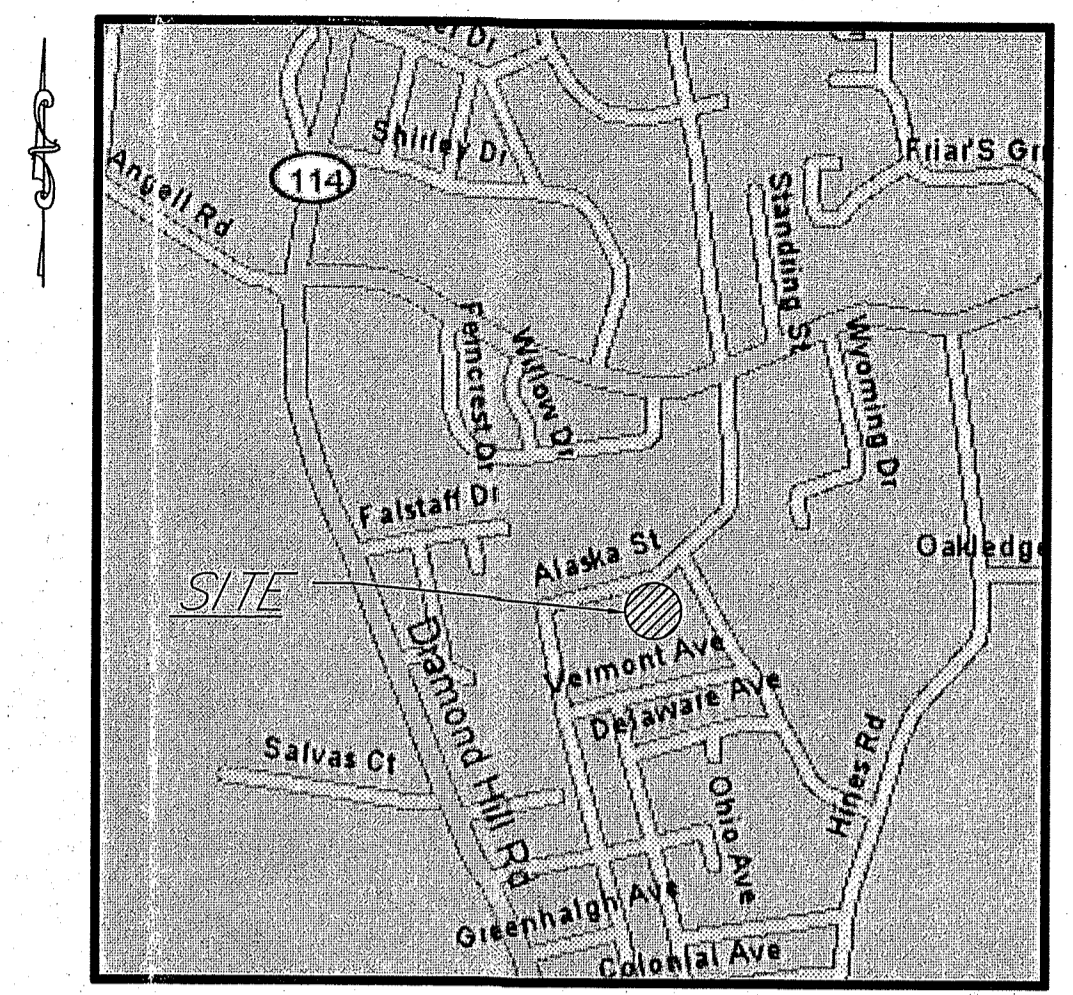


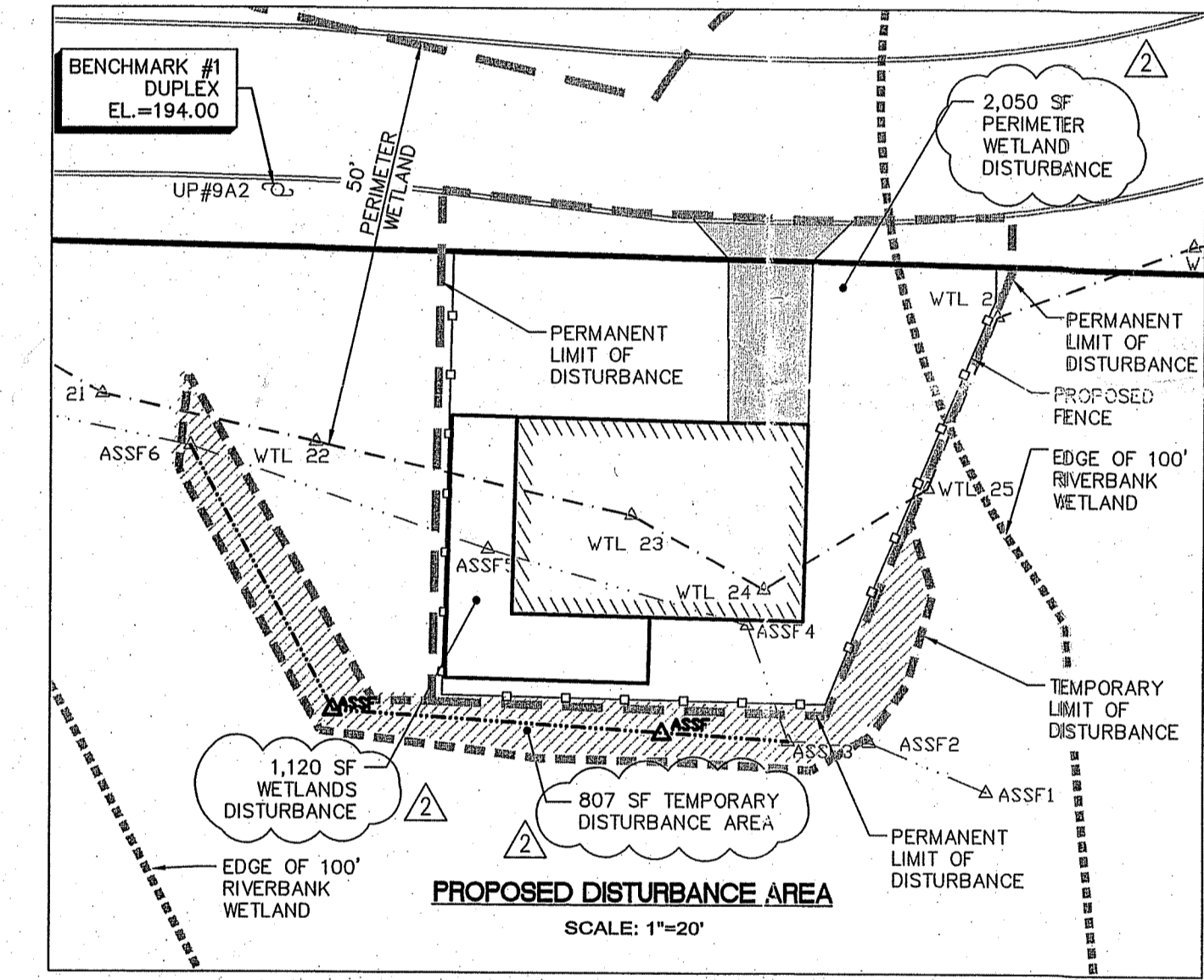
516 L.F. SANITARY FORCE MAIN, CONNECT TO EXISTING MANHOLE PER DEPARTMENT OF PUBLIC WORKS APPROVAL, DATED AUGUST 21, 2007

- PLAN LEGEND**
- PROPERTY LINE
 - - - ABUTTING PROPERTY LINE
 - EXISTING EDGE OF PAVEMENT
 - - - PROPOSED EDGE OF PAVEMENT
 - BUILDING SETBACK LINE
 - - - DELINEATED WETLAND
 - WTL 54 WETLAND FLAG NUMBER
 - 50' PERIMETER WETLAND
 - - - RIVERBANK WETLAND
 - - - EXISTING A.S.S.F.
 - - - PROPOSED A.S.S.F.
 - - - EXISTING CONTOUR
 - - - PROPOSED CONTOUR
 - UP#9A1 UTILITY POLE
 - ⊙ SOIL EVALUATION LOCATION
 - - - FORCE MAIN
 - - - PROPOSED SEWER LINE
 - - - EXISTING WATER LINE
 - - - PROPOSED WATER SERVICE
 - - - PERMANENT LIMIT OF DISTURBANCE
 - - - TEMPORARY LIMIT OF DISTURBANCE
 - - - EROSION CONTROL
 - - - PROPOSED FENCE



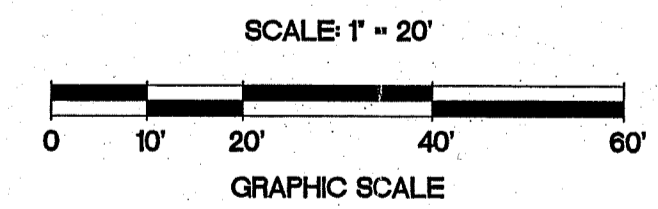
LOCATION MAP
NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED OCT 18 2013 FILE # 13-0054
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BEAR CONSTRUCTION SITE



PROPOSED DISTURBANCE AREA
SCALE: 1"=20'

SITE PLAN
SCALE: 1"=20'



PLAN NOTES:

- THIS PARCEL LIES WITHIN ZONE X FOUND ON FLOOD INSURANCE RATE MAP NUMBER 44007C185G, PANEL 185 OF 451, AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD PLAIN, EFFECTIVE MARCH 2, 2009.
- DATUM TAKEN FROM TOWN OF CUMBERLAND SEWER PLANS.
- PROJECT PROPOSES 3,170 S.F. OF PERMANENT WETLAND DISTURBANCE AND 807 S.F. TEMPORARY WETLAND DISTURBANCE.

REFERENCE:

EXISTING CONDITIONS PROVIDED BY: MARSH SURVEYING INC. PLAN ENTITLED: "CUMBERLAND, RI, EXISTING CONDITIONS PLAN PREPARED FOR BRUCE CAMPBELL CLASS 1 SURVEY OF A.P. 21 LOTS 58 & 80 ALASKA STREET BY MARSH SURVEYING INC." DATED JULY 26, 2006.

ZONING (R-1 / With Public Sewer)

MIN. LOT AREA= 40,000 S.F.
MIN. LOT AREA PER DWELLING UNIT=40,000 S.F.
MIN. LOT WIDTH= 100 FT.
MIN. FRONTAGE= 100 FT.
MIN. FRONT YARD= 20 FT. MIN.
SIDE YARD= 10 FT.
MIN. REAR YARD= 25 FT.
MAX. LOT COVERAGE= 20%
MAX. HEIGHT= 35 FT.
(SEE REGULATIONS FOR ADDITIONAL INF.)

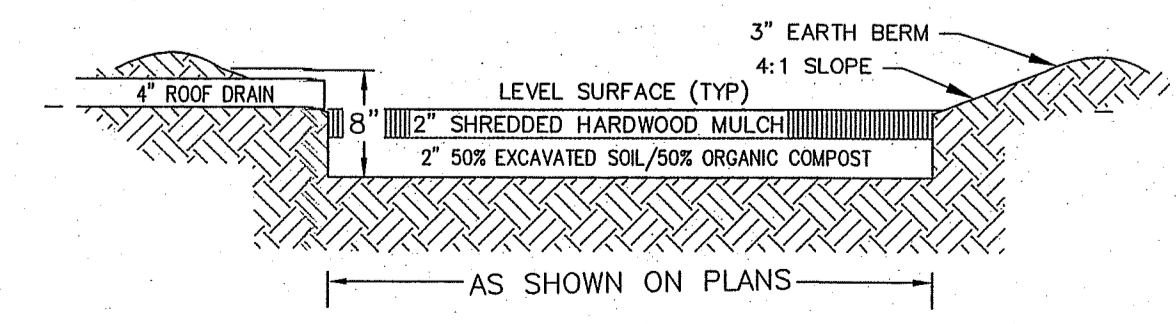
OWNER/APPLICANT:

BRUCE R. CAMPBELL
45 MARIAN AVENUE
NARRAGANSETT, RHODE ISLAND 02828

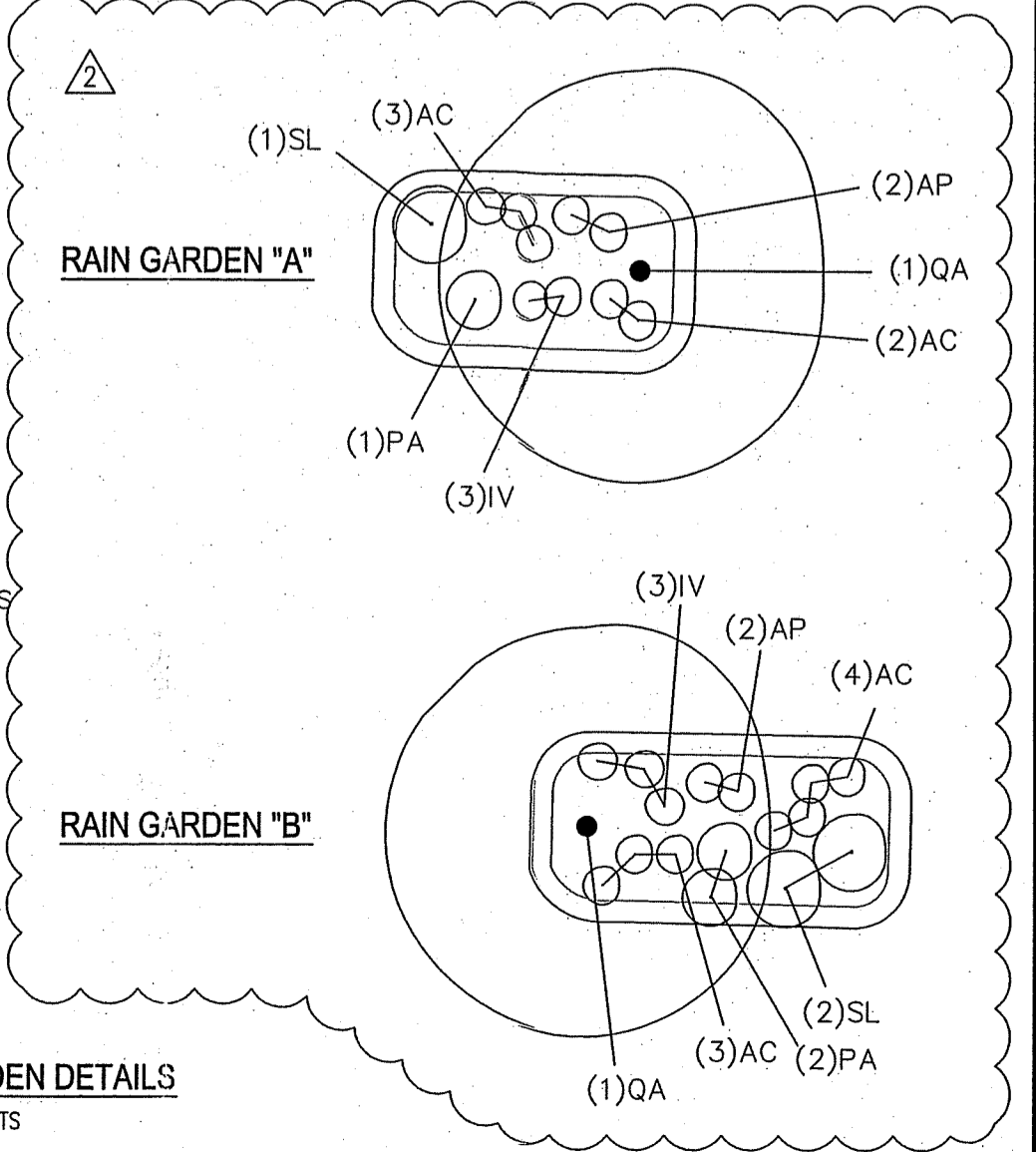
NOTES:

- RAIN GARDEN AMENDED SOIL SHALL CONTAIN 50% EXCAVATED SOIL AND 50% ORGANIC COMPOST.
- EACH RAIN GARDEN SHALL HAVE A BOTTOM AREA AS SHOWN ON THE PLAN.
- RAIN GARDEN PLANT LIST:

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AC	12	ACHILLEA 'CORONATION GOLD'	YELLOW YARROW	#1
AP	4	ASTER PINICEUS (SWAMP ASTER)	(SWAMP ASTER)	#1
IV	5	IRIS VERBECOLOR	(BLUE FLAG IRIS)	#1
PA	3	PANICUM AMARUM 'DEWEY BLUE'	(SWITCH GRASS)	#1
QA	2	QUERCUS ALBA	(WHITE OAK)	1"-1.5" B&B
SL	3	SPIREA LATIFOLIA	(MEADOWSWEET)	#3



SECTION



RAIN GARDEN DETAILS
NTS

NO.	DATE	REVISION
1	5/3/2013	ADD DISTURBANCE PER RIDEM
2	6/8/2013	ADD RAIN GARDEN PER RIDEM

JUL 9 2013

JEFFREY C. HANSON
No. 5238
PROFESSIONAL ENGINEER

ILLSTONE ENGINEERING, P.C.
CIVIL ENGINEERING • LANDSCAPE ARCHITECTURE • LAND PLANNING
250 CENTERVILLE ROAD, BUILDING 612, WARWICK, RHODE ISLAND 02886 P. (401) 921-3300 F. (401) 921-3303

WETLANDS SITE PLAN

SINGLE FAMILY RESIDENCE

A.P. 21, LOT 60
ALASKA STREET
CUMBERLAND, RI

PREPARED FOR:
BRUCE CAMPBELL

SCALE: 1" = 20'
MARCH, 2013

Drawn By: RJB
Checked By: JCH
Sheet
1
of 2
FILE NO.: 11.70.94

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GENERAL CONSTRUCTION NOTES:

- THE STATE OF RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE AND THE RHODE ISLAND STANDARD DETAILS CONSTRUCTION, 2004 EDITION, ARE MADE A PART HEREOF AS FULLY AND COMPLETELY AS IF ATTACHED HERETO. THE 2004 REVISION OF THE STANDARD SPECIFICATIONS MAY BE OBTAINED AT THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION, DIVISION OF PUBLIC WORKS. IN ADDITION, THE TOWN OF CUMBERLAND STANDARD SPECIFICATIONS ARE MADE A PART HEREOF AS FULLY AND COMPLETELY AS IF ATTACHED HERETO.
- ALL REQUIRED SITE IMPROVEMENTS SHALL BE INSPECTED BY THE TOWN ENGINEER TO ENSURE SATISFACTORY COMPLETION. IN NO CASE SHALL THE INSTALLATION OF ANY IMPROVEMENTS BE STARTED UNTIL PRIOR NOTIFICATION IS GIVEN TO THE TOWN ENGINEER. AT LEAST A 48-HOUR NOTICE SHALL BE GIVEN TO THE TOWN ENGINEER PRIOR TO ANY SUCH START OF CONSTRUCTION. A FINAL INSPECTION OF ALL SITE IMPROVEMENTS, UTILITIES AND GRADING WILL BE MADE TO DETERMINE WHETHER THE WORK IS SATISFACTORY AND IN SUBSTANTIAL AGREEMENT WITH THE APPROVED FINAL CONSTRUCTION DRAWING AND THE TOWN SPECIFICATIONS.
- LOCATION AND DEPTH OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL CHECK AND VERIFY LOCATIONS OF ALL EXISTING UTILITIES BOTH UNDERGROUND AND OVERHEAD. ANY DAMAGE TO EXISTING UTILITIES AS SHOWN OR NOT SHOWN ON THE PLANS SHALL BE THE CONTRACTOR'S RESPONSIBILITY. COSTS OF SUCH DAMAGE SHALL BE BORNE BY THE CONTRACTOR. NO EXCAVATION SHALL BE DONE UNTIL ALL INVOLVED UTILITY COMPANIES ARE NOTIFIED 72-HOURS IN ADVANCE. THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY DIG-SAFE (1-888-344-7233) A MINIMUM OF 72 WORKING HOURS, EXCLUDING WEEKENDS AND HOLIDAYS, PRIOR TO THE START OF ANY EXCAVATION AND/OR BLASTING WORK. THE NAME OF THE COMPANY PERFORMING THE EXCAVATION AND/OR BLASTING WORK MUST BE SUPPLIED TO DIG-SAFE, IF IT IS DIFFERENT FROM THE CALLER.
- IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO OBTAIN ANY AND ALL PERMITS REQUIRED BY THE STATE OF RHODE ISLAND, FEDERAL GOVERNMENT AND THE TOWN OF CUMBERLAND PRIOR TO COMMENCING ANY WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL TEMPORARY SEDIMENTATION AND EROSION CONTROLS.
- STOCKPILES OF EARTH MATERIALS SHALL NOT BE LOCATED NEAR WATERWAYS, WETLAND, OR ADJACENT TO DRAINAGE STRUCTURES.
- ALL MATERIAL FOR FILL SHALL BE CLEAN AND FREE OF MATTER WHICH COULD POLLUTE ANY DOWN STREAM WATERCOURSE.
- FILL MATERIAL SHALL BE COMPACTED IN ONE FOOT (MAXIMUM) LIFTS TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D-1557 (MODIFIED PROCTOR TEST).
- CONTRACTOR SHALL PROVIDE OWNER WITH A COMPLETE SET OF AS-BUILT DRAWINGS OF ALL INFRASTRUCTURE, AS-BUILT DRAWINGS SHALL BE CERTIFIED BY A RHODE ISLAND LICENSED PROFESSIONAL LAND SURVEYOR OR PROFESSIONAL ENGINEER.
- WORK SHOWN ON THE PLANS FOR WHICH THERE ARE NO PARTICULAR DETAILS OR SPECIFICATIONS DOES NOT RELIEVE THE CONTRACTOR FROM FINISHING AND INSTALLING THE WORK. THE CONTRACTOR SHALL THOROUGHLY EXAMINE THE CONTRACT DOCUMENTS AND PLANS AND INSPECT THE SITE, AND THE BID PRICE SHALL INCLUDE ALL SERVICES AND MATERIALS AS NECESSARY TO COMPLETE THE PROJECT. ANY CHANGES TO THE PROJECT OR THE INSTALLATION OF AN ITEM FOR WHICH NO PARTICULAR DETAIL OR SPECIFICATION WAS PROVIDED MUST BE REVIEWED BY AND ACCEPTABLE TO THE ENGINEER.
- THE DESIGN SEED MIX FOR THE PERMANENT A.S.S.F. SHALL BE COMPRISED OF THE FOLLOWING AND PLANTED IN A MINIMUM OF A 4" DEPTH OF LOAMY SAND FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS:

EROSION CONTROL and SOIL STABILIZATION PROGRAM:

- DENUDED SLOPES SHALL NOT BE LEFT EXPOSED FOR EXCESSIVE PERIODS OF TIME.
 - ALL DISTURBED SLOPES EITHER NEWLY CREATED OR EXPOSED PRIOR TO OCTOBER 15, SHALL BE SEED OR PROTECTED BY THAT DATE FOR ANY WORK COMPLETED DURING EACH CONSTRUCTION YEAR.
 - TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW, OR FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS). THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER.
 - HAY OR STRAW APPLICATIONS SHOULD BE IN THE AMOUNT OF 2000 LBS/ACRE.
 - ALL HAYBALES OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.
 - THE TOPSOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS AND SHALL CONFORM WITH RHODE ISLAND STANDARD SPECIFICATION M.18.02.
 - THE SEED MIX SHALL BE INOCULATED WITHIN TWENTY FOUR (24) HOURS, BEFORE MIXING AND PLANTING, WITH APPROPRIATE INOCULUM FOR EACH VARIETY.
 - THE DESIGN MIX FOR TEMPORARY EROSION CONTROL AND SOIL STABILIZATION SHALL BE COMPRISED OF THE FOLLOWING:
- | TYPE | % BY WEIGHT |
|---------------------|-------------|
| CREeping RED FESCUE | 70 |
| ASTORIA BENTGRASS | 5 |
| BIRDSFOOT TREEFOIL | 15 |
| PERENNIAL RYEGRASS | 10 |
- APPLICATION RATE 100 LBS/ACRE
- LIMING AND FERTILIZING AS REQUIRED TO COMPLIMENT OR UPGRADE EXISTING CONDITIONS.
- THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE (1) YEAR, AND HE SHALL DO SO AT NO ADDITIONAL EXPENSE.
 - THE NORMAL, ACCEPTABLE SEASONAL SEEDING DATES ARE APRIL 1ST THROUGH OCTOBER 15TH.
 - STABILIZATION OF ONE FORM OR ANOTHER AS DESCRIBED ABOVE SHALL BE ACHIEVED WITHIN FIFTEEN (15) DAYS OF FINAL GRADING.
 - STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAYS OR FLOOD PLAINS. THEY SHALL HAVE SLOPES NO GREATER THAN THIRTY PERCENT (30%) AND STOCKPILES SHALL ALSO BE SEEDED AND/OR STABILIZED AND COMPLETELY ENCLOSED WITH A CONTINUOUS LINE OF STAKED HAYBALES AND/OR SILFENCE. (SEE DETAIL)
 - ON BOTH STEEP AND LONG SLOPES, CONSIDERATION SHOULD BE GIVEN TO "CRIMPING" OR "TRACKING" TO TACK DOWN MULCH APPLICATIONS.

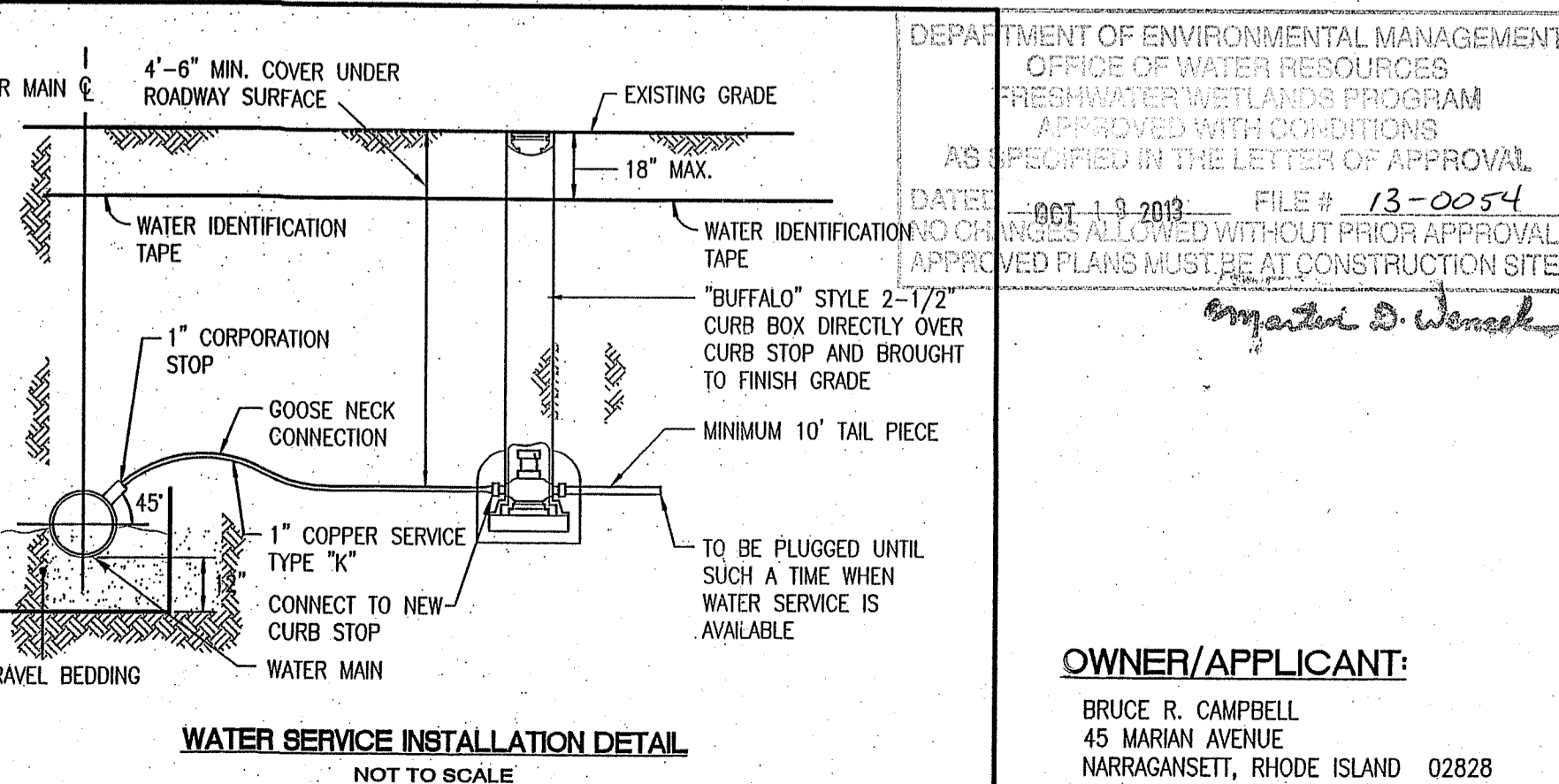
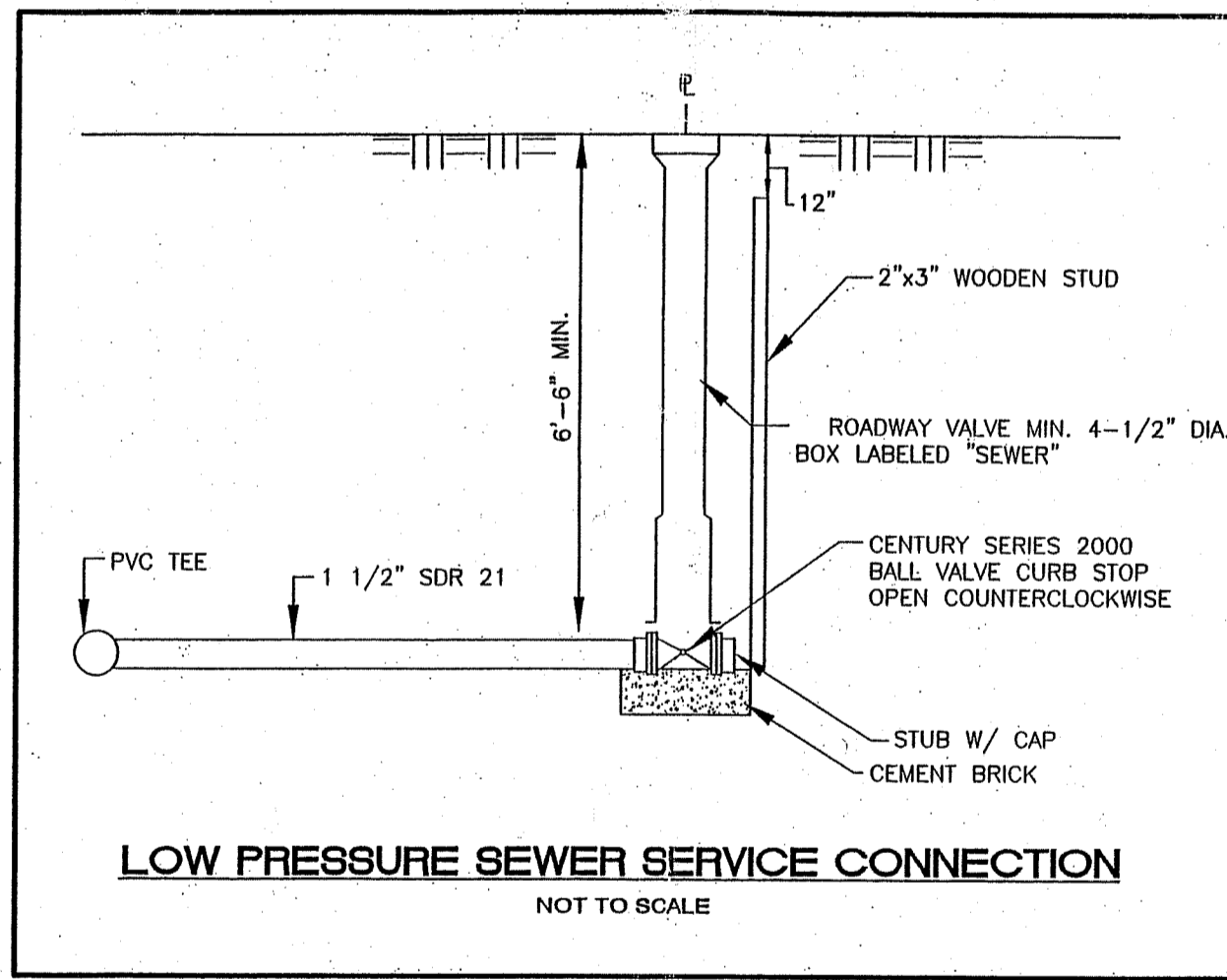
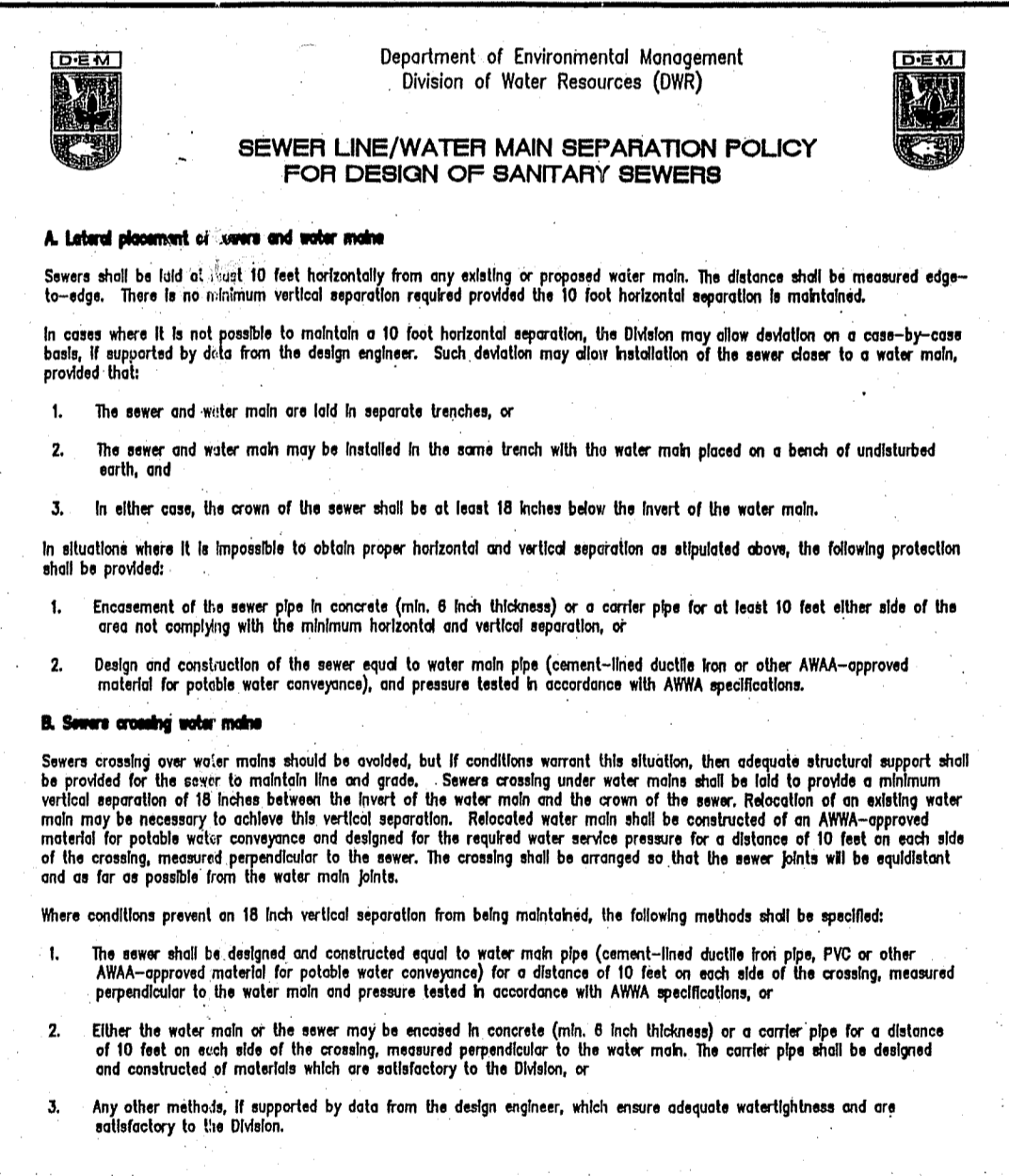
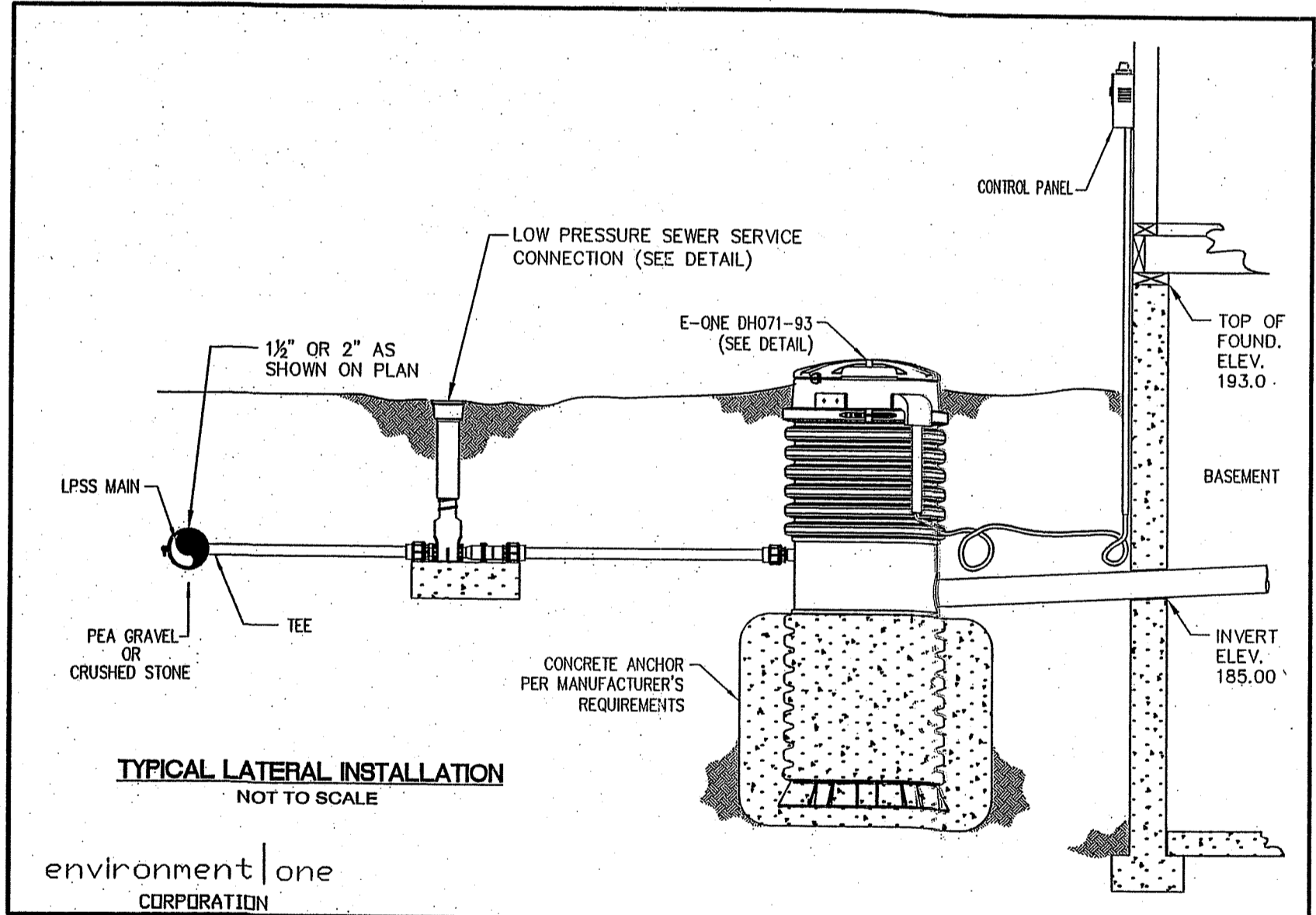
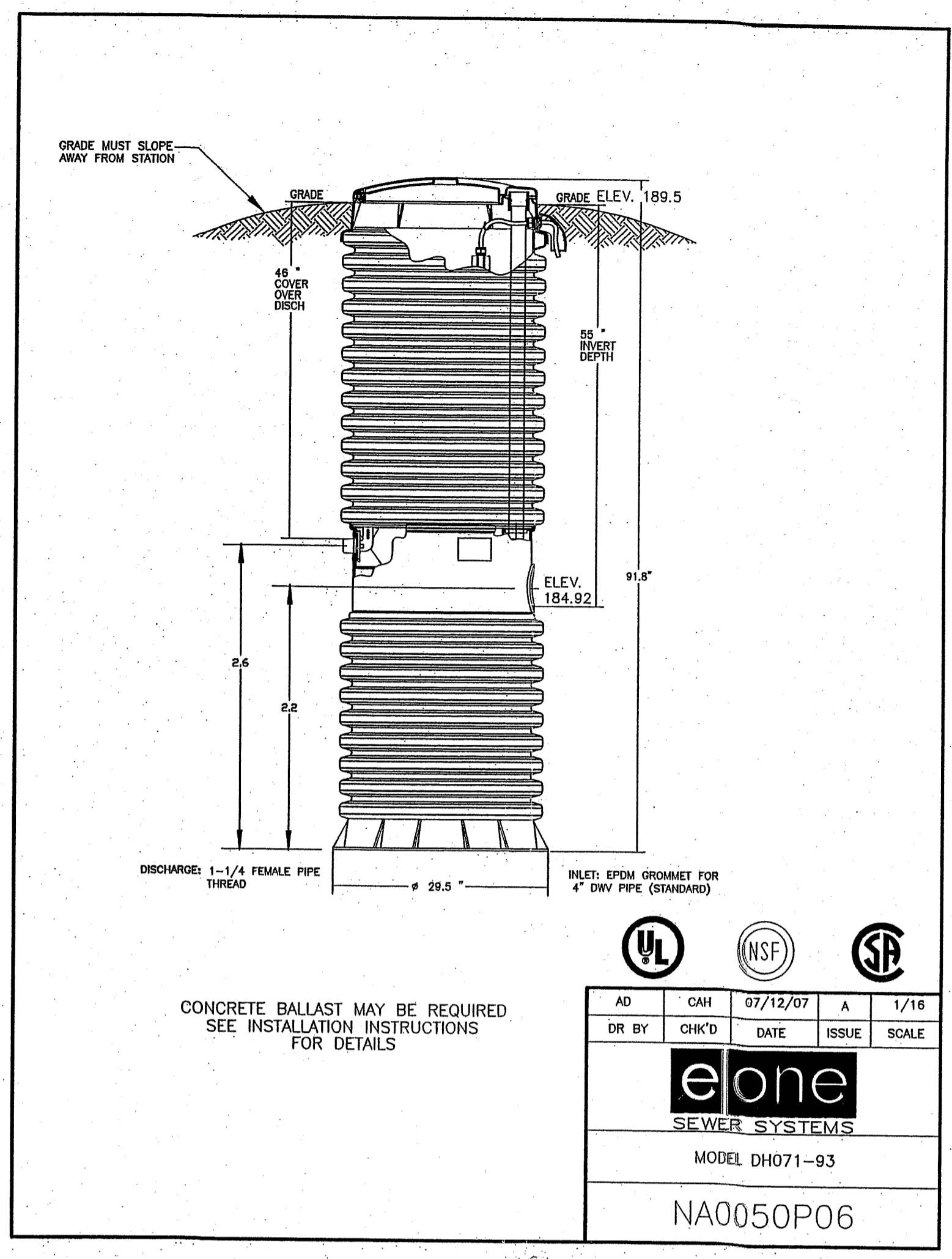
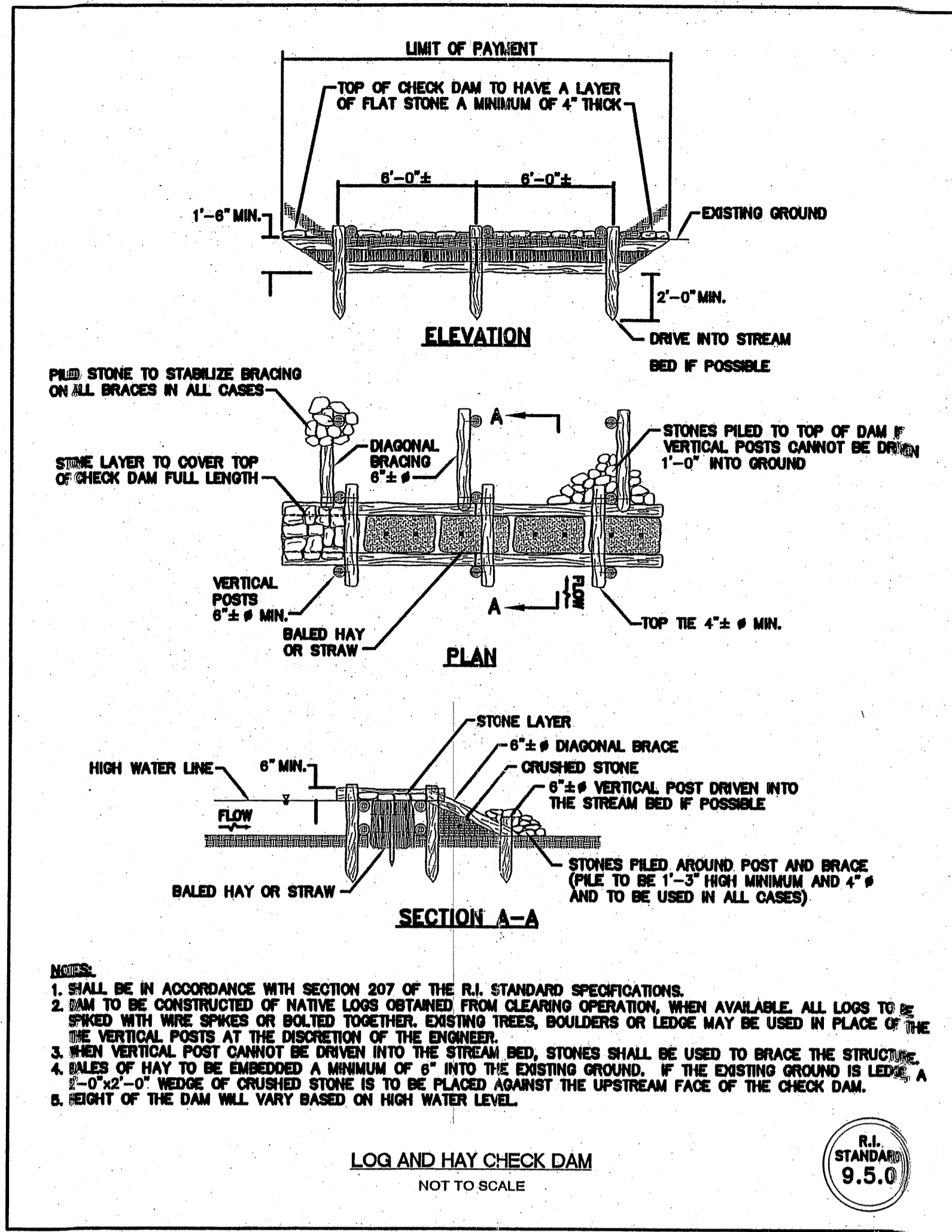
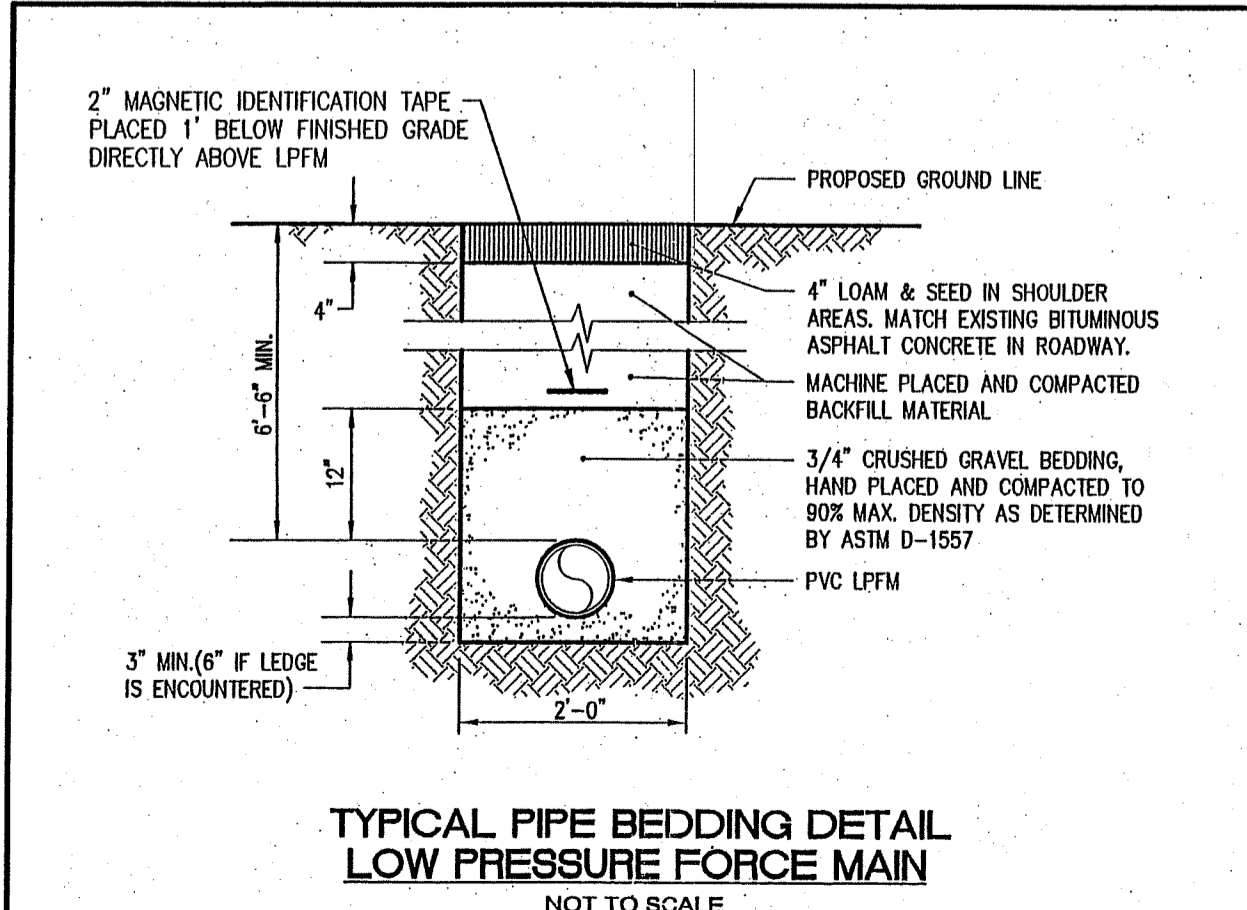
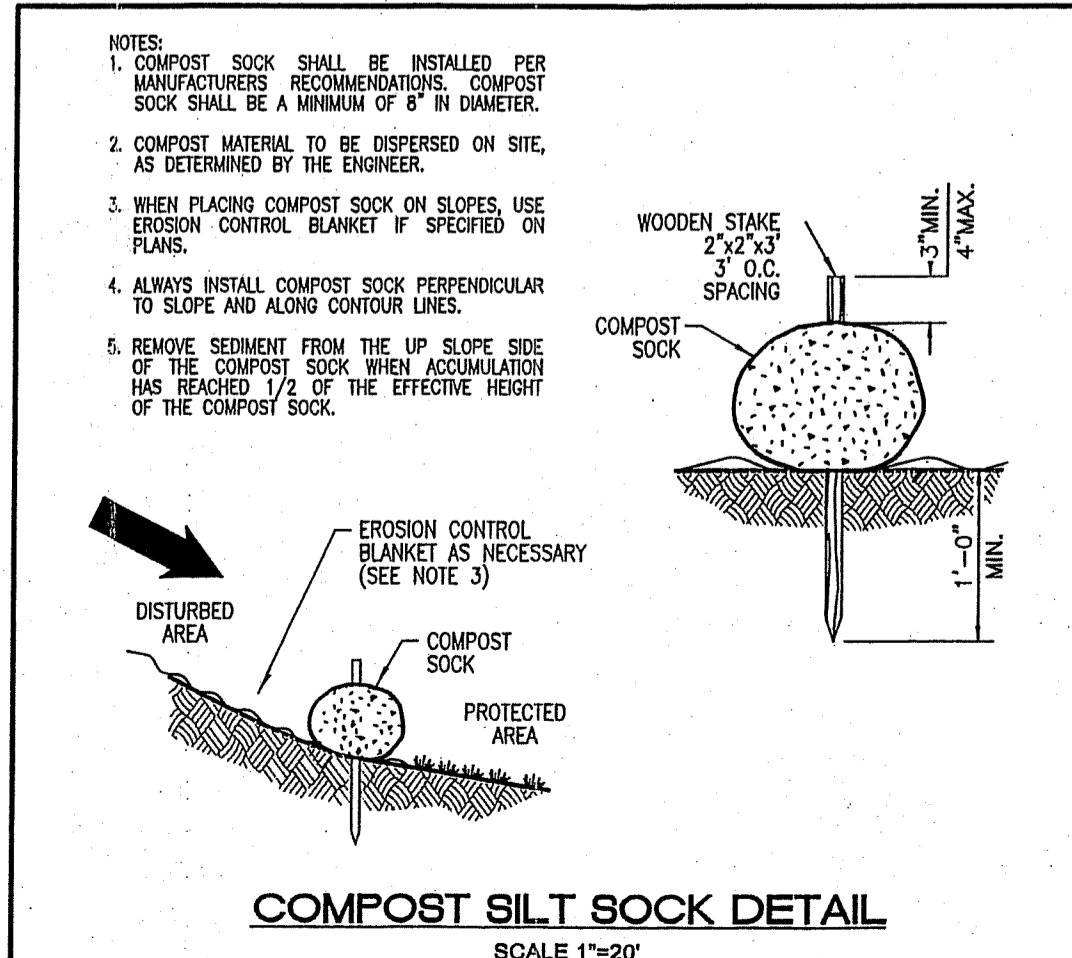
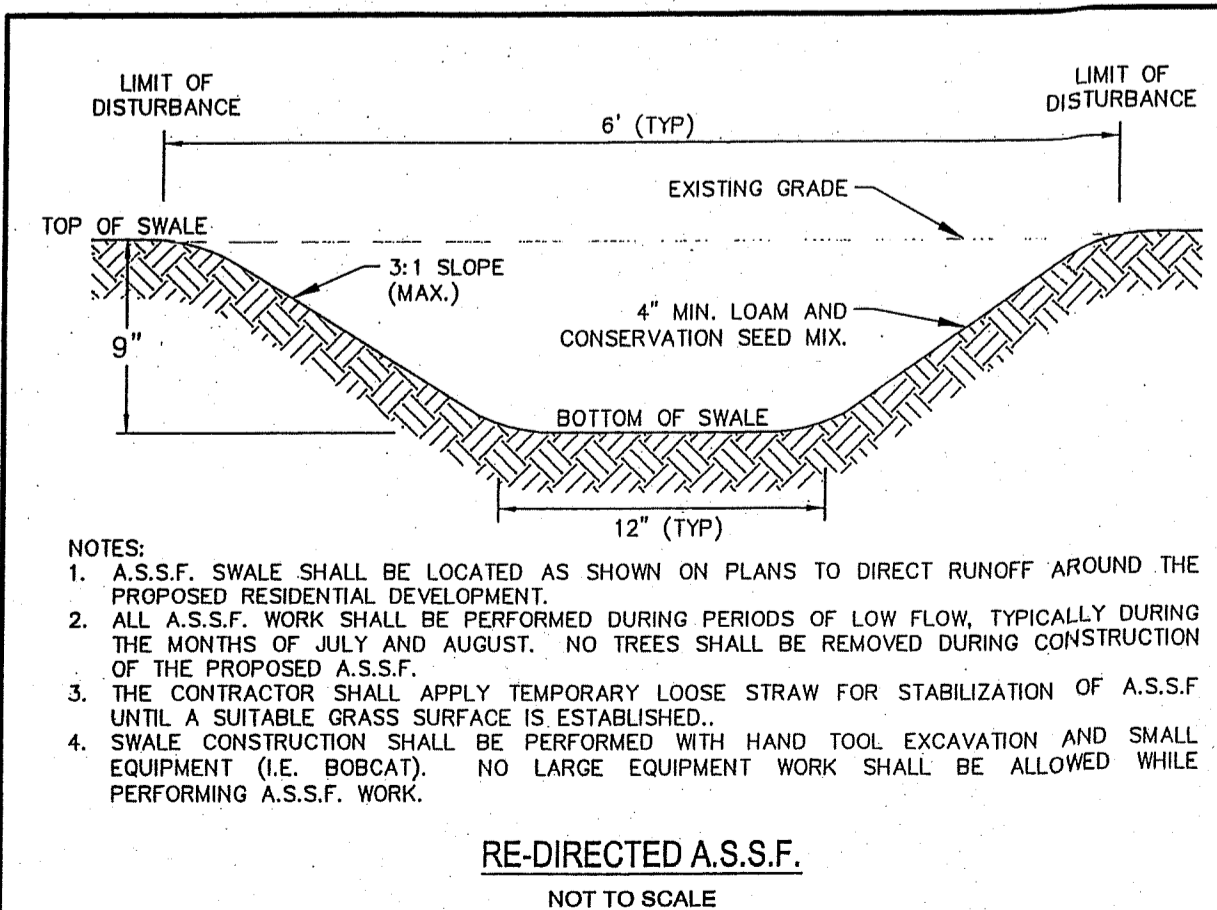
TYPE	% BY WEIGHT
CREeping RED FESCUE	70
KENTUCKY BLUEGRASS	15
TALL FESCUE	15

APPLICATION RATE 100 LBS/ACRE

LIMING AND FERTILIZING AS REQUIRED TO COMPLIMENT OR UPGRADE EXISTING CONDITIONS.

SEDIMENTATION CONTROL PROGRAM:

- EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY SEDIMENTS FROM ENTERING ADJOINING PROPERTIES AND/OR WETLANDS.
- BANKS OR SLOPES OVER 5% SHALL BE SEED AS SOON AS POSSIBLE AND SHALL BE PROTECTED WITH A HAY, STRAW OR FIBER MULCH.
- DURING CONSTRUCTION, THE CONTRACTOR AND/OR DEVELOPER SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL.
- SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED CLOSELY AND MAINTAINED PROMPTLY AFTER EACH RAINFALL.
- CARE SHALL BE TAKEN SO AS NOT TO PLACE "REMOVED SEDIMENTS" WITHIN THE PATH OF EXISTING, NEWLY CREATED (BOTH TEMPORARY AND PERMANENT) OR PROPOSED WATERCOURSES OR THOSE AREAS SUBJECTED TO STORM WATER FLOW.
- ADDITIONAL HAYBALES, SILT FENCE OR SILT SOCK SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER.
- REFERENCE THE "R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE U.S. DEPT. OF AGRICULTURE, SOIL CONSERVATION SERVICE, 1989, AS A GUIDE.



NO.	DATE	REVISION

JUL 9 2013

JEFFREY C. HANSON
No. 5238
3/27/13
REGISTERED PROFESSIONAL ENGINEER

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250 CENTERVILLE ROAD, BUILDING 107, WARWICK, RHODE ISLAND 02886 P. (401) 931-3344 F. (401) 931-3303

CONSTRUCTION DETAILS

SINGLE FAMILY RESIDENCE

A.P. 21, LOT 60
ALASKA STREET
CUMBERLAND, RI

PREPARED FOR:
BRUCE CAMPBELL

SCALE: AS SHOWN
MARCH, 2013

Drawn By: **RJB**
Checked By: **JCH**
Sheet

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of 2

FILE NO.: 11.70.94

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATE: OCT 13 2013 FILE # 13-0054
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Maureen D. Wenzel

OWNER/APPLICANT:
BRUCE R. CAMPBELL
45 MARIAN AVENUE
NARRAGANSETT, RHODE ISLAND 02888