PRECAST SUPERSTRUCTURE NOTES – CON'D

(42) SURFACES OF FULL DEPTH DECK PANELS AT SHEAR KEY CONNECTIONS SHALL BE PREPARED BY A SAND-BLAST FINISH TO REMOVE ALL CONTAMINANTS THAT COULD INTERFERE WITH ADHESION AND TO DEVELOP A SURFACE ROUGHNESS TO PROMOTE MECHANICAL BOND BETWEEN STRUCTURAL CLOSURE POUR MATERIAL AND DECK PANEL CONCRETE.

(43) MEMBERS THAT SUSTAIN DAMAGE OR SURFACE DEFECTS DURING FABRICATION, HANDLING, STORAGE, HAULING, OR ERECTION ARE SUBJECT TO REVIEW AND REJECTION. SUBMIT PROPOSED WRITTEN REPAIR PROCEDURES AND OBTAIN APPROVAL BEFORE PREFORMING REPAIRS. REPAIR WORK MUST REESTABLISH THE MEMBER'S STRUCTURAL INTEGRITY, DURABILITY, AND AESTHETICS TO SATISFACTION OF THE ENGINEER.

(44) THERE SHALL BE A MINIMUM OF 4 LIFTING DEVICES PER FULL DEPTH DECK PANEL UNIT.

(45) THE DESIGN OF THE LIFTING DEVICES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR WILL SUBMIT PLANS AND HANDLING STRESS CALCULATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO THE CONSTRUCTION OF THE FULL DEPTH DECK PANEL UNITS.

(46) CONTRACTOR WILL BE RESPONSIBLE FOR THE HANDLING AND STORAGE OF THE PRECAST ELEMENTS IN SUCH A MANNER THAT DOES NOT CAUSE UNDUE STRESS ON THE ELEMENTS. CONTRACTOR WILL SUBMIT A HANDLING AND STORAGE PLAN TO THE ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.

(47) ENGINEER WILL INSPECT PRECAST ELEMENTS AND COULD BE REJECTED DUE TO BUT NOT LIMITED TO THE FOLLOWING:
- FULL DEPTH CRACKING
- SIGNIFICANT DIMENSIONAL DEFORMITIES.

(48) USE QUICK-SETTING, CEMENTITIOUS PATCHING MATERIALS FOR SPALL REPAIRS ONLY.

(49) USE QUICK-SETTING RAPID STRENGTH GAIN STRUCTURAL CLOSURE POUR MATERIAL FOR CLOSURE POURS ON SUPERSTRUCTURE UNITS ONLY.

(50) STRUCTURAL CLOSURE POUR MATERIAL: F'c = 6,000 PSI (MIN.) (LEAN) AND 3,000 PSI (MIN.) (EXTENDED) IN < 8 HOURS.

(51) EXTEND STRUCTURAL CLOSURE POUR MATERIAL PER MANUFACTURER'S RECOMMENDATIONS.

(52) ALL CLOSURE POUR GROUT AND MORTAR WILL HAVE A CORROSION INHIBITOR ADMIXTURE. CONTRACTOR SHALL FOLLOW MANUFACTURER'S RECOMMENDATION FOR DOSAGE OF CORROSION INHIBITOR ADMIXTURE.

(53) MIX, PLACE AND CURE STRUCTURAL CLOSURE POUR MATERIAL JUST PRIOR TO USE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

(54) CONTACT THE MANUFACTURER'S REPRESENTATIVE FOR ADVICE ON HOW TO REDUCE HEAT SUCH AS WET CURING OR ADDING RETARDING ADMIXTURE IF THE HEAT OF HYDRATION IS EXCESSIVE.

(55) FINISH GROUT FLUSH WITH ADJACENT FULL DEPTH DECK PANELS.

(56) SUBMIT A CERTIFICATE OF COMPLIANCE FOR STRUCTURAL CLOSURE POUR MATERIAL TO ENGINEER FOR APPROVAL.

(57) USE STRUCTURAL CLOSURE POUR MATERIAL GRAY IN COLOR AND CONTAINING NO CALCIUM CHLORIDE OR ADMIXTURE CONTAINING CALCIUM CHLORIDE OR OTHER INGREDIENT IN SUFFICIENT QUANTITY TO CAUSE CORROSION TO STEEL REINFORCEMENT.

(58) REPAIR AT THE DEPARTMENT'S OPTION ANY BONDING FAILURES THAT OCCUR AT THE CONTRACTOR'S EXPENSE.

(59) REFER TO STRUCTURAL CLOSURE POUR MATERIAL PERFORMANCE CRITERIA TABLE ON THIS SHEET FOR GROUT AND MORTAR REQUIREMENTS.

STRUCTURAL CLOSURE POUR PERFORMANCE CRITERIA TABLE

PERFORMANCE CHARACTERISTIC	TEST METHOD	PERFORMANCE CRITERIA		
COMPRESSIVE STRENGTH (CS) KSI	ASTM C39 (MODIFIED)	6.0 ≤ CS @ 8 HOURS (OVERNIGHT CURE) @ 7 DAYS (7 DAY CURE)		
SHRINKAGE (S) (CRACK AGE, DAYS)	AASHTO PP34 (MODIFIED)	20 < S		
BOND STRENGTH (BS), PSI	ASTM C882 (MODIFIED)	300 < BS		
CHLORIDE PENETRATION (ChP) (DEPTH FOR PERCENT CHLORIDE OF 0.2% BY MASS OF CEMENT AFTER 90 DAY PONDING), (IN)	ASTM C1543 (MODIFIED)	ChP < 1.5		
FREEZING AND THAWING DURIBILITY (F/T). (RELATIVE MODULUS AFTER 300 CYCLES)	ASTM C666 PROCEDURE A (MODIFIED)	GRADE 1	GRADE 2	GRADE 3
		70% ≤ F/T	80% ≤ F/T	90% ≤ F/T

CONST. NO. 19005-3161-44

PROJECT NO.	YEAR	SHEET NO.
BH-I-40-4(86)	2015	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

TED A. KNIAZEWYCZ
REGISTERED ENGINEER
XV
AGRICULTURE
NUMBER
020751
STATE OF TENNESSEE

BRIDGE NO. 4

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
GENERAL NOTES
SHEET 2 OF 2
I-40
OVER
JO JOHNSTON AVE.
BR. NO. 19-I0040-16.88
DAVIDSON COUNTY
2015

BR-119-128

DESIGNED BY GRESHAM SMITH & PARTNERS DATE 2/09/2015
DRAWN BY R. PALMER DATE 1/2015
SUPERVISED BY T. KNIAZEWYCZ DATE 1/2015
CHECKED BY T. KNIAZEWYCZ DATE 2/2015

GRESHAM SMITH AND PARTNERS

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2/13/2015
PRF