TRAFFIC IMPACT STUDY

PROPOSED MULTI-FAMILY RESIDENTIAL DEVELOPMENT

Proposed Multi-Family
Residential Development
Block 801, Lot 20
Borough of Mendham
Morris County, New Jersey

Prepared For:
V-Fee Mendham Apartments, LLC

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SE&D Job No. RUT-200218

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INTRODUCTION

This Traffic Impact Study was prepared to investigate the potential impacts of the proposed multi-family residential development on the adjacent roadway network. The subject property is located along the northerly side of East Main Street (County Road 510) between Cold Hill Road and Heritage Manor Drive in the Borough of Mendham, Morris County, New Jersey. The site location is shown on appended **Figure 1**.

The subject property is designated as Block 801, Lot 20 as depicted on the Borough of Mendham Tax Map. The site has approximately 508 feet of frontage along East Main Street. The existing site is occupied by the Mendham Village Shopping Center, which consists of 80,472 square feet of retail space located on the southerly portion of the property and a 53,914-square-foot health and racquet club with six (6) tennis courts located on the northerly portion of the property. Access is presently provided via three (3) full-movement driveways along East Main Street. Under the proposed development program, the existing retail Mendham Village Shopping Center would remain as-is, and the racquet club would be demolished and replaced with a 75-unit multi-family residential building. Access is proposed via two (2) full-movement driveways along East Main Street, and one (1) ingress-only driveway along East Main Street.

METHODOLOGY

Stonefield Engineering & Design, LLC has prepared this Traffic Impact Study in accordance with the recommended guidelines and practices outlined by the Institute of Transportation Engineers (ITE) within Transportation Impact Analyses for Site Development. A detailed field investigation was performed to assess the existing conditions of the adjacent roadway network. A data collection effort was completed to identify the existing traffic volumes at the study intersections (existing site driveways) to serve as a base for the traffic analyses. Capacity analysis, a procedure used to estimate the traffic-carrying ability of roadway facilities over a range of defined operating conditions, was performed using the Highway Capacity Manual, 6th Edition (HCM) and the Synchro 11 Software for all study conditions to assess the roadway operations.

For an unsignalized intersection, Level of Service (LOS) A indicates operations with delay of less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 50 seconds per vehicle. For a signalized intersection, LOS A indicates operations with delay of less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 80 seconds per vehicle. The Technical Appendix contains the Highway Capacity Analysis Detail Sheets for the study intersections analyzed in this assessment.

2022 EXISTING CONDITION

2022 EXISTING ROADWAY CONDITIONS

The proposed mixed-use development is located along the northerly side of East Main Street (County Road 510) between Cold Hill Road and Heritage Manor Drive in the Borough of Mendham, Morris County, New Jersey. The subject property is designated as Block 801, Lot 20 as depicted on the Brough of Mendham Tax Map. The site has approximately 508 feet of frontage along East Main Street. Land uses in the area are a mix of commercial and residential uses.

East Main Street (a.k.a. CR 510) is classified as an Urban Minor Arterial roadway with a general east-west orientation and is under the jurisdiction of Morris County. Along the site frontage, the roadway provides one (1) lane of travel in each direction and has a posted speed limit of 35 mph. Curb and sidewalk are provided along both sides of the roadway, shoulders are not provided, and on-street parking is not permitted. East Main Street provides east-west mobility within the Borough of Mendham and neighboring municipalities for a mix of commercial, recreational, institutional, and residential uses along its length.

East Main Street and the existing three (3) site driveways intersect to form three (3) unsignalized T-intersections with the site driveway approaches operating under stop control. The easterly and westerly site driveways provide one (1) shared left-turn/right-turn egress lane and one (1) ingress lane. The ingress and egress lanes of the central site driveway are separated by a landscaped median and each provide approximately 24-feet of width. As such, the egress lane of the central site driveway operates as one (1) exclusive right-turn lane and one (1) exclusive left-turn lane. Crosswalks are provided across all three (3) site driveways.

2022 EXISTING TRAFFIC VOLUMES

Manual turning movement counts were collected during the typical weekday morning, weekday evening, and Saturday midday time periods to evaluate existing traffic conditions and identify the specific hours when traffic activity on the adjacent roadways is at a maximum and could be potentially impacted by the development of the site. Turning movement counts were collected at the following locations:

- Intersection of East Main Street and the easterly site driveway
- Intersection of East Main Street and the central site driveway
- Intersection of East Main Street and the westerly site driveway

Specifically, counts were conducted on the following dates and during the following times:

- Thursday, March 7, 2019, from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 7:00 p.m.
- Saturday, March 9, 2019, from 11:00 a.m. to 2:00 p.m.

The study time periods were chosen as they are representative of the peak periods of both the adjacent roadway network and the proposed development. The traffic volume data was collected and analyzed to identify the design peak hour in accordance with HCM and ITE guidelines. Based on the review of the count data, the weekday morning peak hour occurred from 7:15 a.m. to 8:15 a.m.; the weekday evening peak hour occurred from 4:45 p.m. to 5:45 p.m.; and the Saturday midday peak hour occurred from 11:45 a.m. to 12:45 p.m. The Technical Appendix contains a summary of the turning movement count data. The traffic count program also revealed the trip generation of the existing site. **Table 1** provides the as-counted weekday morning, weekday evening, and Saturday midday peak-hour trip generation volumes associated with the existing 80,472 square feet of retail space and 53,914-square-foot health and racquet club.

TABLE 1 – AS-COUNTED TRIP GENERATION OF THE EXISTING SITE

	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
Land Use	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**
Existing Site 80,472 SF Retail 53,914 SF H&R Club	119	123	242	212	278	490	188	251	439

It is noted that the 2019 original traffic volume data was grown to the current year 2022, in order to represent the existing traffic volumes. In accordance with industry guidelines, the original traffic volumes at the study intersections were increased by 1.00% annually for three (3) years. The 2022 Existing weekday morning, weekday evening, and Saturday midday peak-hour volumes are summarized on appended **Figure 2**. The 1.00% background growth rate was obtained from the New Jersey Department of Transportation (NJDOT) Annual Background Growth Rate Table.

2022 EXISTING LOS/CAPACITY ANALYSIS

A Level of Service and Volume/Capacity analysis was conducted for the 2022 Existing Condition during the weekday morning, weekday evening, and Saturday midday peak hours at the existing site driveways. Under the existing condition, the turning movements at the westerly site driveway are calculated to operate at Level of Service B or better during all peak hours studied. The turning movements at the central site driveway are calculated to operate at Level of Service E or better during all peak hours studied. The turning movements at the easterly site driveway are calculated to operate at Level of Service C or better during all peak hours studied.

2024 NO-BUILD CONDITION

BACKGROUND GROWTH

The 2022 Existing Condition traffic volume data was grown to a future horizon year of 2024, which is a conservative estimate for when the proposed multi-family residential development is expected to be fully constructed. In accordance with industry guidelines, the existing traffic volumes at the study intersections were increased by 1.00% annually for two (2) years. The 1.00% background growth rate was obtained from the NJDOT Annual Background Growth Rate Table.

OTHER PLANNED DEVELOPMENT PROJECTS

To evaluate the future traffic conditions, it is important to consider the potential site-generated traffic of other projects that could influence the traffic volume at the study intersections. Other planned development projects include those that are either in the entitlement process or have recently been approved for building permits in proximity to the proposed development. Based on consultations with the Zoning Director of the Borough of Mendham, there are no planned development projects within the area of the subject site.

It should be noted that while there are no planned developments, based on consultations with Morris County, an improvement project within the vicinity of the site is proposed. The roadway improvement plan includes restriping East Main Street to provide one (1) lane in each direction, and one (1) shared center-left-turn lane. As such, the application of the background growth rate would be adequate to account for background traffic growth.

2024 NO-BUILD TRAFFIC VOLUMES

The background growth rate was applied to the 2022 Existing Traffic Volumes to calculate the 2024 No-Build Traffic Volumes for the weekday morning, weekday evening, and Saturday midday peak hours. These volumes are summarized on appended **Figure 3**.

2024 NO-BUILD LOS/CAPACITY ANALYSIS

A Level of Service and Volume/Capacity analysis was also conducted for the 2024 No-Build Condition during the weekday morning, weekday evening, and Saturday midday peak hours at the existing site driveways. The turning movements at the easterly site driveway are calculated to operate generally consistently with the findings of the Existing Condition during all peak hours studied. The turning movements at the central site driveway are calculated to operate generally consistently with the findings of the Existing Condition during all peak hours studied. The turning movements at the westerly site driveway are calculated to operate generally consistently with the findings of the Existing Condition during all peak hours studied.

2024 BUILD CONDITION

The site-generated traffic volume of the proposed multi-family residential development was estimated to identify the potential impacts of the project. For the purpose of this analysis, a complete project "build out" is assumed within two (2) years of the preparation of this study.

TRIP GENERATION

Trip generation projections for the proposed development were prepared utilizing the ITE's Trip Generation Manual, 11th Edition. Trip generation rates associated with Land Use 491 "Racquet/Tennis Club" were cited for the existing health and racquet club, and Land Use 221 "Multifamily Housing (Mid-Rise) were cited for the proposed 75-unit residential building. **Table 2** provides the trip generation volumes associated with the existing racquet club. It should be noted that ITE does not provide weekday morning or Saturday midday peak-hour trip generation rates for Land Use 491 "Racquet/Tennis Club." As such, no trip reduction was considered during the weekday morning peak hour, and the Saturday midday peak-hour trip generation was assumed to be the same as the weekday evening peak hour.

TABLE 2 – EXISTING HEALTH AND RACQUET CLUB TRIP GENERATION

	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
Land Use	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**
Existing 53,914 SF / 6 courts Racquet/Tennis Club *ITE Land Use 491*	--	--	--	12	11	23	12	11	23
Difference	**--**	**--**	**--**	**-12**	**-11**	**-23**	**-12**	**-11**	**-23**

As shown in Table 2, the removal of the 53,914-square-foot health and racquet club would result in a reduction of 23 total trips during the weekday evening peak hour and 23 total trips during the Saturday midday peak hour. Trip generation rates associated with Land Use 221 "Multifamily Housing (Mid-Rise)" were cited for the proposed 75-unit residential building. **Table 3** provides the weekday morning, weekday evening, and Saturday midday peak-hour trip generation associated with the subject site.

TABLE 3 – EXISTING AND PROPOSED TRIP GENERATION COMPARISON

	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
Land Use	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**
Existing 6 Court Racquet/ Tennis Club *ITE Land Use 491*	--	--	--	12	11	23	12	11	23
Proposed 75-Unit Apartments *ITE Land Use 221*	6	22	28	18	11	29	15	14	29
Proposed Trip Increase	**+6**	**+22**	**+28**	**+6**	**+0**	**+6**	**+3**	**+3**	**+6**
Existing Site Trip Generation	119	123	242	212	278	490	188	251	439
Total Proposed Site Trip Generation	**125**	**145**	**270**	**218**	**278**	**496**	**191**	**254**	**445**

As shown in Table 3, the proposed multi-family residential development would result in 28, 6, and 6 additional trips accessing the subject site during the weekday morning, weekday evening, and Saturday midday peak hours, respectively. Based on Transportation Impact Analysis for Site Development published by ITE, a trip increase of less than 100 vehicle trips would likely not change the level of service of the adjacent roadway system or appreciably increase the volume-to-capacity ratio of an intersection approach. As such, the proposed development is not anticipated to significantly impact the operations of the adjacent roadway network.

Additionally, Chapter 6 of ITE's Trip Generation Handbook, 3rd Edition states that internally captured trips can be a component of the travel patterns at mixed-use developments, such as the overall subject site. When combined within a single development, individual land uses tend to interact, and thus attract a portion of each other's trip generation, such as residents visiting the retail stores. Therefore, based on the nature of the proposed and existing uses, an internal capture credit would be applicable for this site. However, in order to conduct a conservative analysis, internally captured trips were not considered within this assessment.

TRIP ASSIGNMENT/DISTRIBUTION

The trips generated by the proposed development were distributed according to the existing travel pattern along East Main Street and the access management plan of the site. The "New" Site-Generated Traffic Volumes are illustrated on appended **Figure 4**.

2024 BUILD TRAFFIC VOLUMES

The site-generated trips were added to the 2024 No-Build Traffic Volumes to calculate the 2024 Build Traffic Volumes and are shown on appended **Figure 5**.

2024 BUILD LOS/CAPACITY ANALYSIS

A Level of Service and Volume/Capacity analysis was also conducted for the 2024 Build Condition during the weekday morning, weekday evening, and Saturday midday peak hours at the site driveways. **Tables 4** through **12** compare the Existing, No-Build, and Build Conditions Level of Service and delay values. The turning movements at the westerly site driveway are calculated to operate at Level of Service B, or better, during all peak hours studied. The turning movements at the central site driveway are calculated to operate generally consistently with the findings of the No-Build Condition during all peak hours studied. The turning movements at the easterly site driveway are calculated to operate at Level of Service C, or better, during all peak hours studied.

COMPARATIVE LEVEL OF SERVICE (DELAY) TABLES

EAST MAIN STREET & WESTERLY SITE DRIVEWAY

EB (Eastbound) approach is the East Main Street approach
SB (Southbound) approach is the westerly site driveway approach
X (n) = Level of Service (seconds of delay)

TABLE 4 – WEEKDAY MORNING PEAK HOUR

Lane Group	2022 Existing	2024 No-Build	2024 Build
EB Left	A (8.4)	A (8.4)	A (8.4)

TABLE 5 – WEEKDAY EVENING PEAK HOUR

Lane Group	2022 Existing	2024 No-Build	2024 Build
EB Left	B (10.3)	B (10.4)	B (10.4)

TABLE 6 – SATURDAY MIDDAY PEAK HOUR

Lane Group	2022 Existing	2024 No-Build	2024 Build
EB Left	A (8.4)	A (8.4)	A (8.4)

EAST MAIN STREET & CENTRAL SITE DRIVEWAY

EB (Eastbound) approach is the East Main Street approach
SB (Southbound) approach is the central site driveway approach
X (n) = Level of Service (seconds of delay)

TABLE 7 – WEEKDAY MORNING PEAK HOUR

Lane Group	2022 Existing	2024 No-Build	2024 Build
EB Left	A (8.5)	A (8.5)	A (8.6)
SB Left	C (21.2)	C (21.7)	C (22.8)
SB Right	B (10.2)	B (10.3)	B (10.4)

TABLE 8 – WEEKDAY EVENING PEAK HOUR

Lane Group	2022 Existing	2024 No-Build	2024 Build
EB Left	B (10.6)	B (10.6)	B (10.7)
SB Left	E (44.9)	E (47.5)	E (49.0)
SB Right	B (14.5)	B (14.7)	B (15.2)

TABLE 9 – SATURDAY MIDDAY PEAK HOUR

Lane Group	2022 Existing	2024 No-Build	2024 Build
EB Left	A (8.5)	A (8.6)	A (8.6)
SB Left	C (20.0)	C (20.4)	C (20.8)
SB Right	B (10.5)	B (10.5)	B (10.6)

EAST MAIN STREET & EASTERLY SITE DRIVEWAY

EB (Eastbound) approach is the East Main Street approach
SB (Southbound) approach is the easterly site driveway approach
X (n) = Level of Service (seconds of delay)

TABLE 10 – WEEKDAY MORNING PEAK HOUR

Lane Group	2022 Existing	2024 No-Build	2024 Build
EB Left	A (8.4)	A (8.4)	A (8.4)
SB Left/Right	B (13.5)	B (13.7)	C (13.6)

TABLE 11 – WEEKDAY EVENING PEAK HOUR

Lane Group	2022 Existing	2024 No-Build	2024 Build
EB Left	B (10.1)	B (10.1)	B (10.2)
SB Left/Right	C (21.1)	C (21.7)	C (21.7)

TABLE 12 – SATURDAY MIDDAY PEAK HOUR

Lane Group	2022 Existing	2024 No-Build	2024 Build
EB Left	A (8.2)	A (8.2)	A (8.2)
SB Left/Right	B (12.5)	B (12.6)	B (12.6)

SITE CIRCULATION/PARKING SUPPLY

A review was conducted of the proposed multi-family residential development using the Site Plan prepared by Stonefield, dated October 20, 2022. In completing this review, particular attention was focused on the site access, circulation, and parking supply.

Under the proposed development program, the existing 80,472-square-foot retail space would remain as-is, the existing health and racquet club would be demolished, and a five (5)-story, 75-unit residential building, with ground-floor parking garage, and a separate premium vehicle storage building, including bicycle storage, would be constructed. A new surface parking lot with a turnaround drop-off/pickup area would be constructed at center of the proposed residential development. Additionally, improvements to the existing parking area

for the retail area are proposed, including striping of new parking spaces, and shared residential visitor parking. The center driveway has been redesigned to provide one (1) ingress driveway providing direct access to the residential development, and one (1) right-turn lane, and one (1) left-turn lane at the egress. Vehicular circulation throughout the residential development would be facilitated via 24-foot-wide, two-way drive aisles. A 24-foot by 90-foot loading zone, would be provided along the northeasterly side of the proposed residential building. Access to the site is proposed via two (2) full-movement driveways along East Main Street, and one (1) ingress-only driveway along East Main Street.

Regarding the parking requirements for the proposed residential development, the New Jersey Administrative Code Residential Site Improvements Standards (RSIS) (NJAC 5:21) requires 1.8 parking spaces per one (1)-bedroom unit, two (2) spaces per two (2)-bedroom unit, and 2.1 spaces per three (3)-bedroom unit for mid-rise residential uses, and the Borough of Mendham requires one (1) space per employee for automobile service stations. For the proposed 75-unit residential development with 33 one (1)-bedroom units, 39 two (2)-bedroom units, and three (3) three (3)-bedroom units, this equates to 144 required residential parking spaces. For the premium parking garage with two (2) employees, this equates to two (2) parking spaces, for a total of 146 required parking spaces for the residential portion of the development. Regarding the parking requirements for the retail portion of the subject site, the Borough on Mendham Ordinance requires 3.5 parking spaces per 1,000 square feet of retail/commercial area. For the existing 80,472 square feet of retail area, this equates to 283 required retail parking spaces. The total parking requirement for the overall site is 428 spaces.

The parking garage would provide a total of 106 spaces for the exclusive use of the residents, with a minimum dimension of nine (9) feet wide by 18 feet deep, in accordance with industry standards. The residential surface parking lot would provide a total of 10 spaces for visitors, inclusive of two (2) ADA-accessible stalls, with a minimum dimension of nine (9) feet wide by 18 feet deep. As such, the parking supply within the residential development site would be 116 spaces. Restriping and improvements to the retail portion of the site would bring the retail parking supply to 341 spaces, inclusive of 28 residential visitor parking spaces, 15 of which would be marked and the remaining 13 visitor spaces being undesignated, but available for visitors to use. As such, the total parking supply for the overall site is 457 spaces, which meets the parking requirement and would be sufficient to support the overall site parking demand.

As per P.L. 2021, c.171 (C.40:55D-66.18 et al.), all projects involving multifamily dwellings with more than five (5) units must have 15% of the parking supply be pre-wired for electric vehicle charging stations ("make-ready"). Of the make-ready spaces, 5% must be ADA compliant. For the proposed parking supply of 116 parking spaces, this equates to 17 make-ready spaces, with one (1) being ADA accessible. The electric vehicle requirements consider electric vehicle spaces as a minimum of two (2) parking spaces for the purpose of

satisfying parking requirements, up to a 10% reduction of total requirement. As such, the residential development plan would be considered to provide 130 (116 +14) parking spaces.

CONCLUSIONS

This report was prepared to examine the potential traffic and parking impacts of the proposed multi-family residential development. The analysis findings, which have been based on industry-standard guidelines, indicate that the proposed development would not have a significant impact on the traffic operations of the adjacent roadway network. The proposed parking supply would be sufficient to accommodate the anticipated demand for the proposed and existing developments within the mixed-use overall site. The site driveways and proposed on-site layout would provide for effective access to and from the subject property.

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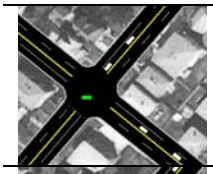
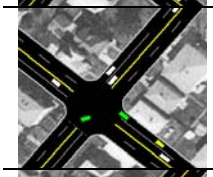
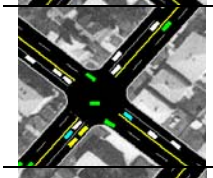
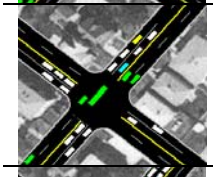
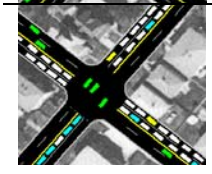
TECHNICAL APPENDIX

LEVEL OF SERVICE/AVERAGE CONTROL DELAY CRITERIA

LEVEL OF SERVICE /AVERAGE CONTROL DELAY CRITERIA

The ability of a roadway to effectively accommodate traffic demand is determined through an assessment of the volume-to-capacity ratio, delay and Level of Service of the lane group and/or intersection. The volume-to-capacity ratio is the ratio of traffic flow rate to capacity for a given transportation facility. As defined within the Highway Capacity Manual, 6th Edition (HCM), intersection delay is the total additional travel time experienced by drivers, passengers, or pedestrians as a result of control measures and interaction with other users of the facility, divided by the volume departing from the corresponding cross section of the facility. 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.

For an unsignalized intersection, LOS A indicates operations with delay less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 50 seconds per vehicle. For a signalized intersection, LOS A indicates operations with delay less than 10 seconds per vehicle and LOS F denotes operations with delay in excess of 80 seconds per vehicle.

	Level Of Service (LOS)	Signalized Delay Range (average control delay in sec/veh)	Unsignalized Delay Range (average control delay in sec/veh)
	A	<=10	<=10
	B	>10 and <=20	>10 and <=15
	C	>20 and <=35	>15 and <=25
	D	>35 and <=55	>25 and <=35
	E	>55 and <=80	>35 and <=50
	F	>80	>50

Source: Highway Capacity Manual, 6th Edition

TURNING MOVEMENT COUNT DATA

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Intersection of East Main Street (E/W)
and Easterly Site Driveway (N/S)
Mendham, Morris County, New Jersey
Thursday, March 7, 2019

File Name : Not Named 1
Site Code : 00018203
Start Date : 3/7/2019
Page No : 1

Groups Printed- Auto - HV - Bus/SB

	East Main Street Eastbound				East Main Street Westbound				Easterly Site Driveway Southbound				
Start Time	Left	Thru	Right	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	0	118	0	118	0	127	2	129	0	0	0	0	247
07:15 AM	0	146	0	146	0	134	4	138	0	0	0	0	284
07:30 AM	0	188	0	188	0	103	3	106	2	0	1	3	297
07:45 AM	0	173	0	173	0	121	6	127	1	0	1	2	302
Total	0	625	0	625	0	485	15	500	3	0	2	5	1130
08:00 AM	1	177	0	178	0	105	4	109	1	0	2	3	290
08:15 AM	0	157	0	157	0	92	1	93	3	0	0	3	253
08:30 AM	3	169	0	172	0	96	4	100	1	0	0	1	273
08:45 AM	1	155	0	156	0	107	11	118	5	0	1	6	280
Total	5	658	0	663	0	400	20	420	10	0	3	13	1096
*** BREAK ***													
04:00 PM	0	106	0	106	0	105	4	109	0	0	0	0	215
04:15 PM	0	116	0	116	0	146	9	155	2	0	5	7	278
04:30 PM	1	119	0	120	0	167	8	175	4	0	2	6	301
04:45 PM	4	121	0	125	0	238	8	246	6	0	2	8	379
Total	5	462	0	467	0	656	29	685	12	0	9	21	1173
05:00 PM	5	122	0	127	0	156	6	162	4	0	1	5	294
05:15 PM	1	131	0	132	0	215	1	216	4	0	1	5	353
05:30 PM	1	108	0	109	0	213	4	217	5	0	1	6	332
05:45 PM	1	125	0	126	0	205	5	210	3	0	0	3	339
Total	8	486	0	494	0	789	16	805	16	0	3	19	1318
06:00 PM	3	111	0	114	0	151	3	154	6	0	1	7	275
06:15 PM	0	102	0	102	0	177	2	179	0	0	2	2	283
06:30 PM	1	84	0	85	0	160	5	165	3	0	1	4	254
06:45 PM	1	73	0	74	0	156	2	158	2	0	0	2	234
Total	5	370	0	375	0	644	12	656	11	0	4	15	1046
Grand Total	23	2601	0	2624	0	2974	92	3066	52	0	21	73	5763
Apprch %	0.9	99.1	0		0	97	3		71.2	0	28.8		
Total %	0.4	45.1	0	45.5	0	51.6	1.6	53.2	0.9	0	0.4	1.3	
Auto	23	2573	0	2596	0	2933	92	3025	52	0	21	73	5694
% Auto	100	98.9	0	98.9	0	98.6	100	98.7	100	0	100	100	98.8
HV	0	9	0	9	0	10	0	10	0	0	0	0	19
% HV	0	0.3	0	0.3	0	0.3	0	0.3	0	0	0	0	0.3
Bus/SB	0	19	0	19	0	31	0	31	0	0	0	0	50
% Bus/SB	0	0.7	0	0.7	0	1	0	1	0	0	0	0	0.9

Stonefield Engineering & Design, LLC

92 Park Avenue, Rutherford, NJ 07070

201.340.4468 t. 201.340.4472 f.

Intersection of East Main Street (E/W)
and Easterly Site Driveway (N/S)
Mendham, Morris County, New Jersey
Thursday, March 7, 2019

File Name : Not Named 1
Site Code : 00018203
Start Date : 3/7/2019
Page No : 2

	East Main Street Eastbound				East Main Street Westbound				Easterly Site Driveway Southbound				
Start Time	Left	Thru	Right	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	0	146	0	146	0	134	4	138	0	0	0	0	284
07:30 AM	0	188	0	188	0	103	3	106	2	0	1	3	297
07:45 AM	0	173	0	173	0	121	6	127	1	0	1	2	302
08:00 AM	1	177	0	178	0	105	4	109	1	0	2	3	290
Total Volume	1	684	0	685	0	463	17	480	4	0	4	8	1173
% App. Total	0.1	99.9	0		0	96.5	3.5		50	0	50		
PHF	.250	.910	.000	.911	.000	.864	.708	.870	.500	.000	.500	.667	.971
Auto	1	673	0	674	0	440	17	457	4	0	4	8	1139
% Auto	100	98.4	0	98.4	0	95.0	100	95.2	100	0	100	100	97.1
HV	0	3	0	3	0	5	0	5	0	0	0	0	8
% HV	0	0.4	0	0.4	0	1.1	0	1.0	0	0	0	0	0.7
Bus/SB	0	8	0	8	0	18	0	18	0	0	0	0	26
% Bus/SB	0	1.2	0	1.2	0	3.9	0	3.8	0	0	0	0	2.2
Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	4	121	0	125	0	238	8	246	6	0	2	8	379
05:00 PM	5	122	0	127	0	156	6	162	4	0	1	5	294
05:15 PM	1	131	0	132	0	215	1	216	4	0	1	5	353
05:30 PM	1	108	0	109	0	213	4	217	5	0	1	6	332
Total Volume	11	482	0	493	0	822	19	841	19	0	5	24	1358
% App. Total	2.2	97.8	0		0	97.7	2.3		79.2	0	20.8		
PHF	.550	.920	.000	.934	.000	.863	.594	.855	.792	.000	.625	.750	.896
Auto	11	480	0	491	0	817	19	836	19	0	5	24	1351
% Auto	100	99.6	0	99.6	0	99.4	100	99.4	100	0	100	100	99.5
HV	0	2	0	2	0	0	0	0	0	0	0	0	2
% HV	0	0.4	0	0.4	0	0	0	0	0	0	0	0	0.1
Bus/SB	0	0	0	0	0	5	0	5	0	0	0	0	5
% Bus/SB	0	0	0	0	0	0.6	0	0.6	0	0	0	0	0.4

Stonefield Engineering & Design, LLC

92 Park Avenue, Rutherford, NJ 07070
201.340.4468 t. 201.340.4472 f.

Intersection of East Main Street (E/W)
and Central Site Driveway (N/S)
Mendham, Morris County, New Jersey
Thursday, March 7, 2019

File Name : Not Named 1
Site Code : 00018203
Start Date : 3/7/2019
Page No : 1

Groups Printed- Auto - HV - Bus/SB

	East Main Street Eastbound				East Main Street Westbound				Central Site Driveway Southbound				
Start Time	Left	Thru	Right	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	0	118	0	118	0	127	2	129	0	0	0	0	247
07:15 AM	0	146	0	146	0	134	4	138	0	0	0	0	284
07:30 AM	0	188	0	188	0	103	3	106	2	0	1	3	297
07:45 AM	0	173	0	173	0	121	6	127	1	0	1	2	302
Total	0	625	0	625	0	485	15	500	3	0	2	5	1130
08:00 AM	1	177	0	178	0	105	4	109	1	0	2	3	290
08:15 AM	0	157	0	157	0	92	1	93	3	0	0	3	253
08:30 AM	3	169	0	172	0	96	4	100	1	0	0	1	273
08:45 AM	1	155	0	156	0	107	11	118	5	0	1	6	280
Total	5	658	0	663	0	400	20	420	10	0	3	13	1096
*** BREAK ***													
04:00 PM	13	96	0	109	0	96	9	105	10	0	23	33	247
04:15 PM	21	104	0	125	0	139	12	151	12	0	45	57	333
04:30 PM	21	94	0	115	0	157	12	169	26	0	23	49	333
04:45 PM	24	107	0	131	0	212	17	229	18	0	38	56	416
Total	79	401	0	480	0	604	50	654	66	0	129	195	1329
05:00 PM	27	107	0	134	0	156	14	170	20	0	48	68	372
05:15 PM	34	102	0	136	0	203	12	215	30	0	33	63	414
05:30 PM	26	90	0	116	0	193	20	213	19	0	33	52	381
05:45 PM	23	107	0	130	0	185	20	205	19	0	30	49	384
Total	110	406	0	516	0	737	66	803	88	0	144	232	1551
06:00 PM	20	91	0	111	0	139	13	152	23	0	36	59	322
06:15 PM	16	82	0	98	0	167	12	179	20	0	30	50	327
06:30 PM	21	67	0	88	0	151	10	161	18	0	26	44	293
06:45 PM	15	62	0	77	0	145	11	156	12	0	21	33	266
Total	72	302	0	374	0	602	46	648	73	0	113	186	1208
Grand Total	266	2392	0	2658	0	2828	197	3025	240	0	391	631	6314
Apprch %	10	90	0		0	93.5	6.5		38	0	62		
Total %	4.2	37.9	0	42.1	0	44.8	3.1	47.9	3.8	0	6.2	10	
Auto	266	2364	0	2630	0	2787	197	2984	240	0	391	631	6245
% Auto	100	98.8	0	98.9	0	98.6	100	98.6	100	0	100	100	98.9
HV	0	9	0	9	0	10	0	10	0	0	0	0	19
% HV	0	0.4	0	0.3	0	0.4	0	0.3	0	0	0	0	0.3
Bus/SB	0	19	0	19	0	31	0	31	0	0	0	0	50
% Bus/SB	0	0.8	0	0.7	0	1.1	0	1	0	0	0	0	0.8

Stonefield Engineering & Design, LLC

92 Park Avenue, Rutherford, NJ 07070

201.340.4468 t. 201.340.4472 f.

Intersection of East Main Street (E/W)
and Central Site Driveway (N/S)
Mendham, Morris County, New Jersey
Thursday, March 7, 2019

File Name : Not Named 1
Site Code : 00018203
Start Date : 3/7/2019

	East Main Street Eastbound				East Main Street Westbound				Central Site Driveway Southbound				
Start Time	Left	Thru	Right	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	0	146	0	146	0	134	4	138	0	0	0	0	284
07:30 AM	0	188	0	188	0	103	3	106	2	0	1	3	297
07:45 AM	0	173	0	173	0	121	6	127	1	0	1	2	302
08:00 AM	1	177	0	178	0	105	4	109	1	0	2	3	290
Total Volume	1	684	0	685	0	463	17	480	4	0	4	8	1173
% App. Total	0.1	99.9	0		0	96.5	3.5		50	0	50		
PHF	.250	.910	.000	.911	.000	.864	.708	.870	.500	.000	.500	.667	.971
Auto	1	673	0	674	0	440	17	457	4	0	4	8	1139
% Auto	100	98.4	0	98.4	0	95.0	100	95.2	100	0	100	100	97.1
HV	0	3	0	3	0	5	0	5	0	0	0	0	8
% HV	0	0.4	0	0.4	0	1.1	0	1.0	0	0	0	0	0.7
Bus/SB	0	8	0	8	0	18	0	18	0	0	0	0	26
% Bus/SB	0	1.2	0	1.2	0	3.9	0	3.8	0	0	0	0	2.2
Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	24	107	0	131	0	212	17	229	18	0	38	56	416
05:00 PM	27	107	0	134	0	156	14	170	20	0	48	68	372
05:15 PM	34	102	0	136	0	203	12	215	30	0	33	63	414
05:30 PM	26	90	0	116	0	193	20	213	19	0	33	52	381
Total Volume	111	406	0	517	0	764	63	827	87	0	152	239	1583
% App. Total	21.5	78.5	0		0	92.4	7.6		36.4	0	63.6		
PHF	.816	.949	.000	.950	.000	.901	.788	.903	.725	.000	.792	.879	.951
Auto	111	404	0	515	0	759	63	822	87	0	152	239	1576
% Auto	100	99.5	0	99.6	0	99.3	100	99.4	100	0	100	100	99.6
HV	0	2	0	2	0	0	0	0	0	0	0	0	2
% HV	0	0.5	0	0.4	0	0	0	0	0	0	0	0	0.1
Bus/SB	0	0	0	0	0	5	0	5	0	0	0	0	5
% Bus/SB	0	0	0	0	0	0.7	0	0.6	0	0	0	0	0.3

Stonefield Engineering & Design, LLC

92 Park Avenue, Rutherford, NJ 07070
201.340.4468 t. 201.340.4472 f.

Intersection of East Main Street (E/W)
and Westerly Site Driveway (N/S)
Mendham, Morris County, New Jersey
Thursday, March 7, 2019

File Name : Not Named 1
Site Code : 00018203
Start Date : 3/7/2019
Page No : 1

Groups Printed- Auto - HV - Bus/SB

	East Main Street Eastbound				East Main Street Westbound				Westerly Site Driveway Southbound				
Start Time	Left	Thru	Right	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	1	125	0	126	0	129	0	129	0	0	0	0	255
07:15 AM	2	159	0	161	0	129	0	129	0	0	2	2	292
07:30 AM	1	186	0	187	0	111	0	111	0	0	6	6	304
07:45 AM	2	162	0	164	0	129	2	131	0	0	1	1	296
Total	6	632	0	638	0	498	2	500	0	0	9	9	1147
08:00 AM	1	175	0	176	0	105	0	105	1	0	1	2	283
08:15 AM	2	177	0	179	0	98	2	100	0	0	1	1	280
08:30 AM	1	178	0	179	0	106	0	106	0	0	1	1	286
08:45 AM	8	160	0	168	0	120	2	122	0	0	2	2	292
Total	12	690	0	702	0	429	4	433	1	0	5	6	1141
*** BREAK ***													
04:00 PM	4	108	0	112	0	116	3	119	1	0	1	2	233
04:15 PM	1	125	0	126	0	182	2	184	0	0	0	0	310
04:30 PM	5	115	0	120	0	179	1	180	0	0	1	1	301
04:45 PM	2	130	0	132	0	257	4	261	1	0	3	4	397
Total	12	478	0	490	0	734	10	744	2	0	5	7	1241
05:00 PM	0	134	0	134	0	190	1	191	0	0	4	4	329
05:15 PM	0	136	0	136	0	237	0	237	0	0	2	2	375
05:30 PM	1	116	0	117	0	227	0	227	0	0	5	5	349
05:45 PM	1	130	0	131	0	215	0	215	0	0	1	1	347
Total	2	516	0	518	0	869	1	870	0	0	12	12	1400
06:00 PM	1	111	0	112	0	173	2	175	0	0	2	2	289
06:15 PM	2	98	0	100	0	196	1	197	0	0	5	5	302
06:30 PM	1	88	0	89	0	177	0	177	0	0	1	1	267
06:45 PM	1	77	0	78	0	165	1	166	0	0	1	1	245
Total	5	374	0	379	0	711	4	715	0	0	9	9	1103
Grand Total	37	2690	0	2727	0	3241	21	3262	3	0	40	43	6032
Apprch %	1.4	98.6	0		0	99.4	0.6		7	0	93		
Total %	0.6	44.6	0	45.2	0	53.7	0.3	54.1	0	0	0.7	0.7	
Auto	37	2662	0	2699	0	3200	21	3221	3	0	40	43	5963
% Auto	100	99	0	99	0	98.7	100	98.7	100	0	100	100	98.9
HV	0	9	0	9	0	10	0	10	0	0	0	0	19
% HV	0	0.3	0	0.3	0	0.3	0	0.3	0	0	0	0	0.3
Bus/SB	0	19	0	19	0	31	0	31	0	0	0	0	50
% Bus/SB	0	0.7	0	0.7	0	1	0	1	0	0	0	0	0.8

Stonefield Engineering & Design, LLC

92 Park Avenue, Rutherford, NJ 07070

201.340.4468 t. 201.340.4472 f.

Intersection of East Main Street (E/W)
and Westerly Site Driveway (N/S)
Mendham, Morris County, New Jersey
Thursday, March 7, 2019

File Name : Not Named 1
Site Code : 00018203
Start Date : 3/7/2019

	East Main Street Eastbound				East Main Street Westbound				Westerly Site Driveway Southbound				
Start Time	Left	Thru	Right	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	2	159	0	161	0	129	0	129	0	0	2	2	292
07:30 AM	1	186	0	187	0	111	0	111	0	0	6	6	304
07:45 AM	2	162	0	164	0	129	2	131	0	0	1	1	296
08:00 AM	1	175	0	176	0	105	0	105	1	0	1	2	283
Total Volume	6	682	0	688	0	474	2	476	1	0	10	11	1175
% App. Total	0.9	99.1	0		0	99.6	0.4		9.1	0	90.9		
PHF	.750	.917	.000	.920	.000	.919	.250	.908	.250	.000	.417	.458	.966
Auto	6	671	0	677	0	451	2	453	1	0	10	11	1141
% Auto	100	98.4	0	98.4	0	95.1	100	95.2	100	0	100	100	97.1
HV	0	3	0	3	0	5	0	5	0	0	0	0	8
% HV	0	0.4	0	0.4	0	1.1	0	1.1	0	0	0	0	0.7
Bus/SB	0	8	0	8	0	18	0	18	0	0	0	0	26
% Bus/SB	0	1.2	0	1.2	0	3.8	0	3.8	0	0	0	0	2.2
Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	2	130	0	132	0	257	4	261	1	0	3	4	397
05:00 PM	0	134	0	134	0	190	1	191	0	0	4	4	329
05:15 PM	0	136	0	136	0	237	0	237	0	0	2	2	375
05:30 PM	1	116	0	117	0	227	0	227	0	0	5	5	349
Total Volume	3	516	0	519	0	911	5	916	1	0	14	15	1450
% App. Total	0.6	99.4	0		0	99.5	0.5		6.7	0	93.3		
PHF	.375	.949	.000	.954	.000	.886	.313	.877	.250	.000	.700	.750	.913
Auto	3	514	0	517	0	906	5	911	1	0	14	15	1443
% Auto	100	99.6	0	99.6	0	99.5	100	99.5	100	0	100	100	99.5
HV	0	2	0	2	0	0	0	0	0	0	0	0	2
% HV	0	0.4	0	0.4	0	0	0	0	0	0	0	0	0.1
Bus/SB	0	0	0	0	0	5	0	5	0	0	0	0	5
% Bus/SB	0	0	0	0	0	0.5	0	0.5	0	0	0	0	0.3

Stonefield Engineering & Design, LLC

92 Park Avenue, Rutherford, NJ 07070

201.340.4468 t. 201.340.4472 f.

Intersection of East Main Street (E/W)
and Easterly Site Driveway (N/S)
Mendham, Morris County, New Jersey
Saturday, March 9, 2019

File Name : Not Named 2
Site Code : 00018203
Start Date : 3/9/2019
Page No : 1

Groups Printed- Auto - HV - Bus/SB

	East Main Street Eastbound				East Main Street Westbound				Easterly Site Driveway Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
11:00 AM	0	81	0	81	0	69	0	69	1	0	0	1	151
11:15 AM	3	81	0	84	0	59	4	63	8	0	4	12	159
11:30 AM	0	99	0	99	0	86	5	91	2	0	5	7	197
11:45 AM	1	91	0	92	0	106	1	107	3	0	1	4	203
Total	4	352	0	356	0	320	10	330	14	0	10	24	710
12:00 PM	1	96	0	97	0	91	2	93	4	0	2	6	196
12:15 PM	1	101	0	102	0	93	0	93	1	0	0	1	196
12:30 PM	3	109	0	112	0	101	0	101	1	0	0	1	214
12:45 PM	2	109	0	111	0	81	0	81	0	0	0	0	192
Total	7	415	0	422	0	366	2	368	6	0	2	8	798
01:00 PM	1	83	0	84	0	106	0	106	1	0	0	1	191
01:15 PM	2	93	0	95	0	98	0	98	1	0	0	1	194
01:30 PM	0	103	0	103	0	97	0	97	1	0	0	1	201
01:45 PM	1	86	0	87	0	113	0	113	1	0	0	1	201
Total	4	365	0	369	0	414	0	414	4	0	0	4	787
Grand Total	15	1132	0	1147	0	1100	12	1112	24	0	12	36	2295
Apprch %	1.3	98.7	0		0	98.9	1.1		66.7	0	33.3		
Total %	0.7	49.3	0	50	0	47.9	0.5	48.5	1	0	0.5	1.6	
Auto	15	1126	0	1141	0	1092	12	1104	24	0	12	36	2281
% Auto	100	99.5	0	99.5	0	99.3	100	99.3	100	0	100	100	99.4
HV	0	6	0	6	0	8	0	8	0	0	0	0	14
% HV	0	0.5	0	0.5	0	0.7	0	0.7	0	0	0	0	0.6
Bus/SB	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bus/SB	0	0	0	0	0	0	0	0	0	0	0	0	0

	East Main Street Eastbound				East Main Street Westbound				Easterly Site Driveway Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 11:45 AM													
11:45 AM	1	91	0	92	0	106	1	107	3	0	1	4	203
12:00 PM	1	96	0	97	0	91	2	93	4	0	2	6	196
12:15 PM	1	101	0	102	0	93	0	93	1	0	0	1	196
12:30 PM	3	109	0	112	0	101	0	101	1	0	0	1	214
Total Volume	6	397	0	403	0	391	3	394	9	0	3	12	809
% App. Total	1.5	98.5	0		0	99.2	0.8		75	0	25		
PHF	.500	.911	.000	.900	.000	.922	.375	.921	.563	.000	.375	.500	.945
Auto	6	396	0	402	0	387	3	390	9	0	3	12	804
% Auto	100	99.7	0	99.8	0	99.0	100	99.0	100	0	100	100	99.4
HV	0	1	0	1	0	4	0	4	0	0	0	0	5
% HV	0	0.3	0	0.2	0	1.0	0	1.0	0	0	0	0	0.6
Bus/SB	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bus/SB	0	0	0	0	0	0	0	0	0	0	0	0	0

Stonefield Engineering & Design, LLC

92 Park Avenue, Rutherford, NJ 07070

201.340.4468 t. 201.340.4472 f.

Intersection of East Main Street (E/W)
and Central Site Driveway (N/S)
Mendham, Morris County, New Jersey
Saturday, March 9, 2019

File Name : Not Named 2
Site Code : 00018203
Start Date : 3/9/2019
Page No : 1

Groups Printed- Auto - HV - Bus/SB

	East Main Street Eastbound				East Main Street Westbound				Central Site Driveway Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
11:00 AM	20	61	0	81	0	61	8	69	20	0	30	50	200
11:15 AM	27	54	0	81	0	50	13	63	30	0	29	59	203
11:30 AM	36	77	0	113	0	69	22	91	22	0	41	63	267
11:45 AM	21	69	0	90	0	95	12	107	23	0	25	48	245
Total	104	261	0	365	0	275	55	330	95	0	125	220	915
12:00 PM	30	73	0	103	0	78	15	93	24	0	33	57	253
12:15 PM	26	73	0	99	0	70	23	93	29	0	28	57	249
12:30 PM	29	80	0	109	0	89	12	101	32	0	34	66	276
12:45 PM	14	84	0	98	0	60	21	81	27	0	21	48	227
Total	99	310	0	409	0	297	71	368	112	0	116	228	1005
01:00 PM	31	55	0	86	0	92	14	106	29	0	30	59	251
01:15 PM	26	77	0	103	0	84	14	98	18	0	26	44	245
01:30 PM	28	82	0	110	0	77	20	97	21	0	22	43	250
01:45 PM	20	58	0	78	0	96	17	113	29	0	29	58	249
Total	105	272	0	377	0	349	65	414	97	0	107	204	995
Grand Total	308	843	0	1151	0	921	191	1112	304	0	348	652	2915
Apprch %	26.8	73.2	0		0	82.8	17.2		46.6	0	53.4		
Total %	10.6	28.9	0	39.5	0	31.6	6.6	38.1	10.4	0	11.9	22.4	
Auto	308	837	0	1145	0	913	191	1104	304	0	348	652	2901
% Auto	100	99.3	0	99.5	0	99.1	100	99.3	100	0	100	100	99.5
HV	0	6	0	6	0	8	0	8	0	0	0	0	14
% HV	0	0.7	0	0.5	0	0.9	0	0.7	0	0	0	0	0.5
Bus/SB	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bus/SB	0	0	0	0	0	0	0	0	0	0	0	0	0

	East Main Street Eastbound				East Main Street Westbound				Central Site Driveway Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 11:45 AM													
11:45 AM	21	69	0	90	0	95	12	107	23	0	25	48	245
12:00 PM	30	73	0	103	0	78	15	93	24	0	33	57	253
12:15 PM	26	73	0	99	0	70	23	93	29	0	28	57	249
12:30 PM	29	80	0	109	0	89	12	101	32	0	34	66	276
Total Volume	106	295	0	401	0	332	62	394	108	0	120	228	1023
% App. Total	26.4	73.6	0		0	84.3	15.7		47.4	0	52.6		
PHF	.883	.922	.000	.920	.000	.874	.674	.921	.844	.000	.882	.864	.927
Auto	106	294	0	400	0	328	62	390	108	0	120	228	1018
% Auto	100	99.7	0	99.8	0	98.8	100	99.0	100	0	100	100	99.5
HV	0	1	0	1	0	4	0	4	0	0	0	0	5
% HV	0	0.3	0	0.2	0	1.2	0	1.0	0	0	0	0	0.5
Bus/SB	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bus/SB	0	0	0	0	0	0	0	0	0	0	0	0	0

Stonefield Engineering & Design, LLC

92 Park Avenue, Rutherford, NJ 07070

201.340.4468 t. 201.340.4472 f.

Intersection of East Main Street (E/W)
and Westerly Site Driveway (N/S)
Mendham, Morris County, New Jersey
Saturday, March 9, 2019

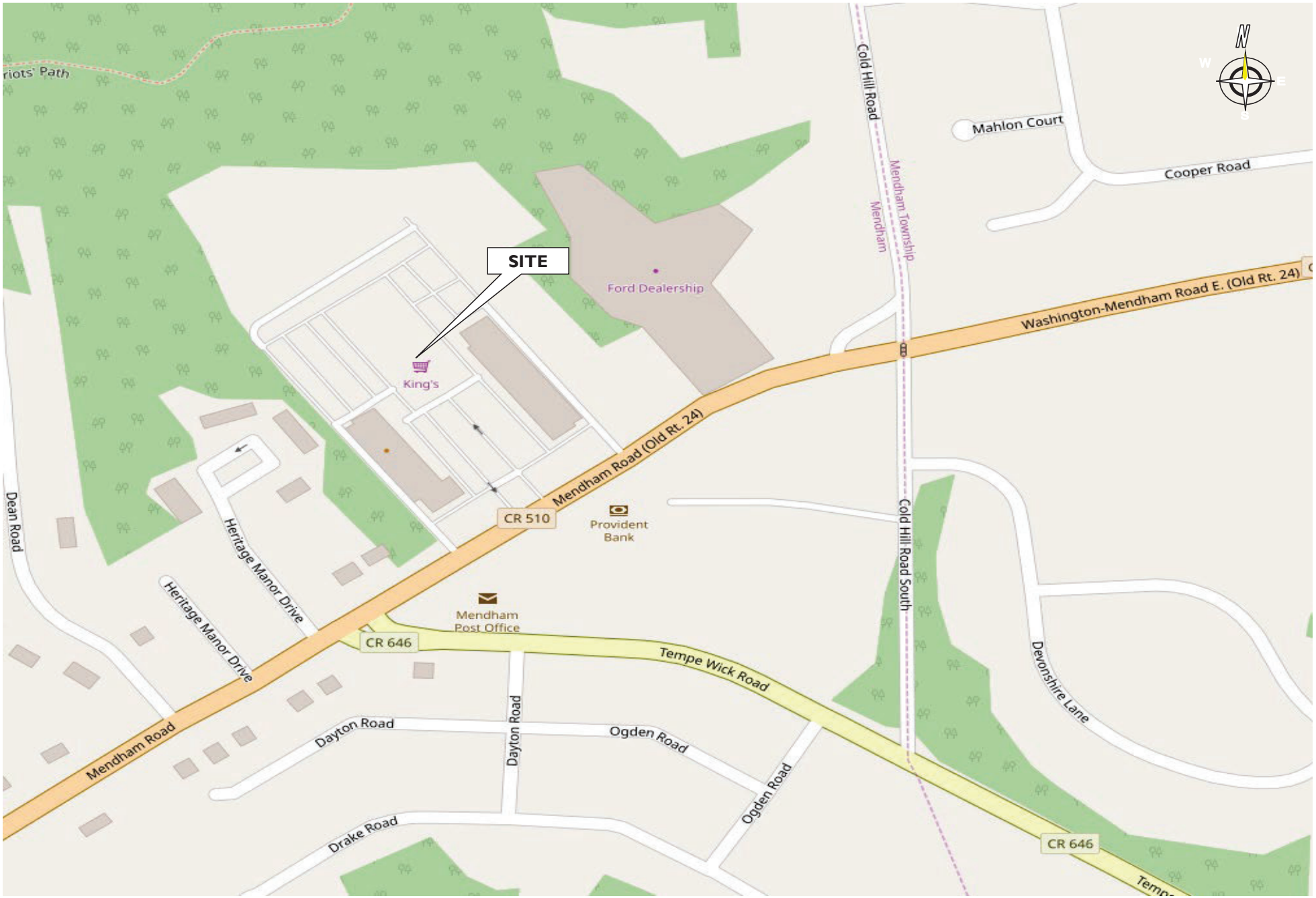
File Name : Not Named 2
Site Code : 00018203
Start Date : 3/9/2019
Page No : 1

Groups Printed- Auto - HV - Bus/SB

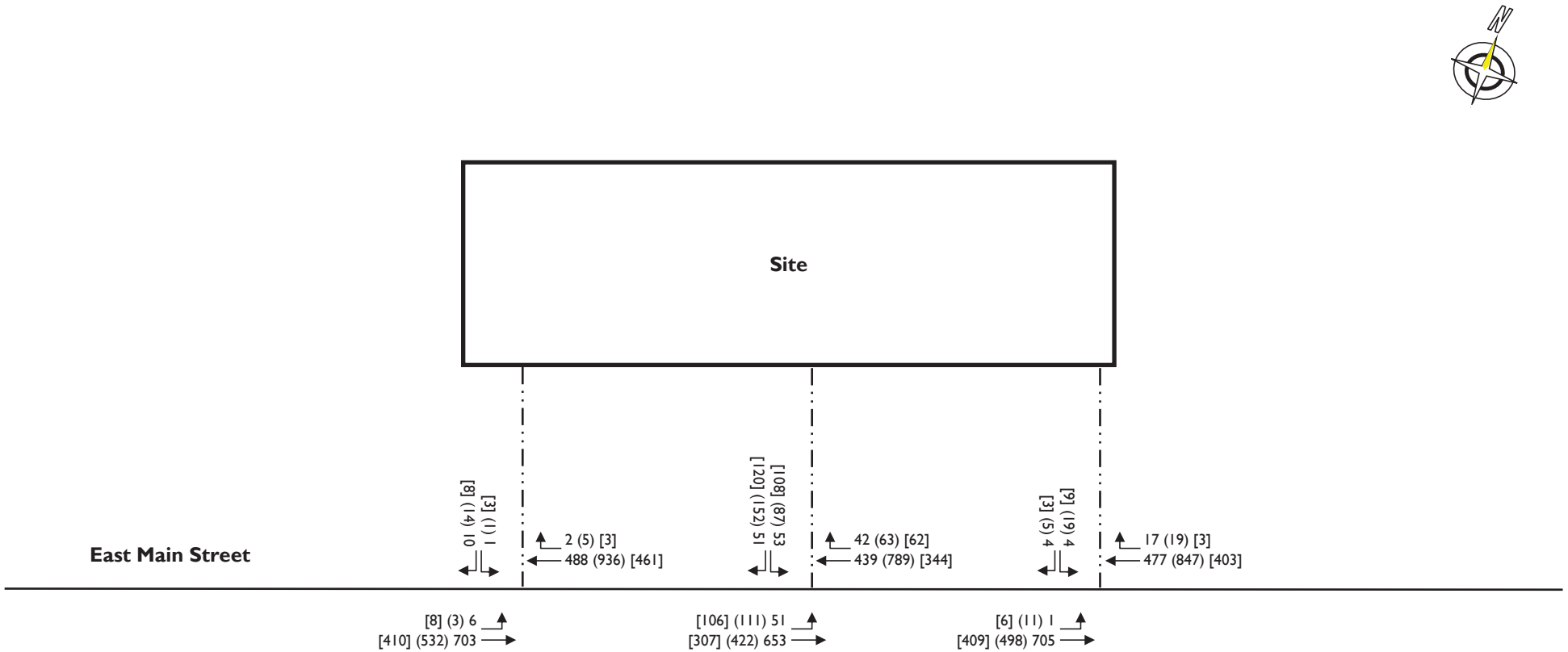
	East Main Street Eastbound				East Main Street Westbound				Westerly Site Driveway Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
11:00 AM	4	81	0	85	0	87	4	91	0	0	3	3	179
11:15 AM	2	81	0	83	0	75	4	79	0	0	1	1	163
11:30 AM	4	113	0	117	0	105	5	110	0	0	4	4	231
11:45 AM	2	89	0	91	0	119	1	120	1	0	0	1	212
Total	12	364	0	376	0	386	14	400	1	0	8	9	785
12:00 PM	4	102	0	106	0	110	1	111	1	0	3	4	221
12:15 PM	0	98	0	98	0	97	1	98	1	0	5	6	202
12:30 PM	2	109	0	111	0	123	0	123	0	0	0	0	234
12:45 PM	2	98	0	100	0	81	0	81	0	0	4	4	185
Total	8	407	0	415	0	411	2	413	2	0	12	14	842
01:00 PM	0	86	0	86	0	122	0	122	0	0	1	1	209
01:15 PM	1	103	0	104	0	108	2	110	0	0	5	5	219
01:30 PM	1	110	0	111	0	99	0	99	0	0	2	2	212
01:45 PM	2	77	0	79	0	125	0	125	1	0	2	3	207
Total	4	376	0	380	0	454	2	456	1	0	10	11	847
Grand Total	24	1147	0	1171	0	1251	18	1269	4	0	30	34	2474
Apprch %	2	98	0		0	98.6	1.4		11.8	0	88.2		
Total %	1	46.4	0	47.3	0	50.6	0.7	51.3	0.2	0	1.2	1.4	
Auto	24	1141	0	1165	0	1243	18	1261	4	0	30	34	2460
% Auto	100	99.5	0	99.5	0	99.4	100	99.4	100	0	100	100	99.4
HV	0	6	0	6	0	8	0	8	0	0	0	0	14
% HV	0	0.5	0	0.5	0	0.6	0	0.6	0	0	0	0	0.6
Bus/SB	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bus/SB	0	0	0	0	0	0	0	0	0	0	0	0	0

	East Main Street Eastbound				East Main Street Westbound				Westerly Site Driveway Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 11:45 AM													
11:45 AM	2	89	0	91	0	119	1	120	1	0	0	1	212
12:00 PM	4	102	0	106	0	110	1	111	1	0	3	4	221
12:15 PM	0	98	0	98	0	97	1	98	1	0	5	6	202
12:30 PM	2	109	0	111	0	123	0	123	0	0	0	0	234
Total Volume	8	398	0	406	0	449	3	452	3	0	8	11	869
% App. Total	2	98	0		0	99.3	0.7		27.3	0	72.7		
PHF	.500	.913	.000	.914	.000	.913	.750	.919	.750	.000	.400	.458	.928
Auto	8	397	0	405	0	445	3	448	3	0	8	11	864
% Auto	100	99.7	0	99.8	0	99.1	100	99.1	100	0	100	100	99.4
HV	0	1	0	1	0	4	0	4	0	0	0	0	5
% HV	0	0.3	0	0.2	0	0.9	0	0.9	0	0	0	0	0.6
Bus/SB	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bus/SB	0	0	0	0	0	0	0	0	0	0	0	0	0

FIGURES



STONEFIELD	**Proposed Multi-Family Residential Development** **Block 801, Lot 20** **Borough of Mendham, Morris County, New Jersey** **Traffic Impact Study**	**FIGURE 1** **Site Location Map**



LEGEND

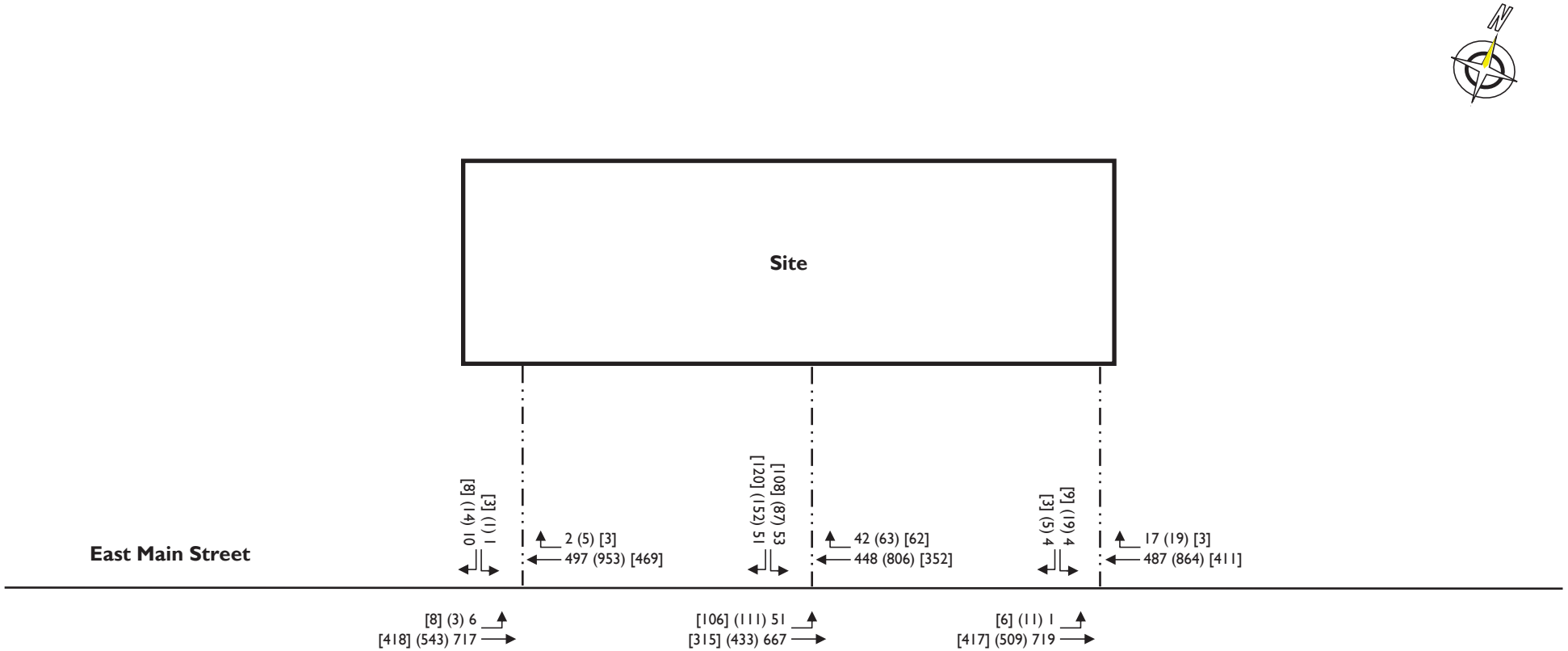
- Existing Roadway
- Existing Private Driveway
- AM (PM) [SAT] Peak Hour Volumes

not to scale

STONEFIELD

Proposed Multi-Family Residential Development
Block 801, Lot 20
Borough of Mendham, Morris County, New Jersey
Traffic Impact Study

FIGURE 2
2022 Existing Traffic Volumes



LEGEND

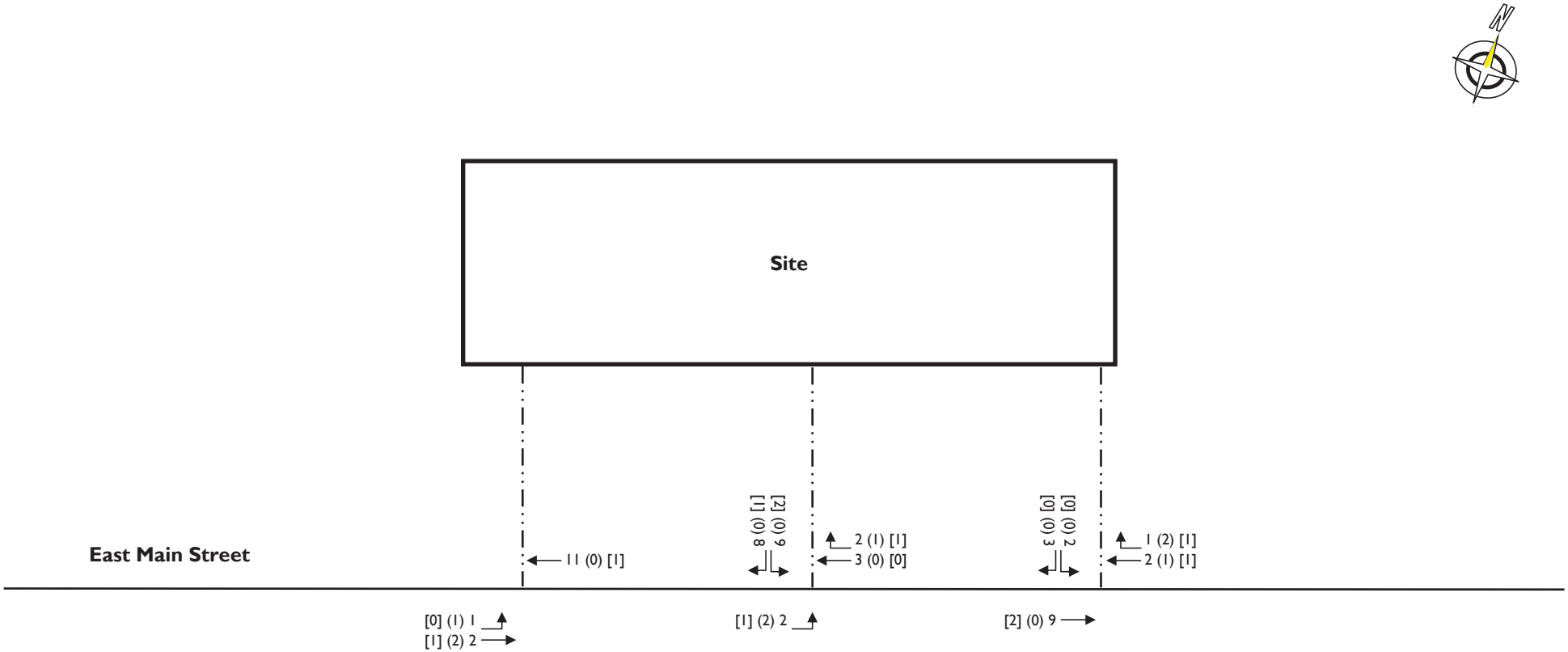
- Existing Roadway
- Existing Private Driveway
- AM (PM) [SAT] Peak Hour Volumes

not to scale

STONEFIELD

Proposed Multi-Family Residential Development
Block 801, Lot 20
Borough of Mendham, Morris County, New Jersey
Traffic Impact Study

FIGURE 3
2024 No-Build Traffic Volumes



LEGEND

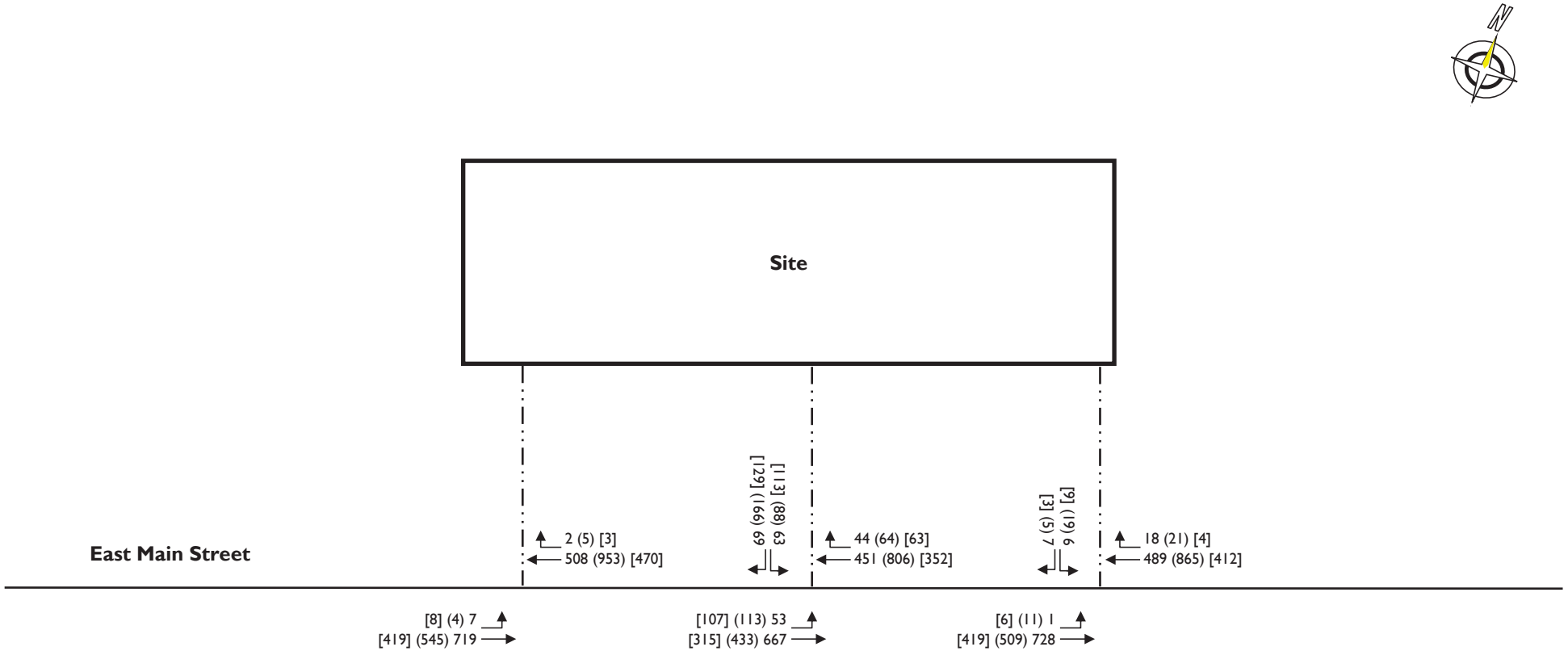
- Existing Roadway
- Existing Private Driveway
- AM (PM) [SAT] Peak Hour Volumes

not to scale

STONEFIELD

Proposed Multi-Family Residential Development
Block 801, Lot 20
Borough of Mendham, Morris County, New Jersey
Traffic Impact Study

FIGURE 4
"New" Site-Generated Traffic Volumes



LEGEND

- Existing Roadway
- Existing Private Driveway
- AM (PM) [SAT] Peak Hour Volumes

not to scale

STONEFIELD

Proposed Multi-Family Residential Development
Block 801, Lot 20
Borough of Mendham, Morris County, New Jersey
Traffic Impact Study

FIGURE 5
2024 Build Traffic Volumes

CAPACITY ANALYSIS DETAIL SHEETS

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	703	488	2	1	10
Future Vol, veh/h	6	703	488	2	1	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	97	97	97	97	97	97
Heavy Vehicles, %	0	2	5	0	0	0
Mvmt Flow	6	725	503	2	1	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	505	0	-	0	1241	504
Stage 1	-	-	-	-	504	-
Stage 2	-	-	-	-	737	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1070	-	-	-	305	726
Stage 1	-	-	-	-	611	-
Stage 2	-	-	-	-	477	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1070	-	-	-	302	726
Mov Cap-2 Maneuver	-	-	-	-	302	-
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	477	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1070	-	-	-	644
HCM Lane V/C Ratio	0.006	-	-	-	0.018
HCM Control Delay (s)	8.4	0	-	-	10.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	51	653	439	42	53	51
Future Vol, veh/h	51	653	439	42	53	51
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	2	5	0	0	0
Mvmt Flow	53	673	453	43	55	53

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	496	0	-	0	1254	475
Stage 1	-	-	-	-	475	-
Stage 2	-	-	-	-	779	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1078	-	-	-	301	743
Stage 1	-	-	-	-	630	-
Stage 2	-	-	-	-	456	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1078	-	-	-	277	743
Mov Cap-2 Maneuver	-	-	-	-	277	-
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	456	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	15.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1078	-	-	-	277	743
HCM Lane V/C Ratio	0.049	-	-	-	0.197	0.071
HCM Control Delay (s)	8.5	0	-	-	21.2	10.2
HCM Lane LOS	A	A	-	-	C	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7	0.2

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	705	477	17	4	4
Future Vol, veh/h	1	705	477	17	4	4
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	97	97	97	97	97	97
Heavy Vehicles, %	0	2	5	0	0	0
Mvmt Flow	1	727	492	18	4	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	510	0	-	0	1230	501
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	729	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1065	-	-	-	309	727
Stage 1	-	-	-	-	613	-
Stage 2	-	-	-	-	481	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1065	-	-	-	308	727
Mov Cap-2 Maneuver	-	-	-	-	308	-
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	481	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1065	-	-	-	433
HCM Lane V/C Ratio	0.001	-	-	-	0.019
HCM Control Delay (s)	8.4	0	-	-	13.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	532	936	5	1	14
Future Vol, veh/h	3	532	936	5	1	14
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	91	91	91	91	91	91
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	3	585	1029	5	1	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1034	0	-	0	1623	1032
Stage 1	-	-	-	-	1032	-
Stage 2	-	-	-	-	591	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	680	-	-	-	205	464
Stage 1	-	-	-	-	347	-
Stage 2	-	-	-	-	557	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	680	-	-	-	204	464
Mov Cap-2 Maneuver	-	-	-	-	204	-
Stage 1	-	-	-	-	345	-
Stage 2	-	-	-	-	557	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	13.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	680	-	-	-	428
HCM Lane V/C Ratio	0.005	-	-	-	0.039
HCM Control Delay (s)	10.3	0	-	-	13.7
HCM Lane LOS	B	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	111	422	789	63	87	152
Future Vol, veh/h	111	422	789	63	87	152
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	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	117	444	831	66	92	160

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	897	0	-	0	1542	864
Stage 1	-	-	-	-	864	-
Stage 2	-	-	-	-	678	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	765	-	-	-	223	536
Stage 1	-	-	-	-	416	-
Stage 2	-	-	-	-	508	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	765	-	-	-	178	536
Mov Cap-2 Maneuver	-	-	-	-	178	-
Stage 1	-	-	-	-	332	-
Stage 2	-	-	-	-	508	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	25.6
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	765	-	-	-	178	536
HCM Lane V/C Ratio	0.153	-	-	-	0.514	0.299
HCM Control Delay (s)	10.6	0	-	-	44.9	14.5
HCM Lane LOS	B	A	-	-	E	B
HCM 95th %tile Q(veh)	0.5	-	-	-	2.6	1.2

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	498	847	19	19	5
Future Vol, veh/h	11	498	847	19	19	5
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	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	0	0	0
Mvmt Flow	12	553	941	21	21	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	962	0	-	0	1529	952
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	577	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	724	-	-	-	226	497
Stage 1	-	-	-	-	378	-
Stage 2	-	-	-	-	566	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	724	-	-	-	221	497
Mov Cap-2 Maneuver	-	-	-	-	221	-
Stage 1	-	-	-	-	369	-
Stage 2	-	-	-	-	566	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	21.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	724	-	-	-	250
HCM Lane V/C Ratio	0.017	-	-	-	0.107
HCM Control Delay (s)	10.1	0	-	-	21.1
HCM Lane LOS	B	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	410	461	3	3	8
Future Vol, veh/h	8	410	461	3	3	8
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	93	93	93	93	93	93
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	9	441	496	3	3	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	499	0	-	0	957	498
Stage 1	-	-	-	-	498	-
Stage 2	-	-	-	-	459	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1075	-	-	-	407	729
Stage 1	-	-	-	-	615	-
Stage 2	-	-	-	-	641	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1075	-	-	-	403	729
Mov Cap-2 Maneuver	-	-	-	-	403	-
Stage 1	-	-	-	-	608	-
Stage 2	-	-	-	-	641	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1075	-	-	-	597
HCM Lane V/C Ratio	0.008	-	-	-	0.02
HCM Control Delay (s)	8.4	0	-	-	11.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	106	307	344	62	108	120
Future Vol, veh/h	106	307	344	62	108	120
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	114	330	370	67	116	129

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	437	0	-	0	962	404
Stage 1	-	-	-	-	404	-
Stage 2	-	-	-	-	558	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1134	-	-	-	405	788
Stage 1	-	-	-	-	679	-
Stage 2	-	-	-	-	577	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1134	-	-	-	355	788
Mov Cap-2 Maneuver	-	-	-	-	355	-
Stage 1	-	-	-	-	595	-
Stage 2	-	-	-	-	577	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1134	-	-	-	355	788
HCM Lane V/C Ratio	0.101	-	-	-	0.327	0.164
HCM Control Delay (s)	8.5	0	-	-	20	10.5
HCM Lane LOS	A	A	-	-	C	B
HCM 95th %tile Q(veh)	0.3	-	-	-	1.4	0.6

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	409	403	3	9	3
Future Vol, veh/h	6	409	403	3	9	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	95	95	95	95
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	6	431	424	3	9	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	427	0	-	0	869	426
Stage 1	-	-	-	-	426	-
Stage 2	-	-	-	-	443	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1143	-	-	-	445	774
Stage 1	-	-	-	-	663	-
Stage 2	-	-	-	-	651	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1143	-	-	-	442	774
Mov Cap-2 Maneuver	-	-	-	-	442	-
Stage 1	-	-	-	-	658	-
Stage 2	-	-	-	-	651	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1143	-	-	-	495
HCM Lane V/C Ratio	0.006	-	-	-	0.026
HCM Control Delay (s)	8.2	0	-	-	12.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	717	497	2	1	10
Future Vol, veh/h	6	717	497	2	1	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	97	97	97	97	97	97
Heavy Vehicles, %	0	2	5	0	0	0
Mvmt Flow	6	739	512	2	1	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	514	0	-	0	1264	513
Stage 1	-	-	-	-	513	-
Stage 2	-	-	-	-	751	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1062	-	-	-	298	720
Stage 1	-	-	-	-	605	-
Stage 2	-	-	-	-	470	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1062	-	-	-	295	720
Mov Cap-2 Maneuver	-	-	-	-	295	-
Stage 1	-	-	-	-	599	-
Stage 2	-	-	-	-	470	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1062	-	-	-	637
HCM Lane V/C Ratio	0.006	-	-	-	0.018
HCM Control Delay (s)	8.4	0	-	-	10.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	51	667	448	42	53	51
Future Vol, veh/h	51	667	448	42	53	51
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	2	5	0	0	0
Mvmt Flow	53	688	462	43	55	53

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	505	0	-	0	1278	484
Stage 1	-	-	-	-	484	-
Stage 2	-	-	-	-	794	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1070	-	-	-	294	738
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	449	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1070	-	-	-	270	738
Mov Cap-2 Maneuver	-	-	-	-	270	-
Stage 1	-	-	-	-	574	-
Stage 2	-	-	-	-	449	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	16.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1070	-	-	-	270	738
HCM Lane V/C Ratio	0.049	-	-	-	0.202	0.071
HCM Control Delay (s)	8.5	0	-	-	21.7	10.3
HCM Lane LOS	A	A	-	-	C	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7	0.2

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	719	487	17	4	4
Future Vol, veh/h	1	719	487	17	4	4
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	97	97	97	97	97	97
Heavy Vehicles, %	0	2	5	0	0	0
Mvmt Flow	1	741	502	18	4	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	520	0	-	0	1254	511
Stage 1	-	-	-	-	511	-
Stage 2	-	-	-	-	743	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1056	-	-	-	301	721
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	474	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1056	-	-	-	300	721
Mov Cap-2 Maneuver	-	-	-	-	300	-
Stage 1	-	-	-	-	605	-
Stage 2	-	-	-	-	474	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1056	-	-	-	424
HCM Lane V/C Ratio	0.001	-	-	-	0.019
HCM Control Delay (s)	8.4	0	-	-	13.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	543	953	5	1	14
Future Vol, veh/h	3	543	953	5	1	14
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	91	91	91	91	91	91
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	3	597	1047	5	1	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1052	0	-	0	1653	1050
Stage 1	-	-	-	-	1050	-
Stage 2	-	-	-	-	603	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	669	-	-	-	199	457
Stage 1	-	-	-	-	340	-
Stage 2	-	-	-	-	550	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	669	-	-	-	198	457
Mov Cap-2 Maneuver	-	-	-	-	198	-
Stage 1	-	-	-	-	338	-
Stage 2	-	-	-	-	550	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	669	-	-	-	420
HCM Lane V/C Ratio	0.005	-	-	-	0.039
HCM Control Delay (s)	10.4	0	-	-	13.9
HCM Lane LOS	B	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	111	433	806	63	87	152
Future Vol, veh/h	111	433	806	63	87	152
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	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	117	456	848	66	92	160

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	914	0	-	0	1571	881
Stage 1	-	-	-	-	881	-
Stage 2	-	-	-	-	690	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	754	-	-	-	217	529
Stage 1	-	-	-	-	408	-
Stage 2	-	-	-	-	502	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	754	-	-	-	172	529
Mov Cap-2 Maneuver	-	-	-	-	172	-
Stage 1	-	-	-	-	323	-
Stage 2	-	-	-	-	502	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	26.6
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	754	-	-	-	172	529
HCM Lane V/C Ratio	0.155	-	-	-	0.532	0.302
HCM Control Delay (s)	10.6	0	-	-	47.5	14.7
HCM Lane LOS	B	A	-	-	E	B
HCM 95th %tile Q(veh)	0.5	-	-	-	2.7	1.3

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	509	864	19	19	5
Future Vol, veh/h	11	509	864	19	19	5
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	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	0	0	0
Mvmt Flow	12	566	960	21	21	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	981	0	-	0	1561	971
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	590	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	712	-	-	-	219	489
Stage 1	-	-	-	-	370	-
Stage 2	-	-	-	-	558	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	712	-	-	-	214	489
Mov Cap-2 Maneuver	-	-	-	-	214	-
Stage 1	-	-	-	-	361	-
Stage 2	-	-	-	-	558	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	21.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	712	-	-	-	242
HCM Lane V/C Ratio	0.017	-	-	-	0.11
HCM Control Delay (s)	10.1	0	-	-	21.7
HCM Lane LOS	B	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	418	469	3	3	8
Future Vol, veh/h	8	418	469	3	3	8
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	93	93	93	93	93	93
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	9	449	504	3	3	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	507	0	-	0	973	506
Stage 1	-	-	-	-	506	-
Stage 2	-	-	-	-	467	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1068	-	-	-	401	724
Stage 1	-	-	-	-	610	-
Stage 2	-	-	-	-	635	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1068	-	-	-	397	724
Mov Cap-2 Maneuver	-	-	-	-	397	-
Stage 1	-	-	-	-	603	-
Stage 2	-	-	-	-	635	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1068	-	-	-	591
HCM Lane V/C Ratio	0.008	-	-	-	0.02
HCM Control Delay (s)	8.4	0	-	-	11.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	106	315	352	62	108	120
Future Vol, veh/h	106	315	352	62	108	120
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	114	339	378	67	116	129

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	445	0	-	0	979	412
Stage 1	-	-	-	-	412	-
Stage 2	-	-	-	-	567	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1126	-	-	-	398	783
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	572	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1126	-	-	-	348	783
Mov Cap-2 Maneuver	-	-	-	-	348	-
Stage 1	-	-	-	-	589	-
Stage 2	-	-	-	-	572	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	15.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1126	-	-	-	348	783
HCM Lane V/C Ratio	0.101	-	-	-	0.334	0.165
HCM Control Delay (s)	8.6	0	-	-	20.4	10.5
HCM Lane LOS	A	A	-	-	C	B
HCM 95th %tile Q(veh)	0.3	-	-	-	1.4	0.6

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	417	411	3	9	3
Future Vol, veh/h	6	417	411	3	9	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	95	95	95	95
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	6	439	433	3	9	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	436	0	-	0	886	435
Stage 1	-	-	-	-	435	-
Stage 2	-	-	-	-	451	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1134	-	-	-	437	768
Stage 1	-	-	-	-	657	-
Stage 2	-	-	-	-	646	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1134	-	-	-	434	768
Mov Cap-2 Maneuver	-	-	-	-	434	-
Stage 1	-	-	-	-	652	-
Stage 2	-	-	-	-	646	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1134	-	-	-	487
HCM Lane V/C Ratio	0.006	-	-	-	0.026
HCM Control Delay (s)	8.2	0	-	-	12.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	719	508	2	0	0
Future Vol, veh/h	7	719	508	2	0	0
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	97	97	97	97	97	97
Heavy Vehicles, %	0	2	5	0	0	0
Mvmt Flow	7	741	524	2	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	526	0	-	0	1280	-
Stage 1	-	-	-	-	525	-
Stage 2	-	-	-	-	755	-
Critical Hdwy	4.1	-	-	-	5.1	-
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	-
Pot Cap-1 Maneuver	1051	-	-	-	293	0
Stage 1	-	-	-	-	598	0
Stage 2	-	-	-	-	468	0
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1051	-	-	-	290	-
Mov Cap-2 Maneuver	-	-	-	-	290	-
Stage 1	-	-	-	-	591	-
Stage 2	-	-	-	-	468	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1051	-	-	-	-
HCM Lane V/C Ratio	0.007	-	-	-	-
HCM Control Delay (s)	8.4	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	53	667	451	44	63	69
Future Vol, veh/h	53	667	451	44	63	69
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	2	5	0	0	0
Mvmt Flow	55	688	465	45	65	71

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	510	0	-	0	1286	488
Stage 1	-	-	-	-	488	-
Stage 2	-	-	-	-	798	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1065	-	-	-	291	735
Stage 1	-	-	-	-	621	-
Stage 2	-	-	-	-	447	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1065	-	-	-	267	735
Mov Cap-2 Maneuver	-	-	-	-	267	-
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	447	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	16.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1065	-	-	-	267	735
HCM Lane V/C Ratio	0.051	-	-	-	0.243	0.097
HCM Control Delay (s)	8.6	0	-	-	22.8	10.4
HCM Lane LOS	A	A	-	-	C	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.9	0.3

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	728	489	18	6	7
Future Vol, veh/h	1	728	489	18	6	7
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	97	97	97	97	97	97
Heavy Vehicles, %	0	2	5	0	0	0
Mvmt Flow	1	751	504	19	6	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	523	0	-	0	1267	514
Stage 1	-	-	-	-	514	-
Stage 2	-	-	-	-	753	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1054	-	-	-	297	720
Stage 1	-	-	-	-	605	-
Stage 2	-	-	-	-	469	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1054	-	-	-	296	720
Mov Cap-2 Maneuver	-	-	-	-	296	-
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	469	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1054	-	-	-	433
HCM Lane V/C Ratio	0.001	-	-	-	0.031
HCM Control Delay (s)	8.4	0	-	-	13.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	545	953	5	0	0
Future Vol, veh/h	4	545	953	5	0	0
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	91	91	91	91	91	91
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	4	599	1047	5	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1052	0	-	0	1657	1050
Stage 1	-	-	-	-	1050	-
Stage 2	-	-	-	-	607	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	669	-	-	-	198	457
Stage 1	-	-	-	-	340	-
Stage 2	-	-	-	-	548	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	669	-	-	-	196	457
Mov Cap-2 Maneuver	-	-	-	-	196	-
Stage 1	-	-	-	-	337	-
Stage 2	-	-	-	-	548	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	669	-	-	-	-
HCM Lane V/C Ratio	0.007	-	-	-	-
HCM Control Delay (s)	10.4	0	-	-	0
HCM Lane LOS	B	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	113	433	806	64	88	166
Future Vol, veh/h	113	433	806	64	88	166
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	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	119	456	848	67	93	175

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	915	0	-	0	1576	882
Stage 1	-	-	-	-	882	-
Stage 2	-	-	-	-	694	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	754	-	-	-	216	528
Stage 1	-	-	-	-	408	-
Stage 2	-	-	-	-	499	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	754	-	-	-	170	528
Mov Cap-2 Maneuver	-	-	-	-	170	-
Stage 1	-	-	-	-	322	-
Stage 2	-	-	-	-	499	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	26.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	754	-	-	-	170	528
HCM Lane V/C Ratio	0.158	-	-	-	0.545	0.331
HCM Control Delay (s)	10.7	0	-	-	49	15.2
HCM Lane LOS	B	A	-	-	E	C
HCM 95th %tile Q(veh)	0.6	-	-	-	2.8	1.4

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	509	865	21	19	5
Future Vol, veh/h	11	509	865	21	19	5
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	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	0	0	0
Mvmt Flow	12	566	961	23	21	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	984	0	-	0	1563	973
Stage 1	-	-	-	-	973	-
Stage 2	-	-	-	-	590	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	710	-	-	-	219	489
Stage 1	-	-	-	-	370	-
Stage 2	-	-	-	-	558	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	710	-	-	-	214	489
Mov Cap-2 Maneuver	-	-	-	-	214	-
Stage 1	-	-	-	-	361	-
Stage 2	-	-	-	-	558	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	21.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	710	-	-	-	242
HCM Lane V/C Ratio	0.017	-	-	-	0.11
HCM Control Delay (s)	10.2	0	-	-	21.7
HCM Lane LOS	B	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	419	470	3	0	0
Future Vol, veh/h	8	419	470	3	0	0
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	93	93	93	93	93	93
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	9	451	505	3	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	508	0	-	0	976	-
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	469	-
Critical Hdwy	4.1	-	-	-	5.1	-
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	-
Pot Cap-1 Maneuver	1067	-	-	-	400	0
Stage 1	-	-	-	-	609	0
Stage 2	-	-	-	-	634	0
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1067	-	-	-	396	-
Mov Cap-2 Maneuver	-	-	-	-	396	-
Stage 1	-	-	-	-	602	-
Stage 2	-	-	-	-	634	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1067	-	-	-	-
HCM Lane V/C Ratio	0.008	-	-	-	-
HCM Control Delay (s)	8.4	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	107	315	352	63	113	129
Future Vol, veh/h	107	315	352	63	113	129
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	115	339	378	68	122	139

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	446	0	-	0	981	412
Stage 1	-	-	-	-	412	-
Stage 2	-	-	-	-	569	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1125	-	-	-	398	783
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	570	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1125	-	-	-	348	783
Mov Cap-2 Maneuver	-	-	-	-	348	-
Stage 1	-	-	-	-	588	-
Stage 2	-	-	-	-	570	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	15.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1125	-	-	-	348	783
HCM Lane V/C Ratio	0.102	-	-	-	0.349	0.177
HCM Control Delay (s)	8.6	0	-	-	20.8	10.6
HCM Lane LOS	A	A	-	-	C	B
HCM 95th %tile Q(veh)	0.3	-	-	-	1.5	0.6

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	419	412	4	9	3
Future Vol, veh/h	6	419	412	4	9	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	95	95	95	95
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	6	441	434	4	9	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	438	0	-	0	889	436
Stage 1	-	-	-	-	436	-
Stage 2	-	-	-	-	453	-
Critical Hdwy	4.1	-	-	-	5.1	4.5
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1133	-	-	-	436	767
Stage 1	-	-	-	-	656	-
Stage 2	-	-	-	-	645	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1133	-	-	-	433	767
Mov Cap-2 Maneuver	-	-	-	-	433	-
Stage 1	-	-	-	-	651	-
Stage 2	-	-	-	-	645	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1133	-	-	-	486
HCM Lane V/C Ratio	0.006	-	-	-	0.026
HCM Control Delay (s)	8.2	0	-	-	12.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1