

STRUCTURAL GENERAL NOTES

ITEM 511, CLASS HP CONCRETE, BRIDGE DECK, AS PER PLAN
 ITEM 511, CLASS HP CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN
 ITEM 511, CLASS HP CONCRETE, SUBSTRUCTURE, AS PER PLAN
 ITEM 511, CLASS HP CONCRETE, SUPERSTRUCTURE, TEST SLAB

ITEM 511, CLASS HP CONCRETE, BRIDGE DECK, AS PER PLAN
 ITEM 511, CLASS HP CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN
 ITEM 511, CLASS HP CONCRETE, SUBSTRUCTURE, AS PER PLAN
 ITEM 511, CLASS HP CONCRETE, SUPERSTRUCTURE, TEST SLAB (CONT.)

GENERAL REQUIREMENTS:

THE PROVISIONS OF ITEM 511 SHALL APPLY EXCEPT AS NOTED BELOW.

MIX OPTIONS:

ALL SUPERSTRUCTURE, BRIDGE DECK, PARAPET, MEDIAN BARRIER, AND APPROACH SLAB CONCRETE SHALL BE THIS MIX (HP4, AS PER PLAN). ALL OTHER STRUCTURE CONCRETE SHALL BE THIS MIX OR MIX 2 CONCRETE.

THE FOLLOWING PROPORTIONS WILL BE USED AS A STARTING MIX DESIGN:

CONCRETE TABLE
 QUANTITIES PER CUBIC YARD
 AGGREGATES (SSD)

HP4, AS PER PLAN (GGBF SLAG + MICROSILICA)			
AGGREGATE TYPE	GRAVEL	LIMESTONE	SLAG
FINE AGGREGATE (LB)	1245	1245	1245
* #8 COARSE AGGREGATE (LB)	360	360	315
* #57 COARSE AGGREGATE (LB)	1315	1335	1155
TOTAL (LB)	2920	2940	2715
CEMENT CONTENT (LB)	400	400	400
GGBF SLAG (LB)	170	170	170
MICRO-SILICA (LB)	30	30	30
WATER TO CEMENTITIOUS RATIO +/- .01	0.43	0.43	0.43
AIR CONTENT +/- 2%	7	7	7

* ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED PER ASTM C127

THE WEIGHTS SPECIFIED IN THE CONCRETE TABLE WERE CALCULATED FOR MATERIALS OF THE FOLLOWING BULK SPECIFIED GRAVITIES (SSD): NATURAL SAND AND GRAVEL 2.62, LIMESTONE SAND 2.68, LIMESTONE 2.65, SLAG 2.30, FLY ASH 2.65, GGBF SLAG 2.90, MICROSILICA SOLIDS 2.20, AND PORTLAND CEMENT 3.15. FOR AGGREGATES OF SPECIFIED GRAVITIES DIFFERING MORE THAN PLUS OR MINUS 0.02 FROM THESE, THE WEIGHTS IN THE TABLE WILL BE CORRECTED.

PARAPET CONSTRUCTION (FORMED AND Poured):

FORMS SHALL NOT BE REMOVED UNTIL AT LEAST 2 HOURS AFTER THE FINAL SET. DETERMINATION OF THE FINAL SET SHALL BE AS PER ASTM C266 (GILLMORE NEEDLE). TESTING SHALL BE PERFORMED BY THE CONTRACTOR AT NO COST TO THE STATE.

THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF FORMED CONCRETE PARAPETS SHALL BE 6 INCHES, WITH A MAXIMUM SLUMP OF 8 INCHES.

CRACK CONTROL JOINTS:

FOR BOTH SLIP FORMED AND FORMED AND Poured PARAPETS, THE CONTRACTOR SHALL CONSTRUCT 1 1/2" DEEP AND 1/4" WIDE CRACK CONTROL JOINTS SPACED AT A MINIMUM OF 6 FT AND A MAXIMUM OF 10 FT ON CENTER. THE CRACK CONTROL JOINTS SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE TOP OF THE CONCRETE DECK. THE CONTRACTOR MAY EITHER FORM THE CRACK CONTROL JOINTS IN THE FORM LINERS, OR, WITHIN 24 HOURS OF PLACEMENT, SAW CUT THE CRACK CONTROL JOINTS IN WITH THE USE OF AN EDGE GUIDE, FENCE, OR JIG WHICH IS REQUIRED TO ENSURE THAT THE CUT JOINT IS STRAIGHT, TRUE, AND ALIGNED ON ALL FACES OF THE PARAPET. THE ENTIRE LENGTH OF EACH CONTROL JOINT SHALL BE SEALED TO A MINIMUM DEPTH OF 1 1/2" WITH POLYURETHANE OR POLYMERIC MATERIAL CONFORMING TO ASTM C920, TYPE S.

BASIS OF PAYMENT: PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT BID PRICE FOR:

ITEM	UNITS	DESCRIPTION
511E50001	CUBIC YARD	CLASS HP CONCRETE, BRIDGE DECK, AS PER PLAN
511E50101	CUBIC YARD	CLASS HP CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN
511E50201	CUBIC YARD	CLASS HP CONCRETE, SUBSTRUCTURE, AS PER PLAN
511E51001	CUBIC YARD	CLASS HP CONCRETE, SUPERSTRUCTURE, AS PER PLAN
511E52000	LUMP	CLASS HP CONCRETE, TEST SLAB

MAINTENANCE OF TRAFFIC

FOR MAINTENANCE OF TRAFFIC NOTES AND DETAILS, REFER TO SHEETS 47 THRU 84 OF 1679.

ITEM 503, COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN

THE DESIGN SHOWN ON THE PLANS FOR TEMPORARY SUPPORT OF EXCAVATION IS ONE REPRESENTATIVE DESIGN THAT MAY BE USED TO CONSTRUCT THE PROJECT. THE CONTRACTOR MAY CONSTRUCT THE DESIGN SHOWN ON THE PLANS OR PREPARE AN ALTERNATE DESIGN TO SUPPORT THE SIDES OF EXCAVATIONS. IF CONSTRUCTING AN ALTERNATE DESIGN FOR TEMPORARY SUPPORT OF EXCAVATION, PREPARE AND PROVIDE PLANS IN ACCORDANCE WITH C&MS 501.05. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CONTRACT LUMP SUM PRICE FOR COFFERDAMS, CRIBS, AND SHEETING. NO ADDITIONAL PAYMENT WILL BE MADE FOR PROVIDING AN ALTERNATE DESIGN.

ITEM 512 - SEALING OF CONCRETE SURFACES


THE COLOR OF THE CONCRETE SEALER FOR PARAPETS, ABUTMENTS AND PIERS SHALL BE BUFF, FEDERAL COLOR NO. 595B-27722.

ITEM 514 - PAINTING

NEW STEEL SHALL BE CLEANED AND PRIME PAINTED IN THE SHOP AND FIELD PAINTED WITH AN INTERMEDIATE AND FINISH COAT OF PAINT.

PAINT PROPOSED BEAMS LIGHT BLUE, GLOSS, FCN 595B-15450.

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DESIGN AGENCY  ARCADIS U.S., Inc. 1100 Superior Avenue, Suite 1250 Cleveland, Ohio 44114 Tel: 216-781-6177 Fax: 216-781-6243 www.arcadis-us.com	DATE: 12/07 REVISION: RBB STRUCTURE FILE NUMBER: 4300750
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