

REFERENCE PLANS:

- LIMITED SUBDIVISION OF LAND PREPARED FOR GEOFF SAWYER, NEWMARKET ROAD - N.H. ROUTE 108, DURHAM, NEW HAMPSHIRE; SCALE: 1" = 60'; DATED OCTOBER 21, 1998; BY McENEANEY SURVEY ASSOCIATES; RECORDED S.C.R.D. PLAN 59-63.
- LIMITED SUBDIVISION OF LAND FOR ISABELLE SAWYER NEWMARKET ROAD - ROUTE 108, DURHAM, NEW HAMPSHIRE. SCALE: 1" = 60'; DATED: MAY 7, 1993; BY McENEANEY SURVEY ASSOCIATES; RECORDED S.C.R.D. PLAN 42-30.
- LOT LINE ADJUSTMENT PLAN PREPARED FOR GREAT BAY ANIMAL HOSPITAL, LLC AND GEOFF SAWYER, TAX MAP 6, LOT No.s 11-7 & 11-8, NEWMARKET ROAD - N.H. ROUTE 108, TOWN OF DURHAM, COUNTY OF STRAFFORD, STATE OF NEW HAMPSHIRE. SCALE: 1" = 60'; DATED: APRIL 6, 2009. BY McENEANEY SURVEY ASSOCIATES. RECORDED S.C.R.D. PLAN 100-74.
- LOT LINE ADJUSTMENT PLAN PREPARED FOR GREAT BAY ANIMAL HOSPITAL, LLC AND GEOFF SAWYER, TAX MAP 6, LOT No.s 11-7 & 11-8, NEWMARKET ROAD - N.H. ROUTE 108, TOWN OF DURHAM, COUNTY OF STRAFFORD, STATE OF NEW HAMPSHIRE. SCALE: 1" = 60'; DATED: OCTOBER 18, 2011; BY McENEANEY SURVEY ASSOCIATES. RECORDED S.C.R.D. PLAN 105-91.

NOTES:

- OWNER OF RECORD:
 6-11-7 GREAT BAY ANIMAL HOSPITAL, LLC
 31 NEWMARKET ROAD
 DURHAM, NEW HAMPSHIRE 03824
 S.C.R.D. VOLUME 4211, PAGE 010
 6-11-8 GREAT BAY ANIMAL HOSPITAL, LLC
 31 NEWMARKET ROAD
 DURHAM, NEW HAMPSHIRE 03824
 S.C.R.D. VOLUME 2239, PAGE 510
 S.C.R.D. VOLUME 4211, PAGE 005
 - 6-11-7 - DENOTES TAX MAP AND PARCEL NUMBER.
 - ZONING DISTRICT IS RC (RESIDENCE C) WITH THE HISTORIC OVERLAY DISTRICT AND SHORELAND PROTECTION ZONE.
 MINIMUM LOT SIZE = 150,000 S.F.*
 MINIMUM FRONTAGE = 300 FEET
 MINIMUM BUILDING SETBACKS:
 FRONT = 40 FEET (ARTERIAL STREET)
 SIDE = 50 FEET
 REAR = 50 FEET
 * (PER TOWN OF DURHAM ZONING ORDINANCE CHAPTER 175-57 PORKCHOP SUBDIVISIONS - THE AVERAGE LOT SIZE SHALL BE 120,000 S.F. MINIMUM AND THE AVERAGE FRONTAGE SHALL NOT BE LESS THAN 100 FEET).
 - FLOOD HAZARD ZONE:
 FLOOD INSURANCE RATE MAP COMMUNITY PANEL #330146 0318 D EFFECTIVE DATE MAY 17, 2005. ZONE AE - SPECIAL FLOOD HAZARD AREAS INUNDATED BY 0.1% ANNUAL CHANCE FLOOD. BASE FLOOD ELEVATION DETERMINED TO BE ELEVATION 7. ALL BUILDINGS AND IMPROVEMENTS ARE LOCATED IN ZONE X - OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
 - THE INTENT OF THIS PLAN IS TO ADJUST THE COMMON LOT LINE OF THE SUBJECT PARCELS AS SHOWN. TRACTS A & B ARE TO BE ADDED TO PARCEL 6-11-8.
- | PARCEL AREAS: | ORIGINAL AREA | NEW AREA |
|---------------|--------------------------|--------------------------|
| 6-11-7 | 498,195 S.F. / 11.44 Ac. | 142,958 S.F. / 3.28 Ac. |
| 6-11-8 | 127,852 S.F. / 2.94 Ac. | 483,089 S.F. / 11.09 Ac. |
- AN ACCESS EASEMENT FOR THE BENEFIT OF PARCEL 6-11-7 IS TO BE RECORDED AT THE STRAFFORD COUNTY REGISTRY OF DEEDS.
 - FOR MORE INFORMATION ABOUT THIS BOUNDARY LINE ADJUSTMENT, OR TO SEE THE COMPLETE PLAN SET, CONTACT THE TOWN OF DURHAM PLANNING DEPARTMENT, 8 NEWMARKET ROAD, DURHAM, NH 03824. (603) 868-8064.
 - THERE ARE NO UTILITIES, WATER OR SEWER FACILITIES, OR OTHER PROPERTY FEATURES THAT ARE LOCATED IN ANY AREAS THAT WOULD BE TRANSFERRED SUCH THAT AN ENCROACHMENT WOULD RESULT FROM THE BOUNDARY ADJUSTMENT.
 - AN EASEMENT PROVIDING ACCESS TO LOT 6-11-7 ACROSS LOT 6-11-8 WILL BE FINALIZED PRIOR TO FINAL APPROVAL.
 - NO NEW DRIVEWAY ON LOT 6-11-7 THAT WOULD DIRECTLY ACCESS ROUTE 108/NEWMARKET ROAD SHALL BE PERMITTED AT ANY TIME IN THE FUTURE UNLESS: A.) THE DOG DAY CARE FACILITY IS CLOSED DOWN; B.) THE DRIVEWAY IS APPROVED BY THE PLANNING BOARD; AND C.) THE DRIVEWAY IS APPROVED BY THE NHDOT.
 - THE EXISTING VEGETATIVE BUFFER ALONG THE FRONT OF LOT 6-11-7 IS TO BE PRESERVED IN PERPETUITY. IT MAY NOT BE CUT NOR REDUCED IN ANY MANNER EXCEPT FOR THE REMOVAL OF DEAD, DISEASED, OR INVASIVE VEGETATION, ONLY UPON THE EXPLICIT APPROVAL OF THE DURHAM TREE WARDEN. IF THE BUFFER IS EVER CUT IN VIOLATION OF THIS CONDITION THEN THE OWNER OF LOT 6-11-7 SHALL RESTORE THE BUFFER AS STIPULATED BY THE DURHAM TREE WARDEN. SHOULD THE OWNER OF LOT 6-11-7 FAIL TO PROPERLY RESTORE THE BUFFER THEN THE OWNER OF LOT 6-11-8 SHALL RESTORE THE BUFFER. PRIOR TO FINAL APPROVAL OF THIS BOUNDARY LINE ADJUSTMENT AN EASEMENT/COVENANT SHALL BE FINALIZED REQUIRING THE OWNER OF LOT 6-11-7 TO MAINTAIN THE BUFFER AND ALLOWING FOR THE OWNER OF LOT 6-11-8 TO ENTER LOT 6-11-7 TO RESTORE THE BUFFER SHOULD THE OWNER OF LOT 6-11-7 FAIL TO MAINTAIN THE BUFFER.
 - THE AMENDED SITE PLAN AND CONDITIONAL USE FOR THE DOG DAY CARE FACILITY AT THE GREAT BAY KENNEL THAT WAS APPROVED BY THE PLANNING BOARD ON APRIL 24, 2013 IS NULL AND VOID.

6-9-8 RICHARD W. RENNER
 SUSAN W. RENNER
 28 NEWMARKET ROAD
 DURHAM, NH 03824
 3880 / 077

6-9-5 FRANK L. PILAR
 ANITA PILAR
 26 NEWMARKET ROAD
 DURHAM, NH 03824

6-11-2 SCOTT M. JENKINS
 LORIE ANN JENKINS
 49 OLD COUNTRY ROAD NORTH
 FRANCESTOWN, NH 03043
 3658 / 657

6-11-8 J. LANGDON SULLIVAN ESTATE
 C/O CURTIZMAN & EISENBERG
 ONE NORTH BROADWAY
 WHITE PLAINS, NY 10601

6-11-3 ARTHUR R. S. KLAESON, III
 1 DURHAM POINT ROAD
 DURHAM, NH 03824
 4229 / 133

11-84-1 STEFANY SHAHEEN
 CRAIG WELCH
 77 SOUTH STREET
 PORTSMOUTH, NH 03801
 3912 / 849

LEGEND

D.H.(fnd)	- DRILL HOLE (FOUND)
I.R.(set)	- IRON ROD WITH PLASTIC I.D. CAP (SET)
I.R.(fnd)	- IRON ROD (FOUND)
○	- STONEWALL
⊙	- LIGHT POLE
⊕	- UTILITY POLE
—	- UNDERGROUND ELECTRIC
⊘	- DIAMETER
LLTBA	- LOT LINE TO BE ABANDONED
NLL	- NEW LOT LINE

No.	Bearing	Distance	No.	Bearing	Distance	No.	Bearing	Distance
L1	N75°15'02"E	80.83'	L8	S04°53'42"W	34.20'	L15	N26°27'57"E	34.95'
L2	S23°03'27"E	81.42'	L9	S23°38'32"W	73.74'	L16	S62°46'44"E	80.89'
L3	N87°24'22"E	14.74'	L10	S27°54'35"W	88.26'	L17	N27°56'21"E	81.89'
L4	S82°04'04"E	94.27'	L11	S29°32'07"W	81.32'	L18	N07°29'06"E	53.88'
L5	N05°55'32"E	90.27'	L12	S82°04'04"E	39.91'	L19	N07°29'06"E	86.14'
L6	S69°38'11"E	13.59'	L13	N24°23'52"E	13.78'	L20	N05°45'44"W	151.25'
L7	S23°03'27"E	36.98'	L14	S71°52'39"E	53.97'			

FINAL APPROVAL BY
 DURHAM PLANNING BOARD
 CERTIFIED BY: _____
 DATE: _____

I HAVE REVIEWED AND HEREBY AGREE TO
 THE LOT LINE ADJUSTMENT AS SHOWN.

 OWNERS SIGNATURE

"I HEREBY CERTIFY THAT THIS PLAT IS THE
 RESULT OF A FIELD SURVEY BY THIS OFFICE
 WHICH HAS A MAXIMUM ERROR OF CLOSURE
 OF 1 PART IN 15,000."

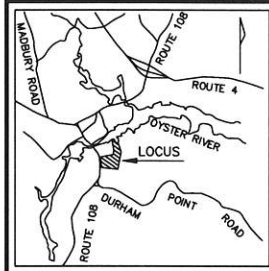
RECEIVED
 Town of Durham
 NOV - 8 2017
 Planning, Assessing
 and Zoning

LOT LINE ADJUSTMENT PLAN
 PREPARED FOR
 GREAT BAY ANIMAL HOSPITAL, LLC
 TAX MAP 6, LOT No.s 11-7 & 11-8
 NEWMARKET ROAD - N.H. ROUTE 108
 TOWN OF DURHAM
 COUNTY OF STRAFFORD
 STATE OF NEW HAMPSHIRE

DRAWN BY: RJM	FILE: CPK\538\14-538 LLADJ
SCALE: 1" = 60'	DATE: DECEMBER 12, 2014

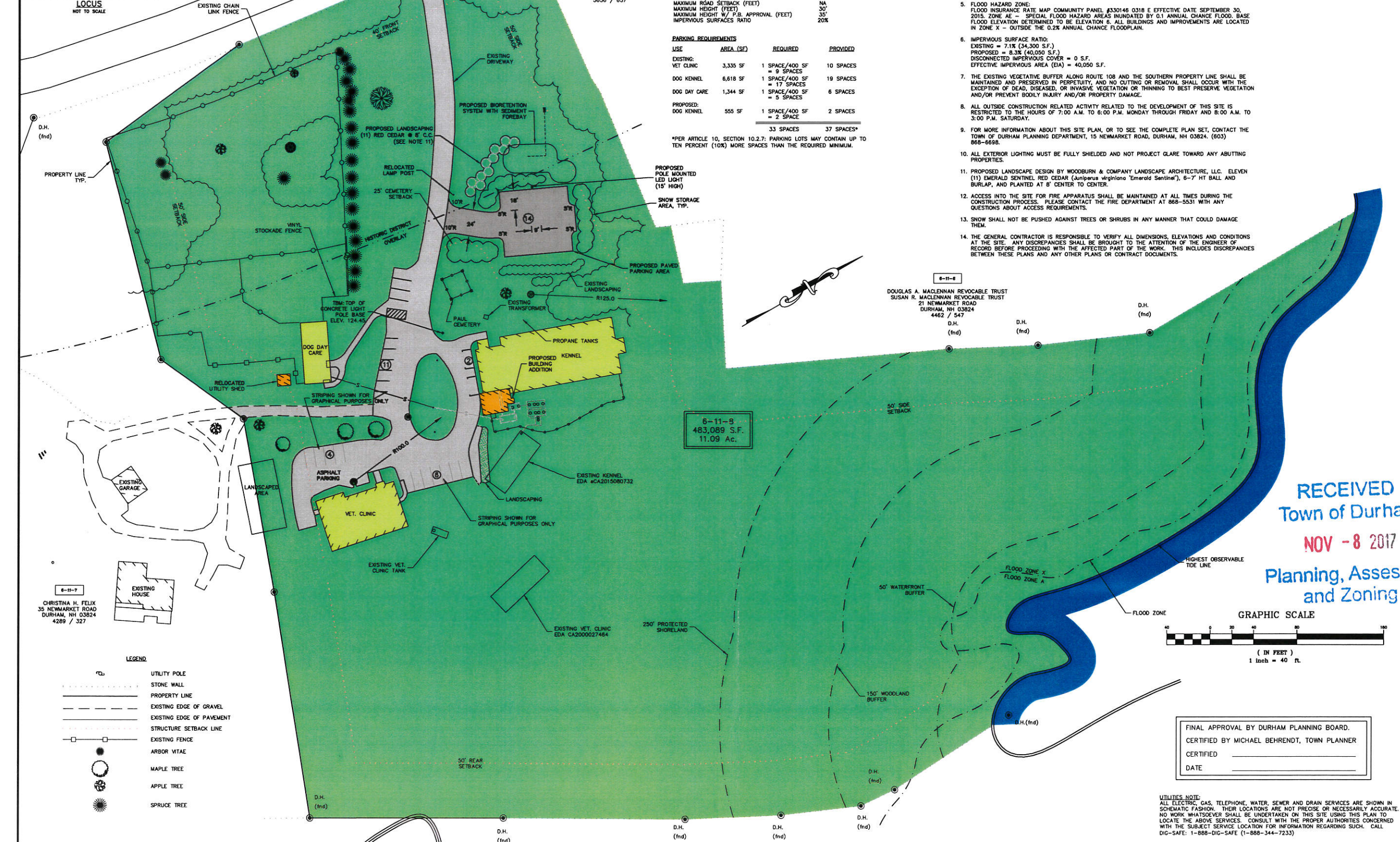
McEneaney Survey Associates, inc.
 P.O. Box 681 - 24 CHESTNUT STREET
 DOVER, NH 03820 (603) 742-0911
 SURVEYING - PLANNING - CONSULTING

NO.	DATE	DESCRIPTION	BY	CHK
1	3/6/15	PER CONDITIONS OF APPROVAL	K.F.	KMM
REVISIONS				
11-538		LLADJ		
PROJECT NO	TYPE	FIELDBOOK & PAGES		



6-9-8
 RICHARD W. RENNER
 SUSAN W. RENNER
 28 NEWMARKET ROAD
 DURHAM, NH 03824
 3880 / 077

6-11-2
 SCOTT W. JENKINS
 LORIE ANN JENKINS
 49 OLD COUNTRY ROAD NORTH
 FRANCES TOWN, NH 03043
 3656 / 657



SITE DATA BLOCK

PLAN INTENT: THE PROPOSAL IS TO ADD PARKING AND AN ADDITION TO THE KENNEL BUILDING FOR USE AS OFFICE SPACE.

ZONE: RC - RESIDENCE COASTAL

OVERLAY DISTRICTS: HISTORIC AND SHORELAND PROTECTION DISTRICT

USE: COMMERCIAL

DIMENSIONAL REQUIREMENTS		REQUIRED	
MINIMUM LOT SIZE (SQUARE FEET)		150,000 SF	
MINIMUM FRONTAGE (FEET)		300'	
MINIMUM LOT SETBACKS			
FRONT (FEET)		40'	
SIDE (FEET)		50'	
REAR (FEET)		50'	
MAXIMUM ROAD SETBACK (FEET)		NA	
MAXIMUM HEIGHT (FEET)		30'	
MAXIMUM HEIGHT W/ P.B. APPROVAL (FEET)		35'	
IMPERVIOUS SURFACES RATIO		20%	

PARKING REQUIREMENTS			
USE	AREA (SF)	REQUIRED	PROVIDED
EXISTING: VET CLINIC	3,335 SF	1 SPACE/400 SF = 9 SPACES	10 SPACES
DOG KENNEL	6,618 SF	1 SPACE/400 SF = 17 SPACES	19 SPACES
DOG DAY CARE	1,344 SF	1 SPACE/400 SF = 5 SPACES	6 SPACES
PROPOSED: DOG KENNEL	555 SF	1 SPACE/400 SF = 2 SPACE	2 SPACES
		33 SPACES	37 SPACES*

*PER ARTICLE 10, SECTION 10.2.7: PARKING LOTS MAY CONTAIN UP TO TEN PERCENT (10%) MORE SPACES THAN THE REQUIRED MINIMUM.

- GENERAL NOTES:**
- OWNER OF RECORD:
 GREAT BAY ANIMAL HOSPITAL, LLC
 31 NEWMARKET ROAD
 DURHAM, NEW HAMPSHIRE 03824
 S.C.R.D. BOOK 2239, PAGE 510
 S.C.R.D. BOOK 4211, PAGE 005
 - LOT AREA: 11.09 ACRES (483,089 S.F.)
 - REFERENCE PLANS:
 A. LOT LINE ADJUSTMENT PLAN PREPARED FOR GREAT BAY ANIMAL HOSPITAL, LLC, TAX MAP 6 LOT NOS. 11-7 & 11-8, NEWMARKET ROAD - NH ROUTE 108, TOWN OF DURHAM, COUNTY OF STRAFFORD, STATE OF NEW HAMPSHIRE, PREPARED BY MSA, INC. DATED MARCH 31, 2015. S.C.R.D. 109-028.
 - VERTICAL DATUM IS ASSUMED.
 - FLOOD HAZARD ZONE:
 FLOOD INSURANCE RATE MAP COMMUNITY PANEL #330148 0318 E EFFECTIVE DATE SEPTEMBER 30, 2015. ZONE AE - SPECIAL FLOOD HAZARD AREAS INUNDAED BY 0.1 ANNUAL CHANCE FLOOD. BASE FLOOD ELEVATION DETERMINED TO BE ELEVATION 6. ALL BUILDINGS AND IMPROVEMENTS ARE LOCATED IN ZONE X - OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
 - IMPERVIOUS SURFACE RATIO:
 EXISTING = 7.1% (34,300 S.F.)
 PROPOSED = 8.3% (40,050 S.F.)
 DISCONNECTED IMPERVIOUS COVER = 0 S.F.
 EFFECTIVE IMPERVIOUS AREA (EIA) = 40,050 S.F.
 - THE EXISTING VEGETATIVE BUFFER ALONG ROUTE 108 AND THE SOUTHERN PROPERTY LINE SHALL BE MAINTAINED AND PRESERVED IN PERPETUITY, AND NO CUTTING OR REMOVAL SHALL OCCUR WITH THE EXCEPTION OF DEAD, DISEASED, OR INVASIVE VEGETATION OR THINNING TO BEST PRESERVE VEGETATION AND/OR PREVENT BODILY INJURY AND/OR PROPERTY DAMAGE.
 - ALL OUTSIDE CONSTRUCTION RELATED ACTIVITY RELATED TO THE DEVELOPMENT OF THIS SITE IS RESTRICTED TO THE HOURS OF 7:00 A.M. TO 6:00 P.M. MONDAY THROUGH FRIDAY AND 8:00 A.M. TO 3:00 P.M. SATURDAY.
 - FOR MORE INFORMATION ABOUT THIS SITE PLAN, OR TO SEE THE COMPLETE PLAN SET, CONTACT THE TOWN OF DURHAM PLANNING DEPARTMENT, 15 NEWMARKET ROAD, DURHAM, NH 03824. (603) 888-6698.
 - ALL EXTERIOR LIGHTING MUST BE FULLY SHIELDED AND NOT PROJECT GLARE TOWARD ANY ADJACENT PROPERTIES.
 - PROPOSED LANDSCAPE DESIGN BY WOODBURN & COMPANY LANDSCAPE ARCHITECTURE, LLC. ELEVEN (11) EMERALD SENTINEL RED CEDAR (*Juniperus virginiana* 'Emerald Sentinel'), 6-7' HT BALL AND BURLAP, AND PLANTED AT 8' CENTER TO CENTER.
 - ACCESS INTO THE SITE FOR FIRE APPARATUS SHALL BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION PROCESS. PLEASE CONTACT THE FIRE DEPARTMENT AT 888-5531 WITH ANY QUESTIONS ABOUT ACCESS REQUIREMENTS.
 - SNOW SHALL NOT BE PUSHED AGAINST TREES OR SHRUBS IN ANY MANNER THAT COULD DAMAGE THEM.
 - THE GENERAL CONTRACTOR IS RESPONSIBLE TO VERIFY ALL DIMENSIONS, ELEVATIONS AND CONDITIONS AT THE SITE. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK. THIS INCLUDES DISCREPANCIES BETWEEN THESE PLANS AND ANY OTHER PLANS OR CONTRACT DOCUMENTS.

6-11-8
 DOUGLAS A. MACLENNAN REVOCABLE TRUST
 SUSAN R. MACLENNAN REVOCABLE TRUST
 21 NEWMARKET ROAD
 DURHAM, NH 03824
 4462 / 547

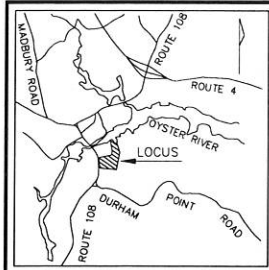
6-11-7
 CHRISTINA H. FELIX
 35 NEWMARKET ROAD
 DURHAM, NH 03824
 4289 / 327

- LEGEND**
- UTILITY POLE
 - STONE WALL
 - PROPERTY LINE
 - - - EXISTING EDGE OF GRAVEL
 - - - EXISTING EDGE OF PAVEMENT
 - - - STRUCTURE SETBACK LINE
 - EXISTING FENCE
 - ARBOR VITAE
 - MAPLE TREE
 - APPLE TREE
 - SPRUCE TREE

FINAL APPROVAL BY DURHAM PLANNING BOARD.
 CERTIFIED BY MICHAEL BEHRENDT, TOWN PLANNER
 CERTIFIED _____
 DATE _____

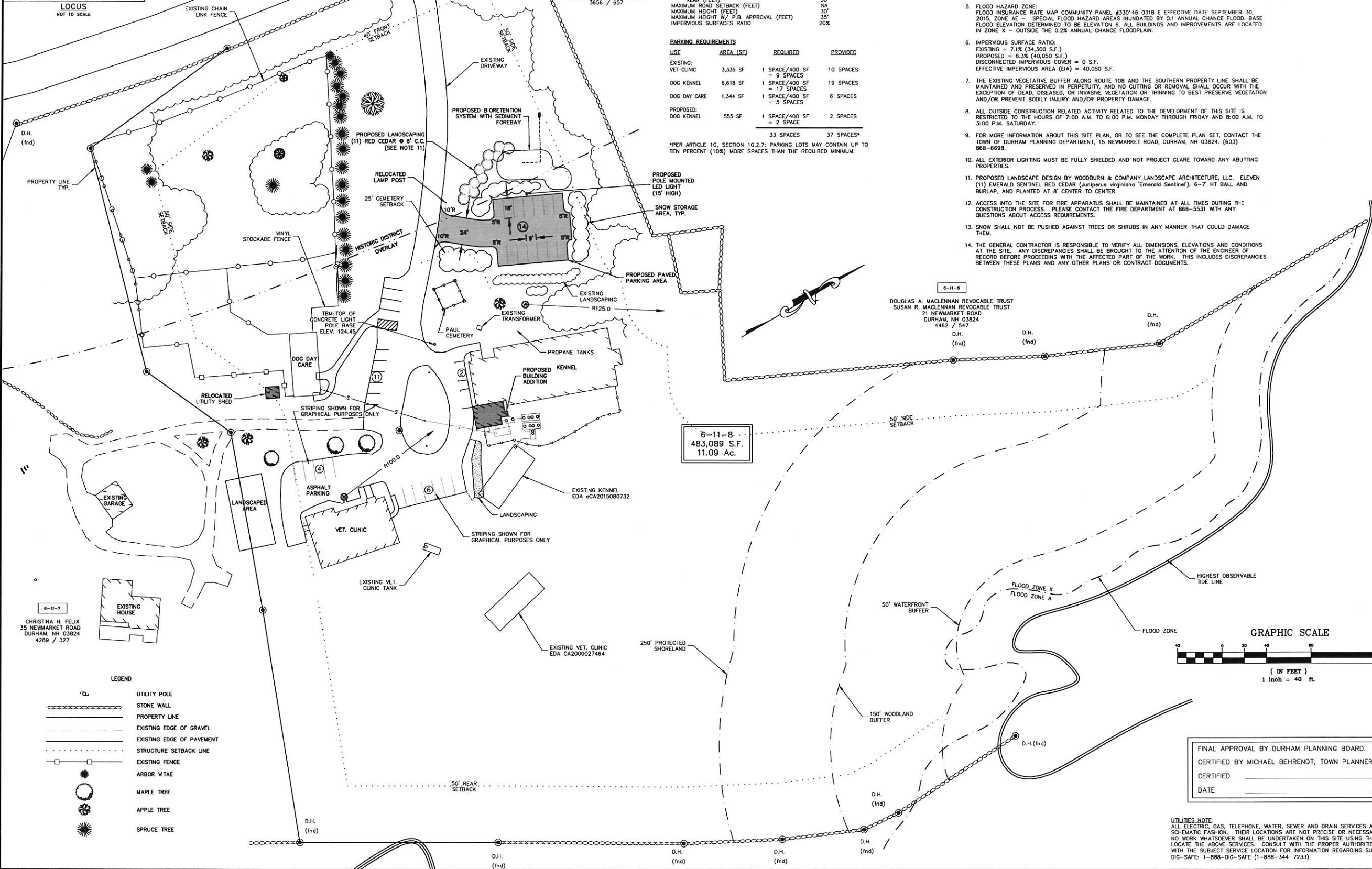
UTILITIES NOTE:
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DATE: 11/7/17	DESIGNED BY: MS	DRAWN BY: MS	APPROVED BY: MS	DWG FILE: 17-043 CID.1_1_5113.dwg
SCALE: 1"=40'				
SEAL				
PROPOSED SITE PLAN prepared for GREAT BAY ANIMAL HOSPITAL, LLC TAX MAP 6, LOT 11-8 31 NEWMARKET ROAD DURHAM, NH				
RECEIVED Town of Durham NOV -8 2017 Planning, Assessing and Zoning				
 MJS ENGINEERING P.C. CIVIL • STRUCTURAL • ENVIRONMENTAL 5 HUBBARD ST., 8th Fl., Box 305 Newmarket, NH 03857 PHONE: (603) 859-4979, Fax: (603) 859-4427 EMAIL: PUGH@MJS-ENGINEERING.COM				
JOB: 17-043				
C1				



6-9-6
 RICHARD W. RENNER
 SUSAN W. RENNER
 28 NEWMARKET ROAD
 DURHAM, NH 03824
 3880 / 077

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SITE DATA BLOCK
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 ZONE: RC - RESIDENCE COASTAL
 OVERLAY DISTRICTS: HISTORIC AND SHORELAND PROTECTION DISTRICT
 USE: COMMERCIAL

6-11-2

MINIMUM LOT SIZE (SQUARE FEET)	REQUIRED
MINIMUM LOT SIZE (SQUARE FEET)	150,000 SF
MINIMUM FRONTAGE (FEET)	300'
MINIMUM LOT SETBACKS	
FRONT (FEET)	40'
SIDE (FEET)	50'
REAR (FEET)	50'
MAXIMUM ROAD SETBACK (FEET)	NA
MAXIMUM HEIGHT (FEET)	30'
MAXIMUM HEIGHT W/ P.B. APPROVAL (FEET)	35'
IMPERVIOUS SURFACES RATIO	20%

6-11-2

USE	AREA (SF)	REQUIRED	PROVIDED
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*PER ARTICLE 10, SECTION 10.2.7: PARKING LOTS MAY CONTAIN UP TO TEN PERCENT (10%) MORE SPACES THAN THE REQUIRED MINIMUM.

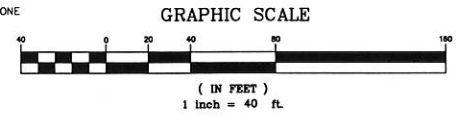
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 - LOT AREA: 11.09 ACRES (483,089 S.F.)
 - REFERENCE PLANS: A. LOT LINE ADJUSTMENT PLAN PREPARED FOR GREAT BAY ANIMAL HOSPITAL, LLC, TAX MAP 6 LOT NOS. 11-7 & 11-8, NEWMARKET ROAD - NH ROUTE 108, TOWN OF DURHAM, COUNTY OF STRAFFORD, STATE OF NEW HAMPSHIRE, PREPARED BY MSA, INC. DATED MARCH 31, 2015. S.C.R.D. 109-028.
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 - FOR MORE INFORMATION ABOUT THIS SITE PLAN, OR TO SEE THE COMPLETE PLAN SET, CONTACT THE TOWN OF DURHAM PLANNING DEPARTMENT, 15 NEWMARKET ROAD, DURHAM, NH 03824. (603) 868-6698.
 - ALL EXTERIOR LIGHTING MUST BE FULLY SHIELDED AND NOT PROJECT CLARE TOWARD ANY ADJACENT PROPERTIES.
 - PROPOSED LANDSCAPE DESIGN BY WOODBURN & COMPANY LANDSCAPE ARCHITECTURE, LLC. ELEVEN (11) EMERALD SENTINEL RED CEDAR (Juniperus virginiana 'Emerald Sentinel'), 6-7' HT BALL AND BURLAP, AND PLANTED AT 8' CENTER TO CENTER.
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6-11-8
 DOUGLAS A. MACLENNAN REVOCABLE TRUST
 SUSAN R. MACLENNAN REVOCABLE TRUST
 21 NEWMARKET ROAD
 DURHAM, NH 03824
 4462 / 547
 D.H. (fnd) D.H. (fnd)

6-11-8
 483,089 S.F.
 11.09 Ac.

6-11-7
 CHRISTINA H. FELIX
 35 NEWMARKET ROAD
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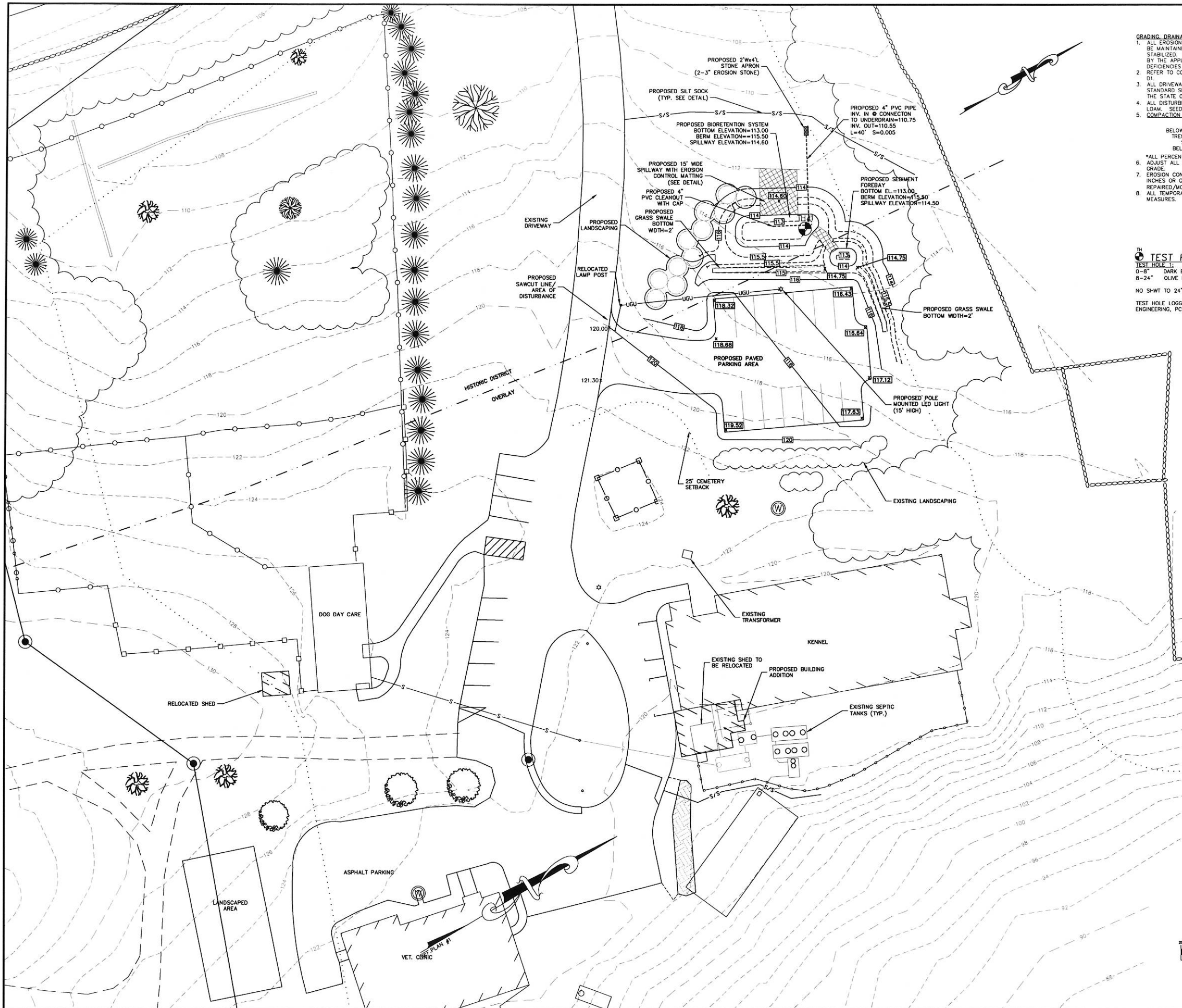
- LEGEND**
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 - MAPLE TREE
 - APPLE TREE
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FINAL APPROVAL BY DURHAM PLANNING BOARD.
 CERTIFIED BY MICHAEL BEHRENDT, TOWN PLANNER
 CERTIFIED _____
 DATE _____

UTILITIES NOTE:
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SCALE: 1"=40'	DATE: 11/7/17	NO.
DESIGNED BY: MS	DESIGNED BY: MS	NO.
DRAWN BY: MJS	DRAWN BY: MJS	NO.
APPROVED BY: MJS	APPROVED BY: MJS	NO.
DWG FILE: 17-043 CID.dwg	INITIAL SUBMISSION TO LEE PLANNING BOARD	NO.
PROPOSED SITE PLAN prepared for GREAT BAY ANIMAL HOSPITAL, LLC TAX MAP 6, LOT 11-8 31 NEWMARKET ROAD DURHAM, NH		REVISIONS DATE INT.
MJS ENGINEERING, P.C. CIVIL - STRUCTURAL - ENVIRONMENTAL 5 BELLWOOD ST., P.O. Box 259 DURHAM, NH 03824 PHONE: (603) 859-4079, FAX: (603) 859-4627 E-MAIL: mjs@mjse.com		JOB: 17-043 C1



GRADING, DRAINAGE, UTILITY & EROSION CONTROL NOTES

- ALL EROSION AND SEDIMENTATION CONTROL STRUCTURES SHALL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE VEGETATION IS ESTABLISHED AND THE GROUND SURFACE IS STABILIZED. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE MONITORED BY THE APPLICANT ON A PERIODIC BASIS DURING CONSTRUCTION AND ANY DEFICIENCIES SHALL BE CORRECTED AS SOON AS POSSIBLE.
- REFER TO CONSTRUCTION AND SEQUENCING AND EROSION CONTROL NOTES ON SHEET D1.
- ALL DRIVEWAY AND PARKING AREA WORK SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS PUBLISHED BY THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION.
- ALL DISTURBED AREAS NOT PAVED OR OTHERWISE TREATED SHALL RECEIVE 4" OF LOAM, SEED AND MULCH AS SPECIFIED IN THE NOTES ON SHEET D1.
- COMPACTION REQUIREMENTS:

LOCATION:	MINIMUM COMPACTION*
BELOW PAVED OR CONCRETE AREAS	95%
TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL	95%
BELOW LOAM AND SEED AREAS	90%
- *ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM PROCTOR DENSITY. ADJUST ALL MANHOLES, CATCH BASINS ETC. WITHIN LIMITS OF WORK TO FINISHED GRADE.
- EROSION CONTROL DEVICES SHALL BE INSPECTED AFTER EACH RAIN STORM OF 0.25 INCHES OR GREATER. DAMAGED EROSION CONTROL DEVICES SHALL BE REPAIRED/MODIFIED AS NECESSARY.
- ALL TEMPORARY LOAM STOCKPILES SHALL RECEIVE TEMPORARY EROSION CONTROL MEASURES.

TEST HOLE DATA:

TEST HOLE 1:
 0-8" DARK BROWN FINE SANDY LOAM, GRANULAR, LOOSE
 8-24" OLIVE BROWN SILT LOAM, BLOCKY, FRABLE

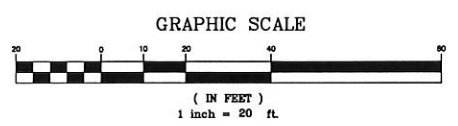
NO SHWT TO 24"

TEST HOLE LOGGED ON 10/27/17 BY MICHAEL J. SIEVERT, MJS ENGINEERING, PC.

FINAL APPROVAL BY DURHAM PLANNING BOARD.
 CERTIFIED BY MICHAEL BEHRENDT, TOWN PLANNER
 CERTIFIED _____
 DATE _____

UTILITIES NOTE:
 ALL ELECTRIC, GAS, TELEPHONE, WATER, SEWER AND DRAIN SERVICES ARE SHOWN IN SCHEMATIC FASHION. THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN ON THIS SITE USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATION FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE: 1-888-DIG-SAFE (1-888-344-7233)

- LEGEND**
- UTILITY POLE
 - STONE WALL
 - PROPERTY LINE
 - EXISTING EDGE OF GRAVEL
 - STRUCTURE SETBACK LINE
 - EXISTING CONTOUR
 - EXISTING FENCE
 - PROPOSED CONTOUR
 - PROPOSED SPOT GRADE
 - EXISTING SPOT GRADE
 - PROPOSED SILT SOCK
 - ARBOR VITAE
 - MAPLE TREE
 - APPLE TREE
 - SPRUCE TREE



DATE:	11/7/17	NO.	
SCALE:	1"=20'	NO.	
DESIGNED BY:	MS	NO.	
DRAWN BY:	MS	NO.	
APPROVED BY:	MJS	NO.	
DWG FILE:	17-043_CID.dwg	NO.	
SEAL: MICHAEL J. SIEVERT, MJS ENGINEERING, P.C. REGISTERED PROFESSIONAL ENGINEER STATE OF NEW HAMPSHIRE NO. 11111		DATE	11/7/17
GRADING, DRAINAGE & EROSION CONTROL PLAN prepared for GREAT BAY ANIMAL HOSPITAL, LLC TAX MAP 6, LOT 11-8 31 NEWMARKET ROAD DURHAM, NH		REVISIONS	INT.
MJS ENGINEERING, P.C. CIVIL • STRUCTURAL • ENVIRONMENTAL 5 RAILROAD ST., 1ST FL., SUITE 309 DURHAM, NH 03824 PHONE: (603) 854-0779, FAX: (603) 854-6427 E-MAIL: MJS@MJS-ENGINEERING.COM		JOB: 17-043	
		C2	

CONSTRUCTION SEQUENCING AND EROSION CONTROL NOTES:

AREA OF DISTURBANCE/STABILIZATION

- A. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL THE AREA OF UNSTABILIZED SOIL EXCEED 5 ACRES AT ANY ONE TIME BEFORE THE AREA IS STABILIZED.
- B. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - 1. IN AREAS TO BE PAVED, BASE COURSE GRAVELS MEETING THE GRADATION REQUIREMENTS OF NHDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, 2006, ITEM NO. 304.1 OR 304.2 HAVE BEEN INSTALLED;
 - 2. IN AREAS NOT TO BE PAVED:
 - 2.A. A MINIMUM OF 85% VEGETATED AREA HAS BEEN ESTABLISHED;
 - 2.B. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED;
- C. DISTURBED AREAS SHALL BE TEMPORARILY STABILIZED WITHIN 45 DAYS AND PERMANENTLY STABILIZED NO LATER THAN 3 DAYS AFTER FINAL GRADING.

EROSION CONTROL PRACTICES:

- A. INSTALLATION:
 - 1. INSTALL ALL EROSION CONTROLS AS SHOWN ON THE GRADING PLAN, TYPICAL DETAILS, AND IN CONFORMANCE WITH THE EROSION AND SEDIMENT CONTROL NOTES ON THIS PAGE. MANUFACTURER'S SPECIFICATIONS SHALL BE FOLLOWED.
- B. INSPECTION:
 - 1. INSPECT ALL EROSION CONTROLS WEEKLY AND AFTER EVERY RAIN EVENT OF 0.5 INCHES OR GREATER UNLESS OTHERWISE NOTED.
 - 2. TEMPORARY STABILIZATION PRACTICES SHALL BE INSPECTED ONCE PER WEEK DURING CONSTRUCTION UNTIL EXPOSED SURFACES ARE STABILIZED.
 - 3. ANY SIGNS OF RILL OR GULLY EROSION SHALL BE IMMEDIATELY REPAIRED.
- C. MAINTENANCE:
 - 1. MAINTAIN EROSION CONTROLS PER THE TYPICAL DETAILS AND IN CONFORMANCE WITH THE EROSION AND SEDIMENT CONTROL NOTES ON THIS PAGE.
- D. REMOVAL:
 - 1. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE 85% VEGETATIVE COVER HAS BEEN ESTABLISHED.
 - 2. AFTER REMOVAL, ALL DISTURBED AREAS SHALL BE REGRADED, FERTILIZED, AND RESEED. MONITOR TO ENSURE VEGETATIVE GROWTH IS ESTABLISHED AND REPAIR AS NEEDED UNTIL MINIMUM OF 85% VEGETATIVE COVER IS ESTABLISHED.

COLD WEATHER SITE STABILIZATION

- A. TO ADEQUATELY PROTECT WATER QUALITY DURING COLD WEATHER AND DURING SPRING RUNOFF, THE ADDITIONAL STABILIZATION TECHNIQUES SPECIFIED IN THIS SECTION SHALL BE EMPLOYED DURING THE PERIOD FROM OCTOBER 15 THROUGH MAY 1.
- B. SUBJECT TO THE AREA OF EXPOSED, UNSTABILIZED SOIL SHALL BE:
 - 1. LIMITED TO ONE ACRE; AND
 - 2. PROTECTED AGAINST EROSION BY THE METHODS DESCRIBED IN THIS SECTION PRIOR TO ANY THAW OR SPRING MELT EVENT.
- C. THE ALLOWABLE AREA OF EXPOSED SOIL MAY BE INCREASED IF A WINTER CONSTRUCTION PLAN IS DEVELOPED BY A QUALIFIED ENGINEER OR A CPESC SPECIALIST AND SUBMITTED TO THE DEPARTMENT FOR APPROVAL AS A REQUEST TO WAIVE THE ONE-ACRE LIMIT.
- D. SUBJECT TO (F) AND (G), BELOW, ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS THAN 15% THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR THAT ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEED AND COVERED WITH 3 TO 4 TONS OF HAY OR STRAW MULCH PER ACRE SECURED WITH ANCHORED NETTING OR TACKIFIER OR WITH AT LEAST 2 INCHES OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-WQ 1506.05(B).
- E. SUBJECT TO (F) AND (G), BELOW, ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF 15% OR GREATER THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR THAT ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEED AND COVERED WITH A PROPERLY INSTALLED AND ANCHORED EROSION CONTROL BLANKET OR WITH AT LEAST 4 INCHES OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-WQ 1506.05(B).
- F. ANCHORED HAY MULCH OR EROSION CONTROL MIX THAT MEETS THE CRITERIA OF ENV-WQ 1506.05(B) SHALL NOT BE INSTALLED OVER SNOW GREATER THAN ONE INCH IN DEPTH.
- G. EROSION CONTROL BLANKETS SHALL NOT BE INSTALLED OVER SNOW GREATER THAN ONE INCH IN DEPTH OR ON FROZEN GROUND.
- H. ALL PROPOSED STABILIZATION IN ACCORDANCE WITH (D) OR (E), ABOVE, SHALL BE COMPLETED WITHIN A DAY OF EXPOSURE TO THE WEATHER TO HAVE ADEQUATE WARNING OF SIGNIFICANT STORMS.
- I. ALL DITCHES OR SWALES THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR THAT ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS, AS DETERMINED BY THE OWNER'S ENGINEERING CONSULTANT.
- J. AFTER OCTOBER 15, INCOMPLETE ROAD OR PARKING AREAS WHERE ACTIVE CONSTRUCTION OF THE ROAD OR PARKING AREA HAS STOPPED FOR THE WINTER SEASON SHALL BE PROTECTED WITH A MINIMUM 3-INCH LAYER OF BASE COURSE GRAVELS MEETING THE GRADATION REQUIREMENTS OF NHDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, 2016, TABLE 304-1, ITEM NO. 304.1, 304.2, OR 304.3, AVAILABLE AS NOTED IN APPENDIX B.

TEMPORARY VEGETATION

- A. SITE PREPARATION:
 - 1. INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS SPECIFIED ABOVE.
 - 2. ENSURE RUNOFF IS DIVERTED FROM SEEDING AREA.
 - 3. ON SLOPES OF 4:1 OR STEEPER, CREATE HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.
- B. SEED BED PREPARATION:
 - 1. REMOVE STONES AND TRASH FROM AREA TO BE SEED.
 - 2. COMPACTED SOIL SHALL BE LOOSENED TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME, AND SEED.
 - 3. APPLY FERTILIZER AT A RATE OF 800 LBS PER ACRE OF 10-10-10. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE.
- C. SEEDING:
 - 1. SEED PER THE FOLLOWING RECOMMENDATIONS:

SEASON	APPLICATION DATE	MIXTURE TYPE	QUANTITY (lb./Ac.)
EARLY SPRING	NO LATER THAN 5/15	OATS	80
LATE SPRING/ FALL	4/1 TO 6/1 & 8/15 TO 9/15	PERENNIAL RYE	30
EARLY SPRING/ FALL	4/1 TO 5/15 & 8/15 TO 9/15	ANNUAL RYE	40
FALL	8/15 TO 9/15	WINTER RYE	112

- 2. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING.
- 3. TEMPORARY SEEDING SHALL OCCUR PRIOR TO SEPTEMBER 15TH IN THE YEAR IN WHICH THE AREA BEING SEEDING WAS DISTURBED.
- 4. AREAS SEEDING BETWEEN MAY 15TH AND AUGUST 15TH SHALL BE COVERED WITH HAY OR STRAW MULCH MEETING THE FOLLOWING CRITERIA:
 - 4.A. HAY AND STRAW MULCHES SHALL BE ANCHORED WITH MULCH NETTING OR TACKIFIER SO THAT THEY ARE NOT BLOWN AWAY BY WIND OR WASHED AWAY BY FLOWING WATER.
 - 4.B. MULCH MATERIALS SHALL BE SELECTED BASED UPON SOILS, SLOPE, FLOW CONDITIONS, AND TIME OF YEAR.
 - 4.C. HAY OR STRAW MULCH SHALL BE APPLIED AT A RATE OF 1.5 TO 2 TONS PER ACRE, EQUIVALENT TO 70 TO 90 POUNDS PER 1,000 SQUARE FEET.
 - 4.D. IF VEGETATED GROUND COVERING AT LEAST 85% OF THE DISTURBED AREA IS NOT ACHIEVED PRIOR TO OCTOBER 15TH, ONE OR MORE ADDITIONAL EROSION CONTROL METHODS SHALL BE IMPLEMENTED.
- D. MAINTENANCE:
 - 1. TEMPORARY SEEDING SHOULD BE INSPECTED WEEKLY AND AFTER ANY RAINFALL EXCEEDING 1/8 INCH IN 24 HOURS ON ACTIVE CONSTRUCTION SITES. TEMPORARY SEEDING SHOULD ALSO BE INSPECTED PRIOR TO SEPTEMBER 15, TO ASCERTAIN WHETHER ADDITIONAL SEEDING IS REQUIRED TO PROVIDE STABILIZATION OVER THE WINTER PERIOD.
 - 2. BASED ON INSPECTION, AREAS SHOULD BE RESEED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS IN THE PLANTING SEASON. TO MAINTAIN IN THE PLANTING SEASON, THEN OTHER TEMPORARY STABILIZATION MEASURES SHOULD BE IMPLEMENTED.
 - 3. AT A MINIMUM, 85% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION.
 - 4. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHOULD BE MADE AND AREAS SHOULD BE RESEED, WITH OTHER TEMPORARY MEASURES (E.G., MULCH) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.

PERMANENT VEGETATION

- A. SITE PREPARATION:
 - 1. REFER TO SITE PREPARATION FOR TEMPORARY SEEDING.
- B. SEED BED PREPARATION:
 - 1. REFER TO SEED BED PREPARATION FOR TEMPORARY SEEDING IN CONJUNCTION WITH THESE NOTES.
 - 2. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM SEEDING IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.
 - 3. REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION, TRASH OR OTHER UNSUITABLE MATERIAL, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE, CLODS, LUMPS, TRASH OR OTHER UNSUITABLE MATERIAL.
 - 4. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED; THE AREA MUST BE TILLED AND FIRMED AS ABOVE.
 - 5. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
 - 6. APPLY FERTILIZER AT A RATE OF 800 LBS PER ACRE OF 10-10-10. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE.
- C. SEEDING:
 - 1. UNLESS OTHERWISE NOTED, GRASS SEED MIXTURE 'C' SHALL BE APPLIED AT THE SPECIFIED RATE AS NOTED IN THE 'SEED MIXTURES FOR PERMANENT VEGETATION' TABLE.
 - 2. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE. SEEDING OPERATIONS SHOULD BE ON THE CONTOUR.
 - 3. WHERE FEASIBLE, EXCEPT WHERE EITHER A CULTIPACKER TYPE SEEDER OR HYDROSEEDER IS USED, THE SEED SHOULD BE FIRMS FOLLOWING SEEDING OPERATIONS WITH A ROLLER, OR LIGHT DRAG.
 - 4. WHEN HYDROSEEDING (HYDRAULIC APPLICATION), PREPARE THE SEEDBED AS SPECIFIED ABOVE. AFTER ROLLING TO LOOSEN AND SMOOTH THE SOIL AND TO REMOVE SURFACE STONES LARGER THAN 2 INCHES IN DIAMETER.
 - 5. SLOPES MUST BE NO STEEPER THAN 2 TO 1.
 - 6. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. THE USE OF LIME AND FERTILIZER SHALL BE DETERMINED BY SOIL TESTS. MULCH IS USED TO HOLD STRAW OR HAY. BETTER PROTECTION IS GAINED BY USING STRAW MULCH AND HOLDING IT WITH ADHESIVE MATERIALS OR 500 POUNDS PER ACRE OF WOOD FIBER MULCH.
 - 7. SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING.
 - 8. TEMPORARY SEEDING SHALL OCCUR PRIOR TO SEPTEMBER 15TH IN THE YEAR IN WHICH THE AREA BEING SEEDING WAS DISTURBED.
 - 9. AREAS SEEDING BETWEEN MAY 15TH AND AUGUST 15TH SHALL BE COVERED WITH HAY OR STRAW MULCH MEETING THE FOLLOWING CRITERIA:
 - 9.A. HAY AND STRAW MULCHES SHALL BE ANCHORED WITH MULCH NETTING OR TACKIFIER SO THAT THEY ARE NOT BLOWN AWAY BY WIND OR WASHED AWAY BY FLOWING WATER.
 - 9.B. MULCH MATERIALS SHALL BE SELECTED BASED UPON SOILS, SLOPE, FLOW CONDITIONS, AND TIME OF YEAR.
 - 9.C. HAY OR STRAW MULCH SHALL BE APPLIED AT A RATE OF 1.5 TO 2 TONS PER ACRE, EQUIVALENT TO 70 TO 90 POUNDS PER 1,000 SQUARE FEET.
 - 9.D. IF VEGETATED GROUND COVERING AT LEAST 85% OF THE DISTURBED AREA IS NOT ACHIEVED PRIOR TO OCTOBER 15TH, ONE OR MORE ADDITIONAL EROSION CONTROL METHODS SHALL BE IMPLEMENTED.
- D. MAINTENANCE:
 - 1. PERMANENTLY SEEDING AREAS SHOULD BE INSPECTED MONTHLY.
 - 2. MOW SEEDING AS NECESSARY.
 - 3. BASED ON INSPECTION, AREAS SHOULD BE REPAIRED AND/OR RESEED TO ENSURE 85% OF THE SOIL SURFACE IS COVERED BY VEGETATION.

MULCHING & EROSION CONTROL MATTING

- A. GENERAL:
 - 1. APPLY PRIOR TO A STORM EVENT. CLOSELY MONITOR THE WEATHER TO HAVE ADEQUATE WARNING OF SIGNIFICANT STORMS.
 - 2. MULCHING WITHIN A SPECIFIED TIME PERIOD FROM ORIGINAL SOIL EXPOSURE:
 - 2.A. WITHIN 100 FEET OF WETLANDS THE TIME PERIOD SHOULD BE NO GREATER THAN 7 DAYS.
 - 2.B. IN OTHER AREAS IT SHALL BE NO GREATER THAN 14 DAYS.
 - 3. MULCH MATERIALS SHALL BE SELECTED BASED UPON SOILS, FLOW CONDITIONS, AND TIME OF YEAR.
- B. TEMPORARY MULCHING:
 - 1. HAY OR STRAW MULCHES:
 - 1.A. ORGANIC CHIPS INCLUDING HAY AND STRAW SHALL BE AIR-DRIED, FREE OF UNDESIRABLE SEEDS AND COARSE MATERIALS.
 - 1.B. APPLICATION RATE SHALL BE 2 BALES/1,000 SF (70-90 POUNDS) OR 1.5-2.0 TONS/ACRE TO COVER 75-90% OF THE GROUND.
 - 1.C. ANCHORING SHALL BE ONE OF THE FOLLOWING:
 - 1.C.1. NETTING SHALL BE JUTE, WOOD FIBER, OR BIODEGRADABLE PLASTIC NETTING INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
 - 1.C.2. TACKIFIER, POLYMER OR ORGANIC TACKIFIER TO ANCHOR HAY OR STRAW MULCH. APPLY PER MANUFACTURER'S SPECIFICATIONS. TYPICAL APPLICATION RATES ARE 40-60 LBS/ACRE FOR POLYMER MATERIAL AND 80-120 LBS/ACRE FOR ORGANIC LIQUID.
 - 1.D. WINTER APPLICATION: APPLY TO A DEPTH OF 4 INCHES OR DOUBLE THE ABOVE LISTED APPLICATION RATE. NOTE THAT IF SEEDING IS NECESSARY, MULCH WILL NEED TO BE REMOVED AND THE AREA SEEDING AND MULCHED IN THE SPRING.
 - 2. EROSION CONTROL BLANKET OR MATTING:
 - 2.A. REFER TO PLANS FOR TYPICAL EROSION CONTROL MATTING DETAIL. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
 - 2.B. APPLICATION AND TIMING:
 - 2.B.1. DURING THE GROWING SEASON (APRIL 15 - SEPTEMBER 15) USE ON THE BASE OF GRASSED WATERWAYS, STEEP SLOPES (15% OR GREATER), ANY DISTURBED SOIL WITHIN 100 FEET OF LAKES, STREAMS, AND WETLANDS.
 - 2.B.2. DURING THE LATE FALL AND WINTER (SEPTEMBER 15 - APRIL 15) IN ADDITION TO THOSE LISTED ABOVE USE ON SIDE SLOPES OF GRASSED WATERWAYS AND MODERATE SLOPES (GREATER THAN 8%).
 - 3. MAINTENANCE:
 - 3.A. INSPECT PERIODICALLY AND BEFORE AND AFTER STORM EVENTS TO ENSURE CONTACT WITH THE SOIL UNTIL 85% VEGETATIVE COVER IS ESTABLISHED. REPAIR AND RESTAPLE AS NECESSARY.
- C. PERMANENT MULCHING:
 - 1. WOOD CHIPS OR GROUND BARK:
 - 1.A. APPLY TO A THICKNESS OF 2 TO 8 INCHES. APPLICATION RATES ARE 10-20 TONS/ACRE OR 460-920 POUNDS/1,000 SF.
 - 1.B. MAINTENANCE: INSPECT ANNUALLY AND AFTER RAIN EVENTS OF 2.5 INCHES OR MORE IN A 24 HOUR PERIOD. REPAIR/REPLACE AS NECESSARY.
 - 2. EROSION CONTROL MIX:
 - 2.A. SHALL BE PLACED AT A THICKNESS OF 2 INCHES OR MORE FOR MULCHING.
 - 2.B. COMPOSITION OF THE MIX SHALL BE AS FOLLOWS:
 - 2.B.1. ORGANIC MATTER CONTENT SHALL BE BETWEEN 25-65% DRY WEIGHT BASIS.
 - 2.B.2. PARTICLE SIZE BY WEIGHT SHOULD BE 100% PASSING THE 3" SCREEN, 90-100% PASSING THE 1" SCREEN, 70-100% PASSING THE 0.75 INCH SCREEN, AND 30-75% PASSING THE 0.25 INCH SCREEN.
 - 2.B.3. THE ORGANIC PORTION SHALL BE ELONGATED AND FIBROUS SUCH AS FROM SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR EQUIVALENT MANUFACTURED PRODUCTS. IT SHALL NOT CONTAIN WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS, OR REPROCESSED WOOD PRODUCTS.
 - 2.B.4. THE MIX SHALL NOT CONTAIN SILTS, CLAYS, OR FINE SANDS.
 - 2.B.5. SOLUBLE SALTS CONTENT SHALL BE < 4.0 MG/MS/CM AND A PH OF 5.0-8.0.
 - 2.C.1. PLACE BERM ALONG A LEVEL CONTOUR. BERM MUST BE A MINIMUM OF 12" HIGH ON THE UPHILL SIDE AND 2 FEET WIDE. UPSLOPE AREA MUST HAVE A SLOPE OF LESS THAN 5%.
 - 2.D. MAINTENANCE: INSPECT PERIODICALLY AND AUGMENT AS NEEDED TO MAINTAIN INITIAL THICKNESS. REPLACE IF NO LONGER FUNCTIONING AS INTENDED.

SOIL STOCKPILES

- A. GENERAL:
 - 1. STOCKPILES MUST BE LOCATED 50 FEET FROM DITCHES AND CULVERT INLETS.
 - 2. PROTECTION OF STOCKPILES:
 - 1. PROTECT SOIL AND AGGREGATE STOCKPILES WITH TEMPORARY PERIMETER SEDIMENT BARRIER SUCH AS SILT FENCE OR SILT SOCK.
 - 2. COVER ACTIVE STOCKPILES WITH ANCHORED PROTECTIVE COVERING PRIOR TO EXPECTED STORM EVENTS.
 - 3. INACTIVE STOCKPILES SHALL BE COVERED WITH ANCHORED TARPS OR TEMPORARILY SEEDED AND MULCHED PER THE TEMPORARY VEGETATION AND MULCHING NOTES ON THIS PAGE.
 - 4. STOCKPILES THAT ARE A SOURCE OF DUST SHALL BE COVERED.

DUST CONTROL

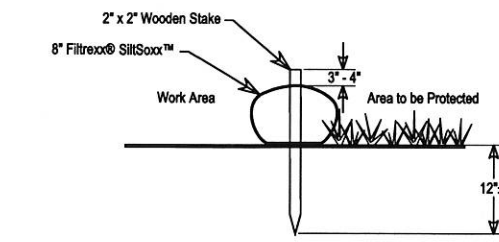
- A. DUST SHALL BE CONTROLLED ON SITE DURING CONSTRUCTION BY IMPLEMENTING THE FOLLOWING DUST CONTROL MEASURES:
 - 1. MULCHING AND VEGETATIVE COVER TO REDUCE DUST.
 - 2. MECHANICAL SWEEPERS AND FINE WATER SPRAYS.
 - 3. COVER SURFACES WITH CRUSHED STONE OR COARSE GRAVEL.

USE	SOIL DRAINAGE			
	SEEDING MIXTURE	DROUGHTY	WELL DRAINED	MODERATELY WELL DRAINED
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A B C D	FAIR POOR POOR FAIR	GOOD GOOD GOOD EXCELLENT	GOOD FAIR EXCELLENT EXCELLENT
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER.	A	GOOD	GOOD	GOOD
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES.	A B C	GOOD GOOD GOOD	GOOD EXCELLENT EXCELLENT	GOOD FAIR EXCELLENT
PLAY AREAS AND ATHLETIC FIELDS. (TOPSOIL IS ESSENTIAL FOR GOOD TURF.)	E F	FAIR FAIR	EXCELLENT EXCELLENT	EXCELLENT EXCELLENT

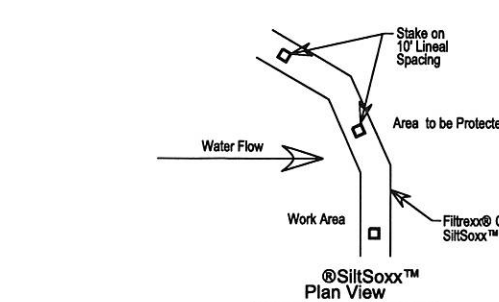
NOTE: POORLY DRAINED SOILS ARE NOT DESIRABLE FOR USE AS PLAYING AREAS AND ATHLETIC FIELDS.

SEED MIXTURES FOR PERMANENT VEGETATION

MIXTURE	SPECIES	POUNDS PER ACRE	POUNDS PER 1,000 SF
A	TALL FESCUE	20	0.45
	CREeping RED FESCUE	20	0.45
	SEDGE	2	0.05
TOTAL		42	0.95
B	TALL FESCUE	15	0.35
	CREeping RED FESCUE	10	0.25
	CROWN VETCH OR FLATPEA	5	0.15
TOTAL		30	0.75
C	TALL FESCUE	20	0.45
	CREeping RED FESCUE	20	0.45
	BIRDSEED TREFOIL	8	0.20
TOTAL		48	1.10
D	TALL FESCUE	20	0.45
	FLATPEA	30	0.75
	TOTAL		50
E	CREeping RED FESCUE	50	1.15
	KENTUCKY BLUEGRASS	50	1.15
	TOTAL	100	2.30
F	TALL FESCUE	150	3.60



Filtrix@SiltSoxx™ Section



Notes:

- 1. All material to meet Filtrix@ specifications.
- 2. Use Certified Filtrix@ FilterMedia.
- 3. Compost material to be dispersed on site up slope from protected area.

SILTSOXX DETAIL

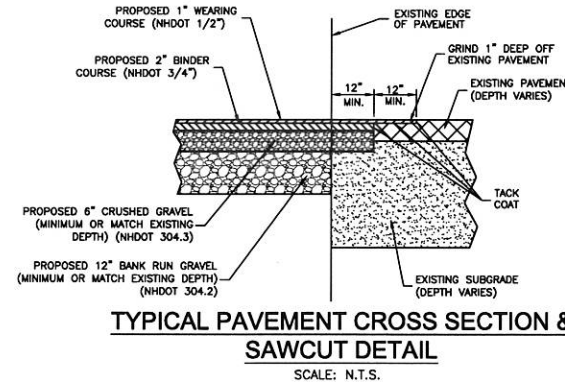
N.T.S.

CONSTRUCTION SEQUENCING:

- 1. SCHEDULE A PRE-CONSTRUCTION MEETING WITH CITY OFFICIALS, OWNER, AND CONTRACTORS IF REQUIRED BY THE CONDITIONS OF APPROVAL PRIOR TO BEGINNING CONSTRUCTION.
- 2. CONTACT DIG-SAFE, INDIVIDUAL UTILITIES, AND CITY DEPARTMENTS TO GET ALL UTILITIES MARKED PRIOR TO START OF CONSTRUCTION.
- 3. INSTALL AND STABILIZE ALL TEMPORARY AND PERMANENT SEDIMENT AND EROSION CONTROLS.
- 4. A. SEDIMENT AND EROSION CONTROLS SHALL BE INSTALLED PRIOR TO EARTH MOVING OPERATIONS.
- 4. CLEAR/GRUB ONLY WITHIN THE LIMITS OF GRADING AS SHOWN ON THE PLANS. REMOVE ORGANICS ONLY FROM THOSE AREAS THAT CAN BE WORKED AND STABILIZED WITHIN 45 DAYS OF REMOVAL.
- 5. THE PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER 409:000 RELATIVE TO INVASIVE SPECIES.
- 6. TOTAL SITE DISTURBANCE DEPICTED ON THESE PLANS IS 13,600 S.F.
 - A. REFER TO VEGETATION AND EROSION CONTROL NOTES ON THIS PLAN DURING CONSTRUCTION.
- 7. CLEAR/GRUB:
 - A. STUMPS MAY BE DISPOSED ON-SITE IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS.
- 8. STOCKPILES:
 - A. STOCKPILE LOAM FOR RE-USE AS NEEDED.
 - B. TEMPORARILY STABILIZE LOAM STOCKPILES WITH:
 - 1. WINTER RYE GRASS - PRIOR TO SEPTEMBER 15TH
 - 2. MULCH - FROM SEPTEMBER 15TH TO MAY 1ST
- 9. CONSTRUCT AND STABILIZE ALL TEMPORARY AND PERMANENT SEDIMENT AND EROSION CONTROLS. CONSTRUCT SWALES AND SEDIMENT FOREBAY AND STABILIZE. SEDIMENT FOREBAY SHALL BE USED AS A SEDIMENT TRAP WITH SPILLWAY OUTLET TO THE UNDISTURBED AREA DOWNSLOPE.
 - A. THESE SHALL BE INSTALLED BEFORE ANY MAJOR EARTH MOVING OPERATIONS.
 - B. THE BIORETENTION SYSTEM ALLOWS INFILTRATION OF RUNOFF. DO NOT CONSTRUCT THE BIORETENTION SYSTEM UNTIL ALL UPSLOPE AREAS ARE STABILIZED. UNSTABILIZED AREAS THAT DRAIN TO THE BIORETENTION SYSTEM WILL DECREASE THE INFILTRATION CAPACITY OF THE UNDERLYING SOILS.
- 11. PARKING LOT CONSTRUCTION:
 - A. CUTS AND FILLS:
 - 1. CONSTRUCT IN LOCATIONS AND TO GRADES AS SHOWN ON THE PLANS.
 - 2. FILLS:
 - A. PLACE MAXIMUM 12" LIFTS AND COMPACT TO 95% MAXIMUM DRY DENSITY.
 - B. ALL MATERIAL BASED ON PROCTOR TEST SHALL BE FREE OF DELETERIOUS MATERIALS SUCH AS LOAM, STUMPS, BRUSH, AND ROCKS LARGER THAN 3/4" THE DEPTH OF THE LIFT BEING PLACED.
 - 3. LOAM AND SEED SLOPES WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
 - C. BASE MATERIALS: BANK RUN AND CRUSHED GRAVEL SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO 95% MAXIMUM DRY DENSITY TO THE DEPTHS SPECIFIED IN THE PARKING LOTS CROSS-SECTION DETAILS.
 - D. STABILIZE ALL PARKING AREAS WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
 - E. PAVEMENT:
 - 1. PLACE AS SOON AS POSSIBLE AFTER THE SELECT MATERIALS ARE INSTALLED AND ACCEPTED TO ELIMINATE SOIL EROSION.
- 12. CONSTRUCT BIORETENTION SYSTEM AFTER UP SLOPE AREAS ARE STABILIZED.
- 13. INSPECT, MAINTAIN, AND IF NECESSARY, REPAIR ALL EROSION AND SEDIMENT CONTROL MEASURES AS STATED IN EROSION CONTROL NOTES ON THIS SHEET.
- 14. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES ONCE INITIAL GROWTH IS ESTABLISHED.

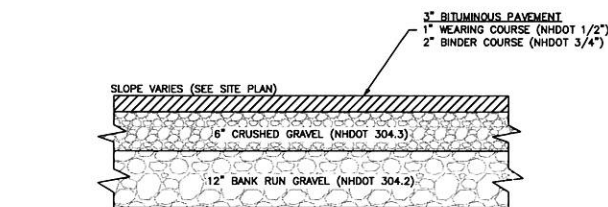
ADDITIONAL NOTES:

- 1. NO FUEL SHALL BE STORED ON SITE DURING CONSTRUCTION.
- 2. DURING CONSTRUCTION DUST SHALL BE PREVENTED FROM BECOMING A SAFETY OR HEALTH HAZARD BY THE IMPLEMENTATION OF ACCEPTED CONTROL METHODS SUCH AS WATERING.
- 3. ALL CONSTRUCTION MATERIALS THAT ARE SPILLED OR DEPOSITED ON THE PUBLIC ROADWAYS SHALL BE REMOVED BY THE CONTRACTOR.
- 4. DO NOT BEGIN CONSTRUCTION UNTIL ALL LOCAL, STATE, AND FEDERAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
- 5. THE GENERAL CONTRACTOR IS RESPONSIBLE TO VERIFY ALL DIMENSIONS, ELEVATIONS AND CONDITIONS AT THE SITE. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.



TYPICAL PAVED PARKING LOT CROSS SECTION

SCALE: N.T.S.



TYPICAL PAVED PARKING LOT CROSS SECTION

- NOTE:
- 1. LOAM SHALL BE REMOVED TO A MINIMUM DEPTH OF 15" PRIOR TO PLACING SELECT MATERIALS.
- 2. PROVIDE 1 FOOT GRAVEL SHOULDER ALONG LIMITS OF PARKING AREA.

FINAL APPROVAL BY DURHAM PLANNING BOARD.
 CERTIFIED BY MICHAEL BEHREND, TOWN PLANNER
 CERTIFIED
 DATE

NO. 17-043

DATE: 11/27/17
 SCALE: AS SHOWN
 DESIGNED BY: MS
 DRAWN BY: MS
 APPROVED BY: MJS
 DWG FILE: 17-043 CID.dwg

CONSTRUCTION DETAILS prepared for GREAT BAY ANIMAL HOSPITAL, LLC TAX MAP 6, LOT 11-8 31 NEWMARKET ROAD DURHAM, NH

MJS ENGINEERING P.C. CIVIL - STRUCTURAL - ENVIRONMENTAL 54 W. GARDNER ST. DURHAM, NH 03824 PHONE: (603) 859-9797 FAX: (603) 859-6427 EMAIL: MJS@MJS-ENGINEERING.COM

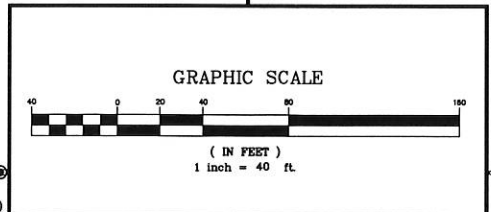
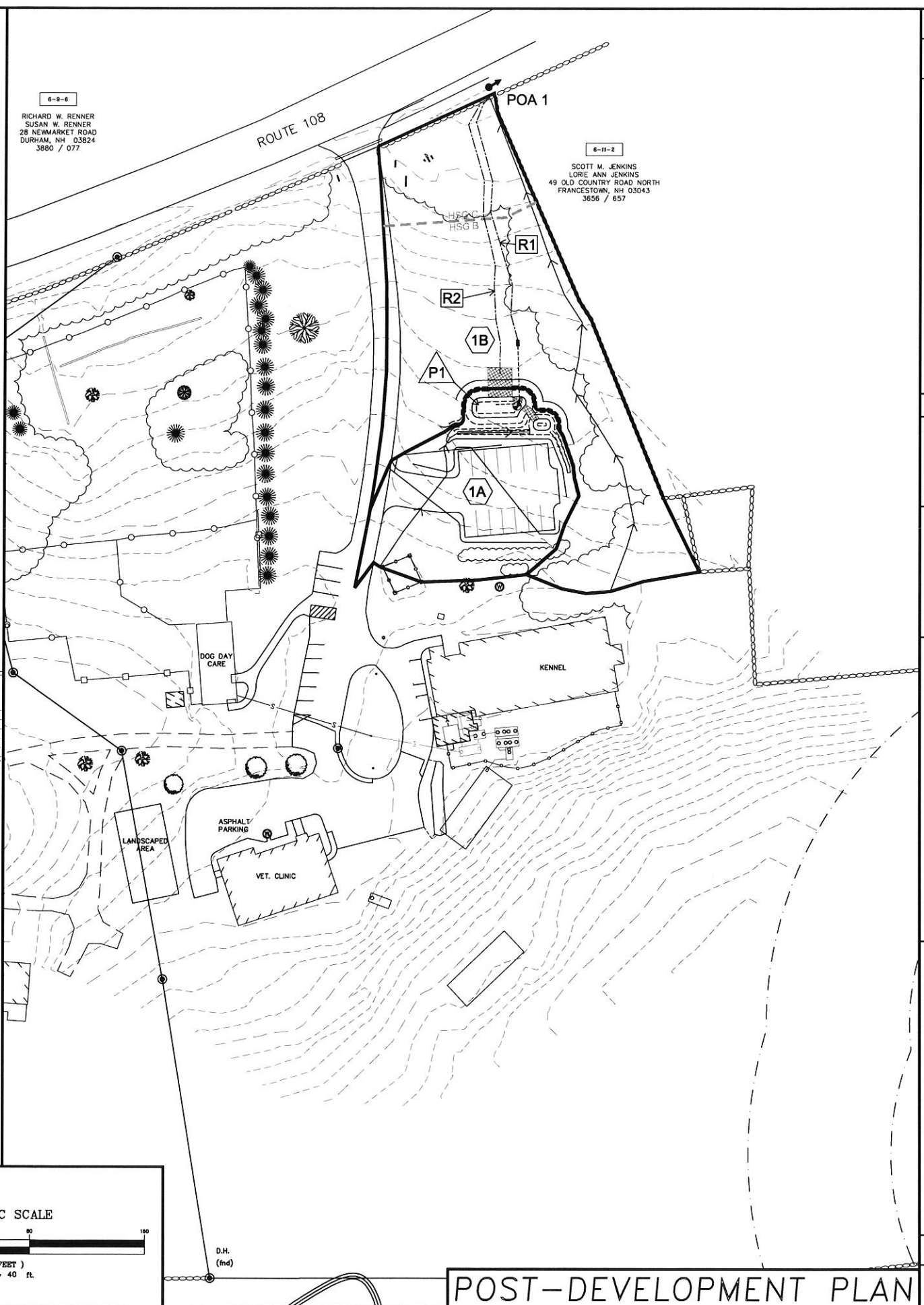
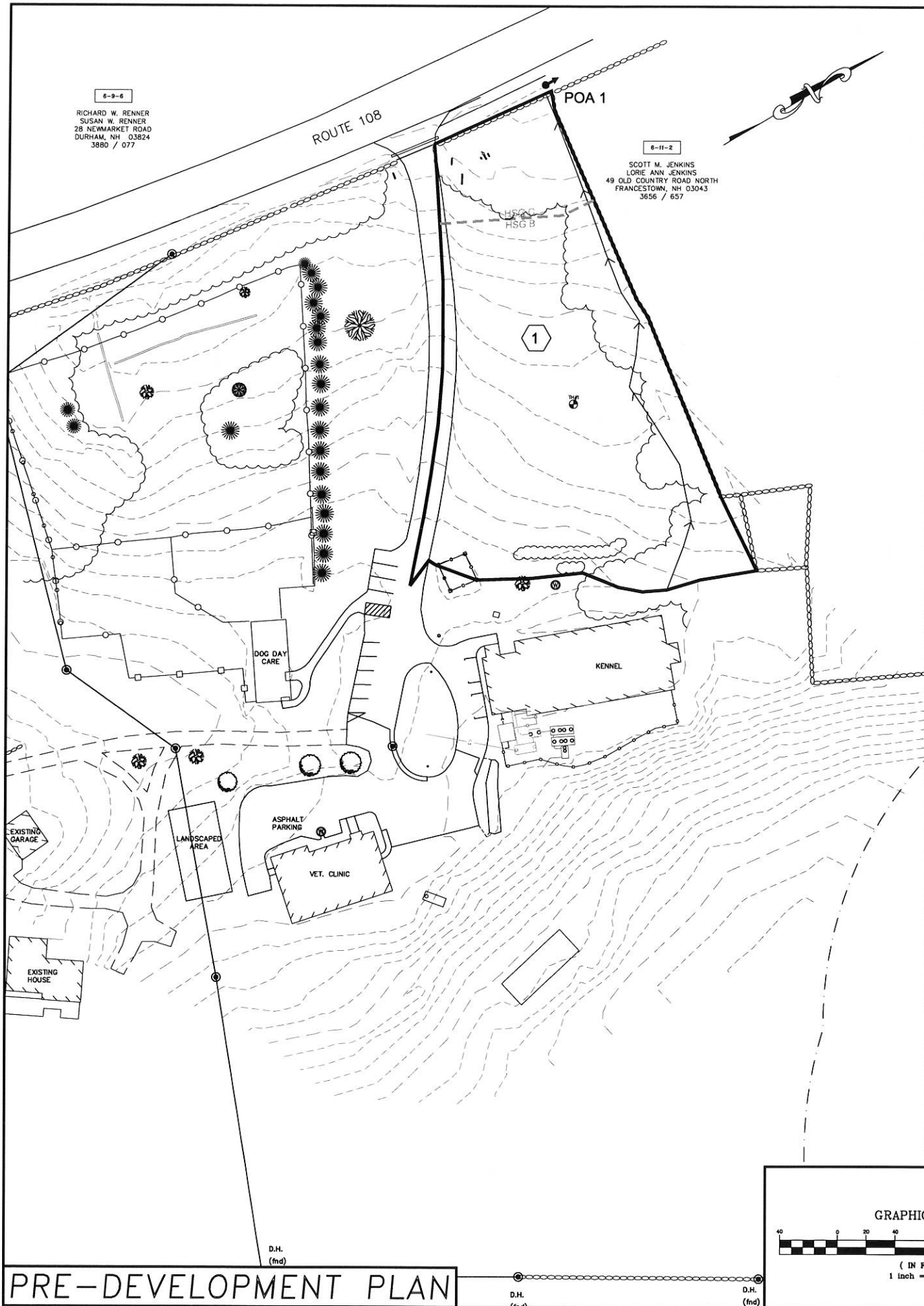
REVISIONS

INITIAL SUBMISSION TO LEF PLANNING BOARD

11/27/17 MS INT.

JOB: 17-043

D1



PRE-DEVELOPMENT PLAN

POST-DEVELOPMENT PLAN

DATE:	11/27/17	NO.	
SCALE:	1"=40'	NO.	
DESIGNED BY:	MS	NO.	
DRAWN BY:	MS	NO.	
APPROVED BY:	MJS	NO.	
DWG. FILE:	17-043 CID.dwg	NO.	
REVISIONS			
		DATE	INT.
		11/7/17	MS
INITIAL SUBMISSION TO LEE PLANNING BOARD			
PRE & POST DRAINAGE PLAN			
prepared for			
GREAT BAY ANIMAL HOSPITAL, LLC			
TAX MAP 6, LOT 11-8			
31 NEWMARKET ROAD DURHAM, NH			
MJS ENGINEERING, P.C. CIVIL - STRUCTURAL - ENVIRONMENTAL 5 Franklin St., P.O. Box 359 Durham, NH 03824 PHONE: (603) 659-4270, FAX: (603) 659-4227 E-MAIL: MJS@MJS-ENGINEERING.COM			
JOB: 17-043			
DP			