

LOCUS MAP
SCALE: AS SHOWN

- NOTES:**
- BUILDING ARCHITECTURAL DRAWINGS ARE PREPARED BY THE PRIME DESIGN PROFESSIONAL AND ARE NOT PART OF THIS PLAN SET.
 - PROPERTY LINE SURVEY & TOPOGRAPHY PROVIDED BY K. ANDREWS ASSOC. PLAN DATED 2009. PROPERTY LINE SURVEY IS CLASS 1. TOPOGRAPHY PERFORMED BY ON-SITE GROUND SURVEY ON AN ASSUMED ELEVATION.
 - WETLAND EDGES DELINEATED BY NATURAL RESOURCE SERVICES, INC. WETLAND FLAGS LOCATED BY K. ANDREWS ASSOC.
 - SUBJECT PROPERTIES ARE ZONED LB/R.
 - SUBJECT PROPERTIES ARE SITUATED IN 'ZONE C', AREAS OF MINIMAL FLOODING, ON FEMA'S FLOOD INSURANCE RATE MAP, TOWN OF EXETER, RI, PANEL 10 OF 30, #440032 0010 A, DATED MARCH 1, 1982.
 - THERE ARE NO CEMETERY'S ON SUBJECT PROPERTIES.
 - SUBJECT PROPERTIES ARE SITUATED IN A WELL HEAD PROTECTION AREA.
 - SUBJECT PROPERTIES ARE NOT SITUATED IN A NATURAL HERITAGE AREA.
 - SUBJECT PROPERTIES ARE NOT SITUATED IN THE TOWN'S GROUNDWATER OVERLAY DISTRICT.
 - ELEVATION SECTIONS NOT PROVIDED SINCE PROPERTY IS VERY LEVEL - EAST-WEST SECTION VARIES 2± FEET IN 650 FEET. NORTH-SOUTH SECTION VARIES 2± FEET IN 300 FEET.

- REFERENCES**
- PLAN OF LAND FOR GEORGE R. & ELIZABETH A. GOTAUCO EXETER, RI NOVEMBER 1987 SCALE 1"=50' ROBERT C. COURNOYER & ASSOCIATES
 - BEING AP 20 / LOTS 24 & 25 SURVEY FOR A.P.L. REALTY, INC. JUNE 2002 SCALE: 1"=50' LOCATED IN EXETER, RI ROBERT B. BOYER
 - TOWN OF EXETER PC 185
 - TOWN OF EXETER DEED BOOKS & PAGES SHOWN
 - TOWN OF EXETER TAX MAP 20
 - STATE OF RHODE ISLAND HIGHWAY PLAT 647
 - WWW.MAPQUEST.COM

LEGEND

UP ###	EXISTING UTILITY POLE
RIHB FND	EXISTING RHODE ISLAND HIGHWAY BOUND FOUND
IR TBS	IRON ROD TO BE SET
IP FND	IRON PIPE FOUND
* * *	EXISTING WIRE FENCE ALONG PROPERTY
~ ~ ~	APPROXIMATE LOCATION OF TREE LINE

"THIS SURVEY AND PLAN CONFORM TO A CLASS "1" STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS."

BY: *Kirk D. Andrews* 1/13
KIRK D. ANDREWS/PLS NO. 1684 DATED:



A.P. 20 / BL 3 / LOT 40
(AS SHOWN ON REF. MAPS)
VACANT
N/F
DONNA RAYMOND
1220 MAIN ST, PO BOX 141
COVENTRY, RI 02816
ZONE RE-2

A.P. 20 / BL 3 / LOT 15
243 NOOSENECK HILL ROAD
N/F
WILLIAM J & JEANNETTE R &
RICHARD R. GRANTMAIER JT
PO BOX 585
COVENTRY, RI 02816
ZONE RE-2

A.P. 20 / BL 3 / LOT 23
195 NOOSENECK HILL ROAD
ZONE LB/R
N/F
RONALD D COTA ET AL
195 NOOSENECK HILL ROAD
EXETER, RI 02822

A.P. 20 / BL 3 / LOT 1
N/F
WEE HOOSE FARM, LLC
STEPHANIE D. CHAFFEE
22 PARSONAGE STREET
PROVIDENCE, RI 02903

A.P. 20 / BL 1 / LOT 16
ZONE LB/R
N/F
DAVID & PATRICIA SANANTONIO
STEPHANIE D. CHAFFEE
206 NOOSENECK HILL RD.
EXETER, RI 02822

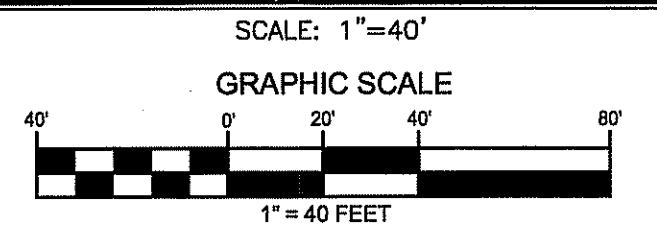
ABBREVIATIONS

- | | |
|----------|----------------------------|
| A.P. | ASSESSORS PLAT |
| A.S.S.F. | AREA SUBJECT TO STORM FLOW |
| BIT. | BITUMINOUS CONCRETE |
| BL | BLOCK |
| C.A. | CHORD ANGLE |
| CB | CATCH BASIN |
| CONC. | CONCRETE |
| DMH | DRAIN MANHOLE |
| EL. | ELEVATION |
| ELEV. | ELEVATION |
| E.O.P. | EDGE OF PAVEMENT |
| EXIST. | EXISTING |
| FES | FLARED END SECTION |
| F.F. | FINISH FLOOR ELEVATION |
| GAL | GALLON |
| HW | HEADWALL |
| INV. | INVERT |
| MIN. | MINIMUM |
| N/F | NOW OR FORMERLY |
| P-1 | POLE #1 |
| PERFOR. | PERFORATED |
| PROP. | PROPOSED OR PROPERTY |
| S | SLOPE |
| S.D. | SUBDRAIN |
| S.D.C.O. | SUBDRAIN CLEANOUT |
| SMH | SANITARY MANHOLE |
| TH | TEST HOLE |
| TOB | TOP OF BLOCK |
| TOW | TOP OF WALL |
| TRANS. | TRANSITION |
| TYP. | TYPICAL |
| UP | UTILITY POLE |

LINETYPE LEGEND

- | | |
|-----|--------------------------------|
| --- | SUBJECT PROPERTY LINE |
| --- | ABUTTING PROPERTY LINE |
| --- | BUILDING SETBACK LINE |
| --- | EXISTING ELEVATION CONTOUR |
| --- | PROPOSED ELEVATION CONTOUR |
| --- | EXIST. ELECTRIC LINE |
| --- | EXIST. DRAIN LINE |
| --- | EXIST. WATER LINE |
| --- | PROPOSED ELECTRIC LINE |
| --- | PROPOSED DRAIN LINE |
| --- | PROPOSED WATER LINE |
| --- | WETLAND EDGE |
| --- | 50 FOOT PERIMETER WETLAND |
| --- | SILT FENCE & LIMIT OF DISTURB. |
| --- | LIMIT OF DISTURBANCE |
| --- | STONEWALL |
| --- | TEST HOLE |
| --- | TREELINE |
| --- | EXISTING CONC. BLOCK WALL |
| --- | EXISTING SPOT GRADE |
| --- | PROPOSED SPOT GRADE |

EXISTING CONDITIONS PLAN



Being: ASSESSORS PLAT 20 BL 3 LOT 84
EXISTING CONDITIONS PLAN
MULCH 'N MORE, INC.
LOCATION
171 & 175 NOOSENECK HILL ROAD
EXETER, RHODE ISLAND
Property Owner & Applicant:
Baird Properties, LLC
17 Reservoir Road
Coventry, RI 02816
JAN 9 2013

Checked By: T.J.B. Drawn By: T.J.B.
Scale: AS SHOWN Date: FEB. 2010

NO.	REVISIONS	DATE
1	ISSUE	02/09/2010
2	REVISED PER COMMENTS	02/10/2010
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8	REVISED PER COMMENTS	02/10/2010
9	REVISED PER COMMENTS	02/10/2010
10	REVISED PER COMMENTS	02/10/2010

THOMAS J. BEHAN
No. 1684
Professional Engineer
R.I. License No. 0278
Professional Engineer

TJB ENGINEERING, LLC
CIVIL ENGINEERING
PERMITTING * LAND PLANNING
SUBDIVISIONS * WASTEWATER
1050 MAIN STREET SUITE 31
EAST GREENWICH, RI 02818
PHONE: 401-996-1677

GENERAL NOTES:

- 1. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE AND UTILITIES, BOTH UNDERGROUND AND OVERHEAD BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH "DIG SAFE". NO DRAINAGE STRUCTURE OR FACILITY SHALL BE DISTURBED WITHOUT PROPER PERMITS UNLESS SPECIFICALLY INDICATED ON THESE DRAWINGS. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- 2. ALL WORK WITHIN THE STATE'S ROW WILL CONFORM TO RIDOT'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION AND STANDARD DETAILS, JUNE 15, 1998, AS AMENDED BY REVISION. SPECIFICATIONS & DETAILS TO GOVERN THIS PROJECT ARE THE RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION 2004 EDITION (AS AMENDED, INCLUDING ALL ADDENDUMS) & TOWN STANDARDS. THE TOWN'S STANDARDS SHALL OVERRIDE RIDOT STANDARDS OUTSIDE OF THE STATE R.O.W. THE CONTRACTOR SHALL CONSTRUCT THE PROPOSED ROADWAYS AND DRAINAGE SYSTEMS IN ACCORDANCE WITH THE RIDOT AND TOWN'S SPECIFICATIONS FOR CONSTRUCTION OF REQUIRED IMPROVEMENTS AS SPECIFIED IN THE TOWN'S SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- 3. THESE PLANS HAVE NOT BEEN PREPARED TO SERVE AS CONTRACT DOCUMENTS BETWEEN THE CONTRACTOR AND THE OWNER.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE AND PROTECTION OF PEDESTRIAN AND VEHICULAR TRAFFIC INCLUDING POLICE PROTECTION. ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES 2003 INCLUDING ALL REVISIONS.
- 5. ALL REQUIRED AUTHORIZATION/PERMITS TO PERFORM WORK MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- 6. ALL EXISTING UTILITIES HAVE BEEN PLOTTED UPON BEST AVAILABLE INFORMATION AND REPRESENT APPROXIMATE LOCATIONS. UTILITY LOCATIONS SHOWN ON THE PLANS SHALL NOT BE RELIED UPON BY THE CONTRACTOR.
- 7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY CONSTRUCTION OPERATIONS INCLUDING ALL ACTIONS OR OMISSIONS OF ANY SUBCONTRACTORS, AGENTS OR EMPLOYEES. THE CONTRACTOR MUST ENSURE THAT THE CONDITIONS OF ALL PERMITS, SPECIFICATIONS AND FEDERAL, STATE AND LOCAL REGULATIONS AREA STRICTLY ENFORCED. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL ASPECTS OF ON-SITE SAFETY INCLUDING ANY DAMAGE TO EXISTING STRUCTURES.
- 8. ALL DISTURBED AREAS/STRUCTURES SHALL BE REPLACED IN KIND UNLESS OTHERWISE SHOWN, INCLUDING CURBS, FANWAYS, ETC.
- 9. EMBANKMENT SLOPES AND ALL DISTURBED AREAS ARE TO RECEIVE 4" OF TOPSOIL AND SEED UNLESS OTHERWISE NOTED.
- 10. WORK SHOWN ON THE PLANS FOR WHICH THERE ARE NO PARTICULAR DETAILS OR SPECIFICATIONS DOES NOT RELIEVE THE CONTRACTOR FROM FURNISHING 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 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 MUST BE ACCEPTABLE TO THE ENGINEER.
- 11. ALL ELEVATIONS ON SUBVERTED PROPERTY ARE BASED ON NGVD29 DATUM AND HAS A VERTICAL ERROR OF 1/4 FEET. OFFSITE TOPOGRAPHY, IF SHOWN, IS BASED ON USGS DATA AND LIKELY HAS A VERTICAL ERROR OF 5/8 FEET. OFF-SITE PROPERTY LINES ARE BASED ON TOWN PLAT MAPS AND ARE CONSIDERED APPROXIMATE.
- 12. THE CONTRACTOR SHALL INSTALL ALL HAY BALES & SEDIMENT CONTROL DEVICES IN ACCORDANCE WITH RIDOT & TOWN STANDARDS PRIOR TO ANY CONSTRUCTION.
- 13. ALL CONSTRUCTION IS SUBJECT TO THE INSPECTION AND APPROVAL BY THE TOWN. PROPER NOTIFICATION SHALL BE GIVEN PRIOR TO THE COMMENCEMENT OF ANY WORK.
- 14. ALL UNSUITABLE MATERIAL (LOAM, SUBSOIL, FILL, ROOTS, TREE TRUNKS, CLAY, SILT, ORGANIC MATTER, LARGE STONES, ETC.) SHALL BE REMOVED FROM THE ROADWAY/PARKING AREA SUBGRADE, STORMWATER INFILTRATION SYSTEM AND DETENTION POND AREA PRIOR TO THE PLACEMENT OF SPECIFIED MATERIALS AS DIRECTED AND APPROVED.
- 15. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SOIL EROSION AND SEDIMENTATION CONTROLS WHERE NECESSARY AND AS DIRECTED. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND PROCEDURES SET FORTH IN THE TOWN'S SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, LATEST EDITION. THE REGULATIONS ARE AVAILABLE FOR REVIEW FROM THE PLANNING DEPARTMENT.
- 16. PROPOSED GRADING ON THE PROPERTIES ARE TO BE USED AS A GUIDE SUCH THAT THE DEVELOPED AREA IS GRADED TO DRAIN ALL SURFACE RUNOFF.
- 17. COMMUNICATION LINES (ELECTRIC, TELEPHONE, AND CABLE TV) SHALL BE INSTALLED UNDERGROUND UNLESS APPROVED BY THE TOWN.
- 18. THE ENTIRE PROPERTY IS NOT SITUATED IN A 100-YR FLOOD ZONE AS DEPICTED IN FEMA'S FLOOD INSURANCE RATE MAPS #FIRM 44007C02836, PANEL 283 OF 541, DATED MAR. 2, 2009.
- 19. ALL CONSTRUCTION SHALL BE PERFORMED IN THE DRY. THE CONTRACTOR SHALL PROVIDE, OPERATE AND MAINTAIN ALL PUMPS, DRAINS, WELL POINTS AND OTHER FACILITIES NECESSARY TO CONTROL, COLLECT AND DISPOSE SURFACE AND SUBSURFACE WATER ENCOUNTERED DURING CONSTRUCTION.
- 20. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL ENGAGE A RI PROFESSIONAL LAND SURVEYOR TO SET AND VERIFY ALL LINES AND GRADES. ALL EXISTING UTILITY LOCATIONS AND ELEVATIONS ARE TO BE CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY ITEM FOUND WHICH DOES NOT MATCH THE PLANS MUST BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO CONSTRUCTION FOR REVIEW. NO WORK SHALL PROCEED UNTIL AUTHORIZED BY THE TOWN.
- 21. THE LIMIT OF DISTURBANCE SHALL BE LOCATED BY A RI PLS PRIOR TO CONSTRUCTION. NO CLEARING OR DISTURBANCE SHALL TAKE PLACE OUTSIDE THE LIMIT OF DISTURBANCE. THE AREA OUTSIDE THE LIMIT OF DISTURBANCE SHALL BE KEPT TOTALLY UNDISTURBED.
- 22. ALL ROOT SYSTEMS, TREES, STUMPS, BUSHES, BOULDERS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND TRANSPORTED AWAY FROM THE PROJECT SITE, UNLESS OTHERWISE APPROVED BY THE TOWN.
- 23. MANHOLE AND CATCH BASIN FRAME & COVERS SHALL BE ADJUSTED TO FINISH GRADE WITH RED BRICK AND MORTAR.
- 24. ALL MANHOLE AND CATCH BASIN FRAME & COVERS SHALL BE ADJUSTED TO THE FIRST COURSE OF PAVEMENT. THE FRAME AND COVERS SHALL BE RE-ADJUSTED IMMEDIATELY PRIOR TO PLACEMENT OF THE SECOND COURSE OF PAVEMENT.
- 25. THE CONTRACTOR SHALL READ THE TOWN SUBDIVISION AND LAND DEVELOPMENT REGULATIONS PRIOR TO CONSTRUCTION (AS THEY PERTAIN TO CONSTRUCTION). ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE REGULATIONS.
- 26. THE CONTRACTOR SHALL ADHERE TO ALL PERMITS WHICH INCLUDE AT LEAST RIDEM FRESHWATER WETLANDS, RIDOT PHYSICAL ALTERATION PERMIT AND RIDEM OWTS.
- 27. ALL PAVEMENT CUTS SHALL HAVE SAW CUT EDGES. ANY EXCAVATION IN AN EXISTING PAVED AREA WILL REQUIRE A 2" THICK, HOT MIX, TEMPORARY PATCH. AFTER A MINIMUM OF 90 DAYS, THE TEMPORARY PATCH SHALL BE REMOVED AND A PERMANENT HOT MIX PATCH SHALL BE PLACED.
- 28. RETAINING WALL SHALL BE FINE GRADED SO THE HEIGHT BETWEEN THE FRONT AND REAR ELEVATION OF THE WALL IS LESS THAN 32".
- 29. ONLY PLANS ENTITLED 'ISSUED FOR CONSTRUCTION' SHALL BE USED AT THE JOB SITE BY THE CONTRACTOR.
- 30. ALL WORK IN ACCORDANCE WITH THE R.I. STATE BUILDING CODE.

TOWN NOTES:

- 1. PROPOSED DEVELOPMENT WILL BE SERVED BY PRIVATE WELL AND SEPTIC SYSTEM.
- 2. PROPOSED PLAN IS SUBJECT TO A SPECIAL USE PERMIT ISSUED BY THE ZONING BOARD OF REVIEW DATED JANUARY 25, 2011 AND RECORDED IN THE LAND EVIDENCE RECORDS, BOOK 393 PAGE 28 THROUGH 37.

STATE PERMIT NOTES:

THE FOLLOWING STATE PERMITS HAVE BEEN ISSUED FOR THIS PROJECT. THE CONTRACTOR SHALL ADHERE TO ALL PERMIT CONDITIONS:

- 1. RIDEM FRESHWATER WETLANDS PERMIT #10-0108.
- 2. RIDOT PAPA PERMIT #100910.
- 3. RIDEM OWTS PERMIT #0111-0127

ADA ACCESSIBILITY NOTES:

- 1. THE PROJECT SITE SHALL BE CONSTRUCTED IN CONFORMANCE WITH DEPARTMENT OF JUSTICE 28 CFR PART 36 "ADA STANDARDS FOR ACCESSIBLE DESIGN".
- 2. THE CONTRACTOR SHALL NOT ALTER THE GRADING ON THE PLAN UNLESS APPROVED BY THE ENGINEER.
- 3. ALL WORK SHALL CONFORM TO "ADA STANDARDS FOR ACCESSIBLE DESIGN".
- 4. ADA PARKING SPACES AND ACCESS AISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 2% (1:50).
- 5. ALL ADA PARKING SPACES SHALL BE FURNISHED WITH THE APPROPRIATE SIGNS AND MARKINGS.
- 6. ALL CURB RAMPS SHALL BE FURNISHED WITH DETECTABLE WARNINGS.
- 7. ANY ACCESSIBLE ROUTE WITH A SLOPE GREATER THAN 5% (1:20) IS CONSIDERED A RAMP. RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1:12.5 FOR A MAXIMUM HORIZONTAL DISTANCE OF 6 FEET. A 60 INCH X 60 INCH LANDING IS REQUIRED AT EACH END OF THE RAMP. RAMPS GREATER THAN 6' LONG REQUIRE HANDRAILS IN ACCORDANCE WITH ADA REQUIREMENTS.
- 8. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH STATE BUILDING CODE AND ADA REQUIREMENTS. SUBMIT SHOP DRAWINGS OF ALL WORK FOR REVIEW AND APPROVAL.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE AND PROTECTION OF PEDESTRIAN AND VEHICLE TRAFFIC INCLUDING POLICE PROTECTION. ALL TEMPORARY AND VEHICULAR SIGNS, BARRICADES AND LANE CLOSURES SHALL BE IN CONFORMANCE WITH THE LATEST REVISIONS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 2003 (M.U.T.C.D.) INCLUDING ALL REVISIONS.
- 2. TEMPORARY CONSTRUCTION SIGNS AND ALL APPLICABLE TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC.
- 3. THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS WILL NOT BE PARKED IN THE STATE/TOWN STREET RIGHT-OF-WAY.
- 4. SIGN MOUNTINGS SHALL BE IN ACCORDANCE WITH R.I.D.O.T. SPECIFICATIONS FOR TEMPORARY CONSTRUCTION SIGNS.

INFILTRATION SYSTEM CONSTRUCTION NOTES:

- 1. THE CONTRACTOR SHALL ENSURE NO SEDIMENT OR FINES ENTER THE PROPOSED INFILTRATION SYSTEM DURING CONSTRUCTION. SEDIMENT & EROSION CONTROL BEST MANAGEMENT PRACTICES (SUCH AS SILT FENCE AND EARTH BERMS) SHALL BE USED TO PREVENT SEDIMENT CONTAINED RUNOFF FROM ENTERING THE INFILTRATION SYSTEM AREA.
- 2. STRIP ALL SOILS DOWN TO PROPOSED BOTTOM OF STONE ELEVATION. CALL DESIGNER FOR BOTTOM BED APPROVAL. THE BOTTOM OF THE INFILTRATION AREA SHALL BE ORIGINAL, UNDISTURBED, NATIVE SANDY LOAM MATERIAL. REMOVE ALL UNSUITABLE MATERIALS BELOW THE PROPOSED BOTTOM OF STONE ELEVATION WHICH MAY BE PRESENT SUCH AS LOAM, SUBSOIL, FILL MATERIAL, DEBRIS, FINES, ETC., AND REPLACE WITH CLEAN COMPACTED 'SEPTIC' GRAVEL TO BOTTOM OF CRUSHED STONE ELEVATION.
- 3. SCARIFY BOTTOM OF BED IMMEDIATELY PRIOR TO PLACEMENT OF WASHED, CRUSHED STONE.
- 4. PLACE DRAINAGE FILTER FABRIC AS SHOWN ON DETAILS PRIOR TO PLACING CRUSHED STONE.
- 5. IMMEDIATELY PLACE CLEAN, WASHED CRUSHED STONE AND COMPACT TO THE PROPER ELEVATION. WRAP CRUSHED STONE WITH FILTER FABRIC. LAP JOINTS SHALL OVER-LAP BY 3 FEET. PLACE GRAVEL OVER FABRIC AND COMPACT.
- 6. PROCEED WITH PAVING OVER THE INFILTRATION SYSTEM.
- 7. CRUSHED STONE SHALL BE PLACED ONLY WHERE SHOWN ON THE PLAN.

DRAINAGE SYSTEM - INSPECTION, MAINTENANCE AND REPAIR NOTES:

- 1. THE PROPERTY OWNER SHALL MAINTAIN THE PROPOSED DRAINAGE SYSTEM COMPONENTS WHICH INCLUDE THE DRAIN MANHOLES, PIPING, CULVERTS, SWALES, SEDIMENT FOREBAY, EXTENDED DETENTION SYSTEM & OUTLET, INFILTRATION SYSTEM AND RAIN GARDEN.
- 2. THE DRAINAGE SYSTEM SHOULD BE INSPECTED TWICE PER YEAR BY A QUALIFIED INDIVIDUAL, GENERALLY IN THE SPRING AND FALL AND AFTER EVERY RAINFALL EVENT WHICH PRODUCES 2 INCHES OF PRECIPITATION IN A 24-HOUR PERIOD.

DRAIN MANHOLES WITH SUMPS:

- A. REMOVE TRASH AND LITTER.
- B. REMOVE SEDIMENT WHEN SUMP DEPTH IS WITHIN 1 FOOT OF THE OUTLET PIPE.
- C. REPAIR ALL STRUCTURAL DEFECTS IMMEDIATELY.

DRAIN MANHOLES:

- A. REMOVE TRASH AND LITTER.
- B. REPAIR ALL STRUCTURAL DEFECTS IMMEDIATELY.

PIPES, SWALES & OUTLETS:

- A. ALL CLOGGED OR SEDIMENT FILLED PIPES WHICH ARE MORE THAN 10% SEDIMENT FILLED SHALL BE CLEANED OUT IMMEDIATELY. WHEN CLEANING OUT PIPES, ENSURE DOWNSTREAM AREAS ARE PROTECTED FROM SEDIMENT DISCHARGES.
- B. REMOVE TRASH AND LITTER.
- C. INSPECT OUTLET RIP RAP AREAS. REPAIR ALL ERODED AREAS BY SUPPLEMENTING WITH MORE RIP RAP AND ESTABLISHING NEW VEGETATIVE GROWTH.

CULVERTS:

- A. ALL CLOGGED OR SEDIMENT FILLED PIPES WHICH ARE MORE THAN 10% SEDIMENT FILLED SHALL BE CLEANED OUT IMMEDIATELY. WHEN CLEANING OUT PIPES, ENSURE DOWNSTREAM AREAS ARE PROTECTED FROM SEDIMENT DISCHARGES.
- B. REMOVE TRASH AND LITTER.
- C. INSPECT OUTLET RIP RAP AREAS. REPAIR ALL ERODED AREAS BY SUPPLEMENTING WITH MORE RIP RAP AND ESTABLISHING NEW VEGETATIVE GROWTH.

SEDIMENT FOREBAY:

- A. INSPECT SLOPES OF BERM. STABILIZE ERODED AREAS BY REGRADING AND ESTABLISHING NEW VEGETATIVE GROWTH.
- B. MOW SIDE SLOPES OF BERM, EMBANKMENTS ONCE PER YEAR (GENERALLY AFTER AUGUST 15).
- C. REMOVE ALL TRASH AND LITTER.
- D. SEDIMENT ACCUMULATION SHOULD BE REMOVED ANNUALLY.

EXTENDED DETENTION POND:

- A. INSPECT THE OUTLET CONTROL STRUCTURES TO ENSURE ALL OPENINGS ARE FREE OF DEBRIS AND ARE FUNCTIONING PROPERLY. MAKE ALL NECESSARY REPAIRS.
- B. INSPECT SLOPES OF BERM. STABILIZE ERODED AREAS BY REGRADING AND ESTABLISHING NEW VEGETATIVE GROWTH.
- C. MOW SIDE SLOPES OF BERM, EMBANKMENTS ONCE PER YEAR (GENERALLY AFTER AUGUST 15).
- D. REMOVE ALL TRASH AND LITTER.
- E. RIP RAP AREAS SHALL BE INSPECTED FOR EROSION. RESTORE AREAS BY REGRADING AND REPAIRING THE RIP RAP AREAS.
- F. THE GRASSED AREAS OF THE POND SHOULD BE INSPECTED TWO TIMES PER YEAR TO CHECK FOR EROSION PROBLEMS. PROBLEM AREAS SHOULD BE RESEED IMMEDIATELY TO STABILIZE EXPOSED SOILS, THEREBY PREVENTING EROSION AND POTENTIAL CLOGGING OF OUTLET DEVICES.
- G. IF STANDING WATER IS FOUND IN THE POND MORE THAN 3 DAYS AFTER A RAINFALL EVENT, THE POND SHALL BE DETERMINED TO BE FAILED, AND THE POND SHALL BE INSPECTED BY A R.I. REGISTERED PROFESSIONAL ENGINEER FOR RECOMMENDATION FOR REPAIR.

OUTLET DISCHARGE FROM EXTENDED DETENTION POND:

- A. REMOVE TRASH AND LITTER.
- B. REPAIR ERODED AREAS BY REGRADING AND PLACING ADDITIONAL RIP RAP AND/OR ESTABLISHING NEW VEGETATIVE GROWTH.
- C. RIP RAP AREAS SHALL BE INSPECTED FOR EROSION. RESTORE AREAS BY REGRADING AND REPAIRING THE RIP RAP AREAS.

SUBDRAIN SYSTEM:

- A. CHECK SYSTEM TO ENSURE IT'S FREE FLOWING AND NOT FULL OF SEDIMENT.
- B. THE OUTLET SHOULD BE KEPT CLEAN TO ALLOW FOR FREE FLOW CONDITION.
- C. ENSURE LARGE TREES DO NOT GROW WITHIN 10 FEET OF SYSTEM OR ROOT CLOGGING MAY BECOME A PROBLEM.

INFILTRATION SYSTEM FOR ROOF-TOP RUNOFF:

- A. INSPECT INSIDE THE 4" PVC INSPECTION PIPE TO CONFIRM THE SYSTEM IS DRAINING IS DRAINING WITHIN 72 HOURS. A RHODE ISLAND PROFESSIONAL ENGINEER SHALL BE RETAINED TO INSPECT SYSTEM SHOULD SYSTEM NOT BE DRAINING WITHIN 72 HOURS.
- B. INSPECT INSIDE THE MANHOLE TO ENSURE THE SYSTEM IS FREE OF DEBRIS AND IS FREE FLOWING. REMOVE ALL DEBRIS, LEAVES, ETC... REPAIR ANY DAMAGED AREAS.
- C. INSPECT THE TERMINAL END CLEANOUT TO CONFIRM SYSTEMS IS FREE OF DEBRIS AND IS FREE FLOWING. REMOVAL ALL DEBRIS, LEAVES, ETC... REPAIR ANY DAMAGED AREAS.

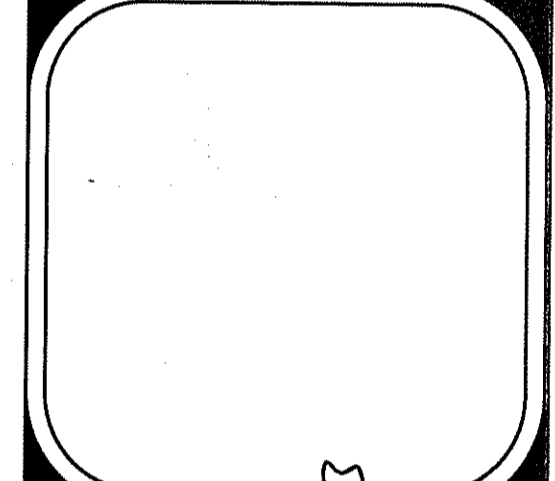
RAIN GARDENS:

- A. PROPERTY OWNER SHALL MAINTAIN RAIN GARDENS.
- B. MAINTENANCE IS MINIMAL.
- C. VEHICLES OR OTHER HEAVY EQUIPMENT SHALL NOT BE PARKED ON TOP OF RAIN GARDENS SINCE THIS WILL COMPACT THE SOILS AND REDUCE THE INFILTRATION CAPACITY OF THE SOILS.
- D. THE RAIN GARDENS SHALL BE MAINTAINED BY MOWING THE GRASS WEEKLY DURING THE GROWING SEASON.
- E. REMOVE TRASH AND LITTER AS REQUIRED.
- F. INSPECT THE RAIN GARDENS ANNUALLY TO ENSURE RAINWATER IS INFILTRATING AT REASONABLE RATES AND PROLONG PONDING DOES NOT OCCUR. THE WATER IN THE RAIN GARDENS SHOULD BE GONE WITHIN 24 HOURS AFTER THE COMPLETION OF THE RAIN EVENT. OWNER TO TILL RAIN GARDENS AND REPLANT GRASS LAWN WHEN IT TAKES MORE THAN 24 HOURS FOR THE RAIN WATER TO FULLY INFILTRATE RAIN GARDEN AREA.

Being: ASSESSORS PLAT 20 BL 3 LOT 24
Notes
MULCH 'N MORE, INC.
LOCATION
171 & 175 MOOSENECK HILL ROAD
EXETER, RHODE ISLAND
PROPERTY OWNER & APPLICANT:
Baird Properties, LLC
17 Reservoir Road
Coventry, RI 02816
JAN 9 2013

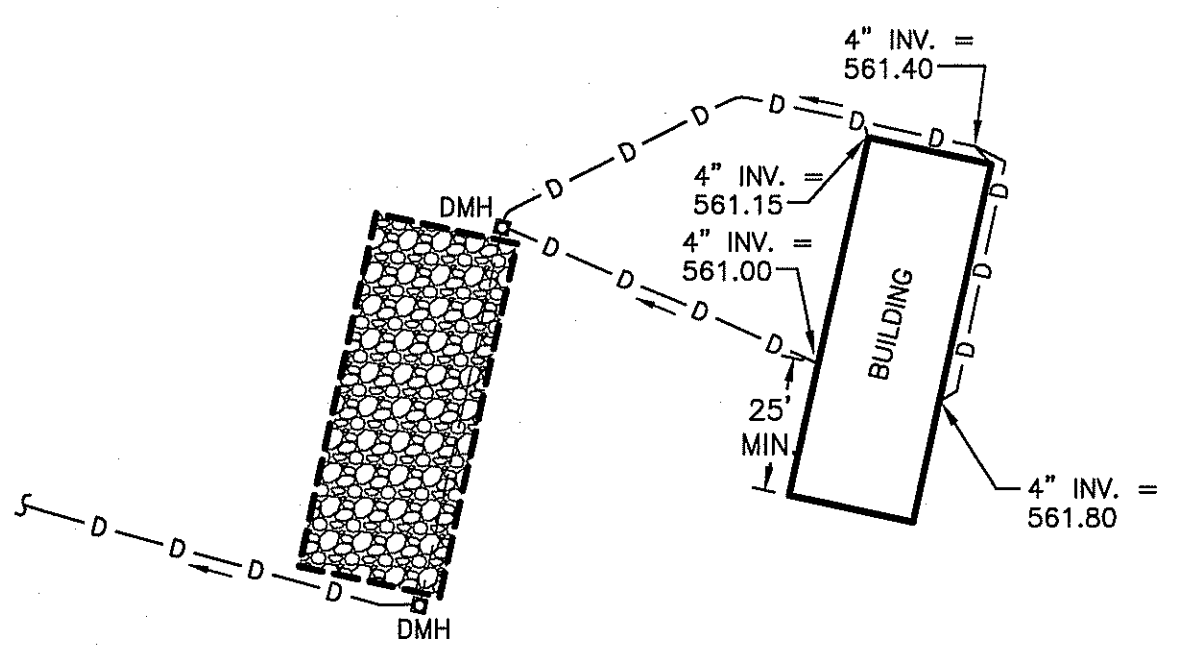
Checked By: T.J.B. Drawn By: T.J.B.
Scale: AS SHOWN Date: FEB. 2010

NO.	REVISION	DATE
1	ISSUE COMMENTS	02/17/10
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3	ISSUE COMMENTS	02/17/10
4	ISSUE COMMENTS	02/17/10
5	ISSUE COMMENTS	02/17/10
6	ISSUE COMMENTS	02/17/10
7	ISSUE COMMENTS	02/17/10
8	ISSUE COMMENTS	02/17/10
9	ISSUE COMMENTS	02/17/10
10	ISSUE COMMENTS	02/17/10

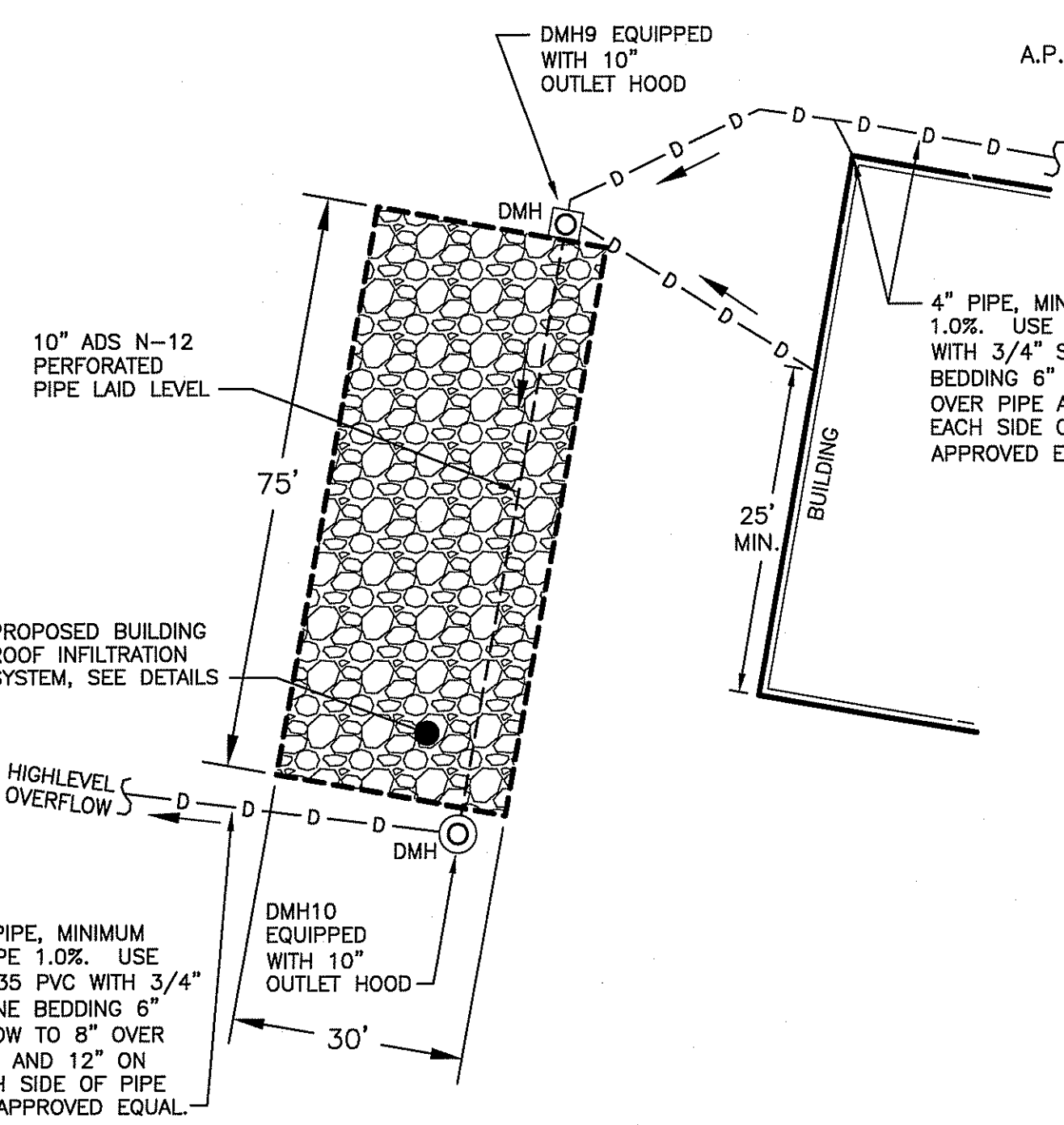


TJB ENGINEERING, LLC
CIVIL ENGINEERING
PERMITTING * LAND PLANNING
SUBDIVISIONS * WASTEWATER
1050 MAIN STREET SUITE 31
EAST GREENWICH, RI 02818
PHONE: 401-996-1677

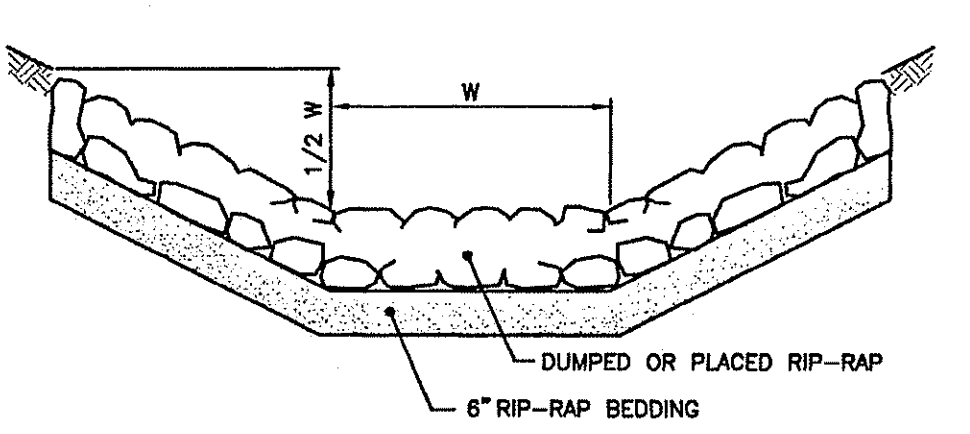
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 23 2013 FILE # 10-0108
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Charles H. [Signature]



BUILDING ROOF DRAIN PLAN
SCALE: N.T.S.



BUILDING ROOF INFILTRATION SYSTEM
SCALE: N.T.S.



RIP-RAP DITCH

NO.	BY	DATE

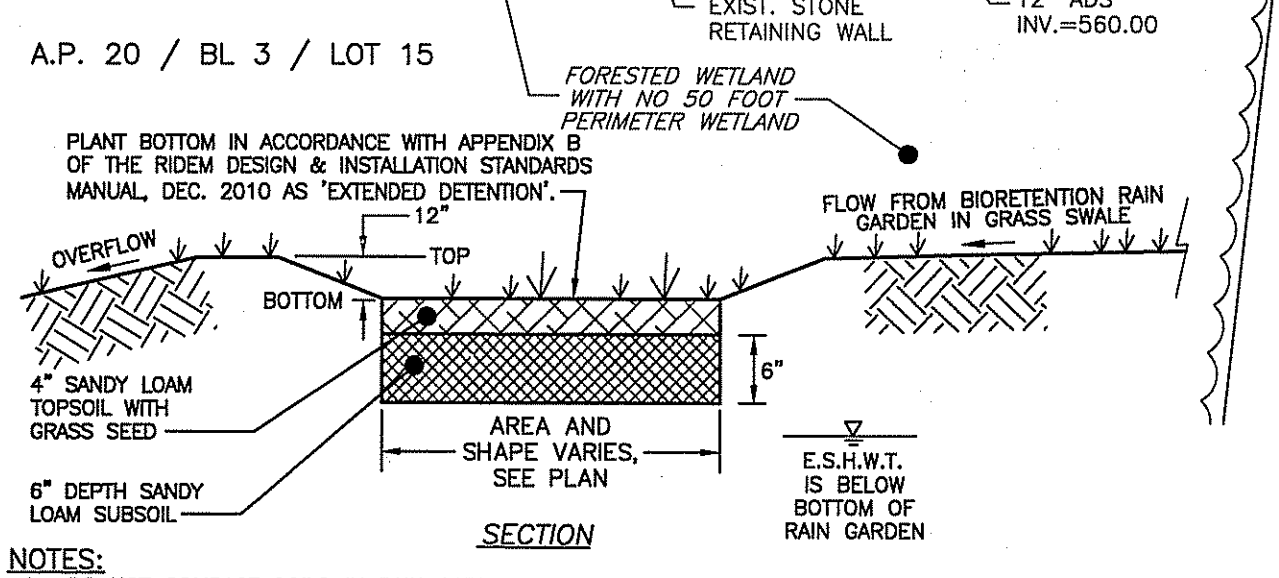
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

APPROVED: *[Signature]* **JUNE 15, 1998**

R.I. STANDARD 8.3.0

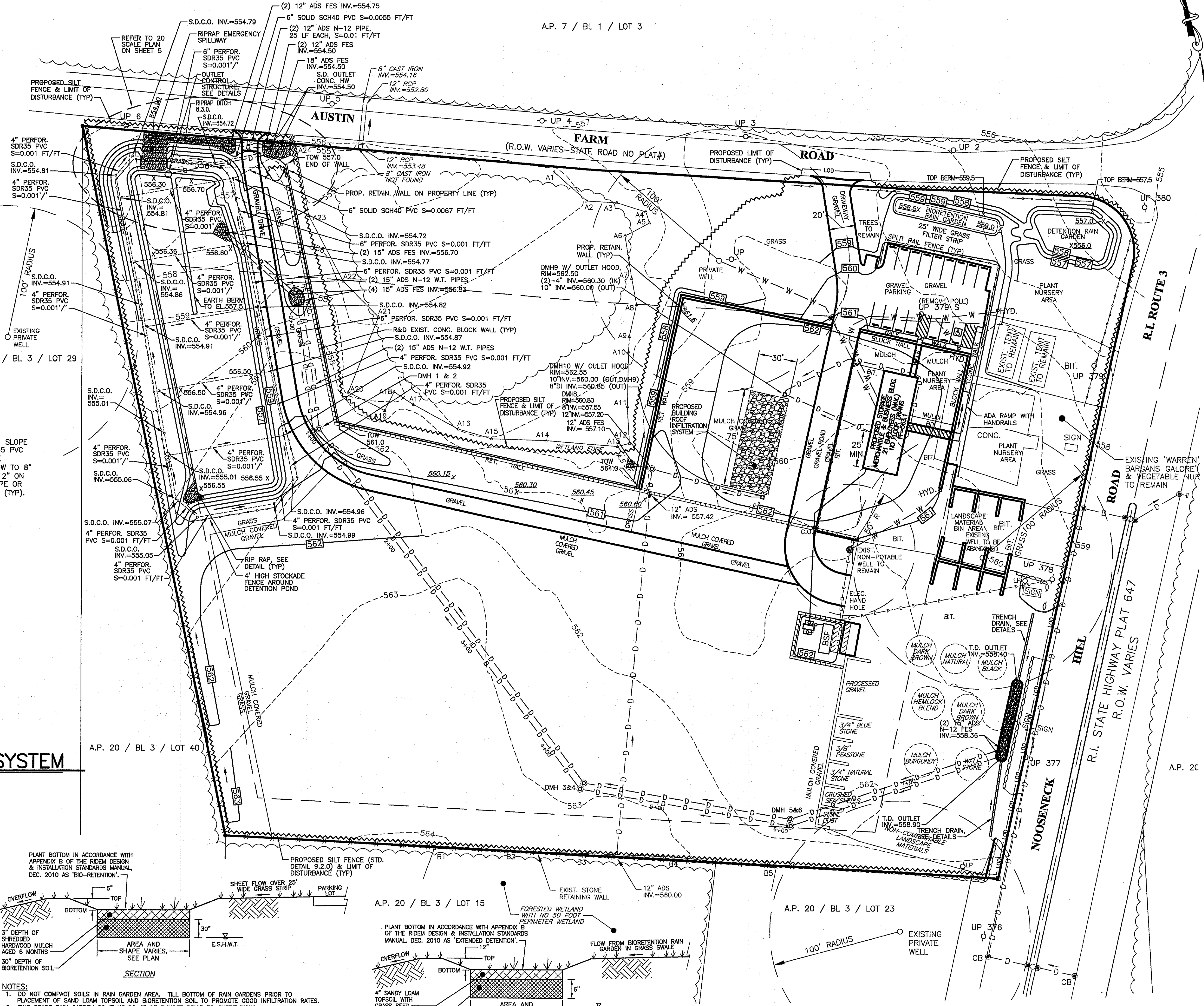
- NOTES:**
- SLOPES MAY VARY TO SUIT CONDITIONS AS PER PLANS OR ENGINEER.
 - RIP-RAP AND BEDDING SIZE MAY VARY. SEE CONTRACT DOCUMENTS.
- NOTES:**
- RIP RAP SHALL BE R-5, 30" DEEP MINIMUM.
 - USE RIDOT APPROVED FILTER FABRIC IN LIEU OF 6" BEDDING. FILTER FABRIC SHALL BE A MATERIAL SUITABLE FOR RIP RAP APPLICATIONS AND SHALL BE ONE OF THOSE INCLUDED ON THE DEPARTMENT'S APPROVED MATERIALS LIST.
 - W=2 FEET

BIORETENTION RAIN GARDEN DETAIL
NOT TO SCALE

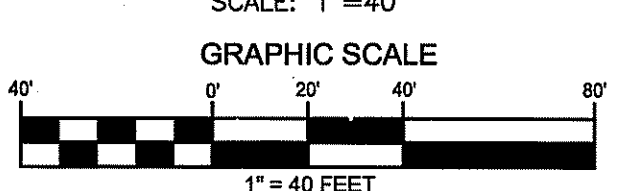


- NOTES:**
- DO NOT COMPACT SOILS IN RAIN GARDEN AREA. TILL BOTTOM OF RAIN GARDENS PRIOR TO PLACEMENT OF SANDY LOAM TOPSOIL AND SANDY LOAM SUBSOIL TO PROMOTE GOOD INFILTRATION RATES.
 - FINE GRADE RAIN GARDEN SO IT HOLDS 12" OF RUNOFF PRIOR TO INFILTRATION.
 - DIRECT DRIVEWAY AREAS TO FLOW NON-DROVINGLY INTO THIS RAIN GARDEN.
 - BIORETENTION SOIL MIX (BY VOLUME):
SAND 70 TO 80%
ORGANIC MATTER 3 TO 5% (EXCLUDING LEAF COMPOST)
LEAF COMPOST 17 TO 23%
SILT 0 TO 13%
CLAY 0 TO 2%
 - THE BIORETENTION SOIL SHOULD BE FREE OF STONES, STUMPS, ROOTS, OTHER WOODY MATERIAL OVER 1" IN DIAMETER, OR BRUSH/SEEDS FROM NOXIOUS WEEDS. PLACEMENT OF THE SOIL SHOULD BE IN LIFTS OF 6 INCHES, LOOSELY COMPACTED (TAMPED LIGHTLY WITH A BACKHOE BUCKET).
 - FINE GRADE PARKING AREA RUNOFF TO FLOW INTO RAIN GARDEN.

DETENTION RAIN GARDEN DETAIL
NOT TO SCALE



GRADING & DRAINAGE PLAN



REVISIONS

NO.	REVISION	DATE

Checked By: T.J.B. Drawn By: T.J.B. Date: FEB. 2010

Scale: AS SHOWN

Being: ASSESSORS PLAT 20 BL 3 LOT 24

GRADING & DRAINAGE PLAN

MULCH 'N MORE, INC.

LOCATION
171 & 175 NOOSENECK HILL ROAD
EXETER, RHODE ISLAND
Property Owner & Applicant:
Baird Properties, LLC
17 Reservoir Road
Coveley, RI 02816

Checked By: T.J.B. Drawn By: T.J.B. Date: FEB. 2010

Scale: AS SHOWN

REVISIONS

NO.	REVISION	DATE

THOMAS J. BEHAN
No. 6278
REGISTERED
PROFESSIONAL ENGINEER

TJB ENGINEERING, LLC

CIVIL ENGINEERING
PERMITTING * LAND PLANNING
SUBDIVISIONS * WASTEWATER

1050 MAIN STREET SUITE 31
EAST GREENWICH, RI 02818
PHONE: 401-996-1677

EROSION CONTROL & SOIL STABILIZATION PROGRAM:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND PROCEDURES SET FORTH IN THE TOWN LAND DEVELOPMENT AND SUBDIVISION REGULATIONS AND ALL STATE PERMITS.
 - EXTREME CARE SHALL BE EXERCISED AS TO PREVENT ANY MATERIALS FROM ENTERING WETLANDS, THE ROADWAYS, ROADWAY DRAINAGE SYSTEMS, AND ADJACENT PROPERTY. STAKED HAY BALES OR SILT FENCE SHALL BE INSTALLED WHERE SHOWN ON THE PLAN AND AS REQUIRED TO PREVENT SEDIMENTATION ONTO ADJACENT PROPERTIES, WETLANDS AND THE ROADWAY DRAINAGE SYSTEM.
 - DENURED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON.
 - ALL DISTURBED SLOPES, EITHER NEWLY CREATED OR EXPOSED PRIOR TO OCTOBER 15 SHALL BE SEEDED OR PROTECTED BY THAT DATE.
- SEED MIX: (RIDOT STANDARD)**
- | | |
|---------------------|-------------|
| CREeping RED FESCUE | 75 LBS/ACRE |
| KENTUCKY BLUE GRASS | 15 LBS/ACRE |
| COLONIAL BENT GRASS | 5 LBS/ACRE |
| PERENNIAL RYE GRASS | 5 LBS/ACRE |
- TEMPORARY TREATMENTS SHALL CONSIST OF 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 RIDEM, TOWN, ENGINEER OR OWNER AT NO ADDITIONAL COST.
 - HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 3,000-4,000 LBS/ACRE.
 - ALL NEW HAY BALES OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED AND POTENTIAL SEDIMENTATION SOURCES ARE REMOVED.
 - STOCKPILES SHALL HAVE NO SLOPE GREATER THAN 2:1 AND SHALL BE SURROUNDED BY STAKED HAY BALES OR SILT FENCE. STOCKPILES EXPOSED FOR EXCESSIVE PERIODS OF TIME SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW OR FIBER MATTING.
 - DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT/REPLACE AS NEEDED.
 - ADDITIONAL HAY BALES/SILT FENCE OR OTHER TREATMENTS SHALL BE PROVIDED AS DIRECTED BY ENGINEER, RIDEM OR LOCAL REPRESENTATIVES AT NO ADDITIONAL COST.
 - THE CONTRACTOR SHALL REFERENCE THE "RI EROSION AND SEDIMENT CONTROL HANDBOOK" AS PREPARED BY THE US DEPT. OF AGRICULTURE, SOIL CONSERVATION SERVICE, 1989, (AS REVISED) AS A GUIDE.
 - THE CONTRACTOR SHALL INSPECT THE SOIL EROSION CONTROL DEVICES AFTER EVERY RAIN STORM EVENT AND EVERY SEVEN DAYS DURING DRY PERIODS. ANY SOIL MIGRATION PAST THE DEVICES SHALL BE REMOVED AND THE SOIL EROSION CONTROL DEVICES SHALL BE RE-ESTABLISHED TO PREVENT SOIL EROSION. ALL ACCUMULATED SEDIMENT IN FRONT OF THE DEVICES SHALL BE REMOVED AFTER EVERY RAIN STORM EVENT.
 - ALL DISTURBED SOIL AREAS SHALL BE PROTECTED AGAINST SOIL EROSION BY PLACEMENT OF HAY BALES AND/OR SILT FENCE ON THE DOWN GRADIENT SIDE OF THE DISTURBED AREA(S). SHOULD THE VOLUME AND/OR RATE OF STORMWATER RUNOFF BE TOO GREAT FOR A SINGLE DEVICE, THEN MULTIPLE DEVICES ARE REQUIRED SUCH AS SILT FENCE BACKED-UP WITH HAYBALES.
 - AT THE END OF THE PROJECT ALL SEDIMENT IN THE DRAIN MANHOLE SUMPS & PIPES SHALL BE REMOVED.
 - DISTURBED SOILS SHALL BE STABILIZED AS SOON AS PRACTICABLE AS DETERMINED BY OWNER/ENGINEER.
 - TEMPORARY VEGETATION AND/OR MULCHING SHALL BE USED TO PROTECT EXPOSED LAND AREAS DURING DEVELOPMENT.
 - PERMANENT (FINAL) VEGETATION SHALL BE PLANTED AND SUPPLEMENTAL EROSION CONTROL MEASURES SHALL BE INSTALLED AS SOON AS PRACTICABLE.
 - UNTIL A DISTURBED AREA IS STABILIZED, SEDIMENT IN THE RUNOFF WATER SHALL BE TRAPPED BY THE USE OF DEBRIS BASINS, SEDIMENT BASINS, SILT TRAPS OR SIMILAR MEASURES.
 - DURING GRADING OPERATIONS, APPROPRIATE MEASURES FOR DUST CONTROL SHALL BE EXERCISED BY USE OF SPRAY WATER APPLIED OR APPROVED EQUAL.
 - A CONTRACTOR SHALL INSPECT AND MAINTAIN THE EROSION AND SEDIMENT CONTROL SYSTEM AS SPECIFIED THROUGH CONSTRUCTION INSPECTION AND MAINTENANCE SHALL BE PERFORMED AFTER EACH RAINSTORM EVENT AND ON A WEEKLY BASIS.

NARRATIVE:

PROJECT DESCRIPTION: THE DEVELOPER PROPOSES TO CONSTRUCT A 7,900 SQUARE FOOT BUILDING, PAVED PARKING AREA, SITE REGRADING, SEPTIC SYSTEM, STORM WATER MANAGEMENT SYSTEM AND MISCELLANEOUS APPURTENANCE ITEMS.

BASE FLOOD ELEVATION: SUBJECT PROPERTIES ARE SITUATED IN 'ZONE C'. AREAS OF MINIMAL FLOODING, ON FEMA'S FLOOD INSURANCE RATE MAP, TOWN OF EXETER, RI, PANEL 10 OF 30, #440032 0010 A, DATED MARCH 1, 1982.

PROPOSED DRAINAGE SYSTEM: STORMWATER RUNOFF FROM THE PROPOSED DEVELOPMENT WILL BE DIRECTED TO AN EXTENDED DETENTION POND. RUNOFF FROM IMPERVIOUS SURFACES IS DIRECTED TO INLETS AND PIPED, AND/OR THE SITE IS GRADED TO DRAIN TO THE EXTENDED DETENTION POND FOR TREATMENT OF THE WATER QUALITY VOLUME. IT IS IMPORTANT TO KEEP SEDIMENTS OUT OF THE DRAINAGE SYSTEMS DURING CONSTRUCTION.

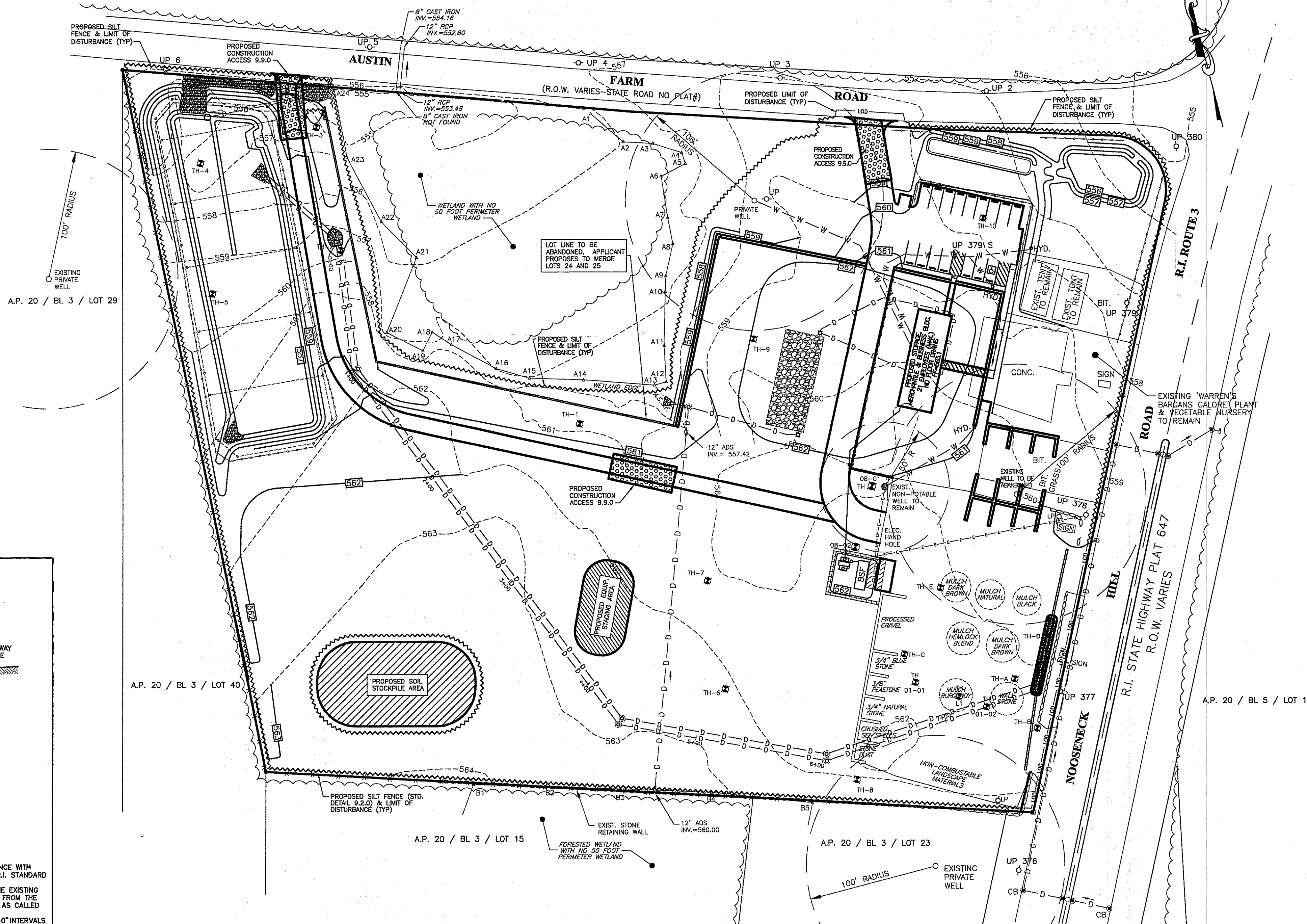
EMERGENCY PHONE NUMBERS: CONTACT MR. MICHAEL BAIRD AT 392-3311 OR 823-5701 FOR IMMEDIATE ATTENTION.

SOIL EROSION AND SEDIMENT CONTROL MEASURES: DOWN GRADIENT AREAS OF ALL DISTURBED AREAS SHALL BE PROTECTED WITH SILT FENCE AND/OR HAYBALES AS SHOWN ON THE PLANS/DETAILS. THE DETENTION POND SHALL BE CONSTRUCTED PRIOR TO SITE DISTURBANCE SO RUNOFF DURING CONSTRUCTION WILL FLOW INTO THE POND. ALL SOIL STOCK PILE AREAS SHALL BE PROTECTED FROM SOIL EROSION AS SHOWN ON THE DETAIL. STABILIZE ALL DISTURBED AREAS AS SOON AS POSSIBLE WITH GRASS SEED OR A 2 INCH LAYER OF WOOD MULCH.

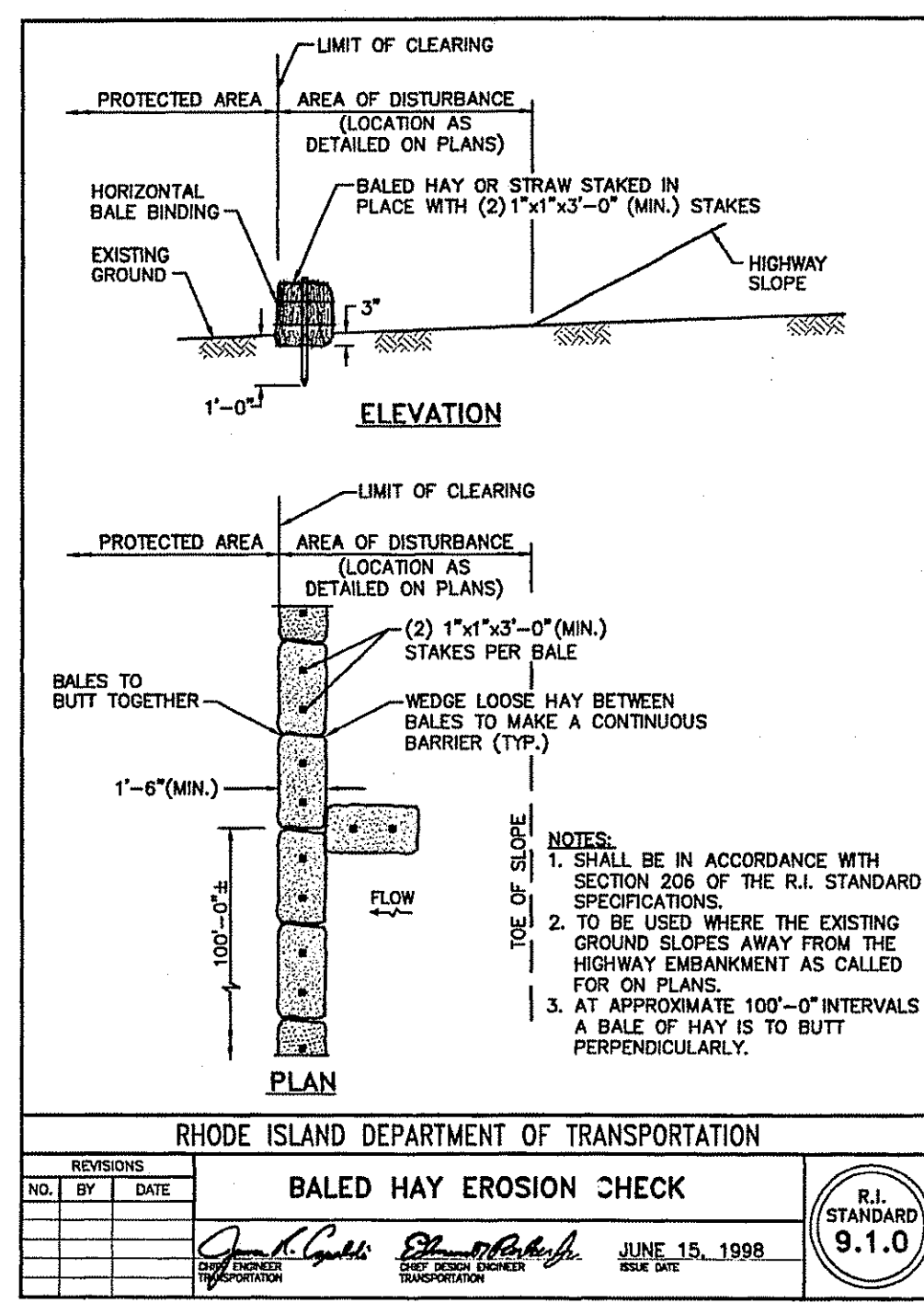
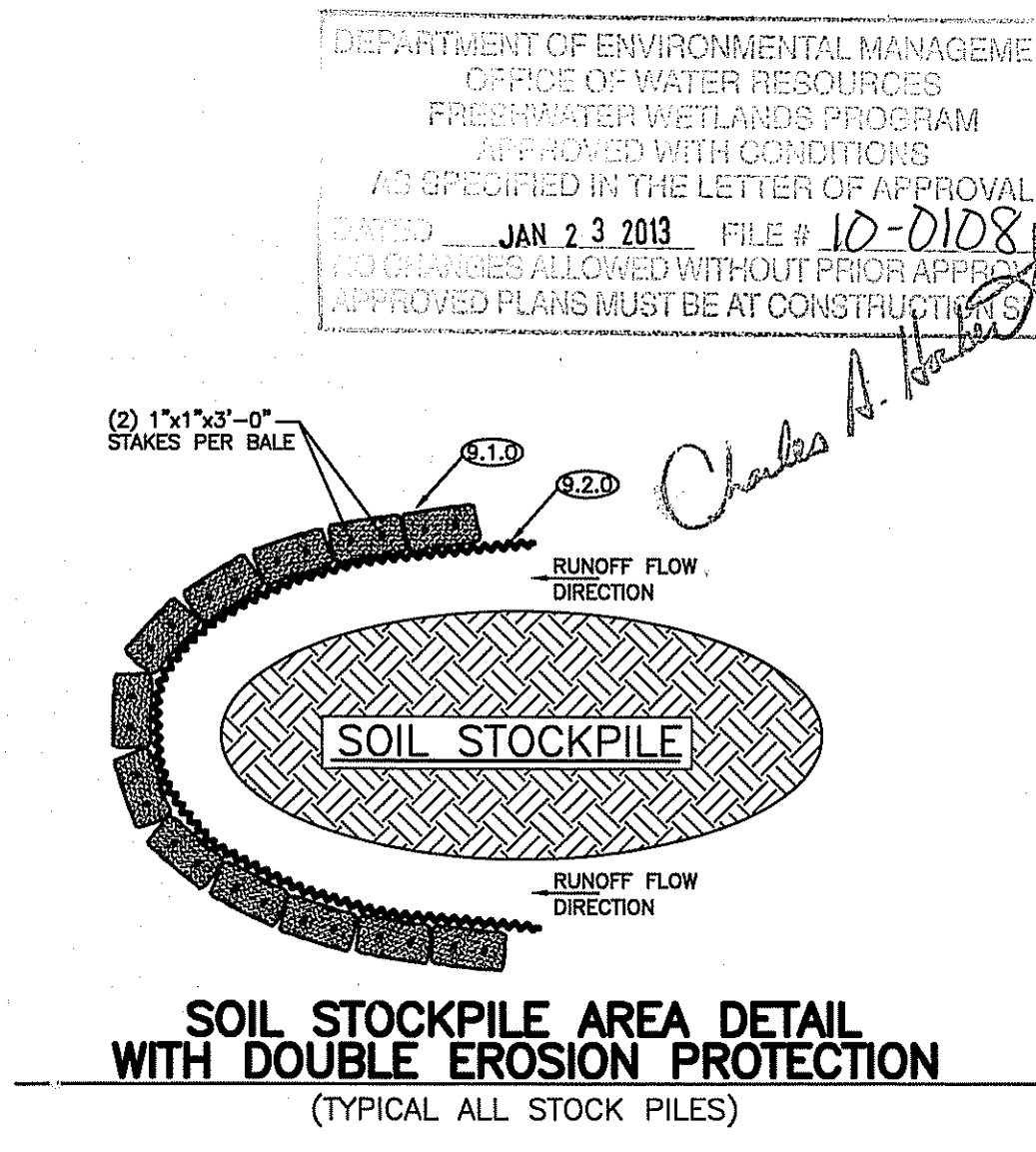
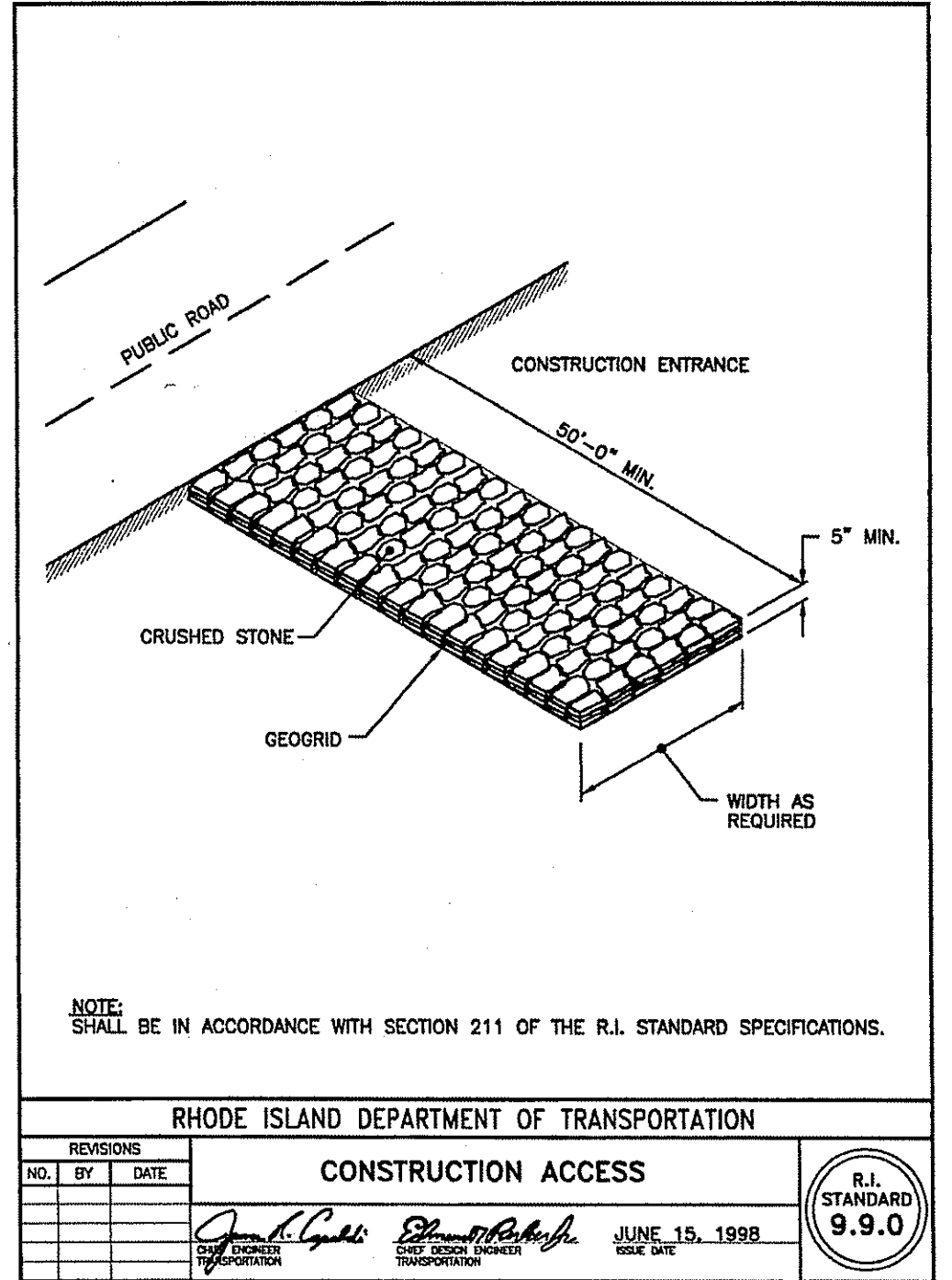
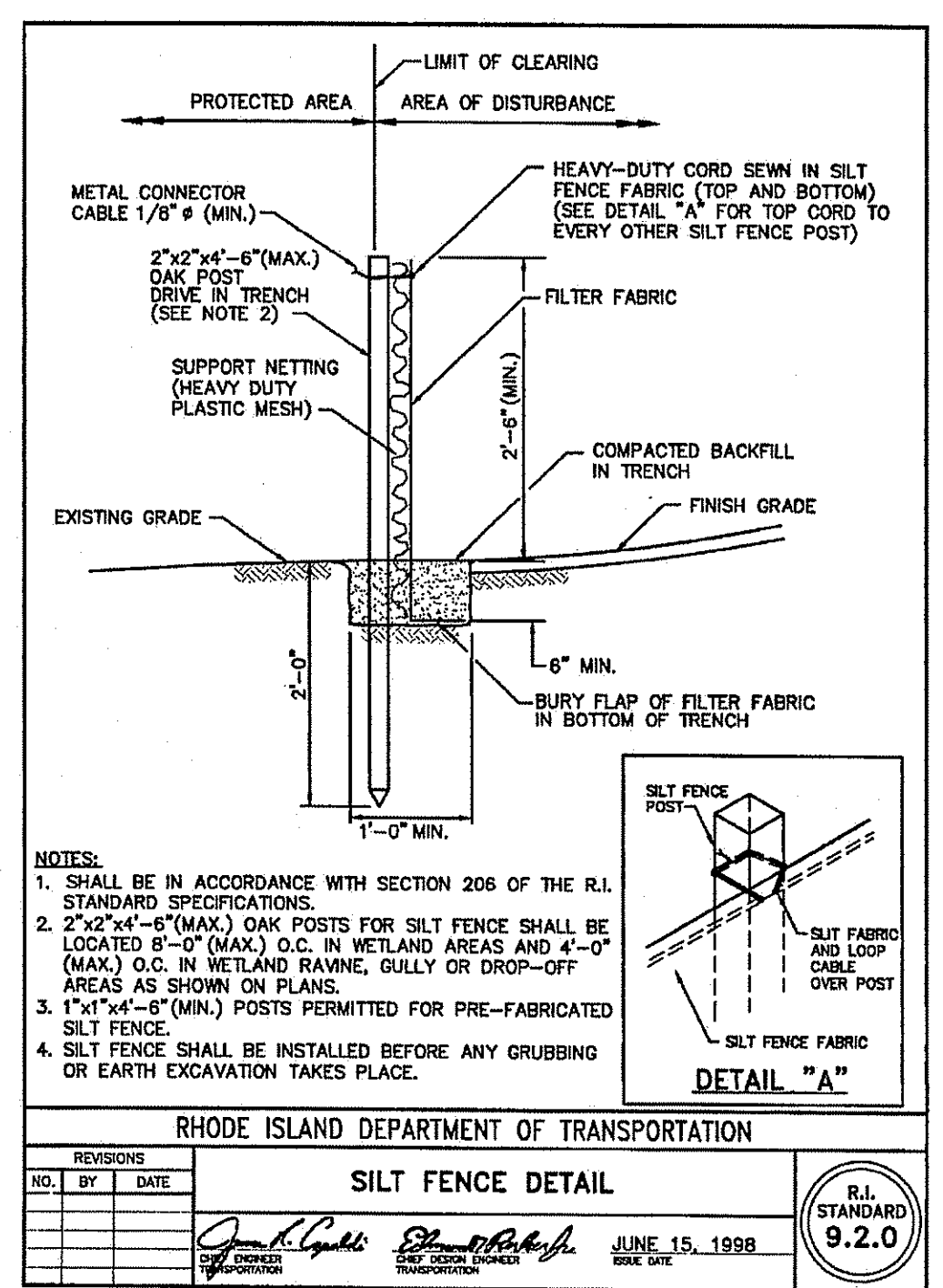
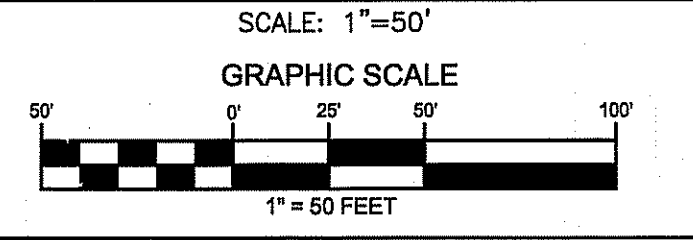
SEQUENCE AND STAGING OF LAND DISTURBING ACTIVITIES:

- SURVEY AND STAKE LIMIT OF DISTURBANCE FOR PLACEMENT OF SEDIMENTATION CONTROL DEVICES.
- PLACE PERIMETER SEDIMENTATION CONTROL DEVICES (HAYBALE OR SILT FENCE) AS SHOWN ON THE PLANS AND STAKED OUT IN THE FIELD. IN NO CASE IS THE LIMIT OF WORK TO EXTEND BEYOND THE SEDIMENTATION CONTROL DEVICES.
- CONSTRUCT CONSTRUCTION ENTRANCE DEVICE 9.9.0.
- CLEAR AND GRUB SITE.
- CONSTRUCT DETENTION POND.
- BEGIN CONSTRUCTION OF BUILDING AND PARKING AREA (EXCAVATING AND GRADING, ETC.). ALL STRIPPED SOILS WHICH ARE STOCKPILED SHALL BE STOCKPILED IN AN APPROVED AREA. THE STOCKPILES ARE TO BE PROTECTED BY A ROW OF SEDIMENTATION DEVICES, REFER TO DETAIL.
- CONSTRUCT UTILITIES (WELL, WATER, SEPTIC SYSTEM, ELECTRIC, STORM DRAINS, ETC.).
- PREPARE PARKING AREAS FOR PAVEMENT. PAVE FIRST COURSE.
- FINISH CONSTRUCTION OF BUILDING.
- PLACE SECOND COURSE OF PAVEMENT.
- ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDED WITH GRASS OR MULCHED WITH A 2 INCH LAYER OF MULCH.
- REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES.

A.P. 7 / BL 1 / LOT 3



SOIL EROSION & SEDIMENTATION CONTROL PLAN



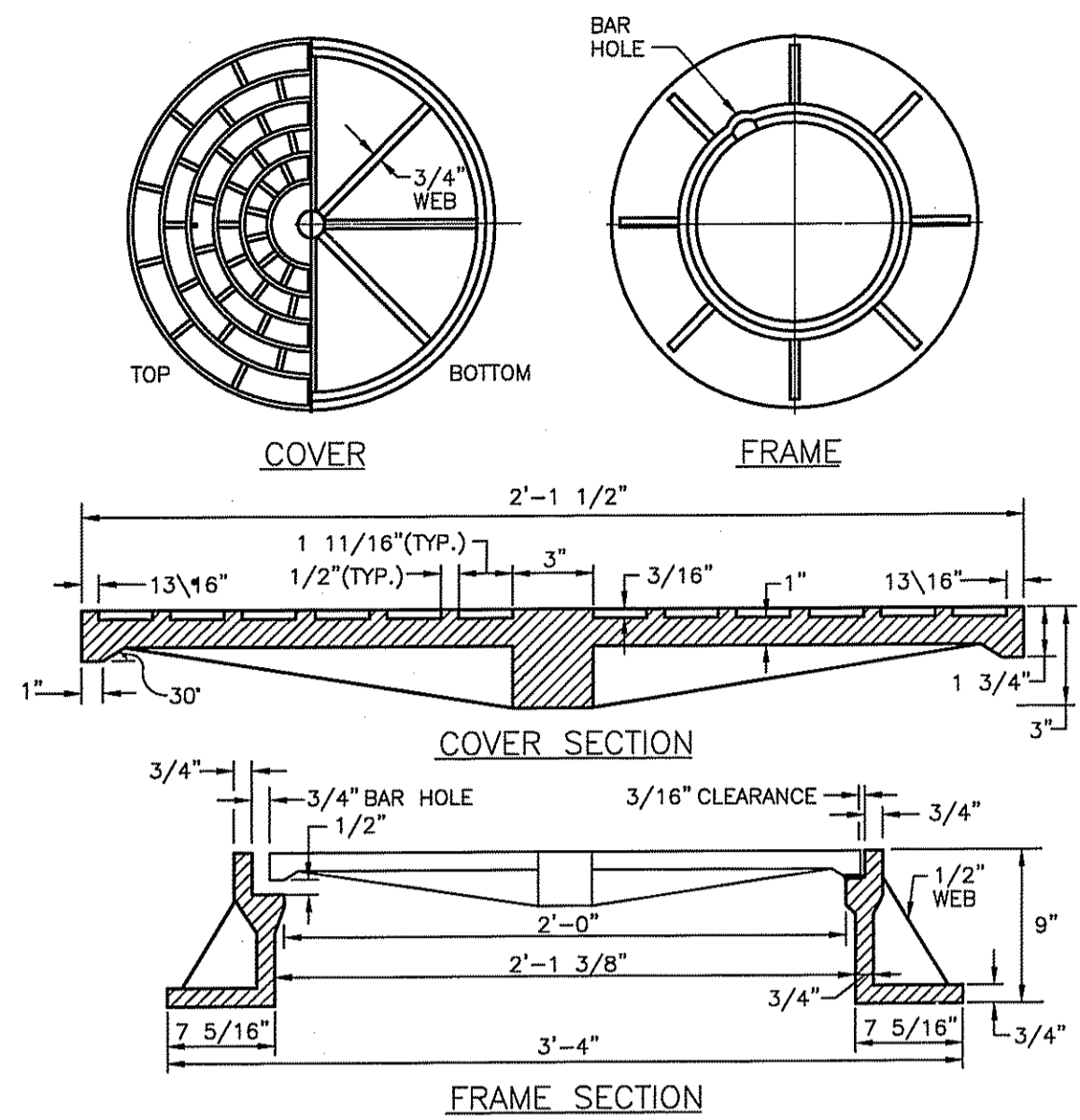
Soil Erosion & Sedimentation Control Plan
MULCH 'N MORE, INC.
171 & 175 NOOSENECK HILL ROAD
EXETER, RHODE ISLAND
PROPERTY OWNER & APPLICANT:
Baird Properties, LLC
17 Reservoir Road
Coveville, RI 02816

Checked By: T.J.B. Drawn By: T.J.B. Date: FEB. 2010 Scale: AS SHOWN

NO.	BY	DATE

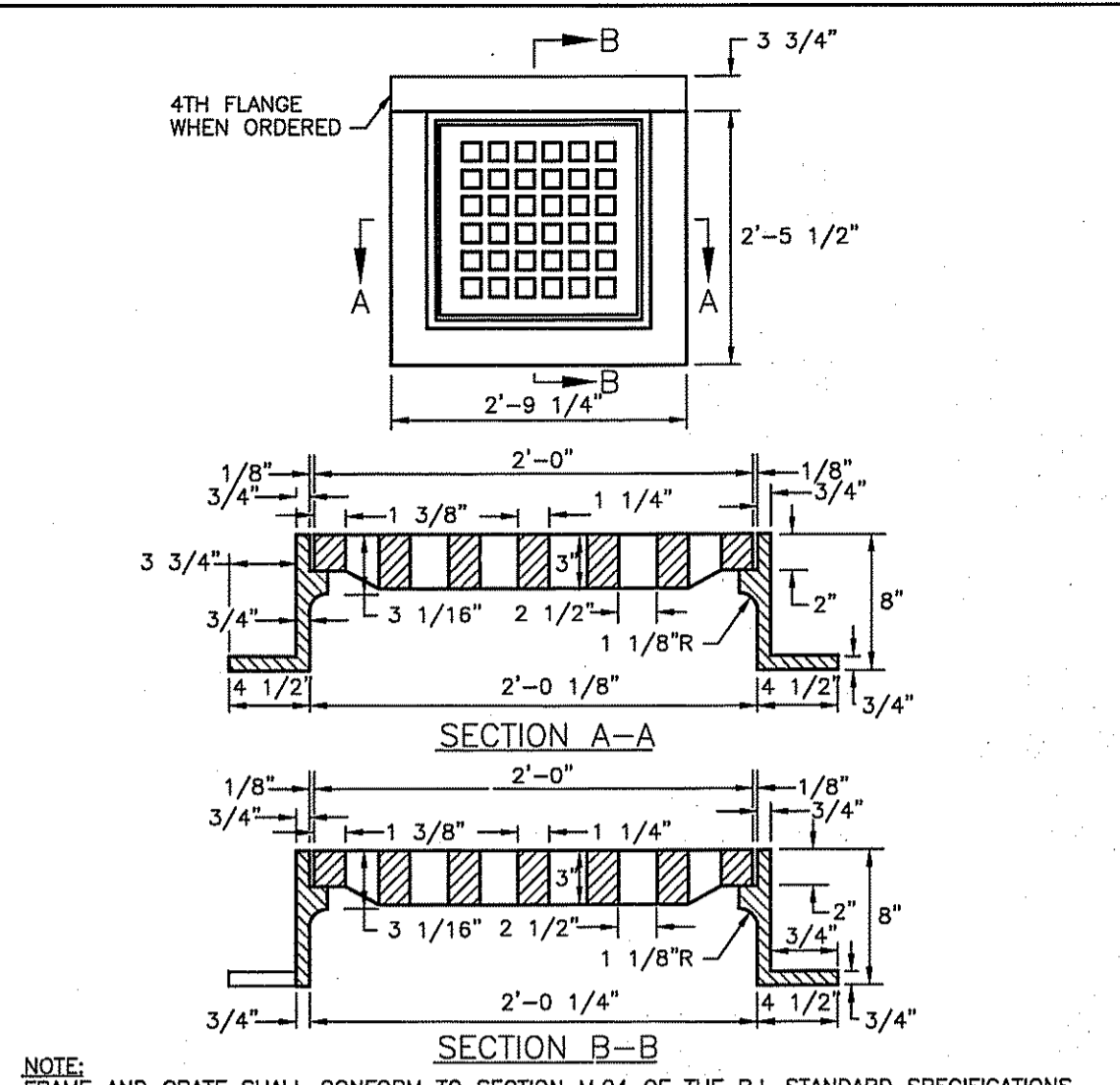
TIMOTHY J. BEHAN
REGISTERED PROFESSIONAL ENGINEER
No. 0000000000

TJB ENGINEERING, LLC
CIVIL ENGINEERING
PERMITTING * LAND PLANNING
SUBDIVISIONS * WASTEWATER
1050 MAIN STREET SUITE 31
EAST GREENWICH, RI 02818
PHONE: 401-996-1677



HEAVY-DUTY ROUND FRAME AND COVER
NOT TO SCALE

- NOTES:
1. FRAME AND GRATE SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.
2. FRAME AND COVER SEATS MUST HAVE MACHINE FINISH.
3. USE 4" FRAME HEIGHTS FOR STRUCTURES WITH LIMITED COVER.

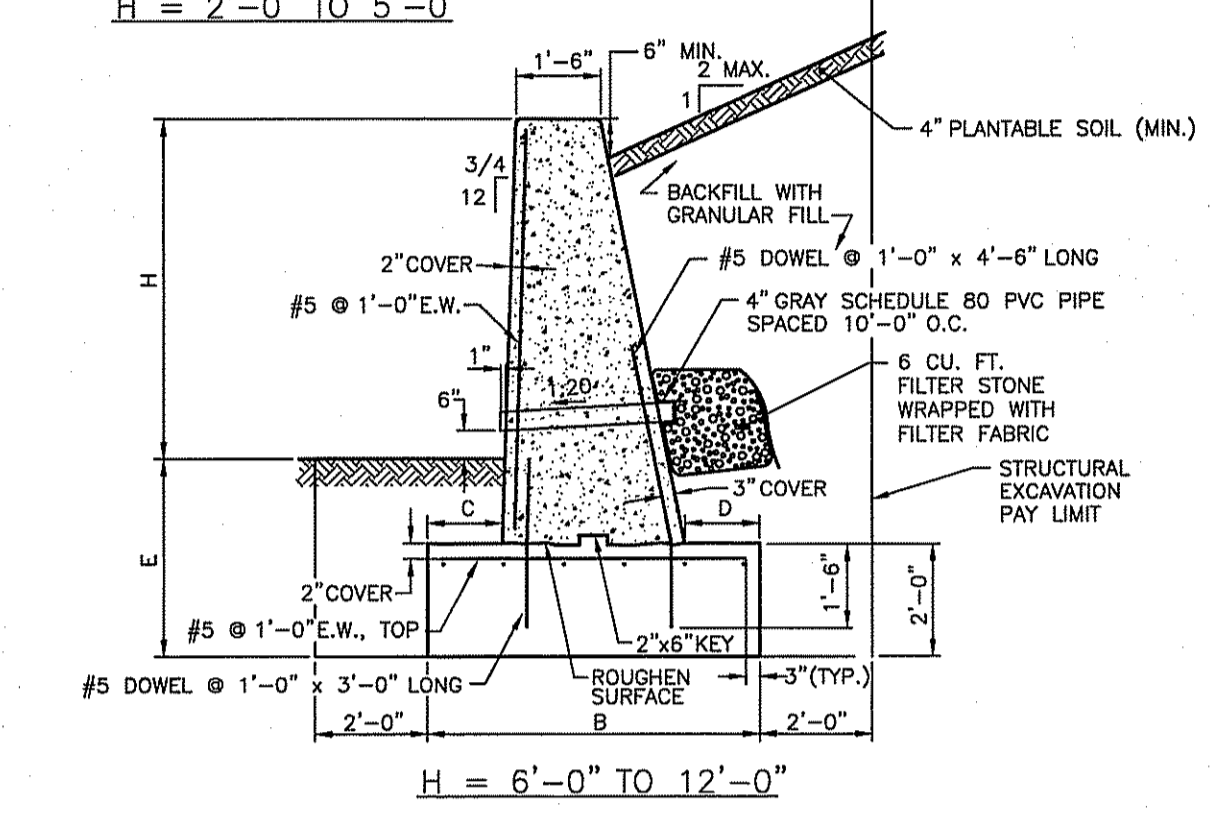


SQUARE FRAME AND GRATE
NOT TO SCALE

NOTE: FRAME AND GRATE SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.

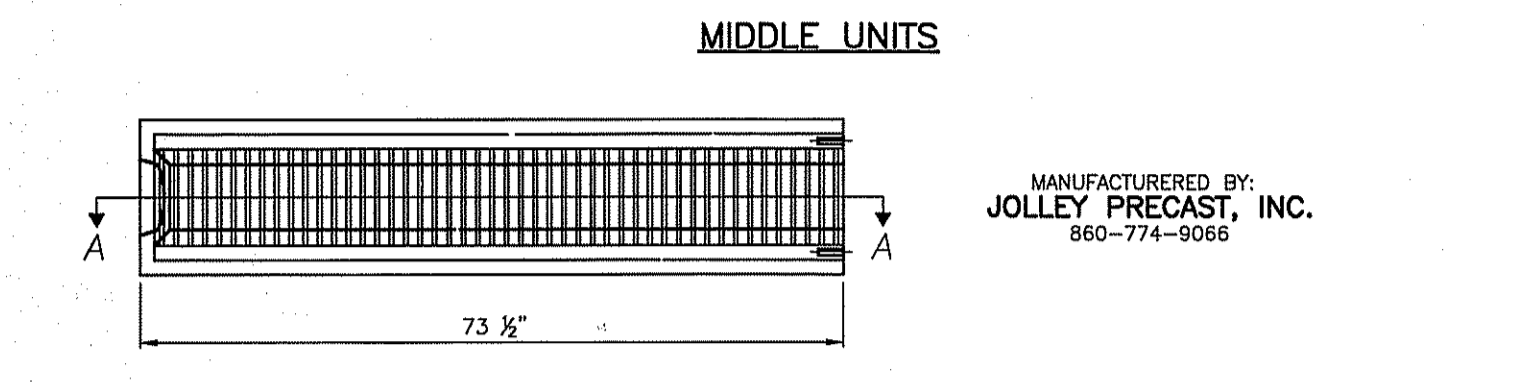
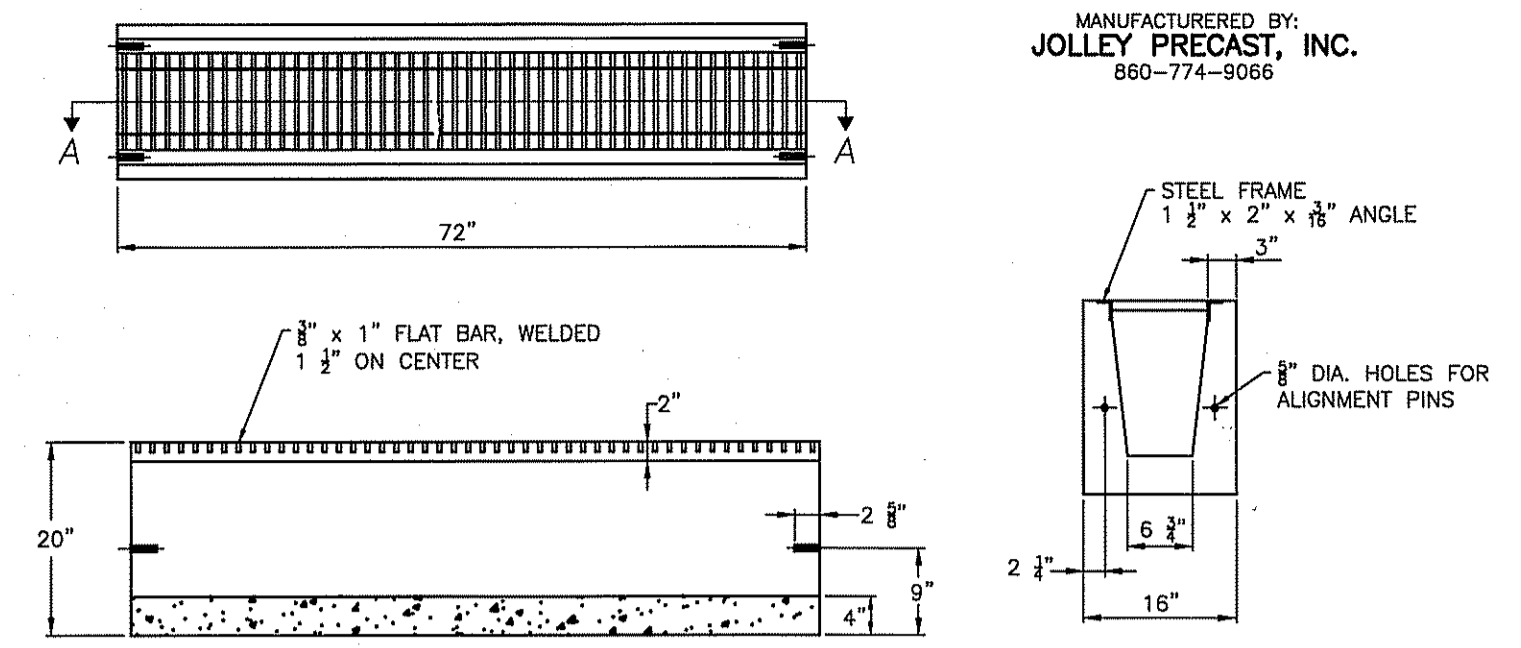
DIMENSIONS AND QUANTITIES

H	A	B	C	D	E	C.F./L.F. OF WALL
2'-0"	3'-3"	-	-	-	2'-6"	10.69
3'-0"	3'-8"	-	-	-	2'-6"	14.21
4'-0"	4'-1"	-	-	-	2'-6"	18.14
5'-0"	4'-6"	-	-	-	2'-6"	22.50
6'-0"	5'-1"	1'-0"	1'-4"	3'-6"	3'-6"	27.54
7'-0"	5'-6"	1'-4"	1'-4"	3'-6"	3'-6"	33.59
8'-0"	6'-1"	1'-4"	1'-4"	3'-6"	3'-6"	36.98
9'-0"	6'-6"	1'-4"	1'-4"	3'-6"	3'-6"	42.66
10'-0"	7'-1"	1'-4"	1'-4"	3'-6"	3'-6"	47.76
11'-0"	7'-6"	1'-4"	1'-4"	3'-6"	3'-6"	53.30
12'-0"	8'-1"	1'-4"	1'-4"	3'-6"	3'-6"	59.63



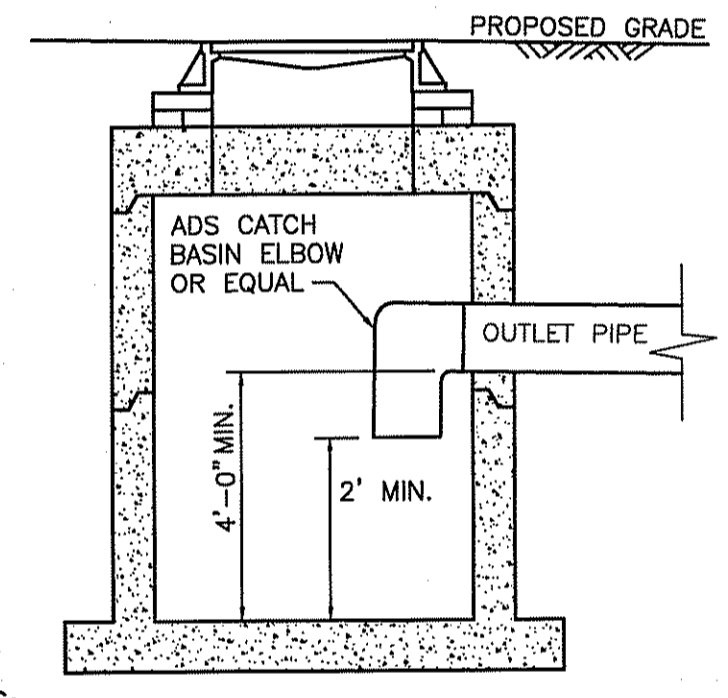
CONCRETE RETAINING WALL
NOT TO SCALE

- NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 808 OF THE R.I. STANDARD SPECIFICATIONS.
2. USE 1/2" PREFORMED JOINT FILLER AND BEVEL EXPOSED EDGES WITH 3/4" CHAMFER.
3. SEAL BACKFACE WITH 1/4"x1/2" JOINT SEALANT.
4. SURFACE RUB EXPOSED FACE AND TOP.
5. ALL REINFORCING TO BE EPOXY COATED.
6. PROVIDE EXPANSION JOINTS EVERY 25'-0" IN STEMS.



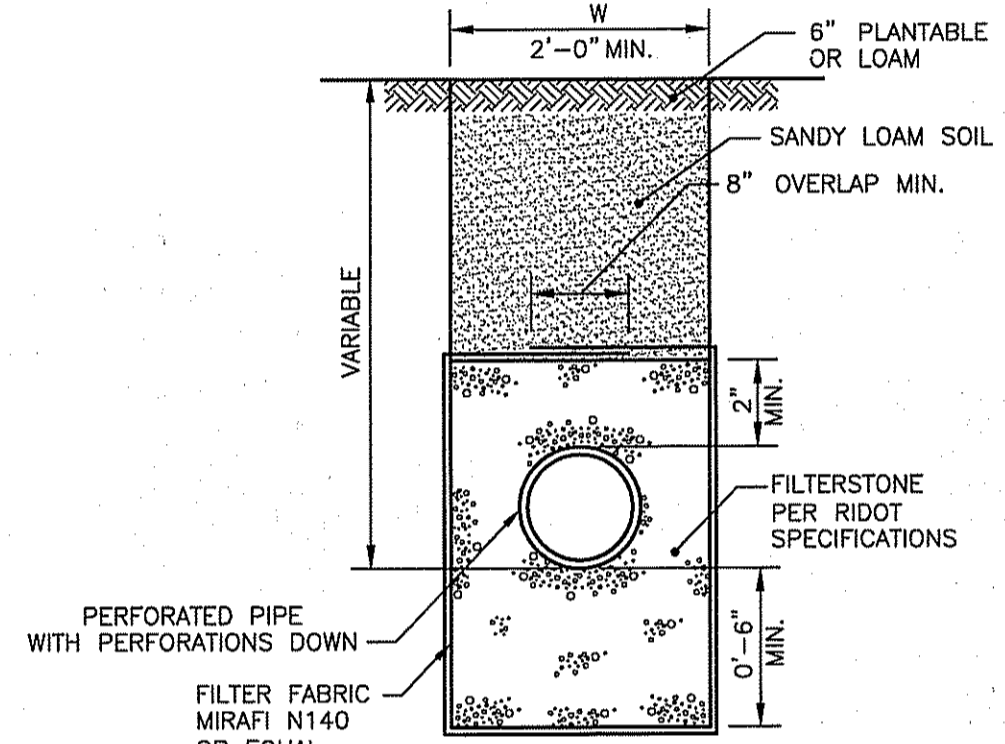
TRENCH DRAIN DETAIL
NOT TO SCALE

- NOTES:
1. ALL COMPONENTS RATED FOR H-20 LOADS.
2. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
3. TRENCH DRAINS SHALL TERMINATE INTO RIP RAP SWALE WITHOUT 6" PIPE.
4. ALL 6" OPENINGS NOT USED SHALL BE MORTARED CLOSED.



MANHOLE OUTLET HOOD TYPICAL DETAIL
SCALE: N.T.S.

- NOTES:
1. ALL MANHOLES WHICH DISCHARGE INTO THE INFILTRATION SYSTEM SHALL HAVE 4" DEEP SUMPS WITH AN OUTLET 'CATCH BASIN ELBOW'.
2. STRUCTURES SHALL BE NON-LEACHING.
3. REFER TO PLAN AND PROFILE SHEETS FOR INVERT ELEVATIONS.
4. OTHER INLET AND OUTLET PIPES NOT SHOWN.

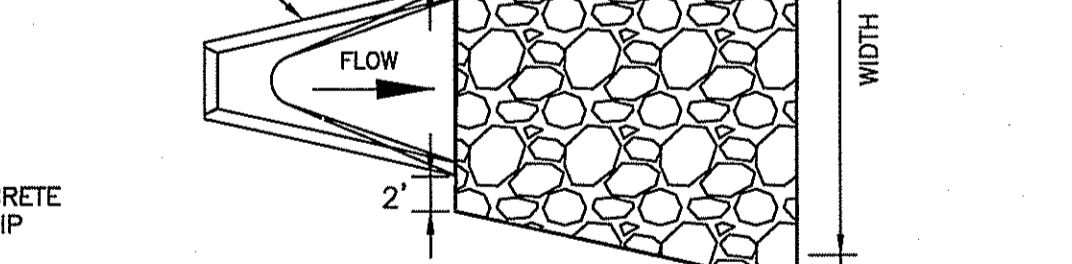
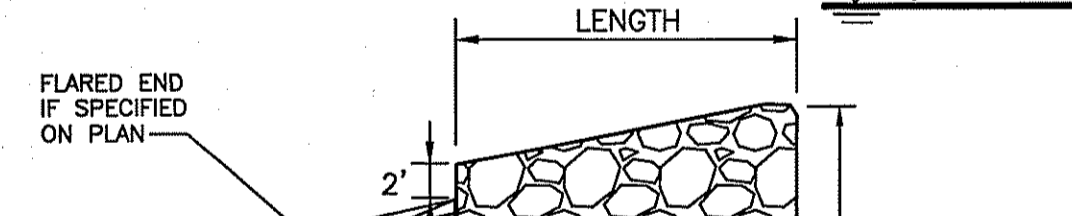


SUBDRAIN
NOT TO SCALE

- NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 703 OF THE R.I. STANDARD SPECIFICATIONS.
2. WIDTH (W) OF TRENCH = INSIDE DIAMETER OF PIPE + 1'-0" OR 2'-0" WHICHEVER IS GREATER.
3. PIPE DIAMETERS SHOWN ON PLAN.
4. DISTANCE DIMENSIONS ARE GIVEN TO THE OUTSIDE DIAMETER OF PIPE.
5. INSTALL SUBDRAINS WHERE SHOWN ON PLAN AND AT LOCATIONS WHERE DEWATERING IS REQUIRED AS DETERMINED BY TOWN/ENGINEER DURING CONSTRUCTION.

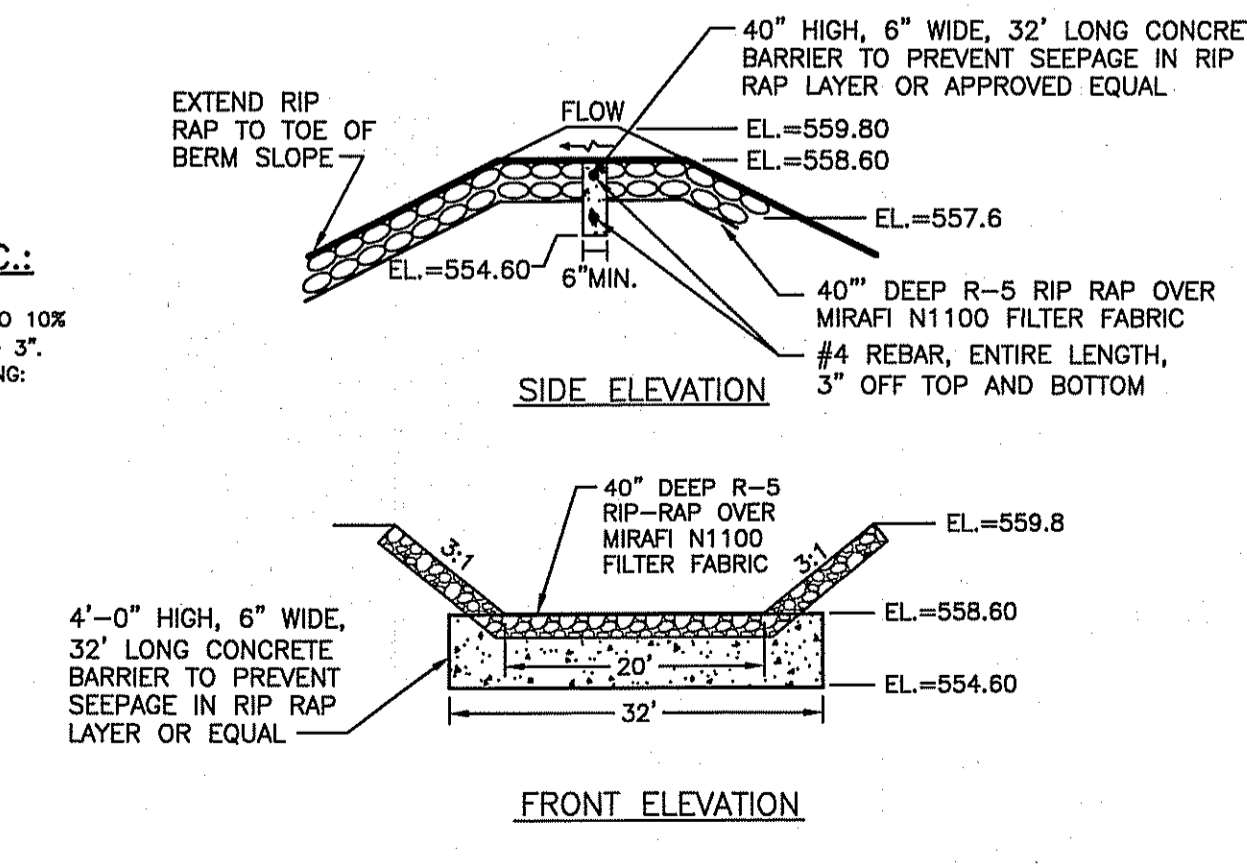


DETENTION BASIN TRASH RACK
NOT TO SCALE



MATERIAL SPECIFICATIONS:

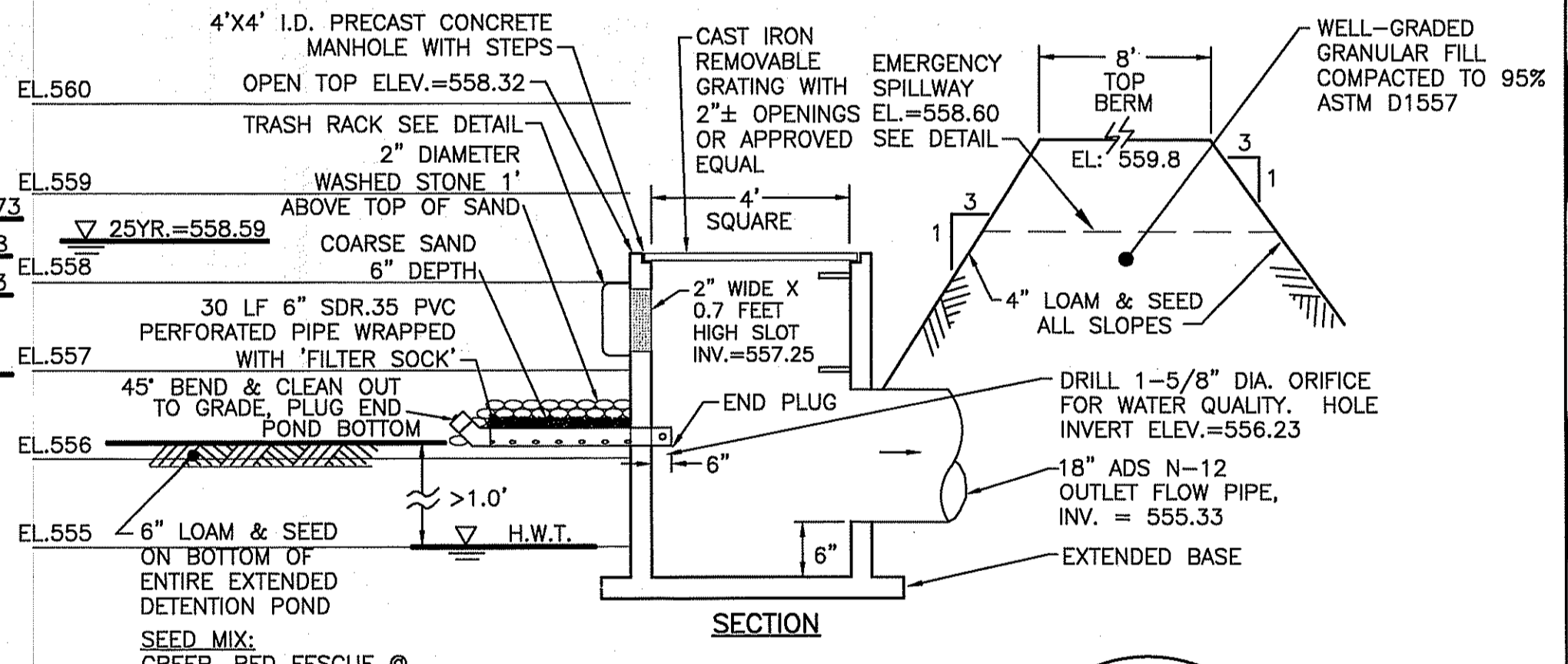
R-6 RIP RAP: 100% PASS - 26" 0-50% PASS - 13" 0-15% PASS - 8"	R-5 RIP RAP: 100% PASS - 20" 0-50% PASS - 10" 0-15% PASS - 6"	R-4 RIP RAP: 100% PASS - 14" 0-50% PASS - 7" 0-15% PASS - 4"	R-3 RIP RAP: 100% PASS - 8" 0-50% PASS - 4" 0-15% PASS - 2"
FS-3 FILTER STONE: 100% PASS - 6.5" 0-50% PASS - 2.5" 0-15% PASS - NO.4	FS-2 FILTER STONE: 100% PASS - 2" 0-50% PASS - NO.4 0-15% PASS - NO.16	FS-1 FILTER STONE: 100% PASS - 1/2" 0-50% PASS - NO.16 0-15% PASS - NO.50	



EXTENDED DETENTION POND EMERGENCY SPILLWAY
NOT TO SCALE

LOCATION OF RIP RAP OUTLET	FILTER FABRIC	RIP RAP DEPTH & SIZE	LENGTH	WIDTH
16" OUTLET FROM DETENTION POND	MIRAFI N1100	40" R-5	19'	12'
TWIN 15" OUTLETS AT F.E.S.S	MIRAFI N1100	40" R-5	7'	7'
ALL OTHER AREAS SHOWN ON PLAN	MIRAFI N1100	40" R-5	7'	7'

OUTLET RIP RAP DETAIL
NOTE: PLACE RIP RAP OVER FILTER FABRIC
NOT TO SCALE

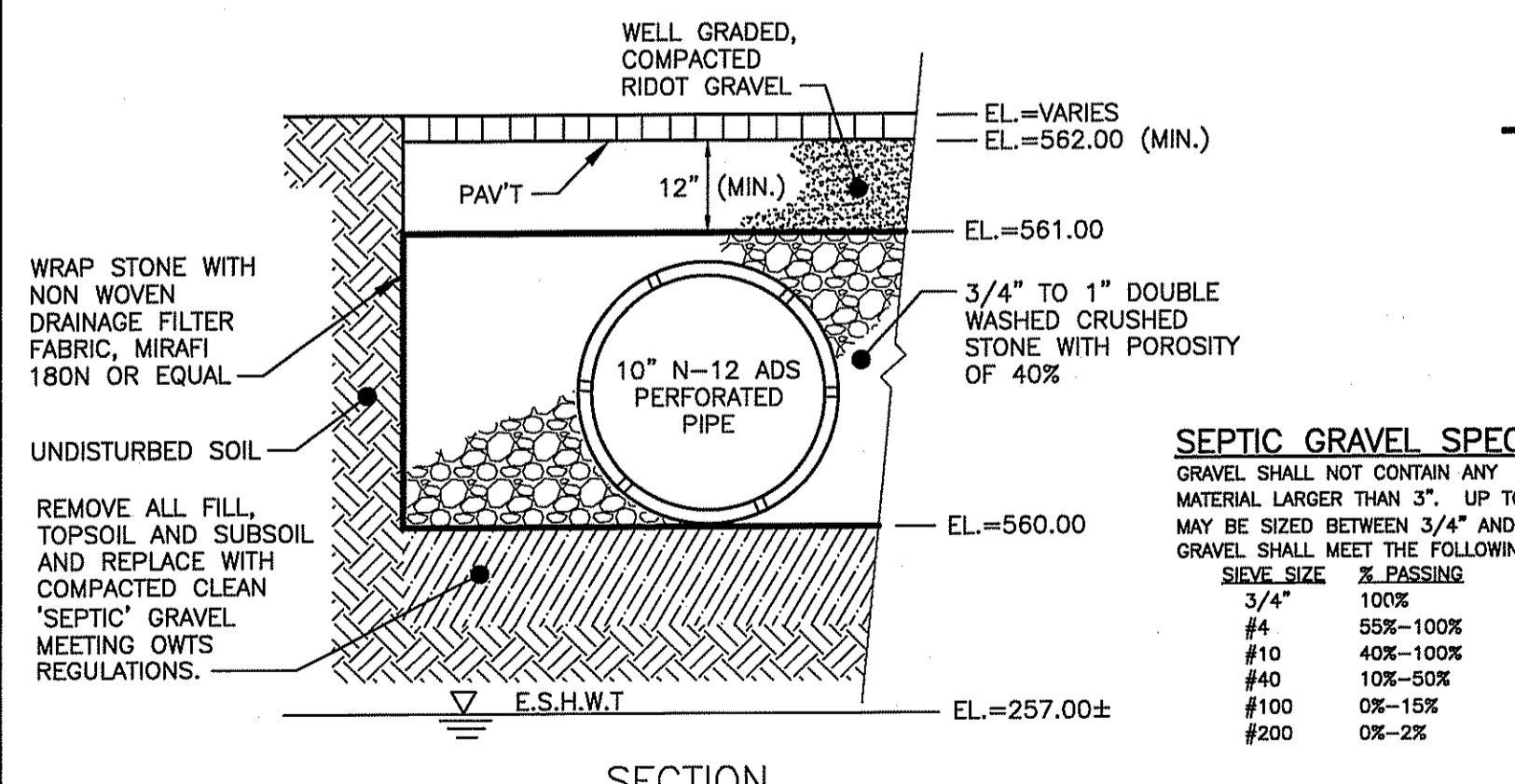


EXTENDED DETENTION POND

ELEV. FT.	STORAGE	DISCHARGE
558.3	0 cf	0.00 c.f.s.
557	7,669 cf	0.06 c.f.s.
558	24,345 cf	0.44 c.f.s.
559	43,353 cf	28.84 c.f.s.

- NOTES:
1. ALL SIDE SLOPES SHALL BE 3:1 OR FLATTER.
2. 6" OF LOAM SHALL BE PLACED AT THE BOTTOM OF THE EXTENDED DETENTION POND & SEED WITH DETENTION POND MIX.
3. DETENTION POND EMBANKMENTS SHALL BE CONSTRUCTED OF WELL-GRADED GRANULAR SOILS/ENVIRONMENTAL MANAGEMENT THAT ARE COMPACTED TO AT LEAST 95% OF THE ASTM D1557 MODIFIED PROCTOR MAXIMUM DRY UNIT WEIGHT PROGRAM DENSITY. NO STONES OR LARGE ROCKS EXCEEDING 3" SHALL BE USED IN EMBANKMENT, FILL, OR WEEDS/GRASS PROGRAM EMBANKMENT SLOPES SHALL BE LOAMED TO A 4" DEPTH AND SEED WITH GRASS, APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL.
4. OUTLET CONTROL ORIFICES AND OPENINGS SHALL BE SQUARE EGGED.

EXTENDED DETENTION POND & OUTLET CONTROL STRUCTURE DETAIL
SCALE: 1" = 0.6" VERT.



BUILDING ROOF INFILTRATION SYSTEM
SCALE: N.T.S.

- NOTES:
1. MINIMUM COVER OVER ALL ADS N-12 PIPE SHALL BE 12" (NOT INCLUDING PAVEMENT DEPTH).
2. INSTALL ADS PIPE PRODUCTS PER MANUFACTURER'S RECOMMENDATIONS.
3. ALL COMPONENTS OF SYSTEM SHALL BE RATED FOR H-20 LOADS.
4. MATERIAL SPECIFICATIONS, PLACEMENT AND COMPACTION OF SOIL MATERIALS SHALL BE IN ACCORDANCE WITH RIDOT STANDARD SPECIFICATIONS.

SEPTIC GRAVEL SPEC.:

GRAVEL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN 3". UP TO 10% MAY BE SIZED BETWEEN 3/4" AND 3".	GRAVEL SHALL MEET THE FOLLOWING:
3/4"	100%
#4	55%-100%
#10	40%-100%
#40	10%-50%
#100	0%-15%
#200	0%-2%

MANUFACTURED BY:
JOLLEY PRECAST, INC.
860-774-9066

MANUFACTURED BY:
JOLLEY PRECAST, INC.
860-774-9066

LOCATION
MULCH 'N MORE, INC.
171 & 175 NOOSENECK HILL ROAD
EXETER, RHODE ISLAND
PROPERTY OWNER & APPLICANT:
Baird Properties, LLC
17 Reservoir Road
Coventry, RI 02816

Checked By: T.J.B. Drawn By: T.J.B.
AS SHOWN Date: FEB. 2010
Scale: AS SHOWN

REVISIONS

NO.	REVISION	DATE
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TIMOTHY J. BEHAN
No. 0278
REGISTERED PROFESSIONAL ENGINEER

TJB ENGINEERING, LLC
CIVIL ENGINEERING
PERMITTING * LAND PLANNING
SUBDIVISIONS * WASTEWATER

1050 MAIN STREET SUITE 31
EAST GREENWICH, RI 02818
PHONE: 401-996-1677

STANDARD OWTS NOTES:

- THIS PLAN WAS PREPARED FOR RIDEEM SEPTIC SYSTEM PERMIT ONLY AND SHOULD NOT BE USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE "RULES" ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION AND MAINTENANCE OF ONSITE WASTEWATER TREATMENT SYSTEMS, LATEST REVISION, AS REGULATED THROUGH THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT. THESE ARE REFERRED TO AS THE "RULES".
- THE PROPOSED ACTIVITIES (ARE OR ARE NOT) UNDER THE RHODE ISLAND COASTAL RESOURCE MANAGEMENT COUNCIL'S JURISDICTION.
- PUBLIC SEWERS (ARE OR ARE NOT) LOCATED WITHIN 200 FEET OF THE PROPERTY LINE.
- DRINKING WATER LINES (ARE OR ARE NOT) LOCATED WITHIN 50 FEET OF THE PROPOSED OWTS. ALL DRINKING WATER LINES WITHIN 50 FEET OF THE PROPOSED OWTS HAVE BEEN SHOWN, IF PRESENT.
- WATER SUPPLY IS BY (PUBLIC WATER SYSTEM OR PRIVATE WELL). THERE (ARE OR ARE NOT) EXISTING AND PROPOSED PRIVATE DRINKING WATER WELLS LOCATED WITHIN THE SPECIFIED SETBACK DETAILED IN TABLE 22.5 OF THE "RULES" + 100 FEET. IF WELL(S) ARE PRESENT, THEY HAVE BEEN SHOWN ON THE PLAN.
- THERE (ARE OR ARE NOT) EXISTING AND PROPOSED WELLS SERVING NON-POTABLE USES WITHIN 100' OF THE OWTS. IF WELL(S) ARE PRESENT, THEY HAVE BEEN SHOWN ON THE PLAN.
- THERE (ARE OR ARE NOT) EXISTING AND PROPOSED PUBLIC DRINKING WATER SUPPLY WELLS WITHIN 500 FEET OF THE PROPOSED OWTS. IF WELL(S) ARE PRESENT, THEY HAVE BEEN SHOWN ON THE PLAN. THE TYPE OF PUBLIC WELL, IF PRESENT, IS NOTED NEXT TO THE WELL. CLOSEST PUBLIC WELL IS APPROXIMATELY 700 FEET AWAY FROM PROPOSED OWTS.
- THERE (ARE OR ARE NOT) WATERCOURSES, WETLANDS, AND DRAINS WITHIN 200 FEET OF THE PROPOSED OWTS. IF PRESENT, THE LOCATIONS ARE SHOWN ON THE PLAN.
- THERE (ARE OR ARE NOT) STORM AN SUBSURFACE DRAINS WITHIN 200 FEET OF THE PROPOSED OWTS. SAID DRAINS (DO OR DO NOT) DISCHARGE DIRECTLY OR INDIRECTLY INTO A CRITICAL RESOURCE AREA AS IDENTIFIED IN RULE 38 OF THE "RULES".
- THE PROPOSED OWTS (IS OR IS NOT) LOCATED WITHIN THE WATERSHED OF A PUBLIC WATER SUPPLY.
- THE PROPOSED OWTS (IS OR IS NOT) LOCATED WITHIN A CRITICAL RESOURCE AREA AS IDENTIFIED IN RULE 38 OF THE "RULES". THE DISTANCE TO THE NEAREST CRITICAL RESOURCE OF CONCERN IS FEET.
- THERE (ARE OR ARE NOT) EXISTING OWTS WITHIN 200 FEET OF ANY PROPOSED WELL. IF PRESENT, THE LOCATION AND SIZE HAS BEEN SHOWN ON THE PLAN.
- EXISTING OWTS WITH A DESIGN FLOW GREATER THAN 1,000 GAL/DAY (ARE OR ARE NOT) LOCATED WITHIN 400 FEET OF THE PROPOSED WELL. IF PRESENT, THE LOCATION AND SIZE HAS BEEN SHOWN ON THE PLAN.
- THERE (ARE OR ARE NOT) AREAS ON SUBJECT PROPERTY WHERE SOIL HAS BEEN EXCAVATED AND/OR WHERE STORM DEPOSITED SAND IN THE BACKYARD ENVIRONMENT OR WHERE HUMAN TRANSPORTED MATERIAL HAS BEEN DEPOSITED.
- A REPLACEMENT DISINFECTED FIELD AREA MEETING THE HORIZONTAL SETBACK REQUIREMENTS IN RULE 22 OF THE "RULES" (IS OR IS NOT) SHOWN ON THE PLAN. IF NOT SHOWN, A SUITABLE AREA DOES NOT EXIST OR INSUFFICIENT DATA IS KNOWN TO MAKE A DETERMINATION AT THIS TIME.
- THE POTENTIAL FOR FLOODING WITHIN 100 FEET OF THE PROPOSED OWTS DOES EXIST. PROPERTY LIES IN A 100-YEAR FLOOD PLAIN. THE PROPOSED WELL IS APPLICABLE, (DOES OR DOES NOT) REQUIRE A VARIANCE FROM RIDEEM'S "RULES" AND REGULATIONS GOVERNING THE ENFORCEMENT OF CHAPTER 46-13.2 RELATING TO THE DRILLING OF DRINKING WATER WELLS.
- THIS APPLICATION (IS OR IS NOT) PART OF A SUBDIVISION OF FIVE (5) LOTS OR LESS WITH EXISTING ROAD FRONTAGE.
- THE SUBJECT PROPERTY (IS OR IS NOT) SERVED WITH AN OWTS & PRIVATE WELL. THE NITROGEN LOADING RATE SHALL NOT EXCEED 345 GAL/DAY PER 20,000 SQUARE FEET OF PROPERTY WHEN SERVED WITH AN OWTS & PRIVATE WELL.

GENERAL NOTES:

- SEPTIC TANK, PUMP BASIN, & RISERS SHALL BE WATER TIGHT. CONTRACTOR TO TEST BY FILLING WITH WATER, WITNESSED BY ENGINEER (IN ACCORDANCE WITH RULE 26.11).
- SEPTIC TANK SHALL BE MANUFACTURED FOR ANTI-FLOTATION ASSUMING WATER TABLE AT GRADE. TANK SHALL BE PRECAST REINFORCED CONCRETE WITH ANTI-FLOTATION COLLAR.
- BUILDING SEWER TO SEPTIC TANK SHALL HAVE NO BENDS EXCEEDING 45°.
- VEHICLE PARKING OR TRAFFIC OVER THE LEACHFIELD/SEPTIC TANK AREA IS PROHIBITED.
- FINISH GRADE SHALL FIT AWAY FROM ALL MANHOLES.
- THE CONTRACTOR SHALL STRIP ALL TREES, ROOTS, GRASS SOD, LOAM, FILL AND SOIL IN THE LEACHFIELD AREA PRIOR TO PLACING ANY MATERIAL. LEACHFIELD BOTTOM SHALL BE INSPECTED BY THE ENGINEER. SEPTIC GRAVEL SHALL BE USED TO FILL THE AREA TO THE ELEVATION SHOWN ON THE PROFILE. IF BOTTOM IS UNACCEPTABLE TO ENGINEER, CONTRACTOR SHALL EXCAVATE TO THE ELEVATION SPECIFIED BY THE ENGINEER AT NO ADDITIONAL COST.

LEACHFIELD SIZING CALCULATIONS:

BLDG. USE = 1,250 S.F. BUSINESS & MERCANTILE OFFICES @ 7 EMPLOYEES
 = 9,000 S.F. STORAGE GARAGES @ 14 EMPLOYEES
 TOTAL = 21 EMPLOYEES
 FLOW TO LEACHFIELD = 15 GAL/PERSON/DAY X 21 EMPLOYEES = 315 GAL/DAY
 LOADING RATE = 2.10 GAL/SF/DAY
 SQUARE FEET REQ'D. = 315 / 2.10 = 150 SQUARE FEET REQ'D.
 SELECT LEACHFIELD = USE 8' X 22' BOTTOMLESS SAND FILTER = 176 SQ. FT. PROVIDED

SEPTIC TANK SIZING CALCULATIONS:

ADVANTEX REQUIRES 2/3 DESIGN FLOW IN FIRST COMPARTMENT
 USE 1,500 GAL. TANK SINCE DESIGN FLOW IS LESS THAN VOLUME OF FIRST COMPARTMENT

GENERAL SITE, SOILS & DESIGN DATA:

- PROPOSED B.S.F. LEACHFIELD IS LOCATED BETWEEN TEST HOLE 08-02 AND TH C. E.S.H.W.T. FOR THESE TWO TEST HOLES ARE 1.5 FEET BELOW ORIGINAL GRADE. SEE TABLE BELOW.
- USE SLOWEST B.S.F. LOADING RATE = 2.10 GAL/SF/DAY, BASED ON MARCH 2008 ADDENDUM FOR CATEGORY 7 SOILS.
- TEST HOLE 08-02 (EXCAVATED ON 8/26/08)
 11'-0" FILL CAT.1
 0'-8" FSL CAT.4
 8'-12" SL CAT.3
 12'-20" SL CAT.3
 20'-48" LS CAT.6
 S.H.G.W.T. = 18"
 WATER SEEPAGE = NONE
 DEPTH OF HOLE = 114"
 APPLIC. # OF SOIL EVALUATION = 0111-0127
- TEST HOLE TH C (EXCAVATED ON 5/20/03)
 3'-0" FILL
 0'-4" SL CAT.3
 4'-21" SL CAT.3
 21'-35" VFSL CAT.7
 35'-105" LS CAT.6
 S.H.G.W.T. = 18"
 WATER SEEPAGE = 71"
 DEPTH OF HOLE = 105"
 APPLIC. # OF SOIL EVALUATION = 0111-0127

TEST HOLE	ORIGINAL GROUND ELEVATION	FILL DEPTH	E.S.H.W.T.	G.W.T. ELEV.	LEGE DEPTH	LEGE ELEV.
08-01	559.4	1.6'	1.0'	558.4	9.5'	549.9
08-02	560.6	0.9'	1.5'	559.1	9.5'	551.1
TH E	559.6	1.0'	1.5'	559.1	9.0'	551.6
TH C	560.6	0.3'	1.5'	559.1	9.0'	551.6
01-01	560.6	0.0'	1.5'	559.1	10.0'	551.6

CONTRACTOR'S NOTES - CONSTRUCTION:

- NOTIFY ENGINEER 5 DAYS PRIOR TO START OF CONSTRUCTION.
- INSTALLATION OF PIPING/PUMP EQUIPMENT TO & FROM ADVANTEX POD AND PUMP SHALL BE PERFORMED BY A ORENCO SYSTEMS APPROVED AGENT.
- CONSTRUCTION OF THE BOTTOMLESS SAND FILTER (BSF) CAN ONLY OCCUR DURING DRY PERIODS WHEN THE GROUNDWATER TABLE IS LOWER THAN ANY PROPOSED WORK.
- PRODUCT & MATERIAL SPECIFICATION SHEETS FOR ALL COMPONENTS SHALL BE PROVIDED TO ENGINEER PRIOR TO ENGINEER NOTIFYING RIDEEM FOR START OF CONSTRUCTION. THIS INCLUDES: 1) SEPTIC TANK AND 2) SAND SIEVE ANALYSIS.
- STAKE OUT LEACHFIELD CORNERS FOR REVIEW AND APPROVAL BY ENGINEER.
- ENGINEER TO APPROVE BOTTOM OF LEACHFIELD BED PRIOR TO PLACEMENT OF GRAVEL.
- SCARIFY LEACHFIELD BOTTOM IMMEDIATELY PRIOR TO PLACEMENT OF GRAVEL, NOT THE DAY BEFORE.
- ENGINEER TO APPROVE TOP OF GRAVEL BED PRIOR TO PLACEMENT OF ANY OTHER MEDIA.
- ENGINEER TO INSPECT SEPTIC TANK PRIOR TO BACKFILLING. CONTRACTOR SHALL PERFORM A WATER PRESSURE TEST ON THE TANK & TANK RISERS. COORDINATE TESTING WITH ENGINEER.
- ENGINEER TO INSPECT COMPLETED SYSTEM PRIOR TO BACKFILLING.
- CONTRACTOR TO REVIEW FIELD CONDITIONS PRIOR TO BIDDING.

OWNER'S NOTES:

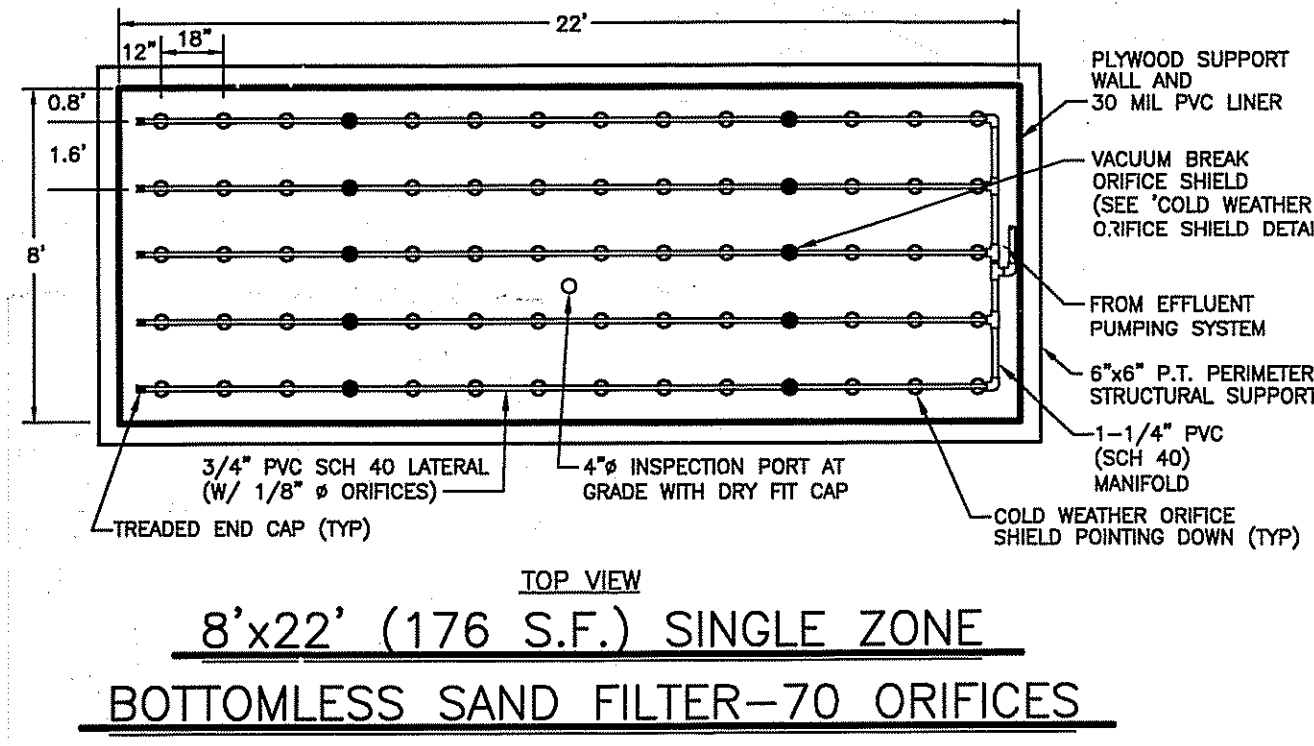
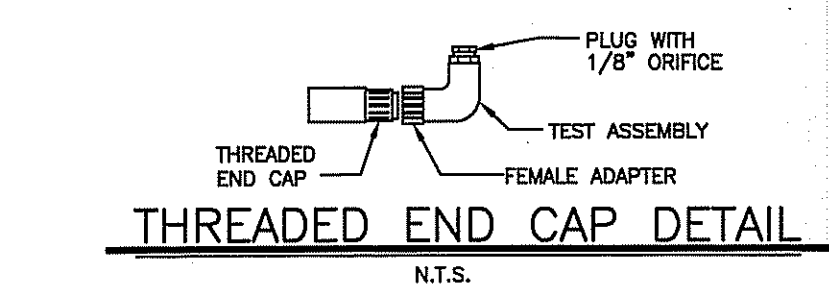
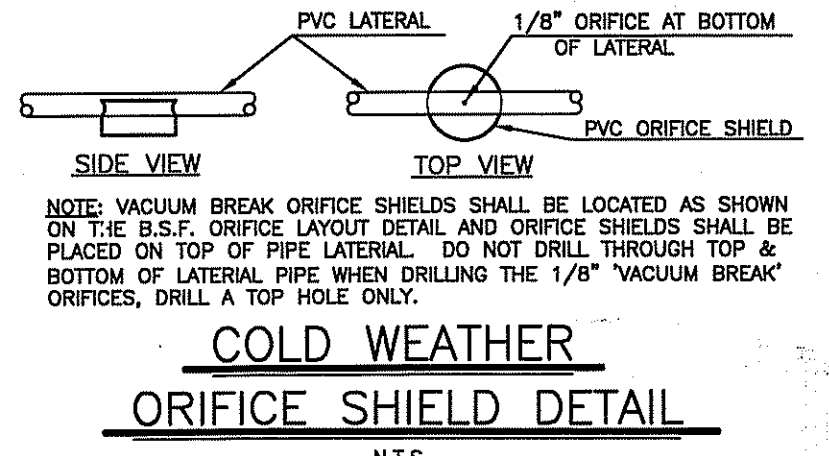
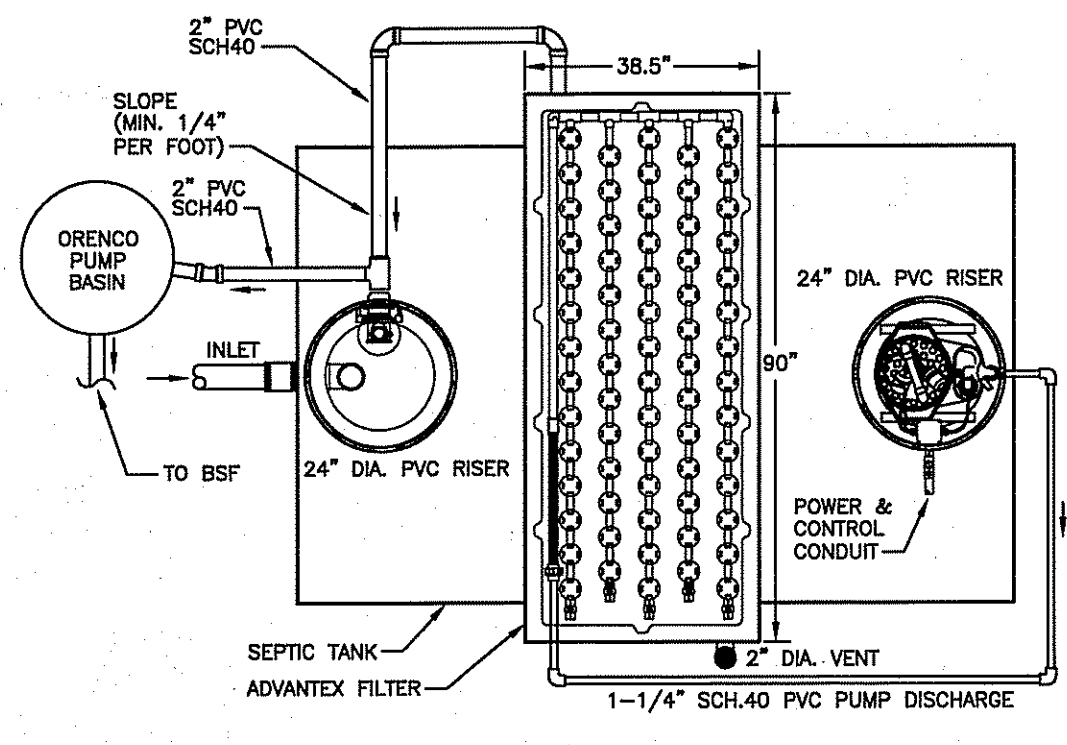
- FOOD/GARBAGE GRINDERS AND KITCHEN FLOWS ARE PROHIBITED FROM BEING CONNECTED TO THE SEPTIC SYSTEM.
- VEHICLE PARKING OR TRAFFIC OVER THE LEACHFIELD AND SEPTIC TANK IS PROHIBITED.
- BACKWASH WATER FROM WATER TREATMENT SYSTEMS SHALL NOT BE DISCHARGED INTO THE SEPTIC SYSTEM.
- SEPTIC TANKS SHALL BE PUMPED OUT EVERY 24 MONTHS AND SYSTEM MAINTAINED BY AN APPROVED ORENCO SYSTEMS APPROVED MAINTENANCE SERVICE PROVIDER.
- ONLY WASTEWATER AS DEFINED IN THE RIDEEM OWTS REGULATIONS IS ALLOWED TO BE DISCHARGED INTO THE SEPTIC SYSTEM. ABSOLUTELY NO CHEMICALS, OILS, FATS, GREASE, OR PAINTS ARE ALLOWED.
- NO TREES OR LARGE SHRUBS SHALL BE PLANTED WITHIN 10 FEET OF THE LEACHFIELD.
- NO SUBSURFACE DRAINS OR SUBGRANS SHALL BE INSTALLED WITHIN 50 FEET OF THE OWTS.

SEPTIC TANK NOTES:

- SEPTIC TANK SHALL BE WATER TIGHT AND CONSTRUCTED OF PRECAST REINFORCED CONCRETE.
- PRECAST REINFORCED CONCRETE TANKS SHALL CONFORM WITH ASTM C-1227-02, LATEST EDITION.
- TANKS SHALL BE DATED AT THE INLET END OF THE TANK WITH DATE OF MANUFACTURER; NAME OF MANUFACTURER; CAPACITY; AN EXTERNAL LOADS FOR WHICH TANK IS DESIGNED TO RESIST.
- A WARNING LABEL AT ALL OPENINGS SHALL BE PROVIDED WHICH READS "ENTRANCE INTO THE TANK COULD BE FATAL".
- TANK SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.
- TANK SHALL BE INSTALLED ON A LEVEL, STABLE BASE THAT WILL NOT SETTLE.
- SURFACE WATER SHALL BE DIVERTED AWAY FROM THE TANK OPENINGS.
- TANK SHALL NOT BE DAMAGED DURING BACKFILLING. BACKFILL MATERIAL SHALL BE FREE OF LARGE STONES, STUMPS, WASTE CONSTRUCTION MATERIAL, RUBBER, ORGANIC MATERIAL AND FROZEN SOILS.
- TANK AND RISERS SHALL BE TESTED FOR WATER TIGHTNESS BY EITHER VACUUM TESTING OR WATER PRESSURE TEST AS SPECIFIED IN THE "RULES". CONTRACTOR SHALL PROVIDE WRITTEN CERTIFICATION THAT THE TEST PASSED PRIOR TO C.O.C.
- JOINTS OF ALL CONCRETE TANKS SHALL BE SEALED WITH A 1" DIA. BUTYL RUBBER SEALANT OR APPROVED EQUAL.
- MANHOLE OPENINGS SHALL BE 20 INCH MINIMUM.
- PROVIDE VENT OPENING AT TOP OF Baffle WALL EQUAL TO 4" PIPE OR GREATER.

ADVANTEX AX-20 NOTES:

- ALL WORK AND INSTALLATION PROCEDURES SHALL CONFORM TO RIDEEM'S "GUIDELINES FOR THE DESIGN AND USE OF BOTTOMLESS SAND FILTERS, LATEST REVISION". ONLY RIDEEM APPROVED INSTALLERS ARE PERMITTED TO INSTALL THIS OWTS.
- THE 6"x6" P.T. TIMBERS AROUND THE BSF SHALL BE SECURED WITH IRON PINS, OR REBARAS FASTENED TO THE SUPPORT WALLS TO PREVENT MOVEMENT TO THE SATISFACTION OF THE ENGINEER.
- THIS BOTTOMLESS SAND FILTER IS AND SHALL ALWAYS BE PRESSURE DOSED UTILIZING PROGRAMMABLE TIMERS. SINCE THE ADVANCED TREATMENT UNIT IS TIME-DOSED (CATEGORY 1 OPTION) THE TIMER SHALL ALSO CONTROL THE APPLICATION OF INFLUENT TO THE BSF.
- THE ADVANTEX UNIT & ASSOCIATED COMPONENTS (PUMPS, FLOATS, VALVES, PIPE CONNECTIONS, ETC.) SHALL BE INSTALLED BY AN ORENCO SYSTEMS MANUFACTURER REPRESENTATIVE. THE O.S. REPRESENTATIVE SHALL PROVIDE CERTIFICATION TO THE ENGINEER THAT THE SYSTEM WAS INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- THE LAND SURFACE ELEVATION 2 FEET BELOW THE PEASTONE/SAND MEDIA INTERFACE SHALL BE MAINTAINED FOR A DISTANCE OF 5 FEET FROM THE EDGE OF THE BSF. LAND SURFACE REGRADING ADJOINING THIS 5-FOOT PERIMETER MUST MAINTAIN A MINIMUM OF 3H:1V SLOPE DOWN GRADIENT.
- ALL PIPING AND FITTINGS SHALL BE INSTALLED TO ENSURE DRAIN-BACK INTO THE PUMP BASIN.
- ADVANTEX POD SHALL BE EQUIPPED WITH ANTI-FLOTATION FLANGES.
- PROVIDE STANDBY GENERATOR RECEPTACLE AND MANUAL TRANSFER SWITCH TO OPERATE OWTS. PROVIDE STANDBY GENERATOR SUITABLE TO START PUMP. ENGINEER TO WITNESS GENERATOR TEST PRIOR TO ISSUING C.O.C. TO RIDEEM.
- PUMP VALVE SHALL BE ORENCO SYSTEMS MODEL PVU57-1819 OR APPROVED EQUAL.
- THE PUMP DOSING THE AX-20 POD SHALL BE ORENCO SYSTEMS MODEL PF3005 OR APPROVED EQUAL.
- THE PUMP DOSING THE BSF SHALL BE ORENCO SYSTEMS MODEL PF2005 OR APPROVED EQUAL.
- DISCHARGE ASSEMBLY SHALL BE ORENCO SYSTEMS MODEL HV125 DA-03 OR APPROVED EQUAL.
- FLOAT ASSEMBLY SHALL BE ORENCO SYSTEMS MODEL MF3A OR APPROVED EQUAL.
- ORENCO SYSTEMS CONTROL & ALARM PANEL SHALL BE VERIDOM WITH ELAPSE TIME METER, EVENT COUNTER AND PROGRAMMABLE TIMER OPTIONS OR APPROVED EQUAL.



DOSING DATA TO B.S.F.:

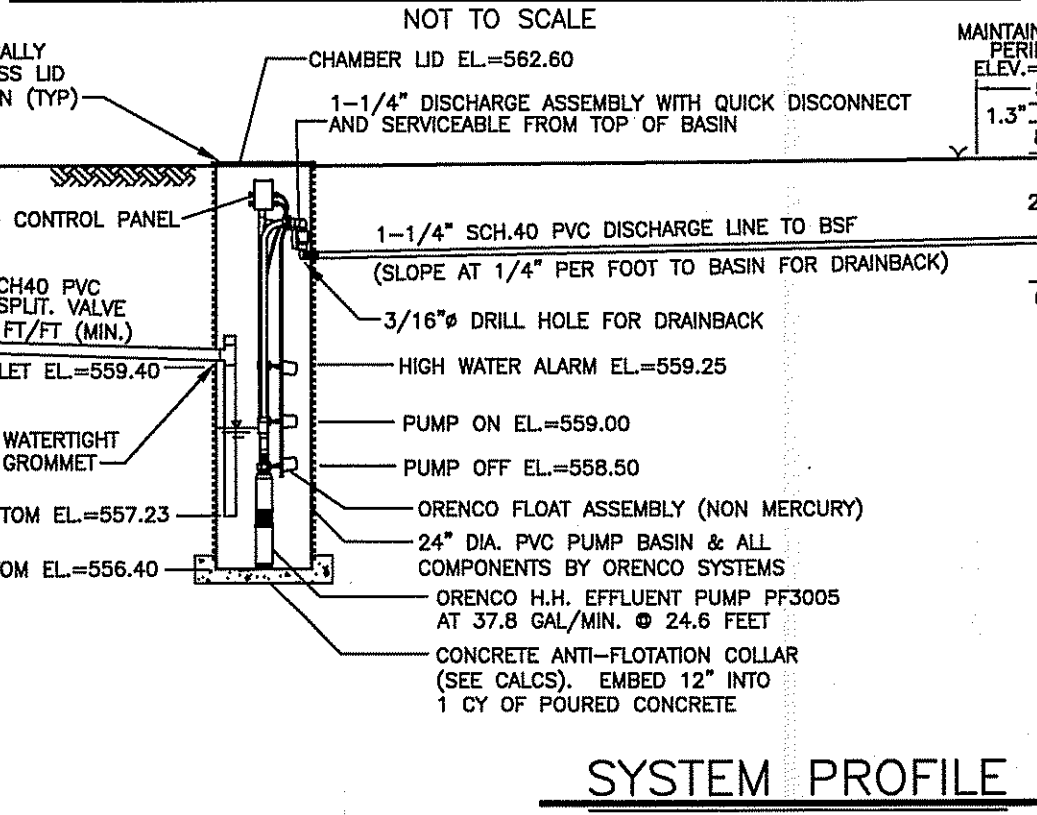
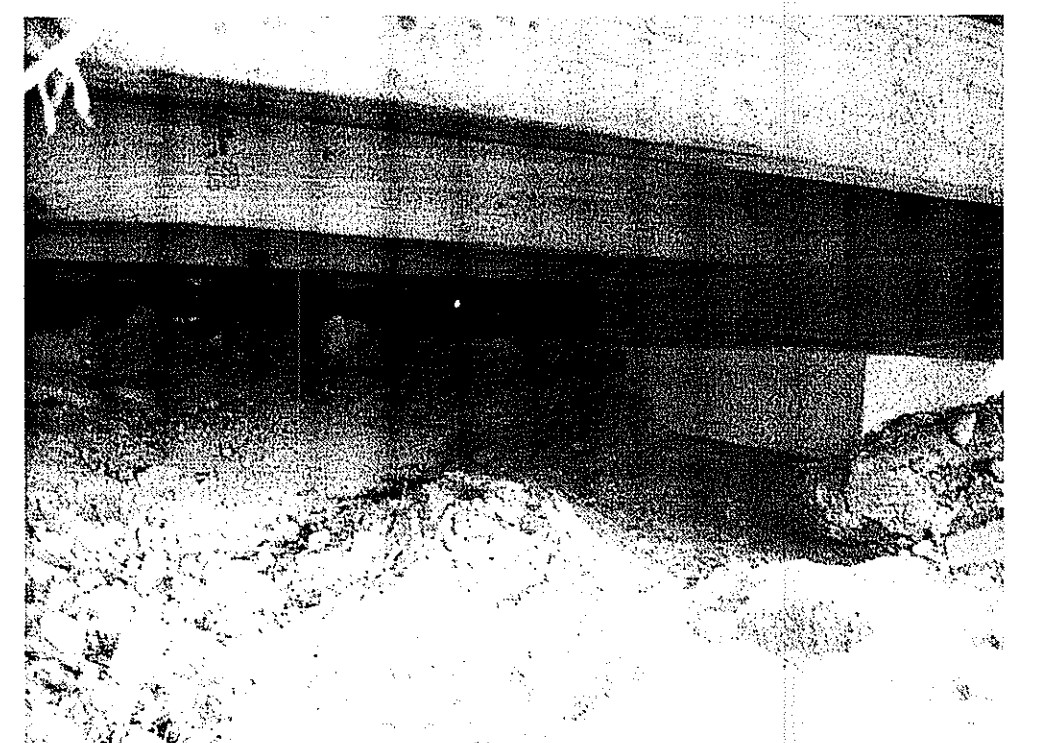
MAX. DOSE TO ORIFICES = 17.5 GAL. (0.23 GAL/ORIFICE X 70 ORIFICES)
 DRAINBACK TO PUMP = 16 FT. X 0.0637 GAL/FT.
 MAX. DOSE TO BSF = 1.1 GAL.
 PUMP SETTING: PUMP SYSTEM SHALL DOSE NO MORE THAN 18.5 GALLONS PER DOSE TO THE BSF. SET FLOAT SETTING BETWEEN ON/OFF AT 0.5 FEET (23.5 GAL/VERTICAL FOOT IN PUMP BASIN X 0.5 FEET = 12 GAL/DOSE < 19.5 GAL; THEREFORE, DESIGN OK).

WASTEWATER STRENGTH:

THE ADVANTEX SYSTEM REQUIRES THE FOLLOWING WASTEWATER STRENGTH. THE PROPOSED USE TYPICALLY PRODUCES WASTEWATER STRENGTHS WHICH MEET THE CRITERIA BELOW. SHOULD WASTEWATER STRENGTH NOT MEET THE BELOW CRITERIA, ADDITIONAL MEASURES MAY NEED TO BE INCORPORATED INTO THE SYSTEM. OWNER IS RESPONSIBLE FOR INCORPORATING SUCH MEASURES.

	AVERAGE (mg/L)	WEEKLY PEAK (mg/L)	RARELY EXCEEDS (mg/L)
BOD	150	250	500
TSS	40	75	150
TGN	65	75	150
TKN	20	25	30

SHED EXISTING FOUNDATION



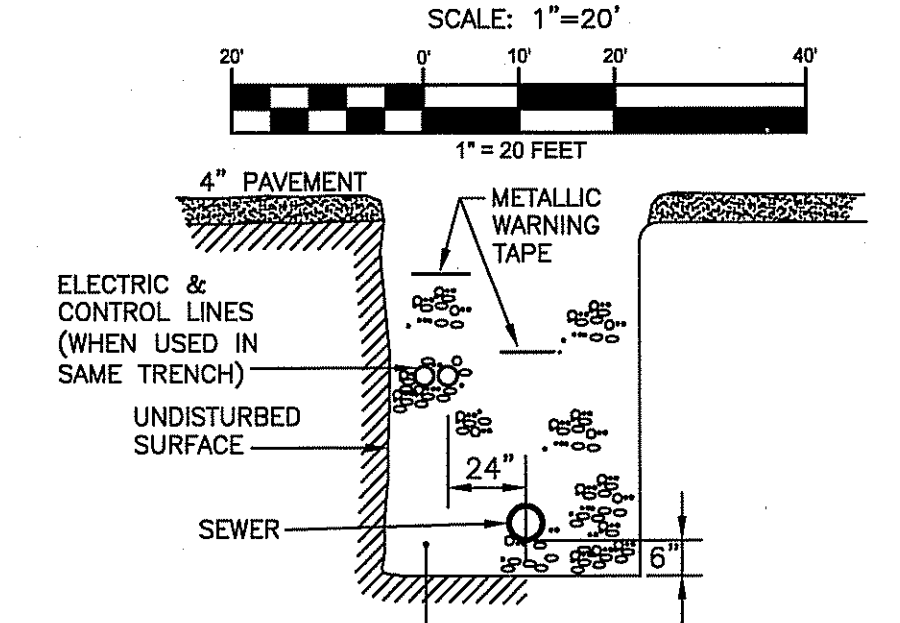
SEPTIC GRAVEL SPEC.:
 GRAVEL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN 3". UP TO 10% MAY BE SIZED BETWEEN 3/4" AND 1". GRAVEL SHALL MEET THE FOLLOWING:

SIEVE SIZE	% PASSING
3/4"	100%
#4	55%-100%
#10	40%-100%
#40	10%-50%
#100	0%-20%
#200	0%-2%

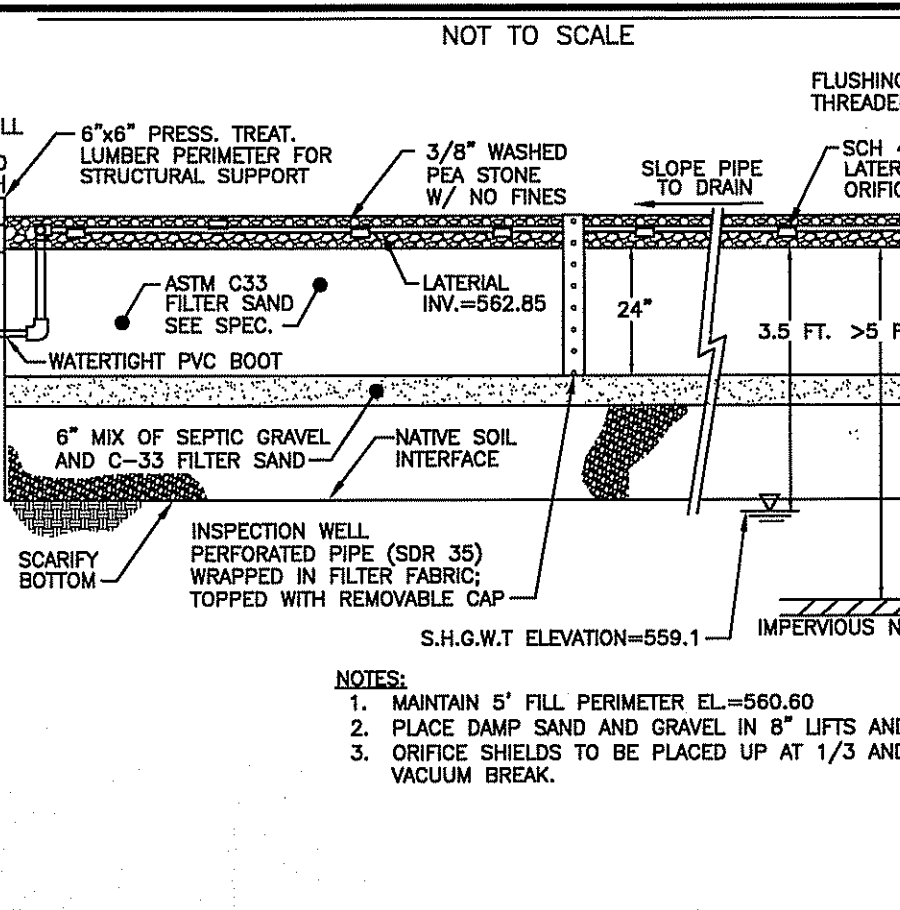
ASTM C-33 SAND SPEC.:
 ASTM C-33 SAND SHALL MEET ASTM C-33 REQUIREMENTS AND ALSO THE FOLLOWING:

D(10) = 0.3 mm
 U.C. = 3.0 TO 4.0
 % PASS 200 SIEVE < 1.0%

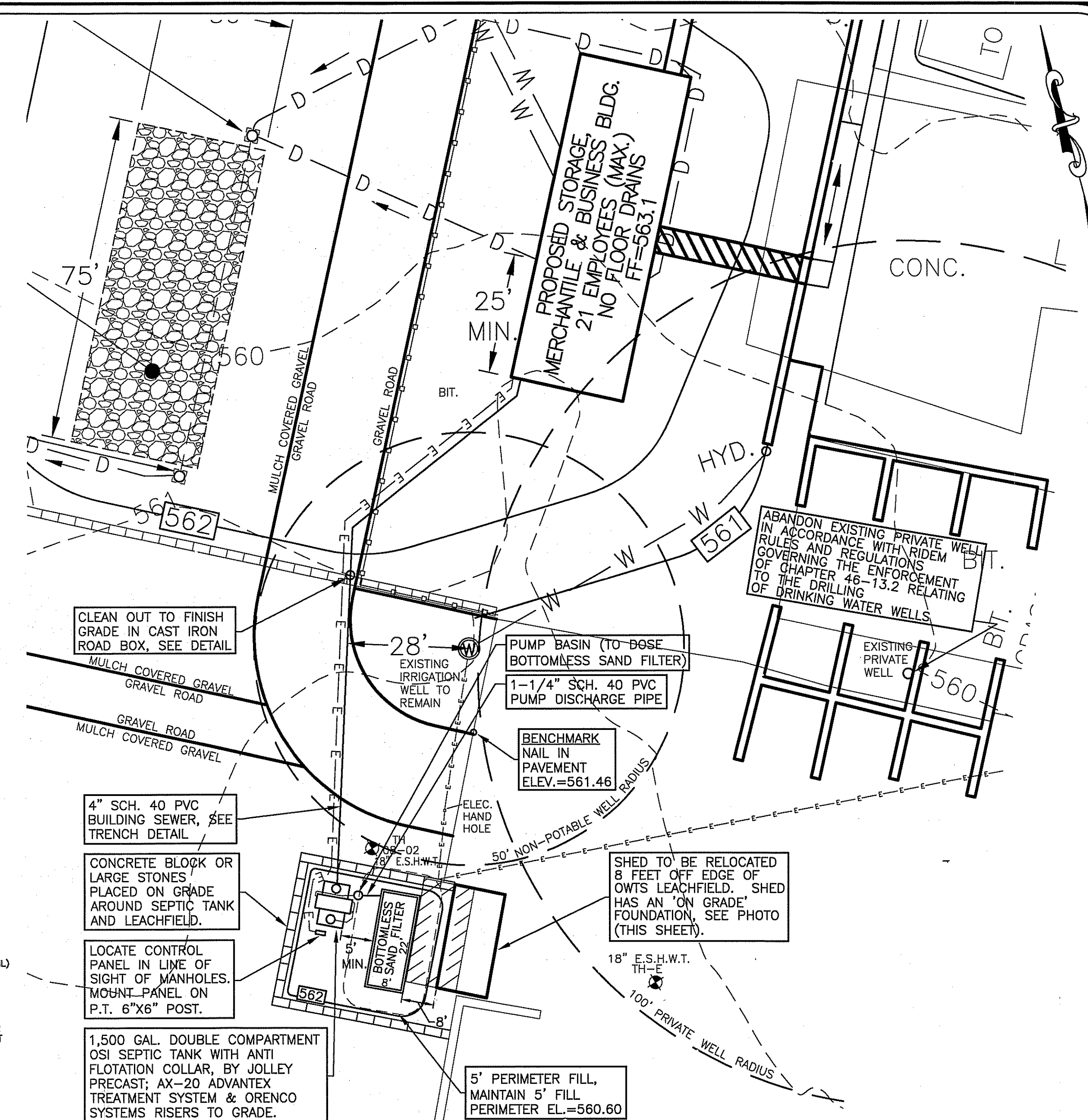
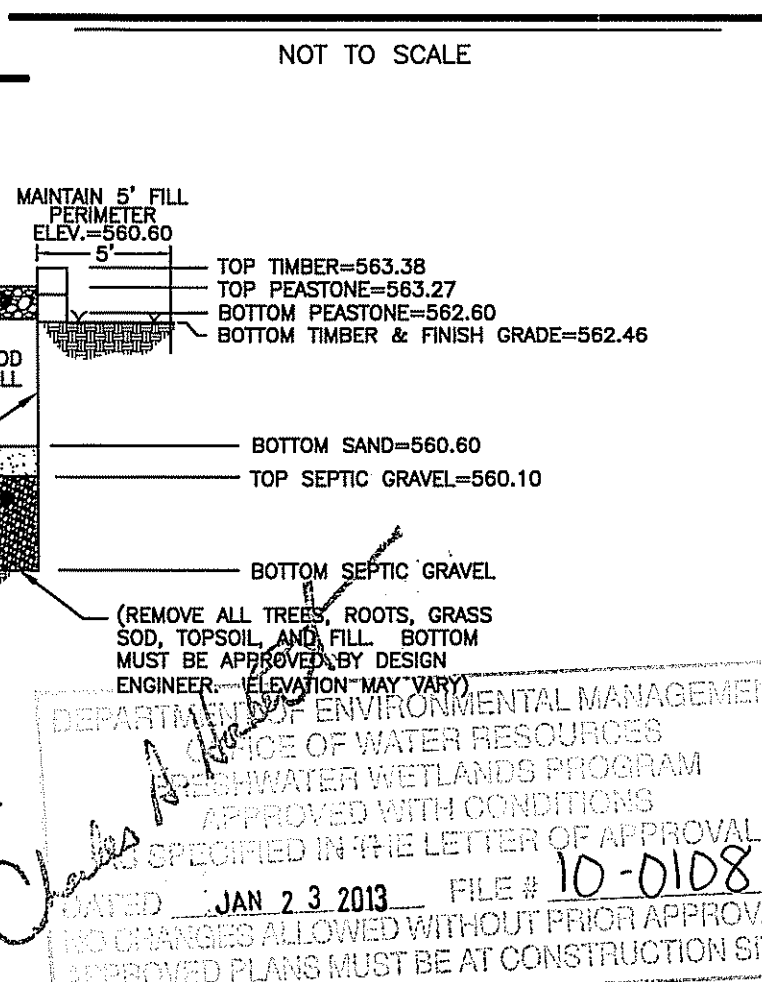
OWTS LAYOUT PLAN



SEWER PIPE TRENCH DETAIL



CLEANOUT DETAIL



Being: ASSESSORS PLAT 20 BL. 3 LOT 24
175 NOOSENECK HILL ROAD
 LOCATION
OWTS PLAN
 PROPERTY OWNER & APPLICANT:
Baird Properties, LLC
 17 Reservoir Road
 Coventry, RI 02816

Checked by: T.J.B. Drawn by: T.J.B.
 Scale: AS SHOWN Date: FEB. 2010

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TJB ENGINEERING, LLC
 CIVIL ENGINEERING
 PERMITTING * LAND PLANNING
 SUBDIVISIONS * WASTEWATER
 1050 MAIN STREET SUITE 31
 EAST GREENWICH, RI 02818
 PHONE: 401-986-1677

Sheet **9** of 11 sheets

APPROVED WITH CONDITIONS
 ENGINEER: T.J.B. (7744)
 REGISTERED PROFESSIONAL ENGINEER
 NO. 6278
 TIMOTHY J. BEHAN
 JAN 23 2013 FILE # 10-DID8
 ALL CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE



EXETER VOL. FIRE DEPARTMENT NO. 1
 305 Ten Rod Rd. Exeter RI 02822
 Station #: 294-6511, Station #: 294-6552
 Office: 295-3173, Fax: 401-667-2997
 Fire Alarm: 295-3170

Exeter Fire Department Underground Water Tank Specifications

- Tank(s) must be installed and acceptance approval given by the Exeter Fire Dept. prior to the issuance of the first certificate of occupancy (C.O.) by the Town of Exeter building official.
- Plans and specifications for the materials, location, and installation of the tank must be approved by the Chief, or his/her designee, of the Exeter Fire Dept., prior to installation.
- National Fire Protection Association (N.F.P.A.) Standard 22: Water tanks for private fire protection, and Standard 1142: Water supplies for suburban and rural fire fighting, 2001 edition, as amended by this document will be used as installation guidelines.
- Tank/ Cistern shall be located below frost line. Bedding for tank shall consist of a minimum of 12" of 3/4" to 1-1/2" crushed stone, compacted. No fill should be used under stone. Base shall be designed so that cistern will not float when empty.
- Tanks shall be constructed of precast concrete, steel, or fiberglass. Poured in place concrete may be acceptable after consultation with the fire chief. Concrete shall be 4,000 psi, with reinforced steel that shall conform to ASTM-A615; min. wall thickness is 8". Top of tank will be installed below frost line as determined by the building official.
- Minimum tank size is ten thousand (10,000) gallons. Tank size shall be determined by the fire chief or his designee.
- All suction and fill piping shall be schedule 40 steel or schedule 80 PVC.
- Piping shall be 8" with sweeping 90deg. angle (preferred) or 45deg. to 45deg. angles. (Straight 90deg. angle will not be permitted due to friction loss). The fire department connection (suction) shall consist of a 5" female outlet with long handles with a cap on the end NST (national standard thread).
- Suction pipe connection shall extend no more than 24" above grade where vehicle shall be located. Suction pipe should be supported either to top of tank or to a level below the frost line.
- Vent piping of 8", and 2" piping to measure water in tank, shall be schedule 60 or 80 PVC conforming to ASTM standards.
- Filler pipe Siamese (two 2-1/2" NST inlets) shall be no higher than 36" above final grade.
- Tank access (manhole) shall consist of an adapter, 36"-38" riser and lid with safety screw or bolts. Lid will be at ground level. Risers, such as brick or steel frame are allowable. Premade risers and lids can be purchased at Orenco in Oregon (www.orencocom) or Zable in Kentucky (www.zablezone.com). When using risers of other than an interlocking system the manhole frame and cover shall be same as utilized by the Town of Exeter, with the exception that it shall be marked water on the cover. The tank access or manhole shall be no less than 24" wide.
- Tank shall be located no less than ten (10) feet and no more than twenty (20) feet from a paved, maintained roadway. In this manner year-round access is provided, without impinging on sidewalks.
- Backfill over the tank shall be completed in one (1) of the following manners:
 - Three (3) feet of fill.
 - The top of the highest two (2) feet of sides of the cistern shall be insulated with vermin-resistant form insulation, and one (1) foot of fill.
 - All backfill shall extend ten (10) feet beyond the edge of the cistern, and then have a maximum 3:1 slope, loamed and seeded.
- Prior to surface treatment commencing, the tank must be completed, in service and accepted by the Exeter Fire Dept. Chief or designee.
- All deviations must be approved by the Fire Chief or his/her designee.

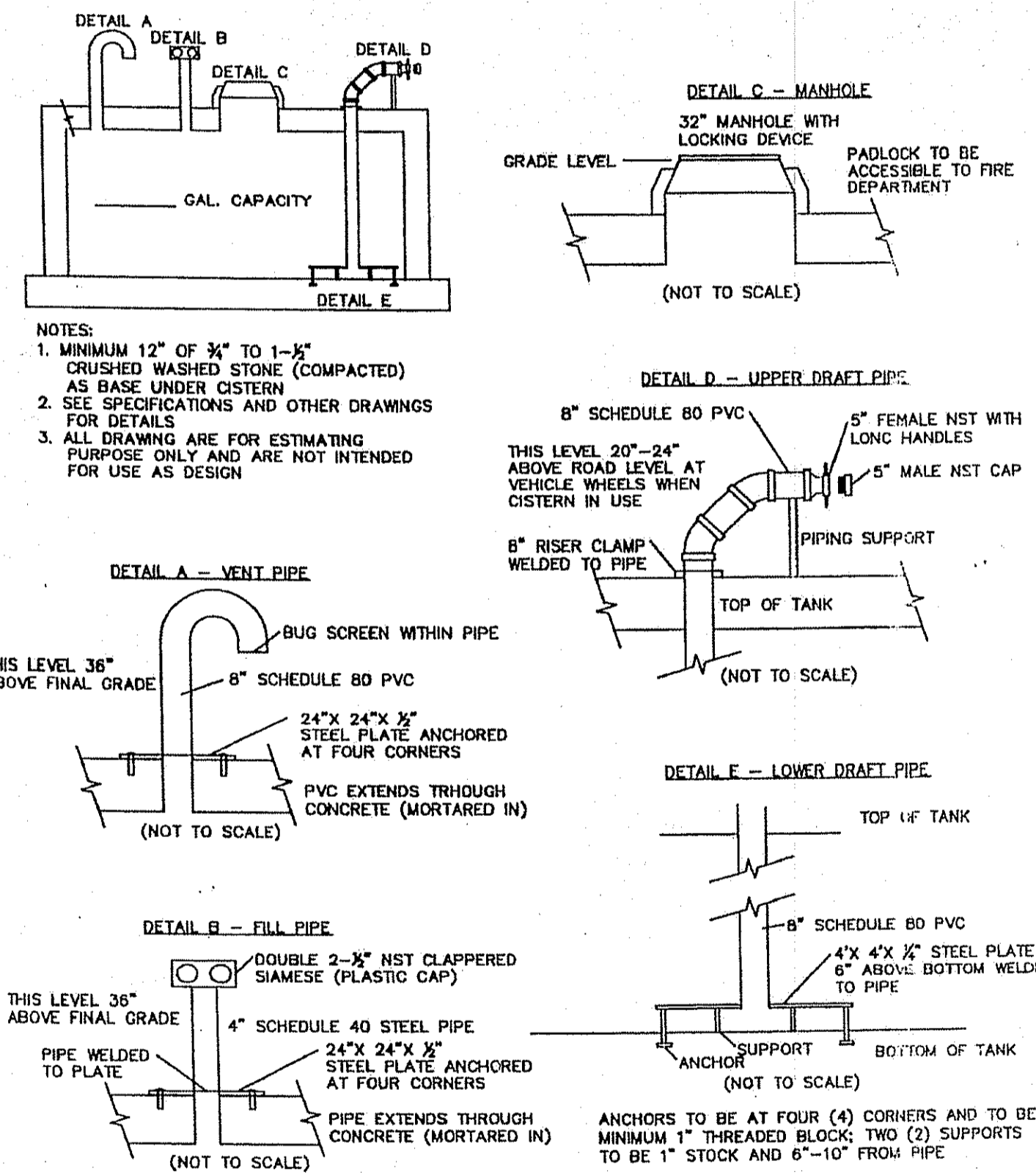
CISTERN NOTES:

- SPECIFICATIONS AND INSTALLATION OF CISTERN SHALL BE IN COMPLIANCE WITH NFPA 1142 STANDARD ON WATER SUPPLIES FOR SUBURBAN AND RURAL FIRE FIGHTING, NFPA 22 STANDARD FOR WATER TANKS FOR PRIVATE FIRE PROTECTION LATEST EDITIONS AND TOWN OF EXETER REGULATIONS. TANK WILL NOT BE ACCEPTED IF IT IS NOT CONSTRUCTED, SEALED, TESTED IN ACCORDANCE WITH TOWN REGULATIONS.
- APPLICANT TO SUBMIT SHOP DRAWINGS OF PROPOSED TANK TO TOWN FIRE DEPARTMENT FOR APPROVAL. SHOP DRAWINGS SHALL BE PREPARED BY A R.I. PROFESSIONAL ENGINEER AND SHALL MEET THE LATEST EXETER FIRE DEPARTMENT UNDERGROUND WATER TANK SPECIFICATIONS. TANK SHALL BE DESIGNED TO RESIST FLOTATION WITH A WATER TABLE AT GRADE. MAINTENANCE OF CISTERN SHALL BE THE RESPONSIBILITY OF THE DEVELOPER/OWNER OF PROPERTY.
- THE CISTERN CAPACITY SHALL BE 10,000 GALLON (NOMINAL PRECAST CONCRETE TANK SIZE).

10,000 GALLON FIRE CISTERN DETAILS



EXETER VOL. FIRE DEPARTMENT NO. 1
 305 Ten Rod Rd. Exeter RI 02822
 Station #: 294-6511, Station #: 294-6552
 Office: 295-3173, Fax: 401-667-2997
 Fire Alarm: 295-3170

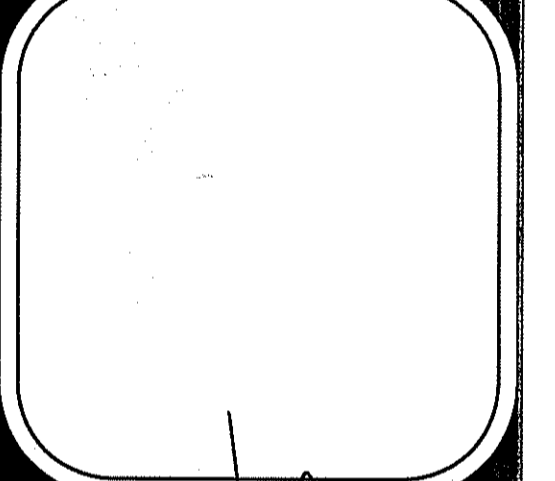


Charles A. Herbert
 DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED JAN 23 2013 FILE # 10-0108
 NO CHARGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Being: ASSESSORS PLAT 20 BL 3 LOT 24
FIRE CISTERN DETAILS
MULCH 'N MORE, INC.
 LOCATION
 171 & 175 NOOSENECK HILL ROAD
 EXETER, RHODE ISLAND
 PROPERTY OWNER & APPLICANT:
Baird Properties, LLC
 17 Reservoir Road
 Coventry, RI 02816
 JAN 9 2013

Checked By: T.J.B. Drawn By: T.J.B.
 Scale: AS SHOWN Date: FEB. 2010

NO.	REVISION	BY	DATE
1	OWNER COMMENTS	TJB	02/14/10
2	TOWN COMMENTS	TJB	02/17/10
3	ENGINEER COMMENTS	TJB	02/22/10
4	FIRE DEPARTMENT COMMENTS	TJB	02/22/10
5	FINAL TANK COMMENTS & WORK BUILDING	TJB	02/22/10
6	OWNER REVISION SUBMISSION	TJB	02/22/10
7	PERMIT MODIFICATION	TJB	02/22/10



TIMOTHY J. BRENNAN
 No. 6278
 REGISTERED PROFESSIONAL ENGINEER

TJB ENGINEERING, LLC
 CIVIL ENGINEERING
 PERMITTING * LAND PLANNING
 SUBDIVISIONS * WASTEWATER
 1050 MAIN STREET SUITE 31
 EAST GREENWICH, RI 02818
 PHONE: 401-996-1677

Sheet **10**
 of **11** sheets

NOTES:

1. REFER TO SHEET 2 FOR NOTES.
2. REFER TO SHEETS 7 & 8 FOR ADDITIONAL DETAILS.

LEGEND	STOP	NO LEFT TURN	SPEED LIMIT	TRAFFIC CONTROL
COLOR	RED	RED	WHITE	WHITE
BACKGND	RED	RED	WHITE	WHITE
COPY	RED	RED	WHITE	WHITE
TEXT	RED	RED	WHITE	WHITE
SIZE	36"	36"	36"	36"
HEIGHT	48"	48"	48"	48"

LEGEND	NO RIGHT TURN	NO U-TURN	NO TRUCKS	NO TRUCKS OVER 10 FT
COLOR	RED	RED	WHITE	WHITE
BACKGND	RED	RED	WHITE	WHITE
COPY	RED	RED	WHITE	WHITE
TEXT	RED	RED	WHITE	WHITE
SIZE	36"	36"	36"	36"
HEIGHT	48"	48"	48"	48"

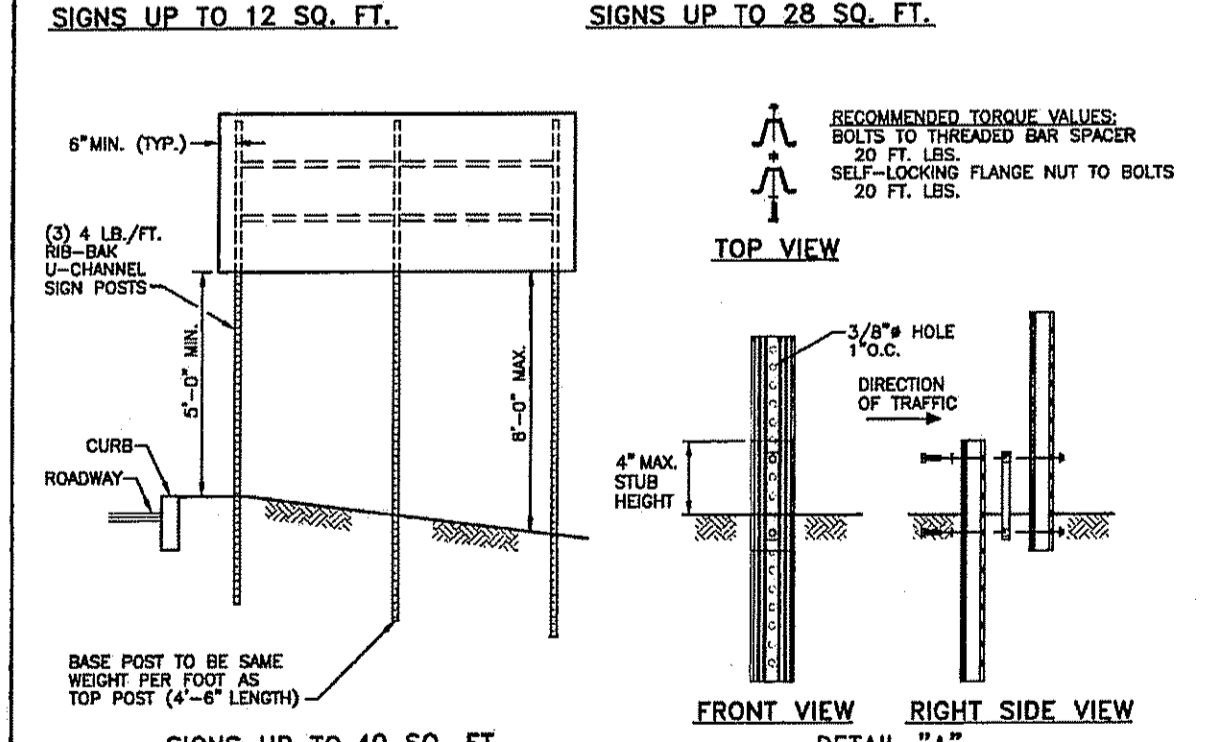
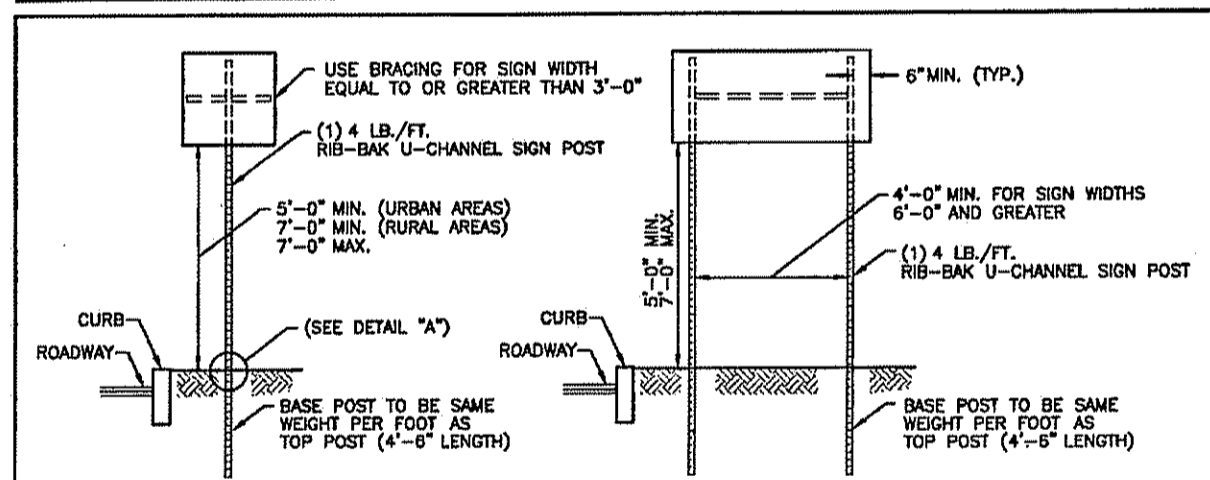
LEGEND	TRUCKS	TRUCKS	TRUCKS	TRUCKS
COLOR	WHITE	WHITE	WHITE	WHITE
BACKGND	WHITE	WHITE	WHITE	WHITE
COPY	WHITE	WHITE	WHITE	WHITE
TEXT	WHITE	WHITE	WHITE	WHITE
SIZE	36"	36"	36"	36"
HEIGHT	48"	48"	48"	48"

LEGEND	TRUCKS	TRUCKS	TRUCKS	TRUCKS
COLOR	WHITE	WHITE	WHITE	WHITE
BACKGND	WHITE	WHITE	WHITE	WHITE
COPY	WHITE	WHITE	WHITE	WHITE
TEXT	WHITE	WHITE	WHITE	WHITE
SIZE	36"	36"	36"	36"
HEIGHT	48"	48"	48"	48"

LEGEND	EMERGENCY STOPPING ONLY	WRONG WAY	PEDESTRIANS AND BICYCLES PROHIBITED	ONE WAY
COLOR	RED	RED	WHITE	WHITE
BACKGND	RED	RED	WHITE	WHITE
COPY	RED	RED	WHITE	WHITE
TEXT	RED	RED	WHITE	WHITE
SIZE	36"	36"	36"	36"
HEIGHT	48"	48"	48"	48"

LEGEND	EMERGENCY STOPPING ONLY	WRONG WAY	PEDESTRIANS AND BICYCLES PROHIBITED	ONE WAY
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SIZE	36"	36"	36"	36"
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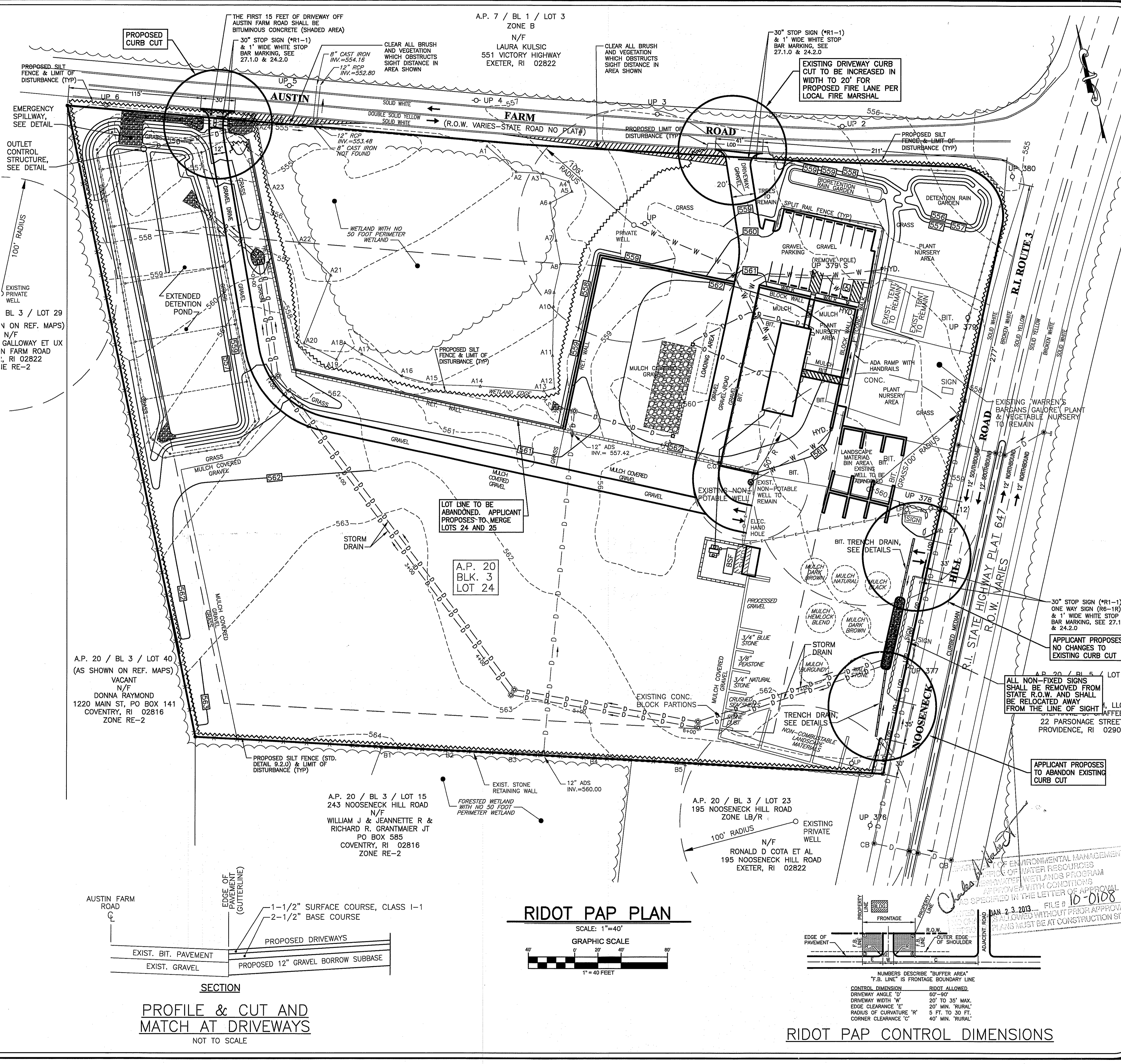
REV	BY	DATE	DESCRIPTION
1	JTB	02/15/2010	ISSUE FOR PERMIT



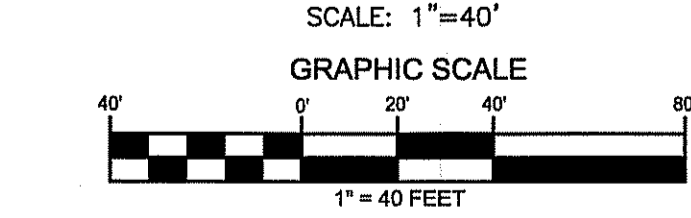
INSTALLATION PROCEDURE:

1. REMOVE A SPHERE FULL OF SOIL (APPROXIMATELY 2" DEEP) FROM WHERE THE BASE POST WILL BE LOCATED.
2. DRIVE THE BASE POST IN THE CENTER OF THE HOLE JUST CREATED, TO WITHIN 1/2" OF GRADE LEVEL.
3. PLACE ONE BOLT AND FLAT WASHER IN THE TOP HOLE OF THE BASE POST, IF THE TOP HOLE ON THE BASE POST OR THE BOTTOM HOLE ON THE BAR SPACER IS FOR USE WITH 3/4" AND 1 LB./FT. RIB-BAR POST GRADE SP-80 ONLY.
4. THE BOTTOM HOLE ON THE BAR SPACER IS FOR USE WITH 3/4" AND 1 LB./FT. RIB-BAR POST GRADE SP-80 ONLY.
5. WITH THE THREADED BAR SPACER ALIGNED WITH TOP HOLE ON THE BACK SIDE OF THE BASE POST, SECURELY TIGHTEN THE BOLT TO 20 FT. LBS. OF TORQUE. REPEAT THIS PROCEDURE FOR THE LOWER BOLT.
6. NEXT THE TOP POST OVER THE PROTRUDING BOLTS ON THE BASE POST. PLACE A SELF-LOCKING FLANGE NUT ON EACH BOLT AND TIGHTEN SECURELY TO 20 FT. LBS. OF TORQUE.
7. REPLACE SOIL REMOVED IN STEP 1.
8. IN TRIPLE POST INSTALLATIONS USING 4 LB./FT. POSTS IN WEAK SOIL, A 1'-0" x 6" x 1/2" SOIL PLATE IS REQUIRED.

REV	BY	DATE	DESCRIPTION
1	JTB	02/15/2010	ISSUE FOR PERMIT



RIDOT PAP PLAN



CONTROL DIMENSION	RIDOT ALLOWED
DRIVEWAY ANGLE 'D'	60°-90°
DRIVEWAY WIDTH 'W'	20' TO 35' MAX.
EDGE CLEARANCE 'E'	30' MIN. 'RURAL'
RADIUS OF CURVATURE 'R'	5 FT. TO 30 FT.
CORNER CLEARANCE 'C'	40' MIN. 'RURAL'

RIDOT PAP CONTROL DIMENSIONS

Blmp: ASSESSORS PLAT 20 BL 3 LOT 24
RIDOT PAP PLAN
175- NOOSENECK HILL ROAD
 LOCATION
 171 & 175 NOOSENECK HILL ROAD
 EXETER, RHODE ISLAND
 PROPERTY OWNER & APPLICANT:
 Baird Properties, LLC
 17 Reservoir Road
 Coventry, RI 02816

Checked By: T.J.B.	Drawn By: T.J.B.	Date: FEB. 2010
Scale: AS SHOWN	Revisions:	
	NO. 1	DATE 02/15/10
	NO. 2	DATE 02/15/10
	NO. 3	DATE 02/15/10
	NO. 4	DATE 02/15/10
	NO. 5	DATE 02/15/10
	NO. 6	DATE 02/15/10
	NO. 7	DATE 02/15/10
	NO. 8	DATE 02/15/10
	NO. 9	DATE 02/15/10
	NO. 10	DATE 02/15/10

THOMAS J. BEHAN
 No. 6278
 2013
 REGISTERED PROFESSIONAL ENGINEER

TJB ENGINEERING, LLC
 CIVIL ENGINEERING
 PERMITTING * LAND PLANNING
 SUBDIVISIONS * WASTEWATER
 1050 MAIN STREET SUITE 31
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