

TANK SETBACK NOTE:
 MAINTAIN 10' MINIMUM HORIZONTAL SEPARATION DISTANCE FROM THE SEPTIC TANK TO A CELLAR OR CRAWL SPACE WALL OR TO A SLAB AND TO A FOUNDATION DRAIN.

SET TEES ON CENTER LINE OF TANK BELOW ACCESS COVERS WITHIN 12" OF END WALL. (TEES PER CMR 310 15.227)

12" MINIMUM / 36" MAXIMUM EARTH BACK FILL (TYPICAL) OVER TANK. FINISH GRADE OVER TANK = 69.6 TO GRADE (TYP.)

FINISH GRADE = 70.5± (OVER PIPE) RISE & COVER OVER TANK = 69.6 TO GRADE (TYP.)

4" SCH. 40 PVC SLOPE = 2.00% MIN

3" MIN. 1.9'±

4" SCHED. 40 PIPE S=1.00% MIN.

HEADERS LAID LEVEL FOR TWO FEET MINIMUM

4" SOLID PVC PIPE

INSPECTION PORT CAP/PLUG AT GRADE

MAINTAIN MINIMUM 2% SLOPE OVER TOP OF SYSTEM

MAINTAIN AT POLY BARRIER AND FOR 15' AROUND AS SHOWN TOP OF STONE ELEVATION 66.8 MINIMUM

2" OF 1/8" - 1/2" DOUBLE WASHED STONE

INTERCONNECT ENDS WITH 4" SOLID PVC

TOP OF BARRIER 66.8

CONTINUOUS 40 MIL. POLY BARRIER WITH WATER TIGHT SEAMS PLACED AT OVERDIG AS SHOWN IN THE PLAN VIEW

5' OVERDIG (TYP)

BOTTOM OF BARRIER 61.8

BASE ELEV=65.5

3/4" - 1-1/2" DIAM DOUBLE WASHED STONE

EFFECTIVE DEPTH = 0.5

4" SEPARATION > 2 MPI

GWT ELEV = 61.5 (36" GWT)

FINISH GRADE = 67.8 MIN. 69.8 MAX.

12" MINIMUM / 36" MAXIMUM EARTH BACK FILL

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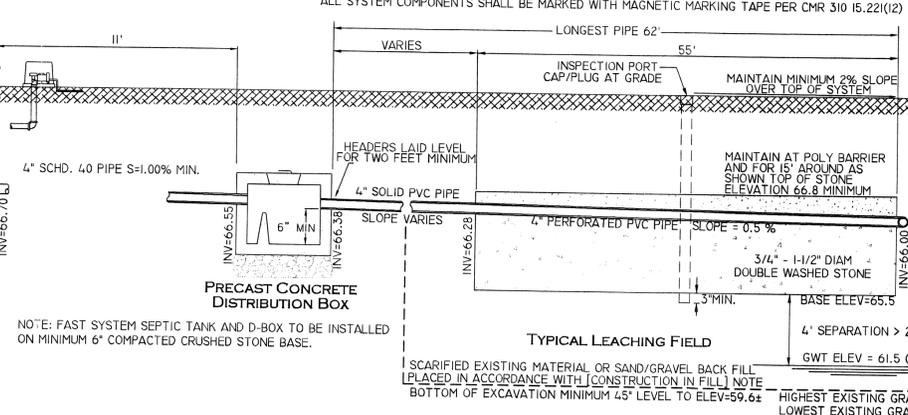
GWT ELEV = 61.5 (36" GWT)

FINISH GRADE = 67.8 MIN. 69.8 MAX.

12" MINIMUM / 36" MAXIMUM EARTH BACK FILL

CROSS SECTION THROUGH SEPTIC SYSTEM

NOT TO SCALE
 ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE PER CMR 310 15.22(1)(2)



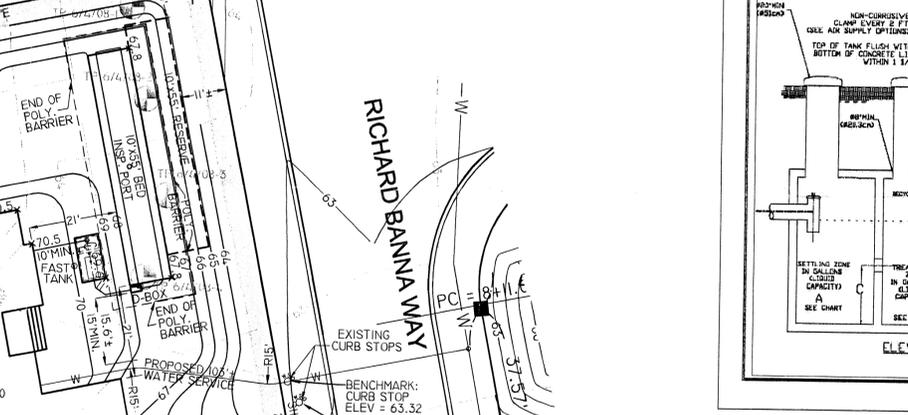
SCARIFIED EXISTING MATERIAL OR SAND/GRAVEL BACK FILL (PLACED IN ACCORDANCE WITH CONSTRUCTION IN FILL) NOTE BOTTOM OF EXCAVATION MINIMUM 4.5' LEVEL TO ELEV=59.6±

HIGHEST EXISTING GRADE = 64.5 @ SOIL ABSORPTION SYSTEM TO SET BOTTOM OF BED ELEVATION

LOWEST EXISTING GRADE = 63.4 @ OVER DIG TO SET MINIMUM EXCAVATION ELEVATION

SIZE	A	B	C	VI	H	LI	WI	L2	W2
0.5	500	1000	24"	3'	50"	60"	30"	26"	15.5'

A = SETTLING ZONE (LIQUID CAPACITY)
 B = FAST CHAMBER (LIQUID CAPACITY)
 C = INFLUENT APERTURE HEIGHT
 VI = VENT SIZE (MINIMUM)
 H = FAST HEIGHT
 LI = FAST LENGTH (TOTAL)
 WI = FAST WIDTH FROM BACK TO AIR LIFT
 L2 = FAST LENGTH TO AIR LIFT
 W2 = FAST WIDTH TO AIR LIFT



FAST SYSTEM DETAIL (FOLLOW MANUFACTURES SPECIFICATIONS)



DATE: 07-11-06

BIO-MICROBICS 0.5 GPD, 1.0 & 1.5 FAST UNITS (Plan and Cut Views) for Massachusetts

IN THE INTEREST OF TECHNICAL PROGRESS, ALL PRODUCTS ARE SUBJECT TO BEING OBSOLETE WITHOUT NOTICE.

DATE: 07-11-06

BIO-MICROBICS 0.5 GPD, 1.0 & 1.5 FAST UNITS (Plan and Cut Views) for Massachusetts

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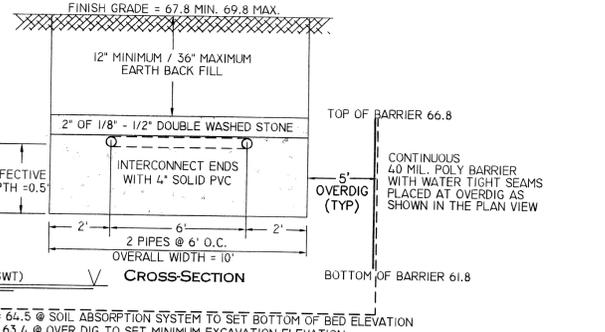
IN THE INTEREST OF TECHNICAL PROGRESS, ALL PRODUCTS ARE SUBJECT TO BEING OBSOLETE WITHOUT NOTICE.

DATE: 07-11-06

BIO-MICROBICS 0.5 GPD, 1.0 & 1.5 FAST UNITS (Plan and Cut Views) for Massachusetts

SOIL ABSORPTION SYSTEM (SAS) SETBACK NOTE:

MAINTAIN 20' MINIMUM HORIZONTAL SEPARATION DISTANCE FROM THE LEACH FIELD TO A CELLAR OR CRAWL SPACE WALL OR TO A FOUNDATION DRAIN AND 10' MINIMUM TO A SLAB FOUNDATION.



SCARIFIED EXISTING MATERIAL OR SAND/GRAVEL BACK FILL (PLACED IN ACCORDANCE WITH CONSTRUCTION IN FILL) NOTE BOTTOM OF EXCAVATION MINIMUM 4.5' LEVEL TO ELEV=59.6±

HIGHEST EXISTING GRADE = 64.5 @ SOIL ABSORPTION SYSTEM TO SET BOTTOM OF BED ELEVATION

LOWEST EXISTING GRADE = 63.4 @ OVER DIG TO SET MINIMUM EXCAVATION ELEVATION

DEPTH	HORIZON	TEXTURE	COLOR	MOTTLING	OTHER
0-6"	A	SL	10 YR 3/1	-	-
6-22"	B	SL	10 YR 5/8	-	-
22-41"	C1	SL	2.5 Y 7/2	10 YR 6/8 COMMON	LOOSE
41-110"	C2	SL	2.5 Y 6/2	-	BASIL

OBSERVED GROUND WATER: NO STANDING, NO WEEPING DATE: 6-4-08
 ESTIMATED HIGH GROUND WATER: 41" BY: D. MONSEES
 PERC. RATE @ 42" = 4 MPI WITNESS: H. CHENEVERT

DEEP OBSERVATION HOLE TP 6/4/08-2

DEPTH	HORIZON	TEXTURE	COLOR	MOTTLING	OTHER
0-9"	A	SL	10 YR 3/1	-	-
9-32"	B	SL	10 YR 5/8	-	-
32-96"	Cd1	SL	2.5 Y 6/2	10 YR 6/8 COMMON	BASIL

OBSERVED GROUND WATER: NO STANDING, NO WEEPING DATE: 6-4-08
 ESTIMATED HIGH GROUND WATER: 41" BY: D. MONSEES
 NO PERC. TEST PERFORMED WITNESS: H. CHENEVERT

DEEP OBSERVATION HOLE TP 6/4/08-3

DEPTH	HORIZON	TEXTURE	COLOR	MOTTLING	OTHER
0-9"	A	SL	10 YR 3/1	-	-
9-24"	B	SL	10 YR 5/8	-	-
24-96"	Cd1	SL	2.5 Y 6/2	10 YR 6/8 COMMON	BASIL

OBSERVED GROUND WATER: NO STANDING, NO WEEPING DATE: 6-4-08
 ESTIMATED HIGH GROUND WATER: 36" BY: D. MONSEES
 NO PERC. TEST PERFORMED WITNESS: H. CHENEVERT

DEEP OBSERVATION HOLE TP 6/4/08-4

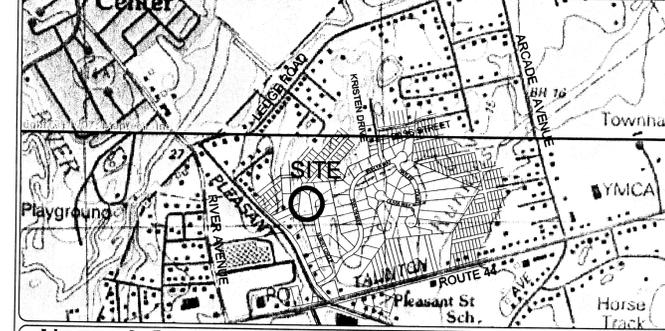
DEPTH	HORIZON	TEXTURE	COLOR	MOTTLING	OTHER
0-6"	A	SL	10 YR 3/1	-	-
6-24"	B	SL	10 YR 5/8	-	-
24-68"	C1	LS	2.5 Y 7/2	10 YR 6/8 COMMON	LOOSE
68-100"	C2	SL	2.5 Y 6/2	-	BASIL

OBSERVED GROUND WATER: NO STANDING, NO WEEPING DATE: 6-4-08
 ESTIMATED HIGH GROUND WATER: 40" BY: D. MONSEES
 PERC. RATE @ 45" = 3 MPI WITNESS: H. CHENEVERT

SOIL EVALUATION & PERC RESULTS

NOTE: TEST PITS PREVIOUSLY BELONGED TO LOT 54 (SEE REFERENCE FORM A)

LOCATION (NOT TO SCALE) MAP



NOTES & SPECIFICATIONS

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF 310 CMR 15 (TITLE V) OF THE COMMONWEALTH OF MASSACHUSETTS AND THOSE OF THE TOWN BOARD OF HEALTH.

THE REQUIRED INSPECTION SCHEDULE DURING THE PROCESS OF CONSTRUCTION SHALL BE ARRANGED BY THE CONTRACTOR WITH THE BOARD OF HEALTH & DESIGN ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

1500 GALLON FAST SYSTEM SEPTIC TANK AND DISTRIBUTION BOX SHALL BE STANDARD DUTY DESIGN AS MANUFACTURED BY CONCRETE PRODUCTS, INC. OR APPROVED EQUAL.

ALL PIPING SHALL BE 4" DIA. SCHED. 40 NSF PVC, WITH ALL JOINTS SEALED WATER TIGHT.

ALL STONE SHALL BE DOUBLE WASHED AND FREE OF IRONS, CLAY OR FINES AND SHALL BE SATISFACTORY TO THE TOWN BOARD OF HEALTH.

THIS SYSTEM IS NOT DESIGNED TO ACCOMMODATE A GARBAGE DISPOSAL OR OTHER HIGH WATER USE UNITS.

THE PROPOSED SEPTIC SYSTEM IS NOT LOCATED WITHIN THE CONE OF INFLUENCE OF ANY MUNICIPAL WELL NOR ARE THERE ANY PRIVATE WELLS LOCATED WITHIN 100 FEET (RADIAL) OF THE PROPOSED SYSTEM.

EXCAVATE ALL TOP, SUB AND ANY OTHER SOILS ENCOUNTERED DOWN TO THE BOTTOM OF EXCAVATION (SEE CROSS SECTION) FOR A HORIZONTAL DISTANCE OF 5' ON ALL SIDES OF THE PROPOSED SYSTEM. BACK FILL TO TOP OF STONE ELEVATION WITH SELECT ON SITE OR IMPORTED SOIL MATERIAL CONSISTING OF CLEAN GRANULAR SAND, FREE OF ORGANIC MATTER OR OTHER DELTERIOUS SUBSTANCES AND MEETING THE SIEVE SIZE REQUIREMENTS OF 310 CMR 15.255(3) & (5) [CONSTRUCTION IN FILL].

ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON NGVD 29.

CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO THE CONTINUATION OF CONSTRUCTION.

WATER TABLE FLUCTUATES ANNUALLY, NO WARRANTY OF A DRY BASEMENT IS EXPRESSED OR IMPLIED. A PERIMETER FOUNDATION DRAIN DISCHARGING TO DAYLIGHT AND/OR A SUMP PUMP IS ALWAYS RECOMMENDED.

THE PROPOSED WORK DOES NOT LIE IN A CRITICAL FLOOD HAZARD ZONE.

THE LOT DOES NOT LIE IN AN OVERLAY DISTRICT FOR GROUNDWATER AQUIFER PROTECTION.

THE CONTRACTOR IS TO VERIFY THE BENCHMARK WITH THE SURVEYOR PRIOR TO CONSTRUCTION. MAINTAIN 15' MINIMUM SEPARATION FROM WATER SERVICE TO PROPOSED SEPTIC COMPONENTS.

HOUSE DIMENSIONS, ELEVATION AND LOCATION ARE APPROXIMATE AND SUBJECT TO CHANGE. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION.

THE LOT LIES IN A R-1 ZONING DISTRICT.
 FRONT YARD SETBACK: 35'
 SIDE YARD SETBACK: 15' + 5' STORY
 REAR YARD SETBACK: 25'

REFERENCE: DEFINITIVE SUBDIVISION PLAN FOR FALL RIVER AVENUE DEVELOPMENT PARTNERS, LLC, 'BANNA ESTATES' TAUNTON AVENUE/PLEASANT STREET, SEEKONK, MA. DATED: AUGUST 2, 2007, REVISED: MAY 27, 2008. BY INSITE ENGINEERING SERVICES, LLC.

TIE INTO PROPOSED CONTOURS AND ELEVATIONS AS SHOWN IN THE ABOVE REFERENCE.

REFERENCE: MODIFICATIONS TO DEFINITIVE SUBDIVISION PLAN FOR FALL RIVER AVENUE DEVELOPMENT PARTNERS, LLC, 'BANNA ESTATES' FORMERLY ALBERT CIRCLE, SEEKONK, MA 02771 DATED: DECEMBER 7, 2009, REVISED: FEBRUARY 22, 2010. BY INSITE ENGINEERING SERVICES, LLC.

I CERTIFY THAT THE PROPOSED WATER SERVICE SHOWN ON THIS PLAN IS IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE SEEKONK WATER DISTRICT. THE CONTRACTOR IS TO COORDINATE THE WATER SERVICE TIE IN WITH THE WATER AUTHORITY AND INSTALL THE WATER SERVICE WITH MAGNETIC MARKING TAPE ABOVE THE ENTIRE LENGTH OF THE WATER SERVICE.

PROPOSED SEPTIC TANK TO BE INSTALLED IS A MICROFAST 0.5 DENITRIFICATION SYSTEM BY BIO-MICROBICS INC.

DESIGN CALCULATIONS

AVERAGE DAILY SEWAGE FLOW (GALLONS PER DAY)
 3 BEDROOM DWELLING @ 110 GPD PER BEDROOM = 330 GPD

SEPTIC TANK SIZING (GALLONS)
 200% AVERAGE DAILY FLOW = 2 (330) = 660 GALLONS
 3 BEDROOM HOME REQUIRES 1500 GALLON TANK (MINIMUM).

DESIGN SOIL TYPE AND PERCOLATION RATE
 SOIL CLASS II (SANDY LOAM)
 PERC RATE IN TP 6/4/08-1 WAS 4 MPI AND TP 6/4/08-4 WAS 3MPI
 DESIGN FOR 5 MPI PER TITLE V

REQUIRED MINIMUM LEACHING AREA:
 REQUIRED AREA = 330 GPD / 0.60 GPD / SF = 550 SF MINIMUM
 LEACHING FIELD BED AREA: 10' X 55' = 550 SF
 RESERVE AREA: 10' X 55' = 550 SF

SEPTIC SYSTEM DESIGN PLAN

"BANNA ESTATES" (RECORD LOT 53A)
 #14 RICHARD BANNA WAY, FORMERLY ALBERT CIRCLE
 SEEKONK, MA 02771
 AP 20 LOT 662

APPLICANT: PETRA BUILDING CORP.
 STEVEN NAJAS
 111 MILES AVENUE, EAST PROVIDENCE, RI 02914

JOB # 06-050-53A SCALE: 1" = 20' DESIGNED BY: MSF DATE: MARCH 24, 2010

REVISOR: _____

PROFESSIONAL SEAL

INSITE Engineering Services, LLC
 1539 FALL RIVER AVENUE
 SEEKONK, MA 02771
 PHONE: (508) 336-4500
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SHEET 1 OF 1

1:06-050 TAUNTON AVE - PLEASANT STREET/CADD/06-050 SEPTIC 9-17-08.DWG. PRELIM SEP LOT 53A, 3/26/2010 4:33:44 PM