



**SITE INVESTIGATION AND PERCOLATION
TEST REPORT FOR ONLOT DISPOSAL OF SEWAGE**

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE SIDE

Application No. _____ Municipality Plainfield Township County Northampton

Site Location Lot 8 - Test Pit # 339 Subdivision Name Estates at Colony Park

SUITABLE Soil Type Br Slope _____% Depth to Limiting Zone 21 inches Ave. Perc. Rate 14.90
 UNSUITABLE Mottling Seeps or Pondered Water Bedrock Fractures Coarse Fragments
 Perc. Rate Slope Unstabilized Fill Floodplain Other _____

SOILS DESCRIPTION:

Soils Description Completed by: BECS, Inc., Joseph W. Corona, M.S., P.S.S. Date: September 20, 2005

Inches	Description of Horizon
<u>0</u> TO <u>8</u>	<u>Ap 10YR4/3 gravelly silt loam, friable, weak granular structure</u>
<u>8</u> TO <u>21</u>	<u>Bw 10YR5/6 very gravelly silt loam, friable, weak subangular blocky structure</u>
<u>+21</u> TO _____	<u>Cr extremely gravelly open voids</u>
_____ TO _____	<u>Limiting Zone - 21 inches open voids</u>
_____ TO _____	_____
_____ TO _____	<u>Confirming Test Pit # 346 - 24 inches open voids</u>

PERCOLATION TEST:

Percolation Test Completed by: BECS, Inc., Ryan S. Detweiler Date: November 10, 2005

Weather Conditions: Below 40°F 40°F or above Dry Rain, Sleet, Snow (last 24 hours)
 Soil Conditions: Wet Dry Frozen

Hole No.	***		Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7: Inches of drop	Reading No. 8: Inches of drop
	Yes	No									
1	x		10/30	3.25	3	2.375	2.25	2.25	2.25	-	
2	x		10/30	1.5	1.375	1.5	1.5	-			
3	x		10/30	2.375	2	1.875	2	1.875	-		
4	x		10/30	2	1.75	1.375	1	1.375	1.375	1.375	1.375
5	x		10/30	4.875	4.125	3.75	3.625	3.5	3	3	2.875
6	x		10/30	5.875	4.75	4.125	4	3.875	3.875	-	

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
1	<u>2.25</u> *	<u>13.33</u>	<u>13</u> *
2	<u>1.5</u> *	<u>20</u>	<u>13</u> *
3	<u>1.875</u> *	<u>16</u>	<u>13</u> *
4	<u>1.375</u> *	<u>21.82</u>	<u>13</u> *
5	<u>2.875</u> *	<u>10.43</u>	<u>13</u> *
6	<u>3.875</u> *	<u>7.74</u>	<u>13</u> * <small>Min Inch</small>
TOTAL OF MIN / IN →		<u>89.32</u>	= <u>14.90</u>
TOTAL NO. OF HOLES →		<u>6</u>	

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by DEP.

(S) [Signature]
Sewage Enforcement Officer

White - Local Agency

Yellow - Applicant

Pink - Local DEP Office



BRAND ENVIRONMENTAL CONSULTING SERVICES, INC.

1401 West Pennsylvania Street
Allentown, PA 18102-1036
tel: 610 · 434 · 3451
fax: 610 · 434 · 7025
email: brandenv@ptd.net

March 8, 2006

Mr. Steven Goffredo
LAM Contractors, Inc.
125 Borovu Drive
Northampton, PA 18067

RE: Soil Morphology Report
Test Pits 338, 339 & 346
Estates at Colony Park
Plainfield Township
Northampton County
BECS Project 584

Dear Mr. Goffredo:

BRAND ENVIRONMENTAL CONSULTING SERVICES, INC. (BECS) has completed a soil morphological evaluation at the above-referenced property to determine the general suitability for a Peat Option 1 At-Grade Bed System. The evaluation of soil profiles was witnessed by Mr. Christopher Noll, Sewage Enforcement Officer, Plainfield Township, Northampton County.

The site evaluation was conducted on September 20, 2006. Our office evaluated three (3) test pits, TP 338 (17" OV, Wk), TP 339 (21" OV, Br) and TP 346 (24" OV, Br), in the proposed system area. Based on our observations the soil is best characterized as the Berks and Weikert Series. The Berks Series is a moderately deep well drained soil that forms in Pre-Wisconsin glacial till and frost-churned material derived from shale, siltstone and sandstone.

The Weikert Series is a shallow soil that forms in Pre-Wisconsin glacial till and frost-churned material derived from shale, siltstone and sandstone. The drainage classification for the Weikert Series is well-drained. Slope within the proposed Peat Option 1 At-Grade Bed System was estimated, using a clinometer, to be approximately eight (8) percent.

The soil probes (Test Pits 338, 339, 346) evaluated in the area proposed for Peat Option 1 At-Grade Bed System met the Department of Environmental Protection's criteria for the alternate system. However, a septic permit is not guaranteed until a septic design is completed that indicates that all Local and State requirements can be met.

Based upon the soil morphologic conditions observed and Appendix 5 of the Department of Environmental Protection Alternate System Guidance, the appropriate infiltration loading rate of zero point six-six (0.66) gallons per square foot per day should be adequate for this site. An at-grade bed with a dimension of fifteen (15) feet by sixty (60) feet is

adequate for a four (4) bedroom dwelling based on the hydraulic loading rate.

The at-grade bed must be installed on contour. The ground surface must be chisel plowed to a depth of eight (8) inches on contour immediately prior to construction of the bed. A drainage swale must be constructed to divert stormwater away from the absorption area.

If you have any questions on this or need additional information, please contact the undersigned.

Respectfully,

Brand Environmental Consulting Services, Inc.

Colin M. Brand / KAE

Colin M. Brand, P.G., P.S.S.

Enclosures



**SITE INVESTIGATION AND PERCOLATION
TEST REPORT FOR ONLOT DISPOSAL OF SEWAGE**

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE SIDE

Application No. _____ Municipality Plainfield Township County Northampton

Site Location Lot 8 - Test Pit # 345 Subdivision Name Estates at Colony Park

- SUITABLE Soil Type Br Slope _____% Depth to Limiting Zone 22 inches Ave. Perc. Rate 10.84
 UNSUITABLE Mottling Seeps or Pounded Water Bedrock Fractures Coarse Fragments
 Perc. Rate Slope Unstabilized Fill Floodplain Other _____

SOILS DESCRIPTION:

Soils Description Completed by: BECS, Inc., Colin M. Brand, P.G., P.S.S., S.E.O. Date: September 22, 2005

Inches	Description of Horizon
<u>0</u> TO <u>9</u>	<u>Ap 10YR4/3 channery silt loam, friable, moderate granular structure</u>
<u>9</u> TO <u>16</u>	<u>Bw1 10YR5/6 channery silt loam, friable, moderate subangular blocky structure</u>
<u>16</u> TO <u>22</u>	<u>Bw2/C 10YR5/4 very channery silt loam, friable, weak subangular blocky structure</u>
_____ TO _____	<u>Limiting Zone - 22 inches open voids</u>
_____ TO _____	_____
_____ TO _____	<u>Confirming Test Pit # 339 - 21 inches open voids</u>

PERCOLATION TEST:

Percolation Test Completed by: BECS, Inc., Ryan S. Detweiler Date: November 10, 2005

- Weather Conditions: Below 40°F 40°F or above Dry Rain, Sleet, Snow (last 24 hours)
 Soil Conditions: Wet Dry Frozen

Hole No.	***		Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7: Inches of drop	Reading No. 8: Inches of drop
	Yes	No									
1		x	10 / 30	3.625	3.5	3.375	3.375	-			
2	x		10 / 30	4.25	2.75	2.375	2.375	2.375	2.375	-	
3	x		10 / 30	3.375	2.875	2.875	3	2.875	-		
4	x		10 / 30	3	2.5	2.5	2.375	2.375	-		
5	x		10 / 30	2.5	2.125	2.125	1.75	1.75	1.75	1.75	-
6	x		10 / 30	4.25	3.5	3.375	3.25	3.25	-		

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
1	<u>3.375</u> *	<u>3.0</u>	<u>13</u> "
2	<u>2.375</u> *	<u>12.63</u>	<u>13</u> "
3	<u>2.875</u> *	<u>10.43</u>	<u>13</u> "
4	<u>2.375</u> *	<u>12.63</u>	<u>13</u> "
5	<u>1.75</u> *	<u>17.14</u>	<u>13</u> "
6	<u>3.25</u> *	<u>9.23</u>	<u>13</u> "
TOTAL OF MIN / IN →		<u>65.06</u>	= <u>10.84</u>
TOTAL NO. OF HOLES →		<u>6</u>	

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by DEP.

(S) [Signature]
Sewage Enforcement Officer



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY AND WASTEWATER MANAGEMENT

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TEST REPORT FOR ONLOT DISPOSAL OF SEWAGE**

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE SIDE

Application No. _____ Municipality Plainfield Township County Northampton

Site Location Lot 8 - Test Pit # 346 Subdivision Name Estates at Colony Park

- SUITABLE Soil Type Br Slope _____ % Depth to Limiting Zone 24 inches Ave. Perc. Rate _____
- UNSUITABLE Mottling Seeps or Pondered Water Bedrock Fractures Coarse Fragments
- Perc. Rate Slope Unstabilized Fill Floodplain Other _____

SOILS DESCRIPTION:

Soils Description Completed by: BECS, Inc., Colin M. Brand, P.G., P.S.S., S.E.O. Date: September 22, 2005

Inches	Description of Horizon
<u>0</u> TO <u>8</u>	<u>Ap 10YR4/3 channery silt loam, friable, moderate granular structure</u>
<u>8</u> TO <u>24</u>	<u>Bw1 7.5YR5/6 channery silt loam, friable, moderate subangular blocky structure</u>
<u>24</u> TO <u>31</u>	<u>Bw2/Cr 10YR5/4 very channery silt loam, friable, weak subangular blocky structure, strctress</u>
_____ TO _____	<u>Limiting Zone - 24 inches open voids</u>
_____ TO _____	_____
_____ TO _____	_____

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: _____

Weather Conditions: Below 40°F 40°F or above Dry Rain, Sleet, Snow (last 24 hours)

Soil Conditions: Wet Dry Frozen

Hole No.	***		Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7: Inches of drop	Reading No. 8: Inches of drop
	Yes	No									
			<u>10 / 30</u>								
			<u>10 / 30</u>								
			<u>10 / 30</u>								
			<u>10 / 30</u>								
			<u>10 / 30</u>								
			<u>10 / 30</u>								

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
TOTAL OF MIN / IN →		=	_____
TOTAL NO. OF HOLES →			_____

Min
Inch

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by DEP.

(S) [Signature]
Sewage Enforcement Officer

White - Local Agency

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