

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services
Div of Environmental Health, 11 SHS
(207) 287-5672 FAX (207) 287-3165

PROPERTY LOCATION		>>CAUTION: LPI APPROVAL REQUIRED<<	
City, Town, or Plantation	PORTLAND	Town/City <u>Portland, ME</u>	Permit # <u>2016-09055</u>
Street or Road	Taft Avenue <i>(Greenish)</i>	Date Permit Issued	Fee \$ <u>65.00</u> Double Fee Charged []
Subdivision, Lot #		<i>[Signature]</i>	LPI # <u>1188</u>
OWNER/APPLICANT INFORMATION		Local Plumbing Inspector Signature	
Name (last, first, MI)	FRANCIS JAMES DRAKE		
	<input checked="" type="checkbox"/> Owner <input type="checkbox"/> Applicant		
Mailing Address of Owner	P.O. BOX 1378 PORTLAND, ME 04104	The Subsurface Wastewater Disposal System <i>shall not</i> be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.	
Daytime Tel. #	450-3970	Municipal Tax Map # <u>272</u> Lot # <u>6-16 & 30-36</u>	

<p style="text-align: center;">OWNER OR APPLICANT STATEMENT</p> <p>I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a permit.</p> <p>Signature of Owner/Applicant _____ Date _____</p>	<p style="text-align: center;">CAUTION: INSPECTION REQUIRED</p> <p>I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.</p> <p style="text-align: right;">(1st) Date Approved _____</p> <p style="text-align: right;">Local Plumbing Inspector Signature _____ (2nd) Date Approved _____</p>
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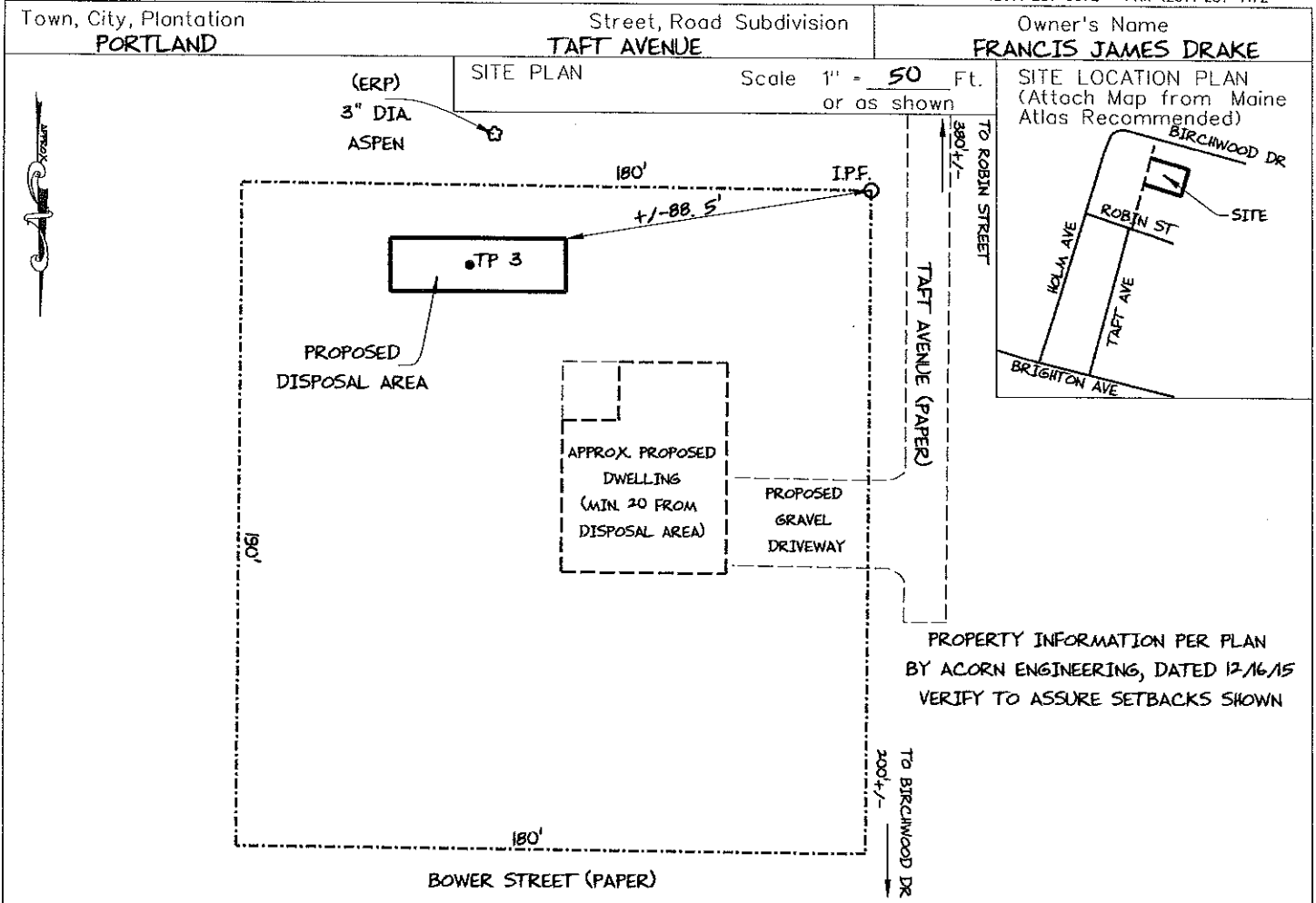
PERMIT INFORMATION		
<p>TYPE OF APPLICATION</p> <p><input checked="" type="checkbox"/> 1. First Time System <input type="checkbox"/> 2. Replacement System</p> <p>Type Replaced: _____ Year Installed: _____</p> <p><input type="checkbox"/> 3. Expanded System <input type="checkbox"/> a. <25% Expansion <input type="checkbox"/> b. >25% Expansion <input type="checkbox"/> 4. Experimental System <input type="checkbox"/> 5. Seasonal Conversion</p>	<p>THIS APPLICATION REQUIRES</p> <p><input checked="" type="checkbox"/> 1. No Rule Variance <input type="checkbox"/> 2. First Time System Variance <input type="checkbox"/> a. Local Plumbing Inspector Approval <input type="checkbox"/> b. State & Local Plumbing Inspector Approval <input type="checkbox"/> 3. Replacement System Variance <input type="checkbox"/> a. Local Plumbing Inspector Approval <input type="checkbox"/> b. State & Local Plumbing Inspector Approval <input type="checkbox"/> 4. Minimum Lot Size Variance <input type="checkbox"/> 5. Seasonal Conversion Permit</p>	<p>DISPOSAL SYSTEM COMPONENTS</p> <p><input checked="" type="checkbox"/> 1. Complete Non-Engineered System <input type="checkbox"/> 2. Primitive System (graywater & alt toilet) <input type="checkbox"/> 3. Alternative Toilet, specify: _____ <input type="checkbox"/> 4. Non-Engineered Treatment Tank (only) <input type="checkbox"/> 5. Holding Tank, _____ gallons <input type="checkbox"/> 6. Non-Engineered Disposal Field (only) <input type="checkbox"/> 7. Separated Laundry System <input type="checkbox"/> 8. Complete Engineered System (2000gpd+) <input type="checkbox"/> 9. Engineered Treatment Tank (only) <input type="checkbox"/> 10. Engineered Disposal Field (only) <input type="checkbox"/> 11. Pre-treatment, specify: _____ <input type="checkbox"/> 12. Miscellaneous components</p>
<p>SIZE OF PROPERTY</p> <p><u>1 +/-</u> <input type="checkbox"/> SQ. FT. <input checked="" type="checkbox"/> ACRES</p>	<p>DISPOSAL SYSTEM TO SERVE</p> <p><input checked="" type="checkbox"/> 1. Single Family Dwelling Unit, No. of Bedrooms: <u>4</u> <input type="checkbox"/> 2. Multiple Family Dwelling, No of Units: _____ <input type="checkbox"/> 3. Other: _____ (specify)</p> <p>Current Use <input type="checkbox"/> Seasonal <input type="checkbox"/> Year Round <input checked="" type="checkbox"/> Undeveloped</p>	<p>PROPOSED TYPE OF WATER SUPPLY</p> <p><input checked="" type="checkbox"/> 1. Drilled Well <input type="checkbox"/> 2. Dug Well <input type="checkbox"/> 3. Private <input type="checkbox"/> 4. Public <input type="checkbox"/> 5. Other:</p>
<p>SHORELAND ZONING</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>		

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)			
<p>TREATMENT TANK</p> <p><input checked="" type="checkbox"/> 1. Concrete <input checked="" type="checkbox"/> a. Regular <input type="checkbox"/> b. Low Profile <input type="checkbox"/> 2. Plastic <input type="checkbox"/> 3. Other: _____</p> <p>CAPACITY: <u>1000</u> GAL.</p>	<p>DISPOSAL FIELD TYPE & SIZE</p> <p><input type="checkbox"/> 1. Stone Bed <input type="checkbox"/> 2. Stone Trench <input checked="" type="checkbox"/> 3. Proprietary Device <input type="checkbox"/> a. Cluster array <input checked="" type="checkbox"/> c. Linear <input checked="" type="checkbox"/> b. Regular <input type="checkbox"/> d. H-20 loaded <input type="checkbox"/> 4. Other: _____</p> <p>SIZE: <u>1200</u> sq. ft. <input type="checkbox"/> lin. ft. <small>24 HIGH CAPACITY PLASTIC CHAMBER UNITS</small></p>	<p>GARBAGE DISPOSAL UNIT</p> <p><input checked="" type="checkbox"/> 1. No <input type="checkbox"/> 2. Yes <input type="checkbox"/> 3. Maybe</p> <p>If Yes or Maybe, specify one below: <input type="checkbox"/> a. Multi-compartment tank <input type="checkbox"/> b. _____ tanks in series <input type="checkbox"/> c. Increase in tank capacity <input type="checkbox"/> d. Filter on tank outlet</p>	<p>DESIGN FLOW</p> <p><u>360</u> gallons per day</p> <p>BASED ON: <input checked="" type="checkbox"/> 1. Table 4A (dwelling unit(s)) <input type="checkbox"/> 2. Table 4C (other facilities)</p> <p>SHOW CALCULATIONS for other facilities</p> <p style="text-align: center;">4 BEDROOMS AT 90 GALLONS PER DAY EACH</p>
<p>SOIL DATA & DESIGN CLASS</p> <p>PROFILE: <u>S</u> / <u>D</u></p> <p>at Observation Hole # <u>TP 3</u> Depth <u>10</u> " of Most Limiting Soil Factor</p>	<p>DISPOSAL FIELD SIZING</p> <p><input checked="" type="checkbox"/> 1. Medium - 2.6 sq.ft./gpd <input type="checkbox"/> 2. Medium-Large - 3.3 sq.ft./gpd <input type="checkbox"/> 3. Large - 4.1 sq.ft./gpd <input type="checkbox"/> 4. Extra-Large - 5.0 sq.ft./gpd</p>	<p>EFFLUENT/EJECTOR PUMP</p> <p><input type="checkbox"/> 1. Not required <input checked="" type="checkbox"/> 2. May be required <input type="checkbox"/> 3. Required</p> <p>Specify only for engineered systems: DOSE: _____ gallons</p>	<p><input type="checkbox"/> 3. Section 4G (meter readings) ATTACH WATER-METER DATA</p> <p>LATITUDE AND LONGITUDE at center of disposal area</p> <p>Lat. <u>N43</u> d <u>41</u> m <u>1.64</u> s Lon. <u>W70</u> d <u>19</u> m <u>5.17</u> s <small>If g.p.s., state margin of error</small></p>

SITE EVALUATOR STATEMENT		
I certify that on <u>7/7/16</u> (date) I completed a site evaluation on this property and state that the data reported is accurate and that the proposed system is in compliance with the Subsurface Wastewater Disposal Rules (10-144A CMR/241).		
<p><i>[Signature]</i> Site Evaluator Signature</p>	<p><u>163</u> SE #</p>	<p><u>7/22/2016</u> Date</p>
<p>ALBERT FRICK Site Evaluator Name Printed</p>	<p>(207) 839-5563 Telephone Number</p>	<p>ALBERT@ALBERTFRICK.COM E-mail Address</p>

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Department of Human Services
 Division of Health Engineering, Station 10 SHS
 (207) 287-5672 FAX (207) 287-4172



SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 3 Test Pit Boring
 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)	Texture	Consistency	Color	Mottling
0	SANDY LOAM		DARK BROWN	
10	LOAMY SAND	FRIABLE	GRAY (ALBIC)	
15			YELLOW BROWN	FEW, FAINT
20	SAND		LIGHT OLIVE BROWN	COMMON, DISTINCT
25		CEMENTED		
30				
40				
50				

Soil Classification: **S D**
 Profile: **S** Condition: **D**
 Slope: **0-3 %**
 Limiting Factor: **10"**
 Ground Water
 Restrictive Layer
 Bedrock
 Pit Depth

Observation Hole _____ Test Pit Boring
 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)	Texture	Consistency	Color	Mottling
0				
10				
20				
30				
40				
50				

Soil Classification: _____
 Profile: _____ Condition: _____
 Slope: _____
 Limiting Factor: _____
 Ground Water
 Restrictive Layer
 Bedrock
 Pit Depth

Albert Frick
 Site Evaluator Signature

163
 SE #

7/22/2016
 Date

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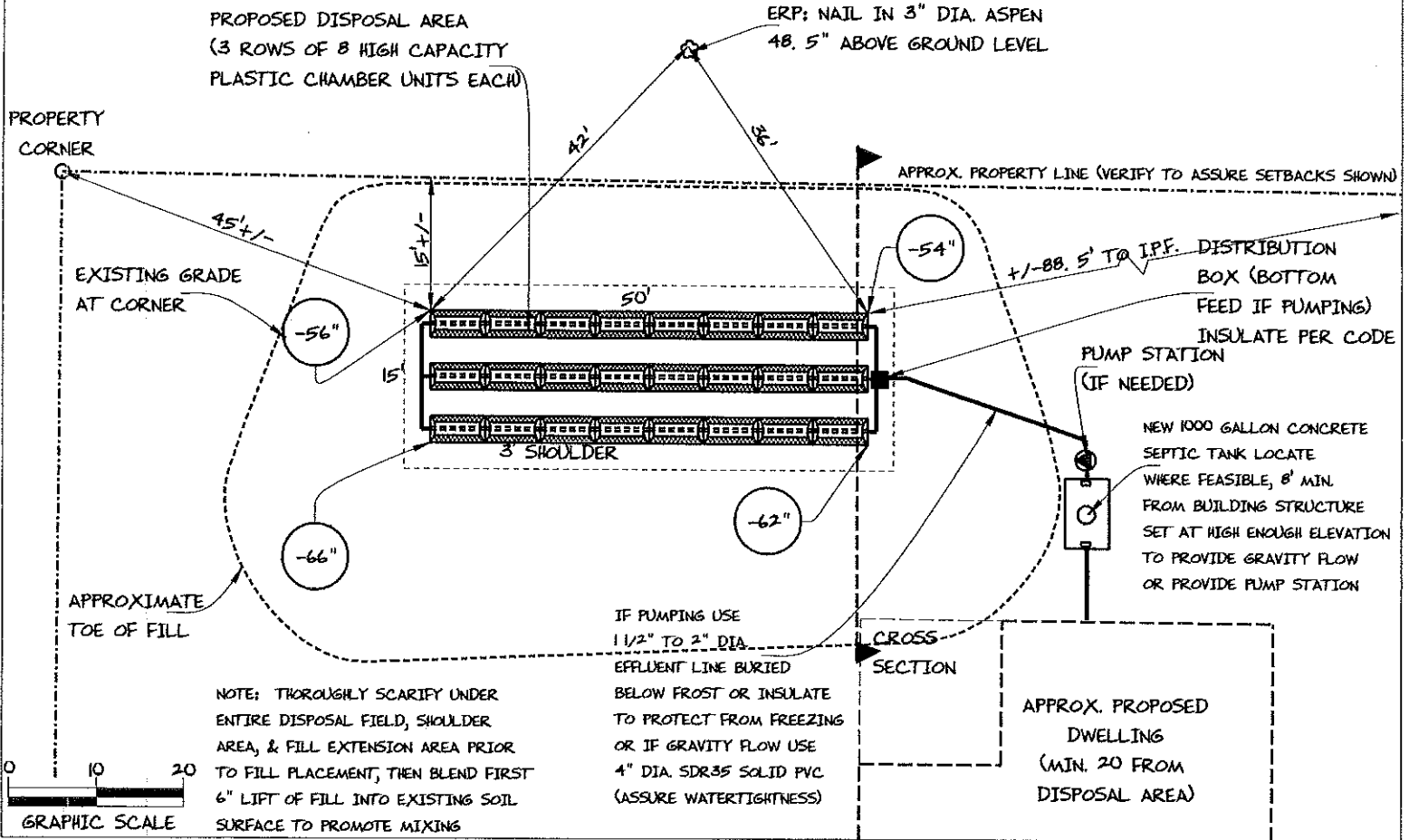
Town, City, Plantation
PORTLAND

Street, Road, Subdivision
TAFT AVENUE

Owner's Name
FRANCIS JAMES DRAKE

SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE 1" = 20 FT.



FILL REQUIREMENTS

CONSTRUCTION ELEVATIONS

ELEVATION REFERENCE POINT

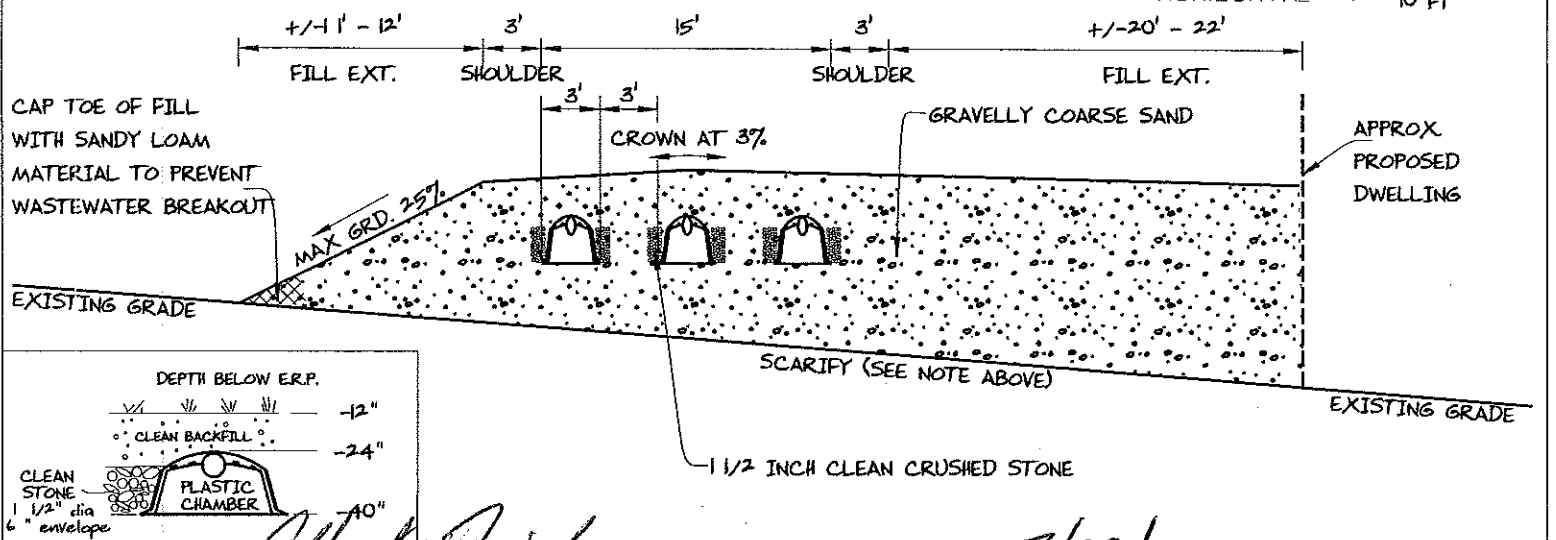
Depth of Fill (Upslope) : 42" - 44" Finished Grade Elevation
 Depth of Fill (Downslope) : 50" - 54" Top of Distribution Pipe or Proprietary Device
 DEPTHS AT CROSS-SECTION (shown below) Bottom of Disposal Area

SEE
 DETAIL
 BELOW

Location & Description 3" DIA. ASPEN NAIL 48.5" ABOVE BASE
 Reference Elevation is: 0.0" or -----

DISPOSAL AREA CROSS SECTION

SCALE:
 VERTICAL: 1" = 5 FT
 HORIZONTAL: 1" = 10 FT



Albert Frick
 Site Evaluator Signature

163
 SE *

7/22/2016
 Date

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 HHE-200 Rev. 10/02

Fill Estimation Worksheet

Albert Frick Associates Inc.

95A County Road

Gorham, Me 04038

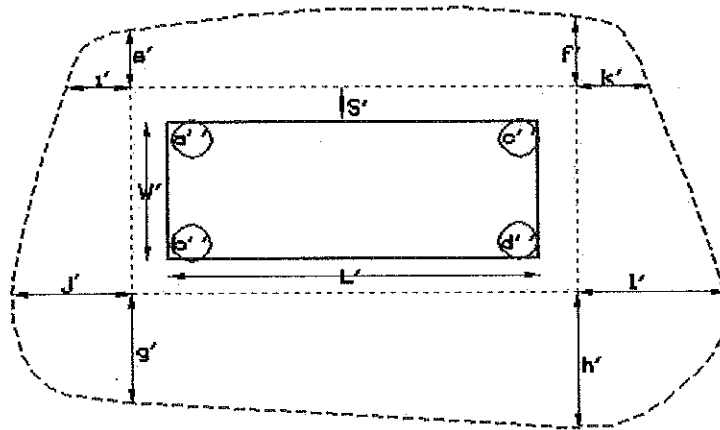
839-5563 FAX - 839-5564

E-Mail - Albert@albertfrick.Com

www.albertfrick.com

Town: Portland
 Project owner/applicant: Francis James Drake
 Taft Avenue
 Portland, Maine

This worksheet is being provided as a complimentary tool to assist in estimating the **approximate** amount of fill required to construct the **proposed system only**. This worksheet does not substitute for a personal visit to the site for your own estimate. These calculations are intended to serve as a check to your work. Site features beyond the model (terrain) can vary to affect model projections.



Length (L)	<u>50.00</u> feet
Width (W)	<u>15</u> feet
Shoulder (S)	<u>3</u> feet
<i>Depth of fill:</i>	
upper left (a)	<u>42</u> inches
upper right (c)	<u>44</u> inches
lower left (b)	<u>50</u> inches
lower right (d)	<u>54</u> inches
<i>Fill Extension:</i>	
left up (e)	<u>11</u> feet
right up (f)	<u>12</u> feet
left down (g)	<u>20</u> feet
right down (h)	<u>22</u> feet
upper left (i)	<u>11</u> feet
lower left (j)	<u>20</u> feet
upper right (k)	<u>12</u> feet
lower right (l)	<u>22</u> feet
Cost of fill per yard= \$ 0.00	

Body	173 cubic yards
Fill Down	95 cubic yards
Fill Up	43 cubic yards
Fill left	24 cubic yards
Fill right	27 cubic yards
Fill upleft	5 cubic yards
Fill upright	6 cubic yards
Fill downleft	17 cubic yards
Fill downright	22 cubic yards

SubTotal=	412 cubic yards
Shrinkage %=	15 %
Total Backfill	474 cubic yards

Adjusted cost of Total Backfill=

\$ -



PORTLAND

TAFT AVENUE

FRANCIS JAMES DRAKE

TOWN LOCATION APPLICANT'S NAME

1) The Plumbing and Subsurface Wastewater Disposal Rules adopted by the State of Maine, Division of Health and Human Services pursuant to 22 M.R.S.A. § 42 (the "Rules") are incorporated herein by reference and made a part of this application and shall be consulted by the owner/applicant, the system installer and/or building contractor for further construction details and material specifications. The system Installer should contact Albert Frick Associates, Inc. 839-5563, if there are any questions concerning materials, procedures or designs. The system installer and/or building contractor installing the system shall be solely responsible for compliance with the Rules and with all state and municipal laws and ordinances pertaining to the permitting, inspection and construction of subsurface wastewater disposal systems.

2) This application is intended to represent facts pertinent to the Rules only. It shall be the responsibility of the owner/applicant, system Installer and/or building contractor to determine compliance with and to obtain permits under all applicable local, state and/or federal laws and regulations (including, without limitation, Natural Resources Protection Act, wetland regulations, zoning ordinances, subdivision regulations, Site Location of Development Act and Minimum Lot Size law) before installing this system or considering the property on which the system is to be installed a "buildable" lot. It is recommended that a wetland scientist be consulted regarding wetland regulations. Prior to the commencement of construction/installation, the local plumbing inspector or Code Enforcement Officer shall inform the owner/applicant and Albert Frick Associates, Inc of any local ordinances which are more restrictive than the Rules in order that the design may be amended. All designs are subject to review by local, state and/or federal authorities. Albert Frick Associates, Inc.'s liability shall be limited to revisions required by regulatory agencies pursuant to laws or regulations in effect at the time of preparation of this application.

3) All information shown on this application relating to property lines, well locations, subsurface structures and underground facilities (such as utility lines, drains, septic systems, water lines, etc.) are based upon information provided by the owner/applicant and has been relied upon by Albert Frick Associates, Inc. in preparing this application. The owner/applicant shall review this application prior to the start of construction and confirm this information. Well locations on abutting properties but not readily visible above grade should be confirmed by the owner/applicant prior to system installation to assure minimum setbacks.

4) Installation of a garbage (grinder) disposal is not recommended. If one is installed, an additional 1000 gallon septic tank or a septic tank filter shall be connected in series to the proposed septic tank. Risers and covers should be installed over the septic tank outlet per the "Rules" to allow for easy maintenance of filter.

5) The septic tank should be pumped within two years of installation and subsequently as recommended by the pump service, but in no event should the septic tank be pumped less often than every three years.

The system user shall avoid introducing kitchen grease or fats into this system. Chemicals such as septic tank cleaners and/or chlorine (such as from water treatment units) and controlled or hazardous substances shall not be disposed of in this system. Additives such as yeast or enzymes are discouraged, since they have not been proven to extend system life.

6) All septic tanks, pump stations and additional treatment tanks shall be installed to prevent ground water and surface water infiltration. Risers and covers should be properly installed to provide access while preventing surface water intrusion to within 6" of a finished ground surface.

Vehicular traffic over disposal system is prohibited unless specifically designed with H-20 rated components.

PORTLAND TOWN	TAFT AVENUE LOCATION	FRANCIS JAMES DRAKE APPLICANT'S NAME
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- 7) The actual waste water flow or number of bedrooms shall not exceed the design criteria indicated on this application without a re-evaluation of the system as proposed
- 8) The general minimum setbacks between a well (public or private) and septic system serving a single family residence is 100-300 feet, unless the local municipality has a more stringent requirement. A well installed by an abutter within the minimum setback distances prior to the issuance of a permit for the proposed disposal system may void this design.
- 9) When a gravity system is proposed: BEFORE CONSTRUCTION/INSTALLATION BEGINS, the system installer or building contractor shall review the elevations of all points given in this application and the elevation of the existing and/or proposed building drain and septic tank inverts for compatibility to minimum pitch requirements. In gravity systems, the invert of the septic tank(s) outlet(s) should be at least 4 inches above the invert of the distribution box outlet at the disposal area.
- 10) When an effluent pump is required: Pump stations should be sized per manufacturer's specifications to meet lift requirements and friction loss. Provisions shall be made to make certain that surface and ground water does not enter the septic tank or pump station, by sealing/grouting all seams and connections, and by placement of a riser and lid at or above grade. An alarm device warning of a pump failure shall be installed. Also, when pumping is required of a chamber system, install a 'T' connection in the distribution box and place 3 inches of stone or a splash plate in the first chamber. Insulate gravity pipes, pump lines and the distribution box as necessary to prevent freezing.
- 11) On all systems, remove the vegetation, organic duff and old fill material from under the disposal area and any fill extension. Additional fill beyond indicated on plan may be necessary to replace organic matter. On sites where the proposed system is to be installed in natural soil, scarify the bottom and sides of the excavated disposal area with a rake. Do not use wheeled equipment on the scarified soil surface. For systems installed in fill, scarify the native soil by roto-tilling or scarifying with teeth of backhoe to a depth of at least 8 inches over the entire disposal and fill extension area to prevent glazing and to promote fill bonding. Place fill in loose layers no deeper than 8 inches and compact before placing more fill (this ensures that voids and loose pockets are eliminated to minimize the chance of leakage or differential settling). Do not use wheeled equipment on the scarified soil area until after 12 inches of fill is in place. Keep equipment off proprietary devices. Divert the surface water away from the disposal area by ditching or shallow landscape swales.
- 12) Unless noted otherwise, fill shall be gravelly coarse sand, which contains no more than 5% fines (silt and clay). Crushed stone shall be clean and free of any rock dust from the crushing process.
- 13) Do not install systems on loamy, silty, or clayey soils during wet periods since soil smearing/glazing may seal off the soil interface.
- 14) Seed all filled and disturbed surfaces with perennial grass seed, with 4" min. soil or soil amendment mix suitable for growing, then mulch with hay or equivalent material to prevent erosion. Alternatively, bark or permanent landscape mulch may be used to cover system. Woody trees or shrubs are not permitted on the disposal area or fill extensions.
- 15) If an advanced wastewater treatment unit is part of the design, the system shall be operated and maintained per manufacturer's specifications.



Albert Frick Associates, Inc.
Soil Scientists & Site Evaluators
95A County Road Gorham, Maine 04038
(207) 839-5563