



MACTEC ENGINEERING AND CONSULTING, INC.
 3301 ATLANTIC AVENUE
 RALEIGH, NORTH CAROLINA 27604

N.C.D.O.T./AASHTO CLASSIFICATIONS

REPORT ON SAMPLES OF: SOILS FOR QUALITY

MACTEC PROJECT NAME AND NUMBER: Dual Bridges on NC 87 over Reedy Meadow Swamp (6468-04-0650)
 PROJECT: 34467.1.1 (R-2562C) COUNTY: Bladen OWNER: N.C.D.O.T.
 DATE SAMPLED: April 2004 RECEIVED: 5/3/2004 REPORTED BY: MACTEC
 SAMPLED FROM: B1-A RL, B1-B RL
 SUBMITTED BY: MACTEC ENGINEERING AND CONSULTING, INC.
 1992 STANDARD SPECIFICATIONS

TEST RESULTS

Lab Sample No.	SS-12	SS-13	SS-14	SS-15	SS-16	SS-18
Retained 4.75 mm Sieve (%)	0.0	0.0	0.0	0.2	0.0	
Passing 2.00 mm Sieve (%)	100.0	99.4	99.9	92.5	100.0	
Passing 425 µm Sieve (%)	88.2	74.2	27.6	87.6	98.8	
Passing 75 µm Sieve (%)	14.8	32.4	8.4	17.2	75.0	

MINUS 2.00mm FRACTION

SOIL MORTAR - 100%						
Coarse Sand Ret - 250 µm (%)	31.9	43.9	86.3	30.1	2.5	
Fine Sand Ret - 53 µm (%)	54.1	27.7	5.7	53.1	34.5	
Silt 0.05 - 0.005 mm (%)	10.9	7.7	1.0	5.3	23.1	
Clay < 0.005 mm (%)	3.1	20.7	7.0	11.6	39.9	
	100.0	100.0	100.0	100.0	100.0	

Moisture Content (%)	ND	ND	ND	ND	43.3	330.4
Liquid Limit, L.L.	19	31	26	20	57	ND
Plasticity Index, P.I.	NP	16	13	NP	36	ND
AASHTO Classification	A-2-4(0)	A-2-6(1)	A-2-6(0)	A-2-4(0)	A-7-6(27)	ND
Organic Content (%)	ND	ND	ND	ND	ND	43.8

Boring No.	B1-A RL	B1-A RL	B1-A RL	B1-A RL	B1-A RL	B1-B RL	
Station	178+68.9	178+68.9	178+68.9	178+68.9	178+68.9	178+68.1	
Offset	3.2 m RT	3.2 m RT	3.2 m RT	3.2 m RT	3.2 m RT	22.0 m RT	
Alignment	-L- REV	-L- REV	-L- REV	-L- REV	-L- REV	-L- REV	
Depth (m)	From	0.00	8.61	13.17	17.73	22.29	1.70
	to	0.45	9.06	13.62	18.18	22.74	2.15

REMARKS: ND=NOT DETERMINED

Submitted by: Jennifer Bauer
 Laboratory Manager



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 DATE SAMPLED: April 2004 RECEIVED: 5/3/2004 REPORTED BY: MACTEC
 SAMPLED FROM: Channel Bed, Channel Bank
 SUBMITTED BY: MACTEC ENGINEERING AND CONSULTING, INC.
 1992 STANDARD SPECIFICATIONS

TEST RESULTS

Lab Sample No.	S-1	S-2			
Retained 4.75 mm Sieve (%)	0.4				
Passing 2.00 mm Sieve (%)	98.3				
Passing 425 µm Sieve (%)	77.8				
Passing 75 µm Sieve (%)	3.8				

MINUS 2.00mm FRACTION

SOIL MORTAR - 100%						
Coarse Sand Ret - 250 µm (%)	45.9					
Fine Sand Ret - 53 µm (%)	50.6					
Silt 0.05 - 0.005 mm (%)	0.9					
Clay < 0.005 mm (%)	2.6					
	100.0					

Moisture Content (%)	ND	134.7				
Liquid Limit, L.L.	20	ND				
Plasticity Index, P.I.	NP	ND				
AASHTO Classification	A-3	ND				
Organic Content (%)	ND	17.0				

Boring No.	Channel Bed	Channel Bank			
Station	178+77	178+74.3			
Offset	3.02 m RT	2.24 m Rt			
Alignment	-L- REV	-L- REV			
Depth (m)	From	0.00	0.00		
	to	0.15	0.15		

REMARKS: ND=NOT DETERMINED

Submitted by: Jennifer Bauer
 Laboratory Manager