

# Cloewood Final Environmental Impact Statement

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## 10.1 Errata & Additions

### 10.1.1 Errata

(a) The Project's development area calculations are shown on the cover sheet of the Site Plan in Section 10.4 of the FEIS, 4, which replaces Appendix A of the DEIS. The Project is consistent with the Village's zoning code without the need for variances.

The Project's proposed density has not changed and consists of 600 single-family homes. However, all references in the DEIS to 43 affordable housing units should be replaced with 94, as the Project is now proposing 94 affordable housing units. Nine of the affordable housing units are from the Project's RC-1 Zoning District as indicated in the DEIS, and 85 (instead of the previously proposed 34 in the DEIS) of the affordable housing units are included as part of the Project's adjusted base lot count in accordance with the updated Village Zoning Code §235-14.1.A(3)(a) which encourages the development of more affordable housing. The Project would not utilize §235-14.1.A(3)(b) and (c) as part of the adjusted base lot count. Additionally, habitat area for threatened or endangered flora or fauna is not listed under the Village Zoning Code's primary conservation areas. It should be disregarded where referenced in the DEIS.

The Project would preserve 50% of the Project Site as open space. All DEIS references to 80% open space should be replaced with 50%. Some of the Project's lot sizes have been enlarged as shown on the revised Site Plan Package in Section 10.4 of the FEIS. The Project as proposed is consistent with all sections of the most updated Village Zoning Code, including the Zoning Overlay requirements.

(b) The Project is not proposing park and ride facilities. References to them in the DEIS should be ignored. However, comment from NYSDOT has indicated that NYSDOT is interested in pursuing a Public Park and Ride facility. Should the NYSDOT further pursue the development of a public park and ride facility, the Project would coordinate with NYSDOT and remains willing to transfer such land for a public park and ride facility to the NYSDOT if the Village does not object to the facility. If ultimately reintegrated into the Project, information applicable to the public park and ride facility can be found in the DEIS.

(c) The Project is not proposing public swimming pools and all references to them in the DEIS should be disregarded. The 9,600 gallons of water per day allocated in the DEIS for the previously proposed swimming pools would be available, if needed, for other Project community facilities.

(d) In the first paragraph of Section 3.8 of the DEIS addressing Surface Water and Wetlands, the word SWPPP stands for Stormwater Pollution Prevention Plan. Page 3.8-1 describes drainage "into the stream through Blaggs Cove;" however, it would not drain into Blaggs Clove. It would

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drain into an unnamed creek and/or flow path tributary to Satterly Creek. The wastewater outfall latitude and longitude is 41°22'41.98"N and 74°10'15.32"W as reflected in Section 10.3 of the FEIS in responses to the NYSDEC.

(e) All references in the DEIS to the proposed Town of Palm Tree, including those on Figures and Maps should be read as the existing Town of Palm Tree.

(f) All references in the DEIS, including Section 3.7, regarding steep slopes of (greater than) 15% should be read as steep slopes of greater than 25%, which is the percentage referenced in the Village's Zoning Code §235-4. The Project would avoid development on slopes of greater than 25% to the greatest extent practicable and would incorporate grading on those that are to decrease the slope as shown on the Site Plan where necessary. The DEIS incorrectly states 15% instead of 25% and states all such slopes would be avoided, when they will be avoided to the greatest extent practicable or graded.

(g) The floor plans shown in Section 2.20 of the DEIS are illustrative and may be adjusted by the builder and/or home buyer.

(h) The Project's construction would occur only during allowable times as per the Village Zoning Code. Specifically, §73-4.C(1)(a) and (b) states "no person shall operate or permit to be operated any tools, machinery or equipment used in construction, drilling or demolition work: between the hours of sunset and 8:00am Monday through Saturday or at any time on Sunday or legal holidays, such that the sound there from creates an unreasonable noise across a residential real property boundary." The Zoning Code further describes this unreasonable noise as "the sound level at or across a real property boundary exceeds an 90 dB(A) for the daily period of operation." References in the DEIS to construction at times prior to 8:00am and after sunset during the week and/or on Sunday or legal holidays should be disregarded except for construction that would not create noise inconsistent with the Village's Zoning Code.

(i) The Applicant has proposed to rename Road C from Woodhull Avenue to Hawaii Avenue and Road J Tuthill Road to Alaska Road as the previously proposed roadway names are already in existence in the Blooming Grove area. These revisions apply to Table 12 in Section 2.0 of the DEIS. It is understood that all roadway names are subject to United State Post Office and Division of Emergency Communications (Orange 911) approvals.

(j) Updated information in regard to the threatened and endangered species report and evaluation included in Appendix C and summarized in Section 3.6 is found in Section 10.3 of the FEIS. In coordination with the NYSDEC, the Applicant has submitted an Incidental Taking Permit which includes measures to permanently preserve land to benefit the Timber Rattlesnake Species. This permit should be included under required approvals in Section 1.0 of the DEIS.

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The Project’s preservation area is inclusive of 209± acres of the Site, as well as 61.88± acres of additional land bordering the Project Site located in the Town owned by the Applicant. The proposed preservation area is suitable habitat that is contiguous with the site and Schunnemunk Mountain, and will be preserved in perpetuity as Timber rattlesnake habitat. The preservation of land provides a “net benefit” to off-set the loss of suitable foraging habitat that would occur by the Project.

The following table illustrates the ecological communities located on the Project Site, as well and the permanent and temporary impacts to such communities. It replaces Table 363 and Figures 361a and 361b from Section 3.6 of the DEIS.

Table 1: Clovewood: Ecological Community Type Table					
Ecological Community Type	Overall Size	Permanent Impact Proposed	Temporary Impact Proposed	Overall Impact Proposed	Percent Impacted
Acidic Talus Slope Woodland	68.18± Acres	None	None	None	0%
Chestnut Oak Forest	43.00± Acres	None	None	None	0%
Oak-Tulip Tree Forest	164.30± Acres	04.00± Acres	None	4.00± Acres	2%
Successional Hardwood Forest	286.15± Acres	195.30± Acres	None	195.30± Acres	68%
Successional Old Field	65.40± Acres	33.40± Acres	03.80± Acres	37.20± Acres	57%
Successional Shrub Land	25.63± Acres	01.80± Acres	00.40± Acres	02.20± Acres	8%
Palustrine Forested Wetland	14.31± Acres	None	None	None	0%
Palustrine Scrub-shrub Wetland	10.74± Acres	None	None	None	0%
Palustrine Emergent Wetland	05.47± Acres	None	None	None	0%
Artificial Pond	04.46± Acres	None	None	None	0%
Existing Res. Development	20.53± Acres	12.80± Acres	00.50± Acres	13.30± Acres	65%
Rocky Headwater Stream	22,640± Linear Feet	295± Linear Feet	None	295± Linear Feet	1%
<b>Totals</b>	<b>708.17± Acres</b>	<b>247.30± Acres</b>	<b>4.70± Acres</b>	<b>252.00± Acres</b>	<b>35.60%</b>

(k) The alternatives analysis in the DEIS (referenced in Sections 1.0 and 4.0) should be read as follows: In addition to the proposed Project, this Scoping Document required the Environmental Impact Statement assesses the No Action Condition, Low Density and Base Lot Count Alternatives.

*No Action Condition:* Under this alternative, the Project would be left as is, with no action. The direct financial effects of leaving the land as is -- fallow and without any economically productive use -- render the No Action Condition unreasonable and infeasible. The Applicant is in bankruptcy and is required to have a feasible plan for use of the Project Site to retain it. Otherwise, it would be liquidated at considerable financial loss to the Applicant. The No Action Condition would also fail to address any of the local and regional unmet demand for housing, including affordable housing.

*Low Density Alternative:* Under this alternative, the Project would propose 70 dwelling units on 10-acre lots and not undergo the Site Analysis Process. Because under the Low Density Alternative

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the Project would have excess water supply from existing wells, this alternative could induce growth elsewhere and would be based on very large minimum lot sizes which would fail to even minimally satisfy the local and regional need for housing, including affordable housing. (This removes reference on page 4.0-2 to a development of 70 units only preserving 50% of the property as open space in accordance with Commenter No. 40.) Also, this alternative would fail to generate the revenue necessary as approved in the bankruptcy plan by the U.S. Court. Accordingly, the Low Density Alternative is neither a reasonable nor feasible alternative.

*Base Lot Count Alternative:* This is the density allowed by the Village Zoning Code in the RR Zoning District if a landowner chooses not to utilize the adjusted base lot count option after completing the site analysis process. The Village Zoning Code §235-14.1.A(3) encourages the development of affordable housing by allowing a landowner to utilize the adjusted base lot count. However, the Base Lot Count Alternative would not include the adjusted base lot count provision and would therefore not include any affordable housing units.

In addition, this alternative would not be consistent with the community character in the Village as approximately 90% of parcels in the Village's RR Zoning District contain lot sizes of less than one acre in size, as shown in Figure 345 of Section 3.4, whereas this alternative would be based on a density of one dwelling unit per two acres. This alternative would also not be consistent with the Orange County Comprehensive Plan, which identifies the Project Site as located within a Priority Growth Area. The average density of parcels in other comparable Priority Growth Areas in Orange County contain approximately 1,000 parcels per square mile versus this alternative, which would include just 340 units on over one square mile.

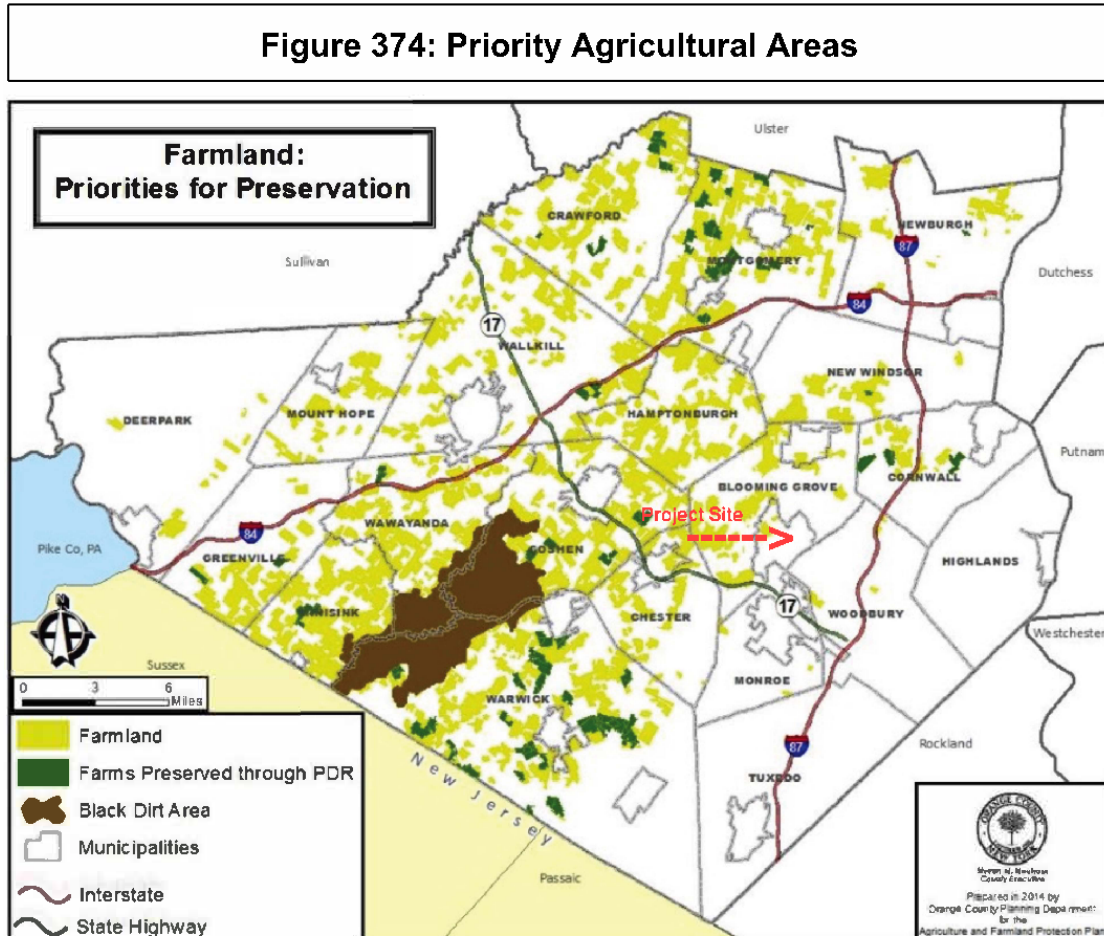
Moreover, this alternative would fail to significantly address local and regional housing needs, especially for affordable housing. Because of the critical need for housing in the region and the suitability of the Project Site to support such housing, alternatives with less housing than what could be suitably provided in accordance with the Zoning Code are unreasonable given the demand for housing in the region as well as the rising costs that have the potential to affect the affordability of decent housing.

Finally, this alternative would generate far less revenue than the Project, rendering the alternative unreasonable and economically infeasible, both because the cost of infrastructure development is significantly more reasonable when greater density is proposed and also because there are additional fiscal benefits to homebuyers and the community from greater density development. An additional benefit of proposing greater density development is that it allows the allocation of housing for a growing population in a more precise area rather than spread out throughout a larger region. Also, the plan approved by the U.S. Bankruptcy Court assumes a development consisting of 600 lots/homes, which is permitted by the Village Zoning Code as of right and proposed by Project.

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*Proposed Project (With Action Condition):* The proposed Project would include a 600 single family lot/home subdivision fully described throughout this Environmental Impact Statement. The full analysis of the potential environmental impacts from the proposed Project is set forth throughout the EIS, as well as in referenced appendices. The EIS concludes the proposed Project would not have the potential to generate any significant adverse environmental impacts, while concurrently addressing local and regional needs for housing, including affordable housing. Furthermore, the proposed Project is the only economically feasible development and the only one which would generate sufficient revenue to satisfy the plan approved for the Applicant by the U.S. Bankruptcy Court, while also addressing current and future, local and regional housing needs.

(l) The following Figure 374 from Section 3.7 of the DEIS has been revised to include an arrow indicating the location of the Project Site.



(m) Section 10.5 of the FEIS includes the revised SWPPP, which replaces Appendix H of the DEIS.

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(n) As review of the Project and development of the Project's wells continues all information related to the well testing and water quality would be submitted to the Village and its engineer.

(o) The Project Applicant would work with Village to pick the management approach with which they are most comfortable with and which is most beneficial to both the Village in regard to the management of the Project's wastewater management facility.

(p) The Project would participate in the Village's efforts to upgrade NYS Route 208 to four lanes by reserving a 30 foot right of way along the Project Site's entire frontage on NYS Route 208 to be dedicated in the future to the Village for such purpose.

### **10.1.2 Additions**

(a) Following are additions prepared to Section 3.12 of the DEIS in regard to noise. The additional analyses have been prepared by Tim Miller Associates. The noise monitoring locations were carefully selected to provide representative baseline noise conditions on and off-site near sensitive receptors. Figure 3121 of Section 3.12 the DEIS shows the noise receptor locations (nearby residences) in relation to the monitoring locations and they closely correspond. The noise monitoring locations were submitted to the Co-lead Agency Board Members on August 10, 2016 prior to the noise study. The Lead Agencies' consultants agreed to the monitoring locations and study parameters, as indicated in a memo dated October 28, 2016. Later, another Village consultant suggested an additional monitoring location at the end of Hilltop Drive (Location 7) and this was added to the study. The monitoring locations reflect locations where Project traffic noise is expected to increase near the entrances (Locations 1 and 3), along major roadways to and from the site (Locations 1, 2, 3 and 6), and for existing neighborhoods northwest and southeast of the site (Locations 4, 5 and 7).

The noise study utilized Cassella CEL-633A sound level meters. The instruments were programmed to collect measurements at one-minute intervals over the entire monitoring period. While the complete data set was collected, specific intervals were averaged and reported, as described in the DEIS. The weather during the monitoring was mostly cloudy and cool with average temperatures of approximately 45 degrees F. No precipitation occurred during the monitoring.

Morning and afternoon periods were selected to provide representative noise conditions during daytime periods. Given that noise conditions at locations 4, 5 and 7 are distant from any major roadways or known noise sources, the timing of daytime measurements was not critical. As shown in the Table below, noise measurements were collected continuously during the monitoring period, but were analyzed, and average noise was calculated, for specific periods corresponding to peak

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traffic periods and to daytime periods. The time periods noise was measured corresponding to the different locations is shown in the table to the right. All monitoring locations at the property lines (Locations 1, 2 3 and 5) were within 50 feet of the property line. The scale of Figure 3121 makes it difficult to show the exact locations of the monitoring points; however, it shows the areas which were all within 50 feet.

Location 1	7:45 am to 6:07 pm
Location 2	8:00 am to 5:45 pm
Location 3	7:36 am to 6:12 pm
Location 4	8:31 am to 5:48 pm
Location 5	8:24 am to 5:54 pm
Location 6	7:23 am to 6:14 pm
Location 7	8:09 am to 5:43 pm

In regard to noise corresponding with traffic, the typical weekday Peak AM traffic period was found to be 7:30 AM to 8:30 AM and the typical Peak PM period was found to be 5:00 PM to 6:00 PM. The monitoring periods at locations related to traffic noise impacts (Locations 1, 2, 3, and 6) captured the majority of the Peak AM and PM traffic periods. The NYSDOT criteria of a 6 dBA noise increase due increased traffic was used to determine a Mobile Source (traffic) impact, as explained on page 3.12-8 of Section 3.12 of the DEIS. The DEIS explains that “Although the Project is not a highway project, the 6 dBA criteria provides a useful measure by which to compare the No-Build and Build Conditions” (page 3.12-9). Additionally, baseline existing noise measurements were taken during weekday periods to compare to future mobile noise sources or traffic noise. Traffic from the project is anticipated to be highest during weekday periods. Stationary noise from the development (from heating and cooling equipment, lawn mowers), which occurs both during weekday and week-end periods is not expected to a significant source of noise.

There is little vegetation at the northern entrance to Clove Road and at the southwestern entrance to Clove Road. Vegetation in these locations would not reduce traffic noise levels. A substantial vegetative buffer would be retained along Clove Road between the two entrances, reducing the noise from the interior of the development for residents on the west side of Clove Road. A 10 dBA reduction in noise for vegetation is not discussed. Noise reduction from vegetation is only described in general terms on page 3.12-7.

As described in the DEIS, a New York City Environmental Quality Review (“CEQR”) Manual first-level screening analysis was used to analyze the potential increase in noise due to traffic. The traffic study was used to project future traffic levels and corresponding increases in noise levels at specific locations. Analysis with highway noise software was not specified in the adopted Scoping Document. Calculations for the average noise levels during selected periods are provided in the following tables.

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Noise Calculations - No Build Condition AM							
Intersection #20-21 CR. 27 Clove Road/North Entrance							
	Existing Total PCE (E PCE)	Future No Build Total PCE (F PCE)	F PCE/ E PCE	Log10	Log10 * 10 = F NL Increase (dBA)	E NL (dBA)	F NL (dBA)
<b>Intersection #20-21 AM</b>							
CR. 27 Clove Road/North Entrance	552	662	1.20	0.08	0.79	57.2	57.99
<b>Total Noise Increase for PM East of Site at Intersection=</b>					<b>0.79</b>		

Equation Used:

$$F\ NL = 10 * \log_{10} (F\ PCE/E\ PCE) + E\ NL$$

$$F\ NL\ IN = 10 * \log_{10} (F\ PCE/E\ PCE)$$

F NL IN - Future Noise Level Increase

F NL - Future Noise Level (Calculating)

F PCE - Future Passenger Car Equivalent (From previous No Build Traffic Tables)

E PCE - Existing Passenger Car Equivalent (From Previous Existing Traffic Table)

E NL - Existing Noise Level (collected by TMA on November 17, 2006-Weekday PM)

Noise Calculations - No Build Condition PM							
Intersection #20-21 CR. 27 Clove Road/North Entrance							
	Existing Total PCE (E PCE)	Future No Build Total PCE (F PCE)	F PCE/ E PCE	Log10	Log10 * 10 = F NL Increase (dBA)	E NL (dBA)	F NL (dBA)
<b>Intersection #20-21 PM</b>							
CR. 27 Clove Road/North Entrance	1662	1842	1.11	0.04	0.45	56.1	56.55
<b>Total Noise Increase for PM East of Site at Intersection=</b>					<b>0.45</b>		

Equation Used:

$$F\ NL = 10 * \log_{10} (F\ PCE/E\ PCE) + E\ NL$$

$$F\ NL\ IN = 10 * \log_{10} (F\ PCE/E\ PCE)$$

F NL IN - Future Noise Level Increase

F NL - Future Noise Level (Calculating)

F PCE - Future Passenger Car Equivalent (From previous No Build Traffic Tables)

E PCE - Existing Passenger Car Equivalent (From Previous Existing Traffic Table)

E NL - Existing Noise Level (collected by TMA on November 17, 2006-Weekday PM)



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Noise Calculations - Build Condition AM							
Intersection #20-21 CR. 27 Clove Road/North Entrance							
	Existing Total PCE (E PCE)	Future Build Total PCE (F PCE)	F PCE/E PCE	Log10	Log10 * 10 = F NL Increase (dBA)	E NL (dBA)	F NL (dBA)
<b>Intersection #20-21 AM</b>							
CR. 27 Clove Road/North Entrance	552	772	1.40	0.15	1.46	57.2	58.66
<b>Total Noise Increase for PM East of Site at Intersection=</b>					<b>1.46</b>		

Equation Used:

$$F NL = 10 * \log_{10} (F PCE/E PCE) + E NL$$

$$F NL IN = 10 * \log_{10} (F PCE/E PCE)$$

F NL IN - Future Noise Level Increase

F NL - Future Noise Level (Calculating)

F PCE - Future Passenger Car Equivalent (From previous No Build Traffic Tables)

E PCE - Existing Passenger Car Equivalent (From Previous Existing Traffic Table)

E NL - Existing Noise Level (collected by TMA on November 17, 2006-Weekday PM)

Noise Calculations - Build Condition PM							
Intersection #20-21 CR. 27 Clove Road/North Entrance							
	Existing Total PCE (E PCE)	Future Build Total PCE (F PCE)	F PCE/E PCE	Log10	Log10 * 10 = F NL Increase (dBA)	E NL (dBA)	F NL (dBA)
<b>Intersection #20-21 PM</b>							
CR. 27 Clove Road/North Entrance	1662	1972	1.19	0.07	0.74	56.1	56.84
<b>Total Noise Increase for PM East of Site at Intersection=</b>					<b>0.74</b>		

Equation Used:

$$F NL = 10 * \log_{10} (F PCE/E PCE) + E NL$$

$$F NL IN = 10 * \log_{10} (F PCE/E PCE)$$

F NL IN - Future Noise Level Increase

F NL - Future Noise Level (Calculating)

F PCE - Future Passenger Car Equivalent (From previous No Build Traffic Tables)

E PCE - Existing Passenger Car Equivalent (From Previous Existing Traffic Table)

E NL - Existing Noise Level (collected by TMA on November 17, 2006-Weekday PM)

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<b>Existing AM - Int. #20-21</b>									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #20-21</b>									
<b>AM</b>									
CR 27/North Entrance	348	331	17	17	221	0	0	221	552

**Notes/Sources:**

<sup>1</sup> Maser Consulting PA., Traffic Counts

<sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;

PCE - Passenger Car Equivalent

5% intersection

<b>Existing PM - Int. #20-21</b>									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #20-21</b>									
<b>PM</b>									
CR 27/North Entrance	1338	1311	27	27	351	0	0	351	1662

**Notes/Sources:**

<sup>1</sup> Maser Consulting PA., Traffic Counts;

<sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;

PCE - Passenger Car Equivalent

2% intersection

<b>2028 No Build Weekday AM - Int. #20-21</b>									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #20-21</b>									
<b>AM</b>									
CR 27/North Entrance	410	389	21	21	273	0	0	273	662

**Notes/Sources:**

<sup>1</sup> Maser Consulting PA., Traffic Counts;

<sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;

PCE - Passenger Car Equivalent

5% Intersection

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<b>2028 No Build Weekday PM - Int. #20-21</b>									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #20-21</b>									
<b>PM</b>									
CR 27/North Entrance	1482	1452	30	30	390	0	0	390	1842

**Notes/Sources:**

<sup>1</sup> Maser Consulting PA., Traffic Counts;

<sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;

PCE - Passenger Car Equivalent

2% thru traffic

<b>2028 Weekday AM - Int. #20-21</b>									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #20-21</b>									
<b>AM</b>									
CR 27/North Entrance	496	473	23	23	299	0	0	299	772

**Notes/Sources:**

<sup>1</sup> Maser Consulting PA., Traffic Counts;

<sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;

PCE - Passenger Car Equivalent

2% WB L, 16	0.32
2% WB R, 32	0.64
5% NB T, 135	6.75
2% NB R, 11	0.22
2% SB L, 11	0.22
5% SB T, 291	14.55
	22.7

<b>2028 Build Weekday PM - Int. #20-21</b>									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #20-21</b>									
<b>PM</b>									
CR 27/North Entrance	1588	1556	32	32	416	0	0	416	1972

**Notes/Sources:**

<sup>1</sup> Maser Consulting PA., Traffic Counts;

<sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;

PCE - Passenger Car Equivalent

2% for intersection

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Noise Calculations - No Build Condition AM							
Intersection #3 CR. 27 Clove Road/Round Hill Road							
	Existing Total PCE (E PCE)	Future No Build Total PCE (F PCE)	F PCE/ E PCE	Log10	Log10 * 10 = F NL Increase (dBA)	E NL (dBA)	F NL (dBA)
<b>Intersection #3</b>							
<b>AM</b>							
CR. 27 Clove Road/Round Hill Road	630	731	1.16	0.06	0.65	56.5	57.15
<b>Total Noise Increase for PM East of Site at Intersection=</b>					<b>0.65</b>		

Equation Used:

$$F\ NL = 10 * \log_{10} (F\ PCE/E\ PCE) + E\ NL$$

$$F\ NL\ IN = 10 * \log_{10} (F\ PCE/E\ PCE)$$

F NL IN - Future Noise Level Increase

F NL - Future Noise Level (Calculating)

F PCE - Future Passenger Car Equivalent (From previous No Build Traffic Tables)

E PCE - Existing Passenger Car Equivalent (From Previous Existing Traffic Table)

E NL - Existing Noise Level (collected by TMA on November 17, 2006-Weekday PM)

Noise Calculations - No Build Condition PM							
Intersection #3 CR. 27 Clove Road/Round Hill Road							
	Existing Total PCE (E PCE)	Future No Build Total PCE (F PCE)	F PCE/ E PCE	Log10	Log10 * 10 = F NL Increase (dBA)	E NL (dBA)	F NL (dBA)
<b>Intersection #3</b>							
<b>PM</b>							
CR. 27 Clove Road/Round Hill Road	614	732	1.19	0.08	0.76	56.2	56.96
<b>Total Noise Increase for PM East of Site at Intersection=</b>					<b>0.76</b>		

Equation Used:

$$F\ NL = 10 * \log_{10} (F\ PCE/E\ PCE) + E\ NL$$

$$F\ NL\ IN = 10 * \log_{10} (F\ PCE/E\ PCE)$$

F NL IN - Future Noise Level Increase

F NL - Future Noise Level (Calculating)

F PCE - Future Passenger Car Equivalent (From previous No Build Traffic Tables)

E PCE - Existing Passenger Car Equivalent (From Previous Existing Traffic Table)

E NL - Existing Noise Level (collected by TMA on November 17, 2006-Weekday PM)

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Noise Calculations - Build Condition AM							
Intersection #3 CR. 27 Clove Road/Round Hill Road							
	Existing Total PCE (E PCE)	Future Build Total PCE (F PCE)	F PCE/ E PCE	Log10	Log10 * 10 = F NL Increase (dBA)	E NL (dBA)	F NL (dBA)
<b>Intersection #3 AM</b>							
CR. 27 Clove Road/Round Hill Road	630	798	1.27	0.10	1.03	56.5	57.53
<b>Total Noise Increase for PM East of Site at Intersection=</b>					<b>1.03</b>		

Equation Used:

$$F NL = 10 * \log_{10} (F PCE/E PCE) + E NL$$

$$F NL IN = 10 * \log_{10} (F PCE/E PCE)$$

F NL IN - Future Noise Level Increase

F NL - Future Noise Level (Calculating)

F PCE - Future Passenger Car Equivalent (From previous No Build Traffic Tables)

E PCE - Existing Passenger Car Equivalent (From Previous Existing Traffic Table)

E NL - Existing Noise Level (collected by TMA on November 17, 2006-Weekday PM)

Noise Calculations - Build Condition PM							
Intersection #3 CR. 27 Clove Road/Round Hill Road							
	Existing Total PCE (E PCE)	Future Build Total PCE (F PCE)	F PCE/ E PCE	Log10	Log10 * 10 = F NL Increase (dBA)	E NL (dBA)	F NL (dBA)
<b>Intersection #3 PM</b>							
CR. 27 Clove Road/Round Hill Road	614	795	1.29	0.11	1.12	56.2	57.32
<b>Total Noise Increase for PM East of Site at Intersection=</b>					<b>1.12</b>		

Equation Used:

$$F NL = 10 * \log_{10} (F PCE/E PCE) + E NL$$

$$F NL IN = 10 * \log_{10} (F PCE/E PCE)$$

F NL IN - Future Noise Level Increase

F NL - Future Noise Level (Calculating)

F PCE - Future Passenger Car Equivalent (From previous No Build Traffic Tables)

E PCE - Existing Passenger Car Equivalent (From Previous Existing Traffic Table)

E NL - Existing Noise Level (collected by TMA on November 17, 2006-Weekday PM)

Existing AM - Int. #3									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #3 AM</b>									
CR. 27 Clove Road/Round Hill Road	390	370	20	20	260	0	0	260	630

Notes/Sources:

<sup>1</sup> Maser Consulting PA., Traffic Counts

<sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;

PCE - Passenger Car Equivalent

5% intersection

# Clovewood Final Environmental Impact Statement

<b>Existing PM - Int. #3</b>									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #3</b>									
<b>PM</b>									
CR.27 Clove Road/Round Hill Road	494	484	10	10	130	0	0	130	614

**Notes/Sources:**

- <sup>1</sup> Maser Consulting PA., Traffic Counts;
- <sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;
- PCE - Passenger Car Equivalent

2% intersection

<b>2028 No Build Weekday AM - Int. #3</b>									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #3</b>									
<b>AM</b>									
CR.27 Clove Road/Round Hill Road	455	432	23	23	299	0	0	299	731

**Notes/Sources:**

- <sup>1</sup> Maser Consulting PA., Traffic Counts;
- <sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;
- PCE - Passenger Car Equivalent

5% Intersection

<b>2028 No Build Weekday PM - Int. #3</b>									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #3</b>									
<b>PM</b>									
CR.27 Clove Road/Round Hill Road	588	576	12	12	156	0	0	156	732

**Notes/Sources:**

- <sup>1</sup> Maser Consulting PA., Traffic Counts;
- <sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;
- PCE - Passenger Car Equivalent

2% thru traffic

<b>2028 Weekday AM - Int. #3</b>									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #3</b>									
<b>AM</b>									
CR.27 Clove Road/Round Hill Road	498	473	25	25	325	0	0	325	798

**Notes/Sources:**

- <sup>1</sup> Maser Consulting PA., Traffic Counts;
- <sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;
- PCE - Passenger Car Equivalent

5% intersection

## Clovewood Final Environmental Impact Statement

2028 Build Weekday PM - Int. #3									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #3</b>									
<b>PM</b>									
CR.27 Clove Road/Round Hill Road	639	626	13	13	169	0	0	169	795

Notes/Sources:

<sup>1</sup> Maser Consulting PA., Traffic Counts;

<sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;

PCE - Passenger Car Equivalent

2% for intersection

Noise Calculations - No Build Condition AM							
Intersection #22 CR. 27 Clove Road/South Entrance							
	Existing Total PCE (E PCE)	Future No Build Total PCE (F PCE)	F PCE/ E PCE	Log10	Log10 * 10 = F NL Increase (dBA)	E NL (dBA)	F NL (dBA)
<b>Intersection #22</b>							
<b>AM</b>							
CR. 27 Clove Road/South Entrance	1624	1962	1.21	0.08	0.82	60.8	61.62
<b>Total Noise Increase for PM East of Site at Intersection=</b>					<b>0.82</b>		

Equation Used:

$$F NL = 10 * \log_{10} (F PCE/E PCE) + E NL$$

$$F NL IN = 10 * \log_{10} (F PCE/E PCE)$$

F NL IN - Future Noise Level Increase

F NL - Future Noise Level (Calculating)

F PCE - Future Passenger Car Equivalent (From previous No Build Traffic Tables)

E PCE - Existing Passenger Car Equivalent (From Previous Existing Traffic Table)

E NL - Existing Noise Level (collected by TMA on November 17, 2006-Weekday PM)

Noise Calculations - No Build Condition PM							
Intersection #22 CR. 27 Clove Road/South Entrance							
	Existing Total PCE (E PCE)	Future No Build Total PCE (F PCE)	F PCE/ E PCE	Log10	Log10 * 10 = F NL Increase (dBA)	E NL (dBA)	F NL (dBA)
<b>Intersection #22</b>							
<b>PM</b>							
CR. 27 Clove Road/South Entrance	2034	2508	1.23	0.09	0.91	56.3	57.21
<b>Total Noise Increase for PM East of Site at Intersection=</b>					<b>0.91</b>		

Equation Used:

$$F NL = 10 * \log_{10} (F PCE/E PCE) + E NL$$

$$F NL IN = 10 * \log_{10} (F PCE/E PCE)$$

F NL IN - Future Noise Level Increase

F NL - Future Noise Level (Calculating)

F PCE - Future Passenger Car Equivalent (From previous No Build Traffic Tables)

E PCE - Existing Passenger Car Equivalent (From Previous Existing Traffic Table)

E NL - Existing Noise Level (collected by TMA on November 17, 2006-Weekday PM)

## Clovewood Final Environmental Impact Statement

Noise Calculations - Build Condition AM							
Intersection #22 CR. 27 Clove Road/South Entrance							
	Existing Total PCE (E PCE)	Future Build Total PCE (F PCE)	F PCE/E PCE	Log10	Log10 * 10 = F NL Increase (dBA)	E NL (dBA)	F NL (dBA)
<b>Intersection #22 AM</b>							
CR. 27 Clove Road/South Entrance	1624	2445	1.51	0.18	1.78	60.8	62.58
<b>Total Noise Increase for PM East of Site at Intersection=</b>					<b>1.78</b>		

**Equation Used:**

**F NL = 10 \* log10 (F PCE/E PCE) + E NL**

**F NL IN = 10 \* Log10 (F PCE/E PCE)**

F NL IN - Future Noise Level Increase

F NL - Future Noise Level (Calculating)

F PCE - Future Passenger Car Equivalent (From previous No Build Traffic Tables)

E PCE - Existing Passenger Car Equivalent (From Previous Existing Traffic Table)

E NL - Existing Noise Level (collected by TMA on November 17, 2006-Weekday PM)

Noise Calculations - Build Condition PM							
Intersection #22 CR. 27 Clove Road/South Entrance							
	Existing Total PCE (E PCE)	Future Build Total PCE (F PCE)	F PCE/E PCE	Log10	Log10 * 10 = F NL Increase (dBA)	E NL (dBA)	F NL (dBA)
<b>Intersection #22 PM</b>							
CR. 27 Clove Road/South Entrance	2034	3102	1.53	0.18	1.83	56.3	58.13
<b>Total Noise Increase for PM East of Site at Intersection=</b>					<b>1.83</b>		

**Equation Used:**

**F NL = 10 \* log10 (F PCE/E PCE) + E NL**

**F NL IN = 10 \* Log10 (F PCE/E PCE)**

F NL IN - Future Noise Level Increase

F NL - Future Noise Level (Calculating)

F PCE - Future Passenger Car Equivalent (From previous No Build Traffic Tables)

E PCE - Existing Passenger Car Equivalent (From Previous Existing Traffic Table)

E NL - Existing Noise Level (collected by TMA on November 17, 2006-Weekday PM)

Existing AM - Int. #22									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #22 AM</b>									
Route 208/Southern Entrance	1096	1052	44	44	572	0	0	572	1624

**Notes/Sources:**

<sup>1</sup> Maser Consulting PA., Traffic Counts

<sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;

PCE - Passenger Car Equivalent

4% intersection



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<b>Existing PM - Int. #22</b>									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #22</b>									
<b>PM</b>									
Route 208/Southern Entrance	1338	1280	58	58	754	0	0	754	2034

**Notes/Sources:**

<sup>1</sup> Maser Consulting PA., Traffic Counts;  
<sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;  
PCE - Passenger Car Equivalent

4% NB T, 864	34.6
5% SB T, 474	23.7
	58.3

<b>2028 No Build Weekday AM - Int. #22</b>									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #22</b>									
<b>AM</b>									
Route 208/Southern Entrance	1326	1273	53	53	689	0	0	689	1962

**Notes/Sources:**

<sup>1</sup> Maser Consulting PA., Traffic Counts;  
<sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;  
PCE - Passenger Car Equivalent

4% intersection

<b>2028 No Build Weekday PM - Int. #22</b>									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #22</b>									
<b>PM</b>									
Route 208/Southern Entrance	1644	1572	72	72	936	0	0	936	2508

**Notes/Sources:**

<sup>1</sup> Maser Consulting PA., Traffic Counts;  
<sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;  
PCE - Passenger Car Equivalent

4% NB T, 1033	41.32
5% SB T, 611	30.55
	71.87

<b>2028 Weekday AM - Int. #22</b>									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #22</b>									
<b>AM</b>									
Route 208/Southern Entrance	1713	1652	61	61	793	0	0	793	2445

**Notes/Sources:**

<sup>1</sup> Maser Consulting PA., Traffic Counts;  
<sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;  
PCE - Passenger Car Equivalent

2% WB L, 242	4.84
2% WB R, 32	0.64
4% NB T, 433	17.32
2% NB R, 75	1.5
2% SB L, 11	0.22
4% SB T, 920	36.8
	61.32

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2028 Build Weekday PM - Int. #22									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #22</b>									
<b>PM</b>									
Route 208/Southern Entrance	2118	2036	82	82	1066	0	0	1066	3102

Notes/Sources:

<sup>1</sup> Maser Consulting PA., Traffic Counts;

<sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;

PCE - Passenger Car Equivalent

2% WB L, 146	2.92
2% WB R, 20	0.4
4% NB T, 1066	42.64
2% NB R, 232	4.64
2% SB L, 33	0.66
5% SB T, 621	31.05
	82.31

Noise Calculations - No Build Condition AM							
Intersection #11 Route 208/Duelk Ave.							
	Existing Total PCE (E PCE)	Future No Build Total PCE (F PCE)	F PCE/E PCE	Log10	Log10 * 10 = F NL Increase (dBA)	E NL (dBA)	F NL (dBA)
<b>Intersection #11</b>							
<b>AM</b>							
Route 208/Duelk Ave.	2050	2440	1.19	0.08	0.76	65.3	66.06
<b>Total Noise Increase for PM East of Site at Intersection=</b>					<b>0.76</b>		

Equation Used:

$$F\ NL = 10 * \log_{10} (F\ PCE/E\ PCE) + E\ NL$$

$$F\ NL\ IN = 10 * \log_{10} (F\ PCE/E\ PCE)$$

F NL IN - Future Noise Level Increase

F NL - Future Noise Level (Calculating)

F PCE - Future Passenger Car Equivalent (From previous No Build Traffic Tables)

E PCE - Existing Passenger Car Equivalent (From Previous Existing Traffic Table)

E NL - Existing Noise Level (collected by TMA on November 17, 2006-Weekday PM)

Noise Calculations - No Build Condition PM							
Intersection #11 Route 208/Duelk Ave.							
	Existing Total PCE (E PCE)	Future No Build Total PCE (F PCE)	F PCE/E PCE	Log10	Log10 * 10 = F NL Increase (dBA)	E NL (dBA)	F NL (dBA)
<b>Intersection #11</b>							
<b>PM</b>							
Route 208/Duelk Ave.	2340	2833	1.21	0.08	0.83	63.4	64.23
<b>Total Noise Increase for PM East of Site at Intersection=</b>					<b>0.83</b>		

Equation Used:

$$F\ NL = 10 * \log_{10} (F\ PCE/E\ PCE) + E\ NL$$

$$F\ NL\ IN = 10 * \log_{10} (F\ PCE/E\ PCE)$$

F NL IN - Future Noise Level Increase

F NL - Future Noise Level (Calculating)

F PCE - Future Passenger Car Equivalent (From previous No Build Traffic Tables)

E PCE - Existing Passenger Car Equivalent (From Previous Existing Traffic Table)

E NL - Existing Noise Level (collected by TMA on November 17, 2006-Weekday PM)

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Noise Calculations - Build Condition AM							
Intersection #11 Route 208/Duelk Ave.							
	Existing Total PCE (E PCE)	Future Build Total PCE (F PCE)	F PCE/ E PCE	Log10	Log10 * 10 = F NL Increase (dBA)	E NL (dBA)	F NL (dBA)
<b>Intersection #11</b>							
<b>AM</b>							
Route 208/Duelk Ave.	2050	2951	1.44	0.16	1.58	65.3	66.88
<b>Total Noise Increase for PM East of Site at Intersection=</b>					<b>1.58</b>		

Equation Used:

$$F NL = 10 * \log_{10} (F PCE/E PCE) + E NL$$

$$F NL IN = 10 * \log_{10} (F PCE/E PCE)$$

F NL IN - Future Noise Level Increase

F NL - Future Noise Level (Calculating)

F PCE - Future Passenger Car Equivalent (From previous No Build Traffic Tables)

E PCE - Existing Passenger Car Equivalent (From Previous Existing Traffic Table)

E NL - Existing Noise Level (collected by TMA on November 17, 2006-Weekday PM)

Noise Calculations - Build Condition PM							
Intersection #11 Route 208/Duelk Ave.							
	Existing Total PCE (E PCE)	Future Build Total PCE (F PCE)	F PCE/ E PCE	Log10	Log10 * 10 = F NL Increase (dBA)	E NL (dBA)	F NL (dBA)
<b>Intersection #11</b>							
<b>OM</b>							
Route 208/Duelk Ave.	2340	3483	1.49	0.17	1.73	63.4	65.13
<b>Total Noise Increase for PM East of Site at Intersection=</b>					<b>1.73</b>		

Equation Used:

$$F NL = 10 * \log_{10} (F PCE/E PCE) + E NL$$

$$F NL IN = 10 * \log_{10} (F PCE/E PCE)$$

F NL IN - Future Noise Level Increase

F NL - Future Noise Level (Calculating)

F PCE - Future Passenger Car Equivalent (From previous No Build Traffic Tables)

E PCE - Existing Passenger Car Equivalent (From Previous Existing Traffic Table)

E NL - Existing Noise Level (collected by TMA on November 17, 2006-Weekday PM)

# Cloverwood Final Environmental Impact Statement

Existing AM - Int. #22									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
Intersection #22									
AM									
Route 208/Southern Entrance	1318	1257	61	61	793	0	0	793	2050

**Notes/Sources:**

<sup>1</sup> Maser Consulting PA., Traffic Counts

<sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;

PCE - Passenger Car Equivalent

1% EB L, 21	0.21
1% EB T, 5	0.05
1% EB R, 49	0.49
8% WB L, 75	6
1% WB T, 14	0.14
22% WB R, 23	5.06
1% NB L, 21	0.21
4% NB T, 263	10.52
21% NB R, 19	3.99
18% SB L, 17	3.06
4% SB T, 766	30.64
1% SB R, 45	0.45
	60.82

Existing PM - Int. #22									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
Intersection #22									
PM									
Route 208/Southern Entrance	1596	1534	62	62	806	0	0	806	2340

**Notes/Sources:**

<sup>1</sup> Maser Consulting PA., Traffic Counts;

<sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;

PCE - Passenger Car Equivalent

2% EB L, 30	0.6
2% EB T, 5	0.1
2% EB R, 18	0.36
5% WB L, 44	2.2
2% WB T, 13	0.26
2% WB R, 19	0.38
2% NB L, 30	0.6
4% NB T, 850	34
2% NB R, 113	2.26
2% SB L, 28	0.56
5% SB T, 410	20.5
2% SB R, 25	0.5
	62.32

## Cloverwood Final Environmental Impact Statement

<b>2028 No Build Weekday AM - Int. #22</b>									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #22</b>									
<b>AM</b>									
Route 208/Southern Entrance	1564	1491	73	73	949	0	0	949	<b>2440</b>

**Notes/Sources:**

<sup>1</sup> Maser Consulting PA., Traffic Counts;

<sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;

PCE - Passenger Car Equivalent

1% EB L, 81	0.81
1% EB T, 15	0.15
1% EB R, 24	0.34
8% WB L, 22	1.76
1% WB T, 5	0.05
22% WB R, 52	11.44
1% NB L, 22	0.22
4% NB T, 367	14.68
21% NB R, 21	4.41
18% SB L, 18	3.24
4% SB T, 889	35.56
1% SB R, 48	0.48
	<b>73.14</b>

<b>2028 No Build Weekday PM - Int. #22</b>									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #22</b>									
<b>PM</b>									
Route 208/Southern Entrance	1921	1845	76	76	988	0	0	988	<b>2833</b>

**Notes/Sources:**

<sup>1</sup> Maser Consulting PA., Traffic Counts;

<sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;

PCE - Passenger Car Equivalent

2% EB L, 48	0.96
2% EB T, 14	0.28
2% EB R, 20	0.4
5% WB L, 32	1.6
2% WB T, 5	0.1
2% WB R, 31	0.62
2% NB L, 32	0.64
4% NB T, 1018	40.72
2% NB R, 120	2.4
2% SB L, 30	0.6
5% SB T, 544	27.2
2% SB R, 27	0.54
	<b>76.06</b>

## Clovewood Final Environmental Impact Statement

2028 Weekday AM - Int. #22									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #22</b>									
<b>AM</b>									
Route 208/Southern Entrance	1907	1820	87	87	1131	0	0	1131	2951

**Notes/Sources:**

<sup>1</sup> Maser Consulting PA., Traffic Counts;

<sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;  
PCE - Passenger Car Equivalent

1% EB L, 81	0.81
1% EB T, 15	0.15
1% EB R, 24	0.24
8% WB L, 22	1.76
1% WB T, 5	0.05
22% WB R, 52	11.44
1% NB L, 22	0.22
4% NB T, 452	18.08
21% NB R, 21	4.41
18% SB L, 18	3.24
4% SB T, 1147	45.88
1% SB R, 48	0.48
	<b>86.76</b>

2028 Build Weekday PM - Int. #22									
	Total Vehicles <sup>1</sup>	Total Cars <sup>2</sup>	Total Trucks <sup>2</sup>	Total Med Trucks <sup>2</sup>	Total Med PCE	Total Large Trucks <sup>2</sup>	Total Large PCE	Truck PCE	TOTAL PCE
<b>Intersection #22</b>									
<b>PM</b>									
Route 208/Southern Entrance	2343	2248	95	95	1235	0	0	1235	3483

**Notes/Sources:**

<sup>1</sup> Maser Consulting PA., Traffic Counts;

<sup>2</sup> NYSDOT, Vehicle Distribution for road type in Region 8;  
PCE - Passenger Car Equivalent

2% EB L, 48	0.96
2% EB T, 14	0.28
2% EB R, 20	0.4
5% WB L, 32	1.6
2% WB T, 5	0.1
2% WB R, 31	0.62
2% NB L, 32	0.64
4% NB T, 1284	51.36
2% NB R, 120	2.4
2% SB L, 30	0.6
5% SB T, 700	35
2% SB R, 27	0.54
	<b>94.5</b>

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(b) Following are additions to Section 3.13 of the DEIS in regard to air quality. The additional analyses have been prepared by Tim Miller Associates. “The statement regarding the primary and secondary standards being the same” should be disregarded. Table Table 3131 (revised) following replaces Table 3131 of Section 3.13 of the DEIS. Additionally, the standards in this table have been revised per the State and Federal Air Quality Standards. When reviewing this table, it should be noted that the lead standard (3 consecutive months) is not to be exceeded.

The most current air quality monitoring data from 2018 has been added for reference and comparison to the 2016 data. The first paragraph of page 3.13-4 of Section 3.13 of the DEIS explains that Table 3133 lists the monitoring stations in the Hudson Valley that are part of NYSDEC Region 3 monitoring network. “These stations are sometimes operated over limited periods of time, and some are utilized to sample only certain parameters”. Mamaroneck is included in the Table since it is a NYSDEC Region 3 monitoring station. Rockland Co. station (Site No. 4353-02) was used in 2016 to monitor Inhalable Particulates and Ozone. No air quality data is provided in Table 3133. The data provided in Table 3134 below are federal air quality standards and replaces Table 3134 from Section 3.13 of the DEIS.

<b>Table 3134 (revised)</b>				
<b>Regional Air Quality Data Summary</b>				
<b>Monitoring Location</b>	<b>Pollutant</b>	<b>Concentration</b>	<b>Air Quality Standards</b>	<b>Within Standards</b>
Valley Central	Ozone (O3)	0.062 ppm (1)	0.070 ppm (1)	Yes
Mt. Ninham	Ozone (O3)	0.069 ppm (1)	0.070 ppm (1)	Yes
Mt. Ninham	Sulfur Dioxide (SO2)	0.11 ppb (2)	30 ppb (2)	Yes
Newburgh	Inhalable Particulates (PM2.5)	6.2 ug/m3 (3)	12 ug/m3 (3)	Yes
Wallkill	Lead (Pb)	0.01 g/m3 (4)	0.15ug/m3 (4)	Yes
Notes: (1) Not to exceed an average of 0.070 ppm during the last 3 years (beginning 2016)				
(2) Annual Arithmetic Mean in parts per billion (ppb), 12-month average not to exceed 30 ppb				
(3) Average of last 3 years annual means not to exceed 12 ug/m3				
(4) Three month rolling average, maximum not to exceed 0.15 ug/m3				
Source: NYSDEC, Region 3, Air Quality Data				

The new residential construction will include current energy efficient construction techniques and modern energy efficient appliances would be installed reducing energy requirements. Natural gas and electric will be used for cooking and heating service, rather than propane or fuel oil. These energy sources are more efficient and cleaner than propane or fuel oil.

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Table 3131 (revised)							
State and Federal Air Quality Standards							
		New York State Standards			Corresponding Federal Standards (Primary Standards)		
Pollutant	Avg Period	Conc.	Units	Stat	Conc.	Units	Stat
Sulfur Dioxide	12 consecutive months	0.03	ppm	Arithmetic Mean ("AM")	0.03	ppm	Arithmetic Mean
	24-hour	0.14	ppm	Maximum	0.14	ppm	Maximum
	3-hour	0.5	ppm	Maximum	0.5	ppb	Maximum
	1-hour (max.)	None	-	Maximum	0.075	ppb	Maximum
Carbon Monoxide	8-hour	9	ppm	Maximum	9	ppm	Maximum
	1-hour	35	ppm	Maximum	35	ppm	Maximum
Ozone	8-hour	0.07	ppm	Maximum	0.07	ppm	Maximum
Nitrogen Dioxide	12 consecutive months	0.05	ppm	Annual Mean ("AM")	100	ppb	Geometric Mean ("GM")
					53	ppb	AM
	1-hour	None	-	Maximum	0.1	ppm	Maximum
Lead <sup>2</sup>	3 consecutive months	None			0.15	µg/m <sup>3</sup>	3-mo. Average
Fine Particulate Matter (PM <sub>2.5</sub> )	12 consecutive months	None			12	µg/m <sup>3</sup>	GM
	24-hours	None			35	µg/m <sup>3</sup>	Maximum
Inhalable Particulates (PM <sub>10</sub> )	24-hours	None			150	µg/m <sup>3</sup>	Maximum
<sup>1</sup> All maximum values are concentrations not to be exceeded more than once per calendar year. (Federal Ozone Standard not to be exceeded more than three days in three calendar years).							
<sup>2</sup> Lead - Federal standards for lead not yet officially adopted by NYS, but is currently being applied to determine compliance status. Lead standards (3 consecutive months) not to be exceeded.							
<sup>3</sup> Fine Particulate Matter – Compliance with Federal Standard is determined by using the average of the 99th percentile 24 hour value during the past 3 years, which cannot exceed 35 ug/m <sup>3</sup>							

In regard to traffic, the NYSDOT Environmental Procedures Manual uses specific criteria as a basis for doing further more detailed, microscale air quality analysis. The I-1 Level of Service Screening uses level of service at affected intersections as the basis for further analysis. This screening takes into account the roadways between and around the intersections. According to the Environmental Procedures Manual, “Carbon Monoxide (CO) impacts are local; high concentrations are generally limited to within a relatively short distance of heavily traveled roadways. Consequently, it is appropriate to predict concentrations of CO on a localized or microscale basis”.

The I-2 Capture Screening Criteria, which apply to Build condition intersections with LOS D, E or F, are provided in the first paragraph of page 3.13-8 of Section 3.13, as follows: 10% or more reduction in the source-receptor distance; 10% or more increase in traffic volume on affected



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roadways between the No-Build and Build conditions; 10% or more increase in vehicle emissions; any increase in the number of queued lanes; and 20% reduction in speed.

The analysis of the potentially impacted intersections shows that the project will add substantially less than 10 percent volume to those three intersections that are anticipated to have a level of service D in the Build condition (see Table 3135 of Section 3.13 of the DEIS). Therefore, a microscale air quality analysis is not required for the three signalized intersections. Based on the screening analysis, it is not anticipated that the ambient air quality standards would be exceeded.

The last paragraph on page 3.13-7 of Section 3.13 of the DEIS explains that the LOS summarized in Table 3135 are for the Build Condition with the proposed traffic mitigation measures. The notes in Table 3135 explain that the LOS and volumes provided are for AM and PM peak weekday traffic. The last paragraph on page 3.13-7 explains that each of the analyzed intersections in Table 3135 may be signalized, as per NYSDOT warrants.

Since the traffic impact study includes a potential roundabout, it should be noted a roundabout would operate similar to an unsignalized intersection or a stop sign and therefore would not require an air quality analysis. Please see the discussion in the last paragraph of page 3.13-8. The evaluation of traffic conditions for Microscale Air Quality Screening included NYS Route 208/ Route 17 ramps/ and Route 94 intersections in the Build Condition.

As described in the DEIS Section 3.13.2 Potential Impacts, the residential project has two general sources of air quality emissions: 1) from stationary sources such as fuel combustion for residential heating (stationary greenhouse gas emissions), and 2) from mobile sources, primarily passenger vehicle trips to and from the project site.

The Air Quality analysis found in DEIS Section 3.13 thoroughly evaluated potential stationary greenhouse gas emissions from the project using a US EPA Greenhouse Gas Inventory model. Project related greenhouse gas emissions were estimated and quantified. While the criteria pollutants (mobile sources) were not quantified, the potential impacts were evaluated using the NYSDOT “Environmental Procedures Manual. These are specific procedures to determine potential project impacts from criteria pollutants, including Carbon Monoxide.

Additionally, for reference, the Federal National Ambient Air Quality Primary and Secondary standards (40 CFR part 50) have been provided on the following page. As noted in the table, various methods and standards are used for measuring and reporting different pollutants.

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## NAAQS Table

The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of national ambient air quality standards. **Primary standards** provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. **Secondary standards** provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

The EPA has set National Ambient Air Quality Standards for six principal pollutants, which are called "criteria" air pollutants. Periodically, the standards are reviewed and may be revised. The current standards are listed below. Units of measure for the standards are parts per million (ppm) by volume, parts per billion (ppb) by volume, and micrograms per cubic meter of air ( $\mu\text{g}/\text{m}^3$ ).

Pollutant [links to historical tables of NAAQS reviews]	Primary/ Secondary	Averaging Time	Level	Form	
Carbon Monoxide (CO)	primary	8 hours	9 ppm	Not to be exceeded more than once per year	
		1 hour	35 ppm		
Lead (Pb)	primary and secondary	Rolling 3 month average	0.15 $\mu\text{g}/\text{m}^3$ (1)	Not to be exceeded	
Nitrogen Dioxide (NO <sub>2</sub> )	primary	1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years	
	primary and secondary	1 year	53 ppb (2)	Annual Mean	
Ozone (O <sub>3</sub> )	primary and secondary	8 hours	0.070 ppm (3)	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years	
Particle Pollution (PM)	PM <sub>2.5</sub>	primary	1 year	12.0 $\mu\text{g}/\text{m}^3$	annual mean, averaged over 3 years
		secondary	1 year	15.0 $\mu\text{g}/\text{m}^3$	annual mean, averaged over 3 years
		primary and secondary	24 hours	35 $\mu\text{g}/\text{m}^3$	98th percentile, averaged over 3 years
	PM <sub>10</sub>	primary and secondary	24 hours	150 $\mu\text{g}/\text{m}^3$	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide (SO <sub>2</sub> )	primary	1 hour	75 ppb (4)	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years	
	secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year	

(1) In areas designated nonattainment for the Pb standards prior to the promulgation of the current (2008) standards, and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5  $\mu\text{g}/\text{m}^3$  as a calendar quarter average) also remain in effect.

(2) The level of the annual NO<sub>2</sub> standard is 0.053 ppm. It is shown here in terms of ppb for the purposes of clearer comparison to the 1-hour standard level.

(3) Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) O<sub>3</sub> standards additionally remain in effect in some areas. Revocation of the previous (2008) O<sub>3</sub> standards and transitioning to the current (2015) standards will be addressed in the implementation rule for the current standards.

(4) The previous SO<sub>2</sub> standards (0.14 ppm 24-hour and 0.03 ppm annual) will additionally remain in effect in certain areas: (1) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (2) any area for which an implementation plan providing for attainment of the current (2010) standard has not been submitted and approved and which is designated nonattainment under the previous SO<sub>2</sub> standards or is not meeting the requirements of a SIP call under the

previous SO<sub>2</sub> standards (40 CFR 50.4(3)). A SIP call is an EPA action requiring a state to resubmit all or part of its State Implementation Plan to demonstrate attainment of the required NAAQS.

### Menu of Control Measures for NAAQS Implementation

The Menu of Control Measures (MCM) provides state, local and tribal air agencies with the existing emission reduction measures as well as relevant information concerning the efficiency and cost effectiveness of the measures. State, local and tribal agencies will be able to use this information in developing emission reduction strategies, plans and programs to assure they attain and maintain the National Ambient Air Quality Standards (NAAQS). The MCM is a living document that can be updated with newly available or more current data as it becomes available.