

**TOWN OF HUDSON
PLANNING BOARD
PUBLIC MEETING
TOWN OF HUDSON, NH
JULY 10, 2013**



12 School Street

Hudson, New Hampshire 03051

603/886-6005

The Town of Hudson Planning Board will hold a regularly scheduled meeting on Wednesday, July 10, 2013 at 7:00 p.m. in the "Buxton Community Development Conference Room" at Town Hall. The following items will be on the agenda:

- I. CALL TO ORDER BY CHAIRPERSON AT 7:00 P.M.
- II. PLEDGE OF ALLEGIANCE
- III. ROLL CALL
- IV. SEATING OF ALTERNATES
- V. MINUTES OF PREVIOUS MEETING(S)
- VI. CASES REQUESTED FOR DEFERRAL
- VII. CORRESPONDENCE
- VIII. PERFORMANCE SURETIES
- IX. ZBA INPUT ONLY
- X. PUBLIC HEARINGS

XI. OLD BUSINESS/PUBLIC HEARINGS

- A. 63 Derry Street/Ledge Road Subdiv. Map 165/Lot 159
SB# 04-13 63 Derry Street

Purpose of plan: To subdivide the 2.48 acre subject property into seven single-family residential lots. Hearing. Deferred Date Specific from the 06-12-13 Planning Board Meeting.

- XII. DESIGN REVIEW PHASE
- XIII. CONCEPTUAL REVIEW ONLY

XIV. NEW BUSINESS/PUBLIC HEARINGS

- A. Nashua Subaru Lot Line Relocation Map 216/Lots 11 & 13
SB# 05-13 193 Lowell Road

Purpose of plan: To adjust lot line to separate current Nashua Subaru dealership (193 Lowell Road) from existing commercial/retail building at 199 Lowell Road and merge this latter property with the south abutting parcel having a street address of 201 Lowell Road, Map 216/Lot 11. Application Acceptance & Hearing.

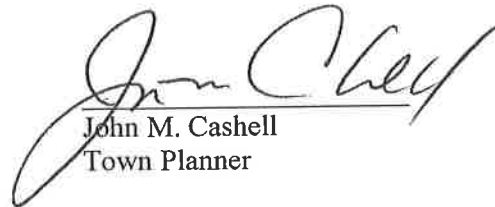
XV. OTHER BUSINESS

- A. GIS Update Proposal -- Prepared Collaboratively by James Michaud, Asst. Town Assessor, Lisa Nute, IT Director, Patrick Colburn, Town Engineer and John Cashell, Town Planner.

XVI. ADJOURNMENT

All plans and applications are available for review in the Planning Office. Comments may be submitted in writing until 10:00 a.m. on the Tuesday prior to the day of the meeting.

The public is invited to attend.



John M. Cashell
Town Planner

POSTED: Town Hall, Library, Post Office – 06-28-13



**TOWN OF HUDSON
PLANNING BOARD
PUBLIC MEETING
TOWN OF HUDSON, NH
JULY 10, 2013
(Addendum #1)**



12 School Street

Hudson, New Hampshire 03051

603/886-6005

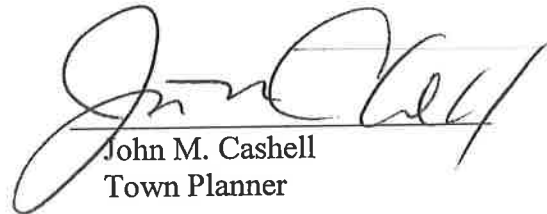
In addition to items already scheduled and posted for review at the July 10, 2013 Planning Board Meeting, the following items are scheduled to be heard:

VII. CORRESPONDENCE

RE: 321 Derry Street – Map 105/Lot 007 – Request to Waive the Site Plan Review.

All plans and applications are available for review in the Planning Office. Comments may be submitted in writing until 10:00 a.m. on the Tuesday prior to the day of the meeting.

The public is invited to attend.



John M. Cashell
Town Planner

POSTED: Town Hall, Library, Post Office – 07-3-13.

Faith Baptist Church of Nashua

STAFF REPORT

July 10, 2013

SITE: 321 Derry Street – Map 105 Lot 007

ZONING: Business (B)

PURPOSE OF PETITION: waive the requirement for an Engineered Site Plan, relative to proposed religious use of a commercial structure.

PLAN UNDER REVIEW: Existing Site Plan entitled: Site Plan (Map 41 Lot 10-2) Derry Road (Rte. 102) Hudson, NH, prepared by Couco & Cormier, Inc., dated March 6, 1985. Plan attached herewith.

ATTACHMENTS:

- 1) Letter from Mike Adams, Asst. to Pastor Phemister, RE: Request to Waive Engineered Site Plan, dated July 2, 2013 – “A”.
- 2) Site Plan-of-Record and Aerial Photo of Locus – “B”.

REQUESTED WAIVER: HTC 275-8.B Engineered Site Plan

APPLICATION TRACKING:

- Letter submitted requesting the subject waiver on 07/07/13.

RECOMMENDATION:

For the following reasons staff supports the request to waive the need for an engineered Site Plan: (i) no addition is proposed for the existing building (ii) no additional parking is needed for the proposed religious use, i.e., beyond the existing 47 spaces, (iii) associated AM & PM Peak Hour Weekday Traffic will be less than that of the previous use, and (iv) recent traffic improvements were implemented along Rte. 102, leading up to and including the main entrance driveway to the site. Below, for the board’s consideration only, is a DRAFT MOTION to the effect of the foregoing reasons to grant the requested waiver. Please note, staff ran this request by Town Counsel and he suggested that granting this waiver was a prudent and thoughtful way for this proposed use to be allowed in Hudson. Also of note, the nearest residential area to the subject parcel is over 800 ft. removed from the proposed use and separated by a commercial development (please see attached aerial photo depicting the subject site and nearest residential neighborhood.

DRAFT MOTION: REQUESTED WAIVER: HTC 275-8.B - Engineered Site Plan

I move to grant the requested waiver: HTC 275-8.B - Engineered Site Plan – for the following reasons: (i) no addition is proposed for the existing building, (ii) no additional parking is needed for the proposed use, i.e., beyond the existing 47 spaces, (iii) associated AM & PM Peak Hour Weekday Traffic will be less than that of the previous use, and (iv) traffic safety improvements sufficient to accommodate traffic associated with the proposed use were implemented in 2012 along Rte. 102, leading up to and including the intersection nearest to the site driveway, as such, the granting of this waiver is not contrary to the spirit and intent of the Site Plan regulations.

Motion by: _____ Second: _____ Carried/Failed: _____.



Pastor Keith Phemister
Address: 3 Pine Street, Nashua NH 03060
Tel: 603-594-8800 ♦ Fax: 603-594-8800
Email: phemister@nashuafbc.com

July 2, 2013



To whom it may concern,

Faith Baptist Church of Nashua would like to say thank you to the Town of Hudson for helping our ministry in the past few years. We could not have raised the necessary funds to take our youth group on their summer trips without the fundraising tables you allowed us to set up at Wal-Mart and Sam's.

Thank you also for the response to our recent inquiry regarding the use of 321 Derry Road as a place of worship/religious assembly and we now find ourselves looking to move our church to that location.

I'm writing today to request relief from submitting a new site plan for 321 Derry Road. The reasons for my request are as follows:

1. We will be occupying the existing structure – no additional buildings will be added to the property.
2. We will not need any additional parking spaces.
3. We have a small congregation and to have a new site plan made would be cost prohibitive.
4. The existing site plan is perfectly suited for our needs.

I would like to ask you in light of these reasons to please grant us relief.

I do appreciate your time in this matter.

Sincerely,


Mike Adams
Assistant to Pastor Phemister

“B cont.”

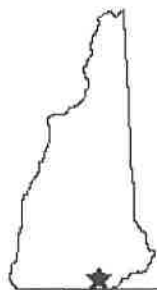
X – Faith Baptist Church

**N - Nearest Residential
Neighborhood**



http://hud001881/output/hudsongis_HUD00188136883576229.jpg

7/3/2013



COMMUNITY DEVELOPMENT DEPARTMENT

12 School Street
Hudson, NH 03051
(603)886-6005
www.hudsonnh.gov



Town of Hudson

REQUEST FOR ZONING and/or PLANNING INFORMATION / DETERMINATION

Date of request 07/01/2013

Property Location 321 derry Rd

Map 105 Lot 7

Zoning District if known _____

Type of Request

- Zoning District Determination
- Use Determination
- Set-Back Requirements
- Process for Subdivision/ Site Plan if required
- Other

Description of request / determination: (Please attach all relevant documentation)

Determine if property can be used for Religious Purposes

Applicant Contact Information:

Name: _____

Address: _____

Phone Number: _____

For Office use

ATTACHMENTS: TAX CARD GIS

NOTES: _____

ZONING DETERMINATION LETTER SENT DATE: _____

ZONING

334 Attachment 1

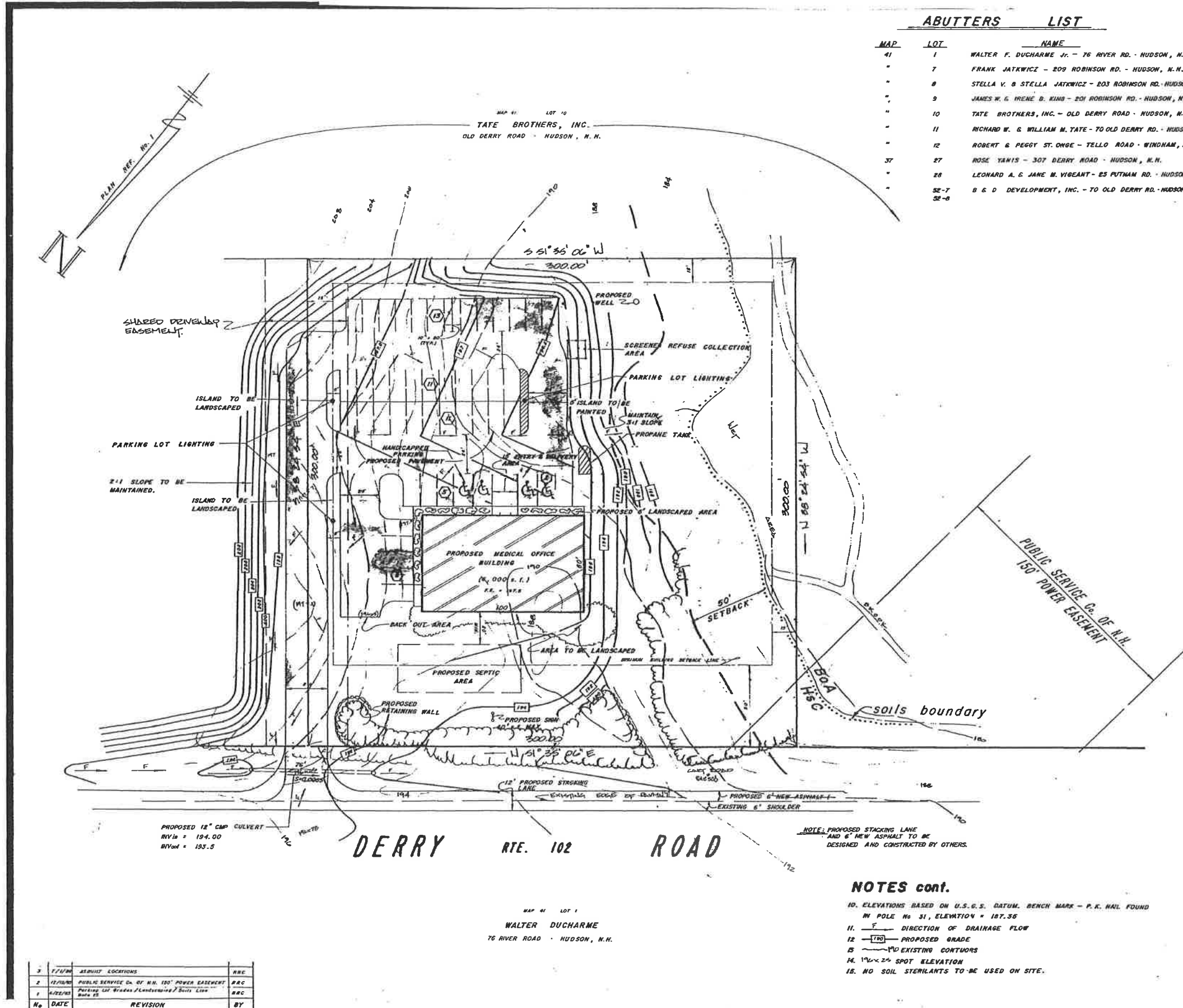
Town of Hudson

Table of Permitted Principal Uses

[Amended 3-8-1994 by Amdt. No. 5; 3-9-1999; 3-13-2001 by Amdt. No. 3;
3-13-2001 by Amdt. No. 7; 3-12-2002 by Amdt. No. 3; 3-9-2004; 3-13-2007 by Amdt. No. 5]

USE	Districts						
	R-1	R-2	TR	B	I	G	G-1
A. RESIDENTIAL USES							
1. Single-family detached dwelling	P	P	P	N	N	P	P
2. Two-family dwelling	N	P	N	N	N	P	P
3. Multifamily dwelling	N	N	N	P ¹	N	N	N
4. Manufactured housing parks/subdivisions	N	N	N	N	N	P	P
5. Older persons housing developments	N	P ¹	P ¹	N	N	P ¹	N
6. Assisted living facility	P	P	P	P	N	P	P
B. AGRICULTURAL USES							
1. Use of land for the primary purpose of agriculture, horticulture, floriculture, or viticulture on a parcel of more than five acres in area	P	P	P	P	P	P	P
2. Facilities for the sale of produce, and wine and dairy products	P	P	P	P	P	P	P
C. COMMUNITY FACILITIES USES							
1. Use of land or structures for religious purposes	S	P	S	P	N	P	P
2. Child daycare facility and group daycare facility, public/private	N	N	N	P	P	P	P
3. Cemeteries, public/private	S	S	N	N	N	S	S
4. Municipal services and facilities	P	P	P	P	P	P	P
5. Water towers, reservoirs and sewer and water pumping stations	P	P	P	P	P	P	P
6. Hospital, public/private	N	N	N	P	P	P	P
7. Schools, public/private	P	P	P	P	P	P	P
D. COMMERCIAL USES							
1. Seasonal farm stand for retail sale of produce or Christmas trees	P	P	P	P	N	P	P
2. Animal clinic or hospital; kennel	N	N	N	S	P	P	P
3. Personal service establishment, per definition provided in § 334-6	N	N	N	P	P	P	P
4. Funeral home	N	N	N	P	P	P	P
5. Hotel/motel	N	N	N	S ¹	P ¹	P ¹	P ¹
6. Bed-and-breakfast	N	N	N	N	N	P	P
7. Retail food or drug store	N	N	N	P	P	P	P
8. Retail sale of beer and wine and state liquor stores	N	N	N	P	P	P	P

"B" Map 105/Lot 007 Site Plan of Record



ABUTTERS LIST

MAP	LOT	NAME
41	1	WALTER F. DUCHARME JR. - 76 RIVER RD. - HUDSON, N.H.
"	7	FRANK JATKOWICZ - 209 ROBINSON RD. - HUDSON, N.H.
"	8	STELLA V. B. STELLA JATKOWICZ - 203 ROBINSON RD. - HUDSON, N.H.
"	9	JAMES W. G. IRENE B. KING - 201 ROBINSON RD. - HUDSON, N.H.
"	10	TATE BROTHERS, INC. - OLD DERRY ROAD - HUDSON, N.H.
"	11	RICHARD W. & WILLIAM M. TATE - 70 OLD DERRY RD. - HUDSON, N.H.
"	12	ROBERT & PEGGY ST. ONGE - TELLO ROAD - WINDHAM, N.H.
37	27	ROSE YAHIS - 307 DERRY ROAD - HUDSON, N.H.
"	28	LEONARD A. & JANE M. VIGANT - 25 PUTNAM RD. - HUDSON, N.H.
32-7		B & D DEVELOPMENT, INC. - TO OLD DERRY RD. - HUDSON, N.H.
32-8		



REFERENCE PLAN

1. SUBDIVISION PLAN, DERRY ROAD HUDSON, N.H., PREPARED FOR TATE BROTHERS, INC., SCALE 1" = 100', DATED MAY, 1984.

NOTES

- PRESENT ZONING - RURAL.
- PROPOSED USE - LIGHT COMMERCIAL - MEDICAL OFFICE BUILDING.
- TOTAL SITE AREA: 2.086 AC. (90,000 S.F.)
- LOT NUMBERS REFER TO TOWN OF HUDSON ASSESSORS SHEET 41 & 37.
- LOT TO BE SERVICED BY INDIVIDUAL WELL AND INDIVIDUAL SEPTIC SYSTEM.
- TOTAL NUMBER OF PARKING SPACES REQUIRED - 20 SPACES
NUMBER OF PARKING SPACES PROVIDED - 43 SPACES
HANDICAPPED - 4 SPACES
TOTAL - 47 SPACES
- PROPOSED SIGNS AND LIGHTING SHALL CONFORM TO THE TOWN OF HUDSON ZONING REGULATIONS, ARTICLE IX.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASCERTAINING THE LOCATION, SIZE, AND ELEVATION OF ALL EXIST. UTILITIES, SHOWN OR NOT SHOWN ON THIS PLAN. PRIOR TO AND/OR DURING CONSTRUCTION THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION SO THAT REMEDIAL ACTION MAY BE TAKEN BEFORE PROCEEDING WITH THE WORK.
- SOILS TYPE: H₂C - MACKLEY, B₀A - BOONEMISTS.

APPROVED BY:
HUDSON PLANNING BOARD

CHAIRPERSON *Maureen E. Gifford* DATE *7/16/86*

SECRETARY *John P. Goff* DATE *7/16/86*

ACKNOWLEDGMENT

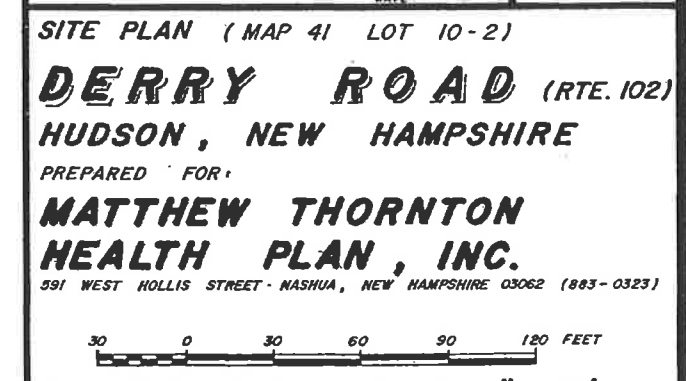
RICHARD W. TATE - OWNER OF RECORD
Richard W. Tate DATE *6/6/85*

DAVE CAWLEY - ADMINISTRATOR
Dave Cawley DATE *8/1/85*

I CERTIFY THAT THE BOUNDARY WAS TAKEN FROM PLAN REFERENCE No. 1 AND THIS OFFICE IS NOT RESPONSIBLE OF IT'S VALIDITY AND ACCURACY. I FURTHER CERTIFY THAT AN ACTUAL TOPOGRAPHIC SURVEY WAS MADE ON THE GROUND IN FEBRUARY 1985 AND THAT THIS PLAN IS IN ACCORDANCE WITH THE TOWN OF HUDSON SITE PLAN REGULATIONS.

DATE *3-6-85* *Richard E. Cuoco*

SITE PLAN (MAP 41 LOT 10-2)
DERRY ROAD (RTE. 102)
HUDSON, NEW HAMPSHIRE
PREPARED FOR:
MATTHEW THORNTON HEALTH PLAN, INC.
591 WEST HOLLIS STREET - NASHUA, NEW HAMPSHIRE 03062 (883-0323)



CCI
CUOCO & CORMIER, INC.
CIVIL ENGINEERS - LAND SURVEYORS
P.O. BOX 3574 NASHUA, NH 03061

NOTES cont.

- ELEVATIONS BASED ON U.S.G.S. DATUM. BENCH MARK - P.K. NAIL FOUND IN POLE No 31, ELEVATION = 187.58
- DIRECTION OF DRAINAGE FLOW
- PROPOSED GRADE
- EXISTING CONTOURS
- SPOT ELEVATION
- NO SOIL STABILIZANTS TO BE USED ON SITE.

No.	DATE	REVISION	BY
1	7/1/85	ASBUILT LOCATIONS	NRC
2	12/1/85	PUBLIC SERVICE CO. OF N.H. 150' POWER EASEMENT	ERC
3	4/22/86	PAVING LOT STRIP/LANDSCAPING/SEPTIC LINE	ERC

63 Derry Street/Ledge Road Subdivision Plan

Staff Report

July 10, 2013

SITE: 63 Derry Street/Ledge Rd Map -- 165/Lot 159 -- SB# 04-13

ZONING: T-R (Minimum lot size 10,000 sf and 90 ft. of frontage)

PURPOSE OF PLAN: to subdivide the 2.48 acre subject property into seven single-family residential lots. Application Acceptance & Hearing.

SUBDIVISION PLAN UNDER REVIEW ENTITLED: Proposed Residential Development Map 165, Lot 159 63 Derry Street – Hudson, NH, prepared by RJB Engineering, LLC 15 Pleasant St., Suite 5, Concord, NH 03301, dated: April 5, 2013, latest revised June 27, 2013 consisting of Sheets 1 – 13 and Notes 1 – 12 (Plans attached).

ATTACHMENTS:

1. Traffic Study, prepared by Stephen G. Pernaw & Company, Inc., dated July 2, 2013 “A”.
2. Roadway General Plan, RE: Revised Sight Distance Plan, dated 4/5/13, last revised 6/27/13 – “B”.

OUTSTANDING ISSUES:

1. I believe the attached Traffic Report speaks for itself, in that no adverse impact will be created for the Ledge Rd./Derry St. intersection, nor Ledge Rd., via the introduction of 6 single-family dwellings off Ledge Rd.
2. At the meeting, the applicant’s engineer, Jeffery Burd, will address the sight distance issue that was brought up at the June 12th meeting. That is, 400 ft. of safe sight distance is provided at the required height of the proposed intersection east along Ledge Rd. Please see the attached revised sight distance plan – “B”.
3. At the meeting further review and discussion may result involving abutter concerns on tree cutting, noise attenuation, hours/days of construction, etc. Any action on these issues can be devised from further input, if any, received at the meeting.

REQUESTED WAIVER:

- HTC 289-6(D) – Fiscal Study

At the June 12, 2013 meeting the board approved the above requested waiver.

RECOMMENDATION: for this 2d hearing, staff recommends for the board to have the Traffic Eng., Stephen G. Pernaw, P.E., PTOE, present his findings on the Derry St./Ledge Rd. intersection and Ledge Rd., hear any remaining comments/concerns from the abutters and then take final action in accordance with the below DRAFT MOTIONS.

APPLICATION TRACKING:

04/22/13 Subdivision application submitted.

06/10/13 Initial public hearing scheduled.

06/10/13 Subdivision application accepted, hearing conducted and deferred date specific to the 07/10/13.

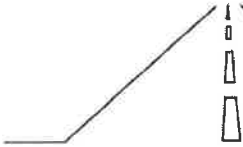
DRAFT MOTION TO APPROVE:

I move to approve the subdivision plan entitled: Proposed Residential Development Map 165, Lot 159 63 Derry Street – Hudson, NH, prepared by RJB Engineering, LLC 15 Pleasant St., Suite 5, Concord, NH 03301, dated: April 5, 2013, latest revised June 27, 2013, consisting of Sheets 1 – 13 and Notes 1 – 12, in accordance with the following terms and conditions:

1. All stipulations of approval shall be incorporated into the Development Agreement, which shall be recorded at the HCRD, together with the above Site Plan-of-Record (hereafter referred to as the Plan).
2. Prior to Planning Board endorsement of the Plan, Town Counsel shall favorably recommend on the Development Agreement and Drain Easement Deed pertaining to Map 165, Lots 159, 159-1 and 159-2, as shown on the Plan.
3. A CAP amount of \$1,208.59, per residential unit, shall be paid prior to the issuance of a Certificate of Occupancy.
4. A public school impact fee in the amount of \$3,578.00, per residential unit, shall be paid prior to the issuance of a Certificate of Occupancy.
5. A recreation contribution in the amount of \$400.00, per residential unit, shall be paid prior to the issuance of a Certificate of Occupancy.
6. All monumentation shall be set or bonded prior to the Planning Board endorsing the Plan.
7. This approval is subject to final engineering review.
8. Maintenance of the onsite drainage system shall be constructed and maintained in compliance with NHDES requirements for such systems.

9. The number of dwelling lots for this subdivision shall be limited to 7, including the existing dwelling on Map 165, Lot 159.
10. All monumentation shall be set or bonded prior to the Planning Board endorsing the Plan-of-Record.
11. If lot development involves blasting and/or ramming of bedrock materials, said activities shall be limited to the hours between 7:00 A.M. and 5:00 P.M. Monday through Friday only. Said blasting/ramming activities shall be prohibited on Saturday and Sunday.
12. Construction activities involving the lots shall be limited to the hours between 7:00 A.M. and 7:00 P.M., Monday through Saturday. Said activities shall prohibited on Sunday.
13. Above terms and conditions of approval, 1 through 12, shall be inscribed on the Plan prior to Planning Board endorsement of same; thus, creating a total of 21 notes on Sheet 3 of 13 of the Plan.

Motion by: _____ Second: _____ Carried/Failed: _____



"A"

MEMORANDUM

Ref: 1480A
To: Joshua Naughton
Greenscape Property and Management, LLC
From: Stephen G. Pernaw, P.E., PTOE
Subject: Residential Subdivision – Proposed Nellie Court
Hudson, New Hampshire
Date: July 2, 2013

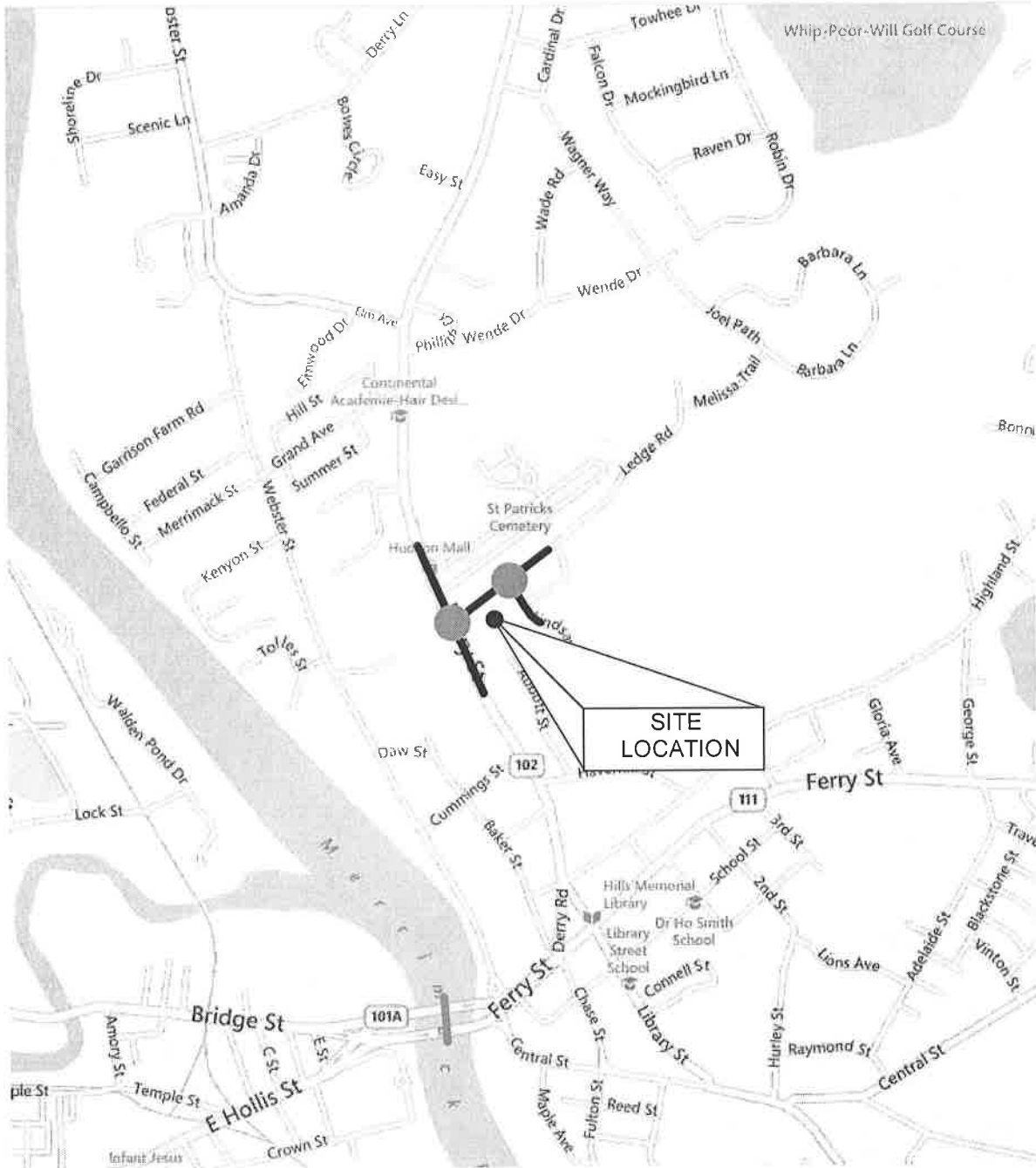
As requested, our office has conducted this traffic assessment for the proposed six-lot residential subdivision on the south side of Ledge Road in Hudson, New Hampshire, in support of the subdivision application to the Planning Board. The purpose of this memorandum is to summarize our findings and conclusions regarding recent traffic counts, the trip generation analysis, the long-range traffic projections, the intersection capacity and Level of Service analyses, and evaluation of several safety-related factors. To summarize:



Proposed Development – The proposed development calls for the construction of six single-family detached dwelling units with driveway access from the proposed Nellie Court. Nellie Court is a short cul-de-sac roadway that will intersect the south side of Ledge Road midway between its intersection with NH Route 102 (NH102) and Lindsay Street. An overview plan prepared by RJB Engineering, LLC is included in Appendix A. Figure 1 shows the site location with respect to the area roadway system.

Existing Conditions – Ledge Road functions as a collector street and it provides one travel lane in each direction in the vicinity of the subject site. The pavement width measures approximately 22-feet in width, and there are no pavement markings present. There is no posted speed limit on Ledge Road.

NH102 functions as an arterial highway with one through lane on the northbound and southbound approaches to the Ledge Road intersection. The southbound approach also provides an exclusive left-turn lane for vehicles turning on to Ledge Road. The northbound approach includes a right-turn taper for vehicles turning on to Ledge Road, and there are two departure lanes on the north side of this intersection. The speed limit is posted at 30 mph in each direction in this area.

Existing Traffic Volumes – To quantify the existing traffic demand on NH102 and Ledge Road, a turning movement and vehicle classification count was conducted at the intersection of these two roadways on Wednesday, June 26th of this year. To address abutter concerns about “through traffic” on Lindsay Street, supplemental counts were conducted at the Ledge Road/Lindsay St.



-  = PERMANENT NHDOT AUTOMATIC TRAFFIC RECORDER LOCATION
-  = INTERSECTION TURNING MOVEMENT COUNT LOCATION



1480A

Figure 1

Site Location
Traffic Evaluation, Proposed Residential Subdivision, Hudson, New Hampshire

intersection during both peak periods. Figure 2 summarizes the peak period traffic volumes in the study area. NH102 carried over 1,800 vehicles (northbound and southbound combined) during the AM peak hour and over 2,100 vehicles during the PM peak hour. The volume of traffic on Ledge Road passing the subject site totaled 38 (AM) and 64 (PM) vehicles during the peak hour periods. Lindsay Street (immediately south of Ledge Road) carried 48 (AM) and 60 (PM) vehicles during the peak hour periods. During the AM peak hour, the majority (65%) of the traffic on Lindsay Street was due to left-turns from points east on Ledge Road. During the PM peak hour the left-turn volume from Lindsay Street to Ledge Road was the highest turning movement volume. The raw traffic count data is included in Appendix B.

Seasonal Adjustment Factor – For traffic projection purposes, the raw June traffic volumes were increased by a factor of 1.04 (AM) and 1.00 (PM) in order to reflect peak-month conditions. Peak-month volumes are used for analysis purposes. Appendix C contains the derivation of these factors.

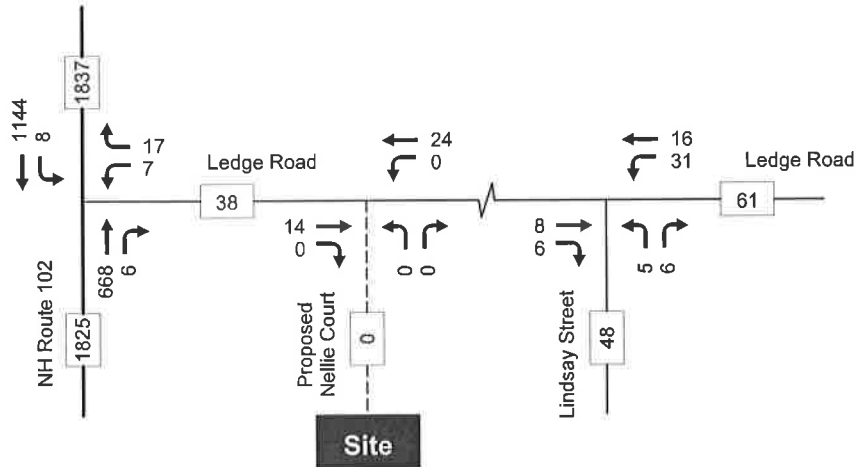
Background Growth Rate – The closest permanent traffic recorder station to the site is located on NH111 at the Hudson-Nashua line. This data shows that traffic volumes have declined slightly in recent years. For traffic projection purposes, the 2013 seasonally adjusted traffic volumes were increased by +11.6% to reflect 2024 horizon year conditions (See Appendix C).

Trip Generation - The table below summarizes the results of the trip generation analyses based on the latest trip generation rates published by the Institute of Transportation Engineers (ITE)¹. The proposed residential subdivision is expected to generate approximately 5 (AM) and 6 (PM) trips during the peak hour periods upon full occupancy (See Appendix D).

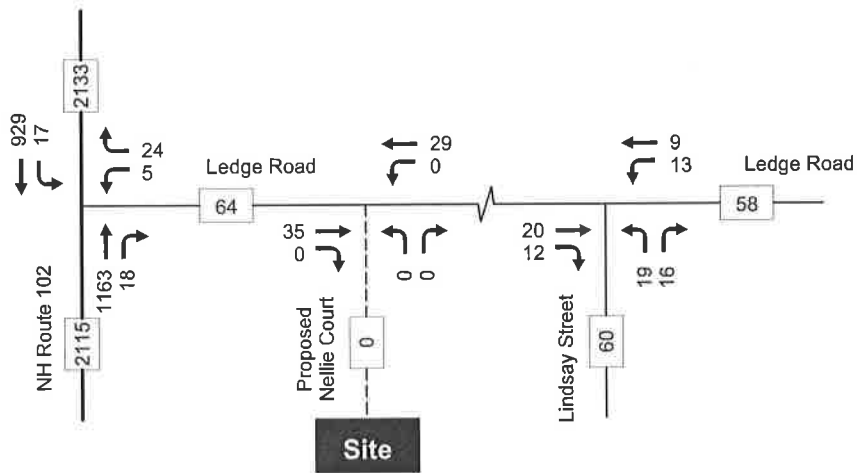
Table 1		Trip Generation Summary	
		6 Single-Family Dwelling Units ¹	
AM Peak Hour	Entering	1 veh	
	Exiting	<u>4 veh</u>	
	Total	5 trips	
PM Peak Hour	Entering	4 veh	
	Exiting	<u>2 veh</u>	
	Total	6 trips	
Weekday Total	Entering	29 veh	
	Exiting	<u>29 veh</u>	
	Total	58 trips	

¹ITE Land Use Code 210

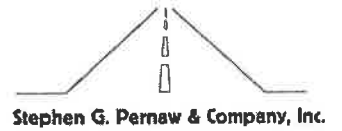
¹ Institute of Transportation Engineers, *Trip Generation*, ninth edition (Washington, D.C., 2012). 1480A



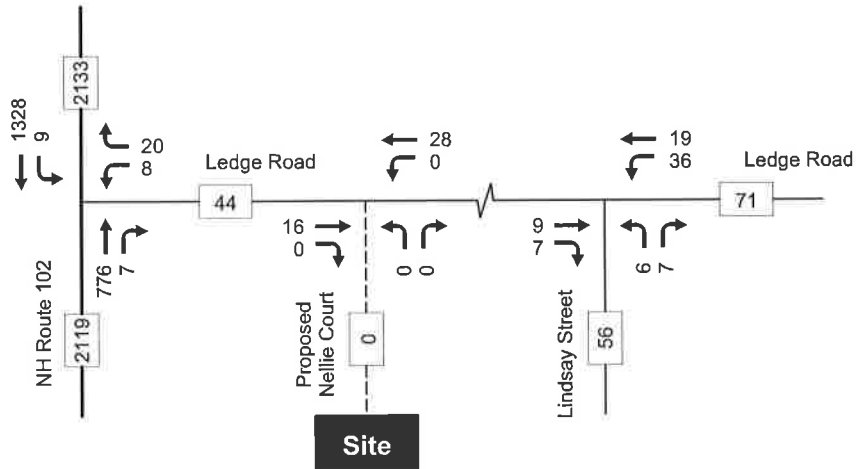
AM PEAK HOUR
Wednesday, June 26, 2013
7:15 to 8:15 AM



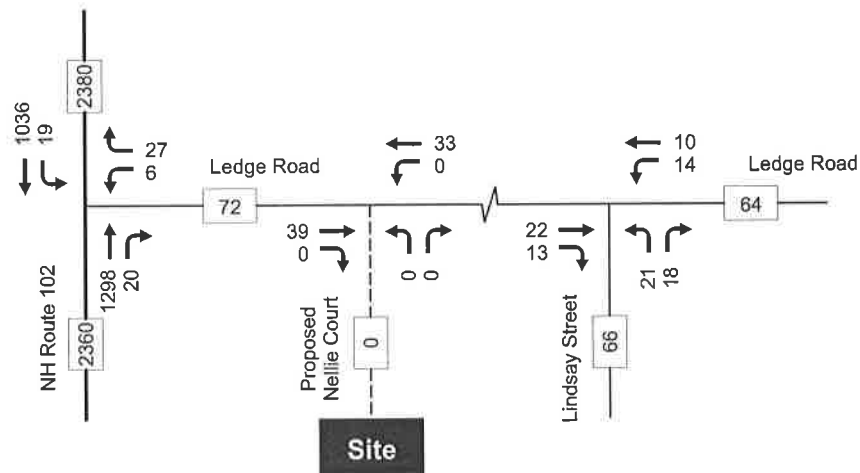
PM PEAK HOUR
Wednesday, June 26, 2013
4:45 to 5:45 PM



Future Traffic Projections - Figure 3 and Figure 4 summarize the 2024 No-Build and Build traffic projections for the study area intersections, respectively. The No-Build projections are based on the 2013 count data, the peak-month seasonal adjustment factors, and the background traffic growth rate. The Build projections are based on the No-Build projections, the trip generation estimates in Table 1, and the expectation that the majority of site traffic (80%) will travel to/from points south on NH102 (toward Nashua and NH101A, NH111 and NH3A). Approximately 10% of the site traffic is expected to utilize NH102 to reach points north, and the remaining 10% toward NH111 easterly via the Lindsay Street-Vernon Street-Haverhill Street-Highland Street-Buswell Street connection. These projections indicate that right-turn arrivals and left-turn departures will be the predominant turning movements at the proposed subdivision street intersection with Ledge Road.



AM PEAK HOUR



PM PEAK HOUR

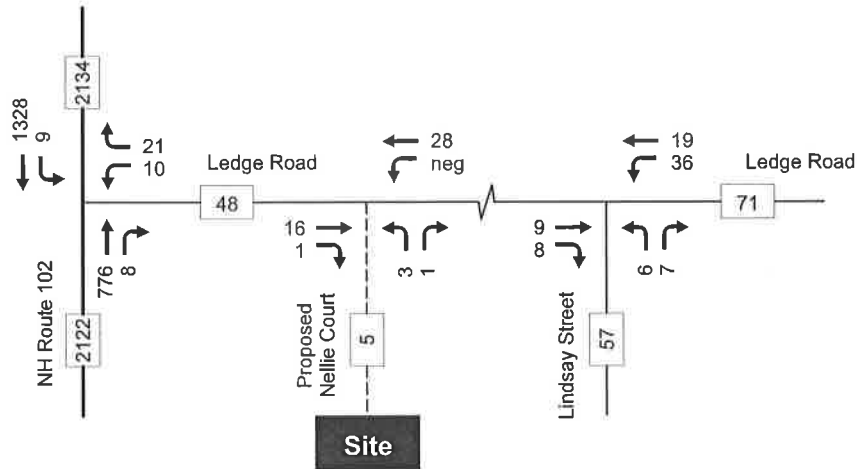


1480A

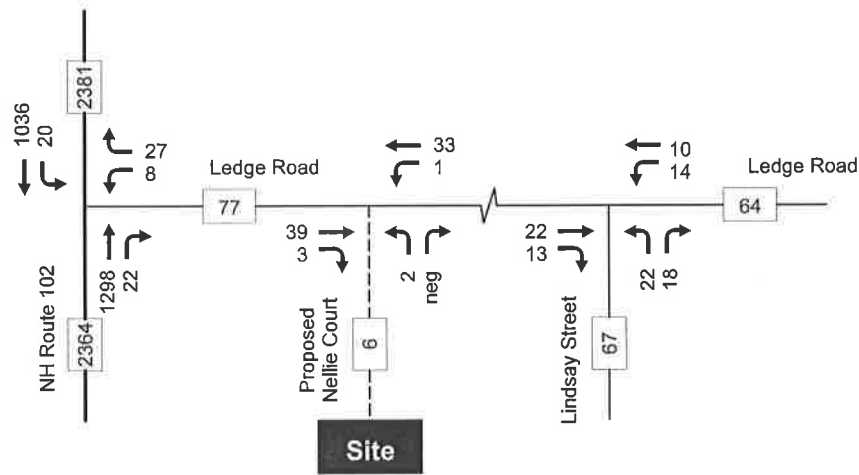
Figure 3

2024 No-Build Traffic Volumes

Traffic Evaluation, Proposed Residential Subdivision, Hudson, New Hampshire



AM PEAK HOUR



PM PEAK HOUR

Figure 4

2024 Build Traffic Volumes

Traffic Evaluation, Proposed Residential Subdivision, Hudson, New Hampshire

Intersection Capacity and Level of Service - The long-range (2024) traffic projections were utilized to assess traffic operations at the three study area intersections. These intersections were analyzed according to the methodologies of the *Highway Capacity Manual*, as replicated by the latest edition of the *Synchro Traffic Signal Timing Software (Version 8)*, which also performs unsignalized intersection capacity analysis.

Capacity and Level of Service (LOS) calculations pertaining to unsignalized intersections address the quality of service for those vehicles turning into and out of intersecting side streets. The availability of adequate gaps in the traffic stream on the major street actually controls the potential capacity for vehicle movements to and from the minor street approaches. Levels of Service are simply letter grades (A-F), which categorize the vehicle delays associated with specific turning maneuvers. Table 2 describes the criteria used in this analysis.

Level of Service	Control Delay (seconds/vehicle)
A	≤ 10.0
B	> 10.0 and ≤ 15.0
C	> 15.0 and ≤ 25.0
D	> 25.0 and ≤ 35.0
E	> 35.0 and ≤ 50.0
F	> 50.0

Source: Transportation Research Board, Highway Capacity Manual 2010.

The results of the analyses for the **NH102/Ledge Road** intersection confirm that during the worst-case 2024 PM peak hour period, departures from Ledge Road will continue to experience long delays (LOS F) both with and without the proposed subdivision. Left-turn arrivals from NH102 (on to Ledge Road) will operate at LOS B during the 2024 PM peak hour period regardless of the proposed subdivision. All applicable traffic movements will operate well below capacity through the horizon year with the proposed subdivision fully occupied.

The analysis of the **Ledge Road/Nellie Court** intersection confirms that all applicable traffic movements will operate well below capacity and at LOS A during all hours of the day, with the proposed subdivision fully occupied. Analysis of the **Ledge Road/Lindsay Street** intersection resulted in the same findings.

Appendix E contains the intersection capacity and LOS computations.

Left-Turn Warrants Analysis - The type of treatment needed to accommodate left-turning vehicles from any street or highway to an intersecting side street (or driveway) can range from no treatment, where turning volumes are low; to the provision of a bypass lane for through traffic to travel around left-turning vehicles; to the addition of a formal center turn lane used exclusively by left-turning vehicles for deceleration and storage while waiting to complete their maneuvers. Favorably, there is an existing left-turn lane on NH102 for vehicles turning on to Ledge Road.

Right-Turn Warrants Analysis - The type of treatment needed to accommodate right-turning vehicles from any street or highway to any intersecting side street (or driveway) can range from a radius only, where turning volumes are low; to the provision of a short 10:1 right-turn taper; to the addition of an exclusive right-turn lane, where turning volumes and through traffic volumes are significant.

Analysis of the 2013 Existing traffic volumes using NCHRP 457 guidelines confirmed that right-turn treatment is currently warranted at the NH102/Ledge Road intersection based on the 18 vehicles observed turning right on to Ledge Road during the PM peak hour period. Favorably, the pavement width of NH102 flares out on its approach to Ledge Road, thereby maintaining the flow of through traffic on the corridor. The proposed subdivision is expected to increase the northbound right-turn volume from 20 to 22 vehicles during the PM peak hour period. These computations are included in Appendix F.

Minor-Road Approach Analysis – The type of treatment needed to accommodate exiting vehicles from the minor-road approach at a stop-controlled intersection can range from a single lane (shared left-right lane) in low-volume conditions, to two exit lanes (exclusive left-turn lane and exclusive right-turn lane) where turning volumes and through traffic volumes are significant, to multiple exit lanes in extreme cases. Analysis of the 2024 Build traffic volumes using NCHRP 457 guidelines confirmed that the single-lane approach on Ledge Road is sufficient for the anticipated volumes. These computations are also included in Appendix F.

Sight Distance - Sight distance at intersections and driveways is an important safety consideration. The operator of a vehicle approaching an intersection should have an unobstructed view of the intersection and sufficient length of roadway to enable a full stop, should it be required to avoid a collision. Similarly, exiting vehicles from the minor approach (Proposed Nellie Court) should have sufficient visibility of approaching traffic in order to safely enter the traffic flow on to the major street (Ledge Road).

Field observations confirm that the available sight distances looking left and looking right from the proposed location of Nellie Court are clear back to NH102 and several hundred to the east. Clearing of roadside vegetation within the right-of-way on both sides of Nellie Court is recommended in order to maximize sight lines. The sight lines at the NH102/Ledge Road intersection exceed 400 feet in each direction, and are not a constraint. By way of comparison, the AASHTO² stopping sight distance requirements for the posted speed of 30 mph and a design speed of 35 mph are 200 feet and 250 feet, respectively. This means that there this sufficient stopping distance for an approaching vehicle on NH102 and Ledge Road to safely stop to avoid a collision if ever necessary. Photographs depicting these views are included in Appendix G.

² American Association of State Highway and Transportation Officials, "A Policy on Geometric Design of Highways and Streets," sixth edition (Washington, D.C., 2011).
1480A

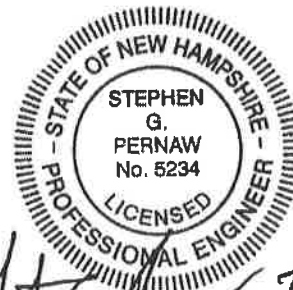
Findings & Conclusions

1. This section of NH102 was observed to carry 1,837 (AM) and 2,133 (PM) vehicles during the peak commuter periods on a typical weekday. The majority traveled southbound during the AM peak hour (63%) and northbound during the PM peak hour (56%). Ledge Road (at the site frontage) carried only 38 (AM) and 64 (PM) vehicles during the peak hour periods.
2. The trip generation analysis indicates that the proposed six residential dwelling units will generate approximately 5 (AM) and 6 (PM) trips during the peak hour periods. The majority will be exiting from Nellie Court during the AM peak hour and entering during the PM peak hour period. The majority of the vehicles are expected to travel to/from NH102, therefore right-turn arrivals and left-turn departures will be the predominant travel patterns. Of the six peak hour trips, Lindsay Street could carry an additional vehicle during the peak hour periods.
3. The intersection capacity and Level of Service analyses confirm that the proposed Nellie Court intersection on Ledge Road will operate well below capacity during the peak hour periods through 2024 and beyond. Vehicle delays and queuing are projected to be minimal.

Analysis of the 2024 conditions at the NH102/Ledge Road intersection confirmed that long delays (LOS F) will continue to occur for departures from Ledge Road during the worst-case PM peak hour period, both with and without the few additional exiting vehicles from the proposed subdivision. The analysis demonstrates that all applicable turning movements at this intersection will continue to operate below capacity through 2024 with the subdivision fully occupied.

4. The NH102/Ledge Road intersection currently includes an exclusive southbound left-turn lane for turns on to Ledge Road, a northbound right-turn taper for turns on to Ledge Road, and one shared left-right lane on the minor approach. Analysis demonstrates that this lane configuration is adequate for post-development conditions as well. Auxiliary turn lanes are not needed on Ledge Road at the proposed Nellie Court intersection.
5. The available sight distance looking left and right from the proposed Nellie Court intersection extend back to NH102 and several hundred feet in the easterly direction, and satisfies the stopping sight distance guidelines published by AASHTO by a considerable margin (see photographs in Appendix G). Clearing of roadside vegetation within the right-of-way on both sides of Nellie Court is recommended in order to maximize sight lines.

CC: R. Jeffrey Burd, P.E., RJB Engineering, LLC



Stephen G. Perna 7/2/13

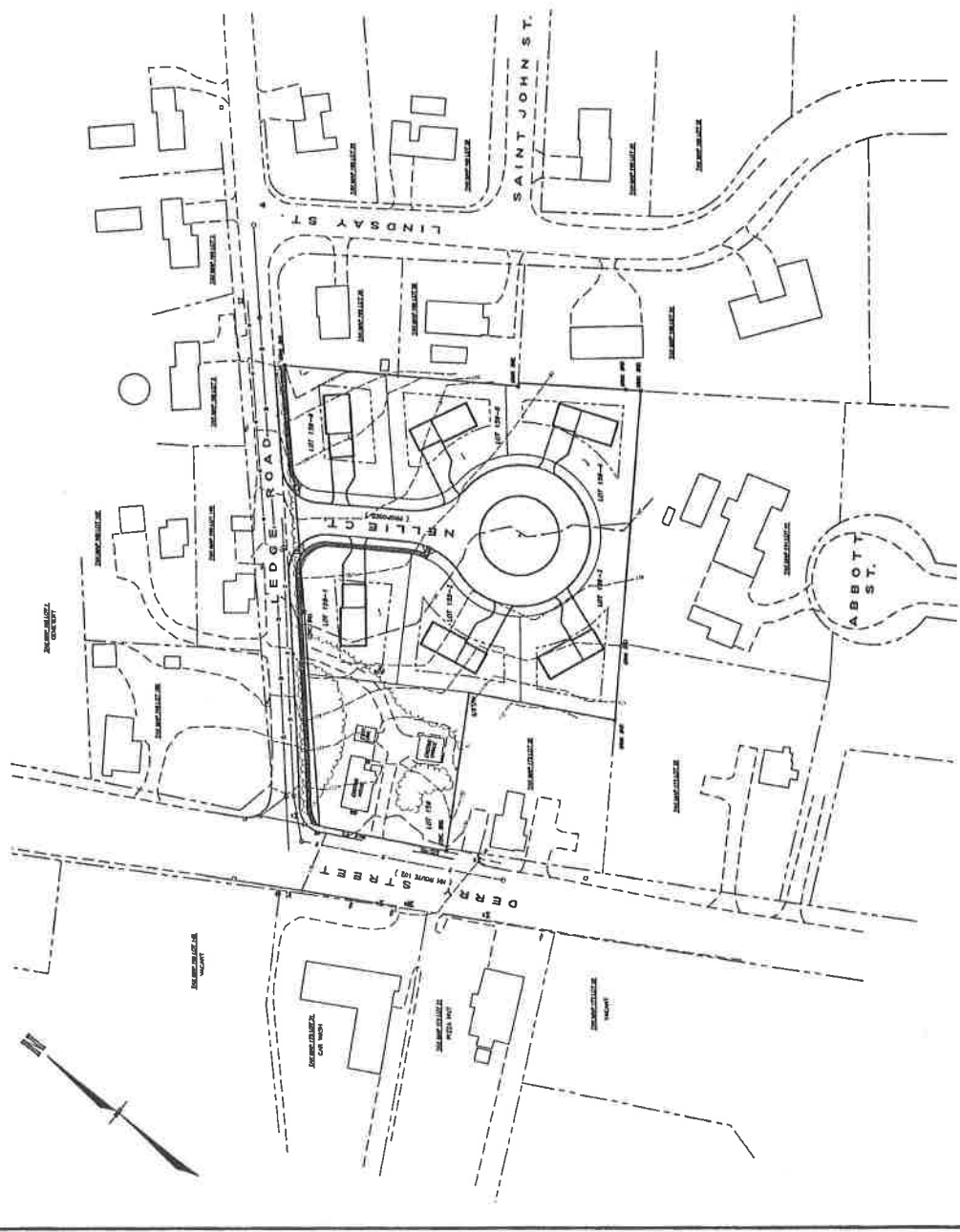
APPENDIX

Appendix A	Overview Plan
Appendix B	Intersection Turning Movement Counts
Appendix C	Seasonal Adjustment Factors / Historical Growth Rates
Appendix D	Trip Generation Calculations / Site Generated Traffic Volumes
Appendix E	Capacity and Level of Service Calculations – Unsignalized
Appendix F	Auxiliary Turn Lane Warrants Analysis
Appendix G	Sight Distance Photographs

Appendix A

Overview Plan

- ADDITIONAL SUBMITTERS WITHIN ZONE**
- TAX MAP 186 LOT 10
MARIO L. DEBELLIS, PLUMBER
15 OLD DERRY ROAD
N. DERRY, NH 03041
V. 1781 P. 118
 - TAX MAP 186 LOT 11
CARRIE M. HOOKMAN
15 OLD DERRY ROAD
N. DERRY, NH 03041
V. 1803 P. 114
 - TAX MAP 186 LOT 12
DANIEL S. TERMAN & HARRY
M. BROWN, JR.
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 13
WILLIAM S. BARNARD & SHARON
M. BROWN, JR.
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 14
STEPHEN P. LADDON
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 15
JAMES E. LEMMONS
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 16
JAMES E. LEMMONS
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 17
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 18
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 19
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 20
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 21
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 22
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 23
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 24
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 25
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 26
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 27
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 28
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 29
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 30
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 31
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 32
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 33
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 34
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 35
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 36
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 37
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 38
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 39
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 40
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 41
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 42
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 43
ALVIN S. BERRY
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N. DERRY, NH 03041
 - TAX MAP 186 LOT 44
ALVIN S. BERRY
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N. DERRY, NH 03041
 - TAX MAP 186 LOT 45
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 46
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 47
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 48
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 49
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041
 - TAX MAP 186 LOT 50
ALVIN S. BERRY
15 OLD DERRY ROAD
N. DERRY, NH 03041



OVERVIEW PLAN
 MAP 186, LOT 1 50
 60 DERRY STREET - MAP ROUTE 102
 HAZOON, NEW HAMPSHIRE

OWNED BY:
 THE NELLIE D. LINDSAY REV. TRUST
 OF 35 BERRYMAN STREET
 NELLIE D. LINDSAY, TRUSTEE

DATE: APRIL 5, 2013

SCALE: 1" = 40' (N.T.S.)

PREPARED BY:
 RJB ENGINEERING, LLC
 100 WASHINGTON STREET
 CONCORD, NH 03301
 PH: 603-271-9794

IN ASSOCIATION WITH:
 JOSEPH M. WICHERT, L.L.S., INC.
 100 WASHINGTON STREET
 MANCHESTER, NH 03104
 PH: 603-947-4382

Appendix B

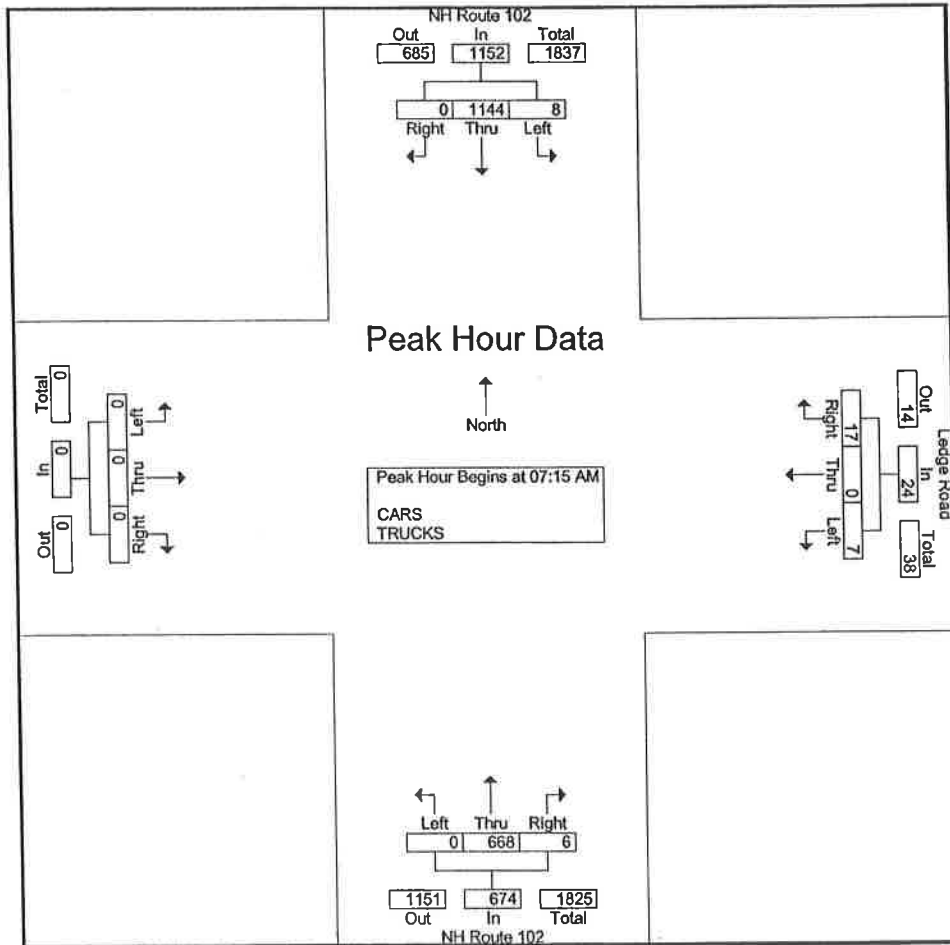
Intersection Turning Movement Counts

Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302
603-228-5750

Weather: Clear
Collected By: SGP
Job Number: 1480A
Town/State: Hudson, NH

File Name : 1480A AM TMC nh102
Site Code : 1480A
Start Date : 6/26/2013
Page No : 2

Start Time	NH Route 102 From North				Ledge Road From East				NH Route 102 From South				From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	290	2	292	3	0	1	4	2	146	0	148	0	0	0	0	444
07:30 AM	0	287	4	291	5	0	2	7	2	162	0	164	0	0	0	0	462
07:45 AM	0	266	0	266	4	0	2	6	2	184	0	186	0	0	0	0	458
08:00 AM	0	301	2	303	5	0	2	7	0	176	0	176	0	0	0	0	486
Total Volume	0	1144	8	1152	17	0	7	24	6	668	0	674	0	0	0	0	1850
% App. Total	0	99.3	0.7		70.8	0	29.2		0.9	99.1	0		0	0	0		
PHF	.000	.950	.500	.950	.850	.000	.875	.857	.750	.908	.000	.906	.000	.000	.000	.000	.952

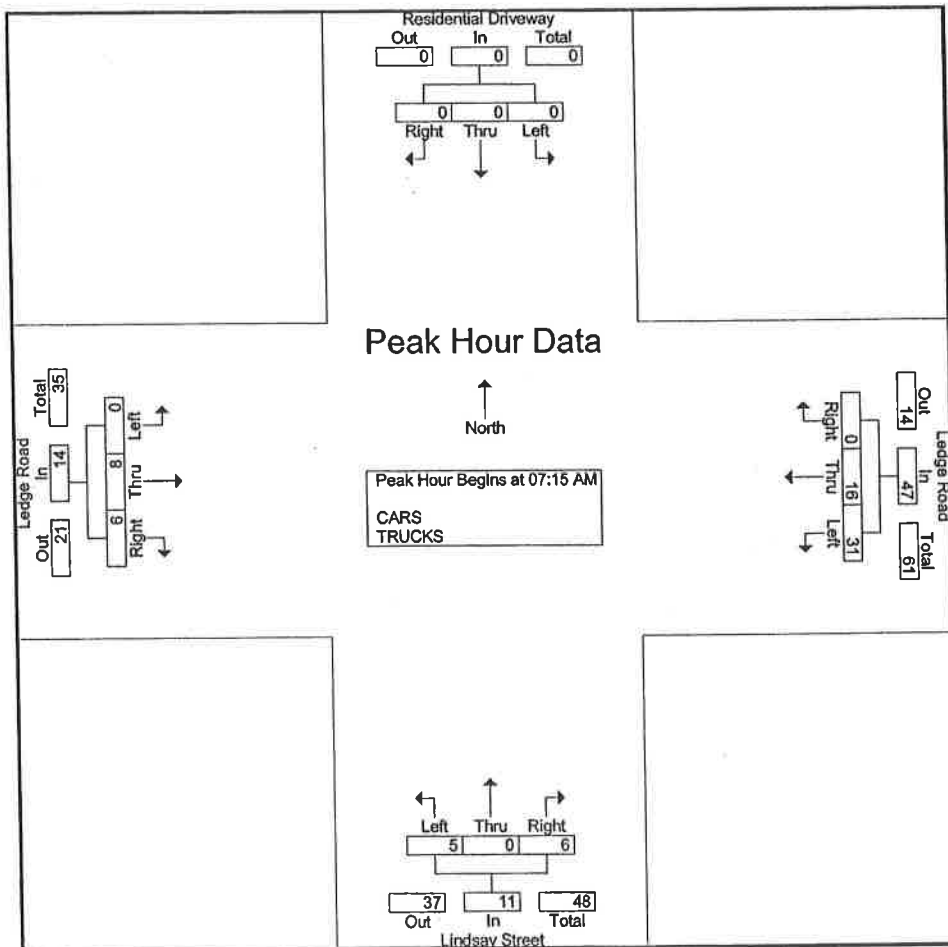


Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302
603-228-5750

Weather: Clear
Collected By: CFA
Job Number: 1480A
Town/State: Hudson, NH

File Name : 1480A AM TMC lindsay st
Site Code : 1480A
Start Date : 6/26/2013
Page No : 2

Start Time	Residential Driveway From North				Ledge Road From East				Lindsay Street From South				Ledge Road From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	3	4	7	1	0	0	1	1	2	0	3	11
07:30 AM	0	0	0	0	0	5	10	15	1	0	2	3	3	3	0	6	24
07:45 AM	0	0	0	0	0	3	8	11	2	0	2	4	1	2	0	3	18
08:00 AM	0	0	0	0	0	5	9	14	2	0	1	3	1	1	0	2	19
Total Volume	0	0	0	0	0	16	31	47	6	0	5	11	6	8	0	14	72
% App. Total	0	0	0	0	0	34	66		54.5	0	45.5		42.9	57.1	0		
PHF	.000	.000	.000	.000	.000	.800	.775	.783	.750	.000	.625	.688	.500	.667	.000	.583	.750

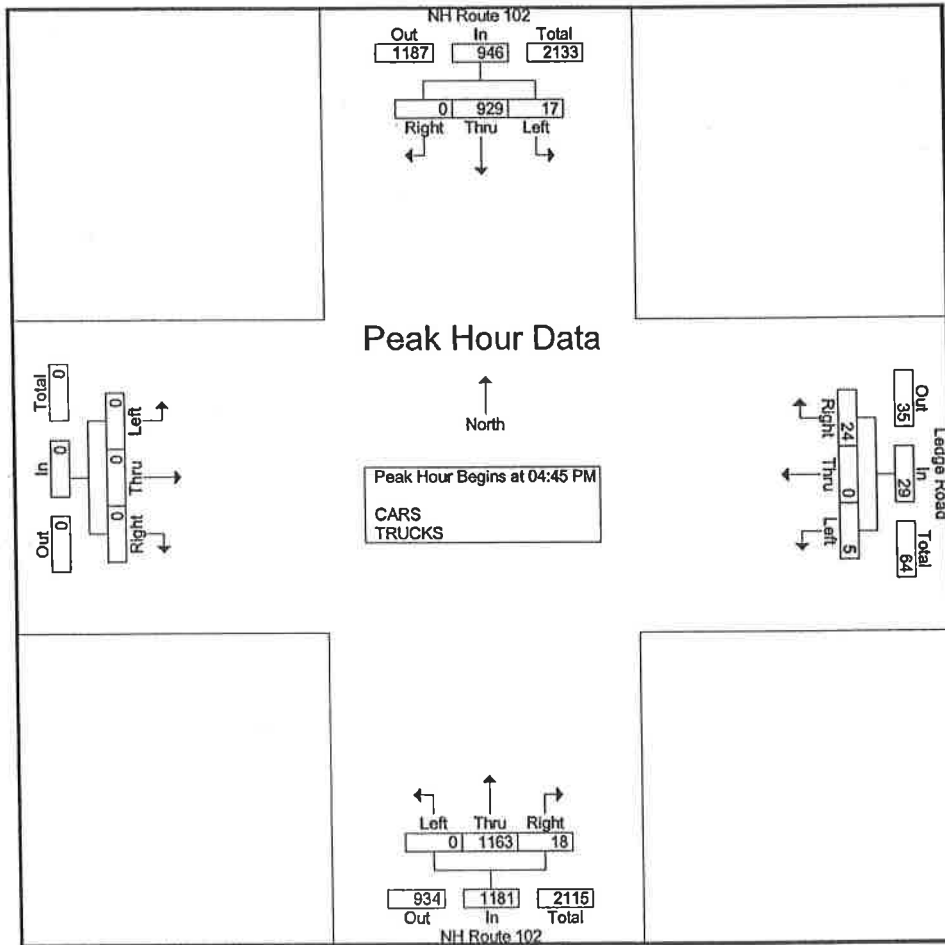


Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302
603-228-5750

Weather: Clear
Collected By: SGP
Job Number: 1480A
Town/State: Hudson, NH

File Name : 1480A PM TMC nh102
Site Code : 1480A
Start Date : 6/26/2013
Page No : 2

Start Time	NH Route 102 From North				Ledge Road From East				NH Route 102 From South				From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	236	7	243	3	0	0	3	6	283	0	289	0	0	0	0	535
05:00 PM	0	241	0	241	3	0	4	7	3	294	0	297	0	0	0	0	545
05:15 PM	0	223	4	227	7	0	1	8	6	295	0	301	0	0	0	0	536
05:30 PM	0	229	6	235	11	0	0	11	3	291	0	294	0	0	0	0	540
Total Volume	0	929	17	946	24	0	5	29	18	1163	0	1181	0	0	0	0	2156
% App. Total	0	98.2	1.8		82.8	0	17.2		1.5	98.5	0		0	0	0		
PHF	.000	.964	.607	.973	.545	.000	.313	.659	.750	.986	.000	.981	.000	.000	.000	.000	.989

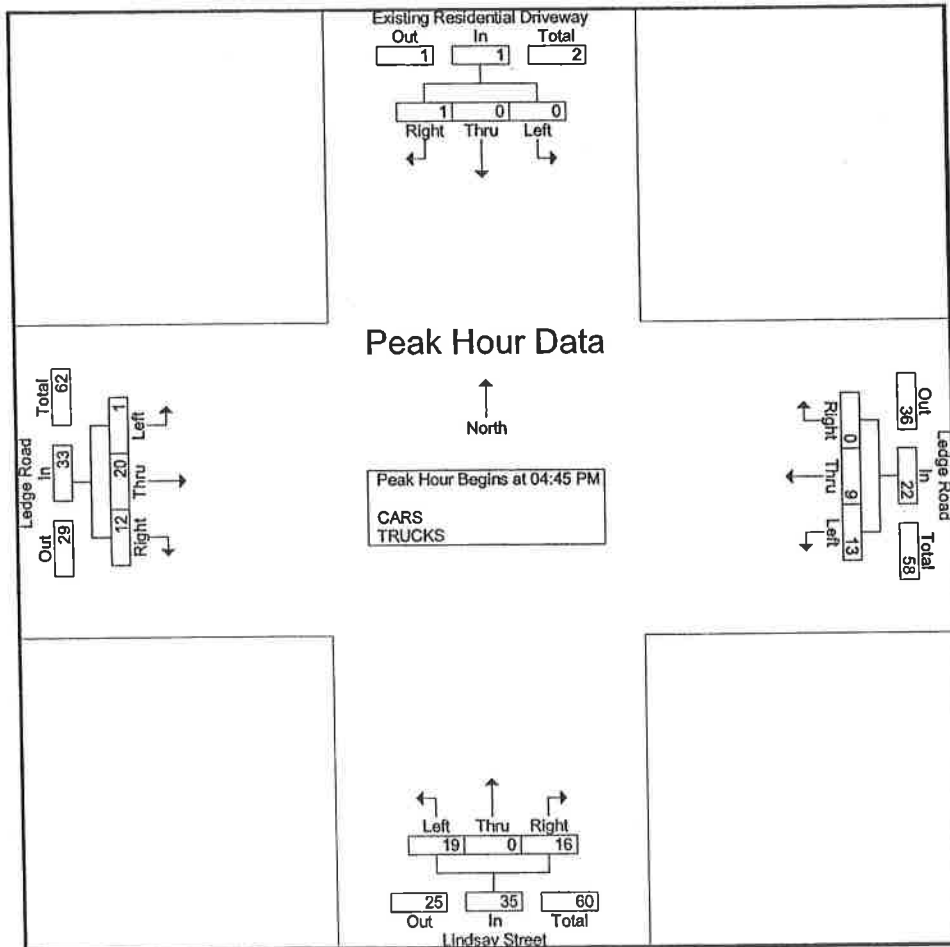


Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302
603-228-5750

Weather: Clear
Collected By: CFA
Job Number: 1480A
Town/State: Hudson, NH

File Name : 1480A PM TMC lindsay st
Site Code : 1480A
Start Date : 6/26/2013
Page No : 2

Start Time	Existing Residential Driveway From North				Ledge Road From East				Lindsay Street From South				Ledge Road From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	2	2	2	0	3	5	6	4	0	10	17
05:00 PM	0	0	0	0	0	3	4	7	6	0	4	10	1	4	0	5	22
05:15 PM	0	0	0	0	0	2	4	6	6	0	6	12	4	4	1	9	27
05:30 PM	1	0	0	1	0	4	3	7	2	0	6	8	1	8	0	9	25
Total Volume	1	0	0	1	0	9	13	22	16	0	19	35	12	20	1	33	91
% App. Total	100	0	0		0	40.9	59.1		45.7	0	54.3		36.4	60.6	3		
PHF	.250	.000	.000	.250	.000	.563	.813	.786	.667	.000	.792	.729	.500	.625	.250	.825	.843



Appendix C

Seasonal Adjustment Factors / Historical Growth Rates

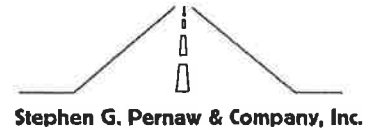


STEPHEN G. PERNAW & COMPANY, INC.
PROJECT: Proposed Residential Subdivision, Hudson, New Hampshire
NUMBER: 1480A
STATION: 315051

SEASONAL ADJUSTMENT FACTOR - SUMMARY

CASE: Peak Hour Data (June to Peak Month)
LOCATION : NH 111 at Hudson TL - Nashua, New Hampshire

	<u>AM</u>	<u>PM</u>
2010 Monthly Data	1.02	1.00
2011 Monthly Data	1.06	1.01
2012 Monthly Data	1.04	1.00
Average	1.04	1.00
Use	1.04	1.00



STEPHEN G. PERNAW & COMPANY, INC.
 PROJECT: Residential Subdivision, Hudson, NH
 NUMBER: 1480A
 COUNT STATION: 315051 02

HISTORICAL GROWTH CALCULATIONS

LOCATION : NH 111 (East of Merrimack River)
 CASE : AADT

ARITHMETIC PROJECTIONS

YEAR	AADT	Regression Output:		PROJECTIONS	
		Constant	533661.60714	2012	33775
2005	35005	Std Err of Y Est	451.496291	2013	33527
2006	35606	R Squared	0.679457156	2014	33279
2007	35000	No. of Observations	8	2015	33030
2008	34909	Degrees of Freedom	6	2016	32782
2009	34396			2017	32533
2010	35000	X Coefficient	-248.452381	2018	32285
2011	34000	Std Err of Coef.	69.6673902	2019	32036
2012	33244			2020	31788
				2021	31539
				2022	31291

RATE = -248 VPD/YEAR

GEOMETRIC PROJECTIONS

YEAR	AADT	Ln AADT	Regression Output:		PROJECTIONS	
			Constant	24.96385	2012	33773
2005	35005	10.46325	Std Err of Y Est	0.01314954	2013	33530
2006	35606	10.48027	R Squared	0.678785134	2014	33289
2007	35000	10.46310	No. of Observations	8	2015	33049
2008	34909	10.46050	Degrees of Freedom	6	2016	32811
2009	34396	10.44570			2017	32575
2010	35000	10.46310	X Coefficient	-0.007224867	2018	32340
2011	34000	10.43412	Std Err of Coef.	0.002029018	2019	32108
2012	33244	10.41163			2020	31876
					2021	31647
					2022	31419

RATE = -0.7 % / YEAR

Appendix D

Trip Generation Calculations / Site Generated Traffic Volumes

Average Rate Trip Calculations
 For 6 Dwelling Units of Single Family Detached Housing(210) - [R]

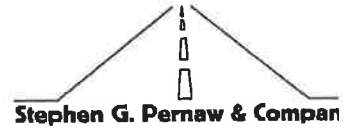
Project: Proposed Residential Subdivision
 Phase:

Open Date:
 Analysis Date:

Description: 6 Single Family Detached Housing Units

	Average Rate	Standard Deviation	Adjustment Factor	Driveway Volume
Avg. Weekday 2-Way Volume	9.52	3.70	1.00	57
7-9 AM Peak Hour Enter	0.19	0.00	1.00	1
7-9 AM Peak Hour Exit	0.56	0.00	1.00	4
7-9 AM Peak Hour Total	0.75	0.90	1.00	5
4-6 PM Peak Hour Enter	0.63	0.00	1.00	4
4-6 PM Peak Hour Exit	0.37	0.00	1.00	2
4-6 PM Peak Hour Total	1.00	1.05	1.00	6
Saturday 2-Way Volume	9.91	3.72	1.00	59
Saturday Peak Hour Enter	0.50	0.00	1.00	3
Saturday Peak Hour Exit	0.43	0.00	1.00	3
Saturday Peak Hour Total	0.93	0.99	1.00	6

Note: A zero indicates no data available.
 Source: Institute of Transportation Engineers
 Trip Generation Manual, 9th Edition, 2012



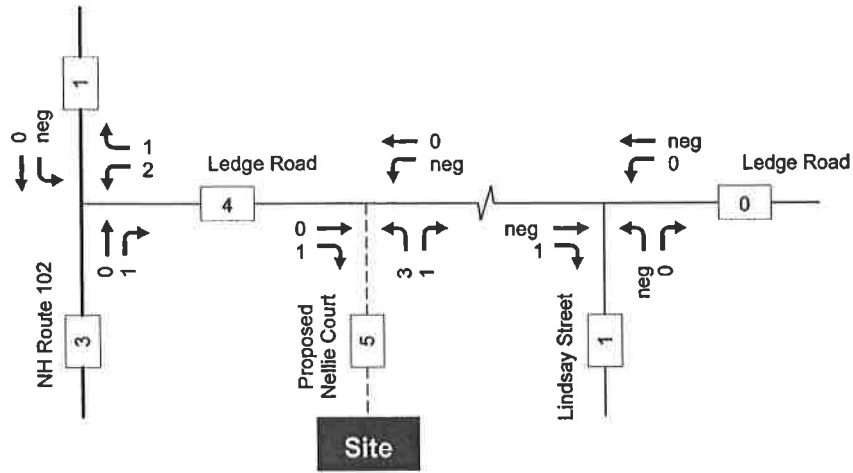
Project Location: Hudson, NH
 Project Number: 1480A

TRIP DISTRIBUTION ANALYSIS

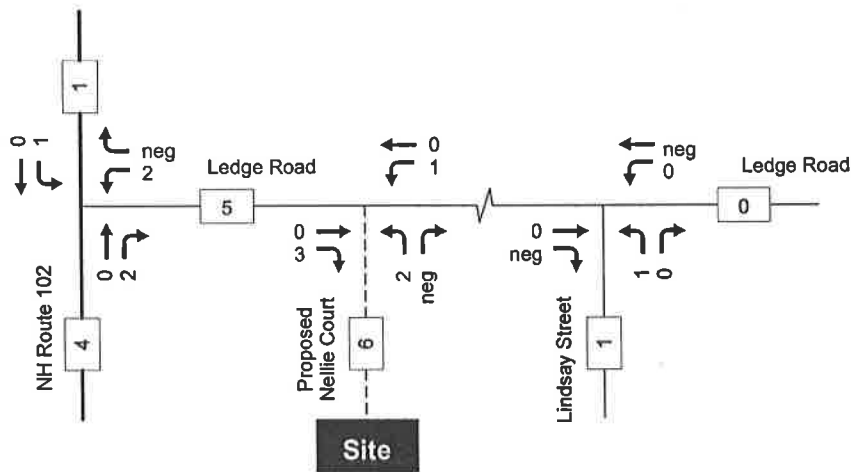
<u>Work Destination</u>	<u>Workers</u>	<u>Percent To/From</u>			<u>Workers To/From</u>			
		<u>N</u>	<u>S</u>	<u>E</u>	<u>N</u>	<u>S</u>	<u>E</u>	
Nashua city Hillsborough Co. NH	3107		1.00		0	3107	0	
Hudson town Hillsborough Co. NH	2797	0.20	0.60	0.20	559	1678	559	
Lowell city Middlesex Co. MA	596		1.00		0	596	0	
Manchester city Hillsborough Co. NH	491	0.60	0.40		295	196	0	
Billerica town Middlesex Co. MA	355		1.00		0	355	0	
Merrimack town Hillsborough Co. NH	337		1.00		0	337	0	
Boston city Suffolk Co. MA	297		1.00		0	297	0	
Bedford town Hillsborough Co. NH	279		1.00		0	279	0	
Chelmsford town Middlesex Co. MA	274		1.00		0	274	0	
Salem town Rockingham Co. NH	254			1.00	0	0	254	
Andover town Essex Co. MA	251			1.00	0	0	251	
Londonderry town Rockingham Co. NH	219		1.00		0	219	0	
Tewksbury town Middlesex Co. MA	199		1.00		0	199	0	
Tyngsbor. town Middlesex Co. MA	175		1.00		0	175	0	
Wilmington town Middlesex Co. MA	146			1.00	0	0	146	
Bedford town Middlesex Co. MA	134		1.00		0	134	0	
Hollis town Hillsborough Co. NH	133		1.00		0	133	0	
Woburn city Middlesex Co. MA	132		1.00		0	132	0	
Waltham city Middlesex Co. MA	131		1.00		0	131	0	
	10307				854	8243	1210	10307
					8.29	79.97	11.74	100.00

ROUNDED:	10%	80%	10%
	N	S	E

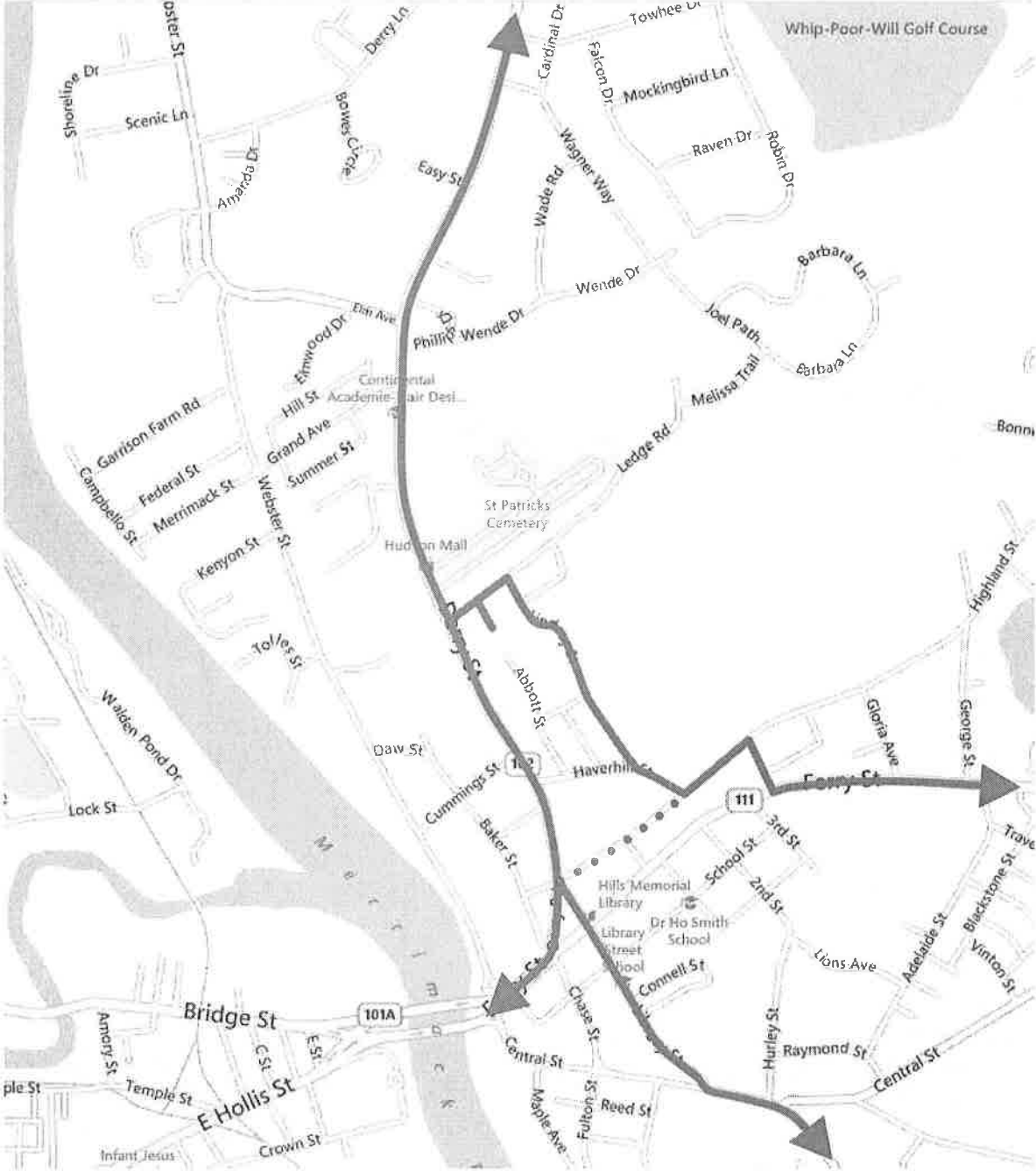
Source Information: 2000 U.S. Census, by New Hampshire Employment Security



AM PEAK HOUR



PM PEAK HOUR



Appendix E

Capacity and Level of Service Calculations – Unsignalized

Intersection						
Intersection Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	10 ✓	21 ✓	776 ✓	8 ✓	9 ✓	1328 ✓
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	625	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	91	91	95	95
Heavy Vehicles, %	0	0	7	17	0	5
Mvmt Flow	12	24	853	9	9	1398
Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	2274	857	0	0	862	0
Stage 1	857	-	-	-	-	-
Stage 2	1417	-	-	-	-	-
Follow-up Headway	3.5	3.3	-	-	2.2	-
Pot Capacity-1 Maneuver	45	360	-	-	789	-
Stage 1	419	-	-	-	-	-
Stage 2	226	-	-	-	-	-
Time blocked-Platoon, %	-	-	-	-	-	-
Mov Capacity-1 Maneuver	44	360	-	-	789	-
Mov Capacity-2 Maneuver	44	-	-	-	-	-
Stage 1	419	-	-	-	-	-
Stage 2	223	-	-	-	-	-
Approach	WB	WB	NB	NB	SB	SB
HCM Control Delay, s	53.5	-	0	-	0.1	-
HCM LOS	F	-	-	-	-	-
Minor Lane / Major Mvmt	NBT	NBR	WBL1	SBL	SBT	
Capacity (veh/h)	-	-	109	789	-	-
HCM Lane V/C Ratio	-	-	0.331	0.012	-	-
HCM Control Delay (s)	-	-	53.5	9.618	-	-
HCM Lane LOS	-	-	F	A	-	-
HCM 95th %ile Q(veh)	-	-	1.298	0.036	-	-
Notes	Volume Exceeds Capacity, \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined					

Intersection						
Intersection Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	8	27	1298	22	20	1036
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	625	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	66	66	98	98	97	97
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	12	41	1324	22	21	1068
Major/Mirror	Minor	Major1	Major2			
Conflicting Flow All	2445	1336	0	0	1347	0
Stage 1	1336	-	-	-	-	-
Stage 2	1109	-	-	-	-	-
Follow-up Headway	3.5	3.3	-	-	2.2	-
Pot Capacity-1 Maneuver	35	190	-	-	518	-
Stage 1	248	-	-	-	-	-
Stage 2	318	-	-	-	-	-
Time blocked-Platoon, %	-	-	-	-	-	-
Mov Capacity-1 Maneuver	34	190	-	-	518	-
Mov Capacity-2 Maneuver	34	-	-	-	-	-
Stage 1	248	-	-	-	-	-
Stage 2	305	-	-	-	-	-
Approach	WB	WBR	NB	NBR	SB	SBT
HCM Control Delay, s	85.9	-	0	-	0.2	-
HCM LOS	F	-	-	-	-	-
Minor Lane / Major Mvmt	NBT	NBR	WBL	SBL	SBT	
Capacity (veh/h)	-	-	93	518	-	-
HCM Lane V/C Ratio	-	-	0.57	0.04	-	-
HCM Control Delay (s)	-	-	85.9	12.238	-	-
HCM Lane LOS	-	-	F	B	-	-
HCM 95th %tile Q(veh)	-	-	2.613	0.124	-	-
Notes						
- Volume Exceeds Capacity; \$ - Delay Exceeds 300 Seconds; Error - Computation Not Defined						

HCM 2010 TWSC
 2: Proposed S/D Road & Ledge Road

7/1/2013

Intersection							
Intersection Delay, s/veh	0.6						
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Vol, veh/h	16	1	0	28	3	1	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	-	-	-	0	-	
Veh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	58	58	86	86	90	90	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	28	2	0	33	3	1	
Major/Minor	Major 1		Major 2		Minor		
Conflicting Flow All	0	0	29	0	61	28	
Stage 1	-	-	-	-	28	-	
Stage 2	-	-	-	-	33	-	
Follow-up Headway	-	-	2.218	-	3.518	3.318	
Pot Capacity-1 Maneuver	-	-	1584	-	945	1047	
Stage 1	-	-	-	-	995	-	
Stage 2	-	-	-	-	989	-	
Time blocked-Platoon, %	-	-	-	-	-	-	
Mov Capacity-1 Maneuver	-	-	1584	-	945	1047	
Mov Capacity-2 Maneuver	-	-	-	-	945	-	
Stage 1	-	-	-	-	995	-	
Stage 2	-	-	-	-	989	-	
Approach	EB		WB		NB		
HCM Control Delay, s	0		0		8.7		
HCM LOS					A		
Minor Lane / Major Mvmt	NBL	EBT	EBR	WBL	WBT		
Capacity (veh/h)	969	-	-	1584	-		
HCM Lane V/C Ratio	0.005	-	-	-	-		
HCM Control Delay (s)	8.7	-	-	0	-		
HCM Lane LOS	A	-	-	A	-		
HCM 95th %tile Q(veh)	0.014	-	-	0	-		
Notes	- Volume Exceeds Capacity; - Delay Exceeds 300 Seconds; Error - Computation Not Defined						

HCM 2010 TWSC
 2: Proposed S/D Road & Ledge Road

7/1/2013

Intersection							
Intersection Delay, s/veh	0.3						
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Vol. veh/h	39	3	1	33	2	0	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	-	-	-	0	-	
Veh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	83	83	66	66	90	90	
Heavy Vehicles, %	0	0	0	0	0	0	
Mvmt Flow	47	4	2	50	2	0	
Major/Minor	Major1		Major2		Minor1		
Conflicting Flow All	0	0	51	0	102	49	
Stage 1	-	-	-	-	49	-	
Stage 2	-	-	-	-	53	-	
Follow-up Headway	-	-	2.2	-	3.5	3.3	
Rot Capacity-1 Maneuver	-	-	1568	-	901	1025	
Stage 1	-	-	-	-	979	-	
Stage 2	-	-	-	-	975	-	
Time blocked-Platoon, %	-	-	-	-	-	-	
Mov Capacity-1 Maneuver	-	-	1568	-	900	1025	
Mov Capacity-2 Maneuver	-	-	-	-	900	-	
Stage 1	-	-	-	-	979	-	
Stage 2	-	-	-	-	974	-	
Approach	EB		WB		NB		
HCM Control Delay, s	0		0.2		9		
HCM LOS	-		-		A		
Minor Lane / Major Mvmt	NBL	EBT	EBR	WBL	WBT		
Capacity (veh/h)	900	-	-	1568	-		
HCM Lane V/C Ratio	0.002	-	-	0.001	-		
HCM Control Delay (s)	9	-	-	7.298	0		
HCM Lane LOS	A	-	-	A	A		
HCM 95th %ile Q(veh)	0.007	-	-	0.003	-		
Notes							
- Volume Exceeds Capacity; \$ - Delay Exceeds 300 Seconds; Error - Computation Not Defined							

HCM 2010 TWSC
3: Lindsay Street & Ledge Road

7/1/2013

Intersection

Intersection Delay, s/veh 4.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	9 ✓	8 ✓	36 ✓	19 ✓	6 ✓	7 ✓
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	58	58	78	78	69	69
Heavy Vehicles, %	13	0	0	0	0	0
Mvmt Flow	16	14	46	24	9	10

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	29	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Follow-up Headway	-	-	2.2	-
Pot Capacity-1 Maneuver	-	-	1597	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %	-	-	-	-
Mov Capacity-1 Maneuver	-	-	1597	-
Mov Capacity-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.8	8.9
HCM LOS			A

Minor Lane Major Mvmt	NBL1	EBT	EBR	WBL	WBT
Capacity (veh/h)	943	-	-	1597	-
HCM Lane V/C Ratio	0.02	-	-	0.029	-
HCM Control Delay (s)	8.9	-	-	7.321	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %ile Q(veh)	0.061	-	-	0.089	-

Notes
e - Volume Exceeds Capacity; \$ - Delay Exceeds 300 Seconds; Error - Computation Not Defined

HCM 2010 TWSC
3: Lindsay Street & Ledge Road

7/1/2013

Intersection

Intersection Delay, s/veh 4.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	22 ✓	13 ✓	14 ✓	10 ✓	22 ✓	18 ✓
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	79	79	73	73
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	27	16	18	13	30	25

Major/Minor	Major 1	Major 2	Minor 1	Minor 2
Conflicting Flow All	0	0	42	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Follow-up Headway	-	-	2.2	-
Pot Capacity-1 Maneuver	-	-	1580	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %	-	-	-	-
Mov Capacity-1 Maneuver	-	-	1580	-
Mov Capacity-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.3	8.9
HCM LOS			A

Minor Lane / Major Mvmt	NBL	EBT	EBR	WBL	WBT
Capacity (veh/h)	969	-	-	1580	-
HCM Lane V/C Ratio	0.057	-	-	0.011	-
HCM Control Delay (s)	8.9	-	-	7.304	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %ile Q(veh)	0.18	-	-	0.034	-

Notes
 - Volume Exceeds Capacity; S - Delay Exceeds 300 Seconds; Error - Computation Not Defined

Appendix F

Auxiliary Turn Lane Warrants Analysis

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

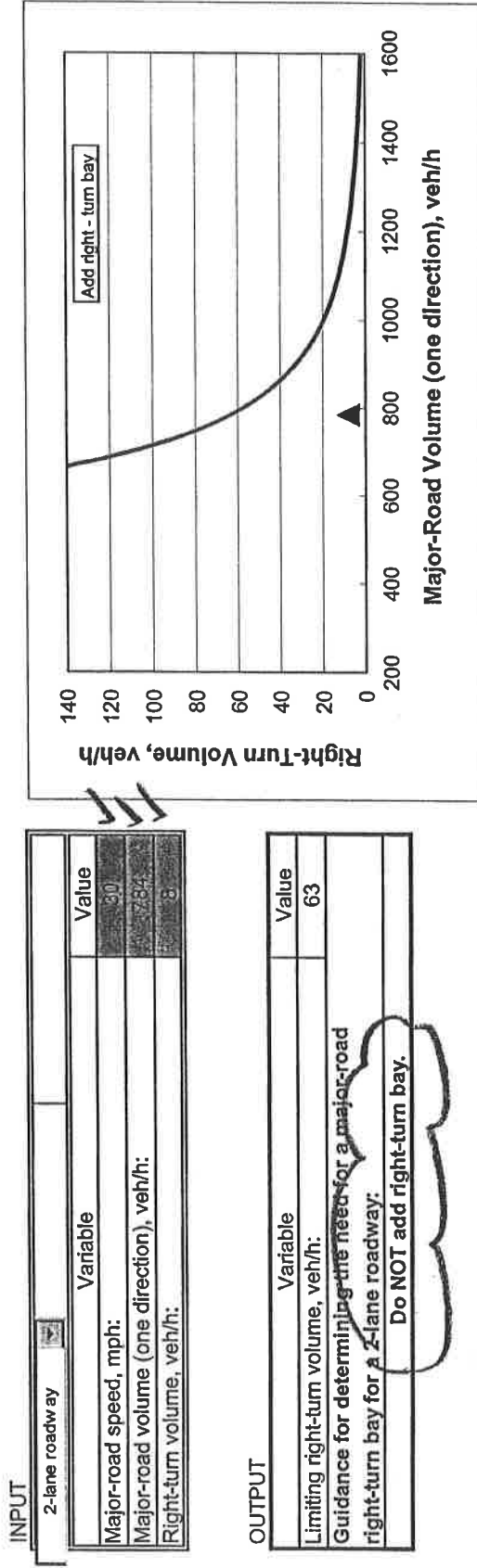


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

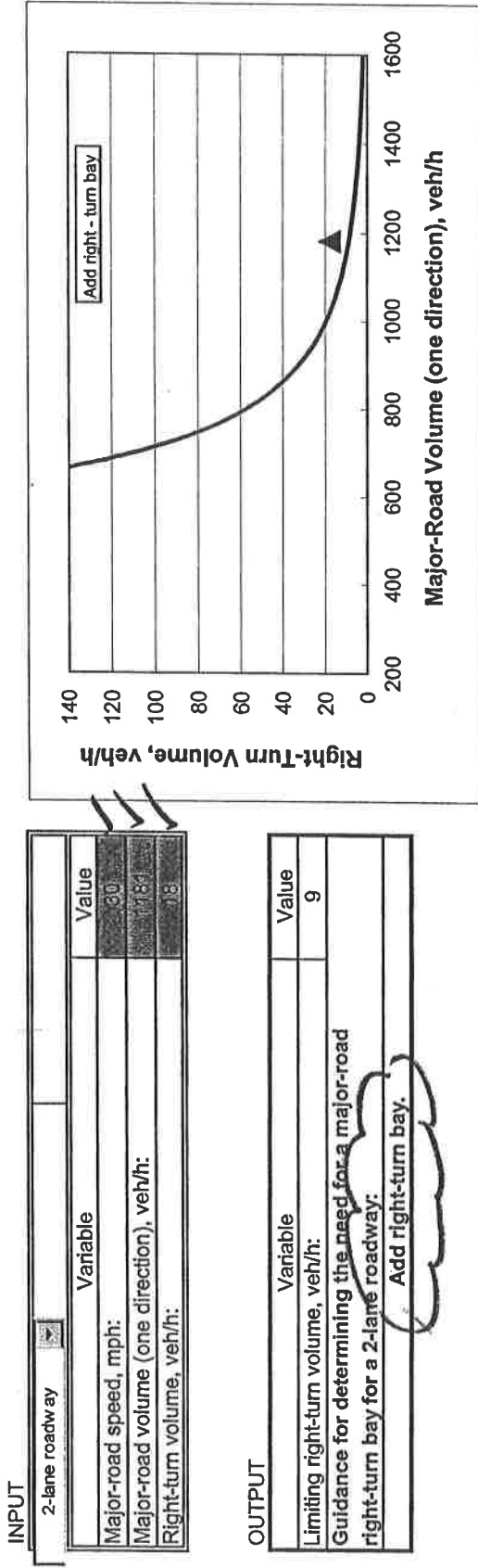


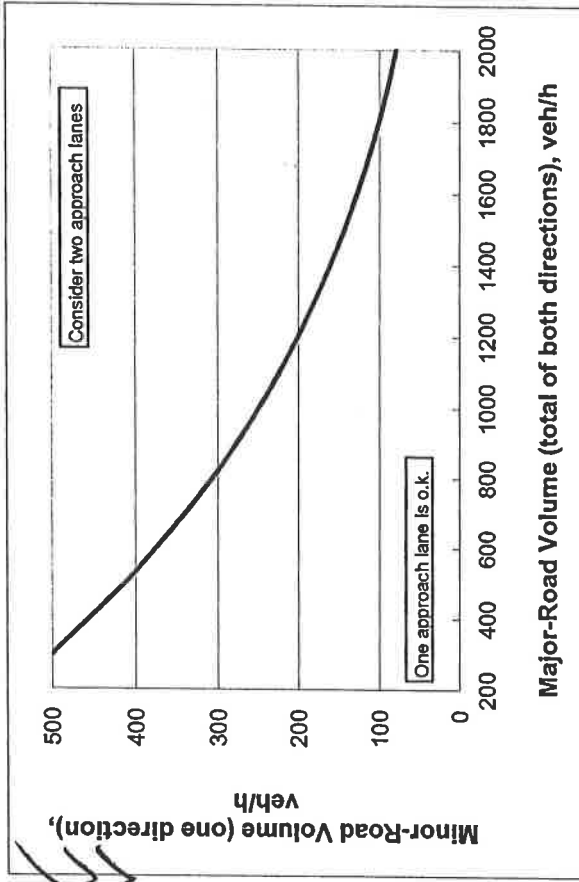
Figure 2 - 4. Guideline for determining minor-road approach geometry at two-way stop-controlled intersections.

INPUT

Variable	Value
Major-road volume (total of both directions), veh/h:	21121
Percentage of right-turns on minor road, %:	68%
Minor-road volume (one direction), veh/h:	311

OUTPUT

Variable	Value
Limiting minor-road volume (one direction), veh/h:	68
Guidance for determining minor-road approach geometry:	ONE approach lane is o.k.



CALIBRATION CONSTANTS

Minor Road	Critical gap, s:	Follow-up gap, s:
Right-turn capacity, veh/h:	6.2	3.3
Left-turn and through capacity, veh/h:	6.5	1.0

* according to Table 17 - 5 of the HCM

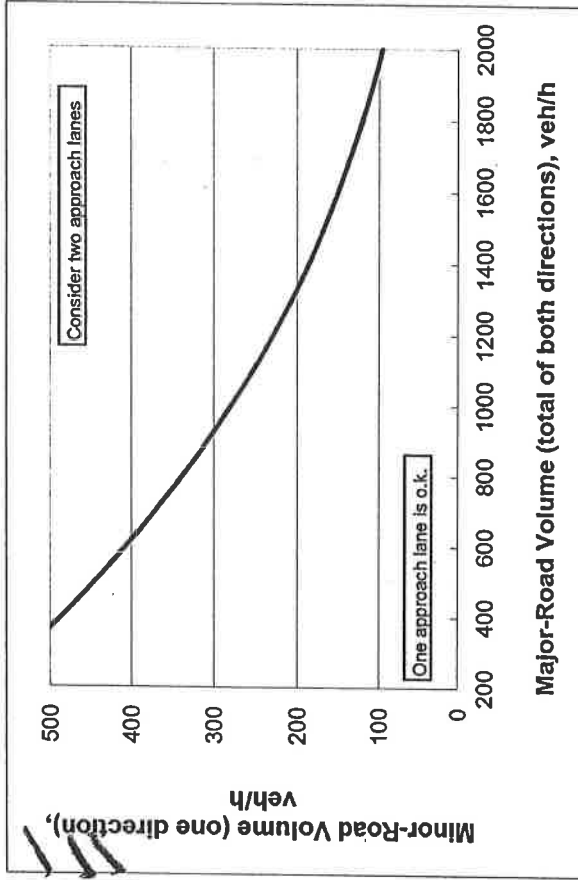
Figure 2 - 4. Guideline for determining minor-road approach geometry at two-way stop-controlled intersections.

INPUT

Variable	Value
Major-road volume (total of both directions), veh/h:	2575
Percentage of right-turns on minor road, %:	17%
Minor-road volume (one direction), veh/h:	35

OUTPUT

Variable	Value
Limiting minor-road volume (one direction), veh/h:	61
Guidance for determining minor-road approach geometry:	ONE approach lane is o.k.



CALIBRATION CONSTANTS

Minor Road	Critical gap, s:	Follow-up gap, s:
Right-turn capacity, veh/h:	6.7	8.3
Left-turn and through capacity, veh/h:	6.5	7.1

* according to Table 17 - 5 of the HCM

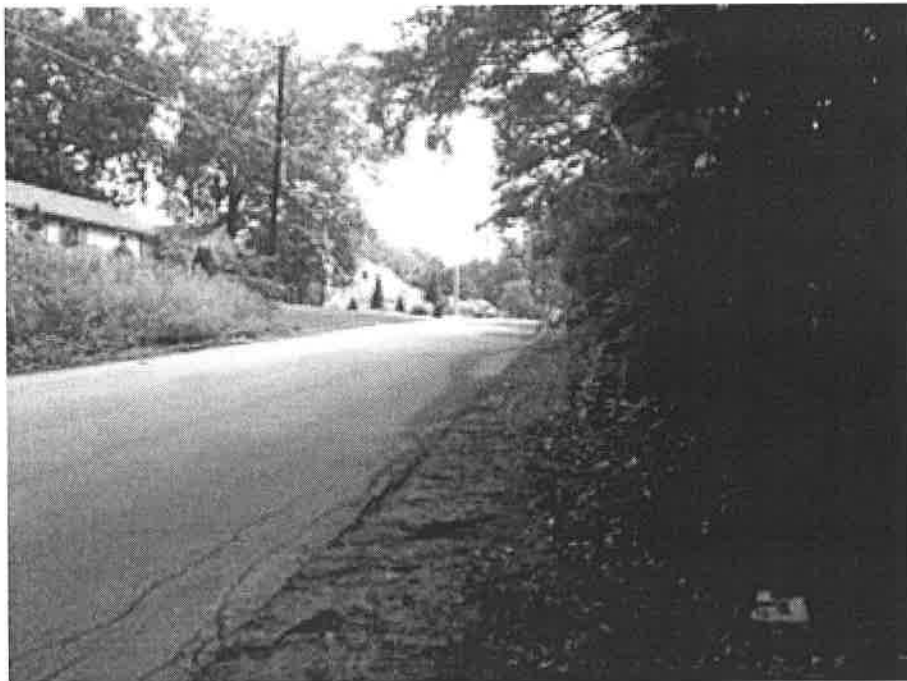
Appendix G

Sight Distance Photographs

Looking Left



Looking Right



NORTH



1480A

Attachment

Sight Distance Photographs - Ledge Road / Proposed Nellie Court

Traffic Evaluation, Proposed Residential Subdivision, Hudson, New Hampshire

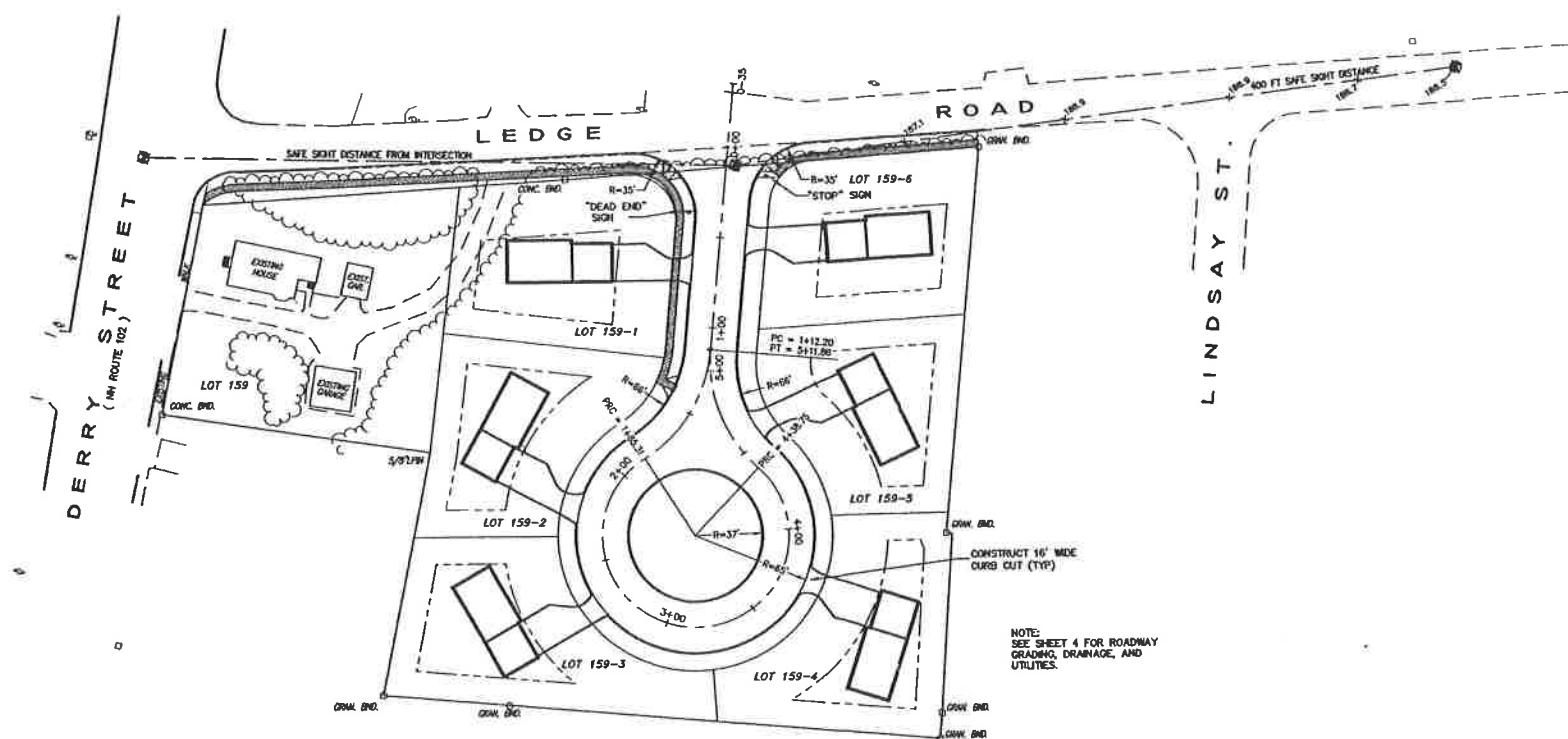
Looking Left



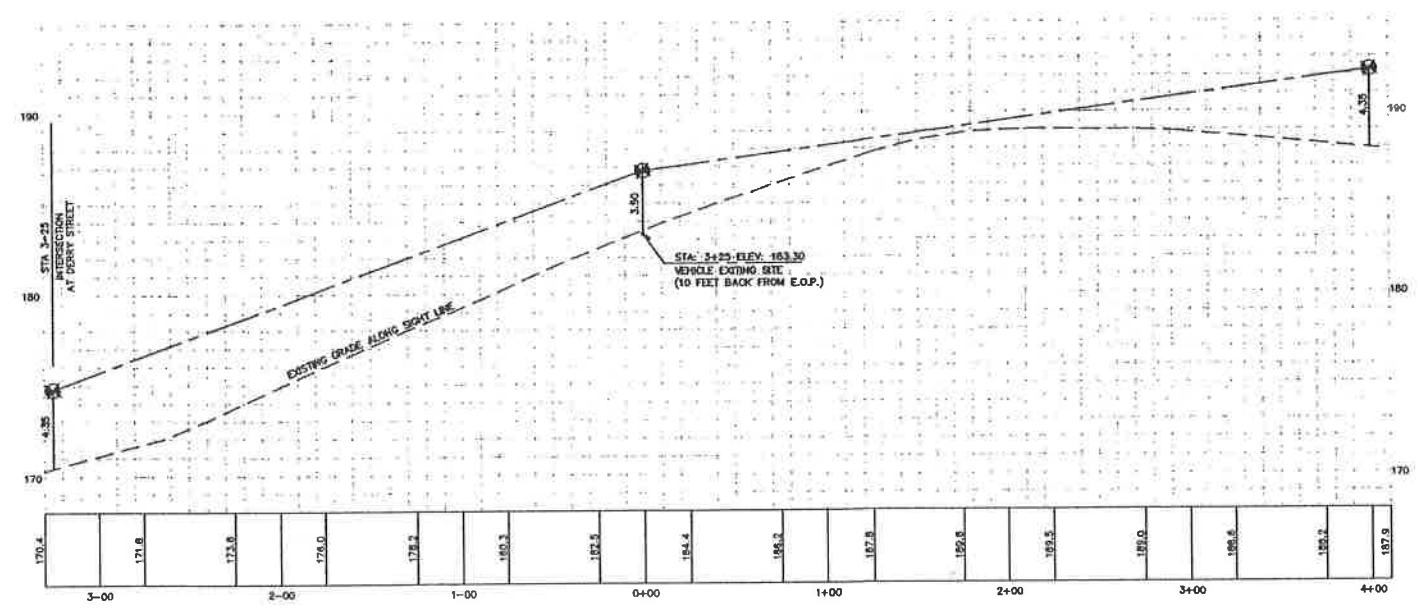
Looking Right



"B"



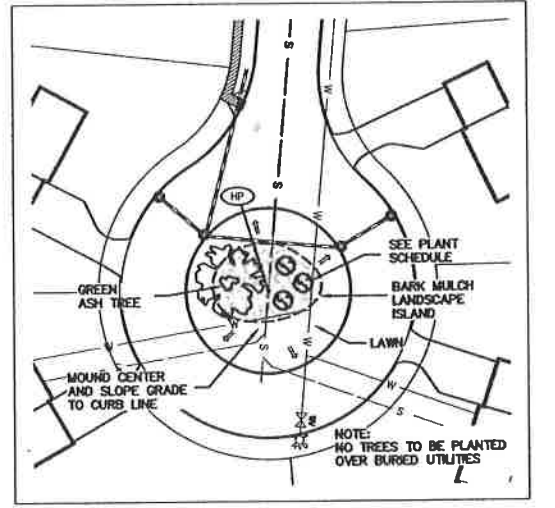
PLAN



SIGHT DISTANCE PROFILE

COMMON NAME	SCIENTIFIC NAME	SIZE	QTY
WINTERBERRY	ILEX VERTICILLATE 'SPARKLEBERRY'	3-4' B+B	1
ARROWWOOD VIBURNUM	VIBURNUM DENTATUM	4-5' B+B	2

PLANT SCHEDULE



CUL-DE-SAC LANDSCAPE DETAIL

SCALE: 1"=40'

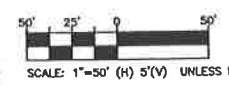
No.	DESCRIPTION	DATE
1.	REVISIONS PER TOWN REVIEW	06/14/2013
2.	REVISE SIGHT LINE PROFILE	04/27/2013

ROADWAY GENERAL PLAN

MAP 165, LOT 159
63 DERRY STREET - NH ROUTE 102
HUDSON, NEW HAMPSHIRE

OWNED BY:
THE NELLIE D. LINDSAY REV. TRUST
OF SEPTEMBER 23, 1999
NELLIE D. LINDSAY, TRUSTEE

DATE: APRIL 5, 2013



SCALE: 1"=50' (H) 5'(V) UNLESS NOTED

PREPARED BY:
RJB ENGINEERING, LLC
15 PLEASANT ST, SUITE 5
CONCORD, NH 03301
PH. 603-219-0194

IN ASSOCIATION WITH:
JOSEPH M. WICHERT, LLS, INC.
802 AMHERST STREET
MANCHESTER, NH 03104
PH. 603-647-4282

Nashua Subaru Lot Line Relocation (LLR)

Staff Report

July 10, 2013

SITE: 193 Lowell Road -- Map 216/Lots 11 & 13 -- SB# 05-13

ZONING: Business

PURPOSE OF PLAN: to adjust lot line to separate current Nashua Subaru dealership (193 Lowell Road) from the existing commercial/retail building at 199 Lowell Road and merge this latter property with the south abutting parcel having a street address of 201 Lowell Road, Map 216/Lot 11. Application Acceptance & Hearing.

PLAN UNDER REVIEW ENTITLED: "Lot Line Relocation Plat Map 216 Lot 013 193 Lowell Road, Hudson, NH, prepared by Promised Land Survey, LLC 230 Rockingham Rd., Derry, NH 03038 dated: June 11, 2013 (no revisions), consisting of Sheet 1 of 1 and Notes 1 - 7 (said plan is attached hereto).

ATTACHMENTS:

- 1) Lot Line Relocation Plan application, date stamped 06/17/13, including a Conceptual Site Plan (entitled: Site Vicinity Plan Service Credit Union) for proposed Lot 011 and aerial photo of locus - Attachment "A".
- 2) Comment Reports from Zoning, Assessing and Highway - "B".
- 3) Subaru of Nashua Site Plan-of-Record HCRD# 31512 - "C".
- 4) Subaru of Nashua Development Agreement - "D".

REQUESTED WAIVER:

- HTC 275-8(25) - Parking and Driveway with Setbacks

APPLICATION TRACKING:

1. This application was submitted on June 17, 2013.
2. Initial Public Hearing scheduled for July 10, 2013.

OUTSTANDING ISSUES & RECOMMENDED ACTION:

1. Although a Conceptual Site Plan (attached plan entitled: Site Vicinity Plan Service Credit Union, dated 5/6/2103) is included as an attachment to the LLR Plan, the applicant, at this time, is only requesting that the board take action on the LLR Plan. In other words, the Conceptual Site Plan is included for pre-conceptual purposes only and should not be considered by the board as up for Conceptual Site Plan Review. In effect, this application represents a not so simple lot line relocation; in that, it involves subdividing a parcel containing two buildings (the Subaru of Nashua building and the adjoining commercial/retail building at 199 Lowell Road) and one approved site plan - Subaru of Nashua HCRD# 31512 - "C".

As proposed in the attached LLR Plan, the existing commercial/retail building and its delineated parcel area will be merged with the abutting parcel to the south (Lot 011),

presently containing an unoccupied ranch-style house owned by the LLR Plan applicant. This new lot, Map 216/Lot 011, will contain 89,660 sf. As cited by the applicant, and as depicted on the attached Conceptual Site Plan, the LLR Plan, if approved, will provide the applicant with the lot configuration necessary to progress his plans to develop said Lot 011 into a two-unit retail complex, plus the existing commercial/retail building. Access to Lot 011, will be provided via a right-in/right-out driveway on Lowell Rd. and a full access driveway off Hampshire Drive. In addition, the existing Subaru dealership driveway off Lowell Rd. will provide another means of access exclusive to the dealership and emergency access for municipal police and fire emergency services.

In addition to the above description of what is involved with this LLR Plan application, when the applicant submits the new Site Plan application for Lot 011, he will also have to submit a revised Site Plan for the Subaru of Nashua parcel, Map 216/Lot 013, together with an amended Development Agreement. Please note, the attached Subaru of Nashua Site Plan-of-Record "C", includes all of the pertinent notes of approval and the Development Agreement-of-Record, further depicts the existing conditions of approval for Subaru of Nashua.

2. The following easements are shown on the LLR Plan:
 - a) Temporary Access Easement of various widths (i.e., 25' – 50') – for benefit of vehicle movement to and from proposed Lot 011 over Lot 013 to Lowell Rd.
 - b) Permanent 15' Vehicular Turning Easement for benefit of vehicle movement pertaining to Lot 013 over Lot 011.
 - c) Existing 10' and 20' Sewer Easements (HCRD#13870 and 31513 respectively) to remain.
3. Although the application includes a lot area chart, one is not inscribed on the LLR Plan. If the board chooses, endorsement of this plan can be conditioned, per the inclusion of a Hall Chart being inscribed on the LLR Plan.

DRAFT MOTIONS:

I move to accept the LLR Plan application for 193 Lowell Road -- Map 216/Lots 11 & 13.

Motion by: _____ Second: _____ Carried/Failed: _____.

REQUESTED WAIVER:

- HTC 275-8(25) – Parking and Driveway with Setbacks

I move to grant the requested waiver HTC 275-8(25) – Parking and Driveway with Setbacks - because the existing parking lot and driveway configuration between the abutting lot areas of Lots 011 and 013 provide the only means of vehicular access and maneuverability between these lots, leading to the only means of street access, as such, the granting of this waiver is not contrary to the spirit and intent of the Site Plan regulations.

Motion by: _____ Second: _____ Carried/Failed: _____.

MOTION TO APPROVE:

I move to approve the Lot Line Relocation Plan entitled: "Lot Line Relocation Plat Map 216 Lot 013 193 Lowell Road, Hudson, NH, prepared by Promised Land Survey, LLC 230 Rockingham Rd., Derry, NH 03038 dated: June 11, 2013 (no revisions), consisting of Sheet 1 of 1 and Notes 1 - ~~6~~, in accordance with the following terms and conditions: 7

1. All stipulations of approval shall be incorporated into the Decision of Approval, which shall be recorded at the HCRD, together with the Plan.
 2. All monumentation shall be set or bonded prior to the Planning Board endorsing the Plan-of-Record.
 3. Prior to Planning Board endorsement of the Plan-fo-Record, Town Counsel shall favorably recommend on:
 - a) The Temporary Access Easement for benefit of vehicle movement to and from proposed Lot 011 over Lot 013 to Lowell Rd.
 - b) The 15' Vehicular Turning Easement for benefit of vehicle movement pertaining to Lot 013 over Lot 011.
 4. Prior to Planning Board endorsement of the Plan, a Hall Chart shall be inscribed on the Plan, depicting the lot areas for each of the lots.
- 1.

Motion by: _____ Second: _____ Carried/Failed: _____.

NOTE: Any stipulation relative to amending the existing Subaru of Nashua Site Plan-or-Record and Development Agreement could be handled either prior to the Site Plan application being submitted for Lot 011 or simultaneous to the Site Plan application for said lot.

"A"

June 14, 2013

**DANATO REALTY TRUST
 PROJECT NARRATIVE**



Lot Line Relocation
 Tax Map 216, Lots 11 & 13

Danato Realty Trust proposes lot line relocation between lots 11 and 13 on tax map 216.

This lot line relocation will effectively separate two commercial buildings which currently exist on lot 13. Those two buildings house two separate commercial entities – Subaru of Nashua at 193 Lowell Road and Advanced Pool and Spa at 199 Lowell Road.

With the lot line relocation, the Subaru of Nashua building at 193 Lowell Road will be isolated on one lot as a single tenant; the building at 199 Lowell Road will be incorporated into the existing lot at 201 Lowell Road (lot 13). Note that a vacant and dilapidated residential home exists on lot 13. That home will be razed at a future date.

The statistics for the two lots, prior to and after the lot line relocation are listed below

	Lot 11		Lot 13	
	Before	After	Before	After
Area	54,771	89,660	205,242	170,353
Buildings	1	2	2	1
Parking Spaces	0	38	99	61
Impervious surface (sf)	3135	29390	118584	92329
Open Space (%)	94.4%	67.2%	42.2%	45.8%



LOT LINE RELOCATION APPLICATION FOR REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE

Date of Application: June 17, 2013 Tax Map # 216 Lot # 11 & 13

Name of Project: Danato Lot Line Relocation

Zoning District: Business (B) General SB# 05-13
(For Town Use) (For Town Use)

Z.B.A. Action: _____

PROPERTY OWNER:

DEVELOPER:

Name: Danato Realty Trust

same

Address: 193 Lowell Road

Address: Hudson NH 03051

Telephone # (603) 365-1591

Fax # _____

Email: danielenxing@verizon.net

PROJECT ENGINEER

Name: SFC Engineering Partnership

Telephone # (603) 647-8700

Address: 66 Gold Ledge Drive

Fax # (603) 647-8711

Address: Auburn NH 03032

Email: gfredette@sfceng.com

PURPOSE OF PLAN:

to adjust lot line to separate current Subaru dealership (198 Lowell Road) from existing commercial / retail building at 199 Lowell Road

(FOR TOWN USE)

Plan Routing Date: 6-24-13 Sub/Site Date: 7-10-13

_____ I have no comments _____ I have comments (attach to form)

_____ Title: _____ Date: _____

(Initials)

Department:

_____ Zoning _____ Engineering _____ Assessor _____ Police _____ Fire _____ Planning

_____ Consultant _____ Highway Department

Fees Paid _____

LOT LINE RELOCATION DATA SHEET

Plan Name: Lot Line Relocation for Danato Realty Trust

Plan Type: Lot Line Relocation Plan

Legal Description: Map 216 Lot 11

 Map 216 Lot 13

Date: June 14, 2013

Location:	<u>201 and 193 Lowell Road</u>	
Total Area:	S.F. <u>260,097 +/-</u>	Acres: <u>5.971</u>
Area in Wetlands:	<u>7700 sf +/-</u>	
Zoning:	<u>Business</u>	
Lots Not Meeting Required Dimensions:	<u>none</u>	
Required Area:	<u>30,000 sf</u>	
Required Frontage:	<u>150 lf</u>	
Water and Waste System Proposed:	<u>both facilities are currently serviced by municipal systems</u>	
Number of Lots With Existing Buildings:	<u>2</u>	
Existing Buildings To Be Removed:	<u>none</u>	
Flood Zone Reference:	<u>Firm panel #33011C0656D effective date 9/25/09</u>	
Proposed Linear Feet Of New Roadway:	<u>0</u>	

LOT LINE RELOCATION DATA SHEET

Dates/Case #/Description:

Stipulations of ZBA,
(Attach Copies of Stipulations on
Separate Sheet)

NH Wetlands Board Action:

none

Conservation Commission Recommendation:

none

List Permits Required:

Subdivision approval

**APPLICATION FOR LOT LINE RELOCATION
TOWN OF HUDSON, NEW HAMPSHIRE**

I hereby apply for Lot Line Relocation Plan Review and acknowledge I will comply with all of the Ordinances of the Town of Hudson, New Hampshire State Laws, as well as any stipulations of the Planning Board, in development and construction of this project. I understand that if any of the items listed under the Lot Line Relocation Plan specifications or application form are incomplete, the application will be considered rejected.

Pursuant to RSA 674:1-IV, the owner(s), by the filing of this application as indicated above, hereby give permission for any member of the Hudson Planning Board, the Town Engineer, the Conservation Commission and such agents or employees of the Town or other persons as the Planning Board may authorize, to enter upon the property which is the subject of this application at all reasonable times for the purpose of such examinations, surveys, tests and inspections as may be appropriate. The owner(s) release(s) any claim or right he/she (they) may now or hereafter possess against any of the above individuals as a result of any examinations, surveys, tests and inspections conducted on his/her (their) property in connection with this applications.

Signature of Owner: _____

Don Young Trustee

- ❖ If other than an individual, indicate name of organization and its principal owner, partners, or corporate officers.

Signature of Developer: _____

Don Young Trustee

- ❖ The developer/individual in charge must have control over all project work and be available to the Code Enforcement Officer/Building Inspector during the construction phase of the project. The individual in charge of the project must notify the Code Enforcement Officer/Building Inspector within two (2) working days of any change.

Technical Review Signature: _____

Planner Approval Signature: _____

[Handwritten Signature]

APPLICATION IS DUE AT 10:00 A.M. Tuesday the week prior to the Planning Board Meeting. Any applications/materials received after that time will be deferred until the next available meeting.

LOT LINE RELOCATION WAIVER REQUEST FORM

Name of the Lot Line Relocation Plan: Danato Lot Line Relocation

Street Address: 193 & 201 Lowell Road

I Daniel Enxing, trustee of Danato Realty Trust hereby request that the Planning Board waive the requirements of item 275-8 (25) of the Lot Line Relocation Plan

Checklist in reference to a plan presented by Promised Land Survey (Derry) and SFC Engineering Partnership (Auburn) (name of surveyor and engineer) dated 6/14/13

for property tax map(s) 216 and lot(s) 11 & 13 in the Town of Hudson, NH.

As the aforementioned applicant, I, herein, acknowledge that this waiver is requested in accordance with the provisions set forth in RSA 674:36, II (n), i.e., without the Planning Board granting said waiver, it would pose an unnecessary hardship upon me (the applicant), and the granting of this waiver would not be contrary to the spirit and intent of the Subdivision/Site Plan regulations.

Hardship reason(s) for granting this waiver (if additional space is needed please attach the appropriate documentation hereto):

Existing configuration of parking requires that paved surface be within area between side lot line and setback line for vehicular maneuvering. Also, facility at 199 Lowell Road would be rendered without access to a public highway without interior paved connection.

Reason(s) for granting this waiver, relative to not being contrary to the Spirit and Intent of the Subdivision/Site Plan regulations: (if additional space is needed please attach the appropriate documentation hereto):

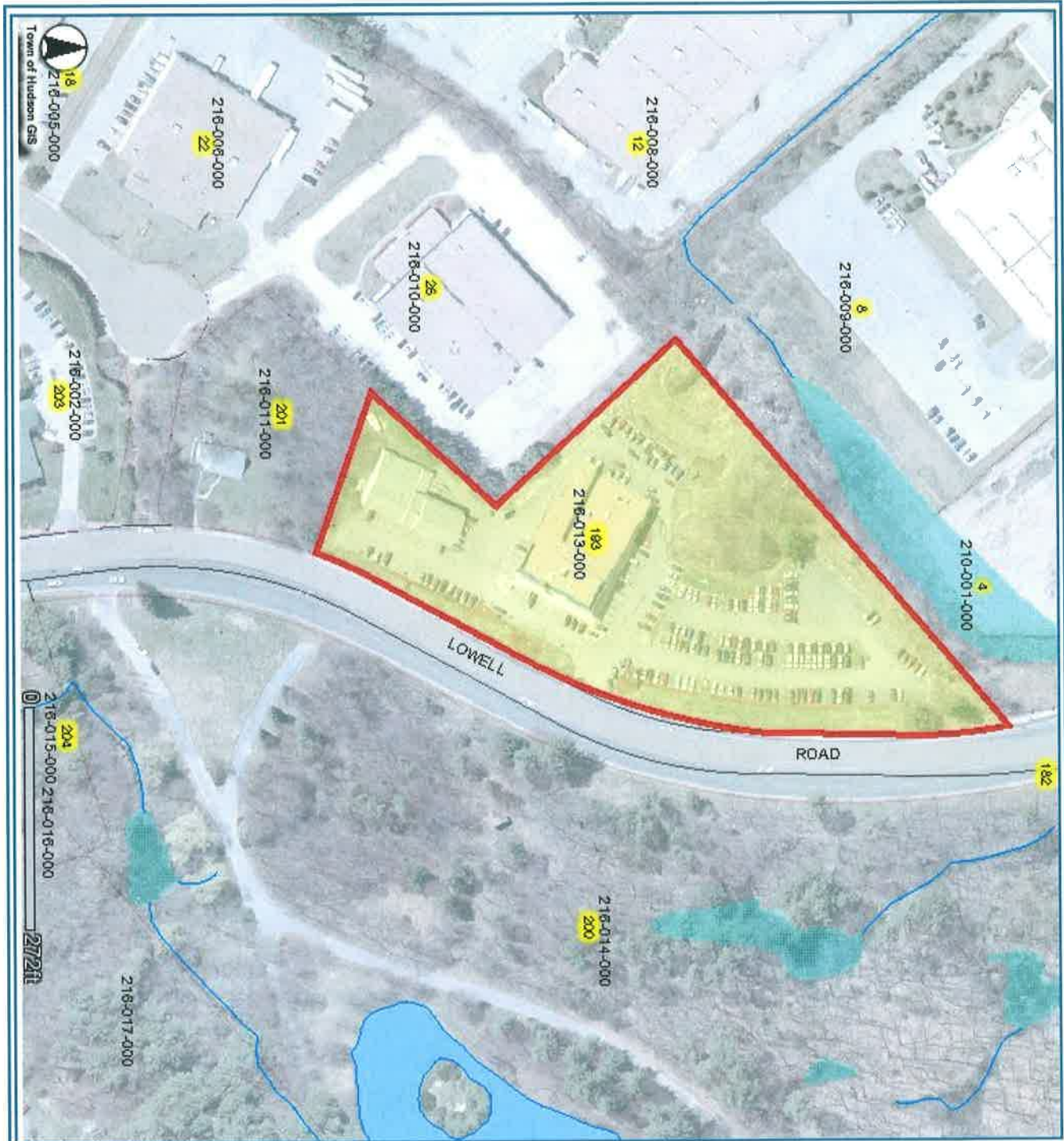
Provisions of Code 275-8 (25) provides for allowance of "parking or travelways... where shared access is required".

Signed: 
Applicant or Authorized Agent

Planning Board Action:

Waiver Granted _____

Waiver Not Granted _____



Town of Hudson New Hampshire

Geographic Information System

GIS Map Print
My Map

Subject Property Data

Parcel ID	216-013-000
Owner	DAMATO REALTY TRUST
Location	193 LOWELL RD
AccountNumber	1145
Co-Owner	ENXING, DANIEL J., TRUSTEE
Owner Addr	193 LOWELL ROAD
Owner CSZ	HUDSON, NH 03051-4899
Land Value	1116390
Yard Value	89900
Building Value	1309700
Total Value	2506900
Acreage	4.712
Zone1	BD
Use Code	330
Year Built	2002
Building Style	AUTO DEALSHIP
Bedrooms	0
Fuel Type	GAS
Sale Date	11/8/2001
Sale Price	1400000
Book/Page	6520-2918

Disclaimer
The Town of Hudson makes no warranty or representation as to the accuracy, timeliness or completeness of any of the data. The Town of Hudson shall have no liability for the data or lack thereof, or any decision made or action taken or not taken in reliance upon any of the data.

"B"



LOT LINE RELOCATION APPLICATION FOR REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE

Date of Application: June 17, 2013 Tax Map # 216 Lot # 11 & 13

Name of Project: Danato Lot Line Relocation

Zoning District: Business (B) General SB# 05-13
(For Town Use) (For Town Use)

Z.B.A. Action: _____

PROPERTY OWNER:

Name: Danato Realty Trust
Address: 193 Lowell Road
Address: Hudson NH 03051
Telephone # (603) 365-1591
Fax # _____
Email: danielenxing@verizon.net

DEVELOPER:

same

PROJECT ENGINEER

Name: SFC Engineering Partnership
Address: 66 Gold Ledge Drive
Address: Auburn NH 03032

Telephone # (603) 647-8700
Fax # (603) 647-8711
Email: gfredette@sfceng.com

PURPOSE OF PLAN:

to adjust lot line to separate current Subaru dealership (198 Lowell Road) from existing commercial / retail building at 199 Lowell Road

(FOR TOWN USE) PA mtg

Plan Routing Date: 6-24-13 Sub/Site Date: 7-10-13

I have no comments I have comments (attach to form)

WAV Title: Z.A Date: 6-25-13
(Initials)

Department:

Zoning Engineering Assessor Police Fire Planning
 Consultant Highway Department

Fees Paid _____



COMMUNITY DEVELOPMENT DEPARTMENT

12 School Street
Hudson, NH 03051
(603)886-6005
www.hudsonnh.gov



Town of Hudson

REQUEST FOR ZONING and/or PLANNING INFORMATION / DETERMINATION

Date of request 06/17/2013

Property Location 201 & 193 Lowell Road

Map 216 Lot 13

Zoning District if known Business

Type of Request

- Zoning District Determination
- Use Determination
- Set-Back Requirements
- Process for Subdivision/ Site Plan if required
- Other

Description of request / determination: (Please attach all relevant documentation)

This request is for a lot line relocation between lots 11 and 13 on tax map 216.

The lot line will effectively separate two commercial buildings which currently exist on lot 13. Those two buildings house two separate commercial entities -Subaru of Nashua at 193 Lowell Road and Advanced Pool and Spa at 199 Lowell Road.

With the lot line relocation, the Subaru of Nashua building at 193 Lowell Road will be isolated on one lot as a single tenant.

Applicant Contact Information:

Name: Danato Realty Trust
Address: 193 Lowell Road, Hudson NH
Phone Number: (603) 365-1591

For Office use

ATTACHMENTS: TAX CARD GIS

NOTES: _____

ZONING DETERMINATION LETTER SENT DATE: _____



LOT LINE RELOCATION APPLICATION FOR REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE

Date of Application: June 17, 2013 Tax Map # 216 Lot # 11 & 13

Name of Project: Danato Lot Line Relocation

Zoning District: Business (B) General SB# 05-13
(For Town Use) (For Town Use)

Z.B.A. Action: _____

PROPERTY OWNER:

Name: Danato Realty Trust
Address: 193 Lowell Road
Address: Hudson NH 03051
Telephone # (603) 365-1591
Fax # _____
Email: danielenxing@verizon.net

DEVELOPER:

same

PROJECT ENGINEER

Name: SFC Engineering Partnership
Address: 66 Gold Ledge Drive
Address: Auburn NH 03032

Telephone # (603) 647-8700
Fax # (603) 647-8711
Email: gfredette@sfceng.com

PURPOSE OF PLAN:

to adjust lot line to separate current Subaru dealership (198 Lowell Road) from existing commercial / retail building at 199 Lowell Road

(FOR TOWN USE)

Plan Routing Date: 6-24-13 Sub/Site Date: 7-10-13

I have no comments I have comments (attach to form)
Title: Asst. Assessor Date: 6-24-13
(Initials)

Department:

Zoning Engineering Assessor Police Fire Planning
 Consultant Highway Department

Fees Paid _____



LOT LINE RELOCATION APPLICATION FOR REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE

Date of Application: June 17, 2013 Tax Map # 216 Lot # 11 & 13

Name of Project: Danato Lot Line Relocation (Subaru)

Zoning District: Business (B) General SB# 05-13
(For Town Use) (For Town Use)

Z.B.A. Action: _____

PROPERTY OWNER:

Name: Danato Realty Trust
Address: 193 Lowell Road
Address: Hudson NH 03051
Telephone # (603) 365-1591
Fax # _____
Email: danielenxing@verizon.net

DEVELOPER:

same

PROJECT ENGINEER

Name: SFC Engineering Partnership
Address: 66 Gold Ledge Drive
Address: Auburn NH 03032

Telephone # (603) 647-8700
Fax # (603) 647-8711
Email: gfredette@sfceng.com

PURPOSE OF PLAN:

to adjust lot line to separate current Subaru dealership (198 Lowell Road) from existing commercial / retail building at 199 Lowell Road

(FOR TOWN USE) PA mts

Plan Routing Date: 6-24-13 Sub/Site Date: 7-10-13

I have no comments I have comments (attach to form)

RS Title: Rom meet Date: 6/26/13
(Initials)

Department:

Zoning Engineering Assessor Police Fire Planning
 Consultant Highway Department

Fees Paid _____



APPLICATION LLR PLAN

NOTES

- THE PURPOSE OF THIS PLAT IS TO RELOCATE THE PROPERTY LINE BETWEEN TAX MAP 216 LOTS 011 AND 013 AND TO CREATE A TEMPORARY ACCESS EASEMENT THROUGH LOT 13 AND A PERMANENT VEHICULAR TURNING EASEMENT ALONG THE RELOCATED LOT LINE.
- ZONING DISTRICT: B - BUSINESS DISTRICT
MINIMUM LOT REQUIRED: 30,000 SQ. FT. (WITH PUBLIC WATER AND SEWER)
MINIMUM FRONTAGE REQUIRED: 150 FEET
BUILDING SETBACKS:
FRONT: 50 FEET
SIDE: 15 FEET
REAR: 15 FEET
- THIS PLAN DEPICTS FIELD EVIDENCE AND RECORD EVIDENCE AS LAST OBSERVED MAY OF 2013.
- THIS PARCEL OF LAND (MAP 216 LOT 013) DOES NOT LIE IN A 100-YEAR FLOOD PLAIN AS INTERPOLATED FROM DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT, TOWN OF DERRY, FLOOD HAZARD BOUNDARY MAP #3301100696D; MAP REVISED 09/25/2009.
- THIS PLAT IS INTENDED TO BE RECORDED AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS AND WILL BE ON RECORD AT THE TOWN OF HUDSON, NH PLANNING DEPT.
- THE HORIZONTAL DATUM FOR THIS PLAN IS REFERENCED TO NORTH AMERICAN DATUM (NAD83).
- THIS LOT LINE RELOCATION REQUIRES A WAIVER OF SECTION 275-B(25) OF THE HUDSON SITE PLAN REVIEW REGULATIONS TO ALLOW EXISTING PARKING AREA WITHIN THE AREA BETWEEN THE SIDE LOT LINE AND THE CORRESPONDING SETBACK LINE.

PLANS OF REFERENCE

- "CONSOLIDATION AND SUBDIVISION PLAN LOWELL ROAD, NH FOR G.O. NASH AND S. TAMPOSI 40 TEMPLE STREET-NASHUA, NH"; SEE HORD PLAN #13870.
- "EXISTING CONDITIONS ASSESSORS MAP 10 - LOTS 10 & 11-3; 193 & 199 LOWELL ROAD HUDSON, NEW HAMPSHIRE"; PREPARED FOR SUGARU OF NASHUA 107 D W HIGHWAY NASHUA, NEW HAMPSHIRE, 03060; PREPARED BY MWF DESIGN CONSULTANTS; SEE HORD PLAN #31513.

ABUTTERS

MAP 216 LOT 011
DANATO REALTY TRUST
ENXING, DANIEL J., TRUSTEE
193 LOWELL ROAD
HUDSON, NH 03051

MAP 216 LOT 002
MERRIMAC REAL ESTATE INV., LLC
203 LOWELL ROAD
HUDSON, NH 03051

MAP 216 LOTS 008, 006, & 009
NASH FAMILY INVESTMENT PROP.
91 AMHERST STREET
NASHUA, NH 03084

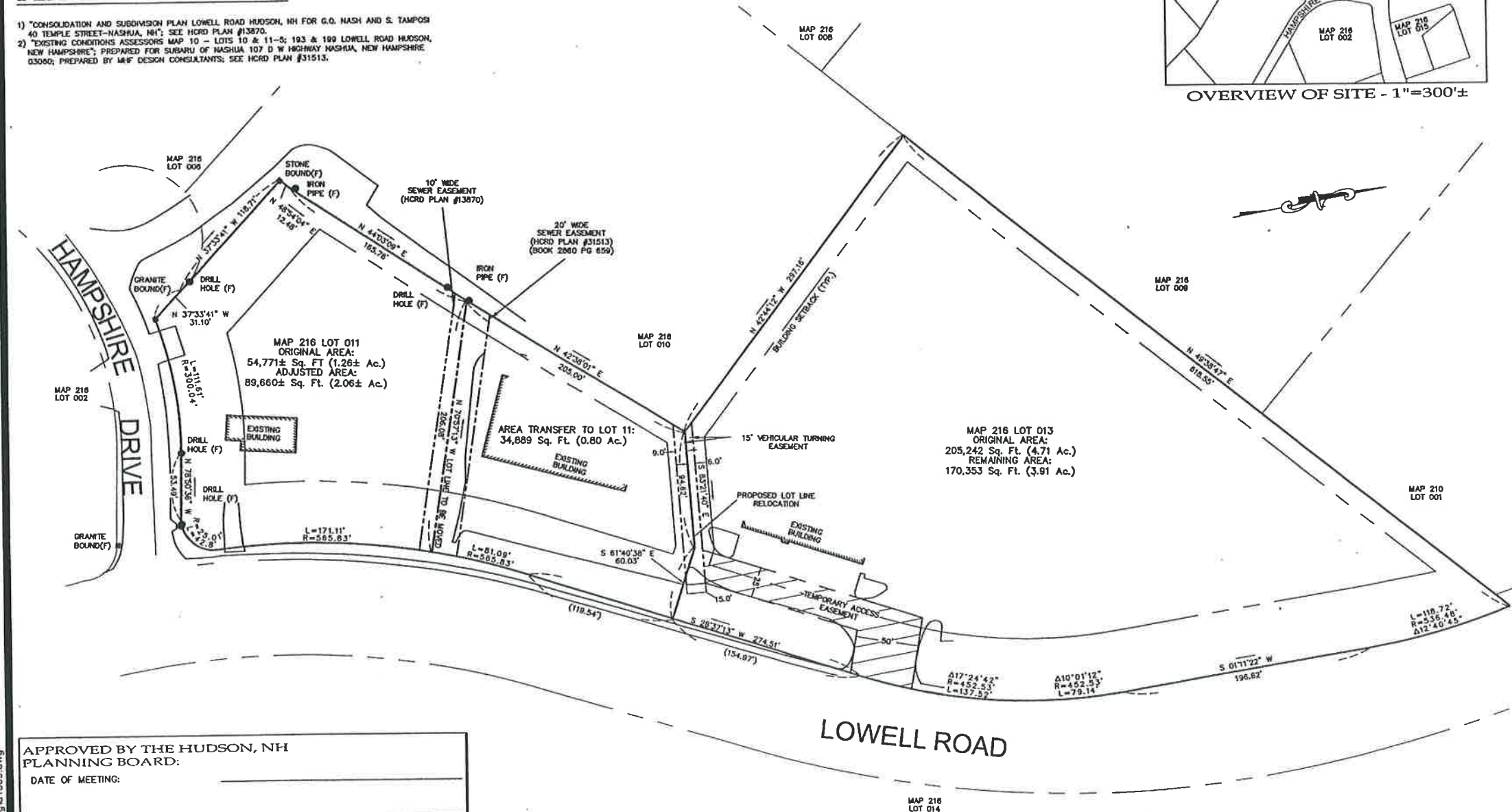
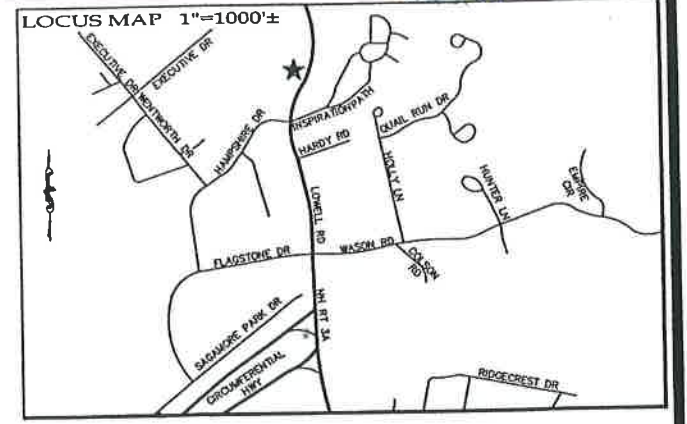
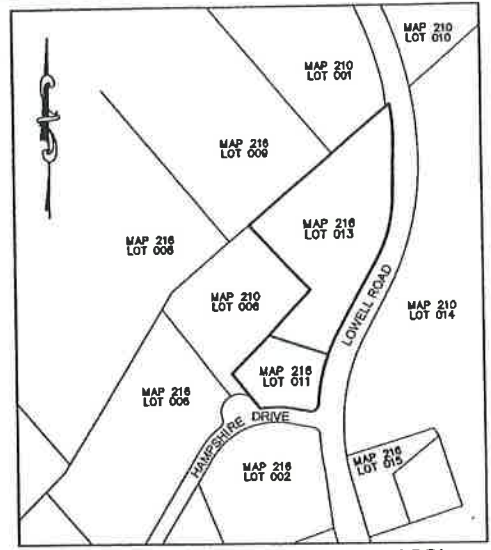
MAP 216 LOT 010
MICRONETICS WIRELESS, INC.
28 HAMPSHIRE DRIVE
HUDSON, NH 03051

MAP 216 LOT 014
ETCHSTONE PROPERTIES
179 AMHERST STREET
NASHUA, NH 03084

MAP 216 LOT 015
TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

ENGINEER:
SFC ENGINEERING PARTNERSHIP, INC.
ATTN: GEORGE FREDETTE, PE
98 GOLD LEDGE AVE
AUBURN, NH 03032

SURVEYOR:
PROMISED LAND SURVEY
230 ROCKINGHAM ROAD
DERRY, NH 03038



LAND SURVEYOR'S CERTIFICATION
I, TIMOTHY A. PELOQUIN, ILLS, HEREBY CERTIFY THAT THIS LOT LINE RELOCATION PLAT WAS PREPARED BY ME, AND/OR OTHERS UNDER MY DIRECT SUPERVISION AND THAT THE FIELD WORK PERFORMED IN THE PREPARATION OF THIS PLAT HAS A LINEAR ERROR OF CLOSURE NO GREATER THAN ONE FOOT IN TEN THOUSAND FEET.

TIMOTHY A. PELOQUIN, ILLS
DATE: 07-02-2013

LAND OWNER OF RECORD
DANATO REALTY TRUST
DANIEL J. ENXING, TRUSTEE
HILLSBOROUGH COUNTY REGISTRY OF DEEDS BOOK 6520 / PAGE 2918

SIGNATURE: *Daniel J. Enxing Trustee*
DATE: 7/2/2013

LOT LINE RELOCATION PLAT
MAP 216 LOT 013
193 LOWELL ROAD
HUDSON, NEW HAMPSHIRE
JUNE 11, 2013

PREPARED FOR:
DANATO REALTY TRUST
DANIEL J. ENXING, TRUSTEE
193 LOWELL ROAD
HUDSON, NH 03051

SCALE: 1"=50' SHEET 1 OF 1

PREPARED BY:

Promised Land Survey, LLC
230 Rockingham Road
Derry, New Hampshire 03038
Tel: (603) 432-2112 • Fax: (603) 432-8800
www.PromisedLandSurvey.com
Land Surveying • Mapping • Planning • Permitting • Layout

REVISIONS		
NO.	DATE	DESCRIPTION
1	07/02/2013	ADD NOTE 7 PER TOWN REVIEW

APPROVED BY THE HUDSON, NH PLANNING BOARD:

DATE OF MEETING: _____

CHAIRMAN	SIGNATURE	DATE
SECRETARY	SIGNATURE	DATE

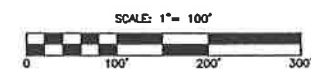
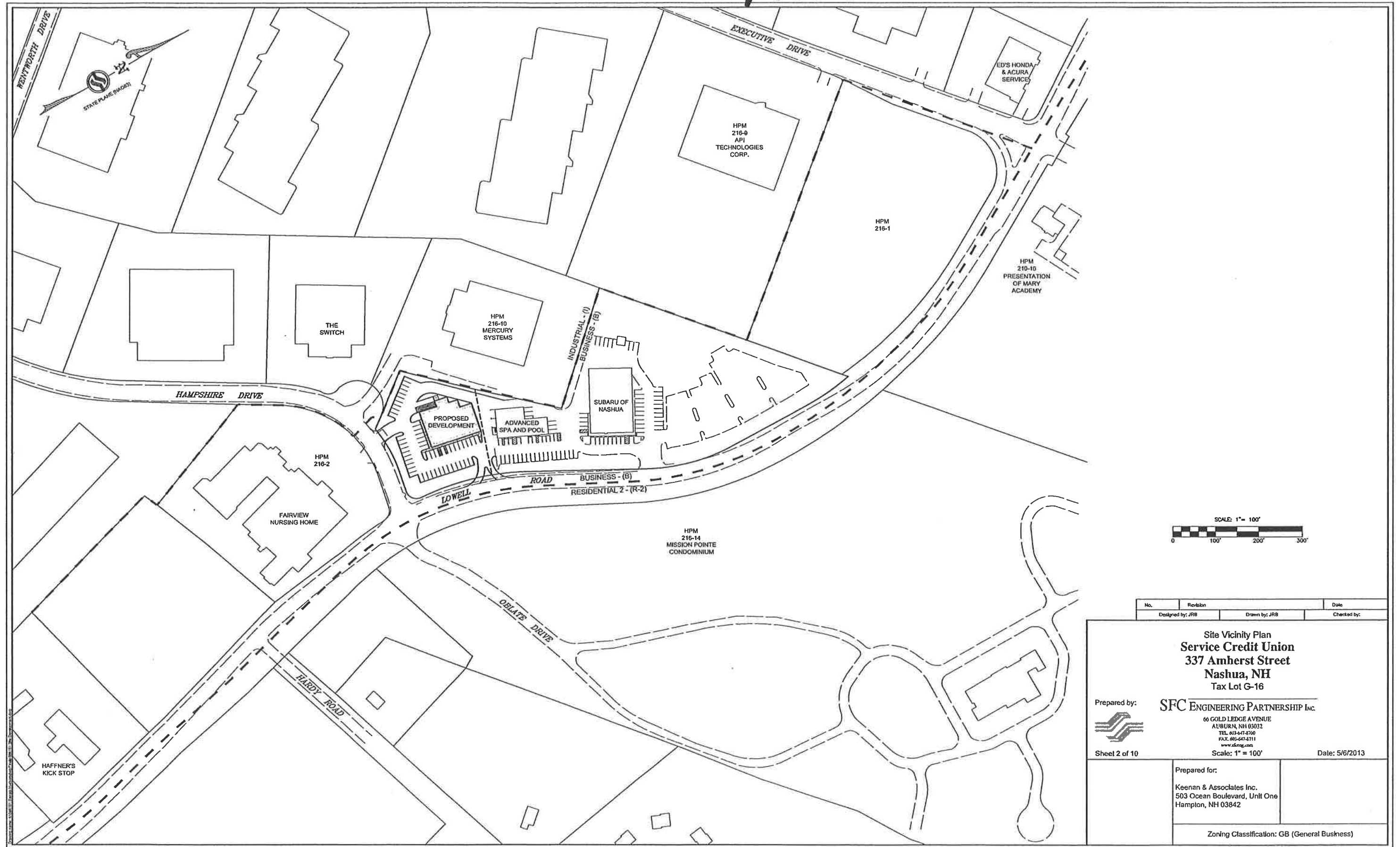
SUBDIVISIONS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL FOR AN APPLICANT TO GAIN AN EXEMPTION FROM ALL SUBSEQUENT CHANGES IN SUBDIVISION REGULATIONS, SITE PLAN REGULATIONS, AND CHANGES TO THE ZONING ORDINANCE, SEE NH RSA 674:30



N:\CARLSON\2012\1889\dwg\1889.dwg

"A" cont.

CONCEPTUAL PLAN



No.	Revision	Date
Designed by: JRB	Drawn by: JRB	Checked by:

Site Vicinity Plan
Service Credit Union
 337 Amherst Street
 Nashua, NH
 Tax Lot G-16

Prepared by: **SFC ENGINEERING PARTNERSHIP Inc.**
 66 GOLD LEDGE AVENUE
 ALBURN, NH 03032
 TEL. 603-447-5700
 FAX. 603-447-4111
 www.sfceng.com
 Scale: 1" = 100' Date: 5/6/2013

Sheet 2 of 10

Prepared for:
 Keenan & Associates Inc.
 503 Ocean Boulevard, Unit One
 Hampton, NH 03842

Zoning Classification: GB (General Business)

