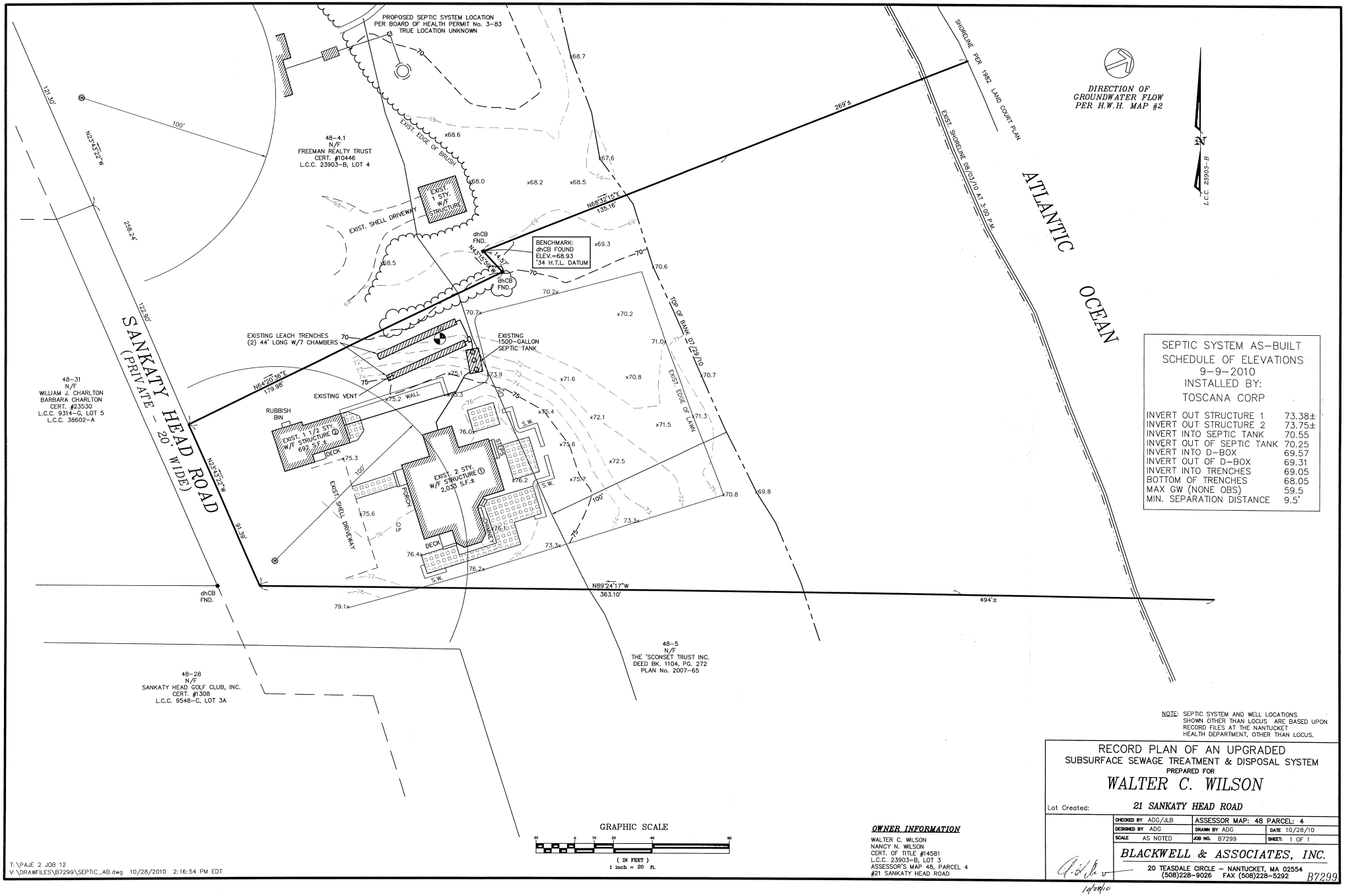


SEPTIC SYSTEM AS-BUILT
SCHEDULE OF ELEVATIONS
9-9-2010
INSTALLED BY:
TOSCANA CORP

INVERT OUT STRUCTURE 1	73.38±
INVERT OUT STRUCTURE 2	73.75±
INVERT INTO SEPTIC TANK	70.55
INVERT OUT OF SEPTIC TANK	70.25
INVERT INTO D-BOX	69.57
INVERT OUT OF D-BOX	69.31
INVERT INTO TRENCHES	69.05
BOTTOM OF TRENCHES	68.05
MAX GW (NONE OBS)	59.5
MIN. SEPARATION DISTANCE	9.5'

NOTE: SEPTIC SYSTEM AND WELL LOCATIONS SHOWN OTHER THAN LOCUS ARE BASED UPON RECORD FILES AT THE NANTUCKET HEALTH DEPARTMENT, OTHER THAN LOCUS.

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

OWNER INFORMATION
WALTER C. WILSON
NANCY N. WILSON
CERT. OF TITLE #14581
L.C.C. 23903-B, LOT 3
ASSESSOR'S MAP 48, PARCEL 4
#21 SANKATY HEAD ROAD

RECORD PLAN OF AN UPGRADED SUBSURFACE SEWAGE TREATMENT & DISPOSAL SYSTEM

PREPARED FOR

WALTER C. WILSON

Lot Created: *21 SANKATY HEAD ROAD*

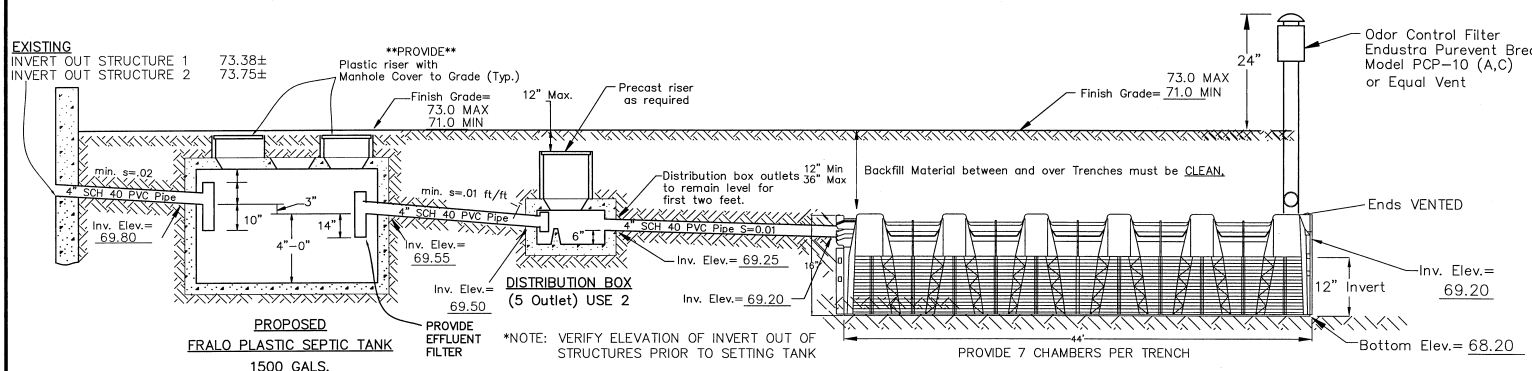
CHECKED BY ADG/JLB	ASSESSOR MAP: 48 PARCEL: 4	
DESIGNED BY ADG	DRAWN BY ADG	DATE 10/28/10
SCALE AS NOTED	JOB NO. B7299	SHEET 1 OF 1

BLACKWELL & ASSOCIATES, INC.
20 TEASDALE CIRCLE – NANTUCKET, MA 02554
(508)228-9026 FAX (508)228-5292

B7299

10/28/10

T:\PAJE 2 JOB 12
V:\DRAWFILES\B7299\SEPTIC_AB.dwg 10/28/2010 2:16:54 PM EDT



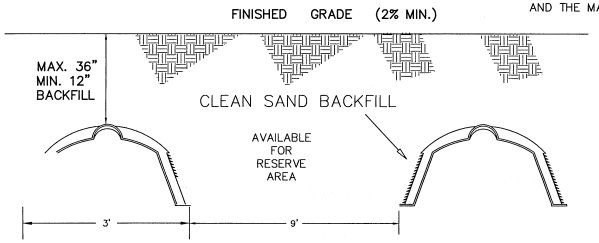
SEPTIC SYSTEM PROFILE

Not to Scale

Bottom of the TRENCH must be level

*Estimated Seasonal High Ground Water Elev.= 59.5(NONE OBS.)

*MIN. 5'-0" ELEV. REQUIRED BETWEEN BOTTOM OF TRENCHES AND THE MAXIMUM GROUNDWATER (GW) ELEV.



PROPOSED SOIL ABSORPTION SYSTEM TO BE PROTECTED FROM VEHICULAR LOADINGS

LEACH TRENCHES WITH HIGH CAPACITY INFILTRATOR CHAMBERS

SECTION A-A

SEE SHEET 1 OF 2 FOR SITE PLAN

GENERAL CONSTRUCTION NOTES

1.) All construction to conform to 310 CMR 15.00, TITLE 5 and Regulations of the Nantucket Board of Health.
2.) Any deviation or alteration in the construction from the approved plan without the expressed permission of the Design Engineer may invalidate the design and endanger the issuance of a certificate of compliance.
3.) Blackwell & Associates, Inc. shall be contacted three (3) days prior to the start of construction by the Installer. (508) 228-9026
4.) This plan does not warrant or imply any subsurface conditions other than those observed at the immediate testpit locations. In the event impervious or unsuitable material is encountered during construction, said impervious or unsuitable material is to be removed and replaced. See Title 5, 15.255 Construction in Fill.
5.) Delivery piping from the building wall to the Distribution Box shall be SCH40, 4 inch diameter PVC placed at a minimum 2% slope (2% = 0.02 feet per foot or 2' per 100'). All PVC to PVC connections are to be SOLVENT WELDED. Backfill Material in proximity to delivery and/or distribution lines is to be free from tailings, clay or similar materials.
6.) A cleanout is to be provided in proximity to the building wall to enable a Pumper to clear the house to tank line.
7.) Distribution lines are to be PVC Schedule 40 NSF or PVC Schedule 35 may be used for systems designed for less than 2000 gpd and where no vehicular traffic is anticipated. PVC end caps are to be provided on Distribution Line ends that do not require venting. All Distribution Lines over fifty (50') feet in length are to be vented.
8.) Any fill required in proximity to delivery piping shall be clean and free of stones larger than 2" dia and be hand tamped to reduce settlement and assure alignment.
9.) The septic tank shall be pre-cast reinforced concrete in compliance w/Title 5, 15.223 & 15.226 with an H-10 loading. A Schedule 40 Tee is to be installed in both the inlet and outlet baffles of the Precast Concrete Septic Tank. A gas baffle is to be installed over OUTLET BAFFLE.
10.) The tank shall have three 20 inch minimum diameter manholes with readily removable impermeable covers within 6 inches of finish grade.
11.) The base of the Distribution Box shall be set on a compacted, suitable, stable base.
12.) The Distribution Box shall be fitted with an inlet tee (cut-off 1 inch above the outlet invert). Distribution Boxes shall be a minimum 5 Outlets.
13.) The first length (minimum 2 feet) of each pipe outlet pipe from the Distribution Box shall be laid level. All outlet pipes should draw equally, A WATER TEST WILL BE REQUIRED.
14.) Topsoil, peat or other impervious (or unsuitable) material shall be removed from below and for a distance of 5 feet in all directions around the disposal works footprint and replaced with clean, suitable material as described in TITLE 5, 15.255:(3) Construction in Fill.
15.) Trench bottoms excavated in natural material must be scarified to off-set any machine compaction of the bottom surface.
16.) All fill used in conjunction of the system construction must conform to Title 5, 15.255:(3) Construction in Fill.
17.) All stone used in disposal trench construction must conform to Title 5, 15.247 Aggregate for size and quality.
18.) Any impermeable material used for the construction of an impervious barrier must be impermeable. (Will not pass water, swells upon contact with water, fine sand is not impervious).
19.) Areas disturbed by construction shall loamed, seeded, mulched or otherwise stabilized to minimize erosion. The general system area shall be graded with a minimum 2% grade to provide positive surface drainage. Compliance with any Order of Conditions issued by the local Conservation Commission or DEP shall be considered requirements of this design.
20.) The property lines depicted here-on are GRAPHIC, it is strongly recommended that the actual property lines be field established prior to construction. Conformance to local by-laws shall be determined by the Owner (Client) prior to construction. This disposal works design is not a property line, bank mortgage or title survey.
21.) In the event that evidence or article of human remains is found during the excavation or construction of this proposed works, all activity on-site is to stop. Immediately contact the State Police (508) 228-0706, Nantucket Police 228-1212 (or 911) and Blackwell & Associates 228-9026.
22.) To prevent the carry over of solids and particulates from the septic tank to soil surfaces in the disposal trenches that are prone to clogging, the septic tank should be inspected periodically to determine the depth of sludge and floatables (grease) accumulation. The tank should be pumped, by a Licensed Pumper, when the sludge volume fills one quarter (1/4) of the tank clear space (or approx every 2 years).
23.) Blackwell & Associates, Inc. will refuse to issue a positive ASBUILT COMPLIANCE certificate if any portion of the construction is covered prior to adequate inspection by Blackwell & Assoc. and the local Heath Agent. The Disposal Works is not to be covered until it is authorized by Blackwell & Assoc., Inc.
24.) Asbuilt and inspection time has not been included in the billing for this design. Multiple inspections and analysis to correct deviations from the approved design will be billed as add'nl charges. Call (508) 228-9026 when you are ready for your inspection.

DESIGN CRITERIA

TYPE OF ESTABLISHMENT: 4 BEDROOMS

DESIGN FLOW: 4 BEDROOMS AT 110 GALS./BEDROOM/DAY = 440 GPD

EXISTING SEPTIC TANK SIZE: 1000 GALLONS*
NO ADDITIONAL CAPACITY HAS BEEN PROVIDED FOR GARBAGE DISPOSAL

DESIGN PERCOLATION RATE: <5 MINUTES/INCH – SOIL CLASS I
FROM TITLE 5 SECTION 15.242: LTAR-EFFLUENT LOADING RATES: 0.74 GPD/SF

SOIL ABSORPTION SYSTEM (SAS): 440 GPD / 0.74 GPD/SF= 595 SF REQ'D

PROVIDE: (2) 44' LEACHING TRENCHES W/7 INFILTRATOR CHAMBERS EACH
14 CHAMBERS X 48.7 SF/CHAM. = 682 S.F.
LEACHING CAPACITY PROVIDED (BY TITLE 5): 505 GPD= 682 S.F. x 0.74 GPD/SF

MAXIMUM ALLOWABLE LOADING (BY TITLE 5)= 505 GALLONS/DAY
ACTUAL HYDRAULIC LOADING (DESIGN FLOW)= 440 GALLONS/DAY

SOIL LOGS

DEEP OBS. HOLE # 1 EL.=71.5

12'

DEPTH	HORIZON	TEXTURE	COLOR
0"to 24"	A	LOAMY SAND	10YR3/2
24"to38"	B	LOAMY SAND	10YR6/8
38"to108"	C1	MED SAND	2.5YR7/4
108"to144"	C2	MED SAND	2.5YR8/3

NO REDOX. FEATURES APPARENT
NO GW. OBSERVED WEEPING
NO REFUSAL – CAVING

EST. SEASONAL HIGH GW ELEV. = 59.5 (NONE OBS. AT LIMIT)

"C1" HORIZON

SOIL EVALUATION BY: A.GASBARRO, BLACKWELL & ASSOC., INC.
DATE OF TESTING: 8/6/10, WITNESSED BY: A. CROWLEY, NANTUCKET HEALTH DEPT
PERCOLATION RESULTS: RATE (TEST 1) <5 MIN\INCH

CONTACTS

Dig-Safe	1-800-322-4844
On-Target	1-800-598-0628
Health Department	508-228-7226
Nantucket Electric	228-1870
Public Works	228-7244
Water, Siasconset	257-6351
Water, Wannacomet	228-0022
Building Dept	228-7222
Conservation Comm	228-7230
Police, EMERGENCY	---911---
Environmental Police	228-5262
State Police	228-0706

V:\DRAWFILES\B7299\SEPTIC.dwg 8/8/2010 9:44:36 AM EDT

OWNER INFORMATION

WALTER C. WILSON
CERT. OF TITLE #14581
L.C.C. 23903-B, LOT 3
ASSESSOR'S MAP 48, PARCEL 4
#21 SANKATY HEAD ROAD

SHEET 2 OF 2

PROPOSED UPGRADE OF A
SUBSURFACE SEWAGE TREATMENT & DISPOSAL SYSTEM
PREPARED FOR
WALTER C. WILSON
Lot Created: *21 SANKATY HEAD ROAD*

CHECKED BY ADG/JLB	ASSESSOR MAP: 48 PARCEL: 4		
DESIGNED BY ADG	DRAWN BY ADG	DATE 8/9/10	
SCALE AS NOTED	JOB NO. B7299	SHEET 2 OF 2	

BLACKWELL & ASSOCIATES, INC.
20 TEASDALE CIRCLE – NANTUCKET, MA 02554
(508)228-9026 FAX (508)228-5292

B7299

8/9/10