December 29, 2008

Mr. Chris Meyer
O.J. Meyer & Son
4 Vly Road
Albany, New York 12205

RE: Updated Traffic Evaluation (2), Dutchmen Acres, Depot Road (CR 201), Town of Guilderland, Albany County, New York; CME Project No. 06-055d

Dear Mr. Meyer:

Creighton Manning Engineering, LLP (CME) previously issued a letter dated *June 27, 2008* that qualitatively reviewed the potential impacts from the Dutchman Acres project with the addition of other proposed developments in the area. The project site is located on the east side of Depot Road, north of the intersection of School Road (County Road 202). The purpose of this letter is to quantify those impacts by analyzing the intersections of County Road (CR) 201 (Depot Rd)/CR 202 (Meadowdale Road/School Road), NY Route 146/CR 202 (School Road/Diagonal Road), and NY Route 146/CR 201 (Depot Road). The following summarizes our review.

A. Traffic Volumes and Improvements

The 2015 base traffic volumes were obtained from the Draft Generic Environmental Impact Statement (DGEIS), prepared for the Northeastern Industrial Park (NEIP) by Clough, Harbour, and Associates in 2005. Trips from the proposed Matt's Farm development were added to these base volumes to arrive at the 2015 No-Build volumes. This represents future traffic volumes without the proposed Dutchman Acres project. The expected trip generation from the Dutchman Acres project was added to the 2015 No-Build volumes to arrive at the 2015 Build volumes. Trip generation and assignment for the Matt's Farm and Dutchman Acres projects can be found in CME letters dated *June 27, 2008* and *May 22, 2006*, respectively. The trip generation for each component of Dutchman Acres is attached along with the traffic volume figures summarizing the future traffic conditions.

The 2005 DGEIS recommended improvements at the intersection of School Road/Depot Road which included changing the intersection from a two-way stop into an all-way stop controlled intersection. The DGEIS also recommended a geometric change at the intersection of Route 146/School Road. It was recommended that the westbound left-turn/through lane be changed into an exclusive left-turn lane, while the exclusive right-turn lane would change into a shared through/right-turn lane. The DGEIS also recommended that Travel Demand Management (TDM) strategies be employed by both the NEIP and Guilderland High School to reduce the westbound left-turn volume on Route 146 by 10% during the AM and PM peak hours. In addition, the DGEIS recommended improving the signal timing at this intersection. The study area intersections were analyzed taking these recommended improvements into account.

B. Level of Service (LOS)

Intersection Level of Service (LOS) and capacity analysis relate traffic volumes to the physical characteristics of an intersection. Intersection evaluations were made using the latest version of the Highway Capacity Software (HCS+ version 5.3) which automates the procedures contained in the *2000 Highway Capacity Manual*. Levels of service range from A to F with LOS A conditions considered excellent with very little delay while LOS F generally represents conditions with very long delays. Attachment A contains further detailed descriptions of LOS criteria for signalized and unsignalized intersections and copies of the detailed HCS level of service reports. The relative impact of the proposed project can be determined by comparing the levels of service during the 2015 design year for the No-Build and Build traffic volume conditions. Table 1 summarizes the results of the Level of Service calculations.

Table 1 – Level of Service Summary

Intersection Approach		Control	AM Peak Hour			PM Peak Hour	
			2015 No-Build	2015 Build	2015 Build w/imp	2015 No-Build	2015 Build
CR 201 (Depot Rd)/ CR 202 (School Rd/Meadowdale Rd)		AWSC					
CR 202 (Meadowdale Rd) EB	LTR		B (10.8)	B (11.0)	---	A (8.8)	A (8.9)
CR 202 (School Rd) WB	LTR		C (17.1)	C (17.5)		B (10.7)	B (11.0)
CR 201 (Depot Rd) NB	LTR		C (16.6)	C (17.0)		B (12.7)	B (13.0)
CR 201 (Depot Rd) SB	LTR		C (17.1)	C (18.2)		A (8.8)	A (9.0)
Overall			C (16.5)	C (17.2)	---	B (11.6)	B (11.8)
NY Route 146/ CR 202 (School Rd/Diagonal Rd)		S					
NY Route 146 EB	LTR		D (51.2)	D (53.4)	D (50.2)	C (23.7)	C (23.9)
NY Route 146 WB	L		E (70.2)	E (74.4)	E (67.7)	C (21.5)	C (22.1)
	TR		A (8.7)	A (8.7)	A (6.6)	B (18.7)	B (19.0)
CR 202 (School Rd) NB	LTR		D (52.9)	E (56.7)	D (53.6)	C (32.7)	C (33.2)
CR 202 (Diagonal Rd) SB	L		D (33.1)	C (33.3)	C (24.5)	C (22.9)	C (23.0)
	TR		C (29.9)	C (29.9)	C (21.8)	C (22.4)	C (22.4)
Overall			D (54.0)	E (56.9)	D (52.4)	C (23.5)	C (23.8)
NY Route 146/ CR 201 (Depot Rd)		U					
NY Route 146 WB	LT		B (10.1)	B (10.1)	---	A (8.0)	A (8.0)
CR 201 (Depot Rd) NB	LR		D (30.1)	D (32.6)		E (38.1)	E (41.5)

Key: X (Y.Y) = Level of Service (Delay, seconds per vehicle)
U, S, AWSC = Unsignalized, Signalized, All Way Stop Control
NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound
L = Left, T = Through, R = Right
--- = Not Applicable

The results show that from the No-Build to Build conditions there are no significant increases in delay at any of the analyzed intersections. However, it is noted that by reducing the overall cycle length of the signal at the Route 146/School Road intersection, delays will be improved to comparable or better than the No-Build conditions. Therefore, no other traffic related mitigation is required. Furthermore, in the June 27, 2008 letter it was reported that the westbound approach of School Road would operate at LOS C/F which included the continued operation of the Depot Road/School Road/Meadowdale Road intersection as a two-way stop controlled intersection. The analysis in this letter and in Table 1 above assumes the NEIP proposed conversion of the intersection to an all-way stop intersection which will provide an equal opportunity for drivers to

enter the intersection, thus operating at an overall LOS B/C during the peak hours.

C. Conclusions

The 2015 Build traffic volumes take into account traffic generated by the NEIP expansion, Matt's Farm project, and Dutchman Acres project. Theses trips were added to the roadway network and analyzed with the recommended improvements from the 2005 DGEIS. There will be no significant delay increases as a result of the build out of the Dutchman Acres project. Furthermore, modifications to the signal timing at the Route 146/School Road intersection will improve operations to comparable or better than No-Build conditions. It is recommended that if all three projects are developed, the signal timings at this intersection be adjusted to improve the flow of traffic. No other traffic related mitigation is required.

Please feel free to call our office if you have any questions or comments regarding the above analysis.

Respectfully submitted,
Creighton Manning Engineering, LLP

Kenneth Wersted, P.E.
Project Manager

Attachments

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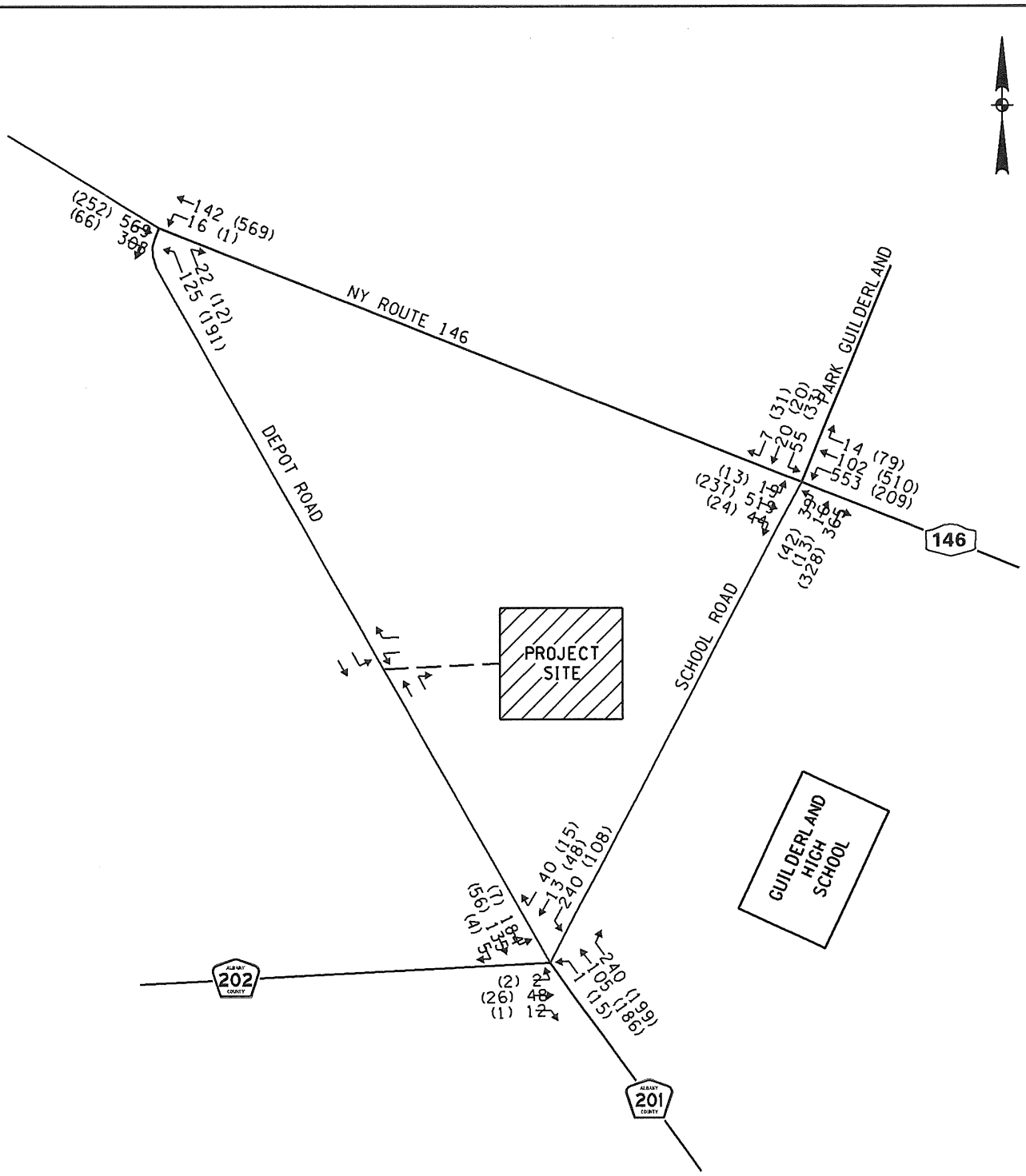


LEGEND:
AM PEAK HOUR (PM PEAK HOUR)

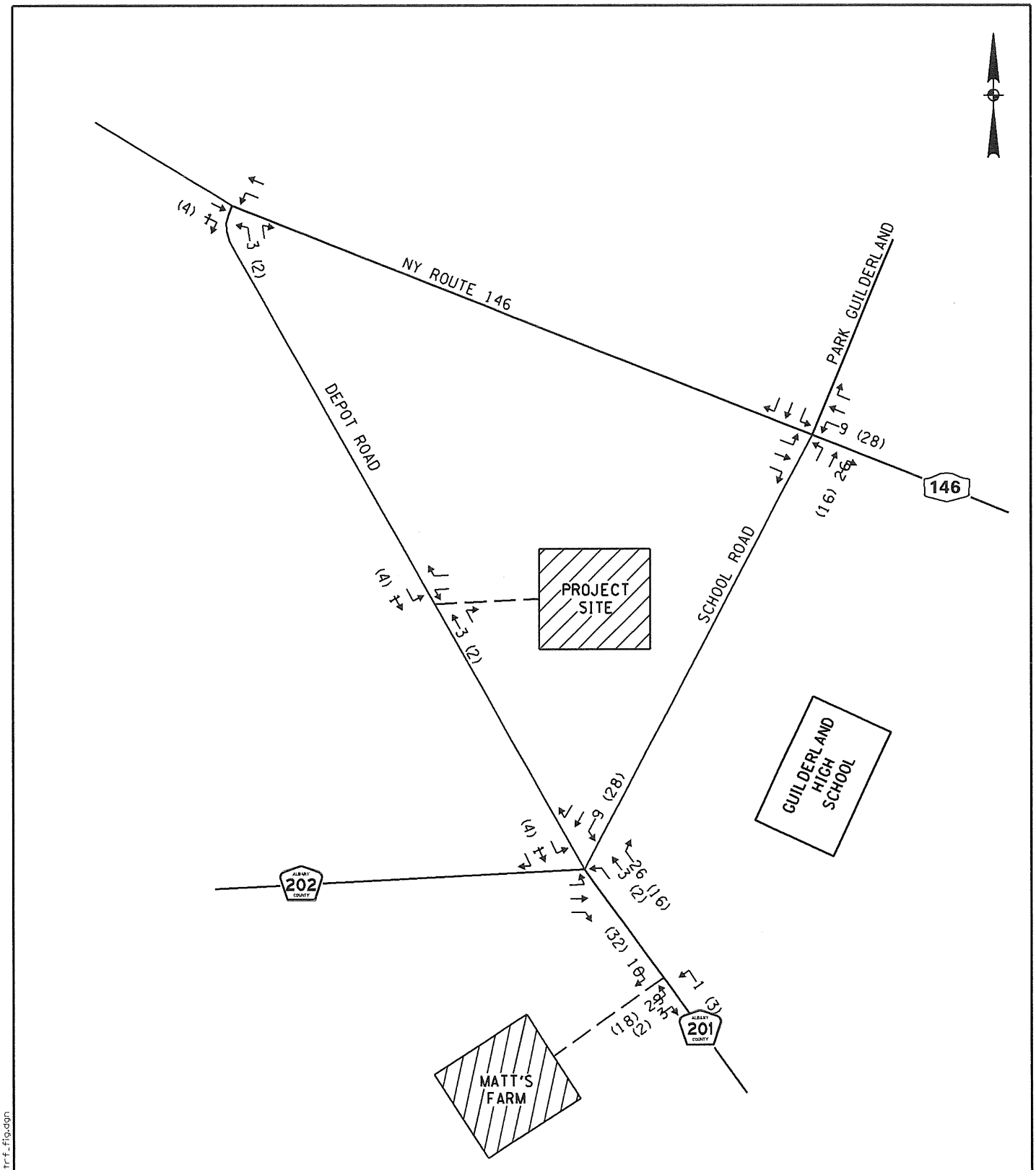
2015 EXISTING TRAFFIC VOLUMES
(FROM 2005 CHA DGEIS OF NEIP)

DUTCHMEN ACRES SUBDIVISION
TOWN OF GUILDERLAND, NEW YORK

CREIGHTON MANNING ENGINEERING, LLP

PROJECT: 06-055d	DATE: 12/08	FIGURE: 1

X:\Old Projects\2006\06-055d\acad\dgn\trf_fig.dgn



LEGEND:
AM PEAK HOUR (PM PEAK HOUR)

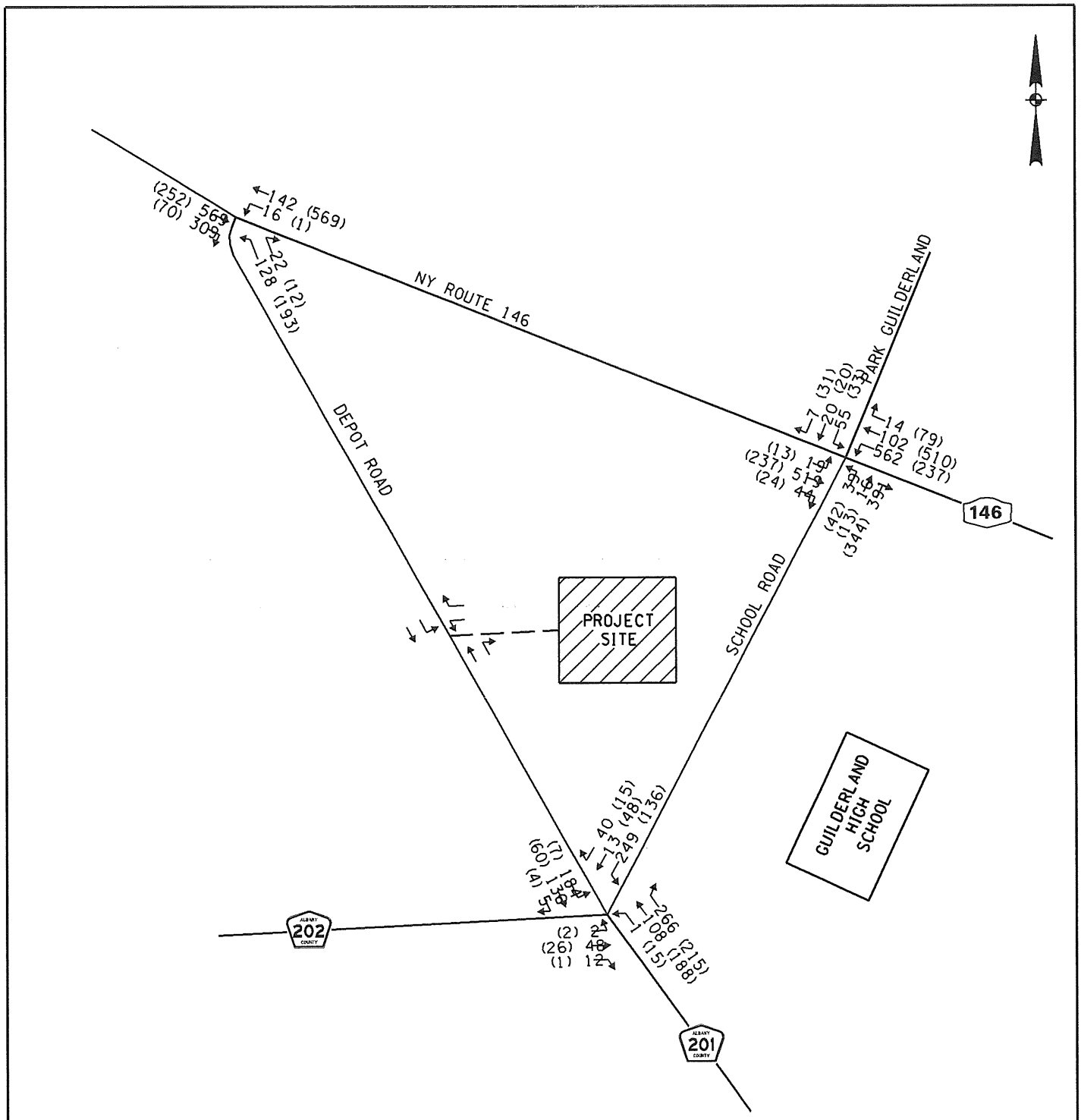
TRIP ASSIGNMENT FOR MATT'S FARM

DUTCHMEN ACRES SUBDIVISION
TOWN OF GUILDERLAND, NEW YORK

CREIGHTON MANNING ENGINEERING, LLP

PROJECT: 06-055d	DATE: 12/08	FIGURE: 2

X:\Old Projects\2006\06-055d\acadd\dgn\trf_fig.dgn



LEGEND:
AM PEAK HOUR (PM PEAK HOUR)

2015 NO-BUILD TRAFFIC VOLUMES
(W/ NEIP & MATT'S FARM)

DUTCHMEN ACRES SUBDIVISION
TOWN OF GUILDERLAND, NEW YORK

CREIGHTON MANNING ENGINEERING, LLP

PROJECT: 06-055d	DATE: 12/08	FIGURE: 3

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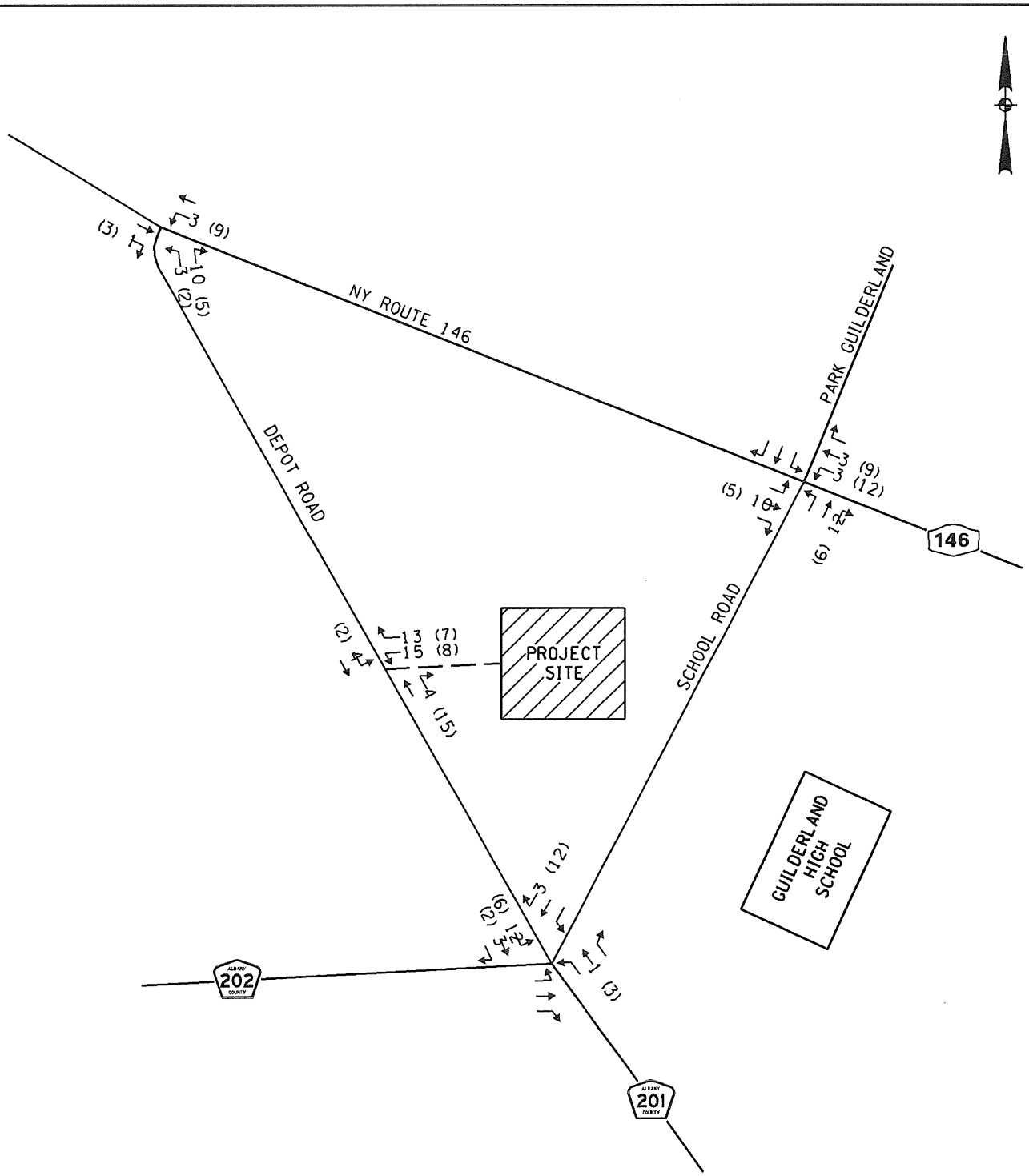

LEGEND:
AM PEAK HOUR (PM PEAK HOUR)

DUTCHMAN ACRES TRIP ASSIGNMENT

DUTCHMEN ACRES SUBDIVISION
TOWN OF GUILDERLAND, NEW YORK

CREIGHTON MANNING ENGINEERING, LLP

PROJECT: 06-055d	DATE: 12/08	FIGURE: 4

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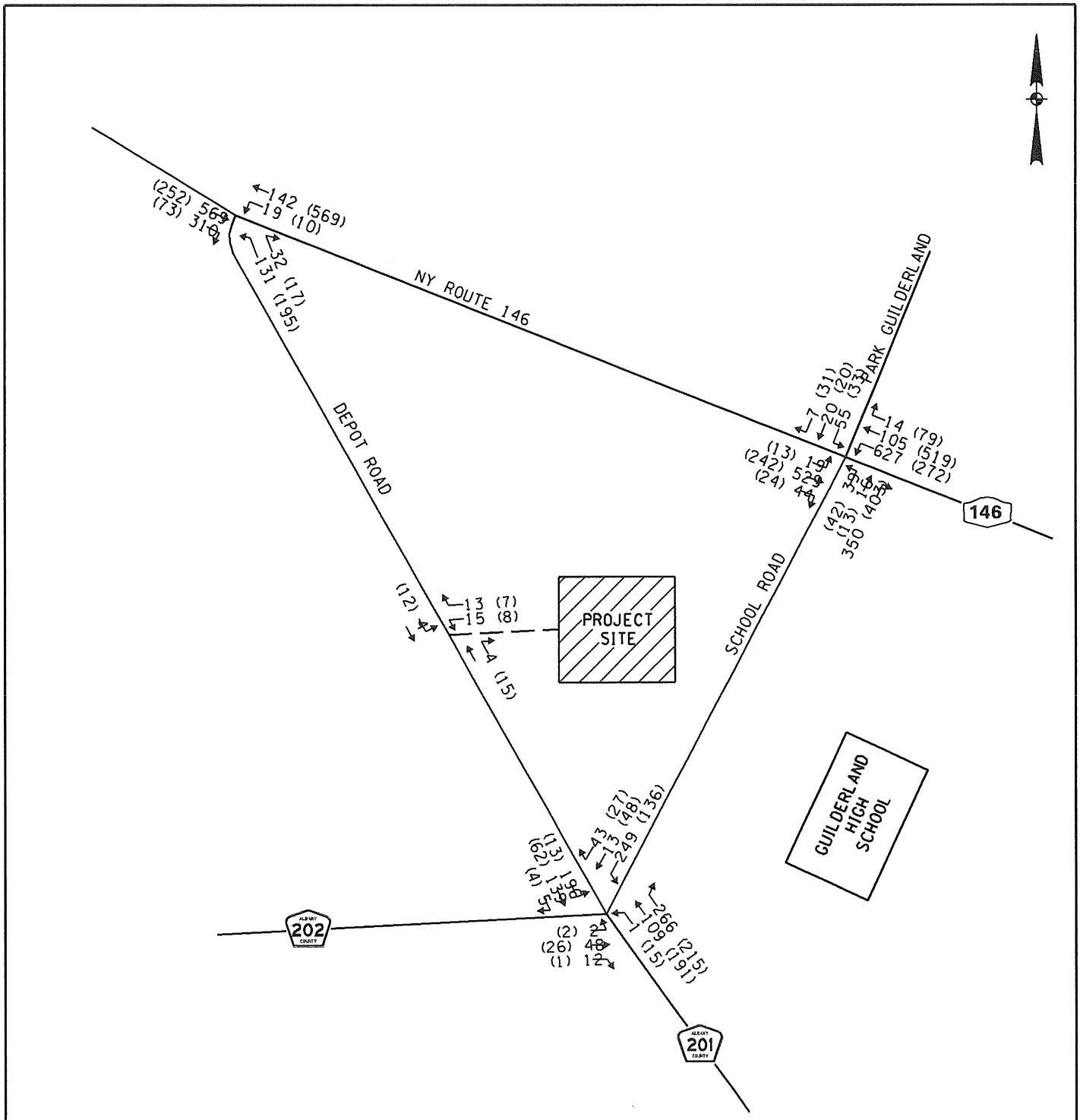

LEGEND:
AM PEAK HOUR (PM PEAK HOUR)

2015 BUILD TRAFFIC VOLUMES
(W/ NEIP, DUTCHMAN & MATT'S FARM)

DUTCHMEN ACRES SUBDIVISION
TOWN OF GUILDERLAND, NEW YORK

CREIGHTON MANNING ENGINEERING, LLP

PROJECT: 06-055d	DATE: 12/08	FIGURE: 5

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Creighton Manning

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May 22, 2006

Mr. Gregg Meyer
O.J. Meyer & Son
4 Vly Road
Albany, New York 12205

RE: Traffic Evaluation, Dutchmen Acres, Depot Road (CR 201), Town of Guilderland, Albany County, New York; CME Project No. 06-055d

Dear Mr. Meyer:

Creighton Manning Engineering, LLP (CME) has completed a Traffic Evaluation for the proposed Dutchmen Acres residential development, located on Depot Road (County Road 201) in the Town of Guilderland. The project site is located on the east side of Depot Road, north of the intersection of School Road (County Road 202) as shown on Figure 1. This evaluation is based on the concept plan entitled "Concept Plan for Dutchmen Acres," prepared by O.J. Meyer & Son, dated January 4, 2006. The purpose of this evaluation is to determine the potential traffic impacts associated with the development of the project and required mitigation if necessary.

A. Introduction and Background

The proposed project is located between Depot Road and School Road, adjacent to residential land uses and Guilderland High School. The project consists of the construction of 27 single family homes and 10 townhouses on a 38.4-acre site. Access to the site is proposed via one site access road on Depot Road.

B. Existing Conditions

Depot Road is a north-south road in the vicinity of the project site that extends from NY Route 146 to Grant Hill Road to the south. At the site driveway, Depot Road provides an 11-foot travel lane in each direction, with 5-foot wide paved shoulders and a posted speed limit of 45-mph.

An automatic traffic recorder (ATR) was installed on Depot Road adjacent to the site for a period of several days to record hourly directional traffic volumes and vehicle speeds. The existing traffic volumes and speed summary data is provided under Attachment A. The ATR data indicated that the average daily traffic volume on Depot Road was 1,959 vehicles per day. The 85th-percentile speed observed was 58-mph.

C. Trip Generation

Trip generation is the quantity of traffic expected to travel to/from a given site. The Institute of Transportation Engineers (ITE) *Trip Generation,* 7th edition, provides trip generation data for

different types of developments based on studies of existing facilities across the country. ITE Land Use Code 210 for Single Family Detached Housing and LUC 230 for Residential Condominium/Townhouse were used to develop the peak hour site generated trips for the Dutchmen Acres residential development.

Table 1 – Trip Generation Summary

Land Use	AM Peak Hour			PM Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
27 single family homes	7	21	28	21	12	33
10 townhouse units	1	7	8	6	3	9
Project Total	**8**	**28**	**36**	**27**	**15**	**42**

Based on ITE, the project will generate 36 vehicles during the AM peak hour (8 trips entering and 28 trips exiting) and 42 vehicles during the PM peak hour (27 trips entering and 15 trips exiting).

D. Trip Distribution and Assignment

Trip distribution describes where traffic originates or where traffic is destined. Traffic generated by the proposed project was distributed based on the existing travel patterns and probable travel routes for residents of the new development. It is expected that approximately 80% of the site generated trips will travel to and from the east towards Albany, 10% are expected to travel to and from the west on NY Route 146, and the remaining 10% are expected to travel to and from the south towards Voorheesville. At the site access road, it is expected that 45% will travel north on Depot Road while 55% will travel south on Depot Road. The trip distribution is illustrated on Figure 2. Trip assignment combines the results of the trip generation and trip distribution and determines the specific paths and roadways that will be used between various origin/destination pairs. The resulting trip assignment for the proposed project is shown on Figures 3. The trip assignment indicates that the increase in traffic volumes at the study area intersections will be a maximum of 12 vehicles during the peak hours or less. This equates to an increase of one vehicle every 5 minutes on the heaviest of turn movements.

E. Operational Analysis

There are three point of concern relative to traffic operations regarding the proposed project. The first is the operations of local intersections. Because the project traffic volumes generated by the project are relatively low, no significant traffic impacts are expected on the area roadways. Given these low volumes, it is recommended that the site access road provide a single lane entrance and single lane exit operating under stop control.

The second point is related to the operation of the adjacent Guilderland High School. Traffic patterns for the school were observed during the peak hour operations of the school. The following observations were recorded:

- The peak morning traffic activity generated by the school occurred from 6:55 a.m. to 7:20 a.m.
- The peak afternoon traffic activity occurred from 2:15 p.m. to 2:40 p.m.

- School buses load and unload while they are parked in designated areas within the bus/staff only parking lot
- Most traffic using School Road at peak times is school related and not through traffic.
- The student/drop-off/visitor parking lot experiences the highest activity.
- During the morning peak, the maximum queue observed on the southbound approach of School Road was 9 cars as a result of vehicles waiting for an opportunity to turn left into the student/drop-off/visitor parking lot.
- There were only short vehicle delays during the afternoon peak for vehicles exiting the student/drop-off/visitor parking lot; separate lanes are provided for left and right turns.

While the intersections along School Road are busy during the peak school arrival and dismissal times, the proposed residential project is not expected to create any significant delays to the operations of the school driveways.

The third and final point is relative to the potential of locating the site driveway on School Road opposite the high school. An access road to School Road from the proposed residential development is feasible and would only be inconvenient for residents leaving the site during the half hour of school arrival and dismissal times. However, to reduce the number of conflict points (intersecting roadways and turning movements) it is recommended that the site driveway be located as shown. To prevent cut-through traffic between Depot Road and the school a public vehicle connection to School road it is not recommended. However, emergency vehicle access that can accommodate public bicycle and pedestrian access is recommended.

F. Conclusions

Based on the results of this analysis, the proposed Dutchmen Acres residential development will not impact existing traffic conditions. It is recommended that the site access road operate under stop control and provide a single entering lane and a single exiting lane. Emergency access and a public pedestrian and bicycle access is recommended to connect the site access road to School Road.

If you have any questions regarding this analysis, or if we can be of any further assistance, please do not hesitate to contact our office.

Respectfully submitted,
Creighton Manning Engineering, LLP

Kenneth Wersted, P.E.
Project Engineer

Attachments

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This letter was recreated from an archived version of the original – not all original materials and attachments could be reproduced.

MetroCount Traffic Executive
Speed Statistics by Hour

SpeedStatHour-45 -- English (ENU)

Datasets:

Site:	**[06-055d] Depot Road - Guilderland, NY: AT Pole #10**
Direction:	7 - North bound A>B, South bound B>A., **Lane:** 0
Survey Duration:	16:00 Monday, March 27, 2006 => 9:47 Friday, March 31, 2006
File:	F:\Projects\06-055d\06-055d31Mar2006.EC0 (Plus)
Identifier:	R519M98M MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Factory default
Data type:	Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time:	**17:00 Monday, March 27, 2006 => 16:00 Thursday, March 30, 2006**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Speed range:	5 - 100 mph.
Direction:	North, South (bound)
Separation:	All - (Headway)
Name:	Factory default profile
Scheme:	Vehicle classification (ARX)
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Vehicles = 5728 / 5920 (96.76%)

Speed Statistics by Hour

SpeedStatHour-45
Site: 06-055d.0SN
Description: **Depot Road - Guilderland, NY: AT Pole #10**
Filter time: **17:00 Monday, March 27, 2006 => 16:00 Thursday, March 30, 2006**
Scheme: Vehicle classification (ARX)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NS) Sp(5,100) Headway(>0)

Vehicles = 5728
Posted speed limit = 37 mph, Exceeding = 5684 (99.23%), Mean Exceeding = 52.39 mph
Maximum = 93.4 mph, **Minimum** = 11.5 mph, **Mean** = 52.2 mph
85% Speed = 58.2 mph, **95% Speed** = 63.1 mph, **Median** = 51.7 mph
10 mph Pace = 47 - 57, **Number in Pace** = 3538 (61.77%)
Variance = 42.75, **Standard Deviation** = 6.54 mph

Hour Bins (Partial days)

Time	Bin		Min	Max	Mean	Median	85%	95%	>PSL 37 mph	
0000	17	0.3%	34.2	57.6	47.4	47.6	51.9	56.6	16	94.1%
0100	29	0.5%	40.2	60.8	49.1	49.0	53.7	57.7	29	100.0%
0200	6	0.1%	42.9	54.4	49.4	48.5	54.1	54.1	6	100.0%
0300	12	0.2%	44.4	81.3	56.3	51.2	73.6	74.5	12	100.0%
0400	34	0.6%	38.3	64.1	52.0	52.6	55.3	57.7	34	100.0%
0500	61	1.1%	44.7	62.5	52.9	51.7	58.6	61.1	61	100.0%
0600	358	6.3%	36.1	84.0	54.2	53.9	59.7	63.1	357	99.7%
0700	1144	20.0%	11.5	90.2	54.4	54.1	59.9	63.5	1143	99.9%
0800	346	6.0%	34.9	74.9	52.8	52.6	59.9	64.4	344	99.4%
0900	213	3.7%	21.9	74.8	52.7	52.3	59.1	64.2	212	99.5%
1000	285	5.0%	16.0	83.0	51.3	50.6	57.7	63.5	284	99.6%
1100	239	4.2%	12.1	92.0	52.0	51.4	58.2	62.2	235	98.3%
1200	202	3.5%	13.1	90.7	52.2	52.3	57.5	62.4	196	97.0%
1300	226	3.9%	12.9	93.4	51.2	51.2	56.1	61.5	223	98.7%
1400	510	8.9%	17.6	74.5	52.0	51.2	58.4	63.1	503	98.6%
1500	484	8.4%	14.8	73.3	51.6	50.6	56.6	61.3	483	99.8%
1600	317	5.5%	14.6	83.1	51.5	50.6	56.8	62.6	316	99.7%
1700	484	8.4%	34.7	73.9	51.1	50.1	57.0	61.7	479	99.0%
1800	296	5.2%	28.5	69.7	50.7	50.1	56.4	61.7	294	99.3%
1900	175	3.1%	22.5	72.5	49.9	49.7	55.9	61.7	168	96.0%
2000	122	2.1%	35.4	65.9	50.3	49.0	55.7	59.9	121	99.2%
2100	69	1.2%	37.0	71.3	47.3	45.6	51.7	55.0	69	100.0%
2200	66	1.2%	39.8	67.0	50.3	48.3	55.9	61.5	66	100.0%
2300	33	0.6%	40.2	67.1	48.9	49.0	53.2	56.8	33	100.0%
----	**5728**	**100.0%**	**11.5**	**93.4**	**52.2**	**51.7**	**58.2**	**63.1**	**5684**	**99.2%**

MetroCount Traffic Executive
Weekly Vehicle Counts

WeeklyVehicle-188 -- English (ENU)

Datasets:

Site:	**[06-055d] Depot Road - Guilderland, NY: AT Pole #10**
Direction:	7 - North bound A>B, South bound B>A., **Lane:** 0
Survey Duration:	16:00 Monday, March 27, 2006 => 9:47 Friday, March 31, 2006
File:	C:\Program Files\MetroCount v316\User\Data\06-055d31Mar2006.EC0 (Plus)
Identifier:	R519M98M MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Factory default
Data type:	Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time:	**17:00 Monday, March 27, 2006 => 16:00 Thursday, March 30, 2006**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	5 - 100 mph.
Direction:	North, South (bound)
Separation:	All - (Headway)
Name:	Factory default profile
Scheme:	Vehicle classification (Scheme F2)
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Vehicles = 5719 / 5920 (96.60%)

Weekly Vehicle Counts

WeeklyVehicle-188
Site: 06-055d.0SN
Description: **Depot Road - Guilderland, NY: AT Pole #10**
Filter time: **17:00 Monday, March 27, 2006 => 16:00 Thursday, March 30, 2006**
Scheme: Vehicle classification (Scheme F2)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(NS) Sp(5,100) Headway(>0)

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Averages	
	27 Mar	28 Mar	29 Mar	30 Mar	31 Mar	01 Apr	02 Apr	1 - 5	1 - 7
Hour									
0000-0100	*	7	4	6	*	*	*	5.7	5.7
0100-0200	*	8	10	11	*	*	*	9.7	9.7
0200-0300	*	0	3	3	*	*	*	2.0	2.0
0300-0400	*	2	8	2	*	*	*	4.0	4.0
0400-0500	*	13	14	7	*	*	*	11.3	11.3
0500-0600	*	22	19	20	*	*	*	20.3	20.3
0600-0700	*	111	128	119	*	*	*	119.3	119.3
0700-0800	*	**383<**	**385<**	**376<**	*	*	*	**381.3<**	**381.3<**
0800-0900	*	126	91	129	*	*	*	115.3	115.3
0900-1000	*	71	73	66	*	*	*	70.0	70.0
1000-1100	*	77	143	64	*	*	*	94.7	94.7
1100-1200	*	73	93	72	*	*	*	79.3	79.3
1200-1300	*	87	52	63	*	*	*	67.3	67.3
1300-1400	*	94	65	66	*	*	*	75.0	75.0
1400-1500	*	**196<**	136	177	*	*	*	**169.7<**	**169.7<**
1500-1600	*	156	**169<**	159	*	*	*	161.3	161.3
1600-1700	*	165	152	*	*	*	*	158.5	158.5
1700-1800	177	150	157	*	*	*	*	161.3	161.3
1800-1900	103	81	110	*	*	*	*	98.0	98.0
1900-2000	73	39	63	*	*	*	*	58.3	58.3
2000-2100	37	29	56	*	*	*	*	40.7	40.7
2100-2200	17	33	19	*	*	*	*	23.0	23.0
2200-2300	16	32	18	*	*	*	*	22.0	22.0
2300-2400	12	10	11	*	*	*	*	11.0	11.0
Totals									
0700-1900	*	1659	1626	*	*	*	*	1631.8	1631.8
0600-2200	*	1871	1892	*	*	*	*	1873.2	1873.2
0600-0000	*	1913	1921	*	*	*	*	1906.2	1906.2
0000-0000	*	1965	1979	*	*	*	*	1959.2	1959.2
AM Peak	*	0700	0700	0700	*	*	*		
	*	383	385	376	*	*	*		
PM Peak	*	1400	1500	*	*	*	*		
	*	196	169	*	*	*	*		

*** - No data.**

MetroCount Traffic Executive
Weekly Vehicle Counts

WeeklyVehicle-187 -- English (ENU)

Datasets:

Site:	**[06-055d] Depot Road - Guilderland, NY: AT Pole #10**
Direction:	7 - North bound A>B, South bound B>A., **Lane:** 0
Survey Duration:	16:00 Monday, March 27, 2006 => 9:47 Friday, March 31, 2006
File:	C:\Program Files\MetroCount v316\User\Data\06-055d31Mar2006.EC0 (Plus)
Identifier:	R519M98M MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Factory default
Data type:	Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time:	**17:00 Monday, March 27, 2006 => 16:00 Thursday, March 30, 2006**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	5 - 100 mph.
Direction:	South (bound)
Separation:	All - (Headway)
Name:	Factory default profile
Scheme:	Vehicle classification (Scheme F2)
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Vehicles = 2990 / 5920 (50.51%)

Weekly Vehicle Counts

WeeklyVehicle-187
Site: 06-055d.0SN
Description: **Depot Road - Guilderland, NY: AT Pole #10**
Filter time: **17:00 Monday, March 27, 2006 => 16:00 Thursday, March 30, 2006**
Scheme: Vehicle classification (Scheme F2)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(S) Sp(5,100) Headway(>0)

Hour	Mon 27 Mar	Tue 28 Mar	Wed 29 Mar	Thu 30 Mar	Fri 31 Mar	Sat 01 Apr	Sun 02 Apr	Averages 1 - 5	Averages 1 - 7
0000-0100	*	3	2	2	*	*	*	2.3	2.3
0100-0200	*	0	0	1	*	*	*	0.3	0.3
0200-0300	*	0	2	3	*	*	*	1.7	1.7
0300-0400	*	1	5	1	*	*	*	2.3	2.3
0400-0500	*	11	12	7	*	*	*	10.0	10.0
0500-0600	*	17	15	16	*	*	*	16.0	16.0
0600-0700	*	89	99	94	*	*	*	94.0	94.0
0700-0800	*	**307<**	**307<**	**303<**	*	*	*	**305.7<**	**305.7<**
0800-0900	*	73	54	76	*	*	*	67.7	67.7
0900-1000	*	43	36	36	*	*	*	38.3	38.3
1000-1100	*	38	43	31	*	*	*	37.3	37.3
1100-1200	*	35	42	31	*	*	*	36.0	36.0
1200-1300	*	39	23	26	*	*	*	29.3	29.3
1300-1400	*	42	26	29	*	*	*	32.3	32.3
1400-1500	*	**72<**	68	63	*	*	*	67.7	67.7
1500-1600	*	52	46	50	*	*	*	49.3	49.3
1600-1700	*	46	59	*	*	*	*	52.5	52.5
1700-1800	79	52	**74<**	*	*	*	*	**68.3<**	**68.3<**
1800-1900	49	36	38	*	*	*	*	41.0	41.0
1900-2000	27	20	32	*	*	*	*	26.3	26.3
2000-2100	13	10	23	*	*	*	*	15.3	15.3
2100-2200	3	11	5	*	*	*	*	6.3	6.3
2200-2300	6	12	9	*	*	*	*	9.0	9.0
2300-2400	5	4	6	*	*	*	*	5.0	5.0
Totals									
0700-1900	*	835	816	*	*	*	*	825.5	825.5
0600-2200	*	965	975	*	*	*	*	967.5	967.5
0600-0000	*	981	990	*	*	*	*	981.5	981.5
0000-0000	*	1013	1026	*	*	*	*	1014.2	1014.2
AM Peak	*	0700	0700	0700	*	*	*		
	*	307	307	303	*	*	*		
PM Peak	*	1400	1700	*	*	*	*		
	*	72	74	*	*	*	*		

*** - No data.**

MetroCount Traffic Executive
Weekly Vehicle Counts

WeeklyVehicle-186 -- English (ENU)

Datasets:

Site:	**[06-055d] Depot Road - Guilderland, NY: AT Pole #10**
Direction:	7 - North bound A>B, South bound B>A., **Lane:** 0
Survey Duration:	16:00 Monday, March 27, 2006 => 9:47 Friday, March 31, 2006
File:	C:\Program Files\MetroCount v316\User\Data\06-055d31Mar2006.EC0 (Plus)
Identifier:	R519M98M MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Factory default
Data type:	Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time:	**17:00 Monday, March 27, 2006 => 16:00 Thursday, March 30, 2006**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	5 - 100 mph.
Direction:	North (bound)
Separation:	All - (Headway)
Name:	Factory default profile
Scheme:	Vehicle classification (Scheme F2)
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Vehicles = 2729 / 5920 (46.10%)

Weekly Vehicle Counts

WeeklyVehicle-186
Site: 06-055d.0SN
Description: **Depot Road - Guilderland, NY: AT Pole #10**
Filter time: **17:00 Monday, March 27, 2006 => 16:00 Thursday, March 30, 2006**
Scheme: Vehicle classification (Scheme F2)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(N) Sp(5,100) Headway(>0)

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Averages	
	27 Mar	28 Mar	29 Mar	30 Mar	31 Mar	01 Apr	02 Apr	1 - 5	1 - 7
Hour									
0000-0100	*	4	2	4	*	*	*	3.3	3.3
0100-0200	*	8	10	10	*	*	*	9.3	9.3
0200-0300	*	0	1	0	*	*	*	0.3	0.3
0300-0400	*	1	3	1	*	*	*	1.7	1.7
0400-0500	*	2	2	0	*	*	*	1.3	1.3
0500-0600	*	5	4	4	*	*	*	4.3	4.3
0600-0700	*	22	29	25	*	*	*	25.3	25.3
0700-0800	*	**76<**	78	**73<**	*	*	*	**75.7<**	**75.7<**
0800-0900	*	53	37	53	*	*	*	47.7	47.7
0900-1000	*	28	37	30	*	*	*	31.7	31.7
1000-1100	*	39	**100<**	33	*	*	*	57.3	57.3
1100-1200	*	38	51	41	*	*	*	43.3	43.3
1200-1300	*	48	29	37	*	*	*	38.0	38.0
1300-1400	*	52	39	37	*	*	*	42.7	42.7
1400-1500	*	**124<**	68	114	*	*	*	102.0	102.0
1500-1600	*	104	**123<**	109	*	*	*	**112.0<**	**112.0<**
1600-1700	*	119	93	*	*	*	*	106.0	106.0
1700-1800	98	98	83	*	*	*	*	93.0	93.0
1800-1900	54	45	72	*	*	*	*	57.0	57.0
1900-2000	46	19	31	*	*	*	*	32.0	32.0
2000-2100	24	19	33	*	*	*	*	25.3	25.3
2100-2200	14	22	14	*	*	*	*	16.7	16.7
2200-2300	10	20	9	*	*	*	*	13.0	13.0
2300-2400	7	6	5	*	*	*	*	6.0	6.0
Totals									
0700-1900	*	824	810	*	*	*	*	806.3	806.3
0600-2200	*	906	917	*	*	*	*	905.7	905.7
0600-0000	*	932	931	*	*	*	*	924.7	924.7
0000-0000	*	952	953	*	*	*	*	945.0	945.0
AM Peak	*	0700	1000	0700	*	*	*		
	*	76	100	73	*	*	*		
PM Peak	*	1400	1500	*	*	*	*		
	*	124	123	*	*	*	*		

*** - No data.**

Creighton Manning

This letter was recreated from an archived version of the original – not all original materials and attachments could be reproduced.

September 6, 2013

Mr. Chris Meyer
O.J. Meyer & Son
4 Vly Road
Albany, New York 12205

RE: Roadway Geometry, Dutchmen Acres, Depot Road (CR 201), Town of Guilderland, Albany County, New York; CME Project No. 06-055d

Dear Mr. Meyer:

As requested, Creighton Manning Engineering, LLP (CM) has reviewed the site plans prepared by L. Sipperly & Associates, last revised April 16, 2013, for the proposed Dutchman Acres project located off Depot Road (CR 201) in the Town of Guilderland.

As you know, the Town of Guilderland code requires that tangent sections of streets with a deflection of more than 5 degrees require a minimum radius of 250 feet as measured from the right-of-way (ROW) line on the inside of the curve (Part II, Chapter 243, Section 243-23). The radius of the roadway is then equivalent to a 280-foot radius assuming the road is centered in a 60-foot right of way. Upon review of the site plans, the proposed road (Zorba's Way) contains three curves; one with a 110-foot radius, and two with 160-foot radii as measured at the ROW, or 140 and 190-foot curves as measured at the centerline. The purpose of this letter is to determine the adequacy of the proposed curve radii based on industry accepted engineering practices.

According to A Policy on Geometric Design of Highways and Street, (2011) published by and typically referred to as AASHTO (American Association of State Highway and Transportation Officials), 140 and 190-foot radius curves are acceptable for a street with a design speed of 20 to 25 mph. In a residential neighborhood, this condition offers a traffic calming effect by making it less comfortable for drivers to travel through the curves at higher speeds and exists on other residential town roads including Danna Joelle Drive, Salvia Lane, West Highland Drive, Tanner Circle, etc.

As designed the curves on Zorba's Way will require a waiver from the Town. In order to provide a context sensitive design as it relates to a particular site, waivers to some town requirements are often necessary. For example, meeting the minimum road radius would increase the existing wetland

impact by 225%. However, reducing the curve radius will only require the posting of a curve warning sign and an advisory speed limit of 20 mph, which is quite common and a standard practice when the curve radius is less than the regulatory speed limit. The street may still be posted at the regulatory town speed limit and supplemented with an advisory curve warning sign as shown to the right.

Therefore, although the three curves are less than the Town minimum radius, an acceptable radius is provided for an advisory speed of 20 mph. The current design of Zorba's Way provides a context sensitive design by fitting the road into the existing features of the site and providing a desirable traffic calming effect on a residential street.

If you have any questions regarding the above, please do not hesitate to contact our office.

Respectfully submitted,
Creighton Manning Engineering, LLP

Kenneth Wersted, P.E., PTOE
Project Manager

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Creighton Manning

This letter was recreated from an archived version of the original – not all original materials and attachments could be reproduced.

June 27, 2008

Mr. Chris Meyer
O.J. Meyer & Son
4 Vly Road
Albany, New York 12205

RE: Updated Traffic Evaluation, Dutchmen Acres, Depot Road (CR 201), Town of Guilderland, Albany County, New York; CME Project No. 06-055d

Dear Mr. Meyer:

As requested, Creighton Manning Engineering, LLP (CME) has reviewed the proposed Dutchmen Acres residential development, located on Depot Road (County Road 201) in the Town of Guilderland. The project site is located on the east side of Depot Road, north of the intersection of School Road (County Road 202). The purpose of this update is to review the potential impacts from other proposed developments in the area in addition to the proposed Dutchman Acres project, and review the proposed access. The following summarizes our qualitative review.

A. Introduction and Background

The proposed project is located between Depot Road and School Road, adjacent to residential land uses and Guilderland High School. The project consists of the construction of 25 single-family homes, 8 townhouses, and 12 senior apartments on a 41-acre site. Access to the site is proposed via one site access road on Depot Road with emergency access proposed to School Road, opposite the Guilderland High School. The project is estimated to generate 35 trips during the AM peak hour and 40 trips during the PM peak hour.

Other developments in the area include Matt's Farm, a 48-unit single-family development located on the west side of Depot Road, just south of the intersection of School Road. This project is estimated to generate approximately 43 trips during the AM peak hour and 55 trips during the PM peak hour.

In addition to Matt's Farm, the Northeastern Industrial Park (NEIP) proposes the expansion of the park to include an additional 1.978 million SF of industrial, office, research and development, and ancillary services. The trip generation of this expansion is estimated to be 845 trips during the AM peak hour and 922 trips during the PM peak hour, according to the Draft Generic Environmental Impact Statement (DGEIS), prepared for the NEIP by Clough, Harbour, and Associates in 2005.

B. Future Operating Conditions

The NEIP will be adding a significant amount of traffic to the area roadways once it is complete, which is projected to be in 2015. Most of this new traffic will use the Van Buren Boulevard entrance to the park. As such, only about 290 trips are expected to use the Depot Road access and travel through the Depot Road/School Road/Meadowdale Road intersection. Matt's Farm will generate approximately 40 to 50 trips through this same intersection, while the proposed Dutchman Acres project will add approximately 20 trips during the peak hours.

A review of the intersection levels of service at the area intersections, as reported in the NEIP DGEIS, indicates that the Depot Road/School Road/Meadowdale Road intersection will operate at LOS A on the Depot Road approaches and LOS C/F on the westbound School Road approach, and LOS B/C on the eastbound Meadowdale Road approach under the future Build conditions with the NEIP expansion complete. Given the poor operating condition on the westbound approach, it is proposed (by the NEIP) that the intersection operate under all-way stop control. With the addition of stop control on the northbound and southbound approaches of Depot Road, the intersection will operate at an overall LOS C during the AM peak hour and LOS B during the PM peak hour. With the additional traffic generated by Matt's Farm and Dutchman Acres, the intersection will experience an approximately 1 additional vehicle per minute during the peak hours and less during the off-peak hours. This amount of increase will not have any significant change in the levels of service or delays experienced at this intersection.

Similarly, the intersection of School Road and Route 146 will see an increase of approximately 215 trips during the peak hours from the NEIP expansion, 40 trips from Matt's Farm, and 30 trips from Dutchman Acres. This signalized intersection provides single lane approaches with an exclusive right turn lane on the westbound Route 146 approach. After completion of the NEIP, this intersection will operate at and overall LOS F during the AM peak hour and LOS C during the PM peak hour. To improve on these conditions, the NEIP proposes to modify the westbound approach to provide an exclusive left turn lane, and a shared through/right turn lane. Under these conditions, the intersection will improve to an overall LOS D during the AM peak hour and LOS C during the PM peak hour. Similarly, the amount of increase in traffic resulting from the proposed Matt's Farm and Dutchman Acres will not result in any significant increases in delays or changes in the levels of service.

At the intersection of Depot Road and Route 146, traffic will increase by approximately 130 trips due to the NEIP, 5 trips by Matt's Farm, and 20 trips by Dutchman Acres. The westbound Route 146 approach to this intersection is expected to operate at LOS A/B during the peak hours after completion of the NEIP expansion. The northbound Depot Road approach will operate at LOS D/E. With the low traffic volumes being added as a result of the Matt's Farm and Dutchman Acres projects, no significant increases in delays or changes in levels of service will occur.

C. School Road Access

Relative to the proposed access to the site, it is possible to create a through road from School Road to Depot Road by providing two site access points. An access road to School Road from the proposed residential development is feasible and would only be inconvenient for residents leaving the site during the busy half hour of school arrival and dismissal times. However, to reduce the number of conflict points (intersecting roadways and turning movements) in the vicinity of the school, it is recommended that a single site driveway be located on Depot Road. To prevent cut-through traffic between Depot Road and the school, a public vehicle connection to School road is not recommended. However, emergency vehicle access that can accommodate public bicycle and pedestrian access is recommended thereby allowing the potential for any students living in Dutchman Acres to easily walk or ride their bikes to school.

D. Conclusions

Based on the results of this qualitative analysis, the proposed Dutchmen Acres residential development will not result in any significant traffic impacts to existing or future traffic conditions. Emergency access and public pedestrian and bicycle access is recommended from the site to School Road. Public vehicular access to School Road is not recommended.

If you have any questions regarding this analysis, or if we can be of any further assistance, please do not hesitate to contact our office.

Respectfully submitted,
Creighton Manning Engineering, LLP

Kenneth Wersted, P.E.
Project Manager

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October 27, 2009

Mr. Chris Meyer
O.J. Meyer & Son
4 Vly Road
Albany, New York 12205

RE: Site Plan and Access Review, Dutchmen Acres, Depot Road (CR 201), Town of Guilderland, Albany County, New York; CME Project No. 06-055d

Dear Mr. Meyer:

Creighton Manning Engineering, LLP (CME) is in receipt of the conceptual site plan showing the through road connection to School Road (CR 202). It is our understanding that this concept was developed at the request of the Town Planning Board to explore the potential effects of having the proposed development road, previously shown as a cul-de-sac, connect to School Road opposite the Guilderland High School. The concept shows the alignment of the site road intersecting School Road approximately 90 feet (centerline to centerline) north of the northern entrance to the school. The advantage of having the through road is the connectivity gained by having the proposed subdivision provide access to two roadways. As a principle, we support the creation of through roads whenever practicable.

However, the location of the concept road creates a negative off-set intersection with the high school entrance, resulting in the potential for traffic turning left into the site and left into the school from School Road to block the other turning movement, creating a gridlock pattern. Further, the overall alignment of the site road makes it an attractive cut-through route for students driving to school. Based on the traffic data presented in the December 29, 2008 CME letter, the eastbound left turn movement from Depot Road to School Road is 184 vehicles during the AM peak hour, and presumably all school traffic. This traffic would complicate the existing congestion already experienced during the school arrivals if these drivers choose to use the new subdivision road to access the school. For these reasons, we do not support the proposal, as shown, to connect the subdivision road to School Road.

Recognizing that School Road is maintained by Albany County, it is ultimately their decision as to whether the through road connection is allowed. It is recommended that their determination be obtained before returning to the Planning Board to continue the site plan process.

Please feel free to call our office if you have any questions or comments regarding the above analysis.

Respectfully submitted,
Creighton Manning Engineering, LLP

Kenneth Wersted, P.E.
Project Manager

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CREIGHTON MANNING ENGINEERING, LLP

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Mark A. Sargent, P.E.

October 27, 2006

Mr. Gregg Meyer
O.J. Meyer & Son
4 Vly Road
Albany, New York 12205

RE: Traffic Evaluation, Dutchmen Acres, Depot Road (CR 201), Town of Guilderland, Albany County, New York; CME Project No. 06-055d

Dear Mr. Meyer:

Creighton Manning Engineering, LLP (CME) has completed a draft traffic evaluation for the proposed Dutchmen Acres residential development, located on Depot Road (County Road 201) in the Town of Guilderland. Please find enclosed a copy of that draft, which is being provided for your review and comment. Upon receipt of comments, it will be finalized and the relevant appendices attached.

Also enclosed are copies of the sight distance letter for the Waterview South project on Schermerhorm Road, and the draft traffic study for the Northern Pass Subdivision in the Town of Colonie, both of which were transmitted in the spring. Similar to Dutchman Acres, the Northern Pass Subdivision report is draft, and upon receipt of any comments, the report will be finalized and the relevant appendices attached.

If you have any questions regarding this analysis, or if we can be of any further assistance, please do not hesitate to contact our office.

Respectfully submitted,
Creighton Manning Engineering, LLP

Kenneth Wersted, P.E.
Project Engineer

Attachments

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May 22, 2006

Mr. Gregg Meyer
O.J. Meyer & Son
4 Vly Road
Albany, New York 12205

RE: Traffic Evaluation, Dutchmen Acres, Depot Road (CR 201), Town of Guilderland, Albany County, New York; CME Project No. 06-055d

Dear Mr. Meyer:

Creighton Manning Engineering, LLP (CME) has completed a Traffic Evaluation for the proposed Dutchmen Acres residential development, located on Depot Road (County Road 201) in the Town of Guilderland. The project site is located on the east side of Depot Road, north of the intersection of School Road (County Road 202) as shown on Figure 1. This evaluation is based on the concept plan entitled "Concept Plan for Dutchmen Acres," prepared by O.J. Meyer & Son, dated January 4, 2006. The purpose of this evaluation is to determine the potential traffic impacts associated with the development of the project and required mitigation if necessary.

A. Introduction and Background

The proposed project is located between Depot Road and School Road, adjacent to residential land uses and Guilderland High School. The project consists of the construction of 27 single family homes and 10 townhouses on a 38.4-acre site. Access to the site is proposed via one site access road on Depot Road.

B. Existing Conditions

Depot Road is a north-south road in the vicinity of the project site that extends from NY Route 146 to Grant Hill Road to the south. At the site driveway, Depot Road provides an 11-foot travel lane in each direction, with 5-foot wide paved shoulders and a posted speed limit of 45-mph.

An automatic traffic recorder (ATR) was installed on Depot Road adjacent to the site for a period of several days to record hourly directional traffic volumes and vehicle speeds. The existing traffic volumes and speed summary data is provided under Attachment A. The ATR data indicated that the average daily traffic volume on Depot Road was 1,959 vehicles per day. The 85th-percentile speed observed was 58-mph.

C. Trip Generation

Trip generation is the quantity of traffic expected to travel to/from a given site. The Institute of Transportation Engineers (ITE) *Trip Generation,* 7th edition, provides trip generation data for

different types of developments based on studies of existing facilities across the country. ITE Land Use Code 210 for Single Family Detached Housing and LUC 230 for Residential Condominium/Townhouse were used to develop the peak hour site generated trips for the Dutchmen Acres residential development.

Table 1 – Trip Generation Summary

Land Use	AM Peak Hour			PM Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
27 single family homes	7	21	28	21	12	33
10 townhouse units	1	7	8	6	3	9
Project Total	**8**	**28**	**36**	**27**	**15**	**42**

Based on ITE, the project will generate 36 vehicles during the AM peak hour (8 trips entering and 28 trips exiting) and 42 vehicles during the PM peak hour (27 trips entering and 15 trips exiting).

D. Trip Distribution and Assignment

Trip distribution describes where traffic originates or where traffic is destined. Traffic generated by the proposed project was distributed based on the existing travel patterns and probable travel routes for residents of the new development. It is expected that approximately 80% of the site generated trips will travel to and from the east towards Albany, 10% are expected to travel to and from the west on NY Route 146, and the remaining 10% are expected to travel to and from the south towards Voorheesville. At the site access road, it is expected that 45% will travel north on Depot Road while 55% will travel south on Depot Road. The trip distribution is illustrated on Figure 2. Trip assignment combines the results of the trip generation and trip distribution and determines the specific paths and roadways that will be used between various origin/destination pairs. The resulting trip assignment for the proposed project is shown on Figures 3. The trip assignment indicates that the increase in traffic volumes at the study area intersections will be a maximum of 12 vehicles during the peak hours or less. This equates to an increase of one vehicle every 5 minutes on the heaviest of turn movements.

E. Operational Analysis

There are three point of concern relative to traffic operations regarding the proposed project. The first is the operations of local intersections. Because the project traffic volumes generated by the project are relatively low, no significant traffic impacts are expected on the area roadways. Given these low volumes, it is recommended that the site access road provide a single lane entrance and single lane exit operating under stop control.

The second point is related to the operation of the adjacent Guilderland High School. Traffic patterns for the school were observed during the peak hour operations of the school. The following observations were recorded:

- The peak morning traffic activity generated by the school occurred from 6:55 a.m. to 7:20 a.m.
- The peak afternoon traffic activity occurred from 2:15 p.m. to 2:40 p.m.

- School buses load and unload while they are parked in designated areas within the bus/staff only parking lot
- Most traffic using School Road at peak times is school related and not through traffic.
- The student/drop-off/visitor parking lot experiences the highest activity.
- During the morning peak, the maximum queue observed on the southbound approach of School Road was 9 cars as a result of vehicles waiting for an opportunity to turn left into the student/drop-off/visitor parking lot.
- There were only short vehicle delays during the afternoon peak for vehicles exiting the student/drop-off/visitor parking lot; separate lanes are provided for left and right turns.

While the intersections along School Road are busy during the peak school arrival and dismissal times, the proposed residential project is not expected to create any significant delays to the operations of the school driveways.

The third and final point is relative to the potential of locating the site driveway on School Road opposite the high school. An access road to School Road from the proposed residential development is feasible and would only be inconvenient for residents leaving the site during the half hour of school arrival and dismissal times. However, to reduce the number of conflict points (intersecting roadways and turning movements) it is recommended that the site driveway be located as shown. To prevent cut-through traffic between Depot Road and the school a public vehicle connection to School road it is not recommended. However, emergency vehicle access that can accommodate public bicycle and pedestrian access is recommended.

F. Conclusions

Based on the results of this analysis, the proposed Dutchmen Acres residential development will not impact existing traffic conditions. It is recommended that the site access road operate under stop control and provide a single entering lane and a single exiting lane. Emergency access and a public pedestrian and bicycle access is recommended to connect the site access road to School Road.

If you have any questions regarding this analysis, or if we can be of any further assistance, please do not hesitate to contact our office.

Respectfully submitted,
Creighton Manning Engineering, LLP

Kenneth Wersted, P.E.
Project Engineer

Attachments

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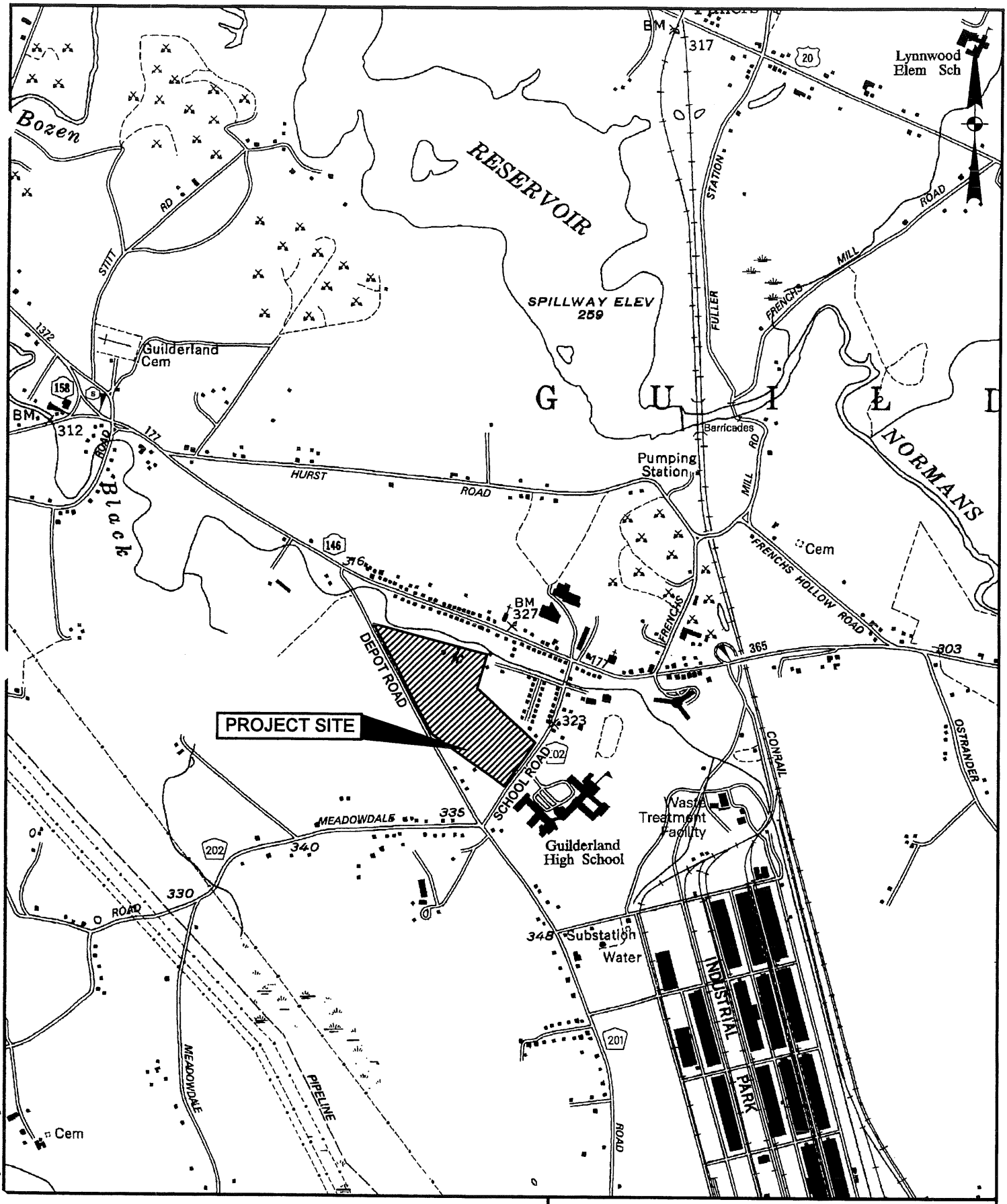

PROJECT LOCATION

DUTCHMEN ACRES SUBDIVISION
TOWN OF GUILDERLAND, NEW YORK

CME
CREIGHTON MANNING ENGINEERING, LLP

PROJECT: 06-055d	DATE: 04/06	FIGURE: 1

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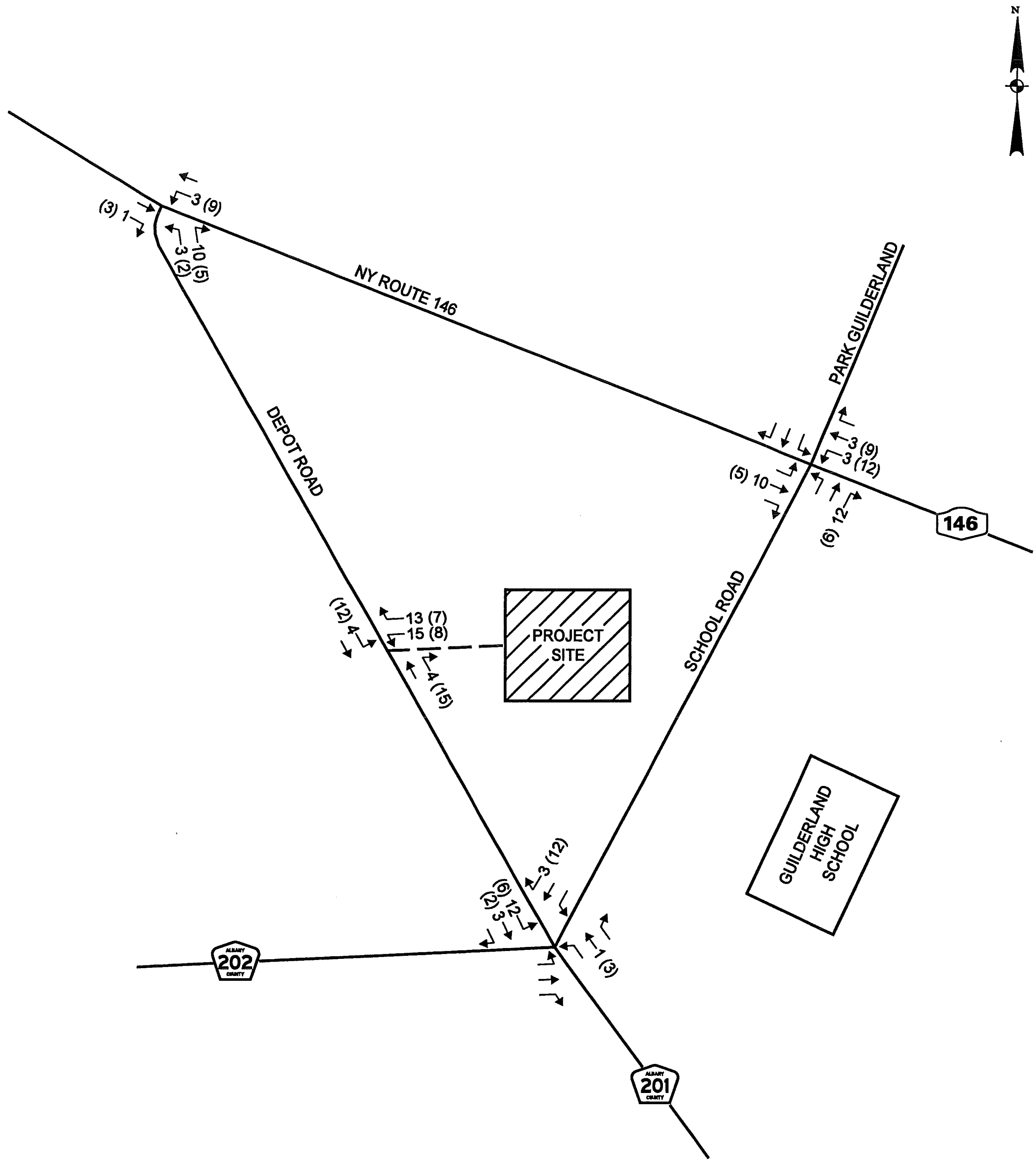

LEGEND:
AM PEAK HOUR (PM PEAK HOUR)

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TRIP ASSIGNMENT

DUTCHMEN ACRES SUBDIVISION
TOWN OF GUILDERLAND, NEW YORK

CME
CREIGHTON MANNING ENGINEERING, LLP

PROJECT: 06-055d	DATE: 4/06	FIGURE: 3

CREIGHTON MANNING ENGINEERING, LLP

Partners
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June 23, 2008

Mr. Chris Meyer
O.J. Meyer & Son
4 Vly Road
Albany, New York 12205

RE: Updated Traffic Evaluation, Dutchmen Acres, Depot Road (CR 201), Town of Guilderland, Albany County, New York; CME Project No. 06-055d

Dear Mr. Meyer:

As requested, Creighton Manning Engineering, LLP (CME) has reviewed the proposed Dutchmen Acres residential development, located on Depot Road (County Road 201) in the Town of Guilderland. The project site is located on the east side of Depot Road, north of the intersection of School Road (County Road 202). The purpose of this update is to review the potential impacts from other proposed developments in the area in addition to the proposed Dutchman Acres project, and review the proposed access. The following summarizes our qualitative review.

A. Introduction and Background

The proposed project is located between Depot Road and School Road, adjacent to residential land uses and Guilderland High School. The project consists of the construction of 27 single-family homes and 10 townhouses on a 38.4-acre site. Access to the site is proposed via one site access road on Depot Road with emergency access proposed to School Road, opposite the Guilderland High School. The project is estimated to generate 36 trips during the AM peak hour and 42 trips during the PM peak hour.

Other developments in the area include Matt's Farm, a 48-unit single-family development located on the west side of Depot Road, just south of the intersection of School Road. This project is estimated to generate approximately 43 trips during the AM peak hour and 55 trips during the PM peak hour.

In addition to Matt's Farm, the Northeastern Industrial Park (NEIP) proposes the expansion of the park to include an additional 1.978 million SF of industrial, office, research and development, and ancillary services. The trip generation of this expansion is estimated to be 845 trips during the AM peak hour and 922 trips during the PM peak hour, according to the Draft Generic Environmental Impact Statement (DGEIS), prepared for the NEIP by Clough, Harbour, and Associates in 2005.

B. Future Operating Conditions

The NEIP will be adding a significant amount of traffic to the area roadways once it is complete, which is projected to be in 2015. Most of this new traffic will use the Van Buren Boulevard entrance to the park. As such, only about 290 trips are expected to use the Depot Road access and travel through the Depot Road/School Road/Meadowdale Road intersection. Matt's Farm will generate approximately 40 to 50 trips through this same intersection, while the proposed Dutchman Acres project will add approximately 20 trips during the peak hours.

A review of the intersection levels of service at the area intersections, as reported in the NEIP DGEIS, indicates that the Depot Road/School Road/Meadowdale Road intersection will operate at LOS A on the Depot Road approaches and LOS C/F on the westbound School Road approach, and LOS B/C on the eastbound Meadowdale Road approach under the future Build conditions with the NEIP expansion complete. Given the poor operating condition on the westbound approach, it is proposed (by the NEIP) that the intersection operate under all-way stop control. With the addition of stop control on the northbound and southbound approaches of Depot Road, the intersection will operate at an overall LOS C during the AM peak hour and LOS B during the PM peak hour. With the additional traffic generated by Matt's Farm and Dutchman Acres, the intersection will experience an approximately 1 additional vehicle per minute during the peak hours and less during the off-peak hours. This amount of increase will not have any significant change in the levels of service or delays experienced at this intersection.

Similarly, the intersection of School Road and Route 146 will see an increase of approximately 215 trips during the peak hours from the NEIP expansion, 40 trips from Matt's Farm, and 30 trips from Dutchman Acres. This signalized intersection provides single lane approaches with an exclusive right turn lane on the westbound Route 146 approach. After completion of the NEIP, this intersection will operate at and overall LOS F during the AM peak hour and LOS C during the PM peak hour. To improve on these conditions, the NEIP proposes to modify the westbound approach to provide an exclusive left turn lane, and a shared through/right turn lane. Under these conditions, the intersection will improve to an overall LOS D during the AM peak hour and LOS C during the PM peak hour. Similarly, the amount of increase in traffic resulting from the proposed Matt's Farm and Dutchman Acres will not result in any significant increases in delays or changes in the levels of service.

At the intersection of Depot Road and Route 146, traffic will increase by approximately 130 trips due to the NEIP, 5 trips by Matt's Farm, and 20 trips by Dutchman Acres. The westbound Route 146 approach to this intersection is expected to operate at LOS A/B during the peak hours after completion of the NEIP expansion. The northbound Depot Road approach will operate at LOS D/E. With the low traffic volumes being added as a result of the Matt's Farm and Dutchman Acres projects, no significant increases in delays or changes in levels of service will occur.

C. School Road Access

Relative to the proposed access to the site, it is possible to create a through road from School Road to Depot Road by providing two site access points. An access road to School Road from the proposed residential development is feasible and would only be inconvenient for residents leaving the site during the busy half hour of school arrival and dismissal times. However, to reduce the number of conflict points (intersecting roadways and turning movements) in the vicinity of the school, it is recommended that a single site driveway be located on Depot Road. To prevent cut-through traffic between Depot Road and the school, a public vehicle connection to School road is not recommended. However, emergency vehicle access that can accommodate public bicycle and pedestrian access is recommended thereby allowing the potential for any students living in Dutchman Acres to easily walk or ride their bikes to school.

D. Conclusions

Based on the results of this qualitative analysis, the proposed Dutchmen Acres residential development will not result in any significant traffic impacts to existing or future traffic conditions. Emergency access and public pedestrian and bicycle access is recommended from the site to School Road. Public vehicular access to School Road is not recommended.

If you have any questions regarding this analysis, or if we can be of any further assistance, please do not hesitate to contact our office.

Respectfully submitted,
Creighton Manning Engineering, LLP

Kenneth Wersted, P.E.
Project Manager

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June 27, 2008

Mr. Chris Meyer
O.J. Meyer & Son
4 Vly Road
Albany, New York 12205

RE: Updated Traffic Evaluation, Dutchmen Acres, Depot Road (CR 201), Town of Guilderland, Albany County, New York; CME Project No. 06-055d

Dear Mr. Meyer:

As requested, Creighton Manning Engineering, LLP (CME) has reviewed the proposed Dutchmen Acres residential development, located on Depot Road (County Road 201) in the Town of Guilderland. The project site is located on the east side of Depot Road, north of the intersection of School Road (County Road 202). The purpose of this update is to review the potential impacts from other proposed developments in the area in addition to the proposed Dutchman Acres project, and review the proposed access. The following summarizes our qualitative review.

A. Introduction and Background

The proposed project is located between Depot Road and School Road, adjacent to residential land uses and Guilderland High School. The project consists of the construction of 25 single-family homes, 8 townhouses, and 12 senior apartments on a 41-acre site. Access to the site is proposed via one site access road on Depot Road with emergency access proposed to School Road, opposite the Guilderland High School. The project is estimated to generate 35 trips during the AM peak hour and 40 trips during the PM peak hour.

Other developments in the area include Matt's Farm, a 48-unit single-family development located on the west side of Depot Road, just south of the intersection of School Road. This project is estimated to generate approximately 43 trips during the AM peak hour and 55 trips during the PM peak hour.

In addition to Matt's Farm, the Northeastern Industrial Park (NEIP) proposes the expansion of the park to include an additional 1.978 million SF of industrial, office, research and development, and ancillary services. The trip generation of this expansion is estimated to be 845 trips during the AM peak hour and 922 trips during the PM peak hour, according to the Draft Generic Environmental Impact Statement (DGEIS), prepared for the NEIP by Clough, Harbour, and Associates in 2005.

B. Future Operating Conditions

The NEIP will be adding a significant amount of traffic to the area roadways once it is complete, which is projected to be in 2015. Most of this new traffic will use the Van Buren Boulevard entrance to the park. As such, only about 290 trips are expected to use the Depot Road access and travel through the Depot Road/School Road/Meadowdale Road intersection. Matt's Farm will generate approximately 40 to 50 trips through this same intersection, while the proposed Dutchman Acres project will add approximately 20 trips during the peak hours.

A review of the intersection levels of service at the area intersections, as reported in the NEIP DGEIS, indicates that the Depot Road/School Road/Meadowdale Road intersection will operate at LOS A on the Depot Road approaches and LOS C/F on the westbound School Road approach, and LOS B/C on the eastbound Meadowdale Road approach under the future Build conditions with the NEIP expansion complete. Given the poor operating condition on the westbound approach, it is proposed (by the NEIP) that the intersection operate under all-way stop control. With the addition of stop control on the northbound and southbound approaches of Depot Road, the intersection will operate at an overall LOS C during the AM peak hour and LOS B during the PM peak hour. With the additional traffic generated by Matt's Farm and Dutchman Acres, the intersection will experience an approximately 1 additional vehicle per minute during the peak hours and less during the off-peak hours. This amount of increase will not have any significant change in the levels of service or delays experienced at this intersection.

Similarly, the intersection of School Road and Route 146 will see an increase of approximately 215 trips during the peak hours from the NEIP expansion, 40 trips from Matt's Farm, and 30 trips from Dutchman Acres. This signalized intersection provides single lane approaches with an exclusive right turn lane on the westbound Route 146 approach. After completion of the NEIP, this intersection will operate at and overall LOS F during the AM peak hour and LOS C during the PM peak hour. To improve on these conditions, the NEIP proposes to modify the westbound approach to provide an exclusive left turn lane, and a shared through/right turn lane. Under these conditions, the intersection will improve to an overall LOS D during the AM peak hour and LOS C during the PM peak hour. Similarly, the amount of increase in traffic resulting from the proposed Matt's Farm and Dutchman Acres will not result in any significant increases in delays or changes in the levels of service.

At the intersection of Depot Road and Route 146, traffic will increase by approximately 130 trips due to the NEIP, 5 trips by Matt's Farm, and 20 trips by Dutchman Acres. The westbound Route 146 approach to this intersection is expected to operate at LOS A/B during the peak hours after completion of the NEIP expansion. The northbound Depot Road approach will operate at LOS D/E. With the low traffic volumes being added as a result of the Matt's Farm and Dutchman Acres projects, no significant increases in delays or changes in levels of service will occur.

C. School Road Access

Relative to the proposed access to the site, it is possible to create a through road from School Road to Depot Road by providing two site access points. An access road to School Road from the proposed residential development is feasible and would only be inconvenient for residents leaving the site during the busy half hour of school arrival and dismissal times. However, to reduce the number of conflict points (intersecting roadways and turning movements) in the vicinity of the school, it is recommended that a single site driveway be located on Depot Road. To prevent cut-through traffic between Depot Road and the school, a public vehicle connection to School road is not recommended. However, emergency vehicle access that can accommodate public bicycle and pedestrian access is recommended thereby allowing the potential for any students living in Dutchman Acres to easily walk or ride their bikes to school.

D. Conclusions

Based on the results of this qualitative analysis, the proposed Dutchmen Acres residential development will not result in any significant traffic impacts to existing or future traffic conditions. Emergency access and public pedestrian and bicycle access is recommended from the site to School Road. Public vehicular access to School Road is not recommended.

If you have any questions regarding this analysis, or if we can be of any further assistance, please do not hesitate to contact our office.

Respectfully submitted,
Creighton Manning Engineering, LLP

Kenneth Wersted, P.E.
Project Manager

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Road/School Road/Meadowdale Road intersection as a two-way stop controlled intersection. The analysis in this letter and in Table 1 above assumes the NEIP proposed conversion of the intersection to an all-way stop intersection which will provide an equal opportunity for drivers to enter the intersection, thus operating at an overall LOS B/C during the peak hours.

C. Conclusions

The 2015 Build traffic volumes take into account traffic generated by the NEIP expansion, Matt's Farm project, and Dutchman Acres project. Theses trips were added to the roadway network and analyzed with the recommended improvements from the 2005 DGEIS. There will be no significant delay increases as a result of the build out of the Dutchman Acres project. Furthermore, modifications to the signal timing at the Route 146/School Road intersection will improve operations to comparable or better than No-Build conditions. It is recommended that if all three projects are developed, the signal timings at this intersection be adjusted to improve the flow of traffic. No other traffic related mitigation is required.

Please feel free to call our office if you have any questions or comments regarding the above analysis.

Respectfully submitted,
Creighton Manning Engineering, LLP

Kenneth Wersted, P.E.
Project Manager

Attachments

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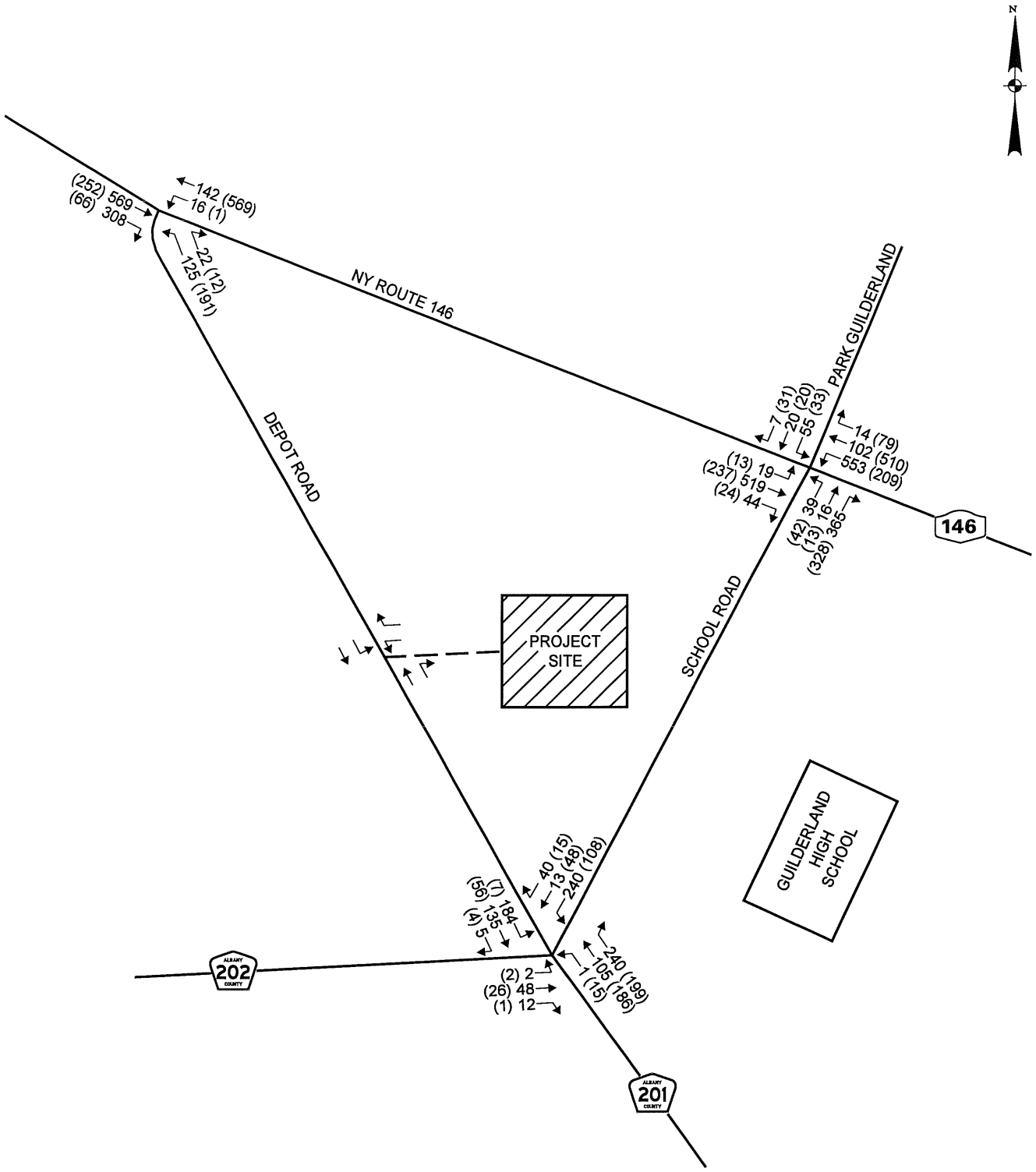
CREIGHTON MANNING ENGINEERING, L.L.P.

JOB 06-055d Dutchmen Acres
SHEET NO. 1 OF 1
CALCULATED BY KWW DATE 6/27/2008
CHECKED BY DATE
SCALE Trip Generation

LUC - 210 - Single-Family Detached Housing								Entering	Exiting	Total	
Dwelling Units, Weekday, AM peak hour of Adjacent Street Traffic, page 270											
25	Units		*25%*	*enter*	*75%*	*exit*					
Ave Rate:	0.75	Trips/unit		T=	19	Trips		5	14	19	
Fitted Curve		T=0.70(X)+9.43									USE
X=	25			T=	27	Trips		7	20	27	←
Dwelling Units, Weekday, PM peak hour of Adjacent Street Traffic, page 271											
25	Units		*63%*	*enter*	*37%*	*exit*					
Ave Rate:	1.01	Trips/unit		T=	25	Trips		16	9	25	
Fitted Curve		LN(T)=0.90LN(X)+0.53									
X=	25			T=	31	Trips		20	11	31	←
LUC - 230 - Residential Condominium/Townhouse								Entering	Exiting	Total	
Dwelling Units, Weekday, AM peak hour of Adjacent Street Traffic, page 368											
8	Units		*17%*	*enter*	*83%*	*exit*					
Ave Rate:	0.44	Trips/unit		T=	4	Trips		1	3	4	
Fitted Curve		LN(T)=0.80LN(X)+0.26									
X=	8			T=	7	Trips		1	6	7	←
Dwelling Units, Weekday, PM peak hour of Adjacent Street Traffic, page 369											
8	Units		*67%*	*enter*	*33%*	*exit*					
Ave Rate:	0.52	Trips/unit		T=	4	Trips		3	1	4	
Fitted Curve		LN(T)=0.82LN(X)+0.32									
X=	8			T=	8	Trips		5	3	8	←
LUC - 252 - Senior Adult Housing - Attached								Entering	Exiting	Total	
Occupied Dwelling Units, Weekday, AM peak hour of Adjacent Street Traffic, page 462											
12	Units		*45%*	*enter*	*55%*	*exit*					
Ave Rate:	0.08	Trips/unit		T=	1	Trips		0	1	1	←
Fitted Curve		Not Given									
X=	12			T=	********	Trips		#VALUE!	#VALUE!	#VALUE!	
Occupied Dwelling Units, Weekday, PM peak hour of Adjacent Street Traffic, page 463											
12	Units		*61%*	*enter*	*39%*	*exit*					
Ave Rate:	0.11	Trips/unit		T=	1	Trips		1	0	1	←
Fitted Curve		Not Given									
X=	12			T=	********	Trips		#VALUE!	#VALUE!	#VALUE!	

	AM Total		PM Total
Single Fam	27		31
Townhouse	7		8
Senior	1		1
total	35		40



LEGEND:
AM PEAK HOUR (PM PEAK HOUR)

2015 EXISTING TRAFFIC VOLUMES
(FROM 2005 CHA DGEIS OF NEIP)

DUTCHMEN ACRES SUBDIVISION
TOWN OF GUILDERLAND, NEW YORK

CREIGHTON MANNING ENGINEERING, LLP

PROJECT: 06-055d	DATE: 12/08	FIGURE: 1

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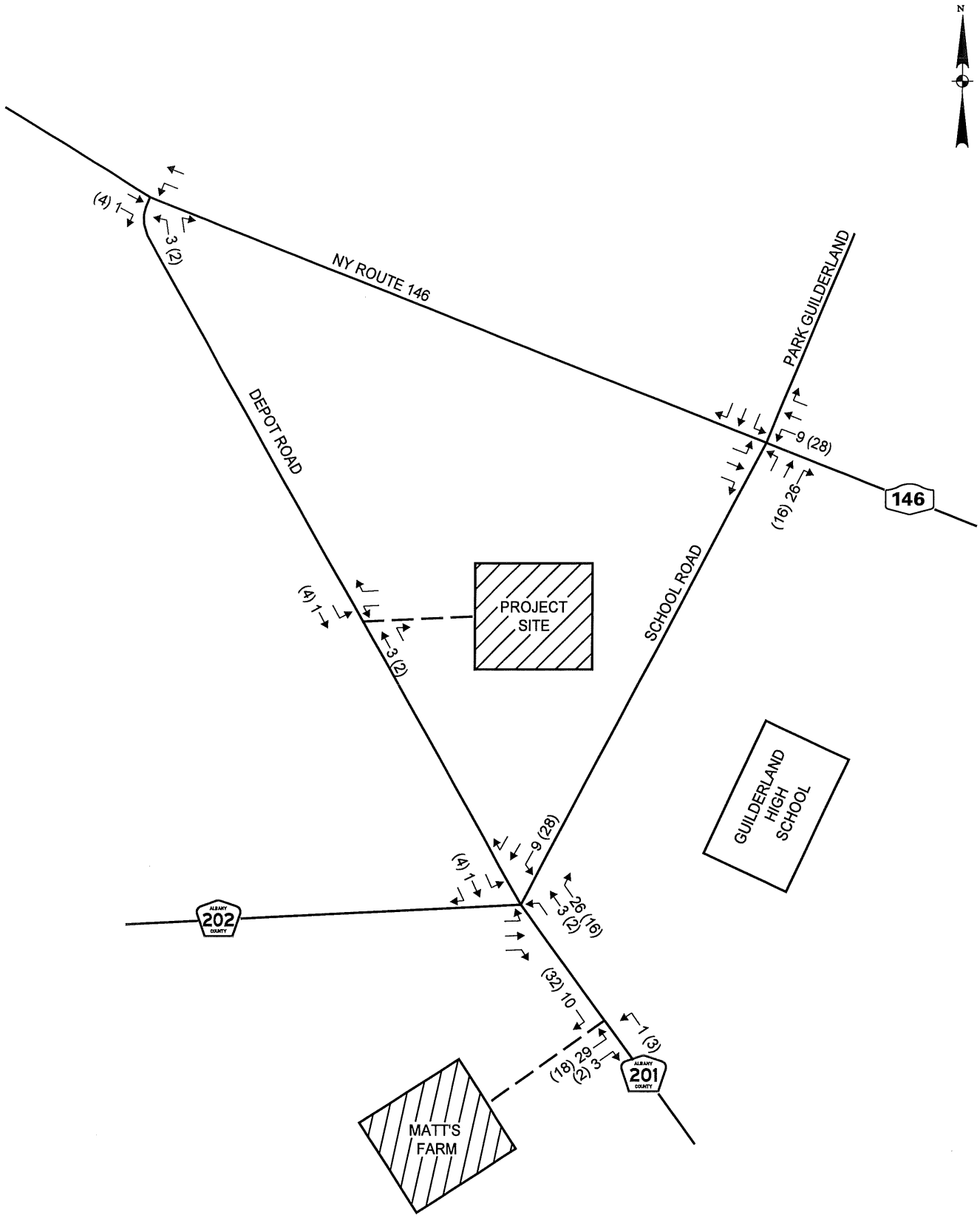

LEGEND:
AM PEAK HOUR (PM PEAK HOUR)

TRIP ASSIGNMENT FOR MATT'S FARM

DUTCHMEN ACRES SUBDIVISION
TOWN OF GUILDERLAND, NEW YORK

CREIGHTON MANNING ENGINEERING, LLP

PROJECT: 06-055d	DATE: 12/08	FIGURE: 2

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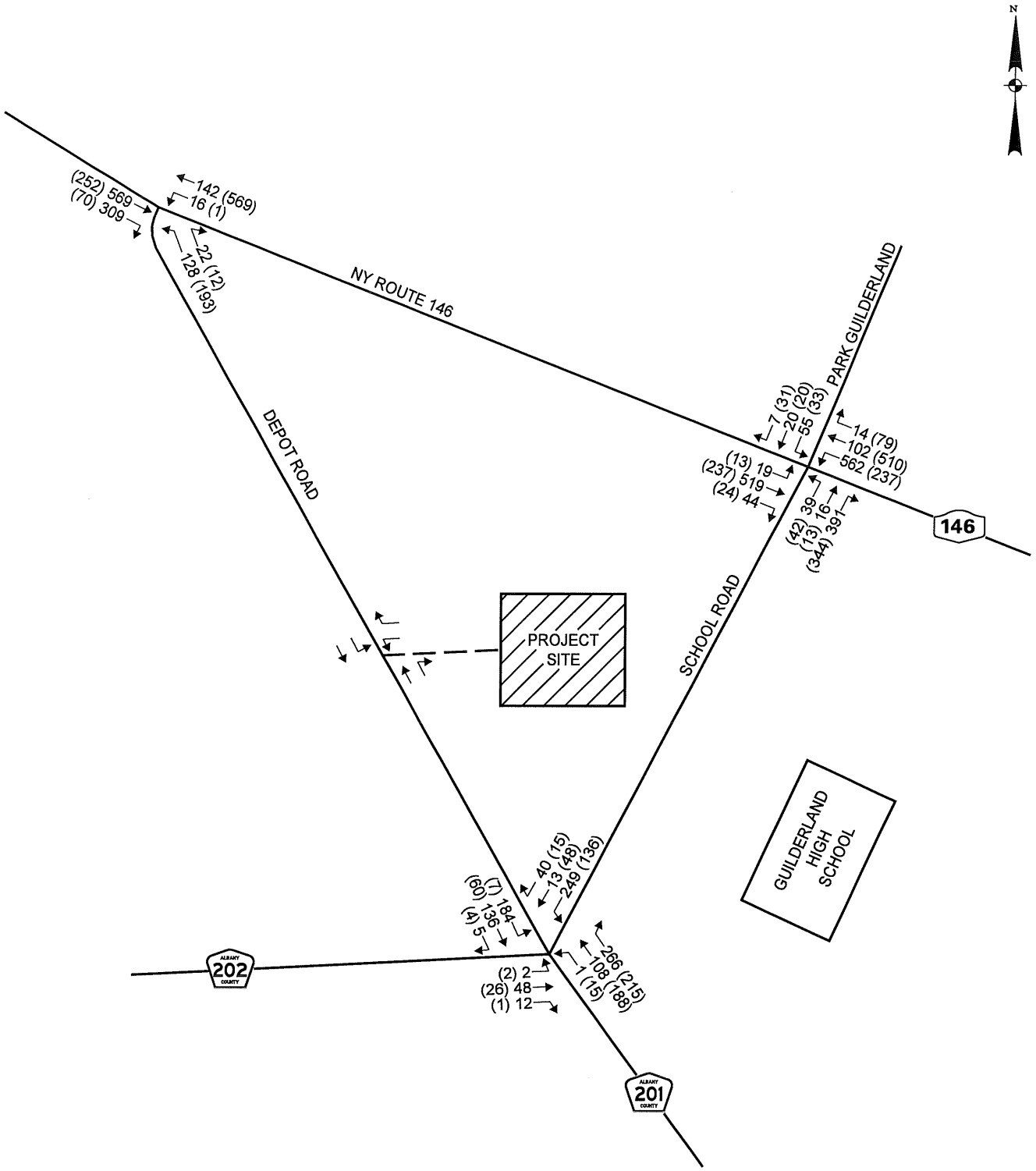

LEGEND:
AM PEAK HOUR (PM PEAK HOUR)

2015 NO-BUILD TRAFFIC VOLUMES
(W/ NEIP & MATT'S FARM)

DUTCHMEN ACRES SUBDIVISION
TOWN OF GUILDERLAND, NEW YORK

CREIGHTON MANNING ENGINEERING, LLP

PROJECT: 06-055d	DATE: 12/08	FIGURE: 3

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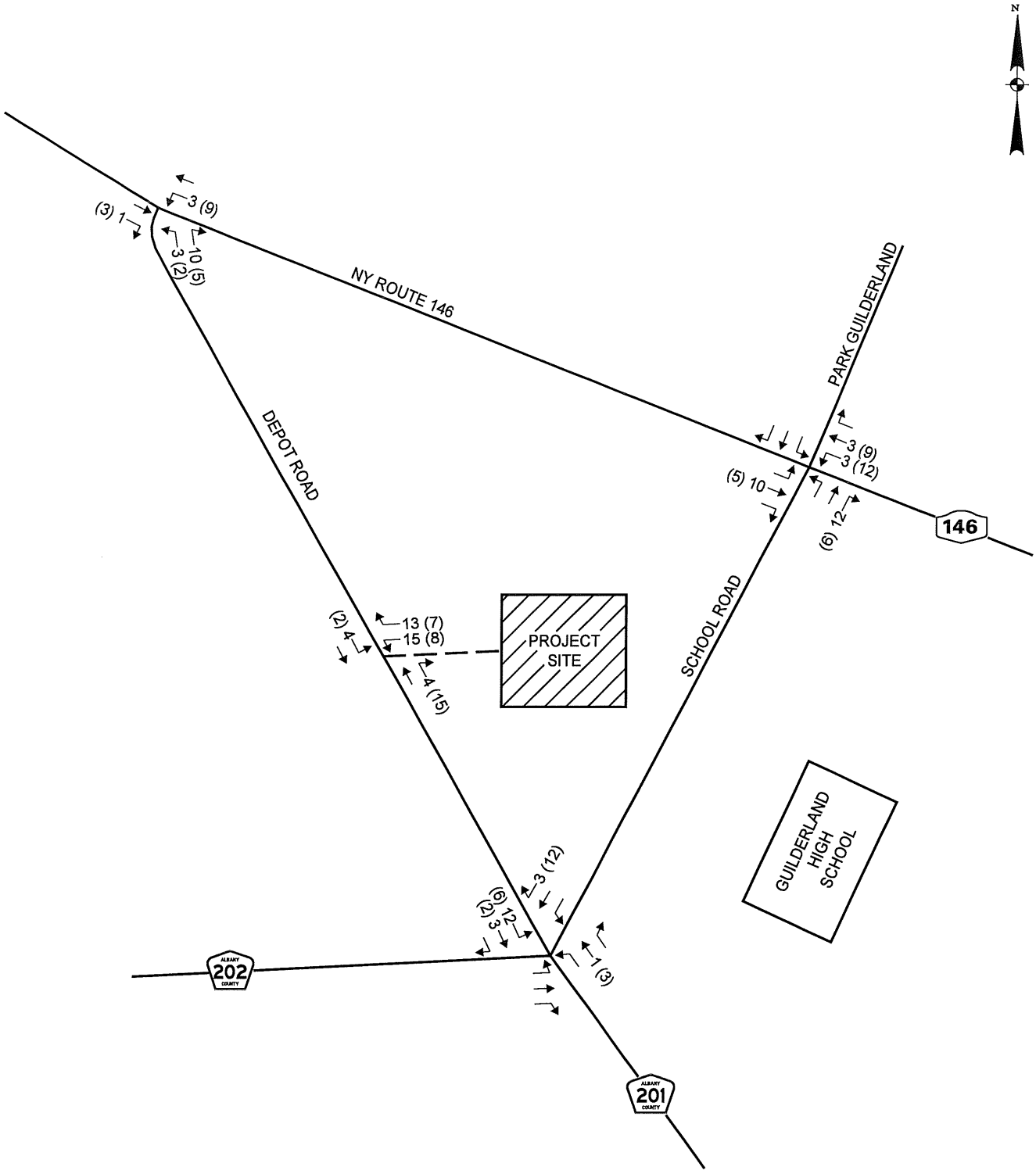

LEGEND:
AM PEAK HOUR (PM PEAK HOUR)

DUTCHMAN ACRES TRIP ASSIGNMENT

DUTCHMEN ACRES SUBDIVISION
TOWN OF GUILDERLAND, NEW YORK

CREIGHTON MANNING ENGINEERING, LLP

PROJECT: 06-055d	DATE: 12/08	FIGURE: 4

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CREIGHTON MANNING ENGINEERING, LLP

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Charles Tutunjian, P.E.

December 29, 2008

Mr. Chris Meyer
O.J. Meyer & Son
4 Vly Road
Albany, New York 12205

RE: Updated Traffic Evaluation (2), Dutchmen Acres, Depot Road (CR 201), Town of Guilderland, Albany County, New York; CME Project No. 06-055d

Dear Mr. Meyer:

Creighton Manning Engineering, LLP (CME) previously issued a letter dated *June 27, 2008* that qualitatively reviewed the potential impacts from the Dutchman Acres project with the addition of other proposed developments in the area. The project site is located on the east side of Depot Road, north of the intersection of School Road (County Road 202). The purpose of this letter is to quantify those impacts by analyzing the intersections of County Road (CR) 201 (Depot Rd)/CR 202 (Meadowdale Road/School Road), NY Route 146/CR 202 (School Road/Diagonal Road), and NY Route 146/CR 201 (Depot Road). The following summarizes our review.

A. Traffic Volumes and Improvements

The 2015 base traffic volumes were obtained from the Draft Generic Environmental Impact Statement (DGEIS), prepared for the Northeastern Industrial Park (NEIP) by Clough, Harbour, and Associates in 2005. Trips from the proposed Matt's Farm development were added to these base volumes to arrive at the 2015 No-Build volumes. This represents future traffic volumes without the proposed Dutchman Acres project. The expected trip generation from the Dutchman Acres project was added to the 2015 No-Build volumes to arrive at the 2015 Build volumes. Trip generation and assignment for the Matt's Farm and Dutchman Acres projects can be found in CME letters dated *June 27, 2008* and *May 22, 2006*, respectively. The trip generation for each component of Dutchman Acres is attached along with the traffic volume figures summarizing the future traffic conditions.

The 2005 DGEIS recommended improvements at the intersection of School Road/Depot Road which included changing the intersection from a two-way stop into an all-way stop controlled intersection. The DGEIS also recommended a geometric change at the intersection of Route 146/School Road. It was recommended that the westbound left-turn/through lane be changed into an exclusive left-turn lane, while the exclusive right-turn lane would change into a shared through/right-turn lane. The DGEIS also recommended that Travel Demand Management (TDM) strategies be employed by both the NEIP and Guilderland High School to reduce the westbound left-turn volume on Route 146 by 10% during the AM and PM peak hours. In addition, the DGEIS recommended improving the signal timing at this intersection. The study area intersections were

analyzed taking these recommended improvements into account.

B. Level of Service (LOS)

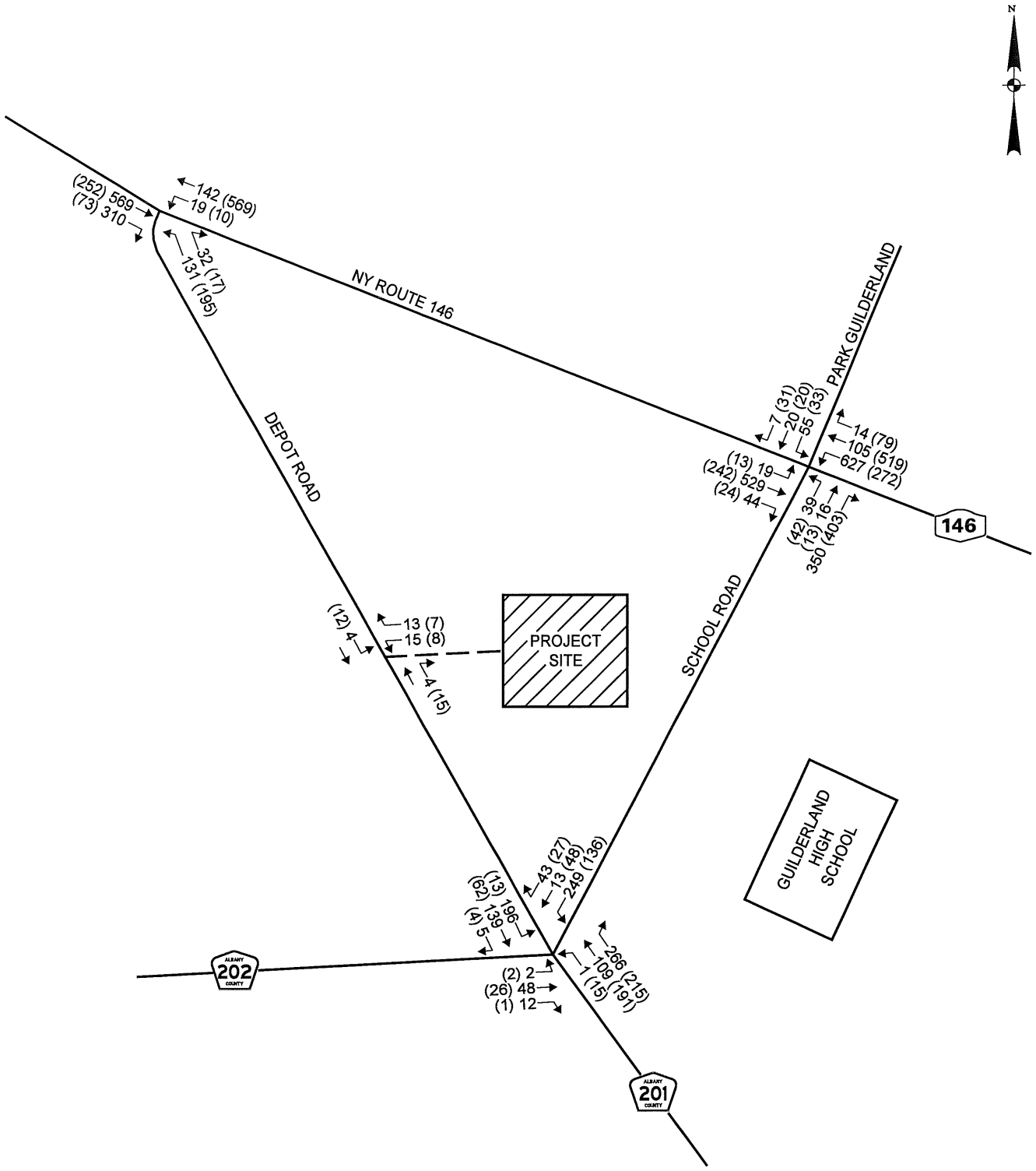
Intersection Level of Service (LOS) and capacity analysis relate traffic volumes to the physical characteristics of an intersection. Intersection evaluations were made using the latest version of the Highway Capacity Software (HCS+ version 5.3) which automates the procedures contained in the *2000 Highway Capacity Manual.* Levels of service range from A to F with LOS A conditions considered excellent with very little delay while LOS F generally represents conditions with very long delays. Attachment A contains further detailed descriptions of LOS criteria for signalized and unsignalized intersections and copies of the detailed HCS level of service reports. The relative impact of the proposed project can be determined by comparing the levels of service during the 2015 design year for the No-Build and Build traffic volume conditions. Table 1 summarizes the results of the Level of Service calculations.

Table 1 – Level of Service Summary

Intersection Approach		Control	AM Peak Hour			PM Peak Hour	
			2015 No-Build	2015 Build	2015 Build w/imp	2015 No-Build	2015 Build
CR 201 (Depot Rd)/ CR 202 (School Rd/Meadowdale Rd)		AWSC					
CR 202 (Meadowdale Rd) EB	LTR		B (10.8)	B (11.0)		A (8.8)	A (8.9)
CR 202 (School Rd) WB	LTR		C (17.1)	C (17.5)	---	B (10.7)	B (11.0)
CR 201 (Depot Rd) NB	LTR		C (16.6)	C (17.0)		B (12.7)	B (13.0)
CR 201 (Depot Rd) SB	LTR		C (17.1)	C (18.2)		A (8.8)	A (9.0)
Overall			C (16.5)	C (17.2)	---	B (11.6)	B (11.8)
NY Route 146/ CR 202 (School Rd/Diagonal Rd)		S					
NY Route 146 EB	LTR		D (51.2)	D (53.4)	D (50.2)	C (23.7)	C (23.9)
NY Route 146 WB	L		E (70.2)	E (74.4)	E (67.7)	C (21.5)	C (22.1)
	TR		A (8.7)	A (8.7)	A (6.6)	B (18.7)	B (19.0)
CR 202 (School Rd) NB	LTR		D (52.9)	E (56.7)	D (53.6)	C (32.7)	C (33.2)
CR 202 (Diagonal Rd) SB	L		D (33.1)	C (33.3)	C (24.5)	C (22.9)	C (23.0)
	TR		C (29.9)	C (29.9)	C (21.8)	C (22.4)	C (22.4)
Overall			D (54.0)	E (56.9)	D (52.4)	C (23.5)	C (23.8)
NY Route 146/ CR 201 (Depot Rd)		U					
NY Route 146 WB	LT		B (10.1)	B (10.1)	---	A (8.0)	A (8.0)
CR 201 (Depot Rd) NB	LR		D (30.1)	D (32.6)		E (38.1)	E (41.5)

Key: X (Y.Y) = Level of Service (Delay, seconds per vehicle)
U, S, AWSC = Unsignalized, Signalized, All Way Stop Control
NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound
L = Left, T = Through, R = Right
--- = Not Applicable

The results show that from the No-Build to Build conditions there are no significant increases in delay at any of the analyzed intersections. However, it is noted that by reducing the overall cycle length of the signal at the Route 146/School Road intersection, delays will be improved to comparable or better than the No-Build conditions. Therefore, no other traffic related mitigation is required. Furthermore, in the June 27, 2008 letter it was reported that the westbound approach of School Road would operate at LOS C/F which included the continued operation of the Depot



LEGEND:
AM PEAK HOUR (PM PEAK HOUR)

2015 BUILD TRAFFIC VOLUMES
(W/ NEIP, DUTCHMAN & MATT'S FARM)

DUTCHMEN ACRES SUBDIVISION
TOWN OF GUILDERLAND, NEW YORK

CREIGHTON MANNING ENGINEERING, LLP

PROJECT: 06-055d	DATE: 12/08	FIGURE: 5

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CREIGHTON MANNING ENGINEERING, LLP

Partners
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Edward V. Woods, P.E.
Donald G. Sovey, P.L.S.

October 27, 2009

Mr. Chris Meyer
O.J. Meyer & Son
4 Vly Road
Albany, New York 12205

RE: Site Plan and Access Review, Dutchmen Acres, Depot Road (CR 201), Town of Guilderland, Albany County, New York; CME Project No. 06-055d

Dear Mr. Meyer:

Creighton Manning Engineering, LLP (CME) is in receipt of the conceptual site plan showing the through road connection to School Road (CR 202). It is our understanding that this concept was developed at the request of the Town Planning Board to explore the potential effects of having the proposed development road, previously shown as a cul-de-sac, connect to School Road opposite the Guilderland High School. The concept shows the alignment of the site road intersecting School Road approximately 90 feet (centerline to centerline) north of the northern entrance to the school. The advantage of having the through road is the connectivity gained by having the proposed subdivision provide access to two roadways. As a principle, we support the creation of through roads whenever practicable.

However, the location of the concept road creates a negative off-set intersection with the high school entrance, resulting in the potential for traffic turning left into the site and left into the school from School Road to block the other turning movement, creating a gridlock pattern. Further, the overall alignment of the site road makes it an attractive cut-through route for students driving to school. Based on the traffic data presented in the December 29, 2008 CME letter, the eastbound left turn movement from Depot Road to School Road is 184 vehicles during the AM peak hour, and presumably all school traffic. This traffic would complicate the existing congestion already experienced during the school arrivals if these drivers choose to use the new subdivision road to access the school. For these reasons, we do not support the proposal, as shown, to connect the subdivision road to School Road.

Recognizing that School Road is maintained by Albany County, it is ultimately their decision as to whether the through road connection is allowed. It is recommended that their determination be obtained before returning to the Planning Board to continue the site plan process.

Please feel free to call our office if you have any questions or comments regarding the above analysis.

Respectfully submitted,
Creighton Manning Engineering, LLP

Kenneth Wersted, P.E.
Project Manager

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ENGINEERS
PLANNERS
SURVEYORS

Creighton Manning

August 30, 2013

Mr. Chris Meyer
O.J. Meyer & Son
4 Vly Road
Albany, New York 12205

RE: Roadway Geometry, Dutchmen Acres, Depot Road (CR 201), Town of Guilderland, Albany County, New York; CME Project No. 06-055d

Dear Mr. Meyer:

As requested, Creighton Manning Engineering, LLP (CM) has reviewed the site plans prepared by L. Sipperly & Associates, last revised April 16, 2013, for the proposed Dutchman Acres project located off Depot Road (CR 201) in the Town of Guilderland.

As you know, the Town of Guilderland code requires that tangent sections of streets with a deflection of more than 5 degrees require a minimum radius of 250 feet as measured from the right-of-way (ROW) line on the inside of the curve (Part II, Chapter 243, Section 243-23). The radius of the roadway is then equivalent to a 280-foot radius assuming the road is centered in a 60-foot right of way. Upon review of the site plans, the proposed road (Zorba's Way) contains three curves; one with a 110-foot radius, and two with 160-foot radii as measured at the ROW, or 140 and 190-foot curves as measured at the centerline. The purpose of this letter is to determine the adequacy of the proposed curve radii based on industry accepted engineering practices.

According to A Policy on Geometric Design of Highways and Street, (2011) published by and typically referred to as AASHTO (American Association of State Highway and Transportation Officials), 140 and 190-foot radius curves are acceptable for a street with a design speed of 20 to 25 mph. This condition exists on other town roads (Danna Joelle Drive, Salvia Lane, West Highland Drive, Tanner Circle, etc.) and offers a traffic calming effect by making it less comfortable for drivers to travel through the curves at higher speeds.

In order to meet the 280-foot minimum radius required by Town code, the curves on Zorba's Way would need to be increased by 30 to 50%, which will result in an increase in the disturbance area to wetland B. Alternatively, the curves could be posted with an advisory speed limit of 20 mph, which would

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satisfy the non-standard curve condition and maintain the traffic calming effect.

If you have any questions regarding the above, please do not hesitate to contact our office.

Respectfully submitted,
Creighton Manning Engineering, LLP

Kenneth Wersted, P.E., PTOE
Project Manager

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CREIGHTON MANNING ENGINEERING, LLP

Supplemental Work Authorization (#2) For
Traffic Engineering Services

Dutchmen Acres
Town of Guilderland, NY

CME Project No. 06-055d
December 22, 2008

The tasks covered in the SWA include updating the June 27, 2008 traffic study prepared for the project to include projecting traffic volumes, summarizing the volumes on figures, and conducting a level of service analysis reporting the level of operations for each of the study area intersections. The tasks included in this SWA will be billed as a lump sum in the amount of **$1,200,** which is required in advance. Meeting attendance and other requested extra work will be billed on a time and materials basis in accordance with our 2008 rate schedule (included). The estimated schedule for completion of this work is one week from the receipt of the signed SWA and payment.

Name	Signature
O.T Meyer & Son	12/30/08
Company	Date

Creighton Manning Engineering, LLP
2008 Charge-out Rate Schedule

TITLE	HOURLY BILLING RATE
Principal-in-Charge	$190
Senior Project Manager	$150
Project Manager	$135
Senior Engineer	$130
Project Engineer	$95
Assistant Project Engineer	$85
Assistant Planner	$70
Senior CADD Technician	$95
Engineering Technician	$65
Administrative Assistant	$50

CREIGHTON MANNING ENGINEERING, LLP

Partners
John M. Tozzi, P.E.
Edward V. Woods, P.E.
Donald G. Sovey, P.L.S.

Associates
Don Adams, P.E.
Wendy C. Cimino, P.E.
Karl H. Detrick
Stephanie E. Hodgson
Thomas R. Johnson, P.E.
Shelly A. Johnston, P.E.
Edwin C. Lawson, P.E.
Robert W. Osterhoudt, P.E.
Jeffrey W. Pangburn, P.E.
Mark A. Sargent, P.E.
Charles Tutunjian, P.E.

December 22, 2008

Mr. Chris Meyer
O.J. Meyer & Son
4 Vly Road
Albany, NY 12205

RE: Supplemental Work Authorization (#2) for Dutchmen Acres, Depot Road, Town of Guilderland, New York: CME Project 06-055d

Dear Mr. Meyer:

Creighton Manning Engineering, LLP (CME) is pleased to submit this Supplemental Work Authorization (SWA#2) to provide additional Traffic Engineering Services for the proposed project located along Depot Road in the Town of Guilderland.

The tasks covered in the SWA include updating the June 27, 2008 traffic study prepared for the project to include projecting traffic volumes, summarizing the volumes on figures, and conducting a level of service analysis reporting the level of operations for each of the study area intersections. The tasks included in this SWA will be billed as a lump sum in the amount of **$1,200,** which is required in advance. Meeting attendance and other requested extra work will be billed on a time and materials basis in accordance with our 2008 rate schedule (included). The estimated schedule for completion of this work is one week from the receipt of the signed SWA and payment.

Please sign the attached sheet and return it with payment to us to note your approval. If you have any questions, please do not hesitate to contact our office.

Respectfully submitted,
Creighton Manning Engineering, LLP

Kenneth Wersted, P.E.
Project Manager

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CREIGHTON MANNING ENGINEERING, LLP

17 COMPUTER DRIVE WEST ◆ ALBANY, NY 12205
PHONE 518-446-0396 ◆ FAX 518-446-0397

FAX TRANSMISSION

TO: Chris Meyer	DATE: 12/22/08
COMPANY: O.J. Meyer	PAGES (INCLUDING COVER): 3
FROM: Ken Wersted	FAX #: 869-0647

SUBJECT: Dutchman Acre	PROJECT #:

MESSAGE:

Chris, I spoke with Ken Johnson this morning and he is also looking for the figures of the traffic volumes. Those should be ready Tuesday. Please review the attached and return. I can deliver the report to you or you can pick it up. Call me to discuss.

Ken.

Cc:

CREIGHTON MANNING ENGINEERING, LLP

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Charles Tutunjian, P.E.

December 22, 2008

Mr. Chris Meyer
O.J. Meyer & Son
4 Vly Road
Albany, NY 12205

RE: Supplemental Work Authorization (#2) for Dutchmen Acres, Depot Road, Town of Guilderland, New York: CME Project 06-055d

Dear Mr. Meyer:

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Respectfully submitted,
Creighton Manning Engineering, LLP

Kenneth Wersted, P.E.
Project Manager

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CREIGHTON MANNING ENGINEERING, LLP

Supplemental Work Authorization (#2) For
Traffic Engineering Services

Dutchmen Acres
Town of Guilderland, NY

CME Project No. 06-055d
December 22, 2008

The tasks covered in the SWA include updating the June 27, 2008 traffic study prepared for the project to include projecting traffic volumes, summarizing the volumes on figures, and conducting a level of service analysis reporting the level of operations for each of the study area intersections. The tasks included in this SWA will be billed as a lump sum in the amount of **$1,200,** which is required in advance. Meeting attendance and other requested extra work will be billed on a time and materials basis in accordance with our 2008 rate schedule (included). The estimated schedule for completion of this work is one week from the receipt of the signed SWA and payment.

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