

	BY	DESCRIPTION	REVISION NO.	DRAWING NO.	DATE
APPROVED BY THE MONTVILLE P BY:					
CHAIRMAN, VICE CHAIRMAN,					
DATE:					
PER C.G.S. SECTION 8-26C, AS MAY SUBDIVISION SHALL BE COMPLETED W					
SOBDIVISION SHALE DE COMI LETED IN					
APPROVAL OF THS SUBDIVISION PLAN					
EROSION AND SEDIMENT CONTROL PL					

BLACK ASH ESTATES RESUBDIVISION

LAND NOW OR FORMERLY PACHAUG CAPITAL, LLC. BLACK ASH ROAD & OLD COLCHESTER ROAD MONTVILLE, CONNECTICUT

DRAWING INDEX: TITLE

COVER SHEET PROPERTY SURVEY RECORD SUBDIVISION MAP OVERALL PLAN SITE DEVELOPMENT PLAN SITE DEVELOPMENT PLAN **EROSION & SEDIMENTION CC** SOILS, & SEPTIC DESIGN CAL NOTES & DETAILS NOTES & DETAILS

APPLICANT:

HARRY B. HELLER, ESQ. HELLER, HELLER & MCCOY 736 NORWICH-NEW LONDON TURNPIKE UNCASVILLE, CT 06382

APPLICANT:

PACHAUG CAPITAL, LLC. MR. ZACHARY WOOD, MEMBER P.O. BOX 525 JEWETT CITY, CT 06351

PROPERTY OWNER:

PACHAUG CAPITAL, LLC. MR. ZACHARY WOOD, MEMBER P.O. BOX 525 JEWETT CITY, CT 06351

> BENNETT & SMILAS ASSOCIATES, INC. 415 KILLINGWORTH ROAD, P.O. BOX 241 HIGGANUM, CONNECTICUT 06441 (860) 345-4553 FAX (860) 345-3858

ANNING & ZONING COMMISSION ON _

SECRETARY

BE AMENDED, ALL WORK IN CONJUNCTION WITH THE APPROVED HTIN FIVE (5) YEARS ON OR BEFORE.

BY THE COMMISSION SHALL MEAN CERTIFICATION OF THE

	DWG. NO.
	1
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ONTROL PLAN	7
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LEGEND

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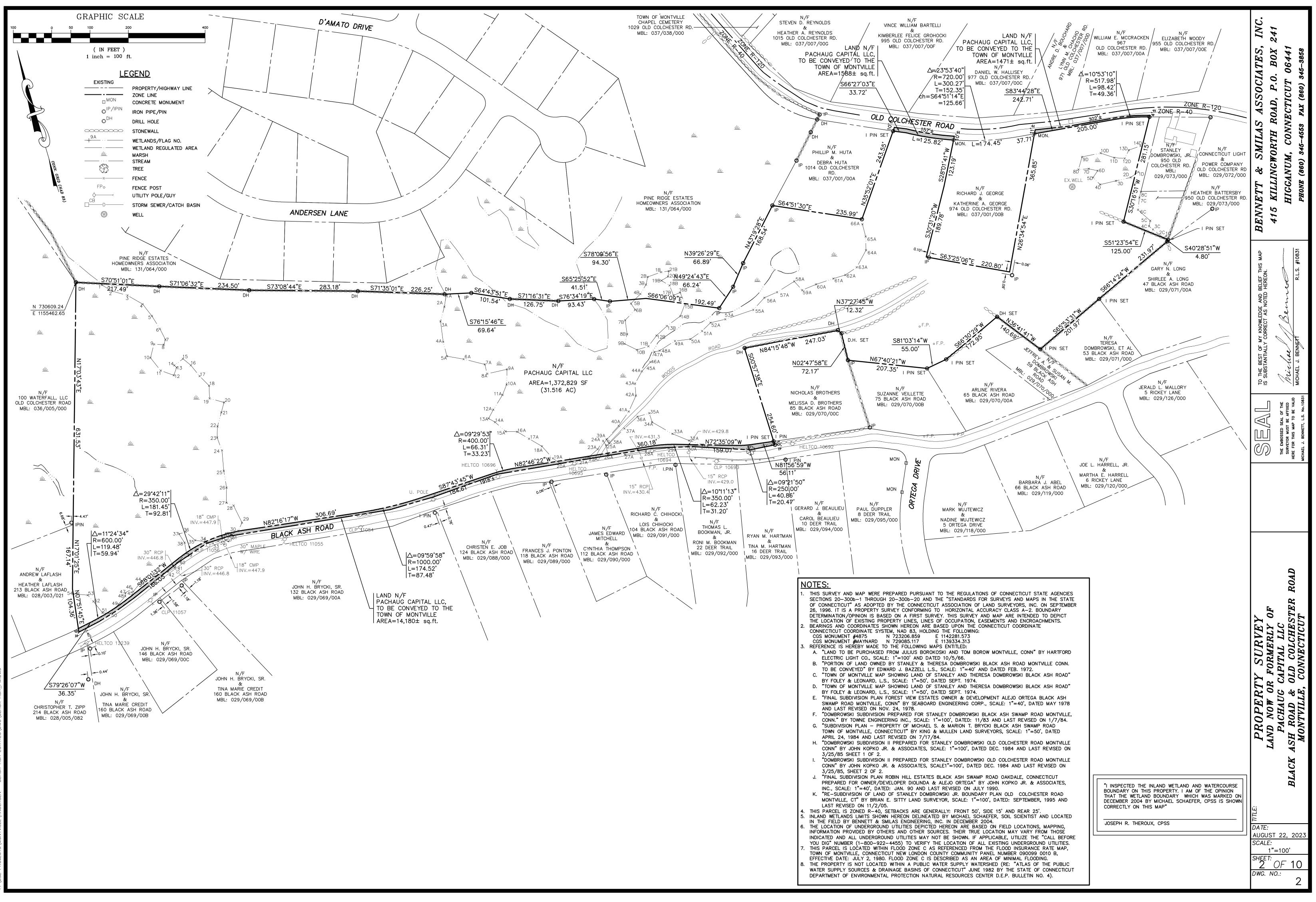
PROPERTY/HIGHWAY LINE EASEMENT LINE CONCRETE MONUMENT IRON PIPE/PIN DRILL HOLE STONEWALL WETLANDS/FLAG NO. WETLAND REGULATED AREA MARSH STREAM TREE TREELINE CONTOUR SPOT ELEVATION SIGN FENCE FENCE POST UTILITY POLE/GUY

SOIL BOUNDARY/CLASSIFICATION STORM SEWER/CATCH BASIN WELL SILT FENCE / STAKED HAYBALES DEEP TEST PIT LOCATION PERCOLATION TEST LOCATION EXISTING GROUND SLOPE OF 20% OR GREATER

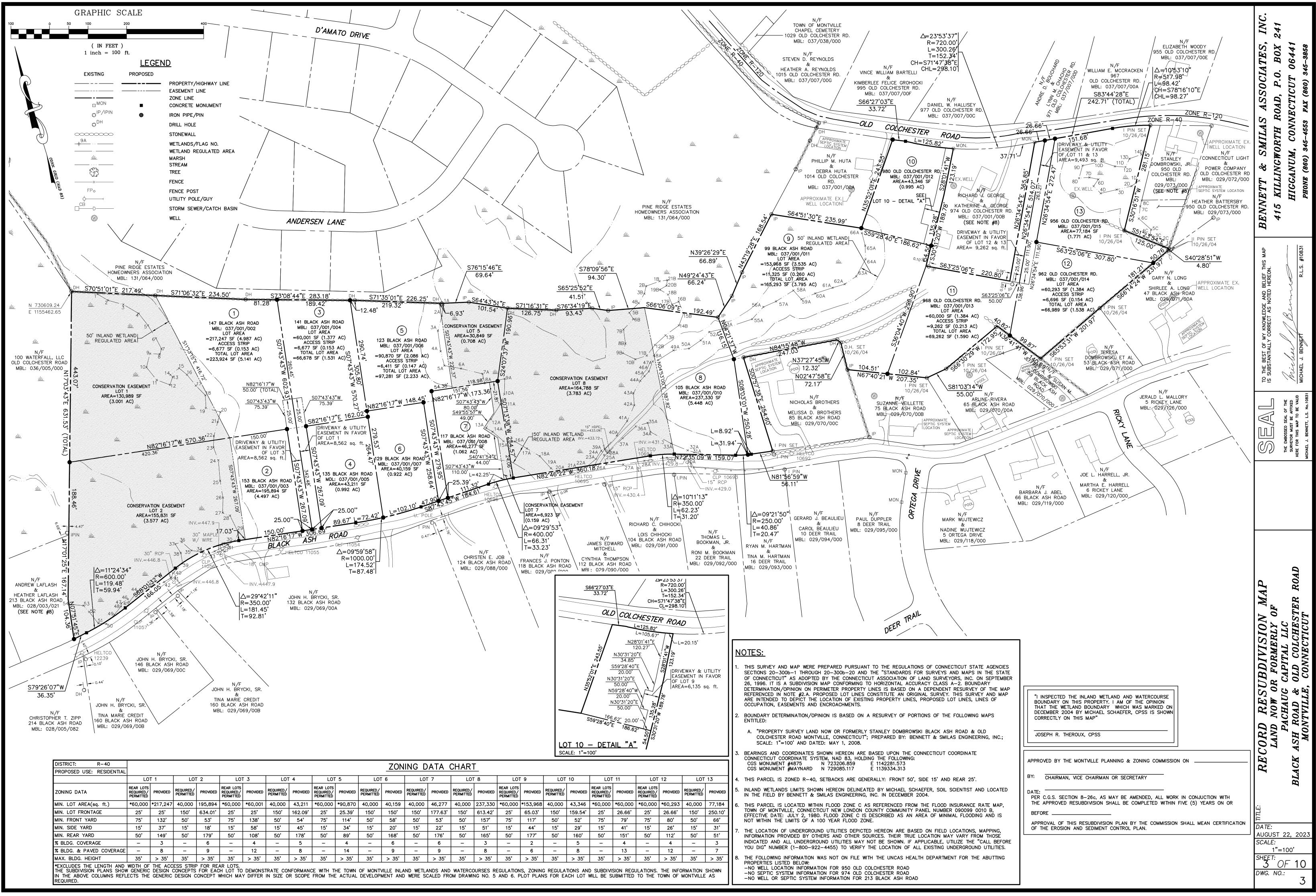
WENTWORTH CIVIL ENGINEERS LLC 177 WEST TOWN ST. LEBANON, CT 06249

TEL. (860) 642-7255 FAX (860) 642-4794 web: wentworthcivil.com

DATE: 8–22–23 SHEET 1 OF 10 MAP NO. 23-024-1C FILE NO.: GU20063



SE PROJECTS\MONTVILLE\ANDERSEN - BLACK ASH ESTATES\DWG\BLACK ASH_PM.DWG



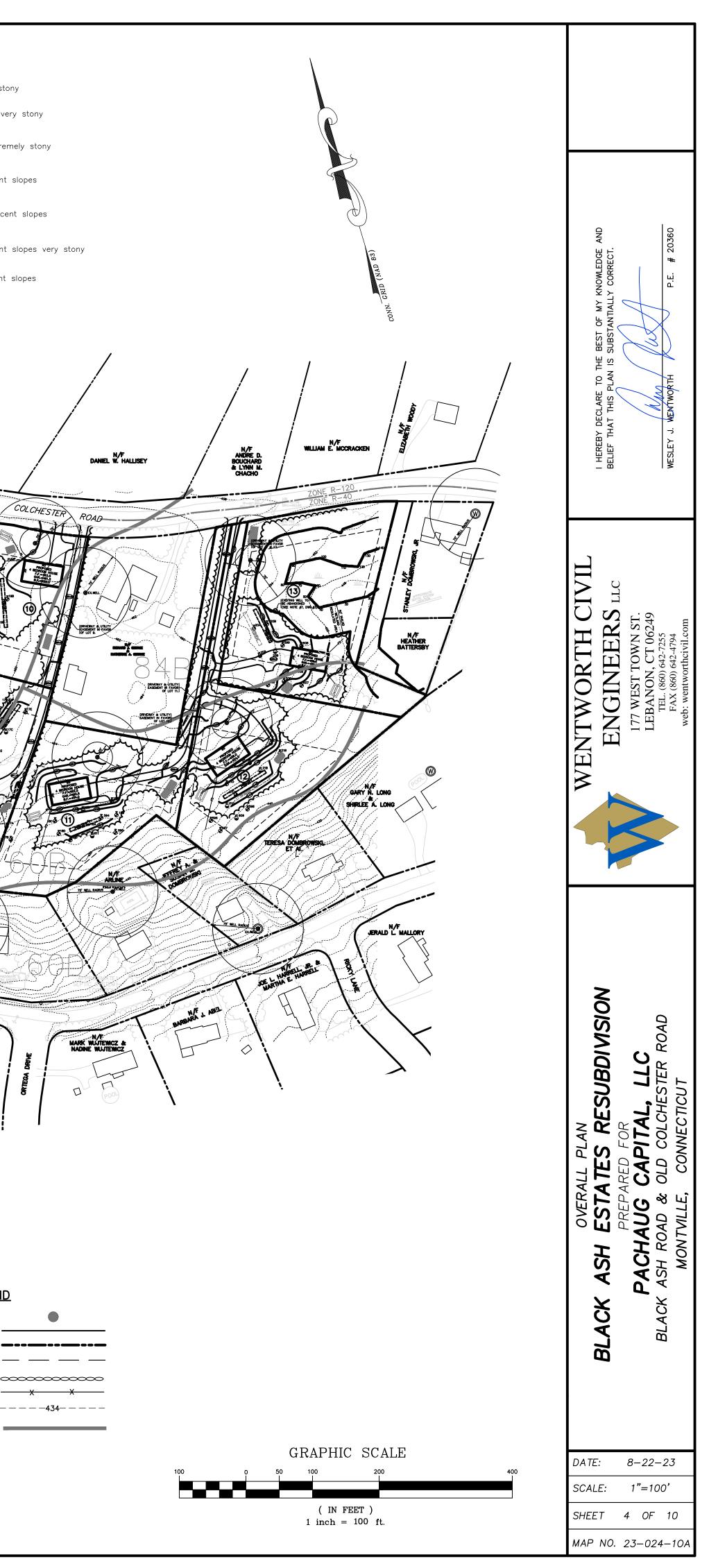
DISTRICT: R-40												ZON	ING D	A
PROPOSED USE: RESIDENTIAL											-			<u> </u>
	LO	Т 1	LOT	ſ2	LOT	3	L01	⁻ 4	LOT	5	L01	6	LOT	•
ZONING DATA	REAR LOTS REQUIRED/ PERMITTED	PROVIDED	REQUIRED/ PERMITTED	PROVIDED	REAR LOTS REQUIRED/ PERMITTED	PROVIDED	REQUIRED/ PERMITTED	PROVIDED	REAR LOTS REQUIRED/ PERMITTED	PROVIDED	REQUIRED/ PERMITTED	PROVIDED	REQUIRED/ PERMITTED	
MIN. LOT AREA(sq. ft.)	*60,000	*217,247	40,000	195,894	*60,000	*60,001	40,000	43,211	*60,000	*90,870	40,000	40,159	40,000	-
MIN. LOT FRONTAGE	25'	25'	150'	634.01'	25'	25'	150'	162.09'	25'	25.39'	150'	150 '	150'	1
MIN. FRONT YARD	75'	132'	50'	53'	75'	138'	50'	54'	75'	114'	50'	58'	50'	
MIN. SIDE YARD	15'	37'	15'	18'	15'	58'	15'	45'	15'	34'	15'	20'	15'	
MIN. REAR YARD	50'	149'	50'	179'	50'	108'	50'	178 '	50'	89'	50'	168'	50'	
% BLDG. COVERAGE	-	3	-	6	-	4	-	5	-	4	-	6	-	Γ
% BLDG. & PAVED COVERAGE	-	8	-	9	-	12	-	8	-	14	-	9	-	Γ
MAX. BLDG. HEIGHT	35'	> 35'	35'	> 35'	35'	> 35'	35'	> 35'	35'	> 35'	35'	> 35'	35'	Γ
*EXCLUDES THE LENGTH AND THE SUBDIVISION PLANS SHOW IN THE ABOVE COLUMNS REFL REQUIRED.	GENERIC	DESIGN (FOR EAC	H LOT TO									



			7	NRCS SOILS LEGEND
 LOT AREAS			3	Ridgebury, Leicester, and Whitman soils — extremely stony
AREA (SQUARE FEET)	AREA (ACRES)		46B	Woodbridge fine sandy loam, 0 to 8 percent slopes, very s
223,924	5,141		52C	Sutton fine sandy loam, 2 to 15 percent slopes, extremely
195,894	4,497		60B	Canton and Charlton fine sandy loams, 3 to 8 percent slop
66,678	1,531		60D	Canton and Charlton fine sandy loams, 15 to 25 percent s
43,211	0,992		61B	Center and Charlton fine conductores 0 to 8 percent closed
97,281	2,233			Canton and Charlton fine sandy loams, 0 to 8 percent slop
40,159	0.922		84B	Paxton and Montauk fine sandy loams, 3 to 8 percent slop
46,277	1,062			j -
237,330	5,448			\bigwedge
165,293	3,795		Ý Iri	TOWN OF MONTVILLE CHAPEL CEMETERY
 43,346 69,262	0.995			N/F STEVEN D. BETWEID DS &
 66,989	1.590 1.538			STEVEN D. REYNOLDS & HEATHER A. REYNOLDS
77,184	1,771			N/F Vince Willima Bartelli &
, , , , , , , , , , , , , , , , , , , ,	1,7 7 1			VINCE WILLIMA BARTELLI & KIMBERLEE FELICE GROHOCKI
1,372,829	31,516			OLD CO
UIT TO PINE RIDOR ESTATE HOMEOWNERS ASSOCIATION MOMENTIAL OF A		PINE RUDGE ES HOMEOWNER ASS 3 3 10 10 10 10 10 10 10 10 10 10 10 10 10		
				NT AND
CHRISTEN E JOB	ANCES J. PONECON	B	THOMAS L BOOKMAN, JR RONI M. BOOKMAN	AN M. HARTMAN & CAROL BEAULEU INA M. HARTMAN

<u>LEGEND</u>

PROPOSED IRON PIN	
WETLAND UPLAND REVIEW LIMIT	
PROPERTY LINE	•
BUILDING SETBACK LINE	
STONEWALL	¢
FENCE	-
EXISTING CONTOUR	-
NRCS SOIL SURVEY BOUNDARY	



	LOT AREAS	
LOT NUMBER	AREA (SQUARE FEET)	AREA (ACRES)
1	223,924	5,141
2	195,894	4,497
3	66,678	1,531
4	43,211	0,992
5	97,281	2,233
6	40,159	0,922
7	46,277	1,062

CONSERVATION EASEMENT _

CLEARING LIMITS ON ALL LOTS SHALL BE STAKED OUT BY A LICENSED LAND SURVEYOR PRIOR TO THE START OF WORK FOR INDIVIDUAL LOT DEVELOPMENT.

NOTE: NO FREE DRAINING MATERIAL IS TO BE USED IN BACKFILLING UNDERGROUND UTILITIES WITHIN 25' OF WELLS OR THE UP SLOPE / SIDES OR 50' DOWN SLOPE OF THE PROPOSED SEPTIC SYSTEMS.

NOTE: ROOF & FOUNDATION DRAIN EXIT LINE PIPES ARE TO BE TIGHTPIPE WITHIN 25' OF THE PROPOSED SEPTIC SYSTEMS

NOTE: THE ZONING & SUBDIVISION REGULATIONS OF THE TOWN OF MONTVILLE ARE A PART OF THIS PLAN AND APPROVAL OF THIS PLAN IS CONTINGENT ON THE COMPLIANCE WITH ALL REQUIREMENTS OF THE SAID ZONING AND SUBDIVISION REGULATIONS

WARNING THESE PLANS NOT TO BE USED FOR LOCATION OF UNDERGROUND UTILITIES - CALL BEFORE YOU DIG 1-800-922-4455 TWO WORKING DAYS BEFORE YOU DIG.

PROPOSED GRAVEL DRIVEWAYS HAVE A MAXIMUM GRADE OF 10% AS SHOWN. DRIVEWAYS ARE TO BE CONSTRUCTED IN CONFORMANCE WITH TOWN DRIVEWAY STANDARDS.

ALL COMMON DRIVEWAYS SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH SECTION 130D (COMMON DRIVEWAYS) PER THE 2018 TOWN O F MONTVILLE ROAD STANDARDS AND IMPROVEMENT DETAILS.

PASSIVE SOLAR ENERGY TECHNIQUES AS PRESCRIBED BY LAW HAVE BEEN CONSIDERED IN DEVELOPMENT OF THIS PLAN.

WETLANDS PLACARDS SHALL BE PLACED BY A LICENSED LAND SURVEYOR AT THE 50' URA ON EACH LOT.

NO ACTIVITIES SHALL COMMENCE WITHIN REGULATED UPLANDS / WETLANDS AREAS WITHOUT PRIOR APPROVAL OF THE MONTVILLE INLAND WETLANDS COMMISSION.

ALL IMPROVEMENTS SHOWN HERIN ARE CONCEPTUAL AND DEVELOPMENT OF INDIVIDUAL LOTS REQUIRE INDIVIDUAL SITE PLANS PREPARED BY A LICENSED LAND SURVEYOR AND/OR PROFESSIONAL ENGINEER.

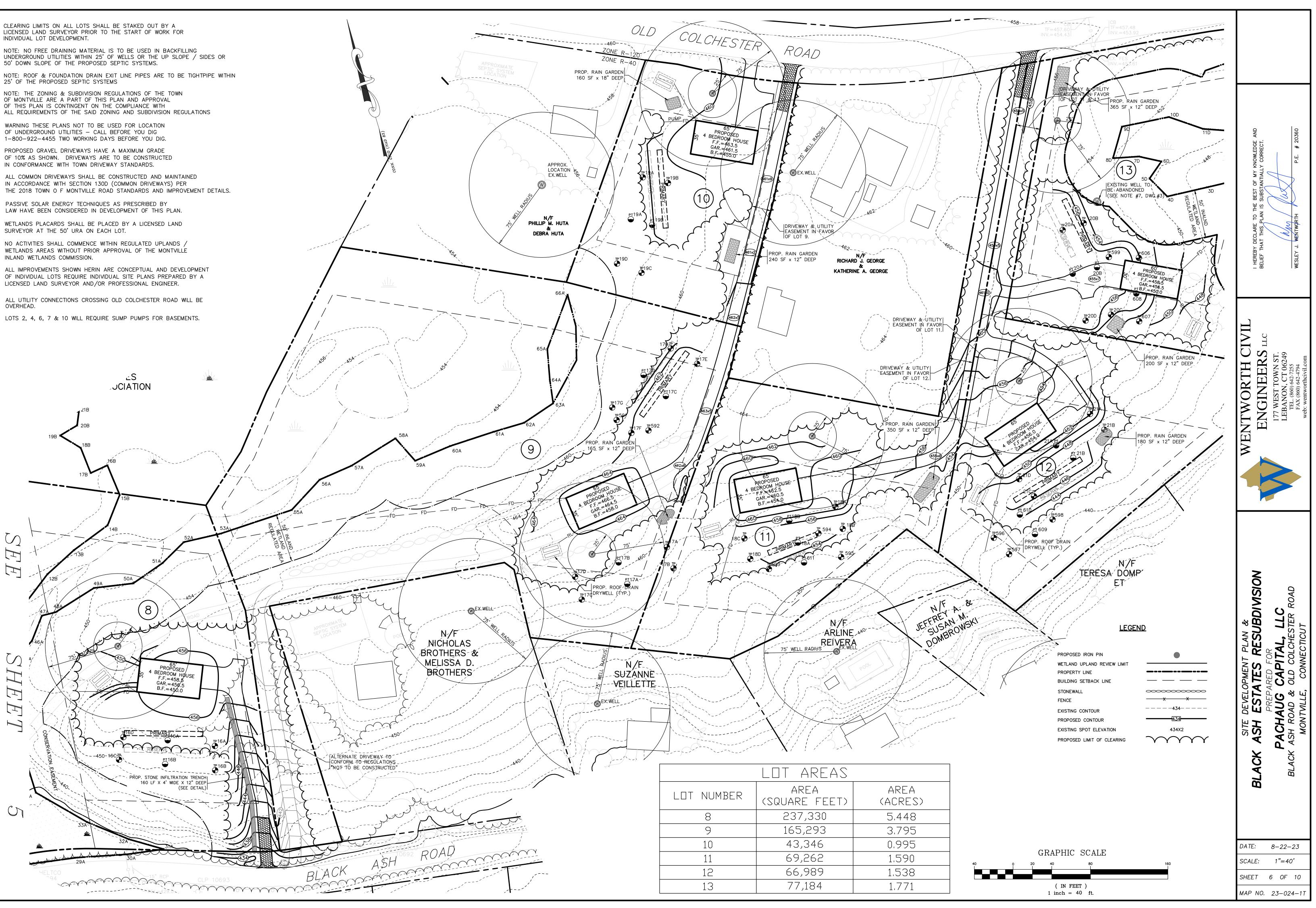
ALL UTILITY CONNECTIONS CROSSING OLD COLCHESTER ROAD WILL BE OVERHEAD.

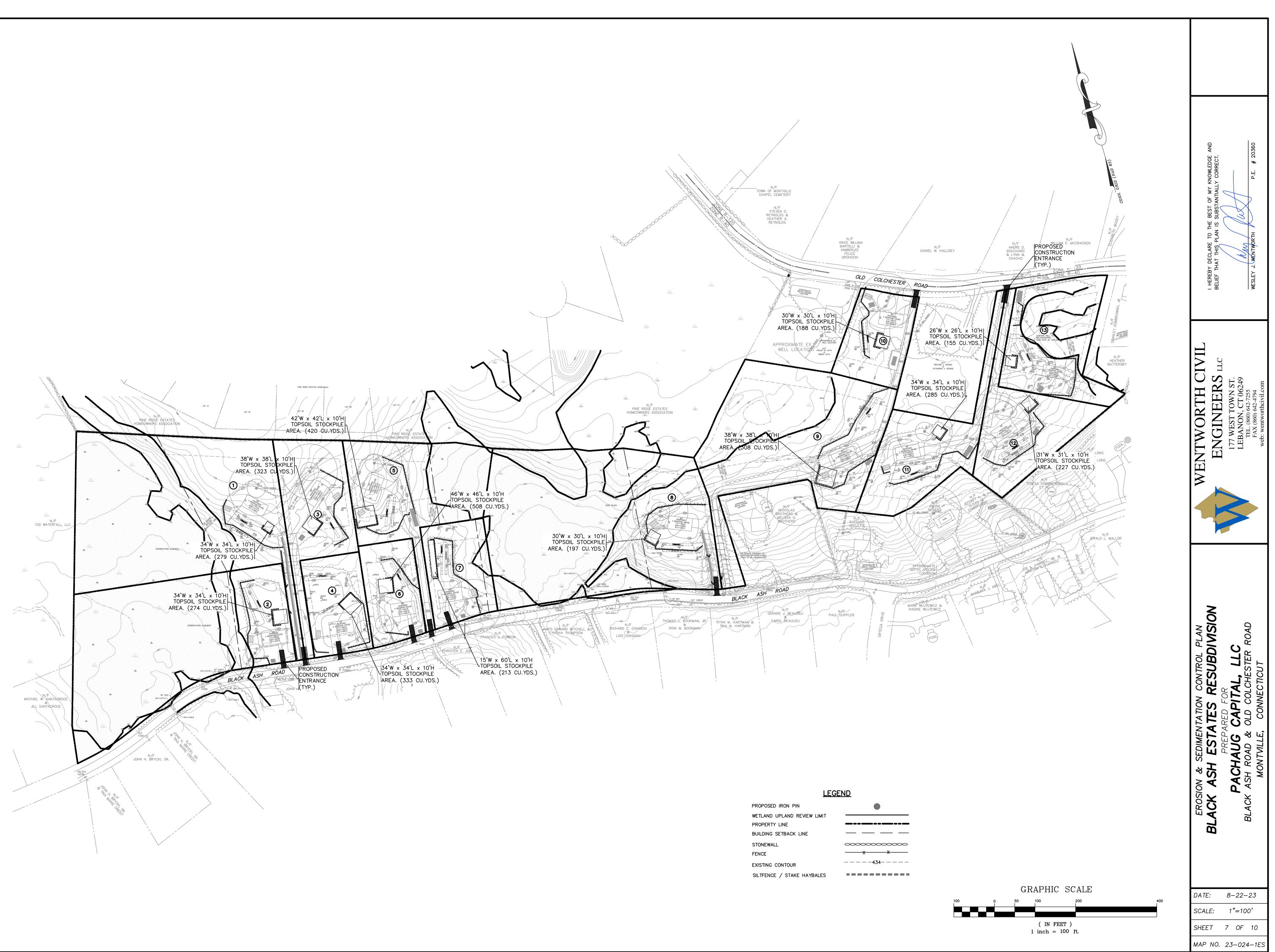
LOTS 2, 4, 6, 7 & 10 WILL REQUIRE SUMP PUMPS FOR BASEMENTS.

THE FOLLOWING INFORMATION WAS NOT ON FILE WITH THE UNCAS HEALTH DEPARTMENT FOR THE ABUTTING PROPERTIES LISTED BELOW:

-NO WELL LOCATION INFORMATION FOR 950 OLD COLCHESTER ROAD -NO SEPTIC SYSTEM INFORMATION FOR 974 OLD COLCHESTER ROAD -NO WELL OR SEPTIC SYSTEM INFORMATION FOR 213 BLACK ASH ROAD







RUFUSED IRON FIN	
VETLAND UPLAND REVIEW LIMIT	_
PROPERTY LINE	-
BUILDING SETBACK LINE	_
STONEWALL	0
ENCE	
EXISTING CONTOUR	
SILTFENCE / STAKE HAYBALES	=

TEST HOLE DATA AS PERFORMED BY THE UNCAS HEALTH DEPARTMENT ON 3/15/05 AND WITNESSED BY BENNETT & SMILAS ENGINEERING, INC.

<u>TP 16A</u> 0-8" TOPSOIL 8-32" BROWN SANDY LOAM 32-105" GREY MED COMPACT SANDY TILL W/POCKETS OF GRAVEL NO MOTTLING WATER @ 103" NO LEDGE

<u>TP 16B</u> 0-5" TOPSOIL 5-16" BROWN SANDY LOAM 16-88" GREY MED COMPACT SANDY TILL W/POCKETS OF GRAVEL NO MOTTLING NO WATER NO LEDGE

<u>TP 16C</u> 0-3" TOPSOIL 3-20" BROWN SANDY LOAM 20-94" GREY MED COMPACT SANDY TILL W/POCKETS OF GRAVEL NO MOTTLING NO WATER

<u>TP 16D</u> 0-4" TOPSOIL 4-14" BROWN SANDY LOAM 14-83" GREY MED COMPACT SANDY TILL W/POCKETS OF GRAVEL NO MOTTLING NO WATER NO LEDGE

<u>TP 17A</u> LEDGE 9"—35"

NO LEDGE

<u>TP 17B</u> 0-3" TOPSOIL 3-18" BROWN SANDY LOAM 18-42" GREY MED COMPACT SANDY THE NO MOTTLING NO WATER

LEDGE @ 42" <u>TP 17C</u> LEDGE © 34"

<u>TP 17D</u> LEDGE 22-39"

TOPSOIL 10-24" BROWN SANDY LOAM 24-88" GREY MED COMPACT SAND NO MOTTLING WATER @ 57" NO LEDGE

<u>TP 17F</u> 0-8" TOPSOIL 8-21" BROWN SANDY LOAM 21-54" GREY MED COMPACT SANDY TILL NO MOTTLING NO WATER LEDGE @ 54"

<u>TP 17G</u> 0-8" TOPSOIL 8-25" BROWN SANDY LOAM 25-36" GREY SILT 36-78" GREY MED SAND MOTTLING @ 25", 36" WATER @ 47' NO LEDGE

<u>TP 17H</u> 0–16" TOPSOIL 16-22" BROWN SANDY LOAM 22-86" GREY MED COMPACT SAND NO MOTTLING WATER @ 58" NO LEDGE

<u>TP 18A</u> 0-3" TOPSOIL 3-22" BROWN SANDY LOAM 22-93" GREY MED COMPACT SANDY TILL NO MOTTLING NO WATER

NO LEDGE <u>TP 18B</u> 0-8" TOPSOIL 8-22" BROWN SANDY LOAM 22-74" GREY MED COMPACT SANDY TILL

NO MOTTLING NO WATER LEDGE @ 74" <u>TP 18C</u> 0-3"

TOPSOIL 3-14" BROWN SANDY LOAM 14-102" GREY MED COMPACT SANDY TILL NO MOTTLING NO WATER NO LEDGE

<u>TP 18D</u> 0-3" TOPSOIL 3-31" BROWN SANDY LOAM 31-100" GREY MED COMPACT SANDY TILL W/POCKETS OF GRAVEL NO MOTTLING

NO LEDGE <u>TP 19A</u> 0-10" TOPSOIL 10-25" BROWN SANDY LOAM 25-78" GREY MED COMPACT SANDY TILL MOTTLING @ 25" WATER @ 36' NO LEDGE

NO WATER

<u>TP 19B</u> 0-10" TOPSOIL 10-25" BROWN SANDY LOAM 25-79" GREY MED COMPACT SANDY TILL MOTTLING @ 25" WATER @ 43"

NO LEDGE <u>TP 19C</u> 0-8" TOPSOIL 8-33" BROWN SANDY LOAM 33-39" GREY SILT 39-78" SAND AND GRAVEL MOTTLING @ 33", 39" WATER @ 44" NO LEDGE

<u>TP 19D</u> 0-9" TOPSOIL 9-26" BROWN SANDY LOAM 26–38" GREY SILT 38-79" SAND AND GRAVEL MOTTLING @ 26", 38" WATER @ 38" NO LEDGE

<u>TP_20A</u> 0-11" TOPSOIL 11-33" BROWN SANDY LOAM 33-92" GREY MED COMPACT SANDY TILL MOTTLING @ 33" WATER @ 42" NO LEDGE <u>TP_20B</u> 0-10" TOPSOIL 10-32" BROWN SANDY LOAM 32-94" GREY MED COMPACT SILTY TILL MOTTLING @ 32" WATER @ 42" NO LEDGE <u>TP 20C</u> 0-5" TOPSOIL 5-24" BROWN SANDY LOAM 24-75" GREY MED COMPACT SILTY TILL NO MOTTLING WATER @ 42" LEDGE @ 26"-75" <u>TP 20D</u> 0-4" TOPSOIL 4-30" BROWN SANDY LOAM 30-66" GREY MED COMPACT SILTY TILL NO MOTTLING NO WATER LEDGE @ 66" TP 21A 0-10" TOPSOIL 10-49" BROWN SANDY LOAM 49-59" GREY MED COMPACT SANDY TILL NO MOTTLING NO WATER LEDGE @ 35"-59" <u>TP 21B</u> 0-4" TOPSOIL 4-20" BROWN SANDY LOAM 20-87" GREY MED COMPACT SANDY TILL NO MOTTLING

NO WATER NO LEDGE <u>TP 21C</u> 0-8" TOPSOIL 8-32" BROWN SANDY LOAM 32-92" GREY MED COMPACT SANDY TILL NO MOTTLING NO WATER NO LEDGE <u>TP 21D</u> 0-4" TOPSOIL 4-35" BROWN SANDY LOAM 35-45" GREY SILT

45-87" GREY MED COMPACT SANDY TILL MOTTLING @ 35", 45" NO WATER NO LEDGE

<u>PT_16A</u> 12:25_6" 12:30 9 1/8" 12:35 10 1/4" 12:40 12" 12:45 12 7/8" 12:50 13 1/4" 12:55 13 7/8" 1:00 14 1/2" 1:05 DRY DEPTH: 18"

PERC RATE: 1"/13.3 MIN.

PT 16B 12:25 3 7/8" 12:30 6 1/4" 12:35 9" 12:40 9 3/4" 12:45 10 3/4" 12:50 11 3/8" 12:55 12 1/4" 1:00 13" 1:05 13 7/8" 1:10 DRY

DEPTH: 18" PERC RATE: 1"/8.0 MIN. PT 17A 1:50 5" 1:55 7 1/4" 2:00 8 7/8"

2:05 9 5/8" 2:10 10 1/2" 2:15 11 7/8" 2:20 12" 2:25 12 5/8" 2: 30 13 1/4" 2: 35 14" 2:40 14 1/2" 2:45 15" 2:50 15 1/2"

DEPTH: 18" PERC RATE: 1"/10.0 MIN.

<u>PT 17B</u> 1:50 6 1/4" 1:55 7" 2:00 8 1/2" 2:05 9" 2:10 9 7/8" 2:15 10 1/2" 2:20 11" 2:25 11 1/2" 2:30 12" 2:35 12 1/4" 2:40 12 3/4" 2:45 13 1/8" 2:50 13 3/8" DEPTH: 19"

PERC RATE: 1"/20.0 MIN. <u>PT 17C</u> 12:37 4 1/4"

12:42 6 1/4" 12:48 7 1/8" 12:53 8**"** 1:00 8 3/4" 1:05 9 1/4" 1:10 9 5/8" 1:15 10" 1:20 10 3/8"

DEPTH: 18" PERC RATE: 1"/13.3 MIN. <u>PT_17D</u> 12:35_5" 12:41 8 1/4" 12:47 10" 12:52 11 1/2" 12:59 13**"** 1:04 14" 1:09 15"DRY DEPTH: 18" PERC RATE: 1"/10.0 MIN. <u>PT 18A</u> 12:45 1 1/2"

12:50 2 3/4" 12:56 4" 1:03 6" 1:08 6 1/4" 1:18 7" 1:28 8" 1:38 8 3/4" DEPTH: 16"

PERC RATE: 1"/20.0 MIN. <u>PT_18B</u> 12: 39 3" 12:44 4 1/8"

12:49 5 1/2" 12:55 6" 1:02 7**"** 1:07 7 1/4" 1:17 7 3/4" 1:27 8 3/8"

1: 37 9" DEPTH: 16" PERC RATE: 1"/20.0 MIN. <u>PT 19A</u> 1:24 1/2"

1:34 2" 1:44 3" 1:54 3 5/8" 2:04 4 3/8" 2:14 5 1/8" 2:24 5 3/4" DEPTH: 14"

PERC RATE: 1"/16.0 MIN.

<u>PT 19B</u> 1:23 1 1/2" 1:33 3 1/8" 1:43 4 1/8" 1:53 4 5/8" 2:03 5 3/8"

2:13 6 1/8"

2:23 6 3/4" DFPTH: 14" PERC RATE: $1^{"}/20.0$ MIN.

<u>PT 20A</u> 10:53 4 3/4" 10:58 7 1/4" 11:03 8 7/8" 11:08 10" 11:13 10 7/8" 11:18 11 3/8" 11:23 12" 11:28 12 3/4" 11:33 13 1/4" 11:38 13 5/8" 11:43 14 1/8" DEPTH: 17"

PERC RATE: 1"/10.0 MIN.

<u>PT_20B</u> 10:55_1_3/4" 11:00 4" 11:05 5" 11:10 6" 11:15 7 11:20 7 3/4" 11:25 8 3/8" 11:30 9" 11:35 9 5/8" 11:40 10 1/8" 11:45 10 5/8" DEPTH: 17"

PERC RATE: 1"/10.0 MIN. <u>PT_21A</u> 10:05_4"

10:10 7"

10:15 8 7/8"

10:20 10 1/8" 10:25 11 1/2" 10:30 12 3/4" 10:35 13 5/8" 10:40 14 1/2" 10: 45 15" DEPTH: 18"

PERC RATE: 1"/10.0 MIN.

<u>PT 21B</u> 10:02 3 1/4" 10:07 5 3/8" 10:12 6" 10:17 6 7/8" 10:22 8" 10:27 8 7/8" 10:32 9 5/8" 10:37 10 1/2" 10:42 10 7/8"

10:47 11 5/8" DFPTH: 18" PERC RATE: 1"/13.3 MIN.

NO LEDGE

NO LEDGE

WATER @ 84"

NO LEDGE

NO LEDGE

WATER @ 77"

NO LEDGE

<u>PT 556</u> 7:56 8"

8:06 11"

8:16 13"

8:26 14 3/8"

8:56 19" DRY

PERC RATE: 1"/8.9 MIN.

8: 36 15 1/2" 8: 46 17"

DFPTH· 18"

<u>PT 557</u> 7:55 9 1/8"

8:05 14 1/2"

8:15 17 3/8"

8:25 19 3/8"

8:35 21" DRY

PERC RATE: 1"/6.2 MIN.

DEPTH: 19"

<u>TP 557</u> 0-9"

<u>TP 548</u> 0-3" TOPSOIL 3-26" BROWN SANDY LOAM 26–88" GREY SANDY TILL W/LENSES OF GRAVEL 71-83" WATER MOTTLING @ 26" WATER @ 82"

NO LEDGE <u>TP 549</u> 0-3" TOPSOIL 3-30" BROWN SANDY LOAM 30-87" GREY SANDY TILL W/LENSES OF GRAVEL

MOTTLING @ 30" WATER @ 70" NO LEDGE

<u>TP 550</u> 0-2" TOPSOIL 2-20" BROWN SANDY LOAM 20-36" SANDY AND GRAVEL 36-84" GREY COMPACT SAND MOTTLING @ 36" WATER @ 55"

<u>TP 551</u> 0-3" TOPSOIL 3-27" BROWN SANDY LOAM 27–80" GREY SANDY TILL W/LENSES OF GRAVEL MOTTLING @ 27"

WATER @ 41" NO LEDGE

<u>TP 552</u> 0-10" TOPSOIL 10-29" BROWN FINE SANDY LOAM 29–71" GREY TILL 71-83" WATER

MOTTLING @ 25" WATER @ 34" NO LEDGE

NO LEDGE

<u>TP 553</u> 0–5" TOPSOIL 5-22" BROWN SANDY LOAM 22-84" GREY MOTTLED DENSE TILL 84-86" WATER MOTTLING @ 21" WATER @ 36' NO LEDGE

<u>PT 551</u> 9:04 12 3/4" 9:14 17 1/2" 9:24 19 1/2" 9:34 20 7/8" 9: 44 22" 9: 54 23" 10:01 24 1/2" DRY

DEPTH: 20" PERC RATE: 1"/10.0 MIN.

<u>PT 554</u> 7:58 11 3/4" 8:08 14 1/4" 8:18 16 3/8" 8:28 18 1/2" 8:38 19 1/2" 8:48 21 1/2" 8:58 23" DRY DEPTH: 18"

PERC RATE: 1"/6.7 MIN. <u>PT 555</u> 7:59 8 5/8" 8:09 13 7/8" 8:19 16 7/8" 8:29 19"

8:39 20" DRY DEPTH: 19" PERC RATE: 1"/10.0 MIN.

<u>TP 510</u> 0-11" TOPSOIL 11-34" SILTY LOAM 34-86" SILT & FINE-MED SAND

MOTTLING @ 31" HEAVY WATER @ 45" NO LEDGE

RESTRICTIVE @ 31" <u>TP 581</u> 0—9" TOPSOIL

9-32" SILTY LOAM 32-90" COARSE SAND & SILT NO MOTTLING NO WATER

NO LEDGE <u>TP 582</u> 0-10" TOPSOIL

10-33" SILTY LOAM 33-86" MED-COARSE SAND W/SILT MOTTLING @ 33" WATER @ 87"

NO LEDGE RESTRICTIVE @ 33" <u>TP 583</u> 0-11" TOPSOIL

11-35" SILTY LOAM 35-96" MED-COARSE SAND & SILT MOTTLING @ 32"

WATER @ 87" NO LEDGE RESTRICTIVE @ 32" <u>TP 584</u> 0-10" TOPSOIL

10-33" SILTY LOAM 33-100" MED-COARSE SAND W/SILT MOTTLING @ 33"

WATER @ 91" NO LEDGE RESTRICTIVE @ 33"

MOTTLING @ 24" WATER @ 50" NO LEDGE RESTRICTIVE @ 24" <u>TP 591</u> 0-10" TOPSOIL 10-27" SILTY LOAM 27-45" SILT & FINE-MED SAND NO MOTTLING NO WATER LEDGE @ 31" - 45" RESTRICTIVE @ 31" <u>TP 592</u> 0-10" TOPSOIL 10-28" SILTY LOAM 28-57" MED SAND & FINE SILT

MOTTLING @ 28" NO WATER LEDGE @ 57" RESTRICTIVE @ 28"

WATER @ 36" NO LEDGE

<u>TP 589</u> 0—10" TOPSOIL 10-24" SILTY LOAM 24-74" SILT & MED SAND

TEST HOLE DATA AS PERFORMED BY THE UNCAS HEALTH DEPARTMENT ON 5/21/08 AND WITNESSED BY BENNETT & SMILAS ENGINEERING, INC.

TOPSOIL

<u>TP 554</u> 0-9" TOPSOIL <u>TP 559</u> 0-7" 9-27" BROWN SANDY LOAM 7-42" BROWN SANDY LOAM 27-79" GREY MOTTLED TILL 42-84" SAND W/LENSES OF 79-88" WATER MOTTLING @ 23" WATER @ 74" <u>TP 555</u> 0-8" TOPSOIL 8-27" BROWN SANDY LOAM 27-68" GREY DENSE MOTTLED TILL 68-84" WATER MOTTLING @ 24" WATER @ 65" <u>TP 556</u> 0-7" TOPSOIL 7-36" BROWN SANDY LOAM 36-88" GREY DENSE TILL MOTTLING @ 29"

TOPSOIL 9-26" BROWN SANDY LOAM 26-83" GREY DENSE TILL 60-77" WATER MOTTLING @ 23" WATER @ 77" <u>TP 558</u> 0-7" TOPSOIL

7-36" BROWN SANDY LOAM 36-80" SAND AND GRAVEL 52-81" WATER MOTTLING @ 36"

SAND AND GRAVEL MOTTLING @ 42" WATER @ 79" NO LEDGE <u>TP 560</u> 0-2" TOPSOIL 2-20" BROWN SANDY LOAM 20-88" GREY VERY SANDY TILL 60-77" WATER MOTTLING @ 20" WATER @ 85' NO LEDGE <u>TP 561</u> 0-8" TOPSOIL 8-22" BROWN FINE SANDY LOAM 22-57" GREY DENSE MOTTLED TILL 57-88" WATER MOTTLING @ 21" WATER @ 28" NO LEDGE <u>TP 562</u> 0-12" TOPSOIL 12-22" BROWN FINE SANDY LOAM 22-52" GREY DENSE MOTTLED TILL 52-81" WATER MOTTLING @ 21" WATER @ 25" NO LEDGE <u>TP 563</u> 0-5" TOPSOIL 5-23" BROWN SANDY LOAM 23-60" GREY VERY SANDY TILL 60—79" WATER MOTTLING @ 21" WATER @ 58" NO LEDGE

TOPSOIL 12-23" BROWN SANDY LOAM 23-48" GREY SANDY TILL W/LENSES OF GRAVEL 48-89" WATER MOTTLING @ 23" WATER @ 25" NO LEDGE <u>TP 565</u> 0–6" TOPSOIL 6-23" BROWN FINE SANDY LOAM 23-80" GREY DENSE MOTTLED TILL 80-94" WATER MOTTLING @ 20" WATER @ 35" NO LEDGE <u>TP 566</u> 0-10" TOPSOIL 10-20" BROWN SANDY LOAM 20-56" GREY MOTTLED TILL 56-76" WATER MOTTLING @ 20" WATER @ 28" NO LEDGE <u>TP 567</u> 0-10" TOPSOIL 10-22" BROWN FINE SANDY LOAM 22-70" GREY DENSE MOTTLED TILL 70-77" WATER MOTTLING @ 20" WATER @ 32" NO LEDGE <u>TP 568</u> 0-10" TOPSOIL 10-22" BROWN FINE SANDY LOAM 22-54" GREY SANDY TILL W/LENSES OF SAND AND GRAVEL 54-87" WATER MOTTLING @ 22" WATER @ 54" NO LEDGE <u>TP 569</u> 0-10" TOPSOIL 10-23" BROWN FINE SANDY LOAM 23-48" GREY SANDY TILL W/LENSES OF SAND AND GRAVEL 48-87" WATER MOTTLING @ 23" WATER @ 24" NO LEDGE

TP 570 0-9" TOPSOIL 9-28" BROWN FINE SANDY LOAM 28-72" GREY SANDY TILL W/LENSES OF SAND AND GRAVEL MOTTLING @ 28" NO WATER NO LEDGE <u>TP 571</u> 0–11"

TOPSOIL 11-34" BROWN FINE SANDY LOAM 34-73" GREY SANDY TILL W/LENSES OF SAND AND GRAVEL

MOTTLING @ 34" NO WATER NO LEDGE

<u>TP 572</u> 0-10" TOPSOIL 10-25" BROWN FINE SANDY LOAM

25-29" GREY DENSE MOTTLED TILL 29-83" WATER MOTTLING @ 19"

WATER @ 28" NO LEDGE <u>TP 573</u> 0-8" TOPSOIL 8-34" BROWN SANDY LOAM 34-67" GREY DENSE MOTTLED TILL

67—86" WATER MOTTLING @ 31" WATER @ 33" NO LEDGE

<u>TP 574</u> 0-7" TOPSOIL 7-20" BROWN SANDY LOAM 20-52" GREY SANDY TILL W/LENSES OF SAND AND GRAVEL & SIL

52-80" WATER MOTTLING @ 20" WATER @ 23"

NO LEDGE <u>TP 575</u> 0-8" TOPSOIL 8-22" BROWN FINE SANDY LOAM

22-56" GREY MOTTLED TILL 56-77" WATER MOTTLING @ 20" WATER @ 19"

NO LEDGE

2:15 12 7/8" 2:25 13 1/2' 2:35 14 1/2' 2:45 15 3/8" 2:55 16 1/8" 3:05 17 1/4" DEPTH: 18" PERC RATE: 1"/13.3 MIN.

<u>PT 562</u> 2:06 7 5/8"

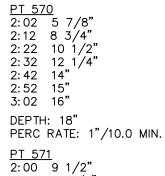
<u>PT 561</u> 2:05 8 3/8"

2:16 10 5/8" 2:26 13" 2:36 15" 2:46 16 1/2" 2:56 17" 3:06 18" DRY DEPTH: 19" PERC RATE: 1"/20.0 MIN.

<u>PT 564</u> 2:03 12 3/8" 2:13 14 5/8" 2:23 16 1/8" 2:33 17 1/2" 2:43 18 3/8" 2:53 19 3/8" 3:03 20 1/4" DEPTH: 18" PERC RATE: 1"/11.4 MIN. 2:22 15 1/8" 2:32 16" 2:42 17**"** 2:52 17 7/8" 3:02 18 3/4" DEPTH: 20" PERC RATE: 1"/11.4 MIN.

<u>PT_567</u> 2:02_12_1/2"

2:12 14"



2:10 10 1/2" 2:20 11 1/2"

2:40 13 1/4"

2:50 14 1/4"

3:00 15 1/4"

PERC RATE: 1"/10.0 MIN.

DEPTH: 18"

2:30 12"

2:55 16 7/8" 3:05 17 3/4" DEPTH: 18" PERC RATE: 1"/11.4 MIN. <u>PT 548</u> 9:05 8 3/8" 9:15 11 7/8"

<u>PT 572</u> 2:05 5 1/4"

2:25 13 1/8"

2:35 14 7/8"

2:15 11"

2:45 16"

9:25 13 1/2" 9:35 15" 9:45 16 1/8" 9:55 17 1/2 10:03 19" DRY DEPTH: 19" PERC RATE: 1"/7.3 MIN.

TEST HOLE DATA AS PERFORMED BY THE UNCAS HEALTH DEPARTMENT ON 10/15/08 AND 10/16/08 AND WITNESSED BY BENNETT & SMILAS ENGINEERING, INC.

<u>TP 585</u> 0—10" TOPSOIL 10-25" SILTY LOAM 25-72" SILT & FINE-MED SAND MOTTLING @ 25"

RESTRICTIVE @ 25"

<u>TP 593</u> 0-11" TOPSOIL 11-19" LOAM 19-80" MED-COARSE SAND, SOME SILT, STONES NO MOTTLING

NO WATER NO LEDGE <u>TP 594</u> 0-10" TOPSOIL 10-35" SILTY LOAM 35-96" FINE-MED SAND & SILT, ROCKS NO MOTTLING

NO WATER NO LEDGE RESTRICTIVE @ 33" <u>TP 595</u> 0-14" TOPSOIL 14-40" SILTY LOAM

40-81" FINE-MED SILTY SAND MOTTLING @ 34" NO WATER NO LEDGE RESTRICTIVE @ 34"

<u>TP 596</u> LEDGE @ 34" RESTRICTIVE @ 34" TP 597

0-5" TOPSOIL 5-9" BROWN SANDY LOAM 9-70" GREY SANDY TILL NO MOTTLING NO WATER

NO LEDGE

<u>TP 598</u> 0-6" TOPSOIL 6-43" BROWN SANDY LOAM 43-70" GREY SANDY TILL NO MOTTLING

NO WATER NO LEDGE

<u>TP 599</u> 0-7" TOPSOIL 7-26" BROWN SANDY LOAM 26-59" GREY SANDY TILL MOTTLING @ 26" NO WATER

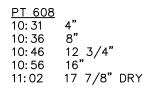
LEDGE @ 59" RESTRICTIVE @ 26" <u>TP_606</u> 0-8" TOPSOIL

8-24" BROWN SANDY LOAM 24-62" GREY MOTTLED TILL MOTTLING @ 24"

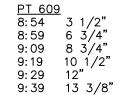
WATER @ 57" LEDGE @ 60" RESTRICTIVE @ 24" <u>TP 607</u> 0-3" TOPSOIL

3-19" BROWN SANDY LOAM 19-48" GREY SANDY TILL NO MOTTLING

NO WATER LEDGE @ 48" RESTRICTIVE @ 48"



DEPTH: 20" PERC RATE: 1"/5.3 MIN.



9:49 14 5/8" 9:59 15 3/4" DEPTH: 20" PERC RATE: 1"/8.9 MIN.

<u>PT 610</u> 8:55 2 5/8" 9:00 3 3/4" 9:10 5 1*/*8" 9:20 6 3⁄4" 9:30 8 1/8" 9:40 9 1/4" 9:50 10 1/8" 10:00 11"

DEPTH: 20" PERC RATE: 1"/11.4 MIN.

1:14 6" 1:24 8 1/2" 1:34 10 1/2" 1:44 12 1/8' 1:54 13 3/4" 2:04 14 3/4" 2:14 15 3/4"

DEPTH: 20" PERC RATE: 1"/10.0 MIN <u>PT 612</u> 12:22 3 1/2"

12:27 6 3/8" 12:37 10 3/8" 12:47 12 3/8" 12:57 14 3/8" DRY

DEPTH: 20" PERC RATE: 1"/5.0 MIN.

<u>PT 613</u> 12:47 5 1/2" 12:57 9 1/8" 1:07 11 1/8" 1:17 12 7/8" 1:27 14 1/2" 1:37 15 3/8" 1:47 16 1/4"

DEPTH: 20" PERC RATE: 1"/11.4 MIN.

<u>PT 614</u> 12:50 6 1/4" 1:00 10 1/2" 1:10 12 7/8" 1:20 14 3/8" 1:30 15 1/2" 1:40 16 3/8" DRY

DEPTH: 20" PERC RATE: 1"/11.4 MIN.

<u>PT 615</u> 12:51 3 3/4" 12:56 7 3/8" 1:06 12 3/4" 1:16 15 1/2" 1:24 18 1/2" DRY DEPTH: 21"

PERC RATE: 1"/3.6 MIN.

Number of Bedrooms = 1" in 10.0 Min. Percolation Rate = 10.1–15% Average Slope = Depth to Restrictive Layer = 26" @ TP 548 Maximum Depth into Grade = 8" HF = 26, FF = 1.75, PF = 1.0MLSS = (26)(1.75)(1.0) = 46' (Required)

MLSS = 58' (Provided) PRIMARY SEPTIC SYSTEM COMPONENTS 1,125 GAL. SEPTIC TANK (min.), PVC PIPE (1) ROW 58 LF GEOMATRIX GST 6212

<u>LOT 1</u>

RENCHES @ 10 SE/LE RESERVE SEPTIC SYSTEM (1) ROW 79 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF <u>LOT 2</u>

Number of Bedrooms = Percolation Rate = Average Slope =

Maximum Depth into Grade = 3" HF = 54, FF = 1.75, PF = 1.0MLSS = (54)(1.75)(1.0) = 95' (Required) MLSS = 104' (Provided)

PRIMARY SEPTIC SYSTEM COMPONENTS 1,125 GAL. SEPTIC TANK (min.), PVC PIPE 1) ROW 104 LF GEOMATRIX GST 6206 TRENCHES @ 5.9 SF/LF RESERVE SEPTIC SYSTEM 1) ROW 95 LF GEOMATRIX GST 6206 TRENCHES @ 5.9 SF/LF

Number of Bedrooms = Percolation Rate =

Average Slope = Maximum Depth into Grade = 3" HF = 34, FF = 1.75, PF = 1.25MLSS = 79' (Provided)

PRIMARY SEPTIC SYSTEM COMPONENTS 1,125 GAL. SEPTIC TANK (min.), PVC PIPE 1) ROW 79 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF

RESERVE SEPTIC SYSTEM (1) ROW 79 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF

Number of Bedrooms = Percolation Rate = Average Slope = Maximum Depth into Grade = 15" HF = 34, FF = 1.75, PF = 1.0MLSS = (34)(1.75)(1.0) = 60' (Required) MLSS = 60' (Provided)

1) ROW 60 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF RESERVE SEPTIC SYSTEM (1) ROW 58 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF

1" in 10.0 Min. 2.1-3.0% Depth to Restrictive Layer = 21" @ TP 553

1" in 20.0 Min. 6.1-8.0% Depth to Restrictive Layer = 21" @ TP 562 MLSS = (34)(1.75)(1.25) = 75' (Required)

1" in 3.6 Min. 2.1-3.0% Depth to Restrictive Layer = 33" @ TP 582

PRIMARY SEPTIC SYSTEM COMPONENTS 1,125 GAL. SEPTIC TANK (min.), PVC PIPE

M.L.S.S. AND SEPTIC SYSTEM CALCULATIONS

<u>LOT 5</u>

Number of Bedrooms = 1" in 11.4 Min. Percolation Rate = 4.1-6.0% Average Slope = Depth to Restrictive Layer = 20" @ TP 567 Maximum Depth into Grade = 2" HF = 42, FF = 1.75, PF = 1.25MLSS = (42)(1.75)(1.25) = 92' (Required) MLSS = 92' (Provided)

PRIMARY SEPTIC SYSTEM COMPONENTS 1,125 GAL. SEPTIC TANK (min.), PVC PIPE (1) ROW 92 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF RESERVE SEPTIC SYSTEM (1) ROW 79 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF

<u>LOT 6</u> Number of Bedrooms =

1" in 10.0 Min. Percolation Rate = Average Slope = 4.1-6.0% Depth to Restrictive Layer = 22" @ TP 568 Maximum Depth into Grade = 4" HF = 42, FF = 1.75, PF = 1.0MLSS = (42)(1.75)(1.0) = 74' (Required) MLSS = 74' (Provided)

PRIMARY SEPTIC SYSTEM COMPONENTS 1,125 GAL. SEPTIC TANK (min.), PVC PIPE (1) ROW 74 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF RESERVE SEPTIC SYSTEM (1) ROW 58 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF <u>LOT 7</u>

Number of Bedrooms = 1" in 11.4 Min. Percolation Rate = 6.1-8.0% Averaae Slope = Depth to Restrictive Layer = 19" @ TP 572 Maximum Depth into Grade = 1" HF = 34, FF = 1.75, PF = 1.25MLSS = (34)(1.75)(1.25) = 75' (Required) MLSS = 79' (Provided)

PRIMARY SEPTIC SYSTEM COMPONENTS 1,125 GAL. SEPTIC TANK (min.), PVC PIPE (1) ROW 79 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF RESERVE SEPTIC SYSTEM (1) ROW 79 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF

<u>LOT 8</u> Number of Bedrooms = Percolation Rate = 1" in 13.3 Min. 10.1–15% Average Slope = Depth to Restrictive Layer = NONE Maximum Depth into Grade = 35" MLSS NEED NOT BE CONSIDERED PRIMARY SEPTIC SYSTEM COMPONENTS 1,125 GAL. SEPTIC TANK (min.), PVC PIPE (1) ROW 79 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF RESERVE SEPTIC SYSTEM (1) ROW 79 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF

<u>LOT 9</u> Number of Bedrooms = Percolation Rate = 1" in 13.3 Min. 4.1-6.0% Average Slope = Depth to Restrictive Laver = 25" @ TP 17G Maximum Depth into Grade = 2" HF = 34, FF = 1.75, PF = 1.25MLSS = (34)(1.75)(1.25) = 75' (Required) MLSS = 79' (Provided)

PRIMARY SEPTIC SYSTEM COMPONENTS 1,125 GAL. SEPTIC TANK (min.), PVC PIPE (1) ROW 79 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF RESERVE SEPTIC SYSTEM (1) ROW 79 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF

<u>LOT 10</u>

Number of Bedrooms = 1" in 20.0 Min. Percolation Rate = 3.1-4.0% Average Slope = Depth to Restrictive Layer = 25" @ TP 19A Maximum Depth into Grade = 7" HF = 42, FF = 1.75, PF = 1.25MLSS = (42)(1.75)(1.25) = 92' (Required) MLSS = 92' (Provided)

PRIMARY SEPTIC SYSTEM COMPONENTS 1,125 GAL. SEPTIC TANK (min.), PVC PIPE (1) ROW 92 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF RESERVE SEPTIC SYSTEM

(1) ROW 79 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF

LOT 11 Number of Bedrooms = 1" in 20 Min. Percolation Rate = Average Slope = 8.1–10% Depth to Restrictive Layer = 33" @ TP 594 Maximum Depth into Grade = 15" HF = 24, FF = 1.75, PF = 1.25MLSS = (24)(1.75)(1.25) = 53' (Required) MLSS = 58' (Provided)

PRIMARY SEPTIC SYSTEM COMPONENTS 1.125 GAL. SEPTIC TANK (min.), PVC PIPE (1) ROW 58 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF RESERVE SEPTIC SYSTEM (1) ROW 58 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF

<u>LOT 12</u>

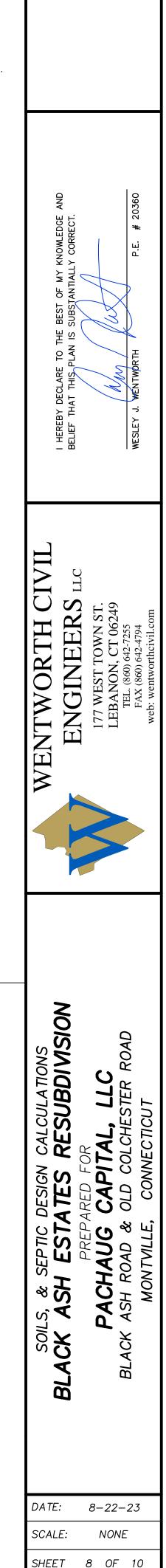
Number of Bedrooms = 4 Percolation Rate = 1" in 13.3 Min. Average Slope = 8.1–10% Depth to Restrictive Layer = NONE Maximum Depth into Grade = 17" HF = 24, FF = 1.75, PF = 1.25MLSS = (24)(1.75)(1.25) = 53' (Required) MLSS = 79' (Provided) PRIMARY SEPTIC SYSTEM COMPONENTS 1,125 GAL. SEPTIC TANK (min.), PVC PIPE (1) ROW 79 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF RESERVE SEPTIC SYSTEM (1) ROW 79 LF GEOMATRIX GST 6212

TRENCHES @ 10 SF/LF <u>LOT 13</u>

PUMP SEPTIC SYSTEM REQUIRED. Number of Bedrooms = Percolation Rate = 1" in 10.0 Min. Average Slope = 4.1-6.0% Depth to Restrictive Layer = 26" @ TP 20C Maximum Depth into Grade = 8" HF = 34, FF = 1.75, PF = 1.0MLSS = (34)(1.75)(1.0) = 60' (Required) MLSS = 60' (Provided) PRIMARY SEPTIC SYSTEM COMPONENTS (1) ROW 60 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF

RESERVE SEPTIC SYSTEM

(1) ROW 58 LF GEOMATRIX GST 6212 TRENCHES @ 10 SF/LF



MAP NO. 23-024-1N

VOLUME OF MATERIAL TO BE IMPORTED TO LOTS

$\frac{\text{LOT 8}}{\text{DRIVEWAY MATERIAL}} = 70 \text{ C.Y.}$ SEPTIC SYSTEM MATERIAL = NONE TOTAL IMPORTED MATERIAL = 70 C.Y.

LOT 9DRIVEWAY MATERIAL = 145 C.Y. SEPTIC SYSTEM MATERIAL = 65 C.Y. TOTAL IMPORTED MATERIAL = 210 C.Y.

<u>LOT 10</u> DRIVEWAY MATERIAL = 30 C.Y. SEPTIC SYSTEM MATERIAL = 30 C.Y. TOTAL IMPORTED MATERIAL = 60 C.Y.

<u>LOT 11</u> DRIVEWAY MATERIAL = 125 C.Y. SEPTIC SYSTEM MATERIAL = 30 C.Y. TOTAL IMPORTED MATERIAL = 155 C.Y.

 $\frac{\text{LOT 12}}{\text{DRIVEWAY MATERIAL}} = 220 \text{ C.Y.}$ SEPTIC SYSTEM MATERIAL = 30 C.Y. TOTAL IMPORTED MATERIAL = 250 C.Y.

 $\frac{\text{LOT } 13}{\text{DRIVEWAY MATERIAL}} = 55 \text{ C.Y.}$ SEPTIC SYSTEM MATERIAL = 30 C.Y. TOTAL IMPORTED MATERIAL = 85 C.Y.

			RAIN G	ARDEN DESI	GN
LOT	DRAINAGE AREA	IMPERVIOUS AREA	% IMPERVIOUS WITHIN DRAIN. AREA	WATER QUALITY VOLUME	VOL. PROVIDED
1	10500 SF	6500 SF	62%	535 CF	INFILTRATION TRENCH - 4' x 1' x 0.4 voids = 1.6 cf/lf
2	3000 SF	1200 SF	40%	105 CF	105 SF X 12" DEEP
3	3800 SF	1800 SF	47%	150 CF	150 SF X 12" DEEP
4	1400 SF	1200 SF	86%	100 CF	100 SF X 12" DEEP
5	73000 SF	6000 CF	8%	730 CF	500 SF X 18" DEEP
6	7500 SF	1200 SF	16%	120 CF	120 SF X 12" DEEP
7	4400 SF	1200 SF	27%	110 CF	110 SF X 12" DEEP
8	3300 SF	3000 SF	91%	240 CF	INFILTRATION TRENCH - 4' x 1' x 0.4 voids = 1.6 cf/lf
9	7200 SF (FRONT) 3400 (REAR)	2700 SF (FRONT) 2000 SF (REAR)	38% (FRONT) 59%(REAR)	240 CF (FRONT) 165 CF (REAR)	240 SF X 12" DEEP (FRONT) 165 SF X 12" DEEP (REAR)
10	7200 SF	2700 SF	38%	240 CF	160 SF X 18" DEEP
11	25000(FRONT) 25000 (REAR)	3400 SF (FRONT) 3200 SF (REAR)	14% (FRONT) 13% (REAR)	365 CF (FRONT) 350 CF (REAR)	365 SF X 12" DEEP (FRONT) 350 SF X 12" DEEP (REAR)
12	8400 SF	1900 SF	23%	180 CF	180 SF X 12" DEEP
13	5700 SF	2200 SF	39%	190 CF	190 SF X 12" DEEP

THE SUBDIVISION PLANS SHOW GENERIC DESIGN CONCEPTS FOR EACH LOT TO DEMONSTRATE CONFORMANCE WITH THE TOWN OF MONTVILLE INLAND WETLANDS AND WATERCOURSES REGULATIONS, ZONING REGULATIONS AND SUBDIVISION REGULATIONS. THE INFORMATION SHOWN IN THE ABOVE REFLECTS THE GENERIC DESIGN CONCEPT AND MAY DIFFER IN SIZE AND SCOPE FROM THE ACTUAL DEVELOPMENT.

TOPSOIL STOCKPILE AREA CALCULATIONS

THE SUBDIVISION PLANS SHOW GENERIC DESIGN CONCEPTS FOR EACH LOT TO DEMONSTRATE CONFORMANCE

WITH THE TOWN OF MONTVILLE INLAND WETLANDS AND WATERCOURSES REGULATIONS, ZONING REGULATIONS AND SUBDIVISION REGULATIONS. THE INFORMATION SHOWN IN THE ABOVE REFLECTS THE GENERIC DESIGN

<u>LOT 1</u> DISTURBED AREA = 21,500 SF VOLUME OF TOPSOIL = 279 CY STOCKPILE DIMENSIONS = $34'W \times 34'L \times 10'H$

<u>LOT 1</u> DRIVEWAY MATERIAL = 100 C.Y.

 $\frac{1012}{\text{DRIVEWAY MATERIAL}} = 30 \text{ C.Y.}$ SEPTIC SYSTEM MATERIAL = 60 C.Y.

 $\frac{\text{LOT 3}}{\text{DRIVEWAY MATERIAL}} = 105 \text{ C.Y.}$ SEPTIC SYSTEM MATERIAL = 60 C.Y.

<u>LOT 4</u> DRIVEWAY MATERIAL = 30 C.Y.

<u>LOT 5</u> DRIVEWAY MATERIAL = 165 C.Y.

 $\frac{1016}{\text{DRIVEWAY MATERIAL}} = 40 \text{ C.Y.}$

 $\frac{101}{100}$

SEPTIC SYSTEM MATERIAL = 30 C.Y.

TOTAL IMPORTED MATERIAL = 130 C.Y.

TOTAL IMPORTED MATERIAL = 90 C.Y.

TOTAL IMPORTED MATERIAL = 165 C.Y.

SEPTIC SYSTEM MATERIAL = 30 C.Y.

SEPTIC SYSTEM MATERIAL = 75 C.Y.

SEPTIC SYSTEM MATERIAL = 50 C.Y.

SEPTIC SYSTEM MATERIAL = 60 C.Y.

TOTAL IMPORTED MATERIAL = 100 C.Y.

TOTAL IMPORTED MATERIAL = 90 C.Y.

TOTAL IMPORTED MATERIAL = 240 C.Y.

TOTAL IMPORTED MATERIAL = 60 C.Y.

LOT 2DISTURBED AREA = 21,126 SF VOLUME OF TOPSOIL = 274 CY STOCKPILE DIMENSIONS = $34'W \times 34'L \times 10'H$

LOT 3DISTURBED AREA = 24,917 SF VOLUME OF TOPSOIL = 323 CY STOCKPILE DIMENSIONS = $38'W \times 38'L \times 10'H$

<u>LOT 4</u> DISTURBED AREA = 25,667 SF VOLUME OF TOPSOIL = 333 CY STOCKPILE DIMENSIONS = $34'W \times 34'L \times 10'H$

LOT 5DISTURBED AREA = 32,447 SF VOLUME OF TOPSOIL = 420 CY STOCKPILE DIMENSIONS = $42'W \times 42'L \times 10'H$

LOT 6DISTURBED AREA = 16,445 SF VOLUME OF TOPSOIL = 508 CY STOCKPILE DIMENSIONS = $46'W \times 46'L \times 10'H$

<u>LOT 7</u> DISTURBED AREA = 20,098 SF VOLUME OF TOPSOIL = 213 CY STOCKPILE DIMENSIONS = $60'W \times 15'L \times 10'H$

LOT 8 DISTURBED AREA = 22,947 SF VOLUME OF TOPSOIL = 197 CYSTOCKPILE DIMENSIONS = $30'W \times 30'L \times 10'H$ <u>LOT 10</u> DISTURBED AREA = 14,483 SF VOLUME OF TOPSOIL = 188 CYSTOCKPILE DIMENSIONS = $30'W \times 30'L \times 10'H$ LOT 11DISTURBED AREA = 22,025 SF VOLUME OF TOPSOIL = 285 CY STOCKPILE DIMENSIONS = $34'W \times 34'L \times 10'H$

STOCKPILE DIMENSIONS = $36'W \times 36'L \times 10'H$

LOT 9DISTURBED AREA = 23,781 SF

VOLUME OF TOPSOIL = 308 CY

 $\frac{\text{LOT } 12}{\text{DISTURBED } \text{AREA}} = 17,501 \text{ SF}$ VOLUME OF TOPSOIL = 227 CYSTOCKPILE DIMENSIONS = $31'W \times 31'L \times 10'H$

DISTURBED AREA = 11,986 SF VOLUME OF TOPSOIL = 155 CY STOCKPILE DIMENSIONS = $26'W \times 26'L \times 10'H$

ROOF DRAIN TREATMENT CALCULATIONS

CONCEPT AND MAY DIFFER IN SIZE AND SCOPE FROM THE ACTUAL DEVELOPMENT.

FOR TYPICAL LOT -RAIN VOLUME

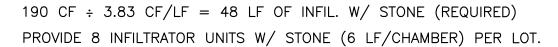
ROOF AREA = 2,275 SF PROVIDE STORAGE FOR 1" OF RAINFALL

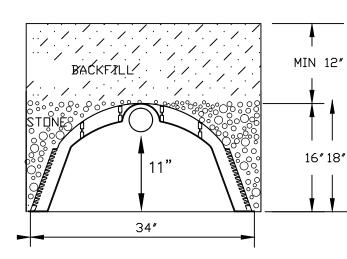
2,275 SF X 1" X (1'/12") = 190 CF

-DRYWELL SIZING

USE 16" HIGH CAPACITY QUICK 4 INFILTRATORS BACKFILLED WITH STONE

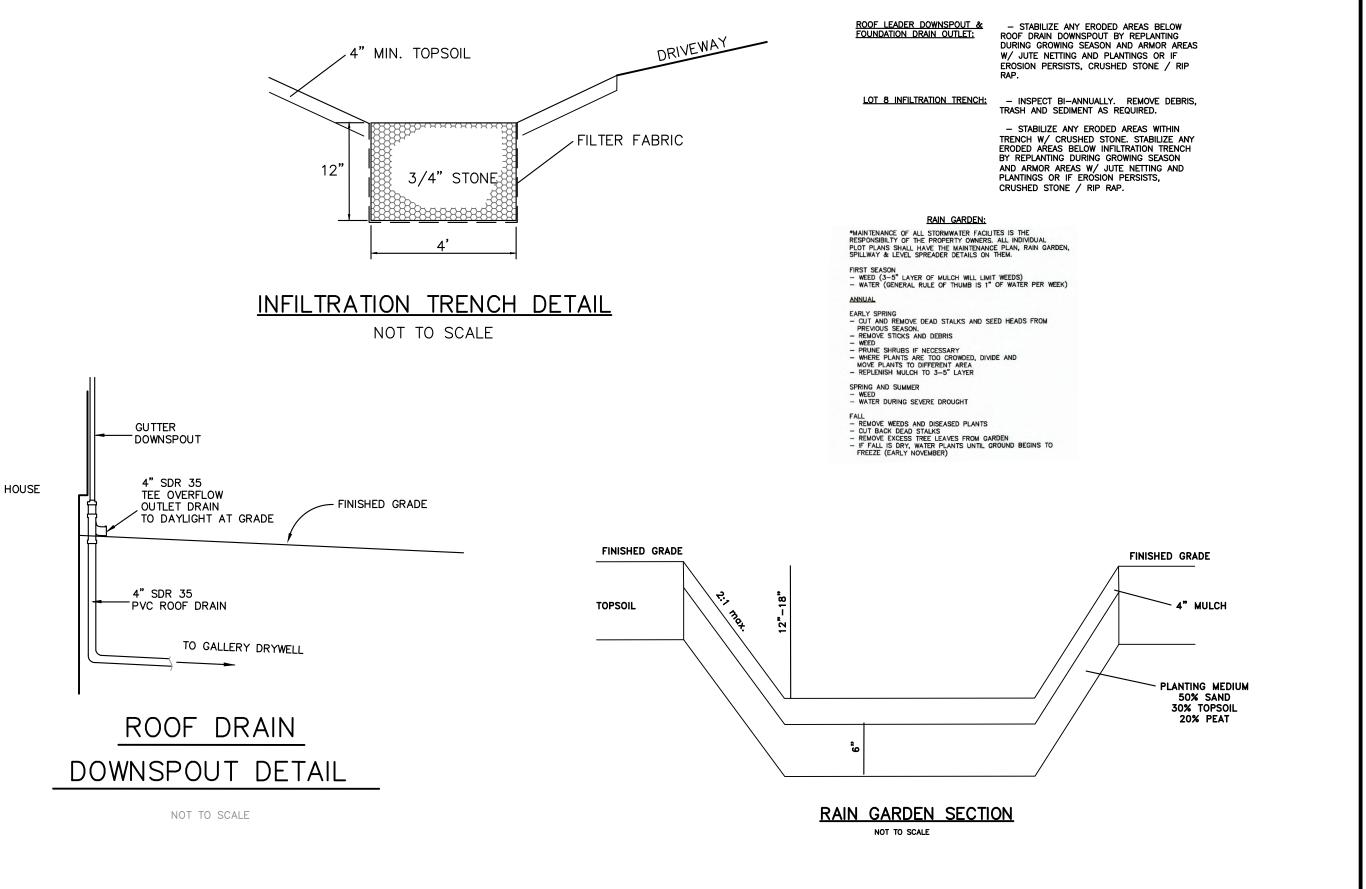
HIGH CAPACITY QUICK 4 INFILTRATORS + STONE = 3.83 CF STORAGE PER LINEAR FOOT

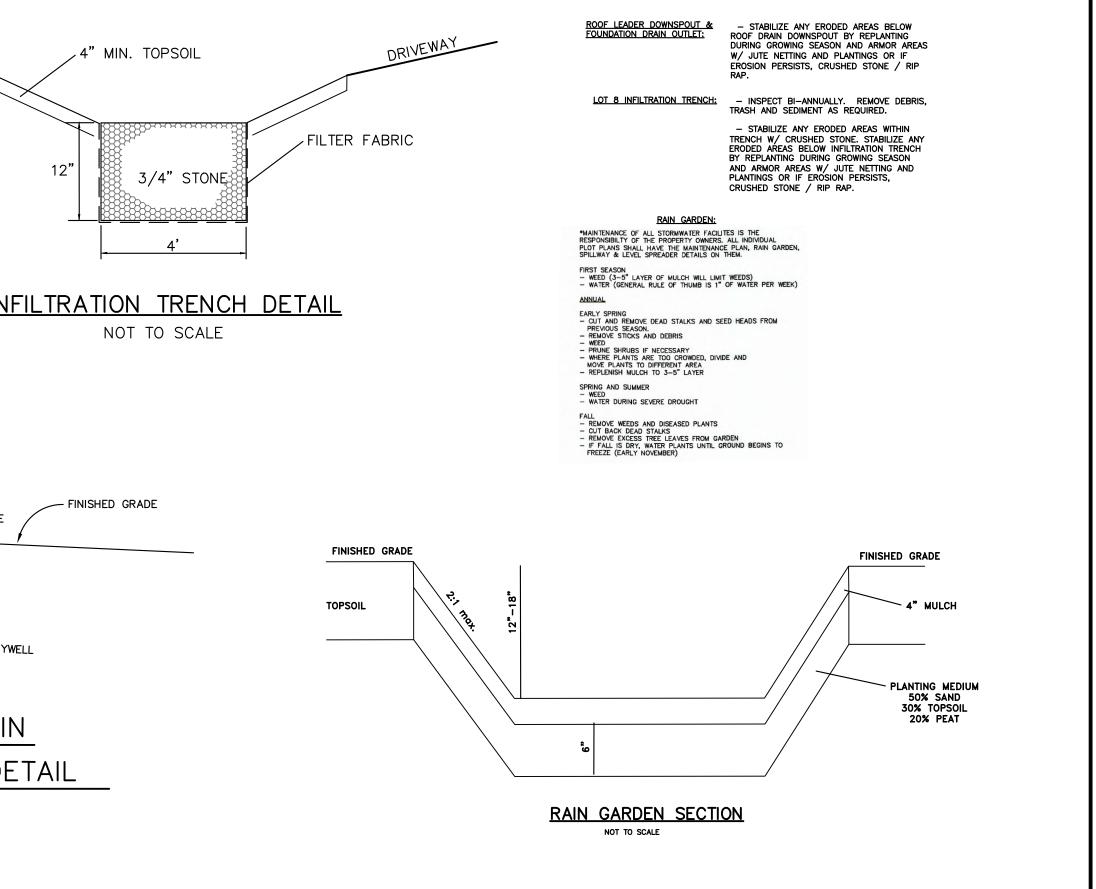




HI-CAPACITY INFILTRATOR CHAMBERS W/ STONE =3.83 FT³/LF INSTALL PER MANUFACTURERS INSTRUCTIONS ROOF DRAIN DETAIL HI-CAPACITY QUICK 4 CHAMBERS WITH STONE

NDT TO SCALE



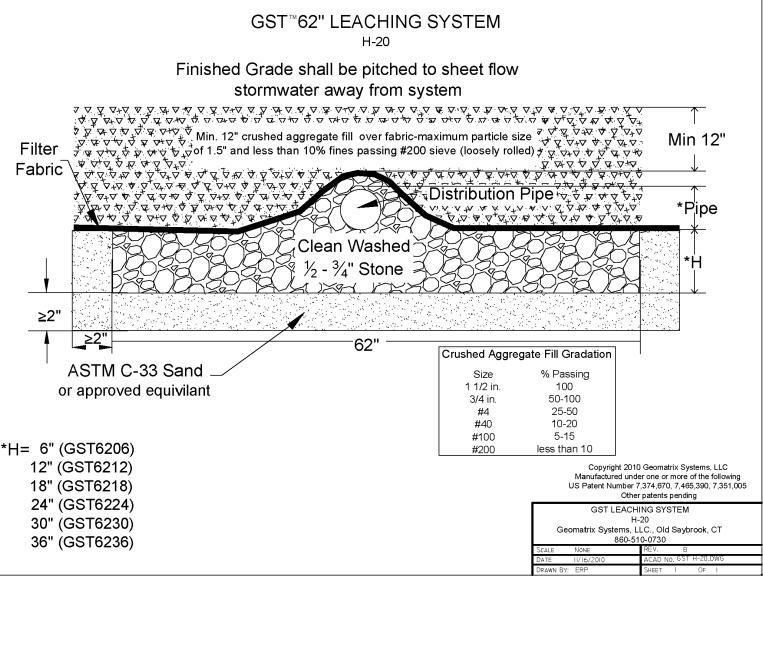


*H= 6" (GST6206) 12" (GST6212) 18" (GST6218) 24" (GST6224) 30" (GST6230) 36" (GST6236)

≥2"

OPERATIONS & MAINTENANCE:

ADDITIONAL SEPTIC SYSTEM DESIGN NOTES



Geomatrix GSTTM Leaching System Installation Instructions

- This installation procedure serves as a general overview of the installation procedure for Geomatrix GST. The system drawings should be strictly adhered to and an authorized representative of Geomatrix Systems, LLC must be present unless the contractor is certified by Geomatrix Systems.
- 1 Layout system
- 2 Prepare site and remove any trees with a drip line falling within 10 feet of the
- leaching system. 3 Excavate trench to specified elevation and a minimum of 66" wide. 4 Rake/scarify sidewall and bottom of trench to address any smearing of fines, and
- then do not walk in trench bottom.
- 5 Install a minimum of 2" of ASTM C-33 sand
- in the bottom of the excavation and rake the sand bed level. 6 Set string and place wood strips along both sides of system location.
- 7 Set the GST forms on top of wood strips.
- 8 Place ASTM C-33 sand into void space between trench sidewall and GST form, including the area between what will become the stone fingers and uniformly compact.
- 9 Place clean CT DOT #6 stone into the interior of the GST form.
- 10 Pull first form and "leap frog" GST form ahead of last GST form.
- 11 Repeat sequence until desired trench length is installed. 12 Install distribution piping on top of, and in the center of, the GST leaching system.
- 13 Place stone around the distribution pipe. Install provided GST inspection port
- 14 Put approved filter fabric over the system. 15 Backfill system to ensure uniform cover exists over the top of the system
- (a minimum of 6" is required).
- 16 Finish grade over the system should ensure that storm water and sheet flow are diverted away from the leaching system, septic tank and pump tank if present. 17 Seed grass over disturbed area.
- 18 Maintain the area to prevent against tree roots from impacting the system. 19 Properly service the septic tank every 3 - 5 years or as advised by the regulatory agency or your service provider.
- 20 Fix leaking plumbing fixtures immediately.

*Notes: If the GST is to be installed under an area where vehicle traffic is likely, a minimum of 12" of cover and a load distribution system is recommended to prevent soil compaction adjacent to the infiltrative surface. Discharging a garbage disposal and/or water softener into septic system and GST leach field is NOT recommended.

Any questions call Geomatrix Systems 860-663-3993 01/28/08 © 2007 Geomatrix Systems, LLC

NOTES: (THE FOLLOWING NOTES MAY APPLY) THE LEACHING AREA IS TO BE STRIPPED OF ALL UNSUITABLE SOILS AND FILLED WITH CLEAN SAND, LAID IN SIX INCH LIFTS. FILL TO BE MECHANICALLY COMPACTED TO 90% MAXIMUM DENSITY. A MINIMUM SEPERATION DISTANCE OF 18" BETWEEN THE MOTTLING/GROUND WATER LAYER AND BOTTOM OF THE LEACHING ARE MUST BE MAINTIANED. INSTALLATION OF ALL SEWAGE DISPOSAL SYSTEMS SHALL NOT OCCUR DURING WET WEATHER TO AVOID SOIL SMEARING.

FILLING OF STRIPPED AREAS SHALL NOT BE PERMITTED WHILE SMEARING OF THE SOILS OCCURS, ALL SMEARED SURFACES SHALL BE RAKED OR PLOWED PRIOR TO ANY FILLING AND AS DIRECTED BY THE TOWN HEALTH DEPARTMENT.

"SELECT FILL MATERIAL" AND "SELECT BACK FILL MATERIAL", PLACED WITHIM. AND ADJACENT TO PROPOSED LEACHING AREAS SHALL BE COMPRISED OF CLEAN SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE FILL MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE APPROVED BY A PROFESSIONAL ENGINEER FOR USE WITHIN THE LEACHING AREA:

1. THE FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THREE (3) INCHES. 2. UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4

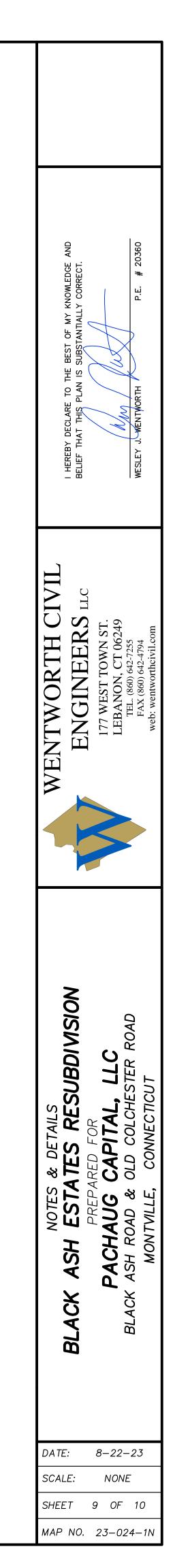
SIEVE (THIS IS THE GRAVEL PORTION OF THE SAMPLE). 3. THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED. 4. THE REMAINING SAMPLE SHALL MEET THE FOLLOWING GRADATION CRITERIA:

<u>SIEVE SIZE</u>	PERCENT	<u> PASSING</u>
#4	<u>WET_SIEVE</u> 100	DRY SIEVE 100
#10	70% — 100%	70% — 100%
#40	10% — 50%*	10% — 75%
#100	0% — 20%	0% — 5%
#200	0% — 5%	0% — 2.5%

*NOTE: PERCENT PASSING THE #40 SIEVE CAN BE INCREASED TO NO GREATER THAN 75% IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10% AND THE #200 SIEVE DOES NOT EXCEED 5%. THE RESPONSIBILITY FOR THE PREPARATION OF A LEACHING AREA UTILIZING "SELECT MATERIAL" IS THAT OF THE

LICENSED INSTALLER. THE INSTALLER SHALL TAKE THE NECESSARY STEPS TO PROTECT THE UNDERLYING NATURALLY OCCURRING SOILS FROM OVERCOMPACTION AND SILTATION ONCE EXPOSED. B. ENDS OF GST TRENCH TO BE CAPPED

C, NO SOURCES OF POLLUTION WITHIN 75' OF PROPOSED WELL.



SITE NARRATIVE

<u>GENERAL</u>

LAND GRADING

SETTLING OR CRACKING.

INSTALLATION OF EROSION & SEDIMENTATION CONTROLS INSPECTION & MAINTENANCE OF EROSION & SEDIMENTATION CONTROLS

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ALL CONSTRUCTION METHODS TO CONFORM TO CONN. D.O.T. FORM 818 AND/OR THE TOWN STANDARD SPECIFICATIONS.

THE LOCATION OF ALL EXISTING UTILITIES SHOWN IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE LOCATION OF EXISTING UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION AND FOR COORDINATING CONNECTION OF PROPOSED AND EXISTING

TOWN MAY REQUIRE CHANGES TO THE PLAN TO ADDRESS PROBLEMS THAT MAY RESULT IN THE FIELD. ALL UTILITIES TO BE INSTALLED/DIRECTED BY APPROPRIATE AUTHORITIES.

FOUNDATION DRAINS SHALL BE DEPICTED ON ALL PLOT PLANS.

HOUSE SITE DEVELOPMENT

ALL DRIVEWAY SHOULDERS SHOULD BE STABILIZED IMMEDIATELY UPON COMPLETION OF ROUGH GRADING. SHOULDER SEED BED PREPARATION SHOULD FOLLOW THE GENERAL NOTES PROVIDED. HAY BALES OR FILTER FABRIC SHOULD BE USED TO ENTRAP ANY SEDIMENT GENERATED FROM EXPOSED SOIL SURFACES. DRIVEWAY ROADBEDS SHALL BE STABILIZED WITH COMPACTED ROAD AGGREGATE AS SOON AS POSSIBLE.

TOPSOIL AND EXCAVATED SUBSOIL FROM THE FOUNDATION AREA SHOULD BE STOCKPILED WITHIN THE AREA OF DISTURBANCE IF NOT USED FOR ONSITE REGRADING. EACH STOCKPILE MUST BE ADEQUATELY RINGED WITH SEDIMENT CONTROL MATERIALS (I.E. HAY BALES AND/OR FABRIC FENCE.)

ANY ADDITIONAL STOCKPILING OF LUMBER OR BUILDING MATERIALS SHOULD ALSO BE CONFINED TO THE AREA OF DISTURBANCE. SIMILARY, VEHICULAR MOVEMENT SHOULD BE DIRECTED TO ESTABLISHED PARKING AREAS. PROPOSED LEACHING SYSTEM AREAS NOT BE IMPACTED BY VEHICULAR TRAFFIC OR UTILIZED AS PARKING DEVELOPMENT OF SEWAGE DISPOSAL LEACHING AREAS SHOULD BE STAGED TO FOLLOW HOUSE SITE PREPARATION. ONLY THE PRIMARY LEACHING SYSTEM NEED BE CLEARED OF EXISTING VEGETATION IN COORDINATION WITH APPROVED SEPTIC SYSTEM DESIGN. RESERVE AREAS SHOULD REMAIN UNALTERED IF SITE CONDITIONS PERMIT.

SOIL BOUNDARIES AND SOIL TYPES TAKEN FROM "SOIL SURVEY NEW LONDON COUNTY, CONNECTICUT", USDA SCS. WETLAND BOUNDARIES VERIFIED IN FIELD. STUMPAGE AND DEBRIS SHALL NOT BE BURIED ON SITE.

PLOT PLANS FOR EACH LOT SHALL INDICATE PROPOSED SEDIMENTATION AND EROSION CONTROLS. ALSO THE PROPOSED HOUSE LOCATION, LOT GRADING LIMIT OF TREE CLEARING, DRIVEWAY DESIGN, SEPTIC SYSTEM DESIGN AND SITE DRAINAGE PLAN SHAL BE SHOWN. THESE PLANS SHALL BE SUBJECT TO REVIEW AND APPROVAL BY THE TOWN. UPON APPROVAL OF INDIVIDUAL SITE PLAN DEVELOPMENT, THE LIMITS OF DEVELOPMENT

SHOULD BE ESTABLISHED IN THE FIELD FOR EACH PROPOSED RESIDENTIAL STRUCTURE. DISTURBANCE LIMITS OF 25-30 FEET BEYOND THE PHYSICAL DIMENSIONS OF THE STRUCTURE ARE RECOMMENDED.

LEACHING FIELDS ARE TO BE LOCATED IN AREAS DESIGNATED ON SUBDIVISION PLAN.

IN GENERAL THIS SITE CONSISTS OF 25.46 ACRES OF LAND TO BE DEVELOPED INTO 6 RESIDENTIAL BUILDING LOTS. HOUSES WILL BE SERVED BY ONSITE PRIVATE WELLS AND ONSITE SUBSURFACE SEPTIC SYSTEMS.

THE NATURE OF THE PROPOSED CONSTRUCTION ACTIVITIES INCLUDE MINIMAL CLEARING AND GRUBBING, TOPSOIL STRIPPING, FOUNDATION EXCAVATION AND INSTALLATION OF DRIVEWAY, SEPTIC SYSTEM & WELL. ALL ACTIVITIES ARE DESIGNED WITH A STRONG FOCUS ON EROSION & SEDIMENTATION CONTROLS.

SOME GENERAL KEYS TO SUCCESSFUL EROSION & SEDIMENTATION CONTROLS ARE AS FOLLOWS: 1. KEEP CLEARING AND GRUBBING OF VEGETATION TO AN ABSOLUTE MINIMUM.

2. MINIMIZE TIME OF EXPOSURE OF UNPROTECTED SOIL SURFACES. 3. STABILIZE ALL GRADED AREAS WITH MULCH AND VEGETATION IMMEDIATELY AFTER GRADING.

4. DIVERT RUNOFF AWAY FROM STEEPLY SLOPED & DISTURBED AREAS. 5. MONITOR AND MAINTAIN CONTROLS REGULARLY (WEEKLY).

THESE GUIDELINES SHALL APPLY TO ALL WORK CONSISTING OF ANY AND ALL TEMPORARY AND/OR PERMANENT MEASURES TO CONTROL WATER POLLUTION AND SOIL EROSION AS MAY BE REQUIRED, DURING THE CONSTRUCTION OF THE PROJECT.

IN GENERAL, ALL CONSTRUCTION ACTIVITIES SHALL PROCEED IN SUCH A MANNER SO AS NOT TO POLLUTE ANY WETLANDS, WATERCOURSE, WATERBODY, AND CONDUIT CARRYING WATER, ETC. THE CONTRACTOR SHALL LIMIT, INSOFAR AS POSSIBLE, THE SURFACE AREA OF EARTH MATERIALS EXPOSED BY CONSTRUCTION METHODS, AND IMMEDIATELY PROVIDE PERMANENT AND TEMPORARY POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT WETLANDS, WATERCOURSES AND WATERBODIES, AND TO PREVENT, INSOFAR AS POSSIBLE, EROSION ON THE SITE.

CONSTRUCTION METHODS, IN GENERAL, SHALL BE IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE STATE OF CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION.

THE RESHAPING OF THE GROUND SURFACE BY EXCAVATION AND FILLING OR A COMBINATION OF BOTH, TO OBTAIN PLANNED GRADES SHALL PROCEED IN ACCORDANCE

WITH THE FOLLOWING BASIC CRITERIA: A) THE CUT FACE OF EARTH EXCAVATION SHALL NOT BE STEEPER THAN TWO HORIZONTAL TO

ONE VERTICAL (2:1). B) THE PERMANENT EXPOSED FACES OF FILLS SHALL NOT BE STEEPER THAN TWO HORIZONTAL

TO ONE VERTICAL (2:1). C) THE CUT FACE OF ROCK EXCAVATION SHALL NOT BE STEEPER THAN ONE HORIZONTAL TO FOUR VERTICAL (1:4).

D) NO FILL SHOULD BE PLACED WHERE IT WILL SLIDE, OR WASH UPON THE PREMISES OF ANOTHER OWNER OR UPON ADJACENT WETLANDS, WATERCOURSE OR WATERBODY.

E) INSTALLATION OF SEDIMENT AND EROSION CONTROLS SUCH AS HAY BALES AND SILT FENCES SHALL BE ESTABLISHED PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITIES. ALL SEDIMENT AND EROSION CONTROL STRUCTURES MUST BE MONITORED AND MAINTAINED BY THE CONTRACTOR UNTIL THE SOIL SURFACE IS STABILIZED.

F) IF NECESSARY, LATERAL WATER DIVERSIONS SHALL BE INSTALLED ACROSS THE GRADED ROADWAY TO PREVENT DOWNSLOPE OUTWASH AND EROSION.

G) HAY BALES SHALL BE STAKED AND SILT FENCES SHALL BE PROPERLY SECURED. SEDIMENT WILL BE REMOVED FROM ALL CATCHMENTS AS NECESSARY.

H) PRIOR TO ANY REGRADING, STONE APRON SHALL BE PLACED BY THE ENTRANCE TO THE WORK AREA IN ORDER TO REDUCE MUD AND OTHER SEDIMENTS FROM LEAVING THE SITE.

PROVISIONS SHOULD BE MADE TO CONDUCT SURFACE WATER SAFELY TO STORM DRAINS, TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FILL SLOPES.

J) EXCAVATIONS SHOULD NOT BE MADE SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJOINING PROPERTY WITHOUT PROTECTING SUCH PROPERTY FROM EROSION, SLIDING,

TOPSOILING GENERAL:

1. TOPSOIL SHALL BE SPREAD OVER ALL EXPOSED AREAS IN ORDER TO PROVIDE A SOIL MEDIUM HAVING FAVORABLE CHARACTERISTICS FOR THE ESTABLISHMENT, GROWTH AND MAINTENANCE OF VEGETATION.

2. REMOVE ALL LARGE STONES, TREE LIMBS, ROOTS, AND CONSTRUCTION DEBRIS.

3. APPLY LIME ACCORDING TO SOIL TEST OR AT THE RATE OF TWO (2) TONS PER ACRE. MATERIAL:

1. TOPSOIL SHOULD HAVE PHYSICAL, CHEMICAL AND BIOLOGICAL CHARACTERISTICS FAVORABLE TO THE GROWTH OF PLANTS.

2. TOPSOIL SHOULD HAVE A SANDY OR LOAMY TEXTURE.

3. AN ORGANIC MATTER CONTENT OF OVER TWO (2%) PERCENT IS HIGHLY DESIRABLE. AVOID LIGHT COLORED LOWER SUBSOIL MATERIAL.

APPLICATION

1. AVOID SPREADING WHEN TOPSOIL IS WET OR FROZEN. 2. SPREAD TOPSOIL UNIFORMLY TO A DEPTH OF AT LEAST FOUR (4") INCHES.

EROSION CHECKS

GENERAL: 1. TEMPORARY PERVIOUS BARRIERS USING BALES OF HAY OR STRAW, HELD IN PLACE WITH

STAKES DRIVEN THROUGH THE BALES AND INTO THE GROUND, OR SEDIMENT FILTER FABRIC FASTENED TO A FENCE POST AND BURIED INTO THE GROUND, SHALL BE INSTALLED AND MAINTAINED AS REQUIRED TO CHECK EROSION AND REDUCE SEDIMENTATION. CONSTRUCTION:

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.

2. EACH BALE SHALL BE EMBEDDED INTO THE SOIL A MINIMUM OF FOUR (4") INCHES.

- 3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY WOOD STAKES OR REINFORCEMENT BARS DRIVEN THROUGH THE BALES AND INTO THE GROUND. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD THE PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
- 4. FILTER FABRIC SHALL BE SECURELY FASTENED AT THE TOP OF A THREE (3') FOOT HIGH FENCE AND BURIED A MINIMUM OF FOUR (4") INCHES INTO THE SOIL SEAMS BETWEEN SECTIONS OF FILTER FABRIC SHALL OVERLAP A MINIMUM OF TWO (2') FEET.

INSTALLATION AND MAINTENANCE: 1. BALED HAY EROSION BARRIERS SHALL BE INSTALLED AT ALL STORM SEWER INLETS.

- BALED HAY EROSION BARRIERS AND SEDIMENT FILTER FENCES SHALL BE INSTALLED AT THE LOCATIONS INDICATED ON THE PLAN AND IN ADDITIONAL AREAS AS MAY BE DEEMED APPROPRIATE DURING CONSTRUCTION.
- ALL EROSION CHECKS SHALL BE MAINTAINED UNTIL ADJACENT AREAS ARE STABILIZED. 4. INSPECTION SHALL BE FREQUENT (AT MINIMUM MONTHLY AND BEFORE AND AFTER HEAVY RAIN) AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- 5. EROSION CHECKS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORMWATER FLOW OR DRAINAGE.

WINDBLOWN SEDIMENT

GENERAL

ALL WINDBLOWN SEDIMENTS SHALL BE CONTROLLED AT ALL TIMES. THE SITE CONTRACTOR IS RESPONSIBLE FOR APPLYING DUST CONTROL AS OFTEN AS NEEDED TO PREVENT ANY WINDBLOWN SEDIMENTS FROM LEAVING THE SITE. PREDETERMINED TRAFFIC ROUTES FOR ALL TRAFFIC SHALL BE ESTABLISHED BY THE SITE CONTRACTOR TO STABILIZED ROUTES. TEMPORARY AND PERMANENT MULCHING AND TEMPORARY AND PERMANENT VEGETATIVE COVER SHALL BE USED TO MINIMIZE THE NEED FOR DUST CONTROL, MECHANICAL SWEEPERS SHALL BE USED ON ALL PAVED SURFACES TO PREVENT DUST BUILD UP DURING THE COURSE OF SITE WORK.

METHODS:

- 1. SPRAY ON ADHESIVES ARE ACCEPTABLE AND SHOULD BE APPLIED ACCORDING TO MANUFACTURER'S GUIDELINES.
- 2. WATER IS ACCEPTABLE BUT MUST BE APPLIED OFTEN IN HOT, DRY WEATHER.
- CALCIUM CHLORIDE IS ACCEPTABLE BUT MUST BE APPLIED AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE.
- 4. CRUSHED STONE OR COARSE GRAVEL CAN ALSO BE USED.

TEMPORARY VEGETATIVE COVER

GENERAL:

- TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED ON ALL UNPROTECTED AREAS THAT PRODUCE SEDIMENT, AREAS WHERE FINAL GRADING HAS BEEN COMPLETED AND AREAS WHERE THE ESTIMATED PERIOD OF BARE SOIL EXPOSURE IS LESS THAN 12 MONTHS. SITE PREPARATION:
- 1. INSTALL REQUIRED SURFACE WATER CONTROL MEASURES.
- 2. REMOVE LOOSE ROCK, STONE, AND CONSTRUCTION DEBRIS FROM AREA.
- APPLY LIME ACCORDING TO SOIL TEST OR AT A RATE OF ONE (1) TON OF GROUND DOLOMITIC LIMESTONE PER ACRE (5 LBS. PER 100 SQUARE FEET).
- 4. APPLY FERTILIZER ACCORDING TO SOIL TEST OR AT THE RATE OF 300 LBS. OF 10-10-10 PER ACRE (7 LBS. PER 1,000 SQUARE FEET.)
- 5. UNLESS HYDROSEEDED, WORK IN LIME AND FERTILIZER TO A DEPTH OF FOUR (4") INCHES USING A DISK OR ANY SUITABLE EQUIPMENT.
 - 6. TILLAGE SHOULD ACHIEVE A REASONABLY UNIFORM, LOOSE SEEDBED. WORK ON CONTOUR IF SITE IS SLOPING.

ESTABLISHMENT:

- USE ANNUAL RYEGRASS AT A RATE OF 40 LBS/AC. OR SUITABLE EQUIVALENT AS SPECIFIED IN THE "GUIDELINES". SEEDING TO BE DONE FROM APRIL 1ST TO JUNE 15 OR AUGUST 1ST TO OCTOBER 1ST.
- WINTER STABILIZATION PLANTINGS TO BE NO LATER THAN OCTOBER 1ST. THIS INCLUDES STOCKPILE AREAS.
- 3. APPLY SEED UNIFORMLY ACCORDING TO THE RATE INDICATED BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION.
- UNLESS HYDROSEEDED, COVER RYEGRASS SEEDS WITH NOT MORE THAN 1/4 INCH OF SOIL WITH SUITABLE EQUIPMENT. COVER SUDANGRASS AND SMALL GRAINS WITH 1/2 INCH SOIL.
- MULCH IMMEDIATELY AFTER SEEDING, IF REQUIRED, ACCORDING TO THE GUIDELINES IN THE "GUIDELINES".

PERMANENT VEGETATIVE COVER

PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED AS VARIOUS SECTIONS OF THE PROJECT ARE COMPLETED IN ORDER TO STABILIZE THE SOIL, REDUCE DOWNSTREAM DAMAGE FROM SEDIMENT AND RUNOFF AND TO ENHANCE THE AESTHETIC NATURE OF THE SITE. IT WILL BE APPLIED TO ALL CONSTRUCTION AREAS SUBJECT TO EROSION WHERE FINAL GRADING HAS BEEN COMPLETED AND A PERMANENT COVER IS NEEDED.

SITE PREPARATION:

- INSTALL REQUIRED SURFACE WATER CONTROL MEASURES. 2. REMOVE LOOSE ROCK, STONE AND CONSTRUCTION DEBRIS FROM AREA.
- 3. PERFORM ALL PLANTING OPERATIONS PARALLEL TO THE CONTOURS OF THE SLOPE.
- 4. APPLY TOPSOIL AS INDICATED ELSEWHERE HEREIN.
- 5. APPLY FERTILIZER ACCORDING TO SOIL TEST OR:

SPRING SEEDING WORK DEEPLY IN SOIL, BEFORE SEEDING, 300 LBS OF 10-10-10 FERTILIZER PER ACRE (7 LBS PER 1,000 SQUARE FEET); THEN SIX (6) TO EIGHT (8) WEEKS LATER APPLY ON THE SURFACE AN ADDITIONAL 300 LBS OF 10-10-10 FERTILIZER PER ACRE.

- FALL SEEDING:

ESTABLISHMENT SMOOTH AND FIRM SEEDBED WITH CULTIPACKER OR OTHER SIMILAR EQUIPMENT PRIOR TO SEEDING (EXCEPT WHEN HYDROSEEDING).

2. SELECT ADAPTED SEED MIXTURE AS FOLLOWS. NOTE RATES AND THE SEEDING DATES.

SUNNY TO PARTIALLY	<u>Y SUNNY SITES</u>	_
	LBS	./ACRE
KENTUCKY BLUEGRASS CREEPING RED FESCUI PERENNIAL RYEGRASS	Ē	20 20 05
	TOTAL	45
SHADY SITES		
CREEPING RED FESCU PERENNIAL RYEGRASS	-	50 05
	TOTAL	55
DROUGHTY SITES		
CREEPING RED FESCUI TALL FESCUE	Ξ	40 20

3. FINAL SEEDING SHALL TAKE PLACE PRIOR TO OCTOBER 1ST AS SEEDING AFTER THIS DATE RUNS A DISTINCT CHANCE OF FAILURE DUE TO ADVERSE WEATHER. ANY AREAS THAT ARE DISTURBED BETWEEN OCTOBER 1ST AND APRIL 1ST SHALL BE STABILIZED BY NON-VEGETATIVE MEANS SUCH AS HEAVY MULCHING WITH A BINDER OR JUTE MATTING WHICH WILL HAVE TO BE REMOVED BEFORE FINAL SEEDING AND THEN REPLACED AFTER FINAL SEEDING.

TOTAL

60

- 4. APPLY SEED UNIFORMLY ACCORDING TO RATE INDICATED, BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION.
- 5. COVER GRASS AND LEGUME SEEDS WITH NOT MORE THAN 1/4 INCH OF SOIL WITH SUITABLE
- EQUIPMENT (EXCEPT WHEN HYDROSEEDING).
- MULCH IMMEDIATELY AFTER SEEDING, IF REQUIRED, ACCORDING TO THE GUIDELINES IN THE "GUIDELINES".
- 7. USE PROPER INOCULANT ON ALL LEGUME SEEDINGS, USE FOUR (4) TIMES NORMAL RATE WHEN HYDROSEEDING.

15' MIN.
2" BIT CONC.
4" COMPACTED PROCESSED AGG
8" COMPACTED BANKRUN GRA

15' COMMON DRIVEWAY DETAIL

ALL SITE CONSTRUCTION RANCE FOR DRIVEWAY	•••	- ·	•	•••				•••				•••	•••		• •	•	• •		•	• •	•••	•	•••		•				•••	•
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CONSTRUCTION SCHEDULE

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