

**P.O. BOX 307  
Gretna , Va. 24557  
Office: (434) 656-1320  
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**Soil Evaluation Report**

**American Electric Power Co.**

**Kennedy Shores**

**24 Lots**

**Located in**

**Franklin Co., Va.**

Prepared By:

Tim Parker  
AOSE# 1098

Report Pages 1-74

Plat's Pages 75-82

P.O. Box 307  
 Gretna , Va. 24557  
 Phone: 434 656-1320

## AOSE/PE Report for Subdivision

<b>Location of property: Rt. 40 east to left on Rt. 945 to right on RT. 663 to property on right at Rt. 1101</b>	Lots 24, Subdivision Kennedy Shores , <u>Franklin</u> County  Parcel ID #'s <b>51-15 , 51-13 , 48.2-44 , 51-14 , 51.3-14 , 51.3-13</b>
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<b>Applicant or Client and address:</b> <u>American Electric Power Co.</u> <u>c/o Woltz and Associates</u> <u>P.O. Box</u> <u>Roanoke , Va. 24018</u>	<b>Prepared by AOSE/PE (name and address):</b>  Tim Parker AOSE # 1098 <u>P.O. Box 307</u> <u>Gretna , Va. 24557</u>
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<b>Date of Report: <u>09-14-15</u></b> <b>Revision Date: _____, _____</b>	<b>AOSE/PE Job Number: 15-090</b> <b>Health Dept. ID. No.: _____</b>
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Certification Statement(s):

I hereby certify that the evaluations and/or designs contained herein were conducted in accordance with the Sewage Handling and Disposal Regulations (12 VAC5-610), the Private Well Regulations (12 VAC5-615), and other applicable policies of the Virginia Department of Health. Furthermore, I certify that my evaluation and/or design contained herein complies with all applicable laws, regulations, and policies implemented by the Virginia Department of Health. I recommend a <u>Subdivision</u> be <u>Approved</u>	
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## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 1102

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 1

### Soil Information Summary:

Drain Field W LOCATED ON LOT 1

Slope: 7 %

Depth to rock/impervious strata: Max. \_\_\_\_\_ Min. \_\_\_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 45 min/inch

Proposed Drainfield 5-70' x 3' Lines installed at 54 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy Shores Lot 1 Drain Field W

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	A/E	0-4	7.5 YR 4/3 Loam	II
	Bt	4-37	2.5 YR 4/8 Clay Loam with few mica	III
	C1	37-65	5 YR 4/8 Loam with common mica	II
	C2	65-72	7.5 YR 4/6 fine Sandy Loam	II
2	A/E	0-14	7.5 YR 4/6 light Clay Loam	III
	Bt	14-36	2.5 YR 4/8 Clay Loam with few mica	III
	C	36-72	5 YR 5/8 fine Sandy Loam	II
3	A/E	0-5	7.5 YR 4/3 Loam	II
	Bt	5-35	2.5 YR 4/8 Clay Loam with few mica	III
	B/C	35-58	5 YR 5/8 Loam with common mica	II
	C	58-72	7.5 YR 5/6 fine Sandy Loam	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

# Abbreviated Design Form

## “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 1 D/F W

- A. Estimated Percolation Rate 45
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 344 ft<sup>2</sup>
- C. Number of Bedrooms 3

### Area Calculations

- D. Length of trench 70 ft. Length of available area 70 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 5
- G. Center-to-center spacing 9 ft.
- H. Width required [G(F-1)+E] 39 ft. Width of available area 39 ft.
- I. Total square footage required (BxC) 1032 ft<sup>2</sup>
- J. Square footage in design (DxExF) 1050 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope

## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 1102

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 2

### Soil Information Summary:

Drain Field V LOCATED ON LOT 2

Slope: 8 %

Depth to rock/impervious strata: Max. \_\_\_\_\_ Min. \_\_\_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 40 min/inch

Proposed Drainfield 5-65' x 3' Lines installed at 48 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 2Drain Field V

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	A/E	0-4	7.5 YR 4/3 Loam	II
	Bt	4-33	2.5 YR 4/8 Clay Loam with few mica	III
	C1	33-58	5 YR 5/8 Loam with common mica	II
	C2	58-72	7.5 YR 4/6 fine Sandy Loam	II
2	A/E	0-5	7.5 YR 4/3 Loam	II
	Bt	5-32	2.5 YR 4/8 Clay Loam with few mica	III
	C1	32-60	5 YR 5/8 fine Loam	II
	C2	60-72	7.5 YR 4/6 fine Sandy Loam	II
3	A/E	0-4	7.5 YR 4/3 Loam	II
	Bt	4-28	2.5 YR 4/8 Clay Loam with few mica	III
	C1	28-59	5 YR 5/8 Loam with common mica	II
	C2	59-72	10 YR 4/6 fine Sandy Loam	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

## Abbreviated Design Form

### “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 2 D/F V

- A. Estimated Percolation Rate 40
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 314 ft<sup>2</sup>
- C. Number of Bedrooms 3

#### Area Calculations

- D. Length of trench 65 ft. Length of available area 65 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 5
- G. Center-to-center spacing 9 ft.
- H. Width required [G(F-1)+E] 39 ft. Width of available area 39 ft.
- I. Total square footage required (BxC) 942 ft<sup>2</sup>
- J. Square footage in design (DxExF) 975 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope



## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 1102

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 3

### Soil Information Summary:

Drain Field U LOCATED ON LOT 3

Slope: 8 %

Depth to rock/impervious strata: Max. \_\_\_\_\_ Min. \_\_\_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 40 min/inch

Proposed Drainfield 5-70' x 3' Lines installed at 48 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy Shores Lot 3 Drain Field U

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	Ap	0-8	7.5 YR 4/6 Clay Loam	III
	Bt	8-25	2.5 YR 5/8 Clay Loam with few mica	III
	C	25-72	5 YR 5/8 Loam with common mica	II
2	Ap	0-8	7.5 YR 4/6 Clay Loam	III
	Bt	8-26	2.5 YR 4/8 Clay Loam with few mica	III
	B/C	26-39	2.5 YR 4/8 Loam with common mica	II
	C	39-72	10 YR 5/6 fine Sandy Loam	II
3	Ap	0-9	7.5 YR 4/6 Clay Loam	III
	Bt	9-25	2.5 YR 4/8 Clay Loam with few mica	III
	B/C	25-41	2.5 YR 4/8 Loam with common mica	II
	C	41-72	10 YR 5/6 fine Sandy Loam	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

## Abbreviated Design Form

### “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 3 D/F U

- A. Estimated Percolation Rate 40
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 314 ft<sup>2</sup>
- C. Number of Bedrooms 3

#### Area Calculations

- D. Length of trench 70 ft. Length of available area 70 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 5
- G. Center-to-center spacing 9 ft.
- H. Width required [G(F-1)+E] 39 ft. Width of available area 39 ft.
- I. Total square footage required (BxC) 942 ft<sup>2</sup>
- J. Square footage in design (DxExF) 1050 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope

## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 1102

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 4

### Soil Information Summary:

Drain Field Z LOCATED ON LOT 4

Slope: 17 %

Depth to rock/impervious strata: Max. \_\_\_\_\_ Min. \_\_\_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 40 min/inch

Proposed Drainfield 4-80' x 3' Lines installed at 48 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 4Drain Field Z

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	A/E	0-4	7.5 YR 4/4 light Clay Loam	III
	Bt	4-20	2.5 YR 5/8 Clay Loam with few mica	III
	B/C	20-35	2.5 YR 3/6 light Clay Loam with mica	III
	C	35-72	5 YR 5/8 Loam with common mica	II
2	A/E	0-6	7.5 YR 4/4 light Clay Loam	III
	Bt	6-30	2.5 YR 4/8 Clay Loam with few mica	III
	C1	30-57	5 YR 5/8 Loam with common mica	II
	C2	57-72	7.5 YR 5/8 Loam with common mica	II
3	A/E	0-5	7.5 YR 4/4 light Clay Loam	III
	Bt	5-33	2.5 YR 4/8 Clay Loam with few mica	III
	C	33-72	5 YR 5/8 Loam with mica	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

## Abbreviated Design Form

### “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 4 D/F Z

- A. Estimated Percolation Rate 40
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 314 ft<sup>2</sup>
- C. Number of Bedrooms 3

#### Area Calculations

- D. Length of trench 80 ft. Length of available area 80 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 4
- G. Center-to-center spacing 10 ft.
- H. Width required [G(F-1)+E] 43 ft. Width of available area 43 ft.
- I. Total square footage required (BxC) 942 ft<sup>2</sup>
- J. Square footage in design (DxExF) 960 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope

## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 1102

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 5

### Soil Information Summary:

Drain Field T LOCATED ON LOT 5

Slope: 8 %

Depth to rock/impervious strata: Max. \_\_\_\_\_ Min. \_\_\_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 40 min/inch

Proposed Drainfield 5-05'x 3' Lines installed at 54 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy Shores Lot 5 Drain Field T

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	A/E	0-5	7.5 YR 4/3 light Clay Loam	III
	Bt	5-34	2.5 YR 4/8 Clay Loam with few mica	III
	B/C	34-51	5 YR 5/8 Loam with common mica	II
	C1	51-64	7.5 YR 5/6 Loam with common mica	II
	C2	64-72	10 YR 4/3 fine Sandy Loam	II
2	A/E	0-5	7.5 YR 4/3 light Clay Loam	III
	Bt	5-29	2.5 YR 4/8 Clay Loam with few mica	III
	B/C	29-48	5 YR 5/8 Loam with common mica	II
	C1	48-56	7.5 YR 5/6 Loam with common mica	II
	C2	56-72	10 YR 4/3 fine Sandy Loam	II
3	A/E	0-4	7.5 YR 4/3 light Clay Loam	III
	Bt	4-30	2.5 YR 4/8 Clay Loam with few mica	III
	B/C	30-60	5 YR 5/8 Loam with common mica	II
	C	60-72	7.5 YR 5/6 fine Sandy Loam	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098



# Abbreviated Design Form

## “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 5 D/F T

- A. Estimated Percolation Rate 40
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 314 ft<sup>2</sup>
- C. Number of Bedrooms 3

### Area Calculations

- D. Length of trench 70 ft. Length of available area 70 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 5
- G. Center-to-center spacing 10 ft.
- H. Width required [G(F-1)+E] 43 ft. Width of available area 43 ft.
- I. Total square footage required (BxC) 942 ft<sup>2</sup>
- J. Square footage in design (DxExF) 1050 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope

## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 1102

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 6

### Soil Information Summary:

Drain Field S LOCATED ON LOT 6

Slope: 15 %

Depth to rock/impervious strata: Max. \_\_\_\_\_ Min. \_\_\_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 45 min/inch

Proposed Drainfield 5-70' x 3' Lines installed at 48 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 6Drain Field S

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	Ap	0-8	7.5 YR 4/6 light Clay Loam	III
	Bt	8-34	2.5 YR 4/8 Clay Loam with few mica	III
	C1	51-64	7.5 YR 5/6 Loam with common mica	II
2	Ap	0-8	7.5 YR 4/6 light Clay Loam	III
	Bt	8-33	2.5 YR 4/8 Clay Loam with few mica	III
	C	33-72	5 YR 5/8 Loam with few mica; seams of highly weathered mafic	II
3	Ap	0-6	7.5 YR 5/4 light Clay Loam	III
	Bt	6-35	2.5 YR 4/8 Clay Loam with few mica	III
	C	60-72	7.5 YR 5/6 fine Sandy Loam	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

# Abbreviated Design Form

## “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 6 D/F S

- A. Estimated Percolation Rate 45
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 344 ft<sup>2</sup>
- C. Number of Bedrooms 3

### Area Calculations

- D. Length of trench 70 ft. Length of available area 70 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 5
- G. Center-to-center spacing 10 ft.
- H. Width required [G(F-1)+E] 43 ft. Width of available area 43 ft.
- I. Total square footage required (BxC) 1032 ft<sup>2</sup>
- J. Square footage in design (DxExF) 1050 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope

## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 1102

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 7

### Soil Information Summary:

Drain Field R LOCATED ON LOT 7

Slope: 13 %

Depth to rock/impervious strata: Max. \_\_\_\_\_ Min. \_\_\_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 45 min/inch

Proposed Drainfield 5-70' x 3' Lines installed at 48 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 7Drain Field R

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	Ap	0-8	7.5 YR 4/6 light Clay Loam	III
	Bt	8-31	5 YR 5/8 Clay Loam	III
	B/C	31-40	5 YR 6/8 Loam	II
	C	40-72	10 YR 5/6 Loam	II
2	A/E	0-3	7.5 YR 4/4 Loam	II
	Bt	3-29	2.5 YR 4/8 Clay Loam with few mica	III
	B/C	29-39	2.5 YR 4/8 Loam with mica	II
	C	39-72	10 YR 5/4 fine Sandy Loam	II
3	A/E	0-4	7.5 YR 4/4 Loam	II
	Bt	4-34	2.5 YR 4/8 Clay Loam with few mica	III
	C	34-72	2.5 YR 5/8 Loam with few mica	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

## Abbreviated Design Form

### “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 7 D/F R

- A. Estimated Percolation Rate 45
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 344 ft<sup>2</sup>
- C. Number of Bedrooms 3

#### Area Calculations

- D. Length of trench 70 ft. Length of available area 70 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 5
- G. Center-to-center spacing 10 ft.
- H. Width required [G(F-1)+E] 43 ft. Width of available area 43 ft.
- I. Total square footage required (BxC) 1032 ft<sup>2</sup>
- J. Square footage in design (DxExF) 1050 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope

## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 1102

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 8

### Soil Information Summary:

Drain Field Q LOCATED ON LOT 8

Slope: 12 %

Depth to rock/impervious strata: Max. \_\_\_\_\_ Min. \_\_\_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 40 min/inch

Proposed Drainfield 4-80' x 3' Lines installed at 54 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098



**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 8Drain Field Q

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	Ap	0-6	7.5 YR 4/6 light Clay Loam	III
	Bt	6-29	2.5 YR 4/8 Clay Loam with mica	III
	C	29-72	5 YR 5/8 Loam with common mica	II
2	Ap	0-7	7.5 YR 4/6 light Clay Loam	III
	Bt	7-30	2.5 YR 4/8 Clay Loam with few mica	III
	C	30-72	5 YR 5/8 Loam with common mica	II
3	Ap	0-7	7.5 YR 4/6 light Clay Loam	III
	Bt	7-32	2.5 YR 4/8 Clay Loam with few mica	III
	B/C	32-53	5 YR 5/8 Loam with common mica	II
	C	53-72	10 YR 5/6 fine Sandy Loam	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

# Abbreviated Design Form

## “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 8 D/F Q

- A. Estimated Percolation Rate 40
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 314 ft<sup>2</sup>
- C. Number of Bedrooms 3

### Area Calculations

- D. Length of trench 80 ft. Length of available area 80 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 4
- G. Center-to-center spacing 10 ft.
- H. Width required  $[G(F-1)+E]$  33 ft. Width of available area 33 ft.
- I. Total square footage required (BxC) 942 ft<sup>2</sup>
- J. Square footage in design (DxExF) 960 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope

## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 1102

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 9

### Soil Information Summary:

Drain Field P LOCATED ON LOT 9

Slope: 12 %

Depth to rock/impervious strata: Max. \_\_\_\_\_ Min. \_\_\_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 45 min/inch

Proposed Drainfield 5-70' x 3' Lines installed at 54 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 9Drain Field P

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	Ap	0-7	2.5 YR 4/4 Clay Loam	III
	Bt	7-28	2.5 YR 4/8 Clay Loam with few mica	III
	C	28-72	2.5 YR 4/6 Loam with common fine mica	II
2	Ap	0-9	2.5 YR 4/4 Clay Loam	III
	Bt	9-40	2.5 YR 4/8 heavy Clay Loam with highly weathered mafic from 32"-40"	III
	C	40-72	2.5 YR 4/8 heavy Loam	II
3	Ap	0-7	2.5 YR 4/4 Clay Loam	III
	Bt	7-36	2.5 YR 4/8 Clay Loam with mica	III
	C	36-72	2.5 YR 4/6 Loam with common fine mica	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

## Abbreviated Design Form

### “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 9 D/F P

- A. Estimated Percolation Rate 45
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 344 ft<sup>2</sup>
- C. Number of Bedrooms 3

#### Area Calculations

- D. Length of trench 70 ft. Length of available area 70 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 5
- G. Center-to-center spacing 10 ft.
- H. Width required [G(F-1)+E] 43 ft. Width of available area 43 ft.
- I. Total square footage required (BxC) 1032 ft<sup>2</sup>
- J. Square footage in design (DxExF) 1050 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope

## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 1102

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 10

### Soil Information Summary:

Drain Field O LOCATED ON LOT 10

Slope: 11 %

Depth to rock/impervious strata: Max. 72" Min. 61" None \_\_\_\_\_

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **III**

No  Estimated rate 85 min/inch

Proposed Drainfield 10-70' x 3' Lines installed at 24 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 10Drain Field O

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	Ap	0-10	7.5 YR 4/6 light Clay Loam	III
	Bt	10-38	5 YR 4/6 heavy Clay Loam	III
	B/C	38-61	5 YR 4/6 heavy Clay Loam with highly weathered mafic	III
	R	61	Auger Refusal on mafic rock	
2	Ap	0-6	5 YR 4/4 light Clay Loam	III
	Bt	6-46	2.5 YR 4/8 Clay Loam with mica	III
	C	46-72	2.5 YR 4/8 Loam with common mica	II
3	Ap	0-10	7.5 YR 4/6 light Clay Loam	III
	Bt	10-39	2.5 YR 4/8 heavy Clay Loam	III
	C	39-72	2.5 YR 4/8 Clay Loam with highly weathered mafic	III

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

## Abbreviated Design Form

### “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 10 D/F O

- A. Estimated Percolation Rate 85
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 656 ft<sup>2</sup>
- C. Number of Bedrooms 3

#### Area Calculations

- D. Length of trench 70 ft. Length of available area 70 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 10
- G. Center-to-center spacing 10 ft.
- H. Width required [G(F-1)+E] 93 ft. Width of available area 143 ft.
- I. Total square footage required (BxC) 1968 ft<sup>2</sup>
- J. Square footage in design (DxExF) 2100 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes 5-70' x 3' Lines at 24 Inches Deep
- L. Slope Type: Side Slope



## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 1101

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 11

### Soil Information Summary:

Drain Field N LOCATED ON LOT 11

Slope: 8 %

Depth to rock/impervious strata: Max. \_\_\_ Min. \_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 40 min/inch

Proposed Drainfield 4-80' x 3' Lines installed at 48 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 11Drain Field N

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	Ap	0-8	5 YR 4/6 light Clay Loam	III
	Bt	8-33	2.5 YR 4/8 Clay Loam with mica	III
	C	33-72	2.5 YR 4/8 Loam with mica	II
2	Ap	0-9	5 YR 4/6 light Clay Loam	III
	Bt	9-35	2.5 YR 4/8 Clay Loam with mica	III
	C	35-72	5 YR 4/6 Loam with mica	II
3	Ap	0-8	5 YR 4/6 light Clay Loam	III
	Bt	8-34	2.5 YR 4/8 Clay Loam with mica	III
	C	34-72	5 YR 4/6 Loam with common mica	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

## Abbreviated Design Form

### “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 11 D/F N

- A. Estimated Percolation Rate 40
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 314 ft<sup>2</sup>
- C. Number of Bedrooms 3

#### Area Calculations

- D. Length of trench 80 ft. Length of available area 80 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 4
- G. Center-to-center spacing 9 ft.
- H. Width required [G(F-1)+E] 30 ft. Width of available area 30 ft.
- I. Total square footage required (BxC) 942 ft<sup>2</sup>
- J. Square footage in design (DxExF) 960 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope

## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 663

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 12

### Soil Information Summary:

Drain Field M LOCATED ON LOT 12

Slope: 17 %

Depth to rock/impervious strata: Max. \_\_\_ Min. \_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 40 min/inch

Proposed Drainfield 5-70' x 3' Lines installed at 54 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 12Drain Field M

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	A/E	0-3	7.5 YR 5/6 light Clay Loam	III
	Bt	3-39	2.5 YR 4/6 Clay Loam with mica	III
	B/C	39-49	2.5 YR 4/6 Loam with mica	II
	C	49-72	10 YR 5/6 Loam with common fine mica	II
2	A/E	0-3	7.5 YR 5/6 light Clay Loam	III
	Bt	3-37	2.5 YR 4/8 Clay Loam with mica	III
	B/C	37-50	2.5 YR 4/6 Loam with mica	II
	C	50-72	5 YR 5/6 Loam with common fine mica	II
3	A/E	0-3	7.5 YR 5/6 light Clay Loam	III
	Bt	3-36	2.5 YR 4/6 Clay Loam with mica	III
	B/C	36-58	2.5 YR 4/6 Loam with common fine mica	II
	C	58-72	2.5 YR 5/6 Loam with common fine mica	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

## Abbreviated Design Form

### “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 12 D/F M

- A. Estimated Percolation Rate 40
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 314 ft<sup>2</sup>
- C. Number of Bedrooms 3

#### Area Calculations

- D. Length of trench 70 ft. Length of available area 70 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 5
- G. Center-to-center spacing 10 ft.
- H. Width required [G(F-1)+E] 43 ft. Width of available area 43 ft.
- I. Total square footage required (BxC) 942 ft<sup>2</sup>
- J. Square footage in design (DxExF) 1050 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope

## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 663

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 13

### Soil Information Summary:

Drain Field L LOCATED ON LOT 13

Slope: 7 %

Depth to rock/impervious strata: Max. \_\_\_ Min. \_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 40 min/inch

Proposed Drainfield 5-65' x 3' Lines installed at 54 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 13Drain Field L

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	Ap	0-8	7.5 YR 5/6 light Clay Loam	III
	Bt	8-33	2.5 YR 4/6 Clay Loam with mica	III
	C1	33-68	5 YR 4/6 Loam with mica	II
	C2	68-72	7.5 YR 5/8 Loam with common fine mica	II
2	Ap	0-7	7.5 YR 5/6 light Clay Loam	III
	Bt	7-36	2.5 YR 4/8 Clay Loam with mica	III
	C1	36-65	2.5 YR 4/6 Loam with mica	II
	C2	65-72	7.5 YR 5/8 Loam with common fine mica	II
3	Ap	0-8	7.5 YR 5/6 light Clay Loam	III
	Bt	8-37	2.5 YR 4/6 Clay Loam with mica	III
	C1	37-68	2.5 YR 4/6 Loam with common fine mica	II
	C2	68-72	7.5 YR 5/8 Loam with common fine mica	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098



## Abbreviated Design Form

### “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 13 D/F L

- A. Estimated Percolation Rate 40
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 314 ft<sup>2</sup>
- C. Number of Bedrooms 3

#### Area Calculations

- D. Length of trench 65 ft. Length of available area 65 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 5
- G. Center-to-center spacing 9 ft.
- H. Width required [G(F-1)+E] 39 ft. Width of available area 39 ft.
- I. Total square footage required (BxC) 942 ft<sup>2</sup>
- J. Square footage in design (DxExF) 975 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope

## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 663

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 14

### Soil Information Summary:

Drain Field K LOCATED ON LOT 14

Slope: 4 %

Depth to rock/impervious strata: Max. \_\_\_ Min. \_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 40 min/inch

Proposed Drainfield 4-80' x 3' Lines installed at 48 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 14Drain Field K

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	A/E	0-4	5 YR 4/6 Loam	II
	Bt	4-35	2.5 YR 4/8 Clay Loam	III
	C	35-72	2.5 YR 4/6 Loam with common fine mica	II
2	A/E	0-5	7.5 YR 4/3 Loam	II
	Bt	5-36	2.5 YR 4/8 Clay Loam	III
	C	36-72	2.5 yr 4/6 Loam with common fine mica	II
3	A/E	0-5	7.5 YR 4/3 Loam	II
	Bt	5-34	2.5 YR 4/8 Clay Loam	III
	C	34-72	2.5 YR 4/6 Loam with common fine mica	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

# Abbreviated Design Form

## “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 14 D/F K

- A. Estimated Percolation Rate 40
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 314 ft<sup>2</sup>
- C. Number of Bedrooms 3

### Area Calculations

- D. Length of trench 80 ft. Length of available area 80 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 4
- G. Center-to-center spacing 9 ft.
- H. Width required [G(F-1)+E] 30 ft. Width of available area 30 ft.
- I. Total square footage required (BxC) 942 ft<sup>2</sup>
- J. Square footage in design (DxExF) 960 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope

## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 663

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 15

### Soil Information Summary:

Drain Field J LOCATED ON LOT 15

Slope: 6 %

Depth to rock/impervious strata: Max. \_\_\_ Min. \_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 40 min/inch

Proposed Drainfield 5-65' x 3' Lines installed at 54 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 15Drain Field J

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	A/E	0-4	7.5 YR 4/3 Loam	II
	Bt	4-30	2.5 YR 4/8 Clay Loam with few mica	III
	B/C	30-47	7.5 YR 5/8 Loam with common mica	II
	C	47-72	10 YR 5/6 fine Sandy Loam	II
2	A/E	0-4	7.5 YR 4/3 Loam	II
	Bt	4-36	2.5 YR 4/8 Clay Loam with few mica	III
	C1	36-50	5 YR 5/8 Loam with common mica	II
	C2	50-72	7.5 YR 5/6 Loam with common mica	II
3	A/E	0-4	7.5 YR 4/3 Loam	II
	Bt	4-32	2.5 YR 4/8 Clay Loam with few mica	III
	C1	32-48	5 YR 5/8 Loam with common mica	II
	C2	48-72	5 YR 5/6 Loam with common mica	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

## Abbreviated Design Form

### “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 15 D/F J

- A. Estimated Percolation Rate 40
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 314 ft<sup>2</sup>
- C. Number of Bedrooms 3

#### Area Calculations

- D. Length of trench 65 ft. Length of available area 65 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 5
- G. Center-to-center spacing 9 ft.
- H. Width required [G(F-1)+E] 39 ft. Width of available area 39 ft.
- I. Total square footage required (BxC) 942 ft<sup>2</sup>
- J. Square footage in design (DxExF) 975 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope

## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 663

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 16

### Soil Information Summary:

Drain Field I LOCATED ON LOT 16

Slope: 15 %

Depth to rock/impervious strata: Max. \_\_\_ Min. \_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 40 min/inch

Proposed Drainfield 5-65' x 3' Lines installed at 54 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098



**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 16Drain Field I

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	A/E	0-4	7.5 YR 4/3 Loam	II
	Bt	4-36	2.5 YR 4/8 Clay Loam with few mica	III
	C	36-72	2.5 YR 4/8 Loam with common mica	II
2	A/E	0-4	7.5 YR 4/3 Loam	II
	Bt	4-40	2.5 YR 4/8 Clay Loam with few mica	III
	C	40-72	2.5 YR 4/8 Loam with common mica	II
3	A/E	0-4	7.5 YR 4/3 Loam	II
	Bt	4-29	2.5 YR 4/8 Clay Loam with few mica	III
	C	29-72	2.5 YR 4/8 Loam with common fine mica	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

## Abbreviated Design Form

### “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 16 D/F I

- A. Estimated Percolation Rate 40
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 314 ft<sup>2</sup>
- C. Number of Bedrooms 3

#### Area Calculations

- D. Length of trench 65 ft. Length of available area 65 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 5
- G. Center-to-center spacing 10 ft.
- H. Width required  $[G(F-1)+E]$  43 ft. Width of available area 43 ft.
- I. Total square footage required (BxC) 942 ft<sup>2</sup>
- J. Square footage in design (DxExF) 975 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope

## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 663

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 17

### Soil Information Summary:

Drain Field G LOCATED ON LOT 18 (off-site)

Slope: 6 %

Depth to rock/impervious strata: Max. \_\_\_ Min. \_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 45 min/inch

Proposed Drainfield 4-86' x 3' Lines installed at 54 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 17Drain Field G

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	A/E	0-5	5 YR 4/4 light Clay Loam	III
	Bt	5-38	2.5 YR 4/8 Clay Loam with few mica	III
	C	38-72	5 YR 5/8 Loam with common mica	II
2	A/E	0-4	5 YR 4/4 light Clay Loam	III
	Bt	4-35	2.5 YR 4/8 Clay Loam with few mica	III
	C	35-72	5 YR 5/6 fine Sandy Loam	II
3	A/E	0-4	5 YR 4/4 light Clay Loam	III
	Bt	4-42	2.5 YR 4/8 Clay Loam with few mica	III
	C	42-72	7.5 YR 5/6 fine Sandy Loam	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

## Abbreviated Design Form

### “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 17 D/F G

- A. Estimated Percolation Rate 45
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 344 ft<sup>2</sup>
- C. Number of Bedrooms 3

#### Area Calculations

- D. Length of trench 86 ft. Length of available area 86 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 4
- G. Center-to-center spacing 9 ft.
- H. Width required  $[G(F-1)+E]$  30 ft. Width of available area 30 ft.
- I. Total square footage required (BxC) 1032 ft<sup>2</sup>
- J. Square footage in design (DxExF) 1032 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope

## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 663

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 18

### Soil Information Summary:

Drain Field H LOCATED ON LOT 18

Slope: 8 %

Depth to rock/impervious strata: Max. \_\_\_ Min. \_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 45 min/inch

Proposed Drainfield 5-70' x 3' Lines installed at 54 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 18Drain Field H

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	A/E	0-3	5 YR 4/4 light Clay Loam	III
	Bt	3-33	2.5 YR 4/8 Clay Loam with few mica	III
	B/C	33-69	5 YR 5/8 Loam with common mica	II
	C	69-72	7.5 YR 5/6 fine Sandy Loam	II
2	A/E	0-5	5 YR 4/4 light Clay Loam	III
	Bt	5-31	2.5 YR 4/8 Clay Loam with few mica	III
	C	31-72	5 YR 5/6 fine Sandy Loam	II
3	A/E	0-4	5 YR 4/4 light Clay Loam	III
	Bt	4-33	2.5 YR 4/8 Clay Loam with few mica	III
	C	33-72	5 YR 5/6 fine Sandy Loam	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

## Abbreviated Design Form

### “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 18 D/F H

- A. Estimated Percolation Rate 45
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 344 ft<sup>2</sup>
- C. Number of Bedrooms 3

#### Area Calculations

- D. Length of trench 70 ft. Length of available area 70 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 5
- G. Center-to-center spacing 9 ft.
- H. Width required [G(F-1)+E] 39 ft. Width of available area 39 ft.
- I. Total square footage required (BxC) 1032 ft<sup>2</sup>
- J. Square footage in design (DxExF) 1050 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope



## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 663

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 19

### Soil Information Summary:

Drain Field F LOCATED ON LOT 19

Slope: 6 %

Depth to rock/impervious strata: Max. \_\_\_ Min. \_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 40 min/inch

Proposed Drainfield 5-65' x 3' Lines installed at 54 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 19Drain Field F

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	A/E	0-4	7.5 YR 4/3 Loam	II
	Bt	4-35	2.5 YR 4/8 Clay Loam with few mica	III
	C	35-72	2.5 YR 4/8 Loam grading to 5 YR 5/6 Loam with common mica	II
2	A/E	0-4	7.5 YR 4/3 Loam	III
	Bt	4-36	2.5 YR 4/8 Clay Loam with few mica	III
	C	36-72	2.5 YR 4/8 Loam grading to 5 YR 5/6 Loam with common mica	II
3	A/E	0-4	7.5 YR 4/3 Loam	III
	Bt	4-32	2.5 YR 4/8 Clay Loam with few mica	III
	C	32-72	2.5 YR 4/8 Loam grading to 5 YR 5/6 Loam with common mica	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

## Abbreviated Design Form

### “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 19 D/F F

- A. Estimated Percolation Rate 40
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 314 ft<sup>2</sup>
- C. Number of Bedrooms 3

#### Area Calculations

- D. Length of trench 65 ft. Length of available area 65 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 5
- G. Center-to-center spacing 9 ft.
- H. Width required [G(F-1)+E] 39 ft. Width of available area 39 ft.
- I. Total square footage required (BxC) 942 ft<sup>2</sup>
- J. Square footage in design (DxExF) 975 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope

## SOIL SUMMARY REPORT

**General Information:**

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 663

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 20

**Soil Information Summary:**

Drain Field E LOCATED ON LOT 20

Slope: 8 %

Depth to rock/impervious strata: Max. \_\_\_ Min. \_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 40 min/inch

Proposed Drainfield 7-45' x 3' Lines installed at 48 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 20Drain Field E

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	A/E	0-2	7.5 YR 4/4 Loam	II
	Bt	2-35	2.5 YR 4/8 Clay Loam with few mica	III
	C	35-72	5 YR 4/6 Loam	II
2	A/E	0-2	7.5 YR 4/4 Loam	II
	Bt	2-36	2.5 YR 4/8 Clay Loam with few mica	III
	C	36-72	5 YR 4/6 Loam with highly weathered mafic from 55"-69"	II
3	A/E	0-3	7.5 YR 4/4 Loam	II
	Bt	3-29	2.5 YR 4/8 Clay Loam with few mica	III
	C	29-72	5 YR 5/6 Loam	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

## Abbreviated Design Form

### “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 20 D/F E

- A. Estimated Percolation Rate 40
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 314 ft<sup>2</sup>
- C. Number of Bedrooms 3

#### Area Calculations

- D. Length of trench 45 ft. Length of available area 45 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 7
- G. Center-to-center spacing 9 ft.
- H. Width required [G(F-1)+E] 57 ft. Width of available area 57 ft.
- I. Total square footage required (BxC) 942 ft<sup>2</sup>
- J. Square footage in design (DxExF) 945 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope

## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 663

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 21

### Soil Information Summary:

Drain Field D LOCATED ON LOT 21

Slope: 10 %

Depth to rock/impervious strata: Max. \_\_\_ Min. \_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 45 min/inch

Proposed Drainfield 5-70' x 3' Lines installed at 54 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 21Drain Field D

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	A/E	0-3	7.5 YR 4/4 Loam	II
	Bt	3-41	2.5 YR 4/8 Clay Loam with few mica	III
	C	41-72	5 YR 5/8 Loam	II
2	A/E	0-2	7.5 YR 4/4 Loam	II
	Bt	2-34	2.5 YR 4/8 Clay Loam with few mica	III
	C	34-72	5 YR 5/8 Loam	II
3	A/E	0-2	7.5 YR 4/4 Loam	II
	Bt	2-29	2.5 YR 4/8 Clay Loam with few mica	III
	C	29-72	2.5 YR 4/8 Loam with few quartz stringers	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098



## Abbreviated Design Form

### “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 21 D/F D

- A. Estimated Percolation Rate 45
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 344 ft<sup>2</sup>
- C. Number of Bedrooms 3

#### Area Calculations

- D. Length of trench 70 ft. Length of available area 70 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 5
- G. Center-to-center spacing 10 ft.
- H. Width required [G(F-1)+E] 43 ft. Width of available area 43 ft.
- I. Total square footage required (BxC) 1032 ft<sup>2</sup>
- J. Square footage in design (DxExF) 1050 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope

## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 663

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 22

### Soil Information Summary:

Drain Field C LOCATED ON LOT 22

Slope: 10 %

Depth to rock/impervious strata: Max. \_\_\_ Min. \_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 45 min/inch

Proposed Drainfield 6-60' x 3' Lines installed at 54 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 22Drain Field C

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	A/E	0-4	7.5 YR 4/4 Loam	II
	Bt	4-41	2.5 YR 4/8 Clay Loam with few mica	III
	C	41-72	2.5 YR 4/8 Loam	II
2	A/E	0-5	7.5 YR 4/4 Loam	II
	Bt	5-42	2.5 YR 4/8 Clay Loam with few mica	III
	C	42-72	7.5 YR 5/8 Loam	II
3	A/E	0-4	7.5 YR 4/4 Loam	II
	Bt	4-39	2.5 YR 4/8 Clay Loam with few mica	III
	C	39-72	5 YR 5/8 Loam	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

## Abbreviated Design Form

### “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 22 D/F C

- A. Estimated Percolation Rate 45
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 344 ft<sup>2</sup>
- C. Number of Bedrooms 3

#### Area Calculations

- D. Length of trench 60 ft. Length of available area 60 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 6
- G. Center-to-center spacing 10 ft.
- H. Width required [G(F-1)+E] 53 ft. Width of available area 53 ft.
- I. Total square footage required (BxC) 1032 ft<sup>2</sup>
- J. Square footage in design (DxExF) 1080 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope

## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke , Va. 24011

Location: Rt. 663

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 23

### Soil Information Summary:

Drain Field B LOCATED ON LOT 23

Slope: 11 %

Depth to rock/impervious strata: Max. \_\_\_ Min. \_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 40 min/inch

Proposed Drainfield 5-65' x 3' Lines installed at 48 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098

**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 23Drain Field B

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	A/E	0-4	7.5 YR 4/4 Loam	II
	Bt	4-32	2.5 YR 4/8 Clay Loam with few mica	III
	C	32-72	2.5 YR 4/6 Loam with common mica	II
2	A/E	0-4	7.5 YR 4/4 Loam	II
	Bt	4-34	2.5 YR 4/8 Clay Loam with few mica	III
	C	34-72	5 YR 4/6 Loam with common mica	II
3	A/E	0-3	7.5 YR 4/4 Loam	II
	Bt	3-35	2.5 YR 4/8 Clay Loam with few mica	III
	C	35-72	7.5 YR 5/6 Loam with common mica	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

## Abbreviated Design Form

### “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 23 D/F B

- A. Estimated Percolation Rate 40
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 314 ft<sup>2</sup>
- C. Number of Bedrooms 3

#### Area Calculations

- D. Length of trench 65 ft. Length of available area 65 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 5
- G. Center-to-center spacing 9 ft. \* 24" of useable soil below installation depth
- H. Width required [G(F-1)+E] 39 ft. Width of available area 39 ft.
- I. Total square footage required (BxC) 942 ft<sup>2</sup>
- J. Square footage in design (DxExF) 975 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope

## SOIL SUMMARY REPORT

### General Information:

Date: September 14, 2015 Franklin County Health Department

Applicant: American Electric Power Company

Telephone No. \_\_\_\_\_

Address: c/o Woltz & Associates 23 Franklin Road Roanoke, Va. 24011

Location: Rt. 663

Subdivision: Kennedy Shores

Section: \_\_\_\_\_

Lot: 24

### Soil Information Summary:

Drain Field A LOCATED ON LOT 24

Slope: 13 %

Depth to rock/impervious strata: Max. \_\_\_ Min. \_\_\_ None X

Depth to seasonal water table: (gray mottling or gray color) No  Yes  \_\_\_\_\_ Inches

Free water present: No  Yes  \_\_\_\_\_ Range in Inches

Soil percolation rate estimated: Yes  Texture group **II**

No  Estimated rate 40 min/inch

Proposed Drainfield 5-70' x 3' Lines installed at 48 Inches Deep

Name and title of evaluator: Tim Parker AOSE# 1098



**SOIL EVALUATION FORM**Subdivision Kennedy ShoresLot 24Drain Field A

Hole #	Horizon	Depth (inches)	Description of color, texture, etc.	Texture Group
1	A/E	0-4	7.5 YR 4/4 Loam	II
	Bt	4-34	2.5 YR 4/6 Clay Loam with few mica	III
	C	34-72	7.5 YR 5/8 fine Sandy Loam	II
2	A/E	0-3	7.5 YR 4/4 Loam	II
	Bt	3-29	2.5 YR 4/6 Clay Loam with few mica	III
	C	29-72	10 YR 5/6 fine Sandy Loam	II
3	A/E	0-8	5 YR 4/6 light Clay Loam	III
	Bt	8-36	2.5 YR 4/6 Clay Loam with few mica	III
	C	36-72	2.5 YR 4/6 Loam with mica	II

Remarks:

Name and title of evaluator: Tim Parker AOSE# 1098

## Abbreviated Design Form

### “Appendix 6”

For use with gravity and pump drainfields, enhanced flow systems and low pressure distributions systems when applying for a certification letter of subdivision approval.

**Design Basis** Subdivision Kennedy Shores Lot 24 D/F A

- A. Estimated Percolation Rate 40
- B. Trench bottom square feet  
Required per bedroom  
(from Table 4.6 based on  Gravity  LPD) 314 ft<sup>2</sup>
- C. Number of Bedrooms 3

#### Area Calculations

- D. Length of trench 70 ft. Length of available area 70 ft.
- E. Width of trench 3 ft.
- F. Number of trenches 5
- G. Center-to-center spacing 9 ft. \* 24" of useable soil below installation depth
- H. Width required [G(F-1)+E] 39 ft. Width of available area 39 ft.
- I. Total square footage required (BxC) 942 ft<sup>2</sup>
- J. Square footage in design (DxExF) 1050 ft<sup>2</sup>
- K. Is a reserve required?  No  Yes \_\_\_\_\_ Lines at \_\_\_\_\_ Inches Deep
- L. Slope Type: Side Slope