

# Autumn Circle - 300 Webster St. Residential Subdivision

## Staff Report

December 10, 2014

**SITE:** 300 Webster Street - Map 128/Lots 7 & 8 - SB# 11-14

**ZONING:** R-2 - Minimum Lot Size Without Town Water or Sewer Single-Family Dwelling  
43,560 sf. Duplex 60,000 sf Minimum Frontage 150 ft.

**PURPOSE OF PLAN:** is to consolidate the two subject parcels: Hudson/ Litchfield Tax Map and Lot = 128-7/1-2 and Hudson/Litchfield Tax Map and Lot = 128-8/1-1 and subdivide the resulting area into 11 building lots (one lot will contain the existing house and garage). Application Acceptance & Hearing.

**PLAN UNDER REVIEW ENTITLED:** Residential Subdivision Land of Leonard Vigeant Map 128; Lots 7 & 8 Hudson, Map B; Lots 1-1 & 1-2 Litchfield 300 Webster Street, Hudson and Litchfield, NH, prepared by Keach-Nordstrom Associates, Inc., dated: 16 Sept 2014, latest revision date: 19 Nov 2014, consisting of Sheets 1 – 23 and Notes 1 – 32 (said plans are attached hereto).

**APPLICANT REPRESENTATIVE:** Tony Basso, Keach –Nordstrom Associates, Inc.

### ATTACHMENTS:

- 1) Project Narrative, Site Plan Application, Checklist and Waiver Forms, including an aerial site photo date stamped 3 Oct 2014 – Attachment “A”.
- 2) CLD’s Initial Comments Report, including Application Checklist, dated
- 3) 28 Oct 2014 – “B”.
- 4) Keach-Nordstrom’s Response letter to CLD’s above Report, dated 30 Oct 2014 – “C”.
- 5) Comments/Memos from Zoning Administrator, Kevin Desmond, HFD Deputy Fire Chief, John O’Brien, Road Agent, Kevin Burns, Asst. Assessor, Jim Michaud and the HPD – “D”.
- 6) NHDES Shoreland Program Permit Application Acceptance, dated 6 Oct 2014 – “E”.
- 7) DES Shoreland Impact Permit, date stamped 12 NOV 14 – “F”.

### OUTSTANDING ISSUES & RECOMMENDATION:

This subdivision application is ready for acceptance, and if public or board input fails to produce changes to it, it (the application) is ready for Planning Board approval. This being said, however, please note, because the subdivision involves both Litchfield and Hudson (i.e., 4 lots in Hudson and 5 lots in Litchfield, with the ROW located entirely within Hudson), subdivision approval is required from each community. Note: Litchfield’s initial public hearing is scheduled for Tues., Dec. 16<sup>th</sup>.

In addition to the above, as you can see by the number of plan sheets, i.e., 23 in total, an enormous amount of surveying and engineering work has gone into planning for this 11-lot subdivision, together with input from Town staff and the Town’s Engineering Consultant, CLD, Inc., m i.e.,

- 1) The Master Plan, Sheet 1 of 22, includes 31 Notes, many of which are standard construction, blasting and lot feature notes, and also include impact fees for both, Litchfield and Hudson, as well as minimum lot areas and signature blocks for both municipalities. Also included on this Sheet are the stamps and signatures of the Project Eng., Licensed Land Surveyor and Soil Scientist.
- 2) Sheets 2 & 3 depict the lot and ROW survey information, including monumentation, wetland, wetland buffer and woodland/shoreland protection setbacks. In regard to the wetlands and buffer impacts, please refer to the attached ZBA “Decision to Grant a Wetlands Special Exception Permit”, which is included in the Zoning Administrator’s comments included in attachment “D”. and include the Hall Charts for each lot in each town, together with the owner/applicant signature, as well as the Surveyor’s stamp and signature.
- 3) Sheets 4 & 5 are the topography plans, existing and proposed, and these sheets also include each lot’s 4k reserve sewer (septic) areas, leach field setback distances from abutting wetlands. Please note, no wells are shown on the plans, because the developer plans to extend the Hudson municipal water service up along Webster St. to this subdivision. As depicted on Sheet 6, et al, the water service extension on Webster St., proposed to be installed by the developer as an 8 in. line, may become a 12 in. line, via a pending agreement with the Hudson Utility Committee and the BOS. NOTE: the water main extension plan can be found on Sheet 13, which is the last sheet of the plan set.
- 4) Sheets 6, 7 & 8 are the proposed roadway and roadway profile plans, which depict the Autumn Circle, in its entirety, extending 1,000 ln. ft. from Webster St. and ending in a turnaround. The ROW features and structures include: 28 ft. in roadway pavement width, a 5 ft. in-width sidewalk on the southerly side of the road, a 6 ft. planting strip along this side, 11 ft. on the other side, sloped granite curbing on both sides of the road, controlled drainage structures and water service. Note: all of the aforementioned features are clearly depicted on Sheets 13 – 22, including the “Typical Cross Section” and “Cul-de-Sac” profiles, as well as all other construction profiles associated with this subdivision.
- 5) All of the staff department comments and concerns are included in attachment “D” of this staff report. As you can see, no outstanding department issues remain with this development. That is, if said water service extension plan is approved, Fire Service and domestic water service issues for this subdivision are provided (e.g., fire hydrants will be installed v. cisterns if the water service isn’t provided).
- 6) Sheets 9 & 10 show slope and drain easements, A – J, all of which need deeds and inclusion of perpetual maintenance terms & conditions. If the board moves to approve this application, endorsement of the plans would be subject to the favorable written review of the subject easement deeds by Town Counsel. Note: the subject of easements is further stipulated in all Development Agreements, as Article XII, which reads:

*At the time of plan recording, Applicant shall also execute and deliver to the Town easements for sewer, drainage, water, utilities as may be specified by the Hudson Planning Board, or otherwise specified on the plan.*
- 7) The required 400 ft. unobstructed “sight distance” at the proposed intersection with Webster St. is provided on Sheet 11, together with the profile.

- 8) Sheet 12, Erosion Control Plan, depicts all of the erosion and stormwater management structures. Please note, per discussions between Kevin Burns and the Applicant, a yet to be formed homeowner's association, comprised of this subdivision's future homeowners, will be solely responsible for the perpetual maintenance of said structures and appurtenants outside of the ROW. This matter will be further explained by the Applicant's representatives at the hearing.
- 9) One issue not discussed in this submission involves a separate offsite traffic improvement impact fee (a.k.a. an exaction fee) that was assessed on the 3 most recently approved developments along Webster St., namely, Waterview Landing (33 single-family lots), River Ridge and Riverwalk (together, a.k.a. Sparkling River and consisting of 131+ "older persons housing units"). Please note, said exaction fee requires that \$250, per residential unit, be paid prior to the issuance of an OC and for the exclusive purpose of upgrading the Webster St./Derry St. intersection. To this effect, the board may want to consider assessing this same fee, per unit in Hudson, for this development. If the board moves to approve this plan, Wednesday evening, the below terms and conditions of approval include imposition of the subject \$250 offsite improvement fee.

**REQUESTED WAIVERS (see Note 14, Sheet 1):**

- 1) 289-6(D) -- Fiscal Impact
- 2) 289-6 (D) --Traffic Study

**APPLICATION TRACKING:**

- 03 OCT 14 – Subdivision Plan application submitted;
- 12 NOV14 - Initial public hearing scheduled, but per the written request of the Applicant said hearing was deferred date specific to the 10 DEC 14 Planning Board meeting.

**DRAFT MOTIONS:**

I move to accept the Subdivision application for 300 Webster Street - Map 128/Lots 7 & 8, which calls for the construction of a new public street and 11 single-family house lots.

Motion by: \_\_\_\_\_ Second: \_\_\_\_\_ Carried/Failed: \_\_\_\_\_.

I move to defer further review of the Autumn Circle Subdivision Plan date specific to the January 14, 2015 Planning Board Meeting.

Motion by: \_\_\_\_\_ Second: \_\_\_\_\_ Carried/Failed: \_\_\_\_\_.

**REQUESTED WAIVERS:**

- 1) 289-6(D) --Fiscal Impact

I move to grant the requested waiver: HTC 289-6(D)- Fiscal Impact Study- because said study, in addition to the submitted plans, CAP Fee provisions and other submitted application materials, is not necessary in order to evaluate the fiscal impact of this

development, and as such, the granting of this waiver is not contrary to the spirit and intent of the Subdivision Regulations.

Motion by: \_\_\_\_\_:Second: \_\_\_\_\_ Carried/Failed: \_\_\_\_\_

2) 289-6 (D) -- Traffic Study

I move to grant the requested waiver - HTC 289-6(D) - Traffic Study- because the traffic volume associated with the addition of 10 new single-family dwellings will not substantially impact the existing traffic conditions along Webster St., and as such, the granting of this waiver is not contrary to the spirit and intent of the Subdivision Regulations.

Motion by: \_\_\_\_\_:Second: \_\_\_\_\_ Carried/Failed: \_\_\_\_\_

**MOTION TO APPROVE:**

I move to approve the subdivision plan entitled: Residential Subdivision Land of Leonard Vigeant Map 128; Lots 7 & 8 Hudson, Map B; Lots 1-1 & 1-2 Litchfield 300 Webster Street, Hudson and Litchfield, NH, prepared by Keach-Nordstrom Associates, Inc., dated: 16 Sept 2014, latest revision date: 19 Nov 2014, consisting of Sheets 1 – 23 and Notes 1 – 32, 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 Subdivision 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 Municipal Water and Drain Easement Deeds pertaining to such easements as shown on the Plan.
3. A CAP amount of \$1,554.33, 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. This approval is subject to final engineering review.
7. Maintenance of the onsite drainage system shall be constructed and maintained in compliance with local and NHDES requirements for such systems, and the perpetual maintenance of the stormwater treatment structures and treatment and retention basins outside of the ROW, shall be

the responsibility of the future homeowner's association comprised of all the homeowners within this subdivision.

8. The number of dwelling lots for this subdivision shall be limited to 11, which includes proposed Lot 1 having an existing two-family dwelling.
9. 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.
10. Construction activities involving the lots shall be limited to the hours between 7:00 A.M. and 6:00 P.M., Monday through Friday. Interior construction activities are allowed on Saturday between 7:00 A.M. and 6:00 P.M. Both interior and exterior construction activities are prohibited on Sunday. Note: this condition shall be properly inscribed on Sheets 3 and 4 of the Plans prior to Planning Board endorsement of same.
11. The developer shall be responsible for the installation of a road status sign at the entrance drive to this subdivision in accordance with Section 289-40 of the Planning Board's Land Use Regulations, and as stated in Note 26, Sheet 1 of the Plan..
12. An offsite traffic improvement fee, in the amount of \$250 shall be paid prior to the issuance of a Certificate of Occupancy for each dwelling within this subdivision built in Hudson, and this fee shall be expended exclusive to traffic improvements implemented within the vicinity of the Webster St./Derry St. (NH Rte. 102) intersection.

Motion by: \_\_\_\_\_ Second: \_\_\_\_\_ Carried/Failed: \_\_\_\_\_



KEACH-NORDSTROM ASSOCIATES, INC.

A



Land of Leonard Vigeant  
300 Webster Street  
Tax Map 128; Lots 7 & 8  
KNA Project No. 07-0511-4A

September 16, 2014

Project Location

The subject properties, situated in both Hudson and Litchfield, are referenced on Hudson Tax Map 128 as Lots 7 & 8 and Litchfield Tax Map 1 as Lots 1 & 2.

Project Intent

The project proposal is for a 10-Lot Residential Subdivision. Access to the site will be provided by a proposed roadway and cul-de-sac running through the Hudson portion of the site. An existing intermittent stream bisects the site making it impossible to access the rear half of the site without impacting the wetland. Substantial stormwater management provisions are also being proposed. Each lot will be serviced by private well and septic systems.

Existing Conditions

The majority of the subject property is currently undeveloped consisting of meadowlands with the exception of a two-story home and detached two-story garage located on Lot 8. Lot 7 is bordered by the Merrimack River to the west. The entire embankment is heavily wooded. The property is bisected at its midpoint by an intermittent stream that runs parallel to the Merrimack River until ultimately discharging into it. A significant portion of the site slopes down toward the wetland.

A Site Specific Soil Survey, performed by Schauer Environmental Consultants, LLC, classifies the predominant on-site soil types as Pootatuck fine sandy loam, 0-8% slopes, Rippowam fine sandy loam, 0-8% slopes, Merrimac fine sandy loam with slopes ranging from 0-25+%, Sudbury fine sandy loam, 0-8% slopes, Udorthents, sandy with slopes from 0-25+%, and Occum fine sandy loam, 0-25+% slopes. Merrimac is a Hydrologic Group 'A' soil, the Pootatuck, Sudbury, and Occum soils are Type 'B' soils, and Rippowam is a Type 'C' soil. The Udorthents soils range from Hydrologic Groups A-C.

Storm Water Management

In general, the 2-year, 10-year, 25-year and 50-year frequency storms will be analyzed as required by the Town of Hudson and the State of New Hampshire design guidelines as well as common engineering practice. Proposed treatment practices will be provided following the recommended design practices outlined in the publication entitled New Hampshire Department of Environmental Services Best Management Practices for Stormwater Management and Erosion and Sediment Control. Two above ground stormwater detention ponds with long, wide, and flat stormwater treatment swales downstream are being proposed to reduce the peak rate of runoff. The swales are located in the buffer

*Civil Engineering*

*Land Planning*

*Landscape Architecture*

because the natural low points are within the buffer. Proper mitigation and treatment will ensure no adverse downstream impacts to sensitive wetland areas and abutting lands.

### Erosion and Sediment Control

As an integral part of the engineering design of this site, an erosion and sedimentation control plan will be developed with the intent of limiting the potential for soil loss and associated receiving water quality degradation, both during and after the construction period. Traditional temporary erosion and sedimentation control devices and practices, such as siltation fencing, check dams, and seeding will be specified. Again, reference is made to the Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire manual to appropriately provide and design for erosion control practices. Also, in an effort to account for abnormal adverse building conditions, common engineering practices attempt to further protect all affected areas through caution to the future contractor that any indicated erosion control practices are a minimum standard and serve as a guide only. Notes to this effect are typically added to the design plans and further state more extensive erosion control measures are, by mention, incorporated as field conditions warrant or as directed by the appropriate Local or State authority.

Finally, efforts protecting all affected areas are provided via site specific construction sequencing sensitive to limiting soil loss due to erosion as well as giving consideration to potential associated water quality degradation. It is important for the contractor to recognize that proper judgment in the implementation of work will be essential if erosion is to be limited and protection of completed work is to be realized. Moreover, any specific changes in sequence and/or field conditions affecting the ability of specific erosion control measures to adequately serve their intended purpose are immediately remedied with alternative means.

### Wetland Impacts

Schauer Environmental Consultants, LLC mapped the onsite jurisdictional wetlands in May, 2014 which were field located by this office during on ground survey efforts. The central wetland consists of palustrine, scrub-shrub, broad-leaved deciduous, seasonally flooded swamp with a perennial stream classified as riverine, upper perennial, unconsolidated bottom, mud, and semi permanently flooded. The wetland in the northwestern corner consists of palustrine, forested, broad-leaved deciduous, seasonally flooded swamp with an intermittent stream classified as riverine, intermittent, streambed, sand, and seasonally flooded. As the attached Wetland and Wetland Buffer Impact Plans depict, the proposed site improvements require 913 square feet of temporary wetland impact, 2,545 square feet of permanent wetland impact along with 20,868 square feet of permanent buffer impact in Hudson. There will be no buffer impacts within the Town of Litchfield.

*Accont.*



**SUBDIVISION PLAN APPLICATION FOR PLAN REVIEW  
TOWN OF HUDSON, NEW HAMPSHIRE**

Date of Application: September 16, 2014 Tax Map # 128 Lot # 7 & 8  
Name of Project: Autumn Circle  
Zoning District: \_\_\_\_\_ General SB# \_\_\_\_\_  
(For Town Use) (For Town Use)  
ZBA Action: Wetland Special Exception - 08/28/2014

PROPERTY OWNER: DEVELOPER:  
Name: Leonard A. Vigeant SR. Same As Owner  
Address: 5 Mockingbird Lane  
Address: Hudson, NH 03051  
Telephone # (603) 321-1946  
Fax # \_\_\_\_\_  
Email: vfamilyproperties@comcast.net

PROJECT ENGINEER  
Name: Patrick Colburn, PE Telephone # (603) 627-2881  
Address: Keach Nordstrom Associates, Inc Fax # (603) 627-2915  
Address: 10 Commerce Park No. Suite 3 Bedford, NH 03110 Email: pcolburn@keachnordstrom.com

PURPOSE OF PLAN:  
The purpose of this plan is to consolidate the two subject parcels: Hudson/Litchfield Tax Map and Lot =  
128-7 / 1-2 and Hudson/Litchfield Tax Map and Lot = 128-8 / 1-1 and subdivide the resulting area into 10  
building lots; 1 will contain the existing house and garage.

(FOR TOWN USE)

Plan Routing Date: \_\_\_\_\_ Sub/Site Date: \_\_\_\_\_  
\_\_\_\_\_ I have no comments \_\_\_\_\_ I have comments (attach to form)  
\_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_  
(Initials)  
DEPT:  
\_\_\_\_\_ Zoning \_\_\_\_\_ Engineering \_\_\_\_\_ Assessor \_\_\_\_\_ Police \_\_\_\_\_ Fire \_\_\_\_\_ Planning  
\_\_\_\_\_ Consultant \_\_\_\_\_ Highway Department

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Fees Paid \_\_\_\_\_

SITE DATA SHEET

Plan Name: Autumn Circle

Plan Type: Subdivision Plan

Legal Description:           Map 128                   Lot 7  
                                  Map 128                   Lot 8

Date: 9/16/14

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Location: 300 Webster Street Hudson, NH

Total Area:                   S.F. 733,855                   Acres: 16.847

Area in Wetlands: 26,692 S.F.

Zoning: R-2

Lots Not Meeting  
Required Dimensions: N/A

Required Area: 43,560 S.F.

Required Frontage: 120 Feet (Town Road) / 150 Feet (Collector)

Water and Waste System  
Proposed: On-site Septic Systems and Wells

Number of Lots With  
Existing Buildings: 1

Existing Buildings  
To Be Removed: None

Flood Zone Reference: (Hudson) - Map Number 330092 0512 D Panel Number 512 OF 701, Effective Date: September 25, 2009

Proposed Linear Feet  
Of New Roadway: 1,141 linear feet

**LOT AREA CALCULATION TABLE**

LOT #	TOTAL AREA	WETLAND AREA	AREA > 25% SLOPE	BUILDABLE AREA (net contiguous upland useable)	FRONTAGE
1.	55,719 S.F.	0 S.F.	0 S.F.	55,719 S.F.	165.17' (Autumn Circle) 201.85' (Webster St.)
2.	54,655 S.F.	0 S.F.	420 S.F.	54,235 S.F.	150.00'
3.	58,977 S.F.	1,241 S.F.	5,207 S.F.	52,529 S.F.	224.74'
4.	52,460 S.F.	4,227 S.F.	933 S.F.	47,300 S.F.	231.63'
5.	49,968 S.F.	0 S.F.	0 S.F.	49,968 S.F.	229.75'
6.	58,621 S.F.	1,769 S.F.	4,482 S.F.	52,370 S.F.	152.30'
7.	127,724 S.F.	6,166 S.F.	35,157 S.F.	86,401 S.F.	150.39'
8.	114,990 S.F.	11,571 S.F.	8,757 S.F.	94,662 S.F.	336.03'
9.	50,708 S.F.	1,718 S.F.	0 S.F.	48,990 S.F.	206.93'
10.	45,418 S.F.	0 S.F.	424 S.F.	44,994 S.F.	494.80'

Data Sheets Checked By:  Date: 9/26/14



**APPLICATION FOR SUBDIVISION PLAN REVIEW  
TOWN OF HUDSON, NEW HAMPSHIRE**

Twenty one (21) days prior to Planning Board Meeting, a complete subdivision plan to include all supporting materials/documents must be submitted in final form. The subdivision plan shall comply with the following specifications/requirements:

<b>Applicant Initials</b>		<b>Staff Initials</b>
<u>PRC</u> a)	Submission of eight (8) full sets of Site Plans (sheet size: 22" x 34") shall be submitted at the time of application filing, followed by the submission of seventeen (17) 11" X 17" plan sets (revised if applicable) to the Community Development Department no later than 10:00 A.M. Tuesday the week prior to the scheduled public hearing/conceptual review date.	_____
<u>PRC</u> b)	Seventeen (17)-subdivision narratives, describing the project.	_____
<u>PRC</u> c)	Plan scale at not less than one inch equals fifty feet (example: 1" = 50' acceptable).	_____
<u>PRC</u> d)	Locus plan with 1,000 minimum radius of site to surrounding area.	_____
<u>PRC</u> e)	Plan dated by day/month/year.	_____
<u>PRC</u> f)	Revision block.	_____
<u>PRC</u> g)	Planning Board approval block.	_____
<u>PRC</u> h)	Title of project inscribed on plan.	_____
<u>PRC</u> i)	Name(s) and address of property owner(s) and signature(s) shall be inscribed on plan.	_____
<u>PRC</u> j)	North point shall be inscribed on plan.	_____
<u>PRC</u> k)	Property lines-exact locations and dimensions.	_____
<u>PRC</u> l)	Acreage/sq. ft. of entire subdivision.	_____
<u>PRC</u> m)	Proposed lots, with lot numbers and area of each lot. Note: each proposed Lot shall be listed on the plan, in chart form, indicating in square feet/ acreage the total lot area, wetland, slope area greater than 25% and total net contiguous useable upland area.	_____

Applicant  
Initials

Staff  
Initials

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|----------------|--|-------|
| <u>PRC</u> n)  | Certified list of names and addresses of bordering abutters, shown on Tax Assessor's records not more than five (5) days prior to application date to be listed on plan.   | _____ |
| <u>PRC</u> o)  | Location of all structures, roads, wetlands, hydrants, wells, septic systems, 4k reserve area, floodways/floodplains, driveways, travel areas, parking areas, natural features within 200 feet of the tract.       | _____ |
| <u>PRC</u> p)  | Locations of existing and proposed permanent monuments and benchmarks within 200 feet of the tract.  | _____ |
| <u>N/A</u> q)  | Pertinent highway projects.  | _____ |
| <u>PRC</u> r)  | Assessor map and lot number.   | _____ |
| <u>PRC</u> s)  | Waiver application form shall be submitted with subdivision application, Note on plan listing waivers requested/granted; and all waivers granted to the subdivision regulations shall be listed on the final plan. | _____ |
| <u>PRC</u> t)  | Delineate zoning.  | _____ |
| <u>PRC</u> u)  | Storm water drainage plan.   | _____ |
| <u>PRC</u> v)  | Topographical contours at 2-foot intervals existing and proposed.  | _____ |
| <u>PRC</u> w)  | Utilities: existing and proposed.  | _____ |
| <u>PRC</u> x)  | Building and wetland setback lines.  | _____ |
| <u>PRC</u> y)  | Rights of way, existing and proposed.  | _____ |
| <u>N/A</u> z)  | Location of dedicated recreational public use land(s) proposed.  | _____ |
| <u>PRC</u> aa) | Detailed designs of bridges and culverts.  | _____ |
| <u>PRC</u> ab) | Typical roadway cross-section, road profile, stationing, and curve data, etc.  | _____ |

Applicant  
Initials

Staff  
Initials

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|------------|-----|---|-------|
| <u>PRC</u> | ac) | Proposed location of water supply and sewage disposal systems, including perk test data, test-pit logs and locations; wells, (proposed and existing) 75' protective well radii and attached copies of any required well protection easements.   | _____ |
| <u>PRC</u> | ad) | All notes from plats.   | _____ |
| <u>PRC</u> | ae) | Buffers as required by subdivision regulations.   | _____ |
| <u>PRC</u> | af) | Soil types and boundaries, Note: If site contains marginal or questionable soils, a High Intensity Soil Survey (HISS) may be deemed necessary to submit as part of the application. Said HISS, if required, shall be performed by a State of New Hampshire Certified Soil Scientist, who shall affix his/her stamp and signature and this shall be inscribed on the plan. | _____ |
| <u>PRC</u> | ag) | Wetlands (and poorly-drained and very poorly-drained soils), also identified as Class 5 and Class 6 High Intensity Soil Survey (HISS soils), and permanent and seasonal wetlands shall be identified on the plan by a New Hampshire Certified Wetland or Soil Scientist, who shall affix his/her stamp and signature to the respective plan.                              | _____ |
| <u>PRC</u> | ah) | Easements, existing and proposed.   | _____ |
| <u>PRC</u> | ai) | State of New Hampshire Engineer's seal and signature.<br>Surveyor's seal and signature.   | _____ |
| <u>PRC</u> | aj) | Error of closure (1 in 10,000 or better).   | _____ |
| <u>PRC</u> | ak) | Drafting errors/omissions.  | _____ |
| <u>N/A</u> | al) | Note outlining phasing schedule.  | _____ |
| <u>PRC</u> | am) | Narrative description stating the purpose, location, long range plans impacts on traffic, schools, and utilities.   | _____ |
| <u>PRC</u> | an) | Aerial photograph of site and area within 200 feet of the subdivision parcel.   | _____ |
| <u>W</u>   | ao) | Fiscal impact study.  | _____ |
| <u>W</u>   | ap) | Traffic study.  | _____ |
| <u>PRC</u> | aq) | Drainage calculations and supporting data.  | _____ |

Applicant  
Initials

Staff  
Initials

PRC ar) Copies of any proposed or existing easements, covenants, deed restrictions, right of way agreements or other similar documents. \_\_\_\_\_

PRC as) Copy of applicable town, state, federal approval/permits to include but not limited to the following: \_\_\_\_\_

- sewer applications
- flood plain permit
- wetlands special exception
- variance
- erosion control permit (149:8a)
- WSPCC subdivision approval (septic)
- dredge and fill permit
- curb cut/driveway permit
- shore land protection certification in accordance with RSA483-B.
- if applicable, review application with Lower Merrimack River Local Advisory Committee (LMRLAC) and attach LMRLAC project comments hereto.

N/A at) Off-site agreement(s). \_\_\_\_\_

N/A au) Presentation plan (colored, with color-coded bar chart). \_\_\_\_\_

PRC av) Fees paid to clerk. \_\_\_\_\_

PRC aw) Plans that include relocation of lot lines shall clearly delineate the former (old) lot lines from proposed (new) lot lines. \_\_\_\_\_

- Any or all items may be waived under the purview of the Planning Board.

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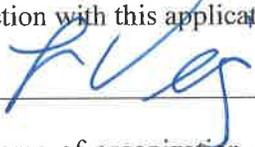
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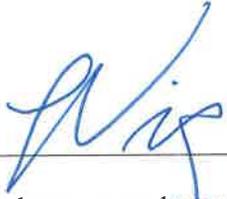
**APPLICATION FOR SUBDIVISION PLAN REVIEW  
TOWN OF HUDSON, NEW HAMPSHIRE**

I hereby apply for Subdivision 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 Subdivision Plan specifications or application form are incomplete, the application will be considered rejected.

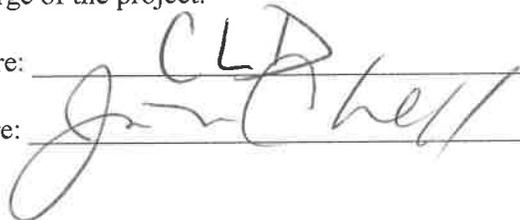
Pursuant to RSA 674:1-IV, the owner(s), by the filing of this application as indicated above, hereby give permission for any member of the Hudson Planning Board, the Town Engineer, the Conservation Commission and such agents or employees of the Town or other persons as the Planning Board may authorize, 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 (their) property in connection with this applications.

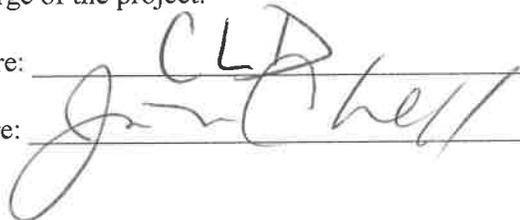
Signature of Owner: 

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

Signature of Developer: 

- ❖ 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 Code Enforcement Officer/Building Inspector must be notified within two (2) working days of any change by the individual in charge of the project.

Technical Review Signature: 

Planner Approval Signature: 

**SUBDIVISION/SITE PLAN WAIVER REQUEST FORM**

Name of Subdivision/Site Plan: Autumn Circle

Street Address: 300 Webster Street

I Brenton Cole hereby request that the Planning Board waive the requirements of item HTC 289-6 (D) of the Subdivision/Site Plan Checklist in reference to a plan presented by Keach-Nordstrom Associates, Inc. dated September 16, 2014 for property Tax Map/Lot(s) 128/7 & 8 in the Town of Hudson, NH.

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

A Fiscal Impact study would cause unnecessary additional financial burden to the developer.

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):

The Town of Hudson will collect an impact fee proportionate to the size of the proposed development. A fiscal impact study is not needed as the Town of Hudson already has a mechanism in place to ensure that a project does not burden Town resources. Therefore, granting this waiver is not contrary to the spirit and intent of the ordinance.

Signed:



Applicant or Authorized Agent

Planning Board Action:

Waiver Granted: \_\_\_\_\_

Waiver Not Granted: \_\_\_\_\_

Name of Subdivision/Site Plan: Autumn Circle

Street Address: 300 Webster Street

I Brenton Cole hereby request that the Planning Board waive the requirements of item HTC 289-6 (D) of the Subdivision/Site Plan Checklist in reference to a plan presented by Keach-Nordstrom Associates, Inc. dated September 16, 2014 for property Tax Map/Lot(s) 128/7 & 8 in the Town of Hudson, NH.

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

A Traffic Study would cause unnecessary additional financial burden to the developer.

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):

The ordinance is in place to assess existing traffic conditions and what proposed developments would do to current traffic situations. The 1<sup>st</sup> lot subdivision being proposed on Autumn Circle will not increase traffic enough on Webster Street, Route 3A to warrant a full traffic study. Therefore, granting this waiver is not contrary to the spirit and intent of the ordinance.

Signed:



\_\_\_\_\_  
Applicant or Authorized Agent

Planning Board Action:

Waiver Granted: \_\_\_\_\_

Waiver Not Granted: \_\_\_\_\_





**Owner Affidavit**

---

I, Leonard Vigeant, owner of the properties referenced on Hudson Tax Map 128; Lots 7 & 8, and on Litchfield Tax Map 1; Lots 1 & 2, located at 300 Webster Street in Hudson, New Hampshire, hereby verify that I authorize Keach-Nordstrom Associates, Inc. (KNA) to prepare, submit and represent, on my behalf, any and all required permit applications throughout the federal, state and municipal application processes.

Signature of Landowner:

Printed Name of Landowner:

Leonard Vigeant

Address of Owner:

5 Mockingbird Lane

Hudson, NH 03051

Date:

9/24/14



TITLE: AERIAL EXHIBIT PREPARED FOR:  
**AUTUMN CIRCLE**  
MAP 128; LOTS 7 & 8 - HUDSON, NH & MAP 1; LOTS 1 & 2 - LITCHFIELD, NH  
DRAWN BY: KMB DATE: 6/4/14 JOB. NO. 07-0511-4A  
CHECKED BY: PRC SCALE: 1" = 250' SHEET 1 OF 1

**KMA** KEACH-NORDSTROM ASSOCIATES, INC.  
Civil Engineering Land Surveying Landscape Architecture  
10 Commerce Park North, Suite 3B, Bedford, NH 03110  
Phone (603) 637-2881



3 B

October 28, 2014

Mr. John Cashell, Town Planner  
Town of Hudson  
12 School Street  
Hudson, NH 03051



Re: Town of Hudson Planning Board Review  
Autumn Circle, 300 Webster Street  
Tax Map 128, Lots 7 & 8; Acct. #1350-852  
CLD Reference No. 03-0249.1430

Dear Mr. Cashell:

CLD Consulting Engineers, Inc. (CLD) has reviewed the first submission of materials related to the above-referenced project received between September 23, 2014 and October 1, 2014. A list of items reviewed is enclosed. The scope of our review is based on the Subdivision Plan Review Codes, Driveway Review Codes, Stormwater Management Codes, and criteria outlined in the CLD Proposal approved September 16, 2003, revised September 20, 2004, June 4, 2007 and September 3, 2008.

We have included a copy of CLD's evaluation of the checklist for your reference. We did not receive a copy of the applicant's checklist. We note that several items could not be verified by CLD and require action by the Town.

The project appears to consist of consolidating, lot line adjusting and resubdividing Hudson's Lots 128/7 and 128/8 and the Town of Litchfield's Lots B/1-1 and B/1-2, into a ten (10)-lot residential subdivision. The 16.847-acre subdivision is located between Darlene Lane and Farmington Drive. All lots are to be serviced by proposed wells and on-site subsurface disposal systems (the existing house on "Proposed Lot 1" has an existing well; but it is unclear if the existing septic system is to remain or if it is proposed to be relocated to the north of the lot). The subdivision is bisected by the Hudson/Litchfield town line. The proposed roadway is located entirely within the Town of Hudson, but all of the proposed lots north of Autumn Circle have property in both Towns. Our review is based on Town of Hudson Regulations only. Features shown within the Town of Litchfield are subject to their own Subdivision Regulations and review which not a part of this review.

The following items are noted:

**1. Subdivision Review Codes**

- a. Hudson Regulations (HR) 289-15. A portion of the proposed subdivision is located within the 100-year flood zone. The applicant has shown a 100-year flood line and elevation on the plan.
- b. HR 289-18.R.(1). The applicant has not proposed open space, recreational space or improvements to nearby traffic corridors.



Mr. John Cashell  
CLD Reference No. 03-0249.1430  
October 28, 2014  
Page - 2

- c. HR 289-20.A.(1). The applicant has not shown finish floor elevations of the proposed homes on the plan set; however, a note on the plan indicates that, "The basement finish floor elevation for all proposed structures shall be one-foot above the 100 year flood elevation of 114, based on datum of map reference in note 5 above, or 6" above the estimated seasonal high water table, whichever is higher." We note that the plans show 100-year flood line elevations of 114 and 115. The applicant should modify the note. Also, the Regulation requires finish floor elevations to be above finish road grade or require installation of mechanical or natural drains.
- d. HR 289-26.B.(3) The applicant has not provided the dimensions for the existing Lot 8 or any existing easements on the entire parcel.
- e. HR 289-27.B.(7) The applicant has shown a New Hampshire Department of Transportation (NH DOT) Disk on the plans; however, we were unable to find any benchmarks. The applicant has noted benchmarks set as noted, based on NGVD 1929.
- f. HR 289-27.B.(10) The applicant's Vicinity Plans do not show major utility lines or external property lines.
- g. HR 289-28.A. The applicant should provide specific details for the proposed monuments to be set.
- h. HR 289-28.G. and HR 289 Attachment 3. The applicant has proposed a 5-foot-wide sidewalk.

## 2. Driveway Review Codes (HR 193-10)

- a. HR 193-10.E. and HR 289-18.E. The applicant has shown that 400 feet of all-season sight distance can be provided at the proposed roadway intersection at Webster Street (NH Route 3A). It should be noted that the posted speed limit along Webster Street in this area is 40 mph. At a design speed of 50 mph, or 10 mph greater than the posted speed, the stopping sight distance requirement is 425 feet, which appears to be available based on virtual review of photos. It should also be noted that there is a passing zone on Route 3A in the northbound direction both north and south of the proposed site, so there should be sufficient sight distance. No further CLD comment.
- b. HR 193-10.C. The applicant has proposed driveway grades greater than 2%. The detail should be modified to show 2% maximum slopes across any sidewalk area. Driveways are currently proposed at a 3% maximum.

## 3. Roadway Design

- a. HR 289-18.B.(1) The applicant has provided 25 feet of pavement width within the cul-de-sac versus the 28 feet required.
- b. HR 289-18.B.(2) The applicant has proposed a roadway length of approximately 1,140 linear feet, and has requested a waiver for exceeding the 1,000-linear-foot maximum length outlined in the Regulation.
- c. HR 289-18.E. and HR 193-10.A. The applicant should review and correct the sidewalk depiction in plan view as no sidewalk tip-downs are shown at the street intersection, driveways, etc.

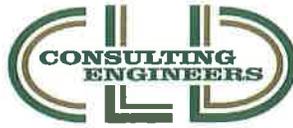


Mr. John Cashell  
CLD Reference No. 03-0249.1430  
October 28, 2014  
Page - 3

- d. HR 289-18.M.(1) The applicant has provided a plan and profile at a scale of 1" = 40' and 1" = 4'.
- e. HR 289-18.P. The applicant has provided a culvert design and the plan shows proposed guardrail for the culvert section. The guardrail should be shown on the detail for the proposed culvert.
- f. HR 289-18.R. and HR 289-26.B.(8) Proposed end treatments are not shown for the box culvert. Also, the box culvert detail calls for a three-sided box culvert but the detail shows a four-sided structure.
- g. HR 289-18.D. and HR 289-27.B.(3) The applicant has not provided street cross sections in the package received by CLD for review.
- h. HR 289-28.C. The guardrail shown in the retaining wall detail conflicts with the guardrail details for post depth and the distance from edge of pavement to face of guardrail is not shown on the guardrail details.
- i. HR 289-28.F. The applicant has shown a 7" reveal with a 6' tip-down on the sloped granite curb tip-down detail. This results in a 9.72% slope. Should sidewalk grade follow this curb grade, the 8.33% Americans with Disabilities Act (ADA) maximum will be exceeded. The applicant should show the location for the intended use of this detail.
- j. HR 289 Attachment 3. The applicant has detailed a 1.5" wearing course on the typical roadway cross section, but calls out a 1" thick wearing course on other details. The applicant should correct the discrepancy.
- k. The applicant has not shown the intent for use of an underdrain in the road design. Since portions of the road are proposed in cut sections, we recommend a note be added to the detail that it be used during construction, if required by the Town Engineer. Also, details should be provided showing the intent for the underdrain outlet connection.

#### **4. Drainage Design /Stormwater Management (HR 289-20.C. /Chapter 290)**

- a. HR 290-4.A. (10) We note the 2-year design storm creates a Developed runoff 0.19 cfs greater than the Pre-developed flow rate. The applicant should resolve this increase or request a waiver for this Regulations with supporting calculations illustrating that any and all downstream drainage systems will not be adversely affected will be required.
- b. HR 289-20.B.(2) The applicant has not proposed catch basins at Autumn Circle's intersection with Webster Street.
- c. HR 289-21.B. The applicant should confirm with the Town if a stormwater easement is necessary for the wetlands that traverse the site.
- d. The applicant should provide easements for all drainage features, beyond the drainage pipes currently illustrating easements on the plan. We note that the Proposed Detention Basins, Proposed Treatment Swales, and Proposed Bio retention Pond do not have easements illustrated.
- e. The applicant should keep the Town informed of all communication with New Hampshire Department of Environmental Services (NHDES) in relation to the Alteration



Mr. John Cashell  
CLD Reference No. 03-0249.1430  
October 28, 2014  
Page - 4

of Terrain Permit (AoT), Wetland Permit, and Shoreland Permit being requested to ensure NHDES comments do not alter drainage design/calculations.

- f. We note the location of the Proposed Bio-retention Pond for Lot 6, is located within the front and side yard “envelope”. Based on previous experience, dumping of yard waste (grass clippings, leaves, branches, etc.) generally occurs in all depressions. These yard wastes could potentially prevent infiltration from occurring within the basin. The applicant should offer preventative measures such as a fence, signage, deed restrictions, easements, etc. This comment is also applicable to Treatment Swales and Detention Ponds.
- g. The applicant should show and provide a detail for a maintenance access road/path to the Stormwater Management facilities.

#### **5. Sewer/Septic Design/Conflicts & Utility Design/Conflicts**

- a. HR 289-19. The applicant should show how the underground electrical line will be installed around the culvert system as it is unclear from the current plans.
- b. HR 289-26.B. (4) and HR 289-27.B. (5) The applicant has not provided typical designs of proposed on-lot water systems. The Regulations require a Certificate of Approval from the Board of Health of the Town of Hudson when on-lot utilities must be installed.
- c. The applicant should show the intent for discontinuance or removal of the existing septic system on former Lot 8.
- d. A septic review was not performed as part of this review.

#### **6. Erosion Control/Wetland Impacts**

- a. The applicant should provide additional detail for the proposed bypass pump and proposed dewatering system to be used during construction.
- b. We recommend that a typical house lot plan for erosion control measures be developed to protect the wetlands and proposed drainage features prior to any house construction at adjacent lots.
- c. The applicant should reconsider use of silt fence perpendicular to the contours. Our experience shows that this configuration can lead to excess rilling.
- d. The Town should reserve the right to require additional erosion control during construction, if needed.

#### **7. State and Local Permits**

- a. HR 290-9.B. The applicant has noted the need for a Stormwater Pollution Prevention Plan (SWPPP) and filing a Notice of Intent (NOI) in accordance with the National Pollutant Discharge Elimination System (NPDES) General Construction Permit on the plan set.
- b. HR 193-10.C. The applicant has noted the NHDOT Driveway Permit is pending, as this part of Route 3A is under State jurisdiction.



Mr. John Cashell  
CLD Reference No. 03-0249.1430  
October 28, 2014  
Page - 5

- c. The applicant has noted that the NHDES Septic Subdivision Approval is pending. A note should be added showing the need for Individual Subsurface Septic Disposal System Approvals.
- d. The applicant has noted that the NHDES Wetlands Minor Permit is pending.
- e. The applicant has noted that the NHDES AoT Permit is pending.
- f. The applicant has noted that the NHDES Shoreland Permit is pending.
- g. Additional local permitting may be required.

#### 8. Other

- The applicant should provide detectable warnings and proposed tip-downs on the sidewalk at the intersection with Webster Street and in the cul-de-sac. We also recommend that the intent for a **maximum** slope of 1:12 be added to the Ramp Detail at Driveway Detail.

Please feel free to call if you have any questions.

Very truly yours,

A handwritten signature in blue ink that reads "Heidi Marshall".

Heidi J. Marshall, P.E.

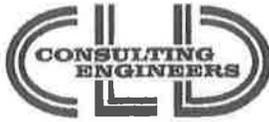
A handwritten signature in blue ink that reads "Paul Konieczka".

Paul Konieczka, AICP

HJM/PK:mjt

Enclosure

cc: Town of Hudson Engineering Division – File  
Keach-Nordstrom Associates, Inc.  
10 Commerce Park North, Suite 3B  
Bedford, NH 03110  
Fax (603) 627-2915



540 Commercial Street Manchester, NH 03101  
(603) 668-8223 • Fax: (603) 668-8802  
[cld@cldengineers.com](mailto:cld@cldengineers.com) • [www.cldengineers.com](http://www.cldengineers.com)  
New Hampshire • Vermont • Maine

**TO:** File

**FROM:** Kelsey M. Gagnon *KMG*

**DATE:** October 28, 2014

**RE:** Town of Hudson Planning Board Review  
Autumn Circle, 300 Webster Street  
Tax Map 128, Lots 7 & 8; Acct. #1350-852  
CLD Reference No. 03-0249.1430

The following list itemizes the set of documents reviewed related to the current Autumn Circle, 300 Webster Street, review comments.

- Various correspondences between Town of Hudson and CLD, between October 20, and October 22, 2014.
- Letter from the Town of Hudson to CLD, dated October 6, 2014, received October 15, 2014, including the following:
  1. Copy of *Land of Leonard Vigeant* Project Narrative, prepared by Keach-Nordstrom Associates, Inc., dated September 16, 2014.
  2. Copy of *100 Year Floodplain Report*, prepared by Keach-Nordstrom Associates, Inc., dated September 16, 2014.
  3. Copy of *Subdivision Plan Application for Plan Review, Town of Hudson, New Hampshire for Map 231, Lot 053*, dated September 16, 2014.
  4. Copy of *Alteration of Terrain Application*, prepared by Keach-Nordstrom Associates, Inc., dated September 18, 2014, unless otherwise noted, including the following:
    - a. Two Copies of *Pre Development Drainage Areas Plan*, Sheet 1 of 2.
    - b. Two Copies of *Post Development Drainage Areas Plan*, Sheet 1 of 2.
  5. Copy of *Residential Subdivision Land of Leonard Vigeant, Tax Map 128, Lots 7&8-Hudson, Map B; Lots 1-1 & 1-2 – Litchfield, 300 Webster Street, Hudson, NH Plan Set*, prepared by Keach-Nordstrom Associates, Inc., dated September 16, 2014, unless otherwise noted, including the following:
    - a. Cover Sheet.
    - b. *Master Plan*, Sheet 1 of 22.
    - c. *Subdivision Plan*, Sheets 2 and 3 of 22.
    - d. *Topographic Subdivision Plan*, Sheets 4 and 6 of 22.
    - e. *Roadway Plan*, Sheet 6 of 22.
    - f. *Roadway Profile*, Sheets 7 and 8 of 22.
    - g. *Easement Plan*, Sheets 9 and 10 of 22.
    - h. *Sight Distance Plan & Profile*, Sheet 11 of 22.

Memorandum to File  
CLD Reference No. 03-0249.1430  
October 28, 2014  
Page - 2

- i. *Erosion Control Plan*, Sheet 12 of 22.
- j. *Construction Details*, Sheets 13 through 21 of 22.
- k. *Test Pit Logs*, Sheet 22 of 22.

KMG:mjt

cc: John Cashell – Town of Hudson Planner  
Town of Hudson Engineering Division – File

**APPLICATION FOR SUBDIVISION PLAN REVIEW  
TOWN OF HUDSON, NEW HAMPSHIRE**

**Autumn Circle Subdivision Plan  
Town of Hudson  
CLD Reference No. 03-0249.1430  
Reviewed October 28, 2014**

Twenty-one (21) days prior to Planning Board Meeting, a complete subdivision plan to include all supporting materials/documents must be submitted in final form. The subdivision plan shall comply with the following specifications/requirements.

Applicant  
Initials

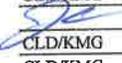
Staff  
Initials

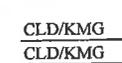
- a) Submission of eight (8) full sets of Site Plans (sheet size: 22" x 34") shall be submitted at the time of application filing, followed by the submission of seventeen (17) 11" x 17" plan sets (revised if applicable) to the Community Development Department no later than 10:00 AM Tuesday the week prior to the scheduled public hearing conceptual review date
- b) Seventeen (17) subdivision narrative, describing the project
- c) Plan scale at not less the one inch equals fifty feet (1" = 50') (example: 1" = 50' acceptable)
- d) Locus plan with 1,000' minimum radius of site to surrounding area
- e) Plan date by day/month/year
- f) Revision block
- g) Planning Board approval block
- h) Title of project inscribed on the plan
- i) Names and addresses of property owner(s) and signature(s) shall inscribed on the plan
- j) North point shall be inscribed on the plan
- k) Property lines: exact locations and dimensions
- l) Acreage/sq. ft. of entire subdivision
- m) Proposed lots, with lot numbers and area of each lot. Note: each proposed lot shall be listed on the plan, in chart form, indicating in square feet/acreage the total lot area, wetland, slope area greater than 25% and total net contiguous useable upland area.

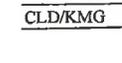
  
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CLD/KMG

  
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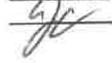
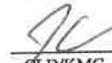
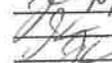
a) One set received by CLD.

- b) One set received by CLD. Discussion regarding impacts to traffic, schools, and utilities not included in narrative received for review.
- c) Master Plan scale 1"=100'
- d) Does not show all boundary lines or existing utilities in surrounding area.
- e) Plan date by month/day/year.
- f) Language does not match Regulation.

Applicant  
Initials

- \_\_\_\_\_ n) Certified list of names and addresses of bordering abutters, shown on Tax Assessor's records not more than five (5) days prior to application date to be listed on plan.
- \_\_\_\_\_ o) Location of all structures, roads, wetlands, hydrants, wells, septic systems, 4k reserve area, floodways/floodplains, driveways, travel areas, parking areas, natural features within 200 feet of the tract.
- \_\_\_\_\_ p) Locations of existing and proposed permanent monuments and benchmarks within 200 feet of the tract.
- \_\_\_\_\_ q) Pertinent highway projects
- \_\_\_\_\_ r) Assessor's Map and Lot number(s)
- \_\_\_\_\_ s) Waiver application form shall be submitted with the subdivision application, note on plan listing waivers requested/granted; and all waivers granted to the subdivision regulations shall be listed on the final plan.
- \_\_\_\_\_ t) Delineate zoning
- \_\_\_\_\_ u) Stormwater drainage plan
- \_\_\_\_\_ v) Topographical contours at 2-foot intervals existing and proposed
- \_\_\_\_\_ w) Utilities: existing and proposed
- \_\_\_\_\_ x) Building and wetland setback lines
- \_\_\_\_\_ y) Rights of way, existing and proposed
- \_\_\_\_\_ z) Location of dedicated recreational public use land(s) proposed
- \_\_\_\_\_ aa) Detailed designs of bridges and culverts
- \_\_\_\_\_ ab) Typical roadway cross-section, road profile, stationing and curve data, etc.

Staff  
Initials

- \_\_\_\_\_ CLD/KMG
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- \_\_\_\_\_ CLD/KMG
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- \_\_\_\_\_ CLD/KMG
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- n) Abutter's names are shown on the plan; however, certified list of names was not provided for review.
- o) Detail has been shown on the lot being developed but no detail provided within 200 feet of the tract.
- p) It is not clear whether all monuments within 200 feet of the tract are shown or whether some do not exist.
- s) Requested waivers noted on the plans; however, waiver application forms were not received for review.
- t) Zoning noted on plan; not delineated.
- w) No underground utilities to individual lots or houses shown. No detail provided for installation of proposed wells.
- x) NHDES Wetlands Impact Permit application is pending. Some of the proposed leach field locations are within 100' of the wetlands.
- aa) No detail design for box culvert provided in plan set.
- ab) Waiver requested for exceeding outlined 1,000-foot cul-de-sac length.

Not exceeding 100ft.

Applicant  
Initials

- \_\_\_\_\_ ac) Proposed location of water supply and sewage disposal systems, including perc test data, test pit logs and locations; wells, (proposed and existing) 75' protective well radii and attached copies of any required well protection easements.
- \_\_\_\_\_ ad) All notes from plats
- \_\_\_\_\_ ae) Buffers as required by subdivision regulations
- \_\_\_\_\_ af) Soil types and boundaries, Note: if site contains marginal or questionable soils, a High Intensity Soil Survey (HISS) may be deemed necessary to submit as part of the application. Said HISS, if required, shall be performed by a State of New Hampshire certified Soil Scientist, who shall affix his/her stamp and signature shall be inscribed on the plan.
- \_\_\_\_\_ ag) Wetlands (and poorly-drained and very poorly-drained soils), also identified as Class 5 and Class 6 High Intensity Soil Survey (HISS soils), and permanent and seasonal wetlands shall be identified on the plan by a New Hampshire certified Wetland or Soil Scientist, who shall affix his/her stamp and signature to the respective plan.
- \_\_\_\_\_ ah) Easements, existing and proposed
- \_\_\_\_\_ ai) State of New Hampshire engineer's seal, signature, surveyor's seal, and signature
- \_\_\_\_\_ aj) Error of closure (1 in 10,000 or better)
- \_\_\_\_\_ ak) Drafting errors/omissions
- \_\_\_\_\_ al) Note outlining phasing schedule
- \_\_\_\_\_ am) Narrative description stating the purpose, location, long range plans impacts on traffic, schools and utilities
- \_\_\_\_\_ an) Aerial photograph of site and area within 200 feet of the subdivision parcel
- \_\_\_\_\_ ao) Fiscal impact study
- \_\_\_\_\_ ap) Traffic study
- \_\_\_\_\_ aq) Drainage calculations and supporting data

Staff  
Initials

CLD/KMG

af) Regulation was repealed in 2010. Soil types indicated, No HISS was provided.

al) Construction schedule provided, no lot phasing schedule.

am) Narrative provided, no description of traffic or school impacts.

an) Not received for review.

ao) Not received for review, waiver requested.

ap) Not received for review, waiver requested.

Applicant  
Initials

- \_\_\_\_\_ ar) Copies of any proposed or existing easements, covenants, deed restrictions, right of way agreements or other similar documents
- \_\_\_\_\_ as) Copy of applicable Town, State, Federal approval/permits to include but not limited to the following:
  - sewer application
  - flood plain permit
  - wetlands special exception
  - variance
  - erosion control permit (149:8a)
  - WSPCC subdivision approval (septic)
  - dredge and fill permit
  - curb cut/driveway permit
  - shoreland protection certification in accordance with RSA483-B
  - if applicable, review application with Lower Merrimack River Local Advisory Committee (LMRLAC) and attach LMRLAC project comments hereto.
- \_\_\_\_\_ at) Off-site agreement(s)
- \_\_\_\_\_ au) Presentation plan (colored, with color coded bar chart)
- \_\_\_\_\_ av) Fees paid to clerk
- \_\_\_\_\_ aw) Plans that include relocation of lot lines shall clearly delineate the former (old) lot lines from proposed (new) lot lines

Staff  
Initials

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 CLD/KMG

- ar) Easement plans included. Trial easement noted in legend but not shown on plan. No deed or easement documents received for review.
- as) Only Alteration of Terrain permits application package received for review. Several other permits noted as pending; NHDES Subdivision Approval Permit, NHDES Wetlands Minor Permit, and NHDES Shoreland Permit.
- at) Not received.
- au) Requires Town action.
- av) Requires Town action.

Any and all items may be waived under the purview of the Planning Board.

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

*~* *4* **COPY**

November 26, 2014

NH Department of Environmental Services  
Alteration of Terrain  
PO Box 95, 29 Hazen Drive  
Concord, New Hampshire 03302

RE: Alteration of Terrain Application #141003-154  
Autumn Circle  
300 Webster Street, Hudson, NH  
KNA #07-0511-4A

Dear Ms. Clark,

Our office is in receipt of Alteration of Terrain comments relative to the above referenced project. Enclosed under this cover are revised subdivision plans and a revised drainage analysis. You will find slight changes within the plans and report, as the length of roadway has been reduced and a lot has been added for a total of eleven proposed lots. In addition to the comments provided by Alteration of Terrain, we have also included our response to the Lower Merrimack River Local Advisory Committee's comments. In response to the comments contained within the November 12, 2014 Request for More Information, we offer the following plan revisions and/or explanations:

Alteration of Terrain Comments:

1. On Sheet 6, please review the proposed grading of pond 2P. It appears that contour 118 does not tie in properly. If changes are made to the storage of the pond, please be sure to update the drainage report.

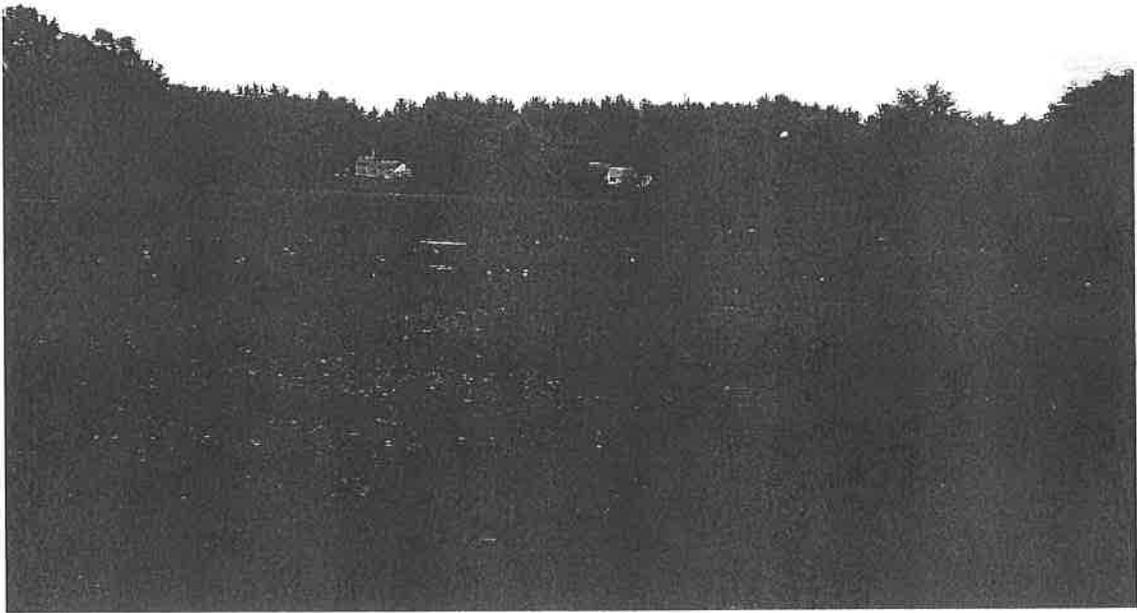
***The proposed grading for pond 2P was updated. It did not affect any storage within the pond.***

2. In the Construction Sequence, on sheet 21, please note that "Lot disturbance, other than that shown on the approved plans, shall not commence until after the roadway has the base course to design elevation and the associated drainage is complete and stable".

***Note #25 was added to sheet 23 (previously sheet 21) stating the note referenced above.***

3. According to the drainage analysis, the development is mostly changing grass to impervious cover rather than woods to impervious cover. Most of the site photos provided depict this as a wooded site. Please clarify (e.g., provide some photos of the site in the areas where the lots and road are to be constructed).

*The site photos depict critical areas of the site, i.e. Shoreland and wetlands, which happen to be wooded and undisturbed. However, the majority of the site is grass. The site is currently a hay field and hayed multiple times per year to keep the grass short. Below are photographs showing the fields.*





4. The drainage analysis shows a small increase in woods (HSG A) after development. Please review and revise or clarify as necessary.

*Our revised analysis shows no increase in woods (HSG A) after development.*

5. Please review the post-development time of concentration for sub-catchments 20S, 21S, and 22S. They are longer (in time) than their predevelopment counterparts, sub-catchments 20S & 21S. Typically development causes travel times to be faster rather than slower. Please review and revise as necessary.

*The time of concentration for 22S has been revised to reflect the same from pre to post development. Sub-catchment 22S has been reduced but sub-catchment 20S and 25S are increased due to the slopes in the field. The field is extremely flat in places and creates a larger time of concentration from the pre-development.*

#### LMRLAC Comments

1. Goal 5 of the approved 2008 Lower Merrimack River Corridor Management Plan is “to increase public access to and use of the Lower Merrimack River”. The Autumn Circle development provides a prime opportunity for the pursuit of this goal by requiring that a suitable public access easement for access by small craft be provided from the planned cul de sac to the River via the existing gravel road shown on sheet 5/22. Establishment of this easement should be a condition for approval by DES and by the Hudson Town

Civil Engineering

Land Surveying

Landscape Architecture

Planning Board. The Statewide Public Boat Access coordinator (Mr. Garrett Graaskamp, PG) has been copied on these comments and is the appropriate official to assist in this matter.

***Please refer to the enclosed letter from Attorney Andrew Prolman regarding this matter.***

2. The Application clearly states the intent of the developer that reduces-salt practices be employed throughout the development. This intent could be more fully supported by adding a provision for the erection and maintenance of suitable signage requiring low-salt and chloride-free ice control practices at key locations in the development.

***A reduced salt area sign has been added to the plan set for use along Autumn Circle.***

3. The 50 foot shoreline buffer is important to the scenic beauty of the river and the stability of its banks. In that regard any permit should require emplacement of permanent informative markers at suitable intervals along the riverfront in Lot 7.

***Wetland buffer markers have been added to the plan set.***

4. As a general matter, the planned stormwater basins appear appropriate, although we have not reviewed the detailed volumetric calculations. However, the plans do not, but should, show easements for access by maintenance crews as required for periodic cleanouts. Such easements should be a condition of permit approval. Planning for disposal of such potentially contaminated sediments should also be reflected on the plans.

***Access easements are proposed on the plan. A note regarding the disposal of said sediments has been added to the maintenance agreements.***

5. The Box Culvert proposed in the AOT permit application (Sheet 6/22) appears to result in some uncompensated loss of habitat. We recommend that the planned wetland buffer in the way of the culvert be expanded 30'-50' upstream and downstream to more fully compensate for the loss of habitat.

***The town of Litchfield requires a 75' building setback and a 100' leach field setback from jurisdictional wetland areas. This alone will keep major disturbance an additional 25'-50' away from wetlands upstream of the culvert crossing. The lots downstream of the culvert are already significantly affected by town drainage easements that will provide areas for habitat once constructed. Due to these encumbrances, the lot cannot endure any more restrictions than the already required 50' buffer to allow for constructability.***

6. It will be important to protect the riverbank against stormwater erosion when Lot 7 is developed. To that end this plan should clearly indicate that Lot 7, when developed, shall be graded and runoff from impervious surface managed such that no concentrated or shallow concentrated flow is directed toward the bank of the Merrimack River.

*Note #9 has been added to sheet 6.*

7. The State has long encouraged municipalities and developers to provide for a NH Heritage Trail along the Merrimack and Pemi from Franconia Notch to the Massachusetts border. Indeed, both Nashua and Hudson have had active Heritage Trail development plans and activities. To this end it appears highly suitable that a well-marked public access easement along the riverfront of this development be granted by the applicant as a condition of permit approval by either or both the DES and the Town of Hudson. The Chief of the NH Trails Bureau has been copied on these comments as a potential source of additional information.

*The applicant is willing to provide this easement for the Heritage Trail however, the easement will be contingent upon the future development of the surrounding properties and their willingness to provide such easement also. The applicant will not obligate himself to provide an easement if the surrounding properties will not cooperate and the future Heritage Trail is never built. Therefore, the proposed easement will only be in effect if plans for the trail move forward to construction.*

We trust that these plan revisions and/or explanations will adequately address the State's comments. Please do not hesitate to contact us if you have any questions or further comments.

Best regards,



Brenton Cole  
Project Engineer  
Keach-Nordstrom Associates, Inc.

PRUNIER & PROLMAN, P.A.  
ATTORNEYS AT LAW  
20 Trafalgar Square, Suite 626  
Nashua, New Hampshire 03063-1981  
TEL (603) 883-8900  
FAX (603) 883-7959  
www.prunierlaw.com

GERALD R. PRUNIER  
gprunier@prunierlaw.com

ANDREW A. PROLMAN  
aprolman@prunierlaw.com

November 4, 2014

By email: [gporter77@gmail.com](mailto:gporter77@gmail.com)

Gene Porter, Chair  
Lower Merrimack River Local Advisory Commission  
9 Executive Park Drive, Suite 201  
Merrimack, NH 03054

Re: Autumn Circle Subdivision, Hudson & Litchfield, NH

Dear Mr. Porter:

This office represents Len and Jane Vigeant, owners of the proposed Autumn Circle subdivision. Please be advised the Vigeants will not be offering a public access easement to the Merrimack River. They may consider an emergency access, but only if recommended by the Hudson Fire Department.

Sincerely,



Andrew A. Prolman

AAP:ted

Cc by email: Len Vigeant  
Keach Nordstrom Associates, Inc.  
John Cashell, Hudson Town Planner

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D

SUBDIVISION PLAN APPLICATION FOR PLAN REVIEW  
TOWN OF HUDSON, NEW HAMPSHIRE

Date of Application: September 16, 2014 Tax Map # 128 Lot # 7 & 8

Name of Project: Autumn Circle Subdiv

Zoning District: \_\_\_\_\_ General SB# 11-14  
(For Town Use) (For Town Use)

ZBA Action: Wetland Special Exception - 08/28/2014

PROPERTY OWNER:

DEVELOPER:

Name: Leonard A. Vigeant SR.

Same As Owner

Address: 5 Mockingbird Lane

Address: Hudson, NH 03051

Telephone # (603) 321-1946

Fax # \_\_\_\_\_

Email: vfamilyproperties@comcast.net

PROJECT ENGINEER

Name: Patrick Colburn, PE

Telephone # (603) 627-2881

Address: Keach Nordstrom Associates, Inc

Fax # (603) 627-2915

Address: 10 Commerce Park No. Suite 3 Bedford, NH 03110

Email: pcolburn@keachnordstrom.com

PURPOSE OF PLAN:

The purpose of this plan is to consolidate the two subject parcels: Hudson/Litchfield Tax Map and Lot = 128-7 / 1-2 and Hudson/Litchfield Tax Map and Lot = 128-8 / 1-1 and subdivide the resulting area into 10 building lots; 1 will contain the existing house and garage.

(FOR TOWN USE)

Plan Routing Date: 10/6/14 Sub/Site Date: 10/28/14 @ 10:00 AM

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

KWD Title: Zoning Administrator Date: 10/7/14  
(Initials)

DEPT:  
 Zoning \_\_\_\_\_ Engineering \_\_\_\_\_ Assessor \_\_\_\_\_ Police \_\_\_\_\_ Fire \_\_\_\_\_ Planning  
\_\_\_\_\_ Consultant \_\_\_\_\_ Highway Department

\* Approved by ZBA on Aug 28<sup>th</sup>, 2014. KWD

Fees Paid \_\_\_\_\_

Hudson Town Hall  
Hudson Zoning Board  
12 School Street  
Hudson, NH 03051

Town of Hudson

Zoning Board of Adjustment

**Decision to Grant a Wetlands Special Exception Permit**

On **August 28, 2014**, the members of the Hudson Zoning Board of Adjustment, as part of its regular public meeting for that date, heard **Case 128-007 & 008, 300 Webster Street**, pertaining to a request by **Leonard Vigeant, 5 Mockingbird Lane, Hudson, NH** to allow for a Wetland Special Exception in accordance with the provisions of HZO Article IX, Section 334-35 to **encroach into the designated wetlands approximately 3,458 square feet, and 25,915 sq. ft. of permanent wetland buffer impact is proposed at 300 Webster Street [Map 128, Lots 7 & 8; Zoned R2; HZO Article IX, Section 334-35, Uses within Wetland Conservation District.]**

Following the hearing of testimony by the applicant, a majority of the members of this Zoning Board voted that this Wetlands Special Exception should be granted, with the following stipulations:

1. With stipulation to carry out all requirements or stipulations of the Conservation Commission as follows:
  - a. Construction and restoration shall comply with BEST MANAGEMENT PRACTICES TO CONTROL NON-POINT SOURCE POLLUTION: A GUIDE FOR CITIZENS AND TOWN OFFICIALS (NH Dept of Environmental Services – Current Issue)
  - b. During construction and restoration, erosion control barriers shall be installed and maintained to the satisfaction of the Town Engineer.

- c. Recommend that the Town of Hudson acquire a pedestrian easement from the cul-de-sac at the western of the proposed new roadway, along the lot line between Lots 6 & 7 to the boat ramp, located coincident with Photo 6 on the associated plans, and at the top of the Merrimack River bank both north and south of the wetlands connecting to the river, for the purpose of providing access to and a path for the proposed Heritage Trail.
- d. Recommend that the Town of Hudson acquire a river access and pedestrian easement extending from the recommended pedestrian easement located coincident with Photo 6 on the associated plans, and continuing down the existing boat ramp to the Merrimack River.

For details of specific discussion relative to this decision, please consult the public minutes recorded during this hearing.

All representations of fact or intention made by the applicant or any applicant's representative(s) during testimony before the Zoning Board of Adjustment relative to the obtaining of this special exception shall be considered conditions of the special exception, regardless of the fact that such facts or intentions were not specifically stated as part of the motion to grant.

In the event that the requested use subsequently is found by the Hudson Zoning Administrator to demonstrate deliberate or preventable lack of compliance with any applicable stipulation or restriction, including the verbally specified restrictions described in the preceding paragraph, such use shall be held to be in violation of the covenant made with the Board, and corrective action(s) will be enforced under N.H. R.S.A. 676:17, Fines and Penalties, which allows a civil penalty of \$275 for the first offense and \$550 for subsequent offenses for each day that such violation is found to continue, as well as recovery of costs and reasonable attorney's fees.

Signed: \_\_\_\_\_  
Chairman, Hudson Zoning Board of Adjustment

Date: \_\_\_\_\_

Signed: \_\_\_\_\_  
Zoning Administrator

Date: \_\_\_\_\_

**SUBDIVISION PLAN APPLICATION FOR PLAN REVIEW  
TOWN OF HUDSON, NEW HAMPSHIRE**

Date of Application: September 16, 2014 Tax Map # 128 Lot # 7 & 8

Name of Project: Autumn Circle Subdiv

Zoning District: \_\_\_\_\_ General SB# 11-14  
(For Town Use) (For Town Use)

ZBA Action: Wetland Special Exception - 08/28/2014

PROPERTY OWNER:

Name: Leonard A. Vigeant SR.  
Address: 5 Mockingbird Lane  
Address: Hudson, NH 03051  
Telephone # (603) 321-1946  
Fax # \_\_\_\_\_  
Email: vfamilyproperties@comcast.net

DEVELOPER:

Same As Owner  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PROJECT ENGINEER

Name: Patrick Colburn, PE  
Address: Keach Nordstrom Associates, Inc  
Address: 10 Commerce Park No. Suite 3 Bedford, NH 03110

Telephone # (603) 627-2881  
Fax # (603) 627-2915  
Email: pcolburn@keachnordstrom.com

PURPOSE OF PLAN:

The purpose of this plan is to consolidate the two subject parcels: Hudson/Litchfield Tax Map and Lot = 128-7 / 1-2 and Hudson/Litchfield Tax Map and Lot = 128-8 / 1-1 and subdivide the resulting area into 10 building lots; 1 will contain the existing house and garage.

(FOR TOWN USE)

Plan Routing Date: 10/6/14 Sub/Site Date: 10/28/14 @ 10:00 AM

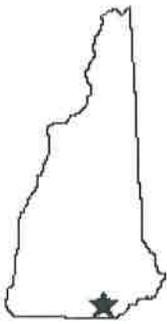
I have no comments  I have comments (attach to form)

JOB Title: Deputy Fire Chief Date: 10/8/14  
(Initials)

DEPT:

Zoning  Engineering  Assessor  Police  Fire  Planning  
 Consultant  Highway Department

Fees Paid \_\_\_\_\_



# TOWN OF HUDSON

## FIRE DEPARTMENT

39 FERRY STREET, HUDSON, NEW HAMPSHIRE 03051



Emergency 911  
Business 603-886-6021  
Fax 603-594-1164

Robert M. Buxton  
Chief of Department

TO: John M. Cashell  
Town Planner

FR: John J. O'Brien  
Deputy Fire Chief

DT: Nov 4, 2014

RE: Water Supply Comments for Leonard Vigeant 300 Webster St Map 128; Lots 7&8



These comments are regarding the proposal to install municipal water and Fire Hydrants to the above referenced development.

### Hydrant Locations

The Hydrants as marked on the drawings are approved for location

### Flow Requirements

NFPA 1 Sec 18.4.5.1 Fire Flow requirements for one and two family dwellings

" The minimum fire flow and flow duration requirement for one and two family dwellings having a flow area that does not exceed 5000 sq.ft. shall be 1000 GPM."

The hydrants installed must provide the above flow upon completion and prior to issuance of certificate of occupancy.

If I can be of any further assistance please e mail [jobrien@hudsonnh.gov](mailto:jobrien@hudsonnh.gov)

John J. O'Brien  
Deputy Fire Chief

JOB

**SUBDIVISION PLAN APPLICATION FOR PLAN REVIEW  
TOWN OF HUDSON, NEW HAMPSHIRE**

Date of Application: September 16, 2014 Tax Map # 128 Lot # 7 & 8

Name of Project: Autumn Circle Subdiv

Zoning District: \_\_\_\_\_ General SB# 11-14  
(For Town Use) (For Town Use)

ZBA Action: Wetland Special Exception - 08/28/2014

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Name: Leonard A. Vigeant SR.  
Address: 5 Mockingbird Lane  
Address: Hudson, NH 03051  
Telephone # (603) 321-1946  
Fax # \_\_\_\_\_  
Email: vfamilyproperties@comcast.net

DEVELOPER:

Same As Owner  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PROJECT ENGINEER

Name: Patrick Colburn, PE  
Address: Keach Nordstrom Associates, Inc  
Address: 10 Commerce Park No. Suite 3 Bedford, NH 03110

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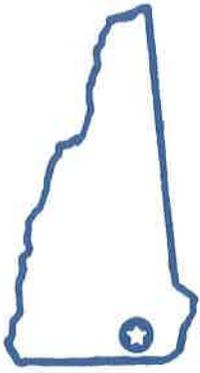
Plan Routing Date: 10/6/14 Sub/Site Date: 10/28/14 @ 10:00 AM

I have no comments  I have comments (attach to form)   
RVB Title: ROAD AGENT Date: 10/7/14  
(Initials)

DEPT:

Zoning  Engineering  Assessor  Police  Fire  Planning  
 Consultant  Highway Department

Fees Paid \_\_\_\_\_



# TOWN OF HUDSON

Highway Department

---

2 Constitution Drive Hudson, New Hampshire 03051 603/886-6018 Fax 603/594-1143



To: John Cashell, Town Planner

From: Kevin Burns, Road Agent *KB*

Date: October 30, 2014

Re: Autumn Circle Subdivision

I withdraw all of my previous objections to this project if presented as discussed at our plan review meeting on today's date.

**SUBDIVISION PLAN APPLICATION FOR PLAN REVIEW  
TOWN OF HUDSON, NEW HAMPSHIRE**

Date of Application: September 16, 2014 Tax Map # 128 Lot # 7 & 8

Name of Project: Autumn Circle Subdiv

Zoning District: \_\_\_\_\_ General SB# 11-14  
(For Town Use) (For Town Use)

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Same As Owner  
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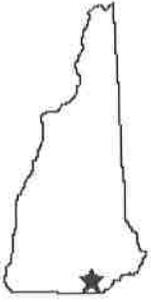
Plan Routing Date: 10/6/14 Sub/Site Date: 10/28/14 @ 10:00 AM

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

(Initials) AK Title: Asst. Assessor Date: 10-7-14

DEPT: \_\_\_\_\_ Zoning \_\_\_\_\_ Engineering \_\_\_\_\_ Assessor \_\_\_\_\_ Police \_\_\_\_\_ Fire \_\_\_\_\_ Planning \_\_\_\_\_  
\_\_\_\_\_ Consultant \_\_\_\_\_ Highway Department \_\_\_\_\_

Fees Paid \_\_\_\_\_



# TOWN OF HUDSON

Office of the Assessor



Jim Michaud  
Assistant Assessor, CAE  
email: [jmichaud@hudsonnh.gov](mailto:jmichaud@hudsonnh.gov)  
[www.hudsonnh.gov](http://www.hudsonnh.gov)

---

12 School Street · Hudson, New Hampshire 03051 · Tel: 603-886-6009 · Fax: 603-594-1160

To: John Cashell, Town Planner

October 7, 2014

From: Jim Michaud, Assistant Assessor 

Re: "Autumn Circle" draft subdivision  
Map 128 Lot's 7 & 8

The Assessing Department recommends the following map/lot designations (for the land in Hudson) for this proposed subdivision based on the 9/16/2014 site development plan. If the lot lines change/increase/decrease etc. please have the department receive a copy of those changes so we can adjust proposed lot numbers accordingly, prior to any recording.

<b>CURRENT-From Plan</b>	<b>Assigned Map/Lot's to be used on plan</b>
Lot 1	Map 128 Lot 008 Sublot 000
Lot 2	Map 128 Lot 008 Sublot 001
Lot 3	Map 128 Lot 008 Sublot 003
Lot 4	Map 128 Lot 008 Sublot 004
Lot 5	Map 128 Lot 008 Sublot 005
Lot 6	Map 128 Lot 008 Sublot 006
Lot 7	Map 128 Lot 008 Sublot 007
Lot 8	Map 128 Lot 008 Sublot 008
Lot 9	Map 128 Lot 008 Sublot 009
Lot 10	Map 128 Lot 008 Sublot 010

**SUBDIVISION PLAN APPLICATION FOR PLAN REVIEW  
TOWN OF HUDSON, NEW HAMPSHIRE**

Date of Application: September 16, 2014 Tax Map # 128 Lot # 7 & 8

Name of Project: Autumn Circle Subdiv.

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Same As Owner  
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PROJECT ENGINEER

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(FOR TOWN USE)

Plan Routing Date: 10/6/14 Sub/Site Date: 10/28/14 @ 10:00 AM

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

[Signature] Title: Lieutenant Date: 10/14/14

DEPT:

Zoning  Engineering  Assessor  Police  Fire  Planning

Consultant  Highway Department

Fees Paid \_\_\_\_\_



The State of New Hampshire  
**DEPARTMENT OF ENVIRONMENTAL SERVICES**

Handwritten initials "E" with a checkmark.



**Thomas S. Burack, Commissioner**

**NOTICE OF ACCEPTANCE OF PERMIT APPLICATION  
LAND RESOURCES MANAGEMENT**

October 06, 2014

HUDSON MUNICIPAL CLERK  
12 SCHOOL ST  
HUDSON NH 03051-4411

TOWN OF HUDSON  
PATRICIA BARRY, CLERK  
DATE 10-9-14 TIME 10:30AM  
CC: SELECTMEN  
INSPECTIONAL SERVICES DIV.  
**LAND USE DIV.**

RE: Shoreland Program Permit Application (RSA 483:B)  
DES File Number: 2014-02812  
Subject Property: **300 Webster Street, Hudson, Tax Map/Lot#: 128 / 7&8**

Dear Sir or Madam:

Pursuant to RSA 541-A:39, please be advised that the Department of Environmental Services (NHDES) accepted an application on **10/06/2014** for the permit program and subject property referenced above.

The application requests a permit for impacts to jurisdictional shoreland at the subject property. A detailed technical review of the application package will be completed within the applicable timeframe: 30 days of receipt of an application for a permit or 30 days of receipt of an application for a permit that will require a waiver of the minimum standards of RSA 483-B:9.

Pursuant to RSA 483-B:5-b,IV-a and Env-Wq 1406.13(a), the applicant is required to have notified the municipality by certified mail and provided a completed and signed copy of the permit application. If you have not received the required information, please contact the applicant or their agent at the following address:

Keach-Nordstrom Associates, Inc.  
c/o Brenton J. Cole  
10 Commerce Park North, Ste 3  
Bedford, NH 03110

Please provide a copy of this notice to all interested departments, boards and commissions. Also note that under current state law and regulations, NHDES is not authorized to consider local zoning and regulatory issues pertaining to a project; these must be addressed at the local level.

If you have any questions, please contact the NHDES Shoreland Program at (603) 271-2147.

Thank you,

Land Resources Management

cc: Leonard A Vigeant  
Brenton J. Cole @ Keach-Nordstrom Associates, Inc.  
DES Rivers Program



The State of New Hampshire  
DEPARTMENT OF ENVIRONMENTAL SERVICES

Thomas S. Burack, Commissioner

CC: Planning  
"F"

SHORELAND IMPACT PERMIT 2014-02812

**Permittee:** Leonard A. Vigeant  
5 Mockingbird Ln.  
Hudson, NH 03051  
**Project Location:** 300 Webster Street, Hudson  
Hudson Tax Map/Lot No. 128 / 7&8  
**Waterbody:** Merrimack River

HUDSON  
NOV 12 2014  
COMMITTEE ON DEVELOPMENT  
**NOTE--  
CONDITIONS**

**APPROVAL DATE:** 11/04/2014      **EXPIRATION DATE:** 11/04/2019

Based upon review of the above referenced application, in accordance with RSA 483-B, a Shoreland Impact Permit was issued. This permit shall not be considered valid unless signed as specified below.

**PERMIT DESCRIPTION:** Impact 18,698 sq. ft. in order to create a 10 lot subdivision.

**THIS APPROVAL IS SUBJECT TO THE FOLLOWING PROJECT SPECIFIC CONDITIONS:**

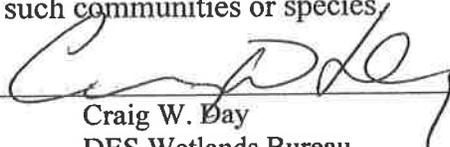
1. All work shall be in accordance with plans by Keach-Nordstrom Associates Inc. dated September 16, 2014 and received by the NH Department of Environmental Services (DES) on October 6, 2014.
2. This permit is contingent on approval by the DES Alteration of Terrain Bureau.
3. This permit is contingent on approval by the DES Subsurface Systems Bureau.
4. There shall be no impacts within wetlands, surface waters, or their banks until any permit as may be required under RSA 482-A has been obtained.
5. No more than 1% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.
6. At least 20,008 sq. ft. of the Natural Woodland Buffer beyond the primary building setback must remain in an unaltered state in order to comply with RSA 483-B:9, V, (b), (2).
7. All Lots within the Shoreland Protection shall require separate Shoreland Permits from NHDES for any disturbances proposed that are not covered under the approved plan.
8. All activities conducted in association with the completion of this project shall be conducted in a manner that complies with applicable criteria of Administrative Rules Chapter Env-Wq 1400 and RSA 483-B during and after construction.
9. Erosion and siltation control measures shall be installed prior to the start of work, be maintained throughout the project, and remain in place until all disturbed surfaces are stabilized.
10. Erosion and siltation controls shall be appropriate to the size and nature of the project and to the physical characteristics of the site, including slope, soil type, vegetative cover, and proximity to wetlands or surface waters.

11. No person undertaking any activity in the protected shoreland shall cause or contribute to, or allow the activity to cause or contribute to, any violations of the surface water quality standards established in Env-Ws 1700 or successor rules in Env-Wq 1700.
12. Any fill used shall be clean sand, gravel, rock, or other suitable material.
13. This permit shall not preclude DES from taking any enforcement or revocation action if DES later determines that any of the structures depicted as "existing" on the plans submitted by the applicant were not previously permitted or grandfathered.

**GENERAL CONDITIONS THAT APPLY TO ALL DES SHORELAND IMPACT PERMITS:**

1. A copy of this permit shall be posted on site during construction in a prominent location visible to inspecting personnel;
2. This permit does not convey a property right, nor authorize any injury to property of others, nor invasion of rights of others;
3. The Wetlands Bureau shall be notified upon completion of work;
4. This permit does not relieve the applicant from the obligation to obtain other local, state or federal permits, and/or consult with other agencies as may be required (including US EPA, US Army Corps of Engineers, NH Department of Transportation, NH Division of Historical Resources (NH Department of Cultural Resources), NHDES-Alteration of Terrain, etc.);
5. Transfer of this permit to a new owner shall require notification to and approval by the Department;
6. This permit shall not be extended beyond the current expiration date.
7. This project has been screened for potential impacts to known occurrences of rare species and exemplary natural communities in the immediate area. Since many areas have never been surveyed, or have received only cursory inventories, unidentified sensitive species or communities may be present. This permit does not absolve the permittee from due diligence in regard to state, local or federal laws regarding such communities or species.

APPROVED: \_\_\_\_\_

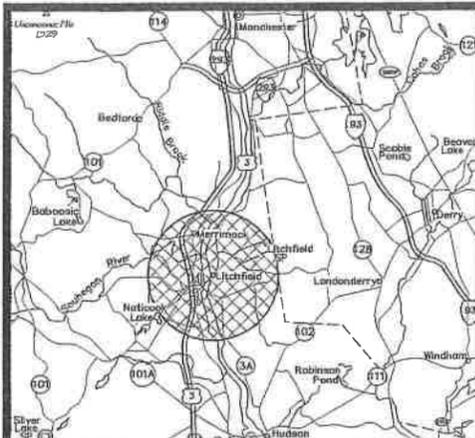
  
Craig W. Day  
DES Wetlands Bureau

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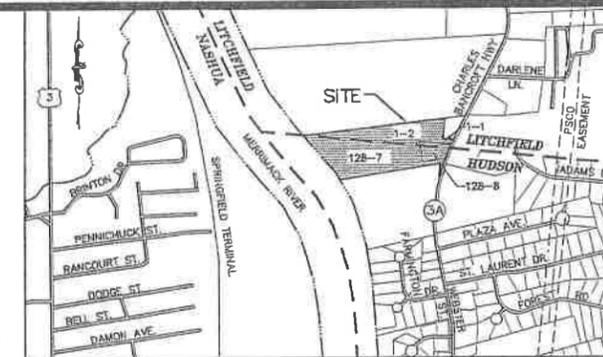
**BY SIGNING BELOW I HEREBY CERTIFY THAT I HAVE FULLY READ THIS PERMIT AND AGREE TO ABIDE BY ALL PERMIT CONDITIONS.**

\_\_\_\_\_  
OWNER'S SIGNATURE (required)

\_\_\_\_\_  
CONTRACTOR'S SIGNATURE (required)



VICINITY PLAN  
NOT TO SCALE



VICINITY MAP  
SCALE: 1"=1,000'

# RESIDENTIAL SUBDIVISION

## LAND OF LEONARD VIGEANT

### MAP 128; LOTS 7 & 8-HUDSON MAP B; LOTS 1-1 & 1-2-LITCHFIELD

#### 300 WEBSTER STREET HUDSON & LITCHFIELD, NEW HAMPSHIRE

**OWNER/APPLICANT:**

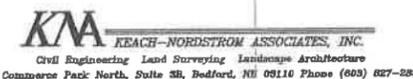
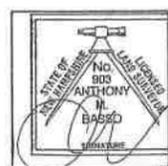
LEONARD A. SR. AND JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NEW HAMPSHIRE 03054

**PREPARED BY:**

KEACH-NORDSTROM ASSOCIATES, INC.  
10 COMMERCE PARK NORTH, SUITE 3B  
BEDFORD, NEW HAMPSHIRE 03110  
(603) 627-2881

**IN ASSOCIATION WITH:**

SCHAUER ENVIRONMENTAL CONSULTANTS, LLC.  
722 ROUTE 3A, UNIT #1  
BOW, NEW HAMPSHIRE, 03304



SEPTEMBER 16, 2014  
LAST REVISED: NOVEMBER 19, 2014  
PROJECT NO. 07-0511-4A

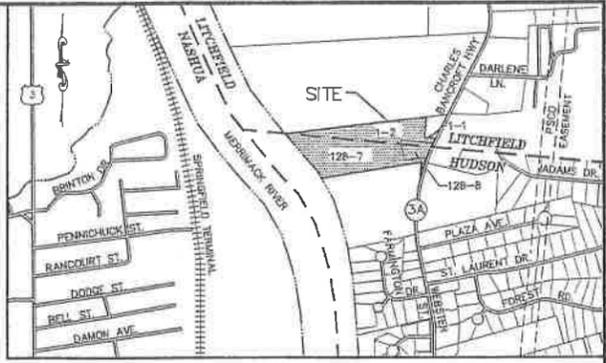
SHEET TITLE

SHEET No.

MASTER PLAN	1
SUBDIVISION PLAN	2 & 3
TOPOGRAPHIC SUBDIVISION PLAN	4 & 5
ROADWAY PLAN	6
ROADWAY PROFILE	7
UTILITY PLAN	8
EASEMENT PLANS	9 & 10
SITE DISTANCE PLAN & PROFILE	11
EROSION CONTROL PLAN	12
WATER MAIN EXTENSION PLAN	13
CONSTRUCTION DETAILS	14 - 22
TEST PIT LOGS	23

**ZONING NOTE**  
 THE ZONING BUILDING SETBACKS DEPICTED ON THIS PLAN ARE THOSE WE HAVE INTERPRETED FROM THE LATEST ZONING ORDINANCE OF THE MUNICIPALITY AND, AS SUCH, ARE ONLY OPINIONS EXPRESSED BY KEACH-NORDSTROM ASSOCIATES, INC. THE FINAL INTERPRETATION OF THE ORDINANCE CAN ONLY BE MADE BY THE APPROPRIATE ZONING AUTHORITY. SINCE BUILDING ORIENTATION, PROPOSED USES, AND OTHER FACTORS CAN AFFECT THE SETBACKS, PRIOR TO ANY DEVELOPMENT OF THIS PROPERTY THE BUILDER/OWNER MUST CONSULT WITH THE TOWN/CITY TO INSURE THE CORRECT APPLICATION OF THE ZONING ORDINANCE.

**OWNER/APPLICANT**  
 SIGNATURE: *Leonard A. Vigeant*  
 DATE: 9-24-14



VICINITY MAP  
 SCALE: 1" = 1,000'

**REFERENCE PLANS:**

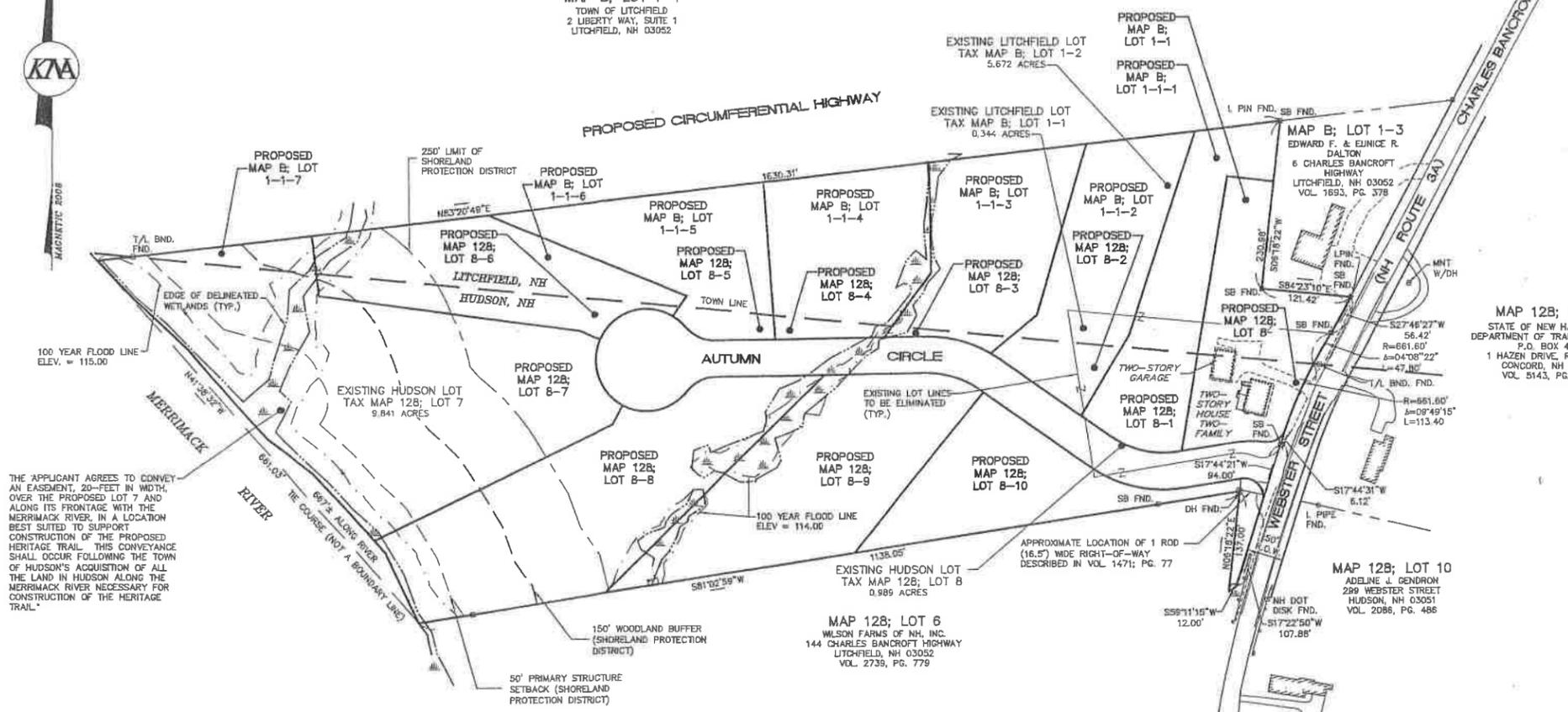
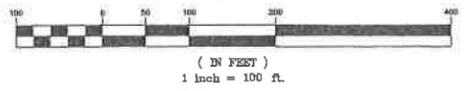
- "CURRENT LAND USE PLAN FOR EUGENE C. FLEURY, WEBSTER STREET, HUDSON & LITCHFIELD, NH, SCALE: 1"=50', DATED FEBRUARY 21, 1992, BY DONALD T. JEAN.
- "LAND OF EUGENE C. FLEURY, FOR EUGENE C. FLEURY, CHARLES BANCROFT HIGHWAY, ROUTE 3A, HUDSON & LITCHFIELD, NH, SCALE: 1"=50', DATED AUGUST 22, 1973, BY ROLAND R. GROUND. H.C.R.D. PLAN #898.
- "BOUNDARY PLAN OF LAND BELONGING TO THE ESTATE OF GENIE S. DANFORTH, FOR FRANK B. CLANCY, CHARLES BANCROFT HIGHWAY, ROUTE 3A, LITCHFIELD, NH, SCALE: 1"=100', DATED APRIL 1984, BY MAYNARD & PAGETTE, INC. H.C.R.D. PLAN #1576.
- "LOT LINE RELOCATION FOR LEO N. FLEURY & EUGENE C. FLEURY, WEBSTER STREET, HUDSON & LITCHFIELD, NH, SCALE: 1"=50', DATED SEPTEMBER 14, 1982, BY DONALD T. JEAN. H.C.R.D. PLAN #15520.

**LEGEND**

- ⊙ STONE BOUND FOUND
- ⊙ IRON PIN FOUND
- ⊙ DRILL HOLE
- ABUTTER LINE
- PROPERTY LINE
- WETLAND
- RIVER
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- EXISTING EASEMENT
- 50' PRIMARY STRUCTURE SETBACK
- 250' SHORELAND PROTECTION DISTRICT
- 150' WOODLAND BUFFER
- TOWN LINE



**GRAPHIC SCALE**



THE APPLICANT AGREES TO CONVEY AN EASEMENT, 20-FOOT IN WIDTH, OVER THE PROPOSED LOT 7 AND ALONG ITS FRONTAGE WITH THE MERRIMACK RIVER, IN A LOCATION BEST SUITED TO SUPPORT CONSTRUCTION OF THE PROPOSED HERITAGE TRAIL. THIS CONVEYANCE SHALL OCCUR FOLLOWING THE TOWN OF HUDSON'S ACQUISITION OF ALL THE LAND IN HUDSON ALONG THE MERRIMACK RIVER NECESSARY FOR CONSTRUCTION OF THE HERITAGE TRAIL.

**NOTES:**

- THE PURPOSE OF THIS PLAN IS TO CONSOLIDATE THE TWO SUBJECT PARCELS: HUDSON/LITCHFIELD TAX MAP AND LOT = 128-7 / B-1-2 AND HUDSON/LITCHFIELD TAX MAP AND LOT = 128-5 / B-1-1 AND SUBDIVIDE THE RESULTING AREA INTO 11 BUILDING LOTS; 1 WILL CONTAIN THE EXISTING HOUSE AND GARAGE, THE PROPOSED DEVELOPMENT WILL ALSO CREATE AN AUTUMN CIRCLE HOME OWNER'S ASSOCIATION, WHOSE PRIMARY FUNCTION IS PRIVATE MAINTENANCE OF THE TWO TREATMENT SWALES AND TWO DETENTION PONDS.
- TOTAL AREA OF SUBJECT PARCELS:  
 AREA OF LOT 128-7 WITHIN THE TOWN OF HUDSON = 0.841 ACRES  
 AREA OF LOT B-1-2 WITHIN THE TOWN OF LITCHFIELD = 5.672 ACRES  
 TOTAL AREA OF PARCEL 128-7 / B-1-2 = 35,514 ACRES  
 AREA OF LOT 128-5 WITHIN THE TOWN OF HUDSON = 0.889 ACRES  
 AREA OF LOT B-1-1 WITHIN THE TOWN OF LITCHFIELD = 0.344 ACRES  
 TOTAL AREA OF PARCEL 128-5 / B-1-1 = 1,333 ACRES
- THE SUBJECT PARCELS ARE SUBJECT TO THE FOLLOWING ZONING REQUIREMENTS:  
 TOWN OF HUDSON (LOTS 128-7 & 128-5)  
 RESIDENTIAL (R-2)  
 MINIMUM LOT REQUIREMENTS:  
 - LOT AREA 43,560 SF  
 - LOT FRONTAGE 150 FT LOCAL  
 W/O/TOWN WATER & SEWER  
 MINIMUM BUILDING SETBACKS:  
 - FRONT 30 FT LOCAL  
 - FRONT 50 FT COLLECTOR  
 - SIDE 15 FT  
 - REAR 15 FT  
 TOWN OF LITCHFIELD (LOTS B-1-1 & B-1-2)  
 SOUTHWESTERN COMMERCIAL DISTRICT (SEE NOTE 17)  
 MINIMUM LOT REQUIREMENTS:  
 - LOT AREA PLANNING BOARD APPROVAL NOT < 1 ACRE  
 - LOT FRONTAGE 150 FT, NOT INCLUDING NH ROUTE 3-A  
 MINIMUM BUILDING SETBACKS:  
 - FRONT, RT. 3A 50 FT LANDSCAPE BUFFER  
 - PUBLIC R.O.W. 50 FT EXCEPT NH ROUTE 3-A  
 - SIDE 20 FT  
 - REAR 20 FT
- OWNER OF RECORD:  
 LEONARD A. VIGANT SR. AND JANE M. VIGANT  
 5 MOCKINGBIRD LANE  
 HUDSON, NH 03051  
 VOL. 8652, PG. 2427
- EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAPS (FIRM) FOR THE TOWN OF HUDSON, NEW HAMPSHIRE, HILLSBOROUGH COUNTY, MAP NUMBER 330092 0512 D PANEL NUMBER 512 OF 701, EFFECTIVE DATE: SEPTEMBER 25, 2009 AND FOR THE TOWN OF LITCHFIELD, NEW HAMPSHIRE, HILLSBOROUGH COUNTY, MAP NUMBER 330093 0512 D PANEL NUMBER 512 OF 701, EFFECTIVE DATE: SEPTEMBER 25, 2009 INDICATE THAT PARCEL 128-7/B-1-2 IS PARTIALLY LOCATED WITHIN THE 100-YEAR HAZARD AREAS AND THAT PARCEL 128-5/B-1-1 IS NOT LOCATED WITHIN A FLOOD HAZARD AREA.
- BENCHMARKS SET AS NOTED, BASED ON NGVD 1929.
- THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE AT 811.
- BOUNDARY AND TOPOGRAPHIC INFORMATION IS BASED ON A FIELD SURVEY PERFORMED BY THIS OFFICE BETWEEN MAY 2008 AND MAY 2014. HORIZONTAL DATUM IS MAGNETIC 2008. VERTICAL DATUM IS NGVD 1929.
- WETLAND AND SITE SPECIFIC SOIL MAPPING PERFORMED BY SCHAUER ENVIRONMENTAL CONSULTANTS, LLC IN APRIL AND MAY 2014.
- EASEMENTS, RIGHTS AND RESTRICTIONS SHOWN OR IDENTIFIED HEREON ARE THOSE FOUND DURING RESEARCH PERFORMED AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS.

**NOTES (CONTINUED):**

- LOTS ARE SERVICED BY ON-SITE SEPTIC SYSTEMS AND MUNICIPAL WATER PENDING APPROVAL OF WATER MAIN EXTENSION.
- SHEETS 1 THROUGH 3 SHALL BE RECORDED AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS AND A FULL PLAN SET IS LOCATED AT THE HUDSON AND LITCHFIELD PLANNING OFFICES.
- PERMITS REQUIRED:  
 - NHDES SUBDIVISION APPROVAL PENDING  
 - INDIVIDUAL SUBSURFACE SEPTIC DISPOSAL SYSTEM APPROVALS PENDING  
 - NHDES ALTERATION OF TERRAIN PENDING  
 - NHDES WETLAND MINOR IMPACT PENDING  
 - NHDES SHORELAND 2014-02812 (AMENDMENT REQUIRED)  
 - NHDOT DRIVEWAY PENDING  
 - NHDES NOTICE OF INTENT PENDING  
 - NHDOT EXCAVATION REQUIRED PRIOR TO CONSTRUCTION OF WATER MAIN
- WAINERS REQUESTED:  
 - TOWN OF HUDSON:  
 - HTC 289-6.(D) - FISCAL IMPACT STUDY  
 - HTC 289-6.(D) - TRAFFIC STUDY  
 - TOWN OF LITCHFIELD:  
 - FISCAL IMPACT STUDY  
 - TRAFFIC STUDY
- IMPACT FEES IMPOSED PURSUANT TO THE LITCHFIELD ZONING ORDINANCE SECTION 1300, PUBLIC CAPITAL FACILITIES IMPACT FEES AND SECTION 1400, PUBLIC SCHOOLS FACILITIES IMPACT FEE SHALL BE ASSESSED BY THE PLANNING BOARD AT THE TIME OF SUBDIVISION APPROVAL FOR LOTS SITUATED WITHIN TOWN OF LITCHFIELD AND RECORDING AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS (HCRD). APPLICABLE IMPACT FEES SHALL BE STATED IN THE BOARD'S NOTICE OF DECISION. IMPACT FEES ARE PAYABLE AT THE TIME A CERTIFICATE OF OCCUPANCY IS ISSUED BY THE BUILDING DEPARTMENT.  
 - PUBLIC SCHOOL FACILITIES IMPACT FEES:  
 - CAMPBELL HIGH SCHOOL \$1.17/SF  
 - NEW ELEMENTARY SCHOOL \$2.51/SF  
 - PUBLIC CAPITAL FACILITIES IMPACT FEES:  
 - TOWN HALL ADMINISTRATION \$0.02/SF  
 - FIRE \$0.43/SF  
 - POLICE \$0.12/SF  
 - RECREATION \$0.73/SF  
 - LIBRARY \$0.06/SF  
 - ROAD IMPACT FEES:  
 - ROAD (SINGLE FAMILY DETACHED) \$1,651.21
- WINTER ROAD MAINTENANCE SHALL BE CONDUCTED WITH LIMITED SALT USE. SNOW STORAGE SHALL BE ALONG BOTH SIDES OF THE ROADWAY AND IN THE MIDDLE OF THE CUL-DE-SAC.
- ON AUGUST 28, 2014, THE HUDSON ZBA GRANTED SPECIAL EXCEPTION FOR WETLAND BUFFER IMPACTS ASSOCIATED WITH ROADWAY CONSTRUCTION AND STORMWATER MANAGEMENT. 25,915 SF FOR BUFFER, 3,450 SF FOR WETLANDS.
- ON JUNE 11, 2014, THE LITCHFIELD ZBA GRANTED THE APPLICANT A VARIANCE TO ALLOW RESIDENTIAL CONSTRUCTION IN A COMMERCIAL DISTRICT.
- A GAP IN THE AMOUNT OF \$1,554.33, PER RESIDENTIAL UNIT IN HUDSON, SHALL BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- A PUBLIC SCHOOL IMPACT FEE IN THE AMOUNT OF \$3,578 IN HUDSON, PER RESIDENTIAL UNIT, SHALL BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

**NOTES (CONTINUED):**

- A RECREATION CONTRIBUTION IN THE AMOUNT OF \$400 IN HUDSON, PER RESIDENTIAL UNIT, SHALL BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- ON-SITE DRAINAGE SYSTEM SHALL BE CONSTRUCTED AND MAINTAINED IN COMPLIANCE WITH LOCAL AND NHDES REQUIREMENTS FOR SUCH SYSTEMS.
- THE NUMBER OF DRILLING LOTS FOR THIS SUBDIVISION SHALL BE LIMITED TO 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.
- CONSTRUCTION ACTIVITIES INVOLVING LOTS SHALL BE LIMITED TO THE HOURS BETWEEN 7:00 A.M. AND 6:00 P.M. MONDAY THROUGH FRIDAY. INTERIOR CONSTRUCTION ACTIVITIES ARE ALLOWED ON SATURDAY 7:00 A.M. AND 6:00 P.M. BOTH INTERIOR AND EXTERIOR CONSTRUCTION ACTIVITIES ARE PROHIBITED ON SUNDAYS.
- THE DEVELOPER SHALL BE RESPONSIBLE FOR THE INSTALLATION OF A ROAD STATUS SIGN AT THE ENTRANCE DRIVES TO THIS SUBDIVISION IN ACCORDANCE WITH SECTION 289-40 OF THE PLANNING BOARD'S LAND USE REGULATIONS, UNTIL SUCH TIME THAT THE ROAD IS ACCEPTED BY THE HUDSON BOARD OF SELECTMAN.
- THE BASEMENT FLOOR SLAB ELEVATION FOR ALL PROPOSED STRUCTURES SHALL BE ONE FOOT ABOVE THE 100 YEAR FLOOD ELEVATIONS OF 114 AND 115, BASED ON DATUM OF MAP REFERENCED IN NOTE 5 ON THIS SHEET, OR 6" ABOVE THE ESTIMATED SEASONAL HIGH WATER TABLE, WHICHEVER IS HIGHER. SHOULD FINISH FLOOR ELEVATIONS FALL BELOW FINISH ROADWAY ELEVATIONS, CONTRACTOR SHALL INSTALL APPROPRIATE PERIMETER DRAINS WITH POSITIVE DISCHARGE TO DAYLIGHT.
- ALL PROPOSED EASEMENTS TO BENEFIT THE TOWN OF LITCHFIELD OR TOWN OF HUDSON.
- ALL LOTS WITHIN SHORELAND PROTECTION ZONE WILL REQUIRE SEPARATE SHORELAND PERMITS FROM NHDES FOR ANY DISTURBANCES PROPOSED THAT ARE NOT COVERED UNDER THIS PLAN.
- STONE BOUNDS (4"x4"x30") TO BE SET AT ALL BOUNDARY INTERSECTIONS AND POINTS OF CURVATURE ON THE RIGHT-OF-WAY AND IRON PINS (3"x30") TO BE SET AT ALL OTHER BOUNDARY CORNERS.
- THE LITCHFIELD PARCELS FALL WITHIN THE TOWN'S AQUIFER PROTECTION DISTRICT. IMPERVIOUS SURFACES SHALL BE LIMITED TO 15% OF EACH SUBDIVIDED PARCEL'S AREA.
- ANY NEW DEVELOPMENT LOCATED IN LITCHFIELD WITHIN THE LOCALIZED FLOODPLAIN WILL NEED TO COMPLY WITH THE TOWN OF LITCHFIELD FLOODPLAIN CONVERSION DISTRICT.

**NPDES NOTE**

THIS PROJECT DISTURBS IN EXCESS OF 1-ACRE OF LAND, THEREFORE IT WILL BE REQUIRED TO OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE OWNER/DEVELOPER AND "OPERATOR" (GENERAL CONTRACTOR) SHALL EACH BE REQUIRED TO PREPARE AND SUBMIT A NOTICE OF INTENT (NOI) TO THE EPA PRIOR TO THE START OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MEETING THE REQUIREMENTS OF THE CURRENT CONSTRUCTION GENERAL PERMIT.

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD  
 DATE OF MEETING: \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_  
 SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

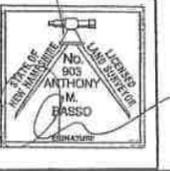
No.	DATE	REVISIONS	BY
1	10/31/14	REV. PER TOWN COMMENTS	PHR
2	11/19/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PHR

PETER S. SCHAUER, CERTIFIED WETLAND SCIENTIST #48, OF SCHAUER ENVIRONMENTAL CONSULTANTS, L.L.C. OF BOW, NH PERFORMED THE WETLAND MAPPING IN MAY 2014 ACCORDING TO THE TECHNICAL CRITERIA OF THE CORPUS OF ENGINEERS WETLAND DELINEATION MANUAL (TECHNICAL REPORT Y-67-1, JANUARY 1987) AND THE REGIONAL SUPPLEMENT TO THE CORPUS OF ENGINEERS WETLAND DELINEATION MANUAL - NORTHEASTERN AND NORTHEAST REGIONAL VERSION 2.0, JANUARY 2012, US ARMY CORPUS OF ENGINEERS.



THIS PLAN AND THE SURVEY UPON WHICH IT IS BASED WAS MADE ON THE GROUND UNDER MY DIRECTION AND SUPERVISION IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE STATE OF NEW HAMPSHIRE AND THE CITY/TOWN WITHIN WHICH IT IS LOCATED WITH A TRAVERSE ERROR OF CLOSURE BETTER THAN 1 PART IN 10,000. THE SURVEY PERFORMED IS CLASSIFIED AS A STANDARD URBAN SURVEY (CATEGORY 1, CONDITION 1) AS DEFINED IN THE NEW HAMPSHIRE LAND SURVEYORS ASSOCIATION ETHICS AND STANDARDS.

DATE: \_\_\_\_\_



**MASTER PLAN**  
**LAND OF LEONARD VIGANT**  
 300 WEBSTER STREET  
 HUDSON, NEW HAMPSHIRE

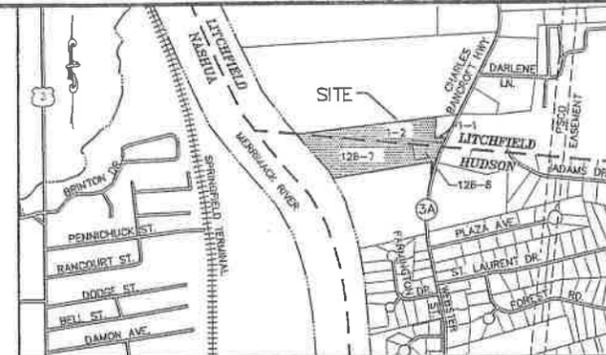
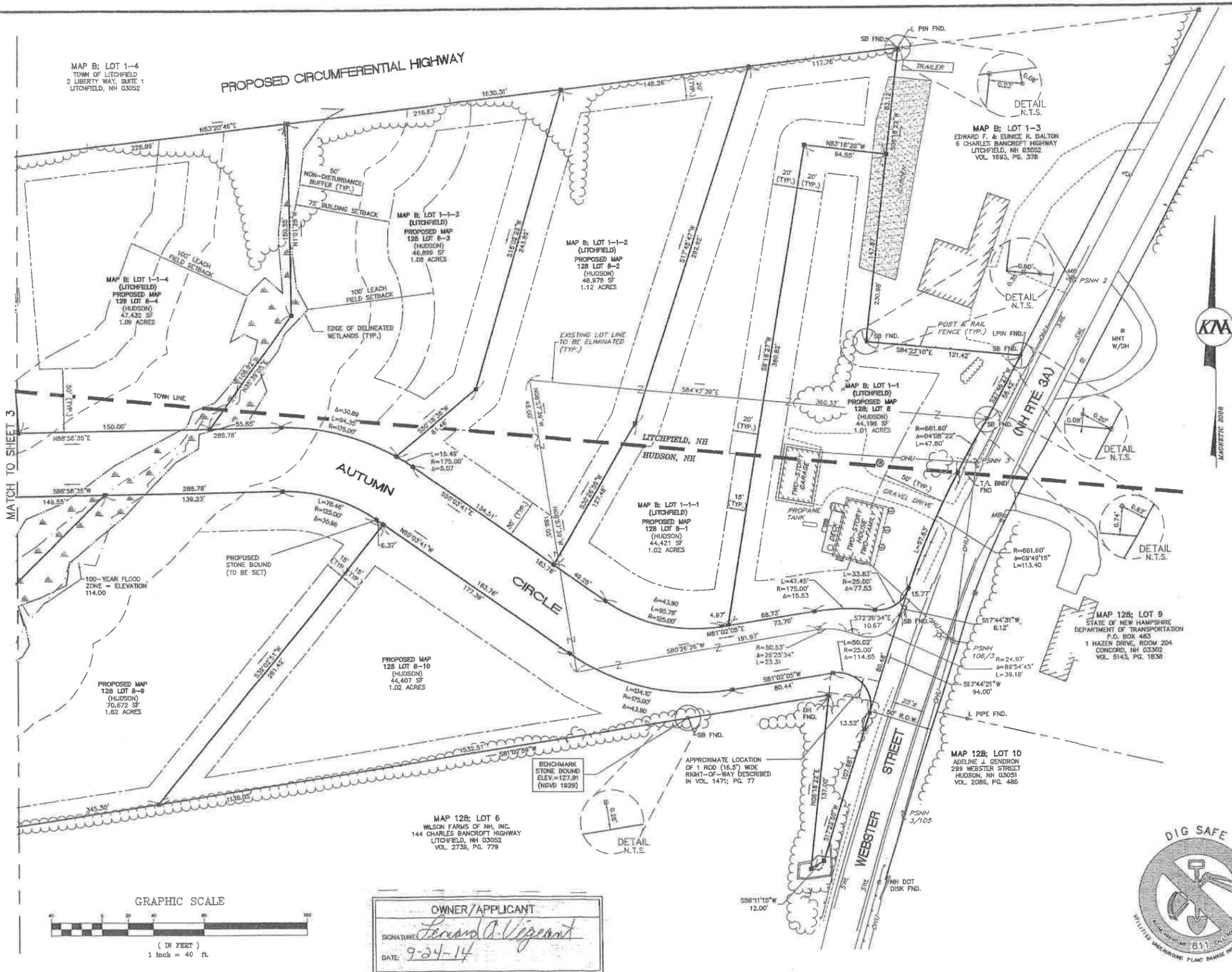
**OWNER OF RECORD:**  
 LEONARD A., SR. & JANE M. VIGANT  
 5 MOCKINGBIRD LANE  
 HUDSON, NH 03051  
 VOL. 8652, PG. 2427

**APPLICANT/SUBDIVIDER:**  
 LEONARD A. SR. & JANE M. VIGANT  
 5 MOCKINGBIRD LANE  
 HUDSON, NH 03051  
 DATE: SEPTEMBER 16, 2014

**KM KEACH-NORDSTROM ASSOCIATES, INC.**  
 Civil Engineering Land Surveying Landscape Architecture  
 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 827-8881  
 SCALE: 1" = 100'  
 HUDSON: MAP 128; LOT 7 & 8  
 LITCHFIELD: MAP B; LOTS 1-1 & 1-2  
 PROJECT NO: 07-0511-4A SHEET 1 OF 23

MAP B; LOT 1-4  
TOWN OF LITCHFIELD  
2 LIBERTY WAY, SUITE 1  
LITCHFIELD, NH 03052

PROPOSED CIRCUMFERENTIAL HIGHWAY



VICINITY MAP  
SCALE: 1" = 1,000'

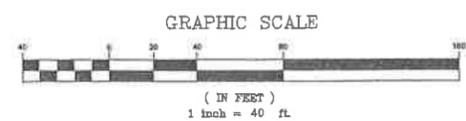
SEE SHEET 1 FOR NOTES  
AND REFERENCE PLANS

SEE SHEET 3 FOR LOT AREA  
TABLE & LOT REGULARITY TABLE

LEGEND

- ▲ WETLAND SYMBOL
- STONE BOUND FOUND
- IRON PIN FOUND
- ⊙ DRILL HOLE
- ⊖ STONE BOUND TO BE SET
- ⊕ UTILITY POLE
- ⊙ SIGN
- ⊙ CATCH BASIN
- ⊖ ABUTTER LINE
- ⊖ EXISTING PROPERTY LINE
- ⊖ PROPERTY LINE TO BE ELIMINATED
- ⊖ PROPOSED PROPERTY LINE
- ⊖ WETLAND
- ⊖ RIVER
- ⊖ POST & RAIL FENCE
- ⊖ BARBED WIRE FENCE
- ⊖ OHU OVERHEAD UTILITIES
- ⊖ TREE LINE
- ⊖ EDGE OF PAVEMENT
- ⊖ EDGE OF GRAVEL
- ⊖ BUILDING SETBACK
- ⊖ NO DISTURBANCE BUFFER
- ⊖ DISTING EASEMENT
- ⊖ PROPOSED LEACH FIELD SETBACK
- ⊖ 250' SHORELAND PROTECTION DISTRICT
- ⊖ 150' WOODLAND BUFFER
- ⊖ TOWN LINE

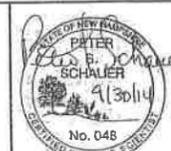
MATCH TO SHEET 3



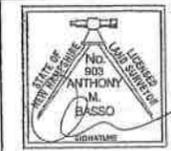
OWNER/APPLICANT  
SIGNATURE: *Leonard A. Vigeant*  
DATE: 9-24-14

No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PHC
2	11/19/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PHC

PETER S. SCHAEFER, CERTIFIED WETLAND SCIENTIST #40, OF SCHAEFER ENVIRONMENTAL CONSULTANTS, L.L.C. OF BOW, NH PERFORMED THE WETLAND MAPPING IN MAY 2014 ACCORDING TO THE TECHNICAL CRITERIA OF THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (TECHNICAL REPORT Y-87-1, JANUARY 1987) AND THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHEASTERN AND NORTHWESTERN REGION, VERSION 2.0, JANUARY 2012, US ARMY CORPS OF ENGINEERS.



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DATE RECORDED: \_\_\_\_\_ HCRD# \_\_\_\_\_

APPROVED BY THE LITCHFIELD PLANNING BOARD ON: \_\_\_\_\_

CERTIFIED BY: \_\_\_\_\_ CHAIRMAN

\_\_\_\_\_ VICE CHAIRMAN, OR DESIGNATED MEMBER

**SUBDIVISION PLAN**  
**LAND OF LEONARD VIGEANT**  
300 WEBSTER STREET  
HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:  
LEONARD A. SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
VOL. 8652, PG. 2427

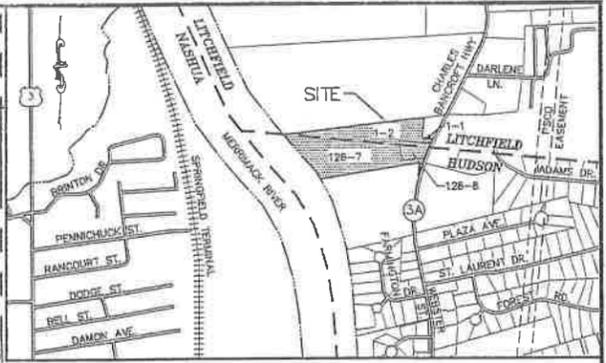
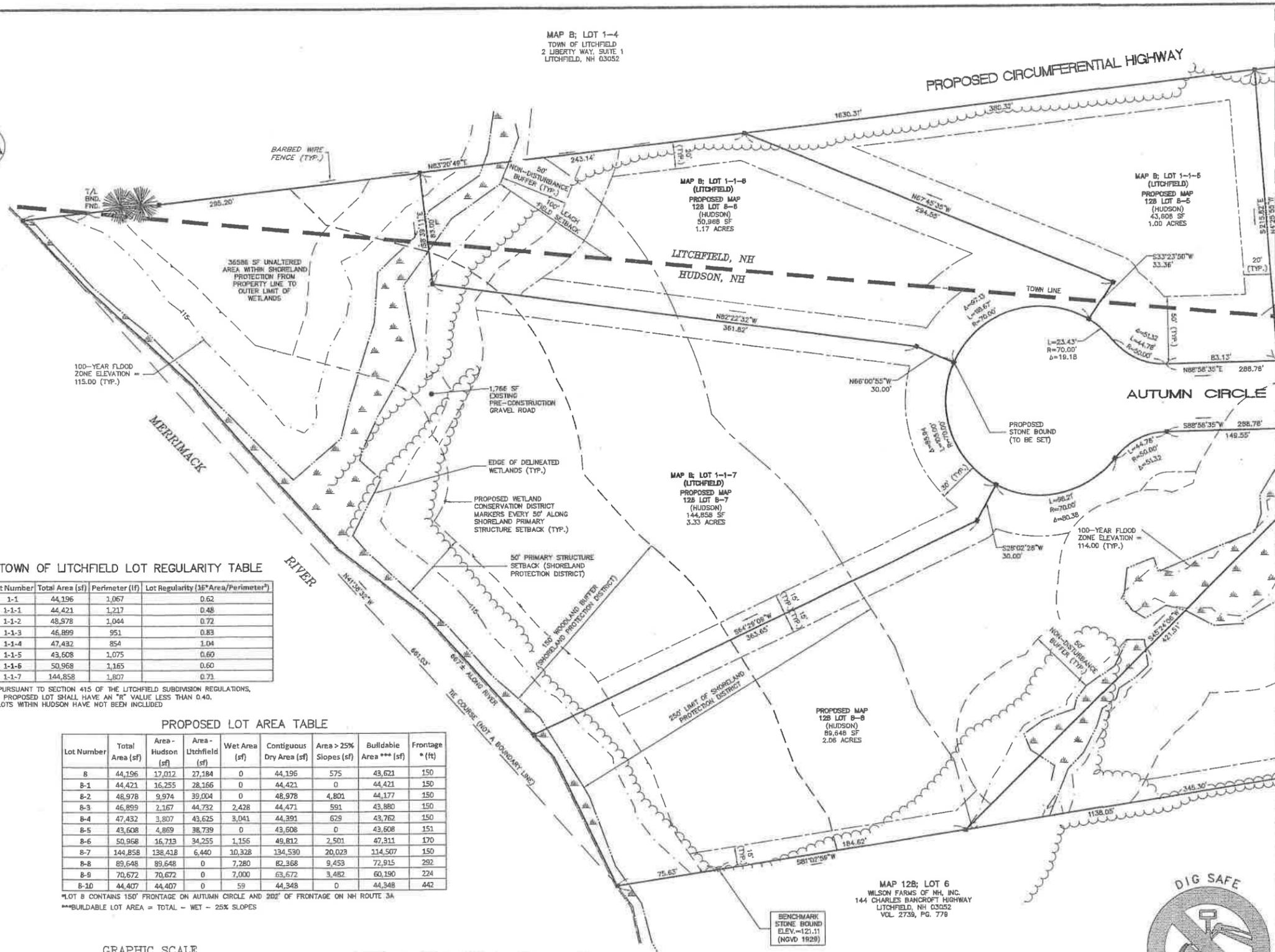
APPLICANT/SUBDIVIDER:  
LEONARD A. SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
DATE: SEPTEMBER 16, 2014

**KM** KEACH-NORDSTROM ASSOCIATES, INC.  
Civil Engineering Land Surveying Landscape Architecture  
10 Commerce Park North, Suite 20, Bedford, NH 03110 Phone (603) 627-2881  
SCALE: 1" = 40'  
HUDSON: MAP 128; LOT 7 & 8  
LITCHFIELD: MAP B; LOTS 1-1 & 1-2  
PROJECT NO: 07-0511-4A SHEET 2 OF 23

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MAP B; LOT 1-4  
TOWN OF LITCHFIELD  
2 LIBERTY WAY, SUITE 1  
LITCHFIELD, NH 03052



VICINITY MAP  
SCALE: 1" = 1,000'

SEE SHEET 1 FOR NOTES AND REFERENCE PLANS

- LEGEND**
- WETLAND SYMBOL
  - STONE BOUND FOUND
  - IRON PIN FOUND
  - DRILL HOLE
  - STONE BOUND TO BE SET
  - UTILITY POLE
  - SIGN
  - CATCH BASIN
  - ABUTTER LINE
  - PROPERTY LINE
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  - WETLAND RIVER
  - POST & RAIL FENCE
  - BARBED WIRE FENCE
  - OVERHEAD UTILITIES
  - TREELINE
  - EDGE OF PAVEMENT
  - EDGE OF GRAVEL
  - BUILDING SETBACK
  - NO DISTURBANCE BUFFER
  - EXISTING EASEMENT
  - PROPOSED LEACH FIELD SETBACK
  - 250' SHORELAND PROTECTION DISTRICT
  - 150' WOODLAND BUFFER
  - TOWN LINE

TOWN OF LITCHFIELD LOT REGULARITY TABLE

Lot Number	Total Area (sf)	Perimeter (lf)	Lot Regularity (36° Area/Perimeter²)
1-1	44,196	1,067	0.62
1-1-1	44,421	1,217	0.48
1-1-2	48,978	1,044	0.72
1-1-3	46,899	951	0.83
1-1-4	47,432	854	1.04
1-1-5	43,608	1,075	0.60
1-1-6	50,968	1,165	0.60
1-1-7	144,858	1,807	0.73

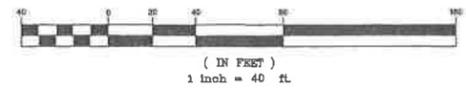
\* PURSUANT TO SECTION 415 OF THE LITCHFIELD SUBDIVISION REGULATIONS, NO PROPOSED LOT SHALL HAVE AN "R" VALUE LESS THAN 0.40.  
\*\* LOTS WITHIN HUDSON HAVE NOT BEEN INCLUDED.

PROPOSED LOT AREA TABLE

Lot Number	Total Area (sf)	Area - Hudson (sf)	Area - Litchfield (sf)	Wet Area (sf)	Contiguous Dry Area (sf)	Area > 25% Slopes (sf)	Bulldable Area *** (sf)	Frontage * (ft)
8	44,196	17,012	27,184	0	44,196	575	43,621	150
8-1	44,421	16,255	28,166	0	44,421	0	44,421	150
8-2	48,978	9,974	39,004	0	48,978	4,801	44,177	150
8-3	46,899	2,167	44,732	2,428	44,471	591	43,880	150
8-4	47,432	3,807	43,625	3,041	44,391	629	43,762	150
8-5	43,608	4,869	38,739	0	43,608	0	43,608	151
8-6	50,968	16,713	34,255	1,156	49,812	2,501	47,311	170
8-7	144,858	138,438	6,440	10,328	134,530	20,029	114,507	150
8-8	89,648	89,648	0	7,280	82,368	9,453	72,915	292
8-9	70,672	70,672	0	7,000	63,672	3,482	60,190	224
8-10	44,407	44,407	0	59	44,348	0	44,348	442

\* LOT 8 CONTAINS 150' FRONTAGE ON AUTUMN CIRCLE AND 202' OF FRONTAGE ON NH ROUTE 3A  
\*\*\* BULDABLE LOT AREA = TOTAL - WET - 25% SLOPES

GRAPHIC SCALE



OWNER/APPLICANT  
SIGNATURE: *Leonard A. Vigeant*  
DATE: 9-24-14

REVISIONS

No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/18/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PRC

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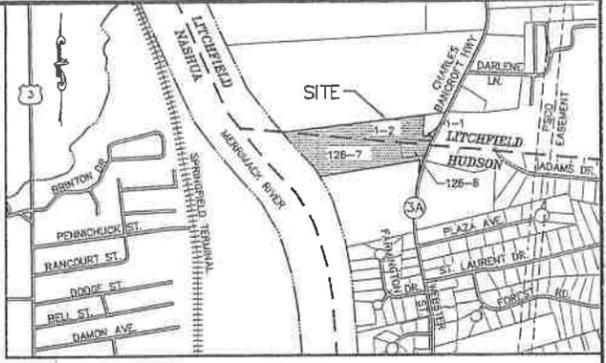
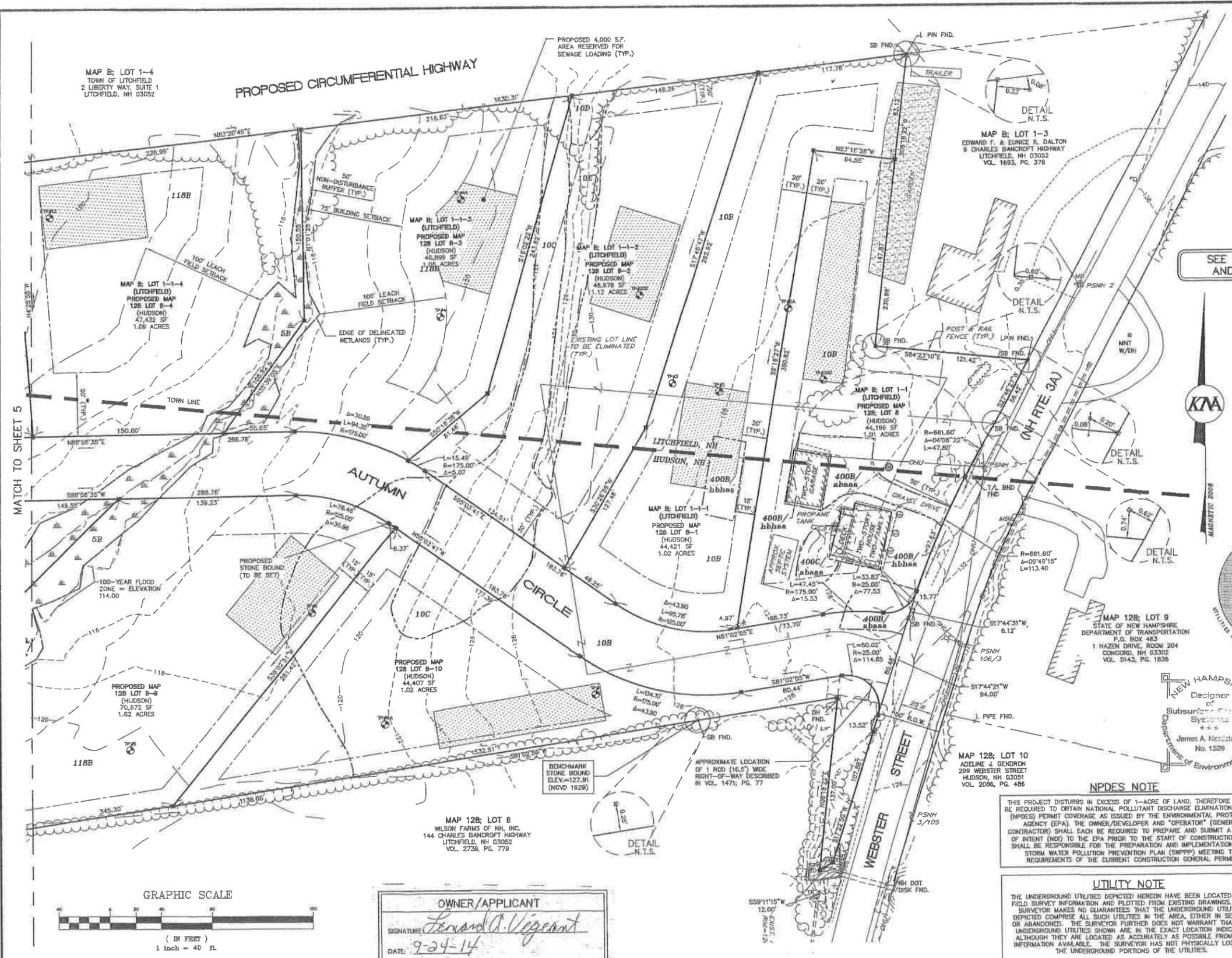
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OWNER OF RECORD:  
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10 Commarck Park North, Suite 2B, Bedford, NH 03110 Phone (603) 827-2881  
SCALE: 1" = 40'  
HUDSON: MAP 128; LOT 7 & 8  
LITCHFIELD: MAP B; LOTS 1-1 & 1-2  
PROJECT NO: 07-0511-4A SHEET 3 OF 23

Project: 070511-4A\070511-4A\070511-4A-3060\DWG\070511-4A-3060-REV12.dwg, SUB, 11/26/2014 7:53:59 AM, rtw



VICINITY MAP  
SCALE: 1" = 1,000'

SEE SHEET 1 FOR NOTES AND REFERENCE PLANS

SEE SHEET 5 FOR SITE SPECIFIC SOIL MAP UNIT KEY

- LEGEND**
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  - STONE BOUND FOUND
  - IRON PIN FOUND
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DESIGNER  
James A. Nordstrom  
No. 1329

DATE RECORDED: \_\_\_\_\_ HCRD# \_\_\_\_\_

APPROVED BY THE LITCHFIELD PLANNING BOARD ON: \_\_\_\_\_

CERTIFIED BY: \_\_\_\_\_, CHAIRMAN

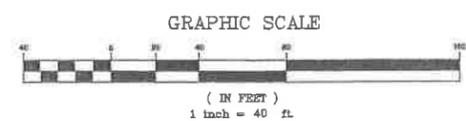
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**NPDES NOTE**

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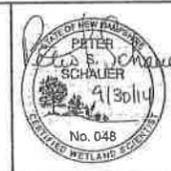
**OWNER/APPLICANT**

Signature: *Leonard A. Vigeant*

DATE: 9-24-14

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PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD  
DATE OF MEETING: \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

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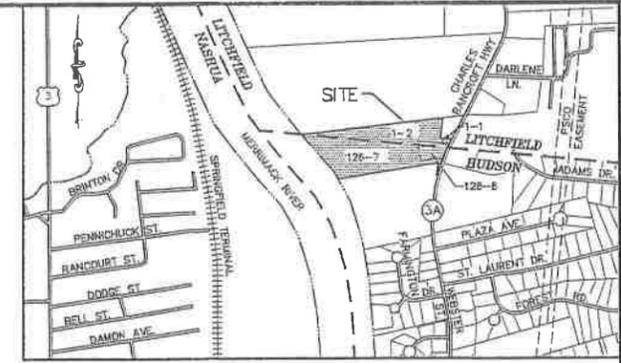
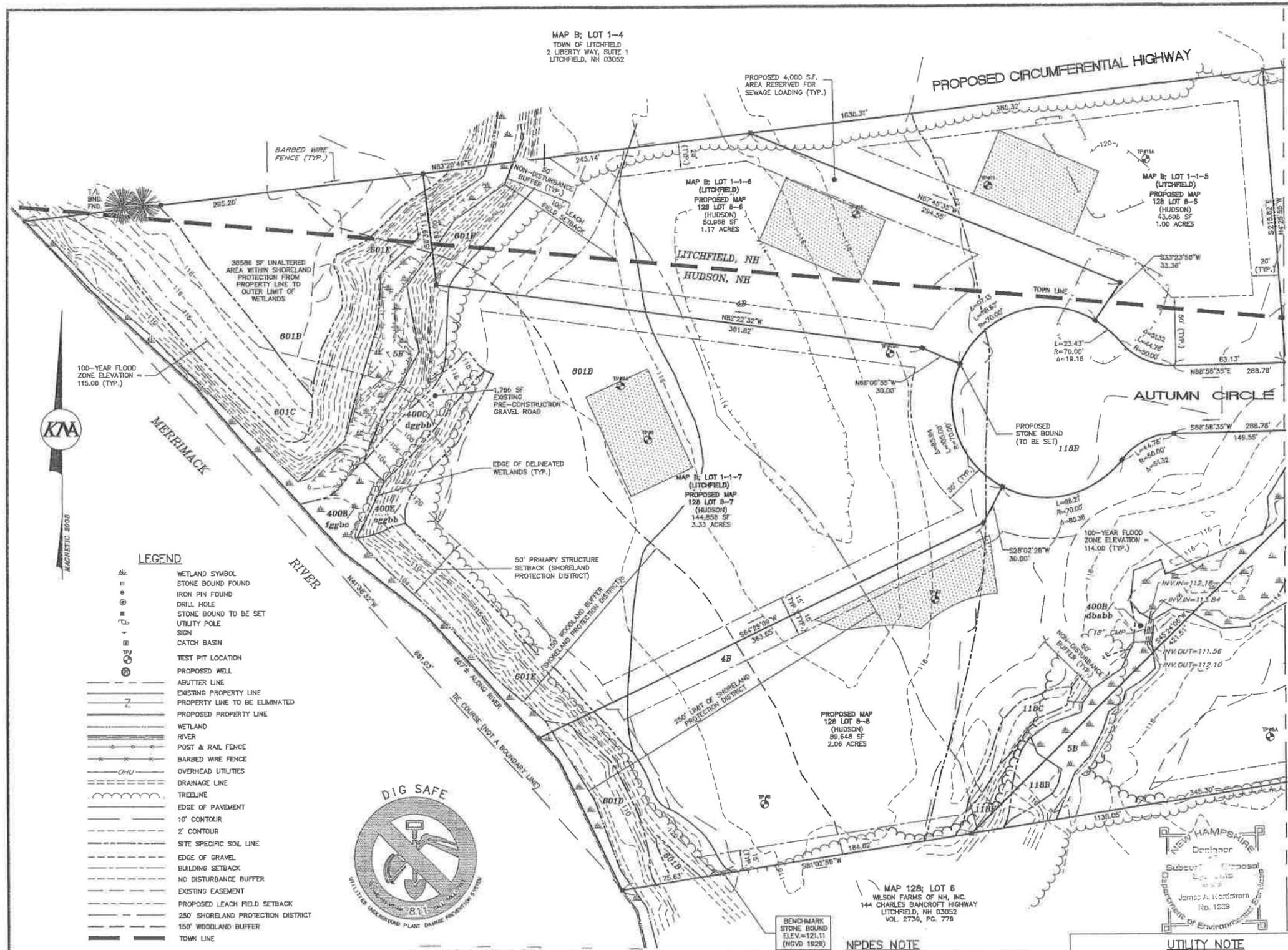
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SCALE: 1" = 40'

HUDSON: MAP 128; LOT 7 & 8  
LITCHFIELD: MAP B; LOTS 1-1 & 1-2

PROJECT NO: 07-0511-4A SHEET 4 OF 23



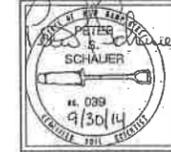
VICINITY MAP  
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SEE SHEET 1 FOR NOTES AND REFERENCE PLANS

SITE SPECIFIC SOIL MAP UNIT KEY

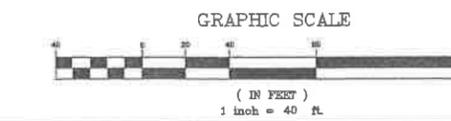
SYMBOL	MAP UNIT	SLOPE CLASS	DRAINAGE CLASS
4B	POOTATUCK FINE SANDY LOAM	0-8%	MODERATELY WELL
5B	RIPPOMAW FINE SANDY LOAM, OCC. FLOODED	0-8%	POORLY
10B	MERRIMAC FINE SANDY LOAM	0-8%	SOMEWHAT EXCESSIVELY
10C	MERRIMAC FINE SANDY LOAM	8-15%	SOMEWHAT EXCESSIVELY
10D	MERRIMAC FINE SANDY LOAM	15-25%	SOMEWHAT EXCESSIVELY
10E	MERRIMAC FINE SANDY LOAM	25%+	SOMEWHAT EXCESSIVELY
11B	SUBBURY FINE SANDY LOAM	0-8%	MODERATELY WELL
400B/abaaa	UDORTMENTS, SANDY	0-8%	SOMEWHAT EXCESSIVELY
400E/cgbbb	UDORTMENTS, SANDY	25%+	WELL
400B/dbbbb	UDORTMENTS, SANDY	0-8%	MODERATELY WELL
400C/dgbbb	UDORTMENTS, SANDY	8-15%	MODERATELY WELL
400B/fggbc	UDORTMENTS, SANDY	0-8%	POORLY
400B/hbbba	UDORTMENTS, SANDY	0-8%	SOMEWHAT EXCESSIVELY
601B	OCCUM FINE SANDY LOAM, RARELY FLOODED	0-8%	WELL
601C	OCCUM FINE SANDY LOAM, RARELY FLOODED	8-15%	WELL
601D	OCCUM FINE SANDY LOAM, RARELY FLOODED	15-25%	WELL
601E	OCCUM FINE SANDY LOAM, RARELY FLOODED	25%+	WELL

THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOILS SURVEY. IT IS A SPECIAL PURPOSE PRODUCT PRODUCED BY A CERTIFIED SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCE CONSERVATION SERVICE. THERE IS A NARRATIVE REPORT THAT ACCOMPANIES THIS MAP AND MAP KEY.



THIS DETAILED SITE-SPECIFIC SOIL MAP, PERFORMED ON 4/15/2014 BY PETER S. SCHAUER, CERTIFIED SOIL SCIENTIST #039 OF SCHAUER ENVIRONMENTAL CONSULTANTS, L.L.C. IN BOW, NEW HAMPSHIRE CONFORMS TO THE STANDARDS OF SSSNNE PUBLICATION NO. 3, AS AMENDED, "SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT." THIS MAP HAS BEEN PREPARED TO COMPLY WITH SOIL MAPPING REQUIREMENTS OF RSA 485A:17 AND NHDES ENV-WQ 1500, ALTERATION OF TERRAIN.

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**OWNER/APPLICANT**  
 SIGNATURE: Leonard A. Vigeant  
 DATE: 9-24-14

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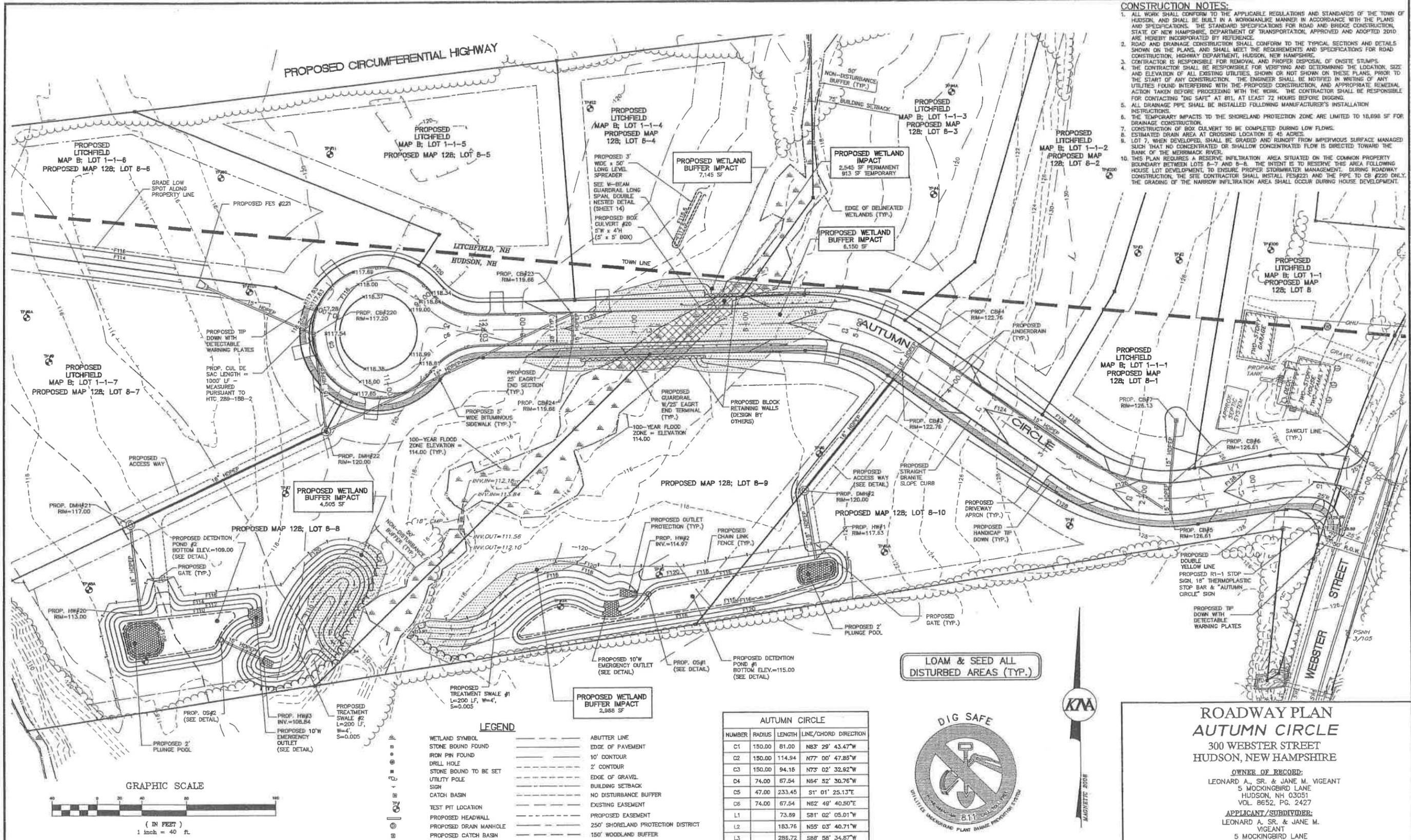
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SCALE: 1" = 40'  
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 LITCHFIELD: MAP B; LOTS 1-1 & 1-2  
 PROJECT NO: 07-0511-4A SHEET 5 OF 23

- CONSTRUCTION NOTES:**
1. ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF HUDSON, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2010, ARE HEREBY INCORPORATED BY REFERENCE.
  2. ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THESE PLANS, AND SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS FOR ROAD CONSTRUCTION, HIGHWAY DEPARTMENT, HUDSON, NEW HAMPSHIRE.
  3. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF ON-SITE STUMPS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 811, AT LEAST 72 HOURS BEFORE DIGGING.
  4. ALL DRAINAGE PIPE SHALL BE INSTALLED FOLLOWING MANUFACTURER'S INSTALLATION INSTRUCTIONS.
  5. THE TEMPORARY IMPACTS TO THE SHORELAND PROTECTION ZONE ARE LIMITED TO 10,698 SF FOR DRAINAGE CONSTRUCTION.
  6. ESTIMATED DRAIN AREA AT CROSSING LOCATION IS 45 ACRES.
  7. CONSTRUCTION OF BOX CULVERT TO BE COMPLETED DURING LOW FLOWS.
  8. LOT 7, WHEN DEVELOPED, SHALL BE GRADED AND RUNOFF FROM IMPERVIOUS SURFACE MANAGED SUCH THAT NO CONCENTRATED OR SHALLOW CONCENTRATED FLOW IS DIRECTED TOWARD THE BANK OF THE MERRIMACK RIVER.
  9. THIS PLAN REQUIRES A RESERVE INFILTRATION AREA SITUATED ON THE COMMON PROPERTY BOUNDARY BETWEEN LOTS 6-7 AND 8-8. THE INTENT IS TO RESERVE THIS AREA FOLLOWING HOUSE LOT DEVELOPMENT, TO ENSURE PROPER STORMWATER MANAGEMENT. DURING ROADWAY CONSTRUCTION, THE SITE CONTRACTOR SHALL INSTALL FES#221 AND THE PIPE TO CB#220 ONLY. THE GRADING OF THE NARROW INFILTRATION AREA SHALL OCCUR DURING HOUSE DEVELOPMENT.



**PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.**

**APPROVED BY THE HUDSON, NH PLANNING BOARD**  
 DATE OF MEETING: \_\_\_\_\_  
 SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_  
 SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

**SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.**

- LEGEND**
- WETLAND SYMBOL
  - STONE BOUND FOUND
  - IRON PIN FOUND
  - DRILL HOLE
  - STONE BOUND TO BE SET
  - UTILITY POLE SIGN
  - CATCH BASIN
  - TEST PIT LOCATION
  - PROPOSED HEADWALL
  - PROPOSED DRAIN MANHOLE
  - PROPOSED CATCH BASIN
  - PROPOSED FLARED END
  - EXISTING PROPERTY LINE
  - PROPOSED PROPERTY LINE
  - WETLAND
  - RIVER
  - POST & RAIL FENCE
  - BARBED WIRE FENCE
  - OVERHEAD UTILITIES
  - DRAINAGE LINE
  - TREELINE
  - ABUTTER LINE
  - EDGE OF PAVEMENT
  - 10' CONTOUR
  - 2' CONTOUR
  - EDGE OF GRAVEL
  - BUILDING SETBACK
  - NO DISTURBANCE BUFFER
  - EXISTING EASEMENT
  - PROPOSED EASEMENT
  - 250' SHORELAND PROTECTION DISTRICT
  - 150' WOODLAND BUFFER
  - TOWN LINE
  - PROPOSED 2' CONTOUR
  - PROPOSED DRAINAGE LINE
  - PROPOSED TREELINE
  - PROPOSED EDGE OF PAVEMENT
  - PROPOSED VERTICAL GRANITE CURB
  - PROPOSED SWALE
  - PROPOSED RETAINING WALL
  - PROPOSED CHAIN LINK FENCE

**AUTUMN CIRCLE**

NUMBER	RADIUS	LENGTH	LINE/CHORD DIRECTION
C1	150.00	81.00	N83° 29' 43.47"W
C2	150.00	114.94	N77° 00' 47.85"W
C3	150.00	94.16	N73° 02' 32.82"W
C4	74.00	67.54	N84° 52' 30.76"W
C5	47.00	233.45	S1° 01' 25.13"E
C6	74.00	67.54	N62° 40' 40.50"E
L1		73.89	S81° 02' 05.01"W
L2		183.76	N55° 03' 40.71"W
L3		286.72	S88° 58' 34.87"W

**UNDERDRAINS**  
 STA. 14+80 - 44+45 RT & LT  
 STA. 7+80 - 12+03 RT & LT

**REVISIONS**

No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PRC



**ROADWAY PLAN**  
**AUTUMN CIRCLE**  
 300 WEBSTER STREET  
 HUDSON, NEW HAMPSHIRE

**OWNER OF RECORD:**  
 LEONARD A., SR. & JANE M. VIGEANT  
 5 MOCKINGBIRD LANE  
 HUDSON, NH 03051  
 VOL. 8652, PG. 2427

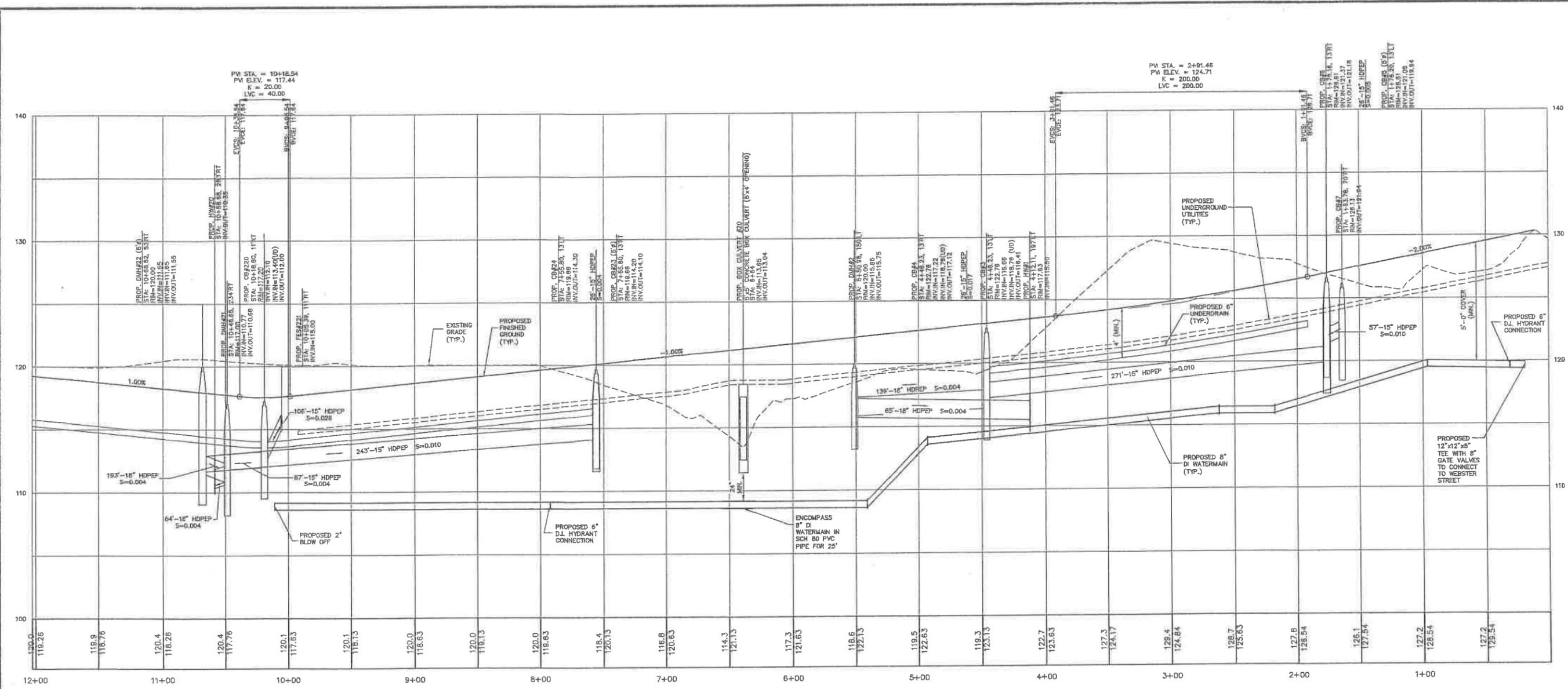
**APPLICANT/SUBDIVIDER:**  
 LEONARD A. SR. & JANE M. VIGEANT  
 5 MOCKINGBIRD LANE  
 HUDSON, NH 03051  
 DATE: SEPTEMBER 16, 2014

**KMA REACH-NORDSTROM ASSOCIATES, INC.**  
 Civil Engineering Land Surveying Landscape Architecture  
 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

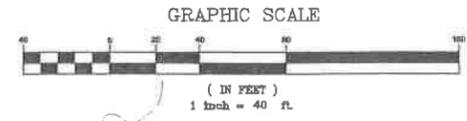
SCALE: 1" = 40'  
 HUDSON: MAP 128; LOT 7 & 8  
 LITCHFIELD: MAP B; LOTS 1-1 & 1-2  
 PROJECT NO: 07-0511-4A SHEET 6 OF 23

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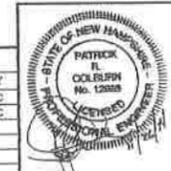
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**ROADWAY PROFILE**  
 SCALE: 1" = 40' (HORIZ.)  
 1" = 4' (VERT.)



**UNDERDRAINS**  
 STA. 1+80 - 4+45 RT & LT  
 STA. 7+80 - 12+03 RT & LT



REVISIONS			
No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PRC

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

**APPROVED BY THE HUDSON, NH PLANNING BOARD**  
 DATE OF MEETING: \_\_\_\_\_  
 SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_  
 SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

**ROADWAY PROFILE**  
**AUTUMN CIRCLE**  
 300 WEBSTER STREET  
 HUDSON, NEW HAMPSHIRE

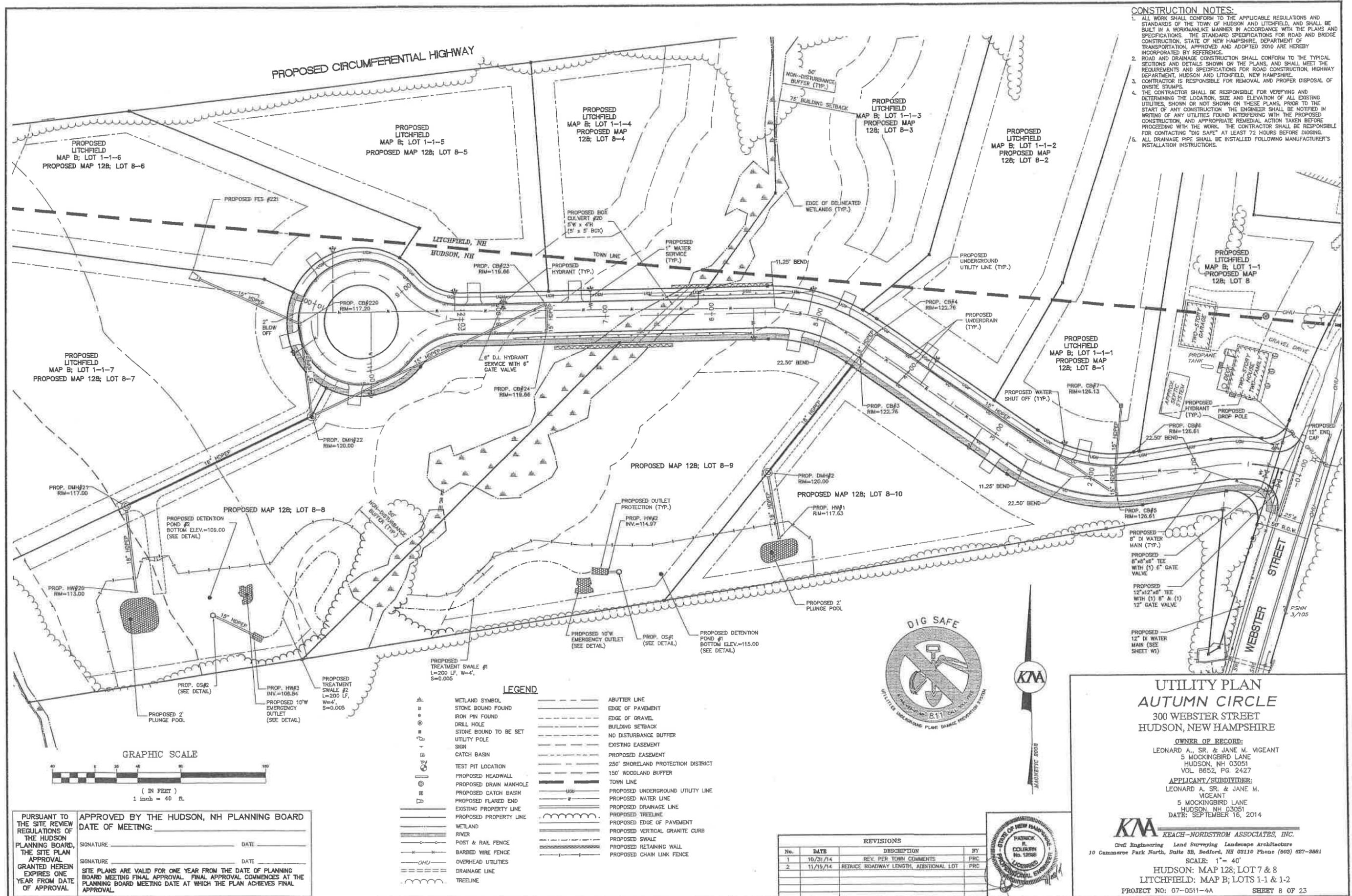
**OWNER OF RECORD:**  
 LEONARD A. SR. & JANE M. VIGEANT  
 5 MOCKINGBIRD LANE  
 HUDSON, NH 03051  
 VOL. 8652, PG. 2427

**APPLICANT/SUBDIVIDER:**  
 LEONARD A. SR. & JANE M. VIGEANT  
 5 MOCKINGBIRD LANE  
 HUDSON, NH 03051  
 DATE: SEPTEMBER 16, 2014

**KMA** KEACH-NORDSTROM ASSOCIATES, INC.  
 Civil Engineering Land Surveying Landscape Architecture  
 10 Commerce Park North, Suite 30, Bedford, NH 03110 Phone (603) 627-2881

SCALE: AS NOTED  
 HUDSON: MAP 128; LOT 7 & 8  
 LITCHFIELD: MAP B; LOTS 1-1 & 1-2  
 PROJECT NO: 07-0511-4A SHEET 7 OF 23

- CONSTRUCTION NOTES:**
1. ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF HUDSON AND LITCHFIELD, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2010 ARE HEREBY INCORPORATED BY REFERENCE.
  2. ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS FOR ROAD CONSTRUCTION, HIGHWAY DEPARTMENT, HUDSON AND LITCHFIELD, NEW HAMPSHIRE.
  3. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF ON-SITE STUMPS.
  4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT LEAST 72 HOURS BEFORE DIGGING.
  5. ALL DRAINAGE PIPE SHALL BE INSTALLED FOLLOWING MANUFACTURER'S INSTALLATION INSTRUCTIONS.



PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD  
DATE OF MEETING: \_\_\_\_\_

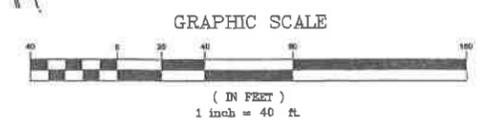
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SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

**LEGEND**

	WETLAND SYMBOL		ABUTTER LINE
	STONE BOUND FOUND		EDGE OF PAVEMENT
	IRON PIN FOUND		EDGE OF GRAVEL
	DRILL HOLE		BUILDING SETBACK
	STONE BOUND TO BE SET		NO DISTURBANCE BUFFER
	UTILITY POLE SIGN		EXISTING EASEMENT
	CATCH BASIN		PROPOSED EASEMENT
	TEST PIT LOCATION		250' SHORELAND PROTECTION DISTRICT
	PROPOSED HEADWALL		150' WOODLAND BUFFER
	PROPOSED DRAIN MANHOLE		TOWN LINE
	PROPOSED CATCH BASIN		PROPOSED UNDERGROUND UTILITY LINE
	PROPOSED FLARED END		PROPOSED WATER LINE
	EXISTING PROPERTY LINE		PROPOSED DRAINAGE LINE
	PROPOSED PROPERTY LINE		PROPOSED TREE LINE
	WETLAND		PROPOSED EDGE OF PAVEMENT
	RIVER		PROPOSED VERTICAL GRANITE CURB
	POST & RAIL FENCE		PROPOSED SWALE
	BARBED WIRE FENCE		PROPOSED RETAINING WALL
	OVERHEAD UTILITIES		PROPOSED CHAIN LINK FENCE
	DRAINAGE LINE		
	TREE LINE		



**REVISIONS**

No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PRC



**UTILITY PLAN**  
**AUTUMN CIRCLE**  
300 WEBSTER STREET  
HUDSON, NEW HAMPSHIRE

**OWNER OF RECORD:**  
LEONARD A., SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
VOL. 8652, PG. 2427

**APPLICANT/SUBDIVIDER:**  
LEONARD A. SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
DATE: SEPTEMBER 16, 2014

**KMA** KEACH-NORDSTROM ASSOCIATES, INC.  
Civil Engineering Land Surveying Landscape Architecture  
10 Commerce Park North, Suite 25, Bedford, NH 03110 Phone (603) 827-2881

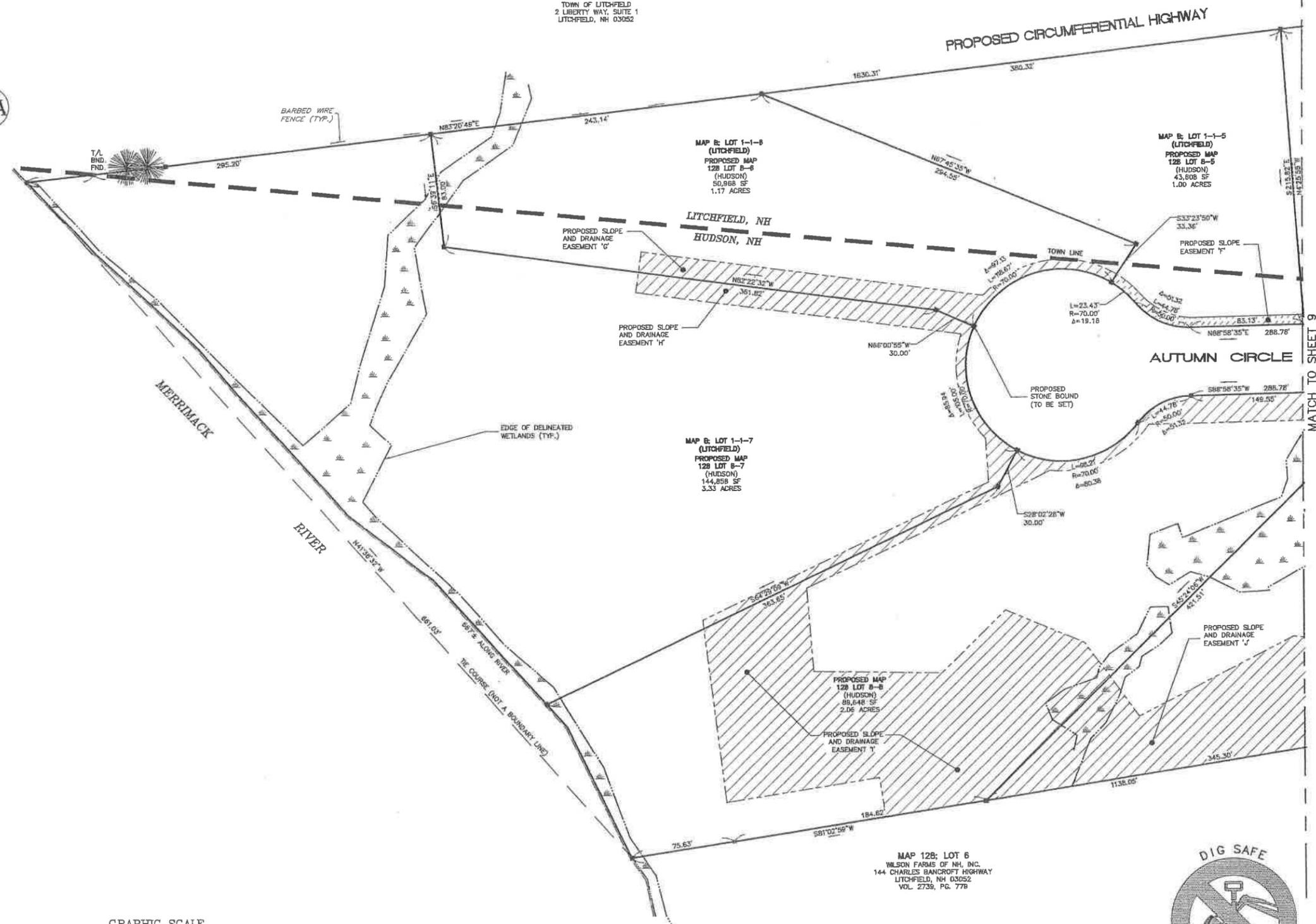
SCALE: 1" = 40'  
HUDSON: MAP 128; LOT 7 & 8  
LITCHFIELD: MAP B; LOTS 1-1 & 1-2  
PROJECT No: 07-0511-4A SHEET 8 OF 23

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MAP B; LOT 1-4  
TOWN OF LITCHFIELD  
2 LIBERTY WAY, SUITE 1  
LITCHFIELD, NH 03052



**HATCH LEGEND**

[Hatched pattern]	PROPOSED UTILITY EASEMENT
[Hatched pattern]	PROPOSED SLOPE AND DRAINAGE EASEMENT
[Hatched pattern]	PROPOSED TRAIL EASEMENT
[Hatched pattern]	PROPOSED SLOPE EASEMENT
[Hatched pattern]	PROPOSED SLOPE, DRAINAGE & SITE DISTANCE EASEMENT

SEE SHEET 1 FOR NOTES AND REFERENCE PLANS

SEE SHEET 3 FOR LOT AREA TABLE & LOT REGULARITY TABLE

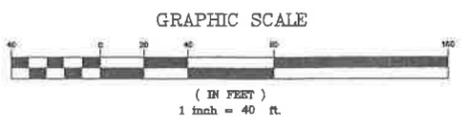
**LEGEND**

[Symbol]	WETLAND SYMBOL
[Symbol]	STONE BOUND FOUND
[Symbol]	IRON PIN FOUND
[Symbol]	DRILL HOLE
[Symbol]	STONE BOUND TO BE SET
[Symbol]	UTILITY POLE
[Symbol]	SIGN
[Symbol]	CATCH-BASIN
[Symbol]	ABUTTER LINE
[Symbol]	EXISTING PROPERTY LINE
[Symbol]	PROPERTY LINE TO BE ELIMINATED
[Symbol]	PROPOSED PROPERTY LINE
[Symbol]	WETLAND
[Symbol]	RIVER
[Symbol]	POST & RAIL FENCE
[Symbol]	BARBED WIRE FENCE
[Symbol]	OVERHEAD UTILITIES
[Symbol]	TREELINE
[Symbol]	EDGE OF PAVEMENT
[Symbol]	EDGE OF GRAVEL
[Symbol]	EXISTING EASEMENT
[Symbol]	PROPOSED DRAINAGE AND SLOPE EASEMENT
[Symbol]	PROPOSED TRAIL EASEMENT
[Symbol]	PROPOSED UTILITY EASEMENT

DATE RECORDED: \_\_\_\_\_ HCRD# \_\_\_\_\_

APPROVED BY THE LITCHFIELD PLANNING BOARD ON: \_\_\_\_\_

CERTIFIED BY \_\_\_\_\_, CHAIRMAN  
\_\_\_\_\_, VICE CHAIRMAN, OR DESIGNATED MEMBER



MAP 128; LOT 6  
WILSON FARMS OF NH, INC.  
144 CHARLES BANCROFT HIGHWAY  
LITCHFIELD, NH 03052  
VOL. 2739, PG. 776



PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD  
DATE OF MEETING: \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_  
SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

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REVISIONS			
No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REDUCE ROADWAY LENGTH. ADDITIONAL LOT	PRC

THIS PLAN AND THE SURVEY UPON WHICH IT IS BASED WAS MADE ON THE GROUND UNDER MY DIRECTION AND SUPERVISION IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE STATE OF NEW HAMPSHIRE AND THE CITY/TOWN WITHIN WHICH IT IS LOCATED WITH A TRAVERSE ERROR OF CLOSURE BETTER THAN 1 PART IN 10,000. THE SURVEY PERFORMED IS CLASSIFIED AS A STANDARD URBAN SURVEY, (CATEGORY 1, CONDITION 1) AS DEFINED IN THE NEW HAMPSHIRE LAND SURVEYORS ASSOCIATION ETHICS AND STANDARDS.

DATE \_\_\_\_\_



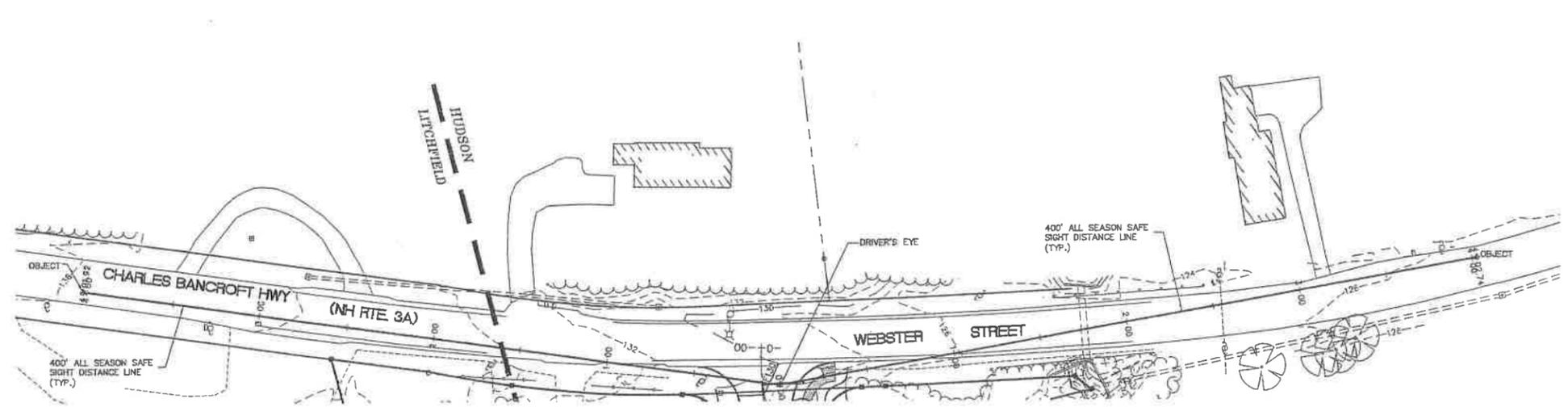
**EASEMENT PLAN**  
**LAND OF LEONARD VIGEANT**  
300 WEBSTER STREET  
HUDSON, NEW HAMPSHIRE

**OWNER OF RECORD:**  
LEONARD A., SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
VOL. 8652, PG. 2427

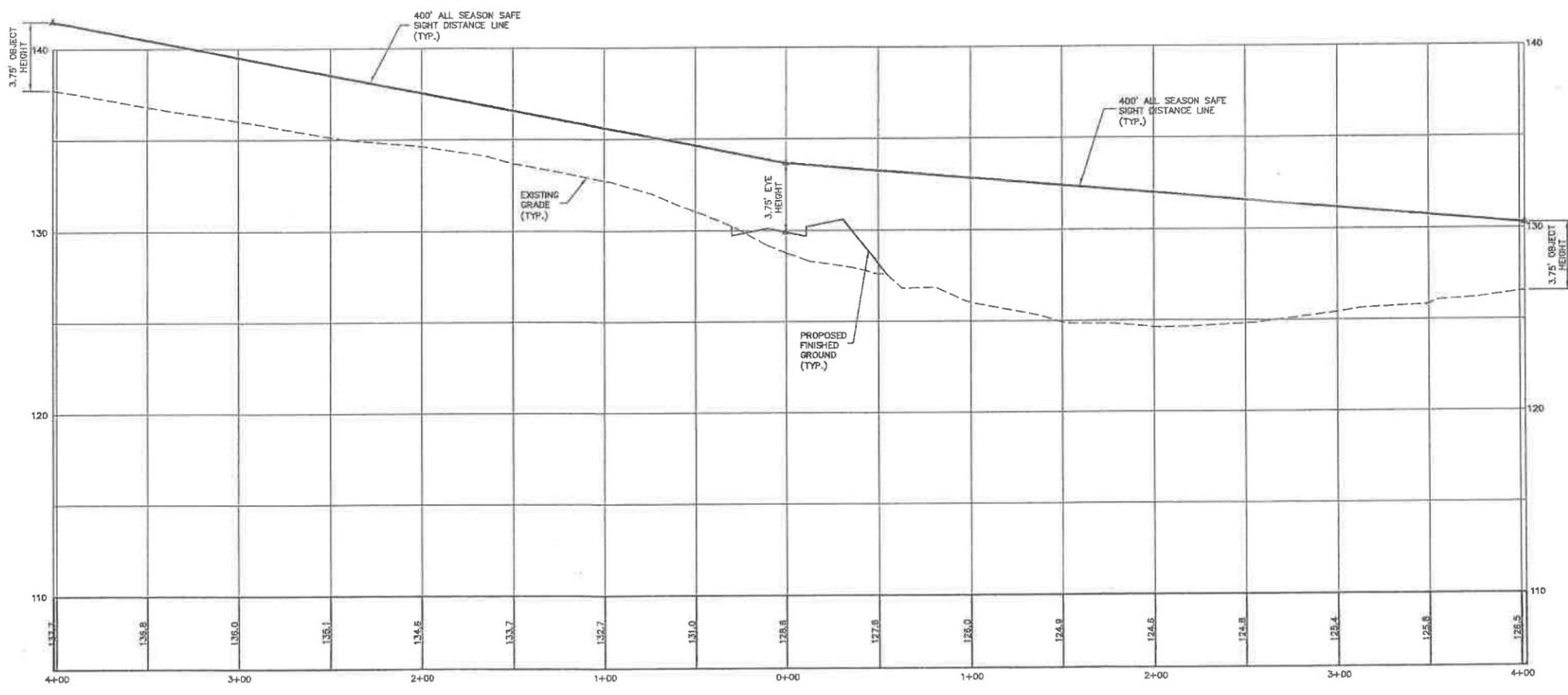
**APPLICANT/SUBDIVIDER:**  
LEONARD A. SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
DATE: SEPTEMBER 16, 2014

**KMA KEACH-NORDSTROM ASSOCIATES, INC.**  
Civil Engineering Land Surveying Landscape Architecture  
70 Commerce Park North, Suite 303, Bedford, NH 03110 Phone (603) 627-2881  
SCALE: 1" = 40'  
HUDSON: MAP 128; LOT 7 & 8  
LITCHFIELD: MAP B; LOTS 1-1 & 1-2  
PROJECT NO: 07-0511-4A SHEET 10 OF 23

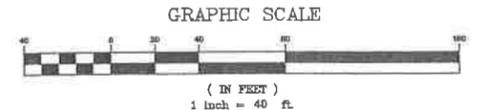
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**SIGHT DISTANCE PLAN**  
SCALE: 1" = 40'



**SIGHT DISTANCE PROFILE**  
SCALE: 1" = 40' (HORIZ.)  
1" = 4' (VERT.)



**SIGHT DISTANCE PLAN & PROFILE**  
**AUTUMN CIRCLE**  
300 WEBSTER STREET  
HUDSON, NEW HAMPSHIRE

**OWNER OF RECORD:**  
LEONARD A., SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
VOL. 8652, PG. 2427

**APPLICANT/SUBDIVIDER:**  
LEONARD A. SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
DATE: SEPTEMBER 16, 2014

**KM KEACH-WORDSTROM ASSOCIATES, INC.**  
Civil Engineering Land Surveying Landscape Architecture  
10 Commerce Park North, Suite 2B, Bedford, NH 03110 Phone (603) 827-2881

SCALE: AS NOTED  
HUDSON: MAP 128; LOT 7 & 8  
LITCHFIELD: MAP B; LOTS 1-1 & 1-2  
PROJECT NO: 07-0511-4A SHEET 11 OF 23

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD  
DATE OF MEETING: \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

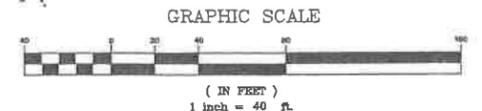
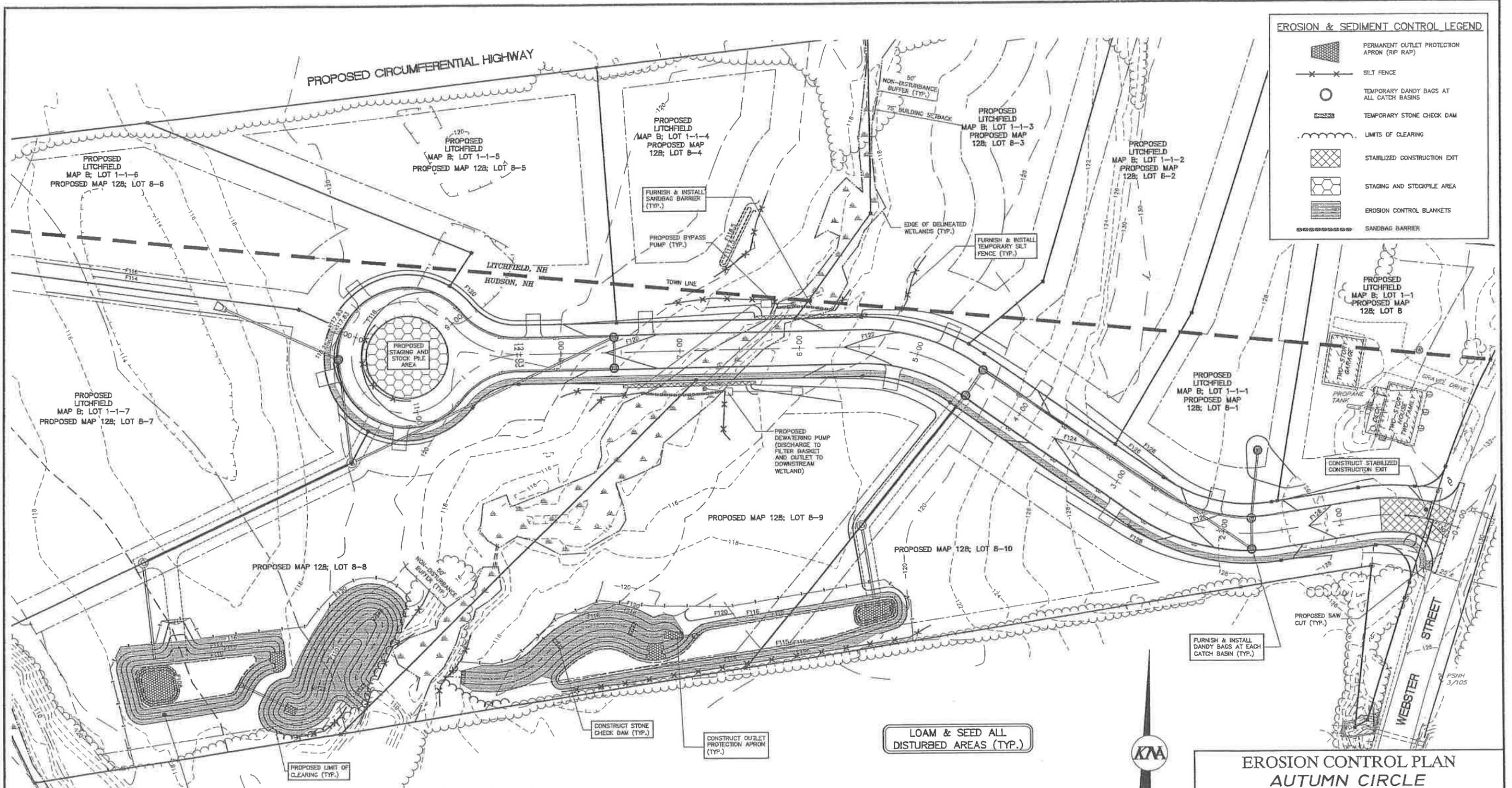
REVISIONS			
No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PRC



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**EROSION & SEDIMENT CONTROL LEGEND**

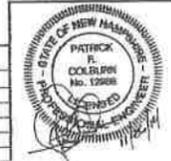
- PERMANENT OUTLET PROTECTION APRON (RIP RAP)
- SILT FENCE
- TEMPORARY DANDY BAGS AT ALL CATCH BASINS
- TEMPORARY STONE CHECK DAM
- LIMITS OF CLEARING
- STABILIZED CONSTRUCTION EXIT
- STAGING AND STOCKPILE AREA
- EROSION CONTROL BLANKETS
- SANDBAG BARRIER



**EROSION CONTROL NOTES:**

1. THE PURPOSE OF THIS PLAN IS TO DEPICT THE REQUIRED ONSITE TEMPORARY CONSTRUCTION EROSION CONTROL MEASURES AS WELL AS THE PERMANENT EROSION CONTROL MEASURES.
2. ALL MEASURES IN THE PLAN SHALL MEET AS A MINIMUM THE BEST MANAGEMENT PRACTICES SET FORTH IN VOLUME 3 OF THE NEW HAMPSHIRE STORMWATER MANUAL TITLED "EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION," DATED DECEMBER 2010, AS AMENDED FROM TIME TO TIME.
3. WHENEVER PRACTICAL, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED OR SUPPLEMENTED. THE STRIPPING OF VEGETATION, WHEN NECESSARY, SHALL BE DONE IN A MANNER THAT MINIMIZES SOIL EROSION. APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO LAND DISTURBANCE. FOR ADDITIONAL EROSION CONTROL SPECIFICATIONS AND CONSTRUCTION DETAILS, REFER TO SHEET 19 OF THIS SET.
5. THE AREA OF DISTURBANCE SHALL BE KEPT TO A MINIMUM. DISTURBED AREAS REMAINING IDLE FOR MORE THAN 30 DAYS SHALL BE STABILIZED.
6. MEASURES SHALL BE TAKEN TO CONTROL EROSION WITHIN THE PROJECT AREA. SEDIMENT IN RUNOFF WATER SHALL BE TRAPPED AND RETAINED WITHIN THE PROJECT AREA USING APPROVED MEASURES. WETLAND AREAS AND SURFACE WATERS SHALL BE PROTECTED FROM SEDIMENT.
7. OFFSITE SURFACE WATER AND RUNOFF FROM UNDISTURBED AREAS SHALL BE DIVERTED AWAY FROM DISTURBED AREAS WHERE FEASIBLE OR CARRIED NON-EROSIVELY THROUGH THE PROJECT AREA. INTEGRITY OF DOWNSTREAM DRAINAGE SYSTEMS SHALL BE MAINTAINED.
8. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN FUNCTIONING CONDITION UNTIL FINAL SITE STABILIZATION IS ACCOMPLISHED.
9. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER FINAL SITE STABILIZATION. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED WITHIN 30 DAYS UNLESS CONDITIONS DICTATE OTHERWISE.
10. THE TOWN OF LITCHFIELD AND THE TOWN OF HUDSON SHALL RESERVE THE RIGHT TO REQUIRE FURTHER EROSION CONTROL PRACTICES DURING CONSTRUCTION SHOULD THEY FIND IT NECESSARY.
11. CULVERT CROSSING IS SUSCEPT TO PERMITTING IN ACCORDANCE WITH WHEELS STREAM CROSSING GUIDELINES. CONTRACTOR SHALL PROVIDE APPROPRIATE BY-PASS PUMPING AND DEWATERING PRACTICES DURING CONSTRUCTION.
12. SNOW ACCUMULATED DURING THE WINTER CONSTRUCTION PERIOD SHOULD BE STORED IN THE STAGING & STOCKPILE AREA DETERMINED BY THE CONTRACTOR, SURROUNDED BY SILT FENCE.

LOAM & SEED ALL DISTURBED AREAS (TYP.)



PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD  
DATE OF MEETING: \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PRC

**EROSION CONTROL PLAN  
AUTUMN CIRCLE**  
300 WEBSTER STREET  
HUDSON, NEW HAMPSHIRE

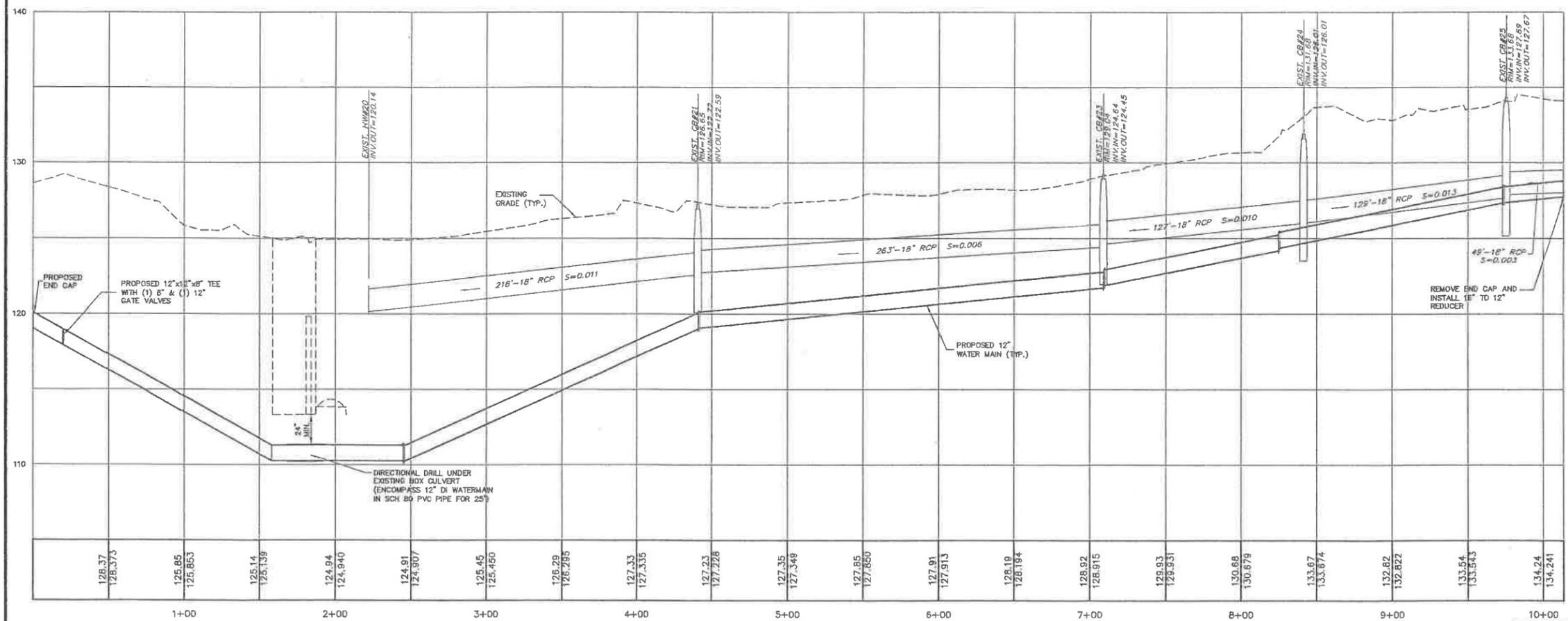
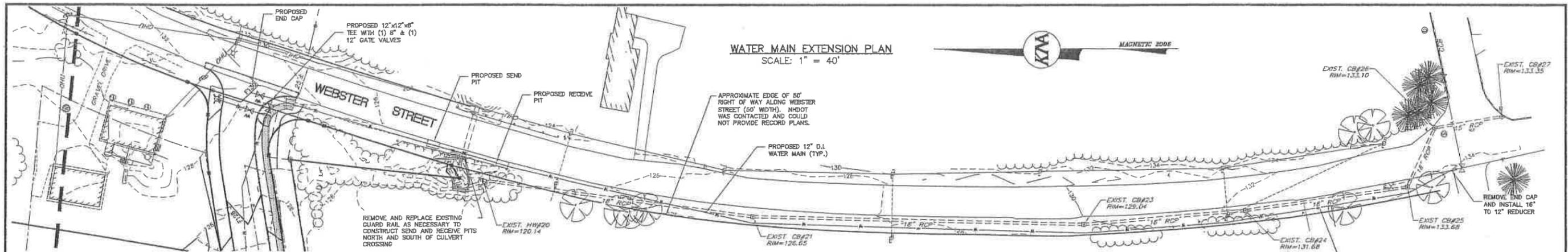
**OWNER OF RECORD:**  
LEONARD A. SR. & JANE M. VIGANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
VOL. 8652, PG. 2427

**APPLICANT/SUBDIVIDER:**  
LEONARD A. SR. & JANE M. VIGANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
DATE: SEPTEMBER 16, 2014

**KMA** KEACH-NORDSTROM ASSOCIATES, INC.  
Civil Engineering Land Surveying Landscape Architecture  
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 827-2881

SCALE: 1" = 40'  
HUDSON: MAP 128; LOT 7 & 8  
LITCHFIELD: MAP B; LOTS 1-1 & 1-2  
PROJECT NO: 07-0511-4A SHEET 12 OF 23

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CONTRACTOR SHALL AVOID EXISTING DRIVEWAY TO THE EXTENT PRACTICABLE. ANY DAMAGE SHALL BE REPAIRED IN KIND.

**LEGEND**

- WETLAND SYMBOL
- STONE BOUND FOUND
- IRON PIN FOUND
- DRILL HOLE
- STONE BOUND TO BE SET
- UTILITY POLE
- SIGN
- CATCH BASIN
- PROPOSED HEADWALL
- PROPOSED DRAIN MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED FLARED END
- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE
- WETLAND
- RIVER
- POST & RAIL FENCE
- BARBED WIRE FENCE
- OVERHEAD UTILITIES
- DRAINAGE LINE
- TREELINE
- ABUTTER LINE
- EDGE OF PAVEMENT
- 10' CONTOUR
- 2' CONTOUR
- EDGE OF GRAVEL
- BUILDING SETBACK
- TOWN LINE
- PROPOSED 2' CONTOUR
- PROPOSED WATER LINE
- PROPOSED DRAINAGE LINE
- PROPOSED TREELINE
- PROPOSED EDGE OF PAVEMENT
- PROPOSED VERTICAL GRANITE CURB
- PROPOSED RETAINING WALL

**WATER MAIN EXTENSION PROFILE**  
SCALE: 1" = 40' (HORIZ.)  
1" = 4' (VERT.)

- NOTES:**
- EXCAVATION PERMIT FROM DISTRICT 5 IS REQUIRED PRIOR TO ANY WORK WITHIN RIGHT-OF-WAY OF ROUTE 3A REGARDING THE WATERMAIN CONSTRUCTION.
  - CONTRACTOR TO COORDINATE WITH APPROVED UTILITY PROVIDERS PRIOR TO CONSTRUCTION.
  - WATERMAIN EXTENSION REQUIRES APPROVAL FROM THE HUDSON BOARD OF SELECTMAN PRIOR TO CONSTRUCTION. HUDSON WATER UTILITY SHALL PROVIDE COST DIFFERENCES BETWEEN INSTALLATION OF 8" AND 12" D.J. WATERMAIN OTHERWISE APPLICATION PROPOSES EXTENSION OF 8" D.J. WATERMAIN.

LOAM & SEED ALL DISTURBED AREAS (TYP.)

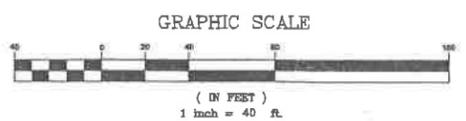
PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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REVISIONS			
No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PRC



**WATER MAIN EXTENSION PLAN & PROFILE**  
**AUTUMN CIRCLE**  
300 WEBSTER STREET  
HUDSON, NEW HAMPSHIRE

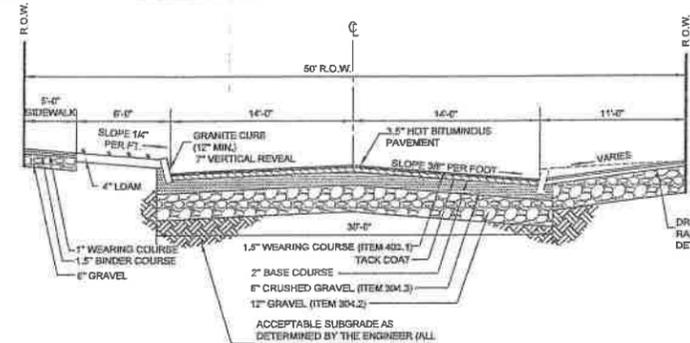
**OWNER OF RECORD:**  
LEONARD A. SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
VOL. 8652, PG. 2427

**APPLICANT/SUBDIVIDER:**  
LEONARD A. SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
DATE: OCTOBER 31, 2014

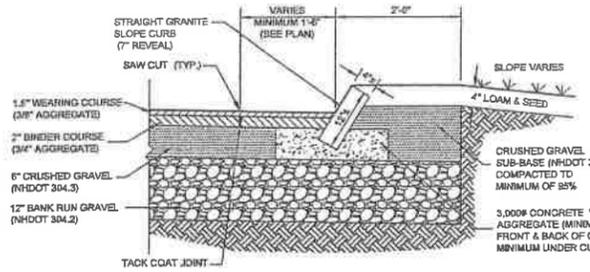
**KMA KEACH-NORDSTROM ASSOCIATES, INC.**  
Civil Engineering Land Surveying Landscape Architecture  
10 Commerce Park North, Suite 3B, Bedford, NH 08110 Phone (603) 627-2861  
SCALE: 1" = 40'

HUDSON: MAP 128; LOT 7 & 8  
LITCHFIELD: MAP B; LOTS 1-1 & 1-2  
PROJECT NO: 07-0511-4A SHEET 13 OF 23

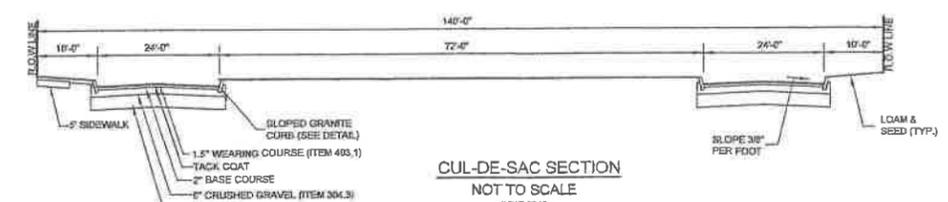
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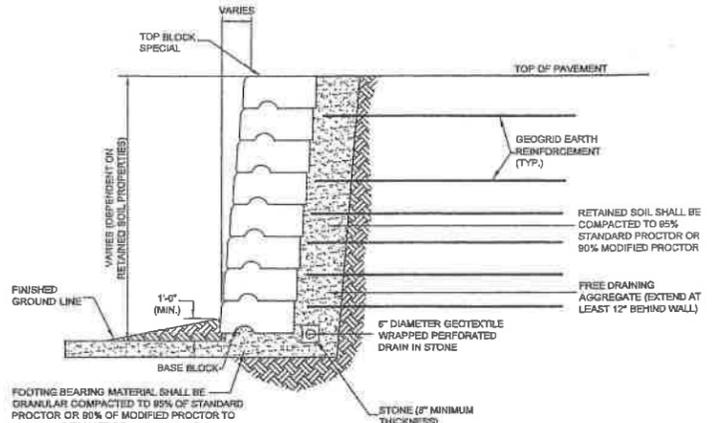
TYPICAL ROADWAY CROSS SECTION  
NOT TO SCALE



STRAIGHT GRANITE SLOPE CURB DETAIL  
NOT TO SCALE  
(MARCH 2008)

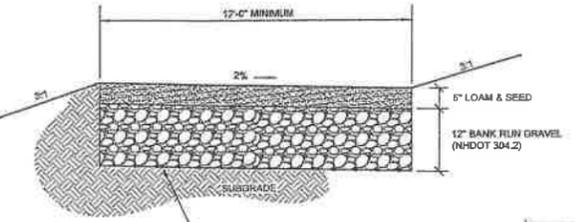


CUL-DE-SAC SECTION  
NOT TO SCALE  
JUNE 2012

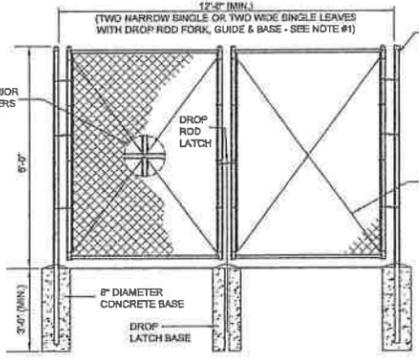


- NOTES:
- AS PERMISSIBLE, THE STRUCTURAL ENGINEER CHARGED WITH RETAINING WALL DESIGN SHALL SPECIFY SALT RESISTANT BLOCK CONSTRUCTION WHERE WALLS ARE TO BE CONSTRUCTED NEAR ROADWAYS OR PARKING AREAS.
  - RETAINING WALL DRAIN TO "DAYLIGHT" AT LOW POINT OR TIE TO DRAIN STRUCTURE AS SHOWN IN PLAN VIEW.
  - THE STAMPED SHOP DRAWINGS AND CALCULATIONS FOR THE ACTUAL RETAINING WALL MUST BE PROVIDED FOR REVIEW AND APPROVAL AT OR PRIOR TO THE PROJECT'S REQUIRED PRE CONSTRUCTION MEETING.
  - THE PROVIDED PLANS AND SUPPORTING CALCULATIONS MUST ADDRESS THE FOLLOWING CRITERIA:
    - DESIGN CALCULATIONS STAMPED BY QUALIFIED PE LICENSE IN NH
    - STABILITY CALCULATIONS (INCLUDING BEARING CAPACITY, GLOBAL STABILITY, OVERTURNING & SLIDING, IMPACT)
    - GEOGRID PULLOUT AND OTHER PERTINENT DATA & ELEVATIONS
    - CONSTRUCTION INSTALLATION SPECIFICATION
    - LATERAL EARTH PRESSURE COEFFICIENT
    - SURCHARGE LOAD, EMBEDMENT DEPTH
    - BOTH A PLAN AND PROFILE OF EACH WALL SECTION

REDI-ROCK RETAINING WALL WITH GUARDRAIL  
(TO BE DESIGNED BY OTHERS)  
NOT TO SCALE

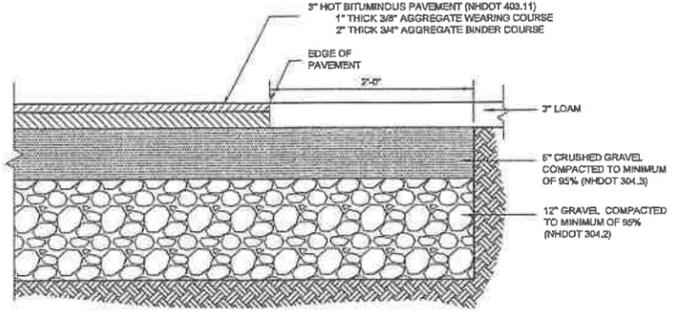


DRAINAGE ACCESS WAY DETAIL  
NOT TO SCALE

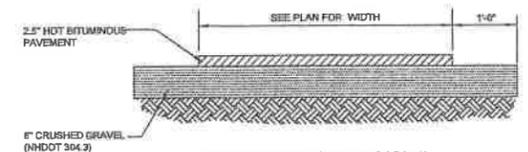


DOUBLE LEAF GATE  
NOT TO SCALE  
(SEPTEMBER 2010)

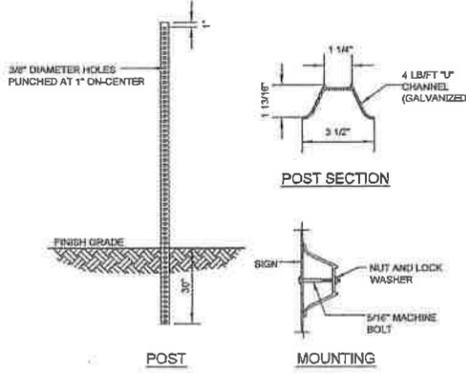
- NOTES:
- REINFORCE THE GATE FRAME CORNERS WITH A MALLEABLE IRON OR PRESSED STEEL FITTING DESIGNED FOR THE PURPOSE OR SHOP WELD THE CORNERS. GRIND SMOOTH ALL WELDS AND PAINT WITH AN APPROVED ZINC RICH PAINT. FURNISH EACH GATE WITH THE NECESSARY HINGES, LATCH AND DROP ROD LOCKING DEVICE DESIGNED FOR THE TYPE OF GATE POSTS AND GATE USED ON THE PROJECT. PROVIDE POSITIVE TYPE LATCHING DEVICES WITH PROVISIONS FOR PAD LOCKING AT ALL GATES. PROVIDE KEEPERS TO RETAIN THE GATE IN THE OPEN POSITION.
  - APPROVED ALTERNATIVE GATE FRAMES CONSTRUCTED OF STEEL SECTIONS, OTHER THAN PIPE, MAY BE USED.
  - THE DESIGN OF THE CHAIN LINK HARDWARE MAY VARY FROM THE DETAILS SHOWN, HOWEVER, ALL HARDWARE AND MATERIALS USED IN A SINGLE INSTALLATION SHALL BE UNIFORM AND COMPATIBLE.



DRIVEWAY APRON SECTION  
NOT TO SCALE  
(MARCH 2008)



BITUMINOUS WALK DETAIL  
NOT TO SCALE  
(MARCH 2008)



STEEL SIGN POST DETAIL  
NOT TO SCALE  
(MARCH 2008)



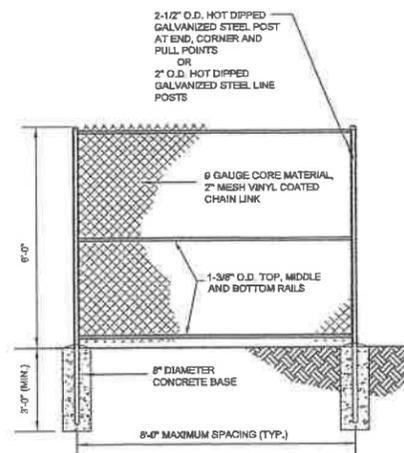
AUTUMN CIRCLE  
NOT TO SCALE



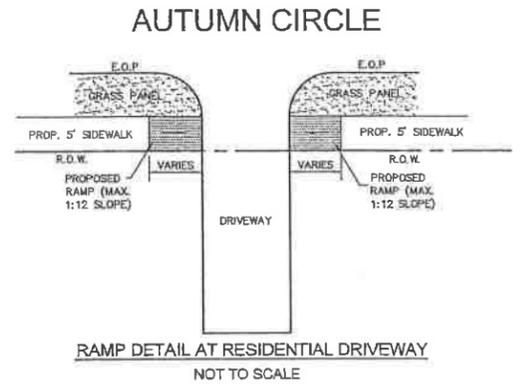
STOP SIGN DETAIL  
NOT TO SCALE  
(MARCH 2008)



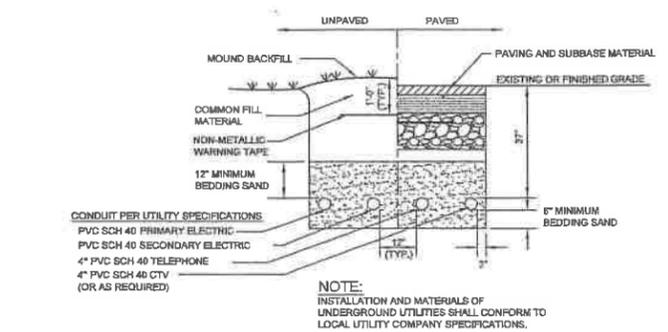
- TRAFFIC SIGN NOTES:
- ALL TRAFFIC SIGN FACES AND SHAPES SHALL CONFORM WITH THE MUTCD.
  - ALL SIGN POST MOUNTS SHALL CONFORM WITH THE AASHTO AND NHDOT SPECIFICATIONS.
  - STREET NAME SIGNS SHALL BE METAL, IN CONFORMITY WITH NEW SIGNS PURCHASED BY THE TOWN, TWO-FACED AND REFLECTORIZED, SIX INCHES HIGH WITH THREE-AND-ONE-HALF INCH LETTERS EMBOSSED AND REFLECTORIZED WITH GREEN BACKGROUND AND WHITE LETTERS, OF ALUMINUM METAL.
  - DEAD END SIGN TO BE 18"x18", BLACK LETTERING, YELLOW BACKGROUND, A MINIMUM OF 6" HIGH.



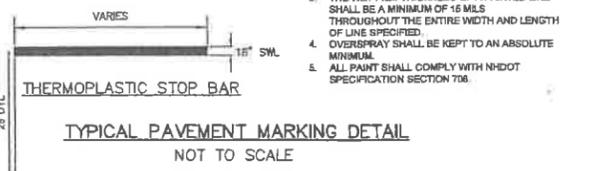
CHAIN LINK FENCE DETAIL  
NOT TO SCALE  
(MARCH 2008)



RAMP DETAIL AT RESIDENTIAL DRIVEWAY  
NOT TO SCALE



UTILITY TRENCH DETAIL  
NOT TO SCALE  
(MARCH 2008)



THERMOPLASTIC STOP BAR  
NOT TO SCALE

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

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REVISIONS			
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2	11/19/14	REV. PER SUBDIVISION IMPROVEMENTS	PHC



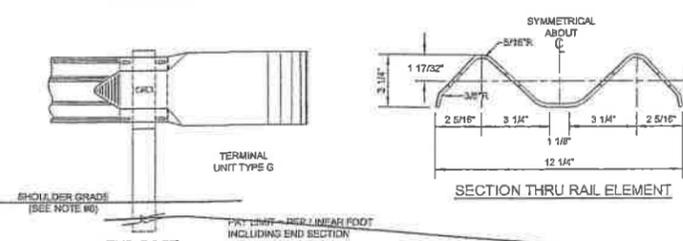
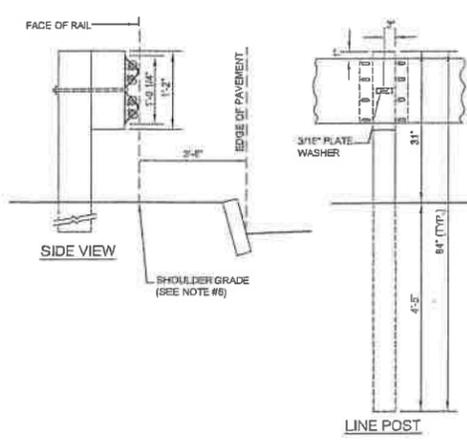
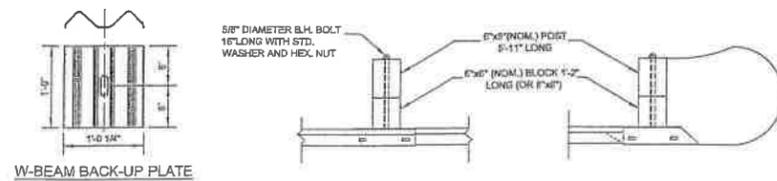
**CONSTRUCTION DETAILS**  
**LAND OF LEONARD VIGEANT**  
300 WEBSTER STREET  
HUDSON, NEW HAMPSHIRE

**OWNER OF RECORD:**  
LEONARD A. SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
VOL. 8652, PG. 2427

**APPLICANT/SUBDIVIDER:**  
LEONARD A. SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
DATE: SEPTEMBER 16, 2014

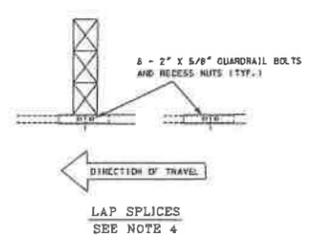
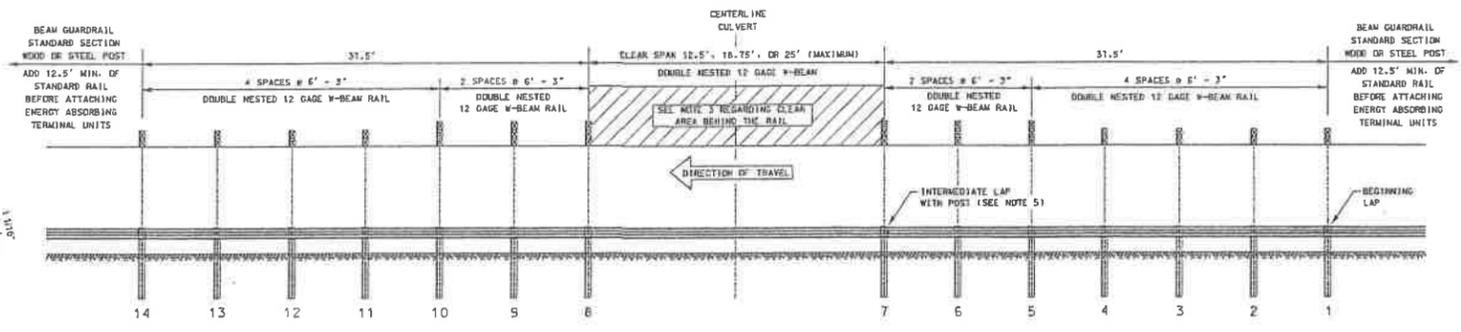
**KMA** KEACH-NORDSTROM ASSOCIATES, INC.  
Civil Engineering Land Surveying Landscape Architecture  
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 827-2801

SCALE: AS NOTED  
HUDSON: MAP 128; LOT 7 & 8  
LITCHFIELD: MAP B; LOTS 1-1 & 1-2  
PROJECT NO: 07-0511-4A SHEET 14 OF 23



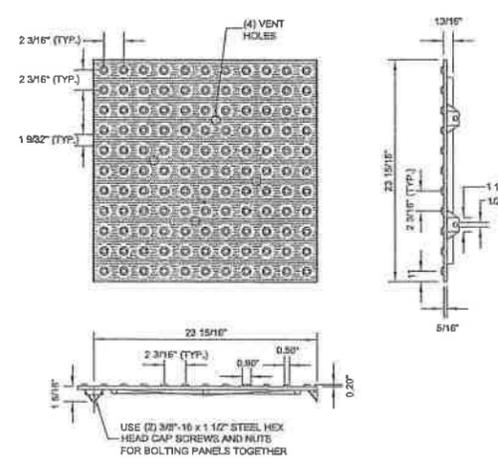
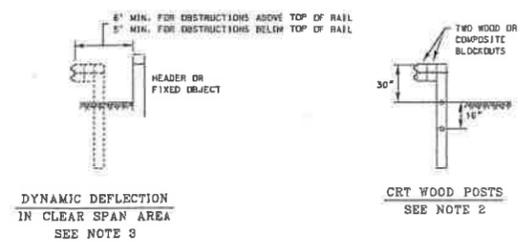
- NOTES:**
1. STEEL POSTS, OFFSET BLOCKS, ANCHORS, PLATES AND ALL FITTINGS TO BE GALVANIZED.
  2. ALL DIMENSIONS SUBJECT TO MANUFACTURERS TOLERANCES.
  3. RAIL PANELS AND END SECTIONS TO BE 12 GAUGE STEEL.
  4. BACK-UP PLATE TO BE PLACED BEHIND RAIL ELEMENTS AT INTERMEDIATE STEEL POSTS.
  5. ALL PARTS SHALL CONFORM TO CURRENT STANDARD SPECIFICATIONS.
  6. WHEN GUARDRAIL IS CONSTRUCTED AT UP TO FOUR FEET FROM THE EDGE OF PAVEMENT, THE GUARDRAIL HEIGHT WILL BE SET FROM THE GRADE AT THE EDGE OF PAVEMENT. WHEN GUARDRAIL IS CONSTRUCTED MORE THAN FOUR FEET FROM THE EDGE OF PAVEMENT, THE GUARDRAIL WILL BE SET FROM THE GRADE AT FACE OF RAIL.

**BEAM GUARDRAIL DETAIL**  
NOT TO SCALE  
(MARCH 2008)

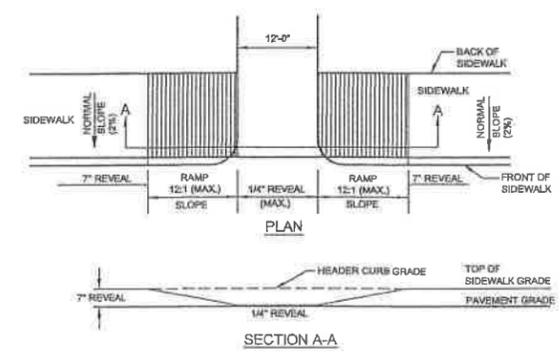


**W-BEAM GUARDRAIL LONG SPAN, DOUBLE NESTED**  
NOT TO SCALE

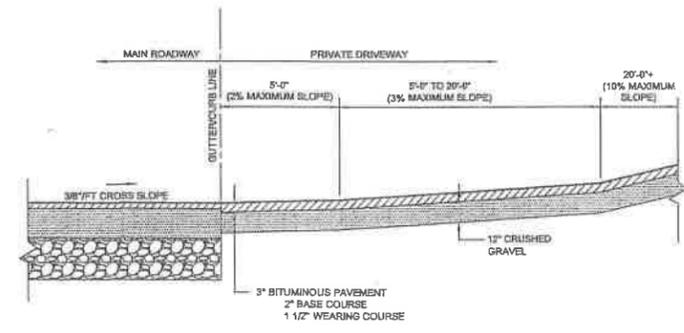
1. POSTS 1 - 4 AND 11 - 14 STANDARD WOOD OR STEEL POSTS WITH BLOCKOUTS (SEE STANDARD SHEET CR-11)
2. POSTS 5 - 10 ARE CRT WOOD POSTS WITH TWO WOOD OR COMPOSITE BLOCKOUTS ONLY CRT POSTS NEED TO BE WOOD UNLESS THE REST OF THE RUN IS WOOD POST
3. CLEAR AREA BEHIND BACK OF RAIL SHALL BE: 5 FEET MINIMUM FOR OBSTRUCTIONS LESS THAN OR EQUAL TO THE HEIGHT OF THE TOP OF RAIL. 6 FEET MINIMUM FOR OBSTRUCTIONS TALLER THAN THE TOP OF RAIL.
4. LAP SPLICES IN THE DIRECTION OF ADJACENT TRAFFIC.
5. 25'-0\"/>



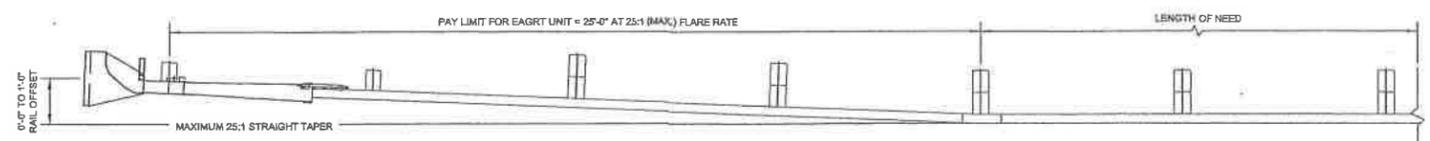
- NOTES:**
1. DETECTABLE WARNING PLATE SHALL BE NERENAH FOUNDRY OR APPROVED EQUAL.
  2. THE PLATE MUST COMPLY WITH ADAAG (AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES) AND ARCHITECTURAL BARRIER ACT GUIDELINES.
  3. MATERIAL SHALL BE CAST GRAY IRON.
  4. FINISH: NO PAINT.
- 24\"/>**



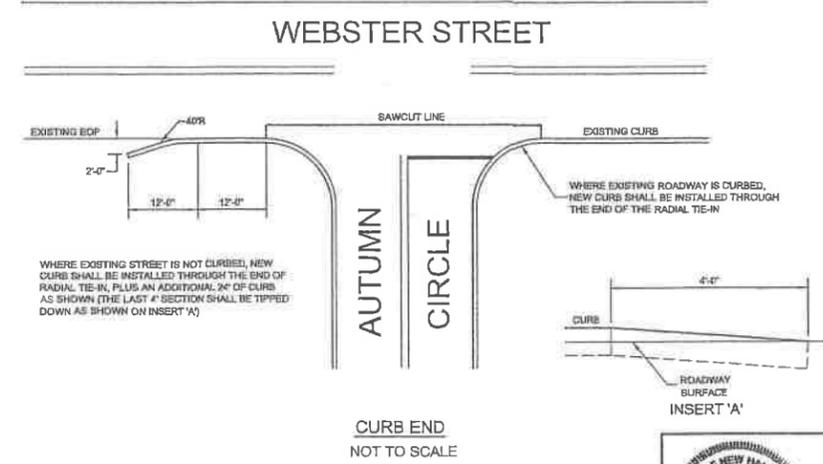
- NOTES:**
1. MAINTAIN THE NORMAL PAVEMENT PROFILE THROUGHOUT THE RAMP AREA.
  2. MAINTAIN A MAXIMUM 1/4\"/>
- SIDEWALK RAMP**  
NOT TO SCALE



**DRIVEWAY CROSS SECTION WITH NO SIDEWALK**  
NOT TO SCALE



**25'-0\"/>**



**CURB END**  
NOT TO SCALE

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REV. PER SUBDIVISION IMPROVEMENTS	PRC

**CONSTRUCTION DETAILS**  
**LAND OF LEONARD VIGEANT**  
300 WEBSTER STREET  
HUDSON, NEW HAMPSHIRE

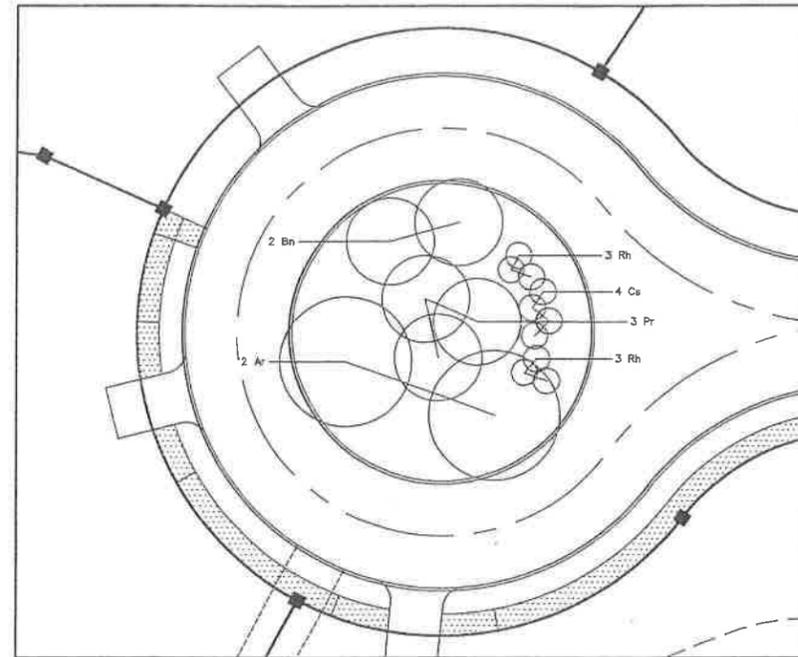
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5 MOCKINGBIRD LANE  
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**APPLICANT/SUBDIVIDER:**  
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HUDSON, NH 03051  
DATE: SEPTEMBER 16, 2014.

**KMA KEACH-NORDSTROM ASSOCIATES, INC.**  
Civil Engineering Land Surveying Landscape Architecture  
10 Commerce Park North, Suite 2B, Bedford, NH 03110 Phone (603) 627-2881

SCALE: AS NOTED  
HUDSON: MAP 128; LOT 7 & 8  
LITCHFIELD: MAP B; LOTS 1-1 & 1-2  
PROJECT NO: 07-0511-4A SHEET 15 OF 23

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CUL-DE-SAC PLANTING PLAN  
SCALE: 1" = 20'

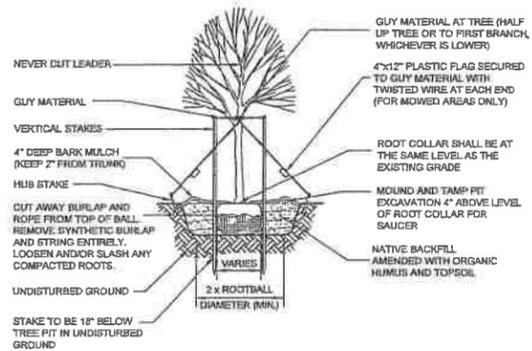
PLANT LIST

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE
<b>TREES</b>				
Ar	2	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2"-2.5" CAL.
Bn	2	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH	2-2.5" CAL.
Pr	3	PINUS RESINOSA	RED PINE	5-6" B&B
<b>SHRUBS</b>				
Cs	4	CORNUS SERICEA 'ALLEMAN'S COMPACTA'	ALLEMAN'S COMPACT DOGWOOD	2-2.5"
Rh	6	RHODODENDRON 'HAAGA'	HAAGA RHODODENDRON	2-2.5" B&B

LANDSCAPE NOTES:

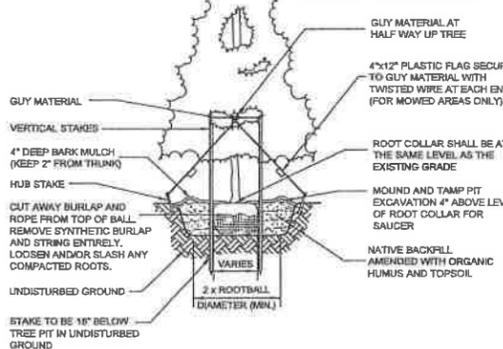
- ALL PLANT MATERIALS USED SHALL BE NURSERY STOCK AND SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF INSTALLATION. ANY MATERIAL WHICH DIES OR DOES NOT SHOW HEALTHY APPEARANCE WITHIN THIS TIME SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE, WITH SAME WARRANTY REQUIREMENTS AS THE ORIGINAL WARRANTY. WARRANTIES TYPICALLY DO NOT COVER LOSS DUE TO INSECT INFESTATION OR MECHANICAL DAMAGE (I.E. SNOW STORAGE).
- IF THE SOIL CONDITIONS ARE EXTREMELY SANDY, ALL TREES SHALL HAVE A 6" LAYER OF COMPACTED TOPSOIL PLACED IN THE BASE OF THE PLANT PIT AS A MOISTURE RETENTION LAYER. THE PLANT PIT SIDEWALLS SHALL BE OVER EXCAVATED BY AN ADDITIONAL 12" BEYOND THE NORMAL OUTSIDE RADIUS OF THE HOLE. A TOPSOIL MIXTURE SHALL BE USED TO BACKFILL THE HOLE AS FOLLOWS: ORGANIC TOPSOIL, AMENDED WITH 10% WOOD ASH, 10% MANURE, 30% PEATMOSS AND A GRANULAR HYDROGEL TO ABSORB AND RETAIN WATER.
- PLANTING BEDS AND SAUCERS SHALL RECEIVE A 4" MINIMUM THICKNESS OF PINE/HEMLOCK BARK MULCH OVER A 5oz. POLYPROPYLENE WEED CONTROL FABRIC.
- PAVEMENT AND ROAD BASE MATERIAL ENCOUNTERED IN ANY LAWN OR PLANTING BED SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SUITABLE AMENDED SOIL INSTALLED AS SPECIFIED IN THE TURF ESTABLISHMENT SCHEDULE.
- ALL STREET TREES SHALL BE PLANTED A MINIMUM OF 5'-0" BEHIND THE EDGE OF THE SIDEWALK.
- ALL LANDSCAPE MATERIAL INSTALLATION AND MAINTENANCE SHALL BE IN ACCORDANCE WITH SECTION 650 OF THE CITY OF MANCHESTER CONSTRUCTION STANDARDS.

NOTE:  
GUYING AND STAKING TO BE DETERMINED IN THE FIELD BY THE LANDSCAPE ARCHITECT. LOCAL FIELD CONDITIONS AS WELL AS PLANT CHARACTERISTICS WILL DETERMINE THE NECESSITY OF GUYING AND STAKING.

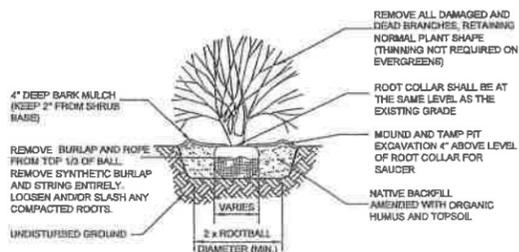


DECIDUOUS TREE PLANTING DETAIL  
NOT TO SCALE  
(JANUARY 2012)

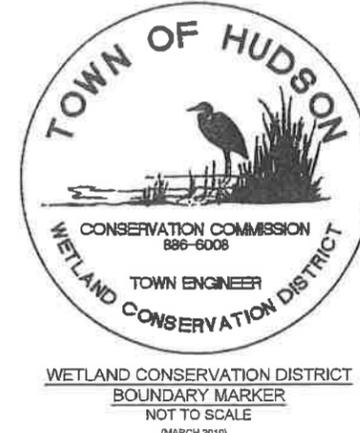
NOTE:  
GUYING AND STAKING TO BE DETERMINED IN THE FIELD BY THE LANDSCAPE ARCHITECT. LOCAL FIELD CONDITIONS AS WELL AS PLANT CHARACTERISTICS WILL DETERMINE THE NECESSITY OF GUYING AND STAKING.



EVERGREEN TREE PLANTING DETAIL  
NOT TO SCALE  
(JANUARY 2012)



BALLED & BURLAP SHRUB PLANTING DETAIL  
NOT TO SCALE  
(JANUARY 2012)



TURF ESTABLISHMENT SCHEDULE

PURPOSE:  
TO ESTABLISH AND MAINTAIN PERMANENT AND TEMPORARY TURF AREAS, RESTORE GROWTH TO EXISTING TURF AREAS DISTURBED DURING CONSTRUCTION AND CONTROL SOIL EROSION.

PREPARATION AND EXECUTION:

- RAKE THE SUBGRADE OF ALL AREAS TO BE LOAMED AND SEEDED TO REMOVE RUBBISH, STICKS, ROOTS AND STONES LARGER THAN 1 INCH.
- PLACE DAM OVER AREAS TO BE SEEDED AND SPREAD.
- FINE GRADE SURFACE AND SUPPLEMENT WITH SUITABLE LOAM WHERE NEEDED TO CREATE A UNIFORM SURFACE ACCORDING TO THE FINISH GRADES INDICATED. TOP AND BOTTOM OF SLOPES SHALL BE ROUNDED. NO LOAM SHALL BE SPREAD IF THE SUBGRADE IS EXCESSIVELY WET OR FROZEN.
- APPLY LIME EVENLY OVER LOAM SURFACE AND THOROUGHLY INCORPORATE LIME INTO THE LOAM BY HEAVY RAINING TO AT LEAST ONE-HALF THE DEPTH OF THE LOAM.
- APPLY FERTILIZER AND MIX WITH THE UPPER 2 INCHES OF LOAM.
- DETERMINE APPROPRIATE MIXTURE FOR AREA TO BE SEEDED BASED ON EXAMINATION OF PROJECT PLANS. UNIFORMLY SPREAD THE SEED BY BROADCASTING OR HYDROSEEDING. BROADCASTING, LIGHTLY RAKE INTO THE PREPARED SURFACE AND ROLL. IF HYDROSEEDING, USE 4 TIMES THE RECOMMENDED RATE OF INOCULANT. AFTER SEED IS SPREAD, WATER THOROUGHLY WITH A FINE SPRAY.
- SEEDING FOR PERMANENT COVER SHALL OCCUR BETWEEN SEPTEMBER 15 AND OCTOBER 15 AND BETWEEN APRIL 15 AND JUNE 15. SEEDING SHALL NOT BE DONE DURING WINDY WEATHER, WHEN THE GROUND IS FROZEN OR EXCESSIVELY WET OR OTHERWISE UNFITTABLE.
- WITHIN 24 HOURS AFTER SEEDING OPERATION, UNIFORMLY MULCH THE AREA WITH HAY. ANCHOR MULCH ON ALL SLOPES EXCEEDING 3:1 USING MULCH NETTING INSTALLED IN ACCORDANCE WITH THE MANUFACTURER.
- PROTECT AND PREVENT AGAINST WASHOUTS, ANY WASHOUTS WHICH OCCUR SHALL BE PROMPTLY REGRADED AND RESEEDED.
- WHEN IT IS IMPRACTICAL TO ESTABLISH PERMANENT GROWTH ON DISTURBED EARTH BY OCTOBER 15, A TEMPORARY SEED MIXTURE SHALL BE USED. WHEN TEMPORARY SEEDING CANNOT ESTABLISH VISIBLE GROWTH, THE DISTURBED AREA SHALL BE COVERED WITH SIX INCHES OF MULCH FOR THE WINTER.

MAINTENANCE:

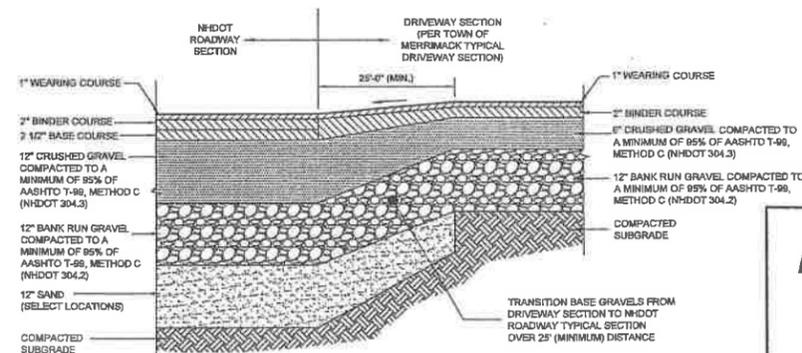
ALL SEEDED AREAS SHALL BE KEPT WATERED AND IN GOOD CONDITION. RESEED AS NECESSARY TO ESTABLISH HEALTHY UNIFORM GROWTH OVER THE ENTIRE SEEDED AREA. MAINTAIN SEEDED AREAS IN AN APPROVED CONDITION UNTIL FINAL ACCEPTANCE. MAINTENANCE SHALL INCLUDE REPAIRS FOR DAMAGE CAUSED BY EROSION.

APPLICATION RATES:

- LOAM SHALL BE APPLIED AT A MINIMUM COMPACTED THICKNESS OF 4 INCHES.
- LIME SHALL BE APPLIED AT A RATE OF 75 TO 100 POUNDS PER 1,000 S.F.
- FERTILIZER SHALL BE APPLIED AT A RATE OF 30 POUNDS PER 1,000 S.F.
- SEED MIXTURE FOR LAWN AREAS SHALL BE APPLIED AT A RATE OF AT LEAST 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 S.F.
- TEMPORARY SEED MIXTURE SHALL BE APPLIED AT A RATE OF 2 POUNDS PER 1,000 S.F.
- SEED MIXTURE FOR SLOPE AREAS SHALL BE APPLIED AT A RATE OF 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 S.F.
- SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS SHALL BE APPLIED AT A RATE OF 70 POUNDS PER ACRE OR 1.6 POUNDS PER 1,000 S.F.
- MULCH SHALL BE APPLIED AT A RATE OF 90 POUNDS PER 1,000 S.F.

MATERIALS:

- LOAM USED FOR TOPSOIL SHALL BE FRIABLE, FERTILE, NATURAL FREE-DRAINING LOAM; FREE OF ROOTS, GRASS, STICKS, WEEDS, DEBRIS AND STONES LARGER THAN 1 INCH IN ANY DIMENSION. SOIL SHALL NOT BE EXCESSIVELY ACID OR ALKALINE AND CONTAIN NO TOXIC MATERIALS.
- LIME SHALL BE GROUND LIMESTONE CONTAINING NO LESS THAN 85% CALCIUM AND MAGNESIUM CARBONATES.
- FERTILIZER SHALL BE 10-20-20 COMMERCIAL GRADE.
- SEED MIXTURE FOR LAWN AREAS SHALL BE 99% PURE LIVE SEED AND CONSIST OF THE FOLLOWING:  
25% CREEPING RED FESCUE  
25% KENTUCKY BLUEGRASS  
25% REDTOP  
25% MANHATTAN PERENNIAL RYEGRASS
- TEMPORARY SEEDING MIXTURE SHALL BE AN APPROVED CONSERVATION MIX OR CONSIST OF THE FOLLOWING:  
15% BLACKWELL OR SHELTER SWITCHGRASS  
30% NIAGRA OR KAW BIG BLUESTEM  
30% CAMPER OR BLAZE LITTLESTEM  
15% NE-27 OR BLAZE BANG LOVEGRASS  
10% VIKING BIRDSFOOT TREFLOID  
INOCULUM SPECIFIC TO BIRDSFOOT TREFLOID MUST BE USED WITH THIS MIXTURE. IF SEEDING BY HAND, A STICKING AGENT SHALL BE USED. IF SEEDING WITH A HYDROSEEDER, USE FOUR TIMES THE RECOMMENDED AMOUNT OF INOCULUM.
- SEED MIXTURE FOR SLOPE AREAS SHALL BE 99% PURE LIVE SEED AND SHALL CONSIST OF THE FOLLOWING:  
30% CREEPING RED FESCUE  
40% PERENNIAL RYE GRASS  
15% REDTOP  
15% BIRDSFOOT TREFLOID  
IN ADDITION TO THE MIX SPECIFIED ABOVE, CROWN VETCH SHALL BE USED ON ALL SLOPES STEEPER THAN 3:1. CROWN VETCH SHALL BE APPLIED AT A RATE OF 10 POUNDS PER ACRE AND INOCULUM SPECIFIC TO CROWN VETCH MUST BE USED.
- SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS, INCLUDING DETENTION BASINS AND VEGETATED TREATMENT SWALES SHALL CONSIST OF THE FOLLOWING:  
25% CREEPING RED FESCUE  
15% SWITCH GRASS  
15% FOX SEDGE  
15% CREEPING BENTGRASS  
10% FLATPEA  
20% WILDFLOWER VARIETY  
LEGUME MIXINGS, FREE FROM WEEDS, TWIGS, DEBRIS OR OTHER DELETERIOUS MATERIAL AND ROT OR MOLD.

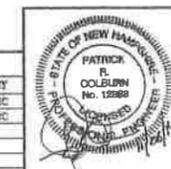


DRIVEWAY TRANSITION TO STATE RIGHT-OF-WAY DETAIL  
NOT TO SCALE

NOTE:  
FIELD VERIFY DEPTHS OF EXISTING GRAVELS BENEATH NHDOT ROADWAY AND MATCH ACCORDINGLY.

REVISIONS

No.	DATE	DESCRIPTION	BY
1	10/30/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REV. PER SUBDIVISION IMPROVEMENTS	PRC



CONSTRUCTION DETAILS  
LAND OF LEONARD VIGEANT  
300 WEBSTER STREET  
HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:  
LEONARD A. SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
VOL. 8652, PG. 2427

APPLICANT/SUBDIVIDER:  
LEONARD A. SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
DATE: SEPTEMBER 16, 2014

**KMA** KEACH-NORDSTROM ASSOCIATES, INC.  
Civil Engineering Land Surveying Landscape Architecture  
10 Commerce Park North, Suite 30, Bedford, NH 03110 Phone (603) 627-2881  
SCALE: AS NOTED  
HUDSON: MAP 128; LOT 7 & 8  
LITCHFIELD: MAP B; LOTS 1-1 & 1-2  
PROJECT NO: 07-0511-4A SHEET 16 OF 23

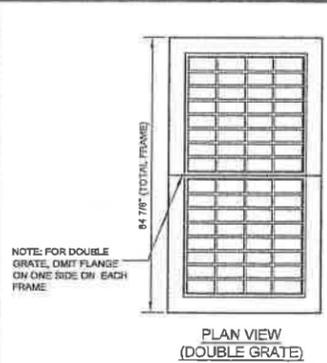
PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD  
DATE OF MEETING: \_\_\_\_\_

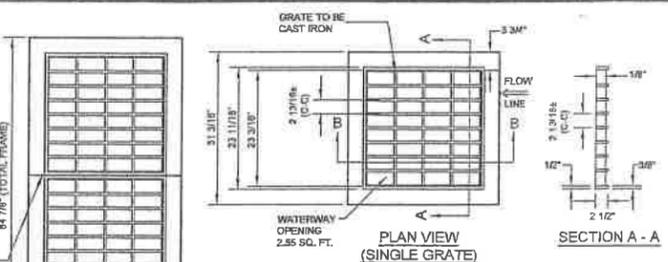
SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.



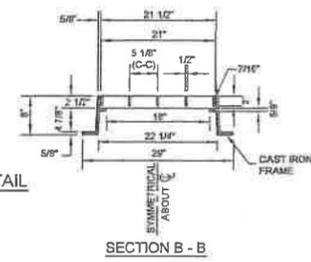
NOTE: FOR DOUBLE GRATE, OMIT FLANGE ON ONE SIDE ON EACH FRAME



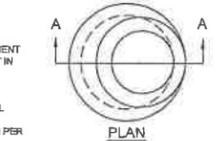
PLAN VIEW (DOUBLE GRATE)

TYPE B FRAME & GRATE DETAIL NOT TO SCALE (MARCH 2008)

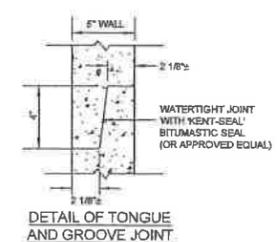
- NOTES:
1. ALL SECTIONS SHALL BE CONCRETE CLASS AA(4000 PSI) CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCH PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
  2. THE TONGUE OR GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCH PER LINEAR FOOT.
  3. RISER OF 1", 2", 3" & 4" CAN BE USED TO REACH DESIRED DEPTH.
  4. MATERIALS AND CONSTRUCTION TO NHDOT STANDARDS.



SECTION B - B

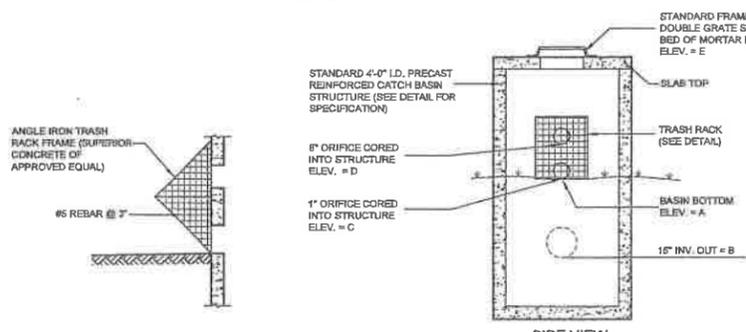


PLAN

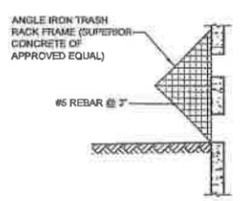


DETAIL OF TONGUE AND GROOVE JOINT

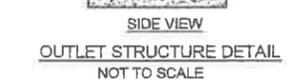
PRECAST REINFORCED CATCH BASIN NOT TO SCALE (MAY 2012)



SECTION A-A

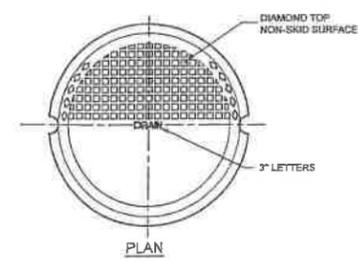


TRASH RACK DETAIL NOT TO SCALE

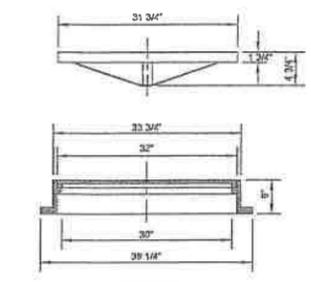


OUTLET STRUCTURE DETAIL NOT TO SCALE

LOCATION	"A"	"B"	"C"	"D"	"E"
DP #1	115.00	115.0	115.0	NA	116.75
DP #2	109.00	109.0	109.0	112.5	115.0



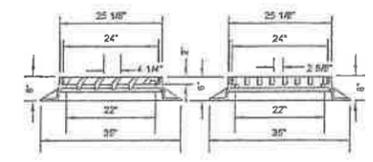
PLAN



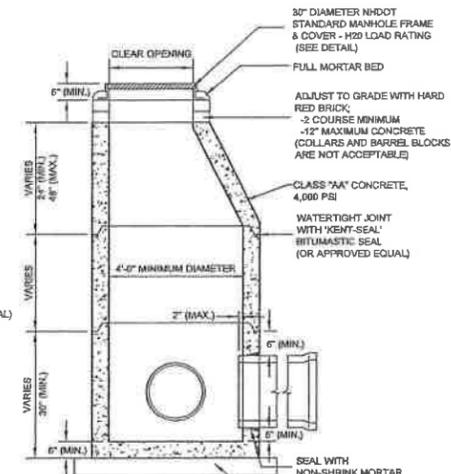
SECTION

DRAIN MANHOLE FRAME AND COVER DETAIL NOT TO SCALE (JANUARY 2012)

- NOTES:
- NEW HAMPSHIRE MAINTAINS A CLEAR OPENING DESIGNATION OF 30" FOR ITS MANHOLE CASTINGS
- FEATURES:
- 3" LETTERING
  - COVERS MARKED DRAIN
  - NONROCKING COVER
  - DIAMOND SURFACE DESIGN
- SPECIFICATIONS:
- FULLY MACHINED FRAME AND COVER
  - H-20 LOAD RATED
  - GRAY CAST IRON MEETS ASTM A48 CLASS 30

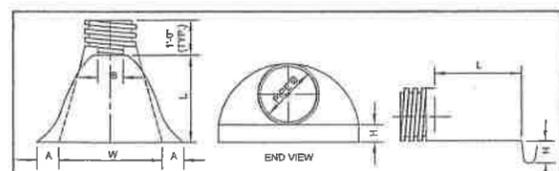


TYPE F FRAME & GRATE NOT TO SCALE (MARCH 2008)



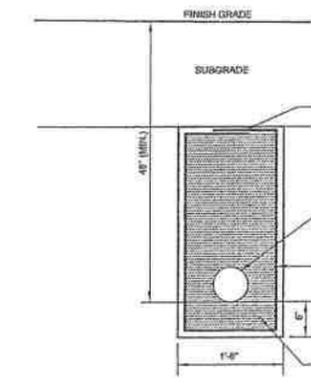
- NOTES:
1. STEPS ARE NOT ALLOWED.
  2. ALL SECTIONS SHALL BE CONCRETE CLASS AA (4,000 PSI). CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER L.F. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER OF THE WALL.
  3. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER L.F.
  4. MATERIALS AND CONSTRUCTION TO NHDOT STANDARDS.

PRECAST REINFORCED DRAIN MANHOLE DETAIL NOT TO SCALE (MARCH 2008)

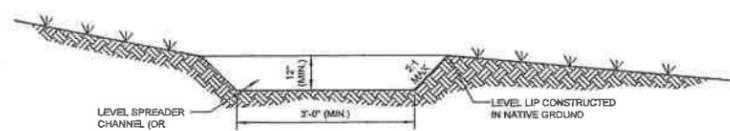


PIPE DIAMETER	DIMENSIONS, INCHES (MM)					
	PART No.	A (± 1/2)	B (MAX.)	H (± 1/2)	L (± 1/2)	W (± 2)
12" & 15"	1210 NP	6.5"	10"	6.5"	25"	25"
18"	1810 NP	7.5"	15"	6.5"	32"	35"
24"	2410 NP	7.5"	18"	6.5"	36"	45"
30"	3010 NP	10.5"	N/A	7.0"	53"	68"
36"	3610 NP	10.5"	N/A	7.0"	53"	68"

ADS END SECTION DETAIL NOT TO SCALE (MARCH 2008)



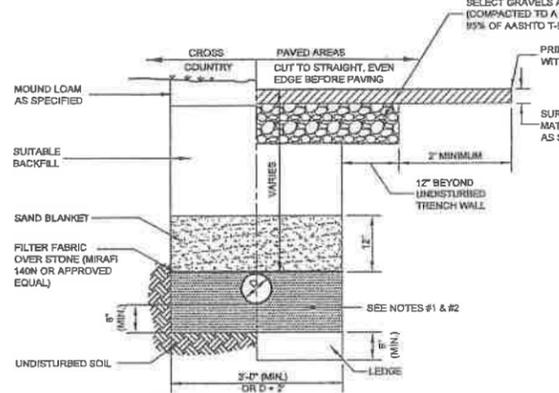
UNDERDRAIN NOT TO SCALE (MARCH 2008)



LEVEL SPREADER DETAIL NOT TO SCALE (APRIL 2010)

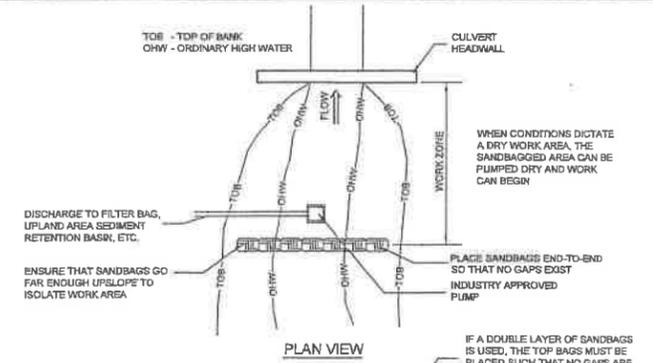
- NOTES:
1. CONSTRUCT THE LEVEL SPREADER LIP ON A ZERO PERCENT GRADE TO INSURE UNIFORM SPREADING OF RUN-OFF.
  2. LEVEL SPREADER SHALL BE CONSTRUCTED ON UNDISTURBED SOIL AND NOT ON FILL.
  3. THE FLOW FROM THE LEVEL SPREADER SHALL OUTLET INTO STABILIZED AREAS. WATER SHOULD NOT RECONCENTRATE IMMEDIATELY BELOW THE SPREADER.
  4. PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PERFORMED.

- MAINTENANCE REQUIREMENTS:
1. INSPECT AT LEAST ONCE ANNUALLY FOR ACCUMULATION OF SEDIMENT AND DEBRIS AND FOR SIGNS OF EROSION WITHIN APPROACH CHANNEL, SPREADER CHANNEL OR DOWN-SLOPE OF THE SPREADER.
  2. REMOVE DEBRIS WHENEVER OBSERVED DURING INSPECTION.
  3. REMOVE SEDIMENT WHEN ACCUMULATION EXCEEDS 25% OF SPREADER CHANNEL DEPTH.
  4. MOW AS REQUIRED BY LANDSCAPE DESIGN. AT A MINIMUM, MOW ANNUALLY TO CONTROL WOODY VEGETATION WITHIN THE SPREADER.
  5. SNOW SHOULD NOT BE STORED WITHIN OR DOWN-SLOPE OF THE LEVEL SPREADER OR ITS APPROACH CHANNEL.
  6. REPAIR ANY EROSION AND RE-GRADE AS WARRANTED BY INSPECTOR.
  7. RECONSTRUCT THE SPREADER IF DOWN-SLOPE CHANNELIZATION INDICATES THAT THE SPREADER IS NOT LEVEL OR THAT DISCHARGE HAS BECOME CONCENTRATED, AND CORRECTIONS CANNOT BE MADE THROUGH MINOR RE-GRADING.

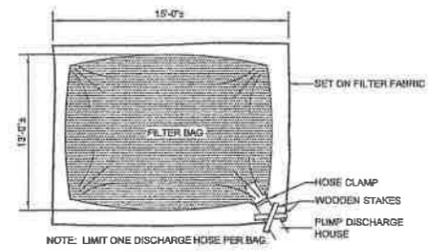


- NOTES:
1. THOROUGHLY COMPACTED SCREENED GRAVEL FOR RCP PIPE. SCREENED GRAVEL TO EXTEND TO SELECT FILL LINE.
  2. FOR HDPE OR PVC PIPE, BEDDING SHALL BE 3/4" STONE TO THE TOP OF THE PIPE.

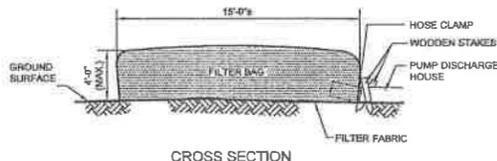
STORM DRAINAGE TRENCH DETAIL NOT TO SCALE (MARCH 2008)



TEMPORARY SANDBAG COFFERDAM DETAIL NOT TO SCALE (AUGUST 2019)



PLAN VIEW



CROSS SECTION

- NOTES:
- FILTER BAGS SHALL MEET THE FOLLOWING SPECIFICATIONS AND ADHERE TO THE FOLLOWING GUIDELINES:
- THEY ARE CONSTRUCTED OF A NON-WOVEN GEOTEXTILE FABRIC.
  - ONLY ONE 3/4-INCH DISCHARGE HOSE WILL BE ALLOWED PER FILTER BAG.
  - BAG CAPACITY WILL BE EXCEEDED BEYOND 2,000 GALLONS PER MINUTE.
  - TYPICAL, RECOMMENDED BAG DIMENSIONS ARE 16 FEET BY 13.25 FEET.
  - TO HELP PREVENT PUNCTURES, GEOTEXTILE FABRICS SHALL BE PLACED BENEATH THE FILTER BAG WHEN USED IN WOODED LOCATIONS.
  - HOSE CLAMPS SHALL BE USED TO SECURE THE DISCHARGE HOSE TO THE FILTER BAG.
- WHEN MAINTAINING FILTER BAGS TO ENSURE PROPER FUNCTION, THE FOLLOWING CONDITIONS SHALL APPLY:
- PRIOR TO REMOVING THE BAG FROM THE HOSE, THE BAG WILL BE TIED OFF BELOW THE END OF THE HOSE, ALLOWING THE BAG TO DRAIN.
  - TO AVOID RUPTURE, THE BAGS WILL BE ATTENDED AND PUMPING RATES MONITORED.
  - ONCE THE BAG IS INFLATED TO A HEIGHT OF FOUR (4) FEET, PUMPING SHALL STOP TO AVOID RUPTURE.
  - FILTER BAGS USED DURING CONSTRUCTION SHALL BE BRANDED AND REMOVED FOR PROPER DISPOSAL.

FILTER BAGS FOR DEWATERING DISCHARGE NOT TO SCALE (AUGUST 2019)

**CONSTRUCTION DETAILS**  
**LAND OF LEONARD VIGEANT**  
 300 WEBSTER STREET  
 HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:  
 LEONARD A. SR. & JANE M. VIGEANT  
 5 MOCKINGBIRD LANE  
 HUDSON, NH 03051  
 VOL. 8652, PG. 2427

APPLICANT/SUBDIVIDER:  
 LEONARD A. SR. & JANE M. VIGEANT  
 5 MOCKINGBIRD LANE  
 HUDSON, NH 03051  
 DATE: SEPTEMBER 16, 2014

**KMA** KEACH-NORDSTROM ASSOCIATES, INC.  
 Civil Engineering Land Surveying Landscape Architecture  
 10 Commerce Park North, Suite 30, Bedford, NH 03110 Phone (603) 627-2881

SCALE: AS NOTED  
 HUDSON: MAP 128; LOT 7 & 8  
 LITCHFIELD: MAP B; LOTS 1-1 & 1-2  
 PROJECT NO: 07-0511-4A SHEET 17 OF 23

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

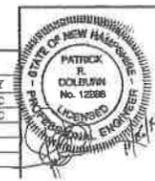
APPROVED BY THE HUDSON, NH PLANNING BOARD  
 DATE OF MEETING: \_\_\_\_\_

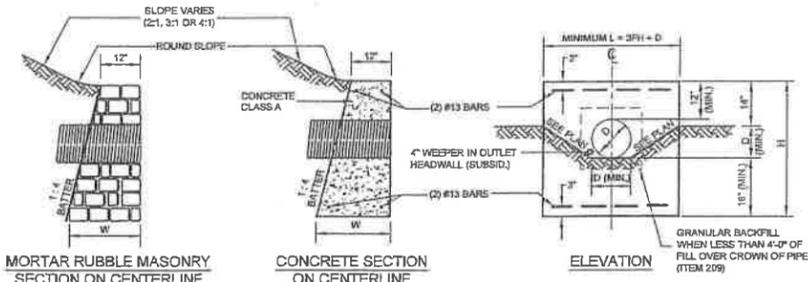
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SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

No.	DATE	DESCRIPTION	BY
1	10/21/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REV. PER SUBDIVISION IMPROVEMENTS	PRC





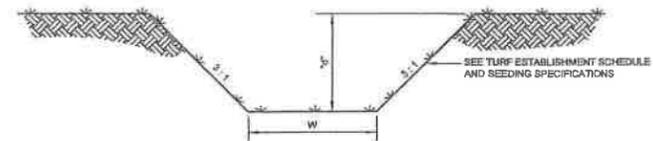
NOTE:  
DIMENSIONS SHOWN ARE TO PAYMENT LINES. MORTAR RUBBLE MASONRY TO BE STEPPED OUTSIDE PAYMENT LINES ON SLOPING FACES.

DIAMETER D (INCH)	AREA OF PIPE (SQ FT)	MASONRY PER FOOT OF WALL (CU. YD.)	MASONRY PER HOLE (CU. FT.)	MASONRY PER STANDARD HEADER (CU. YD.)	STEEL PER STANDARD HEADER (LB)	LENGTH OF BARS	PIPE EXC. 1" DEPTH (CU. YD.)	HEADER EXC. PER HEADER 1" DEPTH (CU. YD.)	ITEM 209 PER LINEAR FOOT	HEADER LENGTH L	HEADER HEIGHT H	FILL HEIGHT FH	WIDTH AT BOTTOM OF HEADER W	MASONRY IN CORNER FRUSTUM 1" DEPTH (CU. YD.)	HEADER EXC. PER HEADER 1" DEPTH (CU. YD.)
12"	0.78	0.166	1.08	0.81	9	3'-2"	0.111	0.769	0.30	3'-4"	10"	1'-10 1/2"	0.28	1.057	
16"	1.29	0.202	1.79	0.85	11	3'-10"	0.126	0.947	0.39	4'-0"	10"	1'-11 1/4"	0.31	1.232	
18"	1.77	0.222	2.52	1.13	14	5'-2"	0.136	1.111	0.39	5'-0"	1'-4"	2'-0"	0.35	1.458	
24"	3.14	0.260	4.71	1.78	20	7'-2"	0.148	1.451	0.48	7'-0"	4'-0"	1'-10"	0.42	1.778	
30"	4.91	0.307	7.57	2.58	25	8'-2"	0.165	1.816	0.65	8'-0"	5'-0"	2'-4"	0.51	2.164	
36"	7.07	0.344	11.48	3.55	31	11'-2"	0.222	2.167	0.85	11'-0"	6'-0"	2'-4 1/2"	0.61	2.572	
42"	9.62	0.389	16.24	4.65	36	13'-2"	0.258	2.561	1.07	13'-0"	6'-0"	3'-4"	0.72	3.009	
48"	12.57	0.436	21.99	5.95	42	16'-2"	0.296	3.000	1.31	15'-0"	6'-0"	3'-10"	0.84	3.447	
54"	15.96	0.486	28.83	7.44	47	17'-2"	0.333	3.432	1.56	17'-0"	7'-0"	4'-4"	0.98	3.914	
60"	19.85	0.538	36.87	9.13	52	18'-2"	0.370	3.862	1.87	18'-0"	7'-0"	4'-10"	1.12	4.401	
66"	24.36	0.593	46.03	11.04	58	21'-2"	0.407	4.350	2.17	21'-0"	8'-0"	5'-4"	1.28	4.901	
72"	29.27	0.649	56.58	13.17	63	23'-2"	0.445	4.838	2.50	23'-0"	8'-0"	5'-10"	1.46	5.433	

NOTE: STEEL QUANTITIES ARE FOR CONCRETE HEADWALLS ONLY.

MORTAR RUBBLE MASONRY AND CONCRETE HEADWALLS

NOT TO SCALE  
(MARCH 2008)



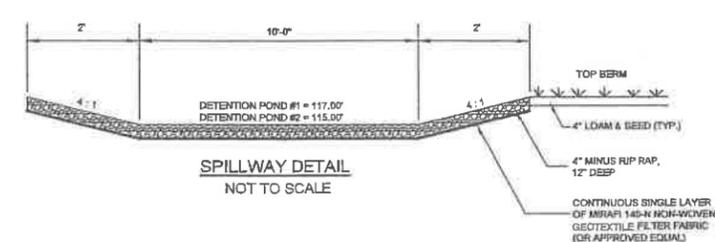
LOCATION	PEAK FLOW	PEAK VELOCITY	SWALE WIDTH "W"	SWALE LENGTH	SWALE SLOPE	DEPTH "D"	PEAK DEPTH OF RUNOFF	HRT
SWALE #1	0.02 CFS	0.10 FPS	4'	200'	0.005	2"	0.05'	33.5 MINUTES
SWALE #2	0.04 CFS	0.12 FPS	4'	200'	0.005	2"	0.08'	27.0 MINUTES

MAINTENANCE

1. TIMELY MAINTENANCE IS IMPORTANT TO KEEP THE VEGETATION IN THE SWALE IN GOOD CONDITION. MOWING SHOULD BE DONE FREQUENTLY ENOUGH TO KEEP THE VEGETATION IN VICEROUS CONDITION AND TO CONTROL ENCROACHMENT OF WEEDS AND WOODY VEGETATION. HOWEVER IT SHOULD NOT BE MOVED TOO CLOSELY SO AS TO REDUCE THE FILTERING EFFECT. FERTILIZE ON AN "AS NEEDED" BASIS TO KEEP THE GRASS HEALTHY. OVER FERTILIZATION CAN RESULT IN THE SWALE BECOMING A SOURCE OF POLLUTION.
2. THE SWALE SHOULD BE INSPECTED PERIODICALLY AND AFTER EVERY MAJOR STORM TO DETERMINE THE CONDITION OF THE SWALE. RILLS AND DAMAGED AREAS SHOULD BE PROMPTLY REPAIRED AND RE-VEGETATED AS NECESSARY TO PREVENT FURTHER DETERIORATION.
3. SWALE #2 TO BE LINED WITH A 6 MIL. POLYETHYLENE SHEETING ABOVE 4" OF SAND.

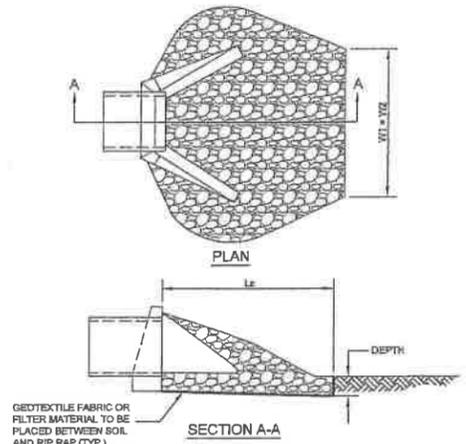
TREATMENT SWALE DETAIL

NOT TO SCALE  
(MARCH 2008)



SPILLWAY DETAIL

NOT TO SCALE



PIPE OUTLET TO WELL DEFINED CHANNEL

LOCATION	L <sub>a</sub>	W <sub>1</sub> =W <sub>2</sub>	d <sub>50</sub>	DEPTH
PROP. HW#1	35'	18'	4"	12"
PROP. HW#2	10'	4'	4"	12"
PROP. HW#3	10'	4'	4"	12"
PROP. HW#4	33'	33'	4"	12"

NOT TO SCALE  
(MARCH 2008)

TABLE 7-24 - RECOMMENDED RIP RAP GRADATION RANGES

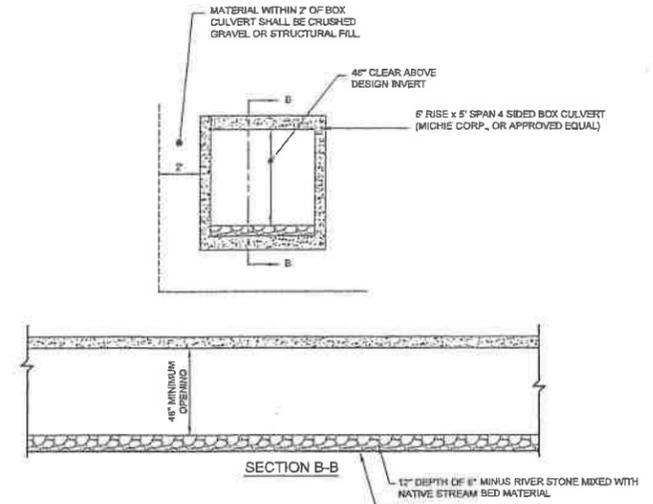
PERCENT OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE
100%	1.5 TO 2.0 d <sub>50</sub>
85%	1.3 TO 1.8 d <sub>50</sub>
50%	1.0 TO 1.5 d <sub>50</sub>
15%	0.5 TO 0.5 d <sub>50</sub>

CONSTRUCTION SPECIFICATIONS:

1. THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
2. THE ROCK OR GRAVEL FOR FILTER OR RIP RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP RAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
4. STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

MAINTENANCE:

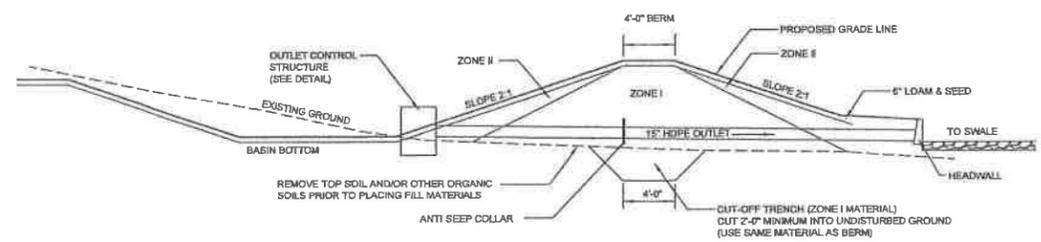
THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR RAIN EVENT. IF THE RIP RAP HAS BEEN DISPLACED, UNDERMINED, OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.



NOTES:  
1. THE STAMPED SHOP DRAWINGS AND CALCULATIONS FOR THE ACTUAL CULVERT MUST BE PROVIDED FOR REVIEW AND APPROVAL AT OR PRIOR TO THE PROJECT'S REQUIRED PRE CONSTRUCTION MEETING.

CONCRETE BOX CULVERT FOUNDATION AND BACKFILL DETAIL

NOT TO SCALE



TYPICAL CROSS SECTION DETENTION POND

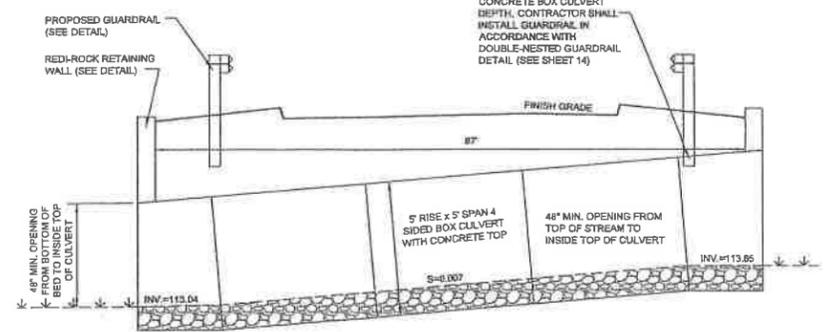
NOT TO SCALE

STORMWATER PONDS CONSTRUCTION SEQUENCE

1. CONTRACTOR TO NOTIFY DIG-SAFE 72 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. CUT AND CLEAR TREES AND BRUSH FROM CONSTRUCTION AREAS TO THE EXTENT NECESSARY. ALL BRANCHES, TOPS AND BRUSH TO BE PROPERLY DISPOSED OF BY CONTRACTOR.
3. PRIOR TO GRUBBING OF CLEARED AREAS, ALL SILTATION BARRIERS DESIGNED FOR USE AS TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED AS CALLED FOR ON PROJECT PLANS.
4. COMPLETE GRUBBING OPERATIONS. ALL STUMPS AND SIMILAR DEBRIS SHALL BE PROPERLY DISPOSED OF BY CONTRACTOR. ORGANIC MATERIAL SUITABLE FOR USE AS TOPSOIL SHALL BE STOCKPILED IN UPLAND AREAS. ALL STOCKPILES SHALL BE SEED WITH WINTER RYE AND, IF NECESSARY, SURROUNDED WITH HAY BALES IN ORDER TO PREVENT LOSS DUE TO EROSION.
5. CONSTRUCT TEMPORARY CULVERTS AS NECESSARY TO FACILITATE CONSTRUCTION ACTIVITIES. ALL SUCH CROSSINGS SHALL BE PROTECTED WITH HAY BALE BARRIERS TO LIMIT EROSION.
6. CONSTRUCT CUT-OFF TRENCH (PART OF ZONE I).
7. CONSTRUCT OUTLET AND OVERFLOW STRUCTURE, CULVERT, ANTI SEEP COLLARS, HEADWALL, AND RIP RAP OUTLET PROTECTION AS SHOWN ON PLANS.
8. CONSTRUCT ZONE I PORTION OF EARTH EMBANKMENT.
9. CONSTRUCT ZONE II PORTION OF EARTH EMBANKMENT.
10. APPLY TOPSOIL TO SLOPES AND OTHER AREAS DISTURBED BY CONSTRUCTION. TOPSOIL USED MAY BE NATIVE ORGANIC MATERIAL SCREENED SO AS TO BE FREE OF ROOTS, BRANCHES, STONES, AND OTHER DELETERIOUS MATERIALS. TOPSOIL SHALL BE APPLIED SO AS TO PROVIDE A MINIMUM OF A 4-INCH COMPACTED THICKNESS. UPON COMPLETION OF TOPSOILING, FINISHED SECTIONS ARE TO BE LINED, SEEDED AND MULCHED. CONSTRUCTION PERSONNEL SHALL INSPECT COMPLETED SECTIONS OF WORK ON A REGULAR BASIS AND REMEDY ANY PROBLEM AREAS UNTIL A HEALTHY STAND OF GRASS HAS BECOME ESTABLISHED.
11. MAINTAIN, REPAIR, AND REPLACE AS NECESSARY TEMPORARY EROSION CONTROL MEASURES UNTIL SUCH TIME AS THE ENTIRE CONSTRUCTION AREA HAS BEEN STABILIZED (A MINIMUM OF ONE WINTER SHALL HAVE PASSED).
12. AFTER STABILIZATION, REMOVE AND SUITABLY DISPOSE OF TEMPORARY EROSION CONTROL MEASURES.
13. MONITOR CONSTRUCTION ACTIVITIES TO INSURE CONSTRUCTION ACTIVITIES ARE BEING PERFORMED IN SUCH A WAY AS NOT TO ENDANGER THE INTEGRITY OF EARTH EMBANKMENTS, STORMWATER CONTROL STRUCTURE, CULVERT AND RIP RAP OUTLET PROTECTION.

MATERIAL TYPE/SPECIFICATIONS

- ZONE I**  
WELL GRADED MIXTURE OF GRAVEL, SAND, SILT OR CLAY WITH MAX. 6-INCH SIZE STONE AND CEADATION AS INDICATED BELOW. PLACE IN MAX. 12-INCH THICK LIFTS TO 95% OF MAX. DRY DENSITY IN ACCORDANCE WITH ASTM D1557. SCARIFY SURFACE PRIOR TO PLACING SUBSEQUENT LIFT. IN ADDITION, REMOVE ORGANIC SOILS.
- | SEIVE SIZE | PERCENT BY WEIGHT PASSING |
|------------|---------------------------|
| 6-INCH     | 100                       |
| NO. 4      | 50 TO 100                 |
| NO. 40     | 30 TO 70                  |
| NO. 200    | 20 TO 40                  |
- ZONE II**  
DRAINAGE LAYER- PLACE IN MAX. 12-INCH THICK LIFTS TO 95% OF MAX. DRY DENSITY IN ACCORDANCE WITH ASTM D1557.
- | SEIVE SIZE | PERCENT BY WEIGHT PASSING   |
|------------|-----------------------------|
| 1-INCH     | 100                         |
| NO. 4      | 70-100                      |
| NO. 200    | 0-12 (IN SAND PORTION ONLY) |



CONCRETE BOX CULVERT FOOTING LAYOUT DETAIL

NOT TO SCALE

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD  
DATE OF MEETING: \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

REVISIONS

No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REV. PER SUBDIVISION IMPROVEMENTS	PRC



**CONSTRUCTION DETAILS**  
**LAND OF LEONARD VIGEANT**

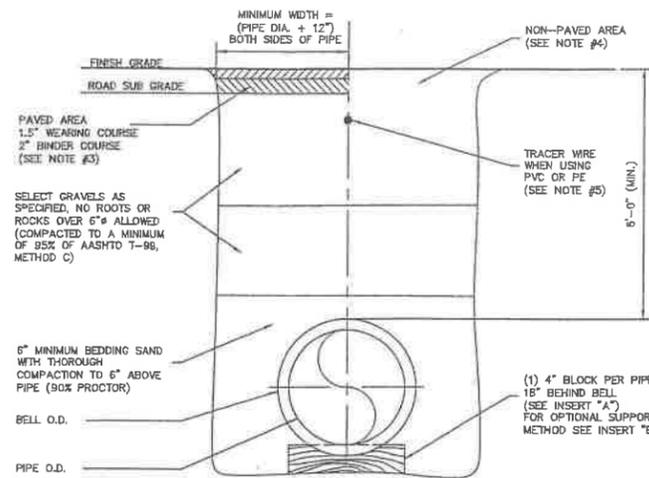
300 WEBSTER STREET  
HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:  
LEONARD A., SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
VOL B652, PG. 2427

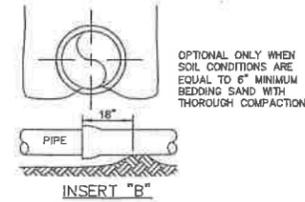
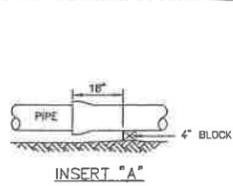
APPLICANT/SUBDIVIDER:  
LEONARD A. SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
DATE: SEPTEMBER 16, 2014

**KMA** KRAECH-NORDSTROM ASSOCIATES, INC.  
Civil Engineering Land Surveying Landscape Architecture  
10 Commerce Park North, Suite 30, Bedford, NH 03110 Phone (603) 627-2881

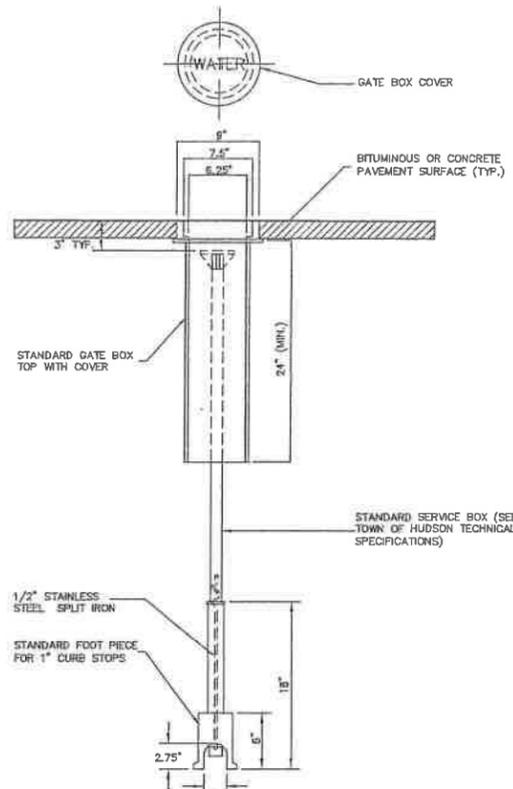
SCALE: AS NOTED  
HUDSON: MAP 128; LOT 7 & 8  
LITCHFIELD: MAP B; LOTS 1-1 & 2  
PROJECT NO: 07-0511-4A SHEET 18 OF 23



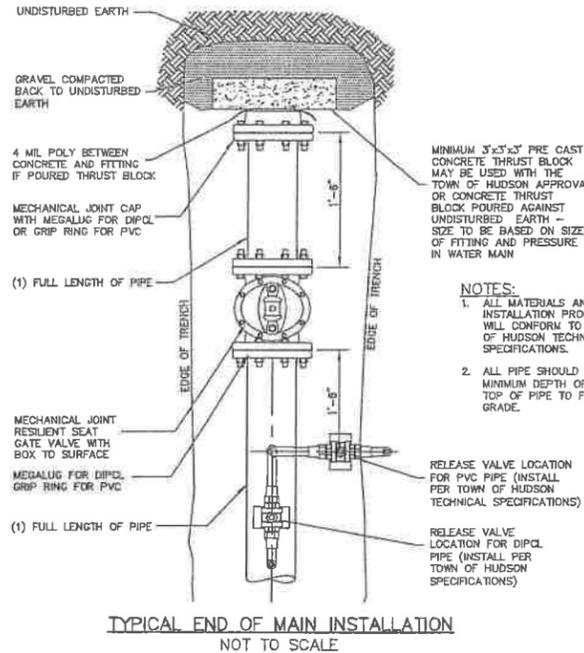
TYPICAL WATER LINE TRENCH DETAIL  
NOT TO SCALE



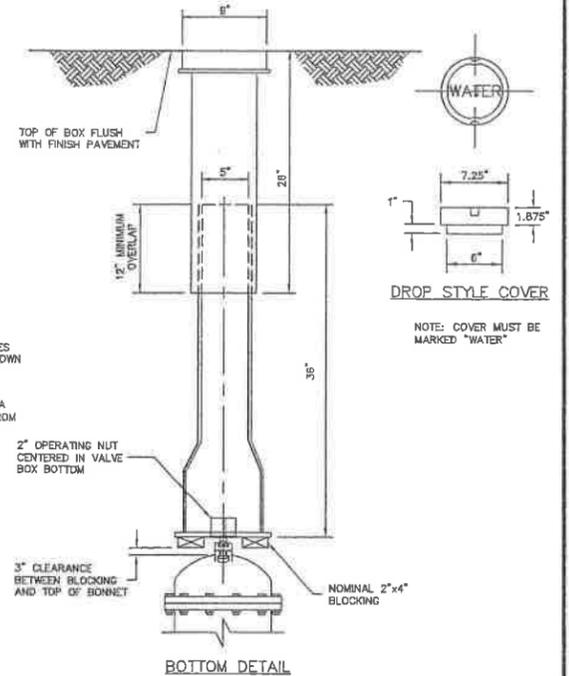
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
  2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE UNLESS INSULATION IS SPECIFIED.
  3. REQUIREMENTS FOR SUBBASE AND BASE MATERIAL TYPE ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN PAVED AREAS.
  4. REQUIREMENTS FOR GRAVEL, LOAM AND/OR SEED ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN NON-PAVED AREAS.
  5. 10 GAUGE TRACER WIRE AS MANUFACTURED BY BMS, DIVISION OF ALBESTAR CORP., AVON, MA OR EQUIVALENT.



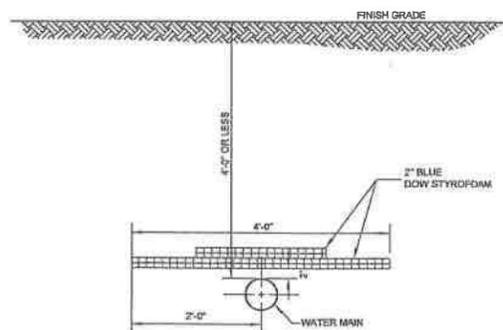
TYPICAL SERVICE BOX DETAIL IN PAVED AREAS  
NOT TO SCALE



TYPICAL END OF MAIN INSTALLATION  
NOT TO SCALE

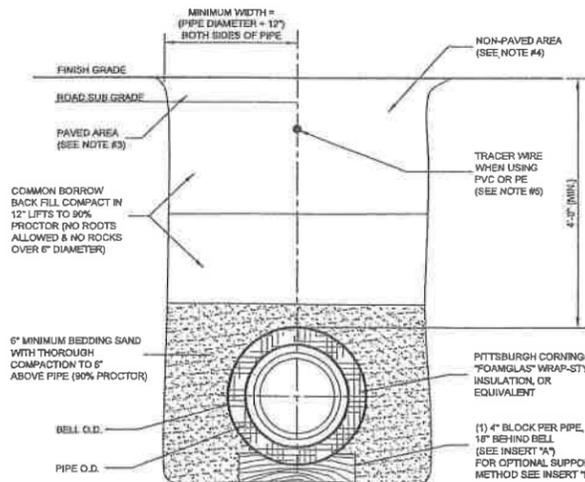


TYPICAL VALVE BOX DETAIL  
NOT TO SCALE



- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
  2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
  3. THE TOWN OF HUDSON RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
  4. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH 2" PIECE OF INSULATION CENTERED OVER SEAM.

INSULATION DETAIL FOR LESS THAN 4'-0" OF COVER  
(A-31)  
NOT TO SCALE  
(MARCH 2008)



- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO PENNSYLVANIA WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
  2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
  3. REQUIREMENTS FOR SUBBASE AND BASE MATERIAL TYPE ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN PAVED AREAS.
  4. REQUIREMENTS FOR GRAVEL, LOAM AND/OR SEED ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN NON-PAVED AREAS.
  5. 10 GAUGE TRACER WIRE AS MANUFACTURED BY BMS, DIVISION OF ALBESTAR CORP., AVON, MA OR EQUIVALENT.
  6. WRAP INSULATION TO EXTEND 5'-0" BEYOND CULVERT IN EACH DIRECTION.

WRAP INSULATION DETAIL  
(A-16A)  
NOT TO SCALE  
(JANUARY 2011)

**WATER DISTRIBUTION SYSTEM NOTES**

1. ALL DISTRIBUTION MATERIAL INCLUDING MAINS, FITTINGS AND VALVES TO MEET APPLICABLE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES - BUREAU OF WATER SUPPLY ENGINEERING, DRINKING WATER AND GROUNDWATER BUREAU (DWGB), TOWN OF HUDSON WATER DEPARTMENT AND AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS.
2. ALL INSTALLATION OF MATERIAL CONFORMS TO APPLICABLE DWGB, TOWN OF HUDSON AND AWWA STANDARDS AND SPECIFICATIONS FOR WATER SYSTEMS.
3. ALL VALVES, TEES, BENDS AND THEIR RELATED JOINTS ARE PROPERLY RESTRAINED USING APPROVED "MEGALUG" OR APPROVED EQUAL, RETAINER KITS AT EACH JOINT.
4. ALL WATER MAIN AND APPURTENANCES SHALL BE APPROVED MATERIALS MANUFACTURED IN ACCORDANCE WITH CURRENT AWWA STANDARDS. ALL 8" AND 12" DIAMETER WATER MAIN AND APPURTENANCES SHALL BE AN APPROVED AWWA CLASS 52 CEMENT LINED DUCTILE IRON PIPE. PIPE SIZING IS AS SHOWN ON THE REACH-NORDSTROM ASSOCIATES, INC. PLANS APPROVED BY THE TOWN PLANNING BOARD AND NEWBOS. FIRE HYDRANTS MEETING AWWA C-501 STANDARDS, OPEN LEFT AND TO BE INSTALLED AT LOCATIONS AS APPROVED BY THE HUDSON FIRE DEPARTMENT. ALL WATER MAIN AND SERVICE LINES TO BE INSTALLED WITH A MINIMUM OF 60" OF COVER AND SHALL BE PROPERLY SAND BEDDED, COMPACTED AND BACKFILLED WITH SUITABLE MATERIALS.
5. GATE VALVES SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE APPROVED UTILITY PLANS. ALL GATE VALVES SHALL BE AWWA APPROVED, EPOXY COATED, RESILIENT WEDGE TYPE, BEND OPEN LEFT (COUNTER CLOCKWISE). VALVE BOXES SHALL BE AWWA APPROVED, SLIP TYPE WITH 36" BASE, 36" TOP AND COVER ARE A ONE-PIECE CAST COVER LABELED "WATER".
6. FIRE HYDRANTS SHALL BE TOWN OF HUDSON APPROVED, OPEN LEFT (CCW) INSTALLED AT LOCATION SHOWN ON THE PROJECT PLANS. DOMESTIC SERVICES SHALL HAVE SERVICE LINE SIZING BEING 2" DIAMETER COPPER TUBING BETWEEN MAIN AND CURB STOP, AND 1" PE-CTS TUBING SIZE FROM STOP TO INSIDE HOME FOR THE FIRE SPRINKLER SERVICE, AND 1" PE-CTS TUBING SIZE WITH A TEE FROM 2" FOR DOMESTIC WATER, USING BRASS COMPRESSION JOINTS FOR SERVICE FITTINGS AND CORPORATION STOPS, STAINLESS STEEL INSERTS ON HOPE PIPE, BALL VALVE SHUT OFFS AND ADJUSTABLE ERIE TYPE CURB BOXES. SERVICES SHALL BE RUN INTO EACH OF THE INDIVIDUAL HOMES FROM THE WATER MAINS.
7. SEPARATION OF WATER MAINS AND SEWER ARE IN ACCORDANCE WITH DWGB STANDARDS. ON PARALLEL INSTALLATION, WATER MAINS WERE Laid AT LEAST TEN FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWER. IF LESS THAN TEN FEET, WATER MAIN Laid IN A SEPARATE TRENCH, OR ON AN UNDISTURBED EARTH SHELVE LOCATED ON ONE SIDE OF THE SEWER AT SUCH AN ELEVATION THAT THE BOTTOM OF THE MAIN IS AT LEAST 18" ABOVE THE TOP OF THE SEWER WITH AT LEAST THREE FEET HORIZONTAL SEPARATION. AT CROSSINGS THERE IS A MINIMUM VERTICAL DISTANCE OF 18" BETWEEN THE WATER MAIN AND SEWER. WATER MAIN WITH A MINIMAL LAYING LENGTH OF 18 FEET IS TO BE USED AT ALL CROSSINGS, WITH BOTH JOINTS BEING LOCATED AS FAR FROM THE SEWER AS POSSIBLE.
8. ALL WATER MAINS SHALL BE FLUSHED, PRESSURE TESTED AND DISINFECTED IN ACCORDANCE WITH THE LATEST PROVISIONS OF AWWA C-600 AND C-651, PRIOR TO ACCEPTANCE. WRITTEN CERTIFICATION OF TESTING AND BACTERIOLOGICAL TEST RESULTS BY A THIRD PARTY CONTRACTOR SHALL BE PROVIDED.
9. A RECORD DRAWING OF WATER MAINS AND APPURTENANCES SHALL BE PROVIDED FOLLOWING INSTALLATION, IN ACCORDANCE WITH NHDWGB AND TOWN OF HUDSON STANDARDS.

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

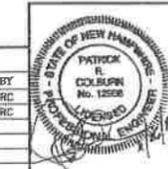
APPROVED BY THE HUDSON, NH PLANNING BOARD  
DATE OF MEETING: \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REV. PER SUBDIVISION IMPROVEMENTS	PRC



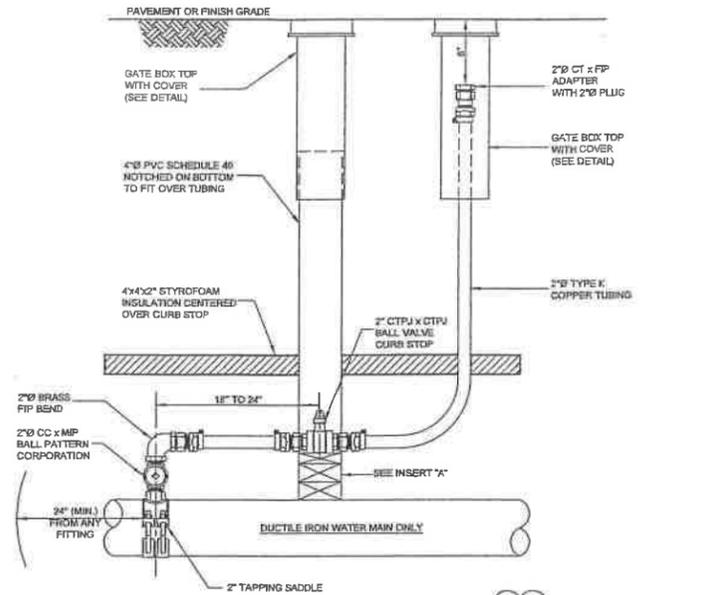
**CONSTRUCTION DETAILS**  
**LAND OF LEONARD VIGEANT**  
300 WEBSTER STREET  
HUDSON, NEW HAMPSHIRE

**OWNER OF RECORD:**  
LEONARD A. SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
VOL. 8652, PG. 2427

**APPLICANT/SUBDIVIDER:**  
LEONARD A. SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
DATE: SEPTEMBER 16, 2014

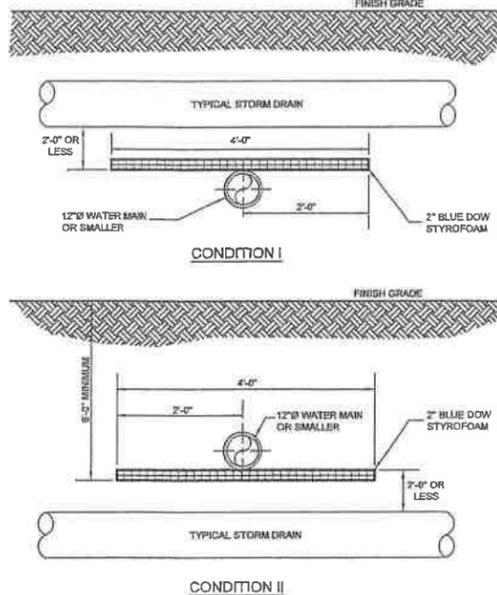
**KM REACH-NORDSTROM ASSOCIATES, INC.**  
Civil Engineering Land Surveying Landscape Architecture  
10 Commerce Park North, Suite 30, Bedford, NH 03110 Phone (603) 827-2801

SCALE: AS NOTED  
HUDSON: MAP 128; LOT 7 & 8  
LITCHFIELD: MAP B; LOTS 1-1 & 1-2  
PROJECT NO: 07-0511-4A SHEET 19 OF 23



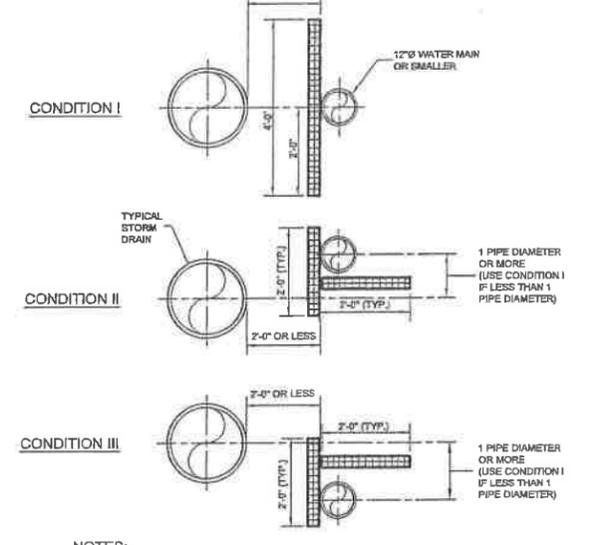
- NOTES:**
- ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO PENNICKLICK WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
  - WATER MAIN MAY BE DIRECT TAPPED WHEN IT IS 16\"/>

**2\"/>**



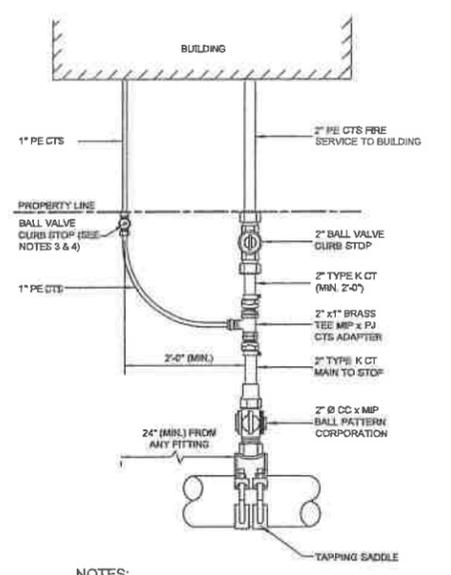
- NOTES:**
- THE TOWN OF HUDSON RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
  - THE LENGTH OR WIDTH OF INSULATION SHALL EXTEND 1\"/>

**STORM DRAIN/WATER MAIN INTERSECTION RUNS - ELEVATION VIEW (A-17) NOT TO SCALE**



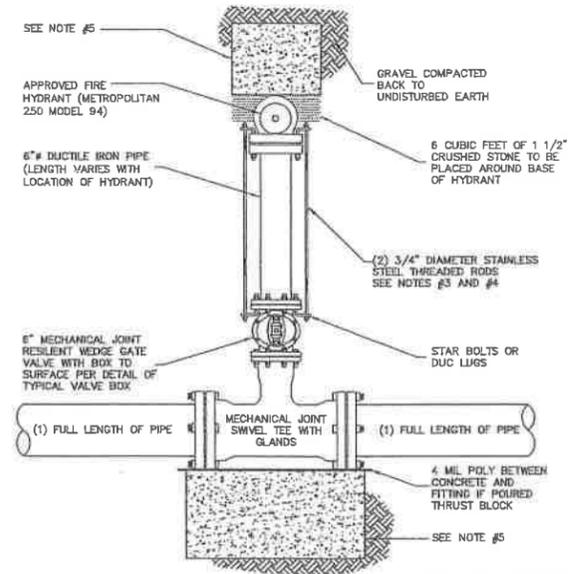
- NOTES:**
- ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
  - ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5\"/>

**STORM DRAIN / WATER MAIN PARALLEL RUNS - ELEVATION VIEW (A-17) NOT TO SCALE (MAY 2010)**



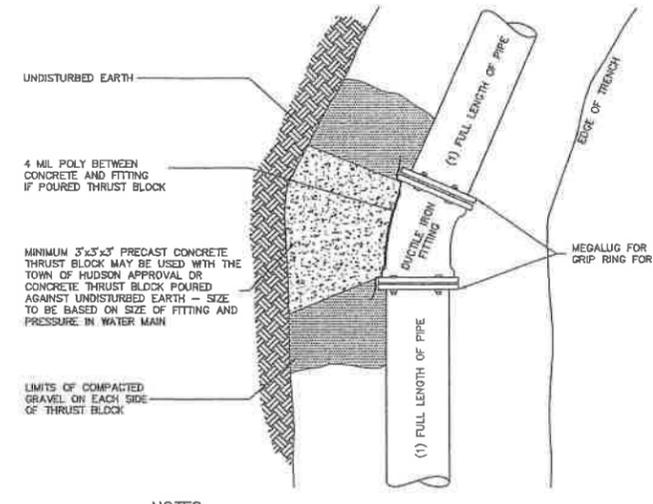
**PROPOSED WATER SERVICE/FIRE SERVICE CONNECTION NOT TO SCALE**

- WATER DISTRIBUTION SYSTEM NOTES**
- ALL DISTRIBUTION MATERIAL INCLUDING MAINS, FITTINGS AND VALVES TO MEET APPLICABLE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES - BUREAU OF WATER SUPPLY ENGINEERING, DRINKING WATER AND GROUNDWATER BUREAU (DWGB), TOWN OF HUDSON WATER DEPARTMENT AND AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS.
  - ALL INSTALLATION OF MATERIAL CONFORMS TO APPLICABLE DWGB, TOWN OF HUDSON AND AWWA STANDARDS AND SPECIFICATIONS FOR WATER SYSTEMS.
  - ALL VALVES, TEES, BENDS AND THEIR RELATED JOINTS ARE PROPERLY RESTRAINED USING APPROVED \"MEGA-LUG\" OR APPROVED EQUAL RETAINER KITS AT EACH JOINT.
  - ALL WATER MAIN AND APPURTENANCES SHALL BE APPROVED MATERIALS MANUFACTURED IN ACCORDANCE WITH CURRENT AWWA STANDARDS. ALL 8\"/>



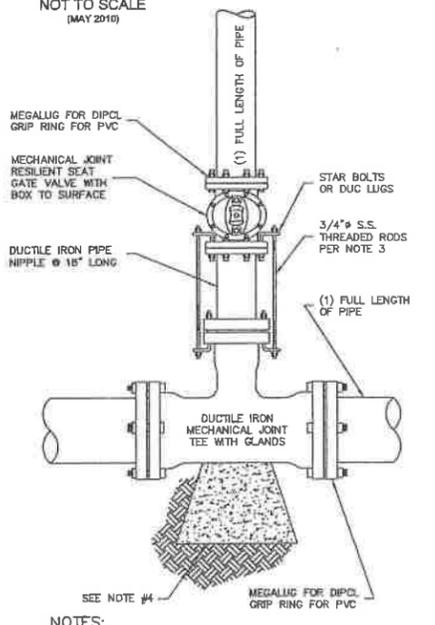
- NOTES:**
- ALL MATERIAL AND INSTALLATION PROCEDURES WILL CONFORM TO THE TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
  - ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5\"/>

**TYPICAL HYDRANT INSTALLATION NOT TO SCALE**



- NOTES:**
- ALL MATERIAL AND INSTALLATION PROCEDURES WILL CONFORM TO THE TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
  - ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5\"/>

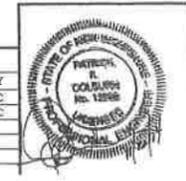
**TYPICAL THRUST BLOCK BEHIND FITTINGS INSTALLATION NOT TO SCALE**



- NOTES:**
- ALL MATERIAL AND INSTALLATION PROCEDURES WILL CONFORM TO THE TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
  - ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5\"/>

**TYPICAL TEE INSTALLATION NOT TO SCALE**

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REV. PER SUBDIVISION IMPROVEMENTS	PRC



PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD  
DATE OF MEETING: \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

**CONSTRUCTION DETAILS**  
**LAND OF LEONARD VIGEANT**  
 300 WEBSTER STREET  
 HUDSON, NEW HAMPSHIRE

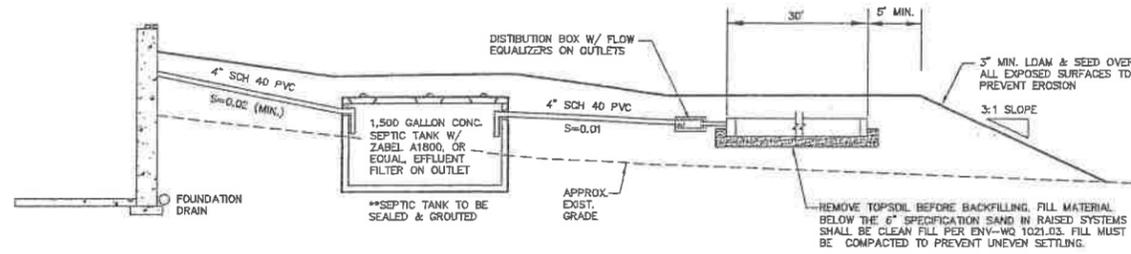
**OWNER OF RECORD:**  
 LEONARD A. SR. & JANE M. VIGEANT  
 5 MOCKINGBIRD LANE  
 HUDSON, NH 03051  
 VOL. 8652, PG. 2427

**APPLICANT/SUBDIVIDER:**  
 LEONARD A. SR. & JANE M. VIGEANT  
 5 MOCKINGBIRD LANE  
 HUDSON, NH 03051  
 DATE: SEPTEMBER 16, 2014

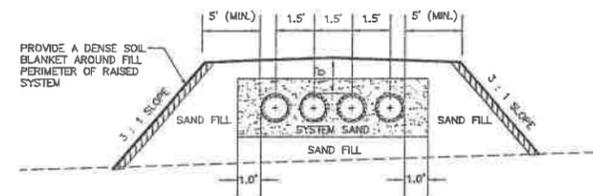
**K/A** **KRACH-NORDSTROM ASSOCIATES, INC.**  
 Civil Engineering Land Surveying Landscape Architecture  
 10 Cammeroe Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

SCALE: AS NOTED  
 HUDSON: MAP 128; LOT 7 & 8  
 LITCHFIELD: MAP B; LOTS 1-1 & 1-2  
 PROJECT NO: 07-0511-4A SHEET 200P 23

Project: 070511-4A (070511-4A) Rev: 070511-4A-DETAILS-REV-02.dwg, DETAILS, 11/20/2014 8:00:15 AM, View

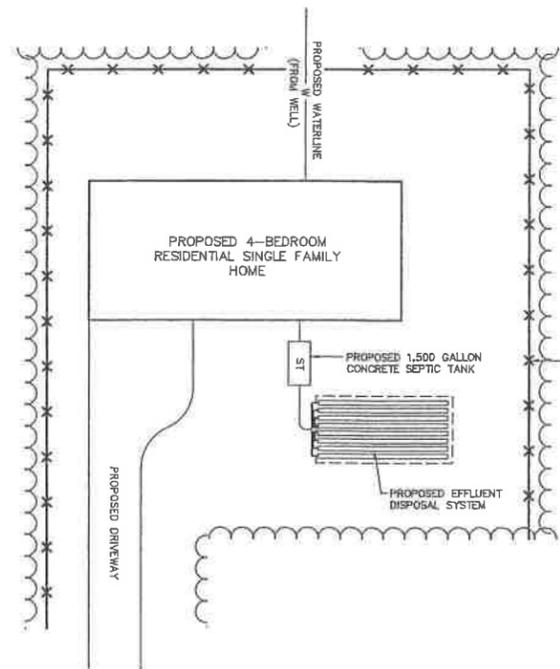


TYPICAL SECTION OF PROPOSED SEPTIC SYSTEM  
NOT TO SCALE



FILL SPECIFICATION  
SYSTEM SAND TO BE 6" MINIMUM OF MEDIUM TO COARSE SAND WITH AN EFFECTIVE PARTICLE SIZE OF 0.25 MM TO 2.00 MM, WITH NO GREATER THAN 2% PASSING A #200 SIEVE AND NO PARTICLES LARGER THAN 3/4" AROUND THE CIRCUMFERENCE OF THE ENVIRO-SEPTIC PIPE. ALL OTHER FILL USED IN RAISED SYSTEMS SHALL BE CLEAN BANK RUN SAND, FREE FROM TOPSOIL, HUMUS, DREDGING, DEBRIS, OR STONES LARGER THAN 6 IN ANY DIMENSION IN ACCORDANCE WITH ENV-WQ 1021.03

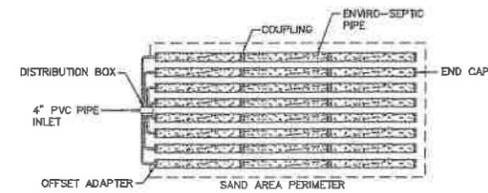
TYPICAL ENVIRO-SEPTIC CROSS SECTION  
NOT TO SCALE



TYPICAL SCHEMATIC SEPTIC SYSTEM AND HOUSE LOT EROSION CONTROL PLAN  
NOT TO SCALE

**TYPICAL SEPTIC SYSTEM NOTE(S):**  
1. THE PURPOSE OF THESE DETAILS ARE TO ILLUSTRATE A TYPICAL SEPTIC SYSTEM LAYOUT AND THE CONSTRUCTION ASSOCIATED WITH THE SAME.  
2. THIS INFORMATION IS FOR ILLUSTRATIVE PURPOSES ONLY AND IS NOT INTENDED FOR CONSTRUCTION. ACTUAL SIZE AND LAYOUT OF PROPOSED SYSTEMS SHALL BE DETERMINED BY THE OWNER AND MAY VARY FROM WHAT IS DEPICTED HEREON.

CONTRACTOR SHALL INSTALL TEMPORARY EROSION CONTROL MEASURES AROUND HOMES AND ALL PROPOSED WORK ADJACENT TO JURISDICTIONAL WETLANDS (TYP.)



NOTE: EFFLUENT DISPOSAL AREA SHOWN IS A "DISTRIBUTION BOX SYSTEM" AS DEPICTED IN THE NEW HAMPSHIRE ENVIRO-SEPTIC DESIGN AND INSTALLATION MANUAL (2003 EDITION).

EDA PLAN DETAIL  
SCALE: 1" = 10'

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

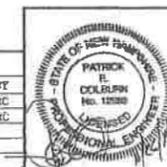
APPROVED BY THE HUDSON, NH PLANNING BOARD  
DATE OF MEETING: \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

REVISIONS			
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2	11/19/14	REV. PER SUBDIVISION IMPROVEMENTS	PRC



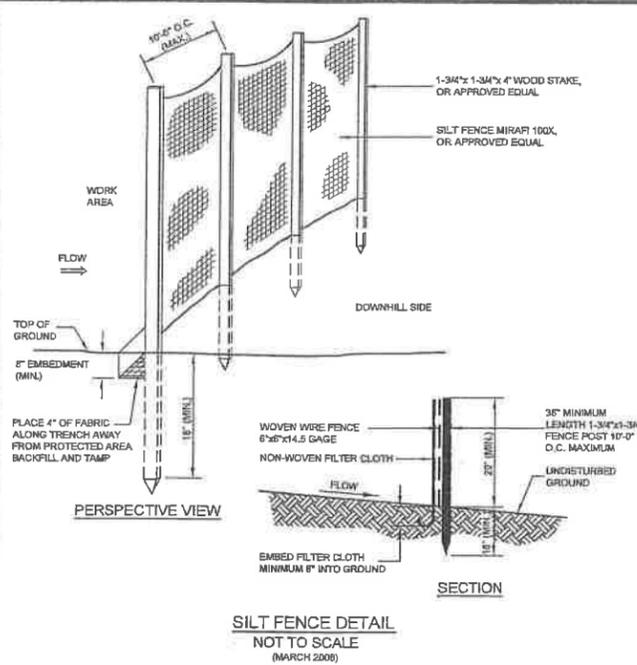
**CONSTRUCTION DETAILS**  
**LAND OF LEONARD VIGEANT**  
300 WEBSTER STREET  
HUDSON, NEW HAMPSHIRE

**OWNER OF RECORD:**  
LEONARD A. SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
VOL. 8652, PG. 2427

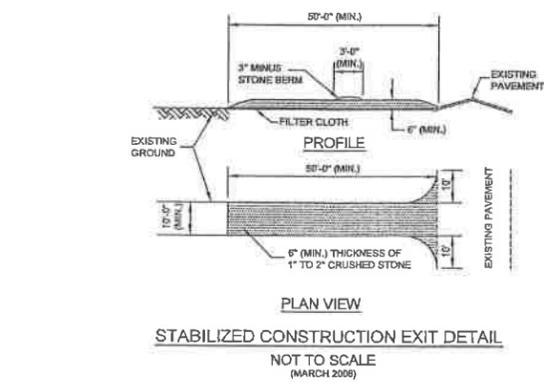
**APPLICANT/SUBDIVIDER:**  
LEONARD A. SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
DATE: SEPTEMBER 16, 2014

**KMA KEACH-NORDSTROM ASSOCIATES, INC.**  
Civil Engineering Land Surveying Landscape Architecture  
10 Commerce Park North, Suite 30, Bedford, NH 03110 Phone (603) 627-2881

SCALE: AS NOTED  
HUDSON: MAP 128; LOT 7 & 8  
LITCHFIELD: MAP B; LOTS 1-1 & 1-2  
PROJECT NO: 07-0511-4A SHEET 21 OF 23



**SILT FENCE DETAIL**  
NOT TO SCALE  
(MARCH 2008)



**STABILIZED CONSTRUCTION EXIT DETAIL**  
NOT TO SCALE  
(MARCH 2008)

**MAINTENANCE:**  
MUD AND SOIL PARTICLES WILL EVENTUALLY CLOG THE VOIDS IN THE CRUSHED STONE AND THE EFFECTIVENESS OF THE CRUSHED STONE PAD WILL NOT BE SATISFACTORY. WHEN THIS OCCURS, THE PAD SHOULD BE TOPRESSED WITH NEW CRUSHED STONE OR COMPLETE REPLACEMENT OF THE PAD MAY BE NECESSARY WHEN THE PAD BECOMES COMPLETELY CLOGGED.  
IF WASHING FACILITIES ARE USED, THE SEDIMENT TRAPS SHOULD BE CLEANED OUT AS OFTEN AS NECESSARY TO ASSURE THAT ADEQUATE TRAPPING EFFICIENCY AND STORAGE VOLUME IS AVAILABLE. VEGETATIVE FILTER STRIPS SHOULD BE MAINTAINED TO INSURE A VIGOROUS STAND OF VEGETATION AT ALL TIMES.

- CONSTRUCTION SPECIFICATIONS:**
- STONE FOR A STABILIZED CONSTRUCTION EXIT SHALL BE 1 TO 2 INCH STONE, RECLAIMED STONE OR RECYCLED CONCRETE EQUIVALENT.
  - THE LENGTH OF THE STABILIZED EXIT SHALL NOT BE LESS THAN 50 FEET, EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
  - THE THICKNESS OF THE STONE FOR THE STABILIZED EXIT SHALL NOT BE LESS THAN 6 INCHES.
  - THE WIDTH OF THE EXIT SHALL NOT BE LESS THAN THE FULL WIDTH OF THE AREA WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICHEVER IS GREATER.
  - GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER CLOTH IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENCE LOT.
  - ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION EXIT SHALL BE PIPED BENEATH THE EXIT. IF PIPING IS IMPRACTICAL, A BERM WITH 8:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
  - THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOPPRESSING WITH ADDITIONAL STONES AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.
  - WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD  
DATE OF MEETING: \_\_\_\_\_  
SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_  
SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_  
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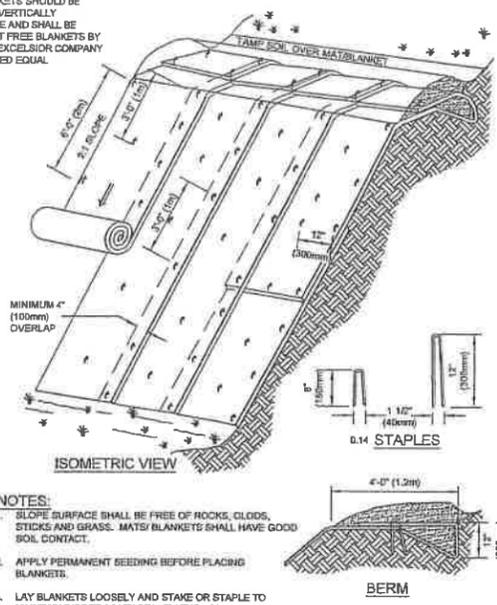
**CONSTRUCTION SPECIFICATIONS:**

- THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCES.
- THE FABRIC SHALL BE EMBEDDED A MINIMUM OF 8 INCHES INTO THE GROUND AND THE SOIL COMPACTED OVER THE EMBEDDED FABRIC.
- WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIE OR STAPLES WHERE NOTED OR AS DIRECTED BY DESIGN ENGINEER.
- FILTER CLOTH SHALL BE FASTENED SECURELY TO THE WOVEN WIRE FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP, MIDSECTION AND BOTTOM.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 8 INCHES, FOLDED AND STAPLED.
- FENCE POSTS SHALL BE A MINIMUM OF 30 INCHES LONG AND DRIVEN A MINIMUM OF 15 INCHES INTO THE GROUND. WOOD POSTS SHALL BE OF SOUND QUALITY HARDWOOD AND SHALL HAVE A MINIMUM CROSS SECTIONAL AREA OF 3.0 SQUARE INCHES.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

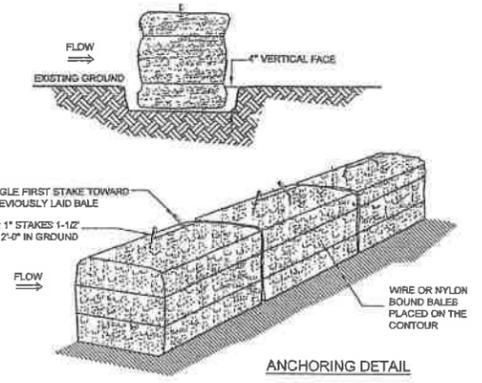
**MAINTENANCE:**

- SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
- IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
- SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

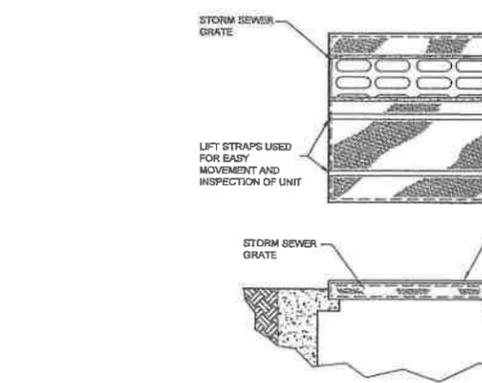
MATS/BLANKETS SHOULD BE INSTALLED VERTICALLY DOWN-SLOPE AND SHALL BE CURLED NET FREE BLANKETS BY AMERICAN EXCLUSOR COMPANY OR APPROVED EQUAL.



**EROSION CONTROL BLANKETS - SLOPE INSTALLATION**  
NOT TO SCALE  
(AUGUST 2011)



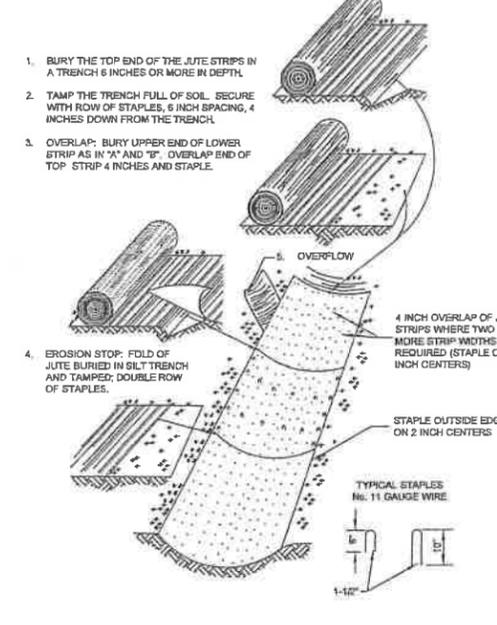
**STRAW BALE BARRIER**  
NOT TO SCALE  
(JULY 2010)



**HI-FLOW DANDY BAG® (SAFETY ORANGE)**

MECHANICAL PROPERTIES	TEST METHOD	UNITS	MARV
GRAIN TENSILE STRENGTH	ASTM D 4832	kN (lbf)	1.82 (409) x 0.89 (200)
GRAIN TENSILE ELONGATION	ASTM D 4832	%	24 x 16
PUNCTURE STRENGTH	ASTM D 4832	kN (lbf)	0.40 (90)
MULLEN BURST STRENGTH	ASTM D 3786	kPa (psi)	3067 (450)
TRAPEZOID TEAR STRENGTH	ASTM D 4832	kN (lbf)	0.51 (115) x 0.33 (75)
UV RESISTANCE	ASTM D 4355	%	90
APPARENT OPENING SIZE	ASTM D 4751	mm (US Sieve)	0.425 (40)
FLOW RATE	ASTM D 4491	l/min/m <sup>2</sup> (gal/min/ft <sup>2</sup> )	5807 (145)
PERMITTIVITY	ASTM D 4491	Sec-1	2.1

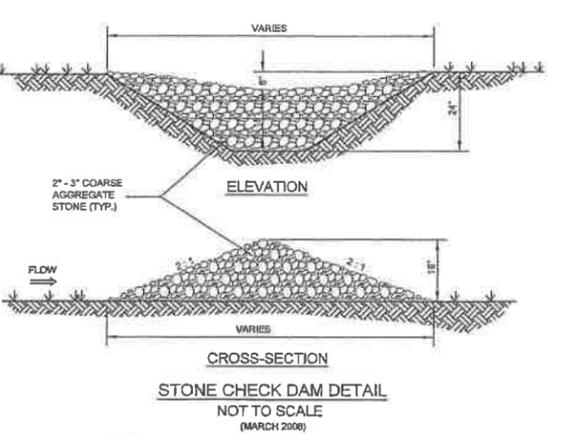
**DANDY BAG®**  
NOT TO SCALE  
(APRIL 2010)



**EROSION CONTROL BLANKETS - SWALE INSTALLATION**  
NOT TO SCALE  
(MARCH 2008)

**WINTER CONSTRUCTION NOTES:**

- ALL PROPOSED POST-DEVELOPMENT VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 4:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE PLACEMENT OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER DOT ITEM 303.3 OR, IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON, BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
  - BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED;
  - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
  - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL, SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED; OR
  - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.



**STONE CHECK DAM DETAIL**  
NOT TO SCALE  
(MARCH 2008)

L = THE DISTANCE SUCH THAT POINTS A AND B ARE EQUAL ELEVATION, OR FOR FLAT SLOPES L = 75' MAXIMUM

**STONE CHECK DAM SPACING DETAIL**  
NOT TO SCALE

No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REV. PER SUBDIVISION IMPROVEMENTS	PRC

**CONSTRUCTION SEQUENCE**

- THE NOTICE OF INTENT SHALL BE PREPARED AND SUBMITTED PRIOR TO THE START OF CONSTRUCTION.
- A PRECONSTRUCTION MEETING SHALL BE REQUESTED WITH THE TOWN AND ALL PARTIES REQUIRED BY THE TOWN.
- CONTRACTOR TO NOTIFY DIG-SAFE 72-HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- PRIOR TO GRUBBING OF CLEARED AREAS, ALL SILTATION BARRIERS DESIGNED FOR USE AS TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED AS CALLED FOR ON PROJECT PLANS. INSTALL STABILIZED CONSTRUCTION EXIT AT LOCATION OF CONSTRUCTION ACCESS AT LOCATION OF INTERSECTION WITH EXISTING PAVEMENT.
- CUT AND CLEAR TREES AND BRUSH FROM CONSTRUCTION AREAS TO THE EXTENT NECESSARY. ALL BRANCHES, TOPS, AND BRUSH TO BE PROPERLY DISPOSED OF BY CONTRACTOR BY HAULING OFF SITE OR CHIPPING AND USE FOR EROSION CONTROL. NO STUMPS SHALL BE BURIED ON-SITE. THIS PROJECT IS MANAGED TO MEET THE REQUIREMENTS AND INTENT OF RSA 430:55 AND AGR 3800 RELATIVE TO INVASIVE SPECIES.
- COMPLETE GRUBBING OPERATIONS UNDER THE ROADWAY AND SLOPE SECTIONS. ALL STUMPS AND SIMILAR DEBRIS SHALL BE PROPERLY DISPOSED OF BY CONTRACTOR. ORGANIC MATERIAL SUITABLE FOR USE AS TOPSOIL SHALL BE STOCKPILED IN UPLAND AREAS. ALL STOCKPILES SHALL BE SEEDED WITH WINTER RYE AND, IF NECESSARY, SURROUNDED WITH HAY BALES IN ORDER TO PREVENT LOSS DUE TO EROSION.
- CONSTRUCT TEMPORARY CULVERTS AS NECESSARY TO FACILITATE CONSTRUCTION ACTIVITIES. ALL SUCH CROSSINGS SHALL BE PROTECTED WITH HAY BALE BARRIERS TO LIMIT EROSION.
- STABILIZE ALL DITCHLINES AND PONDS PRIOR TO DIRECTING FLOW INTO THEM. CONSTRUCT SUBSURFACE UTILITIES, WATER, AND UNDERDRAINS.
- COMMENCE CONSTRUCTION OF ROADWAY. PERFORM EXCAVATION ACTIVITIES REQUIRED TO ACHIEVE SUBGRADE ELEVATION. ALL EXCAVATED EMBANKMENTS, DITCHES, SWALES, AND DRIVEWAY CULVERTS SHALL BE INSTALLED AND STABILIZED. ALL SWALES AND DITCHLINES SHALL BE PROTECTED FROM EROSION BY IMPLEMENTATION OF HAY BALE SILTATION FENCES AS NECESSARY. DIVERT STORMWATER RUNOFF THROUGH THE USE OF TEMPORARY CULVERTS, OR OTHER MEANS NECESSARY PRIOR TO THE COMPLETION OF A FUNCTIONAL STORM DRAINAGE SYSTEM. SLOPES AND EMBANKMENTS SHALL BE STABILIZED BY TRACKING AND TEMPORARY SEEDING WITH WINTER RYE PRIOR TO TURF ESTABLISHMENT. ALL DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO HAVING RUNOFF DIRECTED TO THEM.
- COMPLETE CONSTRUCTION OF ROADWAY EMBANKMENTS BY ADDING APPROPRIATE BASE MATERIALS GRADED TO PROPER ELEVATION.
- APPLY TOPSOIL TO ROADWAY SLOPES AND OTHER AREAS DISTURBED BY CONSTRUCTION. TOPSOIL USED MAY BE NATIVE ORGANIC MATERIAL SCREENED SO AS TO BE FREE OF ROOTS, BRANCHES, STONES AND OTHER DELETERIOUS MATERIALS. TOPSOIL SHALL BE PROVIDED A MINIMUM OF A ONE-INCH COMPACTED THICKNESS. UPON COMPLETION OF TOPSOILING, FINISHED SECTIONS ARE TO BE LIME, SEEDED AND MULCHED. CONSTRUCTION PERSONNEL SHALL INSPECT COMPLETED SECTIONS OF WORK ON A REGULAR BASIS AND REMEDY ANY PROBLEM AREAS UNTIL A HEALTHY STAND OF GRASS HAS BECOME ESTABLISHED.
- PERFORM FINE GRADING OF ROADWAY BASE MATERIALS.
- FURNISH AND INSTALL BINDER COURSE OF PAVEMENT AND COMPLETE GRAVEL SHOULDERS.
- MAINTAIN, REPAIR AND REPLACE AS NECESSARY TEMPORARY EROSION CONTROL MEASURES UNTIL SUCH TIME AS THE ENTIRE CONSTRUCTION AREA HAS BEEN STABILIZED (A MINIMUM OF ONE WINTER SHALL HAVE PASSED).
- AFTER STABILIZATION, REMOVE AND SUITABLY DISPOSE OF TEMPORARY EROSION CONTROL MEASURES.
- MONITOR CONSTRUCTION ACTIVITIES ON INDIVIDUAL LOTS TO INSURE CONSTRUCTION ACTIVITIES ARE BEING PERFORMED IN SUCH A WAY AS NOT TO ENDANGER THE INTEGRITY OF ROADWAY EMBANKMENTS, STORMWATER SYSTEMS AND UTILITIES. ALL DRIVEWAYS ACROSS DITCHLINES SHALL HAVE CULVERTS INSTALLED IN ACCORDANCE WITH LOCAL REQUIREMENTS.
- ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO THE CONSTRUCTION OF ELECTRIC LINES SHALL CONFORM WITH THE STANDARDS OF THE OWNING UTILITY COMPANY.
- ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO THE CONSTRUCTION OF TELEPHONE LINES SHALL CONFORM WITH THE STANDARDS OF THE OWNING TELEPHONE COMPANY.
- THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES OWNING UTILITIES, EITHER OVERHEAD OR UNDERGROUND WITHIN THE CONSTRUCTION AREA. THE PROTECTION OR RELOCATION OF UTILITIES IS ULTIMATELY THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL COORDINATE MATERIALS AND INSTALLATION SPECIFICATIONS WITH THE INDIVIDUAL UTILITY AGENCIES/COMPANIES AND ARRANGE FOR ALL INSPECTIONS.
- UTILITY STUB CONNECTIONS SHOWN TO PROPOSED LOTS ARE APPROXIMATE AND INTENDED TO ILLUSTRATE FEASIBILITY OF CONSTRUCTING CONNECTIONS. THE CONTRACTOR SHALL PROVIDE SERVICE STUBS AS DIRECTED BY THE OWNING UTILITY COMPANY AND LOCAL AUTHORITY.
- CONTRACTOR SHALL COORDINATE WITH PHONE, CABLE, AND ELECTRIC COMPANIES FOR POTENTIAL NEED OF INDIVIDUAL SECTORS AT EACH LOT SERVICE CONNECTION.
- THE CONTRACTOR SHALL MAINTAIN EMERGENCY ACCESS TO ALL AREAS AFFECTED BY HIS WORK AT ALL TIMES.
- THE CONTRACTOR SHALL VERIFY TBM ELEVATIONS PRIOR TO CONSTRUCTION.
- LOT DISTURBANCE, OTHER THAN THAT SHOWN ON THE APPROVED PLANS, SHALL NOT BE CONSIDERED UNTIL AFTER THE ROADWAY HAS THE BASE COURSE TO DESIGN ELEVATION AND THE ASSOCIATED DRAINAGE IS COMPLETE AND STABLE.

**EROSION CONTROL NOTES**

- EXPOSED EARTHWORK SHALL BE CONFINED TO AS LIMITED AN AREA AS IS PRACTICAL AT ANY GIVEN TIME THROUGHOUT THE CONSTRUCTION SEQUENCE. AT NO TIME SHALL MORE THAN FIVE (5) ACRES OF SITE AREA BE IN AN UNSTABLE CONDITION. NO GIVEN AREA OF THE SITE SHALL BE LEFT IN AN UNSTABILIZED CONDITION FOR A PERIOD OF TEN EXCEEDING THIRY (30) CALENDAR DAYS.
- TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PROJECT PLANS. IN ADDITION, SIMILAR MEASURES SHALL BE INSTALLED WHERE AND WHEN THE FIELD CONDITION OR FIELD OPERATION OF THE INDIVIDUAL SITE CONTRACTOR, ANY WARRANT. ALL TEMPORARY EROSION CONTROL MEASURES USED SHALL BE REMOVED PROMPTLY AND WITHIN 48 HOURS AFTER 0.25" OF RAINFALL OR MORE. THEY SHALL BE CLEANED AND MAINTAINED AND OTHERWISE KEPT IN AN EFFECTIVE OPERATING MANNER THROUGHOUT THE CONSTRUCTION PERIOD.
- ALL DISTURBED AREAS DESIGNATED TO BE TURF, SHALL RECEIVE A MINIMUM APPLICATION OF 4 INCHES OF LOAM (COMPACTED THICKNESS), PRIOR TO FINAL SEEDING AND MULCHING.
- ALL SWALES AND DITCHLINES SHALL BE PERIODICALLY CLEANED OF DEPOSITED SEDIMENT SO AS TO MAINTAIN AN EFFECTIVE GRADE AND CROSS SECTION. ALL SWALES AND DITCHLINES SHALL BE FULLY STABILIZED PRIOR TO HAVING STORMWATER DIRECTED TOWARDS THEM.
- IN THE EVENT THAT, DURING CONSTRUCTION OF ANY PORTION OF THIS PROJECT, A WINTER SHUTDOWN IS NECESSARY, THE CONTRACTOR SHALL STABILIZE ALL INCOMPLETE WORK AND PROVIDE FOR SUITABLE METHODS OF DIVERTING RUNOFF IN ORDER TO ELIMINATE SHEET FLOW ACROSS FROZEN SURFACES.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
  - BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED;
  - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
  - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL, SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED; OR
  - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- DUST SHALL BE CONTROLLED BY THE USE OF WATER AS NECESSARY THROUGHOUT THE CONSTRUCTION PERIOD, IN ACCORDANCE WITH ENH-A 1000.
- IN NO WAY ARE THOSE TEMPORARY EROSION CONTROL MEASURES INDICATED ON THESE PLANS TO BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL USE JUDGMENT IN INSTALLING SUPPLEMENTARY EROSION CONTROL MEASURES WHERE AND WHEN SPECIFIC SITE CONDITIONS AND/OR CONSTRUCTION METHODOLOGIES MAY WARRANT.
- AREAS HAVING FINISH GRADE SLOPES OF 3:1 OR STEEPER, SHALL BE STABILIZED WITH JUTE MATTING WHEN AND IF FIELD CONDITIONS WARRANT, OR IF SO ORDERED. JUTE MATTING INSTALLED TO CONFORM WITH THE RECOMMENDED BEST MANAGEMENT PRACTICE OUTLINED IN VOLUME 3 OF THE NEW HAMPSHIRE STORMWATER MANUAL. TERRORISM AND SEDIMENT CONTROL DURING CONSTRUCTION?
- THE TOWN SHALL RESERVE THE RIGHT TO REQUIRE FURTHER EROSION CONTROL PRACTICES DURING CONSTRUCTION SHOULD THEY FIND IT NECESSARY.
- ALL DETENTION PONDS AND TREATMENT SWALES SHALL BE CONSTRUCTED PRIOR TO ANY EARTH MOVING ACTIVITIES IN AREAS THAT DIRECT RUNOFF TO THE STRUCTURES.
- ALL ROADWAYS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- ALL CUT AND FILL SLOPES SHALL BE SEEDED AND MULCHED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.

**CONSTRUCTION DETAILS**  
**LAND OF LEONARD VIGEANT**  
300 WEBSTER STREET  
HUDSON, NEW HAMPSHIRE

**OWNER OF RECORD:**  
LEONARD A. SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
VOL. 8652, PG. 2427

**APPLICANT/SUBDIVIDER:**  
LEONARD A. SR. & JANE M. VIGEANT  
5 MOCKINGBIRD LANE  
HUDSON, NH 03051  
DATE: SEPTEMBER 16, 2014

**KMA**  
REACH-NORDSTROM ASSOCIATES, INC.  
Civil Engineering Land Surveying Landscape Architecture  
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

SCALE: AS NOTED  
HUDSON: MAP 128; LOT 7 & 8  
LITCHFIELD: MAP B; LOTS 1-1 & 2  
PROJECT NO: 07-0511-4A SHEET 22 OF 23

STATE OF NEW HAMPSHIRE  
PATRIK R. COLLINS  
No. 12985  
REGISTERED PROFESSIONAL ENGINEER

**TP #1**  
 LOGGED BY JAN  
 PERC TEST @ 28"  
 DATE: 5/21/2014  
 PERC RATE: 6 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: NONE

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE ROOTS
12"	B	10YR 6/4, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS
28"	C	10YR 7/3, WEAK GRANULAR, FRIABLE, LOAMY FINE SAND, FEW ROOTS, NO E.S.H.W.T. TO 76" FOUND

76" BOTTOM OF HOLE, NO REFUSAL

**TP #2**  
 LOGGED BY JAN  
 PERC TEST @ 24"  
 DATE: 5/21/2014  
 PERC RATE: 6 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: NONE

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE ROOTS
12"	B-1	2.5Y 6/6, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS
20"	B-2	2.5Y 7/4, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS
28"	C	2.5Y 7/3, WEAK GRANULAR, FRIABLE, LOAMY FINE SAND, FEW DIST. FE CONC. (MOTTLES) @ 48", MOIST @ 65"

48" E.S.H.W.T.  
 76" BOTTOM OF HOLE, NO REFUSAL

**TP #2A**  
 LOGGED BY JAN  
 PERC TEST @ 24"  
 DATE: 5/21/2014  
 PERC RATE: 6 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: NONE

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE ROOTS
12"	B-1	2.5Y 6/6, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS
16"	B-2	2.5Y 7/4, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS
28"	C	2.5Y 7/3, WEAK GRANULAR, FRIABLE, LOAMY FINE SAND, FEW DIST. FE CONC. (MOTTLES) @ 48", MOIST @ 65"

48" E.S.H.W.T.  
 76" BOTTOM OF HOLE, NO REFUSAL

**TP #3**  
 LOGGED BY JAN  
 PERC TEST @ 24"  
 DATE: 5/21/2014  
 PERC RATE: 6 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: NONE

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE ROOTS
12"	B-1	2.5Y 6/6, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS
20"	B-2	2.5Y 7/4, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS
28"	C	2.5Y 7/3, WEAK GRANULAR, FRIABLE, LOAMY FINE SAND, FEW DIST. FE CONC. (MOTTLES) @ 48", MOIST @ 65"

48" E.S.H.W.T.  
 86" BOTTOM OF HOLE, NO REFUSAL

**TP #4**  
 LOGGED BY JAN  
 PERC TEST @ 16"  
 DATE: 5/21/2014  
 PERC RATE: 8 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: 48"

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE ROOTS
12"	B	2.5Y 6/4, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS
20"	C	2.5Y 7/3, LOOSE, GRANULAR, SANDY LOAM, FEW DIST. FE CONC. (MOTTLES) @ 32", H2O @ 48"

32" E.S.H.W.T.  
 66" BOTTOM OF HOLE, NO REFUSAL

**TP #4A**  
 LOGGED BY JAN  
 PERC TEST @ 24"  
 DATE: 5/21/2014  
 PERC RATE: 6 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: 48"

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE ROOTS
14"	B	2.5Y 6/4, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS
26"	C	2.5Y 7/3, LOOSE, GRANULAR, SANDY LOAM, FEW DIST. FE CONC. (MOTTLES) @ 40"

26" E.S.H.W.T.  
 60" BOTTOM OF HOLE, NO REFUSAL

**TP #5**  
 LOGGED BY JAN  
 PERC TEST @ 24"  
 DATE: 5/21/2014  
 PERC RATE: 6 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: NONE

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE ROOTS
10"	B-1	2.5Y 6/4, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS
20"	B-2	2.5Y 7/4, LOOSE, GRAVELLY SAND, 25% GRAVEL
28"	C	2.5Y 8/2, WEAK GRANULAR, FRIABLE, LOAMY SAND, FEW DIST. FE CONC. (MOTTLES) @ 40"

40" E.S.H.W.T.  
 72" BOTTOM OF HOLE, NO REFUSAL

**TP #5A**  
 LOGGED BY JAN  
 PERC TEST @ 24"  
 DATE: 5/21/2014  
 PERC RATE: 6 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: NONE

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE ROOTS
12"	B-1	2.5Y 6/4, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS
20"	B-2	2.5Y 7/4, LOOSE, GRAVELLY SAND, 25% GRAVEL
28"	C	2.5Y 8/2, WEAK GRANULAR, FRIABLE, LOAMY SAND, FEW DIST. FE CONC. (MOTTLES) @ 42"

42" E.S.H.W.T.  
 72" BOTTOM OF HOLE, NO REFUSAL

**TP #6**  
 LOGGED BY JAN  
 PERC TEST @ 28"  
 DATE: 5/21/2014  
 PERC RATE: 6 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: NONE

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE ROOTS
16"	B	10YR 6/4, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS
28"	C	10YR 7/3, WEAK GRANULAR, FRIABLE, LOAMY FINE SAND, FEW ROOTS, FEW DIST. FE CONC. (MOTTLES) @ 40"

40" E.S.H.W.T.  
 76" BOTTOM OF HOLE, NO REFUSAL

**TP #6A**  
 LOGGED BY JAN  
 PERC TEST @ 28"  
 DATE: 5/21/2014  
 PERC RATE: 6 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: NONE

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE ROOTS
16"	B	10YR 6/4, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS
28"	C	10YR 7/3, WEAK GRANULAR, FRIABLE, LOAMY FINE SAND, FEW ROOTS, FEW DIST. FE CONC. (MOTTLES) @ 40"

40" E.S.H.W.T.  
 76" BOTTOM OF HOLE, NO REFUSAL

**TP #7**  
 LOGGED BY JAN  
 PERC TEST @ 24"  
 DATE: 5/21/2014  
 PERC RATE: 6 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: NONE

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE ROOTS
12"	B	2.5Y 7/3, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS
28"	C	2.5Y 6/4, BLOCKY, FRIABLE, LOAMY CLAYEY SAND, FEW DIST. FE CONC. (MOTTLES) @ 38"

38" E.S.H.W.T.  
 76" BOTTOM OF HOLE, NO REFUSAL

**TP #8**  
 LOGGED BY JAN  
 PERC TEST @ 24"  
 DATE: 5/21/2014  
 PERC RATE: 6 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: NONE

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE ROOTS
10"	B	2.5Y 7/3, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS
22"	C	2.5Y 6/4, BLOCKY, FRIABLE, LOAMY CLAYEY SAND, FEW DIST. FE CONC. (MOTTLES) @ 40"

40" E.S.H.W.T.  
 76" BOTTOM OF HOLE, NO REFUSAL

**TP #8A**  
 LOGGED BY JAN  
 PERC TEST @ 20"  
 DATE: 5/21/2014  
 PERC RATE: 8 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: NONE

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE TO MED. ROOTS
10"	B	2.5Y 6/6, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS
22"	C	2.5Y 7/4, BLOCKY, FRIABLE, LOAMY CLAYEY SAND, FEW DIST. FE CONC. (MOTTLES) @ 42"

42" E.S.H.W.T.  
 76" BOTTOM OF HOLE, NO REFUSAL

**TP #9**  
 LOGGED BY JAN  
 PERC TEST @ 22"  
 DATE: 5/21/2014  
 PERC RATE: 6 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: NONE

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE TO MED. ROOTS
12"	B	2.5Y 6/6, BLOCKY, FRIABLE, FINE SANDY LOAM, FEW ROOTS
24"	C	2.5Y 7/6, BLOCKY, FRIABLE, LOAMY FINE SAND, FEW DIST. FE CONC. (MOTTLES) @ 48", FEW ROOTS TO 44"

48" E.S.H.W.T.  
 76" BOTTOM OF HOLE, NO REFUSAL

**TP #9A**  
 LOGGED BY JAN  
 PERC TEST @ 22"  
 DATE: 5/21/2014  
 PERC RATE: 6 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: NONE

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE TO MED. ROOTS
12"	B	2.5Y 6/6, BLOCKY, FRIABLE, FINE SANDY LOAM, FEW ROOTS
24"	C	2.5Y 7/6, BLOCKY, FRIABLE, LOAMY FINE SAND, FEW DIST. FE CONC. (MOTTLES) @ 48", FEW ROOTS TO 44"

48" E.S.H.W.T.  
 76" BOTTOM OF HOLE, NO REFUSAL

**TP #10**  
 LOGGED BY JAN  
 PERC TEST @ 22"  
 DATE: 5/21/2014  
 PERC RATE: 6 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: NONE

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE TO MED. ROOTS
12"	B	2.5Y 6/4, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS
28"	C	2.5Y 7/2, BLOCKY, FRM, CLAYEY, MOIST, COMMON DIST. FE CONC. (MOTTLES) @ 48", FEW ROOTS TO 44"

48" E.S.H.W.T.  
 76" BOTTOM OF HOLE, NO REFUSAL

**TP #11**  
 LOGGED BY JAN  
 PERC TEST @ 24"  
 DATE: 5/21/2014  
 PERC RATE: 8 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: 60"

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE TO MED. ROOTS
16"	B-1	2.5Y 5/4, W. GRAN., FRIABLE, FINE SANDY LOAM, FEW ROOTS
20"	B-2	2.5Y 6/6, W. GRAN., FRIABLE, FINE SANDY LOAM, FEW ROOTS
28"	C	2.5Y 7/3, WEAK GRANULAR, FRIABLE, LOAMY SAND, FEW DIST. FE CONC. (MOTTLES) @ 38"

38" E.S.H.W.T.  
 76" BOTTOM OF HOLE, NO REFUSAL

**TP #11A**  
 LOGGED BY JAN  
 PERC TEST @ 24"  
 DATE: 5/21/2014  
 PERC RATE: 8 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: 62"

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE TO MED. ROOTS
12"	B-1	2.5Y 5/4, W. GRAN., FRIABLE, FINE SANDY LOAM, FEW ROOTS
18"	B-2	2.5Y 6/6, W. GRAN., FRIABLE, FINE SANDY LOAM, FEW ROOTS
28"	C	2.5Y 7/3, WEAK GRANULAR, FRIABLE, LOAMY SAND, FEW DIST. FE CONC. (MOTTLES) @ 38"

38" E.S.H.W.T.  
 72" BOTTOM OF HOLE, NO REFUSAL

**TP #12**  
 LOGGED BY JAN  
 PERC TEST @ 24"  
 DATE: 5/21/2014  
 PERC RATE: 8 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: 58"

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE TO MED. ROOTS
12"	B-1	2.5Y 5/4, W. GRAN., FRIABLE, FINE SANDY LOAM, FEW ROOTS
18"	B-2	2.5Y 6/6, W. GRAN., FRIABLE, FINE SANDY LOAM, FEW ROOTS
30"	C	2.5Y 7/3, WEAK GRANULAR, FRIABLE, LOAMY SAND, FEW DIST. FE CONC. (MOTTLES) @ 38"

38" E.S.H.W.T.  
 72" BOTTOM OF HOLE, NO REFUSAL

**TP #100**  
 LOGGED BY JAN  
 PERC TEST @ 24"  
 DATE: 11/17/2014  
 PERC RATE: 8 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: NONE

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE ROOTS
12"	B	10YR 7/3, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS
28"	C	10YR 6/4, BLOCKY, FRIABLE, CLAYEY SAND, FEW DIST. FE CONC. (MOTTLES) @ 40"

40" E.S.H.W.T.  
 76" BOTTOM OF HOLE, NO REFUSAL

**TP #200**  
 LOGGED BY JAN  
 PERC TEST @ 20"  
 DATE: 5/21/2014  
 PERC RATE: 6 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: NONE

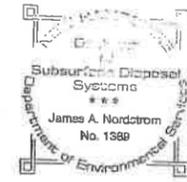
0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE ROOTS
12"	B-1	2.5Y 6/6, BLOCKY, FRIABLE, FINE SANDY LOAM, FEW ROOTS
18"	B-2	2.5Y 7/4, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS
28"	C	2.5Y 7/2, WEAK GRANULAR, FRIABLE, LOAMY FINE SAND, FEW DIST. FE CONC. (MOTTLES) @ 50"

50" E.S.H.W.T.  
 72" BOTTOM OF HOLE, NO REFUSAL

**TP #300**  
 LOGGED BY JAN  
 PERC TEST @ 20"  
 DATE: 5/21/2014  
 PERC RATE: 6 MIN/INCH  
 IMPERVIOUS LAYER: NONE  
 WATER ENCOUNTERED: NONE

0"	Ap	PLOWED HORIZON, 10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, FEW FINE ROOTS
12"	B-1	2.5Y 6/6, BLOCKY, FRIABLE, FINE SANDY LOAM, FEW ROOTS
16"	B-2	2.5Y 7/4, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS
26"	C	2.5Y 7/2, WEAK GRANULAR, FRIABLE, LOAMY FINE SAND, FEW DIST. FE CONC. (MOTTLES) @ 52"

52" E.S.H.W.T.  
 76" BOTTOM OF HOLE, NO REFUSAL



**TEST PIT LOGS**  
**LAND OF LEONARD VIGEANT**  
 300 WEBSTER STREET  
 HUDSON, NEW HAMPSHIRE

**OWNER OF RECORD:**  
 LEONARD A. & JANE M. VIGEANT  
 5 MOCKINGBIRD LANE  
 HUDSON, NH 03051  
 VOL. 8652, PG. 2427

**APPLICANT/SUBDIVIDER:**  
 LEONARD A. & JANE M. VIGEANT SR.  
 5 MOCKINGBIRD LANE  
 HUDSON, NH 03051

DATE: SEPTEMBER 16, 2014

**KMA** KEACH-NORDSTROM ASSOCIATES, INC.  
 Civil Engineering Land Surveying Landscape Architects  
 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

SCALE: NONE  
 HUDSON: MAP 128; LOT 7 & 8  
 LITCHFIELD: MAP B; LOTS 1-1 & 1-2  
 PROJECT NO: 07-0511-4A SHEET 23 OF 23

**REVISIONS**

No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	ADD TP'S 100, 200 & 300	PRC

\p\proj\070511\A\070511A.dwg (070511A) - TEST PIT LOGS: 11/26/2014 8:10:36 AM, dcmw