

THE ROBERT B. BALTER COMPANY.

2012 MATERIALS TESTING SCHEDULE

PROCEDURE	AASHTO	ASTM	USACE
LABORATORY QUALIFICATIONS			
LABORATORY EVALUATION STANDARD	R18	E-329, D3666, D3740, C1077, C1093	ER 1110-1-261, E-329, C1077, D3740
SAMPLE PREPARATION			
DRY SAMPLE PREPARATION	T87	D421	D421
SHELBY TUBE PREPARATION			
LABORATORY MANAGER (PER HOUR)			
LABORATORY TECHNICIAN (PER HOUR)			
SOIL INDEX PROPERTIES			
WATER CONTENT	T265	D2216	D2216
ATTERBERG LIMITS (Liquid and Plastic Limits)	T89/T90	D4318	D4318
SHRINKAGE LIMIT (Mercury Method)	T92	D427	n/a
SHRINKAGE LIMIT (Wax Method)	n/a	D4943	n/a
% PASSING NO. 200	T11	D1140	D1140
% PASSING NO. 270 (USDA)	n/a	n/a	n/a
% SOLIDS	n/a	n/a	n/a
SIEVE ANALYSIS	T88	D422	D422
SIEVE ANALYSIS AND HYDROMETER	T88	D422	D422
HYDROMETER	T88	D422	D422
ORGANIC CONTENT	T267	D2974	n/a
SPECIFIC GRAVITY	T100	D854	n/a
UNIT WEIGHT	n/a	n/a	n/a
POCKET PENETROMETER	n/a	n/a	n/a
SOIL CLASSIFICATION - USCS	n/a	D2487	D2487
SOIL CLASSIFICATION - Visual/Manual	n/a	D2488	D2488
SOIL CLASSIFICATION - For Highway Construction Purposes	M145-1	D3282	n/a
SOIL COMPACTION AND STABILITY			
STANDARD PROCTOR	T99	D698	D698
STANDARD PROCTOR w/ Cement	T134	D558	D558
STANDARD PROCTOR w/ Lime	n/a	n/a	n/a
MODIFIED PROCTOR	T180	D1557	D1557
MODIFIED PROCTOR w/ Cement	n/a	D558	n/a
MODIFIED PROCTOR w/ Lime	n/a	n/a	n/a
CBR	T193	D1883	D1883
CBR w/ Cement	T193	D1883	D1883
CBR w/Lime	n/a	n/a	n/a
SOIL CORROSIIVITY			
pH	T289	G51	n/a
RESISTIVITY (1 point, as-received or saturated)	T288	G57	n/a
RESISTIVITY (2 points, as-received and saturated)	T288	G57	n/a
MINIMUM RESISTIVITY (multiple points)	T288	G57	n/a
CHLORIDES	T291	n/a	n/a
SULPHIDES	n/a	n/a	n/a
WATER SOLUABLE SULFATE ION	T290	C1580	n/a
SOIL PERMEABILITY			
PERMEABILITY - CONSTANT HEAD	T215	D2434	n/a
PERMEABILITY - FLEXIBLE WALL	n/a	D5084	D5084
REMOLDED PERMEABILITY- FLEXIBLE WALL	n/a	D5084	D5084



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SOIL STRENGTH AND COMPRESSIBILITY			
CONSOLIDATION UP TO 32 tsf	T216	D2435	D2435
CONSOLIDATION UP TO 64 tsf	T216	D2435	D2435
CONSOLIDATION - Additional Cycle (Unload-Reload)	T216	D2435	D2435
ONE-DIMENSIONAL SWELL	n/a	D4546	D4546
UNCONFINED COMPRESSION	T208	D2166	D2166
UNCONFINED COMPRESSION TEST OF SOIL-LIME MIXTURE	T220	D5702	n/a
DIRECT SHEAR w/out Residual cycles up to 0.01 in/min rate of Shearing Rate	T236	D3080	D3080
DIRECT SHEAR w/out Residual cycle slower than 0.01 in/min Shearing Rate	T236	D3080	D3080
DIRECT SHEAR w/ 5 Residual cycles up to 0.01in/min Shearing Rate	T236	D3080	D3080
DIRECT SHEAR w/ 5 Residual cycles slower than 0.01in/min rate of Shearing	T236	D3080	D3080
DIRECT SHEAR - Remolded w/o Residual cycle up to 0.01in/min Shearing Rate	T236	D3080	D3080
DIRECT SHEAR - Remolded w/o Residual cycle slower than 0.01in/min Shearing Rate	T236	D3080	D3080
TRIAXIAL - UU	T296	D2850	D2850
TRIAXIAL - CU	T297	D4767	D4767
TRIAXIAL - CD	T297	D4767	D4767
TRIAXIAL TEST VARIATIONS (upon request)	n/a	n/a	n/a
ROCK STRENGTH AND COMPRESSIBILITY			
ROCK SPECIFIC GRAVITY	n/a		n/a
UNCONFINED COMPRESSION w/out Stress-Strain	n/a	D2938	n/a
UNCONFINED COMPRESSION w/ Stress-Strain	n/a	D2938	n/a
INDIRECT (BRAZILIAN) TENSILE STRENGTH	n/a	D3967	n/a
CERCHAR ABRASIVITY	n/a	n/a	n/a
PUNCH PENETRATION	n/a	n/a	n/a
DIRECT SHEAR - Intact or Joint (single point, peak and residual)	n/a	D5607	n/a
DIRECT SHEAR - Intact or Joint (Per Sample up to 3 residual points)	n/a	D5607	n/a
TRIAXIAL COMPRESSIVE STRENGTH - peak load only	n/a	D2664	n/a
TRIAXIAL COMPRESSIVE STRENGTH - stress-strain, Young Modulus, Poisson's Ratio	n/a	D5407	n/a
DIRECT TENSILE STRENGTH	n/a	D2936	n/a
POINT LOAD TEST	n/a	D5731	n/a
MODULUS OF RUPTURE	n/a	C99	n/a
ROCK HARDNESS BY REBOUND HAMMER	n/a	D5873	n/a
AGGREGATE			
REDUCING FIELD SAMPLES	T248	C702	C702
% PASSING NO. 200	T11	C117	C117
UNIT WEIGHT	T19	C29	C29
SIEVE ANALYSIS	T27	C136	C136
SPECIFIC GRAVITY OF COARSE AGGREGATE	T85	C127	C127
SPECIFIC GRAVITY OF FINE AGGREGATE	T84	C128	C128
WATER CONTENT	T255	C566	C566
LOS ANGELES ABRASION	T96	C131	n/a
FLATNESS AND ELONGATION	n/a	D4791	n/a
ORGANIC IMPURITIES IN FINE AGGREGATE	T21	C40	C40



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PROCEDURE	AASHTO	ASTM	USACE
CONCRETE, MASONRY, MORTAR			
COMPRESSIVE STRENGTH - CONCRETE CYLINDERS	T23	C39/C39M	C39/C39M
COMPRESSIVE STRENGTH OF CONCRETE CORES (2 Cuts and Capping)	n/a	C1542/C1542M	n/a
GROUT CUBES (2X2X2)	n/a	C942	n/a
GROUT PRISM (3X3X6)	n/a	C1019	C1019
CONCRETE MASONRY PRISM	n/a	C1314	n/a
CONCRETE MASONRY PRISM (Special Loading Priced Individually)	n/a	C1314	n/a
CONCRETE MASONRY UNITS (CMU's) (including Compression & Absorption; multiple blocks needed for average unit)	n/a	C140	C140
MORTAR CUBES	n/a	C109/C780	n/a
PETROGRAPHIC EXAMINATION	n/a	C295	n/a
SPLITTING TENSILE STRENGTH	T198	C496/C496M	C496/C496M
FLEXURAL STRENGTH BEAMS - CENTER POINT	T177	C293	n/a
FLEXURAL STRENGTH FOR BEAM -THIRD POINT	T97	C78	n/a
CHLORIDE ION	n/a	C1152/C1152M	n/a
COMPRESSIVE STRENGTH OF CYLINDERS	T22		n/a
MOIST CABINETS, MOIST ROOMS, AND WATER STORAGE TANKS USED IN TESTING OF HYDRAULIC CEMENTS AND CONCRETES	n/a	n/a	C511
CAPPING CYLINDRICAL CONCRETE SPECIMENS		n/a	C617
STANDARD PRACTICE FOR USE OF UNBONDED CAPS IN DETERMINATION OF COMPRESSIVE STRENGTH OF HARDENED CONCRETE CYLINDERS	n/a	C1231	C1231
STANDARD TEST METHOD FOR PRECONSTRUCTION AND CONSTRUCTION EVALUATION OF MORTARS FOR PLAIN AND REINFORCED UNIT MASONRY	n/a	C780	C780
STANDARD PRACTICE FOR CAPPING CONCRETE MASONRY UNITS, RELATED UNITS AND MASONRY PRISMS FOR COMPRESSION TESTING	n/a	C1552	C1552
FIREPROOFING			
FIREPROOFING DENSITY	n/a	E605	n/a
BITUMINOUS/HOT MIX ASPHALT			
BULK SPECIFIC GRAVITY NON PARAFFIN COATED	T166	D2726	D2726
BULK SPECIFIC GRAVITY OF PARAFFIN SPECIMENS	T275	D1188	
THEORETICAL MAXIMUM SPECIFIC GRAVITY AND DENSITY OF BITUMINOUS PAVING MIXTURES	T209	D2041	D2041
PERCENT AIR VOIDS IN COMPACTED BITUMINOUS PAVING MATERIAL	T269	D3203	D3203
EXTRACTION/GRADATION (CORES)	T319	n/a	n/a
MARSHALL STABILITY	T245	n/a	n/a
GYRATORY COMPACTION	T312	n/a	n/a
SPECIAL TESTS PERFORMED WITH SPECIAL ARRANGEMENTS			

Balter's AMRL R-18 Certified Laboratory review on AMRL R-18 Laboratories Website (*follow links below*)
[Owings Mills, MD Laboratory](#) [Sterling, VA Laboratory](#)

Balter is a technical representative and voting member of:
 ASTM E36 for Construction Inspection and Testing
 NICET Construction Materials Development Committee
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Geotechnical Engineering, Subsurface Exploration
 Construction Inspection and Materials Testing