

# South Academy Highlands

## Traffic Technical Memorandum

Prepared for:  
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MAY 23, 2022

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LSC #S214990



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May 23, 2022

Jeffrey P. Otto  
UTW Academy Development, LLC  
<via email>

RE: South Academy Highlands  
Traffic Technical Memorandum  
Fountain, CO  
LSC # S214990

Dear Mr. Otto,

LSC Transportation Consultants, Inc. has prepared this traffic technical memorandum for the next phase of the South Academy Highlands development to be located southwest of the intersection of Venetucci Boulevard/Walmart Heights in Fountain, Colorado. Figure 1 shows the location of the site. Site access will be to Venetucci Boulevard.

This memo has been prepared primarily to address the proposed intersection laneage, recommended signal phasing, and projected intersection traffic operations at the Venetucci Boulevard/Walmart Heights. Analysis of the south site access is also included.

## REPORT CONTENTS

The preparation of this report included the following:

- Inventory of existing adjacent and nearby area street system. This included surface conditions, functional classifications, roadway widths, lane configurations, traffic control, posted speed limits, pavement markings, intersection and access spacing, roadway and intersection alignments, auxiliary left- and right-turn lanes, intersection sight distances, etc.;
- Summary of morning and late afternoon peak-hour turning-movement traffic counts at the following “study-area” intersections:
  - Venetucci Boulevard/Walmart Heights/main access drive
  - Venetucci Boulevard/south site access
  - Main access drive/north lot driveway
- Estimates of average weekday and peak-hour trip generation for the proposed South Academy Highlands site;

- Estimation of directional distribution of site-generated vehicle trips on the area street system and at the intersections/access points to Venetucci Boulevard;
- Projections of site-generated turning-movement traffic volumes at the study-area intersections and proposed access points;
- Estimates of short- and long-term background traffic volumes at the study-area intersections and access points;
- Total traffic (site traffic plus background traffic) projections at these intersections for the short and long term;
- Level of service (LOS) analysis at the following intersections:
  - Venetucci Boulevard/Walmart Heights
  - Venetucci Boulevard/south site access
  - Main access drive/north lot driveway
- Vehicle queuing analysis on the side-street approaches and the northbound left turn at the Walmart Heights/Venetucci Boulevard intersection;
- Findings regarding the proposed laneage at the Walmart Heights/Venetucci Boulevard intersection;
- Summary of compiled data, traffic-volume estimates, analysis, findings, and recommendations.

## **PRIOR AREA TRAFFIC REPORTS**

The traffic impact study for the entire development was dated September 18, 2013.

## **LAND USE AND ACCESS**

### **Current Land Uses**

Figure 1 shows the site location relative to the adjacent and nearby streets. The current phase is for four commercial lots proposed to contain two fast-food restaurants (with drive through), an auto parts store, and a coffee shop. The proposed site plan showing the proposed land-use plan, on-site circulation, and the development entry points is shown in Figure 2.

### **Site Access**

Site access will be to Venetucci Boulevard, as shown in Figure 2. The main access drive will form a new west leg at the signalized intersection of Venetucci Boulevard/Walmart Heights. A second stop-sign-controlled, three-quarter-movement access will be at the existing east-side access intersection located approximately 300 feet south of the signal (south site access). The median is already configured for this access.

## **PROPOSED INTERSECTION LANEAGE, RESTRIPING, AND SIGNAL PHASING**

The applicant is proposing that the west leg of the Walmart Heights and Venetucci Boulevard intersection provide access **only** to the subject commercial development and not provide a vehicular connection to the north for access to the future development to the north. As such, this access to this development forming the west leg of the Walmart Heights and Venetucci Boulevard intersection (the “main access drive”) would need to be constructed entirely on the applicant’s property and not encroach on the adjacent property to the north.

This necessitates a shift of the north edge of the main access drive to the south, which results in a shift of the intersection departure lane (inbound lane into the development) to the south when compared to the original design plans and the existing northwest curb radius location. This results in a shift south of the westbound through movement across the intersection from the east side. The proposed solution is to shift the originally proposed eastbound approach laneage to the south. The eastbound lane “assignments” would not change from the original plan - an exclusive left and shared through/right lane. Note: the typical striped-out area of pavement or “spacer” between the eastbound left and the eastbound through/right (to align with the southernmost westbound left-turn lane would not be needed given the change in the westbound lane configuration described in the next paragraph).

The proposed lane shift on the west side (eastbound approach) will necessitate a change in the westbound lane assignments. The westbound approach was originally planned for dual exclusive left-turn lanes and a shared through/right lane. The current plan proposes a change to one exclusive left, one shared left/through, and one exclusive right-turn lane. This revised lane configuration will allow for the proposed shift of the lanes on the eastbound approach (west side) to maintain proper alignment with the receiving/departure lane on the west side of the intersection. This modified westbound lane configuration with the left, left/through, and right lane **will require “split phase” signal phasing/timing eastbound and westbound**. Please refer to the attached Synchro reports for detailed signal-timing splits assumed.

This shift will cause the need to reconstruct the existing pedestrian ramp, curb return, and concrete cross pan. The curb and ramp reconstruction will occur only on the west side. The signal and pavement-marking modifications would also involve the east side of the intersection and the northbound and southbound approaches.

### **Adjacent Parcel**

The parcel to the north of the site has been planned for residential land use (also on the west side of Venetucci Boulevard), under different ownership from the applicant, and is currently in unincorporated El Paso County. The estimated trips to/from this parcel are included in the north/south through traffic on Venetucci Boulevard.

## ROAD AND TRAFFIC CONDITIONS

Adjacent streets serving the site are identified below followed by a brief description of each:

**Venetucci Boulevard** locally extends north from South Academy Boulevard to B Street, where it intersects at a right-in/right-out intersection. Highway 85/87 passes over I-25 just south of B Street. North of B Street, Highway 85/87 becomes Venetucci Boulevard and is under the City of Colorado Springs' jurisdiction.

**Walmart Heights** is a private commercial street extending east from Venetucci Boulevard into the South Academy Highlands commercial development area east of Venetucci. The intersection of Walmart Heights/Venetucci Boulevard is signalized.

### Existing Traffic Volumes

Vehicular turning movements were counted at the following intersections, dates, and times:

- Venetucci Boulevard/Walmart Heights
  - Tuesday, November 2, 2021 from 6:30 – 8:30 a.m.
  - Tuesday, November 2, 2021 from 4:00 – 6:00 p.m.
- Venetucci Boulevard/proposed south access
  - Tuesday, November 2, 2021 from 6:30 – 8:30 a.m.
  - Tuesday, November 2, 2021 from 4:00 – 6:00 p.m.

Figure 3 shows these turning-movement volumes, as well as the average weekday traffic volumes (estimated based on factored peak-hour count data) on the study-area streets. Raw count data are attached.

## TRIP GENERATION

Estimates of the vehicle trips projected to be generated by the South Academy Highlands development have been made using the nationally-published trip-generation rates from *Trip Generation, 11<sup>th</sup> Edition, 2021* by the Institute of Transportation Engineers (ITE). The following ITE land-use categories, along with corresponding trip-generation rates, have been used to develop the trip-generation estimates for the development:

- 843 – Automobile Parts Store
- 934 – Fast Food with Drive-Through Window
- 938 – Coffee Shop Drive-Through Window and No Indoor Seating

Table 1 below presents a summary of the estimated site trip generation. A detailed trip-generation estimate for the development, including ITE rates for the proposed land use, is presented in Table 3 (attached).

**Table 1: Estimated Site Vehicle-Trip Generation**

Analysis Period	Weekday		
	In	Out	Total
Morning Peak Hour	209	202	411
Evening Peak Hour	147	139	286
Daily/24-hour	1,930	1,930	3,859

The proposed South Academy Highlands site is projected to generate about 1,930 vehicle trips on the average weekday during a 24-hour period, with approximately half entering and half exiting the site. During the morning peak hour, approximately 209 entering vehicles and 202 exiting vehicles would be generated. Approximately 147 entering and 139 exiting vehicles would be generated by the site during the afternoon peak hour.

### Pass-by Trips

The total number of trips to be generated by the site has also been analyzed to account for pass-by trips. A pass-by trip is one made by a motorist who would already be on an adjacent road regardless of the proposed development, but who stops in at the site while passing by. That pass-by motorist would then continue on his or her way to a final destination in the original direction. Non-primary trip percentage has been based on data from the *Trip Generation Handbook - An ITE Proposed Recommended Practice, 3rd Edition, 2014* by ITE and adjustments by LSC for site-specific conditions. Table 1 has a detailed trip-generation estimate, including internal, diverted, and pass-by trips.

## TRIP DISTRIBUTION AND ASSIGNMENT

### Trip Directional Distribution

Estimating the directional distribution of site-generated vehicle trips to the study-area roads and intersections is a necessary component in determining the site's traffic impacts. The following percentages of the site-generated vehicle trips are projected to be oriented to and from the site's major approaches:

- To/from the north (via B Street) – 15 percent
- To/from the east (via Walmart shopping plaza) – 5 percent
- To/from the south (via South Academy Boulevard) – 80 percent

Directional-distribution estimates were based on the following factors: prior traffic reports for this development, the existing traffic counts, the site's location with respect to the residential areas, employment centers, Fort Carson, and the balance of the City of Colorado Springs metropolitan area; the site's proposed land uses; and the roadway network. Pass-by trip distribution is different from the "primary trip" distribution and is based on the magnitude and direction of traffic on Venetucci Boulevard.



### **Site-Generated Traffic**

Figure 5 shows the projected site-generated traffic volumes for the weekday morning and evening peak hours. Site-generated traffic volumes at the following intersections have been calculated by applying the directional-distribution percentages estimated by LSC (from Figure 4) to the trip-generation estimates (from Table 3):

- Venetucci Boulevard/Walmart Heights
- Venetucci Boulevard/south access (three-quarter)
- Main access drive/north lot driveway

### **Existing-Plus-Site-Generated Traffic Volumes**

Figure 6 shows the sum of the adjusted existing traffic volumes (from Figure 3) and site-generated peak-hour traffic volumes (shown in Figure 5). These volumes represent the projected short-term total traffic, following development of the four subject commercial lots.

### **Estimated Future 2041 Background Traffic Volumes**

Figure 7 shows the projected 20-year background traffic volumes for the year 2041. Background volumes include increases in through traffic and trips generated by the future residential development north of the site, additional hotel traffic east of the signal, and the future Phase 2 commercial development north of Sam's Club, but do **not** include projected traffic to be generated by the currently-proposed Lots 1-4 development.

### **Future 2041 Total Traffic Volumes**

Figure 8 shows the projected 2041 total traffic volumes, which are the sum of 2041 background traffic volumes (from Figure 7) plus the site-generated traffic volumes (from Figure 5).

## **LEVEL OF SERVICE ANALYSIS**

The following intersections have been analyzed to determine the projected intersection levels of service for short- and long-term traffic scenarios for the morning and evening peak-hour time periods:

- Venetucci Boulevard/Walmart Heights
- Venetucci Boulevard/south access (three-quarter)
- Main access drive/north lot driveway

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection and is indicated on a scale from "A" to "F." LOS A is indicative of little congestion or delay. LOS F indicates a high level of congestion or delay. Table 2 shows the level of service delay ranges for signalized and unsignalized intersections.

**Table 2: Intersection Levels of Service Delay Ranges**

Level of Service	Signalized Intersections	Unsignalized Intersections
	Average Control Delay (seconds per vehicle)	Average Control Delay (seconds per vehicle) <sup>(1)</sup>
A	10.0 sec or less	10.0 sec or less
B	10.1-20.0 sec	10.1-15.0 sec
C	20.1-35.0 sec	15.1-25.0 sec
D	35.1-55.0 sec	25.1-35.0 sec
E	55.1-80.0 sec	35.1-50.0 sec
F	80.1 sec or more	50.1 sec or more

(1) For unsignalized intersections, if V/C ratio is greater than 1.0 the level of service is LOS F, regardless of the projected average control delay per vehicle.

Detailed Synchro reports are attached. A summary of LOS during the weekday morning and evening peak hours for the following unsignalized intersections is described below.

**Venetucci Boulevard/Walmart Heights**

This intersection is projected to operate at an overall intersection LOS B overall during both peak hours through the 20-year horizon. All individual turning movements are projected to operate at LOS C or better during both peak hours through the 20-year horizon.

**Main access drive/north lot driveway (Internal Driveway)**

All individual turning movements are projected to operate at LOS A during both peak hours through the 20-year horizon.

**Venetucci Boulevard/Proposed South Site Access (Three-Quarter)**

All individual turning movements are projected to operate at LOS B or better during both peak hours through the 20-year horizon.

**VEHICLE QUEUEING ANALYSIS**

**Venetucci Boulevard/Walmart Heights**

A SimTraffic queueing analysis was performed to estimate short-term and long-term queues at the intersection of Venetucci Boulevard/Walmart Heights during the morning and afternoon peak hours. Please see the attached SimTraffic queue reports for more detail. SimTraffic queue exhibits are also included for reference. Also, please refer to the attached Synchro reports for detailed split phasing and signal timings assumed. The signal-phasing and timing assumptions are

different for the long-term analysis, given the potential for increased use of Venetucci Boulevard as a through street and associated increases in north/south through traffic on Venetucci. The current north/south through volumes recorded at the intersection are low and the predominant intersection movement volumes are the westbound left and northbound right.

Analysis has been run to estimate the projected maximum queue lengths on the eastbound and westbound approaches and northbound left turn at Venetucci Boulevard/Walmart Heights.

On the west side of the intersection (on the eastbound approach), the analysis was used to determine if the queue will extend back across the proposed north lot driveway on the west side of the intersection. There are about 97 feet between the stop line on the eastbound approach on to the intersection and the end of the eastbound left-turn lane. Queues less than 97 feet would not block the proposed north lot driveway.

On the east side of the intersection (on the westbound approach), the analysis was used to determine the queues projected for the inside left-turn bay and the middle lane and if the middle lane queue will back into the all-way-stop intersection within the Walmart development and block entry into one or both of the “departure” lanes (at the upstream end of the westbound link between the signalized intersection and the all-way-stop-controlled intersection).

### **Short-Term Analysis - Afternoon Peak Hour**

SimTraffic reports indicate the following maximum reported queue lengths during the long-term afternoon peak hour at the intersection of Venetucci Boulevard/Walmart Heights:

- Eastbound left – 36 feet (0 percent upstream block time)
  - Link Distance: 65 feet
- Eastbound through/right (shared) – 60 feet (0 percent upstream block time)
  - Link Distance: 65 feet
- Northbound left – 74 feet (0 percent storage block time)
  - Storage Bay Length: 105 feet
- Westbound left (Inside lane) – 169 feet (16 percent storage block time)
  - Storage Bay Length: 95 feet
- Westbound through/left (middle lane) – 256 feet (0 percent upstream block time)
  - Link Distance: 251 feet
- Westbound right – 69 feet (0 percent block time)
  - Link Distance: 251 feet

Eastbound Approach: As shown above and in the attached SimTraffic reports, the projected eastbound queues during the afternoon peak hour would not exceed 65 feet and would not exceed the link distance to the proposed north lot driveway.

Westbound Approach: As shown above and in the attached SimTraffic reports, the projected westbound maximum reported queue in the middle lane (the westbound left/through lane)

during the afternoon peak hour would be about the available link distance between the signalized intersection and the all-way-stop-controlled intersection to the east. The reported upstream block time is zero percent.

### **Long-Term Analysis- Afternoon Peak Hour**

SimTraffic reports indicate the following maximum queue lengths during the long-term afternoon peak hour at the intersection of Venetucci Boulevard/Walmart Heights:

- Eastbound left – 40 feet (0 percent upstream block time)
  - Link Distance: 65 feet
- Eastbound through/right (shared) – 65 feet (0 percent upstream block time)
  - Link Distance: 65 feet
- Northbound left – 89 feet (0 percent storage block time)
  - Storage Bay Length: 105 feet
- Westbound left (Inside lane) – 208 feet (3 percent storage block time)
  - Storage Bay Length: 170 feet\*
- Westbound through/left (middle lane) – 243 feet (0 percent upstream block time)
  - Link Distance: 251 feet
- Westbound right – 128 feet (0 percent block time)
  - Link Distance: 251 feet

Eastbound Approach: As shown above and in the attached SimTraffic reports, the projected eastbound queues during the afternoon peak hour would not exceed the link distance of 65 feet and would not exceed the link distance to the proposed north lot driveway.

Westbound Approach: As shown above and in the attached SimTraffic reports, the projected westbound maximum reported queue in the middle lane (the westbound left/through lane) during the afternoon peak hour would be about the available link distance between the signalized intersection and the all-way-stop-controlled intersection to the east. The reported upstream block time is zero percent.

\*Note: The above assumes a 170' westbound inside left-turn bay (current length is about 100 feet – assumed 95' in the model) and shortened back-to-back eastbound left-turn bay at the all-way-stop internal intersection. These adjustments could be accomplished through restriping in the future, if necessary.

### **Venetucci Boulevard/South Access (3/4-Movement)**

SimTraffic reports indicate the following maximum queue lengths during the long-term afternoon peak hour:

- Northbound left – 94 feet (0 percent storage block time) – 140-foot storage-bay length

As shown in the attached SimTraffic reports, the projected northbound-left queues at the south three-quarter access during the PM peak would not exceed the turn bay storage distance.

### **Results summary/Findings**

As shown in the attached SimTraffic reports, the projected maximum eastbound queues during the afternoon peak hour would be less than the 88 feet of distance between the north lot driveway and the stop line for the main access drive approach at the Venetucci Blvd./Walmart Hts. signalized intersection. Given the close spacing, there is potential for infrequent blockage. LSC recommends posting a "Do Not Block Intersection" sign, if this becomes necessary, on the exiting lane of the internal drive aisle just west of the first internal lot access. Furthermore, should operational problems arise due to the short access spacing back from Venetucci, the north access may need to be converted to a right-in/right-out (or potentially a right-out-only access).

Additionally, for the 2040 queuing analysis, LSC has assumed a longer inside left-turn bay on the existing westbound approach to the Walmart Heights/Venetucci intersection. This left-turn bay is part of a back-to-back left-turn-lane configuration between Venetucci Boulevard and the all-way stop-sign-controlled (AWSC) internal intersection to the east. The modeling of the long-term scenario was completed assuming this longer westbound left-turn bay approaching Venetucci, a shorter reverse-curve-bay taper and a shortened eastbound left-turn bay at that all-way-stop, internal intersection from 145 feet (85 feet of storage plus a 65-foot taper) to 70 feet (30 feet of storage plus a 40-foot taper). The shortening of this left-turn bay would allow for the inside westbound left-turn-only lane approaching the signal to be lengthened.

The 2040 queuing model assumes the length for the westbound left-turn lane would be 170 feet of storage plus a 40-foot taper, which would maximize stacking distance on the westbound approach at the signal for vehicles turning from the proposed westbound-left (inside) lane or from the proposed westbound-left/through shared (center) lane. This turn-lane length reallocation could be accomplished in the future through restriping if this becomes necessary or otherwise improves traffic operations. This assumed change in the long-term model results in the projected queue not exceeding the link distance and calculated zero percent upstream block time.

SimTraffic simulations indicated that queued vehicles on Walmart Heights between the signal at Venetucci and the internal AWSC intersection would clear every cycle.

### **Venetucci Boulevard/South Access**

The projected northbound-left queues during the PM peak hour would not exceed the left-turn-bay stacking distance at the south three-quarter access.

## AUXILIARY TURN-LANE ANALYSIS

Please refer to for the attached exhibit with proposed laneage modifications at the intersection of Venetucci Boulevard/Walmart Heights (as presented on page 4).

## CONCLUSIONS

- The site is projected to generate about 3,859 new driveway vehicle trips on the average weekday.
- During the weekday morning peak hour of adjacent street traffic, 209 vehicles would enter the site while 202 vehicles would exit.
- During the weekday afternoon peak hour of adjacent street traffic, 147 vehicles would enter the site while 139 vehicles would exit.
- All individual turning movements at the study-area intersections are projected to operate at LOS C or better through the 20-year horizon. Please refer to the “Level of Service” section above for detailed LOS analysis results.
- Please refer to the “Vehicle Queuing Analysis” section for analysis and findings for the study-area intersections. As shown in the attached SimTraffic reports, the maximum projected eastbound queues during the afternoon peak hour on the main access drive approach to the Walmart Heights/Venetucci Boulevard intersection would not exceed 65 feet and, thus, would not regularly block the proposed north lot driveway “intersection” with the main access drive west located west of Venetucci Boulevard. Please refer to the “Vehicle Queuing Analysis” section for SimTraffic queueing-analysis queue-length projections at the study-area intersections for the short- and long-term PM peak hours. Given the close spacing, there is potential for infrequent blockage. LSC recommends posting a “Do Not Block Intersection” sign, if this becomes necessary, on the exiting lane of the main access drive just west of the north lot driveway. Furthermore, should operational problems arise due to the short access spacing back from Venetucci, the north access drive “intersection” may need to be converted to a right-in/right-out (or potentially a right-out-only access).
- Please refer to the attached exhibit with the proposed intersection laneage at the intersection of Walmart Heights west of Venetucci Boulevard. The shift in the eastbound laneage and modified westbound lane configuration with the left, left/through, and right lane **will require “split phase” signal phasing/timing eastbound and westbound.**

\* \* \* \* \*

Please contact me if you have any questions regarding this report.

Respectfully Submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

By: Jeffrey C. Hodsdon, P.E.  
Principal

JCH/JAB:jas

Enclosures: Table 3 – Table 5  
Figures 1-9  
Traffic Count Reports  
Queue Reports  
Synchro LOS Reports  
Site Plan  
Signage-Striping Plan

# Tables

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**Table 3: Detailed Trip-Generation Estimate**

Code	ITE Description	Value	Units <sup>1</sup>	Trip Generation Rates <sup>2</sup>				% Internal Capture	Driveway Trips Generated				% Primary Trips	% Diverted Trips	% Pass-By Trips	External Trips Generated							
				Average Weekday	A.M.		P.M.		Average Weekday	A.M.		P.M.				Average Weekday	A.M.		P.M.				
					In	Out	In			Out	In	Out					In	Out	In	Out	In	Out	
843	Automobile Parts Sales	7.000	KSF	54.57	1.38	1.13	2.35	2.55	5%	363	9	8	16	17	50%	45%	5%	181	5	4	8	8	
934	Fast-Food w/ Drive-Through Window	3.000	KSF	467.48	22.75	21.86	17.18	15.85	5%	1332	65	62	49	45	50%	45%	5%	666	32	31	24	23	
934	Fast-Food w/ Drive-Through Window	3.800	KSF	467.48	22.75	21.86	17.18	15.85	5%	1688	82	79	62	57	50%	45%	5%	844	41	39	31	29	
938	Coffee/Donut Shop w/ Drive-Through Window and No Indoor Seating	2.800	KSF	179.00	19.91	19.91	7.54	7.54	5%	476	53	53	20	20	15%	80%	5%	71	8	8	3	3	
<b>Total</b>										<b>3859</b>	<b>209</b>	<b>202</b>	<b>147</b>	<b>139</b>				<b>Total</b>	<b>1763</b>	<b>86</b>	<b>82</b>	<b>66</b>	<b>63</b>

<sup>1</sup> KSF = 1,000 square feet

<sup>2</sup> Source: *Trip Generation, 11th Edition (2021)* by the Institute of Transportation Engineers (ITE)

**Table 4: Vehicular Turning-Movement Counts – Venetucci Boulevard/Walmart Heights**

Turn	2021 Existing		Short-Term Baseline		Site-Generated		Short-Term Baseline + Site		Future Background		2041 Background		2041 Background + Site	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
SBR	0	0	0	0	10	10	10	10	0	0	0	0	10	10
SBT	8	31	10	35	19	19	29	54	215	293	230	330	249	349
SBL	5	20	5	20	-1	-1	4	19	0	0	5	20	4	19
WBR	12	52	15	55	0	0	15	55	0	0	15	55	15	55
WBT	0	0	0	0	10	10	10	10	0	0	0	0	10	10
WBL	140	662	150	670	0	0	150	670	0	0	150	670	150	670
NBR	152	544	160	550	-4	-3	156	547	0	0	160	550	156	547
NBT	18	48	20	50	-1	-1	19	49	120	305	140	360	139	359
NBL	0	0	0	0	52	50	52	50	0	0	0	0	52	50
EBR	0	0	0	0	37	35	37	35	0	0	0	0	37	35
EBT	0	0	0	0	7	7	7	7	0	0	0	0	7	7
EBL	0	0	0	0	7	7	7	7	0	0	0	0	7	7

**Table 5: Vehicular Turning-Movement Counts – Venetucci Boulevard/South Site Access**

Turn	2021 Existing		Short-Term Baseline		Site-Generated		Short-Term Baseline + Site		Future Background		2041 Background		2041 Background + Site	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
SBR	0	0	0	0	21	20	21	20	0	0	0	0	21	20
SBT	148	693	160	705	55	52	215	757	0	0	380	1000	435	1052
SBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	2	8	5	10	0	0	5	10	0	0	5	10	5	10
NBR	26	89	30	90	0	0	30	90	0	0	30	90	30	90
NBT	168	584	175	590	44	42	219	632	0	0	295	900	339	942
NBL	0	0	0	0	115	111	115	111	0	0	0	0	115	111
EBR	0	0	0	0	94	90	94	90	0	0	0	0	94	90

# Figures

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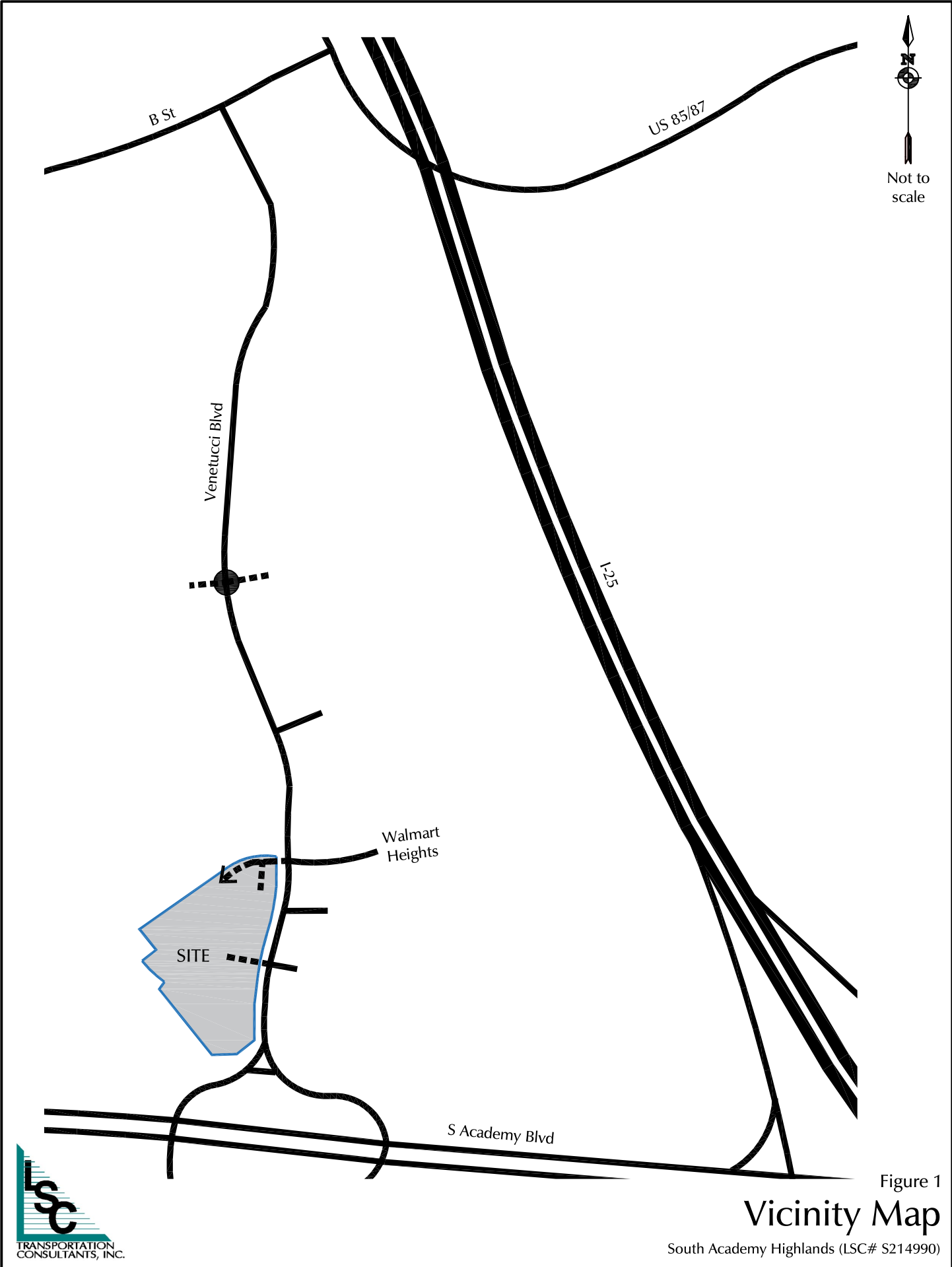
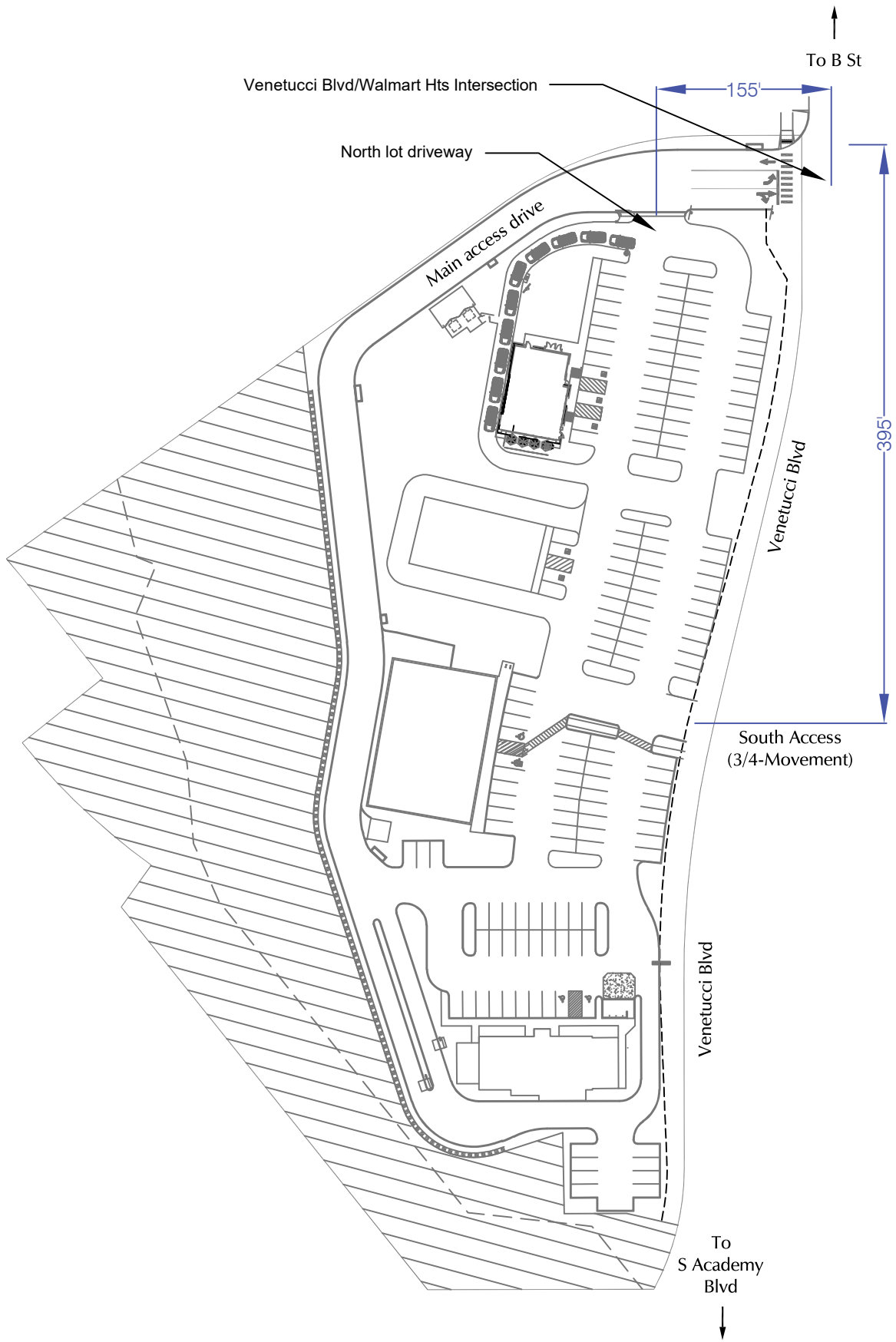


Figure 1

# Vicinity Map

South Academy Highlands (LSC# S214990)



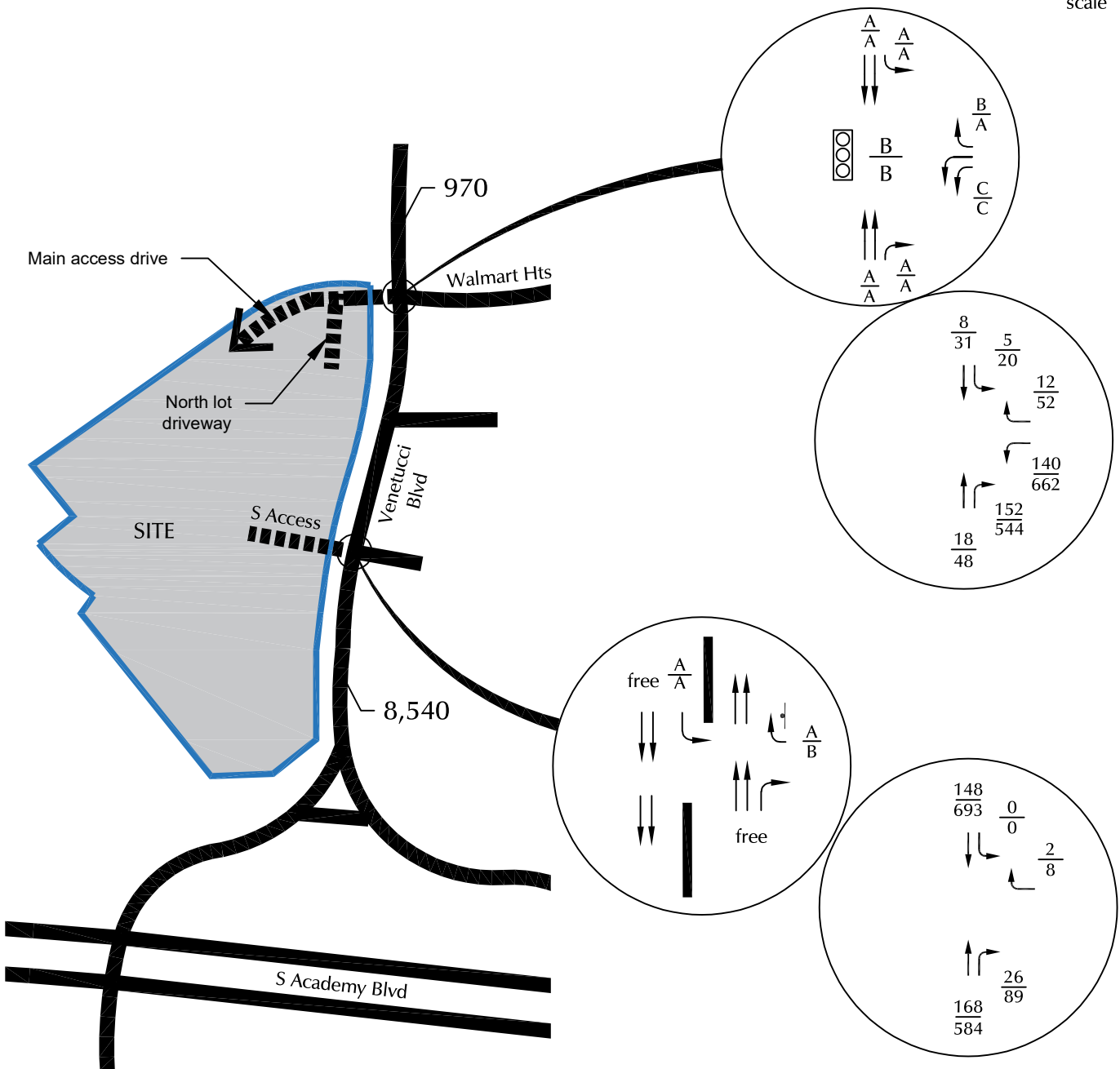


1" = 100' scale



Figure 2  
Site Plan

South Academy Highlands (LSC# S214990)



- = Counts by LSC (November 2021)
- = Stop Sign
- $\frac{X}{X}$  = AM Individual Movement Peak-Hour LOS
- $\frac{X}{X}$  = PM Individual Movement Peak-Hour LOS
- $\frac{XX}{XX}$  = AM Weekday Peak-Hour Traffic (Veh/Hour)
- $\frac{XX}{XX}$  = PM Weekday Peak-Hour Traffic (Veh/Hour)
- X,XXX = Average Daily Traffic (Vehicles/Day)

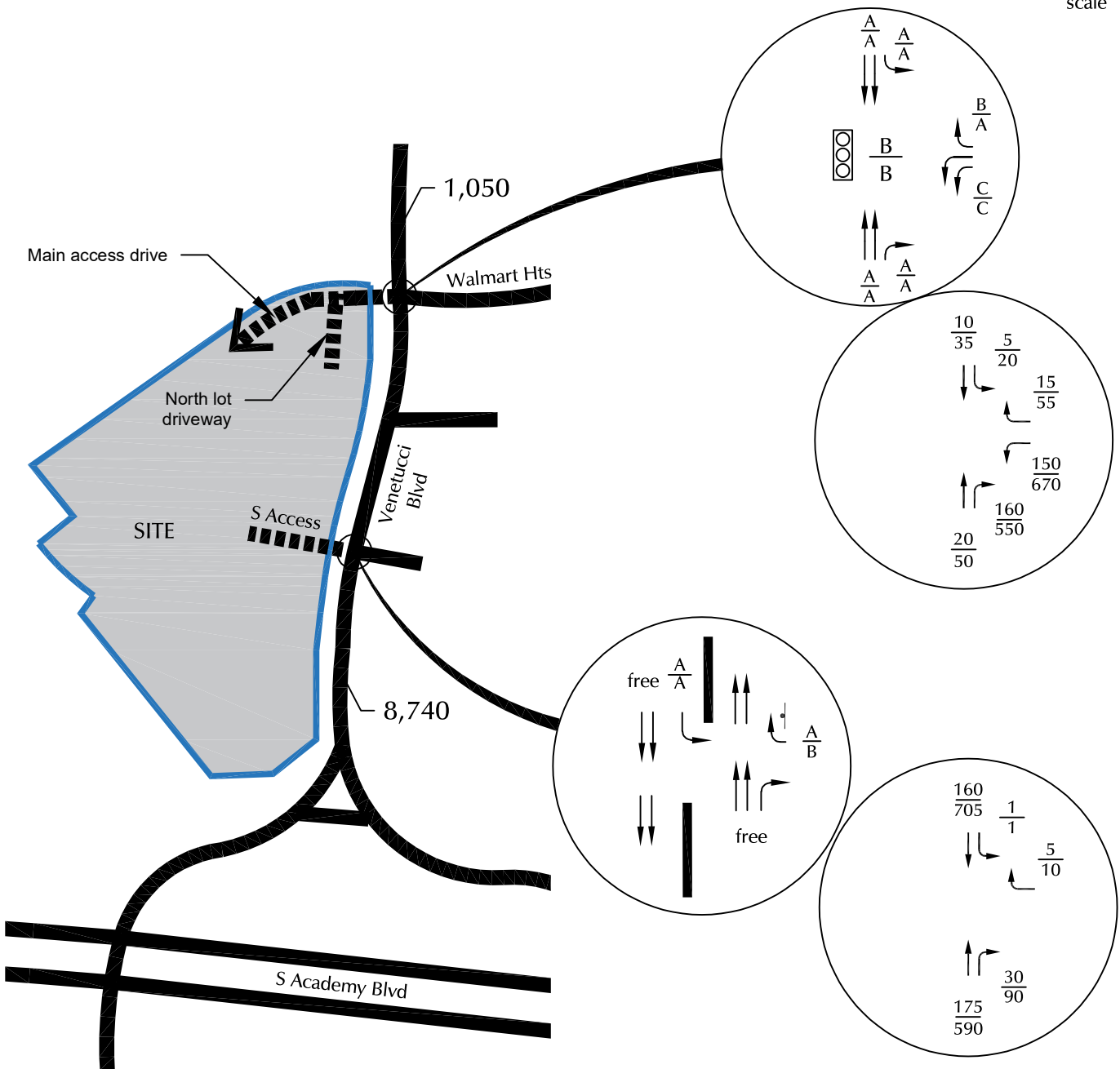
Figure 3  
**Existing Traffic, Lane  
 Geometry, Traffic  
 Control, and LOS**

South Academy Highlands (LSC# S214990)





1" = 250'  
scale



= Traffic Signal    = Stop Sign

$\frac{X}{X}$  = AM Individual Movement Peak-Hour LOS  
 $\frac{X}{X}$  = PM Individual Movement Peak-Hour LOS

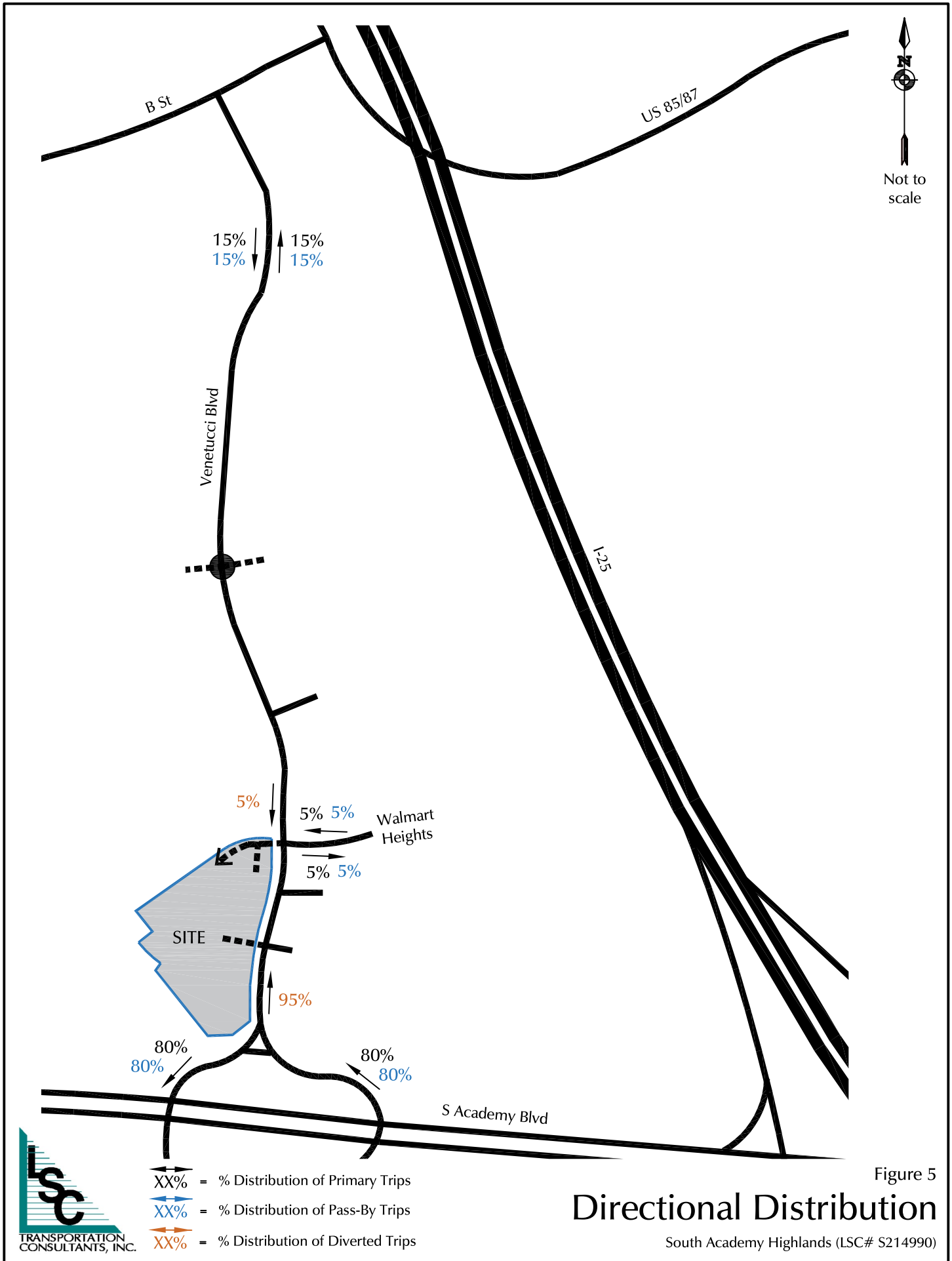
$\frac{XX}{XX}$  = AM Weekday Peak-Hour Traffic (Veh/Hour)  
 $\frac{XX}{XX}$  = PM Weekday Peak-Hour Traffic (Veh/Hour)

X,XXX = Average Daily Traffic (Vehicles/Day)



Figure 4  
**Short-Term Baseline  
 Traffic, Lane Geometry,  
 Traffic Control, and LOS**

South Academy Highlands (LSC# S214990)



North arrow pointing up.  
Not to scale

Figure 5

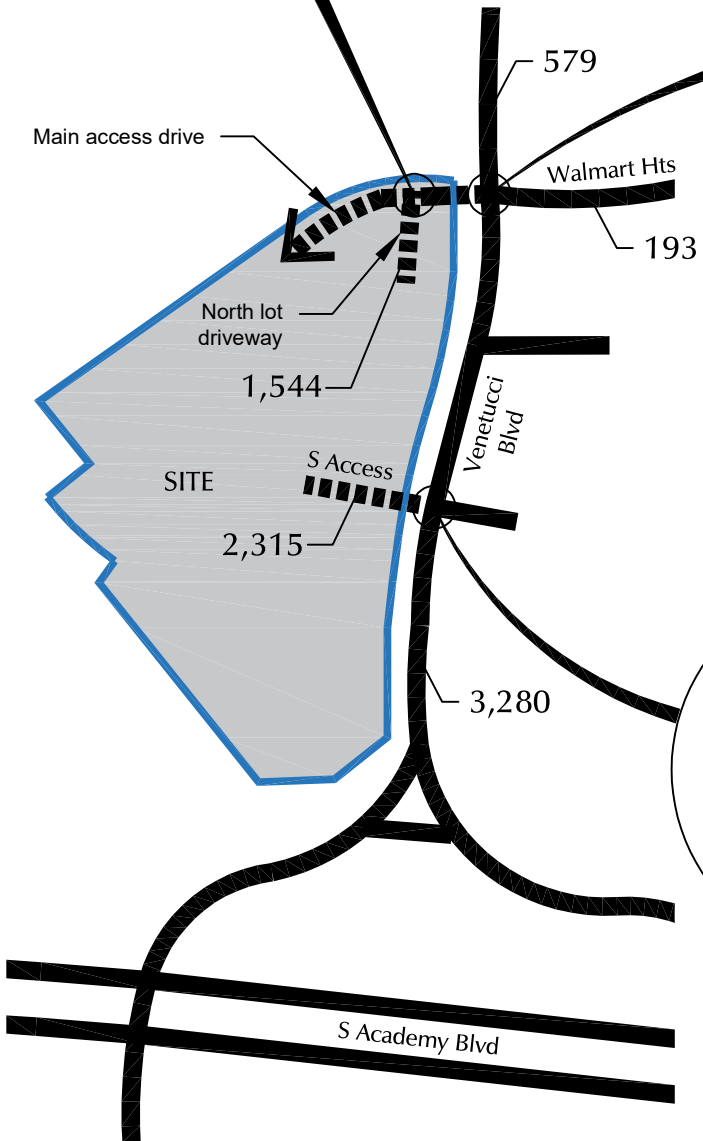
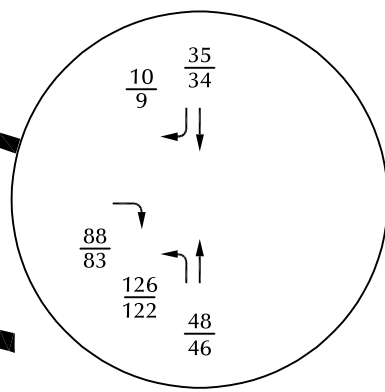
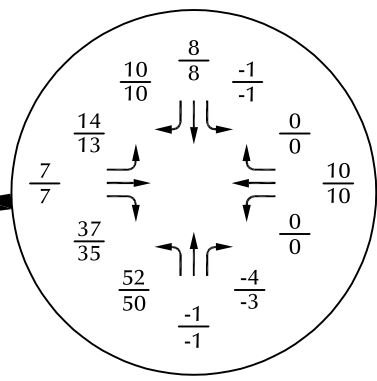
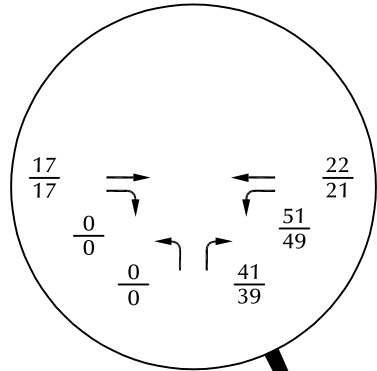
# Directional Distribution

South Academy Highlands (LSC# S214990)





1" = 250'  
scale



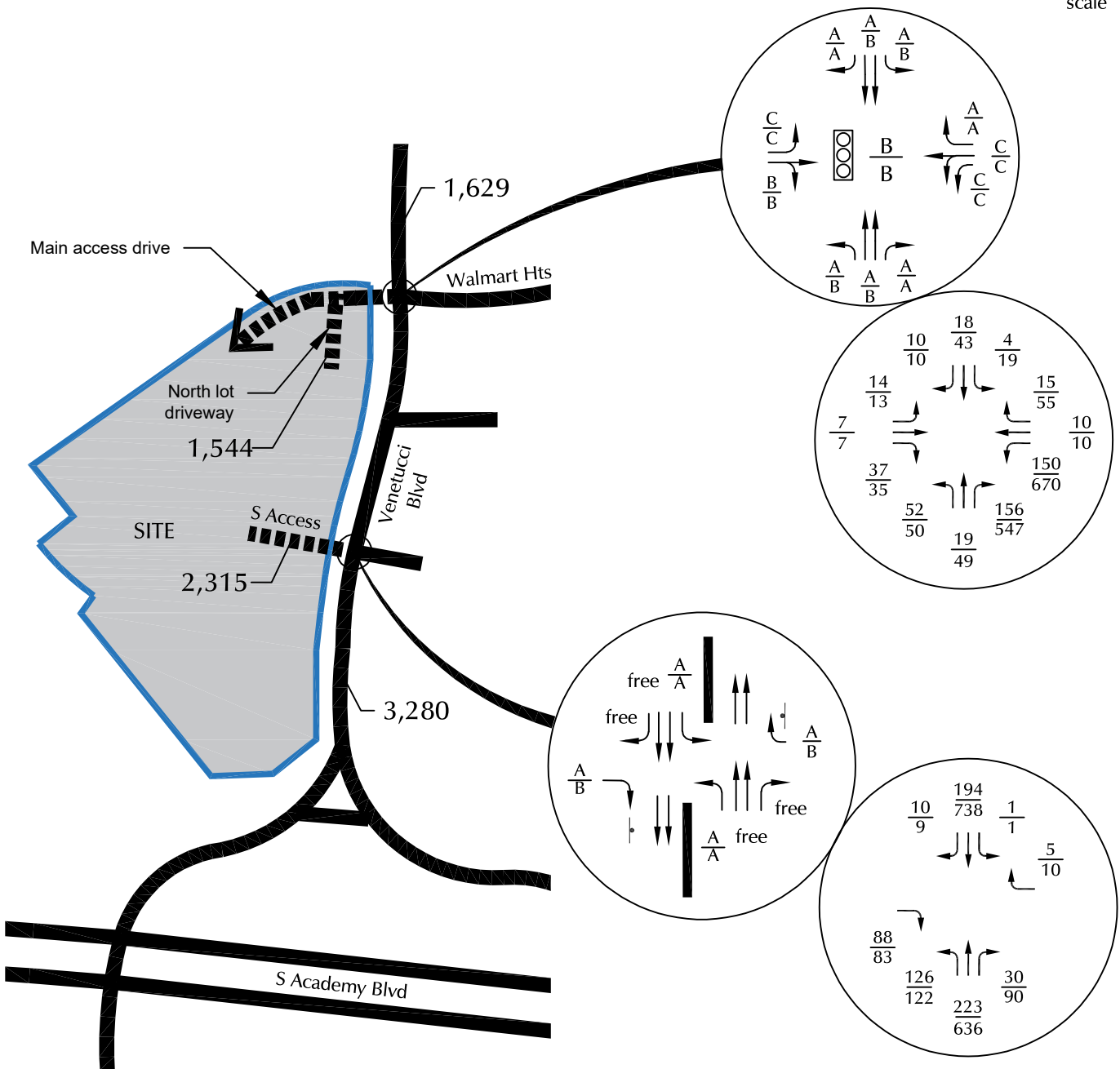
$\frac{XX}{XX}$  = AM Weekday Peak-Hour Traffic (Veh/Hour)  
 $\frac{XX}{XX}$  = PM Weekday Peak-Hour Traffic (Veh/Hour)  
 X,XXX = Average Daily Traffic (Vehicles/Day)

Figure 6  
**Site-Generated Traffic**  
 South Academy Highlands (LSC# S214990)





1" = 250'  
scale



= Traffic Signal    = Stop Sign

$\frac{X}{X}$  = AM Individual Movement Peak-Hour LOS  
PM Individual Movement Peak-Hour LOS

$\frac{XX}{XX}$  = AM Weekday Peak-Hour Traffic (Veh/Hour)  
PM Weekday Peak-Hour Traffic (Veh/Hour)

X,XXX = Average Daily Traffic (Vehicles/Day)

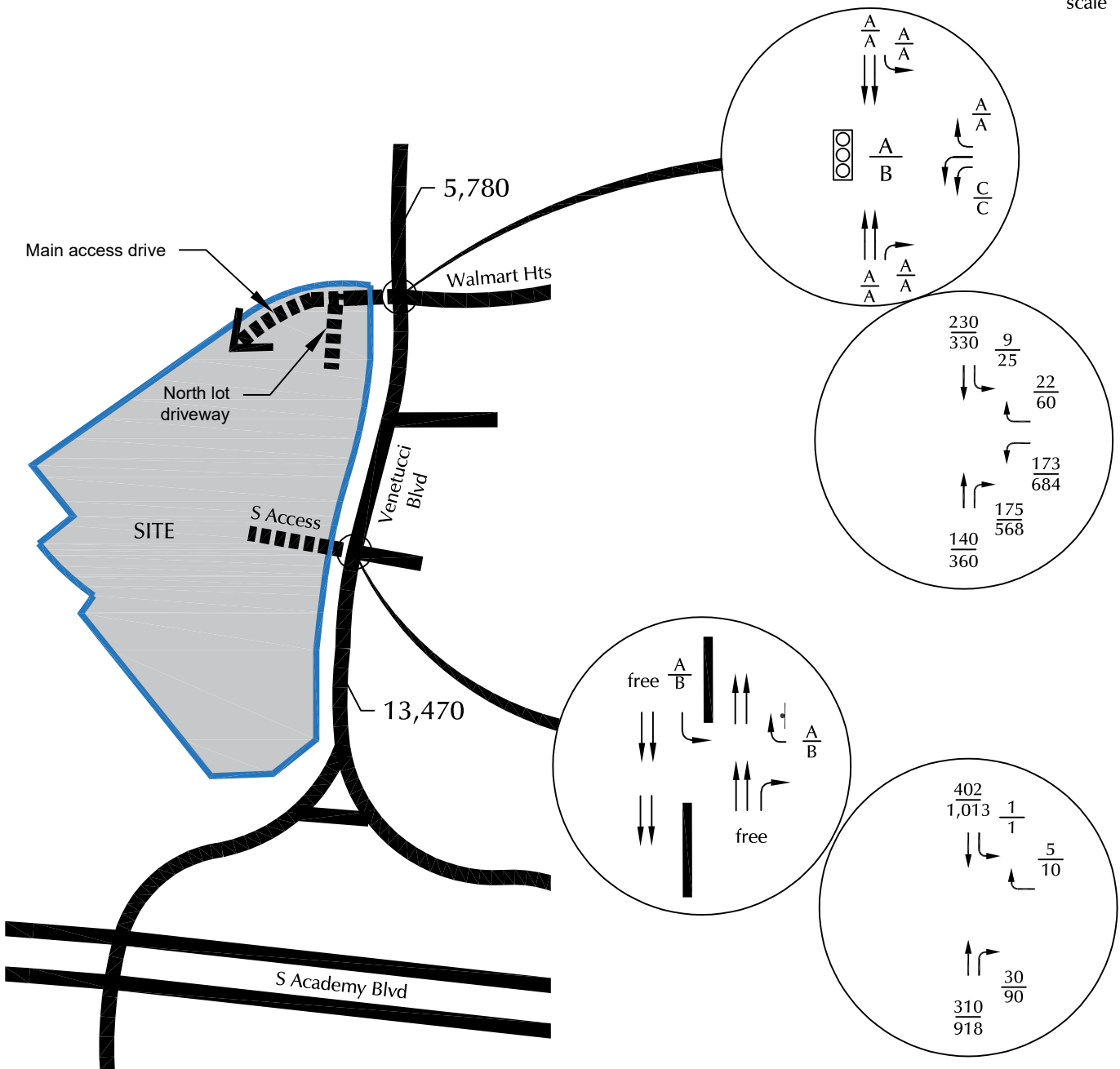
## Figure 7 Short-Term Baseline + Site Traffic, Lane Geometry, Traffic Control, and LOS

South Academy Highlands (LSC# S214990)





1" = 250'  
scale



- = Traffic Signal
- = Stop Sign
- $\frac{X}{X}$  = AM Individual Movement Peak-Hour LOS  
PM Individual Movement Peak-Hour LOS
- $\frac{XX}{XX}$  = AM Weekday Peak-Hour Traffic (Veh/Hour)  
PM Weekday Peak-Hour Traffic (Veh/Hour)
- X,XXX = Average Daily Traffic (Vehicles/Day)

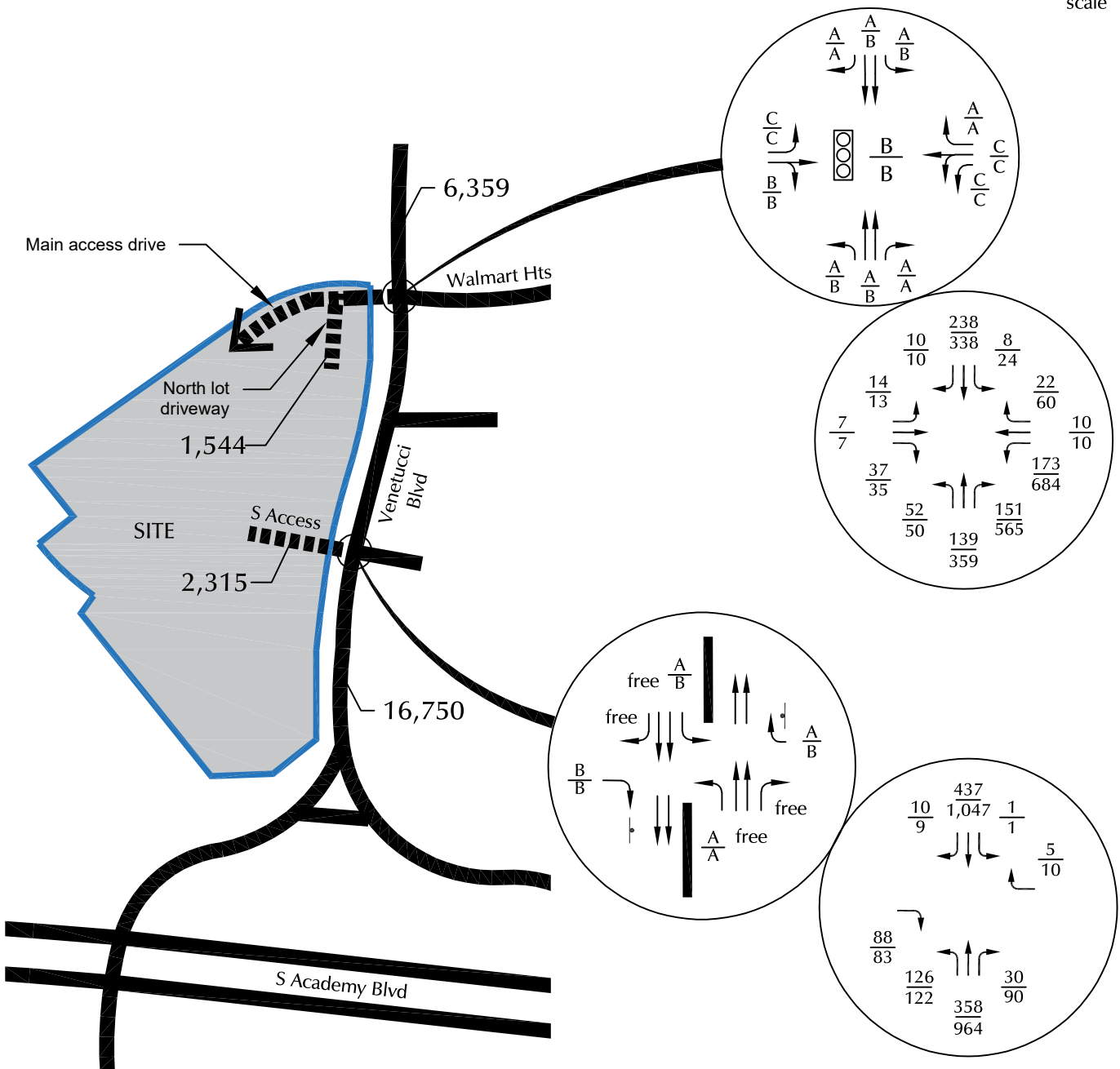


Figure 8  
2041 Background  
Traffic, Lane Geometry,  
Traffic Control, and LOS

South Academy Highlands (LSC# S214990)



1" = 250'  
scale



= Traffic Signal    = Stop Sign

$\frac{X}{X}$  = AM Individual Movement Peak-Hour LOS  
PM Individual Movement Peak-Hour LOS

$\frac{XX}{XX}$  = AM Weekday Peak-Hour Traffic (Veh/Hour)  
PM Weekday Peak-Hour Traffic (Veh/Hour)

X,XXX = Average Daily Traffic (Vehicles/Day)

Figure 9  
**2041 Background + Site  
 Traffic, Lane Geometry,  
 Traffic Control, and LOS**

South Academy Highlands (LSC# S214990)



# Traffic Counts

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File Name : Venetucci Blvd - Walmart Hts AM  
 Site Code : S214990  
 Start Date : 11/2/2021  
 Page No : 1

### Groups Printed- Unshifted

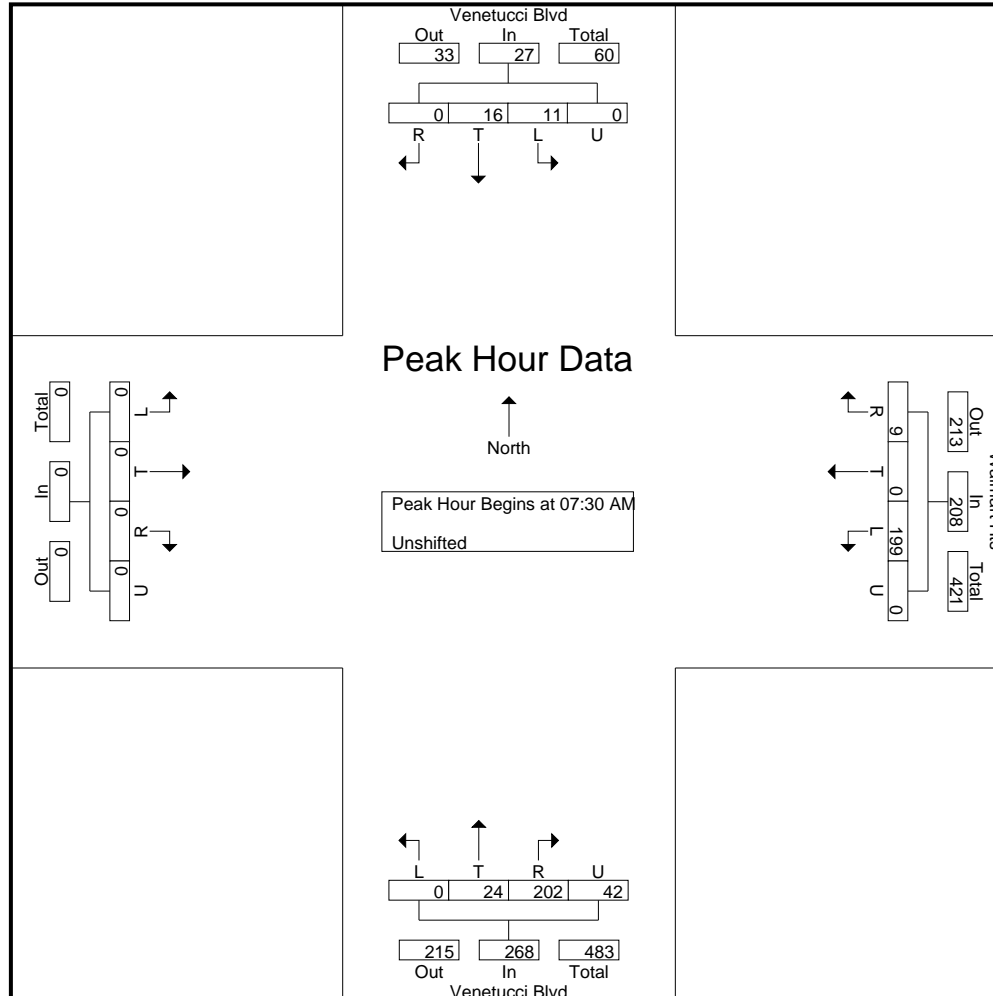
Start Time	Venetucci Blvd Southbound					Walmart Hts Westbound					Venetucci Blvd Northbound					Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
06:30 AM	1	0	0	0	1	14	0	2	0	16	0	3	27	9	39	0	0	0	0	0	56
06:45 AM	0	1	0	0	1	25	0	0	0	25	0	2	24	10	36	0	0	0	0	0	62
Total	1	1	0	0	2	39	0	2	0	41	0	5	51	19	75	0	0	0	0	0	118
07:00 AM	0	1	0	0	1	37	0	2	0	39	0	1	33	18	52	0	0	0	0	0	92
07:15 AM	1	0	0	0	1	33	0	6	0	39	0	5	21	10	36	0	0	0	0	0	76
07:30 AM	2	4	0	0	6	35	0	2	0	37	0	5	42	10	57	0	0	0	0	0	100
07:45 AM	2	3	0	0	5	35	0	2	0	37	0	7	56	8	71	0	0	0	0	0	113
Total	5	8	0	0	13	140	0	12	0	152	0	18	152	46	216	0	0	0	0	0	381
08:00 AM	5	4	0	0	9	60	0	0	0	60	0	7	58	9	74	0	0	0	0	0	143
08:15 AM	2	5	0	0	7	69	0	5	0	74	0	5	46	15	66	0	0	0	0	0	147
Grand Total	13	18	0	0	31	308	0	19	0	327	0	35	307	89	431	0	0	0	0	0	789
Apprch %	41.9	58.1	0	0		94.2	0	5.8	0		0	8.1	71.2	20.6		0	0	0	0	0	
Total %	1.6	2.3	0	0	3.9	39	0	2.4	0	41.4	0	4.4	38.9	11.3	54.6	0	0	0	0	0	



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File Name : Venetucci Blvd - Walmart Hts AM  
 Site Code : S214990  
 Start Date : 11/2/2021  
 Page No : 4

Start Time	Venetucci Blvd Southbound					Walmart Hts Westbound					Venetucci Blvd Northbound					Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	

**Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1**

Peak Hour for Each Approach Begins at:

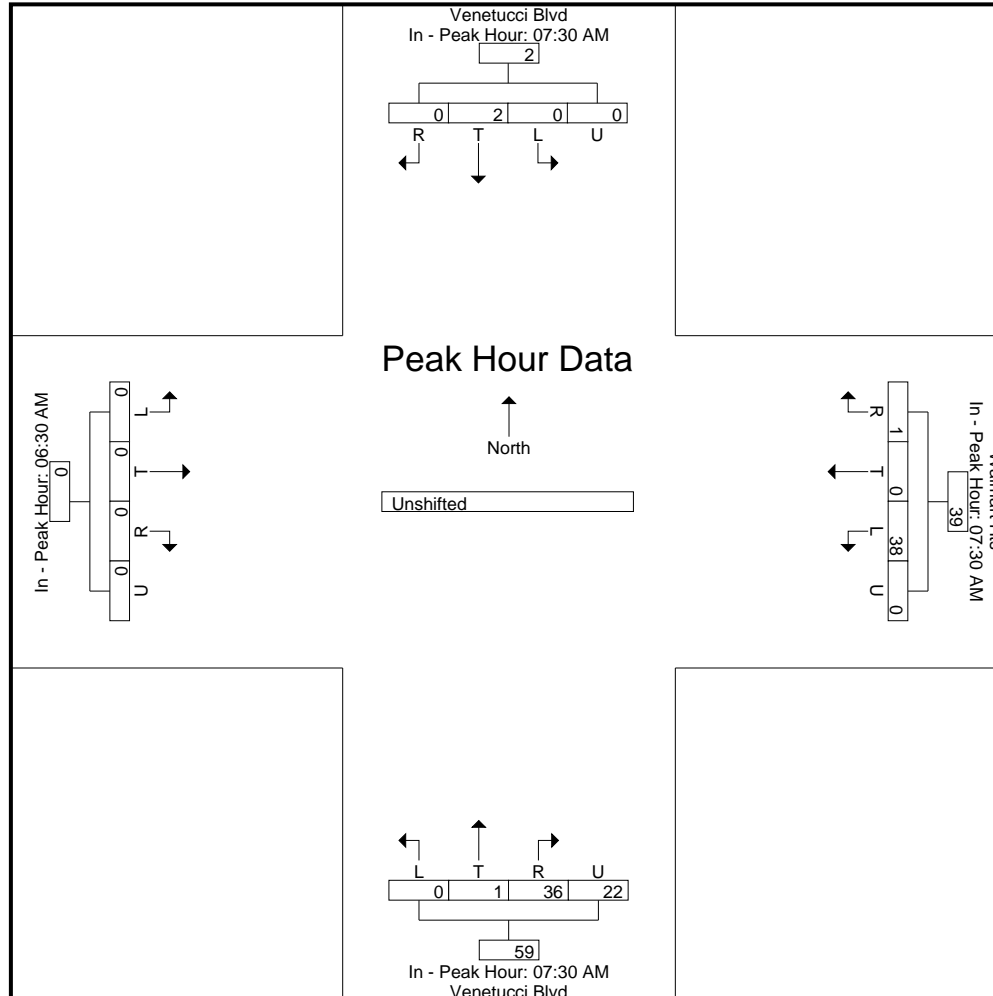
	7:30:00 AM					7:30:00 AM					7:30:00 AM					6:30:00 AM				
+0 mins.	2	4	0	0	6	35	0	2	0	37	0	5	42	10	57	0	0	0	0	0
+5 mins.	2	3	0	0	5	35	0	2	0	37	0	7	56	8	71	0	0	0	0	0
+10 mins.	5	4	0	0	9	60	0	0	0	60	0	7	58	9	74	0	0	0	0	0
+15 mins.	2	5	0	0	7	69	0	5	0	74	0	5	46	15	66	0	0	0	0	0
Total Volume	11	16	0	0	27	199	0	9	0	208	0	24	202	42	268	0	0	0	0	0
% App. Total	40.7	59.3	0	0		95.7	0	4.3	0		0	9	75.4	15.7		0	0	0	0	
PHF	.550	.800	.000	.000	.750	.721	.000	.450	.000	.703	.000	.857	.871	.700	.905	.000	.000	.000	.000	.000



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File Name : Venetucci Blvd - Walmart Hts PM  
 Site Code : S214990  
 Start Date : 11/2/2021  
 Page No : 1

### Groups Printed- Unshifted

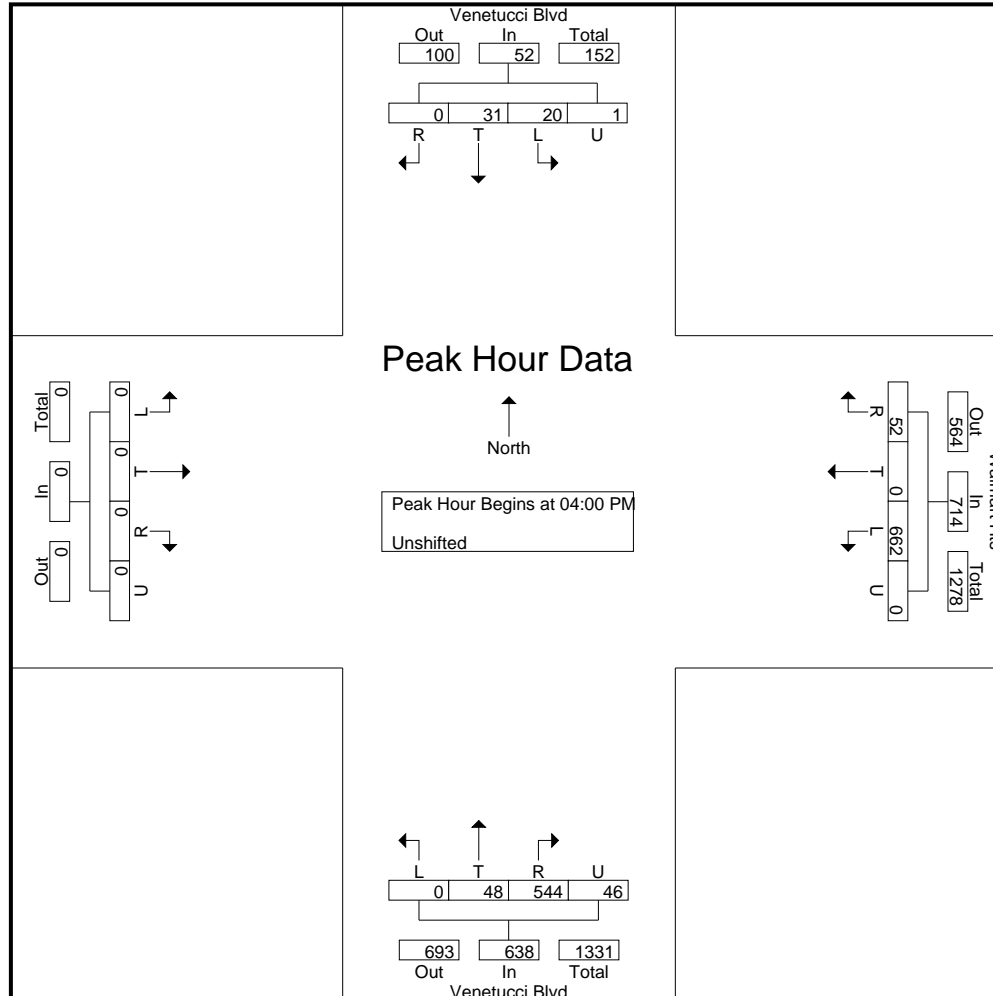
Start Time	Venetucci Blvd Southbound					Walmart Hts Westbound					Venetucci Blvd Northbound					Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
04:00 PM	6	8	0	1	15	158	0	11	0	169	0	11	139	11	161	0	0	0	0	0	345
04:15 PM	5	14	0	0	19	151	0	12	0	163	0	13	154	12	179	0	0	0	0	0	361
04:30 PM	7	7	0	0	14	193	0	15	0	208	0	12	117	17	146	0	0	0	0	0	368
04:45 PM	2	2	0	0	4	160	0	14	0	174	0	12	134	6	152	0	0	0	0	0	330
Total	20	31	0	1	52	662	0	52	0	714	0	48	544	46	638	0	0	0	0	0	1404
05:00 PM	5	4	0	0	9	184	0	6	0	190	0	7	120	11	138	0	0	0	0	0	337
05:15 PM	4	6	0	0	10	180	0	7	0	187	0	14	126	16	156	0	0	0	0	0	353
05:30 PM	5	2	0	0	7	127	1	7	0	135	0	10	108	9	127	0	0	0	0	0	269
05:45 PM	4	7	0	0	11	156	0	10	0	166	0	10	98	4	112	0	0	0	0	0	289
Total	18	19	0	0	37	647	1	30	0	678	0	41	452	40	533	0	0	0	0	0	1248
Grand Total	38	50	0	1	89	1309	1	82	0	1392	0	89	996	86	1171	0	0	0	0	0	2652
Apprch %	42.7	56.2	0	1.1		94	0.1	5.9	0		0	7.6	85.1	7.3		0	0	0	0		
Total %	1.4	1.9	0	0	3.4	49.4	0	3.1	0	52.5	0	3.4	37.6	3.2	44.2	0	0	0	0	0	



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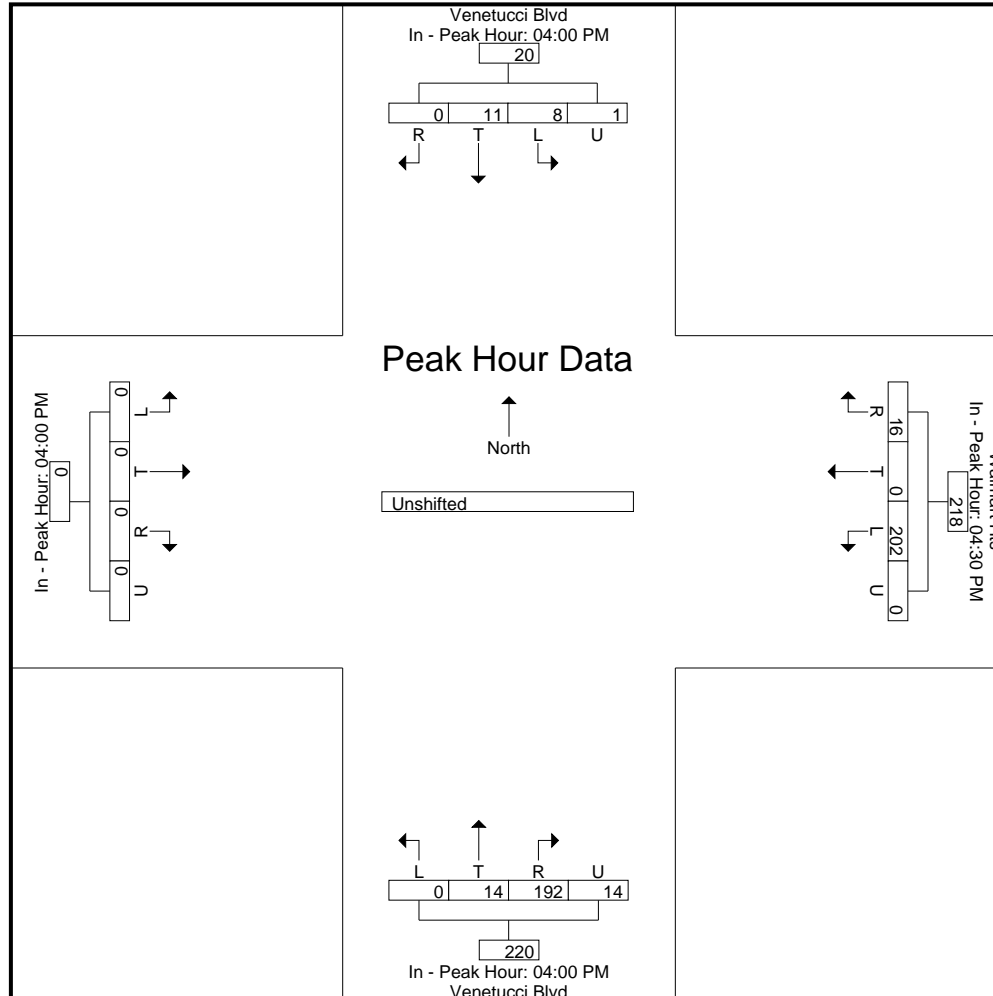
File Name : Venetucci Blvd - Walmart Hts PM  
 Site Code : S214990  
 Start Date : 11/2/2021  
 Page No : 4

Start Time	Venetucci Blvd Southbound					Walmart Hts Westbound					Venetucci Blvd Northbound					Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
<b>Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1</b>																					
Peak Hour for Each Approach Begins at:																					
	4:00:00 PM					4:30:00 PM					4:00:00 PM					4:00:00 PM					
+0 mins.	6	8	0	1	15	193	0	15	0	208	0	11	139	11	161	0	0	0	0	0	
+5 mins.	5	14	0	0	19	160	0	14	0	174	0	13	154	12	179	0	0	0	0	0	
+10 mins.	7	7	0	0	14	184	0	6	0	190	0	12	117	17	146	0	0	0	0	0	
+15 mins.	2	2	0	0	4	180	0	7	0	187	0	12	134	6	152	0	0	0	0	0	
Total Volume	20	31	0	1	52	717	0	42	0	759	0	48	544	46	638	0	0	0	0	0	
% App. Total	38.5	59.6	0	1.9		94.5	0	5.5	0		0	7.5	85.3	7.2		0	0	0	0		
PHF	.714	.554	.000	.250	.684	.929	.000	.700	.000	.912	.000	.923	.883	.676	.891	.000	.000	.000	.000	.000	

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File Name : Venetucci Blvd - R in S of Walmart Hts AM  
 Site Code : S214990  
 Start Date : 11/2/2021  
 Page No : 1

## Groups Printed- Bank 1

Start Time	Venetucci Blvd Southbound					R in S of Walmart Hts Westbound					Venetucci Blvd Northbound					Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	9	0	9	0	0	0	0	0	9
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	7	0	7	0	0	0	0	0	7
Total	0	0	0	0	0	0	0	0	0	0	0	0	16	0	16	0	0	0	0	0	16
07:00 AM	0	0	0	0	0	0	0	1	0	1	0	0	5	0	5	0	0	0	0	0	6
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6	0	0	0	0	0	6
07:45 AM	0	0	0	0	0	0	0	1	0	1	0	0	13	0	13	0	0	0	0	0	14
Total	0	0	0	0	0	0	0	2	0	2	0	0	26	0	26	0	0	0	0	0	28
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	13	0	13	0	0	0	0	0	13
08:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	9	0	9	0	0	0	0	0	10
Grand Total	0	0	0	0	0	0	0	3	0	3	0	0	64	0	64	0	0	0	0	0	67
Apprch %	0	0	0	0	0	0	0	100	0	0	0	0	100	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	4.5	0	4.5	0	0	95.5	0	95.5	0	0	0	0	0	0





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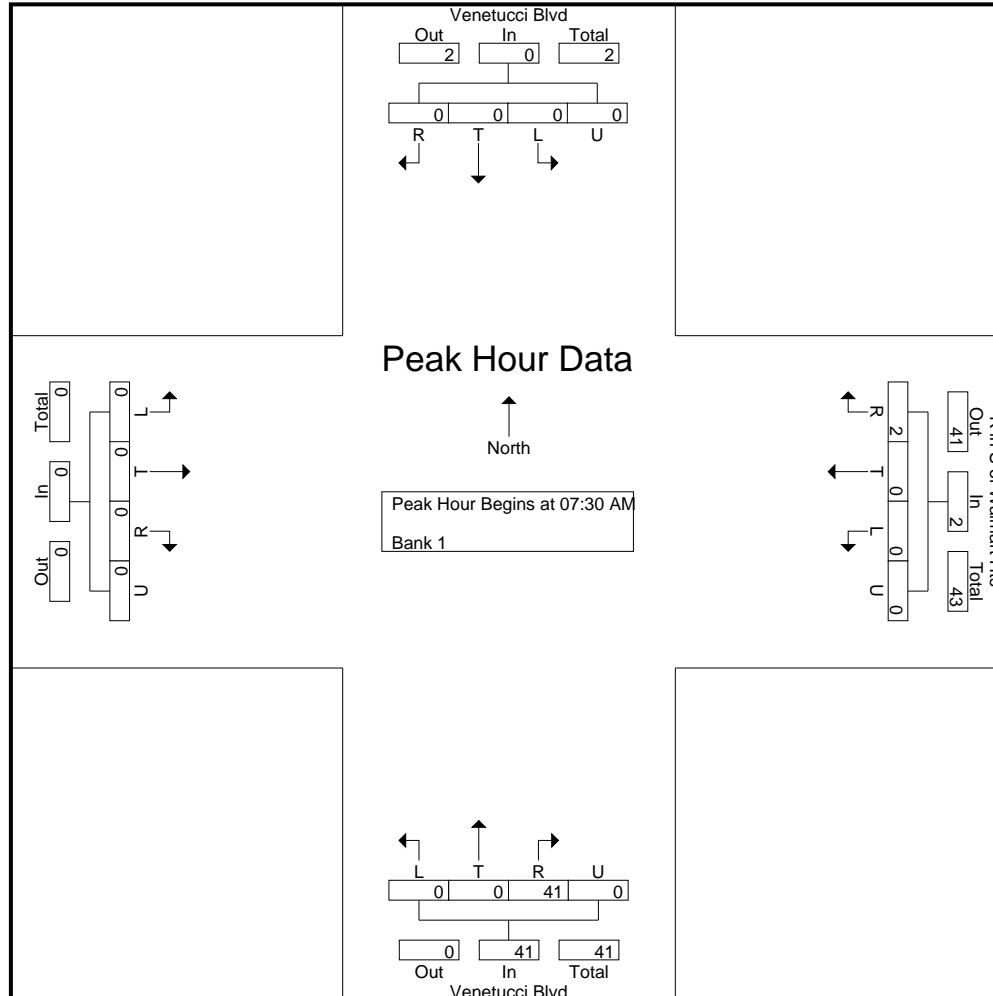
2504 E Pikes Peak Ave, Suite 304  
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File Name : Venetucci Blvd - R in S of Walmart Hts AM

Site Code : S214990

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File Name : Venetucci Blvd - R in S of Walmart Hts AM  
 Site Code : S214990  
 Start Date : 11/2/2021  
 Page No : 4

Start Time	Venetucci Blvd Southbound					R in S of Walmart Hts Westbound					Venetucci Blvd Northbound					Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
<b>Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1</b>																					
Peak Hour for Each Approach Begins at:																					
	6:30:00 AM					7:00:00 AM					7:30:00 AM					6:30:00 AM					
+0 mins.	0	0	0	0	0	0	0	1	0	1	0	0	6	0	6	0	0	0	0	0	
+5 mins.	0	0	0	0	0	0	0	0	0	0	0	0	13	0	13	0	0	0	0	0	
+10 mins.	0	0	0	0	0	0	0	0	0	0	0	0	13	0	13	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	1	0	1	0	0	9	0	9	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	2	0	2	0	0	41	0	41	0	0	0	0	0	
% App. Total	0	0	0	0	0	0	0	100	0	0	0	0	100	0	0	0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.788	.000	.788	.000	.000	.000	.000	.000	

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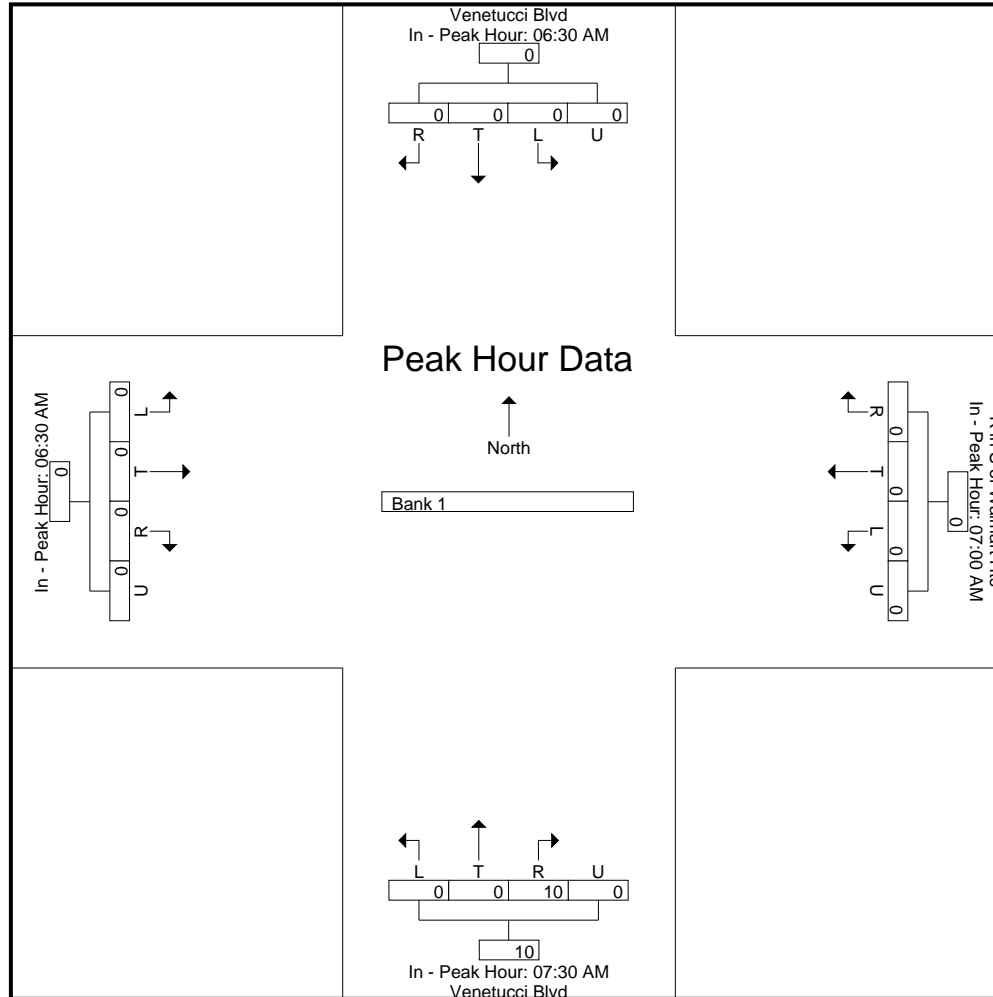
2504 E Pikes Peak Ave, Suite 304  
Colorado Springs, CO 80909  
719-633-2868

File Name : Venetucci Blvd - R in S of Walmart Hts AM

Site Code : S214990

Start Date : 11/2/2021

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File Name : Venetucci Blvd - R in S of Walmart Hts PM  
 Site Code : S214990  
 Start Date : 11/2/2021  
 Page No : 1

## Groups Printed- Bank 1

Start Time	Venetucci Blvd Southbound					R in S of Walmart Hts Westbound					Venetucci Blvd Northbound					Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
04:00 PM	0	0	0	0	0	0	0	2	0	2	0	0	22	0	22	0	0	0	0	0	24
04:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	21	0	21	0	0	0	0	0	22
04:30 PM	0	0	0	0	0	0	0	5	0	5	0	0	25	0	25	0	0	0	0	0	30
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	21	0	21	0	0	0	0	0	21
Total	0	0	0	0	0	0	0	8	0	8	0	0	89	0	89	0	0	0	0	0	97
05:00 PM	0	0	0	0	0	0	0	1	0	1	0	0	21	0	21	0	0	0	0	0	22
05:15 PM	0	0	0	0	0	0	0	3	0	3	0	0	24	0	24	0	0	0	0	0	27
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	27	0	27	0	0	0	0	0	27
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	25	0	25	0	0	0	0	0	25
Total	0	0	0	0	0	0	0	4	0	4	0	0	97	0	97	0	0	0	0	0	101
Grand Total	0	0	0	0	0	0	0	12	0	12	0	0	186	0	186	0	0	0	0	0	198
Apprch %	0	0	0	0	0	0	0	100	0	100	0	0	100	0	100	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	6.1	0	6.1	0	0	93.9	0	93.9	0	0	0	0	0	



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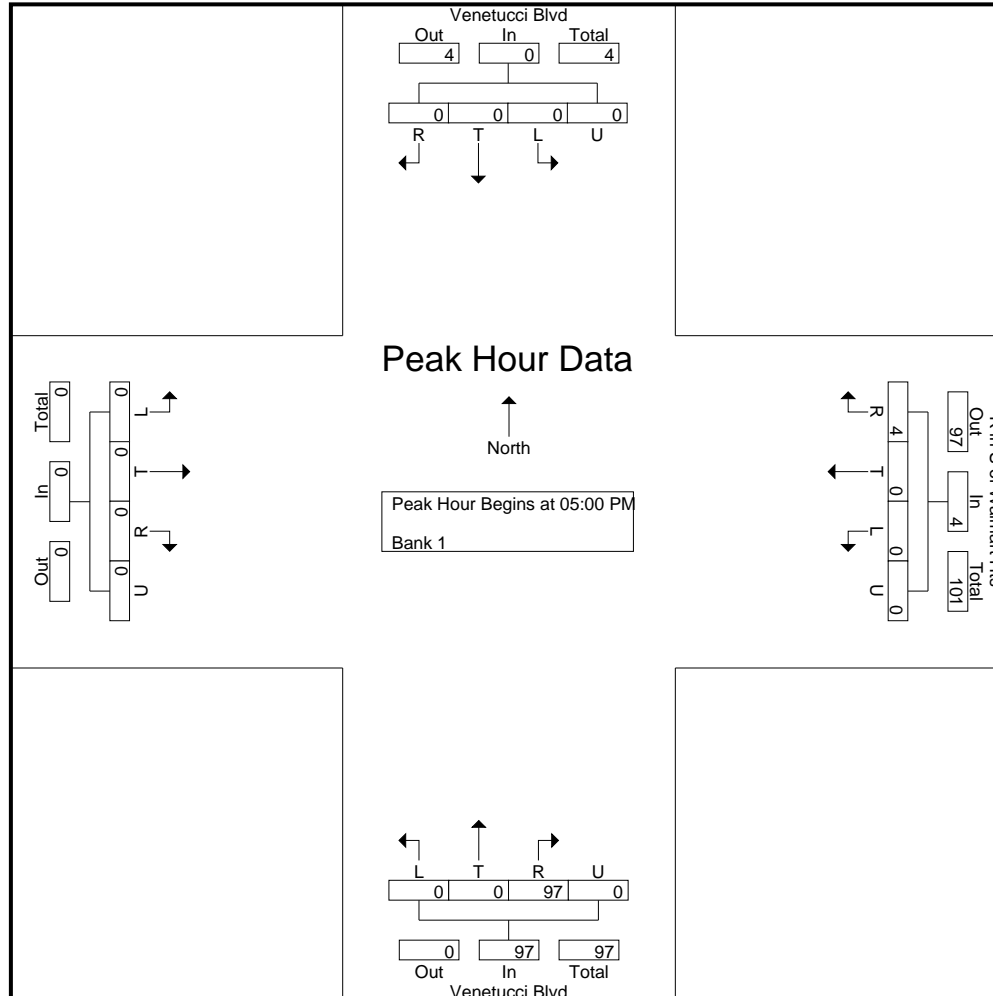
2504 E Pikes Peak Ave, Suite 304  
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File Name : Venetucci Blvd - R in S of Walmart Hts PM

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 Colorado Springs, CO 80909  
 719-633-2868

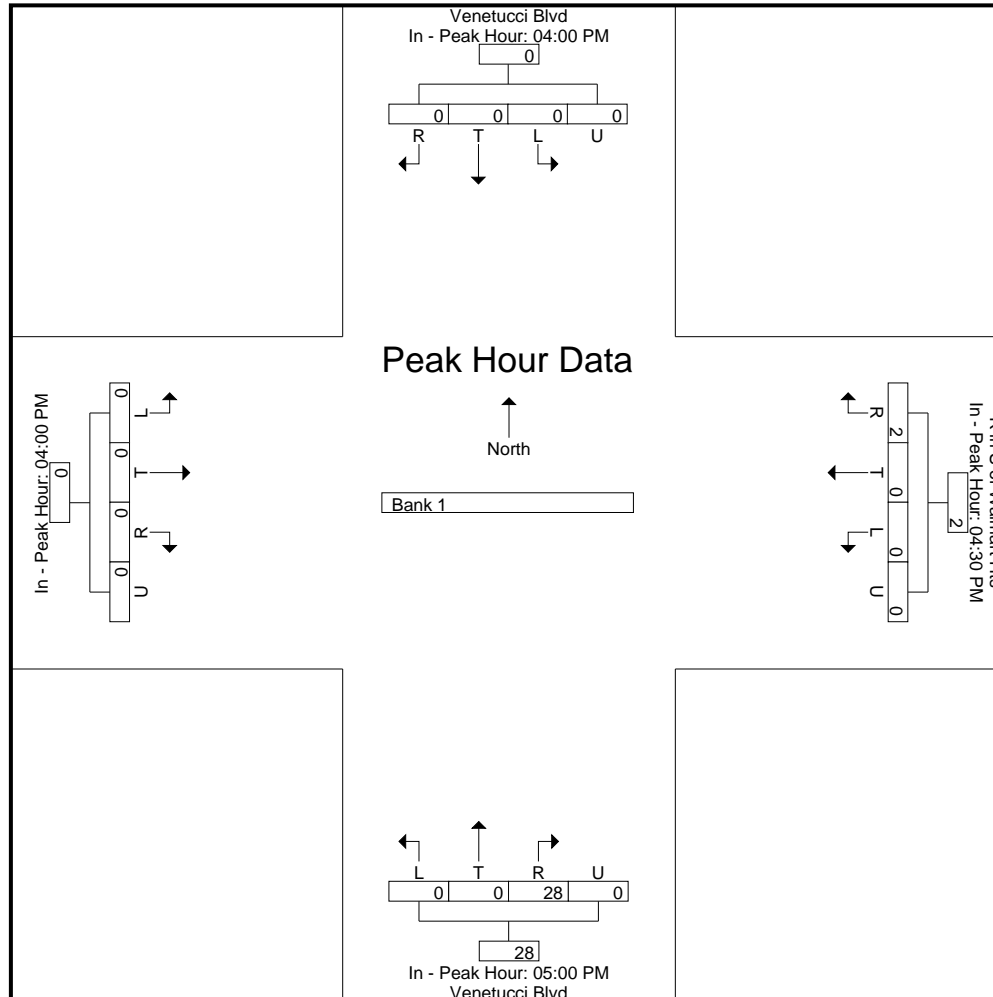
File Name : Venetucci Blvd - R in S of Walmart Hts PM  
 Site Code : S214990  
 Start Date : 11/2/2021  
 Page No : 4

Start Time	Venetucci Blvd Southbound					R in S of Walmart Hts Westbound					Venetucci Blvd Northbound					Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
<b>Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1</b>																					
Peak Hour for Each Approach Begins at:																					
	4:00:00 PM					4:30:00 PM					5:00:00 PM					4:00:00 PM					
+0 mins.	0	0	0	0	0	0	0	5	0	5	0	0	21	0	21	0	0	0	0	0	
+5 mins.	0	0	0	0	0	0	0	0	0	0	0	0	24	0	24	0	0	0	0	0	
+10 mins.	0	0	0	0	0	0	0	1	0	1	0	0	27	0	27	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	3	0	3	0	0	25	0	25	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	9	0	9	0	0	97	0	97	0	0	0	0	0	
% App. Total	0	0	0	0	0	0	0	100	0	0	0	0	100	0	0	0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.450	.000	.450	.000	.000	.898	.000	.898	.000	.000	.000	.000	.000	

# LSC Transportation Consultants, Inc.

2504 E Pikes Peak Ave, Suite 304  
 Colorado Springs, CO 80909  
 719-633-2868

File Name : Venetucci Blvd - R in S of Walmart Hts PM  
 Site Code : S214990  
 Start Date : 11/2/2021  
 Page No : 5





# Queuing Reports

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Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #1

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	LT	R	L	T	T	R	L	T	T
Maximum Queue (ft)	41	51	120	80	18	33	24	5	67	19	34	9
Average Queue (ft)	14	23	73	29	6	12	5	1	31	3	6	1
95th Queue (ft)	41	53	122	78	20	38	26	8	66	17	32	11
Link Distance (ft)	89	89					326	326				
Upstream Blk Time (%)		0										
Queuing Penalty (veh)		0										
Storage Bay Dist (ft)			200			105			105	125		
Storage Blk Time (%)									0			
Queuing Penalty (veh)									0			

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #1

Movement	SB
Directions Served	R
Maximum Queue (ft)	22
Average Queue (ft)	6
95th Queue (ft)	24
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	125
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #2

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	LT	R	L	T	T	R	L	T	T
Maximum Queue (ft)	35	47	100	60	9	48	23	5	71	19	22	5
Average Queue (ft)	10	26	72	23	3	22	5	1	30	3	4	1
95th Queue (ft)	34	58	113	63	11	52	25	8	71	17	24	8
Link Distance (ft)	89	89					326	326				
Upstream Blk Time (%)		0										
Queuing Penalty (veh)		0										
Storage Bay Dist (ft)			200			105			105	125		
Storage Blk Time (%)									0			
Queuing Penalty (veh)									0			

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #2

Movement	SB
Directions Served	R
Maximum Queue (ft)	17
Average Queue (ft)	3
95th Queue (ft)	19
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	125
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #3

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	LT	R	L	T	R	L	T	R
Maximum Queue (ft)	34	43	108	61	18	31	27	47	4	22	9
Average Queue (ft)	12	24	63	17	5	9	5	22	1	3	2
95th Queue (ft)	39	50	107	57	18	32	22	52	7	20	14
Link Distance (ft)	89	89					326				
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)			200			105		105	125		125
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #4

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	TR	L	LT	R	L	T	R	T	R
Maximum Queue (ft)	31	39	115	73	14	46	22	60	23	13
Average Queue (ft)	11	23	76	25	5	15	5	32	5	2
95th Queue (ft)	33	47	128	76	15	46	23	66	22	13
Link Distance (ft)	89	89					326			
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			200			105		105		125
Storage Blk Time (%)								0		
Queuing Penalty (veh)								0		

Intersection: 1: Venetucci Blvd & Walmart Hts, All Intervals

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	LT	R	L	T	T	R	L	T	T
Maximum Queue (ft)	49	65	127	96	22	50	37	10	82	29	43	14
Average Queue (ft)	12	24	71	24	5	15	5	0	29	2	5	0
95th Queue (ft)	37	52	118	70	17	43	24	6	64	12	25	6
Link Distance (ft)	89	89					326	326				
Upstream Blk Time (%)		0										
Queuing Penalty (veh)		0										
Storage Bay Dist (ft)			200			105			105	125		
Storage Blk Time (%)									0			
Queuing Penalty (veh)									0			

Intersection: 1: Venetucci Blvd & Walmart Hts, All Intervals

Movement	SB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	3
95th Queue (ft)	18
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	125
Storage Blk Time (%)	
Queuing Penalty (veh)	

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Intersection: 33: Venetucci Blvd & Sam's Club, Interval #1

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Movement

Directions Served  
Maximum Queue (ft)  
Average Queue (ft)  
95th Queue (ft)  
Link Distance (ft)  
Upstream Blk Time (%)  
Queuing Penalty (veh)  
Storage Bay Dist (ft)  
Storage Blk Time (%)  
Queuing Penalty (veh)

---

Intersection: 33: Venetucci Blvd & Sam's Club, Interval #2

---

Movement

Directions Served  
Maximum Queue (ft)  
Average Queue (ft)  
95th Queue (ft)  
Link Distance (ft)  
Upstream Blk Time (%)  
Queuing Penalty (veh)  
Storage Bay Dist (ft)  
Storage Blk Time (%)  
Queuing Penalty (veh)

---

Intersection: 33: Venetucci Blvd & Sam's Club, Interval #3

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Movement

Directions Served  
Maximum Queue (ft)  
Average Queue (ft)  
95th Queue (ft)  
Link Distance (ft)  
Upstream Blk Time (%)  
Queuing Penalty (veh)  
Storage Bay Dist (ft)  
Storage Blk Time (%)  
Queuing Penalty (veh)

---

Intersection: 33: Venetucci Blvd & Sam's Club, Interval #4

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Movement

Directions Served  
Maximum Queue (ft)  
Average Queue (ft)  
95th Queue (ft)  
Link Distance (ft)  
Upstream Blk Time (%)  
Queuing Penalty (veh)  
Storage Bay Dist (ft)  
Storage Blk Time (%)  
Queuing Penalty (veh)

---

Intersection: 33: Venetucci Blvd & Sam's Club, All Intervals

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Movement

Directions Served  
Maximum Queue (ft)  
Average Queue (ft)  
95th Queue (ft)  
Link Distance (ft)  
Upstream Blk Time (%)  
Queuing Penalty (veh)  
Storage Bay Dist (ft)  
Storage Blk Time (%)  
Queuing Penalty (veh)

---

Zone Summary

Zone wide Queuing Penalty, Interval #1: 0  
Zone wide Queuing Penalty, Interval #2: 0  
Zone wide Queuing Penalty, Interval #3: 0  
Zone wide Queuing Penalty, Interval #4: 0  
Zone wide Queuing Penalty, All Intervals: 0

Intersection: 2: Venetucci Blvd & S Site Access, Interval #1

Movement	EB	WB	NB
Directions Served	R	R	L
Maximum Queue (ft)	62	29	48
Average Queue (ft)	38	9	22
95th Queue (ft)	60	34	53
Link Distance (ft)	168	91	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			140
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Venetucci Blvd & S Site Access, Interval #2

Movement	EB	WB	NB	SB
Directions Served	R	R	L	TR
Maximum Queue (ft)	60	20	53	2
Average Queue (ft)	40	3	21	0
95th Queue (ft)	62	19	53	3
Link Distance (ft)	168	91		326
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			140	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Venetucci Blvd & S Site Access, Interval #3

Movement	EB	WB	NB
Directions Served	R	R	L
Maximum Queue (ft)	54	20	65
Average Queue (ft)	36	4	22
95th Queue (ft)	57	21	64
Link Distance (ft)	168	91	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			140
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Venetucci Blvd & S Site Access, Interval #4

Movement	EB	WB	NB	SB
Directions Served	R	R	L	TR
Maximum Queue (ft)	50	28	39	2
Average Queue (ft)	32	8	16	0
95th Queue (ft)	47	31	45	3
Link Distance (ft)	168	91		326
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			140	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Venetucci Blvd & S Site Access, All Intervals

Movement	EB	WB	NB	SB
Directions Served	R	R	L	TR
Maximum Queue (ft)	68	34	68	3
Average Queue (ft)	36	6	20	0
95th Queue (ft)	57	27	54	2
Link Distance (ft)	168	91		326
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			140	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: N Site Access & Walmart Hts, Interval #1

Movement	NB
Directions Served	LR
Maximum Queue (ft)	44
Average Queue (ft)	24
95th Queue (ft)	49
Link Distance (ft)	223
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	



Intersection: 3: N Site Access & Walmart Hts, Interval #2

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	5	43
Average Queue (ft)	1	22
95th Queue (ft)	9	46
Link Distance (ft)	89	223
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: N Site Access & Walmart Hts, Interval #3

Movement	NB
Directions Served	LR
Maximum Queue (ft)	36
Average Queue (ft)	24
95th Queue (ft)	45
Link Distance (ft)	223
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: N Site Access & Walmart Hts, Interval #4

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	16	28
Average Queue (ft)	2	23
95th Queue (ft)	15	41
Link Distance (ft)	89	223
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: N Site Access & Walmart Hts, All Intervals

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	16	51
Average Queue (ft)	1	23
95th Queue (ft)	9	46
Link Distance (ft)	89	223
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty, Interval #1: 0
Zone wide Queuing Penalty, Interval #2: 0
Zone wide Queuing Penalty, Interval #3: 0
Zone wide Queuing Penalty, Interval #4: 0
Zone wide Queuing Penalty, All Intervals: 0

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #1

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	LT	R	L	T	R	L	T	T	R
Maximum Queue (ft)	38	54	151	158	45	47	32	130	35	45	5	23
Average Queue (ft)	14	26	145	132	16	19	12	77	12	16	1	3
95th Queue (ft)	43	55	158	175	42	54	38	135	38	46	8	18
Link Distance (ft)	89	89					326					
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)			200			105		105	125			125
Storage Blk Time (%)								1				
Queuing Penalty (veh)								0				

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #2

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	LT	R	L	T	T	R	L	T	T
Maximum Queue (ft)	29	44	158	151	27	53	39	47	146	19	47	14
Average Queue (ft)	13	23	146	133	12	23	15	7	86	10	19	3
95th Queue (ft)	38	47	159	177	32	61	40	64	141	32	47	16
Link Distance (ft)	89	89					326	326				
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)			200			105		105	125			
Storage Blk Time (%)						0		3				
Queuing Penalty (veh)						0		1				

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #2

Movement	SB
Directions Served	R
Maximum Queue (ft)	25
Average Queue (ft)	5
95th Queue (ft)	22
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	125
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #3

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	LT	R	L	T	T	R	L	T	T
Maximum Queue (ft)	26	54	153	148	27	48	36	9	112	22	35	9
Average Queue (ft)	10	25	143	123	12	19	12	1	73	8	13	1
95th Queue (ft)	33	58	155	168	30	51	40	11	117	30	38	11
Link Distance (ft)	89	89					326	326				
Upstream Blk Time (%)		0										
Queuing Penalty (veh)		0										
Storage Bay Dist (ft)			200			105			105	125		
Storage Blk Time (%)									1			
Queuing Penalty (veh)									0			

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #3

Movement	SB
Directions Served	R
Maximum Queue (ft)	18
Average Queue (ft)	4
95th Queue (ft)	21
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	125
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #4

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	LT	R	L	T	T	R	L	T	T
Maximum Queue (ft)	38	57	162	150	29	41	36	4	123	43	54	5
Average Queue (ft)	14	30	147	127	11	21	16	1	84	15	20	1
95th Queue (ft)	43	55	166	173	27	45	43	6	125	45	54	8
Link Distance (ft)	89	89					326	326				
Upstream Blk Time (%)		0										
Queuing Penalty (veh)		0										
Storage Bay Dist (ft)			200			105			105	125		
Storage Blk Time (%)			0						2			
Queuing Penalty (veh)			0						1			

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #4

Movement	SB
Directions Served	R
Maximum Queue (ft)	18
Average Queue (ft)	3
95th Queue (ft)	18
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	125
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1: Venetucci Blvd & Walmart Hts, All Intervals

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	LT	R	L	T	T	R	L	T	T
Maximum Queue (ft)	45	69	178	168	51	63	50	52	166	46	63	28
Average Queue (ft)	13	26	145	129	13	21	14	2	80	11	17	1
95th Queue (ft)	40	54	160	174	33	53	41	32	131	37	47	11
Link Distance (ft)	89	89					326	326				
Upstream Blk Time (%)		0										
Queuing Penalty (veh)		0										
Storage Bay Dist (ft)			200			105			105	125		
Storage Blk Time (%)			0			0			2			
Queuing Penalty (veh)			0			0			0			

Intersection: 1: Venetucci Blvd & Walmart Hts, All Intervals

Movement	SB
Directions Served	R
Maximum Queue (ft)	27
Average Queue (ft)	4
95th Queue (ft)	19
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	125
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 33: Venetucci Blvd & Sam's Club, Interval #1

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

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Intersection: 33: Venetucci Blvd & Sam's Club, Interval #2

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Movement

Directions Served  
Maximum Queue (ft)  
Average Queue (ft)  
95th Queue (ft)  
Link Distance (ft)  
Upstream Blk Time (%)  
Queuing Penalty (veh)  
Storage Bay Dist (ft)  
Storage Blk Time (%)  
Queuing Penalty (veh)

---

Intersection: 33: Venetucci Blvd & Sam's Club, Interval #3

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Movement

Directions Served  
Maximum Queue (ft)  
Average Queue (ft)  
95th Queue (ft)  
Link Distance (ft)  
Upstream Blk Time (%)  
Queuing Penalty (veh)  
Storage Bay Dist (ft)  
Storage Blk Time (%)  
Queuing Penalty (veh)

---

Intersection: 33: Venetucci Blvd & Sam's Club, Interval #4

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Movement

Directions Served  
Maximum Queue (ft)  
Average Queue (ft)  
95th Queue (ft)  
Link Distance (ft)  
Upstream Blk Time (%)  
Queuing Penalty (veh)  
Storage Bay Dist (ft)  
Storage Blk Time (%)  
Queuing Penalty (veh)

---

Intersection: 33: Venetucci Blvd & Sam's Club, All Intervals

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Movement

- Directions Served
- Maximum Queue (ft)
- Average Queue (ft)
- 95th Queue (ft)
- Link Distance (ft)
- Upstream Blk Time (%)
- Queuing Penalty (veh)
- Storage Bay Dist (ft)
- Storage Blk Time (%)
- Queuing Penalty (veh)

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Zone Summary

- Zone wide Queuing Penalty, Interval #1: 0
- Zone wide Queuing Penalty, Interval #2: 1
- Zone wide Queuing Penalty, Interval #3: 0
- Zone wide Queuing Penalty, Interval #4: 1
- Zone wide Queuing Penalty, All Intervals: 0



Intersection: 2: Venetucci Blvd & S Site Access, Interval #1

Movement	EB	WB	NB	SB	SB
Directions Served	R	R	L	L	T
Maximum Queue (ft)	73	24	74	4	9
Average Queue (ft)	40	6	35	0	1
95th Queue (ft)	71	26	71	6	15
Link Distance (ft)	168	91			326
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			140	120	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: Venetucci Blvd & S Site Access, Interval #2

Movement	EB	WB	NB	SB	SB
Directions Served	R	R	L	L	TR
Maximum Queue (ft)	66	25	76	4	1
Average Queue (ft)	39	4	45	0	0
95th Queue (ft)	66	21	84	0	2
Link Distance (ft)	168	91			326
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			140	120	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: Venetucci Blvd & S Site Access, Interval #3

Movement	EB	WB	NB	SB	SB
Directions Served	R	R	L	T	TR
Maximum Queue (ft)	54	24	59	1	2
Average Queue (ft)	34	5	32	0	0
95th Queue (ft)	58	22	71	0	3
Link Distance (ft)	168	91		326	326
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			140		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: Venetucci Blvd & S Site Access, Interval #4

Movement	EB	WB	NB	SB
Directions Served	R	R	L	L
Maximum Queue (ft)	56	24	74	4
Average Queue (ft)	35	5	35	1
95th Queue (ft)	59	22	78	7
Link Distance (ft)	168	91		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			140	120
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Venetucci Blvd & S Site Access, All Intervals

Movement	EB	WB	NB	SB	SB	SB
Directions Served	R	R	L	L	T	TR
Maximum Queue (ft)	88	30	94	11	11	3
Average Queue (ft)	37	5	37	0	0	0
95th Queue (ft)	64	23	77	4	7	2
Link Distance (ft)	168	91			326	326
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			140	120		
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 3: N Site Access & Walmart Hts, Interval #1

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	10	48
Average Queue (ft)	1	26
95th Queue (ft)	12	51
Link Distance (ft)	89	223
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: N Site Access & Walmart Hts, Interval #2

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	5	33
Average Queue (ft)	1	23
95th Queue (ft)	9	43
Link Distance (ft)	89	223
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: N Site Access & Walmart Hts, Interval #3

Movement	NB
Directions Served	LR
Maximum Queue (ft)	39
Average Queue (ft)	22
95th Queue (ft)	46
Link Distance (ft)	223
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: N Site Access & Walmart Hts, Interval #4

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	10	41
Average Queue (ft)	0	29
95th Queue (ft)	0	45
Link Distance (ft)	89	223
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: N Site Access & Walmart Hts, All Intervals

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	20	60
Average Queue (ft)	1	25
95th Queue (ft)	7	47
Link Distance (ft)	89	223
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty, Interval #1: 0
Zone wide Queuing Penalty, Interval #2: 0
Zone wide Queuing Penalty, Interval #3: 0
Zone wide Queuing Penalty, Interval #4: 0
Zone wide Queuing Penalty, All Intervals: 0

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #1

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	LT	R	L	T	T	R	L	T	T
Maximum Queue (ft)	45	54	116	71	22	36	56	30	49	19	84	43
Average Queue (ft)	15	23	84	27	7	16	29	7	29	5	47	13
95th Queue (ft)	42	54	128	75	23	41	67	25	51	23	90	45
Link Distance (ft)	89	89					332	332				
Upstream Blk Time (%)		0										
Queuing Penalty (veh)		0										
Storage Bay Dist (ft)			200			105			105	125		
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #1

Movement	SB
Directions Served	R
Maximum Queue (ft)	18
Average Queue (ft)	3
95th Queue (ft)	16
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	125
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #2

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	LT	R	L	T	T	R	L	T	T
Maximum Queue (ft)	38	49	130	81	26	56	57	27	51	18	105	36
Average Queue (ft)	20	24	88	29	8	25	23	4	28	6	50	10
95th Queue (ft)	44	52	138	76	29	57	57	20	50	26	102	36
Link Distance (ft)	89	89					332	332				
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			105			105			125		
Storage Blk Time (%)							0			0		
Queuing Penalty (veh)							0			0		

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #2

Movement	SB
Directions Served	R
Maximum Queue (ft)	9
Average Queue (ft)	1
95th Queue (ft)	11
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	125
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #3

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	LT	R	L	T	T	R	L	T	T
Maximum Queue (ft)	27	53	125	52	15	39	46	9	49	14	78	22
Average Queue (ft)	9	29	75	14	6	14	24	2	23	2	35	6
95th Queue (ft)	28	57	130	56	18	42	54	13	53	14	83	28
Link Distance (ft)	89	89					332	332				
Upstream Blk Time (%)		0										
Queuing Penalty (veh)		0										
Storage Bay Dist (ft)			200			105			105	125		
Storage Blk Time (%)												0
Queuing Penalty (veh)												0

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #3

Movement	SB
Directions Served	R
Maximum Queue (ft)	9
Average Queue (ft)	1
95th Queue (ft)	10
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	125
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #4

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	LT	R	L	T	T	R	L	T	T
Maximum Queue (ft)	34	46	130	83	24	49	50	8	47	28	94	43
Average Queue (ft)	9	30	86	30	10	21	25	1	26	6	47	12
95th Queue (ft)	33	62	140	77	25	51	53	10	50	25	89	42
Link Distance (ft)	89	89					332	332				
Upstream Blk Time (%)		1										
Queuing Penalty (veh)		0										
Storage Bay Dist (ft)			200			105			105	125		
Storage Blk Time (%)												0
Queuing Penalty (veh)												0

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #4

Movement	SB
Directions Served	R
Maximum Queue (ft)	18
Average Queue (ft)	1
95th Queue (ft)	10
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	125
Storage Blk Time (%)	
Queuing Penalty (veh)	



Intersection: 1: Venetucci Blvd & Walmart Hts, All Intervals

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	LT	R	L	T	T	R	L	T	T
Maximum Queue (ft)	53	65	143	95	32	59	74	31	56	32	111	56
Average Queue (ft)	13	26	83	25	8	19	25	3	27	5	45	11
95th Queue (ft)	38	57	135	72	24	49	58	18	51	22	92	39
Link Distance (ft)	89	89					332	332				
Upstream Blk Time (%)	0	0										
Queuing Penalty (veh)	0	0										
Storage Bay Dist (ft)			200			105			105	125		
Storage Blk Time (%)							0				0	
Queuing Penalty (veh)							0				0	

Intersection: 1: Venetucci Blvd & Walmart Hts, All Intervals

Movement	SB
Directions Served	R
Maximum Queue (ft)	23
Average Queue (ft)	2
95th Queue (ft)	12
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	125
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Venetucci Blvd & Sam's Club, Interval #1

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

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Intersection: 3: Venetucci Blvd & Sam's Club, Interval #2

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Movement

Directions Served  
Maximum Queue (ft)  
Average Queue (ft)  
95th Queue (ft)  
Link Distance (ft)  
Upstream Blk Time (%)  
Queuing Penalty (veh)  
Storage Bay Dist (ft)  
Storage Blk Time (%)  
Queuing Penalty (veh)

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Intersection: 3: Venetucci Blvd & Sam's Club, Interval #3

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Movement

Directions Served  
Maximum Queue (ft)  
Average Queue (ft)  
95th Queue (ft)  
Link Distance (ft)  
Upstream Blk Time (%)  
Queuing Penalty (veh)  
Storage Bay Dist (ft)  
Storage Blk Time (%)  
Queuing Penalty (veh)

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Intersection: 3: Venetucci Blvd & Sam's Club, Interval #4

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Movement

Directions Served  
Maximum Queue (ft)  
Average Queue (ft)  
95th Queue (ft)  
Link Distance (ft)  
Upstream Blk Time (%)  
Queuing Penalty (veh)  
Storage Bay Dist (ft)  
Storage Blk Time (%)  
Queuing Penalty (veh)

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Intersection: 3: Venetucci Blvd & Sam's Club, All Intervals

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Movement

Directions Served  
Maximum Queue (ft)  
Average Queue (ft)  
95th Queue (ft)  
Link Distance (ft)  
Upstream Blk Time (%)  
Queuing Penalty (veh)  
Storage Bay Dist (ft)  
Storage Blk Time (%)  
Queuing Penalty (veh)

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Zone Summary

Zone wide Queuing Penalty, Interval #1: 0  
Zone wide Queuing Penalty, Interval #2: 0  
Zone wide Queuing Penalty, Interval #3: 0  
Zone wide Queuing Penalty, Interval #4: 0  
Zone wide Queuing Penalty, All Intervals: 0

**Intersection: 2: Venetucci Blvd & S Site Access, Interval #1**

Movement	EB	WB	NB	SB
Directions Served	R	R	L	TR
Maximum Queue (ft)	55	10	57	6
Average Queue (ft)	35	3	34	0
95th Queue (ft)	55	17	61	0
Link Distance (ft)	168	91		332
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			140	
Storage Blk Time (%)				
Queuing Penalty (veh)				

**Intersection: 2: Venetucci Blvd & S Site Access, Interval #2**

Movement	EB	WB	NB
Directions Served	R	R	L
Maximum Queue (ft)	51	20	66
Average Queue (ft)	35	6	34
95th Queue (ft)	58	24	63
Link Distance (ft)	168	91	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			140
Storage Blk Time (%)			
Queuing Penalty (veh)			

**Intersection: 2: Venetucci Blvd & S Site Access, Interval #3**

Movement	EB	WB	NB
Directions Served	R	R	L
Maximum Queue (ft)	51	29	58
Average Queue (ft)	36	7	30
95th Queue (ft)	56	28	63
Link Distance (ft)	168	91	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			140
Storage Blk Time (%)			
Queuing Penalty (veh)			

**Intersection: 2: Venetucci Blvd & S Site Access, Interval #4**

Movement	EB	WB	NB
Directions Served	R	R	L
Maximum Queue (ft)	71	30	62
Average Queue (ft)	40	8	33
95th Queue (ft)	71	29	66
Link Distance (ft)	168	91	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			140
Storage Blk Time (%)			
Queuing Penalty (veh)			

**Intersection: 2: Venetucci Blvd & S Site Access, All Intervals**

Movement	EB	WB	NB	SB
Directions Served	R	R	L	TR
Maximum Queue (ft)	81	30	80	6
Average Queue (ft)	37	6	33	0
95th Queue (ft)	61	25	63	0
Link Distance (ft)	168	91		332
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			140	
Storage Blk Time (%)				
Queuing Penalty (veh)				

**Intersection: 33: N Site Access & Walmart Hts, Interval #1**

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	15	36
Average Queue (ft)	2	22
95th Queue (ft)	15	43
Link Distance (ft)	89	223
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 33: N Site Access & Walmart Hts, Interval #2

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	5	43
Average Queue (ft)	1	26
95th Queue (ft)	8	50
Link Distance (ft)	89	223
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 33: N Site Access & Walmart Hts, Interval #3

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	15	36
Average Queue (ft)	2	22
95th Queue (ft)	15	45
Link Distance (ft)	89	223
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 33: N Site Access & Walmart Hts, Interval #4

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	5	36
Average Queue (ft)	1	25
95th Queue (ft)	8	42
Link Distance (ft)	160	223
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 33: N Site Access & Walmart Hts, All Intervals

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	5	20	47
Average Queue (ft)	0	1	24
95th Queue (ft)	4	11	45
Link Distance (ft)	160	89	223
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty, Interval #1: 0
Zone wide Queuing Penalty, Interval #2: 0
Zone wide Queuing Penalty, Interval #3: 0
Zone wide Queuing Penalty, Interval #4: 0
Zone wide Queuing Penalty, All Intervals: 0

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #1

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	LT	R	L	T	T	R	L	T	T
Maximum Queue (ft)	38	56	197	240	44	54	135	137	144	46	138	101
Average Queue (ft)	16	31	130	165	13	31	98	45	101	23	103	47
95th Queue (ft)	43	62	218	245	42	59	149	108	163	54	163	104
Link Distance (ft)	89	89		259	259		326	326				
Upstream Blk Time (%)		0		0								
Queuing Penalty (veh)		0		1								
Storage Bay Dist (ft)			200			105			105	125		
Storage Blk Time (%)			0	2			5	0	6		4	0
Queuing Penalty (veh)			0	8			3	2	11		1	0

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #1

Movement	SB
Directions Served	R
Maximum Queue (ft)	23
Average Queue (ft)	8
95th Queue (ft)	28
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	125
Storage Blk Time (%)	
Queuing Penalty (veh)	



Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #2

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	LT	R	L	T	T	R	L	T	T
Maximum Queue (ft)	38	64	172	211	47	60	154	119	176	53	143	102
Average Queue (ft)	13	27	111	155	14	36	103	57	106	24	103	47
95th Queue (ft)	40	55	179	221	49	70	152	120	183	57	154	109
Link Distance (ft)	89	89		259	259		326	326				
Upstream Blk Time (%)		1		0								
Queuing Penalty (veh)		0		1								
Storage Bay Dist (ft)			200			105			105	125		
Storage Blk Time (%)			0	1			6	0	7		3	0
Queuing Penalty (veh)			0	4			3	1	14		1	0

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #2

Movement	SB
Directions Served	R
Maximum Queue (ft)	18
Average Queue (ft)	5
95th Queue (ft)	23
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	125
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #3

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	LT	R	L	T	T	R	L	T	T
Maximum Queue (ft)	26	50	183	226	59	49	141	89	140	47	148	82
Average Queue (ft)	8	24	116	166	16	26	76	33	91	14	89	30
95th Queue (ft)	29	57	195	228	81	54	138	88	147	46	155	80
Link Distance (ft)	89	89		259	259		326	326				
Upstream Blk Time (%)		0		0	0							
Queuing Penalty (veh)		0		2	0							
Storage Bay Dist (ft)			200			105			105	125		
Storage Blk Time (%)			0	2			2	0	4		2	0
Queuing Penalty (veh)			0	5			1	0	7		1	0

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #3

Movement	SB
Directions Served	R
Maximum Queue (ft)	23
Average Queue (ft)	5
95th Queue (ft)	21
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	125
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #4

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	LT	R	L	T	T	R	L	T	T
Maximum Queue (ft)	31	67	197	224	25	113	165	127	143	69	150	101
Average Queue (ft)	13	30	117	166	12	36	103	64	97	27	108	49
95th Queue (ft)	37	64	202	232	29	101	173	135	141	73	168	109
Link Distance (ft)	89	89		259	259		326	326				
Upstream Blk Time (%)		1		0								
Queuing Penalty (veh)		0		0								
Storage Bay Dist (ft)			200			105			105	125		
Storage Blk Time (%)			0	2		0	7	1	4	0	4	0
Queuing Penalty (veh)			0	6		0	4	4	8	0	1	0

Intersection: 1: Venetucci Blvd & Walmart Hts, Interval #4

Movement	SB
Directions Served	R
Maximum Queue (ft)	17
Average Queue (ft)	2
95th Queue (ft)	12
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	125
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1: Venetucci Blvd & Walmart Hts, All Intervals

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	LT	R	L	T	T	R	L	T	T
Maximum Queue (ft)	42	84	227	259	88	119	175	160	202	76	156	126
Average Queue (ft)	12	28	118	163	14	32	95	50	99	22	101	43
95th Queue (ft)	38	60	200	233	55	75	157	116	160	59	162	102
Link Distance (ft)	89	89		259	259		326	326				
Upstream Blk Time (%)		1		0	0							
Queuing Penalty (veh)		0		1	0							
Storage Bay Dist (ft)			200			105			105	125		
Storage Blk Time (%)			0	2		0	5	0	5	0	3	0
Queuing Penalty (veh)			0	6		0	3	2	10	0	1	0

Intersection: 1: Venetucci Blvd & Walmart Hts, All Intervals

Movement	SB
Directions Served	R
Maximum Queue (ft)	28
Average Queue (ft)	5
95th Queue (ft)	22
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	125
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 33: Venetucci Blvd & Sam's Club, Interval #1

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

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Intersection: 33: Venetucci Blvd & Sam's Club, Interval #2

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Movement

Directions Served  
Maximum Queue (ft)  
Average Queue (ft)  
95th Queue (ft)  
Link Distance (ft)  
Upstream Blk Time (%)  
Queuing Penalty (veh)  
Storage Bay Dist (ft)  
Storage Blk Time (%)  
Queuing Penalty (veh)

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Intersection: 33: Venetucci Blvd & Sam's Club, Interval #3

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Movement

Directions Served  
Maximum Queue (ft)  
Average Queue (ft)  
95th Queue (ft)  
Link Distance (ft)  
Upstream Blk Time (%)  
Queuing Penalty (veh)  
Storage Bay Dist (ft)  
Storage Blk Time (%)  
Queuing Penalty (veh)

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Intersection: 33: Venetucci Blvd & Sam's Club, Interval #4

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Movement

Directions Served  
Maximum Queue (ft)  
Average Queue (ft)  
95th Queue (ft)  
Link Distance (ft)  
Upstream Blk Time (%)  
Queuing Penalty (veh)  
Storage Bay Dist (ft)  
Storage Blk Time (%)  
Queuing Penalty (veh)

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Intersection: 33: Venetucci Blvd & Sam's Club, All Intervals

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**Movement**

- Directions Served
- Maximum Queue (ft)
- Average Queue (ft)
- 95th Queue (ft)
- Link Distance (ft)
- Upstream Blk Time (%)
- Queuing Penalty (veh)
- Storage Bay Dist (ft)
- Storage Blk Time (%)
- Queuing Penalty (veh)

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**Zone Summary**

- Zone wide Queuing Penalty, Interval #1: 26
- Zone wide Queuing Penalty, Interval #2: 24
- Zone wide Queuing Penalty, Interval #3: 16
- Zone wide Queuing Penalty, Interval #4: 24
- Zone wide Queuing Penalty, All Intervals: 23

**Intersection: 2: Venetucci Blvd & S Site Access, Interval #1**

Movement	EB	WB	NB
Directions Served	R	R	L
Maximum Queue (ft)	68	30	84
Average Queue (ft)	39	11	47
95th Queue (ft)	70	34	82
Link Distance (ft)	168	91	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			140
Storage Blk Time (%)			
Queuing Penalty (veh)			

**Intersection: 2: Venetucci Blvd & S Site Access, Interval #2**

Movement	EB	WB	NB
Directions Served	R	R	L
Maximum Queue (ft)	73	30	68
Average Queue (ft)	44	11	39
95th Queue (ft)	73	35	71
Link Distance (ft)	168	91	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			140
Storage Blk Time (%)			
Queuing Penalty (veh)			

**Intersection: 2: Venetucci Blvd & S Site Access, Interval #3**

Movement	EB	WB	NB	SB
Directions Served	R	R	L	TR
Maximum Queue (ft)	64	29	76	8
Average Queue (ft)	39	8	40	1
95th Queue (ft)	66	30	79	11
Link Distance (ft)	168	91		326
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			140	
Storage Blk Time (%)				
Queuing Penalty (veh)				

**Intersection: 2: Venetucci Blvd & S Site Access, Interval #4**

Movement	EB	WB	NB	SB
Directions Served	R	R	L	L
Maximum Queue (ft)	67	30	81	4
Average Queue (ft)	41	13	52	1
95th Queue (ft)	78	37	85	6
Link Distance (ft)	168	91		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			140	120
Storage Blk Time (%)				
Queuing Penalty (veh)				

**Intersection: 2: Venetucci Blvd & S Site Access, All Intervals**

Movement	EB	WB	NB	SB	SB
Directions Served	R	R	L	L	TR
Maximum Queue (ft)	93	30	94	4	8
Average Queue (ft)	41	11	44	0	0
95th Queue (ft)	72	34	80	3	5
Link Distance (ft)	168	91			326
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			140	120	
Storage Blk Time (%)					
Queuing Penalty (veh)					

**Intersection: 3: N Site Access & Walmart Hts, Interval #1**

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	5	39
Average Queue (ft)	1	27
95th Queue (ft)	8	47
Link Distance (ft)	89	223
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		



Intersection: 3: N Site Access & Walmart Hts, Interval #2

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	10	40
Average Queue (ft)	1	23
95th Queue (ft)	12	46
Link Distance (ft)	89	223
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: N Site Access & Walmart Hts, Interval #3

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	10	29
Average Queue (ft)	1	16
95th Queue (ft)	12	39
Link Distance (ft)	89	223
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: N Site Access & Walmart Hts, Interval #4

Movement	NB
Directions Served	LR
Maximum Queue (ft)	38
Average Queue (ft)	23
95th Queue (ft)	46
Link Distance (ft)	223
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: N Site Access & Walmart Hts, All Intervals

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	15	48
Average Queue (ft)	1	22
95th Queue (ft)	9	46
Link Distance (ft)	89	223
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty, Interval #1: 0
Zone wide Queuing Penalty, Interval #2: 0
Zone wide Queuing Penalty, Interval #3: 0
Zone wide Queuing Penalty, Interval #4: 0
Zone wide Queuing Penalty, All Intervals: 0
















# Levels of Service

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Lanes, Volumes, Timings  
1: Venetucci Blvd & Walmart Hts

2021 Existing  
AM

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	 		 			 
Traffic Volume (vph)	140	12	18	152	5	8
Future Volume (vph)	140	12	18	152	5	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	160		105	125	
Storage Lanes	2	1		1	1	
Taper Length (ft)	60				160	
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.743	
Satd. Flow (perm)	3433	1583	3539	1583	1384	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		14		175		
Link Speed (mph)	25		30			30
Link Distance (ft)	373		410			365
Travel Time (s)	10.2		9.3			8.3
Peak Hour Factor	0.87	0.87	0.87	0.87	0.78	0.78
Adj. Flow (vph)	161	14	21	175	6	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	161	14	21	175	6	10
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	36		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	Perm	NA	Perm	Perm	NA
Protected Phases			2			6
Permitted Phases	8	8		2	6	

Lanes, Volumes, Timings  
1: Venetucci Blvd & Walmart Hts

2021 Existing  
AM

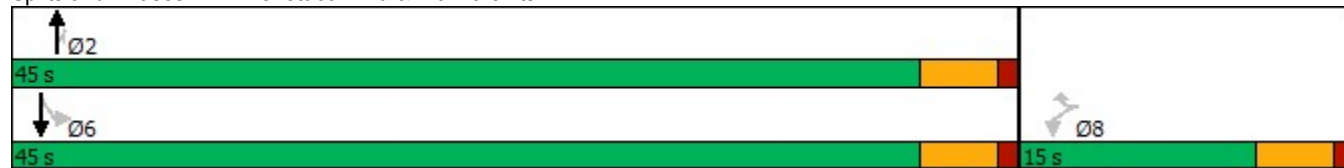


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	15.0	15.0	45.0	45.0	45.0	45.0
Total Split (%)	25.0%	25.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	10.5	10.5	40.5	40.5	40.5	40.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	8.2	8.2	46.9	46.9	46.9	46.9
Actuated g/C Ratio	0.13	0.13	0.77	0.77	0.77	0.77
v/c Ratio	0.35	0.06	0.01	0.14	0.01	0.00
Control Delay	25.5	12.2	2.9	0.9	3.0	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.5	12.2	2.9	0.9	3.0	2.9
LOS	C	B	A	A	A	A
Approach Delay	24.4		1.1			2.9
Approach LOS	C		A			A
Queue Length 50th (ft)	27	0	1	0	1	0
Queue Length 95th (ft)	47	12	3	12	3	2
Internal Link Dist (ft)	293		330			285
Turn Bay Length (ft)		160		105	125	
Base Capacity (vph)	591	284	2719	1256	1063	2719
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	0.27	0.05	0.01	0.14	0.01	0.00

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	61.1
Natural Cycle:	45
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.35
Intersection Signal Delay:	11.7
Intersection LOS:	B
Intersection Capacity Utilization:	21.1%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 1: Venetucci Blvd & Walmart Hts



Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕		↖	↕
Traffic Vol, veh/h	0	2	168	26	0	148
Future Vol, veh/h	0	2	168	26	0	148
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	120	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	87	87	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	193	30	0	178
















Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	112	0	0	223
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22
Pot Cap-1 Maneuver	0	920	-	-	1343
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	-	920	-	-	1343
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	920	1343
HCM Lane V/C Ratio	-	-	0.003	-
HCM Control Delay (s)	-	-	8.9	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Lanes, Volumes, Timings  
1: Venetucci Blvd & Walmart Hts

2021 Existing  
PM

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	 		 			 
Traffic Volume (vph)	662	52	48	544	20	31
Future Volume (vph)	662	52	48	544	20	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	160		105	125	
Storage Lanes	2	1		1	1	
Taper Length (ft)	60				160	
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.721	
Satd. Flow (perm)	3433	1583	3539	1583	1343	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		56		585		
Link Speed (mph)	25		30			30
Link Distance (ft)	373		410			365
Travel Time (s)	10.2		9.3			8.3
Peak Hour Factor	0.93	0.93	0.93	0.93	0.83	0.83
Adj. Flow (vph)	712	56	52	585	24	37
Shared Lane Traffic (%)						
Lane Group Flow (vph)	712	56	52	585	24	37
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	36		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	Perm	NA	Perm	Perm	NA
Protected Phases			2			6
Permitted Phases	8	8		2	6	



Lanes, Volumes, Timings  
1: Venetucci Blvd & Walmart Hts

2021 Existing  
PM



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	20.0	20.0	40.0	40.0	40.0	40.0
Total Split (%)	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Maximum Green (s)	15.5	15.5	35.5	35.5	35.5	35.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effect Green (s)	15.0	15.0	35.5	35.5	35.5	35.5
Actuated g/C Ratio	0.25	0.25	0.60	0.60	0.60	0.60
v/c Ratio	0.83	0.13	0.02	0.50	0.03	0.02
Control Delay	30.9	6.6	5.1	2.2	5.3	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.9	6.6	5.1	2.2	5.3	5.1
LOS	C	A	A	A	A	A
Approach Delay	29.2		2.5			5.2
Approach LOS	C		A			A
Queue Length 50th (ft)	123	0	3	0	3	2
Queue Length 95th (ft)	#202	23	8	33	10	6
Internal Link Dist (ft)	293		330			285
Turn Bay Length (ft)		160		105	125	
Base Capacity (vph)	894	454	2112	1180	801	2112
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	0.80	0.12	0.02	0.50	0.03	0.02

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 59.5

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 16.6

Intersection LOS: B

Intersection Capacity Utilization 45.4%

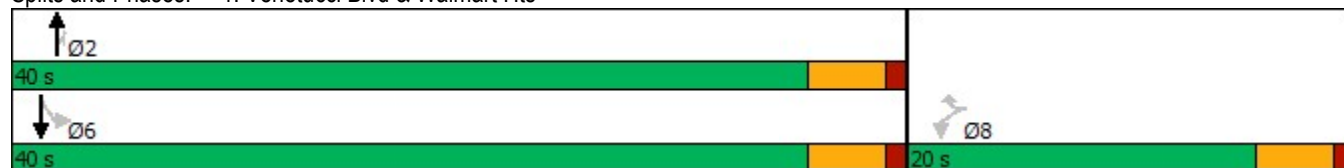
ICU Level of Service A

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Venetucci Blvd & Walmart Hts



Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕		↖	↕
Traffic Vol, veh/h	0	8	584	89	0	693
Future Vol, veh/h	0	8	584	89	0	693
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	120	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	628	96	0	745
















Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	362	0	0	724
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22
Pot Cap-1 Maneuver	0	635	-	-	874
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	-	635	-	-	874
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	635	874
HCM Lane V/C Ratio	-	-	0.016	-
HCM Control Delay (s)	-	-	10.8	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0

Lanes, Volumes, Timings  
1: Venetucci Blvd & Walmart Hts

Short-Term Baseline  
AM

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	 		 			 
Traffic Volume (vph)	150	15	20	160	5	10
Future Volume (vph)	150	15	20	160	5	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	160		105	125	
Storage Lanes	2	1		1	1	
Taper Length (ft)	60				160	
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.742	
Satd. Flow (perm)	3433	1583	3539	1583	1382	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		17		184		
Link Speed (mph)	25		30			30
Link Distance (ft)	373		410			365
Travel Time (s)	10.2		9.3			8.3
Peak Hour Factor	0.87	0.87	0.87	0.87	0.78	0.78
Adj. Flow (vph)	172	17	23	184	6	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	172	17	23	184	6	13
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	36		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	Perm	NA	Perm	Perm	NA
Protected Phases			2			6
Permitted Phases	8	8		2	6	

Lanes, Volumes, Timings  
1: Venetucci Blvd & Walmart Hts

Short-Term Baseline  
AM

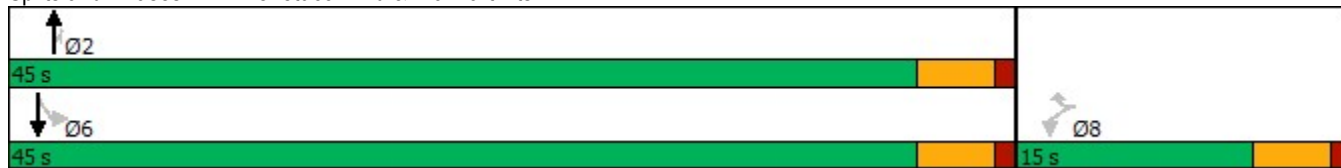


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	15.0	15.0	45.0	45.0	45.0	45.0
Total Split (%)	25.0%	25.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	10.5	10.5	40.5	40.5	40.5	40.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	8.4	8.4	46.4	46.4	46.4	46.4
Actuated g/C Ratio	0.14	0.14	0.76	0.76	0.76	0.76
v/c Ratio	0.36	0.07	0.01	0.15	0.01	0.00
Control Delay	25.3	11.7	3.0	0.9	3.0	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.3	11.7	3.0	0.9	3.0	3.0
LOS	C	B	A	A	A	A
Approach Delay	24.1		1.2			3.0
Approach LOS	C		A			A
Queue Length 50th (ft)	28	0	1	0	1	1
Queue Length 95th (ft)	50	14	3	13	3	2
Internal Link Dist (ft)	293		330			285
Turn Bay Length (ft)		160		105	125	
Base Capacity (vph)	594	288	2704	1253	1056	2704
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	0.29	0.06	0.01	0.15	0.01	0.00

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60.7
Natural Cycle:	45
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.36
Intersection Signal Delay:	11.7
Intersection LOS:	B
Intersection Capacity Utilization:	21.6%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 1: Venetucci Blvd & Walmart Hts



Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕		↖	↕
Traffic Vol, veh/h	0	5	175	30	1	159
Future Vol, veh/h	0	5	175	30	1	159
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	120	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	87	87	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	6	201	34	1	192













Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	118	0	0	235
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22
Pot Cap-1 Maneuver	0	912	-	-	1329
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	-	912	-	-	1329
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	912	1329
HCM Lane V/C Ratio	-	-	0.007	0.001
HCM Control Delay (s)	-	-	9	7.7
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Lanes, Volumes, Timings  
1: Venetucci Blvd & Walmart Hts

Short-Term Baseline  
PM

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	670	55	50	550	20	35
Future Volume (vph)	670	55	50	550	20	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	160		105	125	
Storage Lanes	2	1		1	1	
Taper Length (ft)	60				160	
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.720	
Satd. Flow (perm)	3433	1583	3539	1583	1341	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		59		591		
Link Speed (mph)	25		30			30
Link Distance (ft)	373		410			365
Travel Time (s)	10.2		9.3			8.3
Peak Hour Factor	0.93	0.93	0.93	0.93	0.83	0.83
Adj. Flow (vph)	720	59	54	591	24	42
Shared Lane Traffic (%)						
Lane Group Flow (vph)	720	59	54	591	24	42
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	36		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	Perm	NA	Perm	Perm	NA
Protected Phases			2			6
Permitted Phases	8	8		2	6	



Lanes, Volumes, Timings  
1: Venetucci Blvd & Walmart Hts

Short-Term Baseline  
PM



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	20.0	20.0	40.0	40.0	40.0	40.0
Total Split (%)	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Maximum Green (s)	15.5	15.5	35.5	35.5	35.5	35.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effect Green (s)	15.0	15.0	35.5	35.5	35.5	35.5
Actuated g/C Ratio	0.25	0.25	0.60	0.60	0.60	0.60
v/c Ratio	0.83	0.13	0.03	0.50	0.03	0.02
Control Delay	31.4	6.5	5.2	2.2	5.3	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.4	6.5	5.2	2.2	5.3	5.1
LOS	C	A	A	A	A	A
Approach Delay	29.5		2.5			5.2
Approach LOS	C		A			A
Queue Length 50th (ft)	125	0	3	0	3	3
Queue Length 95th (ft)	#205	23	9	33	10	7
Internal Link Dist (ft)	293		330			285
Turn Bay Length (ft)		160		105	125	
Base Capacity (vph)	893	455	2111	1182	800	2111
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	0.81	0.13	0.03	0.50	0.03	0.02

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	59.5
Natural Cycle:	45
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.83
Intersection Signal Delay:	16.8
Intersection LOS:	B
Intersection Capacity Utilization:	45.7%
ICU Level of Service:	A
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 1: Venetucci Blvd & Walmart Hts



Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕		↖	↕
Traffic Vol, veh/h	0	10	590	90	1	704
Future Vol, veh/h	0	10	590	90	1	704
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	120	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	13	634	97	1	757
























Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	366	0	0	731
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22
Pot Cap-1 Maneuver	0	631	-	-	869
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	-	631	-	-	869
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	631	869
HCM Lane V/C Ratio	-	-	0.02	0.001
HCM Control Delay (s)	-	-	10.8	9.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Lanes, Volumes, Timings  
1: Venetucci Blvd & Walmart Hts

Short-Term Baseline + Site  
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	7	35	150	10	15	52	19	156	4	18	10
Future Volume (vph)	13	7	35	150	10	15	52	19	156	4	18	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	200		0	105		105	125		125
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			40			100			160		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.874					0.850			0.850		0.850
Flt Protected	0.950			0.950	0.958		0.950			0.950		
Satd. Flow (prot)	1770	1628	0	1681	1695	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950	0.958		0.742			0.742		
Satd. Flow (perm)	1770	1628	0	1681	1695	1583	1382	3539	1583	1382	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42				94			179			94
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		173			373			410			365	
Travel Time (s)		4.7			10.2			9.3			8.3	
Peak Hour Factor	0.83	0.83	0.83	0.87	0.87	0.87	0.87	0.87	0.87	0.78	0.78	0.78
Adj. Flow (vph)	16	8	42	172	11	17	60	22	179	5	23	13
Shared Lane Traffic (%)				47%								
Lane Group Flow (vph)	16	50	0	91	92	17	60	22	179	5	23	13
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases						8	2		2	6		6

Lanes, Volumes, Timings  
1: Venetucci Blvd & Walmart Hts

Short-Term Baseline + Site  
AM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	15.0	15.0		15.0	15.0	15.0	40.0	40.0	40.0	40.0	40.0	40.0
Total Split (%)	21.4%	21.4%		21.4%	21.4%	21.4%	57.1%	57.1%	57.1%	57.1%	57.1%	57.1%
Maximum Green (s)	10.5	10.5		10.5	10.5	10.5	35.5	35.5	35.5	35.5	35.5	35.5
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0	0	0	0	0
Act Effct Green (s)	6.5	6.5		9.1	9.1	9.1	47.8	47.8	47.8	47.8	47.8	47.8
Actuated g/C Ratio	0.09	0.09		0.13	0.13	0.13	0.68	0.68	0.68	0.68	0.68	0.68
v/c Ratio	0.10	0.26		0.42	0.42	0.06	0.06	0.01	0.16	0.01	0.01	0.01
Control Delay	29.6	15.9		33.1	33.1	0.4	7.6	7.5	2.0	7.8	7.4	0.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.6	15.9		33.1	33.1	0.4	7.6	7.5	2.0	7.8	7.4	0.0
LOS	C	B		C	C	A	A	A	A	A	A	A
Approach Delay		19.2			30.3			3.7			5.1	
Approach LOS		B			C			A			A	
Queue Length 50th (ft)	7	3		38	38	0	10	1	0	1	2	0
Queue Length 95th (ft)	21	27		74	74	0	29	7	24	5	6	0
Internal Link Dist (ft)		93			293			330			285	
Turn Bay Length (ft)				200			105		105	125		125
Base Capacity (vph)	265	279		262	264	325	944	2418	1138	944	2418	1111
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.18		0.35	0.35	0.05	0.06	0.01	0.16	0.01	0.01	0.01

Intersection Summary













Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	70
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	70
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.42
Intersection Signal Delay:	15.0
Intersection Capacity Utilization	29.2%
Analysis Period (min)	15
Intersection LOS:	B
ICU Level of Service	A

Splits and Phases: 1: Venetucci Blvd & Walmart Hts



Lanes, Volumes, Timings  
33: Venetucci Blvd & Sam's Club

Short-Term Baseline + Site  
AM

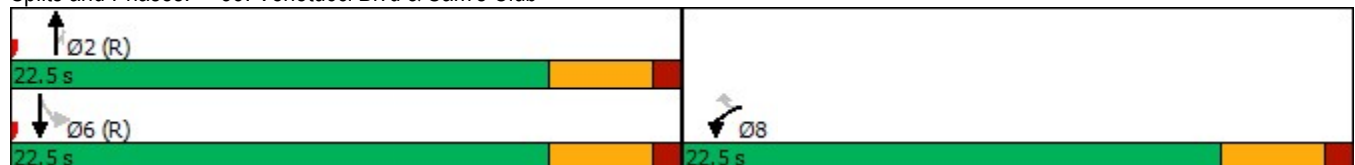
						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	300	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				120	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	1863	1863	1863	1863	1863
Flt Permitted						
Satd. Flow (perm)	1863	1863	1863	1863	1863	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (mph)	25		30			30
Link Distance (ft)	208		152			608
Travel Time (s)	5.7		3.5			13.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm		Perm	Perm	
Protected Phases	8		2			6
Permitted Phases		8		2	6	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)	128		72			528
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary	
Area Type:	Other
Cycle Length:	45
Actuated Cycle Length:	45
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.00
Intersection Signal Delay:	0.0
Intersection LOS:	A
Intersection Capacity Utilization:	0.0%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 33: Venetucci Blvd & Sam's Club





Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↕		↗	↕	
Traffic Vol, veh/h	0	0	88	0	0	5	126	223	30	1	194	10
Future Vol, veh/h	0	0	88	0	0	5	126	223	30	1	194	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	140	-	-	120	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	78	78	78	92	92	92	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	106	0	0	6	137	242	33	1	223	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	117	-	-	138	234	0	0	275	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	*1025	0	0	885	1436	-	-	1285	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %			1			1	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	*1025	-	-	885	1436	-	-	1285	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB			
HCM Control Delay, s	8.9		9.1		2.6		0			
HCM LOS	A		A							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1436	-	-	1025	885	1285	-	-
HCM Lane V/C Ratio	0.095	-	-	0.103	0.007	0.001	-	-
HCM Control Delay (s)	7.8	-	-	8.9	9.1	7.8	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.3	0	0	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	5.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	17	0	51	22	0	41
Future Vol, veh/h	17	0	51	22	0	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	83	83	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	0	61	27	0	53
























Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	22	0	171 22
Stage 1	-	-	-	-	22 -
Stage 2	-	-	-	-	149 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1593	-	819 1055
Stage 1	-	-	-	-	1001 -
Stage 2	-	-	-	-	879 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1593	-	787 1055
Mov Cap-2 Maneuver	-	-	-	-	787 -
Stage 1	-	-	-	-	1001 -
Stage 2	-	-	-	-	845 -

Approach	EB	WB	NB
HCM Control Delay, s	0	5.1	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1055	-	-	1593	-
HCM Lane V/C Ratio	0.05	-	-	0.039	-
HCM Control Delay (s)	8.6	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Lanes, Volumes, Timings  
1: Venetucci Blvd & Walmart Hts

Short-Term Baseline + Site  
PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	7	35	670	10	55	50	49	547	19	43	10
Future Volume (vph)	13	7	35	670	10	55	50	49	547	19	43	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	200		0	105		105	125		125
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			40			100			160		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.874				0.850			0.850			0.850
Flt Protected	0.950			0.950	0.954		0.950			0.950		
Satd. Flow (prot)	1770	1628	0	1681	1688	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950	0.954		0.721			0.721		
Satd. Flow (perm)	1770	1628	0	1681	1688	1583	1343	3539	1583	1343	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42				94			588			94
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		173			373			410			365	
Travel Time (s)		4.7			10.2			9.3			8.3	
Peak Hour Factor	0.83	0.83	0.83	0.93	0.93	0.93	0.93	0.93	0.93	0.83	0.83	0.83
Adj. Flow (vph)	16	8	42	720	11	59	54	53	588	23	52	12
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	16	50	0	367	364	59	54	53	588	23	52	12
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases						8	2		2	6		6

Lanes, Volumes, Timings  
1: Venetucci Blvd & Walmart Hts

Short-Term Baseline + Site  
PM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	15.0	15.0		15.0	15.0	15.0	40.0	40.0	40.0	40.0	40.0	40.0
Total Split (%)	21.4%	21.4%		21.4%	21.4%	21.4%	57.1%	57.1%	57.1%	57.1%	57.1%	57.1%
Maximum Green (s)	10.5	10.5		10.5	10.5	10.5	35.5	35.5	35.5	35.5	35.5	35.5
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0	0	0	0	0
Act Effct Green (s)	6.5	6.5		18.5	18.5	18.5	35.5	35.5	35.5	35.5	35.5	35.5
Actuated g/C Ratio	0.09	0.09		0.26	0.26	0.26	0.51	0.51	0.51	0.51	0.51	0.51
v/c Ratio	0.10	0.26		0.83	0.82	0.12	0.08	0.03	0.54	0.03	0.03	0.01
Control Delay	29.6	15.9		47.2	46.2	3.3	9.3	8.7	3.0	8.9	8.7	0.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.6	15.9		47.2	46.2	3.3	9.3	8.7	3.0	8.9	8.7	0.0
LOS	C	B		D	D	A	A	A	A	A	A	A
Approach Delay		19.2			43.5			3.9			7.6	
Approach LOS		B			D			A			A	
Queue Length 50th (ft)	7	3		~174	~169	0	11	5	0	5	5	0
Queue Length 95th (ft)	21	27		#370	#366	15	28	13	45	14	12	0
Internal Link Dist (ft)		93			293			330			285	
Turn Bay Length (ft)				200			105		105	125		125
Base Capacity (vph)	265	279		444	446	487	681	1794	1092	681	1794	849
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.18		0.83	0.82	0.12	0.08	0.03	0.54	0.03	0.03	0.01

Intersection Summary

Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	70
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	70
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.83
Intersection Signal Delay:	23.8
Intersection LOS:	C
Intersection Capacity Utilization:	53.5%
ICU Level of Service:	A
Analysis Period (min):	15

~ Volume exceeds capacity, queue is theoretically infinite.

Lanes, Volumes, Timings  
 1: Venetucci Blvd & Walmart Hts

Short-Term Baseline + Site  
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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: 1: Venetucci Blvd & Walmart Hts



Lanes, Volumes, Timings  
33: Venetucci Blvd & Sam's Club

Short-Term Baseline + Site  
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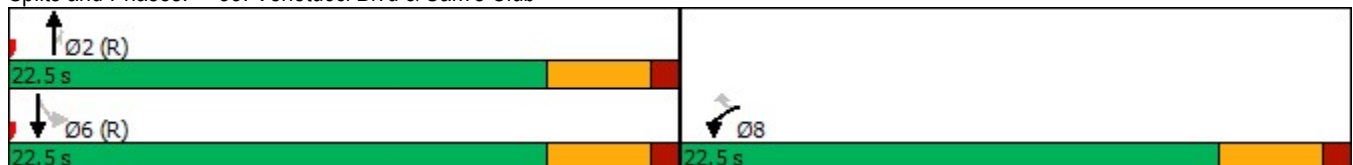
						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	300	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				120	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	1863	1863	1863	1863	1863
Flt Permitted						
Satd. Flow (perm)	1863	1863	1863	1863	1863	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (mph)	25		30			30
Link Distance (ft)	208		152			608
Travel Time (s)	5.7		3.5			13.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm		Perm	Perm	
Protected Phases	8		2			6
Permitted Phases		8		2	6	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)	128		72			528
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary	
Area Type:	Other
Cycle Length:	45
Actuated Cycle Length:	45
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.00
Intersection Signal Delay:	0.0
Intersection LOS:	A
Intersection Capacity Utilization:	0.0%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 33: Venetucci Blvd & Sam's Club



Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↕		↗	↕	
Traffic Vol, veh/h	0	0	88	0	0	5	122	636	90	1	738	9
Future Vol, veh/h	0	0	88	0	0	5	122	636	90	1	738	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	140	-	-	120	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	78	78	78	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	106	0	0	6	131	684	97	1	794	10

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	402	-	-	391	804	0	0	781	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	*802	0	0	608	1166	-	-	832	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %			1			1	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	*802	-	-	608	1166	-	-	832	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.2		11		1.2		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1166	-	-	802	608	832	-	-
HCM Lane V/C Ratio	0.113	-	-	0.132	0.011	0.001	-	-
HCM Control Delay (s)	8.5	-	-	10.2	11	9.3	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	0.5	0	0	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



Intersection						
Int Delay, s/veh	5.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	17	0	49	21	0	39
Future Vol, veh/h	17	0	49	21	0	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	83	83	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	0	59	25	0	50













Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	22	0	165
Stage 1	-	-	-	-	22
Stage 2	-	-	-	-	143
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1593	-	826
Stage 1	-	-	-	-	1001
Stage 2	-	-	-	-	884
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1593	-	795
Mov Cap-2 Maneuver	-	-	-	-	795
Stage 1	-	-	-	-	1001
Stage 2	-	-	-	-	850

Approach	EB	WB	NB
HCM Control Delay, s	0	5.1	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1055	-	-	1593	-
HCM Lane V/C Ratio	0.047	-	-	0.037	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Lanes, Volumes, Timings  
1: Venetucci Blvd & Walmart Hts

2041 Background  
AM

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	173	22	140	175	9	230
Future Volume (vph)	173	22	140	175	9	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	160		105	125	
Storage Lanes	2	1		1	1	
Taper Length (ft)	60				160	
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.656	
Satd. Flow (perm)	3433	1583	3539	1583	1222	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		25		190		
Link Speed (mph)	25		30			30
Link Distance (ft)	373		410			365
Travel Time (s)	10.2		9.3			8.3
Peak Hour Factor	0.87	0.87	0.92	0.92	0.87	0.87
Adj. Flow (vph)	199	25	152	190	10	264
Shared Lane Traffic (%)						
Lane Group Flow (vph)	199	25	152	190	10	264
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	36		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	Perm	NA	Perm	Perm	NA
Protected Phases			2			6
Permitted Phases	8	8		2	6	

Lanes, Volumes, Timings  
1: Venetucci Blvd & Walmart Hts

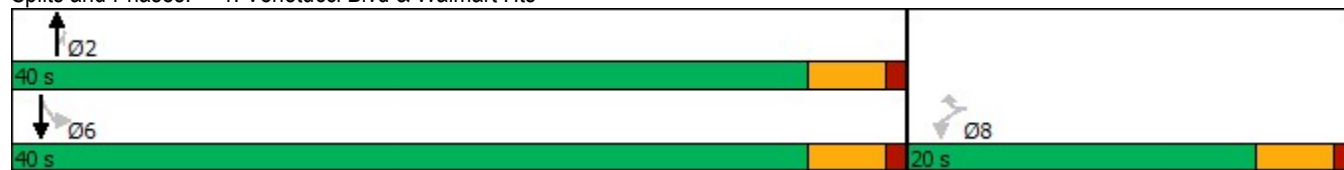


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	20.0	20.0	40.0	40.0	40.0	40.0
Total Split (%)	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Maximum Green (s)	15.5	15.5	35.5	35.5	35.5	35.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	8.6	8.6	39.3	39.3	39.3	39.3
Actuated g/C Ratio	0.15	0.15	0.69	0.69	0.69	0.69
v/c Ratio	0.38	0.10	0.06	0.17	0.01	0.11
Control Delay	22.9	9.7	3.3	1.1	3.4	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.9	9.7	3.3	1.1	3.4	3.4
LOS	C	A	A	A	A	A
Approach Delay	21.4		2.1			3.4
Approach LOS	C		A			A
Queue Length 50th (ft)	28	0	6	0	1	11
Queue Length 95th (ft)	51	15	15	15	4	23
Internal Link Dist (ft)	293		330			285
Turn Bay Length (ft)		160		105	125	
Base Capacity (vph)	940	451	2441	1150	843	2441
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	0.21	0.06	0.06	0.17	0.01	0.11

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	56.9
Natural Cycle:	45
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.38
Intersection Signal Delay:	7.6
Intersection LOS:	A
Intersection Capacity Utilization:	22.5%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 1: Venetucci Blvd & Walmart Hts



Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕		↖	↕
Traffic Vol, veh/h	0	5	310	30	1	402
Future Vol, veh/h	0	5	310	30	1	402
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	120	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	6	337	33	1	437













Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	185	0	0	370
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22
Pot Cap-1 Maneuver	0	826	-	-	1185
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	-	826	-	-	1185
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	826	1185
HCM Lane V/C Ratio	-	-	0.008	0.001
HCM Control Delay (s)	-	-	9.4	8
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Lanes, Volumes, Timings  
1: Venetucci Blvd & Walmart Hts

2041 Background  
PM

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	684	60	360	568	25	330
Future Volume (vph)	684	60	360	568	25	330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	160		105	125	
Storage Lanes	2	1		1	1	
Taper Length (ft)	60				160	
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.95
Fr <sub>t</sub>		0.850		0.850		
Fl <sub>t</sub> Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	3539	1583	1770	3539
Fl <sub>t</sub> Permitted	0.950				0.523	
Satd. Flow (perm)	3433	1583	3539	1583	974	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		65		611		
Link Speed (mph)	25		30			30
Link Distance (ft)	373		410			365
Travel Time (s)	10.2		9.3			8.3
Peak Hour Factor	0.93	0.93	0.93	0.93	0.92	0.92
Adj. Flow (vph)	735	65	387	611	27	359
Shared Lane Traffic (%)						
Lane Group Flow (vph)	735	65	387	611	27	359
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	36		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	Perm	NA	Perm	Perm	NA
Protected Phases			2			6
Permitted Phases	8	8		2	6	

Lanes, Volumes, Timings  
1: Venetucci Blvd & Walmart Hts



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	20.0	20.0	40.0	40.0	40.0	40.0
Total Split (%)	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Maximum Green (s)	15.5	15.5	35.5	35.5	35.5	35.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	15.1	15.1	35.5	35.5	35.5	35.5
Actuated g/C Ratio	0.25	0.25	0.60	0.60	0.60	0.60
v/c Ratio	0.85	0.14	0.18	0.51	0.05	0.17
Control Delay	32.5	6.4	5.8	2.3	5.4	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	6.4	5.8	2.3	5.4	5.8
LOS	C	A	A	A	A	A
Approach Delay	30.4		3.7			5.7
Approach LOS	C		A			A
Queue Length 50th (ft)	128	0	29	0	4	26
Queue Length 95th (ft)	#212	24	46	33	12	43
Internal Link Dist (ft)	293		330			285
Turn Bay Length (ft)		160		105	125	
Base Capacity (vph)	893	460	2108	1190	580	2108
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	0.82	0.14	0.18	0.51	0.05	0.17

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	59.6
Natural Cycle:	45
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.85
Intersection Signal Delay:	13.8
Intersection LOS:	B
Intersection Capacity Utilization:	46.8%
ICU Level of Service:	A
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 1: Venetucci Blvd & Walmart Hts





Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕		↖	↕
Traffic Vol, veh/h	0	10	918	90	1	1013
Future Vol, veh/h	0	10	918	90	1	1013
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	120	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	13	987	97	1	1089

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	542	0	0	1084
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22
Pot Cap-1 Maneuver	0	485	-	-	639
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	-	485	-	-	639
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	485	639
HCM Lane V/C Ratio	-	-	0.026	0.002
HCM Control Delay (s)	-	-	12.6	10.6
HCM Lane LOS	-	-	B	B
HCM 95th %tile Q(veh)	-	-	0.1	0

Lanes, Volumes, Timings  
1: Venetucci Blvd & Walmart Hts

2041 Background + Site  
AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	7	37	173	10	22	52	139	171	8	238	10
Future Volume (vph)	14	7	37	173	10	22	52	139	171	8	238	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	200		0	105		105	125		125
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			40			100			160		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.873				0.850			0.850			0.850
Flt Protected	0.950			0.950	0.957		0.950			0.950		
Satd. Flow (prot)	1770	1626	0	1681	1694	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950	0.957		0.592			0.656		
Satd. Flow (perm)	1770	1626	0	1681	1694	1583	1103	3539	1583	1222	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		45				94			186			94
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		173			373			410			365	
Travel Time (s)		4.7			10.2			9.3			8.3	
Peak Hour Factor	0.83	0.83	0.83	0.87	0.87	0.87	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	8	45	199	11	25	57	151	186	9	259	11
Shared Lane Traffic (%)				47%								
Lane Group Flow (vph)	17	53	0	105	105	25	57	151	186	9	259	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	
Permitted Phases						8	2		2	6		6

Lanes, Volumes, Timings  
1: Venetucci Blvd & Walmart Hts

2041 Background + Site  
AM

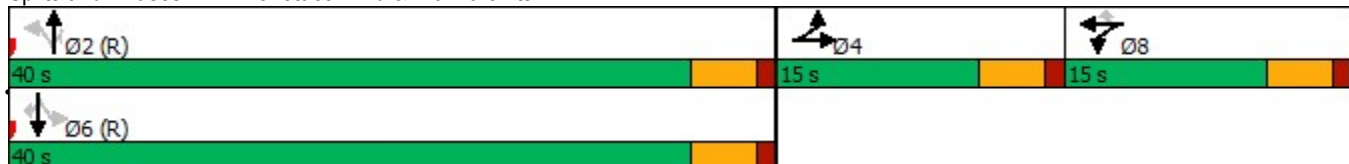


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	15.0	15.0		15.0	15.0	15.0	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	15.0	15.0		15.0	15.0	15.0	40.0	40.0	40.0	40.0	40.0	40.0
Total Split (%)	21.4%	21.4%		21.4%	21.4%	21.4%	57.1%	57.1%	57.1%	57.1%	57.1%	57.1%
Maximum Green (s)	10.5	10.5		10.5	10.5	10.5	35.5	35.5	35.5	35.5	35.5	35.5
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	6.5	6.5		9.4	9.4	9.4	47.5	47.5	47.5	47.5	47.5	47.5
Actuated g/C Ratio	0.09	0.09		0.13	0.13	0.13	0.68	0.68	0.68	0.68	0.68	0.68
v/c Ratio	0.10	0.28		0.46	0.46	0.09	0.08	0.06	0.16	0.01	0.11	0.01
Control Delay	29.6	15.6		34.1	33.9	0.5	7.9	6.8	2.0	8.0	6.7	0.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.6	15.6		34.1	33.9	0.5	7.9	6.8	2.0	8.0	6.7	0.0
LOS	C	B		C	C	A	A	A	A	A	A	A
Approach Delay		19.0			30.4			4.7			6.5	
Approach LOS		B			C			A			A	
Queue Length 50th (ft)	7	3		44	44	0	10	13	0	1	23	0
Queue Length 95th (ft)	22	28		84	84	0	29	30	27	8	47	0
Internal Link Dist (ft)		93			293			330			285	
Turn Bay Length (ft)				200			105		105	125		125
Base Capacity (vph)	265	282		264	267	328	748	2402	1134	829	2402	1104
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.19		0.40	0.39	0.08	0.08	0.06	0.16	0.01	0.11	0.01













Intersection Summary

Area Type: Other  
 Cycle Length: 70  
 Actuated Cycle Length: 70  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.46  
 Intersection Signal Delay: 12.4  
 Intersection LOS: B  
 Intersection Capacity Utilization 33.7%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 1: Venetucci Blvd & Walmart Hts



Lanes, Volumes, Timings  
3: Venetucci Blvd & Sam's Club

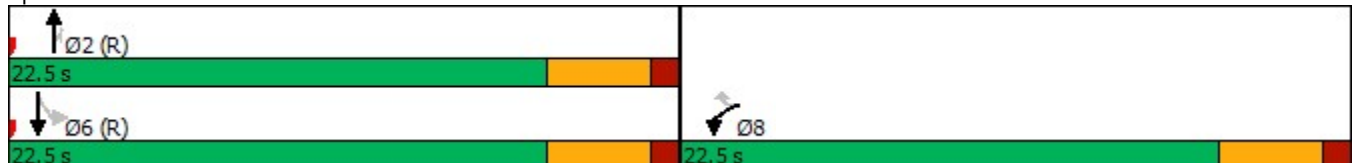
						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	300	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				120	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	1863	1863	1863	1863	1863
Flt Permitted						
Satd. Flow (perm)	1863	1863	1863	1863	1863	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (mph)	25		30			30
Link Distance (ft)	208		152			608
Travel Time (s)	5.7		3.5			13.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm		Perm	Perm	
Protected Phases	8		2			6
Permitted Phases		8		2	6	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)	128		72			528
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary	
Area Type:	Other
Cycle Length:	45
Actuated Cycle Length:	45
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.00
Intersection Signal Delay:	0.0
Intersection LOS:	A
Intersection Capacity Utilization:	0.0%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 3: Venetucci Blvd & Sam's Club



Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↕↔		↗	↕↔	
Traffic Vol, veh/h	0	0	88	0	0	5	126	358	30	1	437	10
Future Vol, veh/h	0	0	88	0	0	5	126	358	30	1	437	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	140	-	-	120	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	78	78	78	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	106	0	0	6	137	389	33	1	475	11

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	-	-	243	-	-	211	486	0	0	422	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	758	0	0	794	1073	-	-	1134	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	-	-	758	-	-	794	1073	-	-	1134	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.5		9.6		2.2		0	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1073	-	-	758	794	1134	-	-
HCM Lane V/C Ratio	0.128	-	-	0.14	0.008	0.001	-	-
HCM Control Delay (s)	8.8	-	-	10.5	9.6	8.2	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	0.5	0	0	-	-

Intersection						
Int Delay, s/veh	5.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔		↔	
Traffic Vol, veh/h	17	0	51	22	0	41
Future Vol, veh/h	17	0	51	22	0	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	83	83	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	0	61	27	0	53
























Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	22	0	171
Stage 1	-	-	-	-	22
Stage 2	-	-	-	-	149
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1593	-	819
Stage 1	-	-	-	-	1001
Stage 2	-	-	-	-	879
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1593	-	787
Mov Cap-2 Maneuver	-	-	-	-	787
Stage 1	-	-	-	-	1001
Stage 2	-	-	-	-	845

Approach	EB	WB	NB
HCM Control Delay, s	0	5.1	8.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1055	-	-	1593	-
HCM Lane V/C Ratio	0.05	-	-	0.039	-
HCM Control Delay (s)	8.6	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Lanes, Volumes, Timings  
1: Venetucci Blvd & Walmart Hts

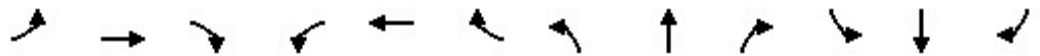
2041 Background + Site  
PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	7	35	684	10	60	50	359	565	24	338	10
Future Volume (vph)	13	7	35	684	10	60	50	359	565	24	338	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	200		0	105		105	125		125
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			40			100			160		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.874				0.850			0.850			0.850
Flt Protected	0.950			0.950	0.954		0.950			0.950		
Satd. Flow (prot)	1770	1628	0	1715	1722	1615	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950	0.954		0.532			0.518		
Satd. Flow (perm)	1770	1628	0	1715	1722	1615	991	3539	1583	965	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42				94			608			94
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		173			373			410			365	
Travel Time (s)		4.7			10.2			9.3			8.3	
Peak Hour Factor	0.83	0.83	0.83	0.93	0.93	0.93	0.93	0.93	0.93	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	16	8	42	735	11	65	54	386	608	26	367	11
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	16	50	0	375	371	65	54	386	608	26	367	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	L NA	R NA	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	4	4		8	8			2			6	



Lanes, Volumes, Timings  
1: Venetucci Blvd & Walmart Hts

2041 Background + Site  
PM

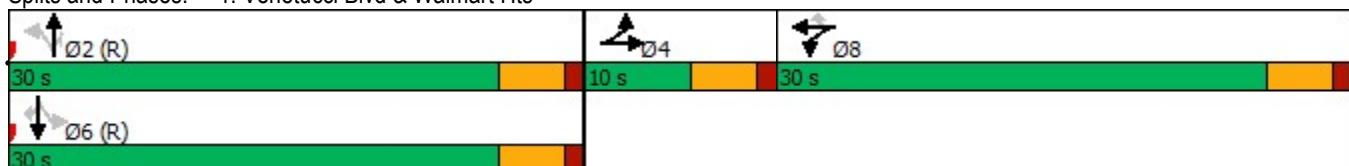


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases						8	2		2	6		6
Detector Phase	4	4		8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0		22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	10.0	10.0		30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Total Split (%)	14.3%	14.3%		42.9%	42.9%	42.9%	42.9%	42.9%	42.9%	42.9%	42.9%	42.9%
Maximum Green (s)	5.5	5.5		25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	5.5	5.5		21.3	21.3	21.3	33.7	33.7	33.7	33.7	33.7	33.7
Actuated g/C Ratio	0.08	0.08		0.30	0.30	0.30	0.48	0.48	0.48	0.48	0.48	0.48
v/c Ratio	0.12	0.30		0.72	0.71	0.12	0.11	0.23	0.56	0.06	0.22	0.01
Control Delay	32.1	18.1		29.5	29.0	2.4	14.9	13.3	4.0	14.5	13.2	0.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	18.1		29.5	29.0	2.4	14.9	13.3	4.0	14.5	13.2	0.0
LOS	C	B		C	C	A	B	B	A	B	B	A
Approach Delay		21.5			27.1			8.0			13.0	
Approach LOS		C			C			A			B	
Queue Length 50th (ft)	7	3		145	143	0	14	56	0	7	53	0
Queue Length 95th (ft)	22	29		224	220	14	39	92	62	22	88	0
Internal Link Dist (ft)		93			293			330			285	
Turn Bay Length (ft)				200			105		105	125		125
Base Capacity (vph)	139	166		624	627	648	477	1705	1078	465	1705	811
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.30		0.60	0.59	0.10	0.11	0.23	0.56	0.06	0.22	0.01













Intersection Summary

Area Type: Other  
 Cycle Length: 70  
 Actuated Cycle Length: 70  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 15.9  
 Intersection Capacity Utilization 54.6%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service A

Splits and Phases: 1: Venetucci Blvd & Walmart Hts



Lanes, Volumes, Timings  
33: Venetucci Blvd & Sam's Club

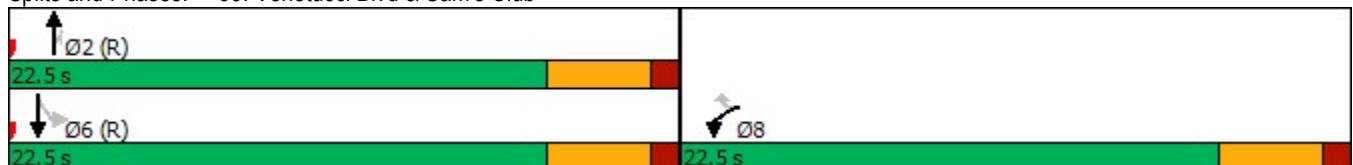
						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	300	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				120	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	1863	1863	1863	1863	1863
Flt Permitted						
Satd. Flow (perm)	1863	1863	1863	1863	1863	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (mph)	25		30			30
Link Distance (ft)	208		152			608
Travel Time (s)	5.7		3.5			13.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	Perm		Perm	Perm	
Protected Phases	8		2			6
Permitted Phases		8		2	6	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)	128		72			528
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary	
Area Type:	Other
Cycle Length:	45
Actuated Cycle Length:	45
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.00
Intersection Signal Delay:	0.0
Intersection LOS:	A
Intersection Capacity Utilization:	0.0%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 33: Venetucci Blvd & Sam's Club



Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↕		↗	↕	
Traffic Vol, veh/h	0	0	83	0	0	10	122	964	90	1	1047	9
Future Vol, veh/h	0	0	83	0	0	10	122	964	90	1	1047	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	140	-	-	120	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	78	78	78	95	95	95	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	100	0	0	13	128	1015	95	1	1126	10

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	-	-	568	-	-	555	1136	0	0	1110	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	*668	0	0	475	*999	-	-	625	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %			1			1	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	*668	-	-	475	*999	-	-	625	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB		WB		NB			SB		
HCM Control Delay, s	11.3		12.8		0.9			0		
HCM LOS	B		B							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 999	-	-	668	475	625	-	-
HCM Lane V/C Ratio	0.129	-	-	0.15	0.027	0.002	-	-
HCM Control Delay (s)	9.1	-	-	11.3	12.8	10.8	-	-
HCM Lane LOS	A	-	-	B	B	B	-	-
HCM 95th %tile Q(veh)	0.4	-	-	0.5	0.1	0	-	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection						
Int Delay, s/veh	5.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	17	0	49	21	0	39
Future Vol, veh/h	17	0	49	21	0	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	83	83	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	0	59	25	0	50

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	22	0	165 22
Stage 1	-	-	-	-	22 -
Stage 2	-	-	-	-	143 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1593	-	826 1055
Stage 1	-	-	-	-	1001 -
Stage 2	-	-	-	-	884 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1593	-	795 1055
Mov Cap-2 Maneuver	-	-	-	-	795 -
Stage 1	-	-	-	-	1001 -
Stage 2	-	-	-	-	850 -

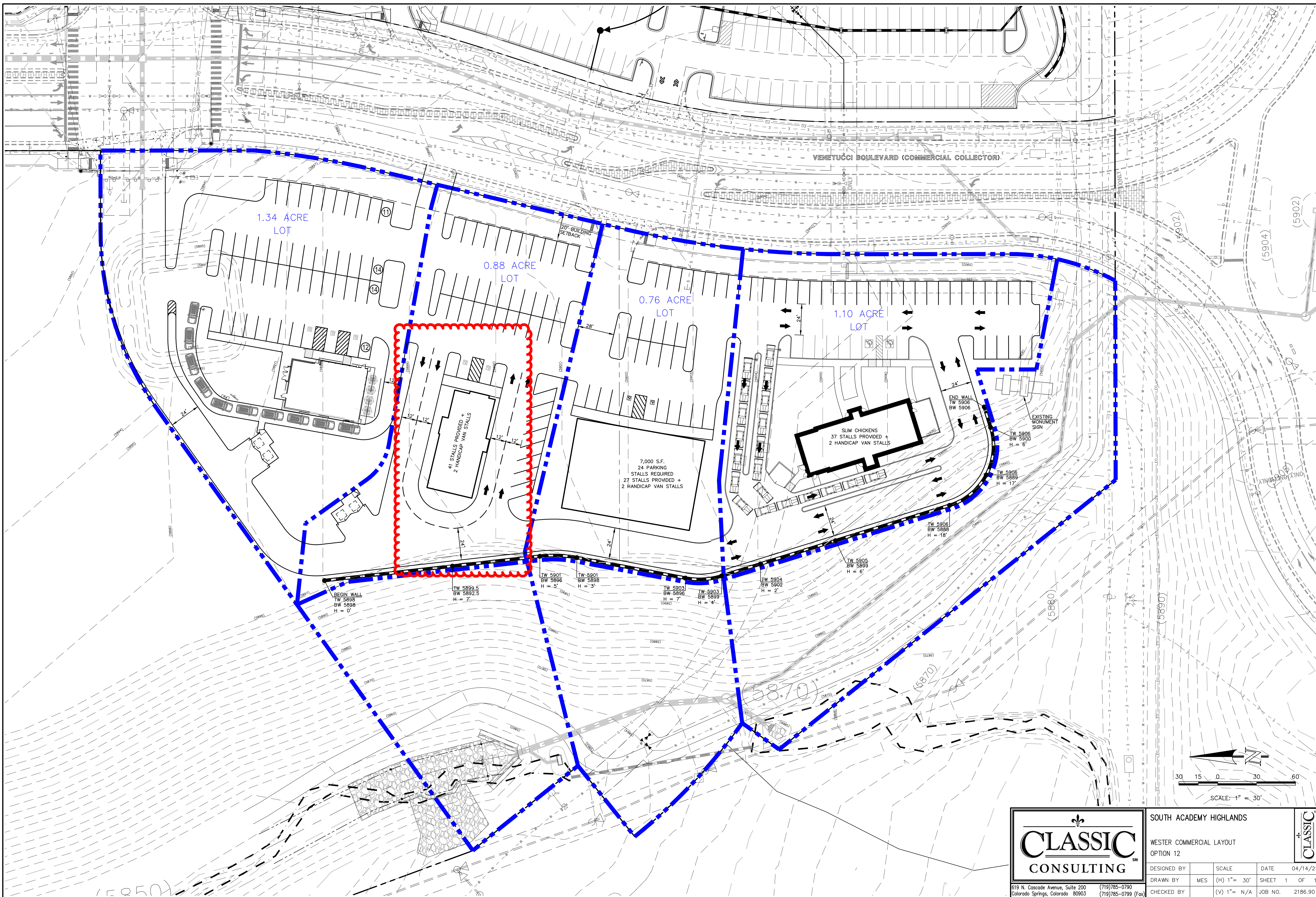
Approach	EB	WB	NB
HCM Control Delay, s	0	5.1	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1055	-	-	1593	-
HCM Lane V/C Ratio	0.047	-	-	0.037	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

# Site Plan

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1.34 ACRE LOT

0.88 ACRE LOT

0.76 ACRE LOT

1.10 ACRE LOT

41 STALLS PROVIDED +  
2 HANDICAP VAN STALLS

7,000 S.F.  
24 PARKING STALLS REQUIRED  
27 STALLS PROVIDED +  
2 HANDICAP VAN STALLS

SLIM CHICKENS  
37 STALLS PROVIDED +  
2 HANDICAP VAN STALLS

VENETUCCI BOULEVARD (COMMERCIAL COLLECTOR)

END WALL  
TW 5906  
BW 5906

EXISTING MONUMENT SIGN

TW 5906  
BW 5906  
H = 6'

TW 5905  
BW 5899  
H = 17'

TW 5905  
BW 5899  
H = 6'

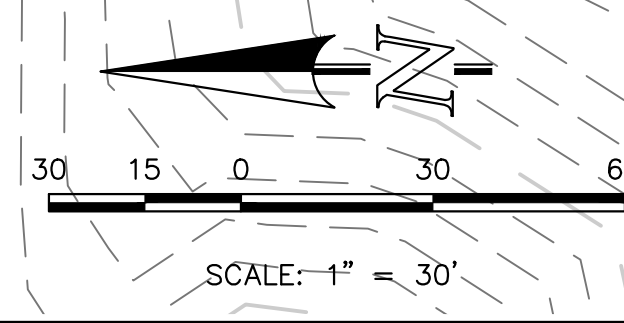
TW 5904  
BW 5902  
H = 2'

TW 5903  
BW 5899  
H = 4'

TW 5901  
BW 5896  
H = 3'

TW 5899.5  
BW 5892.5  
H = 7'

BEGIN WALL  
TW 5898  
BW 5898  
H = 0'



	SOUTH ACADEMY HIGHLANDS		
	WESTER COMMERCIAL LAYOUT OPTION 12		
DESIGNED BY	SCALE	DATE	04/14/21
DRAWN BY	MES	(H) 1" = 30'	SHEET 1 OF 1
CHECKED BY	(V) 1" = N/A	JOB NO.	2186.90

619 N. Cascade Avenue, Suite 200  
Colorado Springs, Colorado 80903

(719) 785-0790  
(719) 785-0799 (Fax)

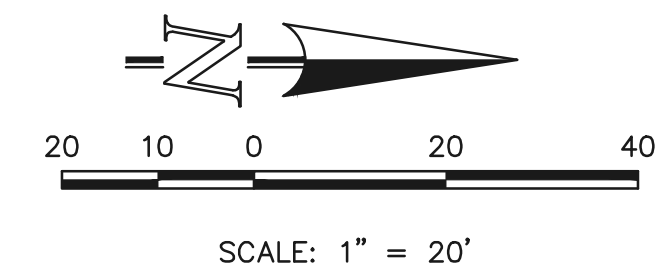
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# Signage-Striping Plan

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SOUTH ACADEMY HIGHLANDS FILING NO. 4 LOT 3

SOUTH ACADEMY HIGHLANDS FILING NO. 4 LOT 4

SOUTH ACADEMY HIGHLANDS FILING NO. 1 LOT 5

SOUTH ACADEMY HIGHLANDS FILING NO. 1 LOT 4

LEFT LANE MUST TURN LEFT  
CDOT R3-7L  
LEFT LANE MUST TURN LEFT

RIGHT LANE MUST TURN RIGHT  
CDOT R3-7R  
RIGHT LANE MUST TURN RIGHT

STRIPING/MARKINGS:  
ALL CROSSWALK, STOP/YIELD BAR & LANE ARROW PAVEMENT MARKINGS/STRIPING SHALL BE CONSTRUCTED UTILIZING CITY APPROVED THERMOPLASTIC OR PREFORMED HOT TAP MATERIAL WITH RETRO-REFLECTIVE BEADING.

PROPOSED SIGNS TO BE ADDED TO WEST BOUND MAST ARM  
CDOT R3-6L CDOT R3-5R

PROPOSED SIGN TO BE ADDED TO EAST BOUND MAST ARM  
CDOT R3-6R

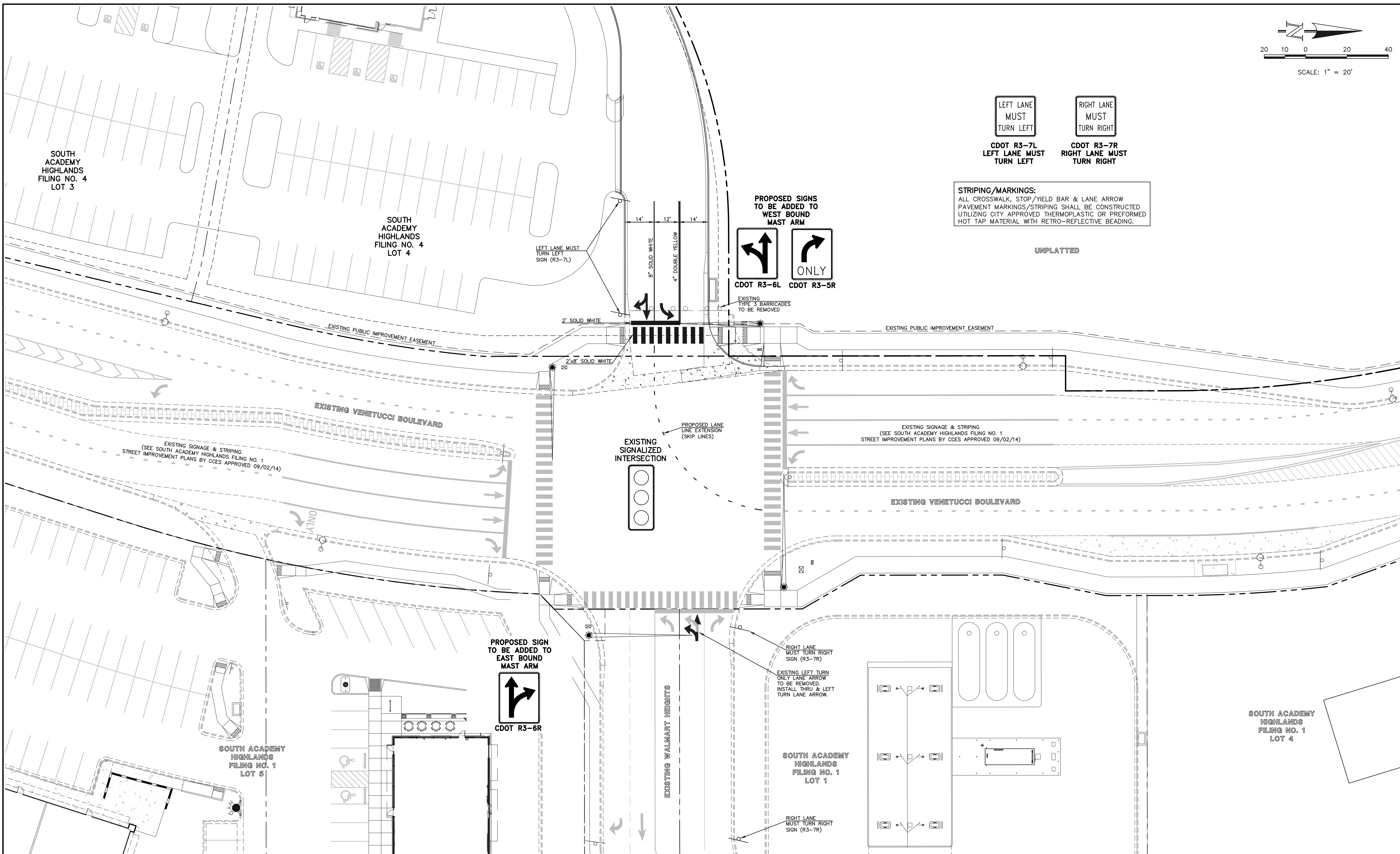
EXISTING SIGNALIZED INTERSECTION

RIGHT LANE MUST TURN RIGHT SIGN (R3-7R)  
EXISTING LEFT TURN ONLY LANE ARROW TO BE REMOVED. INSTALL THRU & LEFT TURN LANE ARROW.

SOUTH ACADEMY HIGHLANDS FILING NO. 1 LOT 1

RIGHT LANE MUST TURN RIGHT SIGN (R3-7R)

UNPLATTED



REVIEW:

STREET DESIGN FOR CITY ENGINEERING:	
UTILITY GRADE REVIEW	DATE
TRAFFIC SIGNAGE & STRIPING	DATE
CURB & GUTTER REVIEW	DATE
FINAL REVIEW	DATE
DRAINAGE DESIGN:	DATE

THIS IS FILED IN ACCORDANCE WITH SECTION 7.7.906 (DRAINAGE ORDINANCE) OF THE CODE OF THE CITY OF COLORADO SPRINGS 2001, AS AMENDED.

48 HOURS BEFORE YOU DIG,  
CALL UTILITY LOCATORS  
**811**  
UTILITY NOTIFICATION CENTER OF COLORADO  
IT'S THE LAW

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NO.	REVISION	DATE

REVIEW:

PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC

KYLE R. CAMPBELL, COLORADO P.E. #29794 DATE

619 N. Cascade Avenue, Suite 200  
Colorado Springs, Colorado 80903  
(719) 785-0790  
(719) 785-0799 (Fax)

SOUTH ACADEMY HIGHLANDS FILING NO. 4 SIGNAGE & STRIPING PLAN			
DESIGNED BY	MAL	SCALE	DATE 03/24/22
DRAWN BY	MES	(H) 1" = 20'	SHEET 1 OF 1
CHECKED BY		(V) 1" = N/A	JOB NO. 2186.90

CLASSIC CONSULTING

N:\218690\DRAWINGS\CONSTRUCTION\FILING 4 SIGNAGE-STRIPING PLAN.dwg, 5/9/2022 10:10:20 AM, 1:1