STONEFIELD

October 28, 2022

Planning Board
City of Jersey City
280 Grove Street
Jersey City, NJ 07302

RE: Traffic & Parking Assessment Letter Report
Proposed Multi-Family Residential Development
101 Storms Avenue
Block 15003, Lot 17
City of Jersey City, Hudson County, New Jersey
SE&D Job No. NYC-220156

Dear Board Members:

Stonefield Engineering and Design, LLC ("Stonefield") has prepared this analysis to examine the potential traffic and parking impacts of the proposed multi-family residential development on the adjacent roadway network. The subject property is located at the northwesterly quadrant of the intersection of Monticello Avenue and Storms Avenue in the City of Jersey City, Hudson County, New Jersey. The subject property is designated as Block 15003, Lot 17 as depicted on the City of Jersey City Tax Map. The site has approximately 25 feet of frontage along Storms Avenue. The existing site is vacant and vehicular access is not provided. Under the proposed development program, a multi-family residential development consisting of 14 residential dwelling units would be constructed. Access is proposed via two (2) pedestrian access points along Storms Avenue.

2022 Existing Conditions

The subject property is located at the northwesterly quadrant of the intersection of Monticello Avenue and Storms Avenue in the City of Jersey City, Hudson County, New Jersey. The subject property is designated as Block 15003, Lot 17 as depicted on the City of Jersey City Tax Map. The site has approximately 25 feet of frontage along Storms Avenue. Land uses in the area are a mix of residential, commercial, and retail.

Monticello Avenue is classified as an Urban Major Collector roadway with a general east-west orientation along the site frontage, and is under the jurisdiction of the City of Jersey City. Along the site frontage, the roadway provides one (1) lane of travel in each direction and has a posted speed limit of 25 mph. Curb and sidewalk are provided along both sides of the roadway and shoulders are not provided. On-street parking is permitted with no parking restrictions in effect on Tuesday, Thursday, and Saturday from 8:00 a.m. to 10:00 a.m. along the northerly side of the roadway and on Monday, Wednesday, and Friday from 8:00 a.m. to 10:00 a.m. along the southerly side of the roadway. Monticello Avenue provides north-south mobility throughout the City of Jersey City for a mix of residential, retail, institutional, and commercial uses along its length.

Storms Avenue is classified as a local roadway with a general north-south orientation, and is under the jurisdiction of the City of Jersey City. Along the site frontage, the roadway provides one (1) lane of travel in the southerly direction and has a posted speed limit of 25 mph. Curb and sidewalk are provided along both sides of the roadway and shoulders are not provided. On-street parking is permitted with no parking restrictions in effect on Tuesday and Friday from 10:00 a.m. to 12:00 p.m. (noon) along the easterly side of the roadway and on Monday and Thursday from 10:00 a.m. to 12:00 p.m. (noon) along the westerly side of the roadway. Storms Avenue provides north-south mobility throughout the City of Jersey City for a mix of residential and retail uses along its length.

Monticello Avenue and Storms Avenue intersect to form an unsignalized four (4)-leg intersection with the northbound approach of Storms Avenue operating under stop control. The eastbound approach of Monticello Avenue provides one (1) shared through/right-turn lane and the westbound approach of Monticello Avenue provides one (1) shared left-turn/through lane. The northbound approach of Storms Avenue provides one (1) full-movement lane. Crosswalks are provided across each leg of the intersection

The subject site is located within 0.2 miles (4-minute walk) from bus stops that service two (2) NJ Transit bus routes, with the nearest stop located along Fairmount Avenue. NJ Transit Bus Routes 80 and 87 provide service to Journal Square Transportation Center, Exchange Place, and the Hoboken PATH Station, and various points of interest throughout Hudson County. The non-vehicular transportation modes available in the general vicinity of the subject site are summarized on **Table 1**.

TABLE 1 – MULTI-MODAL TRANSPORTATION OPTIONS

Travel Mode	Proximity to Site	Destination(s)
NJ Transit Bus Route 87	377 feet	Journal Square Transportation Center, Summit Avenue, Bergen Avenue, Fairmount Avenue, Monticello Avenue, Hoboken PATH Station
NJ Transit Bus Route 80	0.2 miles	Journal Square Transportation Center, West Side Avenue, Newark Avenue, Bergen Avenue, Gates Avenue, Exchange Place

2022 Existing Traffic Volumes

Turning movement counts were collected during the typical weekday morning and weekday evening time periods to evaluate existing traffic conditions and identify the specific hours when traffic activity on the adjacent roadways is at a maximum and could be potentially impacted by the development of the site. Turning movement counts were collected at the intersection of Monticello Avenue and Storms Avenue on Tuesday, September 20, 2022, from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 7:00 p.m.

The study time periods were chosen as they are representative of the peak periods of both the adjacent roadway network and the proposed development. The traffic volume data was collected and analyzed to identify the design peak hour in accordance with HCM and ITE guidelines. Based on the review of the count data the weekday morning peak hour occurred from 8:00 a.m. to 9:00 a.m. and the weekday evening peak hour occurred from 4:00 p.m. to 5:00 p.m. The 2022 Existing weekday morning and weekday evening peak hour vehicular volumes are summarized on appended **Figure 2A,** and the 2022 Existing weekday morning and weekday peak hour pedestrian volumes are summarized on appended **Figure 2B**.

2022 Existing LOS/Capacity Analysis

A Level of Service and Volume/Capacity analysis was conducted for the 2022 Existing Condition during the weekday morning and weekday evening peak hours at the study intersection. The turning movements at the unsignalized intersection of Monticello Avenue and Storms Avenue are calculated to operate at Level of Service B or better during the weekday morning and weekday evening peak hours.

Motor Vehicle Collision Analysis

In order to assess the safety of the study network, five (5) years of motor vehicle collision data were obtained from the New Jersey Department of Transportation's (NJDOT) Safety Voyager data base. The study time period spans from January 2017 to December 2021. **Table 2** provides a summary of the manner and severity of the motor vehicle collisions reported at or near the intersections along the study roadway network.

TABLE 2 – MOTOR VEHICLE COLLISION SUMMARY

Intersection/Corridor	Collision Type	Number of Collisions	Collisions Resulting in Injury	Collisions Resulting in Fatality
Monticello Avenue & Storms Avenue	Right Angle	2	1	0
	Collision with Parked Car	6	0	0
	Sideswipe	3	0	0
	Backing	2	0	0
	Rear End	2	0	0
	Collision with Fixed Object	1	0	0
	Collision with Pedestrian	2	2	0
	Total	**18**	**3**	**0**
Monticello Avenue Between Storms Avenue & Orchard Street	Sideswipe	1	1	0
	Collision with Parked Car	3	0	0
	Backing	1	0	0
	Total	**5**	**1**	**0**
Storms Avenue & Nevin Street	Collision with Parked Car	2	0	0
	Right Angle	1	0	0
	Total	**3**	**0**	**0**
Fairmount Avenue & Monticello Avenue	Sideswipe	4	2	0
	Left Turn / U-Turn	1	1	0
	Collision with Pedestrian	1	1	0
	Rear End	3	1	0
	Collision with Parked Car	2	0	0
	Right Angle	1	0	0
	Total	**12**	**5**	**0**
	Network Total	**38**	**9**	**0**

As shown in **Table 2**, a total of 38 collisions were reported at the study network over the 60-month period; this equates to approximately 0.63 collisions every month. It is important to note that zero (0) fatalities occurred as a result of the reported motor vehicle collisions at the study intersections and corridor. Based on historical data published by NJDOT and the existing traffic volumes at the study intersection, the intersection of Monticello Avenue and Storms Avenue experienced approximately 2.45 million entering vehicles over the 5-year study period and has a calculated collision rate of 0.26 collisions per million entering vehicles. The proposed development is not anticipated to have an adverse impact on the motor vehicle collision rates of the study roadway network.

Background Growth

The 2022 Existing Condition traffic and pedestrian volume data was grown to a future horizon year of 2024, which is a conservative estimate for when the proposed multi-family residential development is expected to be fully constructed. In accordance with industry guidelines, the existing traffic and pedestrian volumes at the study intersections were increased by 1.50% annually for two (2) years to generate the 2024 Base Traffic Volumes and 2024 Base Pedestrian Volumes. These volumes are summarized on appended **Figures 3A** and **3B**. The 1.50% background growth rate was obtained from the New Jersey Department of Transportation (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 on the Jersey City Planning Board meeting minutes, the following development is anticipated to impact traffic volumes within the study area:

- 669 & 665-667 Grand Street Mixed-Use Development – 23 residential dwelling units; 4,136 SF of commercial space; ground floor parking consisting of 6 standard parking spaces and 1 ADA-compliant parking space

Appended **Figure 4** illustrates the site-generated traffic associated with the proposed mixed-use development project assigned to the study area network.

2024 No-Build Traffic Volumes

The site-generated trips associated with the proposed mixed-use development project were added to the 2024 Base Traffic and Pedestrian Volumes to calculate the 2024 No-Build Traffic and Pedestrian Volumes for the weekday morning and weekday evening peak hours. The 2024 No-Build weekday morning and weekday evening peak hour vehicular volumes are summarized on appended **Figure 5A,** and the 2024 No-Build weekday morning and weekday peak hour pedestrian volumes are summarized on appended **Figure 5B**.

2024 No-Build LOS/Capacity Analysis

A Level of Service and Volume/Capacity analysis was also conducted for the 2024 No-Build Condition during the weekday morning and weekday evening peak hours at the study intersection. The turning movements at the unsignalized intersection of Monticello Avenue and Storms Avenue are calculated to operate generally consistent with the findings of the Existing Condition during the weekday morning and weekday evening peak hours.

Trip Generation

Trip generation projections for the proposed multi-family residential development were prepared utilizing the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition. Trip generation rates associated with Land Use 221 "Multifamily Housing (Mid-Rise)" were cited for the five (5)-floor multifamily residential development consisting of 14 residential dwelling units. **Table 2** provides the weekday morning and weekday evening peak hour trip generation volumes associated with the proposed development.

TABLE 2 – PROPOSED TRIP GENERATION

		Weekday Morning Peak Hour			Weekday Evening Peak Hour		
Land Use	**Modal Type**	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**
14 Unit Multifamily Housing (Mid-Rise) *ITE Land Use 221*	Vehicle	1	4	5	3	2	5
	Walk	0	1	1	0	1	1
	Bicycle	0	0	0	0	0	0
	Total	**1**	**5**	**6**	**3**	**3**	**6**

The proposed development is expected to generate six (6) new trips (five (5) of which would be vehicle trips) during the weekday morning and weekday evening peak hours. Based on Transportation Impact Analysis for Site Development published by ITE, a trip increase of less than 100 vehicle trips would likely not change the

level of service of the adjacent roadway system or appreciably increase the volume-to-capacity ratio of an intersection approach. As such, the proposed development is not anticipated to significantly impact the operations of the adjacent roadway network.

Trip Assignment/Distribution

The trips generated by the proposed development were distributed according to the existing travel pattern along the adjacent roadways and the access management plan of the site. **Table 3** shows a summary of the trip distribution, and the "New" Site-Generated Traffic Volumes are illustrated on **Figure 6A**, and the "New: Site-Generated Pedestrian Volumes are illustrated on **Figure 6B**.

TABLE 3 – TRIP DISTRIBUTION

Direction	Percentage
To / From Eastbound via Monticello Avenue	55%
To / From Westbound via Monticello Avenue	30%
To / From Southbound via Storms Avenue	15%

2024 Build LOS/Capacity Analysis

The site-generated trips were added to the 2024 No-Build Traffic and Pedestrian Volumes to calculate the 2024 Build Traffic and Pedestrian Volumes and are shown on appended **Figures 7A** and **7B**. A Level of Service and Volume/Capacity analysis was also conducted for the 2024 Build Condition during the weekday morning and weekday evening peak hours at the study intersection. **Tables 4** and **5** compare the Existing, No-Build, and Build Conditions Level of Service and delay values.

Comparative Level of Service (Delay) Tables

MONTICELLO AVENUE & STORMS AVENUE
EB (Eastbound) and WB (Westbound) approaches are the Monticello Avenue approaches
NB (Northbound) and SB (Southbound) approaches are the Storms Avenue approaches
X (n) = Level of Service (seconds of delay)

TABLE 4 – WEEKDAY MORNING PEAK HOUR

Lane Group	2022 Existing	2024 No-Build	2024 Build
WB Left	A (8.6)	A (8.7)	A (8.7)
SB Left/Through/Right	B (13.2)	B (13.5)	B (14.2)

TABLE 5 – WEEKDAY EVENING PEAK HOUR

Lane Group	2022 Existing	2024 No-Build	2024 Build
WB Left	A (8.0)	A (8.0)	A (8.0)
SB Left/Through/Right	B (13.4)	B (13.8)	B (14.1)

Site Circulation/Parking Supply

A review was conducted of the proposed multi-family residential development using the Site Plan prepared by our office, dated October 28, 2022. In completing this review, particular attention was focused on the site access, circulation, and parking supply.

Under the proposed development program, a multi-family residential development consisting of 14 residential dwelling units would be constructed. Access is proposed via two (2) pedestrian access points along Storms Avenue. An indoor bicycle rack consisting of eight (8) bicycle spaces is proposed to be located within the southeasterly portion of the site.

Regarding the parking requirements for the proposed development, the City of Jersey City Ordinance requires 0.5 indoor bicycle spaces per residential dwelling unit for multi-family residential developments, and off-street parking is not required for lots less than five thousand (5,000) square feet which are not located on Kennedy Boulevard. For the proposed multi-family residential development located on Storms Avenue consisting of 14 residential dwelling units and a 2,811.1-square-foot lot, this equates to seven (7) indoor bicycle spaces and zero (0) required parking spaces. The site would provide eight (8) indoor bicycle spaces and zero (0) parking spaces, which meets the parking requirement and would be sufficient to support this project's parking demand.

Jersey City Vision Zero

Jersey City's Vision Zero Action Plan, dated February 2019, was developed with the goal of achieving zero traffic deaths and serious injuries through all city transportation plans, policies, programs, and projects. The Bicycle Master Plan, Pedestrian Enhancement Plan, and School Travel Plan described herein were developed in direct support of the Vision Zero Initiative. The project will provide ADA-compliant sidewalks and curb ramps throughout the site to promote safe circulation for pedestrians. All existing pedestrian facilities along the Storms Avenue frontage will be maintained.

Jersey City Bike Master Plan

The Jersey City Bike Master Plan, dated September 2019, is designed to promote the goal of making Jersey City a place where cycling is a viable and enjoyable transportation option. The development will provide ADA-compliant curb ramps and sidewalks to connect to the existing infrastructure along the Storms Avenue site frontage. Bicycle parking will be provided internal to the building at the southeasterly portion of the site and can hold up to eight (8) bicycles. The development is conveniently located within 400 feet of the protected bike lane along Bergen Street, the neighborhood greenway along Storms Avenue, and the shared street along Monticello Avenue. Exhibit **I** shows the Jersey City Bike Master Plan Map proximate to the subject site, detailing the existing and planned bicycle facilities in the site vicinity.

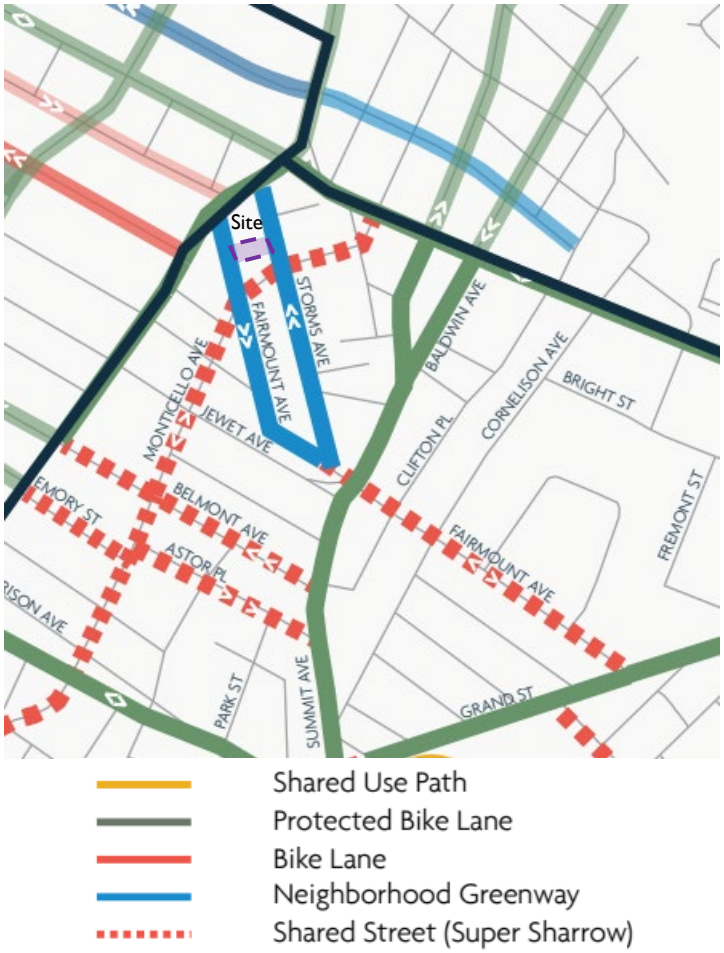


Exhibit 1. Jersey City Bike Master Plan Map proximate to subject site

Jersey City Pedestrian Enhancement Plan

The Pedestrian Enhancement Plan, dated May 2018, has been developed by Jersey City to prioritize the pedestrian experience with improvements to safety and aesthetics to foster active public places. It is important to note that as part of the proposed development plan, new ADA-compliant sidewalk would be constructed throughout the site for pedestrian circulation. Additionally, all existing pedestrian facilities along the Storms Avenue frontage will be maintained.

Jersey City School Travel Plan

It is important to note that the closest schools to the subject site are located to the north on Montgomery Street and to the west near the Lincoln Park neighborhood. There is an existing network of crosswalks and sidewalks that provide access from the subject site to Hudson Catholic Regional High School to the north of the site and Joseph H. Brensinger No. 17 Elementary School to the south of the site. It should be noted that the site is located in Walking Audit #3 on the School Travel Plan.

Conclusions

This report was prepared to examine the potential traffic impact of the proposed multi-family 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 site driveways and on-site layout have been designed to provide for effective access to and from the subject property. Based on industry data and local characteristics of the site and surrounding area, the parking supply would be sufficient to support this project.

Please do not hesitate to contact our office if there are any questions.

Best regards,

Matthew J. Seckler, PE, PP, PTOE
Stonefield Engineering and Design, LLC

John R. Corak, PE
Stonefield Engineering and Design, LLC

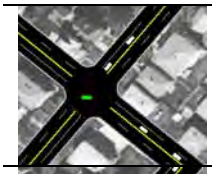
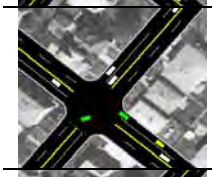
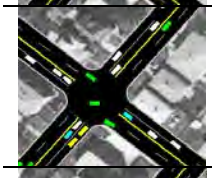
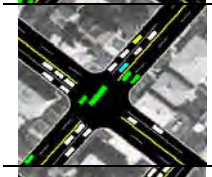
TECHNICAL APPENDIX

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

TURNING MOVEMENT COUNT DATA

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Intersection of Monticello Avenue (E/W)
and Storms Avenue (N/S)
Jersey City, Hudson County, New Jersey
Tuesday, September 20, 2022

File Name : NYC-220156
Site Code : 00220156
Start Date : 9/20/2022
Page No : 1

Groups Printed- Auto - HV - B/SB

	Monticello Avenue Eastbound				Monticello Avenue Westbound				Storms Avenue Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	52	0	52	5	14	0	19	9	5	6	20	91
07:15 AM	0	61	4	65	0	24	0	24	3	2	10	15	104
07:30 AM	0	94	1	95	5	14	0	19	5	4	7	16	130
07:45 AM	0	123	2	125	1	25	0	26	5	6	8	19	170
Total	0	330	7	337	11	77	0	88	22	17	31	70	495
08:00 AM	0	148	1	149	4	39	0	43	5	1	8	14	206
08:15 AM	0	123	2	125	2	41	0	43	4	7	18	29	197
08:30 AM	0	83	4	87	4	30	0	34	3	3	8	14	135
08:45 AM	0	115	1	116	3	35	0	38	10	7	11	28	182
Total	0	469	8	477	13	145	0	158	22	18	45	85	720
*** BREAK ***													
04:00 PM	0	81	3	84	8	73	0	81	5	7	7	19	184
04:15 PM	0	53	2	55	4	80	0	84	3	2	16	21	160
04:30 PM	0	54	3	57	4	72	0	76	8	2	14	24	157
04:45 PM	0	49	5	54	5	33	0	38	8	5	15	28	120
Total	0	237	13	250	21	258	0	279	24	16	52	92	621
05:00 PM	0	61	5	66	5	58	0	63	7	8	14	29	158
05:15 PM	0	54	6	60	9	39	0	48	6	6	14	26	134
05:30 PM	0	58	8	66	3	66	0	69	9	7	16	32	167
05:45 PM	0	53	5	58	2	39	0	41	5	10	21	36	135
Total	0	226	24	250	19	202	0	221	27	31	65	123	594
06:00 PM	0	56	4	60	3	54	0	57	3	5	13	21	138
06:15 PM	0	41	5	46	5	37	0	42	5	9	22	36	124
06:30 PM	0	34	6	40	2	31	0	33	4	5	17	26	99
06:45 PM	0	34	8	42	6	31	0	37	9	8	17	34	113
Total	0	165	23	188	16	153	0	169	21	27	69	117	474
Grand Total	0	1427	75	1502	80	835	0	915	116	109	262	487	2904
Apprch %	0	95	5		8.7	91.3	0		23.8	22.4	53.8		
Total %	0	49.1	2.6	51.7	2.8	28.8	0	31.5	4	3.8	9	16.8	
Auto	0	1401	73	1474	77	820	0	897	114	108	259	481	2852
% Auto	0	98.2	97.3	98.1	96.2	98.2	0	98	98.3	99.1	98.9	98.8	98.2
HV	0	16	2	18	3	11	0	14	2	0	2	4	36
% HV	0	1.1	2.7	1.2	3.8	1.3	0	1.5	1.7	0	0.8	0.8	1.2
B/SB	0	10	0	10	0	4	0	4	0	1	1	2	16
% B/SB	0	0.7	0	0.7	0	0.5	0	0.4	0	0.9	0.4	0.4	0.6

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Intersection of Monticello Avenue (E/W)
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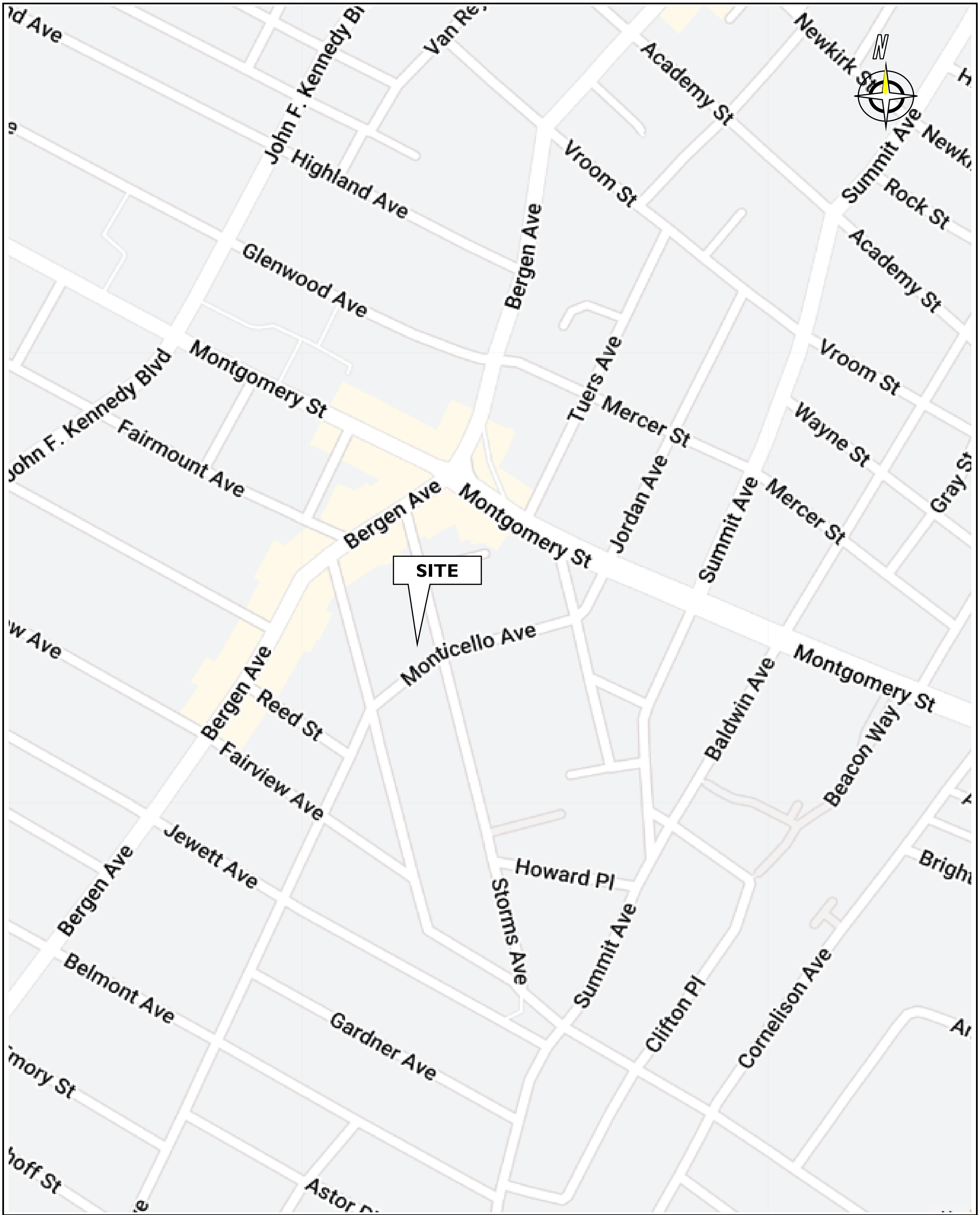
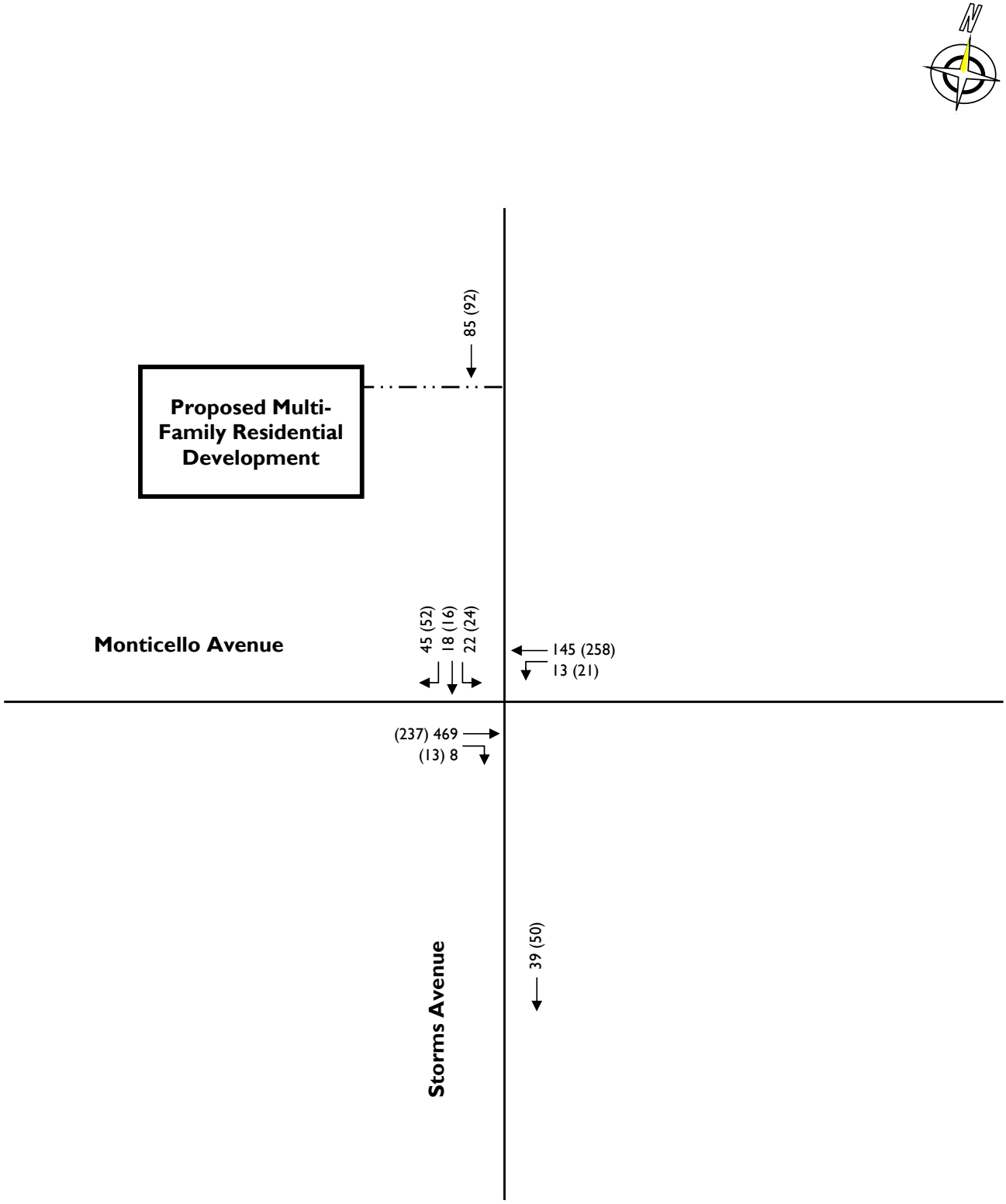
	Monticello Avenue Eastbound				Monticello Avenue Westbound				Storms Avenue Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	0	148	1	149	4	39	0	43	5	1	8	14	206
08:15 AM	0	123	2	125	2	41	0	43	4	7	18	29	197
08:30 AM	0	83	4	87	4	30	0	34	3	3	8	14	135
08:45 AM	0	115	1	116	3	35	0	38	10	7	11	28	182
Total Volume	0	469	8	477	13	145	0	158	22	18	45	85	720
% App. Total	0	98.3	1.7		8.2	91.8	0		25.9	21.2	52.9		
PHF	.000	.792	.500	.800	.813	.884	.000	.919	.550	.643	.625	.733	.874
Auto	0	457	7	464	13	143	0	156	21	18	44	83	703
% Auto	0	97.4	87.5	97.3	100	98.6	0	98.7	95.5	100	97.8	97.6	97.6
HV	0	7	1	8	0	2	0	2	1	0	1	2	12
% HV	0	1.5	12.5	1.7	0	1.4	0	1.3	4.5	0	2.2	2.4	1.7
B/SB	0	5	0	5	0	0	0	0	0	0	0	0	5
% B/SB	0	1.1	0	1.0	0	0	0	0	0	0	0	0	0.7
Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	81	3	84	8	73	0	81	5	7	7	19	184
04:15 PM	0	53	2	55	4	80	0	84	3	2	16	21	160
04:30 PM	0	54	3	57	4	72	0	76	8	2	14	24	157
04:45 PM	0	49	5	54	5	33	0	38	8	5	15	28	120
Total Volume	0	237	13	250	21	258	0	279	24	16	52	92	621
% App. Total	0	94.8	5.2		7.5	92.5	0		26.1	17.4	56.5		
PHF	.000	.731	.650	.744	.656	.806	.000	.830	.750	.571	.813	.821	.844
Auto	0	230	12	242	19	254	0	273	24	16	51	91	606
% Auto	0	97.0	92.3	96.8	90.5	98.4	0	97.8	100	100	98.1	98.9	97.6
HV	0	3	1	4	2	3	0	5	0	0	1	1	10
% HV	0	1.3	7.7	1.6	9.5	1.2	0	1.8	0	0	1.9	1.1	1.6
B/SB	0	4	0	4	0	1	0	1	0	0	0	0	5
% B/SB	0	1.7	0	1.6	0	0.4	0	0.4	0	0	0	0	0.8

FIGURES



STONEFIELD	**Proposed Multi-Family Residential Development** **101 Storms Avenue** **City of Jersey City, Hudson County, New Jersey** **Traffic & Parking Assessment Letter Report**	**FIGURE 1** **Site Location Map**

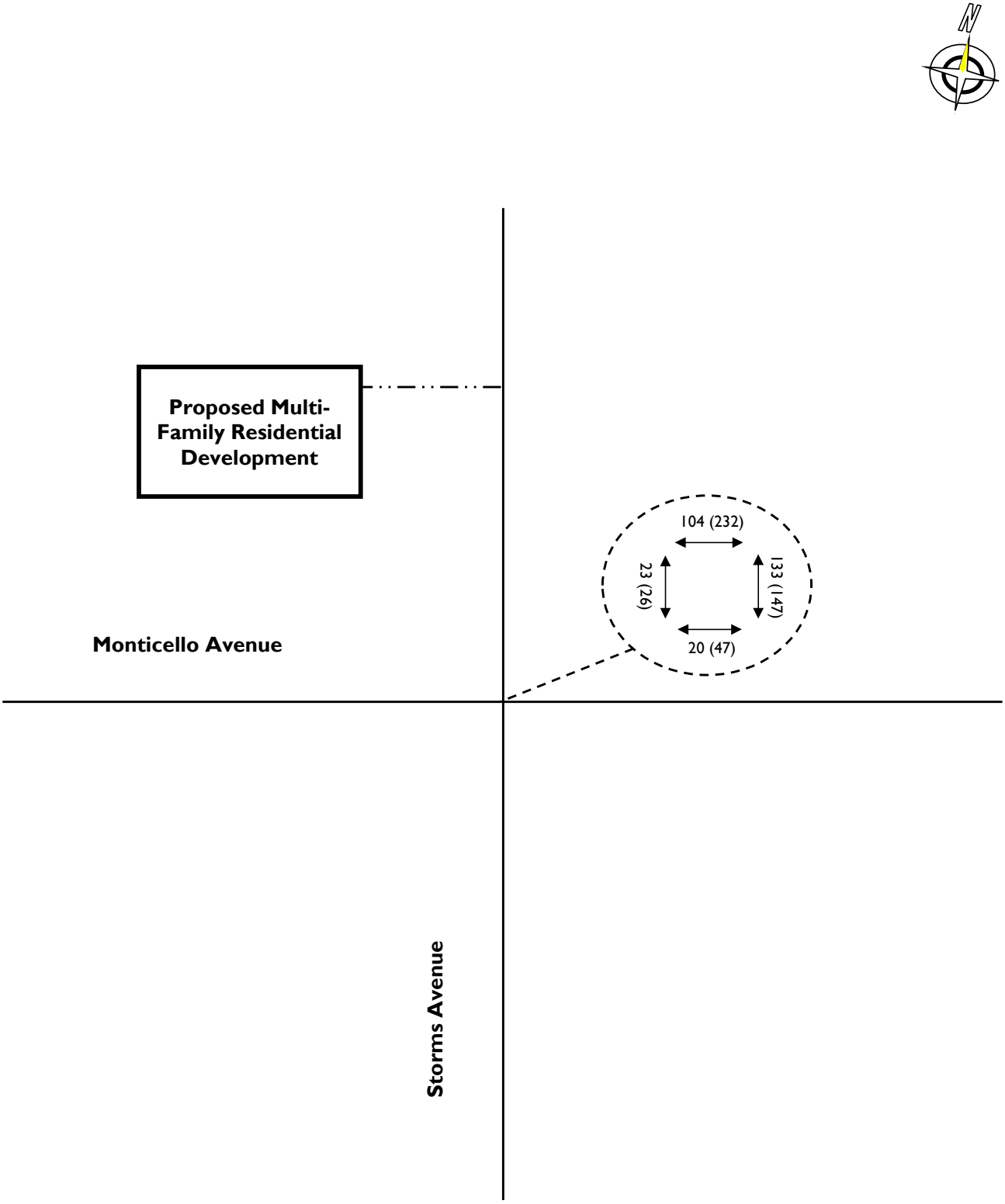


LEGEND

- Existing Roadway
- Proposed Pedestrian Access Point
- Existing Pedestrian Access Point
- AM (PM) Peak Hour Volumes

not to scale

STONEFIELD	**Proposed Multi-Family Residential Development** **101 Storms Avenue** **City of Jersey City, Hudson County, New Jersey** **Traffic & Parking Assessment Letter Report**	**FIGURE 2A** **2022 Existing Traffic Volumes**

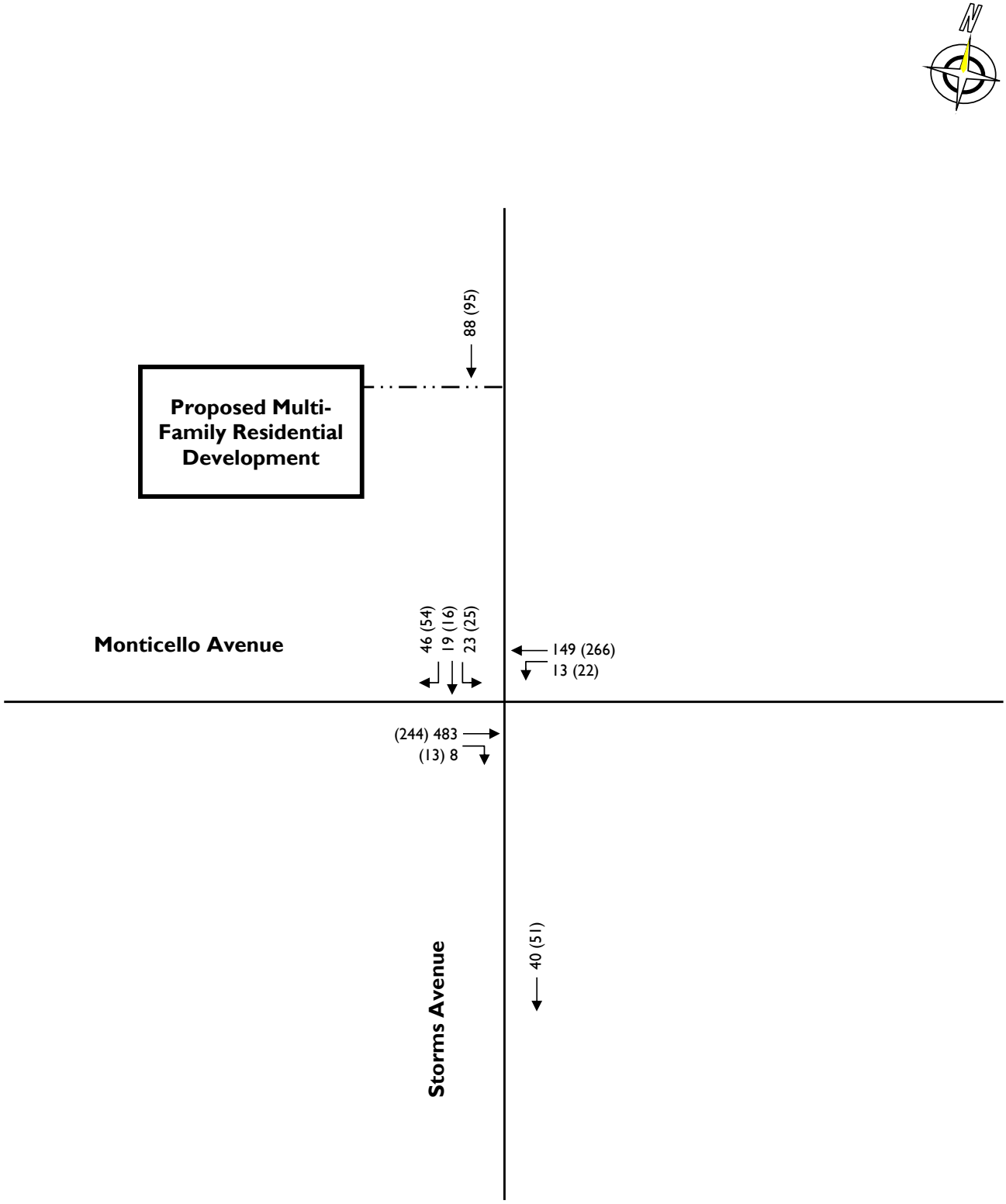


LEGEND

- Existing Roadway
- Proposed Pedestrian Access Point
- Existing Pedestrian Access Point
- AM (PM) Peak Hour Volumes

not to scale

STONEFIELD	**Proposed Multi-Family Residential Development** **101 Storms Avenue** **City of Jersey City, Hudson County, New Jersey** **Traffic & Parking Assessment Letter Report**	**FIGURE 2B** **2022 Existing Pedestrian Volumes**

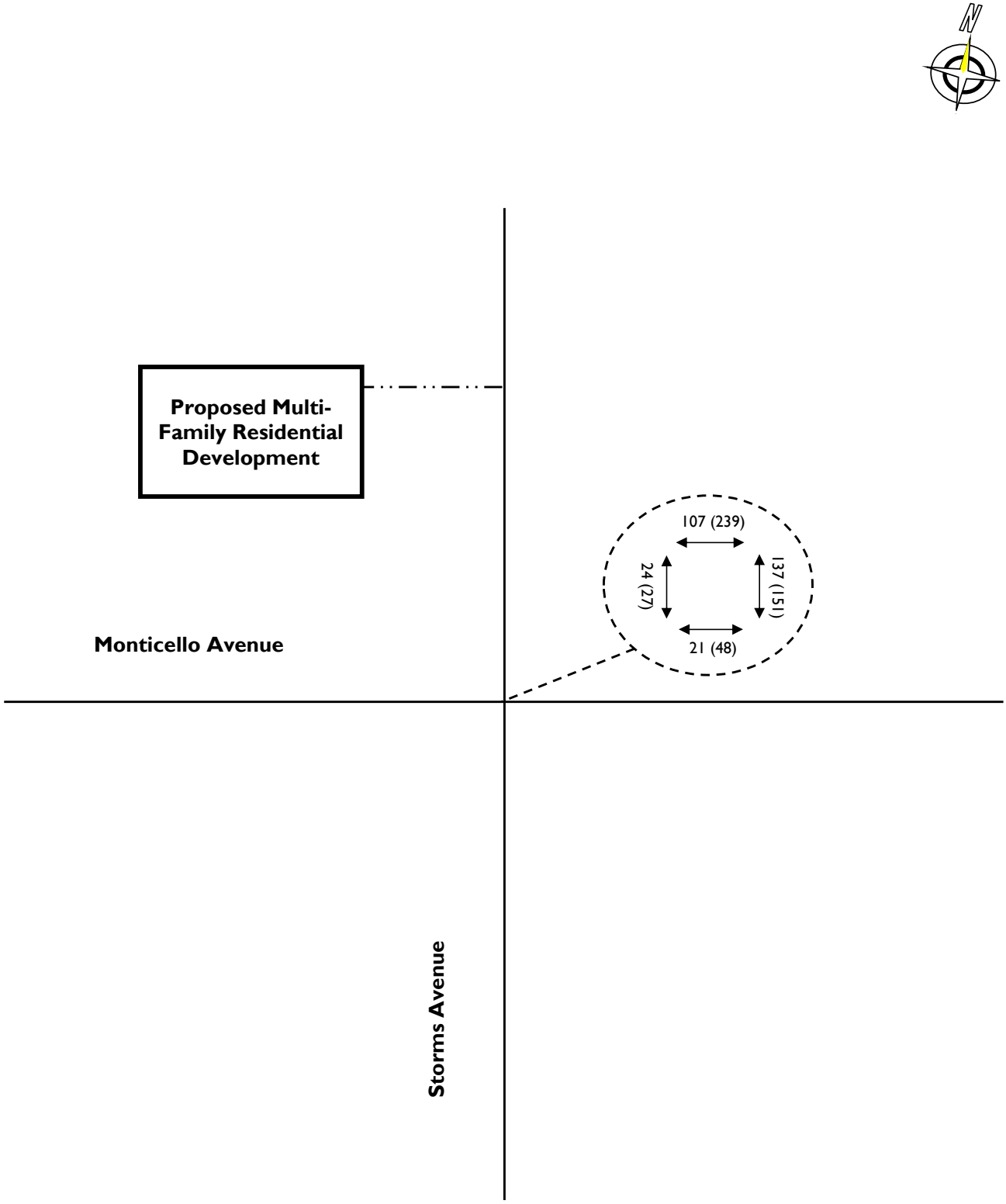


LEGEND

- Existing Roadway
- Proposed Pedestrian Access Point
- Existing Pedestrian Access Point
- AM (PM) Peak Hour Volumes

not to scale

STONEFIELD	**Proposed Multi-Family Residential Development** **101 Storms Avenue** **City of Jersey City, Hudson County, New Jersey** **Traffic & Parking Assessment Letter Report**	**FIGURE 3A** **2024 Base Traffic Volumes**

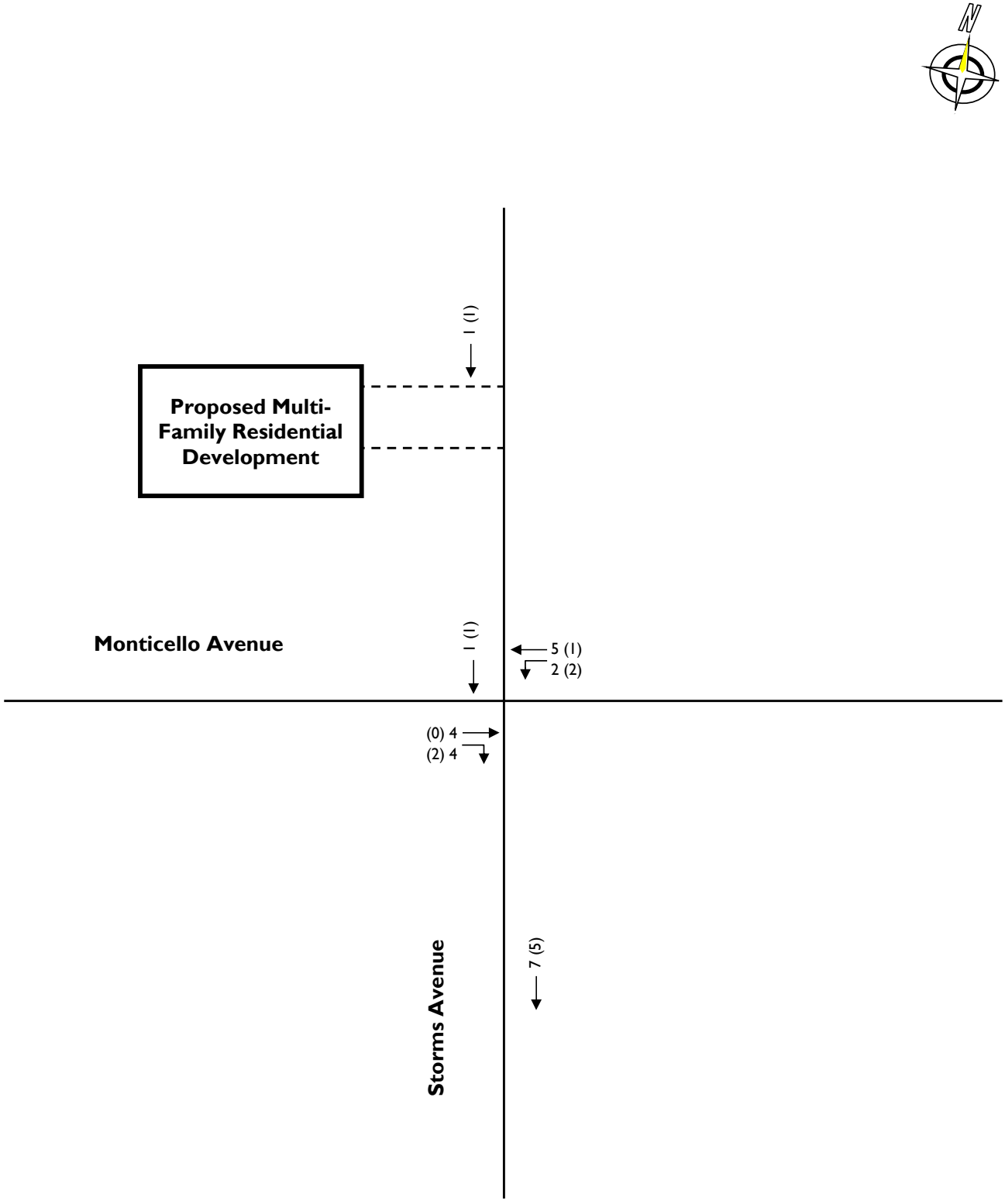


LEGEND

- Existing Roadway
- Proposed Pedestrian Access Point
- Existing Pedestrian Access Point
- AM (PM) Peak Hour Volumes

not to scale

STONEFIELD	**Proposed Multi-Family Residential Development** **101 Storms Avenue** **City of Jersey City, Hudson County, New Jersey** **Traffic & Parking Assessment Letter Report**	**FIGURE 3B** **2024 Base Pedestrian Volumes**

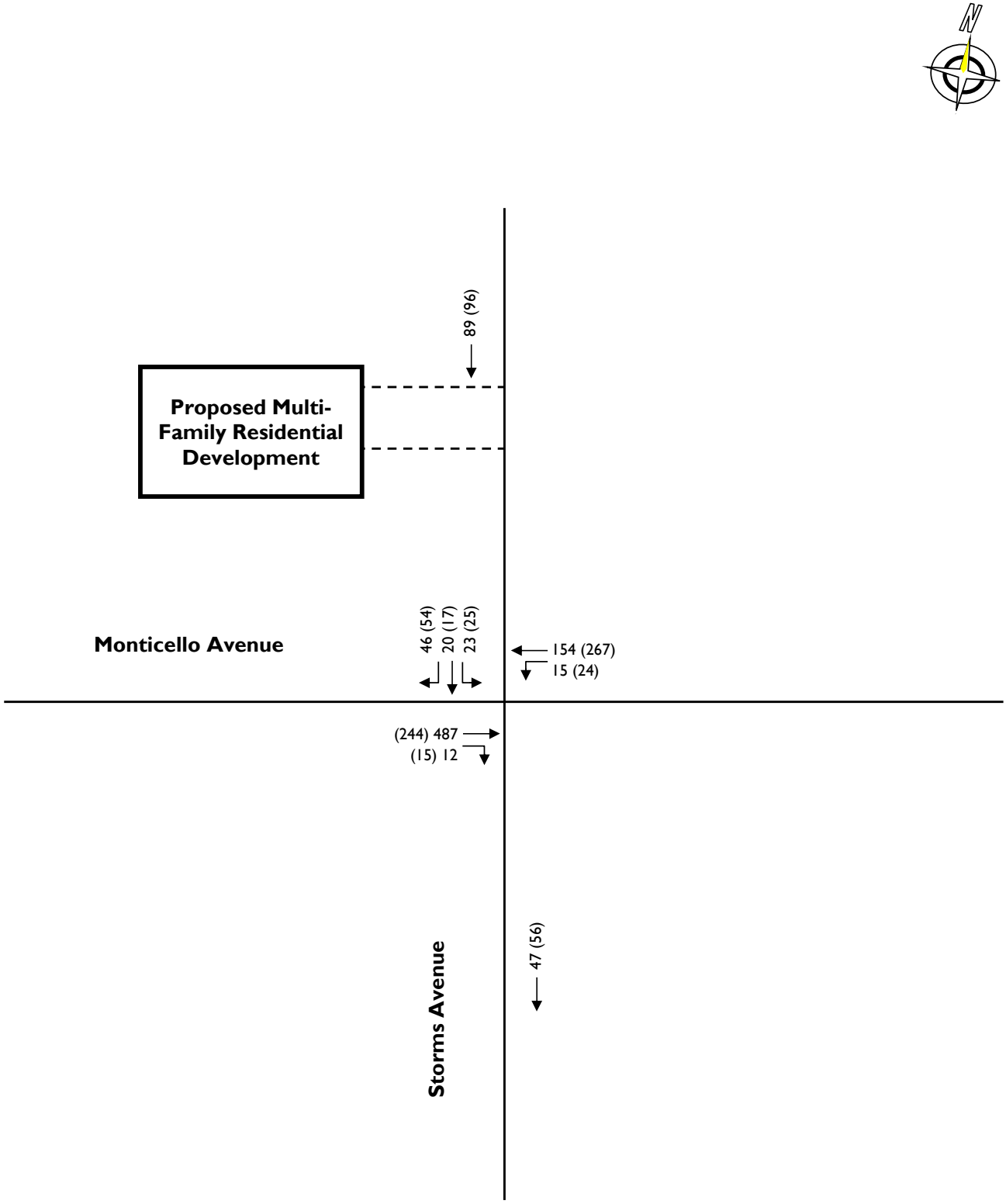


LEGEND

- Existing Roadway
- Proposed Pedestrian Access Point
- Existing Pedestrian Access Point
- AM (PM) Peak Hour Volumes

not to scale

STONEFIELD	**Proposed Multi-Family Residential Development** **101 Storms Avenue** **City of Jersey City, Hudson County, New Jersey** **Traffic & Parking Assessment Letter Report**	**FIGURE 4** **Other Planned Projects** **Site-Generated Trips**

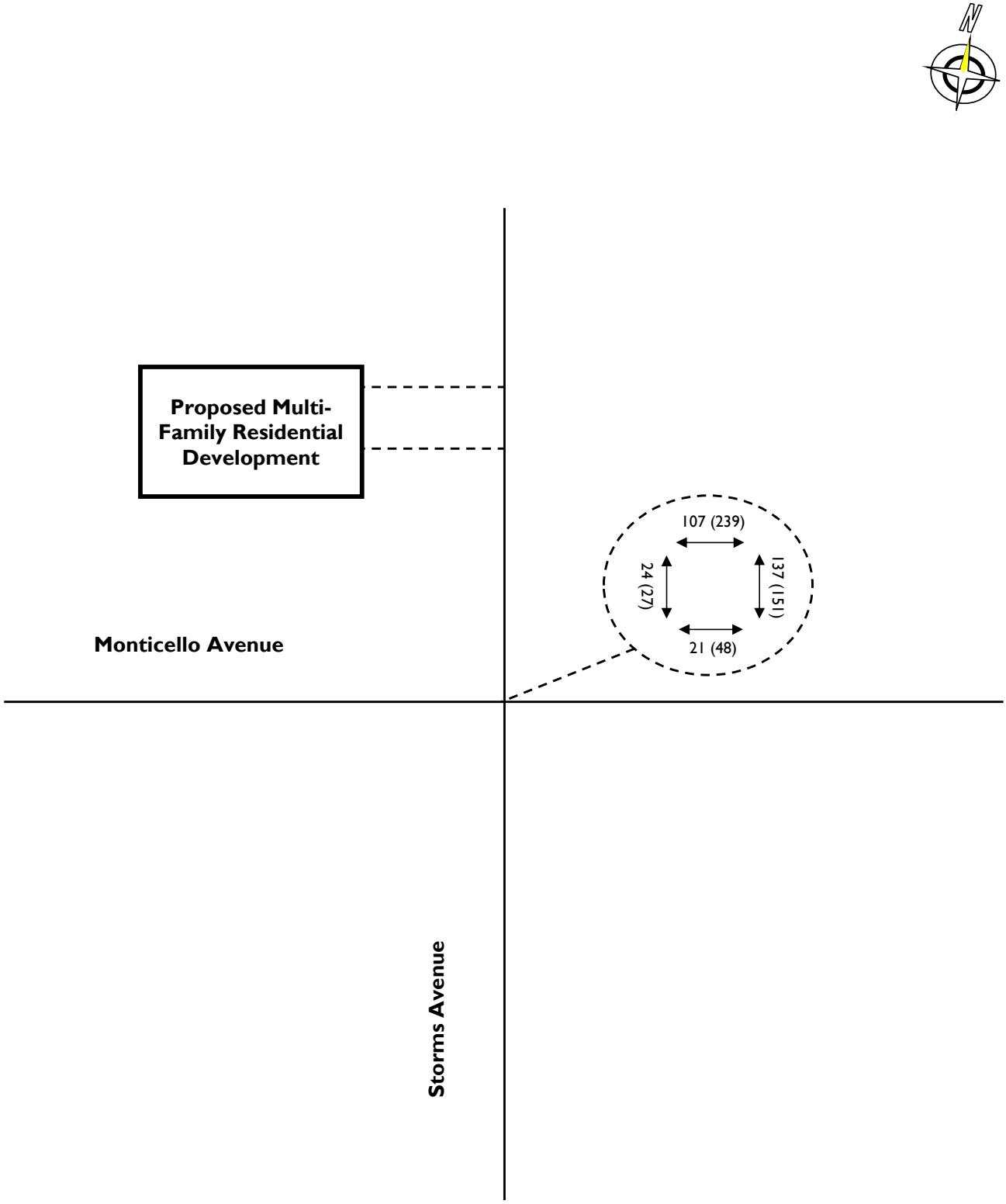


LEGEND

- Existing Roadway
- Proposed Pedestrian Access Point
- Existing Pedestrian Access Point
- AM (PM) Peak Hour Volumes

not to scale

STONEFIELD	**Proposed Multi-Family Residential Development** **101 Storms Avenue** **City of Jersey City, Hudson County, New Jersey** **Traffic & Parking Assessment Letter Report**	**FIGURE 5A** **2024 No-Build Traffic Volumes**

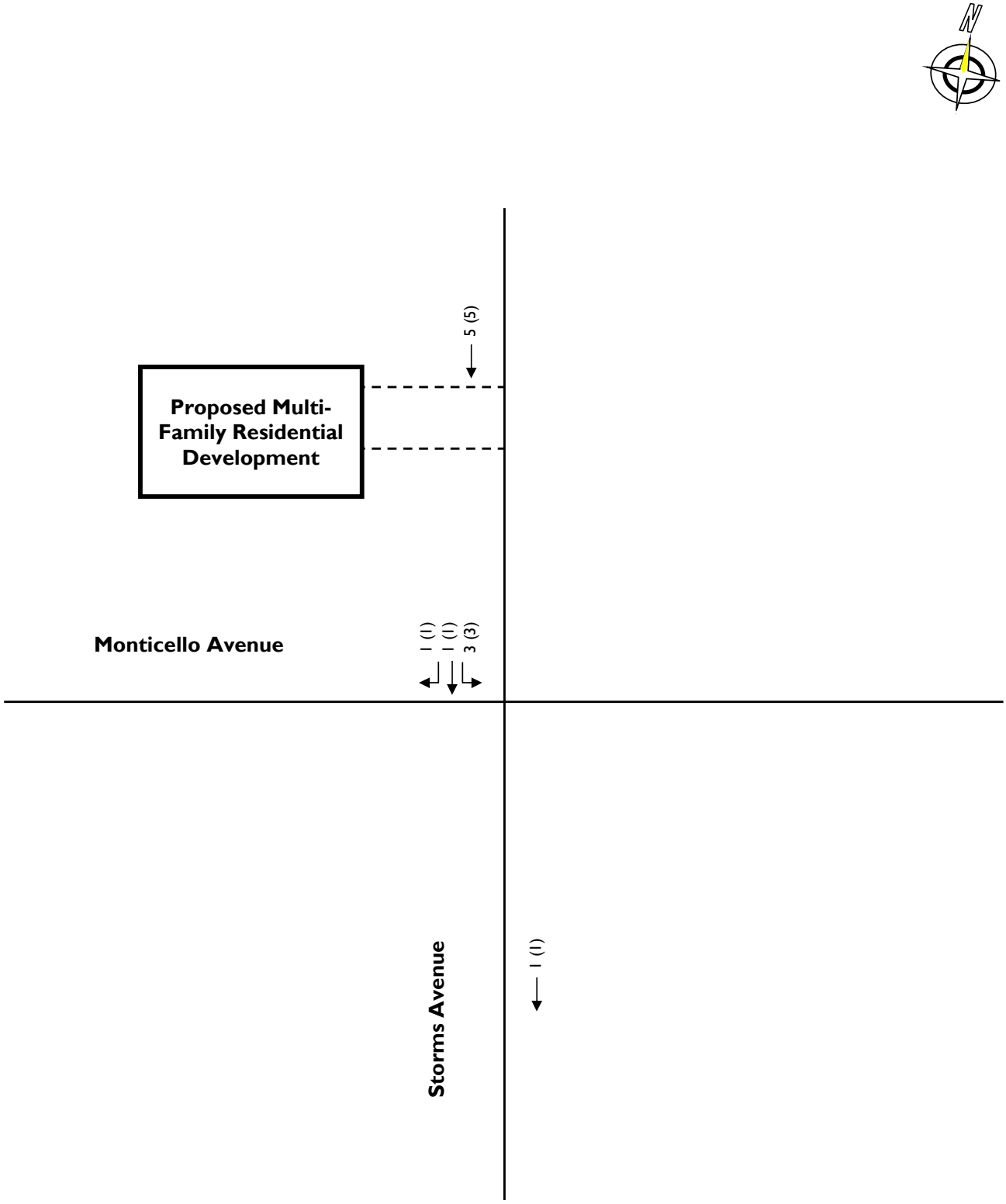


LEGEND

- Existing Roadway
- Proposed Pedestrian Access Point
- Existing Pedestrian Access Point
- AM (PM) Peak Hour Volumes

not to scale

STONEFIELD	**Proposed Multi-Family Residential Development** **101 Storms Avenue** **City of Jersey City, Hudson County, New Jersey** **Traffic & Parking Assessment Letter Report**	**FIGURE 5B** **2022 No-Build Pedestrian Volumes**

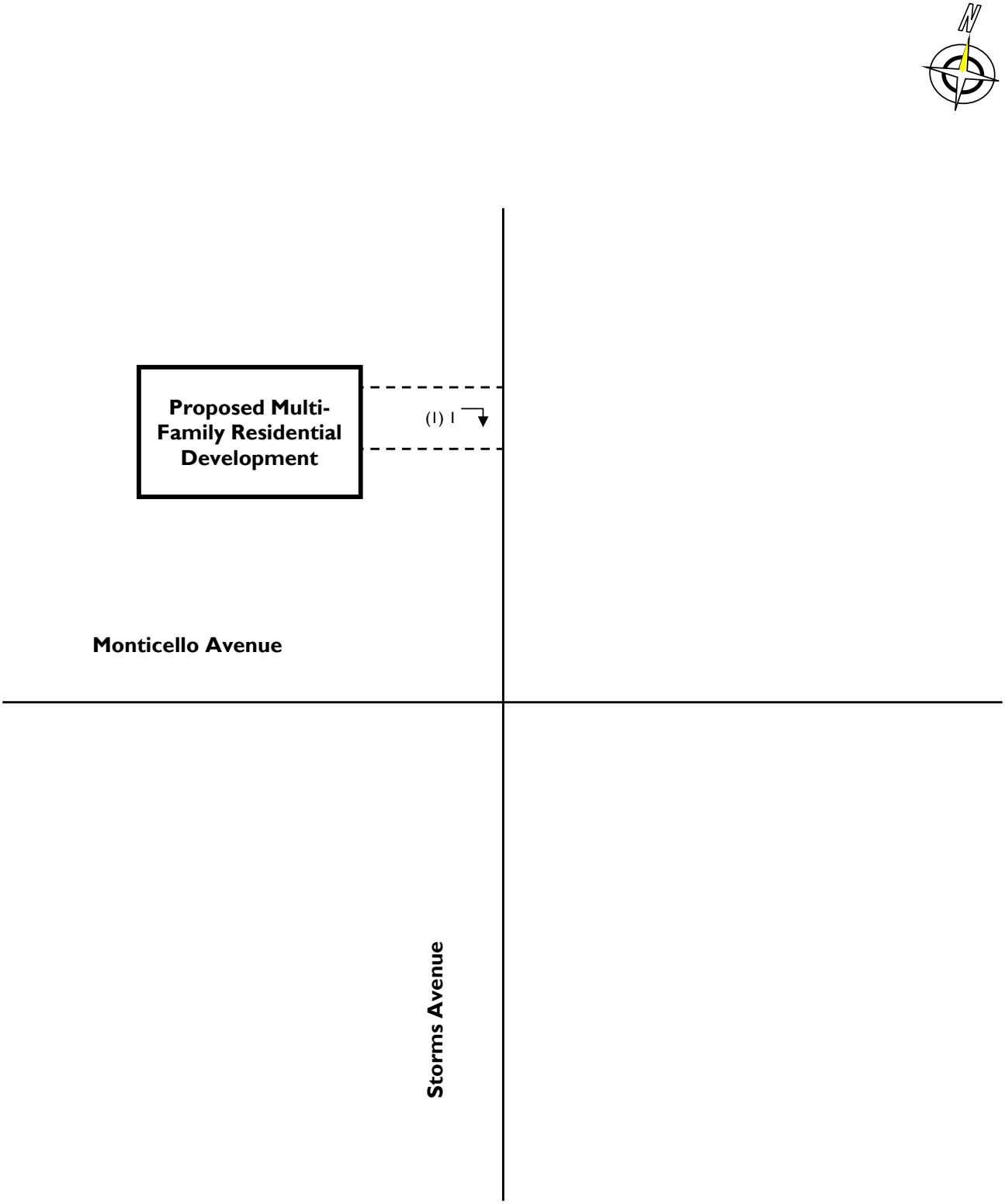


LEGEND

- Existing Roadway
- Proposed Pedestrian Access Point
- Existing Pedestrian Access Point
- AM (PM) Peak Hour Volumes

not to scale

STONEFIELD	**Proposed Multi-Family Residential Development** **101 Storms Avenue** **City of Jersey City, Hudson County, New Jersey** **Traffic & Parking Assessment Letter Report**	**FIGURE 6A** **"New" Site-Generated Traffic Volumes**

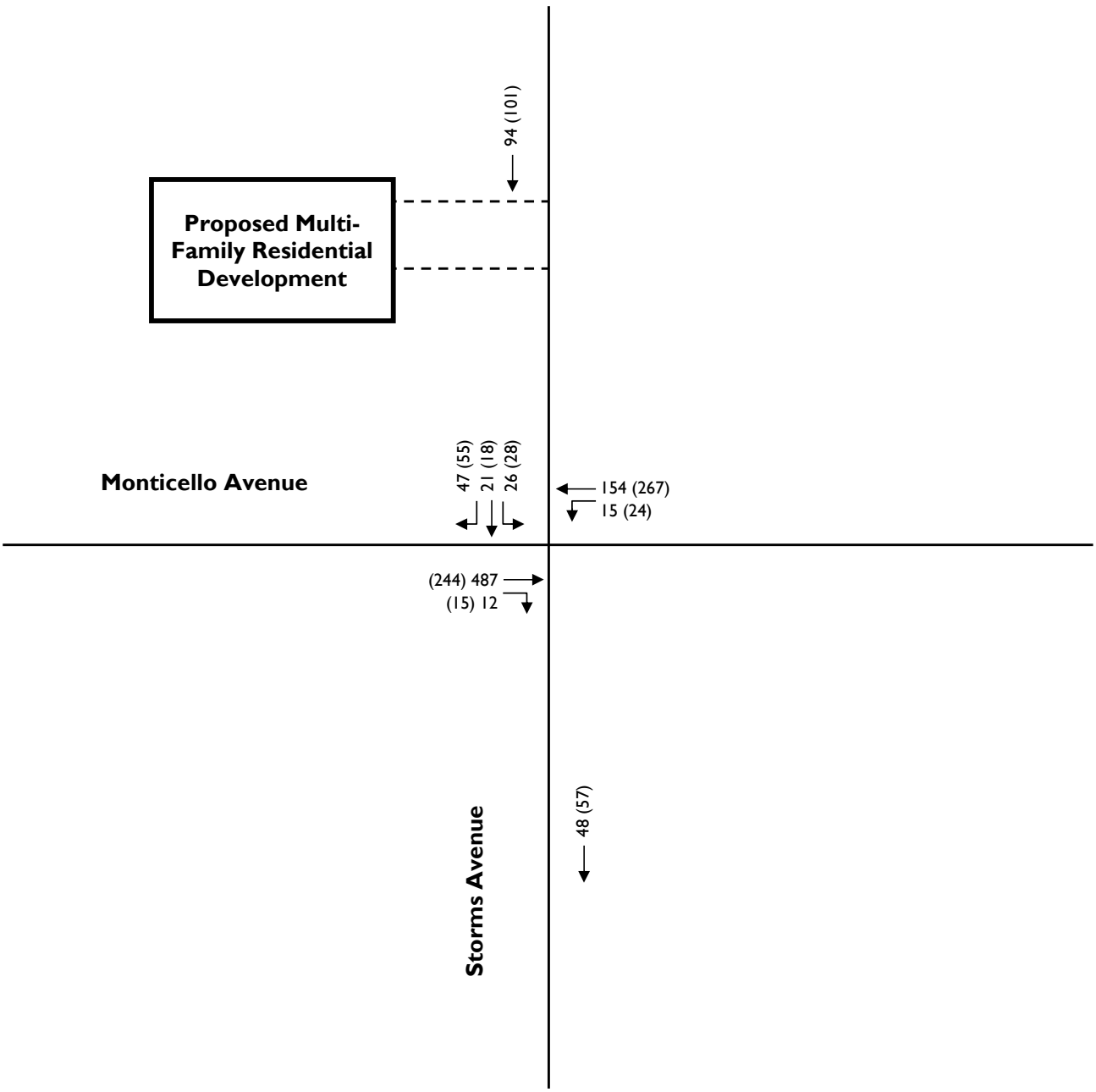


LEGEND

- Existing Roadway
- Proposed Pedestrian Access Point
- Existing Pedestrian Access Point
- AM (PM) Peak Hour Volumes

not to scale

STONEFIELD	**Proposed Multi-Family Residential Development** **101 Storms Avenue** **City of Jersey City, Hudson County, New Jersey** **Traffic & Parking Assessment Letter Report**	**FIGURE 6B** **"New" Site-Generated Pedestrian Volumes**

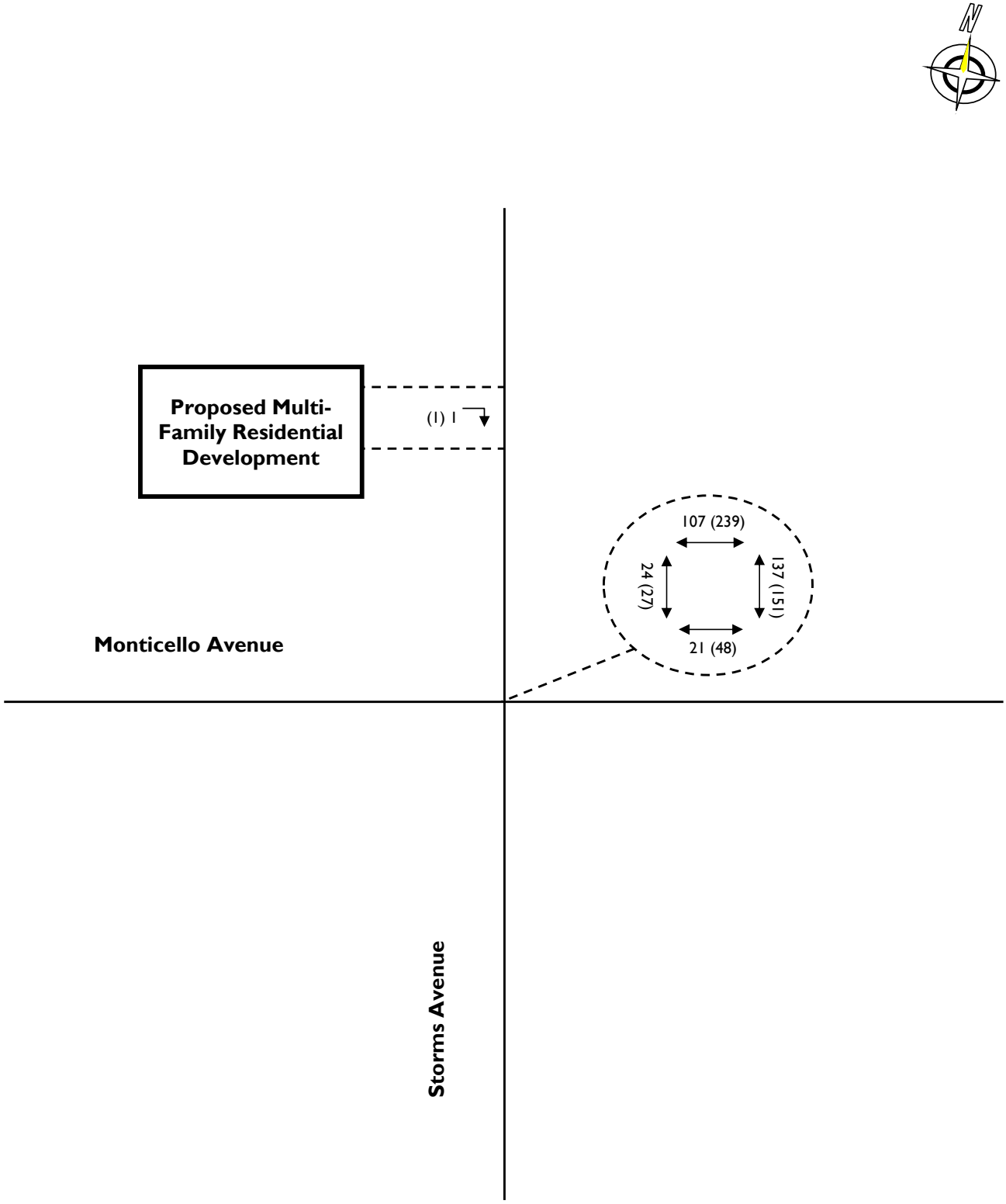


LEGEND

- Existing Roadway
- Proposed Pedestrian Access Point
- Existing Pedestrian Access Point
- AM (PM) Peak Hour Volumes

not to scale

STONEFIELD	**Proposed Multi-Family Residential Development** **101 Storms Avenue** **City of Jersey City, Hudson County, New Jersey** **Traffic & Parking Assessment Letter Report**	**FIGURE 7A** **2024 Build Traffic Volumes**



LEGEND

- Existing Roadway
- Proposed Pedestrian Access Point
- Existing Pedestrian Access Point
- AM (PM) Peak Hour Volumes

not to scale

STONEFIELD	**Proposed Multi-Family Residential Development** **101 Storms Avenue** **City of Jersey City, Hudson County, New Jersey** **Traffic & Parking Assessment Letter Report**	**FIGURE 7B** **2022 Build Pedestrian Volumes**

CAPACITY ANALYSIS DETAIL SHEETS

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	469	8	13	145	0	0	0	0	22	18	45
Future Vol, veh/h	0	469	8	13	145	0	0	0	0	22	18	45
Conflicting Peds, #/hr	0	0	20	20	0	0	0	0	0	133	0	23
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	3	13	0	1	0	0	0	0	5	0	2
Mvmt Flow	0	539	9	15	167	0	0	0	0	25	21	52

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	568	0	0	874	765	190
Stage 1	-	-	-	-	-	-	197	197	-
Stage 2	-	-	-	-	-	-	677	568	-
Critical Hdwy	-	-	-	4.1	-	-	6.45	6.5	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.45	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.45	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.545	4	3.318
Pot Cap-1 Maneuver	0	-	-	1014	-	0	316	336	852
Stage 1	0	-	-	-	-	0	829	742	-
Stage 2	0	-	-	-	-	0	499	510	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1014	-	-	311	0	833
Mov Cap-2 Maneuver	-	-	-	-	-	-	311	0	-
Stage 1	-	-	-	-	-	-	829	0	-
Stage 2	-	-	-	-	-	-	491	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.7	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1014	-	537
HCM Lane V/C Ratio	-	-	0.015	-	0.182
HCM Control Delay (s)	-	-	8.6	0	13.2
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0	-	0.7

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	237	13	21	258	0	0	0	0	24	16	52
Future Vol, veh/h	0	237	13	21	258	0	0	0	0	24	16	52
Conflicting Peds, #/hr	0	0	47	47	0	0	0	0	0	147	0	26
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	3	13	0	1	0	0	0	0	5	0	2
Mvmt Flow	0	272	15	24	297	0	0	0	0	28	18	60

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	334	0	0	772	679	323
Stage 1	-	-	-	-	-	-	345	345	-
Stage 2	-	-	-	-	-	-	427	334	-
Critical Hdwy	-	-	-	4.1	-	-	6.45	6.5	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.45	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.45	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.545	4	3.318
Pot Cap-1 Maneuver	0	-	-	1237	-	0	364	376	718
Stage 1	0	-	-	-	-	0	710	640	-
Stage 2	0	-	-	-	-	0	652	647	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1237	-	-	356	0	700
Mov Cap-2 Maneuver	-	-	-	-	-	-	356	0	-
Stage 1	-	-	-	-	-	-	710	0	-
Stage 2	-	-	-	-	-	-	637	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.6	13.4
HCM LOS			B

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1237	-	536
HCM Lane V/C Ratio	-	-	0.02	-	0.197
HCM Control Delay (s)	-	-	8	0	13.4
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0.1	-	0.7

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	487	12	15	154	0	0	0	0	23	20	46
Future Vol, veh/h	0	487	12	15	154	0	0	0	0	23	20	46
Conflicting Peds, #/hr	0	0	21	21	0	0	0	0	0	137	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	3	13	0	1	0	0	0	0	5	0	2
Mvmt Flow	0	560	14	17	177	0	0	0	0	26	23	53

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	595	0	0	915	806	177
Stage 1	-	-	-	-	-	-	211	211	-
Stage 2	-	-	-	-	-	-	704	595	-
Critical Hdwy	-	-	-	4.1	-	-	6.45	6.5	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.45	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.45	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.545	4	3.318
Pot Cap-1 Maneuver	0	-	-	991	-	0	299	318	866
Stage 1	0	-	-	-	-	0	817	731	-
Stage 2	0	-	-	-	-	0	485	496	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	991	-	-	293	0	866
Mov Cap-2 Maneuver	-	-	-	-	-	-	293	0	-
Stage 1	-	-	-	-	-	-	817	0	-
Stage 2	-	-	-	-	-	-	476	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.8	13.5
HCM LOS			B

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	991	-	524
HCM Lane V/C Ratio	-	-	0.017	-	0.195
HCM Control Delay (s)	-	-	8.7	0	13.5
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0.1	-	0.7

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	244	15	24	267	0	0	0	0	25	17	54
Future Vol, veh/h	0	244	15	24	267	0	0	0	0	25	17	54
Conflicting Peds, #/hr	0	0	48	48	0	0	0	0	0	151	0	27
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	3	13	0	1	0	0	0	0	5	0	2
Mvmt Flow	0	280	17	28	307	0	0	0	0	29	20	62

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	345	0	0	803	708	334
Stage 1	-	-	-	-	-	-	363	363	-
Stage 2	-	-	-	-	-	-	440	345	-
Critical Hdwy	-	-	-	4.1	-	-	6.45	6.5	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.45	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.45	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.545	4	3.318
Pot Cap-1 Maneuver	0	-	-	1225	-	0	349	362	708
Stage 1	0	-	-	-	-	0	697	628	-
Stage 2	0	-	-	-	-	0	643	640	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1225	-	-	339	0	690
Mov Cap-2 Maneuver	-	-	-	-	-	-	339	0	-
Stage 1	-	-	-	-	-	-	697	0	-
Stage 2	-	-	-	-	-	-	625	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.7	13.8
HCM LOS			B

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1225	-	520
HCM Lane V/C Ratio	-	-	0.023	-	0.212
HCM Control Delay (s)	-	-	8	0	13.8
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0.1	-	0.8

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	487	12	15	154	0	0	0	0	26	21	47
Future Vol, veh/h	0	487	12	15	154	0	0	0	0	26	21	47
Conflicting Peds, #/hr	0	0	21	21	0	0	0	0	0	137	0	24
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	3	13	0	1	0	0	0	0	5	0	2
Mvmt Flow	0	560	14	17	177	0	0	0	0	30	24	54

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	595	0	0	915	806	201
Stage 1	-	-	-	-	-	-	211	211	-
Stage 2	-	-	-	-	-	-	704	595	-
Critical Hdwy	-	-	-	4.1	-	-	6.45	6.5	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.45	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.45	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.545	4	3.318
Pot Cap-1 Maneuver	0	-	-	991	-	0	299	318	840
Stage 1	0	-	-	-	-	0	817	731	-
Stage 2	0	-	-	-	-	0	485	496	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	991	-	-	293	0	821
Mov Cap-2 Maneuver	-	-	-	-	-	-	293	0	-
Stage 1	-	-	-	-	-	-	817	0	-
Stage 2	-	-	-	-	-	-	476	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.8	14.2
HCM LOS			B

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	991	-	500
HCM Lane V/C Ratio	-	-	0.017	-	0.216
HCM Control Delay (s)	-	-	8.7	0	14.2
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0.1	-	0.8

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	244	15	24	267	0	0	0	0	28	18	55
Future Vol, veh/h	0	244	15	24	267	0	0	0	0	28	18	55
Conflicting Peds, #/hr	0	0	48	48	0	0	0	0	0	151	0	27
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	3	13	0	1	0	0	0	0	5	0	2
Mvmt Flow	0	280	17	28	307	0	0	0	0	32	21	63

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	345	0	0	803	708	334
Stage 1	-	-	-	-	-	-	363	363	-
Stage 2	-	-	-	-	-	-	440	345	-
Critical Hdwy	-	-	-	4.1	-	-	6.45	6.5	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.45	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.45	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.545	4	3.318
Pot Cap-1 Maneuver	0	-	-	1225	-	0	349	362	708
Stage 1	0	-	-	-	-	0	697	628	-
Stage 2	0	-	-	-	-	0	643	640	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1225	-	-	339	0	690
Mov Cap-2 Maneuver	-	-	-	-	-	-	339	0	-
Stage 1	-	-	-	-	-	-	697	0	-
Stage 2	-	-	-	-	-	-	625	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.7	14.1
HCM LOS			B

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1225	-	511
HCM Lane V/C Ratio	-	-	0.023	-	0.227
HCM Control Delay (s)	-	-	8	0	14.1
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0.1	-	0.9