Traffic Impact Study

for the proposed

Canandaigua Shores Residential Development

Towns of Canandaigua/Hopewell Ontario County, New York

July 2021

Project No. 41058

Prepared For:

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LIST OF REFERENCES

LEVEL OF SERVICE CALCULATIONS - 2021 ADJUSTED BASE CONDITIONS

LEVEL OF SERVICE CALCULATIONS – 2024 BACKGROUND CONDITIONS LEVEL OF SERVICE CALCULATIONS – FULL DEVELOPMENT CONDITIONS

- 1. <u>Highway Capacity Manual, Sixth Edition</u>. Transportation Research Board. National Research Council, Washington, DC. 2016.
- 2. New York State Department of Transportation (NYSDOT) Traffic Data Viewer. 2020. Retrieved from https://www.dot.ny.gov/tdv.
- 3. <u>Trip Generation, Tenth Edition</u>. Institute of Transportation Engineers. Washington, DC. 2017.
- 4. Routes 5/20 & Route 364 Multi-Modal Safety & Access Improvement Study. C&S Companies. 2013.



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EXECUTIVE SUMMARY

OVERVIEW

The purpose of this report is to evaluate the potential traffic impacts associated with the proposed Canandaigua Shores Residential Development in the Towns of Canandaigua and Hopewell, Ontario County, New York. The operating characteristics of the proposed access points and impacts to the adjacent roadway network are identified and mitigating measures, if any, are provided to minimize capacity or safety concerns.

In an effort to define traffic impact, this analysis establishes 2021 existing base traffic conditions, projects background traffic flow including area growth and/or additional traffic resulting from new development in the area, and determines the traffic operations that would result from the development of the proposed residential townhome project.

The proposed development is located at the in between E Lake Rd and Lincoln Hill Rd (County Road 18) in the Towns of Canandaigua and Hopewell, Ontario County, New York. The site is currently undeveloped. Surrounding the proposed development is undeveloped land to the north, Lincoln Hill Rd and single family residential homes to the east, undeveloped land to the south, and E Lake Rd and single family residential homes to the west. Land uses in the vicinity of the project site primarily include residential, and educational uses. The study area consists of the E Lake Road/Lincoln Hill Rd intersection.

The proposed development consists of 116 units of townhomes, a 11 single family residential homes. Access is proposed via one new subdivision street with one entrance lane and one exit lane that connects to both E Lake Rd and Lincoln Hill Rd.

Construction of the proposed Canandaigua Shores Residential Development is anticipated to be completed within three years. Widely accepted methodology for preparing traffic impact studies requires that any projects in the study area that are currently approved and/or under construction must be considered in the traffic analysis. Town of Canandaigua and Town of Hopewell officials were contacted to discuss projects within the study area that are under construction and/or approved. Both the Town of Canandaigua and Town of Hopewell officials did not identify any such projects.

To account for additional traffic related to normal increases in background traffic growth and any unforeseen developments in the project study area, a growth rate of 1.0% per year was applied to the 2021 base traffic volumes. This growth rate was determined based upon an evaluation of historical traffic data on nearby study area roadways.

CONCLUSIONS & RECOMMENDATIONS

This study evaluates the potential traffic impacts resulting from the proposed Canandaigua Shores Residential Development. Based upon the analyses, the results indicate that the proposed development will not have significant adverse traffic impacts on the existing roadway network. The following sets forth conclusions and recommendations based upon the results of the analyses:



- 1. The proposed development is expected to generate approximately 16 entering/51 exiting vehicle trips during the weekday AM peak hour and 50 entering/30 exiting vehicle trips during the weekday PM peak hour.
- Based upon current conditions and speeds, the available sight distances along E Lake Rd and Lincoln Hill Rd at the proposed subdivision street intersections to the left and right meet the required SSD and desirable ISD.
- 3. For the intersection of E Lake Road/Proposed Subdivision Street, the proposed traffic volumes turning left onto the proposed subdivision street from E Lake Road indicates that the warrants for a southbound left turn lane are not satisfied during the AM peak hour but are marginally satisfied during the PM peak hour. It should be noted that the projected volumes turning left onto the residential development site at this location is 32 vehicles per hour (one vehicle every 1.9 minutes). Considering that the warrant is marginally met for only the PM peak, a left turn lane is not recommended at this location based on this analysis.
- 4. For the intersection of Lincoln Hill Road/Proposed Subdivision Street, the proposed traffic volumes turning left onto the proposed subdivision street from Lincoln Hill Road indicates that the warrants for a northbound left turn lane are not satisfied during both peak hours studied.
- 5. The projected traffic impacts resulting from full development of the proposed project during all peak hours can be accommodated by the existing transportation network with no highway improvements.
- 6. Both of the proposed subdivision street intersections with the adjacent roads are projected to operate at LOS "B" or better on all approaches during both peak hours. No mitigation is warranted or recommended at either of the proposed subdivision street intersections.
- 7. For purposes of the environmental review of the proposed project pursuant to the State Environmental Quality Review Act (SEQRA), it is our firm's professional opinion that the proposed project will not result in any potentially significant adverse traffic impacts to the study area intersections.



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I. INTRODUCTION

The purpose of this report is to identify the potential traffic impacts associated with the proposed Canandaigua Shores Residential Development in the Towns of Canandaigua and Hopewell, Ontario County, New York. The operating characteristics of the proposed access points and impacts to the adjacent roadway network are identified and mitigating measures, if any, are provided to minimize capacity or safety concerns.

In an effort to define traffic impact, this analysis establishes 2021 existing base traffic conditions, projects background traffic flow including area growth and/or additional traffic resulting from new development in the area, and determines the traffic operations that would result from the development of the proposed residential townhome project.

II. LOCATION

The proposed development is located at the in between E Lake Rd and Lincoln Hill Rd (County Road 18) in the Towns of Canandaigua and Hopewell, Ontario County, New York. The site is currently undeveloped. Surrounding the proposed development is undeveloped land to the north, Lincoln Hill Rd and single family residential homes to the east, undeveloped land to the south, and E Lake Rd and single family residential homes to the west. Land uses in the vicinity of the project site primarily include residential, and educational uses. The study area consists of the E Lake Road/Lincoln Hill Rd intersection.

The site location and study area are shown in **Figure 1** (all figures are included at the end of the report).

III. EXISTING HIGHWAY SYSTEM

Details of the existing roadway network in the vicinity of the project site are summarized in **Table 1** below. The Annual Average Daily Traffic (AADT) counts referenced below were obtained based upon the most recent traffic counts collected by the New York State Department of Transportation (NYSDOT) and/or recent turning movement counts at the study intersections.



TABLE I: EXISTING HIGHWAY SYSTEM

ROADWAY ¹	CLASS ²	AGENCY ³	SPEED LIMIT ⁴	# OF TRAVEL LANES ⁵	TRAVEL PATTERN/ DIRECTION	EST. AADT ⁶ & SOURCE ⁷
E Lake Road (NY-364)	17	NYSDOT	45	2	Two-way/ North-South	6,681 NYSDOT (2019)
Lincoln Hill Rd (CR-18)	18	OCDPW	55	2	Two-way/ North-South	2,514 NYSDOT (2018)

Notes:

- 1. Route Name/Number: "NY" = New York; "CR" = County Road
- 2. State Functional Classification of Roadway (All are Urban): 17 = Major Collector, 18 = Minor Collector
- 3. Jurisdictional Agency of Roadway. "NYSDOT" = New York State Department of Transportation; "OCDPW" = Ontario County Department of Public Works
- 4. Posted or Statewide Limit in Miles per Hour (mph).
- 5. Excludes turning/auxiliary lanes developed at intersections.
- 6. Estimated AADT in Vehicles per Day (vpd).
- 7. AADT Source (Year).

Figure 2 illustrates the lane geometry at each of the study intersections and the AADT volumes on the study roadways.

PEDESTRIAN AND BICYCLE FACILITIES

There are no existing pedestrian facilities in the vicinity of the site on either E Lake Rd or Lincoln Hill Rd.

There are no existing bicycle facilities in the study area, however, bicyclists are permitted to share the road on all roadways within the study area.

TRANSIT FACILITIES

There is no public transit service within the study area.

IV. EXISTING TRAFFIC CONDITIONS

A. Peak Intervals for Analysis

Given the functional characteristics of the land use proposed for the site (residential), the peak hours selected for analysis are the weekday commuter AM and PM peaks. The combination of site traffic and adjacent through traffic produces the greatest demand during these time periods.

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B. Existing Traffic Volume Data

Weekday commuter AM (7:00-9:00AM) and PM (4:00-6:00PM) peak hour volumes were collected by SRF Associates at the study area intersection, as noted in Section II above. Turning movement count data was collected on Tuesday, June 8, 2021. The existing 2021 weekday peak hour volumes for the AM and PM commuter peak hours are reflected in **Figure 3**.

All turning movement count data was collected on a typical weekday. It is noted, however, that traffic volumes may be lower than normal as a result of business restrictions resulting from COVID-19. The collected traffic volumes were reviewed to confirm the accuracy and relative balance of the collective traffic counts. Traffic volumes were compared to 2019 and 2018 traffic data collected along E Lake Rd and Lincoln Hill Rd by the NYSDOT. The collected traffic volumes were generally found to be greater than the historical traffic data from the NYSDOT during both peaks. As such, the collected traffic volume data was not adjusted.

C. Field Observations

The study intersections were observed during both peak intervals to assess current traffic operations.

V. FUTURE AREA DEVELOPMENT AND LOCAL GROWTH

Construction of the proposed Canandaigua Shores Residential Development is anticipated to be completed within three years. Widely-accepted methodology for preparing traffic impact studies requires that any projects in the study area that are currently approved and/or under construction must be considered in the traffic analysis. Town of Canandaigua and Town of Hopewell officials were contacted to discuss projects within the study area that are under construction and/or approved. Both the Town of Canandaigua and Town of Hopewell officials did not identify any such projects.

To account for additional traffic related to normal increases in background traffic growth and any unforeseen developments in the project study area, a growth rate of 1.0% per year was applied to the 2021 base traffic volumes. This growth rate was determined based upon an evaluation of historical traffic data on nearby study area roadways. All ambient growth calculations are included in the appendix. The 2024 background traffic volumes are depicted in **Figure 4.**

VI. PROPOSED DEVELOPMENT

A. Description

The proposed development consists of 116 units of townhomes, a 11 single family residential homes. Access is proposed via one new subdivision street with one entrance lane and one exit lane that connects to both E Lake Rd and Lincoln Hill Rd. In June of 2013, C&S Companies released a Multi-Modal Safety & Access Improvement Study for Route 5/20 & Route 364. The proposed subdivision street location is in compliance with this study. **Figures 5 and 6** depict the Overall Site Plan.

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B. Site Traffic Generation

The volume of traffic generated by a site is dependent on the intended land use and size of the development. Trip generation is an estimate of the number of trips generated by a specific building or land use. These trips represent the volume of traffic entering and exiting the development. Trip Generation, 10th Edition (2017) published by the Institute of Transportation Engineers (ITE) is used as a reference for this information. The trip rate for the peak hour of the generator may or may not coincide in time or volume with the trip rate for the peak hour of adjacent street traffic. Volumes generated during the peak hour of the adjacent street traffic and proposed land uses, in this case, the weekday commuter AM and PM peaks, represent a more critical volume when analyzing the capacity of the system; those intervals will provide the basis of this analysis.

Table II shows the total site generated trips for the weekday AM and PM peak hours for the various phases of development.

TARIF	II. SITE	GENERATED	TRIPS

LANDLICE	ITE	SIZE	AM PEA	K HOUR	PM PEAI	K HOUR
LAND USE	LUC ¹	SIZE	ENTER	EXIT	ENTER	EXIT
Multi-family Housing (Low-Rise)	220	116 units	13	42	42	25
Single-Family Detached Housing	210	11 units	3	9	8	5
Total			16	51	50	30

Note:

The proposed development is expected to generate approximately 16 entering/51 exiting vehicle trips during the weekday AM peak hour and 50 entering/30 exiting vehicle trips during the weekday PM peak hour.

C. <u>Site Traffic Distribution</u>

The cumulative effect of site traffic on the transportation network is dependent on the origins and destinations of that traffic and the location of the access drive serving the site.

The proposed arrival/departure distribution of traffic to be generated at this site is considered a function of several parameters, including the following:

- Employment and shopping centers in the local area and region;
- Existing highway network;
- Existing traffic patterns; and
- Existing traffic conditions and controls
- Site access drive locations and internal roadway circulation;

Figure 7 shows the anticipated trip distribution pattern percentages for the proposed development project. **Figure 8** shows the resulting site generated traffic based on those percentages.

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^{1.} LUC = Land Use Code.

D. Sight Distance Evaluation

Available sight distances were investigated at the proposed subdivision street intersections along E Lake Rd and Lincoln Hill Rd. Sight distance is provided at intersections to allow drivers to perceive the presence of potentially conflicting vehicles. This should occur in sufficient time for a motorist to stop or adjust their speed, as appropriate, to avoid a collision at the intersection.

Sight distance is also provided at intersections to allow the drivers of stopped vehicles a sufficient view of the intersecting highway to anticipate and avoid potential incidents. If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate Stopping Sight Distance (SSD) for the major road, then drivers have sufficient sight distance to anticipate and avoid collisions. To enhance traffic operations, Intersection Sight Distances (ISD) that exceed stopping sight distances are desirable along the major road.

A Policy on Geometric Design of Highways and Streets 7th Edition (2018), published by the American Association of State Highway and Transportation Officials (AASHTO), was used as a reference to establish the required SSD and desirable ISD for the proposed access driveway location.

Required SSD and desirable ISD are based on the design speed for a given section of roadway; generally, the design speed is the posted speed limit plus 5 MPH. In this case, the posted speed limit at the proposed subdivision street location along E Lake Rd is 45 MPH. Hence a design speed of 50 MPH was used. Stopping sight distance is dependent on the driver's eye height above the road surface, the specified object height above the road surface, and the height and lateral position of sight obstructions within the driver's line of sight. For design purposes, the recommended height is 3.50 feet above the road surface. The specified object height above the road surface is assumed to be 2.0 feet, representative of the shortest object at risk to drivers, including the height of automobile headlights or taillights.

The required SSD and desirable ISD based on the design speeds are shown in Table III.

TABLE III: SIGHT DISTANCE REQUIREMENTS AND MEASUREMENTS

INTERCECTION	SPEED	DESIGN	Desirable Intersection Sight Distance (ISD)	Required Stopping Sight	AVAILABLE IN SIGHT DISTANC		_	TOPPING SIGHT (FT) TO THE:
INTERSECTION	LIMIT (MPH)	SPEED (MPH)	for Left Turn from Stop (FT)	Distance (SSD) (FT)	LEFT	RIGHT	LEFT	RIGHT
E Lake Rd/Proposed Subdivision Street	45	50	555	425	1600	700	1600 <u>+</u>	700 <u>+</u>
Lincoln Hill Rd/Proposed Subdivision Street	55	60	665	570	705	1210	705 <u>+</u>	1210 <u>+</u>



Based upon current conditions and speeds, the available sight distances along E Lake Rd and Lincoln Hill Rd at the proposed subdivision street intersections to the left and right meet the required SSD and desirable ISD.

VII. FULL DEVELOPMENT VOLUMES

The projected design hour traffic volumes were developed for the weekday AM and PM peak hours by combining the future background traffic conditions (Figure 4), and projected site generated volumes for full build out of the proposed development (Figure 8) to yield the total traffic conditions expected under full development conditions. **Figure 9** illustrates the total weekday AM and PM peak hour volumes anticipated for the proposed development under full development conditions.

VIII. CAPACITY ANALYSIS

A. Description of Capacity Analysis

A capacity analysis is a technique used for determining a measure of effectiveness for a section of roadway and/or intersection based on the number of vehicles during a specific time period. The measure of effectiveness used for the capacity analysis is referred to as a Level of Service (LOS). Levels of Service are calculated to provide an indication of the amount of delay that a motorist experiences while traveling along a roadway or through an intersection. Since the most amount of delay to motorists usually occurs at intersections, capacity analysis focuses on intersections, as opposed to highway segments.

Six Levels of Service are defined for analysis purposes. They are assigned letter designations, from "A" to "F", with LOS "A" representing the conditions with little to no delay, and LOS "F" conditions with very long delays. Suggested ranges of service capacity and an explanation of Levels of Service are included in the Appendix.

The standard procedure for capacity analysis of signalized and un-signalized intersections is outlined in the <u>Highway Capacity Manual</u> (HCM 2016) published by the Transportation Research Board. Traffic analysis software, Synchro 11, which is based on procedures and methodologies contained in the HCM, was used to analyze operating conditions at study area intersections. The procedure yields a Level of Service based on the HCM as an indicator of how well intersections operate.

B. Capacity Analysis Results

Existing and background operating conditions during the peak study periods are evaluated to determine a basis for comparison with the projected future conditions. The projected future traffic volumes generated by the proposed Canandaigua Shores Residential Development were analyzed to assess the operations of the intersections in the study area.

Capacity results for existing 2021 base, 2024 background and 2024 full build conditions are listed in **Table IV**. The discussion following the table summarizes capacity conditions. All capacity analysis calculations are included in the Appendices.

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TABLE 4: CAPACITY ANALYSIS RESULTS

INTERSECTION		20 EXISTIN COND				20 BACKG COND				202 FULL B CONDIT	UILE	
		AM		PM		AM		PM		AM		PM
I. E Lake Rd/Lincoln Hill Rd (U)												
WB Left - Lincoln Hill Rd	Α	0.0	D	28.6	Α	0.0	D	30.0	Α	0.0	D	32.7
WB Right - Lincoln Hill Rd	В	13.0	В	11.6	В	14.2	В	11.7	С	15.2	В	12.0
SB Left - E Lake Rd	Α	8.5	A	8.5	Α	8.6	Α	8.6	Α	8.7	Α	8.7
2. E Lake Rd/Proposed Subdivision Street WB - Proposed Subdivision Street SB Left - E Lake Rd	_` ′	N/A —	_	N/A		N/A —	_	N/A	B A	8.1	_ _ В _ А	12.3
3. Lincoln Hill Rd/Proposed Subdivision S NB Left - Proposed Subdivision Street EB - Lincoln Hill Rd	Proposed Subdivision Street			N/A	N/A —		N/A		A A	7.4 9.9	A B	7.7

Notes

- I. A(2.8) = Level of Service (Delay in seconds per vehicle)
- 2. (S) = Signalized; (U) = Unsignalized
- 3. N/A = Approach does not exist and/or was not analyzed during this condition
- 4. Green shaded cells indicate low delays, yellow shaded cells indicate moderate delays, red shaded cells indicate long delays.



E Lake Rd/Lincoln Hill Rd

All approaches operate at "D" or better during both peak hours under all conditions. The westbound right turn movement is projected to change from LOS "B" to "C" during the AM peak hour, however, this is the result of a borderline condition as the threshold between LOS "B" and "C" is 15 seconds per vehicle and the actual increase in delay is 1.0 seconds per vehicle. No mitigation is warranted or recommended at this intersection as a result of the proposed development.

E Lake Rd/Proposed Subdivision Street

The proposed subdivision street intersection is projected to operate at LOS "B" or better on all approaches during both peak hours. No mitigation is warranted or recommended at any of the driveway intersections.

<u>Lincoln Hill Rd/Proposed Subdivision Street</u>

The proposed subdivision street intersection is projected to operate at LOS "B" or better on all approaches during both peak hours. No mitigation is warranted or recommended at any of the driveway intersections.

IX. LEFT TURN TREATMENT INVESTIGATION

Volume warrants for left turn treatments at the proposed subdivision street intersections for the residential development along E Lake Road and Lincoln Hill Road were investigated using the Transportation Research Board's <u>NCHRP Report 279</u>, <u>Intersection Channelization Design Guide</u>. Provisions for left turn lane facilities should be established where traffic volumes are high enough and safety considerations are sufficient to warrant the additional lane. All warrant calculations are included in the Appendices.

Warrants were investigated for full build conditions of the residential site during both peak hours analyzed. For the intersection of E Lake Road/Proposed Subdivision Street, the proposed traffic volumes turning left onto the proposed subdivision street from E Lake Road indicates that the warrants for a southbound left turn lane are not satisfied during the AM peak hour but are marginally satisfied during the PM peak hour. It should be noted that the projected volumes turning left onto the residential development site at this location is 32 vehicles per hour (one vehicle every 1.9 minutes). Considering that the warrant is marginally met for only the PM peak, a left turn lane is not recommended at this location based on this analysis.

For the intersection of Lincoln Hill Road/Proposed Subdivision Street, the proposed traffic volumes turning left onto the proposed subdivision street from Lincoln Hill Road indicates that the warrants for a northbound left turn lane are not satisfied during both peak hours studied.

X. CONCLUSIONS & RECOMMENDATIONS

This study evaluates the potential traffic impacts resulting from the proposed Canandaigua Shores Residential Development. Based upon the analyses, the results indicate that the proposed development will not have significant adverse traffic impacts on the existing roadway network. The following sets forth conclusions and recommendations based upon the results of the analyses:

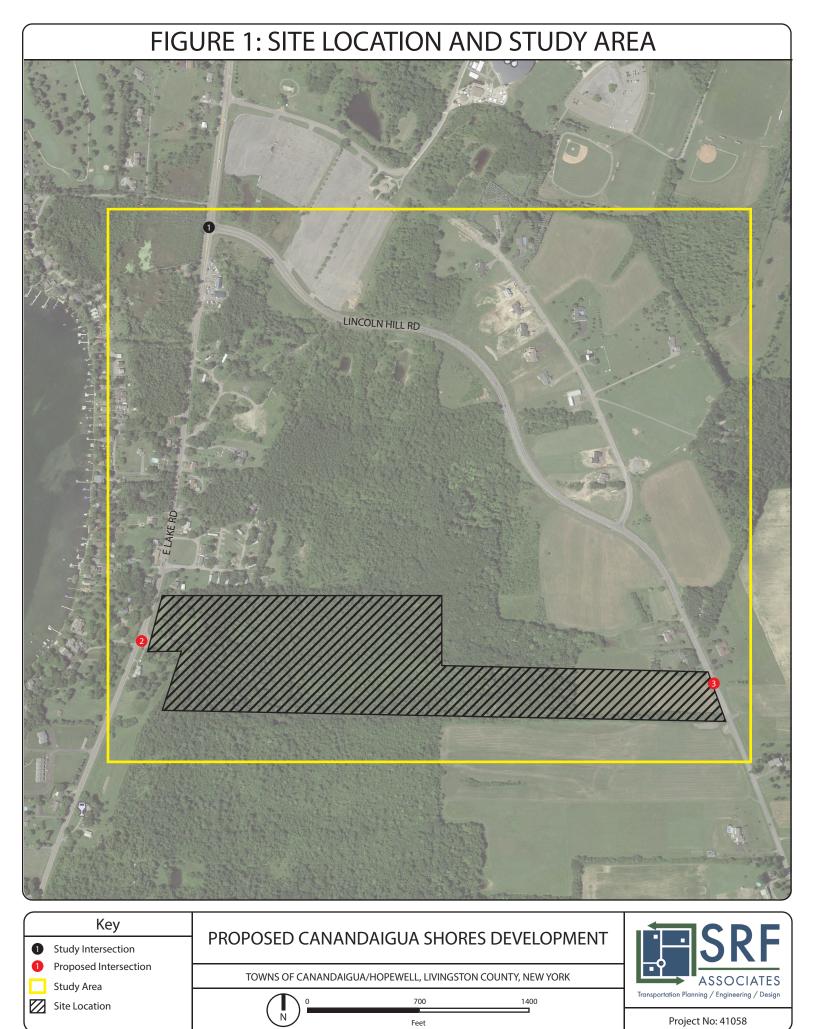


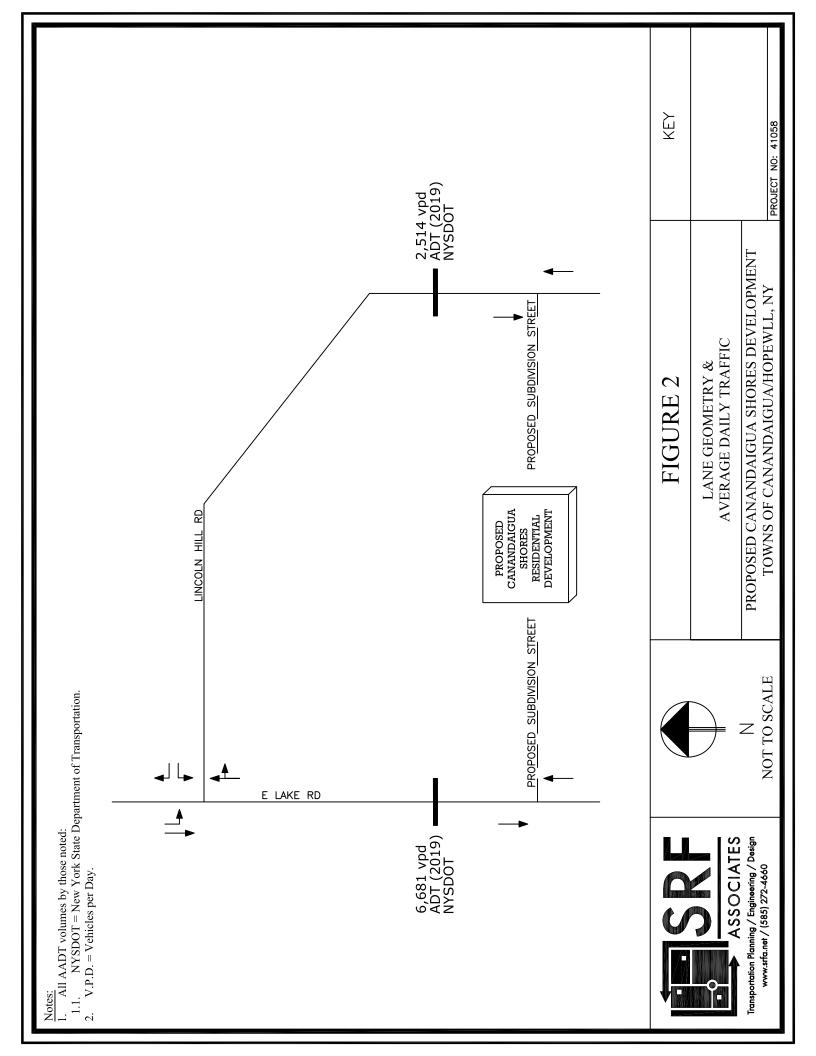
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- Based upon current conditions and speeds, the available sight distances along E Lake Rd and Lincoln Hill Rd at the proposed subdivision street intersections to the left and right meet the required SSD and desirable ISD.
- 3. For the intersection of E Lake Road/Proposed Subdivision Street, the proposed traffic volumes turning left onto the proposed subdivision street from E Lake Road indicates that the warrants for a southbound left turn lane are not satisfied during the AM peak hour but are marginally satisfied during the PM peak hour. It should be noted that the projected volumes turning left onto the residential development site at this location is 32 vehicles per hour (one vehicle every 1.9 minutes). Considering that the warrant is marginally met for only the PM peak, a left turn lane is not recommended at this location based on this analysis.
- 4. For the intersection of Lincoln Hill Road/Proposed Subdivision Street, the proposed traffic volumes turning left onto the proposed subdivision street from Lincoln Hill Road indicates that the warrants for a northbound left turn lane are not satisfied during both peak hours studied.
- 5. The projected traffic impacts resulting from full development of the proposed project during all peak hours can be accommodated by the existing transportation network with no highway improvements.
- 6. All of the proposed subdivision street intersections are projected to operate at LOS "B" or better on all approaches during both peak hours. No mitigation is warranted or recommended at any of the proposed subdivision street intersections.
- 7. For purposes of the environmental review of the proposed project pursuant to the State Environmental Quality Review Act (SEQRA), it is our firm's professional opinion that the proposed project will not result in any potentially significant adverse traffic impacts to the study area intersections.

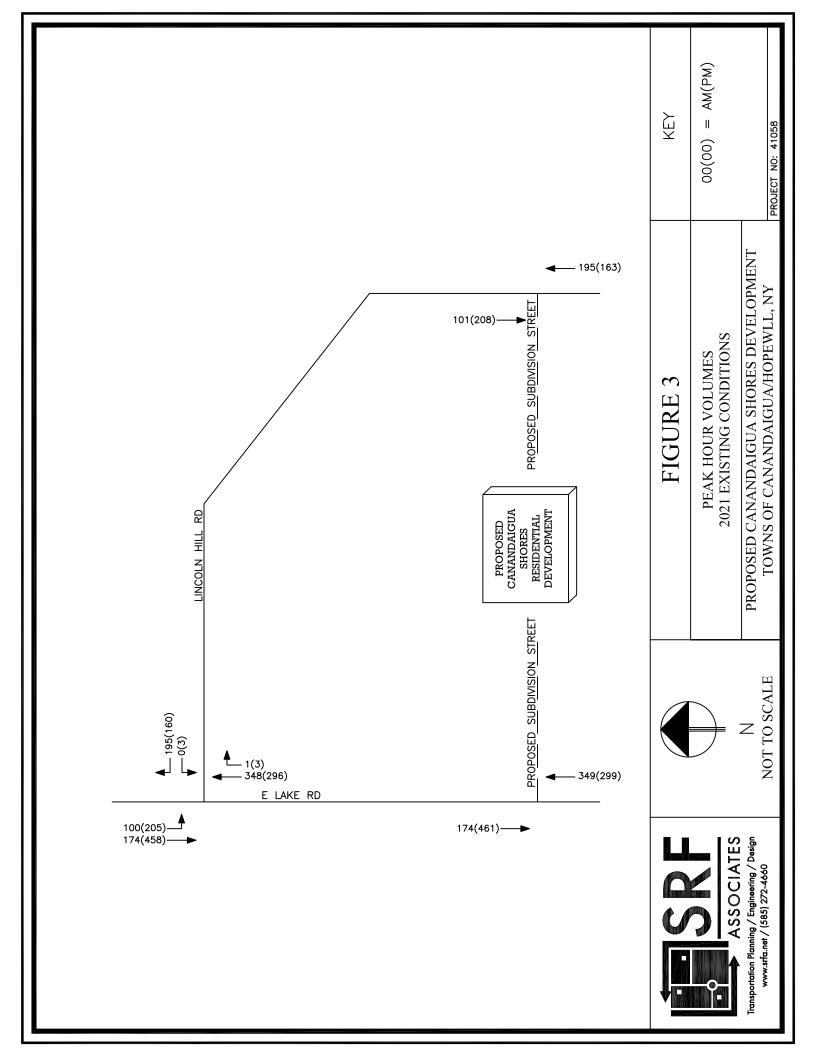
XI. FIGURES

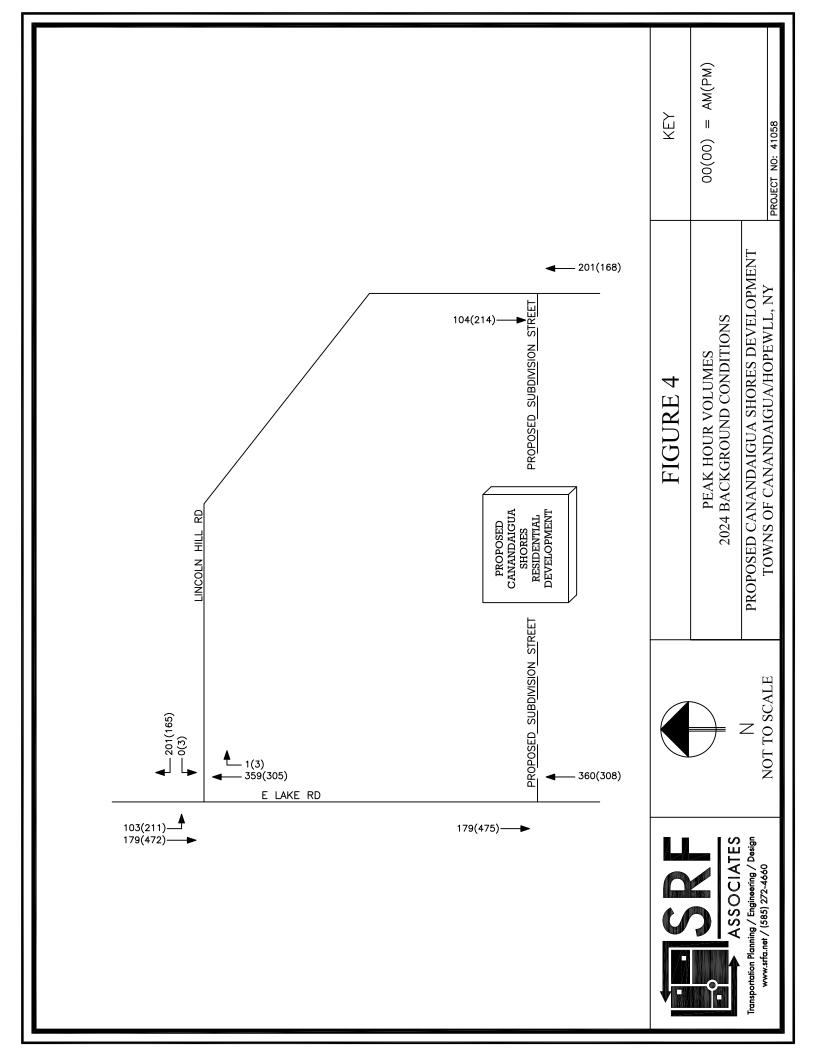
Figures 1 through 8 are included on the following pages.

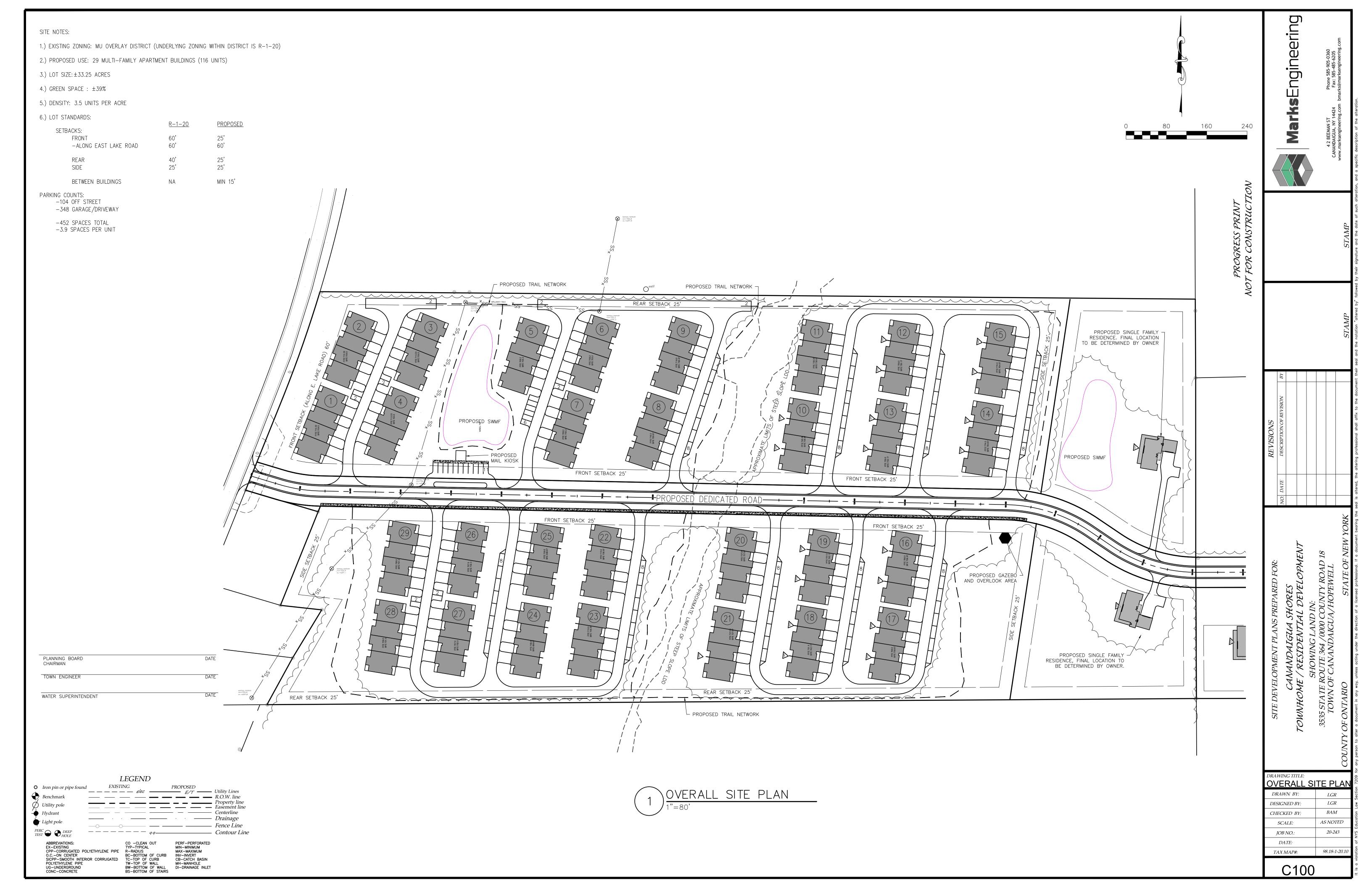


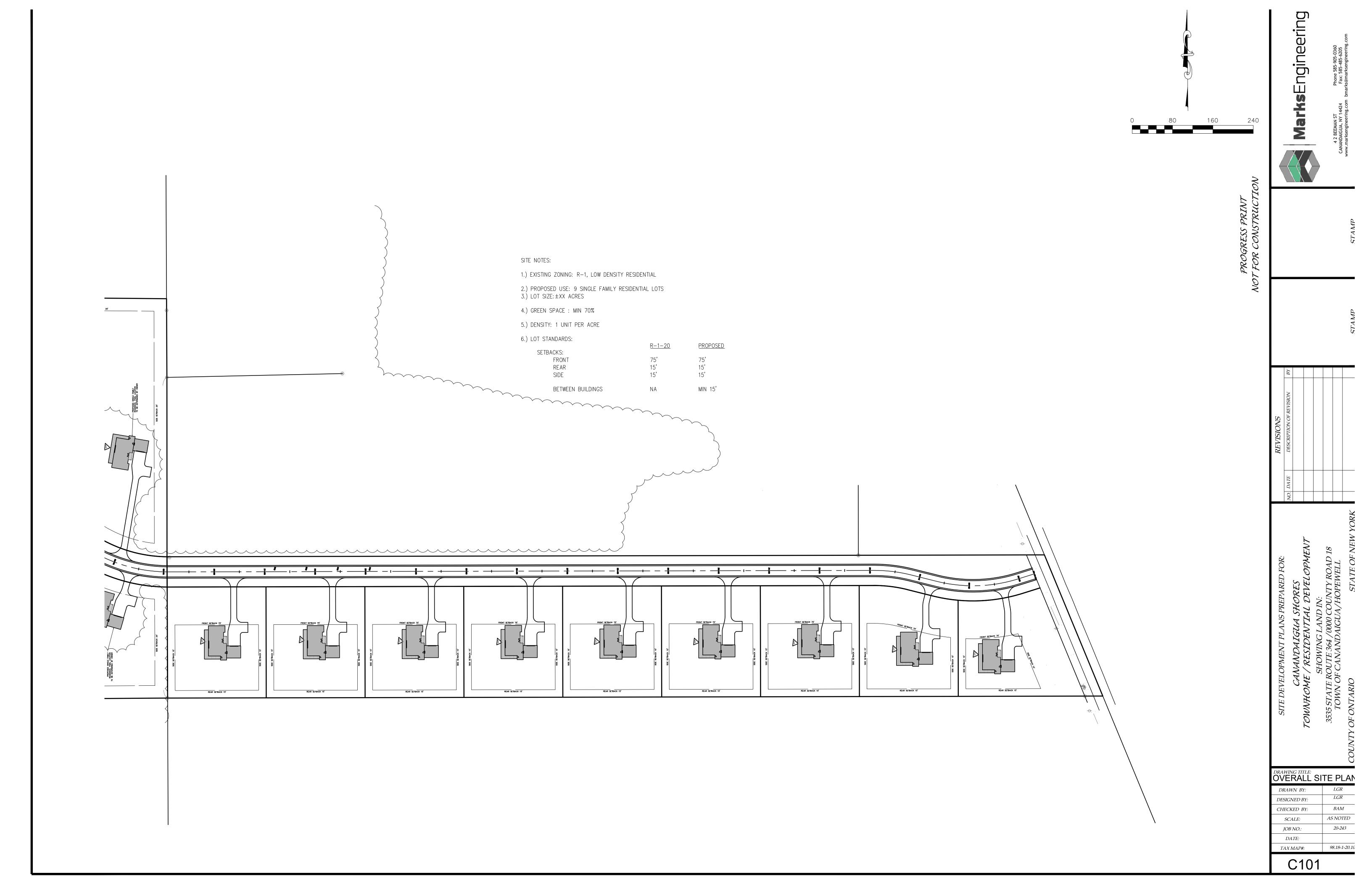


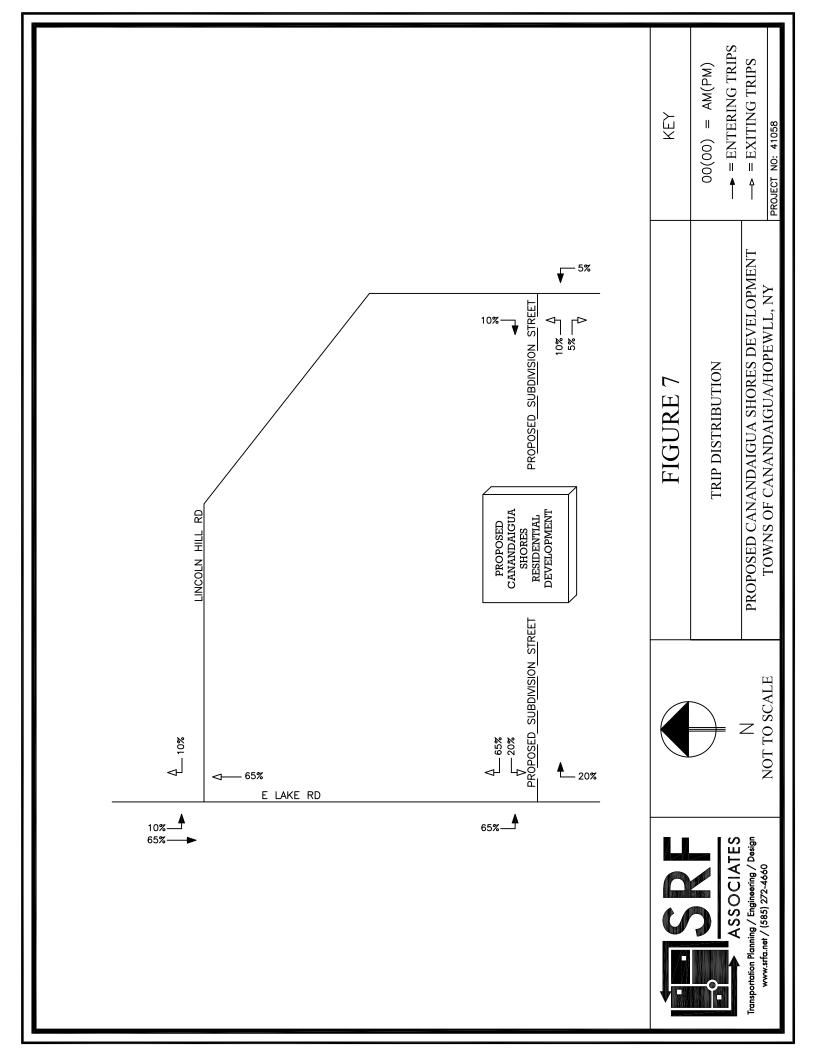


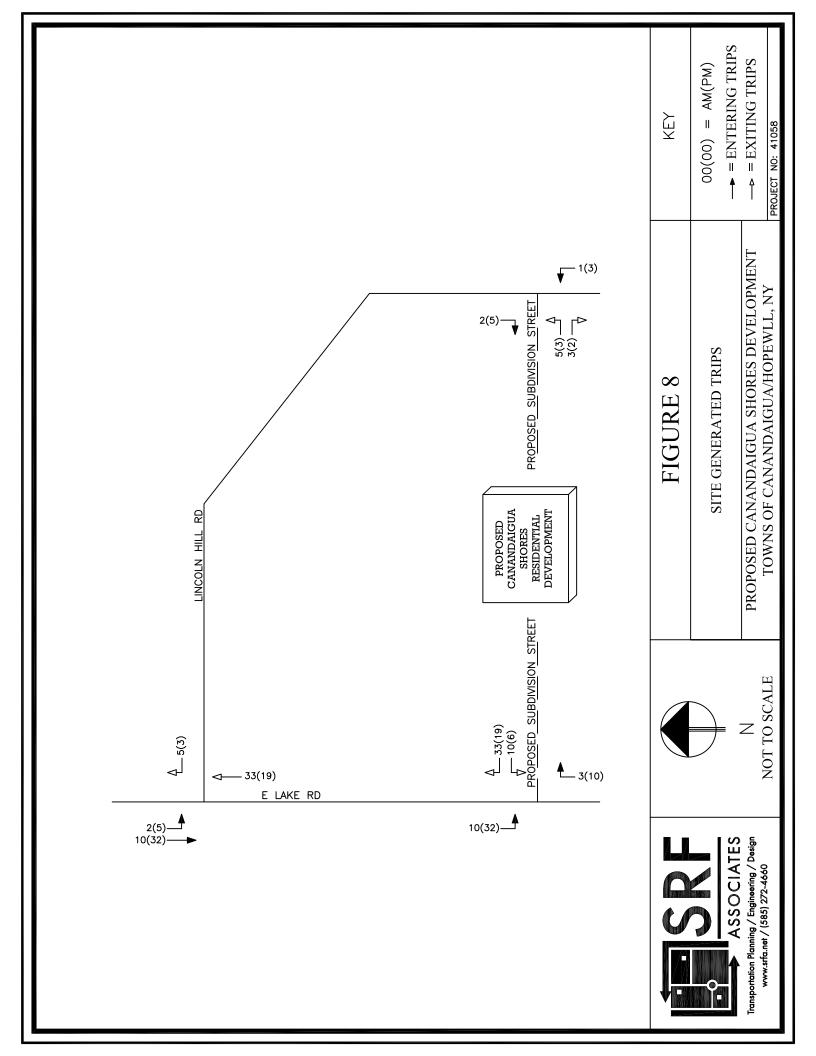


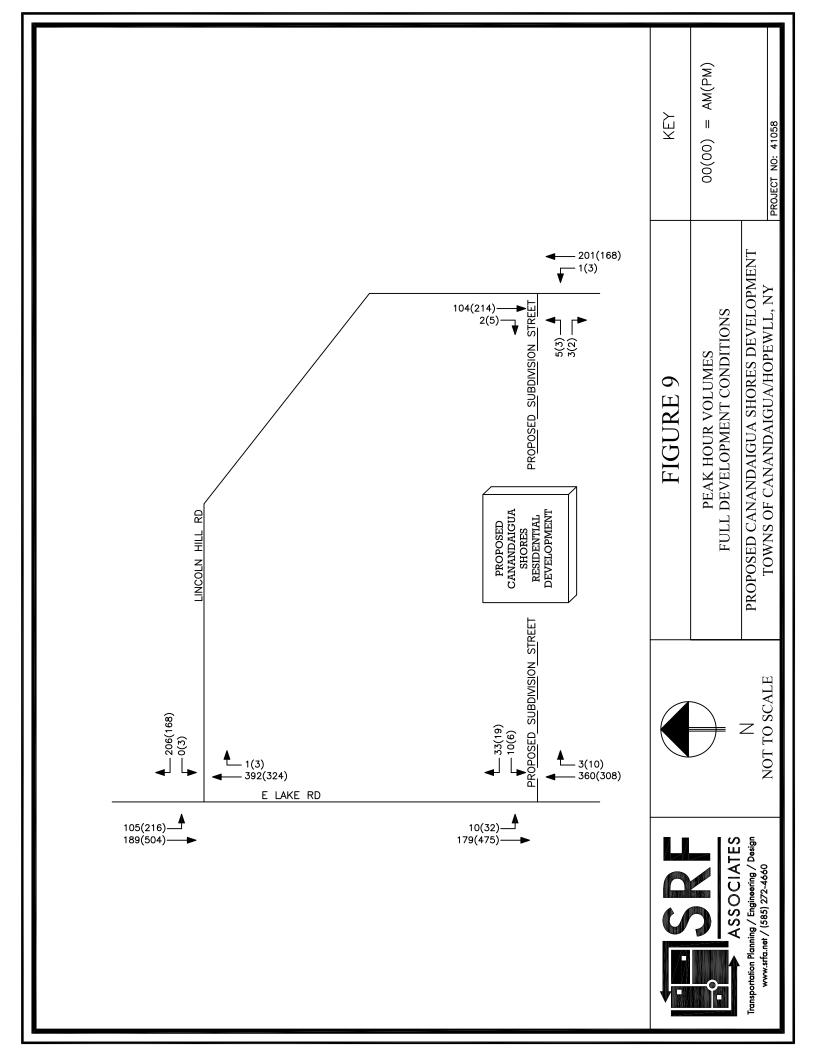












APPENDICES

A1

Collected Traffic Volume Data

3495 Winton Place, Building E, Suite 110 Rochester, New York 14623

File Name: NY-364 at CR-18 - AM

Site Code : 00041058 Start Date : 6/8/2021

Page No : 1

Groups Printed- Unshifted - Bank 1 - Bank 2

	NY-364 CR-18 NY-364																
		NY-3	364			CR-	18			NY-	364						
		Southb	ound			Westb	ound			Northb	ound			Eastbo	ound		
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	40	20	0	44	0	0	0	0	86	0	0	0	0	0	0	190
07:15 AM	0	38	24	0	56	0	0	0	0	76	0	0	0	0	0	0	194
07:30 AM	0	51	34	0	53	0	0	0	1	105	0	0	0	0	0	0	244
07:45 AM	0	45	22	0	42	0	0	0	0	81	0	0	0	0	0	0	190
Total	0	174	100	0	195	0	0	0	1	348	0	0	0	0	0	0	818
08:00 AM	0	52	20	0	45	0	1	0	0	62	0	0	0	0	0	0	180
08:15 AM	0	42	26	0	43	0	0	0	0	64	0	0	0	0	0	0	175
08:30 AM	0	37	17	0	33	0	0	0	0	70	0	0	0	0	0	0	157
08:45 AM	0	47	18	0	47	0	0	0	0	78	0	0	0	0	0	0	190
Total	0	178	81	0	168	0	1	0	0	274	0	0	0	0	0	0	702
Grand Total	0	352	181	0	363	0	1	0	1	622	0	0	0	0	0	0	1520
Apprch %	0	66	34	0	99.7	0	0.3	0	0.2	99.8	0	0	0	0	0	0	
Total %	0	23.2	11.9	0	23.9	0	0.1	0	0.1	40.9	0	0	0	0	0	0	
Unshifted	0	352	181	0	363	0	1	0	1	622	0	0	0	0	0	0	1520
% Unshifted	0	100	100	0	100	0	100	0	100	100	0	0	0	0	0	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

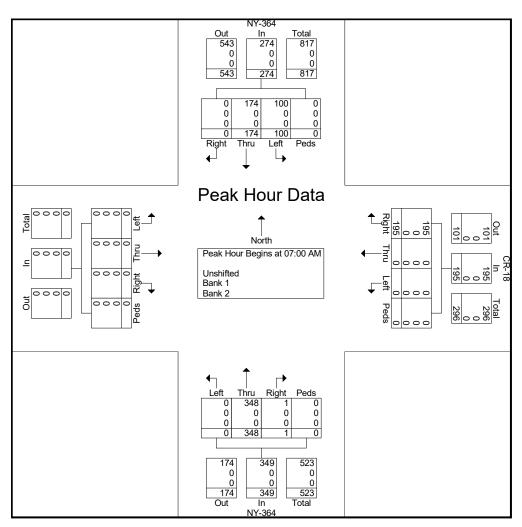
3495 Winton Place, Building E, Suite 110 Rochester, New York 14623

File Name: NY-364 at CR-18 - AM

Site Code : 00041058 Start Date : 6/8/2021

Page No : 2

			NY-36	4				CR-1	8				NY-36	64							
						estbo	und			No	rthbo	und			Ea	astbou	und				
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour A								1 of 1													
Peak Hour f	or Ent	ire Inte	ersecti	on Be	gins at (07:00	AM														
07:00 AM	0	40	20	0	60	44	0	0	0	44	0	86	0	0	86	0	0	0	0	0	190
07:15 AM	0	38	24	0	62	56	0	0	0	56	0	76	0	0	76	0	0	0	0	0	194
07:30 AM	0	51	34	0	85	53	0	0	0	53	1	105	0	0	106	0	0	0	0	0	244
07:45 AM	0	45	22	0	67	42	0	0	0	42	0	81	0	0	81	0	0	0	0	0	190
Total Volume	0	174	100	0	274	195	0	0	0	195	1	348	0	0	349	0	0	0	0	0	818
% App. Total	0	63.5	36.5	0		100	0	0	0		0.3	99.7	0	0		0	0	0	0		
PHF	.000	.853	.735	.000	.806	.871	.000	.000	.000	.871	.250	.829	.000	.000	.823	.000	.000	.000	.000	.000	.838
Unshifted	0	174	100	0	274	195	0	0	0	195	1	348	0	0	349	0	0	0	0	0	818
% Unshifted	0	100	100	0	100	100	0	0	0	100	100	100	0	0	100	0	0	0	0	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



3495 Winton Place, Building E, Suite 110 Rochester, New York 14623

File Name: NY-364 at CR-18 - PM

Site Code : 00041058 Start Date : 6/8/2021

Page No : 1

Groups Printed- Unshifted - Bank 1 - Bank 2

				CR-		5	ca - Dai	NY-									
		NY-3				Westb				Northb				Eastbo	ound		
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	95	58	0	39	0	1	0	0	69	1	0	0	0	0	0	263
04:15 PM	0	110	58	0	41	0	0	0	0	73	0	0	0	0	0	0	282
04:30 PM	0	126	60	0	36	0	2	0	2	75	0	0	0	0	0	0	301
04:45 PM	0	103	44	0	43	0	0	0	0	68	0	0	0	0	0	0	258
Total	0	434	220	0	159	0	3	0	2	285	1	0	0	0	0	0	1104
05:00 PM	0	119	43	0	40	0	1	0	1	80	0	0	0	0	0	0	284
05:15 PM	0	83	49	0	30	0	0	0	0	56	0	0	0	0	0	0	218
05:30 PM	0	108	39	0	27	0	0	0	1	54	0	0	0	0	0	0	229
05:45 PM	0	78	42	0	26	0	0	0	0	49	0	0	0	0	0	0	195
Total	0	388	173	0	123	0	1	0	2	239	0	0	0	0	0	0	926
	1				ı				ı								i
Grand Total	0	822	393	0	282	0	4	0	4	524	1	0	0	0	0	0	2030
Apprch %	0	67.7	32.3	0	98.6	0	1.4	0	8.0	99.1	0.2	0	0	0	0	0	
Total %	0	40.5	19.4	0	13.9	0	0.2	0	0.2	25.8	0	0	0	0	0	0	
Unshifted	0	822	393	0	282	0	4	0	4	524	1	0	0	0	0	0	2030
% Unshifted	0	100	100	0	100	0	100	0	100	100	100	0	0	0	0	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

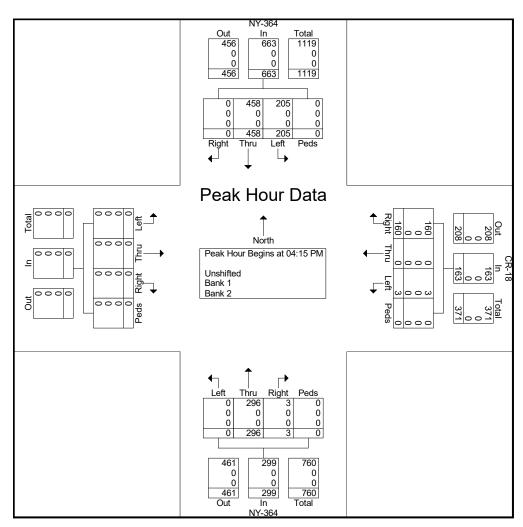
3495 Winton Place, Building E, Suite 110 Rochester, New York 14623

File Name: NY-364 at CR-18 - PM

Site Code : 00041058 Start Date : 6/8/2021

Page No : 2

			NY-36	64				CR-1	8				NY-36	64							
		So	uthbo	und			We	estbo	und			No	rthbo	und			Ea	stbou	ınd		
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour A								1 of 1													
Peak Hour f	or Ent	ire Inte	ersecti	on Be	gins at (04:15	PM														
04:15 PM	0	110	58	0	168	41	0	0	0	41	0	73	0	0	73	0	0	0	0	0	282
04:30 PM	0	126	60	0	186	36	0	2	0	38	2	75	0	0	77	0	0	0	0	0	301
04:45 PM	0	103	44	0	147	43	0	0	0	43	0	68	0	0	68	0	0	0	0	0	258
05:00 PM	0	119	43	0	162	40	0	1	0	41	1	80	0	0	81	0	0	0	0	0	284
Total Volume	0	458	205	0	663	160	0	3	0	163	3	296	0	0	299	0	0	0	0	0	1125
% App. Total	0	69.1	30.9	0		98.2	0	1.8	0		1	99	0	0		0	0	0	0		
PHF	.000	.909	.854	.000	.891	.930	.000	.375	.000	.948	.375	.925	.000	.000	.923	.000	.000	.000	.000	.000	.934
Unshifted	0	458	205	0	663	160	0	3	0	163	3	296	0	0	299	0	0	0	0	0	1125
% Unshifted	0	100	100	0	100	100	0	100	0	100	100	100	0	0	100	0	0	0	0	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



A2

Miscellaneous Traffic Data and Calculations



Proposed Canandaigua Shores Development, Town of Canandaigua/Hopwell, Ontario County, NY Documentation of Ambient Traffic Volume Growth

ıal Growth	0.35%	0.35%
Ann		
2020		AVERAGE
2019	6,681	
2018	6,524	
2017	7,063	
2016	6,746	
2015	6,640	
2014	6,565	
2013		
2012		
2011		
2010		
gment end at	andaigua CL	
SeS	Can	
egment starts at		
Segment	CR 1	
Roadway	E Lake Rd	

PROJECT DETAILS	Type of Project:	City:	Built-up Area(Sq.ft):	Clients Name:	ZIP/Postal Code:	No. of Scenarios: 2		SCENARIO SUMMARY
	Project Name: Canandaigua Shores	Project No:	Country:	Analyst Name: Amy Dake	Date: 6/16/2021	State/Province:	Analysis Region:	

	Total	29	80
ated New Vehicle Trips	Exit	51	30
Estim	Entry	16	20
and Just			
No. of Years to Project	Traffic	0	0
Phases of	Development	1	1
No of Least	NO: OF EATH CORES	2	2
O W C N		AM Peak	PM Peak
ocircuo)	Socialios	Scenario - 1	

User Group:	No. of Years to Project 0 Traffic:		

VEHICLE TRIPS BEFORE REDUCTION

0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Location	2	Ciro	Time Deriod	Method	Entry	Exit	Total
Laria Coe & Data Correct		:	940	200	Rate/Equation	Split%	Split%	
220 - Multifamily Housing (Low-Rise)	General	atial saillond	311	Weekday, Peak Hour of	Best Fit (LOG)	13	42	1
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban	CWelling Ollics	OTT	Adjacent Street Traffic,	Ln(T) =0.95Ln(X) - 0.51	23%	77%	CC
210 - Single-Family Detached Housing	General	o tial saillond	11	Weekday, Peak Hour of	Best Fit (LIN)	3	6	13
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban	CWEIIIIN OIIIC	1	Adjacent Street Traffic,	T = 0.71(X) + 4.80	72%	75%	77

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

	Baseline Site Vel	hicle Mode Share	Baseline Site Veh	cle Occupancy	Baseline Site Vehicl	icle Directional Split
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
0 - Multifamily Housing (Low-Rise)	100	100	1	1	23	77
D - Single-Family Detached Housing	100	100	1	1	25	75

Land Use Person Trips by Vehicle Person Trips by Other Modes Total B. 220 - Multifamily Housing (Low-Rise) 13 42 0 13 3 55 0 0 13 13 55 0 0 13 14 9 0 0 3 15 9 0 3 3 15 12 0 0 3	ESTIMATED BASELINE SITE PERSON TRIPS:						
Entry Exit Entry Exit 13 42 0 0 5 5 0 0 3 1 9 0 0 12 0 0 0 0		Person Trip	os by Vehicle	Person Trips by	Other Modes	Total Baseline Site	ite Person Trips
13	במות ספע	Entry	Exit	Entry	Exit	Entry	Exit
m	220 MArthifemails Hancina (Loss Dice)	13	42	0	0	13	42
3 9 0 3 210 - Single-Family Detached Housing 3 9 0 3	לבט - ואומונוו מוווון חסתאווון (בטע-אואב)		55	0		9	5
210 - Siligle-Fallilly Detaction to Usuing 0	210 Single Emple Detached Housing	3	6	0	0	3	6
	בדה באוווג הפוספוונת ווסמאווג		12	0		I	.2

NEW VEHICLE TRIPS

land I ko		New Vehicle Trips	
200 000	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	13	42	55
210 - Single-Family Detached Housing	3	6	12

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	16	51	29
External Vehicle Trips	16	51	29
New Vehicle Trips	16	51	29

Scenario Name: PM Peak	No. of Years to Project $_{ m 0}$ Dev. phase: 1 Traffic: $_{ m 0}$	Analyst Note:	Warning:

VEHICLE TRIPS BEFORE REDUCTION

operation of the Control	Location	2	Ciro	Time Deriod	Method	Entry	Exit	Total
Laria Coe & Data Correct		:	940		Rate/Equation	Split%	Split%	B 20-
220 - Multifamily Housing (Low-Rise)	General	o tial saillond	311	Weekday, Peak Hour of	Best Fit (LOG)	42	25	23
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban	CWelling Ollics	OTT	Adjacent Street Traffic,	Ln(T) =0.89Ln(X) - 0.02	93%	37%	/0
210 - Single-Family Detached Housing	General	o tial saillond	11	Weekday, Peak Hour of	Best Fit (LOG)	8	2	13
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban	2	1	Adjacent Street Traffic,	Ln(T) =0.96Ln(X) + 0.20	93%	37%	7

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

	Baseline Site Vel	hicle Mode Share	Baseline Site Veh	cle Occupancy	Baseline Site Vehicl	icle Directional Split
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
0 - Multifamily Housing (Low-Rise)	100	100	1	1	63	37
0 - Single-Family Detached Housing	100	100	1	1	63	37

Land Use Person Trips by Vehicle Person Trips by Vehicle Person Trips by Vehicle Total Baseline Site Person Trips Total Baseline Site Person Trips 220 - Multifamily Housing (Low-Rise) 42 Exit Entry Entry Entry Exit 220 - Multifamily Housing (Low-Rise) 67 0 42 5 25 210 - Single-Family Detached Housing 8 5 0 8 5	ESTIMATED BASELINE SITE PERSON TRIPS:						
Entry Exit Exit Exit Entry Exit Entry Ent		Person Trip	os by Vehicle	Person Trips by	Other Modes	Total Baseline S	ite Person Trips
42 25 0 0 42 7 67 67 0 0 67 67 8 5 0 0 8 67 13 5 0 0 8 13	במבות ספת	Entry	Exit	Entry	Exit	Entry	Exit
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	220 Martifeconily Housing (Lougher)	42	25	0	0	42	25
8 5 0 0 8 5 210 - Single-Family Detached Housing 3 5 13 13 13	בבט - ואומנוומוווון חסטאוון (בסש-אואל))	29	0		9	7
210 - Shigher aming Detaction on the control of the	210 Singly Eamily Detached Housing	8	5	0	0	8	2
	210 - Single-rainiiy detadied nousiiig		13	0		I	3

NEW VEHICLE TRIPS

Lond Hr.		New Vehicle Trips	
Callo OSC	Entry	Exit	Total
[220 - Multifamily Housing (Low-Rise)	42	25	29
210 - Single-Family Detached Housing	8	2	13

	1		
Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	20	30	80
External Vehicle Trips	20	30	80
New Vehicle Trips	20	30	80

PROJECT: LOCATION: PEAK HOUR:

Proposed Canandaigua Shores Development 3535 E Lake Rd, Towns of Canadaigua/Hopewell, New York AM Peak

8

9

Figure Number: 3 4 7

Num of yrs

			3						
LOCATION		2021	2024	Proposed Residential Development				Total Site	Full Build
NUMBER	INTERSECTION DESCRIPTION	Unadjusted	Bkgd Vol	Enter	Exit	Trips IN	Trips OUT	Trips	Volumes
1	E Lake Rd/	Volumes	1.0%	Dist. %	Dist. %	16	51	•	
1									
1	Lincoln Hill Rd								
	SR	474	470	050/		40		40	400
	ST	174	179	65%		10		10	189
	SL WR	100 195	103	10%	400/	2	-	2	105
		195	201		10%		5	5	206
	WT WL								
	NR	1	1						1
	NR NT	348	359		65%		33	33	392
	NI NL	340	359		03%		33	33	392
	ER								
	ER ET								
	EL EL								
2	E Lake Rd/ Proposed Subdivision Street								
1	SR								
	ST	174	179						179
	SL	174	179	65%		10		10	10
1	WR			03%	65%	10	33	33	33
	WK WT				05%		33	33	33
	WL				20%		10	10	10
1	NR			20%	2070	3	10	3	3
	NT	349	360	20 /0		3		3	360
	NL NL	543	300						300
	ER								
	ET								
	EL								
3	Lincoln Hill Rd/								
	Proposed Subdivision Street					1	1		
 	SR			10%		2		2	2
	ST	101	104	1070		_	ĺ	_	104
 	SL					1	1		.,,
 	WR								
 	WT					1	1		
 	WL					ĺ			
	NR					ĺ	1		
	NT	195	201			ĺ			201
	NL			5%		1	ĺ	1	1
	ER			-	5%	1	3	3	3
	ET				-	ĺ			
 	EL				10%	ĺ	5	5	5

PROJECT: LOCATION: PEAK HOUR:

Proposed Canandaigua Shores Development 3535 E Lake Rd, Towns of Canadaigua/Hopewell, New York PM Peak

8

9

Figure Number:

3 4 7

Num of yrs

			3	Proposed Residential Development					
LOCATION	INTERCECTION DESCRIPTION	2021	2024					Total Site	Full Build
NUMBER	INTERSECTION DESCRIPTION	Unadjusted	Bkgd Vol	Enter Dist. %	Exit Dist. %	Trips IN	Trips OUT	Trips	Volumes
\vdash	E Laba Dal/	Volumes	1.0%	DIST. %	DIST. %	50	30	-	
1	E Lake Rd/								
	Lincoln Hill Rd SR								
	SK ST	450	470	050/		20		20	504
	SL	458 205	472	65%		32 5		32	504
	SL WR		211	10%	10%	5	-	5 3	216
		160	165		10%		3	3	168
	WT	0							0
_	WL	3	3						3
	NR	3	3						3
	NT	296	305		65%		19	19	324
_	NL								
	ER								
	ET								
	EL								
2	E Lake Rd/								
_	Proposed Subdivision Street								
	SR								
	ST	461	475						475
l L	SL			65%		32		32	32
	WR				65%		19	19	19
	WT								
	WL				20%		6	6	6
	NR			20%		10		10	10
	NT	299	308						308
	NL								
	ER								
	ET								
	EL								
3	Lincoln Hill Rd/								
	Proposed Subdivision Street								
	SR			10%		5		5	5
	ST	208	214						214
	SL								
	WR								
	WT								
	WL								
	NR								
	NT	163	168						168
	NL			5%		3		3	3
	ER				5%		2	2	2
 	ET								
	EL				10%		3	3	3

SIGHT DISTANCE CANANDAIGNA SHORES

E. Lake Rd (NY 364)

North 700 ft. South 1600 ft.

45 MPH

Lincoln Hill Rd. (CR18)

North 705 Ft. South 1210 Ft.

55 MPH

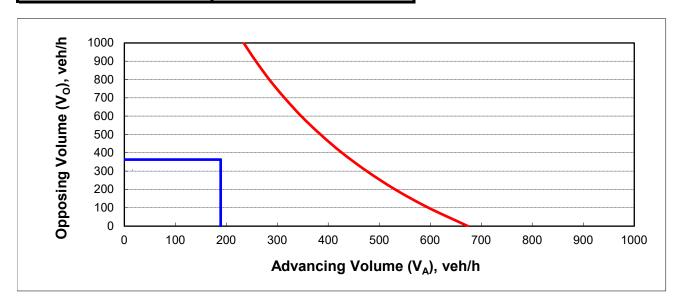
INPUT

Variable	Value
Major Approach	Lake Rd/Proposed Subdivision St - AM Pea
Approach	Southbound (Full Development)
Design Speed Limit - MPH	50
Percent of left-turns in advancing volume (V _A), %:	5%
Advancing volume (V _A), veh/h:	189
Opposing volume (V _O), veh/h:	363

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

PLOT - LINE 1		PLOT - LINE 2	
0	363	189	0
189	363	189	363



OUTPUT

Variable	Value	
Limiting advancing volume (V _A), veh/h:	444	
Guidance for determining the need for a major-road left-turn bay:		
Southbound (Full Development) Left-turn treatment NOT warranted at E Lake Rd/Proposed Subdivision		

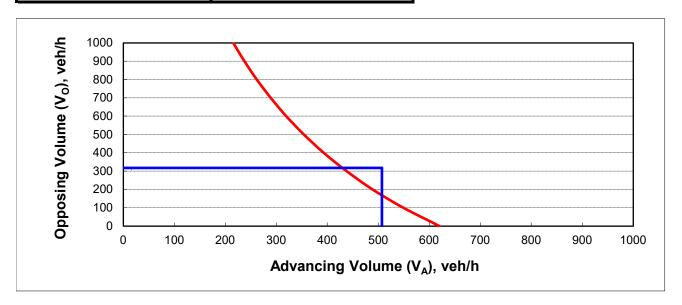
INPUT

Variable	Value
Major Approach	Lake Rd/Proposed Subdivision St - PM Pea
Approach	Southbound (Full Development)
Design Speed Limit - MPH	50
Percent of left-turns in advancing volume (V _A), %:	6%
Advancing volume (V _A), veh/h:	507
Opposing volume (V _O), veh/h:	318

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advance	g lane, s: 1.9

PLOT - LINE 1		PLOT - LINE 2	
0	318	507	0
507	318	507	318



OUTPUT

0011 01	
Variable	Value
Limiting advancing volume (V _A), veh/h:	429
Guidance for determining the need for a major-road left-turn bay:	
Southbound (Full Development) Left-turn treatment warranted at E Lake Rd/Proposed Subdivision St - F	

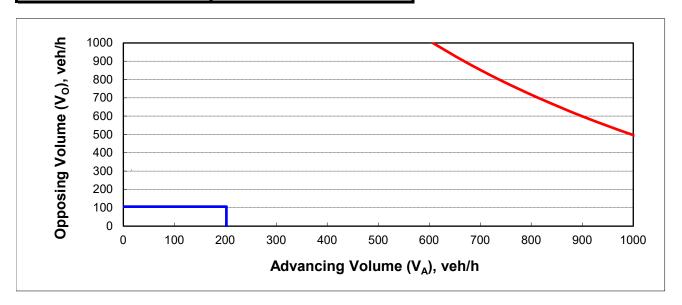
INPUT

Variable	Value	
Major Approach	coln Hill Rd/Proposed Subdivision St - AM Po	
Approach	Northbound (Full Development)	
Design Speed Limit - MPH	60	
Percent of left-turns in advancing volume (V _A), %:	1%	
Advancing volume (V _A), veh/h:	202	
Opposing volume (V _O), veh/h:	106	

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

PLOT - LINE 1		PLOT - LINE 2	
0	106	202	0
202	106	202	106



OUTP<u>UT</u>

Variable	Value	
Limiting advancing volume (V _A), veh/h:	1534	
Guidance for determining the need for a major-road left-turn bay:		
Northbound (Full Development) Left-turn treatment NOT warranted at Lincoln Hill Rd/Proposed Subdivision		

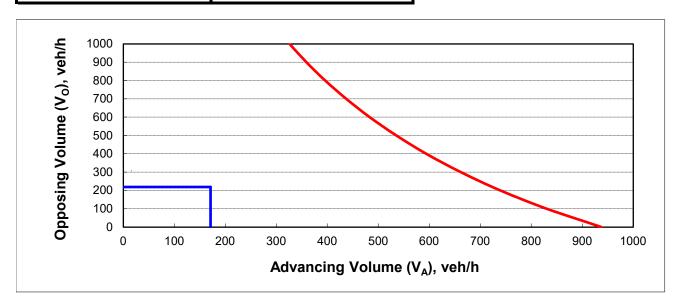
INPUT

Variable	Value
Major Approach	coln Hill Rd/Proposed Subdivision St - PM Po
Approach	Northbound (Full Development)
Design Speed Limit - MPH	60
Percent of left-turns in advancing volume (V _A), %:	2%
Advancing volume (V _A), veh/h:	171
Opposing volume (V _O), veh/h:	219

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing	ane, s: 1.9

PLOT - LINE 1		PLOT - LINE 2	
0	219	171	0
171	219	171	219



OUTPUT

0011 01	
Variable	Value
Limiting advancing volume (V _A), veh/h:	724
Guidance for determining the need for a major-road left-turn ba	ay:
Northbound (Full Development) Left-turn treatment NOT warra	nted at Lincoln Hill Rd/Proposed Subdivis

Level of Service: Criteria and Definitions

Level of Service Criteria

Highway Capacity Manual 2016

SIGNALIZED INTERSECTIONS

Level of Service is a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. Level of Service for signalized intersections is defined in terms of delay specifically, average total delay per vehicle for a 15 minute analysis period. The ranges are as follows:

Level	Control Delay
of	per vehicle
Service	(seconds)
Α	< 10
В	10 – 20
С	20 – 35
D	35 – 55
Е	55 – 80
F	>80

UNSIGNALIZED INTERSECTIONS

Level of Service for unsignalized intersections is also defined in terms of delay. However, the delay criteria are different from a signalized intersection. The primary reason for this is driver expectation that a signalized intersection is designed to carry higher volumes than an unsignalized intersection. The total delay threshold for any given Level of Service is less for an unsignalized intersection than for a signalized intersection. The ranges are as follows:

Level	Control Delay
of	per vehicle
Service	(seconds)
Α	< 10
В	10 – 15
С	15 – 25
D	25 – 35
Е	35 - 50
F	>50

Level of Service Calculations: Existing Conditions

Lanes, Volumes, Timings
1: E Lake Rd & Lincoln Hill Rd

Intersection Capacity Utilization 37.1%

Analysis Period (min) 15

Canandaigua Shores Residential Development 2021 Existing AM

SBT Lane Group Lane Configurations Traffic Volume (vph) 195 Future Volume (vph) 0 195 348 100 174 Ideal Flow (vphpl) 1900 1900 1900 1900 1900 1900 Storage Length (ft) 500 375 0 0 Storage Lanes Taper Length (ft) Lane Util. Factor 25 25 1.00 1.00 1.00 1.00 1.00 Frt 0.850 Flt Protected 0.950 Satd. Flow (prot) 1863 1583 1863 0 1770 1863 Flt Permitted 0.950 Satd. Flow (perm) 1863 1583 1863 0 1770 1863 Link Speed (mph) 55 45 45 Link Distance (ft) 716 730 760 Travel Time (s) 8.9 11.1 11.5 Peak Hour Factor 0.84 0.84 0.84 0.84 0.84 0.84 232 414 119 207 Adj. Flow (vph) Shared Lane Traffic (%) 0 232 415 207 Lane Group Flow (vph) Enter Blocked Intersection No No No No No No Lane Alignment Left Right Left Right Left Left Median Width(ft) 12 12 12 Link Offset(ft) Crosswalk Width(ft) 16 16 16 Two way Left Turn Lane Headway Factor 1.00 1.00 1.00 1.00 1.00 1.00 Turning Speed (mph) 15 Sign Control Stop Free Free Intersection Summary Area Type: Control Type: Unsignalized Other

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 Synchro 11 Report

 NGM
 Page 1

ICU Level of Service A

HCM 6th TWSC 1: E Lake Rd & Lincoln Hill Rd Canandaigua Shores Residential Development 2021 Existing AM

Intersection						
Int Delay, s/veh	4.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	ሻ	7	1		ሻ	
Traffic Vol, veh/h	0	195	348	1	100	174
Future Vol., veh/h	0	195	348	1	100	174
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	500	0	-	-	375	-
Veh in Median Storage	e,# 0	-	0	_	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	232	414	1	119	207
	-					
Major/Minor	Minor1		Aniar1		Major	
		415	Major1 0	0	Major2 415	0
Conflicting Flow All	860			U		0
Stage 1	415	-	-	-	-	-
Stage 2	445	-	-	-	- 440	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518		-		2.218	-
Pot Cap-1 Maneuver	326	637	-	-	1144	-
Stage 1	666	-	-	-	-	-
Stage 2	646	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver		637	-	-	1144	-
Mov Cap-2 Maneuver	292	-	-	-	-	-
Stage 1	666	-	-	-	-	-
Stage 2	579	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	13.9		0		3.1	
HCM LOS	В				0.1	
Min on Laws (Maios Mos	-1	NDT	NDD	NDL 4V	VDI 0	CDI
Minor Lane/Major Mvr	nt	NBT		VBLn1V		SBL
Capacity (veh/h)		-	-	-	637	1144
HCM Lane V/C Ratio		-	-		0.364	
HCM Control Delay (s)	-	-	0	13.9	8.5
HCM Lane LOS		-	-	Α	В	Α
HCM 95th %tile Q(veh	1)	-	-	-	1.7	0.3

Lanes, Volumes, Timings 1: E Lake Rd & Lincoln Hill Rd

Canandaigua Shores Residential Development 2021 Existing PM

	•	•	†	-	-	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	ሻ	7	1•		ሻ	†
Traffic Volume (vph)	3	160	296	3	205	458
Future Volume (vph)	3	160	296	3	205	458
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500	0		0	375	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.999			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1861	0	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	1861	0	1770	1863
Link Speed (mph)	55		45			45
Link Distance (ft)	716		730			760
Travel Time (s)	8.9		11.1			11.5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	3	172	318	3	220	492
Shared Lane Traffic (%)						
Lane Group Flow (vph)	3	172	321	0	220	492
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	ion 40.5%			IC	CU Level of	of Service A
Analysis Period (min) 15						

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HCM 6th TWSC 1: E Lake Rd & Lincoln Hill Rd Canandaigua Shores Residential Development
2021 Existing PM

Intersection							
Int Delay, s/veh	3.3						
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	ሻ	7	ĵ.		ሻ	↑	
Traffic Vol, veh/h	3	160	296	3	205	458	
Future Vol, veh/h	3	160	296	3	205	458	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	500	0	-	-	375	-	
Veh in Median Storage	e, # 0	-	0	-	-	0	
Grade, %	0	-	0	-	-	0	
Peak Hour Factor	93	93	93	93	93	93	
Heavy Vehicles, %	2	2	2	2	2	2	
Mymt Flow	3	172	318	3	220	492	
Major/Minor	Minor1		Aniar1		Major		
			Major1		Major2	^	
Conflicting Flow All	1252	320	0	0	321	0	
Stage 1	320	-	-		-	-	
Stage 2	932	- 00	-	-	- 4.40	-	
Critical Hdwy	6.42	6.22	-	-	4.12	-	
Critical Hdwy Stg 1	5.42	-	-	-	-	-	
Critical Hdwy Stg 2	5.42	2 240	-	-	2.218	-	
Follow-up Hdwy	3.518		-			-	
Pot Cap-1 Maneuver	190	721	-	-	1239	-	
Stage 1	736	-	-	-	-	-	
Stage 2	383	-	-	-	-	-	
Platoon blocked, %	450	704	-	-	1000	-	
Mov Cap-1 Maneuver	156	721	-	-	1239	-	
Mov Cap-2 Maneuver	156	-	-	-	-	-	
Stage 1	736	-	-	-	-	-	
Stage 2	315	-	-	-	-	-	
Approach	WB		NB		SB		
HCM Control Delay, s	11.9		0		2.6		
HCM LOS	В						
Min I /M-i M:		NDT	NDD	NDL 4V	MDI 0	SBL	
Minor Lane/Major Mvm	ıt	NBT		VBLn1V			
Capacity (veh/h)		-	-	156	721	1239	
HCM Lane V/C Ratio		-			0.239		
HCM Control Delay (s)		-	-	28.6	11.6	8.5	
HCM Lane LOS	,	-	-	D	В	A	
HCM 95th %tile Q(veh)	-	-	0.1	0.9	0.6	

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Level of Service Calculations: Background Conditions

06/22/2021

NGM

Canandaigua Shores Residential Development 2024 Background AM

	€	•	†		-	↓	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	*	7	1 >		ሻ	^	
Traffic Volume (vph)	0	201	359	1	103	179	
Future Volume (vph)	0	201	359	1	103	179	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	500	0		0	375		
Storage Lanes	1	1		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850					
Flt Protected					0.950		
Satd. Flow (prot)	1863	1583	1863	0	1770	1863	
Flt Permitted					0.950		
Satd. Flow (perm)	1863	1583	1863	0	1770	1863	
Link Speed (mph)	55		45			45	
Link Distance (ft)	716		730			760	
Travel Time (s)	8.9		11.1			11.5	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	
Adj. Flow (vph)	0	239	427	1	123	213	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	239	428	0	123	213	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		12			12	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Sign Control	Stop		Free			Free	
Intersection Summary							
Area Type:	Other						
Control Type: Unsignalized							
Intersection Canacity Utiliza	ation 38 1%			IC	III evel o	of Service A	Δ

Intersection Capacity Utilization 38.1% Analysis Period (min) 15 ICU Level of Service A

Synchro 11 Report

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Canandaigua Shores Residential Development 2024 Background AM HCM 6th TWSC 1: E Lake Rd & Lincoln Hill Rd

Intersection							
Int Delay, s/veh	4.4						
		MDD	NDT	NDD	OD:	0.07	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	ሻ	7	\$		1	470	
Traffic Vol, veh/h	0	201	359	1	103	179	
Future Vol, veh/h	0	201	359	1	103	179	
Conflicting Peds, #/hr	0	0	_ 0	_ 0	0	_ 0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-		-		-	None	
Storage Length	500	0	-	-	375	-	
Veh in Median Storage			0	-	-	0	
Grade, %	0	- 0.4	0	- 04	- 04	0	
Peak Hour Factor	84	84	84	84	84	84	
Heavy Vehicles, % Mymt Flow	0	239	427	1	123	213	
IVIVIIII FIOW	U	239	427	1	123	213	
Major/Minor	Minor1	ı	Major1		Major2		
Conflicting Flow All	887	428	0	0	428	0	
Stage 1	428	-	-	-	-	-	
Stage 2	459	-	-	-	-	-	
Critical Hdwy	6.42	6.22	-	-	4.12	-	
Critical Hdwy Stg 1	5.42	-	-	-	-	-	
Critical Hdwy Stg 2	5.42	-	-	-	-	-	
Follow-up Hdwy		3.318	-	-	2.218	-	
Pot Cap-1 Maneuver	315	627	-	-	1131	-	
Stage 1	657	-	-	-	-	-	
Stage 2	636	-	-	-	-	-	
Platoon blocked, %			-	-		-	
Mov Cap-1 Maneuver	281	627	-	-	1131	-	
Mov Cap-2 Maneuver	281	-	-	-	-	-	
Stage 1	657	-	-	-	-	-	
Stage 2	567	-	-	-	-	-	
Approach	WB		NB		SB		
HCM Control Delay, s			0		3.1		
HCM LOS	14.2 B		U		J. I		
I IOWI LOO	ь						
Minor Lane/Major Mvn	nt	NBT	NBR\	VBLn1\		SBL	SBT
Capacity (veh/h)		-	-	-	627	1131	-
HCM Lane V/C Ratio		-	-	-	0.382		-
HCM Control Delay (s)	-	-	0	14.2	8.6	-
HCM Lane LOS		-	-	Α	В	Α	-
HCM 95th %tile Q(veh	1)	-	-	-	1.8	0.4	-

Canandaigua Shores Residential Development 2024 Background PM

	•	•	1	~	-	↓	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	ሻ	7	1>		ሻ	†	
Traffic Volume (vph)	3	165	305	3	211	472	
Future Volume (vph)	3	165	305	3	211	472	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	500	0		0	375		
Storage Lanes	1	1		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850	0.999				
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	1583	1861	0	1770	1863	
FIt Permitted	0.950				0.950		
Satd. Flow (perm)	1770	1583	1861	0	1770	1863	
Link Speed (mph)	55		45			45	
Link Distance (ft)	716		730			760	
Travel Time (s)	8.9		11.1			11.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Adj. Flow (vph)	3	177	328	3	227	508	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	3	177	331	0	227	508	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		12			12	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Sign Control	Stop		Free			Free	
Intersection Summary							
	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizat	tion 41.3%			IC	CU Level of	of Service A	4

Intersection Summary		
Area Type: Oth	her	
Control Type: Unsignalized		
Intersection Capacity Utilization	n 41.3%	ICU Level of Service A
Analysis Period (min) 15		

1: E Lake Rd & Lincoln Hill Rd

HCM 6th TWSC

Canandaigua Shores Residential Development 2024 Background PM

Intersection							
Int Delay, s/veh	3.3						
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	ች	7	ĵ»		1	†	
Traffic Vol, veh/h	3	165	305	3	211	472	
Future Vol, veh/h	3	165	305	3	211	472	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	500	0	-	-	375	-	
Veh in Median Storage	,#0	-	0	-	-	0	
Grade, %	0	-	0	-	-	0	
Peak Hour Factor	93	93	93	93	93	93	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	3	177	328	3	227	508	
Major/Minor N	Minor1	N	Major1		Major2		
Conflicting Flow All	1292	330	0	0	331	0	
Stage 1	330	-	-	-	-	-	
Stage 2	962	-			_	-	
Critical Hdwy	6.42	6.22					
Critical Hdwy Stg 1	5.42	0.22	-		7.12	-	
Critical Hdwy Stg 2	5.42						
Follow-up Hdwy	3.518	3 318			2.218		
Pot Cap-1 Maneuver	180	712	_	-		_	
Stage 1	728	- 112	-		1220		
Stage 2	371	-	_	-	_	_	
Platoon blocked, %	0					-	
Mov Cap-1 Maneuver	147	712	-	-	1228	-	
Mov Cap-2 Maneuver	147		-	-	-	-	
Stage 1	728	-	-	-	-	-	
Stage 2	302	-	-	-	-	-	
	MD		ND		00		
Approach	WB		NB		SB		
HCM Control Delay, s	12		0		2.7		
HCM LOS	В						
Minor Lane/Major Mvm	t	NBT	NBRV	VBLn1V	VBLn2	SBL	SBT
Capacity (veh/h)		-	-	147	712	1228	-
HCM Lane V/C Ratio		-	-	0.022	0.249	0.185	-
HCM Control Delay (s)		-	-	30	11.7	8.6	-
HCM Lane LOS		-	-	D	В	Α	-
HCM 95th %tile Q(veh)			-	0.1	1	0.7	_

Level of Service Calculations: Full Development Conditions

Canandaigua Shores Residential Development 2024 Full Build AM

	1	•	†	-	-	↓	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	7	7	1→		ሻ	*	Т
Traffic Volume (vph)	0	206	392	1	105	189	
Future Volume (vph)	0	206	392	1	105	189	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	500	0		0	375		
Storage Lanes	1	1		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850					
Flt Protected					0.950		
Satd. Flow (prot)	1863	1583	1863	0	1770	1863	
Flt Permitted					0.950		
Satd. Flow (perm)	1863	1583	1863	0	1770	1863	
Link Speed (mph)	55		45			45	
Link Distance (ft)	716		730			760	
Travel Time (s)	8.9		11.1			11.5	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	
Adj. Flow (vph)	0	245	467	1	125	225	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	245	468	0	125	225	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		12			12	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Sign Control	Stop		Free			Free	
Intersection Summary							
	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizati	ion 40.1%			IC	CU Level of	of Service A	
Analysis Period (min) 15							

06/22/2021 Synchro 11 Report NGM Page 1

HCM 6th TWSC 1: E Lake Rd & Lincoln Hill Rd Canandaigua Shores Residential Development 2024 Full Build AM

Intersection							
Int Delay, s/veh	4.5						
•							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Ţ	7	ţ,		105	↑	
Traffic Vol, veh/h	0	206	392	1	105	189	
Future Vol, veh/h	0	206	392	1	105	189	
Conflicting Peds, #/hr	0	0	_ 0	_ 0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-		-		
Storage Length	500	0	-	-	375	-	
Veh in Median Storage		-	0	-	-	0	
Grade, %	0	- 04	0	- 0.4	- 04	0	
Peak Hour Factor	84	84	84	84	84	84	
Heavy Vehicles, % Mymt Flow	0	245	467	1	125	225	
IVIVIIII FIOW	0	245	40/	1	125	225	
Major/Minor	Minor1	N	Major1		Major2		
Conflicting Flow All	943	468	0	0	468	0	
Stage 1	468	-	-	-	-	-	
Stage 2	475	-	-	-	-	-	
Critical Hdwy	6.42	6.22	-	-	4.12	-	
Critical Hdwy Stg 1	5.42	-	-	-	-	-	
Critical Hdwy Stg 2	5.42	-	-	-	-	-	
Follow-up Hdwy		3.318	-		2.218	-	
Pot Cap-1 Maneuver	291	595	-	-	1094	-	
Stage 1	630	-	-	-	-	-	
Stage 2	626	-	-	-	-	-	
Platoon blocked, %			-	-		-	
Mov Cap-1 Maneuver	258	595	-	-	1094	-	
Mov Cap-2 Maneuver	258	-	-	-	-	-	
Stage 1	630	-	-	-	-	-	
Stage 2	555	-	-	-	-	-	
Approach	WB		NB		SB		
HCM Control Delay, s	15.2		0		3.1		
HCM LOS	C						
Mineral ann /Main M		NDT	NDD	MDL 41	VDL 0	CDI	ODZ
Minor Lane/Major Mvn	11	NBT		VBLn1V		SBL	SBT
Capacity (veh/h)		-	-	-	595	1094	-
HCM Lane V/C Ratio		-	-		0.412		-
HCM Control Delay (s)		-	-	0	15.2	8.7	-
HCM Lane LOS	,	-	-	Α	С	A	-
HCM 95th %tile Q(veh)	-	-	-	2	0.4	-

Lanes, Volumes, Timings
2: E Lake Rd & Proposed Subdivision Street

Canandaigua Shores Residential Development 2024 Full Build AM

•	•	†	/	-	ļ	
WBL	WBR	NBT	NBR	SBL	SBT	
Y		ĵ»			ર્ન	
10	33	360	3	10	179	
10	33	360	3	10	179	
1900	1900	1900	1900	1900	1900	
1.00	1.00	1.00	1.00	1.00	1.00	
0.897		0.999				
0.988					0.997	
1651	0	1861	0	0	1857	
0.988					0.997	
1651	0	1861	0	0	1857	
30		45			45	
806		823			355	
18.3		12.5			5.4	
0.92	0.92	0.92	0.92	0.92	0.92	
11	36	391	3	11	195	
47	0	394	0	0	206	
No	No	No	No	No	No	
Left	Right	Left	Right	Left	Left	
12		0			0	
0		0			0	
16		16			16	
1.00	1.00	1.00	1.00	1.00	1.00	
15	9		9	15		
Stop		Free			Free	
Other						
ion 29.1%			IC	U Level	of Service	eΑ
	10 10 1900 1.00 0.897 0.988 1651 30 806 18.3 0.92 11 47 No Left 12 0 16	WBL WBR 10 33 10 33 1900 1900 1.00 1.00 0.897 0.988 1651 0 0.988 1651 0 30 806 18.3 0.92 0.92 11 36 47 0 No No Left Right 12 0 16 1.00 1.00 15 9 Stop	WBL WBR NBT 10 33 360 10 33 360 1900 1900 1900 1.00 1.00 1.00 0.897 0.998 1651 0 1861 0.988 1651 0 1861 30 45 806 823 18.3 12.5 0.92 0.92 0.92 11 36 391 47 0 394 No No No Left Right Left 12 0 0 0 16 16 16 1.00 1.00 1.00 15 9 Stop Free	WBL WBR NBT NBR NBR	WBL WBR NBT NBR SBL Y 1 10 33 360 3 10 10 33 360 3 10 1900 1900 1900 1900 1900 1900 1900 1900 1900 100 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	WBL WBR NBT NBR SBL SBT Y 1 4 10 179 10 33 360 3 10 179 10 33 360 3 10 179 1900 1900 1900 1900 1900 1.00 1.00 1.00 1.00 1.00 0.897 0.999 0.999 0.997 0.988 0.997 0.998 0.997 1651 0 1861 0 0 1857 0.988 0.997 1651 0 1857 45 45 806 823 355 18.3 12.5 5.4 45 806 823 355 18.3 11 195 19 19 19 19 19 19 19 19 11 195 47 0 394 0 0 206 No No No No No No

Intersection Capacity Utilization 29.1% Analysis Period (min) 15

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Canandaigua Shores Residential Development 2024 Full Build AM

2: E Lake Rd & Proposed Subdivision Street

Intersection Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	WOIL	1	NUN	ODL	4
Traffic Vol, veh/h	10	33	360	3	10	179
Future Vol, veh/h	10	33	360	3	10	179
	0	0	0	0	0	0
Conflicting Peds, #/hr	-	-	-	-	-	-
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage		-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	36	391	3	11	195
	Minor1		Major1		Major2	
Conflicting Flow All	610	393	0	0	394	0
Stage 1	393	-	-	-	-	-
Stage 2	217	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	458	656	_	-	1165	-
Stage 1	682	-	-	-	-	
Stage 2	819	-	_	_	_	
Platoon blocked, %	013		-			
Mov Cap-1 Maneuver	453	656		-	1165	
Mov Cap-1 Maneuver	453	000	_		1100	
			-	-		-
Stage 1	682	-	-	-	-	-
Stage 2	810	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	11.6		0		0.4	
HCM LOS	11.0 B		U		0.4	
HOW LOS	ь					
Minor Lane/Major Mvm	nt	NBT	NBRV	VBLn1	SBL	SBT
Capacity (veh/h)		-	-	594	1165	-
HCM Lane V/C Ratio				0.079		
HCM Control Delay (s)		_		11.6	8.1	0
HCM Lane LOS				11.0 B	Α.	A
	`	-		_		
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Lanes, Volumes, Timings
3: Lincoln Hill Rd & Proposed Subdivision Street

Canandaigua Shores Residential Development et 2024 Full Build AM

3: Lincoln Hill Rd & Proposed Subdivision Street

HCM 6th TWSC

Canandaigua Shores Residential Development et 2024 Full Build AM

	۶	•	4	†	ļ	✓	
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	W			ર્ન	1>		
Traffic Volume (vph)	5	3	1	201	104	0	
Future Volume (vph)	5	3	1	201	104	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.949						
Flt Protected	0.970						
Satd. Flow (prot)	1715	0	0	1863	1863	0	
Flt Permitted	0.970						
Satd. Flow (perm)	1715	0	0	1863	1863	0	
Link Speed (mph)	30			55	55		
Link Distance (ft)	545			473	652		
Travel Time (s)	12.4			5.9	8.1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	5	3	1	218	113	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	8	0	0	219	113	0	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	12			0	0		
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9	15			9	
Sign Control	Stop			Free	Free		
Intersection Summary							
	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizat	ion 21.4%			IC	U Level o	of Service A	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
	Y Y	LDI	NDL			אשט
Lane Configurations Traffic Vol. veh/h	Ϋ́ 5	3	1	€ 1 201	1 →	0
Future Vol, veh/h	5	3	1	201	104	0
						-
Conflicting Peds, #/hr	0	0	_ 0	0	_ 0	_ 0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mymt Flow	5	3	1	218	113	0
WWW.CTIOW	Ū	U		210	110	U
	Minor2		Major1		Major2	
Conflicting Flow All	333	113	113	0	-	0
Stage 1	113	-	-	-	-	-
Stage 2	220	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	_	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	_	_	_	_	_
Follow-up Hdwy		3.318	2 218			
Pot Cap-1 Maneuver	662		1476	_	_	_
Stage 1	912	340	1470		-	
						-
Stage 2	817	-	-	-	-	
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	661	940	1476	-	-	-
Mov Cap-2 Maneuver	661	-	-	-	-	-
Stage 1	911	-	-	-	-	-
Stage 2	817	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	9.9		0		0	
HCM LOS	Α					
Mineral anni/Marie 14		ND	NDT	EDL 4	ODT	CDD
Minor Lane/Major Mvn	nt	NBL		EBLn1	SBT	SBR
Capacity (veh/h)		1476	-	744	-	-
HCM Lane V/C Ratio		0.001	-	0.012	-	-
HCM Control Delay (s))	7.4	0	9.9	-	-
HCM Lane LOS		Α	Α	Α	-	-
HCM 95th %tile Q(veh	1)	0	-	0	-	-
	,					

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Canandaigua Shores Residential Development 2024 Full Build PM

HCM 6th TWSC 1: E Lake Rd & Lincoln Hill Rd Canandaigua Shores Residential Development 2024 Full Build PM

	•	•	†	~	-	↓	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	7	7	f.		٦	†	
Traffic Volume (vph)	3	168	324	3	216	504	
Future Volume (vph)	3	168	324	3	216	504	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	500	0		0	375		
Storage Lanes	1	1		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850	0.999				
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	1583	1861	0	1770	1863	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1770	1583	1861	0	1770	1863	
Link Speed (mph)	55		45			45	
Link Distance (ft)	716		730			760	
Travel Time (s)	8.9		11.1			11.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Adj. Flow (vph)	3	181	348	3	232	542	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	3	181	351	0	232	542	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		12			12	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Sign Control	Stop		Free			Free	
Intersection Summary							
	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizat	ion 42.5%			IC	CU Level	of Service	e A
Analysis Period (min) 15							

ntersection						
Int Delay, s/veh	3.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		7	1 >		- 3	†
Traffic Vol, veh/h	3	168	324	3	216	504
Future Vol, veh/h	3	168	324	3	216	504
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	500	0	-	-	375	-
Veh in Median Storage	e, # 0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	181	348	3	232	542
Major/Minor	Minor1	ı	Major1		Major2	
	1356	350	0	0	351	0
Conflicting Flow All	350	350	-	-	351	
Stage 1	1006					-
Stage 2		- 00	-	-	4.40	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518		-	-	2.218	-
Pot Cap-1 Maneuver	165	693	-	-	1208	-
Stage 1	713	-	-	-	-	-
Stage 2	353	-	-	-	-	-
Platoon blocked, %	400	000	-	-	4000	-
Mov Cap-1 Maneuver		693	-	-	1208	-
Mov Cap-2 Maneuver	133	-	-	-	-	-
Stage 1	713	-	-	-	-	-
Stage 2	285	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	12.4		0		2.6	
HCM LOS	В					
		NET	N D D		VD1 0	0.01
Minor Lane/Major Mvn	nt	NBT		VBLn1V		SBL
Capacity (veh/h)		-	-	133	693	1208
HCM Lane V/C Ratio		-		0.024		0.192
HCM Control Delay (s)	-	-	32.7	12	8.7
HCM Lane LOS		-	-	D	В	Α
HCM 95th %tile Q(veh	1)	-	-	0.1	1	0.7

Lanes, Volumes, Timings 2: E Lake Rd & Proposed Subdivision Street Canandaigua Shores Residential Development 2024 Full Build PM

	•	•	†	1	-	ţ	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Y		ĥ			ર્ન	
Traffic Volume (vph)	6	19	308	10	32	475	
Future Volume (vph)	6	19	308	10	32	475	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.899		0.996				
Flt Protected	0.988					0.997	
Satd. Flow (prot)	1655	0	1855	0	0	1857	
Flt Permitted	0.988					0.997	
Satd. Flow (perm)	1655	0	1855	0	0	1857	
Link Speed (mph)	30		30			30	
Link Distance (ft)	806		823			355	
Travel Time (s)	18.3		18.7			8.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	7	21	335	11	35	516	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	28	0	346	0	0	551	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		0			0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	60	60		60	60		
Sign Control	Stop		Free			Free	
Intersection Summary							
	Other						
Control Type: Unsignalized						-	

Intersection Capacity Utilization 56.9% Analysis Period (min) 15 ICU Level of Service B

HCM 6th TWSC

Canandaigua Shores Residential Development 2024 Full Build PM

2: E Lake Rd & Proposed Subdivision Street

Intersection						
Int Delay, s/veh	0.7					
	U./					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		ĵ.			ની
Traffic Vol, veh/h	6	19	308	10	32	475
Future Vol, veh/h	6	19	308	10	32	475
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	_	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage		-	0	-	_	0
Grade. %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mymt Flow	7	21	335	11	35	516
INIVITIL FIOW	- 1	21	333	- 11	33	310
Major/Minor	Minor1	N	Major1		Major2	
Conflicting Flow All	927	341	0	0	346	0
Stage 1	341	-	-	-	-	-
Stage 2	586	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	
Critical Hdwy Stg 2	5.42	_	-	-	_	-
Follow-up Hdwy		3.318	-	-	2.218	
Pot Cap-1 Maneuver	298	701		_		-
Stage 1	720	-			- 1210	
Stage 2	556				_	
Platoon blocked. %	330	_		_	_	
Mov Cap-1 Maneuver	286	701	-	-	1213	
Mov Cap-2 Maneuver	286	-	-	-	-	-
Stage 1	720	-	-	-	-	-
Stage 2	534	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	12.3		0		0.5	
HCM LOS	B		·		0.0	
Minor Lane/Major Mvn	nt	NBT	NBR	VBLn1	SBL	SBT
Capacity (veh/h)		-	-	520	1213	-
HCM Lane V/C Ratio		-	-	0.052	0.029	-
HCM Control Delay (s)	-	-	12.3	8.1	0
HCM Lane LOS		-	-	В	Α	Α
HCM 95th %tile Q(veh	1)	-	-	0.2	0.1	-
	,					

Lanes, Volumes, Timings
3: Lincoln Hill Rd & Proposed Subdivision Street

Canandaigua Shores Residential Development et 2024 Full Build PM

ent HCM 6th TWSC

PM 3: Lincoln Hill Rd & Proposed Subdivision Street

Intersection

Canandaigua Shores Residential Development et 2024 Full Build PM

	•	•	4	†	↓	4	
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	W			ર્ન	- 1>		
Traffic Volume (vph)	3	2	3	168	214	5	
Future Volume (vph)	3	2	3	168	214	5	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
ane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
-rt	0.946				0.997		
It Protected	0.971			0.999			
Satd. Flow (prot)	1711	0	0	1861	1857	0	
It Permitted	0.971			0.999			
Satd. Flow (perm)	1711	0	0	1861	1857	0	
ink Speed (mph)	30			30	30		
_ink Distance (ft)	545			473	652		
Travel Time (s)	12.4			10.8	14.8		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	3	2	3	183	233	5	
Shared Lane Traffic (%)							
ane Group Flow (vph)	5	0	0	186	238	0	
Enter Blocked Intersection	No	No	No	No	No	No	
ane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	12			0	0		
_ink Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	60	60	60			60	
Sign Control	Stop			Free	Free		
ntersection Summary							
Area Type: (Other						
Control Type: Unsignalized							
ntersection Capacity Utilizat	ion 21.6%			IC	CU Level of	of Service A	

Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥			4	ĵ.	
Traffic Vol, veh/h	3	2	3	168	214	5
Future Vol, veh/h	3	2	3	168	214	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade. %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mymt Flow	3	2		183	233	5
WWW.CTIOW	U	_	U	100	200	U
	Minor2		Major1	N	Major2	
Conflicting Flow All	425	236	238	0	-	0
Stage 1	236	-	-	-	-	-
Stage 2	189	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	_	_	-	-
Follow-up Hdwy		3.318	2 218	-	-	-
Pot Cap-1 Maneuver	586		1329	-	_	_
Stage 1	803	-	1025		-	-
Stage 2	843					-
Platoon blocked, %	040	_	_			
Mov Cap-1 Maneuver	584	803	1329	-	-	-
	584	003				-
Mov Cap-2 Maneuver		-	-	-	-	
Stage 1	801	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s			0.1		0.0	
HCM LOS	10.5 B		0.1		U	
I IOWI LOS	٥					
Minor Lane/Major Mvm	nt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)		1329	-	656	-	-
HCM Lane V/C Ratio		0.002		0.008		
		2			-	_
		77	Ω	10.5		
HCM Control Delay (s)		7.7 A	0	10.5 B		
		7.7 A 0	0 A	10.5 B	-	-

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