

DEPARTMENT OF PUBLIC WORKS SANITARY DISTRICT

310 Bateau Drive Stevensville, MD 21666

Telephone: (410) 643-3535 Fax: (410) 643-7364

www.qac.org

Southern Kent Island Sanitary Subdistrict
Septic Tank Effluent Pump (STEP) System Area
Requirements for New Building Permits on Vacant Lots

I. Prerequisites to Apply for Building Permit

- a. Execution of Easement
- b. Execution of Public Works Agreement and payment of Allocation Fee

II. Building Permit Requirements

- a. Site Plan site plan to be provided by builder for review at time of building permit submission. Can be incorporated in with the site plan normally required for a building permit (on 11x17 at 20 scale).
 - i. Show STEP tank location, required to be in front yard, with the tank wall nearest the road right-of-way being 15-feet from the right of way line, at least 10-feet from either side yard lot line. If the tank is to be located in, or would have a tank wall within 5-feet of edge of, a driveway, the tank will be required to be traffic bearing see detail.
 - ii. Show location of existing curb stop with distance from nearest property line.
 - iii. Show path of 4-inch gravity sewer and all necessary cleanouts in accordance with plumbing code and STEP Tank Detail.
 - iv. Show location of electric meter, STEP electrical disconnect, STEP control panel, and conduit run from panel to STEP see detail. Note control panel to be in sight of STEP.
 - v. Show location of well with 50-foot radius ring and 10-foot radius ring STEP tank cannot be within 50-foot ring and no sewer piping can be within 10-foot ring.
 - vi. Water Conditioner (if any) provide copy of Environmental Health Department permit for means to dispose of backwash and show location of backwash sump/drainfield, etc.
 - vii. Sump Pumps (if any) detail the disposal of sump pump discharge (not into STEP tank).

III. Installation Specifications

- a. Pressure line from STEP to curb stop not allowed to have any joints and is to be 1-inch SDR-7 PE.
- b. 4-inch gravity to be Schedule 40 (no foam core) solvent weld, or SDR-21, with 8-gauge bare solid copper tracer wire minimum 3-foot bury in traffic area (or encase) defined as under, or within 3-feet, of driveways.
- All cleanouts to be traffic bearing.
- d. Pressure line to connect to existing curb stop via bronze pack-joint coupling (1 by 1%).
- e. Plumber will be required to pull a permit from the Sanitary District.
- f. STEP tank not to be installed prior to well being drilled, or prior to rough-in plumbing being completed.

IV. Certificate of Occupancy Requirements

- a. Certificate of Origin from Orenco (STEP Component Manufacturer).
- b. Certificate of Origin from concrete tank manufacturer tank must be 1500-gallon two compartment and tank manufacturer must be pre-approved (copy of invoice will suffice).
- c. Bill of Sale of all components to be owned and operated by County (attached).
- d. Verification of inspections by MDIA and Queen Anne's County Environmental Health of any water conditioning installations, i.e. plumbing inspection and sanitary permit installation inspection.



<u>3/1/18</u>

Southern Kent Island Sanitary Subdistrict

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STEP Tanks - IT IS ESSENTIAL THE TANKS BE LEAK TIGHT. Tanks that leak will be rejected and will need to be removed and replaced with new.

- 1. STEP tanks must be concrete, two-compartment, 1500-gallon, and leak tested. Specify that the tanks are for the Southern Kent Island Sanitary Subdistrict.
- 2. STEP tanks must be purchased from a pre-approved vendor. The following tank vendors are pre-approved:

Gillespie & Son, Inc. (top seam tank) 100 Dixon Drive Chestertown MD 21620-0450 (410) 778-0900

Baystar Precast Company (top seam tank) 925 Skinners Turn Road Owings MD 20736 (410) 257-1312

Mayer Brothers, Inc. (monolithic tank) 6264 Race Road Elkridge MD 21075 (410) 796-1434

Note top seam tanks must have mechanical fasteners to further ensure the lid does not separate from the tank's body during the first few years due to differential settlement.

- 3. Tanks must be leak tested as follows (note the below supersedes the 'Leakage Testing Notes' on the below referenced detail):
 - a. It is strongly advised that the assembled tanks be leak tested at the manufacturer's yard by filling the tanks completely full and monitor for leaks.
 - b. Once the tank is placed in the excavation, and five foot of gravity sewer, including the cleanout, is installed and capped, backfill around the tank to 12-inches below the top of the tank.
 - c. The risers are installed in accordance with Orenco's instruction (the STEP pump component manufacture) this riser installation is critical and is the primary source of leaks.
 - d. Once the risers are installed, the tanks are over-filled such that water stands into the risers by three inches.
 - e. ANY leakage in two hours will be cause for rejection.
- 4. Refer to detail "SKI Pressure Sewer S.T.E.P. Detail" note the required 24-inch of cover.

Southern Kent Island Sanitary Subdistrict Septic Tank Effluent Pump (STEP) System Area Requirements for New Building Permits on Vacant Lots

Pump and Controls – Orenco Systems, Inc. is the supplier for all the pump components. Use the following contacts to order – specify needing the Queen Anne's County package. It is suggested visiting the Orenco.com website for additional information.

Garry-Lee G. Espinosa Systems Engineer - Northeast Region Orenco Systems, Inc. 814 Airway Avenue Sutherlin, OR 97479 Phone: (800) 348-9843 ext. 322

Fax: (541) 459-2884

e-mail: gespinosa@orenco.com



THE DEPARTMENT OF PUBLIC WORKS OF QUEEN ANNE'S COUNTY

SANITARY DISTRICT

310 BATEAU DRIVE STEVENSVILLE, MARYLAND 21666 PHONE: 410-643-3535 FAX: 410-643-7364 TDD: 410-758-2126 e-mail: sanitary2@qac.org

SOUTHERN KENT ISLAND - RESIDENTIAL SEWER APPLICATION

reporty o milet,	operty Owner: Phone:			
Mailing Address:				
Property Location:				
(number)	(street)		(subdivision)	
(tax map)	(parcel)	(block)	(lot)	
. Permit Fee = \$250.00	(purcel)	(DIOCK)	(104)	
	1 . H . I . NEO . NO E			
	np installed:YESNO - Su			
	method of discharge:			
3. Will there be a water con	ditioner installed:YESNO	- Backwash must not discharge int	to sewer system.	
If 'Yes', provid	e a copy of Queen Anne's County Env	rironmental Health's sanitary const	ruction permit.	
The name, address & ph	one number of the STEP tank installer (i	f not the plumber) who will install the	tank: Tank Manufacturer:	
NAME:			PHONE:	
ADDRESS:				
The name, address & ph	one number of the plumber who will per	form the proposed work is:		
NAME:			PHONE:	
ADDRESS:				
5. I have been authorized by	the owner to do the work herein describitary District's Standard Specifications a		o abide by the Code of Maryland Regulations, State Board oction 48 hours in advance of:	
5. I have been authorized by Plumbing and the QAC San a, wher	itary District's Standard Specifications a the tank is to be set and risers are being	and Details. I agree to call for an inspense	ction 48 hours in advance of:	
5. I have been authorized by Plumbing and the QAC San a, wher b. at the c, wher	itary District's Standard Specifications a the tank is to be set and risers are being initiation of the 2-hour riser leak test— the gravity sewer line(s) and pressure li	and Details. I agree to call for an inspe- g attached (refer to STEP Tank Detail for testing ine are ready for connection but prior t	parameters) to any lines being covered	
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a. where be authorized by Plumbing and the QAC San a. where b. at the c. where d. once Registered Master Plumber Md License No.	itary District's Standard Specifications a the tank is to be set and risers are being initiation of the 2-hour riser leak test— the gravity sewer line(s) and pressure li all electrical connections between the ST Signature:	and Details. I agree to call for an inspect, attached (refer to STEP Tank Detail for testing ine are ready for connection but prior to TEP tank and the control panel have be	parameters) o any lines being covered cen made and inspected by MDIA and system is operational Date: C License No.	
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LEGAL ENTITY: CORPORATION PARTNERSHIP OR LLC

SOUTHERN KENT ISLAND S.T.E.P. SEWER SYSTEM EASEMENT

THIS GRANT OF EASEMENT, made this _ between and THE COUNTY COMMISSIONERS OF QUEEN State of Maryland, hereinafter called the Grantee,	day of, hereinafte ANNE'S COUNTY, a p	, 201, er called the Grantor(s), olitical subdivision of the
WITNESS	SETH:	
For good and valuable consideration receipt hereby grant and convey to the Grantee, its successoperation, maintenance and repair of septic tanks, pur pump electrical services, including the pump status or certain real property situate and being in the Fourth E and more particularly described as follows: Street Address: Legal Description Tax Map No Parcel Tax I.D. No. 1804	ssors and a perpetual mp chambers, pressure so control panel, over und	easement for inspection, ewer connection lines and ler, upon and through that

This perpetual easement is hereby reserved for and granted by the Grantor(s) to the Grantee, its successors and assigns, for inspection, construction, placement, operation, maintenance, and repair of any or all portions of the septic tank effuent pumps (S.T.E.P.) system including but not restricted to: septic tanks, pump chambers, pressure/gravity sewer connection lines and the pump status or control panel, over, under, through and across the land described above.

The width of the perpetual easement herein reserved shall be five feet each side of pipe and electrical lines as constructed. The width of the tank easement shall extend five feet beyond the edges of the tank.

Grantor(s) shall maintain and is responsible for the house lateral connecting the tank to the house plumbing and inlet to the tank chamber. Grantee, its agents and employees, shall have the right to temporarily utilize such area beyond the easement area described above that is necessary for the operation, maintenance and repair activities on the S.T.E.P. system.

This easement shall run with and bind the land above described, and binds owners, transferees, donees, assigns and successors in interest in the same manner as it binds Grantor(s) herein.

ATTEST:	ENTITY:
	By: (Print Name) Title:
STATE of	
authorized to do so, executed the	, being aforegoing for the purposes therein contained, by signing the ip/limited liability company by himself/herself as
	Notary Public My Commission Expires:
	under the supervision of an attorney licensed to practice law in the ecordation by Queen Anne's County, and is exempt from recordation 33-603 of the Real Property Article.
	Patrick E. Thompson, County Attorney

THIS PUBLIC WORKS AGREEMENT, made and executed this da	y of
, 2018, by and between THE COUNTY COMMISSIONERS OF QU	EEN
ANNE'S COUNTY, MARYLAND, a body politic of the State of Maryland, sometimes herein	ıafter
called "COUNTY", party of the first part, and JOHN Q. PUBLIC, sometimes hereinafter c	alled
"OWNER", party of the second part.	

NOW THEREFORE WITNESSETH: that for and in consideration of the mutual covenants and promises herein contained, the parties herein agree as follows:

- I. The property of OWNER, recorded among the Land Records of Queen Anne's County as Tax Map ___, Parcel ___, Lot ___ is currently vacant.
- II. OWNER will pay the COUNTY the sum of EIGHT THOUSAND FIVE HUNDRED FIFTY dollars (\$8,550.00) as a connection for acquiring capacity in the Southern Kent Island Area Wastewater System. The proposed capacity of 250 gpd shall be used to construct a single family home on the existing lot.

It is understood by all parties concerned that the property will still be subject to all charges of the Southern Kent Island Area Wastewater Subdistrict, including debt service charges.

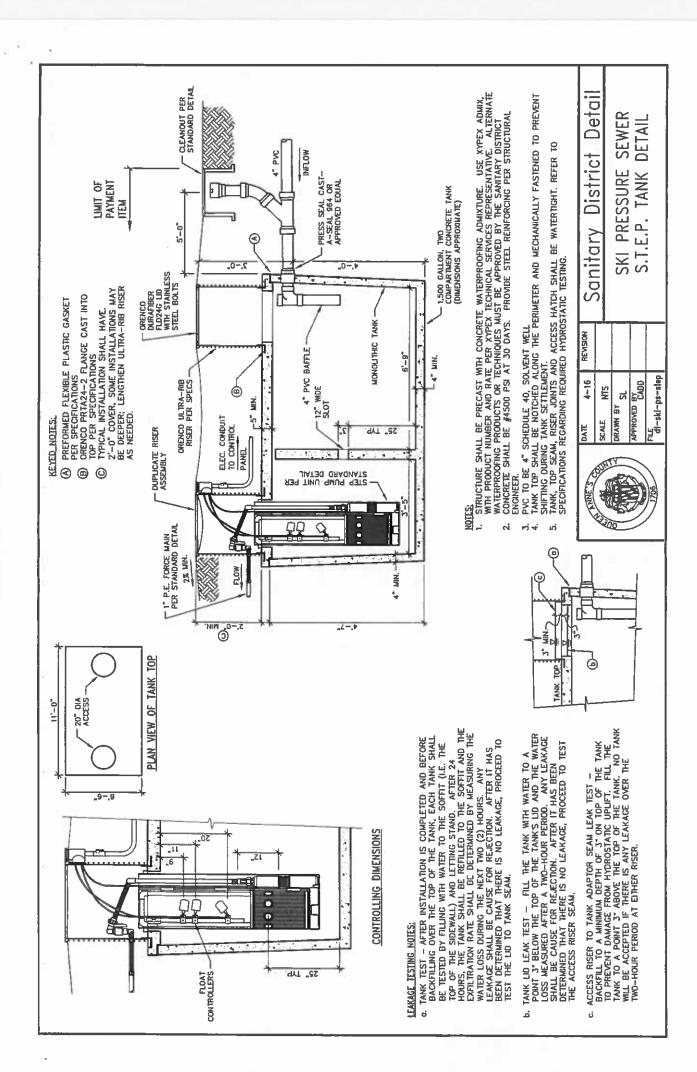
- III. The property will be subject to additional charges at the time building permits are applied for if to be used for other than the above mentioned uses.
- IV. **OWNER** will be responsible for the installation of any additional sewer appurtenances necessary for service to the property, for obtaining all necessary permits, and for the payment to the **COUNTY** of all associated inspection fees. Any fees unpaid within 30 days will be subject to a 1-1/2% per month interest charge.
 - V. **OWNER** recognizes they will be billed user charges at the next regularly scheduled quarterly billing following the execution of this agreement.
- VI. All monies owed to the Queen Anne's County Sanitary District hereunder will be liens against the property collectable in the same manner as County taxes and will be paid in full prior to any transfer of the property.
- VIII. All monies owed are subject to, and due in accordance with, Queen Anne's County Sanitary District codes and policies.

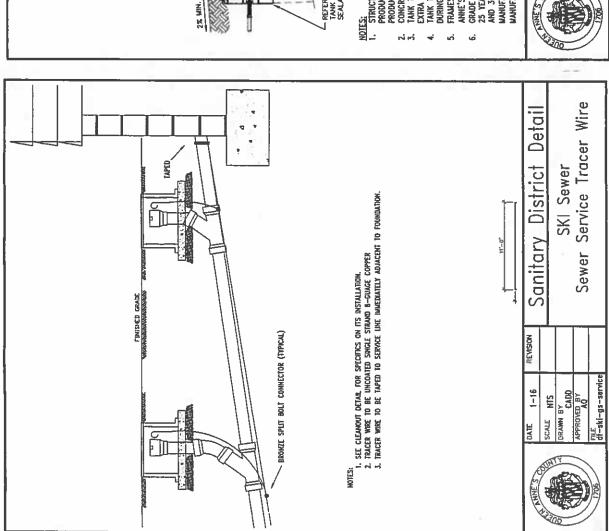
WITNESS:	PROPERTY OWNER:
ATTEST:	THE COUNTY COMMISSIONERS OF QUEEN ANNE'S COUNTY
	Alan L. Quimby, Chief Sanitary Engineer
APPROVED:	\mathcal{I}
Todd R. Mohn Director of Public Works	
APPROVED AS TO FORM AND LEGAL SUF	FFICIENCY:
This document was prepared by, or under the super to practice before the Court of Appeals of Marylan	
Patrick E. Thompson County Attorney	
This instrument is being recorded by Queen Anne' pursuant to Section 3-603 of the Real Property Art	
Tax Map Parcel Lot	
Account Number SK	

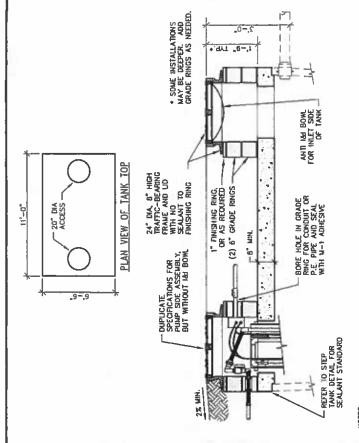
Septic Tank Effluent Pump System – Bill of Sale

(corporate form)

THIS BILL OF SALE is made and executed this day of, 20, by and between, hereinafter called
Grantor(s), and the Queen Anne's County Sanitary District, a department of a Municipal Corporation, hereinafter called the Grantee.
WITNESSETH:
That the grantor(s), for good and valuable consideration, the receipt of which is hereby acknowledged, hereby convey, set over, assign and warrant to Queen Anne's County the following described personal property situated in Southern Kent Island Sewer Service Area, Queen Anne's County, State of Maryland,
TO WIT:
The Septic Tank Effluent Pumping system; consisting of the pressure sever pipe from the curb stop at the street to the tank, the tank and all its appurtenances, the gravity lateral from the tank to the first upstream cleanout, the pump control panel and its electrical conduit and wiring from the panel to the tank, lying within the following described parcel: Lot, Block, Subdivision,, Parcel, Tax Map Tax ID No. 1804, Service Address: The Grantor(s) hereby warrants that they are the sole owner(s) of all the property above conveyed, they have the full power to convey the same, and that they will defend the title of said Grantee against any and all persons lawfully making claims thereto and further warrants the property to be free of defects in materials or workmanship for a period of one (1) year from the date hereof:
(Corporate Name)
(Grantor Signature) (Grantor's Printed Name & Title)
STATE of
COUNTY of
I HEREBY CERTIFY, that on this day of, 20, before me, the subscriber, a Notary Public of the State and County aforesaid, personally appeared, who acknowledged himself/herself to be the
of, being authorized to do so, executed the aforegoing for the purposes therein contained, by signing the name of the corporation/partnership/limited liability
company by himself/herself as







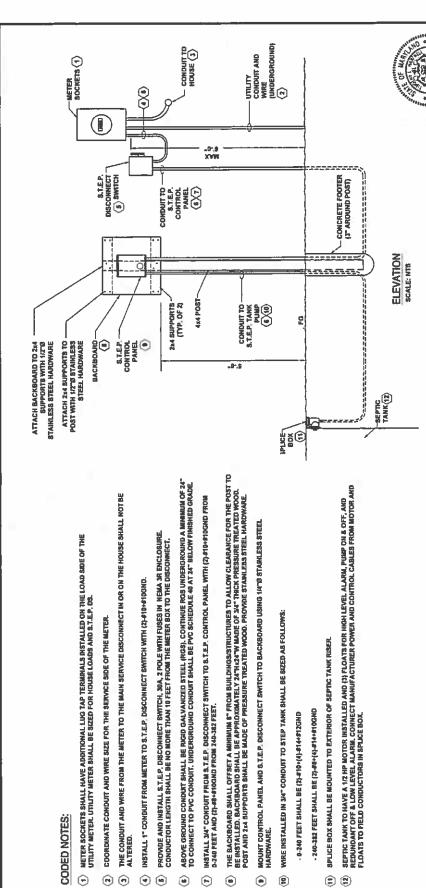
NOTES:
1. STRUCTURE SHALL BE PRECAST WITH CONCRETE WATERPROOFING ADMIXTURE. USE XYPEX ADMIX, WITH PRODUCT NUMBER AND RAIE PER XYPEX TECHNICAL SERVICES REPRESENTATIVE. ALITERNATE WATERPROOFING PRODUCTS OR RECHNIQUES MUST BE APPROVED BY THE SANITARY DISTRICT.
2. CONCRETE SHALL BE \$4500 PSI AT 30 DAYS. PROVIDE STEEL REINFORCING PER STRUCTURAL ENGINEER.
3. TANK TOP, RISTES, FRAMES AND LIDS SHALL WITHSTAND H-ZO LOADING. NOTE THAT TANK MAY REQUIRE EXTRA STEEL TO BE TRAFIC-BEARING. CONSULT STRUCTURAL ENGINEER.
4. TANK TOP SHALL BE NOTONED ALONG THE PERIMETER AND MECHANICALLY FASTENED TO PREVENT SHIFTING DURING TANK SETTLEMENT.

FRAMES SHALL BE NEENAH NF15562000, AND COYERS SHALL BE NEENAH AF15565174 LETTERED "QUEEN

GRADE RINGS SHALL BE CRETEX PRO RING EXPANDED POLYDROPYLENE, ROUND 36" 0.D. AND 24" 1.D. WITH A 25 YEAR WATERIAL WARRANTY OR APPROVED EQUAL. AS SHOWN, USE WODELS 36-24G-600f, 36-24G-600, AND 36-24F-100. OTHER GRADE RING MODELS MAY BE USED AS NEEDED FOR DEEPER INSTALLATIONS, PER MANUFACTURER'S RECOMMENDATION, GRADE RINGS SHALL BE SEALED WITH M~1 ADHESIVE PER MANUFACTURER'S RECOMMENDATION. ANNE'S COUNTY SANITARY SEWER", OR APPROVED EQUALS



- Sanitary District Detail	SKI Pressure Sewer	Traffic-Bearing Tank Top
REMISION		



INSTALL 1" CONDUIT FROM METER TO S.T.E.P. DISCONNECT SWITCH WITH (2)-#104-#10GHD.

(4)

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COORDINATE CONDUIT AND WIRE SIZE FOR THE SERVICE SIDE OF THE METER.

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CODED NOTES:

WRE INSTALLED IN 3/4" CONDUIT TO STEP TANK SHALL BE SIZED AS FOLLOWS:

2

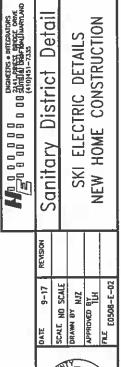
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SPLICE BOX SHALL BE MOUNTED TO EXTENDOR OF SEPTIC TANK RISER.

(2)

- 240-382 FEET SHALL BE (2)-88+(4)-#14+#10GND . 0-240 FEET SHALL BE (2)-#10+(4)-#14+#12GND

1,5



ELECTRICAL SERVICE