
April 7, 2022
Via Fed-Ex

Andover Township Land Use Board
134 Newton Sparta Road
Newton, NJ 07860

Attn: Stephanie Pizzulo, Board Administrator

**RE: Response to Land Use Board Comments
Proposed Construction Equipment &
Materials Storage Facility
Block 1551 – Lot 21
Township of Andover, Sussex County, NJ
DT# 3527-99-001TE**

In response to questions raised at the March 29, 2022 Land Use Board meeting regarding the traffic volumes utilized within the *Traffic Impact Study* (“TIS”) dated February 4, 2021, Dynamic Traffic has prepared the following supplemental letter. Specifically, additional information was requested regarding the NJDOT data utilized to normalize the traffic counts conducted during the COVID-19 pandemic. The following letter details the steps undertaken to adjust the traffic volumes utilized within the TIS.

As indicated in the TIS, the following Automatic Traffic Recorder (ATR) counts obtained from the NJDOT count database were reviewed and compared to adjust the July 2020 traffic volumes to be representative “typical” 2021 traffic volumes.

- US Route 206 north of Stuckles Pond Road – Tuesday, April 18, 2017
- Stuckles Pond Road east of US Route 206 – Wednesday, August 15, 2018
- Greendale Road west of US Route 206 – Wednesday, August 15, 2018

In order to perform an appropriate comparison, the 2017 and 2018 volumes were increased to better represent 2021 conditions by applying the roadways respective growth rate, obtained from the NJDOT Annual Background Growth Rate Table, for a period of four (4) years and three (3) years, respectively. Additionally, the 2020 counts were increased to better represent 2021 conditions by applying a growth rate of 1.75%, obtained from the NJDOT Annual Background Growth Rate Table, for a period of one (1) year. The adjusted 2017 and 2018 traffic volumes were then compared to the adjusted 2020 traffic counts in each location as summarized in Tables I through III below.

Table I
Peak Hour Traffic Count Comparison - Route 206 north of Stickles Pond Road

Date	As-Counted				With Background Growth ^[1]				COVID-19 Adjustment Factor			
	AM		PM		AM		PM		AM		PM	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
April 2017	534	417	579	576	556	434	603	599	1.03	-	-	1.07
July 2020	532	638	720	552	542	649	732	562				

^[1] April 2017 data increased by 1.0% per NJDOT Annual Background Growth Rate Table compounded annually for four years.
July 2020 data increased by 1.75% per NJDOT Annual Background Growth Rate Table compounded annually for one year.

As seen above, the current traffic volumes along Route 206 were generally found to be representative of “typical” existing conditions. It is noted that the northbound volumes during the AM peak hour and the southbound volumes during the PM peak hour were found to be just lower than the historical volumes grown to the current year and were therefore adjusted to present a conservative analysis.

As detailed below, the volumes along Greendale Road and Stickles Pond Road were found to be lower than the historical volumes and as a result, the volumes along Route 206 would be further increased to be greater than the historical volumes.

Table II
Peak Hour Traffic Count Comparison - Greendale Road west of Route 206

Date	As-Counted				With Background Growth ^[1]				COVID-19 Adjustment Factor			
	AM		PM		AM		PM		AM		PM	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
August 2018	160	118	162	172	167	123	169	180	1.51	1.78	1.17	1.38
July 2020	109	68	143	128	111	69	145	130				

^[1] August 2018 data increased by 1.50% per NJDOT Annual Background Growth Rate Table compounded annually for three years.
July 2020 data increased by 1.75% per NJDOT Annual Background Growth Rate Table compounded annually for one year.

As seen above, the current traffic volumes along Greendale Road were found to be lower than the historical volumes grown to the current year. Therefore, adjustment factors of 1.51 and 1.17 were applied to the weekday AM and PM eastbound peak hour volumes, respectively, at the intersection of Route 206 and Stickles Pond Road/Greendale Road to provide a conservative analysis.

Table III
Peak Hour Traffic Count Comparison - Stickles Pond Road east of Route 206

Date	As-Counted				With Background Growth ^[1]				COVID-19 Adjustment Factor			
	AM		PM		AM		PM		AM		PM	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
August 2018	132	179	182	169	139	189	192	178	-	2.07	1.23	1.34
July 2020	155	90	153	130	158	91	156	133				

^[1] August 2018 data increased by 1.75% per NJDOT Annual Background Growth Rate Table compounded annually for three years.
July 2020 data increased by 1.75% per NJDOT Annual Background Growth Rate Table compounded annually for one year.

As seen above, the current traffic volumes along Stickles Pond Road were found to be lower than the historical volumes grown to the current year. Therefore, adjustment factors of 2.07 and 1.34 were applied to the weekday AM and PM westbound peak hour volumes, respectively, at the intersection of Route 206 and Stickles Pond Road/Greendale Road to provide a conservative analysis.

As a result of applying the above adjustment factors, the westbound volumes along Greendale Road as well as the eastbound volumes along Stickle Pond Road were still found to be slightly lower than the NJDOT historical volumes grown to the current year. As such, the volumes at the intersection of Route 206 and Stickle Pond Road/Greendale Road were proportionately increased so that the volumes in each location reflect the adjusted NJDOT historical volumes. This approach was extremely conservative and ensured that the peak hour volumes in all three locations were equal to or greater than the NJDOT ATR volumes grown to the current year. All NJDOT historical count data is appended.

Conclusion

Based upon the above comparison of historical NJDOT count data, it is the professional opinion of Dynamic Traffic that the adjusted July 2020 volumes as contained within the *Traffic Impact Study* dated February 4, 2021 provided a conservative analysis of “typical” 2021 conditions.

If you have any questions on the above, please do not hesitate to contact me.

Sincerely,

Dynamic Traffic, LLC



Corey Chase, PE
Principal
NJ PE License 47470

c: Roger Thomas (via email)
Rodrigo Baldizon/Ram Adar (via email)
Christopher Nusser (via email)

New Jersey Department of Transportation

Daily Volume from 04/17/2017 through 04/19/2017

Site Names: 1-6-045, Main Street-106.5, 00000206__, Andover Twp
 County: SUSSEX
 Funct. Rural Principal Arterial - Other
 Location: BET W SUNSET BLVD AND W SUNSET BLVD

Seasonal Factor Group: RG2_FC2
 Daily Factor Group: RG2_FC2
 Axle Factor Group: RG2_FC2
 Growth Factor Group: RG2_FC2

	Sun 04/16/2017		Mon 04/17/2017		Tue 04/18/2017		Wed 04/19/2017		Thu 04/20/2017		Fri 04/21/2017		Sat 04/22/2017	
	ROAD	S	ROAD	S	ROAD	S	ROAD	S	ROAD	S	ROAD	S	ROAD	S
00:00					56	26	30	67	29	38				
01:00					38	21	17	35	17	18				
02:00					26	14	12	26	11	15				
03:00					57	40	17	59	47	12				
04:00					78	60	18	100	73	27				
05:00					303	207	96	278	176	102				
06:00					550	324	226	562	335	227				
07:00					876	438	438	884	451	433				
08:00					951	417	534	935	416	519				
09:00					769	360	409	764	347	417				
10:00					801	360	441	781	346	435				
11:00					776	371	405	853	414	439				
12:00				767	393	374	873	406	467					
13:00				771	410	361	884	469	415					
14:00				876	423	453	843	435	408					
15:00				947	468	479	958	471	487					
16:00				1,086	520	566	1,155	576	579					
17:00				1,112	517	595	1,134	525	609					
18:00				825	391	434	847	370	477					
19:00				563	300	263	662	319	343					
20:00				409	204	205	467	263	204					
21:00				316	180	136	341	191	150					
22:00				213	89	124	212	90	122					
23:00				113	56	57	140	65	75					
Volume				7,998	3,951	4,047	13,797	6,818	6,979	5,344	2,662	2,682		
AM Peak Vol							951	438	534	935	451	519		
AM Peak Fct							1.00	1.00	1.00	1.00	1.00	1.00		
AM Peak Hr							8:00	7:00	8:00	8:00	7:00	8:00		
PM Peak Vol							1,112	520	595	576	609			
PM Peak Fct							1.00	1.00	1.00	1.00				
PM Peak Hr							17:00	16:00	17:00	16:00	17:00			
Seasonal Fct							1.012	1.012	1.012	1.012	1.012	1.012		
Daily Fct							1.014	1.014	0.994	0.994	0.970	0.970		
Axle Fct							0.500	0.500	0.500	0.500	0.500	0.500		
Pulse Fct							2.000	2.000	2.000	2.000	2.000	2.000		

New Jersey Department of Transportation

Short-term Hourly Traffic Volume for 08/14/2018 to 08/16/2018

Site names: 1-8-787, Springdale Greendell Road-6.488, 19000611__
 County: SUSSEX
 Funct Class: Rural Minor Collector
 Location: Bet US 206 and Huntsville Road

Seasonal Factor Grp: rg2_6R
 Daily Factor Grp: rg2_6R
 Axle Factor Grp: rg2_6R
 Growth Factor Grp: rg2_6R

	Sun, Aug 12, 2018		Mon, Aug 13, 2018		Tue, Aug 14, 2018		Wed, Aug 15, 2018		Thu, Aug 16, 2018		Fri, Aug 17, 2018		Sat, Aug 18, 2018		
	Road	E	W	Road	E	W	Road	E	W	Road	E	W	Road	E	W
00:00								17	4	13	30	10	20		
01:00							12	5	7	10	4	4	6		
02:00							4	1	3	12	4	8			
03:00							15	6	9	7	4	3			
04:00							6	4	2	7	3	4			
05:00							61	27	34	72	33	39			
06:00							117	54	63	122	57	65			
07:00							217	130	87	218	129	89			
08:00							248	147	101	278	160	118			
09:00							217	116	101	203	93	110			
10:00							163	86	77	168	81				
11:00							203	99	104	221	101	120			
12:00							193	95	98	188	91	97			
13:00							199	84	115	196	84	112			
14:00							179	75	104	188	80	108			
15:00							249	111	138	246	107	139			
16:00							258	117	141	269	116	153			
17:00							283	124	159	334	162	172			
18:00							207	91	116	237	108	129			
19:00							145	63	82	186	79	107			
20:00							147	61	86	138	51	87			
21:00							92	30	62	99	44	55			
22:00							58	21	37	56	18	38			
23:00							32	10	22	39	11	28			
Total							2,408	1,067	1,341	3,479	1,633	1,846	959	497	462
AM Peak Vol										248	147	120			
AM Peak Fct										1	1	1			
AM Peak Hr										8:00	11:00				
PM Peak Vol							283	124	159	334	162	172			
PM Peak Fct							1	1	1	1	1	1			
PM Peak Hr							17:00	17:00	17:00	17:00	17:00	17:00			
Seasonal Fct							1.027	1.027	1.027	1.027	1.027	1.027	1.027	1.027	1.027
Daily Fct							1.011	1.011	1.011	.965	.965	.947	.947	.947	.947
Axle Fct							.493	.493	.493	.493	.493	.493	.493	.493	.493
Pulse Fct							2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000

New Jersey Department of Transportation

Short-term Hourly Traffic Volume for 08/14/2018 to 08/16/2018

Site names: 1-8-790.YATES AVE--26,19021014__
 County: SUSSEX
 Funct Class: Urban Local
 Location: BET US 206 AND BERNARD DR

Seasonal Factor Grp: rg2_7U
 Daily Factor Grp: rg2_7U
 Axle Factor Grp: rg2_7U
 Growth Factor Grp: rg2_7U

	Sun, Aug 12, 2018			Mon, Aug 13, 2018			Tue, Aug 14, 2018			Wed, Aug 15, 2018			Thu, Aug 16, 2018			Fri, Aug 17, 2018			Sat, Aug 18, 2018			
	Road	E	W	Road	E	W	Road	E	W	Road	E	W	Road	E	W	Road	E	W	Road	E	W	
00:00									24	10	14	14	26	12	14							
01:00									14	5	9	14	9	14	7	7						
02:00									8	2	6	6	6	2	4							
03:00									6	1	5	6	6	1	5							
04:00									10	4	6	6	14	9	5							
05:00									76	37	39	75	37	38	37							
06:00									167	74	93	157	68	89	89							
07:00									253	98	155	258	127	131	131							
08:00									309	124	185	311	132	179	179							
09:00									246	110	136	269	125	144	144							
10:00									219	105	114	195	114	81	81							
11:00								238	116	122	262	123	139									
12:00								237	103	134	215	104	111									
13:00								260	146	114	222	103	119									
14:00								259	138	121	233	132	101									
15:00								270	144	126	329	163	166									
16:00								316	164	152	323	175	148									
17:00								316	166	150	351	182	169									
18:00								235	123	112	306	157	149									
19:00								213	142	71	182	101	81									
20:00								123	64	59	197	102	95									
21:00								72	45	27	107	67	40									
22:00								57	26	31	49	21	28									
23:00								38	24	14	28	17	11									
Total								2,634	1,401	1,233	4,136	2,017	2,119	1,331	635	696						
AM Peak Vol											309	124	185									
AM Peak Fct											1	1	1									
AM Peak Hr											8:00	8:00	8:00									
PM Peak Vol								316	166	152	351	182	169									
PM Peak Fct								1	1	1	1	1	1									
PM Peak Hr								16:00	17:00	16:00	17:00	17:00	17:00									
Seasonal Fct								.993	.993	.993	.993	.993	.993	.993	.993	.993						
Daily Fct								.913	.913	.951	.951	.951	.951	.951	.893	.893						
Axle Fct								.498	.498	.498	.498	.498	.498	.498	.498	.498						
Pulse Fct								2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000						