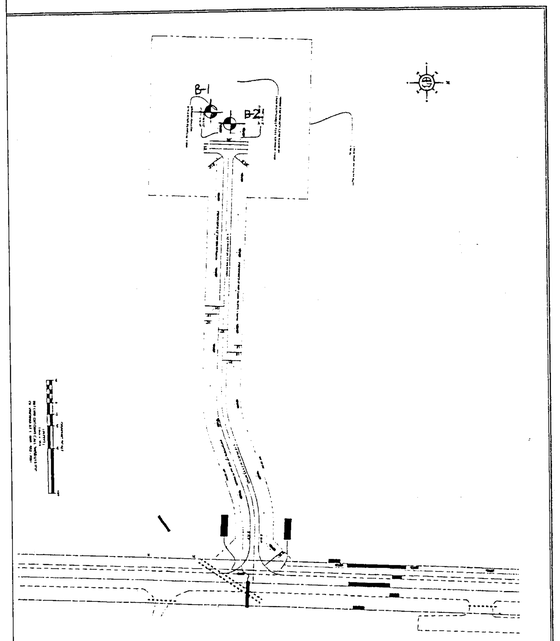

e map for Boring Location Plan from "Site Plan - Elevated Storage Tank" provided by Bury + Partners.

FROEHLING & ROBERTSON, INC.
GEOTECHNICAL - ENVIRONMENTAL - MATERIALS
ENGINEERS - LABORATORIES
"OVER ONE HUNDRED YEARS OF SERVICE"

DATE:	December 2006
PROJ NO:	H60-0650G
DRAWN:	Reproduced
DWG. NO.	2

BORING LOCATION PLAN
PROPOSED WATER TANK - RICHARD BLAND COLLEGE
PETERSBURG, VIRGINIA

Form No. 103

BORING LOG

FROEHLING & ROBERTSON, INC.
GEOTECHNICAL • ENVIRONMENTAL • MATERIALS
ENGINEERS • LABORATORIES
"OVER ONE HUNDRED YEARS OF SERVICE"

Report No.: H60-0650G — Date: December 2006
Client: Bury + Partners
Project: Water Tank - Richard Bland College.
Boring No.: B-1 (1 of 2) — Total Depth: 75.0' — Elev.: — Location: See Boring Location Plan
Type of Boring: 2-1/4"I.D. H.S.A. — Started: 12/8/06 — Completed: 12/8/06 — Driller: England

Elevation	Depth	DESCRIPTION OF MATERIALS (Classification)	* Sample Blows	Sample Depth (feet)	N Value (blows/ft)	REMARKS
	0.6	Driller Reported "Surficial Organic Soils"	1-1-1	0.0	2	Groundwater was encountered at 6' during drilling
		Soft to Firm, Brown and Yellowish-Brown Sandy Lean CLAY - Moist (CL)	3-3-3	1.5	6	
			2-3-3	3.0 / 3.5	6	Groundwater was observed at 5' upon removal of auger
	5.5	Very Stiff to Stiff, Brown and Light Gray Sandy Lean CLAY - Moist (CL)	3-7-9	5.0 / 6.0	16	Cave-in depth at 5'
			5-6-8	7.5 / 8.5	14	Driller used automatic hammer to perform SPT
	13.0	Medium Dense, Light Brownish-Gray Fine to Medium SAND with Silt - Wet (SP-SM)	4-5-7	10.0 / 13.5	12	
	18.0	Stiff, Yellowish-Brown Lean CLAY - Moist (CL)	3-5-8	15.0 / 18.5	13	
	23.0	Medium Dense, Grayish-Brown Silty Fine to Medium SAND, Micaceous - Moist (SM)	4-5-8	20.0 / 23.5	13	
	28.0	Stiff, Gray Lean CLAY - Moist (CL)	3-4-5	25.0 / 28.5	9	
	33.0	Loose, Gray Clayey Fine to Medium SAND - Moist (SC)	2-2-3	30.0 / 33.5	5	
	38.0	Firm, Gray Lean CLAY with Sand - Moist (CL)	5-3-1	35.0 / 38.5	4	
				40.0		

*Number of blows required for a 140 lb hammer dropping 30" to drive 2" O.D., 1.375" I.D. sampler a total of 18 inches in three 6" increments. The sum of the second and third increments of penetration is termed the standard penetration resistance, N.

BORING LOG

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Report No.: H60-0650G — Date: December 2006
Client: Bury + Partners
Project: Water Tank - Richard Bland College.
Boring No.: B-1 (2 of 2) — Total Depth: 75.0' — Elev.: — Location: See Boring Location Plan
Type of Boring: 2-1/4"I.D. H.S.A. — Started: 12/8/06 — Completed: 12/8/06 — Driller: England

Elevation	Depth	DESCRIPTION OF MATERIALS (Classification)	* Sample Blows	Sample Depth (feet)	N Value (blows/ft)	REMARKS
	43.0	Very Stiff to Stiff, Bluish-Gray Fat CLAY with Shells - Moist (CH)	5-7-10	43.5 / 45.0	17	
			3-4-5	48.5 / 50.0	9	
	53.0	Medium Dense, Gray Silty Fine to Coarse SAND with Shells - Wet (SM)	4-8-9	53.5 / 55.0	17	
	58.0	Stiff Bluish-Gray Sandy SILT with Shells - Moist to Wet (ML)	3-4-5	58.5 / 60.0	9	
			5-6-9	63.5 / 65.0	15	
			6-4-7	68.5 / 70.0	11	
	73.0	Medium Dense, Bluish-Gray Silty Fine to Medium SAND with Shells - Wet (SM)	5-4-8	73.5 / 75.0	12	
	75.0	Boring Terminated at 75.0'				
		Boring Backfilled Upon Completion				

*Number of blows required for a 140 lb hammer dropping 30" to drive 2" O.D., 1.375" I.D. sampler a total of 18 inches in three 6" increments. The sum of the second and third increments of penetration is termed the standard penetration resistance, N.

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Report No.: H60-0650G — Date: December 2006
Client: Bury + Partners
Project: Water Tank - Richard Bland College.
Boring No.: B-2 (2 of 2) — Total Depth: 75.0' — Elev.: — Location: See Boring Location Plan
Type of Boring: 2-1/4"I.D. H.S.A. — Started: 12/8/06 — Completed: 12/8/06 — Driller: England

Elevation	Depth	DESCRIPTION OF MATERIALS (Classification)	* Sample Blows	Sample Depth (feet)	N Value (blows/ft)	REMARKS
	43.0	Very Stiff to Stiff, Greenish-Gray Sandy SILT with Shells - Moist (ML)	3-11-14	43.5 / 45.0	25	
			4-7-6	48.5 / 50.0	13	
	53.0	Medium Dense, Greenish-Gray Silty Fine to Coarse SAND with Shells - Wet (SM)	6-9-9	53.5 / 55.0	18	
	58.0	Firm to Stiff, Greenish-Gray Sandy SILT with Shells - Moist (ML)	3-3-4	58.5 / 60.0	7	
			4-5-9	63.5 / 65.0	14	
	68.0	Medium Dense to Dense, Greenish-Gray Silty Fine to Coarse SAND with Shells - Wet to Moist (SM)	3-7-11	68.5 / 70.0	18	
			4-12-23	73.5 / 75.0	35	
	75.0	Boring Terminated at 75.0'				
		Boring Backfilled Upon Completion				

*Number of blows required for a 140 lb hammer dropping 30" to drive 2" O.D., 1.375" I.D. sampler a total of 18 inches in three 6" increments. The sum of the second and third increments of penetration is termed the standard penetration resistance, N.

BORING LOG

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Report No.: H60-0650G — Date: December 2006
Client: Bury + Partners
Project: Water Tank - Richard Bland College.
Boring No.: B-2 (1 of 2) — Total Depth: 75.0' — Elev.: — Location: See Boring Location Plan
Type of Boring: 2-1/4"I.D. H.S.A. — Started: 12/8/06 — Completed: 12/8/06 — Driller: England

Elevation	Depth	DESCRIPTION OF MATERIALS (Classification)	* Sample Blows	Sample Depth (feet)	N Value (blows/ft)	REMARKS
	0.4	Driller Reported "Surficial Organic Soils"	1-1-1	0.0	2	Groundwater was encountered at 6' during drilling
	1.5	Very Loose, Light Brown Silty Fine SAND - Moist (SM)	3-5-7	1.5	12	
		Stiff, Brown Sandy Lean CLAY - Moist (CL)	5-6-7	3.0 / 3.5	13	Groundwater was observed at 5' upon removal of auger
	5.5	Medium Dense, Grayish-Brown Silty Fine to Medium SAND - Moist (SM)	7-12-13	5.0 / 6.0 / 7.5	25	Cave-in depth at 5'
	8.0	Stiff, Light Gray Sandy Lean CLAY - Moist (CL)	3-5-6	8.5 / 10.0	11	Driller used automatic hammer to perform SPT
	13.0	Loose, Grayish-Brown Silty Fine to Medium SAND - Wet (SM)	3-3-5	13.5 / 15.0	8	
	18.0	Stiff, Brown and Grayish-Brown Sandy Lean CLAY - Moist (CL)	7-7-8	18.5 / 20.0	15	
			5-6-8	23.5 / 25.0	14	
	28.0	Stiff to Soft, Bluish-Gray Fat CLAY, Trace Sand - Moist (CH)	4-6-7	28.5 / 30.0	13	
			1-1-1	33.5 / 35.0	2	
			1-1-1	38.5 / 40.0	2	

*Number of blows required for a 140 lb hammer dropping 30" to drive 2" O.D., 1.375" I.D. sampler a total of 18 inches in three 6" increments. The sum of the second and third increments of penetration is termed the standard penetration resistance, N.

NO.	DATE	REVISION	APPROVAL

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COMMONWEALTH OF VIRGINIA
KENNETH M. BAYBUTT
No. 028257
2/16/07
PROFESSIONAL ENGINEER

BORING LOGS

RICHARD BLAND COLLEGE
CONSTRUCTION
OF
ELEVATED WATER STORAGE TANK
PRINCE GEORGE & DINWIDDIE COUNTY VIRGINIA

PLOTTING SCALE: NOT TO SCALE
DATE PLOTTED: 2/1/07
FILE: B1.dwg
DRAWN BY: BCH
DESIGNED BY: SAR
REVIEWED BY: KMB
PROJECT NO.: 210640004

SHEET
B1
OF

I:\21064 - Richard Bland College\RBC Tanks\Sheets\WaterStorage Tank Drawings\B1.dwg