

May 24, 2006

TO: Michele Britton, 4-4776

FROM: Bryan Dias, 4-7440

SUBJECT: I-5 OL-3451
Grand Mound to Maytown Widening
Infiltration Test Report

The Olympic Region Materials Office has completed the requested soils testing for this project located in Thurston County. A total of forty (40) test pits were excavated throughout the project limits using a rubber-tired backhoe. This memo contains a general description of soils encountered as well as recommended long-term infiltration rates. Hydraulic conductivity estimates (inches/hour) were provided at the request of the Project Office.

- Test pit TP-60-06, located west of the Southbound off ramp (infield) at the Maytown I/C consisted of 0 to 4", grass and sod. 4" to 3'0", moist, orange to light brown, silty gravel with pieces of ACP (fill). 3'0" to 8'0", moist, orange to gray, SILT, with gravels, water seeping in at 3'0" below ground elevation.

	<u>Infiltration</u>	<u>Hydraulic Conductivity</u>
4" to 3'0"	0.3 inches/hour	3.6
3'0" to 8'0"	0.3 inches/hour	3.6

- The following soil classifications generally describe the southern portion of the project northward through the Scatter Creek area. 0 to 4" predominantly consist of: grass, sod, and roots. 4" to 3'0", moist, loose, dark brown to black organic fine sandy, slightly silty, gravel. 3'0" to 5'0", moist, loose, light brownish orange, slightly silty, sandy GRAVEL. 5'0" to 8'0", moist, loose, gray, coarse sandy well-graded GRAVEL, with scattered cobbles.

		<u>Infiltration</u>	<u>Hydraulic Conductivity</u>
TP-59-06 Sta. 718+00 80' Lt.	4" to 3'0"	1.2 inches/hour	8.0
	3'0" to 5'0"	9.0 inches/hour	103.5
	5'0" to 8'0"	9.0 inches/hour	247.0

TP-57-06	Sta. 570+00	100' Lt.	4" to 3'0"	1.2 inches/hour	8.0
			3'0" to 5'0"	9.0 inches/hour	103.5
			5'0" to 7'0"	9.0 inches/hour	247.0
TP-55-06	Sta. 559+00	100' Lt.	4" to 2'0"	1.2 inches/hour	8.0
			2'0" to 7'0"	9.0 inches/hour	103.5
TP-54-06	Sta. 555+00	105' Lt.	4" to 4'0"	1.2 inches/hour	8.0
			4'0" to 7'0"	9.0 inches/hour	103.5
TP-53-06	Sta. 550+00	110' Lt.	4" to 4'0"	2.2 inches/hour	13.0
			4'0" to 7'0"	9.0 inches/hour	103.5
TP-52-06	Sta. 540+00	110' Lt.	3" to 3'0"	1.2 inches/hour	8.0
			3'0" to 7'0"	9.0 inches/hour	103.5
TP-49-06	Sta. 510+00	100' Lt.	3" to 3'0"	1.2 inches/hour	8.0
			3'0" to 5'0"	9.0 inches/hour	103.5
			5'0" to 8'0"	9.0 inches/hour	247.0
TP-47-06	Sta. 490+00	75' Lt.	2" to 1'0"	9.0 inches/hour	370.0
			1'0" to 4'0"	2.7 inches/hour	16.6
			4'0" to 8'0"	9.0 inches/hour	247.0
TP-46-06	Sta. 487+00	75' Lt.	4" to 4'0"	9.0 inches/hour	247.0
			4'0" to 8'0"	9.0 inches/hour	247.0
TP-45-06	Sta. 466+25	110' Lt.	3" to 1'0"	1.2 inches/hour	8.0
			1'0" to 7'0"	2.2 inches/hour	13.0
TP-42-06	Sta. 453+50	80' Lt.	2" to 1'0"	1.2 inches/hour	8.0
			1'0" to 3'0"	9.0 inches/hour	103.5
			3'0" to 9'0"	9.0 inches/hour	247.0
TP-41-06	Sta. 449+00	75' Lt.	2" to 9'0"	9.0 inches/hour	247.0
TP-40-06	Sta. 439+00	80' Lt.	2" to 7'0"	9.0 inches/hour	247.0
TP-38-06	Sta. 421+30	110' Lt.	2" to 3'6"	1.2 inches/hour	8.0
			3'6" to 7'0"	9.0 inches/hour	103.5

TP-33-06	Sta. 410+00	100' Lt.	2" to 2'0"	1.2 inches/hour	8.0
			2'0" to 4'0"	9.0 inches/hour	103.5
			4'0" to 7'0"	9.0 inches/hour	247.0
TP-32-06	Sta. 405+00	110' Lt.	4" to 3'0"	1.2 inches/hour	8.0
			3'0" to 7'0"	9.0 inches/hour	103.5
TP-28-06	Sta. 392+00	130' Lt.	2" to 1'0"	1.2 inches/hour	8.0
			1'0" to 3'0"	9.0 inches/hour	103.5
			3'0" to 4'6"	9.0 inches/hour	247.0
			4'6" to 7'0"	9.0 inches/hour	103.5
TP-27-06	Sta. 389+00	115' Lt.	4" to 3'0"	9.0 inches/hour	103.5
			3'0" to 7'0"	9.0 inches/hour	247.0
TP-24-06	Sta. 383+00	200' Lt.	3" to 3'0"	1.2 inches/hour	8.0
			3'0" to 5'0"	9.0 inches/hour	103.5
			5'0" to 7'0"	9.0 inches/hour	247.0
TP-23-06	Sta. 380+00	170' Lt.	3" to 3'0"	1.2 inches/hour	8.0
			3'0" to 5'6"	9.0 inches/hour	103.5
			5'6" to 9'0"	9.0 inches/hour	247.0
TP-20-06	Sta. 10+00	110' Rt.	4" to 1'0"	1.2 inches/hour	8.0
			Note: Water seeping in at 6' 1'0" to 6'0"	9.0 inches/hour	103.5
			6'0" to 7'0"	0.5 inches/hour	2.0
TP-21-06	Sta. 15+00	110' Rt.	4" to 5'0"	9.0 inches/hour	103.5
			5'0" to 7'0"	9.0 inches/hour	247.0
TP-22-06	Sta. 34+00	115' Rt.	4" to 1'0"	1.2 inches/hour	8.0
			1'0" to 2'6"	9.0 inches/hour	103.5
			2'6" to 8'0"	9.0 inches/hour	247.0
TP-25-06	Sta. 384+50	140' Rt.	3" to 1'0"	1.2 inches/hour	8.0
			1'0" to 3'6"	9.0 inches/hour	103.5
			3'6" to 7'0"	9.0 inches/hour	247.0

TP-26-06 Sta. 386+50 270' Rt.	4" to 3'6"	1.2 inches/hour	8.0
	3'6" to 5'0"	9.0 inches/hour	103.5
	5'0" to 7'0"	9.0 inches/hour	370.0
TP-29-06 Sta. 396+00 150' Rt.	4" to 1'0"	1.2 inches/hour	8.0
	1'0" to 4'0"	9.0 inches/hour	103.5
	4'0" to 7'0"	9.0 inches/hour	370.0
TP-30-06 Sta. 401+0 100' Rt.	4" to 1'0"	1.2 inches/hour	8.0
	1'0" to 3'0"	9.0 inches/hour	103.5
	3'0" to 7'0"	9.0 inches/hour	370.0
TP-34-06 Sta. 407+00 110' Rt.	4" to 4'0"	1.2 inches/hour	8.0
	4'0" to 7'0"	9.0 inches/hour	103.5
TP-35-06 Sta. 410+00 110' Rt.	4" to 2'6"	1.2 inches/hour	8.0
	2'6" to 7'0"	9.0 inches/hour	370.0
TP-36-06 Sta. 414+00 100' Rt.	2" to 7'0"	9.0 inches/hour	370.0
TP-37-06 Sta. 419+00 100' Rt.	2" to 7'0"	9.0 inches/hour	370.0
TP-39-06 Sta. 439+00 80' Rt.	3" to 4'6"	1.2 inches/hour	8.0
	4'6" to 7'0"	9.0 inches/hour	103.5
TP-43-06 Sta. 452+00 100' Rt.	3" to 1'0"	1.2 inches/hour	8.0
	1'0" to 7'0"	9.0 inches/hour	103.5
TP-44-06 Sta. 465+00 115' Rt.	3" to 1'0"	1.2 inches/hour	8.0
	1'0" to 5'0"	9.0 inches/hour	103.5
	5'0" to 7'0"	9.0 inches/hour	370.0
TP-48-06 Sta. 490+00 75' Rt.	2" to 8'0"	9.0 inches/hour	247.0
TP-50-06 Sta. 515+85 115' Rt.	3" to 1'6"	1.2 inches/hour	8.0
	1'6" to 5'0"	9.0 inches/hour	103.5
	5'0" to 8'6"	9.0 inches/hour	247.0
TP-51-06 Sta. 526+85 185' Rt.	4" to 3'0"	2.2 inches/hour	13.0
	3'0" to 7'0"	9.0 inches/hour	103.5

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TP-56-06 Sta. 559+00 80' Rt.	2" to 6'0"	9.0 inches/hour	247.0
	6'0" to 8'0"	9.0 inches/hour	370.0
TP-58-06 Sta. 581+00 80' Rt.	4" to 2'6"	1.2 inches/hour	8.0
	2'6" to 4'0"	9.0 inches/hour	103.5
	4'0" to 8'0"	9.0 inches/hour	370.0

BD:tm/TM

If you have any questions, please contact Terry MacAuley at (360) 704-3279.

cc: Don Williams, 4-7365

