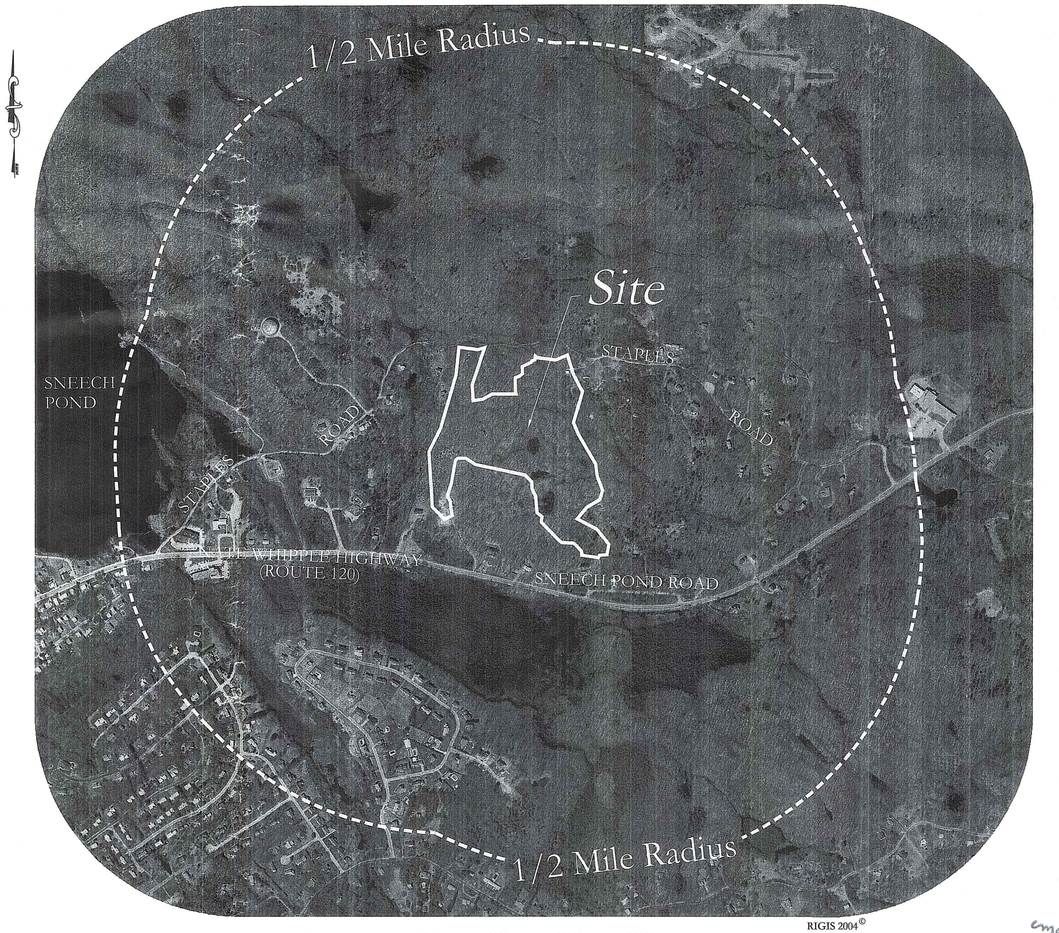
Preliminary Plan Submission

Major Subdivision Staples Road

Major Residential Subdivision

Assessor's Plat 44 Lots 28 & 33

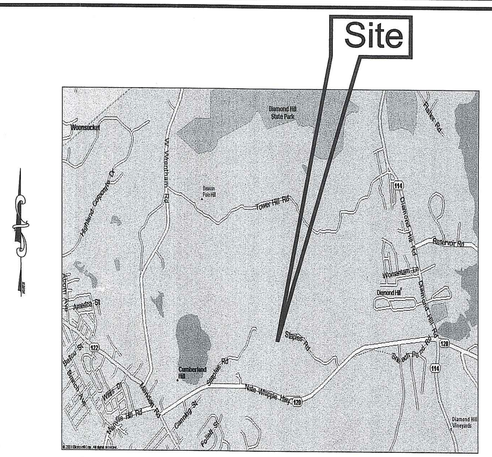
Staples Road - Cumberland, RI



RIGIS 2004©

0 600 1200 1800

1/2 Mile Radius Map
1" = 600'

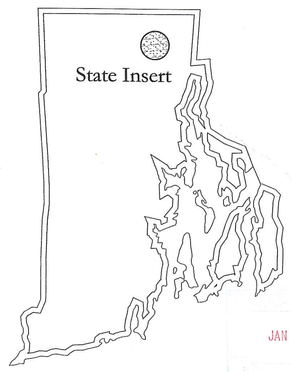


Locus Map N.T.S.

Applicant/Owner:

Charles McMillan
90 Sneech Pond Road
Cumberland, RI 02864

Sheet Index:



JAN 25 2008

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 25 2008 FILE # 07-0879
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

NO.	DATE	REVISION	BY
1	1/9/08	SITE SUITABILITY	DPJ
2	1/23/08	LIMIT OF DISTURBANCE	JEA

BRIAN P. THALMANN No. 6596 REGISTERED PROFESSIONAL ENGINEER (CIVIL)

Thalmann Engineering Co., Inc.
Site/Civil Engineers • Land Planners
600 Putnam Pike, Suite #7
Greenville, Rhode Island 02828
(401) 349-3040 • (401) 349-3041 (fax)

Cover Sheet
Major Subdivision
Staples Road
Prepared for:
Charles and Carol McMillan
90 Sneech Pond Road, Cumberland, RI
Lots 28 & 33
Rhode Island
scale: As Noted
date: Sept. 2007
A.P. 44

Drawn By: JEA
Checked By: BPT

Sheet 1 of 7

FILE NO: 03.073

Zone A-2 Section 4-1(a)

MINIMUM LOT AREA	80,000 SF
MINIMUM LOT AREA/DWELLING UNIT	80,000 SF
MINIMUM LOT WIDTH	180 FT
MINIMUM FRONTAGE	180 FT
MINIMUM FRONT YARD	75 FT
MINIMUM SIDE YARD	20 FT
MINIMUM REAR YARD	30 FT
MAXIMUM LOT COVERAGE	15 %
MAXIMUM HEIGHT	35 FT

Existing Data

EXISTING AREA ACRES	30.7
NO. OF EXISTING LOTS	2

Legend:

▬	EXISTING PROPETY LINE
—	ABUTTER PROPERTY LINE
- - -	ZONING SETBACK
×—×	EXISTING FENCELINE
∞∞	EXISTING STONE WALL
330	EXISTING COUNTOUR
⌒⌒	EXISTING TREELINE
— · —	EXISTING TRAIL
△	SURVEYED WETLAND EDGE
— —	50' PERIMETER WETLAND
Ⓦ	EXISTING WELL
○	EXISTING UTILITY POLE
◑	EXISTING GUY WIRE
⊡	EXISTING BOUND
○	IRON PIN
◎	DRILL HOLE
⊕ TP	TEST PIT
▨	15% OR > SLOPES

Flood Note:

A REVIEW OF THE NATIONAL FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NUMBERS 440016 0003B AND 440016 0004B INDICATES THE SUBJECT PARCEL LIES WITHIN ZONE X – AREAS DETERMINED TO BE OUTSIDE OF 500-FT FLOODPLAIN.

General Notes:

1. THE SITE IS HEAVILY WOODED WITH ROLLING TERRAIN AND WETLANDS.
2. WETLAND LOCATIONS WERE FIELD DELINEATED BY NATIONAL RESOURCE INC. 13 FEBRUARY 2004. FLAGS LOCATED BY INSTRUMENT SURVEY BY SCITUATE SURVEY, INC.
3. WETLAND EDGE VERIFIED PER RIDEM APPLICATION FILE NO. 05-0448.

Applicant/Owner:

CHARLES MCMILLAN
90 SNEECH POND ROAD
CUMBERLAND, RI 02864

Certification:

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

By:______________________
Registered Professional Land Surveyor Date
CANAVAN & ASSOCIATES CONSTRUCTION SURVEYING INC.

STAMPED FOR SURVEYING PURPOSEES ONLY

CANAVAN & ASSOCIATES CONSTRUCTION SURVEYING INC.
10 LATHAM FARM ROAD
SMITHFIELD, RI 02917
(401) 233-2436

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 29 2008 FILE # 07-0899
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

Martin D. Wencek

OCT - 9 2007

REFERENCE:

BASE MAP WAS DEVELOPED FROM A PLAN ENTITLED: "CONCEPTUAL PLAN, CUMBERLAND, RI" PREPARED BY MARSH SURVEYING, INC. OD LINCOLN, RI, DATED 3 SEPTEMBER 2003.

NO.	DATE	REVISION	BY

BRIAN P. THALMANN No. 6596 REGISTERED PROFESSIONAL ENGINEER (CIVIL)

Thalmann Engineering Co., Inc.
Site/Civil Engineers • Land Planners
600 Putnam Pike, Suite #7
Greenville, Rhode Island 02828
(401) 349-3040 • (401) 349-3041 (fax)
Thalmann ENGINEERING CO., INC.

Existing Conditions Plan
A.P. 44 Lots 28 & 33

Major Subdivision

Staples Road
Cumberland Rhode Island
Prepared for:
Charles and Carol McMillan
90 Sneech Pond Road, Cumberland, Rhode Island
date: Sept.-2007 scale: 1"=80'

Design By: JEA
Checked By: BPT

Sheet 2 of 7

FILE NO.: 03.073

Dimensional Regulations

Zone A–2 Section 4–1(a)

MINIMUM LOT AREA	80,000 SF
MINIMUM LOT AREA/DWELLING UNIT	80,000 SF
MINIMUM LOT WIDTH	180 FT
MINIMUM FRONTAGE	180 FT
MINIMUM FRONT YARD	75 FT
MINIMUM SIDE YARD	20 FT
MINIMUM REAR YARD	30 FT
MAXIMUM LOT COVERAGE	15 %
MAXIMUM HEIGHT	35 FT

Town Regulations (Section 6.B)

MINIMUM CONTIGUOUS BUILDABLE AREA AGRICULTURAL–2	40,000 SF

Development Data

AREA OF PARCEL	30.7± ACRES
NO. OF EXISTING LOTS	2
NO. OF PROPOSED LOTS	6
MINIMUM LOT AREA	81,674 SF
AREA OF R.O.W.	35,520 SF
PAVED R.O.W. LENGTH	600± LF

General Notes:

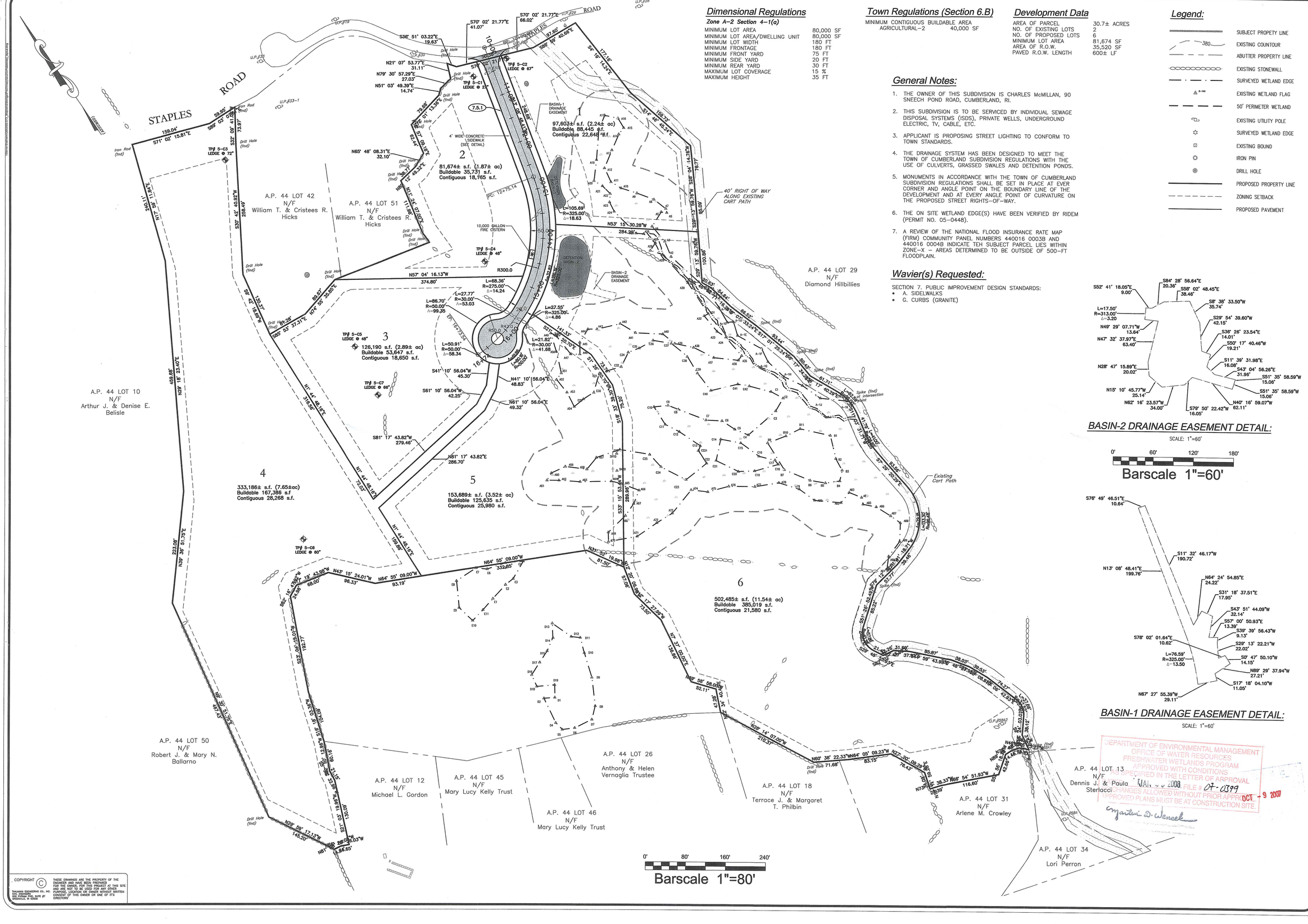
1. THE OWNER OF THIS SUBDIVISION IS CHARLES McMILLAN, 90 SNEECH POND ROAD, CUMBERLAND, RI.
2. THIS SUBDIVISION IS TO BE SERVICED BY INDIVIDUAL SEWAGE DISPOSAL SYSTEMS (ISDS), PRIVATE WELLS, UNDERGROUND ELECTRIC, TV, CABLE, ETC.
3. APPLICANT IS PROPOSING STREET LIGHTING TO CONFORM TO TOWN STANDARDS.
4. THE DRAINAGE SYSTEM HAS BEEN DESIGNED TO MEET THE TOWN OF CUMBERLAND SUBDIVISION REGULATIONS WITH THE USE OF CULVERTS, GRASSED SWALES AND DETENTION PONDS.
5. MONUMENTS IN ACCORDANCE WITH THE TOWN OF CUMBERLAND SUBDIVISION REGULATIONS SHALL BE SET IN PLACE AT EVER CORNER AND ANGLE POINT ON THE BOUNDARY LINE OF THE DEVELOPMENT AND AT EVERY ANGLE POINT OF CURVATURE ON THE PROPOSED STREET RIGHTS–OF–WAY.
6. THE ON SITE WETLAND EDGE(S) HAVE BEEN VERIFIED BY RIDEM (PERMIT NO. 05–0448).
7. A REVIEW OF THE NATIONAL FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NUMBERS 440016 0003B AND 440016 0004B INDICATE TEH SUBJECT PARCEL LIES WITHIN ZONE–X – AREAS DETERMINED TO BE OUTSIDE OF 500–FT FLOODPLAIN.

Wavier(s) Requested:

SECTION 7. PUBLIC IMPROVEMENT DESIGN STANDARDS:
- A. SIDEWALKS
- G. CURBS (GRANITE)

Legend:

- SUBJECT PROPETY LINE
- 380 EXISTING COUNTOUR
- ABUTTER PROPERTY LINE
- EXISTING STONEWALL
- SURVEYED WETLAND EDGE
- EXISTING WETLAND FLAG
- 50' PERIMETER WETLAND
- EXISTING UTILITY POLE
- SURVEYED WETLAND EDGE
- EXISTING BOUND
- IRON PIN
- DRILL HOLE
- PROPOSED PROPERTY LINE
- ZONING SETBACK
- PROPOSED PAVEMENT



0' 80' 160' 240'

Barscale 1"=80'

BASIN-2 DRAINAGE EASEMENT DETAIL:

SCALE: 1"=60'

0' 60' 120' 180'

Barscale 1"=60'

BASIN-1 DRAINAGE EASEMENT DETAIL:

SCALE: 1"=60'

NO.	DATE	REVISION	BY

BRIAN P. THALMANN 6596 REGISTERED PROFESSIONAL ENGINEER (CIVIL)

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Site/Civil Engineers • Land Planners
600 Putnam Pike, Suite #7
Greenville, Rhode Island 02828
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Site Layout Plan
Major Subdivision
Staples Road
Cumberland Rhode Island
Prepared for:
Charles McMillan
90 Sneech Pond Road, Cumberland, RI
A.P. 44 Lot 28 & 33
date: Sept.-2007 scale: As Noted

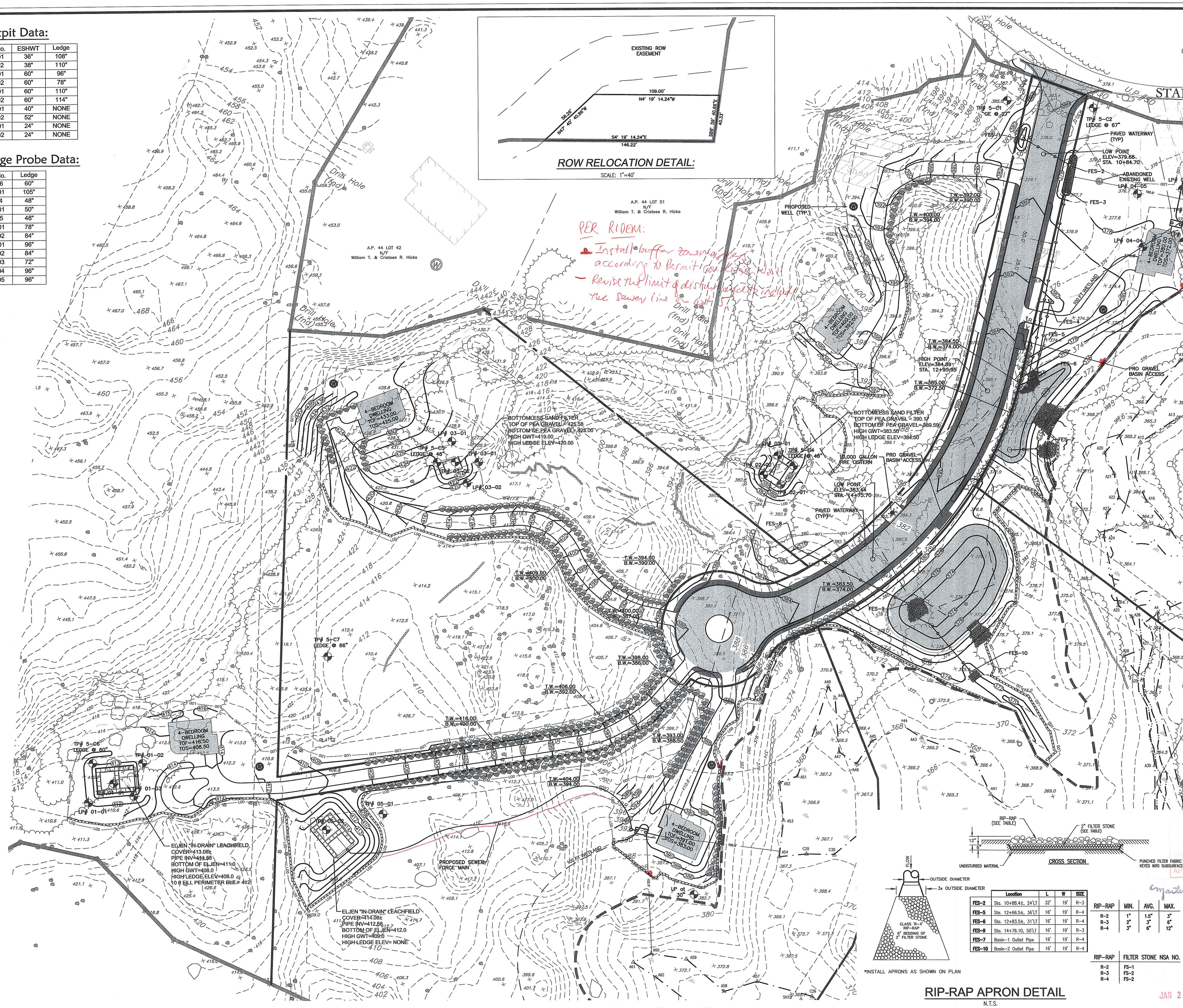
Design By: JEA
Checked By: BPT
Sheet 3 of 7
FILE NO.: 03.073

Testpit Data:

TP No.	ESHWT	Ledge
01-01	36"	108"
01-02	38"	110"
02-01	60"	96"
02-02	60"	78"
03-01	60"	110"
03-02	60"	114"
04-01	40"	NONE
04-02	52"	NONE
05-01	24"	NONE
05-02	24"	NONE

Ledge Probe Data:

LP No.	Ledge
5-C6	60"
01-01	105"
5-04	48"
02-01	50"
5-C5	48"
03-01	78"
03-02	84"
04-01	96"
04-02	84"
04-03	72"
04-04	96"
04-05	96"



EXISTING ROW EASEMENT
109.00'
N4° 19' 14.24"W
58.26'
N47° 40' 40.86"W
S86° 59' 40.66"E
40.33'
S4° 19' 14.24"E
146.22'
STAPLES ROAD
A.P. 44 LOT 42 N/F William T. & Cristees R. Hicks
A.P. 44 LOT 51 N/F William T. & Cristees R. Hicks
PER RIDEM:
- Install buffer zone markers according to Permit condition
- Revise the limit of disturbance to include the sewer line on Lot 5.
4-BEDROOM DWELLING TOF=433.00 TOS=425.00
4-BEDROOM DWELLING TOF=400.00 TOS=392.00
4-BEDROOM DWELLING TOF=380.00 TOS=372.00
4-BEDROOM DWELLING TOF=416.50 TOS=408.50
4-BEDROOM DWELLING TOF=391.00 TOS=383.00
BOTTOMLESS SAND FILTER TOP OF PEA GRAVEL=425.58 BOTTOM OF PEA GRAVEL=425.00 HIGH GWT=419.00 HIGH LEDGE ELEV=420.00
BOTTOMLESS SAND FILTER TOP OF PEA GRAVEL=390.17 BOTTOM OF PEA GRAVEL=389.59 HIGH GWT=383.50 HIGH LEDGE ELEV=384.50
ELJEN "IN-DRAIN" LEACHFIELD COVER=379.25± PIPE INV=377.75 BOTTOM OF ELJEN=377.17 HIGH GWT=374.17 HIGH LEDGE ELEV=371.5
ELJEN "IN-DRAIN" LEACHFIELD COVER=413.08± PIPE INV=411.58 BOTTOM OF ELJEN=411.0 HIGH GWT=408.0 HIGH LEDGE ELEV=406.0 10 ft FILL PERIMETER ELE.= 412
ELJEN "IN-DRAIN" LEACHFIELD COVER=414.08± PIPE INV=412.58 BOTTOM OF ELJEN=412.0 HIGH GWT=409.0 HIGH LEDGE ELEV= NONE
RELOCATED ROW EASMENT (SEE DETAIL)
PAVED WATERWAY (TYP)
LOW POINT ELEV=379.68 STA. 10+84.70
LOW POINT ELEV=383.44 STA. 14+75.70
HIGH POINT ELEV=384.89 STA. 12+95.95
ABANDONED EXISTING WELL
PROPOSED WELL (TYP.)
10,000 GALLON FIRE CISTERN
PRO GRAVEL BASIN ACCESS
PROPOSED SEWER FORCE MAIN
100 FT WETLAND

ROW RELOCATION DETAIL:

SCALE: 1"=40'

0' 40' 80' 160'

Barscale 1"=40'

Location		L	W	SIZE
FES-2	Sta. 10+88.4±, 24'LT	32'	19'	R-3
FES-5	Sta. 12+66.5±, 36'LT	16'	19'	R-4
FES-6	Sta. 12+83.5±, 31'LT	16'	19'	R-4
FES-9	Sta. 14+76.10, 50'LT	16'	19'	R-3
FES-7	Basin-1 Outlet Pipe	16'	19'	R-4
FES-10	Basin-2 Outlet Pipe	16'	19'	R-4

RIP-RAP	MIN.	AVG.	MAX.
R-2	1"	1.5"	3"
R-3	2"	3"	6"
R-4	3"	6"	12"

RIP-RAP	FILTER STONE NSA NO.
R-2	FS-1
R-3	FS-2
R-4	FS-2

*INSTALL APRONS AS SHOWN ON PLAN

RIP-RAP APRON DETAIL

N.T.S.

Note(s):

1. AREA(S) WHERE LEDGE IS ENCOUNTERED, A VERTICAL FACE 4' FROM DRIVEWAY MAY BE SUBSTITUTED FOR THE BOULDER WALL AT THE CONTRACTOR'S DISCRETION.
2. ISDS LOCATION(S) DELINEATED FOR DRAINAGE PURPOSES ONLY. ACTUAL LOCATIONS SHALL BE DETERMINED UPON SITE SUITABILITY.
3. THERE ARE NO KNOWN WATERSHEDS OF AN EXISTING OR PROPOSED PUBLIC WATER SUPPLY SOURCE OR CRITICAL AREA WITH RESPECT TO PROPOSED SUBDIVISION.
4. THERE ARE NO EXISTING AND PROPOSED PUBLIC WATER SUPPLY WITHIN 400 FEET OF PROPOSED SUBDIVISION.

Legend:

- SUBJECT PROPETY LINE
- EXISTING COUNTOUR
- ABUTTER PROPERTY LINE
- EXISTING TREELINE
- SURVEYED WETLAND EDGE
- EXISTING WETLAND FLAG
- 50' PERIMETER WETLAND
- 100' PERIMETER WETLAND
- EXISTING UTILITY POLE
- SURVEYED WETLAND EDGE
- EXISTING BOUND
- IRON PIN
- DRILL HOLE
- PROPOSED PROPERTY LINE
- ZONING SETBACK
- PROPOSED PAVEMENT
- PROPOSED GRADE
- PROPOSED WELL
- LIMIT OF DISTURBANCE
- EROSION CONTROLS
- PROPOSED FLARED END SECTION
- PROPOSED BOULDER SLOPE WALL
- TP 01-01 TEST PIT LOCATION AND ID
- LP 01-01 LEDGE PROBE LOCATION AND ID

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Martin D. Wencek

JAN 25 2008

NO.	DATE	REVISION	BY
1	1/9/08	SITE SUITABILITY	DPJ
2	1/23/08	LIMIT OF DISTURBANCE	JEA

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Thalmann ENGINEERING CO., INC.

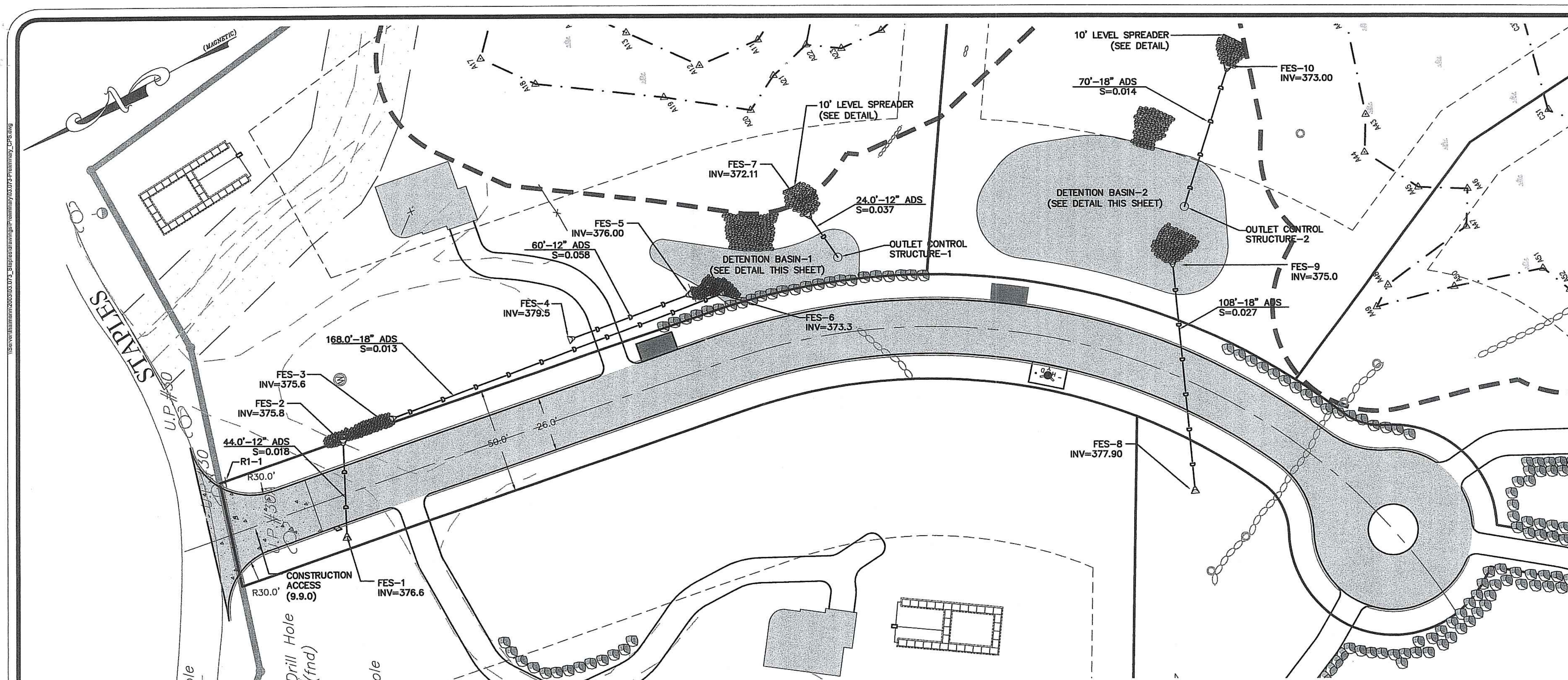
Site Grading & Utility Plan
Major Subdivision
Staples Road
Prepared for:
Charles McMillan
90 Sneech Pond Road, Cumberland, RI

A.P. 44 Lot 28 & 33
Cumberland Rhode Island
date: Jan.-2008 scale: 1"=40'

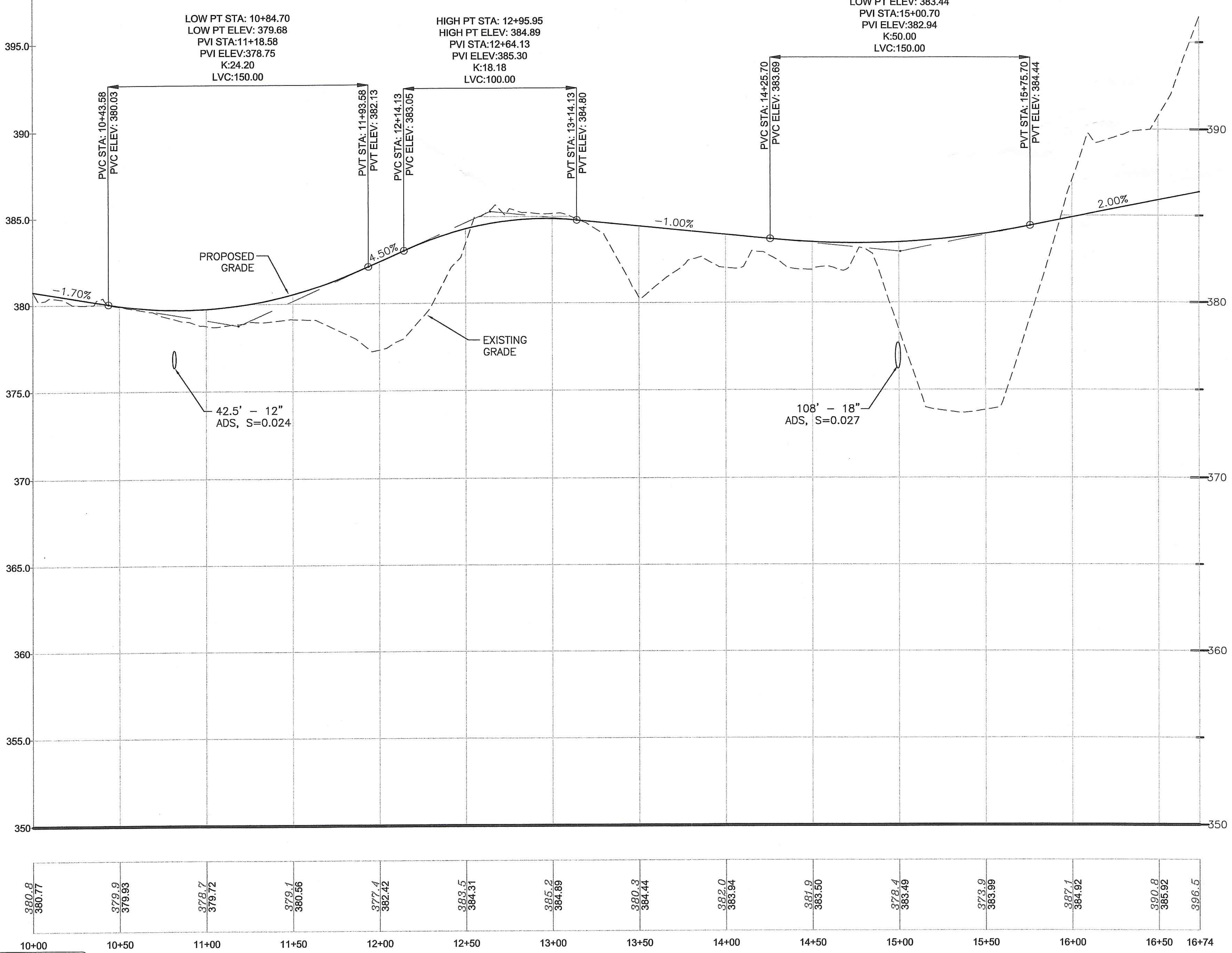
Design By: JEA
Checked By: BPT

Sheet 4 of 7

FILE NO.: 03.073



STAPLES
U.P. #30
(MAGNETIC)
10' LEVEL SPREADER (SEE DETAIL)
FES-7 INV=372.11
24.0'-12" ADS S=0.037
OUTLET CONTROL STRUCTURE-1
FES-5 INV=376.00
60'-12" ADS S=0.058
DETENTION BASIN-1 (SEE DETAIL THIS SHEET)
FES-4 INV=379.5
FES-6 INV=373.3
168.0'-18" ADS S=0.013
FES-3 INV=375.6
FES-2 INV=375.8
44.0'-12" ADS S=0.018
R1-1
R30.0'
50.0'
26.0'
CONSTRUCTION ACCESS (9.9.0)
FES-1 INV=376.6
R30.0'
Drill Hole (fnd)
10' LEVEL SPREADER (SEE DETAIL)
FES-10 INV=373.00
70'-18" ADS S=0.014
DETENTION BASIN-2 (SEE DETAIL THIS SHEET)
OUTLET CONTROL STRUCTURE-2
FES-9 INV=375.0
108'-18" ADS S=0.027
FES-8 INV=377.90

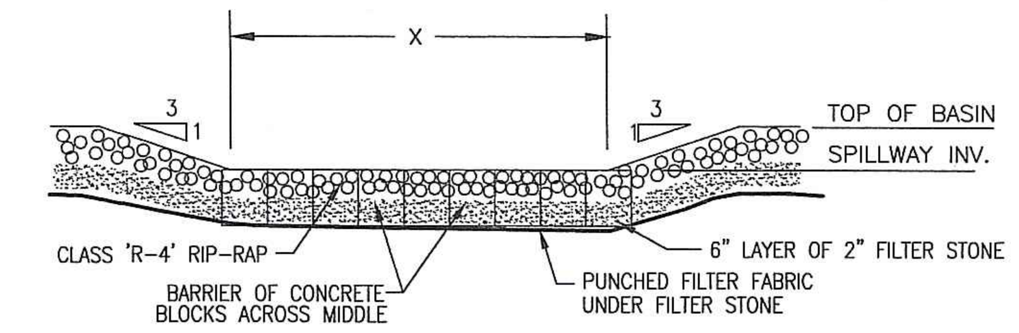


LOW PT STA: 10+84.70
LOW PT ELEV: 379.68
PVI STA:11+18.58
PVI ELEV:378.75
K:24.20
LVC:150.00
HIGH PT STA: 12+95.95
HIGH PT ELEV: 384.89
PVI STA:12+64.13
PVI ELEV:385.30
K:18.18
LVC:100.00
LOW PT STA: 14+75.70
LOW PT ELEV: 383.44
PVI STA:15+00.70
PVI ELEV:382.94
K:50.00
LVC:150.00
PVC STA: 10+43.58
PVC ELEV: 380.03
PVT STA: 11+93.58
PVT ELEV: 382.13
PVC STA: 12+14.13
PVC ELEV: 383.05
PVT STA: 13+14.13
PVT ELEV: 384.80
PVC STA: 14+25.70
PVC ELEV: 383.69
PVT STA: 15+75.70
PVT ELEV: 384.44
-1.70%
4.50%
-1.00%
2.00%
PROPOSED GRADE
EXISTING GRADE
42.5' - 12" ADS, S=0.024
108' - 18" ADS, S=0.027
395.0
390
385.0
380
375.0
370
365.0
360
355.0
350
380.8 380.77
379.9 379.93
378.7 379.72
379.1 380.56
377.4 382.42
383.5 384.31
385.2 384.89
380.3 384.44
382.0 383.94
381.9 383.50
378.4 383.49
373.9 383.99
387.1 384.92
390.8 385.92
396.5
10+00
10+50
11+00
11+50
12+00
12+50
13+00
13+50
14+00
14+50
15+00
15+50
16+00
16+50
16+74

Sign Table

DESIGNATION	DESCRIPTION	SIZE	MOUNTING
R1-1	STOP SIGN	30"X30"	24.1.0

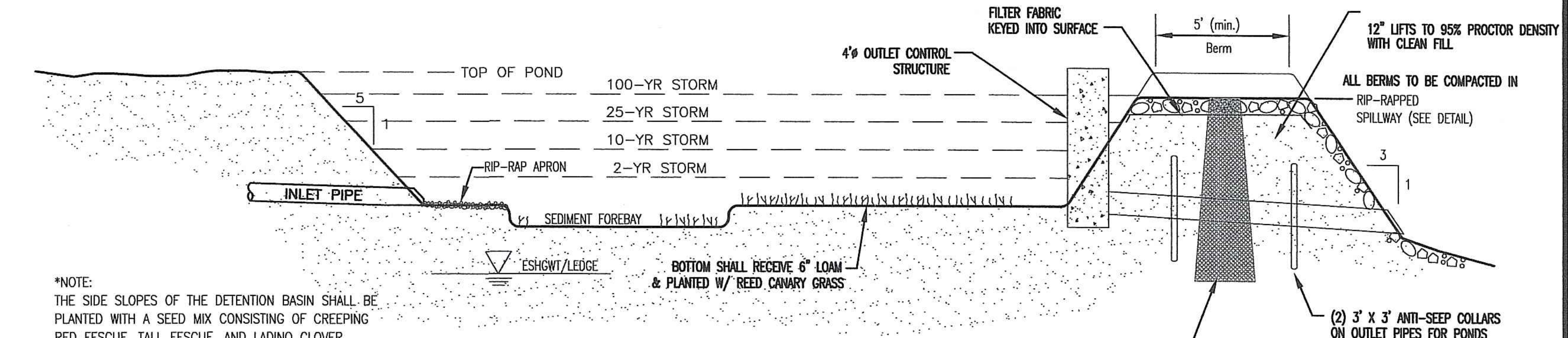
NOTE: ALL SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES LATEST EDITION.



EMERGENCY SPILLWAY DETAIL

N.T.S.

Location	top of pond elev.	spillway invert	LENGTH (FT)
Detention Basin 1	374.00	373.80	20.0
Detention Basin 2	378.00	377.50	10.0

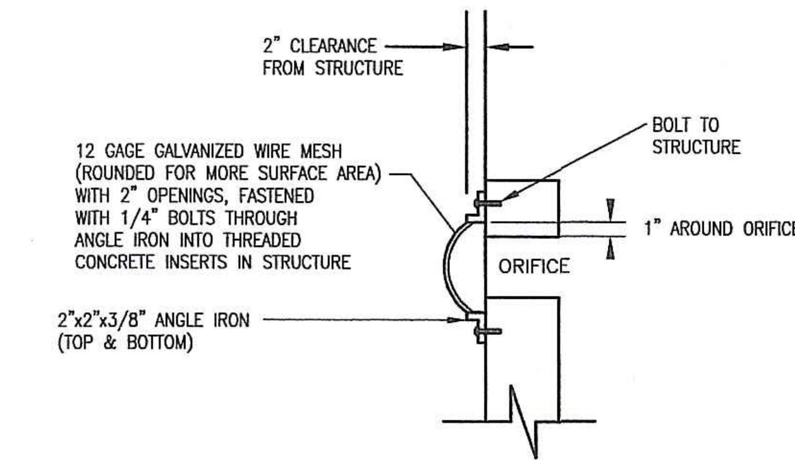


TOP OF POND
100-YR STORM
25-YR STORM
10-YR STORM
2-YR STORM
RIP-RAP APRON
INLET PIPE
SEDIMENT FOREBAY
ESHGWT/LEDGE
BOTTOM SHALL RECEIVE 6" LOAM & PLANTED W/ REED CANARY GRASS
4'ø OUTLET CONTROL STRUCTURE
FILTER FABRIC KEYED INTO SURFACE
5' (min.) Berm
12" LIFTS TO 95% PROCTOR DENSITY WITH CLEAN FILL
ALL BERMS TO BE COMPACTED IN
RIP-RAPPED SPILLWAY (SEE DETAIL)
(2) 3' X 3' ANTI-SEEP COLLARS ON OUTLET PIPES FOR PONDS @ 15 FT. SPACING.
2' WIDE SILT CORE WRAPPED IN GEOFABRIC TO A DEPTH 1' BELOW BASIN BOTTOM ON BERM(S) IN FILL AREA

*NOTE:
THE SIDE SLOPES OF THE DETENTION BASIN SHALL BE PLANTED WITH A SEED MIX CONSISTING OF CREEPING RED FESCUE, TALL FESCUE, AND LADINO CLOVER.

DETENTION POND TYPICAL DETAIL

N.T.S.



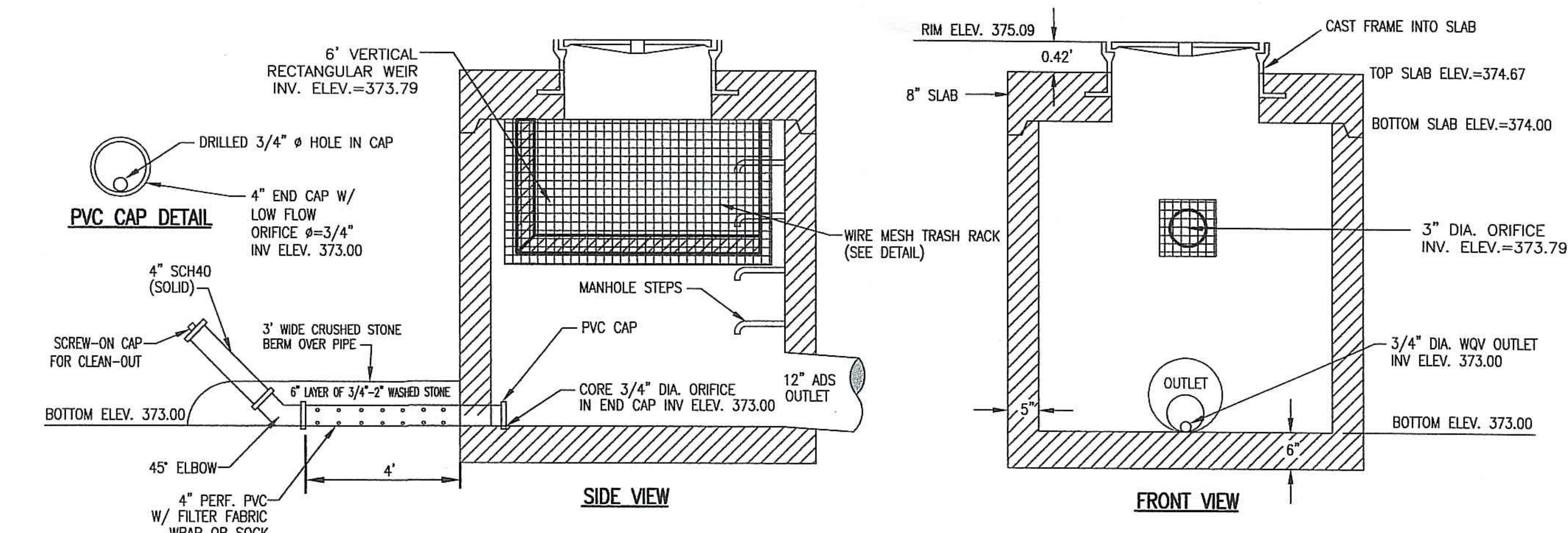
2" CLEARANCE FROM STRUCTURE
12 GAGE GALVANIZED WIRE MESH (ROUNDED FOR MORE SURFACE AREA) WITH 2" OPENINGS, FASTENED WITH 1/4" BOLTS THROUGH ANGLE IRON INTO THREADED CONCRETE INSERTS IN STRUCTURE
2"x2"x3/8" ANGLE IRON (TOP & BOTTOM)
BOLT TO STRUCTURE
1" AROUND ORIFICE
ORIFICE

TRASH RACK DETAIL

N.T.S.

Description	Basin 1	Basin 2
Top of Basin Elevation	374.00	378.00
100 Year Storm Elevation	374.00	377.57
25 Year Storm Elevation	373.95	376.98
10 Year Storm Elevation	373.92	376.61
2 Year Storm Elevation	373.84	375.48
Water Quality Volume Elev.	373.79	374.78
Sediment Volume Elev.	373.00*	374.00*
Bottom of Basin	372.50	373.50

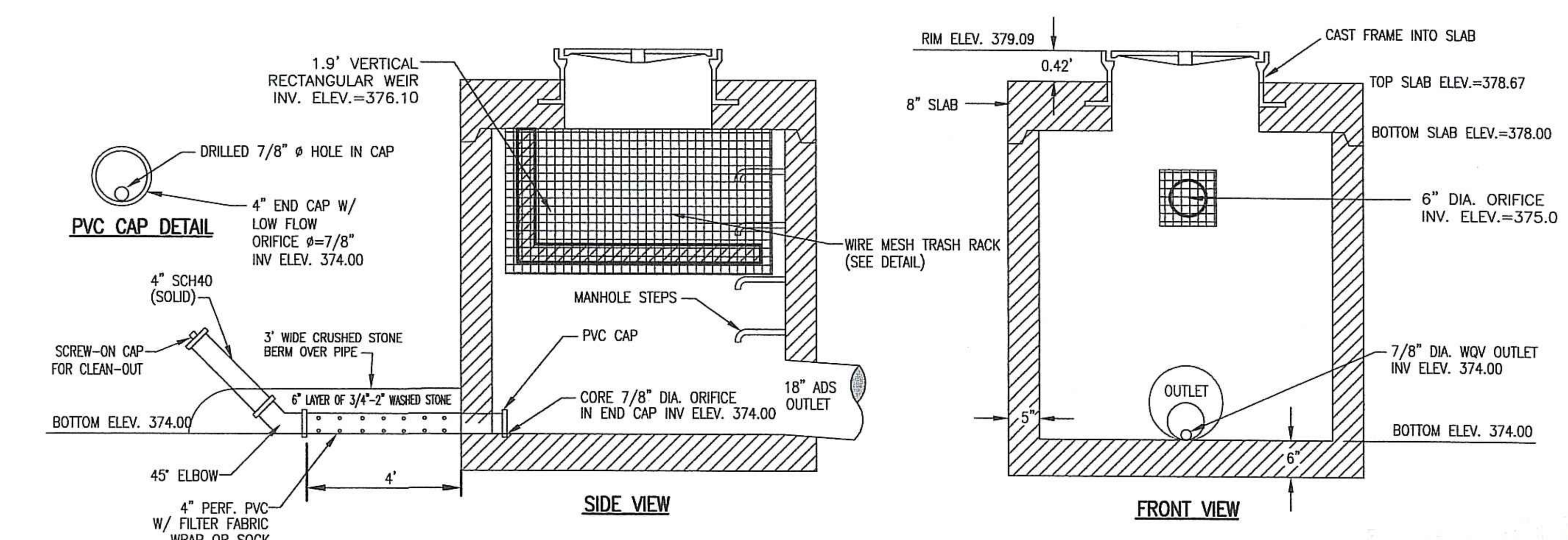
* NOTE:
SEDIMENT VOLUME STORAGE SHALL BE AT A 8" DEPTH OVER THE FOLLOWING AREAS:
- 410 SQFT FOR BASIN-1
- 800 SQFT FOR BASIN-2



6' VERTICAL RECTANGULAR WEIR INV. ELEV.=373.79
DRILLED 3/4" ø HOLE IN CAP
PVC CAP DETAIL
4" END CAP W/ LOW FLOW ORIFICE ø=3/4" INV ELEV. 373.00
4" SCH40 (SOLID)
SCREW-ON CAP FOR CLEAN-OUT
3' WIDE CRUSHED STONE BERM OVER PIPE
6" LAYER OF 3/4"-2" WASHED STONE
BOTTOM ELEV. 373.00
45° ELBOW
4" PERF. PVC W/ FILTER FABRIC WRAP OR SOCK
4'
WIRE MESH TRASH RACK (SEE DETAIL)
MANHOLE STEPS
PVC CAP
CORE 3/4" DIA. ORIFICE IN END CAP INV ELEV. 373.00
12" ADS OUTLET
SIDE VIEW
RIM ELEV. 375.09
0.42'
8" SLAB
CAST FRAME INTO SLAB
TOP SLAB ELEV.=374.67
BOTTOM SLAB ELEV.=374.00
3" DIA. ORIFICE INV. ELEV.=373.79
3/4" DIA. WQV OUTLET INV ELEV. 373.00
OUTLET
5"
6"
BOTTOM ELEV. 373.00
FRONT VIEW

OUTLET CONTROL STRUCTURE: BASIN-1

N.T.S.

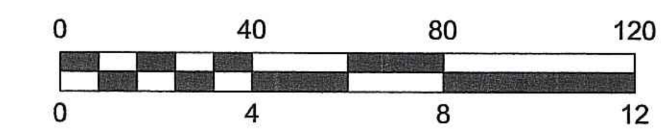


1.9' VERTICAL RECTANGULAR WEIR INV. ELEV.=376.10
DRILLED 7/8" ø HOLE IN CAP
PVC CAP DETAIL
4" END CAP W/ LOW FLOW ORIFICE ø=7/8" INV ELEV. 374.00
4" SCH40 (SOLID)
SCREW-ON CAP FOR CLEAN-OUT
3' WIDE CRUSHED STONE BERM OVER PIPE
6" LAYER OF 3/4"-2" WASHED STONE
BOTTOM ELEV. 374.00
45° ELBOW
4" PERF. PVC W/ FILTER FABRIC WRAP OR SOCK
4'
WIRE MESH TRASH RACK (SEE DETAIL)
MANHOLE STEPS
PVC CAP
CORE 7/8" DIA. ORIFICE IN END CAP INV ELEV. 374.00
18" ADS OUTLET
SIDE VIEW
RIM ELEV. 379.09
0.42'
8" SLAB
CAST FRAME INTO SLAB
TOP SLAB ELEV.=378.67
BOTTOM SLAB ELEV.=378.00
6" DIA. ORIFICE INV. ELEV.=375.0
7/8" DIA. WQV OUTLET INV ELEV. 374.00
OUTLET
5"
6"
BOTTOM ELEV. 374.00
FRONT VIEW

OUTLET CONTROL STRUCTURE: BASIN-2

N.T.S.

Centerline Profile



Barscale

Horizontal 1"=40'
Vertical 1"=4'

OCT - 9 2007
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
JAN 2 9 2008 FILE # 07-0399
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Martin D. Wencek

NO.	DATE	REVISION	BY

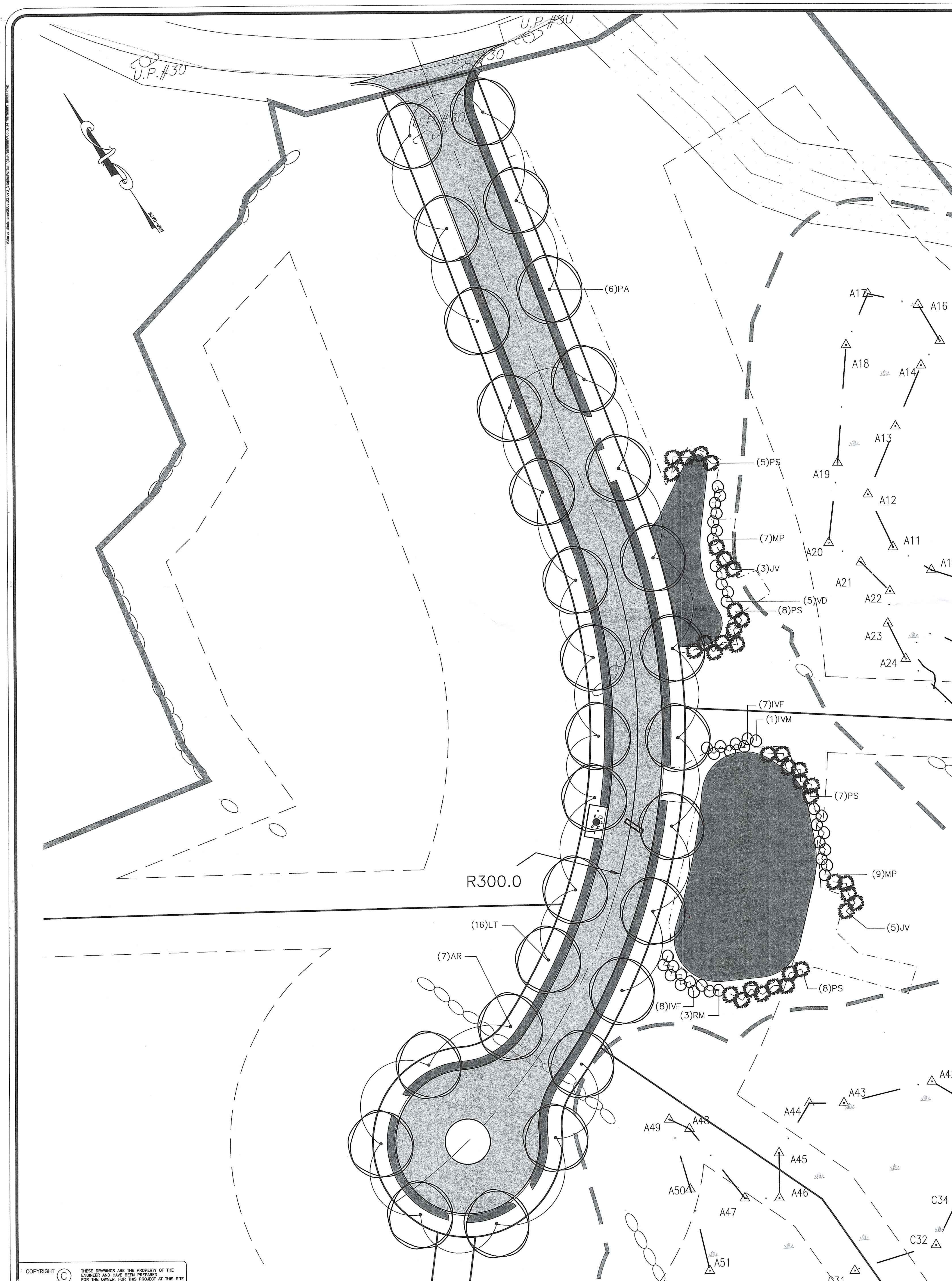
BRIAN P. THALMANN No. 6596 REGISTERED PROFESSIONAL ENGINEER (CIVIL)

Thalmann Engineering Co., Inc.
Site/Civil Engineers • Land Planners
600 Putnam Pike, Suite #7
Greenville, Rhode Island 02828
(401) 349-3040 • (401) 349-3041 (fax)
Thalmann ENGINEERING CO., INC.

Site Drainage / Plan & Profile
Lot 28 & 33
A.P. 44
Major Subdivision
Staples Road
Cumberland Rhode Island
Prepared for:
Charles McMillan
90 Sneech Pond Road, Cumberland, RI
date: Sept.-2007 scale: As Noted

Design By: JEA
Checked By: BPT
Sheet 5 of 7

FILE NO.: 03.073



GENERAL LANDSCAPE NOTES:

1. THE CONTRACTOR SHALL INSTALL ALL PLANT MATERIAL IN CONFORMANCE WITH THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
2. ALL PLANT MATERIAL SHALL MEET THE AMERICAN OF NURSERYMEN STANDARDS FOR NURSERY STOCK, LATEST EDITION, AND ITS AMENDMENTS. PLANT ONLY DURING SEASONS NORMAL TO THE PARTICULAR VARIETY. NO SUBSTITUTIONS SHALL BE ACCEPTED WITHOUT PRIOR APPROVAL BY THE LANDSCAPE ARCHITECT.
3. ALL PLANT MATERIAL FURNISHED BY THE CONTRACTOR SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR. IF THE FIRST YEAR ENDS DURING THE DORMANT PERIOD, THE GUARANTEE SHALL EXTEND TO THE START OF THE NEXT LEAFING. DURING THE ONE-YEAR GUARANTEE PERIOD THE CONTRACTOR SHALL EMPLOY ACCEPTED HORTICULTURAL PRACTICES TO KEEP THE PLANTS INSTALLED IN LIVING, HEALTHY CONDITION. FOLLOWING THE ONE-YEAR GUARANTEE PERIOD THE OWNER/OWNERS SHALL INSPECT ALL PLANT MATERIAL FOR HEALTHY ORNAMENTAL QUALITY. AT THAT TIME SHOULD ANY PLANT MATERIAL BE FOUND IN INADEQUATE HEALTH THE CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE THE PLANT IN KIND AND PROVIDE A ONE-YEAR GUARANTEE FOR THE REPLACEMENT PLANT.
4. INSTALL ALL PLANT MATERIAL AS SHOWN IN DETAILS.
5. STAKE ALL TREES OVER 5' AS SHOWN ON DETAILS. REMOVE STAKES AT THE END OF THE GUARANTEE PERIOD.
6. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE SITE CLEAN OF MISCELLANEOUS DEBRIS THROUGHOUT THE CONSTRUCTION PERIOD. ALL WASTE MATERIAL IS TO BE DISPOSED OF IMMEDIATELY TO AN OFFSET LOCATION, UNLESS OTHERWISE INDICATED ON THE PLANS.
7. THE CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS, AND SHALL OBTAIN ALL NECESSARY PERMITS FOR THE PROJECT.
8. LAYOUT: ALL NOTES AND DIMENSIONS ARE TYPICAL UNLESS OTHERWISE NOTED. ALL DIMENSIONS ARE SQUARE (PARALLEL OR PERPENDICULAR) UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL NOTIFY THE OWNER/OWNER'S REPRESENTATIVE IMMEDIATELY IN THE EVENT OF ANY DISCREPANCIES FOUND IN THE CONTRACT DOCUMENTS AND/OR IN THE FIELD, OR ON CONDITIONS UNCOVERED IN THE WORK WHICH ARE NOT REFLECTED IN THE PLANS.
9. LOAM: LOAM MOVED DURING THE COURSE OF CONSTRUCTION SHALL BE RETAINED AND DISTRIBUTED WITHIN THE SITE IN ACCORDANCE WITH THE LANDSCAPE PLAN. STOCKPILED LOAM SHALL NOT BE MIXED WITH ANY SUBSOIL OR UNSUITABLE MATERIAL. ALL EXISTING LOAM REMAINS THE PROPERTY OF THE OWNER.
10. PROTECTION OF EXISTING PLANTINGS: MAXIMUM EFFORT SHOULD BE MADE TO SAVE TREES OF OTHER PLANT SPECIMENS WHICH ARE LARGE FOR THEIR SPECIES, RARE TO THE AREA, OR OF SPECIAL HORTICULTURAL OR LANDSCAPE VALUE. CONTACT OWNER/LANDSCAPE ARCHITECT BEFORE REMOVING ANY SPECIMEN OF THIS TYPE UNLESS OTHERWISE NOTED ON THE PLANS. NO MATERIAL OR TEMPORARY SOIL DEPOSITS SHALL BE PLACED WITHIN THE DRIP LINE OF SHRUBS OR TREES DESIGNATED ON THE LANDSCAPE PLAN TO BE RETAINED. PROTECTIVE BARRIERS ARE TO BE INSTALLED AROUND EACH PLANT AND/OR GROUP OF PLANTS THAT ARE TO REMAIN ON THE SITE. BARRIERS SHALL NOT BE SUPPORTED BY THE PLANTS THEY ARE PROTECTING, BUT SHALL BE SELF SUPPORTING. THEY SHALL BE OF MINIMUM OF FOUR FEET (4') HIGH AND CONSTRUCTED OF A DURABLE MATERIAL, SUCH AS SNOW OR SILT FENCE, THAT WILL LAST UNTIL CONSTRUCTION IS COMPLETED.
11. PRUNING: THE CONTRACTOR SHALL CAREFULLY PRUNE BRANCHES IN THE WAY OF CONSTRUCTION BY USING ONLY APPROVED METHODS AND TOOLS. THE USE OF AXES FOR TRIMMING OR SPURS FOR CLIMBING WILL NOT BE PERMITTED.
12. UTILITIES: IN ACCORDANCE WITH DIG-SAFE LAW THE CONTRACTOR SHALL CONTACT ALL APPLICABLE UTILITY COMPANIES AND VERIFY LINE LOCATIONS (1-800-225-4977). RECORD LOCATIONS OF DIG-SAFE UTILITY LINE MARKINGS ON PROJECT RECORD DOCUMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY AND ALL UTILITY DAMAGE INCLUDING DAMAGE THAT MAY OCCUR TO NEW UTILITIES.
13. DISTURBED AREAS: AREAS DISTURBED DURING THE COURSE OF CONSTRUCTION ARE TO BE RESTORED TO ORIGINAL (OR BETTER) CONDITION BY THE CONTRACTOR BEFORE COMPLETION OF THE PROJECT, AND ARE SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT AND OWNER. ALL GRASS AREAS DISTURBED DURING CONSTRUCTION SHALL BE FINE RAKED TO REMOVE STONES AND LOAMED AND SEEDED AS PER SPECIFICATIONS.
14. DRAINAGE SYSTEMS: CONTRACTOR IS RESPONSIBLE FOR GENERAL CLEAN-OUT OF ALL CATCH BASINS, MANHOLES, AND/OR OTHER DRAINAGE FEATURES ON THE SITE WHICH HAVE ACCUMULATED SEDIMENT AS A RESULT OF CONSTRUCTION ACTIVITIES.
15. CLEANING: CONTRACTOR IS RESPONSIBLE FOR KEEPING SITE CLEAN OF MISCELLANEOUS DEBRIS THROUGHOUT THE CONSTRUCTION PERIOD. ALL WASTE MATERIAL IS TO BE DISPOSED OF IMMEDIATELY TO AN OFF-SITE LOCATION, UNLESS OTHERWISE INDICATED ON THE PLAN.
16. VANDALISM: ALWAYS EXPECT THE INCONCEIVABLE IN TERMS OF WHAT VANDALISM WILL OCCUR, AND TAKE MEASURES TO GUARD AGAINST IT.

PLANT LIST

Key	Botanical Name / Common Name	Quantity	Size	Note
AR	ACER RUBRUM 'RED SUNSET' / *RED SUNSET MAPLE*	7	2.5"-3" B&B	
IVF	ILEX VERTICILLATA FEMALE / *WINTERBERRY*	15	24"-30" CONTAINER	
IVM	ILEX VERTICILLATA MALE / *WINTERBERRY*	1	24"-30" CONTAINER	
JV	JUNIPERUS VIRGINIANA / *EASTERN RED CEDAR*	8	5'-6' B&B	
LT	LIRIODENDRON TULIPIFERA / *TULIP TREE*	16	2.5"-3" B&B	
MP	MYRICA PENSYLVANICA / *BAYBERRY*	16	3'-4' CONTAINER	
PA	PLATANUS ACERIFOLIA / *LONDON PLANETREE*	6	2.5"-3" B&B	
PS	PINUS STROBUS / *WHITE PINE*	28	5'-6' B&B	
RM	RHODODENDRON MUCRONULATUM / *PINK RHODODENDRON*	3	24"-30" CONTAINER	
VD	VIBURNUM DENTATUM / *ARROWWOOD VIBURNUM*	5	24"-30" CONTAINER	

0' 30' 60' 90'

Barscale 1"=30'

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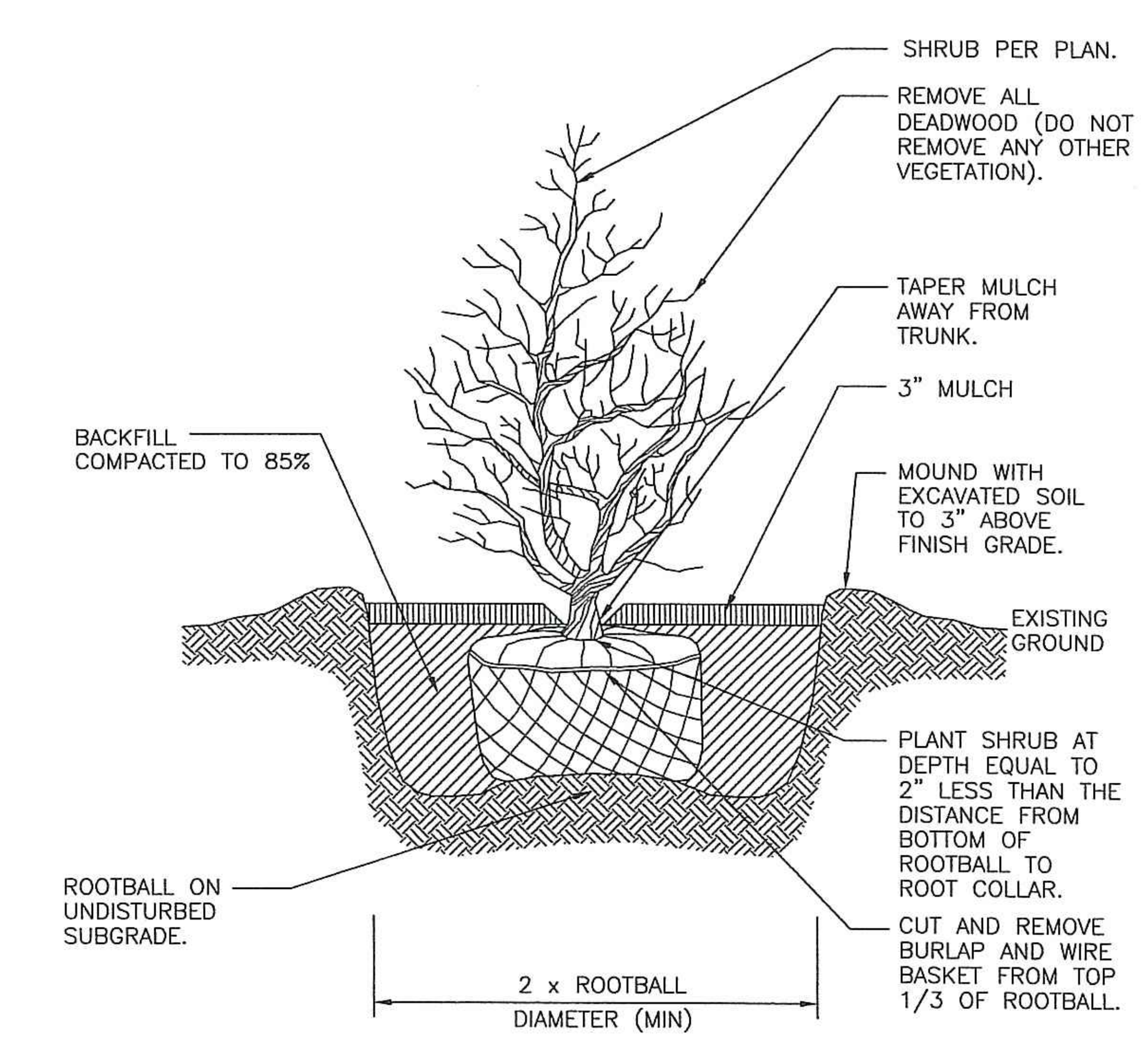
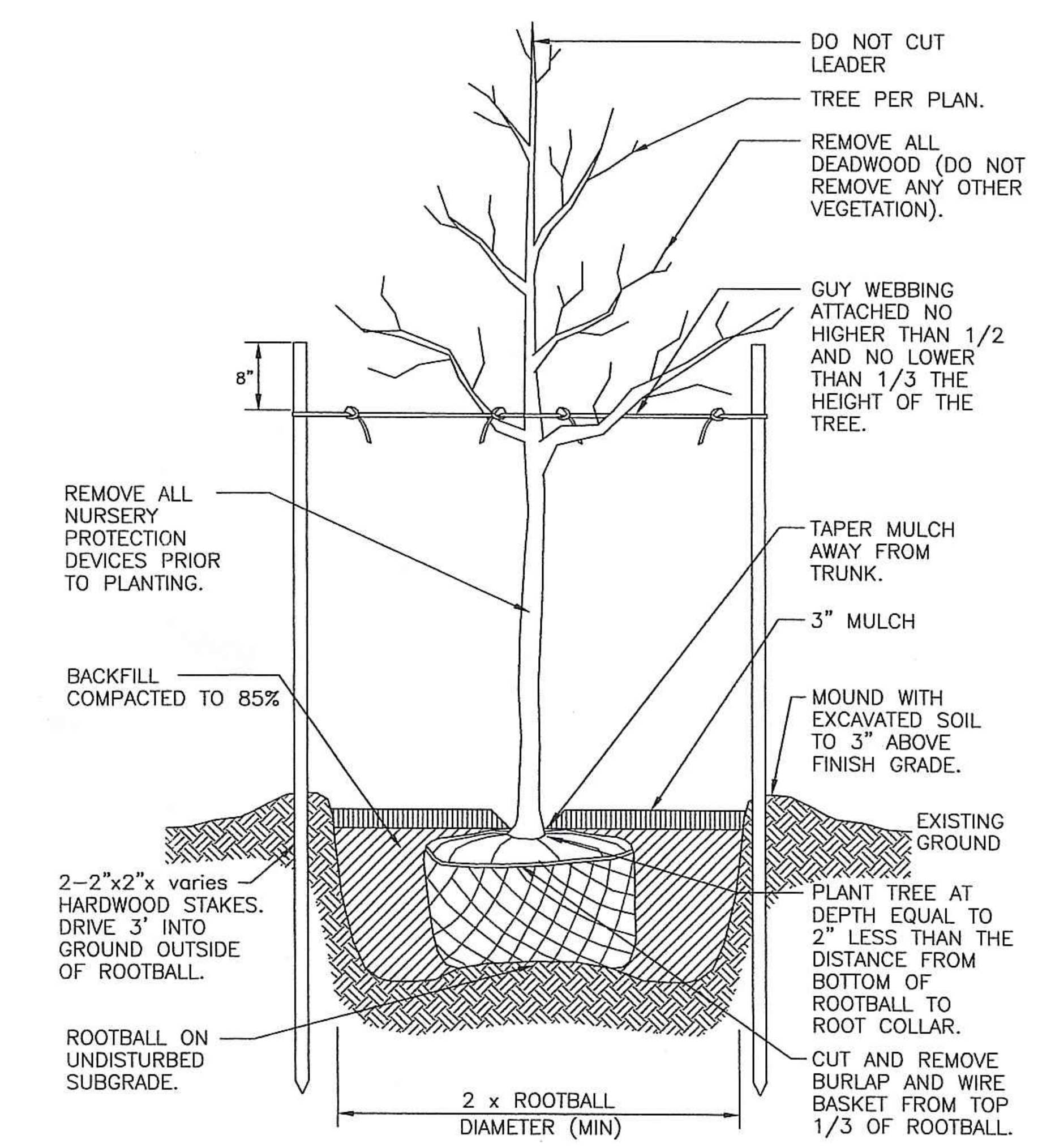
Martin D. Wencek


SHRUB PER PLAN.
REMOVE ALL DEADWOOD (DO NOT REMOVE ANY OTHER VEGETATION).
TAPER MULCH AWAY FROM TRUNK.
3" MULCH
BACKFILL COMPACTED TO 85%
MOUND WITH EXCAVATED SOIL TO 3" ABOVE FINISH GRADE.
EXISTING GROUND
PLANT SHRUB AT DEPTH EQUAL TO 2" LESS THAN THE DISTANCE FROM BOTTOM OF ROOTBALL TO ROOT COLLAR.
ROOTBALL ON UNDISTURBED SUBGRADE.
CUT AND REMOVE BURLAP AND WIRE BASKET FROM TOP 1/3 OF ROOTBALL.
2 x ROOTBALL
DIAMETER (MIN)

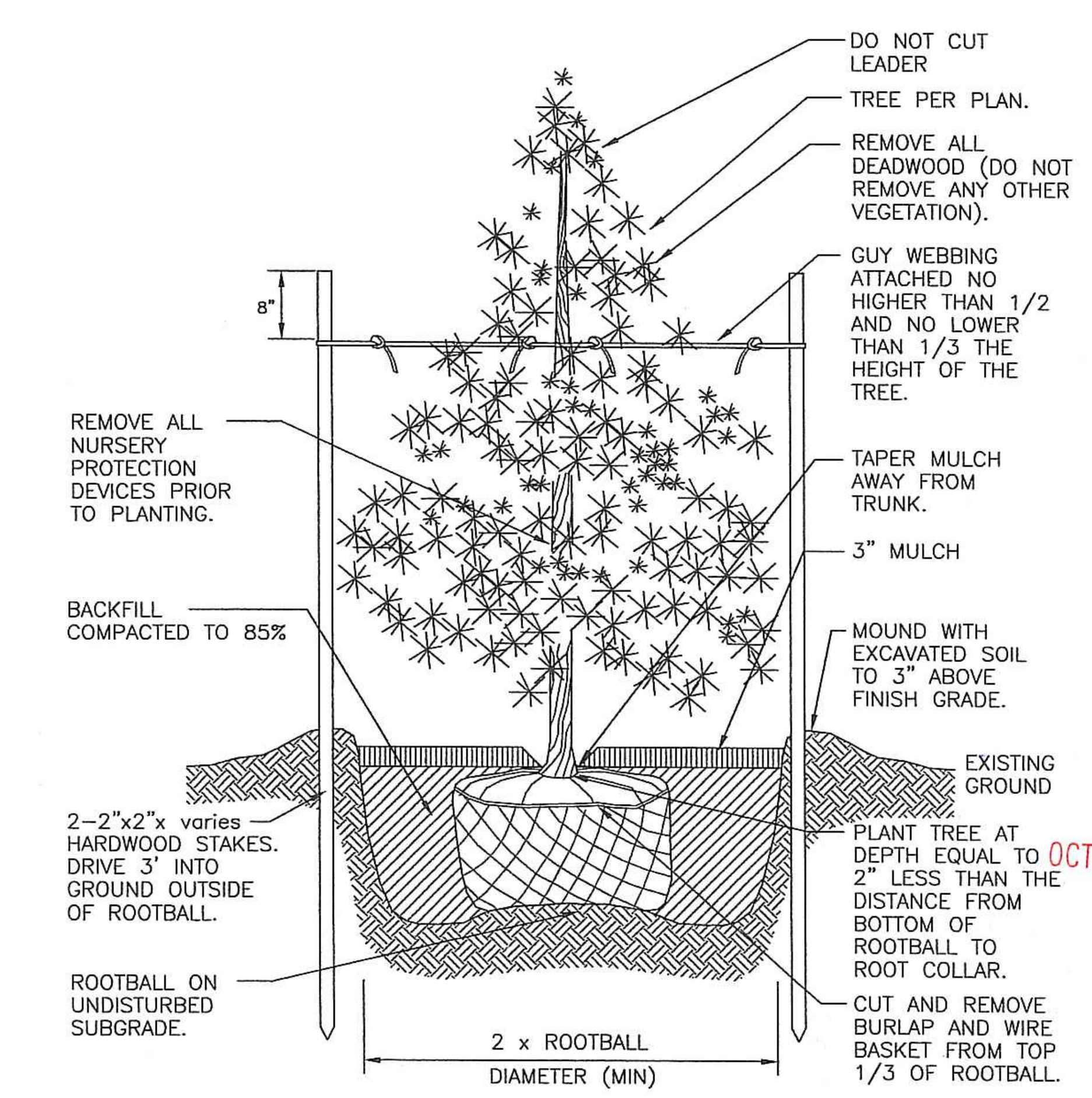
Shrub Planting Detail

NOT TO SCALE


DO NOT CUT LEADER
TREE PER PLAN.
REMOVE ALL DEADWOOD (DO NOT REMOVE ANY OTHER VEGETATION).
GUY WEBBING ATTACHED NO HIGHER THAN 1/2 AND NO LOWER THAN 1/3 THE HEIGHT OF THE TREE.
8"
REMOVE ALL NURSERY PROTECTION DEVICES PRIOR TO PLANTING.
TAPER MULCH AWAY FROM TRUNK.
3" MULCH
BACKFILL COMPACTED TO 85%
MOUND WITH EXCAVATED SOIL TO 3" ABOVE FINISH GRADE.
EXISTING GROUND
2-2"x2"x varies HARDWOOD STAKES. DRIVE 3' INTO GROUND OUTSIDE OF ROOTBALL.
PLANT TREE AT DEPTH EQUAL TO 2" LESS THAN THE DISTANCE FROM BOTTOM OF ROOTBALL TO ROOT COLLAR.
ROOTBALL ON UNDISTURBED SUBGRADE.
CUT AND REMOVE BURLAP AND WIRE BASKET FROM TOP 1/3 OF ROOTBALL.
2 x ROOTBALL
DIAMETER (MIN)

Canopy Tree Planting Detail

NOT TO SCALE


DO NOT CUT LEADER
TREE PER PLAN.
REMOVE ALL DEADWOOD (DO NOT REMOVE ANY OTHER VEGETATION).
GUY WEBBING ATTACHED NO HIGHER THAN 1/2 AND NO LOWER THAN 1/3 THE HEIGHT OF THE TREE.
8"
REMOVE ALL NURSERY PROTECTION DEVICES PRIOR TO PLANTING.
TAPER MULCH AWAY FROM TRUNK.
3" MULCH
BACKFILL COMPACTED TO 85%
MOUND WITH EXCAVATED SOIL TO 3" ABOVE FINISH GRADE.
EXISTING GROUND
2-2"x2"x varies HARDWOOD STAKES. DRIVE 3' INTO GROUND OUTSIDE OF ROOTBALL.
PLANT TREE AT DEPTH EQUAL TO 2" LESS THAN THE DISTANCE FROM BOTTOM OF ROOTBALL TO ROOT COLLAR.
ROOTBALL ON UNDISTURBED SUBGRADE.
CUT AND REMOVE BURLAP AND WIRE BASKET FROM TOP 1/3 OF ROOTBALL.
2 x ROOTBALL
DIAMETER (MIN)

OCT - 9 2007

Evergreen Tree Planting Detail

NOT TO SCALE

NO.	DATE	REVISION	BY

REGISTERED LANDSCAPE ARCHITECT RICHARD J. BOURBONNAIS II No. 300

9-28-07

Thalmann Engineering Co., Inc.
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(401) 349-3040 • (401) 349-3041 (fax)
Thalmann ENGINEERING CO., INC.

A.P. 44 Lot 28 & 33
Landscape Plan
Major Subdivision
Staples Road
Prepared for:
Charles McMillan
90 Sneech Pond Road, Cumberland, RI
Cumberland Rhode Island
date: Sept.-2007 scale: As Noted

Design By: RJB

Checked By: BPT

FILE NO.: 03.073

GENERAL CONSTRUCTION NOTES

1. AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE. DEVIATIONS OR CHANGES WILL NOT BE ALLOWED UNLESS APPROVED BY THE ENGINEER.
2. THE CONTRACTOR SHALL NOTIFY DIG SAFE PRIOR TO CONSTRUCTION (1-888-225-4977).
3. NO STOCKPILLING OF MATERIAL SHALL BE ALLOWED WITHIN A PUBLIC R.O.W. NO OPEN TRENCHES ARE TO BE LEFT OVERNIGHT.
4. CONTRACTOR TO OBTAIN ALL FEDERAL, STATE AND MUNICIPAL APPROVALS PRIOR TO THE START OF CONSTRUCTION.
5. THE CONTRACTOR SHALL VERIFY THE PROPOSED LAYOUT WITH ITS RELATIONSHIP TO THE EXISTING SITE SURVEY. THE CONTRACTOR SHALL ALSO VERIFY ALL DIMENSIONS, SITE CONDITIONS, AND MATERIAL SPECIFICATIONS AND SHALL NOTIFY THE OWNER AND ENGINEER OF ANY ERRORS, OMISSION OR DISCREPANCIES BEFORE COMMENCING OR PROCEEDING WITH WORK.
6. BUILDING DIMENSIONS INDICATED ARE PRELIMINARY AND BASED ON GENERAL TENANT INFORMATION ONLY. FINAL BUILDING DIMENSIONS AND LAYOUT MAY VARY TO INCLUDE ADDITIONAL CANOPIES, OVERHANGS, VESTIBULES, DRIVE-THRUS, DUMPSTERS, ETC. AS ALLOWED WITHIN THE BYLAWS OF THE **TOWN OF CUMBERLAND** AND AS MAY BE WARRANTED TO MEET TENANT REQUIREMENTS.
7. METHODS AND MATERIALS USED IN THE CONSTRUCTION OF IMPROVEMENTS FOR THIS PROJECT SHALL CONFORM TO THE CURRENT CONSTRUCTION STANDARDS AND SPECIFICATIONS OF THE **TOWN OF CUMBERLAND** AND THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION.
8. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE ALL EXISTING UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION VERIFY ALL DIMENSIONS, SITE CONDITIONS, AND MATERIAL SPECIFICATIONS AND SHALL NOTIFY THE OWNER AND ENGINEER OF ANY ERRORS, OMISSIONS OR DISCREPANCIES BEFORE COMMENCING OR PROCEEDING WITH WORK.
9. CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION OR BLASTING AT LEAST TWO WORKING DAYS, BUT NOT MORE THAN TEN WORKING DAYS, PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION. ALL WATER, GAS, SEWER, AND OTHER UTILITIES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING, WITH MATCHING MATERIALS, ANY PAVEMENT, DRIVEWAYS, WALKS, WALLS, CURBS, ETC. THAT MUST BE CUT OR THAT ARE DAMAGED DURING CONSTRUCTION.
11. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FORM ANY AND ALL LIABILITY, REAL AND ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM "THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER."
12. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND TO TAKE WHATEVER STEPS NECESSARY TO PROVIDE FOR THEIR PROTECTION. THE ENGINEER HAS DILIGENTLY ATTEMPTED TO LOCATE AND INDICATE ALL EXISTING FACILITIES ON THESE PLANS; HOWEVER, THIS INFORMATION SHOWN FOR THE CONTRACTOR'S CONVENIENCE ONLY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS OF UTILITIES SHOWN OR NOT SHOWN. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES FOR EXACT LOCATION OF THEIR UTILITIES PRIOR TO STARTING CONSTRUCTION. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AND REPLACE ANY AND ALL DAMAGE MADE TO THE UTILITIES BY THE CONTRACTOR.

SEQUENCE AND STAGING OF LAND DISTURBING ACTIVITIES

1. SURVEY AND STAKE THE ROADWAY, DRAINAGE STRUCTURES, STORMWATER DETENTION AREAS, AND THE LIMIT OF WORK AND SEDIMENTATION BARRIERS.
2. PLACE SEDIMENTATION BARRIERS (HAY BALES 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 BARRIERS.
3. EXCAVATE, LOAM, AND SEED DETENTION BASINS AS SHOWN ON PLAN.
4. BEGIN ROADWAY AREAS AND DRAINAGE WORK (CLEARING AND GRUBBING, EXCAVATING AND GRADING, ETC.). TOP SOIL TO BE STRIPPED AND STOCKPILED IN APPROVED AREAS PER TOWN ENGINEER. THE STOCKPILES ARE TO BE PROTECTED BY A ROW OF SEDIMENTATION BARRIER AND COVERED OR TEMPORARILY SEEDED. NO RUNOFF IS TO BE DISCHARGED TO THE DETENTION AREAS UNTIL THE BINDER COURSE OF PAVEMENT IS INSTALLED AND DISTURBED AREAS ARE STABILIZED WITH VEGETATION.
6. INSTALL DRAINAGE STRUCTURES AS SHOWN FROM RESPECTIVE WORK PLANS.
7. BEGIN HOUSES AND LANDSCAPING WHILE UNDER CONSTRUCTION.
8. FINISH HOUSE AND ROAD CONSTRUCTION.
9. FINISH LANDSCAPING, AND PERMANENT STABILIZATION. SWEEP THE ROADWAY TO REMOVE ALL SEDIMENTS.
10. REPAIR & FLUSH DRAINAGE AREAS AS REQUIRED.
11. REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES FOLLOWING VEGETATIVE ESTABLISHMENT OF ALL DISTURBED AREAS.

ESTABLISHMENT OF VEGETATIVE COVER

1. SLOPES SHALL NOT BE LEFT UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON.
2. ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEEDED OR PROTECTED.
3. THE TOPSOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS AND SHALL CONFORM WITH RHODE ISLAND'S STANDARD SPECIFICATION, M.20.
4. THE GENERAL DESIGN SEEDING MIX FOR RESEEDING AREAS SHALL BE COMPRISED OF THE FOLLOWING:

TYPE	LBS/AC.
CREEPING RED FESCUE	75
KENTUCKY BLUE GRASS	15
COLONIAL BENT GRASS	5
PERENNIAL RYE GRASS	5

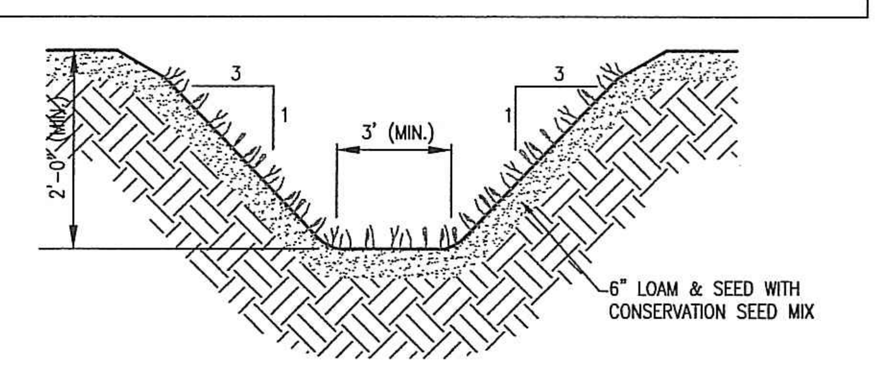
5. EARLY SPRING OR LATE SUMMER SEEDING IS RECOMMENDED, LIME AND FERTILIZE AS REQUIRED BY SOIL TESTING TO COMPLIMENT OR UPGRADE EXISTING CONDITIONS. THE SEED MIX SHALL BE INOCULATED WITHIN 24 HOURS BEFORE MIXING AND PLANTING, WITH APPROPRIATE INOCULUM FOR EACH VARIETY.
6. TEMPORARY TREATMENTS SHALL CONSIST OF NORTH AMERICAN GREEN EROSION CONTROL BLANKETS OR HAY, STRAW OR FIBER MULCH, THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE TOWN ENGINEER. HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 2 TONS/ACRE.
7. ALL HAY BALES OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.
8. ALL FILL SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH THE RHODE ISLAND STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 202.
9. STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAY. THEY SHALL HAVE SIDE SLOPES NO GREATER THAN 2:1 AND SHALL BE TEMPORARILY SEEDED AND/OR STABILIZED. STOCKPILES ARE TO BE SURROUNDED BY HAYBALES.
10. THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR PLAN IMPLEMENTATION AND FOR SEEING THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN. THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND SHALL DO SO AT NO ADDITIONAL EXPENSE.
11. ALL AREAS DISTURBED BY POND CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. PERMANENTLY SEEDED AREAS SHALL BE PROTECTED DURING ESTABLISHMENT WITH MULCH. ALL SEEDED APEAS WILL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHALL BE FERTILIZED AND RESEEDED AS NECESSARY.
12. REFERENCE THE "RHODE ISLAND SOIL EROSION AND SEDIMENTATION CONTROL HANDBOOK" PREPARED BY THE USDA SOIL CONSERVATION SERVICE 1989, AS A GUIDE.
13. MAXIMUM GRADED SLOPE WITHIN SUBDIVISION TO BE 3:1, UNLESS SHOWN OTHERWISE.
14. TEMPORARY HAY MULCH TO BE TACKED IN PLACE WITH NYLON MESH NETTING.

MAINTENANCE: SHORT TERM/LONG TERM

1. ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEEDED, PROTECTED AND MAINTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL CHECK REGULARLY ALL SEEDED AREAS TO SEE THAT A GOOD STAND IS MAINTAINED.
2. THE CONTRACTOR MUST REPAIR OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND SHALL DO SO AT NO ADDITIONAL EXPENSE.
3. ALL HAY BALES, TEMPORARY TREATMENTS (HAY, STRAW, ETC.) AND TEMPORARY PROTECTION SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.
4. THE CONTRACTOR SHALL MAINTAIN ALL TOP SOIL STOCKPILES AND SEDIMENT BARRIERS THROUGHOUT CONSTRUCTION. EXTREME CARE SHALL BE TAKEN TO ENSURE THAT SEDIMENTS DO NOT SPILL OVER THE SEDIMENT BARRIER.
5. THE HAY BALES OR SILT FENCE SHALL BE CHECKED BY THE CONTRACTOR ON A WEEKLY BASIS AND AFTER EACH STORM FOR UNDERMINING OR DETERIORATION. CONTRACTOR SHALL REPAIR OR REPLACE THE HAYBALES AS NECESSARY. CONTRACTOR SHALL CLEAN THE ACCUMULATED SEDIMENT IF HALF OF THE ORIGINAL HEIGHT OF THE BALES BECOMES FILLED IN WITH SEDIMENTS.
6. THE STONE STABILIZATION PAD AT THE SITE ENTRANCE SHALL BE MAINTAINED BY THE CONTRACTOR. THE MAINTENANCE SHALL INCLUDE TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND OR AS DIRECTED BY THE ENGINEER. ALL SEDIMENTS SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
7. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND INSPECTION OF THE POND DURING AND UP TO A YEAR AFTER COMPLETION OF CONSTRUCTION. MAINTENANCE SHALL INCLUDE RESEEDING ANY UNDEVELOPED AREAS AFTER A FULL GROWING SEASON AT NO ADDITIONAL EXPENSE, REMOVING ACCUMULATED SILT OVER 3" IN THE POND, AND MAINTAINING THE GRASS TO A GROWING HEIGHT BETWEEN 2" - 10". EXCAVATION OF SILT SHALL BE MANUAL WITH A SHOVEL AND WHEELBARROW ONLY. REMOVE ALL WOODY VEGETATION FROM POND EMBANKMENTS.
8. THE CONTRACTOR SHALL INSPECT RIP RAP PADS AFTER EACH STORM AND REPAIR AS NECESSARY.
9. THE CONTRACTOR SHALL MAINTAIN THE DRAINAGE SYSTEM THROUGHOUT CONSTRUCTION. THE ACCUMULATED SEDIMENTS IN THE CATCH BASINS SHALL BE REMOVED AND DRAINAGE PIPES FLUSHED BY THE CONTRACTOR AT THE END OF CONSTRUCTION.
10. THE TOWN OF CUMBERLAND IS RESPONSIBLE FOR THE LONG TERM MAINTENANCE OF THE DETENTION POND(S). ALL DRAINAGE SYSTEM COMPONENTS WITHIN THE RIGHT-OF-WAY SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR UNTIL THE TOWN ACCEPTS THE ROAD. THE DRAINAGE SYSTEM SHALL BE CHECKED SEMI-ANNUALLY AND ACCUMULATED SEDIMENTS SHALL BE REMOVED WHEN THE EXCEED 3" DEPTH OR EVERY 10 YEARS, WHICHEVER COMES FIRST. DRAINAGE CULVERTS SHALL BE CHECKED ANNUALLY AND SEDIMENTS SHALL BR REMOVED IF THEY EXCEED 0.5' OR 10 YEARS, WHICHEVER COMES FIRST. A REPORT OF MAINTENANCE IS TO BE SENT TO TOWN ENGINEER.
11. THE TOWN OF CUMBERLAND SHALL CHECK THE RIP-RAP PADS AND EMERGENCY OUTLETS AFTER MAJOR STORMS AND AN ANNUAL BASIS. REPAIRS SHALL BE PERFORMED IMMEDIATELY AS CONDITIONS WARRANT.
12. THE POND(S) SHALL BE MAINTAINED BY THE TOWN OF CUMBERLAND AFTER THE FIRST YEAR. THE TOWN SHALL MAINTAIN A GOOD VEGETATIVE COVER (GRASS BETWEEN 2"-10" OR VEGETATION AS SPECIFIED). BOTTOM OF POND SHALL BE INSPECTED ON A BIANNUAL BASIS AND ACCUMULATED SEDIMENTS SHALL BE REMOVED WHEN THEY REACH A 3" DEPTH OR EVERY 10 YEARS, WHICHEVER COMES FIRST. THE POND SHALL BE MOWED AT LEAST ONCE PER GROWING SEASON.
13. THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR THE MAINTENANCE PROGRAM DURING THE CONSTRUCTION PHASE. THE SUPERINTENDENT SHALL SEE THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN.
14. AFTER THE FIRST YEAR AND ACCEPTANCE BY THE TOWN, THE TOWN OF CUMBERLAND SHALL HAVE OVERALL RESPONSIBILITY FOR IMPLEMENTING THE MAINTENANCE PROGRAM.
15. CONSTRUCTION OF DRAINAGE POND SHALL BE SUPERVISED BY A PROFESSIONAL ENGINEER. A REPORT AND PLAN OF AS-BUILT CONSTRUCTION SHALL BE MADE AVAILABLE TO THE TOWN ENGINEER.

STRUCTURAL

1. A POND DETENTION SYSTEM IS USED TO CONTROL RUNOFF. DISCHARGE OUTLETS ARE PROTECTED WITH RIP-RAP APRONS AND/OR LEVEL SPREADERS.
2. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED IN THE BASIN IMMEDIATELY AFTER GRADING. THE SEEDING EXTENT TO AT LEAST THE DESIGN TOP WIDTH AND INCLUDE ANY OTHER AREAS DISTURBED BY CONSTRUCTION ACTIVITIES. ACTIVITIES SHALL BE CONFINED TO WITHIN THE LIMIT OF WORK AS SHOWN ON THE PLANS.
3. VIGOROUS VEGETATION SHALL BE MAINTAINED BY APPLYING LIME AND FERTILIZER. BARE OR ERODED AREAS SHALL BE IMMEDIATELY REPAIRED AND RESEEDED BY THE CONTRACTOR.
4. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND INSPECTION OF THE BASIN DURING AND UP TO A YEAR AFTER COMPLETION OF CONSTRUCTION. THE TOWN OF SMITHFIELD IS RESPONSIBLE THEREAFTER. ANY UNDEVELOPED VEGETATION COVER IN THE POND WITHIN A YEAR OF THE PROJECT COMPLETION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL RESEED ANY UNSTABILIZED AREAS AFTER A FULL GROWING SEASON AT NO ADDITIONAL EXPENSE TO THE OWNER.
5. THE GRASS IN THE BASIN SHALL BE ALLOWED TO GROW BETWEEN 2" - 10".
6. THE PERMANENT DETENTION POND(S) SHALL BE INSTALLED. COVER WITH TOP SOIL AT THE END OF CONSTRUCTION.
7. THE DETENTION POND(S) SHALL BE BUILT TO CONTROL RUNOFF FOR 2 THROUGH 100 YEAR STORM FREQUENCIES.
8. SIDE SLOPES OF THE BASIN SHALL BE SEEDED. THE INSIDE SIDE SLOPES SHALL BE 5:1 MAXIMUM.
9. ALL EMBANKMENTS OF THE BASIN SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH R.I. STANDARD SPECIFICATION SECTION 202.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE SEDIMENTATION BASIN DURING CONSTRUCTION AND THE DETENTION BASIN UP TO THE ACCEPTANCE BY THE OWNER. THE TOWN OF CUMBERLAND IS RESPONSIBLE THEREAFTER. THE TOWN OF CUMBERLAND SHALL INSPECT THE BASIN SEMIANNUALLY AND AFTER MAJOR STORMS.
11. RIP RAP APRONS SHALL BE INSTALLED AT THE OUTLETS OF ALL CULVERTS. THE EMERGENCY SPILLWAY SHALL BE PROTECTED BY RIP RAP DOWNSTREAM AND UPSTREAM.
12. RIP RAP APRONS SHALL BE INSPECTED SEMIANNUALLY AND AFTER MAJOR STORMS. IF REPAIRS ARE NEEDED, THEY SHALL BE ACCOMPLISHED IMMEDIATELY.
13. THE CONSTRUCTION SUPERINTENDENT SHALL HAVE THE OVERALL RESPONSIBILITY FOR STRUCTURAL MEASURES IMPLEMENTATION AND FOR SEEING THAT APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN.
14. REFERENCE THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY USDA SOIL CONSERVATION SERVICE 1989, AS A GUIDE.



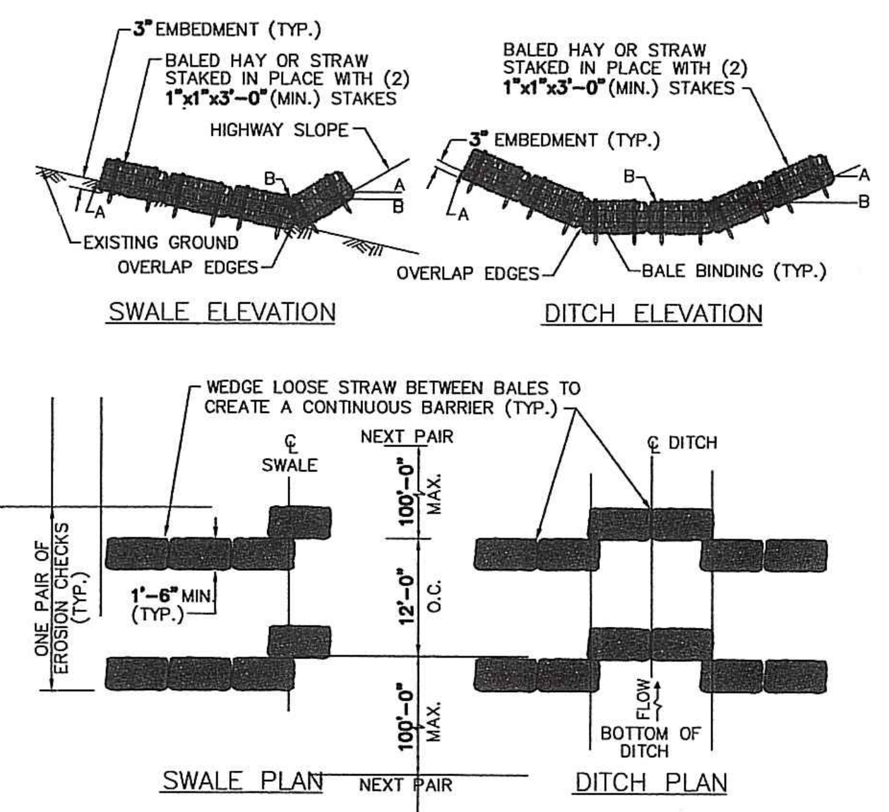
Grassed Swale Detail
N.T.S.

NONSTRUCTURAL

1. CONSTRUCTION TRAFFIC SHALL BE LIMITED TO ACCESS ROADS, DRAINAGE EASEMENTS AND AREAS TO BE GRADED.
2. A STONE STABILIZATION PAD IS LOCATED AT THE SITE ENTRANCE TO REDUCE THE TRACKING OR FLOWING OF SEDIMENT ONTO THE PUBLIC RIGHT OF WAY.
3. THE ENTRANCE SHALL BE MAINTAINED BY THE CONTRACTOR. THE MAINTENANCE SHALL INCLUDE TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND OR AS DIRECTED BY THE ENGINEER. ALL SEDIMENTS SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT OF WAY, MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
4. TOPSOIL SHALL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCK PILE LOCATION SHALL BE SUBJECT TO APPROVAL BY THE TOWN ENGINEER. A SEDIMENT BARRIER SHOULD SURROUND ALL TOPSOIL STOCKPILES (SEE SITE PLAN).
5. HAY BALES OR SILT FENCE SHALL BE INSTALLED DOWNSTREAM OUTSIDE THE LIMITS OF ANY PROPOSED CONSTRUCTION AS SHOWN ON THE SITE PLANS AND PRIOR TO THE COMMENCEMENT OF THE PROPOSED ALTERATION.
6. SILT FENCE SHALL BE MAINTAINED BY THE CONTRACTOR. INSPECTION SHALL BE MADE AFTER EACH STORM EVENT AND REPAIR OR REPLACEMENT. CONTRACTOR SHALL CLEAN THE ACCUMULATED SEDIMENT IF HALF OF THE ORIGINAL HEIGHT OF THE BALES BECOMES FILLED WITH SEDIMENT.
7. THE HAY BALES OR SILT FENCE SHALL BE CHECKED WEEKLY BY THE CONTRACTOR FOR UNDERMINING OR DETERIORATION.
8. THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR PLAN IMPLEMENTATION OF NON-STRUCTURAL MEASURES AND FOR SEEING THAT APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN.
9. REFERENCE THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY USDA SOIL CONSERVATION SERVICE 1989, AS A GUIDE.

SEDIMENT CONTROL PROGRAM

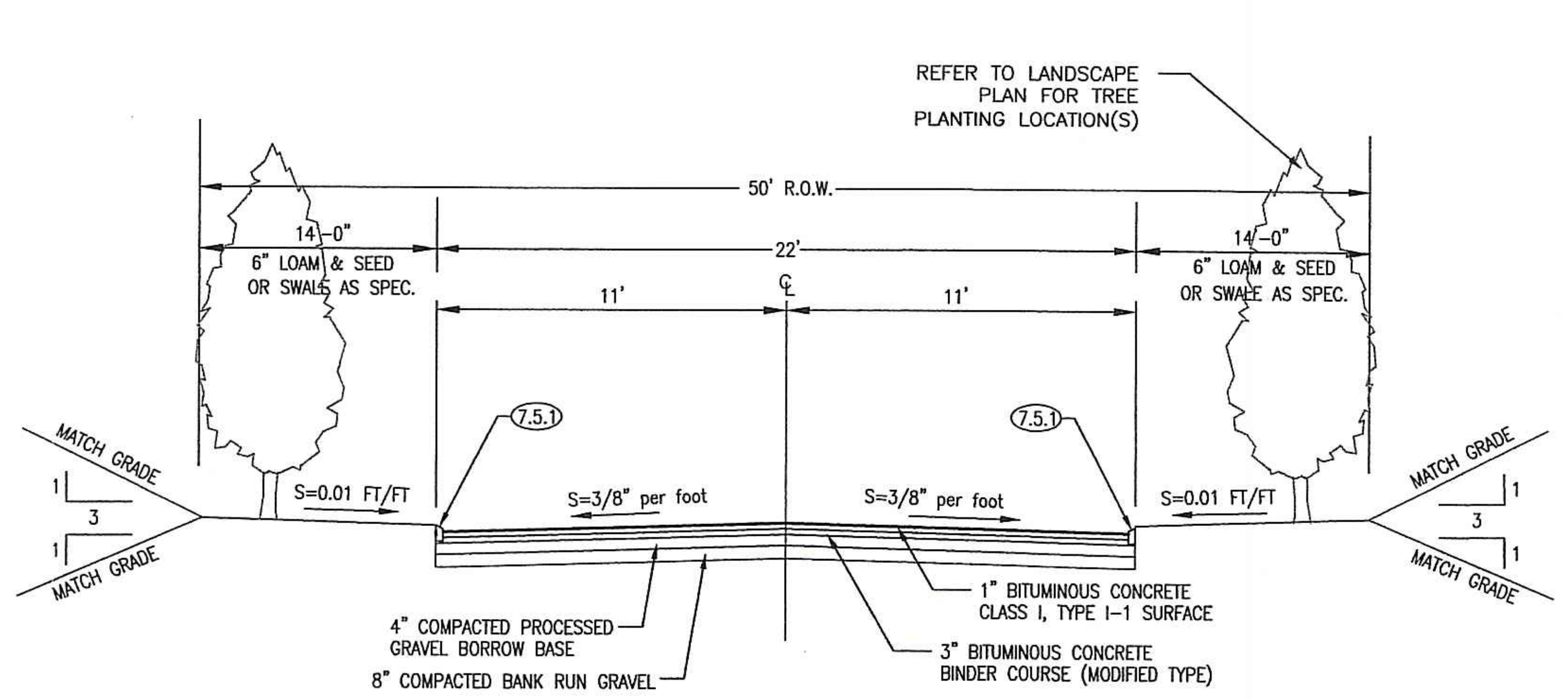
1. DISTURBED AREAS WHICH ARE PARTICULARLY SENSITIVE TO EROSION SHALL RECEIVE A CRUSHED STONE OR SHARP ANGULAR RIP-RAP TREATMENT IF OTHER METHODS OF STABILIZATION ARE UNSUCCESSFUL.
2. BANKS OR SLOPES NOT RECEIVING RIP RAP SHALL BE SEEDED AND PROTECTED WITH FIBER MULCH.
3. DURING CONSTRUCTION, THE CONTRACTOR AND OR THE DEVELOPER SHALL BE RESPONSIBLE FOR UTILIZING BEST MANAGEMENT PRACTICES TO CONTROL ENVIRONMENTAL DAMAGE THAT COULD RESULT FROM UNCHECKED STORMWATER RUNOFF.
4. SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED PERIODICALLY AND MAINTAINED REGULARLY. SPECIAL ATTENTION SHOULD BE GIVEN AFTER A HEAVY OR PROLONGED RAINFALL.
5. CARE SHALL BE SO AS NOT TO PLACE "REMOVED SEDIMENTS" WITHIN THE PATH OF EXISTING, NEWLY CREATED (BOTH TEMPORARY AND PERMANENT) OR PROPOSED WATERCOURSES OR THOSE AREAS SUBJECTED TO STORM WATER FLOWAGE.
6. ADDITIONAL HAY BAILS, SILT FENCE OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER.
7. SEDIMENTATION TRAPS SHALL BE PROVIDED AND MAINTAINED AT ALL DRAINAGE STRUCTURES DURING CONSTRUCTION.
8. REFERENCE THE "RHODE ISLAND EROSION AND SEDIMENT CONTROL HANDBOOK" (1989) PREPARED BY THE RI DEPT. OF ENVIRONMENTAL MANAGEMENT, RI STATE CONSERVATION COMMISSION AND THE U.S. DEPT. OF AGRICULTURE, SOIL CONSERVATION SERVICE AS A PRACTICAL GUIDE.



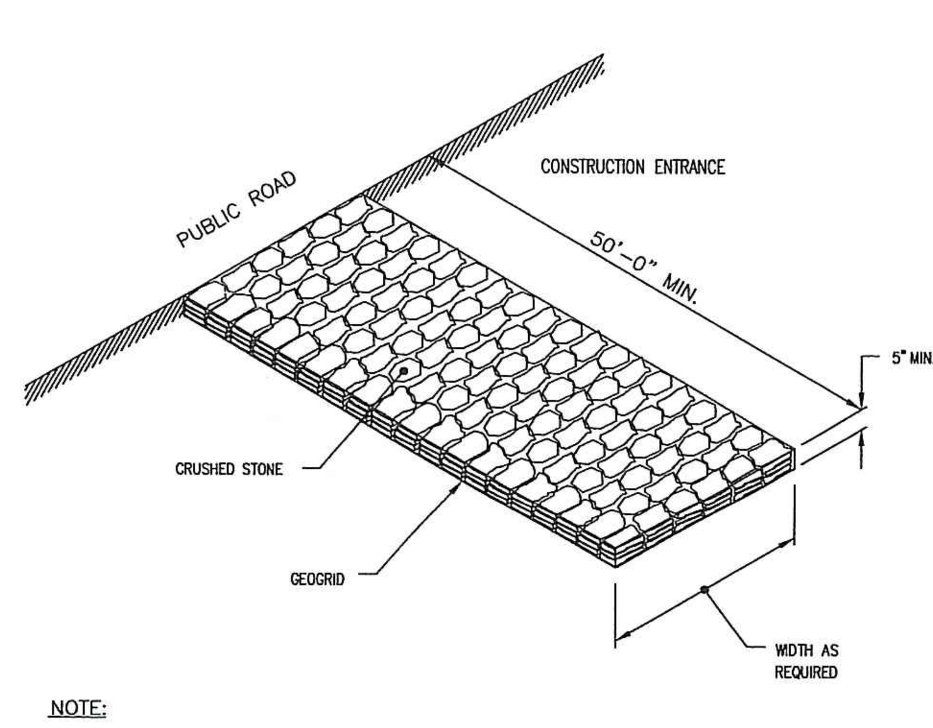
NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 207 OF THE R.I. STANDARD SPECIFICATIONS.
2. TO BE USED IN LOCATIONS WHERE THE EXISTING GROUND SLOPES IN TOWARD THE EMBANKMENT OR IN DRAINAGE DITCHES AS CALLED FOR ON THE PLANS.
3. THE BALES ARE TO BE EMBEDDED A MINIMUM OF **3"** INTO THE EXISTING GROUND, HIGHWAY SLOPE OR DITCH SECTION.
4. POINTS "A" SHOULD BE AT A HIGHER ELEVATION THAN POINTS "B".

R.I. STANDARD 9.4.0

Baled Hay Ditch and Swale Erosion Check
N.T.S.



TYPICAL ROADWAY SECTION
(Residential Access Roads-Local)
N.T.S.



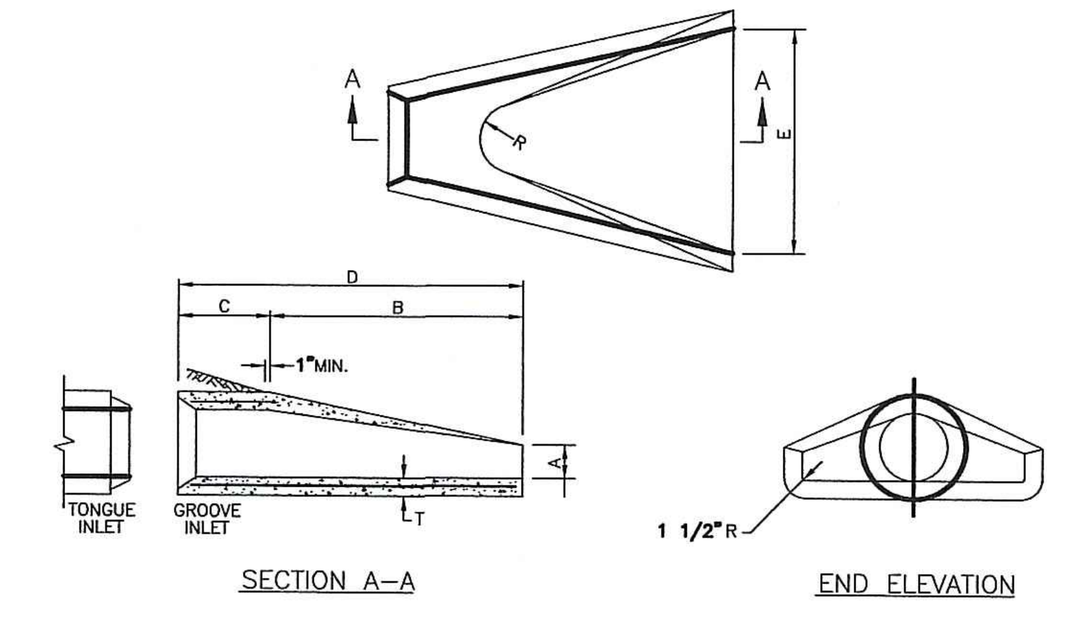
NOTE:
SHALL BE IN ACCORDANCE WITH SECTION 211 OF THE R.I. STANDARD SPECIFICATIONS.

R.I. STANDARD 9.9.0

CONSTRUCTION ACCESS
N.T.S.

CISTERN NOTES:

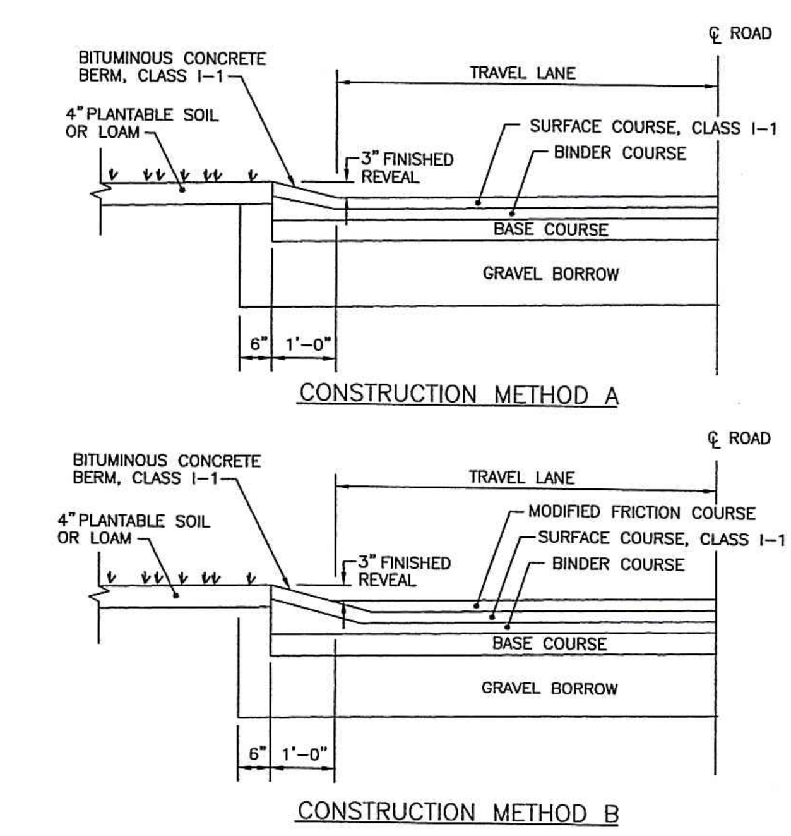
1. SPECIFICATION AND INSTALLATION OF EACH CISTERN AND DRY HYDRANT SHALL BE IN COMPLIANCE WITH NFPA 1142 STANDARD ON WATER SUPPLIES FOR SUBURBAN AND RURAL FIRE FIGHTING (LATEST EDITION).
2. MAINTENANCE OF THE CISTERNS AND DRY HYDRANTS SHALL BE THE RESPONSIBILITY OF THE TOWN OF FOSTER.
3. THE CISTERN CAPACITY SHOULD BE 10,000 gallons MINIMUM, AVAILABLE THROUGH THE SUCTION PIPING SYSTEM.
4. THE SUCTION PIPING SYSTEM SHOULD BE CAPABLE OF DELIVERING 750 gpm FOR THREE QUARTERS OF THE CISTERN CAPACITY.
5. THE ENTIRE CISTERN SHOULD BE HS-20 RATED, UNLESS SPECIFICALLY EXEMPTED BY THE AUTHORITY HAVING JURISDICTION.
6. PRECAST CONCRETE SHOULD ACHIEVE A 28-DAY STRENGTH OF 5000 psig (34,500 kPag).
7. THE CONCRETE SHOULD BE PORTLAND CEMENT TYPE II PER ASTM C150-81. STEEL REINFORCEMENT PER ASTM A-615 GRADE 60. DESIGN LOADING TO CONFORM TO AASHTO HS-20. TANK JOINTS TO BE SEALED WITH BUTYL RUBBER JOINT SEAL AND EXTERIOR OF TANK COATED WITH BITUMINOUS WATERPROOFING.
8. ALL SUCTION AND FILL PIPING SHOULD BE AMERICAN SOCIETY OF TESTING AND MATERIALS (ASTM) SCHEDULE 40 STEEL. ALL VENT PIPING SHOULD BE ASTM SCHEDULE 40 PVC WITH GLUED JOINTS.
9. ALL PVC PIPING SHOULD HAVE GLUED JOINTS.
10. THE FINAL SUCTION CONNECTION SHOULD BE A MINIMUM OF 4 1/2 in. (11.4 cm) NATIONAL STANDARD MALE FITTING W/ CAP.
11. THE FILLER PIPE SHOULD HAVE ONE (1) 4-1/2" NATIONAL STANDARD MALE FITTING.
12. THE ENTIRE CISTERN SHOULD BE COMPLETED AND INSPECTED BEFORE ANY BACKFILLING IS DONE.
13. ALL BACKFILL MATERIAL SHOULD BE SCREENED GRAVEL WITH
14. BEDDING FOR THE CISTERN SHOULD CONSIST OF A MINIMUM MUM OF 12 in. OF 3/4-in. TO 1 1/2-in. CRUSHED, WASHED STONE, COMPACTED. NO FILL SHOULD BE USED UNDER STONE.
15. FILLER PIPE WITH 4" STORZ COUPLING AND LOCKING CAP SHOULD BE 36 in. ABOVE FINAL BACKFILL GRADE.
16. SUCTION PIPE CONNECTION SHOULD BE 24 in. ABOVE THE LEVEL OF THE GRAVEL WHERE VEHICLE WHEELS WILL BE LOCATED WHEN CISTERN IS IN USE.
17. SUCTION PIPE SHOULD BE SUPPORTED TO TOP OF TANK.
18. PERIMETER OF TANK AT FLOOR/WALL JOINT SHOULD BE SEALED WITH 8-in. (20.3-cm) PVC WATERSTOP.
19. AFTER BACKFILLING, TANK SHOULD BE PROTECTED BY FENCING OR LARGE STONES, AS DEEMED NECESSARY BY LOCAL FIRE DISTRICT.
20. BACKFILL OVER THE TANK SHOULD BE:
(A) 24" MINIMUM CLEAN FILL OVER 2" STYROFOAM INSULATION ON TOP OF CISTERN.
(B) ALL BACKFILL SHOULD EXTEND 10 ft (3.1 m) BEYOND THE EDGE OF THE CISTERN, AND THEN HAVE A MAXIMUM 3:1 SLOPE, LOAMED AND SEEDED.
21. BOTTOM OF SUCTION PIPE TO PUMPER CONNECTION SHOULD NOT EXCEED 14 ft (4.25 m) VERTICAL DISTANCE.
22. PITCH OF SHOULDER AND VEHICLE PAD FROM EDGE OF PAVEMENT TO PUMPER SUCTION CONNECTION SHOULD NO GREATER THAN 6 PERCENT.
23. ALL CONSTRUCTION, BACKFILL, AND GRADING MATERIAL SHOULD BE IN ACCORDANCE WITH PROPER CONSTRUCTION PRACTICES AND ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION.
24. ALL HORIZONTAL SUCTION PIPING SHOULD SLOPE SLIGHTLY UPHILL TOWARD PUMPER CONNECTION.
25. AS A CONDITION OF FINAL APPROVAL NO CERTIFICATE OF OCCUPANCY WILL BE ISSUED UNTIL THE FIRE SUPPRESSION



DIMENSIONS								REINFORCEMENT
DIA.	A	B	C	D	E	R	T	ONE LAYER REINFORCEMENT IN CENTER OF WALL / MIN. AREA OF EACH WAY (SQ. IN./FT.)
1'-0"	4"	2'-0"	4'-0 7/8"	6'-0 7/8"	2'-0"	9"	2"	0.048
1'-3"	6"	2'-3"	3'-10"	6'-1"	2'-6"	11"	2 1/4"	0.054

R.I. STANDARD 2.3.0

PRECAST CONCRETE FLARED END SECTION
N.T.S.

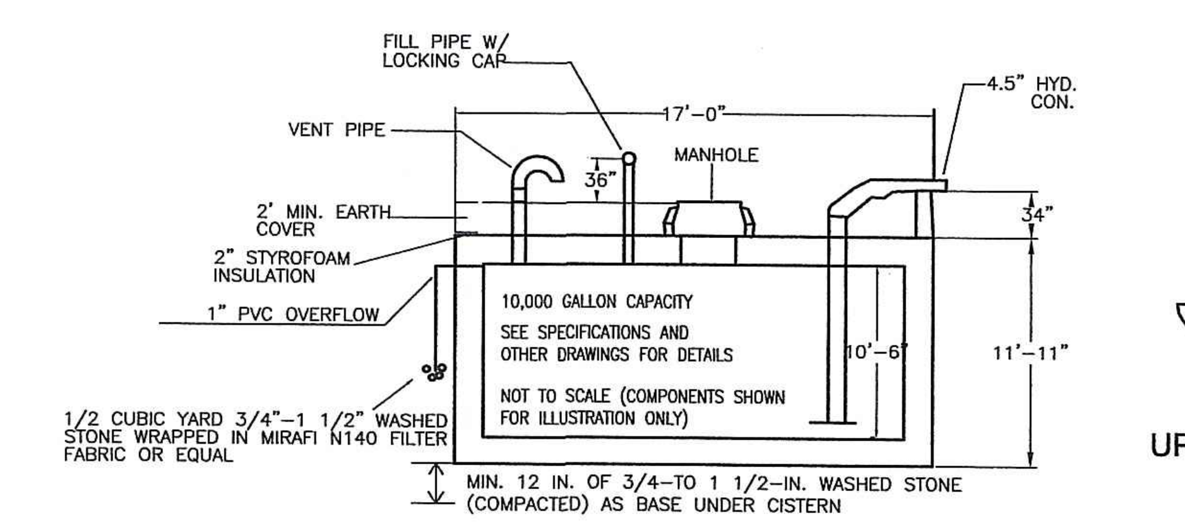


NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. BITUMINOUS BERM CAN BE PLACED AT THE SAME TIME THAT THE SURFACE COURSE LAYER IS PLACED ON THE PROJECT ROADWAY, OR IT CAN BE INSTALLED IN A SEPARATE OPERATION.

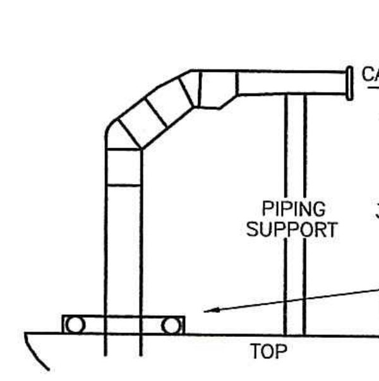
R.I. STANDARD 7.5.1

BITUMINOUS BERM
N.T.S.

10,000 GALLON FIRE CISTERN DETAILS

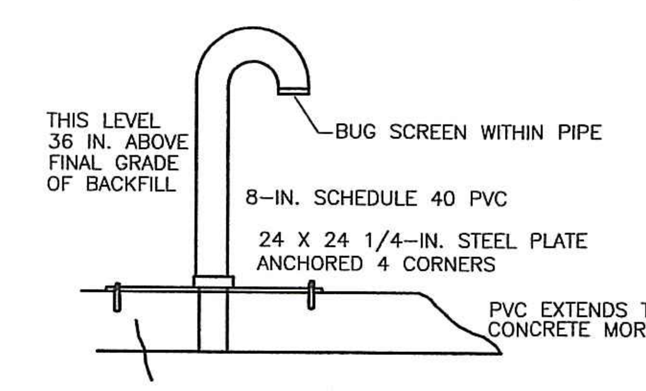


CISTERN AND PIPING
NOT TO SCALE



UPPER SUCTION PIPE DETAIL
NOT TO SCALE

FITTING LIST FROM CAP
DRY HYDRANT WITH 4 1/2-IN. NATIONAL STANDARD MALE FITTING WITH CAP
15-IN. MIN. 5-IN. SCHEDULE 40 NIPPLE
8 x 5-IN. ECCENTRIC REDUCER
8-IN. WELDED 45 DEGREE ELBOW
8-IN. NIPPLE AS NEEDED
8-IN. WELDED 45 DEGREE ELBOW
ALL PIPE SCHEDULE 40 STEEL



VENT PIPE DETAIL
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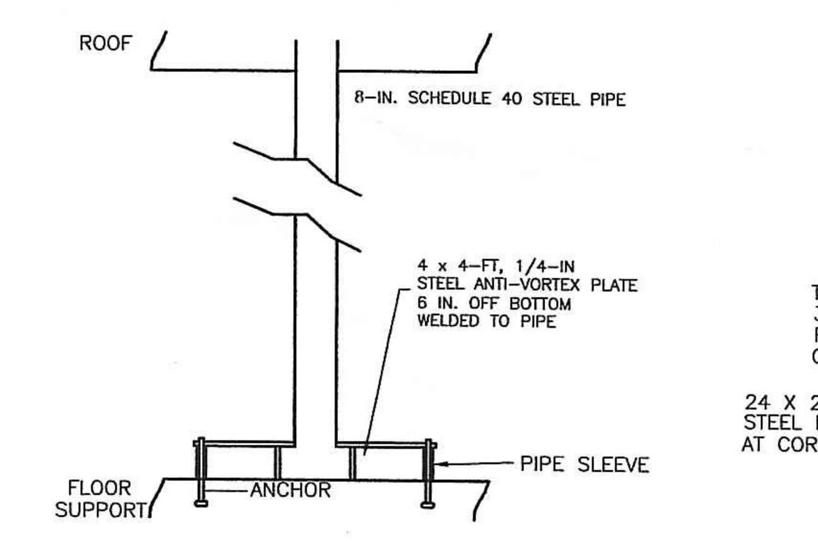
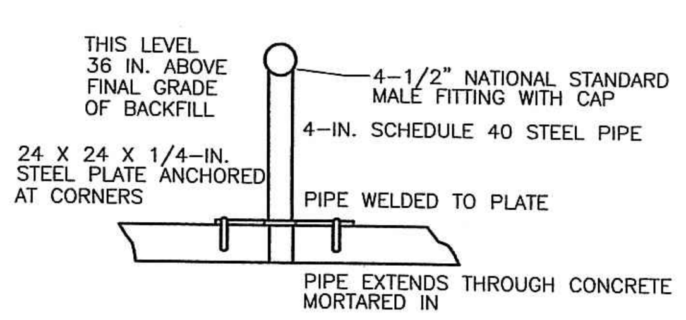
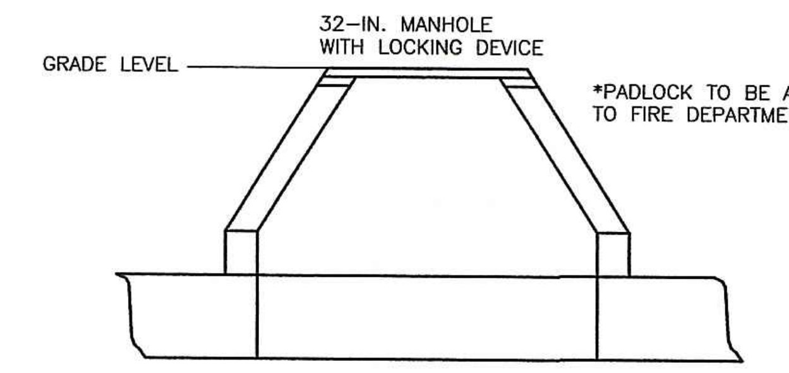


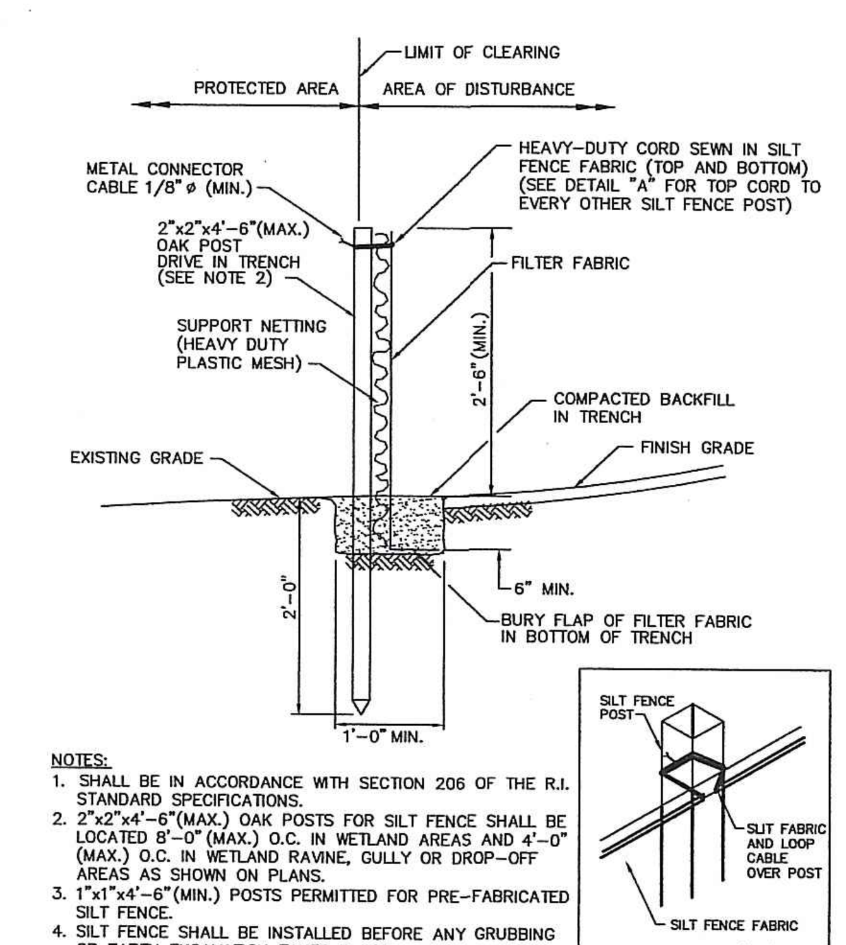
LOWER SUCTION PIPE DETAIL
NOT TO SCALE



FILL PIPE DETAIL
NOT TO SCALE



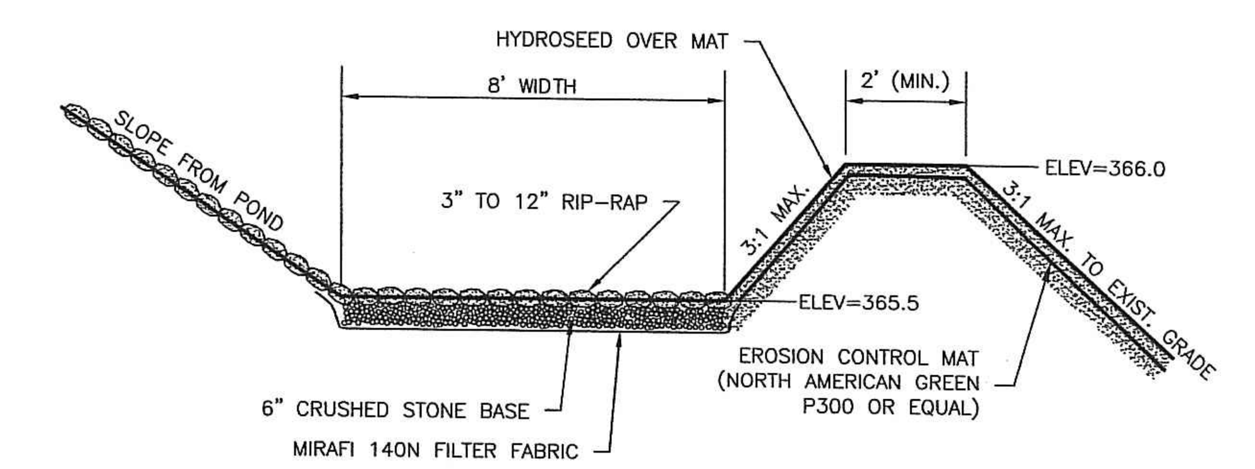
MANHOLE
NOT TO SCALE



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE R.I. STANDARD SPECIFICATIONS.
2. 2"x2"x4'-6"(MAX.) OAK POSTS FOR SILT FENCE SHALL BE LOCATED 8'-0" (MAX.) O.C. IN WETLAND AREAS AND 4'-0" (MAX.) O.C. IN WETLAND RAVINE, GULLY OR DROP-OFF AREAS AS SHOWN ON PLANS.
3. 1"x1"x4'-6"(MIN.) POSTS PERMITTED FOR PRE-FABRICATED SILT FENCE.
4. SILT FENCE SHALL BE INSTALLED BEFORE ANY GRUBBING OR EARTH EXCAVATION TAKES PLACE.

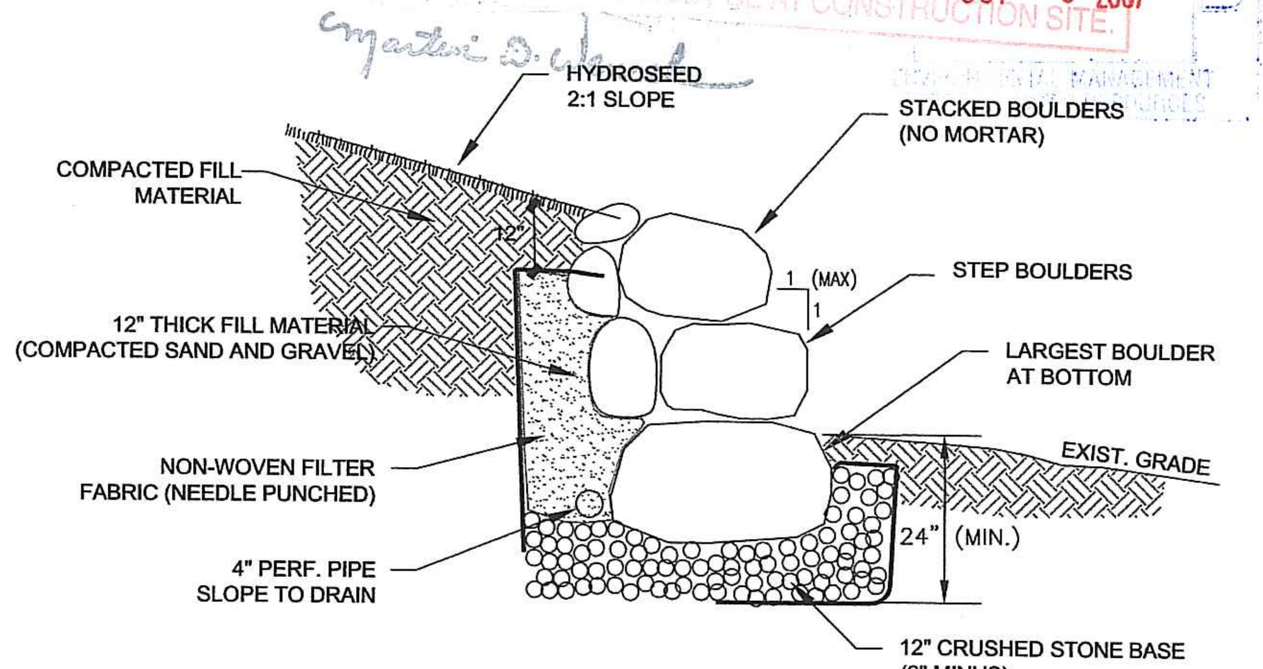
R.I. STANDARD 9.2.0

SILT FENCE DETAIL



LEVEL SPREADER DETAIL
CROSS SECTION - N.T.S.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
JAN 29 2008 FILE # 07-0399
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
OCT - 9 2007



BOULDER SLOPE
N.T.S.

NO.	DATE	REVISION	BY

BRIAN P. THALMANN
No. 6596
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

Thalmann Engineering Co., Inc.
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(401) 349-3040 • (401) 349-3041 (fax)
Thalmann ENGINEERING CO., INC.

A.P. 44 Lot 28 & 33
Construction Notes & Details
Major Subdivision
Staples Road
Prepared for:
Charles McMillan
90 Sneech Pond Road, Cumberland, RI
Cumberland Rhode Island
date: Sept.-2007 scale: As Noted

Drawn By: JEA
Checked By: BPT
Sheet 7 of 7

FILE NO.: