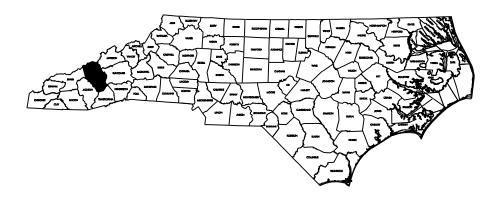
TIP PROJECT: B-4700S

NO: DO 00007

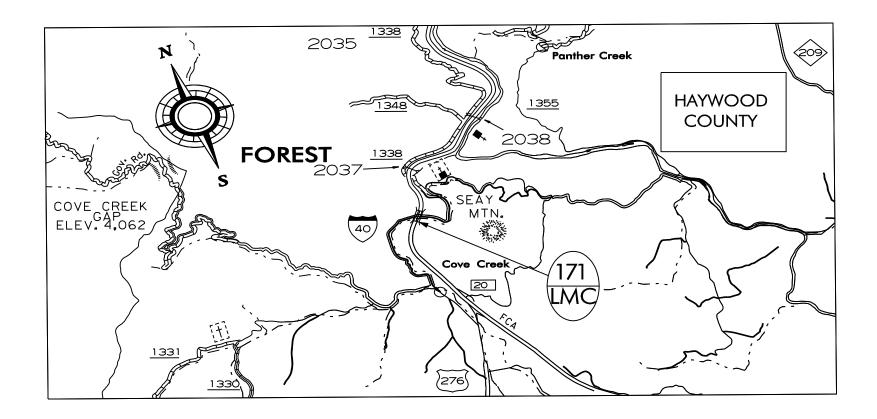


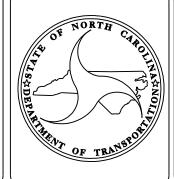
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

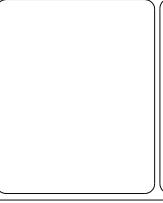
HAYWOOD COUNTY

LOCATION: I-40, OVER SR 1338 AT
JONATHAN CREEK
TYPE OF WORK: BRIDGE DECK
PRESERVATION – LATEX MODIFIED CONCRETE OVERLAY.

STATE	STATE PROJECT REFERENCE NO. SHEETS					
N.C.	B-4700S			1		
STATE F	ROJECT NO.	F. A. PROJ. NO.	DESCRIPTION		NOI	
3672	7.1.1	BRNHS-000S(504)		PE		
36727	7.3.18	BRNHS-000S(370)		CONSTR		
ł						

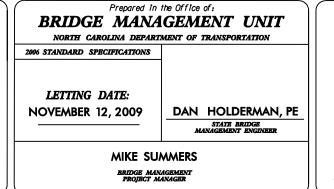


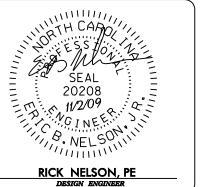


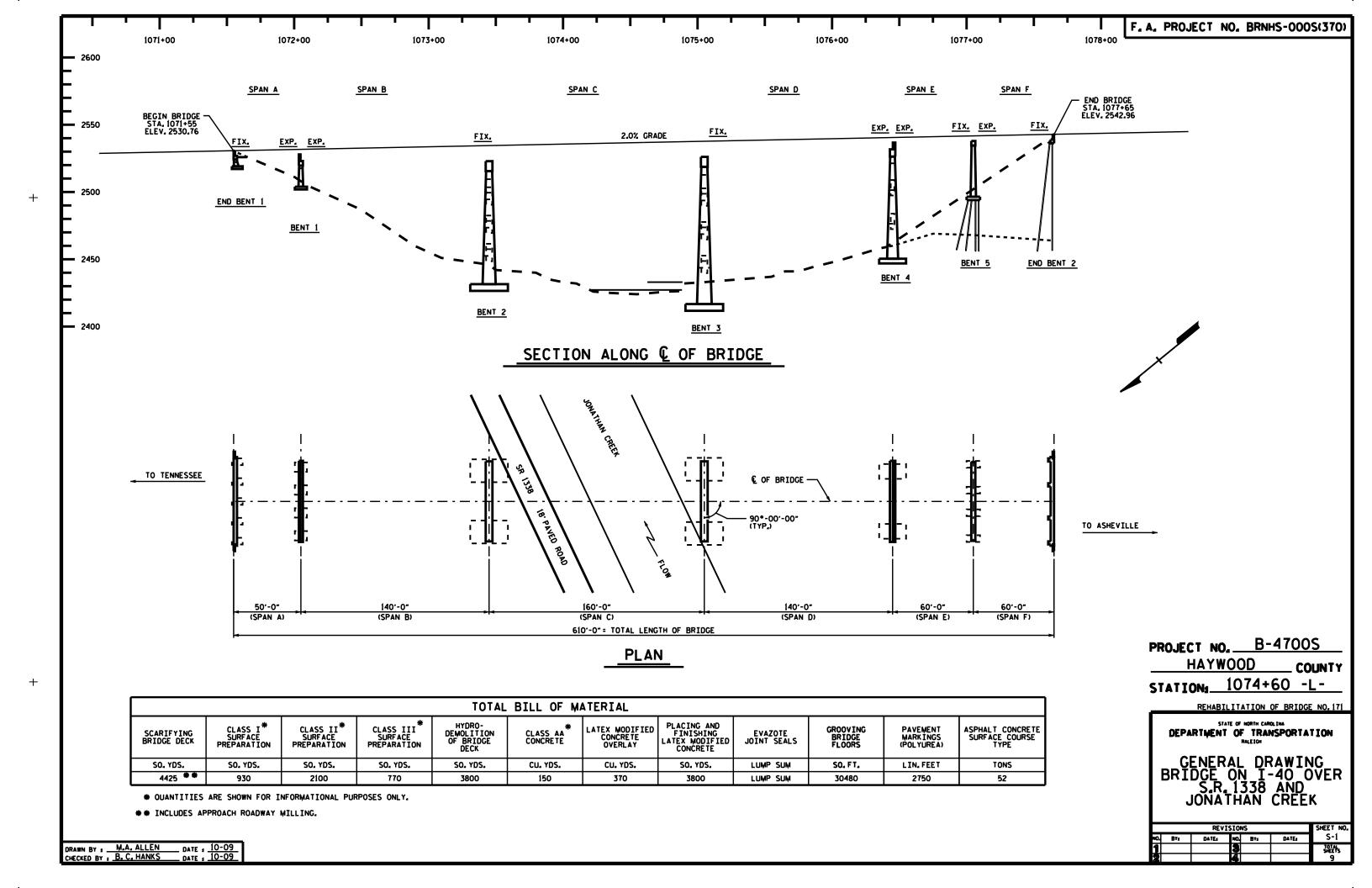


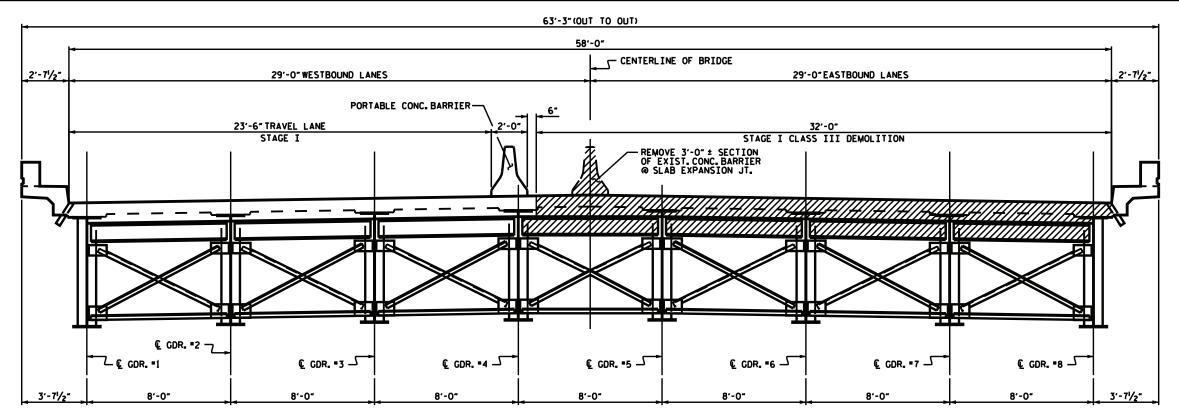
KEY:

BRA LATEX MODIFIED CONCRETE OVERLAY.





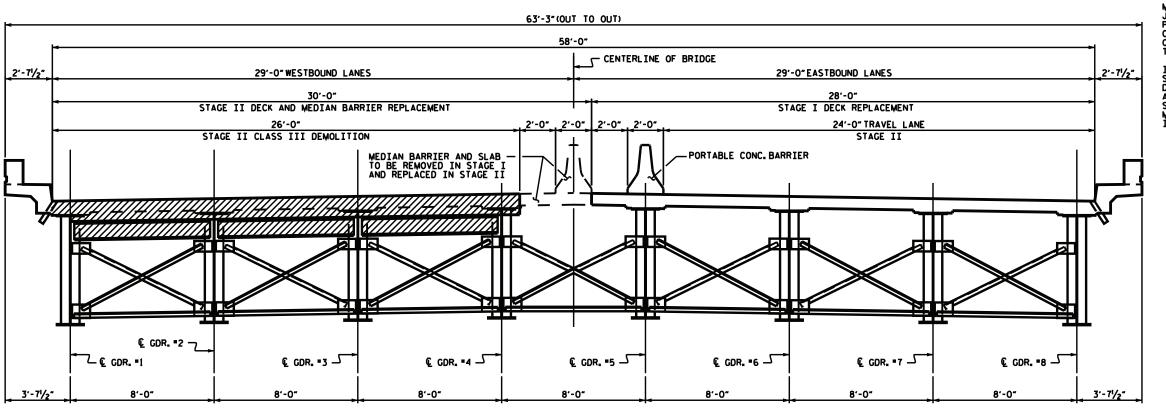




DIAPHRAGMS AT SLAB EXPANSION JOINTS

TYPICAL SECTION - STAGE I

LOOKING EASTBOUND



NOTES:

THE COST OF LABOR, MATERIALS, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO REMOVE THE EXISTING CONCRETE DIAPHRAGMS, MEDIAN BARRIER AND CHANNELS SHALL BE INCLUDED IN THE BID PRICE FOR "HYDRO-DEMOLITION OF BRIDGE DECK".

MEDIAN BARRIER AND DECK REMOVAL AT THE SLAB EXPANSION JOINTS SHALL BE PERFORMED BY FIRST INTRODUCIING A PARTIAL DEPTH SAWCUT (1/2-WAX DEPTH) FOLLOWED BY CONCRETE REMOVAL WITH A CHIPPING HAMMER IN THE RANGE OF 35 LBS. CARE SHALL BE TAKEN SO AS TO PREVENT DAMAGE TO EXISITING DECK REINFORCING STEEL AND EXISTING GIRDERS.

INASMUCH AS THE PAINT SYSTEM ON THE EXISTING STRUCTURAL STEEL CONTAINS LEAD, THE CONTRACTOR'S ATTENTION IS DIRECTED TO ARTICLE 107-1 OF THE STANDARD SPECIFICATIONS. ANY COSTS RESULTING FROM COMPLIANCE WITH APPLICABLE STATE OR FEDERAL REGULATIONS PERTAINING TO HANDLING OF MATERIALS CONTAINING LEAD BASED PAINT SHALL BE INCLUDED IN THE BID PRICE FOR "HYDRO-DEMOLITION OF BRIDGE DECK".

PROJECT NO. B-4700S

HAYWOOD COUNTY

STATION: 1074+60 -L-

SHEET 1 OF 2

DEPARTMENT OF TRANSPORTATION
RALEIGH

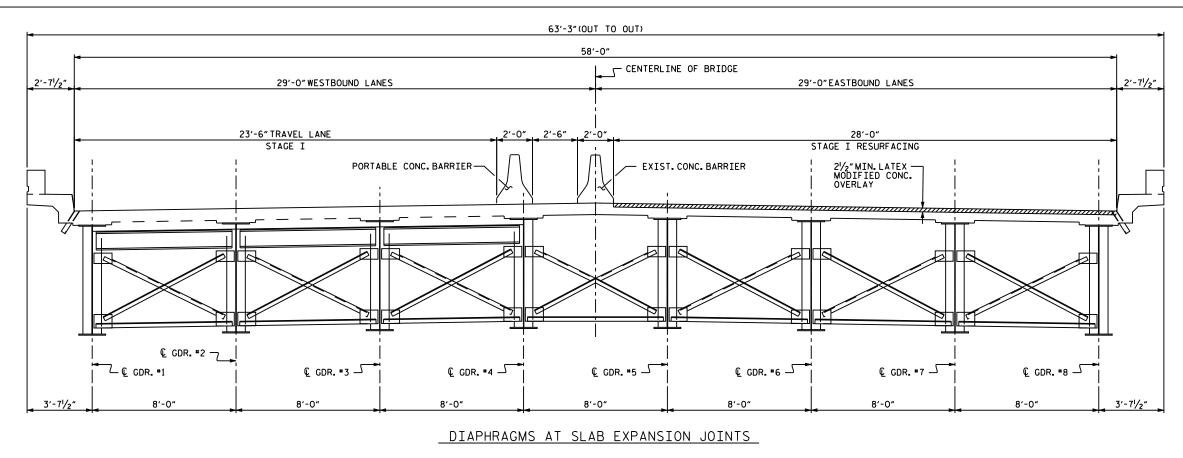
TYPICAL SECTION
JOINT REPLACEMENT

DIAPHRAGMS AT SLAB EXPANSION JOINTS

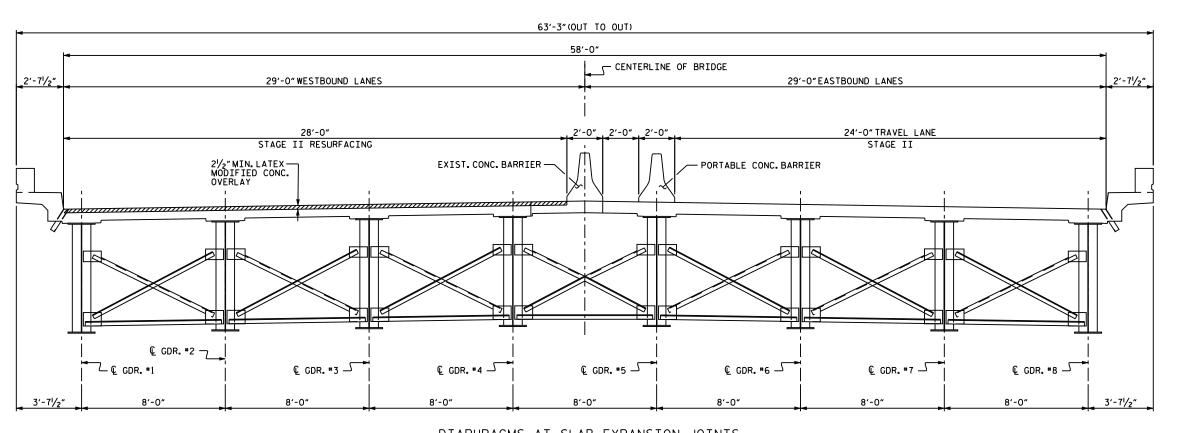
TYPICAL SECTION - STAGE II

LOOKING EASTBOUND

DRAWN BY I M.A. ALLEN DATE I 10-09
CHECKED BY I B.C. HANKS DATE I 10-09



TYPICAL SECTION - STAGE I



PROJECT NO. B-4700S

HAYWOOD COUNTY

STATION: 1074+60 -L-

SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

TYPICAL SECTION RESURFACING

REVISIONS SHEET NO.
S-3

SUBJECT NO. BY: DATE: S-3

SUBJECT NO.
S-3

TOTAL
SUBJECT NO.
S-3

SUBJECT NO.
S-3

SUBJECT NO.
S-3

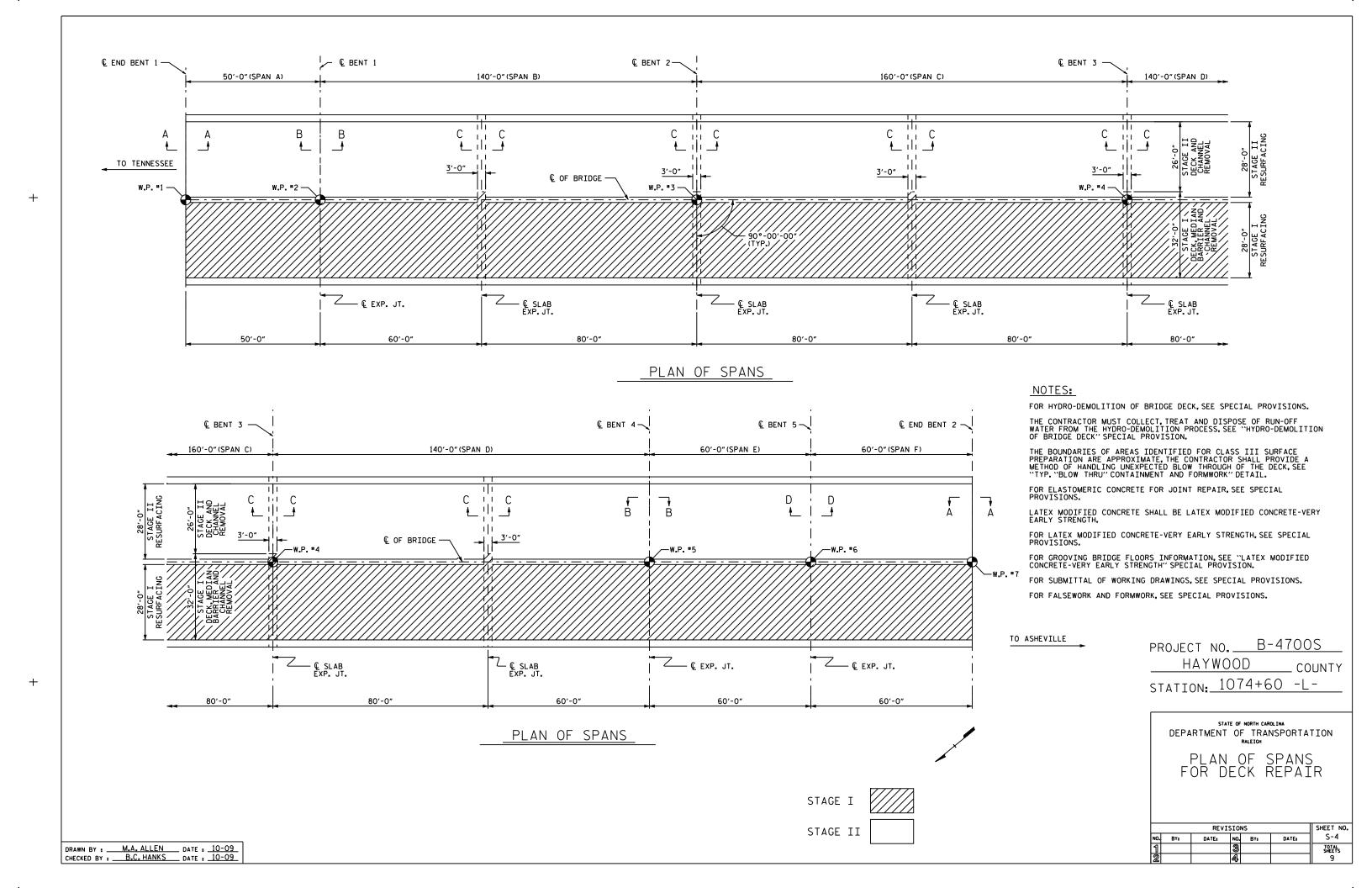
SUBJECT NO.
S-3

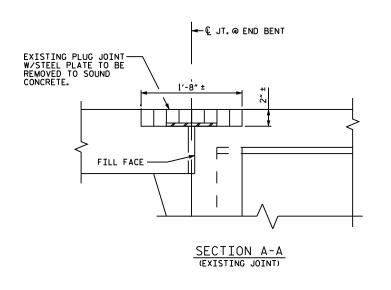
DIAPHRAGMS AT SLAB EXPANSION JOINTS

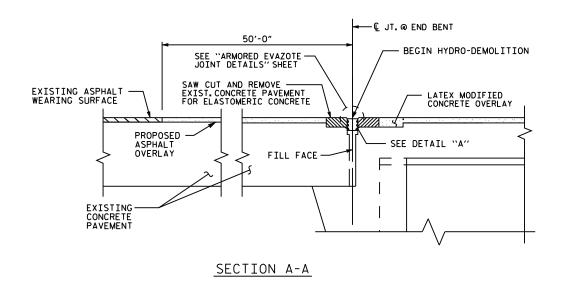
TYPICAL SECTION - STAGE II

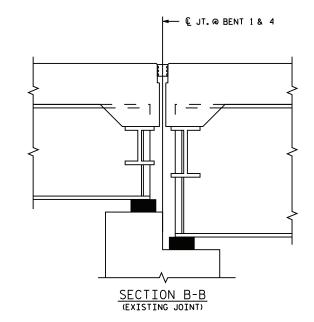
LOOKING EASTBOUND

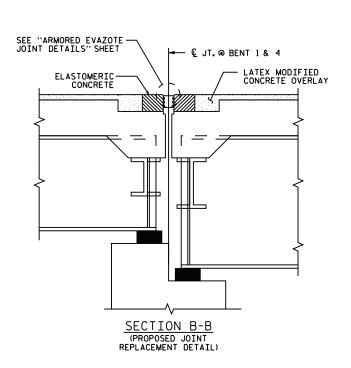
DRAWN BY : M.A. ALLEN DATE : 10-09
CHECKED BY : B.C. HANKS DATE : 10-09

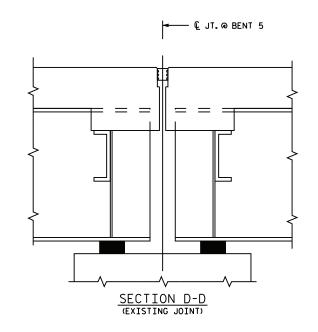


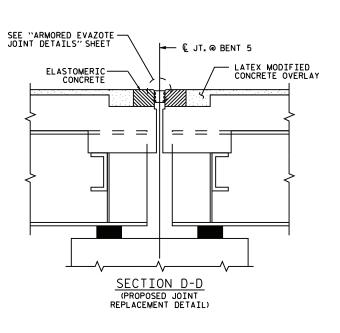


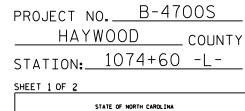










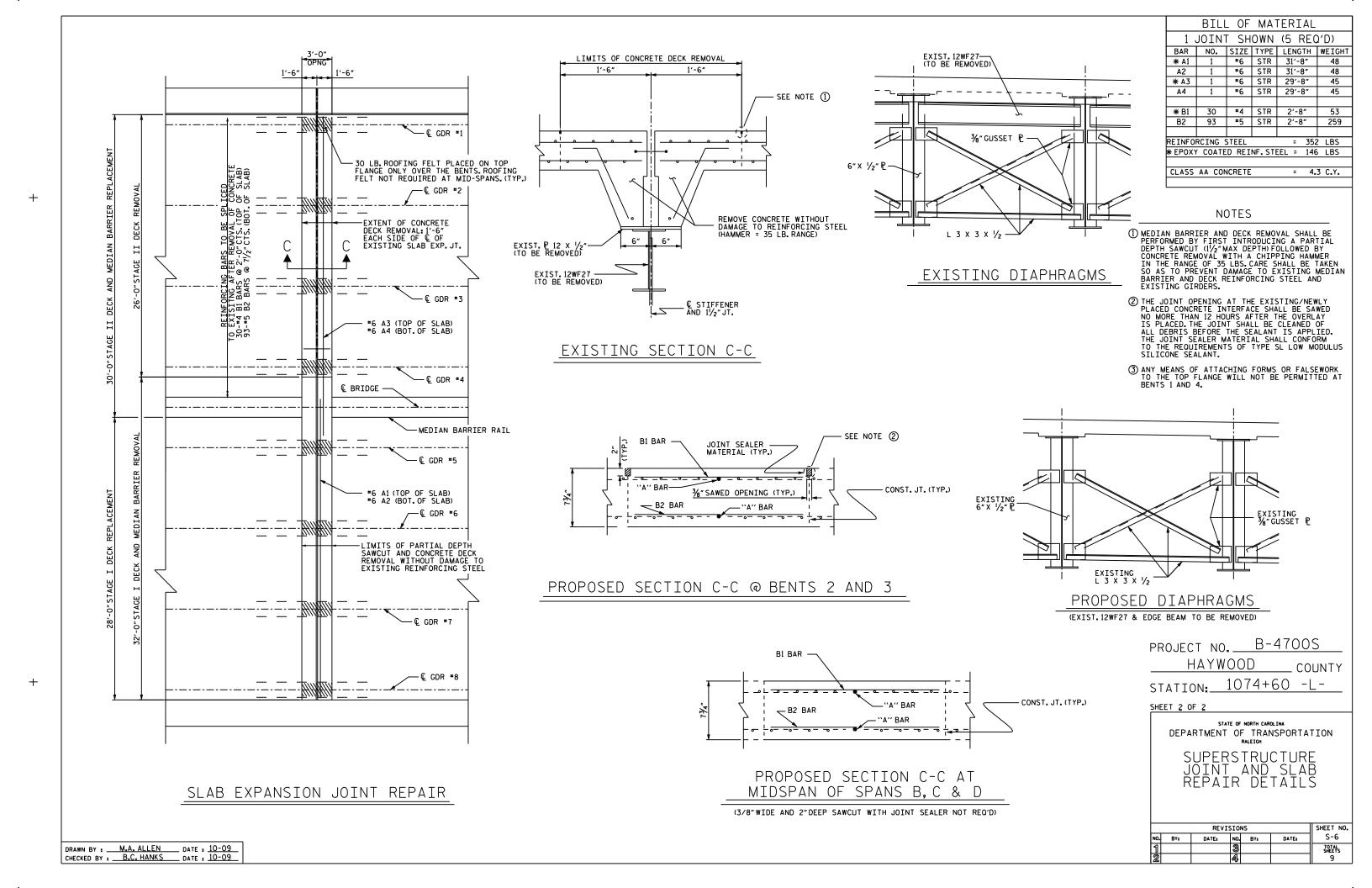


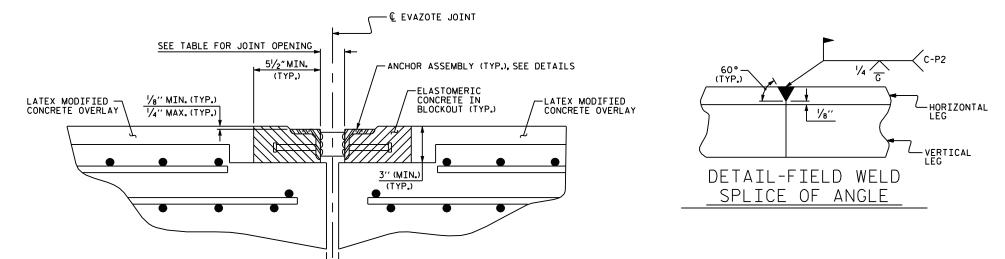
DEPARTMENT OF TRANSPORTATION RALEIGH

SUPERSTRUCTURE
JOINT AND SLAB
REPAIR DETAILS

DRAWN BY : M.A. ALLEN DATE : 10-09
CHECKED BY : B.C. HANKS DATE : 10-09

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BILL OF MATERIAL ELASTOMERIC CONCRETE * (CU.FT.) TOTAL LENGTH OF ANGLE (FT) BENT NO. EB1 12.8 112'-0" В1 12.8 112'-0" В4 12.8 112'-0" 12.8 112'-0" EB2 12.8 112'-0"

* BASED ON THE MINIMUM BLOCKOUT SHOWN.

NOTES

ANGLES SHALL CONFORM TO AASHTO M270 GRADE 36 STEEL OR APPROVED EQUAL. ALL STUD ANCHORS SHALL CONFORM TO AASHTO M169 GRADES 1010 THRU 1020 OR APPROVED

STUD ANCHORS SHALL BE SHOP WELDED AND ALL HOLES SHALL BE SHOP DRILLED AS SHOWN ON THE PLANS. STUD ANCHORS SHALL BE ELECTRIC ARC END WELDED WITH COMPLETE FUSION.

UPON COMPLETION OF SHOP FABRICATION, THE ENTIRE ANCHOR ASSEMBLY SHALL BE METALLIZED. THE $\frac{1}{2}$ $^{\prime\prime}$ Ø STUD ANCHORS AND ANCHOR TABS NEED NOT BE METALLIZED. SEE SPECIAL PROVISION FOR THERMAL SPRAYED COATINGS (METALLIZATION).

ANCHOR ASSEMBLY SHALL BE MADE CONTINUOUS THE LENGTH OF THE JOINT FROM GUTTER TO GUTTER. FOR FIELD SPLICES AT ALL CROWN BREAK POINTS, THE ENDS OF THE STEEL ANGLES SHALL BE CUT PARALLEL TO THE BRIDGE CENTERLINE, FINISHED FIELD WELDS SHALL BE GROUND SMOOTH AND COATED WITH A MINIMUM THICKNESS OF 4 DRY MILS OF ZINC-RICH PAINT IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

ANCHOR ASSEMBLY SEGMENTS SHALL NOT BE LESS THAN 12 FEET NOR MORE THAN 20 FEET IN LENGTH, SHORTER SEGMENTS MAY BE USED AT THE EDGE OF ROADWAY OR AT POINTS OF STAGED CONSTRUCTION.

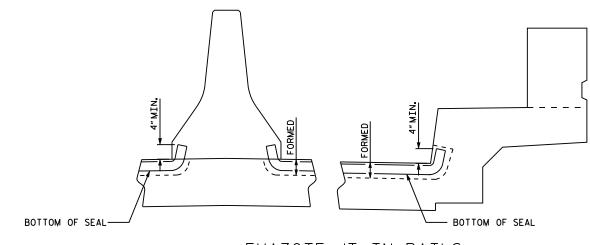
THE ANCHOR ASSEMBLY SHALL BE SECURED AND LEVELED AS SHOWN IN THE "ARMORED JOINT ANCHOR ASSEMBLY DETAILS". NO SUBMITTALS ARE REQUIRED FOR $\frac{3}{4}$ " \varnothing EXPANSION ANCHORS, NUTS OR WASHERS. THE CONTRACTOR MAY SUBMIT FOR APPROVAL AN ALTERNATE METHOD OF ALIGNING AND LEVELING THE ANGLES. THE ALTERNATE METHOD SHALL NOT INCLUDE ANY WELDING TO THE OUTSIDE FACE OF THE ANGLES.

AFTER THE ELASTOMERIC CONCRETE HAS BEEN CAST ON BOTH SIDES OF THE JOINT, REMOVE ANY EXCESS CONCRETE THAT COMES THROUGH THE WEEP HOLES AND THOROUGHLY CLEAN THE ANGLES. ANY DAMAGED STEEL SHALL BE COATED WITH A MINIMUM OF 4 MILS OF ZINC-RICH PAINT IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

SEE SPECIAL PROVISIONS FOR EVAZOTE JOINT SEALS.

SEE SPECIAL PROVISIONS FOR ELASTOMERIC CONCRETE.

** AFTER THE CLASS I OR CLASS II SURFACE PREPARATION AT THE AREAS REQUIRING EVAZOTE JOINT SEALS IS COMPLETE, ADHESIVE ANCHORAGE MAY BE REOUIRED TO INSTALL THE \(\frac{1}{2}\) \(\text{E}''\) \(\text{O} \) EXP. ANCHORS. IF ADHESIVE ANCHORAGE IS REOUIRED SEE SPECIAL PROVISIONS FOR "ADHESIVELY ANCHORED ANCHOR BOLTS OR DOWELS". THE PULL OUT STRENGTH OF THE \(\frac{1}{2}\) \(\text{E}''\) \(\text{E} \) \(\tex



MOVEMENT AND SETTING AT EVAZOTE JOINT						
BENT NO.	SKEW ANGLE	NOMINAL UNCOMPRESSED SEAL WIDTH	TOTAL MOVEMENT (ALONG (L RDWY)	PERPENDICULAR JOINT OPENING AT 45° F	PERPENDICULAR JOINT OPENING AT 60° F	PERPENDICULAR JOINT OPENING AT 90° F
EB1	90°	21/2"	0"	17/8"	17/8"	17/8"
B1	90°	3½6″	2"	213/16"	21/2"	2"
B4	90°	3⅓ ₆ "	2"	213/16"	21/2"	2″
B5	90°	21/2"	9/16"	11/8"	17/8"	17/8"
EB2	90°	21/2"	0"	11/8"	17/8"	11/8"

TOTAL MOVEMENT IS CALCULATED ALONG THE CENTERLINE OF ROADWAY. JOINT OPENINGS ARE MEASURED PERPENDICULAR TO THE JOINT.

T T	STATION: 1074+60	-L-
INT	51A110Ni	
	STATE OF NORTH CAROLINA	

PROJECT NO. ___

DEPARTMENT OF TRANSPORTATION

B-4700S

_ COUNTY

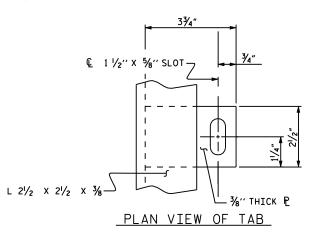
ARMORED EVAZOTE JOINT DETAILS

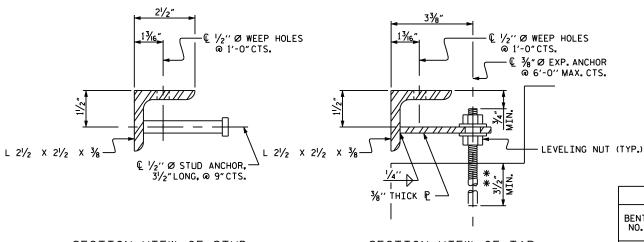
REVISIONS				SHEET NO.	
BY:	DATE:	NO.	BY:	DATE:	S-7
		3			TOTAL SHEETS
		4			9

ARMORED JOINT DETAILS

EXIST. OPENING

SECTION NORMAL TO JOINT AT BENT





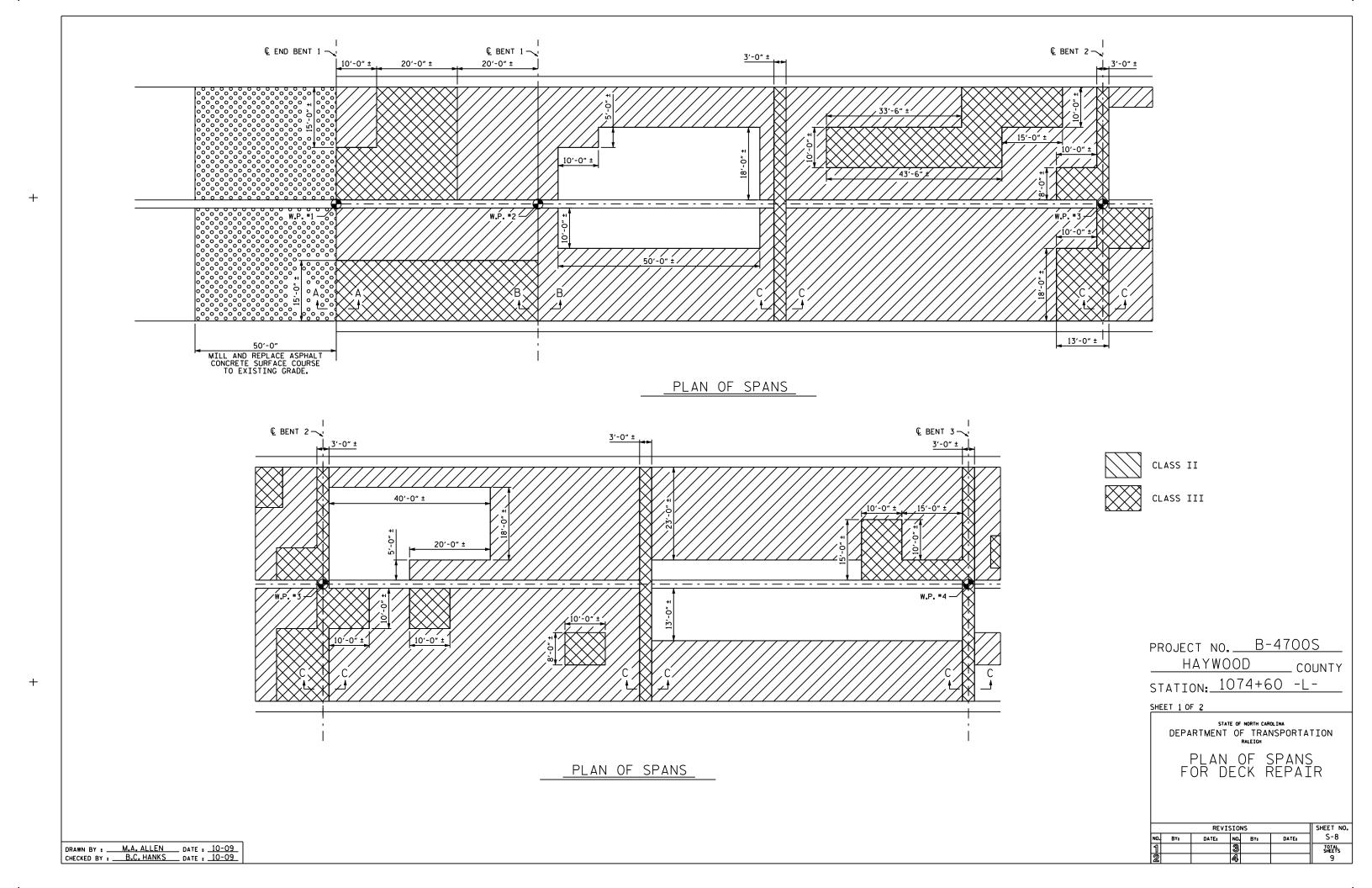
SECTION VIEW OF STUD

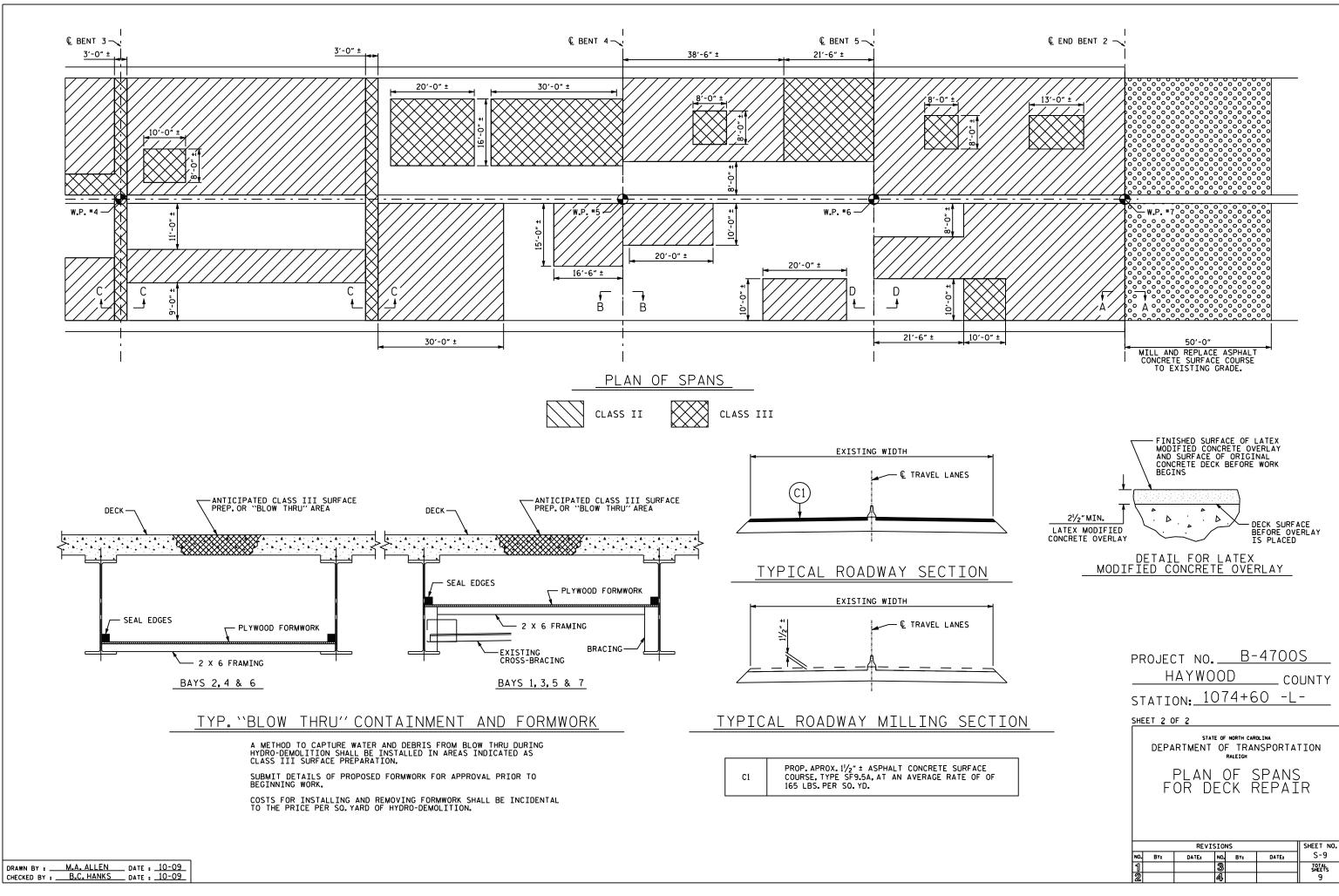
SECTION VIEW OF TAB

ARMORED JOINT ANCHOR ASSEMBLY DETAILS

ASSEMBLED BY : M.A. ALLEN B.C. HANKS DATE : 10-09

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STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

STATE PROJECT REFERENCE NO. B-4700S TCP-1

PLAN FOR PROPOSED TRAFFIC CONTROL, MARKING & DELINEATION

HAYWOOD COUNTY

LOCATION: BRIDGE 171 ON I-40 OVER SR 1338 WHITE OAK RD. TYPE OF WORK: TRAFFIC CONTROL FOR BRIDGE DECK PRESERVATION

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" -PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1110.01	STATIONARY WORK ZONE SIGNS
1145.01	BARRICADES
1160.01	TEMPORARY CRASH CUSHION
1170.01	PORTABLE CONCRETE BARRIER
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
1205.02	PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS

INDEX OF SHEETS

SHEET NO.

TITLE

TCP-1 LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, & INDEX OF SHEETS

TCP-2 GENERAL NOTES, PHASING, VICINITY MAP

TCP-3 PHASE I I-40 EASTBOUND DECK PRESERVATION

TCP-4 PHASE II I-40 WESTBOUND DECK PRESERVATION

LEGEND

GENERAL

◆ DIRECTION OF TRAFFIC FLOW

NORTH ARROW

EXISTING PAVEMENT

WORK AREA

TRAFFIC CONTROL DEVICES

TYPE III BARRICADE

▲ CONE

SKINNY DRUM

FLASHING ARROW PANEL (TYPE C)

── STATIONARY SIGN

PORTABLE SIGN

STATIONARY OR PORTABLE SIGN

---- TEMPORARY CRASH CUSHION

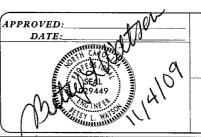
CHANGEABLE MESSAGE SIGN

TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)

LAW ENFORCEMENT

___ FLAGGER

PORTABLE CONCRETE BARRIER



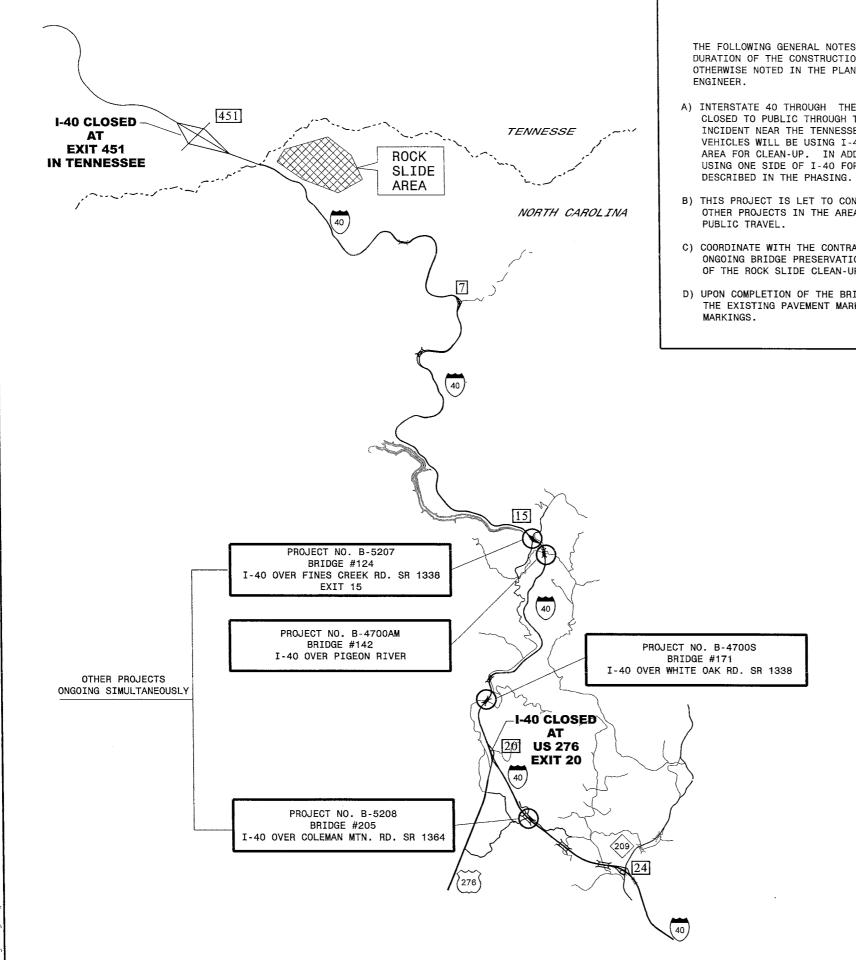
PLAN PREPARED BY:



BETSY L. WATSON, PE

GEORGE KARAGEORGE

TRAFFIC CONTROL ENGINEER TRAFFIC CONTROL DESIGNER



GENERAL NOTES

PROJECT REFERENCE NO SHEET NO. B-4700S TCP-2

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE

- A) INTERSTATE 40 THROUGH THE AREA OF THIS PROJECT IS CLOSED TO PUBLIC THROUGH TRAFFIC DUE TO ROCK SLIDE INCIDENT NEAR THE TENNESSEE BORDER. CONSTRUCTION VEHICLES WILL BE USING I-40 TO ACCESS THE ROCK SLIDE AREA FOR CLEAN-UP. IN ADDITION, LOCAL TRAFFIC WILL BE USING ONE SIDE OF I-40 FOR ACCESS TO EXITS 15 AND 7 AS
- B) THIS PROJECT IS LET TO CONTRACT SIMULTANEOUSLY WITH OTHER PROJECTS IN THE AREA WHILE I-40 IS CLOSED TO
- C) COORDINATE WITH THE CONTRACTOR(S) OF THE OTHER ONGOING BRIDGE PRESERVATION PROJECTS AND THE CONTRACTOR OF THE ROCK SLIDE CLEAN-UP.
- D) UPON COMPLETION OF THE BRIDGE DECK OVERLAYS REPLACE THE EXISTING PAVEMENT MARKINGS ON I-40 WITH POLYUREA

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

TRAFFIC BARRIER

E) INSTALL TEMPORARY BARRIER ACCORDING TO THE STRUCTURE PLANS AND TRAFFIC CONTROL PLANS, OR AS DIRECTED BY THE

INSTALL OR REMOVE TEMPORARY BARRIER IN A CONTINUOUS OPERATION UNTIL INSTALLATION OR REMOVAL IS COMPLETE. USE FLAGGERS TO DIRECT TRAFFIC DURING INSTALLATION AND

PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER AT ALL TIMES DURING THE INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A TRUCK MOUNTED IMPACT ATTENUATOR (MAXIMUM 72 HOURS) OR A TEMPORARY CRASH CUSHION.

TRAFFIC CONTROL PHASING

PHASE I (SEE SHEET TCP-3)

THE CONTRACTOR OF BRIDGE NO. 124/205 AT FINES CREEK RD./US 276 WILL INSTALL TRAFFIC CONTROL DEVICES AND PLACE I-40 TRAFFIC ON THE EASTBOUND SIDE IN A TWO-LANE TWO-WAY PATTERN.

COORDINATE WITH ADJACENT PROJECT CONTRACTORS BEFORE BEGINNING ANY WORK.

STEP 2:

WITH I-40 CLOSED TO PUBLIC THROUGH TRAFFIC AND WITH CONSTRUCTION/LOCAL TRAFFIC USING I-40 WESTBOUND SIDE, INSTALL PORTABLE COCRETE BARRIER AND CRASH CUSHIONS AND CONSTRUCT BRIDGE #171 DECK PRESERVATION ON THE I-40 EASTBOUND SIDE.

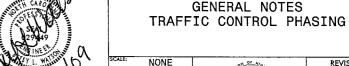
UPON COMPLETION OF BRIDGE #171 DECK PRESERVATION ON THE EASTBOUND SIDE OF I-40, COORDINATE WITH THE ADJACENT PROJECT CONTRACTORS OF BRIDGE NO.S 124 AND 142. ENSURE THE I-40 EASTBOUND DECK PRESERVATION FOR ALL THREE BRIDGES #124, #142 AND #171 IS COMPLETE BEFORE BEGINNING THE I-40 WESTBOUND SIDE IN PHASE II.

PHASE II (SEE SHEET TCP-4)

UPON COMPLETION OF THE DECK PRESERVATION FOR THE I-40 EASTBOUND SIDE FOR BRIDGE NO.S 124, 142 AND 171, COORDINATE BEGINNING THE WESTBOUND SIDE WITH THE OTHER CONTRACTORS. THE CONTRACTOR OF BRIDGE #124/205 WILL REVISE TRAFFIC CONTROL DEVICES AND SWITCH I-40 LOCAL/CONSTRUCTION TRAFFIC TO THE I-40 EASTBOUND SIDE IN A TWO-LANE TWO-WAY TRAFFIC PATTERN.

WITH LOCAL/CONSTRUCTION TRAFFIC OPERATING ON THE I-40 EASTBOUND SIDE, INSTALL PORTABLE COCRETE BARRIER AND CRASH CUSHIONS AND CONSTRUCT BRIDGE #171 DECK PRESERVATION ON THE I-40 WESTBOUND SIDE.





NONE DATE: OCT. 2009 DWG BY: GK DESIGN BY:



