

Town of Camden
Sagamore Farm Property
Request for Expressions of Interest

The Town of Camden, Maine is accepting expressions of interest for the acquisition and development of what is known locally as Sagamore Farm. The subject property is a town-owned 77 +/- acre parcel, located on Route 1 just over one mile north of downtown Camden. The property is adjacent to Camden Hills State Park and the Mount Battie Auto Road. The property is currently undeveloped with the exception of a .5-acre municipal 122.85 kW solar array, as well as nearly 2.5 miles of primitive single-track trails suitable for hiking, mountain-biking and cross-country skiing.

The parcel (Map 221 Lot 005-000) is zoned Rural 1 District (RU1), which allows for single-family dwellings and open space residential developments, while generally limiting other more intensive uses. However, if a developer or interested party proposes and designs a development that is not consistent with the current zoning of the property, but one that is deemed to be a benefit to the Town and is consistent with the Comprehensive Plan and Town priorities, the Town would be willing to entertain zoning ordinance and/or zoning map amendments to facilitate such a development. The Town in no way desires to limit professional and creative input, and is eager to entertain a variety of uses.

As mentioned above, the property is developed with primitive trails, and any development proposed should provide for and accommodate the continued use of the existing trails. Where necessary a developer may propose to reroute certain trails to facilitate development of the project. Continued public access to these existing or rerouted trails via a public access easement will be required. The site is served by public water and high-speed internet. Access to the site is provided for via Sagamore Farm Road. The Town does have an access easement over an abutting property to install, service and maintain the solar farm.

Letters or expressions of interest should be submitted digitally to Jeremy P. Martin, Planning and Development Director at jmartin@camdenmaine.gov, and received by 3:30 p.m. Friday, January 29, 2021. Questions can be directed to Mr. Martin at the above email or by phone at 207-930-5431. Supporting documentation (property survey, traffic study, and wetland assessments) that may assist developers or interested parties can be found on the town's website.

Request for Expressions of Interest (RFI) – Town of Camden, Maine – Sagamore Farm Property

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CAMDEN HILLS STATE PARK

STATE OF MAINE BOOK 693, PAGE 267 TAX MAP 131, LOT 1

LOT 6

STATE OF MAINE BOOK 303, PAGE 79 (PARCEL 20) TAX MAP 131, LOT 1

LOT 7

STATE OF MAINE BOOK 303, PAGE 79 (PARCEL 26) TAX MAP 131, LOT 1

LOT 18

LOT 5

LOT 4

LOT 3

AUDREY P. SCHICK BOOK 716, PAGE 328 TAX MAP 122, LOT 8

ELIZABETH WEST BOOK 5144, PAGE 88 TAX MAP 122, LOT 10-2

MATTHEW V. STORIN KEIKO T. STORIN BOOK 3118, PAGE 188 TAX MAP 122, LOT 10

THOMAS J. DERBY MAUREEN R. DERBY BOOK 1005, PAGE 19 TAX MAP 122, LOT 15

JAMES A. BURGESS BOOK 3972, PAGE 257 TAX MAP 122, LOT 17

MARILYN D. SMITH BOOK 995, PAGE 80 TAX MAP 121, LOT 6

ROBERT VAN AVEL MARTA VAN ABEL BOOK 5437, PAGE 44 TAX MAP 121, LOT 7-1

INHABITANTS OF THE TOWN OF CAMDEN BOOK 285, PAGE 226 TAX LIEN BOOK 9, PAGE 59 TAX LIEN BOOK 9, PAGE 60 TAX LIEN BOOK 8, PAGE 150 TAX MAP 221, LOT 5 74.4 ACRES

PARKER S. LAITE JR. BOOK 3318, PAGE 188 TAX MAP 221, LOT 8 & 9

PLAN REFERENCES:

- 1) STATE OF MAINE DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP STATE HIGHWAY 126' (U.S. ROUTE 1/HIGH STREET) CAMDEN FEDERAL AID PROJECT NO. NH-1069(10) DATED OCTOBER 2003.
2) PLAN SHOWING LAND OF JOHN M. & VERA M. FITZSIMMONS' BY R. E. THOMAS DATED AUGUST 1961.
3) STANDARD BOUNDARY SURVEY NORTHWEST LINE, PARKER S. AND IRENE F. LAITE PROPERTY CAMDEN, MAINE BY FREDERICK E. BEAL DATED FEBRUARY 12, 1985.
4) BOUNDARY SURVEY, PARKER LAITE, SR. BY GARTLEY & DORSKY ENGINEERING & SURVEYING DATED AUGUST 11, 2005.
5) BOUNDARY SURVEY, CHIP LAITE BY GARTLEY & DORSKY ENGINEERING & SURVEYING DATED AUGUST 10, 2020.
6) PLAN OF LAND SOLD TO WM H. DAY JR. BY EMMA D. SHERMAN ET. ALS DATED JULY 1910 AND RECORDED IN THE KNOX COUNTY REGISTRY OF DEEDS PLAN BOOK 1, PAGE 49.
7) MAP OF SURVEY OF THE BORLAND ESTATE CAMDEN - MAINE SHOWING BOUNDARY LINES OF ADJACENT PROPERTY BY ADIN L. HOPKINS, C.E. DATED 1930 AND RECORDED IN THE KNOX COUNTY REGISTRY OF DEEDS PLAN BOOK 2, PAGE 225.
8) IGNATIUS SHERMAN MOUNTAIN LOT 45 ACRES, SURVEYED BY H. BATES FEBRUARY 24, 1834 AND RECORDED IN THE KNOX COUNTY REGISTRY OF DEEDS PLAN BOOK 3, PAGE 1.
9) STANDARD BOUNDARY SURVEY FOR LINDA A. COX BY LANDMARK SURVEY COMPANY DATED DECEMBER 1989 AND RECORDED IN THE KNOX COUNTY REGISTRY OF DEEDS CABINET 111, PAGE 172.
10) PLAN OF THIRD DIVISION OF LOTS IN CAMDEN, MAINE BY ROBERT HARKNESS DATED APRIL 28, 1877 AND RECORDED IN THE KNOX COUNTY REGISTRY OF DEEDS PLAN BOOK 3, PAGE 71.

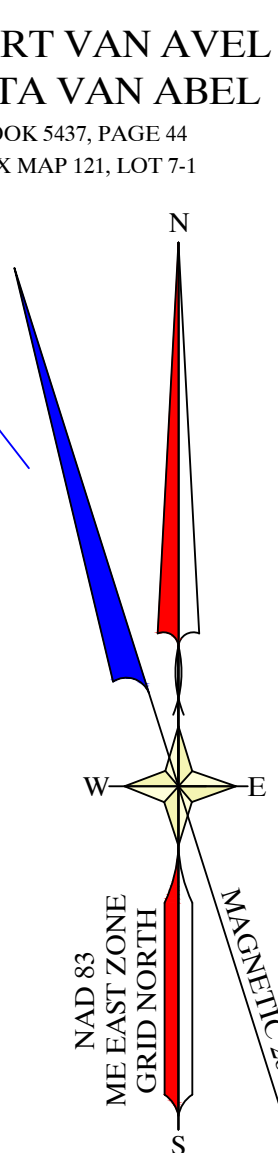
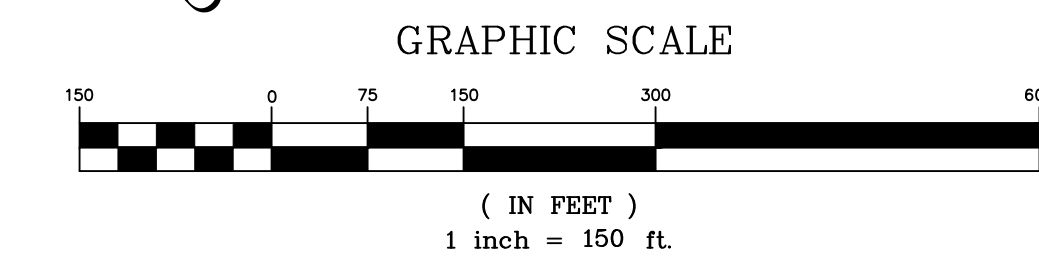
SURVEYOR'S NOTES:

- 1) ALL IRON PINS SET ARE 5/8" REBAR MARKED WITH A PLASTIC SURVEYOR'S CAP STAMPED 'G4D 2290-2366-2424-2473'.
2) ALL DIRECTIONS ARE REFERENCED TO THE MAINE COORDINATE SYSTEM OF 1983 (2011), EAST ZONE, BASED ON AN RTK GPS SURVEY. ALL DISTANCES ARE GRID DISTANCES. THE COMBINED FACTOR IS 0.99991918.
3) THIS PLAN IS THE RESULT OF AN ON THE GROUND FIELD SURVEY PERFORMED IN SEPTEMBER 2020.
4) OWNER INFORMATION IS TAKEN FROM THE TOWN OF CAMDEN TAX COMMITMENT DATED 2020.
5) BOOKS AND PAGES REFERRED TO ON THIS PLAN ARE RECORDED IN THE KNOX COUNTY REGISTRY OF DEEDS.
6) THE APPROXIMATE ROUTE ONE RIGHT-OF-WAY LINES ARE BASED ON PLAN REFERENCE #1 AND EVIDENCE FOUND. THESE RIGHT-OF-WAY LINES ARE SUBJECT TO ANY VARIATIONS THAT A RIGHT-OF-WAY SURVEY MAY REVEAL.
7) REFERENCE IS MADE TO AN EASEMENT DEED FROM THE TOWN OF CAMDEN TO DAVID AND ROSE LAITE OVER SAGAMORE FARM ROAD RECORDED IN BOOK 3451, PAGE 54 OF THE KNOX COUNTY REGISTRY OF DEEDS. REFERENCE IS MADE TO A RIGHT-OF-WAY GRANTED TO LAND OF BURGESS AND DERBY OVER SAGAMORE FARM ROAD RECORDED IN BOOK 463, PAGE 132.
8) REFERENCE IS MADE TO AN ACCESS AND UTILITY EASEMENT FOR THE BENEFIT OF THE TOWN OF CAMDEN. SEE BOOK 5208, PAGE 12.
9) THIS SURVEY SHOULD BE USED IN CONJUNCTION WITH A TITLE ABSTRACT AND REVIEW BY LEGAL COUNSEL.
10) THE SOUTHWESTERLY LINE OF SAGAMORE FARM ROAD WAS DETERMINED BY EVIDENCE FOUND ON THAT SIDE OF THE ROAD ALONG WITH HISTORIC DEED CALLS. THE NORTHEASTERLY LINE OF SAGAMORE FARM ROAD WAS DETERMINED BY HOLDING PRIOR SURVEYS AND EVIDENCE FOUND FOR THOSE SURVEYS. HISTORIC DEEDS DESCRIBE THE ROAD AS BEING 100' WIDE, AS SHOWN ON THIS SURVEY IT IS 98.0' WIDE AT U.S. ROUTE ONE AND 105.7' WIDE AT THE NORTHWEST END AS SHOWN.

CERTIFICATION:

TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF, AND IN MY PROFESSIONAL OPINION, THIS SURVEY CONFORMS TO THE STANDARDS OF PRACTICE PROMULGATED BY THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS WITH THE FOLLOWING EXCEPTIONS: NO WRITTEN REPORT PREPARED

LEGEND: SURVEYED PROPERTY LINE, APPROXIMATE PROPERTY LINE, FORMER/HISTORIC PROPERTY LINE, OTHER STONE WALL, IRON ROD FOUND, IRON PIPE FOUND, 5/8" REBAR PROPOSED, GRANITE MONUMENT FOUND, UTILITY POLE, GUY ANCHOR, OVERHEAD UTILITY LINE, WATER SHUT OFF, WATER VALVE, STORM PIPE, WIRE FENCE, WOODEN STAKE FOUND, POST, STUMP, VEGETATION



BOUNDARY SURVEY, TOWN OF CAMDEN SAGAMORE FARM, CLIENT PROJECT: US ROUTE ONE & SAGAMORE FARM ROAD, LOCATION: US ROUTE ONE & SAGAMORE FARM ROAD, TOWN: TOWN, COUNTY: CAMDEN, STATE: MAINE, DATE: OCTOBER 7, 2020, SCALE: 1" = 150', DRAWN BY: JAD, CHECKED BY: JAD, SHEET TITLE: BOUNDARY SURVEY, PROJECT NO.: 2020-065, V1



Traffic Solutions
William J. Bray, P.E.
17 Mountview Drive
Gorham, ME 04038
(207) 400-6890
trafficsolutions@maine.rr.com

August 16, 2019

Jeremy P. Martin
Planning and Development Director
Town of Camden
PO Box 1207
Camden, Maine 04843

RE: Traffic Assessment – Sagamore Farm Town Owned Land

Dear Jeremy:

Traffic Solutions has completed a traffic assessment of the Town's Sagamore Farm property that examines site access, provides an opinion of available sight distance, determines trip generation estimates of multiple development options, reviews existing road safety conditions along U.S. Route 1 and determines whether development conditions warrant a dedicated left-turn lane on the north approach of U.S. Route 1. A summary of that effort is detailed as follows:

Existing Conditions

Existing Traffic: A manual turning movement count was conducted on U.S. Route 1 just south of the Camden Hills State Park entrance Tuesday, April 23, 2019. All vehicular traffic traveling directionally on U.S. Route 1 was recorded in 15-minute intervals between the hours of 3:00 to 5:30 p.m. A summary of the traffic data is presented in Table 1 as follows:

Table 1
Traffic Turning Movement Data Summary
U.S. Route 1 (South of Camden Hills State Park Entrance)
Camden, Maine

<u>Start Time</u>	<u>Route 1 Southbound</u>	<u>Route 1 Northbound</u>	<u>Total Traffic</u>
3:00 to 3:15 PM	60	54	114
3:15 to 3:30	74	45	119
3:30 to 3:45	91	70	161
3:45 to 4:00	71	57	128
4:00 to 4:15	78	69	147
4:15 to 4:30	60	62	122
4:30 to 4:45	71	62	133
4:45 to 5:00	39	60	99
5:00 to 5:15	48	64	112
5:00 to 5:30	74	47	121
Peak Hour Total	300	258	558

From a summary of the data, it was determined that the evening peak hour occurs between 3:30 and 4:30 p.m. with a combined volume of 558 total vehicles traveling on U.S. Route 1 near the Camden Hills State Park Entrance.

Traffic data collected during the month of April requires an adjustment to reflect “*peak*” travel conditions during the summer months of July and August. MaineDOT provides factors for adjusting traffic data collected during other periods of time. MaineDOT utilizes highway classifications of I, II, or III or combinations, thereof, for all State and Local roadways. Group I roadways are defined as urban roadways or those roads that typically see commuter traffic and experience little fluctuation from week to week throughout the year. Group II roadways or arterial roads are those that see a combination of commuter and recreational traffic and; therefore, experience moderate fluctuations during the year. Group III roads or recreational roadways are typically used for recreational purposes and experience significant seasonal fluctuations. MaineDOT designates the section of U.S. Route 1 near the Sagamore Farm site a Class I + II roadway, requiring a seasonal adjustment of 1.20 to approximate “*peak*” summer travel conditions. The peak hour directional traffic flows recorded during the month of April were adjusted by the noted seasonal adjustment factor to approximate 2019 design hour traffic forecasts for U.S. Route 1. Accordingly, based upon the stated process U.S. Route 1 near the Camden Hills State Park entrance is projected to carry approximately 670 vehicles during the evening peak hour, with 360 vehicles traveling southerly and 310 vehicles northerly.

Existing Safety Trends: The Maine Department of Transportation’s (MaineDOT) Accident Records Section provided the latest three-year (2016 through 2018) crash data for the section of U.S. Route 1 between Mountain Road and Camden Hills State Park Entrance. Their report is summarized, as follows, in Table 2 and attached as an appendix to the report:

Table 2

2016 -2018 Traffic Accident Summary

<u>Location</u>	<u>Total Crashes</u>	<u>Critical Rate Factor</u>
1. High Street/Central Street/Mountain Street	1	0.22
2. High Street @ Eaton Street	1	0.29
3. High Street/Rockbrook Drive/Sea Street	3	0.79
4. Belfast Road @ Shermans Point Road	1	0.31
5. High Street btw. Sea Street and Eaton Avenue	2	0.79
6. High Street btw. Harbor Road and Marine Avenue	2	0.52
7. High Street btw. Marine Avenue and Shermans Point Road	4	0.41
8. Belfast Road btw. Shermans Point Road and Sagamore Farm Road	1	0.19
9. Belfast Road btw. Sagamore Road and State Park Entrance	2	0.22

The MaineDOT considers any roadway intersection or segment a high crash location if both of the following criteria are met:

- **8 or more accidents**
- **A Critical Rate Factor greater than 1.00**

As the data presented in the table shows, the incidence of traffic crashes occurring on the identified sections of High Street and Belfast Road (a.k.a. U.S. Route 1) are low; there are no road segments or intersections that meet MaineDOT’s criterion as a high crash location.

Site Traffic

Your office provided three land development options for the Sagamore Farm Road property: Option #1 assumed a total of 20 single-family homes would be constructed on the proposed site; Option #2 proposed 20,000 square feet of commercial office space and Option #3 included 20,000 square feet of commercial office space and 10 single-family homes for the development site.

Site Trip Generation: Trip generation for the three prospective development options were determined based upon trip tables presented in the ninth edition of the Institute of Transportation Engineers (ITE) “TRIP GENERATION” handbook. The following trip rates were used in that effort:

Land-Use Code #210 – Single-Family Detached Housing

Street Peak Hour – AM Peak = 0.75 trips/dwelling unit

Street Peak Hour – PM Peak = 1.00 trips/dwelling unit

Land-Use Code #710 – General Office Building

Street Peak Hour – AM Peak = 1.56 trips/dwelling unit

Street Peak Hour – PM Peak = 1.49 trips/dwelling unit

Table 3 presents the total trip generation of each of the three development options for both the morning and afternoon peak hours.

**Table 3
Peak Hour Trip Generation Summary
Sagamore Farm Property
Camden, Maine**

<u>Development Option</u>	<u>AM Peak Hour Trip Generation</u>	<u>PM Peak Hour Trip Generation</u>
Option #1	15 trips	20 trips
Option #2	31 trips	30 trips
Option #3	39 trips	40 trips

As highlighted in the body of Table 3, proposed development Option #1 is expected to generate a total of 15 vehicle trips in the morning peak hour and 20 trips in the afternoon peak hour. A total of 31 trips are projected for the AM peak hour and 30 trips in the PM peak hour for Option #2 and a slightly greater volume of 39 trips and 40 trips, respectively, for Option #3.

Site Trip Distribution: The Institute of Transportation Engineers handbook provides the following directional distribution rates for both proposed development uses:

LUC #210: Single-family Detached Housing

AM Peak Hour = 25% enter/75% exit

PM Peak Hour = 63% enter/37% exit

LUC #710: General Office Building

AM Peak Hour = 88% enter/12% exit

PM Peak Hour = 17% enter/83% exit

Table 4 provides a visual summary of the site distribution patterns for each of the three development options as follows:

Table 4
Site Trip Distribution Patterns Summary
Sagamore Farm Property
Camden, Maine

Property Development Options	AM Peak Hour			PM Peak Hour		
	Enter Site	Exit Site	Total	Enter Site	Exit Site	Total
Option #1	4	11	15	13	7	20
Option #2	27	4	31	5	25	30
Option #3	29	10	39	11	29	40

Site Trip Assignment: Peak hour trips generated by each of the three development options were assigned to the Route 1 corridor based upon existing directional travel patterns found on U.S. Route 1. Approximately, 55% of the site trips are expected to travel to or from the south and the remaining trips will travel with a northerly orientation. Figures 1 through 3 illustratively present the trip assignments during the PM peak hour for each of the three development schemes.

Auxiliary Lane Warrant Assessment

The National Cooperative Highway Research Program (NCHRP) report 457 provides a process to determine if projected traffic conditions at an intersection warrant a dedicated left-turn lane from the major street to the proposed lower volume roadway. Each of the following inputs are used in completing the analysis:

V_a = advancing volume on major street

V_o = opposing volume on major street

Left-Turn Volume = percentage of left-turn volumes in advancing volume

The noted traffic inputs prepared for each of the three development alternatives are presented as follows:

<u>Option #1</u>	<u>Option #2</u>	<u>Option #3</u>
V_a = 316	V_a = 313	V_a = 366
V_o = 367	V_o = 362	V_o = 315
Lt % = 2%	Lt % = 1%	Lt % = 2%

The results of the analysis, which are highlighted on each of the three attached computer reports, show a “*left-turn lane treatment*” is not required for any of the three development options.

Sight Distance

The Maine Department of Transportation classifies High Street-Belfast Road (a.k.a. U.S. Route 1) a Retrograde Highway and, with that classification, all driveway entrances both new and existing (with a change of use) must meet their sight distance standards for a Mobility Corridor. Those Mobility Highway sight distance standards are presented in the following table:

Mobility Highway
Sight Distance Standards

Speed Limit	Sight Distance
25 mph	Not applicable
30	Not applicable
35	Not applicable
40	580 feet
45	710 feet
50	840 feet

U.S. Route 1 near the Sagamore Farm Road property is presently posted at 40mph, which requires an unobstructed sight distance of 580-feet. Field measurements were determined for both directions of travel from the proposed road entrance onto U.S. Route 1 consistent with MaineDOT's standard engineering practices. Sight distance measurements in excess of 700-feet were measured "looking" in both directions of travel from the proposed centerline of an access located at Sagamore Farm Road and at the existing driveway entrance to the Laite Property. The sight distance measurement "looking" right from the Sagamore Farm Road entrance location requires minor trimming and/or removal of an ornamental bush located immediately right of the existing entrance.

Summary Comments

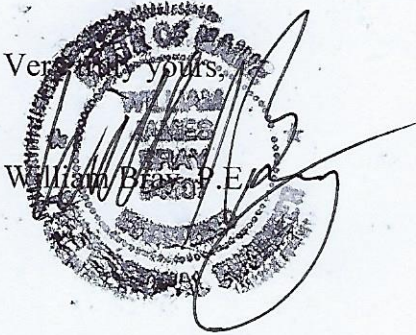
1. A manual traffic turning movement count was completed directionally for U.S. Route 1 near the entrance to Camden Hill State Park. The traffic data was collected on April 23, 2019 between the evening peak hours of 3:00 to 5:30 p.m. From a summary of the data, it was determined the evening peak hour falls between 3:30 and 4:30 p.m. with a total of 300 vehicles traveling south on U.S. Route 1 and 258 vehicles traveling northerly. These traffic values were increased by a seasonal factor of 1.20 to approximate 2019 "peak" travel conditions on U.S. Route 1. The seasonally adjusted 2019 two-way traffic volume on U.S. Route 1 is estimated at 670 vehicles with 360 vehicles traveling south and 310 vehicles north.
2. MaineDOT's Safety Bureau provided a road safety audit for the section of U.S. Route 1 between Mountain Road and the entrance to Camden Hills State Park for the most recent three-year time period of 2016 through 2018. Prevailing road safety conditions, as documented in the MaineDOT report, generally suggests a low incidence of reported traffic crashes on the section of U.S. Route 1. MaineDOT defines a road section or intersection as a high crash location if both of the following criteria are met based upon the most recent three-year safety report:
 - 8 or more traffic crashes in three-years and
 - A Critical Rate Factor greater than 1:00

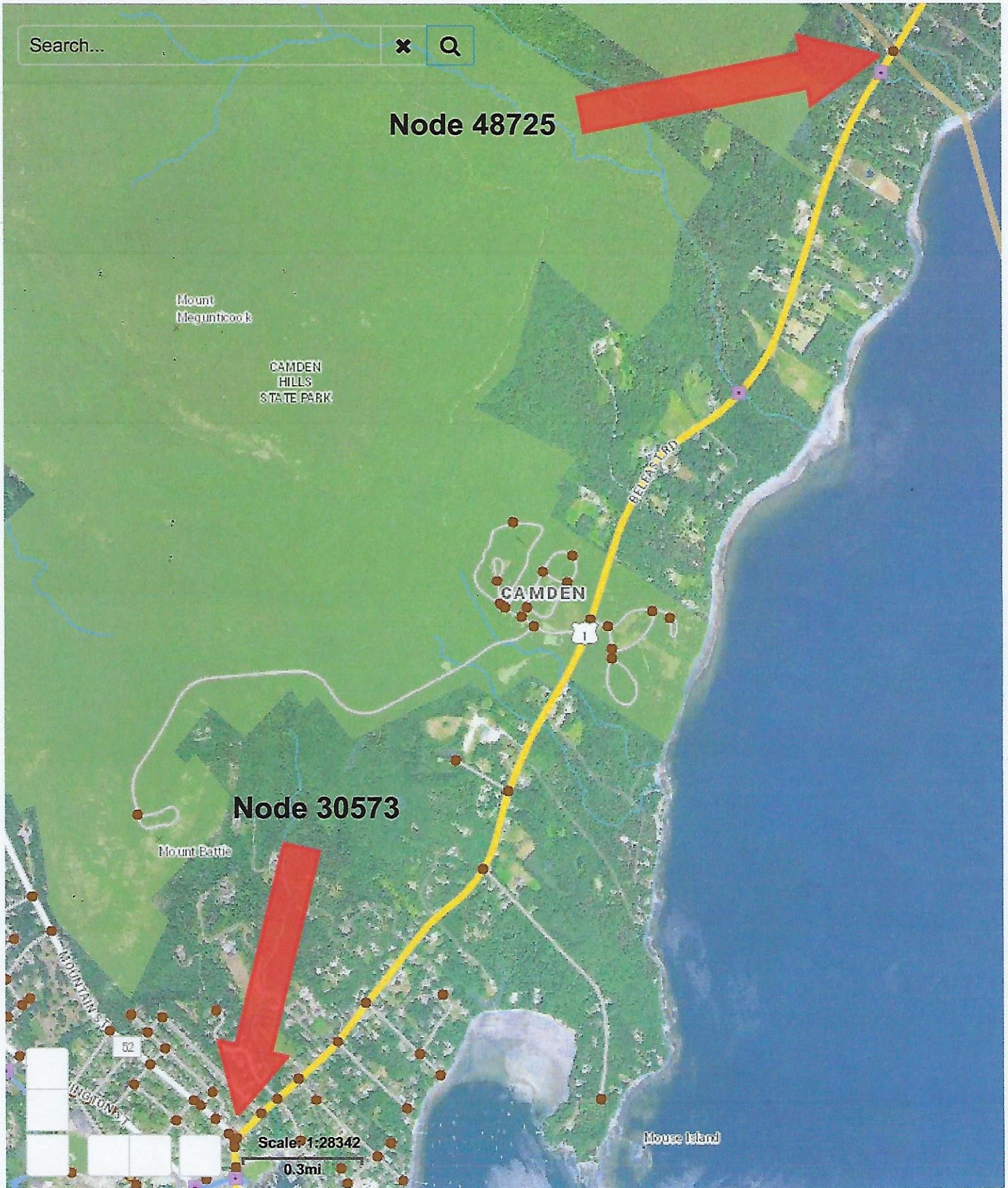
The safety audit shows no road segment or intersection meeting both of their high crash location criteria.

3. The three development options were provided for the Town's Sagamore Farms Road parcel for evaluating possible traffic impacts and potential development constraints with the existing Town owned property. Option #1 proposes a residential development of 20 single-family homes; Option #2 proposes a commercial development of 20,000 square feet of general office space; and Option #3 assumes a combination development scheme of 10 single-family homes and 20,000 square feet of general office space.
4. Peak hour traffic projections were prepared for each of the three development options based upon trip rates provided in the ninth edition of the Institute of Transportation Engineers **TRIP GENERATION** publication. The trip generation analysis predicts a total of 15 and 20 trips, respectively, are generated in the morning and evening peak hours for Option #1. Trip generation estimates forecast for Option #2 are slighter higher with a total of 31 trips generated in the morning peak hour and 30 trips in the evening peak hour. Trip forecasts for Option #3 represent the highest volumes during both peak hours with a total of 39 trips in AM peak hour and 40 trips in the PM peak hour.
5. Projected "build" traffic conditions were evaluated for each development alternative to determine if projected left-turn entry volumes to the Sagamore Farm property from the northbound approach of U.S. Route 1 meet the minimum conditions whereby a dedicated left-turn lane is warranted. An analytical process developed by the National Cooperative Highway Research Program uses design inputs of through traffic volumes on the major street and the percentage of left-turns to the secondary side-street to predict if a dedicated left-turn lane is warranted. The process was completed for each of the three development

options and the results of the analysis demonstrates an entry left-turn lane is not warranted based upon the "build" traffic conditions for the site driveway intersection at U.S. Route 1.

6. Vehicle sight distance measurements were recorded for two possible sight access locations to the proposed Sagamore Farm site; 1) existing Sagamore Farm Road and 2) existing driveway to Laite property. MaineDOT's Retrograde/Mobility sight distance standard for a posted travel speed of 40mph is 580-feet. U.S. Route 1 is currently posted at 40mph along the noted road section. A clear unobstructed sightline in excess of 700-feet was measured directionally at both proposed site access entrances. An existing ornamental bush located immediately right of the Sagamore Farm Road approach at U.S. Route 1 should be removed to ensure an unobstructed sightline "looking" right from the noted entrance approach.
7. A MaineDOT driveway entrance permit will be required for access to the property from either entrance location.

Very truly yours,

William Brax, P.E.



Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

Crash Summary I Section Detail Crash Summary II 1320 Public 1320 Private 1320 Summary

REPORT DESCRIPTION

Camden
Rte. 1/Belfast Rd. from Rte. 52/Mountain St. to Lincolnville TL

REPORT PARAMETERS

Year 2015, Start Month 1 through Year 2017 End Month: 12

Route: 0001X

Start Node: 30573

End Node: 48725

Start Offset: 0

End Offset: 0

Exclude First Node

Exclude Last Node

Route: 0001S

Start Node: 65626

End Node: 30573

Start Offset: 0

End Offset: 0

Exclude First Node

Exclude Last Node

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	K	Injury Crashes			PD	Injury	Percent Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
						A	B	C						
30576	0001X - 136.16	Int of EATON AV HIGH ST	1	1	0	0	0	0	1	0.0	3.368	0.10	0.35	0.00
											Statewide Crash Rate:	0.12		
30577	0001X - 136.29	Int of HARBOR RD HIGH ST	1	0	0	0	0	0	0	0.0	3.403	0.00	0.35	0.00
											Statewide Crash Rate:	0.12		
30635	0001X - 137.53	Int of BELFAST RD INV 1301006 RD	1	0	0	0	0	0	0	0.0	2.636	0.00	0.37	0.00
											Statewide Crash Rate:	0.12		
30575	0001X - 136.09	Int of HIGH ST ROCK BROOK DR SEA ST	1	3	0	0	0	1	2	33.3	3.755	0.27	0.34	0.00
											Statewide Crash Rate:	0.12		
30634	0001X - 137.06	Int of BELFAST RD SAGAMORE FARM RD	1	0	0	0	0	0	0	0.0	3.061	0.00	0.36	0.00
											Statewide Crash Rate:	0.12		
30578	0001X - 136.41	Int of HIGH ST MARINE AV	1	0	0	0	0	0	0	0.0	3.353	0.00	0.35	0.00
											Statewide Crash Rate:	0.12		
30581	0001X - 137.49	Int of BELFAST RD, INV 1300570 RD	1	0	0	0	0	0	0	0.0	3.017	0.00	0.36	0.00
											Statewide Crash Rate:	0.12		
30574	0001X - 136.03	Int of HARDEN AV HIGH ST	1	0	0	0	0	0	0	0.0	3.738	0.00	0.34	0.00
											Statewide Crash Rate:	0.12		
30580	0001X - 136.86	Int of BELFAST RD HIGH ST SHERMANS POINT RD	1	1	0	0	0	0	1	0.0	3.164	0.11	0.36	0.00
											Statewide Crash Rate:	0.12		
30573	0001X - 135.94	Int of CENTRAL ST HIGH ST MAIN ST MOUNTAIN ST	1	1	0	0	0	0	1	0.0	4.600	0.07	0.32	0.00
											Statewide Crash Rate:	0.12		
65626	0001X - 135.95	Non Int HIGH ST	1	0	0	0	0	0	0	0.0	3.612	0.00	0.34	0.00
											Statewide Crash Rate:	0.12		

Study Years: 3.00

NODE TOTALS: 6 0 0 0 0 1 5 16.7 37.707 0.05 0.20 0.27

Crash Summary I

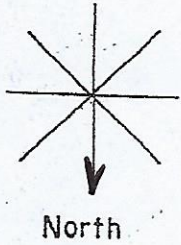
Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	Injury Crashes A B C	PD	Percent Injury	Annual HMV/M	Crash Rate	Critical Rate	CRF
30573	65626	3139831	0 - 0.01	0001X - 135.94 US 1	0.01	1	0 0 0	0	0.0	0.00017	0.00	336.77	0.00
Int of CENTRAL ST HIGH ST MAIN ST MOUNTAIN ST													
65626	30574	3116656	0 - 0.08	0001X - 135.95 US 1	0.08	1	0 0 0	1	0.0	0.00299	111.53	340.02	0.00
Non Int HIGH ST													
30574	30575	3109127	0 - 0.06	0001X - 136.03 US 1	0.06	1	0 0 0	0	0.0	0.00217	0.00	368.36	0.00
Int of HARDEN AV HIGH ST													
30575	30576	3131935	0 - 0.07	0001X - 136.09 US 1	0.07	1	2 0 0	1	50.0	0.00233	286.42	362.21	0.00
Int of HIGH ST ROCK BROOK DR SEA ST													
30576	30577	3109128	0 - 0.13	0001X - 136.16 US 1	0.13	1	0 0 0	0	0.0	0.00429	0.00	309.75	0.00
Int of EATON AV HIGH ST													
30577	30578	208578	0 - 0.12	0001X - 136.29 US 1	0.12	1	2 0 0	1	50.0	0.00412	161.70	312.93	0.00
Int of HARBOR RD HIGH ST													
30578	30580	3939912	0 - 0.45	0001X - 136.41 US 1	0.45	1	4 0 0	1	50.0	0.01405	94.87	230.03	0.00
Int of HIGH ST MARINE AV													
30580	30634	3109131	0 - 0.20	0001X - 136.86 US 1	0.20	1	0 0 0	1	0.0	0.00626	53.21	280.86	0.00
Int of BELFAST RD HIGH ST SHERMANS POINT RD													
30581	30634	3109132	0 - 0.43	0001X - 137.06 US 1	0.43	1	2 0 0	0	0.0	0.01270	52.49	235.61	0.00
Int of BELFAST RD, INV 1300570 RD													
30581	30635	3131936	0 - 0.04	0001X - 137.49 US 1	0.04	1	0 0 0	0	0.0	0.00112	0.00	428.26	0.00
Int of BELFAST RD, INV 1300570 RD													
48725	30635	3109133	0 - 1.64	0001X - 137.53 US 1	1.64	1	16 0 0	15	6.3	0.03921	136.03	184.80	0.00
TL - Camden, Lincolnville													
65626	30573	3123769	0 - 0.01	0001S - 4.12 US 1 SB	0.01	1	0 0 0	0	0.0	0.00020	0.00	379.69	0.00
Non Int HIGH ST													
Study Years:	3.00												0.65
Section Totals:	3.24	28	1	0	1	3	23	17.9	0.08962	104.14	160.49	196.89	0.64
Grand Totals:	3.24	34	1	0	1	4	28	17.6	0.08962	126.46	196.89	196.89	0.64

VEHICLE VOLUME COUNT GRAPHIC SUMMARY SHEET

Intersection of U.S. ROUTE 1 @ SITE ACCESS Date _____

Weather _____ Road Surface Condition _____ Time _____ to _____



Name U.S. ROUTE 1

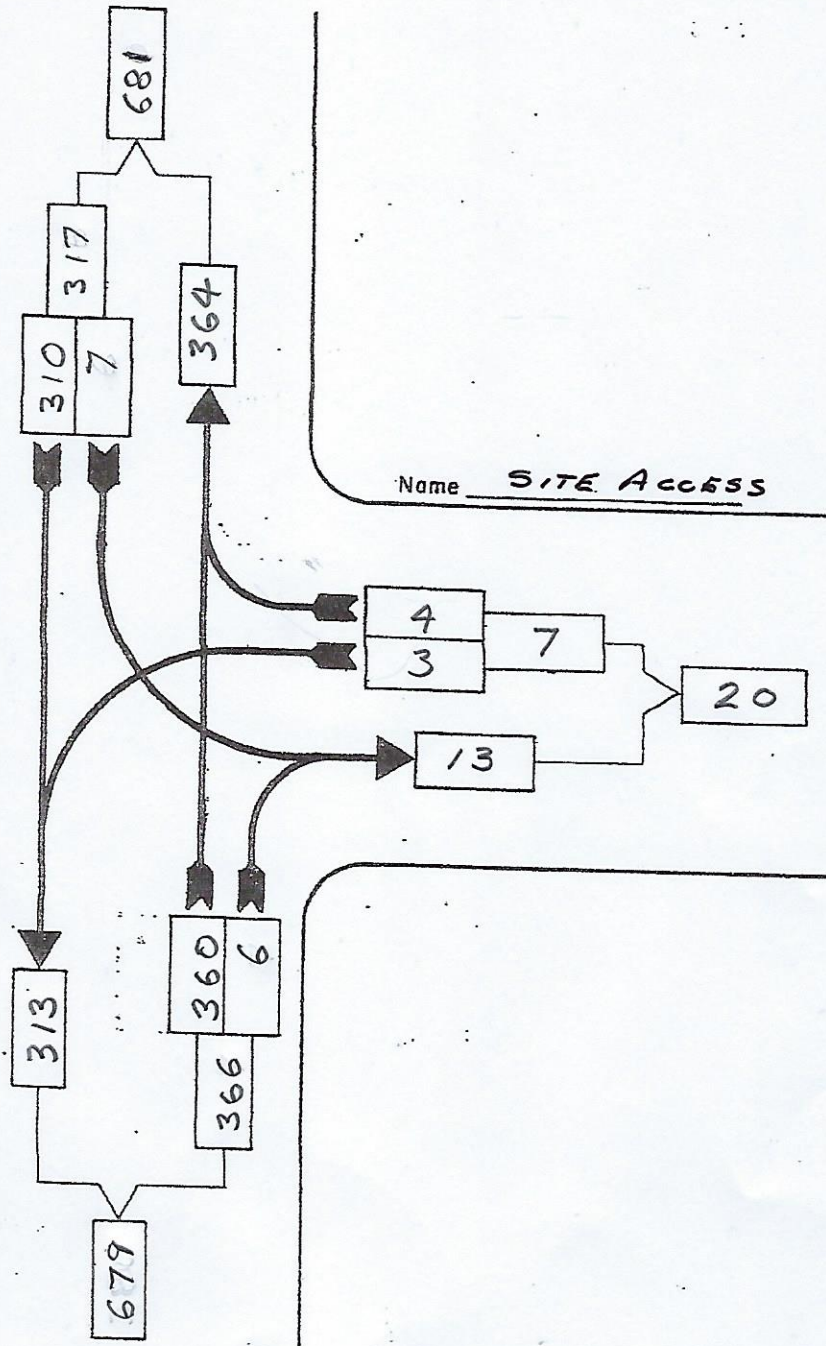
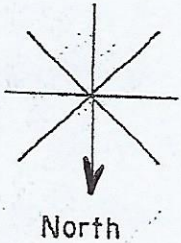


FIGURE 1: Traffic Assignment Option #1

VEHICLE VOLUME COUNT GRAPHIC SUMMARY SHEET

Intersection of U.S. ROUTE 1 @ SITE ACCESS Date _____

Weather _____ Road Surface Condition _____ Time _____ to _____



Name U.S. ROUTE 1

Name SITE ACCESS

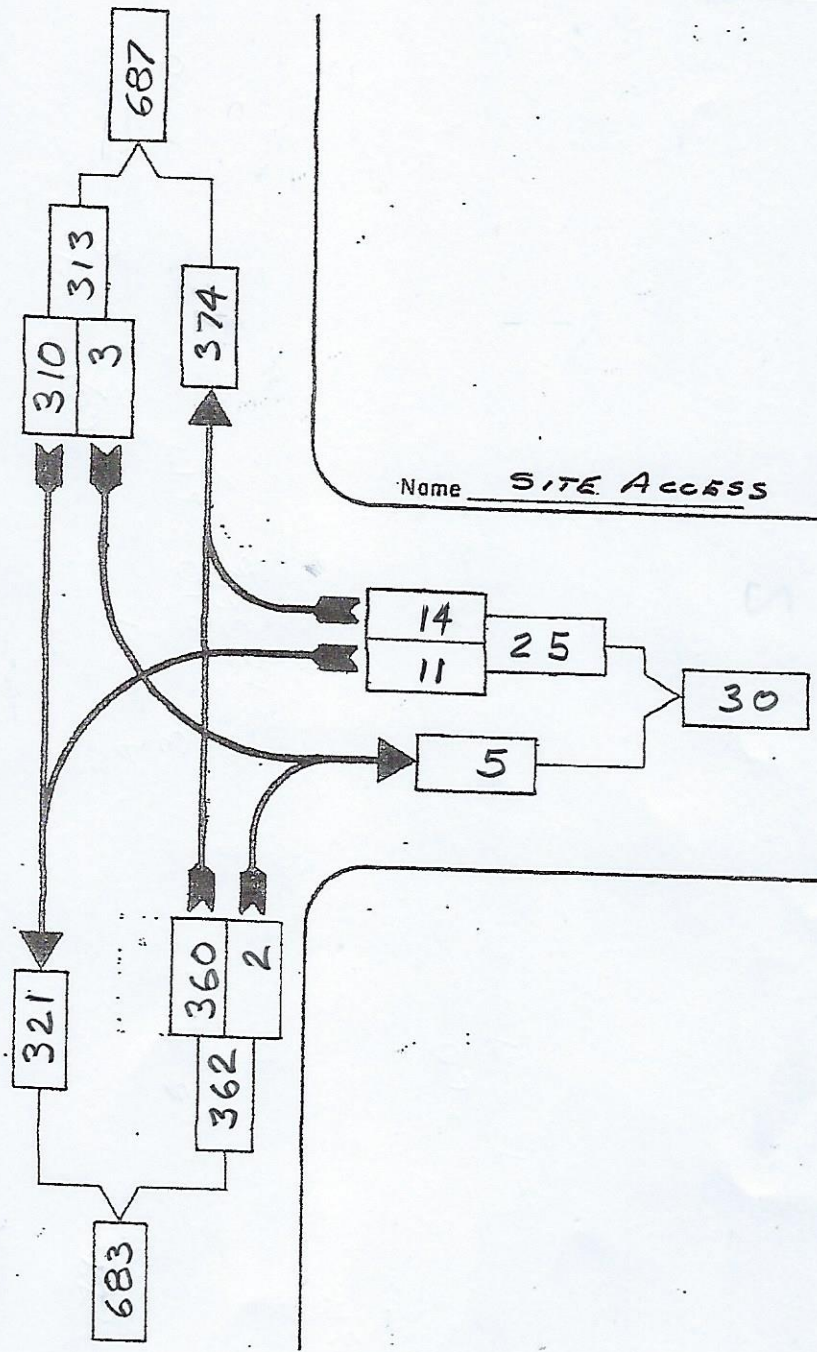
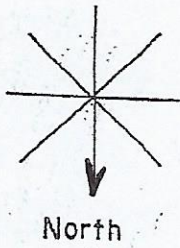


FIGURE 2: Traffic Assignment Option #2

VEHICLE VOLUME COUNT GRAPHIC SUMMARY SHEET

Intersection of U.S. ROUTE 1 @ SITE ACCESS Date _____

Weather _____ Road Surface Condition _____ Time _____ to _____



Name U.S. ROUTE 1

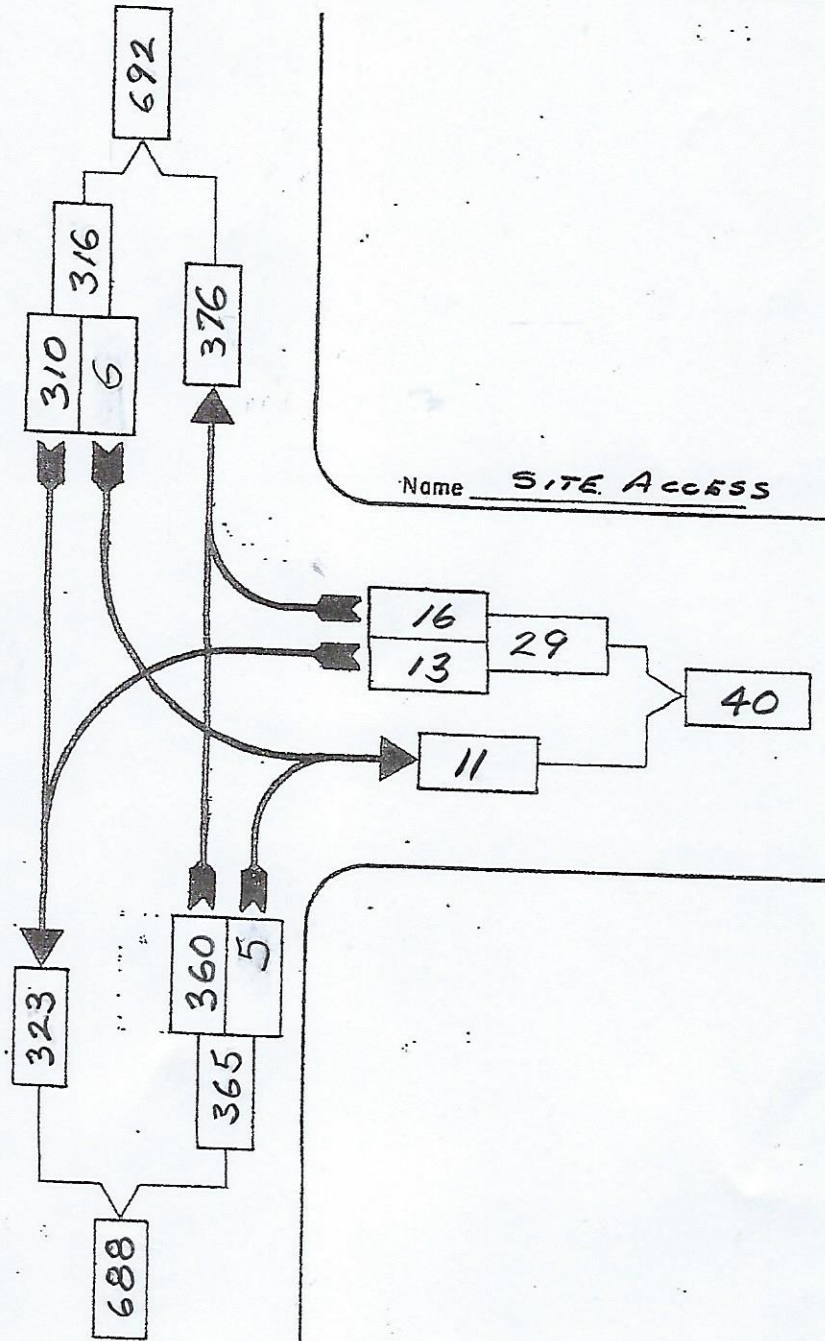


FIGURE 3: Traffic Assignment Option #3

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection. Option # 1

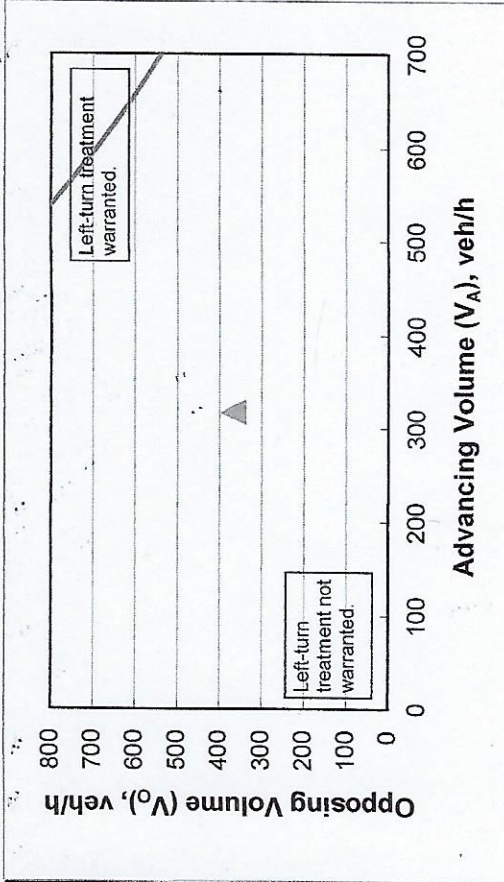
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	40
Percent of left-turns in advancing volume (V_A), %:	2%
Advancing volume (V_A), veh/h:	317
Opposing volume (V_O), veh/h:	366

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	838
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection. Option # 2

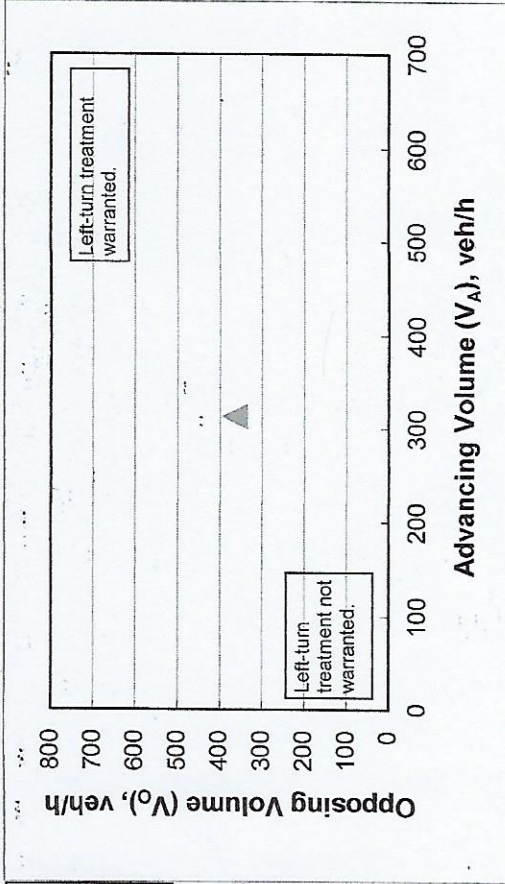
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	40
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	313
Opposing volume (V_O), veh/h:	362

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1155
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection. Option # 3

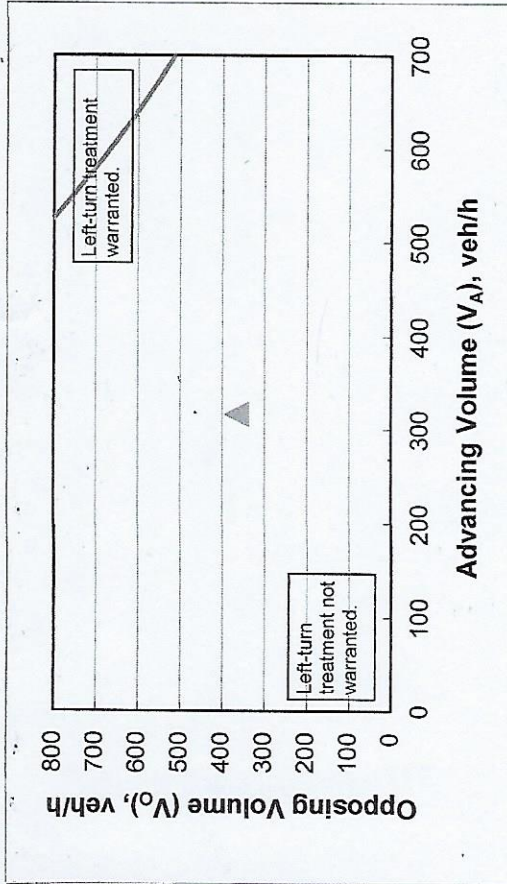
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	40
Percent of left-turns in advancing volume (V_A), %:	2%
Advancing volume (V_A), veh/h:	316
Opposing volume (V_O), veh/h:	365

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	818
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

May 14, 2020

Midcoast Cohousing, LLC
c/o Gerald Weimand
Via email: gwdesign@roadrunner.com

Re: Vernal Pool Evaluation for Camden Tax Map 221, Lot 5
Project 2020-082

Dear Gerald,

On April 24, 2020, I conducted an onsite evaluation of the above referenced parcel to evaluate any potentially significant vernal pools on the property. The standards which guided my investigation were the Maine Department of Environmental Protection (MDEP), Chapter 335: Significant Wildlife Habitat, Section 9. Significant vernal pool habitat.

A vernal pool is defined as a natural, temporary to semi-permanent body of water occurring in a shallow depression that typically fills during the spring or fall and may dry during the summer. Vernal pools have no permanent inlet or outlet and no viable populations of predatory fish. A vernal pool may provide the primary breeding habitat for wood frogs (*Rana sylvatica*), spotted salamanders (*Ambystoma maculatum*), blue-spotted salamanders (*Ambystoma laterale*), and fairy shrimp (*Eubranchipus* sp.), as well as valuable habitat for other plants and wildlife, including several rare, threatened, and endangered species.

Whether a vernal pool is a significant vernal pool is determined by the number and type of pool-breeding amphibian egg masses in a pool, the presence of fairy shrimp, and/or use by rare, threatened or endangered species. During my site visit I identified and investigated three potential vernal pools. The attached plan sheet labeled SK1 shows the approximate location of each vernal pool and Table 1 below shows the results of the investigation.

Table 1: MDEP Vernal Pool Abundance Criteria & Numbers Observed During Site Visit

Sites	Species	MDEP Significant Vernal Pool Abundance Criteria	Number of Egg Masses Present During Site Visit
VP 1 (not natural)	Fairy Shrimp	Presence in any life stage.	0
	Blue spotted salamanders	Presence of 10 or more egg masses.	0
	Spotted salamanders	Presence of 20 or more egg masses.	73
	Wood frogs	Presence of 40 or more egg masses.	2 (many tadpoles observed)
VP 2 (not natural)	Fairy Shrimp	Presence in any life stage.	0
	Blue spotted salamanders	Presence of 10 or more egg masses.	0
	Spotted salamanders	Presence of 20 or more egg masses.	22
	Wood frogs	Presence of 40 or more egg masses.	3

VP 3 (natural)	Fairy Shrimp	Presence in any life stage.	0
	Blue spotted salamanders	Presence of 10 or more egg masses.	0
	Spotted salamanders	Presence of 20 or more egg masses.	12
	Wood frogs	Presence of 40 or more egg masses.	0

Based on the MDEP vernal pool abundance criteria VP1 and VP2 would be considered significant, while VP3 would not. VP 1 and VP 2 are not natural depressions. They are depressions left behind from old gravel pit excavations. VP 1 appears to have an inlet (small potentially intermittent stream) and outlet which drains to VP 2 through a culvert. VP 1 and VP 2 had water depths ranging from 16 inches to >36 inches deep. VP 3 is in a forested wetland area, natural, and has a stream at the outlet of the wetland area. VP 3 has water depths ranging from 8-12 inches deep. For your reference, please see attached photos of vernal pools, egg masses, and inlet/outlet areas.

MDEP Chapter 335, section 9(B)(4-B) states that “in order to be identified as part of a significant vernal pool habitat, the vernal pool may not have a permanent flowing inlet or outlet”. Also, Chapter 335, section 9(E)(5) states that “If an activity is located in, on, or over a vernal pool habitat but the significant vernal pool depression was artificially created, then a permit is not required pursuant to this section unless the vernal pool was created in connection with a compensation project pursuant to 38 M.R.S. section 480-Z. Compensation”.

There is too much ambiguity between the definitions and the filed conditions to be certain of how these would be regulated by the MDEP. The Army Corps of Engineers (ACOE) also currently has jurisdiction over vernal pools that are associated with impacts to wetlands on the property. We suggest the next step to be coordinating with both the MDEP and ACOE to determine how they will regulate each of the identified vernal pools.

If you have any questions please do not hesitate to call me at (207) 236-4365.

Sincerely,
Gartley & Dorsky Engineering & Surveying, Inc.



Natalie Marceau, S.E., S.S.
 Environmental Scientist



PICTURE 1: VP1 (looking north from access road)

DATE: 4/24/20



PICTURE 2: VP1 (looking east toward outlet)

DATE: 4/24/20



PICTURE 3: VP 1 Spotted Salamander Egg Masses

DATE: 4/24/20



PICTURE 4: VP1 Wood Frog Egg Mass

DATE: 4/24/20



PICTURE 5: VP 1 Inlet (looking northwest up stream)

DATE: 4/24/20



PICTURE 6: VP1 Outlet (looking southwest across access drive)

DATE: 4/24/20



PICTURE 7: VP 2 (looking north across pool)

DATE: 4/24/20



PICTURE 8: VP2

DATE: 4/24/20



PICTURE 9: VP 2 Spotted Salamander Egg Mass
DATE: 4/24/20



PICTURE 10: VP2 Wood Frog Egg Mass
DATE: 4/24/20



PICTURE 11: VP 3
DATE: 4/24/20



PICTURE 12: VP 3
DATE: 4/24/20



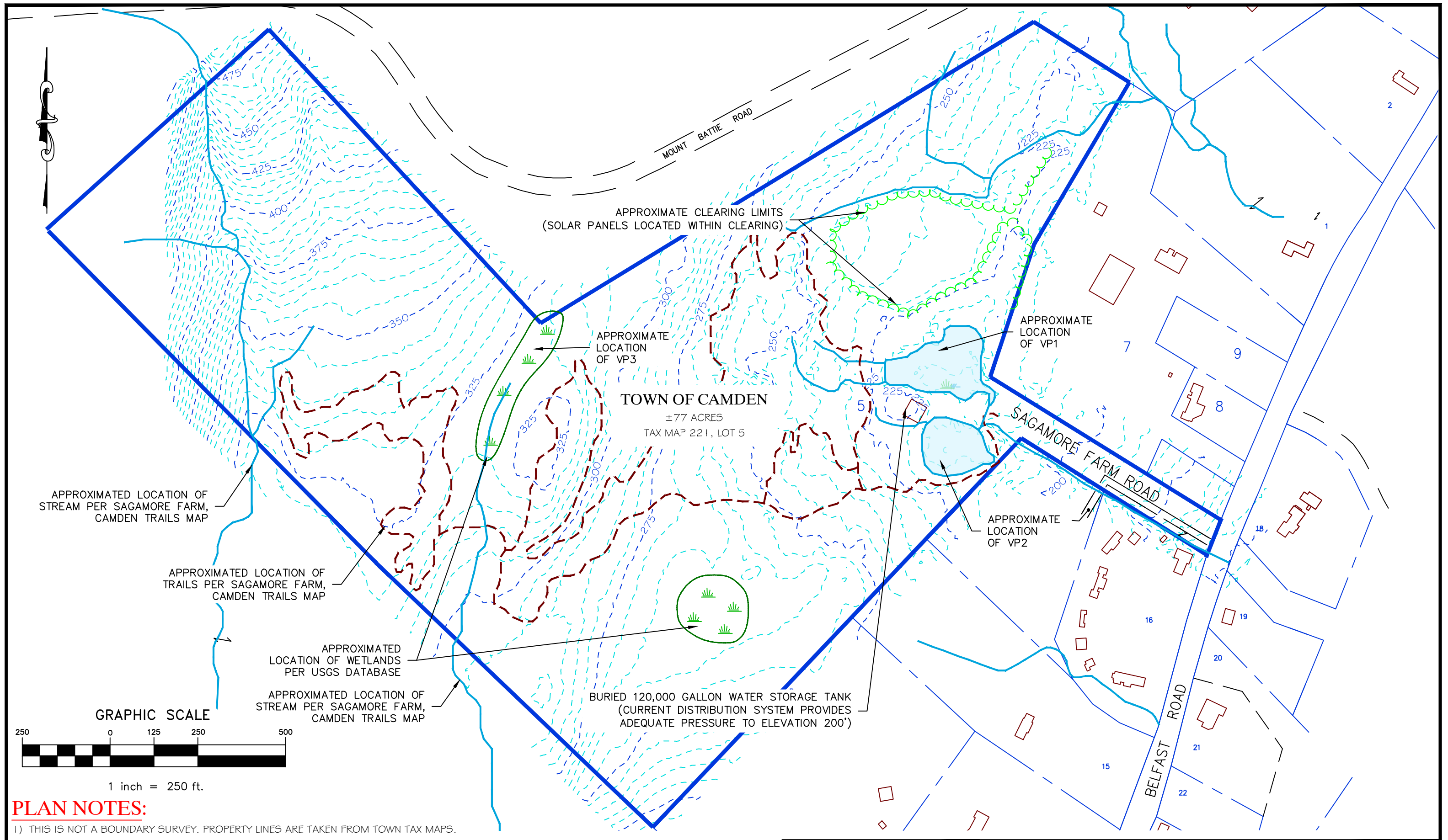
PICTURE 13: VP 3 Spotted Salamander Egg Masses

DATE: 4/24/20



PICTURE 14: VP 3 Stream Outlet

DATE: 4/24/20



PLAN NOTES:

- 1) THIS IS NOT A BOUNDARY SURVEY. PROPERTY LINES ARE TAKEN FROM TOWN TAX MAPS.
- 2) CONTOUR DATA IS REFERENCED TO NAVD 1988 AND BASED ON AERIAL LIDAR DATA PROVIDED BY THE MAINE OFFICE OF GIS. CONTOURS ARE FOR GENERAL PLANNING PURPOSES ONLY AND SHOULD BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
- 3) THE VERNAL POOLS SHOWN ON THIS PLAN ARE BASED ON AN INVESTIGATION BY NATALIE F. MARCEAU, MAINE SOIL SCIENTIST #G13 & WETLAND SCIENTIST. THE SITE INVESTIGATION WAS CONDUCTED ON APRIL 24, 2020. A COMPLETE WETLAND DELINEATION WAS NOT CONDUCTED. WETLANDS SHOWN ON THE PROPERTY ARE FROM THE US FISH & WILDLIFE SERVICE NATIONAL WETLANDS INVENTORY DATABASE.

Gartley & Dorsky
 ENGINEERING & SURVEYING
 59 Union Street, Unit 1, P.O. Box 1031 Camden, ME 04843-1031
 Ph (207) 236-4365 Fax (207) 236-3055 Toll Free 1-888-282-4365
 165 Main Street Suite 2F P.O. Box 1072 Damariscotta, Maine 04543
 Ph. (207) 790-5005

<p>MIDCOAST COHOUSING, LLC SAGAMORE FARM ROAD, CAMDEN, MAINE</p>	<p>MAY 14, 2020</p>	<p>PROJECT # 2020-082</p>	<p>SK1</p>
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STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



JANET T. MILLS
GOVERNOR

GERALD D. REID
COMMISSIONER

September 15, 2020

Natalie Marceau
Gartley & Dorsky Engineering & Surveying, Inc.
59 Union Street, Unit 1
Camden, ME 04843

Re: Vernal Pool Significance Determination, Pool ID #s 4077, 4078–Camden

Dear Natalie Marceau:

Vernal pools are temporary to semi-permanent wetlands occurring in shallow depressions that typically fill during the spring and dry during the summer or in drought years. They provide important breeding and foraging habitat for a wide variety of specialized wildlife species including several rare, threatened, and endangered species.

Based on your field surveys, it has been determined that the vernal pools identified above on the property of Town of Camden are NOT SIGNIFICANT because either: 1. the features do not meet the definition of a vernal pool under the Significant Wildlife Habitat rules, 06-096 CMR 335(9) or 2. the vernal pools do not meet the biological standards for exceptional wildlife use of the Significant Wildlife Habitat rules, 06-096 CMR 335(9)(B). Therefore, activities within 250 feet of the pools are not regulated under the Natural Resources Protection Act (NRPA) unless there are other protected natural resources nearby such as streams or freshwater wetlands. I have attached a copy of the database printout that verifies the State's findings with respect to your surveys.

I want to also advise you that the pool areas on the property can be considered freshwater wetlands and therefore direct pool alterations may require permitting under the NRPA.

The Department will notify the landowner of the pool status under separate cover. If you have any questions or need further clarification, please contact me at 207-592-4810 or email at:

Mark.N.Stebbins@maine.gov

Sincerely,

Nicholas D. Livesay, Director
Bureau of Land Resources

cc. town file

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



JANET T. MILLS
GOVERNOR

GERALD D. REID
COMMISSIONER

September 15, 2020

Natalie Marceau
Gartley & Dorsky Engineering & Surveying, Inc.
59 Union Street, Unit 1
Camden, ME 04843

Re: Vernal Pool Significance Determination, Pool ID # 4079–Camden

Dear Natalie Marceau:

Vernal pools are temporary to semi-permanent wetlands occurring in shallow depressions that typically fill during the spring and dry during the summer or in drought years. They provide important breeding and foraging habitat for a wide variety of specialized wildlife species including several rare, threatened, and endangered species.

Based on your field survey, it has been determined that the vernal pool identified above on the property of Town of Camden is POTENTIALLY SIGNIFICANT because either: 1. the entire pool was not surveyed, 2. the pool was surveyed outside the appropriate survey window for the year in question, or 3. the survey was lacking sufficient data to assess pool significance.

To ensure compliance with the Natural Resources Protection Act (NRPA) potentially significant vernal pools should be considered significant until an accurate assessment of the pool is completed. All areas on the property within 250 feet of significant or potentially significant vernal pool depressions, known as the "critical terrestrial habitat", will be subject to the requirements of the Natural Resources Protection Act, 38 M.R.S.A. §§480-A to 480-FF, and the Significant Wildlife Habitat rules, 06-096 CMR 335. It is suggested that further survey(s) are completed and data submitted that meet requirements for significance determination. With additional data the vernal pool may be reassigned as Not Significant or Significant and you will be notified accordingly.

The Department will notify the landowner of the pool status under separate cover. If you have any questions or need further clarification, please contact me at 207-592-4810 or email at:

Mark.N.Stebbins@maine.gov

Sincerely,

Nicholas D. Livesay, Director
Bureau of Land Resources

cc. town file

AUGUSTA
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AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

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BANGOR, MAINE 04401
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1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

IFW Recommendations for Significant Vernal Pool Determinations

The following is a list of pools and IFW's recommendations for whether or not they qualify as Significant Vernal Pools, one of Maine's Significant Wildlife Habitats.

Data current as of: Tuesday, September 15, 2020

IFW's Pool ID: 4077 Twp: Camden
Observer's ID: VP1

UTM Coordinates of Pool Center: 495685 E, 4896964 N
ProjectType: Sagamore Farms Property

Landowner: Town of Camden
29 Elm Street
Camden, ME 04843
(207) 236-3353

Contact: Natalie Marceau - Gartley & Dorsky Engineering & Surve
59 Union Street, Unit 1
Camden, ME 04843
(207) 236-4365 nmarceau@gartleydorsky

Survey Date: 4/24/2020

IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the vernal pool definition

IFW Comments: Pool provides some habitat for wood frogs and significant habitat for spotted salamanders but does not meet vernal pool criteria. Pool does not appear to be of natural origin (excavation for old gravel pit).

IFW's Pool ID: 4078 Twp: Camden
Observer's ID: VP2

UTM Coordinates of Pool Center: 495677 E, 4896924 N
ProjectType: Sagamore Farms Property

Landowner: Town of Camden
29 Elm Street
Camden, ME 04843
(207) 236-3353

Contact: Natalie Marceau - Gartley & Dorsky Engineering & Surve
59 Union Street, Unit 1
Camden, ME 04843
(207) 236-4365 nmarceau@gartleydorsky

Survey Date: 4/24/2020

IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the vernal pool definition

IFW Comments: Pool provides some habitat for wood frogs and significant habitat for spotted salamanders but does not meet vernal pool criteria. Pool does not appear to be of natural origin (excavation for old gravel pit).

IFW's Pool ID: 4079 Twp: Camden
Observer's ID: VP3

UTM Coordinates of Pool Center: 495381 E, 4897038 N
ProjectType: Sagamore Farms Property

Landowner: Town of Camden
29 Elm Street
Camden, ME 04843
(207) 236-3353

Contact: Natalie Marceau - Gartley & Dorsky Engineering & Surve
59 Union Street, Unit 1
Camden, ME 04843
(207) 236-4365 nmarceau@gartleydorsky

Survey Date: 4/24/2020

IFW's Recommendation: YELLOW: POTENTIALLY SIGNIFICANT, entire pool not surveyed

IFW Comments: Pool provides some habitat for spotted salamanders but does not meet biological criteria. Hydrology needs to be confirmed. Only portion of pool surveyed (60%).