



protecting our
water resources



Town of Harwich
Phase 2 Implementation

HOMEOWNER'S SEWER CONNECTION GUIDEBOOK

What do I need to do & when?

The Homeowner's Sewer Connection Guidebook was developed by the Town of Harwich Wastewater Support Committee with support from the Water / Wastewater Superintendent, Health Director and our Board of Selectmen liaison. The guidebook is intended to assist the homeowners as they make preparations for connection to the Town's sewer collection system.

Comments, edits, suggestions and/or questions should be sent to: **wastewater@townofharwich.us**

TABLE OF CONTENTS

Chapter 1. 5 STEPS TO HOOK UP TO THE TOWN SEWER SYSTEM (Page 4)

Chapter 2. PROJECT BACKGROUND (Page 6)

Chapter 3. PLANNING & CONSTRUCTION (Page 7)

Chapter 4. GRINDER PUMPS (Page 9)

Chapter 5. THINGS TO CONSIDER (Page 10)

Chapter 6. REAL ESTATE (Page 12)

Chapter 7. CONTACTS (Page 13)

Chapter 8. GLOSSARY (Page 14)

APPENDIX (Page 16)

Chapter 1.

5 STEPS TO HOOK UP TO THE TOWN SEWER SYSTEM

If you have been advised that you are part of the Phase 2 Sewer Project scheduled to begin construction in the Spring of 2019, then the following steps apply to you.

STEP 1 Determining the location of your Septic System & your Water Service

The Health Department and Water Department have Septic System and Water Service plans on line and their website's give instructions as to how to access those plans. You can also obtain paper copies by going to the Health Department and Water Department.

Health Department
Town Hall, 732 Main St
Harwich, MA 02645
health@town.harwich.ma.us
PH (508) 430-7509

Water Department
Dan Pelletier
196 Chatham Road
Harwich, MA 02645
dpelletier@harwichwater.com
PH (508)-432-0304

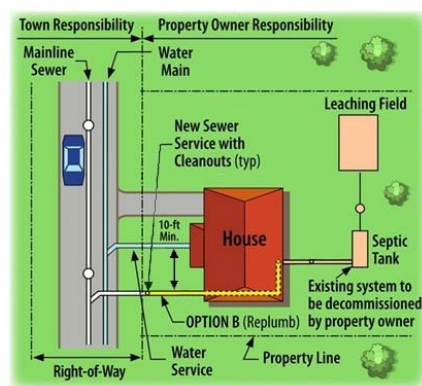
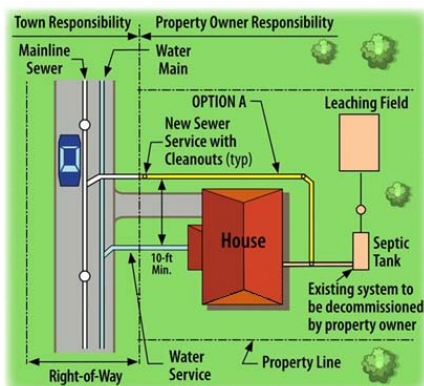
If your Septic System is older or you are planning on selling your home, there are arrangements that may apply to your circumstances. Health Department and Water Department Staff can assist you with these questions.

STEP 2 Decide on the location of your "Stub" for the Town Sewer Pipe "Lateral" Connection

Upon receipt of the Sanitary Sewer Location Form from CDM Smith, the Town's Engineering Design consultant, you will be required to identify where on your property line you prefer your sewer "stub" to be located. If you have been working with a Professional Engineer and have considered the possibilities, you will be ready to confirm that location.

The Town's Engineering Design consultant will have a Resident Engineer who will distribute the Sanitary Sewer Location Form on a street-by-street/area-by-area basis depending on the Contractor's planned construction sequence. The idea is to stay well ahead of the actual construction so that the forms are returned before the Contractor gets to a particular area. This process will start prior to the Contractor starting construction.

The Board of Health and Water Department will hold workshops for homeowners upon receipt of the Sanitary Sewer Location Form. A sample of that form is in Appendix 6 and Appendix 7 is a sample completed form to help residents determine what a completed form should look like. If you are not responsive or you haven't decided on the best possible route, the construction company will install a "stub" in a location on your property line for you.



STEP 3 Hire a Professional Engineer (P.E.)

The homeowner is required to hire a Professional Engineer to design the connection plan from their home to the street. This person or firm will assist you, the homeowner, in determining what is the most cost-effective way to arrange the pipes on your property. The Professional Engineer can address questions you may have about elevations, grinder pumps, and the actual placement of the sewer pipe. For example, if your Septic System is located in your back yard, the Professional Engineer can help you decide if it is better to go around the house (depending on decks and driveways) or to reroute the septic pipe through the basement.

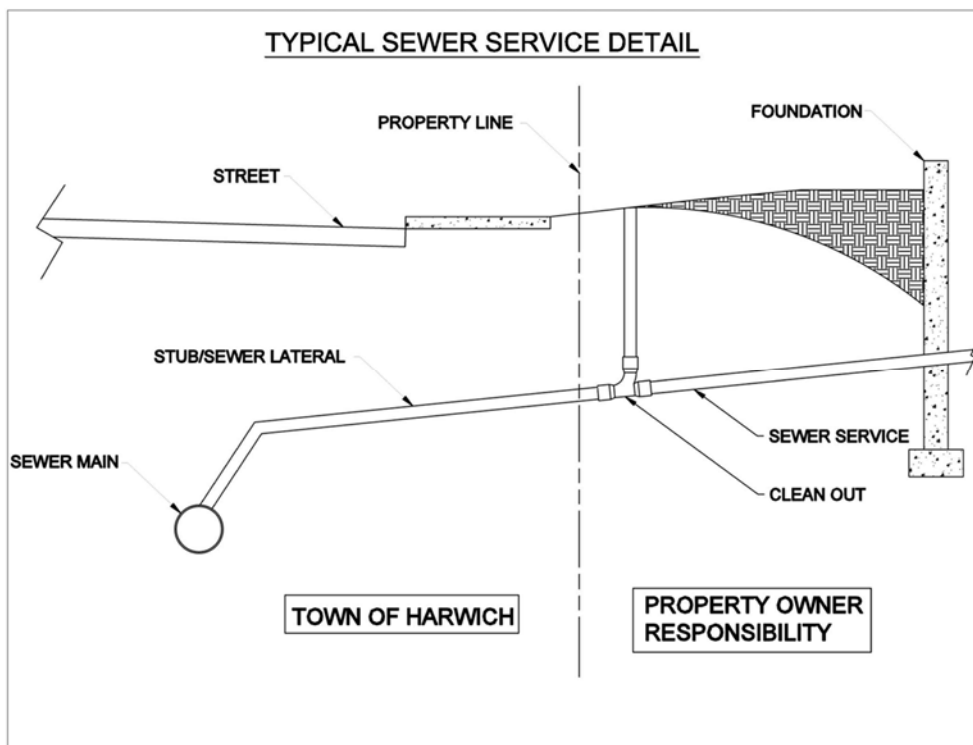
STEP 4 Hire a Licensed Utility Installer

By May of 2021, the construction company will be completing its work in the main part of the street, the public way. Over the following year, approximately June of 2021 through June of 2022, homeowners can begin to connect to the Town sewer pipe. Homeowners will have one year for this process. This work must be done by a Town-sanctioned Licensed Utility Installer. This Installer, working with the plan designed by your Professional Engineer, will do the actual construction at your home on your property. Most likely, they will use a backhoe to dig the trench for the sewer line. Usually this work will take about one day. Typical costs for this work without involving hardscape and landscape matters have been estimated at \$7,000 - \$10,000. This dollar amount will have many variables such as distance from home to street.

A list of Town-sanctioned Licensed Utility Installers will be made available by the Health Department when we are closer to the start of those activities.

STEP 5 Abandoning your existing Septic System

Once your home is connected to the Town Sewer System, your existing Septic System must be abandoned in place or removed by a Licensed Utility Installer. Abandoning the system typically involves pumping the tank and other components dry, crushing the concrete and filling it with sand to avoid settling or sink holes in the future.



Chapter 2.

PROJECT BACKGROUND

Phase 2 Homeowner's Sewer Connection Guidebook – What Do I need to Do and When?

What does this Harwich sewer project do?

The Phase 2 sewer project will provide a network of underground pipes (sewer collection system) to convey wastewater from East Harwich to a wastewater treatment facility in the Town of Chatham. Upon completion of the sewer system, residents will then connect their individual homes through a sewer service allowing for the removal of their existing septic system.

By sending sewage to a treatment facility, instead of discharging from your septic system, Harwich will reduce nitrogen levels so as to improve the water quality of Pleasant Bay.

What does “Phase 2” mean?

Phase 2 is the second phase of the Town's Comprehensive Wastewater Management Plan. This phase includes installing a sewer collection system in East Harwich as well as the interconnection with the Chatham Treatment System. Phase 2 is the first of seven construction phases. The Harwich Comprehensive Wastewater Management Plan (CWMP) identifies 8 phases spread over a 40-year time frame to fully construct our solution. Phase 1 included widening Muddy Creek and planning for Phase 2.

Why is Harwich sewerage the Pleasant Bay Watershed now?

Pleasant Bay Watershed (located in East Harwich) is a critical Cape Cod watershed impacted by too much nitrogen. Nitrogen from existing septic tanks has been identified as the main source of pollutant threatening our local waters and estuaries. Pleasant Bay Estuary has been identified as a body of water that needs to be protected.

Choosing East Harwich first for sewerage has an economic benefit for the town. By “partnering” with neighboring Chatham, Harwich eliminates the need to build its own East Harwich treatment facility as Chatham already has an existing treatment plant that can easily accommodate Harwich's sewage from the Pleasant Bay watershed. This alone will save Harwich significant capital and ongoing annual operating costs. Chatham's new wastewater treatment plant cost in excess of \$34 million dollars to build. Harwich has entered into an Inter-Municipal Agreement (IMA) with Chatham to send and treat up to 300,000 gallons per day of waste from the East Harwich area.

In addition, The Commonwealth of Massachusetts looks favorably at neighboring communities “partnering” with one another by providing loans at as low as zero percent interest for the Harwich municipal sewer construction. Harwich has the opportunity to pursue funding through this State Revolving Fund (SRF), further saving the Town of Harwich millions of dollars in interest expenses.

All of Harwich? It is not necessary.

Not all of Harwich is included in the sewerage project because only 50% of the town needs to be seweraged to clean up our watersheds.

Chapter 3. PLANNING & CONSTRUCTION

Is your property in Phase 2?

- Check Appendix 1 - Harwich Sewer Collection System - Phase 2 Street Listing - 04/17/18
- This street listing for Phase 2 properties can be found in Appendix 1 at the end of this document and also on the Wastewater website. The list is also available at the Brooks Free Library in Harwich, Town Hall and at the Harwich Community Center.

Sewer Construction Sequence

Sewer installation has two construction components: **1) town municipal sewer collection pipes under roads within the right of way and 2) residential sewer pipe installation on private property to connect to the town sewer collection pipes.**

1. Harwich owned **municipal sewer pipes** will be installed in a street in your neighborhood. Harwich owns and maintains the collection system pipes within the town's right of way. After this municipal construction is completed, lateral sewer pipes from "curb to home" across your residential property will connect your home to the town sewer.
2. **Sewer service connection** is the financial, planning and installation responsibility of the homeowner. Designing of the sewer service connection to the town municipal pipes must be performed by a Massachusetts Professional Engineer licensed to practice in the Commonwealth of Massachusetts, in accordance with the Guides for the Design of Wastewater Treatment Works (TR-16), and in strict accordance with appropriate Massachusetts codes and the "Town of Harwich Rules and Regulations of the Sewer". This engineer/firm is hired by the homeowner. Much like arranging for a new septic system, the homeowner will contract and pay for the installation from their home to the town pipe.

Current and Future Activities in the Phase 2 installation project.

- **Design-** The 90% design for the East Harwich Sewer Collection system is scheduled to be completed and submitted to the State Revolving Fund (SRF) with the towns funding application in mid-October 2018. The design process included an aerial topographical survey of East Harwich, obtaining the elevation of individual home sills, and conducting soil borings to determine soil composition and groundwater levels throughout the Phase 2 project area. This information was used to determine how deep the pipes in the street would have to be to accept wastewater by gravity from most homes in the Phase 2 area.
- **Construction-** Upon design approval from regulatory agencies, Harwich will hold a public bid for construction of the Phase 2 collection system. The Phase 2 collection system is separated into two construction contracts in an effort to obtain more competitive bids to perform the work. The two contracts will be executed simultaneously and include the installation of sewer mains, sewer laterals, and pump stations.
- **Homeowner Involvement During Construction (Sewer lateral/stub Placement)-** While most of the Phase 2 construction will not require any homeowner involvement, there is one component that will require input from residents. Part of the sewer main installation process is making an accommodation

for homeowners’ sewer services to be installed at a later date. This is done by installing a sewer lateral or stub in front of each home. A sewer lateral is a pipe that is brought from the sewer main in the street to the property line of each home. The sewer lateral is NOT a sewer service: the sewer service will be installed at a later date by a licensed utility installer, hired by the homeowner, who will make a connection from the home to the sewer lateral at the property line. To best locate the sewer lateral for each individual home the Town’s design engineer CDM Smith will distribute a “Sanitary Sewer Location Form “(Appendix 6). This form provides homeowners with the opportunity to identify where along their street frontage the contractor should install the sewer lateral. For guidance with sewer lateral placement the Town will be hosting workshops to assist residents, or residents may seek the services of a Professional Engineer. The location of the sewer lateral will be needed by the engineers when the “curb to house” connection is designed.

What is the timeline for Phase 2

Overall the Phase 2 implementation is intended to be completed within a five-year period as follows:

Town approved Phase 2 design funding	Spring 2017 Annual Town Meeting(ATM)
Town owned sewer main design phase	Summer 2017 thru Early 2019
Town approved Phase 2 construction funding	Spring 2018 ATM
Project bidding phase	Early 2019
Construction phase	Spring 2019 thru Spring 2021
Properties connect to sewer	Summer 2021 thru 2022
First flow to Chatham Treatment Facility	June 2021

Chapter 4

GRINDER PUMPS

The need for a Grinder Pump or Pressure Pump

- If there is not enough slope in the sewer service pipe, a grinder pump will be required to transfer sewage from the home into the Town's collection system.
- A grinder pump differs from a direct flow gravity connection. It adds to the homeowner's initial cost of connecting to the municipal sewer pipes. Grinder pumps also have additional ongoing costs such as electric energy and maintenance.

Pressure or grinder pumps. Will I need one?

- Most homes will not need a grinder pump. If you have a steep incline from basement to street, the elevation survey will determine if you need one. The homeowner or business owner owns the grinder pump. The need for a grinder pump is made on a case by case basis.

Grinder pump; What do I need to know?

- An alarm is required in the event there is a pump failure and the control panel needs to have an emergency generator connection in the event that there is a prolonged power outage. Periodic maintenance may be required.
- A grinder pump typically consists of a storage tank (50-70 gallons) and the pump itself. The pump runs when a float switch indicates the level in the tank reaches its setpoint.
- If you are a seasonal resident or will be away for an extended period, then it is advisable to drain/winterize the grinder pump system.
- Rules and regulations do not allow single family dwellings to share a grinder pump. There can only be one property and account per pump.
- The Water Department will maintain a record of which homeowners have pumps and the manufacturers' information.

Chapter 5

THINGS TO CONSIDER

Suggestions to minimize your Costs

- Get multiple bids as you would for any project. You may also need proposals showing projected costs to apply for a loan such as the Barnstable County Community Septic Loan Program referenced in this document. (Appendix 8)
- There may be ways to reduce your engineering and utility contractor costs by working with your neighbors. Neighbors can band together to negotiate for potentially better rates via the bidding process.

Things to consider

Decks

- Is your deck over the septic pipes that connect in your basement?
- If you plan to build a deck, it may be best to hold off until your connection piping is designed to avoid interference.

Internal plumbing changes

- You may decide to reroute the internal plumbing in your home to exit from the front of the home instead of the side or rear. Relocating where the sewer pipe exits your home may reduce the costs associated with installing your sewer service, minimize the impacts of excavation on your property or remove the need for a grinder.

Landscaping

- Consider valued plants that are between your septic entry to the basement and where you will place your sewer pipe connection to the street. You may want to move some plants or choose a connection point that preserves landscaping.

Street Restoration & Paving

- What should the roadway restoration expectations be after the project is completed? The entirety of the project route is going to receive curb to curb paving. Paving will typically consist of a three-step process. First, an initial trench patch consisting of 4 inches of binder course over 4 inches of ¾-in dense graded stone will be installed typically at the end of each week of construction. At some point when a sufficient length of trench patch has been installed, an eight-foot wide (or width of widest excavation, whichever is greater) 1½-in mill and resurfacing will occur along the trench patch. Finally, the third step will consist of two inch full-width mill and top course overlay for final paving.

Curb to Home Engineering and Construction Cost Estimates

- Curb to home costs vary based on distance from the street, need for a pressure pump, and other per property variables from landscape to removing impediments. Chatham residents experienced costs which typically ranged between \$7,000-\$12,000 from a partial sample of installations during the last few years.

Loans and financing

- Barnstable County offers loans for sewer connections through the Community Septic Management Loan Program. Local banks are aware of the project and its financial ramifications. It is up to the homeowner to initiate contacts with lenders.

<http://www.barnstablecountysepticloan.org/>

<http://www.barnstablecountysepticloan.org/loan-application/>

Chapter 6

REAL ESTATE

Should Realtors disclose information related to the future connection to the sewer system of subject properties?

- Realtors have a fiduciary responsibility to advise potential buyers of properties which will be required to connect to the sewer in Phase 2 (650 East Harwich properties) that the sewer is coming. Until such time as the sewer system is operational and the homeowner is connected to the sewer system the transfer of property will require a certificate that the Title 5 septic system is in compliance with state requirements and that a certificate is issued by the Board of Health. This certification is a condition of the property transfer. If the septic system is not in compliance the system needs to be repaired or replaced.
- When the Board of Health orders your property to connect, you will have twelve months to connect. The property owner may file a variance with the Harwich Board of Health to seek an extension. However, the BOH has made it very clear that variances may be granted for short periods of time for special circumstances. Each case would be decided individually but eventually you will need to connect to the sewer.
- Typically, the attorneys for the buyers and sellers will develop a Purchase & Sales Agreement which will address the responsibilities of each party as it relates to connecting to the sewer and abandoning the existing Title 5 septic system. The most straight forward approach is for the seller to pay for and complete the connection to the sewer prior to the transfer of the property (closing). At the closing, documentation would be provided by the seller which shows that the connection has been completed and is functioning.

What should a realtor say when asked how much it costs to connect to the sewer?

- Each connection to the sewer will be different in length, elevations, connections and associated details. Realtors should refer their clients to the Town of Harwich website and the Wastewater section in particular for cost estimates. However, a realtor should advise that a Professional Engineer will need to develop a sewer connection plan which after approval would be constructed by a licensed installer approved by the town.

Chapter 7. HARWICH TOWN CONTACTS

Septic System Plans - Paper and Digitized Options

Health Department
Meggan Eldredge, Director
Phone 508 430-7509
health@town.harwich.ma.us
732 Main Street
Harwich, MA 02645

For online access to your property information:

- Site plans are available online via our website and the wastewater support committee website: <http://www.harwich-ma.gov/health> You will be re-directed to our online database.
- You do not need to log on or create a username in order to view property information.
- Our website has a “how-to” guide on accessing the online database and a link to get to it.
- <M:\PRESENTATIONS-POWER POINT\PHASE 2 SEWER PROJECT-accessing ONLINE records.pdf>

Location of Water Pipes and Information regarding Lateral Connections

Water Department
Dan Pelletier, Superintendent of Water and Wastewater
Phone 508 432-0304
dpelletier@harwichwater.com
196 Chatham Road
Harwich, MA 02645

General Project Questions

Chris Clark, Town Administrator
508-430-7513
Fax 508-432-5039
Administrator@town.harwich.ma.us

Wastewater Support Committee
Wastewater@townofharwich.us

Chapter 8. GLOSSARY

ATM – Annual Town Meeting

Collection System – Town owned sewer pipes to collect the sewage

CDM Smith- The design engineer employed by the Town do design and provide construction oversight for Phase 2.

CWMP- Comprehensive Wastewater Management Plan

DB or D-box – A distribution box abbreviation. It is a container used to receive septic system effluent from a **septic tank** and to re-distribute the discharge into a network of attached drain-field absorption trenches & pipes.

Estuaries - An estuary is a partially enclosed coastal body of brackish water with one or more rivers or streams flowing into it, and with a free connection to the open sea. Estuaries form a transition zone between river environments and maritime environments.

Grinder Pumps – A grinder pump is a sewage conveyance device. Once the wastewater inside the tank reaches a specific level, the pump will turn on, grind the waste into a fine slurry, and pump it to the central sewer system or septic tank. Grinder pumps can be installed in the basement or in the yard.

Laterals – Sewer pipe that connects from the sewer main in the road and extends to the individual home owner's property line

Licensed Utility Installer – An individual or company approved by the Board of Health to install sewer service connections

Low Pressure Sewer System – Sewer pipes which are used by pumps to transfer sewage

Registered Professional Engineer – An engineer licensed by the State of Massachusetts to design or approve the design of a sewer connection

Request For Proposal – A request for proposal (RFP) is a document that solicits proposals, often made through a bidding process, by an agency or company interested in procurement of a commodity, service, or valuable asset, to potential suppliers to submit business proposals.

Septage - Septage or "septic tank sludge" is partially treated sludge that is accumulated and stored in a septic tank or similar onsite sewage facility. Septage is a by-product from the pretreatment of household wastewater (sewage) in a septic tank.

Sewage - Refuse liquids or waste matter usually carried off by sewers

Sewage Pumping Station - Pumping stations in sewage collection systems are normally designed to handle raw sewage that is fed from underground gravity pipelines (pipes that are sloped so that a liquid can flow in one direction under gravity). Sewage is fed into and stored in an underground pit, commonly known as a *wet well*. The well is equipped with electrical instrumentation to detect the level of sewage present. When the sewage level rises to a predetermined point, a pump will be started to lift the sewage upward through a pressurized pipe system called a *sewer force main* if the sewage is transported some significant distance.

Sewer Service- The pipe that connects the Stub/Lateral at the property line to in waste pipe leaving the home

State Revolving Fund (SRF) - The State Revolving Fund (SRF) offers affordable loan options to cities and towns to help protect their clean water and drinking water.

Stubs – Sewer pipe that connects from the sewer main in the road and extends to the individual home owner’s property line

TMDL - A Total Maximum Daily Load (TMDL) is a regulatory term in the U.S. Clean Water Act, describing a plan for restoring impaired waters that identifies the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards.

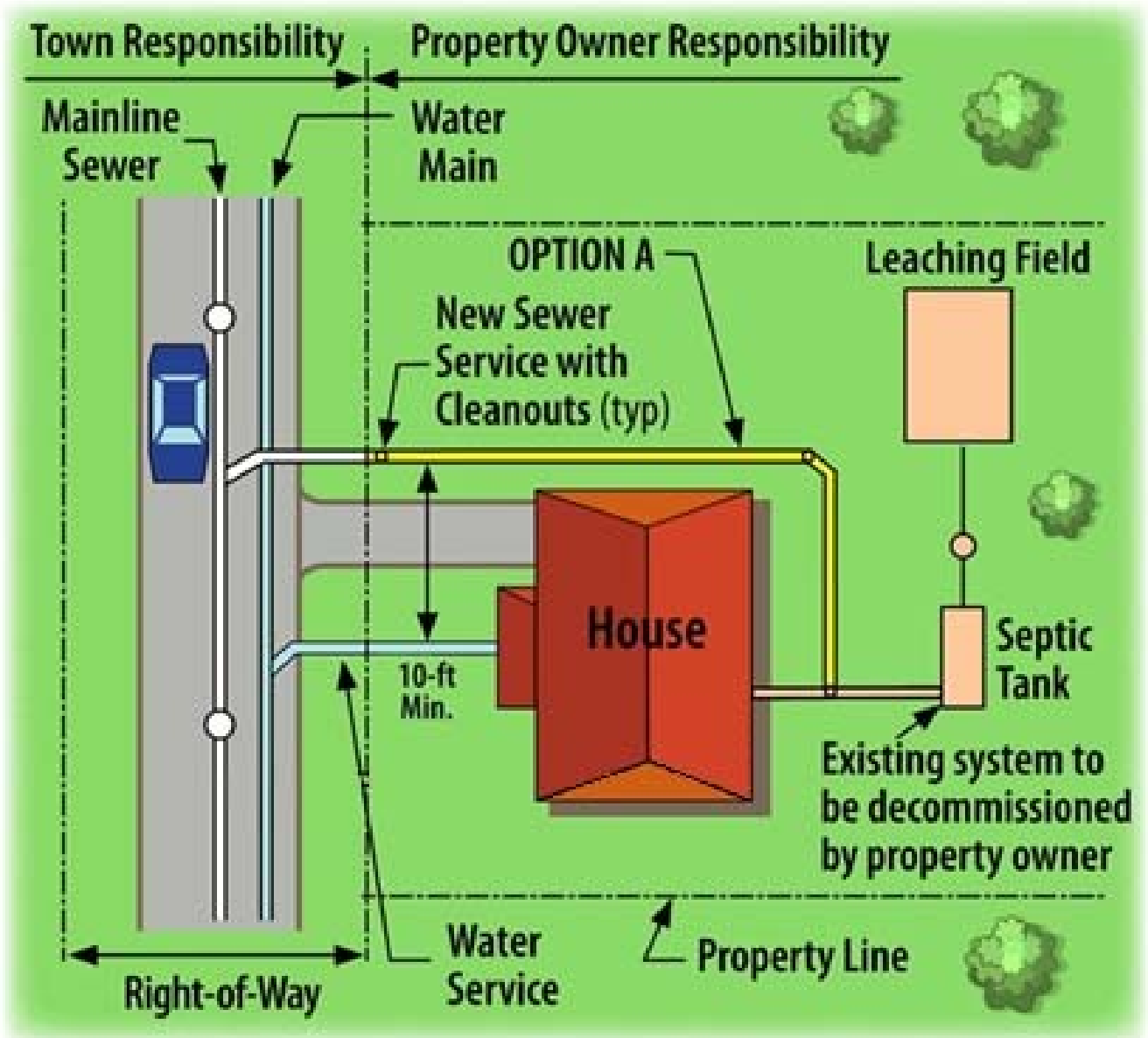
APPENDIX

1. Harwich Sewer Collection System - Phase 2 Street Listing - 04/17/18
2. Phase 2 Map
3. Tie into Existing Septic System Hookup Diagram
4. Replumbing Interior Septic Pipe Hookup Diagram
5. Grinder Pump Hookup Diagram
6. Sanitary Sewer Location Form- Blank Example
7. Sanitary Sewer Location Form- Completed Example
8. Barnstable County Loan Application
9. Harwich Wastewater Phasing Plan
10. Licensed Engineers
11. Homeowner Sewer Connection Checklist
12. Dig Safe Markout Colors
13. Typical Sewer Service Detail

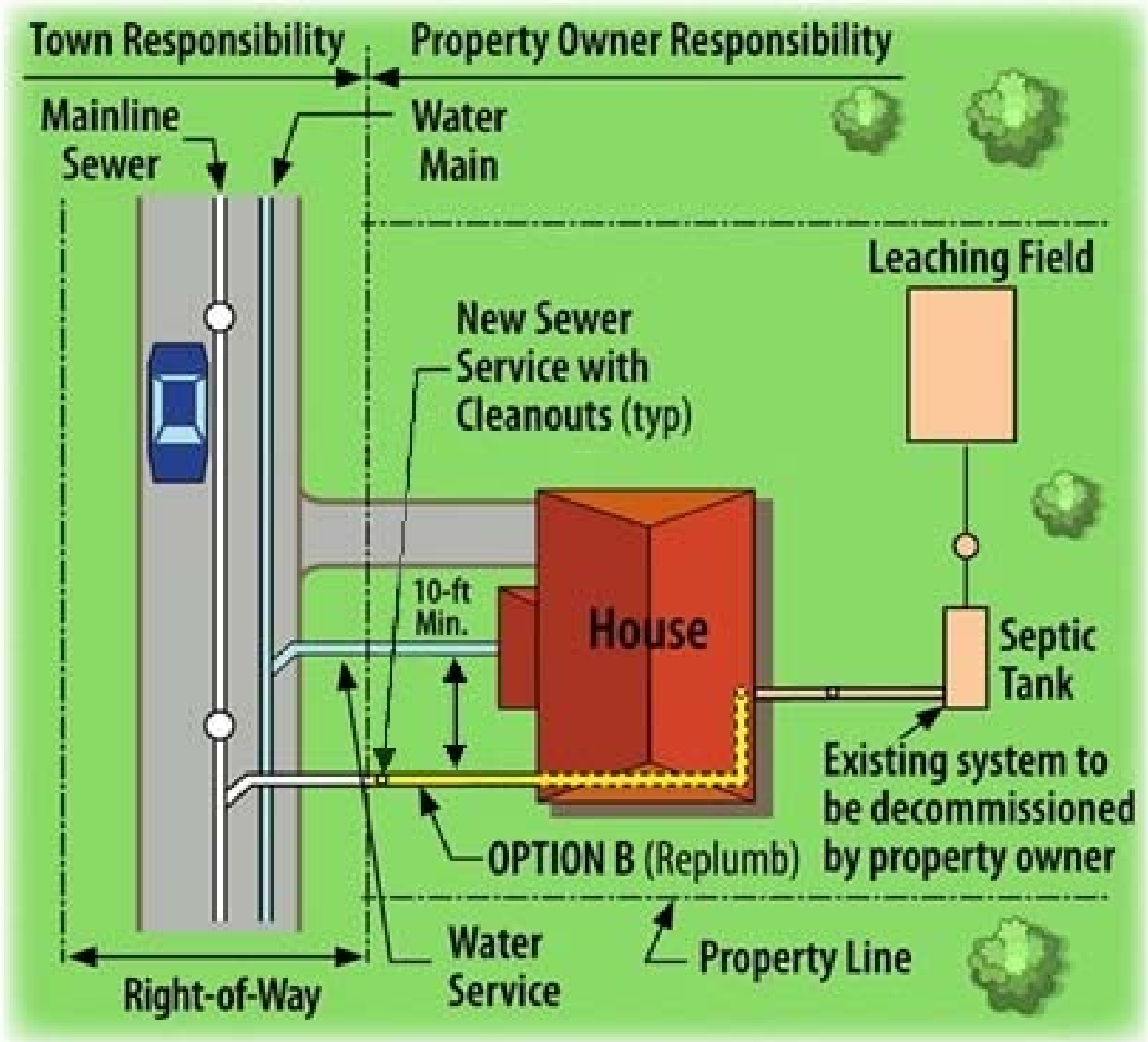
Appendix 1
Harwich Sewer Collection System - Phase 2 Street Listing - 04/17/18

STREET NAME	HOUSE NUMBERS	STREET OWNERSHIP
Alexander's Chase	All	Private
Auston Road	All	Private
Bay Road	#6 to #101	Town
Brewster-Chatham Road (Route 137)	#9 to #310	County
Cemetery Road	All	Town
Chickadee Lane	All	Private
Chris Jobeth Circle	All	Private
Church Street	#1 to #207	County
Compass Drive	All	Town
Continental Drive	All	Town
Deer Meadow Road	All	Town
Ellis Drive	All	Town
Fredericksburg Avenue	All	Town
Halls Path	#1356 & #1360	Town
Harden Lane	All	Town
Herndon Road	All	Town
Huckleberry Path	All	Town
Johanna's Path	All	Private
Landron Way	All	Private
Liberty Trail	All	Town
Lily Lane	#4	Private
Locust Grove Road	All	Town
Marsh View Road	All	Town
Mary Beth Lane	#1 & #2	Town
Nickerson Road	All	Town
Nor'East Drive	All	Town
Old Carriage Drive	All	Town
Old Heritage Way	All	Town
Old Salty Lane	All	Private
Orleans-Harwich Road (Route 39)	#1343 to #1585	County
Partridge Lane	#3 to #32	Town
Queen Anne Road	#1000 to #1154	Town/County
Reliance Way	All	Private
Round Cove Road	#134 to #160	Town
Ruddy Duck	#5	Private
Sadie's Way	All	Private
Scotch Pine Farm	All	Private
Sherwood Road	All	Town
Somerset Road	All	Town
Sou'West Drive	All	Town
Sparrow Hawk Road	#8	Private
Spence's Trace	All	Private
Spruce Grove	All	Private
Sugar Hill Drive	All	Town
Tern Road	All	Town
Vicksburg Avenue	All	Town
Whidah Drive	All	Town
White Pine Circle	All	Town
Williamsburg Avenue	All	Town

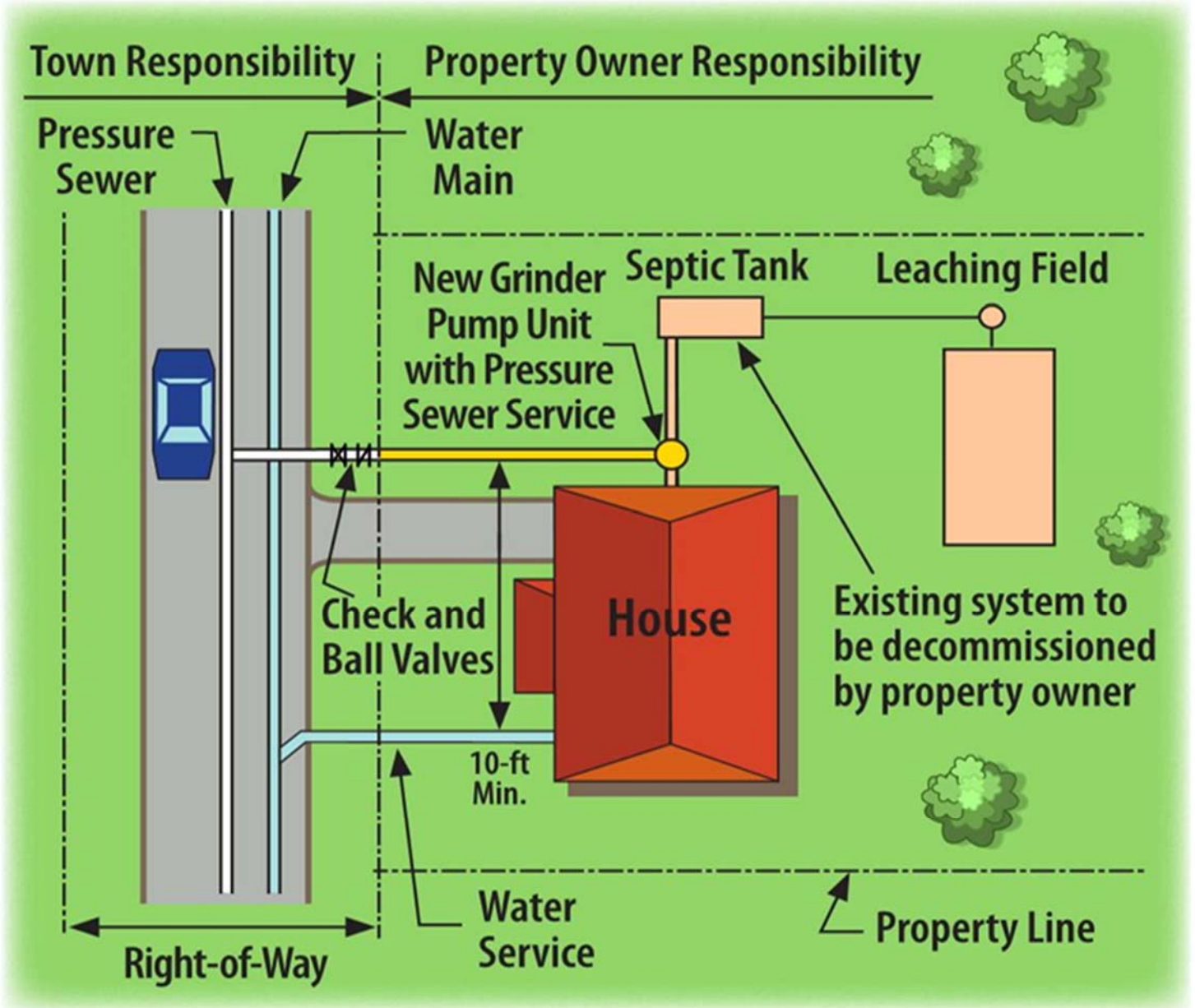
Appendix 3
Tie into Existing Septic System Hookup Diagram



Appendix 4
Replumbing Interior Septic Pipe Hookup Diagram



Appendix 5
Grinder Pump Hookup Diagram



Appendix 6
Sanitary Sewer Location Form- Blank Example

TOWN OF HARWICH, MASSACHUSETTS
SANITARY SEWER LOCATION FORM
PHASE 2

1. MARK AND CLEARLY IDENTIFY WHERE YOU PLAN TO HAVE THE SANITARY SEWER SERVICE CONNECTION ENTER YOUR HOME/PROPERTY.
2. PLEASE FILL IN THE APPROPRIATE SPACES LISTED BELOW INCLUDING OWNER'S NAME, STREET NAME, HOUSE NUMBER, DAY/EVENING PHONE NUMBER, AND THE HOMEOWNER'S SIGNATURE
3. IF YOU NEED ANY ASSISTANCE OR HAVE ANY QUESTIONS, PLEASE CONTACT: (CDM SMITH FIELD ENGINEER- TBD)



PROPERTY LINE _____

(SANITARY SEWER MAIN IN THE STREET)

PROPERTY LINE _____

OWNER'S NAME: _____
(PRINT)

HOUSE NUMBER: _____

STREET NAME: _____

PHONE NUMBER (DAY): _____

PHONE NUMBER (EVENING): _____

OWNER'S SIGNATURE: _____

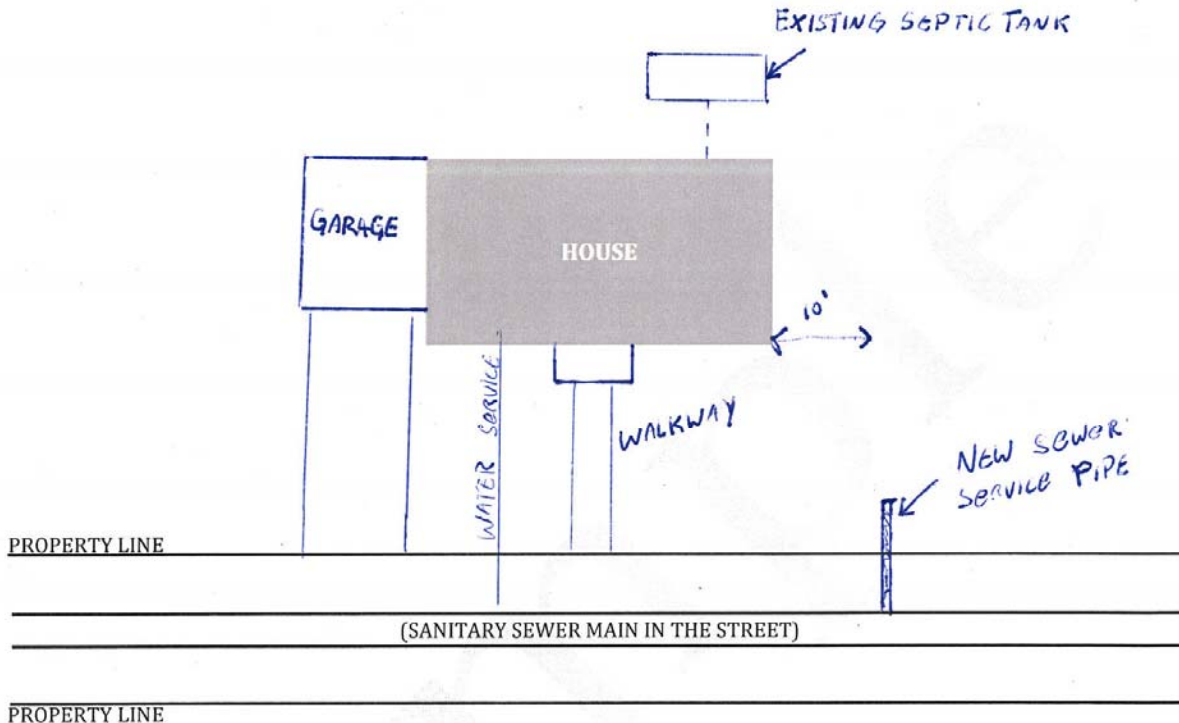
DATE: _____

Please show and label underground utilities you are aware of on your property. Ex. Buried sprinkler system, electrical, etc.

Appendix 7
Sanitary Sewer Location Form- Completed Example

TOWN OF HARWICH, MASSACHUSETTS
SANITARY SEWER LOCATION FORM
PHASE 2

1. MARK AND CLEARLY IDENTIFY WHERE YOU PLAN TO HAVE THE SANITARY SEWER SERVICE CONNECTION ENTER YOUR HOME/PROPERTY.
2. PLEASE FILL IN THE APPROPRIATE SPACES LISTED BELOW INCLUDING OWNER'S NAME, STREET NAME, HOUSE NUMBER, DAY/EVENING PHONE NUMBER, AND THE HOMEOWNER'S SIGNATURE
3. IF YOU NEED ANY ASSISTANCE OR HAVE ANY QUESTIONS, PLEASE CONTACT: (CDM SMITH FIELD ENGINEER- TBD)



OWNER'S NAME: JOHN DOE
(PRINT)

HOUSE NUMBER: 1

STREET NAME: YELLOW BRICK ROAD

PHONE NUMBER (DAY): 508 867 5309

PHONE NUMBER (EVENING): 508 867 5309

OWNER'S SIGNATURE: J.D.

DATE: 5/1/2020

Please show and label underground utilities you are aware of on your property. Ex. Buried sprinkler system, electrical, etc.

**Appendix 8
Barnstable County Loan Application (Page 1)**



**Community Septic Management Loan Program
P.O. Box 427
Barnstable, MA 02630**



5% Interest Rate Betterment Loan Application
To Be Completed by Homeowner(s)

Note to owner(s): This application is to be submitted to the Barnstable County Community Septic Management Loan Program, and income information is considered confidential. For purposes of this program, "Owner" is defined as a person, or persons, who has or have, legal title to residential facilities served by an on-site system, including, but not limited to, any agent, executor, administrator, trustee, or guardian of the estate for the holder of legal title. Please provide all of the following information and be sure to sign the application. Use full legal names only. **PLEASE PRINT NEATLY!**

1. Property/Owner information

Current Owner 1 _____
 Property Address _____
 Village _____ Zip _____
 Home Telephone Number _____ Work Telephone Number _____
 Cell Phone Number _____ Email Address _____

Current Owner 2 _____
 Home Telephone Number _____ Work Telephone Number _____
 Cell Phone Number _____ Email Address _____
 Deed Reference Book _____ Page _____ or Document No. _____
 Assessor's Information Map _____ Parcel _____ Other _____
 Property taxes Current? Yes No
 Is the property currently on the market? Yes No

2. Mailing address (if different from above)

Street Address or PO Box _____
 Village _____ State _____ Zip _____

3. Type of residential structure is (check one)

Single family home (owner occupied) Condominium
 Single family home (rental property only) Multi-family home (number of units) _____
 Other (describe) _____

4. Property is (check one)

Owner Occupied Occupied by owner and tenants Tenant occupied only

5. Total number of persons in residence

Owner Occupied _____ Tenant Occupied _____
 Ages of residents (number each age) 0-9 _____ 10-19 _____ 20-39 _____ 40-59 _____ 60 & over _____

Please be sure to complete the other side of this form

Barnstable County Loan Application (Page 2)

6. Building description

Total number of bedrooms _____ Total number of bathrooms _____

7. Has the septic system been inspected and certified "failed"?

Yes No

If "yes", provide a copy of the inspection report. If "no", what **signs and symptoms** indicate failure, and the repair/replacement activity anticipated, for example replace cesspool(s) with a Title 5 system, replace leaching field, etc.

8. Ethnicity (for government reporting purposes only)

Asian American Indian Brazilian Portuguese Black or African American
 White Hispanic or Latino Cape Verdean Multiracial Other _____

9. Financial information

Include a signed and dated copy of your most recent Federal Tax Return [1040] with this application.

For applicants not required to file a Federal Tax return, evidence of source(s) of income, (e.g. Social Security, pension benefits, unemployment benefits, veteran benefits, public assistance benefits, etc.), indicating the monthly amount you presently receive from each source, should be included for documentation purposes.

10. Do you presently have a mortgage?

Yes - **Please include a copy of your most recent mortgage statement with this application.**
 No

11. Are you presently in bankruptcy or have you filed for bankruptcy in the past?

Yes No If yes, when? _____

12. Are you planning on refinancing your mortgage? If yes, please note that Barnstable County Betterment loans **can not** be subordinated to existing or future mortgages.

Yes No

13. Reimbursement for costs associated with the septic system repair project up to 30 days prior to the receipt and approval of a completed application by Barnstable County is possible, but not guaranteed.

14. Certification by Owner(s)

I/we agree to sign a betterment loan agreement with the County of Barnstable for the amount of eligible project costs for the purpose of septic system repair or replacement, pursuant to the Title 5 definition of septic system failure, and am/are aware that any such loan would be secured by a betterment assessment, recorded on my property title, on the property identified above, with a repayment term to the County not to exceed twenty (20) years. I/we understand that the loan carries a 5% per annum interest rate and is payable monthly to the County of Barnstable. I/we also understand that the County may obtain a first priority lien on the homeowner's property if the repayments are not made on time. If scheduled payments are late, interest at the rate of fourteen percent (14%) per annum will accrue on the outstanding principal balance until the payments become current. I/we also understand that should payments not be made, the County, in addition to the preceding, has statutory authority to take title to the property and, subsequently, to undertake proceedings to foreclose the owner's right to redeem the property from tax title. Furthermore, I/we understand that the County of Barnstable reserves its rights under available statutes to recover any and all costs incurred for this project in the event my/our application to this program proves to be fraudulent.

This information provided is true and complete to the best of my/our knowledge and belief. I/we consent to the disclosure of such information of income and verification related to my/our application for financial assistance. I/we understand that any willful misstatement of material fact will be grounds for disqualification.

Applicant Signature (Date) Co-Applicant Signature (Date)

Note: \$50.00 will be added to your loan to cover costs associated with securing this loan with the County of Barnstable Registry of Deeds.

Appendix 9
Harwich Wastewater Phasing Plan

Harwich Wastewater Phasing Plan			
Phase	Time Frame	Cost Estimate	Focus
1	2013 to 2016	\$ 1.8M	Muddy Creek Attenuation Bridge Project & Cold Brook Attenuation Study
2	2016 to 2021	\$24.8M	Pleasant Bay Collection System : South, Cold Brook Attenuation & Hinkley's Pond Restoration
3	2021 to 2025	\$12.9M	Pleasant Bay Collection System : North & Seymour Pond Restoration
4a	2026 to 2028	\$34.4M	Harwich Treatment Plant or Dennis / Harwich / Yarmouth Joint Treatment Plant
4b	2029 to 2032	\$22.3M	Herring River Collection System : Northeast
5	2033 to 2037	\$23.2M	Herring River Collection System : Northwest
6	2038 to 2042	\$21.2M	Harwich Port, Allen & Wychmere Harbors & Herring River Southeast Collection Systems + Bucks Pond & John Joseph Pond Restoration
7	2043 to 2047	\$47.2M	Herring River Collection System : Southwest & Treatment Facility Upgrade
8	2048 to 2052	\$33.9M	Campgrounds, Great Sands Lake & Final Pleasant Bay Area Collection Systems

Appendix 10 Licensed Engineers

<u>LIST OF COMPANIES THAT MAY PERFORM SEWAGE DESIGN IN THE AREA</u>		
THIS IS NOT AN ENDORSEMENT BUT MERELY A COMPILATION OF COMPANIES IN THE AREA. WE SUGGEST THAT YOU CALL AT LEAST TWO OR THREE COMPANIES AND CHECK REFERENCES		
Updated August 2018		
BSC Group 349 Route 28, Unit "D" West Yarmouth, MA 02673 508-778-8919	George Reilly, RS P.O. Box 1063 Orleans, MA 02653 508-255-8635	Ryder & Wilcox Engineering 3 Giddiah Hill, Box 439 South Orleans, MA 02662 508-255-8312
Bass River Engineering P.O. Box 1163 East Dennis, MA 02641 508-385-3426	J.C. Ellis Design Co. PO Box 81 Eastham, MA 02651 508-240-2220	Schofield Brothers Engineering P.O. Box 101 Orleans, MA 02653 508-255-2098
Bennett Environmental Associates 1573 Main Street – PO Box 1743 Brewster, MA 02631 508-896-1706	J.M. O'Reilly & Associates P.O. Box 1773 Brewster, MA 02631 508-896-6601	Dan A. Speakman Construction 15 Speak Way Harwich, MA 02645 508-432-5565
Clark Engineering 156 Crowell Road, Suite B Chatham, MA 02633 508-945-5454 Fax: 508-945-5458	LaBarge Engineering 237 Route 28 W Harwich, MA 02671 508-432-6360 Fax: 508-432-6792	Stephen A. Haas Engineering, Inc. P.O. Box 16 South Dennis, MA 02660 508-362-8132 Cell: 508-367-1691
Coastal Engineering 260 Cranberry Highway Orleans, MA 02653 508-255-6511	Mary Beth McKenzie, R.S. J. O'Loughlin, Inc. 2 Harold Street Harwich Port, MA 02646 508-432-5700	Sweetser Engineering 203 Setucket Road, South Dennis, MA 02660 508-385-6900
Down Cape Engineering 939 Route 6A Yarmouth Port, MA 02675 508-362-4541	Moran Engineering 941 Route 28, PO Box 183 South Harwich, MA 02661 508-432-2878	Terry Warner Surveying 22 Long Road Harwich, MA 02645 508-432-8309
East Cape Engineering P. O. Box 1525 Orleans, MA 02653 508-255-7120	Douglas A. Grover Septic Design P.O. Box 240 South Orleans, MA 02662 508-255-4411	Eldredge Surveying & Engineer 1038 Main Street Chatham, MA 02633 508-945-3965
David Coughanowr Eco-Tech Rapid Response 155 George Ryder Road South Chatham, MA 02633 508-364-0894	Ronald J. Cadillac, PLS, RS, P.C. P.O. Box 258 West Yarmouth, MA 02673	Robert M. Perry, P.E. P.O. Box 1517 East Dennis, MA 02631 508-385-1445
Felco Engineering P.O. Box 1366 Orleans, MA 02653 508-255-8141		

Appendix 11

Homeowner Sewer Connection Checklist

Action	Yes/No	Date	Comments
Are you on the Phase 2 list to be sewerred?			
Have you been informed you need a grinder pump?			
Did you obtain an as-built septic system drawing from the Board of Health?			
Did you obtain a water service tie card from customer service at the water department to locate where the water service is on your property?			
Does your septic pipe enter from the front, side or rear side of your house?			
Is your basement finished?			
If your septic pipe is not in the front of your house, would you consider moving the sewer connection to the front?			
Identify you preferred point of entry for the sewer connection.			
Be aware of complications related to decks, driveways, fences, walls, landscaping, patios, etc.			
Arrange financing for the installation costs.			
Retain the service of a registered professional engineer to develop your connection plan.			
Obtain installation bids from Licensed Utility Contractors approved to do business in the Town of Harwich.			
Sign a contract to perform the work and complete the installation.			
Work with the Licensed Utility Contractor if you need to hire a plumber and/or electrician to complete the installation.			
Keep a copy of the final installation certificate and you or your contractor shall submit an as-built to the Town's Sewer Department			
Complete any yard work as a result of the construction			
Keep proof of work done of the installation for your records			
Follow up to get detail of your sewer account			

Appendix 12
Dig Safe Markout Colors

- Painted marks in the street identify various underground utilities. Each type of utility is marked with a unique color. Please refer to the Dig Safe chart below to better understand what the marks in your street represent.



**Know what's below.
Call before you dig.**

RED	ELECTRIC
YELLOW	GAS, OIL, STEAM
ORANGE	COMMUNICATIONS
BLUE	POTABLE WATER
PURPLE	RECLAIMED WATER
GREEN	SEWER / DRAINAGE
PINK	SURVEY MARKS
WHITE	PROPOSED EXCAVATION

