

TOWN OF HUDSON
PLANNING BOARD

NOTICE



12 School Street Hudson, New Hampshire 03051 603/886-6005

August 14, 2014

To: J. Bradford Seabury, Chairman
Zoning Board of Adjustment

Attention: William Oleksak – Zoning Administrator

Subject: Hawkview Subdivision (ZBA Input Only)
White Service Road & Kara's Crossing Drive
Map 186/Lots 20-1 & 24; Map 194/Lot 10; Map 195/Lot 1; Map 201/Lot 7

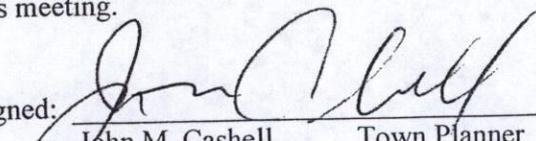
Purpose of plan: The project proposes to consolidate the five existing parcels and further subdivide the merged parcels to create 63 residential open space lots and 1 conventional lot. The temporary wetland impact is 2,235 sf., and the buffer impact is 161,639 sf.

Dear Zoning Board of Adjustment:

You are hereby notified of the subject ZBA Input Only item presented before the Planning Board and the following action:

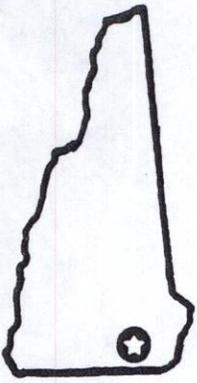
At its August 13, 2014 meeting, the Planning Board voted to forward correspondence to the Zoning Board of Adjustment citing that the Planning Board has no concerns regarding the proposed Wetland Special Exception application which calls for the temporary wetland impact of 2,235 sf, the permanent wetland impact of 6,284 sf, and buffer impact of 161,639 sf, as shown on the following plan entitled: Open Space Plan Hawkview Subdivision Map 186/Lots 20-4 & 24; Map 194/Lot 10; Map 195/Lot 1; Map 201/Lot 7, White Service Road and Kara's Crossing Drive, Hudson, NH, prepared by Keach-Nordstrom Associates, Inc., dated May 12, 2014 (no revision date), consisting of Sheet 1 of 1 and Sheets 1 – 5 and Notes 1 – 4 on Sheet 1 of 1.

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

Signed:  Date: 8-14-14
John M. Cashell Town Planner

Cc: Keach-Nordstrom Associates, Inc.

**TOWN OF HUDSON
PLANNING BOARD**



NOTICE



12 School Street

Hudson, New Hampshire 03051

603/886-6005

August 14, 2014

Owner or Applicant: Green Mountain Partners Realty Trust
9 Old Derry Road
Hudson, NH 03051

Eagles Nest Estates, LLC
21 Continental Boulevard
Merrimack, NH 03054

On Wednesday, August 13, 2014, the Hudson Planning Board heard subject case ZI# 03-14, "Hawkview Subdivision" (ZBA Input Only)

SUBJECT: Purpose of plan: The project proposes to consolidate the five existing parcels and further subdivide the merged parcels to create 63 residential open space lots and 1 conventional lot. The temporary wetland impact is 2,235 sf., and the buffer impact is 161,639 sf.

LOCATION: White Service Road & Kara's Crossing Drive
Map 186/Lots 20-4 & 24; Map 194/Lot 10; Map 195/Lot 1; Map 201/Lot 7

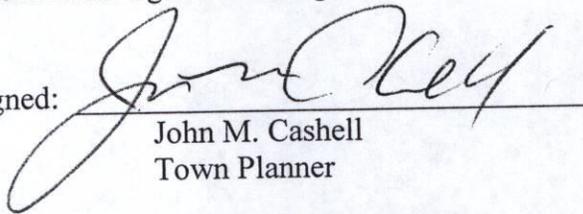
You are hereby notified of the subject ZBA Input Only item presented before the Planning Board and the following action:

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ZBA Input Only
August 14, 2014
Page 2

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

Signed:



John M. Cashell
Town Planner

Date:

8-14-14

cc: Keach-Nordstrom Associates, Inc.

A-1

ZBA INPUT ONLY
APPLICATION FOR REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE

Map 186; Lots 20-4 & 24
Map 194; Lot 10
Map 195; Lot 1
Map 201; Lot 7

Date of Application: July 11, 2014 Tax Map # _____ Lot # _____
Name of Project: Hawkview Subdivision ZI # 03-1M
Zoning District: _____ General Zoning ID# _____
(For Office Use) (For Office Use)

ZBA Action: _____

PROPERTY OWNER: (Map 201; Lot 7) DEVELOPER: /Owner
Name: Green Mountain Partners Realty Trust Eagles Nest Estates, LLC
Address: 9 Old Derry Road 21 Continental Boulevard
Address: Hudson, NH 03051 Merrimack, NH 03054
Telephone # _____ (603) 320-5123
Fax # _____
Email: _____ johngargasz@gmail.com

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

PURPOSE OF PLAN:
The project proposes to consolidate the five existing parcels and further subdivide the merged parcels to create 63 residential open space lots and 1 conventional lot. The temporary wetland impact is 2,235 sf, the permanent wetland impact is 6,284 sf, and the buffer impact is 161,639 sf.

(For Office Use)
Plan Routing Date: _____ Plan Date: _____
_____ I have no comments _____ I have comments (attach to form)
_____ Title: _____ Date: _____
(Initials)
Department:
_____ Zoning _____ Engineering _____ Assessor _____ Police _____ Fire _____ Planning
_____ Highway _____ Consultant Review _____ Fees Paid

Hawkview Subdivision ZBA Input Only

Staff Report

August 13, 2014

SITE: Map 186/Lots 20-4 & 24; Map 194/ Lot 10; Map 195/Lot 1; Map 201/Lot 7 ZI# 03-14

ZONING: G-1 - Minimum Lot Size With or Without Town Water & Sewer 87,120 sf and Minimum Frontage 200 ft.

PURPOSE OF PLAN: The project proposes to consolidate the five existing parcels and further subdivide the merged parcels to create 63 residential open space lots and 1 conventional lot. The temporary wetland impact is 2,235 sf, the permanent wetland impact is 6,284 sf, and the buffer impact is 161,639 sf.

PLAN UNDER REVIEW ENTITLED: Open Space Plan Hawkview Subdivision Map 186/Lots 20-4 & 24; Map 194/ Lot 10; Map 195/Lot 1; Map 201/Lot 7, White Service Road and Kara's Crossing Drive, Hudson, NH, prepared by Keach-Nordstrom Associates, Inc., dated: May 7, 2014 (no revision date), consisting of Sheet 1 of 1 and Sheets 1 - 5 and Notes 1 - 4 on Sheet 1 of 1 (said plans are attached hereto).

APPLICANT REPRESENTATIVE: Tony Basso, Keach -Nordstrom Associates, Inc.

ATTACHMENTS:

- ZBA Input Only application, dated July 11, 2014 – “A-1”.
- Letter by William Oleksak, Zoning Admin., re: Zoning Determination for Hawkview Subdivision, dated July 18, 2014, – “A”.
- Motion to Recommend Wetlands Special Exception: issued by the Conservation Commission for the Hawkview Subdivision, dated 14 July 2014 – “B”.
- November 9, 2005 Minutes/Decisions, re: most recent date Planning Board reviewed the Hawkview Subdivision, which also concerned ZBA Input Only – “C”.

OUTSTANDING ISSUES/ RECOMMENDATION: Staff found no outstanding issues with this ZBA Input Only application. In preparation for the meeting, please review the attached set of ZBA Input Only Plans, together with William Oleksak's letter “A” and the Conservation Commission's Recommendation “B”.

Please note, the last time the board reviewed a ZBA Input application for the subject lots was on Nov. 9, 2005. Please see the Board's action on that application, per attachment “C”.

Staff recommends for the board to review this application for what it is, i.e.,

- 1) It's a Wetland Special Exception application, filed with the ZBA, which pertains to proposed stormwater treatment and control facilities that, if constructed, will have a beneficial effect on the abutting wetlands, as determined by the Town of Hudson Conservation Commission (see attached recommendation “B”).

- 2) Please note, in previous ZBA Input Only applications the board requested applicants to submit lot dimension and lot size data. The present submission does not include this data, however, if, in fact, this subdivision moves toward formal subdivision application submission, such data will have to be submitted. In effect, the only thing (in realistic terms) for the board to review for Wednesday night, is the detail provided in the submitted plans for the proposed roadway layout, and as this layout pertains to the proposed wetland crossings and associated wetland and wetland buffer impacts. To this effect, the attached plans provide this detail; that is, the proposed wetland crossing structures are cited on the plans, as well as the proposed slopes and areas of wetland and wetland buffer impacts, and in regard to this application, staff provides below, for the board's consideration, a DRAFT MOTION to forward to the ZBA.

NOTE: thinking outside the box, and a little ahead of the submittal process, this proposed subdivision could go in the direction of requiring emergency access only, via both Kara's Crossing and Hawkview Rd. In effect, the only public means of access would be via Bush Hill Rd. In doing so, emergency access would be provided for the proposed 63 lot subdivision, while at the same time, avoiding the introduction of additional traffic to Spear Rd. and Gibson Rd., which are two roads that one could argue are not constructed to handle additional traffic. This is not to say that Bush Hill Rd. is a major arterial road, but it does provide a better primary means of access than both Gibson Rd. and Spear Rd.

DRAFT MOTION:

I move to forward correspondence to the ZBA, notifying them that the Planning Board has no concerns regarding the proposed Wetland Special Exception application, which calls for the temporary wetland impact of 2,235 sf, the permanent wetland impact of 6,284 sf, and buffer impact of 161,639 sf, as shown on the following plan entitled: Open Space Plan Hawkview Subdivision Map 186/Lots 20-4 & 24; Map 194/ Lot 10; Map 195/Lot 1; Map 201/Lot 7, White Service Road and Kara's Crossing Drive, Hudson, NH, prepared by Keach-Nordstrom Associates, Inc., dated: May 7, 2014 (no revision date), consisting of Sheet 1 of 1 and Sheets 1 - 5 and Notes 1 - 4 on Sheet 1 of 1.

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

"A-1"

ZBA INPUT ONLY
APPLICATION FOR REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE

Map 186; Lots 20-4 & 24
Map 194; Lot 10
Map 195; Lot 1
Map 201; Lot 7

Date of Application: July 11, 2014 Tax Map # _____ Lot # _____
Name of Project: Hawkview Subdivision ZI # 03-14
Zoning District: _____ General Zoning ID# _____
(For Office Use) (For Office Use)

ZBA Action: _____

PROPERTY OWNER: (Map 201; Lot 7) DEVELOPER: /Owner

Name: Green Mountain Partners Realty Trust Eagles Nest Estates, LLC
Address: 9 Old Derry Road 21 Continental Boulevard
Address: Hudson, NH 03051 Merrimack, NH 03054
Telephone # _____ (603) 320-5123
Fax # _____
Email: _____ johngargasz@gmail.com

PROJECT ENGINEER

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

PURPOSE OF PLAN:

The project proposes to consolidate the five existing parcels and further subdivide the merged parcels to create 63 residential open space lots and 1 conventional lot. The temporary wetland impact is 2,235 sf, the permanent wetland impact is 6,284 sf, and the buffer impact is 161,639 sf.

(For Office Use)

Plan Routing Date: _____ Plan Date: _____

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

_____ Title: _____ Date: _____

(Initials)

Department:

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

_____ Highway _____ Consultant Review _____ Fees Paid



**APPLICATION FOR ZBA INPUT ONLY REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE**

I hereby apply for ZBA Input Only 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 *ZBA Input Only* specifications or application form are incomplete, the application will be considered rejected.

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

Signature of Owner: _____

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

Technical Review Signature: _____

Planner Approval Signature: _____

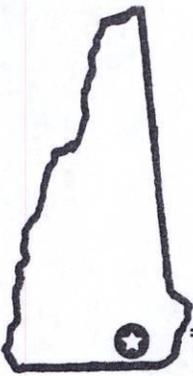
Twenty-one days prior to the scheduled Planning Board Meeting, a complete subdivision, or site plan application including all supporting materials/documents must be submitted in final form to the Town Planner's Office.

- ❖ Please schedule an appointment with the Town Planner for initial plan submittal.
- ❖ Revisions are due on Tuesday the week prior to the Planning Board deferral date by 10:00AM. Any application/materials received after that time will be deferred until the next available meeting date.

A

COMMUNITY DEVELOPMENT DEPARTMENT

ZONING DETERMINATION



12 School Street • Hudson, New Hampshire 03051 • 603-886-6008 • Fax 603-594-1142

July 18, 2014

Keach-Nordstrom Associates, Inc.
10 Commerce Park, North, Ste. 3B
Bedford, NH 03110
Attn: Katherine Basso

Re: Hawkview Subdivision – Wetland Special Exceptions

Dear Ms. Basso:

I have reviewed your request for a Wetland Special Exception for a temporary wetland impact of 2,235 SF, 6,284 SF of permanent wetland impact, and 16,639 SF of wetland buffer impact. This is a change of the original ZBA approvals of October 26, 2006 for 12 wetland crossings. The Board had only approved five (5) crossings. The new plan has only four (4) wetland crossings and a new subdivision layout.

You will need to come before the Zoning Board for the above mentioned wetland special exceptions.

Please feel free to contact the Community Development Department if you have any further questions.

This decision may be appealed within 30 days.

Sincerely,

COMMUNITY DEVELOPMENT DEPARTMENT

William A. Oleksak
Zoning Administrator

pc: Board of Selectmen
Zoning Board of Adjustment
Town Planner
Inspectional Services
File

WO/pl

"B"

**Motion to Recommend
Wetlands Special Exception**

Date: 14 July 2014

Case: *Eagles Nest Estates, LLC and Green Mountain Partners Realty Trust*
White Service Road & Kara's Crossing Drive
Map 186 Lots 024-4 & 024; Map 194 Lot 010; Map 195 Lot 001, & Map 201 Lot 007

Referenced Plan: Overview Plan, Open Space Plan, and Wetland and Wetland Buffer Impact Plan,
Hawkview Subdivision (5 Sheets)
Dated: May 12, 2014 (Overview Plan) and May 7, 2014 (all others)

Description of Work to be performed: Open space subdivision of five existing lots to create 63 new single family building lots, including one conventional lot, and 140.5 acres of proposed open space. The required temporary impact is 2,235 SF, the permanent wetland impact is 6,284 SF and the wetland buffer impact is 161,639 SF. These impacts include five wetland crossings for a proposed new roadway and additional impacts for storm water management and utility improvements.

Members Present: J Battis, R Brownrigg, K Dickinson, R Jurewicz
Members Stepping Down: None
Alternates Seated: None

Motion to Recommend: Favorable X Unfavorable

With Stipulations:

1. 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.)
2. During construction and restoration erosion control barriers shall be installed and maintained to the satisfaction of the Town Engineer.

Motion By: R Jurewicz
Second By: R. Brownrigg

Vote: Favorable 4 Unfavorable 0 Abstain 0

Summary of Arguments For Recommending: The proposed wetland and wetland buffer impacts are all within the uses permitted by special exception under §334-35 *Uses within the Wetland Conservation District* of the Hudson Town Code and meet the conditions required to grant a special exception. The proposed impacts are necessary to the development of the site. Overall, the plan, as presented, including conservation easements and open spaces, represents a vast improvement over previous versions of this development presented to the Commission and the proposed impacts are considered reasonable for the development of the site.

Dissenting Argument(s): None
This motion is based on the plan(s) submitted by the applicant. Additional impacts that result from the relocation of impervious surfaces or structures have not been addressed. It is recommended that if such changes are made the plan be returned to the Conservation Commission for further review. **Approved.**

Jim Battis, Chairman

2. The Planning Board has determined that it is in the Town's best interest to investigate and work with the developer, relative to planning a residential development that creates substantially less environmental impact than what is presently proposed for this undeveloped 200+ acre tract. This concern also takes into account that the subject tract abuts several other large undeveloped tracts.

NOTE: The Planning Board reviewed the following plans regarding the two ZBA Input applications for Hawkview Ridge:

- a) Hawkview Ridge, Hawkview Road, Hudson, NH, prepared by Maynard & Paquette, Engineering Associates, LLC and dated: June 1, 2005 and revised thru July 21, 2005, consisting of Sheets 40 – 48 (numbered as submitted) and Notes 1 – 12, shown on Sheet 41.

3. Copies of EPA letters to be sent to ZBA for information.

Seconded by G. Hall. Vote: 7-0, motion carried.

**APPLICATION FOR ZBA INPUT ONLY REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE**

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Signature of Owner: _____

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

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Technical Review Signature: _____

Planner Approval Signature: _____

Twenty-one days prior to the scheduled Planning Board Meeting, a complete subdivision, or site plan application including all supporting materials/documents must be submitted in final form to the Town Planner's Office.

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APPLICATION FOR ZBA INPUT ONLY REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE

SCHEDULE OF FEES

A. REVIEW FEES

1. ZBA Input Only - \$100.00	\$ <u>100.00</u>
2. Advertising Fee - \$ 40.00	\$ <u>40.00</u>
TOTAL	\$ <u>140.00</u>

(For Office Use)
AMOUNT DUE \$ _____ DATE RECEIVED _____
AMOUNT RECEIVED \$ _____ RECEIPT NO. _____
RECEIVED BY _____

APPLICATION FOR ZBA INPUT ONLY REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE

SCHEDULE OF FEES

A. REVIEW FEES

1. ZBA Input Only - \$100.00	\$ <u>100.00</u>
2. Advertising Fee - \$ 40.00	\$ <u>40.00</u>
TOTAL	\$ <u>140.00</u>

(For Office Use)			
AMOUNT DUE	\$ <u>140.00</u>	DATE RECEIVED	<u>7-11-14</u>
AMOUNT RECEIVED	\$ <u>140.00</u>	RECEIPT NO.	<u>332,153</u>
		RECEIVED BY	<u>PJ</u>

LETTER OF TRANSMITTAL

DATE: July 11, 2014

PROJECT NO: 11-0202-1

REFERENCE: Hawkview Subdivision

TO: Town of Hudson - Planning Dept.
12 School Street
Hudson, NH 03051

ATTENTION: John Casheff, Town Planner

WE ARE SENDING YOU
THE FOLLOWING ITEMS:

- PLANS
- SPECIFICATIONS
- COPY OF LETTER
- APPLICATION
- CHANGE ORDER
- REPORT
- QUALIFICATIONS
- OTHER

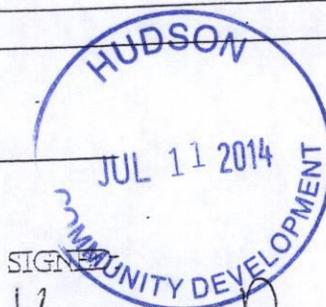
THESE ARE TRANSMITTED AS FOLLOWS:

- FOR APPROVAL
- FOR YOUR USE
- AS REQUESTED
- FOR REVIEW & COMMENT
- RETURNED FOR CORRECTIONS
- APPROVED AS NOTED
- APPROVED AS SUBMITTED

NOTE: One Original and one copy of completed Application & Fee
3 Full Size Plans
17 11x17 Plans

SIGNATURE (to verify receipt)

COPY TO:



SIGNATURE

Katherine Basso

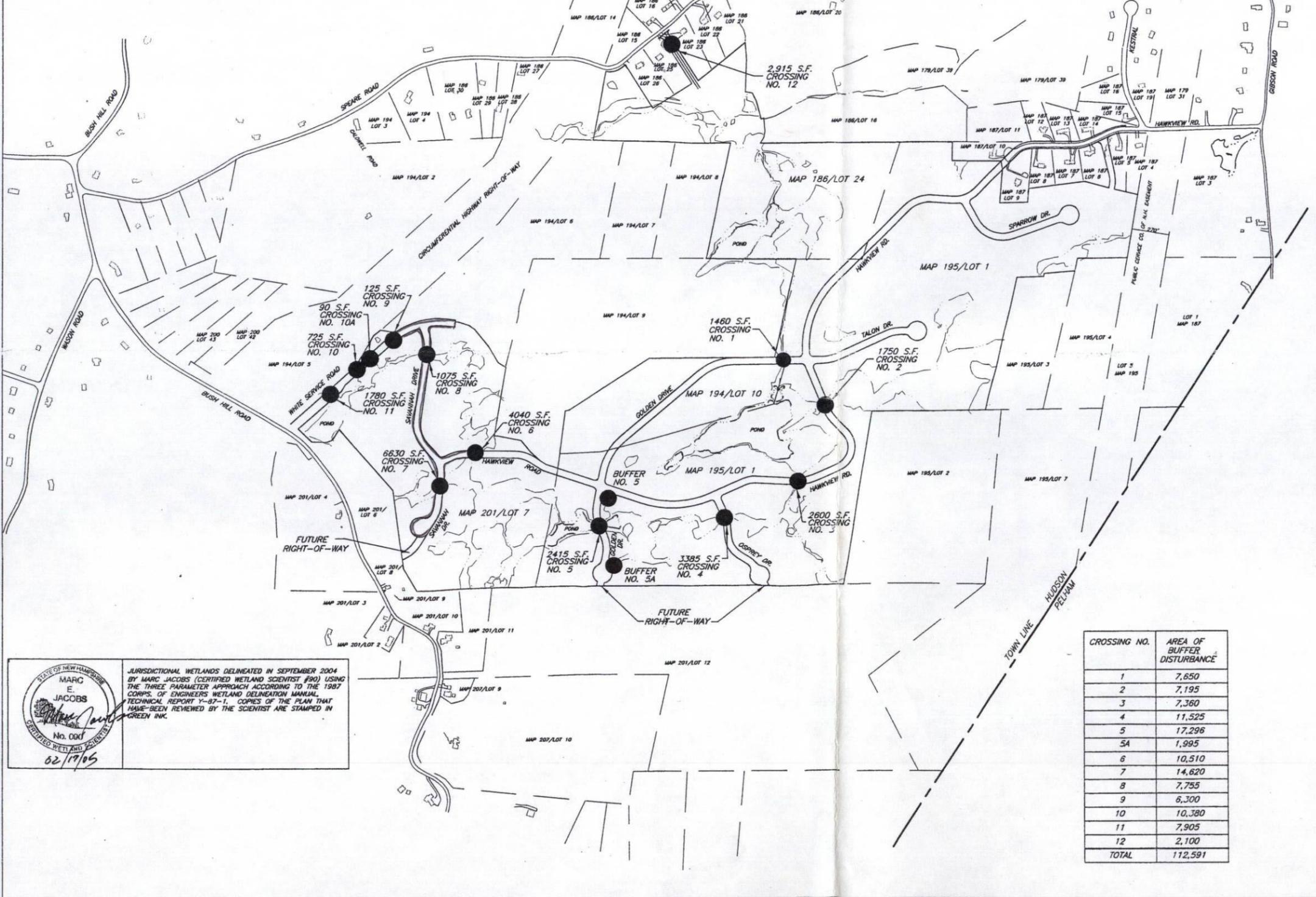
CROSSING NO.	AREA OF DISTURBANCE (S.F.)	LOCATION HAWKVIEW RIDGE PROJECT	CULVERT SIZE (IN.)
1	1,460	GOLDEN LANE, STA 1+50	(2) 30
2	1,750	HAWKVIEW ROAD, STA 26+40	(2) 30
3	2,600	HAWKVIEW ROAD, STA 34+90	24
4	3,385	OSPREY DRIVE, STA 1+75	24
5	2,415	GOLDEN DRIVE, STA 21+75	CON-SPAN
6	4,040	HAWKVIEW ROAD, STA 59+00	18
7	6,630	SAVANNAH DRIVE, STA 12+00	30
8	1,075	SAVANNAH DRIVE, STA 2+25	24
12	2,915	DRIVEWAY TO LOT 24 / MAP 186	
TOTAL	26,270		

CROSSING NO.	AREA OF DISTURBANCE (S.F.)	LOCATION N.H.D.O.T. PROJECT	CULVERT SIZE (IN.)
9	125	WHITE SERVICE RD, STA 59+90	
10A	90	WHITE SERVICE RD, STA 57+50	
10	725	WHITE SERVICE RD, STA 56+50	
11	1,780	WHITE SERVICE RD, STA 54+00	60
TOTAL	2,720		

STONE BOUND FOUND
 STONE BOUND TO BE SET
 IRON PIPE FOUND
 IRON PIN TO BE SET
 LIMIT OF WETLANDS

VICINITY

LEGEND



- MAP 195/ LOT 1, MAP 186/LOT 24
MAP 194/ LOT 10
HAWKVIEW ESTATES, LLC
6 POWERS ROAD
HOLLIS, N.H. 03049-6100
BK. 6855/PG. 2568
- MAP 207/ LOT 7
MARIO & DENISE PLANTE
9 OLD DERRY ROAD
HUDSON, N.H. 03051
BK. 7167/PG. 1208
- MAP 195/ LOT 5
PUBLIC SERVICE CO. OF N.H.
ELECTRICAL SUPERINTENDENT
P.O. BOX 130
MANCHESTER, N.H. 03105-0330
- MAP 187/ LOT 4
JOHN & AUDREY LOYCANO
P.O. BOX 105
HUDSON, N.H. 03051
BK. 7197/PG. 1242
- MAP 187/ LOT 5
RACHEL HAMILTON
14 HAWKVIEW ROAD
HUDSON, N.H. 03051
BK. 7242/PG. 823
- MAP 187/ LOT 6
EDWARD & VELINDA JONSON
18 HAWKVIEW ROAD
HUDSON, N.H. 03051
BK. 2870/PG. 707
- MAP 187/ LOT 7
JAMES & JANE FISHER
18 HAWKVIEW ROAD
HUDSON, N.H. 03051
- MAP 187/ LOT 8
MICHAEL & ROBERTA OTHOT
20 HAWKVIEW ROAD
HUDSON, N.H. 03051
BK. 6848/PG. 2352
- MAP 187/ LOT 9
JOHN & CATHERINE
CHESNULAVICH
22 HAWKVIEW ROAD
HUDSON, N.H. 03051
PG. 6848/PG. 2352
- MAP 187/ LOT 10
ERIC & JENNIFER HILLNER
25 HAWKVIEW ROAD
HUDSON, N.H. 03051
BK. 6878/PG. 1988
- MAP 187/ LOT 14
LESLIE & JENNIFER SIBLEY
17 HAWKVIEW ROAD
HUDSON, N.H. 03051
BK. 2694/PG. 601
- MAP 195/ LOT 4, MAP 187/ LOT 1
STANLEY KAYROS
45 GIBSON ROAD
HUDSON, N.H. 03051
- MAP 195/ LOT 3
LEONNA FREDETTE
3 SHORT STREET
HUDSON, N.H. 03051
BK. 1224/PG. 3850
- MAP 195/ LOT 2
THOMAS & KATHERINE SMITH
3 GIBSON ROAD
HUDSON, N.H. 03051
BK. 3190/PG. 650
- MAP 201/ LOTS 11 & 12
JAMES & KATHLEEN MILLS
118 SPEARE ROAD
HUDSON, N.H. 03051
BK. 6009/PG. 746
BK. 6425/PG. 2659
- MAP 201/ LOT 10
SHIRLEY BERGERON
114 BUSH HILL ROAD
HUDSON, N.H. 03051
BK. 2300/PG. 118
- MAP 201/ LOT 8
DOUG'S SMITH
110 BUSH HILL ROAD
HUDSON, N.H. 03051
BK. 2802/PG. 404
- MAP 201/ LOTS 4 & 6
CHARLOTTE COHEN &
THOMAS SMITH
101 BUSH HILL ROAD
HUDSON, N.H. 03051
BK. 5273/PG. 1151
- MAP 194/ LOT 8
GEORGE WHITE
83 GLEN ROAD
WILMINGTON, MA 01887
- MAP 194/ LOT 9
ROGER & NORMA BOLDUC
527 SYCAMORE LANE
HAVERHILL, MA 01830
- MAP 194/ LOT 8
KAY NASH
40 TEMPLE STREET
NASHUA, N.H. 03060
BK. 5277/PG. 578
- MAP 194/ LOT 7
MARY & RICHARD BOYLE
30 PLEASANT STREET
LOWELL, MA 01852
BK. 2084/PG. 4170
- MAP 186/ LOT 26
JOSEPH & ALINE BOUTIN
61 SPEARE ROAD
HUDSON, N.H. 03051
BK. 4004/PG. 194
- MAP 186/ LOT 25-1
ALLEN PECK
63A SPEARE ROAD
HUDSON, N.H. 03051
BK. 6109/PG. 1072
- MAP 186/ LOT 25-2
JEAN DANGLE, JR.
63B SPEARE ROAD
HUDSON, N.H. 03051
BK. 6117/PG. 1315
- MAP 186/ LOT 23
ROBERT & JANICE WESSON
65A SPEARE ROAD
HUDSON, N.H. 03051
BK. 6165/PG. 1130
- MAP 186/ LOT 22
IRENE & JOHN BYRNE
P.O. BOX 148
HAVERHILL, MA 01841-0148
BK. 3383/PG. 45
- MAP 186/ LOT 17
RICHARD & LISA OLSON
68 SPEARE ROAD
HUDSON, N.H. 03051
BK. 5954/PG. 11
- MAP 194/ LOT 5, MAP 186/ LOT 14
STATE OF N.H. DEPT. OF TRANS.
P.O. BOX 483
114 HAZEN DRIVE, ROOM 204
CONCORD, N.H. 03302-0483
- MAP 186/ LOT 15
THOMAS & SUSAN DUVAL
60 SPEARE ROAD
HUDSON, N.H. 03051
BK. 5877/PG. 404
- MAP 186/ LOT 18
RONALD & CARLA FRASER
64 SPEARE ROAD
HUDSON, N.H. 03051
BK. 5958/PG. 485
- MAP 186/ LOT 20
MARILYN SMITH
75 SPEARE ROAD
HUDSON, N.H. 03051
- MAP 187/ LOT 15
THOMAS & NANCY BROWN
2 KESTRAL LANE
HUDSON, N.H. 03051
BK. 6958/PG. 2256
- SOIL SCIENTIST
MARC JACOBS
P.O. BOX 417
GREEN LAND, N.H. 03840
- ENGINEER
MAYNARD & PAQUETTE ENG.
ASSOC.
23 EAST PEARL STREET
NASHUA, N.H. 03060
- INDIRECT ABUTTERS:
MAP 187/ LOT 12
DAVID & LOIS SMITH
21 HAWKVIEW ROAD
HUDSON, N.H. 03051
BK. 2807/PG. 668
- MAP 187/ LOT 11
JOSEPH & SUSAN FURBER
17 CENTRAL STREET
HUDSON, N.H. 03051
BK. 2131
- MAP 187/ LOT 13
JAMES & JULIE HALEY
19 HAWKVIEW ROAD
HUDSON, N.H. 03051
BK. 3589/PG. 622
- MAP 195/ LOT 7
BARBARA BOUCHER
65A SPEARE ROAD
HUDSON, N.H. 03051
BK. 5915/PG. 1205
- MAP 201/ LOT 9
TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, N.H. 03051
BK. 3383/PG. 45

CROSSING NO.	AREA OF BUFFER DISTURBANCE
1	7,650
2	7,195
3	7,360
4	11,525
5	17,296
5A	1,995
6	10,510
7	14,620
8	7,755
9	6,300
10	10,380
11	7,905
12	2,100
TOTAL	112,591

JURISDICTIONAL WETLANDS DELINEATED IN SEPTEMBER 2004 BY MARC JACOBS (CERTIFIED WETLAND SCIENTIST #90) USING THE THREE PARAMETER APPROACH ACCORDING TO THE 1987 COMPS. OF ENGINEERS WETLAND DELINEATION MANUAL. TECHNICAL REPORT 17-97-1. COPIES OF THE PLAN THAT HAVE BEEN REVIEWED BY THE SCIENTIST ARE STAMPED IN GREEN INK.

MARC E. JACOBS
 No. 0001
 02/19/05

MASTER WETLANDS PLAN
 MAP 195/ LOT 1, MAP 186/LOT 24,
 MAP 194/LOT 10, MAP 201/LOT 7

HAWKVIEW RIDGE HAWKVIEW ROAD HUDSON, NEW HAMPSHIRE

PREPARED FOR:
 (OWNER LOTS 1, 24, 10)
 HAWKVIEW ESTATES, LLC
 6 POWERS ROAD
 HOLLIS, NEW HAMPSHIRE 03049-6100

(OWNER LOT 7)
 MARIO PLANTE
 9 OLD DERRY ROAD
 HUDSON, NEW HAMPSHIRE 03051

SCALE: 1" = 400'
 DATE: JUNE 1, 2005

ENGINEERING
MP
ASSOCIATES

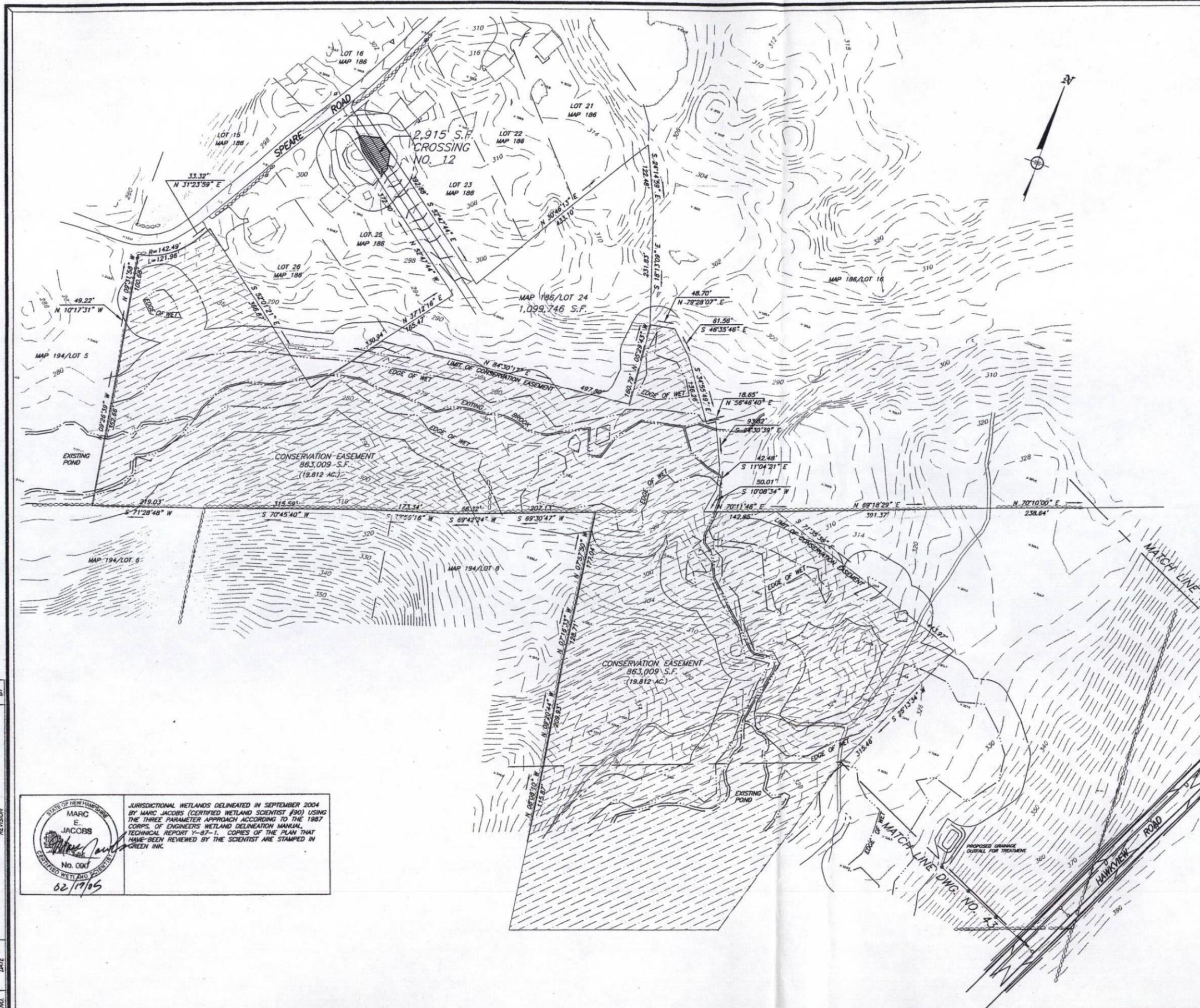
Maynard & Paquette
Engineering Associates, LLC
 Consulting Engineers and Land Surveyors
 23 East Pearl Street, Nashua, NH 03060
 Phone: (603)883-8433 Fax: (603)883-7227

Received
 AUG 24 2005
 HUDSON COMMUNITY DEVELOPMENT

NO.	DATE	BY	REVISION
1	7-21-05	JST	ADDED WETLANDS BUFFER DISTURBANCE

DESIGNED	DRAFTED	CHECKED	APPROVED	BOOK & PAGE	REVISION	SIZE	JOB NUMBER
JST	JST				1	D	11258

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STONE BOUND FOUND
 STONE BOUND TO BE SET
 IRON PIPE FOUND
 IRON PIN TO BE SET
 LIMIT OF WETLANDS
 50' WETLANDS BUFFER (TOWN)
 EXISTING STONE WALL

VICINITY

LEGEND

VICINITY

NO.	DATE	BY	REVISION
1	7-21-05	JST	ADDED WETLANDS BUFFER DISTURBANCE

JURISDICTIONAL WETLANDS DELINEATED IN SEPTEMBER 2004
 BY MARC JACOBS (CERTIFIED WETLAND SCIENTIST #90) USING
 THE THREE PARAMETER APPROACH ACCORDING TO THE 1987
 CORPS OF ENGINEERS WETLAND DELINEATION MANUAL
 TECHNICAL REPORT Y-87-1. COPIES OF THE PLAN THAT
 HAVE BEEN REVIEWED BY THE SCIENTIST ARE STAMPED IN
 GREEN INK.

WETLANDS PLAN
 MAP 195/LOT 1, MAP 186/LOT 24,
 MAP 194/LOT 10, MAP 201/LOT 7
HAWKVIEW RIDGE
HAWKVIEW ROAD
HUDSON, NEW HAMPSHIRE

PREPARED FOR:
 (OWNER LOTS 1, 24, 10)
 HAWKVIEW ESTATES, LLC
 6 POWERS ROAD
 HOLLIS, NEW HAMPSHIRE 03049-6100

MARIO PLANTE
 9 OLD DERRY ROAD
 HUDSON, NEW HAMPSHIRE 03051

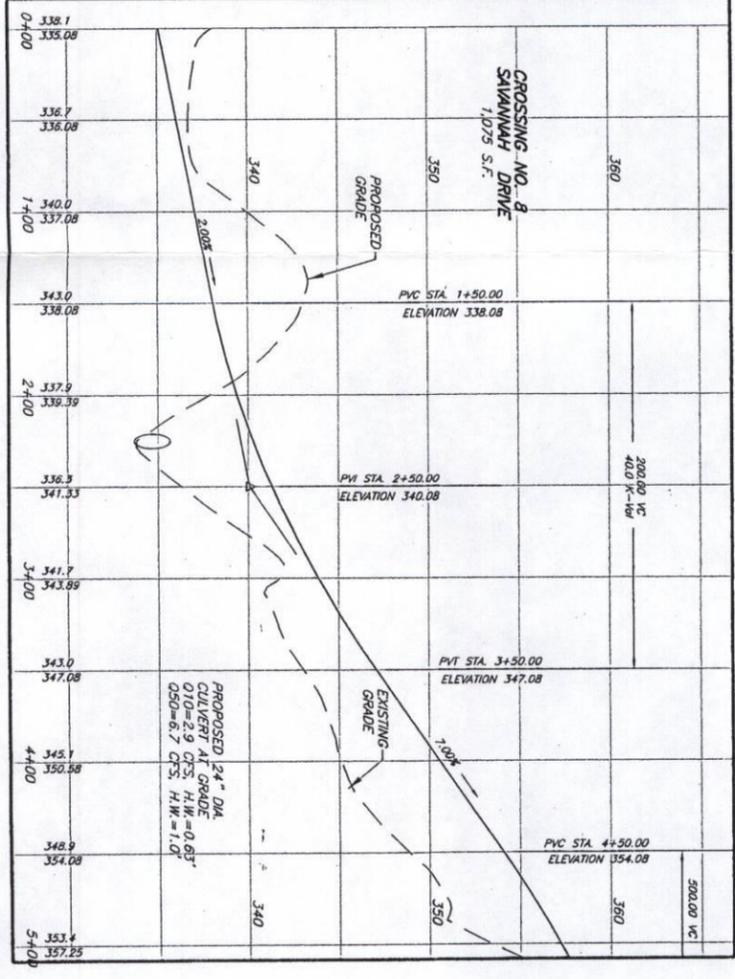
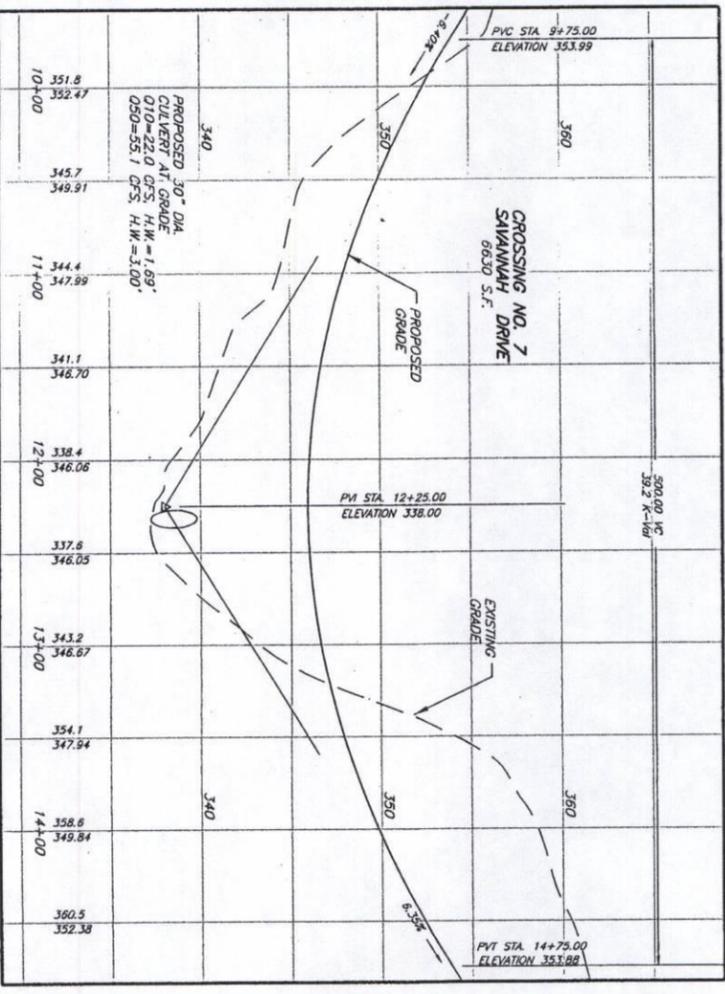
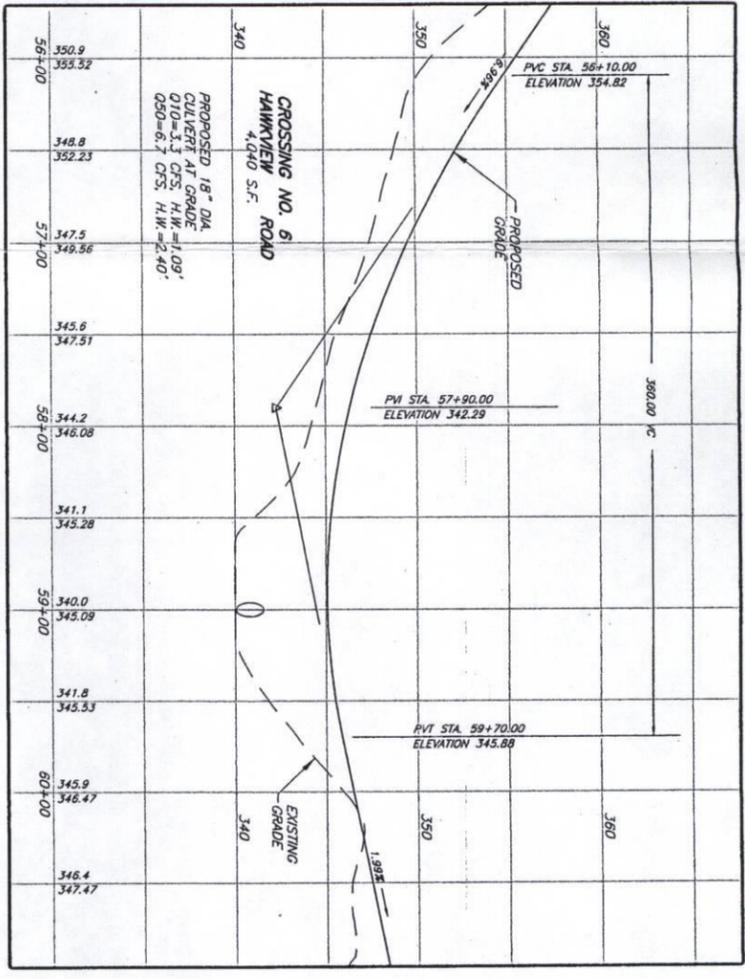
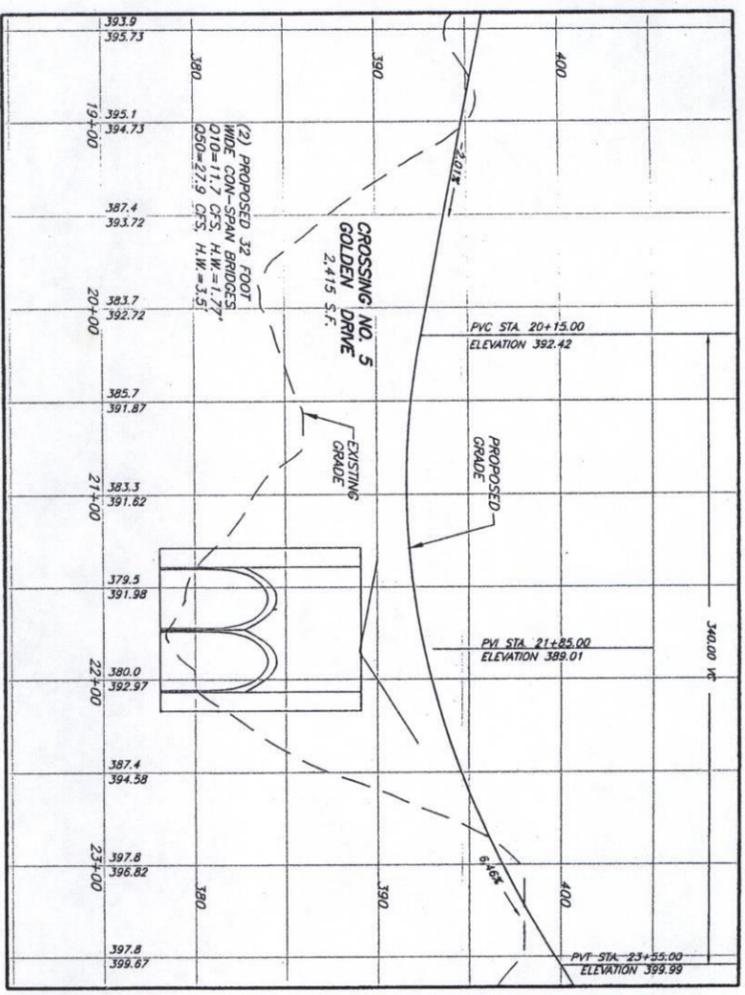
SCALE: 1" = 100' DATE: JUNE 1, 2005

Maynard & Paquette
Engineering Associates, LLC
 Consulting Engineers and Land Surveyors
 23 East Pearl Street, Nashua, NH 03060
 Phone: (603)883-8433 Fax: (603)883-7227

DESIGNED	DRAFTED	CHECKED	APPROVED	BOOK & PAGE	REVISION	SIZE	JOB NUMBER
JST	JST				1	D	11258

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NO.	DATE	REVISION	BY



WETLANDS PLAN
 MAP 195/LOT 1, MAP 196/LOT 24,
 MAP 194/LOT 10, MAP 201/LOT 7
HAWKVIEW RIDGE
HUDSON, NEW HAMPSHIRE
 PREPARED FOR:
 (OWNER LOTS 1, 24, 10)
 HAWKVIEW ESTATES, LLC
 6 POWERS ROAD
 HOLLIS, NEW HAMPSHIRE 03049-6100
 (OWNER LOT 7)
 HARO PLANT
 9 OLD DERRY ROAD
 HUDSON, NEW HAMPSHIRE 03051

SCALE: HORIZ. 1" = 50'
 DATE: JUNE 1, 2005

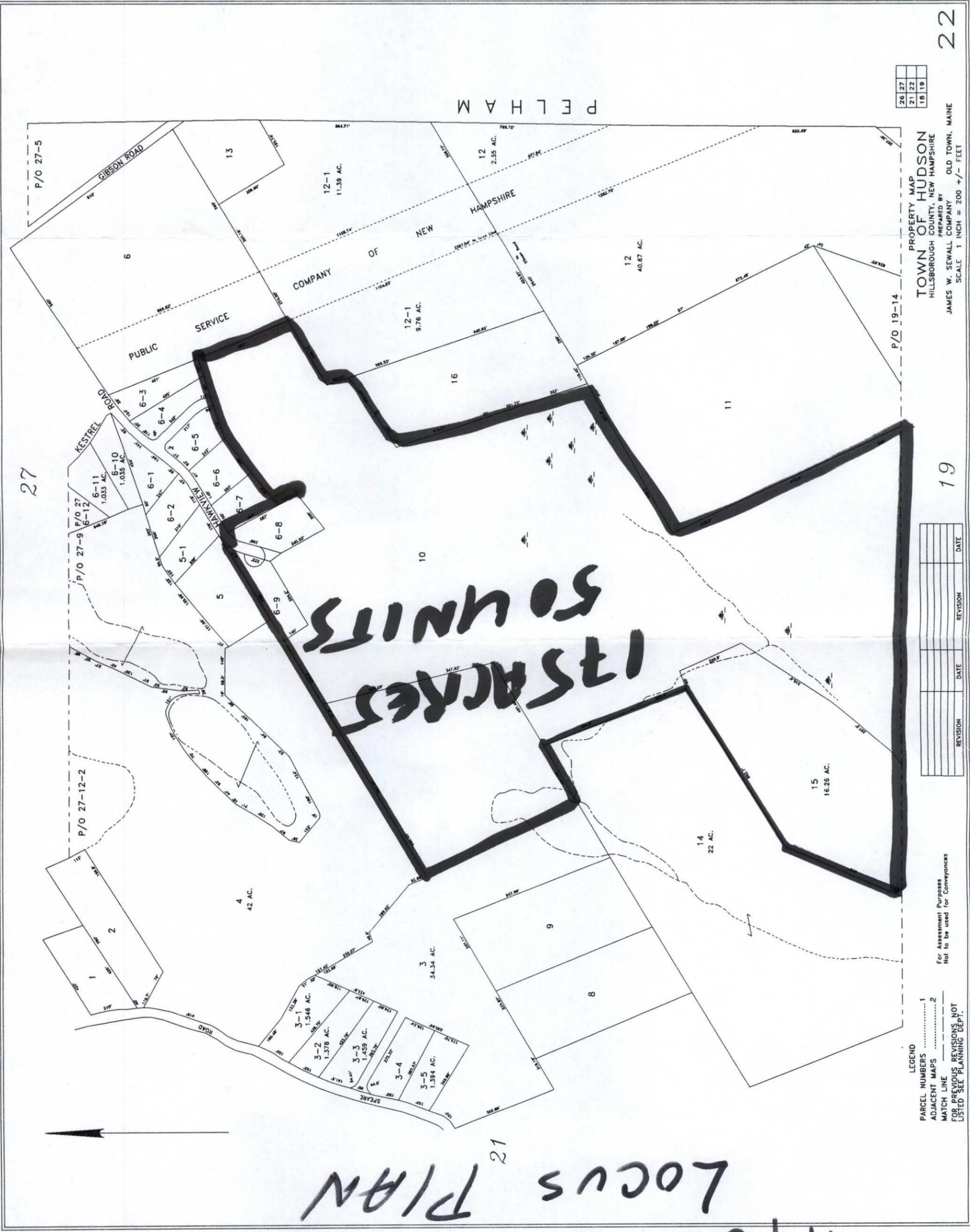
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Maynard & Paquette
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 Phone: (603)883-9433 Fax: (603)883-7227

DESIGNED	CHECKED	APPROVED	BOOK & PAGE	REVISION	DATE	JOB NUMBER
JST	JST					11258

HAWK VIEW CONCEPT

LOCUS PLAN

21



26	27
21	22
18	19

22

PROPERTY MAP
TOWN OF HUDSON
 HILLSBOROUGH COUNTY, NEW HAMPSHIRE
 PREPARED BY
 JAMES W. SEWALL COMPANY
 OLD TOWN, MAINE
 SCALE 1 INCH = 200 +/- FEET

19

REVISION	DATE	REVISION	DATE

LEGEND
 PARCEL NUMBERS 1
 ADJACENT MAPS 2
 MATCH LINE
 For Assessment Purposes
 Not to be used for Conveyances
 FOR PREVIOUS REVISIONS, NOT
 LISTED SEE PLANNING DEPT.

Rolling Woods Amended Open Space Development (OSD) Residential Subdivision

Staff Report

August 12, 2015

SITE: 4 Bockes Road -- Map 144/Lot 021 -- SB# 06-15

ZONING: R-2 - Minimum Lot Size Without Town Water & Sewer Single-Family Dwelling
43,560 sf. Duplex 60,000 sf Minimum Frontage 120 ft.

PURPOSE OF PLAN: to propose a 16-lot OSD Residential Subdivision at 4 Bockes Road, which consists of 26.82 acres +/- . This development also proposes to extend York Drive in order to create a 3-lot conventional subdivision. Deferred Date Specific from the July 8, 2015 Planning Board Meeting.

PLAN UNDER REVIEW ENTITLED: Residential Subdivision Rolling Woods, Map 144/Lot 21, Bockes and York Road, Hudson, NH, prepared by Keach-Nordstrom Associates, Inc., dated: 23 May 2014, latest revision date: 29 July 2015, consisting of Sheets 1 - 27 and Notes 1 – 29 (said plans are attached hereto).

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

ATTACHMENTS:

- 1) CLD's Comments Report, dated 28 July 2015 – "A".
- 2) Keach/Nordstrom's Response to CLD's above Comments Report, dated 30 July 2015 – "B".
- 3) Road Agent, Kevin Burns' comments – "C".
- 4) NHDES Approval for Subdivision of Land, dated 21 JUL 15 – "D".

ATTACHMENTS INCLUDED IN THE 07/08/2015 MEETING PACKETS:

- 1) Project Narrative, Site Plan Application, Checklist Forms, aerial site photo, Warrantee Deed, 2014 Zoning Determination, 2014 Motion to Recommend Wetlands Special Exception by Con Com, 2014 Planning Board Notice of Approval, 2014 ZBA Meeting Minutes, RE: granting of Wetland Special Exception – Attachment "A".
- 2) Comments/Memos from HFD Fire Chief, Rob Buxton, Asst. Assessor, Jim Michaud and the HPD – "B".
- 3) NHDES Subsurface Notice of Acceptance Permit Application – "C".
- 4) Planning Board Meeting Minutes/Decisions for 07/09/14, RE: Original Approval for Rolling Woods OSD Subdivision Plans – "D".
- 5) HUDSON PLANNING BOARD MEETING MINUTES 07/09/2014, RE: Final Action Minutes for above-cited original Rolling Woods OSD Subdivision Plans – "E".
- 6) C.A.P. Fee Worksheet – "F".

OUTSTANDING ISSUES & RECOMMENDATION:

- 1) The reason this Application was not heard at the July 8th meeting was because CLD's Comments Report was not included in the board's Packets. **STATUS:** This matter has been rectified. Please see CLD's attached Comments Report, dated July 28th "A", as well as Keach-Nordstrom's Response Letter, dated July 30th, "B". As you can see, Keach-Nordstrom has revised the Plans according to CLD's Comments Report, and each of CLD's Comments are addressed in Keach-Nordstrom's Response Letter.
- 2) This OSD Subdivision is back before the board, i.e., after being approved by the Planning Board on July 9, 2014, because the planned municipal water service connection for this subdivision failed to materialize. Thus, the differences between this newly proposed plan and the one approved last July include:
 - a) Each of the 16 proposed lots will be serviced by individual wells.
 - b) There will be 2 cisterns, i.e., a 30,000 gallon and 10,000 gallon. One will be located along Rolling Woods Drive, off Bockes Rd., and the other off York Dr. Please refer to Sheets 3 & 4 of the Plan set for the specific location of each cistern.
 - c) Please note, in the Hudson Fire Chief's memo "D" (included in the 8 July 15 Meeting Packet), he thoroughly addresses the issues of driveways and cisterns and other fire safety concerns. In regard to the issue of cisterns, ultimately, the Town may want to require a long-term bond for their maintenance and potential replacement, etc.
- 3) Please see attachments "D" & "E" (included in the 8 July 15 Meeting Packet) for a review of action and debate conducted by the Applicant, the public and board members concerning the July 9, 2014 approved OSD subdivision of this subject property, together with: the 2014 Motion to Recommend Wetlands Special Exception by Con Com, the 2014 Planning Board Notice of Approval, and the 2014 ZBA Meeting Minutes, RE: Granting of Wetland Special Exception – Attachment "A" (also included in the 8 July 15 Meeting Packet) .
- 4) Note the only waiver involving this Subdivision is "Road Standards", which is cited as Note 16, on Sheet 1 of 25 of the Plan and the Waiver Request Form is included in above-cited Attachment "A". Note: the Applicant was made aware by this author that the Planning Board's new policy calls for the Applicant recite the reasons for the board to consider granting requested waivers, and the board then voting to grant the waiver or not based on the Applicant's recited reasons.
- 5) Note 20 needs to be amended to reflect the accurate CAP Fee amount of \$787.48.
- 6) Please note, the Plans are signed and stamped by: Steve Keach, P.E., Anthony Basso, LLS, and Steve Schauer, CWS (all are certified to practice their respective professions in the State of NH).
- 7) Staff checked for the accuracy of the Conventional Subdivision calculations for lots 1 - 17, provided on Sheets 25 & 26 of 27, v. the calculations for the proposed OSD lots, 1 – 16, and found the calculations to be accurate, relative to meeting the required OSD minimum lot sizes and open space requirements v. the minimum conventional lot sizes, per the provisions set forth in below-cited §334-53 and in §334-27. Table of Minimum Dimensional Requirements. In particular, the subdivision is located in an R-2 zoning district, having no municipal water or sewer, which calls for 1 acre minimum buildable lot area in accordance with said table and §334-27.2. and 150 ft. of frontage for single-family dwellings.

§334-53. Open space requirements

The minimum open space requirement of § 334-50 may be provided through common land or individually owned land placed in permanent conservation or recreational easements or by other land use restrictions. The OSD shall comply with the following conditions:

- A. Only undeveloped land, landscaped green space or recreational areas may be included in the calculation of minimum open space requirement. Setback areas along the perimeter of the subdivision may not be included in the open space calculations.
- B. Roadways, driveways, rights-of-way, utility easements, parking areas and other developed areas, except for recreational paths, trails or facilities, may not be included as part of minimum open space requirements.
- C. Wetland(s), road rights-of-way, and slopes in excess of 25%, shall not be considered in the calculation of total lot area. The one-hundred-year floodplain areas shall not exceed 25% of the total land area of the OSD.
[Amended 3-9-1999; 3-12-2002 by Amdt. No. 8]
- D. Whenever possible, lots or dwelling units should be arranged to abut or have direct access to common open space or recreational land.
- E. Lots and open space should be arranged to preserve and protect prominent natural features, historic or archaeological resources, scenic vistas, surface water bodies and streams and other important natural and man-made landscape features.
- F. The deed for each building lot shall contain an undivided proportional share of all common open space, except as provided for in § 334-54.

- 7) Note 19 on Sheet 1 of 27, states that the owners of Lots 9 – 14 shall maintain the “rain garden” on their respective lot in accordance with the agreement stated in the deed for each lot. The details of said “rain gardens” are included on the Landscape Plan, Sheet 27 of 27.
- 8) Please further note: all drainage, open space, slope and cistern easements and their respective deeds shall be reviewed and favorably recommended on by Town Counsel prior to Planning Board endorsement of the Plan-of-Record. This stipulation is provided below, as usual practice, in the below Motion to Approve. That is, if the board moves to take such action on this Plan.

APPLICATION TRACKING:

- 06/18/2015 – OSD Subdivision Plan application submitted;
- 07/08/2015 - Initial public hearing scheduled; Action taken: Application Accepted and Deferred Date Specific to the 12 AUG 2015 Meeting.

DRAFT MOTIONS:

I move to defer further review of the Rolling Woods Open Space Development (OSD) Residential Subdivision, located at 4 Bockes Road -- Map 144/Lot 021 date specific to the 9 SEPT 2015 meeting.

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

Requested Waiver (Granted 07/09/2014):

HTC 289-18:B (1) (3)(4), C(2) & R(1) – Road Standards

Mr. Della-Monica moved to grant the requested waiver HTC 289-18:B (1)(3)(4), C(2) & R(1) – Road Standards – because the proposed construction improvements to York Drive, which this waiver is exclusive to, exceed those of the existing portion of York Drive; further, said construction improvements will benefit the Town, relative snow removal operations, emergency services and stormwater management, as supported by Town’s Road Agent. Motion seconded by Mr. Massey. Vote: 6-1-0 (RM) opposed – motion carried.

HTC 289-18:B (1) (3)(4), C(2) & R(1) – Road Standards

I move to grant the requested waiver HTC 289-18:B (1) (3)(4), C(2) & R(1) – Road Standards, based on the testimony of the Applicant’s representative here this evening, and in accordance with the language included in the submitted Waiver Request Form for said waiver.

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

MOTION TO APPROVE:

I move to approve the subdivision plan entitled: Residential Subdivision Rolling Woods, Map 144/Lot 21, Bockes and York Road, Hudson, NH, prepared by Keach-Nordstrom Associates, Inc., dated: 23 May 2014, latest revision date: 29 July 2015, consisting of Sheets 1 – 27 and Notes 1 – 29, in accordance with the following terms and conditions:

1. All stipulations of approval shall be incorporated into the Development Agreement, which shall be recorded at the HCRD, together with the above Site Plan-of-Record (hereafter referred to as the Plan).
2. Prior to Planning Board endorsement of the Plan, Town Counsel shall favorably recommend on the Development Agreement, Rain Garden Agreements for Lots 9, 10, 11, 12, 13 & 14 and all drainage, open space and cistern easements and their respective deeds.
3. A CAP amount of \$787.48, per residential unit, shall be paid prior to the issuance of a Certificate of Occupancy. Prior to Planning Board endorsement of the Plan, Note 20 on Sheet 1 of 27 shall be amended to reflect said CAP Fee amount.
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.
8. The number of dwelling lots for this subdivision shall be limited to 16, which includes the 3 lots fronting on the extension of York Drive.
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 drives to this subdivision in accordance with Section 289-40 of the Planning Board's Land Use Regulations. Note 27 on Sheet 1 of 27 cites this sign condition.
12. York Road from McCrady to the end, shall be reclaimed and repaved 22 feet wide. The new portion of York Road shall be paved 22 feet wide and include a turnaround; all of which shall be constructed as depicted on the Plan.

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

NOTE: all other pertinent Subdivision approval terms and conditions are included in the above-cited Plan-of-Record, Notes 1 – 29, including, but not limited blasting and hrs. of construction, etc.



A handwritten signature in black ink, consisting of a large, stylized letter 'A' with a small flourish above it.

July 28, 2015

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

Re: Town of Hudson Planning Board Review
Rolling Woods Subdivision, 4 Bockes Road
Tax Map 144, Lot 21, PO #1350-840
CLD Reference No. 03-0249.1370

Dear Mr. Cashell:

CLD has reviewed the third submission of materials related to the above-referenced project received on July 14, 2015. 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. (A complete zoning review was not performed.)

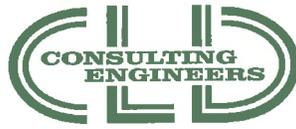
The project consists of creating a 16-lot (revised from 17 lots), single-family, residential subdivision, with two open space areas. The 26.823-acre site is located between York Road and Bockes Road. Thirteen (13) of the lots are to be located on Rolling Woods Drive and three (3) lots are proposed on York Road. All lots are now proposed to be serviced by septic systems and private wells (revised from previously proposed municipal water connection). Lot and open space sizes have been revised since the previous review submission, fire cisterns have been added, and details added and/or modified to reflect these and other changes.

The following items have outstanding issues:

3. Roadway Design

- n. *Former CLD Comments: The applicant should review the typical section as it relates to drainage and sidewalk coordination as the sidewalk is currently designed, no swale has been provided between the toe of slope and sidewalk. This design causes water to run across the sidewalk creating several maintenance challenges./The applicant has provided a response, but we are unable to tell how the response directly relates to eliminating water from running across the future sidewalk.*

Current CLD Comment: The applicant has noted that they are not opposed to specifying toe drains in certain locations, and note that the toe drain might not be warranted in all cut locations, especially until individual lot development has occurred. The applicant has further noted their willingness to work with the Town regarding this matter. We recommend adding a note to the plan set stating that the grading of each lot be



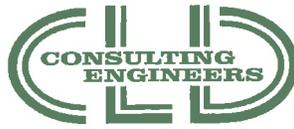
Mr. John Cashell
CLD Reference No. 03-0249.1370
July 28, 2015
Page - 2

evaluated prior to sidewalk construction to determine if toe drains are warranted. Toe drains outside the right-of-way should also be considered for slope and/or drainage easements such that the swales would not be filled by property owners at a later date.

- r. **New CLD Comment:** The applicant has added boulders for the protection of utility poles along York Road. Since these are proposed within the right-of-way, the applicant should comment on the crash worthiness and potential safety implications to the traveling public. If the applicant determines that they are not a hazard, and boulders remain, they should be shown on the cross sections.
- s. **New CLD Comment:** The applicant has added a note stating that PSNH easement access aprons are to be installed in accordance with PSNH Construction Standards on both sides of York Road. No other information or details were provided for these aprons.
- t. **New CLD Comment:** HR 289-18.B.1. The applicant has revised the roadway width from 24' to 22' for the proposed York Road extension between stations 0+00 and 5+00. The applicant should confirm that the previously approved waiver for York Road roadway width applies to the current design also.
- u. **New CLD Comment:** The width of the York Road cul-de-sac (turn around portion) should be noted on the plan set.
- v. **New CLD Comment:** The applicant should clearly show in the typical sections that the maximum slope across the driveway in an area with sidewalk is 2 percent (versus the 3 percent shown in the typical).
- w. **New CLD Comment:** The applicant should add the maximum cross slope requirements for the sidewalk to the Slope Granite Curb & Sidewalk Detail. Also, the applicant should clarify the length of proposed granite curb. The +/- should be replaced with "min." to match the other typical details.

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

- j. **New CLD Comment:** The applicant has proposed overlapping well radii on the plans for several lots. NHDES Env-Wq 1008-10 provides guidance as to the securing of release forms from property owners whose well radii cannot be located within individual properties. We recommend the completion of these forms for all such properties.
- k. **New CLD Comment:** The applicant has shown protective well radii within the proposed right-of-way for lots #4 and #5. If the right-of-way and road maintenance responsibilities are ever intended to be turned over to the Town, either the wells should be relocated such that the protective radius is outside the right-of-way or documents should be developed indemnifying the Town from any future contamination due to deicing or any other maintenance practices.



Mr. John Cashell
CLD Reference No. 03-0249.1370
July 28, 2015
Page - 3

- l. **New CLD Comment:** The applicant has added fire cisterns to the plans along with details for their construction. Plan details should indicate the intent for ownership of the cisterns once the project is complete.
- m. **New CLD Comment:** The proposed cistern on Rolling Woods Drive is located over 500 feet from lots 8 and 9. The applicant should confirm with the Hudson Fire Department that this spacing is acceptable.
- n. **New CLD Comment:** HR 289-26.B.4. The applicant has not noted the intent to acquire the required permit and Certificate of Approval from the Board of Health of the Town of Hudson and from the State of New Hampshire for the proposed on-lot utilities. Additionally, a typical well installation detail was not provided.
- o. **New CLD Comment:** Locations of test pits and perc tests have changed since the last submittal. The applicant should explain why the documented locations of these existing features have been modified.

8. Other

- c. **New CLD Comment:** Zoning Ordinance (ZO) 334-51.B. The applicant has proposed a lot abutting an existing road.
- d. **New CLD Comment:** ZO 334-52. The applicant did not provide evidence that the Town has approved the 50% reduction in property setbacks.

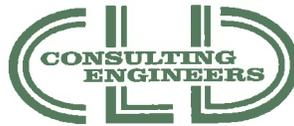
The following items require Town input:

3. Roadway Design

- k. *Former CLD Comments: HR 289-28.G. The applicant has not proposed sidewalks on York Road./The applicant has noted a waiver form is attached to the submittal; however, we were unable to find this request in our package received for review. We did not see a 289-28.G. waiver approval as part of the July 9 draft decisions memo.*

Current CLD Comment: The applicant has noted that a waiver has been requested for the new subdivision application and also noted that a waiver was requested and granted on the previous project.

- l. *Former CLD Comments: HR 289-28.C. Attachment 3:1. The applicant has proposed typical cross-sections that conflict with the Town standard section, by increasing the sidewalk width, decreasing the width of the landscape strip and increasing the pavement thickness. As noted above, the applicant has not proposed sidewalk or curbing and has proposed a more narrow road for York Road./The applicant revised the sidewalk and grass panel on the cross section for Rolling Woods Drive to conform to the Regulations. The applicant has received a waiver from 289-18 standards on July 9, 2014.*



Mr. John Cashell
CLD Reference No. 03-0249.1370
July 28, 2015
Page - 4

Current CLD Comment: The applicant has noted that a waiver has been requested for the new subdivision application and also noted that a waiver was requested and granted on the previous project.

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

- g. *Former CLD Comments: The applicant has proposed two rain gardens that are not protected or provided access via easements./The applicant has added additional rain gardens and has noted that the deed will require the homeowner to do upkeep/maintenance the rain gardens. We recommend that the Town consider requesting the applicant add notes to the plan linking maintenance responsibilities to the approved subdivision plan. The Town should also review other legal mechanisms that may be of use to help ensure maintenance of these (once two, now six) areas.*

Current CLD Comment: The applicant has added a note stating that the owners of lots 9, 10, 11, 12, 13 and 14 shall maintain the rain garden on their property in accordance with the agreement stated in the deed for each respective lot. A copy of a draft deed with this language was not included in CLD's review submission.

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

- i. *The applicant has not proposed street lighting for the subdivision.*

7. State and Local Permits

- b. *Former CLD Comment: The applicant has noted the need for a New Hampshire Department of Environmental Services (NHDES) Subdivision Permit, NHDES Alteration of Terrain (AoT) Permit, a Hudson Zoning Board of Adjustment Wetlands Special Exception Permit and Town-issued Driveway Permits on the plans.*

Current CLD Comment: The applicant has noted on the plan set that the NHDES Alteration of Terrain and Hudson Zoning Board of Adjustment Wetlands Special Exception Permit have been approved. Since the plans have changed since the AOT approval being issued in August of 2014, the applicant should comment on the need (or no need) to acquire an AOT Permit Amendment. (The other permits remain pending.)

- e. *Former CLD Comments: The applicant should note the need for a proposed wetlands permit as it appears drainage and roadway work are proposed within the wetland/wetlands buffer./The applicant stated that "There are no wetland impacts with the project. A wetlands special exception has been granted for work within the buffer." A copy of the exception was not provided in our package received for review. Since the approved area differs from the area currently required, the Town should confirm that they are satisfied that the prior approved location falls within the current disturbed areas.*



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Current CLD Comment: The applicant has noted that the areas of buffer impact are within the areas approved under the wetland special exception and result in an area of disturbance that is less than approved.

- f. *Additional local permitting may be required.*

8. Other

- a. *Former CLD Comment: The Town should confirm that given the existing and proposed encumbrances on Lot 17, there is adequate true buildable area remaining/ The applicant has redesigned Lot 17 to meet the Open Space Development requirements. The applicant should review the updated Lot Area Table because we note that several line items do not show the on-parcel easement areas. (Lots 9, 10 and Open Space Area A).*

Current CLD Comment: The applicant has revised the lot table on sheet 1 of 25 to depict a 16 lot subdivision and noted that the proposed easement areas are not factored into the calculation.

The following items have been resolved or have no further CLD input:

1. Subdivision Review Codes

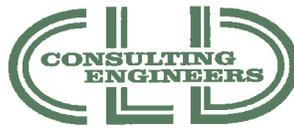
- a. *Hudson Regulations (HR) 289-15 & 289-20.A. The applicant has noted that the proposed subdivision is not located within the 100-year flood zone.*
- b. *Former CLD Comment: HR 289-26.B.(5) The applicant has not provided the grades and profiles of existing and proposed streets within 200 feet of the parcel/ The applicant has not provided grade/profile information for the existing section of York Road. We also note that the applicant has not provided grades for all existing streets within 200 feet of the parcel. The applicant has shown the existing road profile for Bockes Road on the sight distance plan sheet.*

Current CLD Comment: The applicant has providing grading for all existing streets within 200 feet of the parcel. No further CLD comment.

- c. *Former CLD Comments: HR 289-27.B.(10) The applicant has provided a location plan at a scale of 1" = 1,000' +/- . The Town should confirm that the scale is close enough to fulfill the intent of ability to overlay on Town Mapping. The applicant has also not shown major utility lines or external property lines on the location plan./The applicant has revised the scale of the location plan and has shown major utility lines or external property lines on the plan. No further CLD comment.*

2. Driveway Review Codes (HR 193-10)

- *Former CLD Comments: HR 193-10.E. and HR 289-18.E. The applicant has not provided any sight distance information on the plan set for the proposed road*



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intersection or driveways./The applicant has provided sight distance information for the proposed road. No further CLD comment.

3. Roadway Design

- a. *Former CLD Comments: HR 289-18.B. The applicant requested waivers from having to meet road standard for York Road. Documentation from the Road Agent indicates that he is in support of adding a cul-de-sac improvement to the existing dead end road. The applicant should clearly show the intended road widths in plan view./The applicant has labeled the widths for both proposed roads and a waiver was granted from Road Standard on York Road on July 9, 2014. (Although as noted above, we suggest that the road width within the turnaround area be shown on the plan.)*
- b. *Former CLD Comments: HR 289-18.C.(1) The applicant has proposed a 145 foot radius at the approach to the cul-de-sac on York Road./The applicant had revised the approach to the cul-de-sac to meet the required 150 foot minimum radius. No further CLD comment.*
- c. *Former CLD Comments: HR 289-18.C.(2) The applicant has requested a waiver from having to meet "Road Standards" on York Road; however, the applicant has also proposed K values less than the required 40 sag and 30 crest minimums on Rolling Woods Drive./The applicant has revised the roadway grades; however, the modification proposes a K value less than the required 40 sag on Rolling Woods Drive. A waiver from the K value requirement was granted on July 9, 2014. No further CLD comment.*
- d. *Former CLD Comments: HR 289-18.D. The applicant has proposed 3:1 side slopes within York Road's right-of-way./The applicant has revised the plans such that any 3:1 slopes are outside the right-of-way. The applicant requested waivers from having to meet road standard for York Road. (The applicant should confirm that all areas with greater than 4:1 downslopes have been evaluated for guardrail warrants and that no guardrail is warranted.)*

Current CLD Comment: The applicant has provided an evaluation of Clear Zone distances for guardrail warrants and concluded that the proposed project does not have any critical foreslopes within the clear zone nor slopes greater than 3:1. No further CLD comment.

- e. *The applicant has proposed a street grade of 7% for Rolling Woods Drive.*
- f. *Former CLD Comments: HR 289-18.O. The applicant has provided street sign details but we were unable to find the locations of the proposed Street Name or R2-1 signs on the plan set./The applicant has provided a location for the proposed Street Name and R2-1 signs on the plans. No further CLD comment.*

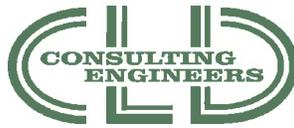


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- g. *Former CLD Comments: HR 289-18.R.(1) The applicant has requested, noted on the plan set, waiver requests from having to meet the Road Standards on York Road./The Town granted a waiver from this requirement on July 9, 2014. No further CLD comment.*
- h. *Former CLD Comments: HR 289-18.Y. The applicant has provided a slope of two-percent at the street intersection for less than 100 feet./The applicant has modified the grade of Rolling Wood Drive to provide a conforming two-percent slope for 100 feet at the street intersection. No further CLD comment.*
- i. *Former CLD Comments: HR 289-27.B.(7) The applicant has provided two temporary benchmarks on the plans. The applicant should provide a detail for the proposed bounds and pins to be set along the right-of-way and at the corner of each lot./The applicant notes they have modified the legend to detail the proposed bounds and pins to be set along the right-of-way and at the corner of each lot. We were unable to find a detail outlining dimensions of bounds and pins to be set.*

Current CLD Comment: The applicant has added a note to the plan set detailing the specifications for bounds and pins to be set. No further CLD comment.

- j. *Former CLD Comments: HR 289-28.F. The applicant has not proposed any granite curbing on the York Road cul-de-sac. The applicant should also show how the curbing is intended to transition to Bockes Road from Rolling Woods Drive./The applicant has noted where the granite curb on Rolling Wood Drive is proposed to stop and has added a detail to the plans depicting the transition. No further CLD comment.*
- m. *Former CLD Comments: The applicant should clarify the intent for the sidewalk design on Rolling Woods Drive to stop before reaching Bockes Road. The cross sections appear to show the intent for sidewalk to extend to Bockes Road, but the plan shows sidewalk ending in the middle of Lot 1./The applicant has modified the sidewalk design to extend to the Bockes Road right-of-way line. No further CLD comment.*
- o. *Former CLD Comments: The applicant should provide centerline geometry for both roads and additional curblines layout detail for the Rolling Woods cul-de-sac./The applicant has added centerline geometry. No further CLD comment.*
- p. *Former CLD Comments: The applicant should clarify the limits of the existing right-of-way on the north side of York Road within the limits of the new road. We are unable to tell if the limit depicted exists, or whether there is any remaining leftover land adjacent to Map 135, Lot 17. Boundary information was provided, but the right-of-way line is depicted in bold, tending to imply a newly created line./The applicant has more clearly depicted the right-of-way on the north side of York Road within the limits of the new road. No further CLD comment.*
- q. *Former CLD Comments: The applicant should update the cross sections to match the road plan view (e.g. Sta. 10+00)./ The applicant has noted that Sta 10+10 has been*



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*removed from the plans because of its location at the edge of pavement on Bockes Road.
No further CLD comment.*

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

- a. *Former CLD Comments: HR 290-4.A.(10) The Stormwater Management calculations illustrate a 19% increase in Post-Development peak rate of runoff, for the entire watershed analyzed, and individual sub catchment increases as high as 150% (Analysis Point G), as compared to the Pre-Development conditions. The applicant should provide additional information for these increases or revised calculations as it does not meet the requirements outlined in the Regulation./The applicant has provided a revised drainage report that demonstrates reduced flow at all analysis points in all storms analyzed. The applicant has shown a slight increase of 0.02 in the 2 year storm event; however, typical engineering standard is to round up or down, and this point rounding down shows a 0.0 increase. No further CLD comment.*
- b. *Former CLD Comment: HR 290-5.A.(8) The applicant provided Stormwater Management calculations that do not account for frozen ground conditions. The applicant should provide calculations that demonstrate how the stormwater management system will function under frozen ground conditions/ The applicant provided supplemental drainage calculations that they note demonstrates that the stormwater management system functions under frozen ground conditions; however, the provided data for Antecedent Moisture Conditions (AMC) is unchanged from the Pre- to Post-development calculations provided within the Stormwater Management Report. We note the Pre- development conditions for Subcatchment 30 is 1.95% impervious. Runoff in the Stormwater Management Report is 0.80 cfs as well as in the "frozen conditions" summary provided with the comment reply letter. One would assume that on a 350,000 sf area with less than 2% impervious area that the runoff would increase when the CN value is changed from 59 up to 98, such as when the AMC is increased to a value of 4 within the HydroCAD program. The applicant should review the AMC value to ensure it is at a value of 4 within both the Pre- and Post-development conditions.*

Current CLD Comment: The applicant has provided Antecedent Moisture Conditions (AMC) equal to 4 for pre and post 2-year condition, meeting Town requirements; there is a decrease at all analysis points between pre and post conditions during this "Frozen Ground" analysis. No further CLD comment.

- c. *Former CLD Comments: The applicant should coordinate the Rip Rap Outlet Protection Apron calculations within the Stormwater Management Report with the Detail on Sheet 15.The applicant has coordinated the Rip Rap Outlet Protection Apron calculations within the Stormwater Management Report with the Detail on Sheet 15. No further CLD comment.*



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- d. *Former CLD Comments: The applicant should coordinate the Proposed Weir widths on Sheet 13 of the plan set with the calculations provided within the Stormwater Management Report. (0.5" vs 0.5')./The applicant has removed the weirs from the project. No further CLD comment.*
- e. *Former CLD Comments: The applicant should coordinate the Proposed Outlet Structure A on Sheet 16 of the plan set with the calculations provided within the Stormwater Management Report for Stormwater Basin A. The calculations specify a 4'x4' Orifice, while the plans specify a 24" Nyloplast basin./The applicant has coordinated the calculations and detail on sheet 19. No further CLD comment.*
- f. *Former CLD Comments: The applicant has shown the proposed leach field reserve area for Lot 10 within 35 feet of a drain manhole and within 25 feet of a pipe./The applicant has relocated the leach field reserve area to comply with required setbacks. No further CLD comment.*

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

- a. *Former CLD Comments: HR 289-19.The applicant has shown underground utilities directly under a hydrant./The applicant has revised the hydrant location. No further CLD comment.*
- b. *Former CLD Comment: HR 289-19.B. The applicant has not provided information from the governmental agency or public utility companies indicating their acceptance of the proposed design and agreement to furnish the public service or services/ The applicant has noted that coordination with utilities is ongoing and that the plan proposes to extend the Hudson Water Utility main to the proposed development.*

Current CLD Comment: The applicant has noted in the comment response letter that the Town did not grant a water main extension so that municipal water could be provided to the development. The applicant has revised the plans to show private wells at each lot instead of municipal water. No further CLD comment.

- c. *Former CLD Comments: HR 289-21.A. The applicant has proposed a drainage easement that is not at least 20 feet wide. Additionally, the pipe should be located in the center of the easements. The drain pipe proposed on Lot 17 is not shown in the center of the easement, in fact, it is shown less than five feet from the adjacent property line with two abutters. No temporary construction easements are shown. Whether this pipe is intended to be public or provide, adequate easement area should be provided such that installation and any future repairs can be performed without impacting abutters. We also note that the proposed easement between Lots 9 and 10 does not extend ten feet past the proposed water line. We recommend that the easement width be expanded to allow ten feet beyond the water line./The applicant has revised and relocated the easement to conform to the regulations. No further CLD comment.*



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- d. *Former CLD Comment: HR 289-21.B. The applicant has proposed drainage easements within the wetlands in Open Space A and on Lot 17/ The applicant has modified the plans such that Lot 17 no longer incorporates a drainage easement or wetlands; however, Open Space A still shows a drainage easement within existing wetland limits.*

Current CLD Comment: The applicant has relocated the proposed drainage easement outside of the subject wetland. No further CLD comment.

- e. *Former CLD Comment: HR 289-26.B.(4) The applicant has shown a proposed water line in Rolling Woods Drive; however, the applicant has not indicated the size of the waterline to be connected to the future 8 inch main proposed for Bockes Road. In addition, the applicant should clarify on the Plan Set, the specific limits of water line construction intended for this project/ The applicant has revised the plans to show a 6 inch main in Rolling Woods Drive connecting to an 8 inch future main in Bockes Road. It is still unclear when the 8 inch main in Bockes Road will be installed in relation to the proposed project. The applicant should provide flow calculations demonstrating that the 6 inch pipe is adequate.*

Current CLD Comment: The applicant has revised the water supply design from municipal water to private wells. No further CLD comment.

- f. *HR 289-27.B.(4) and HR 289-27.B.(5) The applicant has proposed septic areas and has provided a typical septic system design; however, a septic review was not performed as part of this review.*

- g. *Former CLD Comments: Env-Wq 1005.02 and 1005.03, Table 1005-1. The applicant has proposed lots that based on soil types provided do not meet the NHDES minimum lot size criteria for a single family residence for a subdivision./The applicant has noted the intent to comply with Env. Wq 1005.05 for open space subdivision using onsite septic and municipal water. Lot sizes conform to that Regulation. No further CLD comment.*

- h. *Former CLD Comment: Prior to construction of either the Rolling Woods Drive or the York Road water lines, the details provided should be linked to the plan view. Also, capacity calculations should be provided to the Town to verify that a 2 inch service is appropriate for a cross-country connection to the three parcels off York Road/ The applicant has revised the plans to show the connection to the water system via an 8 inch and 6 inch main; however, no detail or indication has been shown on how the main in Bockes Road is to connect to Hudson's water main system.*

Current CLD Comment: The applicant has revised the water supply design from municipal water to private wells. No further CLD comment.



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6. Erosion Control/Wetland Impacts

- a. *Former CLD Comments: HR 290-5.B.(1)(n) The applicant should identify any stockpile locations on-site on the plan and provide specific erosion control measures for the stockpile(s)./The applicant has shown a temporary staging and stockpile location and has provided erosion control on the roadway plan. No further CLD comment.*
- b. *Former CLD Comments: The applicant has proposed silt soxx nearly perpendicular to contour lines on some of the 3:1 slopes. We recommend that the plan be modified to avoid this practice. Use of fence in this fashion tends to concentrate flow and often causes excess rilling./The applicant has revised the plans to address the potential rilling concern. No further CLD comment.*
- c. *Former CLD Comment: The Town should reserve the right to require additional erosion control during construction, if needed.*

Current CLD Comment: The applicant has noted that this right is reserved in note #11 on plan sheet #20. No further CLD comment.

7. State and Local Permits

- a. *Former CLD Comments: HR 290-9.B. The applicant should note the need for a Stormwater Pollution Prevention Plan and filing a Notice of Intent in accordance with the NPDES General Construction Permit./The applicant has added the note to the plans. No further CLD comment.*
- c. *Former CLD Comments: The applicant should note the need for NHDES Individual Subsurface Septic Disposal System Approvals./The applicant has noted the need for NHDES Individual Subsurface Septic Disposal System Approval on the plan set. No further CLD comment.*
- d. *Former/Current CLD Comment: If the applicant intends to construct the water line as part of the current project, coordination with NHDES should occur to verify all permit requirements.*

Current CLD Comment: The applicant has revised the water supply design from municipal water to private wells. No further CLD comment.

8. Other

- b. *Former CLD Comment: The applicant should update the Lot Sizing table to correct a typographical error.*

Current CLD Comment: The applicant has corrected the error. No further CLD comment.



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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 • www.cldengineers.com
New Hampshire • Vermont • Maine

TO: File

FROM: Steven W. Reichert, P.E.

Handwritten initials 'SWR' inside a hand-drawn circle.

DATE: July 28, 2015

RE: Town of Hudson Planning Board Review
Rolling Woods Subdivision, 4 Bockes Road
Tax Map 144, Lot 21, PO #1350-840
CLD Reference No. 03-0249.1370

The following list itemizes the third set of documents reviewed related to the current Rolling Woods Subdivision review comments.

- Various emails between the Town of Hudson and CLD, between July 15, 2015 and July 23, 2015.
- Copy of Letter of Transmittal from Keach-Nordstrom Associates, Inc. (KNA), to CLD Consulting Engineers, Inc. (CLD), dated and received July 14, 2015, including the following:
 1. Copy of response *Letter* from KNA to the Town of Hudson, dated July 14, 2014.
 2. Copy of *Subdivision Plan Application for Plan Review*, prepared by KNA, dated June 18, 2015.
 3. Copy of *Subdivision/Site Plan Waiver Request Form*, prepared by KNA, not dated.
 4. Copy of *Traffic Impact Assessment – Proposed Residential Subdivision, Hudson, New Hampshire*, prepared by Stephen G. Pernaw & Company, Inc., dated May 2014.
 5. Copy of *Stormwater Management Report*, prepared by KNA, dated July 9, 2015, including:
 - a. *Pre Development Plan*, Sheet 1 of 3, revision 3 dated July 14, 2015.
 - b. *Post Development Plan – Rolling Hills*, Sheet 2 of 3, revision 3 dated July 14, 2015.
 - c. *Post Development Plan – York Road*, Sheet 3 of 3, revision 3 dated July 14, 2015.
 6. Copy of *Residential Subdivision, Rolling Woods, Bockes and York Road, Hudson, NH* Plan Set, prepared by KNA, dated May 23, 2014, last revised July 10, 2015, unless otherwise noted, including the following:
 - a. Cover Sheet.
 - b. *Master Subdivision Plan*, Sheet 1 of 27.
 - c. *Subdivision Plan – Rolling Woods Drive*, Sheet 2 of 27.
 - d. *Subdivision Plan – York Road*, Sheet 3 of 27.
 - e. *Easement Plan*, Sheets 4 and 5 of 27.
 - f. *Topographic Subdivision Plan – Rolling Woods Drive*, Sheet 6 of 27.
 - g. *Topographic Subdivision Plan – York Road*, Sheet 7 of 27.

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- h. *Roadway Plan (Rolling Woods Drive)*, Sheet 8 of 27.
- i. *Roadway Profile (Rolling Woods Drive)*, Sheet 9 of 27.
- j. *Roadway Plan & Profile (York Road)*, Sheet 10 of 27.
- k. *Sight Distance Plan & Profile*, Sheet 11 of 27.
- l. *Roadway Cross-Sections, Rolling Woods Drive*, Sheets 12 through 14 of 27.
- m. *Roadway Cross-Sections, York Road*, Sheet 15 of 27.
- n. *Stormwater Basin Details*, Sheet 16 of 27.
- o. *Construction Details*, Sheets 17 through 23 of 27.
- p. *Test Pit Logs*, Sheet 24 of 27.
- q. *Conventional Subdivision Yield Plan*, Sheets 25 and 26 of 27.
- r. *Landscape Plan*, Sheet 27 of 27.

SWR:mjt

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

July 30, 2015

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



Re: Rolling Woods Subdivision, 4 Bockes Road
Tax Map 144, Lot 21
PO# 1350-840
KNA# 13-0702-1

Dear Mr. Cashell,

Enclosed, please find revised plans for the above referenced project. Enclosed with this letter are the following items for your use:

1. Two (3) sets of full size revised project plans;
2. Seventeen (17) sets of reduced size revised project plans, and
3. A CD containing pdf files of the above referenced material (including this letter).

Our office received peer review comments prepared by Heidi J. Marshall, P.E. of CLD Consulting Engineers, Inc. dated July 28, 2015. Ms. Marshall's letter serves to outline the context of her review of the subdivision plan prepared by this office relative to compliance with the Hudson Subdivision Plan Review Codes, Stormwater Codes, and Driveway Review Codes. We have provided a brief summary of our efforts to address each of her concerns as noted. Our response is in ***bold italic*** following each of her comments.

3. Roadway Design

- n. *Former CLD Comments: The applicant should review the typical section as it relates to drainage and sidewalk coordination as the sidewalk is currently designed, no swale has been provided between the toe of slope and sidewalk. This design causes water to run across the sidewalk creating several maintenance challenges. The applicant has provided a response, but we are unable to tell how the response directly relates to eliminating water from running across the future sidewalk.*

Current CLD Comment: The applicant has noted that they are not opposed to specifying tow drains in certain locations, and note that the toe drain might not be warranted in all cut locations, especially until individual lot development has occurred. The applicant has further noted their willingness to work with the Town regarding this matter. We recommend adding a note to the plan set stating that the grading of each lot be evaluated prior to sidewalk construction to determine if toe drains are warranted. Toe

drains outside the right-of-way should also be considered for slope and/or drainage easements such that the swales would not be filled by property owners at a later date.

Note #2 was added to plan sheet 10 to reflect what was recommended above.

- r. **New CLD Comment:** The applicant has added boulders for the protection of utility poles along York Road. Since these are proposed within the right-of-way, the applicant should comment on the crash worthiness and potential safety implications to the traveling public. If the applicant determines that they are not a hazard, and boulders remain, they should be shown on the cross sections.

The boulders have been relocated to a minimum of 7' off the edge of travel way to meet the minimum required clear zone distance according to AASHTO. The cross sections and detail have been updated to show the boulder placement and setback distance.

- s. **New CLD Comment:** The applicant has added a note stating that PSNH easement access aprons are to be installed in accordance with PSNH Construction Standards on both sides of York Road. No other information or details were provided for these aprons.

The aforementioned note has been revised to indicate that the proposed PSNH apron meet the Town of Hudson driveway standards. The Hudson driveway detail is found on sheet 17.

- t. **New CLD Comment:** HR 289-18.B.1. The applicant has revised the roadway width from 24' to 22' for the proposed York Road extension between stations 0+00 and 5+00. The applicant should confirm that the previously approved waiver for York Road roadway width applies to the current design also.

A new waiver has been requested for the proposed design of York Road. This waiver will be voted on at the upcoming planning board meeting.

- u. **New CLD Comment:** The width of the York Road cul-de-sac (turn around portion) should be noted on the plan set.

The width of the York Road cul-de-sac has been added to the plan.

- v. **New CLD Comment:** The applicant should clearly show in the typical sections that the maximum slope across the driveway in an area with sidewalk is 2 percent (versus the 3 percent shown in the typical).

Revised as requested.

- w. **New CLD Comment:** The applicant should add the maximum cross slope requirements for the sidewalk to the Slope Granite Curb & Sidewalk Detail. Also, the applicant should clarify the length of proposed granite curb. The +/- should be replaced with "min." to match the other typical details.

Revised as requested.

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

- j. **New CLD Comment:** The applicant has proposed overlapping well radii on the plans for several lots. NHDES Env-Wq 1008-10 provides guidance as to the securing of release forms from property owners whose well radii cannot be located with individual properties.

According to the state subdivision regulations, a protective well radius functions for the sole reason to prevent any septic system from encroaching within the specified setback distance. NHDES Env-Wq 1008.06 (c) states that a protective well radius that is fully recognized or which is accorded full recognition by these rules means that the radius shall not be reduced or encroached upon by any septic system component on an abutting lot. The state does not allow a septic system to be 10' from any property line, therefore allowing protective well radii to overlap property lines and other radii a maximum of 10'. The proposed wells and protective well radii have been reviewed by the state and approved on July 21, 2015 as approval number eSA2015072103. Also, we have reviewed the Town of Hudson regulations and found that the regulations are similar to DES regulations and state that "each water system shall be at least 75 feet from any portion of a septic tank or drainage field". With the approval of the subdivision and locations of well radii by NHDES, we feel we comply with the state and Town of Hudson regulations, as it pertains to providing the required well radius and do not need to provide a release form.

- k. **New CLD Comment:** The applicant has shown protective well radii within the proposed right-of-way for lots #4 and #5. If the right-of-way and road maintenance responsibilities are ever intended to be turned over to the Town, either the wells should be relocated such that the protective radius is outside the right-of-way or documents should be developed indemnifying the Town from any future contamination due to deicing or any other maintenance practices.

If the Town of Hudson wishes to issue documents that indemnify the Town from contamination, the developer (applicant) is willing to participate in such agreement. It should be noted that the reason for the protective well radius is to prevent any septic system from encroaching within the specified setback distance. Since a septic system cannot be placed within 10' of a property line, nor within a right-of-way, the intent of the protective well radius has been achieved. Per Env-Wq 1008.07 (a), permitted uses within a protective well radius include commercial parking areas which commonly see deicing and other maintenance practices similar to that of a roadway. We have also reviewed the Town of Hudson regulations and found that the regulations are similar to the states as "each water system shall be at least 75 feet from any portion of a septic tank or drainage field" which as proposed, the plan is compliant with both state and town regulations. To summarize, the protective well radius is for exclusion of septic systems and related components, not for deicing compounds. We do not feel indemnification is necessary but are willing to work with the Town.

1. **New CLD Comment:** The applicant has added fire cisterns to the plans along with details for their construction. Plan details should indicate the intent for ownership of the cisterns once the project is complete.

Note #3 has been added to sheets 8 & 10 that indicates the Town of Hudson as the owner once the project is complete.

- m. **New CLD Comment:** The proposed cistern on Rolling Woods Drive is located over 500 feet from lots 8 and 9. The applicant should confirm with the Hudson Fire Department that this spacing is acceptable.

The proposed spacing and location of the cisterns were selected by the Hudson Fire Department.

- n. **New CLD Comment:** HR 289-26.B.4. The applicant has not noted the intent to acquire the required permit and Certificate of Approval from the Board of Health of the Town of Hudson and from the State of New Hampshire for the proposed on-lot utilities. Additionally, a typical well installation detail was not provided.

Note #29 has been added to sheet #1 and a well detail was previously provided on sheet 21.

- o. **New CLD Comment:** Locations of test pits and perc tests have changed since the last submittal. The applicant should explain why the documented locations of these existing features have been modified.

Over the duration of the executed test pit and the preparation of six plan revisions, the test pit locations have slightly moved accidentally. The test pit and percolation test locations have been restored to original location

8. Other

- c. **New CLD Comment:** Zoning Ordinance (ZO) 334-51.B. The applicant has proposed a lot abutting an existing road.

Open space 'C' has been added to the plan set to provide a buffer between the proposed lot and the existing roadway. Proposed Lot 1 is now in compliant with the Town of Hudson Zoning Ordinance.

- d. **New CLD Comment:** ZO 334-52. The applicant did not provide evidence that the Town has approved the 50% reduction in property setbacks.

The plan is before the Planning Board and is pending approval. If the plan is approved by the Planning Board, the setbacks that are proposed will be approved also.

The following items require Town input:

Civil Engineering

Land Surveying

Landscape Architecture

3. Roadway Design

- k. *Former CLD Comments: HR 289-28.G. The applicant has not proposed sidewalks on York Road. The applicant has noted a waiver form is attached to the submittal; however, we were unable to find this request in our package received for review. We did not see a 280-28.G. waiver approval as part of the July 9 draft decisions memo.*

Current CLD Comment: The applicant has noted that a waiver has been requested for the new subdivision application and also noted that a waiver was requested and granted on the previous project.

No response required.

1. *Former CLD Comments: HR 289-28.C. Attachment 3:1. The applicant has proposed typical cross-sections that conflict with the Town standard section, by increasing the sidewalk width, decreasing the width of the landscape strip and increasing the pavement thickness. As noted above, the applicant has not proposed sidewalk or curbing and has proposed a more narrow road for York Road. The applicant revised the sidewalk and grass panel on the cross section for Rolling Woods Drive to conform to the Regulations. The applicant has received a waiver from 289-18 standards on July 9, 2014.*

Current CLD Comment: The applicant has noted that a waiver has been requested for the new subdivision application and also noted that a waiver was requested and granted on the previous project.

No response required.

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

- g. *Former CLD Comments: The applicant has proposed two rain gardens that are not protected or provided access via easements. The applicant has added additional rain gardens and has noted that the deed will require the homeowner to do upkeep/maintenance the rain gardens. We recommend that the Town consider requesting the applicant add notes to the plan linking maintenance responsibilities to the approved subdivision plan. The Town should also review other legal mechanisms that may be of use to help ensure maintenance of these (once two, now six) areas.*

Current CLD Comment: The applicant has added a note stating that the owners of lots 9, 10, 11, 12, 13 and 14 shall maintain the rain garden on their property in accordance with the agreement stated in the deed for each respective lot. A copy of a draft deed with this language was not included in CLD's review submission.

No response required.

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

- i. The applicant has not proposed street lighting for the subdivision.

We have reviewed the Town of Hudson regulations and have not found any reference to the need for street lighting on a subdivision. It is our understanding that the Town does not desire nor require street lighting.

7. State and Local Permits

- b. *Former CLD Comment: The applicant has noted the need for a New Hampshire Department of Environmental Services (NHDES) Subdivision Permit, NHDES Alteration of Terrain (AoT) Permit, a Hudson Zoning Board of Adjustment Wetlands Special Exception Permit and Town-issued Driveway Permits on the plans.*

Current CLD Comment: The applicant has noted on the plan set that the NHDES Alteration of Terrain and Hudson Zoning Board of Adjustment Wetlands Special Exception Permit have been approved. Since the plans have changed since the AoT approval being issued in August of 2014, the applicant should comment on the need (or no need) to acquire an AoT Permit Amendment. (The other permits remain pending.)

According to the NHDES Alteration of Terrain regulations, we have not deviated from the approved plans enough to require an amendment. Please refer to Env-Wq 1503.22 (c) for a full list of criteria.

- e. *Former CLD Comments: The applicant should note the need for a proposed wetlands permit as it appears drainage and roadway work are proposed within the wetland/wetlands buffer. The applicant stated that "There are no wetland impacts with the project. A wetlands special exception has been granted for work within the buffer." A copy of the exception was not provided in our package received for review. Since the approved area differs from the area currently required, the Town should confirm that they are satisfied that the prior approved location falls within the current disturbed areas.*

Current CLD Comment: The applicant has noted that the areas of buffer impact are within the areas approved under the wetland special exception and result in an area of disturbance that is less than approved.

No response required.

- f. Additional local permitting may be required.

8. Other

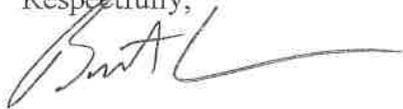
- a. *Former CLD Comment: The Town should confirm that given the existing and proposed encumbrances on Lot 17, there is adequate true buildable area remaining. The applicant has redesigned Lot 17 to meet the Open Space Development requirements. The applicant should review the updated Lot Area Table because we note that several line items do not show the on-parcel easement areas. (Lots 9, 10 and Open Space Area A.).*

Current CLD Comment: The applicant has revised the lot table on Sheet 1 of 25 to depict a 16 lot subdivision and noted that the proposed easement areas are not factored into the calculation.

No response required.

I trust the content of this letter and the attached plans will serve to address Ms. Marshall's concerns. Should you have any other questions, or require further information regarding the same, please do not hesitate to contact our office.

Respectfully,



Brenton Cole, P.E.
Project Engineer

C



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

Date of Application: 6/18/15 Tax Map # 144 Lot # 21

Name of Project: Rolling Woods Amended Residential Subdivision

Zoning District: _____ General SB# 06-15
(For Town Use) (For Town Use)

ZBA Action: Wetland Special Exception

PROPERTY OWNER: DEVELOPER:

Name: Stinson Hills, LLC LaMontagne Builders, Inc.

Address: 317 South River Road 317 South River Road

Address: Bedford, NH 03110 Bedf

Telephone # _____

Fax # _____

Email: _____

PROJECT ENGINEER

Name: Keach-Nordstrom Assoc., Inc. Telep _____

Address: 10 Commerce Park No., Suite 3 Fax # _____

Address: Bedford, NH 03110 Email: abasso@keach-nordstrom.com

PURPOSE OF PLAN:

The purpose of the plan is to depict a 16-Lot Open Space Subdivision and associated site improvements.

(FOR TOWN USE)

Plan Routing Date: 6-22-15 Sub/Site Date: _____

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

(Initials) Title: ROAD ACCENT Date: 6/23/15

DEPT:

Zoning Engineering Assessor Police Fire Planning

Consultant Highway Department

Fees Paid _____



The State of New Hampshire
Department of Environmental Services

Thomas S. Burack, Commissioner

General
ms
RECEIVED
JUL 21 2015
TOWN OF HUDSON
SELECTMEN'S OFFICE
ELVIS
Dh...

APPROVAL FOR SUBDIVISION OF LAND

AS AUTHORIZED BY THE NH DEPARTMENT OF ENVIRONMENTAL SERVICES, WATER DIVISION PURSUANT TO RSA 485-A, WATER POLLUTION AND WASTE DISPOSAL AND ENV-WQ 1000, SUBDIVISION AND INDIVIDUAL SEWAGE DISPOSAL SYSTEM DESIGN

SUBDIVISION APPROVAL DATE: 7/21/2015

APPROVAL NUMBER: eSA2015072103

I. PROJECT LOCATION

Subdivision Name: ROLLING WOODS
Address: 4 BOCKES ROAD
HUDSON NH 03051
Tax Map: 144
Parent Lot No.: 21
No. of Lots: 16
Lot Nos.: 1-16

II. OWNER INFORMATION

Name: STINSON HILLS LLC
Address: 317 S RIVER RD
BEDFORD NH 03110

III. APPLICANT INFORMATION

Name: KEACH-NORDSTROM ASSOCIATES INC
Address: 10 COMMERCE PK NORTH STE 3
BEDFORD NH 03110

IV. DESIGNER INFORMATION

Name: JAMES A NORDSTROM
Address: 15 VILLAGE CIRCLE WAY APT 8
MANCHESTER NH 03102
Permit No.: 01389

V. SURVEYOR INFORMATION

Name: ANTHONY M BASSO
Address: 10 SHORT ST
MERRIMACK NH 03054
Permit No.: 00903

IV. SPECIFIC TERMS AND CONDITIONS: Applicable to this Approval for Subdivision of Land

A. OTHER CONDITIONS AND WAIVERS:

1. Approved for (16) single family lots and remaining land non-buildable open space lots.
2. This approval is contingent upon the execution of the conservation restriction deed pursuant to RSA 477:3, acceptance of the conservation restriction pursuant to RSA 477:47 and the recording of said deed pursuant to RSA 477:3-a.

Darren K. King
Subsurface Systems Bureau

APPROVAL FOR SUBDIVISION OF LAND

V. GENERAL TERMS AND CONDITIONS: Applicable to this Approval for Subdivision of Land

- A. By exercising any rights under this approval, the parties have agreed to all terms and conditions.
- B. No liability is incurred by the State of New Hampshire by reason of any approval of any Approval for Subdivision of Land. Approval by the Department of Environmental Services of any subdivision of land is based on plans and specifications supplied by the Applicant.
- C. This Approval for Subdivision of Land does not supersede any equivalent or more stringent local ordinances or regulations. State standards are minimal and must be met statewide.

WORK NUMBER: 201502189

APPROVAL NUMBER: eSA2015072103

APPLICATION RECEIVED DATE: June 22, 2015



VICINITY PLAN
NOT TO SCALE



LOCATION PLAN
SCALE: 1"=1,000'

AMENDED RESIDENTIAL SUBDIVISION ROLLING WOODS MAP 144; LOT 21 BOCKES AND YORK ROAD HUDSON, NEW HAMPSHIRE

OWNER:
STINSON HILLS, LLC
317 SOUTH RIVER ROAD
BEDFORD, NEW HAMPSHIRE 03110

APPLICANT:
LAMONTAGNE BUILDERS, INC.
317 SOUTH RIVER ROAD
BEDFORD, NEW HAMPSHIRE 03110

PREPARED BY: (LAND CONSULTANT/SURVEYOR/ENGINEER/AGENT)
KEACH-NORDSTROM ASSOCIATES, INC.
10 COMMERCE PARK NORTH, SUITE 3B
BEDFORD, NEW HAMPSHIRE 03110
(603) 627-2861

WETLAND SCIENTIST:
SCHAUER ENVIRONMENTAL CONSULTANTS, LLC
138 CROSS BROOK ROAD
LOUDON, NEW HAMPSHIRE 03307

TRAFFIC ENGINEER:
STEPHEN G. PERNAW & COMPANY, INC.
P.O. BOX 1721
CONCORD, NEW HAMPSHIRE 03302



KMA KEACH-NORDSTROM ASSOCIATES, INC.
10 Commerce Park North, Suite 3B, Bedford, NH 03110
Tel: 603-627-2861 Fax: 603-627-2861

MAY 23, 2014

LAST REVISED: JUNE 15, 2015

PROJECT NO. 13-0702-1

SHEET TITLE

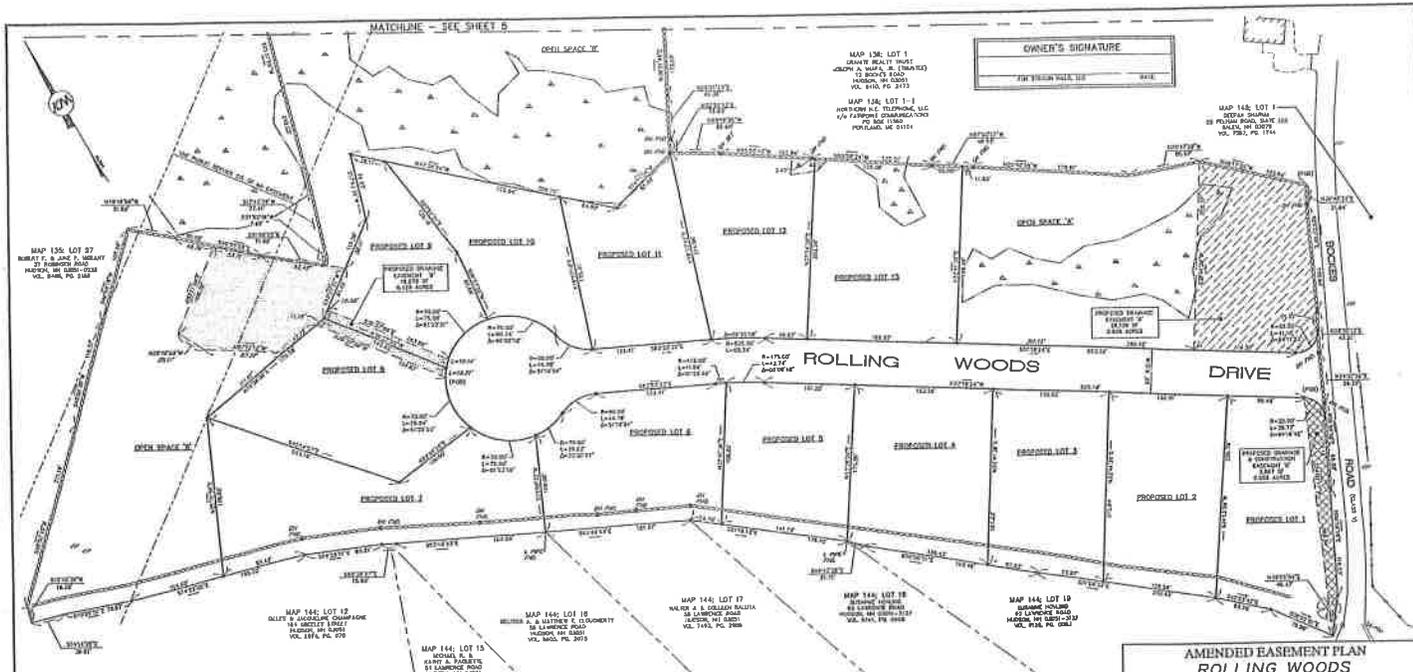
SHEET No.

AMENDED MASTER SUBDIVISION PLAN	1
AMENDED SUBDIVISION PLAN - ROLLING WOODS DRIVE	2
AMENDED SUBDIVISION PLAN - YORK ROAD	3
AMENDED EASEMENT PLAN	4 & 5
AMENDED TOPOGRAPHIC SUBDIVISION PLAN - ROLLING WOODS DRIVE	6
AMENDED TOPOGRAPHIC SUBDIVISION PLAN - YORK ROAD	7
AMENDED ROADWAY PLAN (ROLLING WOODS DRIVE)	8
AMENDED ROADWAY PROFILE (ROLLING WOODS DRIVE)	9
AMENDED ROADWAY PLAN AND PROFILE (YORK ROAD)	10
AMENDED SIGHT DISTANCE PLAN & PROFILE	11
AMENDED ROADWAY CROSS-SECTIONS (ROLLING WOODS DRIVE)	12 - 14
AMENDED ROADWAY CROSS-SECTIONS (YORK ROAD)	15
AMENDED STORMWATER BASIN DETAILS	16
AMENDED CONSTRUCTION DETAILS	17 - 21
TEST PIT LOGS	22
CONVENTIONAL SUBDIVISION YIELD PLAN	23 & 24
AMENDED LANDSCAPE PLAN	25



COMPUTER GENERATED USING MICROSTATION





OWNER'S SIGNATURE

MAP 136, LOT 1
JOHN A. WALKER, JR. (OWNER)
12 ROCKY HILL ROAD
ROCKY HILL, CT 06112
VOL. 810, PG. 213

MAP 136, LOT 1-1
Hudson Hill, LLC
1/4 PARKWAY DRIVE
ROCKY HILL, CT 06112
VOL. 810, PG. 213

LEGAL DESCRIPTION
DRAINAGE EASEMENT
A CERTAIN DRAINAGE EASEMENT GRANTED BY DEED SPACE 'W' OF MAP 144, LOT 15, HUDSON, NEW HAMPSHIRE.

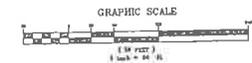
APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

LEGAL DESCRIPTION
DRAINAGE EASEMENT
A CERTAIN DRAINAGE EASEMENT GRANTED BY DEED SPACE 'W', PROPOSED LOT 8 AND PROPOSED LOT 9 OF MAP 144, LOT 15, HUDSON, NEW HAMPSHIRE.

LEGAL DESCRIPTION
DRAINAGE EASEMENT
A CERTAIN DRAINAGE EASEMENT GRANTED BY DEED SPACE 'W' OF MAP 144, LOT 15, HUDSON, NEW HAMPSHIRE.

LEGAL DESCRIPTION
DRAINAGE AND CONSTRUCTION EASEMENT
A CERTAIN DRAINAGE AND CONSTRUCTION EASEMENT GRANTED BY DEED SPACE 'W' OF MAP 144, LOT 15, HUDSON, NEW HAMPSHIRE.

SEE SHEET 5 FOR NOTES & LEGEND



AMENDED EASEMENT PLAN
ROLLING WOODS
LAND OF
MATARAZZO HUDSON ASSOCIATES, INC.

MAP 144, LOT 21
ROCKES ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

CITY OF RICHMOND
SPENCER HILLS, LLC
317 SOUTH PEARL ROAD
SEDFORD, NH 03101
DE. 0682, PG. 1079

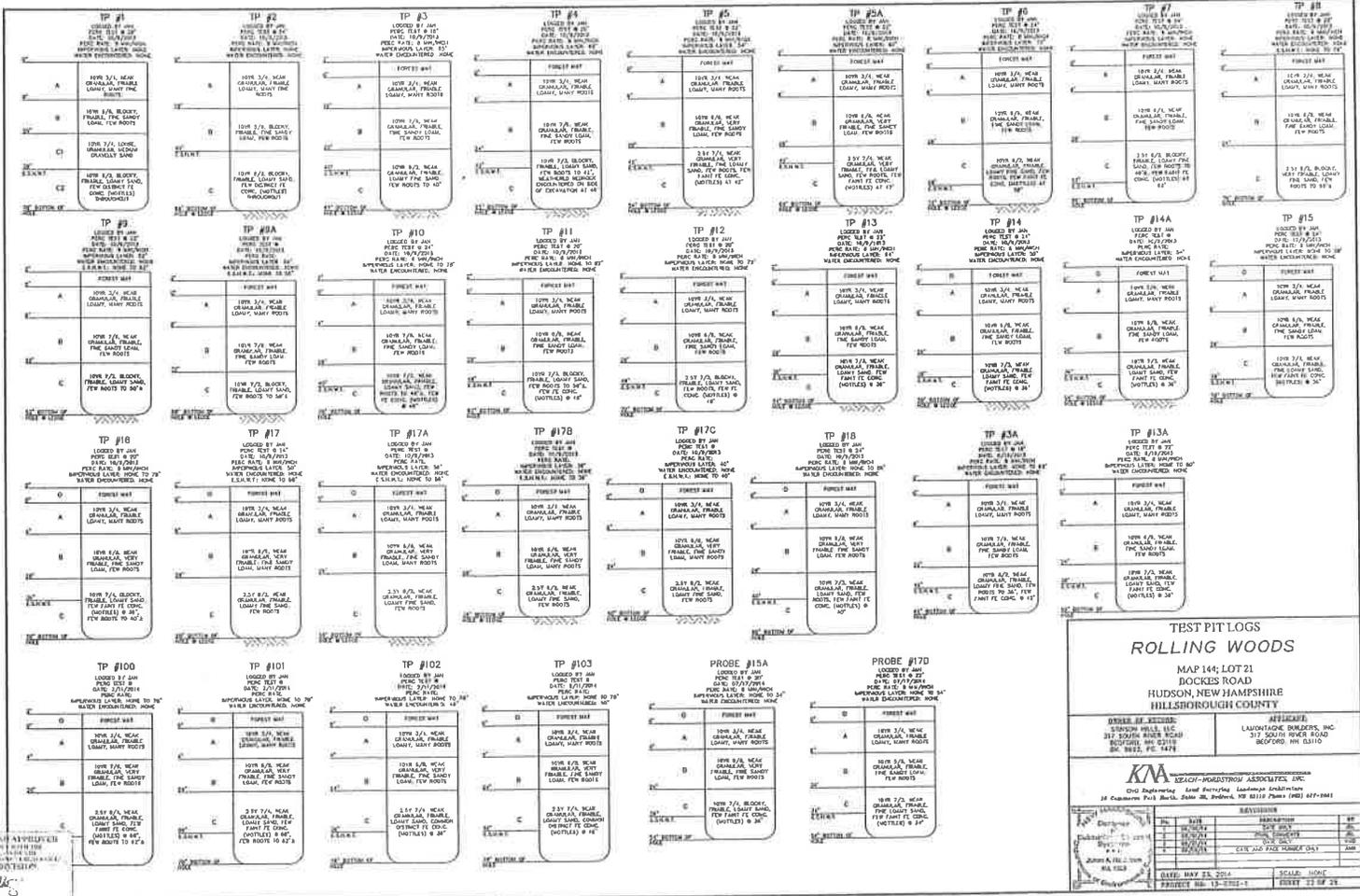
APPRAISER
LAURENCE BUDGETT, INC.
317 SOUTH PEARL ROAD
SEDFORD, NH 03101

K&A
K&A REALTY-INDUSTRIAL ASSOCIATES, INC.
11 Commerce Park Park, Suite 105, Bedford, NH 03110 (603) 882-1841

NO.	TYPE	DESCRIPTION	DATE
1	REVISION	REVISION FOR THE RECORD	04/11/14
2	REVISION	REVISION FOR THE RECORD	04/11/14
3	REVISION	REVISION FOR THE RECORD	04/11/14
4	REVISION	REVISION FOR THE RECORD	04/11/14
5	REVISION	REVISION FOR THE RECORD	04/11/14

DATE: MAY 23, 2014
SUBJECT: MAP 144-21-002-0

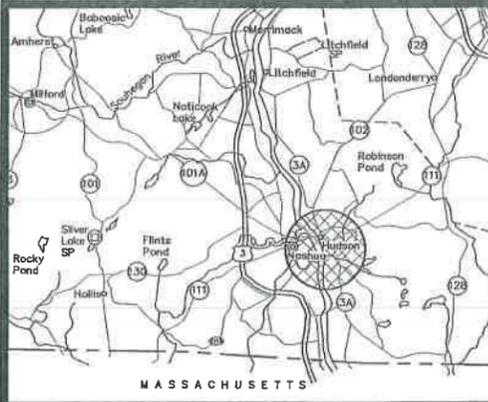
SCALE: 1" = 50'
SHEET: 4 OF 25



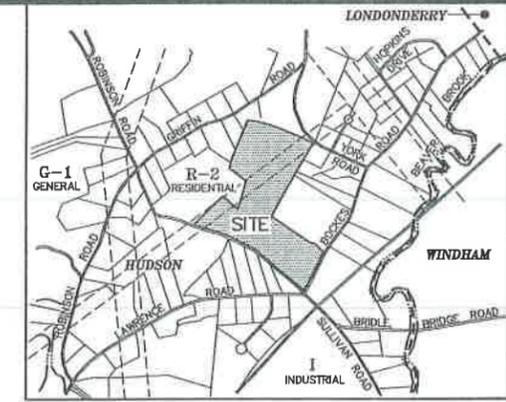
REVISIONS AND APPROVALS
 IN ACCORDANCE WITH THE
 STANDARD PRACTICES FOR
 WATER DISTRICTS

[Signature]
 DATE: 5/23/2014

603-427-8861



VICINITY PLAN
NOT TO SCALE



LOCATION PLAN
SCALE: 1"=1,000'

RESIDENTIAL SUBDIVISION ROLLING WOODS

MAP 144; LOT 21

BOCKES AND YORK ROAD HUDSON, NEW HAMPSHIRE



OWNER:
STINSON HILLS, LLC
317 SOUTH RIVER ROAD
BEDFORD, NEW HAMPSHIRE 03110

APPLICANT:
LAMONTAGNE BUILDERS, INC.
317 SOUTH RIVER ROAD
BEDFORD, NEW HAMPSHIRE 03110

PREPARED BY: (LAND CONSULTANT/SURVEYOR/ENGINEER/AGENT)
KEACH-NORDSTROM ASSOCIATES, INC.
10 COMMERCE PARK NORTH, SUITE 3B
BEDFORD, NEW HAMPSHIRE 03110
(603) 627-2881

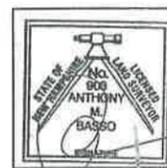
WETLAND SCIENTIST:
SCHAUER ENVIRONMENTAL CONSULTANTS, LLC
138 CROSS BROOK ROAD
LOUDON, NEW HAMPSHIRE 03307

TRAFFIC ENGINEER:
STEPHEN G. PERNAW & COMPANY, INC.
P.O. BOX 1721
CONCORD, NEW HAMPSHIRE 03302

SHEET TITLE

SHEET No.

MASTER SUBDIVISION PLAN	1
SUBDIVISION PLAN - ROLLING WOODS DRIVE	2
SUBDIVISION PLAN - YORK ROAD	3
EASEMENT PLAN	4 & 5
TOPOGRAPHIC SUBDIVISION PLAN - ROLLING WOODS DRIVE	6
TOPOGRAPHIC SUBDIVISION PLAN - YORK ROAD	7
ROADWAY PLAN (ROLLING WOODS DRIVE)	8
ROADWAY PROFILE (ROLLING WOODS DRIVE)	9
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STORMWATER BASIN DETAILS	16
CONSTRUCTION DETAILS	17 - 23
TEST PIT LOGS	24
CONVENTIONAL SUBDIVISION YIELD PLAN	25 & 26
LANDSCAPE PLAN	27

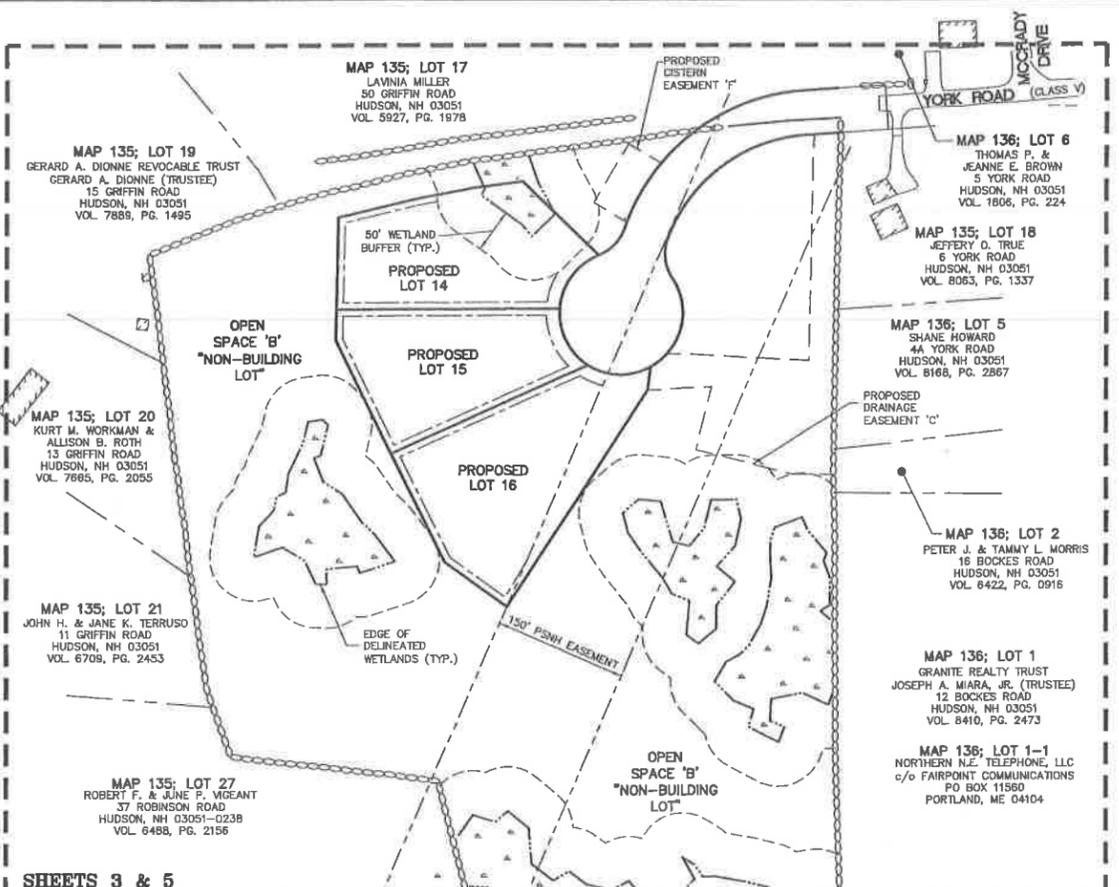


KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

MAY 23, 2014
LAST REVISED: JULY 29, 2015
PROJECT NO. 13-0702-1

NOTES: (CONTINUED)

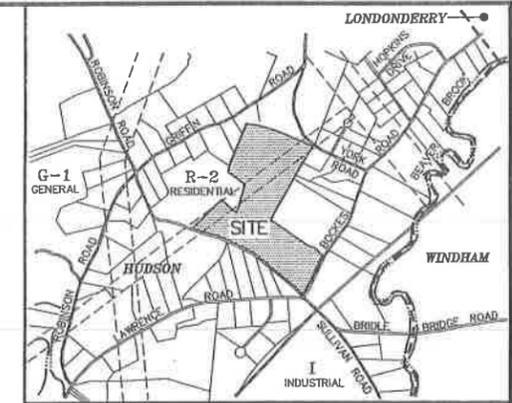
20. A CAP IN THE AMOUNT OF \$786.00, PER RESIDENTIAL UNIT, SHALL BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
21. A PUBLIC SCHOOL IMPACT FEE IN THE AMOUNT OF \$3,578.00, PER RESIDENTIAL UNIT, SHALL BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
22. A RECREATION CONTRIBUTION IN THE AMOUNT OF \$400.00, PER RESIDENTIAL UNIT, SHALL BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
23. MAINTENANCE OF THE ON-SITE DRAINAGE SYSTEM SHALL BE CONSTRUCTED AND MAINTAINED IN COMPLIANCE WITH LOCAL AND NHDES REQUIREMENTS FOR SUCH SYSTEMS. THE NUMBER OF DWELLING LOTS FOR THIS SUBDIVISION SHALL BE LIMITED TO 16, WHICH INCLUDES THE 3 LOTS FRONTING ON THE EXTENSION OF YORK ROAD.
24. 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 6:00 P.M., MONDAY THROUGH FRIDAY ONLY. SAID BLASTING/RAMMING ACTIVITIES SHALL BE PROHIBITED ON SATURDAY AND SUNDAY.
25. 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 7:00 A.M. AND 8:00 P.M., BOTH INTERIOR AND EXTERIOR CONSTRUCTION ACTIVITIES ARE PROHIBITED ON SUNDAYS.
26. 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.
27. STONE BOUNDS (4"x4"x30") TO BE SET AT ALL BOUNDARY INTERSECTIONS AND POINTS OF CURVATURE ON THE RIGHT-OF-WAY AND IRON PINS (2"x30") TO BE SET AT ALL OTHER BOUNDARY CORNERS.
28. A CERTIFICATE OF APPROVAL FROM THE BOARD OF HEALTH OF THE TOWN OF HUDSON AND FROM THE STATE OF NEW HAMPSHIRE SHALL BE REQUIRED FOR THE PROPOSED ON-LOT UTILITIES.



LOT NUMBER	TOTAL LOT AREA (SF)	WETLAND AREA (SF)	AREA (SF) >25% SLOPE	EASEMENT AREA (SF)	BUILDABLE AREA (SF)	FRONTAGE (FT)
1	24,768	0	0	0	24,768	85.62'
2	28,879	0	0	0	28,879	134.78'
3	26,721	0	0	0	26,721	130.00'
4	27,218	0	791	0	26,427	153.56'
5	25,800	0	1,164	0	24,636	143.96'
6	29,808	0	192	0	29,616	228.57'
7	39,967	0	635	0	39,332	75.00'
8	29,477	0	540	0	28,937	75.04'
9	22,701	0	0	0	22,701	75.00'
10	22,115	8	0	0	22,107	125.52'
11	23,139	128	0	0	23,011	132.41'
12	27,684	441	1,154	0	26,089	106.91'
13	33,185	2,820	0	0	30,365	166.57'
14	33,306	2,578	0	0	30,728	79.40'
15	30,040	0	0	0	30,040	75.00'
16	39,670	0	0	7,539	32,131	75.00'
OPEN SPACE 'A'	78,983	17,228	88	0	61,667	421.52'
OPEN SPACE 'B'	563,689	85,576	20,430	180,583	277,080	589.38'
OPEN SPACE 'C'	5,215	0	0	0	5,215	278.40'

REFERENCE PLANS:

1. "RESUBDIVISION OF LOTS 24, 25, 26, WEST WINDHAM ROAD, HUDSON, N.H., SURVEYED FOR MEL-MIC BUILDERS, INC." SCALE: 1"=50', DATED: MAY 1965, PREPARED BY W. ROBERT NOTIE & ASSOCIATES. H.C.R.D. PLAN NO. 3299.
2. "SUBDIVISION PLAN OF LAND, PREPARED FOR WILLIAM BETTENCOURT, HUDSON, N.H." SCALE: 1"=100' AND 1"=50', DATED: FEBRUARY 8, 1982, PREPARED BY RONALD R. BURD, INC. H.C.R.D. PLAN NO. 15450.
3. "SUBDIVISION PLAN OF LAND, PREPARED FOR BERTHA A. MOONEY, HUDSON, N.H." SCALE: 1"=50', DATED: MAY 29, 1984, PREPARED BY RONALD R. BURD, INC. H.C.R.D. PLAN NO. 19106.
4. "SUBDIVISION PLAN, BOCKES ROAD SUBDIVISION, HUDSON, N.H." SCALE: 1"=40', DATED: AUGUST, 1987, WITH REVISIONS THROUGH 12/8/87, PREPARED BY STORCH ASSOCIATES. H.C.R.D. PLAN NO. 21783.
5. "LOT LINE ADJUSTMENT OF, DIONNE AND BAKER, GRIFFIN ROAD MAP 36 LOTS 11 & 15, HUDSON, NEW HAMPSHIRE." SCALE: 1"=50', DATED: 12 JUNE 1989, PREPARED BY M.J. GRANGER ENGINEERING, INC. H.C.R.D. PLAN NO. 25205.
6. "SUBDIVISION PLAN (LOT 26, MAP 36), 60 LAWRENCE ROAD, HUDSON, NEW HAMPSHIRE." SCALE: 1"=50', DATED: 18 SEPTEMBER 2000, PREPARED BY HAYNER/SWANSON, INC. H.C.R.D. PLAN NO. 30976.
7. "WETLANDS DELINEATION PLAN, BOCKES ROAD, HUDSON, NEW HAMPSHIRE." SCALE: 1"=100', DATED: JUNE 22, 2004, PREPARED BY MAYNARD & PAQUETTE ENGINEERING ASSOCIATES, L.L.C.
8. "BOUNDARY PLAN OF MAP 36 LOT 27 & 28, LOCATED ON, BOCKES ROAD, HUDSON, N.H." SCALE: 1"=100', DATED: NOV. 16, 1987, PREPARED BY GEORGE F. KELLER INC. H.C.R.D. PLAN NO. 21586.

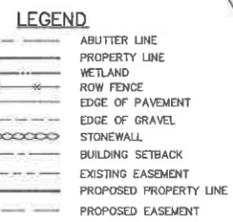


LOCATION PLAN

- SCALE: 1"=1,000'
- NOTES:**
1. THE PURPOSE OF THIS PLAN IS TO DEPICT A 16 LOT OPEN SPACE DEVELOPMENT ON HUDSON TAX MAP 144; LOT 21. EACH LOT OWNER WITHIN THE OPEN SPACE SUBDIVISION SHALL POSSESS AN EQUAL SHARE OF THE COMMON OPEN SPACE AREA ASSOCIATED WITH THIS DEVELOPMENT.
 2. REFERENCE THIS PARCEL AS HUDSON ASSESSOR'S MAP 144; LOT 21.
 3. TOTAL AREA OF EXISTING PARCEL IS 1,168,411 S.F., OR 26.823 ACRES.
 4. OWNER OF RECORD: STINSON HILLS, LLC, 317 SOUTH RIVER ROAD, BEDFORD, NH 03110, BK. 8692, PG. 1479.
 5. THE SUBJECT PARCEL IS SITUATED ENTIRELY WITHIN THE RESIDENTIAL (R-2) ZONING DISTRICT, AND IS SUBJECT TO THE FOLLOWING DIMENSIONAL REQUIREMENTS:

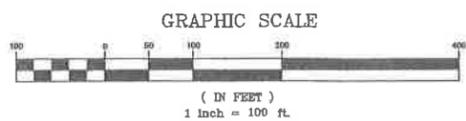
MINIMUM LOT REQUIREMENTS (CONVENTIONAL SUBDIVISION)	MINIMUM LOT REQUIREMENTS (OPEN SPACE DEVELOPMENT)
LOT AREA	43,560 SF
LOT FRONTAGE	21,780 SF
MINIMUM BUILDING SETBACKS:	75 FT
- FRONT (LOCAL ROAD)	30 FT
- FRONT (COLLECTOR)	50 FT
- REAR	15 FT
- SIDE	15 FT
 6. EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) FOR THE TOWN OF HUDSON, NEW HAMPSHIRE, HILLSBOROUGH COUNTY, MAP NUMBER 330110036D, PANEL NUMBER 536 OF 701, EFFECTIVE DATE: SEPTEMBER 25, 2009, INDICATES THAT THE SUBJECT PARCEL IS NOT LOCATED WITHIN A DESIGNATED FLOOD HAZARD AREA.
 7. BOUNDARY AND TOPOGRAPHIC INFORMATION DEPICTED HEREON IS BASED ON AN ACTUAL FIELD SURVEY PERFORMED BY THIS OFFICE BETWEEN JULY AND AUGUST 2013.
 8. HORIZONTAL DATUM IS NAD83. VERTICAL DATUM IS NAVD 2011.
 9. WETLAND MAPPING PERFORMED BY SCHAUER ENVIRONMENTAL CONSULTANTS, L.L.C. ON JULY 24, 2013.
 10. 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.
 11. OPEN SPACE SUBDIVISION TO BE SERVICED BY ON-SITE SEWAGE DISPOSAL SYSTEMS AND PRIVATE WELLS.
 12. IRON PIPES TO BE SET AT ALL LOT CORNERS AND STONE BOUNDS TO BE SET AT ALL POINTS OF CURVATURE ON THE RIGHT-OF-WAY AND CERTIFIED BY A LICENSED LAND SURVEYOR PRIOR TO THE ISSUANCE OF ANY BUILDING PERMITS.
 13. PROPER EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO CLEARING AND EXCAVATION. THE CONTROLS SHALL BE MAINTAINED IN GOOD WORKING ORDER UNTIL COMPLETION OF CONSTRUCTION. THE TOWN OF HUDSON RESERVES THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL MEASURES DURING CONSTRUCTION, IF NECESSARY.
 14. OPEN SPACE DEVELOPMENT CALCULATION:

TOTAL SITE ACREAGE	= 1,168,411 SF
- TOTAL WETLANDS	= 108,785 SF
- 25% SLOPES	= 28,185 SF
- EASEMENTS	= 196,972 SF
- ROADS	= 79,783 SF
REMAINING	= 753,686 SF
MAXIMUM DENSITY	= 17 LOTS (SEE YIELD PLAN)
ACTUAL DENSITY	= 16 LOTS
TOTAL OPEN SPACE REQUIRED	= 244,473 SF
TOTAL OPEN SPACE PROVIDED	= 647,867 SF
PROPOSED OPEN SPACE (NET USEABLE)	= 343,892 SF
*EXCLUDES WETLAND, SLOPES IN EXCESS OF 25%, AND EASEMENTS	
 15. WAIVERS REQUESTED:
 - ROAD STANDARDS (YORK ROAD)
 16. PERMITS REQUIRED:
 - NHDES INDIVIDUAL SUBSURFACE SEPTIC DISPOSAL SYSTEM APPROVAL
 17. PERMITS APPROVED:
 - NHDES ALTERATION OF TERRAIN PERMIT - AOT-0785
 - NHDES SUBDIVISION APPROVAL #ESA2015072103
 - HUDSON ZBA-WSE
 18. THE OWNER'S OF LOTS 9, 10, 11, 12, 13 AND 14 SHALL MAINTAIN THE RAIN GARDEN ON THEIR RESPECTIVE LOT IN ACCORDANCE WITH THE AGREEMENT STATED IN THE DEED FOR EACH RESPECTIVE LOT.



OWNER
 SIGNATURE: *[Signature]*
 FOR STINSON HILLS, LLC
 DATE: 6/16/15

SHEETS 2 & 4



PETER S. SCHAUER, CERTIFIED WETLAND SCIENTIST #48 OF SCHAUER ENVIRONMENTAL CONSULTANTS, L.L.C. OF LONDON, NH, PERFORMED THE WETLAND MAPPING ON JULY 24, 2013 ACCORDING TO THE CORPS OF ENGINEERS WETLAND Delineation MANUAL AND THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND Delineation MANUAL: NORTH-CENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012, US ARMY CORPS OF ENGINEERS.

THIS PLAN AND THE SURVEY UPON WHICH IT IS BASED WAS MADE ON THE GROUND UNDER MY DIRECTION AND SUPERVISION BETWEEN JULY AND AUGUST 2013 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 AN URBAN STANDARD SURVEY, (CATEGORY 1, CONDITION 1) AS DEFINED IN THE NEW HAMPSHIRE LAND SURVEYORS ASSOCIATION ETHICS AND STANDARDS.

DATE: 7/20/15



REVISIONS			
No.	DATE	DESCRIPTION	BY
1	06/30/14	REVISED PER CLD COMMENTS	JDL
2	08/01/14	FINAL COMMENTS	JDL
3	08/21/14	REVISED PER NHDES COMMENTS	KMB
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5	07/10/15	REVISED PER PLANNING BOARD COMMENTS	KMB
6	07/29/15	REVISED PER TOWN COMMENTS	KMB

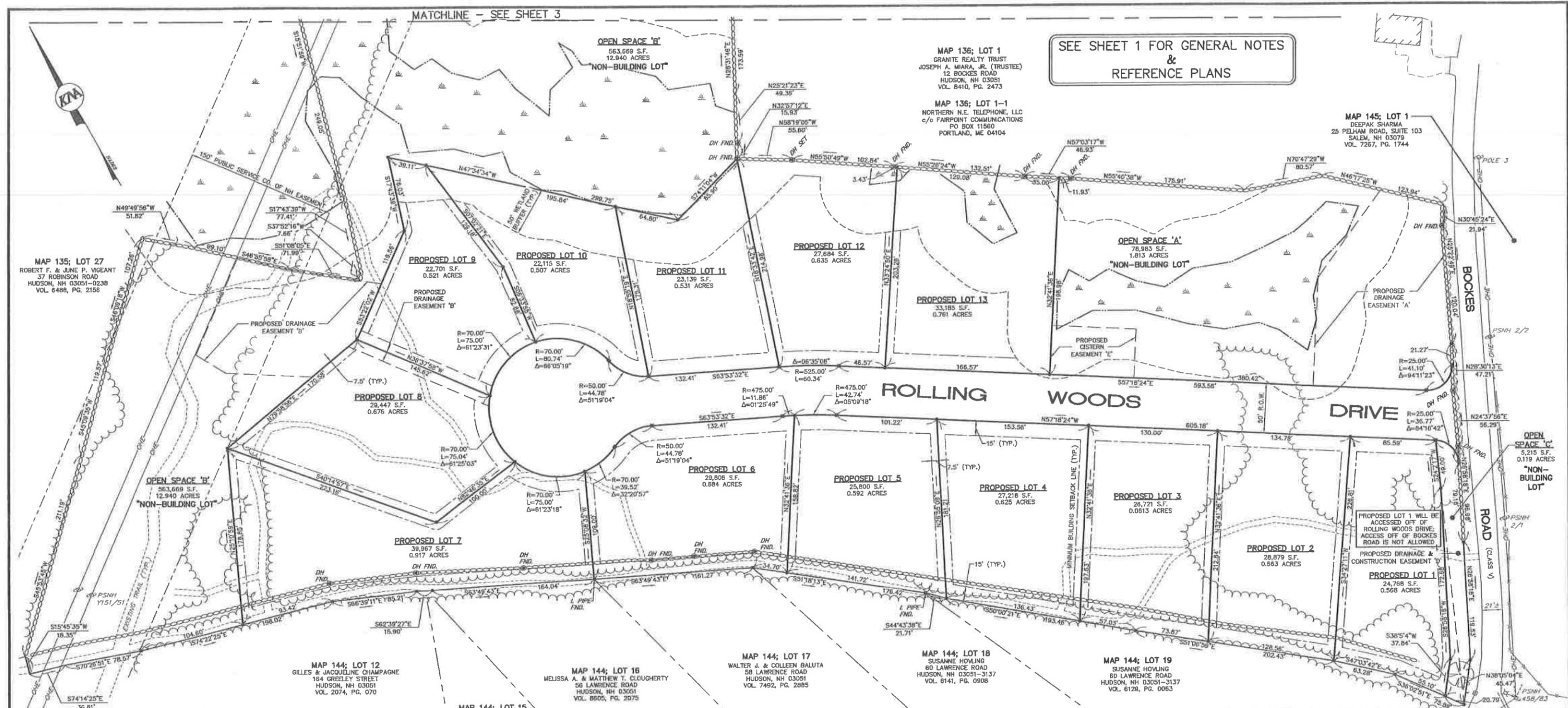
DATE: MAY 23, 2014 SCALE: 1" = 100'
 PROJECT NO: 13-0702-1 SHEET 1 OF 27

MASTER SUBDIVISION PLAN
ROLLING WOODS
 LAND OF
MATARAZZO HUDSON ASSOCIATES, INC.
 MAP 144; LOT 21
 BOCKES ROAD
 HUDSON, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER OF RECORD: STINSON HILLS, LLC, 317 SOUTH RIVER ROAD, BEDFORD, NH 03110, BK. 8692, PG. 1479

APPLICANT: LAMONTAGNE BUILDERS, INC., 317 SOUTH RIVER ROAD, BEDFORD, NH 03110

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



SEE SHEET 1 FOR GENERAL NOTES
&
REFERENCE PLANS

MAP 135; LOT 27
ROBERT F. & JUNE P. VIGANT
37 ROBINSON ROAD
HUDSON, NH 03051-0238
VOL. 6488, PG. 2156

MAP 136; LOT 1
GRANITE REALTY TRUST
JOSEPH A. MIARA, JR. (TRUSTEE)
12 BOOKES ROAD
HUDSON, NH 03051
VOL. 8410, PG. 2473

MAP 136; LOT 1-1
NORTHERN N.E. TELEPHONE, LLC
c/o FAIRPOINT COMMUNICATIONS
PO BOX 11560
PORTLAND, ME 04104

MAP 145; LOT 1
DEEPAK SHARMA
25 PELHAM ROAD, SUITE 103
SALEM, NH 03079
VOL. 7267, PG. 1744

MAP 144; LOT 12
GILLES & JACQUELINE CHAMPAGNE
164 GREELEY STREET
HUDSON, NH 03051
VOL. 2074, PG. 070

MAP 144; LOT 16
MELISSA A. & MATTHEW T. CLOUGHERTY
56 LAWRENCE ROAD
HUDSON, NH 03051
VOL. 8605, PG. 2075

MAP 144; LOT 17
WALTER J. & COLLEEN BALUTA
58 LAWRENCE ROAD
HUDSON, NH 03051
VOL. 7492, PG. 2855

MAP 144; LOT 18
SUSANNE HOVLING
60 LAWRENCE ROAD
HUDSON, NH 03051-3137
VOL. 6141, PG. 0908

MAP 144; LOT 19
SUSANNE HOVLING
60 LAWRENCE ROAD
HUDSON, NH 03051-3137
VOL. 6128, PG. 0063

LEGEND

- STONE BOUND FOUND
- IRON PIN FOUND
- ⊙ DRILL HOLE FOUND OR SET
- ⊙ STONE BOUND TO BE SET
- ⊙ IRON PIN TO BE SET
- ⊙ UTILITY POLE
- ⊙ SIGN
- ABUTTER LINE
- EXISTING PROPERTY LINE
- WETLAND
- OHE OVERHEAD UTILITIES
- TREELINE
- STONEWALL
- WETLAND BUFFER LINE
- MINIMUM BUILDING SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EDGE OF TRAIL
- PROPOSED PROPERTY LINE

NOTE:
1. 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 7:00 A.M. AND 6:00 P.M. BOTH INTERIOR AND EXTERIOR CONSTRUCTION ACTIVITIES ARE PROHIBITED ON SUNDAY.

SUBDIVISION PLAN
ROLLING WOODS DRIVE
ROLLING WOODS
LAND OF
MATARAZZO HUDSON ASSOCIATES, INC.
MAP 144; LOT 21
BOOKES ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
STINSON HILLS, LLC
317 SOUTH RIVER ROAD
BEDFORD, NH 03110
BK. 8692, PG. 1479

APPLICANT:
LAMONTAGNE BUILDERS, INC.
317 SOUTH RIVER ROAD
BEDFORD, NH 03110

KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 687-2881

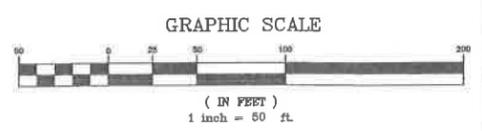
PURSUANT TO THE SUBDIVISION REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SUBDIVISION APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

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

SIGNATURE _____ DATE _____

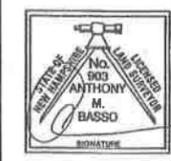
SIGNATURE _____ DATE _____

SUBDIVISION 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.



PETER S. SCHAUER, CERTIFIED WETLAND SCIENTIST #48 OF SCHAUER ENVIRONMENTAL CONSULTANTS, L.L.C. OF LOUDON, NH, PERFORMED THE WETLAND MAPPING ON JULY 24, 2013 ACCORDING TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL AND THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012, US ARMY CORPS OF ENGINEERS.

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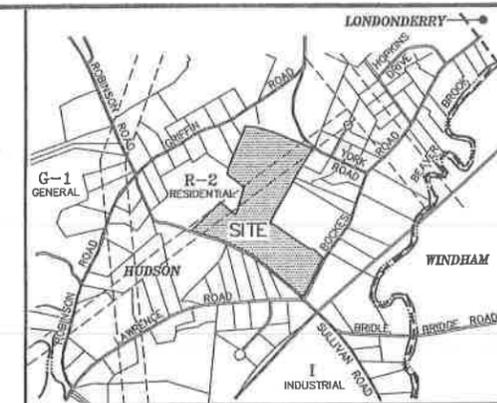


REVISIONS

No.	DATE	DESCRIPTION	BY
1	06/30/14	REVISED PER OLD COMMENTS	JOL
2	08/01/14	FINAL COMMENTS	JOL
3	08/21/14	DATE ONLY	KMB
4	05/15/15	REVISED TO PRIVATE WELLS	AMB
5	07/10/15	REVISED PER PLANNING BOARD COMMENTS	KMB
6	07/29/15	REVISED PER TOWN COMMENTS	KMB

DATE: MAY 23, 2014
PROJECT NO: 13-0702-1
SCALE: 1" = 50'
SHEET 2 OF 27

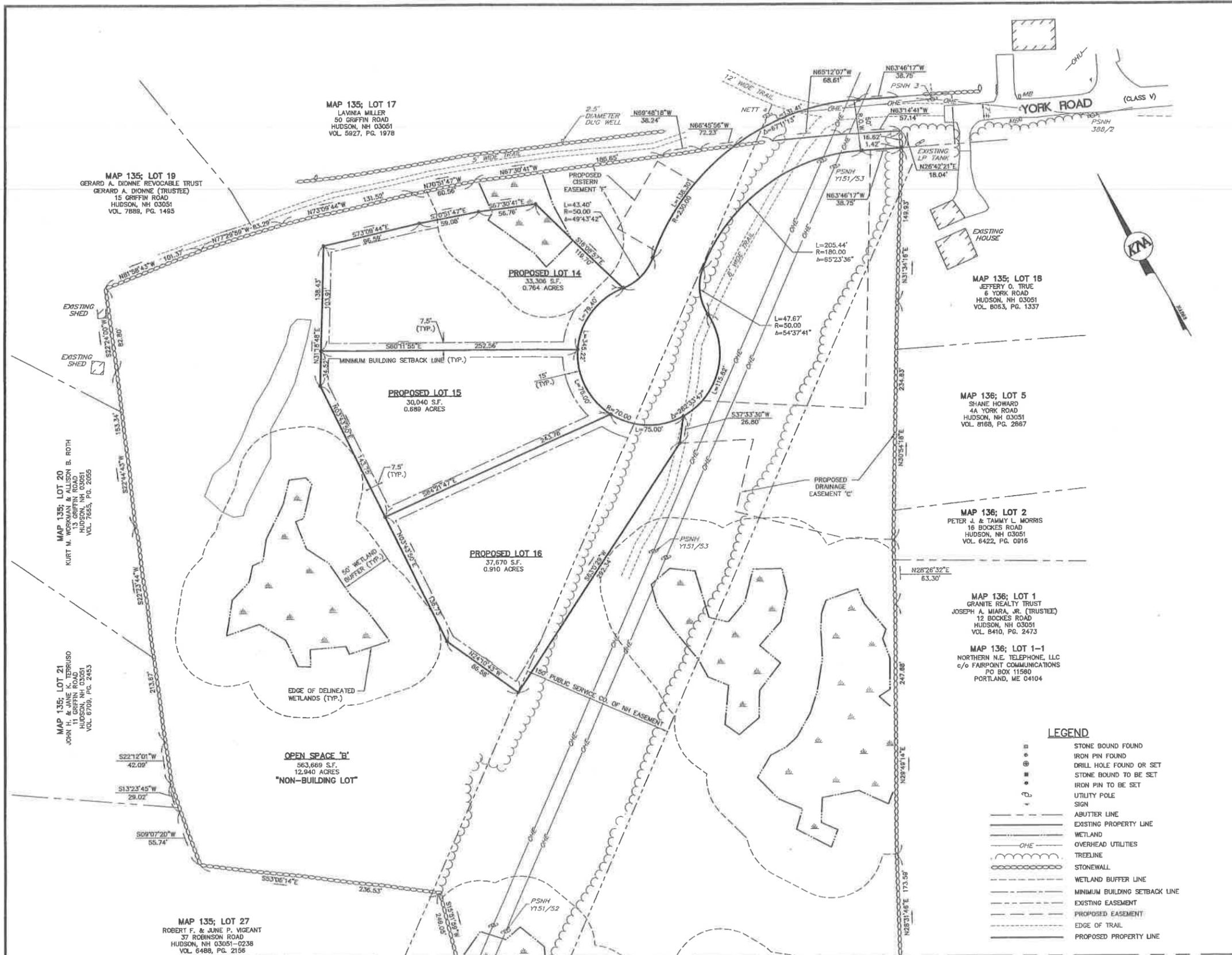
7/20/15
DATE



LOCATION PLAN
SCALE: 1"=1,000'

SEE SHEET 1 FOR GENERAL NOTES
&
REFERENCE PLANS

NOTE:
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LEGEND

- STONE BOUND FOUND
- IRON PIN FOUND
- ⊙ DRILL HOLE FOUND OR SET
- ⊙ STONE BOUND TO BE SET
- ⊙ IRON PIN TO BE SET
- ⊙ UTILITY POLE
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- WETLAND
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- STONE WALL
- WETLAND BUFFER LINE
- MINIMUM BUILDING SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EDGE OF TRAIL
- PROPOSED PROPERTY LINE

SUBDIVISION PLAN - YORK ROAD
ROLLING WOODS
LAND OF
MATARAZZO HUDSON ASSOCIATES, INC.
MAP 144; LOT 21
BOCKES ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD: STINSON HILLS, LLC 317 SOUTH RIVER ROAD BEDFORD, NH 03110 BK. 8692, PG. 1479	APPLICANT: LAMONTAGNE BUILDERS, INC. 317 SOUTH RIVER ROAD BEDFORD, NH 03110
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KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 88, Bedford, NH 03110 Phone (603) 627-2881

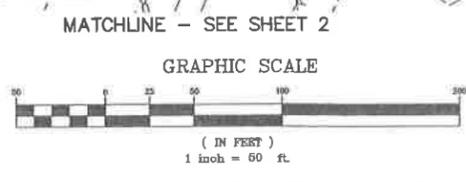
PURSUANT TO THE SUBDIVISION REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SUBDIVISION APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

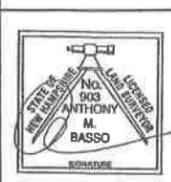
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7/30/13
DATE



REVISIONS

No.	DATE	DESCRIPTION	BY
1	06/30/14	REVISED PER CLD COMMENTS	JDL
2	06/01/14	FINAL COMMENTS	JDL
3	06/21/14	DATE ONLY	KMB
4	06/15/15	REVISED TO PRIVATE WELLS	AMB
5	07/10/15	REVISED PER PLANNING BOARD COMMENTS	KMB
6	07/29/15	REVISED PER TOWN COMMENTS	KMB

DATE: MAY 23, 2014 SCALE: 1" = 50'
PROJECT NO: 13-0702-1 SHEET 3 OF 27

MATCHLINE - SEE SHEET 5

OWNER

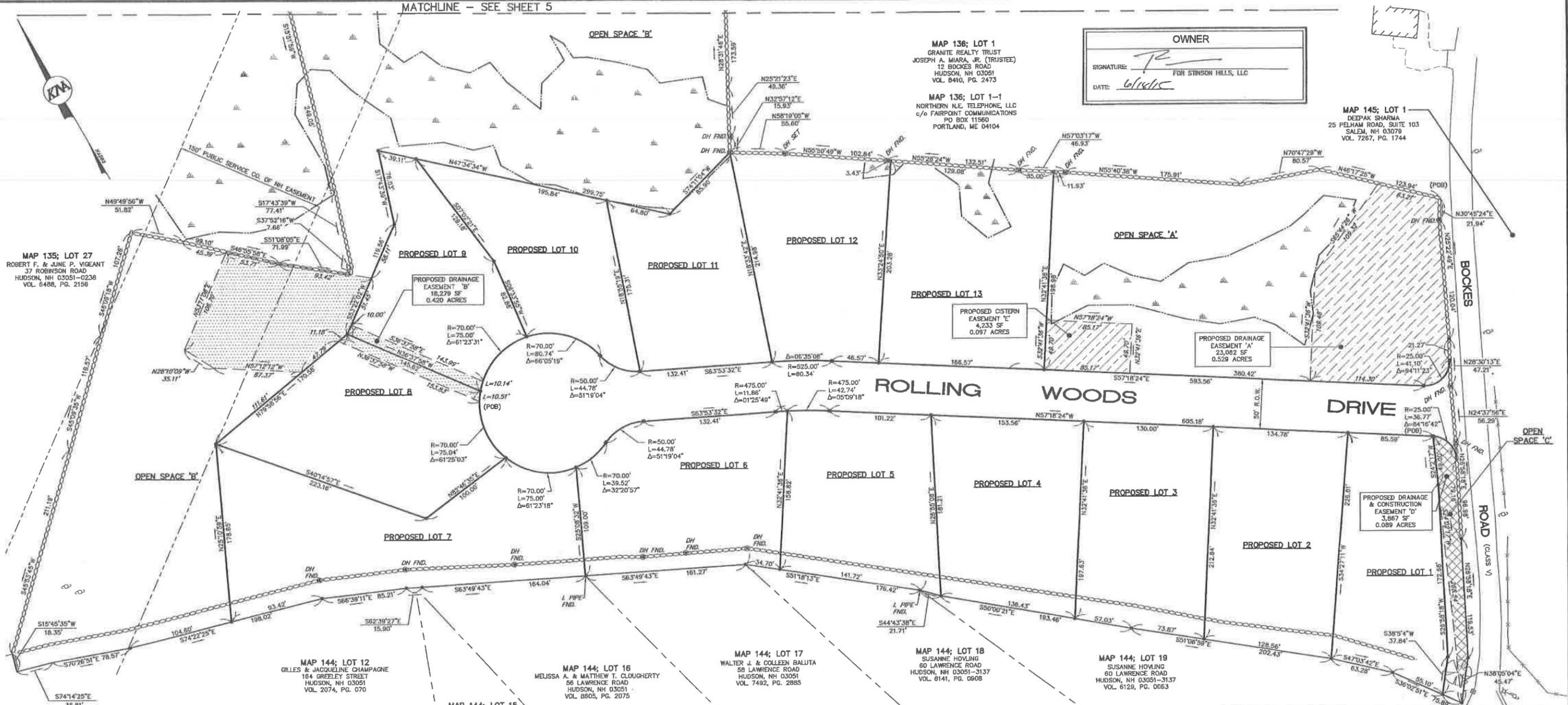
SIGNATURE: *[Signature]*
FOR STINSON HILLS, LLC

DATE: 6/18/15

MAP 136; LOT 1
GRANITE REALTY TRUST
JOSEPH A. MIARA, JR. (TRUSTEE)
12 BOCKES ROAD
HUDSON, NH 03051
VOL. 840, PG. 2473

MAP 136; LOT 1-1
NORTHERN N.E. TELEPHONE, LLC
c/o FAIRPOINT COMMUNICATIONS
PO BOX 11560
PORTLAND, ME 04104

MAP 145; LOT 1
DEEPAK SHARMA
25 PELHAM ROAD, SUITE 103
SALEM, NH 03079
VOL. 7267, PG. 1744



MAP 135; LOT 27
ROBERT F. & JUNE P. VIGEANT
37 ROBINSON ROAD
HUDSON, NH 03051-0238
VOL. 6488, PG. 2156

MAP 144; LOT 12
GILLES & JACQUELINE CHAMPAGNE
164 GREELEY STREET
HUDSON, NH 03051
VOL. 2074, PG. 070

MAP 144; LOT 15
MICHAEL R. &
KATHY A. PAQUETTE
54 LAWRENCE ROAD
HUDSON, NH 03051
VOL. 6438, PG. 2452

MAP 144; LOT 16
MEJUSSA A. & MATTHEW T. CLOUGHERTY
56 LAWRENCE ROAD
HUDSON, NH 03051
VOL. 8805, PG. 2075

MAP 144; LOT 17
WALTER J. & COLLEEN BALUTA
58 LAWRENCE ROAD
HUDSON, NH 03051
VOL. 7492, PG. 2885

MAP 144; LOT 18
SUSANNE HOWLING
60 LAWRENCE ROAD
HUDSON, NH 03051-3137
VOL. 8141, PG. 0908

MAP 144; LOT 19
SUSANNE HOWLING
60 LAWRENCE ROAD
HUDSON, NH 03051-3137
VOL. 6128, PG. 0063

EASEMENT PLAN
ROLLING WOODS
LAND OF
MATARAZZO HUDSON ASSOCIATES, INC.
MAP 144; LOT 21
BOCKES ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
STINSON HILLS, LLC
317 SOUTH RIVER ROAD
BEDFORD, NH 03110
BK. 8692, PG. 1479

APPLICANT:
LAMONTAGNE BUILDERS, INC.
317 SOUTH RIVER ROAD
BEDFORD, NH 03110

KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Landscape Architecture
10 Commerce Park North, Suite 309, Bedford, NH 03110 Phone (603) 627-2861

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

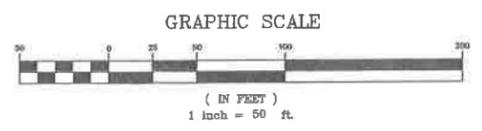
APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

SUBDIVISION 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.

SEE SHEET 5 FOR NOTES & LEGEND



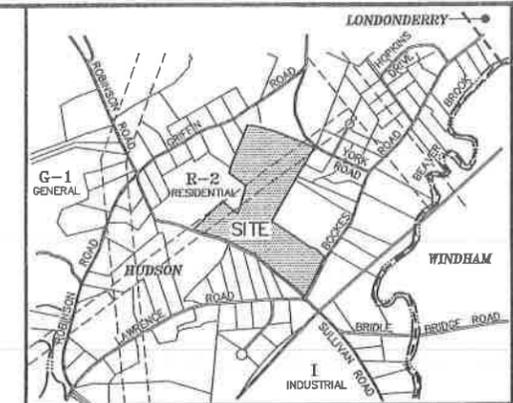
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[Signature]
DATE

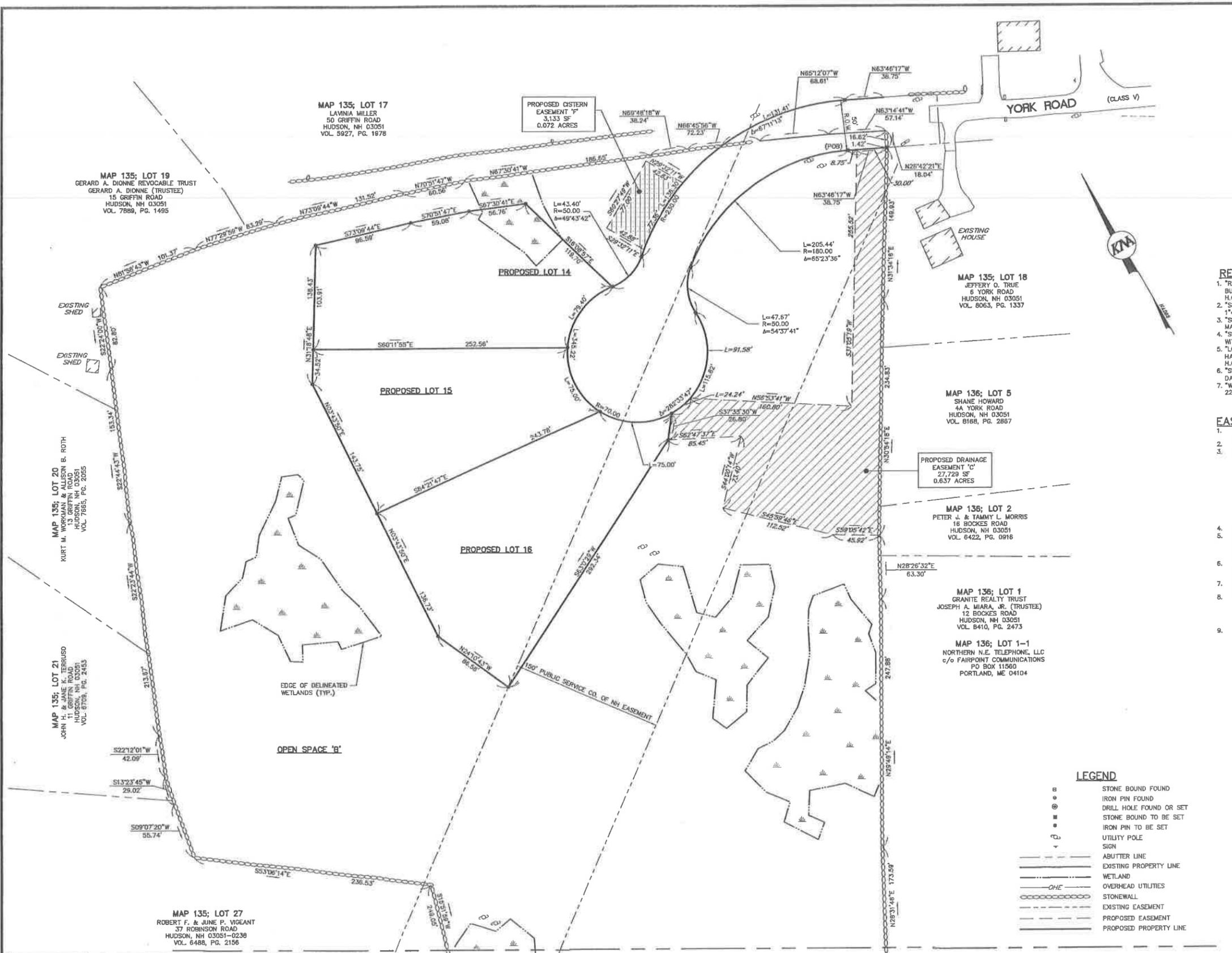


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DATE: MAY 23, 2014 SCALE: 1" = 50'
PROJECT NO: 13-0702-1 SHEET 4 OF 27



LOCATION PLAN
SCALE: 1"=1,000'



- REFERENCE PLANS:**
1. "RESUBDIVISION OF LOTS 24, 25, 26, WEST WINDHAM ROAD, HUDSON, N.H., SURVEYED FOR MEL-MIC BUILDERS, INC.," SCALE: 1"=50', DATED: MAY 1965, PREPARED BY W. ROBERT NOTE & ASSOCIATES. H.C.R.D. PLAN NO. 3299.
 2. "SUBDIVISION PLAN OF LAND, PREPARED FOR, WILLIAM BETTENCOURT, HUDSON, N.H.," SCALE: 1"=100' AND 1"=50', DATED: FEBRUARY 8, 1982, PREPARED BY RONALD R. BURR, INC. H.C.R.D. PLAN NO. 15450.
 3. "SUBDIVISION PLAN OF LAND, PREPARED FOR, BERTHA A. MOONEY, HUDSON, NH.," SCALE: 1"=50', DATED: MAY 29, 1984, PREPARED BY RONALD R. BURR, INC. H.C.R.D. PLAN NO. 19105.
 4. "SUBDIVISION PLAN, BOCKES ROAD SUBDIVISION, HUDSON, N.H.," SCALE: 1"=40', DATED: AUGUST, 1987, WITH REVISIONS THROUGH 12/9/87, PREPARED BY STORCH ASSOCIATES. H.C.R.D. PLAN NO. 21763.
 5. "LOT LINE ADJUSTMENT OF, DIONNE AND BAKER, GRIFFIN ROAD MAP 36 LOTS 11 & 19, HUDSON, NEW HAMPSHIRE," SCALE: 1"=50', DATED: 12 JUNE 1989, PREPARED BY M.J. GRANGER ENGINEERING, INC. H.C.R.D. PLAN NO. 25205.
 6. "SUBDIVISION PLAN (LOT 26, MAP 36), 60 LAWRENCE ROAD, HUDSON, NEW HAMPSHIRE," SCALE: 1"=50', DATED: 18 SEPTEMBER 2000, PREPARED BY HAYNER/SWANSON, INC. H.C.R.D. PLAN NO. 30976.
 7. "WETLANDS DELINEATION PLAN, BOCKES ROAD, HUDSON, NEW HAMPSHIRE," SCALE: 1"=100', DATED: JUNE 22, 2004, PREPARED BY MAYNARD & PAQUETTE ENGINEERING ASSOCIATES, LLC.

- EASEMENT NOTES:**
1. THE PURPOSE OF THIS PLAN IS TO DEPICT THE CREATION OF GRADING, CONSTRUCTION, DRAINAGE, AND CISTERN EASEMENTS OVER TAX MAP 144, LOT 21.
 2. TOTAL AREA OF EXISTING PARCEL IS 1,168,411 S.F., OR 26.823 ACRES.
 3. THE SUBJECT PARCEL IS SITUATED ENTIRELY WITHIN THE RESIDENTIAL (R-2) ZONING DISTRICT, AND IS SUBJECT TO THE FOLLOWING DIMENSIONAL REQUIREMENTS:

	MINIMUM LOT REQUIREMENTS:	MINIMUM LOT REQUIREMENTS:
	(CONVENTIONAL SUBDIVISION)	(OPEN SPACE DEVELOPMENT)
- LOT AREA	43,580 SF	21,780 SF
- LOT FRONTAGE	150 FT	75 FT
MINIMUM BUILDING SETBACKS:		
- FRONT (LOCAL ROAD)	30 FT	15 FT
- FRONT (COLLECTOR)	50 FT	15 FT
- REAR	15 FT	7.5 FT
- SIDE	15 FT	7.5 FT
 4. REFERENCE THIS PARCEL AS HUDSON ASSESSOR'S MAP 144; LOT 21.
 5. EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) FOR THE TOWN OF HUDSON, NEW HAMPSHIRE, HILLSBOROUGH COUNTY, MAP NUMBER 33011C0536D, PANEL NUMBER 536 OF 701, EFFECTIVE DATE: SEPTEMBER 25, 2009, INDICATES THAT THE SUBJECT PARCEL IS NOT LOCATED WITHIN A FLOOD HAZARD AREA.
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 8. OWNER OF RECORD:
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317 SOUTH RIVER ROAD
BEDFORD, NH 03110
BK. 8692, PG. 1478
 9. EASEMENTS, RIGHTS, AND RESTRICTIONS SHOWN OR IDENTIFIED HEREON ARE THOSE FOUND DURING RESEARCH AT THE HILLSBOROUGH REGISTRY OF DEEDS. OTHER EASEMENTS, RIGHTS, AND RESTRICTIONS MAY EXIST WHICH A TITLE EXAMINATION OF THE SUBJECT PREMISES WOULD DETERMINE.

EASEMENT PLAN
ROLLING WOODS

MAP 144; LOT 21
BOCKES ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD: STINSON HILLS, LLC 317 SOUTH RIVER ROAD BEDFORD, NH 03110 BK. 8692, PG. 1478	APPLICANT: LAMONTAGNE BUILDERS, INC. 317 SOUTH RIVER ROAD BEDFORD, NH 03110 BK. 8692, PG. 1478
--	---

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

- LEGEND**
- STONE BOUND FOUND
 - IRON PIN FOUND
 - ⊙ DRILL HOLE FOUND OR SET
 - ⊙ STONE BOUND TO BE SET
 - ⊙ IRON PIN TO BE SET
 - ⊙ UTILITY POLE
 - ⊙ SIGN
 - ABUTTER LINE
 - EXISTING PROPERTY LINE
 - WETLAND
 - OHE OVERHEAD UTILITIES
 - STONEWALL
 - EXISTING EASEMENT
 - PROPOSED EASEMENT
 - PROPOSED PROPERTY LINE

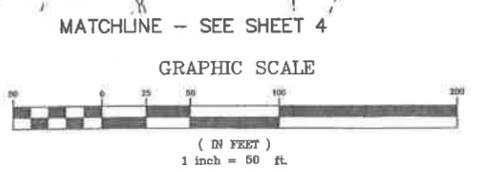
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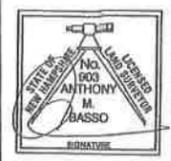
OWNER

SIGNATURE: _____ FOR STINSON HILLS, LLC

DATE: 6/18/15

THIS PLAN AND THE SURVEY UPON WHICH IT IS BASED WAS MADE ON THE GROUND UNDER MY DIRECTION AND SUPERVISION BETWEEN JULY AND AUGUST 2013 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 AN URBAN STANDARD SURVEY, (CATEGORY 1, CONDITION 1) AS DEFINED IN THE NEW HAMPSHIRE LAND SURVEYORS ASSOCIATION ETHICS AND STANDARDS.

7/20/15
DATE



REVISIONS

No.	DATE	DESCRIPTION	BY
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2	08/01/14	FINAL COMMENTS	JDL
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6	07/29/15	REVISED PER TOWN COMMENTS	KMB

DATE: MAY 23, 2014 SCALE: 1" = 50'
PROJECT NO: 13-0702-1 SHEET 5 OF 27

SEE SHEET 1 FOR GENERAL NOTES & REFERENCE PLANS

SEE SHEET 4 AND 5 FOR EASEMENT DESCRIPTIONS

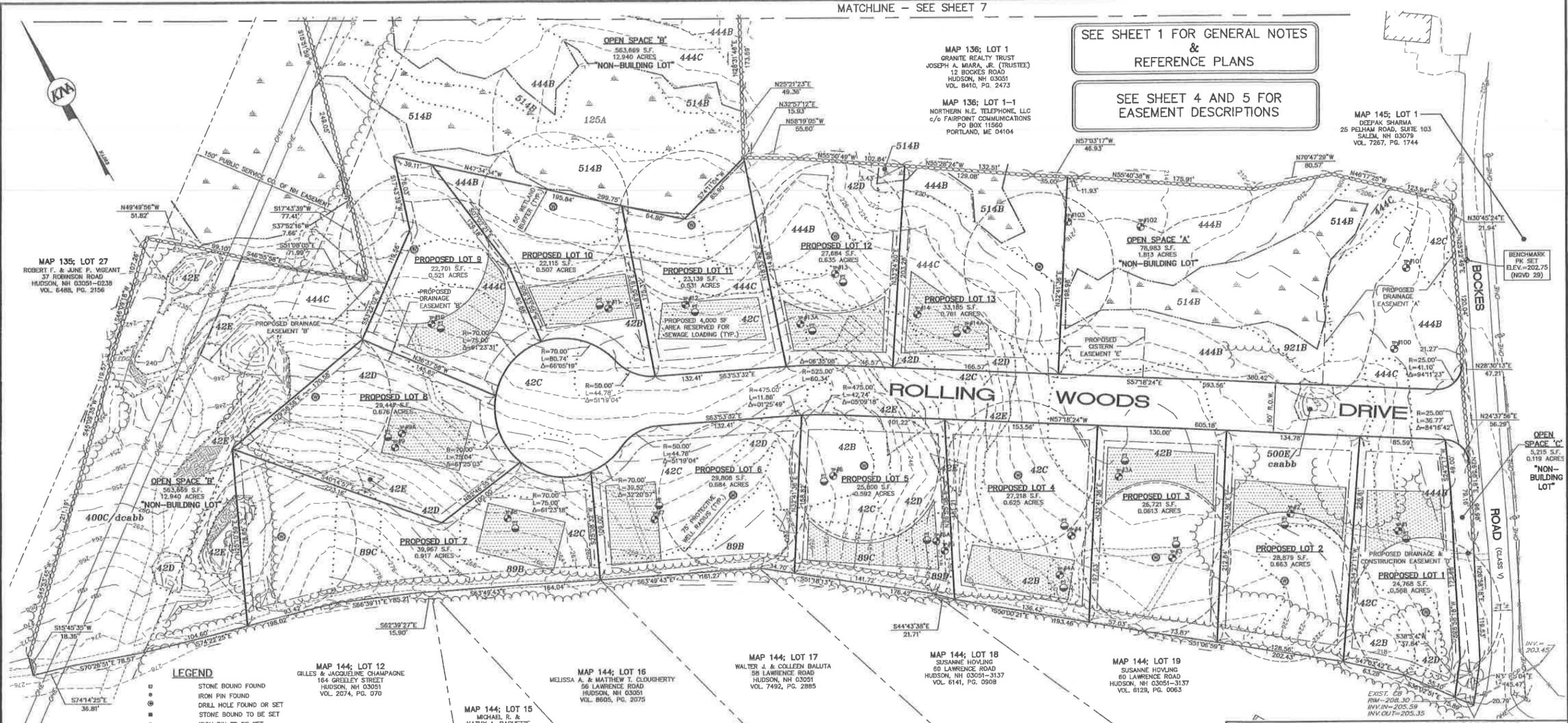
MAP 145; LOT 1
DEEPAK SHARMA
25 PELHAM ROAD, SUITE 103
SALEM, NH 03079
VOL. 7287, PG. 1744

MAP 136; LOT 1
GRANITE REALTY TRUST
JOSEPH A. MIARA, JR. (TRUSTEE)
12 BOCKES ROAD
HUDSON, NH 03051
VOL. 6410, PG. 2473

MAP 136; LOT 1-1
NORTHERN N.E. TELEPHONE, LLC
c/o FAIRPOINT COMMUNICATIONS
PO BOX 11560
PORTLAND, ME 04104

MAP 135; LOT 27
ROBERT F. & JUNE P. VEGANT
37 ROBINSON ROAD
HUDSON, NH 03051-0238
VOL. 6488, PG. 2156

BENCHMARK
PK SET
ELEV.=202.75
(NGVD 29)



LEGEND
STONE BOUND FOUND
IRON PIN FOUND
DRILL HOLE FOUND OR SET
STONE BOUND TO BE SET
IRON PIN TO BE SET
UTILITY POLE
SIGN
TEST PIT
PERCOLATION TEST
ABUTTER LINE
EXISTING PROPERTY LINE
WETLAND
OVERHEAD UTILITIES
TREELINE
STONEWALL
WETLAND BUFFER LINE
MINIMUM BUILDING SETBACK LINE
EXISTING EASEMENT
EASEMENT
EDGE OF TRAIL
10' CONTOUR
2' CONTOUR
SOIL LINE
PROPOSED PROPERTY LINE

MAP 144; LOT 12
GILLES & JACQUELINE CHAMPAGNE
164 GREELEY STREET
HUDSON, NH 03051
VOL. 2074, PG. 070

MAP 144; LOT 15
MICHAEL R. &
KATHY A. PAKETTE
54 LAWRENCE ROAD
HUDSON, NH 03051
VOL. 6436, PG. 2452

MAP 144; LOT 16
MEJUSSA
A. & MATTHEW T. CLOUGHERTY
56 LAWRENCE ROAD
HUDSON, NH 03051
VOL. 8605, PG. 2075

MAP 144; LOT 17
WALTER J. & COLLEEN BALUTA
58 LAWRENCE ROAD
HUDSON, NH 03051-3137
VOL. 7492, PG. 2885

MAP 144; LOT 18
SUSANNE HOWLING
60 LAWRENCE ROAD
HUDSON, NH 03051-3137
VOL. 6141, PG. 0908

MAP 144; LOT 19
SUSANNE HOWLING
60 LAWRENCE ROAD
HUDSON, NH 03051-3137
VOL. 6129, PG. 0063

SITE SPECIFIC SOIL MAP UNIT KEY

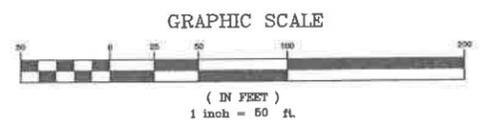
Table with 4 columns: SYMBOL, MAP UNIT, SOPE CLASS, DRAINAGE CLASS. Lists soil types like CANTON FINE SANDY LOAM, CHATFIELD LOAM, etc.



THIS DETAILED SITE-SPECIFIC SOIL MAP, PERFORMED ON NOVEMBER 5, 2013 BY PETER S. SCHAUER, CERTIFIED SOIL SCIENTIST #039 OF SCHAUER ENVIRONMENTAL CONSULTANTS, L.L.C. IN LOUDON, NEW HAMPSHIRE CONFORMS TO THE STANDARDS OF SSSNIE 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-WO 1500, ALTERATION OF TERRAIN.



PETER S. SCHAUER, CERTIFIED WETLAND SCIENTIST #48 OF SCHAUER ENVIRONMENTAL CONSULTANTS, L.L.C. OF LOUDON, NH, PERFORMED THE WETLAND MAPPING ON JULY 24, 2013 ACCORDING TO THE CORPUS OF ENGINEERS WETLAND DELINEATION MANUAL AND THE REGIONAL SUPPLEMENT TO THE CORPUS OF ENGINEERS WETLAND DELINEATION MANUAL, NORTH-CENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012, US ARMY CORPS OF ENGINEERS.



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

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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 PLAN AND THE SURVEY UPON WHICH IT IS BASED WAS MADE ON THE GROUND UNDER MY DIRECTION AND SUPERVISION BETWEEN JULY AND AUGUST 2013 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 AN URBAN STANDARD SURVEY, (CATEGORY 1, CONDITION 1) AS DEFINED IN THE NEW HAMPSHIRE LAND SURVEYORS ASSOCIATION ETHICS AND STANDARDS.

7/20/15
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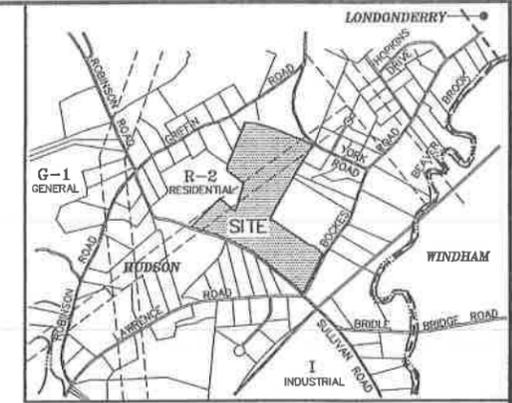
Table with 4 columns: No., DATE, DESCRIPTION, BY. Lists revisions from 06/30/14 to 07/29/15.

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

TOPOGRAPHIC SUBDIVISION PLAN
ROLLING WOODS DRIVE
ROLLING WOODS
LAND OF
MATARAZZO HUDSON ASSOCIATES, INC.
MAP 144; LOT 21
BOCKES ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY
OWNER OF RECORD: STINSON HILLS, LLC
317 SOUTH RIVER ROAD
BEDFORD, NH 03110
BK. 8892, PG. 1479
APPLICANT: LAMONTAGNE BUILDERS, INC.
317 SOUTH RIVER ROAD
BEDFORD, NH 03110

SEE SHEET 4 AND 5 FOR
EASEMENT DESCRIPTIONS

SEE SHEET 1 FOR GENERAL NOTES
&
REFERENCE PLANS



LOCATION PLAN
SCALE: 1"=1,000'

LEGEND

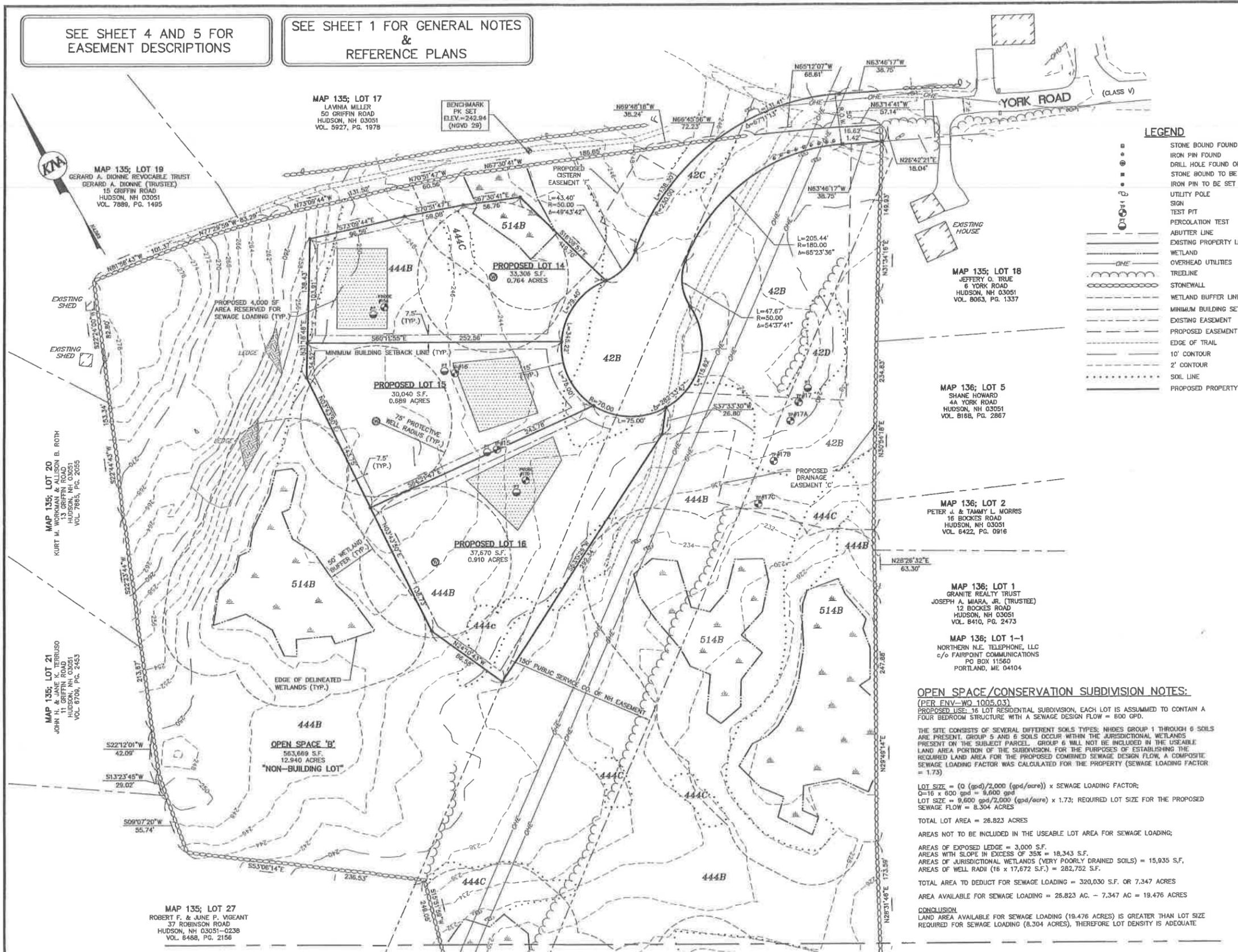
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- IRON PIN FOUND
- DRILL HOLE FOUND OR SET
- STONE BOUND TO BE SET
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- UTILITY POLE
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- TEST PIT
- PERCOLATION TEST
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- TREELINE
- STONEWALL
- WETLAND BUFFER LINE
- MINIMUM BUILDING SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EDGE OF TRAIL
- 10' CONTOUR
- 2' CONTOUR
- SOIL LINE
- PROPOSED PROPERTY LINE

SITE SPECIFIC SOIL MAP UNIT KEY

SYMBOL	MAP UNIT	SLOPE CLASS	DRAINAGE CLASS
42B	CANTON FINE SANDY LOAM	0-8%	WELL
42C	CANTON FINE SANDY LOAM	8-15%	WELL
42D	CANTON FINE SANDY LOAM	15-25%	WELL
42E	CANTON FINE SANDY LOAM	25%+	WELL
89B	CHATFIELD LOAM	0-8%	WELL
89C	CHATFIELD LOAM	8-15%	WELL
89D	CHATFIELD LOAM	15-25%	WELL
125A	SCARBORO MUCKY SANDY LOAM	0-3%	VERY POORLY
444B	NEWFIELDS FINE SANDY LOAM	0-8%	MODERATELY WELL
444C	NEWFIELDS FINE SANDY LOAM	8-15%	MODERATELY WELL
400C/dcaabb	UDORTMENTS. SANDY	8-15%	MODERATELY WELL
500E/caabb	UDORTMENTS. LOAMY	25%+	WELL
514B	LEICESTER FINE SANDY LOAM	0-8%	POORLY
921B	NEWFIELDS VARIANT (SPD)	0-8%	SOMEWHAT POORLY

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.

PETER S. SCHAUER
CERTIFIED WETLAND SCIENTIST #48
NOV 17 2013



OPEN SPACE/CONSERVATION SUBDIVISION NOTES:

(PER FNY-WQ.1005.03)
PROPOSED USE: 16 LOT RESIDENTIAL SUBDIVISION, EACH LOT IS ASSUMED TO CONTAIN A FOUR BEDROOM STRUCTURE WITH A SEWAGE DESIGN FLOW = 600 GPD.
THE SITE CONSISTS OF SEVERAL DIFFERENT SOIL TYPES, GROUPS 1 THROUGH 6 SOILS ARE PRESENT. GROUP 5 AND 6 SOILS OCCUR WITHIN THE JURISDICTIONAL WETLANDS PRESENT ON THE SUBJECT PARCEL. GROUP 6 WILL NOT BE INCLUDED IN THE USEABLE LAND AREA PORTION OF THE SUBDIVISION. FOR THE PURPOSES OF ESTABLISHING THE REQUIRED LAND AREA FOR THE PROPOSED COMBINED SEWAGE DESIGN FLOW, A COMPOSITE SEWAGE LOADING FACTOR WAS CALCULATED FOR THE PROPERTY (SEWAGE LOADING FACTOR = 1.73)
LOT SIZE = (0 (gpd)/2,000 (gpd/acre)) x SEWAGE LOADING FACTOR;
0=16 x 600 gpd = 9,600 gpd
LOT SIZE = 9,600 gpd/2,000 (gpd/acre) x 1.73; REQUIRED LOT SIZE FOR THE PROPOSED SEWAGE FLOW = 8.304 ACRES
TOTAL LOT AREA = 26.823 ACRES
AREAS NOT TO BE INCLUDED IN THE USEABLE LOT AREA FOR SEWAGE LOADING:
AREAS OF EXPOSED LEDGE = 3,000 S.F.
AREAS WITH SLOPE IN EXCESS OF 35% = 18,343 S.F.
AREAS OF JURISDICTIONAL WETLANDS (VERY POORLY DRAINED SOILS) = 15,935 S.F.
AREAS OF WELL RADII (16 x 17,672 S.F.) = 282,752 S.F.
TOTAL AREA TO DEDUCT FOR SEWAGE LOADING = 320,030 S.F. OR 7.347 ACRES
AREA AVAILABLE FOR SEWAGE LOADING = 26.823 AC. - 7.347 AC = 19.476 ACRES
CONCLUSION
LAND AREA AVAILABLE FOR SEWAGE LOADING (19.476 ACRES) IS GREATER THAN LOT SIZE REQUIRED FOR SEWAGE LOADING (8.304 ACRES), THEREFORE LOT DENSITY IS ADEQUATE

TOPOGRAPHIC SUBDIVISION PLAN - YORK
ROAD
ROLLING WOODS
LAND OF
MATARAZZO HUDSON ASSOCIATES, INC.
MAP 144; LOT 21
BOCKES ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD: STINSON HILLS, LLC 317 SOUTH RIVER ROAD BEDFORD, NH 03110 BK. 8692, PG. 1479	APPLICANT: LAMONTAGNE BUILDERS, INC. 317 SOUTH RIVER ROAD BEDFORD, NH 03110
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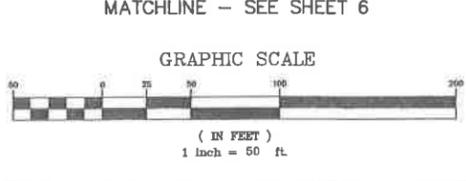
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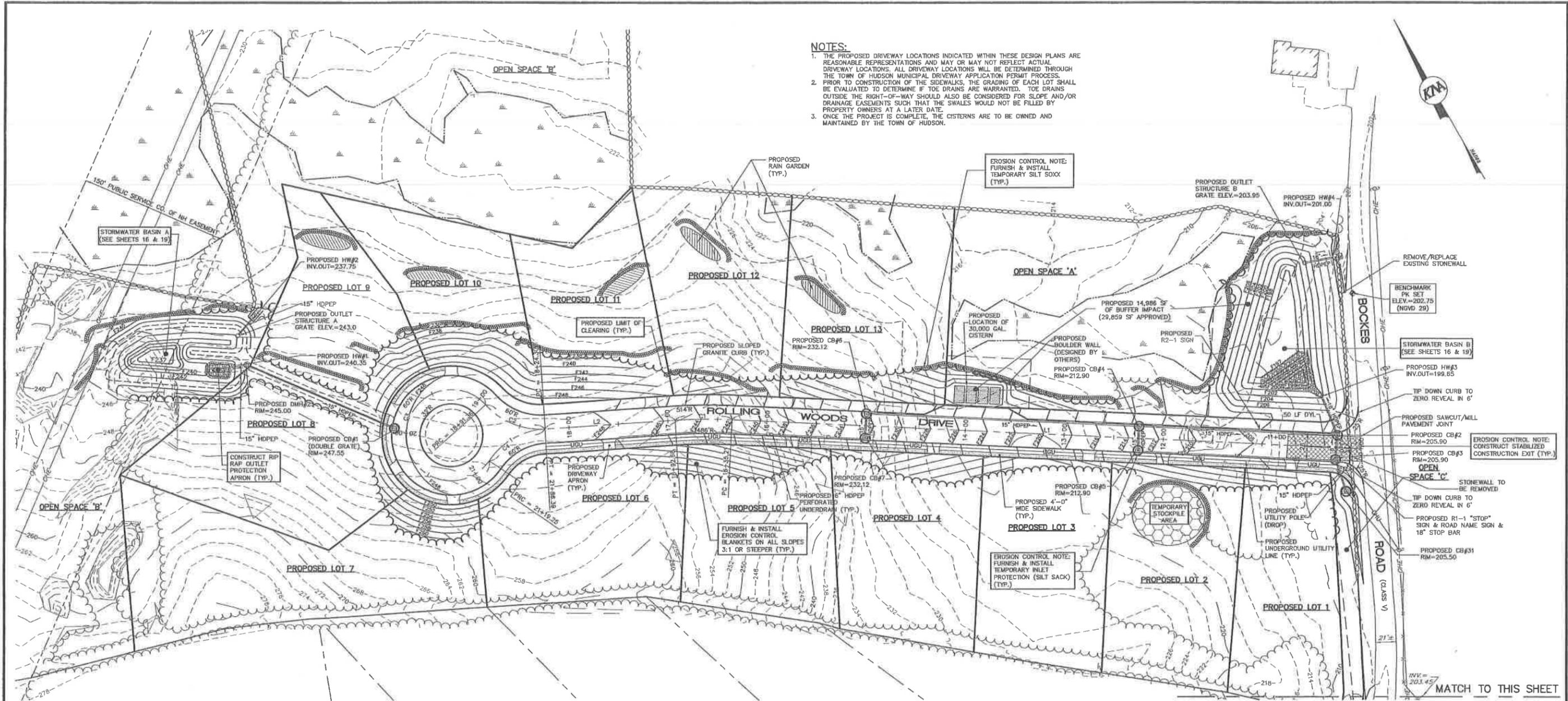
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7/30/13
DATE

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DATE: MAY 23, 2014
PROJECT No: 13-0702-1
SCALE: 1" = 50'
SHEET 7 OF 27



- NOTES:**
1. THE PROPOSED DRIVEWAY LOCATIONS INDICATED WITHIN THESE DESIGN PLANS ARE REASONABLE REPRESENTATIONS AND MAY OR MAY NOT REFLECT ACTUAL DRIVEWAY LOCATIONS. ALL DRIVEWAY LOCATIONS WILL BE DETERMINED THROUGH THE TOWN OF HUDSON MUNICIPAL DRIVEWAY APPLICATION PERMIT PROCESS.
 2. PRIOR TO CONSTRUCTION OF THE SIDEWALKS, THE GRADING OF EACH LOT SHALL BE EVALUATED TO DETERMINE IF TOS DRAINS ARE WARRANTED. TOS DRAINS OUTSIDE THE RIGHT-OF-WAY SHOULD ALSO BE CONSIDERED FOR SLOPE AND/OR DRAINAGE EASEMENTS SUCH THAT THE SWALES WOULD NOT BE FILLED BY PROPERTY OWNERS AT A LATER DATE.
 3. ONCE THE PROJECT IS COMPLETE, THE CISTERNS ARE TO BE OWNED AND MAINTAINED BY THE TOWN OF HUDSON.

ROADWAY PLAN-ROLLING WOODS DRIVE
SCALE: 1" = 50'

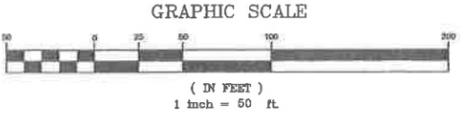
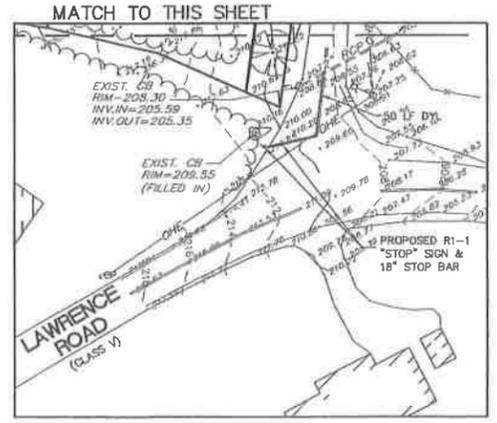
LEGEND

●	STONE BOUND FOUND	---	MINIMUM BUILDING SETBACK LINE
○	IRON PIN FOUND	---	EXISTING EASEMENT
⊙	DRILL HOLE FOUND OR SET	---	PROPOSED EASEMENT
⊙	STONE BOUND TO BE SET	---	EDGE OF TRAIL
⊙	IRON PIN TO BE SET	---	10' CONTOUR
⊙	UTILITY POLE	---	2' CONTOUR
⊙	SIGN	---	SOIL LINE
---	ABUTTER LINE	---	PROPOSED PROPERTY LINE
---	EXISTING PROPERTY LINE	---	PROPOSED UNDERGROUND UTILITY LINE
---	WETLAND	---	PROPOSED CONTOUR LINE
---	OVERHEAD UTILITIES	---	PROPOSED SILT SOXX
---	TREELINE	---	
---	STONEWALL	---	
---	WETLAND BUFFER LINE	---	

ROLLING WOODS DRIVE CENTERLINE DATA

NUMBER	DISTANCE	BEARING
L1	635.21'	N57°18'24"W
L2	131.61'	N63°53'32"W

NUMBER	RADIUS	LENGTH	BEARING
C1	500.00'	57.47'	06°35'08"
C2	74.00'	67.07'	51°55'36"
C3	46.00'	227.89'	283°51'14"
C4	73.05'	67.13'	52°38'59"



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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.

ROADWAY PLAN
ROLLING WOODS DRIVE
ROLLING WOODS
LAND OF
MATARAZZO HUDSON ASSOCIATES, INC.
MAP 144; LOT 21
BOCKES ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

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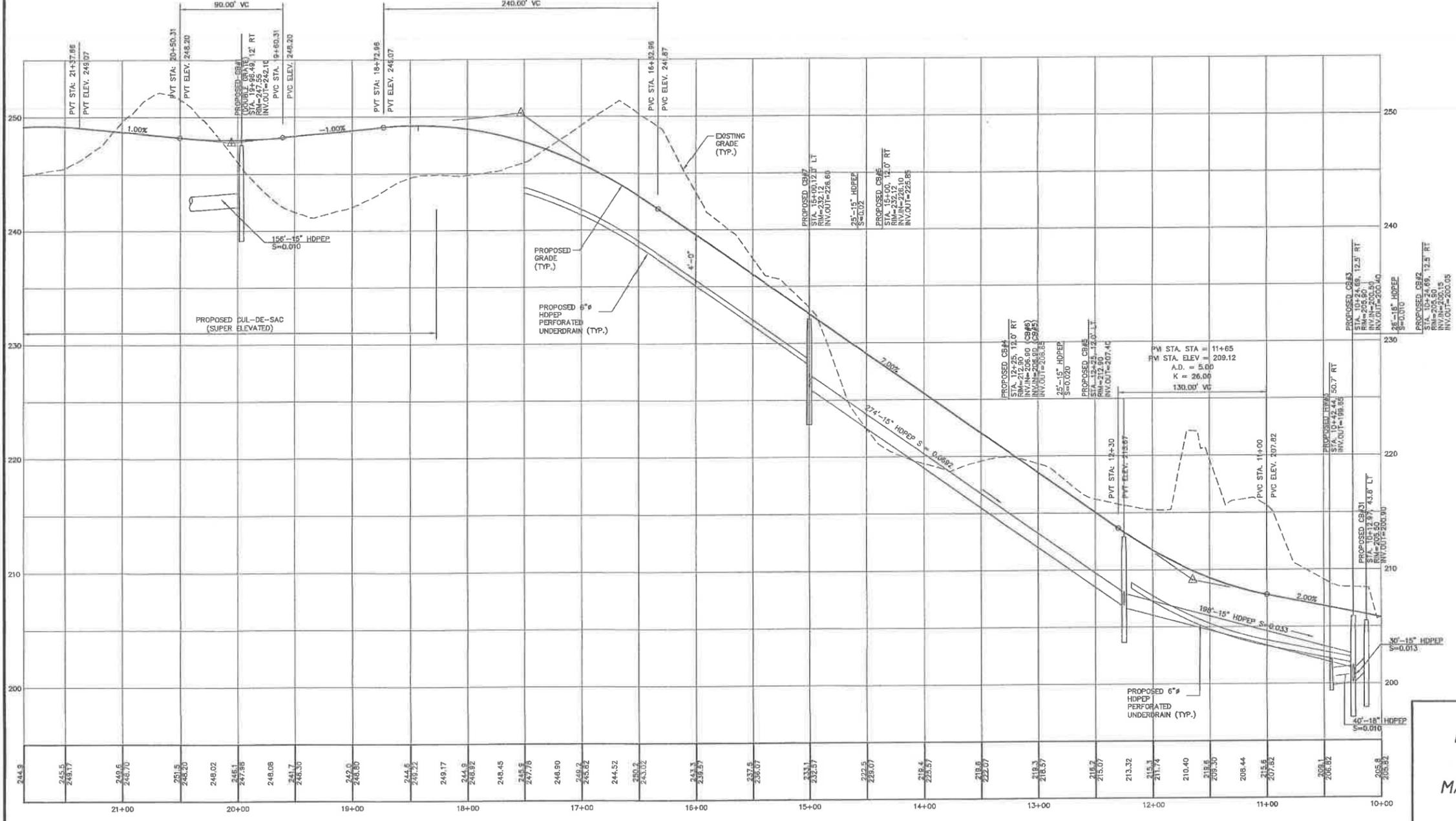
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DATE: MAY 23, 2014 SCALE: 1" = 50'
PROJECT NO: 13-0702-1 SHEET 8 OF 27

P:_proj\130702\1307021.dwg, 7/29/2015 11:45:53 AM, HP Desktop, T1500 P5 HP632

LOW POINT ELEV = 247.98
 LOW POINT STA = 20+05.31
 PM STA. STA = 20+05.31
 PM STA. ELEV = 247.75
 A.D. = 2.00
 K = 45.00

HIGH POINT ELEV = 249.22
 HIGH POINT STA = 18+42.96
 PM STA. STA = 17+52.96
 PM STA. ELEV = 250.27
 A.D. = -8.00
 K = 30.00



ROADWAY PROFILE-ROLLING WOODS DRIVE
 SCALE: 1" = 50' (HORIZ.)
 1" = 5' (VERT.)

ROADWAY PROFILE
ROLLING WOODS DRIVE
 ROLLING WOODS
 LAND OF
MATARAZZO HUDSON ASSOCIATES, INC.
 MAP 144; LOT 21
 BOCKES ROAD
 HUDSON, NEW HAMPSHIRE
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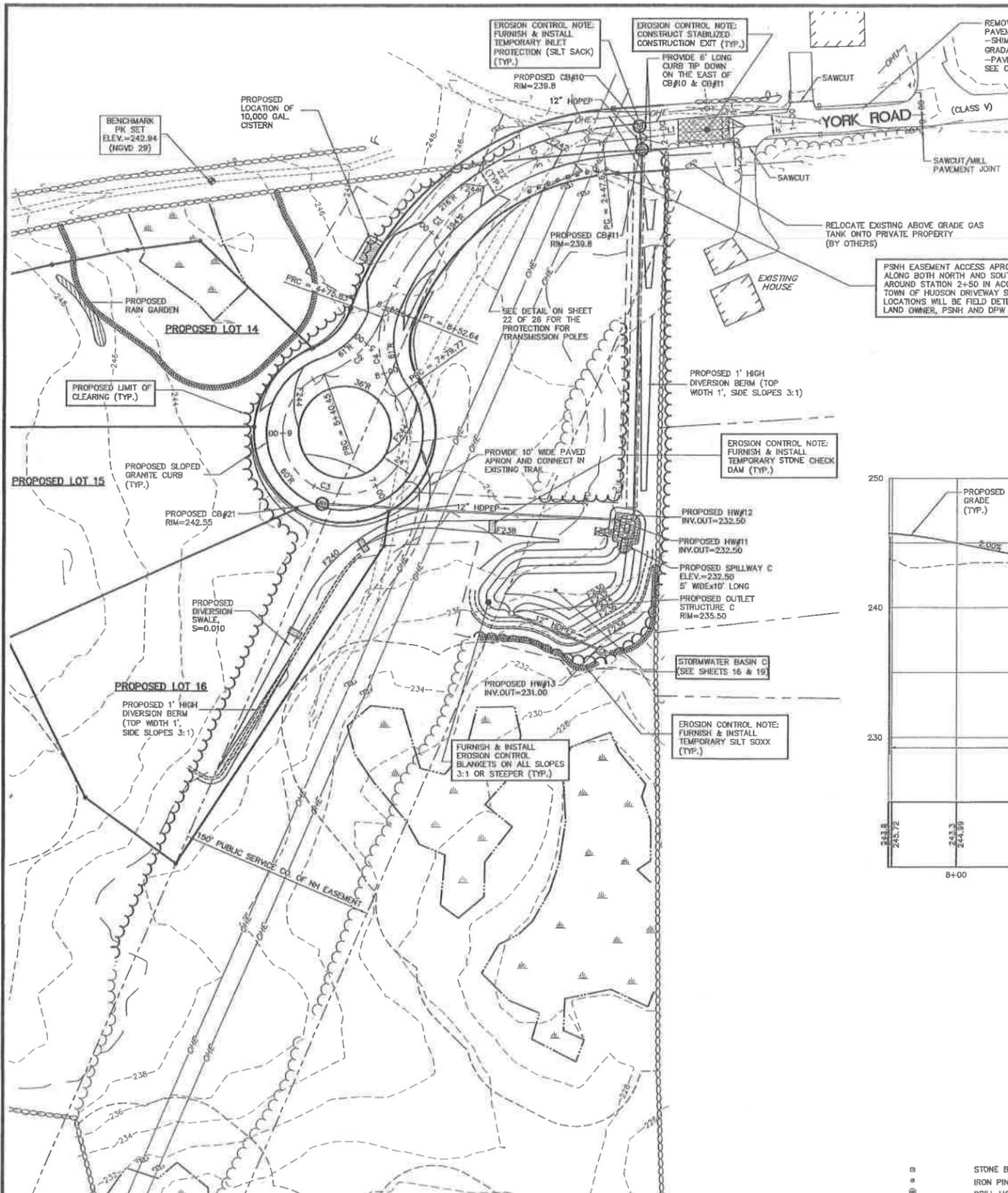
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SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

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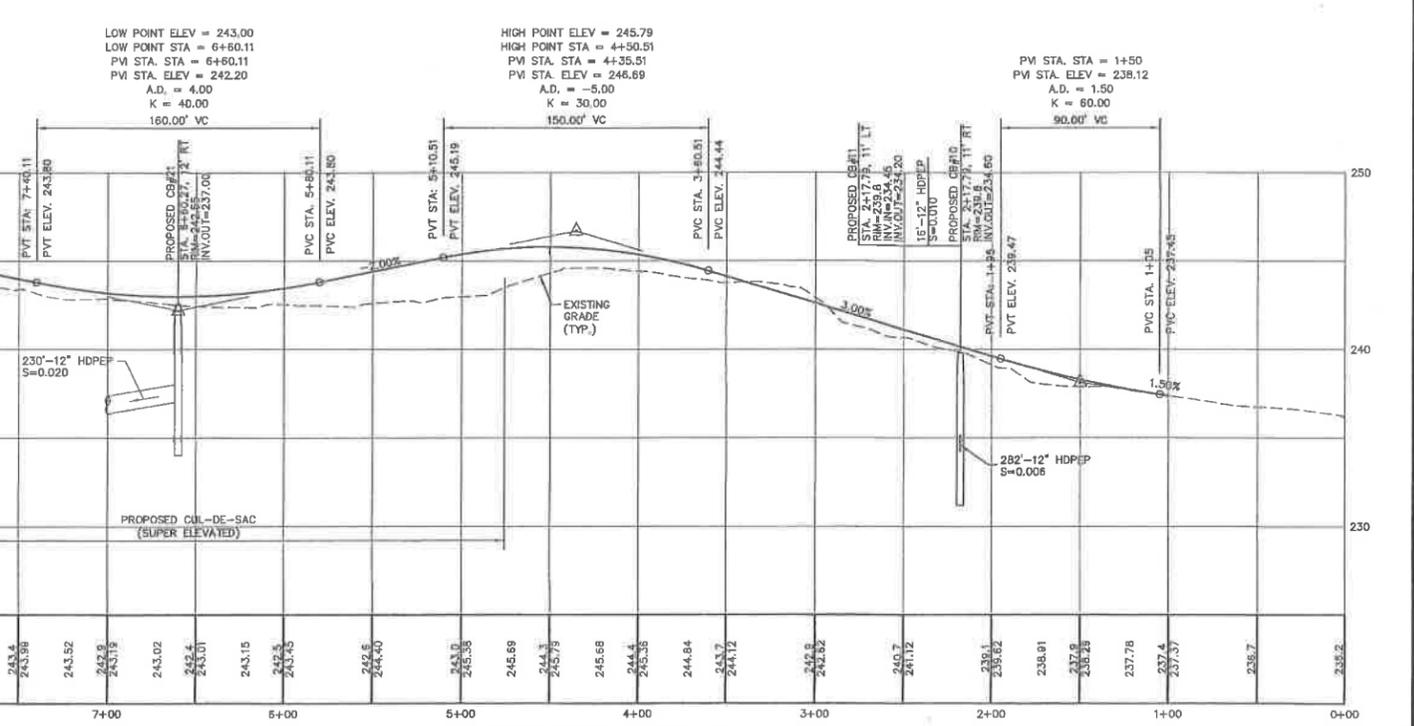
NOTES:

- THE PROPOSED DRIVEWAY LOCATIONS INDICATED WITHIN THESE DESIGN PLANS ARE REASONABLE REPRESENTATIONS AND MAY OR MAY NOT REFLECT ACTUAL DRIVEWAY LOCATIONS. ALL DRIVEWAY LOCATIONS WILL BE DETERMINED THROUGH THE TOWN OF HUDSON MUNICIPAL DRIVEWAY APPLICATION PERMIT PROCESS.
- PRIOR TO CONSTRUCTION OF THE SIDEWALKS, THE GRADING OF EACH LOT SHALL BE EVALUATED TO DETERMINE IF TOE DRAINS ARE WARRANTED. TOE DRAINS OUTSIDE THE RIGHT-OF-WAY SHOULD ALSO BE CONSIDERED FOR SLOPE AND/OR DRAINAGE EASEMENTS SUCH THAT THE SWALES WOULD NOT BE FILLED BY PROPERTY OWNERS AT A LATER DATE.
- ONCE THE PROJECT IS COMPLETE, THE CISTERNS ARE TO BE OWNED AND MAINTAINED BY THE TOWN OF HUDSON.

YORK ROAD CENTERLINE DATA

NUMBER	DISTANCE	BEARING
L1	105.86'	N66°32'00"W
L2	131.61'	N83°53'32"W

NUMBER	RADIUS	LENGTH	BEARING
C1	205.00'	228.20'	63°46'52"
C2	73.00'	84.62'	50°43'16"
C3	48.00'	239.32'	285°39'43"
C4	73.00'	72.88'	57°11'57"



ROADWAY PROFILE-YORK ROAD
 SCALE: 1" = 50' (HORIZ.)
 1" = 5' (VERT.)

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.

- LEGEND**
- STONE BOUND FOUND
 - IRON PIN FOUND
 - DRILL HOLE FOUND OR SET
 - STONE BOUND TO BE SET
 - IRON PIN TO BE SET
 - UTILITY POLE
 - SIGN
 - ABUTTER LINE
 - EXISTING PROPERTY LINE
 - WETLAND
 - OVERHEAD UTILITIES
 - TREELINE
 - STONEWALL
 - WETLAND BUFFER LINE
 - MINIMUM BUILDING SETBACK LINE
 - EXISTING EASEMENT
 - PROPOSED EASEMENT
 - EDGE OF TRAIL
 - 10' CONTOUR
 - 2' CONTOUR
 - SOIL LINE
 - PROPOSED PROPERTY LINE
 - UGU
 - F242
 - PROPOSED UNDERGROUND UTILITY LINE
 - PROPOSED CONTOUR LINE



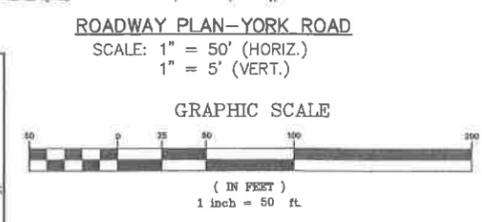
PURSUANT TO THE SUBDIVISION REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SUBDIVISION APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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ROADWAY PLAN & PROFILE
YORK ROAD
ROLLING WOODS
 LAND OF
MATARAZZO HUDSON ASSOCIATES, INC.
 MAP 144; LOT 21
 BOCKES ROAD
 HUDSON, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER OF RECORD:
 STINSON HILLS, LLC
 317 SOUTH RIVER ROAD
 BEDFORD, NH 03110
 BK. 8692, PG. 1479

APPLICANT:
 LAMONTAGNE BUILDERS, INC.
 317 SOUTH RIVER ROAD
 BEDFORD, NH 03110

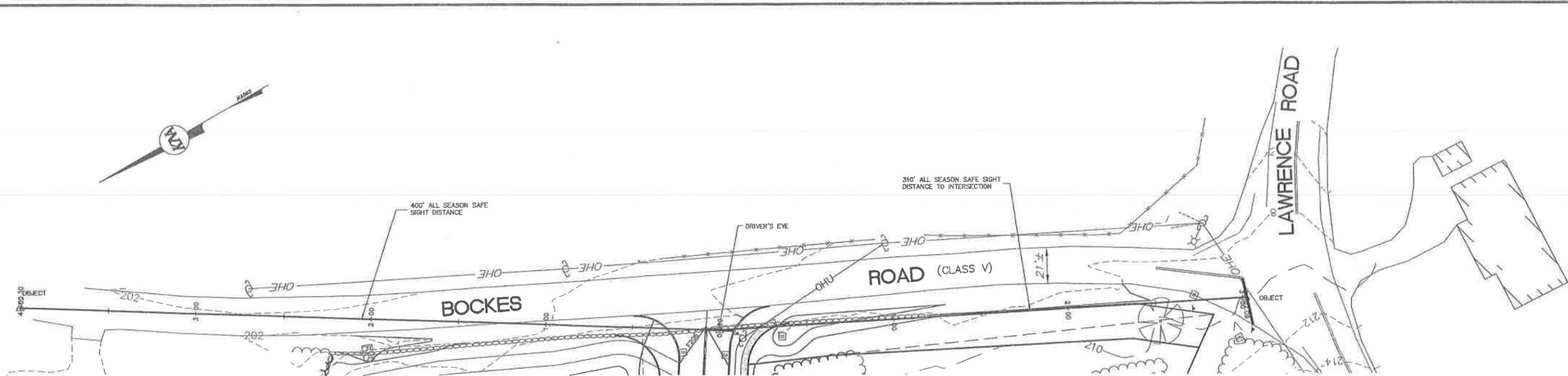
KMA KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS

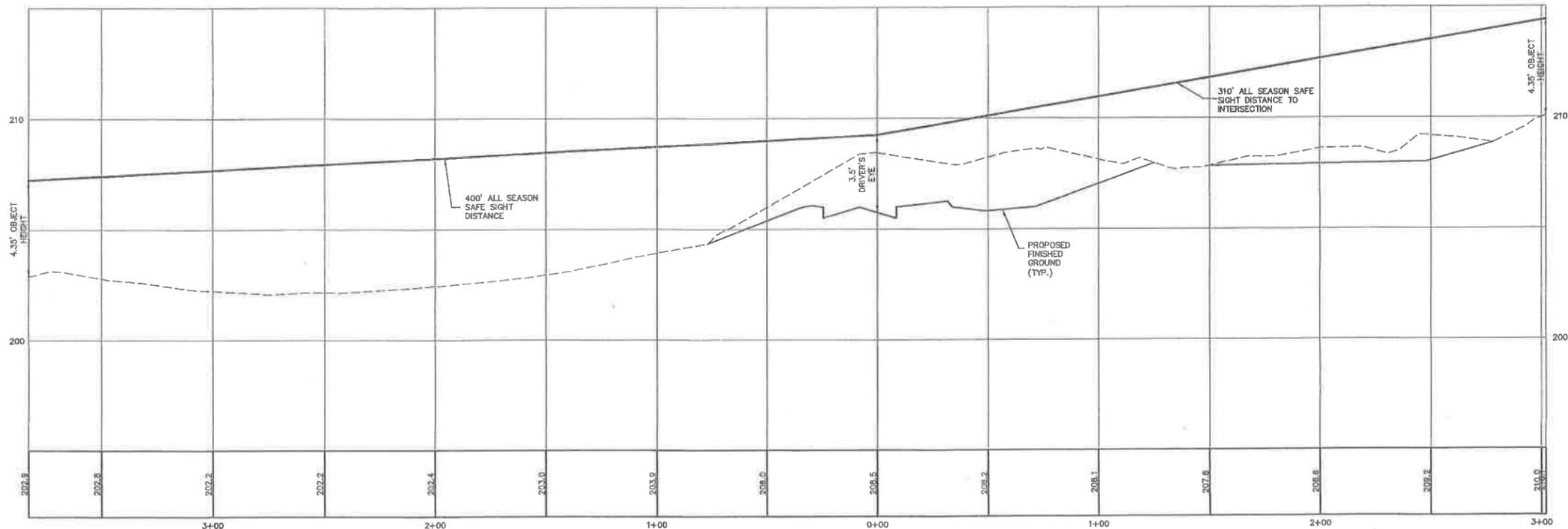
No.	DATE	DESCRIPTION	BY
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2	08/01/14	FINAL COMMENTS	JDL
3	08/21/14	REVISED PER NHDES COMMENTS	KMB
4	06/15/15	REVISED TO PRIVATE WELLS	AMB
5	07/10/15	REVISED PER PLANNING BOARD COMMENTS	KMB
6	07/29/15	REVISED PER TOWN COMMENTS	KMB

DATE: MAY 23, 2014 SCALE: 1" = 50'
 PROJECT NO: 13-0702-1 SHEET 10 OF 27

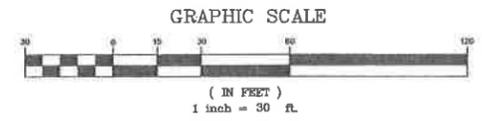
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SIGHT DISTANCE PLAN
SCALE: 1" = 30'



SIGHT DISTANCE PROFILE
SCALE: 1" = 30' (HORIZ.)
1" = 3' (VERT.)



SIGHT DISTANCE PLAN & PROFILE
ROLLING WOODS DRIVE
 ROLLING WOODS
 LAND OF
MATRAZZO HUDSON ASSOCIATES, INC.
 MAP 144; LOT 21
 BOCKES ROAD
 HUDSON, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER OF RECORD: STINSON HILLS, LLC 317 SOUTH RIVER ROAD BEDFORD, NH 03110 BK. 0692, PG. 1479	APPLICANT: LAMONTAGNE BUILDERS, INC. 317 SOUTH RIVER ROAD BEDFORD, NH 03110
--	---

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

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	06/30/14	REVISED PER CLD COMMENTS	JUL
2	08/01/14	DATE ONLY	JUL
3	08/21/14	DATE ONLY	KMB
4	06/15/15	REVISED TO PRIVATE WELLS	KMB
5	07/10/15	REVISED PER PLANNING BOARD COMMENTS	KMB
6	07/29/15	REVISED PER TOWN COMMENTS	KMB

DATE: MAY 23, 2014 SCALE: 1" = 30'
 PROJECT NO: 13-0702-1 SHEET 11 OF 27

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

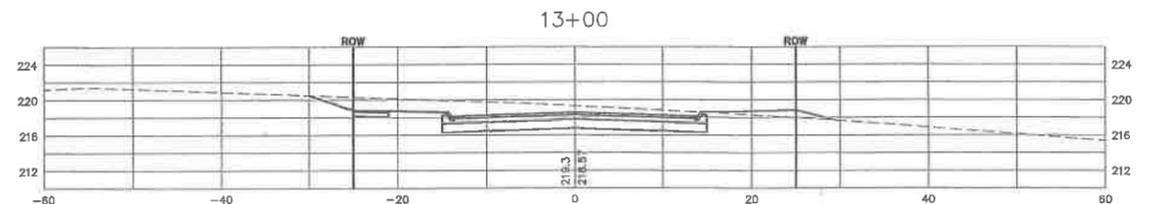
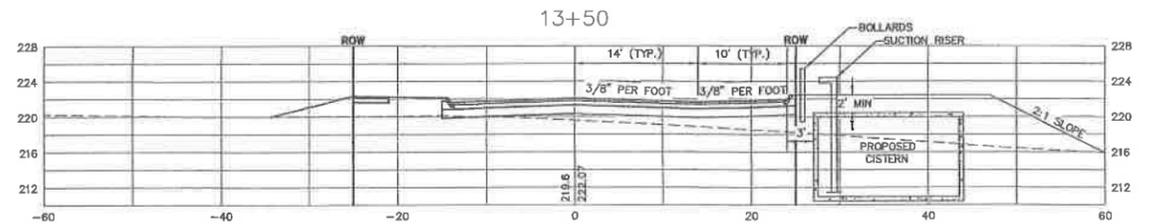
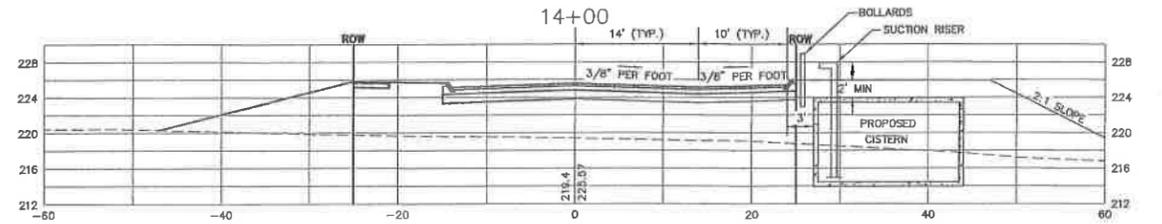
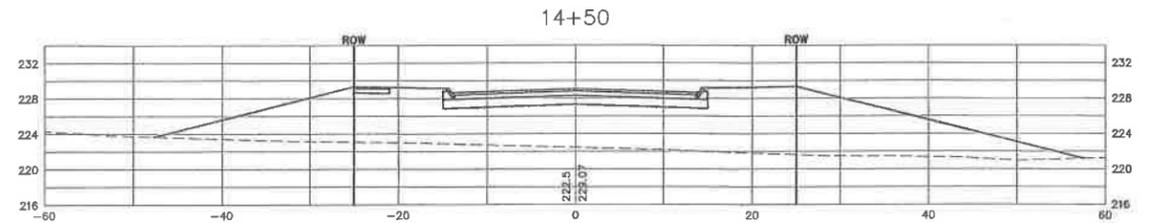
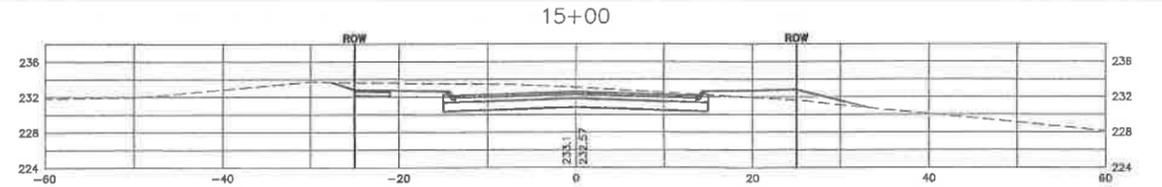
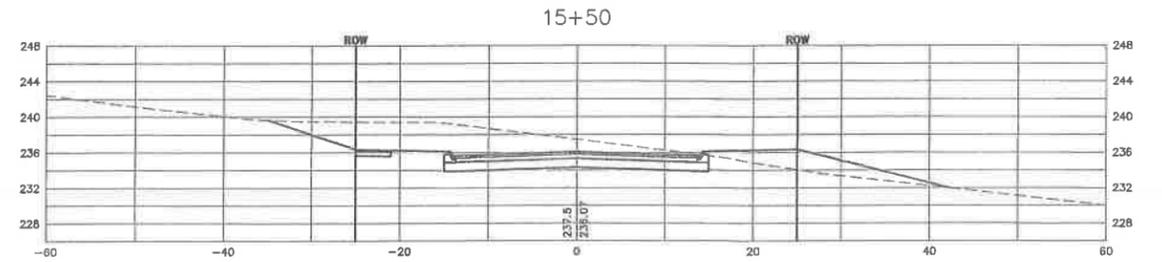
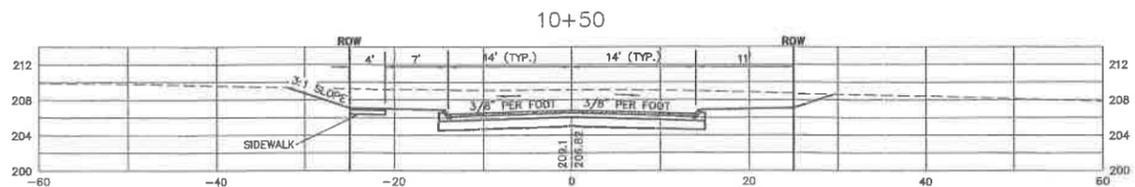
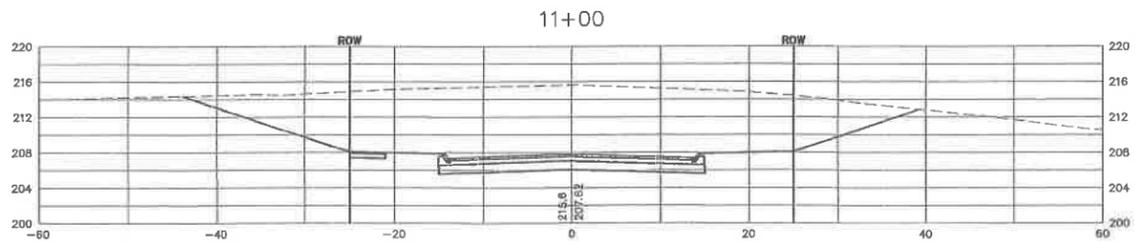
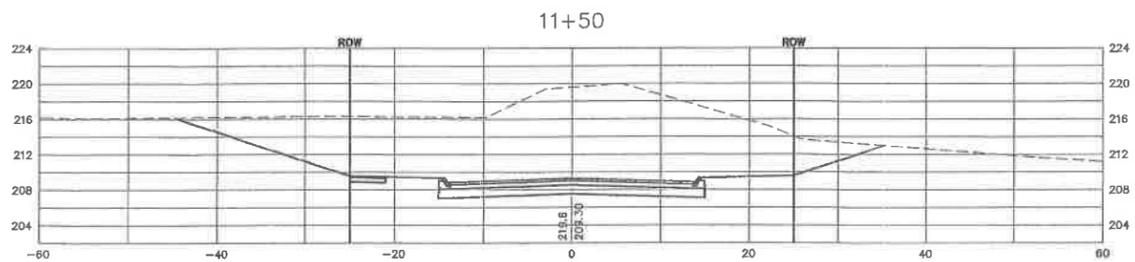
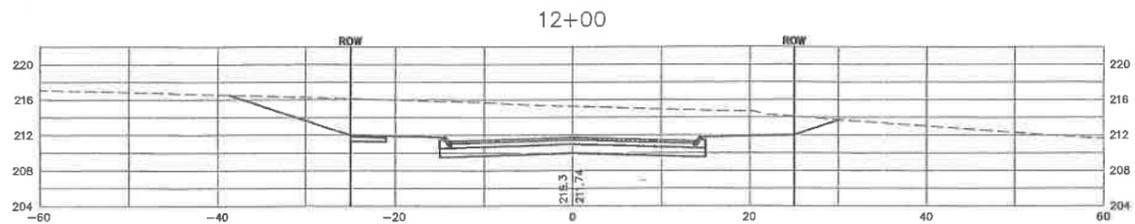
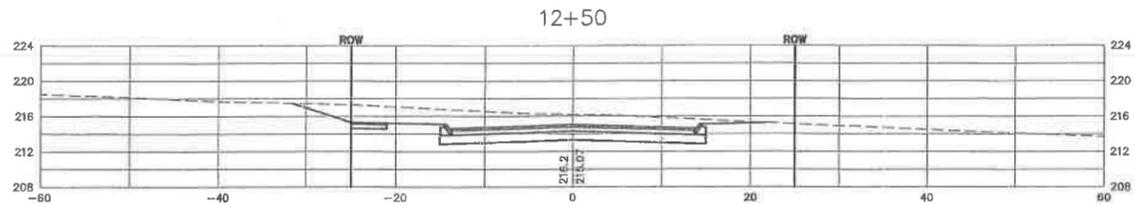
APPROVED BY THE HUDSON, NH PLANNING BOARD
 DATE OF MEETING: _____

SIGNATURE _____ DATE _____

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1	06/30/14	REVISED PER CLD COMMENTS	JDL
2	08/01/14	DATE ONLY	JDL
3	08/21/14	DATE ONLY	KMB
4	06/15/15	DATE AND PAGE NUMBER ONLY	AMB
5	07/10/15	REVISED PER PLANNING BOARD COMMENTS	KMB
6	07/28/15	REVISED PER TOWN COMMENTS	KMB

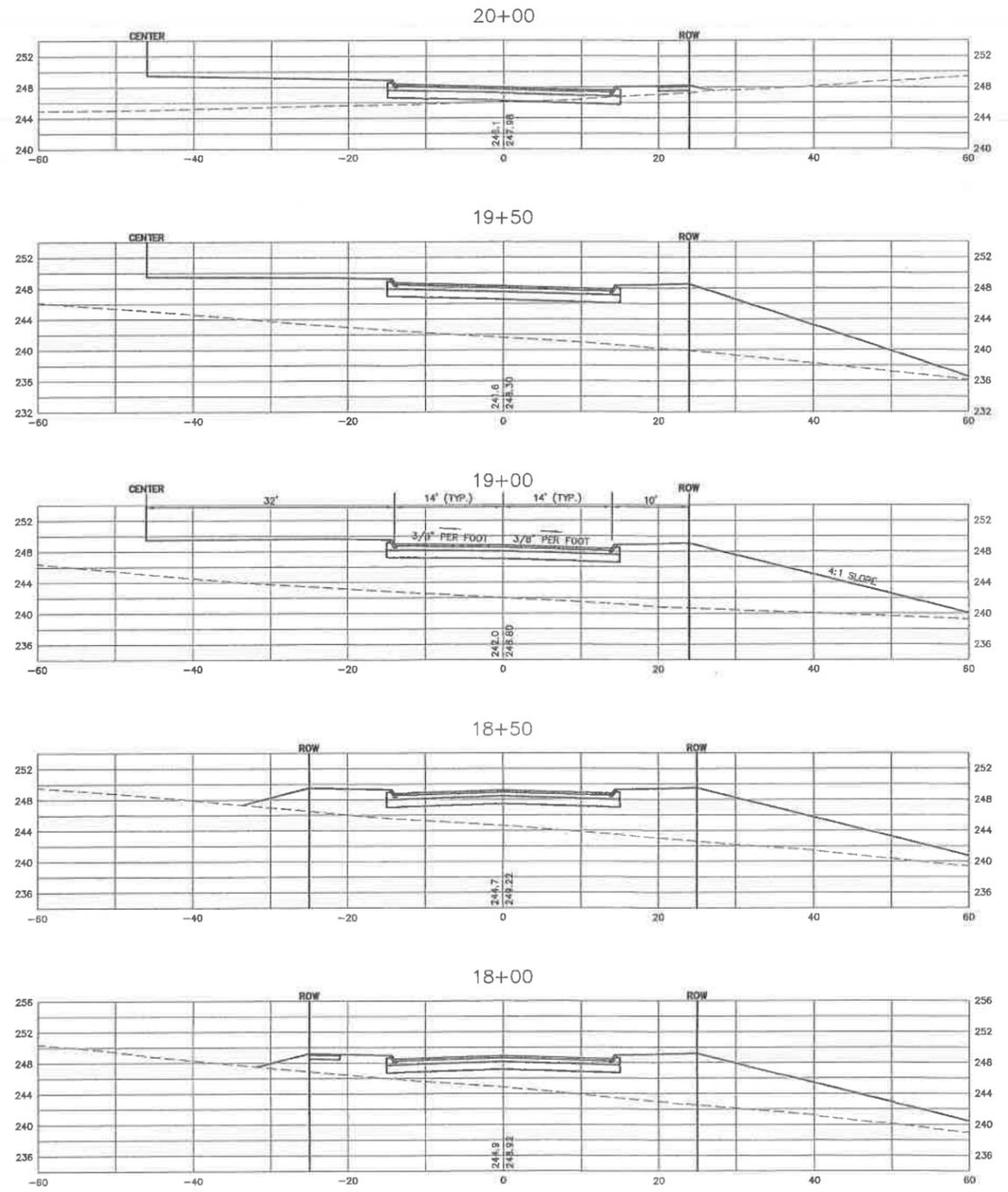
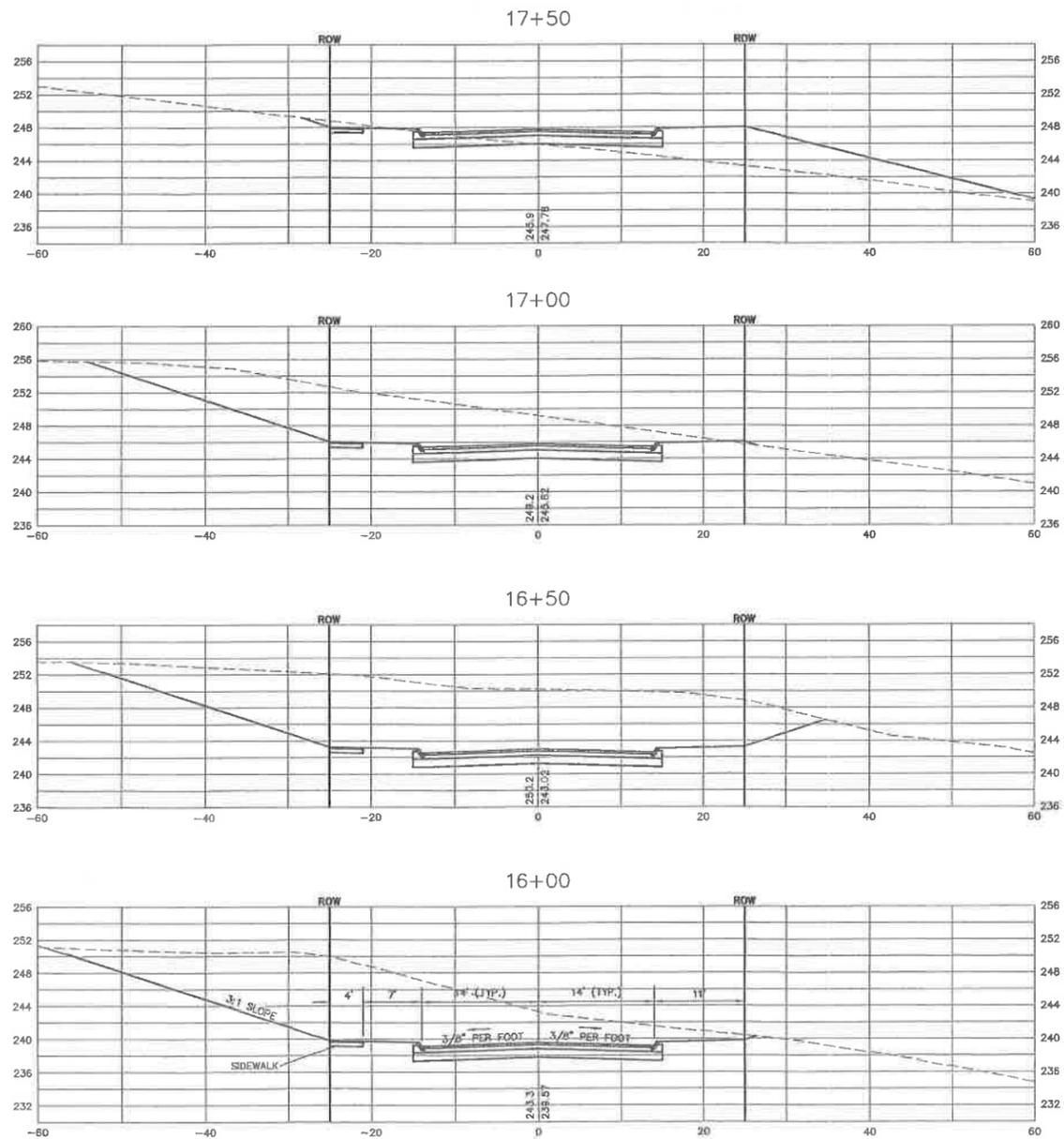
KM KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 205, Bedford, NH 03110 Phone (603) 627-8801

ROADWAY CROSS-SECTIONS
ROLLING WOODS DRIVE
 10+00 THROUGH 15+50

SCALE: 1" = 10'
 PROJECT NO. 13-0702-1
 DATE: MAY 23, 2014
 SHEET 12 OF 27

P:\project\130702\130702\130702\SECTION\REVISED.dwg, 7/30/2015 11:43:02 AM, HP DesignJet T1300 PS HPGL2

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

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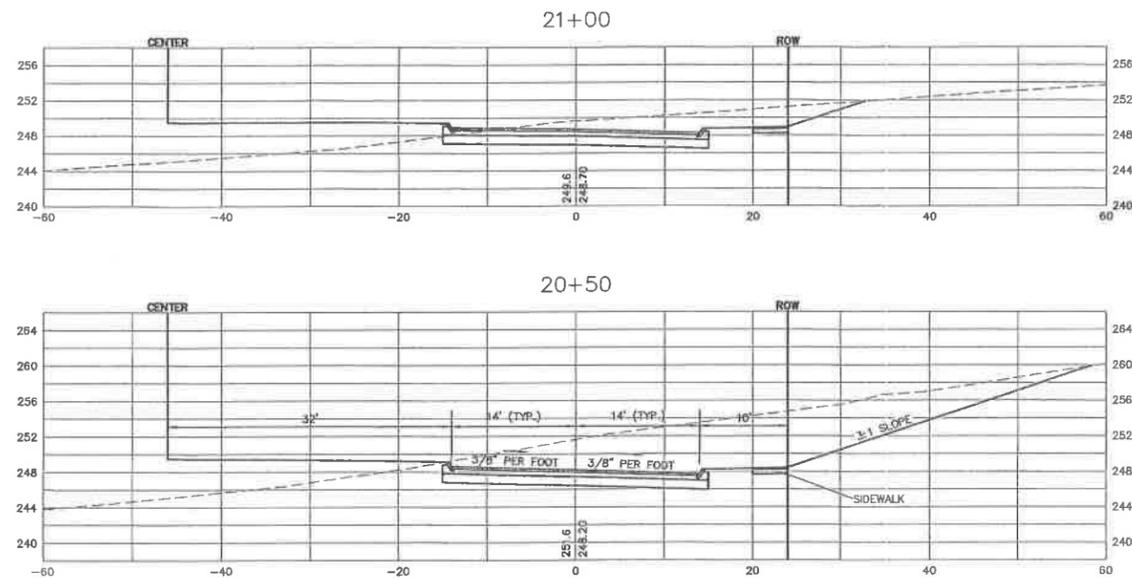
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No.	DATE	DESCRIPTION	BY
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2	08/01/14	DATE ONLY	JDL
3	08/21/14	DATE ONLY	KMB
4	06/15/15	DATE AND PAGE NUMBER ONLY	AMB
5	07/10/15	REVISED PER PLANNING BOARD COMMENTS	KMB
6	07/22/15	REVISED PER TOWN COMMENTS	KMB

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Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-8881

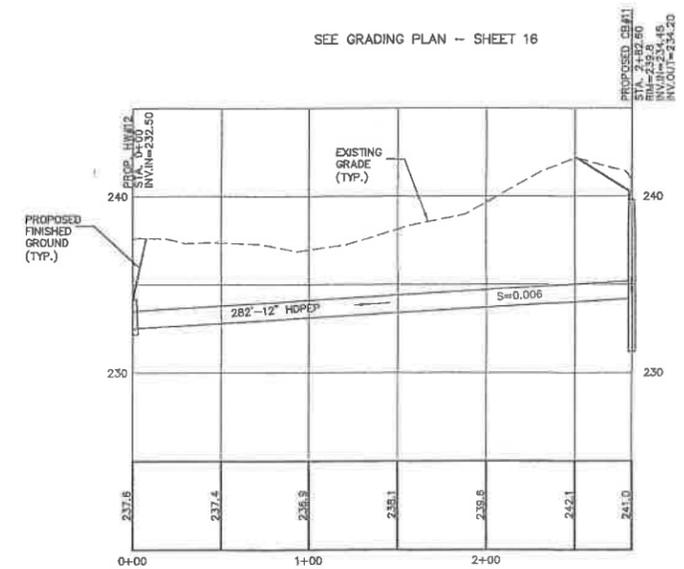
ROADWAY CROSS-SECTIONS
ROLLING WOODS DRIVE
16+00 THROUGH 20+00

SCALE: 1" = 10'
PROJECT NO. 13-0702-1
DATE: MAY 23, 2014
SHEET 13 OF 27

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SEE GRADING PLAN - SHEET 16



DRAIN PROFILE - HW#2 TO CB#11

SCALE: 1" = 50' HORIZ.
1" = 5' VERT.

PROPOSED CB#11
STA. 2+82.60
RM=232.9
INV.OUT=234.20

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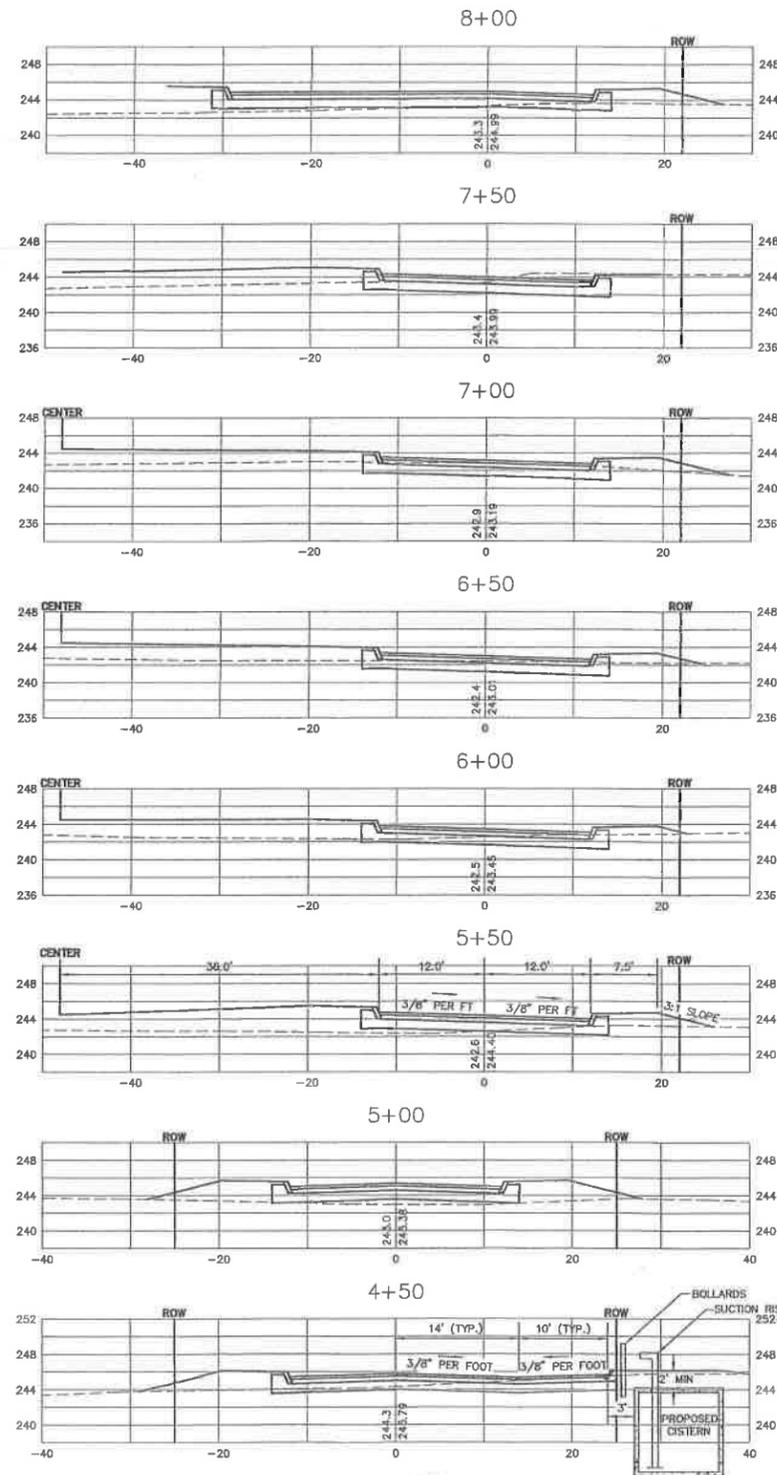
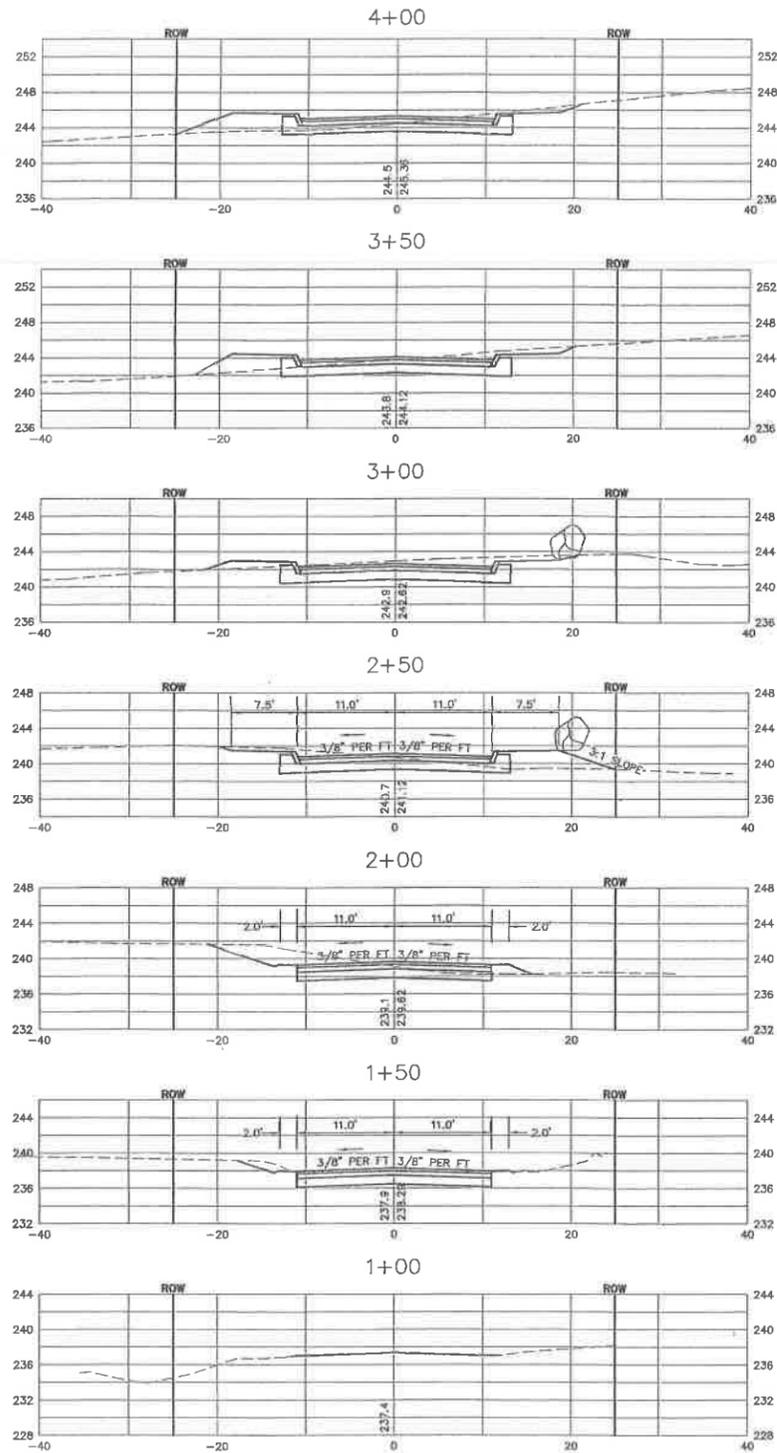


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4	08/15/15	DATE AND PAGE NUMBER ONLY	AMB
5	07/10/15	REVISED PER PLANNING BOARD COMMENTS	KMB
6	07/24/15	REVISED PER TOWN COMMENTS	KMB

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10 Commerce Park North, Suite 98, Bedford, NH 03110 Phone (603) 827-8801

ROADWAY CROSS-SECTIONS ROLLING WOODS DRIVE 20+50 THROUGH 21+00

SCALE: 1" = 10'
PROJECT NO. 13-0702-1
DATE: MAY 23, 2014
SHEET 14 OF 27



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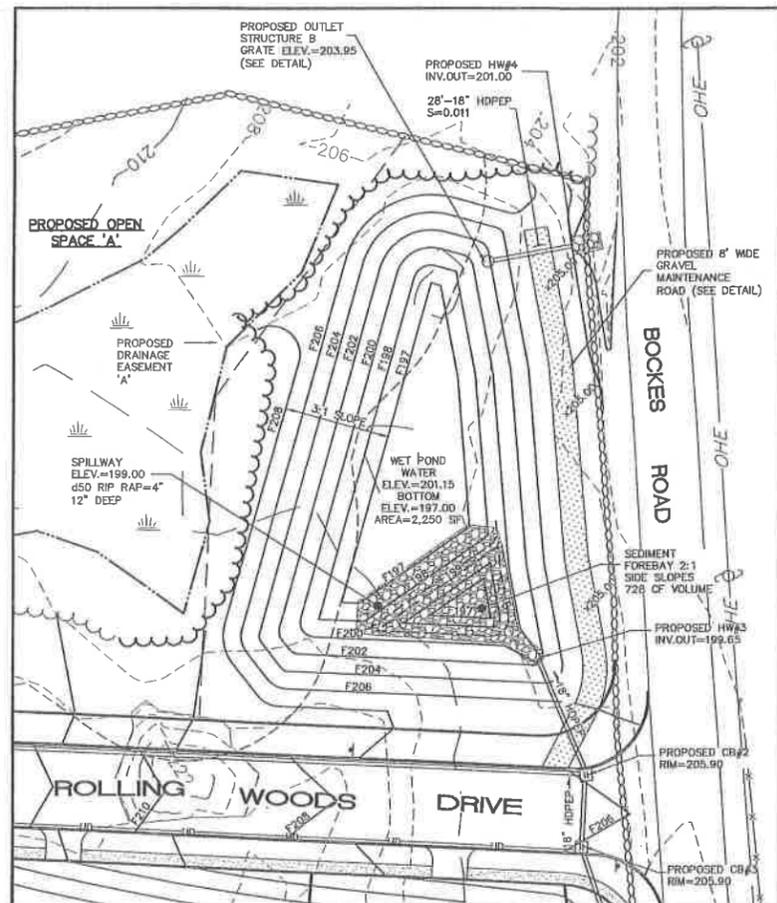
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KM KEACH-NORDSTROM ASSOCIATES, INC.
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10 Commerce Park North, Suite 28, Bedford, NH 03110 Phone (603) 827-0881

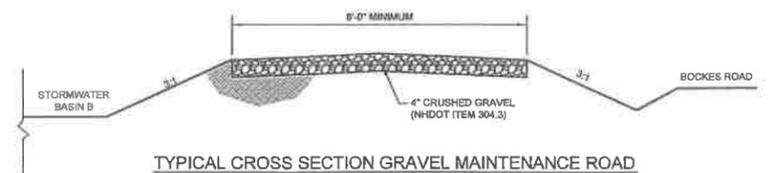
ROADWAY CROSS-SECTIONS YORK ROAD
1+00 THROUGH 8+00

SCALE: 1" = 10'
PROJECT NO. 13-0702-1
DATE: MAY 23, 2014
SHEET 15 OF 27

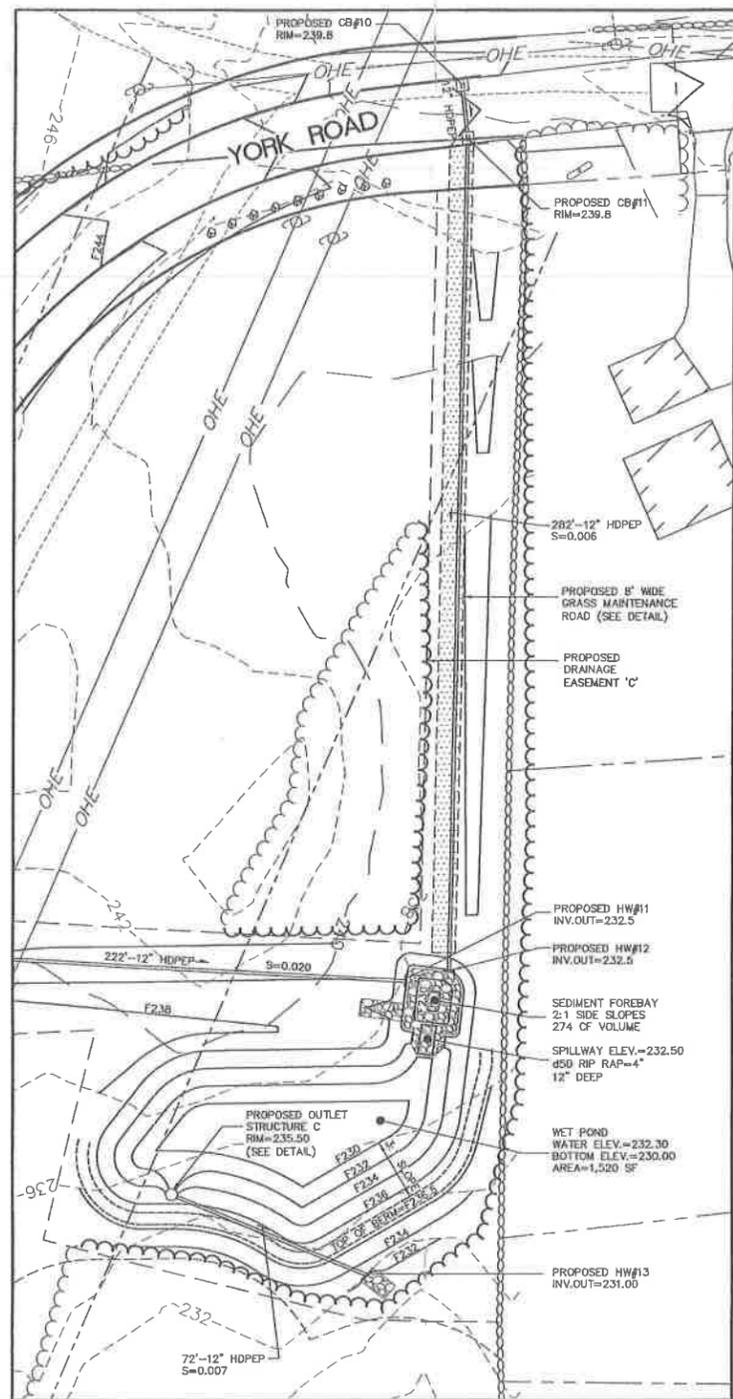
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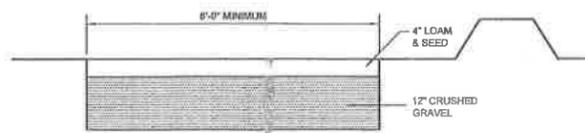
STORMWATER BASIN B
SCALE: 1" = 30'



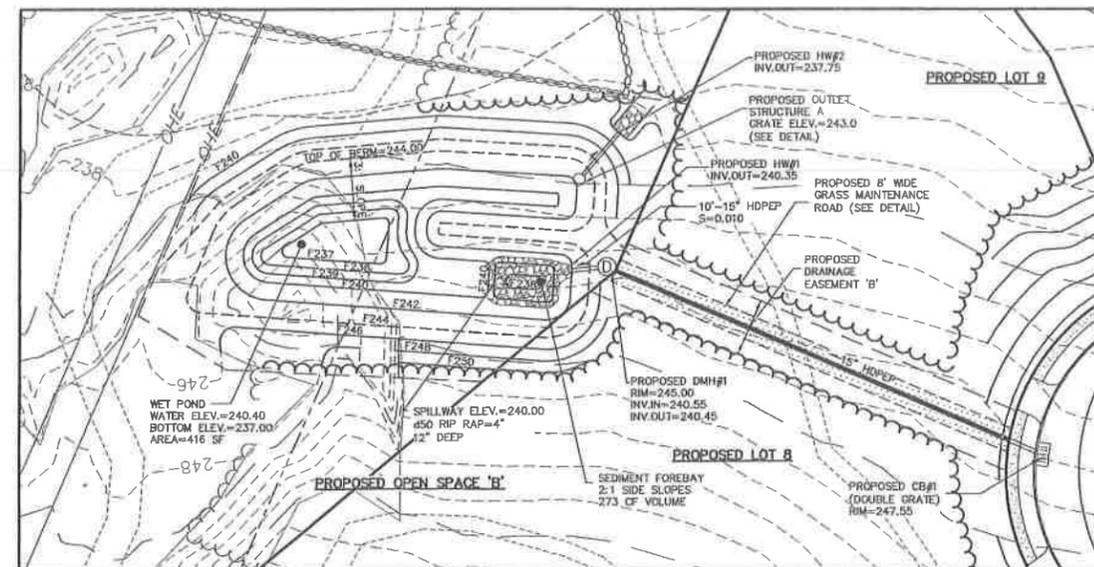
TYPICAL CROSS SECTION GRAVEL MAINTENANCE ROAD (STORMWATER BASIN B)
NOT TO SCALE



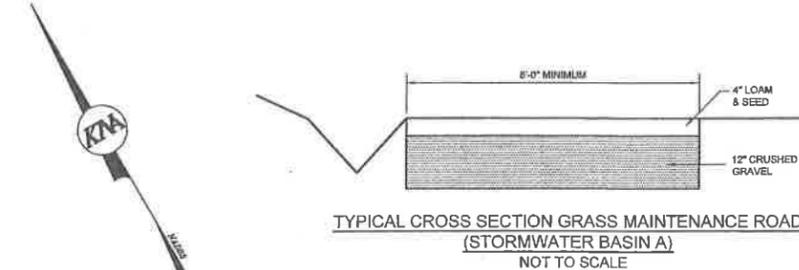
STORMWATER BASIN C
SCALE: 1" = 30'



TYPICAL CROSS SECTION GRASS MAINTENANCE ROAD (STORMWATER BASIN C)
NOT TO SCALE



STORMWATER BASIN A
SCALE: 1" = 30'

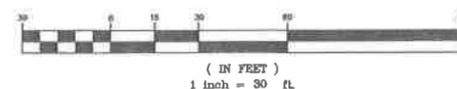


TYPICAL CROSS SECTION GRASS MAINTENANCE ROAD (STORMWATER BASIN A)
NOT TO SCALE

LEGEND

- STONE BOUND FOUND
- IRON PIN FOUND
- ⊙ DRILL HOLE FOUND OR SET
- ⊕ UTILITY POLE
- SIGN
- ABUTTER LINE
- EXISTING PROPERTY LINE
- WETLAND
- OVERHEAD UTILITIES
- TREELINE
- STONEWALL
- WETLAND BUFFER LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EDGE OF TRAIL
- 10' CONTOUR
- 2' CONTOUR
- PROPOSED PROPERTY LINE
- PROPOSED CONTOUR LINE

GRAPHIC SCALE



STORMWATER BASIN DETAILS
ROLLING WOODS DRIVE
ROLLING WOODS
LAND OF
MATARAZZO HUDSON ASSOCIATES, INC.
MAP 144; LOT 21
BOCKES ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD: STINSON HILLS, LLC
317 SOUTH RIVER ROAD
BEDFORD, NH 03110
BK. 8692, PG. 1479

APPLICANT: LAMONTAGNE BUILDERS, INC.
317 SOUTH RIVER ROAD
BEDFORD, NH 03110

KM KEACH-NORDSTROM ASSOCIATES, INC.
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10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 827-2881

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6	07/29/15	REVISED PER TOWN COMMENTS	KMB

DATE: MAY 23, 2014
PROJECT NO: 13-0702-1
SCALE: 1" = 30'
SHEET 16 OF 27

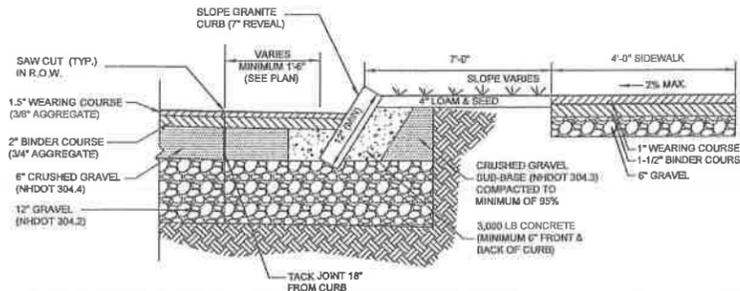
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DATE OF MEETING: _____

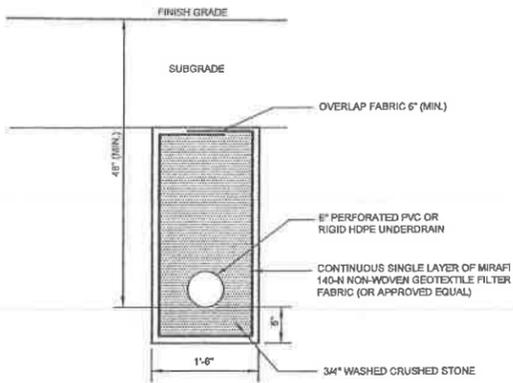
SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

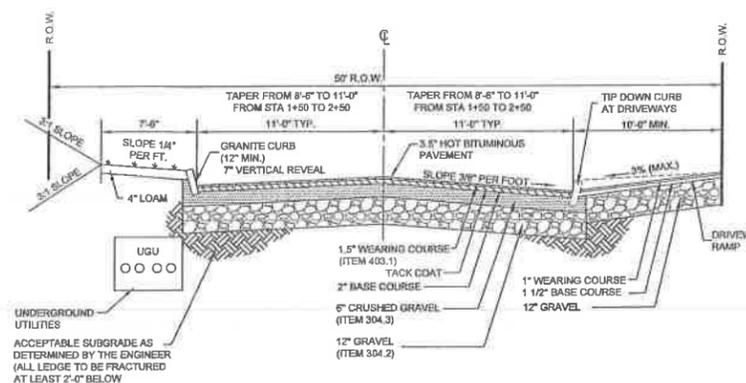
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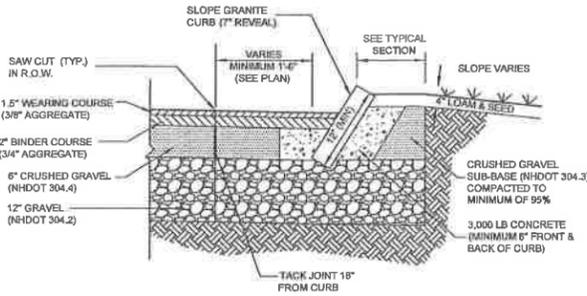
SLOPE GRANITE CURB & SIDEWALK DETAIL
NOT TO SCALE



UNDERDRAIN
NOT TO SCALE
(MARCH 2008)



TYPICAL CROSS SECTION (YORK ROAD)
NOT TO SCALE

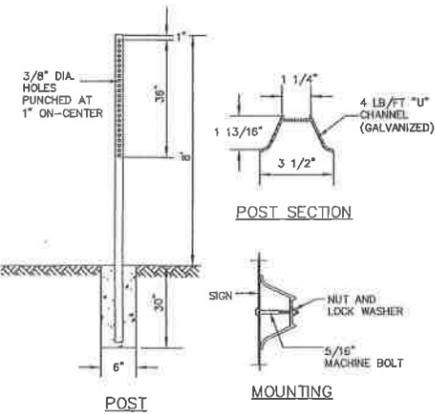


SLOPE GRANITE CURB DETAIL
NOT TO SCALE

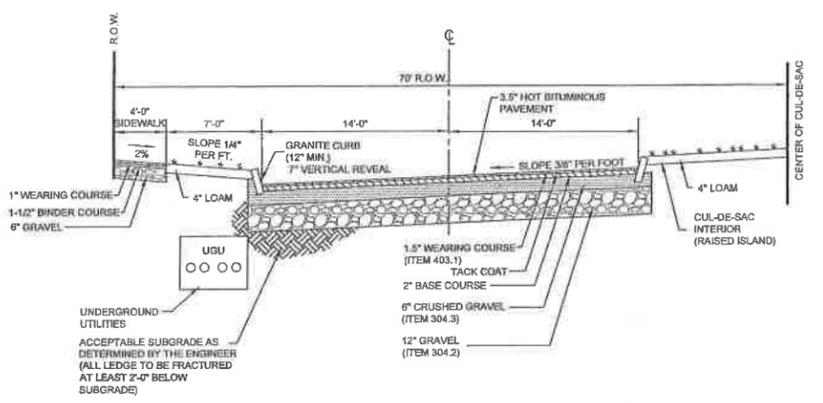


NOTES:
1. STREET NAME SIGNS SHALL BE METAL, IN CONFORMITY WITH NEW SIGNS PURCHASED BY THE TOWN, TWO-FACED AND REFLECTORIZED, SIX INCHES HIGH WITH THREE-AND-ONE-HALF-INCH LETTERS EMBOSSED AND REFLECTORIZED WITH GREEN BACKGROUND AND WHITE LETTERS, OF ALUMINUM METAL.

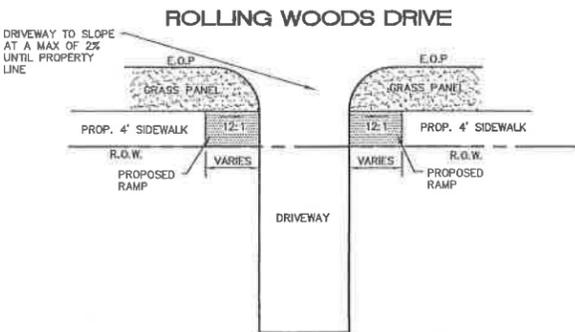
TYPICAL SIGN PLATE DETAILS
NOT TO SCALE



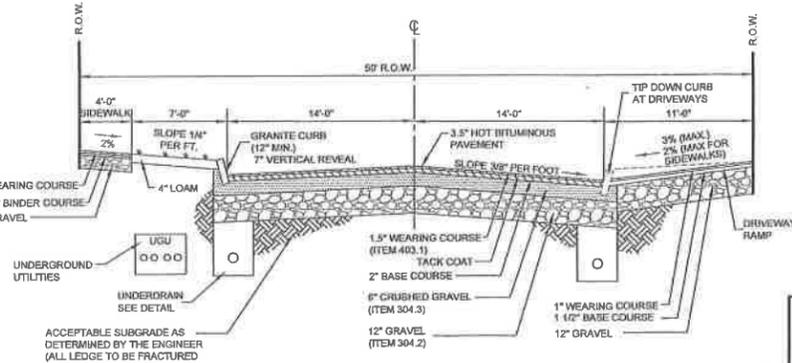
TYPICAL SIGN POST DETAIL
NOT TO SCALE



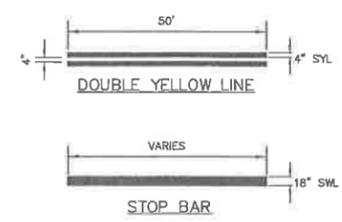
TYPICAL SUPER ELEVATED CROSS SECTION (ROLLING WOODS DRIVE)
NOT TO SCALE



RAMP DETAIL AT DRIVEWAY
NOT TO SCALE

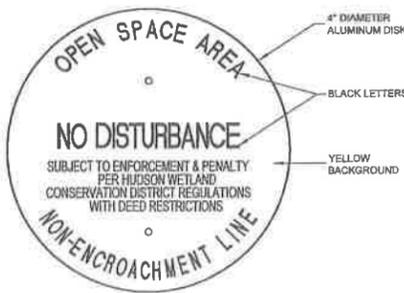


TYPICAL CROSS SECTION (ROLLING WOODS DRIVE)
NOT TO SCALE

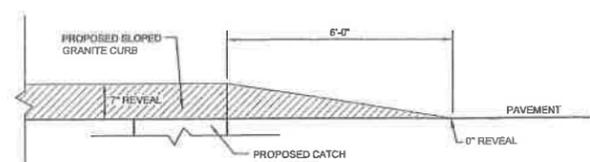


TYPICAL PAVEMENT MARKING DETAIL
NOT TO SCALE

STRIPING NOTES:
1. ALL PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THESE STANDARDS AND THE CURRENT EDITION OF MUTCD.
2. WIDTH OF LINES SHALL VARY NO MORE THAN 1/4 INCH FROM THAT SPECIFIED.
3. THE WET FILM THICKNESS OF A PAINTED LINE SHALL BE A MINIMUM OF 15 MILS THROUGHOUT THE ENTIRE WIDTH AND LENGTH OF LINE SPECIFIED.
4. OVERSPRAY SHALL BE KEPT TO AN ABSOLUTE MINIMUM.
5. ALL PAINT SHALL COMPLY WITH MHDOT SPECIFICATION SECTION 708.



MARKER NOTES:
1. PLACE MARKERS EVERY 100' ON BOUNDARY LINES BETWEEN RESIDENT LOTS AND OPEN SPACE AND AT ANY POINT IN WHICH A BOUNDARY LINE CHANGES BEARING DIRECTION.
2. PROVIDED BY QUALITY NAME PLATE, INC. 1-800-365-2220, OR APPROVED EQUAL.
ALUMINUM MARKER DETAIL
NOT TO SCALE



SLOPED GRANITE CURB TIP DOWN DETAIL
NOT TO SCALE

- CONSTRUCTION NOTES:**
1. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. IN THE EVENT THAT A DISCREPANCY FROM THE INFORMATION SHOWN ON THESE PLANS IS FOUND, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO RESOLVE THE SITUATION.
 2. PRIOR TO CONSTRUCTION, CONTACT DIG SAFE CENTER, TOLL FREE 811, NEW HAMPSHIRE STATE LAW REQUIRES NOTIFICATION AT LEAST THREE BUSINESS DAYS BEFORE DIGGING OPERATIONS START. IF AN EMERGENCY, CALL IMMEDIATELY.
 3. ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO THE CONSTRUCTION OF ROADS AND DRAINAGE SHOWN HEREON SHALL CONFORM WITH THE STANDARDS OF THE TOWN OF HUDSON ENGINEERING DEPARTMENT AND THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AS PUBLISHED AND AMENDED BY THE N.H.D.O.T.
 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROL DEVICES, AS SHOWN IN THESE PLANS, THROUGHOUT THE DURATION OF THE PROJECT IN ACCORDANCE WITH APPLICABLE NHDES STANDARDS. THE EROSION CONTROL MEASURES PROVIDED SERVE AS A GUIDE ONLY AND SHALL BE CONSIDERED A MINIMUM STANDARD. CONTRACTOR SHALL IMPLEMENT ANY AND ALL ADDITIONAL MEASURES AS FIELD CONDITIONS DICTATE OR AS REQUIRED BY LOCAL OR STATE GUIDELINES. ALL EROSION CONTROL SHALL BE MAINTAINED AND/OR REPLACED IF DAMAGED.
 5. THE CONTRACTOR SHALL STABILIZE ALL DITCHES, SWALES AND PONDS PRIOR TO DIRECTING STORM WATER RUN-OFF TO THEM.
 6. SILT SOXKS TO BE CONSTRUCTED AS IDENTIFIED ON THIS PLAN. SILT SOXK BARRIERS TO BE CHECKED WEEKLY AND/OR AFTER LARGE STORM EVENTS. ALL SILT MATERIAL TO BE REMOVED. ANY DAMAGED SILT SOXK SHALL BE REINSTALLED IMMEDIATELY.
 7. SLOPE STABILIZATION METHODS SHALL BE PROVIDED IN ACCORDANCE WITH THE NHDES SITE SPECIFIC PERMIT OR AS FIELD CONDITIONS DICTATE. SLOPE STABILIZATION SHALL BE PROVIDED ON ALL SLOPES 3:1 AND GREATER AS A MINIMUM STANDARD. PROVIDE SLOPE STABILIZATION ON SLOPES LESS THAN 3:1 IF WARRANTED, AS FIELD CONDITIONS DICTATE.
 8. THE DRAINAGE DESIGN AND EROSION CONTROL MEASURES AS PROPOSED MEET ALL TOWN AND STATE REQUIREMENTS AND BEST MANAGEMENT PRACTICES AS PROMULGATED BY THE NHDES.
 9. ALL EXCAVATIONS SHALL BE THOROUGHLY SECURED ON A DAILY BASIS BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION OPERATIONS IN THE IMMEDIATE AREA.
 10. TOPSOIL SHALL BE REMOVED FOR ITS TOTAL DEPTH WITHIN THE LIMITS OF GRADING, UNLESS OTHERWISE DIRECTED. DISPOSAL OF SUCH MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS AND GUIDELINES AS APPLICABLE OR AS DIRECTED.
 11. UNSUITABLE MATERIAL, ROOTS, AND STUMPS WITHIN THE LIMITS OF WORK SHALL BE REMOVED FROM THE SITE AS ORDERED. DISPOSAL OF SUCH MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS AND GUIDELINES AS APPLICABLE OR AS DIRECTED.
 12. THE SUBGRADE SHALL BE SCARIFIED TO ASSURE THAT ALL BOULDERS AND COBBLES OVER 6" ARE REMOVED PRIOR TO SHAPE, GRADE, AND COMPACTION ACTIVITIES.
 13. ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO THE CONSTRUCTION OF ELECTRIC LINES SHALL CONFORM WITH THE STANDARDS OF THE OWNING UTILITY COMPANY.
 14. ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO THE CONSTRUCTION OF TELEPHONE LINES SHALL CONFORM WITH THE STANDARDS OF THE OWNING TELEPHONE COMPANY.
 15. 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.
 16. THE CONTRACTOR SHALL COORDINATE MATERIALS AND INSTALLATION SPECIFICATIONS WITH THE INDIVIDUAL UTILITY AGENCIES/COMPANIES AND ARRANGE FOR ALL INSPECTIONS.
 17. 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.
 18. CONTRACTOR SHALL COORDINATE WITH PHONE, CABLE, AND ELECTRIC COMPANIES FOR POTENTIAL NEED OF INDIVIDUAL SECTORS AT EACH LOT SERVICE CONNECTION.
 19. THE CONTRACTOR SHALL MAINTAIN EMERGENCY ACCESS TO ALL AREAS AFFECTED BY HIS WORK AT ALL TIMES.
 20. THE CONTRACTOR SHALL VERIFY TBM ELEVATIONS PRIOR TO CONSTRUCTION.

**CONSTRUCTION DETAILS
ROLLING WOODS**

MAP 144; LOT 21
BOCKES ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

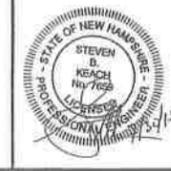
OWNER OF RECORD:
STINSON HILLS, LLC
317 SOUTH RIVER ROAD
BEDFORD, NH 03110
BK. 8592, PG. 1479

APPLICANT:
LAMONTAGNE BUILDERS, INC.
317 SOUTH RIVER ROAD
BEDFORD, NH 03110

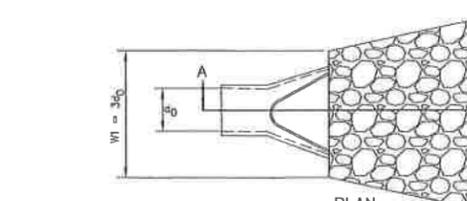
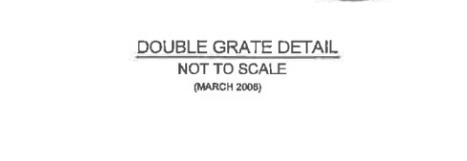
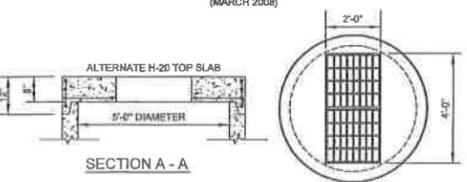
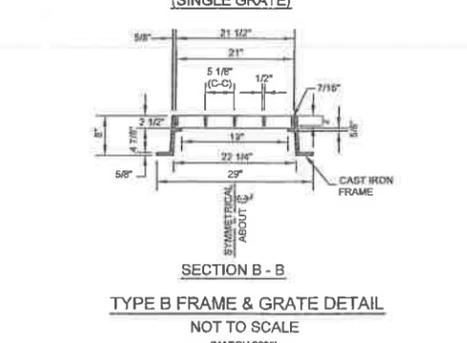
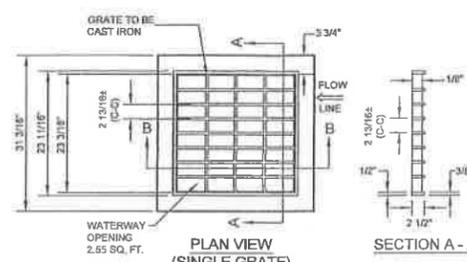
KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 827-2801

REVISIONS				
No.	DATE	DESCRIPTION	BY	JDL
1.	06/30/14	REVISED PER CLD COMMENTS	JDL	
2.	08/01/14	FINAL COMMENTS	JDL	
3.	08/21/14	DATE ONLY	KMB	
4.	06/15/15	REVISED TO PRIVATE WELLS	AMB	
5.	07/10/15	REVISED PER PLANNING BOARD COMMENTS	KMB	
6.	07/28/15	REVISED PER TOWN COMMENTS	KMB	

DATE: MAY 23, 2014 SCALE: AS NOTED
PROJECT NO: 13-0702-1 SHEET 17 OF 27



P:\projects\130702\130702.dwg (130702) - DETAILS - REVISED.dwg, 7/20/2015 11:39:24 AM, HP Desktop T1500 P5 HPGL2



LOCATION	L _a	W ₁ = W ₂	d50	DEPTH
HWP1	10'	6'	4"	12"
HWP2	10'	6'	4"	12"
HWP3	30'	6'	4"	12"
HWP4	10'	6'	4"	12"
HWP11	10'	6'	4"	12"
HWP12	10'	6'	4"	12"
HWP13	10'	6'	4"	12"

DIAMETER D (INCH)	AREA OF PIPE (SF)	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
12"	0.78	0.196	1.88	0.81	9	3'-3"	0.111	0.789	0.30	3'-6"	3'-0"	10"	1'-10 1/2"
15"	1.23	0.202	1.73	0.85	11	3'-10"	0.120	0.947	0.35	4'-6"	3'-0"	11"	1'-11 1/4"
18"	1.77	0.222	2.32	1.13	14	5'-0"	0.130	1.111	0.39	5'-6"	4'-0"	11'-4"	2'-0"
24"	3.14	0.260	4.71	1.76	20	7'-3"	0.148	1.451	0.48	7'-6"	4'-6"	11'-10"	2'-1 1/2"
30"	4.81	0.301	7.67	2.58	25	9'-3"	0.165	1.810	0.65	9'-6"	5'-0"	2'-4"	2'-3"
36"	7.07	0.344	11.49	3.53	31	11'-2"	0.222	2.187	0.85	11'-6"	5'-6"	2'-10"	2'-4 1/2"

PURSUANT TO THE SUBDIVISION 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 _____

SUBDIVISION 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.

NOTES:

- 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.
- THE TONGUE OR GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCH PER LINEAR FOOT.
- RISER OF 1', 2', 3' & 4' CAN BE USED TO REACH DESIRED DEPTH.
- EXCAVATION PER FOOT OF DEPTH = 1.358 C.Y.

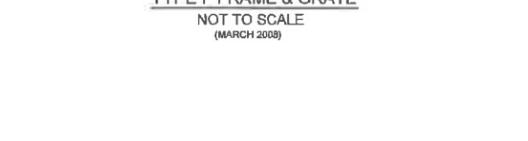
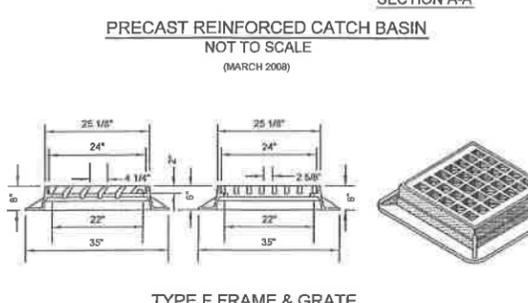
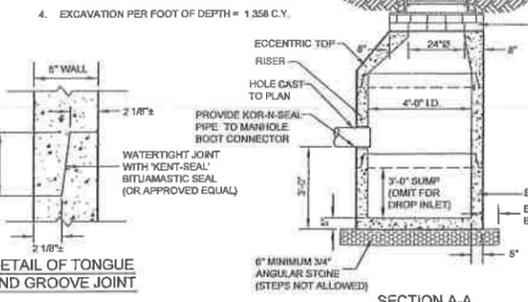


TABLE 7-24 - RECOMMENDED RIP RAP GRADATION RANGES

PERCENT OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (RELATIVE TO #50)
100%	(1.5 TO 2.0) x d50
85%	(1.3 TO 1.8) x d50
50%	(1.0 TO 1.5) x d50
15%	(0.3 TO 0.5) x d50

CONSTRUCTION SPECIFICATIONS:

- THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
- THE ROCK OR GRAVEL USED FOR FILTER OR RIP RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
- 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.
- 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.

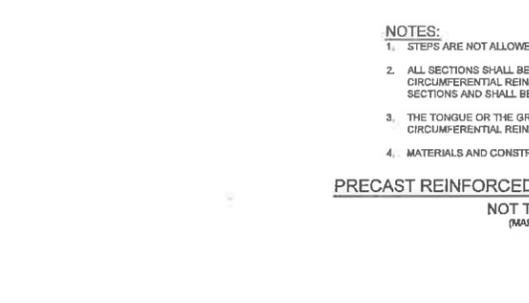
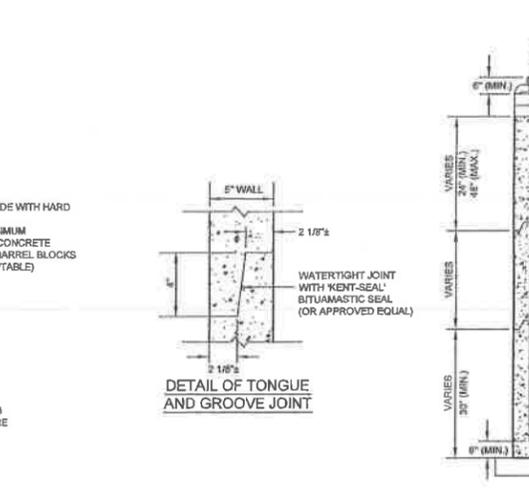
MAINTENANCE:

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.

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

NOTE: STEEL QUANTITIES ARE FOR CONCRETE HEADWALLS ONLY.

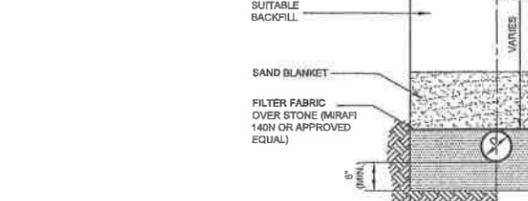
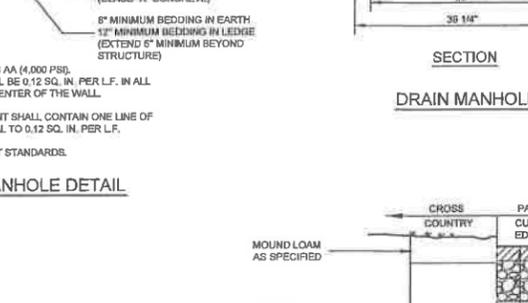
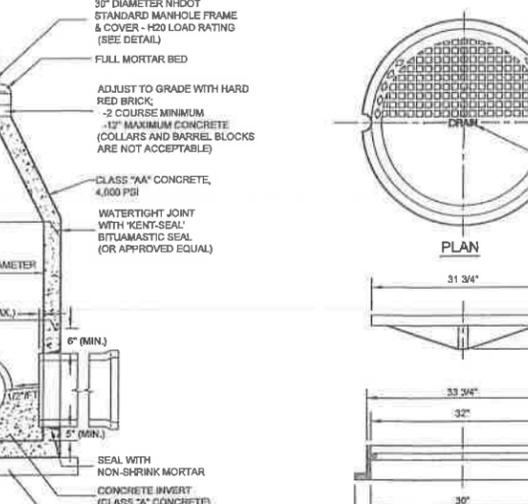
MORTAR RUBBLE MASONRY AND CONCRETE HEADWALLS
NOT TO SCALE



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

NOTE: STEEL QUANTITIES ARE FOR CONCRETE HEADWALLS ONLY.

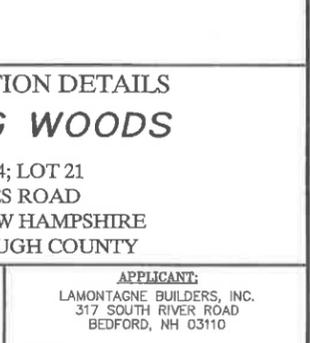
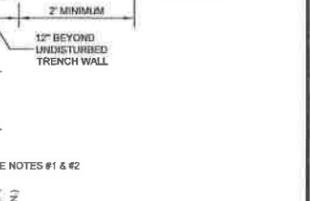
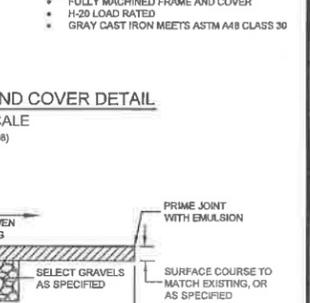
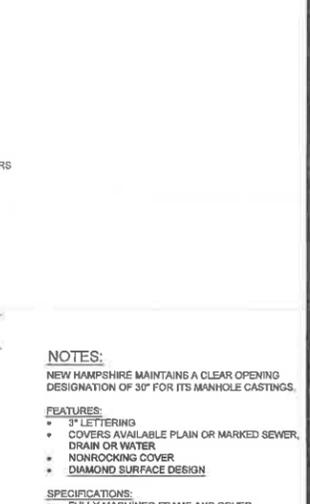
MORTAR RUBBLE MASONRY AND CONCRETE HEADWALLS
NOT TO SCALE



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

NOTE: STEEL QUANTITIES ARE FOR CONCRETE HEADWALLS ONLY.

MORTAR RUBBLE MASONRY AND CONCRETE HEADWALLS
NOT TO SCALE



CONSTRUCTION DETAILS
ROLLING WOODS

MAP 144; LOT 21
BOCKES ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
STINSON HILLS, LLC
317 SOUTH RIVER ROAD
BEDFORD, NH 03110
BK. B692, PG. 1479

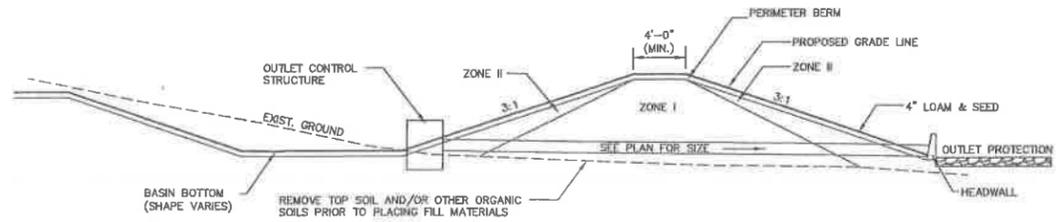
APPLICANT:
LAMONTAGNE BUILDERS, INC.
317 SOUTH RIVER ROAD
BEDFORD, NH 03110

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

REVISIONS

No.	DATE	DESCRIPTION	BY
1	06/30/14	REVISED PER CLD COMMENTS	JUL
2	08/01/14	DATE ONLY	JUL
3	08/21/14	DATE ONLY	KMB
4	08/15/15	DATE & PAGE NUMBER ONLY	AMB
5	07/10/15	REVISED PER PLANNING BOARD COMMENTS	KMB
6	07/29/15	REVISED PER TOWN COMMENTS	KMB

DATE: MAY 23, 2014
PROJECT No: 13-0702-1
SCALE: AS NOTED
SHEET 18 OF 27



TYPICAL STORMWATER BASIN CROSS SECTION
NOT TO SCALE

EARTH BERM CONSTRUCTION SEQUENCE

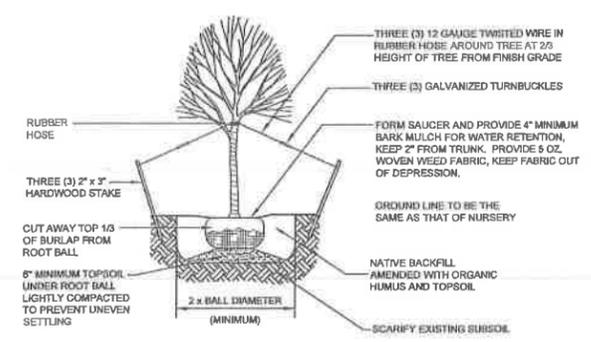
1. CONTRACTOR TO NOTIFY DIG-SAFE 72 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. CUT AND CLEAR TREES AND BRUSH FROM CONSTRUCTION AREAS TO THE EXTENT NECESSARY. ALL BRANCHES, TOPS AND BRUSH TO BE PROPERLY DISPOSED OF BY CONTRACTOR.
3. PRIOR TO GRUBBING OF CLEARED AREAS, ALL SILTATION BARRIERS DESIGNED 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. PERFORM EARTHWORK CUT/FILLS REQUIRED TO SHAPE SEDIMENT FOREBAY AND STORMWATER BASIN.
7. CONSTRUCT OUTLET & OVERFLOW STRUCTURE, WEIR, CULVERT, 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 LIMED, 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

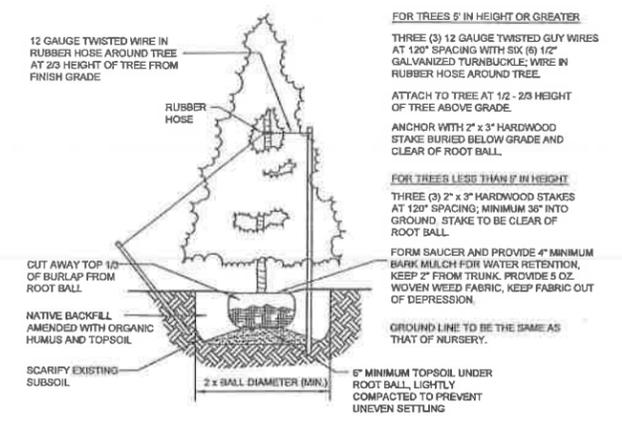
- ZONE I**
WELL GRADED MIXTURE OF GRAVEL, SAND, SILT OR CLAY WITH MAX. 6-INCH SIZE STONE AND GEADATION AS INDICATED BELOW. PLACE IN MAX. 12-INCH THICK LIFTS TO 95% OF MAX. DRY DENSITY IN ACCORDANCE WITH ASTM D1557. SCARIFY SURFACE PRIOR TO PLACING SUBSEQUENT LIFT. IN ADDITION, REMOVE ORGANIC SOILS.
- ZONE II**
DRAINAGE LAYER: PLACE IN MAX. 12-INCH THICK LIFTS TO 95% OF MAX. DRY DENSITY IN ACCORDANCE WITH ASTM D1557.

SIEVE SIZE	PERCENT BY WEIGHT PASSING
6-INCH	100
NO. 4	50 TO 100
NO. 40	30 TO 70
NO. 200	20 TO 40

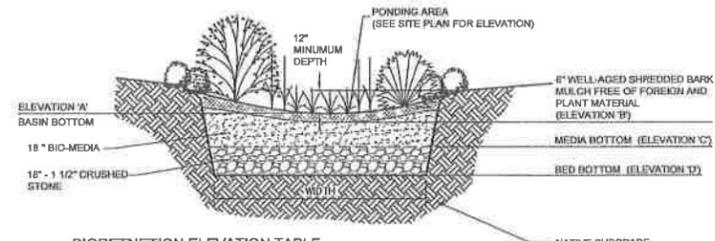
SIEVE SIZE	PERCENT BY WEIGHT PASSING
1-INCH	100
NO. 4	70-100
NO. 200	0-12 (IN SAND PORTION ONLY)



DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE
(MARCH 2008)



EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE
(MARCH 2008)



BIORETENTION ELEVATION TABLE

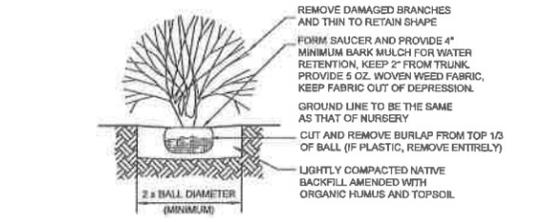
LOCATION	A	B	C	D	LENGTH	WIDTH
R.G. LOT 10	230.5	230.0	228.5	277.5	50'	15'
R.G. LOT 11	230.5	230.0	228.5	277.5	50'	15'
R.G. LOT 12	229.5	229.0	227.5	226.5	50'	15'
R.G. LOT 13	230.0	229.5	228.0	226.5	50'	15'
R.G. LOT 14	224.0	223.5	222.0	220.5	50'	15'
R.G. LOT 15	245.0	244.5	243.0	241.5	50'	8'

BIO-RETENTION MEDIA SUMMARY:

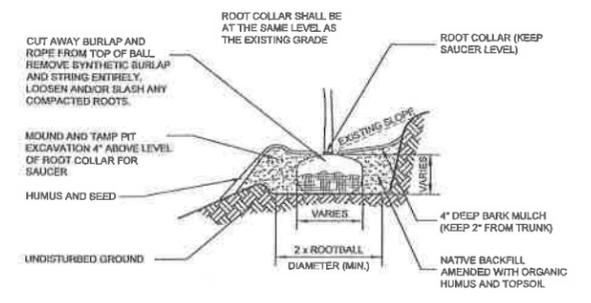
COMPONENT MATERIAL	PERCENT OF MIXTURE BY VOLUME	GRADATION OF MATERIAL	
		SIEVE NO.	PERCENT BY WEIGHT PASSING STANDARD SIEVE
FILTER MEDIA OPTION A			
ASTM C-33 CONCRETE SAND	50 TO 55		
LOAMY SAND TOPSOIL, WITH FINES AS INDICATED	20 TO 30	200	15 TO 25
MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH, WITH FINES AS INDICATED	20 TO 30	200	<5
FILTER MEDIA OPTION B			
MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH, WITH FINES AS INDICATED	20 TO 30	200	<5
LOAMY COARSE SAND	70 TO 85	10	85 TO 100
		20	70 TO 100
		60	15 TO 40
		200	8 TO 15

- NOTE:**
1. THIS SYSTEM SHALL NOT BE IN SERVICE UNTIL THE SPECIFIED PLANTINGS ARE INSTALLED AND THE CONTRIBUTING SURFACE AREA IS STABILIZED.
 2. THE FINAL DESIGN ELEVATION AND LOCATION OF THE RAIN GARDEN MUST BE COORDINATED WITH THE HOUSE LOCATION, APPROVED SEPTIC DESIGN AND LOT GRADING. THE DESIGN ENGINEER MUST APPROVE THE DESIGN PRIOR TO CONSTRUCTION.

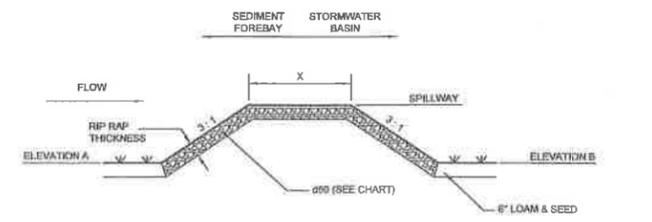
TYPICAL RAIN GARDEN SECTION
NOT TO SCALE



BALLED & BURLAP SHRUB PLANTING DETAIL
NOT TO SCALE
(MARCH 2008)

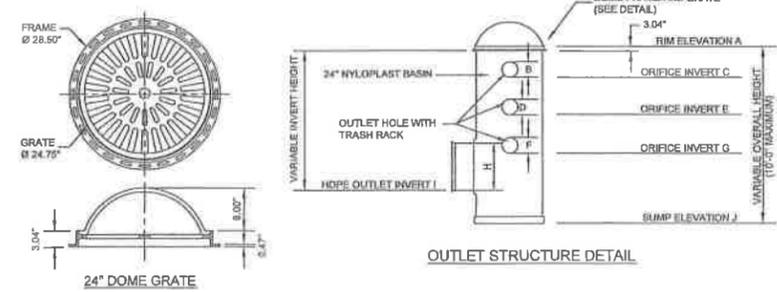


TYPICAL PLANTING PIT ON SLOPE 4:1 OR GREATER
NOT TO SCALE
(JANUARY 2012)



LOCATION	X	d50	RIP RAP THICKNESS	ELEVATION A	SPILLWAY	ELEVATION B
SEDIMENT FOREBAY A	2'	4"	12"	238.0	240.0	239.25
SEDIMENT FOREBAY B	2'	4"	12"	197.0	199.0	197.0
SEDIMENT FOREBAY C	2'	4"	12"	230.0	232.5	231.5

SEDIMENT FOREBAY/SPILLWAY SECTION
NOT TO SCALE



OUTLET STRUCTURE DETAIL

NYLOPLAST DRAIN BASIN
NOT TO SCALE

LOCATION	A	B	C	D	E	F	G	H	I	J
OUTLET STRUCTURE A	243.00	8"	241.25	2"	240.40	-	-	15"	238.00	237.00
OUTLET STRUCTURE B	203.95	4"	202.90	8"	202.10	3.75"	201.15	10"	201.15	200.15
OUTLET STRUCTURE C	235.50	6"	233.95	1"	232.30	-	-	12"	231.50	230.50

PURSUANT TO THE SUBDIVISION 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 _____

SUBDIVISION 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
ROLLING WOODS

MAP 144; LOT 21
BOCKES ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
STINSON HILLS, LLC
317 SOUTH RIVER ROAD
BEDFORD, NH 03110
BK. 8692, PG. 1479

APPLICANT:
LAMONTAGNE BUILDERS, INC.
317 SOUTH RIVER ROAD
BEDFORD, NH 03110

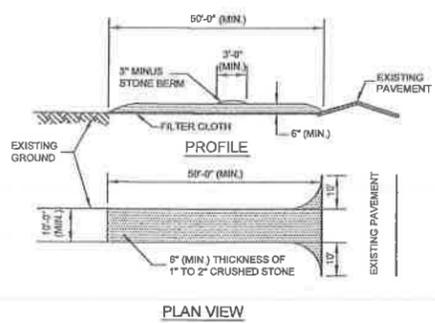
KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2801

REVISIONS

No.	DATE	DESCRIPTION	BY
1	05/20/14	REVISED PER CLD COMMENTS	JDL
2	08/01/14	DATE ONLY	JDL
3	08/21/14	REVISED PER NHDES COMMENTS	JDL
4	06/15/15	DATE & PAGE NUMBER ONLY	AME
5	07/10/15	REVISED PER PLANNING BOARD COMMENTS	KMB
6	07/29/15	REVISED PER TOWN COMMENTS	KMB

DATE: MAY 23, 2014 SCALE: AS NOTED
PROJECT No: 13-0702-1 SHEET 19 OF 27

P:\Projects\130702\130702.dwg (130702) - 08/15/14 - REVISED - 7/30/2015 11:38:54 AM, HP Designer T1500 PS H96Z



STABILIZED CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE
(MARCH 2008)

MAINTENANCE:

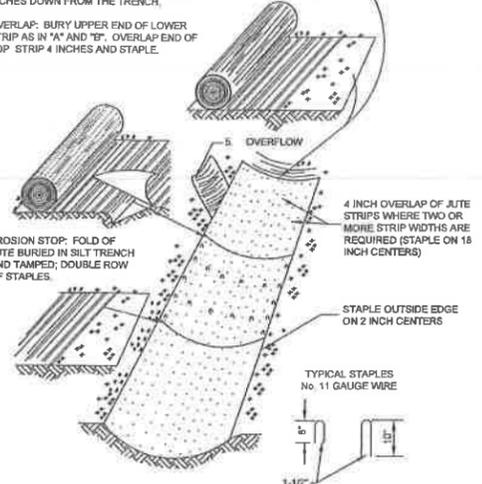
MUD AND SOIL PARTICLES WILL EVENTUALLY CLOG THE VOIDS IN THE GRAVEL AND THE EFFECTIVENESS OF THE GRAVEL PAD WILL NOT BE SATISFACTORY. WHEN THIS OCCURS, THE PAD SHOULD BE TOPDRESSED WITH NEW STONE OR COMPLETE REPLACEMENT OF THE PAD MAY BE NECESSARY WHEN THE PAD BECOMES COMPLETELY CLOGGED.

IF WASHING FACILITIES ARE USED, THE SEDIMENT TRAPS SHOULD BE CLEANED OUT AS OFTEN AS NECESSARY TO ENSURE THAT ADEQUATE TRAPPING EFFICIENCY AND STORAGE VOLUME IS AVAILABLE. VEGETATIVE FILTER STRIPS SHOULD BE MAINTAINED TO ENSURE A VIGOROUS STAND OF VEGETATION AT ALL TIMES.

CONSTRUCTION SPECIFICATIONS:

- STONE FOR A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 1 TO 2 INCH STONE, RECLAIMED STONE OR RECYCLED CONCRETE EQUIVALENT.
- THE LENGTH OF THE STABILIZED ENTRANCE 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 ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
- THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE 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 ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH ADDITIONAL STONE 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.

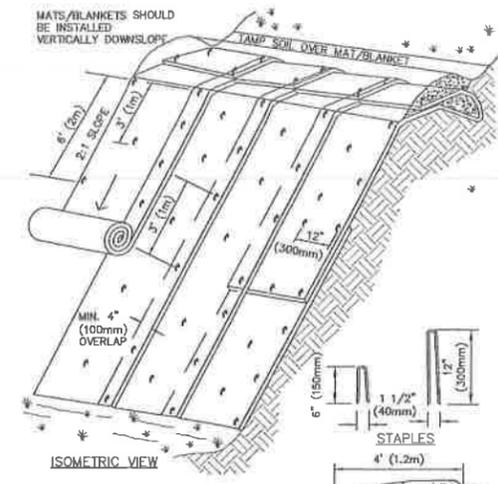
- BURY THE TOP END OF THE JUTE STRIPS IN A TRENCH 6 INCHES OR MORE IN DEPTH.
- TAMP THE TRENCH FULL OF SOIL. SECURE WITH ROW OF STAPLES, 6 INCH SPACING, 4 INCHES DOWN FROM THE TRENCH.
- OVERLAP. BURY UPPER END OF LOWER STRIP AS IN "A" AND "B", OVERLAP END OF TOP STRIP 4 INCHES AND STAPLE.



STABILIZING WITH JUTE MATTING DETAIL
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 NHDOT ITEM 304.3 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.



EROSION BLANKET DETAIL-SLOPE INSTALLATION
NOT TO SCALE

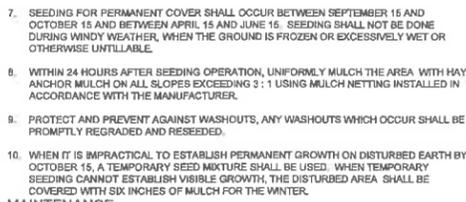
- NOTES:**
- SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
 - APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
 - LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.

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 SEED TO REMOVE RUBBISH, STICKS, ROOTS AND STONES LARGER THAN 1 INCH.
- PLACE LOAM OVER AREAS TO BE SEED 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 LOAM EVENLY OVER LOAM SURFACE AND THOROUGHLY INCORPORATE THEM INTO THE LOAM BY HEAVY RAKING 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 SEED BASED ON EXAMINATION OF PROJECT PLANS. UNIFORMLY SPREAD THE SEED BY BROADCASTING OR HYDROSEEDING. IF 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 UNTILLABLE.
- 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 RESEED.
- 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.



STONE CHECK DAM DETAIL
NOT TO SCALE

- NOTES:**
- ALL MATERIAL TO MEET FILTRESS® SPECIFICATIONS.
 - FILTRESS® COMPOST/SILT/SOXX® FILL TO MEET APPLICATION REQUIREMENTS.
 - FILTRESS® COMPOST/SILT/SOXX® DEPICED IS FOR MINIMUM SLOPES. GREAT SLOPES MAY REQUIRE LARGER SOCKS PER THE ENGINEER.
 - COMPOST MATERIAL TO BE DISPersed ON SITE, AS DETERMINED BY ENGINEER.

FILTRESS® SILT/SOXX® DETAIL
NOT TO SCALE
(AUGUST 2011)

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 TIME EXCEEDING 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 OF THE INDIVIDUAL SITE IS UNSTABLE. ALL TEMPORARY EROSION CONTROL MEASURES USED SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER 0.5" 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 NO WAY ARE THOSE TEMPORARY EROSION CONTROL MEASURES INDICATED ON THESE PLANS TO BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL USE JUDGEMENT 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 THE "STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE".
- ANY TEMPORARY STOCKPILES THAT WILL REMAIN IN PLACE LONGER THAN 14-DAYS SHALL BE SEED WITH A TEMPORARY SEED MIX.
- THE TOWN OF HUDSON RESERVES THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL DURING CONSTRUCTION IF NEEDED.

CONSTRUCTION SEQUENCE

- 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 ENTRANCE 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.
- 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.
- 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, OR ROUGH GRADING THE SITE. CONSTRUCT DRAINAGE SYSTEM AND OTHER SUBSURFACE UTILITIES. CONSTRUCTION OF THE STORMWATER MANAGEMENT BASINS ARE TO BE INITIAL ITEMS OF CONSTRUCTION.
- COMMENCE CONSTRUCTION OF ROADWAY. PERFORM EXCAVATION ACTIVITIES REQUIRED TO ACHIEVE SUBGRADE ELEVATION. ALL EXCAVATED EMBANKMENTS, DITCHES, SWALES AND ROADWAY CROSS CULVERTS SHALL BE INSTALLED AND STABILIZED. ALL SWALES AND DITCHLINES SHALL BE PROTECTED FROM EROSION BY IMPLEMENTATION OF HAY BALE SILTATION FENCES AS SHOWN ON PROJECT PLANS. 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.
- ROADWAY SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- COMPLETE CONSTRUCTION OF ROADWAY EMBANKMENTS BY ADDING APPROPRIATE BASE MATERIALS GRADED TO PROPER ELEVATION. STABILIZE CUT AND FILL SLOPES WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- 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 APPLIED SO AS TO PROVIDE A MINIMUM OF A 4-INCH COMPACTED THICKNESS. UPON COMPLETION OF TOPSOILING, FINISHED SECTIONS ARE TO BE LIMED, 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.
- 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 ENSURE 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.
- 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.

CONSTRUCTION DETAILS
ROLLING WOODS

MAP 144; LOT 21
BOCKES ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
STINSON HILLS, LLC
317 SOUTH RIVER ROAD
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KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscapes Architecture
10 Commerce Park North, Suite 2B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	06/30/14	REVISED PER OLD COMMENTS	JDL
2	08/01/14	DATE ONLY	JDL
3	08/21/14	DATE ONLY	KMB
4	06/15/15	DATE & PAGE NUMBER ONLY	AMB
5	07/10/15	REVISED PER PLANNING BOARD COMMENTS	KMB
6	07/29/15	REVISED PER TOWN COMMENTS	KMB

DATE: MAY 23, 2014 SCALE: AS NOTED
PROJECT NO: 13-0702-1 SHEET 20 OF 27

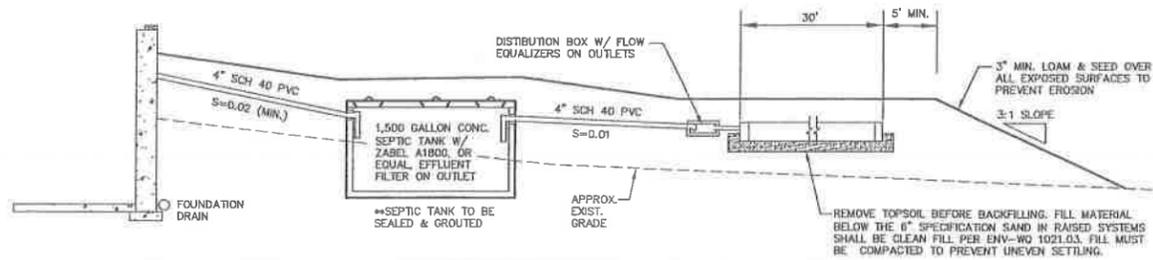
PURSUANT TO THE SUBDIVISION REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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

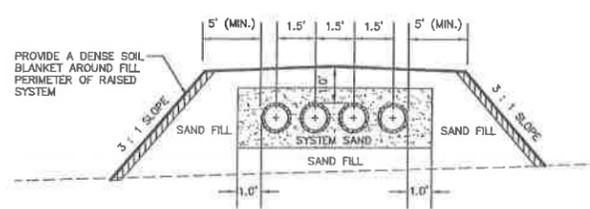
SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

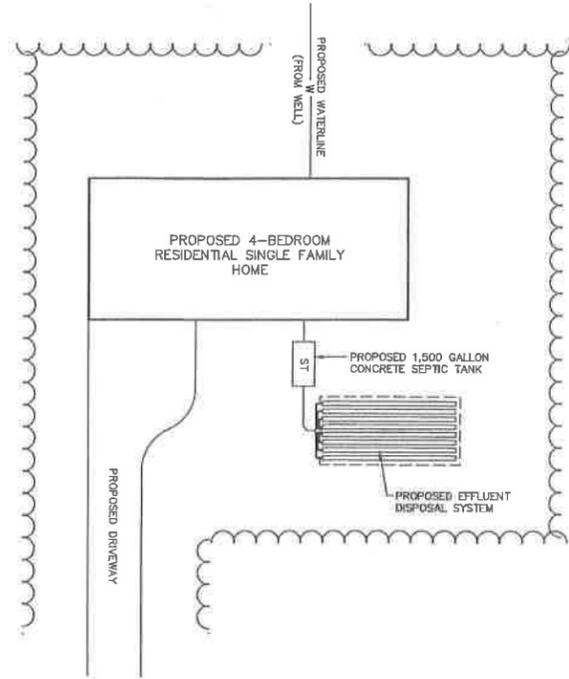
SUBDIVISION PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.



TYPICAL SECTION OF PROPOSED SEPTIC SYSTEM
-NOT TO SCALE-

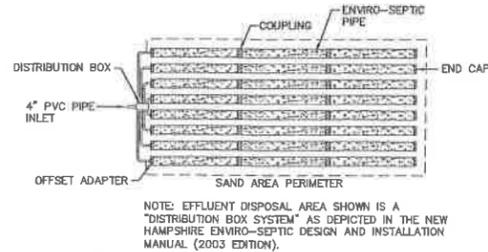


TYPICAL ENVIRO-SEPTIC CROSS SECTION
-NOT TO SCALE-



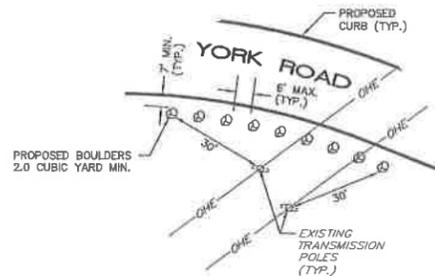
TYPICAL SCHEMATIC SEPTIC SYSTEM PLAN
NOT TO SCALE

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.

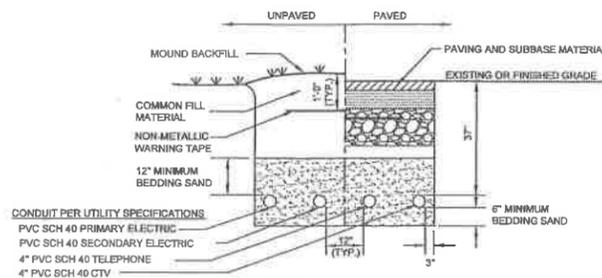


EDA PLAN DETAIL
SCALE: 1" = 10'

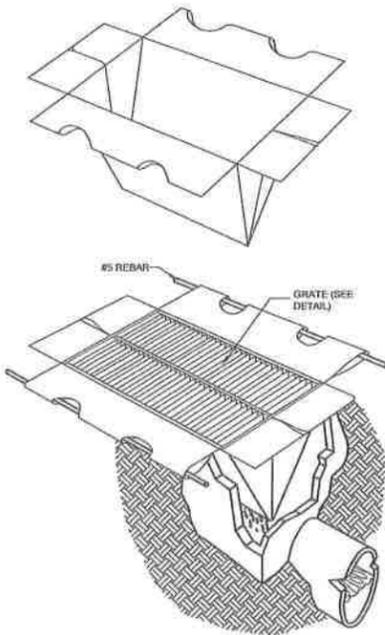
FILL SPECIFICATION
SYSTEM SAND TO BE 6" MINIMUM OF MEDIUM TO COARSE SAND WITH AN EFFECTIVE PARTICLE SIZE OF 0.25 MM TO 2.00 MM, WITH NO GREATER THAN 2% PASSING A #200 SIEVE AND NO PARTICLES LARGER THAN 3/4" AROUND THE CIRCUMFERENCE OF THE ENVIRO-SEPTIC PIPE. ALL OTHER FILL USED IN RAISED SYSTEMS SHALL 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



PROTECTION FOR TRANSMISSION POLES
-NOT TO SCALE-



UTILITY TRENCH DETAIL
NOT TO SCALE
(MARCH 2008)



SILTSAK DETAIL
NOT TO SCALE
(MARCH 2008)

SILTSAK NOTES:

- THE SILTSAK SHALL BE MANUFACTURED FROM WOVEN POLYPROPYLENE AND SEWN BY A DOUBLE NEEDLE MACHINE, USING A HIGH STRENGTH NYLON THREAD.
- THE SILTSAK SEAMS HAVE A CERTIFIED WIDE WIDTH STRENGTH PER ASTM D-4884 STANDARDS AS FOLLOWS:

SILTSAK STYLE	TEST METHOD	TEST RESULT
REGULAR FLOW	ASTM D-4884	165.0 LBS/IN
HI-FLOW	ASTM D-4884	114.6 LBS/IN

- THE SILTSAK WILL BE MANUFACTURED TO FIT THE OPENING OF THE CATCH BASIN OR DROP INLET. THE SILTSAK WILL HAVE THE FOLLOWING FEATURES:
 - TWO DUMP STRAPS ATTACHED AT THE BOTTOM TO FACILITATE THE EMPTYING OF THE SILTSAK;
 - LIFTING LOOPS AS AN INTEGRAL PART OF THE SYSTEM TO BE USED TO LIFT THE SILTSAK FROM THE BASIN; AND
 - A RESTRAINT CORD APPROXIMATELY HALFWAY UP THE SACK TO KEEP THE SIDES AWAY FROM THE CATCH BASIN WALLS. THIS YELLOW CORD IS ALSO A VISIBLE MEANS OF INDICATING WHEN THE SACK SHOULD BE EMPTIED, CLEANED AND PLACED BACK INTO THE BASIN.

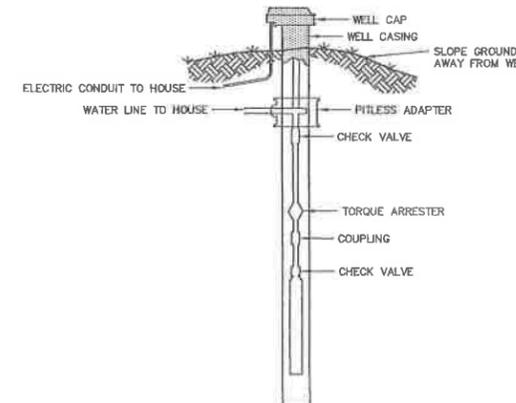
- THE GEOTEXTILE FABRIC SHALL BE WOVEN POLYPROPYLENE FABRIC WITH THE FOLLOWING PROPERTIES:

SILTSAK REGULAR FLOW:

PROPERTY	TEST METHOD	TEST RESULT
GRAB TENSILE	ASTM D-4843	300 LBS.
GRAB ELONGATION	ASTM D-4831	20%
PUNCTURE	ASTM D-4833	120 LBS.
MULLEN BURST	ASTM D-3786	500 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS.
UV RESISTANCE	ASTM D-4355	80%
APPARENT OPENING	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL./MIN./FT2
PERMITTIVITY	ASTM D-4491	0.65 SEC.

OR SILTSAK HI-FLOW:

PROPERTY	TEST METHOD	TEST RESULT
GRAB TENSILE	ASTM D-4832	285 LBS.
GRAB ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	135 LBS.
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS.
UV RESISTANCE	ASTM D-4355	90%
APPARENT OPENING	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	20 GAL./MIN./FT2
PERMITTIVITY	ASTM D-4491	1.5 SEC.



NOTES:
1. THE PURPOSE OF THIS DETAIL IS TO ILLUSTRATE A TYPICAL WELL SECTION AND THE CONSTRUCTION ASSOCIATED WITH THE SAME.
2. THIS INFORMATION IS FOR ILLUSTRATIVE PURPOSES ONLY AND IS NOT INTENDED FOR CONSTRUCTION. ACTUAL WELL DETAIL/CONSTRUCTION SHALL BE DETERMINED BY THE WELL INSTALLER AND MAY VARY FROM WHAT IS DEPICTED HEREON.

TYPICAL SCHEMATIC WELL DETAIL
NOT TO SCALE

BEST MANAGEMENT PRACTICES FOR BLASTING

BEST MANAGEMENT PRACTICES FOR BLASTING.
ALL ACTIVITIES RELATED TO BLASTING SHALL FOLLOW BEST MANAGEMENT PRACTICES (BMPs) TO PREVENT CONTAMINATION OF GROUNDWATER INCLUDING PREPARING, REVIEWING AND FOLLOWING AN APPROVED BLASTING PLAN; PROPER DRILLING, EXPLOSIVE HANDING AND LOADING PROCEDURES; OBSERVING THE ENTIRE BLASTING PROCEDURE; EVALUATING BLASTING PERFORMANCE; AND HANDLING AND STORAGE OF BLASTED ROCK.

- LOADING PRACTICES**
THE FOLLOWING BLASTHOLE LOADING PRACTICES TO MINIMIZE ENVIRONMENTAL EFFECTS SHALL BE FOLLOWED:
(A) DRILLING LOGS SHALL BE MAINTAINED BY THE DRILLER AND COMMUNICATED DIRECTLY TO THE BLASTER. THE LOGS SHALL INDICATE DEPTHS AND LENGTHS OF VOIDS, CAVITIES, AND FAULT ZONES OR OTHER WEAK ZONES ENCOUNTERED AS WELL AS GROUNDWATER CONDITIONS.
(B) EXPLOSIVE PRODUCTS SHALL BE MANAGED ON SITE SO THAT THEY ARE EITHER USED IN THE BOREHOLE, RETURNED TO THE DELIVERY VEHICLE, OR PLACED IN SECURE CONTAINERS FOR OFF SITE DISPOSAL.
(C) SPILLAGE AROUND THE BOREHOLE SHALL EITHER BE PLACED IN THE BOREHOLE OR CLEANED UP AND RETURNED TO AN APPROPRIATE VEHICLE FOR HANDLING OR PLACEMENT IN SECURED CONTAINERS FOR OFF SITE DISPOSAL.
(D) LOADED EXPLOSIVES SHALL BE DETONATED AS SOON AS POSSIBLE AND SHALL NOT BE LEFT IN THE BLASTHOLES OVERNIGHT, UNLESS WEATHER OR OTHER SAFETY CONCERNS REASONABLY DICTATE THAT DETONATION SHOULD BE POSTPONED.
(E) LOADING EQUIPMENT SHALL BE CLEANED IN AN AREA WHERE WASTEWATER CAN BE PROPERLY CONTAINED AND HANDLED IN A MANNER THAT PREVENTS RELEASE OF CONTAMINANTS TO THE ENVIRONMENT.
(F) EXPLOSIVES SHALL BE LOADED TO MAINTAIN GOOD CONTINUITY IN THE COLUMN LOAD TO PROMOTE COMPLETE DETONATION. INDUSTRY ACCEPTED LOADING PRACTICES FOR PRIMING, STEAMING, DECKING AND COLUMN RISE NEED TO BE ATTENDED TO.
- EXPLOSIVE SELECTION**
THE FOLLOWING BMPs SHALL BE FOLLOWED TO REDUCE THE POTENTIAL FOR GROUNDWATER CONTAMINATION WHEN EXPLOSIVES ARE USED:
(A) EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT ARE APPROPRIATE FOR SITE CONDITIONS AND SAFE BLAST EXECUTION.
(B) EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT HAVE THE APPROPRIATE WATER RESISTANCE FOR THE SITE CONDITIONS PRESENT TO MINIMIZE THE POTENTIAL FOR HAZARDOUS EFFECT OF THE PRODUCT UPON GROUNDWATER.
- PREVENTION OF MISFIRES**
APPROPRIATE PRACTICES SHALL BE DEVELOPED AND IMPLEMENTED TO PREVENT MISFIRES.
- MUCK PILE MANAGEMENT**
MUCK PILES (THE BLASTED PIECES OF ROCK) AND ROCK PILES SHALL BE MANAGED IN A MANNER TO REDUCE THE POTENTIAL FOR CONTAMINATION BY IMPLEMENTING THE FOLLOWING MEASURES:
(A) REMOVE THE MUCK PILE FROM THE BLAST AREA AS SOON AS REASONABLY POSSIBLE.
(B) MANAGE THE INTERACTION OF BLASTED ROCK PILES AND STORMWATER TO PREVENT CONTAMINATION OF WATER SUPPLY WELLS OR SURFACE WATER.
- SPILL PREVENTION MEASURES AND SPILL MITIGATION**
PILL PREVENTION AND SPILL MITIGATION MEASURES SHALL BE IMPLEMENTED TO PREVENT THE RELEASE OF FUEL AND OTHER RELATED SUBSTANCES TO THE ENVIRONMENT. THE MEASURES SHALL INCLUDE AT A MINIMUM:
(A) THE FUEL STORAGE REQUIREMENTS SHALL INCLUDE:
1. STORAGE OF REGULATED SUBSTANCES ON AN IMPERVIOUS SURFACE.
2. SECURE STORAGE AREAS AGAINST UNAUTHORIZED ENTRY.
3. LABEL REGULATED CONTAINERS CLEARLY AND VISIBLY.
4. INSPECT STORAGE AREAS WEEKLY.
5. COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS.
6. WHEREVER POSSIBLE, KEEP REGULATED CONTAINERS THAT ARE STORED OUTSIDE MORE THAN 60 FEET FROM SURFACE WATER AND STORM DRAINS, 75 FEET FROM PRIVATE WELLS, AND 400 FEET FROM PUBLIC WELLS.
7. SECONDARY CONTAINMENT IS REQUIRED FOR CONTAINERS CONTAINING REGULATED SUBSTANCES STORED OUTSIDE, EXCEPT FOR ON PREMISE USE HEATING FUEL TANKS, OR ABOVEGROUND OR UNDERGROUND STORAGE TANKS OTHERWISE REGULATED.
(B) THE FUEL HANDLING REQUIREMENTS SHALL INCLUDE:
1. EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED.
2. PLACE DRIP PANS UNDER SPIGOTS, VALVES, AND PUMPS.
3. HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS.
4. USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES.
5. PERFORM TRANSFERS OF REGULATED SUBSTANCES OVER AN IMPERVIOUS SURFACE.
(C) THE TRAINING OF ON SITE EMPLOYEES AND THE ON SITE POSTING OF RELEASE RESPONSE INFORMATION DESCRIBING WHAT TO DO IN THE EVENT OF A SPILL OF REGULATED SUBSTANCES.
(D) FUELING AND MAINTENANCE OF EXCAVATION, EARTHMOVING AND OTHER CONSTRUCTION RELATED EQUIPMENT WILL COMPLY WITH THE REGULATIONS OF THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES [NOTE THESE REQUIREMENTS ARE SUMMARIZED IN WD-DWGB-22-6 BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTHMOVING EQUIPMENT OR ITS SUCCESSOR DOCUMENT.

**CONSTRUCTION DETAILS
ROLLING WOODS**

MAP 144; LOT 21
BOCKES ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
STINSON HILLS, LLC
317 SOUTH RIVER ROAD
BEDFORD, NH 03110
BK. 8692, PG. 1479

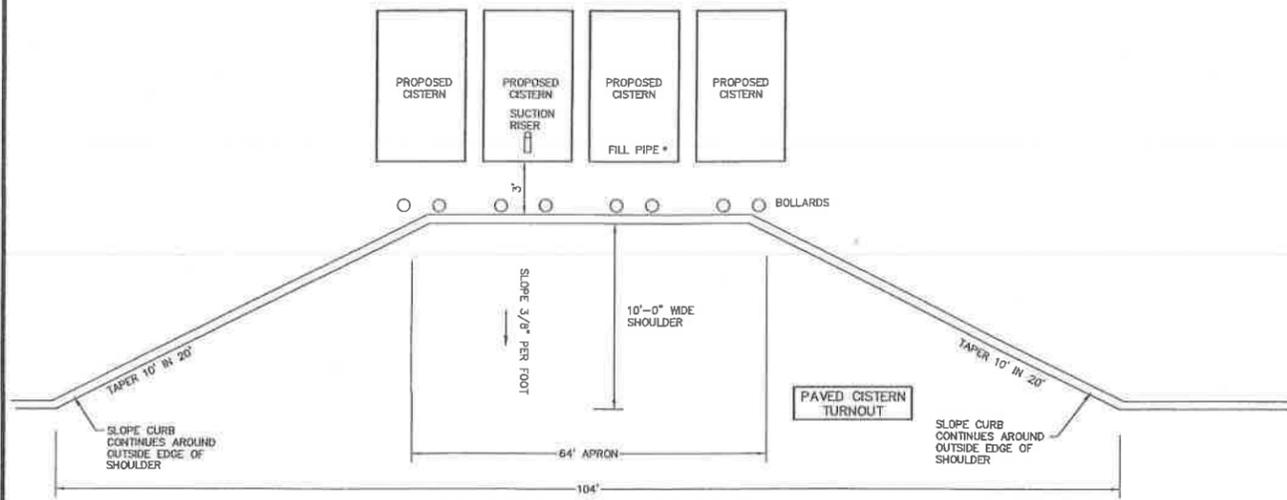
APPLICANT:
LAMONTAGNE BUILDERS, INC.
317 SOUTH RIVER ROAD
BEDFORD, NH 03110

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

REVISIONS

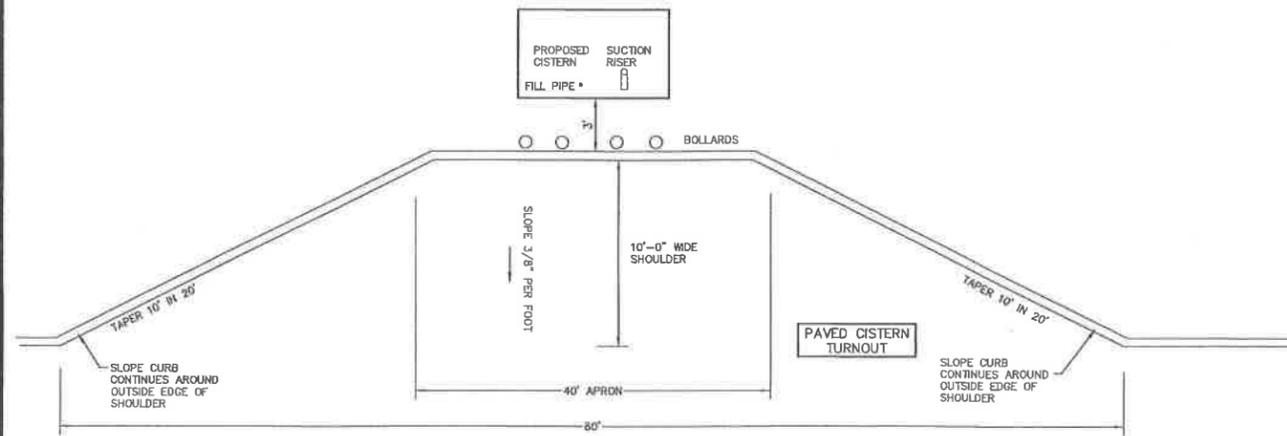
No.	DATE	DESCRIPTION	BY
1	06/30/14	REVISED PER CLD COMMENTS	JDL
2	08/01/14	FINAL COMMENTS	JDL
3	08/21/14	DATE ONLY	KMB
4	06/15/15	DATE & PAGE NUMBER ONLY	AMB
5	07/10/15	REVISED PER PLANNING BOARD COMMENTS	KMB
6	07/29/15	REVISED PER TOWN COMMENTS	KMB

DATE: MAY 23, 2014 SCALE: AS NOTED
PROJECT NO: 13-0702-1 SHEET 21 OF 27



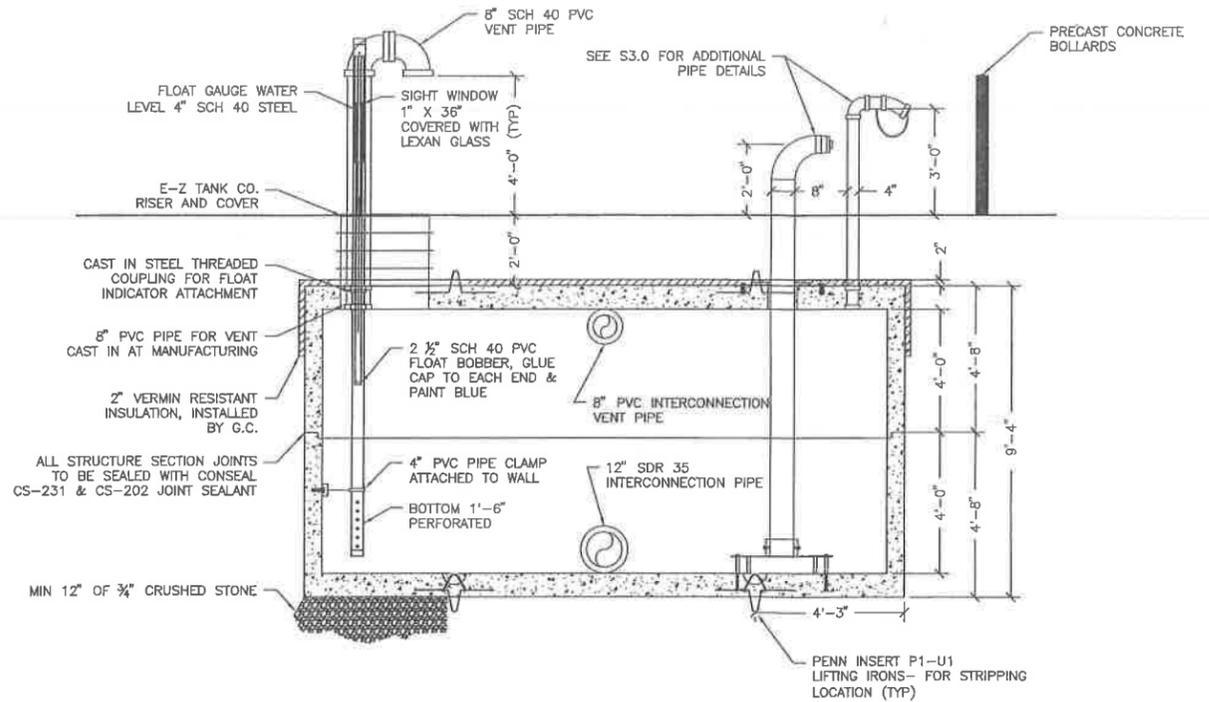
ROLLING WOODS DRIVE

30,000 GALLON CISTERN PLAN DETAIL



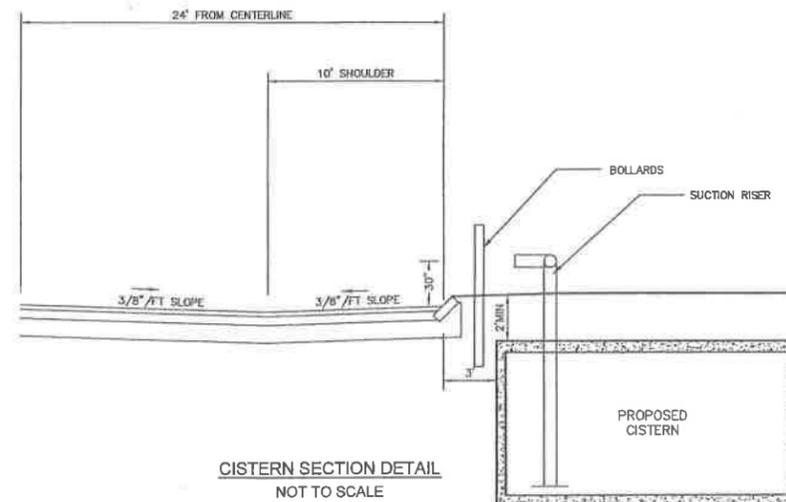
YORK ROAD

10,000 GALLON CISTERN PLAN DETAIL



CISTERN	SUCTION RISER ELEV.	WHEEL ELEV.	TOP TANK ELEV.	INSIDE BOTTOM	INSIDE DRAFT
30,000 GAL	227.80	225.80	221.97	213.30	14.50

30,000 GALLON CISTERN TANK DETAIL
NOT TO SCALE



CISTERN SECTION DETAIL
NOT TO SCALE

**CONSTRUCTION DETAILS
ROLLING WOODS**

MAP 144; LOT 21
BOCKES ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

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DATE: MAY 23, 2014 SCALE: AS NOTED
PROJECT NO: 13-0702-1 SHEET 22 OF 27

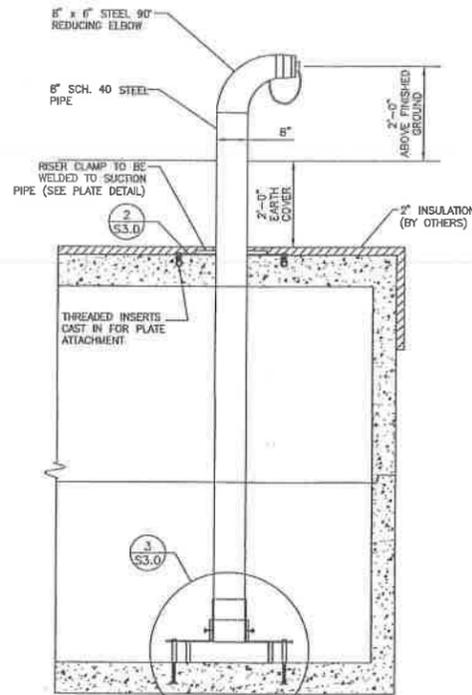
PURSUANT TO THE SUBDIVISION REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

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

SIGNATURE _____ DATE _____

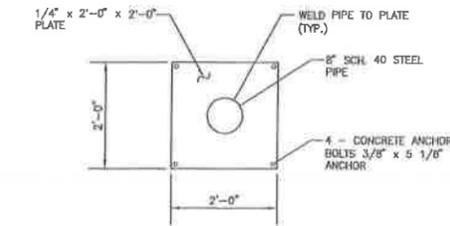
SIGNATURE _____ DATE _____

SUBDIVISION 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.

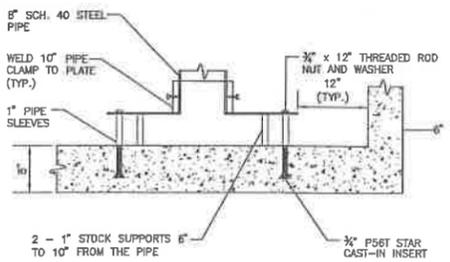


NOTE:
8" VERTICAL SUCTION PIPE TERMINATING WITH AN 8" x 6" 90° THREADED REDUCING ELBOW AND A 6" NST OR 4 1/2" NST NOZZLE AND CAP. THE SUCTION PIPE CONNECTION SHOULD BE 24" ABOVE THE LEVEL OF THE ROAD OR SHOULDER WHERE THE VEHICLE WHEELS WILL BE LOCATED WHEN CISTERN IS IN USE.

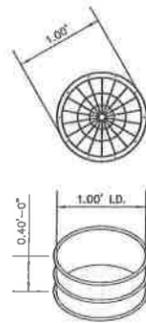
1 SUCTION ASSEMBLY DETAIL
S3.0 NOT TO SCALE



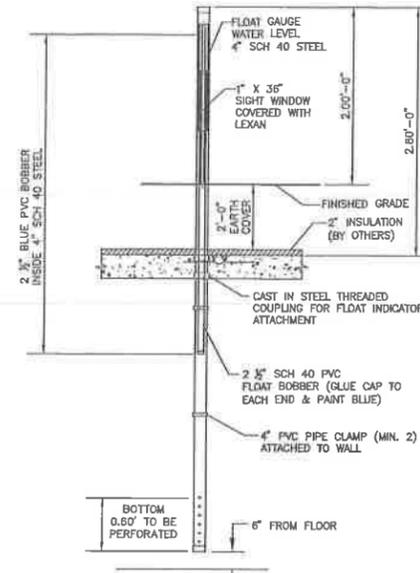
2 RISER CLAMP DETAIL
S3.0 NOT TO SCALE



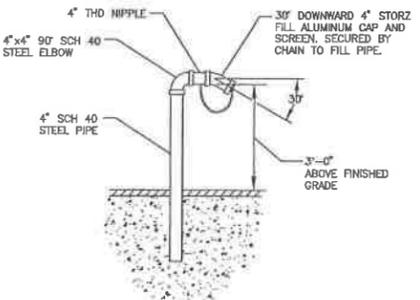
3 ANTI VORTEX PLATE DETAIL
S3.0 NOT TO SCALE



9 EZ SET TANK RISER DETAIL
S3.0 NOT TO SCALE



4 TYPICAL WATER FLOAT INDICATOR DETAIL
S3.0 NOT TO SCALE



10 FILL LINE ASSEMBLY DETAIL
S3.0 NOT TO SCALE



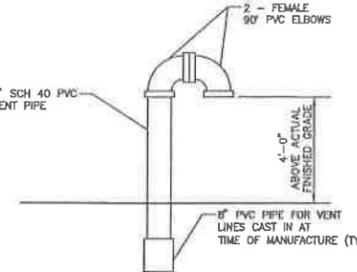
NOTES:
1. 1/2" CARBON STEEL PRESTRESS CABLE - 270 KIP
2. PROTECTIVE CABLE COVER: EMT GALVANIZED CONDUIT.
3. 1/2" CABLE IS FLEXIBLE, NOT RIGID AS A GALVANIZED LIFTING IRON.

5 UPI CABLE LIFTING IRON - TOP SLABS ONLY
S3.0 NOT TO SCALE

Product Code	SLAB Min. 90°	A - Anchor SW/LAT		Edge Distance
		TENSION	90° SHEAR	
4CA14	4	3,500	5,400	24"
5CA14	5	5,500	8,500	28"
5CA18	5	6,000	9,300	30"
6CA14	6	6,500	10,100	34"
6CA18	6	7,500	11,600	35"
8CA18	8	13,000	20,000	48"

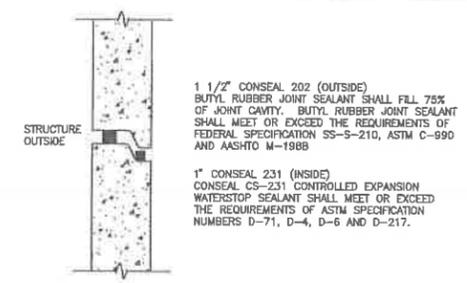
Note: Safe working load provides a factor of safety of approximately 4:1 based on a minimum concrete strength of 4,000 psi.
For use as Pulling Iron load may be increased by 33% with 3 to 1 Safety Factor

6 CONAC CORPORATION A ANCHOR - BASE SLABS ONLY
S3.0 NOT TO SCALE

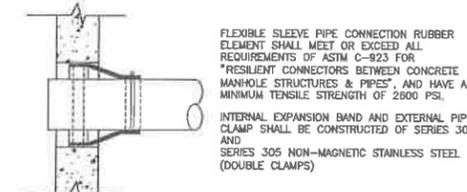


NOTE:
THE BUG SCREEN IS REQUIRED. PLACE SCREEN IN THE VENT PIPE TO FULLY FILL THE PIPE DIAMETER.

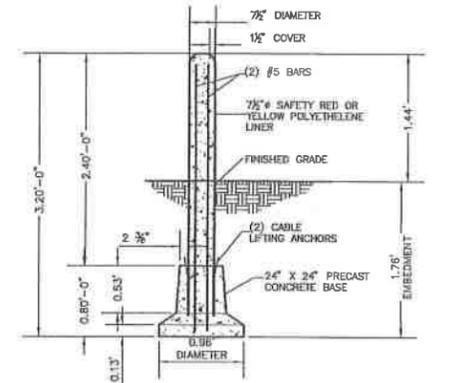
11 VENT PIPE ASSEMBLY DETAIL
S3.0 NOT TO SCALE



7 CONSEAL JOINT SEALANTS DETAIL
S3.0 NOT TO SCALE



8 TYPICAL FLEXIBLE SLEEVE PIPE CONNECTION DETAIL
S3.0 NOT TO SCALE



NOTES:
1. EACH BOLLARD TO WEIGH 780# (0.2 CY).

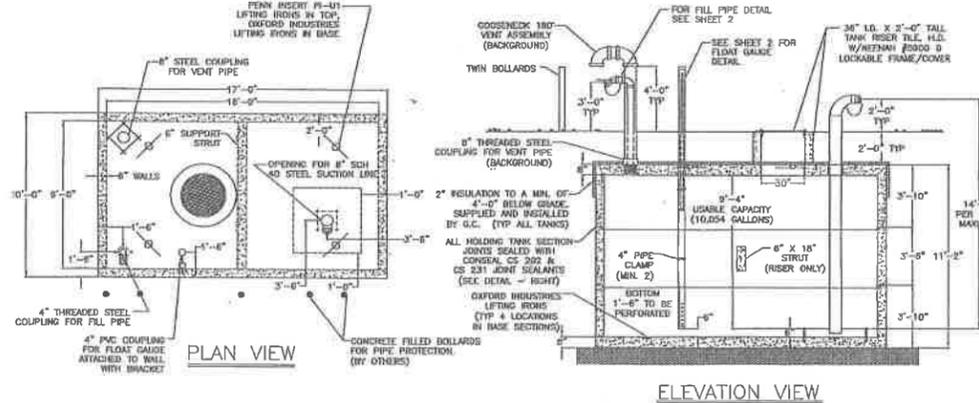
11 TYPICAL POLY-SHEATHED PRECAST BOLLARD
S3.0 NOT TO SCALE

FOUNDATION & BACKFILL NOTES:

- FOUNDATION MATERIAL SHALL BE 3/4" CRUSHED STONE, MINIMUM 12" THICK.
- 1 1/2" BANK RUN GRAVEL SHALL BE USED FOR BACKFILL OPERATIONS SURROUNDING TANK. BACKFILL SHALL BE PLACED IN MAXIMUM 12" LOOSE LIFTS. IT SHALL BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY BY MODIFIED PROCTOR METHOD (ASTM 1557). ALL COMPACTION SHALL BE DONE WITH HAND-OPERATED COMPACTION EQUIPMENT.
- TANK EXCAVATION SHALL BE KEPT DEWATERED THROUGHOUT INSTALLATION AND BACKFILL OPERATIONS.
- ALL AREAS BETWEEN TANKS SHALL BE FILLED TO A MINIMUM OF 12" ABOVE CROWN OF INTERCONNECTION PIPE WITH 3/4" CRUSHED STONE. 1 1/2" BANK RUN GRAVEL MAY BE USED ABOVE THIS ELEVATION, PROVIDED THAT PROPER COMPACTION AS STATED IN NOTE 2 ABOVE CAN BE ACHIEVED.
- ALL BACKFILL MATERIAL BETWEEN TANKS SHALL BE PLACED IN 12" LIFTS AT THE SAME TIME AS THE MATERIAL SURROUND THE TANKS.

30" I.D. LIDS:
-WATER TIGHT SEAL USING MOLDED GASKET
-HIGH STRENGTH POLYPROPYLENE CONTAINING MAXIMUM UV INHIBITORS TO PREVENT DEGRADATION CAUSED BY SUNLIGHT.
-SECURED WITH SIX (6) STAINLESS STEEL BOLTS OR SELF TAPPING SCREWS.
-SLIP RESISTANT SURFACE.
-1,500 LB WHEEL LOAD.
-SUPPLIED WITH LOCKING BAND FOR PADLOCK ATTACHMENT.

30" I.D. RISERS:
-PRE-CASTING RING FOR INSTALLATION IN CONCRETE TANKS.
-VACUUM TESTED TO 13" Hg W/ZERO DEFLECTION IN SIDEWALLS AND CONNECTION POINTS.
-WITH INTERLOCKING DESIGN, E-2 SET RISERS ARE STACKABLE TO ANY HEIGHT.
-RISERS ARE SECURED WITH SIX (6) STAINLESS STEEL BOLTS OR SELF-TAPPING SCREWS.



ELEVATION VIEW

CISTERN	SUCTION RISER ELEV.	WHEEL ELEV.	TOP TANK ELEV.	INSIDE BOTTOM	INSIDE DRAFT
10,000 GAL	247.16	245.16	243.16	232.66	14.50

10,000 GALLON CISTERN TANK DETAIL
NOT TO SCALE

NOTES:
1. CONCRETE: 5,000 PSI @ 28 DAYS. CEMENT TO BE TYPE II PER ASTM C-150 WITH STRUCTURAL FIBER MESH.
2. REINFORCING TO BE PER ASTM A-615, GRADE 60 DEFORMED BULLET STEEL WITH 1" MINIMUM COVER UNLESS NOTED.
3. REINFORCED TO MEET OR EXCEED REQUIREMENTS OF AASHTO M20-44, COVER: 1" - 5".
4. ALL SECTION JOINTS SEALED WITH BUTYL RUBBER JOINT SEALANT PER ASTM C-990 & AASHTO M-108.
5. CROSS FLOW PIPE CONNECTIONS TO BE SEALED WATER TIGHT WITH CAST-A-SEAL FLEXIBLE SLEEVE PIPE CONNECTIONS.
6. EXTERIOR TO BE ASPHALT COATED WITH SEABOND LN-12 ASPHALT GULSONITE PAINT THAT MEETS THE REQUIREMENTS OF FEDERAL SPECIFICATION TT-C-494, TYPES I & II.
7. HEAVIEST SECTION TO WEIGH: 32,000#.

PURSUANT TO THE SUBDIVISION 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 _____

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CONSTRUCTION DETAILS
ROLLING WOODS

MAP 144; LOT 21
BOCKES ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

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BK. 8692, PG. 1479

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DATE: MAY 23, 2014 SCALE: AS NOTED
PROJECT NO: 13-0702-1 SHEET 23 OF 27

TP #1	TP #2	TP #3	TP #4	TP #5	TP #5A	TP #6	TP #7	TP #8																																																																																																																																																									
<p>LOGGED BY JAN PERC TEST @ 24" DATE: 10/9/2013 PERC RATE: 8 MIN/INCH IMPERVIOUS LAYER: NONE WATER ENCOUNTERED: NONE</p> <table border="1"> <tr><td>0"</td><td>A</td><td>10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY FINE ROOTS</td></tr> <tr><td>9"</td><td>B</td><td>10YR 5/6, BLOCKY, FRIABLE, FINE SANDY LOAM, FEW ROOTS</td></tr> <tr><td>26"</td><td>C1</td><td>10YR 7/4, LOOSE, GRANULAR, MEDIUM GRAVELLY SAND</td></tr> <tr><td>38" E.S.H.W.T.</td><td>C2</td><td>10YR 8/2, BLOCKY, FRIABLE, LOAMY SAND, FEW DISTINCT FE CONC. (MOTTLES) THROUGHOUT</td></tr> <tr><td>78" BOTTOM OF HOLE</td><td></td><td></td></tr> </table>	0"	A	10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY FINE ROOTS	9"	B	10YR 5/6, BLOCKY, FRIABLE, FINE SANDY LOAM, FEW ROOTS	26"	C1	10YR 7/4, LOOSE, GRANULAR, MEDIUM GRAVELLY SAND	38" E.S.H.W.T.	C2	10YR 8/2, BLOCKY, FRIABLE, LOAMY SAND, FEW DISTINCT FE CONC. (MOTTLES) THROUGHOUT	78" BOTTOM OF HOLE			<p>LOGGED BY JAN PERC TEST @ 18" DATE: 10/9/2013 PERC RATE: 8 MIN/INCH IMPERVIOUS LAYER: NONE WATER ENCOUNTERED: NONE</p> <table border="1"> <tr><td>0"</td><td>A</td><td>10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY FINE ROOTS</td></tr> <tr><td>10"</td><td>B</td><td>10YR 5/6, BLOCKY, FRIABLE, FINE SANDY LOAM, FEW ROOTS</td></tr> <tr><td>40" E.S.H.W.T.</td><td>C</td><td>10YR 8/2, BLOCKY, FRIABLE, LOAMY SAND, FEW DISTINCT FE CONC. (MOTTLES) THROUGHOUT</td></tr> <tr><td>80" BOTTOM OF HOLE @ LEDGE</td><td></td><td></td></tr> </table>	0"	A	10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY FINE ROOTS	10"	B	10YR 5/6, BLOCKY, FRIABLE, FINE SANDY LOAM, FEW ROOTS	40" E.S.H.W.T.	C	10YR 8/2, BLOCKY, FRIABLE, LOAMY SAND, FEW DISTINCT FE CONC. (MOTTLES) THROUGHOUT	80" BOTTOM OF HOLE @ LEDGE			<p>LOGGED BY JAN PERC TEST @ 18" DATE: 10/9/2013 PERC RATE: 8 MIN/INCH IMPERVIOUS LAYER: 65" WATER ENCOUNTERED: NONE</p> <table border="1"> <tr><td>0"</td><td></td><td>FOREST MAT</td></tr> <tr><td>0"</td><td>A</td><td>10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY ROOTS</td></tr> <tr><td>10"</td><td>B</td><td>10YR 7/5, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS</td></tr> <tr><td>20"</td><td>C</td><td>10YR 8/2, WEAK GRANULAR, FRIABLE, LOAMY FINE SAND, FEW ROOTS TO 40"</td></tr> <tr><td>40" E.S.H.W.T.</td><td></td><td></td></tr> <tr><td>65" BOTTOM OF HOLE @ LEDGE</td><td></td><td></td></tr> </table>	0"		FOREST MAT	0"	A	10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY ROOTS	10"	B	10YR 7/5, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS	20"	C	10YR 8/2, WEAK GRANULAR, FRIABLE, LOAMY FINE SAND, FEW ROOTS TO 40"	40" E.S.H.W.T.			65" BOTTOM OF HOLE @ LEDGE			<p>LOGGED BY JAN PERC TEST @ 22" DATE: 10/9/2013 PERC RATE: 8 MIN/INCH IMPERVIOUS LAYER: 65" WATER ENCOUNTERED: NONE</p> <table border="1"> <tr><td>0"</td><td></td><td>FOREST MAT</td></tr> <tr><td>0"</td><td>A</td><td>10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY ROOTS</td></tr> <tr><td>6"</td><td>B</td><td>10YR 7/5, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS</td></tr> <tr><td>24"</td><td>C</td><td>10YR 7/3, BLOCKY, FRIABLE, LOAMY SAND, FEW ROOTS TO 42" WEATHERED BEDROCK ENCOUNTERED ON SIDE OF EXCAVATION AT 48"</td></tr> <tr><td>42" E.S.H.W.T.</td><td></td><td></td></tr> <tr><td>65" BOTTOM OF HOLE @ LEDGE</td><td></td><td></td></tr> </table>	0"		FOREST MAT	0"	A	10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY ROOTS	6"	B	10YR 7/5, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS	24"	C	10YR 7/3, BLOCKY, FRIABLE, LOAMY SAND, FEW ROOTS TO 42" WEATHERED BEDROCK ENCOUNTERED ON SIDE OF EXCAVATION AT 48"	42" E.S.H.W.T.			65" BOTTOM OF HOLE @ LEDGE			<p>LOGGED BY JAN PERC TEST @ 22" DATE: 10/9/2013 PERC RATE: 8 MIN/INCH IMPERVIOUS LAYER: 54" WATER ENCOUNTERED: NONE</p> <table border="1"> <tr><td>0"</td><td></td><td>FOREST MAT</td></tr> <tr><td>0"</td><td>A</td><td>10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY ROOTS</td></tr> <tr><td>6"</td><td>B</td><td>10YR 6/5, WEAK GRANULAR, VERY FRIABLE, FINE SANDY LOAM, FEW ROOTS</td></tr> <tr><td>28"</td><td>C</td><td>2.5Y 7/4, WEAK GRANULAR, VERY FRIABLE, FINE LOAMY SAND, FEW ROOTS, FEW FAINT FE CONC. 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<p>LOGGED BY JAN PERC TEST @ 22" DATE: 10/9/2013 PERC RATE: 8 MIN/INCH IMPERVIOUS LAYER: 52" WATER ENCOUNTERED: NONE</p> <table border="1"> <tr><td>0"</td><td></td><td>FOREST MAT</td></tr> <tr><td>0"</td><td>A</td><td>10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY ROOTS</td></tr> <tr><td>6"</td><td>B</td><td>10YR 7/5, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS</td></tr> <tr><td>22"</td><td>C</td><td>10YR 7/2, BLOCKY, FRIABLE, LOAMY SAND, FEW ROOTS TO 50"±</td></tr> <tr><td>52" BOTTOM OF HOLE @ LEDGE</td><td></td><td></td></tr> </table>	0"		FOREST MAT	0"	A	10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY ROOTS	6"	B	10YR 7/5, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS	22"	C	10YR 7/2, BLOCKY, FRIABLE, LOAMY SAND, FEW ROOTS TO 50"±	52" BOTTOM OF HOLE @ LEDGE			<p>LOGGED BY JAN PERC TEST @ 24" DATE: 10/9/2013 PERC RATE: 8 MIN/INCH IMPERVIOUS LAYER: 56" WATER ENCOUNTERED: NONE</p> <table border="1"> <tr><td>0"</td><td></td><td>FOREST MAT</td></tr> <tr><td>0"</td><td>A</td><td>10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY ROOTS</td></tr> <tr><td>6"</td><td>B</td><td>10YR 7/6, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS</td></tr> <tr><td>22"</td><td>C</td><td>10YR 7/2, BLOCKY, FRIABLE, LOAMY SAND, FEW ROOTS TO 50"±</td></tr> <tr><td>56" BOTTOM OF HOLE @ LEDGE</td><td></td><td></td></tr> </table>	0"		FOREST MAT	0"	A	10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY ROOTS	6"	B	10YR 7/6, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS	22"	C	10YR 7/2, BLOCKY, FRIABLE, LOAMY SAND, FEW ROOTS TO 50"±	56" BOTTOM OF HOLE @ LEDGE			<p>LOGGED BY JAN PERC TEST @ 24" DATE: 10/9/2013 PERC RATE: 8 MIN/INCH IMPERVIOUS LAYER: NONE TO 78" WATER ENCOUNTERED: NONE</p> <table border="1"> <tr><td>0"</td><td></td><td>FOREST MAT</td></tr> <tr><td>0"</td><td>A</td><td>10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY ROOTS</td></tr> <tr><td>4"</td><td>B</td><td>10YR 6/6, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS</td></tr> <tr><td>28"</td><td>C</td><td>10YR 7/2, WEAK GRANULAR, FRIABLE, LOAMY SAND, FEW ROOTS TO 48"±, FEW FE CONC. 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(MOTTLES) @ 40"	40" E.S.H.W.T.			78" BOTTOM OF HOLE			<p>LOGGED BY JAN PERC TEST @ 20" DATE: 07/17/2014 PERC RATE: 8 MIN/INCH IMPERVIOUS LAYER: NONE TO 54" WATER ENCOUNTERED: NONE</p> <table border="1"> <tr><td>0"</td><td>O</td><td>FOREST MAT</td></tr> <tr><td>0"</td><td>A</td><td>10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY ROOTS</td></tr> <tr><td>4"</td><td>B</td><td>10YR 6/6, WEAK GRANULAR, VERY FRIABLE, FINE SANDY LOAM, FEW ROOTS</td></tr> <tr><td>24"</td><td>C</td><td>10YR 7/4, BLOCKY, FRIABLE, LOAMY SAND, FEW FAINT FE CONC. (MOTTLES) @ 36"</td></tr> <tr><td>36" E.S.H.W.T.</td><td></td><td></td></tr> <tr><td>54" BOTTOM OF HOLE</td><td></td><td></td></tr> </table>	0"	O	FOREST MAT	0"	A	10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY ROOTS	4"	B	10YR 6/6, WEAK GRANULAR, VERY FRIABLE, FINE SANDY LOAM, FEW ROOTS	24"	C	10YR 7/4, BLOCKY, FRIABLE, LOAMY SAND, FEW FAINT FE CONC. (MOTTLES) @ 36"	36" E.S.H.W.T.			54" BOTTOM OF HOLE			<p>LOGGED BY JAN PERC TEST @ 22" DATE: 07/17/2014 PERC RATE: 8 MIN/INCH IMPERVIOUS LAYER: NONE TO 54" WATER ENCOUNTERED: NONE</p> <table border="1"> <tr><td>0"</td><td>O</td><td>FOREST MAT</td></tr> <tr><td>0"</td><td>A</td><td>10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY ROOTS</td></tr> <tr><td>6"</td><td>B</td><td>10YR 5/6, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS</td></tr> <tr><td>26"</td><td>C</td><td>10YR 7/3, WEAK GRANULAR, FRIABLE, LOAMY SAND, FEW FAINT FE CONC. (MOTTLES) @ 34"</td></tr> <tr><td>34" E.S.H.W.T.</td><td></td><td></td></tr> <tr><td>54" BOTTOM OF HOLE</td><td></td><td></td></tr> </table>	0"	O	FOREST MAT	0"	A	10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY ROOTS	6"	B	10YR 5/6, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, FEW ROOTS	26"	C	10YR 7/3, WEAK GRANULAR, FRIABLE, LOAMY SAND, FEW FAINT FE CONC. (MOTTLES) @ 34"	34" E.S.H.W.T.			54" BOTTOM OF HOLE																																																		
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TEST PIT LOGS ROLLING WOODS

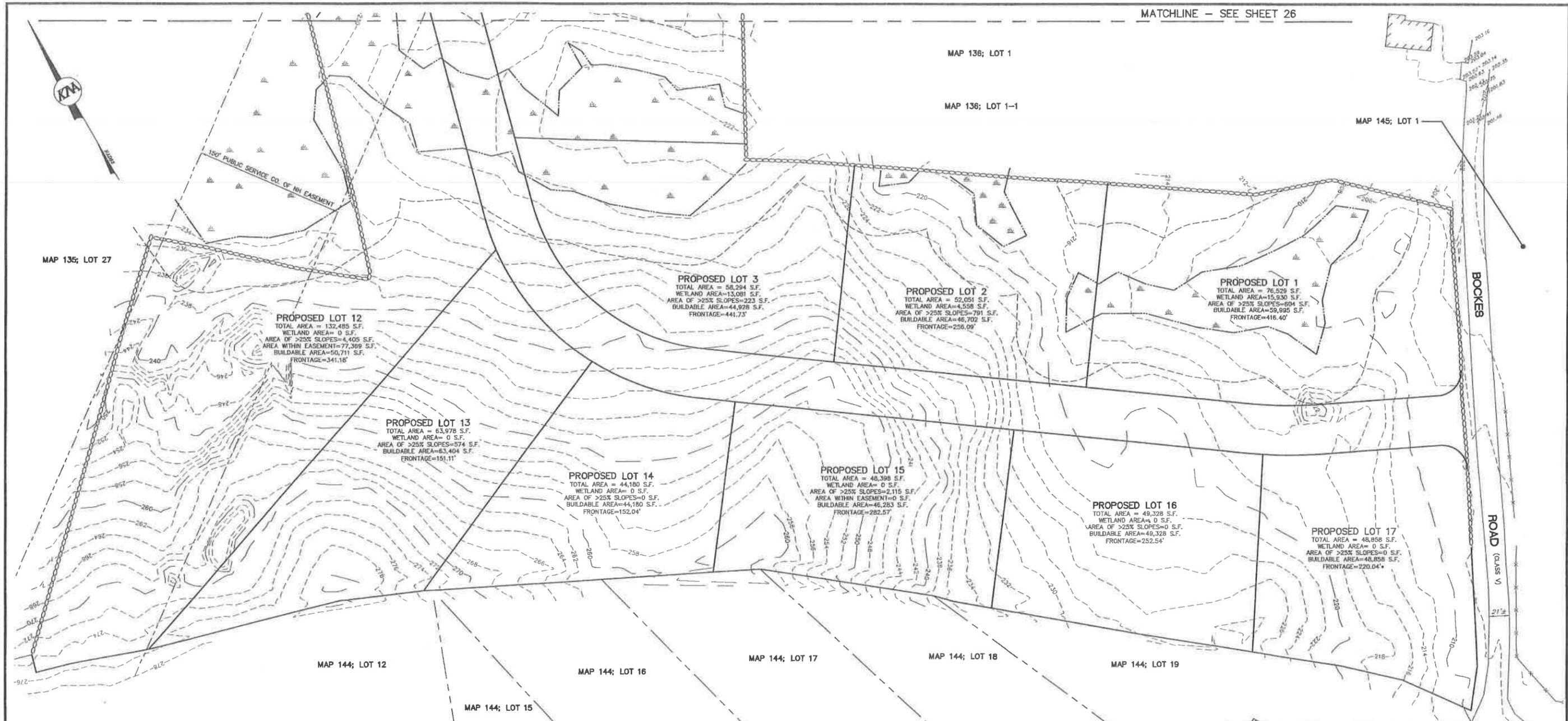
MAP 144; LOT 21
BOCKES ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD: STINSON HILLS, LLC 317 SOUTH RIVER ROAD BEDFORD, NH 03110 BK. 8692, PG. 1479	APPLICANT: LAMONTAGNE BUILDERS, INC. 317 SOUTH RIVER ROAD BEDFORD, NH 03110
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KMA
KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 827-2881

REVISIONS		
No.	DATE	DESCRIPTION
1	05/30/14	DATE ONLY
2	08/01/14	FINAL COMMENTS
3	08/21/14	DATE ONLY
4	06/15/15	DATE AND PAGE NUMBER ONLY
5	07/10/15	REVISED PER PLANNING BOARD COMMENTS
6	07/29/15	REVISED PER TOWN COMMENTS

DATE: MAY 23, 2014 SCALE: NONE
PROJECT NO: 13-0702-1 SHEET 24 OF 27



PROPOSED LOT 12
 TOTAL AREA = 132,485 S.F.
 WETLAND AREA = 0 S.F.
 AREA OF >25% SLOPES = 4,405 S.F.
 AREA WITHIN EASEMENT = 77,999 S.F.
 BUILDABLE AREA = 50,711 S.F.
 FRONTAGE = 341.18'

PROPOSED LOT 3
 TOTAL AREA = 58,294 S.F.
 WETLAND AREA = 13,081 S.F.
 AREA OF >25% SLOPES = 223 S.F.
 BUILDABLE AREA = 44,928 S.F.
 FRONTAGE = 441.73'

PROPOSED LOT 2
 TOTAL AREA = 52,051 S.F.
 WETLAND AREA = 4,558 S.F.
 AREA OF >25% SLOPES = 791 S.F.
 BUILDABLE AREA = 46,702 S.F.
 FRONTAGE = 256.09'

PROPOSED LOT 1
 TOTAL AREA = 76,529 S.F.
 WETLAND AREA = 15,930 S.F.
 AREA OF >25% SLOPES = 694 S.F.
 BUILDABLE AREA = 59,905 S.F.
 FRONTAGE = 416.40'

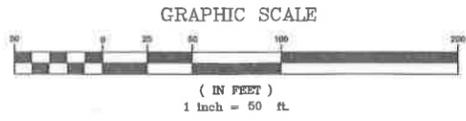
PROPOSED LOT 13
 TOTAL AREA = 63,978 S.F.
 WETLAND AREA = 0 S.F.
 AREA OF >25% SLOPES = 374 S.F.
 BUILDABLE AREA = 63,404 S.F.
 FRONTAGE = 151.11'

PROPOSED LOT 14
 TOTAL AREA = 44,180 S.F.
 WETLAND AREA = 0 S.F.
 AREA OF >25% SLOPES = 0 S.F.
 BUILDABLE AREA = 44,180 S.F.
 FRONTAGE = 152.04'

PROPOSED LOT 15
 TOTAL AREA = 48,398 S.F.
 WETLAND AREA = 0 S.F.
 AREA OF >25% SLOPES = 2,115 S.F.
 AREA WITHIN EASEMENT = 0 S.F.
 BUILDABLE AREA = 46,283 S.F.
 FRONTAGE = 282.57'

PROPOSED LOT 16
 TOTAL AREA = 49,328 S.F.
 WETLAND AREA = 0 S.F.
 AREA OF >25% SLOPES = 0 S.F.
 BUILDABLE AREA = 49,328 S.F.
 FRONTAGE = 252.54'

PROPOSED LOT 17
 TOTAL AREA = 48,858 S.F.
 WETLAND AREA = 0 S.F.
 AREA OF >25% SLOPES = 0 S.F.
 BUILDABLE AREA = 48,858 S.F.
 FRONTAGE = 220.04'



NOTES:
 1. THE PURPOSE OF THIS PLAN IS TO DEPICT A CONVENTIONAL SUBDIVISION YIELD PLAN IN ACCORDANCE WITH THE TOWN OF HUDSON'S LAND DEVELOPMENT REGULATIONS.

SEE SHEET 26 FOR YIELD PLAN LOT SUMMARY

CONVENTIONAL SUBDIVISION YIELD PLAN
ROLLING WOODS
 LAND OF
MATARAZZO HUDSON ASSOCIATES, INC.
 MAP 144; LOT 21
 BOCKES ROAD
 HUDSON, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER OF RECORD:
 STINSON HILLS, LLC
 317 SOUTH RIVER ROAD
 BEDFORD, NH 03110
 BK. 8692, PG. 1479

APPLICANT:
 LAMONTAGNE BUILDERS, INC.
 317 SOUTH RIVER ROAD
 BEDFORD, NH 03110

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

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

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

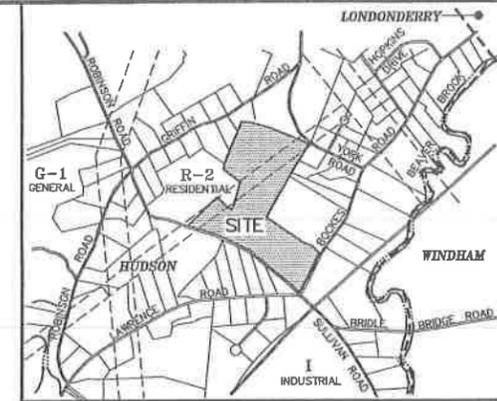
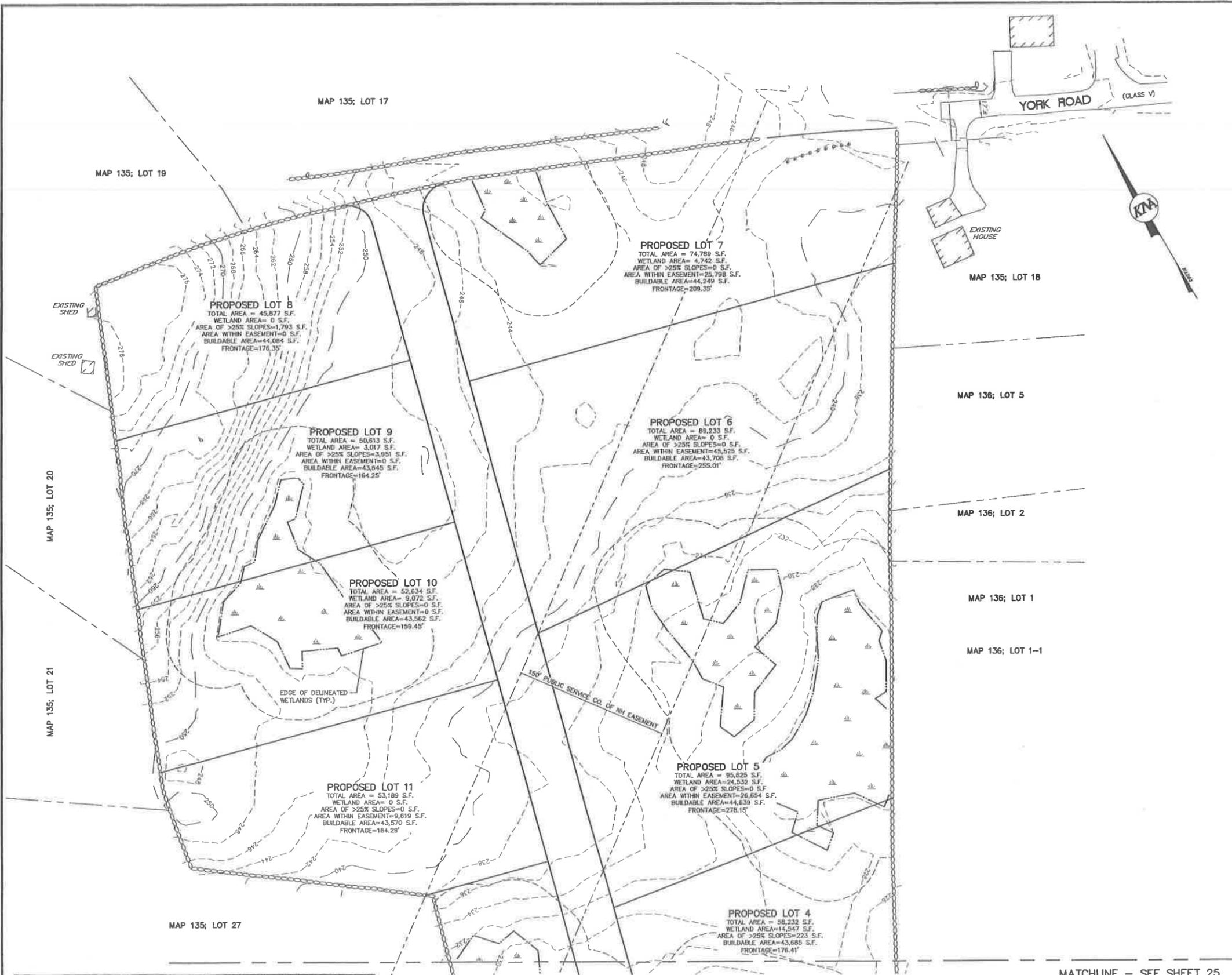
SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

SUBDIVISION 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	05/30/14	REVISED PER GLD COMMENTS	JEL
2	06/01/14	DATE ONLY	JEL
3	06/21/14	DATE ONLY	KMB
4	06/15/15	DATE & PAGE NUMBER ONLY	AMB
5	07/10/15	REVISED PER PLANNING BOARD COMMENTS	KMB
6	07/29/15	REVISED PER TOWN COMMENTS	KMB

DATE: MAY 23, 2014 SCALE: 1" = 50'
 PROJECT NO: 13-0702-1 SHEET 25 OF 27



LOCATION PLAN
 SCALE: 1"=1,000'

YIELD PLAN LOT SUMMARY

LOT NUMBER	TOTAL LOT AREA	WETLAND AREA	AREA >25% SLOPE	EASEMENT AREA	BUILDABLE AREA	FRONTAGE
1	76,529 S.F.	15,930 S.F.	604 S.F.	0 S.F.	59,995 S.F.	416.40'
2	52,051 S.F.	4,558 S.F.	791 S.F.	0 S.F.	46,702 S.F.	256.09'
3	58,294 S.F.	13,081 S.F.	223 S.F.	0 S.F.	44,928 S.F.	441.73'
4	58,232 S.F.	14,547 S.F.	223 S.F.	0 S.F.	43,685 S.F.	176.41'
5	95,825 S.F.	24,532 S.F.	0 S.F.	26,654 S.F.	44,639 S.F.	278.15'
6	89,233 S.F.	0 S.F.	0 S.F.	45,525 S.F.	43,708 S.F.	255.01'
7	74,789 S.F.	4,742 S.F.	0 S.F.	25,798 S.F.	44,249 S.F.	209.35'
8	45,877 S.F.	0 S.F.	1,793 S.F.	0 S.F.	44,084 S.F.	176.35'
9	50,613 S.F.	3,017 S.F.	3,951 S.F.	0 S.F.	43,645 S.F.	164.25'
10	52,634 S.F.	9,072 S.F.	0 S.F.	0 S.F.	43,562 S.F.	159.45'
11	53,189 S.F.	0 S.F.	0 S.F.	9,619 S.F.	43,570 S.F.	184.29'
12	132,485 S.F.	0 S.F.	4,405 S.F.	77,369 S.F.	50,711 S.F.	341.18'
13	63,976 S.F.	0 S.F.	574 S.F.	0 S.F.	63,404 S.F.	151.11'
14	44,180 S.F.	0 S.F.	0 S.F.	0 S.F.	44,180 S.F.	152.04'
15	48,398 S.F.	0 S.F.	2,115 S.F.	0 S.F.	46,283 S.F.	282.57'
16	49,328 S.F.	0 S.F.	0 S.F.	0 S.F.	49,328 S.F.	252.54'
17	48,858 S.F.	0 S.F.	0 S.F.	0 S.F.	48,858 S.F.	220.04'

*ALONG PROPOSED ROADWAY ONLY

SEE SHEET 25 FOR NOTES

CONVENTIONAL SUBDIVISION YIELD PLAN
ROLLING WOODS
 LAND OF
MATARAZZO HUDSON ASSOCIATES, INC.
 MAP 144; LOT 21
 BOCKES ROAD
 HUDSON, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER OF RECORD:
 STINSON HILLS, LLC
 317 SOUTH RIVER ROAD
 BEDFORD, NH 03110
 BK. 8692, PG. 1479

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

REVISIONS

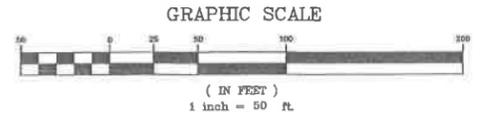
No.	DATE	DESCRIPTION	BY
1	05/30/14	REVISED PER CLD COMMENTS	JDL
2	08/01/14	DATE ONLY	JDL
3	08/21/14	DATE ONLY	KMB
4	06/15/15	DATE & PAGE NUMBER ONLY	KMB
5	07/10/15	REVISED PER PLANNING BOARD COMMENTS	KMB
6	07/29/15	REVISED PER TOWN COMMENTS	KMB

DATE: MAY 23, 2014 SCALE: 1" = 50'
 PROJECT NO: 13-0702-1 SHEET 26 OF 27

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

APPROVED BY THE HUDSON, NH PLANNING BOARD
 DATE OF MEETING: _____
 SIGNATURE _____ DATE _____
 SIGNATURE _____ DATE _____

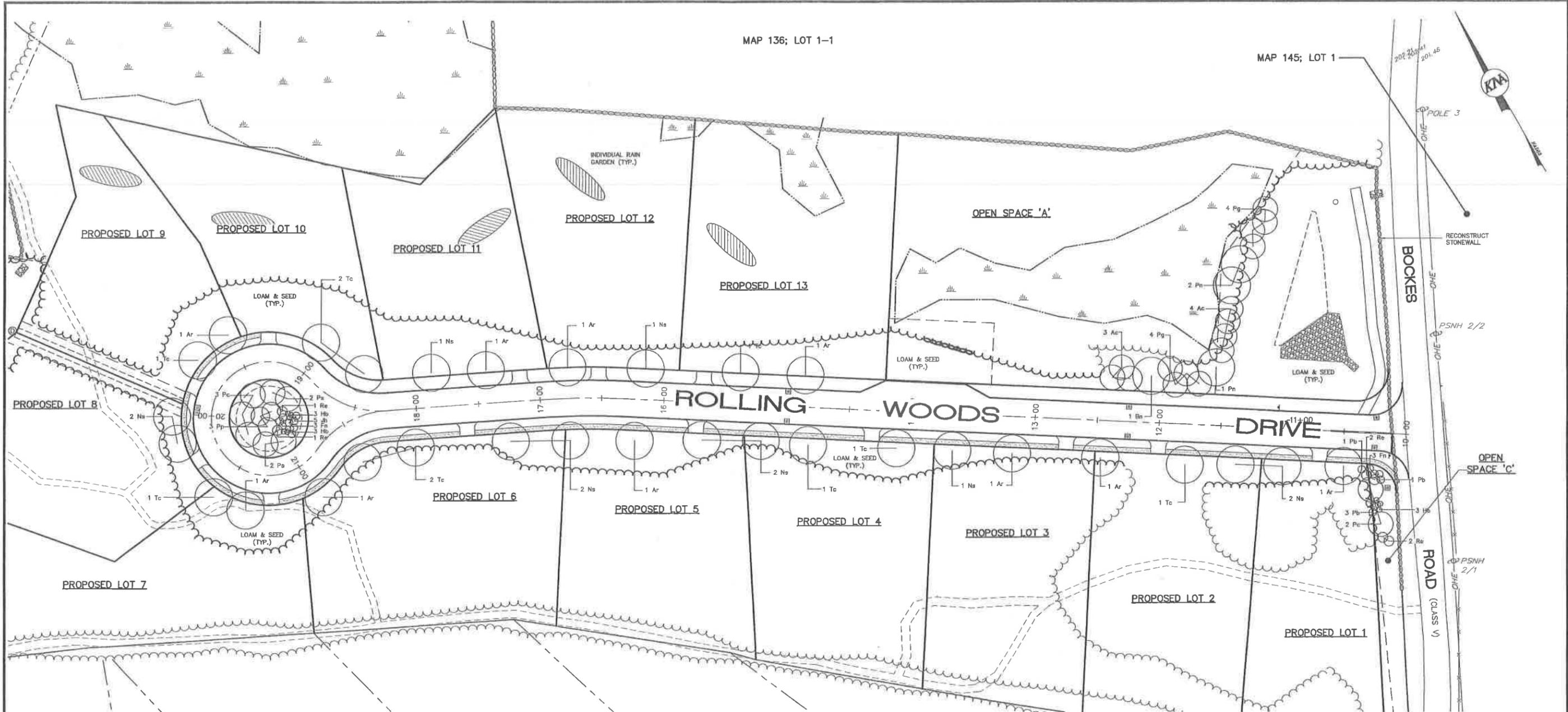
SUBDIVISION PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.



MATCHLINE - SEE SHEET 25

MAP 136; LOT 1-1

MAP 145; LOT 1



LEGEND

- STONE BOUND FOUND
- IRON PIN FOUND
- ⊙ DRILL HOLE FOUND OR SET
- ⊙ STONE BOUND TO BE SET
- ⊙ IRON PIN TO BE SET
- UTILITY POLE SIGN
- ABUTTER LINE
- EXISTING PROPERTY LINE
- WETLAND
- OHE OVERHEAD UTILITIES
- TRELIN
- STONEWALL
- WETLAND BUFFER LINE
- MINIMUM BUILDING SETBACK LINE
- PROPOSED EASEMENT
- EDGE OF TRAIL
- PROPOSED PROPERTY LINE



LANDSCAPE NOTES:

- THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED SITE LANDSCAPE WHICH PROVIDES CLIMATIC RELIEF AND AESTHETIC APPEAL.
- 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 SHOWN HEALTHY APPEARANCE WITHIN THIS TIME SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE, WITH SAME WARRANTY REQUIREMENTS AS THE ORIGINAL 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.

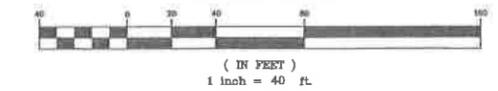
NOTES FOR PLANTING INDIVIDUAL RAIN GARDENS:

- FOR THE PLANTING OF THE RAIN GARDENS, THE CONTRACTOR SHALL CHOOSE A MINIMUM OF 10 DIFFERENT SPECIES FROM THE FOLLOWING LIST:
 - SEDGE (CAREX MORROWI)
 - ALLMAN'S COMPACT DOGWOOD (CORNUS SERICEA 'ALLMAN'S COMPACTA')
 - GATEWAY JOE-PYE WEED (EUPATORIUM MACULATUM 'GATEWAY')
 - DWARF INKBERY (LEX GLABRA 'COMPACTA')
 - COMMON WINTERBERRY (ILEX VERTICILLATA)
 - JACOB KLINE BEE BALM (MONARDA 'JACOB KLINE')
 - SHENANDOAH SWITCH GRASS (PANICUM VIRGATUM 'SHENANDOAH')
 - HIGH BUSH BLUEBERRY (VACCINIUM CORYMBOSUM)
 - WITHEROD VIBURNUM (VIBURNUM CASSINOIDES)
 - OLETHRA ALFREDIA 'COMPACTA' (COMPACT SUMMERSWEET)
 - BUTTOMBUSH (CEPHALANTHUS OCCIDENTALIS)
 - SHEEP LAUREL (KALMIA ANGSTIFOLIA)
 - RED CHOKEBERRY (ARONIA ARBUTIFOLIA)
 - KARL FOERSTER FEATHER REED GRASS (CALAMAGROSTIS A. 'KARL FOERSTER')
 - PURPLE CONEFLOWER (ECHINACEA PURPUREA)
 - CARDINAL FLOWER (LOBELIA CARDINALIS)
 - CANADIAN BURNET (SANGUISORBA CANADENSIS)
- TO ACHIEVE A DESIRABLE DENSITY OF COVER, THE WOODY SHRUBS SHOULD BE PLANTED SIX-FOOT ON CENTER. PLANT EACH PERENNIAL SPECIES IN GROUPS OF 5-12 PLANTS. NO LESS THAN 120 PLANTS SHALL BE PLANTED IN EACH INDIVIDUAL RAIN GARDEN.

PLANT LIST

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE
TREES				
Ac	7	ABIES CONCOLOR	WHITE FIR	6-7' B&B
Ar	10	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2-2.5" CAL
Bn	1	BETULA NIGRA 'DURA HEAT'	DURA HEAT RIVER BIRCH	2-2.5" CAL
Ns	11	NYSSA SYLVATICA 'WILDFIRE'	WILDFIRE TUPELO	2-2.5" CAL
Pc	5	PYRUS CALLERYANNA 'CHANTICLEER'	CHANTICLEER FLOWERING PEAR	2-2.5" CAL
Pg	8	PICEA GLAUCA	WHITE SPRUCE	6-7' B&B
Pn	3	PINUS NIGRA	AUSTRIAN PINE	6-7' B&B
Pp	3	PINUS MURMENSIS 'BIZON BLUE'	BIZON BLUE SPRUCE	6-7' B&B
Ps	4	PRUNUS SERRULATA 'KWANZAN'	KWANZAN CHERRY	2-2.5" CAL
Tc	10	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	2-2.5" CAL
SHRUBS				
Fn	6	FORSYTHIA 'NORTHERN GOLD'	NORTHERN GOLD FORSYTHIA	2-3'
Hb	9	HYDRANGEA 'BLUSHING BRIDE'	BLUSHING BRIDE HYDRANGEA	18-24"
Jh	5	JUNIPERUS HORIZONTALIS 'BAR HARBOR'	BAR HARBOR JUNIPER	18-24"
Pb	5	PINUS STROBUS 'BLUE SHAG'	BLUE SHAG WHITE PINE	2.5-3'
Re	6	RHODODENDRON 'ENGLISH ROSEUM'	ENGLISH ROSEUM RHODODENDRON	2.5-3' B&B

GRAPHIC SCALE



LANDSCAPE PLAN
ROLLING WOODS DRIVE

MAP 144; LOT 21
BOCKES ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
STINSON HILLS, LLC
317 SOUTH RIVER ROAD
BEDFORD, NH 03110
BK. 8692, PG. 1479

APPLICANT:
LAMONTAGNE BUILDERS, INC.
317 SOUTH RIVER ROAD
BEDFORD, NH 03110

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

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

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

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

SUBDIVISION 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	06/30/14	REVISED PER OLD COMMENTS	JDL
2	06/01/14	DATE ONLY	JDL
3	06/21/14	DATE ONLY	KMB
4	06/15/15	REVISED TO PRIVATE WELLS	AMB
5	07/10/15	REVISED PER PLANNING BOARD COMMENTS	KMB
6	07/29/15	REVISED PER TOWN COMMENTS	KMB

DATE: MAY 23, 2014 SCALE: 1" = 40'
PROJECT NO: 13-0702-1 SHEET 27 OF 27

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