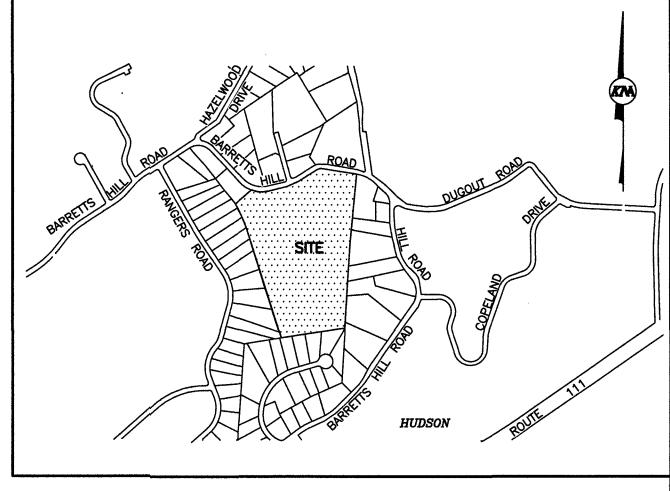


WCINITY PLAN
NOT TO SCALE

RESIDENTIAL SUBDIVISION BARRETT HILL SUBDIVISION

MAP 151; LOT 59
75 BARRETTS HILL ROAD
HUDSON, NEW HAMPSHIRE



LOCATION PLAN
SCALE: 1" = 1000':

WILDLIFE PROTECTION NOTES:

ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES SHALL BE REPORTED IMMEDIATELY TO THE NE HAMPSHIRE FISH AND GAME DEPARTMENT NONGAME AND ENDANGERED WILDLIFE ENVIRONMENTAL REVIEW PROGRAM BY PHONE AT 603-271-2461 AND BY EMAIL AT NHFGREVIEW@WILDLIFE.NH.GOV. EMAIL SUBJECT LINE: NHB23-3253. BARRETT HILL SUBDIVISION WILDLIFE SPECIES OBSERVATION.

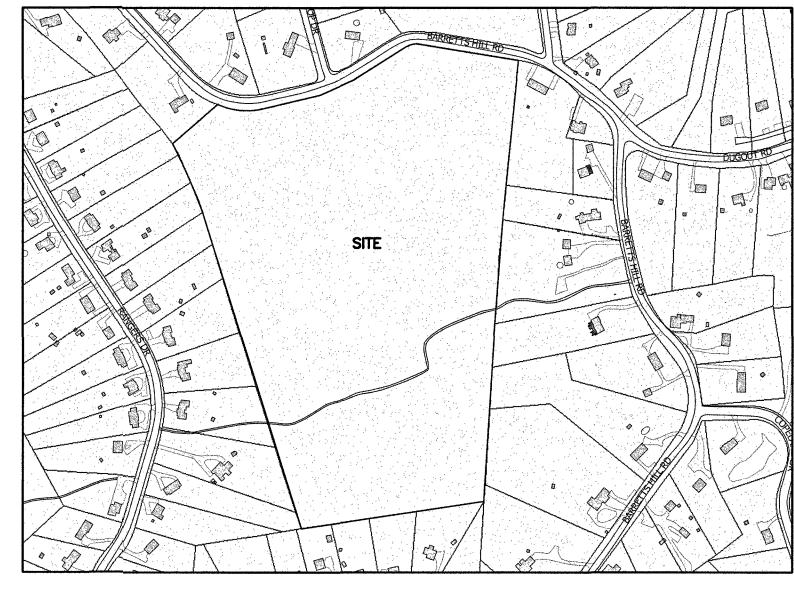
- PHOTOGRAPHS OF THE OBSERVED SPECIES AND NEARBY ELEMENTS OF HABITAT OR AREAS OF LAND DISTURBANCE SHALL BE PROVIDED TO NHF&G IN DIGITAL FORMAT AT THE ABOVE EMAIL ADDRESS FOR VERIFICATION AS FEASIBLE:
- 3. IN THE EVENT A THREATENED OR ENDANGERED SPECIES IS OBSERVED ON THE PROJECT SITE DURING THE TERM OF THE PERMIT, THE SPECIES SHALL NOT BE DISTURBED, HANDLED, OR HARMED IN ANY WAY PRIOR TO CONSULTATION WITH NHF&G AND IMPLEMENTATION OF CORRECTIVE ACTIONS RECOMMENDED BY NHF&G, IF ANY, TO ASSURE THE PROJECT DOES NOT APPRECIABLY JEOPARDIZE THE CONTINUED EXISTENCE OF THREATENED AND ENDANGERED SPECIES AS DEFINED IN FIS 1002.04:
- 4. THE NHF&G, INCLUDING ITS EMPLOYEES AND AUTHORIZED AGENTS, SHALL HAVE ACCESS TO THE PROPERTY

OWNER/APPLICANT:

BARRETT HILL, LLC 21 CONTINENTAL BLVD. DOOR #4 MERRIMACK, NEW HAMPSHIRE 03054

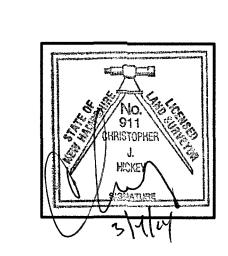
PREPARED BY:

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

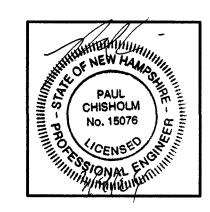


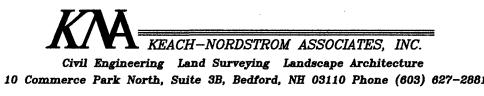
EXISTING FEATURES WITHIN 200 FT

NOT TO SCALE









DECEMBER 6, 2023
LAST REVISED: MARCH 4, 2024
PROJECT NO. 23-0414-1

SHEET TITLE	SHEET No.
	4
PROJECT NOTES	1
MASTER SUBDIVISION PLAN	2
SUBDIVISION PLAN	3 - 4
MASTER TOPOGRAPHIC SUBDIVISION PLAN	5
TOPOGRAPHIC SUBDIVISION PLAN	6 - 7
ROADWAY PLAN & PROFILES	8 - 9
GRADING & DRAINAGE PLAN	10
OFFSITE GRADING, DRAINAGE & EROSION CONTROL PLAN	11
EROSION CONTROL PLAN	12
SIGHT DISTANCE PLAN & PROFILE	13
DRAINAGE PROFILES	14
DRIVEWAY PROFILES	15
CONSTRUCTION DETAILS	16 - 22
TEST PIT LOGS	23
CONVENTIONAL SUBDIVISION YIELD PLAN	24

1. THE PURPOSE OF THIS PLAN IS TO DEPICT A PROPOSED 13 LOT RESIDENTIAL OPEN SPACE DEVELOPMENT ON ASSESSOR'S MAP 151 LOT 59 IN HUDSON, NEW HAMPSHIRE BY CREATING 13 CONDOMINIUM DUPLEX LOTS WITH 6 BEDROOMS EACH & ONE NON-BUILDABLE OPEN SPACE LOT.

- 2. EACH LOT OWNER WITHIN THE OPEN SPACE SUBDIVISION SHALL POSSESS AN EQUAL SHARE OF THE COMMON OPEN SPACE AREA ASSOCIATED WITH THIS DEVELOPMENT.
- 3. TOTAL SITE AREA: 1,540,252 S.F. OR 35.36 ACRES

4. OWNER OF RECORD: BARRETT HILL, LLC 21 CONTINENTAL BLVD. DOOR #4 MERRIMACK, N.H. 03054

HCRD BK. 9700 PG. 287

5. THE SUBJECT PARCEL IS LOCATED WITHIN THE GENERAL (G-1) ZONING DISTRICT AND IS SUBJECT TO THE FOLLOWING DIMENSIONAL REQUIREMENTS: MINIMUM BUILDING SETBACKS:

> FRONT SIDF - REAR

- 6. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON A FIELD SURVEY PERFORMED BY THIS OFFICE FROM APRIL TO NOVEMBER OF 2023.
- 7. ALL DRILL HOLES ARE SET UNLESS OTHERWISE NOTED.
- 6. HORIZONTAL DATUM IS NAD83 AND VERTICAL DATUM IS NAVD88 USING REAL TIME GPS SURVEYING METHODS.
- 7. EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAPS (FIRM) FOR THE TOWN OF HUDSON, NEW HAMPSHIRE, HILLSBOROUGH COUNTY, MAP NUMBER 33011C0517D, PANEL NUMBER 517 OF 701 AND MAP NUMBER 33011C0519D, PANEL NUMBER 519 OF 701, EFFECTIVE DATE SEPTEMBER 25, 2009, INDICATE THAT NO PORTION OF THE SUBJECT PARCEL IS LOCATED IN A DESIGNATED FLOOD ZONE.
- 8. 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.
- 9. EASEMENTS. RIGHTS AND RESTRICTIONS SHOWN OR IDENTIFIED HEREON ARE THOSE FOUND DURING RESEARCH AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS. OTHER EASEMENTS, RIGHTS AND RESTRICTIONS MAY EXIST WHICH A TITLE EXAMINATION OF THE SUBJECT PREMISES MAY DETERMINE.
- 10. THE OPEN SPACE SUBDIVISION IS TO BE SERVICED BY INDIVIDUAL WELLS & INDIVIDUAL SEPTIC SYSTEMS.
- 11. 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.
- 12. IF DURING LOT DEVELOPMENT, SLOPES OF 2:1 EXCEED 20 FEET, 3:1 EXCEEDS 30 FEET, OR 4:1 EXCEEDS 40 FEET THE CONTRACTOR SHALL ADD BENCHING PER NHDES REQUIREMENTS.

13. OPEN SPACE: 1. LOT 59 TOTAL AREA = 1,540,252 S.F. 2. TOTAL REQUIRED OPEN SPACE = 441,145 S.F.-MIN. LOT SIZE = 87,120 S.F.-TOTAL LOTS = 13 = 1,132,560 S.F. -TOTAL MIN. LOT SIZE -TOTAL PROPOSED BUILDABLE AREA = 688,415 S.F. -REQUIRED OPEN SPACE = 1,132,560 - 688,415 = 444,145 S.F.3. TOTAL PROPOSED OPEN SPACE = 754,352 S.F. AREAS TO BE REMOVED FROM TOTAL OPEN SPACE: - ROADWAYS, DRIVEWAYS, RIGHT-OF-WAYS, PARKING AREAS, & OTHER DEVELOPED AREAS = 59,606 S.F. PSNH EASEMENT = 134,782 S.F.- DRAINAGE/ACCESS EASEMENTS = 75,977 S.F. = 270,365 SF- TOTAL AREA TO BE REMOVED FROM TOTAL OPEN SPACE 754,352 - 270,365 = 483,987 S.F.- TOTAL PROPOSED OPEN SPACE = 483,987 S.F. > 444,145 S.F.

14. PERMITS REQUIRED: -NHDES AOT -NHDES SUBDIVISION

> -NHDES INDIVIDUAL SUBSURFACE DISPOSAL (SEPTIC SYSTEMS) -NHDOT EXCAVATION PERMIT

- 15. THE ONSITE DRAINAGE SYSTEM SHALL BE CONSTRUCTED AND MAINTAINED IN COMPLIANCE WITH LOCAL AND NHDES REQUIREMENTS FOR SUCH SYSTEMS.
- 16. 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 ARE PROHIBITED ON SATURDAY AND SUNDAY.
- 17. 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 SUNDAYS.
- 18. STONE BOUNDS (5"X5"X30") TO BE SET AT ALL POINTS OF CURVATURE ON THE RIGHT-OF-WAY AND (4"X"X36") TO BE SET AT PROPERTY CORNERS ALONG THE RIGHT-OF-WAY. IRON PINS (5/8"X30") TO BE SET AT ALL OTHER BOUNDARY CORNERS.
- 19. AN IMPERVIOUS LINER SHALL BE REQUIRED FOR THE POCKET POND UNLESS DETERMINED OTHERWISE BY THE DESIGN ENGINEER DURING CONSTRUCTION WHEN THE POND IS AT SUBGRADE, AND IS EITHER MORE THAN 5 FEET BELOW SEASONAL HIGH WATER TABLE AND/OR IN COMPLETE LEDGE.
- 20. THIS APPROVAL IS SUBJECT TO FINAL ENGINEERING REVIEW.
- 21. THIS PROJECT MEETS THE 2019 MS4 REQUIREMENTS.
- 22. THIS PLAN SET CONTAINS 23 SHEETS, SHEETS 1 THRU 4 SHALL BE RECORDED IN HILLSBOROUGH COUNTY REGISTRY OF DEEDS AND THE COMPLETE SET IS ON FILE IN THE HUDSON PLANNING DEPARTMENT.
- 23. THERE WILL BE NO EXTERIOR LIGHTING.
- 24. MAXIMUM BUILDING HEIGHT SHALL NOT EXCEED 38 FEET.

APPROVED BY THE HUDSON, NH PLANNING BOARD

ALL SUBSEQUENT CHANGES IN SUBDIVISION REGULATIONS. SITE PLAN

SUBDIVISIONS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FOR AN APPLICANT TO GAIN AN EXEMPTION FROM

REGULATIONS AND CHANGES TO THE ZONING ORDINANCE, SEE NH RSA 674:39.

DATE OF MEETING:

- 25. IT IS THE INTENT OF THE APPLICANT TO CONSTRUCT INDIVIDUAL CONDEX UNITS ON EACH PROPOSED BUILDING LOT.
- 26. THE APPLICANT SHALL PROVIDE A BOND FOR ONSITE AND OFFSITE IMPROVEMENTS WITHIN THE EXISTING AND PROPOSED RIGHT-OF-WAY, PRIOR TO RECORDING THE PLANS.
- 27. THE APPLICANT SHALL TRANSFER THE OWNERSHIP OF THE ROAD TO THE TOWN AND TO THE SATISFACTION OF THE TOWN PRIOR TO RECEIVING THE LAST CERTIFICATE OF OCCUPANCY OF THE LAST LOT.
- 28. THE SUBJECT PROPERTY DOES NOT CONTAIN ANY WATER FEATURES OR WETLANDS AS VERIFIED BY CHRISTOPHER DANFORTH, CWS #077.

_____ SIGNATURE DATE:____

SIGNATURE DATE:

WAIVER REQUESTS:

THE FOLLOWING WAIVER IS REQUESTED FROM THE TOWN OF HUDSON SUBDIVISION REGULATIONS: 1. HTC 289-37(A.) - LOT PHASING

STATE LOT SIZING CALCULATIONS:

MINIMUM LOT LOADING FACTOR USED IS 1.73.

THE PREDOMINANT SOIL GROUP CHATFIELD-HOLLIS COMPLEX. THE MOST RESTRICTIVE UPLAND SLOPE IS "D"

LOT DENSITY FOR OPEN SPACE SUBDIVISION IS: TOTAL AREA OF EXISTING PARCEL = 35.36 ACRE -WETLAND AREA

= 0 ACRES -STEEP SLOPES = 8.08 ACRES NET AREA FOR LOT LOADING = 28.8 ACRES 28.8 ACRES x 2,000 GPD/AC./1.73 = 31,537 GPD ALLOWED 31,537 GPD = 210 BEDROOMS ALLOWED ON LOT (78 PROPOSED)

REFERENCE PLANS:

- 1. "LOT LINE RELOCATION TO INCLUDE WELL SURVEYED FOR GEORGE BOYER BARRETTS HILL ROAD HUDSON, N.H." SCALE: 1"=40'. DATED: JANUARY 10, 1978. PREPARED BY: PIANTIDOSI ASSOCIATES, INC. H.C.R.D. PLAN #11141
- 2. "BOUNDARY PLAN BARRETTS HILL ROAD HUDSON, NEW HAMPSHIRE. PREPARED FOR: MICHAEL F. CALLAHAN ET.UX." SCALE:1"=100'. DATED: OCTOBER 5, 1979. PREPARED BY: ALLEN H. SWANSON, INC. H.C.R.D. PLAN #12696
- 3. "DECLARATION OF CONDOMINIUM SITE PLAN HILLTO HOUSE -A CONDOMINIUM—" SCALE: 1"=20'. DATED: AUGUST 6, 1981. PREPARED BY: THOMAS F. MORAN INC. H.C.R.D. PLAN #15313
- 4. "SUBDIVISION PLAN BARRETTS HILL ROAD HUDSON, N.H. PREPARED FOR JOHN JACOBS." SCALE: 1"=50'. DATED: SEPTEMBER 25, 1985. PREPARED BY: STEVEN J. PATRICK & ASSOCIATES. H.C.R.D. PLAN #19495
- 5. "MALLARD DRIVE SUBDIVISION CONSOLIDATION AND RESUBDIVISION PLAN." SCALE: 1"=80'. DATED: AUGUST, 1985. PREPARED BY: COSTELLO, LOMASNEY & DE NAPOLI, INC. H.C.R.D. PLAN #22145
- 6. "CONSOLIDATION & SUBDIVISION PLAN LOT 54 MAP 31" SCALE: 1"=50'. DATED: AUGUST 1986. PREPARED BY: MAYNARD & PAQUETTE, INC. H.C.R.D. PLAN #22146
- 7. "CONDOMINIUM PLAN OF LAND IN HUDSON, N.H. PREPARED FOR JOHN JACOBS." SCALE: 1"=50'. DATED: AUGUST 30, 1990. PREPARED BY: STEVEN J. PATRICK & ASSOCIATES LAND SURVEYORS. H.C.R.D. PLAN #24824
- 8. "SUBDIVISION PLAN MASINGILL SUBDIVISION 65 BARRETTS HILL ROAD, HUDSON, N.H." SCALE: 1"=50'. DATED: FEBRUARY 11, 1998. PREPARED BY: JONES & BEACH ENGINEERS, INC. H.C.R.D. PLAN #29219

TABLE OF SUBDIVISION LOT AILEAS						
LOT NUMBER	LOT AREA (SF)	FRONTAGE (FT)	STEEP SLOPES (SF)	WETLANDS (SF)	NON-CONTIGUOUS AREA (SF)	BLA (SF)
59-1	43,785	335.00	0	0	0	43,785
59-2	43,702	195.83	0	0	0	43,702
59-3	62,051	100.00	0	0	0	62,051
59-4	55,409	100.57	0	0	0	55,409
59-5	46,995	102.12	0	0	0	46,995
59-6	46,435	100.52	0	0	0	46,435
59-7	62,521	100.95	18,588	0	0	43,933
59-8	57,445	100.05	5,040	0	0	52,405
59-9	77,869	221.83	6,604	0	: 0	71,265
59-10	75,659	164.14	4,289	0	0	71,370
59-11	60,124	100.00	3,325	0	0	56,799
59-12	47,988	153.96	32	0	0	47,956
59-13	46,311	195.59	0	0	0	46,311
Totals	726,294		37,879			688,415
Right of Way	59,606					
Open Space	754,352			•••		
Total	1,540,252					······································

TABLE OF SUBDIVISION LOT AREAS

SCS SOILS LEGEND

CaB canton fine sandy Loam, 0-8% slopes CaC CANTON FINE SANDY LOAM, 8-15% SLOPES CmC CANTON FINE SANDY LOAM, 8-15% SLOPES, VERY STONY CpD CHATFIELD-HOLLIS-CANTON COMPLEX, 15-25% SLOPES VERY ROCKY CSC CHATFIELD-HOLLIS COMPLEX, 8-15% SLOPES, ROCKY SrSCARBORO STONY MUCKY LOAMY SAND SCITUATE FINE SANDY LOAM, 0-3 % SLOPES SCITUATE STONY FINE SANDY LOAM, 3-8% SLOPES StBSOURCE: USDA-SCS WEB SOIL SURVEY

SITE SPECIFIC SOIL MAP UNIT KEY

SYMBOL	MAP UNIT	SLOPE CLASS	DRAINAGE CLASS	HSG
448B	SCITUATE	3-8%	MODERATELY WELL DRAINED	С
448C	SCITUATE	8-15%	MODERATELY WELL DRAINED	С
448D	SCITUATE	15-25%	MODERATELY WELL DRAINED	С
44B	MONTAUK	3-8%	WELL DRAINED	С
44C	MONTAUK	8-15%	WELL DRAINED	С
44D	MONTAUK	15-25%	WELL DRAINED	С

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.

PROJECT NOTES

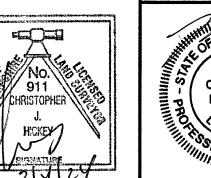
BARRETT HILL SUBDIVISION

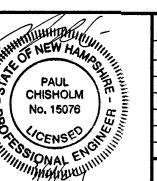
MAP 151 LOT 59 75 BARRETTS HILL ROAD HUDSON, NEW HAMPSHIRE HILLSBOROUGH COUNTY

> OWNER/APPLICANT: BARRETT HILL, LLC 21 CONTINENTAL BLVD. DOOR #4 MERRIMACK, NH 03054 H.C.R.D. BK. 9700 PG. 287

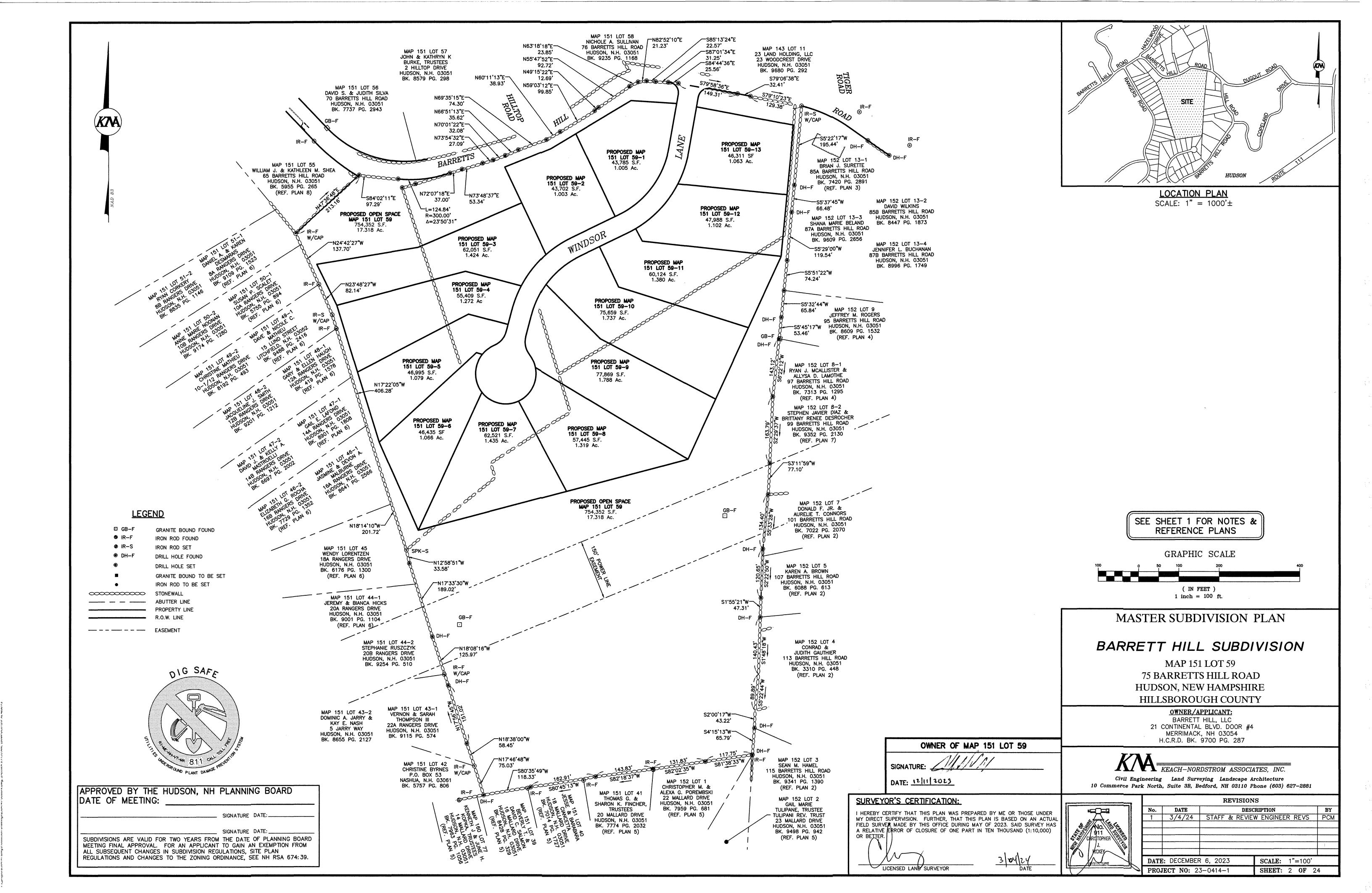


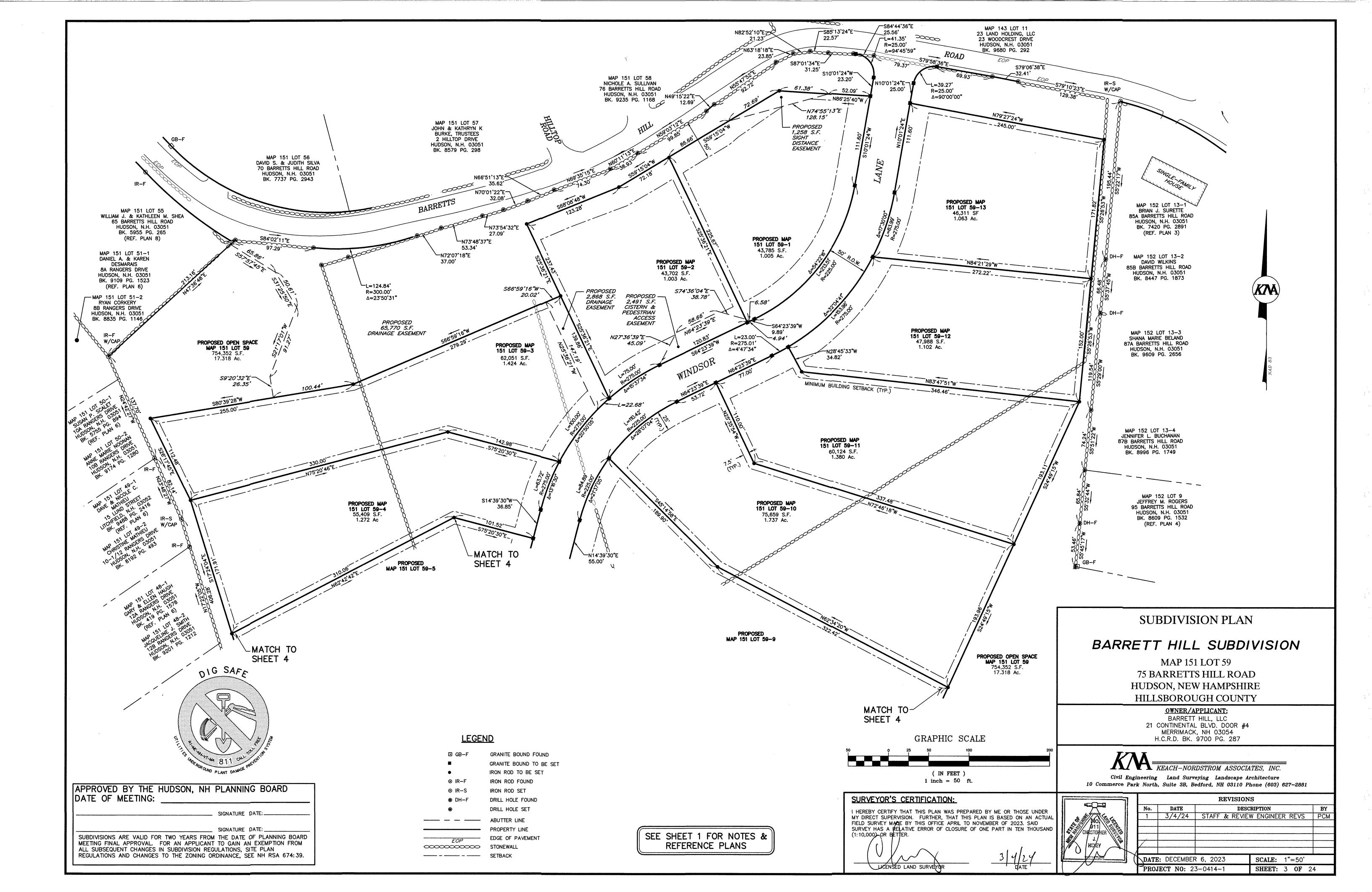
KEACH-NORDSTROM ASSOCIATES, INC.

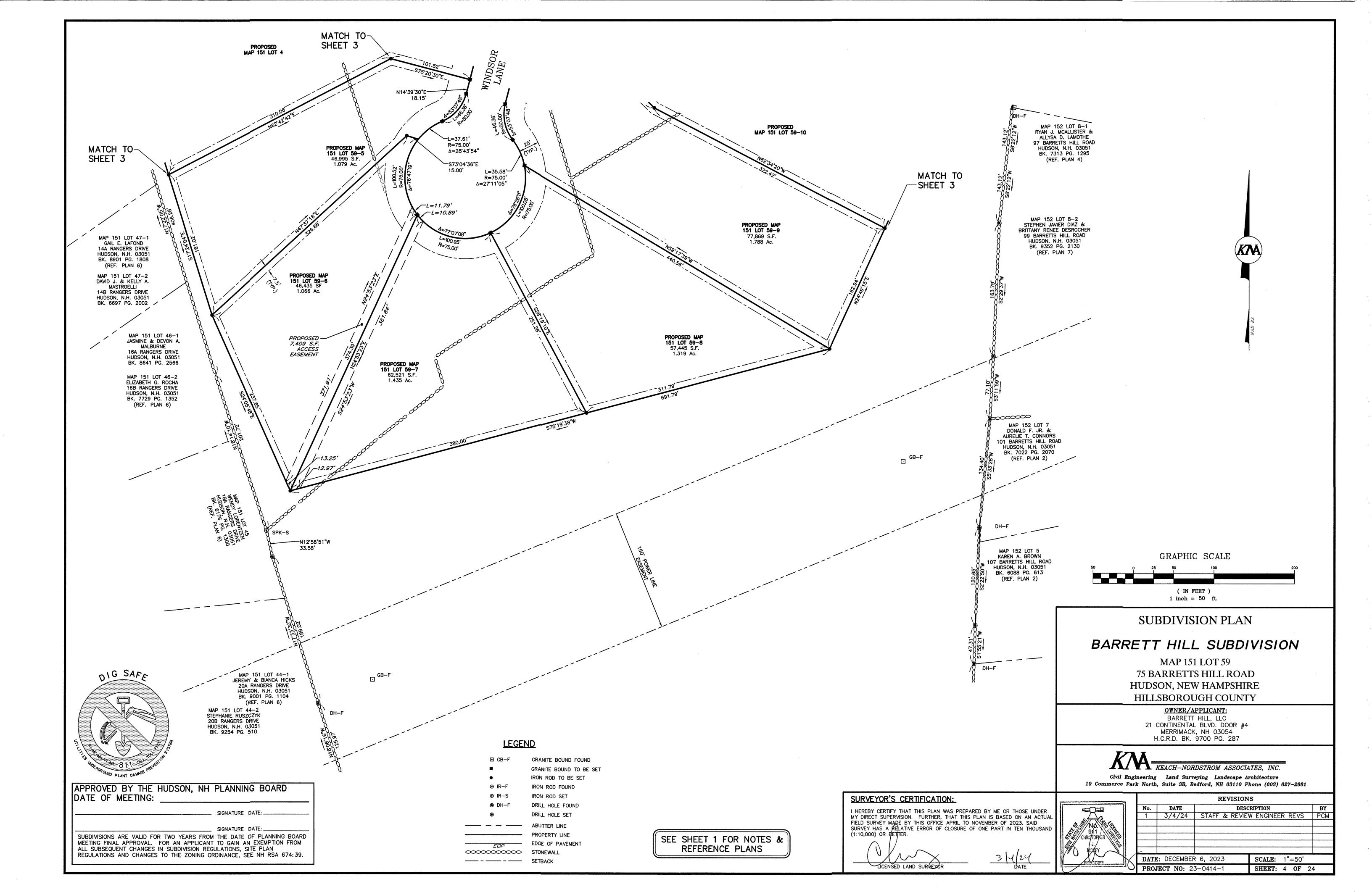


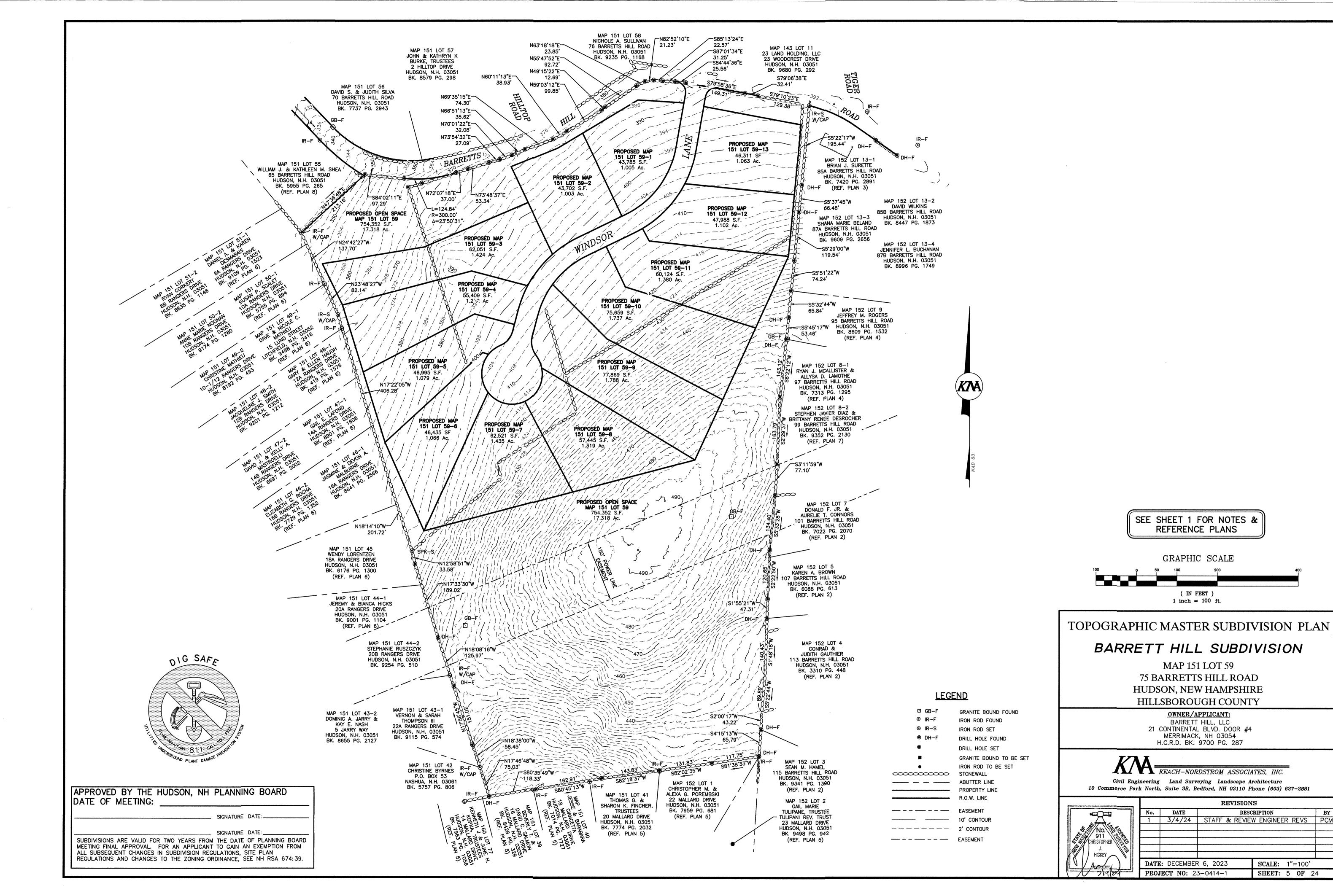


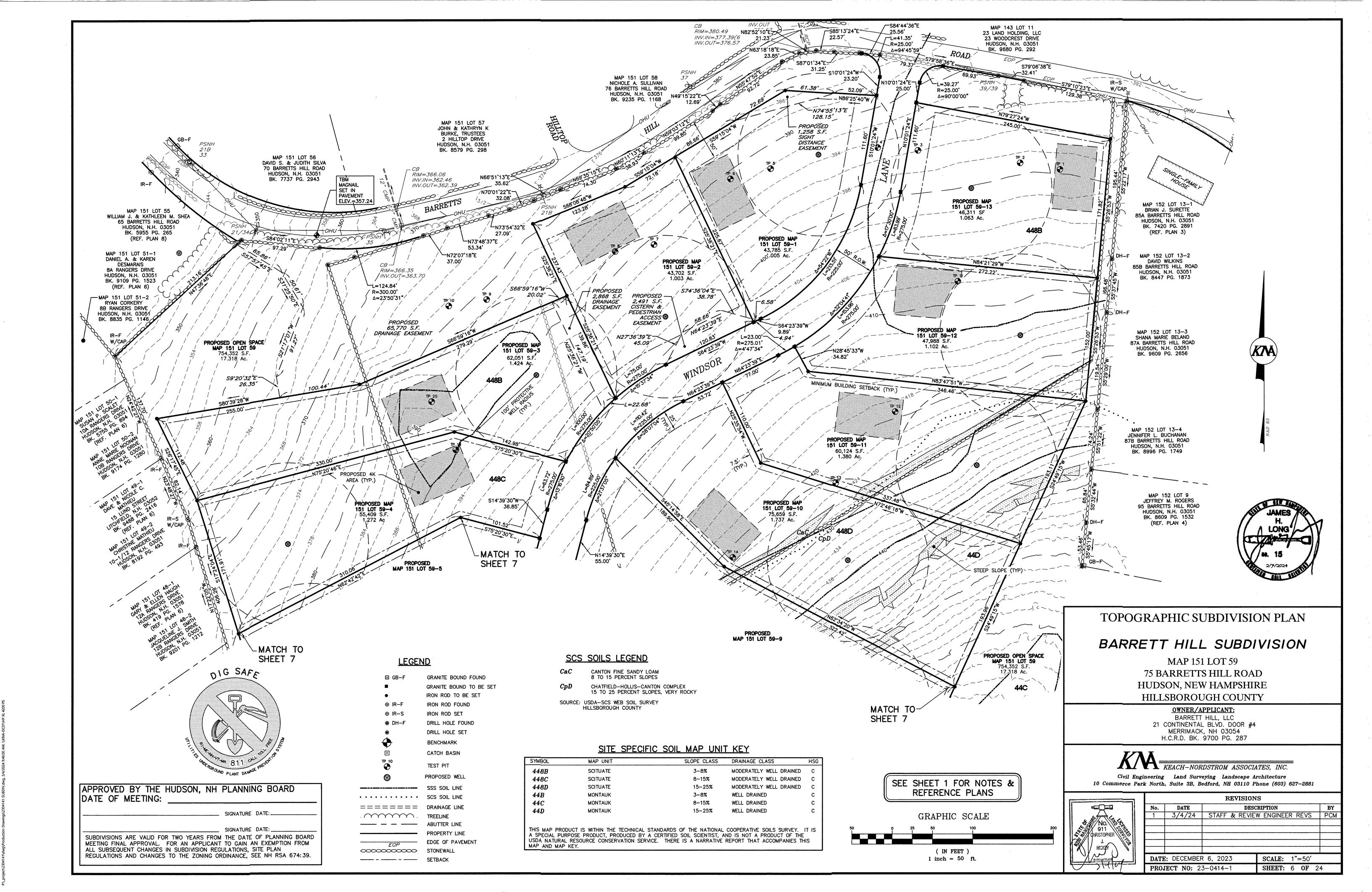
	REVISIONS					
No.	DATE	D	ESCRIPTION	BY		
1	3/4/24	STAFF & RE	VIEW ENGINEER REVS	PCM		
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DATE	: DECEMBER	R 6, 2023	SCALE: NONE			
PRO.	JECT NO: 23	3-0414-1	SHEET: 1 OF 2	24		

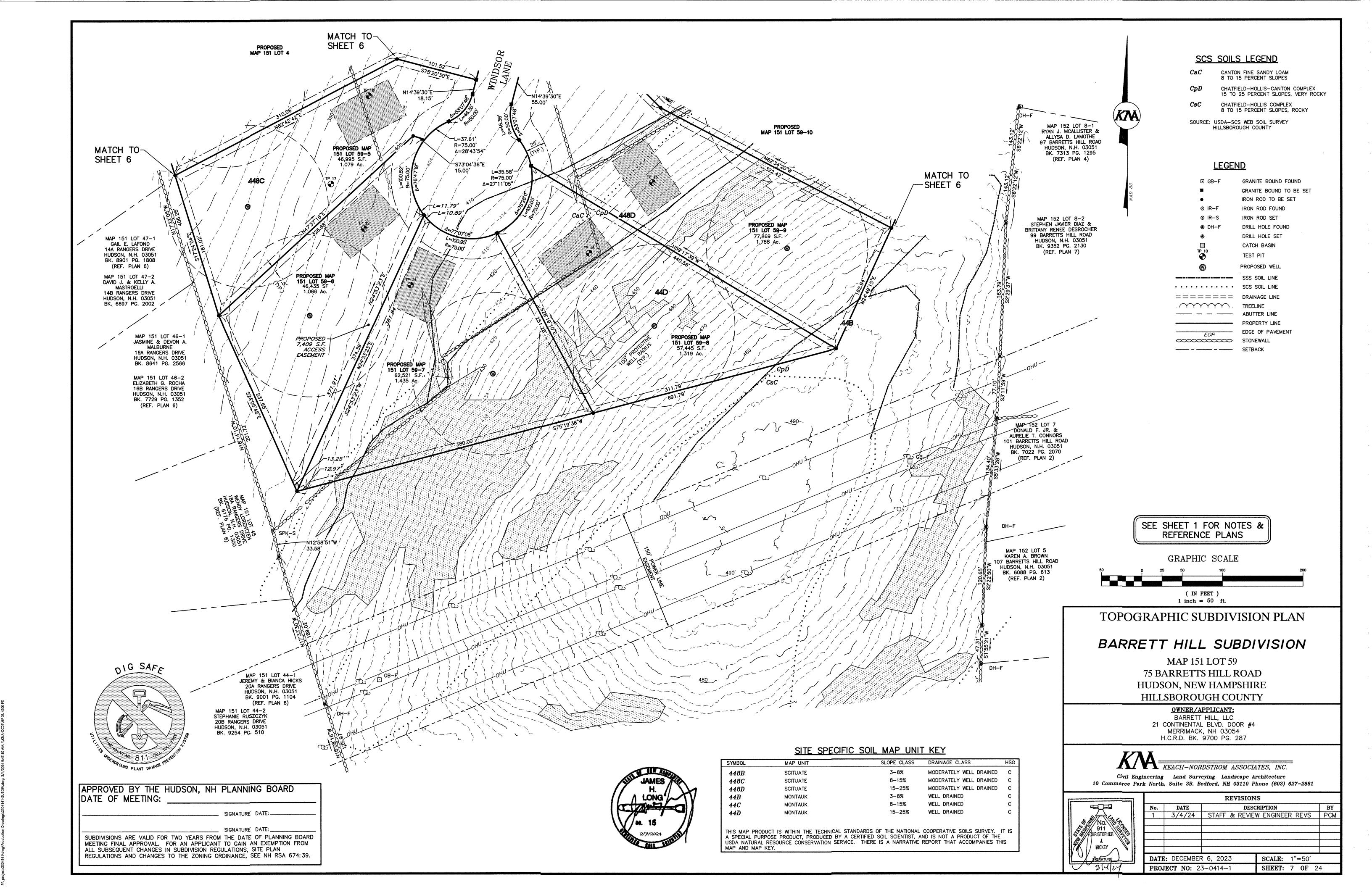


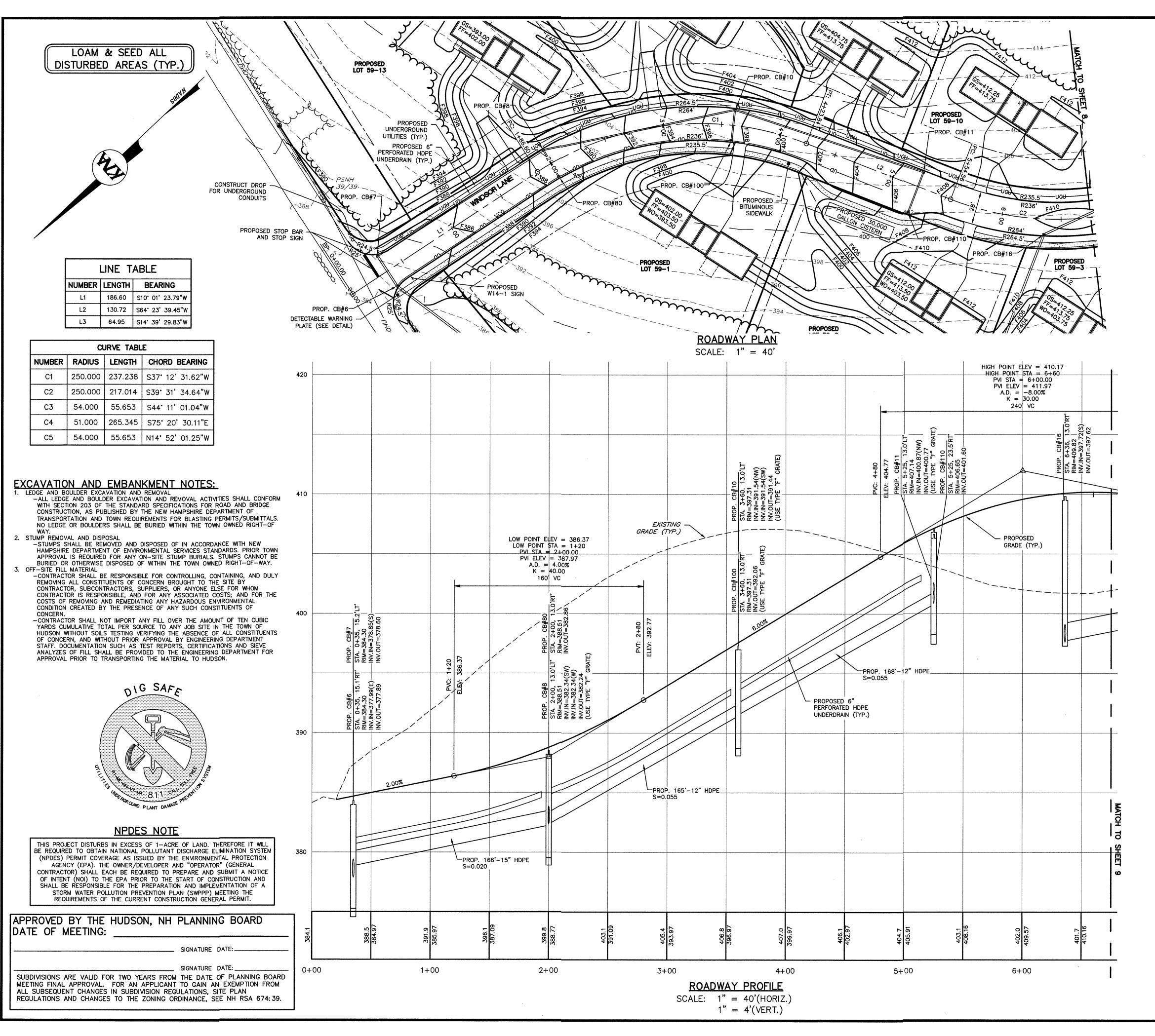










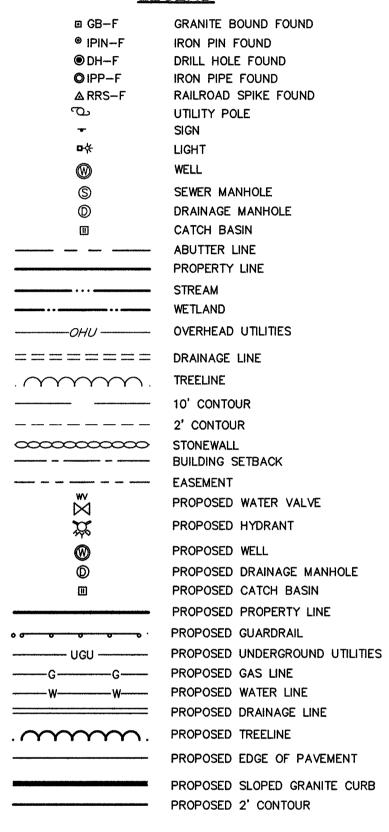


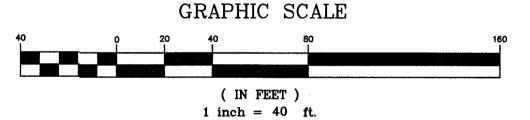
CONSTRUCTION_NOTES:

. THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED ROADWAY DESIGN, GRADING, AND UTILITIES FOR THIS SITE.

- 2. ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF HUDSON, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. ALL WORK PERFORMED IN THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION RIGHT—OF—WAY SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2016 ARE HEREBY INCORPORATED BY REFERENCE.
- 3. CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS FOR ROAD CONSTRUCTION, PUBLIC WORKS DEPARTMENT, HUDSON, NEW HAMPSHIRE. ALL DRAINAGE PIPES SHOWN SHALL BE HDPE. CATCH BASINS SHALL BE TYPE B, AND HAVE 3' SUMPS UNLESS OTHERWISE NOTED.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 811 AT LEAST 72 HOURS BEFORE DIGGING.
- ALL DRAINAGE PIPE SHALL BE INSTALLED FOLLOWING MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 ALL LOT DEVELOPMENT SHOWN ON THIS PLAN INCLUDING BUT NOT LIMITED TO DRIVEWAYS, BUILDING LOCATIONS, AND GRADING ARE SHOWN FOR PROOF OF CONCEPT ONLY. FINAL LOT LAYOUT SHALL BE COORDINATED WITH THE OWNER, THE ENGINEER OF RECORD, AND TOWN STAFF FOR FINAL APPROVAL PRIOR TO CONSTRUCTION.

LEGEND





ROADWAY PLAN & PROFILES

BARRETT HILL SUBDIVISION

MAP 151 LOT 59
75 BARRETTS HILL ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER/APPLICANT:

BARRETT HILL, LLC 21 CONTINENTAL BLVD. DOOR #4 MERRIMACK, NH 03054 H.C.R.D. BK. 9700 PG. 287



KEACH-NORDSTROM ASSOCIATES, INC.

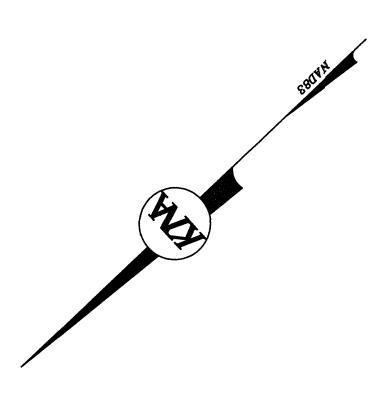
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

PAUL CHISHOLM No. 15078

			REVISION	S	
	No.	DATE	DESC	CRIPTION	BY
	1	3/4/24	STAFF & REVIE	W ENGINEER REVS	PCM
Ē					
					
	DATE	: DECEMBER	2 6 2023	SCALE: 1" = 40'	
	PRO.	JECT NO: 23	3-0414-1	SHEET: 8 OF 2	4

LOAM & SEED ALL DISTURBED AREAS (TYP.)

SEE SHEET 5 FOR LINE AND CURVE TABLE_





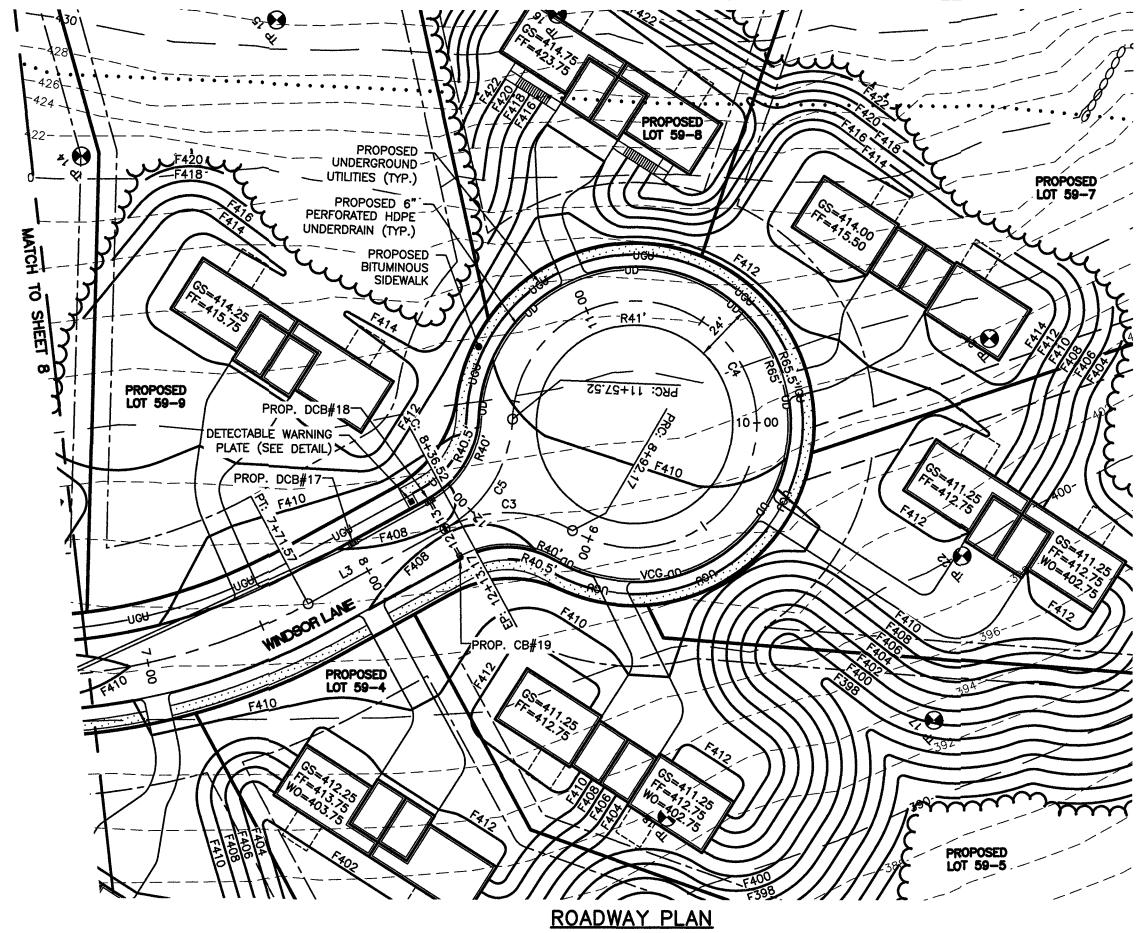
NPDES NOTE

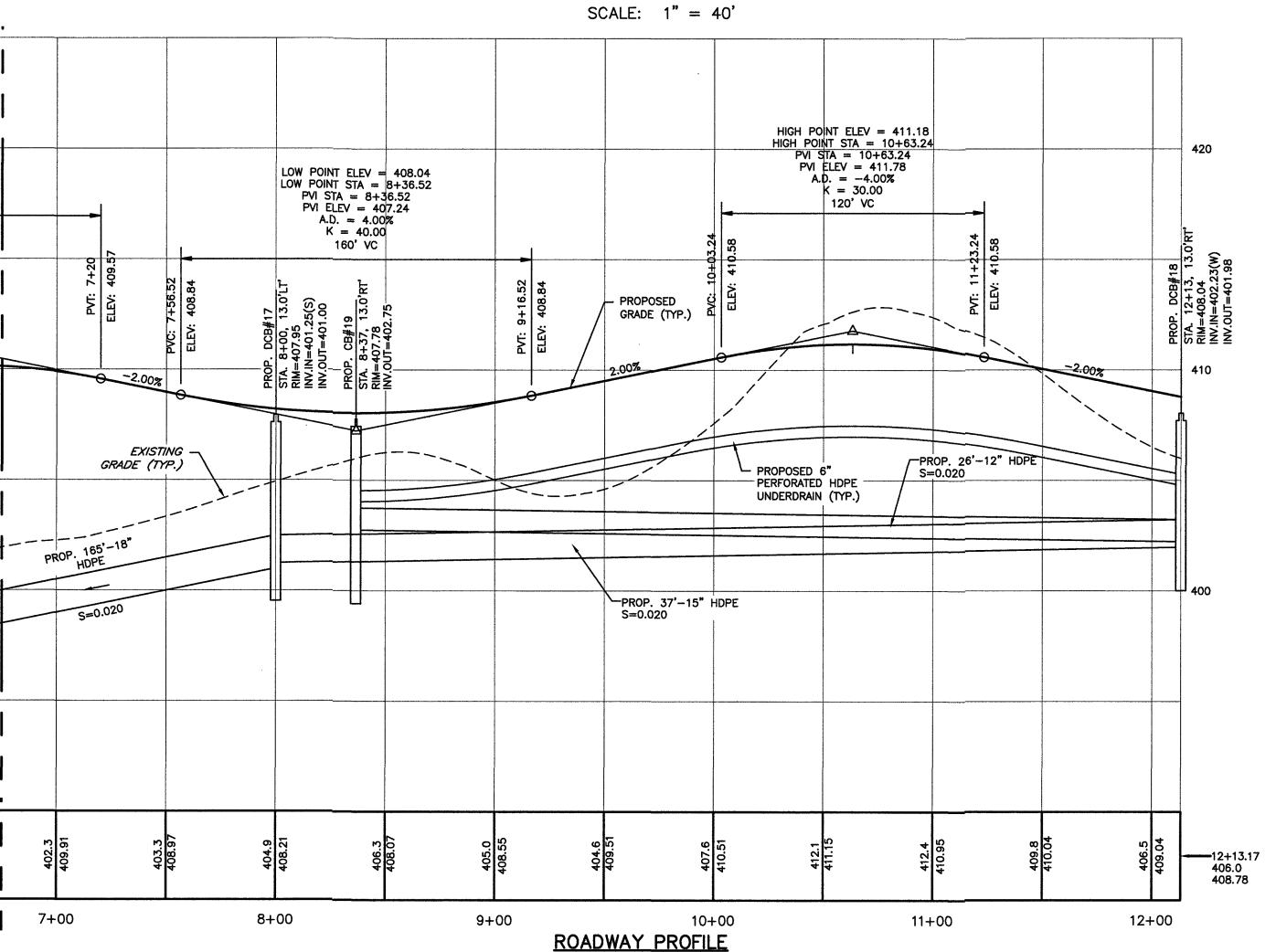
THIS PROJECT DISTURBS IN EXCESS OF 1-ACRE OF LAND. THEREFORE IT WILL BE REQUIRED TO OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE OWNER/DEVELOPER AND "OPERATOR" (GENERAL CONTRACTOR) SHALL EACH BE REQUIRED TO 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.

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

SIGNATURE DATE:

SUBDIVISIONS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FOR AN APPLICANT TO GAIN AN EXEMPTION FROM ALL SUBSEQUENT CHANGES IN SUBDIVISION REGULATIONS, SITE PLAN REGULATIONS AND CHANGES TO THE ZONING ORDINANCE, SEE NH RSA 674:39.





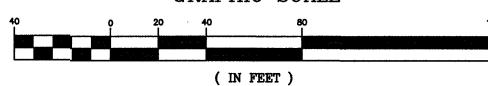
SCALE: 1" = 40'(HORIZ.)

1" = 4'(VERT.)

<u>LEGEND</u>

□ GB-F ● IPIN-F ● DH-F	GRANITE BOUND FOUND IRON PIN FOUND DRILL HOLE FOUND
OIPP-F	IRON PIPE FOUND
△ RRS-F	
₽	UTILITY POLE
-	SIGN
	LIGHT
®	WELL.
S	SEWER MANHOLE
©	DRAINAGE MANHOLE
	CATCH BASIN
	ABUTTER LINE
	PROPERTY LINE
• • • •	STREAM
• • • • • • • • • • • • • • • • • • • •	WETLAND
OHU	OVERHEAD UTILITIES
alleria alleria statuta estatua artista propria appropria appropria appropria	DRAINAGE LINE
. ~~~~.	TREELINE
	10' CONTOUR
	2' CONTOUR
∞	STONEWALL
-	BUILDING SETBACK
	EASEMENT
₩	PROPOSED WATER VALVE
\mathbf{x}	PROPOSED HYDRANT
®	PROPOSED WELL
©	PROPOSED DRAINAGE MANHOLE
	PROPOSED CATCH BASIN
	PROPOSED PROPERTY LINE
0 0 0 0 0 .	PROPOSED GUARDRAIL
UGU	PROPOSED UNDERGROUND UTILITIES
——G———G——	PROPOSED GAS LINE
W	PROPOSED WATER LINE
	PROPOSED DRAINAGE LINE
.~~~	PROPOSED TREELINE
**************************************	PROPOSED EDGE OF PAVEMENT
	PROPOSED SLOPED GRANITE CURB
	PROPOSED 2' CONTOUR

GRAPHIC SCALE



1 inch = 40 ft.

ROADWAY PLAN & PROFILES

BARRETT HILL SUBDIVISION

MAP 151 LOT 59 75 BARRETTS HILL ROAD HUDSON, NEW HAMPSHIRE HILLSBOROUGH COUNTY

OWNER/APPLICANT:

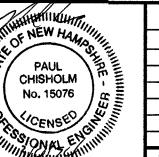
BARRETT HILL, LLC
21 CONTINENTAL BLVD. DOOR #4

MERRIMACK, NH 03054

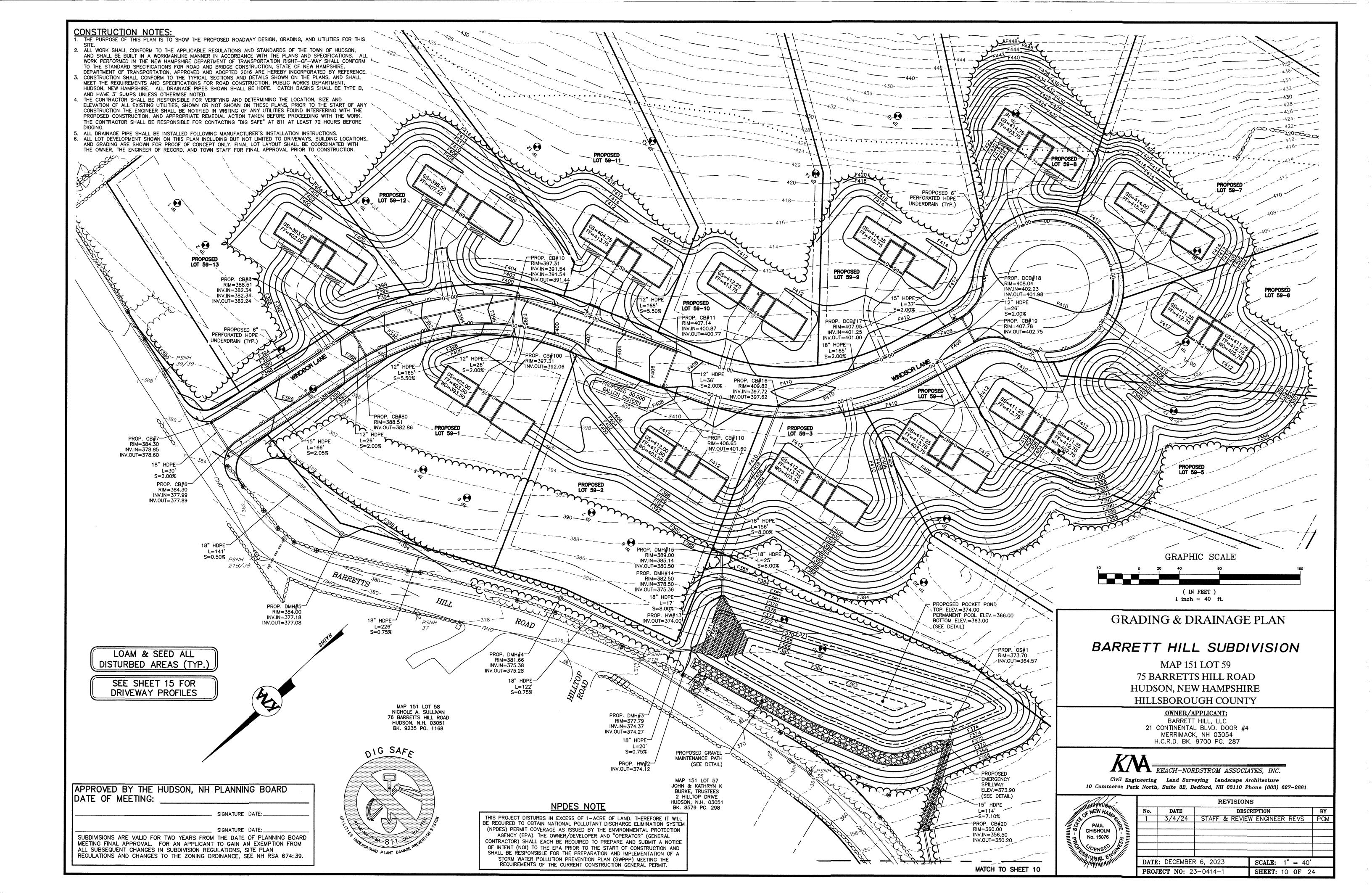
H.C.R.D. BK. 9700 PG. 287

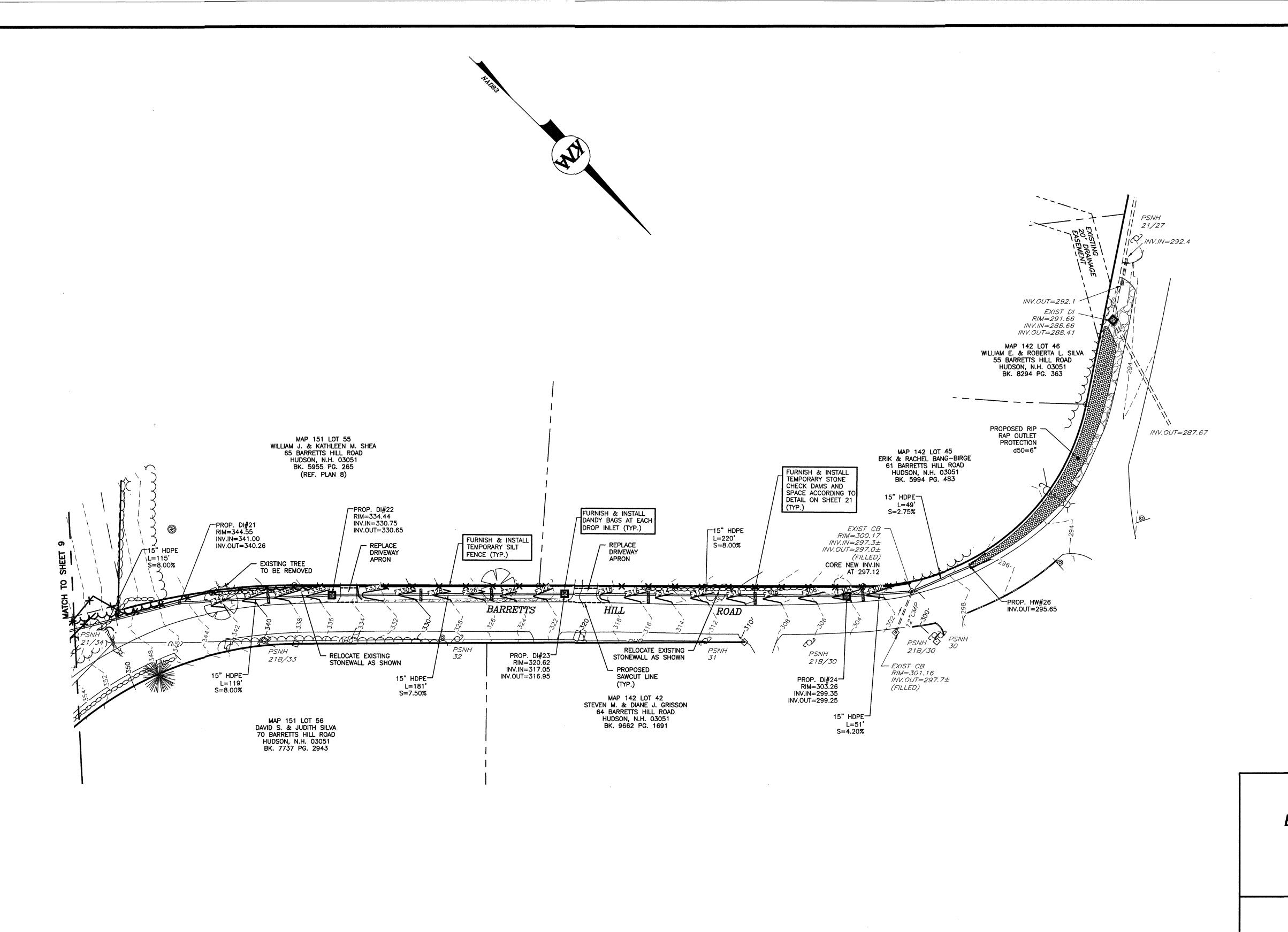


KEACH-NORDSTROM ASSOCIATES, INC.



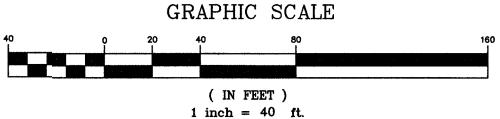
REVISIONS				
No.	DATE	DE	SCRIPTION	BY
1	3/4/24	STAFF & REV	IEW ENGINEER REVS	PCM
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				<u> </u>
DATE	: DECEMBER	R 6, 2023	SCALE: $1" = 40$	•
PROJ	ECT NO: 2	3-0414-1	SHEET: 9 OF 2	24





LEGEND

	ODANITE DOUBLE COUNT
□ GB-F	GRANITE BOUND FOUND
◎ IPIN-F ◎ DH-F	IRON PIN FOUND
© IPP-F	
△RRS-F	RAILROAD SPIKE FOUND
⊕ 	UTILITY POLE
	SIGN
□ ¢	LIGHT
@	WELL
S	SEWER MANHOLE
0	DRAINAGE MANHOLE
	CATCH BASIN
	ABUTTER LINE
·	PROPERTY LINE
***************************************	STREAM
	WETLAND
OHU	OVERHEAD UTILITIES
	DRAINAGE LINE
. ~~~~.	TREELINE
	10' CONTOUR
	2' CONTOUR
∞	STONEWALL
	BUILDING SETBACK
	EASEMENT
×	PROPOSED WATER VALVE
×	PROPOSED HYDRANT
®	PROPOSED WELL
©	PROPOSED DRAINAGE MANHOLE
	PROPOSED CATCH BASIN
	PROPOSED PROPERTY LINE
٥ ٥ ٥ ٥ ٥ ٥ ٠	PROPOSED GUARDRAIL
UGU	PROPOSED UNDERGROUND UTILITIES
	PROPOSED GAS LINE
WW	PROPOSED WATER LINE
	PROPOSED DRAINAGE LINE
	PROPOSED TREELINE
	PROPOSED EDGE OF PAVEMENT
	PROPOSED SLOPED GRANITE CURB
**************************************	PROPOSED 2' CONTOUR



OFFSITE GRADING, DRAINAGE & **EROSION CONTROL PLAN** BARRETT HILL SUBDIVISION

MAP 151 LOT 59 75 BARRETTS HILL ROAD HUDSON, NEW HAMPSHIRE HILLSBOROUGH COUNTY

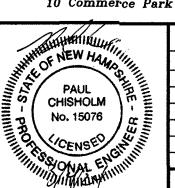
OWNER/APPLICANT:

BARRETT HILL, LLC 21 CONTINENTAL BLVD. DOOR #4 MERRIMACK, NH 03054 H.C.R.D. BK. 9700 PG. 287



KEACH-NORDSTROM ASSOCIATES, INC.

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



		REVISION	NS	
No.	DATE	DES	CRIPTION	BY
1	3/4/24	STAFF & REVIE	W ENGINEER REVS F	CM
ļ				
 				
DAT	E: DECEMBER	R 6, 2023	SCALE: $1" = 40'$	
PRO	JECT NO: 2	3-0414-1	SHEET: 11 OF 24	

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

SIGNATURE DATE:___

SIGNATURE DATE: ___

SUBDIVISIONS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FOR AN APPLICANT TO GAIN AN EXEMPTION FROM ALL SUBSEQUENT CHANGES IN SUBDIVISION REGULATIONS, SITE PLAN REGULATIONS AND CHANGES TO THE ZONING ORDINANCE, SEE NH RSA 674:39.



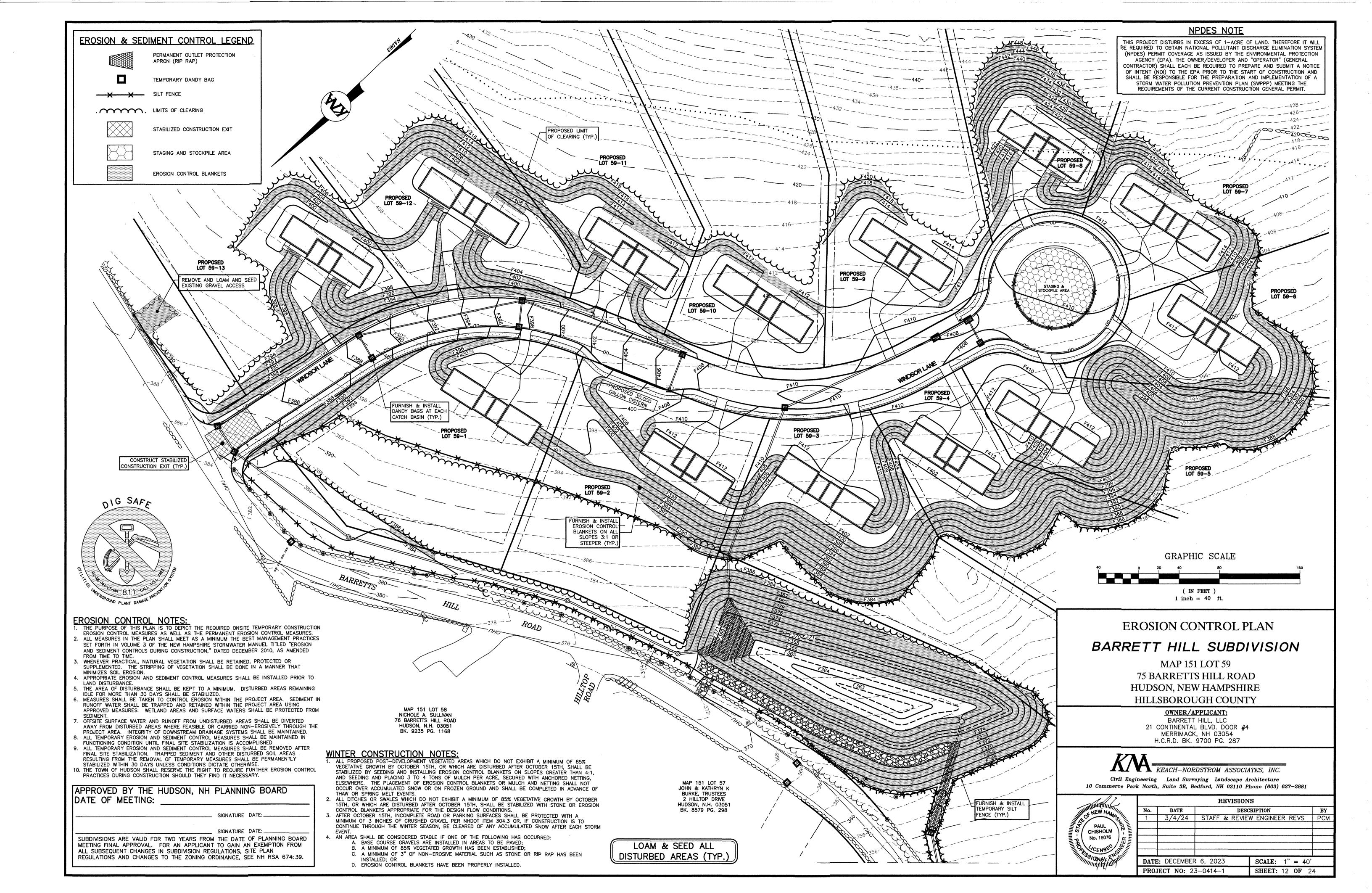
NPDES NOTE

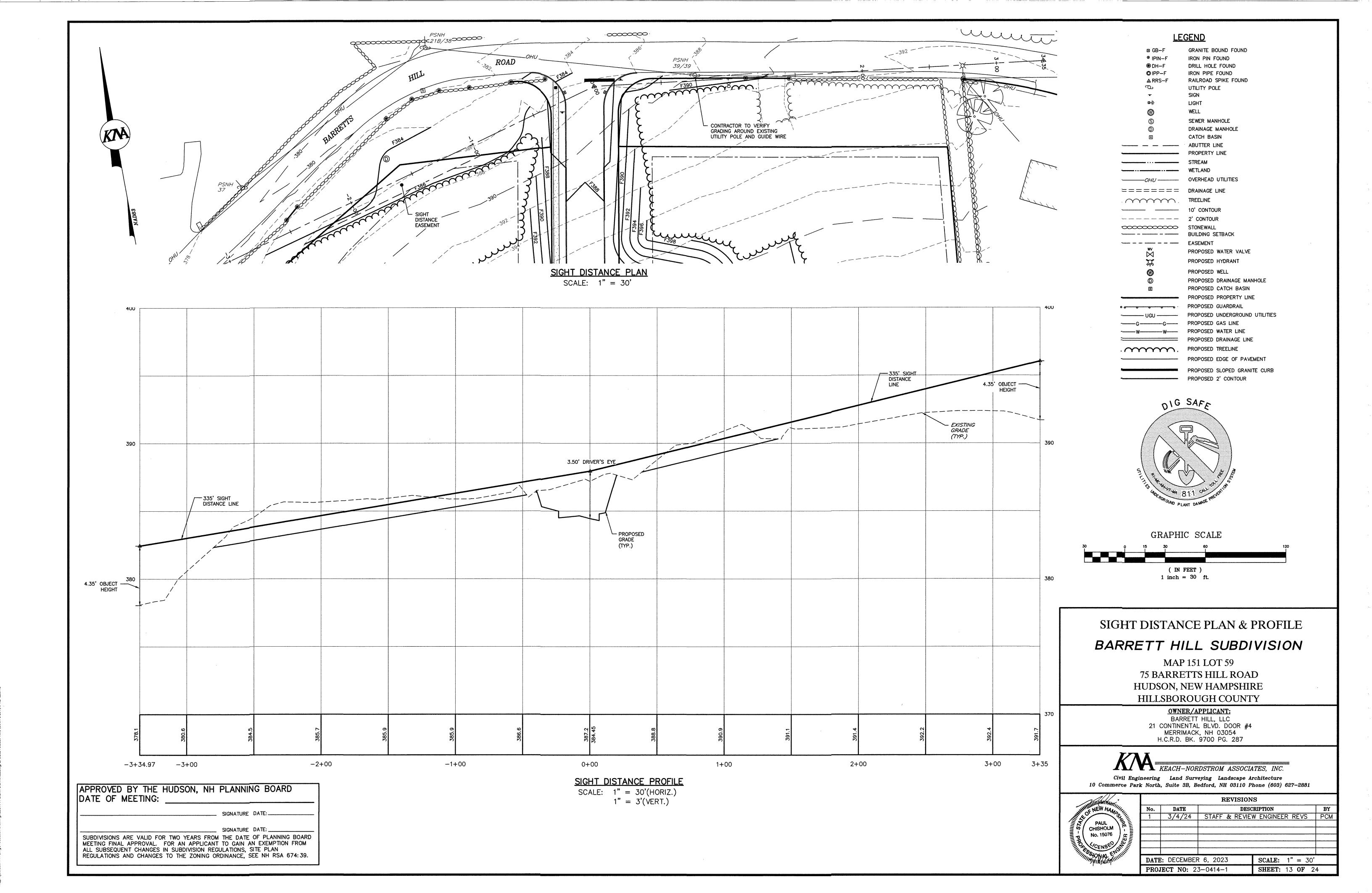
THIS PROJECT DISTURBS IN EXCESS OF 1-ACRE OF LAND. THEREFORE IT WILL BE REQUIRED TO OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE OWNER/DEVELOPER AND "OPERATOR" (GENERAL CONTRACTOR) SHALL EACH BE REQUIRED TO 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.

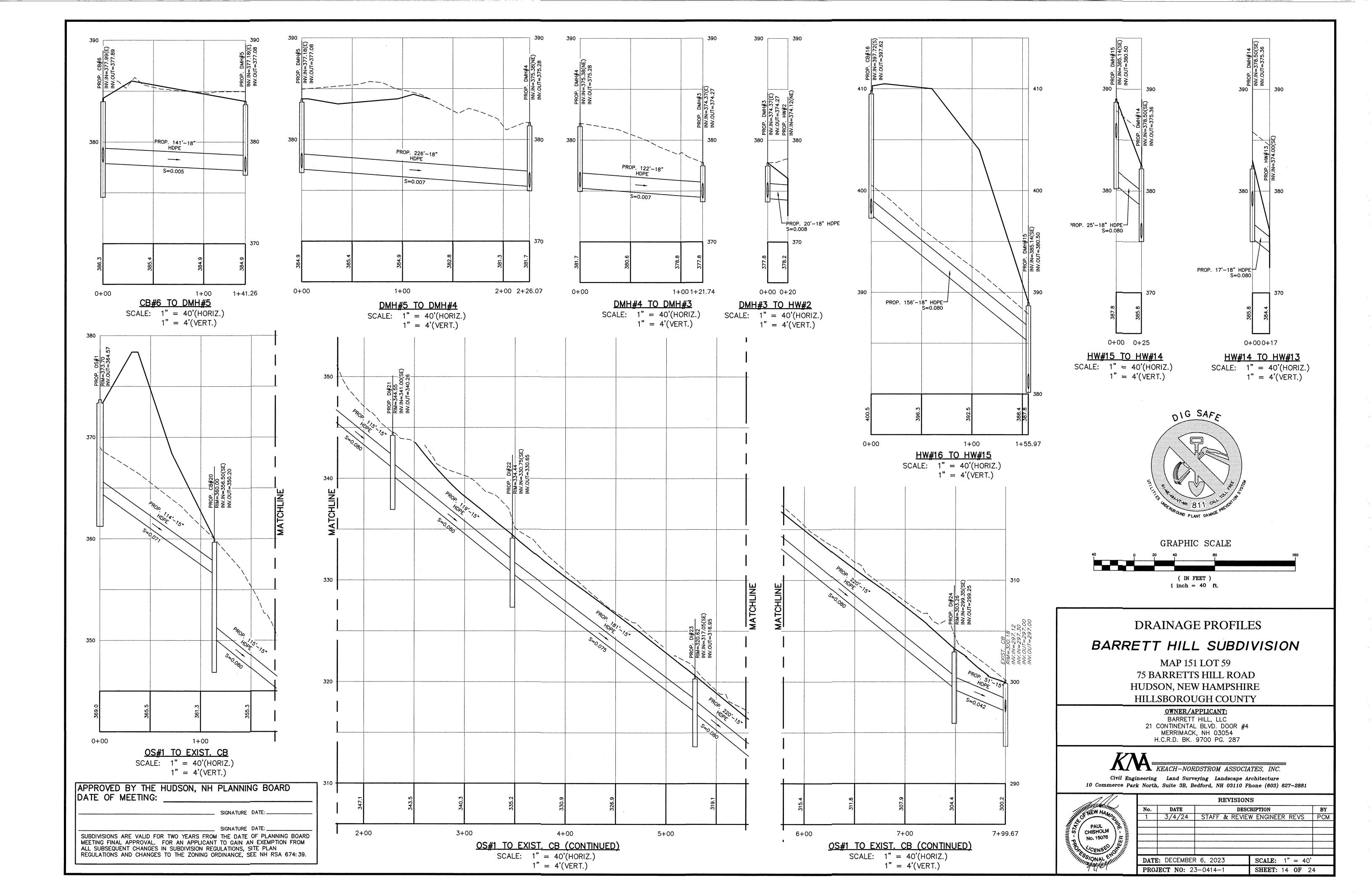
LOAM & SEED ALL DISTURBED AREAS (TYP.)

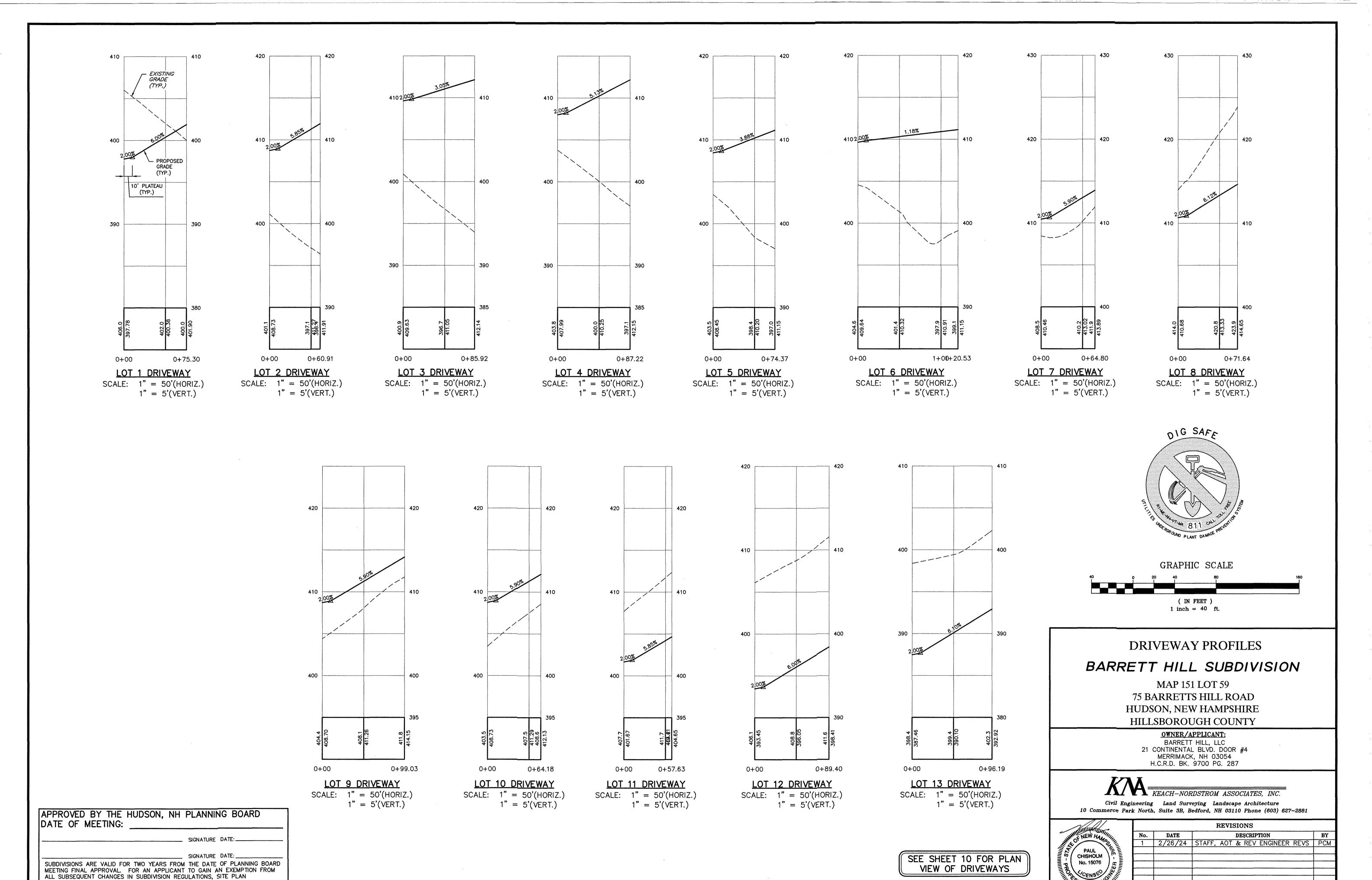
SEE SHEET 10 FOR NOTES

SEE SHEET 12 FOR EROSION CONTROL NOTES & LEGEND









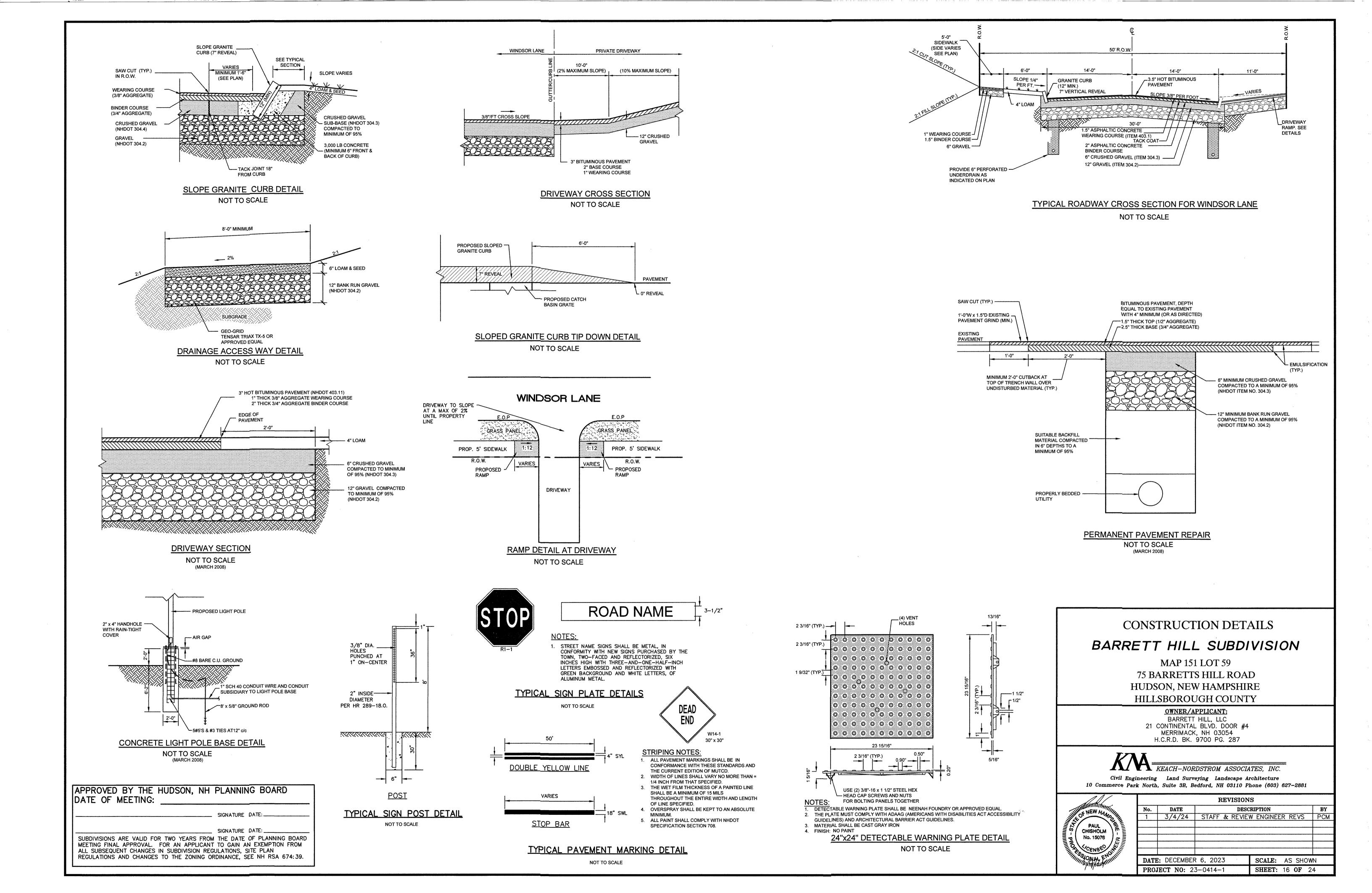
DATE: DECEMBER 6, 2023

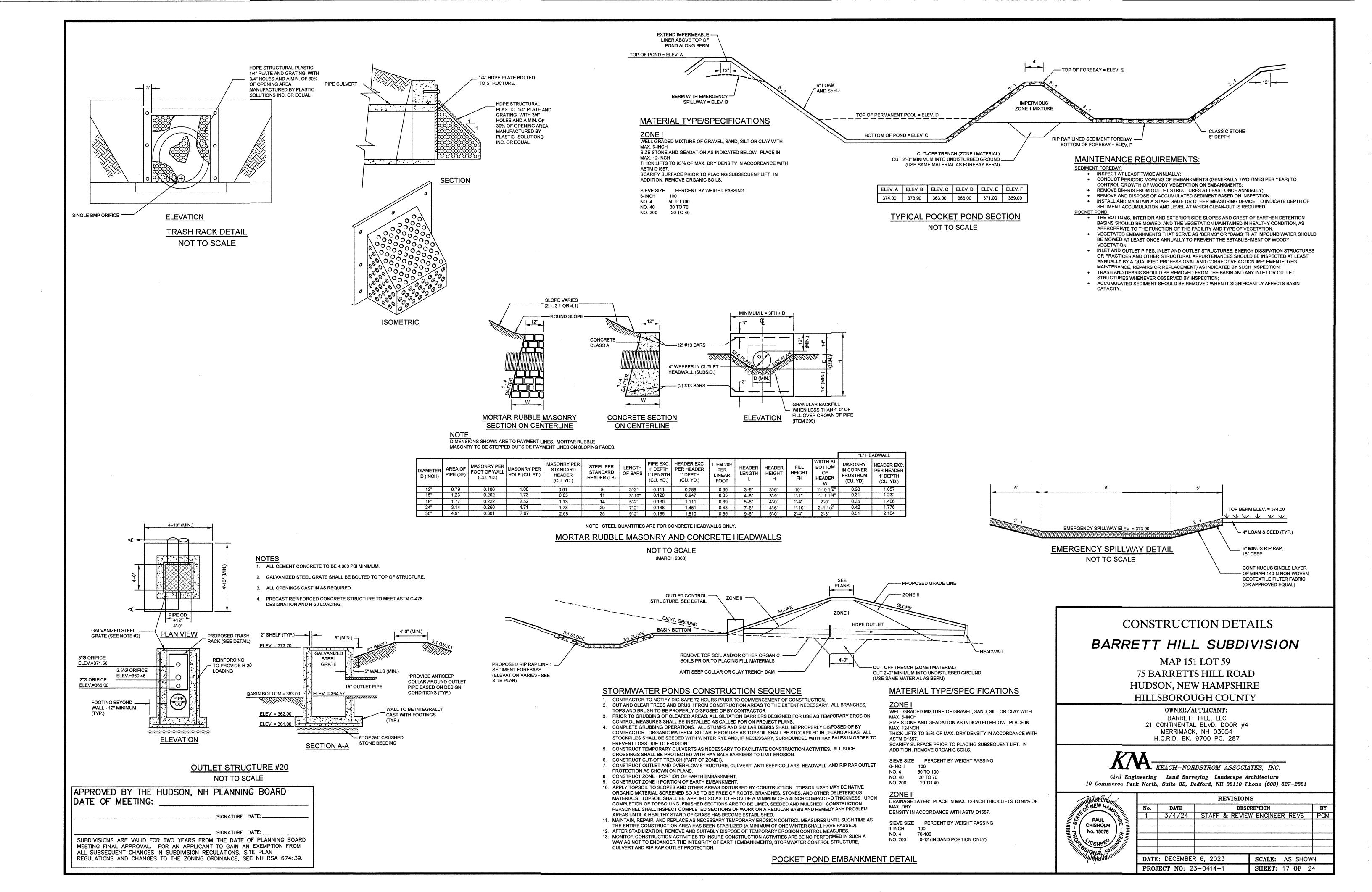
PROJECT NO: 23-0414-1

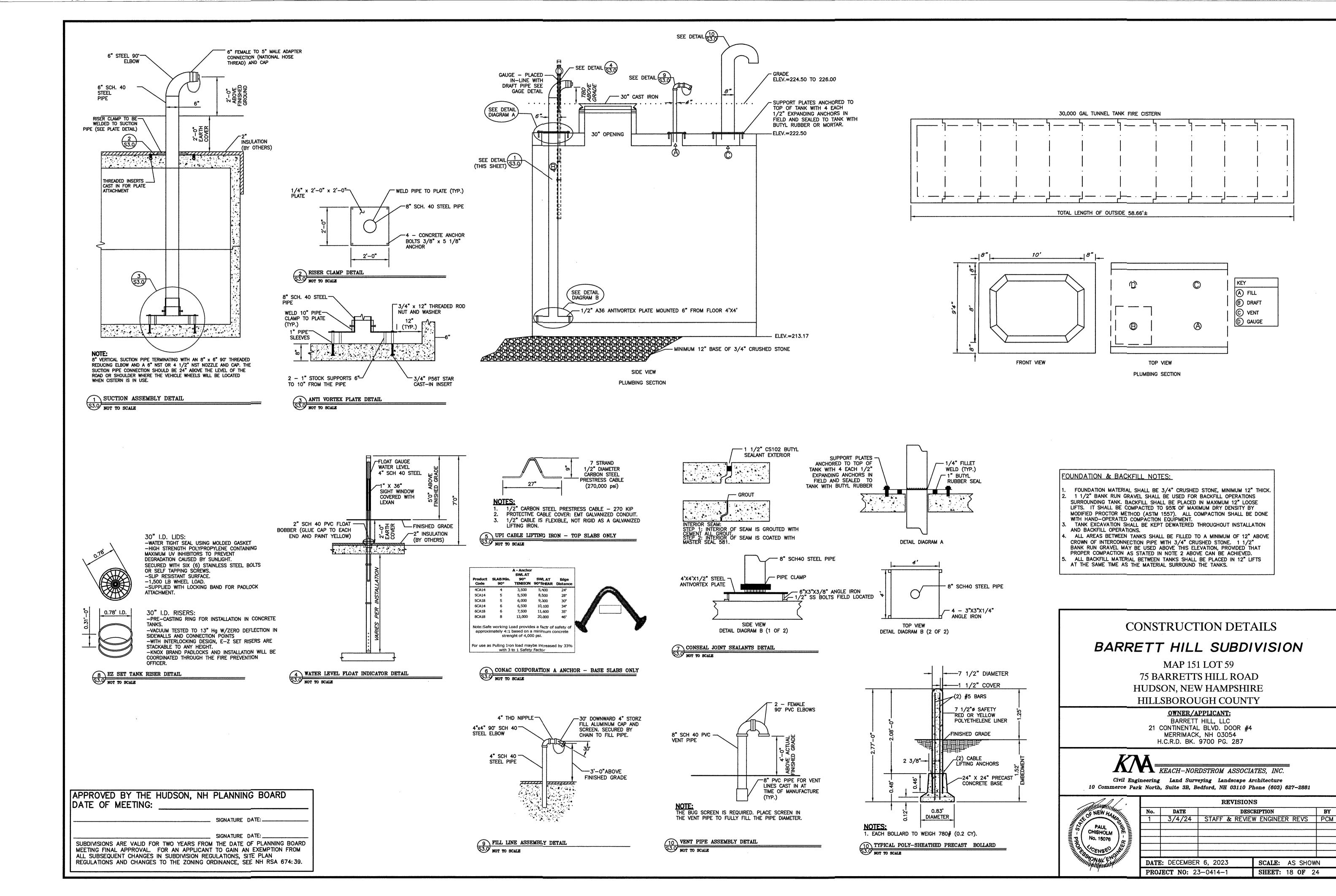
SCALE: 1" = 40'

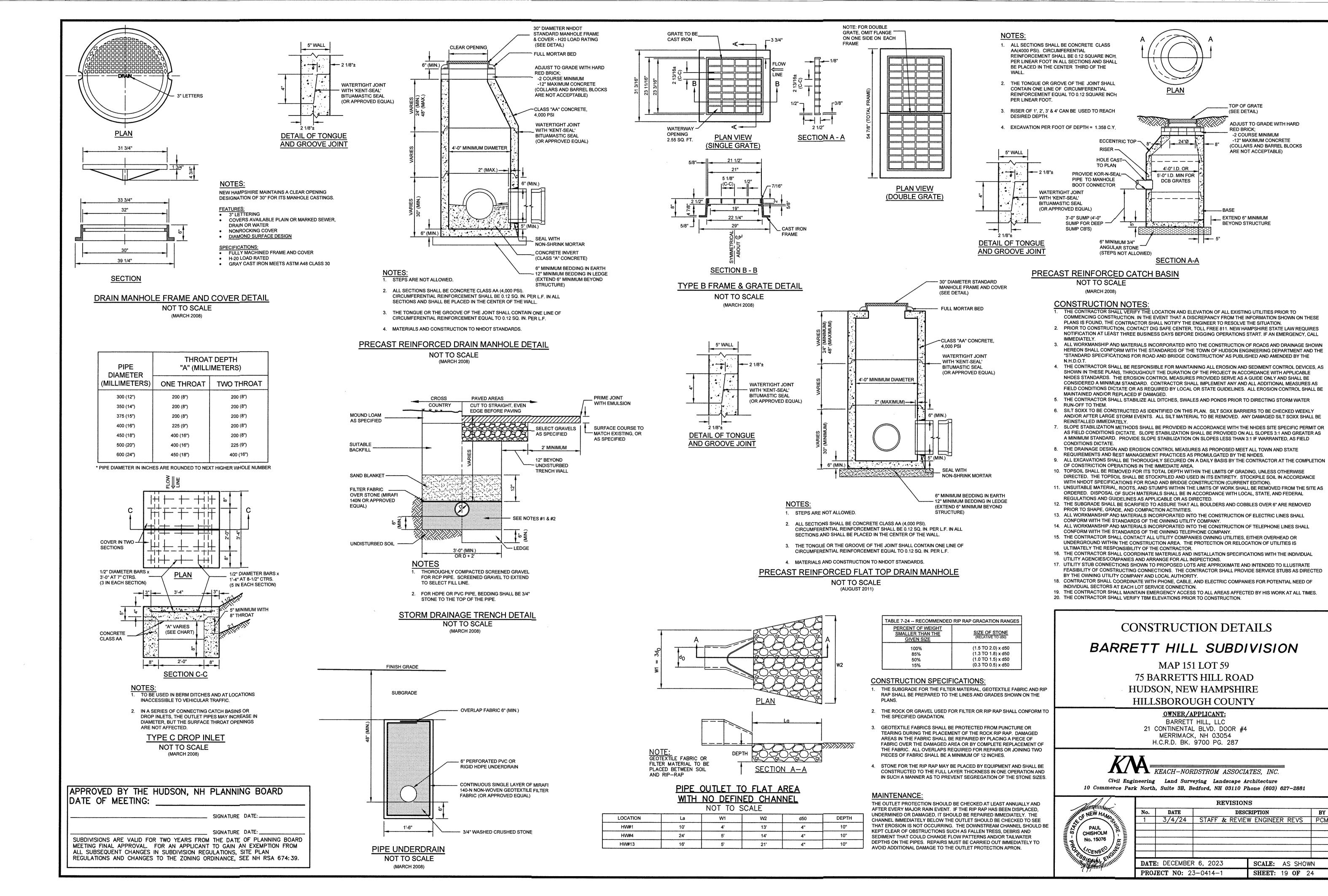
SHEET: 15 **OF** 24

REGULATIONS AND CHANGES TO THE ZONING ORDINANCE, SEE NH RSA 674:39.









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

ACCORDANCE WITH THE MANUFACTURER.

- . RAKE THE SUBGRADE OF ALL AREAS TO BE LOAMED AND SEEDED TO REMOVE RUBBISH, STICKS, ROOTS AND STONES LARGER THAN 1 INCH.
- PLACE LOAM OVER AREAS TO BE SEEDED AND SPREAD. 3. 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 4. IF THE pH OF THE SOIL NEEDS TO BE RAISED, APPLY LIME EVENLY OVER LOAM SURFACE AND THOROUGHLY INCORPORATE LIME INTO THE LOAM BY HEAVY RAKING TO AT LEAST ONE-HALF THE
- APPLY FERTILIZER AND MIX WITH THE UPPER 2 INCHES OF LOAM. DETERMINE APPROPRIATE MIXTURE FOR AREA TO BE SEEDED BASED ON EXAMINATION OF PROJECT
- PLANS. UNIFORMLY SPREAD THE SEED BY BROADCASTING OR HYDROSEEDING. 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
- SEEDING AND INITIAL FERTILIZING SHALL BE DONE BETWEEN APRIL 1 AND JUNE 1 OR BETWEEN AUGUST 15 AND OCTOBER 14, OR AS PERMITTED. SEEDING SHALL NOT BE DONE DURING WINDY WEATHER OR WHEN THE GROUND IS FROZEN, EXCESSIVELY WET OR OTHERWISE UNTILLABLE.
- WITHIN 24 HOURS AFTER SEEDING OPERATION, UNIFORMLY MULCH THE AREA WITH STRAW. ANCHOR MULCH ON ALL SLOPES EXCEEDING 3:1 USING MULCH NETTING INSTALLED IN
- PROTECT AND PREVENT AGAINST WASHOUTS, ANY WASHOUTS WHICH OCCUR SHALL BE PROMPTLY REGRADED AND RESEEDED
- 10. WHEN IT IS IMPRACTICAL TO ESTABLISH PERMANENT GROWTH ON DISTURBED EARTH BY OCTOBER 14, 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

MAINTENANCE

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

APPLICATION RATES

FOLLOWING RATES:

. LOAM SHALL BE APPLIED AT A MINIMUM COMPACTED THICKNESS OF 4 INCHES. 2. LIME SHALL BE USED WHEN NECESSARY TO RAISE THE pH OF THE SOIL AND APPLIED AT ONE OF THE

EXISTING SOIL Ph	TONS/ACRE	POUNDS/CUBIC YARD
4.0 - 4.4	3	1.2
4.5 - 4.9	2	0.8
5.0 - 5.4	1	0.4

FERTILIZER SHALL BE APPLIED AT THE FOLLOWING RATE:

INITIAL APPLICATION	POUNDS/1,000 SF	MEASUREMENT FACTOR
10-10-10	20.0	1.0
15-15-15	13.4	1.5
19-19-19	10.5	1.9
REFERTILIZATION	POUNDS/1,000 SF	MEASUREMENT FACTOR
10-3-6	20.0	1.0
12-2-8	16.7	1.2
12-4-8	16.7	1.2

MULCH SHALL BE APPLIED AT A RATE OF 13 CUBIC YARDS PER 1,000 S.F. OF LANDSCAPE BED. MATERIALS:

- LOAM SHALL CONSIST OF LOOSE, FRIABLE TOPSOIL WITH NO ADMIXTURE OF REFUSE OR MATERIAL TOXIC TO PLANT GROWTH. LOAM SHALL BE FREE OF VIABLE PARTS OF PROHIBITED INVASIVE PLANTS AND BE GENERALLY FREE OF STONES, LUMPS, STUMPS AND SIMILAR OBJECTS LARGER THAN 2 INCHES IN GREATEST DIAMETER, SUBSOIL, ROOTS AND WEEDS. THE MINIMUM AND MAXIMUM pH VALUE SHALL BE FROM 5.5 TO 7.6.
- LIME SHALL BE A CALCIC OR DOLOMITIC GROUND AGRICULTURAL LIMESTONE CONTAINING NOT LESS THAN 95% OF EITHER CALCIUM OR MAGNESIUM CARBONATE, OR BOTH. IT SHALL CONFORM TO THE STANDARDS OF THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS AND SHALL COMPLY WITH ALL STATE AND FEDERAL RULES AND REGULATIONS.
- FERTILIZER SHALL BE STANDARD COMMERCIAL GRADE FERTILIZER CONFORMING TO ALL STATE AND FEDERAL RULES AND REGULATIONS AND TO THE STANDARDS OF THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS. EXCEPT AS PERMITTED, THE ANALYSIS RATIO SHALL BE 1:1:1 FOR INITIAL APPLICATION AND 3:1:2 FOR REFERTILIZATION APPLICATION.
- GRASS SEED SHALL MEET THE REQUIREMENTS OF THE NEW HAMPSHIRE AGRICULTURAL AND VEGETABLE SEED LAWS AND SHALL INCLUDE NO "PRIMARY NOXIOUS WEED SEEDS."
- SEED MIXTURE FOR LAWN AREAS SHALL CONSIST OF THE FOLLOWING:

KIND OF SEED	MINIMUM PURITY (%)	MINIMUM GERMANATION (%)	POUNDS/ACRE (TOTAL 120 POUNDS)
CREEPING RED FESCUE	96	85	40
PERENNIAL RYEGRASS	98	90	50
KENTUCKY BLUEGRASS	97	85	25
REDTOP	95	80	5

6. SEED MIXTURE FOR SLOPE AREAS SHALL CONSIST OF THE FOLLOWING:

KIND OF SEED	MINIMUM PURITY (%)	MINIMUM GERMANATION (%)	POUNDS/ACRE (TOTAL 95 POUNDS)
CREEPING RED FESCUE	96	85	35
PERENNIAL RYEGRASS	98	90	30
REDTOP	95	80	5
ALSIKE CLOVER	97	90	5
BIRDSFOOT TREFOIL	98	80	5
LANCE-LEAVED COREOPSIS	95	80	4
OXEYE DAISY	95	80	3
BLACKEYED SUSAN	95	80	4
WILD LUPINE	95	80	4

WINTER CONSTRUCTION NOTES:

DATE OF MEETING:

- 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.
- 2. 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.
- 3. AFTER OCTOBER 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.
- 4. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED: A. 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 D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- APPROVED BY THE HUDSON, NH PLANNING BOARD

SIGNATURE DATE: ____

SIGNATURE DATE: ___ SUBDIVISIONS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FOR AN APPLICANT TO GAIN AN EXEMPTION FROM ALL SUBSEQUENT CHANGES IN SUBDIVISION REGULATIONS, SITE PLAN REGULATIONS AND CHANGES TO THE ZONING ORDINANCE, SEE NH RSA 674: 39.

- TEMPORARY SEEDING MIXTURE SHALL BE APPLIED AT A RATE OF 2 POUNDS PER 1,000 SF AND SHALL BE AN APPROVED CONSERVATION MIX OR CONSIST OF THE FOLLOWING:
 - 15% BLACKWELL OR SHELTER SWITCHGRASS 30% NIAGRA OR KAW BIG BLUESTEM
 - 30% CAMPER OR BLAZE LITTLESTEM 15% NE-27 OR BLAZE SAND LOVEGRASS
 - 10% VIKING BIRDSFOOT TREFOIL INOCULUM SPECIFIC TO BIRDSFOOT TREFOIL MUST BE USED WITH THIS MIXTURE. IF SEEDING BY HAND, A STICKING AGENT SHALL BE USED. IF SEEDING WITH A HYDROSEEDER, USE FOUR TIMES THE RECOMMENDED AMOUNT OF INOCULUM.
- 8. SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS, INCLUDING DETENTION BASINS AND VEGETATED TREATMENT SWALES, SHALL BE APPLIED AT A RATE OF 70 POUNDS PER ACRE OR 1.6 POUNDS PER 1,000 SF, AND SHALL CONSIST OF THE FOLLOWING:
 - 25% CREEPING RED FESCUE 15% SWITCH GRASS
 - 15% FOX SEDGE 15% CREEPING BENTGRASS 10% FLATPEA
- 20% WILDFLOWER VARIETY 9. STRAW USED FOR MULCH SHALL CONSIST OF MOWED AND PROPERLY CURED GRASS OR LEGUME MOWINGS, FREE FROM WEEDS, TWIGS, DEBRIS,

INVASIVE SPECIES OR OTHER DELETERIOUS MATERIAL AND ROT OR MOLD.

- SOD SHALL BE PROVIDED WITH A STRONG ROOT SYSTEM, NOT LESS THAN TWO YEARS OLD AND SHALL BE FREE OF ANY UNDESIRABLE NATIVE GRASSES OR WEEDS.
- SOD SHALL BE MACHINE CUT TO A THICKNESS NOT LESS THAN 3/4", EXCLUDING THATCH, AND SHALL BE CAPABLE OF VIGOROUS GROWTH WHEN PLANTED.
- SOD PADS SHALL BE OF UNIFORM SIZE AND COMPOSED OF AT LEAST TWO LOCAL GRASS VARIETIES. LAY SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS, DO NOT
- OVERLAP. STAGGER STRIPS TO OFFSET JOINTS IN ADJACENT COURSES. TAMP SOD TO ENSURE CONTACT WITH WITH SOIL.

WATER WITHIN ONE HOUR OF PLANTING WITH A FINE SPRAY.

DOWNSLOPE AND SHALL BE DOUBLE NET STRAW BLANKETS BY NORTH AMERICAN GREEN OR APPROVED EQUAL TAMP SOIL OVER MAT/BLANKET OVERLAP 0.14 STAPLES ISOMETRIC VIEW 4'-0" (1.2m) 1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/ BLANKETS SHALL HAVE GOOD SOIL CONTACT. 2. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT

THERE SHALL BE NO PLASTIC, OR MULTI-FILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE OF GREATER THAN 1/8 INCHES MATERIAL

(AUGUST 2011)





BURY THE TOP END OF THE JUTE STRIPS IN A

2. TAMP THE TRENCH FULL OF SOIL. SECURE WITH

ROW OF STAPLES, 6 INCH SPACING, 4 INCHES

IN "A" AND "B", OVERLAP END OF TOP STRIP 4

OVERLAP: BURY UPPER END OF LOWER STRIP AS

THERE SHALL BE NO PLASTIC, OR MULTI-FILAMENT

OR MONOFILAMENT POLYPROPYLENE NETTING

OR MESH WITH AN OPENING SIZE OF GREATER

JUTE BURIED IN SILT TRENCH

AND TAMPED; DOUBLE ROW

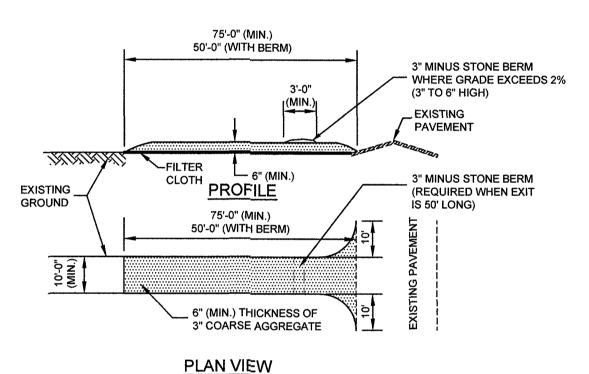
OF STAPLES.

THAN 1/8 INCHES MATERIAL UTILIZED.

TRENCH 6 INCHES OR MORE IN DEPTH.

DOWN FROM THE TRENCH

INCHES AND STAPLE.



MATS/BLANKETS SHOULD BE

INSTALLED VERTICALLY

STABILIZED CONSTRUCTION EXIT DETAIL NOT TO SCALE

(APRIL 2018)

MAINTENANCE

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

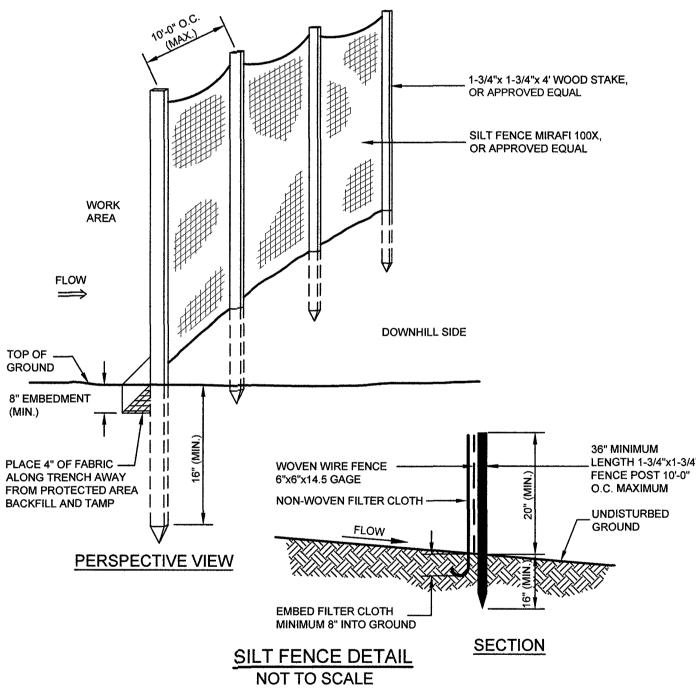
IF WASHING FACILITIES ARE USED, THE SEDIMENT TRAPS SHOULD BE CLEANED OUT AS OFTEN AS NECESSARY TO ASSURE THAT ADEQUATE TRAPPING EFFICIENCY AND STORAGE VOLUME IS AVAILABLE. VEGETATIVE FILTER STRIPS SHOULD BE MAINTAINED TO INSURE A VIGOROUS STAND OF VEGETATION AT ALL TIMES.

CONSTRUCTION SPECIFICATIONS:

- 1. STONE FOR A STABILIZED CONSTRUCTION EXIT SHALL BE 1 TO 2 INCH STONE, RECLAIMED STONE OR RECYCLED CONCRETE EQUIVALENT
- 2. THE LENGTH OF THE STABILIZED EXIT SHALL NOT BE LESS THAN 50 FEET, EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
- 3. THE THICKNESS OF THE STONE FOR THE STABILIZED EXIT SHALL NOT BE LESS THAN 6 INCHES.
- 4. THE WIDTH OF THE EXIT SHALL NOT BE LESS THAN THE FULL WIDTH OF THE AREA WHERE INGRESS OR EGRESS OCCURS OR 10 FEET. WHICHEVER IS GREATER.
- 5. 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. 3. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION EXIT SHALL BE PIPED BENEATH
- THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED,

THE EXIT. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE

- 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
- 9. STABILIZED CONSTRUCTION EXITS SHALL BE A MINIMUM OF 75 FEET LONG UNLESS A 3" TO 6" HIGH 3" MINUS STONE BERM IS PROVIDED, IN WHICH CASE THE LENGTH CAN BE REDUCED TO 50 FEET.



CONSTRUCTION SPECIFICATIONS:

- 1. THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCES.
- 2. THE FABRIC SHALL BE EMBEDDED A MINIMUM OF 8 INCHES INTO THE GROUND AND THE SOIL COMPACTED OVER THE
- 3. WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIE OR STAPLES WHERE NOTED OR AS DIRECTED BY DESIGN ENGINEER.
- 4. FILTER CLOTH SHALL BE FASTENED SECURELY TO THE WOVEN WIRE FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP, MIDSECTION AND BOTTOM 5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES, FOLDED
- 6. FENCE POSTS SHALL BE A MINIMUM OF 36 INCHES LONG AND DRIVEN A MINIMUM OF 16 INCHES INTO THE GROUND. WOOD POSTS SHALL BE OF SOUND QUALITY HARDWOOD AND SHALL HAVE A MINIMUM CROSS SECTIONAL AREA OF
- 7. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT

MAINTENANCE

3.0 SQUARE INCHES.

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

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 EXIT AT LOCATION OF CONSTRUCTION ACCESS AT LOCATION OF INTERSECTION WITH EXISTING
- 3. 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. THIS PROJECT IS MANAGED TO MEET THE
 - REQUIREMENTS AND INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES. 4. COMPLETE GRUBBING OPERATIONS UNDER THE ROADWAY AND SLOPE SECTIONS. ALL STUMPS AND SIMILAR DEBRIS SHALL BE PROPERLY DISPOSED OF BY CONTRACTOR. ORGANIC MATERIAL SUITABLE FOR USE AS TOPSOIL SHALL BE STOCKPILED IN UPLAND AREAS. ALL STOCKPILES SHALL BE SEEDED WITH WINTER RYE AND, IF
- NECESSARY, SURROUNDED WITH HAY BALES IN ORDER TO PREVENT LOSS DUE TO EROSION. 5. CONSTRUCT TEMPORARY CULVERTS AS NECESSARY TO FACILITATE CONSTRUCTION ACTIVITIES. ALL SUCH
- CROSSINGS SHALL BE PROTECTED WITH HAY BALE BARRIERS TO LIMIT EROSION. STABILIZE ALL DITCHLINES AND PONDS PRIOR TO DIRECTING FLOW INTO THEM, CONSTRUCT DRAINAGE SYSTEM
- SEWER AND OTHER SUBSURFACE UTILITIES. 7. 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 COMPLETIONS 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.
- 8. COMPLETE CONSTRUCTION OF ROADWAY EMBANKMENTS BY ADDING APPROPRIATE BASE MATERIALS GRADED TO PROPER ELEVATION APPLY TOPSOIL TO ROADWAY SLOPES AND OTHER AREAS DISTURBED BY CONSTRUCTION. TOPSOIL USED MAY
- BE NATIVE ORGANIC MATERIAL SCREENED SO AS TO BE FREE OF ROOTS, BRANCHES, STONES AND OTHER DELETERIOUS MATERIALS. TOPSOIL SHALL BE 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.
- 10. PERFORM FINE GRADING OF ROADWAY BASE MATERIALS. 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 ON INDIVIDUAL LOTS TO INSURE CONSTRUCTION ACTIVITIES ARE BEING PERFORMED IN SUCH A WAY AS NOT TO ENDANGER THE INTEGRITY OF ROADWAY EMBANKMENTS, STORMWATER

SYSTEMS AND UTILITIES. ALL DRIVEWAYS ACROSS DITCHLINES SHALL HAVE CULVERTS INSTALLED IN

ACCORDANCE WITH LOCAL REQUIREMENTS. 14. 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

4 INCH OVERLAP OF JUTE

MORE STRIP WIDTHS ARE

REQUIRED (STAPLE ON 18

STAPLE OUTSIDE EDGE

ON 2 INCH CENTERS

TYPICAL STAPLES

No. 11 GAUGE WIRE

INCH CENTERS)

STRIPS WHERE TWO OR

- 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 THIRTY (30) CALENDAR DAYS.
- TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PROJECT PLANS. IN ADDITION, SIMILAR MEASURES SHALL BE INSTALLED WHERE AND WHEN THE FIELD CONDITION, OR FIELD OPERATION OF THE INDIVIDUAL SITE CONTRACTOR, MAY WARRANT. ALL TEMPORARY EROSION CONTROL MEASURES USED SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER 0.25" OF RAINFALL OR MORE. THEY SHALL BE CLEANED AND MAINTAINED AND OTHERWISE KEPT IN AN EFFECTIVE OPERATING MANNER THROUGHOUT THE CONSTRUCTION
- 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.
- 4. 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. 6. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - A. BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED;
 - B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED; A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED; OR EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- DUST SHALL BE CONTROLLED BY THE USE OF WATER AS NECESSARY THROUGHOUT THE CONSTRUCTION PERIOD, IN ACCORDANCE WITH ENV-A 1000. 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 AREAS HAVING FINISH GRADE SLOPES OF 3: 1 OR STEEPER, SHALL BE STABILIZED WITH JUTE MATTING WHEN AND IF FIELD CONDITIONS WARRANT, OR IF SO ORDERED. JUTE MATTING INSTALLED TO CONFORM WITH THE RECOMMENDED BEST MANAGEMENT PRACTICE OUTLINED IN VOLUME 3 OF THE NEW HAMPSHIRE STORMWATER
- MANUAL "EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION." 10. ALL DETENTION PONDS AND TREATMENT SWALES SHALL BE CONSTRUCTED PRIOR TO ANY EARTH MOVING
- ACTIVITIES THAT WILL INFLUENCE STORMWATER RUNOFF. 1. ALL ROADWAYS AND PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE
- 12. ALL CUT AND FILL SLOPES SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.

CONSTRUCTION DETAILS BARRETT HILL SUBDIVISION

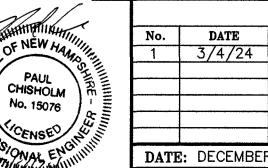
MAP 151 LOT 59 75 BARRETTS HILL ROAD HUDSON, NEW HAMPSHIRE HILLSBOROUGH COUNTY

OWNER/APPLICANT: BARRETT HILL, LLC

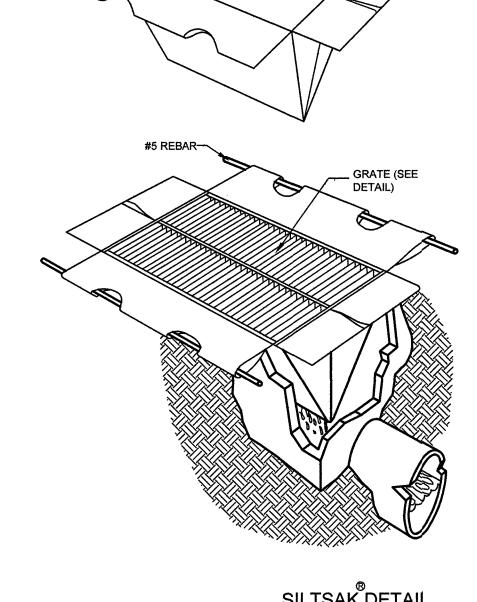
21 CONTINENTAL BLVD. DOOR #4 MERRIMACK, NH 03054 H.C.R.D. BK. 9700 PG. 287



■ KEACH-NORDSTROM ASSOCIATES, INC.



REVISIONS					
No.	DATE	DESCRIPTION			
1	3/4/24	STAFF & RE	VIEW ENGINEER REVS	PCM	
					
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DATE	: DECEMBER	R 6, 2023	SCALE: AS SHO	WN	
PRO	JECT NO: 2	3-0414-1	SHEET: 20 OF	24	



SILTSAK NOTES:

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

SILTSAK FROM THE BASIN; AND

- THE SILTSAK WILL BE MANUFACTURED TO FIT THE OPENING OF THE CATCH BASIN OR DROP INLET. THE SILTSAK WILL HAVE THE FOLLOWING FEATURES:
- A. TWO DUMP STRAPS ATTACHED AT THE BOTTOM TO FACILITATE THE EMPTYING OF THE SILTSAK;
- A. LIFTING LOOPS AS AN INTEGRAL PART OF THE SYSTEM TO BE USED TO LIFT THE
- B. 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-4643	300 LBS.
GRAB ELONGATION	ASTM D-4631	20%
PUNCTURE	ASTM D-4833	120 LBS.
MULLEN BURST	ASTM D-3786	800 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	0.55 SEC.

OR SILTSAK HI-FLOW:

PROPERTY
GRAB TENSILE
GRAB ELONGATION
PUNCTURE
MULLEN BURST
TRAPEZOID TEAR
UV RESISTANCE
APPARENT OPENING
FLOW RATE

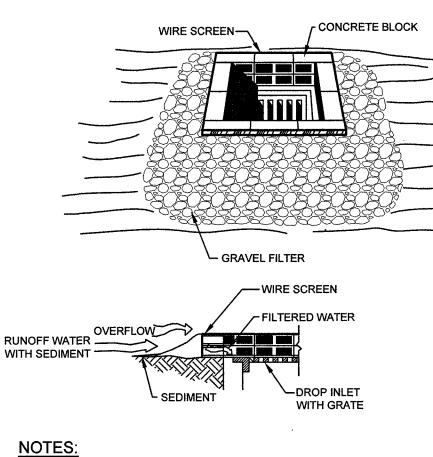
ASTM D-4632 ASTM D-4833 ASTM D-3786 ASTM D-4533 **ASTM D-4355**

ASTM D-4491

ASTM D-4491

20% 135 LBS. 420 PSI 45 LBS. 90% ASTM D-4751 20 US SIEVE

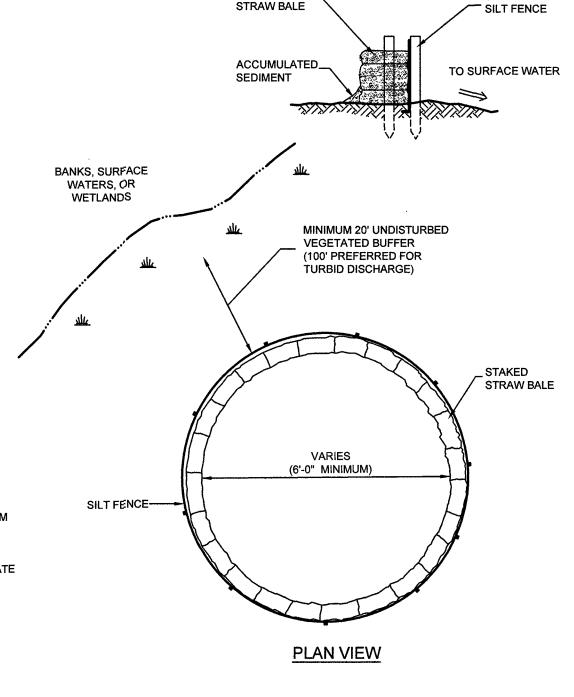
20 GAL./MIN./FT2



- 1. CONCRETE BLOCKS SHOULD BE PLACED LENGTHWISE ON THEIR SIDES IN A SINGLE ROW AROUND THE PERIMETER OF THE INLET. THE ENDS OF EACH BLOCK SHOULD BE ABUTTING. THE HEIGHT OF THE BARRIER CAN BE VARIED DEPENDING ON THE DESIGN BY STACKING VARIOUS COMBINATIONS OF DIFFERENT SIZED BLOCKS. THE BARRIER SHOULD BE A MINIMUM OF 12 INCHES HIGH AND A MAXIMUM OF 24 INCHES HIGH.
- 2. HARDWARE CLOTH OR WIRE MESH SHOULD BE PLACED OVER OPENINGS OF THE CONCRETE BLOCKS AND EXTENDED AT LEAST 12 INCHES AROUND THE OPENING TO PREVENT AGGREGATE FROM BEING TRANSPORTED THROUGH THE OPENINGS IN THE BLOCK.
- 3. SEWER STONE OR OTHER CLEAN COARSE AGGREGATE SHOULD BE PLACED AGAINST THE BLOCK TO THE TOP OF THE BARRIER.

BLOCK & GRAVEL DROP INLET SEDIMENT FILTER

NOT TO SCALE (MARCH 2008)



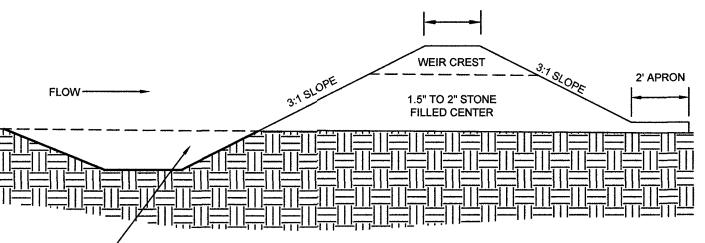
STAKED

STAKED AND TAMPED

SEDIMENT RETENTION BASIN

NOT TO SCALE

(AUGUST 2013)



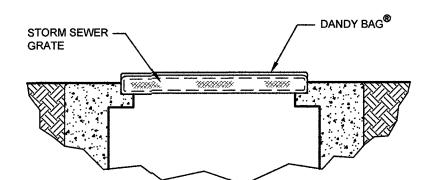
EXCAVATE FOR REQUIRED STORAGE

SECTION A-A

- 1. THE TRAP SHALL BE INSTALLED AS CLOSE TO THE DISTURBED AREA OR SOURCE OF SEDIMENT AS POSSIBLE.
- THE MINIMUM VOLUME OF THE TRAP SHALL BE 3,600 CUBIC FEET OF STORAGE FOR EACH ACRE OF DRAINAGE AREA.
- 4. THE SIDE SLOPES OF THE TRAP SHALL BE 3:1 OR FLATTER, AND SHALL BE STABILIZED IMMEDIATELY AFTER THEIR 5. THE OUTLET OF THE TRAP SHALL BE A MINIMUM OF ONE FOOT BELOW THE CREST OF THE TRAP AND SHALL DISCHARGE TO
- A STABILIZED AREA.
- 6. THE TRAP SHALL BE CLEANED WHEN 50 PERCENT OF THE ORIGINAL VOLUME IS FILLED.
 7. THE MATERIALS REMOVED FROM THE TRAP SHALL BE PROPERLY DISPOSED OF AND STABILIZED.
- 8. SEDIMENT TRAPS AND/OR BASINS SHOULD BE USED AS NECESSARY TO CONTAIN RUNOFF UNTIL BASINS/PONDS ARE

TEMPORARY SEDIMENT TRAP DETAIL

NOT TO SCALE STORM SEWER -GRATE LIFT STRAPS USED FOR EASY MOVEMENT AND INSPECTION OF UNIT



HI-FLOW DANDY BAG® (SAFETY ORANGE)

MECHANICAL PROPERTIES	TEST METHOD	UNITS	MARV
GRAB TENSILE STRENGTH	ASTM D 4632	kN (lbs)	1.62 (365) x 0.89 (200)
GRAB TENSILE ELONGATION	ASTM D 4632	%	24 x 10
PUNCTURE STRENGTH	ASTM D 4833	kN (lbs)	0.40 (90)
MULLEN BURST STRENGTH	ASTM D 3786	kPa (psi)	3097 (450)
TRAPEZOID TEAR STRENGTH	ASTM D 4533	kN (lbs)	0.51 (115) x 0.33 (75)
UV RESISTANCE	ASTM D 4355	%	90
APPARENT OPENING SIZE	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
FLOW RATE	ASTM D 4491	1/min/m ² (gal/min/ft ²)	5907 (145)
PERMITTIVITY	ASTM D 4491	Sec-1	2.1

DANDY BAG NOT TO SCALE (APRIL 2010)

MAP 151 LOT 59 75 BARRETTS HILL ROAD HUDSON, NEW HAMPSHIRE HILLSBOROUGH COUNTY

CONSTRUCTION DETAILS

BARRETT HILL SUBDIVISION

STAKE ON 10'

WATER FLOW

2"x2" WOODEN ---

FILTREXX[®]SILTSOXX[™]

WORK AREA

(12"-18" TYPICAL) OR --

APPROVED EQUAL

STAKE

WORK AREA

LINEAL SPACING

PLAN VIEW

SECTION VIEW

. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.

SILTSOXX COMPOST/SOIL/ROCK/SEED FILL TO MEET APPLICATION REQUIREMENTS.

MAY REQUIRE LARGER SOCKS PER THE ENGINEER.

3. SILTSOXX DEPICTED IS FOR MINIMUM SLOPES. GREAT SLOPES

4. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED

FILTREXX[®] SILTSOXX[™]DETAIL

NOT TO SCALE

PROTECTED

FILTREXX[®]COMPOST

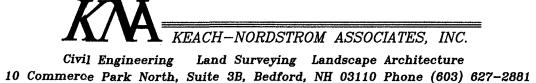
¯SILTSOXX(™)

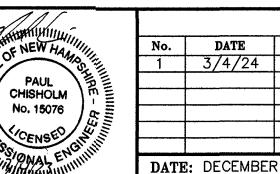
3" TO 4"

AREA TO BE PROTECTED

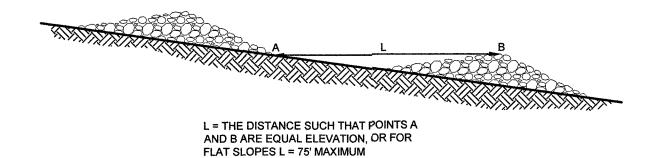
OWNER/APPLICANT:

BARRETT HILL, LLC 21 CONTINENTAL BLVD. DOOR #4 MERRIMACK, NH 03054 H.C.R.D. BK. 9700 PG. 287





REVISIONS				
No.	DATE	DESC	BY	
1	3/4/24	STAFF & REVIE	W ENGINEER REVS	PCM
DATE: DECEMBER 6, 2023 S		SCALE: AS SHOW	/N	
PROJ	JECT NO: 23	3-0414-1	SHEET: 21 OF 2	4



(MARCH 2008)

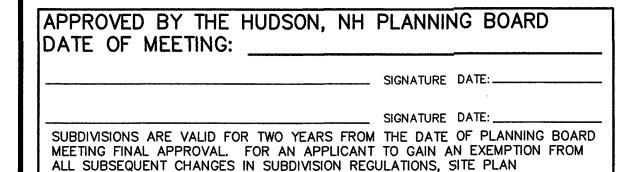
STONE CHECK DAM SPACING DETAIL NOT TO SCALE

(MARCH 2008)

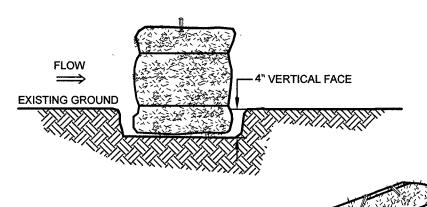
2" - 3" COARSE **ELEVATION** AGGREGATE STONE (TYP.) FLOW

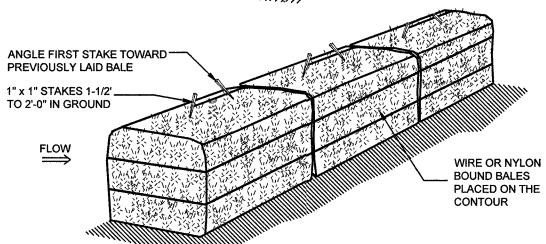
> STONE CHECK DAM DETAIL NOT TO SCALE (MARCH 2008)

CROSS-SECTION



REGULATIONS AND CHANGES TO THE ZONING ORDINANCE, SEE NH RSA 674:39.





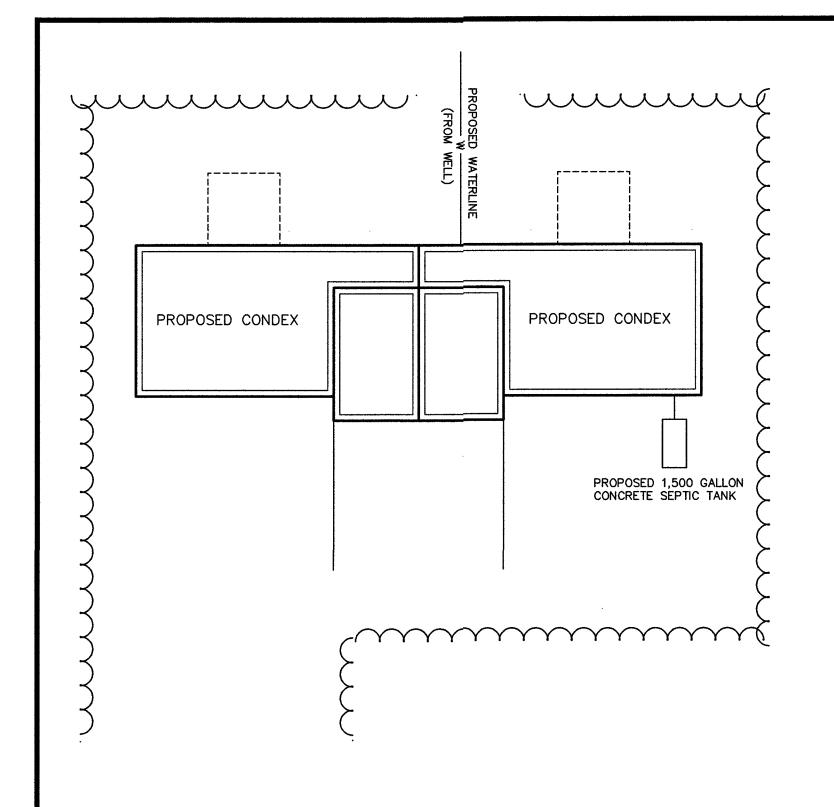
CONSTRUCTION SPECIFICATIONS:

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE

ANCHORING DETAIL

- 2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
- 3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD THE PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
- 4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- 5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS
- SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE. 6. BALES SHOULD BE FREE FROM ANY PLANT MATERIAL FOUND ON THE NEW
- HAMPSHIRE INVASIVE SPECIES LIST. STRAW BALE BARRIER

NOT TO SCALE (JULY 2010)

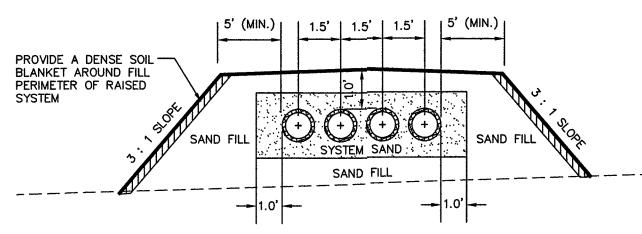




NOTE:

1. MARKERS SHALL BE PLACED: A. EVERY 100' ON BOUNDARY LINES BETWEEN RESIDENT LOTS AND OPEN SPACE; AND B. AT ANY POINT IN WHICH A BOUNDARY LINE CHANGES BEARING DIRECTION. 4" OPEN SPACE BOUNDARY MARKER

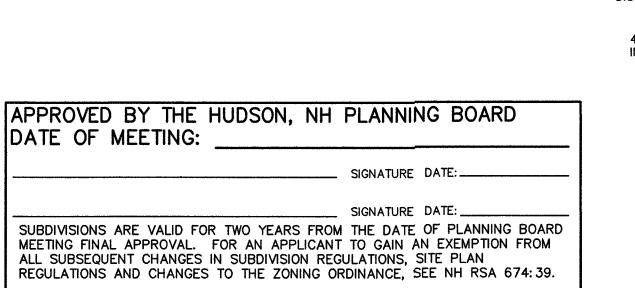
NOT TO SCALE



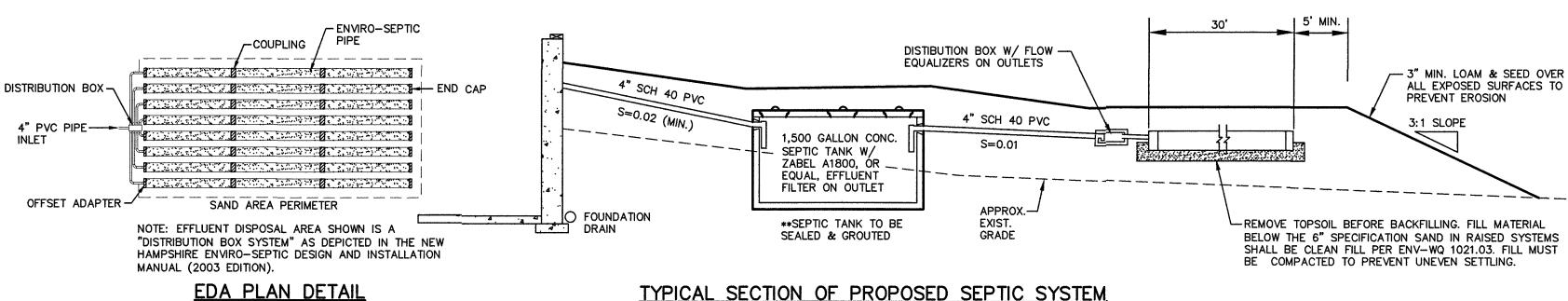
SYSTEM SAND TO BE 6" MINIMUM OF MEDIUM TO COARSE SAND WITH AN EFFECTIVE PARTICLE SIZE OF 0.25 MM TO 2.00 MM, WITH NO GREATER THAN 2% PASSING A #200 SIEVE AND NO PARTICLES LARGER THAN 3/4" AROUND THE CIRCUMFERENCE OF THE ENVIRO-SEPTIC PIPE. ALL OTHER FILL USED IN RAISED SYSTEMS SHALL BE CLEAN BANK RUN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

TYPICAL ENVIRO-SEPTIC CROSS SECTION -NOT TO SCALE-

DATE OF MEETING:



SCALE: 1" = 10



TYPICAL SECTION OF PROPOSED SEPTIC SYSTEM -NOT TO SCALE-

UNPAVED PAVING AND SUBBASE MATERIAL MOUND BACKFILL -EXISTING OR FINISHED GRADE COMMON FILL MATERIAL NON-METALLIC -WARNING TAPE 12" MINIMUM BEDDING SAND CONDUIT PER UTILITY SPECIFICATIONS **BEDDING SAND** PVC SCH 40 PRIMARY ELECTRIC -PVC SCH 40 SECONDARY ELECTRIC 4" PVC SCH 40 TELEPHONE -4" PVC SCH 40 CTV -INSTALLATION AND MATERIALS OF UNDERGROUND UTILITIES SHALL CONFORM TO LOCAL UTILITY COMPANY SPECIFICATIONS.

> UTILITY TRENCH DETAIL NOT TO SCALE (MARCH 2008)

BEST MANAGEMENT PRACTICES FOR BLASTING

IF MORE THAN 5000 CUBIC YARDS ARE BLASTED:

IDENTIFY DRINKING WATER WELLS LOCATED WITHIN 2000 FEET OF THE PROPOSED BLASTING ACTIVITIES. DEVELOP A GROUNDWATER QUALITY SAMPLING PROGRAM TO MONITOR FOR NITRATE AND NITRITE EITHER IN THE DRINKING WATER SUPPLY WELLS OR IN OTHER WELLS THAT ARE REPRESENTATIVE OF THE DRINKING WATER SUPPLY WELLS IN THE AREA. THE PLAN MUST INCLUDE PRE AND POST BLAST WATER QUALITY MONITORING AND BE APPROVED BY NHDES PRIOR TO INITIATING BLASTING. THE GROUNDWATER SAMPLING PROGRAM MUST BE IMPLEMENTED ONCE APPROVED BY NHDES.

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 PROCEDURES; EVALUATING BLASTING PERFORMANCE; AND HANDLING AND STORAGE OF BLASTED ROCK.

(1) 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 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, STEMMING, DECKING AND COLUMN RISE NEED TO BE ATTENDED TO. (2) 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
- (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

(3) PREVENTION OF MISFIRES. APPROPRIATE PRACTICES SHALL BE DEVELOPED AND IMPLEMENTED TO PREVENT MISFIRES.

(4) 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.

(5) 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 50 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 INOTE 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

BARRETT HILL SUBDIVISION

MAP 151 LOT 59 75 BARRETTS HILL ROAD HUDSON, NEW HAMPSHIRE

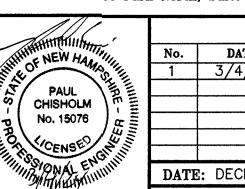
OWNER/APPLICANT:

HILLSBOROUGH COUNTY

BARRETT HILL, LLC 21 CONTINENTAL BLVD. DOOR #4 MERRIMACK, NH 03054 H.C.R.D. BK. 9700 PG. 287

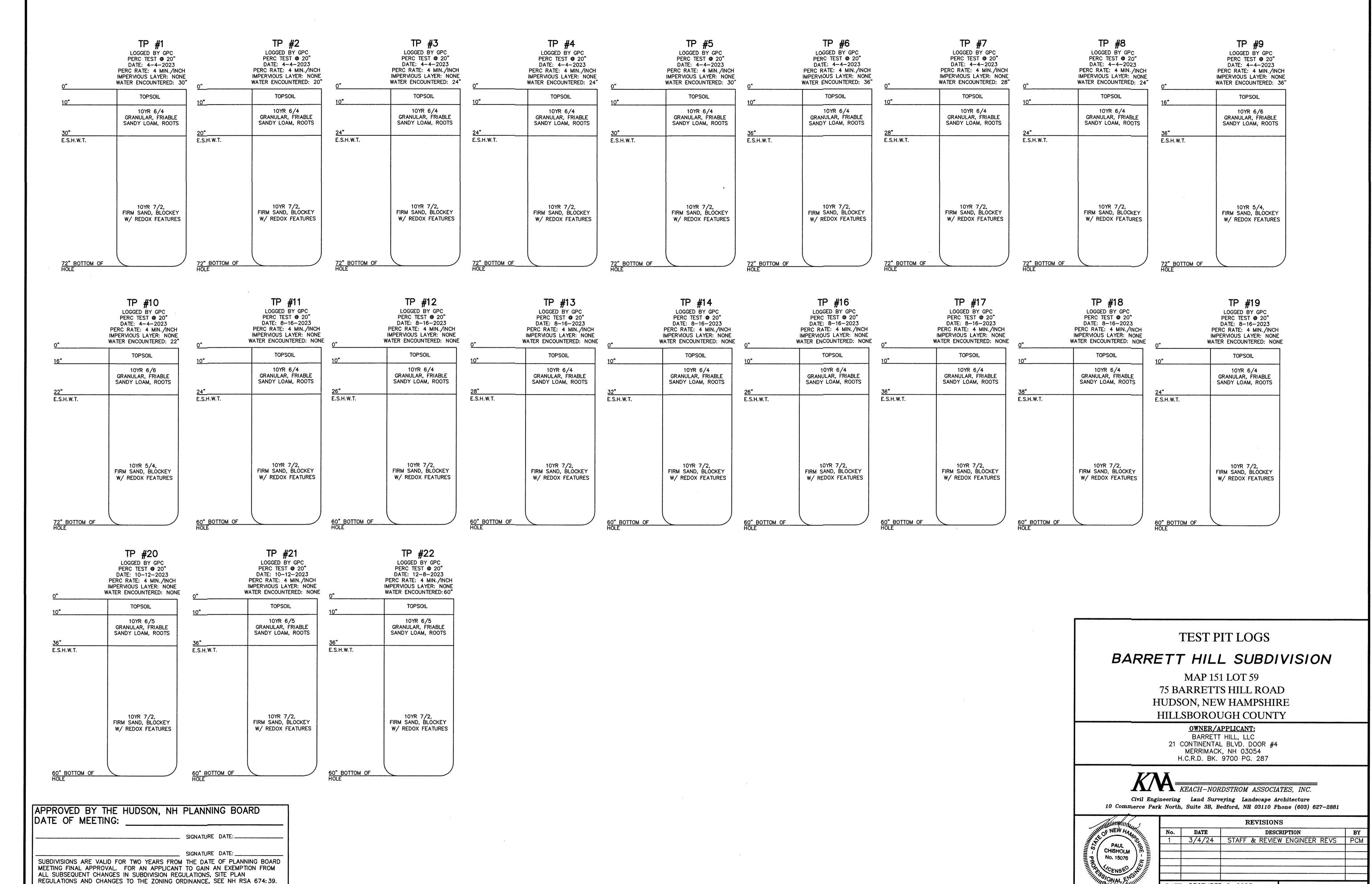


KEACH-NORDSTROM ASSOCIATES, INC.



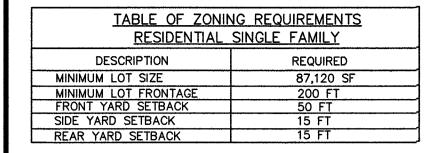
REVISIONS				
No.	DATE	DESCRIPTION		
1	3/4/24	STAFF & REVI	EW ENGINEER REVS	PCM

DATE	: DECEMBER	R 6, 2023	SCALE: AS SHO	WN
PROJ	ECT NO: 23	3-0414-1	SHEET: 22 OF	24



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DATE: DECEMBER 6, 2023SCALE: AS SHOWNPROJECT NO: 23-0414-1SHEET: 23 OF 24



LEGEND

EDGE OF PAVEMENT

LOT NUMBER | LOT AREA (SF) | FRONTAGE (FT) | STEEP SLOPES (SF)

335.00

285.80

200.00

200.00

697.40

245.00

326.90

772.80

523.00

542.30

579.90

275.00

290.00

88,131

96,775

97,174

156,151

142,602

136,428

126,038

109,418

87,890

90,231

89,194

89,761

88,433

59-1

59-2

59-3

59-4

59-5

59-6

59-7

59-8

59-9

59-10

59-11

59-12

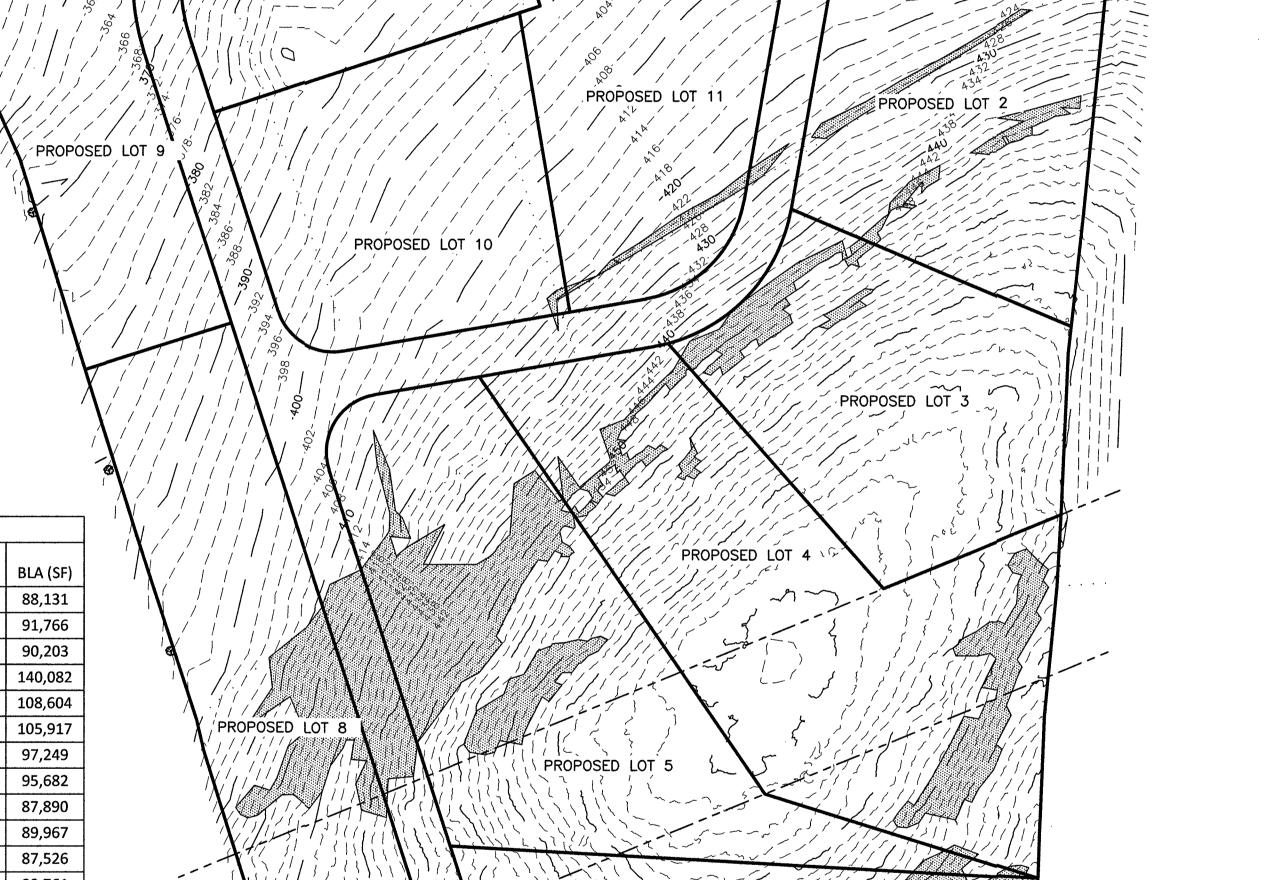
59-13

---- EASEMENT

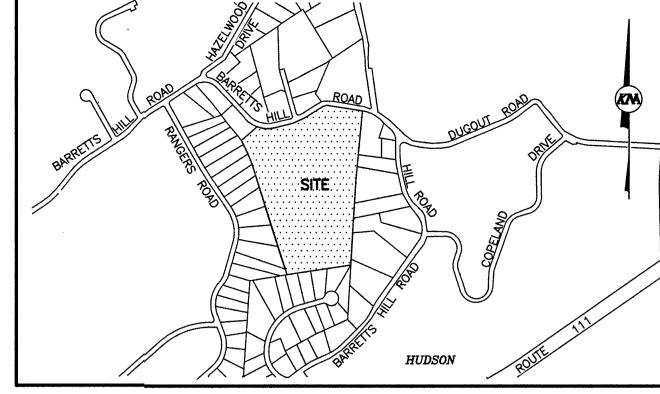
STEEP SLOPE AREAS

NON-CONTIGUOUS AREA WETLANDS BLA (SF) 88,131 91,766 90,203 0 0 140,082 0 108,604 0 0 105,917 0 0 97,249 0 0 0 0 95,682 87,890 0 0 89,967 0 0 87,526 0 0 89,761 0 0 88,433

PROPOSED LOT 12 PROPOSED LOT PROPOSED LOT 13 .PROPOSED LOT 11 PROPOSED LOT 9 PROPOSED LOT 10 PROPOSED LOT 3 PROPOSED LOT



PROPOSED LOT



LOCATION PLAN SCALE: $1" = 1000' \pm$

NOTES:

1. THE PURPOSE OF THIS PLAN IS TO DEPICT THE EXISTING CONDITIONS PRESENT ON ASSESSORS MAP 151 LOT 59

- 2. TOTAL SITE AREA = 1,540,250 S.F. OR 35.36 ACRES
- 3. OWNER OF RECORD: BARRETT HILL, LLC 21 CONTINENTAL BLVD, DOOR #4 MERRIMACK, N.H. 03054
- 4. THE SUBJECT PARCEL IS LOCATED WITHIN THE GENERAL (G-1) ZONING DISTRICT AND IS SUBJECT TO THE FOLLOWING DIMENSIONAL REQUIREMENTS:
 - MINIMUM LOT AREA: MINIMUM FRONTAGE: 200 FT MINIMUM BUILDING SETBACKS:
 - FRONT 15 FT
- 5. BOUNDARY AND TOPOGRAPHIC INFORMATION IS BASED ON A FIELD SURVEY PERFORMED BY THIS OFFICE IN MAY
- 6. HORIZONTAL DATUM IS NAD83 AND VERTICAL DATUM IS NAVD88 USING REAL TIME GPS SURVEYING METHODS.
- 7. EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) FOR THE TOWN OF HUDSON, NEW HAMPSHIRE, HILLSBOROUGH COUNTY COMMUNITY NUMBER 33011C0517D PANEL NUMBER 517 OF 701 EFFECTIVE DATE SEPTEMBER 25, 2009 INDICATES THAT NO PORTION OF THE SUBJECT PARCEL IS LOCATED WITHIN A DESIGNATED FLOOD HAZARD.
- 8. 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 OWNER OR CONTRACTOR SHALL CONTACT DIG SAFE AT 811,
- 9. EASEMENTS, RIGHTS AND RESTRICTIONS SHOWN OR IDENTIFIED HEREON ARE THOSE FOUND DURING RESEARCH AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS. OTHER EASEMENTS, RIGHTS AND RESTRICTIONS MAY EXIST WHICH A TITLE EXAMINATION OF THE SUBJECT PREMISES MAY DETERMINE.



GRAPHIC SCALE

(IN FEET) 1 inch = 100 ft.

REFERENCE PLANS:

- 1. "LOT LINE RELOCATION TO INCLUDE WELL SURVEYED FOR GEORGE BOYER BARRETTS HILL ROAD HUDSON, N.H." SCALE: 1"=40'. DATED: JANUARY 10, 1978. PREPARED BY: PIANTIDOSI ASSOCIATES, INC. H.C.R.D. PLAN #11141
- 2. "BOUNDARY PLAN BARRETTS HILL ROAD HUDSON, NEW HAMPSHIRE. PREPARED FOR: MICHAEL F. CALLAHAN ET.UX." SCALE:1"=100'. DATED: OCTOBER 5, 1979. PREPARED BY: ALLEN H. SWANSON, INC. H.C.R.D. PLAN #12696
- 3. "DECLARATION OF CONDOMINIUM SITE PLAN HILLTO HOUSE -A CONDOMINIUM-" SCALE: 1"=20'. DATED: AUGUST 6, 1981. PREPARED BY: THOMAS F. MORAN INC. H.C.R.D. PLAN #15313
- 4. "SUBDIVISION PLAN BARRETTS HILL ROAD HUDSON, N.H. PREPARED FOR JOHN JACOBS." SCALE: 1"=50'. DATED: SEPTEMBER 25, 1985. PREPARED BY: STEVEN J. PATRICK & ASSOCIATES. H.C.R.D. PLAN #19495
- 5. "MALLARD DRIVE SUBDIVISION CONSOLIDATION AND RESUBDIVISION PLAN." SCALE: 1"=80'. DATED: AUGUST, 1985. PREPARED BY: COSTELLO, LOMASNEY & DE NAPOLI, INC. H.C.R.D. PLAN #22145
- 6. "CONSOLIDATION & SUBDIVISION PLAN LOT 54 MAP 31" SCALE: 1"=50'. DATED: AUGUST 1986. PREPARED BY: MAYNARD & PAQUETTE, INC. H.C.R.D. PLAN #22146
- 7. "CONDOMINIUM PLAN OF LAND IN HUDSON, N.H. PREPARED FOR JOHN JACOBS." SCALE: 1"=50'. DATED: AUGUST 30, 1990.
 PREPARED BY: STEVEN J. PATRICK & ASSOCIATES LAND SURVEYORS. H.C.R.D. PLAN #24824
- 8. "SUBDIVISION PLAN MASINGILL SUBDIVISION 65 BARRETTS HILL ROAD, HUDSON, N.H." SCALE: 1"=50'. DATED: FEBRUARY 11, 1998. PREPARED BY: JONES & BEACH ENGINEERS, INC. H.C.R.D. PLAN #29219

CONVENTIONAL SUBDIVISION YIELD PLAN

BARRETT HILL SUBDIVISION

MAP 151 LOT 59 75 BARRETTS HILL ROAD HUDSON, NEW HAMPSHIRE HILLSBOROUGH COUNTY

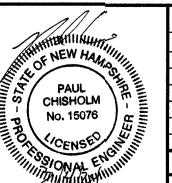
OWNER/APPLICANT:

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KEACH-NORDSTROM ASSOCIATES, INC.

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



		REVISION	ıs	
No.	DATE	DESCRIPTION		
1	3/4/24	STAFF & REVIE	W ENGINEER REVS	PCM
			· · · · · · · · · · · · · · · · · · ·	
DATE	: DECEMBER	R 6, 2023	SCALE: 1"=100'	
PROJ	ECT NO: 2	3-0414-1	SHEET: 24 OF 2	4

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

SIGNATURE DATE:___

TABLE OF LOT AREAS

5,009

6,971

16,069

33,998

30,511

28,789

13,736

0

264

1,668

0

Ø

ROW AREA=142,024

TOTAL AREA=1,540,250

SIGNATURE DATE: _ SUBDIVISIONS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FOR AN APPLICANT TO GAIN AN EXEMPTION FROM ALL SUBSEQUENT CHANGES IN SUBDIVISION REGULATIONS, SITE PLAN

REGULATIONS AND CHANGES TO THE ZONING ORDINANCE, SEE NH RSA 674:39.