

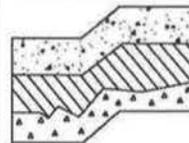
# LOG OF TEST PIT NO. 3

FIGURE A-4

PROJECT NAME: Simonds Road Property      PROJ. NO: T-6997      LOGGED BY: JCS  
 LOCATION: Kirkland, Washington      SURFACE CONDS: \_\_\_\_\_      APPROX. ELEV: 96  
 DATE LOGGED: 1-20-14      DEPTH TO GROUNDWATER: NA      DEPTH TO CAVING: NA

DEPTH (FT.)	SOIL SAMPLE	DESCRIPTION	CONSISTENCY/ RELATIVE DENSITY	W (%)	POCKET PEN. (TSF)
1		8 inches Duff and Topsoil.	Medium Dense		
2		Light gray-brown to brown-gray fine sandy SILT, moist, highly disturbed, scattered angular to subangular dense silt clasts, trace to scattered fine organics. (ML) (Landslide deposit)			
3					
4	1				
5	2				
6					
7		Light gray-brown fine sandy SILT, moist, scattered subangular to subrounded dense silt clasts, trace of organic fragments. (ML) (Older landslide deposit)	Dense/Hard		
8	3				
9					
10			Very Dense		
13	4	Laminated, gray-brown fine sandy SILT and silty CLAY, moist, trace of iron-oxide stained partings. (ML/CL)			
14			Very Dense		
15		Gray, trace to slightly clayey, fine sandy SILT, moist. (ML)			
16	5	Test pit terminated at 16 feet. No groundwater seepage.			
17					
18					
19					
20					

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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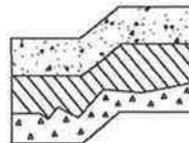
# LOG OF TEST PIT NO. 4

FIGURE A-5

PROJECT NAME: Simonds Road Property      PROJ. NO: T-6997      LOGGED BY: JCS  
 LOCATION: Kirkland, Washington      SURFACE CONDS: \_\_\_\_\_      APPROX. ELEV: 84  
 DATE LOGGED: 1-20-14      DEPTH TO GROUNDWATER: NA      DEPTH TO CAVING: NA

DEPTH (FT.)	SOIL SAMPLE	DESCRIPTION	CONSISTENCY/ RELATIVE DENSITY	W (%)	POCKET PEN. (TSF)
1		10 inches Duff and Topsoil.			
2		Light gray-brown fine sandy SILT, moist, highly disturbed, numerous angular to subangular dense silt clasts, scattered mottling, trace to scattered organics. (ML) (Landslide deposit)			
3					
4					
5			Medium Dense		
6	1				
7					
8					
9	2				
10	3	Laminated, gray-brown fine sandy SILT and silty CLAY, moist, trace of iron-oxide stained partings. (ML/CL)	Dense/Hard		
11					
12		Gray, slightly fine sandy, silty CLAY to slightly fine sandy, clayey SILT, moist. (CL/ML)			
13			Hard		
14					
15		Test pit terminated at 15 feet. No groundwater seepage.			
16					
17					
18					
19					
20					

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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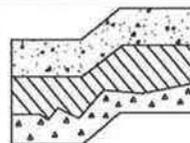
# LOG OF TEST PIT NO. 5

FIGURE A-6

PROJECT NAME: Simonds Road Property      PROJ. NO: T-6997      LOGGED BY: JCS  
 LOCATION: Kirkland, Washington      SURFACE CONDS: \_\_\_\_\_      APPROX. ELEV: 84  
 DATE LOGGED: 1-20-14      DEPTH TO GROUNDWATER: NA      DEPTH TO CAVING: NA

DEPTH (FT.)	SOIL SAMPLE	DESCRIPTION	CONSISTENCY/ RELATIVE DENSITY	W (%)	POCKET PEN. (TSF)
1		12 inches Duff and Topsoil.			
2		Light gray-brown fine sandy SILT, moist, highly disturbed, numerous angular to subangular dense silt clasts, scattered mottling, trace to scattered organics. (ML) (Landslide deposit)	Medium Dense		
3					
4	1				
5	2				
6					
7					
8	3				
9					
10		Laminated, gray-brown fine sandy SILT and silty CLAY, moist, trace of iron-oxide stained partings. (ML/CL)	Dense/Hard		
11					
12		Gray-brown to brown-gray fine sandy SILT, moist, trace of silty clay to clayey silt layers, scattered randomly oriented fractures, numerous iron-oxide stained fractures. (ML)	Dense to Very Dense		
13					
14	4				
15					
16		Test pit terminated at 16 feet. No groundwater seepage.			
17					
18					
19					
20					

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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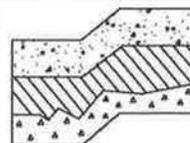
## LOG OF TEST PIT NO. 6

FIGURE A-7

PROJECT NAME: Simonds Road Property      PROJ. NO: T-6997      LOGGED BY: JCS  
 LOCATION: Kirkland, Washington      SURFACE CONDS: \_\_\_\_\_      APPROX. ELEV: 98  
 DATE LOGGED: 1-20-14      DEPTH TO GROUNDWATER: NA      DEPTH TO CAVING: NA

DEPTH (FT.)	SOIL SAMPLE	DESCRIPTION	CONSISTENCY/ RELATIVE DENSITY	W (%)	POCKET PEN. (TSF)
1		10 inches Duff and Topsoil.			
2		Light gray-brown fine sandy SILT, moist, highly disturbed, numerous angular to subangular dense silt clasts, scattered mottling, trace to scattered organics. (ML) (Landslide deposit)			
3			Medium Dense		
4					
5					
6					
7		Light gray-brown to light brown-gray fine sandy SILT, moist, scattered randomly-oriented iron-oxide stained fractures. (ML)			
8	1				
9					
10			Dense to Very Dense		
11					
12					
13					
14	2	Gray-brown fine sandy SILT, moist, scattered laminated zones, scattered clayey silt to silty clay layers and seams, scattered randomly-oriented iron-oxide stained fractures. (ML)			
15			Very Dense		
16	3	Test pit terminated at 16 feet. No groundwater seepage.			
17					
18					
19					
20					

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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**APPENDIX B**

**TEST PIT AND BORING LOGS BY OTHERS**

# LOG OF EXPLORATION PIT NO. EP-1

Depth (ft)	DESCRIPTION
	This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.
	<b>Landslide Debris</b>
1	Medium stiff, very moist, brown SILT, few sand, trace gravel (ML); abundant roots from 0-4'.
2	
3	
4	
5	
6	Becomes stiff and gray with rust mottling below 6'; contains scattered chunks of hard silt.
7	
8	
9	Bottom of exploration pit at depth 8 feet No ground water seepage. No caving.
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

KCTP3 02279A-1.GPJ May 31, 2002

## Simonds Road Townhomes King County, WA

Associated Earth Sciences, Inc.



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Project No. KE02279A

May 2002  
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# LOG OF EXPLORATION PIT NO. EP-2

Depth (ft)	DESCRIPTION
	<b>Colluvium</b>
1	Medium stiff, moist, tan SILT, little fine sand (ML); abundant roots.
2	<b>Possession Drift (?)</b>
3	Hard, moist, gray SILT. (ML)
4	
5	Becomes tan with zones of mottling below 5'.
6	
7	
8	
9	
10	Bottom of exploration pit at depth 9 feet No ground water seepage. No caving.
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

KCTP3 02279A-1.GPJ March 24, 2003



Logged by: TJP

Approved by: 

## Simonds Road Townhomes King County, WA

Associated Earth Sciences, Inc.



Project No. KE02279A

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# LOG OF EXPLORATION PIT NO. EP-3

Depth (ft)	DESCRIPTION
	<p style="font-size: small;">This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>
	<b>Fill</b>
1	Soft, very moist, grayish brown SILT (ML); contains scattered wood and metal debris.
	<b>Landslide Debris</b>
2	Medium stiff, moist to very moist, brown SILT (ML); abundant roots from 0-3'; contains chunks of hard silt.
3	
4	
5	
6	
7	
8	
9	
10	
11	Wood and organic (topsoil-like) debris present from 10.5'-12'.
12	Becomes mottled below 12' with trace organic debris.
13	Wet at 13'.
14	
15	
16	At 16', changes to medium dense, very moist, tan, SILTY fine SAND (SM); contains chunks of hard silt.
17	
18	Bottom of exploration pit at depth 17 feet Slow ground water seepage at 13'. No caving.
19	
20	

KCTP3 02279A-1.GPJ May 31, 2002

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# LOG OF EXPLORATION PIT NO. EP-4

Depth (ft)	DESCRIPTION
	<b>Landslide Debris</b>
1	Medium stiff, very moist, brown SILT (ML); exhibits blocky, crumbly texture and contains scattered organic debris; abundant roots.
2	
3	
4	Medium stiff to stiff; contains chunks of hard silt.
5	
6	
7	
8	
9	
10	Wet below 10'.
11	
12	Hard, moist, gray and tan SILT (ML); exhibits slickensides.
13	
14	Bottom of exploration pit at depth 13 feet Slow ground water seepage from approximately 10'-11.5'. Intermittent, massive caving from 3'-11.5'.
15	
16	
17	
18	
19	
20	

KCTP3 02279A-1.GPJ March 24, 2003

## Simonds Road Townhomes King County, WA

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Project No. KE02279A

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# LOG OF EXPLORATION PIT NO. EP-5

Depth (ft)	DESCRIPTION
	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p> <p><b>Landslide Debris</b></p>
1	Medium stiff, very moist, grayish tan SILT (ML); contains chunks of hard silt; abundant roots from 0-2'.
2	Becomes medium stiff to stiff below approximately 2'.
3	
4	
5	Buried log present at 5'.
6	Becomes blue-gray below 6' with abundant twigs, branches, and topsoil.
7	
8	
9	
10	Becomes tan below 10'; scattered organic debris present.
11	Trace organic debris below 11'; contains chunks of hard silt.
12	
13	Bottom of exploration pit at depth 12.5 feet No ground water seepage. No caving.
14	
15	
16	
17	
18	
19	
20	

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Approved by: *TJP*

Project No. KE02279A

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# LOG OF EXPLORATION PIT NO. EP-6

Depth (ft)	DESCRIPTION
	Colluvium
1	Soft, very moist, brownish gray SILT. (ML)
2	Hard, moist, tan SILT. (ML)
3	
4	
5	
6	Bottom of exploration pit at depth 5 feet No ground water seepage. No caving.
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

KCTP3 02279A-1.GPJ March 20, 2003

## Simonds Road Townhomes King County, WA

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Approved by: *TJP*

Project No. KE02279A

May 2002

**LOG OF EXPLORATION PIT NO. EP-7**

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>
	<b>DESCRIPTION</b>
1	<b>Colluvium</b>
1 - 2	Medium stiff, very moist, tan SILT, trace gravel (ML); contains abundant roots.
3	<b>Landslide Debris</b>
3 - 7	Stiff, very moist, tan SILT. (ML)
8	<b>Possession Drift (?)</b>
8 - 10	Hard, moist, tan SILT. (ML)
11	Bottom of exploration pit at depth 10 feet No ground water seepage. No caving.
12	
13	
14	
15	
16	
17	
18	
19	
20	

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**Simonds Road Townhomes  
King County, WA**

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Project No. KE02279A

May 2002

**LOG OF EXPLORATION PIT NO. EP-8**

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p> <p style="text-align: center;"><b>DESCRIPTION</b></p>
1	<p style="text-align: center;"><b>Weathered Possession Drift (?)</b></p> <p>Soft to medium stiff, very moist, tan SILT. (ML)</p>
2	<p style="text-align: center;"><b>Possession Drift (?)</b></p> <p>Stiff, very moist, tan SILT. (ML)</p>
3	
4	
5	
6	
7	Becomes stiff to very stiff below 7'.
8	
9	Becomes gray and very stiff to hard below 8.5'.
10	
11	Bottom of exploration pit at depth 10 feet No ground water seepage. No caving.
12	
13	
14	
15	
16	
17	
18	
19	
20	

**Simonds Road Townhomes  
King County, WA**

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Project No. KE02279A

May 2002

KCTP3 02279A-1.GPJ March 24, 2003

**LOG OF EXPLORATION PIT NO. EP-9**

Depth (ft)	DESCRIPTION
	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p> <p><b>Colluvium</b></p>
1	Medium stiff, very moist, brown SILT, few sand, trace gravel (ML); abundant roots.
	<b>Landslide Debris</b>
2	Stiff, very moist, tan SILT. (ML)
3	
4	
5	
6	
7	Contains chunks of hard silt at 6.5'.
8	
9	Becomes stiff to very stiff below 9'.
10	Slickensides observed at 10'; becomes very stiff and fractured below 10'; contains scattered chunks of hard silt.
11	
12	
13	
14	
	<b>Possession Drift (?)</b>
15	Very stiff, very moist, gray SILT. (ML)
16	
17	Bottom of exploration pit at depth 16 feet No ground water seepage. No caving.
18	
19	
20	

**Simonds Road Townhomes  
King County, WA**

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Project No. KE02279A

May 2002

**LOG OF EXPLORATION PIT NO. EP-10**

Depth (ft)	DESCRIPTION
	Landslide Debris
1	Medium stiff, very moist, tan SILT. (ML)
2	Becomes stiff below approximately 2'; abundant roots from 0-3'.
3	
4	
5	
6	
7	
8	Becomes stiff to very stiff and mottled at 8'; contains chunks of hard silt and zones of silty fine sand.
9	
10	
11	
12	
13	
14	
15	Hard SILT chunks become more abundant below 15'; slickensides present from 15'-16'.
16	
17	Bottom of exploration pit at depth 16 feet No ground water seepage. No caving.
18	
19	
20	

KCTP3 02279A-1.GPJ March 24, 2003

**Simonds Road Townhomes  
King County, WA**

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Approved by: *TJP*

Project No. KE02279A

May 2002

# LOG OF EXPLORATION PIT NO. EP-11

Depth (ft)	DESCRIPTION
	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>
	<b>Colluvium</b>
1	Medium stiff to stiff, moist to very moist, tan SILT. (ML)
2	
3	
	<b>Possession Drift (?)</b>
4	Hard, moist, tan SILT (ML); fractured.
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	Bottom of exploration pit at depth 14 feet No ground water seepage. No caving.
16	
17	
18	
19	
20	

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## Simonds Road Townhomes King County, WA

Associated Earth Sciences, Inc.



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Project No. KE02279A

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# LOG OF EXPLORATION PIT NO. EP-12

Depth (ft)	DESCRIPTION
	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>
	<b>Fill</b>
1	Soft, very moist, tan SILT (ML) underlain by 2" asphalt concrete pavement underlain by 2" of gravel base course.
	<b>Landslide Debris</b>
2	Medium dense, very moist, tan, SILTY fine to medium SAND, few gravel. (SM)
3	
4	
5	
6	
7	
8	Interbed of medium stiff to stiff, very moist, tan SILT, little sand, few gravel present from 7.5'-8.5'.
9	
10	
11	
12	At 12', changes to very stiff, very moist, tan SILT, little sand, few gravel (ML); contains pin hole voids.
13	
14	
15	
16	Bottom of exploration pit at depth 15 feet No ground water seepage. No caving.
17	
18	
19	
20	

## Simonds Road Townhomes King County, WA

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Project No. KE02279A

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**LOG OF EXPLORATION PIT NO. EP-13**

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>
	<b>DESCRIPTION</b>
1	<b>Fill</b>
1	Loose, moist, tan, SILTY fine SAND (SM); contains chunks of hard, gray silt; abundant roots.
2	
3	<b>Landslide Debris</b>
3	Stiff, very moist, tan SILT. (ML)
4	
5	
6	
7	
8	
9	
10	
11	Becomes very stiff and mottled below 11'.
12	<b>Possession Drift (?)</b>
13	Hard, moist to very moist, tan SILT. (ML)
14	Bottom of exploration pit at depth 13 feet No ground water seepage. No caving.
15	
16	
17	
18	
19	
20	

KCTP3\_02279A-1.GPJ March 20, 2003

**Simonds Road Townhomes  
King County, WA**

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Approved by: *TJP*

Project No. KE02279A

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# LOG OF EXPLORATION PIT NO. EP-14

Depth (ft)	DESCRIPTION
	This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.
	<b>Topsoil</b>
1	<b>Landslide Debris</b>
1	Stiff, very moist to moist, tan SILT, few sand, trace gravel. (ML)
2	
3	
4	
5	
6	
7	No sand and gravel below approximately 7'.
8	
9	
10	
11	<b>Possession Drift (?)</b>
12	Hard, moist, tan SILT. (ML)
13	
14	Bottom of exploration pit at depth 13 feet No ground water seepage. No caving.
15	
16	
17	
18	
19	
20	

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## Simonds Road Townhomes King County, WA

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Project No. KE02279A

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Project Number  
KE02279A

Exploration Number  
EB-1

Sheet  
1 of 1

Project Name Simonds Road Townhomes  
 Location King County, WA  
 Driller/Equipment Davies Drilling / HSA / SPT  
 Hammer Weight/Drop 140# / 30"

Ground Surface Elevation (ft) \_\_\_\_\_  
 Datum N/A  
 Date Start/Finish 2/25/03, 2/25/03  
 Hole Diameter (in) 7

Depth (ft)	S T	Samples	Graphic Symbol	DESCRIPTION	Well Completion	Water Level	Blows/Foot								
							Blows/6"	10	20	30	40				
5		S-1		<b>Landslide Debris</b> Very moist, tan SILT, trace organics (ML).		2/18	▲	2/18							
5		S-2		Fractured; contains chunks of hard silt.		2 4 5		▲	9						
10				----- Possession Drift (?)											
10		S-3		Very moist, tan SILT (ML); laminated and non-fractured. Becomes blue-gray below 11'.		9 15 20							▲	35	
15		S-4		<b>VST - H</b>		6 10 15							▲	25	
20		S-5		Contains tan interbeds; contains thin brecciated zones, slight increase in moisture content below 21'.		6 13 22								▲	35
25		S-6		Non-laminated, thin brecciated zones still present.		8 11 14								▲	25
26.5				Bottom of exploration boring at 26.5 feet											

Sampler Type (ST):

- 2" OD Split Spoon Sampler (SPT)
- 3" OD Split Spoon Sampler (D & M)
- Grab Sample

- No Recovery
- Ring Sample
- Shelby Tube Sample

M - Moisture

▽ Water Level ( )

▼ Water Level at time of drilling (ATD)

Logged by: TJP

Approved by:



Project Number  
KE02279A

Exploration Number  
EB-2

Sheet  
1 of 1

Project Name Simonds Road Townhomes  
 Location King County, WA  
 Driller/Equipment Davies Drilling / HSA / SPT  
 Hammer Weight/Drop 140# / 30"

Ground Surface Elevation (ft) \_\_\_\_\_  
 Datum N/A  
 Date Start/Finish 2/25/03, 2/25/03  
 Hole Diameter (in) 7

Depth (ft)	S T	Samples	Graphic Symbol	DESCRIPTION	Well Completion	Water Level	Blows/Foot					
							Blows/6"	10	20	30	40	
0		S-1		<b>Landslide Debris</b> Very moist, tan SILT, moderate organics (ML).		1/18"	▲1/18"					
5		S-2		Contains roots and chunks of dark brown topsoil		5 5 6	▲11					
10		S-3		Trace organics.		6 8 8	▲15					
15		S-4		Contains chunks of hard silt; trace organics, trace gravel.  Very moist, blue-gray SILT (ML); massive with laminated zones.		3 5 10	▲15					
20		S-5		<b>ST - VST</b> Contains isolated fracture zones with chunks of hard silt and slickensides.		4 4 8	▲12					
25		S-6		<b>Possession Drift (?)</b> Very moist, blue-gray SILT (ML); massive.		1 8 19	▲19					
30		S-7		<b>VST</b>		6 10 15	▲25					
35		S-8		Slight increase in moisture content; contains thin brecciated zones.		6 9 13	▲22					
40		S-9		Becomes moist below 41'.  Bottom of exploration boring at 41.5 feet		6 9 17	▲25					

Sampler Type (ST):

- 2" OD Split Spoon Sampler (SPT)
- 3" OD Split Spoon Sampler (D & M)
- Grab Sample

- No Recovery
- Ring Sample
- Shelby Tube Sample

M - Moisture

▽ Water Level ( )

▼ Water Level at time of drilling (ATD)

Logged by: TJP

Approved by: *TJP*



Project Number  
KE02279A

Exploration Number  
EB-3

Project Name Simonds Road Townhomes  
 Location King County, WA  
 Driller/Equipment Davies Drilling / HSA / SPT  
 Hammer Weight/Drop 140# / 30"

Ground Surface Elevation (ft) \_\_\_\_\_  
 Datum N/A  
 Date Start/Finish 2/25/03, 2/25/03  
 Hole Diameter (in) 7

Depth (ft)	S T	Samples	Graphic Symbol	DESCRIPTION	Well Completion	Water Level	Blows/6"	Blows/Foot			
								10	20	30	40
5		S-1		<b>Landslide Debris</b> Very moist, tan and black SILT (ML); contains scattered chunks of topsoil and organic debris.		2/18"	▲2/18"				
10		S-2		Becomes uniformly tan; contains chunks of hard SILT, trace organic debris.		3 2 4	▲6"				
15		S-3				2 3 5	▲3"				
20		S-4		Contains interbeds of very moist to wet, silty, fine SAND; no organics; no chunks of hard silt.		3 4 4	▲3"				
25		S-5		Contains trace chunks of hard SILT, trace organics.		2 3 3	▲6"				
25		S-6		----- <b>Possession Drift (?)</b> Very moist, blue-gray SILT (ML); non-fractured.		7 10 16	▲25"				
30		S-7		<b>VST-H</b>		11 13 15	▲28"				
35		S-8		Contains lenses of very moist to wet, dilatant silt.		6 13 22	▲35"				
40		S-9				8 17 20	▲37"				
				Bottom of exploration boring at 41.5 feet							

Sampler Type (ST):

- 2" OD Split Spoon Sampler (SPT)
- 3" OD Split Spoon Sampler (D & M)
- Grab Sample

- No Recovery
- Ring Sample
- Shelby Tube Sample

- M - Moisture
- Water Level ( )
- Water Level at time of drilling (ATD)

Logged by: TJP  
 Approved by: *TJP*



Project Number  
KE02279A

Exploration Number  
EB-4

Sheet  
1 of 1

Project Name Simonds Road Townhomes  
 Location King County, WA  
 Driller/Equipment Davies Drilling / HSA / SPT  
 Hammer Weight/Drop 140# / 30"

Ground Surface Elevation (ft) \_\_\_\_\_  
 Datum N/A  
 Date Start/Finish 2/26/03, 2/26/03  
 Hole Diameter (in) 7

Depth (ft)	S T	Samples	Graphic Symbol	DESCRIPTION	Well Completion	Water Level	Blows/Foot							
							Blows/6"	10	20	30	40			
				Asphalt Concrete Pavement										
				Landslide Debris										
5		S-1		Very moist, tan SILT, few sand, trace pebble gravel, trace organics.		3 4 5	▲ <sub>9</sub>							
10		S-2		Fractured; contains pinhole voids.		3 3 6	▲ <sub>9</sub>							
15		S-3		Contains pockets of silty fine SAND; no organics.		2 5 5	▲ <sub>10</sub>							
20		S-4				3 4 5	▲ <sub>9</sub>							
				----- Possession Drift (?) -----										
25		S-5		Very moist, blue-gray SILT (ML); massive.		6 13 20						▲ <sub>33</sub>		
30		S-6				8 13 16						▲ <sub>29</sub>		
35		S-7		Slight increase in moisture content.		6 10 19						▲ <sub>29</sub>		
40				Bottom of exploration boring at 36.5 feet										

VST-H

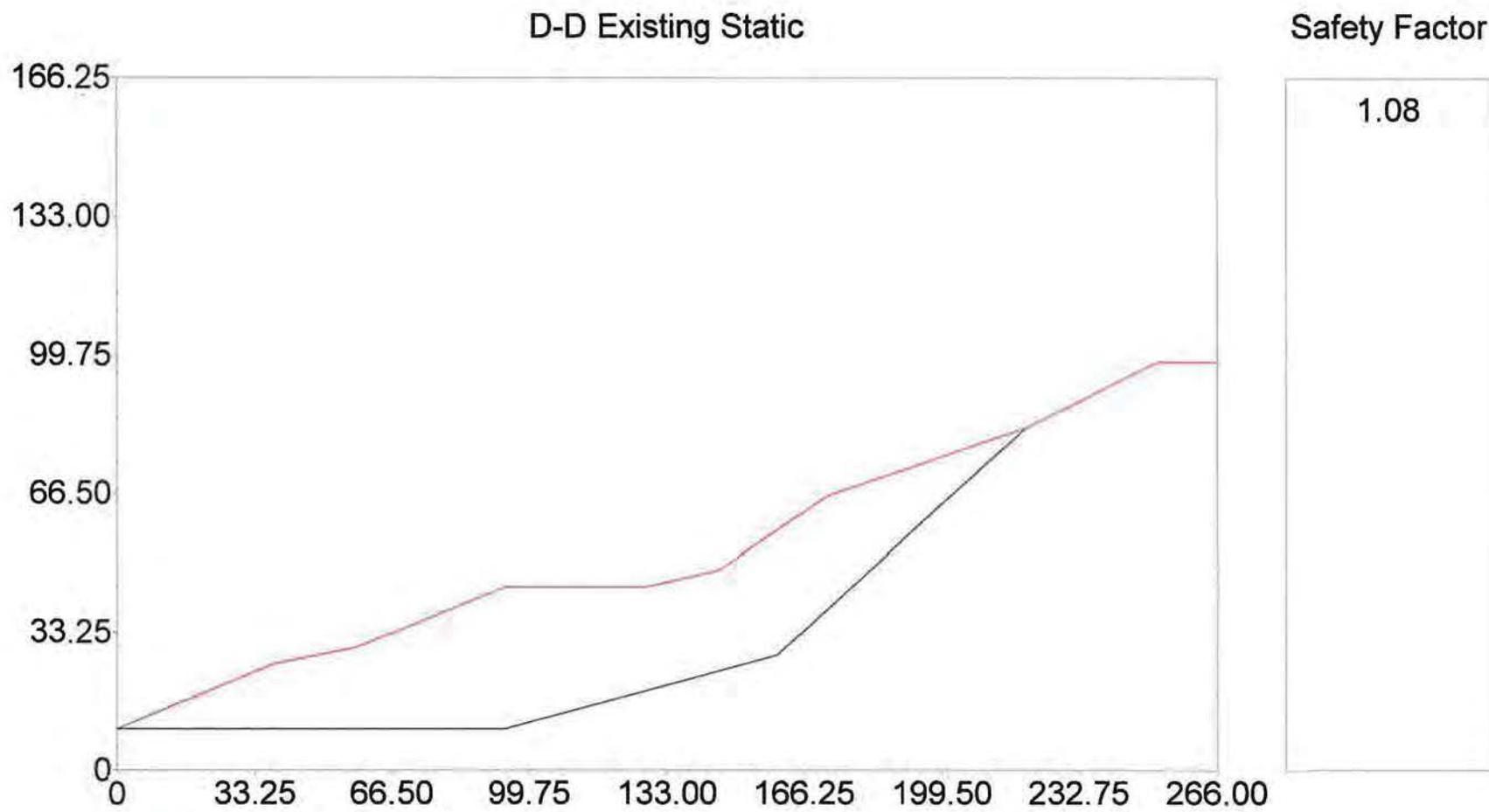
Sampler Type (ST):

- 2" OD Split Spoon Sampler (SPT)
- 3" OD Split Spoon Sampler (D & M)
- Grab Sample
- No Recovery
- Ring Sample
- Shelby Tube Sample
- M - Moisture
- ∇ Water Level ( )
- ∇ Water Level at time of drilling (ATD)

Logged by: TJP  
 Approved by:   
 179

**APPENDIX C**

**WINSTABL OUTPUT**



\*\* PCSTABL6 \*\*

by  
Purdue University

modified by  
Peter J. Bosscher  
University of Wisconsin-Madison

--Slope Stability Analysis--  
Simplified Janbu, Simplified Bishop  
or Spencer's Method of Slices

PROBLEM DESCRIPTION    D-D Existing Static

BOUNDARY COORDINATES

9 Top Boundaries  
12 Total Boundaries

Type	Boundary	X-Left	Y-Left	X-Right	Y-Right	Soil
Bnd	No.	(ft)	(ft)	(ft)	(ft)	Below
	1	0.00	10.00	38.00	26.00	1
	2	38.00	26.00	58.00	30.00	1
	3	58.00	30.00	94.00	44.00	1
	4	94.00	44.00	128.00	44.00	1
	5	128.00	44.00	146.00	48.00	1
	6	146.00	48.00	172.00	66.00	1
	7	172.00	66.00	220.00	82.00	1
	8	220.00	82.00	252.00	98.00	2
	9	252.00	98.00	266.00	98.00	2
	10	0.00	10.00	94.00	10.00	2
	11	94.00	10.00	160.00	28.00	2
	12	160.00	28.00	220.00	82.00	2

## ISOTROPIC SOIL PARAMETERS

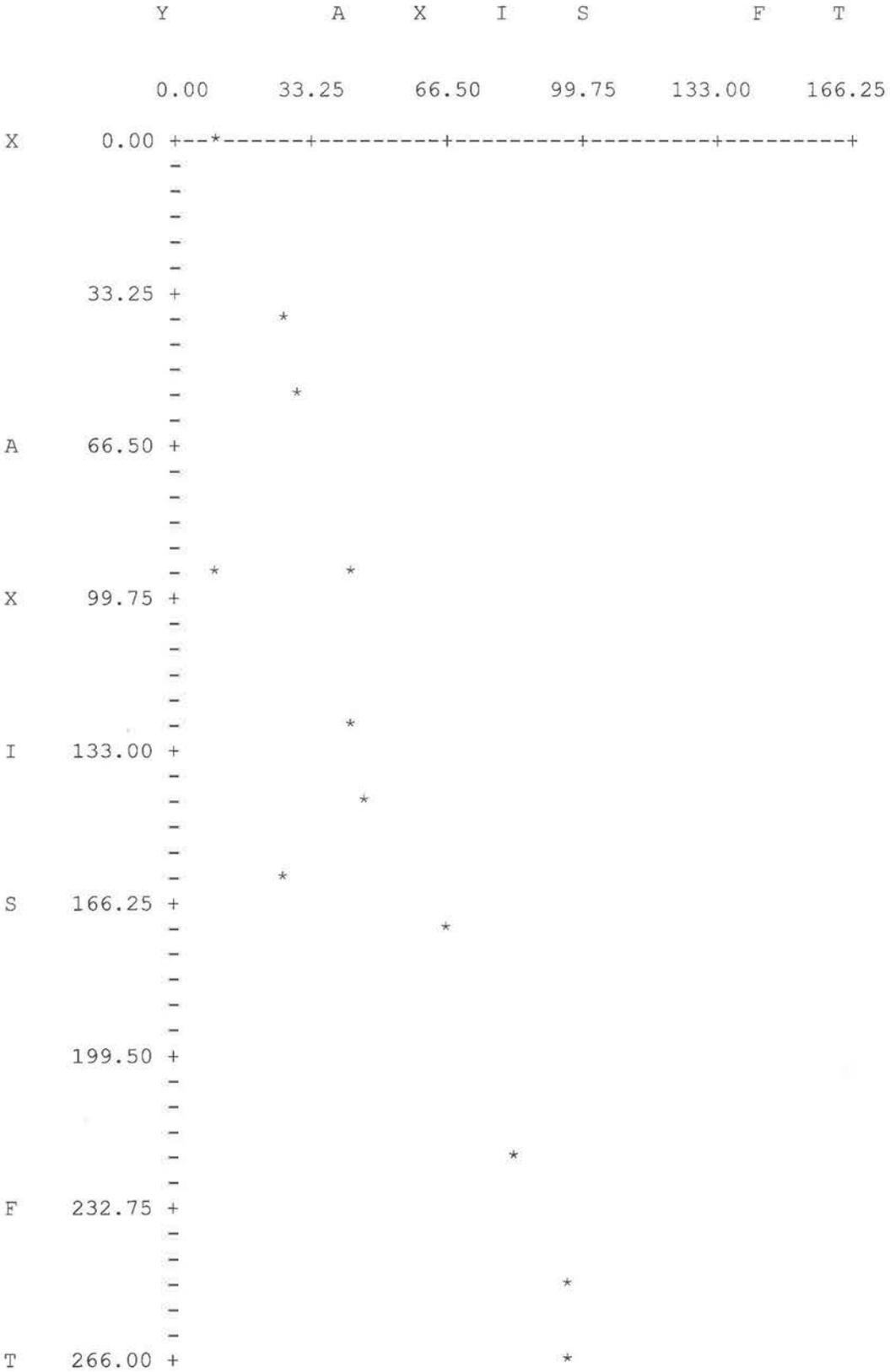
2 Type(s) of Soil

Piez. Surface No.	Soil	Total	Saturated	Cohesion	Friction	Pore	Pressure
	Type	Unit Wt.	Unit Wt.	Intercept	Angle	Pressure	Constant
	No.	(pcf)	(pcf)	(psf)	(deg)	Param.	(psf)
0	1	125.0	125.0	0.0	19.0	0.10	0.0
0	2	130.0	130.0	1500.0	25.0	0.00	0.0

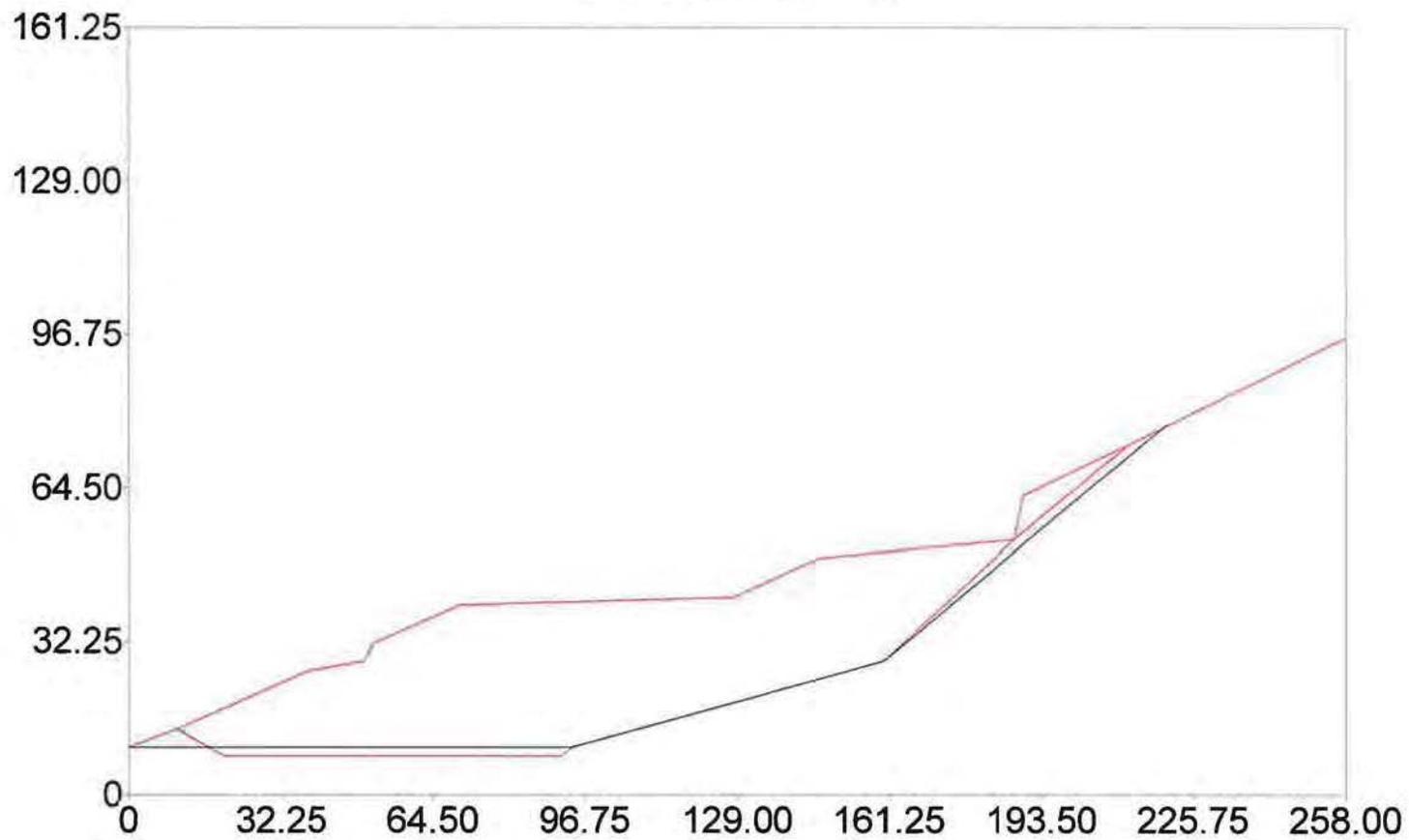
Trial Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	0.00	10.00
2	94.00	10.00
3	160.00	28.00
4	220.00	82.00

Factor Of Safety For The Preceding Specified Surface = 1.076



D-D Proposed Static



Safety Factor

4.41

\*\* PCSTABL6 \*\*

by  
Purdue University

modified by  
Peter J. Bosscher  
University of Wisconsin-Madison

--Slope Stability Analysis--  
Simplified Janbu, Simplified Bishop  
or Spencer's Method of Slices

PROBLEM DESCRIPTION D-D Proposed Static

BOUNDARY COORDINATES

11 Top Boundaries  
18 Total Boundaries

Type	Boundary	X-Left	Y-Left	X-Right	Y-Right	Soil
Bnd	No.	(ft)	(ft)	(ft)	(ft)	Below
	1	0.00	10.00	10.00	14.00	2
	2	10.00	14.00	38.00	26.00	1
	3	38.00	26.00	50.00	28.00	1
	4	50.00	28.00	52.00	32.00	1
	5	52.00	32.00	70.00	40.00	1
	6	70.00	40.00	128.00	42.00	1
	7	128.00	42.00	146.00	50.00	1
	8	146.00	50.00	188.00	54.00	1
	9	188.00	54.00	190.00	63.00	1
	10	190.00	63.00	212.00	74.00	1
	11	212.00	74.00	258.00	96.00	2
	12	10.00	14.00	20.00	8.00	2
	13	20.00	8.00	92.00	8.00	2
	14	92.00	8.00	94.00	10.00	2
	15	94.00	10.00	160.00	28.00	2
	16	160.00	28.00	188.00	54.00	2
	17	188.00	54.00	212.00	74.00	2
	18	212.00	74.00	258.00	96.00	2

## ISOTROPIC SOIL PARAMETERS

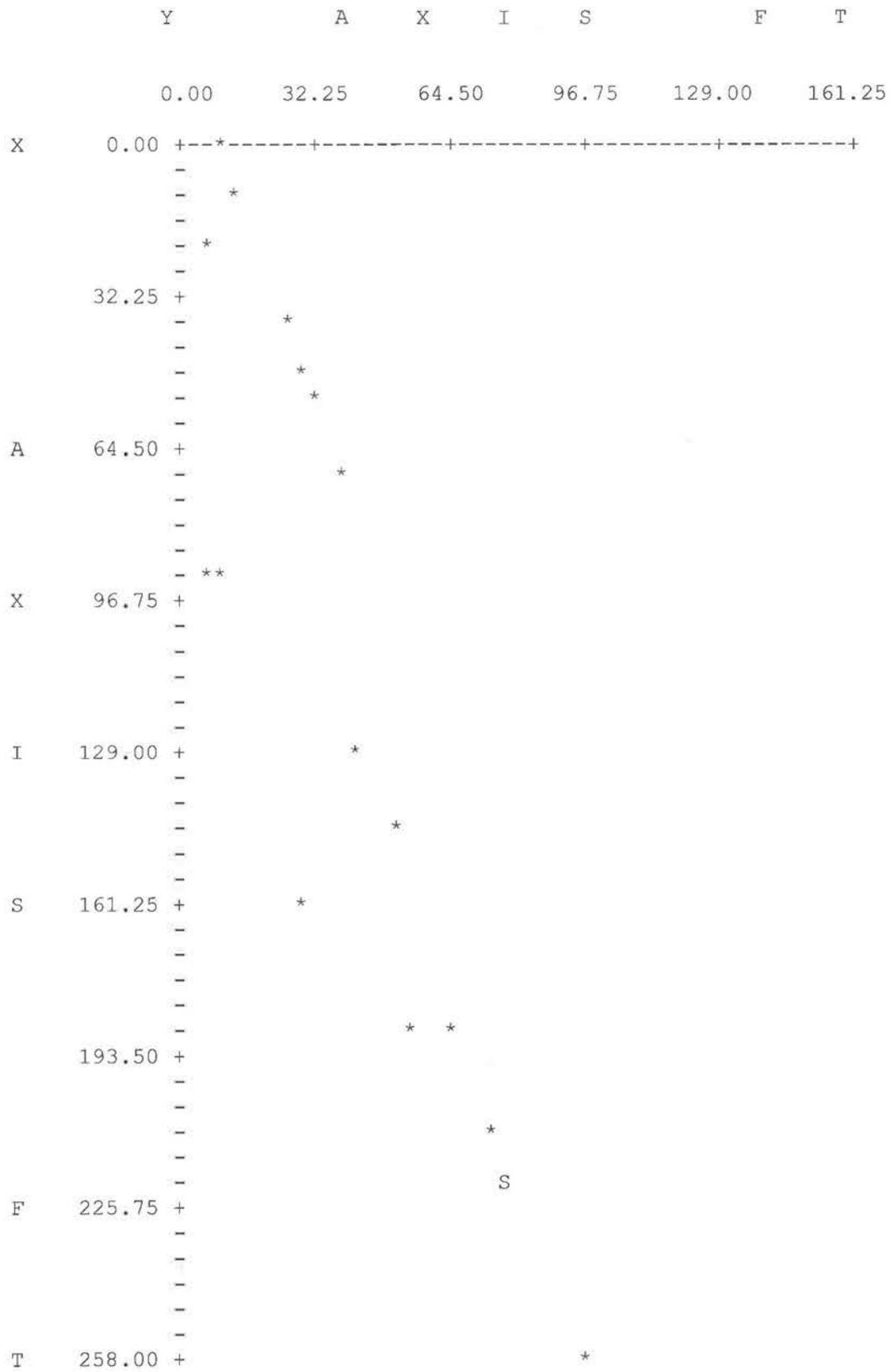
2 Type(s) of Soil

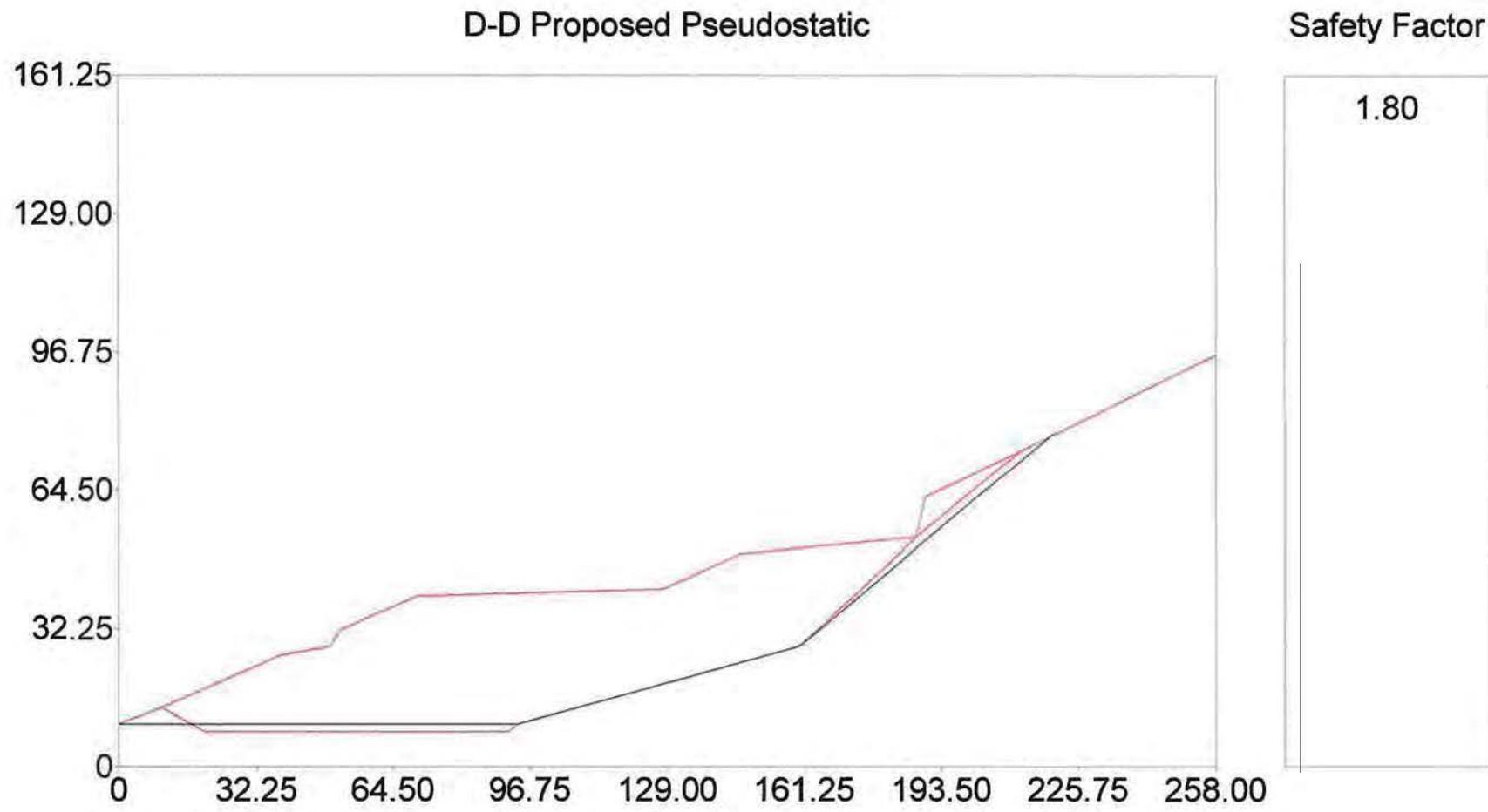
Piez. Surface No.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)
0	1	125.0	125.0	100.0	32.0	0.00	0.0
0	2	130.0	130.0	1500.0	25.0	0.00	0.0

Trial Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	0.00	10.00
2	94.00	10.00
3	160.00	28.00
4	220.00	77.83

Factor Of Safety For The Preceding Specified Surface = 4.410





\*\* PCSTABL6 \*\*

by  
Purdue University

modified by  
Peter J. Bosscher  
University of Wisconsin-Madison

--Slope Stability Analysis--  
Simplified Janbu, Simplified Bishop  
or Spencer's Method of Slices

PROBLEM DESCRIPTION    D-D Proposed Pseudostatic

BOUNDARY COORDINATES

11 Top Boundaries  
18 Total Boundaries

Type	Boundary	X-Left	Y-Left	X-Right	Y-Right	Soil
Bnd	No.	(ft)	(ft)	(ft)	(ft)	Below
	1	0.00	10.00	10.00	14.00	2
	2	10.00	14.00	38.00	26.00	1
	3	38.00	26.00	50.00	28.00	1
	4	50.00	28.00	52.00	32.00	1
	5	52.00	32.00	70.00	40.00	1
	6	70.00	40.00	128.00	42.00	1
	7	128.00	42.00	146.00	50.00	1
	8	146.00	50.00	188.00	54.00	1
	9	188.00	54.00	190.00	63.00	1
	10	190.00	63.00	212.00	74.00	1
	11	212.00	74.00	258.00	96.00	2
	12	10.00	14.00	20.00	8.00	2
	13	20.00	8.00	92.00	8.00	2
	14	92.00	8.00	94.00	10.00	2
	15	94.00	10.00	160.00	28.00	2
	16	160.00	28.00	188.00	54.00	2
	17	188.00	54.00	212.00	74.00	2
	18	212.00	74.00	258.00	96.00	2

## ISOTROPIC SOIL PARAMETERS

2 Type(s) of Soil

Piez. Surface No.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)
0	1	125.0	125.0	100.0	32.0	0.00	0.0
0	2	130.0	130.0	1500.0	25.0	0.00	0.0

A Horizontal Earthquake Loading Coefficient  
Of 0.300 Has Been Assigned

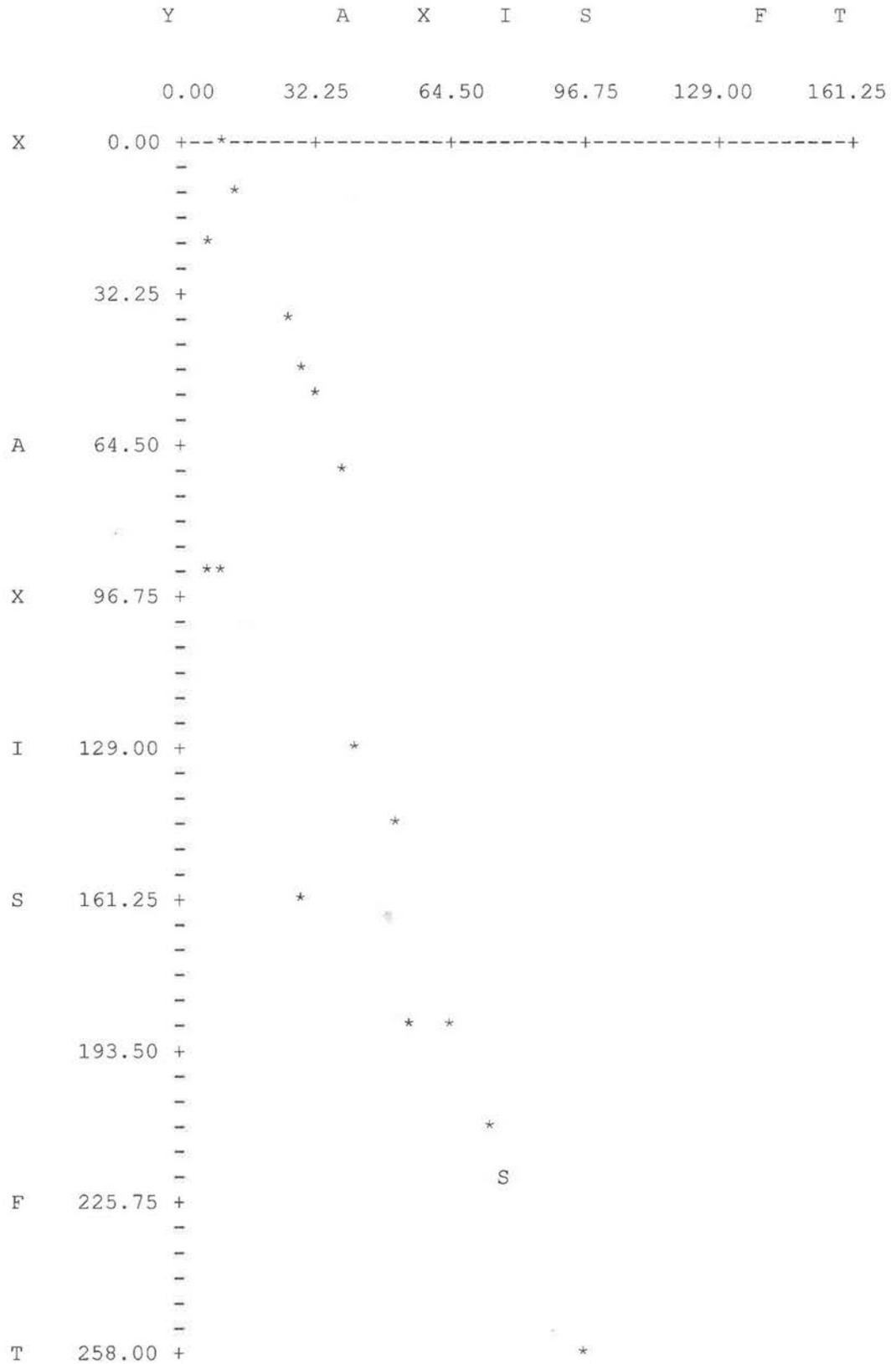
A Vertical Earthquake Loading Coefficient  
Of 0.000 Has Been Assigned

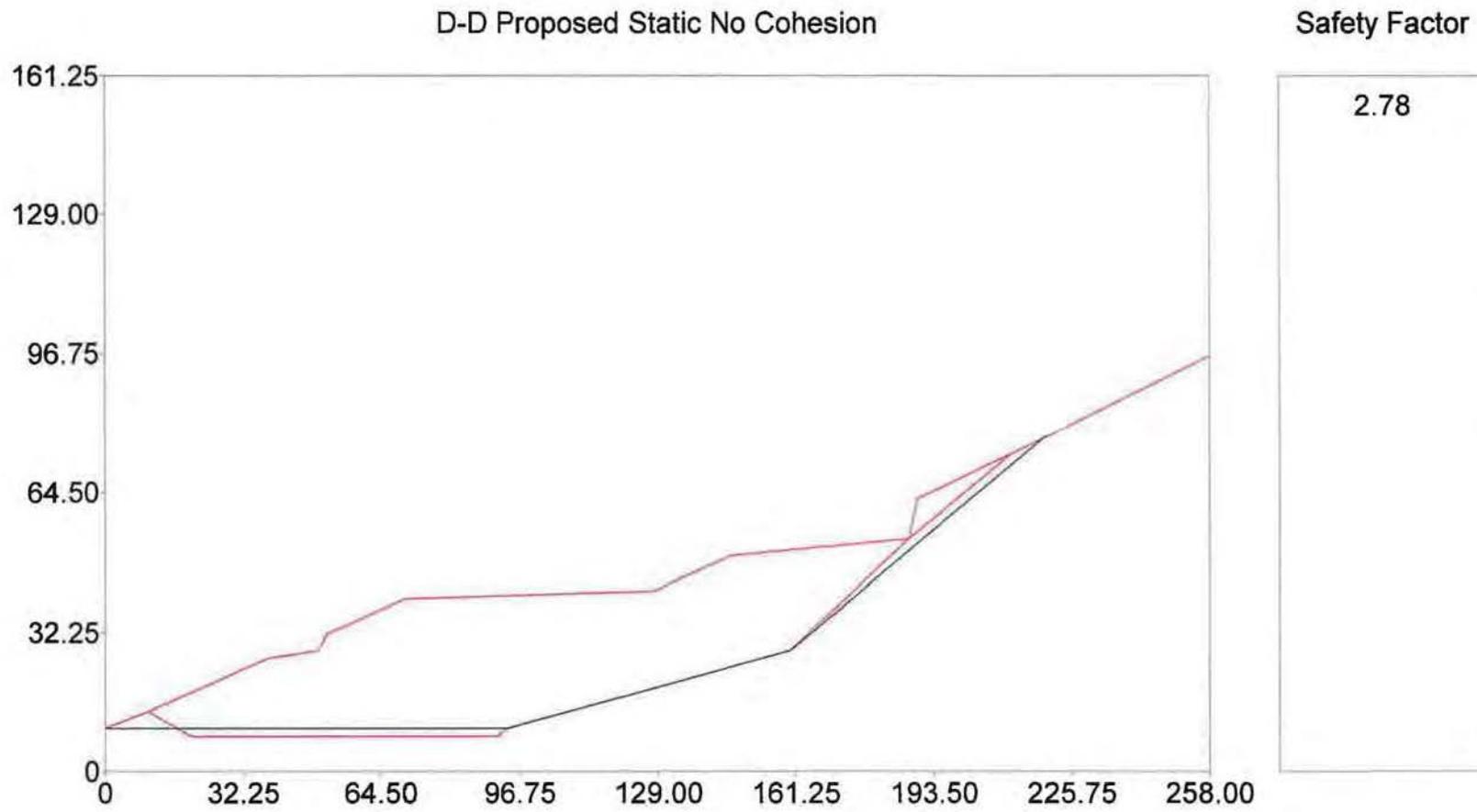
Cavitation Pressure = 0.0 psf

Trial Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	0.00	10.00
2	94.00	10.00
3	160.00	28.00
4	220.00	77.83

Factor Of Safety For The Preceding Specified Surface = 1.802





\*\* PCSTABL6 \*\*

by  
Purdue University

modified by  
Peter J. Bosscher  
University of Wisconsin-Madison

--Slope Stability Analysis--  
Simplified Janbu, Simplified Bishop  
or Spencer's Method of Slices

PROBLEM DESCRIPTION D-D Proposed Static No Cohesion

BOUNDARY COORDINATES

11 Top Boundaries  
18 Total Boundaries

Type	Boundary	X-Left	Y-Left	X-Right	Y-Right	Soil
End	No.	(ft)	(ft)	(ft)	(ft)	Below
	1	0.00	10.00	10.00	14.00	2
	2	10.00	14.00	38.00	26.00	1
	3	38.00	26.00	50.00	28.00	1
	4	50.00	28.00	52.00	32.00	1
	5	52.00	32.00	70.00	40.00	1
	6	70.00	40.00	128.00	42.00	1
	7	128.00	42.00	146.00	50.00	1
	8	146.00	50.00	188.00	54.00	1
	9	188.00	54.00	190.00	63.00	1
	10	190.00	63.00	212.00	74.00	1
	11	212.00	74.00	258.00	96.00	2
	12	10.00	14.00	20.00	8.00	2
	13	20.00	8.00	92.00	8.00	2
	14	92.00	8.00	94.00	10.00	2
	15	94.00	10.00	160.00	28.00	2
	16	160.00	28.00	188.00	54.00	2
	17	188.00	54.00	212.00	74.00	2
	18	212.00	74.00	258.00	96.00	2

ISOTROPIC SOIL PARAMETERS

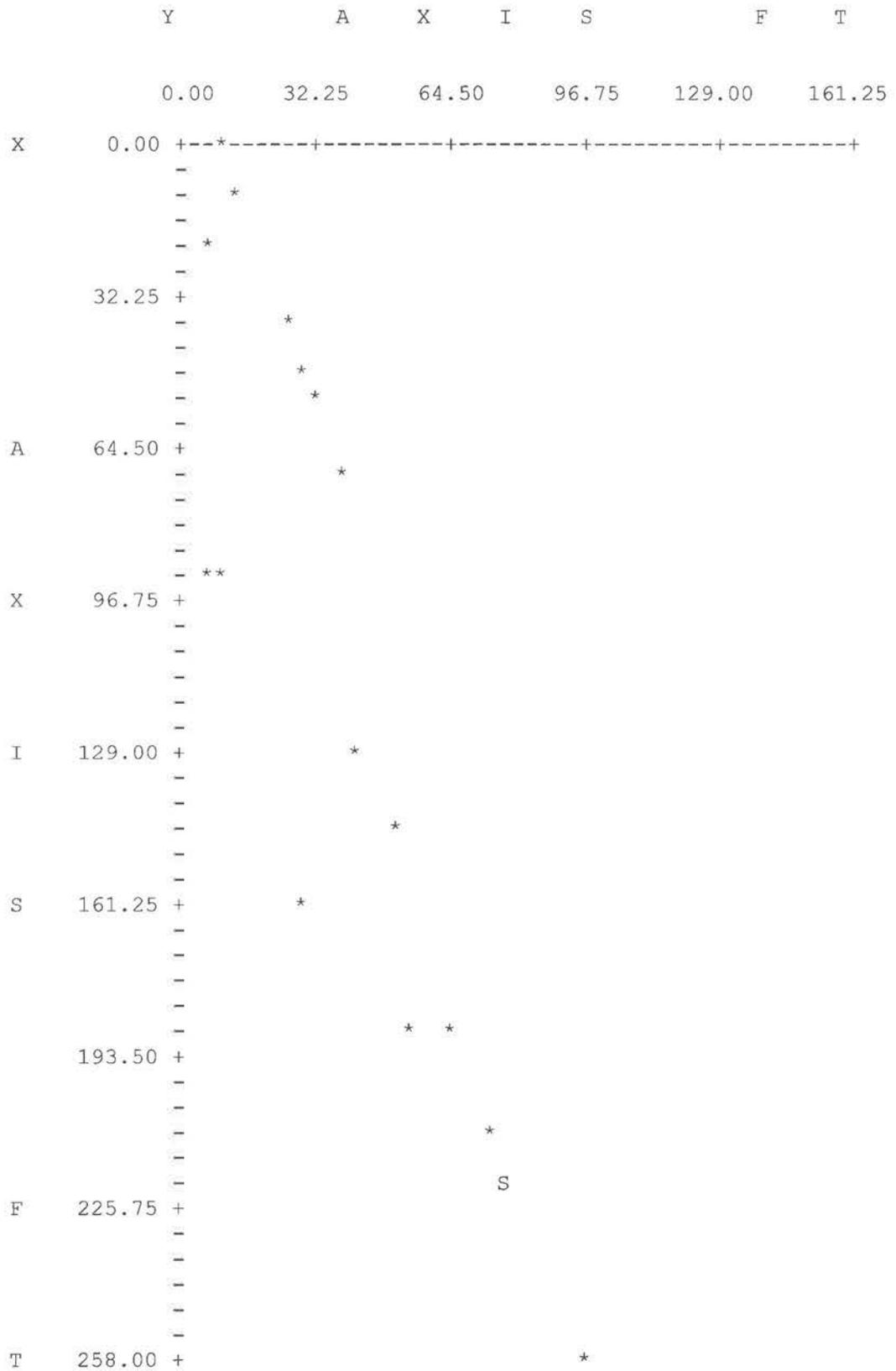
2 Type(s) of Soil

Piez. Surface No.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)
0	1	125.0	125.0	0.0	32.0	0.00	0.0
0	2	130.0	130.0	0.0	25.0	0.00	0.0

Trial Failure Surface Specified By 4 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	0.00	10.00
2	94.00	10.00
3	160.00	28.00
4	220.00	77.83

Factor Of Safety For The Preceding Specified Surface = 2.781





## GEOLOGICALLY HAZARDOUS AREAS COVENANT

<i>File No.:</i>	
<i>Parcel Number:</i>	
<i>Project Name:</i>	
<i>Project Address:</i>	

Declarant \_\_\_\_\_ hereby declares and agrees as follows:

1. Declarant is the owner of the real property described below and incorporated herein by reference, which is the "property" referred to herein.
2. Declarant agrees to defend, indemnify, and hold the City of Kirkland harmless from all loss, including claim made therefor, which the City may incur as a result of any landslide or seismic activity occurring on the property and for any loss including any claim made therefor resulting from soil disturbance on the "property" in connection with the construction of improvements, including but not limited to storm water retention and foundations. "Loss" as used herein means loss including claim made therefor from injury or damage incurred on or off the "property," together with reasonable expenses including attorneys fees for investigation and defense of such claim.
3. This hold harmless is a perpetual covenant running with the "property" and is binding upon the Declarant's successor and assigns.
4. The real property subject to this Agreement is situated in Kirkland, King County, Washington, and described as follows:

DATED at Kirkland, Washington, this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

**(Sign in blue ink)**

***(Individuals Only)***

OWNER(S) OF REAL PROPERTY (INCLUDING SPOUSE)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

***(Individuals Only)***

STATE OF WASHINGTON )

) SS.

County of King )

On this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared \_\_\_\_\_ and \_\_\_\_\_

\_\_\_\_\_ to me known to be the individual(s) described herein and who executed the Geologically Hazardous Areas Covenant and acknowledged that \_\_\_\_\_ signed the same as \_\_\_\_\_ free and voluntary act and deed, for the uses and purposes therein mentioned.

WITNESS my hand and official seal hereto affixed the day and year first above written.

\_\_\_\_\_  
Notary's Signature

\_\_\_\_\_  
Print Notary's Name  
Notary Public in and for the State of Washington,  
Residing at: \_\_\_\_\_  
My commission expires: \_\_\_\_\_



***(Corporations Only)***

OWNER(S) OF REAL PROPERTY

\_\_\_\_\_  
(Name of Corporation)

\_\_\_\_\_  
By President

\_\_\_\_\_  
By Secretary

***(Corporations Only)***

STATE OF WASHINGTON }  
County of King } SS.

On this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared \_\_\_\_\_ and \_\_\_\_\_ to me, known to be the President and Secretary, respectively, of \_\_\_\_\_, the corporation that executed the Geologically Hazardous Areas Covenant and acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein set forth, and on oath stated that they were authorized to sign said instrument and that the seal affixed is the corporate seal of said corporation.

WITNESS my hand and official seal hereto affixed the day and year first above written.

\_\_\_\_\_  
Notary's Signature

\_\_\_\_\_  
Print Notary's Name  
Notary Public in and for the State of Washington,  
Residing at: \_\_\_\_\_  
My commission expires: \_\_\_\_\_