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November 28, 2025

Town of East Lyme Zoning Commission
Attn: Mr. William Mulholland, Zoning Enforcement Officer
108 Pennsylvania Avenue
Niantic, CT 06357

Re: Parkers Place, LLC

Dear Mr. Mulholland:

I am forwarding herewith a "Park Place Traffic Impact Assessment" prepared by William Kresic, P.E., PTOE and Priscilla Sawyer of VHB on behalf of Parkers Place, LLC in conjunction with the proposed multi-family residential development located on the northwesterly side of Park Place in East Lyme, Connecticut. Please add the traffic impact analysis to the record of this proceeding.

Should you have any questions, please feel free to contact the undersigned.

Very truly yours,

Harry B. Heller

HBH/rmb
enclosures

cc: Mr. Jason Pazzaglia
Mr. Brandon Handfield

To: Brandon Handfield
Yantic River Consultants
191 Norwich Avenue
Lebanon, CT 06249

Date: October 24, 2025

Project #: 43273.00

From: William Kresic, P.E., PTOE
Priscilla Sawyer

Re: Park Place Traffic Impact Assessment

VHB has been retained by Yantic River Consultants, LLC to conduct a traffic analysis for the proposed development of single family attached residential affordable housing located on Park Place in East Lyme, Connecticut. The proposed development can be seen on the attached site plan indicating 60 units. VHB has been retained to review the traffic generated by the site and any impacts the proposed development may have on the intersection of Park Place and West Main Street.

Under this project, the existing site will be developed into 60 two bedroom apartment units. Building and parking access will be provided through one full access site driveway located on Park Place.

Trip Generation and Distribution

Trip Generation

The vehicle trips the project is expected to generate were calculated based on trip generation rates provided in the ITE Trip Generation manual, 11th edition. The rate at which any development generates traffic is dependent upon a number of factors such as size, location, and concentration of surrounding developments. Land Use Codes (LUC) 223 for Affordable Housing was selected as the most conservative methodology for the development. The total net new trips generated by the proposed development would result in 34 (10 entering, 24 exiting) new trips in the AM peak hour and 36 (21 entering, 15 exiting) new trips in the PM peak hour. The trip generation associated with the proposed development program is shown in **Table 1.**

Table 1
Trip Generation Summary
60 Affordable Housing Units

Time Period	Apartment Trips[1]
Weekday Morning Peak Hour[2]	
Enter	10
Exit	24
Total	34
Weekday Evening Peak Hour[2]	
Enter	21
Exit	15
Total	36

1 Based on ITE Land Use Code (LUC) 223 (Affordable Housing)
Traffic volumes expressed in vehicles per hour

100 Great Meadow Road
Suite 200
Wethersfield, CT 06109
P 860.807.4300

Trip Distribution

Trip generation was calculated for the entire proposed facility. As the site is currently undeveloped, it was assumed that all trips are new trips impacting the study area roadways. The net addition of proposed site-generated trips is 34 (10 entering, 24 exiting) new trips in the AM peak hour and 36 (21 entering, 15 exiting)) new trips in the evening peak hour. The ITE trip generation is included in the Appendix.

It was conservatively assumed that the transportation mode share for all trips to and from the site would be by automobile. The directional distribution of the vehicular traffic approaching and departing the site is a function of population densities, the location of employment, existing travel patterns, and the efficiency of the existing roadway system. Anticipated trip distribution patterns were based on the existing distribution of vehicle traffic on West Main Street, and Park Place from the traffic counts done by VHB on January 30, 2024.

The results of the evaluation are shown in **Table 2**, as well as **Figure 7**.

Table 2 Trip Distribution

Location	Traffic Entering/Leaving
West Main St East	50%
West Main St West	50%

The resulting site-generated trips will be split between the roadways as shown, directing traffic to downtown Niantic, East Lyme, and out of the town.

Traffic Operations Analysis

To assess the quality of traffic operations within the study area, intersection capacity analyses were conducted for the 2025 existing conditions. In order to be conservative capacity analyses were conducted for the 2030 no-build conditions, and the 2030 build conditions. Capacity analyses provide an indication of the adequacy of the roadway facilities to serve the anticipated traffic demands.

Method

The capacity analyses were conducted using industry standard Synchro software (Version 11).[1]To analyze unsignalized intersections, the HCM 6th Edition was used due to limitations analyzing all-way stop-controlled intersections in other previous versions.

Capacity analyses results are reported using a variety of performance measures, including "Level of Service" (LOS), Volume-to-Capacity (v/c) ratio, and queue length. These performance measures are described below.

Level-of-Service (LOS)

The level of service designation at intersections is based on the average control delay experienced by a vehicle traveling through the intersection. Similar to a report card, LOS designations are letter based, ranging from A to F, with LOS A representing the best operating condition (lowest vehicle delays) and LOS F representing the worst operating condition (highest vehicle delays). It is important to note that intersections during peak traffic conditions are not necessarily expected to operate at LOS A; an intersection operating at LOS A during typical peak conditions may suggest that the roadway is over-designed with too much capacity. Additionally, an intersection operating at LOS F during the peak periods does not necessarily indicate a failing intersection. In some cases, LOS F conditions may be deemed tolerable, provided that the lengthy delays do not lead to other, more serious conditions, such as increases in crash frequency.

LOS is assigned differently for signalized and unsignalized intersections. For signalized intersections, the analysis considers the operation of all traffic entering the intersection, and the LOS can be reported for individual turning movements, approaches, or for the intersection as a whole. For unsignalized intersections with stop-control on the side street approaches, the analysis assumes that through and right-turning movements on the main street are unimpeded by side street traffic. As such, LOS is reported only for left-turns from the main street and for all movements from the side street; the overall intersection LOS is not reported. Additionally, the delay values for each range are slightly longer for signalized intersections than unsignalized intersections. This is based on the presumption that the public will be more patient at signalized intersections where they are guaranteed entry into the intersection in a reasonable amount of time.

Volume-to-Capacity (v/c)

Volume-to-Capacity (v/c) can be reported for individual lane groups or for the intersection as a whole. Volume-to-Capacity is a ratio comparing the volume of vehicles proceeding through an intersection (or lane group) with the capacity of the intersection (or lane group) to accommodate that volume. A v/c ratio of 1.0 indicates an intersection operating at its capacity.

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[1] *Highway Capacity Manual,* Transportation Research Board, Washington, DC (2000).

Queue Length

Vehicle queues are the expected length of vehicles waiting at an intersection. This report documents the 50th percentile and 95th percentile vehicle queue lengths in feet. The 50th percentile queue represents the maximum vehicle queue length that is expected to occur during a signal cycle under typical (median) traffic flow rates during the peak period analyzed. The 95th percentile queue represents the maximum vehicle queue length that is expected to be exceeded only during the 5-percent of signal cycles (two or three times per hour) in the peak hour with the heaviest traffic flow. The 95th percentile queue is generally considered the maximum vehicle queue for design purposes.

Unsignalized Intersection Capacity Analysis

Table 3 presents a summary of the capacity analyses for the unsignalized study intersection. The Synchro analysis reports are included in the Appendix.

The results indicate that Park Place at the Site Driveway will attain acceptable LOS through 2030 build conditions.

Park Place at Site Driveway: Under Build conditions the intersection is expected to operate with LOS A due to the very minimal vehicle volumes leaving the site. Queuing and delays are expected to be minimal during the weekday evening peak hour and morning peak hour with the development of the site.

Park Place at West Main St: Park Place at West Main Street operates with LOS C or better under all peak hours during existing conditions and is expected to do so under future No-Build conditions as well. Under Build conditions the level of service is expected to remain LOS C or better with the new projected traffic. Additional site traffic is not anticipated to significantly impact queuing and delays are expected to be remain similar to existing conditions during the weekday evening peak hour and morning peak hour.

Table 3 Unsignalized Intersection Capacity Analysis Summary

Location	Peak Hour	Mov't	2025 Existing Conditions					2030 No-Build Conditions					2030 Build Conditions				
			Dem.[1]	v/c[2]	Del[3]	LOS[4]	Q95[5]	Dem.	v/c	Del	LOS	Q95	Dem.	v/c	Del	LOS	Q95
W Main Street at Park Place	AM	EB L/T	244	0.003	7.8	A	0	254	0.003	7.8	A	0	259	0.007	7.9	A	0
		WB T/R	218	0	0	A	0	226	0	0	A	0	231	0	0	A	0
		SB L/R	17	0.043	11.7	B	0.1	17	0.044	11.9	B	0.1	41	0.103	12.2	B	0.3
	PM	EB L/T	330	0.011	8.3	A	0	343	0.011	8.4	A	0	353	0.021	8.4	A	0.1
		WB T/R	398	0	0	A	0	415	0	0	A	0	426	0	0	A	0
		SB L/R	14	0.064	15.2	C	0.2	14	0.067	15.7	C	0.2	29	0.134	16.1	C	0.5
Park Place at Site Driveway	AM	EB L/R											24	0.025	8.5	A	0.1
		NB L/T											22	0.007	7.3	A	0
		SB T/R											17	0	0	A	0
	PM	EB L/R											15	0.015	8.4	A	0
		NB L/T											48	0.014	7.3	A	0
		SB T/R											14	0	0	A	0

Source: VHB, Inc. using Synchro 11 software and HCM 6th TWSC Edition methodology.
1 demand, in vehicles per hour
2 volume-to-capacity ratio for the critical movement
3 delay of critical approach only, in seconds
4 level of service
5 95th percentile queue length, in vehicles
EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; R = right; T = through, L= left

100 Great Meadow Road
Suite 200
Wethersfield, CT 06109
P 860.807.4300

Crash History

To identify potential vehicle crash trends and/or roadway deficiencies within the project study area, VHB conducted a review of the Connecticut Crash Data Repository (CTCDR) developed by UConn for the most recent three years of crash data collection (January 2021 – December 2024). To be reported, $1000 of property damage or an injury must have occurred.

There were no crashes reported near the study intersection of West Main Street and Park Place or in front of the proposed site on Park Place.

Intersection Sight Distance

The proposed site will provide vehicular access via Park Place and West Main Street as shown on the site plan.

The posted speed limit on Park Place is 25 mph. Using an estimated 85th percentile speed of 30 mph, Connecticut Department of Transportation requires 280 feet of Intersection Site Distance. Intersection sight distances were observed at the location of the proposed site driveway. Based on the results of this investigation, adequate intersection sight distance is available for the right of the site driveway. In order to meet requirements, to the left of the site driveway some tree trimming will be needed.

The posted speed limit on West Main Street is 25 mph. Using a conservative estimated 85th percentile speed of 35 mph, Connecticut Department of Transportation requires 350 feet of Intersection Site Distance. Intersection sight distances were observed at the intersection for Park Place. The measured intersection site distances meet requirements.

Results of the sight distance investigation are summarized in **Table 4**.

Table 4 Intersection Sight Distances

	Available Sight Distance			Meets Standard	
Location	Left	Right	Minimum	Left	Right
Park Pl at W Main St	>350'	>350'	350'	**Yes**	**Yes**
Park Pl at Site Drive	250'	N/A	280'	**No**	**Yes**

Source: Vanasse Hangen Brustlin, Inc.

Site Access and Parking

This Site is proposed to have access via a full access driveway on Park Place.

The proposed full access site driveway is proposed to be located approximately 325 feet north of the intersection of Park Place at West Main Street. This driveway is to operate under stop control and allow for access to all uses on site.

Based on the current site plan, a total of 146 parking spaces are to be provided on site.

100 Great Meadow Road
Suite 200
Wethersfield, CT 06109
P 860.807.4300

Conclusion

This document has outlined the anticipated transportation impacts of the proposed development of 60 single family attached residential affordable housing units on Park Place in East Lyme, Connecticut.

The traffic generated by the proposed site is not anticipated to adversely impact operations on Park Place or West Main Street, the LOS is anticipated to remain at a level of C or better and the queuing and the delay time is expected to remain acceptable. The crash history does not indicate any issues at the intersections and the available sight distances at the site driveway should be sufficient given the tree trimming mentioned in the intersection sight distance portion of this report The addition of the Park Place Multi-Family Development is anticipate to generate 34 (10 entering, 24 exiting) new trips in the AM peak hour and 36 (21 entering, 15 exiting). Given the limited traffic generated by the site and the traffic distribution as shown, the site traffic is anticipate to have no significant impact to traffic operations in the area of the proposed site driveway.

Appendix

Figures

Site Plans

Traffic Counts

Project Trip Generation

Capacity Analysis Reports

Figures

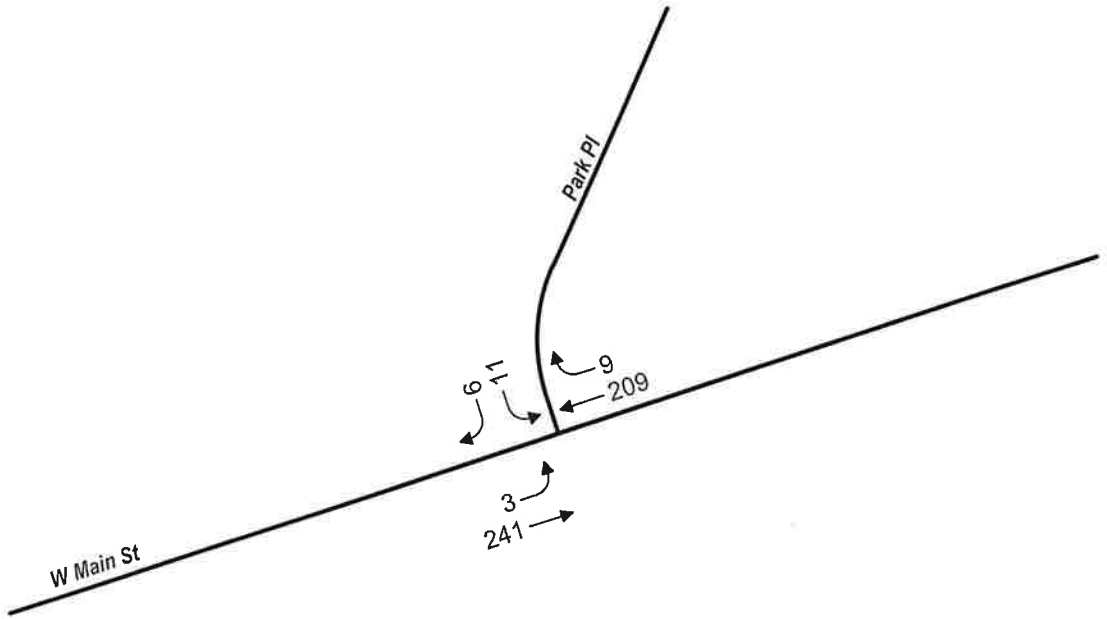
Figure 1
Park Place Traffic Impact Assessment | East Lyme, CT

vhb

Existing AM | Oct 22, 2025

Ⓢ **Signalized Intersection**

neg **= Negligible**



Not to Scale

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Figure 2
Park Place Traffic Impact Assessment | East Lyme, CT

Existing PM | Oct 22, 2025

Ⓢ **Signalized Intersection**
neg **= Negligible**

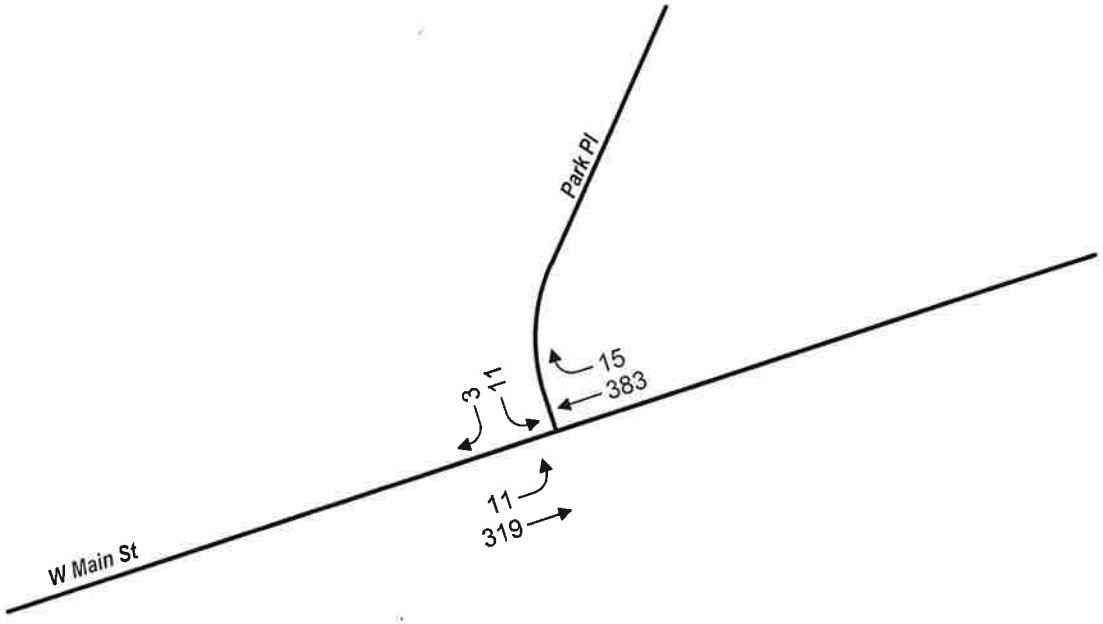

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Figure 3
Park Place Traffic Impact Assessment | East Lyme, CT

No Build AM | Oct 22, 2025

Ⓢ **Signalized Intersection**
neg **= Negligible**

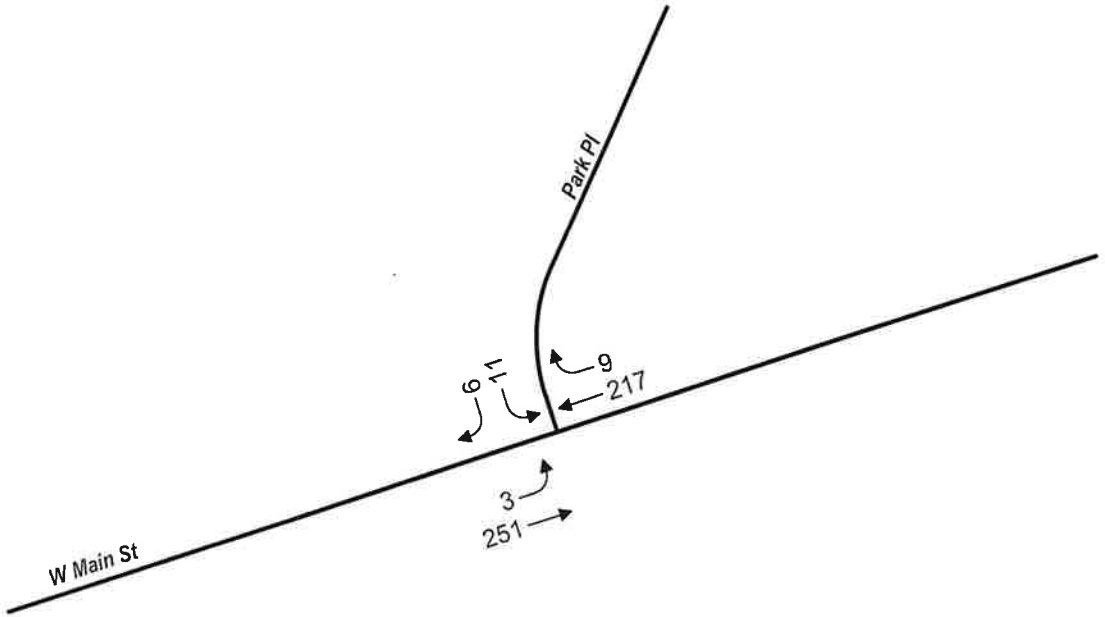

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Figure 4
Park Place Traffic Impact Assessment | East Lyme, CT

No Build PM | Oct 22, 2025

Ⓢ **Signalized Intersection**
neg **= Negligible**

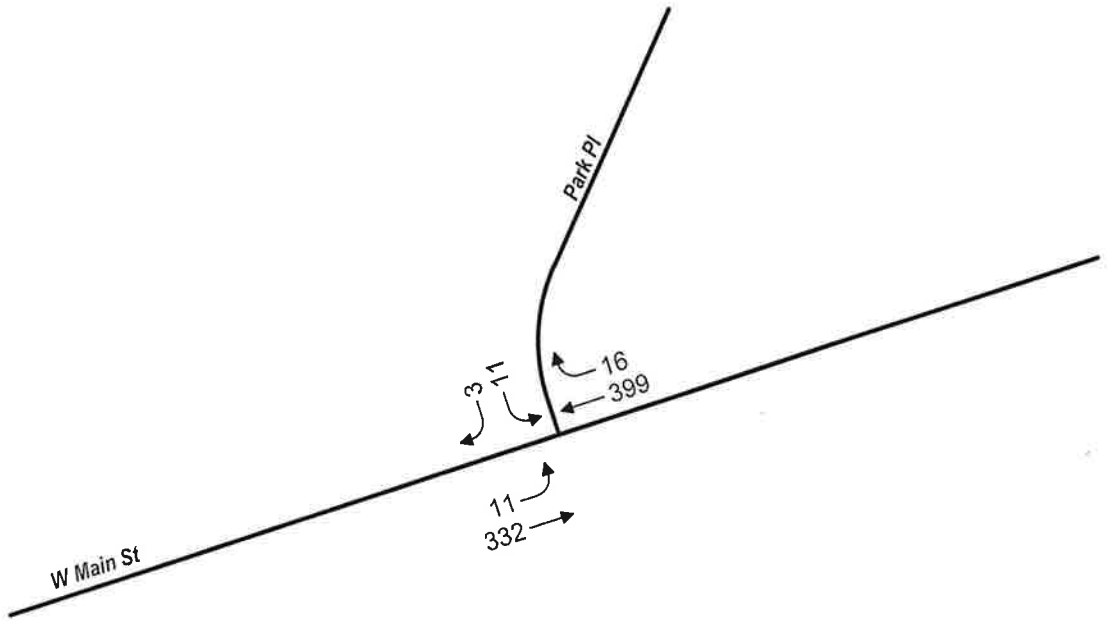

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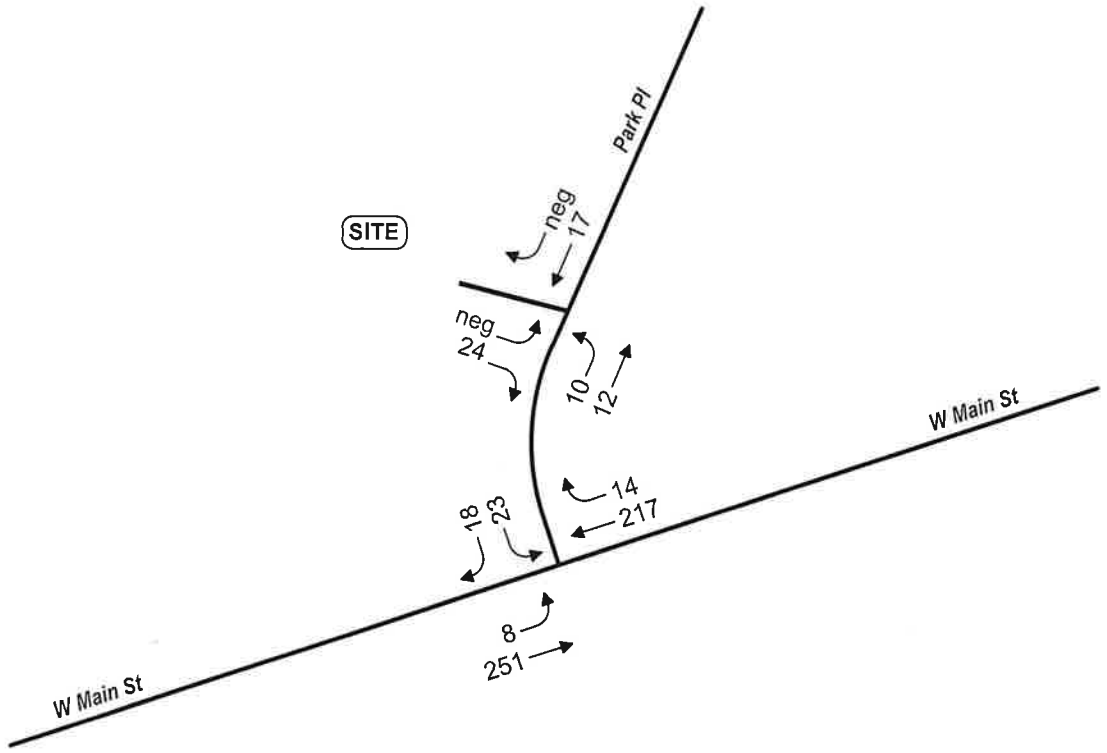
Figure 5
Park Place Traffic Impact Assessment | East Lyme, CT

Build AM | Oct 22, 2025

Ⓢ **Signalized Intersection**
neg **= Negligible**

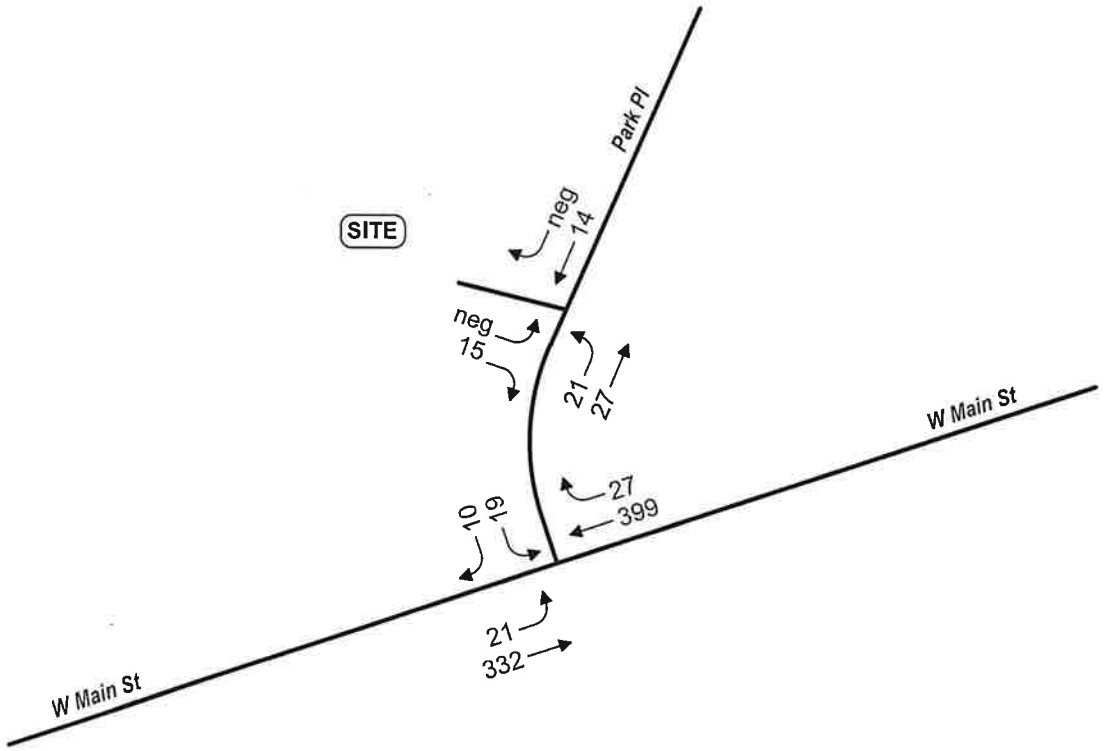


Not to Scale

Figure 6
Park Place Traffic Impact Assessment | East Lyme, CT

Build PM | Oct 22, 2025

Ⓢ **Signalized Intersection**
neg **= Negligible**



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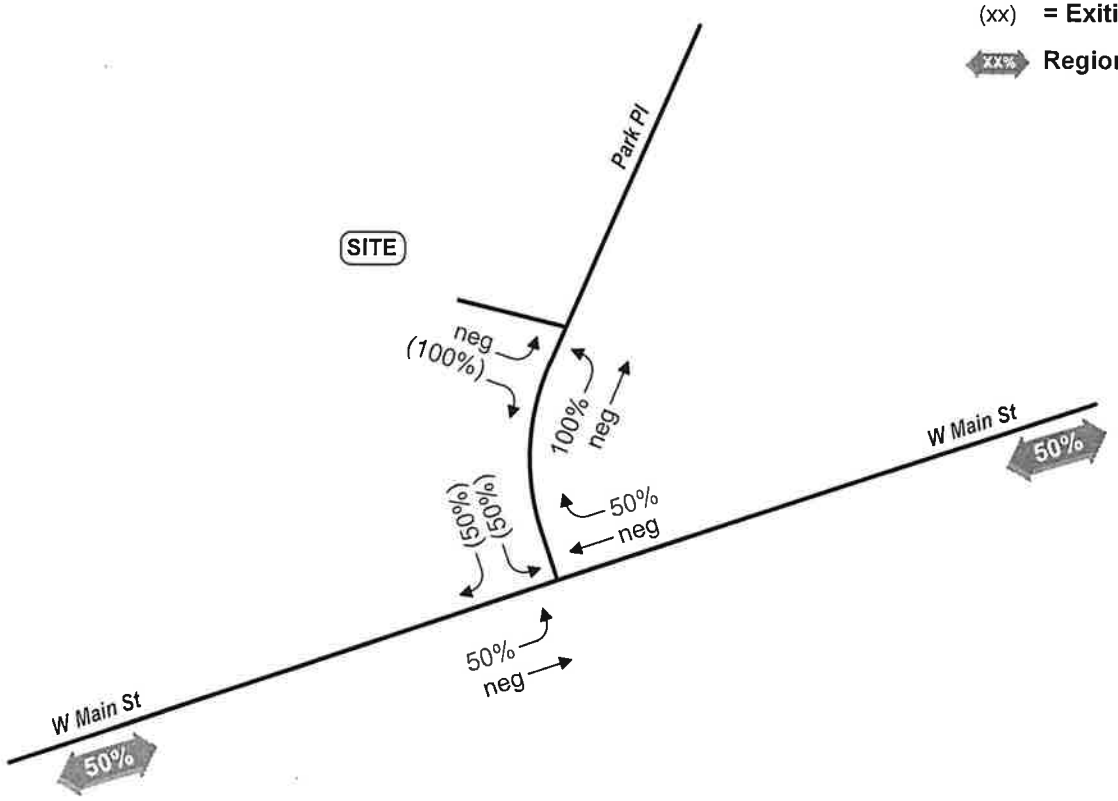
\\vhb.com\gbl\proj\Wethersfield\43273.00\Graphics\FIGURES\Network Diagrams 8.5x11 Lansdscape.dwg

Figure 7
Park Place Traffic Impact Assessment | East Lyme, CT

Trip Distribution | Oct 22, 2025

Ⓢ **Signalized Intersection**
neg **= Negligible**
xx **= Entering Trips**
(xx) **= Exiting Trips**
XX% **Regional Trip Distribution**



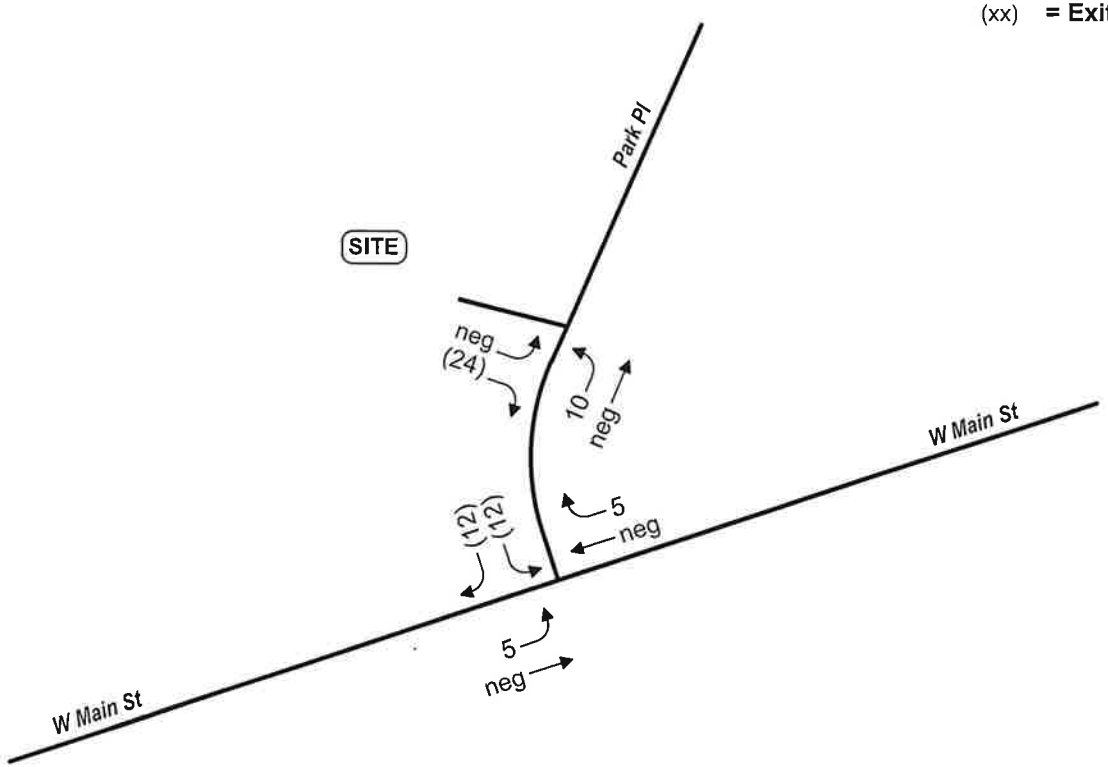
Not to Scale

Figure 8
Park Place Multi-Family Development | East Lyme, CT

vhb

Trip Generation AM | Oct 22, 2025

Ⓢ **Signalized Intersection**
neg **= Negligible**
xx **= Entering Trips**
(xx) **= Exiting Trips**

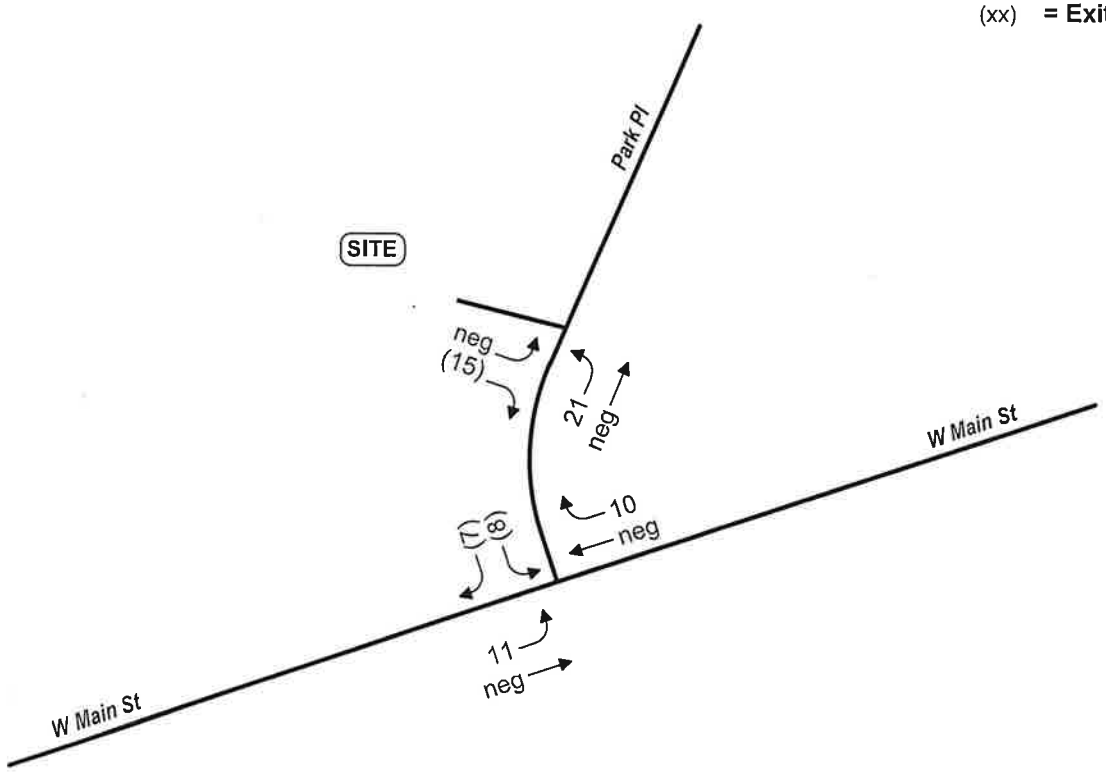


Not to Scale

Figure 9
Park Place Multi-Family Development | East Lyme, CT

Trip Generation PM | Oct 22, 2025

Ⓢ **Signalized Intersection**
neg **= Negligible**
xx **= Entering Trips**
(xx) **= Exiting Trips**



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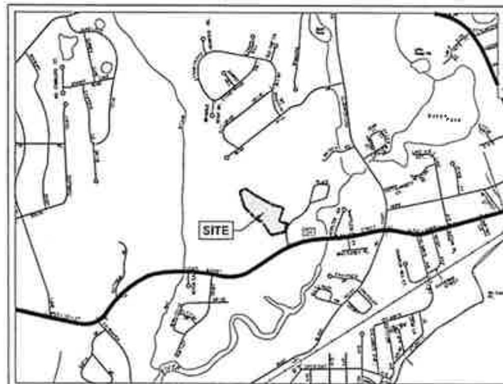
Site Plans

PARKERS PLACE
MULTI-FAMILY DEVELOPMENT

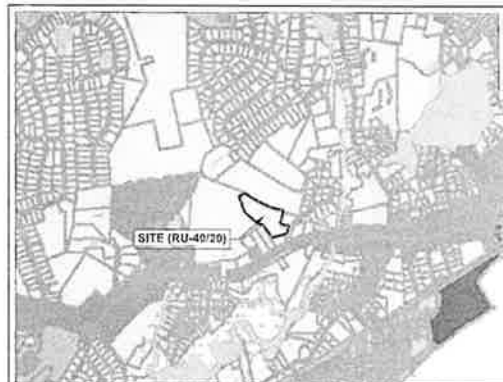
PARK PLACE (MAP 11.1, LOT 11)
EAST LYME, CONNECTICUT

PREPARED FOR

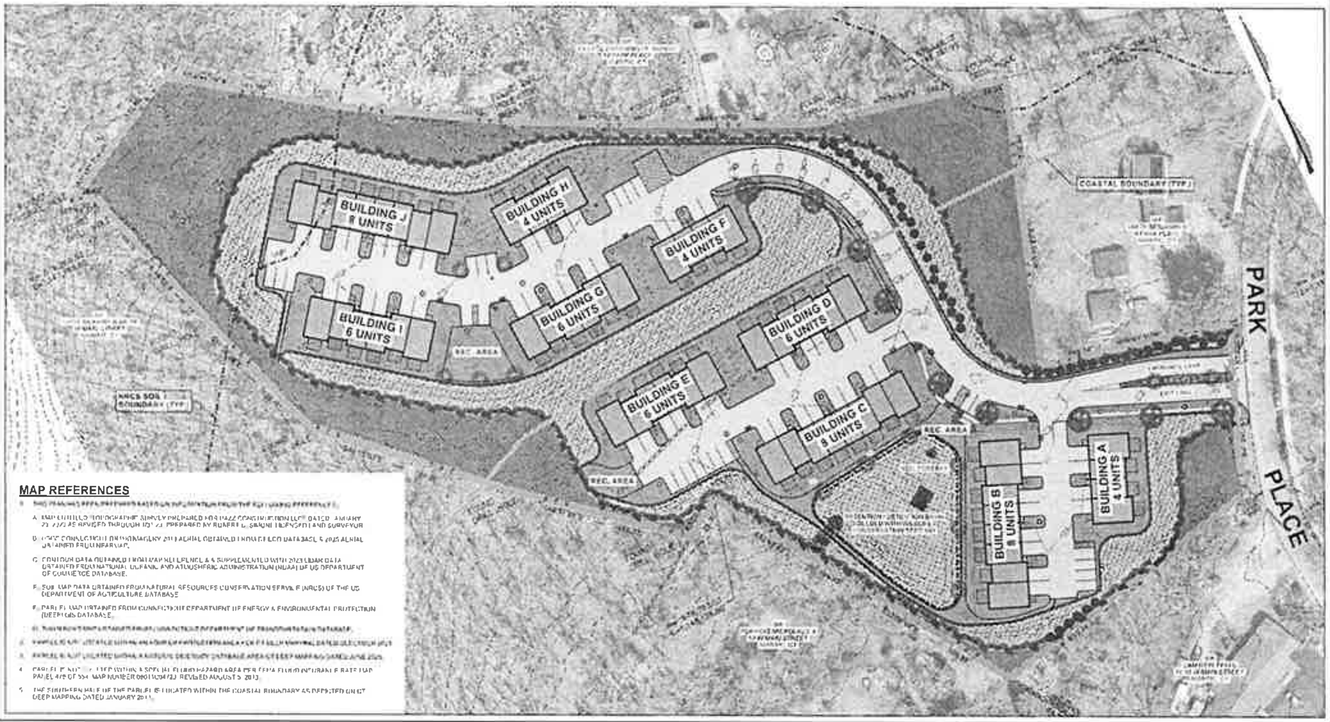
OWNER / APPLICANT
PARKERS PLACE LLC
PO BOX 817
EAST LYME, CT 06333



SITE LOCATION MAP



ZONING LOCATION MAP



MAP REFERENCES

INDEX OF SHEETS

SCALE: 1" = 60'

PROJECT NUMBER:

YRC

CONTACT INFORMATION
YANTIC RIVER CONSULTANTS, LLC
191 NORWICH AVENUE
LEBANON, CONN 06249

PARKERS PLACE
MULTI-FAMILY DEVELOPMENT
PREPARED FOR
PARKERS PLACE LLC, OWNER / APPLICANT
TITLE SHEET

REVISION SUMMARY

SHEET 1 OF 5

DATE

REVISED

ZONING TABLE

ZONE: SUBURBAN USE ZONING DISTRICT (RU-40/20)

	REQUIRED/PERMITTED	PROPOSED	NOTES
USE		[illegible]	C.G.S. SEC. 8-30g
LOT AREA	[illegible]	[illegible]	COMPLIES
FRONTAGE	120 FT	[illegible]	COMPLIES
FRONT YARD (RU-40)	50 FT	[illegible]	COMPLIES
FRONT YARD (RU-20)	40 FT	[illegible]	COMPLIES
SIDE YARD (RU-40)	30 FT	[illegible]	COMPLIES
SIDE YARD (RU-20)	40 FT	[illegible]	COMPLIES
REAR YARD (RU-40)	30 FT	[illegible]	COMPLIES
REAR YARD (RU-20)	20 FT	[illegible]	COMPLIES
COVERAGE (RU-40)	15%	[illegible]	COMPLIES
COVERAGE (RU-20)	25%	[illegible]	COMPLIES
BUILDING HEIGHT	30 FT	[illegible]	[illegible]

PARKING TABLE

USE: MULTIFAMILY APARTMENTS

DWELLING	STANDARD	UNIT	REQUIRED	PROVIDED	NOTES
2 BEDROOM GARAGE DRIVEWAY	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GUEST	[illegible]	[illegible]	20	[illegible]	COMPLIES
TOTAL		[illegible]	[illegible]	146	COMPLIES
ACCESSIBLE	[illegible]	[illegible]	5	[illegible]	[illegible]

PARKING NOTES:

1. THE INDIVIDUAL UNIT LEASES SHALL PROHIBIT THE STORAGE OR PARKING OF [illegible] VEHICLES, COMMERCIAL VEHICLES, [illegible] TRAILERS, AND/OR RECREATION VEHICLES ON THE SITE.

PARK PLACE R.O.W. NOTES

1. ALL WORK WITHIN THE PARK PLACE RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH THE TOWN OF EAST LYME PUBLIC IMPROVEMENT STANDARDS AS APPLICABLE.
2. A [illegible] PERMIT SHALL BE OBTAINED FROM THE TOWN OF EAST LYME PUBLIC WORKS [illegible] PRIOR TO COMMENCING WORK.

GENERAL SITE NOTES

1. ALL WORK ON THE [illegible] SITE SHALL BE COMPLETED IN ACCORDANCE WITH THESE PLANS AND/OR AS REQUIRED BY THE TOWN OF EAST LYME REGULATIONS WHERE APPLICABLE.
2. ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT, FACE OF CURBS, OUTSIDE FACE OF THE BUILDING OR OTHER LIMITS AS DEPICTED ON THE PLAN.
3. THE PROPOSED PARKING FACILITIES ARE GENERALLY PERPENDICULAR TO OR PARALLEL WITH THE PROPOSED [illegible] EDGE OF PAVEMENT, OR AS DEPICTED ON THE PLAN.
4. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO START OF CONSTRUCTION, BE RESPONSIBLE FOR ALL FIELD DIMENSIONS, AND REPORT DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS TO THE OWNER.
5. CONTRACTOR SHALL PROVIDE SMOOTH TRANSITIONS FROM EXISTING TO PROPOSED FEATURES.
6. ALL DISTURBED AREAS SHALL BE SEEDED OR SODDED AFTER FINISH GRADING IS COMPLETED UNLESS OTHERWISE NOTED. ALL [illegible] SEEDED OR SODDED AREAS SHALL HAVE A TOPSOIL LAYER OF [illegible] [illegible] LAYER SHALL BE PLACED [illegible] CURBS, WALKS, OR PAVEMENT ELEVATIONS WHERE TOPSOIL ABUTS THOSE AREAS.
7. CONTRACTOR SHALL SUPPLY AND PLACE STRAW [illegible] FOR EROSION CONTROL [illegible] WHERE GRASS SEED HAS BEEN PLACED. SEED SHALL BE APPLIED AT THE [illegible] RATE RECOMMENDED BY THE MANUFACTURER.
8. CONTRACTOR SHALL SEAL THE EDGE OF EXISTING ASPHALT PAVEMENT WITH TACK COAT IN ACCORDANCE WITH [illegible] OR THE TOWN OF EAST LYME STANDARDS WHERE NEW ASPHALT [illegible].
9. CONTRACTOR [illegible] RESPONSIBLE TO REFURBISH ANY AREAS DAMAGED DURING [illegible] THE CONTRACTOR, HIS SUBCONTRACTORS OR SUPPLIERS AT NO ADDITIONAL COST TO THE OWNER.
10. CONTRACTOR SHALL COMPLETELY FILL ALL TRENCHES WITHIN 5 FEET OF PAVEMENT, CONCRETE EDGES WITH GRANULAR BACKFILL.
11. ALL PAINT STRIPING SHALL BE [illegible] TRAFFIC PAINT IN ACCORDANCE WITH [illegible] AND SHALL BE WHITE OR YELLOW AS DEPICTED ON THE PLANS.
12. CONTRACTOR TO COORDINATE WITH LOCAL CODES AND BUILDING [illegible] FOR HANDICAPPED ACCESSIBLE PARKING [illegible] STRIPING AND SIGNAGE REQUIREMENTS.

UTILITY STATEMENT

UNDERGROUND UTILITY [illegible] AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED IN PART FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENT AGENCIES, [illegible] TESTIMONY, FIELD SURVEY AND OTHER SOURCES. THE SURVEYOR [illegible] THE UNDERGROUND UTILITIES [illegible] IN THE AREA, EITHER IN SERVICE OR ABANDONED. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. [illegible] MAY EXIST ON THE SITE. THE SIZE [illegible] SHALL BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY [illegible] IN ACCORDANCE WITH STATE NOTIFICATION PROCEDURES PRIOR TO COMMENCING WORK.

LEGEND

EDGE PAVEMENT W/ CURB	(A) BITUMINOUS CONCRETE DRIVE
SAWCUT PAVEMENT	(B) PARKING STRIPING (TYPICAL)
CONCRETE WALK	(C) LANE STRIPING [illegible]
CONCRETE WALK CURB [illegible]	(D) CROSSWALK [illegible]
[illegible]	(E) STOP BAR [illegible]
[illegible]	(F) [illegible]
[illegible]	(G) CONCRETE SIDEWALK [illegible]
[illegible]	(H) CONCRETE [illegible]
WATER	(I) HANDICAP RAMP [illegible]
[illegible]	(J) HANDICAP PARKING SIGNS
ELECTRIC	(K) CURB (START/END)
TELECOMMUNICATIONS	(L) [illegible]
SILT FENCE	(M) STOP SIGN
RIPRAP	
POLE MOUNTED LIGHT FIXTURE	
[illegible] (FULL CUTOFF)	
HANDICAP PARKING [illegible]	

SCALE: 1" = 30'

PROJECT NUMBER: [illegible]

YRC

CONTACT INFORMATION
YANTIC RIVER CONSULTANTS, LLC
[illegible] NORWICH AVENUE
LEBANON, CONN 06249

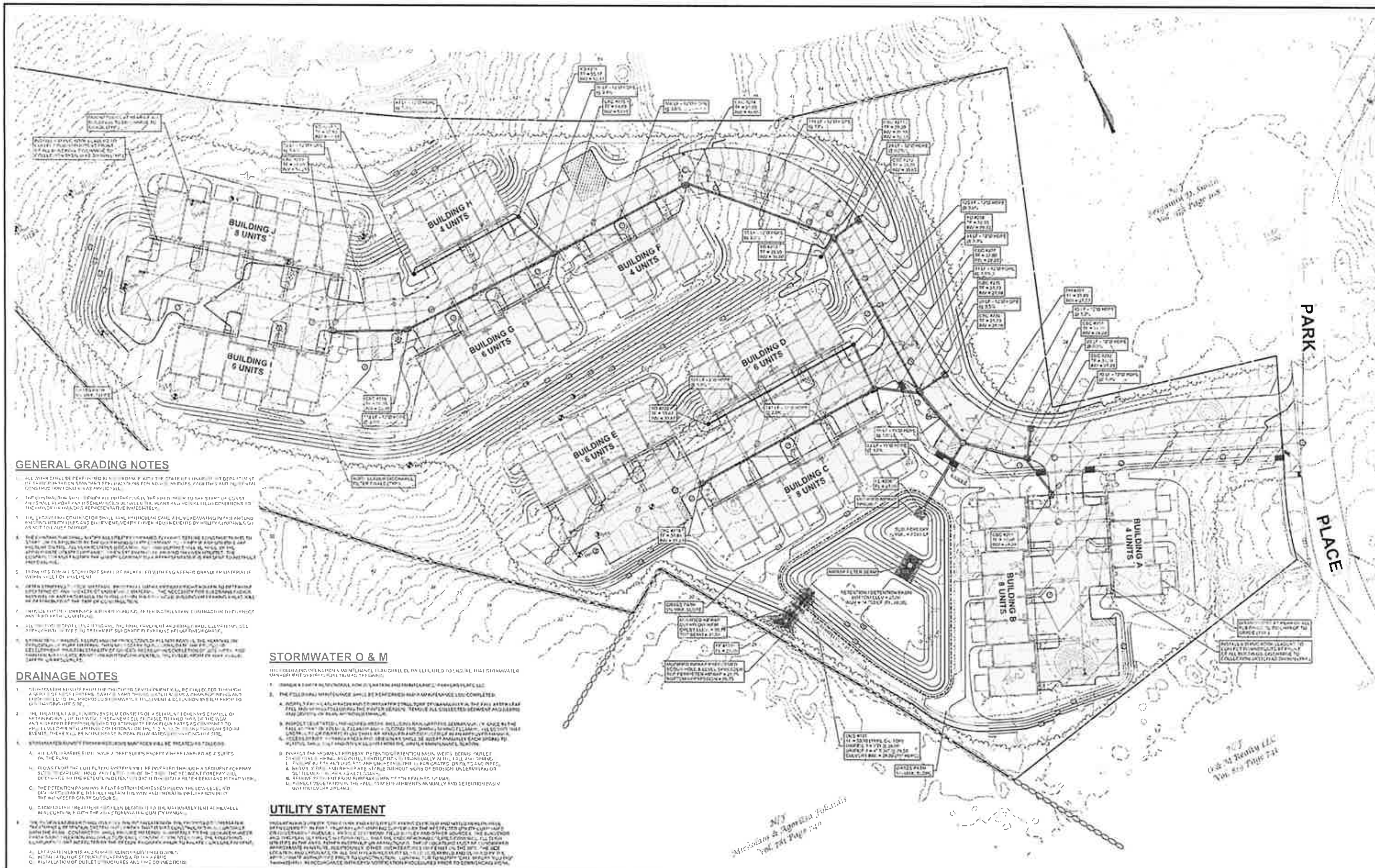
PARKERS PLACE
MULTI-FAMILY DEVELOPMENT
PREPARED FOR
PARKERS PLACE LLC, OWNER / APPLICANT
DEVELOPMENT LAYOUT PLAN

REVISION SUMMARY

SHEET 2 OF 5

DATE 9/29/25

REVISED



GENERAL GRADING NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES AND INCIDENTAL CONSTRUCTION FORM 819 AS APPLICABLE.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO THE START OF CONST. AND SHALL REPORT ANY DISCREPANCIES BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS TO THE OWNER OR OWNER'S REPRESENTATIVE IMMEDIATELY.
3. THE EXCAVATING CONTRACTOR SHALL TAKE PARTICULAR CARE WHEN EXCAVATING IN AND AROUND EXISTING UTILITY LINES AND EQUIPMENT. VERIFY COVER REQUIREMENTS BY UTILITY COMPANIES SO AS NOT TO CAUSE DAMAGE.
4. [illegible]
5. TRENCHES FOR ALL STORM PIPE SHALL BE BACKFILLED WITH ENGINEERED GRANULAR MATERIAL IF WITHIN 5 FEET OF PAVEMENT.
6. [illegible]
7. PROVIDE POSITIVE DRAINAGE WITHOUT PONDING. AFTER INSTALLATION CONTRACTOR TO CORRECT ANY PONDING CONDITIONS.
8. ALL [illegible] ELEVATIONS ARE THE FINAL PAVEMENT AND FINAL GRADE ELEVATIONS. SEE APPROPRIATE DETAILS TO DETERMINE SUBGRADE ELEVATIONS BELOW FINISH GRADE.
9. [illegible]

DRAINAGE NOTES

1. STORMWATER RUNOFF FROM THE PROPOSED DEVELOPMENT WILL BE COLLECTED THROUGH A SERIES OF [illegible], CATCH BASINS & DRAINAGE PIPING AND [illegible] TO THE PROPOSED STORMWATER TREATMENT & DETENTION SYSTEM PRIOR TO DISCHARGING OFF SITE.
2. THE TREATMENT & DETENTION SYSTEM CONSISTS OF A SEDIMENT FOREBAYS CAPABLE OF RETAINING [illegible] OF THE WQV, A RETAINER CELL SUITABLE TO HOLD [illegible] OF THE WQV AND A GRADED DEPRESSION SIZED TO ATTENUATE PEAK FLOW RATES AS COMPARED TO PRE-DEVELOPMENT (EXISTING) CONDITIONS FOR THE 1, 2, [illegible] AND [illegible] YEAR STORM EVENTS. THERE WILL BE NO INCREASE IN PEAK FLOW RATES [illegible] OFF SITE.
3. [illegible]
   A. ALL CATCH BASINS SHALL HAVE 2' DEEP SUMPS EXCEPT WHERE LABELED AS 4' SUMPS ON THE PLAN.
   B. FLOWS FROM THE COLLECTION SYSTEMS WILL BE DIVERTED THROUGH A SEDIMENT FOREBAY [illegible] CAPTURE, HOLD [illegible] OF THE WQV. THE SEDIMENT FOREBAY WILL DISCHARGE TO THE RETENTION/DETENTION BASIN THROUGH A FILTER BERM AND RIPRAP WEIR.
   C. THE DETENTION BASIN HAS A FLAT BOTTOM DEPRESSED BELOW THE LOW-LEVEL [illegible] ORIFICE TO FULLY RETAIN THE WQV AND PROMOTE INFILTRATION INTO THE [illegible] SANDY SUBSOILS.
   D. STORMWATER TREATMENT HAS BEEN DESIGNED TO THE MAXIMUM EXTENT ACHIEVABLE IN ACCORDANCE WITH THE 2024 STORMWATER QUALITY MANUAL.
4. [illegible]
   A. EXCAVATION LIMITS AND SURROUNDING UNDISTURBED SOILS
   B. INSTALLATION OF SEDIMENT FOREBAYS & FILTER BERMS
   C. INSTALLATION OF OUTLET STRUCTURES AND PIPE CONNECTIONS

STORMWATER O & M

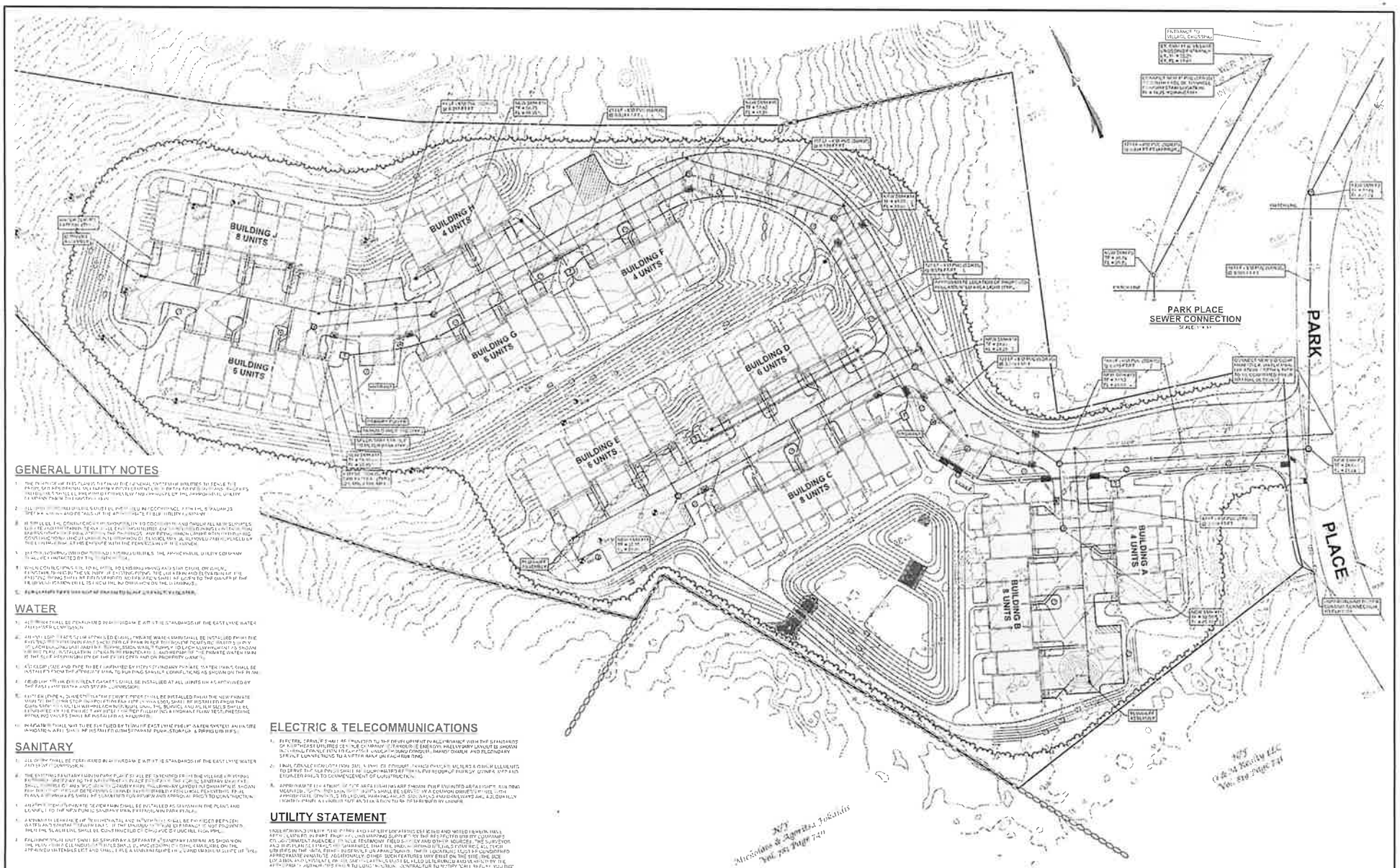
THE FOLLOWING OPERATION & MAINTENANCE PLAN SHALL BE IMPLEMENTED TO ENSURE THAT STORMWATER MANAGEMENT SYSTEMS FUNCTION AS DESIGNED:

1. [illegible]
2. [illegible]
   A. [illegible]
   B. [illegible]
   C. [illegible]
   D. INSPECT THE SEDIMENT FOREBAY, DETENTION/RETENTION BASIN, WEIRS, BERMS, OUTLET STRUCTURES, PIPING AND OUTLET PROTECTION SEMI-ANNUALLY IN THE FALL AND SPRING.
      I. ENSURE INLETS AND OUTLETS ARE UNOBSTRUCTED, CLEAR GRATES, ORIFICES AND PIPES.
      II. BERMS, WEIRS AND RIPRAP ARE STABLE WITHOUT SIGNS OF EROSION, UNDERMINING OR SETTLEMENT. REPAIR AS NECESSARY.
      III. REMOVE SEDIMENT FROM FOREBAY WHEN DEPTH REACHES 1/2 MAX.
      IV. INSPECT VEGETATION IN THE FALL. TRIM EMBANKMENTS ANNUALLY AND DETENTION BASIN BOTTOM EVERY 2 YEARS.

UTILITY STATEMENT

[illegible]

SCALE: 1" = 30'	CONTACT INFORMATION YANTIC RIVER CONSULTANTS, LLC 181 NORWICH AVENUE LEBANON, CONN 06249	PARKERS PLACE MULTI-FAMILY DEVELOPMENT PREPARED FOR PARKERS PLACE LLC, OWNER / APPLICANT GRADING & DRAINAGE PLAN	SHEET 3 of 5
PROJECT NUMBER(S) 00146-001		EAST LYME, CT	DATE 9/25/25
		REVISION SUMMARY	REVISED



GENERAL UTILITY NOTES

1. THE PLACEMENT OF THESE PLANS IS TO SHOW THE GENERAL CONCEPT OF UTILITIES TO SERVE THE PROPOSED RESIDENTIAL DEVELOPMENT. UTILITIES SHOWN ON PRIVATE PROPERTY AND PUBLIC ROADWAYS SHALL BE APPROVED EITHER BY THE TOWN PLANNING AND ZONING COMMISSION OR BY THE TOWN ENGINEER.
2. ALL UTILITY CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS AND DETAILS OF THE APPROPRIATE PUBLIC UTILITY COMPANY.
3. BEFORE ANY CONSTRUCTION BEGINS, THE CONTRACTOR SHALL CONTACT ALL NEW UTILITIES AND ALL EXISTING UTILITIES WHICH ARE TO BE CONNECTED TO, OR WHICH ARE LOCATED WITHIN THE PROJECT AREA, TO DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES FOUND BETWEEN THE PLANS AND FIELD CONDITIONS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY. ANY DAMAGE CAUSED TO EXISTING UTILITIES DURING CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
4. ALL UTILITIES, INCLUDING ELECTRIC, TELEPHONE AND CABLE TELEVISION SERVICES, SHALL BE PLACED UNDERGROUND WHERE FEASIBLE AND IN ACCORDANCE WITH THE REGULATIONS OF THE APPROPRIATE UTILITY COMPANY.
5. ALL UTILITY CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION, AND ALL APPLICABLE LOCAL REGULATIONS AND ORDINANCES.
6. ALL UTILITY TRENCHES WITHIN THE PROPOSED ROADWAY SHALL BE BACKFILLED WITH COMPACTED GRANULAR MATERIAL AND SHALL BE TESTED FOR COMPACTION BY A QUALIFIED SOILS TESTING LABORATORY. COMPACTION TESTS SHALL BE PERFORMED AT INTERVALS NOT EXCEEDING 200 FEET OR AS DIRECTED BY THE TOWN ENGINEER.
7. ALL UTILITY STRUCTURES, INCLUDING MANHOLES, CATCH BASINS, AND VALVE BOXES, SHALL BE ADJUSTED TO FINAL GRADE AFTER THE BINDER COURSE OF PAVEMENT HAS BEEN PLACED. THE FINAL ADJUSTMENT SHALL BE COMPLETED BEFORE THE APPLICATION OF THE WEARING COURSE.
8. ALL UTILITY CONSTRUCTION SHALL BE COORDINATED WITH THE TOWN OF EAST LYME PUBLIC WORKS DEPARTMENT AND THE EAST LYME FIRE MARSHAL TO ENSURE MINIMAL DISRUPTION TO TRAFFIC AND EMERGENCY ACCESS.
9. ALL UTILITY CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION, AND ALL APPLICABLE LOCAL REGULATIONS AND ORDINANCES.
10. ALL UTILITY CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION, AND ALL APPLICABLE LOCAL REGULATIONS AND ORDINANCES.

WATER

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS OF THE EAST LYME WATER AUTHORITY COMMISSION.
2. ALL PUBLIC FIRE PROTECTION SERVICES AND PRIVATE WATER MAINS SHALL BE INSTALLED PRIOR TO FINISHED PAVEMENT AND SHALL BE IN PLACE AND TESTED BEFORE BUILDING PERMITS ARE ISSUED FOR ANY LOT. ALL PUBLIC WATER MAINS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE EAST LYME WATER AUTHORITY COMMISSION'S STANDARDS AND SPECIFICATIONS. THE INSTALLATION, OPERATION, MAINTENANCE, AND REPAIR OF THE PRIVATE WATER MAIN SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND/OR PROPERTY OWNER(S).
3. ALL GATE VALVE AND PIPE TO BE FURNISHED BY HOA'S SECONDARY PRIVATE WATER MAIN SHALL BE INSTALLED FROM THE APPROVED MAIN TO BUILDING SPRINKLER CONNECTIONS AS SHOWN ON THE PLAN.
4. CAST IRON FITTINGS AND GASKETS SHALL BE INSTALLED AT ALL JOINTS AS APPROVED BY THE EAST LYME WATER AND SEWER COMMISSION.
5. EITHER DOMESTIC OR FIRE WATER SERVICE PIPES SHALL BE INSTALLED FROM THE NEW PRIVATE MAIN TO THE EXISTING PUBLIC MAIN AT PARK PLACE. A GATE VALVE SHALL BE INSTALLED ON THE DOMESTIC SERVICE WITH METER PIT AND BOX, WHILE THE FIRE SERVICE SHALL BE EQUIPPED WITH A DOUBLE CHECK VALVE ASSEMBLY. THE PIPE SHALL BE TESTED FOR LEAKAGE AND PRESSURE AT 150 PSI FOR A MINIMUM OF TWO HOURS IN ACCORDANCE WITH THE EAST LYME WATER AUTHORITY COMMISSION'S STANDARDS AND SPECIFICATIONS. ALL VALVES AND HYDRANTS SHALL BE OPERATED THROUGH THEIR FULL RANGE OF MOTION TO ENSURE PROPER FUNCTIONALITY. ANY LEAKS OR DEFECTS IDENTIFIED DURING THE TESTING PROCESS SHALL BE REPAIRED AND RETESTED UNTIL THE SYSTEM MEETS ALL REQUIREMENTS.
6. ALL WATER MAINS SHALL BE INSTALLED WITH A MINIMUM COVER OF 5 FEET, UNLESS OTHERWISE APPROVED BY THE EAST LYME WATER AUTHORITY COMMISSION. WHERE NECESSARY, INSULATION SHALL BE PROVIDED TO PROTECT THE PIPE FROM FREEZING.
7. ALL WATER MAINS SHALL BE INSTALLED WITH A MINIMUM HORIZONTAL SEPARATION OF 10 FEET FROM ANY SEWER OR DRAIN LINE, AND A MINIMUM VERTICAL SEPARATION OF 18 INCHES WHERE THEY CROSS. WHERE THIS SEPARATION CANNOT BE MAINTAINED, THE WATER MAIN SHALL BE ENCASED IN CONCRETE FOR A DISTANCE OF 10 FEET ON EITHER SIDE OF THE CROSSING.
8. ALL WATER MAINS SHALL BE TESTED FOR LEAKAGE AND PRESSURE AT 150 PSI FOR A MINIMUM OF TWO HOURS IN ACCORDANCE WITH THE EAST LYME WATER AUTHORITY COMMISSION'S STANDARDS AND SPECIFICATIONS. ALL VALVES AND HYDRANTS SHALL BE OPERATED THROUGH THEIR FULL RANGE OF MOTION TO ENSURE PROPER FUNCTIONALITY. ANY LEAKS OR DEFECTS IDENTIFIED DURING THE TESTING PROCESS SHALL BE REPAIRED AND RETESTED UNTIL THE SYSTEM MEETS ALL REQUIREMENTS.
9. ANY FIRE HYDRANTS PRIVATE SYSTEM MAIN SHALL BE INSTALLED AS SHOWN ON THE PLANS AND CONNECT TO THE NEW PUBLIC SANITARY MAIN EXTENSION PARK PLACE.
10. IRRIGATION SHALL NOT BE SUPPLIED BY TOWN OF EAST LYME PUBLIC WATER SYSTEM. AN IRRIGATION WELL SHALL BE INSTALLED WITH SEPARATE PUMP, STORAGE & PIPING AS NEEDED.

SANITARY

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS OF THE EAST LYME WATER AUTHORITY COMMISSION.
2. THE EXISTING SANITARY SEWER MAIN PARK PLACE SHALL BE EXTENDED FOR THE VILLAGE DEVELOPMENT, AS REQUIRED BY THE WATER AND SEWER AUTHORITY COMMISSION. THE PROPOSED SANITARY SEWER SHALL CONSIST OF AN 8" PVC SDR 35 GRAVITY MAIN, FOLLOWING THE LAYOUT AS SHOWN ON THE PLANS. THE EXACT ALIGNMENT AND DEPTH OF THE SEWER MAIN SHALL BE DETERMINED BY FIELD CONDITIONS AND FINAL DESIGN CONSIDERATIONS. THE PLANS AND PROFILES SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
3. ANY PRIVATE SERVICE MAIN SHALL BE INSTALLED AS SHOWN ON THE PLANS AND CONNECT TO THE NEW PUBLIC SANITARY MAIN EXTENSION PARK PLACE.
4. A MINIMUM HORIZONTAL AND VERTICAL SEPARATION SHALL BE MAINTAINED BETWEEN WATER AND SANITARY SEWER LINES. IF THE MINIMUM VERTICAL SEPARATION IS NOT PROVIDED, THE SEWER SHALL BE CONSTRUCTED OF CAST IRON PIPE.
5. EACH INDIVIDUAL UNIT SHALL BE SERVED BY A SEPARATE 4" SANITARY LATERAL AS SHOWN ON THE PLANS. THE LATERALS SHALL BE CONSTRUCTED OF PVC SDR 35 MATERIAL AND SHALL BE INSTALLED AT A MINIMUM SLOPE OF 1/4" PER FOOT. THE LATERALS SHALL BE CONNECTED TO THE MAIN SEWER LINE USING A WYE FITTING OR A SADDLE CONNECTION, AS APPROVED BY THE EAST LYME WATER AND SEWER AUTHORITY COMMISSION.

ELECTRIC & TELECOMMUNICATIONS

1. ELECTRIC SERVICE SHALL BE PROVIDED TO THE DEVELOPMENT IN ACCORDANCE WITH THE STANDARDS OF EVERSOURCE UTILITIES. THE COMPANY WILL PROVIDE ENERGY. PRELIMINARY LAYOUT IS SHOWN INCLUDING TRANSFORMER LOCATIONS, UNDERGROUND CONDUIT, MANHOLES AND SECONDARY SERVICE CONNECTIONS TO A METER BANK ON EACH BUILDING.
2. FINAL CONNECTION LOCATION, SIZE, AND TYPE OF CONDUIT, TRANSFORMERS, METERS & OTHER ELEMENTS TO SERVE THE SUBDIVISION SHALL BE COORDINATED WITH EVERSOURCE PRIOR TO THE PREPARATION OF FINAL CONSTRUCTION PLANS AND ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3. APPROPRIATE EASEMENTS OF SUFFICIENT WIDTH ARE SHOWN OVER PRIVATE AREAS WHERE ELECTRIC AND TELECOMMUNICATIONS FACILITIES ARE LOCATED. ALL BUILDINGS WITHIN THE DEVELOPMENT SHALL BE SERVED BY A COMMON UNDERGROUND SYSTEM. WITH APPROPRIATE CONNECTIONS TO EACH UNIT. PARKING AREAS, SIDEWALKS AND DRIVEWAYS ARE ADJACENT TO EACH BUILDING AND AVAILABILITY OF ELECTRIC AND TELECOMMUNICATIONS SERVICE IS ADEQUATE FOR THE PROPOSED DEVELOPMENT.

UTILITY STATEMENT

UNDERGROUND UTILITY LINES EXIST ONLY AND AS FIELD LOCATED OR SHOWN AND NOTED HEREON. WAS APPROVED IN PART FROM FIELD AND MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENT AGENCIES. IN SOME INSTANCES, FIELD SURVEY AND OTHER SOURCES. THE SURVEYOR AND THIS PLAN DO NOT WARRANT OR GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN ARE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR DOES NOT PHYSICALLY LOCATE UNDERGROUND UTILITIES. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH UTILITIES SHOULD BE FIELD VERIFIED AND VALIDATED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY "CALL BEFORE YOU DIG" (1-800-922-4455) IN ACCORDANCE WITH OPERATIONAL PROCEDURES PRIOR TO COMMENCING WORK.

SCALE: 1" = 30'

PROJECT NUMBER: 02146-021

CONTACT INFORMATION
YANTIC RIVER CONSULTANTS, LLC
191 NORWICH AVENUE
LEBANON, CONN 06249
Phone: (860) 208-0162
Email: yrc.solutions@gmail.com

PARKERS PLACE
MULTI-FAMILY DEVELOPMENT
PREPARED FOR
PARKERS PLACE LLC, OWNER / APPLICANT
UTILITY PLAN

PARK PLACE (300' PUBLIC RIGHT OF WAY) EAST LYME, CT

REVISION SUMMARY

SHEET	4 of 5
DATE	9/29/25
REVISED	

GENERAL CONSTRUCTION NOTES:

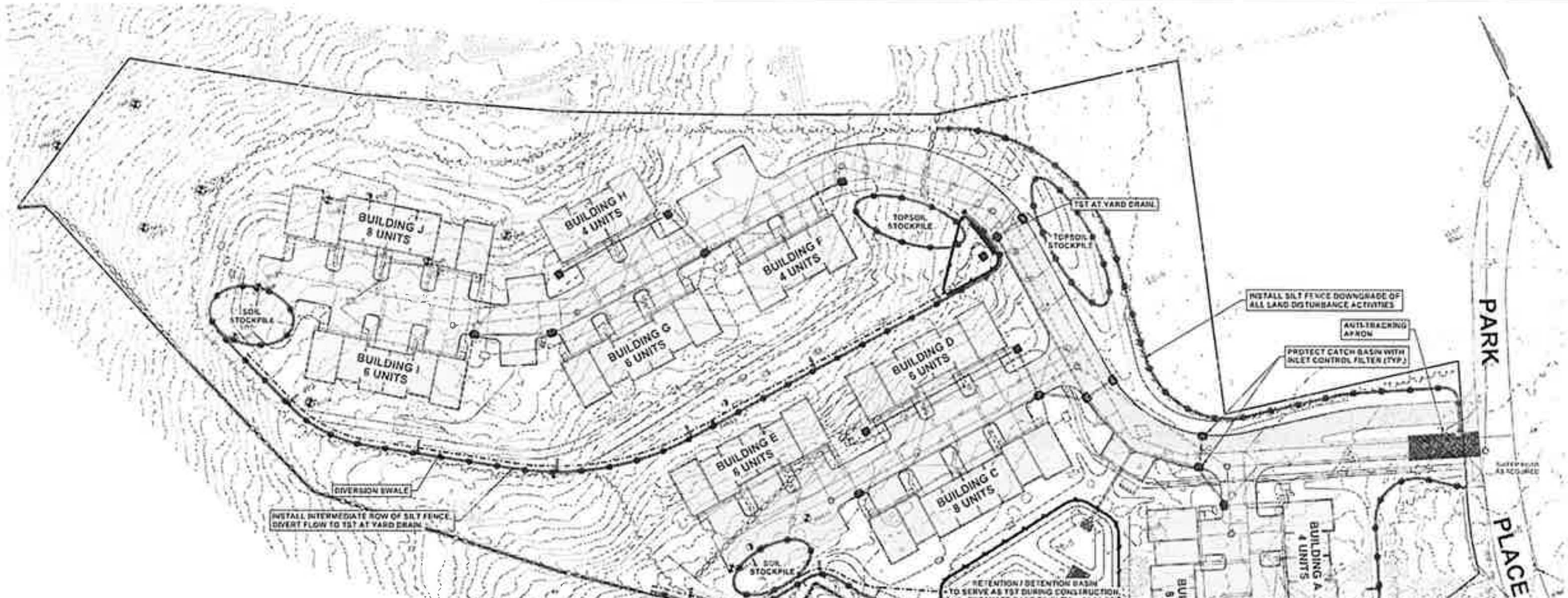
SEQUENCE OF CONSTRUCTION:

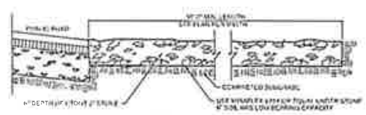
E & S CONTROL NARRATIVE:

E & S CONTROL PLAN:

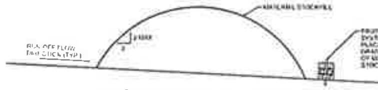
E & S CONTROL NOTES:

INSPECTION AND MAINTENANCE:





ANTI-TRACKING PAD DETAIL
NOT TO SCALE

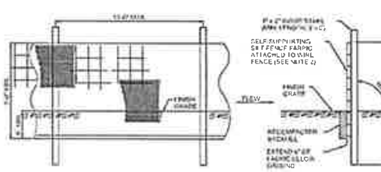


SOIL STOCKPILE DETAIL
NOT TO SCALE

MAINTENANCE:

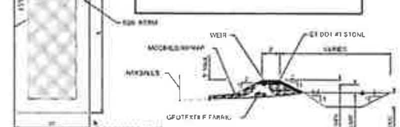
1. INSPECT THE TEMPORARY SEDIMENT TRAP AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.5 INCH OR GREATER.
2. EXCAVATE, REMOVE SEDIMENTS AND RESTORE BASIN TO ORIGINAL DIMENSIONS WHEN SEDIMENTS ACCUMULATED TO ½ WET STORAGE VOLUME.
3. THE TEMPORARY SEDIMENT TRAPS SHALL BE REMOVED AFTER THE CONTRIBUTING DRAINAGE AREA IS STABILIZED.
4. ALL PROPOSED SEDIMENT TRAPS SHALL BE CONSTRUCTED ACCORDING TO THE 2024 CT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL REQUIREMENTS.

TEMPORARY SEDIMENT TRAP (TST) SIZING				
TST	AREA (AC) (ACRE)	REQUIRED VOL. (CY)	WET VOL. (CY)	DRY VOL. (CY)
1	4.9	860	320	330



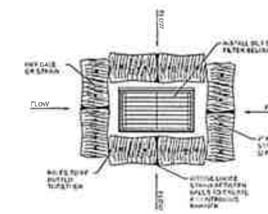
ELEVATION **SECTION**

SILT FENCE
NOT TO SCALE

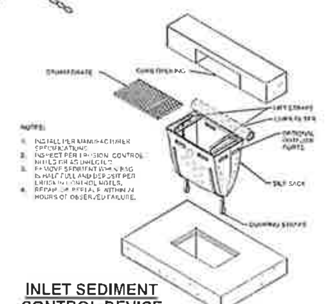


PLAN **OUTLET SECTION**

TEMPORARY SEDIMENT TRAP
NOT TO SCALE



HAY BALES AROUND CATCH BASIN
NOT TO SCALE



INLET SEDIMENT CONTROL DEVICE
NOT TO SCALE

SCALE: 1" = 40'

PROJECT NUMBER:

CONTACT INFORMATION
YANTIC RIVER CONSULTANTS, LLC
LEBANON, CONN 06249

PARKERS PLACE
MULTI-FAMILY DEVELOPMENT
PREPARED FOR
PARKERS PLACE LLC, OWNER / APPLICANT
EROSION & SEDIMENTATION CONTROL PLAN

REVISION SUMMARY

SHEET 5 of 5

DATE

REVISED

Traffic Counts

National Data & Surveying Services

Intersection Turning Movement Count

Location: Park Pl & W Main St
City: East Lyme
Control: 1-Way Stop(SB)

Project ID: 24-410007-001
Date: 1/30/2024

Data - Total

NS/EW Streets:	Park Pl				Park Pl				W Main St				W Main St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	2	0	0	0	0	44	0	0	0	50	0	0	96
7:15 AM	0	0	0	0	3	0	2	0	0	35	0	0	0	54	2	0	96
7:30 AM	0	0	0	0	7	0	1	0	0	57	0	0	0	64	0	0	129
7:45 AM	0	0	0	0	2	0	1	0	0	71	0	0	0	55	1	0	130
8:00 AM	0	0	0	0	3	0	0	0	1	62	0	0	0	40	3	0	109
8:15 AM	0	0	0	0	2	0	4	0	0	46	0	0	0	41	1	0	94
8:30 AM	0	0	0	0	1	0	2	0	1	64	0	0	0	58	1	0	127
8:45 AM	0	0	0	0	5	0	0	0	1	67	0	0	0	68	1	0	142
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	25	0	10	0	3	446	0	0	0	430	9	0	923
APPROACH %'s :					71.43%	0.00%	28.57%	0.00%	0.67%	99.33%	0.00%	0.00%	0.00%	97.95%	2.05%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	11	0	6	0	3	239	0	0	0	207	6	0	472
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.550	0.000	0.375	0.000	0.750	0.892	0.000	0.000	0.000	0.761	0.500	0.000	0.831
					0.708				0.890				0.772				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	2	0	0	0	5	80	0	0	0	94	3	0	184
4:15 PM	0	0	0	0	4	0	2	0	3	83	0	0	0	110	5	0	207
4:30 PM	0	0	0	0	3	0	0	0	1	80	0	0	0	98	1	0	183
4:45 PM	0	0	0	0	2	0	1	0	2	73	0	0	0	78	6	0	162
5:00 PM	0	0	0	0	3	0	0	0	2	83	0	0	0	90	2	0	180
5:15 PM	0	0	0	0	1	0	3	0	1	70	0	0	0	80	1	0	156
5:30 PM	0	0	0	0	0	0	1	0	1	63	0	0	0	59	1	0	125
5:45 PM	0	0	0	0	2	0	1	0	0	38	0	0	0	68	2	0	111
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	17	0	8	0	15	570	0	0	0	677	21	0	1308
APPROACH %'s :					68.00%	0.00%	32.00%	0.00%	2.56%	97.44%	0.00%	0.00%	0.00%	96.99%	3.01%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	11	0	3	0	11	316	0	0	0	380	15	0	736
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.688	0.000	0.375	0.000	0.550	0.952	0.000	0.000	0.000	0.864	0.625	0.000	0.889
					0.583				0.951				0.859				

Project Trip Generation

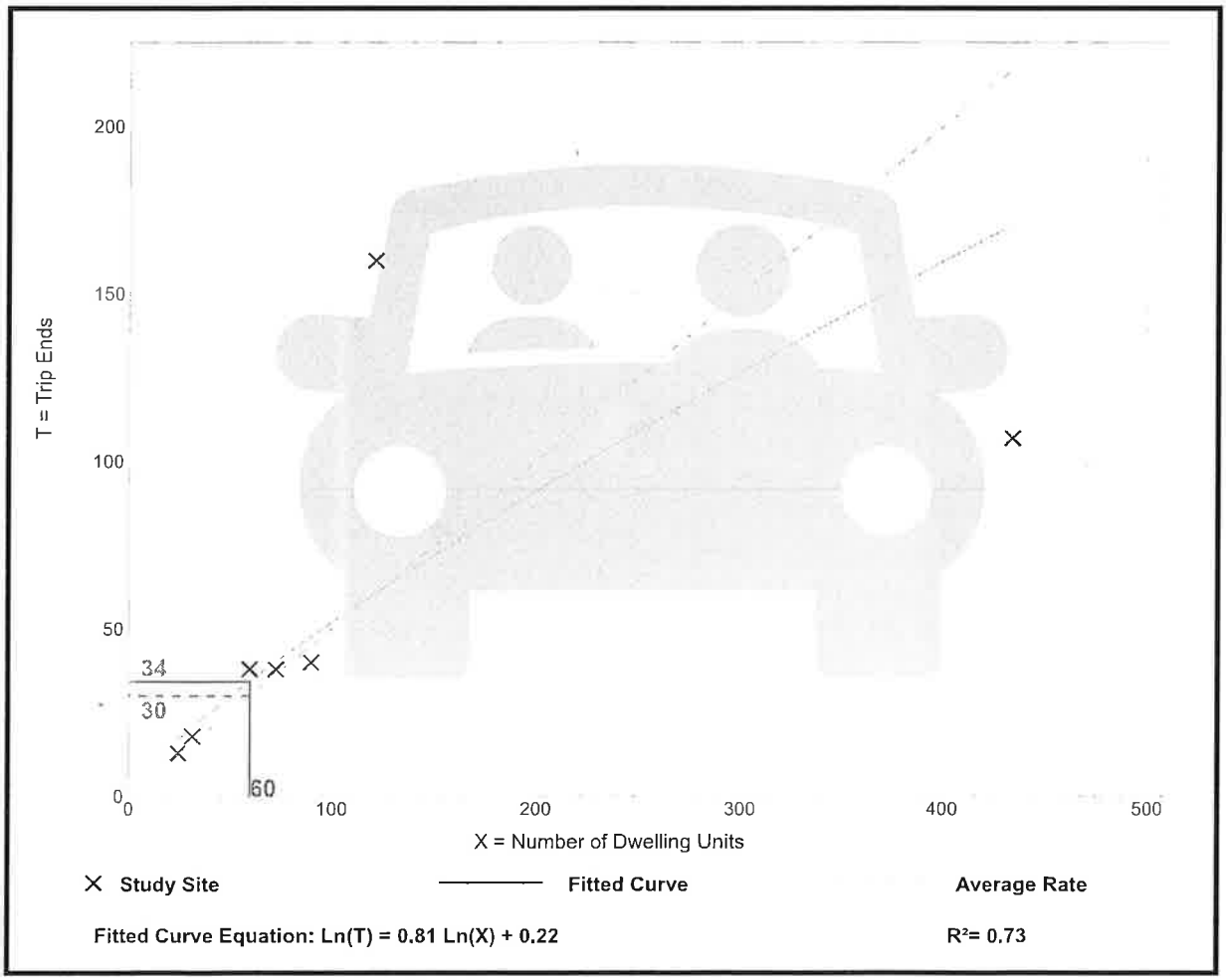
Affordable Housing - Income Limits
(223)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	7
Avg. Num. of Dwelling Units:	119
Directional Distribution:	29% entering, 71% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.50	0.25 - 1.32	0.39

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.81 Ln(X) + 0.22 **R^2= 0.73**

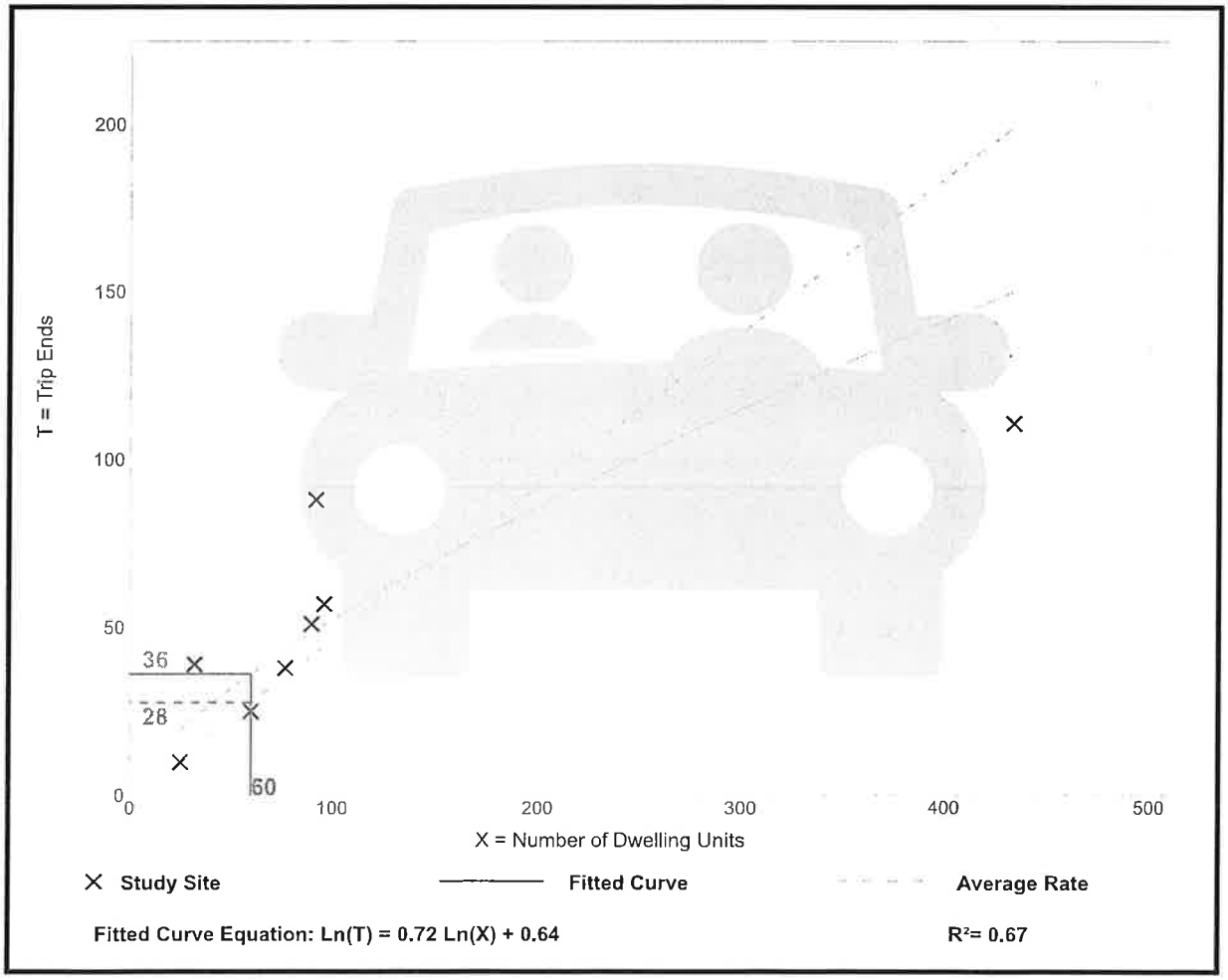
Affordable Housing - Income Limits
(223)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 8
Avg. Num. of Dwelling Units: 113
Directional Distribution: 59% entering, 41% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.46	0.26 - 1.22	0.28

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.72 Ln(X) + 0.64

R^2= 0.67

Capacity Analysis Reports

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		⋔	
Traffic Vol, veh/h	8	251	217	14	23	18
Future Vol, veh/h	8	251	217	14	23	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	77	77	71	71
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	282	282	18	32	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	300	0	-	0	591	291
Stage 1	-	-	-	-	291	-
Stage 2	-	-	-	-	300	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1261	-	-	-	470	748
Stage 1	-	-	-	-	759	-
Stage 2	-	-	-	-	752	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1261	-	-	-	466	748
Mov Cap-2 Maneuver	-	-	-	-	466	-
Stage 1	-	-	-	-	753	-
Stage 2	-	-	-	-	752	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1261	-	-	-	558
HCM Lane V/C Ratio	0.007	-	-	-	0.103
HCM Control Delay (s)	7.9	0	-	-	12.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	24	10	12	17	0
Future Vol, veh/h	0	24	10	12	17	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, #	0	-	-	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	0	26	11	13	18	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	53	18	18	0	-	0
Stage 1	18	-	-	-	-	-
Stage 2	35	-	-	-	-	-
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	955	1061	1599	-	-	-
Stage 1	1005	-	-	-	-	-
Stage 2	987	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	948	1061	1599	-	-	-
Mov Cap-2 Maneuver	948	-	-	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	987	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	3.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1599	-	1061	-	-
HCM Lane V/C Ratio	0.007	-	0.025	-	-
HCM Control Delay (s)	7.3	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		⋎	
Traffic Vol, veh/h	21	332	399	27	19	10
Future Vol, veh/h	21	332	399	27	19	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	86	86	58	58
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	349	464	31	33	17

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	495	0	-	0	873	480
Stage 1	-	-	-	-	480	-
Stage 2	-	-	-	-	393	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1069	-	-	-	321	586
Stage 1	-	-	-	-	622	-
Stage 2	-	-	-	-	682	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1069	-	-	-	313	586
Mov Cap-2 Maneuver	-	-	-	-	313	-
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	682	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	16.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1069	-	-	-	373
HCM Lane V/C Ratio	0.021	-	-	-	0.134
HCM Control Delay (s)	8.4	0	-	-	16.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	15	21	27	14	0
Future Vol, veh/h	0	15	21	27	14	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, #	0	-	-	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	0	16	23	29	15	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	90	15	15	0	-	0
Stage 1	15	-	-	-	-	-
Stage 2	75	-	-	-	-	-
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	910	1065	1603	-	-	-
Stage 1	1008	-	-	-	-	-
Stage 2	948	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	896	1065	1603	-	-	-
Mov Cap-2 Maneuver	896	-	-	-	-	-
Stage 1	993	-	-	-	-	-
Stage 2	948	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	3.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1603	-	1065	-	-
HCM Lane V/C Ratio	0.014	-	0.015	-	-
HCM Control Delay (s)	7.3	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	241	209	9	11	6
Future Vol, veh/h	3	241	209	9	11	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	77	77	71	71
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	271	271	12	15	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	283	0	-	0	554	277
Stage 1	-	-	-	-	277	-
Stage 2	-	-	-	-	277	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1279	-	-	-	493	762
Stage 1	-	-	-	-	770	-
Stage 2	-	-	-	-	770	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1279	-	-	-	492	762
Mov Cap-2 Maneuver	-	-	-	-	492	-
Stage 1	-	-	-	-	768	-
Stage 2	-	-	-	-	770	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1279	-	-	-	562
HCM Lane V/C Ratio	0.003	-	-	-	0.043
HCM Control Delay (s)	7.8	0	-	-	11.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		⋎	
Traffic Vol, veh/h	11	319	383	15	11	3
Future Vol, veh/h	11	319	383	15	11	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	86	86	58	58
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	336	445	17	19	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	462	0	-	0	814	454
Stage 1	-	-	-	-	454	-
Stage 2	-	-	-	-	360	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1099	-	-	-	347	606
Stage 1	-	-	-	-	640	-
Stage 2	-	-	-	-	706	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1099	-	-	-	342	606
Mov Cap-2 Maneuver	-	-	-	-	342	-
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	706	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	15.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1099	-	-	-	377
HCM Lane V/C Ratio	0.011	-	-	-	0.064
HCM Control Delay (s)	8.3	0	-	-	15.2
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		⋔	
Traffic Vol, veh/h	3	251	217	9	11	6
Future Vol, veh/h	3	251	217	9	11	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	77	77	71	71
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	282	282	12	15	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	294	0	-	0	576	288
Stage 1	-	-	-	-	288	-
Stage 2	-	-	-	-	288	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1268	-	-	-	479	751
Stage 1	-	-	-	-	761	-
Stage 2	-	-	-	-	761	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1268	-	-	-	478	751
Mov Cap-2 Maneuver	-	-	-	-	478	-
Stage 1	-	-	-	-	759	-
Stage 2	-	-	-	-	761	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1268	-	-	-	548
HCM Lane V/C Ratio	0.003	-	-	-	0.044
HCM Control Delay (s)	7.8	0	-	-	11.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		Y	
Traffic Vol, veh/h	11	332	399	16	11	3
Future Vol, veh/h	11	332	399	16	11	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	86	86	58	58
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	349	464	19	19	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	483	0	-	0	847	474
Stage 1	-	-	-	-	474	-
Stage 2	-	-	-	-	373	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1080	-	-	-	332	590
Stage 1	-	-	-	-	626	-
Stage 2	-	-	-	-	696	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1080	-	-	-	327	590
Mov Cap-2 Maneuver	-	-	-	-	327	-
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	696	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	15.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1080	-	-	-	362
HCM Lane V/C Ratio	0.011	-	-	-	0.067
HCM Control Delay (s)	8.4	0	-	-	15.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.2