The Department of Community Development

City Hall, Lynchburg, VA 24504 **434-455-3900**

To: Planning Commission
From: Planning Division
Date: August 10, 2016
Re: **Rezoning – Westminster Canterbury of Lynchburg – R-4, High Density Residential to IN-1, Institutional 1 District, 501 VES Road**

I. PETITIONER

Westminster Canterbury of Lynchburg, Attention Sean Huyett, 501 VES Road, Lynchburg, Virginia 24503
Representative: Mr. Patrick Proffitt, Hurt & Proffit, Inc., 2524 Langhorne Road, Lynchburg, Virginia 24501

II. LOCATION

The subject property consists of one (1) tract of approximately twenty (20) acres located at 501 VES Road.
Property Owner: Westminster Canterbury of Lynchburg, Attention Sean Huyett, 501 V.E.S. Road, Lynchburg, Virginia 24503

III. PURPOSE

The purpose of the petition is to rezone the campus of Westminster Canterbury of Lynchburg from R-4, High Density Residential to IN-1, Institutional 1 District. The Institutional District Zoning would allow the development of the property provided adequate water/sewer and transportation infrastructure are available. Approval of the IN-1, Institutional 1 District zoning would negate the need for future conditional use permit approvals as is required in the current R-4, High Density Residential District.

IV. SUMMARY

- The *Comprehensive Plan 2013-2030 Future Land Use Map* (*FLUM*) recommends Institutional and Resource Conservation uses for the property.
- Housing Services are a use permitted by right in an IN-1, Institutional 1 District.
- IN-1 Districts are intended for institutional uses such as schools, colleges, universities, senior living facilities, medical facilities and churches with multiple buildings contained in a campus setting an located primarily within or adjacent to residential areas.
- The submitted concept plan with two (2) year projection indicates the construction of a four (4) story, eighty (80) bed replacement health care facilities; and a possible additional twenty-four (24) independent living units.
- The submitted traffic study indicated that an additional two hundred twenty (220) AM trips and one hundred ninety-two (192) PM trips would need to be generated prior to a degradation of Level of Service Standards (LOS) at the intersection of VES Road and Rivermont Avenue. Proposed improvements would not generate high level of AM & PM trips and would fall well below the thresholds requiring improvements.

The Planning Division recommends approval of the rezoning petition.

V. FINDINGS OF FACT

1. **Comprehensive Plan.** The *Comprehensive Plan 2013-2030* recommends an Institutional use for the majority of the property. There is a small area recommended for Resource Conservation use along the Tributary of Pigeon Creek. Areas recommended for Institutional uses include the City's institutions such as religious, educational, and other nonprofit entities. Examples include churches, cemeteries, private schools and universities, private nonprofit hospitals, service clubs and organizations and other nonprofit institutions. (***p. 76***) Resource Conservation Areas include rivers, streams, wetlands, floodplains and adjacent steep slopes. These areas serve a range of important functions – wildlife habitat, natural stormwater control, active and passive recreation – and are counted among the City's primary assets. The conservation of these environmentally sensitive areas is one of the primary goals of the Plan (***p. 61***)

2. **Zoning.** The subject property was annexed into the City in 1926. The existing R-4, High Density Residential zoning was established in 1978. The facility is operating under conditional use permits approved by City Council in 1990, 1995, 1999 and 2001.

3. **Board of Zoning Appeals (BZA).** The Zoning Administrator has determined that no variances would be required if the property were rezoned to IN-1.

4. **Surrounding Area.** There have been several items requiring City Council approval in the immediate area:

   - On June 10, 1980, City Council approved the conditional use permit (CUP) request of Virginia Episcopal School for a master development plan at 400 VES Road.
   - On October 8, 1985, City Council approved the CUP request of Virginia Episcopal School to allow the construction of a gymnasium addition at 400 VES Road.
   - On December 10, 1985, City Council approved the CUP petition of Virginia Episcopal School to allow the construction of an athletic field at 340 VES Road.
   - On May 5, 1986, City Council approved the CUP petition of Virginia Episcopal School to allow the construction of a dormitory at 400 VES Road.
   - On April 10, 1990, City Council approved the CUP petition of Virginia Episcopal School to allow the construction of a maintenance building and driveway improvements at 400 VES Road.
   - On June 12, 1990, City Council approved the CUP petition of Westminster Canterbury to allow building and parking additions at 501 VES Road.
   - On September 25, 1990, City Council approved the CUP petition of Presbyterian Home and Family Services to allow the construction of a group home at 150 Linden Avenue.
   - On October 9, 1990, City Council approved the CUP petition of Virginia Episcopal School to allow revisions to the Master Plan at 400 VES Road.
   - On November 14, 1995, City Council approved the CUP petition of Westminster Canterbury to allow the addition of a cottage program at 501 VES Road.
   - On August 11, 1998, City Council approved the CUP petition of Presbyterian Homes and Family Services to allow the construction of a student activity center and parking area at 150 Linden Avenue.

- On July 13, 1999, City Council approved the CUP petition of Westminster Canterbury to allow the construction of a wellness center and swimming pool at 501 VES Road.
- On January 9, 2001, City Council approved the CUP petition of Westminster Canterbury to allow building and parking additions at 501 VES Road.
- On March 9, 2010, City Council approved the CUP petition of Cole Brothers Circus to allow a temporary Circus at 150 Linden Avenue.
- On July 8, 2014, City Council approved the CUP request of Virginia Episcopal School to allow the construction of a parking area at 400 VES Road.

5. **Site Description.** The subject property consists of one (1) tract comprising approximately twenty (20) acres located at 501 VES Road. The property at 501 VES Road contains the main campus of Westminster Canterbury which began operations in 1980. The property adjacent and located at 3801 Williams Road contains twenty-four independent living cottages constructed in 1998. This property is not proposed as part of the rezoning.

6. **Proposed Use of Property.** The purpose of the petition is to rezone the property from R-4, High Density Residential to allow expansion of Westminster Canterbury of Lynchburg facilities without the need for continuous conditional use permit approval. As required by the *Zoning Ordinance*, the petitioner has submitted a concept plan with a two (2) year projection. The plan indicates the construction of a four (4) story, eighty (80) bed health care building. The construction of this facility would not increase the current capacity of Westminster Canterbury as other areas of the campus are being remodeled to provide larger living spaces. Also indicated on the concept plan are areas indicated as "independent living expansion", "Villa Study One", "Villa Study Two" and "Villa Study Two – Alternate". The petitioner has indicated that one of these areas could be selected for an additional twenty-four (24) independent living units in the future.

7. **Traffic, Parking and Public Transit.** The City's Transportation Engineer requested that a traffic study be provided.

   As required by Section 35.2-49.3b of the Zoning Ordinance a traffic study indicating the existing Level of Service (LOS) for City Streets and intersections serving the campus and the anticipated amount of growth that would need to occur that would result in a lower LOS. A traffic study was prepared by Mr. Bill Wuensch, P.E., PTOE, Engineering & Planning Resources. The submitted study indicates that the facilities at Westminster Canterbury would need to generate an additional two hundred twenty (220) AM Peak trips to reduce the LOS from D to E and one hundred ninety-two (192) PM Peak trips to reduce the LOS from E to F. Submitted analysis indicates that the proposed eighty bed health care facility would generate twelve (12) AM Peak trips and eighteen (18) PM Peak Trips. It is important to note that the proposed eighty (80) bed facility will not be increasing the total number of residents at Westminster Canterbury, due to the renovation of existing facilities to create larger living areas.

   The concept plan indicates proposed improvements over existing parking areas. Parking calculations have not been provided; however, the property would be required to comply with parking requirements of the *Zoning Ordinance* prior to any final site plan approvals.

   The property is served by Greater Lynchburg Transit Company (GLTC) Route 3A with bus stops located on both sides of VES Road adjacent to the Westminster Canterbury of Lynchburg campus.

8. **Stormwater Management.** A stormwater management/erosion and sediment control plan will be required prior to final site plan approval. The representative for the petitioner was requested to provide a description of how stormwater management would be provided and if the downstream receiving channel was adequate. This information was not provided to staff. Response provided by the representative only indicated that these determinations would be made prior to final site plan approval and would comply with the land development standards of the City of Lynchburg.

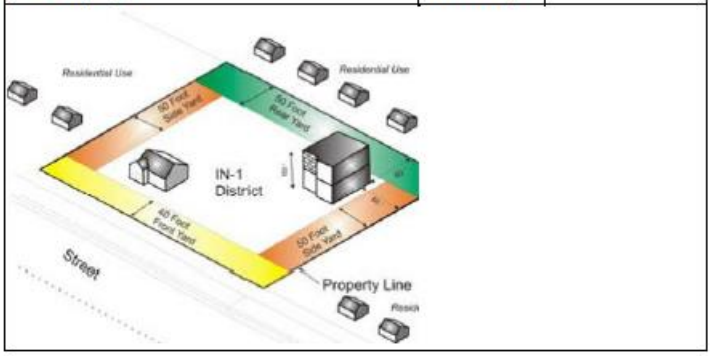
9. **Emergency Services:** The City Fire Marshal and Police Department had no comments of concern regarding the rezoning.

10. **Impact.** IN-1 Districts are intended to provide for institutional uses such as schools, colleges, universities, senior living facilities, medical facilities and churches with multiple buildings contained in a campus setting. This district provides flexibility for institutions while identifying areas intended for future development. IN-1 districts are for institutional campuses located primarily within or adjacent to residential areas. While providing flexibility, the IN-1 District creates development procedures and standards to minimize off site impacts such as noise, lighting, traffic and availability / capacity of water and sanitary sewer associated with the development.

    The following are the development standards for an IN-1 District as provided in the *Zoning Ordinance*:

Exhibit IV-22: Summary of IN-1 Development Standards

Design Element	Standards	Section Cross-Reference
Minimum Land Area for District	5 acres	35.2-61.2
Maximum Height	See paragraph (b) above	35.2-61.3
Minimum front setback from right-of-way (dimension A)	40'	35.2-61.3
Minimum Setback from a Residential District (dimension B)	50'	35.2-61.3
Minimum Side Setback, Interior (dimension C)	50'	35.2-61.3
Minimum Side Setback, Street Side (dimension D)	50'	35.2-61.4
Minimum Rear Setback (dimension E)	50'	35.2-61.4
Minimum Open Space	20% of campus	



    The submitted concept plan meets or exceeds these standards. The submitted traffic study indicates that the traffic generated by the improvements for the required two (2) year window fall well below thresholds that would require road improvements. The proposed rezoning would allow flexibility for Westminster Canterbury growth while indicating the point at which off-site impacts would need to be mitigated.

11. **Technical Review Committee.** The Technical Review Committee (TRC) reviewed the conditional use permit on July 19, 2016. Comments related to the proposed use have or will be addressed prior to final site plan approval.

VI. PLANNING DIVISION RECOMMENDATION

Based on the preceding Findings of Fact, the Planning Commission recommends to City Council approval of the petition of Westminster Canterbury of Lynchburg to rezone approximately twenty (20) acres located at 501 VES Road from R-4, High Density Residential District to Institutional 1 (IN-1) District.

This matter is respectfully offered for your consideration.

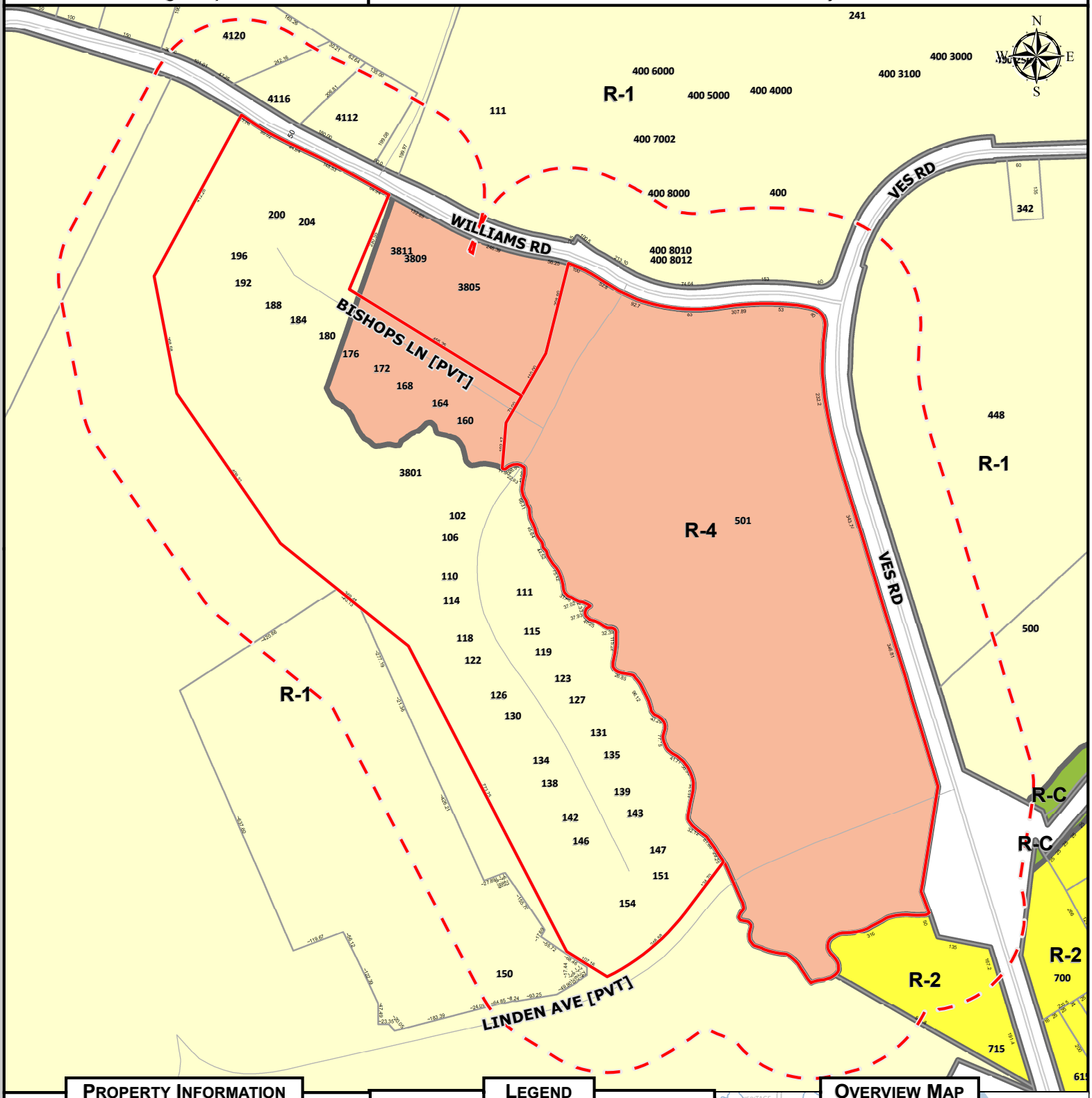
William T. Martin, AICP
City Planner

pc: Ms. Bonnie M. Svrcek, City Manager
Ms. Margaret Schmitt, Interim Deputy City Manager
Mr. Walter C. Erwin, City Attorney
Mr. Kent L. White, Director of Community Development
Mr. J. Lee Newland, City Engineer
Ms. Cynthia Kozerow, Lynchburg Police Department
Battalion Chief Thomas Goode, Fire Marshal
Ms. Maggie Cossman, Transportation Engineer
Mr. Doug Saunders, Building Official
Mr. Kevin Henry, Zoning Administrator
Mr. Sean Huyett, Petitioner
Mr. Patrick Proffitt, Representative

VII. ATTACHMENTS

1. **Zoning Map**
2. **Future Land Use Map**
3. **Watershed Map**
4. **Planimetric and Topographic Map**
5. **Concept Plan – Villa and IL Studies**
6. **Rezoning Map for Westminster Canterbury**
7. **Traffic Studies – May 24, 2016 and July 19, 2016**
8. **Narrative**

Zoning Map	WESTMINSTER CANTERBURY ZONING TO INSTITUTIONAL 1
Zoning Request	Westminster Canterbury



Property Information

Parcel ID	Address
06801003	501 VES RD
06801018	3801 WILLIAMS RD

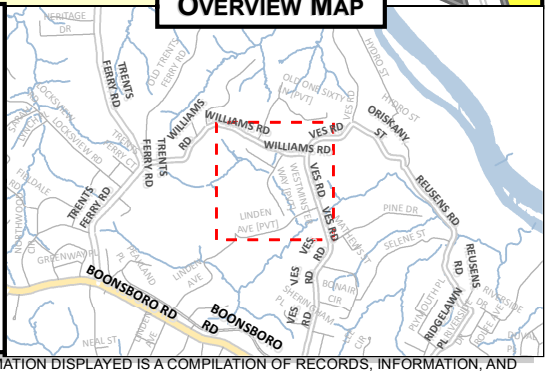
Legend

Subject Property

215' Buffer

B-1	R-1	I-1	IN-1
B-3	R-2	I-2	IN-2
B-4	R-3	I-3	R-C
B-5	R-4		

Overview Map

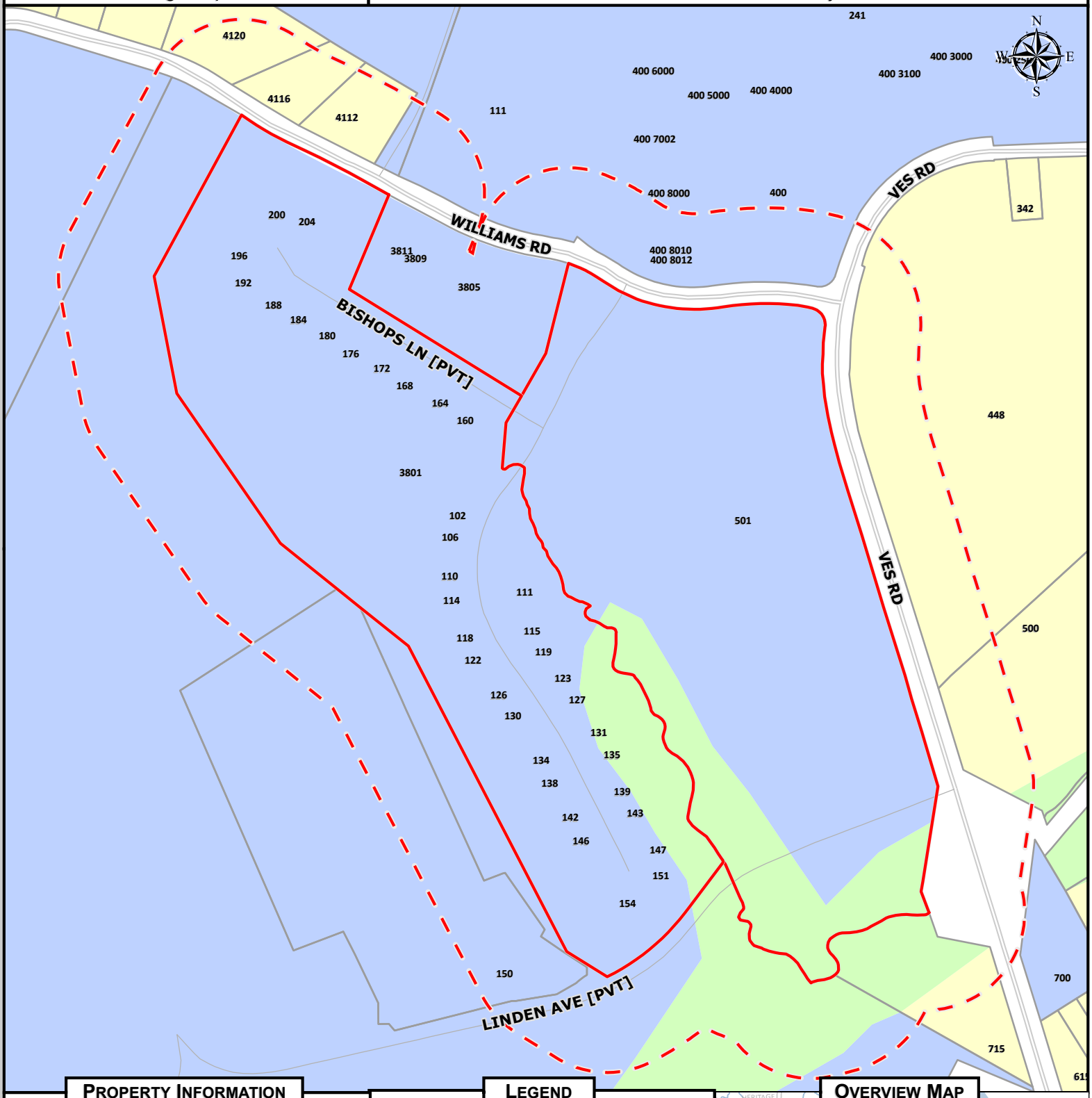


Map Scale: 1 " to 300 ' **Date Printed:** 7/27/2016

DISCLAIMER: THIS MAP IS NEITHER A LEGALLY RECORDED MAP NOR A SURVEY AND IS NOT INTENDED TO BE USED AS SUCH. THE INFORMATION DISPLAYED IS A COMPILATION OF RECORDS, INFORMATION, AND DATA OBTAINED FROM VARIOUS SOURCES. THE CITY OF LYNCHBURG IS NOT RESPONSIBLE FOR ITS ACCURACY OR HOW CURRENT IT MAY BE.

Parcel ID	Address	Owner
10001039	4116 WILLIAMS RD	FARMER, JAMES S
10001038	4112 WILLIAMS RD	JUDD, CHARLES & WANDA
06801005	150 LINDEN AVE	PRESBYTERIAN HOME
06801004	715 VES RD	PRESBYTERIAN HOMES & FAMILY SERVICES
18507001	4301 WILLIAMS RD	PRESBYTERIAN ORPHANS HOME
06801800	150 LINDEN AVE	PRESBYTERIAN ORPHANS HOME ACCT DEPT
10001040	4120 WILLIAMS RD	QUINN, MICHAEL J & AMY F
07003011	340 VES RD	VIRGINIA EPISCOPAL SCHOOL
10001036	190 OLD ONE SIXTY LN	VIRGINIA EPISCOPAL SCHOOL
07003010	500 VES RD	VIRGINIA EPISCOPAL SCHOOL
06801002	3805 WILLIAMS RD	VIRGINIA EPISCOPAL SCHOOL
10001024	400 VES RD	VIRGINIA EPISCOPAL SCHOOL
06801018	3801 WILLIAMS RD	WESTMINSTER CANTERBURY OF LYNCHBURG
06801003	501 VES RD	WESTMINSTER CANTERBURY OF LYNCHBURG

FLUM Map	WESTMINSTER CANTERBURY ZONING TO INSTITUTIONAL 1
Zoning Request	Westminster Canterbury



PROPERTY INFORMATION

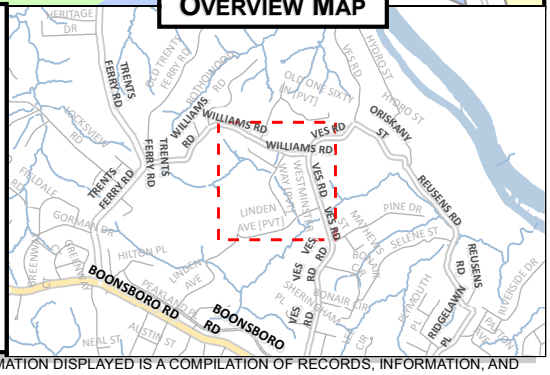
PARCEL ID	ADDRESS
06801003	501 VES RD
06801018	3801 WILLIAMS RD

LEGEND

- Local Historic District
- Traditional Residential
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Neighborhood Commercial
- Community Commercial
- Employment 1
- Employment 2
- Downtown
- Institution
- Public Use
- Public Parks
- Resource Conservation
- Mixed Use

MAP SCALE: 1 " to 300 ' **DATE PRINTED:** 7/27/2016

OVERVIEW MAP



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Watershed Map	WESTMINSTER CANTERBURY ZONING TO INSTITUTIONAL 1
Zoning Request	Westminster Canterbury

City of Lynchburg - GIS Office - 434.455.3901 - GIS@lynchburgva.gov

Property Information

Parcel ID	Address
06801003	501 VES RD
06801018	3801 WILLIAMS RD

Legend

- Subject Property
- Base Flood Elevation
- Floodway
- Floodzone
- River / Lake / Stream

Overview Map

Map Scale: 1 " to 300 ' **Date Printed:** 7/27/2016

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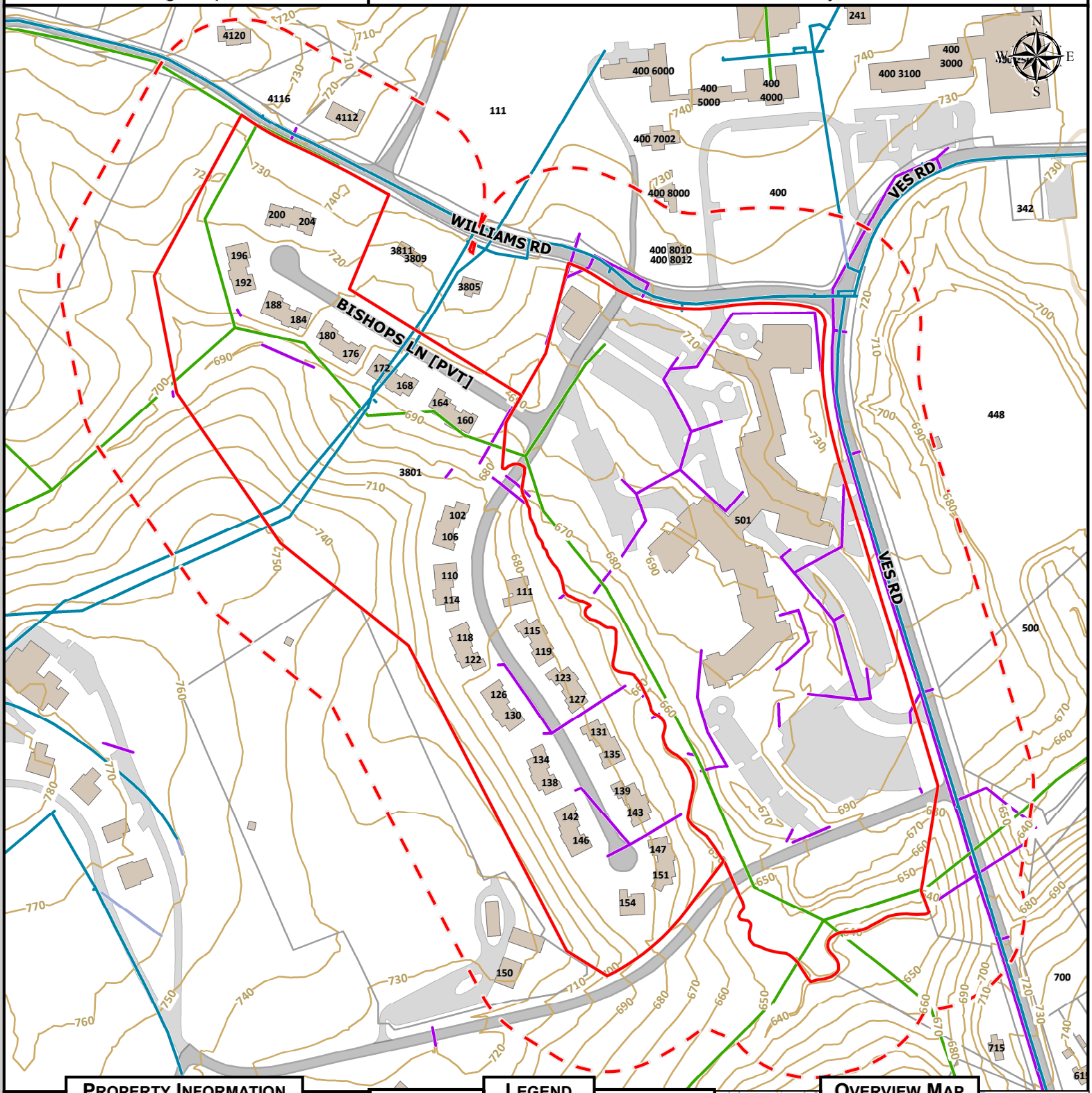
Planimetric and Topographic Map	WESTMINSTER CANTERBURY ZONING TO INSTITUTIONAL 1
Zoning Request	Westminster Canterbury



Property Information

Parcel ID	Address
06801003	501 VES RD
06801018	3801 WILLIAMS RD

Legend

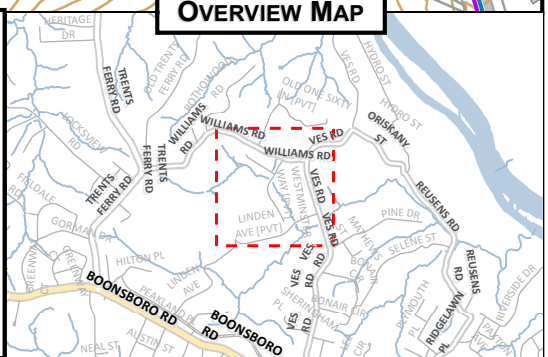
		Active	Proposed	Abandoned
Utilities	Water			
	Sanitary			
	Storm			

		Paved	Unpaved	Other
Planimetrics	Structure	-	-	
	Roadway			-
	Parking			-
	Sidewalk		-	-
	Driveway	-	-	

		10'	10' Obs
Topography	Contour		

Map Scale: 1 " to 300 ' **Date Printed:** 7/27/2016

Overview Map



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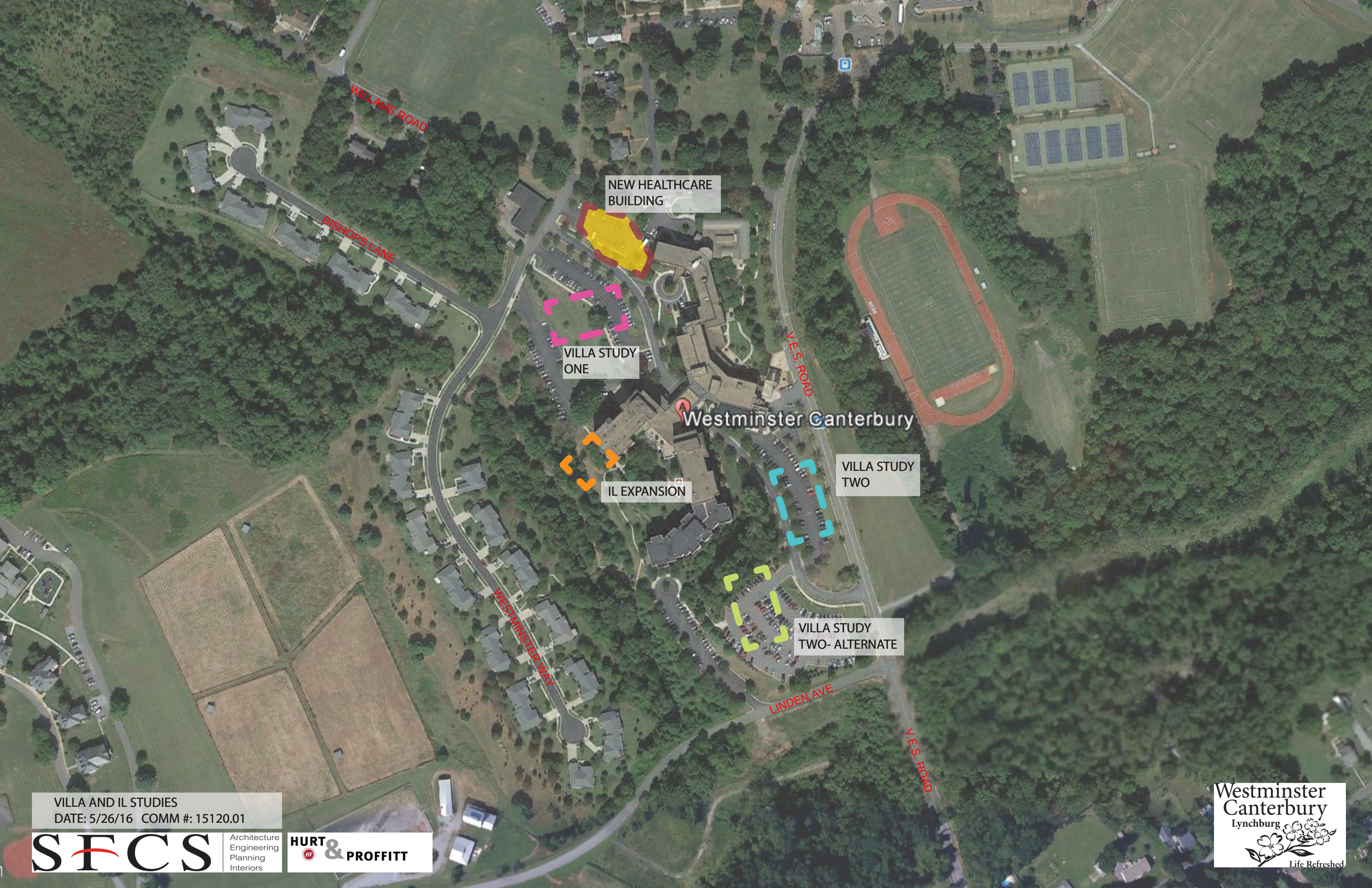


VILLA AND IL STUDIES
DATE: 5/26/16 COMM #: 15120.01

SFCS Architecture Engineering Planning Interiors

HURT & PROFFITT

Westminster Canterbury Lynchburg
Life Refreshed.

NORTH

V.E.S. ROAD
(VARIABLE WIDTH R/W)

WILLIAMS ROAD
(VARIABLE WIDTH R/W)

LINDEN AVENUE
(PRIVATE)

WESTMINSTER CANTERBURY
TM# 06801003
ZONED: R-4

PID #06801004
PRESBYTERIAN HOME & FAMILY
SERVICES, INC.
INST #110004381
ZONED: R-2

PID #06801005
PRESBYTERIAN HOME
ZONED: R-1

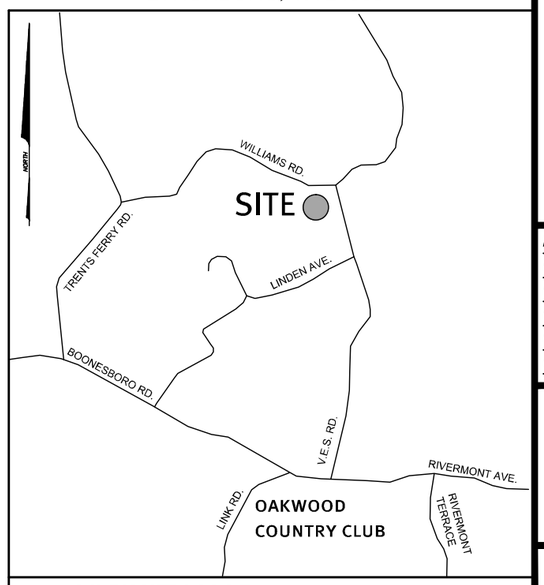
PID #06801018
WESTMINSER-CANTERBURY OF
LYNCHBURG, INC.
DB 945 PG 39
ZONED: R-1, R-4

PID #06801002
VIRGINIA EPISCOPAL SCHOOL
ZONED: R-4, R-1

PROPOSED IN-1 ZONING

120 60 0 120 240
GRAPHIC SCALE IN FEET

SITE ADDRESS:
501 VES ROAD
LYNCHBURG, VA 24503



VICINITY MAP N.T.S.

HURT & PROFFITT
2524 LANGHORNE ROAD
LYNCHBURG VA 24501
800.242.4906 TOLL FREE
434.847.7796 MAIN
434.847.0047 FAX

ENGINEERING • SURVEYING • LAND DEVELOPMENT • ENVIRONMENTAL
GEOTECHNICAL • CONSTRUCTION TESTING & INSPECTION • CULTURAL RESOURCES

REZONING MAP
FOR
WESTMINSTER CANTERBURY
CITY OF LYNCHBURG, VIRGINIA

PROJECT NO.	*20160242*
LAT.	*37° 27' 02" N*
LONG.	*79° 11' 25" W*
DATE:	*06/24/2016*
DRAWN BY:	*NRO*
CHECKED BY:	*PCP*

SHEET NO.
1 OF 1

Jun 30, 2016 – 5:29pm \\Data01\projects\2016\20160242\CAD\REZONING\REZONING.dwg

EPRPC EPR, P,C. "ENGINEERING & PLANNING RESOURCES"
637 BERKMAR CIRCLE, CHARLOTTESVILLE, VA 22901

MEMORANDUM

TO: MAGGIE COSSMAN, P.E.	FROM: BILL WUENSCH, P.E., PTOE
ORGANIZATION: CITY OF LYNCHBURG	DATE: MAY 24, 2016
PHONE NUMBER:	SENDER'S REFERENCE NUMBER:
RE: WESTMINSTER CANTERBURY TRAFFIC ANALYSIS	YOUR REFERENCE NUMBER:

☐ URGENT X FOR YOUR USE ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

Westminster Canterbury Traffic Analysis

1. Introduction

The purpose of this memorandum is to examine the traffic impact of the expansion of the Westminster Canterbury facility on the intersection of Rivermont Avenue and VES Road in Lynchburg VA.

The Westminster Canterbury development is assumed as a net new 84 assisted living beds. The facility is located along VES Road to the north of the intersection of Rivermont Avenue and VES Road.

The study intersection in this memorandum is the intersection of Rivermont Avenue and VES Road. **Figure 1** illustrates the study intersection and the assumed Westminster Canterbury development.

2. Existing Conditions

Traffic Volumes

Existing traffic volumes at the intersection of Rivermont Avenue and VES Road were obtained from a prior traffic study that EPR performed for the City in 2013 when examining conversion of standalone signals to coordinated signals. **Figure 2** illustrates the existing traffic volumes.

Traffic Operation

Synchro and SimTraffic (version 9.1) were used to analyze the traffic operations at the study intersection. The level of service and queue results are summarized in **Table 1**, and included in **Appendix A** (Synchro results) and **Appendix B** (SimTraffic results). Note that for the signal timings we pivoted off of the recommended coordinated timings, which were designed to hold a long green band on the mainline with shorter green splits for the sidestreet. This is why it appears that the sidestreet has fairly long delays while the mainline operates at LOS A.

Table 1 Existing Traffic Operation Summary

		Existing AM			Existing PM		
		LOS	Delay (s)	Queue (ft)	LOS	Delay (s)	Queue (ft)
Rivermont Ave/VES Rd							
Rivermont EB	EBL	A	3.5	82	A	6.5	87
Rivermont EB	EBT	A	4.5	239	A	3.8	194
Rivermont WB	WBT	A	5.6	236	A	8.3	411
Rivermont WB	WBR	A	0.0	0	A	0.0	116
VES SB	SBL	D	50.3	146	E	57.1	207
VES SB	SBR	D	44.5	106	E	60.1	125
Intersection		A	9.0	809	B	13.7	1140

As shown in the above Table 1, in the existing conditions, the traffic operation of the intersection of Rivermont Avenue and VES Road are as followings:

- The intersection operates at LOS A in the morning peak hour and at LOS B in the afternoon peak hour;
- Rivermont Avenue movements operate at LOS A in both the morning peak hour and the afternoon peak hour;
- VES Road movements operate at LOS D in the morning peak hour and at LOS E in the afternoon peak hour (due to using coordinated timing scheme that includes a 95s cycle in the AM with the sidestreet having 25s max, and 115s cycle in the PM with the sidestreet having 25s max ;
- The total maximum overall intersection queue (sum of all movements) in the morning peak hour is 809 feet and in the afternoon is 1140 feet.

3. Trip Generation, Distribution, and Assignments

Trip Generation

The Westminster Canterbury development is assumed as 84 (net new) assisted living bed along VES Road to the north of the intersection of Rivermont Avenue and VES Road to be completed at the same year.

In this memorandum, the Institute of Transportation Engineers (ITE) Trip Generation Manual 9th Edition was used to estimate the trips generated by the assumed Westminster Canterbury expansion. **Table 2** summarizes the land use descriptions, ITE land use code, size and anticipated trips. Per VDOT traffic study guidelines, no internal capture or pass-by rate was assumed.

Table 2 Trip Generation

					AM			PM		
Use	**L. U. Code**	**Unit**	**Quantity**	**Daily**	**in**	**out**	**total**	**in**	**out**	**total**
Assisted Living	254	bed	84	223	8	4	12	8	10	18

As indicated in Table 2, approximately 223 new daily trips, 12 new morning peak hour trips, and 18 new afternoon peak hour trips were estimated for the assumed Westminster Canterbury development. This is a very minor amount of new trips to/from the site in the peak hours.

Trip Distribution and Assignment

In this memorandum, all the site trips generated by the assumed Westminster Canterbury development were assumed to be via the intersection of Rivermont Avenue and VES Road.

Inspection of the existing traffic pattern at the intersection of Rivermont Avenue and VES Road indicates the distribution percentage as illustrated in **Figure 3**.

The estimated site trips shown above were assigned to the roadway network. Site trip assignments are as shown in **Figure 4.**

4. Build Conditions

Traffic Volumes

The site trips as shown in Figure 4 were added to the existing traffic volumes as shown in Figure 2 resulting the build traffic volumes. **Figure 5** illustrates the build traffic volumes.

Traffic Operation

Synchro and SimTraffic (version 9.1) were used to analyze the traffic operations at the study intersection. The level of service and queue results are summarized in **Table 3**, and included in **Appendix A** (Synchro results) and **Appendix B** (SimTraffic results). Note that the same signal timings were used for both existing and build conditions.

Table 3 Build Traffic Operation Summary

		Existing AM			Existing PM		
		LOS	Delay (s)	Queue (ft)	LOS	Delay (s)	Queue (ft)
Rivermont Ave/VES Rd							
Rivermont EB	EBL	A	3.6	86	A	6.7	87
Rivermont EB	EBT	A	4.6	242	A	3.9	197
Rivermont WB	WBT	A	5.7	231	A	8.6	414
Rivermont WB	WBR	A	0.0	0	A	0.0	118
VES SB	SBL	D	50.2	153	E	56.6	212
VES SB	SBR	D	44.3	114	E	59.9	125
Intersection		A	9.1	826	B	14.1	1153

As shown in the above Table 3, in the build conditions, the traffic operation of the intersection of Rivermont Avenue and VES Road will be almost the same as in the existing conditions:

- The intersection will operate at LOS A in the morning peak hour and at LOS B in the afternoon peak hour;
- Rivermont Avenue movements will operate at LOS A in both the morning peak hour and the afternoon peak hour;
- VES Road movements will operate at LOS D in the morning peak hour and at LOS E in the afternoon peak hour;
- The total intersection sum of maximum queues in the morning peak hour is 826 feet and in the afternoon is 1140 feet, less than 1 car longer than the total maximum queues in the existing morning peak hour and afternoon peak hour.

5. Findings and Conclusions

Based on the analysis performed in this memorandum, the impact of the assumed Westminster Canterbury development on the intersection of Rivermont Avenue and VES Road will be minimal. The levels of service for the intersection and movements will not change, the total maximum queue will be less than 1 car longer than the total maximum queues in the existing conditions.

End of Memorandum

Attachments –

Figures

Figure 1 Study Intersection & Assumed Development Location
Figure 2 Existing Traffic Volumes
Figure 3 Distribution Percentage
Figure 4 Site Trips
Figure 5 Build Traffic Volumes

Tables

Table 1 Existing Traffic Operation Summary
Table 2 Trip Generation
Table 3 Build Traffic Operation Summary

Appendix

Appendix A Synchro Analysis Outputs
Appendix B SimTraffic Analysis Outputs

Figure 1 Study Intersection & Assumed Development Location

Figure 2 Existing Traffic Volumes

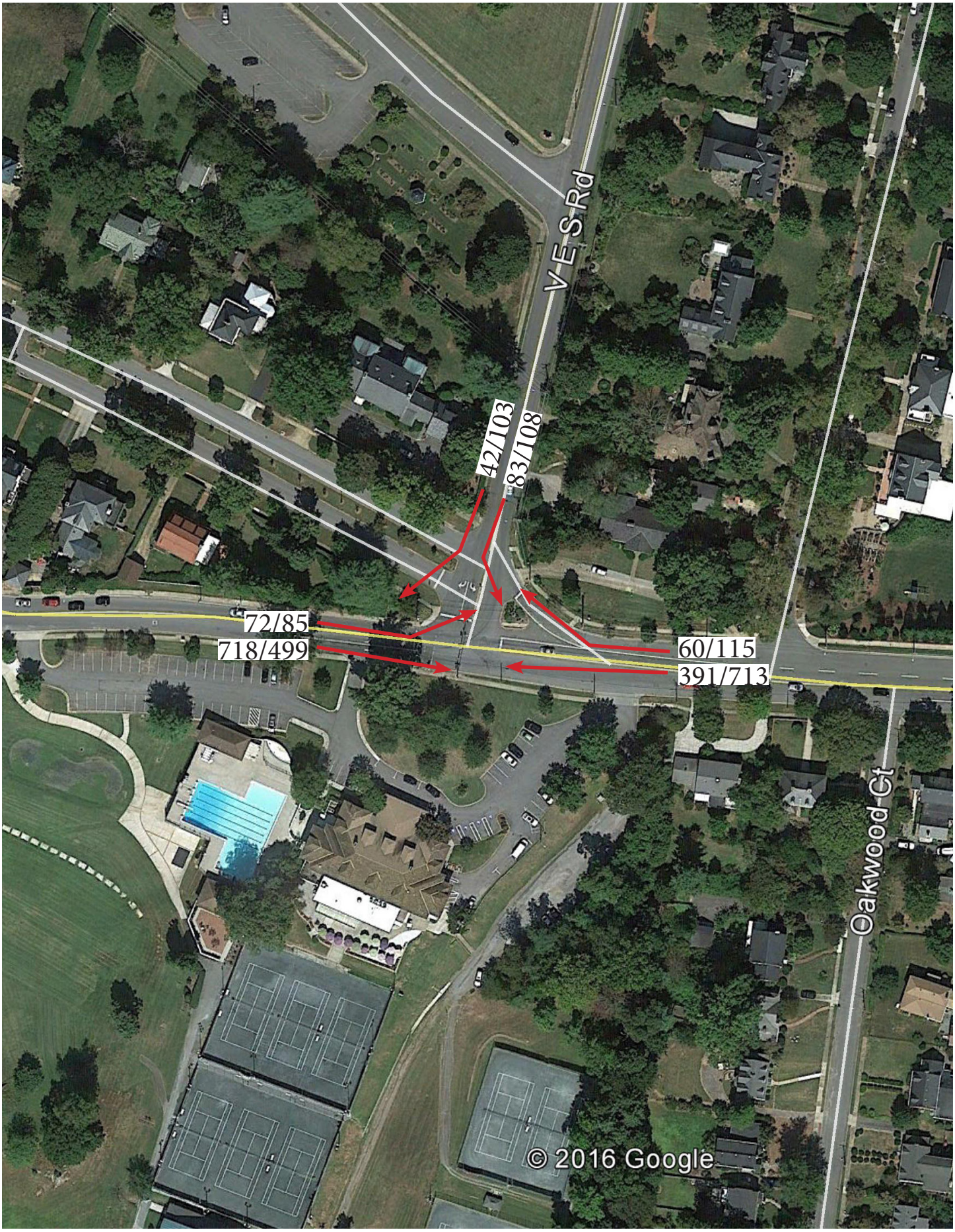


Figure 3 Distribution Percentage

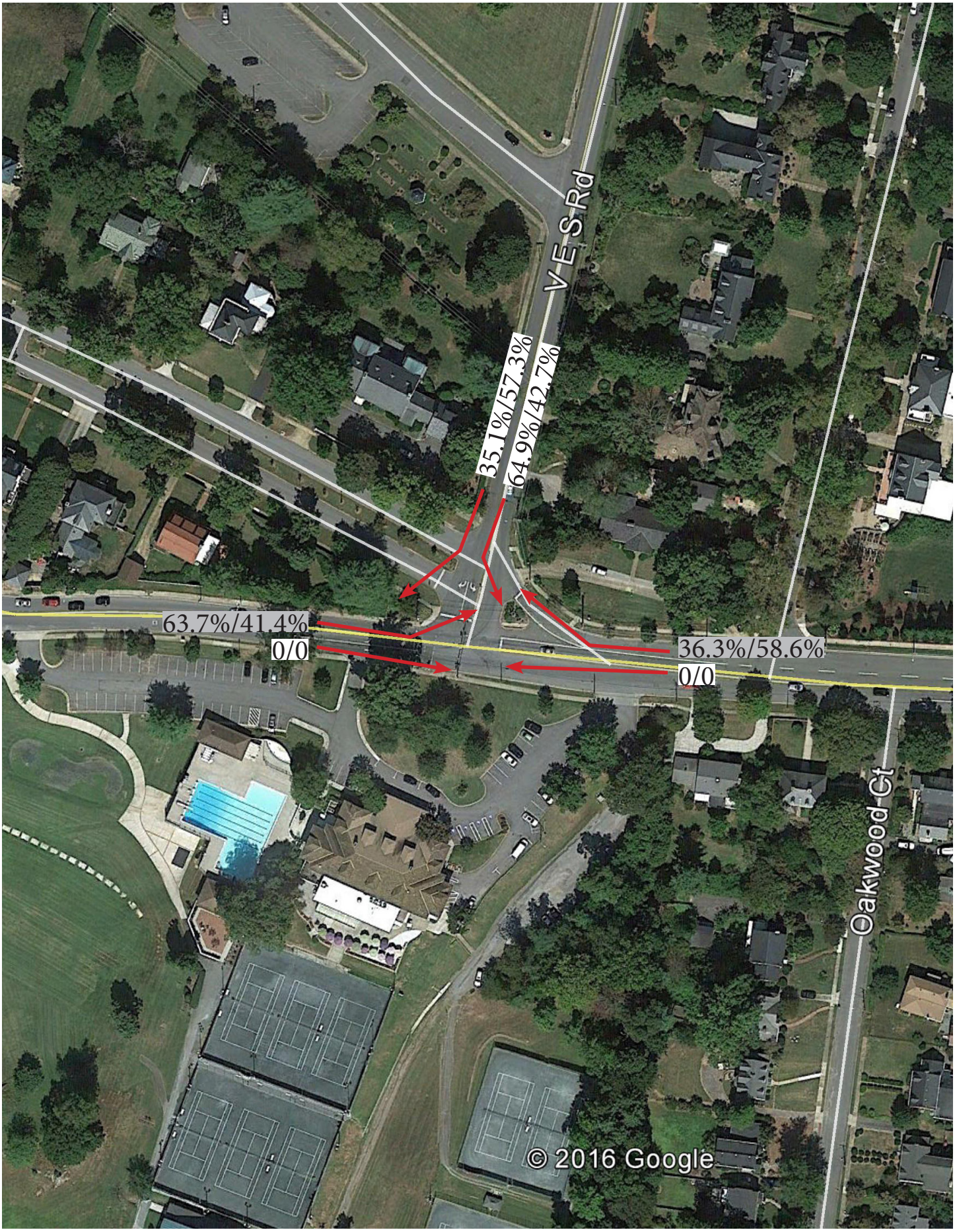


Figure 4 Site Trips

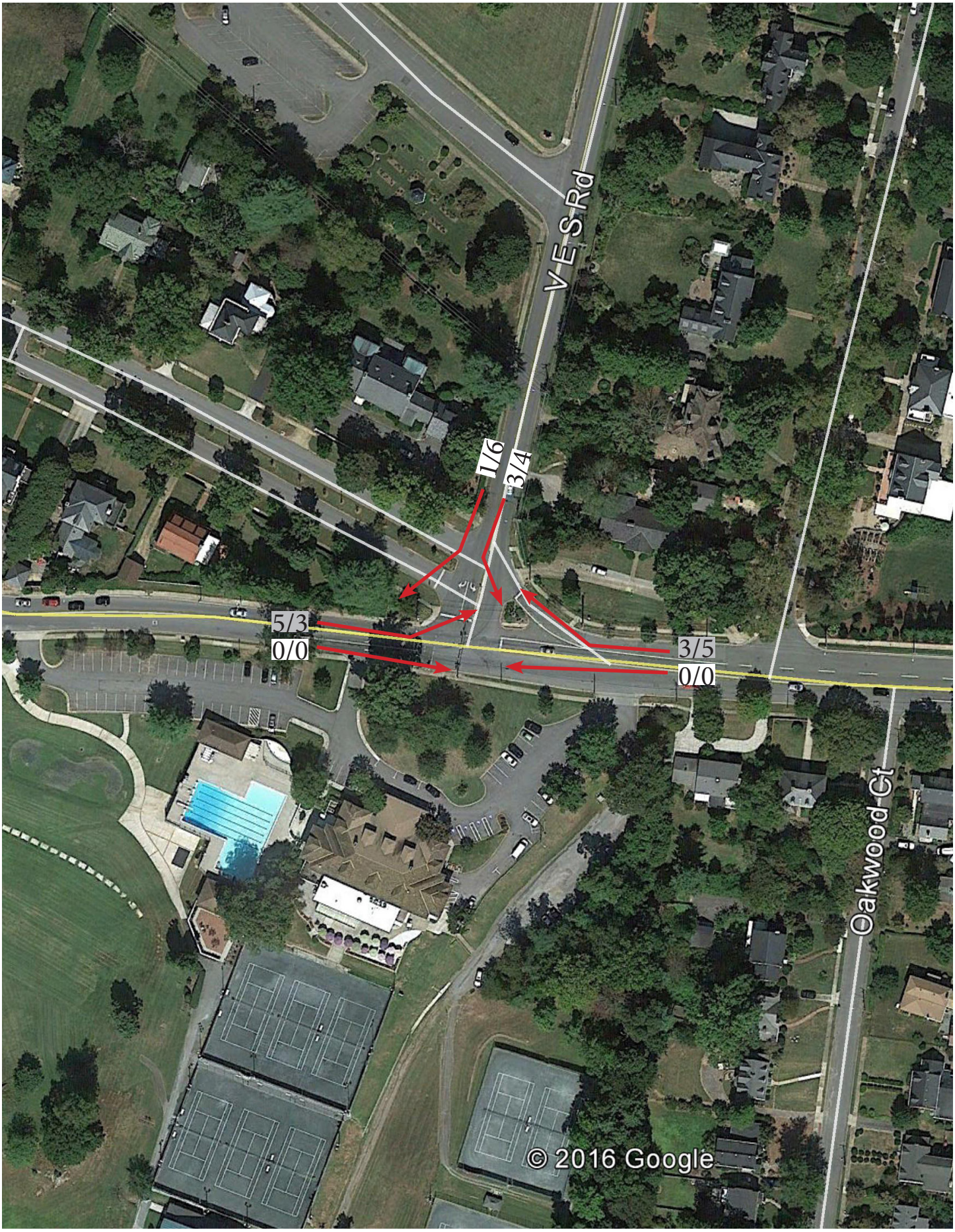
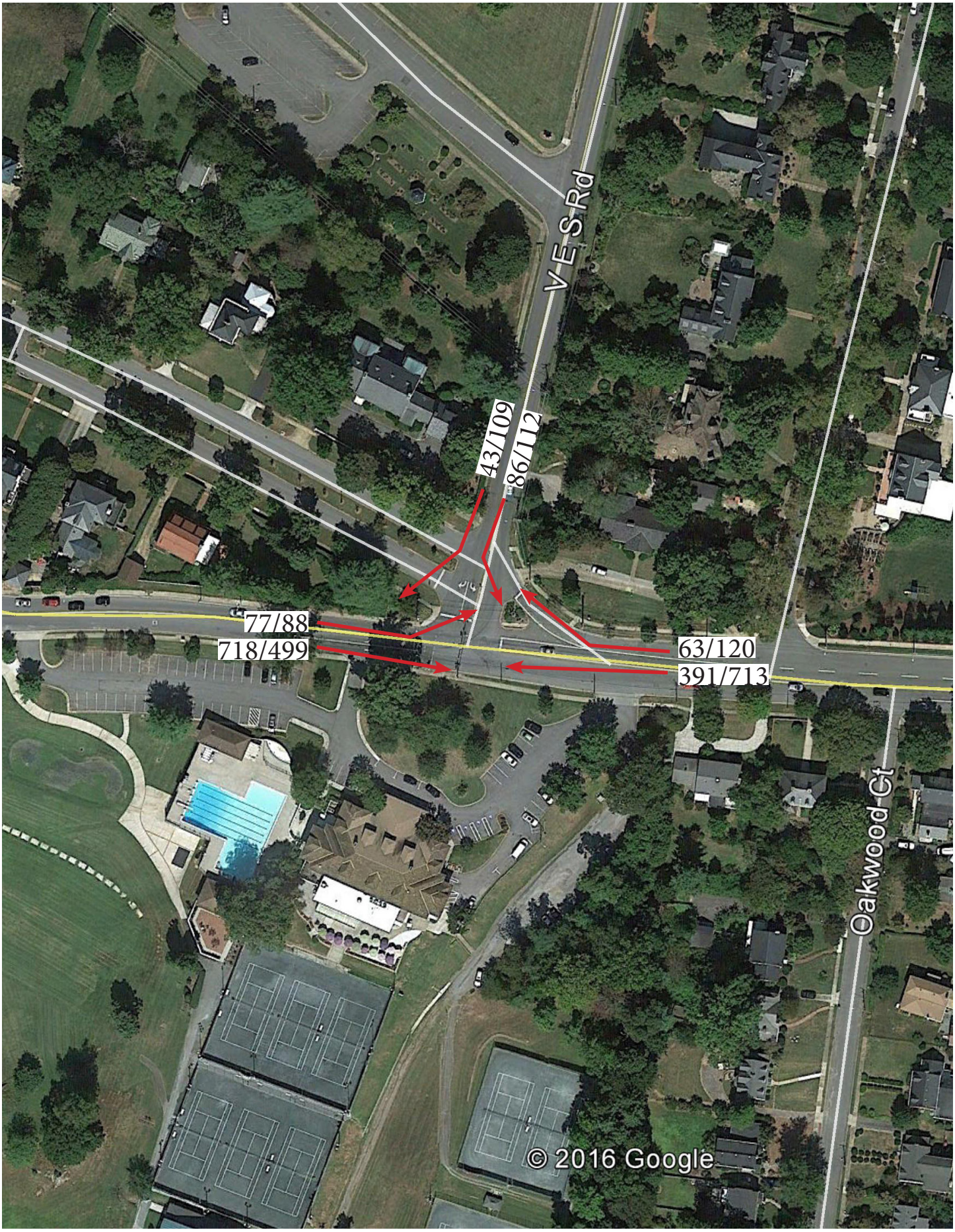
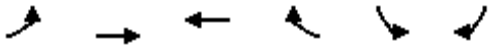


Figure 5 Build Traffic Volumes



Appendices

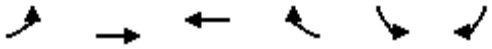
Appendix A
Synchro Analysis Outputs



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	72	718	391	60	83	42
Future Volume (veh/h)	72	718	391	60	83	42
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	78	780	425	0	90	46
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	730	1494	1308	1112	127	113
Arrive On Green	0.04	0.80	0.70	0.00	0.07	0.07
Sat Flow, veh/h	1774	1863	1863	1583	1774	1583
Grp Volume(v), veh/h	78	780	425	0	90	46
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1583	1774	1583
Q Serve(g_s), s	1.0	13.5	8.4	0.0	4.7	2.6
Cycle Q Clear(g_c), s	1.0	13.5	8.4	0.0	4.7	2.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	730	1494	1308	1112	127	113
V/C Ratio(X)	0.11	0.52	0.32	0.00	0.71	0.41
Avail Cap(c_a), veh/h	777	1494	1308	1112	355	317
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	3.5	3.2	5.5	0.0	43.1	42.2
Incr Delay (d2), s/veh	0.1	1.3	0.1	0.0	7.1	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	7.3	4.3	0.0	2.6	2.4
LnGrp Delay(d),s/veh	3.5	4.5	5.6	0.0	50.3	44.5
LnGrp LOS	A	A	A		D	D
Approach Vol, veh/h		858	425		136	
Approach Delay, s/veh		4.4	5.6		48.3	
Approach LOS		A	A		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				82.2		12.8	9.5	72.7
Change Period (Y+Rc), s				6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s				64.0		19.0	6.0	52.0
Max Q Clear Time (g_c+I1), s				15.5		6.7	3.0	10.4
Green Ext Time (p_c), s				10.8		0.3	0.0	10.6

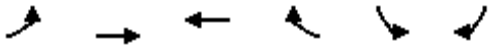
Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	85	499	713	115	108	103
Future Volume (veh/h)	85	499	713	115	108	103
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	92	542	775	0	117	112
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	482	1500	1341	1140	160	143
Arrive On Green	0.03	0.81	0.72	0.00	0.09	0.09
Sat Flow, veh/h	1774	1863	1863	1583	1774	1583
Grp Volume(v), veh/h	92	542	775	0	117	112
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1583	1774	1583
Q Serve(g_s), s	1.4	9.2	22.9	0.0	7.4	8.0
Cycle Q Clear(g_c), s	1.4	9.2	22.9	0.0	7.4	8.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	482	1500	1341	1140	160	143
V/C Ratio(X)	0.19	0.36	0.58	0.00	0.73	0.78
Avail Cap(c_a), veh/h	516	1500	1341	1140	293	262
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	6.3	3.1	7.7	0.0	50.9	51.2
Incr Delay (d2), s/veh	0.2	0.7	0.6	0.0	6.2	8.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.9	11.9	0.0	3.9	7.2
LnGrp Delay(d),s/veh	6.5	3.8	8.3	0.0	57.1	60.1
LnGrp LOS	A	A	A		E	E
Approach Vol, veh/h		634	775		229	
Approach Delay, s/veh		4.2	8.3		58.6	
Approach LOS		A	A		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				98.6		16.4	9.8	88.8
Change Period (Y+Rc), s				6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s				84.0		19.0	6.0	72.0
Max Q Clear Time (g_c+I1), s				11.2		10.0	3.4	24.9
Green Ext Time (p_c), s				12.9		0.4	0.0	12.3

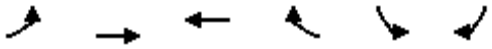
Intersection Summary	
HCM 2010 Ctrl Delay	13.7
HCM 2010 LOS	B



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	77	718	391	63	86	43
Future Volume (veh/h)	77	718	391	63	86	43
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	84	780	425	0	93	47
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	728	1491	1303	1108	130	116
Arrive On Green	0.04	0.80	0.70	0.00	0.07	0.07
Sat Flow, veh/h	1774	1863	1863	1583	1774	1583
Grp Volume(v), veh/h	84	780	425	0	93	47
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1583	1774	1583
Q Serve(g_s), s	1.1	13.7	8.4	0.0	4.9	2.7
Cycle Q Clear(g_c), s	1.1	13.7	8.4	0.0	4.9	2.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	728	1491	1303	1108	130	116
V/C Ratio(X)	0.12	0.52	0.33	0.00	0.72	0.40
Avail Cap(c_a), veh/h	773	1491	1303	1108	355	317
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	3.5	3.3	5.5	0.0	43.0	42.0
Incr Delay (d2), s/veh	0.1	1.3	0.1	0.0	7.1	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	7.3	4.3	0.0	2.6	2.4
LnGrp Delay(d),s/veh	3.6	4.6	5.7	0.0	50.2	44.3
LnGrp LOS	A	A	A		D	D
Approach Vol, veh/h		864	425		140	
Approach Delay, s/veh		4.5	5.7		48.2	
Approach LOS		A	A		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				82.0		13.0	9.6	72.5
Change Period (Y+Rc), s				6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s				64.0		19.0	6.0	52.0
Max Q Clear Time (g_c+I1), s				15.7		6.9	3.1	10.4
Green Ext Time (p_c), s				10.8		0.3	0.0	10.6

Intersection Summary	
HCM 2010 Ctrl Delay	9.1
HCM 2010 LOS	A



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	88	499	713	120	112	109
Future Volume (veh/h)	88	499	713	120	112	109
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	96	542	775	0	122	118
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	477	1493	1334	1134	167	149
Arrive On Green	0.03	0.80	0.72	0.00	0.09	0.09
Sat Flow, veh/h	1774	1863	1863	1583	1774	1583
Grp Volume(v), veh/h	96	542	775	0	122	118
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1583	1774	1583
Q Serve(g_s), s	1.5	9.4	23.3	0.0	7.7	8.4
Cycle Q Clear(g_c), s	1.5	9.4	23.3	0.0	7.7	8.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	477	1493	1334	1134	167	149
V/C Ratio(X)	0.20	0.36	0.58	0.00	0.73	0.79
Avail Cap(c_a), veh/h	511	1493	1334	1134	293	262
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	6.5	3.2	7.9	0.0	50.7	51.0
Incr Delay (d2), s/veh	0.2	0.7	0.6	0.0	6.0	9.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.0	12.1	0.0	4.0	7.5
LnGrp Delay(d),s/veh	6.7	3.9	8.6	0.0	56.6	59.9
LnGrp LOS	A	A	A		E	E
Approach Vol, veh/h		638	775		240	
Approach Delay, s/veh		4.3	8.6		58.3	
Approach LOS		A	A		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				98.2		16.8	9.8	88.3
Change Period (Y+Rc), s				6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s				84.0		19.0	6.0	72.0
Max Q Clear Time (g_c+I1), s				11.4		10.4	3.5	25.3
Green Ext Time (p_c), s				12.9		0.5	0.0	12.2

Intersection Summary	
HCM 2010 Ctrl Delay	14.1
HCM 2010 LOS	B

Appendix B
SimTraffic Analysis Outputs

Intersection: 4: rivermont & ves

Movement	EB	EB	WB	SB	SB
Directions Served	L	T	T	L	R
Maximum Queue (ft)	82	239	236	146	106
Average Queue (ft)	25	89	67	56	27
95th Queue (ft)	59	181	157	110	66
Link Distance (ft)		645	562	882	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	200				100
Storage Blk Time (%)		0		2	0
Queuing Penalty (veh)		0		1	0

Network Summary

Network wide Queuing Penalty: 1

Intersection: 4: rivermont & ves

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (ft)	87	194	411	116	207	125
Average Queue (ft)	37	68	135	5	85	54
95th Queue (ft)	71	140	283	92	159	113
Link Distance (ft)		645	562	562	882	
Upstream Blk Time (%)			0	0		
Queuing Penalty (veh)			0	0		
Storage Bay Dist (ft)	200					100
Storage Blk Time (%)		0			6	0
Queuing Penalty (veh)		0			6	0

Network Summary

Network wide Queuing Penalty: 7

Intersection: 4: rivermont & ves

Movement	EB	EB	WB	SB	SB
Directions Served	L	T	T	L	R
Maximum Queue (ft)	86	242	231	153	114
Average Queue (ft)	28	91	69	58	27
95th Queue (ft)	63	181	157	113	70
Link Distance (ft)		645	562	882	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	200				100
Storage Blk Time (%)		0		2	0
Queuing Penalty (veh)		0		1	0

Network Summary

Network wide Queuing Penalty: 1

Intersection: 4: rivermont & ves

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (ft)	87	197	414	118	212	125
Average Queue (ft)	38	70	138	3	88	57
95th Queue (ft)	73	144	283	74	165	117
Link Distance (ft)		645	562	562	882	
Upstream Blk Time (%)			0	0		
Queuing Penalty (veh)			0	0		
Storage Bay Dist (ft)	200					100
Storage Blk Time (%)		0			7	0
Queuing Penalty (veh)		0			8	0

Network Summary

Network wide Queuing Penalty: 8

EPRPC EPR, P,C. "ENGINEERING & PLANNING RESOURCES"
637 BERKMAR CIRCLE, CHARLOTTESVILLE, VA 22901

MEMORANDUM

TO: MAGGIE COSSMAN, P.E.	FROM: BILL WUENSCH, P.E., PTOE
ORGANIZATION: CITY OF LYNCHBURG	DATE: JULY 19, 2016
PHONE NUMBER:	SENDER'S REFERENCE NUMBER:
RE: WESTMINSTER CANTERBURY TRAFFIC ANALYSIS SUPPLEMENT	YOUR REFERENCE NUMBER:

☐ URGENT X FOR YOUR USE ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

Westminster Canterbury Traffic Analysis Supplement

1. Introduction

The purpose of this memorandum is to supplement the prior *Westminster Canterbury Traffic Analysis* (the prior study) prepared by EPR, P.C. in May of 2016. The objective of the analysis is to identify a threshold for how many additional vehicles, beyond those generated by the Westminster facility expansion, can be processed by the Rivermont Avenue / VES Road intersection before the level of service at the intersection is diminished. By diminished we are referring to a drop in LOS rating, i.e. C to D, or D to E, etc….

2. Analysis

Level of Service in Build Condition

The level of service results at the intersection of Rivermont Avenue and VES Road in build the condition were obtained from the prior study and are shown in the below **Table 1**.

Table 1 Level of Service in Build Condition

		AM LOS	PM LOS
Rivermont EB	EBL	A	A
Rivermont EB	EBT	A	A
Rivermont WB	WBT	A	A
Rivermont WB	WBR	A	A
VES SB	SBL	D	E
VES SB	SBR	D	E
Intersection		A	B

Test by Adding Traffic Volumes

Synchro (version 9.1) was used for the analysis. Traffic volumes were added to the build condition in the prior study to assess the number of vehicles coming out from VES Road beyond the Westminster Canterbury development build condition can be processed by the intersection before a change the level of service occurred at the intersection of Rivermont Avenue and VES Road. The result of the test leads to following findings:

- In the morning peak hour, 220 vehicles coming out from VES Road beyond the Westminster Canterbury development build condition will change the level of service at the intersection of Rivermont Avenue and VES Road. The change will be on southbound left turn on VES Road, which changes level of service from LOS D to LOS E.

- In the afternoon peak hour, 192 vehicles coming out from VES Road beyond the Westminster Canterbury development build condition will change the level of service at the intersection of Rivermont Avenue and VES Road. The change will be on southbound right turn on VES Road, which is from LOS E to LOS F.

The level of service results at the intersection of Rivermont Avenue and VES Road with above described traffic volumes are summarized in the below **Table 2**. The synchro output reports are attached at the end of this memorandum.

Table 2 Level of Service with 220 Vehicles in AM and 192 Vehicles in PM

		AM LOS	PM LOS
Rivermont EB	EBL	A	A
Rivermont EB	EBT	A	A
Rivermont WB	WBT	A	A
Rivermont WB	WBR	A	A
VES SB	SBL	E	E
VES SB	SBR	D	F
Intersection		B	C

3. Findings and Conclusions

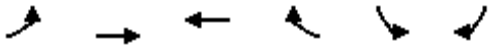
Based on the analysis performed in this memorandum:

- In the morning peak hour, 220 vehicles coming out from VES Road beyond the Westminster Canterbury development build condition will change the level of service at the intersection of Rivermont Avenue and VES Road. The change will be on southbound left turn on VES Road, which is from LOS D to LOS E.

- In the afternoon peak hour, 192 vehicles coming out from VES Road beyond the Westminster Canterbury development build condition will change the level of service at the intersection of Rivermont Avenue and VES Road. The change will be on southbound right turn on VES Road, which is from LOS E to LOS F.

End of Memorandum

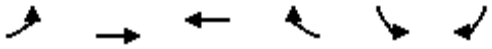
Attachment: Synchro Output Reports



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	77	718	391	63	229	120
Future Volume (veh/h)	77	718	391	63	229	120
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	84	780	425	0	249	130
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	617	1324	1137	966	289	258
Arrive On Green	0.04	0.71	0.61	0.00	0.16	0.16
Sat Flow, veh/h	1774	1863	1863	1583	1774	1583
Grp Volume(v), veh/h	84	780	425	0	249	130
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1583	1774	1583
Q Serve(g_s), s	1.6	19.8	10.9	0.0	13.0	7.1
Cycle Q Clear(g_c), s	1.6	19.8	10.9	0.0	13.0	7.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	617	1324	1137	966	289	258
V/C Ratio(X)	0.14	0.59	0.37	0.00	0.86	0.50
Avail Cap(c_a), veh/h	662	1324	1137	966	355	317
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	6.4	6.8	9.4	0.0	38.7	36.3
Incr Delay (d2), s/veh	0.1	1.9	0.2	0.0	16.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	10.7	5.6	0.0	7.7	6.4
LnGrp Delay(d),s/veh	6.5	8.8	9.6	0.0	55.1	37.8
LnGrp LOS	A	A	A		E	D
Approach Vol, veh/h		864	425		379	
Approach Delay, s/veh		8.5	9.6		49.2	
Approach LOS		A	A		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				73.5		21.5	9.6	64.0
Change Period (Y+Rc), s				6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s				64.0		19.0	6.0	52.0
Max Q Clear Time (g_c+I1), s				21.8		15.0	3.6	12.9
Green Ext Time (p_c), s				10.6		0.5	0.0	10.4

Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	88	499	713	120	194	219
Future Volume (veh/h)	88	499	713	120	194	219
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	96	542	775	0	211	238
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	394	1361	1201	1021	293	261
Arrive On Green	0.03	0.73	0.64	0.00	0.17	0.17
Sat Flow, veh/h	1774	1863	1863	1583	1774	1583
Grp Volume(v), veh/h	96	542	775	0	211	238
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1583	1774	1583
Q Serve(g_s), s	2.0	12.7	29.1	0.0	13.0	17.0
Cycle Q Clear(g_c), s	2.0	12.7	29.1	0.0	13.0	17.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	394	1361	1201	1021	293	261
V/C Ratio(X)	0.24	0.40	0.65	0.00	0.72	0.91
Avail Cap(c_a), veh/h	427	1361	1201	1021	293	262
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	9.5	5.9	9.4	0.0	45.5	47.2
Incr Delay (d2), s/veh	0.3	0.9	1.2	0.0	8.3	33.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	6.8	9.3	0.0	7.0	16.3
LnGrp Delay(d),s/veh	9.8	6.8	9.6	0.0	55.8	80.2
LnGrp LOS	A	A	A		E	F
Approach Vol, veh/h		638	775		449	
Approach Delay, s/veh		7.4	9.6		67.8	
Approach LOS		A	A		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				90.0		25.0	9.8	80.2
Change Period (Y+Rc), s				6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s				84.0		19.0	6.0	72.0
Max Q Clear Time (g_c+I1), s				14.7		19.0	4.0	31.1
Green Ext Time (p_c), s				12.8		0.0	0.0	11.9

Intersection Summary	
HCM 2010 Ctrl Delay	24.5
HCM 2010 LOS	C

HURT & PROFFITT INCORPORATED

REZONING NARRATIVE

Westminster Canterbury – Lynchburg
501 VES Road
TM# 06801003
Lynchburg, Virginia
Hurt & Proffitt Project # 20160242

PROJECT DESCRIPTION

This petition consists of a request to rezone 20.15 acres owned by Westminster Canterbury of Lynchburg Inc. from its current R-4 (High Density Residential) to IN-1 (Institutional District In-1). The purpose is to provide flexibility for the future development of the property while creating development procedures and standards to minimize off site impacts such as noise, lighting, traffic and availability/capacity of water and sanitary sewer infrastructure associated with the development of their development (Section 35.2-49.1 City of Lynchburg Zoning Ordinance).

The use of the property is best described as Housing Services per Section 35.2-49.2 of the ordinance and all anticipated existing and proposed uses are consistent with the description. Both the existing and future development uses would be a permitted use by right in the IN-1 zoning district.

Any future proposed development on the property will be designed per the IN-1 District Development Standards of Section 35.2-49.5 of the zoning ordinance.

TWO YEAR (2) FUTURE DEVELOPMENT PROJECTION

Potential development in the next two years is expected to consist of one new 80 to 84 bed Skilled Nursing Building over parking adjacent to the existing Hearthside Building. In addition there will potentially be a 20 – 40 unit Independent Living facility, whose exact location is to be determined. The location of the Skilled Nursing building and Independent Living options are shown on the attached proposed development exhibit.

TRAFFIC IMPACT ANALYSIS

A traffic impact analysis was performed on May 24, 2016 by EPR, P.C. and is part of this submittal.

2524 LANGHORNE ROAD
LYNCHBURG, VA 24501
800-242-4906 TOLL FREE
434-847-7796 MAIN
434-847-0047 FAX
www.HandP.com