



30 Independence Boulevard, Suite 110
Warren, New Jersey 07059
908-769-5588
www.atlantictraffic.com

September 17, 2021
via hand delivery

Township of Mahwah
475 Corporate Drive
Mahwah, NJ 07430
Attn: Ms. Geraldine Entrup
Administrative Officer, Planning Board

**RE: Supplemental Traffic Letter
Proposed Industrial Warehouse
Russo Acquisitions, LLC
1000 MacArthur Boulevard
Block 135.01, Lot 65
Mahwah Township
Bergen County, New Jersey
ATDE Project No. ANJ21026**

Dear Ms. Entrup:

Atlantic Traffic & Design Engineering, LLC (ATDE) has prepared this Supplemental Traffic Letter to accompany the Overall Site Layout Plan revised by Bohler on September 16, 2021. At the September 13, 2021 Township Planning Board hearing, the Applicant presented revised drawings with the new site driveway proposed on MacArthur Boulevard shifted approximately 250 feet south of Grandview Lane. Based on feedback received during the hearing from the Police Chief and Boswell Engineering, the following additional design changes have been made to this site access point:

- The egress geometry was increased such that tractor trailers would not drive over the raised channelized island.
- An acceleration lane was added to assist traffic merging onto eastbound MacArthur Boulevard.

The driveway design will include signage to restrict exiting traffic to right turn only. The latest version of our Traffic Impact Analysis, revised September 3, 2021, had projected 3 morning peak hour and 10 evening peak hour lefts exiting the site at the new MacArthur Boulevard driveway.

Due to the proposed left turn exit restriction, ATDE has prepared the attached Redistributed Future Build Traffic Volumes **Figure 6A**. This graphic illustrates the MacArthur Boulevard site driveway as a T-type intersection with the former left-turn exit movements redistributed to the Ridge Road site driveway. These trips are now shown to turn left onto Ridge Road, to then turn left onto MacArthur Boulevard via the adjacent signalized intersection.

ATDE has prepared updated Future Build Synchro analyses for the intersections where the minor site traffic volumes were redistributed. The associated Synchro printouts and Level of Service and Delay Summary **Tables A and B** are attached. The updated results indicate that

Atlantic Traffic & Design Engineering, LLC

none of the prior Levels of Service (LOS) would change, with the exception of the new MacArthur Boulevard driveway which improves and the Ridge Road driveway which would operate at LOS C during the morning peak hour. Vehicle delay changes for the MacArthur Boulevard/Ridge Road signalized intersection associated with the redistributed trips result in only a 0.5 second increase for the northbound left turn.

Based on this supplemental analysis, traffic operations at the proposed MacArthur Boulevard site driveway were found to improve, compared to the results in the Traffic Impact Analysis. Notable increases in vehicle delay were not found at any of the study intersections due to the redistributed trips.

Please contact the undersigned if there are any questions regarding these findings.

Very truly yours,

Atlantic Traffic & Design Engineering, LLC
N.J. P.E. Cert. of Authorization No. 24GA27957900



JOHN R. HARTER, P.E.
Professional Engineer
N.J. License No. 41033



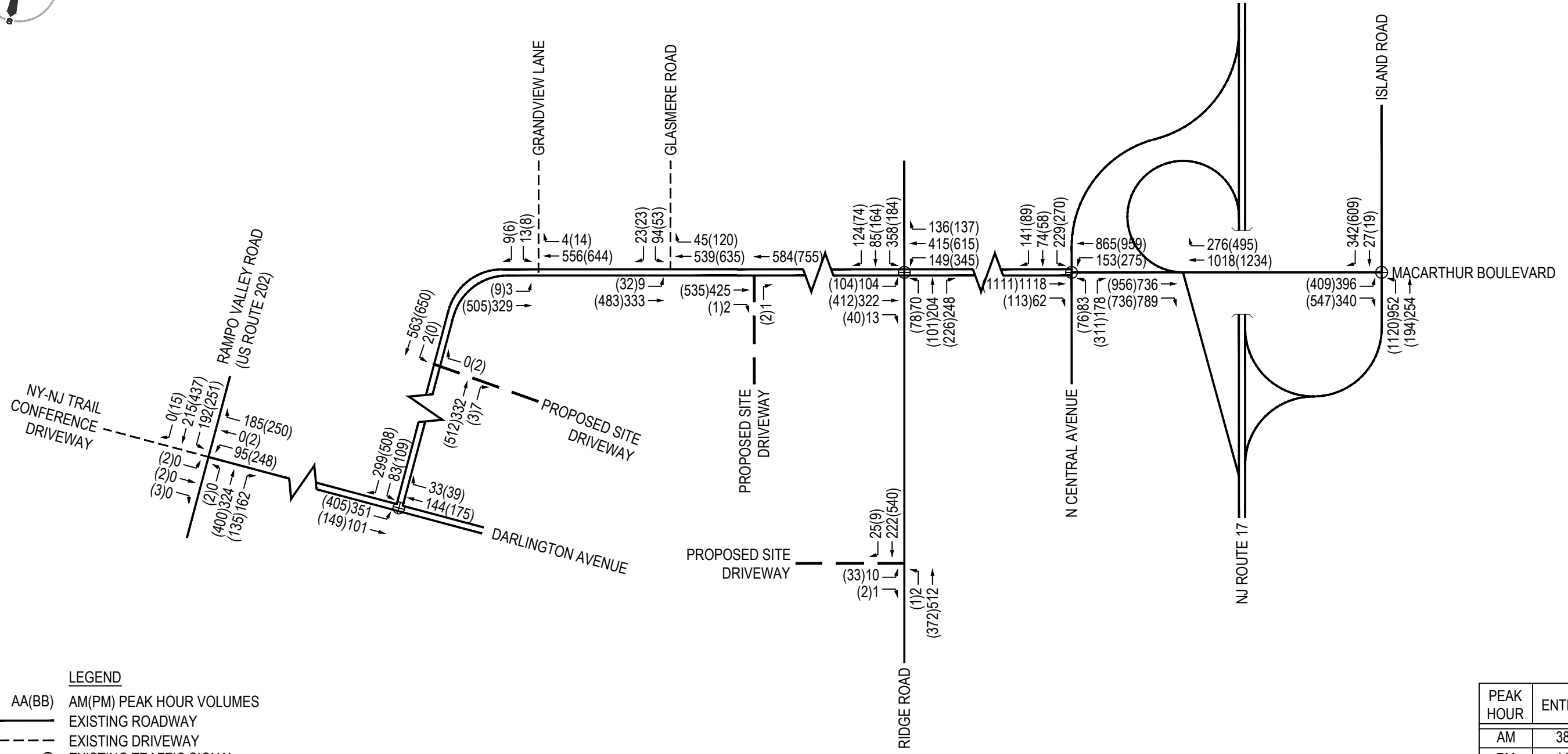
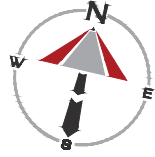
DAVID W. FAHIM
Engineer-In-Training
N.J. Certificate No. 2360

encl

cc: Michael Kelly, P.E. - Boswell Engineering (via electronic mail)
Frank Dobiszewski, P.E., PTOE - Boswell Engineering (via electronic mail)
Chief Stephen Jaffee - Mahwah Police Department (via electronic mail)
Captain Stuart Blank - Mahwah Police Department (via electronic mail)
Lieutenant Scott Cherven - Mahwah Police Department (via electronic mail)
Mike Pembroke - Russo Development (via electronic mail)
Doug Bartels, P.E. - Russo Development (via electronic mail)
Bruce Whitaker, Esq. - McDonnell & Whitaker LLC (via electronic mail)
Ben Crowder, P.E. - Bohler (via electronic mail)
Nora Ahmed, P.E. - Bohler (via electronic mail)

Proposed Industrial Facility
Mahwah Township
Bergen County, New Jersey

Redistributed Future Build Traffic Volumes



LEGEND

- AA(BB) AM(PM) PEAK HOUR VOLUMES
- EXISTING ROADWAY
- - - EXISTING DRIVEWAY
- ⊕ EXISTING TRAFFIC SIGNAL
- - - PROPOSED DRIVEWAY
- ⊙ PROPOSED TRAFFIC SIGNAL

PEAK HOUR	ENTER	EXIT	TOTAL
AM	38	12	50
PM	14	39	53

K:\2021\ANZ1026\ANALYSIS-PERMITTING\FIGURES\ANZ1026 FIGURES-->LAYOUT- 6A_REVISED BUILD 11X17

ANJ21026 Proposed Industrial Facility - Russo Development - Mahwah, NJ
 1: Ridge Road & MacArthur Boulevard

Build
AM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	322	13	149	415	136	70	204	248	358	85	124
Future Volume (vph)	104	322	13	149	415	136	70	204	248	358	85	124
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	13	13	12	13	13	12	12	14	12	13	13
Grade (%)		-5%			5%			1%				-1%
Storage Length (ft)	215		0	420		0	120		150	250		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	40			25			45			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994			0.963				0.850		0.911	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1966	4045	0	1835	3696	0	1838	1990	1857	1966	1882	0
Flt Permitted	0.950			0.950			0.566			0.308		
Satd. Flow (perm)	1966	4045	0	1835	3696	0	1095	1990	1857	637	1882	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			39				120			65
Link Speed (mph)		35			40			40				40
Link Distance (ft)		440			795			510				353
Travel Time (s)		8.6			13.6			8.7				6.0
Peak Hour Factor	0.83	0.83	0.83	0.88	0.88	0.88	0.82	0.82	0.82	0.65	0.65	0.65
Heavy Vehicles (%)	4%	4%	0%	6%	5%	4%	8%	5%	2%	2%	5%	6%
Adj. Flow (vph)	125	388	16	169	472	155	85	249	302	551	131	191
Shared Lane Traffic (%)												
Lane Group Flow (vph)	125	404	0	169	627	0	85	249	302	551	322	0
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases							4		4	8		
Detector Phase	5	2		1	6		7	4	1	3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	24.0		11.0	24.0		9.5	24.0	11.0	9.5	24.0	
Total Split (s)	20.0	35.0		20.0	35.0		20.0	35.0	20.0	20.0	35.0	
Total Split (%)	18.2%	31.8%		18.2%	31.8%		18.2%	31.8%	18.2%	18.2%	31.8%	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	2.0	2.0	0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		3.0	6.0	6.0	3.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	Max		None	Max		None	None	None	None	None	
Act Effect Green (s)	10.2	29.1		12.2	31.1		26.5	16.2	34.4	39.3	27.9	
Actuated g/C Ratio	0.11	0.30		0.13	0.32		0.28	0.17	0.36	0.41	0.29	
v/c Ratio	0.60	0.33		0.73	0.51		0.24	0.74	0.41	1.10	0.54	
Control Delay	53.7	27.4		59.7	27.4		20.0	51.4	14.6	97.6	27.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	53.7	27.4		59.7	27.4		20.0	51.4	14.6	97.6	27.5	
LOS	D	C		E	C		C	D	B	F	C	
Approach Delay		33.6			34.2			29.7			71.8	

ANJ21026 Proposed Industrial Facility - Russo Development - Mahwah, NJ
 1: Ridge Road & MacArthur Boulevard

Build
AM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			C			E	
Queue Length 50th (ft)	75	101		100	151		32	148	77	-296	137	
Queue Length 95th (ft)	125	142		#190	230		56	206	121	#252	143	
Internal Link Dist (ft)		360			715			430			273	
Turn Bay Length (ft)	215			420			120		150	250		
Base Capacity (vph)	289	1233		269	1226		548	605	779	499	627	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.43	0.33		0.63	0.51		0.16	0.41	0.39	1.10	0.51	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 95.7
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.10
 Intersection Signal Delay: 44.7
 Intersection LOS: D
 Intersection Capacity Utilization 65.5%
 ICU Level of Service C
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Ridge Road & MacArthur Boulevard

Ø1	Ø2	Ø3	Ø4
20 s	35 s	20 s	35 s
Ø5	Ø6	Ø7	Ø8
20 s	35 s	20 s	35 s

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	333	539	45	94	23
Future Vol, veh/h	9	333	539	45	94	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	5	2	-	-2	-
Peak Hour Factor	87	87	89	89	70	70
Heavy Vehicles, %	20	5	6	0	0	8
Mvmt Flow	10	383	606	51	134	33

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	657	0	-	0	844 329
Stage 1	-	-	-	-	632 -
Stage 2	-	-	-	-	212 -
Critical Hdwy	4.5	-	-	-	6.4 6.86
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.4	-	-	-	3.5 3.38
Pot Cap-1 Maneuver	815	-	-	-	336 661
Stage 1	-	-	-	-	534 -
Stage 2	-	-	-	-	828 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	815	-	-	-	332 661
Mov Cap-2 Maneuver	-	-	-	-	332 -
Stage 1	-	-	-	-	528 -
Stage 2	-	-	-	-	828 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	22.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	815	-	-	-	368
HCM Lane V/C Ratio	0.013	-	-	-	0.454
HCM Control Delay (s)	9.5	-	-	-	22.7
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	2.3

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	3	329	556	4	13	9
Future Vol, veh/h	3	329	556	4	13	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	4	-4	-	4	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	358	604	4	14	10

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	608	0	0	791	304
Stage 1	-	-	-	606	-
Stage 2	-	-	-	185	-
Critical Hdwy	4.14	-	-	7.64	7.34
Critical Hdwy Stg 1	-	-	-	6.64	-
Critical Hdwy Stg 2	-	-	-	6.64	-
Follow-up Hdwy	2.22	-	-	3.52	3.32
Pot Cap-1 Maneuver	966	-	-	274	669
Stage 1	-	-	-	443	-
Stage 2	-	-	-	795	-
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver	966	-	-	273	669
Mov Cap-2 Maneuver	-	-	-	273	-
Stage 1	-	-	-	442	-
Stage 2	-	-	-	795	-

Approach

	EB	WB	SE
HCM Control Delay, s	0.1	0	15.7
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	966	-	-	-	360
HCM Lane V/C Ratio	0.003	-	-	-	0.066
HCM Control Delay (s)	8.7	-	-	-	15.7
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	425	2	0	584	0	1
Future Vol, veh/h	425	2	0	584	0	1
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, %	-5	-	-	2	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	462	2	0	635	0	1

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	232
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	770
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	770
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	770	-	-	-
HCM Lane V/C Ratio	0.001	-	-	-
HCM Control Delay (s)	9.7	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	10	1	2	512	222	25
Future Vol, veh/h	10	1	2	512	222	25
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	-	-	1	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	1	2	557	241	27

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	816	255	268	0	0
Stage 1	255	-	-	-	-
Stage 2	561	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	347	784	1296	-	-
Stage 1	788	-	-	-	-
Stage 2	571	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	346	784	1296	-	-
Mov Cap-2 Maneuver	346	-	-	-	-
Stage 1	786	-	-	-	-
Stage 2	571	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1296	-	365	-	-
HCM Lane V/C Ratio	0.002	-	0.033	-	-
HCM Control Delay (s)	7.8	0	15.2	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕		↖	↕
Traffic Vol, veh/h	0	0	332	7	2	563
Future Vol, veh/h	0	0	332	7	2	563
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	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	4	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	100	2
Mvmt Flow	0	0	361	8	2	612

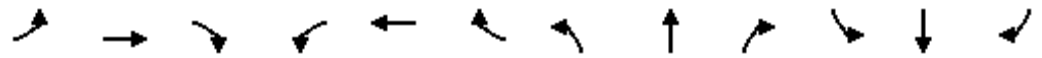
Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	185	0	0	369
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	6.1
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	3.2
Pot Cap-1 Maneuver	0	826	-	-	706
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	-	826	-	-	706
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	706	-
HCM Lane V/C Ratio	-	-	0.003	-
HCM Control Delay (s)	-	-	0	10.1
HCM Lane LOS	-	-	A	B
HCM 95th %tile Q(veh)	-	-	0	-

ANJ21026 Proposed Industrial Facility - Russo Development - Mahwah, NJ
 1: Ridge Road & MacArthur Boulevard

Build
PM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	412	40	345	615	137	78	101	226	184	164	74
Future Volume (vph)	104	412	40	345	615	137	78	101	226	184	164	74
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	13	13	12	13	13	12	12	14	12	13	13
Grade (%)		-5%			5%			1%				-1%
Storage Length (ft)	215		0	420		0	120		150	250		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	40			25			45			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987			0.973				0.850			0.953
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	2045	4133	0	1926	3758	0	1985	2090	1839	1947	2051	0
Flt Permitted	0.950			0.950			0.470			0.538		
Satd. Flow (perm)	2045	4133	0	1926	3758	0	982	2090	1839	1102	2051	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			25				212			23
Link Speed (mph)		35			40			40				40
Link Distance (ft)		449			795			509				353
Travel Time (s)		8.7			13.6			8.7				6.0
Peak Hour Factor	0.96	0.96	0.96	0.84	0.84	0.84	0.75	0.75	0.75	0.85	0.85	0.85
Heavy Vehicles (%)	0%	1%	0%	1%	5%	0%	0%	0%	3%	3%	1%	2%
Adj. Flow (vph)	108	429	42	411	732	163	104	135	301	216	193	87
Shared Lane Traffic (%)												
Lane Group Flow (vph)	108	471	0	411	895	0	104	135	301	216	280	0
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases							4		4	8		
Detector Phase	5	2		1	6		7	4	1	3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	24.0		11.0	24.0		9.5	24.0	11.0	9.5	24.0	
Total Split (s)	20.0	30.0		20.0	30.0		15.0	35.0	20.0	15.0	35.0	
Total Split (%)	20.0%	30.0%		20.0%	30.0%		15.0%	35.0%	20.0%	15.0%	35.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	2.0	2.0	0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		3.0	6.0	6.0	3.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	Max		None	Max		None	None	None	None	None	
Act Effct Green (s)	8.6	24.1		14.1	32.2		22.1	11.5	31.6	27.6	16.1	
Actuated g/C Ratio	0.11	0.30		0.17	0.40		0.27	0.14	0.39	0.34	0.20	
v/c Ratio	0.50	0.38		1.23	0.60		0.29	0.46	0.36	0.45	0.66	
Control Delay	43.2	24.3		160.7	24.0		20.1	36.8	6.7	22.3	36.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	43.2	24.3		160.7	24.0		20.1	36.8	6.7	22.3	36.3	
LOS	D	C		F	C		C	D	A	C	D	
Approach Delay		27.8			67.0			16.8			30.2	

ANJ21026 Proposed Industrial Facility - Russo Development - Mahwah, NJ
 1: Ridge Road & MacArthur Boulevard

Build
PM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			E			B			C	
Queue Length 50th (ft)	53	96		~261	188		36	64	29	79	124	
Queue Length 95th (ft)	107	160		#449	291		56	95	51	122	196	
Internal Link Dist (ft)		369			715			429			273	
Turn Bay Length (ft)	215			420			120		150	250		
Base Capacity (vph)	354	1235		333	1503		466	750	846	500	751	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.31	0.38		1.23	0.60		0.22	0.18	0.36	0.43	0.37	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 81.2
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.23
 Intersection Signal Delay: 43.7
 Intersection LOS: D
 Intersection Capacity Utilization 63.1%
 ICU Level of Service B
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Ridge Road & MacArthur Boulevard

Ø1 20 s	Ø2 30 s	Ø3 15 s	Ø4 35 s
Ø5 20 s	Ø6 30 s	Ø7 15 s	Ø8 35 s

Intersection

Int Delay, s/veh 1.9

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations						
Traffic Vol, veh/h	32	483	635	120	53	23
Future Vol, veh/h	32	483	635	120	53	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	5	2	-	-2	-
Peak Hour Factor	96	96	76	76	82	82
Heavy Vehicles, %	0	0	3	0	0	0
Mvmt Flow	33	503	836	158	65	28

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	994	0	-	0	1233	497
Stage 1	-	-	-	-	915	-
Stage 2	-	-	-	-	318	-
Critical Hdwy	4.1	-	-	-	6.4	6.7
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	704	-	-	-	197	539
Stage 1	-	-	-	-	394	-
Stage 2	-	-	-	-	742	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	704	-	-	-	188	539
Mov Cap-2 Maneuver	-	-	-	-	188	-
Stage 1	-	-	-	-	375	-
Stage 2	-	-	-	-	742	-

Approach EB WB SB

HCM Control Delay, s	0.6	0	30.1
HCM LOS			D

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	704	-	-	-	234
HCM Lane V/C Ratio	0.047	-	-	-	0.396
HCM Control Delay (s)	10.4	-	-	-	30.1
HCM Lane LOS	B	-	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	1.8

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	9	505	644	14	8	6
Future Vol, veh/h	9	505	644	14	8	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	4	-4	-	4	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	549	700	15	9	7

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	715	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	881	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	881	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SE
HCM Control Delay, s	0.2	0	19.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	881	-	-	-	269
HCM Lane V/C Ratio	0.011	-	-	-	0.057
HCM Control Delay (s)	9.1	-	-	-	19.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	535	1	0	755	0	2
Future Vol, veh/h	535	1	0	755	0	2
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, %	-5	-	-	2	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	582	1	0	821	0	2

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 292
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.32
Pot Cap-1 Maneuver	-	- 0	- 0 704
Stage 1	-	- 0	- 0 -
Stage 2	-	- 0	- 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 704
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	704	-	-	-
HCM Lane V/C Ratio	0.003	-	-	-
HCM Control Delay (s)	10.1	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	2	1	372	540	9
Future Vol, veh/h	33	2	1	372	540	9
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	-	-	1	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	2	1	404	587	10

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	998	592	597	0	-	0
Stage 1	592	-	-	-	-	-
Stage 2	406	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	270	506	980	-	-	-
Stage 1	553	-	-	-	-	-
Stage 2	673	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	270	506	980	-	-	-
Mov Cap-2 Maneuver	270	-	-	-	-	-
Stage 1	552	-	-	-	-	-
Stage 2	673	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	980	-	277	-	-
HCM Lane V/C Ratio	0.001	-	0.137	-	-
HCM Control Delay (s)	8.7	0	20.1	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

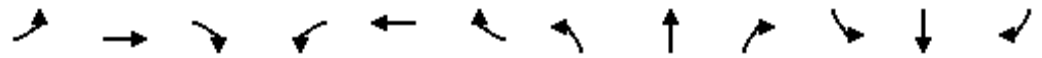
Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕		↖	↕
Traffic Vol, veh/h	0	2	512	3	0	650
Future Vol, veh/h	0	2	512	3	0	650
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	4	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	100	2	2	100	2
Mvmt Flow	0	2	557	3	0	707

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	280	0	0	560
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	8.9	-	-	6.1
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	4.3	-	-	3.2
Pot Cap-1 Maneuver	0	493	-	-	553
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	-	493	-	-	553
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.3	0	0
HCM LOS	B		

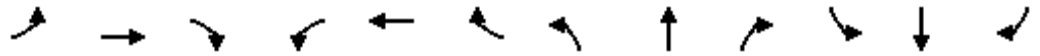
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	493	553
HCM Lane V/C Ratio	-	-	0.004	-
HCM Control Delay (s)	-	-	12.3	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0

ANJ21026 Proposed Industrial Facility - Russo Development - Mahwah, NJBuild with Mitigation
 1: Ridge Road & MacArthur Boulevard AM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	322	13	149	415	136	70	204	248	358	85	124
Future Volume (vph)	104	322	13	149	415	136	70	204	248	358	85	124
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	13	13	12	13	13	12	12	14	12	13	13
Grade (%)		-5%			5%			1%				-1%
Storage Length (ft)	215		0	420		0	120		150	250		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	40			25			45			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994			0.963				0.850		0.911	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1966	4045	0	1835	3696	0	1838	1990	1857	1966	1882	0
Flt Permitted	0.950			0.950			0.566			0.303		
Satd. Flow (perm)	1966	4045	0	1835	3696	0	1095	1990	1857	627	1882	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			37				104			60
Link Speed (mph)		35			40			40				40
Link Distance (ft)		440			795			510				353
Travel Time (s)		8.6			13.6			8.7				6.0
Peak Hour Factor	0.83	0.83	0.83	0.88	0.88	0.88	0.82	0.82	0.82	0.65	0.65	0.65
Heavy Vehicles (%)	4%	4%	0%	6%	5%	4%	8%	5%	2%	2%	5%	6%
Adj. Flow (vph)	125	388	16	169	472	155	85	249	302	551	131	191
Shared Lane Traffic (%)												
Lane Group Flow (vph)	125	404	0	169	627	0	85	249	302	551	322	0
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases							4		4	8		
Detector Phase	5	2		1	6		7	4	1	3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	24.0		11.0	24.0		9.5	24.0	11.0	9.5	24.0	
Total Split (s)	22.0	30.0		22.0	30.0		29.0	29.0	22.0	29.0	29.0	
Total Split (%)	20.0%	27.3%		20.0%	27.3%		26.4%	26.4%	20.0%	26.4%	26.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	2.0	2.0	0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		3.0	6.0	6.0	3.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	Max		None	Max		None	None	None	None	None	
Act Effect Green (s)	10.7	24.4		12.6	26.3		26.4	16.3	35.1	45.6	34.5	
Actuated g/C Ratio	0.11	0.25		0.13	0.27		0.27	0.17	0.36	0.47	0.35	
v/c Ratio	0.58	0.40		0.72	0.61		0.24	0.75	0.41	0.90	0.46	
Control Delay	54.5	33.9		59.7	34.3		18.6	54.2	16.6	39.9	23.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	54.5	33.9		59.7	34.3		18.6	54.2	16.6	39.9	23.0	
LOS	D	C		E	C		B	D	B	D	C	
Approach Delay		38.7			39.7			31.6			33.6	

ANJ21026 Proposed Industrial Facility - Russo Development - Mahwah, NJBuild with Mitigation
 1: Ridge Road & MacArthur Boulevard AM

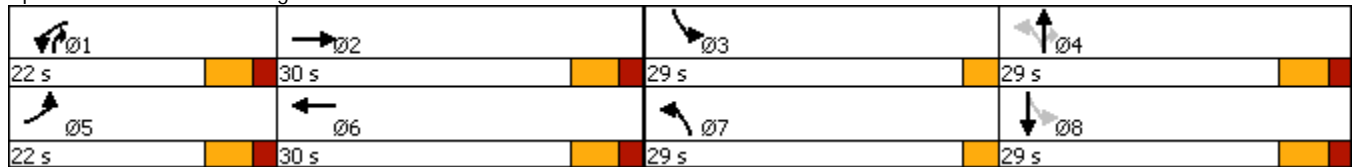


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	79	116		106	177		29	156	92	249	128	
Queue Length 95th (ft)	130	162		182	264		52	219	138	230	136	
Internal Link Dist (ft)		360			715			430			273	
Turn Bay Length (ft)	215			420			120		150	250		
Base Capacity (vph)	326	1009		304	1021		692	475	797	653	701	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.38	0.40		0.56	0.61		0.12	0.52	0.38	0.84	0.46	

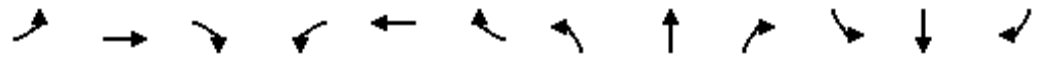
Intersection Summary

Area Type:	Other
Cycle Length:	110
Actuated Cycle Length:	97.8
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.90
Intersection Signal Delay:	35.8
Intersection LOS:	D
Intersection Capacity Utilization:	65.5%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 1: Ridge Road & MacArthur Boulevard

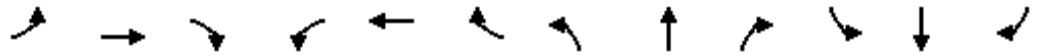


ANJ21026 Proposed Industrial Facility - Russo Development - Mahwah, NJBuild with Mitigation
 1: Ridge Road & MacArthur Boulevard PM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	412	40	345	615	137	78	101	226	184	164	74
Future Volume (vph)	104	412	40	345	615	137	78	101	226	184	164	74
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	13	13	12	13	13	12	12	14	12	13	13
Grade (%)		-5%			5%			1%				-1%
Storage Length (ft)	215		0	420		0	120		150	250		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	40			25			45			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987			0.973				0.850		0.953	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	2045	4133	0	1926	3758	0	1985	2090	1839	1947	2051	0
Flt Permitted	0.950			0.950			0.356			0.520		
Satd. Flow (perm)	2045	4133	0	1926	3758	0	744	2090	1839	1065	2051	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			27				199			20
Link Speed (mph)		35			40			40				40
Link Distance (ft)		449			795			509				353
Travel Time (s)		8.7			13.6			8.7				6.0
Peak Hour Factor	0.96	0.96	0.96	0.84	0.84	0.84	0.75	0.75	0.75	0.85	0.85	0.85
Heavy Vehicles (%)	0%	1%	0%	1%	5%	0%	0%	0%	3%	3%	1%	2%
Adj. Flow (vph)	108	429	42	411	732	163	104	135	301	216	193	87
Shared Lane Traffic (%)												
Lane Group Flow (vph)	108	471	0	411	895	0	104	135	301	216	280	0
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases							4		4	8		
Detector Phase	5	2		1	6		7	4	1	3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	24.0		11.0	24.0		9.5	24.0	11.0	9.5	24.0	
Total Split (s)	27.0	35.0		27.0	35.0		14.0	24.0	27.0	14.0	24.0	
Total Split (%)	27.0%	35.0%		27.0%	35.0%		14.0%	24.0%	27.0%	14.0%	24.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	2.0	2.0	0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		3.0	6.0	6.0	3.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	Max		None	Max		None	None	None	None	None	
Act Effect Green (s)	9.4	29.1		21.1	43.4		24.0	12.8	39.9	28.3	16.9	
Actuated g/C Ratio	0.10	0.31		0.22	0.46		0.25	0.14	0.42	0.30	0.18	
v/c Ratio	0.53	0.37		0.96	0.51		0.35	0.48	0.34	0.52	0.73	
Control Delay	50.6	26.7		72.7	21.2		26.7	43.1	7.2	30.0	47.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	50.6	26.7		72.7	21.2		26.7	43.1	7.2	30.0	47.3	
LOS	D	C		E	C		C	D	A	C	D	
Approach Delay		31.2			37.4			20.0			39.7	

ANJ21026 Proposed Industrial Facility - Russo Development - Mahwah, NJBuild with Mitigation
 1: Ridge Road & MacArthur Boulevard PM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C			D			B			D		
Queue Length 50th (ft)	64	115		251	205		45	76	37	100	152	
Queue Length 95th (ft)	117	169		#415	277		68	109	58	149	231	
Internal Link Dist (ft)		369			715			429			273	
Turn Bay Length (ft)	215			420			120		150	250		
Base Capacity (vph)	456	1281		429	1740		356	399	892	422	408	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.24	0.37		0.96	0.51		0.29	0.34	0.34	0.51	0.69	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 94.4
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 33.3
 Intersection LOS: C
 Intersection Capacity Utilization 63.1%
 ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Ridge Road & MacArthur Boulevard

Ø1 27 s	Ø2 35 s	Ø3 14 s	Ø4 24 s
Ø5 27 s	Ø6 35 s	Ø7 14 s	Ø8 24 s



Proposed Mixed-Use Development
 1000 MacArthur Blvd
 Borough of Edgewater
 Bergen County, New Jersey

ATDE Job No. ANJ20199

TABLE A
LEVEL OF SERVICE AND DELAY SUMMARY
WEEKDAY MORNING PEAK HOUR

Intersection	Lane Group	No-Build	Build	Mitigation	Rev. Build	Rev. Mitigation
Ridge Road & MacArthur Boulevard	EB	L	D(53.1)	D(53.7)	D(54.5)	D(53.7)
		T/R	C(27.1)	C(27.4)	C(33.9)	C(27.4)
	WB	L	E(57.0)	E(59.7)	E(59.7)	E(59.7)
		T/R	C(27.5)	C(27.4)	C(34.3)	C(27.4)
	NB	L	B(19.7)	B(19.9)	B(18.5)	C(20.0)
T		D(50.8)	D(51.4)	D(54.2)	D(51.4)	
SB	R	B(14.4)	B(14.6)	B(16.6)	B(14.6)	
	L	F(92.9)	F(97.6)	D(40.1)	F(97.6)	
	T/R	C(26.4)	C(27.4)	C(22.9)	C(27.5)	
	Overall Intersection	D(43.4)	D(44.7)	D(35.9)	D(44.7)	
MacArthur Boulevard & Glasmere Road	EB	L	A(9.4)	A(9.5)	-	A(9.5)
		L/R	C(22.3)	C(22.5)	-	C(22.7)
	Overall Intersection	A(3.2)	A(3.2)	-	A(3.2)	
MacArthur Boulevard & Grandview Lane	EB	L	A(8.7)	A(8.7)	-	A(8.7)
		L	-	A(8.0)	-	-
	NB	L/T/R	-	C(15.9)	-	-
		L/T/R	C(15.6)	C(17.2)	-	C(15.7)
	Overall Intersection	A(0.4)	A(0.5)	-	A(0.4)	
MacArthur Boulevard & Northern Site Driveway	NB	R	-	A(9.7)	-	A(9.7)
		Overall Intersection	-	A(0.0)	-	A(0.0)
Ridge Road & Site Driveway	EB	L/R	-	B(14.9)	-	C(15.2)
		L/T	-	A(7.8)	-	A(7.8)
	Overall Intersection	-	A(0.2)	-	A(0.2)	
MacArthur Boulevard & Southern Site Driveway	WB	R	-	-	-	-
		L	-	-	-	B(10.1)
	Overall Intersection	-	-	-	A(0.0)	

- Delay shown in seconds.



Proposed Mixed-Use Development
 1000 MacArthur Blvd
 Borough of Edgewater
 Bergen County, New Jersey

ATDE Job No. ANJ20199

TABLE B
LEVEL OF SERVICE AND DELAY SUMMARY
WEEKDAY EVENING PEAK HOUR

Intersection	Lane Group	No-Build	Build	Mitigation	Rev. Build	Rev. Mitigation
Ridge Road & MacArthur Boulevard	EB	L	D(42.7)	D(43.0)	D(50.3)	D(43.2)
		T/R	C(23.9)	C(24.0)	C(26.5)	C(24.3)
	WB	L	F(147.3)	F(158.2)	E(71.4)	F(160.7)
		T/R	C(23.5)	C(23.7)	C(21.0)	C(24.0)
	NB	L	B(19.7)	B(19.8)	C(26.2)	C(20.1)
T		D(37.2)	D(37.4)	D(43.8)	D(36.8)	
SB	R	A(5.8)	A(6.8)	A(7.3)	A(6.7)	
	L	C(22.5)	C(22.4)	C(30.1)	C(22.3)	
	T/R	D(36.0)	D(36.0)	D(46.9)	D(36.3)	
	Overall Intersection	D(41.6)	D(43.3)	C(33.1)	D(43.7)	
MacArthur Boulevard & Glasmere Road	EB	L	B(10.3)	B(10.3)	-	B(10.4)
		L/R	D(29.1)	D(29.3)	-	D(30.1)
	Overall Intersection	A(1.9)	A(1.9)	-	A(1.9)	
MacArthur Boulevard & Grandview Lane	EB	L	A(9.1)	A(9.1)	-	A(9.1)
		L	-	A(0.0)	-	-
	NB	L/T/R	-	C(20.1)	-	-
		L/T/R	C(18.9)	C(21.6)	-	C(19.2)
	Overall Intersection	A(0.3)	A(0.5)	-	A(0.3)	
MacArthur Boulevard & Northern Site Driveway	NB	R	-	B(10.1)	-	B(10.1)
		Overall Intersection	-	A(0.0)	-	A(0.0)
Ridge Road & Site Driveway	EB	L/R	-	C(19.2)	-	C(20.1)
		L/T	-	A(8.7)	-	A(8.7)
	Overall Intersection	-	A(0.5)	-	A(0.7)	
MacArthur Boulevard & Southern Site Driveway	WB	R	-	-	-	B(12.3)
		L	-	-	-	-
	Overall Intersection	-	-	-	A(0.0)	

- Delay shown in seconds.