

Location Plan
not to scale

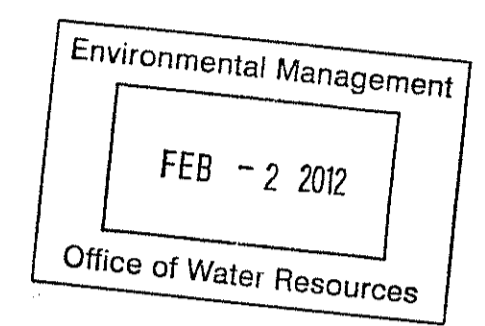
General Notes:

1. Overall parcel is AP 2D Lot 3-2, Total area = 18.13 acres.
2. Wetlands delineated by Applied Bio-Systems, Inc. PO Box 985 West Kingston, RI 02892
3. Underground utilities are proposed from the street to the new dwelling.
4. Runoff from paved driveway will sheet flow into field (4,000 sq. ft.).
5. Area of Flood Plain (FIRM Zone A) = 4.2 Acres± (after to LOMA) Elev. (NAVD 88) 306.7 to 325.1
6. Letter of Map Amendment (LOMA) approved January 28, 2011 removing 1.4 acres from Zone A - see FEMA Case No. 10-01-1991A
7. Proposed land use shall create one (1) new residential lot, Parcel A, area = 3.3± acres
8. Existing lot and new Parcel A are not LUHPPL uses.
9. Project type is new development with creation of Parcel A.

Revisions			
Date	Description	Date	Description
Jan 2012	RIDEM Submission Req'ts		

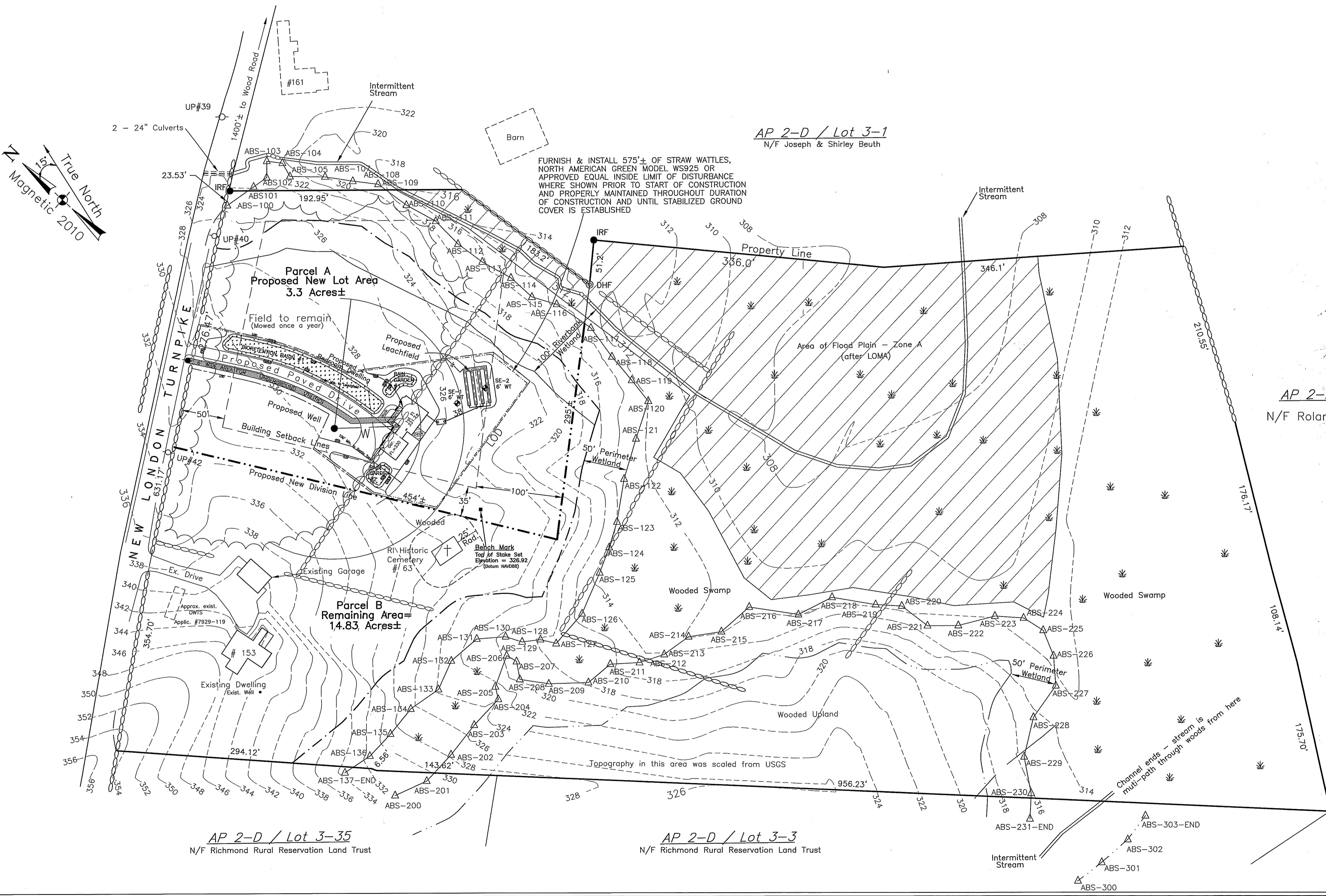
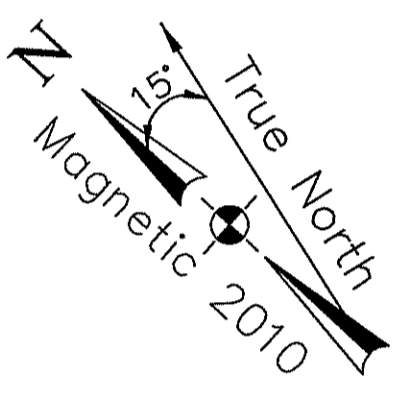
REFERENCE NOTES:

1. REFER TO SHEET 2 OF 4 FOR DETAILED SITE IMPROVEMENTS PROPOSED TO NEW PARCEL A.
2. REFER TO SHEET 3 OF 4 FOR NOTES AND DETAILS
3. REFER TO SHEET 4 OF 4 FOR LANDSCAPING DETAILS



Zone R-2

Minimum Area: 2 Acres
Minimum Frontage: 200 ft.
Minimum Setbacks:
Front: 50 ft.
Side: 35 ft.
Rear: 100 ft.
Maximum Lot Coverage 10%



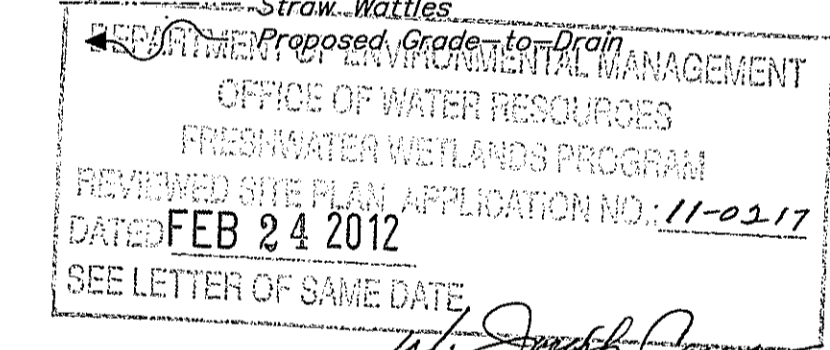
AP 2-D / Lot 3-1
N/F Joseph & Shirley Beuth

AP 2-D / Lot 4
N/F Roland A. Boisclair

FURNISH & INSTALL 575'± OF STRAW WATTLES, NORTH AMERICAN GREEN MODEL WS925 OR APPROVED EQUAL INSIDE LIMIT OF DISTURBANCE WHERE SHOWN PRIOR TO START OF CONSTRUCTION AND PROPERLY MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION AND UNTIL STABILIZED GROUND COVER IS ESTABLISHED

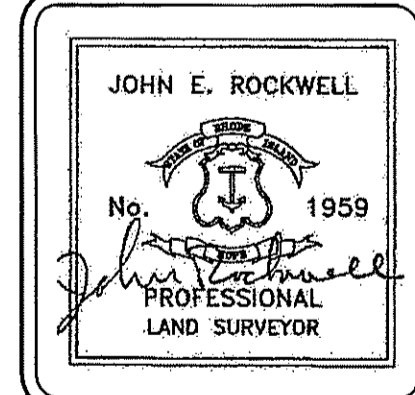
Legend

- A.P. Assessor's Plat
- N/F Now or Formerly
- Property Boundary
- Existing Contour
- Proposed Contour
- Wetland Flags
- Wetland Symbol
- Edge of Clearing
- Utility Pole
- UP Iron Rod Found
- IRF Drill Hole Found
- DHF Stone Wall
- SE Soil Evaluation Test Hole
- LOD (Limit of Disturbance)
- Straw Wattles



THIS SURVEY AND PLAN CONFORM TO A CLASS III STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS.
By: *John E. Rockwell*
REGISTERED PROFESSIONAL LAND SURVEYOR

Information shown is the result of an on-site survey (except as noted).



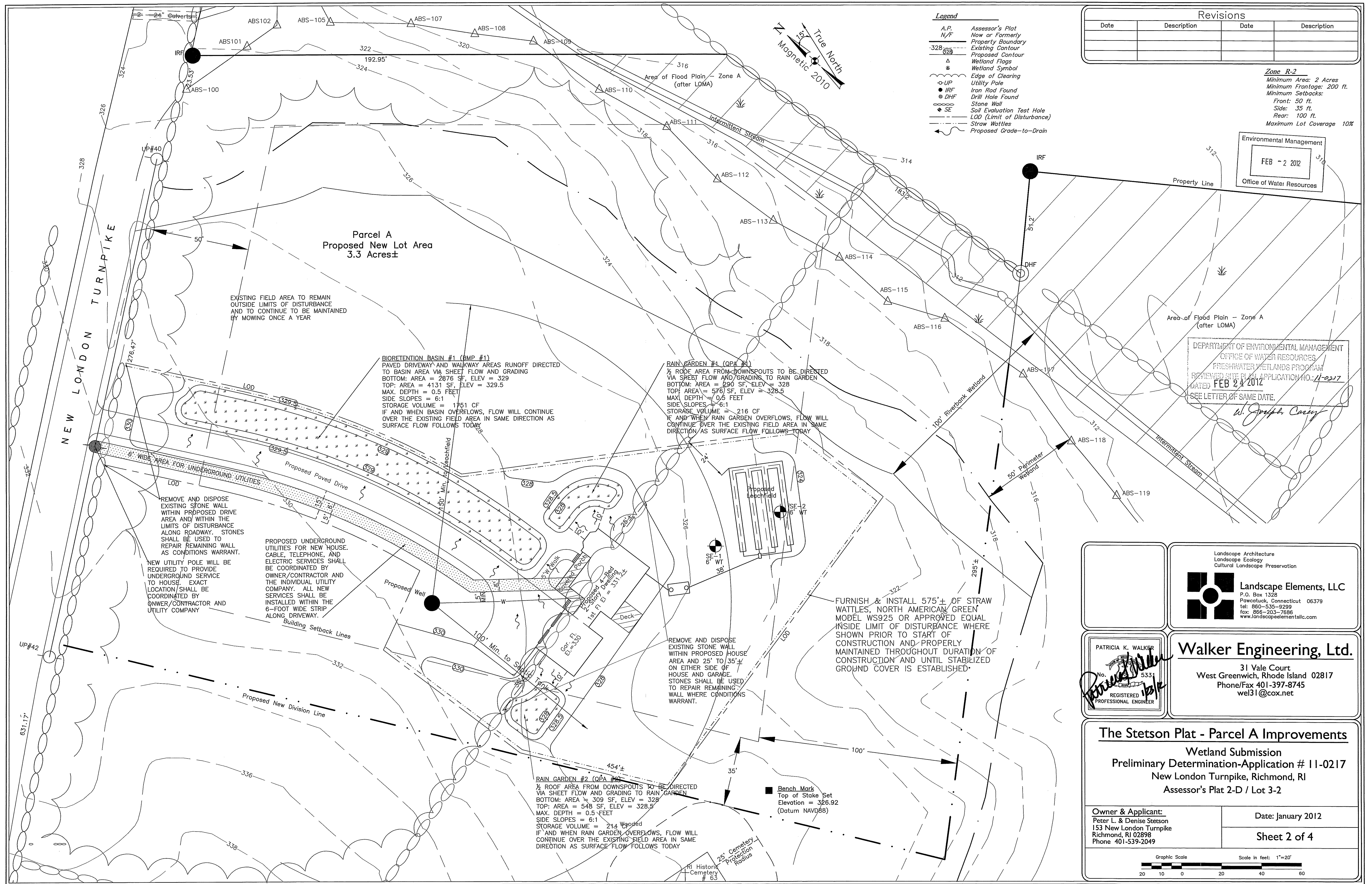
Coventry Survey Co., Inc.
46 South Main Street
Coventry, Rhode Island 02816
(401) 823-5028
Land Surveying / Mapping / OWTS Designs
coventrysurvey@hotmail.com

The Stetson Plat - Overall Site Plan
Wetland Submission
Preliminary Determination-Application # 11-0217
New London Turnpike, Richmond, RI
Assessor's Plat 2-D / Lot 3-2

Owner & Applicant:
Peter L. & Denise Stetson
153 New London Turnpike
Richmond, RI 02898
Phone 401-539-2049

Revised Date: December 13, 2011
Sheet 1 of 4

Graphic Scale Scale in feet: 1"=60'
60 30 0 60 120 180



Revisions			
Date	Description	Date	Description

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 REVIEWED SITE BY APPLICATION NO.: 11-0217
 DATED FEB 24 2012
 SEE LETTER OF SAME DATE.
W. Joseph Casey

Landscape Architecture
 Landscape Ecology
 Cultural Landscape Preservation

Landscape Elements, LLC
 P.O. Box 1328
 Pawcatuck, Connecticut 06379
 tel: 860-535-9299
 fax: 866-203-7686
 www.landscapeelementllc.com

PATRICIA K. WALKER
 No. 5331
 REGISTERED PROFESSIONAL ENGINEER

Walker Engineering, Ltd.
 31 Vale Court
 West Greenwich, Rhode Island 02817
 Phone/Fax 401-397-8745
 wel31@cox.net

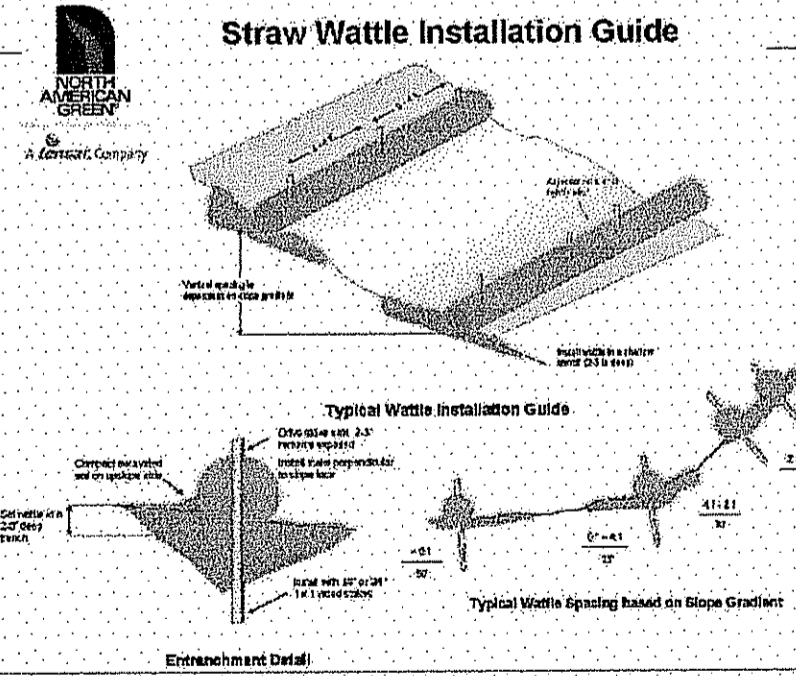
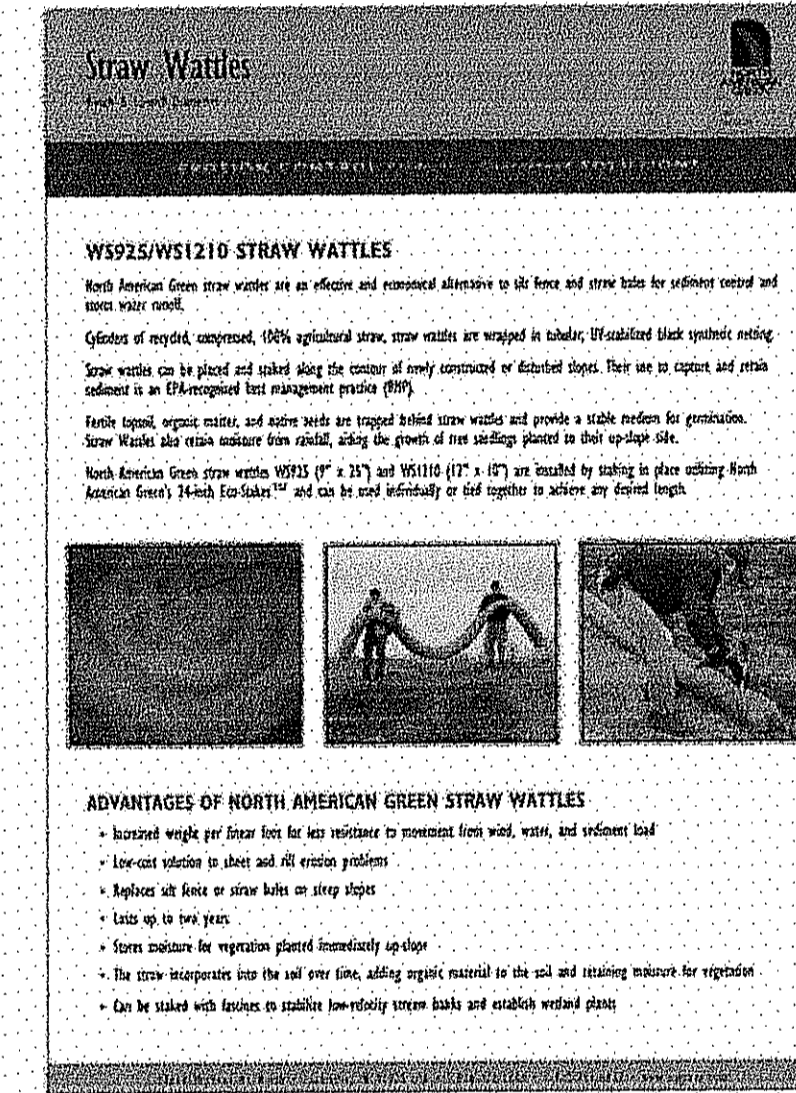
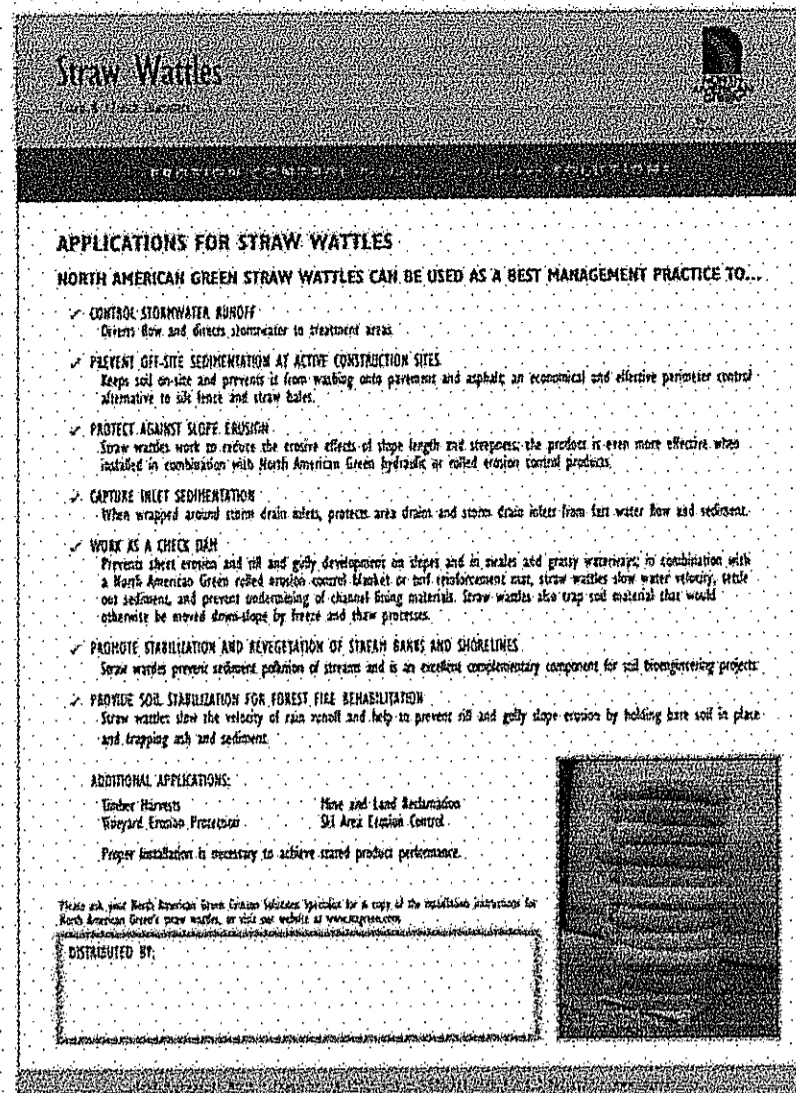
The Stetson Plat - Parcel A Improvements
 Wetland Submission
 Preliminary Determination-Application # 11-0217
 New London Turnpike, Richmond, RI
 Assessor's Plat 2-D / Lot 3-2

Owner & Applicant:
 Peter L. & Denise Stetson
 153 New London Turnpike
 Richmond, RI 02898
 Phone 401-539-2049

Date: January 2012

Sheet 2 of 4

Graphic Scale Scale in feet: 1"=20'
 20 10 0 20 40 60



1. PRIOR TO ANY CONSTRUCTION OR EXCAVATION, STRAW WATTLES SHALL BE INSTALLED AT THE PROPERTY LINE OR LIMIT OF DISTURBANCE. TEMPORARY STRAW WATTLES SHALL BE INSTALLED AT THE LIMIT OF WORK ACTIVITY IF CONSTRUCTION IS TO BE DONE IN PHASES.

2. PRIOR TO COMMENCING OPERATIONS, TEMPORARY STRAW WATTLES SHALL BE PLACED SO AS TO PREVENT SEDIMENT FROM ENTERING EXISTING AND PROPOSED DRAINAGE SYSTEMS OR WETLANDS.

3. ALL EROSION AND SEDIMENTATION CONTROL STRUCTURES SHALL BE PERIODICALLY MAINTAINED AS PER THE RESPECTIVE PROGRAMS DURING THE CONSTRUCTION.

4. IF WORK PROGRESS IS TO BE INTERRUPTED AT ANY TIME, REFERENCE EROSION AND SEDIMENTATION PROGRAMS FOR TEMPORARY CONTROLS.

5. STRAW WATTLES MUST REMAIN UNTIL SUCH TIME THAT A DESIRABLE STAND OF GRASS OR GROUND COVER HAS BEEN ESTABLISHED AND THE PROJECT RECEIVES A FAVORABLE APPROVAL FOR FINAL ACCEPTANCE FROM THE ENGINEER.

GENERAL NOTES

- IT SHALL BE THE CONTRACTOR'S AND/OR OWNER'S SOLE RESPONSIBILITY TO OBTAIN ANY AND ALL PERMITS REQUIRED BY THE STATE OF RHODE ISLAND, TOWN OF RICHMOND, AND ALL APPLICABLE UTILITY COMPANIES PRIOR TO COMMENCING ANY WORK.
- THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE TOWN PUBLIC WORKS AND ENGINEERING DEPARTMENTS.
- IN ALL EXCAVATION AND REPLACEMENT OF FILL, THE CONTRACTOR SHALL PERFORM THE WORK IN FULL COMPLIANCE WITH THE RI STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ANY AND ALL UNDERGROUND UTILITIES BEFORE EXCAVATION BEGINS BY CONTACTING "DIG SAFE" AND THE INDIVIDUAL UTILITY COMPANIES. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL STATUTES, ORDINANCES, RULES AND REGULATIONS OF ANY TOWN, STATE, OR FEDERAL AGENCY THAT MAY BE APPLICABLE. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- THE CONTRACTOR SHALL COORDINATE ALL UTILITY CONNECTIONS WITH THE APPROPRIATE UTILITY COMPANIES. ALL WORK, MATERIALS, AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY COMPANY.
- ALL WORK, MATERIALS, ETC. WILL BE IN ACCORDANCE WITH THE STATE OF RHODE ISLAND AND TOWN OF RICHMOND RULES, REGULATIONS, SPECIFICATIONS AND DETAILS.
- ALL DISTURBED AREAS ARE TO BE PROTECTED AGAINST EROSION AND/OR SEDIMENTATION.
- PERIMETER CONDITIONS AND DRAINAGE PATTERNS SHALL REMAIN UNCHANGED.
- EMBANKMENT SLOPES ARE NOT TO EXCEED 2:1 AND SHALL BE FULLY COMPACTED TO PROVIDE A STABLE PRODUCT.
- ALL EARTH FILL USED FOR EMBANKMENT CONSTRUCTION SHALL BE FREE OF DETRIMENTAL AMOUNTS OF SODS, ROOTS, FROZEN SOILS, STONES, AND OTHER QUESTIONABLE MATERIAL.
- STAKED STRAW WATTLES, NORTH AMERICAN GREEN MODEL W5925 OR APPROVED EQUAL SHALL BE PLACED ALONG THE LIMITS OF DISTURBANCE AND WHERE SHOWN AND AS REQUIRED.
- EMBANKMENT SLOPES AND ALL DISTURBED AREAS ARE TO RECEIVE MIN. 4" OF TOPSOIL AND SEEDED. SEE EROSION CONTROL PROGRAM.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL TEMPORARY SEDIMENTATION AND EROSION CONTROLS.
- IN ALL EXCAVATION AND REPLACEMENT OF FILL, THE CONTRACTOR SHALL PERFORM THE WORK IN FULL COMPLIANCE WITH THE RI STANDARD SPECIFICATION SECTION 202.
- ALL EXCESS SOIL, STUMPS, TREES, ROCKS, BouldERS AND OTHER REFUSE SHALL BE DISCARDED OFF SITE OUTSIDE OF ALL WETLANDS AND WETLANDS SETBACK AREAS UNLESS OTHERWISE SPECIFIED.
- ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE REQUIREMENTS OF ALL STATE AND TOWN REGULATIONS AND PERMITS.
- ALL WORK WITHIN THE ROADWAY R.O.W. SHALL CONFORM TO RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, INCLUDING ALL REVISIONS AND THE RI STANDARD DETAILS AND TOWN OF RICHMOND REQUIREMENTS.
- ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES 2003 INCLUDING ALL REVISIONS.

ORDER OF PROCEDURE

- PRIOR TO ANY CONSTRUCTION OR EXCAVATION, STRAW WATTLES SHALL BE INSTALLED AT THE PROPERTY LINE OR LIMIT OF DISTURBANCE. TEMPORARY STRAW WATTLES SHALL BE INSTALLED AT THE LIMIT OF WORK ACTIVITY IF CONSTRUCTION IS TO BE DONE IN PHASES.
- PRIOR TO COMMENCING OPERATIONS, TEMPORARY STRAW WATTLES SHALL BE PLACED SO AS TO PREVENT SEDIMENT FROM ENTERING EXISTING AND PROPOSED DRAINAGE SYSTEMS OR WETLANDS.
- ALL EROSION AND SEDIMENTATION CONTROL STRUCTURES SHALL BE PERIODICALLY MAINTAINED AS PER THE RESPECTIVE PROGRAMS DURING THE CONSTRUCTION.
- IF WORK PROGRESS IS TO BE INTERRUPTED AT ANY TIME, REFERENCE EROSION AND SEDIMENTATION PROGRAMS FOR TEMPORARY CONTROLS.
- STRAW WATTLES MUST REMAIN UNTIL SUCH TIME THAT A DESIRABLE STAND OF GRASS OR GROUND COVER HAS BEEN ESTABLISHED AND THE PROJECT RECEIVES A FAVORABLE APPROVAL FOR FINAL ACCEPTANCE FROM THE ENGINEER.

EROSION CONTROL AND SOIL STABILIZATION PROGRAM

- DENUDED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME.
- STRAW WATTLES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, MAINTAINED ON A REGULAR BASIS, AND SHALL BE PLACED TO PREVENT SEDIMENTATION ONTO ADJACENT PROPERTY OR INTO DRAINAGE SYSTEMS OR WETLANDS.
- DURING CONSTRUCTION, THE CONTRACTOR AND/OR OWNER SHALL BE RESPONSIBLE FOR ALL EROSION CONTROLS MAINTENANCE AND SHALL INSPECT AND/OR REPLACE AS NEEDED.
- DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW.
- ADDITIONAL STRAW WATTLES WILL BE INSTALLED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER.
- ALL STRAW WATTLES WILL REMAIN IN PLACE UNTIL AN ACCEPTABLE GROUND COVER DEVELOPS AND POTENTIAL SEDIMENTATION SOURCES ARE REMOVED.
- NORMAL ACCEPTABLE SEASONAL SEEDING DATES ARE APRIL 1 TO OCTOBER 15.
- ALL SEDIMENTS SHALL BE REMOVED FROM THE DRAINAGE FACILITIES WHEN DIRECTED BY THE ENGINEER, LOCAL DEPARTMENT OF PUBLIC WORKS, RIDOT OR RIDEM.
- ALL AREAS SUBJECT TO EROSION FORCES SHALL RECEIVE PROTECTION.
- HAY, STRAW, OR LINING APPLICATIONS SHALL BE USED AS REQUIRED ON EXPOSED SURFACES TO PREVENT EROSION. ALL METHODS SHALL BE APPROVED BY THE ENGINEER.
- ALL VEGETATION WHICH DOES NOT SURVIVE AND DEVELOP WITHIN THE PERIOD OF ONE (1) YEAR SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE.
- STABILIZATION OF ONE FORM OR ANOTHER AS DESCRIBED ABOVE SHALL BE ACHIEVED WITHIN 15 DAYS OF FINAL GRADING.
- THE DRAINAGE SYSTEM SHALL BE CLEANED PRIOR TO ACCEPTANCE OF THE OVERALL PROJECT BY THE OWNER. SEDIMENTS SHALL BE DISPOSED OF IN A PROPER MANNER.
- AS REQUIRED AND WARRANTED, SEDIMENTATION TRAPS WILL BE PROVIDED AT ALL DRAINAGE OUTLET STRUCTURES UNTIL PERMANENT STABILIZATION HAS OCCURRED.
- NO SLOPES TO EXCEED 3:1.
- STOCKPILES EXPOSED FOR EXCESSIVE PERIODS SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW, OR FIBER MATTING.
- STOCKPILES SHALL NOT BE LOCATED NEAR WATERWAYS AND SHALL HAVE NO SLOPE STEEPER THAN 3:1 AND SHALL BE SURROUNDED BY STRAW WATTLES AND SEEDED AND/OR STABILIZED.
- FINAL TREATMENT FOR DISTURBED AREAS SHALL BE 4" PLANTABLE SOIL AND EROSION CONTROL SEED MIX, UNLESS OTHERWISE SHOWN ON PLANS OR SPECIFIED AS PART OF THE LANDSCAPING DESIGN.
- LANDSCAPING SHALL BE LOCATED AT LOCATIONS AS SHOWN ON THE PLANS.
- 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 RI STANDARD SPECIFICATIONS.
- THE SEED MIX SHALL BE INOCULATED 24 HOURS BEFORE MIXING AND PLANTING WITH APPROPRIATE INOCULUM FOR EACH VARIETY.
- HAY OR STRAW APPLICATIONS SHOULD BE IN THE AMOUNT OF 3000 TO 4000 LBS PER ACRE.
- ON BOTH STEEP AND LONG SLOPES CONSIDERATION SHOULD BE GIVEN TO "CRIMPING" OR "TRACKING" TO TACK DOWN MULCH APPLICATIONS.
- ALL DISTURBED SLOPES, EITHER NEWLY CREATED OR EXPOSED PRIOR TO OCTOBER 15 SHALL BE SEEDED AND 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 (BURRAP, RUTE, FIBERGLASS NETTING, EXCELSEOR BLANKETS) AND SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER.
- ALL STRAW WATTLES OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.
- ALL FILL SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH THE RIDPW STD SPECIFICATIONS SECTION 202.
- REFERENCE THE SEDIMENTATION CONTROL PROGRAM AND ORDER OF PROCEDURE FOR PROPER COORDINATION.

SEDIMENTATION CONTROL PROGRAM

- EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE DRAINAGE SYSTEMS, ROADWAY, ADJOINING PROPERTIES, AND ADJACENT WETLAND AREAS.
- ALL DISTURBED AREAS SUBJECT TO EROSION TENDENCIES WHETHER THEY BE NEWLY FILLED OR EXCAVATED SHALL RECEIVE SLOPE PROTECTION.
- BANKS OR SLOPES OVER 5 PERCENT SHALL BE SEEDED AS SOON AS POSSIBLE AND SHALL BE PROTECTED WITH A HAY, STRAW OR FIBER MULCH.
- DURING CONSTRUCTION, THE CONTRACTOR AND/OR OWNER 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 WATER COURSES OR THOSE AREAS SUBJECT TO STORM WATER FLOW.
- ADDITIONAL STRAW WATTLES SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER.
- ALL SEDIMENTS SHALL BE REMOVED FROM THE DRAINAGE FACILITIES WHEN DIRECTED BY THE ENGINEER OR THE LOCAL DEPARTMENT OF PUBLIC WORKS.
- REFERENCE THE "RI EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY RIDEM AND THE US DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, AND THE TOWN OF COVENTRY SOILS AND EROSION CONTROL ORDINANCES AS GUIDES.
- ALL EARTH FILL USED FOR EMBANKMENT CONSTRUCTION SHALL BE FREE OF DETRIMENTAL AMOUNTS OF SODS, ROOTS, FROZEN SOILS, STONES, AND OTHER QUESTIONABLE MATERIAL.
- A CONTINUOUS LINE OF STRAW WATTLES OR APPROVED EQUAL, SHALL BE PLACED ALONG AND INSIDE THE LIMITS OF DISTURBANCE AND WHERE SHOWN AND AS REQUIRED.

DRAINAGE NOTES

- DRAINAGE DESIGNED FOR A 100 YEAR, 24 HOUR STORM EVENT FOR THE CHANGED CONDITIONS OF THE PROPOSED SITE IMPROVEMENTS PER STATE OF RHODE ISLAND AND TOWN OF RICHMOND REQUIREMENTS.
- THE CONTRACTOR AND/OR OWNER SHALL BE RESPONSIBLE FOR MAINTAINING THE DRAINAGE SYSTEM.
- THE DRAINAGE SYSTEM SHALL BE PROPERLY MAINTAINED AT ALL TIMES.
- ALL DRAINAGE SYSTEM AREAS SHALL BE KEPT CLEAR OF DEBRIS AT ALL TIMES.
- NO FOREIGN SUBSTANCES SHALL BE DUMPED INTO THE DRAINAGE SYSTEM AT ANY TIME.
- THE DRAINAGE STRUCTURES SHALL BE CLEANED ON AN ANNUAL BASIS AND AS CONDITIONS MAY WARRANT.
- MAINTENANCE OF THE SYSTEM SHALL BE PERFORMED ON AN ANNUAL BASIS UNDER NORMAL FUNCTIONING OF THE SYSTEM AT A MINIMUM. ANY OBSERVED BLOCKAGE, OVERFLOW OF ANY DRAINAGE SYSTEM COMPONENT OR OTHER OBSERVED ISSUES IN THE FIELD SHALL WARRANT AN INSPECTION AND CLEANOUT AS MAY BE REQUIRED OF ANY PORTION OF THE SYSTEM. MAINTENANCE OF THE SYSTEM SHALL BE THE RESPONSIBILITY OF THE OWNER AND/OR CONTRACTED TO A PROFESSIONAL SERVICER AS CONDITIONS WARRANT.
- ANY AREAS EXPERIENCING EROSION TENDENCIES SHALL BE REPAIRED AND RESEEDED IMMEDIATELY.

ROOF DRAIN CONNECTIONS TO RAIN GARDENS NOTES:

- ALL ROOF AREAS SHALL HAVE GUTTERS AND DOWNSPOUTS.
- SPLASH PADS SHALL BE PROVIDED AT THE BOTTOM OF EACH DOWNSPOUT.
- GRADING NEAR THE HOUSE SHALL DIRECT DOWNSPOUT OUTFALLS AWAY FROM THE FOUNDATION AND TOWARD THE RESPECTIVE RAIN GARDEN.
- HALF OF THE ROOF RUNOFF SHALL BE DIRECTED TOWARDS RAIN GARDEN #1 AND THE REMAINING HALF TOWARDS RAIN GARDEN #2.
- NO UNDERGROUND PIPING SHALL BE INSTALLED TO TRANSPORT ROOF RUNOFF TO THE RAIN GARDENS.
- EXACT LOCATION OF GUTTERS AND DOWNSPOUTS TO BE DETERMINED BY OTHERS AND DETERMINED IN FIELD.

Revisions			
Date	Description	Date	Description

STORMWATER MANAGEMENT SYSTEM OPERATION & MAINTENANCE PLAN

THE STORMWATER MANAGEMENT SYSTEM OPERATION & MAINTENANCE PLAN DESCRIBED HEREIN IS FOR THE STETSON PLAT. IT FURTHER PERTAINS SPECIFICALLY TO PARCEL A AS PROPOSED CONTAINING 3.3+/- ACRES OF LAND.

RESPONSIBLE PARTY FOR MAINTENANCE
 THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE ASSOCIATED WITH THE STORMWATER SYSTEM. ENVIRONMENTAL MANAGEMENT
 AT THIS TIME, THE CURRENT PROPERTY OWNER IS:
 PETER L. & DENISE STETSON
 153 NEW LONDON TURNPIKE
 RICHMOND, RI 02898
 PHONE: 401-539-2049

DURING CONSTRUCTION
 PRIOR TO THE START OF ANY CONSTRUCTION, THE STRAW WATTLES SHALL BE INSTALLED AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION UNTIL A STABLE GROUND COVER IS ESTABLISHED.
 DURING CONSTRUCTION, THE SOIL EROSION AND SEDIMENTATION PROGRAMS FOUND ON THE SITE PLANS PREPARED SHALL BE FOLLOWING AND BE THE RESPONSIBILITY OF THE OWNER AND/OR CONTRACTOR AS APPLICABLE.
 PREPARATION OF THE AREAS FOR THE RAIN GARDENS AND BIORETENTION BASIN SHALL CONFORM TO THE PROCEDURES DESCRIBED AS PART OF THE LANDSCAPING PLAN PREPARED.
 CONSTRUCTION VEHICLES SHALL NOT BE ALLOWED TO DRIVE OVER THE RAIN GARDENS DURING CONSTRUCTION. IF THE AREA BECOMES COMPACTED, SOIL MUST BE SUITABLY AMENDED, TILLED, AND REVEGETATED ONCE CONSTRUCTION IS COMPLETE TO RESTORE INFILTRATION CAPACITY.

DESCRIPTION OF ANNUAL MAINTENANCE TASKS
 1. YARD / LAWN AREA
 THE YARD AREA (LAWN AREA) SHALL BE CREATED AROUND THE PROPOSED SINGLE FAMILY RESIDENCE, GENERALLY BOUNDED BY THE RAIN GARDENS ON EITHER END OF THE HOUSE, THE FRONT WALKWAY AND THE SEPTIC TANK TO THE REAR OF THE HOUSE. SAID AREA WILL BE BETTER DEFINED IN THE FIELD DURING CONSTRUCTION.
 THE RAIN GARDENS SHALL BE MAINTAINED THROUGHOUT THE YEAR. SAID MAINTENANCE IS PROVIDED AS PART OF THE LANDSCAPING DESIGN. ALL PLANT MATERIALS SHALL BE MAINTAINED TO ENSURE PROPER GROWTH AND LIFE, SHOULD ANY OF THESE MATERIALS BECOME DISEASED OR DIE, THEY SHALL BE REPLACED IN KIND AND LOCATION. ALL MAINTENANCE PERFORMED SHALL BE DONE IN A MANNER TO MAINTAIN THE INFILTRATION CAPACITY OF THE RAIN GARDENS.
 ANY AREA SUBJECT TO EROSION TENDENCIES SHALL BE REPLACED IN KIND TO ENSURE THAT A STABLE GROUND COVER IS MAINTAINED AT ALL TIMES.
 MOWING AND OTHER RELATED MAINTENANCE SHALL BE PERFORMED AS SITE CONDITIONS WARRANT THROUGHOUT THE YEAR.
 2. AREA WITHIN THE PROPOSED LIMITS OF DISTURBANCE OUTSIDE THE YARD AREA
 THE AREA WITHIN THE PROPOSED LIMITS OF DISTURBANCE OUTSIDE THE YARD AREA AS DESCRIBED ABOVE SHALL BE MAINTAINED AS SITE CONDITIONS WARRANT.
 ALL INVASIVE PLANT SPECIES SHALL BE REMOVED AND DISPOSED OF IN THE APPROPRIATE MANNER.
 THE AREA SHALL BE SEEDED WITH A CONSERVATION SEED MIX.
 THIS AREA SHALL BE MOWED TWICE A YEAR DURING THE NORMAL GROWING SEASON.
 ANY AREA SUBJECT TO EROSION TENDENCIES SHALL BE REPLACED IN KIND TO ENSURE THAT A STABLE GROUND COVER IS MAINTAINED AT ALL TIMES.
 3. REMAINING AREA OUTSIDE THE PROPOSED LIMITS OF DISTURBANCE
 THIS AREA COMPRISES APPROXIMATELY 74% OF THE TOTAL LOT AREA PROPOSED FOR PARCEL A.
 IT SHALL REMAIN IN ITS CURRENT CONDITION AND CONTINUE TO BE MAINTAINED AS IT DOES TODAY. THIS INCLUDES ONE MOWING ANNUALLY OF THE OPEN FIELD AREAS.
 REMOVAL OF ANY INVASIVE SPECIES AS CONDITIONS MAY WARRANT WILL CONTINUE AS IT DOES TODAY.

DESCRIPTION OF APPLICABLE EASEMENTS
 NO EASEMENTS ARE REQUIRED FOR ANY MAINTENANCE OF THE STORMWATER SYSTEM TO BE PERFORMED.

DESCRIPTION OF FUNDING SOURCES
 THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE AND OPERATION OF THE STORMWATER SYSTEM. AS SUCH, THE OWNER'S PERSONAL FUNDS SHALL BE USED AS REQUIRED.

MINIMUM VEGETATIVE COVER REQUIREMENTS
 THE VEGETATIVE COVER REQUIREMENTS ARE PROVIDED AS PART OF THE LANDSCAPE AND DRAINAGE DESIGN PROVIDED ON THE PLANS. AS PROPOSED, THERE IS A 95% VEGETATIVE COVER PROVIDED AS PART OF THE DESIGN FOR PARCEL A. THE CURRENT ZONING LIMITS THE AMOUNT OF IMPERVIOUS ALLOWED, AND EQUATES TO A MAXIMUM OF 10% IMPERVIOUS COVERAGE AND 90% MINIMUM VEGETATIVE COVERAGE.
 ALL VEGETATION PROPOSED SHALL BE MAINTAINED AT ALL TIMES AND BE REPLACED IN KIND SHOULD IT BECOME DISEASED OR DIE.

ACCESS & SAFETY ISSUES
 THERE ARE NO ACCESS OR SAFETY ISSUES RELATED TO THE MAINTENANCE AND OPERATION OF THE STORMWATER SYSTEM.

POLLUTION PREVENTION MEASURES
 ANY SEDIMENTATION THAT MAY ENTER THE STORMWATER SYSTEMS SHALL BE REMOVED PROMPTLY.
 NO PESTICIDES OR FERTILIZERS SHALL BE USED IN THE RAIN GARDENS OR BIORETENTION-BASIN.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 REVIEWED SITE PLAN APPLICATION NO.: 11-0517
 DATED FEB 24 2012
 SEE LETTER OF SAME DATE

Walker Engineering, Ltd.
 31 Vale Court
 West Greenwich, Rhode Island 02817
 Phone/Fax 401-397-8745
 wel31@cox.net

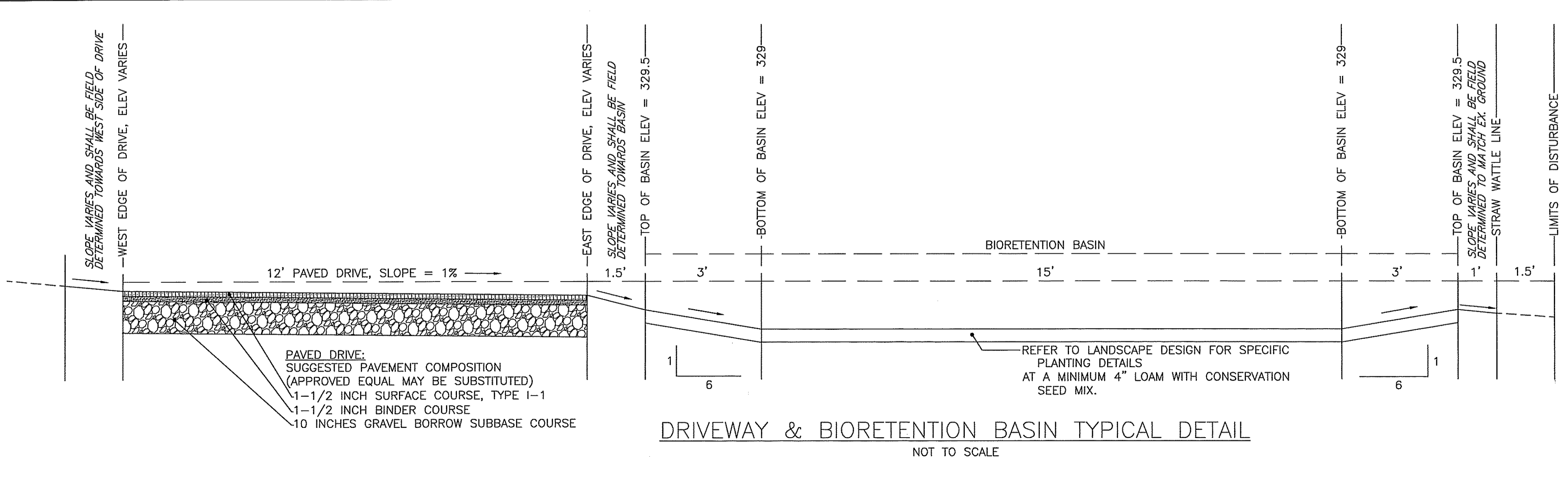
REGISTERED PROFESSIONAL ENGINEER

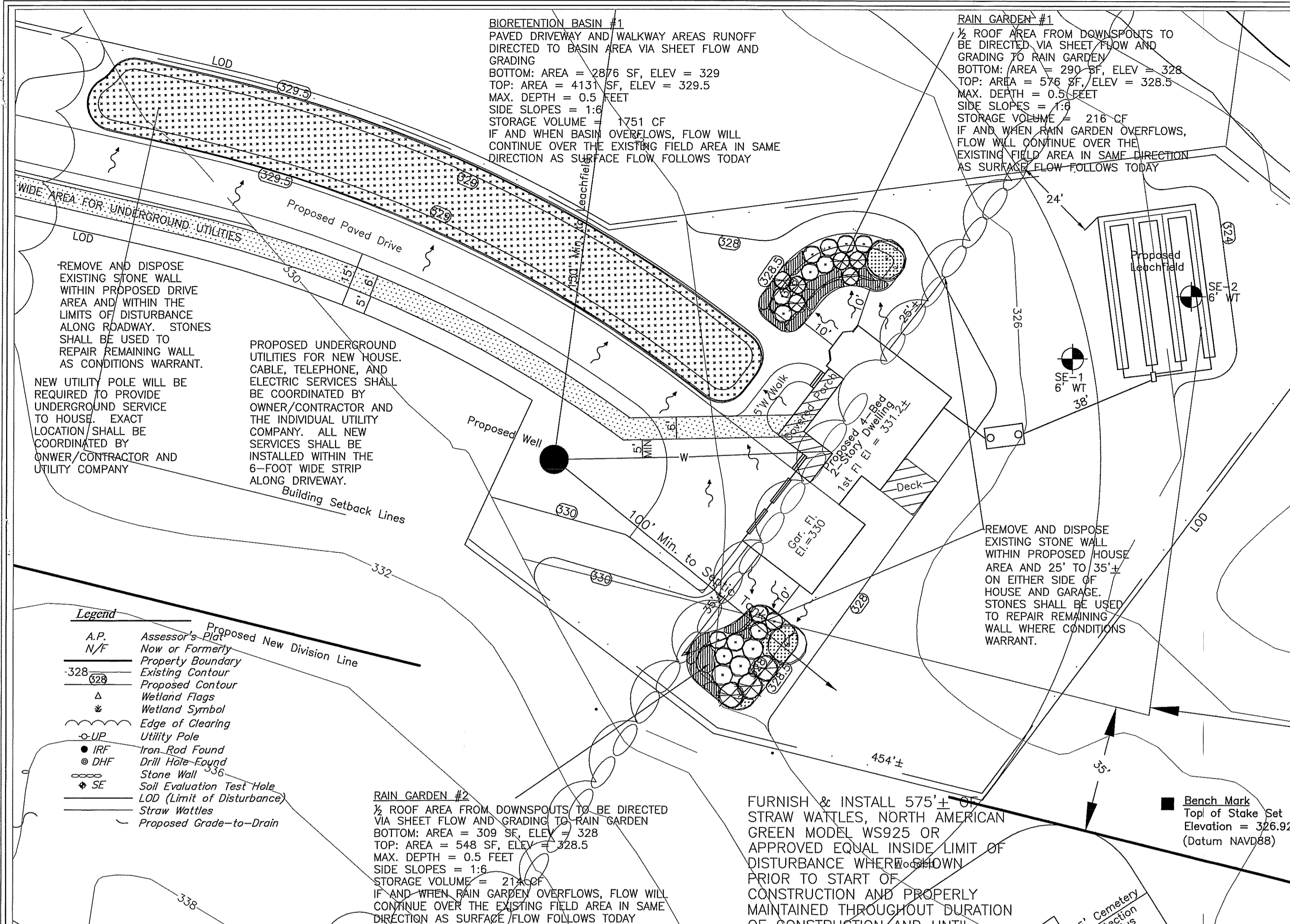
The Stetson Plat - Notes & Details
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 Phone 401-539-2049

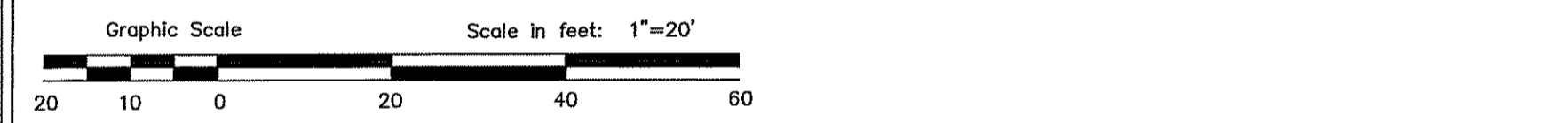
Date: January 2012
 Sheet 3 of 4

Graphic Scale Scale in feet: 1"=20'
 20 10 0 20 40 60





PLANTING PLAN - OVERVIEW OF BIOSWALES AND RAIN GARDENS



EROSION CONTROL/RESTORATION MIX - for detention basins, bioswales and moist sites (As per New England Wetland Plants, Inc. Amherst, MA)

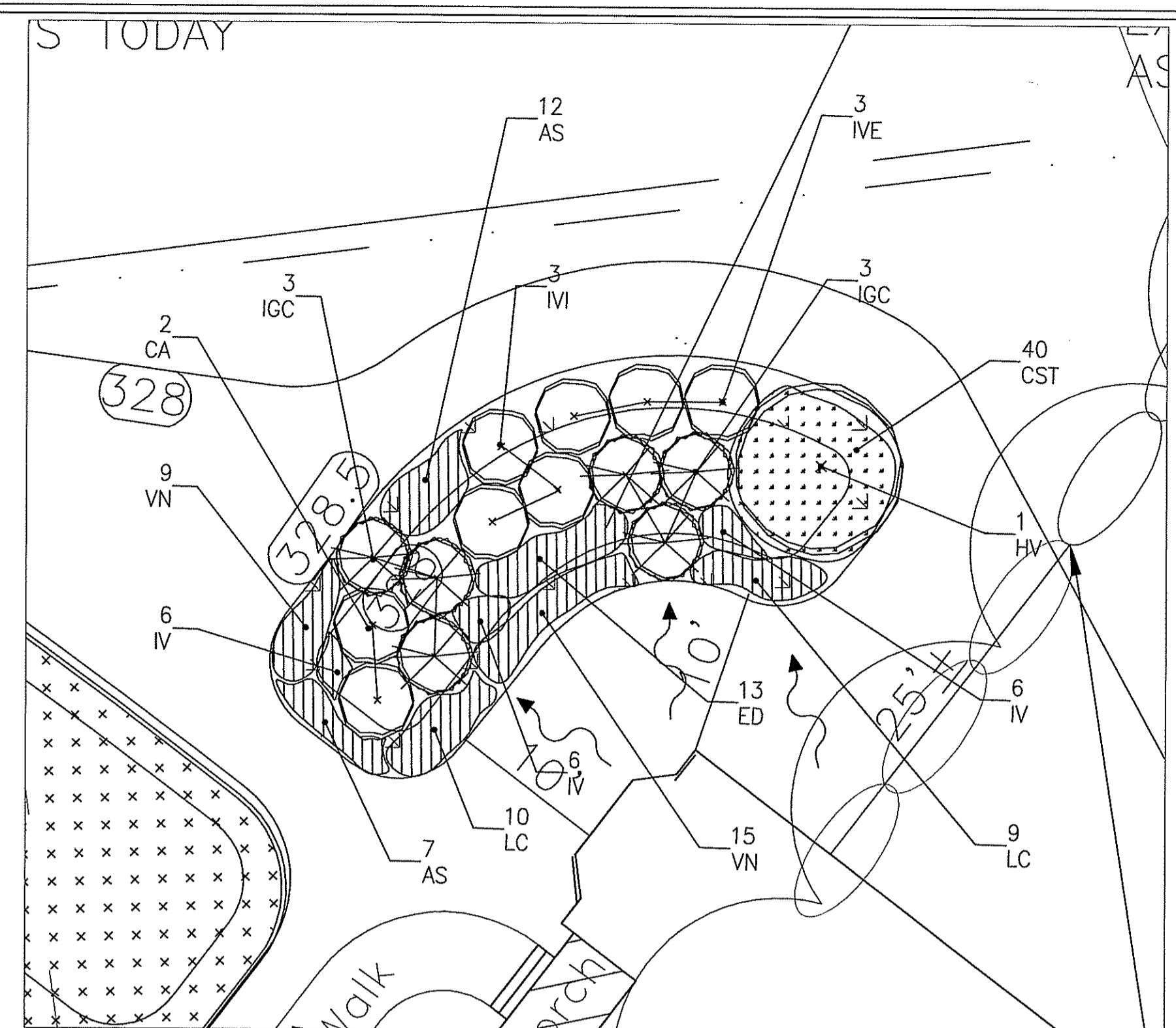
The New England Erosion Control/Restoration Mix contains a selection of native grasses and wildflowers designed to colonize generally disturbed sites where quick growth of vegetation is desired to stabilize the soil surface. This mix is particularly appropriate for detention basins and bioswales which do not normally hold standing water.

PREPARATION: Rake soil to create grooves. Apply seed and lightly rake into soil.
APPLICATION RATE: 35 LBS/ACRE
1245 sq ft/lb
MULCH - Use rolled erosion control blanket.

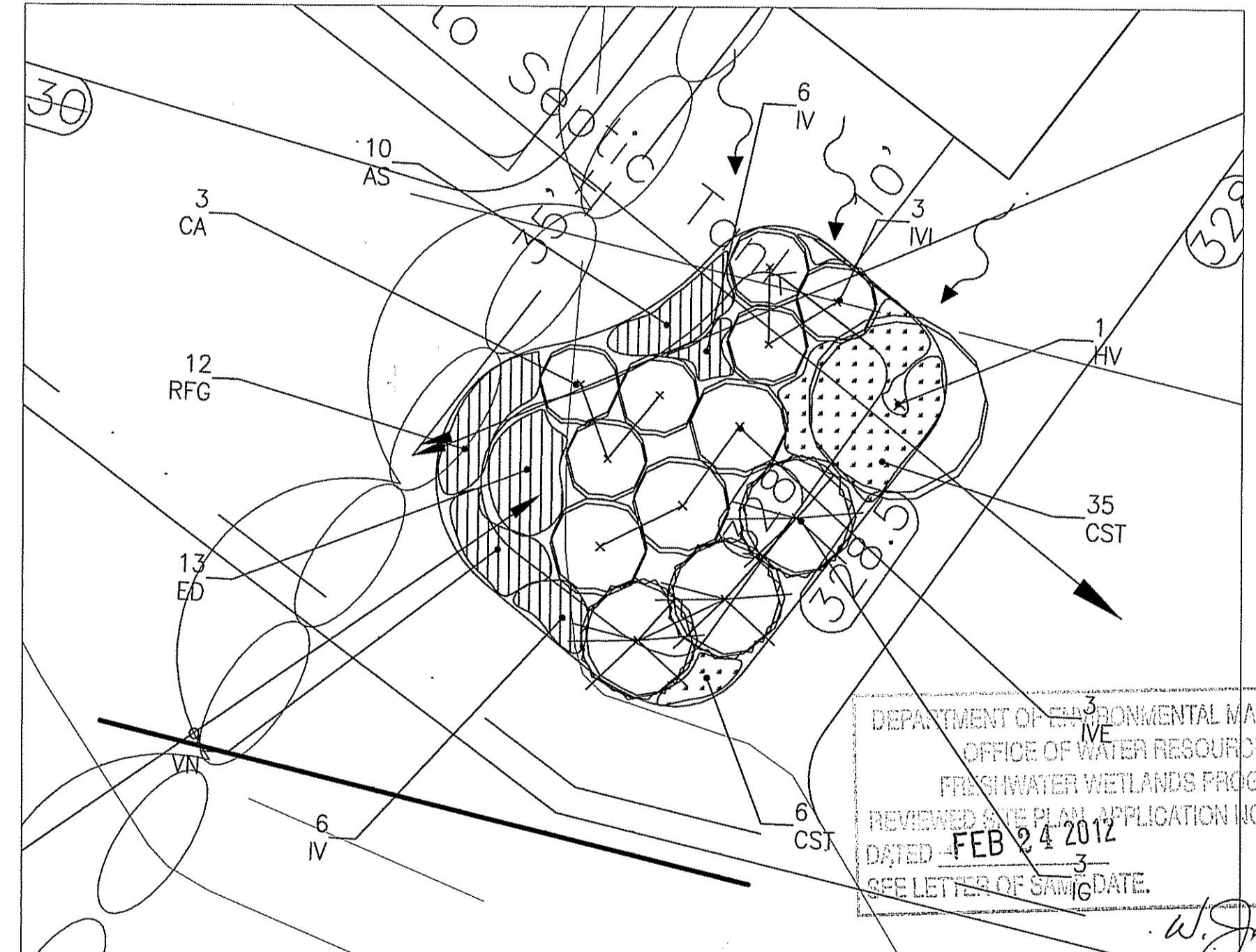
SPECIES
Switchgrass (*Panicum virgatum*), Creeping Red Fescue (*Festuca rubra*), Virginia Wild Rye (*Elymus virginicus*), Fox Sedge (*Carex vulpinoidea*), Creeping Bentgrass (*Agrostis stolonifera*), Silky Wild Rye (*Elymus villosus*), Nodding Bur-Marigold (*Bidens cernua*), Soft Rush (*Juncus effusus*), Grass-leaved Goldenrod (*Solidago graminifolia*), Sensitive Fern (*Osmunda sensibilib*), Joe-Pye Weed (*Eupatorium maculatum*), Boneset (*Eupatorium perfoliatum*), Flat-top Aster (*Aster umbellatus*), New York Aster (*Aster novi-belgii*), Blue Vervain (*Verbena hastata*).

STETSON, RICHMOND, RI - PLANT LIST FOR RAIN GARDENS.

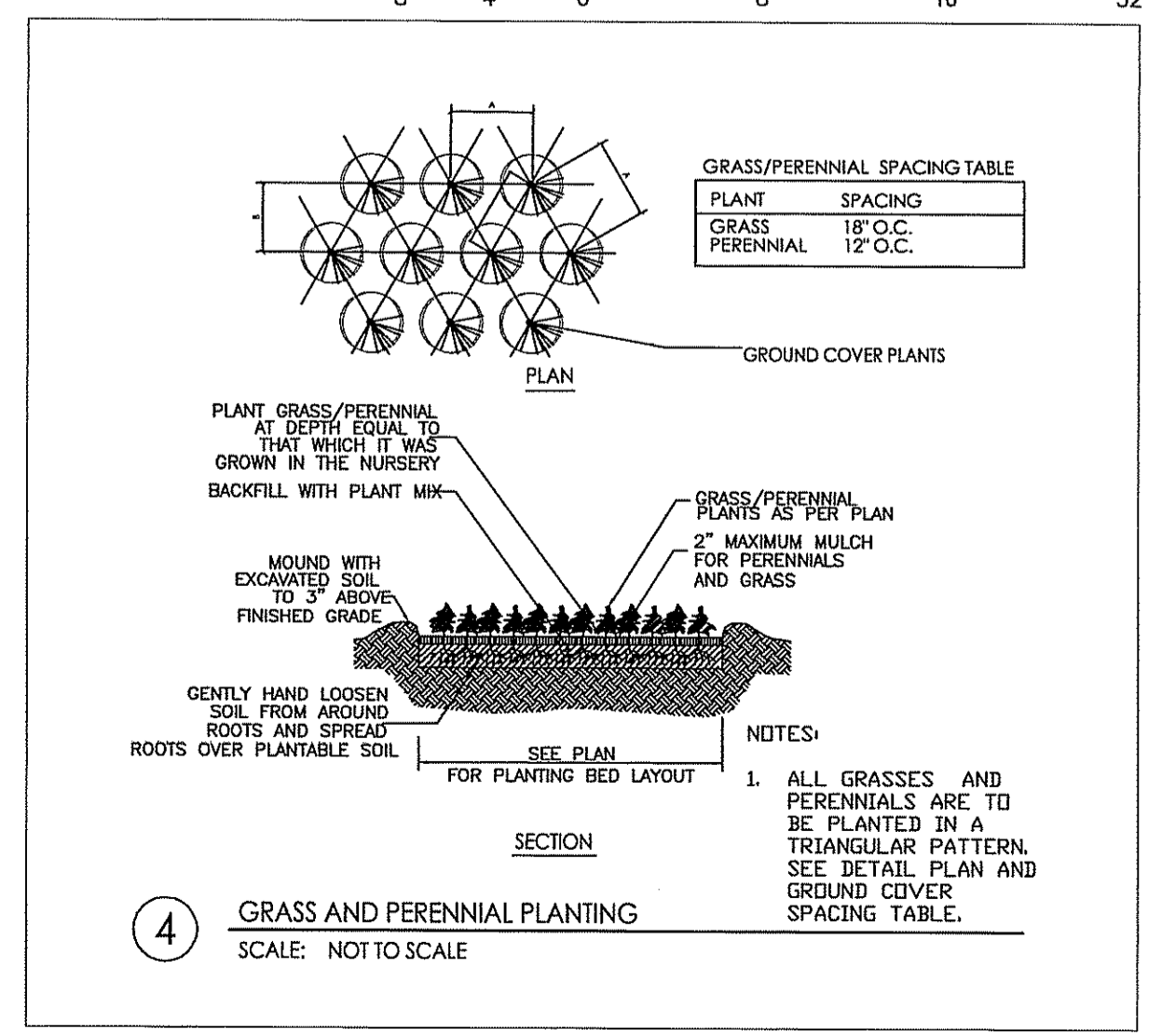
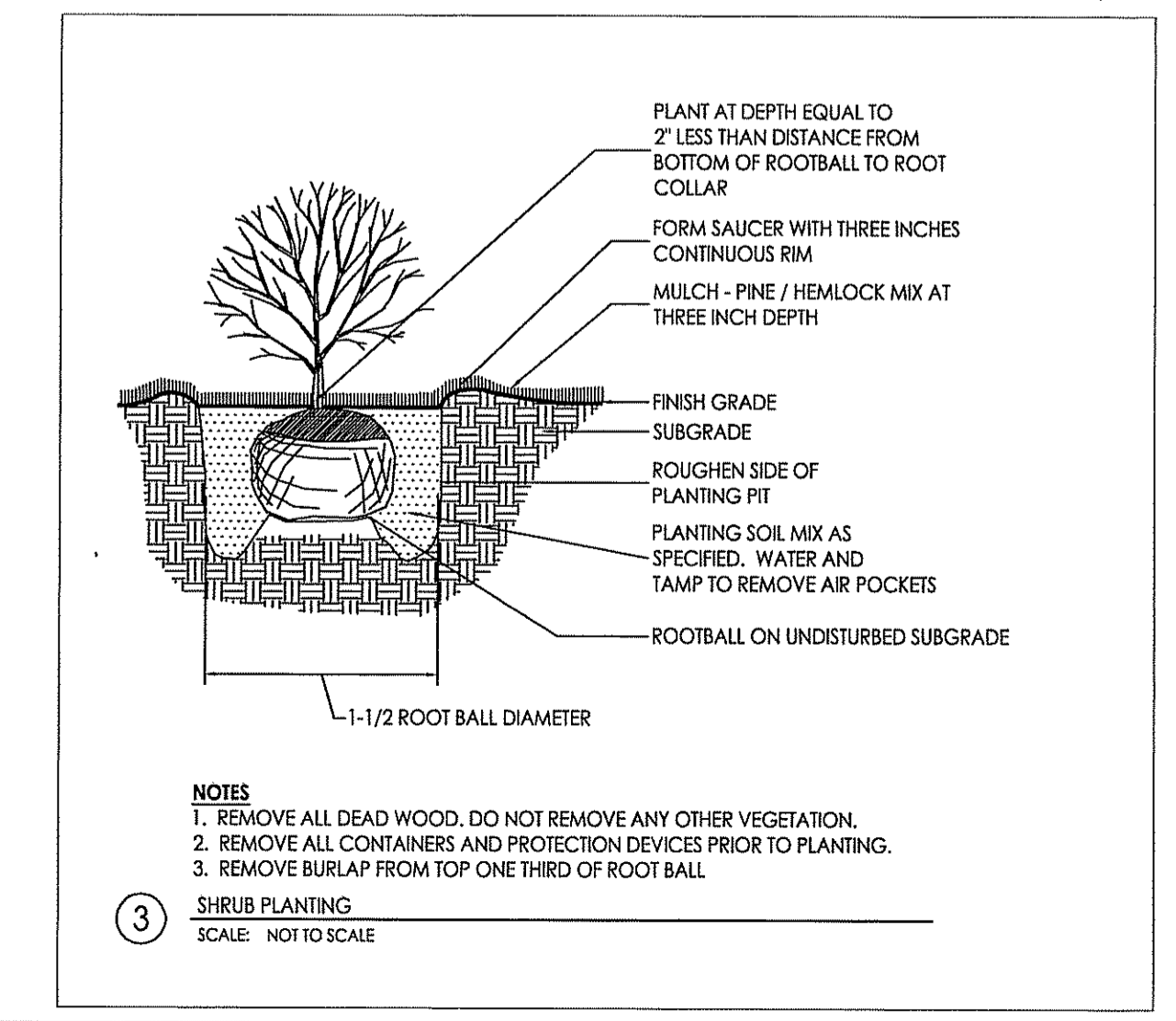
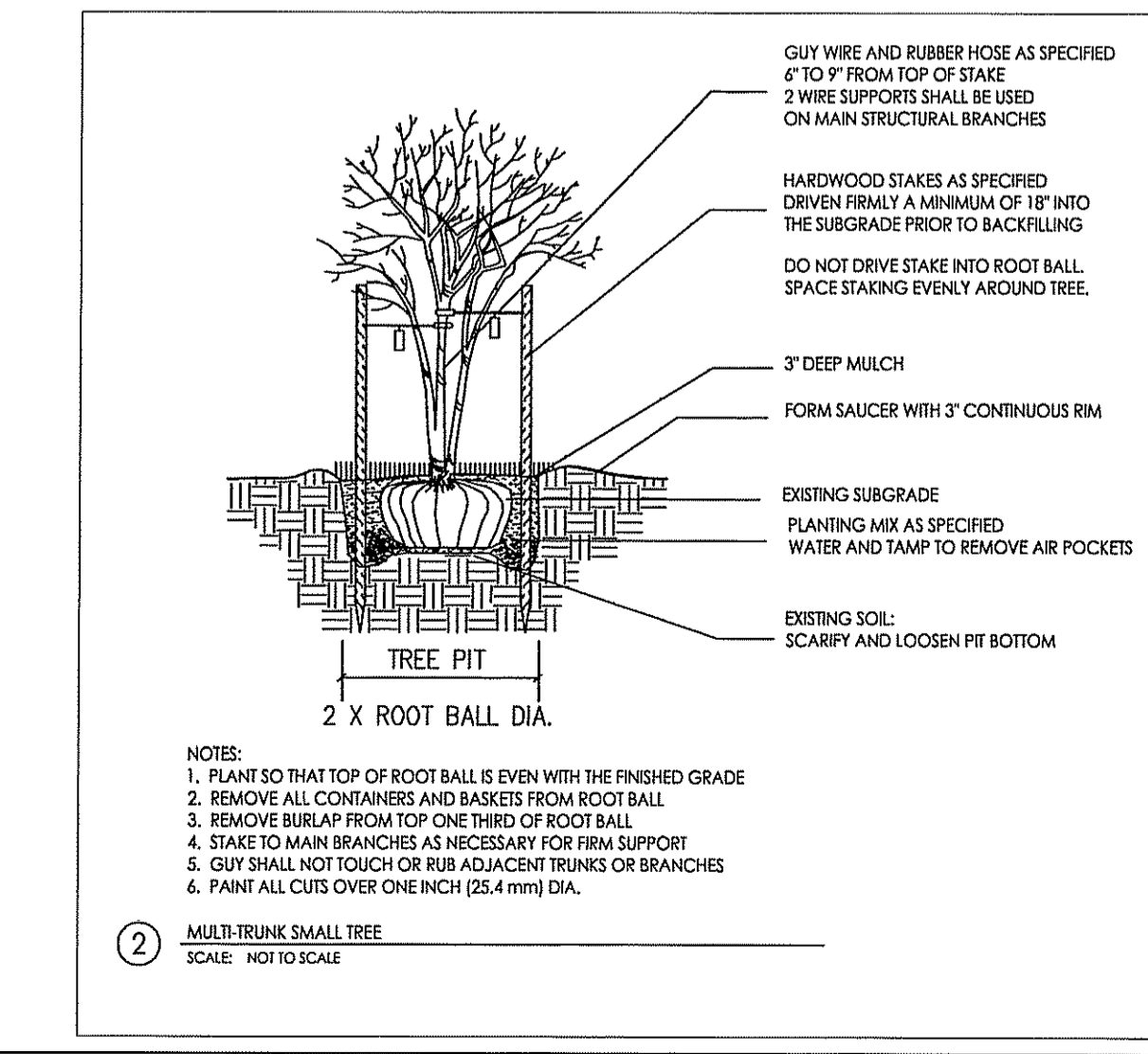
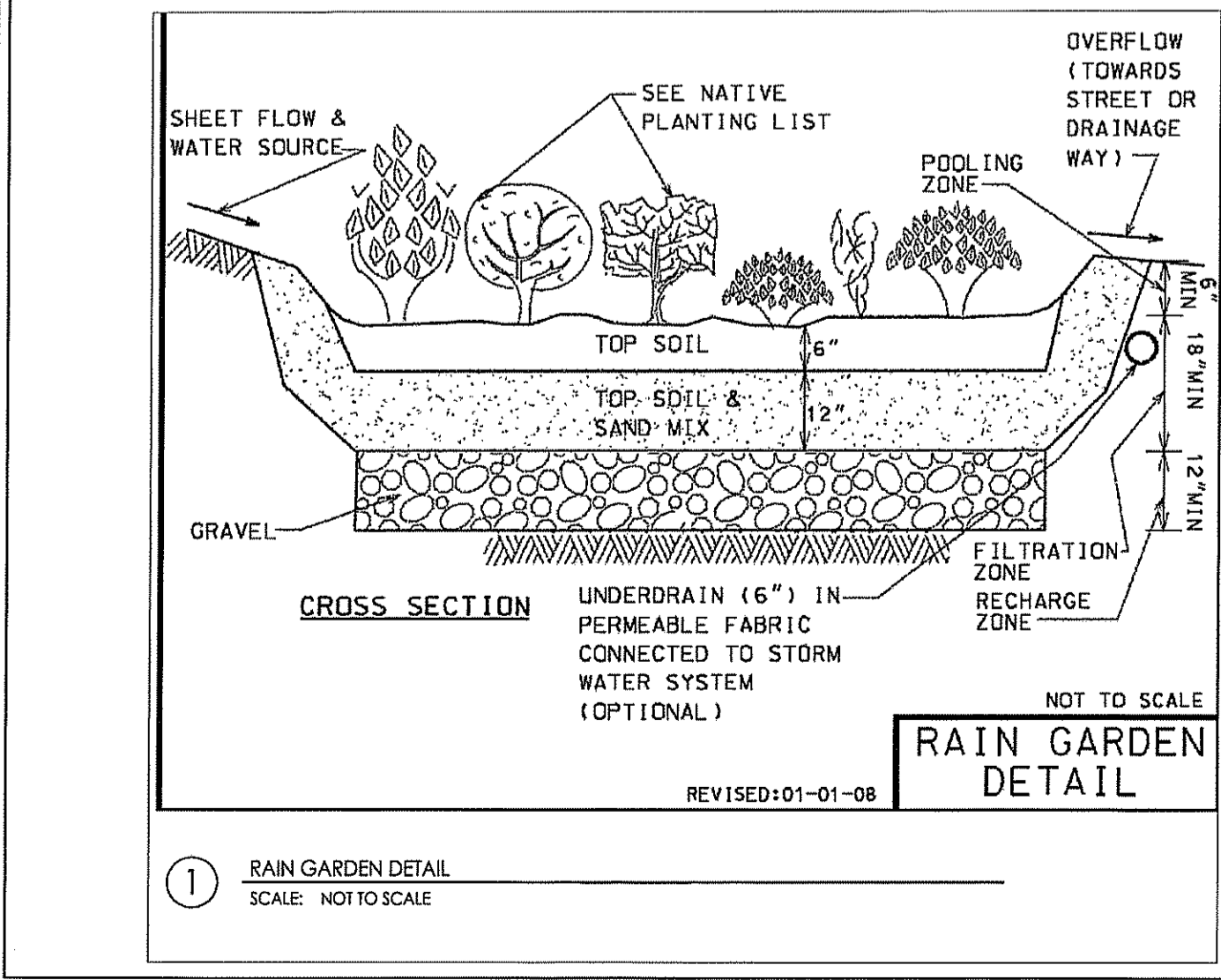
Symbol	Botanical Name	Common Name	Quantity	Size	Root	Notes
TREES						
HV	<i>Hamelis vernalis</i>	Vernal Witch Hazel	2	5 gallon	container	specimen
SHRUBS						
CA	<i>Clethra alnifolia</i>	Summersweet	5	3 gallon	container	Full plant 5'-0" on center
IGC	<i>Ilex glabra</i>	Inhobby	3	2 1/2" 3/4" ht.	B&B	Full plant 7'-0" on center
IGC	<i>Ilex glabra compacta</i>	Compact Inhobby	6	3 gallon	container	Full plant 6'-0" on center
IVE	<i>Ilex verticillata Sprite</i>	Dwarf Winterberry	6	3 gallon	container	Full plant 5'-0" on center
IVI	<i>Itea virginica "Henry's Garnet"</i>	Henry's Garnet Sweetgale	6	3 gallon	container	Full plant 5'-0" on center
HERBACEOUS MATERIAL - GRASSES AND PERENNIALS						
AS	<i>Astilbe sp.</i>	Astilbe species	29	6" pots	container	Plant 1'-6" on center
CST	<i>Carex stricta</i>	Carex grass	81	1 gallon	container	Plant 1'-6" on center
LC	<i>Lobelia cardinalis</i>	Cardinal Flower	10	6" pots	container	Plant 1'-0" on center
ED	<i>Eupatorium dubium</i>	Coastal Plain Joe Pye Weed	26	6" pots	container	Plant 2'-0" on center
IV	<i>Iris versicolor</i>	Blue Flag Iris	32	bulbs	bulbs	Plant 1'-0" on center
RFG	<i>Rudbeckia fulgida "Goldstrum"</i>	Black-Eyed Susan	12	6" pots	container	Plant 2'-0" on center



PLANTING PLAN FOR RAIN GARDEN #1



PLANTING PLAN FOR RAIN GARDEN #2



Revisions

Date	Description	Date	Description

LANDSCAPE NOTES - GENERAL PREPARATION

- PRIOR TO COMMENCING ANY WORK, THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES AND DRAINAGE STRUCTURES IN ACCORDANCE WITH THE "DIG SAFE LAW" ENACTED BY THE RI LEGISLATURE BILL NO. 795-291. BY CONTACTING THE INDIVIDUAL UTILITY COMPANIES.
- ALL SILT FENCE SHALL REMAIN IN PLACE TO COMPLETION OF BUFFER PLANTING AND PLACEMENT OF MULCH.
- ALL AREAS OUTSIDE THE LIMIT OF WORK, DISTURBED BY CONTRACTOR USE AND NOT COVERED BY PROPOSED PLANTING BEDS OR PROPOSED GRASS PATHS SHALL BE LOAMED AND RESEDED.
- CONTRACTOR SHALL TEST EXISTING TOPSOIL FOR PH, N-P-K AND ORGANIC MATTER THROUGH APPROVED TESTING LAB AND SHALL PROVIDE TEST RESULTS TO LANDSCAPE ARCHITECT PRIOR TO PLACING TOPSOIL. INCLUDE FEE FOR LAB TEST IN BID PRICE FOR WORK.
- ALL AREAS TO RECEIVE LOAM AND SEED SHALL BE PREPARED BY REMOVING ALL STONES OVER 2 INCH SIZE TWIGS, BRANCHES, LEAVES, SUBGRADE, AND OTHER DEBRIS. HAND RAKED AND FINE GRADED SCARIFY EXISTING SUBGRADE. AND ADD APPROVED TOPSOIL AS REQUIRED. PROVIDE NECESSARY SOIL AMENDMENTS AS PER SOIL TEST PRIOR TO SEEDING APPLICATION.
- ALL PLANT MATERIAL SHALL BE TAGGED AND APPROVED BY THE LANDSCAPE ARCHITECT AT THE NURSERY. OR AT THE PROJECT SITE WITH PRIOR APPROVAL. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY AND ALL PLANT MATERIAL WHEN DELIVERED TO THE SITE. IF IT DOES NOT MEET STANDARDS, THE CONTRACTOR SHALL RECEIVE APPROVAL FROM THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF ANY PLANT MATERIAL.
- FINAL LOCATION OF PLANTINGS TO BE APPROVED IN THE FIELD BY THE LANDSCAPE ARCHITECT BEFORE INSTALLATION. CONTRACTOR SHALL STAKE ALL PLANT BEDS, AND LOCATIONS OF ALL SHRUBS AND TREES PRIOR TO UNLOADING PLANTS FROM TRUCK. PERENNIAL POTS MAY BE PLACED AT LOCATIONS.
- PLANT MIX BACKFILL FOR ALL PLANTING HOLES TO BE 1 PART COV MANURE OR ORGANIC COMPOST TO 2 PARTS APPROVED LOAM/TOPSOIL.
- ALL PLANTING BEDS TO RECEIVE A COVER OF 2 INCHES OF SHREDDED, NON-DYED HARDWOOD MULCH AS PER CRMC. DO NOT APPLY MORE THAN 1 INCH OF MULCH TO ORNAMENTAL GRASS AND PERENNIAL AREAS.
- FERTILIZER FOR PLANTINGS TO BE ORGANIC SLOW-RELEASE. REVIEW WITH LANDSCAPE ARCHITECT PRIOR TO APPLICATION.

Environmental Management
FEB - 2 2012
Office of Water Resources

RAIN GARDEN (BIORETENTION CELL) INSTALLATION

- Install sediment control devices.
- Grade site to elevations shown on plan. If applicable, construct curb openings and/or remove and replace existing concrete. Curb openings should be blocked or other measures taken to prohibit drainage from entering construction area. Install safety fence around construction area or excavation.
- Stabilize grading within Limit of Disturbance except for the bioretention area to be planted. Surround the rain garden with a biolog, straw bales, or compost berm to keep sediment out of the bioretention cell.
- Excavate bioretention area to proposed invert depth and scarify the existing soil surfaces, taking care not to compact the in-situ materials. Do not leave any open areas or pits open at the end of the day and no excavation over local jurisdiction or OSHA limits.
- Install underdrain system and observation wells, if specified. (Use perforated 4" HDPE pipe and surround the pipe with about 2" of gravel)
- If existing soil is not well-drained planting soil, remove existing soil to depth of at least 3'-0" or to water table. Fill bottom of cell with a 4-inch thick layer of washed gravel or stone.
- Backfill rain garden (bioretention cell) with planting soil. Fill the cell with 8" lifts of soil. Saturate each lift and let it drain and then place the next lift. Be careful not to compact the soil with equipment and over-saturate it.
- Plant vegetation.
- Mulch and install erosion protection at entrance points. Remove sediment control practices or entrance blocks with inspector authorization. Leave perimeter biodegradable controls to reduce sediment loads to cell until vegetation is established.

Landscape Architecture
Landscape Ecology
Cultural Landscape Preservation

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P.O. Box 1328 Pawcatuck, Connecticut 06379
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tel 860-535-4271
fax 860-203-7688
www.landscapeelementllc.com

The Stetson Plat - Landscape Plan and Details
Wetland Submission
Preliminary Determination-Application # 11-0217
New London Turnpike, Richmond, RI
Assessor's Plat 2-D / Lot 3-2

Owner & Applicant:
Peter L. & Denise Stetson
153 New London Turnpike
Richmond, RI 02898
Phone 401-539-2049

Date: January 2012

Sheet 4 of 4

Graphic Scale Scale in feet: 1"=20'
20 10 0 20 40 60