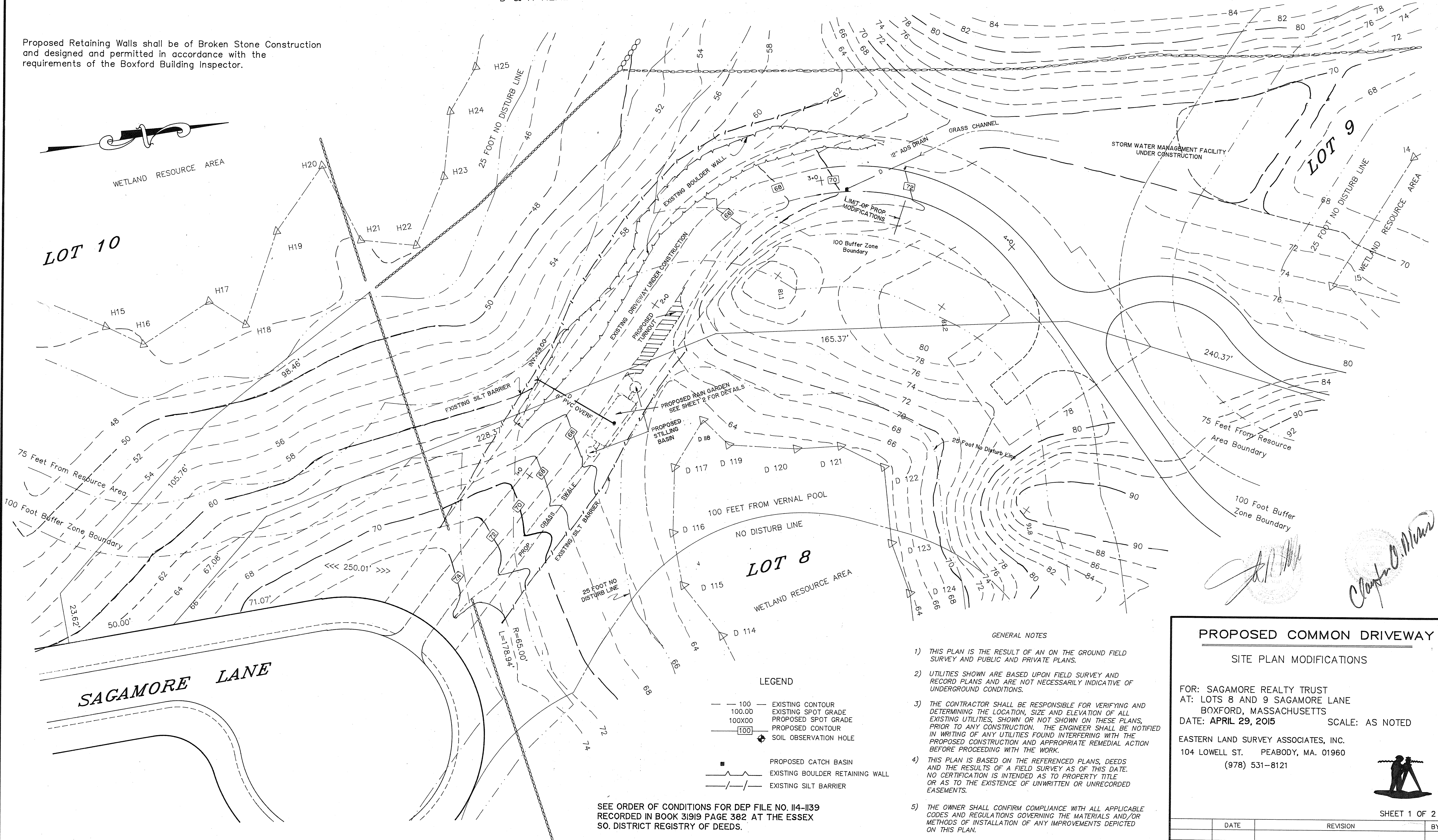
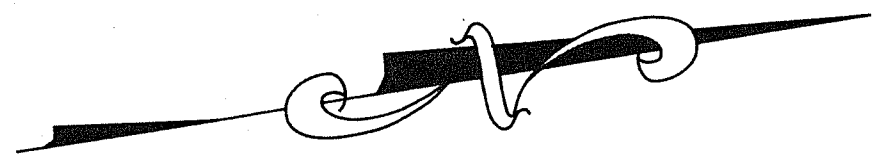


REFERENCES
 ASSESSORS MAP 97 LOT 2 B
 DEED REFERENCE: RECORD BOOK 30418 PAGE 148
 PLAN REFERENCE: PLAN BOOK 428 PLAN 96

NICHOLAS J. DECOULOS, TRUSTEE
 D & H REALTY TRUST

Proposed Retaining Walls shall be of Broken Stone Construction and designed and permitted in accordance with the requirements of the Boxford Building Inspector.



SAGAMORE LANE

SEE ORDER OF CONDITIONS FOR DEP FILE NO. 114-1139
 RECORDED IN BOOK 31919 PAGE 382. AT THE ESSEX
 SO. DISTRICT REGISTRY OF DEEDS.

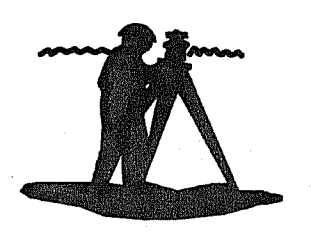
- LEGEND
- 100 --- EXISTING CONTOUR
 - 100.00 --- EXISTING SPOT GRADE
 - 100X00 --- PROPOSED SPOT GRADE
 - 100 --- PROPOSED CONTOUR
 - ⊕ SOIL OBSERVATION HOLE
 - PROPOSED CATCH BASIN
 - EXISTING BOULDER RETAINING WALL
 - EXISTING SILT BARRIER

GENERAL NOTES

- 1) THIS PLAN IS THE RESULT OF AN ON THE GROUND FIELD SURVEY AND PUBLIC AND PRIVATE PLANS.
- 2) UTILITIES SHOWN ARE BASED UPON FIELD SURVEY AND RECORD PLANS AND ARE NOT NECESSARILY INDICATIVE OF UNDERGROUND CONDITIONS.
- 3) 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 ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION BEFORE PROCEEDING WITH THE WORK.
- 4) THIS PLAN IS BASED ON THE REFERENCED PLANS, DEEDS AND THE RESULTS OF A FIELD SURVEY AS OF THIS DATE. NO CERTIFICATION IS INTENDED AS TO PROPERTY TITLE OR AS TO THE EXISTENCE OF UNWRITTEN OR UNRECORDED EASEMENTS.
- 5) THE OWNER SHALL CONFIRM COMPLIANCE WITH ALL APPLICABLE CODES AND REGULATIONS GOVERNING THE MATERIALS AND/OR METHODS OF INSTALLATION OF ANY IMPROVEMENTS DEPICTED ON THIS PLAN.
- 6) RESOURCE AREA DELINEATION PERFORMED BY WETLANDS & LAND MANAGEMENT, INC., DANVERS, MASS., ON MAY 31, 2008.

PROPOSED COMMON DRIVEWAY
 SITE PLAN MODIFICATIONS

FOR: SAGAMORE REALTY TRUST
 AT: LOTS 8 AND 9 SAGAMORE LANE
 BOXFORD, MASSACHUSETTS
 DATE: APRIL 29, 2015 SCALE: AS NOTED
 EASTERN LAND SURVEY ASSOCIATES, INC.
 104 LOWELL ST. PEABODY, MA. 01960
 (978) 531-8121



SHEET 1 OF 2

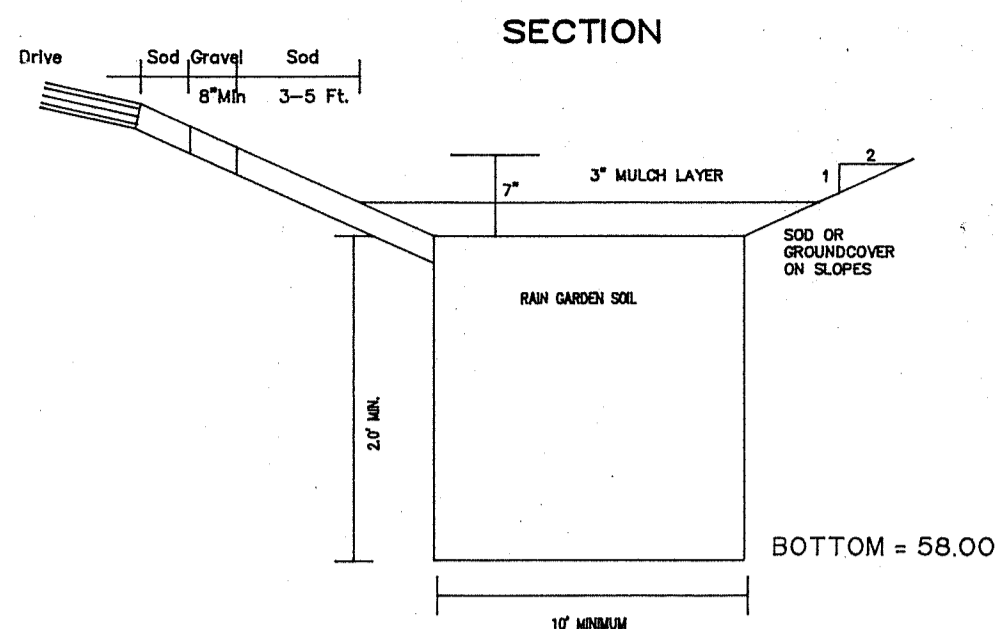
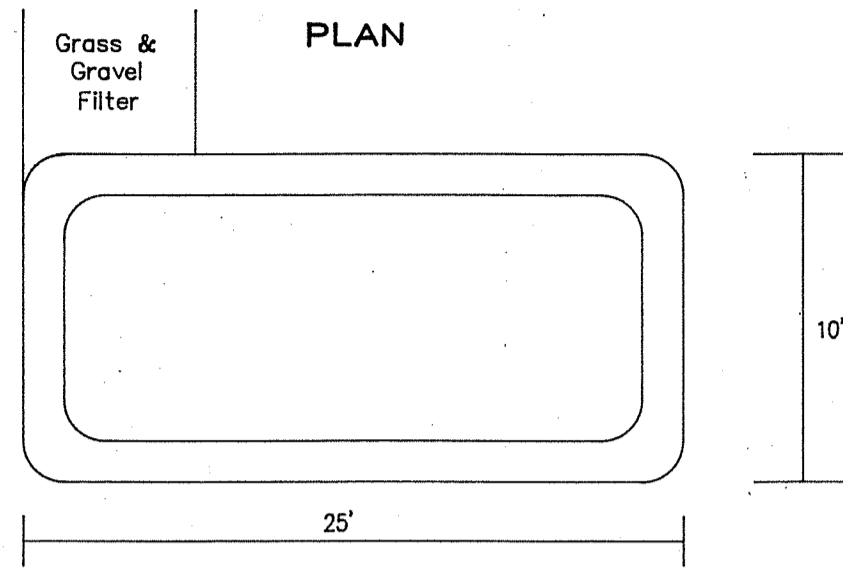
DATE	REVISION	BY

F 11546A

**RAIN GARDEN DETAILS
NO SCALE**

PLANTINGS SHALL BE SELECTED FROM THE LIST BELOW AND CONSIST OF A MINIMUM OF 5 SHRUBS & 12 DAYLILIES UNIFORMLY DISTRIBUTED WITHIN THE RAIN GARDEN A MINIMUM OF 3 SPECIES OF SHRUBS SHALL BE PLANTED.

SHRUBS (2 GAL. CONTAINER, MIN.) PERENNIAL FLOWERS
BAR HARBOR JUNIPER DAYLILIES
NORTHERN BAYBERRY
WINTERBERRY
WITCH HAZEL



RAIN GARDEN SIZING CALCULATION

SURFACE AREA SHOULD BE 5 TO 7 PERCENT OF TRIBUTARY IMPERVIOUS AREA
DRIVEWAY AREA = 3500± SF
REQUIRED AREA = 175 TO 245 SF
PROPOSED AREA = 240 SF

STORAGE VOLUME SHOULD BE 1/2" OF RUNOFF FROM TRIBUTARY IMPERVIOUS AREAS
REQUIRED STORAGE = 3500 SF x .5/12 = 146 CF

SURFACE STORAGE = 240 SF x 4" / 12" / FT = 79 CF
SOIL STORAGE (BASED UPON A VOID RATIO OF 30%)
240 SF x 2 FT x .3 = 144 CF
TOTAL STORAGE = 223 CF

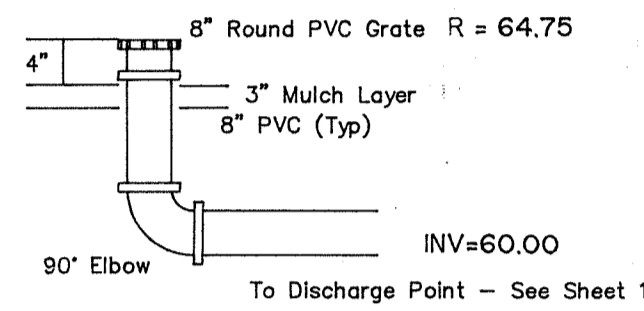
Rain Garden Soil Mix Specifications
Soil mixture shall consist of 40% sand, 20-30% topsoil and 30-40% compost. It shall be free from stones, stumps, roots or similar objects larger than 2 inches. Clay content should not exceed 5%. Soil pH should be between 5.5 and 6.5. Soils are to have 1.5 - 3% organics and maximum of 500 ppm soluble salts. Sand component shall be gravelly sand meeting ASTM D422.

Sieve Size	Percent Passing
2 inch	100
3/4 inch	70-80
1/4 inch	50-80
US No. 40	15-40
US No. 200	0-3

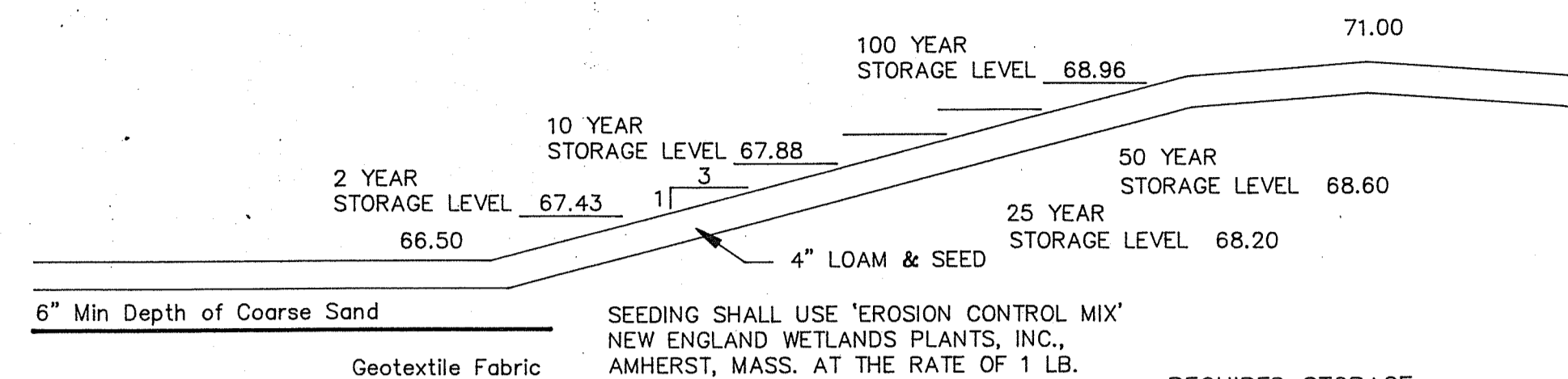
Topsoil component shall be a sandy loam, loamy sand or loam texture. Compost component shall be processed from yard waste in accordance with Mass, DEP Guidelines and shall not contain biosolids.

Mulch shall consist of fine shredded hardwood mulch.

**DETAIL - OVERFLOW
NO SCALE**



**SECTION
STORMWATER MANAGEMENT FACILITY
LOT 9
No Scale**



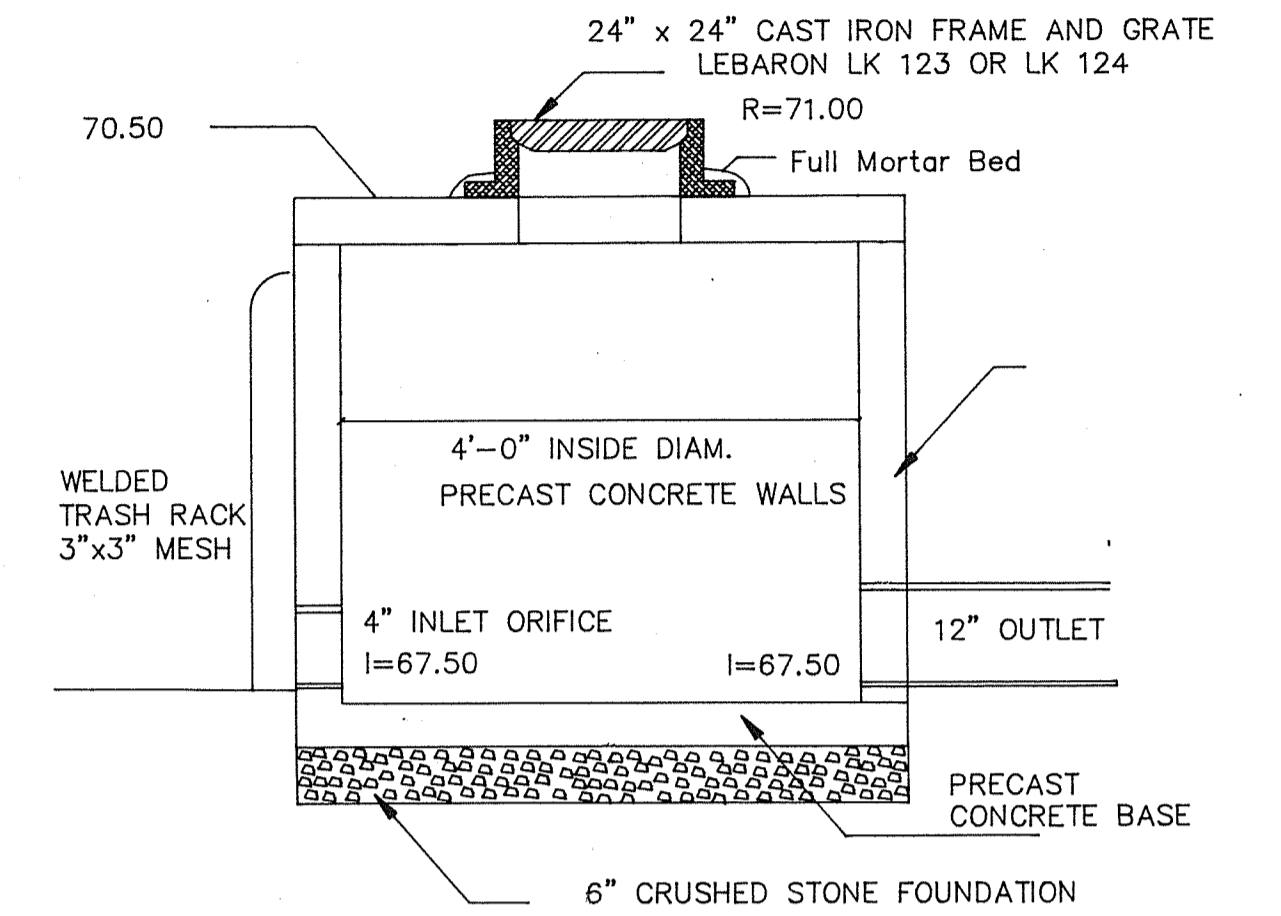
SEEDING SHALL USE 'EROSION CONTROL MIX' NEW ENGLAND WETLANDS PLANTS, INC., AMHERST, MASS. AT THE RATE OF 1 LB. PER 5000 SF.

EMERGENCY OVERFLOW SPILLWAY SHALL BE SURFACED WITH 6" MINUS STONE

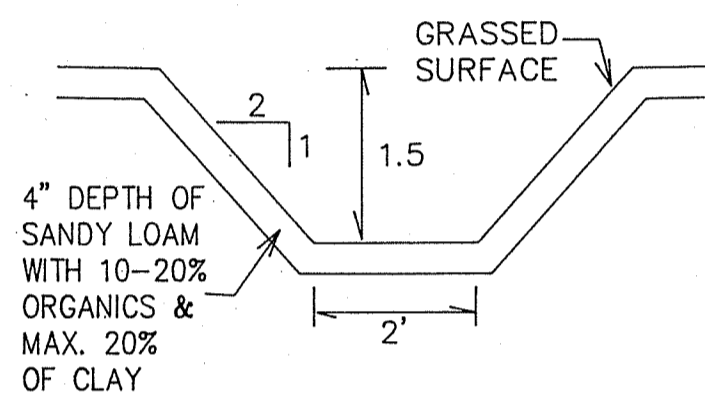
REQUIRED STORAGE VOLUMES

ELEVATION	STORAGE (C. FT.)
66.50	0.0
67.00	375
68.00	2675
70.00	10675
71.00	16075

**DETAIL
OUTLET STRUCTURE
no scale**

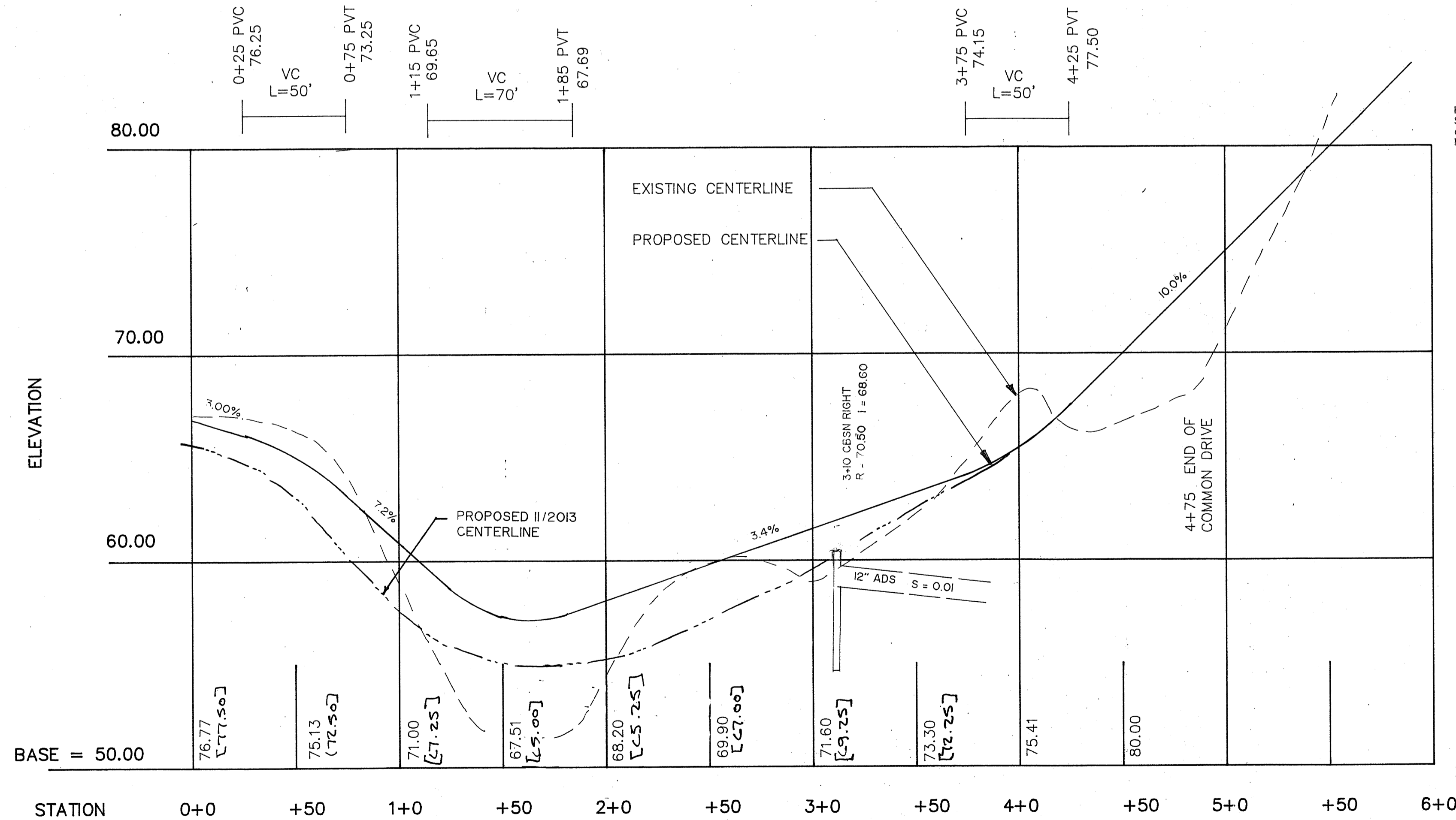


**SECTION - GRASS CHANNEL
No Scale**



PROFILE - PROPOSED DRIVEWAY

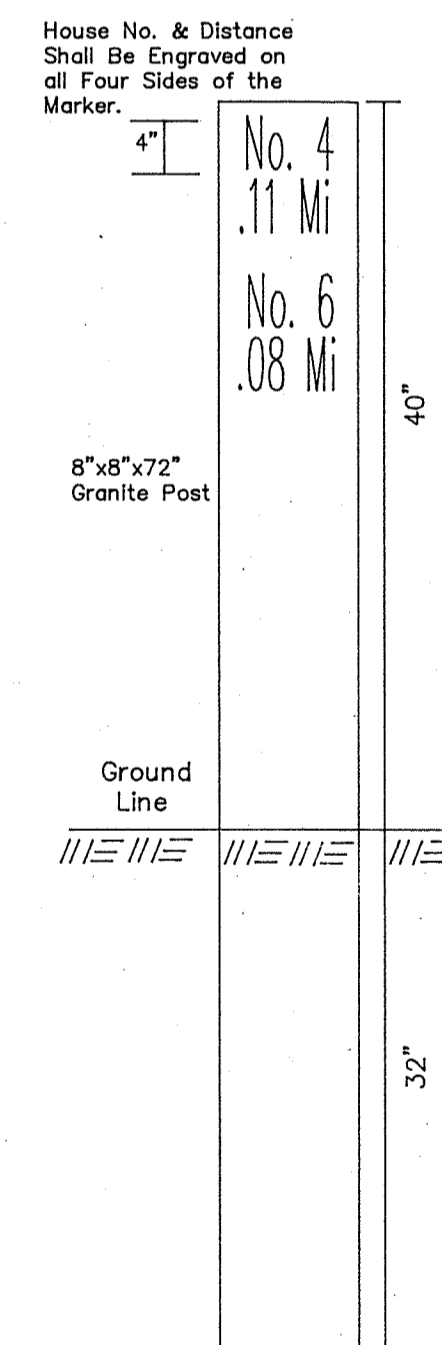
1" = 40' HORIZONTAL 1 = 4' VERTICAL



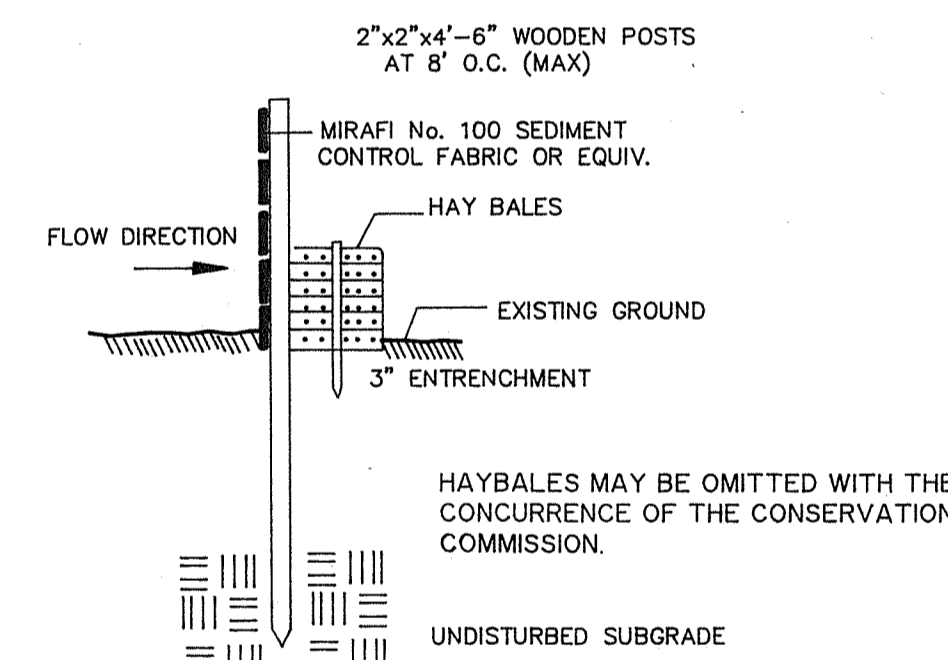
75.00 DENOTES 2011 PROPOSED ELEVATION

[72.00] DENOTES NOV., 2013 PROPOSED ELEVATION

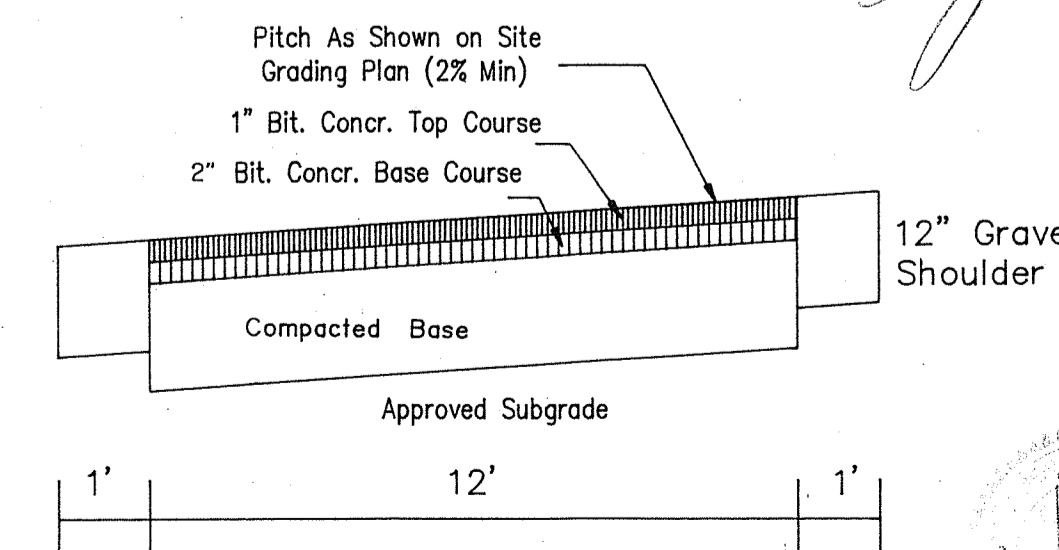
**DETAIL
COMMON DRIVEWAY
MARKER
No Scale**



**DETAIL
EROSION CONTROL SILT FENCE**



**TYPICAL CROSS SECTION
COMMON DRIVEWAY
no scale**



EROSION CONTROL PROGRAM

1. STAKED HAY BALES, SILT FENCE, TEMPORARY DIVERSION SWALES AND SEDIMENT BASINS SHALL BE INSTALLED IN ACCORDANCE WITH THIS PLAN OR AS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR THE CONSERVATION COMMISSION PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES. 20 ADDITIONAL HAY BALES AND 100 FT. OF SILT FENCE SHALL BE KEPT ON SITE FOR REPAIRS OR OTHER EROSION CONTROL NEEDS. THE CONTRACTOR SHALL INSPECT EROSION CONTROL FACILITIES WEEKLY AND AFTER EVERY RAINFALL EVENT TO CONFIRM THAT SAME ARE PROPERLY FUNCTIONING. ANY DEFICIENCIES IN THE EROSION CONTROL FACILITIES SHALL BE CORRECTED IMMEDIATELY.
2. ALL SOIL STOCKPILES SHALL BE PROTECTED AGAINST EROSION.
3. CATCH BASINS SHALL BE PROTECTED WITH FILTERS, AS SHOWN HEREON UNTIL NO SEDIMENT TRANSPORT IS VISIBLE DURING RAINFALL EVENTS. FILTERS SHALL BE INSPECTED WEEKLY AND MAINTAINED AS NECESSARY.
4. TEMPORARY EROSION CONTROL MEASURES TO BE TAKEN DURING CONSTRUCTION SHALL CONFORM WITH THE "MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES, URBAN AND SUBURBAN AREAS" DATED MARCH, 1997, AND MAY INCLUDE SOME OR ALL OF THE FOLLOWING MEASURES: TEMPORARY SEEDING, TEMPORARY MULCHING (STRAW), PERMANENT SEEDING, HYDROSEEDING, SODDING, AND PLACEMENT OF HAY OR JUTE NETTING DURING WINTER MONTHS.
5. DEBRIS AND/OR LITTER SHALL BE REMOVED FROM THE SITE ON A WEEKLY BASIS.
6. IF DUST IS GENERATED DURING CONSTRUCTION, IT SHALL BE CONTROLLED BY USE OF WATER TRUCKS, SPRINKLING OR TEMPORARY STABILIZATION METHODS.
7. AT THE COMPLETION OF THE PROJECT, ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED WITH LOAM AND SEED OR OTHER GROUND COVER.

**PROPOSED COMMON DRIVEWAY
PROFILE AND DETAILS**

FOR: SAGAMORE REALTY TRUST
AT: LOTS 8 AND 9 SAGAMORE LANE
BOXFORD, MASSACHUSETTS
DATE: DECEMBER 12, 2011 SCALE: AS NOTED

EASTERN LAND SURVEY ASSOCIATES, INC.
104 LOWELL ST. PEABODY, MA. 01960
(978) 531-8121



SHEET 2 OF 2

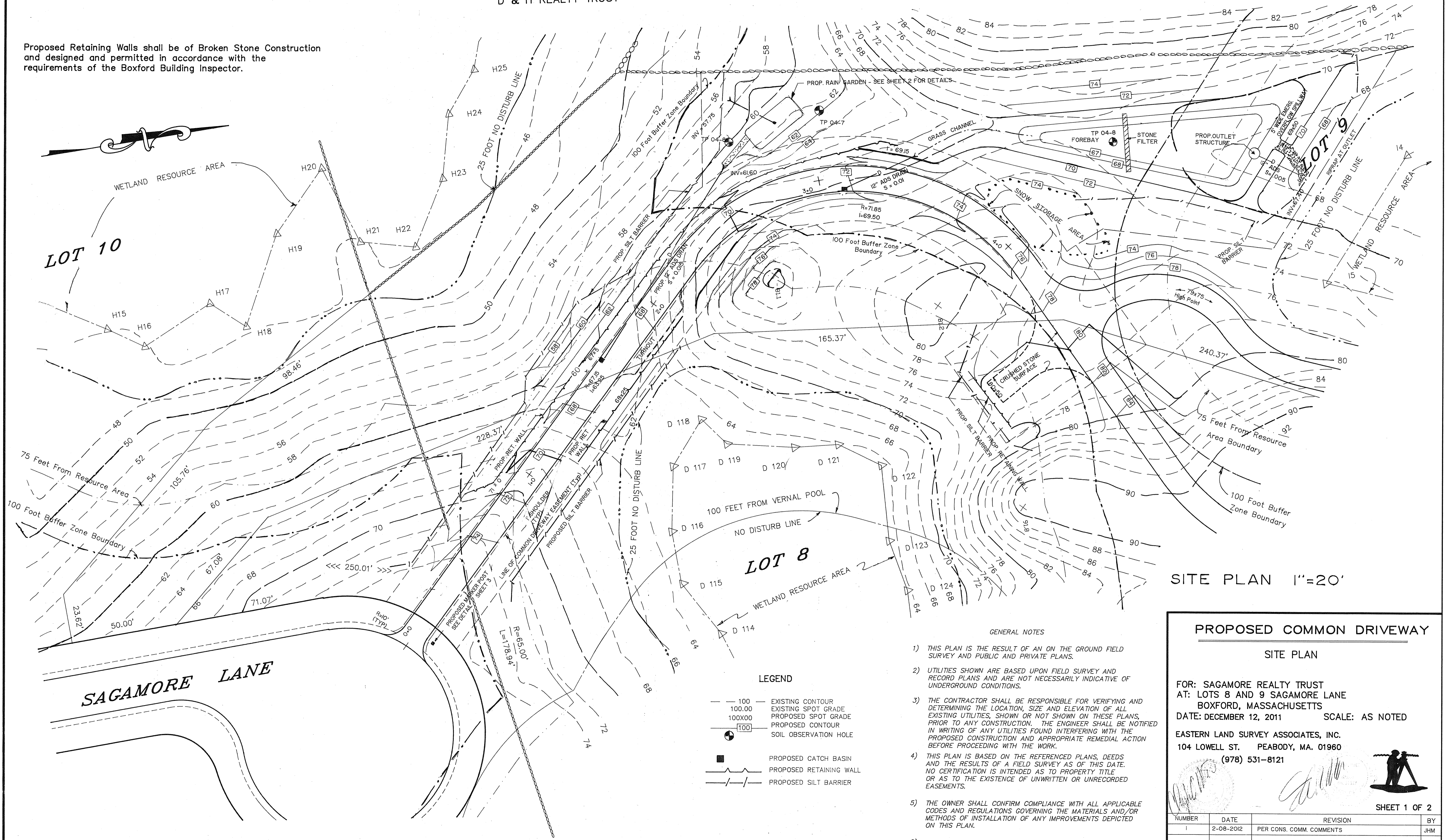
NO.	DATE	REVISION	BY
1	2-08-2012	PER CONS. COMM. COMMENTS	JHM
2	4-29-2015	GRADING MODIFICATIONS	

F 11546A

REFERENCES
 ASSESSORS MAP 42 LOTS I-17 & I-19
 DEED REFERENCE: RECORD BOOK 30418 PAGE 148
 PLAN REFERENCE: PLAN BOOK 428 PLAN 96

NICHOLAS J. DECOULOS, TRUSTEE
 D & H REALTY TRUST

Proposed Retaining Walls shall be of Broken Stone Construction and designed and permitted in accordance with the requirements of the Boxford Building Inspector.



SITE PLAN 1"=20'

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- 6) RESOURCE AREA DELINEATION PERFORMED BY WETLANDS & LAND MANAGEMENT, INC., DANVERS, MASS., ON MAY 31, 2008.

LEGEND

- 100 — EXISTING CONTOUR
- 100.00 — EXISTING SPOT GRADE
- 100X00 — PROPOSED SPOT GRADE
- 100 — PROPOSED CONTOUR
- ⊙ — SOIL OBSERVATION HOLE
- — PROPOSED CATCH BASIN
- — — — — PROPOSED RETAINING WALL
- / — / — PROPOSED SILT BARRIER

PROPOSED COMMON DRIVEWAY
 SITE PLAN

FOR: SAGAMORE REALTY TRUST
 AT: LOTS 8 AND 9 SAGAMORE LANE
 BOXFORD, MASSACHUSETTS
 DATE: DECEMBER 12, 2011 SCALE: AS NOTED
 EASTERN LAND SURVEY ASSOCIATES, INC.
 104 LOWELL ST. PEABODY, MA. 01960
 (978) 531-8121

[Signature]
 SHEET 1 OF 2

NUMBER	DATE	REVISION	BY
1	2-08-2012	PER CONS. COMM. COMMENTS	JHM

GENERAL NOTES

- 1) THIS PLAN IS THE RESULT OF AN ON THE GROUND FIELD SURVEY AND PUBLIC AND PRIVATE PLANS.
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- 6) RESOURCE AREA DELINEATION PERFORMED BY WETLANDS & LAND MANAGEMENT, INC., DANVERS, MASS., ON MAY 31, 2008.

REFERENCES

ASSESSORS MAP 97 LOT 2 B
DEED REFERENCE: RECORD BOOK 30418 PAGE 148
PLAN REFERENCE: PLAN BOOK 428 PLAN 96

SEE SHEET 2 FOR PLOT PLAN OF ENTIRE LOT

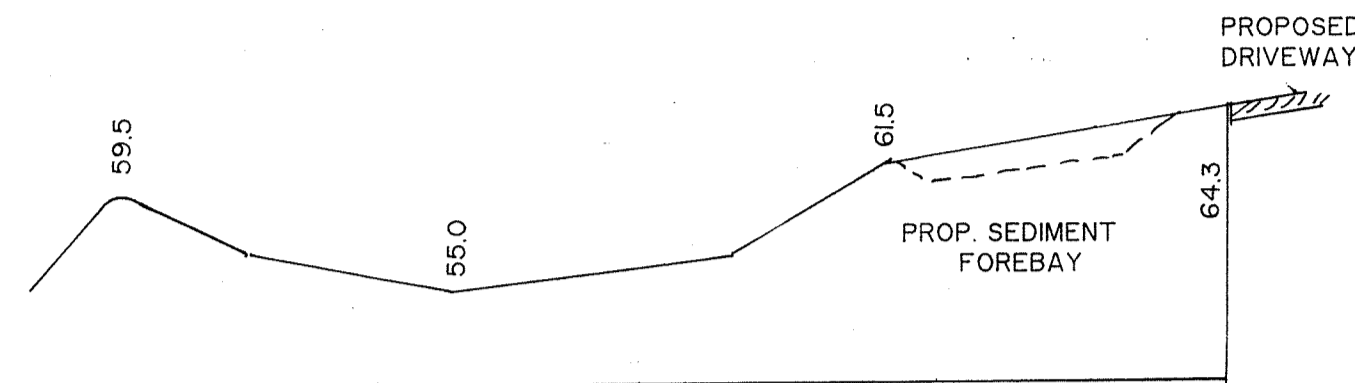
STORMWATER INFILTRATION TRENCH DIMENSIONS

TRENCH	LENGTH	WIDTH	DEPTH
A	38'	8'	4'
B	55'	8'	3.75'
D	70'	8'	3'

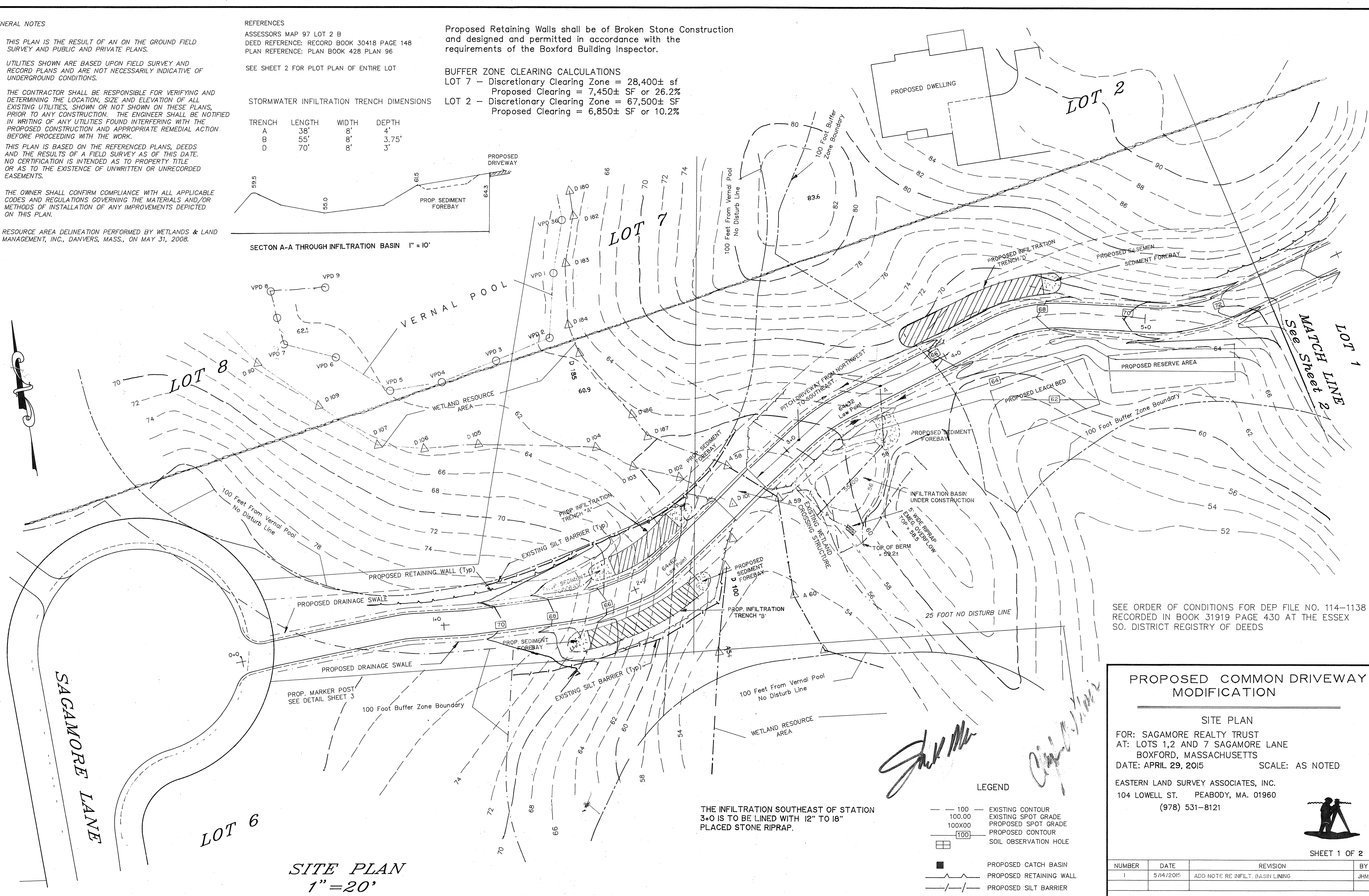
Proposed Retaining Walls shall be of Broken Stone Construction and designed and permitted in accordance with the requirements of the Boxford Building Inspector.

BUFFER ZONE CLEARING CALCULATIONS

LOT 7 - Discretionary Clearing Zone = 28,400± sf
Proposed Clearing = 7,450± SF or 26.2%
LOT 2 - Discretionary Clearing Zone = 67,500± SF
Proposed Clearing = 6,850± SF or 10.2%



SECTION A-A THROUGH INFILTRATION BASIN 1" = 10'



SEE ORDER OF CONDITIONS FOR DEP FILE NO. 114-1138 RECORDED IN BOOK 31919 PAGE 430 AT THE ESSEX SO. DISTRICT REGISTRY OF DEEDS

PROPOSED COMMON DRIVEWAY MODIFICATION

SITE PLAN
FOR: SAGAMORE REALTY TRUST
AT: LOTS 1,2 AND 7 SAGAMORE LANE
BOXFORD, MASSACHUSETTS
DATE: APRIL 29, 2015 SCALE: AS NOTED
EASTERN LAND SURVEY ASSOCIATES, INC.
104 LOWELL ST. PEABODY, MA. 01960
(978) 531-8121

LEGEND

---	100	EXISTING CONTOUR
---	100.00	EXISTING SPOT GRADE
---	100X00	PROPOSED SPOT GRADE
---	100	PROPOSED CONTOUR
□		SOIL OBSERVATION HOLE
■		PROPOSED CATCH BASIN
—/—/—		PROPOSED RETAINING WALL
—/—/—		PROPOSED SILT BARRIER

THE INFILTRATION SOUTHEAST OF STATION 3+0 IS TO BE LINED WITH 12" TO 18" PLACED STONE RIPRAP.

SHEET 1 OF 2

NUMBER	DATE	REVISION	BY
1	5/14/2015	ADD NOTE RE INFILT. BASIN LINING	JHM