



Brian Smith <hockanum39@gmail.com>

FW: 206 Talcottville Road

1 message

Smith, Brian <bsmith@vernon-ct.gov>
To: "hockanum39@gmail.com" <hockanum39@gmail.com>

Mon, Apr 11, 2016 at 10:58 AM

From: Kenny, James
Sent: Monday, April 11, 2016 10:58:16 AM (UTC-05:00) Eastern Time (US & Canada)
To: Smith, Brian
Subject: FW: 206 Talcottville Road

Please forward to TA members

Chief James L. Kenny
Vernon Police Department
725 Hartford Turnpike
Vernon, CT 06066
Office: 860-872-9126 X231
Fax: 860-870-6729
Jkenny@vernon-ct.gov

16 APR 11 PM 2:55
VERNON POLICE DEPT
JAMES L. KENNY

From: Baltro [mailto:baltro@aol.com]
Sent: Thursday, April 07, 2016 3:35 PM
To: Kenny, James
Cc: fulleris@comcast.net; zhengkwok@gmail.com; gwang9620@aol.com
Subject: 206 Talcottville Road

Dear Chief Kenny:

I am the traffic engineer for the owners of #206 Talcottville Road (Rt 83). Currently, they are proposing an 8,000 S.F. commercial building. The tenant makeup is unknown but will likely be multi-user, various commercial and retail with NO provision for a drive-thru use. I prepared a Traffic Study for the development and am forwarding it to you directly; I understand you require the materials a week in advance of the Traffic Authority meeting scheduled for next Thursday.

In the way of an executive summary, the development will generate very little traffic; only 40 new trips (20 in, 20 out) during a typical peak hour. As shown in the report, the new traffic will have no impact on the roadway network. As expected with any non-signalized curb cut along this and similar arterial roads, the left-turn egress movement will experience long delays during peak times, but the other three movements at the driveway will operate fine. I also performed an intersection sight line analysis for the driveway in accordance with ConnDOT guidelines. The ConnDOT recommended ISD's are achievable. The report concludes with my recommendations for driveway location, configuration, traffic controls and grading to achieve the sight lines.

The report is attached; the appendix is attached separately. I will attend the Traffic Authority meeting on April 14th and present my findings. In the meantime, if you have any questions or require any additional information, please feel free to call or email me.

Rob
Robert V. Baltramaitis, P.E.
27 Tammy Hill Road
Wallingford, CT 06492
(203) 915-8301

2 attachments



Brian Smith <hockanum39@gmail.com>

FW: REVISED TALCOTTVILLE ROAD

1 message

Smith, Brian <bsmith@vernon-ct.gov>
To: "hockanum39@gmail.com" <hockanum39@gmail.com>

Mon, Apr 11, 2016 at 11:00 AM

From: Kenny, James
Sent: Monday, April 11, 2016 11:00:24 AM (UTC-05:00) Eastern Time (US & Canada)
To: Smith, Brian
Subject: FW: REVISED TALCOTTVILLE ROAD

Please forward to TA memebrrs

Chief James L. Kenny
Vernon Police Department
725 Hartford Turnpike
Vernon, CT 06066
Office: 860-872-9126 X231
Fax: 860-870-6729
Jkenny@vernon-ct.gov

From: fulleris@comcast.net [mailto:fulleris@comcast.net]
Sent: Monday, April 11, 2016 10:56 AM
To: Kenny, James
Subject: REVISED TALCOTTVILLE ROAD

CHIEF KENNY,

I HAVE ADDED TRAFFIC SIGNS AND PAVEMENT MARKING AS PER TRAFFIC ENGINEERS DATA.

THANKS - JOEL

 **TRAFFIC.pdf**
10823K

Robert V. Baltramaitis, P.E.
27 Tammy Hill Road
Wallingford, Connecticut 06492
(203) 915-8301
baltro@aol.com

April 7, 2016

Chief James Kenny
Vernon Police Department
725 Hartford Turnpike
Vernon, Connecticut 06066

**RE: Traffic Investigation Report
Proposed Commercial Building
#206 Talcottville Road (Route 83)
Vernon, Connecticut**

16 APR 11 PM 2:55
VERNON POLICE DEPARTMENT
CLERK

Dear Chief Kenny:

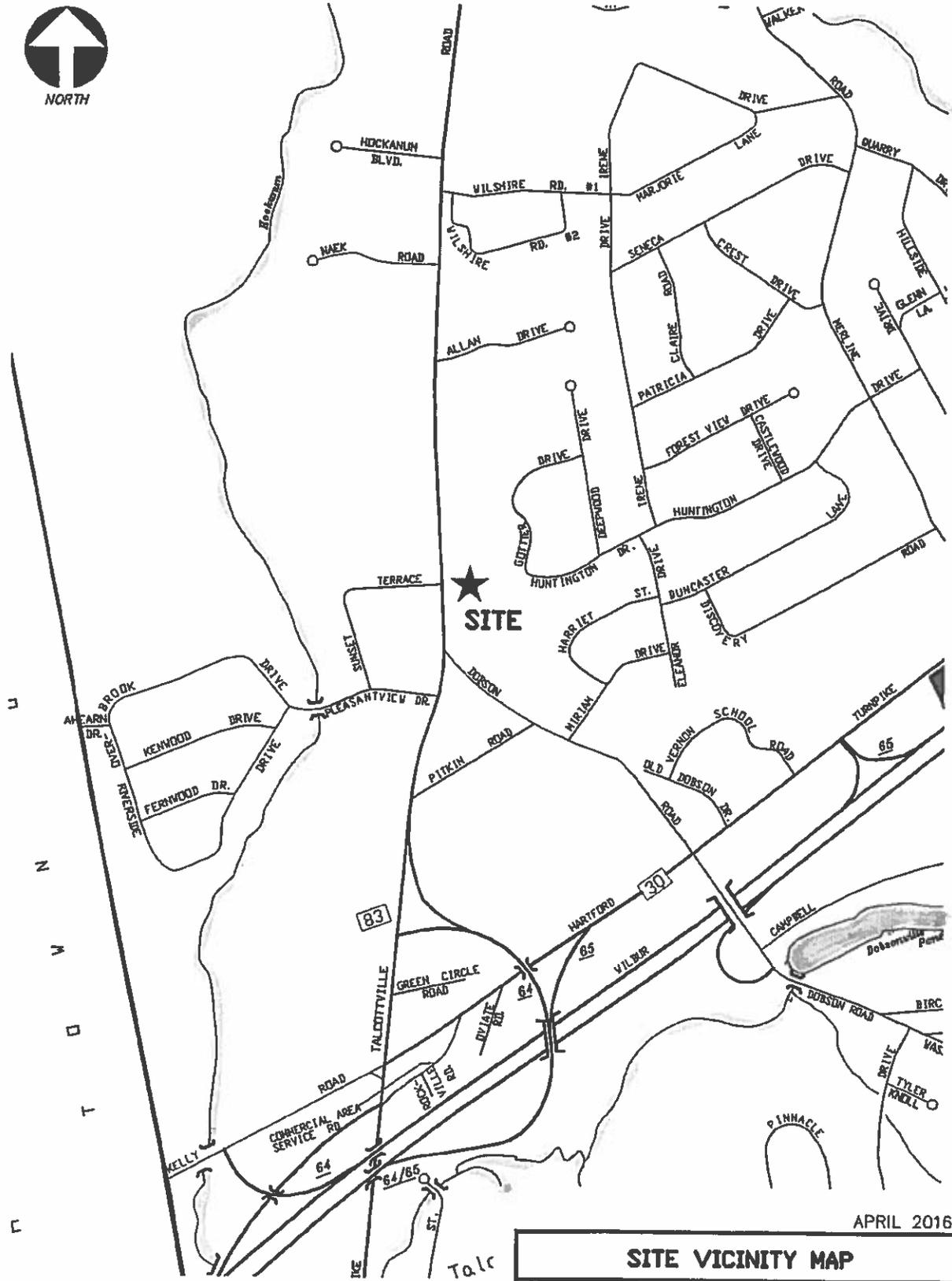
At the request of my client, the owners of #206 Talcottville Road, I have investigated the possible traffic impacts associated with developing an 8,000 square foot commercial building on the parcel. The proposed development would have 51 on-site parking spaces and direct access to Talcottville Road (State Route 83) via a single curb cut. This report summarizes my findings and makes recommendations to promote the safest and most efficient operation with development of this project.

Site Environs

The subject property is located on the east side of Talcottville Road (State Route 83) approximately 500 feet north of Dobson Road in Vernon, Connecticut and is shown graphically in **Figure 1**.

State Route 83 in Vernon is a north-south arterial extending from the Manchester town line northerly to the Ellington town line. In the vicinity of the site, State Route 83 is known as Talcottville Road and consists of two travel lanes in each direction with exclusive turn lanes at some key intersections. The area is developed primarily as commercial with many retail store, service businesses and restaurants. The posted speed limit along Talcottville Road in the site vicinity is 35 miles per hour in each direction.

South of the site, Dobson Road intersects Talcottville Road from the east at a slightly skewed angle. The southbound approach consists of an exclusive left-turn lane and two through lanes. The northbound approach consists of a through lane and a combination through/ right-turn lane. The eastbound approach is a single lane for both left- and right-turns. This three-way intersection is controlled by a traffic signal under the maintenance of the Connecticut Department of Transportation. This intersection is coordinated with others along the Route 83 corridor to promote efficiency. The traffic signal phasing provides for an advance in the southbound direction providing a protected left-turn condition. After the advance phase, the left-turn is allowed on a permitted basis. The record Traffic Control Signal plan is attached as **Appendix Sheet A-1**.



SCALE:
1"=1,000 FT

APRIL 2016

SITE VICINITY MAP

PROPOSED 8K S.F. COMMERCIAL
206 TALCOTVILLE ROAD (CT. RT. 83)
VERNON, CONNECTICUT

Robert V. Baltramaitis, P.E. 27 Tammy Hill Road
 Consulting Engineer Wallingford, Conn. 06492

Figure 1

Existing Traffic Volumes

Traffic volume data was requested from the Connecticut Department of Transportation. Based on automatic traffic recorder (ATR) data provided by ConnDOT, the bi-directional Average Daily Traffic volume (ADT) for Talcottville Road during 2014 in the site vicinity is approximately 26,200 vehicles per day (12,000 NB and 14,200 SB). The ADT report is attached as Appendix Sheets A-2 and A-3.

Traffic volume data was also collected via a manual counting program by turning movement conducted at the study intersection of Talcottville Road (Route 83) at Dobson Road. The manual traffic counts were conducted during the month of April 2015 from 4:00 to 6:00 on a typical weekday and from 11:00 AM to 1:00 PM on a Saturday. These periods were selected as they represent the peak commuter times for the adjacent roadway network and are coincidental with peak trip generation times for commercial developments. Traffic volumes were collected in 15-minute intervals at the intersections and summarized to determine the actual peak hours within these peak periods. The traffic volume summary sheets are attached as Appendix Sheet A-4. The Existing Traffic Volumes are depicted below:

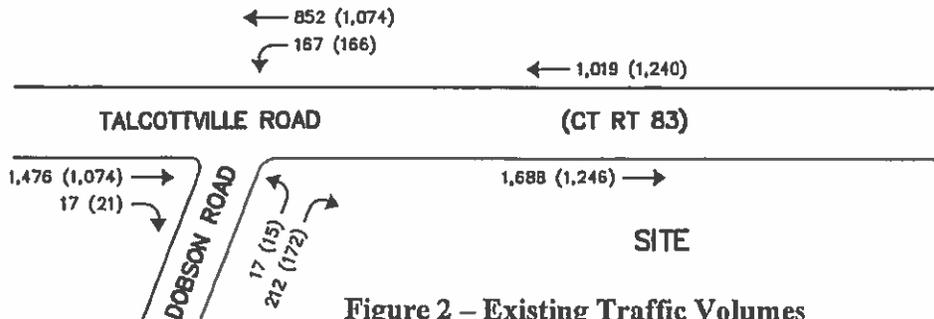


Figure 2 – Existing Traffic Volumes

Crash History

Traffic accident data was requested from the Connecticut Department of Transportation for Talcottville Road (State Route 83) in the site vicinity. The data obtained was that available from the CDOT's computer files for the latest 3-year reporting period, January 1, 2011 through December 31, 2013. Local police authorities are required by Connecticut General Statutes to report accidents to CDOT which have resulted in death or private property damage in excess of \$1,000.00. These compiled incidents comprise the ConnDOT accident data. For the 3-year reporting period, the ConnDOT records indicate the following statistics:

	2011	2012	2013
Intersection of Route 83 at Dobson Road	6	9	3
Along Route 83 (Between Dobson Rd. and Sunset Terrace)	2	3	0
Intersection of Route 83 at Sunset Terrace	3	1	0
Along Route 83 (North of Sunset Ter.)	3	3	4

Based on a review of the incident summaries, most accidents resulted in only vehicle damage without serious personal injuries. Only two accidents involved major injuries; one of which involved a pedestrian fatality. A majority of the accidents were rear-end collisions at the signalized intersection due attributable to drivers following too closely. Turning collisions were also common along the arterial and attributable to failure to grant right-of-way.

Given the significantly high traffic volumes along Talcottville Road, the crash data does not suggest that the area experiences a particularly high accident frequency which would warrant special consideration. The accident data is consistent with similar high volume roadways. The accident data is attached as Appendix Sheets A-5 through A-14.

Full Development Traffic Volumes

Normally, estimates of the amount of site generated traffic by a proposed development are determined using Trip Generation, 9th edition, published by the Institute of Transportation Engineers (ITE). This publication is a compilation of trip generation data for various land uses that provides information on anticipated traffic relative to the size of the development, number of units, number of employees or other quantitative measure.

The proposed building will contain 8,000 square feet of multi-user commercial space. Trip Generation gives data for many specific commercial and retail uses. With an unknown future tenant make-up, the applicable ITE land use is "Shopping Center" (ITE Land Use Code 820). The best quantitative measure to determine new site traffic for this land use is total building area. The ITE data suggest that each 1,000 square foot of shopping center generates an average of 3.71 trips and 4.82 trips for the weekday PM and Saturday midday peak hours, respectively. For this report, a conservative and widely accepted general retail trip rate of 5 trips per each 1,000 square feet was utilized.

Based on the ITE data, the proposed 8,000 square foot multiple user commercial building will generate 40 trips during the peak hours. ITE also provides information on the directional orientation of the new site trips. Trip Generation suggests during both peak periods, the site traffic is split evenly between entering and exiting. The ITE data is included on Appendix Sheets A-15 and A-16. The site generated traffic can be summarized as follows:

	8,000 SF Commercial Building		
	entering	exiting	TOTAL
Weekday PM Peak Hour	20	20	40
Saturday Midday Peak Hour	20	20	40

To project the full development traffic volumes, all site traffic was assigned to the roadway network and then split by direction onto Talcottville Road based on existing travel patterns. Simply put, the proportion of existing northbound and southbound traffic was determined for each peak hour and assumed to represent the directional split of the new traffic to and from the site. The new site traffic is depicted below:

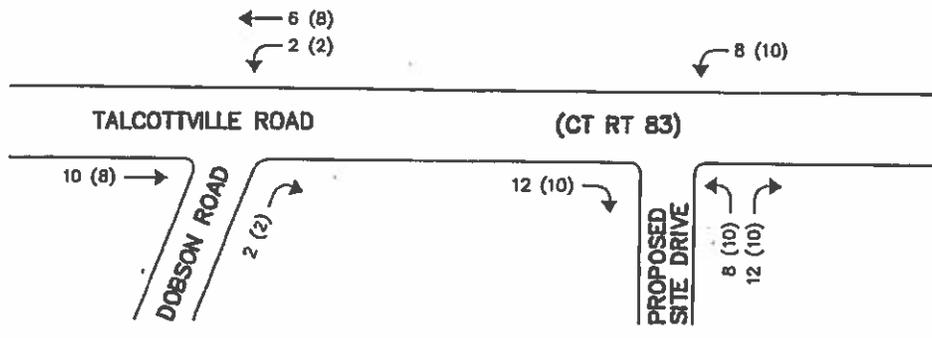


Figure 3 - Site Generated Traffic Volumes

This new site traffic was added to the existing roadway volumes to determine the future full build conditions with development of the project. The Full Build Volumes are depicted below:

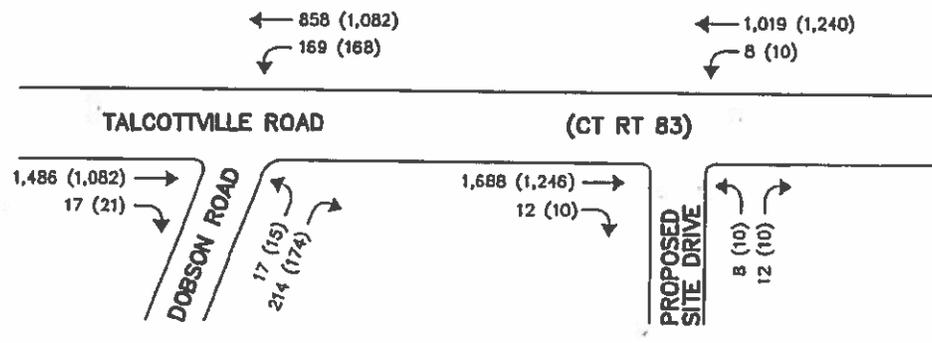


Figure 4 - Full Build Volumes

Operations Analyses

Operation of **signalized** intersections is evaluated in terms of Level of Service (LOS) and capacity. Capacity is evaluated as a ratio of the number of vehicles trying to occupy a lane (or intersection) and the actual vehicle capacity of that lane (or intersection). The ratio is defined as 'v/C' or 'volume to capacity' ratio. A v/C ratio of 1.00 indicates that a lane or intersection has reached its capacity and there is no more reserve capacity for additional vehicles.

LOS for a lane or intersection is defined in terms of average control delay per vehicle, which is a measure of driver discomfort and frustration. Delay is measured by a complex series of computations with a number of variables including the volume of traffic, traffic progression characteristics, traffic signal timings, roadway geometry and vehicle composition. LOS is rated on a scale from A to F, with LOS A representing an intersection with minimum average control delay and LOS F indicating a complete breakdown of intersection operation. LOS evaluation criterion is summarized below:

LOS Criteria - Signalized Intersections

Level of Service	Delay Range (seconds/ vehicle)
A	≤10
B	>10 and ≤20
C	>20 and ≤35
D	>35 and ≤55
E	>55 and ≤80
F	>80

The methodology for calculating the v/C ratio, average delay and thus determining the LOS is taken from the “Highway Capacity Manual”, revised 2000, published by the Transportation Research Board. It is this document which is the most widely accepted method by transportation and planning professionals for determining intersection operation. The software utilized to perform the calculations is Synchro® developed by Trafficware, Inc. and is the preferred analytical method by ConnDOT.

Operation of **non-signalized** intersections is evaluated in terms of Level-of-Service (LOS) and is defined in terms of average control delay. For two-way stop sign controlled intersections, LOS is determined for each minor street movement and not the intersection as a whole. This is because the major street movement usually does not have a stop control and is not subject to significant delays. LOS is rated on a scale from A to F, with LOS A representing an intersection with minimum average control delay and LOS F indicating a complete breakdown of intersection operation. LOS evaluation criteria is summarized below:

LOS Criteria – Non-signalized Intersections

Level of Service	Delay Range (seconds/ vehicle)
A	≤10
B	>10 and ≤15
C	>15 and ≤25
D	>25 and ≤35
E	>35 and ≤50
F	>50

The methodology for calculating the average control delay and determining the LOS is taken from the “Highway Capacity Manual”, published by the Transportation Research Board. It is this document which is the most widely accepted method by transportation and planning professionals for determining intersection operation.

LOS and intersection capacity analyses were conducted for the study intersection of Talcottville Road (Route 83) at Dobson Road for both weekday PM and Saturday midday peak hours for existing and full-build conditions. The LOS results are summarized in the table below:

Talcottville Road (Route 83) at Dobson Road		
	Weekday PM Peak Hour	Saturday Midday Peak Hour
2015 Existing	A (5.8 seconds)	A (4.0 seconds)
2016 Full Build	A (6.0 seconds)	A (4.2 seconds)

As summarized above, with the additional new site traffic, there would be no operational impact on the adjacent roadway system, even during peak hours. This is not surprising given the very small volume of new site traffic on a roadway network with sufficient capacity.

The proposed site driveway was evaluated for the full-build condition. During peak hours, drivers exiting the site via the driveway to turn left onto Talcottville Road are expected to experience significant delays as they wait for acceptable gaps in both traffic streams. However, this is only expected to be one vehicle approximately every six minutes (10 vehicles per hour). The left-turn ingress and right-turn egress will operate at good levels of service as they only necessitate an acceptable gap in the northbound traffic stream, a frequent occurrence given the downstream traffic signal at Dobson Road. The delays of left-turn egress are internal to the site and will not impact operations along Talcottville Road. The driveway will of course operate more efficiently with lower delays during non-peak hours. All-in-all, the operation of the proposed driveway is typical at any non-signalized intersection along most high volume arterials.

LOS/ intersection capacity calculations are attached as **Appendix B**.

Intersection Sight Distance

When considering safety at an intersection, it is important to look at the available Intersection Sight Distance (ISD). ISD is the length of roadway that a driver turning onto that roadway can see to recognize an approaching vehicle. The ConnDOT Guidelines for Highway Design, revised 2003, gives guidelines for measuring the available ISD as well as design standards for ISD's to provide for safe entrance to the roadway. These standards are based on the 85th percentile speeds for the major roadway. The 85th percentile speed is the speed at which 85 percent of the vehicles are traveling at or below and 15 percent are traveling higher than.

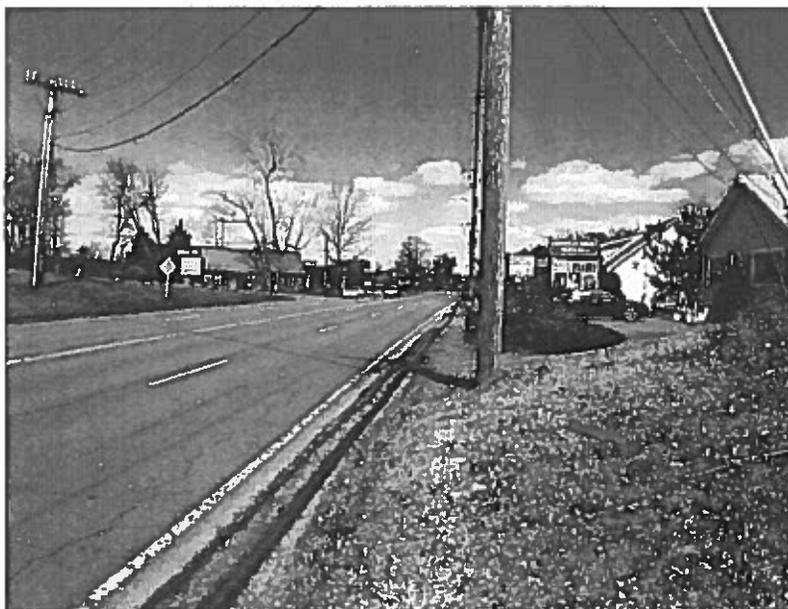
A spot speed study was conducted along Talcottville Road along the site frontage to determine the speed characteristics of the vehicles passing the site. The data collected by the ATR statistically determined the 85th percentile speeds in each direction. Based on that data, the 85th percentile speeds are 41 mph in the northbound direction and 42 mph in the southbound direction. The corresponding ConnDOT recommended ISD's are 456 feet and 467 feet to the left and right, respectively.

Sight lines were assessed in the field using parameters set forth by the AASHTO Green Book and the aforementioned ConnDOT Guidelines. Sight lines were measured in each direction from

the center of the proposed egress lane estimating a 15-foot setback from the edge of travelway and assuming a height of driver's eye of 42 inches (3.5 feet) at each end. The ConnDOT recommended ISD's were achieved in each direction. Re-grading of the embankment will be required to achieve the desired 15-foot setback. Data on the 85th percentile speeds and an excerpt from the ConnDOT Guidelines are contained on Appendix Sheets C-1 and C-2. The ISD's are depicted below:



Figure 5 – Available Intersection Sight Distance looking to the left from the site driveway



Conclusions and Recommendations

Based on the findings herein, the development of a 8,000 square foot multi-user commercial building will have no significant impact to the adjacent roadway network. Additionally, the adjacent roadway network is adequate to accommodate the minimal volume of anticipated new site traffic. While left-turn egress from the proposed driveway will experience long delays during peak hours, the other turning movements at the driveway will operate well. Excellent intersection sight lines meeting ConnDOT standards can be attained in both directions from the site driveway. Based on these findings, I offer the following recommendations:

1. Based on the slight vertical and horizontal geometry of Talcottville Road, to maximize the intersection sight lines in each direction, the new site driveway should be located on the north side of the site, adjacent to pole #403. The frontage should be re-graded to attain the suggested sight line distances.
2. The intersection sight lines from the site driveway should be re-assessed during the Spring/Summer when tree foliage is full. The developer may need to trim vegetation within the public right-of-way to maintain the sight lines.
3. To not impede the easier right-turn egress from the site, the driveway should provide separate left- and right-turn egress lanes.
4. The proposed site driveway shall have the proper signing and pavement markings for a "STOP" control condition installed in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD) and as approved by the Connecticut Department of Transportation and Town of Vernon Legal Traffic Authority.
5. As Talcottville Road is State Route 83, the Applicant must apply for and obtain an Encroachment Permit from the Connecticut Department of Transportation District 1 Permits Office in Rocky Hill.

Thank you for the opportunity to review these issues associated with this development. In the meantime, if you have any questions, please feel free to contact me at (203) 915-8301.

Respectfully Prepared and Submitted,



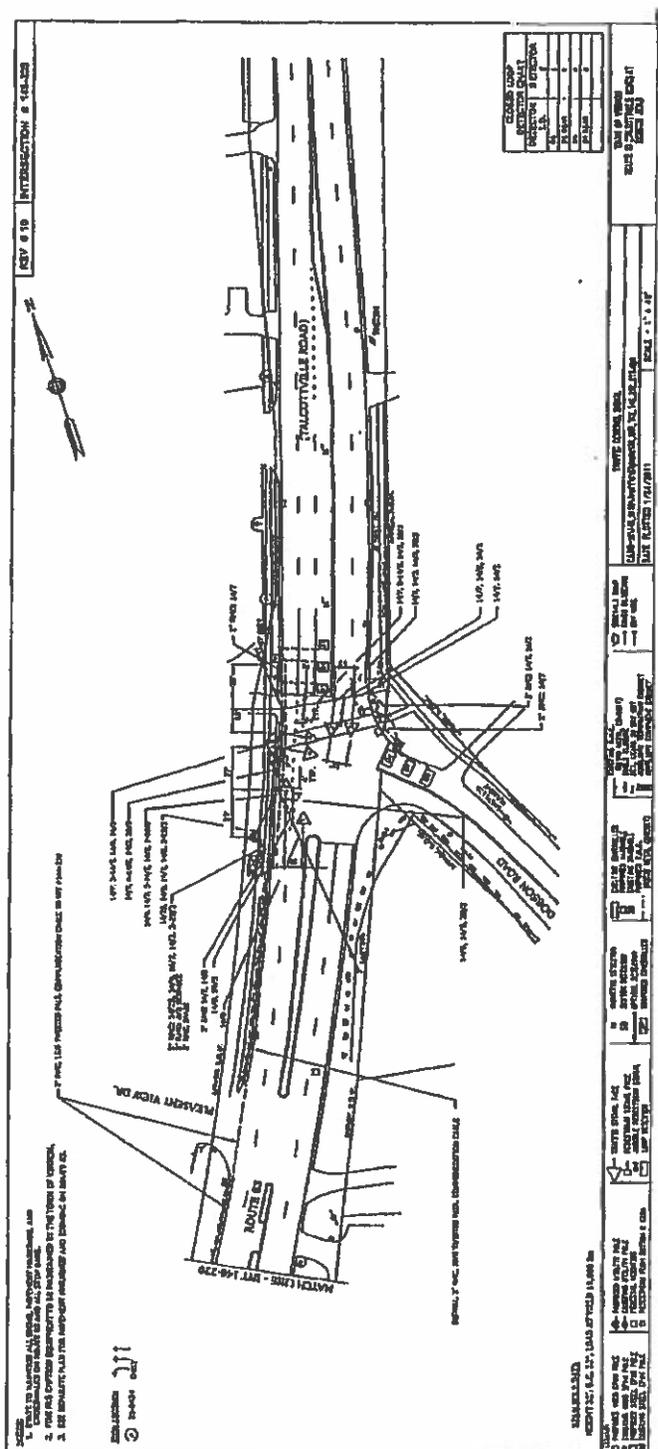
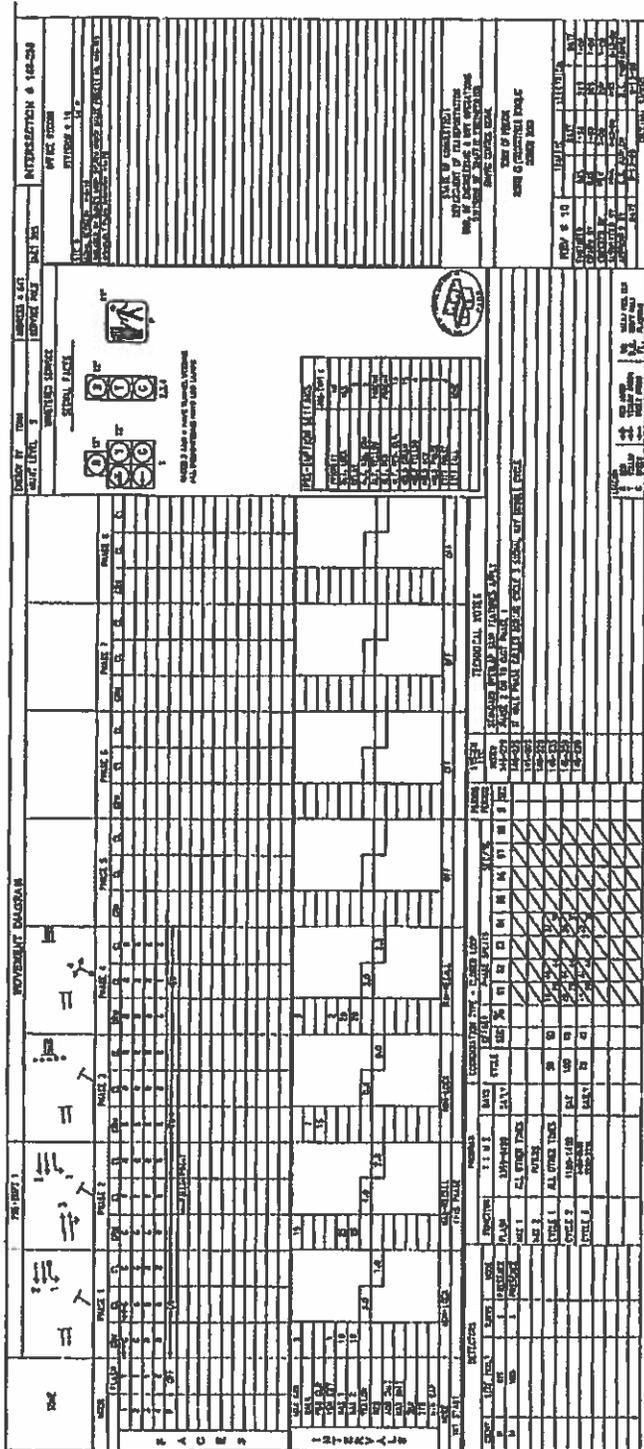
Robert V. Baltramaitis, P.E.
CT Lic. # 20,382



APPENDIX

16 APR 11 PM 2:55
VERIFIED
ERK

**Traffic Investigation Report
Proposed 8k SF Commercial Building
#206 Talcottville Road (Route 83)
Vernon, Connecticut**



Record Traffic Control Signal Plan
obtained from Conn DOT

YEAR 2014

STA NO 146 0124

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF POLICY AND PLANNING
PLANNING INVENTORY AND DATA

TRAFFIC RECORDER DATA

TOWN OF VERNON

ROUTE 83

DIRECTION N

SW OF PITKIN ROAD

DAY	SUN	MON	TUE	WED	THU	FRI	SAT
DATE	0	0	07/29/2014	07/30/2014	0	0	0
TYPE							
HOUR							

2014 ADT = 12000

ACF = NA

12A	0	0	0	125	0	0	0
01A	0	0	0	81	0	0	0
02A	0	0	0	30	0	0	0
03A	0	0	0	33	0	0	0
04A	0	0	0	41	0	0	0
05A	0	0	114	0	0	0	0
06A	0	0	360	0	0	0	0
07A	0	0	405	0	0	0	0
08A	0	0	502	0	0	0	0
09A	0	0	528	0	0	0	0
10A	0	0	607	0	0	0	0
11A	0	0	733	0	0	0	0
12P	0	0	811	0	0	0	0
01P	0	0	812	0	0	0	0
02P	0	0	875	0	0	0	0
03P	0	0	1009	0	0	0	0
04P	0	0	1342	0	0	0	0
05P	0	0	1434	0	0	0	0
06P	0	0	1127	0	0	0	0
07P	0	0	712	0	0	0	0
08P	0	0	574	0	0	0	0
09P	0	0	429	0	0	0	0
10P	0	0	243	0	0	0	0
11P	0	0	145	0	0	0	0
TOT	0	0	12762	290	0	0	0

RECORDER 025

24 HR = 13052

G-4

A-2

YEAR 2014

STA NO 146 0124

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF POLICY AND PLANNING
PLANNING INVENTORY AND DATA

TRAFFIC RECORDER DATA

TOWN OF VERNON

ROUTE 83

DIRECTION S

SW OF PITKIN ROAD

DAY	SUN	MON	TUE	WED	THU	FRI	SAT
DATE	0	0	07/29/2014	07/30/2014	0	0	0
TYPE							
HOUR							
	2014 ADT = 14200		ACF = NA				

12A	0	0	0	56	0	0	0
01A	0	0	0	41	0	0	0
02A	0	0	0	27	0	0	0
03A	0	0	0	36	0	0	0
04A	0	0	0	63	0	0	0
05A	0	0	415	0	0	0	0
06A	0	0	978	0	0	0	0
07A	0	0	1320	0	0	0	0
08A	0	0	1201	0	0	0	0
09A	0	0	974	0	0	0	0
10A	0	0	874	0	0	0	0
11A	0	0	951	0	0	0	0
12P	0	0	1030	0	0	0	0
01P	0	0	934	0	0	0	0
02P	0	0	902	0	0	0	0
03P	0	0	985	0	0	0	0
04P	0	0	898	0	0	0	0
05P	0	0	881	0	0	0	0
06P	0	0	829	0	0	0	0
07P	0	0	639	0	0	0	0
08P	0	0	520	0	0	0	0
09P	0	0	399	0	0	0	0
10P	0	0	294	0	0	0	0
11P	0	0	168	0	0	0	0
TOT	0	0	15240	223	0	0	0

RECORDER 049

24 HR = 16463

G-4

A-3

Summary of Manual Turning Movement Counts
Route 83 Dobson Road
Vernon, Connecticut

Counted by: RVB

1-Apr-15

	1	2	3	4	5	6
	NB Thru	NB Right	SB Thru	SB Left	WB Left	WB Right
4:00 to 4:15	336	4	204	57	6	49
4:15 to 4:30	342	3	202	46	4	50
4:30 to 4:45	372	2	201	35	6	54
4:45 to 5:00	384	3	223	39	8	36
5:00 to 5:15	376	7	195	41	2	59
5:15 to 5:30	366	5	218	42	3	57
5:30 to 5:45	350	2	216	45	4	60
5:45 to 6:00	338	4	221	37	3	51
AM Peak Hour (4:45 to 5:45)	1476	17	852	167	17	212
11:00 to 11:15	227	5	281	35	5	39
11:15 to 11:30	222	6	293	39	8	41
11:30 to 11:45	215	7	243	35	8	37
11:45 to 12:00	275	7	271	35	5	45
12:00 to 12:15	266	5	273	41	3	42
12:15 to 12:30	264	7	282	51	4	41
12:30 to 12:45	269	2	248	39	3	44
12:45 to 1:00	260	3	237	37	5	42
PM Peak Hour (11:45 to 12:45)	1074	21	1074	166	15	172

Town of Vernon Road/Route # 83 (CT route 083) from 11.97 to 12.85

Total of 128 accidents

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location			Injuries	K A B C Total				
						No. Adverse Condition	Same Direction	Sidewalk						
	South	Automobile	None Apply	Vehicle Changing Lane(s) to Left					0	0	0	0	0	0
	South	Automobile	None Apply	Vehicle Going Straight					0	0	0	0	0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location			Injuries	K A B C Total				
						No. Adverse Condition	Same Direction	Sidewalk						
	North	Automobile	Vehicle Skidded Slowing or Stopping For	Vehicle Turning Left from Proper Lane					0	0	0	0	0	0
	North	Automobile	Vehicle Stopped For	Turn Left					0	0	0	0	0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location			Injuries	K A B C Total				
						No. Adverse Condition	Same Direction	Sidewalk						
	North	Automobile	Vehicle Skidded Slowing or Stopping For	Stopped Vehicle					0	0	0	0	0	0
	North	Automobile	Vehicle Stopped For	Traffic Signal					0	0	0	0	0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location			Injuries	K A B C Total				
						No. Adverse Condition	Same Direction	Sidewalk						
	West	Automobile	Vehicle Skidded Slowing or Stopping For	Stopped Vehicle					0	0	0	0	0	0
	West	Automobile	Vehicle Stopped For	Traffic Signal					0	0	0	0	0	0

Town of Vernon Road/Route # 83 (CT routes 083) from 11.97 to 12.85

Total of 128 accidents

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries			Total
							K	A	C	
* Mon Jul-25-11 15:30	South	Automobile	Vehicle Stopped For	Traffic			0	0	0	1
	South	Automobile	None Apply	Vehicle Going Straight			0	0	0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries			Total
							K	A	C	
* Thu Aug-18-11 12:10	West	Automobile	Vehicle Stopped For	Traffic Signal			0	0	0	0
	West	Automobile	None Apply	Vehicle Going Straight			0	0	0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries			Total
							K	A	C	
* Sat Oct-26-11 15:45	North	Single Unit Truck 2-Axle 4 Tires	Vehicle Skidded Slowing or Stopping For	Stopped Vehicle			0	0	0	0
	North	Automobile	Vehicle Stopped For	Traffic Signal			0	0	0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries			Total
							K	A	C	
* Wed Nov-02-11 20:06	North	Automobile	None Apply	Vehicle Going Straight			0	0	0	0
	South	Automobile	None Apply	Vehicle Turning Left from Proper Lane			0	0	0	0

Town of Vernon Road/Routes # 83 (CT route 083) from 11.97 to 12.85

Total of 128 accidents

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	Total
							K A B C	
•	South	Single Unit Truck 2 Axle 4 Tires Automobile	None Apply	Vehicle Going Straight			0 0 0 0	0
•	South	Automobile	Vehicle Stopped For	Traffic Signal			0 0 0 0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	Total
							K A B C	
•	East	Automobile	None Apply	Vehicle Turning Left from Proper Lane	Bank, Ledge, Rock (Off Road)	Off Road and Shoulder, Right	0 0 0 0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	Total
							K A B C	
•	North	Single Unit Truck 2 Axle 4 Tires Automobile	None Apply	Vehicle Going Straight			0 0 0 0	0
•	North	Automobile	Vehicle Stopped For	Traffic Signal			0 0 0 0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	Total
							K A B C	
•	North	Single Unit Truck 2 Axle 4 Tires Automobile	None Apply	Vehicle Going Straight			0 0 0 0	0
•	North	Automobile	Vehicle Stopped For	Traffic Signal			0 0 0 0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	Total
							K A B C	
•	North	Automobile	None Apply	Vehicle Going Straight			0 0 0 0	0
•	North	Automobile	Vehicle Stopped For	Traffic Signal			0 0 0 0	0

Town of Vernon Road/Route # 83 (CT route 083) from 11.97 to 12.85

Total of 128 accidents

Date	Time	Location	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	No Adverse Condition	Dark - Lighted	Day	Turning Opposite Direction	Injuries	K	A	B	C	Total
Sun	Jun-19-12	Vernon	South	Automobile	None Apply	Vehicle Turning Left from Proper Lane				Failed To Grant Right Of Way			0	0	0	0	0	0
	21:39	at DOBSON RD 083				Vehicle Going Straight							0	0	0	0	0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	K	A	B	C	Total
*	South	Automobile	None Apply	Vehicle Turning Left from Proper Lane			0	0	0	0	0	0
	North	Automobile	None Apply	Vehicle Going Straight			0	0	0	0	0	0

Date	Time	Location	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Weather	Turning Opposite Direction	Injuries	K	A	B	C	Total
Sun	Aug-12-12	Vernon	South	Single Unit Truck 2 Axle 4 Tires	Vehicle Skidded Slowing or Stopping For	Stopped Vehicle						0	0	0	0	0
	16:20	at DOBSON RD 083				Traffic Signal						0	0	0	0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	K	A	B	C	Total
*	South	Single Unit Truck 2 Axle 4 Tires	Vehicle Skidded Slowing or Stopping For	Stopped Vehicle			0	0	0	0	0	0
	South	Automobile	Vehicle Skidded Slowing or Stopping For	Traffic Signal			0	0	0	0	0	0

Date	Time	Location	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Weather	Turning Opposite Direction	Injuries	K	A	B	C	Total
Fri	Nov-09-12	Vernon	West	Automobile	None Apply	Vehicle Turning Left from Proper Lane						0	0	0	1	1
	15:46	at DOBSON RD 083				Vehicle Going Straight						0	0	0	0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	K	A	B	C	Total
*	West	Automobile	None Apply	Vehicle Turning Left from Proper Lane			0	0	0	1	1	0
	East	Automobile	None Apply	Vehicle Going Straight			0	0	0	0	0	0

Date	Time	Location	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Weather	Turning Opposite Direction	Injuries	K	A	B	C	Total
Fri	Dec-07-12	Vernon	South	Automobile	None Apply	Vehicle Turning Left from Proper Lane						0	0	0	0	0
	17:51	at DOBSON RD 083				Vehicle Skidded Slowing or Stopping For						0	0	0	0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	K	A	B	C	Total
*	South	Automobile	None Apply	Vehicle Turning Left from Proper Lane			0	0	0	0	0	0
	North	Automobile	Vehicle Skidded Slowing or Stopping For	Vehicle Turning Left from Proper Lane			0	0	0	0	0	0

Town of Vernon Road/Route # 83 (CT route 083) from 11.97 to 12.85

Total of 128 accidents

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	Total
	South	Automobile	None Apply	Vehicle Turning Left from Proper Lane	Curbing / Fence	Off Road and Shoulder, Right / Off Road and Shoulder, Right	K A B C Total	0 0 0 0 0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	Total
	South	Automobile	None Apply	Vehicle Turning Left from Proper Lane	Curbing / Fence	Off Road and Shoulder, Right / Off Road and Shoulder, Right	K A B C Total	0 0 0 0 0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	Total
	South	Tractor Semi-Trailer	None Apply	Vehicle Turning Left from Proper Lane	Traffic	Off Road and Shoulder, Right / Off Road and Shoulder, Right	K A B C Total	0 0 0 0 0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	Total
	North	Automobile	Vehicle Stopped For	Vehicle Turning Left from Proper Lane	Traffic	Off Road and Shoulder, Right / Off Road and Shoulder, Right	K A B C Total	0 0 0 0 0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	Total
	North	Automobile	None Apply	Vehicle Going Straight		Off Road and Shoulder, Right / Off Road and Shoulder, Right	K A B C Total	0 0 0 0 0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	Total
	East	Automobile	None Apply	Vehicle Turning Left from Proper Lane		Off Road and Shoulder, Right / Off Road and Shoulder, Right	K A B C Total	0 0 0 0 0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	Total
	South	Automobile	None Apply	Vehicle Going Straight		Off Road and Shoulder, Right / Off Road and Shoulder, Right	K A B C Total	0 0 0 0 0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	Total
	South	Automobile	Vehicle Stopped For	Traffic Signal		Off Road and Shoulder, Right / Off Road and Shoulder, Right	K A B C Total	0 0 0 1 1

Town of Vernon Road/Route # 83 (CT route 083) from 11.97 to 12.85

Total of 128 accidents

Time	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries
Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	K A B C Total
Thu Aug 18 17:39	North	Automobile	None Apply	Vehicle Making a "U" Turn			0 0 1 0 1
	South	Automobile	None Apply	Vehicle Going Straight			0 1 1 0 2

Time	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries
Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	K A B C Total
Thu Aug 30 12:39	South	Single Unit Truck 2 AXle 4 Tires	Vehicle Skidded Slowing or Stopping For	Stopped Vehicle			0 0 0 0 0
	South	Automobile	Vehicle Stopped For	Traffic			0 0 0 0 0

Time	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries
Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	K A B C Total
Wed Oct 9 9:08	East	Automobile	None Apply	Vehicle Going Straight			0 0 0 0 0
	South	Tractor Semi-Trailer	None Apply	Vehicle Going Straight			0 0 0 0 0

Time	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries
Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	K A B C Total
Thu Mar 14 18:14	East	Automobile	None Apply	Vehicle Turning Left From Driveway			0 0 0 0 0
	South	Automobile	Vehicle Skidded Slowing or Stopping For	Vehicle Turning Left From Driveway			0 0 0 0 0

Town of Vernon Road/Route # 83 (CT route 083) from 11.97 to 12.85

Total of 128 accidents

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	K	A	B	C	Total
	South	Automobile	None Apply	Vehicle Going Straight				0	0	0	0	0
	East	Automobile	None Apply	Vehicle Turning Left From Driveway				0	0	0	0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	K	A	B	C	Total
	North	Automobile	None Apply	Vehicle Turning Left from Proper Lane				0	0	0	0	0
	West	Automobile	None Apply	Vehicle Turning Left from Proper Lane				0	0	0	0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	K	A	B	C	Total
	North	Automobile	None Apply	Vehicle Changing Lane(s) to Left				0	0	0	0	0
	North	Single Unit Truck 2 Axle 4 Tires	None Apply	Vehicle Going Straight				0	0	0	0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	K	A	B	C	Total
	South	Automobile	None Apply	Vehicle Going Straight				0	0	0	0	0
	North	Automobile	None Apply	Vehicle Going Straight				0	0	0	0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	K	A	B	C	Total
	South	Automobile	None Apply	Vehicle Going Straight				0	0	0	0	0
	North	Automobile	None Apply	Vehicle Going Straight				0	0	0	0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	K	A	B	C	Total
	South	Automobile	None Apply	Vehicle Going Straight				0	0	0	0	0
	North	Automobile	None Apply	Vehicle Going Straight				0	0	0	0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	K	A	B	C	Total
	South	Automobile	None Apply	Vehicle Going Straight				0	0	0	0	0
	North	Automobile	None Apply	Vehicle Going Straight				0	0	0	0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	K	A	B	C	Total
	South	Automobile	None Apply	Vehicle Going Straight				0	0	0	0	0
	North	Automobile	None Apply	Vehicle Going Straight				0	0	0	0	0

Town of Vernon Road/Route # 83 (CT route 083) from 11.97 to 12.85

Total of 128 accidents

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries
							K A B C Total
	North	Automobile	None Apply	Vehicle Going Straight			0 0 0 0 0
	North	Automobile	Vehicle Stopped For	Stopped Vehicle			0 0 0 0 0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries
							K A B C Total
	West	Single Unit Truck 2 Axle 4 Tires	None Apply	Vehicle Backing into Roadway			0 0 0 0 0
	South	Single Unit Truck 2 Axle 6 Tires	None Apply	Vehicle Going Straight			0 0 0 0 0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries
							K A B C Total
	South	Truck-Trailer Combination	None Apply	Vehicle Changing Lane(s) to Left			0 0 0 0 0
	South	Automobile	None Apply	Vehicle Going Straight			0 0 0 0 0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries
							K A B C Total
	West	Automobile	None Apply	Vehicle Turning Right From Driveway			0 0 0 0 0
	North	Automobile	Vehicle Slowed Stopping For	Vehicle Turning Right From Driveway			0 0 0 2 2

Town of Vernon Road/Route # 83 (CT route 083) from 11.97 to 12.85

Total of 128 accidents

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	Total		
							K	A	B	C
* ?	South	Automobile	None Apply	Vehicle Going Straight			0	0	0	0
		Pedestrian	Other or Unknown				1	0	0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	Total		
							K	A	B	C
* ?	West	Automobile	None Apply	Vehicle Turning Left From Driveway			0	0	0	0
	East	Automobile	None Apply	Vehicle Turning Left From Driveway			0	0	0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	Total		
							K	A	B	C
* ?	North	Single Unit Truck 2 Axle 4 Tires	None Apply	Vehicle Going Straight			0	0	0	0
	South	Automobile	None Apply	Vehicle Going Straight		In Roadway	0	0	0	0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries	Total		
							K	A	B	C
* ?	North	Automobile	Vehicle Stopped For	Turn Left			0	0	0	0
	North	Automobile	None Apply	Vehicle Going Straight			0	0	0	0

Town of Vernon Road/Route # 83 (CT route 083) from 11.97 to 12.85

Total of 128 accidents

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries
							K A B C Total
*	South	Single Unit Truck 2 Axle 4 Tires	Vehicle Skidded Slowing or Stopping For	Stopped Vehicle			0 0 0 0 0
	South	Automobile	Vehicle Stopped For	Turn Left			0 0 0 0 0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries
							K A B C Total
*	South	Single Unit Truck 2 Axle 4 Tires	Vehicle Skidded Slowing or Stopping For	Stopped Vehicle			0 0 0 0 0
	South	Automobile	Vehicle Stopped For	Turn Left			0 0 0 0 0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries
							K A B C Total
*	South	Automobile	Vehicle Skidded Slowing or Stopping For	Stopped Vehicle			0 0 0 0 0
	South	Single Unit Truck 2 Axle 4 Tires	Vehicle Stopped For	Turn Left			0 0 0 1 1

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries
							K A B C Total
*	North	Automobile	Vehicle Skidded Slowing or Stopping For	Stopped Vehicle			0 0 0 0 0
	North	Automobile	Vehicle Stopped For	Vehicle Turning Left from Proper Lane			0 0 0 0 0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries
							K A B C Total
*	North	Automobile	Vehicle Skidded Slowing or Stopping For	Stopped Vehicle			0 0 0 0 0
	North	Automobile	Vehicle Stopped For	Vehicle Turning Left from Proper Lane			0 0 0 0 0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries
							K A B C Total
*	North	Automobile	Vehicle Skidded Slowing or Stopping For	Stopped Vehicle			0 0 0 0 0
	North	Automobile	Vehicle Stopped For	Vehicle Turning Left from Proper Lane			0 0 0 0 0

Contrib. Factor	Direction	Veh Type	Maneuver Prefix	Maneuver Suffix	1st/2nd Object Struck	1st/2nd Object Location	Injuries
							K A B C Total
*	North	Automobile	Vehicle Skidded Slowing or Stopping For	Stopped Vehicle			0 0 0 0 0
	North	Automobile	Vehicle Stopped For	Turn Left			0 0 0 1 1

Shopping Center (820)

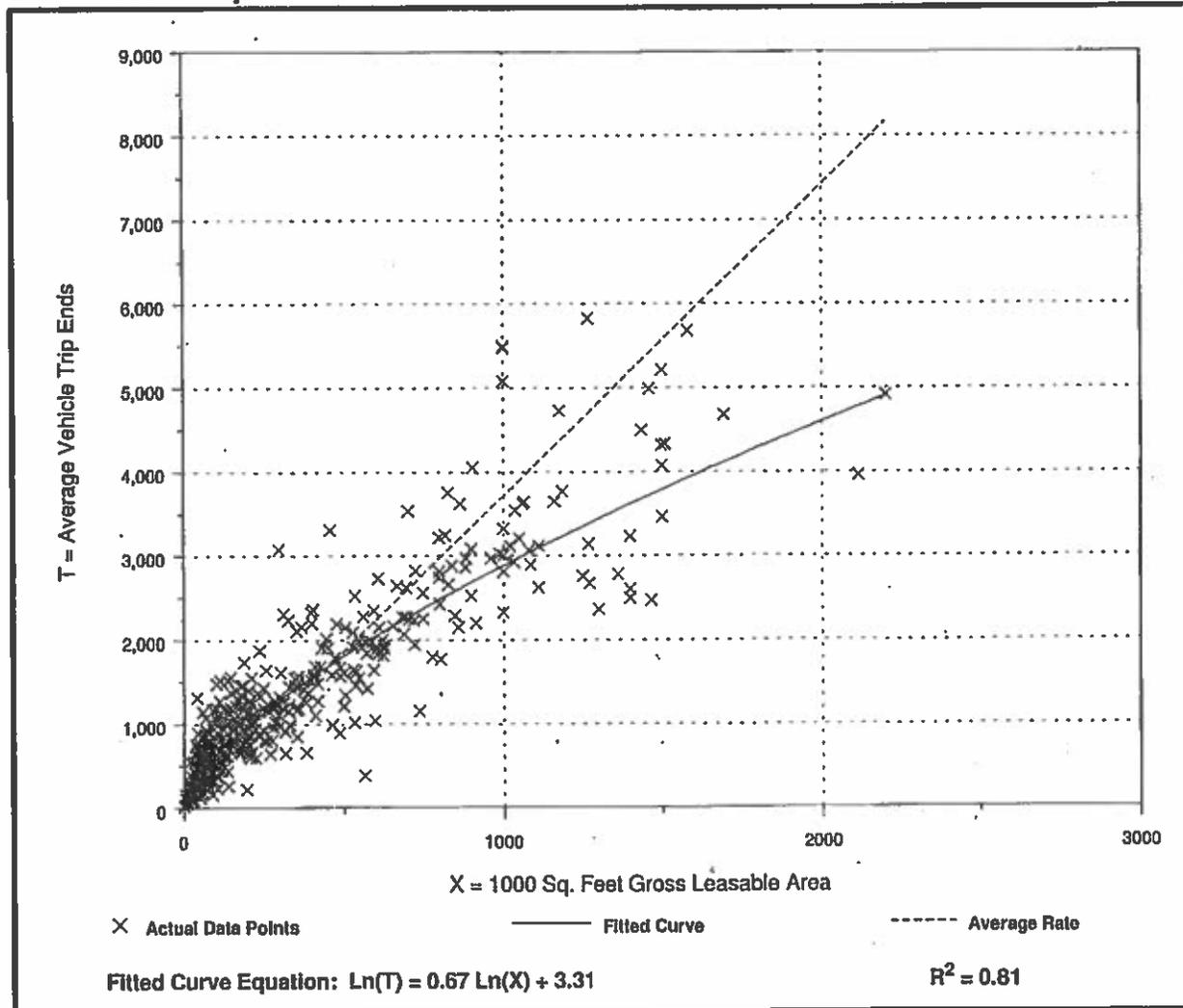
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 426
 Average 1000 Sq. Feet GLA: 376
 Directional Distribution: 48% entering, 52% exiting

Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
3.71	0.68 - 29.27	2.74

Data Plot and Equation



Shopping Center (820)

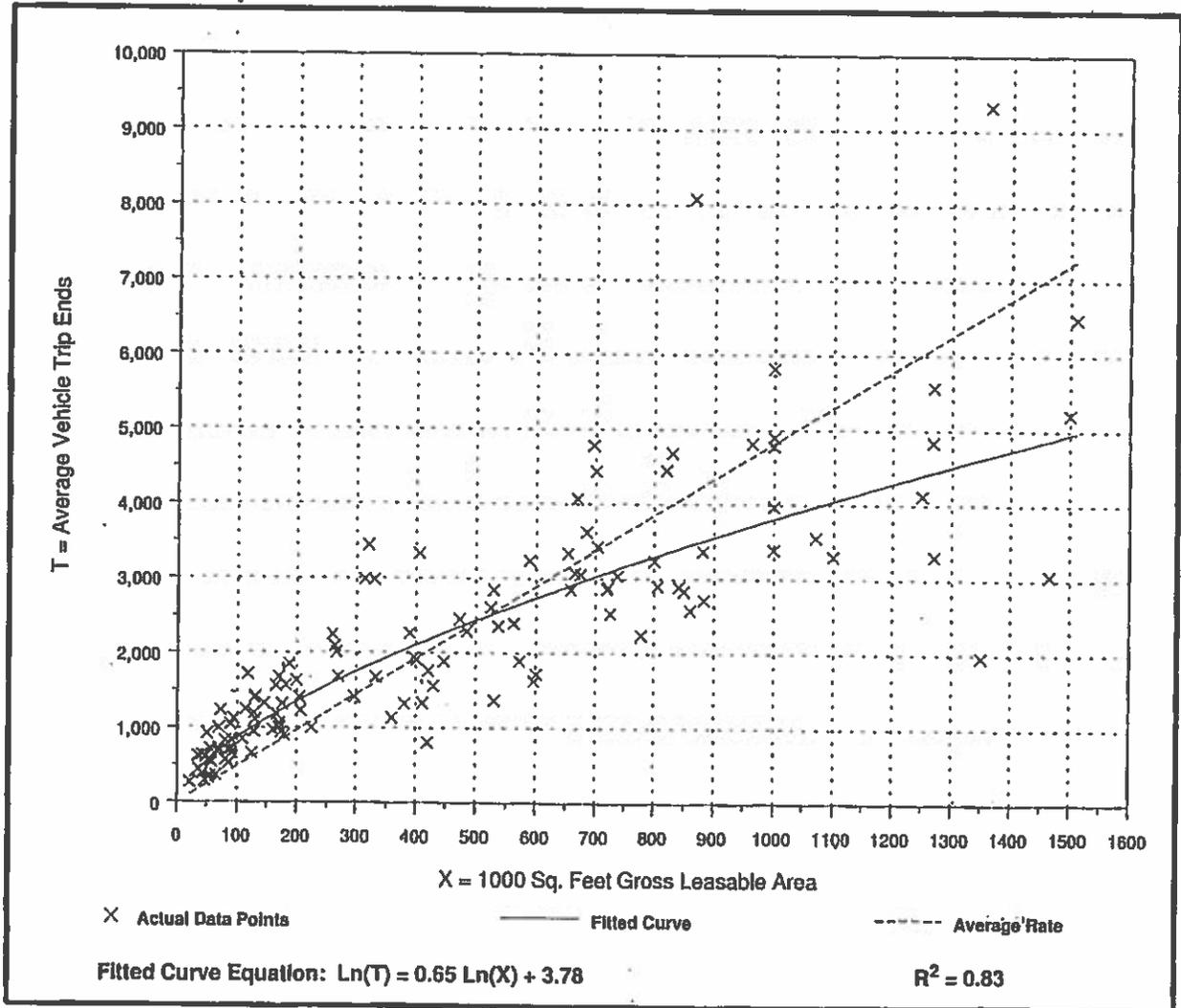
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area
On a: Saturday,
Peak Hour of Generator

Number of Studies: 128
 Average 1000 Sq. Feet GLA: 458
 Directional Distribution: 52% entering, 48% exiting

Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
4.82	1.46 - 18.32	3.10

Data Plot and Equation



Lanes, Volumes, Timings

	↑	↖	↙	↓	↘	↗
<u>Lane Group</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>NWL</u>	<u>NWR</u>
Lane Configurations	↑↑		↖	↑↑	↘	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	1		1	0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	
Trailing Detector (ft)	0		0	0	0	
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt Protected	0.998				0.775	
Flt Protected			0.950		0.996	
Satd. Flow (prot)	3532	0	1770	3539	1438	0
Frt Perm.	0.998				0.775	
Flt Perm.			0.111		0.996	
Satd. Flow (perm)	3532	0	207	3539	1438	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	2				236	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	1476	17	167	852	17	212
Confl. Peds. (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1640	19	186	947	19	236
Lane Group Flow (vph)	1659	0	186	947	255	0
Turn Type		Pm+Pt				
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phases	2		2	2	4	
Minimum Initial (s)	15.0		5.0	15.0	9.0	
Minimum Split (s)	22.0		20.0	22.0	21.0	
Total Split (s)	39.0	0.0	20.0	39.0	21.0	0.0
Total Split (%)	49%	0%	25%	49%	26%	0%
Maximum Green (s)	33.0		16.0	33.0	16.0	
Yellow Time (s)	4.0		3.0	4.0	3.0	
All-Red Time (s)	2.0		1.0	2.0	2.0	
Lead/Lag	Lag		Lead	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Minimum Gap (s)	3.0		3.0	3.0	3.0	
Time Before Reduce (s)	0.0		0.0	0.0	0.0	
Time To Reduce (s)	0.0		0.0	0.0	0.0	
Recall Mode	Max		None	Max	None	

Lanes, Volumes, Timings

	↑	↖	↙	↓	↘	↗
<u>Lane Group</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>NWL</u>	<u>NWR</u>
Walk Time (s)	5.0		5.0	5.0	5.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Lane Grp Cap (vph)	2417		141	2421	489	
v/s Ratio Prot	0.47			0.27	0.11	
v/s Ratio Perm			0.90			
Critical LG?			Yes		Yes	
Act Effct Green (s)	39.0		48.5	39.0	12.0	
Actuated g/C Ratio	0.68		0.64	0.68	0.21	
v/c Ratio	0.69		0.70	0.39	0.52	
Uniform Delay, d1	5.3		8.9	3.9	1.3	
Percentile Delay	6.1		14.1	4.3	4.0	
Percentile LOS	A		B	A	A	
Queue Length 50th (ft)	97		16	52	5	
Queue Length 95th (ft)	214		#88	106	51	
Link Length (ft)	817			847	892	
50th Up Block Time (%)						
95th Up Block Time (%)						
Turn Bay Length (ft)						
50th Bay Block Time %						
95th Bay Block Time %						
Queuing Penalty (veh)						

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 57.1

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Total Lost Time: 6

Sum of Critical v/s Ratios: 1.01

Intersection v/c Ratio: 1.09

Intersection Percentile Signal Delay: 5.8

Intersection Percentile LOS: A

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

Queue shown is maximum after two cycles.

Splits and Phases: 3: Int



Lanes, Volumes, Timings

	↑	↖	↙	↓	↘	↗
<u>Lane Group</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>NWL</u>	<u>NWR</u>
Lane Configurations	↑↑		↖	↑↑	↘	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	1		1	0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	
Trailing Detector (ft)	0		0	0	0	
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frnt Protected	0.997				0.776	
Flt Protected			0.950		0.996	
Satd. Flow (prot)	3529	0	1770	3539	1440	0
Frnt Perm.	0.997				0.776	
Flt Perm.			0.143		0.996	
Satd. Flow (perm)	3529	0	266	3539	1440	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	3				191	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	1074	21	166	1074	15	172
Confl. Peds. (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1193	23	184	1193	17	191
Lane Group Flow (vph)	1216	0	184	1193	208	0
Turn Type			Pm+Pt			
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phases	2		2	2	4	
Minimum Initial (s)	15.0		5.0	15.0	9.0	
Minimum Split (s)	22.0		20.0	22.0	21.0	
Total Split (s)	59.0	0.0	20.0	59.0	21.0	0.0
Total Split (%)	59%	0%	20%	59%	21%	0%
Maximum Green (s)	53.0		16.0	53.0	16.0	
Yellow Time (s)	4.0		3.0	4.0	3.0	
All-Red Time (s)	2.0		1.0	2.0	2.0	
Lead/Lag	Lag		Lead	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Minimum Gap (s)	3.0		3.0	3.0	3.0	
Time Before Reduce (s)	0.0		0.0	0.0	0.0	
Time To Reduce (s)	0.0		0.0	0.0	0.0	
Recall Mode	Max		None	Max	None	

Lanes, Volumes, Timings

	↑	↖	↙	↓	↘	↗
<u>Lane Group</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>NWL</u>	<u>NWR</u>
Walk Time (s)	5.0		5.0	5.0	5.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Lane Grp Cap (vph)	2715		204	2723	383	
v/s Ratio Prot	0.34			0.34	0.08	
v/s Ratio Perm			0.69			
Critical LG?			Yes		Yes	
Act Effct Green (s)	60.4		69.9	60.4	12.1	
Actuated g/C Ratio	0.77		0.72	0.77	0.15	
v/c Ratio	0.45		0.63	0.44	0.54	
Uniform Delay, d1	3.2		6.8	3.1	2.3	
Percentile Delay	3.5		8.4	3.5	6.1	
Percentile LOS	A		A	A	A	
Queue Length 50th (ft)	57		16	72	7	
Queue Length 95th (ft)	120		56	139	61	
Link Length (ft)	817			847	892	
50th Up Block Time (%)						
95th Up Block Time (%)						
Turn Bay Length (ft)						
50th Bay Block Time %						
95th Bay Block Time %						
Queuing Penalty (veh)						

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 78.6
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Total Lost Time: 6
 Sum of Critical v/s Ratios: 0.78
 Intersection v/c Ratio: 0.83
 Intersection Percentile Signal Delay: 4.0
 Intersection Percentile LOS: A

Splits and Phases: 3: Int



Lanes, Volumes, Timings

	↑	↖	↙	↓	↘	↗
<u>Lane Group</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>NWL</u>	<u>NWR</u>
Lane Configurations	↑↓		↙	↑↑	↘↘	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	1		1	0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	
Trailing Detector (ft)	0		0	0	0	
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt Protected	0.998				0.775	
Flt Protected			0.950		0.996	
Satd. Flow (prot)	3532	0	1770	3539	1438	0
Frt Perm.	0.998				0.775	
Flt Perm.			0.111		0.996	
Satd. Flow (perm)	3532	0	207	3539	1438	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	2				238	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	1486	17	169	858	17	214
Confl. Peds. (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1651	19	188	953	19	238
Lane Group Flow (vph)	1670	0	188	953	257	0
Turn Type		Pm+Pt				
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phases	2		2	2	4	
Minimum Initial (s)	15.0		5.0	15.0	9.0	
Minimum Split (s)	22.0		20.0	22.0	21.0	
Total Split (s)	39.0	0.0	20.0	39.0	21.0	0.0
Total Split (%)	49%	0%	25%	49%	26%	0%
Maximum Green (s)	33.0		16.0	33.0	16.0	
Yellow Time (s)	4.0		3.0	4.0	3.0	
All-Red Time (s)	2.0		1.0	2.0	2.0	
Lead/Lag	Lag		Lead	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Minimum Gap (s)	3.0		3.0	3.0	3.0	
Time Before Reduce (s)	0.0		0.0	0.0	0.0	
Time To Reduce (s)	0.0		0.0	0.0	0.0	
Recall Mode	Max		None	Max	None	

Lanes, Volumes, Timings

	↑	↖	↙	↓	↘	↗
<u>Lane Group</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>NWL</u>	<u>NWR</u>
Walk Time (s)	5.0		5.0	5.0	5.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Lane Grp Cap (vph)	2417		141	2421	490	
v/s Ratio Prot	0.47			0.27	0.11	
v/s Ratio Perm			0.91			
Critical LG?			Yes		Yes	
Act Effct Green (s)	39.0		48.5	39.0	12.0	
Actuated g/C Ratio	0.68		0.64	0.68	0.21	
v/c Ratio	0.69		0.71	0.39	0.52	
Uniform Delay, d1	5.4		8.9	3.9	1.3	
Percentile Delay	6.1		14.2	4.3	4.0	
Percentile LOS	A		B	A	A	
Queue Length 50th (ft)	98		16	52	5	
Queue Length 95th (ft)	217		#90	107	52	
Link Length (ft)	817			847	892	
50th Up Block Time (%)						
95th Up Block Time (%)						
Turn Bay Length (ft)						
50th Bay Block Time %						
95th Bay Block Time %						
Queuing Penalty (veh)						

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 57.1

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Total Lost Time: 6

Sum of Critical v/s Ratios: 1.02

Intersection v/c Ratio: 1.11

Intersection Percentile Signal Delay: 5.8

Intersection Percentile LOS: A

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

Queue shown is maximum after two cycles.

Splits and Phases: 3: Int



Lanes, Volumes, Timings

	↑	↖	↙	↓	↘	↗
<u>Lane Group</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>NWL</u>	<u>NWR</u>
Lane Configurations	↑↑		↙	↑↑	↘	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	1		1	0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	
Trailing Detector (ft)	0		0	0	0	
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt Protected	0.997				0.776	
Flt Protected			0.950		0.996	
Satd. Flow (prot)	3529	0	1770	3539	1440	0
Frt Perm.	0.997				0.776	
Flt Perm.			0.141		0.996	
Satd. Flow (perm)	3529	0	263	3539	1440	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	3				193	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	1082	21	168	1082	15	174
Confl. Peds. (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1202	23	187	1202	17	193
Lane Group Flow (vph)	1225	0	187	1202	210	0
Turn Type		Pm+Pt				
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phases	2		2	2	4	
Minimum Initial (s)	15.0		5.0	15.0	9.0	
Minimum Split (s)	22.0		20.0	22.0	21.0	
Total Split (s)	59.0	0.0	20.0	59.0	21.0	0.0
Total Split (%)	59%	0%	20%	59%	21%	0%
Maximum Green (s)	53.0		16.0	53.0	16.0	
Yellow Time (s)	4.0		3.0	4.0	3.0	
All-Red Time (s)	2.0		1.0	2.0	2.0	
Lead/Lag	Lag		Lead	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Minimum Gap (s)	3.0		3.0	3.0	3.0	
Time Before Reduce (s)	0.0		0.0	0.0	0.0	
Time To Reduce (s)	0.0		0.0	0.0	0.0	
Recall Mode	Max		None	Max	None	

Lanes, Volumes, Timings

	↑	↖	↙	↓	↘	↗
<u>Lane Group</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>NWL</u>	<u>NWR</u>
Walk Time (s)	5.0		5.0	5.0	5.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Lane Grp Cap (vph)	2710		201	2717	387	
v/s Ratio Prot	0.35			0.34	0.08	
v/s Ratio Perm			0.71			
Critical LG?			Yes		Yes	
Act Effct Green (s)	60.3		69.8	60.3	12.2	
Actuated g/C Ratio	0.77		0.72	0.77	0.16	
v/c Ratio	0.45		0.65	0.44	0.54	
Uniform Delay, d1	3.2		7.3	3.2	2.3	
Percentile Delay	3.5		8.7	3.5	6.0	
Percentile LOS	A		A	A	A	
Queue Length 50th (ft)	58		16	73	7	
Queue Length 95th (ft)	122		59	141	62	
Link Length (ft)	817			847	892	
50th Up Block Time (%)						
95th Up Block Time (%)						
Turn Bay Length (ft)						
50th Bay Block Time %						
95th Bay Block Time %						
Queuing Penalty (veh)						

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 78.5
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Total Lost Time: 6
 Sum of Critical v/s Ratios: 0.80
 Intersection v/c Ratio: 0.85
 Intersection Percentile Signal Delay: 4.0
 Intersection Percentile LOS: A

Splits and Phases: 3: Int



TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	RVB			Intersection	Rt 83 at Site Drive		
Agency/Co.	RVB PE			Jurisdiction	Vernon		
Date Performed	4/6/2016			Analysis Year	2016 Full Build		
Analysis Time Period	Weekday PM						
Project Description 8,000 SF Commercial Building							
East/West Street: Site Drive				North/South Street: Route 83			
Intersection Orientation: North-South				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume	0	1688	12	8	1019	0	
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly Flow Rate, HFR	0	1875	13	8	1132	0	
Percent Heavy Vehicles	0	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	0	2	0	0	2	0	
Configuration		T	TR	LT	T		
Upstream Signal		1			0		
Minor Street	Westbound			Eastbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume	8	0	12	0	0	0	
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly Flow Rate, HFR	8	0	13	0	0	0	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	1	0	1	0	0	0	
Configuration	L		R				
Delay, Queue Length, and Level of Service							
Approach	NB	SB	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11
Lane Configuration		LT	L		R		
v (vph)		8	8		13		
C (m) (vph)		321	25		267		
v/c		0.02	0.32		0.05		
95% queue length		0.08	0.97		0.15		
Control Delay		16.5	206.1		19.2		
LOS		C	F		C		
Approach Delay	--	--	90.4				
Approach LOS	--	--	F				

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Version 4.1d

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	RVB			Intersection	Rt 83 at Site Drive			
Agency/Co.	RVB PE			Jurisdiction	Vernon			
Date Performed	4/6/2016			Analysis Year	2016 Full Build			
Analysis Time Period	Saturday Midday							
Project Description 8,000 SF Commercial Building								
East/West Street: Site Drive				North/South Street: Route 83				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	0	1246	10	10	1240	0		
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly Flow Rate, HFR	0	1384	11	11	1377	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	2	0	0	2	0		
Configuration		T	TR	LT	T			
Upstream Signal		1			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	10	0	10	0	0	0		
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly Flow Rate, HFR	11	0	11	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	1	0	1	0	0	0		
Configuration	L		R					
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT	L		R			
v (vph)		11	11		11			
C (m) (vph)		497	45		388			
v/c		0.02	0.24		0.03			
95% queue length		0.07	0.81		0.09			
Control Delay		12.4	109.2		14.5			
LOS		B	F		B			
Approach Delay	--	--	61.9					
Approach LOS	--	--	F					

April 27, 2015 - SPOT SPEED STUDY			
CT ROUTE 83 - Vernon			
Northbound		Southbound	
(225'/Seconds)	MPH	(265'/Seconds)	MPH
4.66	33.6	4.35	41.5
4.85	31.6	4.25	42.5
5.34	28.7	4.93	36.6
3.54	43.3	4.85	37.3
5.47	28.0	4.56	39.6
4.5	34.1	4.45	40.6
5.9	26.0	4.76	38.0
3.7	41.5	3.98	45.4
3.68	41.7	4.7	38.4
4.28	35.8	4.87	37.1
4.63	33.1	3.82	47.3
4.44	34.6	4.44	40.7
4.53	33.9	4.35	41.5
4.44	34.6	4.8	37.6
4.18	36.7	4.99	36.2
3.66	41.9	4.65	38.9
4.2	36.5	4.73	38.2
3.72	41.2	4.25	42.5
3.55	43.2	4.87	37.1
4.23	36.3	4.67	38.7
4	38.4	4.35	41.5
5.65	27.2	3.98	45.4
3.97	38.6	4.92	36.7
4.15	37.0	4.32	41.8
4.22	36.4	4.78	37.8
3.87	39.6	4.67	38.7
5.9	26.0	4.99	36.2
5.2	29.5	4.73	38.2
4.75	32.3	4.89	36.9
85TH %-ILE:	41.4	85TH %-ILE:	42.4

Design Speed (V_{major}) (mph)	ISD (ft)		
	Passenger Cars	Single-Unit Trucks	Tractor/Semitrailers
20	225	280	340
25	280	350	425
30	335	420	510
35	390	490	595
40	445	560	680
45	500	630	765
50	555	700	850
55	610	770	930
60	665	840	1015
65	720	910	1100
70	775	980	1185

Notes:

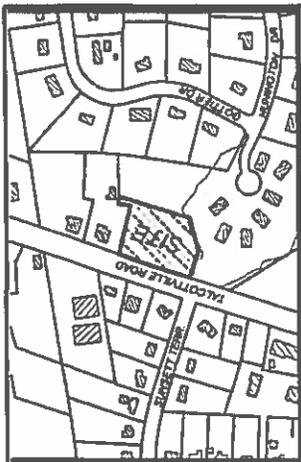
1. These ISD values assume a left or right turn onto a 2-lane facility without a median.
2. These ISD values assume a minor road approach grade less than or equal to 3%.

**INTERSECTION SIGHT DISTANCES
(Two-Lane Highway or Street)**

Figure 11-2C

$$ISD_{41} = 445' + \frac{500-445}{45-40} = 445' + 11' = 456'$$

$$ISD_{42} = 445 + \frac{500-445}{45-40} (2) = 445' + 22' = 467'$$



COMMERCIAL ZONE

AREA 4 ZONING REGULATIONS PERMIT
 1. MAXIMUM BUILDING HEIGHT - 35 FT
 2. MAXIMUM LOT COVERAGE - 75%
 3. MAXIMUM LOT AREA - 10,000 SQ FT
 4. MAXIMUM LOT WIDTH - 100 FT
 5. MAXIMUM LOT DEPTH - 100 FT
 6. MAXIMUM LOT AREA - 10,000 SQ FT
 7. MAXIMUM LOT WIDTH - 100 FT
 8. MAXIMUM LOT DEPTH - 100 FT

BUILDING COVERAGE = 8,178 SQ. FT
PERMITTED COVERAGE = 11,822 SQ. FT
TOTAL COVERAGE = 19,999 SQ. FT OR 37%

- CONSTRUCTION SEQUENCE**
1. SITE PREP AND EXCAVATION
 2. FOUNDATION CONSTRUCTION
 3. CONSTRUCTION OF CONCRETE FRAME
 4. CONSTRUCTION OF ROOF
 5. CONSTRUCTION OF INTERIOR PARTITIONS
 6. CONSTRUCTION OF EXTERIOR FINISHES
 7. CONSTRUCTION OF MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS
 8. CONSTRUCTION OF LANDSCAPE
 9. CONSTRUCTION OF SIGNAGE
 10. CONSTRUCTION OF PARKING
 11. CONSTRUCTION OF UTILITIES
 12. CONSTRUCTION OF FURNITURE
 13. CONSTRUCTION OF LIGHTING
 14. CONSTRUCTION OF SECURITY
 15. CONSTRUCTION OF ACCESSORIES
 16. CONSTRUCTION OF FINISHES
 17. CONSTRUCTION OF MAINTENANCE
 18. CONSTRUCTION OF INSPECTION
 19. CONSTRUCTION OF COMPLETION
 20. CONSTRUCTION OF OCCUPANCY

VERNON, CONNECTICUT
 16 APR 11 PM 10:30

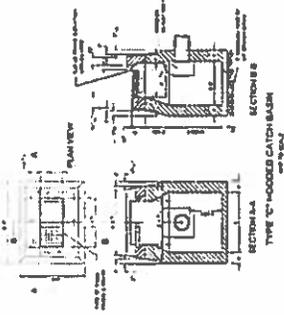
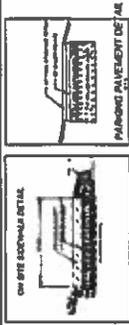
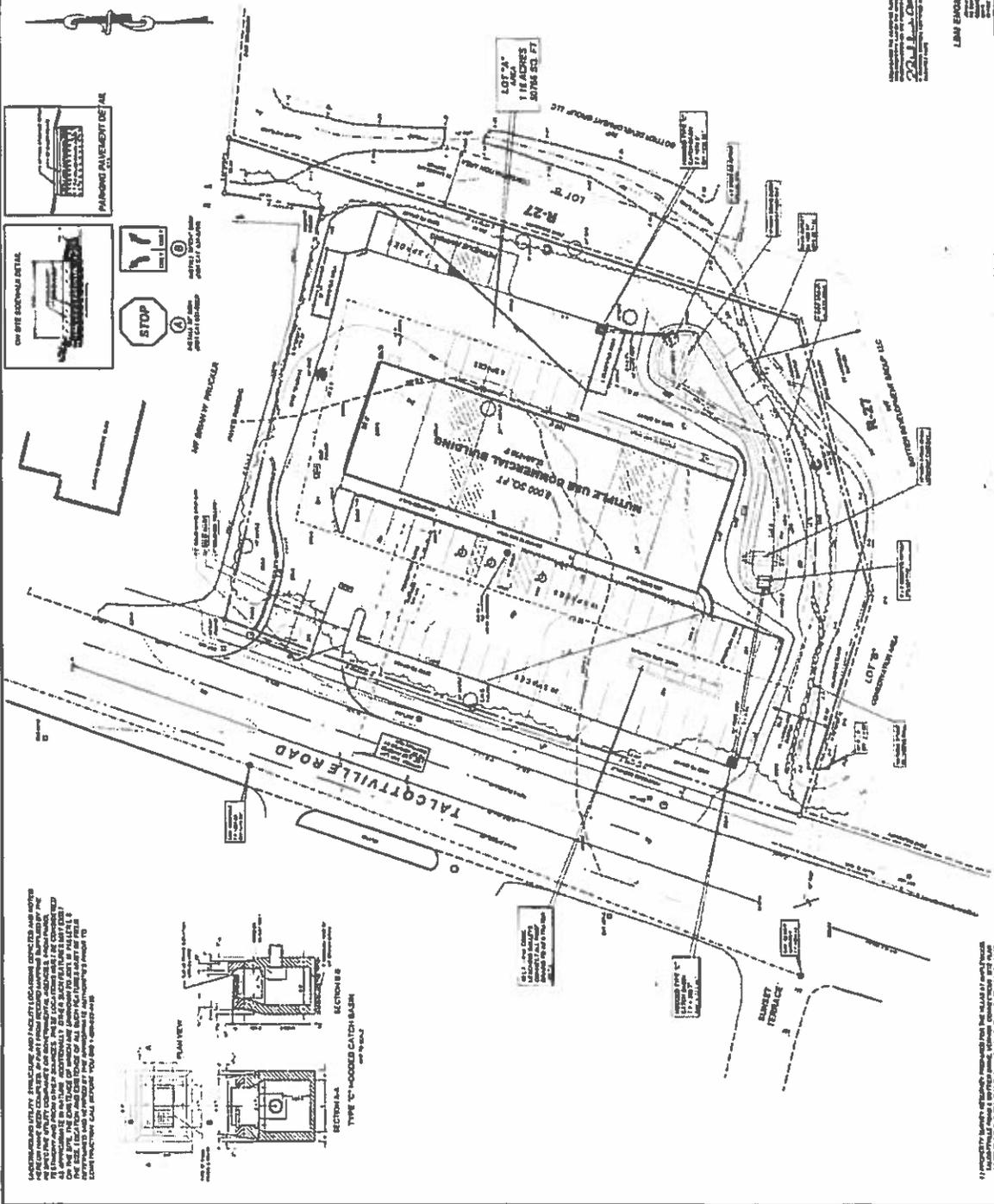
SITE PLAN

**NO. 266 TALCOTTVILLE ROAD
 VERNON, CONNECTICUT**

LELAND CHINO ARCHITECT & ENGINEER LLP

JOEL M. FULLER
 REGISTERED ARCHITECT
 NO. 945

SHEET 1 OF 2



NOTES:
 1. ALL DIMENSIONS ARE IN FEET AND INCHES.
 2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
 3. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
 4. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
 5. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
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 9. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
 10. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.