

Drilled	Start 4/30/2025	End 5/7/2025	Total Depth (ft)	250	Logged By Checked By	EMM/JSP KRH	Driller	WSDOT	Drilling Method	Mud Rotary Casing Advancer	
Surface Elevation (ft) Vertical Datum			34.65 NAVD88		Hammer Data		Autohammer 140 (lbs) / 30 (in) Drop		Drilling Equipment		CME 850 (9C2-4)
Easting (X) Northing (Y)		1636531.194 608285.89			System Datum		Project Datum		Groundwater not observed at time of exploration		
Notes: Autohammer Average Transfer Efficiency = 89.3%; State Plane Coordinates 1308394, 280190.9; Laboratory testing completed by GeoEngineers, WSDOT, and Haley & Aldrich; Vane shear testing performed by WSDOT											

Elevation (feet)	FIELD DATA					MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing				
0									Soil samples not collected in upper 13½ feet
5									
10									
15									
20									
13.5									
15									
14						SPSM			Gray sand with silt (very loose, moist)
18									
15						SC			Brown clayey sand (loose, moist)
18							54	44	
20									
15									
18						CL			Gray lean clay (very soft, moist)
25							43		Organic Content 1.49%
10									Vane shear test at Elevation 8 feet: Undisturbed Su = 801 psf, Remolded Su = 433 psf
18									
3							44	97	AL (LL=31; PI=11) Range of moisture content 29 to 44% ¹
5									AL (LL=36; PI=14) Range of moisture content 37 to 39% ¹
30							39	98	
35									

Note: See Figure A-1 for explanation of symbols.

Log of Boring B-2-25



Project: I-405, Brickyard to SR 527 Improvement Project
Project Location: King and Snohomish Counties, Washington
Project Number: 0180-423-01

Figure A-45
Sheet 1 of 7

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Elevation (feet)	FIELD DATA				Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample						
35										Vane shear test at Elevation -2 feet: Undisturbed Su = 637 psf, Remolded Su = 388 psf
				6						No recovery
40				7 AL				38		AL (LL=38; PI=17)
45				8 AL				36		Vane shear test at Elevation -10.5 feet: Undisturbed Su = 821 psf, Remolded Su = 581 psf AL (LL=39; PI=18)
50				9 AL, SA, TX				38	93	AL (LL=35; PI=14) Range of moisture content 34 to 38% ¹ AL ² (LL=39; PI=18)
55		18	11	10A 10B 10C		SP CL	Becomes stiff Gray poorly graded sand (medium dense, moist) Gray lean clay (stiff, moist)			
60		18	1	11			Becomes very soft			
65		18	4	12 AL, CS, SA 13			Becomes soft	40	100	Vane shear test at Elevation -27 feet: Undisturbed Su = 1,871 psf, Remolded Su = 1,207 psf AL (LL=43; PI=21) Range of moisture content 36 to 40% ¹ AL ² (LL=45; PI=23)
70				14A AL, %F 14B %F		SP-SC	Gray poorly graded sand with clay (dense, moist)	43	99	AL (LL=43; PI=19)
75		14	40	15				26	10	Driller noted hard drilling

Log of Boring B-2-25 (continued)



Project: I-405, Brickyard to SR 527 Improvement Project
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Figure A-45
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Elevation (feet)	FIELD DATA				Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample						
80		8	36	16		CL	Gray lean clay (stiff, moist)	33	100	
85		16	11	17 %F						
90		18	9	18						
95		18	10	19						
100				20 AL						
105		18	24	21 AL						
110				22 AL, CS, HA, SA						
115		18	9	23						

Log of Boring B-2-25 (continued)



Project: I-405, Brickyard to SR 527 Improvement Project
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Figure A-45
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Vane shear test at Elevation -81 feet:
 Undisturbed Su = 3,167 psf, Remolded Su = 1,484 psf, Vane only pushed 6 inches

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Elevation (feet)	Depth (feet)	FIELD DATA				Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
		Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing						
120	120	18	9		24						
125	125				25 AL, HA, SA, SG, TX				30	90	Vane shear test at Elevation -90.5 feet: Undisturbed Su = 2,801 psf, Remolded Su = 1,956 psf AL (LL=35; PI=13) Range of moisture content 26 to 30% ¹ AL (LL=34; PI=13) AL ² (LL=36; PI=16)
130	130	12	8		26			Becomes medium stiff			
135	135	12	8		27 SG				33		
140	140	18	8		28						Vane shear test at Elevation -107 feet: Undisturbed Su = 4,795 psf, Remolded Su = 2,270 psf
145	145	18	11		29 AL			Becomes stiff	25		AL (LL=34; PI=14)
150	150	18	14		31						
155	155				32 AL		ML	Gray silt (moist)	30		AL (LL=29; PI=6)
160	160	18	10		33		CL	Gray lean clay (stiff, moist)			Driller observed wood debris in drilling spoils

Log of Boring B-2-25 (continued)



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Figure A-45
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Elevation (feet)	FIELD DATA				Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample						
130	165			34 %F				27	99	Vane shear test at Elevation -127 feet: Undisturbed Su = 4,814 psf, Remolded Su = 2,372 psf
135	170	18	11	35						Driller noted sand caved in bottom of boring
140	175	18	12	36						
145	180	18	15	37						
150	185	18	10	38						
155	190	18	13	39						
160	195	18	13	40						
165	200	8	14	41A 41B	SP CL	Gray poorly graded sand (medium dense, moist) Gray lean clay (stiff, moist)				

Log of Boring B-2-25 (continued)



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Elevation (feet)	Depth (feet)	FIELD DATA				Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
		Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing						
170	205	7	15		42A 42B		SP	Gray poorly graded sand (medium dense, moist)			
175	210	0	14		43 AL, OC		CL	Gray lean clay (stiff, moist)			
180	215	18	4		44 AL, OC			Becomes soft	24		AL (LL=26; PI=9); Organic Content 1.9%
185	220	15	70/10"		45A 45B		SP	Gray poorly graded sand (very dense, moist)			No recovery; followed SPT with modified California sampler to recover 18 inches; rock in shoe AL (LL=38; PI=19); Organic Content 2.8% Vane shear test at Elevation -182: Undisturbed Su = 2,822 psf, Remolded Su = 2,029 psf
							CL	Gray lean clay with sand (very hard, moist)			
190	225	18	60		46			Grades to without sand, becomes hard			
195	230	18	38		47						
200	235	18	31		48						
205	240	18	34		49						

Log of Boring B-2-25 (continued)



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Elevation (feet)	Depth (feet)	FIELD DATA				MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
		Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing				
240		18	31		50				
245									
250		18	35		51				

Boring terminated at 250 feet below ground surface

Notes:

- Where multiple moisture content tests were performed within a single sample, the range of reported results is presented in the Remarks column and the highest reported result is presented in the Moisture Content (%) column.
- Sample was collected from the top or bottom of the piston tube prior to extracting the entire piston sample. Laboratory tests performed were used for screening purposes only and results were not used for USCS classification.

Log of Boring B-2-25 (continued)



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Figure A-45
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