

March 27, 2020

MAX-2016018.00

Meeting House Way, LLC
c/o Mr. Sean Murphy, Esquire
282 Upper Main Street
P.O. Box 1270
Edgartown, Massachusetts 02539

SUBJECT: Updated Trip-Generation Letter
Proposed Residential Development
139 Meeting House Way
Edgartown, Massachusetts

Dear Mr. Murphy:

Greenman-Pedersen Inc. (GPI) has prepared this letter to evaluate the expected trips associated with the most recently updated Site Plan for the proposed Meeting House Place residential development to be located at 139 Meeting House Way in Edgartown, Massachusetts. As previously proposed, the project consisted of the construction of 34 single-family homes. Based on numerous meetings with the Martha's Vineyard Commission (MVC) staff and public input, the site plan has been further updated and the project now consists of the construction of 28 single-family homes and 14 townhomes/condominiums. Access and egress to the site is proposed via three driveways on Division Road which provide access to Meshacket Road and Meeting House Way. A Plan of Land is attached to this letter for your reference.

This letter is intended to evaluate the potential traffic impacts associated with the currently proposed development and includes a review of the project-generated trips.

Trip Generation

To estimate the volume of traffic to be generated by the proposed residential development, trip-generation rates published by the Institute of Transportation Engineers (ITE) *Trip Generation Manual*¹ were researched. Land Use Code (LUC) 210 (Single-Family Detached Housing) and LUC 220 (Multifamily Housing [Low-Rise]) were used to estimate the trip generation of the previously and currently proposed development. Table 1 summarizes the results of the proposed trip-generation estimates. All trip-generation data are attached to this letter.

As shown in Table 1, the currently proposed residential development that consists of 28 single-family homes and 14 townhomes/condominiums is expected to generate 3 *additional* trips (1 entering and 2 exiting) during the weekday AM peak hour and 4 *additional* trips (2 entering and 2 exiting) during the weekday PM peak hour over what was previously proposed (34 single family homes) and analyzed as part of the *Alternative Trip Distribution* information prepared for the project.

¹ *Trip Generation, 10th Edition*. Institute of Transportation Engineers; Washington, DC; 2017.

**Table 1
 TRIP-GENERATION SUMMARY**

Time Period / Direction	Previously Proposed	Currently Proposed			Additional Trips ^e
	34 Homes ^a	28 Homes ^b	14 Townhomes/ Condos ^c	Total ^d	
Weekday Daily	390	320	65	385	(5)
Weekday AM Peak Hour					
<i>In</i>	7	6	2	8	1
<i>Out</i>	<u>22</u>	<u>19</u>	<u>5</u>	<u>24</u>	<u>2</u>
<i>Total</i>	29	25	7	32	3
Weekday PM Peak Hour					
<i>In</i>	23	19	6	25	2
<i>Out</i>	<u>13</u>	<u>11</u>	<u>4</u>	<u>15</u>	<u>2</u>
<i>Total</i>	36	30	10	40	4

^a ITE LUC 210 (Single-Family Detached Housing) for 34 dwelling units.
^b ITE LUC 210 (Single-Family Detached Housing) for 28 dwelling units.
^c ITE LUC 210 (Multifamily Housing [Low-Rise]) for 14 dwelling units.
^d 28 Home plus 14 Townhomes/Condos.
^e Previously Proposed 34 Homes minus Total Currently Proposed Total.

Trip Distribution

Having estimated project-generated vehicle trips, the next step is to determine the distribution of the project traffic and assign these trips to the local roadway network. The directional distribution of site traffic is dependent on expected travel route to and from the site, consistent with the *Alternative Trip Distribution* information prepared for the project. The trip distribution is shown on Figure 1 – Site Generated Peak Hour Traffic Volumes attached to this letter.

Traffic volume increases leading beyond the study area are anticipated to be between 2 to 16 vehicle trips per hour based on 28 single-family homes and 14 townhomes/condominiums. These increases represent, on average, one additional vehicle trip approximately every 3.75 to 30 minutes during the peak hours.

The 2024 Build Peak Hour Traffic Volumes are shown graphically in Figure 2 attached to this letter.

Summary

The site is vacant and as currently proposed a residential development consisting of 28 single-family homes and 14 townhomes/condominiums will be constructed. Access and egress to the site is proposed via three driveways on Division Road which provide access to Meshacket Road and Meeting House Way.

- The currently proposed residential development that consists of 28 single-family homes and 14 townhomes/condominiums is expected to generate 3 *additional* trips (1 entering and 2 exiting) during the weekday AM peak hour and 4 *additional* trips (2 entering and 2 exiting) during the weekday PM peak hour

over what was previously proposed (34 single family homes) and analyzed as part of the *Alternative Trip Distribution* information prepared for the project.

- Traffic volume increases leading beyond the study area are anticipated to be between 2 to 16 vehicle trips per hour based on 28 single-family homes and 14 townhomes/condominiums. These increases represent, on average, one additional vehicle trip approximately every 3.75 to 30 minutes during the peak hours.

In light of the information provided in this letter it is expected that with the reduction of 6 single-family homes to the project and the addition of 14 townhomes/condominiums to accommodate “empty nesters”, **the residential development will result in a no appreciable increase in traffic and negligible vehicular impacts** over what has already been analyzed for the previously proposed project. Should you have any questions, or require additional information, please contact me at (978) 570-2968.

Sincerely,

GREENMAN-PEDERSEN, INC.



Heather L. Monticup, P.E.
Assistant Vice President / Director of Land Development Traffic

Enclosures:

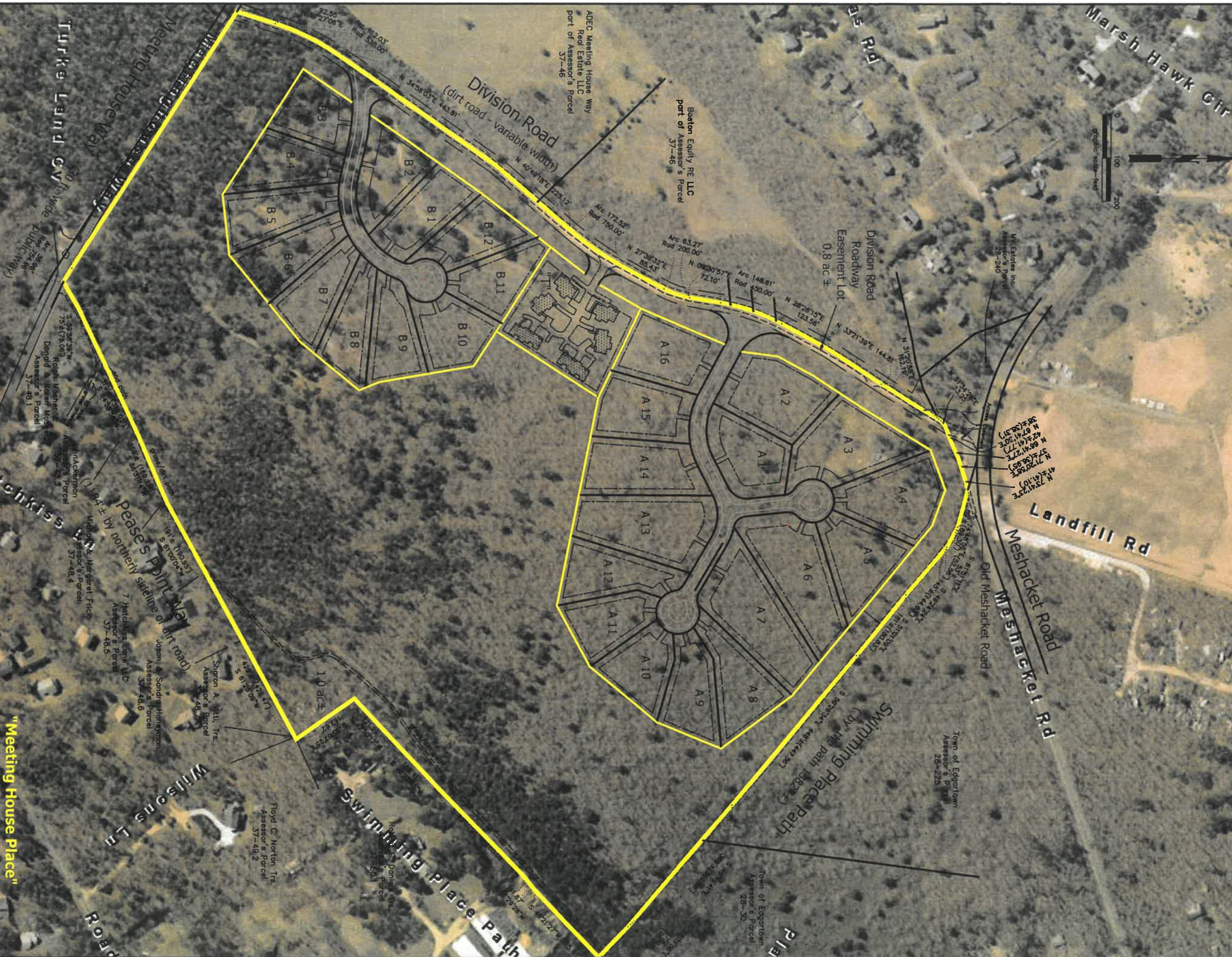
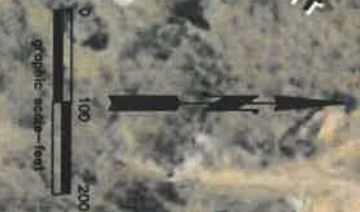
Plan of Land

Trip-Generation Data

Figure 1 – Site Generated Peak Hour Traffic Volumes

Figure 2 - Build Peak Hour Traffic Volumes

cc: Mr. Doug Anderson, Meeting House Way, LLC

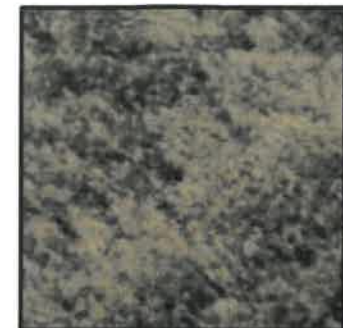


"Meeting House Place"
Plan of Land in
Edgartown, Mass.

Prepared For
Meeting House Way, LLC

Schofield, Barbini & Hoehn, Inc.
Land Surveying & Civil Engineering
12, Surveyor's Lane, Box 339
Whitford Haven, Mass.
508-693-2781
www.schofield.net
MAV 9969

revised: March 7, 2020
Scale: 1" = 100' August 15, 2019



Institute of Transportation Engineers (ITE)

Land Use Code (LUC) 210 - Single-Family Detached Housing

General Urban/Suburban

Average Vehicle Trips Ends vs: Dwelling Units

Independent Variable (X): 34

AVERAGE WEEKDAY DAILY

$$\ln(T) = 0.92 \ln(X) + 2.71$$

$$\ln(T) = 0.92 \ln(34) + 2.71$$

$$\ln(T) = 5.95$$

$$T = 385.39$$

T = 386 vehicle trips

with 50% (193 vpd) entering and 50% (193 vpd) exiting.

WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC

$$T = 0.71(X) + 4.80$$

$$T = 0.71 * 34 + 4.80$$

$$T = 28.94$$

T = 29 vehicle trips

with 25% (7 vph) entering and 75% (22 vph) exiting.

WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC

$$\ln T = 0.96 \ln(X) + 0.20$$

$$\ln T = 0.96 \ln(34) + 0.20$$

$$\ln T = 3.59$$

$$T = 36.06$$

T = 36 vehicle trips

with 63% (23 vph) entering and 37% (13 vph) exiting.

SATURDAY DAILY

$$\ln T = 0.94 \ln(X) + 2.56$$

$$\ln T = 0.94 \ln(34) + 2.56$$

$$\ln T = 5.87$$

$$T = 355.95$$

T = 356 vehicle trips

with 50% (178 vpd) entering and 50% (178 vpd) exiting.

SATURDAY PEAK HOUR OF GENERATOR

$$T = 0.84(X) + 17.99$$

$$T = 0.84 * 34 + 17.99$$

$$T = 46.55$$

T = 47 vehicle trips

with 54% (25 vph) entering and 46% (22 vph) exiting.

Institute of Transportation Engineers (ITE)

Land Use Code (LUC) 210 - Single-Family Detached Housing

General Urban/Suburban

Average Vehicle Trips Ends vs: Dwelling Units

Independent Variable (X): 28

AVERAGE WEEKDAY DAILY

$$\ln(T) = 0.92 \ln(X) + 2.71$$

$$\ln(T) = 0.92 \ln(28) + 2.71$$

$$\ln(T) = 5.78$$

$$T = 322.35$$

T = 322 vehicle trips

with 50% (161 vpd) entering and 50% (161 vpd) exiting.

WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC

$$T = 0.71(X) + 4.80$$

$$T = 0.71 * 28 + 4.80$$

$$T = 24.68$$

T = 25 vehicle trips

with 25% (6 vph) entering and 75% (19 vph) exiting.

WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC

$$\ln T = 0.96 \ln(X) + 0.20$$

$$\ln T = 0.96 \ln(28) + 0.20$$

$$\ln T = 3.40$$

$$T = 29.93$$

T = 30 vehicle trips

with 63% (19 vph) entering and 37% (11 vph) exiting.

SATURDAY DAILY

$$\ln T = 0.94 \ln(X) + 2.56$$

$$\ln T = 0.94 \ln(28) + 2.56$$

$$\ln T = 5.69$$

$$T = 296.57$$

T = 296 vehicle trips

with 50% (148 vpd) entering and 50% (148 vpd) exiting.

SATURDAY PEAK HOUR OF GENERATOR

$$T = 0.84(X) + 17.99$$

$$T = 0.84 * 28 + 17.99$$

$$T = 41.51$$

T = 42 vehicle trips

with 54% (23 vph) entering and 46% (19 vph) exiting.

Institute of Transportation Engineers (ITE)
Land Use Code (LUC) 220 - Multifamily Housing (Low-Rise)
General Urban/Suburban

Average Vehicle Trips Ends vs: Dwelling Units
 Independent Variable (X): 14

AVERAGE WEEKDAY DAILY

$T = 7.56 * (X) - 40.86$
 $T = 7.56 * 14 - 40.86$
 $T = 64.98$
 $T = 64$ vehicle trips
 with 50% (32 vpd) entering and 50% (32 vpd) exiting.

WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC

$\ln T = 0.95 \ln (X) - 0.51$
 $\ln T = 0.95 \ln(14) - 0.51$
 $\ln T = 2.00$
 $T = 7.37$
 $T = 7$ vehicle trips
 with 23% (2 vph) entering and 77% (5 vph) exiting.

WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC

$\ln T = 0.89 \ln (X) - 0.02$
 $\ln T = 0.89 \ln(14) - 0.02$
 $\ln T = 2.33$
 $T = 10.27$
 $T = 10$ vehicle trips
 with 63% (6 vph) entering and 37% (4 vph) exiting.

SATURDAY DAILY

$T = 8.14 * (X)$
 $T = 8.14 * 14$
 $T = 113.96$
 $T = 114$ vehicle trips
 with 50% (57 vpd) entering and 50% (57 vpd) exiting.

SATURDAY PEAK HOUR OF GENERATOR

$T = 0.70 * (X)$
 $T = 0.70 * 14$
 $T = 9.80$
 $T = 10$ vehicle trips
 *with 54% (5 vph) entering and 46% (5 vph) exiting.

** Distribution not given for Sat Midday Peak Hour, used Distribution from LUC 220 - Occupied Dwelling Units*

UPDATED TRIP-GENERATION LETTER

Proposed Residential Development - Edgartown, Massachusetts

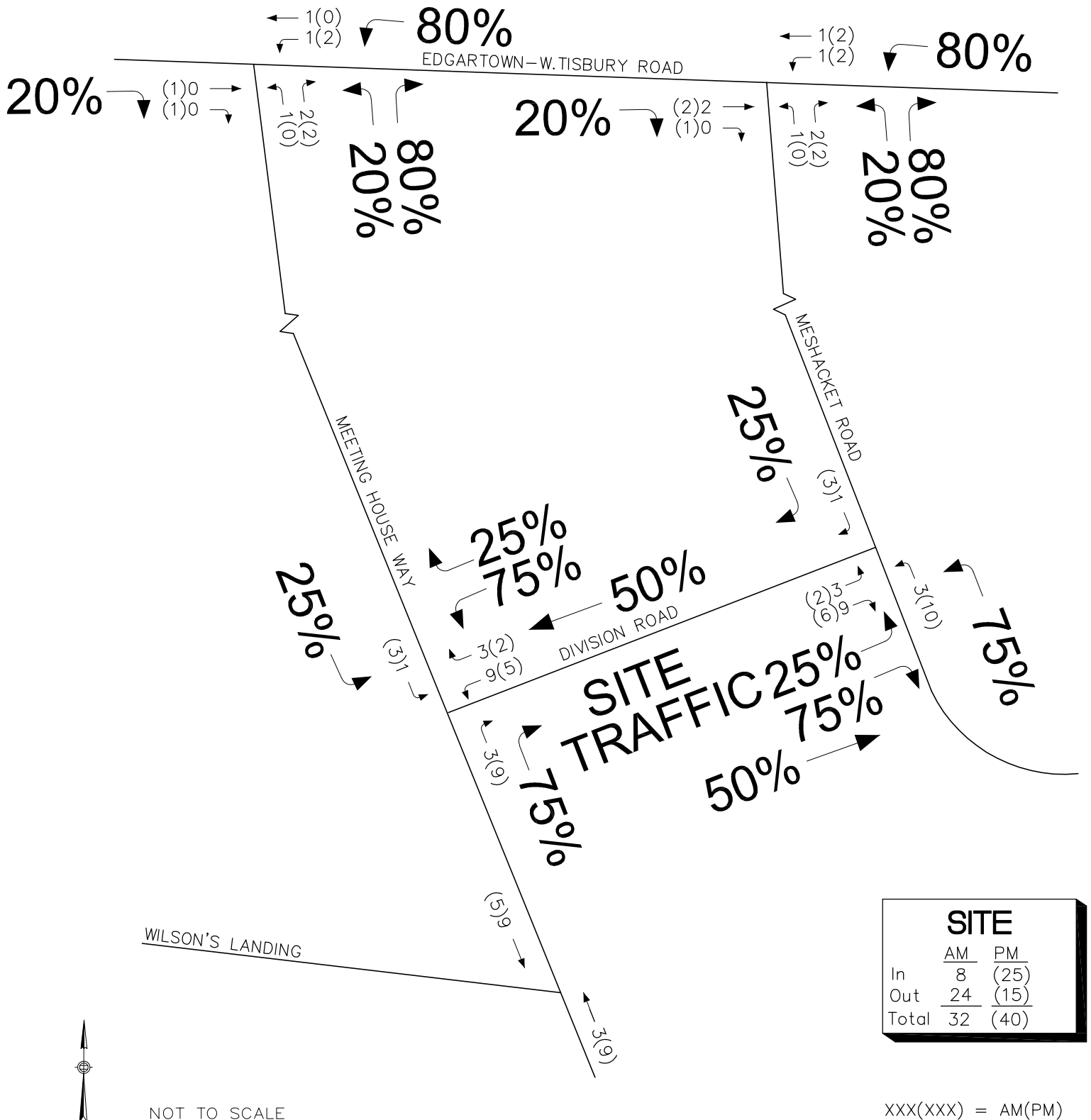
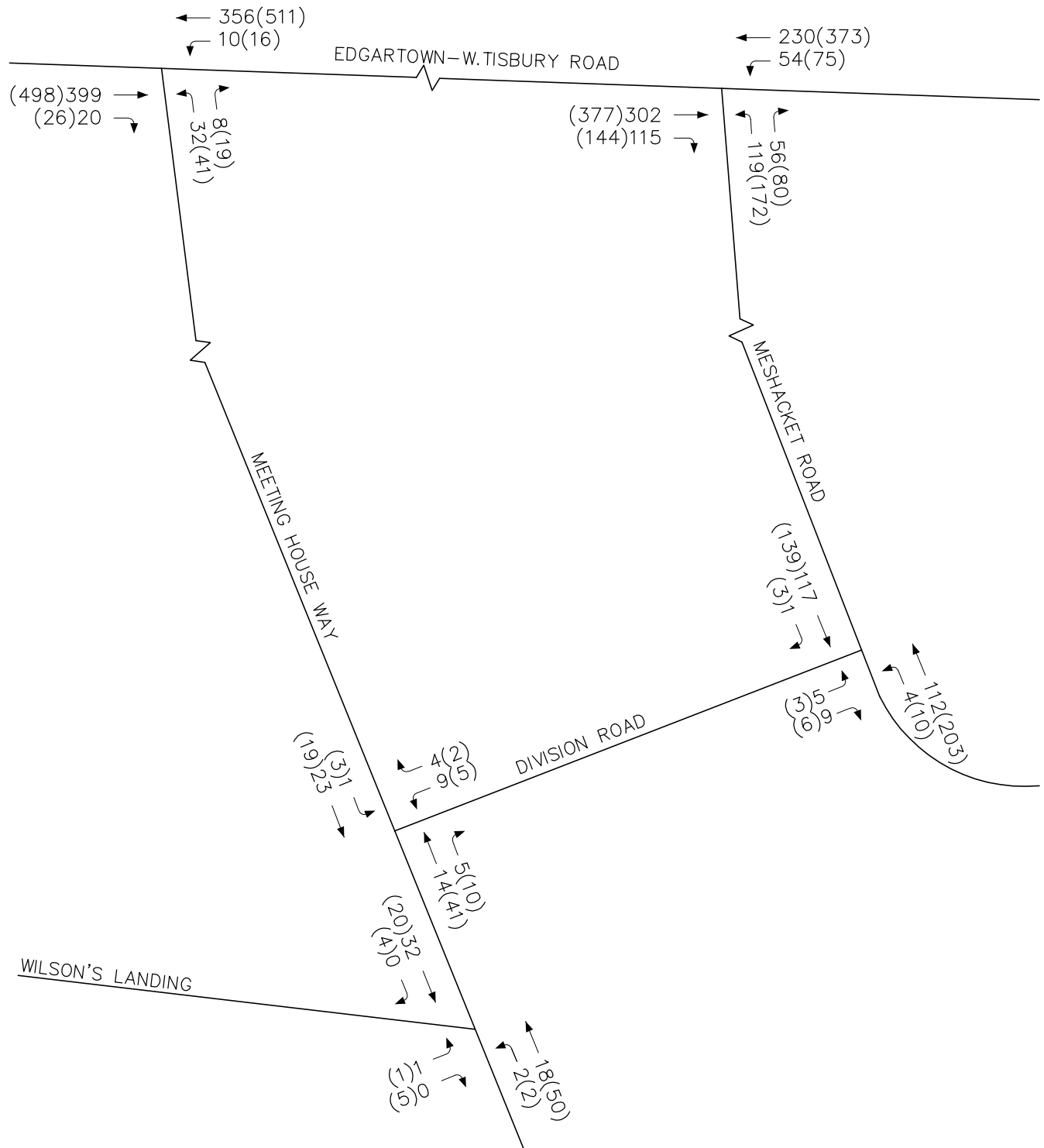


Figure 1
Site Generated Trips
(28 Homes & 14 Townhomes/Condos)
Peak Hour Traffic Volumes

UPDATED TRIP-GENERATION LETTER

Proposed Residential Development - Edgartown, Massachusetts



NOT TO SCALE

XXX(XXX) = AM(PM)