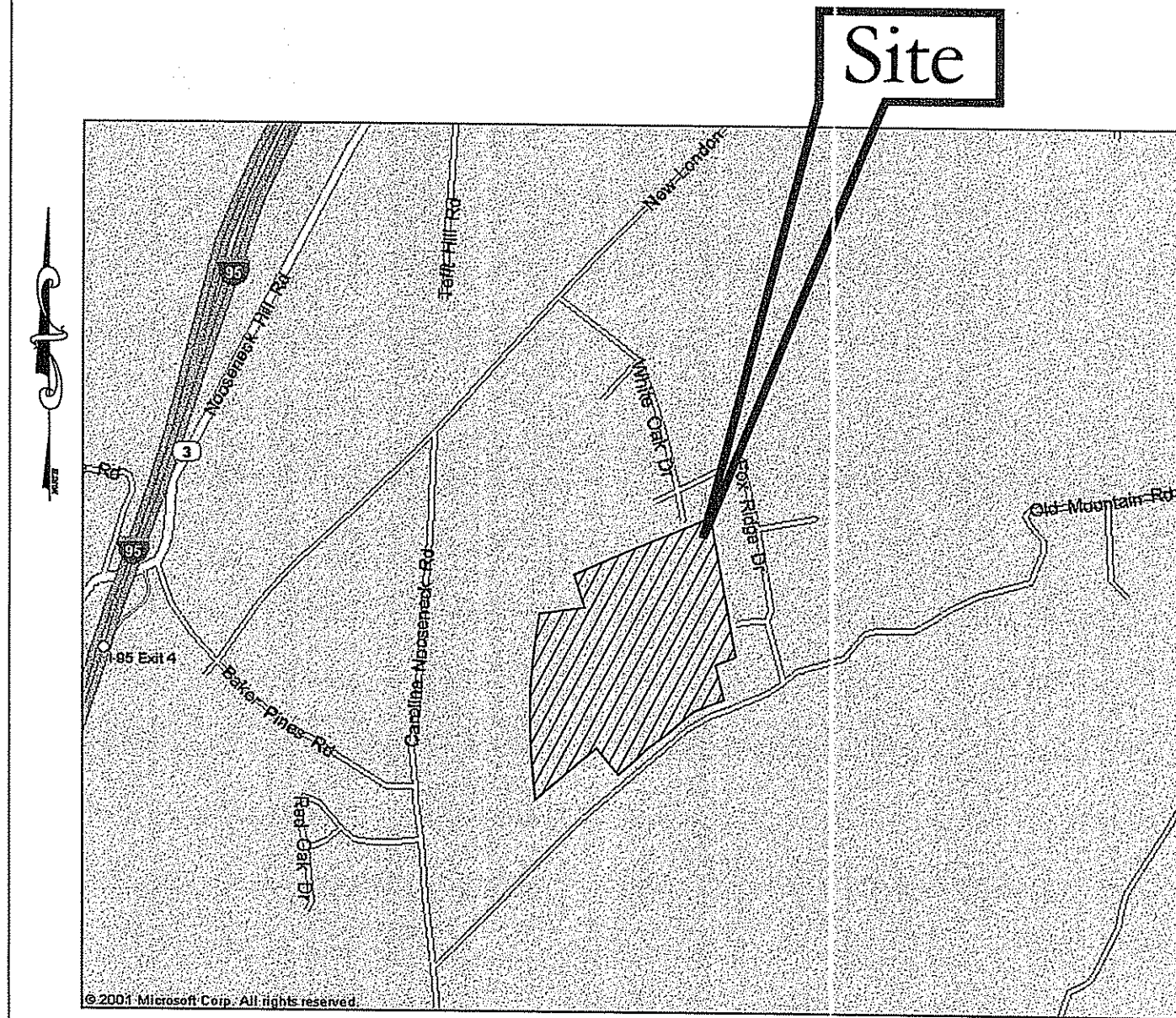
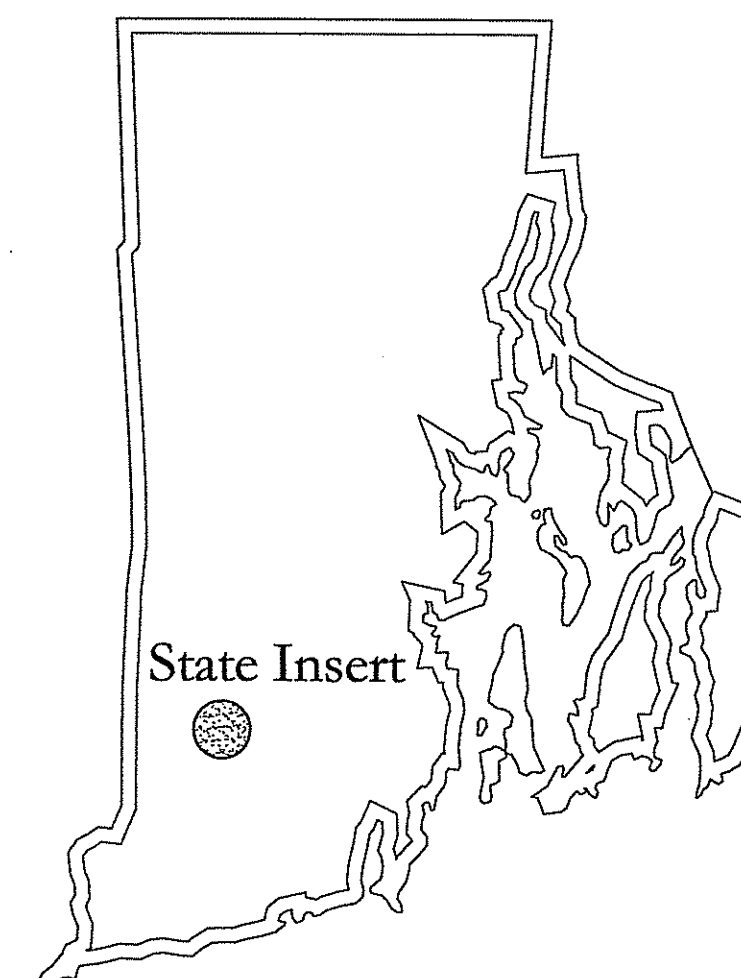
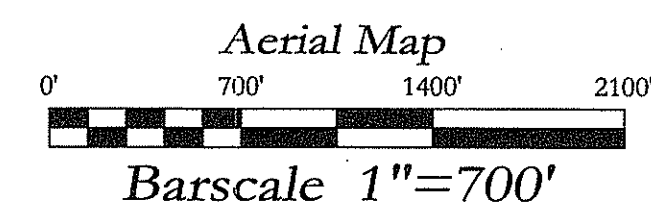


Preliminary Design Plans Old Mountain Estates

20 Lot Residential Conservation Subdivision

Assessor's Plat 3D Lot 14

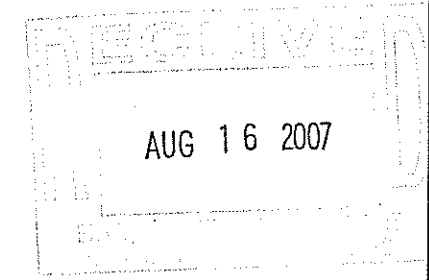
Old Mountain Trail, Fox Ridge Drive, & White Oak Drive Richmond, RI



Locus Map N.T.S.

Owner/Applicant:

F&S Enterprises
c/o Paul Chan
19 Hines Farm Drive
Cumberland, RI 02864



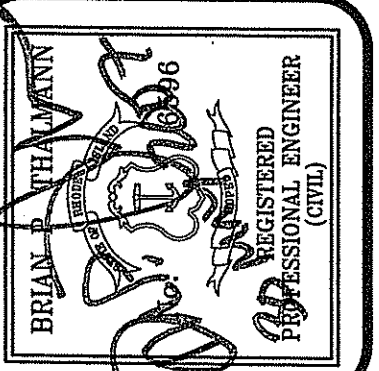
Sheet Index:

- Sheet 1 Cover Sheet
- Sheet 2 Existing Conditions Plan 1
- Sheet 3 Existing Conditions Plan 2
- Sheet 4 Overall Plan
- Sheet 5 Grading Plan I
- Sheet 6 Grading Plan II
- Sheet 7 Grading Plan III
- Sheet 8 Plan & Profile I
- Sheet 9 Plan & Profile II
- Sheet 10 Plan & Profile III
- Sheet 11 Construction Details I
- Sheet 12 Construction Details II

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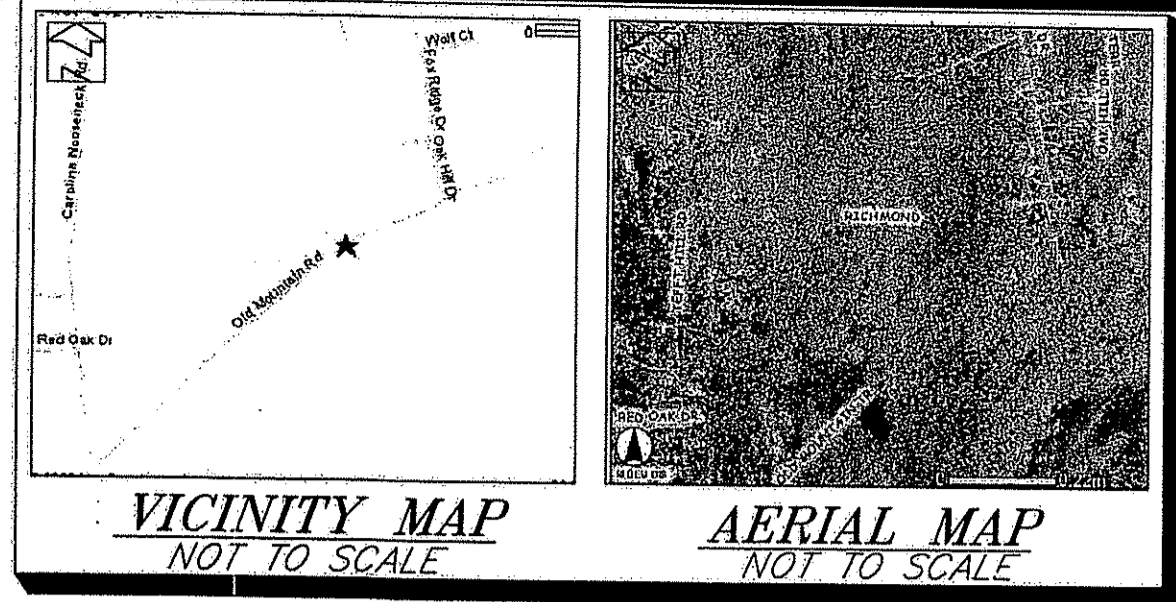
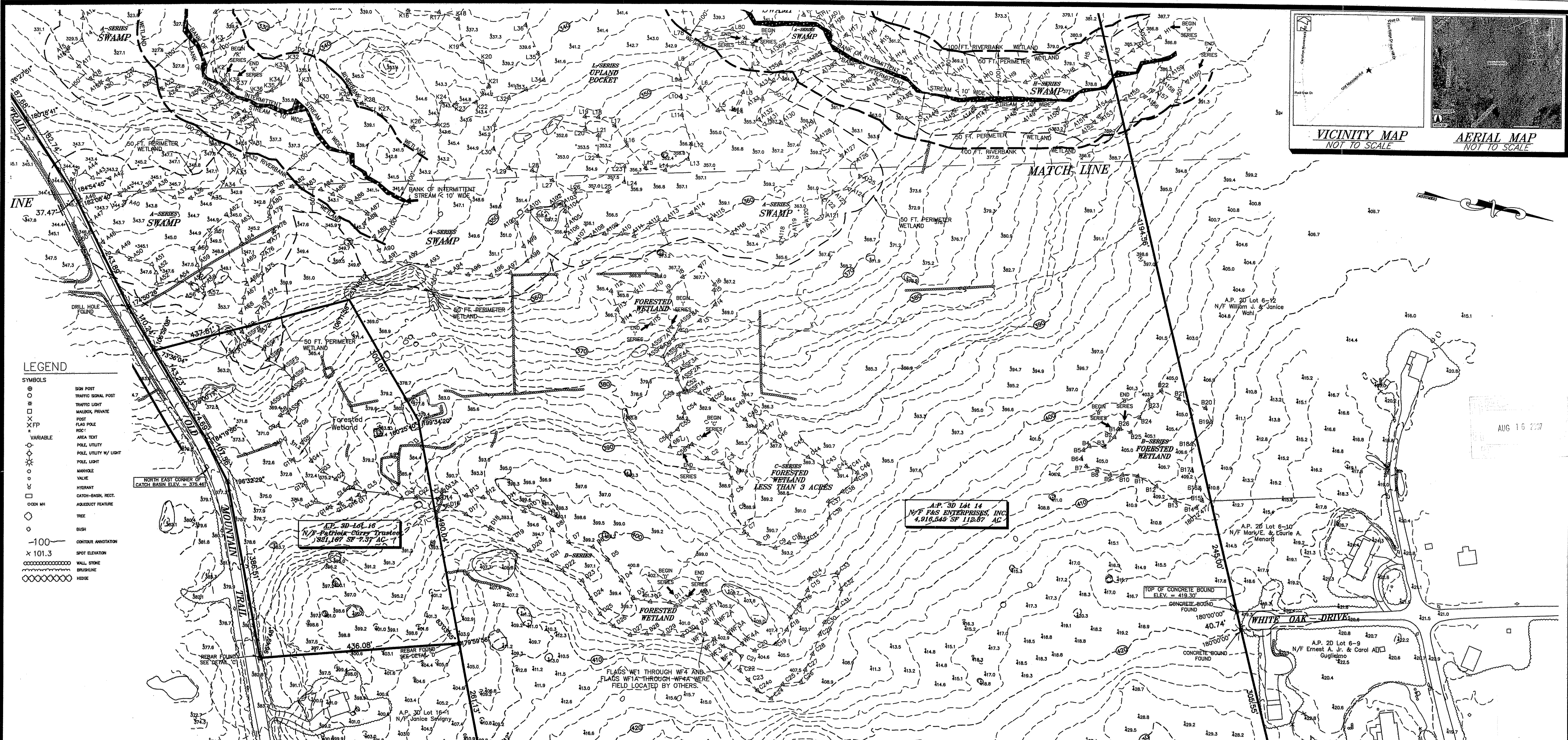


Thalmann Engineering Co., Inc.
Site/Civil Engineers • Land Planners
600 Putnam Pike, Suite #7
Greenville, Rhode Island 02828
(401) 349-3040 • (401) 349-3041 (fax)

AP: 3D
Cover Sheet
Old Mountain Estates
Old Mountain Trail, Fox Ridge Drive, White Oak Drive
Richmond
Prepared for:
F&S Enterprises, LLC
19 Hines Farm Drive Cumberland, RI 02864
date: May 07
scale: As Noted

Drawn By: REB
Checked By: BPT
Sheet
1
of 12
FILE NO.: 05.006

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- LEGEND**
- SYMBOLS**
- SIGN POST
 - ⊙ TRAFFIC SIGNAL POST
 - ⊠ MAILBOX, PRIVATE
 - ⊞ POST
 - ⊞ F.P. FLAG POLE
 - ⊞ ROC
 - VARIABLE**
 - AREA TEXT
 - POLE UTILITY
 - POLE UTILITY W/ LIGHT
 - POLE LIGHT
 - MANHOLE
 - VALVE
 - HYDRANT
 - CATCH-BASIN, REPT.
 - AERODIUM FEATURE
 - OPEN MH
 - TREE
 - BUSH
 - CONTOUR ANNOTATION
 - SPOT ELEVATION
 - WALL, STONE
 - BRUSHLINE
 - HEDGE
- 100
x 101.3

REFERENCE PLANS:

- "PLAN SHOWING LOT OWNED BY: T. MORTON CURRY JR., AND PATRICIA CURRY, ON OLD MOUNTAIN TRAIL, IN THE TOWN OF RICHMOND, R.I. SURVEYED JUNE 1991, PLATTED MAY 8, 1995, JOSEPH W. FRIGELLA, P.E. & R.L.S."
- "PLAN OF BROOK-WOOD SITES SECTION A, RICHMOND, R.I. OWNER RICC ASSOCIATES, INC. APRIL 1965 STANLEY A. MOWRY, SURVEYOR."
- "FINAL PLANS OF FOX RIDGE ESTATES SECTION I LOCATED IN RICHMOND, RHODE ISLAND. DATE: JULY 22, 1998, PREPARED FOR: EASTERN INVESTMENT CONCEPTS, PREPARED BY: OCEAN STATE PLANNERS, INC. SHEET 1 OF 2 AND 2 OF 2."
- "PROPERTY OF SOLOMON KOPMAN ET ALS, RICHMOND, RHODE ISLAND WHITE OAK ESTATES SECTION 1, F.A. MURRAY ENGINEERS, SLOCUM RD. SLOCUM, R.I. OCT. 1974 DWG 1 OF 2 AND 2 OF 2."

A.P. 3D Lot 16
N/F Patricia Curry Trustee
1821.07 SF 4.37 AC

A.P. 3D Lot 14
N/F F&S ENTERPRISES, INC.
4,916,846 SF 112.87 AC

TOP OF CONCRETE BOUND
ELEV. = 419.30'

CONCRETE BOUND FOUND

CONCRETE BOUND FOUND

180°00'00"
40.74'

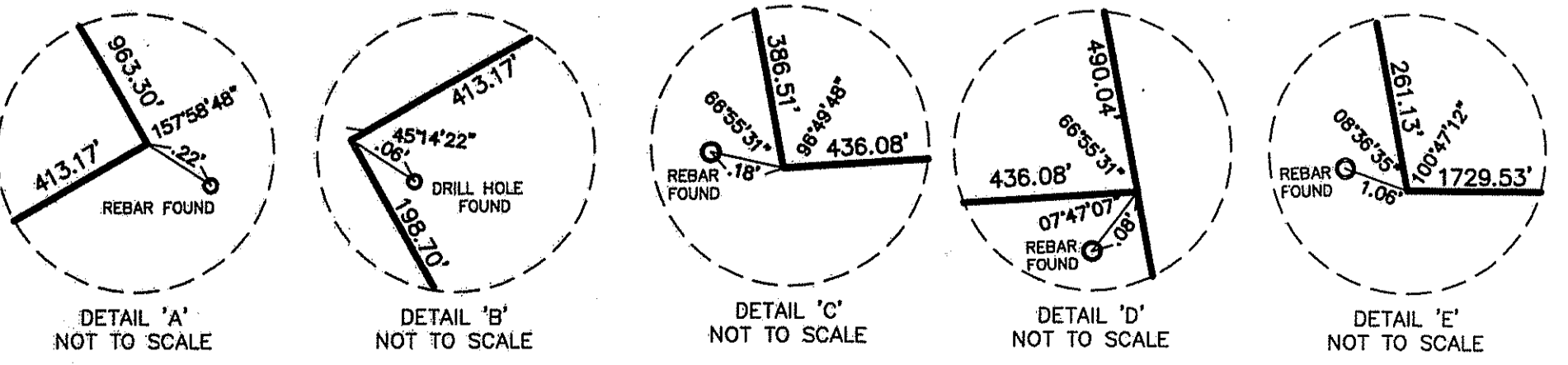
CONCRETE BOUND FOUND (HELD)

THIS SURVEY AND PLAN CONFORM TO THE FOLLOWING STANDARDS AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS.

HORIZONTAL: CLASS I TOPOGRAPHIC: CLASS III

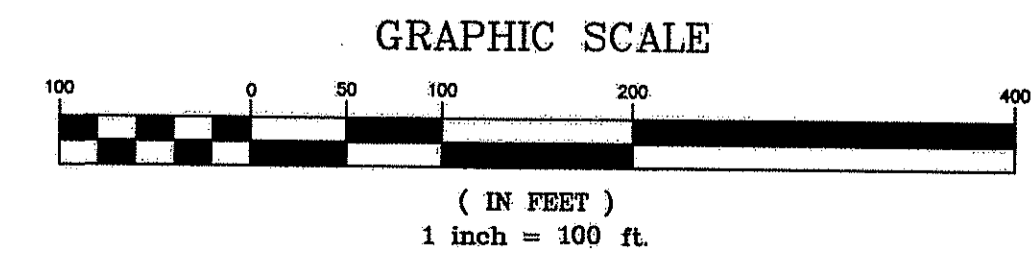
BY: *Stephen T. Long*
REGISTERED PROFESSIONAL LAND SURVEYOR

DATE: 5-17-05



ZONING: R-2

MIN. AREA = 2 ACRES
MIN. LOT WIDTH = 200 FT.
MIN. FRONT YARD DEPTH = 50 FT.
MIN. SIDE YARD = 35 FT.
MIN. REAR YARD DEPTH = 100 FT.
(SEE REGULATIONS FOR ADDITIONAL INF.)



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Charles A. Harte

EXISTING CONDITIONS PLAN
PREPARED FOR

F&S ENT. INC.

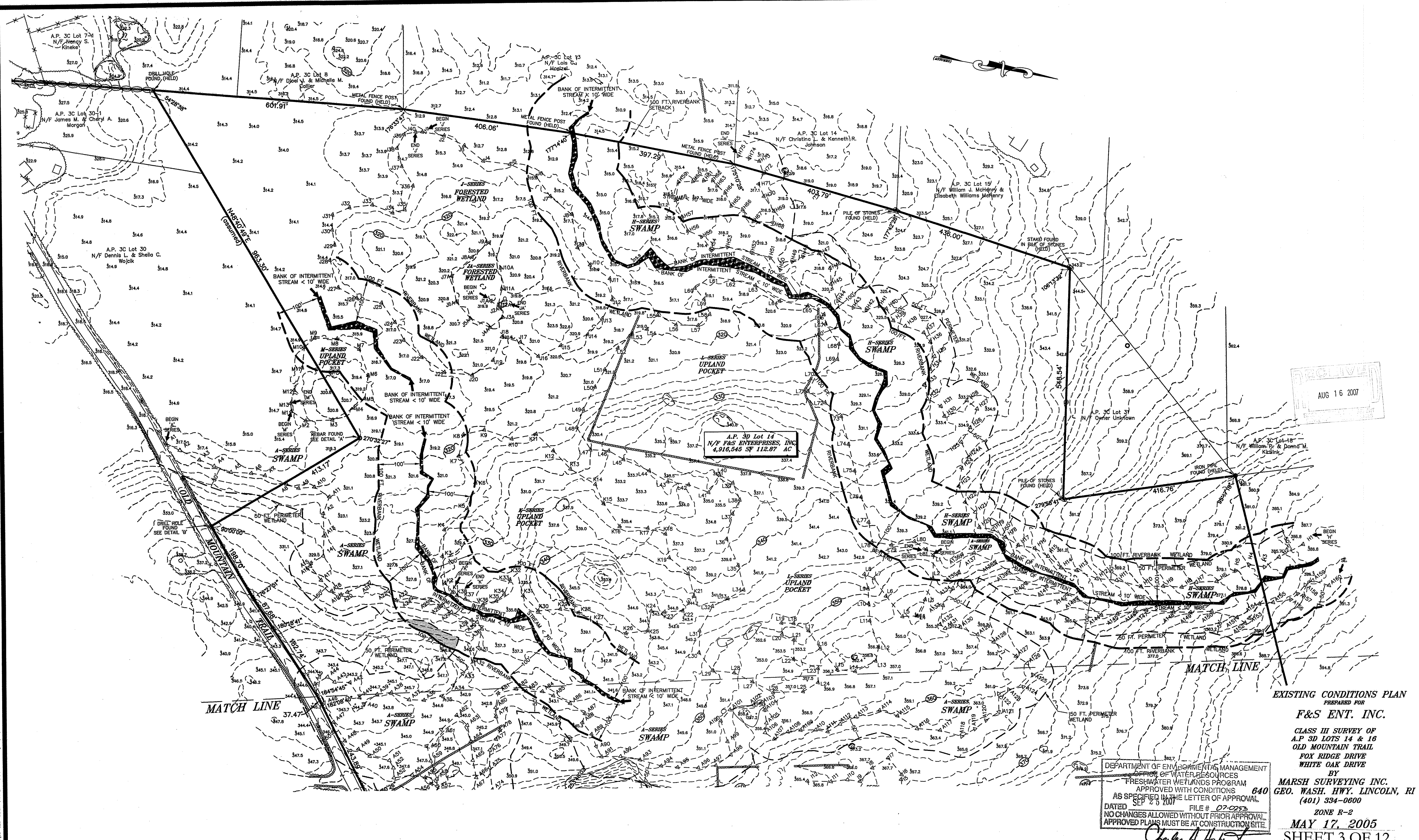
CLASS I SURVEY OF
A.P. 3D LOTS 14 & 16
OLD MOUNTAIN TRAIL
FOX RIDGE DRIVE
WHITE OAK DRIVE

BY
MARSH SURVEYING INC.
640 GEO. WASH. HWY. LINCOLN, RI
(401) 334-0600
ZONE R-2

MAY 17, 2005
SHEET 2 OF 12

NO.	DATE	DESCRIPTION	BY
	08/07/07	ADD BENCH MARKS, NEW FLAGS	MCL

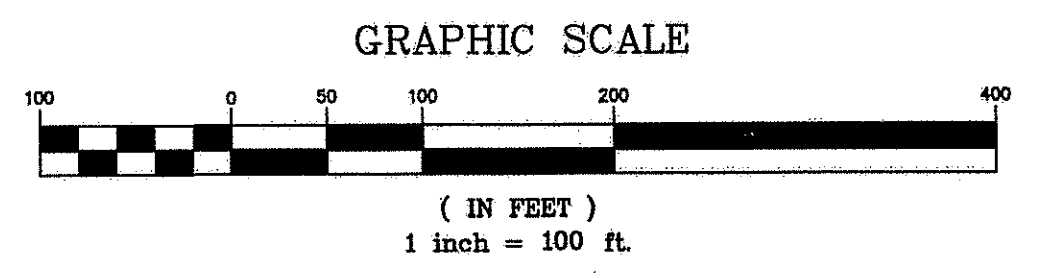
THIS PLAN TO BE INDEXED BY THE FOLLOWING:
FOX RIDGE DRIVE
WHITE OAK DRIVE
OLD MOUNTAIN TRAIL



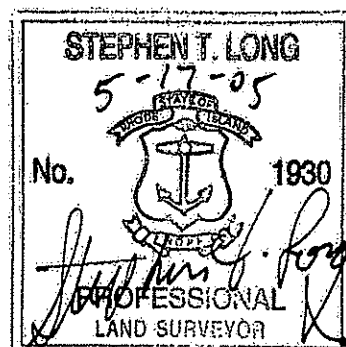
RECEIVED
AUG 16 2007

EXISTING CONDITIONS PLAN
PREPARED FOR
F&S ENT. INC.
CLASS III SURVEY OF
A.P. 3D LOTS 14 & 16
OLD MOUNTAIN TRAIL
FOX RIDGE DRIVE
WHITE OAK DRIVE
BY
MARSH SURVEYING INC.
GEO. WASH. HWY. LINCOLN, RI
(401) 334-0600
ZONE R-2
MAY 17, 2005
SHEET 3 OF 12

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS 640
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DATED SEP 25 2007 FILE # 07-0253
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Charles A. Herbert



1. THIS PARCEL LIES WITHIN ZONE XXXX FOUND ON FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 445400 XXXX B ZONE C = AREAS OF MINIMAL FLOODING.
2. LOCATION OF EXISTING UTILITIES SHOWN, ARE FROM GATE LOCATION AND EXISTING DOCUMENTATION, AND MAY NOT BE ACCURATE. EXACT LOCATION TO BE DONE BY THE APPROPRIATE UTILITY COMPANY OR MUNICIPALITY PRIOR TO EXCAVATION.
3. DATUM REFERENCED : DESIGNATION RIO03 NGVD 29 ELEVATIONS
4. HORIZONTAL & VERTICAL DATA ON THIS PLAN WERE OBTAINED BY FIELD SURVEY.



THIS SURVEY AND PLAN CONFORM TO THE FOLLOWING STANDARDS AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS.
HORIZONTAL : CLASS III
TOPOGRAPHIC : CLASS III
BY: *Stephen T. Long*
REGISTERED PROFESSIONAL LAND SURVEYOR
DATE: 5/17/05

NO.	DATE	DESCRIPTION	BY

THIS PLAN TO BE INDEXED BY THE FOLLOWING:
FOX RIDGE DRIVE
WHITE OAK DRIVE
OLD MOUNTAIN TRAIL

Dimensional Regulations

Zone R-2 Conservation

MINIMUM LOT AREA	10,000 s.f.
LOT FRONTAGE AND WIDTH	80 ft.
FRONT YARD SETBACK	25 ft.
SIDE YARD SETBACK	10 ft.
REAR YARD SETBACK	30 ft.

Development Data

AREA OF PARCEL	113.10 ACRES
AREA OF R-O-W	2.59 ACRES
OPEN SPACE AREA	96.26± ACRES
SUITABLE OPEN SPACE	52.62± ACRES
AREA OF LOTS	14.23± ACRES
# PROPOSED LOTS	20
AVERAGE LOT AREA	30,993 SF (0.71 AC.)
LENGTH OF R.O.W.	2,178 LF

General Notes

- THE PROPOSED LOTS ARE TO BE SERVICED BY INDIVIDUAL SEWAGE DISPOSAL SYSTEMS (ISDS) AND PRIVATE WELLS.
- THE ROADWAY IS PROPOSED TO BE BUILT WITHIN A 50 FT. RIGHT-OF-WAY USING A 26 FT. TRAVEL WIDTH AND 1 FT. BITUMINOUS BERMS FOR AN OVERALL PAVED WIDTH OF 28 FT.
- EXISTING UTILITIES HAVE BEEN PLOTTED FROM BEST AVAILABLE INFORMATION. LOCATION OF ALL UNDERGROUND STRUCTURES ARE APPROXIMATE ONLY AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
- ALL LANDSCAPING SHALL BE IN CONFORMANCE WITH THE LATEST CODIFIED ORDINANCE OF THE TOWN OF RICHMOND.
- STORMWATER RUNOFF WILL BE MITIGATED WITH THE USE OF CATCH BASINS, SWALES, AND DETENTION AND/OR RETENTION BASINS INCORPORATING THE BEST MANAGEMENT PRACTICES OF RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT.
- ALL DWELLINGS ARE TO INCORPORATE SIX (6) STORMTECH SC-740 CHAMBERS TO COLLECT ALL ROOF RUNOFF.
- NO WAIVERS ARE REQUIRED FOR THIS PLAN.
- BASE MAP WAS DEVELOPED FROM A PLAN ENTITLED, "EXISTING CONDITIONS PLAN FOR F&S ENT. INC." DATED MAY 17, 2005; PREPARED BY MARSH SURVEYING OF 640 GEORGE WASHINGTON HIGHWAY LINCOLN, RI
- NO STUMPS ARE TO BE BURIED ON-SITE. ALL STUMPS TO BE HAULED OFF-SITE.

Conservation Plan Calculations

- TOTAL NUMBER OF LOTS PER CONVENTIONAL YIELD PLAN = 20.
- SUITABLE LAND AREA: 75.94 ACRES
TOTAL SITE AREA - WETLANDS - R.O.W. - 25% SLOPES - DETENTION PONDS (113.10) (33.31 AC.) (2.56 AC.) (0.49 AC.) (0.89 AC)
- OPEN SPACE REQUIREMENT 75.85 ACRES X 60% = 45.51 AC.
SUITABLE OPEN SPACE PROVIDED (MINUS DETENTION PONDS) = 52.70 AC.

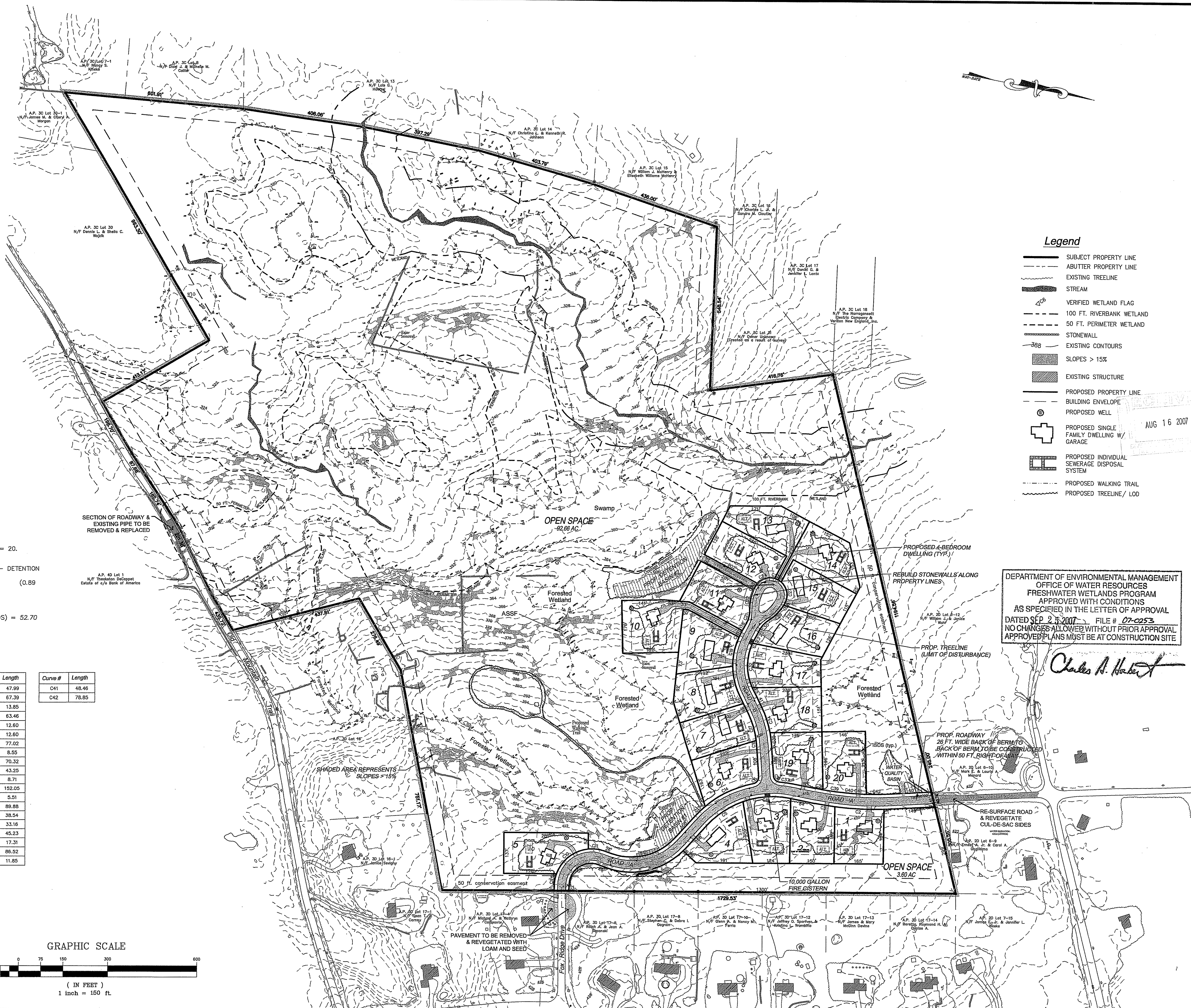
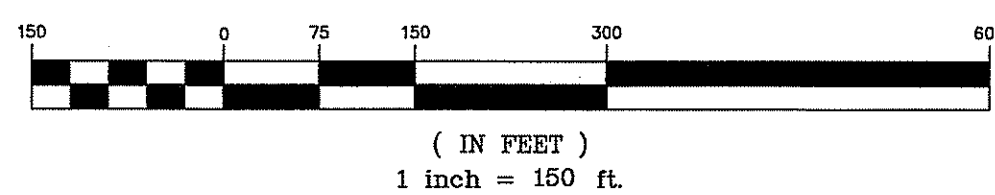
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Parcel #	Area (sf)
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2	30538.36
4	30098.13
5	32708.05
6	30057.94
7	30096.23
8	30535.51
9	30477.15
10	40102.64
11	30712.42
12	30088.99
13	31003.17
14	30626.17
15	30426.54
16	30544.90
17	30047.44
18	30000.93
19	30075.48
20	30053.77

Curve Table

Curve #	Length	Curve #	Length
C1	22.36	C21	47.99
C2	165.27	C22	67.39
C3	67.83	C23	13.85
C4	161.02	C24	63.46
C5	144.37	C25	12.60
C6	11.57	C26	12.60
C7	279.45	C27	77.02
C8	139.98	C28	8.55
C9	48.67	C29	70.32
C10	142.72	C30	43.25
C11	53.53	C31	8.71
C12	232.81	C32	192.05
C13	40.45	C33	5.51
C14	180.28	C34	89.88
C15	33.16	C35	38.54
C16	15.56	C36	33.16
C17	93.11	C37	45.23
C18	101.35	C38	17.31
C19	99.32	C39	86.62
C20	13.10	C40	11.85

GRAPHIC SCALE



Legend

- SUBJECT PROPERTY LINE
- ABUTTER PROPERTY LINE
- EXISTING TREELINE
- STREAM
- VERIFIED WETLAND FLAG
- 100 FT. RIVERBANK WETLAND
- 50 FT. PERIMETER WETLAND
- STONEWALL
- EXISTING CONTOURS
- SLOPES > 15%
- EXISTING STRUCTURE
- PROPOSED PROPERTY LINE
- BUILDING ENVELOPE
- PROPOSED WELL
- PROPOSED SINGLE FAMILY DWELLING W/ GARAGE
- PROPOSED INDIVIDUAL SEWAGE DISPOSAL SYSTEM
- PROPOSED WALKING TRAIL
- PROPOSED TREELINE/ LOD

AUG 16 2007

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Charles A. Haber

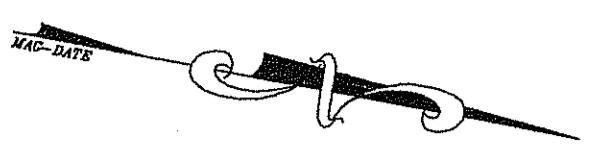
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BRIAN P. PRASAD
Site/Civil Engineer
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

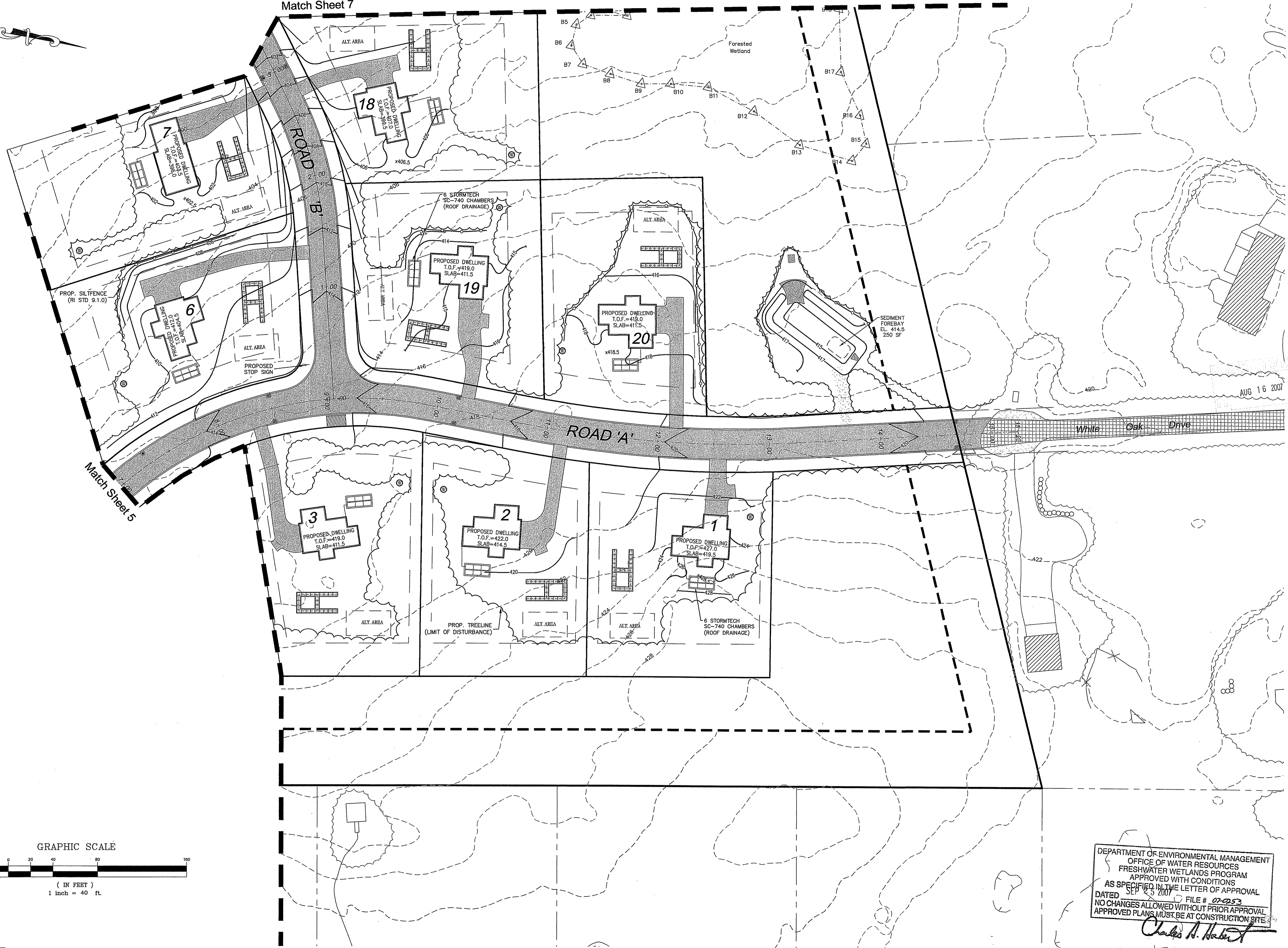
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Site/Civil Engineers • Land Planners
600 Putnam Pike, Suite #7
Greenville, Rhode Island 02828
(401) 349-3040 • (401) 349-3041 (fax)

Overall Plan
Old Mountain Estates
Lot 14
Rhode Island
Old Mountain Trail
Richmond
Prepared for:
F & S Enterprises, Inc.
19 Fines Farm Drive Cumberland, RI 02864
date: May 07
scale: 1" = 150'

Drawn By: REB
Checked By: BPT
Sheet
4
of 12
FILE NO.: 05.006

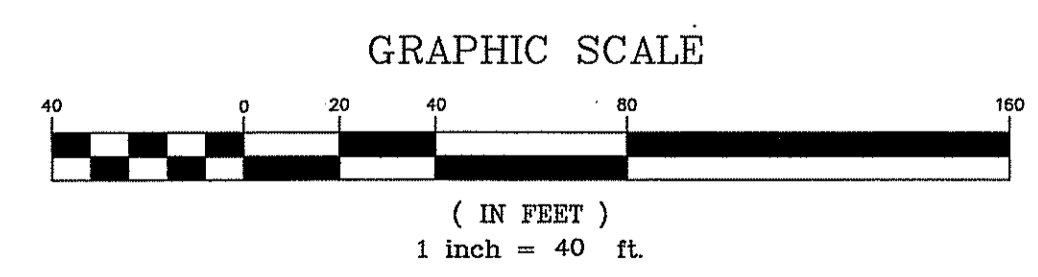


Match Sheet 7



Match Sheet 5

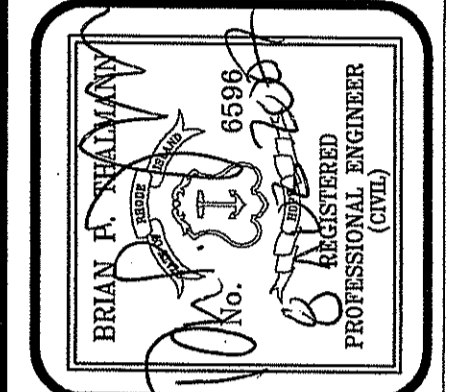
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Charles A. Hurd

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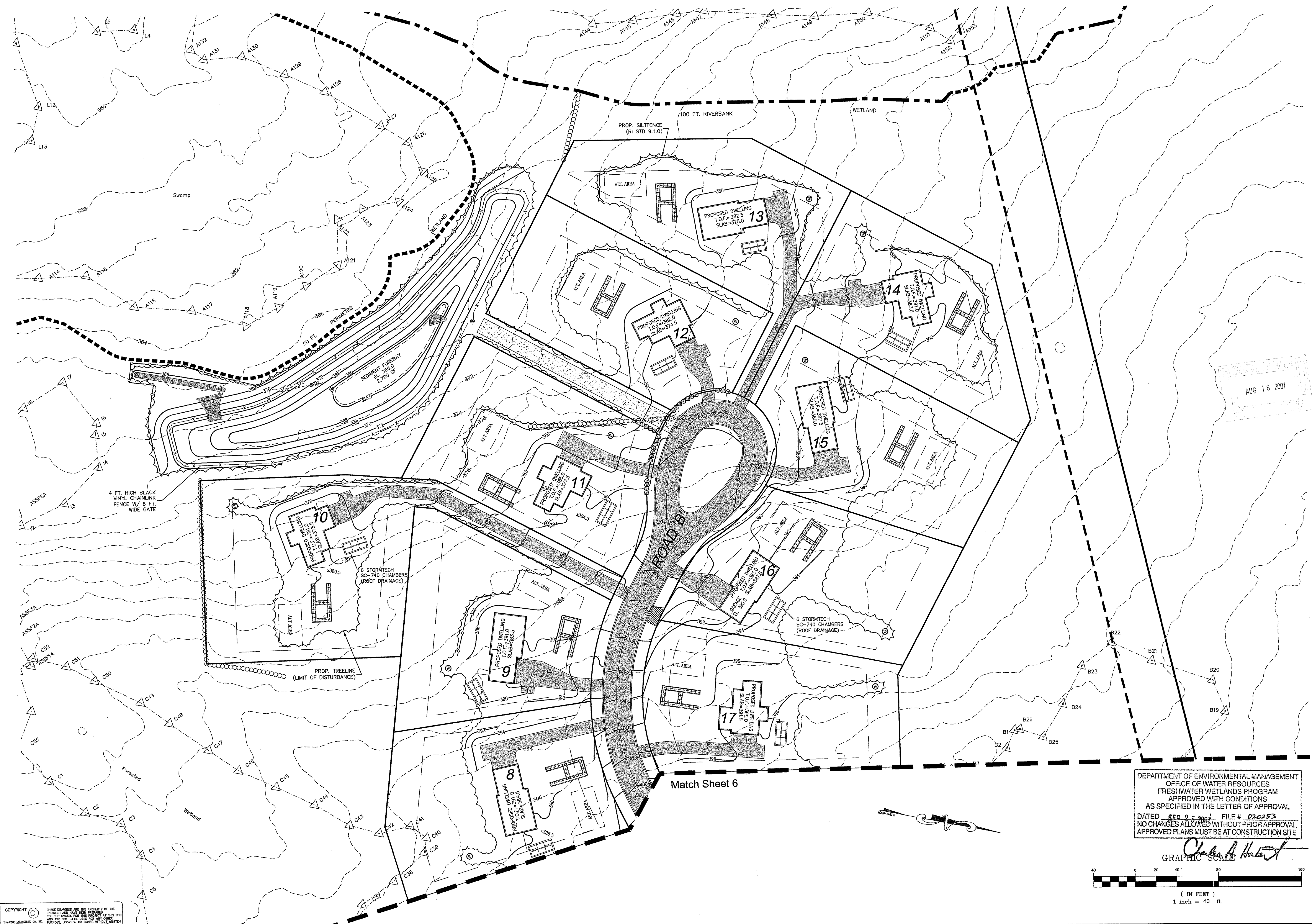
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Greenville, Rhode Island 02828
(401) 349-3040 • (401) 349-3041 (fax)

A.P. 3D
Grading Plan II
Old Mountain Estates
Lot 14
Rhode Island
Old Mountain Trail
Richmond
Prepared for:
F & S Enterprises, Inc.
19 Hines Farm Drive Cumberland, RI 02864
date: May 07
scale: 1" = 40'

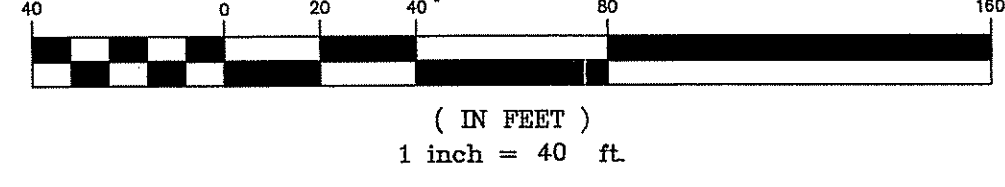
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FILE NO.: 05.006



Match Sheet 6

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Charles A. Harte
 GRAPHIC SCALE



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BRIAN P. WILSON
 6599
 05/06
 PROFESSIONAL ENGINEER
 (CIVIL)

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

Thalman
 ENGINEERING CO., INC.

Grading Plan III
 Lot 14
Old Mountain Estates
 Old Mountain Trail
 Rhode Island
 Richmond

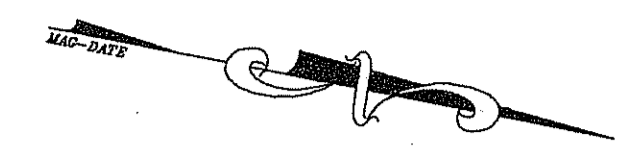
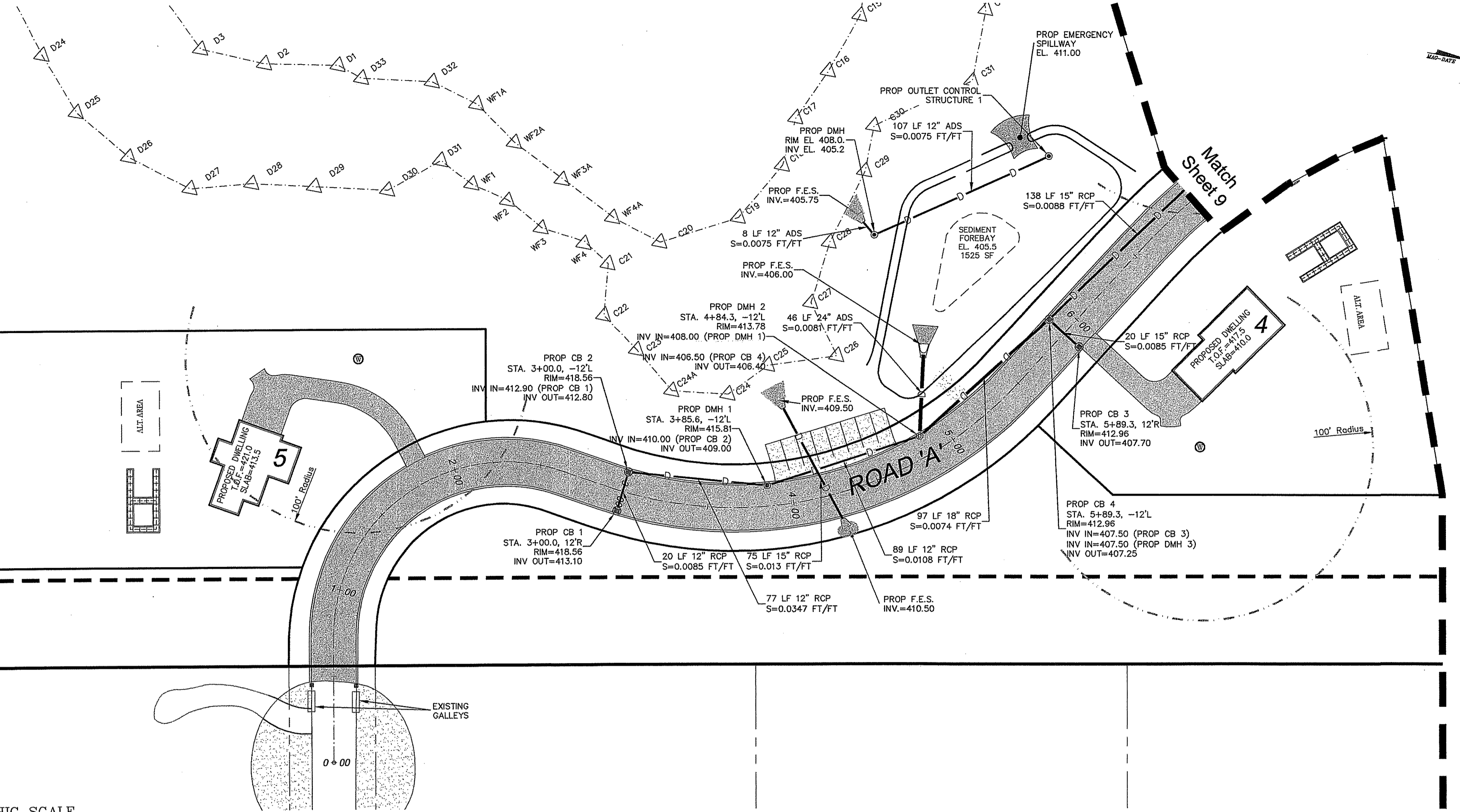
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F & S Enterprises, Inc.
 19 Fitness Farm Drive Cumberland, RI 02864

date: May 07 scale: 1" = 40'

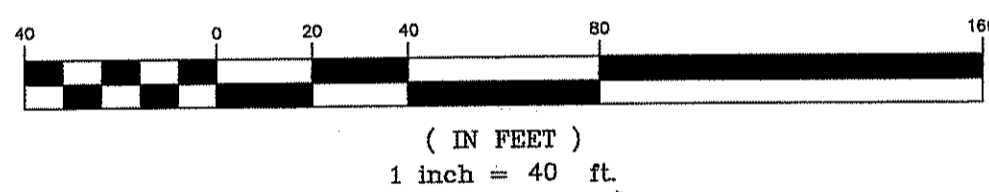
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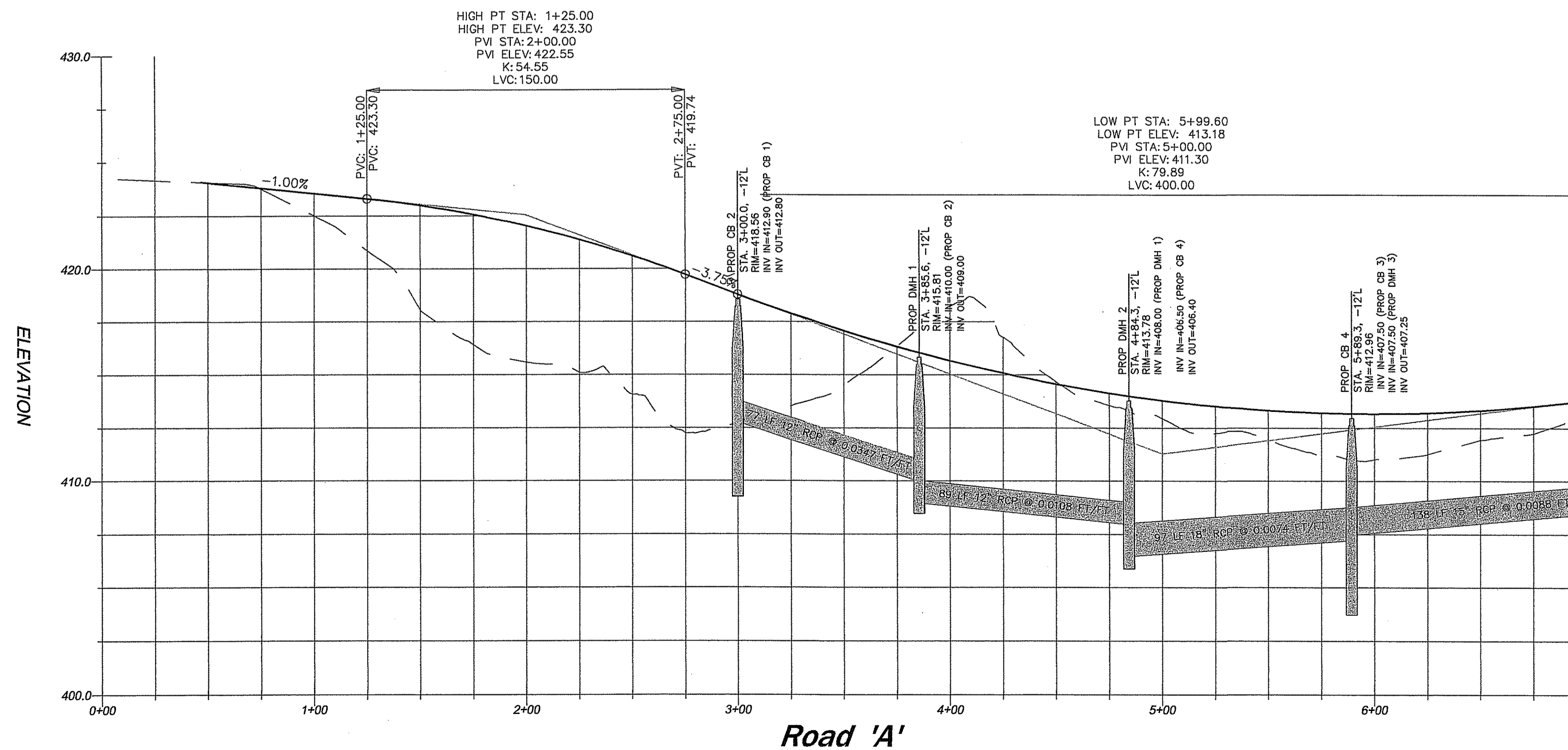
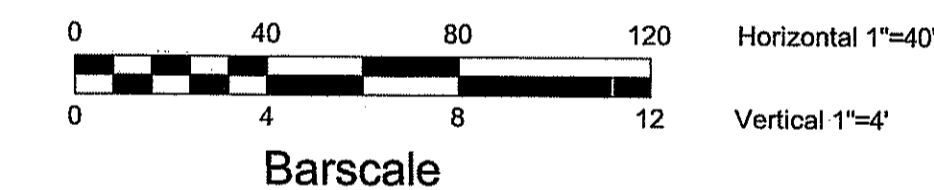
FILE NO.: 05.006



GRAPHIC SCALE



PROPOSED PROFILE



Match Sheet 9

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OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED SEP 25 2007 FILE # 07-0253
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Charles A. Hester

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1	Aug-07	Address RDCM Wetlands Comments dated 7/30/07	REB

BRIAN P. THALMANN
REGISTERED PROFESSIONAL ENGINEER
(C.E.W.)

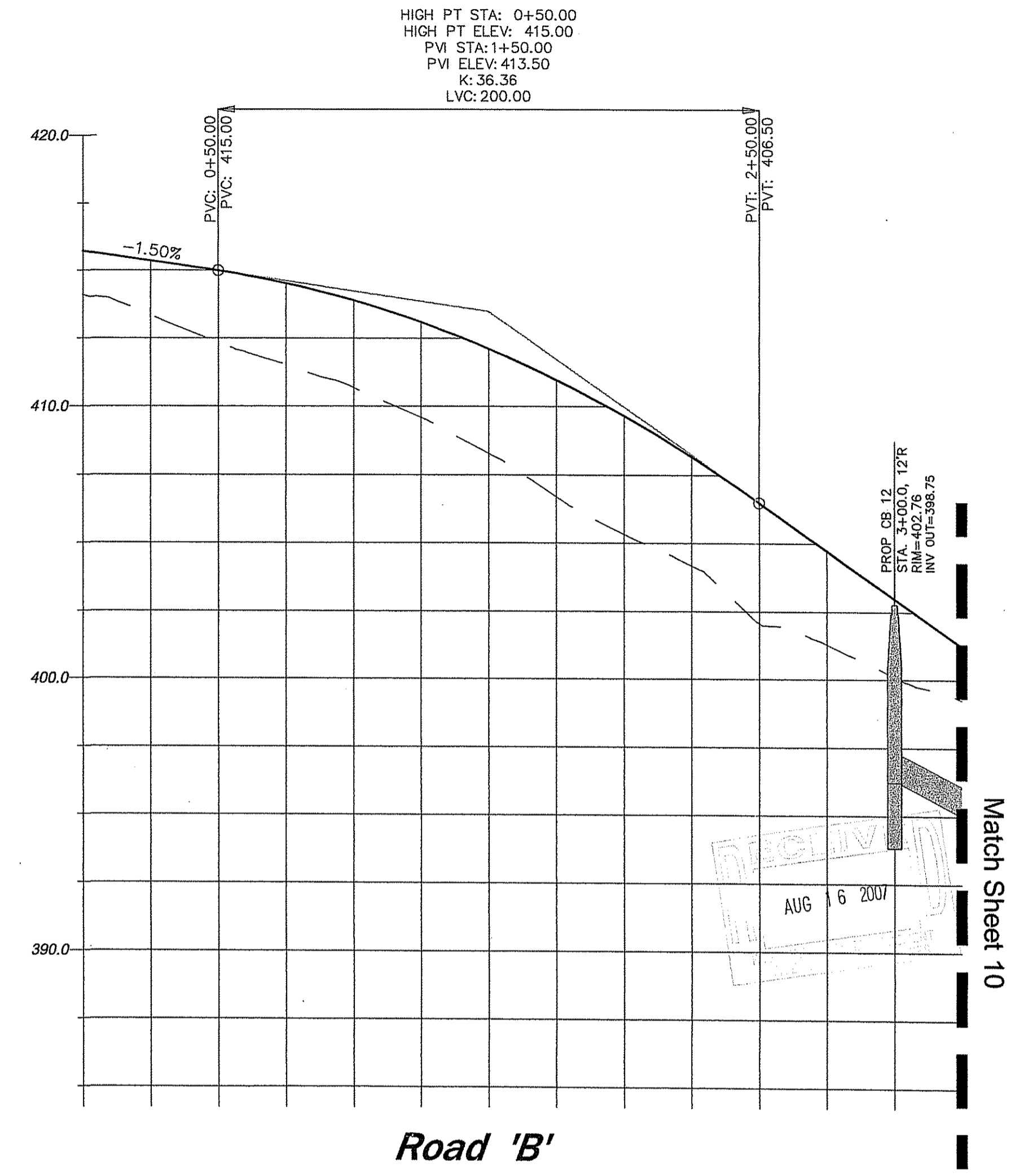
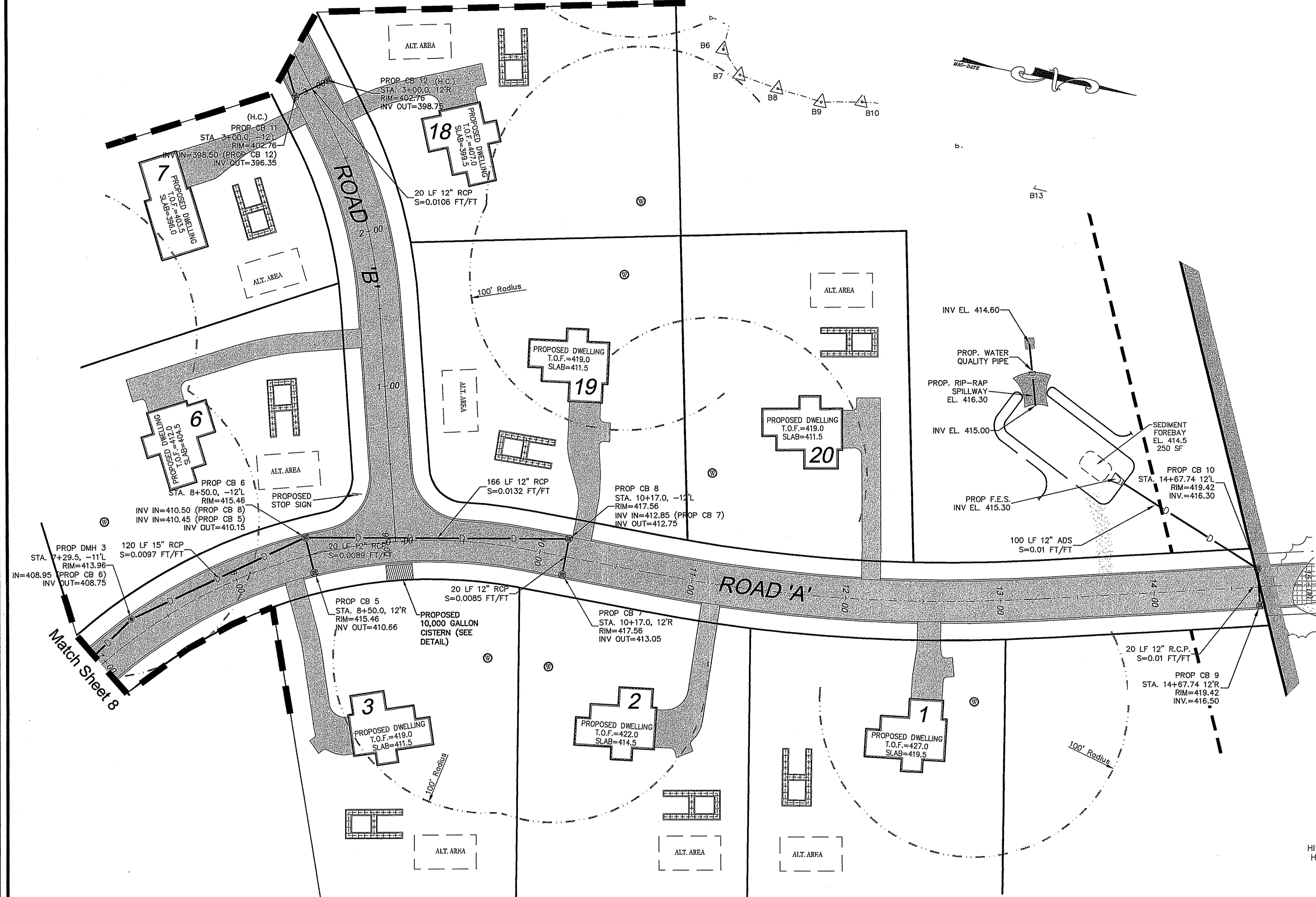
Thalman Engineering Co., Inc.
Site/Civil Engineers • Land Planners
600 Putnam Pike, Suite #7
Greenville, Rhode Island 02828
(401) 349-3040 • (401) 349-3041 (fax)

Plan & Profile I
Old Mountain Estates
Richmond
Old Mountain Trail
Rhode Island
Prepared for:
F & S Enterprises, Inc.
19 Hines Farm Drive Cumberland, RI 02864
date: May 07
scale: 1" = 40'

Drawn By: REB
Checked By: BPT
Sheet
8
of 12
FILE NO: 05.006

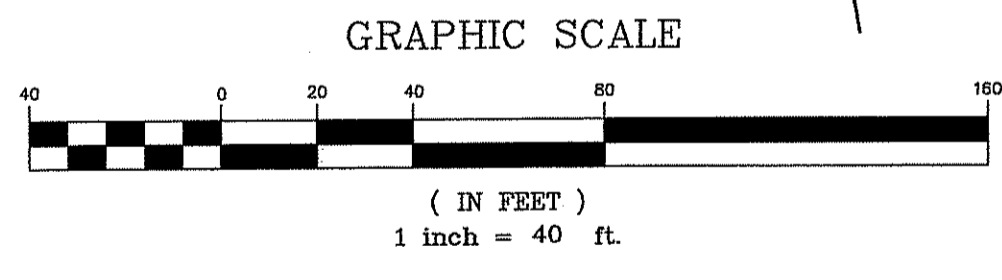
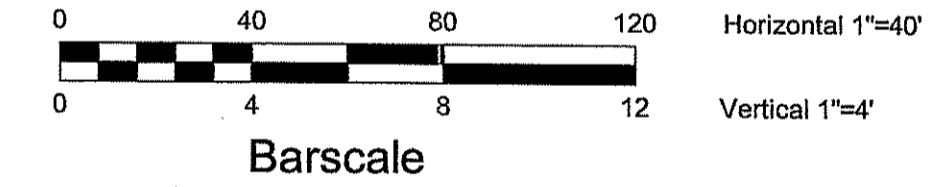
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Match Sheet 10



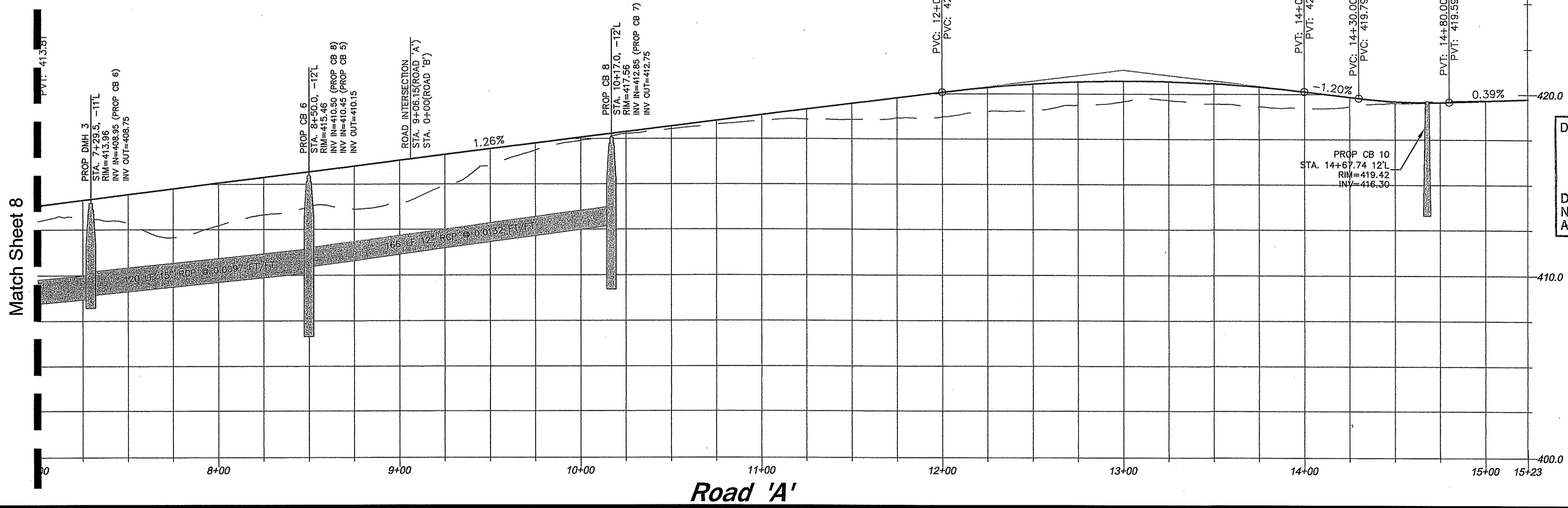
Road 'B'

PROPOSED PROFILE



GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.



Road 'A'

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED SEP 25 2007 FILE # 07-0253
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Herbert

NO.	DATE	REVISION	BY
1	Aug-07	Address RDEM Wetlands Comments dated 7/30/07	REE

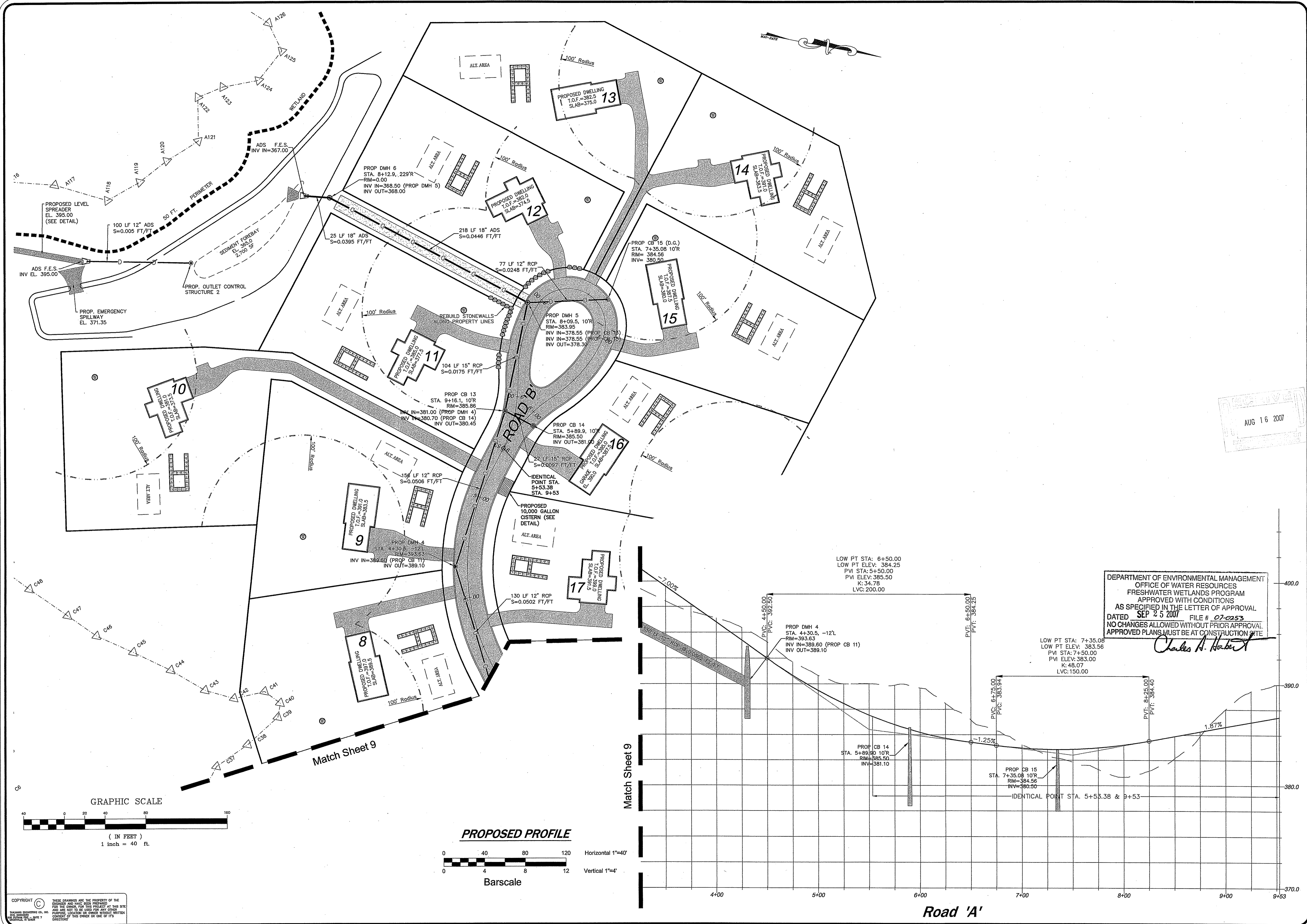
BRIAN P. THALMANN
REGISTERED PROFESSIONAL ENGINEER
(CIVIL)

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

A.P. 3D
Plan & Profile II
Lot 14
Rhode Island
Old Mountain Estates
Richmond
Old Mountain Trail
Prepared for:
F & S Enterprises, Inc.
19 Hines Farm Drive Cumberland, RI 02864
date: May 07
scale: 1" = 40'

Drawn By: REB
Checked By: BPT
Sheet
9
of 12
FILE NO: 05.006

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AUG 16 2007

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
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Charles A. Herbert

BY	REVISION
REB	
DATE	REVISION
Aug-07	Wellands Comments dated 7/30/07
NO.	DATE
1	Aug-07

BRIAN P. THALMANN
 No. 0694
 REGISTERED PROFESSIONAL ENGINEER
 (CIVIL)

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 Plan & Profile III
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 Sheet
10
 of 12
 FILE NO: 05.006

GENERAL CONSTRUCTION NOTES

1. THE CONTRACTOR IS TO NOTIFY DIF SAFE PRIOR TO CONSTRUCTION. (813-888-225-4977).
2. NO STOCKPILING OF MATERIAL IS TO BE ALLOWED WITHIN A PUBLIC R.O.W. NO OPEN TRENCHES ARE TO BE LEFT OVERNIGHT.
3. CONTRACTOR TO OBTAIN ALL FEDERAL, STATE, AND MUNICIPAL APPROVALS PRIOR TO THE START OF CONSTRUCTION.
4. THE CONTRACTOR IS TO NOTIFY THE DIRECTOR OF PUBLIC WORKS, THE TOWN ENGINEER, AND ADMINISTRATIVE OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
5. ALL WORK PERFORMED HEREIN SHALL BE GOVERNED BY THE RHODE ISLAND STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION AND TOWN OF SMITHFIELD STANDARD SPECIFICATIONS AND DETAILS.
6. ALL WORK PROPOSED DRAINAGE ROOF RUNOFF TO BE COLLECTED IN 6 STORMTECH DRYWELLS.

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 EXCEED 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 WORK.
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	15
PERENNIAL RYE GRASS	5
5. EARLY SPRING OR LATE SUMMER SEEDING IS RECOMMENDED. LIME AND FERTILIZER AS REQUIRED BY SOIL TESTING TO COMPLEMENT OR UPGRADE EXISTING CONDITIONS. THE SEED MIX SHALL BE INCULCATED 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 MATS. 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 CONSTRUCTION. PERMANENTLY SEEDED AREAS SHALL BE PROTECTED DURING ESTABLISHMENT WITH MULCH. ALL SEEDED AREAS WILL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHALL BE FERTILIZED AND RESEDED 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.

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 BALES, 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 SOIL 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.

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 DETRIORATION. 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 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 SMITHFIELD IS RESPONSIBLE FOR THE LONG TERM MAINTENANCE OF THE DETENTION POND. 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. CATCH BASIN SUMP SHALL BE CHECKED ANNUALLY AND SEDIMENTS SHALL BE 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 SMITHFIELD 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 SHALL BE MAINTAINED BY THE TOWN OF SMITHFIELD 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 AN ANNUAL 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 SMITHFIELD 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

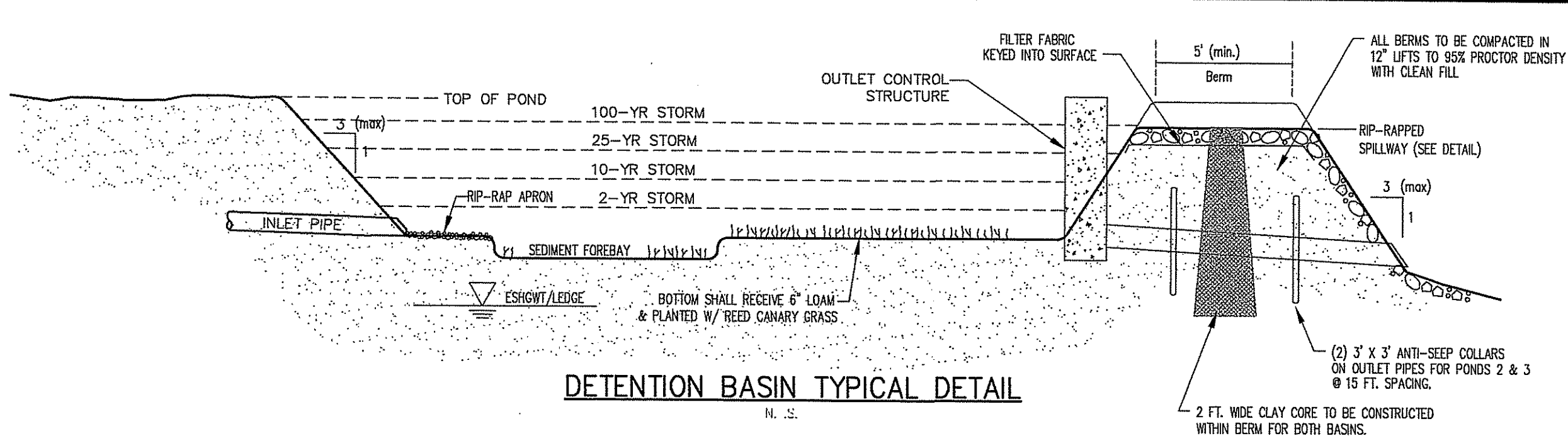
1. A POND DETENTION SYSTEM IS USED TO CONTROL RUNOFF. DISCHARGE OUTLETS ARE PROTECTED WITH RIP-RAP APRONS AND/OR LEVEL SPREADERS.
2. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED IN THE BASIN IMMEDIATELY AFTER GRADING. THE SEED MIX SHALL BE AT LEAST THE DESIGN TOP WIDTH AND INCLUDE ANY OTHER AREAS 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 EXPOSED AREAS SHALL BE IMMEDIATELY REPAIRED AND RESEDED 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 VEGETATIVE 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 SHALL BE INSTALLED. COVER WITH TOP SOIL AT THE END OF CONSTRUCTION.
7. THE DETENTION POND SHALL BE BUILT TO CONTROL RUNOFF FOR 2 THROUGH 100 YEAR STORM FREQUENCIES.
8. SIDE SLOPES OF THE BASIN SHALL BE SEEDED. THE SIDE SLOPES SHALL BE 2:1 MAXIMUM.
9. ALL EMBANKMENTS OF THE BASIN SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH RI 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 SMITHFIELD IS RESPONSIBLE THEREAFTER. THE TOWN OF SMITHFIELD SHALL INSPECT THE BASIN SEMIANNUALLY AND AFTER MAJOR STORMS.
11. RIP-RAP APRONS SHALL BE INSTALLED AT THE OUTLETS OF ALL OUTLETS. 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.

NONSTRUCTURAL

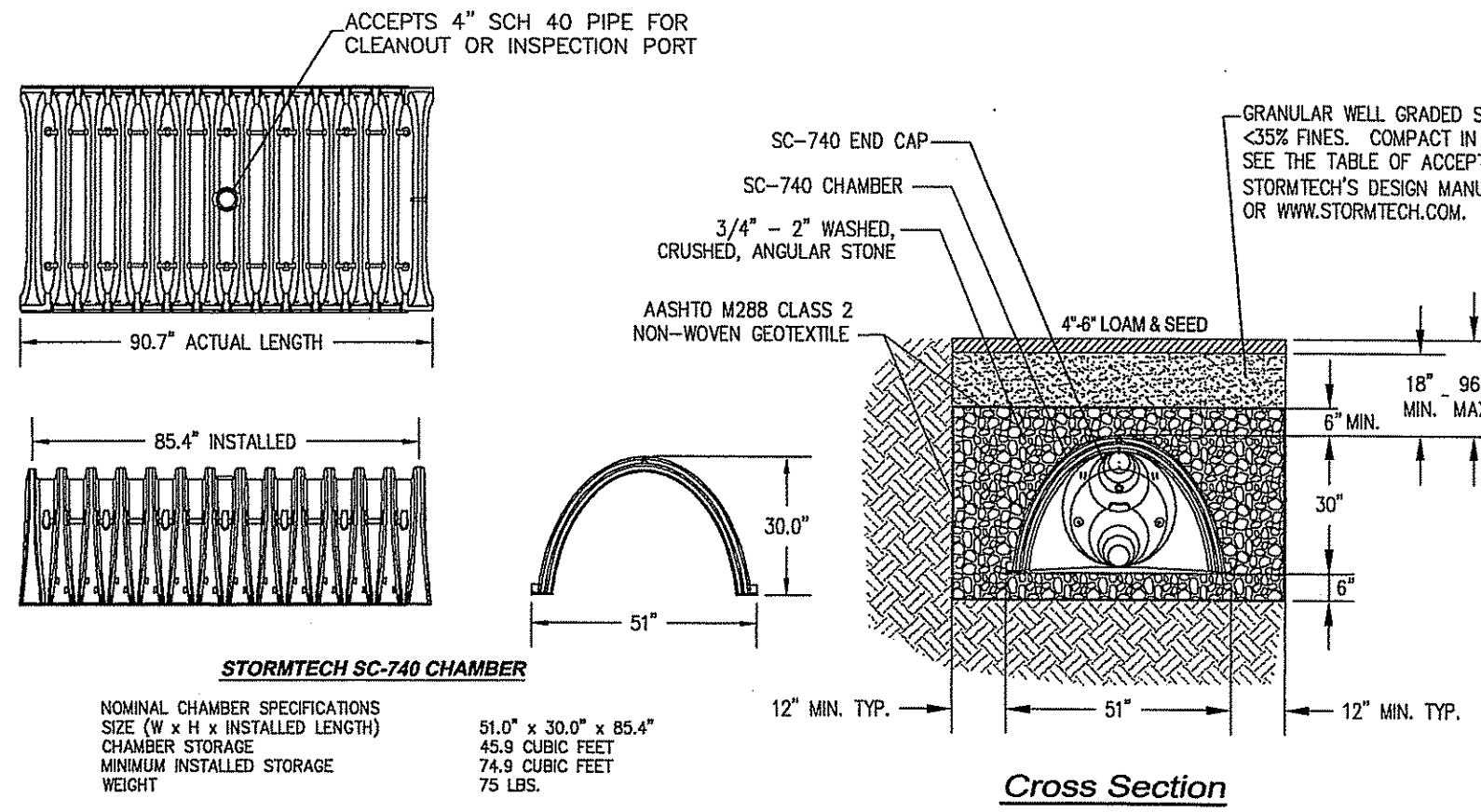
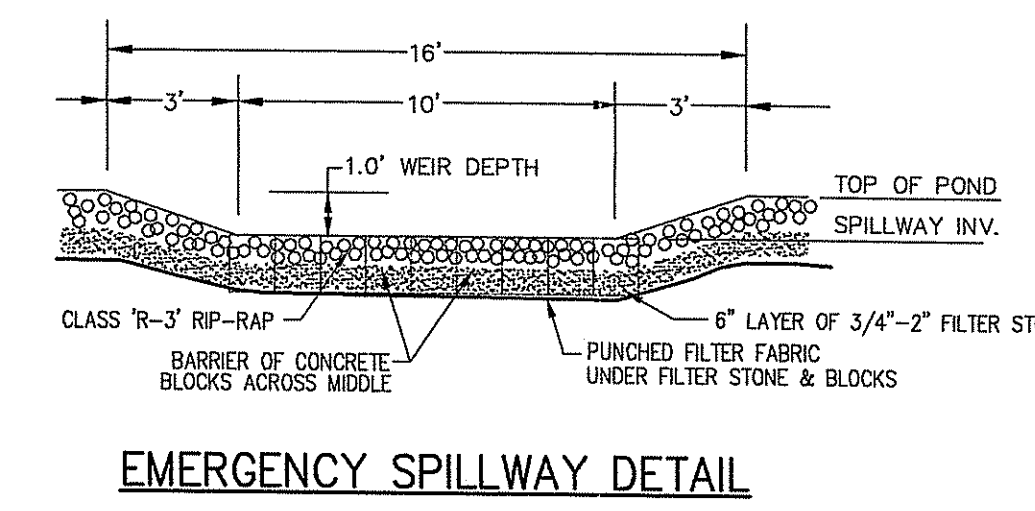
1. CONSTRUCTION TRAFFIC SHALL BE LIMITED TO ACCESS ROADS, DRAINAGE EASEMENTS AND AREAS TO BE GRADED.
2. A STONE STABILIZATION PAD IS LOCATED AT THE SITE ENTRANCE TO REDUCE THE TRACKING OR FLOWING OF SEDIMENT ONTO THE PUBLIC RIGHT OF WAY.
3. THE ENTRANCE SHALL BE MAINTAINED BY THE CONTRACTOR. THE MAINTENANCE 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 PROJECT 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 DETRIORATION.
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.

NOTES:

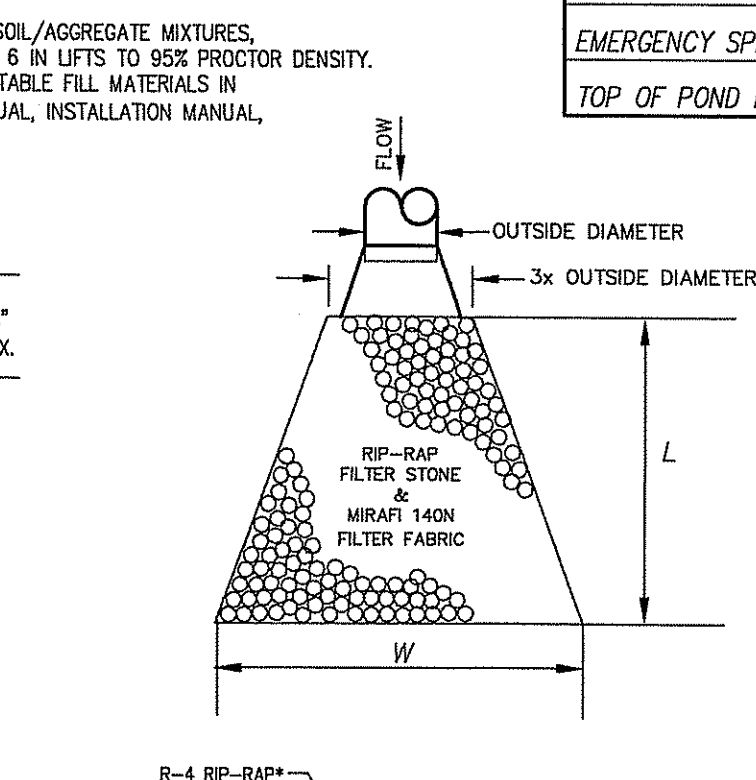
- (1) ANTI-SEEP COLLARS SHALL BE PROVIDED ON THE OUTLET PIPES FOR BOTH BASINS. THE ANTI-SEEP COLLARS AND THEIR CONNECTIONS TO THE PIPE SHALL BE WATER TIGHT.
- (2) THE FOLLOWING AREAS SHALL BE PROVIDED FOR SEDIMENT STORAGE WITHIN BASINS:
 DETENTION BASIN #1 1550 SQ. FT.
 DETENTION BASIN #2 2700 SQ. FT.
- (3) THE ENGINEER MUST BE CONTACTED IMMEDIATELY IF UNDERLYING SOIL, LEDGE, AND/OR GROUNDWATER CONDITIONS VARY FROM THESE PLANS AS STATED.



POND / BASIN	1	2	WQB
SEDIMENT FOREBAY EL.	405.50	365.00	414.50
BOTTOM OF POND ELEVATION	406.00	365.50	415.00
WATER QUALITY VOLUME EL.	406.90	366.60	415.30
2-YEAR STORM EL.	409.67	368.66	416.25
10-YEAR STORM EL.	410.73	370.87	416.35
25-YEAR STORM EL.	411.25	371.72	416.41
100-YEAR STORM EL.	411.71	371.99	416.50
EMERGENCY SPILLWAY	411.25	371.35	416.30
TOP OF POND ELEVATION	412.00	372.00	417.00

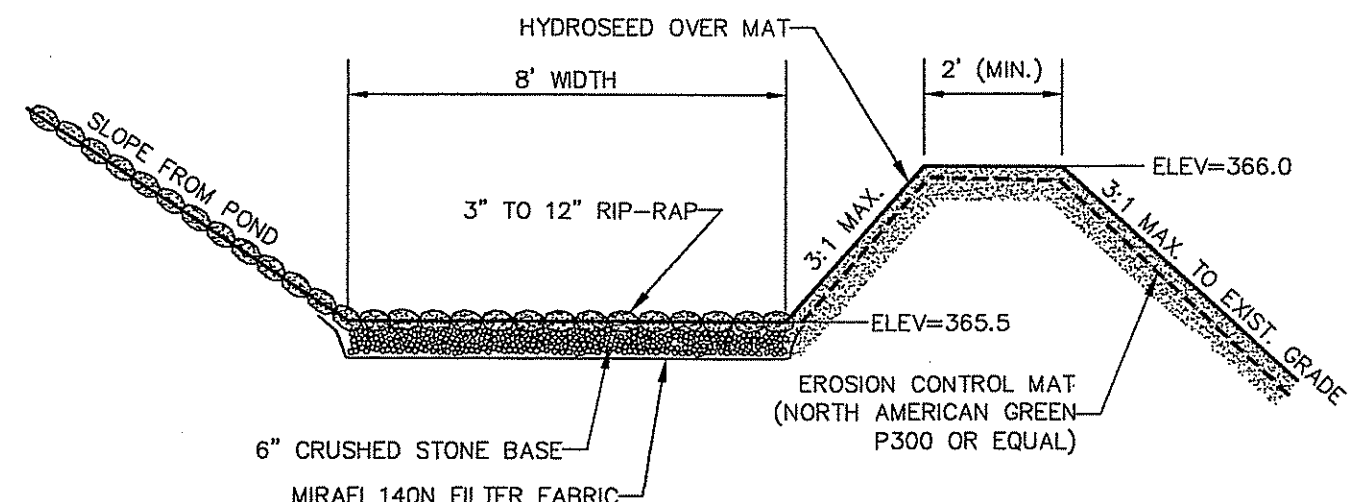


STORMTECH SC-740 CHAMBER FOR DRYWELL APPLICATION

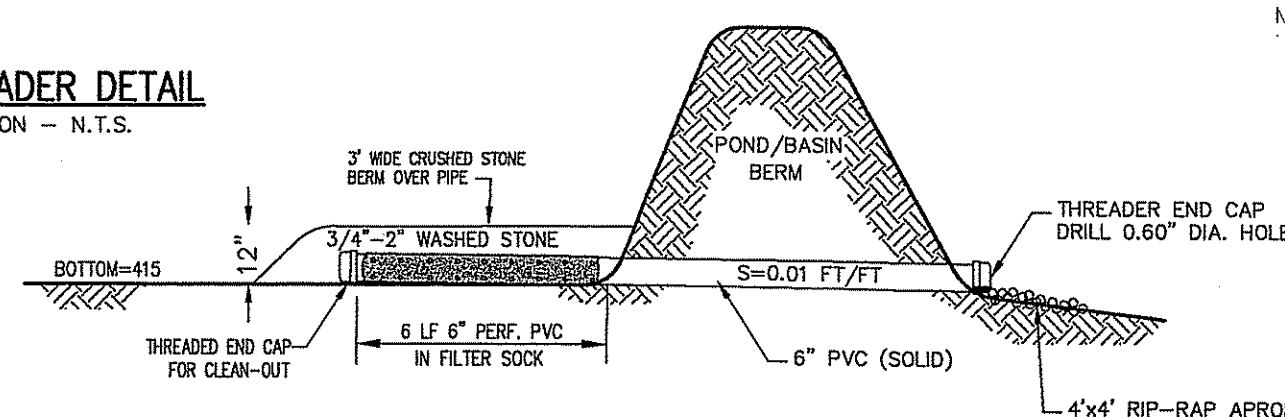


	L	W
Inlet Pond 1	21'	26'
Outlet Pond 1	13'	16'
Inlet Pond 2	19'	24'
Outlet Pond 2	13'	16'

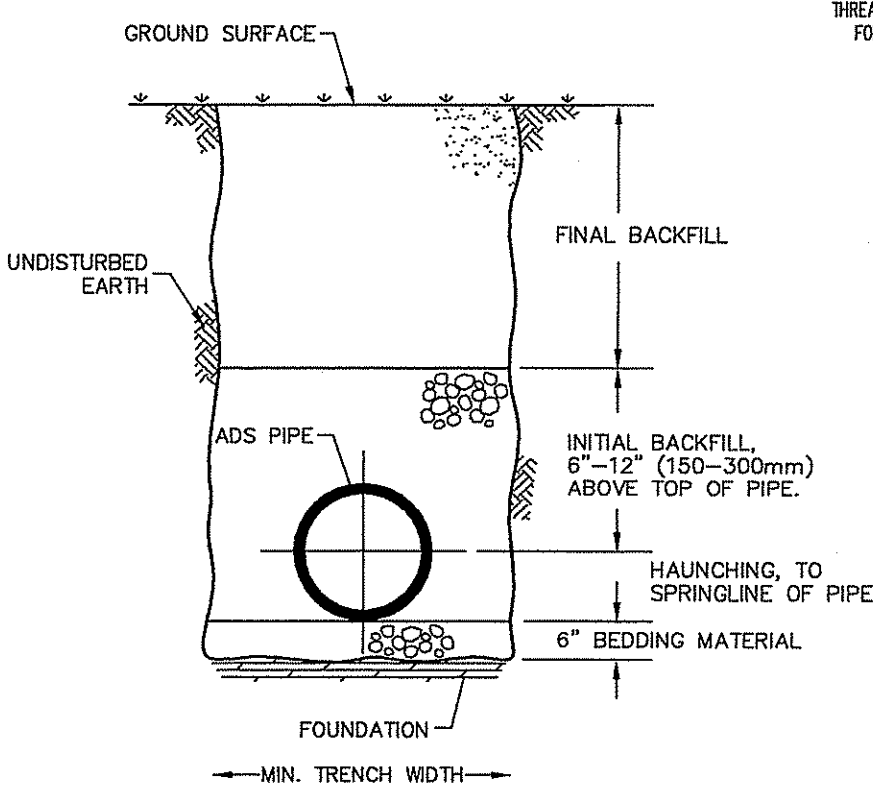
RIP-RAP APRON DETAIL



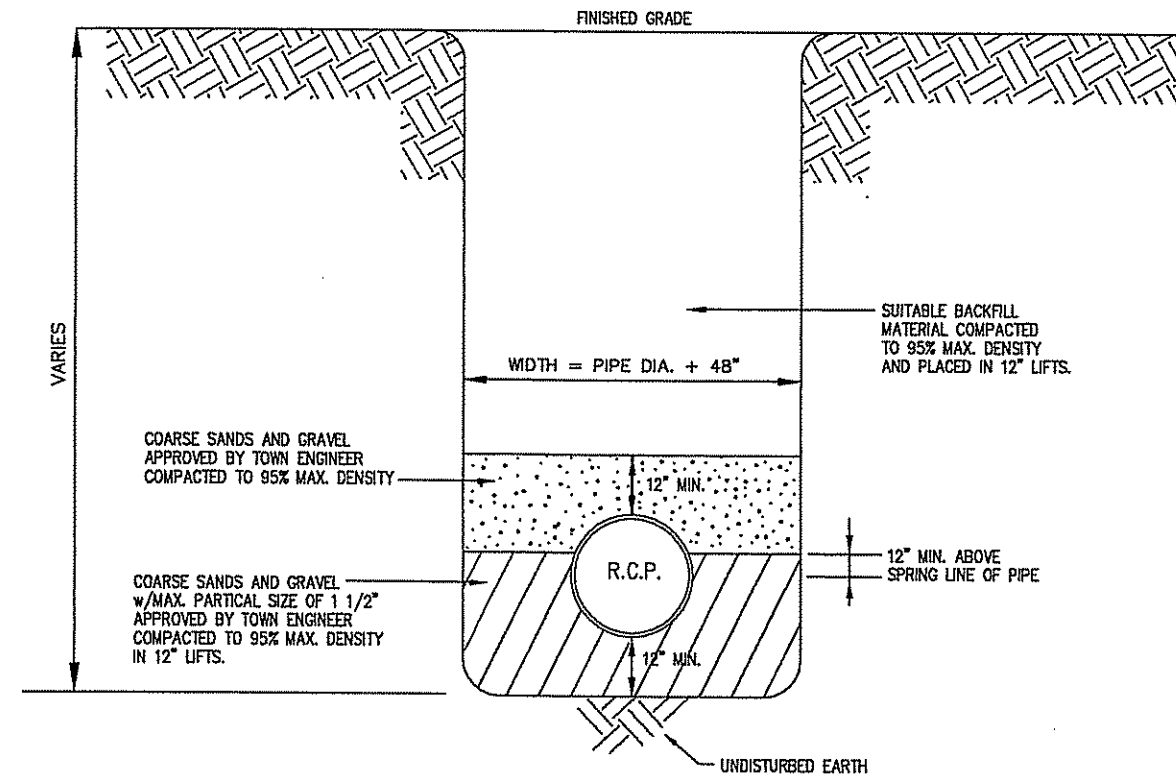
LEVEL SPREADER DETAIL



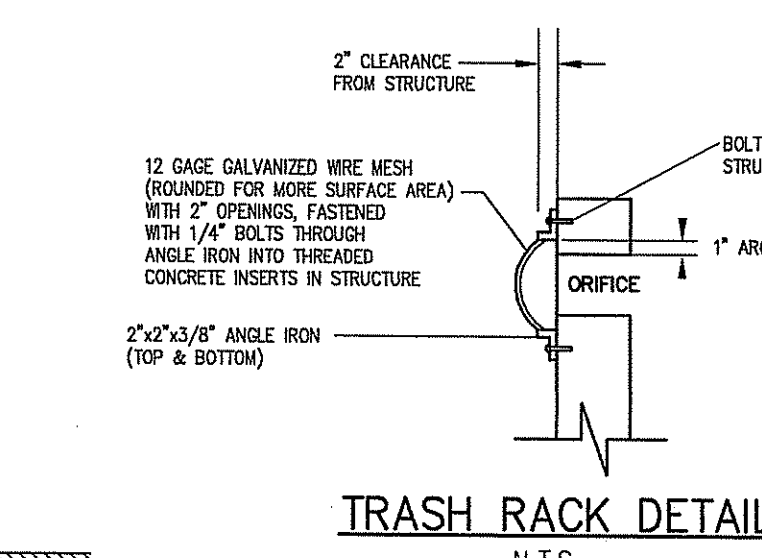
WATER QUALITY PIPE DETAIL



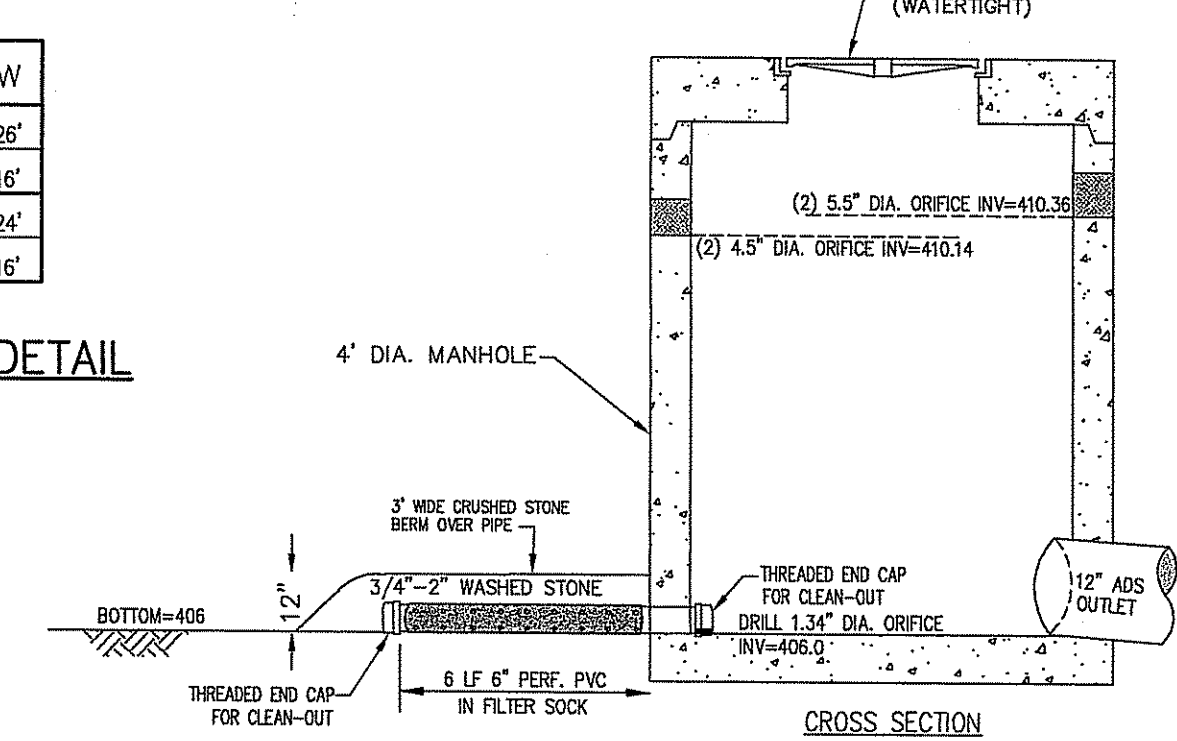
ADS DRAIN PIPE TRENCH INSTALLATION



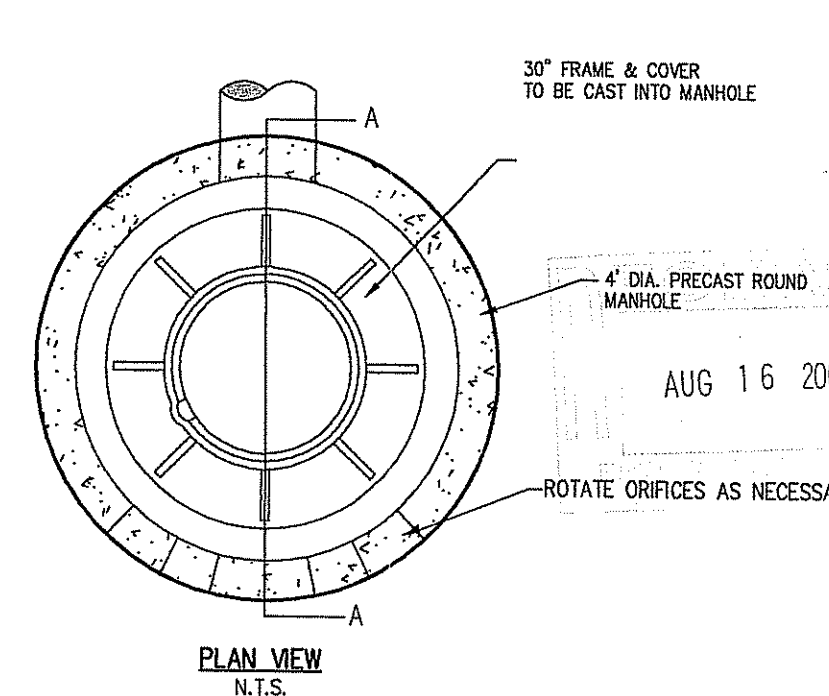
TYPICAL TRENCH DETAIL FOR INSTALLATION OF REINFORCED CONCRETE PIPE (R.C.P.)



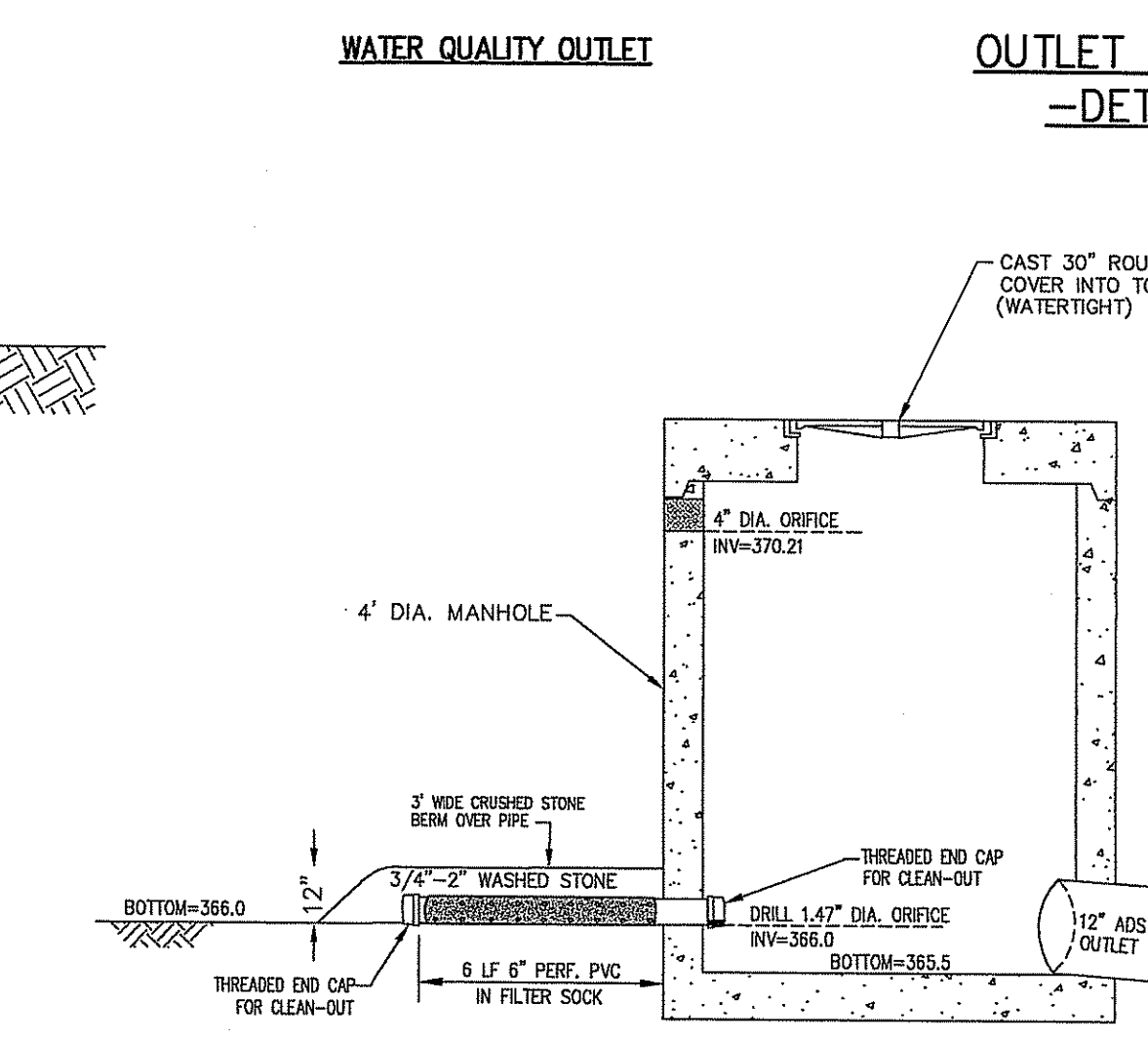
TRASH RACK DETAIL



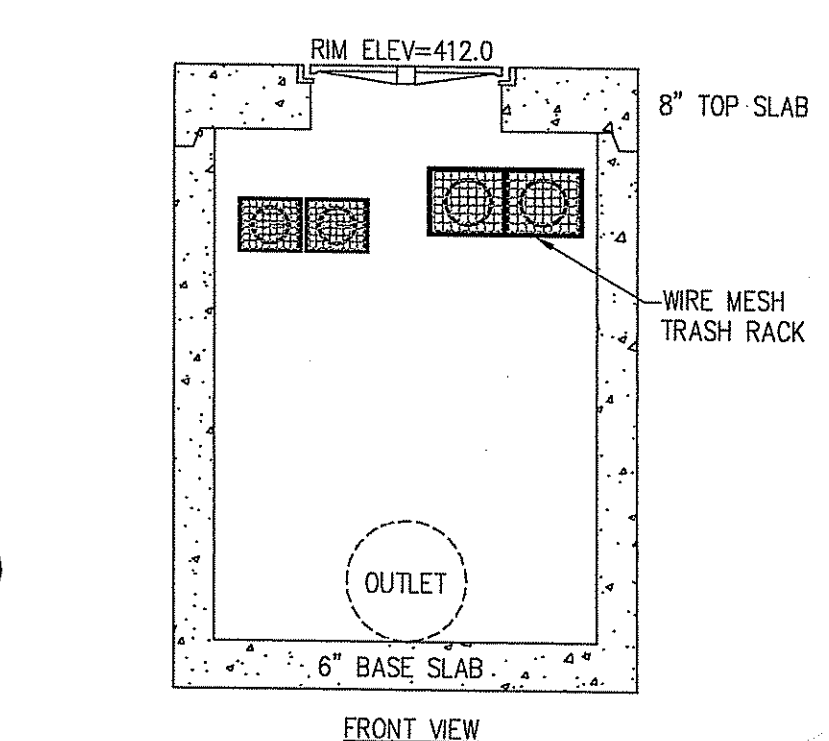
WATER QUALITY OUTLET



OUTLET CONTROL STRUCTURE #1 - DETENTION BASIN #1



WATER QUALITY OUTLET



OUTLET CONTROL STRUCTURE #2 - DETENTION BASIN #2

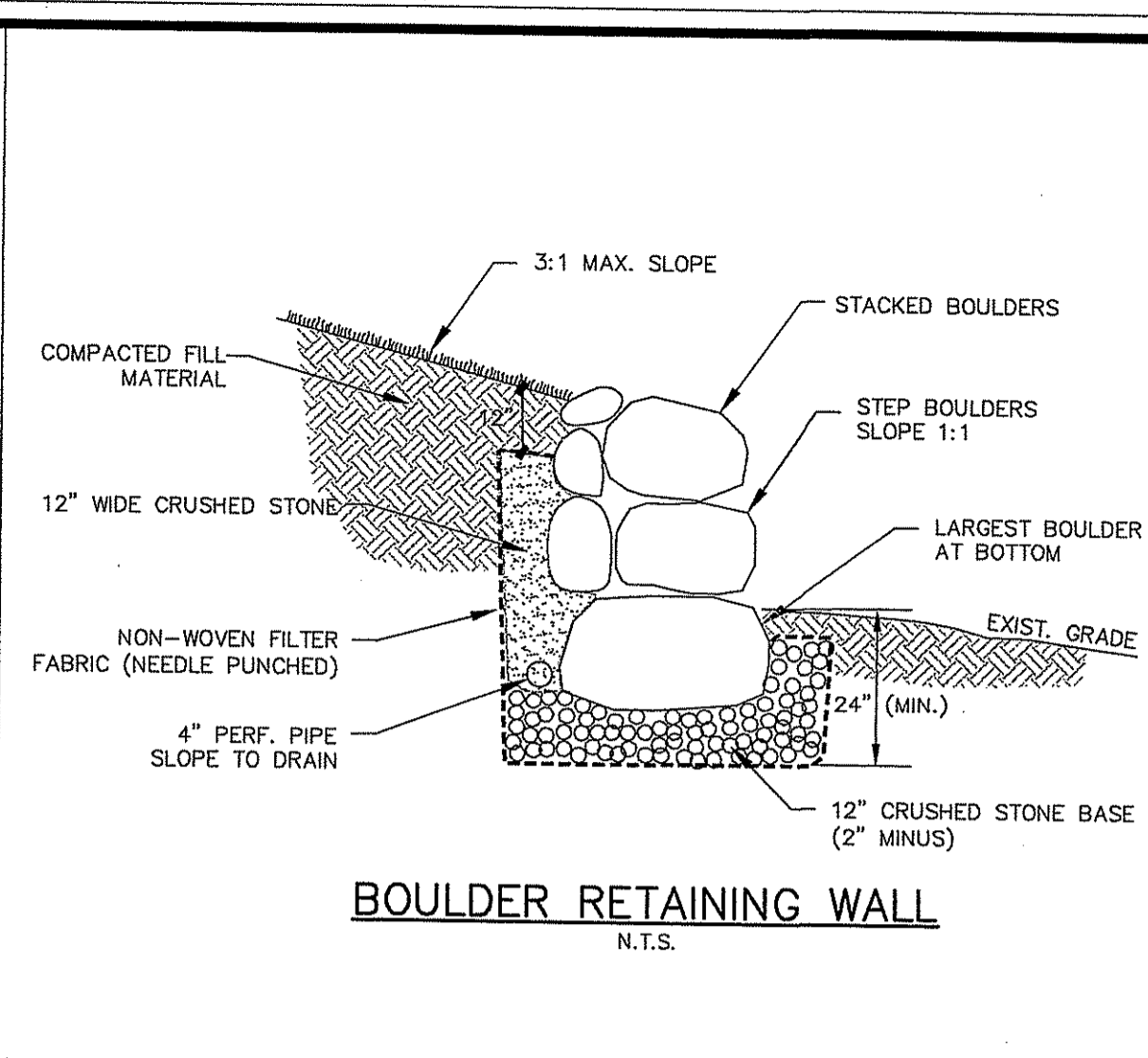
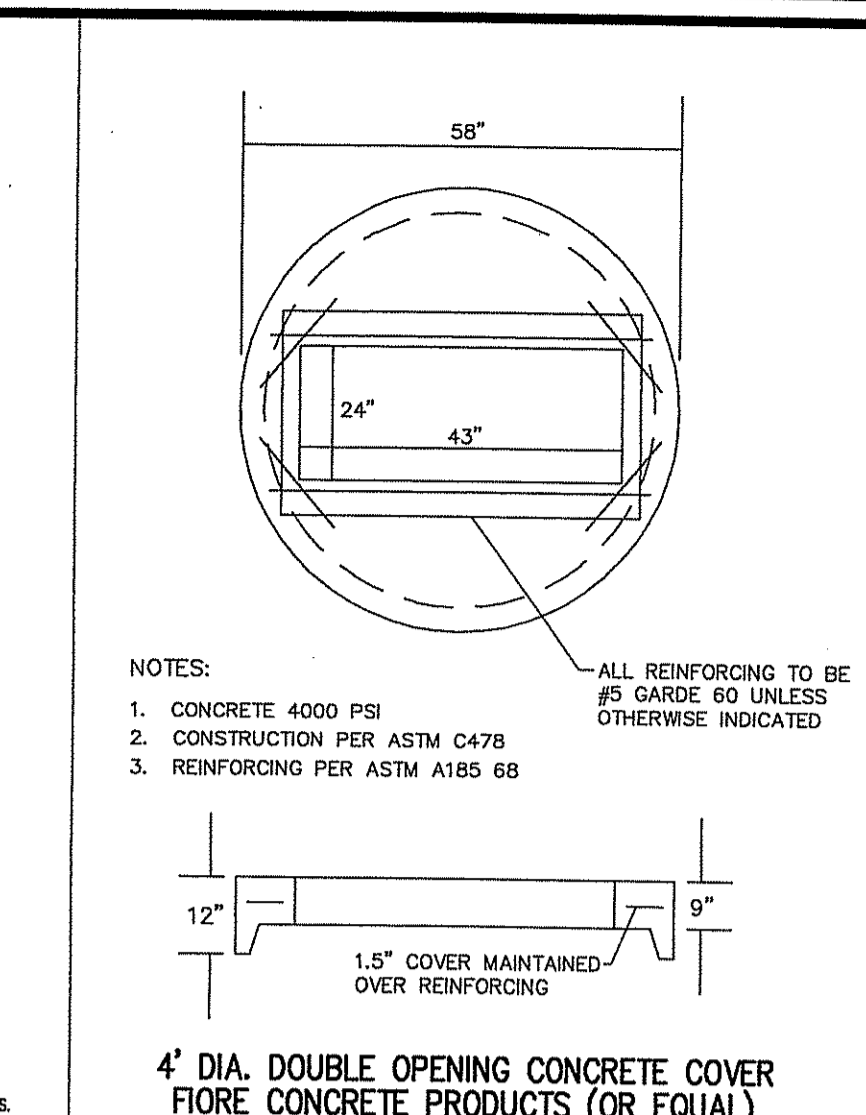
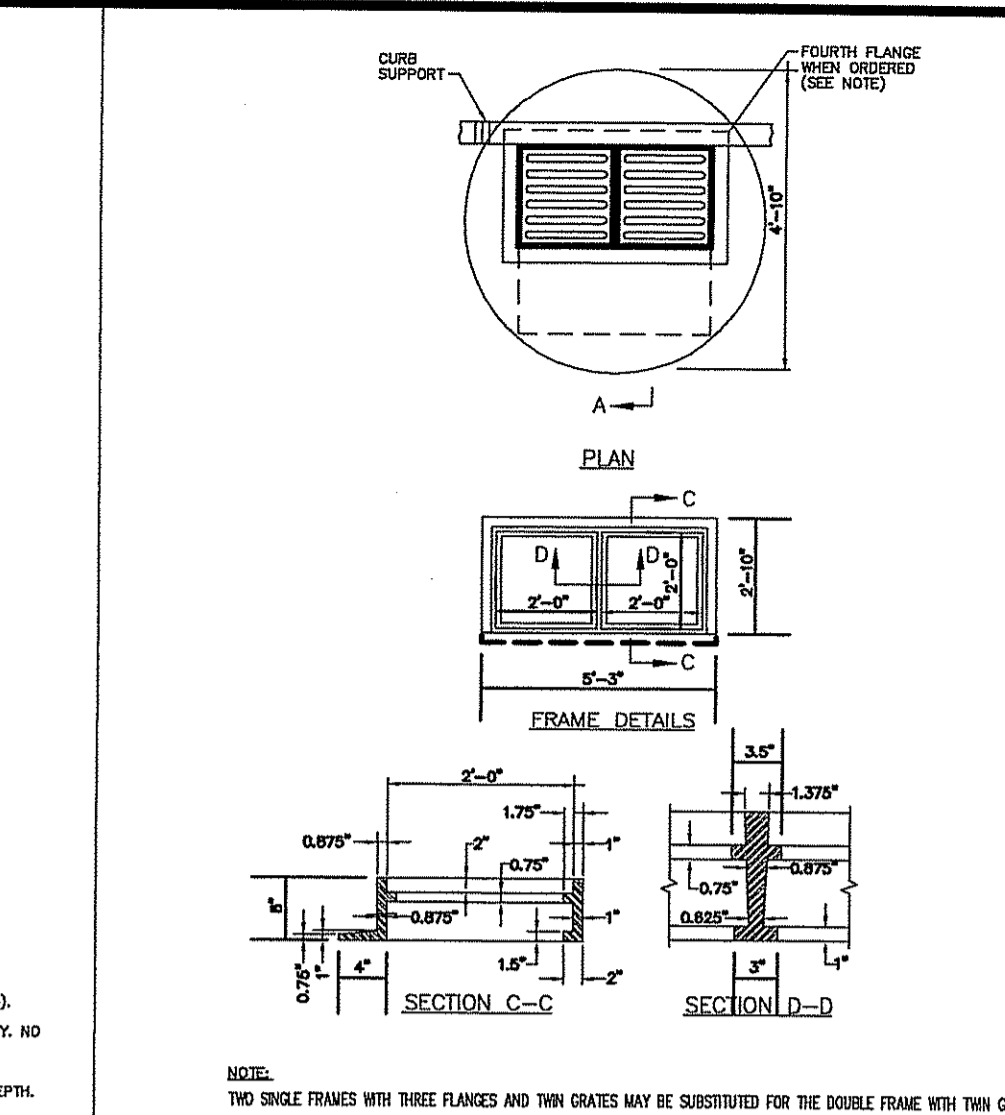
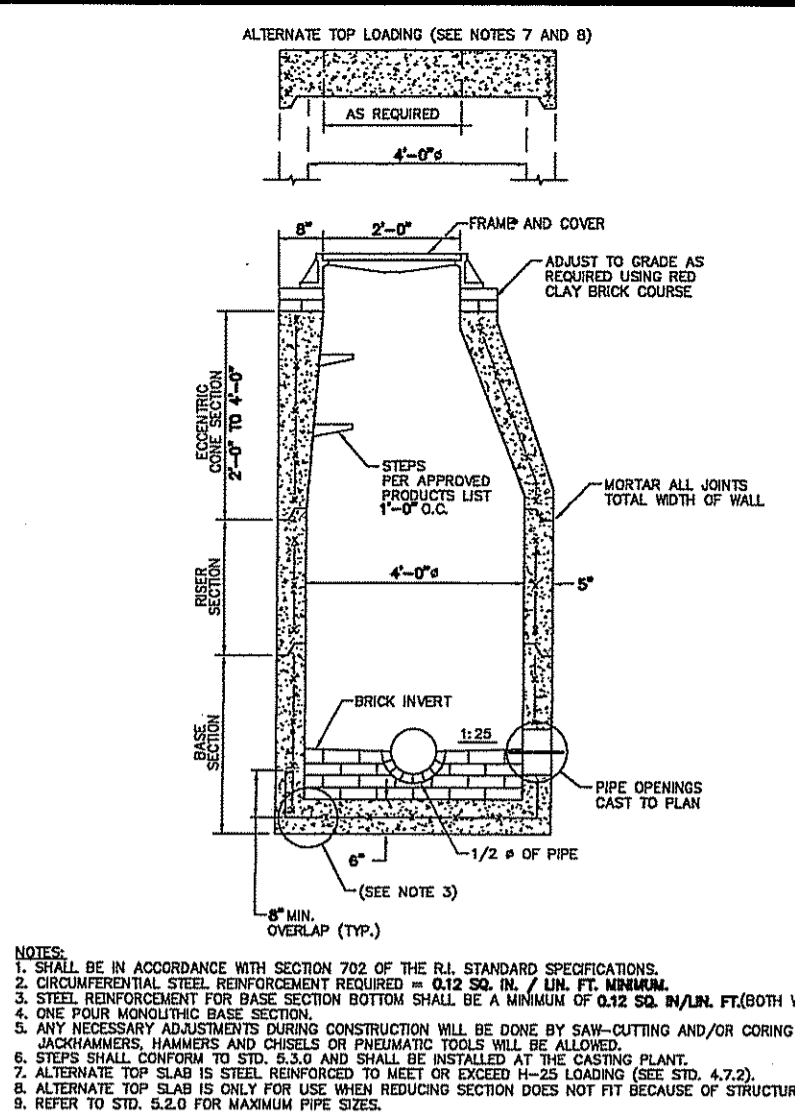
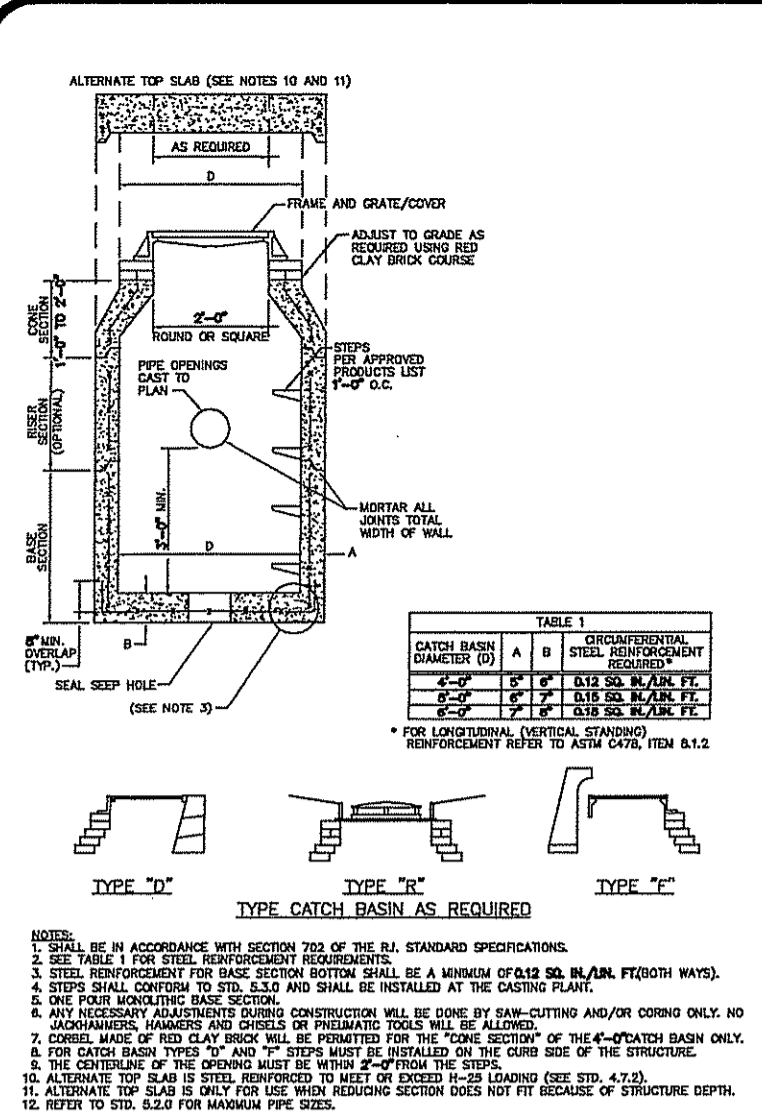
BY: REB
 REVISION: 1
 DATE: Aug-07
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 Address: RIDEM Wetlands Comments dated 7/30/07

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 19 Hines Farm Drive Cumberland, RI 02864
 scale: As Noted
 date: May 07

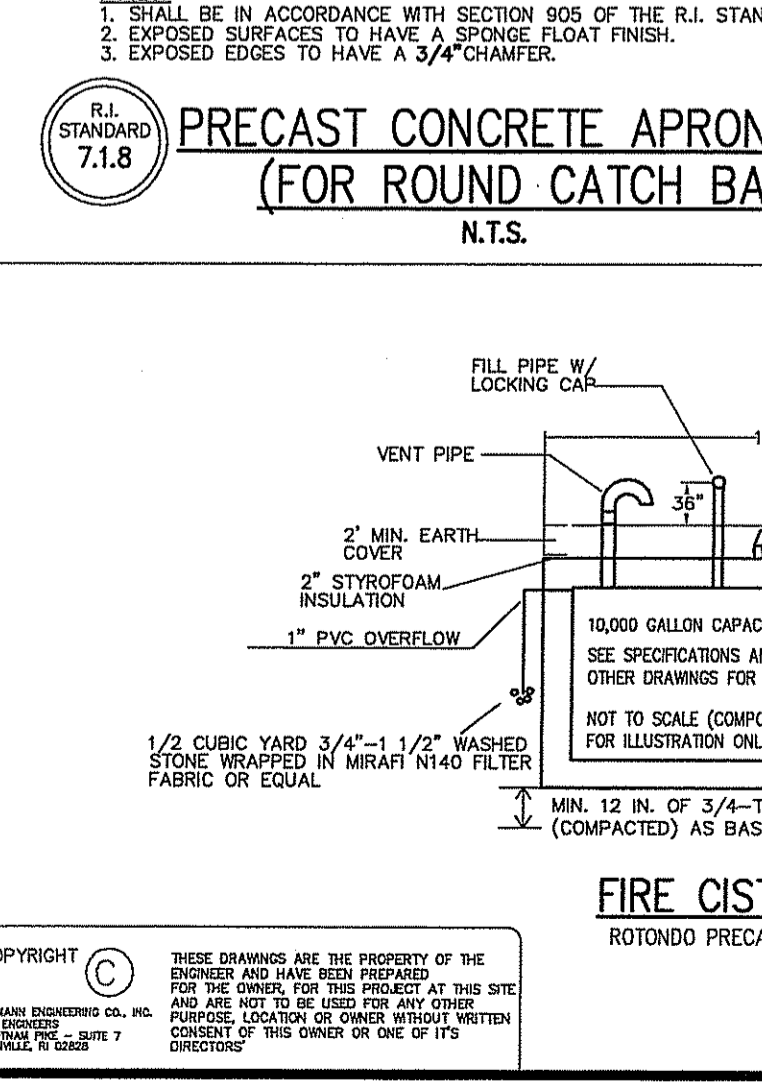
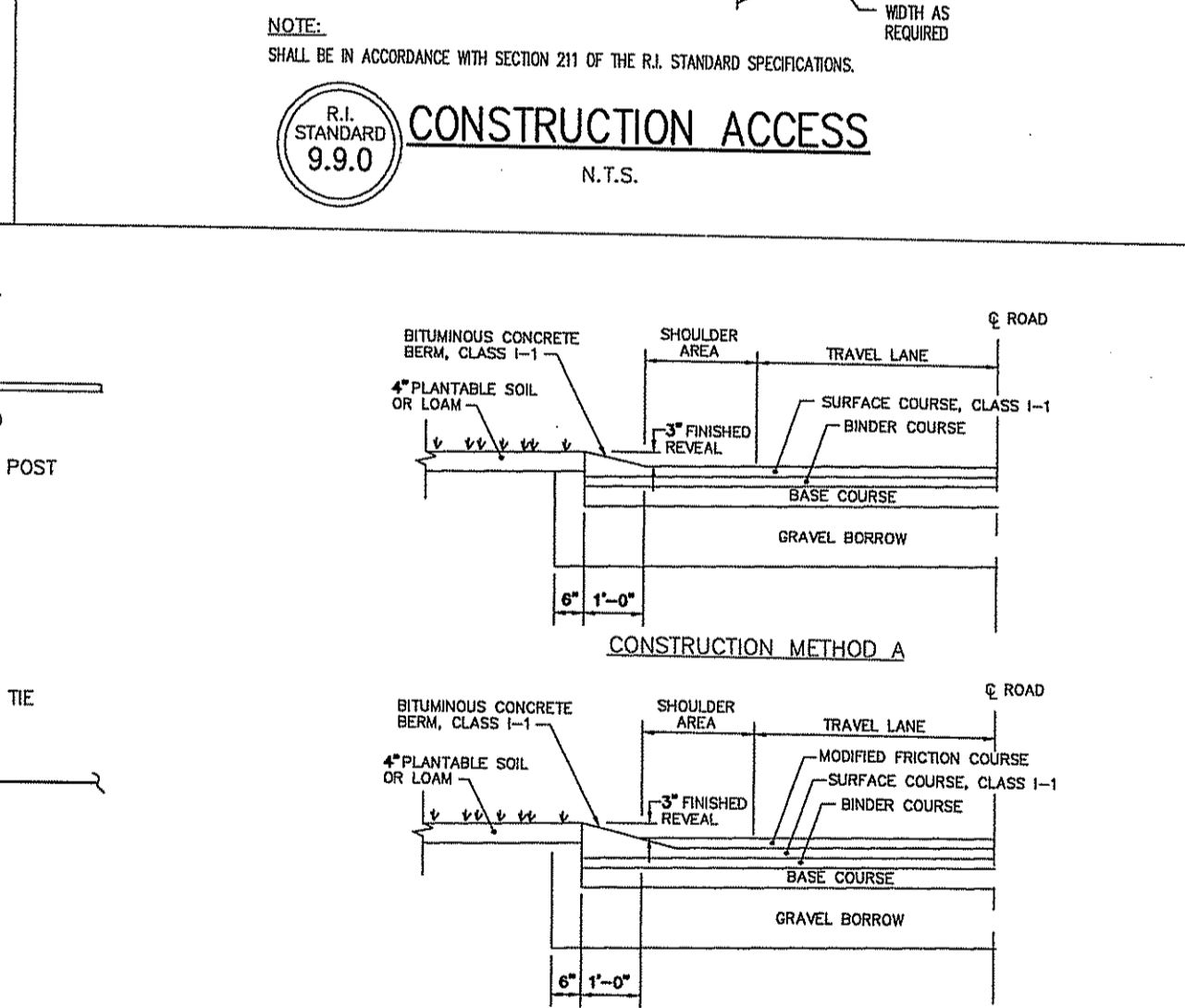
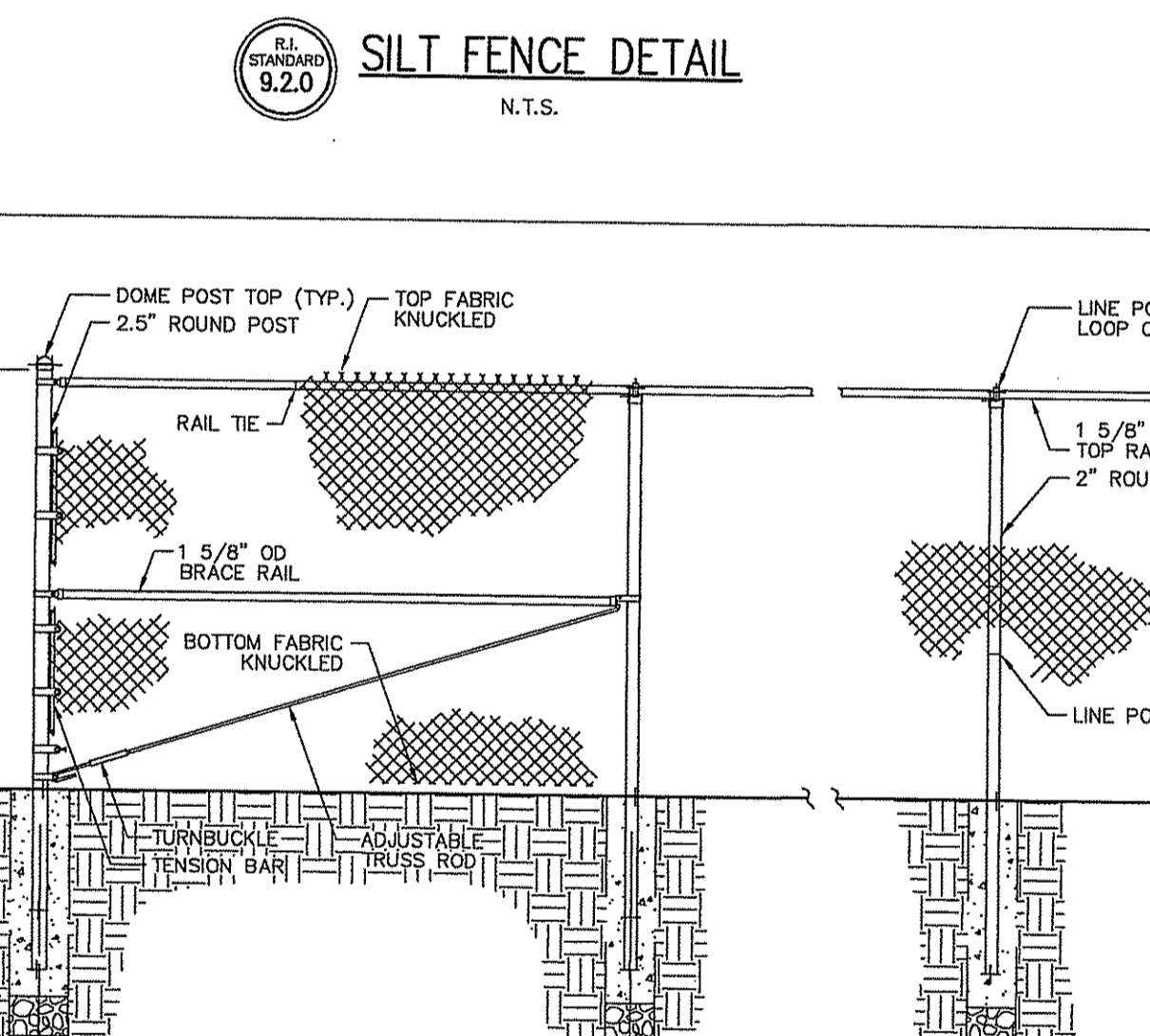
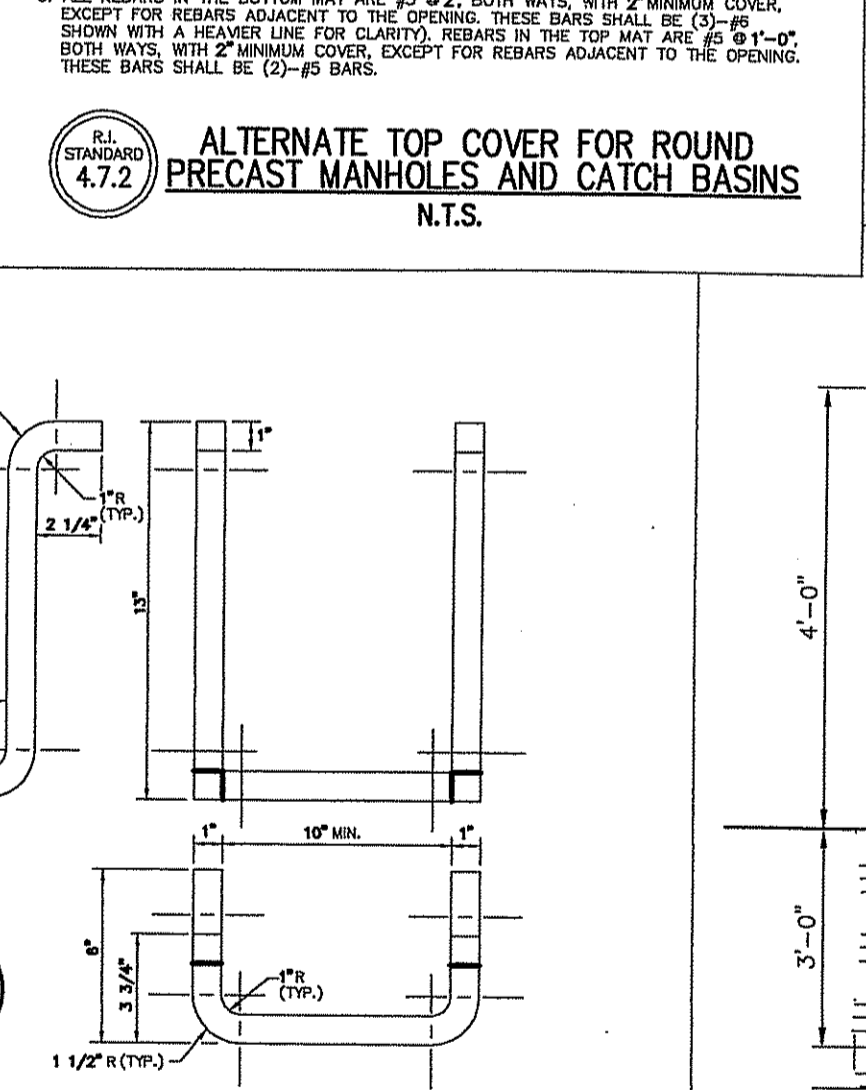
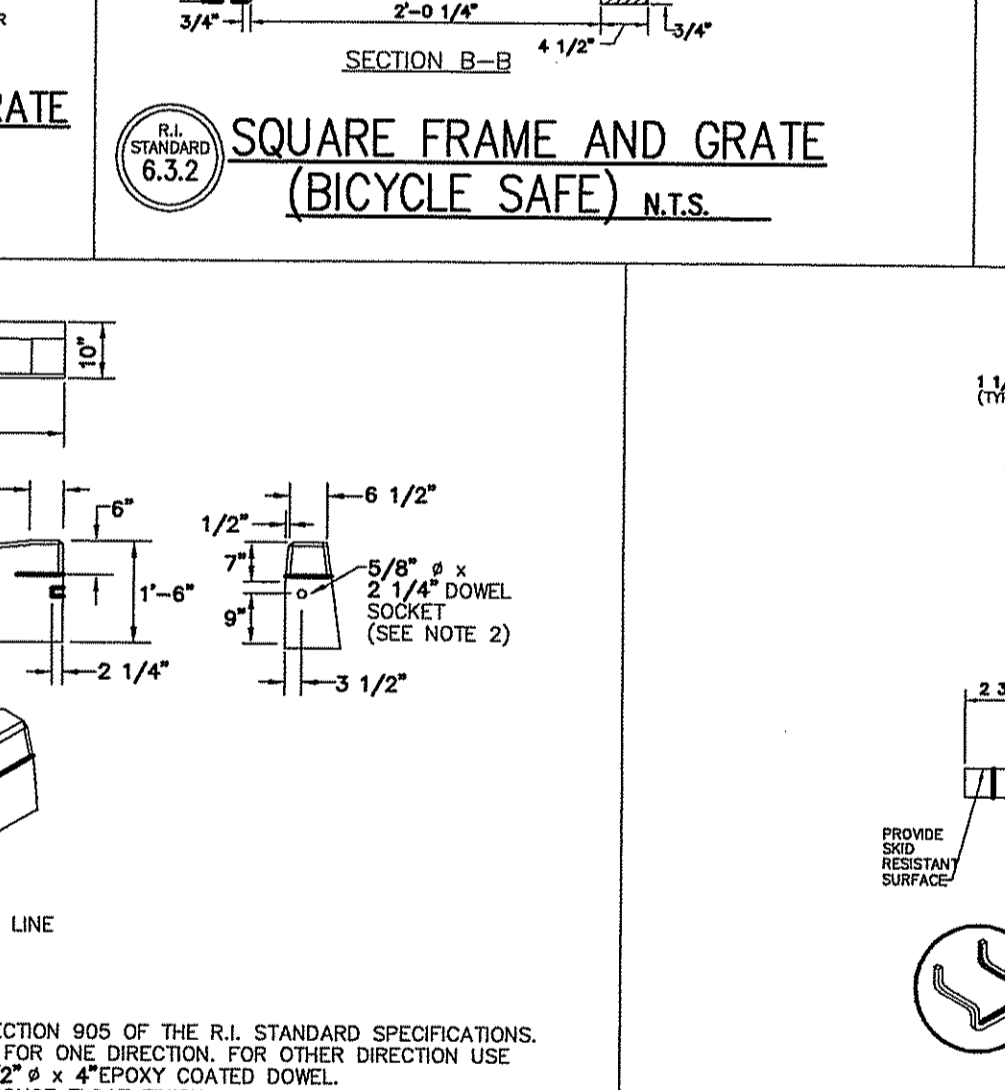
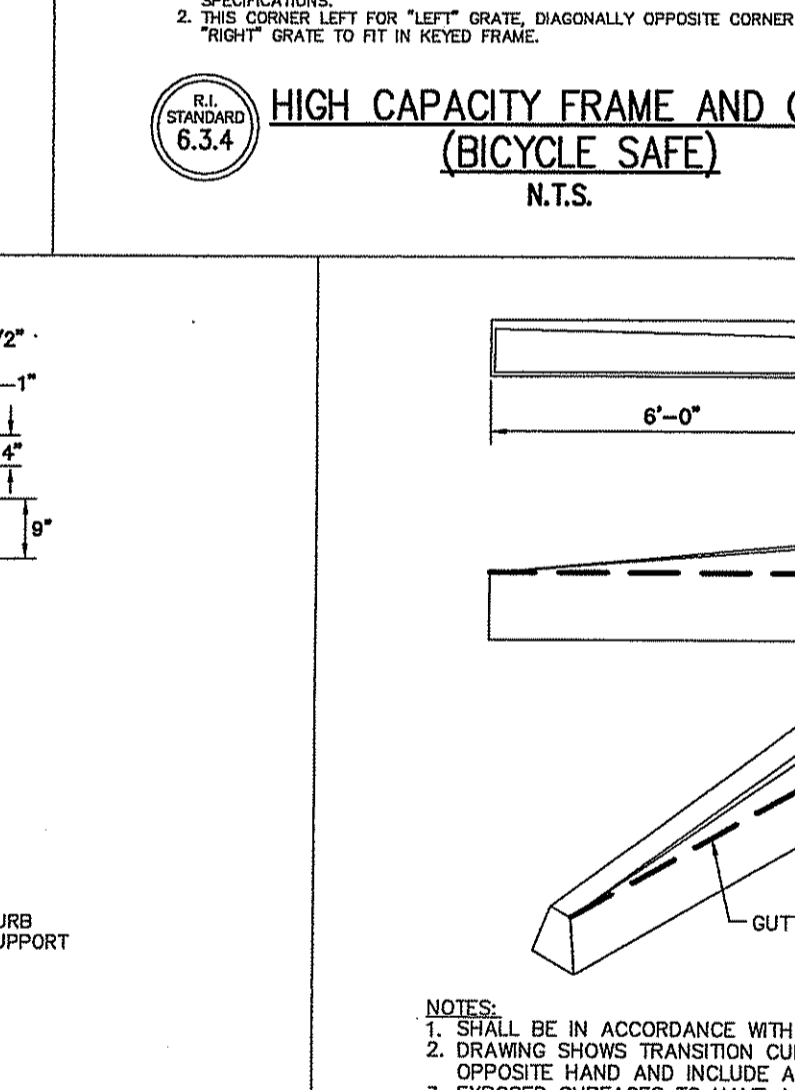
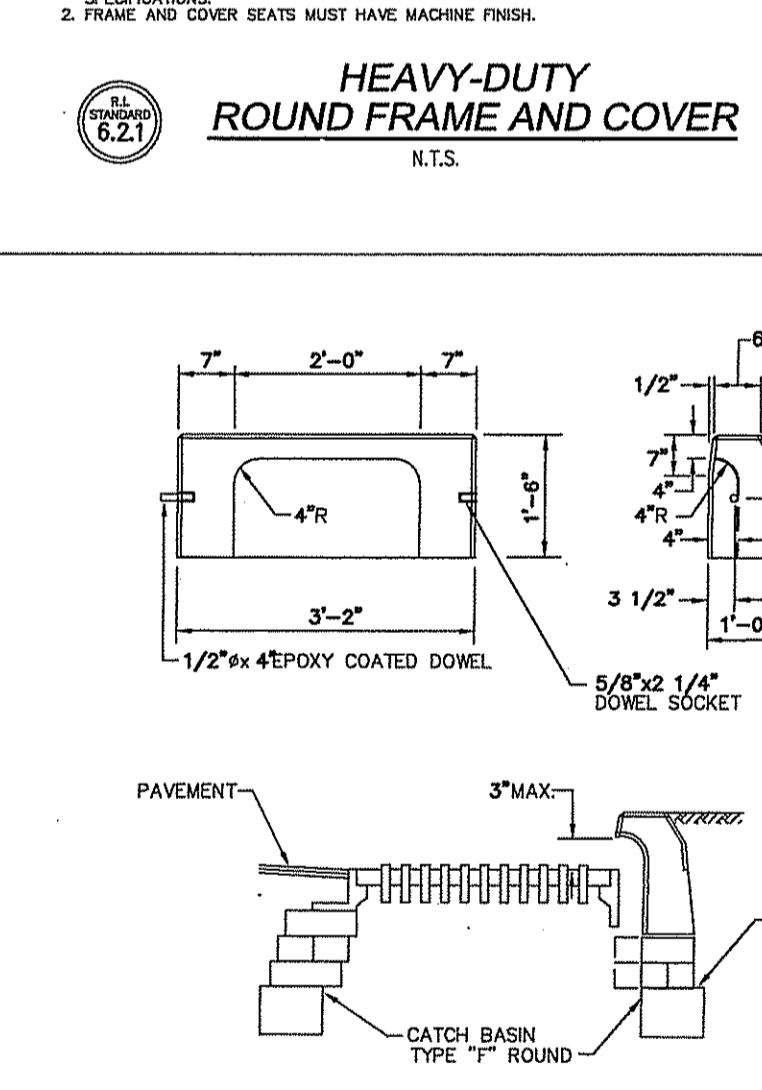
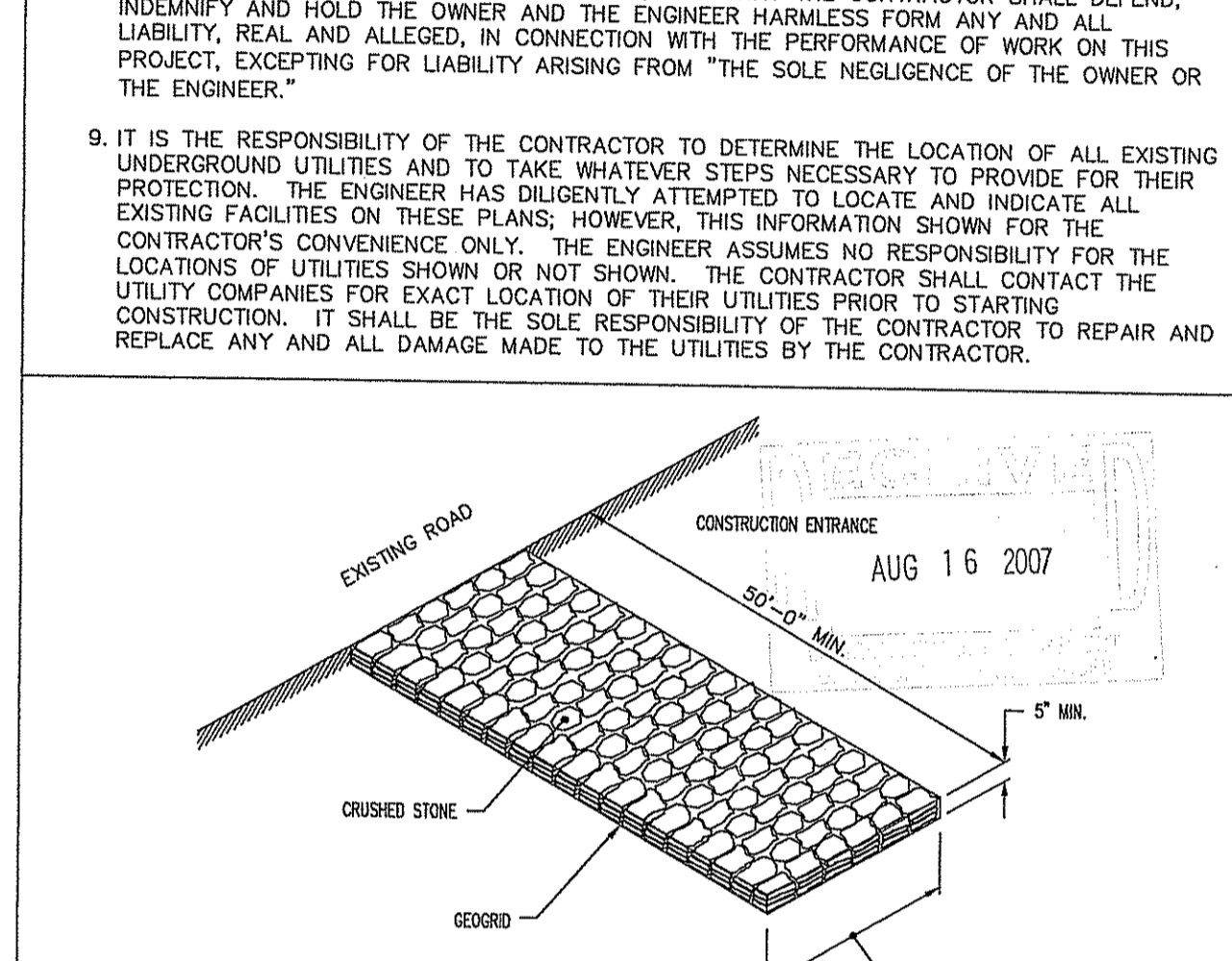
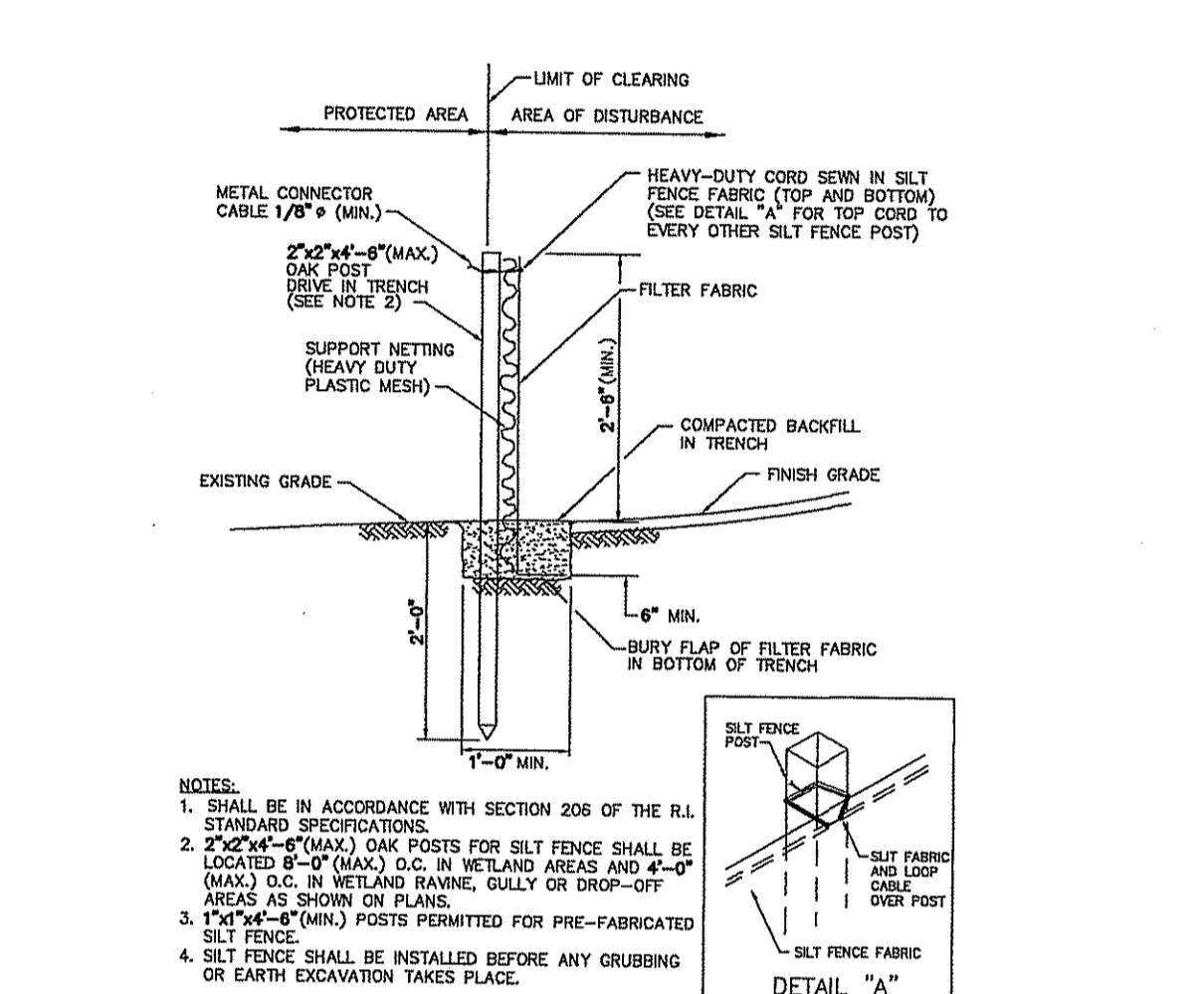
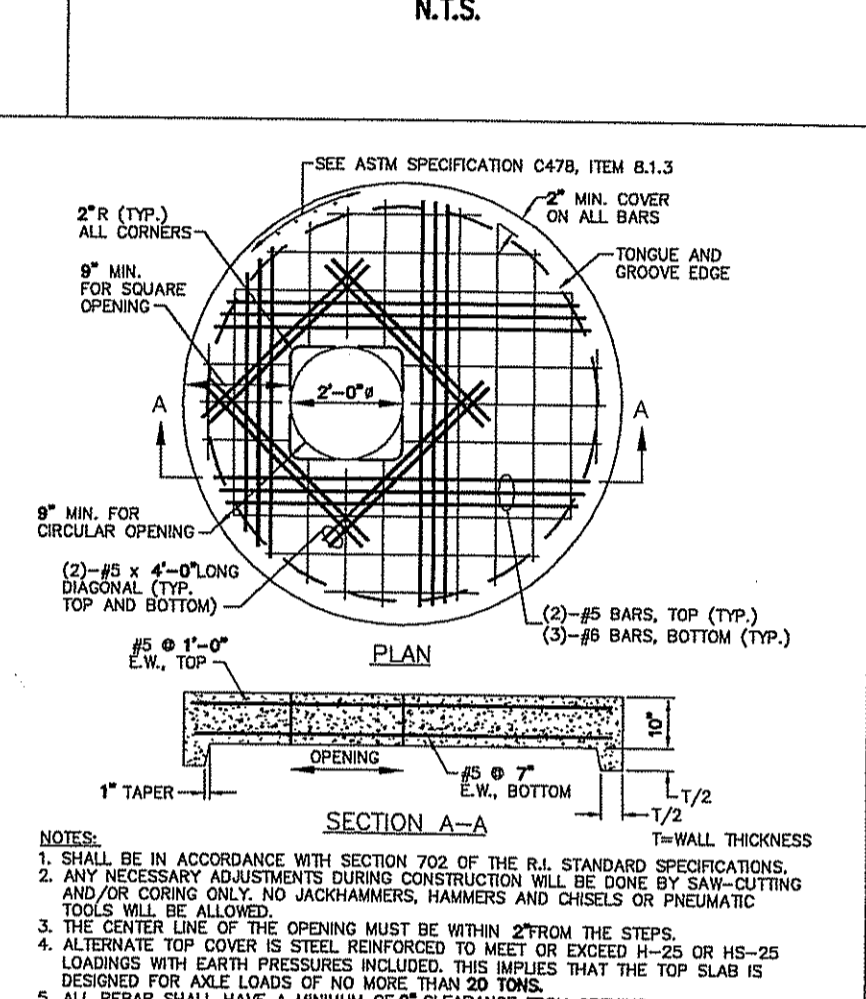
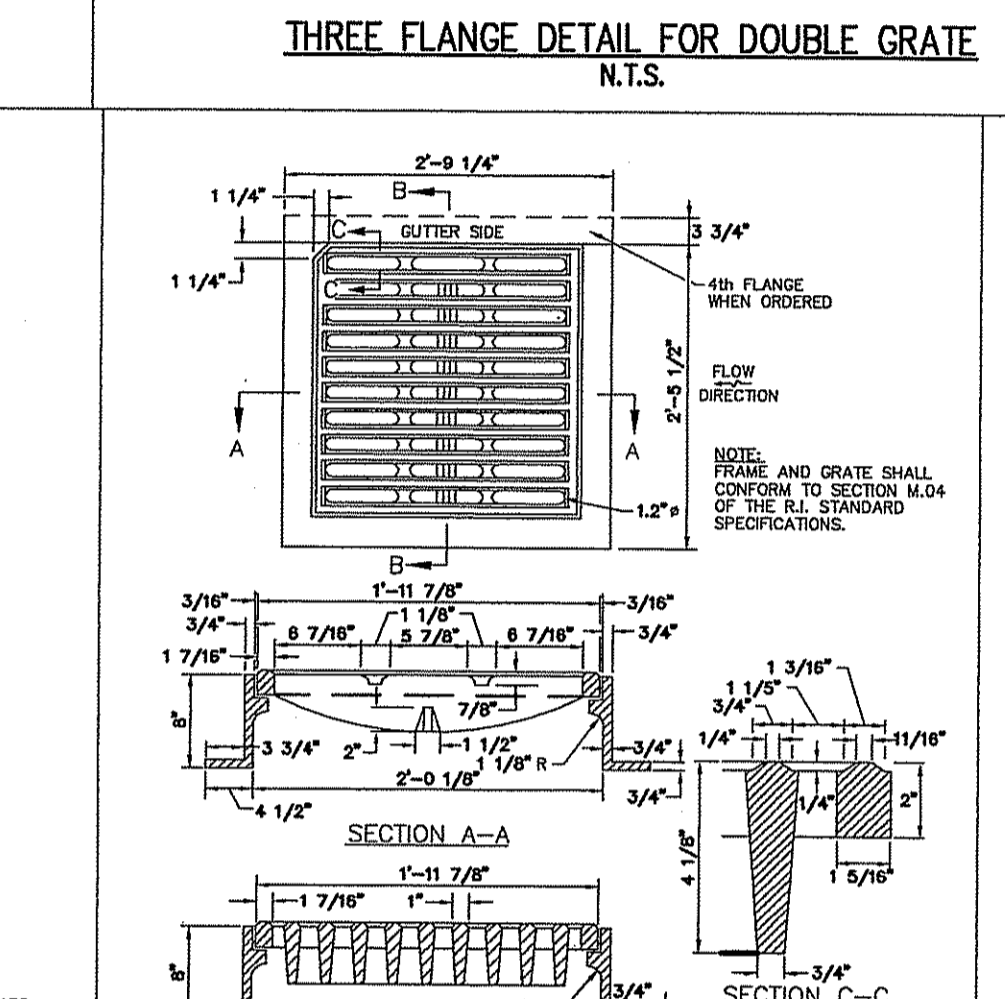
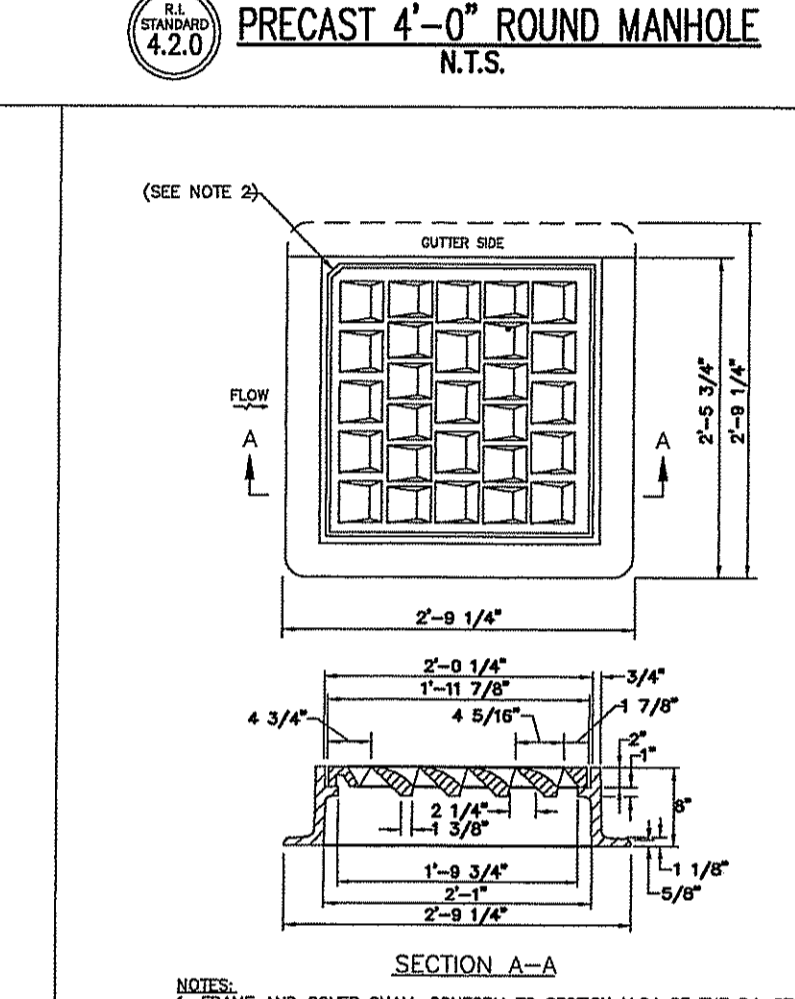
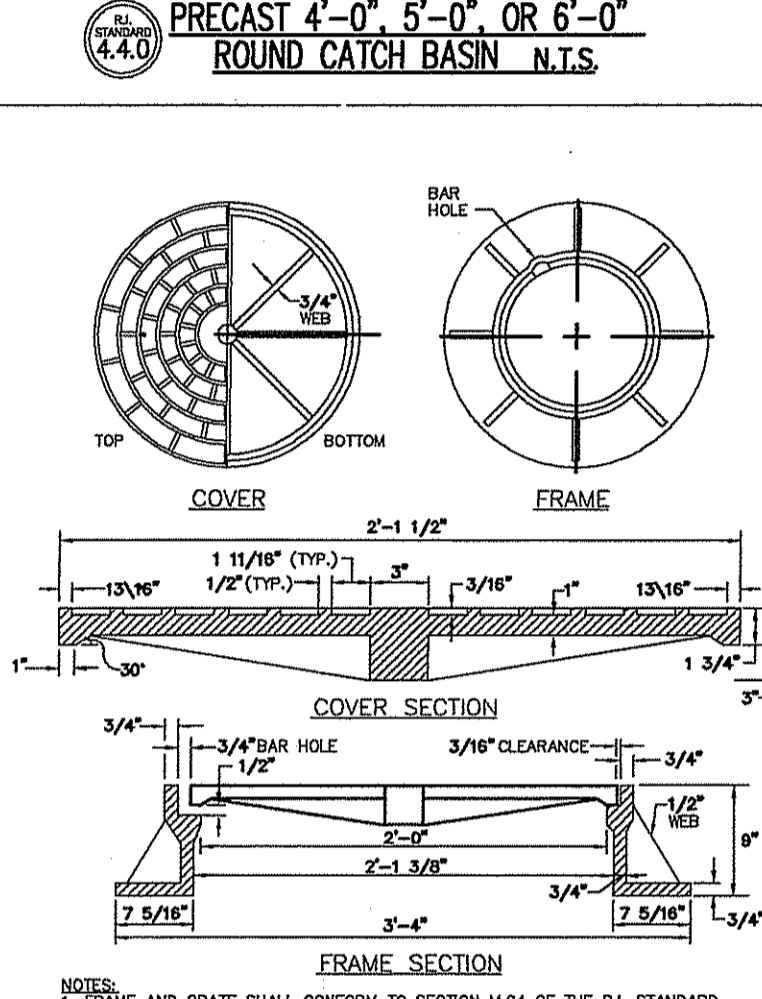
Drawn By: REB
 Checked By: BPT
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 FILE NO.: 05.006

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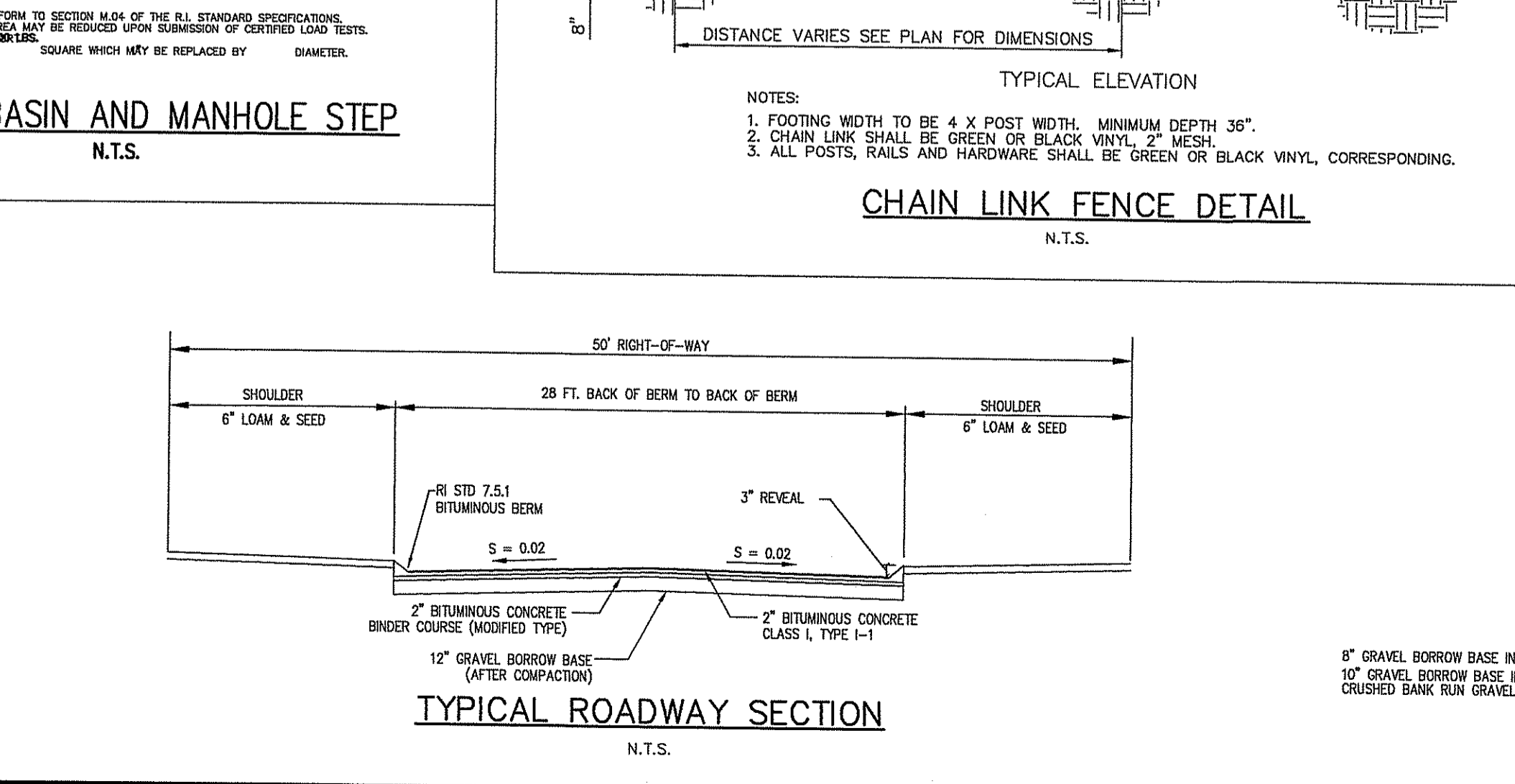
General Construction Notes

- 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.
- 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, OMISSIONS OR DISCREPANCIES BEFORE COMMENCING OR PROCEEDING WITH WORK.
- 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-THRU, DUMPSTERS, ETC. AS ALLOWED WITHIN THE BYLAWS OF THE TOWN OF RICHMOND AND AS MAY BE WARRANTED TO MEET TENANT REQUIREMENTS.
- 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 RICHMOND AND THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION.
- THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE ALL EXISTING UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO 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.
- CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION OR BLASTING AT LEAST TEN 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.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING, WITH MATCHING MATERIALS, ANY PAVEMENT, DRIVEWAYS, WALKS, WALLS, CURBS, ETC. THAT MUST BE CUT OUT THAT ARE DAMAGED DURING CONSTRUCTION.
- 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 FROM 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.
- 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 ATTEMPTED TO LOCATE AND INDICATE ALL EXISTING UTILITIES 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.



CISTERN NOTES

- 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 (LAST EDITION)
- MAINTENANCE OF THE CISTERNS AND DRY HYDRANTS SHALL BE THE RESPONSIBILITY OF THE TOWN OF RICHMOND.
- THE CISTERN CAPACITY SHOULD BE 10,000 GALLONS MINIMUM, AVAILABLE THROUGH THE SUCTION PIPING SYSTEM.
- THE SUCTION PIPING SYSTEM SHOULD BE CAPABLE OF DELIVERING 750 gpm FOR THREE QUARTERS OF THE CISTERN CAPACITY.
- THE ENTIRE CISTERN SHOULD BE HS-20 RATED UNLESS SPECIFICALLY EXEMPTED BY THE AUTHORITY HAVING JURISDICTION.
- AS A CONDITION OF FINAL APPROVAL NO CERTIFICATE OF OCCUPANCY WILL BE ISSUED UNTIL THE FIRE SUPPRESSION CISTERN IS CONSTRUCTED AND FUNCTIONAL.



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED SEP 29 2007 FILE # 07-0253
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

DATE: MAY 07

Drawn By: REB
Checked By: BPT
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FILE NO.: 05.006

NO.	DATE	REVISION
1	Aug-07	Address RDEM Wetlands Comments dated 7/30/07

BRIAN P. THALMANN
REGISTERED PROFESSIONAL ENGINEER
GREENVILLE, RHODE ISLAND 02938
(401) 349-3040

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

Construction Details Lot 14
Old Mountain Estates
Rhode Island
Old Mountain Trail
Prepared for:
F & S Enterprises, Inc.
19 Hines Farm Drive Cumberland, RI 02864
scale: As Noted

Drawn By: REB
Checked By: BPT
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FILE NO.: 05.006