TRAFFIC IMPACT STUDY

PROPOSED MIXED-USE DEVELOPMENT

Proposed Mixed-Use
Development

Block 701, Lot 1
Township of Neptune,
Monmouth County, New Jersey

Prepared For:
M&M at Neptune, LLC

March 10, 2021
REVISED: May 28, 2021
SE&D Job No. PRI-200142

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STONEFIELD

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EXECUTIVE SUMMARY

This Traffic Impact Study was prepared to investigate the potential impacts of the proposed mixed-use development on the adjacent roadway network. This revisions to the traffic study are based on modifications to building square-footages and the parking space quantity changes per the site plan prepared by our office, dated May 28, 2021. The following is a summary of the findings within this Traffic Impact Study:

1. The subject property is bounded by Asbury Avenue to the north, NJSH Route 35 to the south, Hollow Brook to the east, and a NJSH Route 35/Asbury Avenue interchange to the west Neptune Township, Monmouth County, New Jersey. The subject property is presently occupied by a vacant Coca-Cola manufacturing and distribution center.

2. Under the proposed development program, 8,133-square-foot retail building with one (1) drive-through lane and one (1) bypass lane, a 20,442-square-foot discount supermarket, a 3,316-square-foot fast-food restaurant with two (2) drive-through lanes, and a 4,500-square-foot convenience market with six (6) fueling stations (12 fueling positions) would be constructed.

3. Existing access is provided via one (1) asphalt curb-cut along NJSH Route 35. Access to the site is proposed via one (1) right-in/right-out driveway and one (1) full-movement driveway along NJSH Route 35 and two (2) full-movement driveways along Asbury Avenue.

4. Under the proposed development plan, a two-way left-turn lane would be constructed along Asbury Avenue.

5. Traffic volumes were analyzed for both the peak summer-traffic condition and under conditions reflecting "average" monthly volumes.

6. A Level of Service/Volume Capacity Analysis was conducted at the proposed site driveways. Based on the analyses conducted, the proposed development would not have a significant impact to the Level of Service on the adjacent roadways.

7. The proposed site would provide 203 parking spaces, which meets the Ordinance requirement and would be sufficient to support the anticipated parking demand.

INTRODUCTION

This Traffic Impact Study was prepared to investigate the potential impacts of the proposed mixed-use development on the adjacent roadway network. The subject property is bounded by Asbury Avenue to the north, NJSH Route 35 to the south, Hollow Brook to the east, and a NJSH Route 35/Asbury Avenue interchange to the west Neptune Township, Monmouth County, New Jersey. The site location is shown on appended **Figure 1**.

The subject property is designated as Block 701, Lot 1 as depicted on the Township of Neptune Tax Map. The site has approximately 510 feet of frontage along NJSH Route 35 and approximately 1,200 feet of frontage along Asbury Avenue. The subject property is presently occupied by a vacant Coca-Cola manufacturing and distribution center. Existing access is provided via one (1) asphalt curb-cut along NJSH Route 35. Under the proposed development program, 8,133 square feet retail with one (1) drive-through lane and one (1) bypass lane, a 20,442-square-foot discount supermarket, a 3,316-square-foot fast-food restaurant with two (2) drive-through lanes, and a 4,500-square-foot convenience market with six (6) fueling stations (12 fueling positions) would be constructed. Access to the site is proposed via one (1) right-in/right-out driveway and one (1) full-movement driveway along NJSH Route 35 and two (2) full-movement driveways along Asbury Avenue.

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 to serve as a base for the traffic analyses. Traffic volumes were analyzed for both the peak summer-traffic condition and under conditions reflecting "average" monthly volumes. 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 Synchro 10 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.

2019 EXISTING CONDITION

2019 EXISTING ROADWAY CONDITIONS

The proposed mixed-use development is bounded by Asbury Avenue to the north, NJSH Route 35 to the south, Hollow Brook to the east, and a NJSH Route 35/Asbury Avenue interchange to the west Neptune Township, Monmouth County, New Jersey. The subject property is designated as Block 701, Lot 1 as depicted on the Township of Neptune Tax Map. The site has approximately 510 feet of frontage along NJSH Route 35 and approximately 1,200 feet of frontage along Asbury Avenue. Land uses in the area are a mix of residential, retail, industrial and commercial uses.

NJSH Route 35 is classified as an Urban Principal Arterial roadway with a general north-south orientation and is under the jurisdiction of the NJDOT. 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 is provided along both sides of the roadway, sidewalk is provided along the westerly side of the roadway, shoulders are provided along both sides of the roadway, and on-street parking is not permitted. NJSH Route 35 provides north-south mobility throughout Neptune Township and surrounding municipalities and provides access to NJSH Route 36 and NJSH Route 66 to the north of the site and NJSH Route 33 to the south of the site for a mix of residential, retail, commercial, and industrial uses.

Asbury Avenue is classified as an Urban Minor Arterial roadway with a general east-west orientation and is under the jurisdiction of Monmouth 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 is provided along both sides of the roadway, sidewalk is not provided, shoulders are not provided, and on-street parking is not permitted. Asbury Avenue provided east-west mobility throughout Neptune Township and surrounding municipalities and provides access to NJSH Route 35 adjacent to the site and NJSH Route 18 to the west of the site for a mix of residential, retail, and industrial uses along its length.

2019 EXISTING TRAFFIC VOLUMES

Automated traffic recorder (ATR) counts were conducted to evaluate existing traffic conditions during the critical Summer season 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. ATR counts were conducted at the following locations from Friday, June 7, 2019 to Monday, June 17, 2019:

- NJSH Route 35 northbound and southbound 500 feet north of Bangs Avenue
- Asbury Avenue eastbound and westbound 300 feet east of Route 35 interchange

Based on the review of the June ATR count data the weekday morning peak hour occurred on Wednesday, June 12, 2019 from 7:30 a.m. to 8:30 a.m.; the weekday evening peak hour occurred on Wednesday, June 12, 2019 from 4:45 p.m. to 5:45 p.m.; and the Saturday midday peak hour occurred on Saturday, June 8, 2019 from 3:30 p.m. to 4:30 p.m. The Technical Appendix contains a summary of the turning movement count data. The 2019 Existing Traffic Volumes weekday morning, weekday evening, and Saturday midday peak hour volumes in the Peak Summer Period are summarized on appended **Figure 2**.

SEASONAL ADJUSTMENT – YEARLY AVERAGE CONDITION

It is important to note that the traffic volume counts were conducted during the Peak Summer Period when traffic volumes would be at a seasonal peak for areas located within the Jersey Shore and surrounding area. To provide an analysis of traffic volumes for a typical or average month, a seasonal adjustment factor was applied using the NJDOT's publish seasonal adjustment factors. Specifically, the Region 4 – Urban Principal Arterial roadway factor of 0.859 was applied for NJSH Route 35 and the Region 4 - Urban Minor Arterial roadway factor of 0.913 was applied for Asbury Avenue. The seasonal adjustment factors were applied to the as-counted traffic volumes to calculate the 2019 Existing Yearly Average traffic volumes weekday morning, weekday evening, and Saturday midday peak hour volumes. These volumes are summarized on appended **Figure 3**.

2023 NO-BUILD CONDITION

BACKGROUND GROWTH

The 2019 Existing Condition traffic volume data was grown to a future horizon year of 2023, which is a conservative estimate for when the proposed mixed-use development is expected to be fully constructed. In accordance with industry guidelines, the existing traffic volumes at the study intersections were increased by 1.25% annually for four (4) years. The 1.25% 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 research of the Neptune Township Planning Board meeting minutes and agendas, there are no known planned development projects within the area of the subject site. As such, the application of the background growth rate would be adequate to account for background traffic growth.

2023 NO-BUILD TRAFFIC VOLUMES

The background growth rate was applied to the 2019 Existing Traffic Volumes to calculate the 2023 No-Build Traffic Volumes for the weekday morning, weekday evening, and Saturday midday peak hours. The 2023 No-Build Peak Summer Period traffic volumes are summarized on appended **Figure 4** and the 2023 No-Build Yearly Average traffic volumes are summarized on appended **Figure 5**.

2023 BUILD CONDITION

The site-generated traffic volume of the proposed mixed-use 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 three (3) years of the preparation of this study.

TRIP GENERATION

Trip generation projections for the proposed mixed-use development were prepared utilizing NJDOT's Highway Access Permit System (HAPS) and ITE's Trip Generation Manual, 10th Edition. It is noted that the HAPS does not contain data for the enter/exit trip distribution for its land uses. Therefore, the enter/exit trip distribution for each land use was obtained from the ITE's Trip Generation Manual, 10th Edition. Trip generation rates associated with Land Use 820 "Shopping Center," Land Use 854 "Discount Supermarket," Land Use 934 "Fast Food Restaurant with Drive Through Window," and Land Use 960 "Super Convenience Market/Gas Station" were cited for the proposed 8,133 square feet of retail, 20,442-square-foot discount supermarket, 3,316-square-foot fast food restaurant with drive-through service, and 4,500-square-foot convenience store with fuel sales, respectively. **Table 1** provides the weekday morning, weekday evening, and Saturday midday peak hour trip generation volumes associated with the proposed mixed-use development.

TABLE 1 – PROPOSED 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**
8,133 SF Shopping Center *HAPS Land Use 820*	5	3	8	44	49	93	45	40	85
20,442 SF Discount Supermarket *HAPS Land Use 854*	1	1	2	98	98	196	131	130	261
3,316 SF Fast-Food Restaurant with Drive Through *HAPS Land Use 934*	86	83	169	89	81	170	93	90	183
4,500 SF Super Convenience Store/Gas Station *HAPS Land Use 960*	187	187	374	156	156	312	144	143	287
Total	**279**	**274**	**553**	**387**	**384**	**771**	**413**	**303**	**816**

It is noted that for the Saturday midday peak hour, the trip generation rates published by the ITE reflect the individual peak hours of the specific uses. The calculated rates do not consider that the uses on-site likely

do not peak at the same time as each other or at the same time as the adjacent roadway network. As such, the Saturday trip generation rates for the individual uses were adjusted to reflect the same peak hour of traffic as the adjacent roadway network. Time-of-day factors published by the ITE were utilized, and detailed time-of-day calculations are appended herein. Appended **Table A-2** provides a summary of the calculated TOD factor adjustments for each land use. **Table 2** provides the weekday morning, weekday evening, and Saturday midday peak hour trip generation volumes after adjusting the Saturday volumes to reflect the roadway peak hour factors to the Saturday midday peak hour.

TABLE 2 – TIME-OF-DAY FACTOR REDUCTION (SATURDAY MIDDAY PEAK HOUR)

	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
Land Use	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**
8,133 SF Shopping Center *HAPS Land Use 820*	5	3	8	44	49	93	45	40	85
96.6% Saturday TOD Factor Reduction	-	-	-	-	-	-	-2	-1	-3
Total	-	-	-	-	-	-	43	39	82
20,442 SF Discount Supermarket *HAPS Land Use 854*	1	1	2	98	98	196	131	130	261
84.0% Saturday TOD Factor Reduction	-	-	-	-	-	-	-21	-21	-42
Total	-	-	-	-	-	-	110	109	219
3,316 SF Fast-Food Restaurant with Drive Through *HAPS Land Use 934*	86	83	169	89	81	170	93	90	183
71.8% Saturday TOD Factor Reduction	-	-	-	-	-	-	-26	-26	-52
Total	-	-	-	-	-	-	67	64	131
4,500 SF Super Convenience Store/Gas Station *HAPS Land Use 960*	187	187	374	156	156	312	144	143	287
96.4% Saturday TOD Factor Reduction	-	-	-	-	-	-	-5	-5	-10
Total	-	-	-	-	-	-	139	138	277
Total	**279**	**274**	**553**	**387**	**384**	**771**	**359**	**350**	**709**

As stated within Chapter 6 of ITE's Trip Generation Handbook, 3rd Edition, internally captured trips can be a component of the travel patterns at mixed-use developments, such as the one proposed. 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 customers of discount supermarket eating at the fast-food restaurant. Therefore, based on the nature of the proposed uses, an internal capture credit should be considered for this site. Utilizing published NJDOT data, internal trips were calculated between the proposed uses during the weekday morning, weekday evening, and Saturday midday peak hours. It is noted the published data for the Saturday midday peak hour is limited with respect to the land uses within the proposed development. For the purpose of this analysis, the Saturday midday peak hour internal trips associated with the restaurant use were calculated using the published weekday evening peak hour rates. The internal capture portion of the site-generated traffic is shown in **Table 3.**

TABLE 3 – INTERNAL TRIP CAPTURE REDUCTION

	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
Land Use	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**
8,133 SF Shopping Center *HAPS Land Use 820*	5	3	8	44	49	93	43	39	82
Internal Trip Capture Reduction	-	-	-	-23	-24	-47	-30	-24	-54
Subtotal	5	3	8	21	25	46	13	15	28
20,442 SF Discount Supermarket *HAPS Land Use 854*	1	1	2	98	98	196	110	109	219
Internal Trip Capture Reduction	-	-	-	-41	-38	-79	-54	-52	-106
Subtotal	1	1	2	57	60	117	56	57	113
3,316 SF Fast-Food Restaurant with Drive Through *HAPS Land Use 934*	86	83	169	89	81	170	67	64	131
Internal Trip Capture Reduction	-25	-12	-37	-26	-33	-59	-19	-26	-45
Subtotal	61	71	132	63	48	111	48	38	86
4,500 SF Super Convenience Store/Gas Station *HAPS Land Use 960*	187	187	374	156	156	312	139	138	277
Internal Trip Capture Reduction	-12	-25	-37	-47	-42	-89	-56	-57	-113
Subtotal	175	162	337	109	114	223	83	81	164
Total	**242**	**237**	**479**	**250**	**247**	**497**	**200**	**191**	**391**

As stated within Chapter 10 of ITE's Trip Generation Handbook, 3rd Edition, there are instances when the total number of trips generated by a site is different from the amount of new traffic added to the street system by the generator. Convenience stores with gas, retail stores, supermarkets, and fast-food restaurants are specifically located on or adjacent to busy streets to attract motorists already on the roadway. Therefore, the uses of the proposed development would be expected to attract a portion of its trips from the traffic passing the site on the way from an origin to an ultimate destination. These trips do not add new traffic to the adjacent roadway system and are referred to as pass-by trips.

Based upon the published NJDOT data, the following pass-by rates were utilized to calculate each land uses site-generated traffic volumes:

- Land Use 820 – 34% during the weekday evening peak hour and 26% during the Saturday midday peak hour;
- Land Use 854 – 21% during the weekday evening peak hour;
- Land Use 934 – 49% during the weekday morning peak hour and 50% during the weekday evening and Saturday midday peak hours;
- Land Use 960 – 76% during the weekday morning and weekday evening peak hours and 50% during the Saturday midday peak hours.

Table 4 shows the additional site generated traffic for the proposed development after applying the appropriate trip reductions to account for.

TABLE 4 – PROPOSED TRIP GENERATION (ADJUSTED)

Land Use Code	Land Use	Amount	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
820	Shopping Center	8,133 SF	5	3	8	44	49	93	43	39	82
854	Discount Supermarket	20,442 SF	1	1	2	98	98	196	110	109	219
934	Fast Food Restaurant with Drive Through	3,316 SF	86	83	169	89	81	170	67	64	131
960	Super Convenience Store/Gas Station	4,500 SF	187	187	374	156	156	312	139	138	277
ITE Trip Generation Total			**279**	**274**	**553**	**387**	**384**	**771**	**359**	**350**	**709**
Internal Capture Trip Reduction			-37	-37	-74	-137	-137	-274	-159	-159	-318
Land Use 820 Pass-By Trip Reduction			-	-	-	-8	-8	-16	-4	-4	-8
Land Use 854 Pass-By Trip Reduction			-	-	-	-12	-12	-24	-	-	-
Land Use 934 Pass-By Trip Reduction			-32	-32	-64	-28	-28	-56	-22	-22	-44
Land Use 960 Pass-By Trip Reduction			-128	-128	-256	-85	-85	-170	-41	-41	-82
Total New Vehicular Trips			**82**	**77**	**159**	**117**	**114**	**231**	**133**	**124**	**257**

At the site driveways, the calculated number of pass-by trips is shown as a negative number at the through movement as the vehicles are temporarily diverted from the through travel stream into and out of the site access point.

TRIP ASSIGNMENT/DISTRIBUTION

To determine the trip assignment along the adjacent roadway network for the proposed development a gravity model was analyzed utilizing a three (3)-mile radius. The "new" trips associated with the retail uses generated by the proposed development were distributed according to a Gravity Model prepared for the site. The methodology used in the preparation of the Gravity Model assumes that trip distribution is proportional to population densities and travel distance within a given radius from the site. The municipalities within the market area were divided by census tract, with the population information identified through 2010 Census Data published by the US Census Bureau. Tables summarizing the Gravity Model results are in the Appendix. The results of the Gravity Model were used to distribute the site-generated traffic along the adjacent roadway network and are summarized in **Table 5**. **Figure 6** illustrates the "New" Site-Generated Traffic Volumes.

TABLE 5 – GRAVITY MODEL TRIP DISTRIBUTION

Origin	Percentage
From North – Asbury Avenue	9%
From South – NJSH Route 35	33%
From East – Asbury Avenue	46%
From West – NJSH Route 35	12%
TOTAL	**100%**

To determine the trip assignment and distribution of pass-by trips along the site driveways, patterns from existing traffic volumes and the site driveway access points were analyzed. Existing peak hour traffic volumes were used to distribute the pass-by traffic at site driveways, and **Figure 7** illustrates the "Pass-by" Site-Generated Traffic Volumes. At the site driveways, the calculated number of pass-by trips is shown as a negative number at the through movement as the vehicles are temporarily diverted from the through travel stream into and out of the site access point. **Table 6** summarizes the pass-by site generated trip distributions for the weekday morning, weekday evening, and Saturday midday peak hours.

TABLE 6 – PASS-BY TRIP DISTRIBUTION

Origin	Weekday Morning	Weekday Evening	Saturday Midday
From North – NJSH Route 35	23%	16%	18%
From South – NJSH Route 35	22%	28%	25%
From East – Asbury Avenue	26%	34%	32%
From West - Asbury Avenue	29%	22%	25%
TOTAL	**100%**	**100%**	**100%**

2023 BUILD TRAFFIC VOLUMES

The site-generated trips were added to the 2023 No-Build Traffic Volumes to calculate the 2023 Build Traffic Volumes. The 2023 Build Peak Summer Period traffic volumes are summarized on appended **Figure 8** and the 2023 Build Yearly Average traffic volumes are summarized on appended **Figure 9**.

ASUBURY AVENUE ROADWAY IMPROVEMENTS

Under the proposed development plan, a 12-foot-wide two-way left-turn lane would be constructed along the Asbury Avenue frontage to facilitate left-turn movements into and out of the site. The proposed two-way left-turn lane would provide access to the proposed site driveways along Asbury Avenue eastbound and to Colonial Avenue and Bimbler Boulevard along Asbury Avenue westbound. The proposed two-way left-turn lane would provide additional capacity for left-turn movements into the site and onto the side streets that would impede through traffic along Asbury Avenue.

2023 BUILD LOS/CAPACITY ANALYSIS

A Level of Service and Volume/Capacity analysis was also conducted for the 2023 Build Condition during the weekday morning, weekday evening, and Saturday midday peak hours at the proposed site driveways. Appended **Table A-1** compares the Peak Summer Period and Yearly Average Build Conditions Level of Service and delay values.

PEAK SUMMER PERIOD LEVEL OF SERVICE

Based on the Peak Summer Period traffic volumes, the turning movement at the unsignalized intersection of NJSH Route 35 and the northerly site driveway is calculated to operate at Level of Service B during the studied peak hours. The turning movements at the unsignalized intersection of NJSH Route 35 and the southerly site driveway are calculated to operate at Level of Service D or better during the weekday morning and Saturday midday peak hours and Level of Service E or better during the weekday evening peak hour. The turning movements at the unsignalized intersection of Asbury Avenue and the easterly site driveway are calculated to operate at Level of Service C or better during the weekday morning and Saturday midday peak hours and at Level of Service D or better during the weekday evening peak hour. The turning movements at the unsignalized intersection of Asbury Avenue and the westerly site driveway are calculated to operate at Level of Service C or better during the weekday morning and Saturday midday peak hours and at Level of Service D or better during the weekday evening peak hour.

TYPICAL YEARLY AVERAGE LEVEL OF SERVICE

Based on the yearly average traffic volumes, the turning movement at the unsignalized intersection of NJSH Route 35 and the northerly site driveway is calculated to operate at Level of Service B during the studied peak hours. The turning movements at the unsignalized intersection of NJSH Route 35 and the southerly site driveway are calculated to operate at Level of Service C or better during the weekday morning and Saturday midday peak hours and Level of Service D or better during the weekday evening peak hour. The turning movements at the unsignalized intersection of Asbury Avenue and the easterly site driveway are calculated to operate at Level of Service C or better during the studied peak hours. The turning movements at the unsignalized intersection of Asbury Avenue and the westerly site driveway are calculated to operate at Level of Service C or better during the studied peak hours.

SITE CIRCULATION & ACCESS

A review was conducted of the proposed mixed-use development using the Site Plan prepared by our office, dated May 28, 2021. In completing this review, particular attention was focused on the site access, circulation, and parking supply.

Under the proposed development program, an 8,133-square-foot retail building with one (1) drive-through lane and one (1) bypass lane would be constructed on the northwesterly portion of the property, a 20,442-square-foot discount supermarket would be constructed on the northeasterly portion of the property, a 3,316-square-foot fast-food restaurant with two (2) drive-through lanes would be constructed on the southwesterly portion of the property, and a 4,500-square-foot convenience market with six (6) fueling stations (12 fueling positions) would be constructed on the southeasterly portion of the property. The proposed retail development drive-through and bypass lanes would be located along the northerly side of the building and the proposed fast-food restaurant drive-through lanes would be located along the southerly side of the building. The fueling stations would be located to the south of the proposed convenience store building. Access to the site is proposed via one (1) right-in/right-out driveway and one (1) full-movement driveway along NJSH Route 35 and two (2) full-movement driveways along Asbury Avenue. Two-way vehicular circulation throughout the site would be facilitated via a minimum of 24-foot-wide drive aisles and one-way vehicular circulation throughout the site would be facilitated via a minimum of 12-foot-wide drive aisles. Surface parking lots and right-angle parking spaces along the drive aisles would be provided throughout the site. Trash enclosures would be located to the east of the proposed retail and convenience store buildings and to the west of the proposed fast-food restaurant.

The site was evaluated to assess the size and frequency of truck deliveries for each land use of the proposed mixed-use development (although specific tenants for each of the uses are not finalized). The proposed retail development with drive-through service is expected to require one (1) WB-60 truck delivery per week. The proposed discount supermarket is expected to require one (1) WB-50 truck delivery and five (5) box truck deliveries per day. The proposed fast-food restaurant with drive-through service is expected to require between five (5) and six (6) tractor trailer deliveries per week. The proposed convenience store with fuel sales is expected to require between five (5) and six (6) WB-50 truck fuel deliveries per week, between six (6) and eight (8) WB-50 truck convenience store deliveries per week, and between five (5) and six (6) box truck convenience store deliveries per day.

The proposed westerly driveway along Asbury Avenue was evaluated with respect to egress sight distance. The American Association of State Highway and Transportation Officials (AASHTO) standards for stopping sight distance were utilized for analysis. The stopping sight-distance design criteria for a roadway with a design speed limit of 30 mph is 200 feet. It is noted that vehicles exiting the NJSH Route 35 and Asbury Avenue interchange would generally be travelling at speeds at or lower than 30 mph. Based on the location of the westerly driveway and the location of the retail drive-through, a vehicle travelling along the Route 35 and Asbury Avenue interchange 200 feet along the roadway to the west of the westerly site driveway would not be obstructed by on-site buildings, features, or circulation aisles.

PARKING SUPPLY

Regarding the parking requirements for the proposed development, Neptune Township requires one (1) parking space per 250 square feet of retail/sales space, one (1) parking space per 250 square feet of shopping center space, one (1) parking space per 60 square feet of restaurant/take-out space plus one (1) space per employee on a peak shift, and one (1) parking space per 200 square feet of convenience store with gas plus one (1) space per employee on a maximum shift. For the proposed 8,133 square feet of retail, 20,442-square-foot supermarket, 3,316-square-foot fast-food restaurant with drive-through service and a maximum of three (3) employees, and 4,500-square-foot convenience store with fuel sales and a maximum three (3) employees, this equates to 200 required parking spaces. The site would provide 203 total parking spaces, inclusive of 10 ADA accessible parking spaces, which meets the parking requirement and would be sufficient to support this project's parking demand. The spaces would be nine (9) feet wide by 18 feet deep in accordance with Neptune Township and industry standards.

CONCLUSIONS

This report was prepared to examine the potential traffic impact of the proposed mixed-use 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 mixed-use nature of the site would result in a reduced traffic generation as compared to a similar suburban development with separate land uses per lot. The site driveways and on-site layout have been designed to provide for effective access to and from the subject property for passenger vehicles and delivery trucks. The proposed two-way left-turn lane along Asbury Avenue would accommodate vehicles turning from Asbury Avenue into the site and avoid blocking through traffic along Asbury Avenue. Based on the Neptune Township Ordinance and industry standards, the parking supply would be sufficient to support this project.

Z:\Princeton\PRI\2020\PRI-200142 Edgewood Properties - 704 Route 35, Neptune, NJ\Calculations & Reports\Traffic\Reports\2021-03 Traffic Impact Study - County\2021-03 County Traffic Impact Study.docx

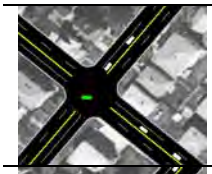
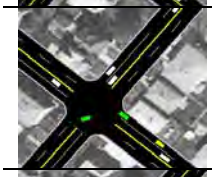
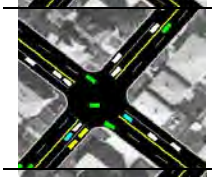
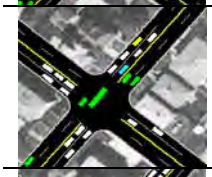
TECHNICAL APPENDIX

LEVEL OF SERVICE/AVERAGE CONTROL DELAY
CRITERIA & COMPARISON TABLES

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

STONEFIELD

Table A-1

Comparative Level of Service (Delay) Tables

X (n) = Level of Service (seconds of delay)

Intersection	Lane Group	2023 Build Condition (Summer Peak Period)			2023 Build Condition (Yearly Average)		
		Weekday Morning Peak Hour	Weekday Evening Peak Hour	Saturday Midday Peak Hour	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Saturday Midday Peak Hour
NJSH Route 35 & Northerly Site Driveway	WB Right	B (13.9)	B (11.4)	B (11.9)	B (12.7)	B (10.9)	B (11.3)
NJSH Route 35 & Southerly Site Driveway	WB Left/Right	D (32.9)	E (35.4)	D (30.9)	C (24.6)	D (25.9)	C (23.6)
	SB Left/Through	A (9.9)	A (8.9)	A (9.2)	A (9.4)	A (8.6)	A (8.8)
Asbury Avenue & Easterly Site Driveway	WB Left/Through	A (9.9)	B (12.7)	B (12.3)	A (9.6)	B (11.9)	B (11.6)
	NB Left/Right	C (19.0)	D (25.0)	C (22.9)	C (17.4)	C (22.1)	C (20.4)
Asbury Avenue & Westerly Site Driveway	WB Left/Through	A (9.7)	B (12.3)	B (12.1)	A (9.4)	B (11.6)	B (11.4)
	NB Left/Right	C (16.5)	D (28.2)	C (24.9)	C (15.3)	C (23.9)	C (21.6)

TRAFFIC COUNT DATA & SEASONAL ADJUSTMENT FACTORS

Proposed Mixed-Use Development - NJSH Route 35 & Asbury Avenue - Township of Neptune, Monmouth County, New Jersey

Asbury Avenue between Colonial Avenue & Overbrook Avenue

ATR Summary - Hourly Volumes

	6/3/2019 Monday			6/4/2019 Tuesday			6/5/2019 Wednesday			6/6/2019 Thursday			6/7/2019 Friday			6/8/2019 Saturday			6/9/2019 Sunday			Tuesday/Wednesday/ Thursday Average		
Hour	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM			-			-			-			-			-	197	243	**440**	229	397	**626**			-
1:00 AM			-			-			-			-			-	124	184	**308**	155	264	**419**			-
2:00 AM			-			-			-			-			-	81	175	**256**	127	235	**362**			-
3:00 AM			-			-			-			-			-	38	66	**104**	55	85	**140**			-
4:00 AM			-			-			-			-			-	44	53	**97**	36	51	**87**			-
5:00 AM			-			-			-			-			-	64	91	**155**	44	56	**100**			-
6:00 AM			-			-			-			-			-	161	254	**415**	93	161	**254**			-
7:00 AM			-			-			-			-			-	301	360	**661**	213	233	**446**			-
8:00 AM			-			-			-			-			-	534	453	**987**	436	363	**799**			-
9:00 AM			-			-			-			-			-	762	526	**1288**	620	508	**1128**			-
10:00 AM			-			-			-			-	752	605	**1357**	883	597	**1480**	819	638	**1457**			-
11:00 AM			-			-			-			-	802	635	**1437**	1016	631	**1647**	946	666	**1612**			-
12:00 PM			-			-			-			-	881	686	**1567**	1081	634	**1715**	855	783	**1638**			-
1:00 PM			-			-			-			-	890	708	**1598**	999	697	**1696**	934	753	**1687**			-
2:00 PM			-			-			-			-	922	953	**1875**	917	746	**1663**	910	827	**1737**			-
3:00 PM			-			-			-			-	1075	967	**2042**	1034	775	**1809**	858	798	**1656**			-
4:00 PM			-			-			-			-	1085	799	**1884**	1070	862	**1932**	833	805	**1638**			-
5:00 PM			-			-			-			-	1168	766	**1934**	1012	879	**1891**	769	786	**1555**			-
6:00 PM			-			-			-			-	1096	671	**1767**	1029	785	**1814**	720	739	**1459**			-
7:00 PM			-			-			-			-	954	619	**1573**	914	818	**1732**	569	672	**1241**			-
8:00 PM			-			-			-			-	704	555	**1259**	723	766	**1489**	420	602	**1022**			-
9:00 PM			-			-			-			-	549	521	**1070**	590	647	**1237**	292	430	**722**			-
10:00 PM			-			-			-			-	446	466	**912**	492	616	**1108**	232	289	**521**			-
11:00 PM			-			-			-			-	329	395	**724**	402	556	**958**	171	160	**331**			-
Daily Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14468	12414	**26882**	11336	11301	**22637**	-	-	-
AM Peak	-	-	-	-	-	-	-	-	-	-	-	-	9:45 AM	9:45 AM	**9:45 AM**	9:45 AM	9:45 AM	**9:45 AM**	9:45 AM	9:30 AM	**9:45 AM**	-	-	-
Volume	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	727	589	**1316**	890	597	**1487**	762	626	**1381**	0	0	**0**
Midday Peak	-	-	-	-	-	-	-	-	-	-	-	-	1:45 PM	1:45 PM	**1:45 PM**	11:30 AM	1:45 PM	**11:45 AM**	10:45 AM	11:45 AM	**1:45 PM**	-	-	-
Volume	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	934	885	**1819**	1096	739	**1738**	975	804	**1720**	0	0	**0**
PM Peak	-	-	-	-	-	-	-	-	-	-	-	-	5:15 PM	2:45 PM	**2:45 PM**	3:30 PM	4:30 PM	**3:30 PM**	2:00 PM	2:30 PM	**2:30 PM**	-	-	-
Volume	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	1199	1023	**2043**	1100	900	**1934**	910	901	**1775**	0	0	**0**

Proposed Mixed-Use Development - NJSH Route 35 & Asbury Avenue - Township of Neptune, Monmouth County, New Jersey

Asbury Avenue between Colonial Avenue & Overbrook Avenue

ATR Summary - Hourly Volumes

	6/10/2019 Monday			6/11/2019 Tuesday			6/12/2019 Wednesday			6/13/2019 Thursday			6/14/2019 Friday			6/15/2019 Saturday			6/16/2019 Sunday			Tuesday/Wednesday/ Thursday Average		
Hour	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	74	94	**168**	107	47	**154**	94	69	**163**	87	104	**191**	99	89	**188**	213	265	**478**	234	420	**654**	96	73	**169**
1:00 AM	44	44	**88**	39	22	**61**	41	49	**90**	50	49	**99**	59	39	**98**	143	219	**362**	206	313	**519**	43	40	**83**
2:00 AM	29	32	**61**	31	26	**57**	30	37	**67**	34	34	**68**	24	39	**63**	86	198	**284**	120	249	**369**	32	32	**64**
3:00 AM	13	34	**47**	22	32	**54**	16	41	**57**	24	34	**58**	23	28	**51**	48	64	**112**	39	77	**116**	21	36	**57**
4:00 AM	34	84	**118**	45	70	**115**	38	68	**106**	27	68	**95**	38	69	**107**	36	53	**89**	37	60	**97**	37	69	**106**
5:00 AM	88	214	**302**	104	203	**307**	94	221	**315**	86	184	**270**	108	196	**304**	54	96	**150**	43	51	**94**	95	203	**298**
6:00 AM	299	548	**847**	260	547	**807**	285	552	**837**	267	502	**769**	295	513	**808**	187	240	**427**	75	151	**226**	271	534	**805**
7:00 AM	535	725	**1260**	571	749	**1320**	673	770	**1443**	592	718	**1310**	654	796	**1450**	360	345	**705**	180	211	**391**	612	746	**1358**
8:00 AM	612	777	**1389**	610	820	**1430**	651	833	**1484**	614	755	**1369**	702	768	**1470**	638	457	**1095**	351	359	**710**	625	803	**1428**
9:00 AM	510	557	**1067**	595	570	**1165**	607	549	**1156**	590	534	**1124**	714	610	**1324**	939	529	**1468**	579	529	**1108**	597	551	**1148**
10:00 AM	536	491	**1027**	626	532	**1158**	643	528	**1171**	500	486	**986**	728	577	**1305**	1096	588	**1684**	750	583	**1333**	590	515	**1105**
11:00 AM	517	521	**1038**	643	519	**1162**	639	484	**1123**	601	505	**1106**	880	622	**1502**	1154	697	**1851**	960	669	**1629**	628	503	**1131**
12:00 PM	597	560	**1157**	700	576	**1276**	652	581	**1233**	668	618	**1286**	921	681	**1602**	1137	708	**1845**	878	682	**1560**	673	592	**1265**
1:00 PM	544	554	**1098**	676	563	**1239**	708	593	**1301**	640	601	**1241**	928	699	**1627**	1090	741	**1831**	920	881	**1801**	675	586	**1261**
2:00 PM	615	674	**1289**	698	713	**1411**	715	688	**1403**	682	636	**1318**	900	771	**1671**	1140	898	**2038**	780	822	**1602**	698	679	**1377**
3:00 PM	742	653	**1395**	843	748	**1591**	877	737	**1614**	847	661	**1508**	1097	788	**1885**	1238	851	**2089**	687	721	**1408**	856	715	**1571**
4:00 PM	849	654	**1503**	937	724	**1661**	1067	729	**1796**	988	679	**1667**	1150	713	**1863**	1255	852	**2107**	703	679	**1382**	997	711	**1708**
5:00 PM	895	593	**1488**	1145	673	**1818**	1156	712	**1868**	1083	681	**1764**	1255	703	**1958**	1222	797	**2019**	711	628	**1339**	1128	689	**1817**
6:00 PM	781	470	**1251**	860	573	**1433**	1021	607	**1628**	875	491	**1366**	1089	610	**1699**	1159	882	**2041**	650	659	**1309**	919	557	**1476**
7:00 PM	567	392	**959**	734	476	**1210**	775	463	**1238**	718	424	**1142**	1006	563	**1569**	891	835	**1726**	514	538	**1052**	742	454	**1196**
8:00 PM	469	296	**765**	540	405	**945**	592	537	**1129**	577	411	**988**	755	531	**1286**	762	698	**1460**	492	417	**909**	570	451	**1021**
9:00 PM	320	309	**629**	361	337	**698**	450	393	**843**	460	354	**814**	672	557	**1229**	643	714	**1357**	353	306	**659**	424	361	**785**
10:00 PM	205	182	**387**	284	256	**540**	268	299	**567**	301	234	**535**	544	511	**1055**	584	561	**1145**	221	211	**432**	284	263	**547**
11:00 PM	161	99	**260**	177	188	**365**	209	190	**399**	180	156	**336**	411	378	**789**	452	502	**954**	163	124	**287**	189	178	**367**
Daily Total	10036	9557	**19593**	11608	10369	**21977**	12301	10730	**23031**	11491	9919	**21410**	15052	11851	**26903**	16527	12790	**29317**	10646	10340	**20986**	11802	10341	**22143**
AM Peak	7:30 AM	7:30 AM	**7:30 AM**	8:15 AM	7:30 AM	**7:30 AM**	7:30 AM	7:30 AM	**7:30 AM**	7:30 AM	7:30 AM	**7:30 AM**	9:15 AM	7:30 AM	**7:30 AM**	9:45 AM	9:45 AM	**9:45 AM**	9:45 AM	9:45 AM	**9:45 AM**	7:30 AM	7:30 AM	**7:30 AM**
Volume	617	801	**1418**	665	877	**1504**	771	883	**1654**	645	794	**1439**	722	858	**1578**	1091	572	**1663**	696	590	**1286**	681	851	**1532**
Midday Peak	11:45 AM	1:45 PM	**1:45 PM**	12:00 PM	1:45 PM	**1:45 PM**	1:00 PM	1:45 PM	**1:45 PM**	1:45 PM	12:30 PM	**12:00 PM**	12:45 PM	1:45 PM	**12:45 PM**	11:00 AM	1:45 PM	**1:45 PM**	11:15 AM	1:15 PM	**1:15 PM**	1:45 PM	1:45 PM	**1:45 PM**
Volume	610	621	**1200**	700	691	**1365**	708	657	**1346**	677	629	**1286**	956	761	**1664**	1154	869	**1988**	966	916	**1811**	680	650	**1330**
PM Peak	5:00 PM	2:45 PM	**4:30 PM**	5:00 PM	2:45 PM	**4:45 PM**	5:00 PM	2:30 PM	**4:45 PM**	4:45 PM	4:45 PM	**4:45 PM**	5:00 PM	3:00 PM	**5:00 PM**	4:15 PM	2:00 PM	**4:15 PM**	2:00 PM	2:00 PM	**2:00 PM**	5:00 PM	2:30 PM	**4:45 PM**
Volume	895	684	**1542**	1145	752	**1848**	1156	760	**1872**	1086	701	**1787**	1255	788	**1958**	1296	898	**2181**	780	822	**1602**	1128	728	**1836**

Proposed Mixed-Use Development - NJSH Route 35 & Asbury Avenue - Township of Neptune, Monmouth County, New Jersey

NJSH Route 35 - 500' north of Bangs Avenue

ATR Summary - Hourly Volumes

	6/3/2019 Monday			6/4/2019 Tuesday			6/5/2019 Wednesday			6/6/2019 Thursday			6/7/2019 Friday			6/8/2019 Saturday			6/9/2019 Sunday			Tuesday/Wednesday/ Thursday Average		
Hour	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM			-			-			-			-			-	151	193	**344**	166	238	**404**			-
1:00 AM			-			-			-			-			-	93	141	**234**	131	177	**308**			-
2:00 AM			-			-			-			-			-	88	82	**170**	151	138	**289**			-
3:00 AM			-			-			-			-			-	68	57	**125**	66	85	**151**			-
4:00 AM			-			-			-			-			-	46	72	**118**	49	67	**116**			-
5:00 AM			-			-			-			-			-	73	108	**181**	65	79	**144**			-
6:00 AM			-			-			-			-			-	195	195	**390**	134	140	**274**			-
7:00 AM			-			-			-			-			-	363	374	**737**	220	246	**466**			-
8:00 AM			-			-			-			-			-	447	554	**1001**	301	406	**707**			-
9:00 AM			-			-			-			-			-	506	764	**1270**	428	589	**1017**			-
10:00 AM			-			-			-			-			-	572	824	**1396**	538	668	**1206**			-
11:00 AM			-			-			-			-			-	571	885	**1456**	551	755	**1306**			-
12:00 PM			-			-			-			-			-	664	816	**1480**	614	894	**1508**			-
1:00 PM			-			-			-			-			-	586	868	**1454**	602	870	**1472**			-
2:00 PM			-			-			-			-			-	604	885	**1489**	574	842	**1416**			-
3:00 PM			-			-			-			-			-	591	895	**1486**	587	837	**1424**			-
4:00 PM			-			-			-			-			-	576	876	**1452**	617	783	**1400**			-
5:00 PM			-			-			-			-			-	534	908	**1442**	544	729	**1273**			-
6:00 PM			-			-			-			-			-	518	854	**1372**	496	703	**1199**			-
7:00 PM			-			-			-			-			-	517	778	**1295**	474	590	**1064**			-
8:00 PM			-			-			-			-			-	497	675	**1172**	404	513	**917**			-
9:00 PM			-			-			-			-			-	409	633	**1042**	342	380	**722**			-
10:00 PM			-			-			-			-			-	375	535	**910**	228	302	**530**			-
11:00 PM			-			-			-			-			-	288	355	**643**	118	198	**316**			-
Daily Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9332	13327	**22659**	8400	11229	**19629**	-	-	-
AM Peak	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9:45 AM	9:45 AM	**9:45 AM**	9:45 AM	9:45 AM	**9:45 AM**	-	-	-
Volume	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	557	779	**1336**	508	635	**1143**	0	0	**0**
Midday Peak	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12:00 PM	10:30 AM	**10:30 AM**	12:30 PM	12:30 PM	**12:30 PM**	-	-	-
Volume	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	664	897	**1492**	629	923	**1552**	0	0	**0**
PM Peak	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2:45 PM	4:30 PM	**2:30 PM**	4:00 PM	2:00 PM	**3:00 PM**	-	-	-
Volume	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	620	932	**1529**	617	842	**1424**	0	0	**0**

Proposed Mixed-Use Development - NJSH Route 35 & Asbury Avenue - Township of Neptune, Monmouth County, New Jersey

NJSH Route 35 - 500' north of Bangs Avenue

ATR Summary - Hourly Volumes

	6/10/2019 Monday			6/11/2019 Tuesday			6/12/2019 Wednesday			6/13/2019 Thursday			6/14/2019 Friday			6/15/2019 Saturday			6/16/2019 Sunday			Tuesday/Wednesday/ Thursday Average		
Hour	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	64	119	**183**	64	115	**179**	96	127	**223**	68	117	**185**	89	157	**246**			-			-	76	120	**196**
1:00 AM	42	47	**89**	37	67	**104**	61	78	**139**	54	63	**117**	62	90	**152**			-			-	51	69	**120**
2:00 AM	27	28	**55**	27	27	**54**	64	54	**118**	35	41	**76**	37	33	**70**			-			-	42	41	**83**
3:00 AM	28	26	**54**	33	29	**62**	35	31	**66**	28	32	**60**	30	23	**53**			-			-	32	31	**63**
4:00 AM	56	38	**94**	73	51	**124**	69	59	**128**	64	55	**119**	72	51	**123**			-			-	69	55	**124**
5:00 AM	140	116	**256**	148	128	**276**	152	141	**293**	139	125	**264**	143	128	**271**			-			-	146	131	**277**
6:00 AM	379	311	**690**	363	303	**666**	380	310	**690**	351	296	**647**	345	313	**658**			-			-	365	303	**668**
7:00 AM	548	503	**1051**	578	603	**1181**	607	647	**1254**	582	602	**1184**	592	644	**1236**			-			-	589	617	**1206**
8:00 AM	617	589	**1206**	609	567	**1176**	603	645	**1248**	634	559	**1193**	607	668	**1275**			-			-	615	590	**1205**
9:00 AM	545	630	**1175**	569	602	**1171**	563	654	**1217**	490	597	**1087**	575	739	**1314**			-			-	541	618	**1159**
10:00 AM	537	647	**1184**	520	699	**1219**	524	701	**1225**	529	607	**1136**	566	833	**1399**			-			-	524	669	**1193**
11:00 AM	582	695	**1277**	587	773	**1360**	591	786	**1377**	636	717	**1353**	601	905	**1506**			-			-	605	759	**1364**
12:00 PM	557	789	**1346**	622	821	**1443**	614	817	**1431**	618	821	**1439**	645	914	**1559**			-			-	618	820	**1438**
1:00 PM	595	827	**1422**	585	803	**1388**	582	791	**1373**	583	788	**1371**	651	884	**1535**			-			-	583	794	**1377**
2:00 PM	580	837	**1417**	578	845	**1423**	609	803	**1412**	591	834	**1425**	655	933	**1588**			-			-	593	827	**1420**
3:00 PM	593	901	**1494**	629	878	**1507**	634	878	**1512**	638	935	**1573**	621	944	**1565**			-			-	634	897	**1531**
4:00 PM	559	909	**1468**	554	927	**1481**	540	933	**1473**	567	911	**1478**	538	969	**1507**			-			-	554	924	**1478**
5:00 PM	514	881	**1395**	534	961	**1495**	526	951	**1477**	510	964	**1474**	516	967	**1483**			-			-	523	959	**1482**
6:00 PM	447	812	**1259**	524	900	**1424**	509	872	**1381**	506	857	**1363**	570	966	**1536**			-			-	513	876	**1389**
7:00 PM	399	589	**988**	474	748	**1222**	438	742	**1180**	466	731	**1197**	516	827	**1343**			-			-	459	740	**1199**
8:00 PM	349	560	**909**	468	678	**1146**	416	612	**1028**	416	647	**1063**	472	759	**1231**			-			-	433	646	**1079**
9:00 PM	284	413	**697**	371	567	**938**	341	567	**908**	347	538	**885**	421	692	**1113**			-			-	353	557	**910**
10:00 PM	169	270	**439**	284	362	**646**	226	355	**581**	224	359	**583**	364	556	**920**			-			-	245	359	**604**
11:00 PM	128	211	**339**	188	244	**432**	186	245	**431**	172	271	**443**	260	381	**641**			-			-	182	253	**435**
Daily Total	8739	11748	**20487**	9419	12698	**22117**	9366	12799	**22165**	9248	12467	**21715**	9948	14376	**24324**	-	-	-	-	-	-	9345	12655	**22000**
AM Peak	7:45 AM	8:45 AM	**8:15 AM**	7:30 AM	9:45 AM	**7:30 AM**	7:30 AM	9:45 AM	**7:30 AM**	7:45 AM	7:15 AM	**7:30 AM**	7:45 AM	9:45 AM	**9:45 AM**	-	-	-	-	-	-	7:30 AM	9:45 AM	**7:30 AM**
Volume	629	669	**1233**	669	649	**1269**	685	691	**1335**	647	635	**1250**	650	806	**1363**	0	0	**0**	0	0	**0**	666	648	**1284**
Midday Peak	1:15 PM	1:00 PM	**1:00 PM**	11:30 AM	1:30 PM	**12:00 PM**	11:30 AM	1:15 PM	**11:45 AM**	11:15 AM	12:00 PM	**11:30 AM**	1:30 PM	1:45 PM	**1:30 PM**	-	-	-	-	-	-	11:30 AM	12:00 PM	**12:00 PM**
Volume	601	827	**1422**	637	834	**1443**	631	828	**1435**	676	821	**1453**	677	930	**1599**	0	0	**0**	0	0	**0**	642	820	**1438**
PM Peak	3:30 PM	4:15 PM	**3:30 PM**	3:00 PM	4:45 PM	**4:15 PM**	3:00 PM	5:15 PM	**3:15 PM**	2:45 PM	5:00 PM	**3:15 PM**	2:00 PM	3:45 PM	**2:00 PM**	-	-	-	-	-	-	2:45 PM	5:00 PM	**3:00 PM**
Volume	598	922	**1513**	629	976	**1514**	634	954	**1535**	663	964	**1575**	655	980	**1588**	0	0	**0**	0	0	**0**	639	959	**1531**

New Jersey Department Of Transportation													
Seasonal Factors 2019													
Region 1 2019		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rural	1	1.150	1.090	1.020	0.986	0.957	0.949	0.966	0.950	0.974	0.969	1.000	1.064
	2	1.085	1.037	0.996	0.961	0.975	0.965	1.007	1.005	0.969	0.971	1.001	1.044
	3	1.072	1.035	1.007	0.986	0.987	0.959	0.993	0.975	0.974	0.977	1.009	1.049
	4	1.047	1.078	1.010	0.997	0.976	0.933	1.021	1.039	0.968	0.955	1.021	1.007
	5	1.125	1.054	0.981	0.958	0.899	0.864	0.975	1.041	1.007	0.908	1.059	1.045
	6	1.239	1.246	1.035	0.977	1.053	0.941	0.898	0.943	1.031	1.059	0.988	1.134
	7	1.002	1.066	0.955	1.041	0.970	0.923	0.915	1.001	0.956	1.014	0.993	1.018
Urban	1	1.150	1.090	1.020	0.986	0.957	0.949	0.966	0.950	0.974	0.969	1.000	1.064
	2	1.085	1.037	0.996	0.961	0.975	0.965	1.007	1.005	0.969	0.971	1.001	1.044
	3	1.072	1.035	1.007	0.986	0.987	0.959	0.993	0.975	0.974	0.977	1.009	1.049
	4	1.047	1.078	1.010	0.997	0.976	0.933	1.021	1.039	0.968	0.955	1.021	1.007
	5	1.024	1.031	0.976	0.973	0.967	0.946	1.012	1.033	0.958	1.010	1.023	1.064
	6	1.239	1.246	1.035	0.977	1.053	0.937	0.898	0.943	1.031	1.059	0.988	1.134
	7	1.002	1.066	0.955	1.041	0.970	0.923	0.915	1.001	0.956	1.014	0.993	1.018

Region 2 2019		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rural	1	1.140	1.077	1.060	1.004	0.999	0.952	0.946	0.923	1.008	0.996	1.022	1.067
	2	1.232	1.094	1.069	0.991	0.971	0.925	0.949	0.924	0.961	0.961	1.160	1.008
	3	1.149	1.130	1.028	0.979	0.949	0.906	0.904	0.923	0.953	0.953	0.990	1.042
	4	1.072	1.077	1.025	0.978	0.950	0.929	0.975	0.987	0.981	1.009	1.040	1.034
	5	1.026	1.076	1.009	0.980	0.927	0.959	0.993	0.997	0.932	1.009	1.061	1.091
	6	1.059	1.069	0.998	0.946	0.922	0.952	1.004	1.062	0.926	0.987	1.063	1.106
	7	1.116	1.093	1.091	0.934	0.893	0.867	0.877	1.036	1.061	1.012	1.054	1.035
Urban	1	1.192	1.157	1.092	1.064	0.975	0.944	0.899	0.876	0.980	0.982	1.025	1.014
	2	1.232	1.094	1.069	0.991	0.971	0.925	0.949	0.924	0.961	0.961	1.016	1.008
	3	1.116	1.087	1.029	0.982	0.963	0.936	0.971	0.953	0.973	0.962	1.014	1.059
	4	1.080	1.046	1.001	0.975	0.962	0.954	1.041	1.016	0.956	0.943	1.004	1.042
	5	1.058	1.075	0.967	0.971	0.985	0.963	0.939	0.961	0.978	0.987	1.042	1.074
	6	1.201	1.222	1.093	0.954	0.930	0.912	0.888	0.918	0.997	1.056	1.065	1.084
	7	1.056	0.990	0.966	0.962	0.952	0.963	1.073	1.017	0.992	1.009	0.971	1.021

Region 3 2019		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rural	1	1.252	1.214	1.123	1.006	0.955	0.886	0.853	0.835	0.934	0.962	1.070	1.109
	2	1.102	1.031	1.023	0.958	1.008	0.980	1.014	0.996	0.963	0.957	0.981	1.034
	3	1.231	1.180	1.061	0.972	0.925	0.846	0.861	0.870	0.960	0.970	1.042	1.141
	4	1.157	1.075	1.027	0.980	0.961	0.946	0.933	0.963	0.954	0.960	1.036	1.050
	5	1.153	1.137	1.009	0.971	0.963	0.928	0.953	0.911	0.956	0.941	1.088	1.080
	6	1.153	1.137	1.009	0.971	0.963	0.928	0.953	0.911	0.956	0.941	1.088	1.080
	7	1.153	1.137	1.009	0.971	0.963	0.928	0.953	0.911	0.956	0.941	1.088	1.080
Urban	1	1.107	1.094	1.013	0.954	0.975	0.939	1.019	0.987	0.985	0.978	1.023	1.051
	2	1.102	1.031	1.023	0.958	1.008	0.980	1.014	0.996	0.963	0.957	0.981	1.034
	3	1.106	1.074	1.020	0.990	0.993	0.938	0.961	0.964	0.972	0.982	1.012	1.035
	4	1.081	1.050	0.996	0.964	0.965	0.945	0.986	1.007	0.966	0.973	1.039	1.040
	5	1.073	1.063	1.034	0.958	0.955	0.948	1.040	1.057	0.950	0.979	1.022	1.090
	6	1.073	1.063	1.034	0.958	0.955	0.948	1.040	1.057	0.950	0.979	1.022	1.090
	7	1.073	1.063	1.034	0.958	0.955	0.948	1.040	1.057	0.950	0.979	1.022	1.090

Region 4 2019		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rural	1	1.224	1.166	1.098	1.054	0.954	0.860	0.800	0.836	0.949	1.058	1.135	1.188
	2	1.224	1.166	1.098	1.054	0.954	0.860	0.800	0.836	0.949	1.058	1.135	1.188
	3	1.291	1.221	1.117	1.037	0.956	0.807	0.749	0.736	0.910	1.037	1.150	1.241
	4	1.247	1.266	1.132	1.018	0.938	0.852	0.809	0.859	0.960	1.047	1.179	1.207
	5	1.131	1.090	1.112	1.045	1.007	0.950	0.855	0.913	0.967	1.011	1.082	1.077
	6	1.183	1.086	1.140	1.045	0.947	0.862	0.911	0.859	0.937	1.028	1.149	1.127
	7	1.273	1.193	1.167	0.954	0.955	0.844	0.808	0.860	0.901	1.055	1.128	1.190
Urban	1	1.224	1.166	1.098	1.054	0.954	0.860	0.800	0.836	0.949	1.058	1.135	1.188
	2	1.224	1.166	1.098	1.054	0.954	0.860	0.800	0.836	0.949	1.058	1.135	1.188
	3	1.275	1.200	1.102	1.042	0.942	0.859	0.830	0.810	0.939	1.051	1.169	1.193
	4	1.145	1.109	1.025	0.992	0.968	0.913	0.910	0.922	0.982	1.019	1.089	1.089
	5	1.168	1.158	1.083	1.009	0.941	0.900	0.813	0.918	0.910	0.969	1.150	1.265
	6	1.168	1.158	1.083	1.009	0.941	0.900	0.813	0.918	0.910	0.969	1.150	1.265
	7	1.168	1.158	1.083	1.009	0.941	0.900	0.813	0.918	0.910	0.969	1.150	1.265

Route 35

Asbury Ave

NJDOT TIME OF DAY FACTOR CALCULATIONS

STONEFIELD

Table A-2

Saturday Midday Time of Day Factor Adjustments

Land Use Code	Land Use	Size	Weekend 3:30 PM TOD Factor	Maximum Weekend TOD Factor	Saturday Midday Peak Hour TOD Adjustment
820	Shopping Center	8,000 SF	8.5	8.8	**96.6%**
854	Discount Supermarket	20,442 SF	8.9	10.6	**84.0%**
934	Fast Food Restaurant with Drive Through	3,316	7.4	10.3	**71.8%**
960	Super Convenience Store/Gas Station	4,500 SF	8.0	8.3	**96.4%**

Land Use 820 - Shopping Center

Table 1 Hourly Variation in Shopping Center Traffic						
Time	Average Weekday[a]		Average Saturday[b]		Average Sunday[c]	
	Percent of 24-Hour Entering Traffic	Percent of 24-Hour Exiting Traffic	Percent of 24-Hour Entering Traffic	Percent of 24-Hour Exiting Traffic	Percent of 24-Hour Entering Traffic	Percent of 24-Hour Exiting Traffic
6 a.m.–7 a.m.	0.8	0.3	0.2	0.2	0.2	0.1
7 a.m.–8 a.m.	2.0	0.9	0.9	0.4	0.4	0.3
8 a.m.–9 a.m.	3.1	1.2	2.7	1.0	0.9	0.5
9 a.m.–10 a.m.	5.5	2.0	5.5	2.2	1.7	1.1
10 a.m.–11 a.m.	7.0	4.3	8.6	4.8	3.8	2.5
11 a.m.–12 p.m.	8.4	6.2	10.8	7.5	10.0	4.6
12 p.m.–1 p.m.	9.4	8.3	11.8	9.3	15.1	7.9
1 p.m.–2 p.m.	8.2	8.6	12.1	10.3	16.7	12.0
2 p.m.–3 p.m.	7.7	8.9	11.8	11.8	15.8	14.7
3 p.m.–4 p.m.	7.8	8.8	10.7	12.5	13.0	15.6
4 p.m.–5 p.m.	8.0	8.9	8.8	12.5	9.4	15.8
5 p.m.–6 p.m.	8.4	9.2	5.3	11.3	5.1	13.0
6 p.m.–7 p.m.	8.0	7.5	3.3	6.7	2.3	4.6
7 p.m.–8 p.m.	7.9	7.2	2.7	2.9	1.7	1.9
8 p.m.–9 p.m.	4.3	7.7	1.8	2.2	1.1	1.3
9 p.m.–10 p.m.	1.8	7.2	1.0	1.6	0.7	1.1
10 p.m.–6 a.m.	1.7	2.8	2.0	2.8	2.1	3.0

Sites ranged in size from 11,000 to 1,750,000 square feet gross leasable area
[a] Source numbers – 13, 73, 88, 190, 217, 220, 225 and 376; based on ten studies
[b] Source numbers – 13, 73, 88, 190, 220, 225 and 376; based on nine studies
[c] Source numbers – 13, 73, 88, 190, 220 and 225; based on eight studies

Land Use	850 Supermarket								851 Convenience Market							
Setting	General Urban/ Suburban		Dense Multi-Use Urban						General Urban/ Suburban		Dense Multi-Use Urban					
Time Period	Weekday		Weekday		Saturday		Sunday		Weekday		Weekday		Saturday		Sunday	
Trip Type	Vehicle		Vehicle		Vehicle		Vehicle		Vehicle		Person		Person		Person	
# Data Sites	1		1		1		1		2		3		3		3	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
12:00	0.0	7.3	0.0	9.7	0.0	9.5	0.0	11.9	0.0	6.8	0.5	9.9	1.9	6.9	1.8	6.4
12:15	0.0	7.3	0.0	9.5	0.0	9.8	0.0	11.1	0.0	4.6	0.4	8.7	1.5	6.9	1.1	6.6
12:30	0.0	7.2	0.0	9.1	0.0	10.0	0.0	10.8	0.0	4.1	0.3	7.9	1.3	6.4	0.9	6.2
12:45	0.0	7.4	0.0	8.9	0.0	9.3	0.0	10.8	0.0	4.4	0.3	8.0	1.4	5.5	1.0	6.7
1:00	0.0	7.3	0.0	8.6	0.0	10.0	0.0	11.2	0.0	3.9	0.5	8.2	1.1	5.3	0.9	7.1
1:15	0.0	7.7	0.0	8.5	0.0	9.6	0.0	11.4	0.0	5.8	0.5	7.5	1.2	5.2	0.9	7.3
1:30	0.0	7.8	0.0	8.6	0.0	9.5	0.0	11.0	0.0	5.8	0.5	6.9	1.2	5.3	1.0	7.4
1:45	0.0	7.7	0.0	8.5	0.0	9.9	0.0	10.5	0.0	8.3	0.5	6.2	1.0	5.5	0.9	7.4
2:00	0.0	7.3	0.0	8.4	0.0	9.9	0.0	10.7	0.0	6.6	0.6	5.4	0.9	6.0	0.8	8.0
2:15	0.0	7.6	0.0	8.4	0.0	10.4	0.0	10.4	0.0	5.3	0.6	6.0	0.7	5.7	0.8	9.1
2:30	0.0	7.5	0.0	8.5	0.0	10.6	0.0	10.8	0.0	4.6	0.6	6.2	0.9	5.5	0.6	8.9
2:45	0.0	7.9	0.0	8.7	0.0	10.0	0.0	10.9	0.0	3.2	0.6	6.2	1.0	6.0	0.4	8.6
3:00	0.0	8.1	0.0	9.2	0.0	9.0	0.0	10.8	0.0	3.9	0.5	6.2	1.0	5.5	0.7	7.9
3:15	0.0	8.7	0.0	9.5	0.0	9.0	0.0	11.4	0.0	4.1	0.5	5.6	1.2	5.7	0.9	7.5
3:30	0.0	9.8	0.0	9.7	0.0	8.9	0.0	11.6	0.0	6.1	0.4	5.0	0.8	6.4	1.0	8.1
3:45	0.0	9.9	0.0	9.8	0.0	9.7	0.0	11.7	0.0	4.4	0.3	5.2	0.8	6.2	1.2	8.3
4:00	0.0	10.4	0.0	9.8	0.0	10.3	0.0	11.0	0.0	11.9	0.3	5.7	0.9	6.9	0.9	8.9
4:15	0.0	10.2	0.0	9.6	0.0	10.0	0.0	10.5	0.0	14.8	0.2	5.5	1.1	6.8	1.3	7.9
4:30	0.0	9.9	0.0	9.4	0.0	9.6	0.0	9.9	0.0	14.3	0.4	5.4	1.6	6.8	1.1	7.9
4:45	0.0	9.8	0.0	9.7	0.0	8.7	0.0	9.6	0.0	17.7	0.8	4.4	2.1	6.3	1.2	7.7
5:00	0.0	10.0	0.0	10.1	0.0	8.7	0.0	8.7	0.0	12.1	1.3	4.1	2.7	6.1	1.2	7.4
5:15	0.3	9.9	0.0	10.7	0.1	8.5	0.1	7.7	0.0	10.7	2.0	4.5	2.6	6.2	0.8	7.7
5:30	0.3	10.3	0.0	10.4	0.2	8.4	0.1	6.7	0.0	11.7	2.9	4.9	2.7	5.7	1.2	7.3
5:45	0.4	9.6	0.1	9.7	0.2	8.4	0.1	5.3	0.2	13.6	3.8	5.7	3.0	5.9	1.4	7.9
6:00	0.6	9.0	0.2	8.8	0.3	7.8	0.1	4.7	0.2	15.0	5.1	5.8	2.8	5.4	1.9	7.7
6:15	0.7	8.2	0.3	7.7	0.2	7.2	0.0	4.0	1.2	12.1	5.5	5.7	3.2	5.6	2.1	6.8
6:30	1.3	7.5	0.3	7.4	0.2	7.0	0.1	3.3	4.4	9.7	5.3	5.6	2.9	5.4	2.1	6.8
6:45	2.2	7.4	0.4	6.7	0.4	5.9	0.1	3.0	5.8	4.1	5.3	5.2	2.3	6.1	2.5	6.0
7:00	3.1	6.2	0.5	6.1	0.7	5.3	0.3	2.6	7.8	0.0	4.5	4.7	2.2	6.6	2.6	6.1
7:15	3.9	6.0	1.1	5.5	1.1	4.9	0.6	2.4	8.5	0.0	4.4	4.7	2.1	6.1	3.0	6.4
7:30	5.0	4.2	2.1	4.4	1.6	4.2	1.2	2.5	7.0	0.0	4.5	4.5	2.2	6.3	3.2	6.6
7:45	5.5	3.3	2.7	4.2	2.4	3.8	2.2	2.2	8.7	0.0	4.3	4.4	2.3	5.4	3.2	6.9
8:00	5.4	4.0	3.3	4.0	2.9	3.6	2.7	2.1	7.3	0.0	4.3	4.3	2.7	4.7	2.9	7.2
8:15	5.4	3.0	3.6	3.4	3.6	3.0	3.2	2.1	7.8	0.0	5.2	4.0	3.0	5.1	3.2	7.2
8:30	4.9	3.0	3.7	3.5	4.1	2.6	3.9	1.6	6.3	0.0	6.1	3.9	3.6	5.0	3.3	6.3
8:45	4.8	3.3	4.2	3.3	4.5	2.6	3.8	1.6	5.6	0.0	7.4	3.8	4.2	5.3	3.9	5.5
9:00	5.3	4.1	4.5	3.0	4.9	2.3	4.4	1.5	8.3	0.0	7.8	4.0	4.6	5.7	4.4	4.0
9:15	5.3	3.8	4.6	2.6	5.3	2.0	4.9	1.2	9.7	0.0	7.4	4.0	4.8	5.2	4.0	3.4
9:30	5.5	3.4	4.6	1.8	5.8	1.6	5.4	1.0	10.7	0.0	6.6	3.5	5.3	5.9	4.2	3.0
9:45	6.0	2.3	4.8	1.2	6.1	1.0	6.5	0.7	9.5	0.0	5.8	3.6	5.5	5.6	3.6	2.9
10:00	5.2	0.2	5.0	0.6	6.6	0.6	7.0	0.5	7.5	0.0	5.4	3.1	5.7	5.2	3.2	2.7
10:15	5.8	0.0	5.6	0.3	7.2	0.4	7.9	0.3	6.1							
10:30	6.0	0.0	6.5	0.2	7.4	0.2	8.4	0.2	7.5							
10:45	6.1	0.0	7.2	0.1	7.4	0.1	8.5	0.1	7.8							
11:00	6.6	0.0	8.3	0.0	7.4	0.1	10.0	0.0	8.7							
11:15	6.3	0.0	9.0	0.0	7.5	0.0	10.8	0.0	9.2							
11:30	6.5	0.0	9.7	0.0	7.9	0.0	11.5	0.0	7.8							
11:45	6.4	0.0	9.8	0.0	9.3	0.0	12.3	0.0	6.8	0.0	10.5	0.9	7.2	2.3	6.4	1.8

Percent of Daily Traffic During the 60-Minute Period Beginning at Displayed Time

NOTE: ITE does not provide weekend time-of-day data for Land Use 854 "Discount Supermarket." Comparable Land Use 850 Supermarket" was utilized.

Land Use	933 Fast-Food Restaurant without Drive-Through Window		934 Fast-Food Restaurant with Drive-Through Window									
Setting	General Urban/Suburban		General Urban/Suburban						Dense Multi-Use Urban			
Time Period	Weekday		Weekday		Saturday		Sunday		Weekday		Saturday	
Trip Type	Vehicle		Vehicle		Vehicle		Vehicle		Vehicle		Vehicle	
# Data Sites	4		46		6		4		1		1	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
12:00	1.1	14.6	0.9	11.8	0.4	10.1	0.4	8.9	0.3	10.6	0.6	7.6
12:15	0.5	15.4	0.8	11.2	0.3	10.3	0.4	9.3	0.2	10.0	0.2	8.2
12:30	0.7	14.3	0.7	10.2	0.1	10.0	0.3	9.7	0.3	9.0	0.2	6.6
12:45	0.7	13.9	0.5	9.3	0.1	9.5	0.2	9.5	0.3	7.8	0.1	6.1
1:00	1.0	11.7	0.5	8.3	0.1	8.7	0.1	9.2	0.3	7.0	0.1	6.0
1:15	1.0	10.5	0.4	7.6	0.1	8.3	0.0	8.6	0.3	5.6	0.5	6.3
1:30	0.6	8.8	0.4	7.1	0.1	8.0	0.1	8.1	0.2	5.3	0.5	6.5
1:45	0.5	8.2	0.4	6.6	0.1	8.1	0.1	7.9	0.2	4.9	0.5	7.6
2:00	0.0	7.7	0.4	6.1	0.1	7.8	0.1	7.6	0.0	4.3	0.4	7.9
2:15	0.0	7.7	0.3	5.7	0.1	7.7	0.1	8.0	0.0	5.0	0.1	9.0
2:30	0.0	8.1	0.3	5.5	0.1	7.5	0.0	8.3	0.0	4.9	0.1	9.5
2:45	0.0	8.1	0.3	5.4	0.1	7.2	0.0	8.4	0.0	5.2	0.1	8.0
3:00	0.0	9.1	0.3	5.6	0.1	7.3	0.0	8.4	0.0	5.7	0.1	8.0
3:15	0.0	8.0	0.3	5.6	0.0	7.3	0.0	8.4	0.0	5.3	0.0	6.8
3:30	0.0	7.1	0.3	5.6	0.1	7.4	0.0	8.0	0.0	5.7	0.0	6.1
3:45	0.0	6.1	0.3	5.7	0.1	7.3	0.0	8.1	0.0	5.8	0.0	5.7
4:00	0.0	5.1	0.3	5.6	0.1	7.4	0.0	8.3	0.0	5.8	0.0	4.7
4:15	0.0	4.9	0.4	5.8	0.2	7.4	0.0	8.6	0.0	6.0	0.3	4.3
4:30	0.0	4.9	0.6	6.1	0.2	7.6	0.0	9.4	0.0	6.5	0.5	4.3
4:45	0.0	5.8	0.7	6.3	0.2	8.3	0.0	9.5	0.0	6.8	0.5	4.9
5:00	0.0	6.5	0.7	6.6	0.1	8.4	0.1	9.9	0.0	7.2	0.5	6.4
5:15	0.0	7.0	1.0	6.8	0.2	8.5	0.2	10.3	0.0	7.3	0.2	6.9
5:30	0.0	8.0	1.2	7.1	0.3	8.6	0.3	10.3	0.0	7.4	0.0	8.2
5:45	0.1	6.9	1.6	7.3	0.4	8.3	0.4	11.1	0.0	7.7	0.0	9.0
6:00	0.1	6.6	2.1	7.3	0.4	8.2	0.5	10.9	0.1	8.1	0.1	9.4
6:15	0.2	6.7	2.4	7.2	0.6	8.4	0.5	10.8	0.1	8.1	0.3	9.7
6:30	0.4	5.4	2.7	7.0	0.6	8.3	0.6	10.9	0.1	7.9	0.3	8.8
6:45	0.4	5.0	2.9	6.8	0.7	8.2	0.7	10.6	0.2	8.3	0.3	8.2
7:00	0.6	4.4	3.0	6.5	1.0	8.0	0.8	10.6	0.2	8.2	0.2	7.6
7:15	0.7	4.2	3.2	6.3	1.2	7.6	0.8	10.2	0.3	8.6	0.2	8.3
7:30	0.7	4.8	3.2	6.2	1.2	7.5	0.8	9.6	0.3	8.8	0.2	9.8
7:45	0.7	5.2	3.3	6.1	1.4	7.5	0.8	8.5	0.3	7.8	0.3	9.8
8:00	0.7	5.5	3.3	5.9	1.5	7.3	0.8	7.6	0.3	8.6	0.4	9.7
8:15	0.9	5.2	3.3	5.7	1.6	7.1	0.9	6.8	0.2	9.1	0.2	9.1
8:30	1.1	4.8	3.2	5.5	1.8	7.0	1.3	5.6	0.3	9.0	0.3	8.5
8:45	1.5	4.4	3.3	4.9	1.9	6.9	1.5	4.8	0.3	9.5	0.2	9.1
9:00	1.8	4.4	3.2	4.6	2.1	6.7	2.1	4.0	0.3	8.9	0.2	10.0
9:15	2.1	4.1	3.3	4.2	2.2	6.1	2.4	3.1	0.2	8.0	0.5	12.0
9:30	2.1	3.3	3.4	3.6	2.3	5.2	2.4	2.5	0.4	7.6	0.8	10.8
9:45	2.7	3.2	3.5	3.4	2.5	4.0	2.6	1.8	0.9	8.8	1.5	10.2
10:00	3.8	2.1	3.9	3.0	3.0	3.2	2.4	1.4	1.3	9.4	1.7	8.7
10:15	5.7	1.7	4.5	2.6	3.4	2.7	2.6	1.0	2.5	10.0	2.0	5.5
10:30	8.0	1.6	5.5	2.3	4.2	2.0	3.1	0.8	4.1	9.8	2.4	6.0
10:45	9.6	1.7	6.9	2.0	5.6	1.8	4.3	0.8	5.9	7.2	3.2	5.4
11:00	11.6	1.6	8.4	1.8	6.6	1.4	5.0	0.6	8.3	5.3	4.6	5.0
11:15	11.9	1.7	9.9	1.5	7.7	1.0	6.3	0.5	10.2	2.9	5.0	4.6
11:30	13.9	1.5	11.1	1.3	8.9	1.0	7.3	0.4	10.8	1.5	7.1	2.6
11:45	14.2	1.0	11.6	1.1	9.4	0.6	7.8	0.3	11.3	1.0	7.6	1.8

Percent of Daily Traffic During the 60-Minute Period Beginning at Displayed Time

Land Use	944 Gasoline/Service Station								945 Gasoline/Service Station with Convenience Market	
Setting	General Urban/Suburban						Center City Core		General Urban/ Suburban	
Time Period	Weekday		Saturday		Sunday		Weekday		Weekday	
Trip Type	Vehicle		Vehicle		Vehicle		Vehicle		Vehicle	
# Data Sites	16		1		1		1		14	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
12:00	0.8	6.6	2.2	6.0	1.7	7.1	0.4	5.9	1.1	5.9
12:15	0.6	6.4	2.1	6.0	1.1	7.2	0.4	6.5	0.9	5.9
12:30	0.4	6.2	1.6	5.7	1.1	6.7	0.2	7.0	0.8	5.8
12:45	0.4	6.2	1.8	5.9	1.3	6.0	0.2	6.7	0.7	5.7
1:00	0.3	6.0	1.6	5.7	1.1	6.4	0.2	6.8	0.6	5.6
1:15	0.3	6.1	1.6	5.8	0.9	5.4	0.2	6.8	0.6	5.8
1:30	0.2	6.0	1.3	5.9	0.7	5.8	0.1	6.4	0.5	5.9
1:45	0.2	6.2	1.1	6.8	0.5	7.9	0.0	6.7	0.4	6.0
2:00	0.1	6.3	1.1	6.1	0.4	8.2	0.2	7.2	0.5	6.1
2:15	0.1	6.2	0.9	5.2	0.6	8.2	0.2	7.0	0.4	6.0
2:30	0.1	6.7	0.7	5.5	0.6	8.3	0.3	7.2	0.5	6.1
2:45	0.2	6.8	0.7	5.6	0.5	7.3	0.3	7.8	0.6	6.3
3:00	0.2	7.2	0.5	6.4	0.7	6.5	0.1	7.8	0.6	6.6
3:15	0.2	7.5	0.6	7.6	0.6	6.4	0.1	8.1	0.7	6.8
3:30	0.3	7.4	0.6	8.0	0.9	5.9	0.1	8.2	0.8	7.1
3:45	0.4	7.5	0.4	7.8	1.1	5.9	0.1	7.8	0.9	7.0
4:00	0.4	7.4	0.3	7.2	0.8	6.3	0.1	7.9	1.1	6.8
4:15	0.6	7.7	0.4	8.3	0.7	7.0	0.1	8.3	1.3	6.7
4:30	0.7	7.6	0.4	7.6	0.8	7.6	0.3	8.9	1.5	6.8
4:45	0.9	7.4	0.5	7.5	0.9	7.3	0.4	9.5	1.8	6.8
5:00	1.1	7.5	0.8	7.6	1.1	6.4	0.7	10.0	2.3	6.8
5:15	1.5	7.5	1.0	5.7	1.6	5.5	0.9	9.8	3.0	6.7
5:30	2.0	7.8	1.2	5.1	1.8	5.0	1.6	8.6	3.7	6.5
5:45	2.4	7.8	1.7	4.8	1.9	5.3	2.1	7.9	4.4	6.3
6:00	2.8	7.7	1.8	5.1	2.5	5.3	2.4	6.8	4.8	6.1
6:15	3.2	7.2	2.2	5.3	3.0	5.0	3.7	5.9	5.1	5.9
6:30	3.5	6.7	2.6	5.6	4.1	5.2	4.4	5.6	5.4	5.5
6:45	4.2	6.5	2.9	5.1	4.5	4.7	4.9	5.6	5.7	5.2
7:00	5.0	6.1	3.5	4.6	4.6	4.5	5.1	5.1	6.1	4.9
7:15	5.3	6.2	3.6	4.1	4.9	4.7	4.9	4.4	6.2	4.7
7:30	5.7	6.2	4.4	3.6	5.1	3.9	4.8	4.3	6.2	4.4
7:45	5.6	5.8	5.5	3.8	5.3	4.3	4.4	4.2	6.2	4.2
8:00	5.4	5.5	5.3	4.6	6.0	4.7	4.9	4.4	6.1	4.0
8:15	5.2	5.1	5.1	4.9	5.5	5.2	4.9	4.5	6.0	3.7
8:30	5.0	4.6	6.0	5.3	5.0	5.3	4.6	4.2	5.8	3.6
8:45	5.0	4.3	6.5	5.1	4.8	4.1	5.5	3.9	5.6	3.5
9:00	4.9	4.0	6.8	4.4	4.1	4.0	5.5	3.4	5.5	3.3
9:15	4.8	3.6	7.7	3.7	4.4	3.7	5.5	3.3	5.3	3.1
9:30	4.7	3.3	6.7	3.7	4.4	3.9	5.4	3.2	5.3	2.9
9:45	4.4	3.0	5.2	4.2	4.3	4.1	5.4	2.5	5.4	2.7
10:00	4.4	2.7	6.2	3.3	5.0	3.6				
10:15	4.8	2.5	5.9	3.2	4.9	3.5				
10:30	5.3	2.1	5.8	2.9	5.5	3.0				
10:45	5.7	1.8	6.2	2.4	6.0	3.1				
11:00	6.0	1.5	6.5	2.5	6.1	2.8				
11:15	6.2	1.2	6.8	2.3	7.2	2.4				
11:30	6.3	1.2	7.3	2.6	7.1	2.5				
11:45	6.5	1.0	6.5	2.2	6.9	1.8	5.9	0.6	5.9	1.3

Percent of Daily Traffic During the 60-Minute Period Beginning at Displayed Time

NOTE: ITE does not provide weekend time-of-day data for Land Use 960 "Super Convenience Store/Gas Station" Comparable Land Use 944 "Gasoline/Service Station" was utilized.

INTERNAL CAPTURE CALCULATIONS

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Proposed Mixed-Use Development	**Organization:**	SE&D
Project Location:	Neptune , Monmouth County, New Jersey	**Performed By:**	NK
Scenario Description:	PRI-200142	**Date:**	11/20/2020
Analysis Year:	2023	**Checked By:**	JRC
Analysis Period:	**AM Street Peak Hour**	**Date:**	11/20/2020

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
All Retail Combined	820/854/960	14,942	SF	384	193	191
Restaurant	934	3,316	SF	169	86	83
Retail 1	*820*	*8,000*	*SF*			
Retail 2	*854*	*2,442*	*SF*			
Retail 3	*960*	*4,500*	*SF*			
				553	279	274

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Combined Retail						
Restaurant						
Retail 1						
Retail 2						
Retail 3						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail						
Restaurant						
Retail 1						
Retail 2						
Retail 3						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail			25			
Restaurant		12				
Retail 1					0	0
Retail 2				0		0
Retail 3				0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	0	0	0
Internal Capture Percentage	0%	0%	0%
External Vehicle-Trips[5]	0	0	0
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Proposed Mixed-Use Development
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends							
Land Use	Table 7-A (D): Entering Trips				Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*		Veh. Occ.	Vehicle-Trips	Person-Trips*
Combined Retail	1.00	193	193		1.00	191	191
Restaurant	1.00	86	86		1.00	83	83
Retail 1	*1.00*	*0*	*0*		*1.00*	*0*	*0*
Retail 2	*1.00*	*0*	*0*		*1.00*	*0*	*0*
Retail 3	*1.00*	*0*	*0*		*1.00*	*0*	*0*

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail			25			
Restaurant		12				
Retail 1					0	0
Retail 2				0		0
Retail 3				0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail			43			
Restaurant		15				
Retail 1					0	0
Retail 2				0		0
Retail 3				0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)							
Destination Land Use	Person-Trip Estimates						
	Internal						
Combined Retail	12						
Restaurant	25						
Retail 1	*0*						
Retail 2	*0*						
Retail 3	*0*						
Total	**37**						

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)							
Origin Land Use	Person-Trip Estimates						
	Internal						
Combined Retail	25						
Restaurant	12						
Retail 1	*0*						
Retail 2	*0*						
Retail 3	*0*						
Total	**37**						

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Proposed Mixed-Use Development	**Organization:**	SE&D
Project Location:	Neptune , Monmouth County, New Jersey	**Performed By:**	NK
Scenario Description:	PRI-200142	**Date:**	11/20/2020
Analysis Year:	2023	**Checked By:**	JRC
Analysis Period:	**PM Street Peak Hour**	**Date:**	11/20/2020

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
All Retail Combined	820/854/960	14,942	SF	602	299	303
Restaurant	934	3,316	SF	170	89	81
Retail 1	*820*	*8,000*	*SF*	*94*	*45*	*49*
Retail 2	*854*	*2,442*	*SF*	*196*	*98*	*98*
Retail 3	*960*	*4,500*	*SF*	*312*	*156*	*156*
				772	388	384

Table 2-p: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Combined Retail						
Restaurant						
Retail 1						
Retail 2						
Retail 3						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail						
Restaurant						
Retail 1						
Retail 2						
Retail 3						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail			26			
Restaurant		33				
Retail 1					10	10
Retail 2				9		20
Retail 3				9	20	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	0	0	0
Internal Capture Percentage	0%	0%	0%
External Vehicle-Trips[5]	0	0	0
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Proposed Mixed-Use Development
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Combined Retail	1.00	299	299	1.00	303	303
Restaurant	1.00	89	89	1.00	81	81
Retail 1	*1.00*	*45*	*45*	*1.00*	*49*	*49*
Retail 2	*1.00*	*98*	*98*	*1.00*	*98*	*98*
Retail 3	*1.00*	*156*	*156*	*1.00*	*156*	*156*

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail			88			
Restaurant		33				
Retail 1					10	10
Retail 2				20		20
Retail 3				31	31	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail			26			
Restaurant		150				
Retail 1					20	31
Retail 2				9		31
Retail 3				9	20	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates		
	Internal	External	Total
Combined Retail	33		
Restaurant	26		
Retail 1	*18*		
Retail 2	*30*		
Retail 3	*30*		
Total	**137**		

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates		
	Internal		
Combined Retail	26		
Restaurant	33		
Retail 1	*20*		
Retail 2	*29*		
Retail 3	*29*		
Total	**137**		

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Proposed Mixed-Use Development	**Organization:**	SE&D
Project Location:	Neptune , Monmouth County, New Jersey	**Performed By:**	NK
Scenario Description:	PRI-200142	**Date:**	11/20/2020
Analysis Year:	2023	**Checked By:**	JRC
Analysis Period:	**Saturday Peak Hour**	**Date:**	11/20/2020

Table 1-S: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
All Retail Combined	820/854/960	14,942	SF	578	292	286
Restaurant	934	3,316	SF	131	67	64
Retail 1	*820*	*8,000*	*SF*	*82*	*43*	*39*
Retail 2	*854*	*2,442*	*SF*	*219*	*110*	*109*
Retail 3	*960*	*4,500*	*SF*	*277*	*139*	*138*
				709	359	350

Table 2-S: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Combined Retail						
Restaurant						
Retail 1						
Retail 2						
Retail 3						

Table 3-S: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail						
Restaurant						
Retail 1						
Retail 2						
Retail 3						

Table 4-S: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail			19			
Restaurant		26				
Retail 1					11	11
Retail 2				13		32
Retail 3				13	34	

Table 5-S: Computations Summary

	Total	Entering	Exiting
All Person-Trips	0	0	0
Internal Capture Percentage	0%	0%	0%
External Vehicle-Trips[5]	0	0	0
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-S: Internal Trip Capture Percentages by Land Use

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

4Enter vehicle occupancy assumed in Table 1-S vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-S, 9-S (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

5Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-S.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Proposed Mixed-Use Development
Analysis Period:	**Saturday Peak Hour**

Table 7-S: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-S (D): Entering Trips			Table 7-S (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Combined Retail	1.00	292	292	1.00	286	286
Restaurant	1.00	67	67	1.00	64	64
Retail 1	*1.00*	*43*	*43*	*1.00*	*39*	*39*
Retail 2	*1.00*	*110*	*110*	*1.00*	*109*	*109*
Retail 3	*1.00*	*139*	*139*	*1.00*	*138*	*138*

Table 8-S (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail			83			
Restaurant		26				
Retail 1					11	11
Retail 2				32		32
Retail 3				40	40	

Table 8-S (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail			19			
Restaurant		34				
Retail 1					34	43
Retail 2				13		43
Retail 3				13	34	

Table 9-S (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates					
	Internal					
Combined Retail	26					
Restaurant	19					
Retail 1	*26*					
Retail 2	*45*					
Retail 3	*43*					
Total	**159**					

Table 9-S (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates					
	Internal	External	Total			
Combined Retail	19					
Restaurant	26					
Retail 1	*22*					
Retail 2	*45*					
Retail 3	*47*					
Total	**159**					

1Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-S

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

Table 7.1a Adjusted Internal Trip Capture Rates for Trip Origins within a Multi-Use Development				
Land Use Pairs		Weekday		Weekend
		AM Peak Hour	PM Peak Hour	Sat Peak Hour
From COMBINED RETAIL	To Combined Retail	0.0%	0.0%	0.0%
	To Restaurant	13.0%	29.0%	29.0%
	To Retail 1	0.0%	0.0%	0.0%
	To Retail 2	0.0%	0.0%	0.0%
	To Retail 3	0.0%	0.0%	0.0%
From RESTAURANT	To Combined Retail	14.0%	41.0%	41.0%
	To Restaurant	0.0%	0.0%	0.0%
	To Retail 1	0.0%	0.0%	0.0%
	To Retail 2	0.0%	0.0%	0.0%
	To Retail 3	0.0%	0.0%	0.0%
From RETAIL 1	To Combined Retail	0.0%	0.0%	0.0%
	To Restaurant	0.0%	0.0%	0.0%
	To Retail 1	0.0%	0.0%	0.0%
	To Retail 2	20.0%	20.0%	29.0%
	To Retail 3	20.0%	20.0%	29.0%
From RETAIL 2	To Combined Retail	0.0%	0.0%	0.0%
	To Restaurant	0.0%	0.0%	0.0%
	To Retail 1	20.0%	20.0%	29.0%
	To Retail 2	0.0%	0.0%	0.0%
	To Retail 3	20.0%	20.0%	29.0%
From RETAIL 3	To Combined Retail	0.0%	0.0%	0.0%
	To Restaurant	0.0%	0.0%	0.0%
	To Retail 1	20.0%	20.0%	29.0%
	To Retail 2	20.0%	20.0%	29.0%
	To Retail 3	0.0%	0.0%	0.0%

Table 7.2a Adjusted Internal Trip Capture Rates for Trip Destinations within a Multi-Use Development				
Land Use Pairs		Weekday		Weekend
		AM Peak Hour	PM Peak Hour	SAT Peak Hour
From COMBINED RETAIL	From Combined Retail	0.0%	0.0%	0.0%
	From Restaurant	8.0%	50.0%	50.0%
	From Retail 1	0.0%	0.0%	0.0%
	From Retail 2	0.0%	0.0%	0.0%
	From Retail 3	0.0%	0.0%	0.0%
To RESTAURANT	From Combined Retail	50.0%	29.0%	29.0%
	From Restaurant	0.0%	0.0%	0.0%
	From Retail 1	0.0%	0.0%	0.0%
	From Retail 2	0.0%	0.0%	0.0%
	From Retail 3	0.0%	0.0%	0.0%
To RETAIL 1	From Combined Retail	0.0%	0.0%	0.0%
	From Restaurant	0.0%	0.0%	0.0%
	From Retail 1	0.0%	0.0%	0.0%
	From Retail 2	20.0%	20.0%	31.0%
	From Retail 3	20.0%	20.0%	31.0%
To RETAIL 2	From Combined Retail	0.0%	0.0%	0.0%
	From Restaurant	0.0%	0.0%	0.0%
	From Retail 1	20.0%	20.0%	31.0%
	From Retail 2	0.0%	0.0%	0.0%
	From Retail 3	20.0%	20.0%	31.0%
To RETAIL 3	From Combined Retail	0.0%	0.0%	0.0%
	From Restaurant	0.0%	0.0%	0.0%
	From Retail 1	20.0%	20.0%	31.0%
	From Retail 2	20.0%	20.0%	31.0%
	From Retail 3	0.0%	0.0%	0.0%

GRAVITY MODEL SUMMARY

STONEFIELD

GRAVITY MODEL - 3 MILE RADIUS
Proposed Mixed-Use Development
Township of Neptune, Monmouth County, New Jersey

Attractor/Generator Census Tract	2010 Population	% Population Within Study Area	Study Area Population (Ai)	Roadway Distance (d)	Ai / d^2	Trip Percent (Tij)
Census Tract 8063	2,502	54%	1,343	2.8	172.23	0.60%
Census Tract 8074	3,342	100%	3,342	1.9	906.54	3.18%
Census Tract 8076 (West)	3,342	57%	1,894	0.8	2959.38	10.37%
Census Tract 8076 (East)	3,342	43%	1,448	0.8	2262.50	7.93%
Census Tract 8080.02	2,177	88%	1,926	3.5	156.32	0.55%
Census Tract 8078	4,432	100%	4,432	2.4	799.13	2.80%
Census Tract 8079	3,609	93%	3,349	3.0	369.97	1.30%
Census Tract 8066	5,561	100%	5,561	1.6	2127.34	7.45%
Census Tract 8065.03	3,885	100%	3,885	2.4	678.14	2.38%
Census Tract 8065.04	2,664	100%	2,664	1.6	1103.07	3.86%
Census Tract 8124	2,260	84%	1,907	2.8	243.47	0.85%
Census Tract 8048	9,727	10%	978	2.9	119.03	0.42%
Census Tract 9900	0	2%	0	1.8	0.00	0.00%
Census Tract 8081	4,869	100%	4,869	2.0	1217.25	4.26%
Census Tract 8085	6,516	11%	732	3.9	47.74	0.17%
Census Tract 8071	2,736	100%	2,736	1.0	2750.83	9.64%
Census Tract 8080.01	4,157	100%	4,157	4.6	192.33	0.67%
Census Tract 8073	2,975	100%	2,975	0.9	3447.48	12.08%
Census Tract 8070.04	3,091	100%	3,091	2.0	754.68	2.64%
Census Tract 8070.03	4,998	100%	4,998	1.7	1814.46	6.36%
Census Tract 8072	2,316	100%	2,316	1.3	1304.93	4.57%
Census Tract 8075	2,980	100%	2,980	1.5	1401.16	4.91%
Census Tract 8082	4,298	100%	4,298	2.6	627.46	2.20%
Census Tract 8084.02	3,605	30%	1,082	5.0	43.03	0.15%
Census Tract 8084.01	2,181	43%	939	3.6	71.75	0.25%
Census Tract 8083	1,901	100%	1,901	3.1	199.73	0.70%
Census Tract 8086	6,213	3%	197	4.9	8.05	0.03%
Census Tract 8065.02	3,518	97%	3,428	7.8	56.44	0.20%
Census Tract 8065.01	4,120	24%	1,006	3.8	70.14	0.25%
Census Tract 8064	5,041	70%	3,530	3.7	263.72	0.92%
Census Tract 8077	4,013	100%	4,013	1.3	2544.69	8.31%
					28540.75	100.00%

SUMMARY TABLE - TO

	Calculated	Assumed
From North - Asbury Ave	8.91%	9%
From South -NJ-35	32.57%	33%
From East - Asbury Ave	46.39%	46%
From West - NJ-35	12.12%	12%
	100.00%	100.00%

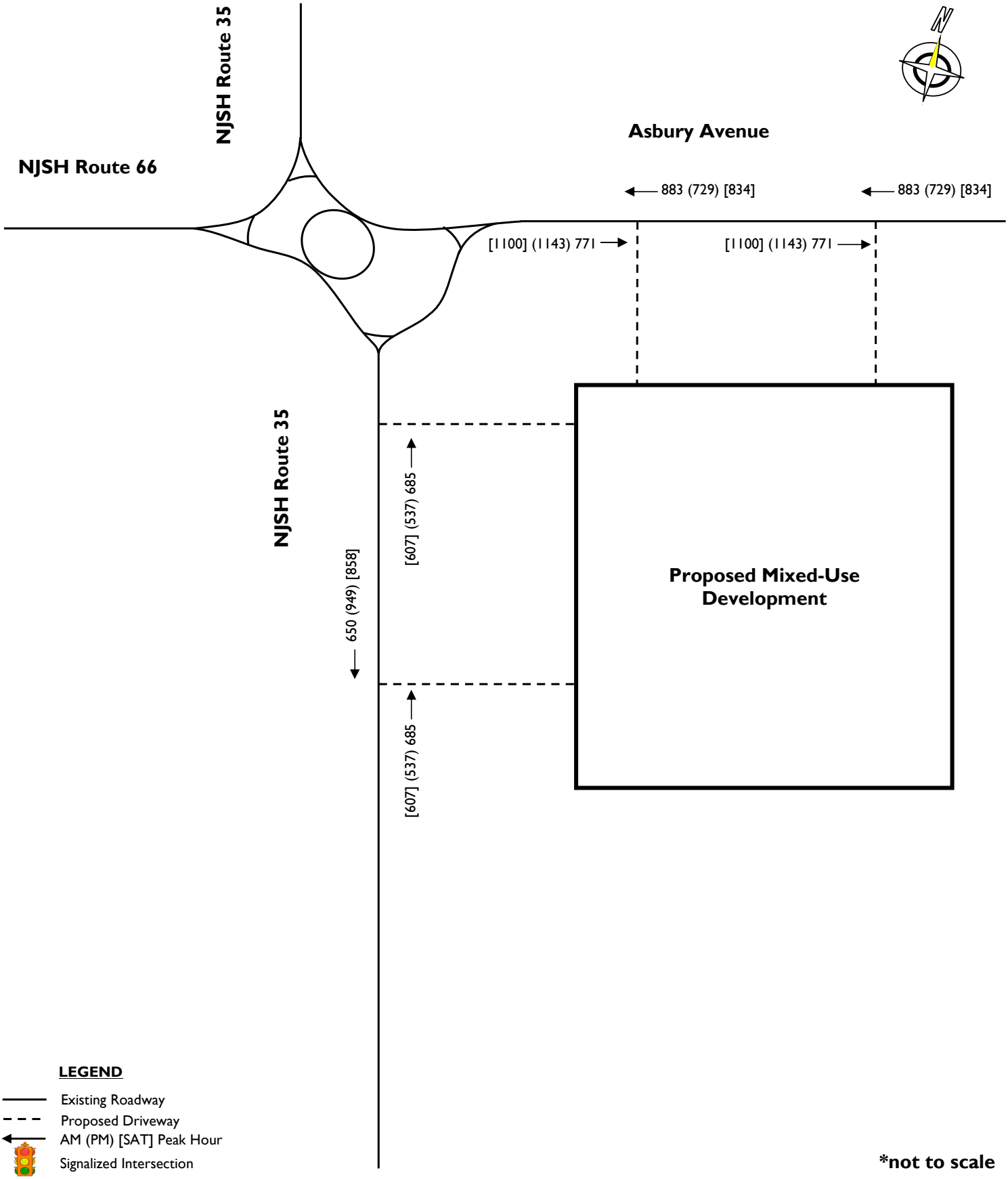
SUMMARY TABLE - FROM

	Calculated	Assumed
To North - Asbury Ave	8.91%	9%
To South - NJ-35	32.57%	33%
To East - Asbury Ave	46.39%	46%
To West - NJ-35	12.12%	12%
	100.00%	100.00%

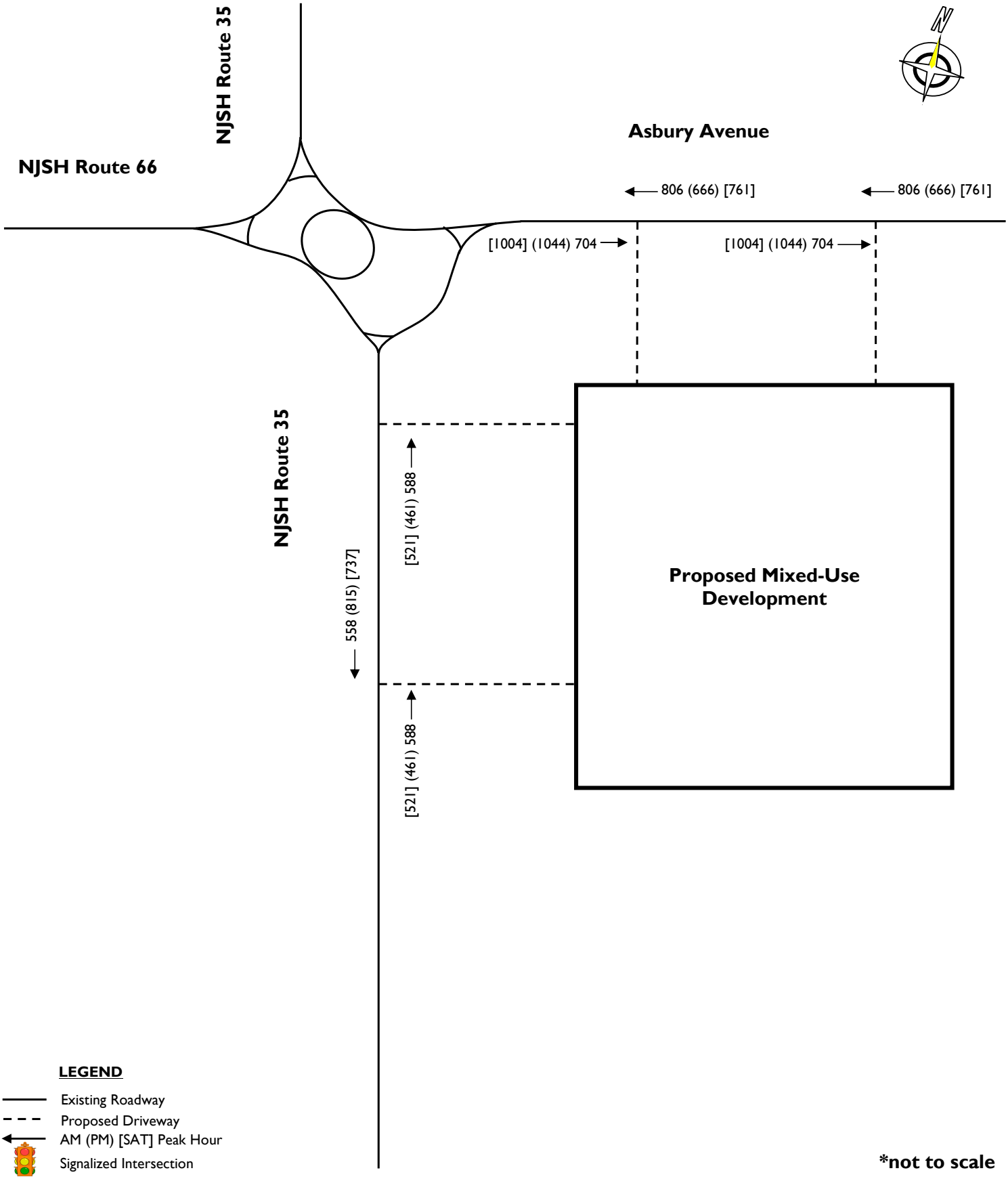
State Highway Trips	**45%**
Alternative Access	**55%**

FIGURES

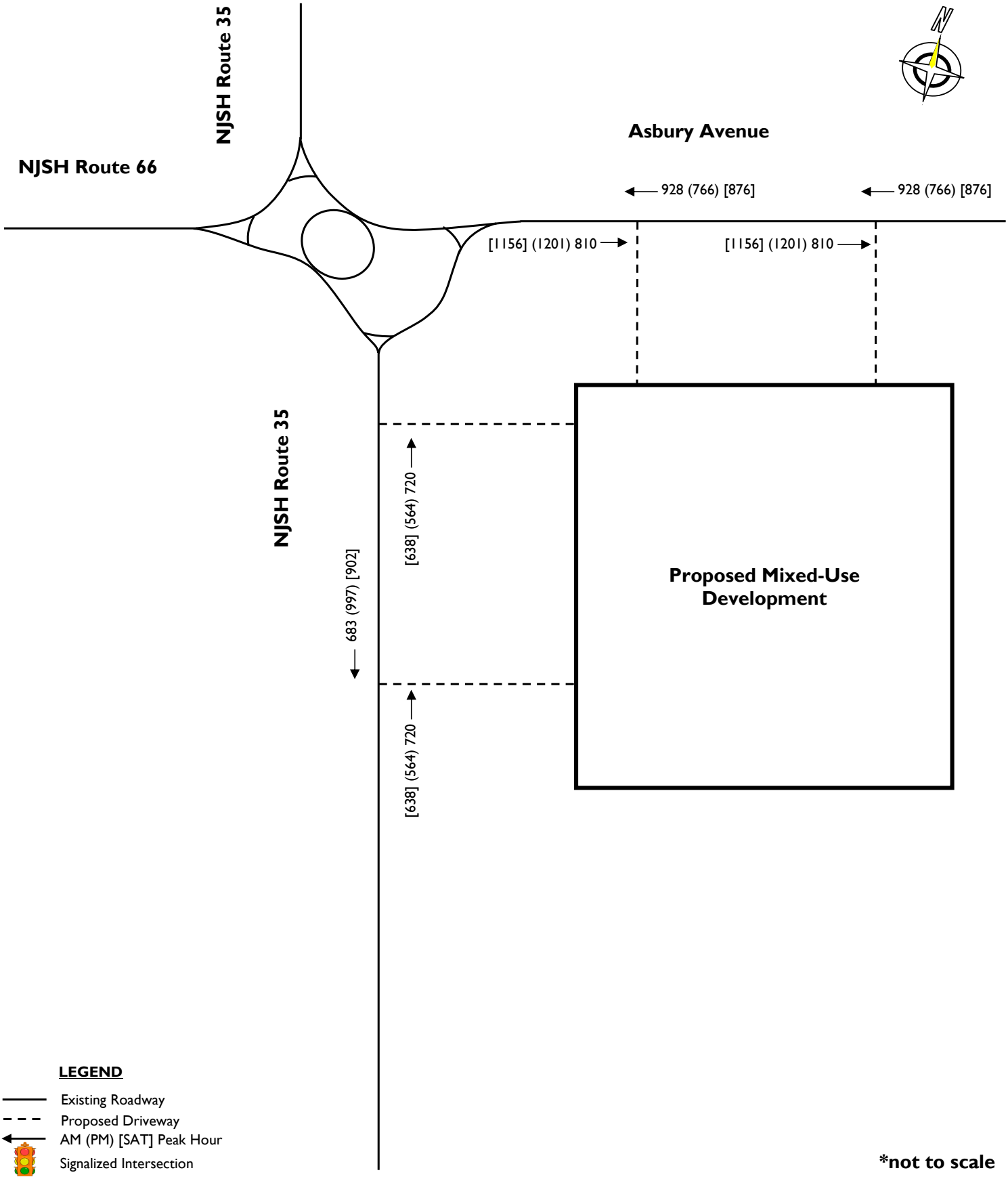
STONEFIELD	**Mixed-Use Development** **NJSH Route 35 and Asbury Avenue** **Neptune Township, Monmouth County, New Jersey** **Traffic Impact Study**	**Figure 1** **Site Location Map**



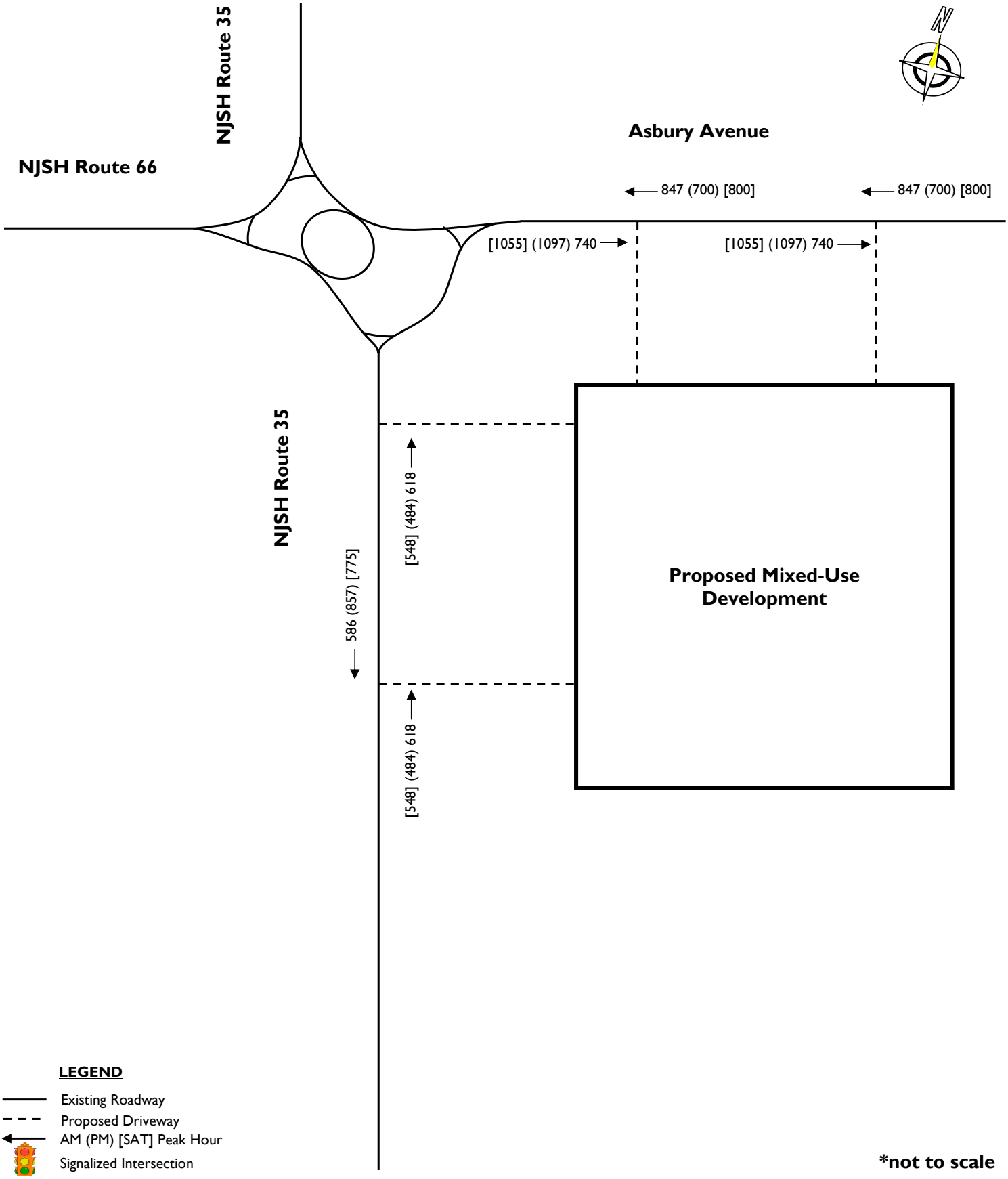
STONEFIELD	**Mixed-Use Development** **NJSH Route 35 and Asbury Avenue** **Neptune Township, Monmouth County, New Jersey** **Traffic Impact Study**	**FIGURE 2** **2019 Existing Traffic Volumes** **(Peak Summer Period)**



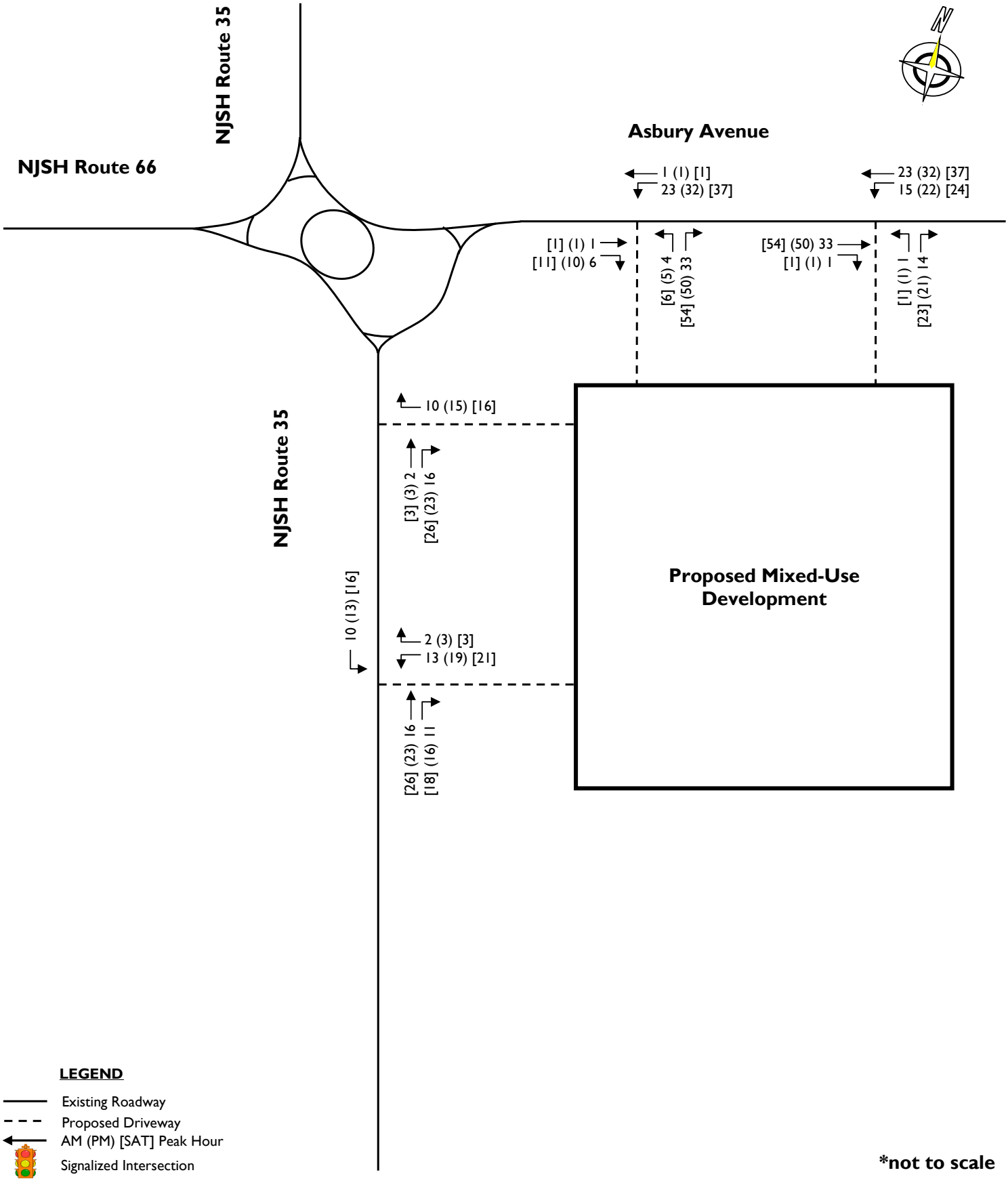
STONEFIELD	**Mixed-Use Development** **NJSH Route 35 and Asbury Avenue** **Neptune Township, Monmouth County, New Jersey** **Traffic Impact Study**	**FIGURE 3** **2019 Existing Traffic Volumes (Yearly Average)**



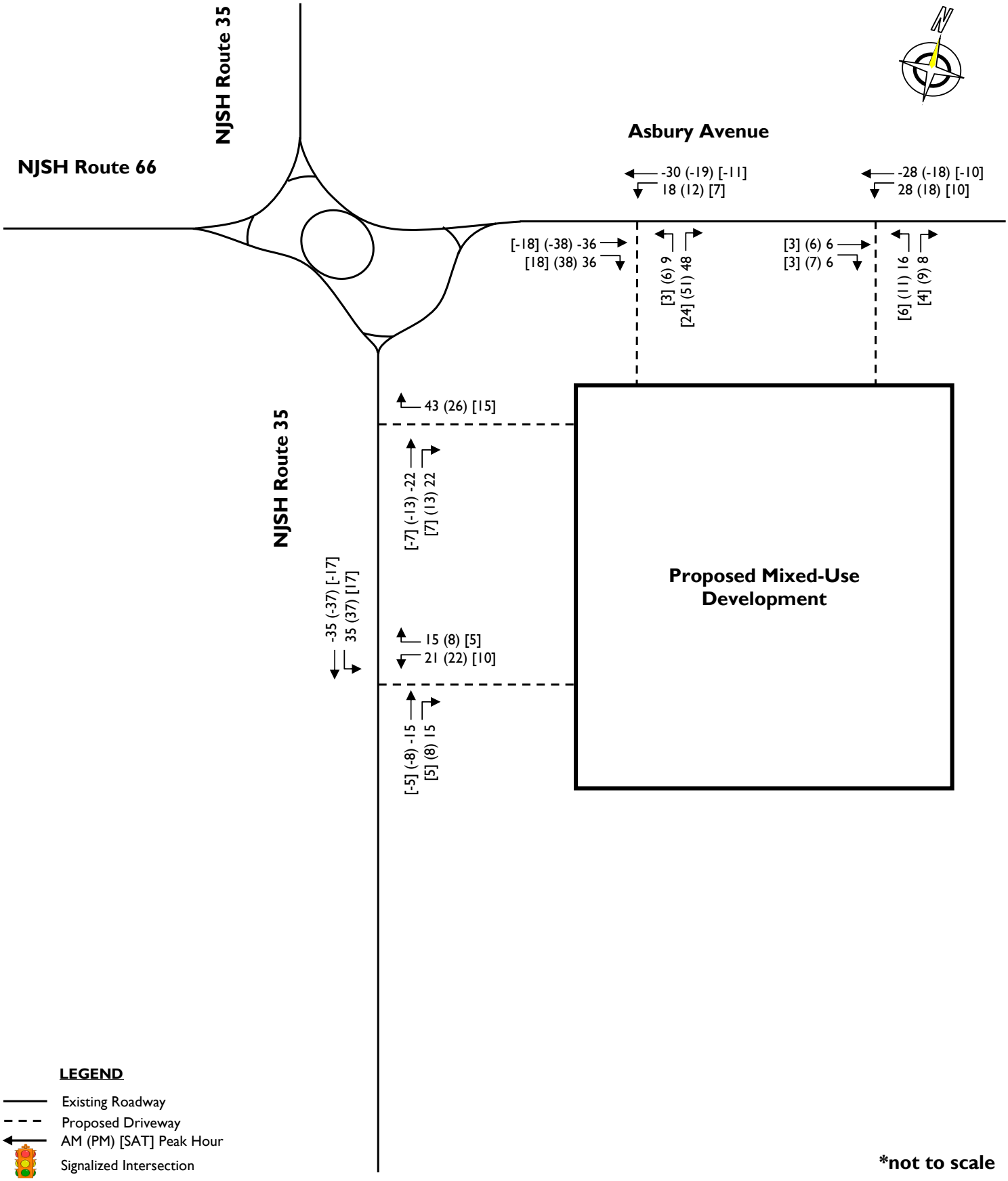
STONEFIELD	**Mixed-Use Development** **NJSH Route 35 and Asbury Avenue** **Neptune Township, Monmouth County, New Jersey** **Traffic Impact Study**	**FIGURE 4** **2023 No-Build Traffic Volumes** **(Peak Summer Period)**



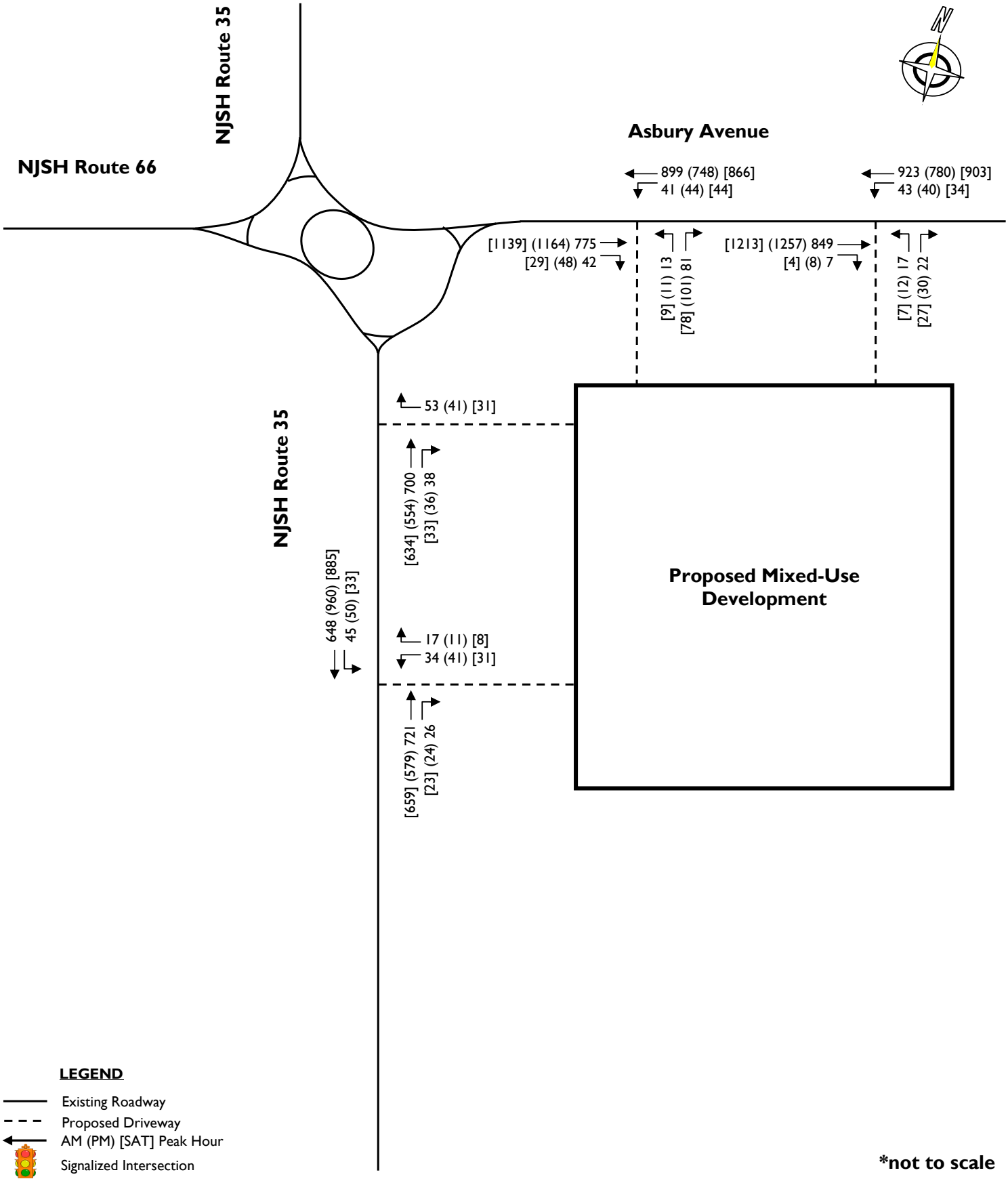
STONEFIELD	**Mixed-Use Development** **NJSH Route 35 and Asbury Avenue** **Neptune Township, Monmouth County, New Jersey** **Traffic Impact Study**	**FIGURE 5** **2023 No-Build Traffic Volumes (Yearly Average)**



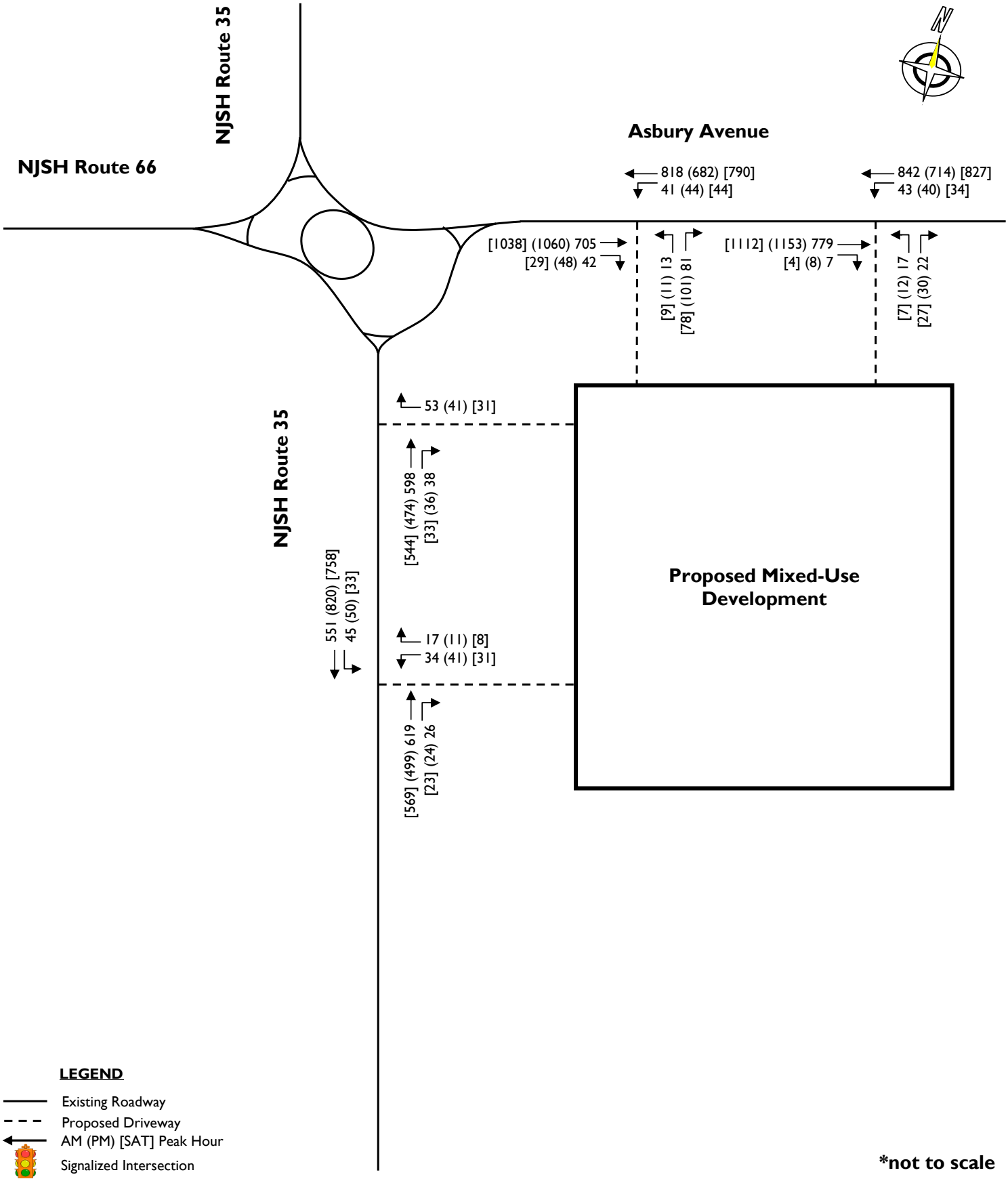
STONEFIELD	**Mixed-Use Development** **NJSH Route 35 and Asbury Avenue** **Neptune Township, Monmouth County, New Jersey** **Traffic Impact Study**	**FIGURE 6** **"New" Site-Generated Traffic Volumes**



STONEFIELD	**Mixed-Use Development** **NJSH Route 35 and Asbury Avenue** **Neptune Township, Monmouth County, New Jersey** **Traffic Impact Study**	**FIGURE 7** **"Pass-By" Site-Generated Traffic Volumes**



STONEFIELD	**Mixed-Use Development** **NJSH Route 35 and Asbury Avenue** **Neptune Township, Monmouth County, New Jersey** **Traffic Impact Study**	**FIGURE 8** **2023 Build Traffic Volumes** **(Peak Summer Period)**



STONEFIELD	**Mixed-Use Development** **NJSH Route 35 and Asbury Avenue** **Neptune Township, Monmouth County, New Jersey** **Traffic Impact Study**	**FIGURE 9** **2023 Build Traffic Volumes** **(Yearly Average)**

CAPACITY ANALYSIS DETAIL SHEETS

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	53	700	38	0	693
Future Vol, veh/h	0	53	700	38	0	693
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	86	86	86	86	86	86
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	0	62	814	44	0	806

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	836	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	5.2	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	467	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	467	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	467	-
HCM Lane V/C Ratio	-	-	0.132	-
HCM Control Delay (s)	-	-	13.9	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.5	-

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	34	17	721	26	45	648
Future Vol, veh/h	34	17	721	26	45	648
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	86	86	86	86	86	86
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	40	20	838	30	52	753

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1710	853	0	0	868	0
Stage 1	853	-	-	-	-	-
Stage 2	857	-	-	-	-	-
Critical Hdwy	5.4	5.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	162	459	-	-	785	-
Stage 1	421	-	-	-	-	-
Stage 2	419	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	144	459	-	-	785	-
Mov Cap-2 Maneuver	144	-	-	-	-	-
Stage 1	421	-	-	-	-	-
Stage 2	371	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	32.9	0	0.6
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	187	785	-
HCM Lane V/C Ratio	-	-	0.317	0.067	-
HCM Control Delay (s)	-	-	32.9	9.9	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	1.3	0.2	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	849	7	43	923	17	22
Future Vol, veh/h	849	7	43	923	17	22
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, %	2	0	0	2	0	0
Mvmt Flow	875	7	44	952	18	23

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	882	0	1919	879
Stage 1	-	-	-	-	879	-
Stage 2	-	-	-	-	1040	-
Critical Hdwy	-	-	4.1	-	5.4	5.2
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	-	-	775	-	128	446
Stage 1	-	-	-	-	409	-
Stage 2	-	-	-	-	344	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	775	-	113	446
Mov Cap-2 Maneuver	-	-	-	-	209	-
Stage 1	-	-	-	-	409	-
Stage 2	-	-	-	-	303	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	19
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	298	-	-	775	-
HCM Lane V/C Ratio	0.135	-	-	0.057	-
HCM Control Delay (s)	19	-	-	9.9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	775	42	41	899	13	81
Future Vol, veh/h	775	42	41	899	13	81
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, %	2	0	0	2	0	0
Mvmt Flow	799	43	42	927	13	84

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	842	0	1832	821
Stage 1	-	-	-	-	821	-
Stage 2	-	-	-	-	1011	-
Critical Hdwy	-	-	4.1	-	5.4	5.2
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	-	-	802	-	141	474
Stage 1	-	-	-	-	436	-
Stage 2	-	-	-	-	355	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	802	-	126	474
Mov Cap-2 Maneuver	-	-	-	-	223	-
Stage 1	-	-	-	-	436	-
Stage 2	-	-	-	-	317	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	16.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	410	-	-	802	-
HCM Lane V/C Ratio	0.236	-	-	0.053	-
HCM Control Delay (s)	16.5	-	-	9.7	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	41	554	36	0	1010
Future Vol, veh/h	0	41	554	36	0	1010
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	97	97	97	97	97	97
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	0	42	571	37	0	1041

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	590	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	5.2	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	602	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	602	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	602	-
HCM Lane V/C Ratio	-	-	0.07	-
HCM Control Delay (s)	-	-	11.4	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	11	579	24	50	960
Future Vol, veh/h	41	11	579	24	50	960
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	97	97	97	97	97	97
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	42	11	597	25	52	990

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1704	610	0	0	622	0
Stage 1	610	-	-	-	-	-
Stage 2	1094	-	-	-	-	-
Critical Hdwy	5.4	5.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	163	590	-	-	969	-
Stage 1	546	-	-	-	-	-
Stage 2	324	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	144	590	-	-	969	-
Mov Cap-2 Maneuver	144	-	-	-	-	-
Stage 1	546	-	-	-	-	-
Stage 2	285	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	35.4	0	0.4
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	171	969	-
HCM Lane V/C Ratio	-	-	0.313	0.053	-
HCM Control Delay (s)	-	-	35.4	8.9	0
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	1.3	0.2	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1257	8	40	780	12	30
Future Vol, veh/h	1257	8	40	780	12	30
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, %	2	0	0	2	0	0
Mvmt Flow	1352	9	43	839	13	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1361	0	2282	1357
Stage 1	-	-	-	-	1357	-
Stage 2	-	-	-	-	925	-
Critical Hdwy	-	-	4.1	-	5.4	5.2
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	-	-	512	-	84	269
Stage 1	-	-	-	-	242	-
Stage 2	-	-	-	-	389	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	512	-	71	269
Mov Cap-2 Maneuver	-	-	-	-	159	-
Stage 1	-	-	-	-	242	-
Stage 2	-	-	-	-	328	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	25
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	225	-	-	512	-
HCM Lane V/C Ratio	0.201	-	-	0.084	-
HCM Control Delay (s)	25	-	-	12.7	0
HCM Lane LOS	D	-	-	B	A
HCM 95th %tile Q(veh)	0.7	-	-	0.3	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1164	48	44	748	11	101
Future Vol, veh/h	1164	48	44	748	11	101
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, %	2	0	0	2	0	0
Mvmt Flow	1252	52	47	804	12	109

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1304	0	2176	1278
Stage 1	-	-	-	-	1278	-
Stage 2	-	-	-	-	898	-
Critical Hdwy	-	-	4.1	-	5.4	5.2
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	-	-	538	-	95	292
Stage 1	-	-	-	-	264	-
Stage 2	-	-	-	-	401	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	538	-	80	292
Mov Cap-2 Maneuver	-	-	-	-	171	-
Stage 1	-	-	-	-	264	-
Stage 2	-	-	-	-	338	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	28.2
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	273	-	-	538	-
HCM Lane V/C Ratio	0.441	-	-	0.088	-
HCM Control Delay (s)	28.2	-	-	12.3	0
HCM Lane LOS	D	-	-	B	A
HCM 95th %tile Q(veh)	2.1	-	-	0.3	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	31	634	33	0	918
Future Vol, veh/h	0	31	634	33	0	918
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	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	0	32	660	34	0	956

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	677	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	5.2	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	551	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	551	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	551	-
HCM Lane V/C Ratio	-	-	0.059	-
HCM Control Delay (s)	-	-	11.9	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	31	8	659	23	33	885
Future Vol, veh/h	31	8	659	23	33	885
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	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	32	8	686	24	34	922

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1688	698	0	0	710	0
Stage 1	698	-	-	-	-	-
Stage 2	990	-	-	-	-	-
Critical Hdwy	5.4	5.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	166	539	-	-	899	-
Stage 1	497	-	-	-	-	-
Stage 2	363	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	153	539	-	-	899	-
Mov Cap-2 Maneuver	153	-	-	-	-	-
Stage 1	497	-	-	-	-	-
Stage 2	335	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	30.9	0	0.3
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	179	899	-
HCM Lane V/C Ratio	-	-	0.227	0.038	-
HCM Control Delay (s)	-	-	30.9	9.2	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0.1	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1213	4	34	903	7	27
Future Vol, veh/h	1213	4	34	903	7	27
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	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	1318	4	37	982	8	29

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1322	0	2376	1320
Stage 1	-	-	-	-	1320	-
Stage 2	-	-	-	-	1056	-
Critical Hdwy	-	-	4.1	-	5.4	5.2
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	-	-	529	-	75	279
Stage 1	-	-	-	-	252	-
Stage 2	-	-	-	-	338	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	529	-	63	279
Mov Cap-2 Maneuver	-	-	-	-	151	-
Stage 1	-	-	-	-	252	-
Stage 2	-	-	-	-	286	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	22.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	238	-	-	529	-
HCM Lane V/C Ratio	0.155	-	-	0.07	-
HCM Control Delay (s)	22.9	-	-	12.3	0
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1139	29	44	866	9	78
Future Vol, veh/h	1139	29	44	866	9	78
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	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	1238	32	48	941	10	85

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1270	0	2291	1254
Stage 1	-	-	-	-	1254	-
Stage 2	-	-	-	-	1037	-
Critical Hdwy	-	-	4.1	-	5.4	5.2
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	-	-	554	-	83	300
Stage 1	-	-	-	-	271	-
Stage 2	-	-	-	-	345	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	554	-	68	300
Mov Cap-2 Maneuver	-	-	-	-	157	-
Stage 1	-	-	-	-	271	-
Stage 2	-	-	-	-	282	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	24.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	274	-	-	554	-
HCM Lane V/C Ratio	0.345	-	-	0.086	-
HCM Control Delay (s)	24.9	-	-	12.1	0
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	1.5	-	-	0.3	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	53	598	38	0	596
Future Vol, veh/h	0	53	598	38	0	596
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	86	86	86	86	86	86
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	0	62	695	44	0	693

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	717	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	5.2	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	528	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	528	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	528	-
HCM Lane V/C Ratio	-	-	0.117	-
HCM Control Delay (s)	-	-	12.7	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.4	-

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	34	17	619	26	45	551
Future Vol, veh/h	34	17	619	26	45	551
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	86	86	86	86	86	86
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	40	20	720	30	52	641

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1480	735	0	0	750	0
Stage 1	735	-	-	-	-	-
Stage 2	745	-	-	-	-	-
Critical Hdwy	5.4	5.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	211	519	-	-	868	-
Stage 1	478	-	-	-	-	-
Stage 2	473	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	191	519	-	-	868	-
Mov Cap-2 Maneuver	191	-	-	-	-	-
Stage 1	478	-	-	-	-	-
Stage 2	429	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24.6	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	242	868	-
HCM Lane V/C Ratio	-	-	0.245	0.06	-
HCM Control Delay (s)	-	-	24.6	9.4	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0.2	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	779	7	43	842	17	22
Future Vol, veh/h	779	7	43	842	17	22
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, %	2	0	0	2	0	0
Mvmt Flow	803	7	44	868	18	23

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	810	0	1763	807
Stage 1	-	-	-	-	807	-
Stage 2	-	-	-	-	956	-
Critical Hdwy	-	-	4.1	-	5.4	5.2
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	-	-	825	-	153	481
Stage 1	-	-	-	-	442	-
Stage 2	-	-	-	-	376	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	825	-	137	481
Mov Cap-2 Maneuver	-	-	-	-	235	-
Stage 1	-	-	-	-	442	-
Stage 2	-	-	-	-	337	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	17.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	330	-	-	825	-
HCM Lane V/C Ratio	0.122	-	-	0.054	-
HCM Control Delay (s)	17.4	-	-	9.6	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	705	42	41	818	13	81
Future Vol, veh/h	705	42	41	818	13	81
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, %	2	0	0	2	0	0
Mvmt Flow	727	43	42	843	13	84

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	770	0	1676	749
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	927	-
Critical Hdwy	-	-	4.1	-	5.4	5.2
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	-	-	854	-	169	511
Stage 1	-	-	-	-	471	-
Stage 2	-	-	-	-	389	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	854	-	153	511
Mov Cap-2 Maneuver	-	-	-	-	252	-
Stage 1	-	-	-	-	471	-
Stage 2	-	-	-	-	353	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	15.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	447	-	-	854	-
HCM Lane V/C Ratio	0.217	-	-	0.049	-
HCM Control Delay (s)	15.3	-	-	9.4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	41	474	36	0	870
Future Vol, veh/h	0	41	474	36	0	870
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	97	97	97	97	97	97
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	0	42	489	37	0	897

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	508	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	5.2	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	655	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	655	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	655	-
HCM Lane V/C Ratio	-	-	0.065	-
HCM Control Delay (s)	-	-	10.9	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	11	499	24	50	820
Future Vol, veh/h	41	11	499	24	50	820
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	97	97	97	97	97	97
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	42	11	514	25	52	845

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1476	527	0	0	539	0
Stage 1	527	-	-	-	-	-
Stage 2	949	-	-	-	-	-
Critical Hdwy	5.4	5.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	212	643	-	-	1040	-
Stage 1	596	-	-	-	-	-
Stage 2	379	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	192	643	-	-	1040	-
Mov Cap-2 Maneuver	192	-	-	-	-	-
Stage 1	596	-	-	-	-	-
Stage 2	343	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.9	0	0.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	225	1040	-
HCM Lane V/C Ratio	-	-	0.238	0.05	-
HCM Control Delay (s)	-	-	25.9	8.6	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0.2	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1153	8	40	714	12	30
Future Vol, veh/h	1153	8	40	714	12	30
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, %	2	0	0	2	0	0
Mvmt Flow	1240	9	43	768	13	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1249	0	2099	1245
Stage 1	-	-	-	-	1245	-
Stage 2	-	-	-	-	854	-
Critical Hdwy	-	-	4.1	-	5.4	5.2
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	-	-	564	-	104	303
Stage 1	-	-	-	-	274	-
Stage 2	-	-	-	-	421	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	564	-	90	303
Mov Cap-2 Maneuver	-	-	-	-	183	-
Stage 1	-	-	-	-	274	-
Stage 2	-	-	-	-	365	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	22.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	255	-	-	564	-
HCM Lane V/C Ratio	0.177	-	-	0.076	-
HCM Control Delay (s)	22.1	-	-	11.9	0
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.6	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1060	48	44	682	11	101
Future Vol, veh/h	1060	48	44	682	11	101
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, %	2	0	0	2	0	0
Mvmt Flow	1140	52	47	733	12	109

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1192	0	1993	1166
Stage 1	-	-	-	-	1166	-
Stage 2	-	-	-	-	827	-
Critical Hdwy	-	-	4.1	-	5.4	5.2
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	-	-	593	-	117	330
Stage 1	-	-	-	-	299	-
Stage 2	-	-	-	-	433	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	593	-	101	330
Mov Cap-2 Maneuver	-	-	-	-	197	-
Stage 1	-	-	-	-	299	-
Stage 2	-	-	-	-	375	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	23.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	309	-	-	593	-
HCM Lane V/C Ratio	0.39	-	-	0.08	-
HCM Control Delay (s)	23.9	-	-	11.6	0
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	1.8	-	-	0.3	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	31	544	33	0	791
Future Vol, veh/h	0	31	544	33	0	791
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	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	0	32	567	34	0	824

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	584	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	5.2	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	606	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	606	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	606	-
HCM Lane V/C Ratio	-	-	0.053	-
HCM Control Delay (s)	-	-	11.3	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	31	8	569	23	33	758
Future Vol, veh/h	31	8	569	23	33	758
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	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	32	8	593	24	34	790

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1463	605	0	0	617	0
Stage 1	605	-	-	-	-	-
Stage 2	858	-	-	-	-	-
Critical Hdwy	5.4	5.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	215	593	-	-	973	-
Stage 1	549	-	-	-	-	-
Stage 2	419	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	202	593	-	-	973	-
Mov Cap-2 Maneuver	202	-	-	-	-	-
Stage 1	549	-	-	-	-	-
Stage 2	393	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.6	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	234	973	-
HCM Lane V/C Ratio	-	-	0.174	0.035	-
HCM Control Delay (s)	-	-	23.6	8.8	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.1	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1112	4	34	827	7	27
Future Vol, veh/h	1112	4	34	827	7	27
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	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	1209	4	37	899	8	29

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1213	0	2184	1211
Stage 1	-	-	-	-	1211	-
Stage 2	-	-	-	-	973	-
Critical Hdwy	-	-	4.1	-	5.4	5.2
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	-	-	582	-	94	314
Stage 1	-	-	-	-	285	-
Stage 2	-	-	-	-	370	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	582	-	82	314
Mov Cap-2 Maneuver	-	-	-	-	175	-
Stage 1	-	-	-	-	285	-
Stage 2	-	-	-	-	323	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	20.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	270	-	-	582	-
HCM Lane V/C Ratio	0.137	-	-	0.063	-
HCM Control Delay (s)	20.4	-	-	11.6	0
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1038	29	44	790	9	78
Future Vol, veh/h	1038	29	44	790	9	78
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	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	1128	32	48	859	10	85

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1160	0	2099	1144
Stage 1	-	-	-	-	1144	-
Stage 2	-	-	-	-	955	-
Critical Hdwy	-	-	4.1	-	5.4	5.2
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	-	-	610	-	104	337
Stage 1	-	-	-	-	306	-
Stage 2	-	-	-	-	377	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	610	-	88	337
Mov Cap-2 Maneuver	-	-	-	-	183	-
Stage 1	-	-	-	-	306	-
Stage 2	-	-	-	-	320	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	21.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	310	-	-	610	-
HCM Lane V/C Ratio	0.305	-	-	0.078	-
HCM Control Delay (s)	21.6	-	-	11.4	0
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	1.3	-	-	0.3	-