



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: BRIDGE 78 OVER OLD FORD CREEK ON SR 1456 (30725-2-5443)
PROJECT: 8.2561301 (B-3875) COUNTY: MOORE OWNER: N.C.D.O.T.
DATE SAMPLED: JANUARY, 2003 RECEIVED: 1/20/03 REPORTED BY: 1/26/03
SAMPLED FROM: B1-A, B2-A, EB1-A
SUBMITTED BY: MACTEC ENGINEERING & CONSULTING, INC.

1992 STANDARD SPECIFICATIONS

TEST RESULTS

Lab Sample No.		SS-1	SS-2	SS-3	SS-4
Retained 4.75 mm Sieve (%)		26.3	4.0	6.8	4.6
Passing 2.00 mm Sieve (%)		41.0	91.9	89.2	94.4
Passing 425 µm Sieve (%)		16.3	78.8	78.8	85.3
Passing 75 µm Sieve (%)		10.3	57.3	66.6	73.5

MINUS 2.00mm FRACTION

SOIL MORTAR - 100%					
Coarse Sand Ret - 250 µm (%)		66.8	24.4	16.1	12.8
Fine Sand Ret - 53 µm (%)		9.5	16.0	12.8	14.0
Silt 0.05 - 0.005 mm (%)		12.9	27.7	48.9	39.1
Clay < 0.005 mm (%)		10.7	31.9	22.2	34.1
		100.0	100.0	100.0	100.0

Moisture Content (%)		ND	18.3	25.3	30.9
Liquid Limit, L.L.		ND	31	33	41
Plasticity Index, P.I.		NP	15	9	13
AASHTO Classification		A-1-a	A-6(6)	A-4(5)	A-7-6(10)
Organic Content (%)		ND	ND	ND	ND

Boring No.		B1-A	B1-A	B2-A	EB1-A
Station		17+30	17+30	17+95	16+90
Offset		12 ft LT	12 ft LT	12 ft LT	15 ft LT
Alignment		-L-	-L-	-L-	-L-
Depth (m)	From	2.8	3.2	0.0	4.1
	to	3.2	4.3	1.5	5.6

REMARKS: ND = NOT DETERMINED

Reviewed by:



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PROJECT: 8.2561301 (B-3875) COUNTY: MOORE OWNER: N.C.D.O.T.
DATE SAMPLED: JANUARY, 2003 RECEIVED: 1/20/03 REPORTED BY: 1/26/03
SAMPLED FROM: EB1-A, EB2-A, EB2-B, CHANNEL
SUBMITTED BY: MACTEC ENGINEERING & CONSULTING, INC.

1992 STANDARD SPECIFICATIONS

TEST RESULTS

Lab Sample No.		SS-5	SS-6	SS-7	S-1
Retained 4.75 mm Sieve (%)		0.0	16.6	1.4	86.8
Passing 2.00 mm Sieve (%)		100.0	76.5	95.6	7.2
Passing 425 µm Sieve (%)		98.2	58.6	81.8	1.7
Passing 75 µm Sieve (%)		83.6	39.1	63.1	0.8

MINUS 2.00mm FRACTION

SOIL MORTAR - 100%					
Coarse Sand Ret - 250 µm (%)		5.7	33.6	22.2	83.3
Fine Sand Ret - 53 µm (%)		13.7	19.7	15.2	5.6
Silt 0.05 - 0.005 mm (%)		45.8	29.7	33.6	4.2
Clay < 0.005 mm (%)		34.8	17.0	29.1	6.9
		100.0	100.0	100.0	100.0

Moisture Content (%)		24.9	14.8	25.5	ND
Liquid Limit, L.L.		29	36	44	NP
Plasticity Index, P.I.		9	9	15	NP
AASHTO Classification		A-4(6)	A-4(1)	A-7-6(9)	A-1-a
Organic Content (%)		ND	ND	ND	ND

Boring No.		EB1-A	EB2-A	EB2-B	CHANNEL
Station		16+90	18+50	18+50	17+78
Offset		15 ft LT	19 ft LT	13 ft LT	15 ft LT
Alignment		-L-	-L-	-L-	-L-
Depth (m)	From	14.1	0.0	0.0	0.0
	to	15.6	1.5	1.5	0.5

REMARKS: ND = NOT DETERMINED, NP = NON-PLASTIC

Reviewed by: