

ITEMS 302 AND 448. PG 64-22. AS PER PLAN

USE OF RECLAIMED ASPHALT CONCRETE PAVEMENT IS LIMITED TO A MAXIMUM OF 10% FOR SURFACE COURSES. USE OF RECLAIMED ASPHALT SHINGLES ARE **NOT** PERMITTED IN ANY ASPHALT CONCRETE COURSE.

THE COARSE VIRGIN AGGREGATE FOR THE SURFACE COURSE SHALL BE A BLEND OF SIXTY PERCENT (60%) MINIMUM CRUSHED AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO WITH THE REMAINING PERCENTAGE COMPRISED OF CRUSHED CARBONATE STONE (CCS). THE COARSE AGGREGATE FOR ANY OTHER COURSE SHALL BE CRUSHED CARBONATE STONE (CCS) AND/OR CRUSHED AIR COOLED BLAST FURNACE SLAG (ACBFS).

PRIOR TO PRODUCING THE ASPHALT CONCRETE FOR THIS CONTRACT, SUBMIT A JOB MIX FORMULA (JMF) FOR APPROVAL BY THE ENGINEER. USE A JMF THAT MEETS ALL REQUIREMENTS ESTABLISHED IN THE CONTRACT AND HAS PREVIOUSLY BEEN APPROVED FOR USE ON ODOT WORK. WHERE NO PREVIOUSLY APPROVED (BY ODOT) JMF IS AVAILABLE, DEVELOP A JMF MEETING ALL CRITERIA ESTABLISHED IN THE CONTRACT AND HAVE IT REVIEWED AND APPROVED BY AN INDEPENDENT TESTING LABORATORY PRIOR TO SUBMISSION TO THE ENGINEER. THE INDEPENDENT TESTING LABORATORY SHALL HAVE APPROPRIATELY APPROVED PERSONNEL AND TESTING EQUIPMENT PER ODOT SUPPLEMENT 1041.

SAMPLING FOR VERIFICATION ACCEPTANCE (403.06.A) SHALL BE PERFORMED IN ACCORDANCE WITH ODOT SUPPLEMENT 1035 FOR ALL ITEM 448 MIXES.

UNLESS OTHERWISE DIRECTED/APPROVED BY THE ENGINEER, CONDUCT DENSITY GAUGE QUALITY CONTROL TESTING ON BOTH THE ITEM 448 ASPHALT CONCRETE SURFACE COURSE AND INTERMEDIATE COURSE MATS ACCORDING TO ODOT SUPPLEMENT 1055 REGARDLESS OF THE NUMBER OF LANES OR LENGTH OF CONTINUOUS PAVING.

ITEM 499 CONCRETE-GENERAL. AS PER PLAN

499.01 DESCRIPTION.

THESE MODIFICATIONS PERTAIN TO THE PROPORTIONING REQUIREMENTS FOR PORTLAND CONCRETE MIX DESIGNS, MIXING AND CONTROLS OF PORTLAND CEMENT CONCRETE FOR ALL COMBINATION CURB AND GUTTER (609) AND SIDEWALK (608) USED.

499.02 - MATERIALS.

USE OF SLAG MODIFIED PORTLAND CEMENT (701.09), GROUND GRANULATED BLAST FURNACE SLAG (701.11), FLY ASH (701.13) OR RECYCLED CONCRETE AGGREGATE (RCA) (SUPPLEMENT 1117) IS **NOT** PERMITTED.

499.03 - CONCRETE MIX DESIGNS.

FOR THE COMBINATION CURB AND GUTTER (609), CLASS QC MS AND CLASS QC FS MIX DESIGNS HAVING AN AGGREGATE GRADATION PER 1126.02A (QC 1 MIX DESIGN) OF SUPPLEMENT 1126 ARE REQUIRED.

FOR CONCRETE WALK (608), CLASS QC MISC. MIX DESIGNS USING AN AGGREGATE GRADATION PER 1126.02A (QC 1 MIX DESIGN) OF SUPPLEMENT 1126 IS REQUIRED.

499.04 - ADJUSTMENTS AND CONTROLS.

ASSURE/CERTIFY THAT THE REQUIREMENTS OF 499.04 (4) ARE STRICTLY FOLLOWED WITHOUT EXCEEDING THE MAXIMUM WATER-CEMENTITIOUS RATIO OF THE JMF.

499.07 - BATCH PLANT TICKETS.

IN ADDITION TO ALL REQUIREMENTS OF 499.07, THE BATCH PLANT TICKETS MUST DISTINCTLY REFLECT ALL REQUIREMENTS STATED ABOVE IN SECTIONS 499.02, 499.03 AND 499.04.

ITEM 608 - 4" CONCRETE WALK. AS PER PLAN

THE "CLASS QC MISC." OR "CLASS QC 1" CONCRETE USED SHALL CONFORM TO THE REQUIREMENTS OF "ITEM 499 CONCRETE-GENERAL, AS PER PLAN". ALL CONCRETE WALK SHALL BE A MINIMUM OF FOUR (4) INCHES THICK AND HAVE A TWO (2) INCH COMPACTED SCREENINGS BED WHICH MEETS THE REQUIREMENTS OF 703.10 (LIMITED TO CRUSHED STONE). PER 608.03 (C), IT IS REQUIRED THAT 1/2 INCH THICK EXPANSION JOINT MATERIAL (705.03) BE INSTALLED BETWEEN THE WALK AND THE BACK OF CURB OR ANY OTHER FIXED OBJECT. IN ADDITION TO THE LOCATIONS SPECIFIED UNDER 608.03(C), TRANSVERSE EXPANSION JOINTS SHALL BE CONSTRUCTED AT INTERVALS OF NOT MORE THAN TWENTY-FIVE (25) TO THIRTY (30) FEET.

THE EXPANSION JOINT FILLER (705.03) SHALL BE PLACED AT THE TRANSVERSE EXPANSION JOINTS FOR THE FULL DEPTH/WIDTH OF THE CONCRETE WALK AND SHALL BE TRULY NORMAL TO GRADE. THE TOP 1/2 INCH OF THE EXPANSION JOINT PLACED BETWEEN THE WALK AND BACK OF CURB SHALL BE SEALED WITH 705.04 JOINT SEALER. THE FINAL SURFACE SHALL BE TEXTURED BY USE OF AN ACCEPTED BROOM SO AS TO PRODUCE A UNIFORM, GRITTY, TRANSVERSE TEXTURE, AFTER WHICH, THE CONTRACTOR IS REQUIRED TO RETRACE THE PREVIOUSLY FORMED JOINTS AND OUTSIDE EDGES OF WALK.

ITEM 608 - CURB RAMP. TYPE A1. AS PER PLAN

THIS WORK SHALL CONSIST OF CONSTRUCTING "AMERICANS WITH DISABILITIES ACT (ADA)" COMPLIANT CURB RAMPS IN ACCORDANCE WITH ODOT'S STANDARD CONSTRUCTION DRAWING BP-7.1 (EXCEPT AS MODIFIED HEREIN), AT THE LOCATIONS SHOWN ON THE PLANS OR AT LOCATIONS DETERMINED BY THE ENGINEER.

TYPICALLY, SIDEWALKS ARE TO BE EXTENDED AT INTERSECTIONS TO ALLOW FOR THE INSTALLATION OF "TYPE A1 CURB RAMPS" PER BP-7.1 WITH 3:1 "FLARED SIDES". SEE PAVEMENT DETAILS, SHEET NO. 2 OF 4, FOR TYPICAL INSTALLATION LOCATIONS AT INTERSECTIONS.

THE "CLASS QC MISC." OR "CLASS QC 1" CONCRETE USED SHALL CONFORM TO THE REQUIREMENTS OF "ITEM 499 CONCRETE-GENERAL, AS PER PLAN". THE CURB RAMP WALK AND DETECTABLE WARNING CONCRETE BASE SHALL BE A MINIMUM OF SIX (6) INCHES THICK AND A TWO (2) INCH COMPACTED SCREENINGS BED (AS SPECIFIED UNDER "ITEM 608 - 4" CONCRETE WALK, AS PER PLAN) SHALL BE FURNISHED AND PLACED BENEATH ALL CURB RAMP AREAS.

O.D.O.T. APPROVED DETECTABLE WARNING MATERIAL(S)/PRODUCT(S) MUST ALSO BE PRE-APPROVED BY THE TOWNSHIP.

ITEM 609 - COMBINATION CURB AND GUTTER. TYPE 2 OR 3. AS PER PLAN

609.02 MATERIALS.

THE "CLASS QC 1" OR "CLASS QC MISC." CONCRETE USED SHALL CONFORM TO THE REQUIREMENTS OF "ITEM 499 CONCRETE-GENERAL, AS PER PLAN".

PROVIDE 705.04 JOINT SEALER TO FILL CONTRACTION JOINTS.

609.04 CAST-IN-PLACE COMBINATION CURB AND GUTTER.

A. FORMS AND JOINTS. IT **IS** REQUIRED TO SEAL (705.04) ALL TRANSVERSE JOINTS IN THE CAST-IN-PLACE COMBINATION CURB AND GUTTER.

B. PLACING. THE COMBINATION CURB AND GUTTER SHALL BE CONSTRUCTED PER BP-5.1 EXCEPT THAT THE CROSS SLOPE SHALL BE ONE-HALF (1/2) INCH PER FOOT (0.04). THE GUTTER PLATE THICKNESS (T) SHALL BE NINE (9) INCHES FOR RESIDENTIAL STREETS AND A MINIMUM OF TWELVE (12) INCHES FOR COMMERCIAL STREETS, RESPECTIVELY MATCHING THE DEPTHS OF THE FLEXIBLE PAVEMENT COURSES (302 AND 448).

F. PLACEMENT OF ASPHALT CONCRETE. AFTER THE CONCRETE COMBINATION CURB AND GUTTER HAS SUFFICIENTLY CURED AND JUST PRIOR TO PLACING AND COMPACTING THE ASPHALT CONCRETE PAVEMENT COURSES, THE VERTICAL CONTACT SURFACE OF THE GUTTER SHALL BE PAINTED WITH A THIN, UNIFORM COATING OF ASPHALT MATERIAL PER THE REQUIREMENTS OF 401.14.

ITEM 659 - SEEDING AND MULCHING. AS PER PLAN

WHEN THE ABOVE ITEM IS CALLED FOR ON THE PLANS, ALL APPLICABLE PROVISIONS OF ITEM 659, AS SET FORTH IN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, SHALL APPLY UNLESS MODIFIED HEREIN.

659.07 SEEDS. UNLESS OTHERWISE DIRECTED/APPROVED BY THE ENGINEER, HIGH QUALITY GERMINATION RATES ARE REQUIRED.

659.09 NATIVE GRASSES AND WILD FLOWERS. UNLESS OTHERWISE DIRECTED/APPROVED BY THE ENGINEER, CLASS 1-LAWN MIXTURE SHALL BE USED.

659.10 SITE PREPARATION. IN ADDITION TO "AREAS IN FRONT OF RESIDENCES, COMMERCIAL PROPERTIES, ETC." REFERRED TO IN 659.10(A), THE SPECIAL PREPARATION SHALL BE EXTENDED TO ENCOMPASS ALL LAWNS AND/OR LAWN-LIKE AREAS AS DETERMINED BY THE ENGINEER. REMOVE ALL STONES 1-INCH OR GREATER BY APPROVED METHODS/EQUIPMENT SUCH AS "ROCK HOUNDING", RAKING, ETC.

659.11 PLACING TOPSOIL. TOPSOIL SHALL BE PLACED AND SPREAD TO A MINIMUM COMPACTED DEPTH OF TWO (2) INCHES. THE FINISHED TOPSOIL SURFACES SHALL BE SEEDED AND MULCHED WITHIN SEVENTY-TWO (72) HOURS OF THEIR ACCEPTED COMPLETION.

659.13 MULCHING OPERATION. UNLESS OTHERWISE DIRECTED OR APPROVED BY THE ENGINEER, STRAW MULCH (PER 659.14) OR COMPOST MULCH (PER 659.16) SHALL BE USED.

659.17 WATERING. IN ADDITION TO THE REQUIREMENTS OF 659.17, THE SEED BED SHALL BE KEPT ACCEPTABLY MOIST UNTIL THE SEED HAS GERMINATED; ALL AT THE DIRECTION OR APPROVAL OF THE ENGINEER.

IN ADDITION TO THE "ITEM 659-SEEDING AND MULCHING, AS PER PLAN" AND THE "ITEM 659-TOPSOIL" WORK SPECIFIED ABOVE, THE FOLLOWING ITEMS/WORK SHALL BE PERFORMED, AS NECESSARY:

- ITEM 659 - SOIL ANALYSIS TEST, ITEM 659 - COMMERCIAL FERTILIZER, ITEM 659 - LIME, ITEM 659 - WATER, AND ITEM 659 - MOWING.

ITEM 660 - SODDING UNSTAKED. AS PER PLAN

THE PREPARATION OF SODDED AREAS SHALL INCLUDE TWO (2) INCHES OF TOPSOIL FURNISHED AND PLACED BENEATH THE SOD IN ACCORDANCE WITH ITEM 659.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY ITEM 616 WATER AND ITEM 616 CALCIUM CHLORIDE FOR DUST CONTROL AS DIRECTED BY THE ENGINEER.

MONUMENT ASSEMBLIES

AT THE LOCATIONS SHOWN ON THE PLANS, MONUMENT ASSEMBLIES CONFORMING TO THE CUYAHOGA COUNTY ENGINEER'S CONSTRUCTION DRAWING MB-2C SHALL BE ENTIRELY INSTALLED, INCLUDING THE "MONUMENT PIN", BY THE CONTRACTOR UNDER THE SUPERVISION OF A LICENSED SURVEYOR.

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| CUYAHOGA COUNTY ENGINEER | |
| MINIMUM CONSTRUCTION STANDARDS FOR TOWNSHIP SUBDIVISION STREETS (LOCAL) TYPE FLEXIBLE PAVEMENT | DATE 08-28-07 10-10-08 08-01-09 07-19-10 06-16-11 11-15-13 |
| STANDARD CONSTRUCTION DRAWING | DWG. NO. 4 OF 4 |