INDEX OF SHEETS COMMONWEALTH OF KENTUCKY LOCATION DEPARTMENT OF HIGHWAYS GENERAL NOTES PLANS OF GUARDRAIL DETAILS AND TRAFFIC CONTROL PROPOSED PROJECT NEOPRENE EXP. JOINT 1/2" CASEY COUNTY MP 023 0070 016.758 FOR CLEARING THE BRIDGE SITE STANDARD DRAWINGS RBR-005-07 GUARDRAIL COMPONENTS RBR-010-02 GUARDRAIL TERMINAL SECT. RBR-015-02 GUARDRAIL POSTS RBR-016-01 GUARDRAIL POSTS RBR-050 END TREATMENT TYPE 7 MENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF TSC-200-04 LANE CLOSURE CASE I TSC-26-04MISC. TRAFFIC CONTROL DEVICE TSC-260-07MISC, TRAFFIC CONTROL DEVICE BGX-006-05 STENCIL CONSTRUCTION DATE RBR-001-08 STEEL W BEAM GUARDRAIL PROJECT NO.MP 023 0070 06.758 GRAPHIC SCALE IN MILES LAYOUT MAP DRAWING NO 22075

SPECIFICATIONS

THE KENTUCKY DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION SHALL APPLY TO THIS PROJECT.

THIS BRIDGE IS DESIGNED FOR HS20-44 LIVE LOAD, AS SPECIFIED IN AASHTO SPECIFICATIONS. THIS BRIDGE IS DESIGNED FOR A WIND LOAD BASED ON A WIND VELOCITY OF 84 MPH.

DESIGN METHOD

ALL REINFORCED CONCRETE MEMBERS ARE DESIGNED BY THE LOAD FACTOR METHOD AS SPECIFIED IN THE CURRENT AASHTO SPECIFICATIONS.

CLASS 'AA' CONCRETE IS TO BE USED THROUGHOUT.

DIMENSIONS SHOWN FROM THE FACE OF CONCRETE TO BARS ARE CLEAR DISTANCES UNLESS OTHERWISE SHOWN. SPACING OF BARS IS FROM CENTER TO CENTER OF BARS. ALL BARS WHICH REQUIRE FIELD BENDING SHALL BE GRADE 40. OTHER BARS MAY BE GRADE 40 OR GRADE 60. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A METHOD FOR STRAIGHTENING THE SLAB BARS IN THE FIELD (WITHOUT HEAT) THAT WILL NOT KINK OR OTHERWISE DAMAGE THE BARS.

MATERIALS DESIGN SPECIFICATIONS

FOR CLASS 'AA' REINFORCED CONCRETE

F'C = 4000 PSI

FOR STEEL REINFORCEMENT

FY = 60000 PSI (GRADE 60)FY = 40000 PSI (GRADE 40)

EPOXY COATED REINFORCING STEEL

ALL REINFORCING BARS DESIGNATED BY SUFFIX (E) IN THE PLANS SHALL BE EPOXY COATED IN ACCORDANCE WITH SECTION 811.10 OF THE STANDARD SPECIFICATIONS.

CONTRARY TO SECTION 601.26(B)(5) OF THE STANDARD SPECIFICATIONS, A MASONRY COATING FINISH SHALL BE APPLIED TO THE UNDERNEATH SURFACES OF CANTILEVER PARTS OF SLABS OVERHANGING OUTSIDE GIRDERS.

FOUNDRY NOTE - ALL DRAINS SHALL BE GRAY IRON CASTINGS, ASTM A48, CURRENT EDITION, CLASS 30A. FOUNDRIES SHALL CAST AT LEAST TWO TEST BARS FROM EACH DAY'S PRODUCTION. THESE TEST BARS SHALL BE TESTED EITHER BY THE DIVISION OF MATERIALS OR BY THE FOUNDRIES' QUALITY CONTROL UNIT WHO SHALL FURNISH ACTUAL TEST RESULTS FOR EACH DATE OF MANUFACTURE OR LOT NUMBER. DRAINS SHALL BE PAINTED INSIDE AND OUT.

THE DRAIN PIPE SHALL BE 6' ROUND STANDARD WEIGHT IN ACCORDANCE WITH ASTM-A53. A500, OR A501. PIPE, FITTINGS, AND CONNECTIONS SHALL BE INCLUDED IN THE LUMP SUM BID FOR STRUCTURAL STEEL. DRAINS, PIPE AND ALL FITTINGS SHALL BE CLEANED AND PAINTED IN ACCORDANCE WITH SECTION 607.25 OF THE SPECIFICATIONS.

BONDING CONCRETE TO PREVIOUSLY POURED CONCRETE

CONCRETE SHALL BE BONDED TO PREVIOUSLY POURED CONCRETE WHERE SHOWN ON THE PLANS WITH A TWO-COMPONENT EPOXY RESIN SYSTEM CONFORMING TO SECTION 833 OF THE SPECIFICATIONS. THE COST OF THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIALS, IS TO BE INCIDENTAL TO THE UNIT PRICE BID FOR CLASS "AA" CONCRETE.

GENERAL NOTE

REMOVAL OF EXISTING REINFORCED CONCRETE

THIS WORK SHALL INCLUDE REMOVING THE REINFORCED CONCRETE DECK SLABS, CURBS, HANDRAILS, OVERLAYS, PATCHES, ETC. FOR THE ENTIRE LENGTH OF THE BRIDGE PLUS OTHER CONCRETE NOTED ON THE PLANS AND DISPOSING OF THIS MATERIAL AWAY FROM THE BRIDGE SITE. PROPER CARE SHALL BE TAKEN TO PROTECT THE CONCRETE BEAMS AND SUBSTRUCTURE FROM DAMAGE DURING THIS OPERATION. THE CONTRACTOR MAY INSTALL SHORING UNDER THE BEAMS AT HIS OPTION TO INSURE THEIR PROTECTION DURING THIS OPERATION. THE SHORING MAY BE LEFT IN PLACE WHILE POURING CONCRETE HOWEVER IT IS NOT REQUIRED AT ANYTIME. THE FLOOR SHALL BE REMOVED WITHOUT ALLOWING THE BROKEN CONCRETE TO DROP INTO THE STREAM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY FALLING PARTICLES. THE COST OF THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR REMOVAL OF EXISTING REINFORCED CONCRETE.

PAYMENT FOR STRUCTURAL STEEL

THE LUMP SUM BID FOR STRUCTURAL STEEL SHALL BE FULL PAYMENT FOR ALL STRUCTURAL STEEL, DRAINS AND DRAIN PIPES, WELDING, PAINT. AND ALL LABOR AND MATERIALS NECESSARY TO ERECT THE STEEL IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE APPROXIMATE WEIGHT OF STRUCTURAL STEEL SHOWN IN THE ESTIMATE OF DUANTITIES DOES NOT INCLUDE OVERRUN OR WELD MATERIAL.

SUPERSTRUCTURE SLAB

THE SUPERSTRUCTURE SLAB SHALL BE POURED CONTINUOUSLY BETWEEN JOINTS BEFORE THE CONCRETE IS ALLOWED TO SET.

EXISTING REINFORCING STEEL

THE COST OF CUTTING, BENDING AND CLEANING EXISTING REINFORCING STEEL IS TO BE INCIDENTAL TO THE LUMP SUM BID FOR REMOVAL OF EXISTING REINFORCED CONCRETE.

THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO THE STRUCTURE DURING RECONSTRUCTION, EVEN TO THE REPLACEMENT OF ENTIRE SPANS AND REMOVAL OF THE FALLEN SPANS AT HIS EXPENSE, SHOULD THEY BE ALLOWED TO FALL DUE TO HIS ACTIONS.

MAINTAIN TRAFFIC

AT LEAST ONE LANE OF VEHICULAR TRAFFIC SHALL BE MAINTAINED AND PROTECTED ON A 24-HOUR BASIS DURING CONSTRUCTION. SIGNS AND SIGNALS SHALL BE MAINTAINED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THE CONTRACTOR HAS THE OPTION OF EITHER PROVIDING ONE ELECTRIC CONTROLLER AND FOUR SIGNAL HEADS FOR MAINTENANCE OF TRAFFIC, OR PROVIDING FLAGMEN 24-HOURS A DAY WHENEVER A LANE OF THE BRIDGE IS CLOSED TO TRAFFIC. WHEN ELECTRIC TRAFFIC CONTROL DEVICES ARE USED, DUAL INDICATORS WITH 12' RED LENSES SHALL BE PROVIDED ON EACH APPROACH. THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN THE TRAFFIC CONTROL DEVICES AND BE RESPONSIBLE FOR THE ELECTRICAL POWER USED. DETAILS OF INSTALLATION AND SIGNAL TIMING SHALL BE DETERMINED BY THE ENGINEER. TRAFFIC CONTROLS IN ADDITION TO THESE SPECIFIED MAY BE REQUIRED BY THE ENGINEER WHEN THE CONTRACTOR'S OPERATION CREATES AN UNSAFE CONDITION. WHEN ONE LANE OF SLAB IS REMOVED OR BEING REMOVED, THE OTHER LANE MUST BE PROTECTED WITH AN APPROVED BARRIER (SUCH AS THE BARRIER SHOWN ON THE PLANS). THE COST OF FURNISHING ALL SIGNS, BARRIERS, SIGNALS AND CONTROLLERS, FLAGMEN AND INCIDENTALS NECESSARY FOR THE MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE INCLUDED IN THE LUMP SUM BID FOR MAINTAIN AND CONTROL TRAFFIC.

TEMPORARY BITUMINOUS APPROACH WEDGE

THE CONTRACTOR WILL BE REQUIRED TO CONSTRUCT A TEMPORARY BITUMINOUS CONCRETE APPROACH WEDGE OF GOOD QUALITY MATERIAL AS DIRECTED BY THE ENGINEER. THE QUANTITY INVOLVED SHALL NOT EXCEED 10 TONS. PAYMENT FOR THE SAID BITUMINOUS MATERIAL, LABOR, EQUIPMENT AND OTHER INCIDENTAL ITEMS NECESSARY TO CONSTRUCT THE APPROACH WEDGE SHALL BE CONSIDERED INCIDENTAL TO THE LUMP SUM BID FOR MAINTAIN AND CONTROL TRAFFIC.

SLUMP OF CLASS 'AA' CONCRETE FOR BRIDGE DECKS

AT THE CONTRACTOR'S OPTION, THE SLUMP OF CLASS 'AA' CONCRETE MAY BE INCREASED PROVIDED THE WATER/CEMENT RATIO IS MAINTAINED AT 4.75 GALLONS/BAG OR LESS BY USE OF AN ADEQUATE AMOUNT OF WATER REDUCING ADMIXTURE. THE AMOUNT OF WATER REDUCING ADMIXTURE TO BE USED SHALL BE DETERMINED BY TRIAL MIXTURES OR FROM THE ADMIXTURE MANUFACTURER'S LITERATURE, BUT IN NO CASE SHALL THE AMOUNT BE LESS THAN 3 OUNCES/100 POUNDS OF CEMENT. SLUMP PERMITTED WHEN THIS PROCEDURE IS USED WILL BE 3 INCHES +-1/2 INCH FOR CLASS 'AA' CONCRETE PLACED IN BRIDGE SLABS, OR 4 INCHES MAXIMUM FOR CLASS "AA" CONCRETE PLACED IN BARRIERS, PLINTHS. CURBS, WALKS OR OTHER APPURTENANT PARTS OF THE SUPER-

GRADE ELEVATIONS

THE ENGINEER SHALL BE RESPONSIBLE FOR DEVELOPING THE PROPOSED PROFILE GRADE FOR THE RECONSTRUCTED DECK BEFORE THE EXISTING DECK IS REMOVED. THE FOLLOWING PROCEDURE SHOULD BE USED.

- 1. TAKE ELEVATIONS ON TOP OF THE EXISTING SURFACE (CONCRETE OR BLACKTOP) ALONG THE CENTERLINE OF BRIDGE AT 5 FOOT INTERVALS. ALSO TAKE ELEVATIONS ON EACH SIDE OF ALL JOINTS AND ABUTMENT BACKWALLS.
- 2. PLOT THESE ELEVATIONS TO AN EXAGGERATED VERTICAL SCALE AND DEVELOP
- A SMOOTH GRADE ALONG THE BRIDGE BY CORRECTING ANY EXISTING GRADE PROBLEMS. 3. ADD 'K' TO THE CORRECTED ELEVATION AT EACH PROFILE POINT ALONG ENTIRE
- BRIDGE. THIS IS THE NEW PROFILE GRADE. 4. TRANSFER THE PROFILE FROM THE CENTERLINE TO THE CENTER OF EACH BEAM BY ADJUSTING FOR THE DECK CROSS SLOPE INDICATED IN THE PLANS.
- 5. ADJUST THE PROFILE TO PROVIDE THE NECESSARY CAMBER IN EACH BEAM PER THE REQUIRED CAMBER "M" IN THE CHART AND THE CAMBER DIAGRAM DRAWING IN THE PLANS. NOTE THAT, EVEN ON SKEWED BRIDGES, ALL CAMBER IS CALCU-LATED ON THE SIMPLE SPAN LENGTH OF EACH BEAM. THESE ARE THE NEW DECK CONSTRUCTION ELEVATIONS.
- 6. WHEN THE DECK IS REMOVED, TAKE ELEVATIONS ALONG EACH BEAM AT THE SAME
- 7. SUBTRACT THE TOP OF BEAM ELEVATION FROM THE CONSTRUCTION ELEVATION FOR A DIMENSION "X".
- 8. SUBTRACT THE REDUIRED SLAB THICKNESS FROM THE DIMENSION 'X' TO GET
- THE SLAB HAUNCH DEPTH AT EACH GRID POINT OF EACH BEAM. 9. BARRIER WALLS SHALL BE POURED TO NEW GRADE BY MEASURING UP FROM THE CAMBERED DECK BUT THE VERTICAL ALIGNMENT OF THE BARRIER WALL SHALL
- BE ADJUSTED IF NECESSARY TO IMPROVE ITS APPEARANCE. 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING FINISHING MACHINE RAIL ELEVATIONS TO PROVIDE AN ACCEPTABLE RIDING PROFILE, THE MINIMUM CONCRETE COVER ON REINFORCEMENT, MINIMUM SLAB THICKNESS, AND FOR OBTAINING SATISFACTORY ALIGNMENT OF BARRIER WALLS.

PATCHING CRACKS IN NEW SLAB

AFTER CURING OF THE DECK HAS BEEN COMPLETED. THE TOPS OF ALL VISIBLE LOGITUDINAL AND TRANSVERSE CRACKS SHALL BE FILLED OF SEALED WITH A GROUT OF THE SAME CONSISTENCY AS THE GROUT BOND COAT MATERIAL SPECIFIED IN SECTION 617.04(A) OF THE SPECIFICATIONS TO THE SATISFACTION OF THE ENGINEER. THE COST OF THIS PATCHING SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR CLASS

BEVELED EDGES

ALL EXPOSED EDGES SHALL BE BEVELED 7/8' UNLESS OTHERWISE SHOWN.

KY 70 over Green River

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS FRANKFORT COUNTY OF .IBERTY-MOORE

STATION

P.E. PROJECT NO.

22075

GENERAL NOTE







