PRESSURE TEST

UPON COMPLETION OF CONSTRUCTION OF A FORCE MAIN, THE LINE SHALL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH THE FOLLOWING PROCEDURE:

AFTER THE PIPE HAS BEEN LAID, ALL NEWLY LAID PIPE OR ANY VALVED SECTION THEREOF SHALL BE SUBJECTED TO A HYDROSTATIC PRESSURE OF AT LEAST 1.5 X THE HIGHEST WORKING PRESSURE IN THE SECTION.

1. TEST PRESSURE RESTRICTIONS. TEST PRESSURES SHALL:
   - A. NOT BE LESS THAN 50 PSI AT THE HIGHEST POINT ALONG THE TEST SECTION.
   - B. NOT EXCEED PIPE OR THRUST RESTRAINT DESIGN PRESSURES.
   - C. BE OF AT LEAST 2 (TWO) HOUR DURATION.
   - D. NOT VARY BY MORE THAN ± 5 PSI.
   - E. NOT EXCEED TWICE THE RATED PRESSURE OF THE VALVES WHEN THE PRESSURE BOUNDARY OF THE TEST SECTION INCLUDES CLOSED GATE VALVES.
2. PRESSURIZATION.
   - A. EACH VALVED SECTION OF PIPE SHALL BE FILLED WITH WATER SLOWLY AND THE SPECIFIED TEST PRESSURE, BASED ON THE ELEVATION OF THE LOWEST POINT IN THE LINE OR SECTION UNDER TEST AND CORRECTED TO THE ELEVATION OF THE TEST GAUGE, SHALL BE APPLIED BY MEANS OF A PUMP CONNECTED TO THE PIPE.
   - B. AIR REMOVAL. BEFORE APPLYING THE SPECIFIED TEST PRESSURE, AIR SHALL BE EXPELLED COMPLETELY FROM THE PIPE VALVES.
   - C. EXAMINATION. ALL EXPOSED PIPE, FITTINGS, VALVES, AND JOINTS SHALL BE EXAMINED CAREFULLY DURING THE TEST. ANY DAMAGED OR DEFECTIVE PIPE, FITTINGS, OR VALVES, THAT ARE DISCOVERED FOLLOWING THE PRESSURE TEST SHALL BE REPAIRED OR REPLACED WITH SOUND MATERIAL AND THE TEST SHALL BE REPEATED AT NO EXPENSE TO OWNER.

LEAKAGE TEST

A LEAKAGE TEST SHALL BE CONDUCTED CONCURRENTLY WITH THE PRESSURE TESTS.

1. LEAKAGE SHALL BE DEFINED AS THE QUANTITY OF WATER THAT MUST BE SUPPLIED INTO THE NEWLY LAID PIPE, OR ANY VALVED SECTION THEREOF, TO MAINTAIN PRESSURE WITHIN 5 PSI OF THE SPECIFIED TEST PRESSURE AFTER THE AIR IN THE PIPELINE HAS BEEN EXPELLED AND THE PIPE HAS BEEN FILLED WITH WATER.
2. ALLOWABLE LEAKAGE. NO PIPE INSTALLATION WILL BE ACCEPTED IF THE LEAKAGE IS GREATER THAN THAT DETERMINED BY THE FOLLOWING FORMULA:

$$L = \frac{ND\sqrt{P}}{7400}$$

WHERE:
L IS THE ALLOWABLE LEAKAGE, IN GALLONS PER HOUR;
N IS THE NUMBER OF JOINTS IN THE LENGTH OF PIPELINE TESTED;
D IS THE NOMINAL DIAMETER OF THE PIPE, IN INCHES; AND
P IS THE AVERAGE TEST PRESSURE DURING THE LEAKAGE TEST, IN POUNDS PER SQUARE INCH GAGE.

NOTE: IN THE EVENT THAT THE FORCE MAIN IS RELATIVELY SHORT (100 FEET OR LESS), THE PROJECT ENGINEER CAN UTILIZE DISCRETION IN TEST REQUIREMENTS.

TESTING FORCE MAINS

(ENVIRONMENTAL PROTECTION RULES CH1, EFFECTIVE 9/29/07 SECTION 1-A-05(g))

CONTRACTOR'S CERTIFICATION REQUIRED

PRIOR TO THE DESIGN ENGINEER CERTIFYING THAT THE INSTALLATION HAS BEEN INSTALLED IN ACCORDANCE WITH THE PERMITTED DESIGN, THE CONTRACTOR SHALL PROVIDE A CERTIFICATION THAT THE WASTEWATER SYSTEM WAS INSTALLED AND TESTED IN ACCORDANCE WITH THE APPROVED DESIGN PLANS. STATE PERMITS REQUIRE THERE SHALL BE NO DEVIATIONS FROM THE APPROVED PLANS WITHOUT PRIOR APPROVALS. THE DESIGN ENGINEER SHALL BE NOTIFIED AND ALLOWED TO OBSERVE THE CRITICAL PHASES OF CONSTRUCTION INCLUDING ANY REQUIRED TESTS. LIKEWISE, THE DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DEVIATIONS FROM THE APPROVED PLANS. SINCE THE DESIGN ENGINEER DOES NOT CUSTOMARILY OBSERVE ALL PHASES OF THE WORK, OR ALL TESTING, HE MAY RELY ON THE CONTRACTOR'S CERTIFICATION AS THE BASIS FOR FINAL CERTIFICATION. THE CONTRACTOR SHALL THEREFORE SIGN AND RETURN A COPY OF THE FOLLOWING CERTIFICATION UPON COMPLETION OF THE WORK:

"I HEREBY CERTIFY THAT I HAVE INSTALLED, PROPERLY TESTED, AND SUCCESSFULLY PASSED THOSE TESTS, AND THE WASTEWATER DISPOSAL AND COLLECTION SYSTEM(S) ARE BUILT IN ACCORDANCE WITH THE APPROVED DESIGN PLANS AND APPLICABLE PERMIT CONDITIONS."

CONTRACTOR NAME

AUTHORIZED AGENTS NAME

SIGNATURE DATE

NOTE ANY DEVIATIONS FROM APPROVED PLANS HERE:

CONTRACTOR CERTIFICATION FOR WASTEWATER SYSTEM

IMPORTANT NOTE

CHECK WITH STATE OR ENGINEER TO VERIFY SETBACK DISTANCES. SETBACK DISTANCES CAN VARY FROM WHAT IS SHOWN HEREON BASED ON THE SIZE AND SCOPE OF THE PROJECT OR NEWLY PUBLISHED RULES FROM OTHER STATE AGENCIES.

ITEM	HORIZONTAL DISTANCE (FEET) * DISPOSAL FIELD	SEPTIC TANK	SEWER
DRILLED WELL	b	50	50
GRAVEL PACK WELL, SHALLOW WELL OR SPRING	b	75	75
LAKES, PONDS, IMPOUNDMENTS	50	25	25
RIVERS AND STREAMS	50	25	10
DRAINAGE SWALES, ROADWAY DITCHES	25	--	--
MAIN OR MUNICIPAL WATER LINES	50	50	d
ATMOSPHERIC WATER STORAGE TANKS	50	50	50
SERVICE WATER LINES	25	25	d
ROADWAYS, DRIVEWAYS, PARKING LOTS	10	5	c
TOP OF EMBANKMENT OR SLOPE GRATER THAN 30%	25	10	--
PROPERTY LINE (a)	25 [2]	10	10
TREES	10	10	10
OTHER DISPOSAL FIELD OR REPLACEMENT SYSTEM	10 [3]	--	--
FOUNDATION DRAINS, FOOTING DRAINS, CURTAIN DRAINS	35 [4]	10	--
PUBLIC WATER SUPPLY (e)	f	f	f
SUCTION WATER LINE	100	50	50

* THESE DISTANCES MAY BE REDUCED WHEN EVIDENT THAT THE DISTANCE IS UNNECESSARY TO PROTECT AN ITEM, OR INCREASED IF NECESSARY TO PROVIDE ADEQUATE PROTECTION.
* INDIRECT DISCHARGE REQUIREMENTS SUPERSEDE THIS IF DIFFERENT.
* WATER SUPPLY RULES SUPERSEDE THIS IF DIFFERENT.

GENERAL CRITERIA REGARDING ISOLATION DISTANCES

a. ISOLATION DISTANCES APPLY REGARDLESS OF PROPERTY LINE LOCATION AND OWNERSHIP.
b. SEPARATION BETWEEN POTABLE WATER SUPPLIES AND LEACHFIELDS SHALL BE DETERMINED BY THE METHODS IN THE VERMONT WATER SUPPLY RULE, APPENDIX A, PART 11, SECTION 11.4.
c. SEWERS UNDER ROADS, DRIVEWAYS, OR PARKING LOTS MAY REQUIRE PROTECTIVE CONDUITS OR SLEEVES.
d. SEPARATION OF PRESSURE WATER LINES CONSIDERED AS "SERVICE CONNECTIONS" AND SEWER LINES SHALL ADHERE TO THE VERMONT PLUMBING RULES. SEPARATION OF PRESSURE WATER LINES (CONSIDERED TO BE PART OF A PUBLIC WATER SYSTEM AS DEFINED BY THE VERMONT WATER SUPPLY RULE) AND SEWER LINES SHALL ADHERE TO THE REQUIREMENTS OF THE VERMONT WATER SUPPLY RULE.
e. THIS REFERS TO PUBLIC COMMUNITY WATER SYSTEMS, AS DEFINED IN THE VERMONT WATER SUPPLY RULE.
f. CONTACT THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION'S WATER SUPPLY DIVISION, 103 SOUTH MAIN STREET, WATERBURY, VERMONT.

SPECIFIC CRITERIA FOR ISOLATION DISTANCES

2. FOR MOUND WASTEWATER DISPOSAL SYSTEMS, THE LIMIT OF FILL MUST BE 25 FEET FROM ANY DOWNHILL PROPERTY LINE AND 10 FEET FROM ALL PROPERTY LINES ON THE SIDE OR UPHILL.
3. NO DISPOSAL FIELD OR REPLACEMENT AREA SHALL BE CLOSER THAN 10 FEET TO ONE ANOTHER EXCEPT AS ALLOWED FOR TRENCH SYSTEMS IN SECTION 1-907(M).
4. IF A CURTAIN OR FOUNDATION DRAIN IS DOWNSLOPE OF THE DISPOSAL FIELD, THE DISPOSAL FIELD CANNOT BE CLOSER THAN 75 FEET TO THE DRAIN. IF THE CURTAIN OR FOUNDATION DRAIN IS UPSLOPE OF THE DISPOSAL FIELD, IT SHALL BE 35' IF POSSIBLE, AND A MINIMUM OF 20 FEET TO THE DISPOSAL FIELD. THE ISOLATION DISTANCES FOR MOUND SYSTEMS SHALL BE FROM THE EDGE OF THE MINIMUM BASAL AREA OR THE EDGE OF THE ABSORPTION TRENCH OR BED WHICHEVER IS CLOSER. THIS DISTANCE MAY BE REDUCED IF THE CONSULTANT PROVIDES ADEQUATE DATA AND ANALYSIS TO SHOW THAT EFFLUENT FROM THIS SOIL BASED SYSTEM WILL NOT ENTER THE DRAIN OR INCREASED IF EFFLUENT WILL ENTER THE DRAIN.

ISOLATION DISTANCES

ENVIRONMENTAL PROTECTION RULES, CHAPTER 21, EFFECTIVE 9/29/07 SECTION 1-807

Project Reference:

1. CONTACT THE DESIGN ENGINEER PRIOR TO CONSTRUCTION FOR AN ON SITE MEETING WITH THE CONTRACTOR TO STAKE OUT AND DISCUSS THE CONSTRUCTION OF THE PROPOSED DISPOSAL SYSTEM. CONTACT OTHER STATE AND LOCAL AUTHORITIES AS APPROPRIATE.
2. REMOVE ALL ABOVE GROUND VEGETATION AND TOPSOIL FROM THE DISPOSAL FIELD AREA. THE TOPSOIL SHALL BE CLEANED OF ALL DEBRIS AND STOCKPILED FOR LATER USE.
3. STARTING ON THE UPHILL SIDE OF THE DISPOSAL FIELD, EACH ABSORPTION TRENCH AND/OR SEEPAGE BED SHALL BE EXCAVATED TO THE RESPECTIVE SUBGRADE ELEVATION. THE SIDES AND BOTTOM OF EACH TRENCH AND/OR BED SHALL THEN BE RAKED.
4. ONCE RAKED, A 12" MINIMUM OF 3/4" - 1 1/2" HARD WASHED STONE IS PLACED IN THE BOTTOM OF THE TRENCH AND/OR BED. USE THE BUCKET OF A CRAWLER TO INSTALL THE STONE. COMPLETE ONE ABSORPTION TRENCH AT A TIME. SPECIAL CARE MUST BE TAKEN TO PROVIDE CLEAN STONE. STONE WITH DIRT OR STONE DUST MIXED IN WILL BE REJECTED.
5. IN THE CENTER OF EACH TRENCH AND/OR BED, USE SHOVELS TO EXCAVATE 2" DEEP CHANNELS. LAY THE DISTRIBUTION PIPE LEVEL IN THE CHANNELS. LINE SHALL BE CAPPED UNLESS CONNECTED BY A REAR MANIFOLD.
6. CONTACT DESIGN ENGINEER UPON THE COMPLETION ON ALL TRENCHES AND/OR BEDS AND PRIOR TO BACKFILLING TO INSPECT THE DISTRIBUTION PIPING. CONTACT OTHER AUTHORITIES AS APPROPRIATE.
7. EACH TRENCH AND/OR BED SHALL BE FINISHED BY PLACING 2" OF STONE OVER THE DISTRIBUTION PIPE AND THEN ONE LAYER OF FILTER FABRIC OVER THE STONE.
8. THE STOCKPILED TOPSOIL SHALL THEN BE USED TO COVER THE DISPOSAL FIELD. OVERFILL EACH TRENCH AND/OR BED TO ALLOW FOR SETTLEMENT. SEED AND MULCH THE TOPSOIL UPON PLACEMENT.
9. UPON COMPLETION OF CONSTRUCTION, CONTACT THE DESIGN ENGINEER. IF THE DISPOSAL FIELD IS SATISFACTORY, THE DESIGN ENGINEER WILL PROVIDE WRITTEN CERTIFICATION THAT THE CONSTRUCTION WAS DONE IN GENERAL ACCORDANCE WITH THE APPROVED PLANS. THIS CERTIFICATION WILL BE SPECIFIC TO THE AMOUNT OF OBSERVATION BY THE ENGINEER AND WILL IN NO WAY RELIEVE THE CONTRACTOR OF THEIR WARRANTY OBLIGATIONS.
10. SINCE THE DESIGN ENGINEER DOES NOT CUSTOMARILY OBSERVE ALL CONSTRUCTION, THE DESIGN ENGINEER WILL REQUIRE THE CONTRACTOR TO CERTIFY THEY BUILT AND TESTED THE SYSTEM PER THE DESIGN PLANS AND PERMIT CONDITIONS.

SUBSURFACE DISPOSAL FIELD CONSTRUCTION SPECIFICATIONS

1. THE ENGINEER HAS DETERMINED A LOCATION FOR ON SITE SANITARY DISPOSAL ON THE PROPERTY, BASED ON A SITE INVESTIGATION AND SOIL TESTS. THE REQUIRED DISPOSAL AREA AND SYSTEM DESIGN WERE DETERMINED BY CODE REQUIREMENTS AND SUBMITTED TO APPROVING AUTHORITIES. UPON APPROVAL, THE OWNER ASSUMES RESPONSIBILITY FOR PROPER CONSTRUCTION AND CONTINUED PROPER OPERATION OF THE SYSTEM.
2. THE OWNER IS RESPONSIBLE FOR OPERATING THE DISPOSAL SYSTEM IN A MANNER WHICH WILL PROTECT THE PUBLIC HEALTH AND PREVENT POLLUTION.
3. NEW DISPOSAL SYSTEMS REQUIRE ADJUSTMENTS OR MODIFICATIONS DURING START UP, AND DURING THE LIFE OF THE SYSTEM. THESE ADJUSTMENTS INCLUDE LEVELING UP THE DISTRIBUTION BOX, SEPTIC TANK, AND PUMP STATION, DUE TO SETTLEMENT OR FROST ACTION. FILL MAY BE ADDED TO REPAIR EROSION OR LEVEL SETTLED AREAS.
4. ON SITE SANITARY DISPOSAL SYSTEMS REQUIRE REGULAR INSPECTION AND MAINTENANCE. THE SEPTIC TANK, BIO-FILTER AND DISTRIBUTION BOX SHOULD BE INSPECTED ANNUALLY AND PUMPED OUT AND CLEANED EVERY 3 YEARS. THE PLUMBING AND ELECTRICAL SYSTEMS, IF APPLICABLE, SHOULD BE CHECKED FOR PROPER OPERATION AND LEAKS.
5. THE LIFE OF THE DISPOSAL SYSTEM CAN BE AFFECTED BY A VARIETY OF OPERATIONAL AND ENVIRONMENTAL FACTORS. THE PRESENCE OF EXCESS GROUNDWATER, RAINWATER, INTRODUCTION OF MATERIAL OTHER THAN HUMAN WASTES, OR EXCESSIVE SEWAGE FLOWS WILL ADVERSELY AFFECT OPERATION OF ANY DISPOSAL SYSTEM. SOIL SETTLEMENT, FREEZING OF COMPONENTS, AND CLOGGING DUE TO ORGANIC SOLIDS ACCUMULATION WILL REQUIRE REPAIRS.
6. THE OWNER IS RESPONSIBLE FOR COMPLIANCE WITH STATE AND LOCAL OPERATION AND MAINTENANCE REQUIREMENTS. THE ENGINEER AND CONTRACTOR ASSUMES NO RESPONSIBILITY FOR THE IMPROPER USE AND/OR MAINTENANCE OF THE SYSTEM.
7. WARNING: WITH SUCH FINE FILTRATION (SEPTIC TANK EFFLUENT FILTER), A SCHEDULED MAINTENANCE PROGRAM MUST BE FOLLOWED.
8. THE OWNER IS RESPONSIBLE FOR ALL STATE AND LOCAL PERMITS AND REQUIRED CONDITIONS OF SAID PERMITS. THIS INCLUDES BUT IS NOT LIMITED TO ANNUAL INSPECTIONS AND REPORTING. THE OWNER IS ALSO RESPONSIBLE FOR RECORDING PERMITS IN THE TOWN LAND RECORDS OFFICE. IF CONSTRUCTION DOESN'T OCCUR IN THE TIME FRAMES ESTABLISHED BY SAID PERMITS THEN THE OWNER IS RESPONSIBLE FOR REVISING DESIGN PLANS AS NEEDED AND RE-PERMITTING. IF CHANGES IN THE REGULATIONS OCCUR ONCE THE PERMITS HAVE EXPIRED, TRUDELL CONSULTING ENGINEERS DOES NOT OFFER ANY GUARANTEES THAT THE PERMIT WILL BE RE-ISSUED. CHANGING REQUIREMENT MAY PREVENT COMPLIANCE AND CAUSE CERTAIN PROPERTIES TO BE UN-DEVELOPABLE.
9. IF THE SYSTEM IS DESIGNED USING THE PERFORMANCE BASED DESIGN ACCORDING TO PREVIOUS STATE PERMITS THE SYSTEM SHALL BE INSPECTED EACH SPRING FOR THREE CONSECUTIVE YEARS BY A LICENSED ENGINEER TO DEMONSTRATE THAT THE SYSTEM IS WORKING AS DESIGNED.

SUBSURFACE DISPOSAL FIELD OPERATION AND MAINTENANCE

WATER PRESSURE TEST

UPON COMPLETION OF INSTALLATION ALL TANKAGE SHALL BE TESTED WITH CLEAN WATER TO DEMONSTRATE THAT THE STRUCTURES ARE WATERTIGHT. THE TESTING SHALL BE CONDUCTED BEFORE THE TANKAGE AND STRUCTURES ARE BACKFILLED. THE TEST SHALL BE CONDUCTED BY COMPLETELY FILLING THE TANKAGE TO THE TOP OF THE STRUCTURES AND PROVIDING A HYDROSTATIC HEAD OF AT LEAST TWO FEET ABOVE THE SURROUNDING GROUNDWATER LEVEL AT THE TIME OF TESTING. THE TEST SHALL BE AT LEAST 24 HOURS, WITH NO LEAKAGE RESULTING. IF ANY LEAKAGE OCCURS DURING THE TEST PERIOD THE TANKS SHALL BE REPAIRED AND RETESTED (PER ASTM C1227-9.2.2 STANDARDS).

VACUUM TEST

UPON COMPLETION OF INSTALLATION ALL TANKAGE SHALL BE TESTED TO DEMONSTRATE THAT THE STRUCTURES ARE WATERTIGHT. THE TESTING SHALL BE CONDUCTED BEFORE THE TANKAGE AND STRUCTURES ARE BACKFILLED. THE TEST SHALL BE CONDUCTED BY SEALING THE EMPTY TANK AND APPLYING A VACUUM TO 2 INCHES (50MM) OF MERCURY. THE TANK IS APPROVED IF 90% OF THE VACUUM IS HELD FOR A MINIMUM OF 2 MINUTES (PER ASTM C1227-9.2.1 STANDARDS).

TANK LEAKAGE TESTING

SOILS TEST PIT INFORMATION:

SOIL PROFILES WERE CONDUCTED BY TRUDELL CONSULTING ENGINEERS ON 09/17/14 BY ANDRE LAMBERT, #406 WITH BILL ZABILOSKI FROM THE STATE IN ATTENDANCE. OTHER TESTING CONDUCTED ON 11/06/02 & 01/02/03 BY TCE AND KENT KOPTUICH ON 11/07/01.

2014-TP1:
0-10" 10 YR 6/4, MEDIUM BROWN SANDY TOPSOIL, CLOVER COVER
10-34" 5 YR 5/6, ORANGE BROWN FINE SAND, 21" GRAVEL FILL
34-58" 5 YR 5/8, RED & ORANGE MEDIUM GRAINED SAND
58-120" 5 YR 5/6, TAN & RED MEDIUM WITH > THAN 3" STONES, CLEAR TO 120".NO MIGRATING WATER, NO MOTTLES, NO LEDGE.
SHWT: NO INDICATED MOTTLES TO 120"

2014-TP2:
0-16" GRAVEL FILL.
16-58" 10 YR 4/4, DARK BROWN MEDIUM COBBLY SAND, STONES > THAN 2", RED & ORANGE HORIZON @ 55-58".
58-84" 10YR 4/3, MEDIUM GRAY FINE SILTY SAND
84-100" 10 YR 6/1, TAN & GRAY MEDIUM COARSE SANDY GRAVEL, MANY STONES > 3". NO MIGRATING WATER, NO MOTTLES, NO LEDGE.
SHWT: NO INDICATED MOTTLES TO 100"

2014-TP3:
0-24" GRAVEL FILL.
24-36" 2.5 YR 4/6, BRICK RED MEDIUM SAND W/ 2" STONES.
36-46" 10 YR 6/4, MEDIUM TAN FINE SAND, WAVY BOUNDARY.
46-108" 10 YR 6/1, GRAY MEDIUM COARSE SANDY GRAVEL, LOOSE, LAYERED VARIED LENSES, WAVY BOUNDARY. NO MIGRATING WATER, NO MOTTLES, NO LEDGE.
SHWT: NO INDICATED MOTTLES TO 108"
2014-TP4:
0-28" GRAVEL FILL.
28- 96" 10 YR 6/4, MEDIUM LIGHT TAN SANDY GRAVEL
96-120" 10 YR 6/4, TAN MEDIUM SAND WITH SMALL STONES.

2014-TP5:
0-36" GRAVEL FILL
36-45" 10 YR 6/4, MEDIUM LIGHT TAN SANDY GRAVEL
45-55" 10YR 4/3, MEDIUM BROWN AND DARK GRAY SILTY TILL
55-149" 10 YR 6/4, TAN MEDIUM SAND WITH SMALL STONES. NO MIGRATING WATER, NO MOTTLES, NO LEDGE.
SHWT: NO INDICATED MOTTLES TO 149", MIGRATING WATER @ 186".

2001-TP24:
0 -36" GRAYISH BROWN; COARSE GRAVEL AND COARSE SAND WITH MANY COBBLES
36-87" DRY GRAY MEDIUM TO COARSE SANDS AND COARSE GRAVEL, LOOSE, NO ROOTS NO GROUNDWATER OR LEDGE ENCOUNTERED

2001-TP25:
0-36" GRAYISH BROWN; COARSE GRAVEL AND COARSE SAND WITH MANY FINE TO COARSE COBBLES, LOOSE
36-90" DRY GRAYISH BROWN MEDIUM TO COARSE SANDS WITH COARSE GRAVEL AND MANY MEDIUM COBBLES, LOOSE CONSISTENCY, NO ROOTS, GROUNDWATER OR LEDGE ENCOUNTERED

PERCOLATION TEST RESULTS:

TESTING CONDUCTED ON 11/06/02 BY TRUDELL CONSULTING ENGINEERS

2001-P-3A 5 MINUTES PER INCH 36"
2001-P-3B 7 MINUTES PER INCH 36"

BASIS OF DESIGN FOR DISPOSAL SYSTEM:

WASTEWATER SYSTEM DESIGN IS BASED ON THE PRESCRIPTIVE APPROACH FOR AN IN-GROUND ABSORPTION TRENCH DISPOSAL FIELD.

BUILDING USE CLASSIFICATION = LARGE SUPERMARKET WITH A 18,000 S.F. MAXIMUM FOOTPRINT

WASTEWATER DESIGN FLOW USED = 18,000 S.F./7.5 GPD PER 100 S.F. = 1,350 GPD

USING THE SLOWEST PERCOLATION RATE = (P-3B) = 7 MIN/IN. = t
THE LOAD RATING (LR) = 3/ √t = 3/2.64 = 1.13 GAL/S.F./DAY (APPLICATION RATE)

1,350 GPD / 1.13 = 1,195 S.F.

USING A VALUE OF 1,195 S.F., AND 18" OF STONE UNDER THE DISPOSAL PIPE (SEE PAGE 84, SECTION 1-907(P)) THE LINEAR LENGTH OF THE FIELD CAN BE REDUCED BY 25%

THUS, 1,195 S.F. x 0.75 = 896 S.F. REQUIRED TRENCH AREA
896 S.F. / 4' WIDTH = 224 L.F. OF TRENCH LENGTH REQUIRED
244 AND 258 L.F. PROVIDED

TRUDELL CONSULTING ENGINEERS
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Revisions

No.	Description	Date	By
1	*Final Plan Review*	*01/23/15*	*NTH*
2	*Local Submittal Edits*	*03/23/15*	*NTH*

Use of These Drawings

1. Unless otherwise noted, these Drawings are intended for preliminary planning, coordination with other disciplines or utilities, and/or approval from the regulatory authorities. They are not intended as construction drawings unless noted as such.

2. Only drawings specifically marked "For Construction" are intended to be used in conjunction with contract documents, specifications, owner/contractor agreements and to be fully coordinated with other disciplines, including but not limited to, the Architect, if applicable. These Drawings shall not be used for construction layout. Contact TCE for any construction surveying services or to obtain electronic data suitable for construction layout.

3. These Drawings are specific to the Project and are not transferable. As instruments of service, these drawings, and copies thereof, furnished by TCE are its exclusive property. Changes to the drawings may only be made by TCE. If errors or omissions are discovered, they shall be brought to the attention of TCE immediately.

4. By use of these drawings for construction of the Project, the Owner represents that they have reviewed, approved, and accepted the drawings and have met with all applicable parties/disciplines to insure these plans are properly coordinated with other aspects of the Project. The Owner and Architect, are responsible for any buildings shown, including an area measured a minimum five (5) feet around any building.

5. It is the User's responsibility to ensure this copy contains the most current revisions.

STATE OF VERMONT SUSAN M. MELOY NO. 7637 CIVIL LICENSED PROFESSIONAL ENGINEER

For Local Permitting Only

Project Title

Jericho Market
364 VT Route 15 Jericho, VT

Sheet Title

Sanitary Notes

Date:	10/10/14
Scale:	SHOWN
Project Number:	14-139
Drawn By:	NPC
Project Engineer:	NTH
Approved By:	
Field Book:	

C8-03