound					Broadway Westbound					9 & 20 Northbound					Broadway Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	7	386	11	0	404	2	3	17	0	22	16	204	1	0	221	1	7	17	0	25	672
04:30 PM	6	366	16	0	388	2	4	19	0	25	11	217	0	0	228	6	4	21	0	31	672
04:45 PM	15	369	10	0	394	2	1	21	0	24	4	195	2	0	201	3	3	16	0	22	641
05:00 PM	12	413	17	0	442	1	5	19	0	25	17	204	0	0	221	3	7	19	0	29	717
Total Volume	40	1534	54	0	1628	7	13	76	0	96	48	820	3	0	871	13	21	73	0	107	2702
% App. Total	2.5	94.2	3.3	0		7.3	13.5	79.2	0		5.5	94.1	0.3	0		12.1	19.6	68.2	0		
PHF	.667	.929	.794	.000	.921	.875	.650	.905	.000	.960	.706	.945	.375	.000	.955	.542	.750	.869	.000	.863	.942
Cars	39	1512																			
% Cars	97.5	98.6	98.1	0	98.5	100	100	98.7	0	99.0	97.9	97.6	100	0	97.6	100	100	98.6	0	99.1	98.3
Trucks	1	22	1	0	24	0	0	1	0	1	1	20	0	0	21	0	0	1	0	1	47
% Trucks	2.5	1.4	1.9	0	1.5	0	0	1.3	0	1.0	2.1	2.4	0	0	2.4	0	0	1.4	0	0.9	1.7



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610 466-1469

TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway @ 3rd Avenue
 Date: Thursday, June 12, 2014
 Counter: MioVision

File Name : Broadway 2 Weekday
 Site Code : 0002
 Start Date : 6/12/2014
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Broadway Southbound					3rd Avenue Westbound					Broadway Northbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
04:00 PM	132	26	60	0	218	13	146	2	0	161	10	13	10	0	33	412
04:15 PM	63	25	96	0	184	14	109	4	0	127	5	23	4	0	32	343
04:30 PM	88	25	113	0	226	9	133	5	0	147	15	21	5	0	41	414
04:45 PM	54	26	99	0	179	8	104	1	0	113	6	9	3	0	18	310
Total	337	102	368	0	807	44	492	12	0	548	36	66	22	0	124	1479
05:00 PM	106	24	121	0	251	16	145	3	0	164	18	22	7	0	47	462
05:15 PM	55	16	114	0	185	6	101	3	0	110	16	18	6	0	40	335
05:30 PM	53	13	91	0	157	7	81	3	0	91	14	17	2	0	33	281
05:45 PM	94	20	65	0	179	8	79	3	0	90	7	17	5	0	29	298
Total	308	73	391	0	772	37	406	12	0	455	55	74	20	0	149	1376
06:00 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Grand Total	646	176	759	0	1581	81	898	24	0	1003	91	140	42	0	273	2857
Apprch %	40.9	11.1	48	0		8.1	89.5	2.4	0		33.3	51.3	15.4	0		
Total %	22.6	6.2	26.6	0	55.3	2.8	31.4	0.8	0	35.1	3.2	4.9	1.5	0	9.6	
Cars	635	173	747	0	1555	81	889	24	0	994	89	137	41	0	267	2816
% Cars	98.3	98.3	98.4	0	98.4	100	99	100	0	99.1	97.8	97.9	97.6	0	97.8	98.6
Trucks	11	3	12	0	26	0	9	0	0	9	2	3	1	0	6	41
% Trucks	1.7	1.7	1.6	0	1.6	0	1	0	0	0.9	2.2	2.1	2.4	0	2.2	1.4

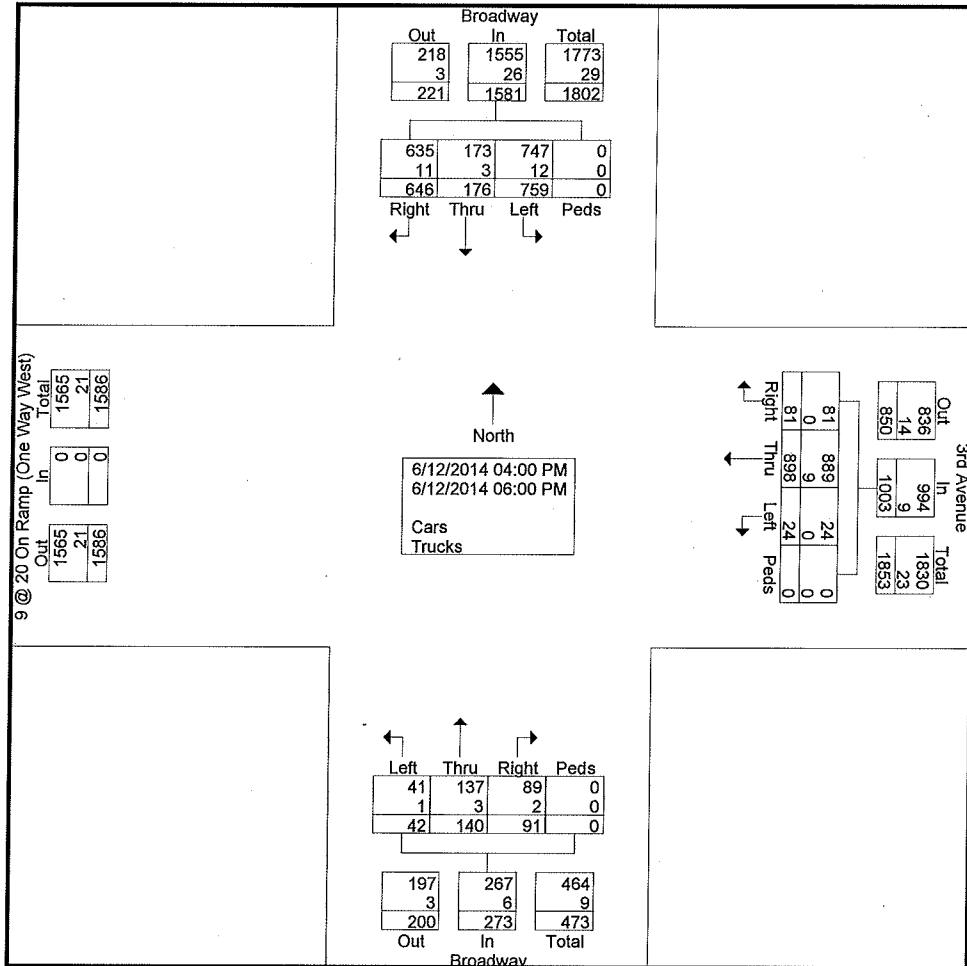
Tri-State Traffic Data, Inc.

610 466-1469

TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway @ 3rd Avenue
 Date: Thursday, June 12, 2014
 Counter: MioVision

File Name : Broadway 2 Weekday
 Site Code : 0002
 Start Date : 6/12/2014
 Page No : 2



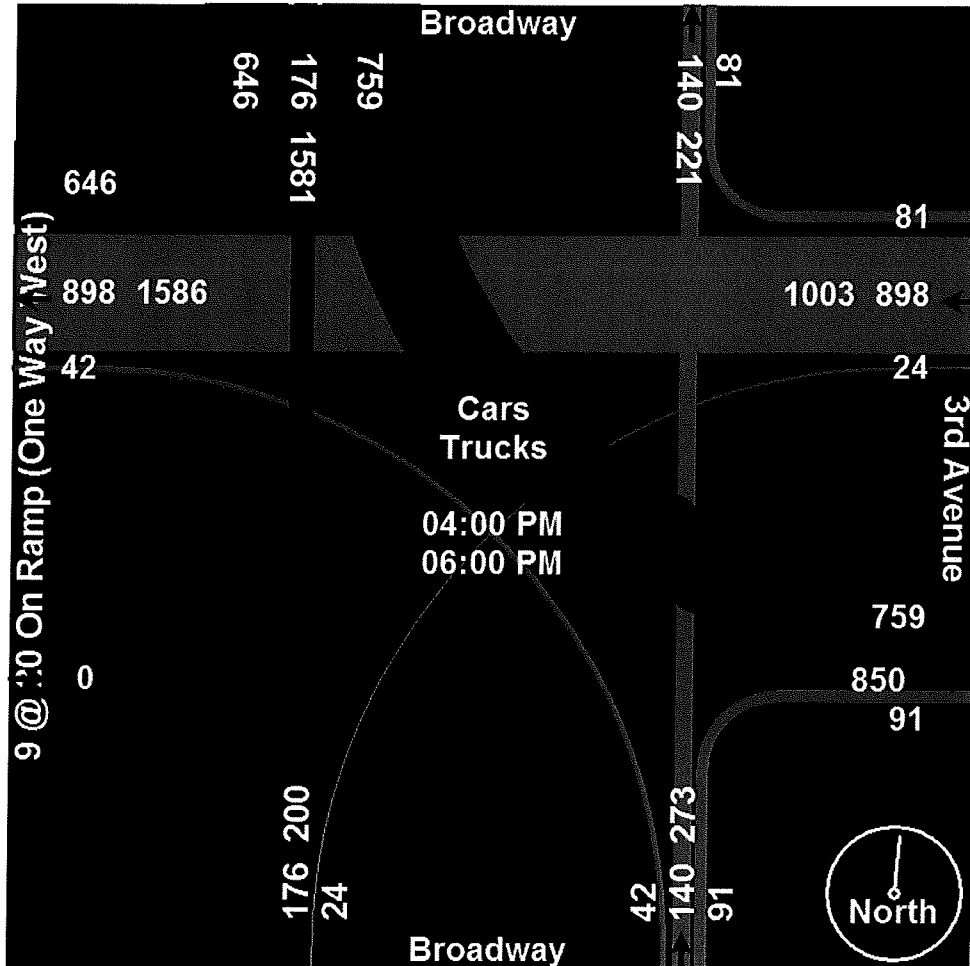
Tri-State Traffic Data, Inc.

610 466-1469

TSTData.com

Location: Rensselaer, New York
Intersection: Broadway @ 3rd Avenue
Date: Thursday, June 12, 2014
Counter: MioVision

File Name : Broadway 2 Weekday
Site Code : 0002
Start Date : 6/12/2014
Page No : 3



Tri-State Traffic Data, Inc.

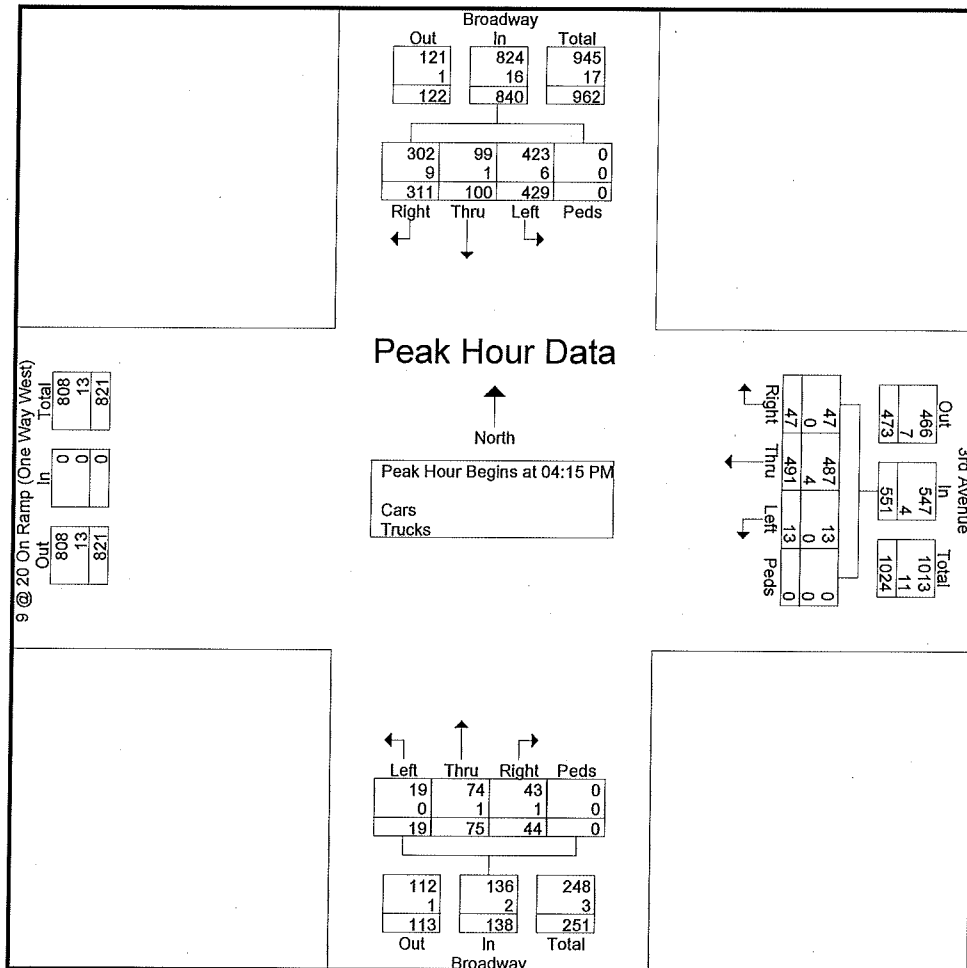
610 466-1469

TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway @ 3rd Avenue
 Date: Thursday, June 12, 2014
 Counter: MioVision

File Name : Broadway 2 Weekday
 Site Code : 0002
 Start Date : 6/12/2014
 Page No : 4

Start Time	Broadway Southbound					3rd Avenue Westbound					Broadway Northbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 06:00 PM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 04:15 PM																
04:15 PM	63	25	96	0	184	14	109	4	0	127	5	23	4	0	32	343
04:30 PM	88	25	113	0	226	9	133	5	0	147	15	21	5	0	41	414
04:45 PM	54	26	99	0	179	8	104	1	0	113	6	9	3	0	18	310
05:00 PM	106	24	121	0	251	16	145	3	0	164	18	22	7	0	47	462
Total Volume	311	100	429	0	840	47	491	13	0	551	44	75	19	0	138	1529
% App. Total	37	11.9	51.1	0		8.5	89.1	2.4	0		31.9	54.3	13.8	0		
PHF	.733	.962	.886	.000	.837	.734	.847	.650	.000	.840	.611	.815	.679	.000	.734	.827
Cars	302	99	423	0	824	47	487	13	0	547	43	74	19	0	136	1507
% Cars	97.1	99.0	98.6	0	98.1	100	99.2	100	0	99.3	97.7	98.7	100	0	98.6	98.6
Trucks	9	1	6	0	16	0	4	0	0	4	1	1	0	0	2	22
% Trucks	2.9	1.0	1.4	0	1.9	0	0.8	0	0	0.7	2.3	1.3	0	0	1.4	1.4



Tri-State Traffic Data, Inc.

610 466-1469

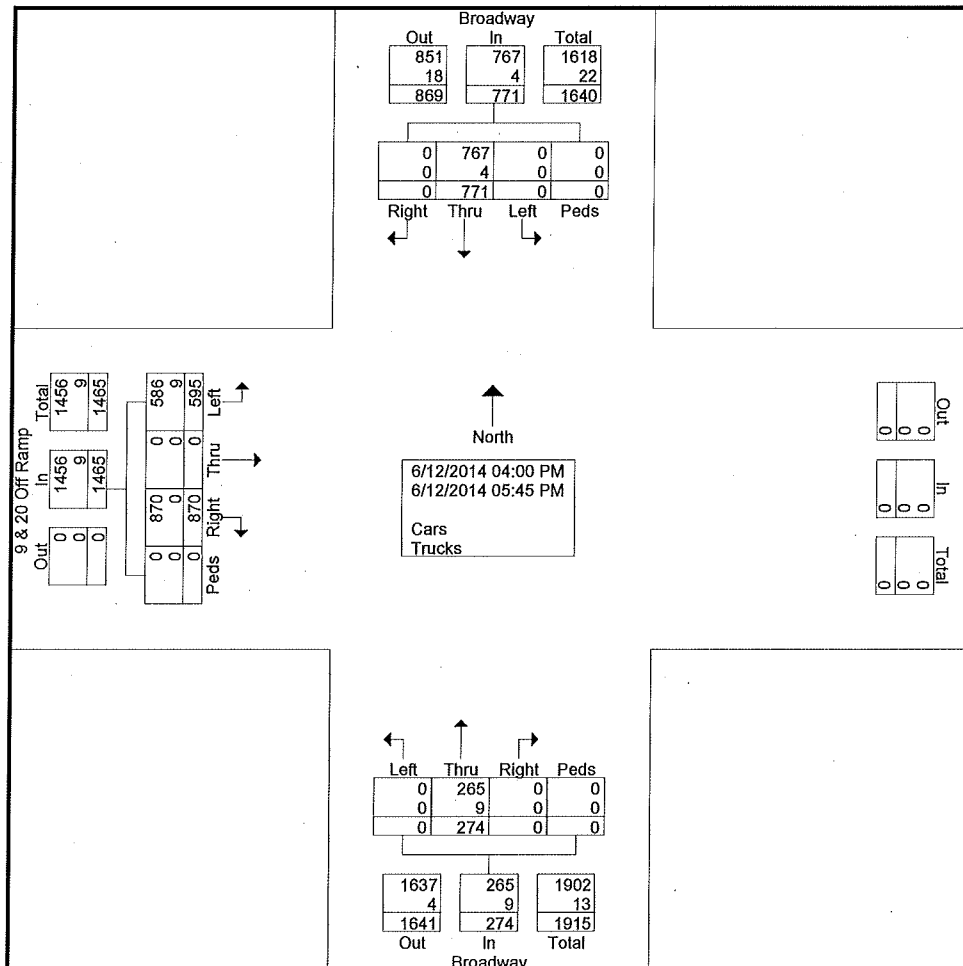
TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway/9&20 Off Ramp
 Date: Thursday, June 12, 2014
 Counter: BK

File Name : Broadway 3 Weekday
 Site Code : 0003
 Start Date : 6/12/2014
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Broadway Southbound					Broadway Northbound					9 & 20 Off Ramp Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
04:00 PM	0	136	0	0	136	0	35	0	0	35	65	0	66	0	131	302
04:15 PM	0	82	0	0	82	0	37	0	0	37	109	0	84	0	193	312
04:30 PM	0	102	0	0	102	0	41	0	0	41	118	0	97	0	215	358
04:45 PM	0	78	0	0	78	0	27	0	0	27	104	0	84	0	188	293
Total	0	398	0	0	398	0	140	0	0	140	396	0	331	0	727	1265
05:00 PM	0	131	0	0	131	0	47	0	0	47	139	0	83	0	222	400
05:15 PM	0	73	0	0	73	0	31	0	0	31	172	0	90	0	262	366
05:30 PM	0	52	0	0	52	0	28	0	0	28	98	0	54	0	152	232
05:45 PM	0	117	0	0	117	0	28	0	0	28	65	0	37	0	102	247
Total	0	373	0	0	373	0	134	0	0	134	474	0	264	0	738	1245
Grand Total	0	771	0	0	771	0	274	0	0	274	870	0	595	0	1465	2510
Apprch %	0	100	0	0	100	0	100	0	0	100	59.4	0	40.6	0		
Total %	0	30.7	0	0	30.7	0	10.9	0	0	10.9	34.7	0	23.7	0	58.4	
Cars	0	767	0	0	767	0	265	0	0	265	870	0	586	0	1456	2488
% Cars	0	99.5	0	0	99.5	0	96.7	0	0	96.7	100	0	98.5	0	99.4	99.1
Trucks	0	4	0	0	4	0	9	0	0	9	0	0	9	0	9	22
% Trucks	0	0.5	0	0	0.5	0	3.3	0	0	3.3	0	0	1.5	0	0.6	0.9



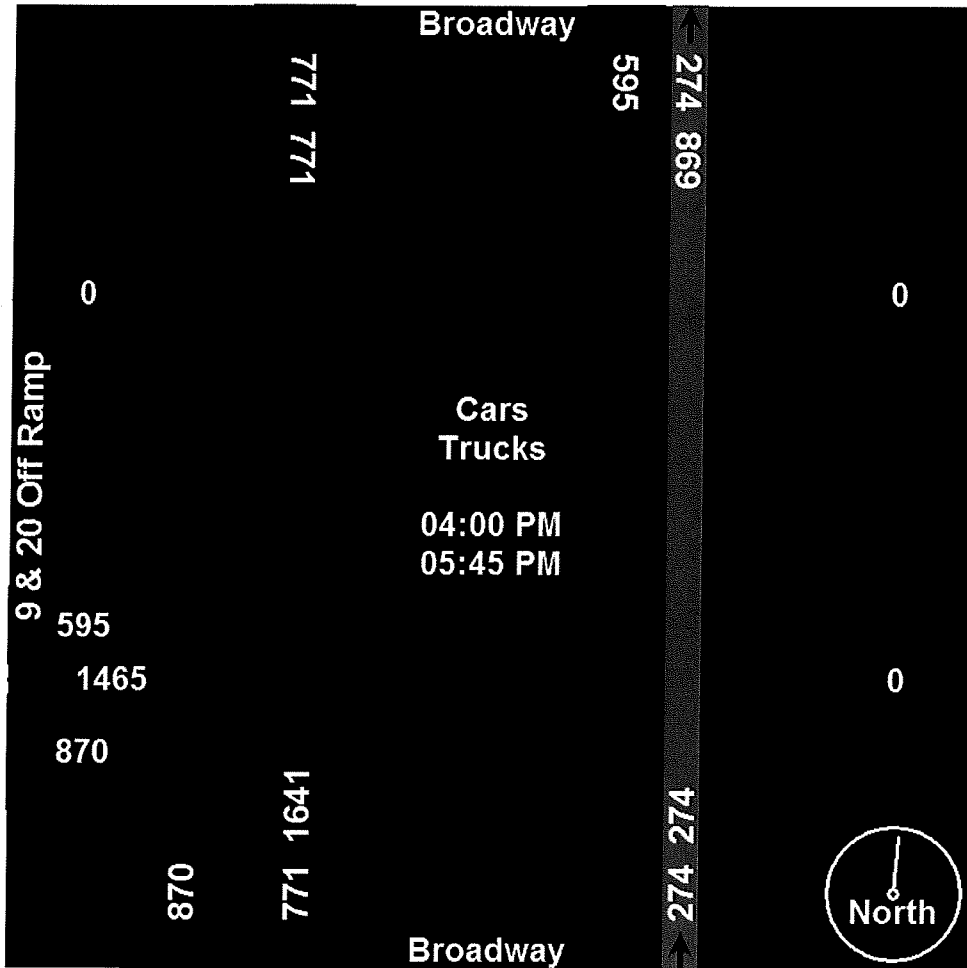
Tri-State Traffic Data, Inc.

610 466-1469

TSTData.com

Location: Rensselaer, New York
Intersection: Broadway/9&20 Off Ramp
Date: Thursday, June 12, 2014
Counter: BK

File Name : Broadway 3 Weekday
Site Code : 0003
Start Date : 6/12/2014
Page No : 2



Tri-State Traffic Data, Inc.

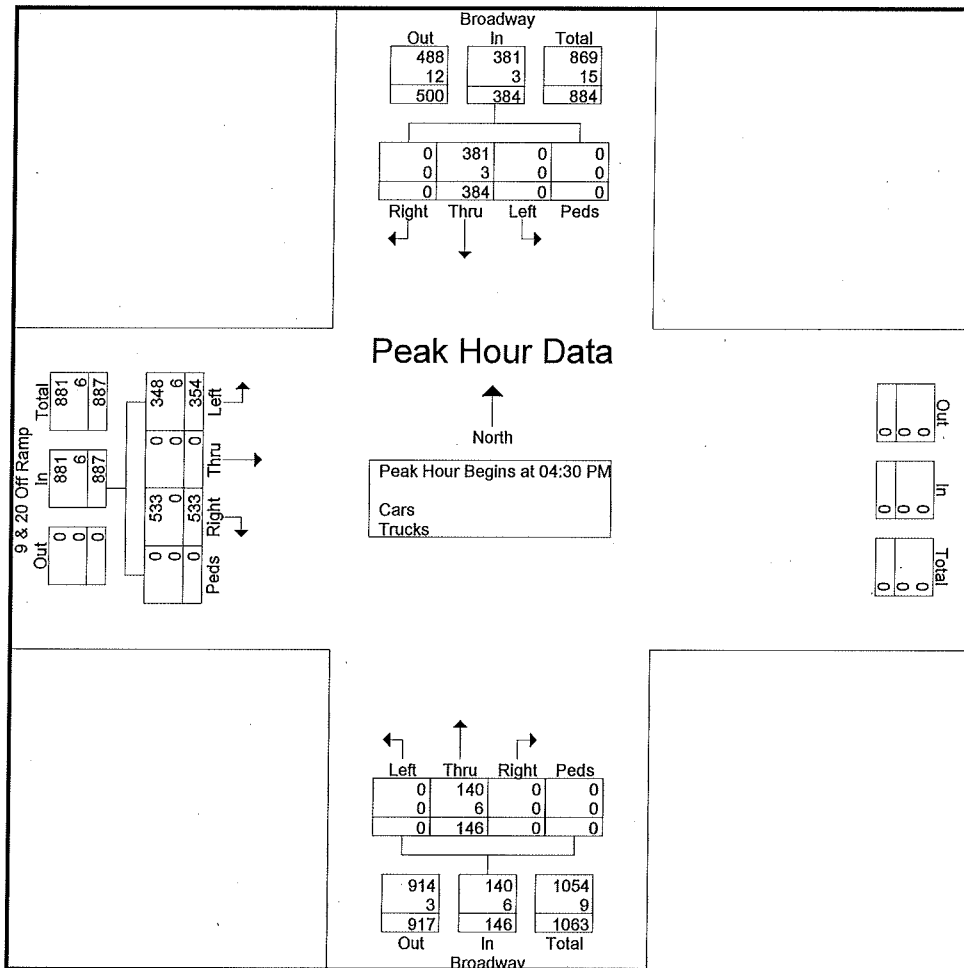
610 466-1469

TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway/9&20 Off Ramp
 Date: Thursday, June 12, 2014
 Counter: BK

File Name : Broadway 3 Weekday
 Site Code : 0003
 Start Date : 6/12/2014
 Page No : 3

Start Time	Broadway Southbound					Broadway Northbound					9 & 20 Off Ramp Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 04:30 PM																
04:30 PM	0	102	0	0	102	0	41	0	0	41	118	0	97	0	215	358
04:45 PM	0	78	0	0	78	0	27	0	0	27	104	0	84	0	188	293
05:00 PM	0	131	0	0	131	0	47	0	0	47	139	0	83	0	222	400
05:15 PM	0	73	0	0	73	0	31	0	0	31	172	0	90	0	262	366
Total Volume	0	384	0	0	384	0	146	0	0	146	533	0	354	0	887	1417
% App. Total	0	100	0	0		0	100	0	0		60.1	0	39.9	0		
PHF	.000	.733	.000	.000	.733	.000	.777	.000	.000	.777	.775	.000	.912	.000	.846	.886
Cars	0	381	0	0	381	0	140	0	0	140	533	0	348	0	881	1402
% Cars	0	99.2	0	0	99.2	0	95.9	0	0	95.9	100	0	98.3	0	99.3	98.9
Trucks	0	3	0	0	3	0	6	0	0	6	0	0	6	0	6	15
% Trucks	0	0.8	0	0	0.8	0	4.1	0	0	4.1	0	0	1.7	0	0.7	1.1



Tri-State Traffic Data, Inc.

610 466-1469

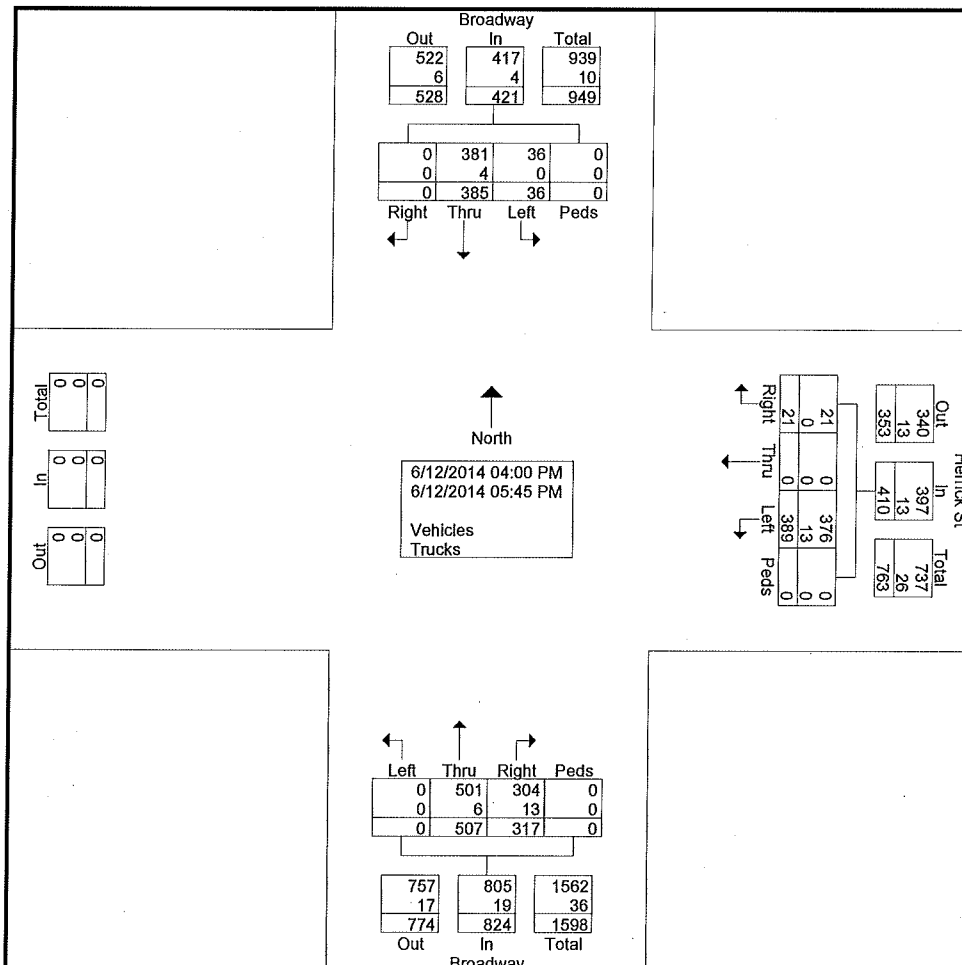
TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway @ Herrick St
 Date: Thursday, June 12th, 2014
 Counter: Bill S

File Name : Broadway 4 Weekday
 Site Code : 0004
 Start Date : 6/12/2014
 Page No : 1

Groups Printed- Vehicles - Trucks

Start Time	Broadway Southbound					Herrick St Westbound					Broadway Northbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
04:00 PM	0	51	3	0	54	1	0	77	0	78	41	57	0	0	98	230
04:15 PM	0	40	3	0	43	2	0	34	0	36	46	67	0	0	113	192
04:30 PM	0	76	6	0	82	0	0	28	0	28	40	91	0	0	131	241
04:45 PM	0	43	2	0	45	3	0	38	0	41	46	54	0	0	100	186
Total	0	210	14	0	224	6	0	177	0	183	173	269	0	0	442	849
05:00 PM	0	51	9	0	60	4	0	84	0	88	41	71	0	0	112	260
05:15 PM	0	45	7	0	52	6	0	34	0	40	50	74	0	0	124	216
05:30 PM	0	32	2	0	34	2	0	16	0	18	29	53	0	0	82	134
05:45 PM	0	47	4	0	51	3	0	78	0	81	24	40	0	0	64	196
Total	0	175	22	0	197	15	0	212	0	227	144	238	0	0	382	806
Grand Total	0	385	36	0	421	21	0	389	0	410	317	507	0	0	824	1655
Apprch %	0	91.4	8.6	0		5.1	0	94.9	0		38.5	61.5	0	0		
Total %	0	23.3	2.2	0	25.4	1.3	0	23.5	0	24.8	19.2	30.6	0	0	49.8	
Vehicles	0	381	36	0	417	21	0	376	0	397	304	501	0	0	805	1619
% Vehicles	0	99	100	0	99	100	0	96.7	0	96.8	95.9	98.8	0	0	97.7	97.8
Trucks	0	4	0	0	4	0	0	13	0	13	13	6	0	0	19	36
% Trucks	0	1	0	0	1	0	0	3.3	0	3.2	4.1	1.2	0	0	2.3	2.2



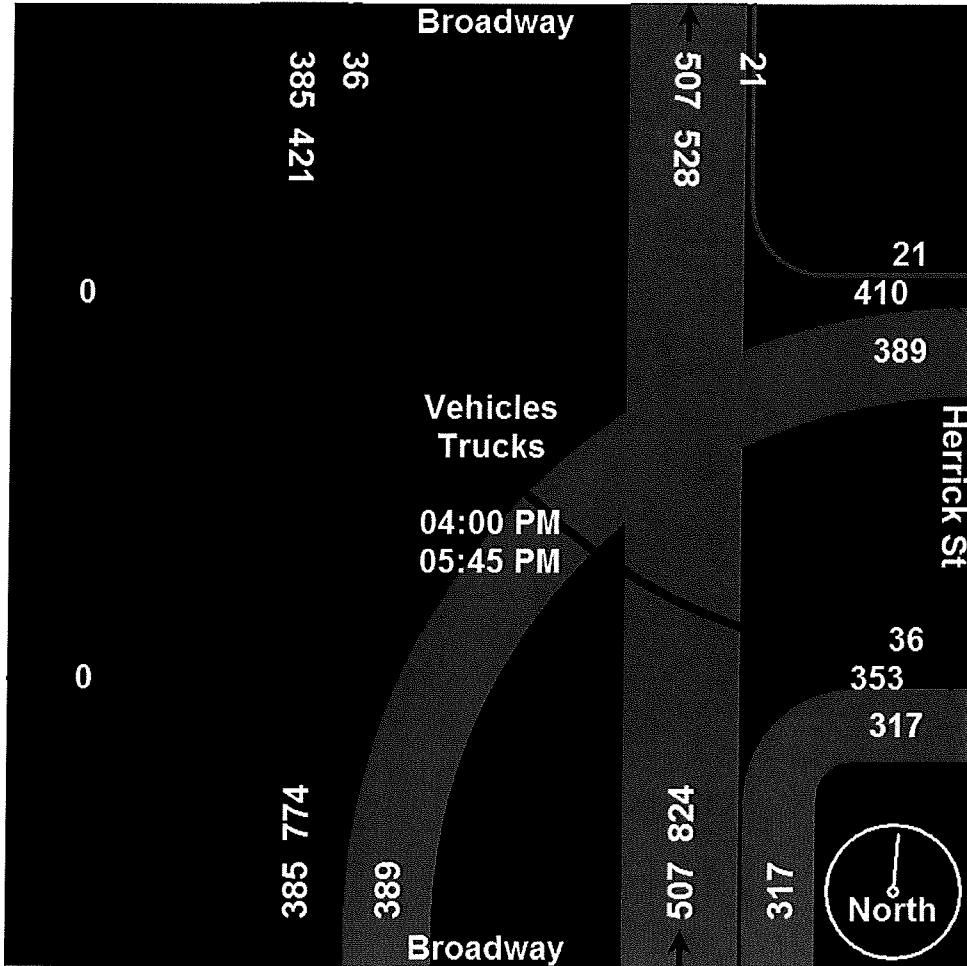
Tri-State Traffic Data, Inc.

610 466-1469

TSTData.com

Location: Rensselaer, New York
Intersection: Broadway @ Herrick St
Date: Thursday, June 12th, 2014
Counter: Bill S

File Name : Broadway 4 Weekday
Site Code : 0004
Start Date : 6/12/2014
Page No : 2



Tri-State Traffic Data, Inc.

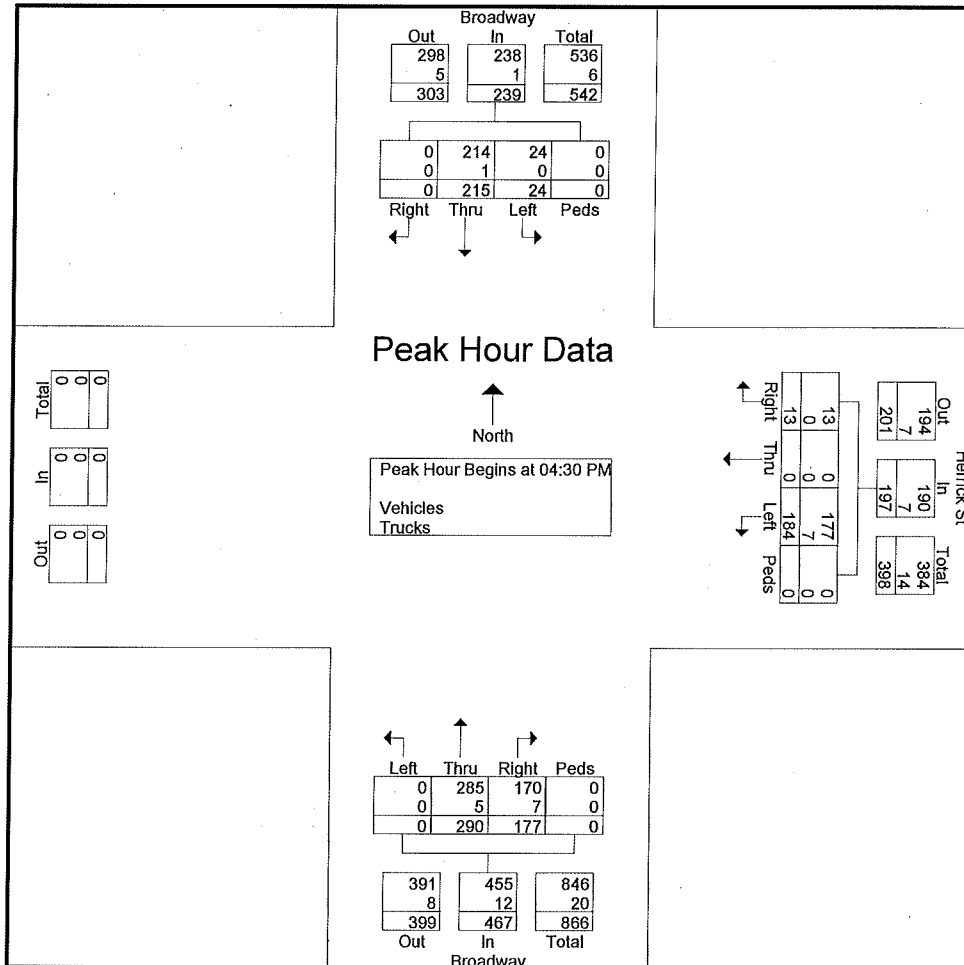
610 466-1469

TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway @ Herrick St
 Date: Thursday, June 12th, 2014
 Counter: Bill S

File Name : Broadway 4 Weekday
 Site Code : 0004
 Start Date : 6/12/2014
 Page No : 3

Start Time	Broadway Southbound					Herrick St Westbound					Broadway Northbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 04:30 PM																
04:30 PM	0	76	6	0	82	0	0	28	0	28	40	91	0	0	131	241
04:45 PM	0	43	2	0	45	3	0	38	0	41	46	54	0	0	100	186
05:00 PM	0	51	9	0	60	4	0	84	0	88	41	71	0	0	112	260
05:15 PM	0	45	7	0	52	6	0	34	0	40	50	74	0	0	124	216
Total Volume	0	215	24	0	239	13	0	184	0	197	177	290	0	0	467	903
% App. Total	0	90	10	0		6.6	0	93.4	0		37.9	62.1	0	0		
PHF	.000	.707	.667	.000	.729	.542	.000	.548	.000	.560	.885	.797	.000	.000	.891	.868
Vehicles	0	214	24	0	238	13	0	177	0	190	170	285	0	0	455	883
% Vehicles	0	99.5	100	0	99.6	100	0	96.2	0	96.4	96.0	98.3	0	0	97.4	97.8
Trucks	0	1	0	0	1	0	0	7	0	7	7	5	0	0	12	20
% Trucks	0	0.5	0	0	0.4	0	0	3.8	0	3.6	4.0	1.7	0	0	2.6	2.2



Tri-State Traffic Data, Inc.

610 466-1469

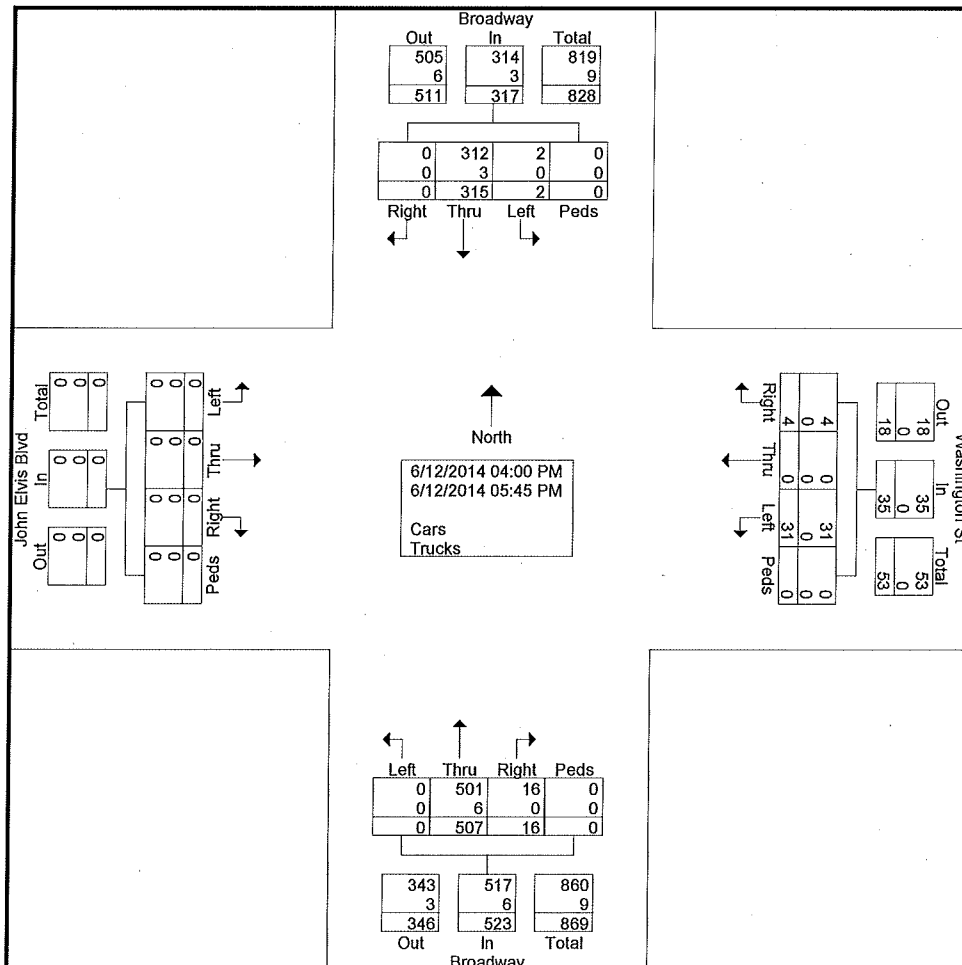
TSTData.com

Location: Rensselaer New York
 Intersection: Broadway @ Washington St
 Date: Thursday, June 12, 2014
 Counter: MB

File Name : Broadway 5 Weekday
 Site Code : 0005
 Start Date : 6/12/2014
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Broadway Southbound					Washington St Westbound					Broadway Northbound					John Elvis Blvd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
04:00 PM	0	40	0	0	40	1	0	7	0	8	2	57	0	0	59	0	0	0	0	0	107
04:15 PM	0	35	0	0	35	0	0	6	0	6	3	65	0	0	68	0	0	0	0	0	109
04:30 PM	0	70	1	0	71	1	0	5	0	6	3	86	0	0	89	0	0	0	0	0	166
04:45 PM	0	37	1	0	38	1	0	2	0	3	1	57	0	0	58	0	0	0	0	0	99
Total	0	182	2	0	184	3	0	20	0	23	9	265	0	0	274	0	0	0	0	0	481
05:00 PM	0	39	0	0	39	1	0	6	0	7	2	75	0	0	77	0	0	0	0	0	123
05:15 PM	0	34	0	0	34	0	0	3	0	3	2	71	0	0	73	0	0	0	0	0	110
05:30 PM	0	25	0	0	25	0	0	1	0	1	2	54	0	0	56	0	0	0	0	0	82
05:45 PM	0	35	0	0	35	0	0	1	0	1	1	42	0	0	43	0	0	0	0	0	79
Total	0	133	0	0	133	1	0	11	0	12	7	242	0	0	249	0	0	0	0	0	394
Grand Total	0	315	2	0	317	4	0	31	0	35	16	507	0	0	523	0	0	0	0	0	875
Apprch %	0	99.4	0.6	0		11.4	0	88.6	0		3.1	96.9	0	0		0	0	0	0		
Total %	0	36	0.2	0	36.2	0.5	0	3.5	0	4	1.8	57.9	0	0	59.8	0	0	0	0	0	
Cars	0	312	2	0	314	4	0	31	0	35	16	501	0	0	517	0	0	0	0	0	866
% Cars	0	99	100	0	99.1	100	0	100	0	100	100	98.8	0	0	98.9	0	0	0	0	0	99
Trucks	0	3	0	0	3	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	9
% Trucks	0	1	0	0	0.9	0	0	0	0	0	0	1.2	0	0	1.1	0	0	0	0	0	1



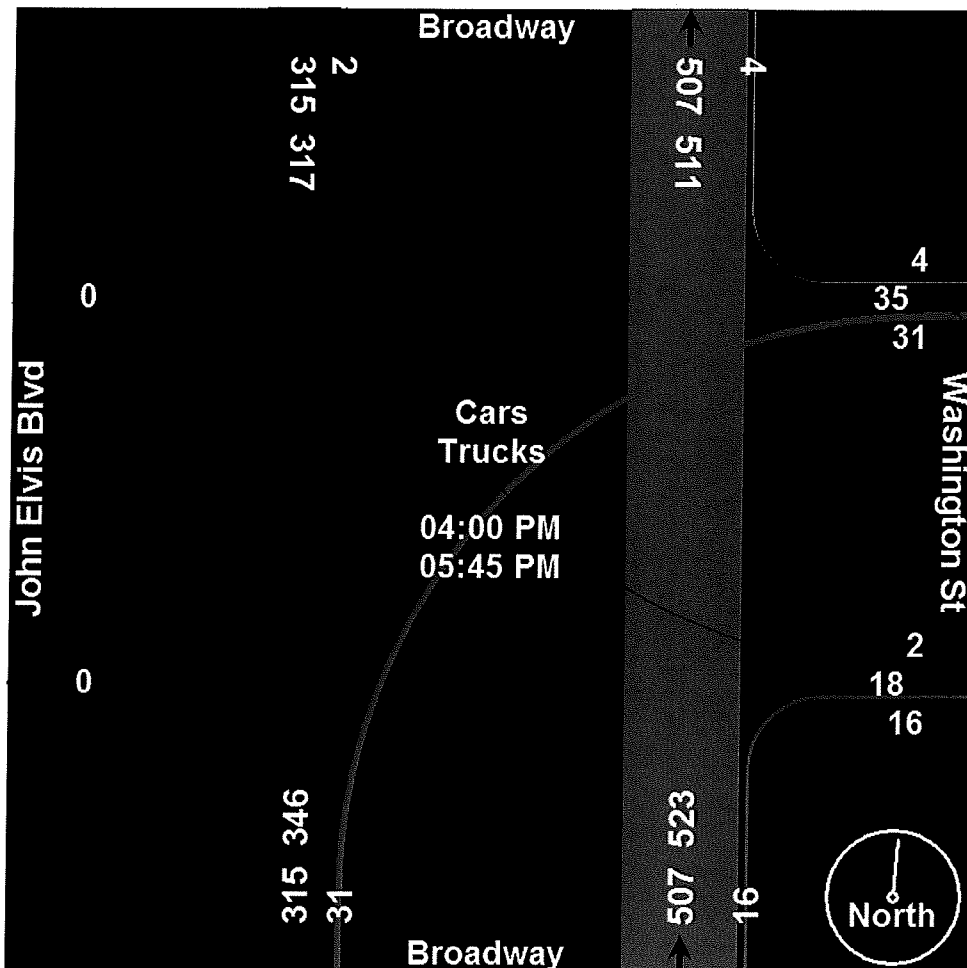
Tri-State Traffic Data, Inc.

610 466-1469

TSTData.com

Location: Rensselaer New York
Intersection: Broadway @ Washington St
Date: Thursday, June 12, 2014
Counter: MB

File Name : Broadway 5 Weekday
Site Code : 0005
Start Date : 6/12/2014
Page No : 2



Tri-State Traffic Data, Inc.

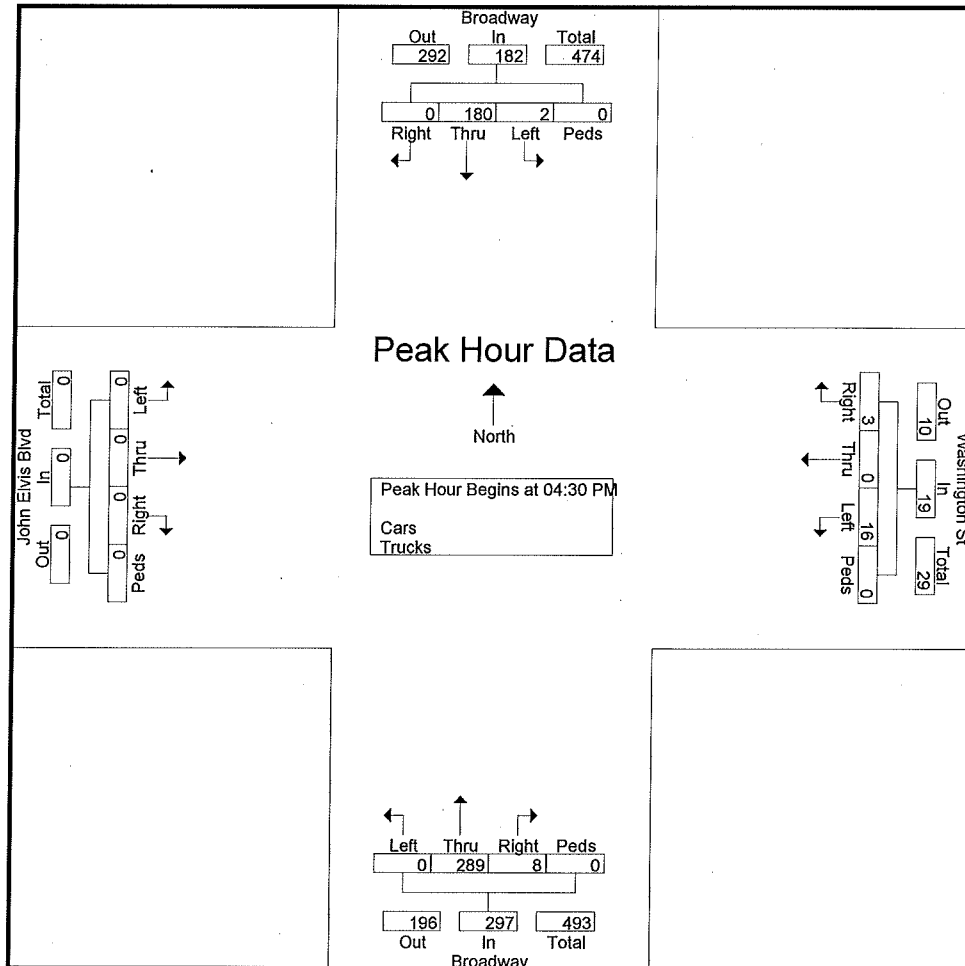
610 466-1469

TSTData.com

Location: Rensselaer New York
 Intersection: Broadway @ Washington St
 Date: Thursday, June 12, 2014
 Counter: MB

File Name : Broadway 5 Weekday
 Site Code : 0005
 Start Date : 6/12/2014
 Page No : 3

Start Time	Broadway Southbound					Washington St Westbound					Broadway Northbound					John Elvis Blvd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	70	1	0	71	1	0	5	0	6	3	86	0	0	89	0	0	0	0	0	166
04:45 PM	0	37	1	0	38	1	0	2	0	3	1	57	0	0	58	0	0	0	0	0	99
05:00 PM	0	39	0	0	39	1	0	6	0	7	2	75	0	0	77	0	0	0	0	0	123
05:15 PM	0	34	0	0	34	0	0	3	0	3	2	71	0	0	73	0	0	0	0	0	110
Total Volume	0	180	2	0	182	3	0	16	0	19	8	289	0	0	297	0	0	0	0	0	498
% App. Total	0	98.9	1.1	0		15.8	0	84.2	0		2.7	97.3	0	0		0	0	0	0		
PHF	.000	.643	.500	.000	.641	.750	.000	.667	.000	.679	.667	.840	.000	.000	.834	.000	.000	.000	.000	.000	.750



Tri-State Traffic Data, Inc.

610 466-1469

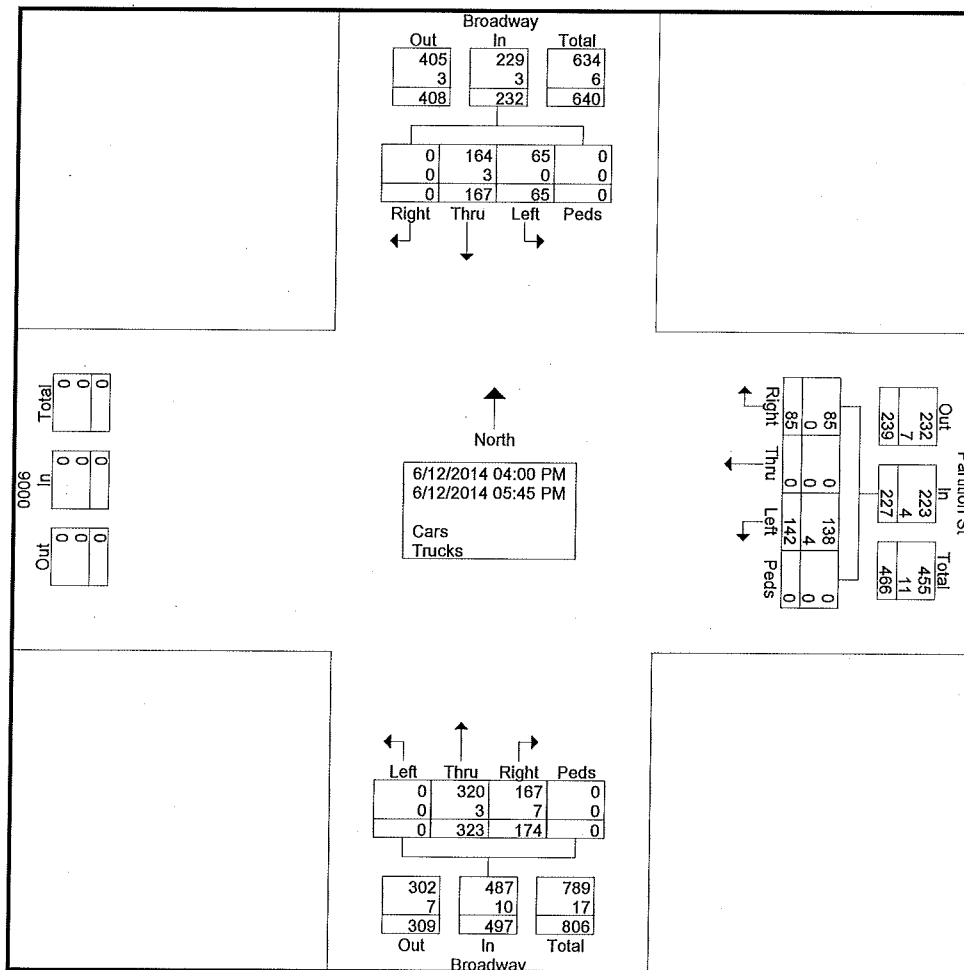
TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway @ Partition St
 Date: Thursday, June 12, 2014
 Counter: Miovision

File Name : Broadway 6 Weekday
 Site Code : 0006
 Start Date : 6/12/2014
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Broadway Southbound					Partition St Westbound					Broadway Northbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
04:00 PM	0	15	10	0	25	16	0	17	0	33	21	33	0	0	54	112
04:15 PM	0	23	2	0	25	11	0	13	0	24	25	40	0	0	65	114
04:30 PM	0	29	9	0	38	10	0	25	0	35	32	58	0	0	90	163
04:45 PM	0	17	8	0	25	5	0	17	0	22	20	39	0	0	59	106
Total	0	84	29	0	113	42	0	72	0	114	98	170	0	0	268	495
05:00 PM	0	21	12	0	33	12	0	13	0	25	19	46	0	0	65	123
05:15 PM	0	17	4	0	21	13	0	20	0	33	21	55	0	0	76	130
05:30 PM	0	22	9	0	31	12	0	17	0	29	23	24	0	0	47	107
05:45 PM	0	23	11	0	34	6	0	20	0	26	13	28	0	0	41	101
Total	0	83	36	0	119	43	0	70	0	113	76	153	0	0	229	461
Grand Total	0	167	65	0	232	85	0	142	0	227	174	323	0	0	497	956
Apprch %	0	72	28	0		37.4	0	62.6	0		35	65	0	0		
Total %	0	17.5	6.8	0	24.3	8.9	0	14.9	0	23.7	18.2	33.8	0	0	52	
Cars	0	164	65	0	229	85	0	138	0	223	167	320	0	0	487	939
% Cars	0	98.2	100	0	98.7	100	0	97.2	0	98.2	96	99.1	0	0	98	98.2
Trucks	0	3	0	0	3	0	0	4	0	4	7	3	0	0	10	17
% Trucks	0	1.8	0	0	1.3	0	0	2.8	0	1.8	4	0.9	0	0	2	1.8



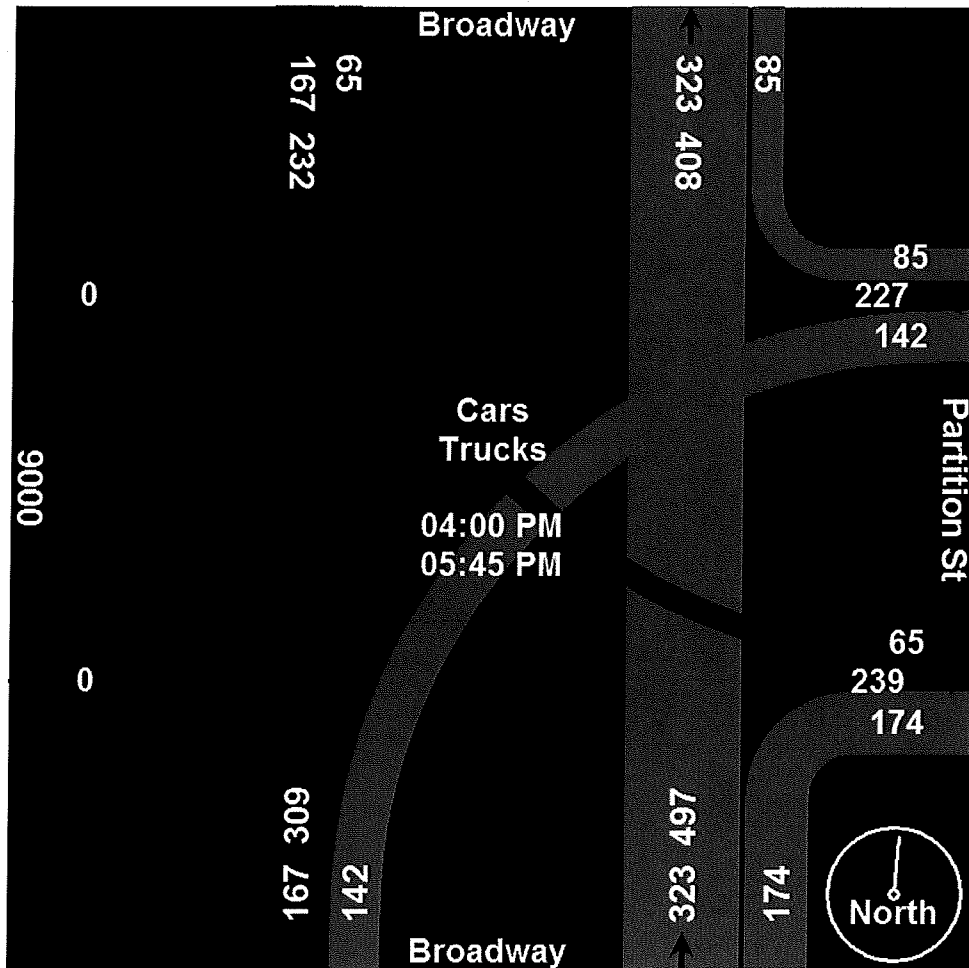
Tri-State Traffic Data, Inc.

610 466-1469

TSTData.com

Location: Rensselaer, New York
Intersection: Broadway @ Partition St
Date: Thursday, June 12, 2014
Counter: Miovision

File Name : Broadway 6 Weekday
Site Code : 0006
Start Date : 6/12/2014
Page No : 2



Tri-State Traffic Data, Inc.

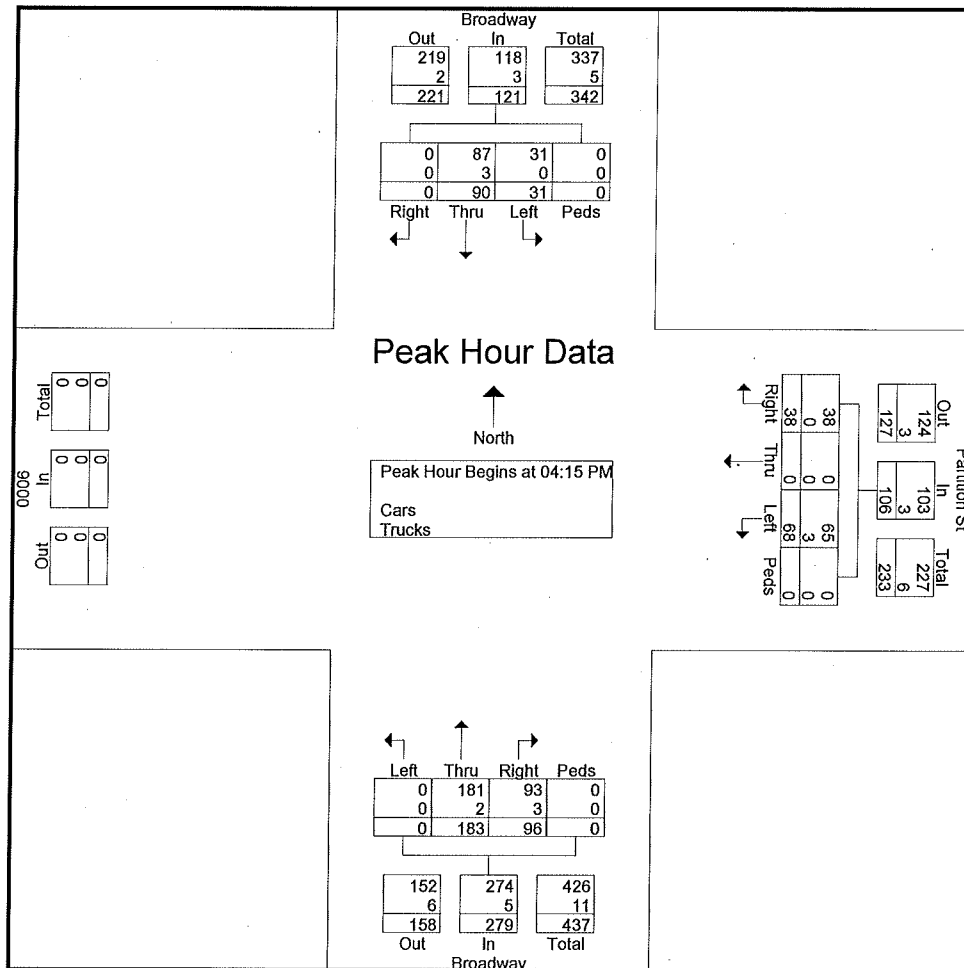
610 466-1469

TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway @ Partition St
 Date: Thursday, June 12, 2014
 Counter: Miovision

File Name : Broadway 6 Weekday
 Site Code : 0006
 Start Date : 6/12/2014
 Page No : 3

Start Time	Broadway Southbound					Partition St Westbound					Broadway Northbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:00 PM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 04:15 PM																
04:15 PM	0	23	2	0	25	11	0	13	0	24	25	40	0	0	65	114
04:30 PM	0	29	9	0	38	10	0	25	0	35	32	58	0	0	90	163
04:45 PM	0	17	8	0	25	5	0	17	0	22	20	39	0	0	59	106
05:00 PM	0	21	12	0	33	12	0	13	0	25	19	46	0	0	65	123
Total Volume	0	90	31	0	121	38	0	68	0	106	96	183	0	0	279	506
% App. Total	0	74.4	25.6	0		35.8	0	64.2	0		34.4	65.6	0	0		
PHF	.000	.776	.646	.000	.796	.792	.000	.680	.000	.757	.750	.789	.000	.000	.775	.776
Cars	0	87	31	0	118	38	0	65	0	103	93	181	0	0	274	495
% Cars	0	96.7	100	0	97.5	100	0	95.6	0	97.2	96.9	98.9	0	0	98.2	97.8
Trucks	0	3	0	0	3	0	0	3	0	3	3	2	0	0	5	11
% Trucks	0	3.3	0	0	2.5	0	0	4.4	0	2.8	3.1	1.1	0	0	1.8	2.2



2014 Traffic Counts (Friday evening)

Tri-State Traffic Data, Inc.

610 466-1469

TSTData.com

Location: Rensselaer, New York

Intersection: Broadway @ 9&20

Date: Friday, June 13, 2014

Counter: MioVision

File Name : Broadway 1 Friday Final

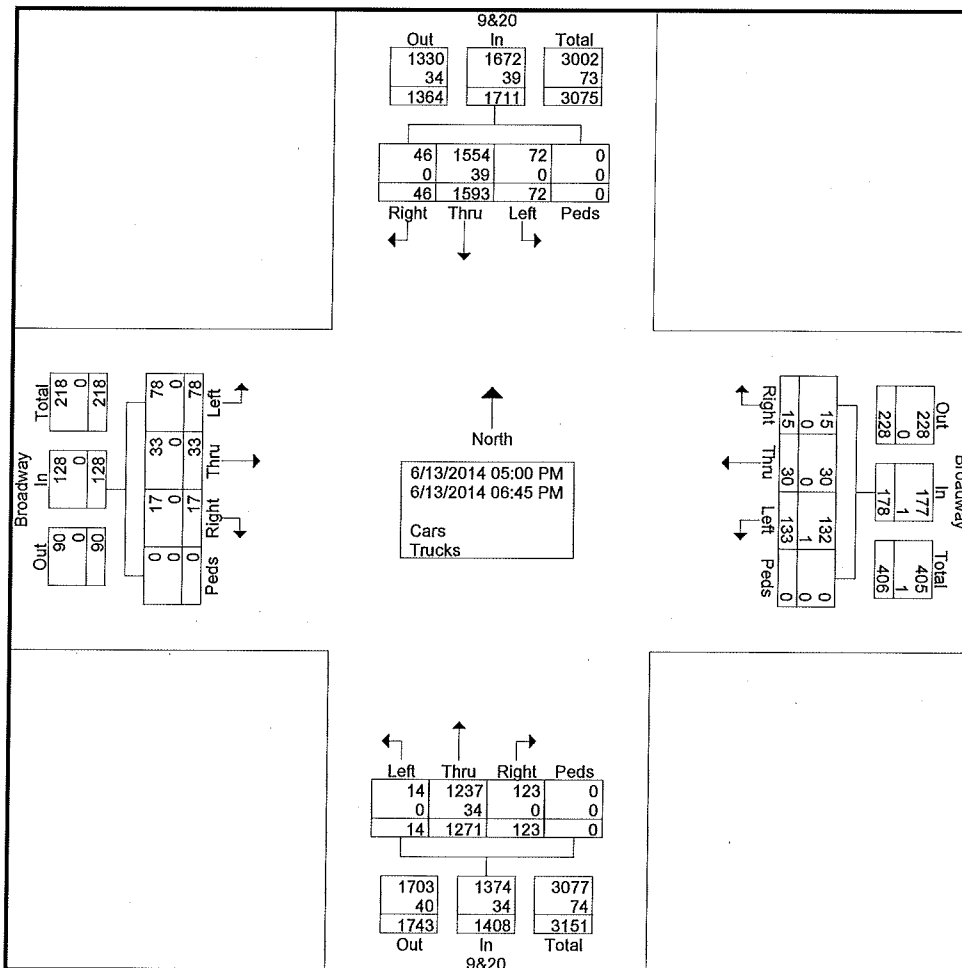
Site Code : 0001

Start Date : 6/13/2014

Page No : 1

Groups Printed- Cars - Trucks

Start Time	9&20 Southbound					Broadway Westbound					9&20 Northbound					Broadway Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
05:00 PM	3	336	11	0	350	1	1	14	0	16	11	212	2	0	225	0	12	29	0	41	632
05:15 PM	10	306	11	0	327	1	4	19	0	24	16	178	1	0	195	5	6	8	0	19	565
05:30 PM	9	244	10	0	263	3	6	13	0	22	20	176	2	0	198	3	1	12	0	16	499
05:45 PM	3	166	8	0	177	3	6	24	0	33	17	175	2	0	194	0	5	3	0	8	412
Total	25	1052	40	0	1117	8	17	70	0	95	64	741	7	0	812	8	24	52	0	84	2108
06:00 PM	8	172	12	0	192	2	3	25	0	30	20	141	2	0	163	2	1	9	0	12	397
06:15 PM	5	145	9	0	159	2	4	16	0	22	21	167	2	0	190	3	1	9	0	13	384
06:30 PM	5	123	4	0	132	1	2	14	0	17	9	114	2	0	125	2	7	5	0	14	288
06:45 PM	3	101	7	0	111	2	4	8	0	14	9	108	1	0	118	2	0	3	0	5	248
Total	21	541	32	0	594	7	13	63	0	83	59	530	7	0	596	9	9	26	0	44	1317
Grand Total	46	1593	72	0	1711	15	30	133	0	178	123	1271	14	0	1408	17	33	78	0	128	3425
Apprch %	2.7	93.1	4.2	0		8.4	16.9	74.7	0		8.7	90.3	1	0		13.3	25.8	60.9	0		
Total %	1.3	46.5	2.1	0	50	0.4	0.9	3.9	0	5.2	3.6	37.1	0.4	0	41.1	0.5	1	2.3	0	3.7	
Cars	46	1554	72	0	1672	15	30	132	0	177	123	1237	14	0	1374	17	33	78	0	128	3351
% Cars	100	97.6	100	0	97.7	100	100	99.2	0	99.4	100	97.3	100	0	97.6	100	100	100	0	100	97.8
Trucks	0	39	0	0	39	0	0	1	0	1	0	34	0	0	34	0	0	0	0	0	74
% Trucks	0	2.4	0	0	2.3	0	0	0.8	0	0.6	0	2.7	0	0	2.4	0	0	0	0	0	2.2



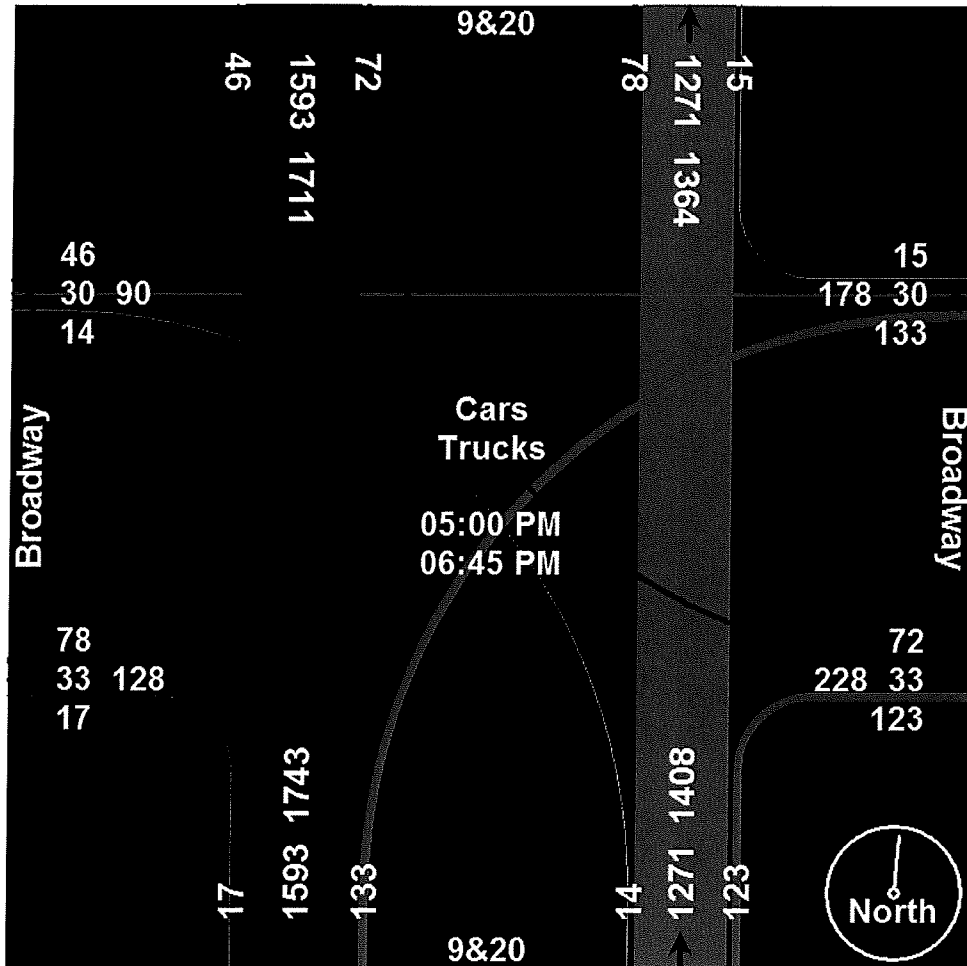
Tri-State Traffic Data, Inc.

610 466-1469

TSTData.com

Location: Rensselaer, New York
Intersection: Broadway @ 9&20
Date: Friday, June 13, 2014
Counter: MioVision

File Name : Broadway 1 Friday Final
Site Code : 0001
Start Date : 6/13/2014
Page No : 2



Tri-State Traffic Data, Inc.

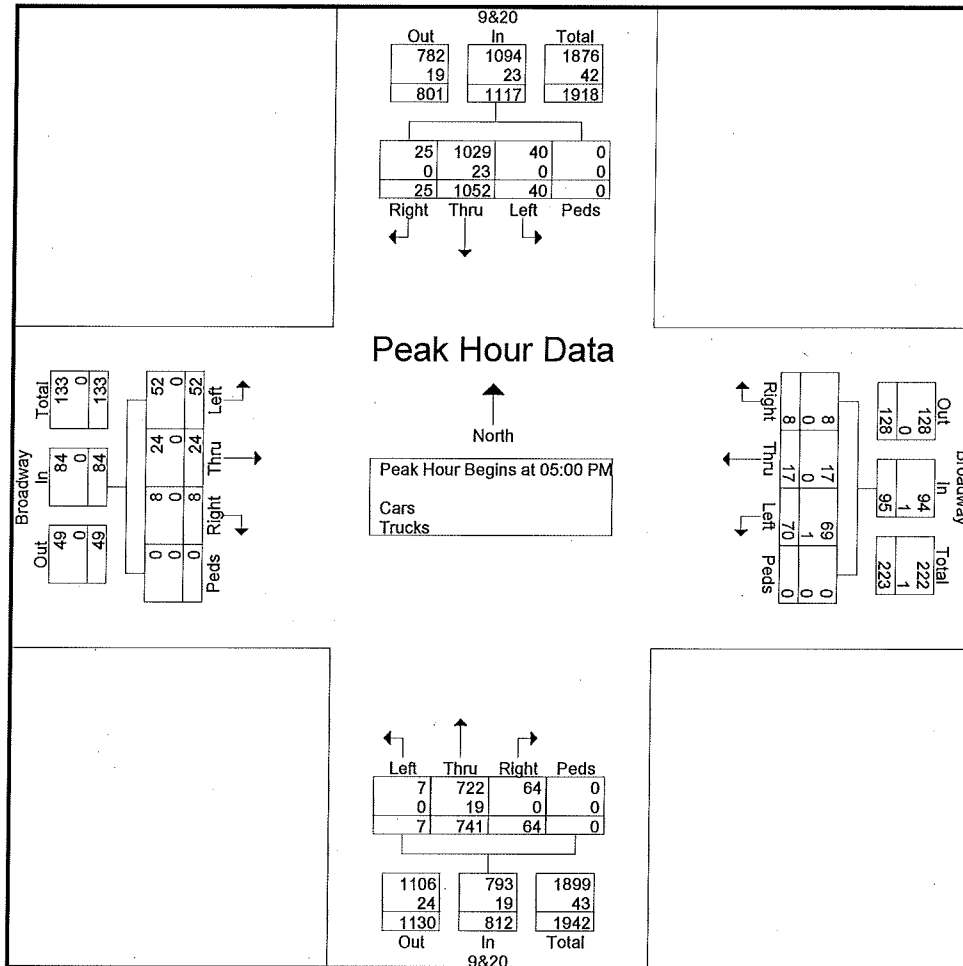
610 466-1469

TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway @ 9&20
 Date: Friday, June 13, 2014
 Counter: MioVision

File Name : Broadway 1 Friday Final
 Site Code : 0001
 Start Date : 6/13/2014
 Page No : 3

Start Time	9&20 Southbound					Broadway Westbound					9&20 Northbound					Broadway Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	3	336	11	0	350	1	1	14	0	16	11	212	2	0	225	0	12	29	0	41	632
05:15 PM	10	306	11	0	327	1	4	19	0	24	16	178	1	0	195	5	6	8	0	19	565
05:30 PM	9	244	10	0	263	3	6	13	0	22	20	176	2	0	198	3	1	12	0	16	499
05:45 PM	3	166	8	0	177	3	6	24	0	33	17	175	2	0	194	0	5	3	0	8	412
Total Volume	25	1052	40	0	1117	8	17	70	0	95	64	741	7	0	812	8	24	52	0	84	2108
% App. Total	2.2	94.2	3.6	0		8.4	17.9	73.7	0		7.9	91.3	0.9	0		9.5	28.6	61.9	0		
PHF	.625	.783	.909	.000	.798	.667	.708	.729	.000	.720	.800	.874	.875	.000	.902	.400	.500	.448	.000	.512	.834
Cars	25	1029																			
% Cars	100	97.8	100	0	97.9	100	100	98.6	0	98.9	100	97.4	100	0	97.7	100	100	100	0	100	98.0
Trucks	0	23	0	0	23	0	0	1	0	1	0	19	0	0	19	0	0	0	0	0	43
% Trucks	0	2.2	0	0	2.1	0	0	1.4	0	1.1	0	2.6	0	0	2.3	0	0	0	0	0	2.0



Tri-State Traffic Data, Inc.

610 466-1469

TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway @ 3rd Avenue
 Date: Friday, June 13, 2014
 Counter: Mio-Vision

File Name : Broadway 2 Friday
 Site Code : 0002
 Start Date : 6/13/2014
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Broadway Southbound					3rd Avenue Westbound					Broadway Northbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
05:00 PM	119	20	83	0	222	7	141	3	1	152	18	22	2	0	42	416
05:15 PM	70	26	104	0	200	11	109	3	0	123	12	22	1	0	35	358
05:30 PM	42	14	66	0	122	10	83	5	0	98	15	17	3	0	35	255
05:45 PM	44	26	45	0	115	15	75	5	0	95	8	15	4	0	27	237
Total	275	86	298	0	659	43	408	16	1	468	53	76	10	0	139	1266
06:00 PM	120	31	37	0	188	9	82	2	0	93	15	22	3	0	40	321
06:15 PM	52	20	47	0	119	7	55	1	0	63	9	16	4	0	29	211
06:30 PM	52	12	44	0	108	7	43	1	0	51	12	9	1	0	22	181
06:45 PM	29	13	30	0	72	6	27	2	1	36	9	10	2	0	21	129
Total	253	76	158	0	487	29	207	6	1	243	45	57	10	0	112	842
07:00 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Grand Total	528	162	456	0	1146	73	615	22	2	712	98	133	20	0	251	2109
Apprch %	46.1	14.1	39.8	0		10.3	86.4	3.1	0.3		39	53	8	0		
Total %	25	7.7	21.6	0	54.3	3.5	29.2	1	0.1	33.8	4.6	6.3	0.9	0	11.9	
Cars	522	161	445	0	1128	72	612	22	2	708	97	133	20	0	250	2086
% Cars	98.9	99.4	97.6	0	98.4	98.6	99.5	100	100	99.4	99	100	100	0	99.6	98.9
Trucks	6	1	11	0	18	1	3	0	0	4	1	0	0	0	1	23
% Trucks	1.1	0.6	2.4	0	1.6	1.4	0.5	0	0	0.6	1	0	0	0	0.4	1.1

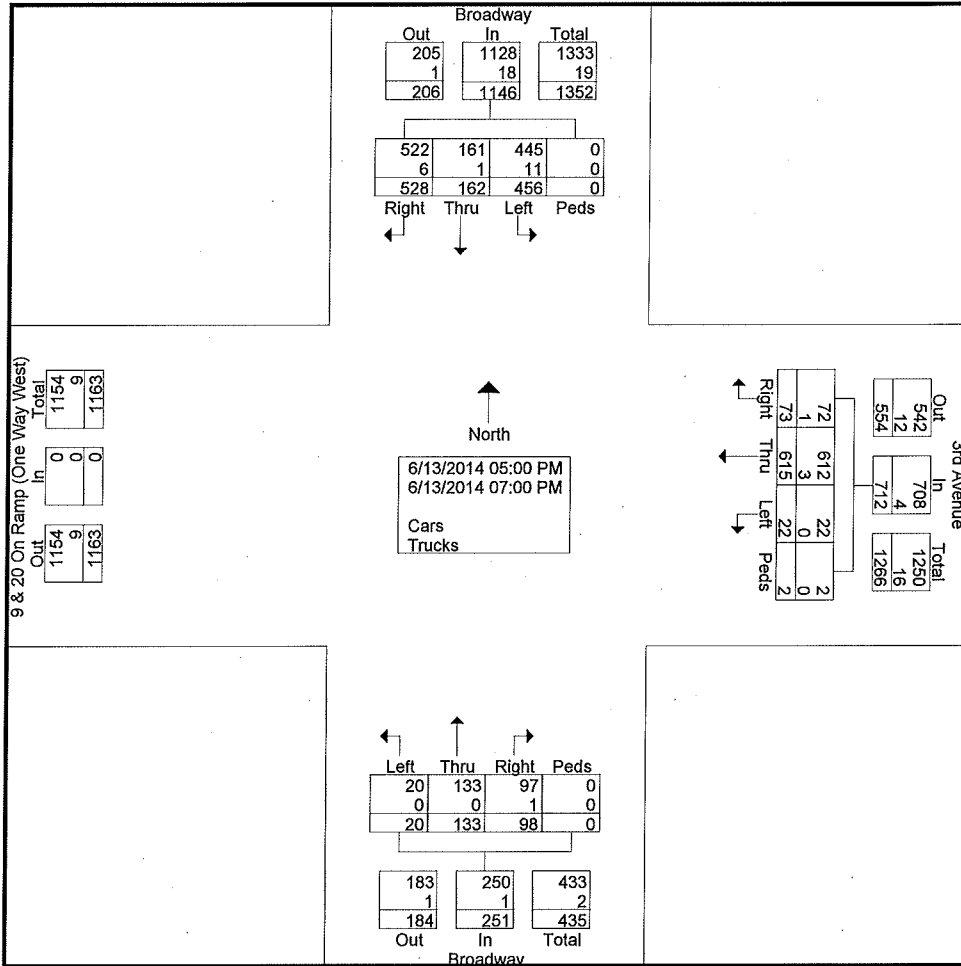
Tri-State Traffic Data, Inc.

610 466-1469

TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway @ 3rd Avenue
 Date: Friday, June 13, 2014
 Counter: Mio-Vision

File Name : Broadway 2 Friday
 Site Code : 0002
 Start Date : 6/13/2014
 Page No : 2



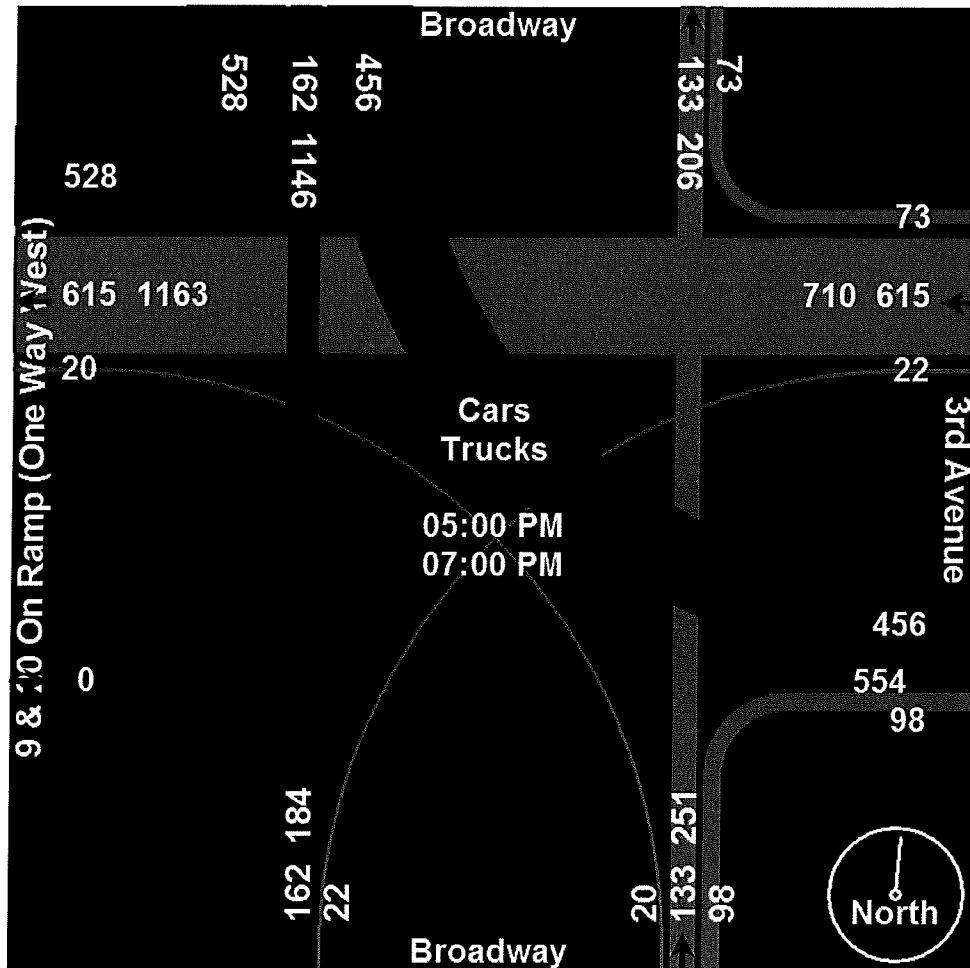
Tri-State Traffic Data, Inc.

610 466-1469

TSTData.com

Location: Rensselaer, New York
Intersection: Broadway @ 3rd Avenue
Date: Friday, June 13, 2014
Counter: Mio-Vision

File Name : Broadway 2 Friday
Site Code : 0002
Start Date : 6/13/2014
Page No : 3



Tri-State Traffic Data, Inc.

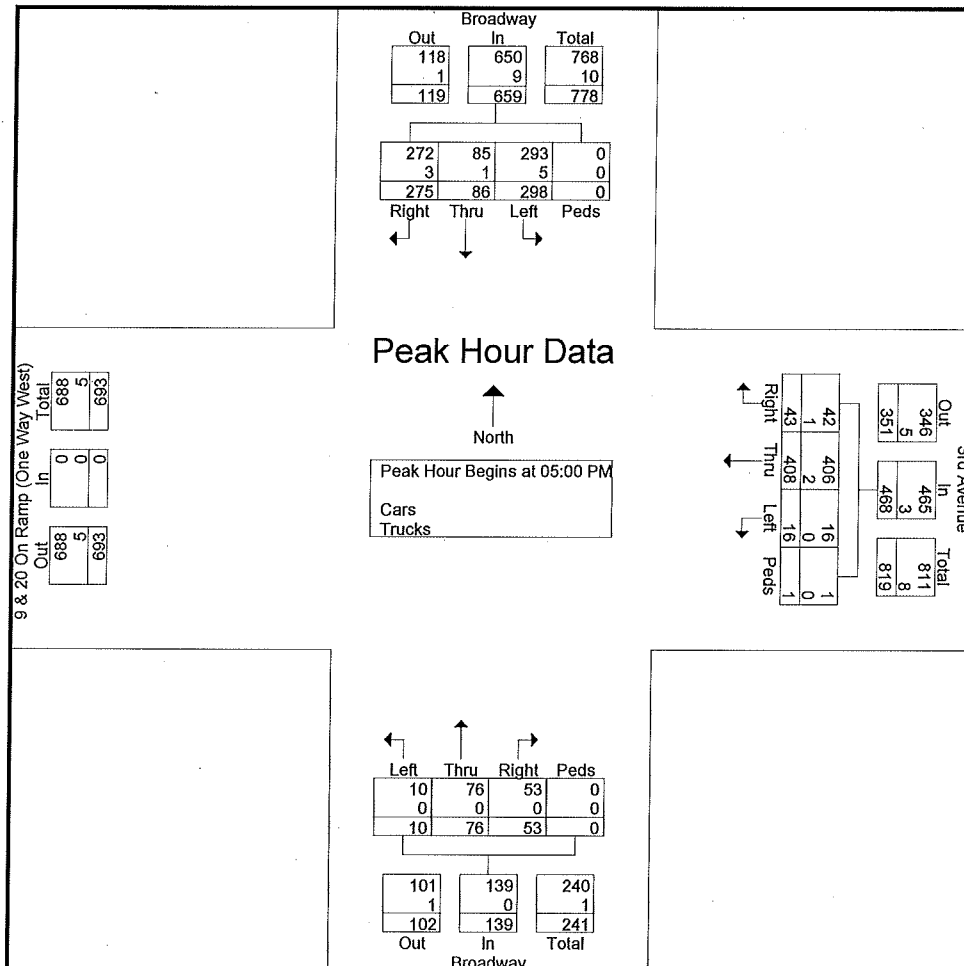
610 466-1469

TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway @ 3rd Avenue
 Date: Friday, June 13, 2014
 Counter: Mio-Vision

File Name : Broadway 2 Friday
 Site Code : 0002
 Start Date : 6/13/2014
 Page No : 4

Start Time	Broadway Southbound					3rd Avenue Westbound					Broadway Northbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 05:00 PM to 07:00 PM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 05:00 PM																
05:00 PM	119	20	83	0	222	7	141	3	1	152	18	22	2	0	42	416
05:15 PM	70	26	104	0	200	11	109	3	0	123	12	22	1	0	35	358
05:30 PM	42	14	66	0	122	10	83	5	0	98	15	17	3	0	35	255
05:45 PM	44	26	45	0	115	15	75	5	0	95	8	15	4	0	27	237
Total Volume	275	86	298	0	659	43	408	16	1	468	53	76	10	0	139	1266
% App. Total	41.7	13.1	45.2	0		9.2	87.2	3.4	0.2		38.1	54.7	7.2	0		
PHF	.578	.827	.716	.000	.742	.717	.723	.800	.250	.770	.736	.864	.625	.000	.827	.761
Cars	272	85	293	0	650	42	406	16	1	465	53	76	10	0	139	1254
% Cars	98.9	98.8	98.3	0	98.6	97.7	99.5	100	100	99.4	100	100	100	0	100	99.1
Trucks	3	1	5	0	9	1	2	0	0	3	0	0	0	0	0	12
% Trucks	1.1	1.2	1.7	0	1.4	2.3	0.5	0	0	0.6	0	0	0	0	0	0.9



Tri-State Traffic Data, Inc.

610 466-1469

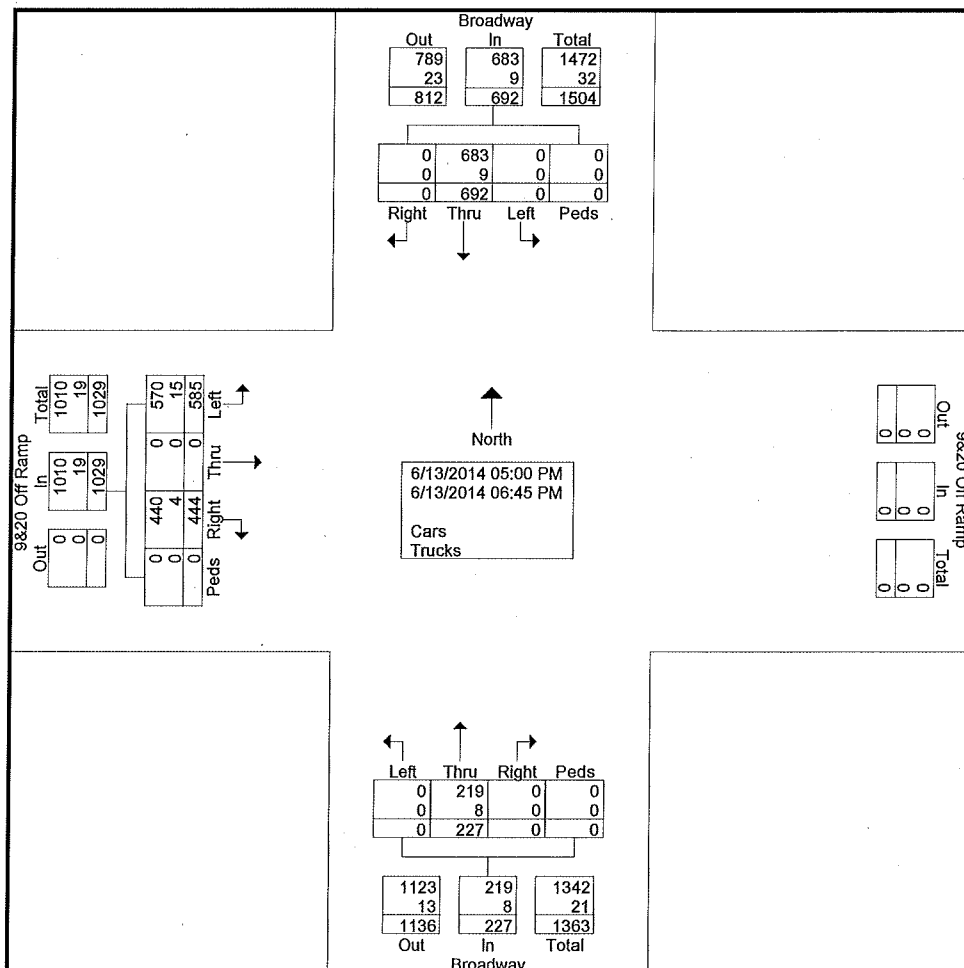
TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway @ 9&20 Off Ramp
 Date: Friday, June 13, 2014
 Counter: BB

File Name : Broadway 3 Friday
 Site Code : 0003
 Start Date : 6/13/2014
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Broadway Southbound					Broadway Northbound					9&20 Off Ramp Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
05:00 PM	0	128	0	0	128	0	33	0	0	33	92	0	77	0	169	330
05:15 PM	0	86	0	0	86	0	35	0	0	35	98	0	99	0	197	318
05:30 PM	0	56	0	0	56	0	30	0	0	30	69	0	73	0	142	228
05:45 PM	0	93	0	0	93	0	35	0	0	35	31	0	51	0	82	210
Total	0	363	0	0	363	0	133	0	0	133	290	0	300	0	590	1086
06:00 PM	0	135	0	0	135	0	33	0	0	33	46	0	63	0	109	277
06:15 PM	0	77	0	0	77	0	25	0	0	25	40	0	72	0	112	214
06:30 PM	0	74	0	0	74	0	21	0	0	21	40	0	67	0	107	202
06:45 PM	0	43	0	0	43	0	15	0	0	15	28	0	83	0	111	169
Total	0	329	0	0	329	0	94	0	0	94	154	0	285	0	439	862
Grand Total	0	692	0	0	692	0	227	0	0	227	444	0	585	0	1029	1948
Apprch %	0	100	0	0	100	0	100	0	0	100	43.1	0	56.9	0		
Total %	0	35.5	0	0	35.5	0	11.7	0	0	11.7	22.8	0	30	0	52.8	
Cars	0	683	0	0	683	0	219	0	0	219	440	0	570	0	1010	1912
% Cars	0	98.7	0	0	98.7	0	96.5	0	0	96.5	99.1	0	97.4	0	98.2	98.2
Trucks	0	9	0	0	9	0	8	0	0	8	4	0	15	0	19	36
% Trucks	0	1.3	0	0	1.3	0	3.5	0	0	3.5	0.9	0	2.6	0	1.8	1.8



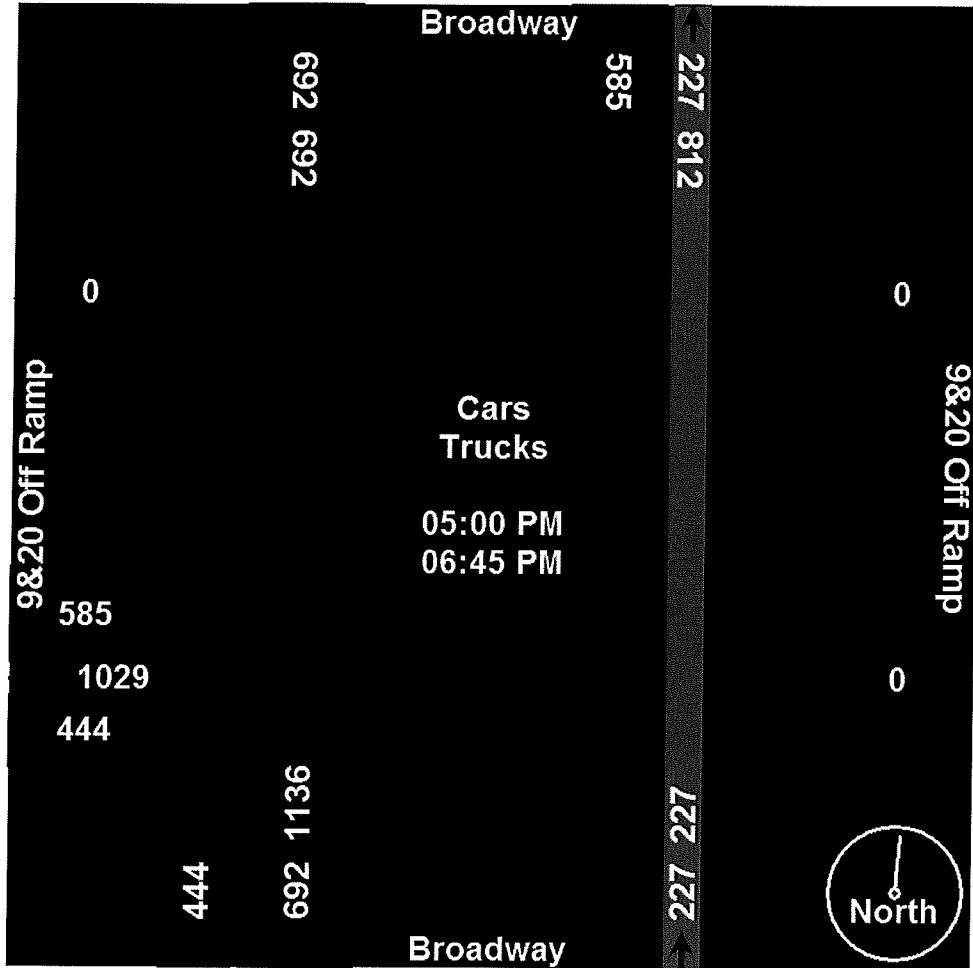
Tri-State Traffic Data, Inc.

610 466-1469

TSTData.com

Location: Rensselaer, New York
Intersection: Broadway @ 9&20 Off Ramp
Date: Friday, June 13, 2014
Counter: BB

File Name : Broadway 3 Friday
Site Code : 0003
Start Date : 6/13/2014
Page No : 2



Tri-State Traffic Data, Inc.

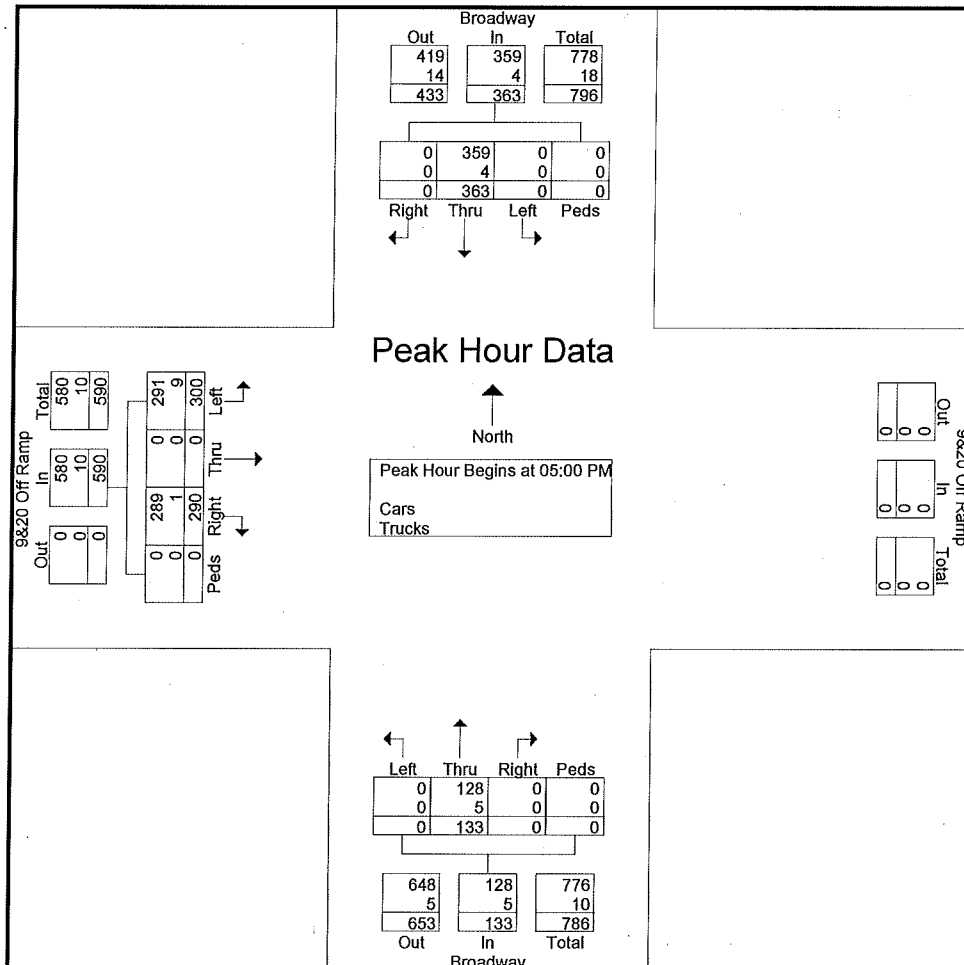
610 466-1469

TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway @ 9&20 Off Ramp
 Date: Friday, June 13, 2014
 Counter: BB

File Name : Broadway 3 Friday
 Site Code : 0003
 Start Date : 6/13/2014
 Page No : 3

Start Time	Broadway Southbound					Broadway Northbound					9&20 Off Ramp Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 05:00 PM																
05:00 PM	0	128	0	0	128	0	33	0	0	33	92	0	77	0	169	330
05:15 PM	0	86	0	0	86	0	35	0	0	35	98	0	99	0	197	318
05:30 PM	0	56	0	0	56	0	30	0	0	30	69	0	73	0	142	228
05:45 PM	0	93	0	0	93	0	35	0	0	35	31	0	51	0	82	210
Total Volume	0	363	0	0	363	0	133	0	0	133	290	0	300	0	590	1086
% App. Total	0	100	0	0		0	100	0	0		49.2	0	50.8	0		
PHF	.000	.709	.000	.000	.709	.000	.950	.000	.000	.950	.740	.000	.758	.000	.749	.823
Cars	0	359	0	0	359	0	128	0	0	128	289	0	291	0	580	1067
% Cars	0	98.9	0	0	98.9	0	96.2	0	0	96.2	99.7	0	97.0	0	98.3	98.3
Trucks	0	4	0	0	4	0	5	0	0	5	1	0	9	0	10	19
% Trucks	0	1.1	0	0	1.1	0	3.8	0	0	3.8	0.3	0	3.0	0	1.7	1.7



Tri-State Traffic Data, Inc.

610 466-1469

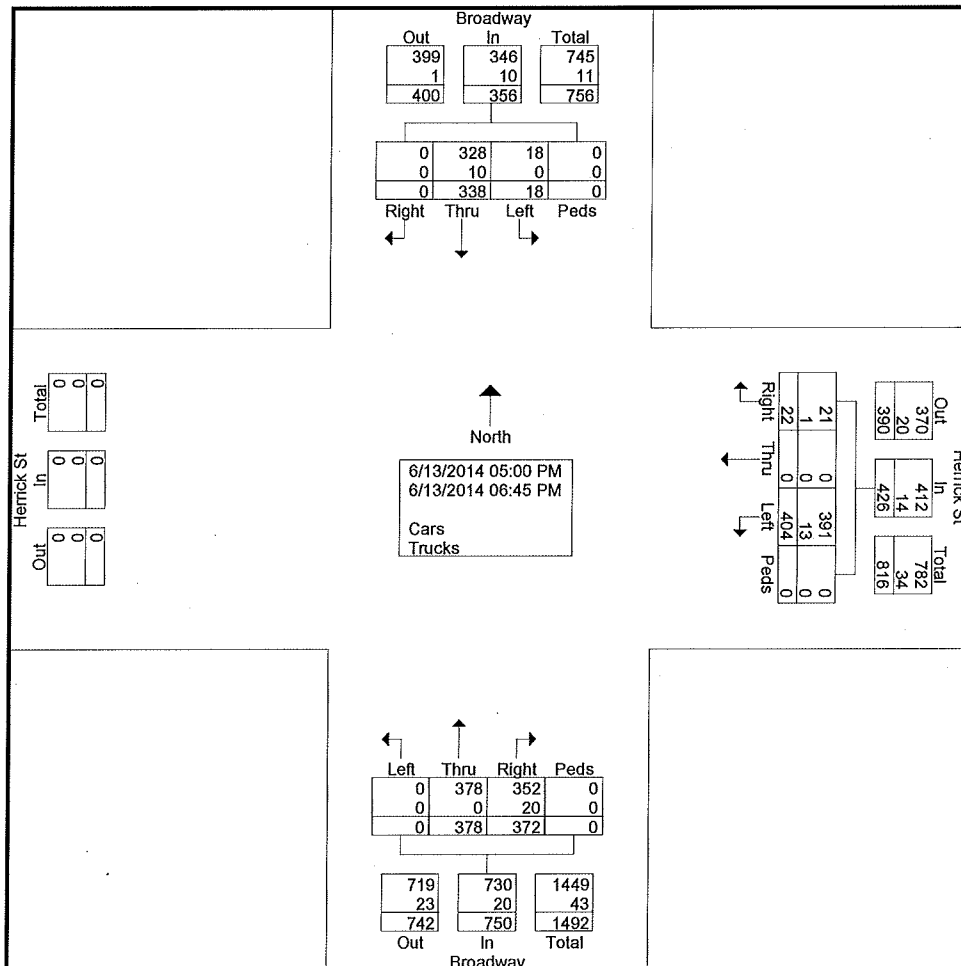
TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway @ Herrick St
 Date: Friday, June 13, 2014
 Counter: BK

File Name : Broadway 4 Friday
 Site Code : 0004
 Start Date : 6/13/2014
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Broadway Southbound					Herrick St Westbound					Broadway Northbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
05:00 PM	0	43	6	0	49	8	0	94	0	102	34	63	0	0	97	248
05:15 PM	0	43	3	0	46	3	0	46	0	49	64	74	0	0	138	233
05:30 PM	0	35	2	0	37	2	0	24	0	26	50	45	0	0	95	158
05:45 PM	0	50	0	0	50	3	0	41	0	44	38	37	0	0	75	169
Total	0	171	11	0	182	16	0	205	0	221	186	219	0	0	405	808
06:00 PM	0	59	1	0	60	3	0	98	0	101	24	50	0	0	74	235
06:15 PM	0	50	3	0	53	2	0	33	0	35	49	39	0	0	88	176
06:30 PM	0	30	1	0	31	1	0	48	0	49	48	37	0	0	85	165
06:45 PM	0	28	2	0	30	0	0	20	0	20	65	33	0	0	98	148
Total	0	167	7	0	174	6	0	199	0	205	186	159	0	0	345	724
Grand Total	0	338	18	0	356	22	0	404	0	426	372	378	0	0	750	1532
Apprch %	0	94.9	5.1	0		5.2	0	94.8	0		49.6	50.4	0	0		
Total %	0	22.1	1.2	0	23.2	1.4	0	26.4	0	27.8	24.3	24.7	0	0	49	
Cars	0	328	18	0	346	21	0	391	0	412	352	378	0	0	730	1488
% Cars	0	97	100	0	97.2	95.5	0	96.8	0	96.7	94.6	100	0	0	97.3	97.1
Trucks	0	10	0	0	10	1	0	13	0	14	20	0	0	0	20	44
% Trucks	0	3	0	0	2.8	4.5	0	3.2	0	3.3	5.4	0	0	0	2.7	2.9



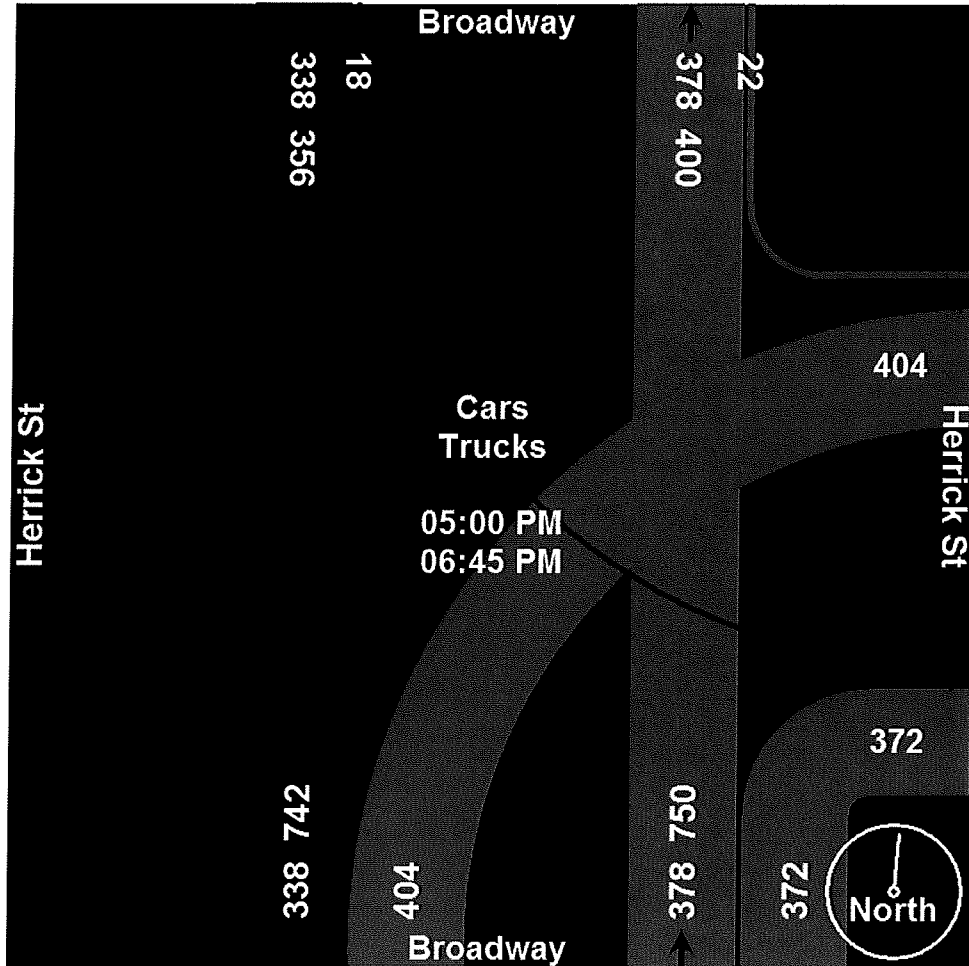
Tri-State Traffic Data, Inc.

610 466-1469

TSTData.com

Location: Rensselaer, New York
Intersection: Broadway @ Herrick St
Date: Friday, June 13, 2014
Counter: BK

File Name : Broadway 4 Friday
Site Code : 0004
Start Date : 6/13/2014
Page No : 2



Tri-State Traffic Data, Inc.

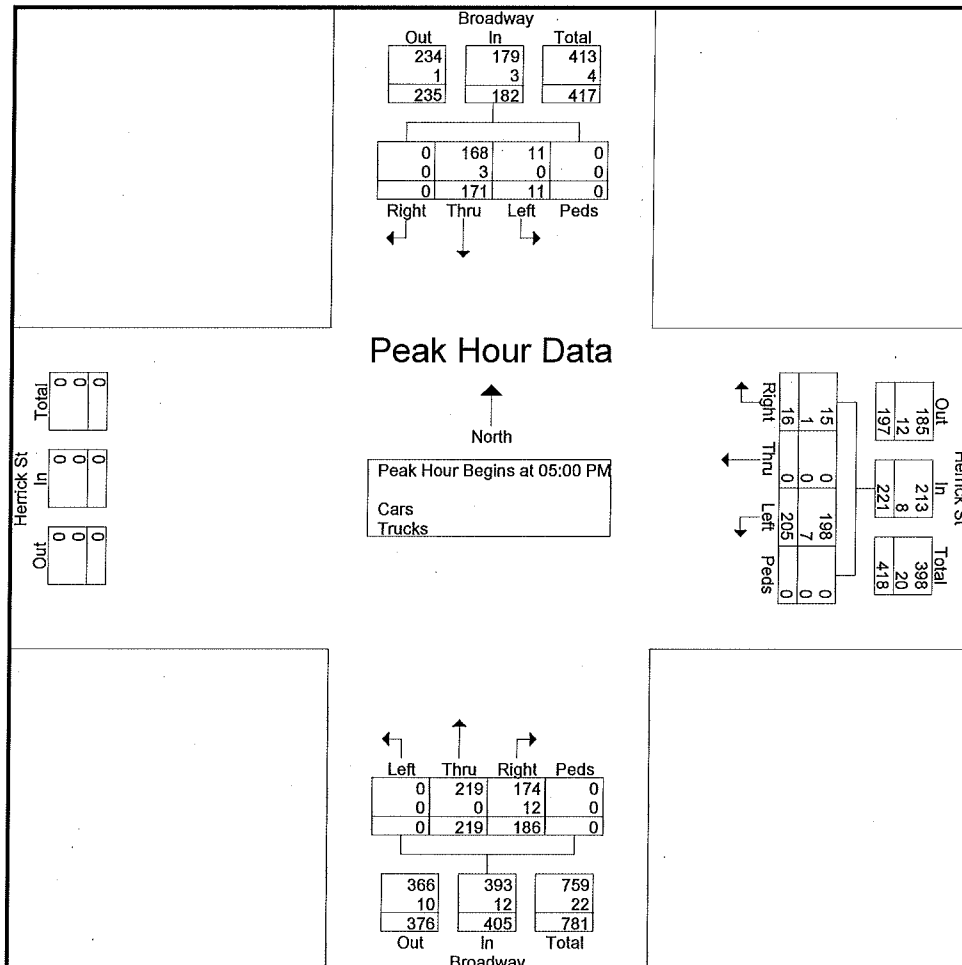
610 466-1469

TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway @ Herrick St
 Date: Friday, June 13, 2014
 Counter: BK

File Name : Broadway 4 Friday
 Site Code : 0004
 Start Date : 6/13/2014
 Page No : 3

Start Time	Broadway Southbound					Herrick St Westbound					Broadway Northbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 05:00 PM																
05:00 PM	0	43	6	0	49	8	0	94	0	102	34	63	0	0	97	248
05:15 PM	0	43	3	0	46	3	0	46	0	49	64	74	0	0	138	233
05:30 PM	0	35	2	0	37	2	0	24	0	26	50	45	0	0	95	158
05:45 PM	0	50	0	0	50	3	0	41	0	44	38	37	0	0	75	169
Total Volume	0	171	11	0	182	16	0	205	0	221	186	219	0	0	405	808
% App. Total	0	94	6	0		7.2	0	92.8	0		45.9	54.1	0	0		
PHF	.000	.855	.458	.000	.910	.500	.000	.545	.000	.542	.727	.740	.000	.000	.734	.815
Cars	0	168	11	0	179	15	0	198	0	213	174	219	0	0	393	785
% Cars	0	98.2	100	0	98.4	93.8	0	96.6	0	96.4	93.5	100	0	0	97.0	97.2
Trucks	0	3	0	0	3	1	0	7	0	8	12	0	0	0	12	23
% Trucks	0	1.8	0	0	1.6	6.3	0	3.4	0	3.6	6.5	0	0	0	3.0	2.8



Tri-State Traffic Data, Inc.

610 466-1469

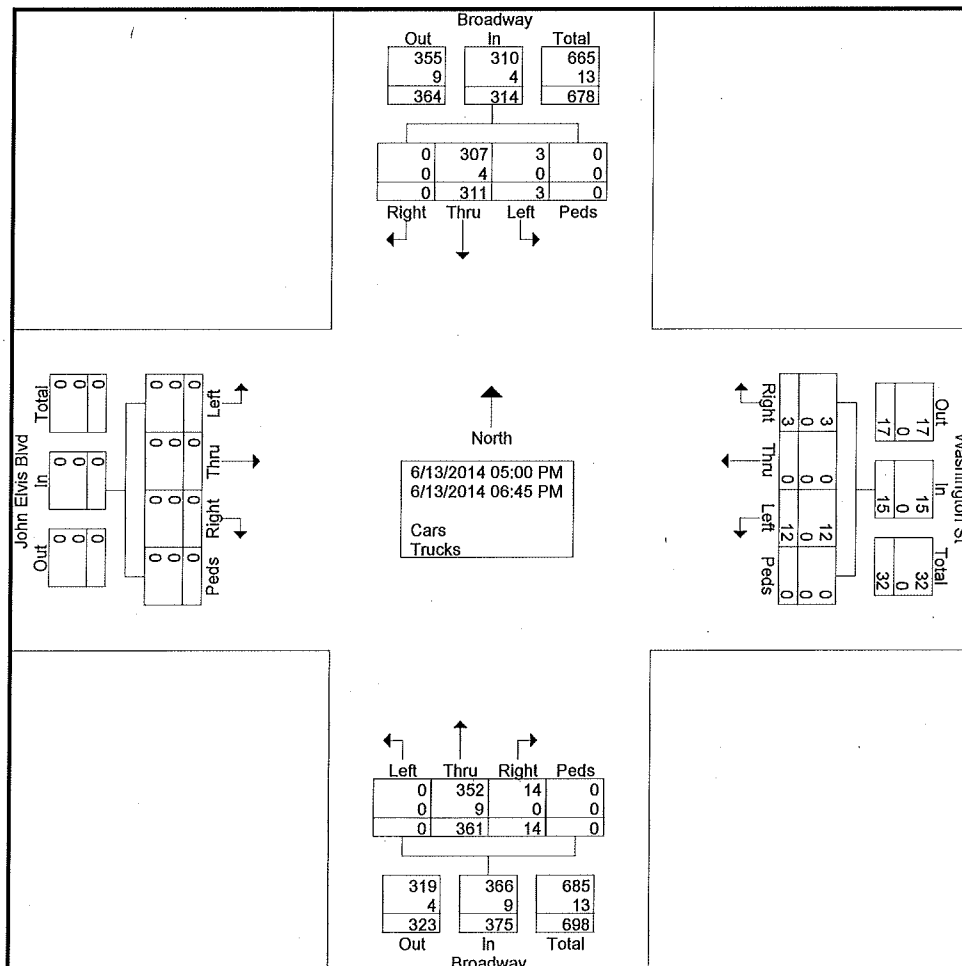
TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway @ Washington St
 Date: Friday, June 13, 2014
 Counter: MB

File Name : Broadway 5 Friday
 Site Code : 05
 Start Date : 6/13/2014
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Broadway Southbound					Washington St Westbound					Broadway Northbound					John Elvis Blvd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
05:00 PM	0	35	2	0	37	0	0	4	0	4	5	63	0	0	68	0	0	0	0	0	109
05:15 PM	0	40	1	0	41	0	0	1	0	1	2	69	0	0	71	0	0	0	0	0	113
05:30 PM	0	38	0	0	38	0	0	2	0	2	1	41	0	0	42	0	0	0	0	0	82
05:45 PM	0	44	0	0	44	1	0	0	0	1	0	37	0	0	37	0	0	0	0	0	82
Total	0	157	3	0	160	1	0	7	0	8	8	210	0	0	218	0	0	0	0	0	386
06:00 PM	0	51	0	0	51	2	0	1	0	3	1	50	0	0	51	0	0	0	0	0	105
06:15 PM	0	55	0	0	55	0	0	2	0	2	2	42	0	0	44	0	0	0	0	0	101
06:30 PM	0	26	0	0	26	0	0	0	0	0	1	31	0	0	32	0	0	0	0	0	58
06:45 PM	0	22	0	0	22	0	0	2	0	2	2	28	0	0	30	0	0	0	0	0	54
Total	0	154	0	0	154	2	0	5	0	7	6	151	0	0	157	0	0	0	0	0	318
Grand Total	0	311	3	0	314	3	0	12	0	15	14	361	0	0	375	0	0	0	0	0	704
Apprch %	0	99	1	0		20	0	80	0		3.7	96.3	0	0		0	0	0	0		
Total %	0	44.2	0.4	0	44.6	0.4	0	1.7	0	2.1	2	51.3	0	0	53.3	0	0	0	0	0	
Cars	0	307	3	0	310	3	0	12	0	15	14	352	0	0	366	0	0	0	0	0	691
% Cars	0	98.7	100	0	98.7	100	0	100	0	100	100	97.5	0	0	97.6	0	0	0	0	0	98.2
Trucks	0	4	0	0	4	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	13
% Trucks	0	1.3	0	0	1.3	0	0	0	0	0	0	2.5	0	0	2.4	0	0	0	0	0	1.8



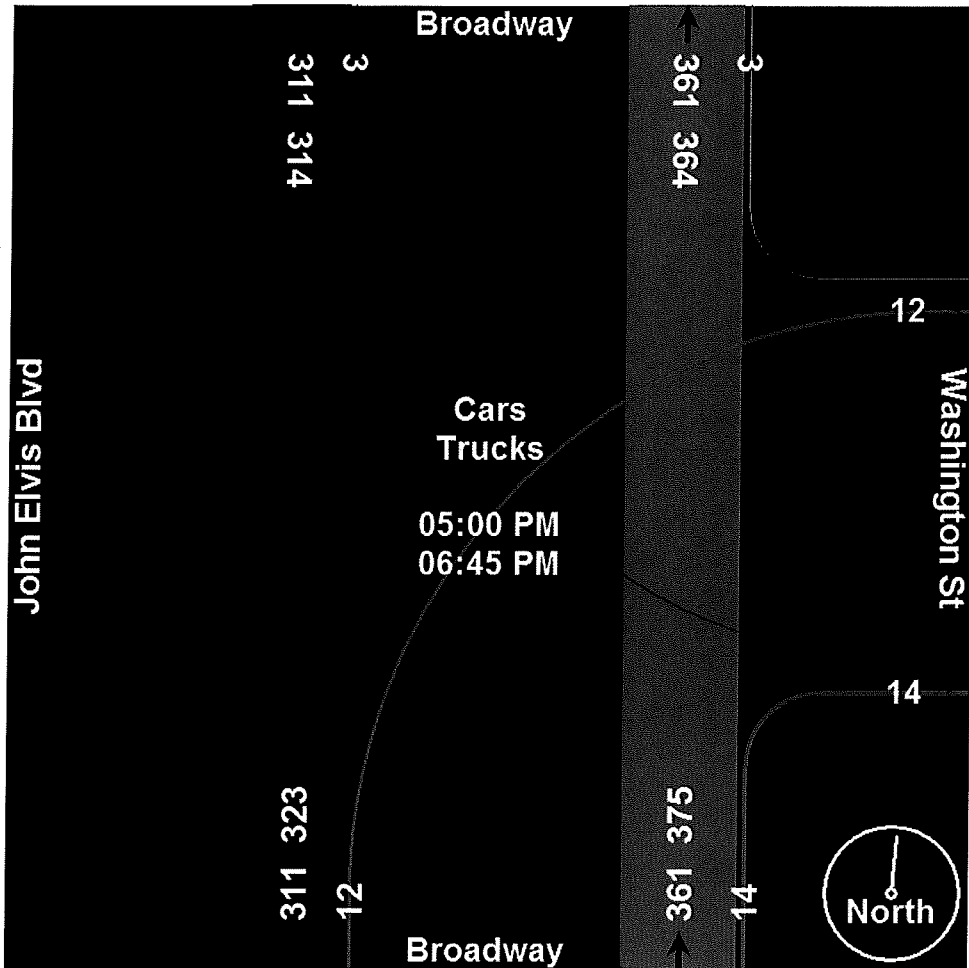
Tri-State Traffic Data, Inc.

610 466-1469

TSTData.com

Location: Rensselaer, New York
Intersection: Broadway @ Washington St
Date: Friday, June 13, 2014
Counter: MB

File Name : Broadway 5 Friday
Site Code : 05
Start Date : 6/13/2014
Page No : 2



Tri-State Traffic Data, Inc.

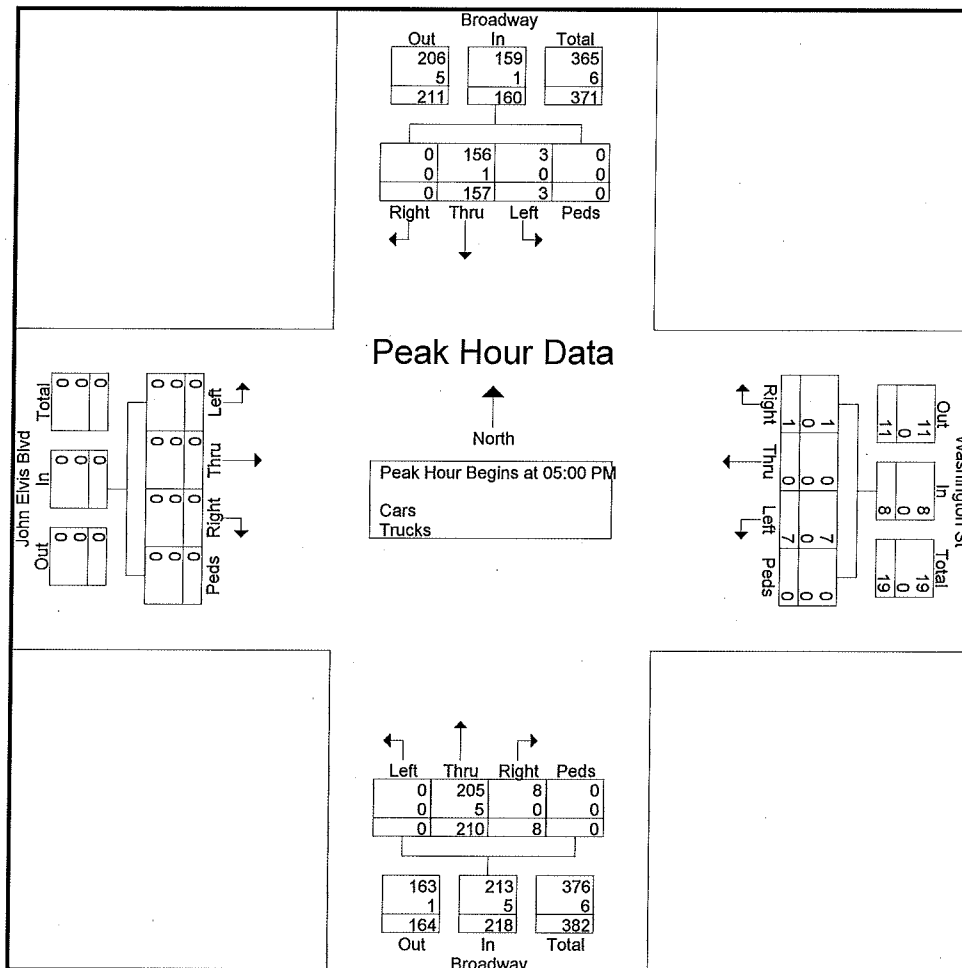
610 466-1469

TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway @ Washington St
 Date: Friday, June 13, 2014
 Counter: MB

File Name : Broadway 5 Friday
 Site Code : 05
 Start Date : 6/13/2014
 Page No : 3

Start Time	Broadway Southbound					Washington St Westbound					Broadway Northbound					John Elvis Blvd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	35	2	0	37	0	0	4	0	4	5	63	0	0	68	0	0	0	0	0	109
05:15 PM	0	40	1	0	41	0	0	1	0	1	2	69	0	0	71	0	0	0	0	0	113
05:30 PM	0	38	0	0	38	0	0	2	0	2	1	41	0	0	42	0	0	0	0	0	82
05:45 PM	0	44	0	0	44	1	0	0	0	1	0	37	0	0	37	0	0	0	0	0	82
Total Volume	0	157	3	0	160	1	0	7	0	8	8	210	0	0	218	0	0	0	0	0	386
% App. Total	0	98.1	1.9	0		12.5	0	87.5	0		3.7	96.3	0	0		0	0	0	0		
PHF	.000	.892	.375	.000	.909	.250	.000	.438	.000	.500	.400	.761	.000	.000	.768	.000	.000	.000	.000	.000	.854
Cars	0	156	3	0	159	1	0	7	0	8	8	205	0	0	213	0	0	0	0	0	380
% Cars	0	99.4	100	0	99.4	100	0	100	0	100	100	97.6	0	0	97.7	0	0	0	0	0	98.4
Trucks	0	1	0	0	1	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	6
% Trucks	0	0.6	0	0	0.6	0	0	0	0	0	0	2.4	0	0	2.3	0	0	0	0	0	1.6



Tri-State Traffic Data, Inc.

610 466-1469

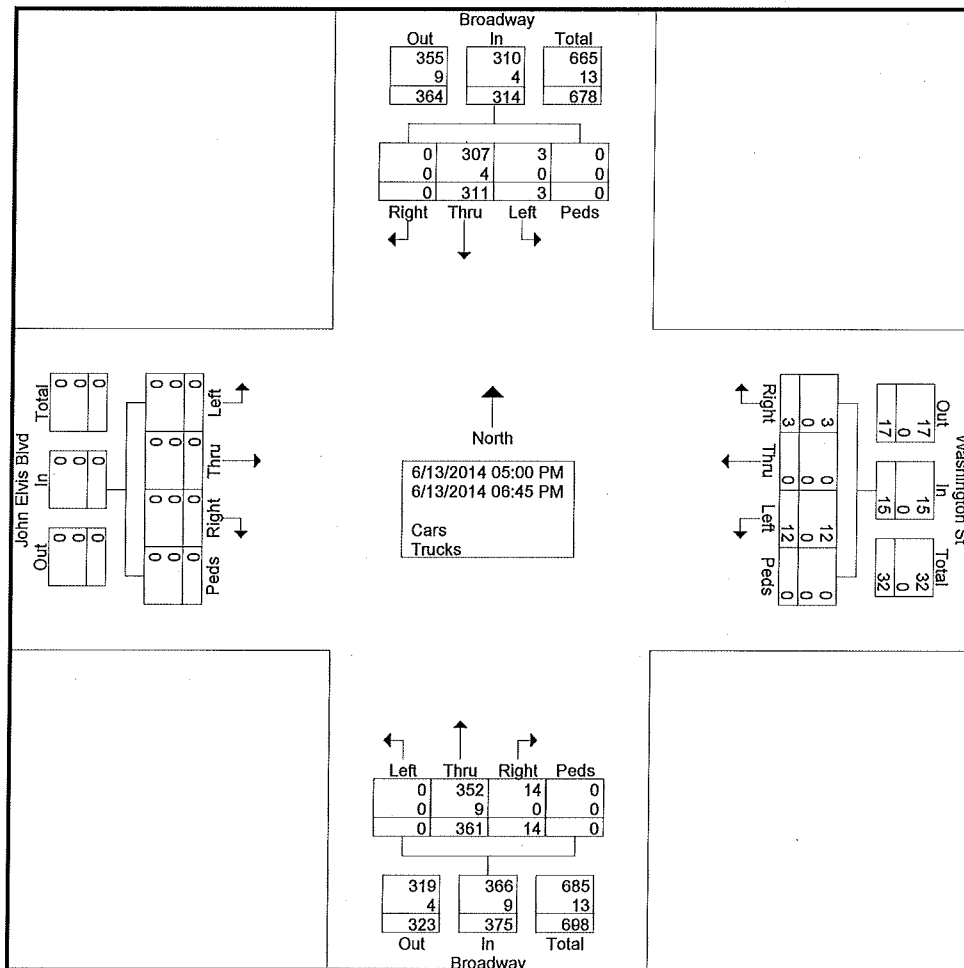
TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway @ Washington St
 Date: Friday, June 13, 2014
 Counter: MB

File Name : Broadway 5 Friday
 Site Code : 05
 Start Date : 6/13/2014
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Broadway Southbound					Washington St Westbound					Broadway Northbound					John Elvis Blvd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
05:00 PM	0	35	2	0	37	0	0	4	0	4	5	63	0	0	68	0	0	0	0	0	109
05:15 PM	0	40	1	0	41	0	0	1	0	1	2	69	0	0	71	0	0	0	0	0	113
05:30 PM	0	38	0	0	38	0	0	2	0	2	1	41	0	0	42	0	0	0	0	0	82
05:45 PM	0	44	0	0	44	1	0	0	0	1	0	37	0	0	37	0	0	0	0	0	82
Total	0	157	3	0	160	1	0	7	0	8	8	210	0	0	218	0	0	0	0	0	386
06:00 PM	0	51	0	0	51	2	0	1	0	3	1	50	0	0	51	0	0	0	0	0	105
06:15 PM	0	55	0	0	55	0	0	2	0	2	2	42	0	0	44	0	0	0	0	0	101
06:30 PM	0	26	0	0	26	0	0	0	0	0	1	31	0	0	32	0	0	0	0	0	58
06:45 PM	0	22	0	0	22	0	0	2	0	2	2	28	0	0	30	0	0	0	0	0	54
Total	0	154	0	0	154	2	0	5	0	7	6	151	0	0	157	0	0	0	0	0	318
Grand Total	0	311	3	0	314	3	0	12	0	15	14	361	0	0	375	0	0	0	0	0	704
Apprch %	0	99	1	0		20	0	80	0		3.7	96.3	0	0		0	0	0	0		
Total %	0	44.2	0.4	0	44.6	0.4	0	1.7	0	2.1	2	51.3	0	0	53.3	0	0	0	0	0	
Cars	0	307	3	0	310	3	0	12	0	15	14	352	0	0	366	0	0	0	0	0	691
% Cars	0	98.7	100	0	98.7	100	0	100	0	100	100	97.5	0	0	97.6	0	0	0	0	0	98.2
Trucks	0	4	0	0	4	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	13
% Trucks	0	1.3	0	0	1.3	0	0	0	0	0	0	2.5	0	0	2.4	0	0	0	0	0	1.8



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Location: Rensselaer, New York

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Date: Friday, June 13, 2014

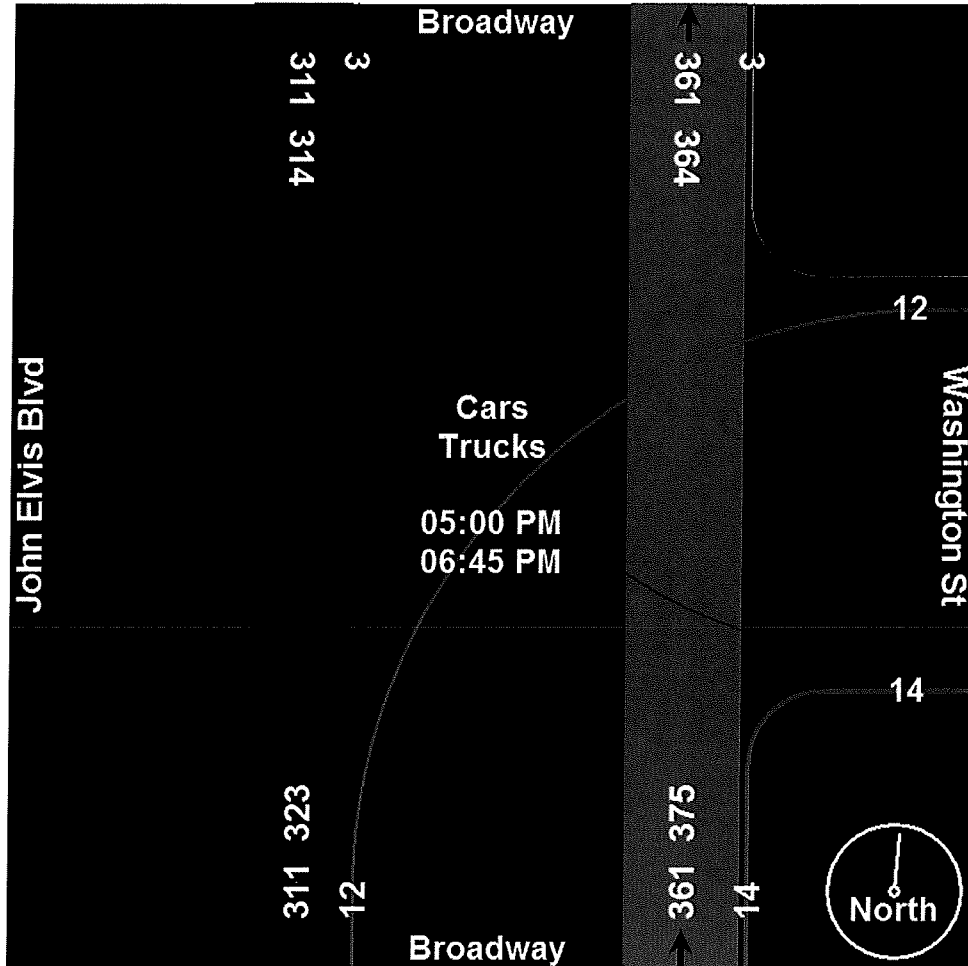
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File Name : Broadway 5 Friday

Site Code : 05

Start Date : 6/13/2014

Page No : 2



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610 466-1469

TSTData.com

Location: Rensselaer, New York
 Intersection: Broadway @ Washington St
 Date: Friday, June 13, 2014
 Counter: MB

File Name : Broadway 5 Friday
 Site Code : 05
 Start Date : 6/13/2014
 Page No : 3

Start Time	Broadway Southbound					Washington St Westbound					Broadway Northbound					John Elvis Blvd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	35	2	0	37	0	0	4	0	4	5	63	0	0	68	0	0	0	0	0	109
05:15 PM	0	40	1	0	41	0	0	1	0	1	2	69	0	0	71	0	0	0	0	0	113
05:30 PM	0	38	0	0	38	0	0	2	0	2	1	41	0	0	42	0	0	0	0	0	82
05:45 PM	0	44	0	0	44	1	0	0	0	1	0	37	0	0	37	0	0	0	0	0	82
Total Volume	0	157	3	0	160	1	0	7	0	8	8	210	0	0	218	0	0	0	0	0	386
% App. Total	0	98.1	1.9	0		12.5	0	87.5	0		3.7	96.3	0	0		0	0	0	0		
PHF	.000	.892	.375	.000	.909	.250	.000	.438	.000	.500	.400	.761	.000	.000	.768	.000	.000	.000	.000	.000	.854
Cars	0	156	3	0	159	1	0	7	0	8	8	205	0	0	213	0	0	0	0	0	380
% Cars	0	99.4	100	0	99.4	100	0	100	0	100	100	97.6	0	0	97.7	0	0	0	0	0	98.4
Trucks	0	1	0	0	1	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	6
% Trucks	0	0.6	0	0	0.6	0	0	0	0	0	0	2.4	0	0	2.3	0	0	0	0	0	1.6

