

WBS BK-5101 T

CONTRACT #D000073

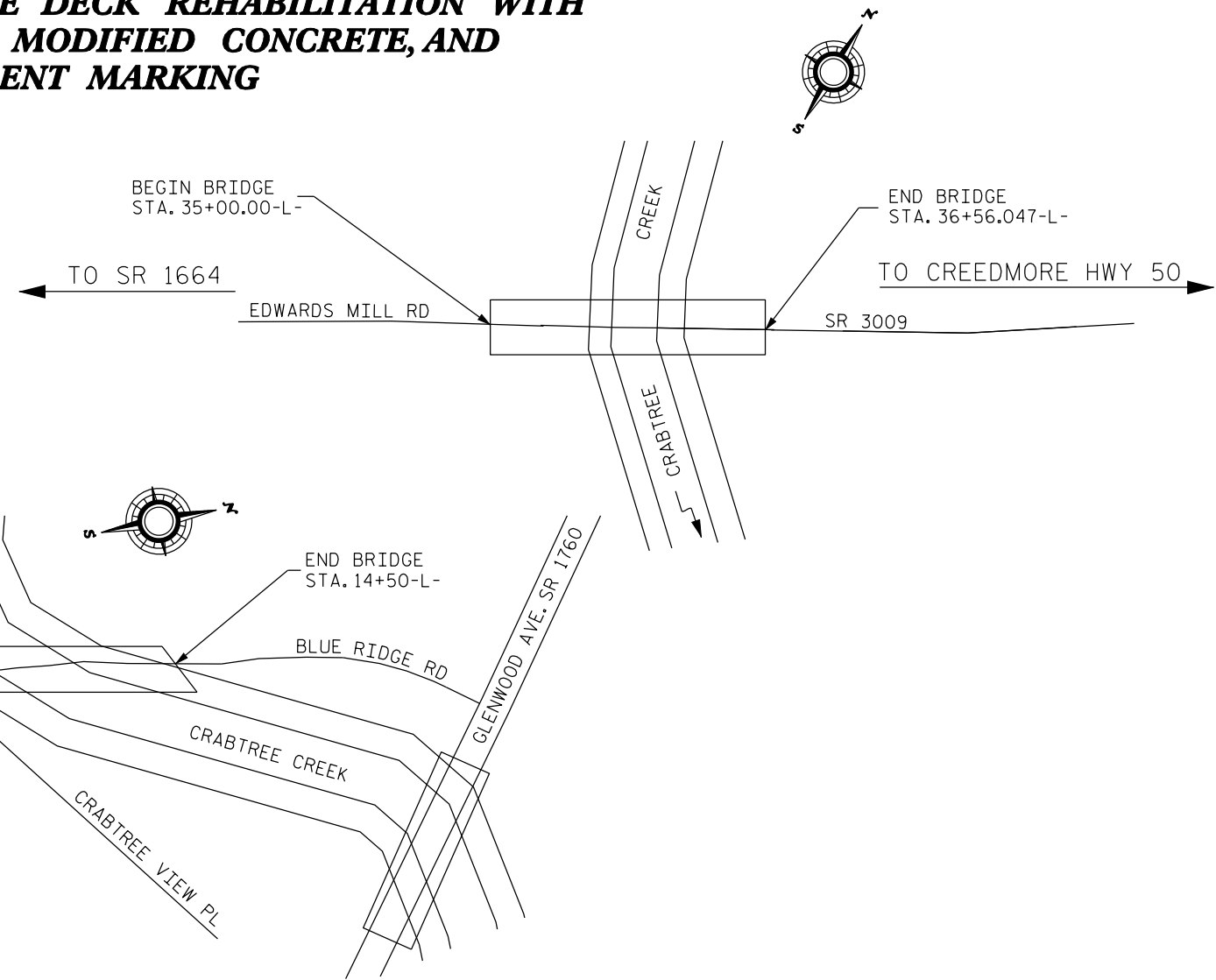
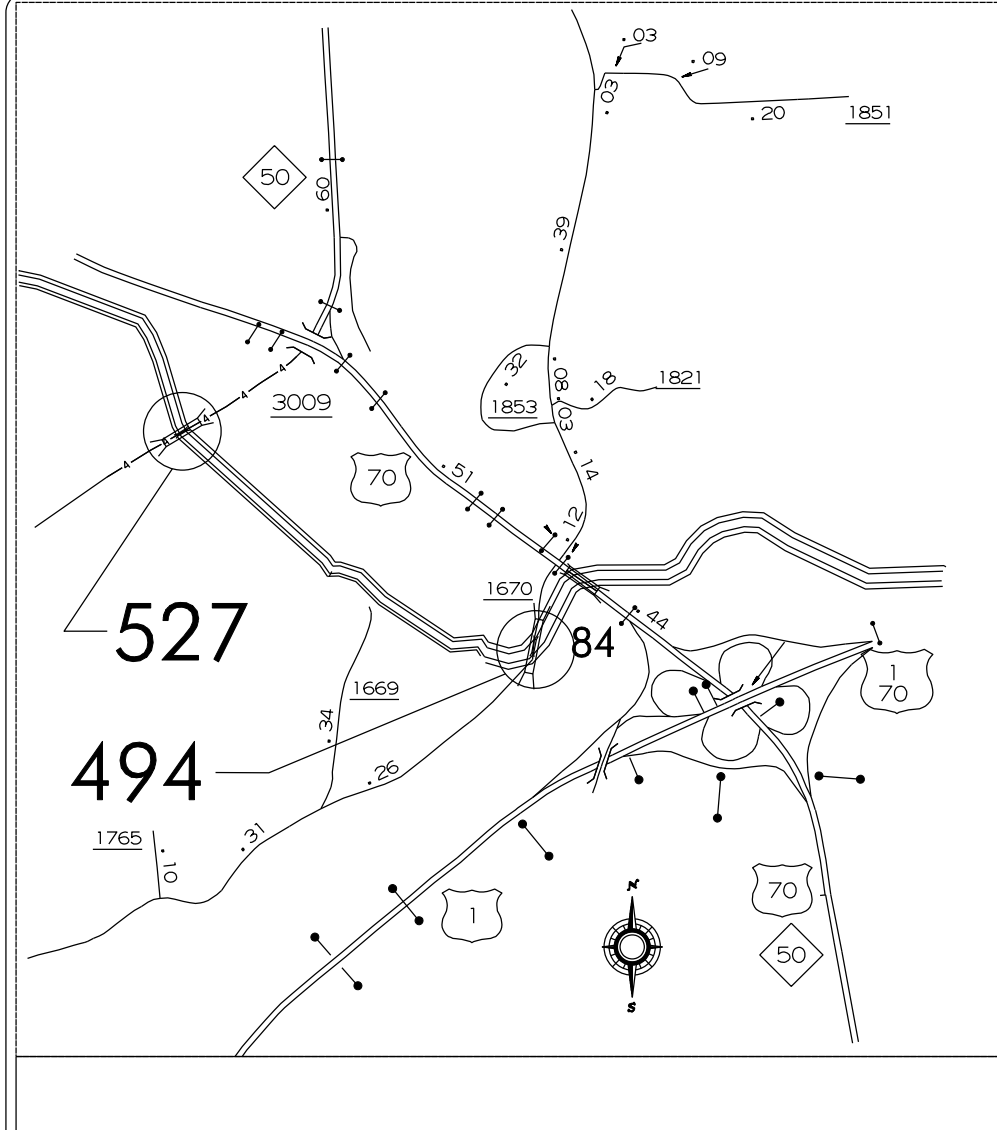
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

WAKE COUNTY

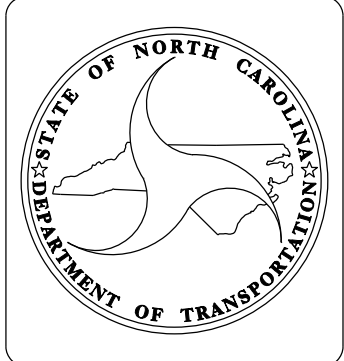
**LOCATION: BRIDGE #527, ON SR 3009 (EDWARDS MILL RD),
OVER CRABTREE CREEK
BRIDGE #494, ON SR 1670 (BLUE RIDGE RD),
OVER CRABTREE CREEK**

**TYPE OF WORK: BRIDGE DECK REHABILITATION WITH
LATEX MODIFIED CONCRETE, AND
PAVEMENT MARKING**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BK-5101 T	1	16
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
42579.1.1		PE	
42579.3.18		CONST	



INDEX OF SHEETS	
1	TITLE SHEET
S1 - S7	STRUCTURE PLANS
TCP1 - TCP8	TRAFFIC CONTROL PLANS



DESIGN DATA

BRIDGE 527	ADT 2007 = 20000
BRIDGE 494	ADT 2007 = 18000

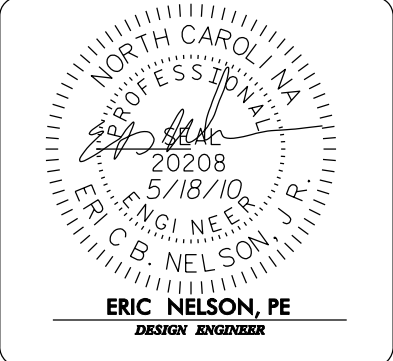
PROJECT LENGTH

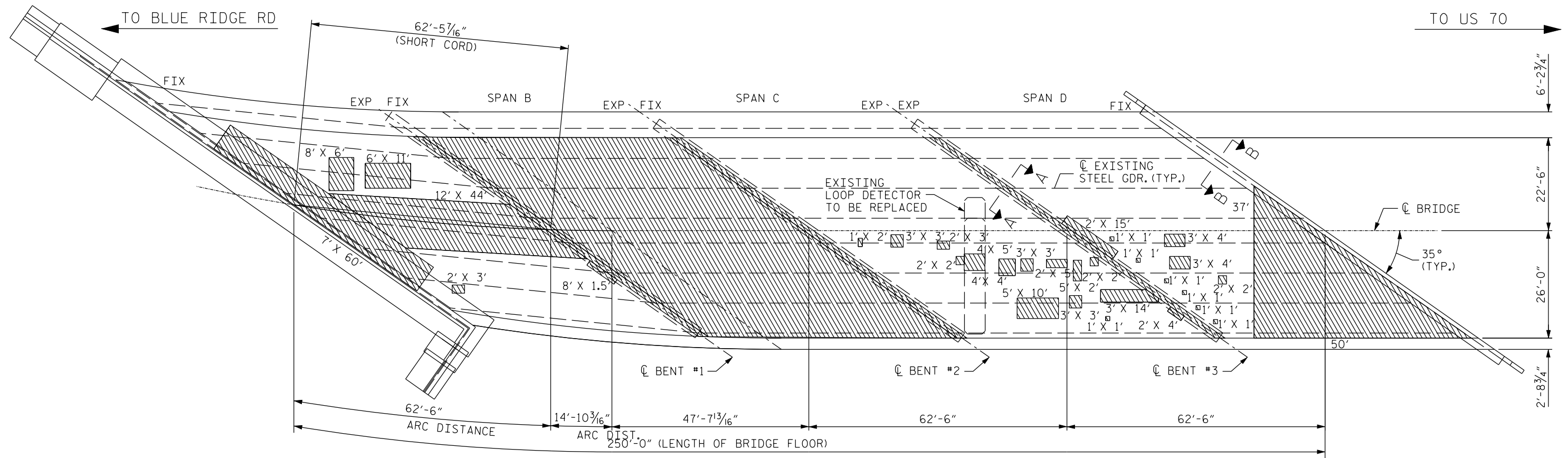
BRIDGE #527	LENGTH STRUCTURE PROJECT = .061 MILE
BRIDGE #494	LENGTH STRUCTURE PROJECT = .047 MILE

Prepared in the Office of:
DIVISION OF BRIDGE MANAGEMENT
2006 STANDARD SPECIFICATIONS

LETTING DATE:
AUGUST 19, 2010

DAN HOLDERMAN, PE
PROJECT ENGINEER





- APPROX. AREA: CLASS II REPAIR
- APPROX. AREA: CLASS III REPAIR
- APPROX. TEST BORING LOCATION

NOTES

FOR OVERLAY OF BRIDGE WITH LATEX MODIFIED CONCRETE VERY EARLY STRENGTH, SEE SPECIAL PROVISIONS.

SEE SPECIAL PROVISIONS FOR SURFACE PREPARATION.

FOR HYDRO-DEMOLITION, SEE SPECIAL PROVISIONS .

FOR UNDER DECK CONTAINMENT SEE SPECIAL PROVISIONS.

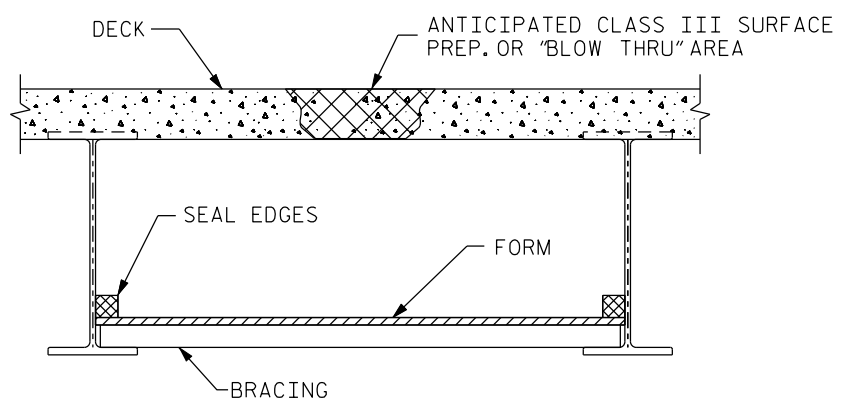
THE CONTRACTOR MUST COLLECT, TREAT AND DISPOSE OF RUN -OFF WATER FROM THE HYDRO- DEMOLITION PROCESS, SEE SPECIAL PROVISIONS.

THE BOUNDARIES OF AREAS IDENTIFIED FOR CLASS III SURFACE PREPARATION ARE APPROXIMATE.

FOR EVAZOTE JOINT SEALS, SEE SPECIAL PROVISIONS.

SEE SPEICAL PROVISIONS FOR TRAFFIC DETECTOR LOOP.

PLAN

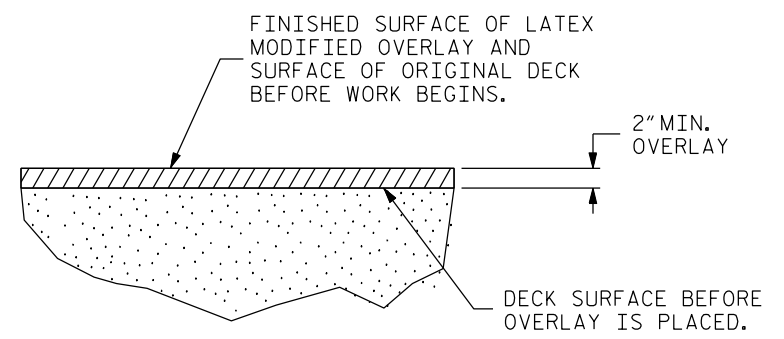


TYP. "BLOW THRU" CONTAINMENT AND FORMWORK

A METHOD TO CAPTURE WATER AND DEBRIS FROM BLOW THRU DURING HYDRO-DEMOLITION SHALL BE INSTALLED IN AREAS INDICATED AS CLASS III SURFACE PREPARATION.

SUBMIT DETAILS OF PROPOSED FORM WORK FOR APPROVAL PRIOR TO BEGINNING WORK.

COST FOR INSTALLING AND REMOVING FORM WORK SHALL BE INCIDENTAL TO THE PRICE PER SQ. YARD OF HYDRO-DEMOLITION.



DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY

TOTAL BILL OF MATERIAL

** SCARIFYING BRIDGE DECK	* CLASS I SURFACE PREPARATION	* CLASS II SURFACE PREPARATION	* CLASS III SURFACE PREPARATION	HYDRO-DEMOLITION OF BRIDGE DECK	LATEX MODIFIED CONCRETE VERY EARLY STRENGTH	PLACING & FINISHING LATEX MODIFIED CONCRETE VERY EARLY STRENGTH	EVAZOTE JOINT SEALS	GROOVING BRIDGE FLOOR	ASPHALT CONCRETE SURFACE COURSE TYPE S9.5C
SQ.YDS.	SQ.YDS.	SQ.YDS.	SQ.YDS.	SQ.YDS.	C.Y.	SQ.YDS.	LUMP SUM	SQ. FT.	TONS
6635	673	598	0	1271	106	1271	LUMP SUM	11436	70

* QUANTITY SHOWN IS FOR INFORMATION ONLY. ** INCLUDES APPROACH MILLING.

PROJECT NO. BK-5101 T
 COUNTY: WAKE
 DECK REPAIR BRIDGE NO. 494

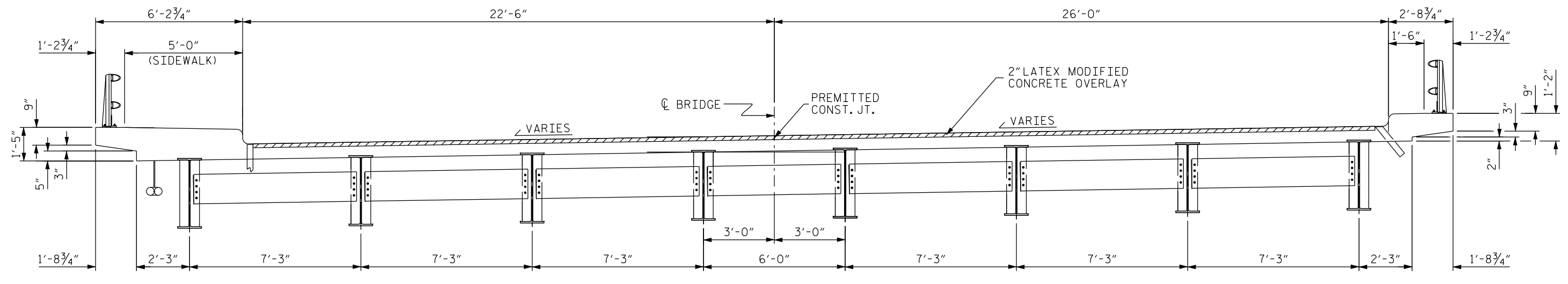
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN VIEW OF BRIDGE
 #494 ON SR 1670
 OVER CRABTREE CREEK
 48'-6" CL. ROADWAY 35° SKEW

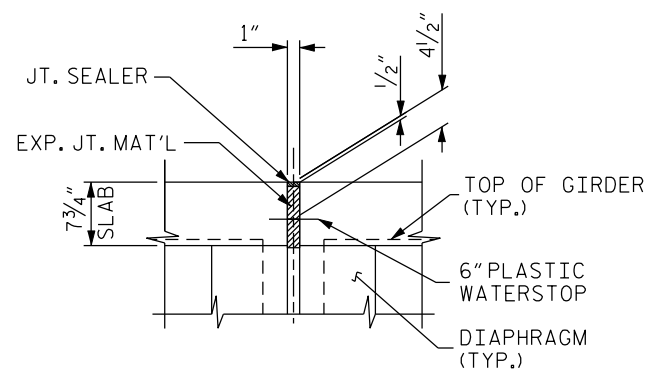
REVISIONS				SHEET NO.
NO.	BY	DATE	NO.	DATE
1			3	
2			4	

TOTAL SHEETS
7

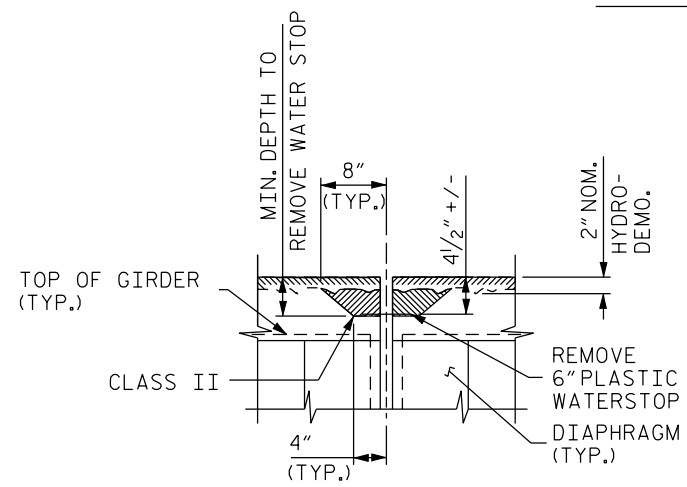
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 CHECKED BY: AGA DATE: 4/10



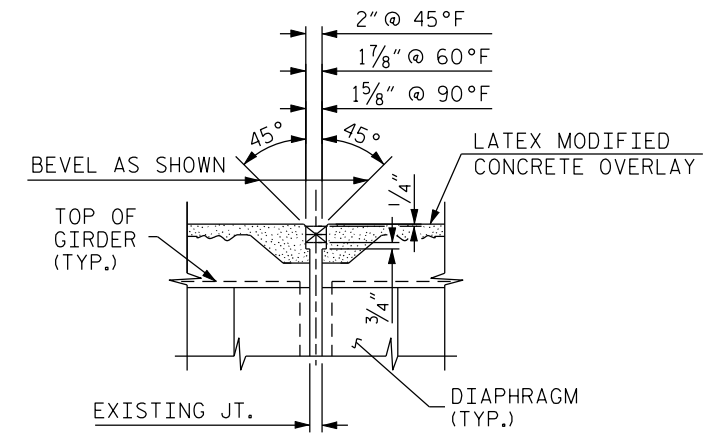
TYPICAL SECTION



SECTION A-A
(EXISTING JOINT)



SECTION A-A
(MINIMUM EXISTING JOINT DEMOLITION)



SECTION A-A
(PROPOSED EVAZOTE JOINT SEAL EXPANSION)

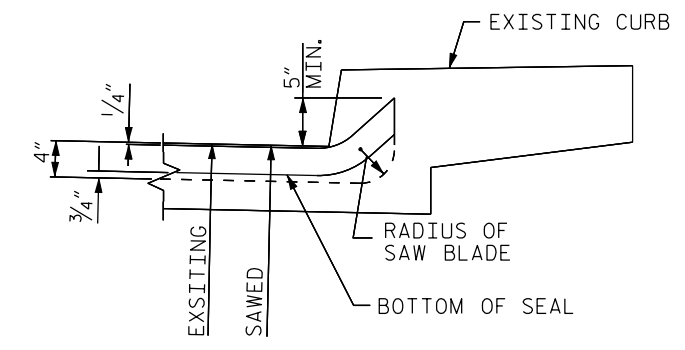
NOTES

FOR EVAZOTE JOINT SEAL, SEE SPECIAL PROVISIONS.

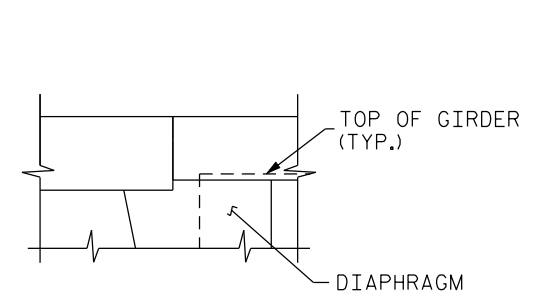
THE INSTALLED EVAZOTE JOINT SEALS SHALL BE WATERTIGHT.

NOMINAL UNCOMPRESSED SEAL WIDTH OF EVAZOTE JOINT SEAL SHALL BE 2 1/2" AT BENTS.

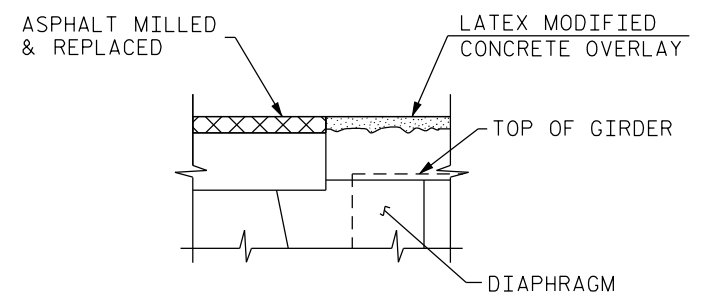
THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINT FOR THE EVAZOTE JOINT SEAL IN LIEU OF SAWING THE JOINT.



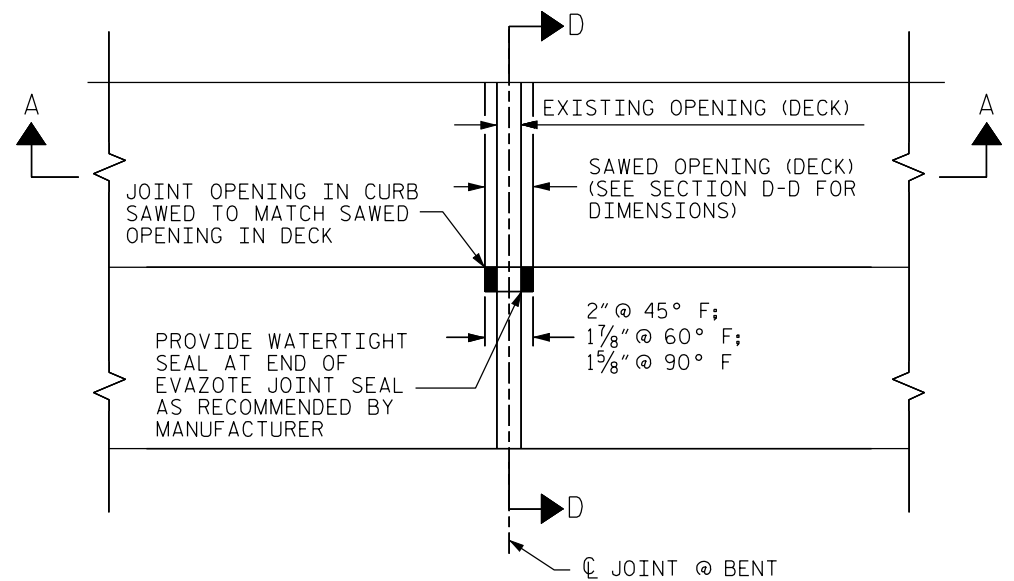
SECTION D-D



SECTION B-B
(EXISTING JOINT)



SECTION B-B
(PROPOSED JOINT)



PLAN

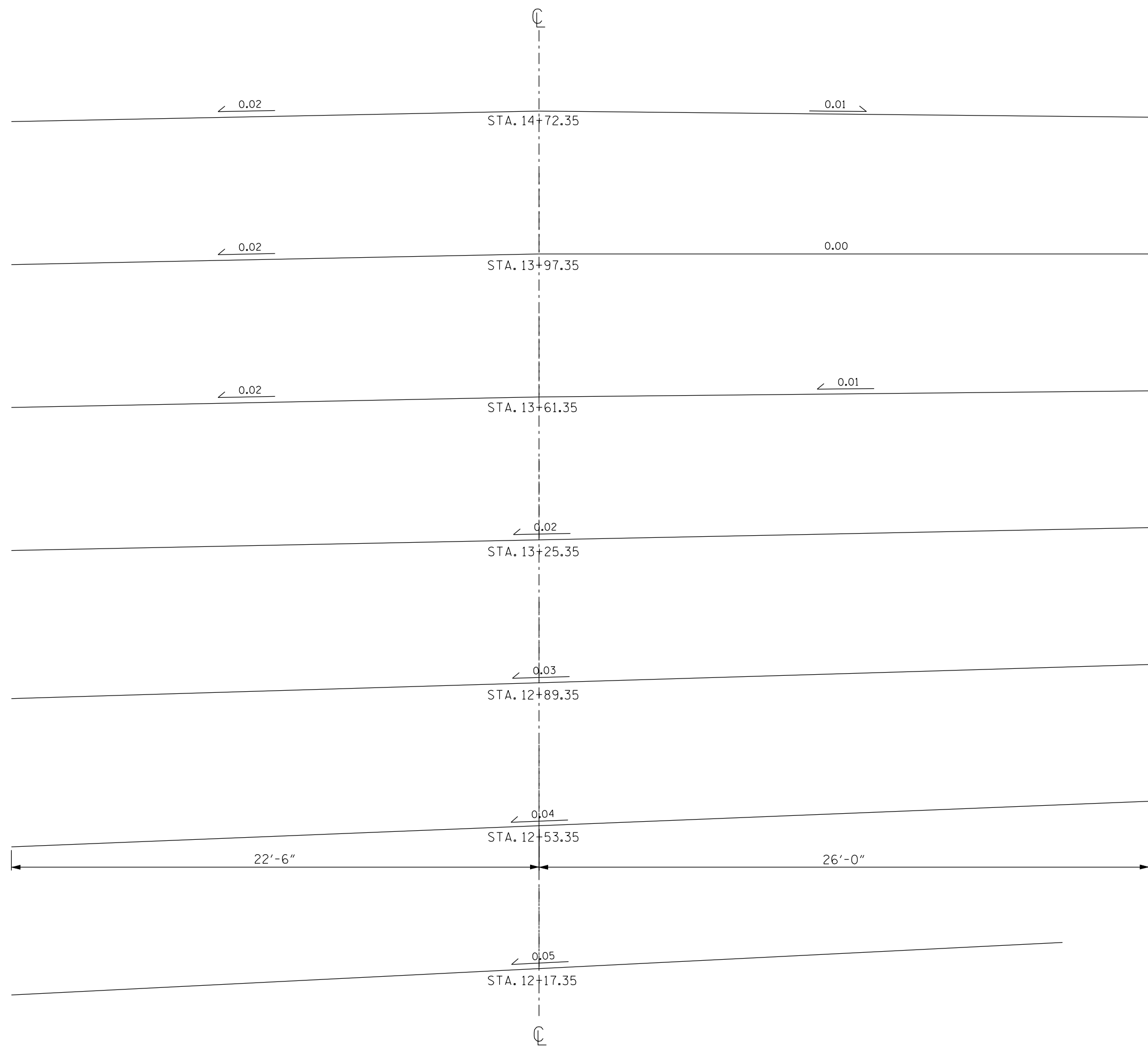
PROJECT NO. BK-5101 T
COUNTY: WAKE
DECK REPAIR BRIDGE NO. 494

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

TYPICAL SECTION OF
BRIDGE #494 ON

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S-2
1			3			TOTAL SHEETS
2			4			7

DRAWN BY: CLB DATE: 01/10
CHECKED BY: AGA DATE: 01/10



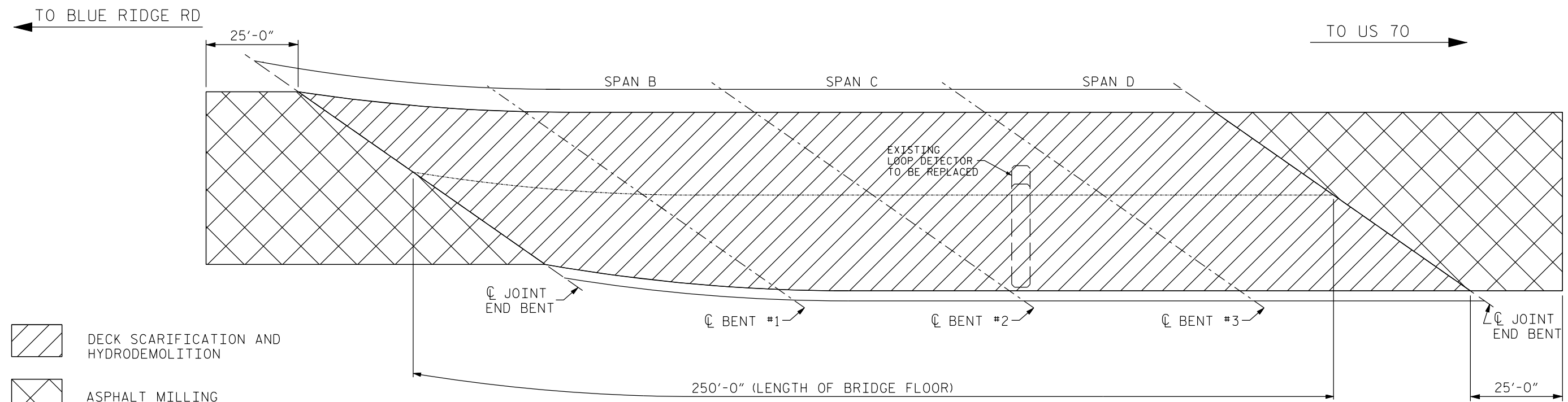
PROJECT NO. BK-5101 T
 COUNTY: WAKE
 DECK REPAIR BRIDGE NO. 494

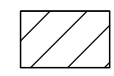
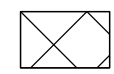
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

CROWN GRADE
 DIAGRAM

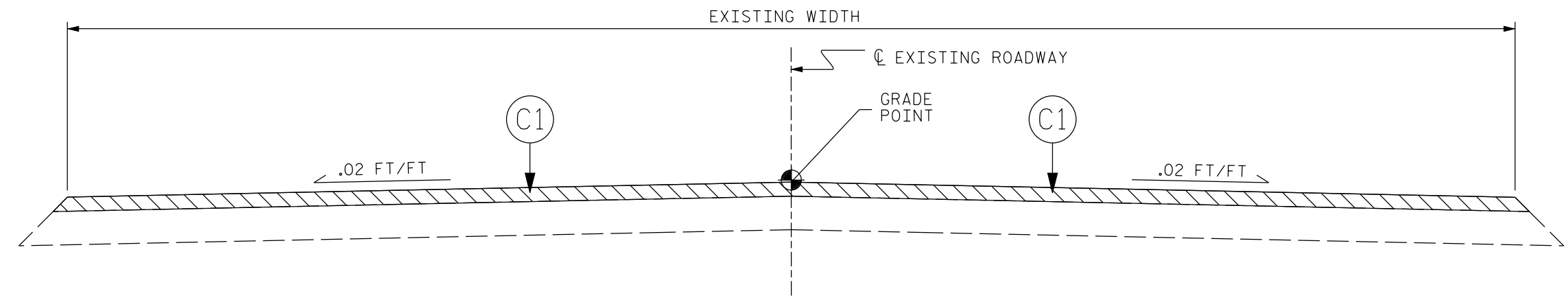
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 CHECKED BY: AGA DATE: 01/10

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S-3
1			3			TOTAL SHEETS
2			4			7



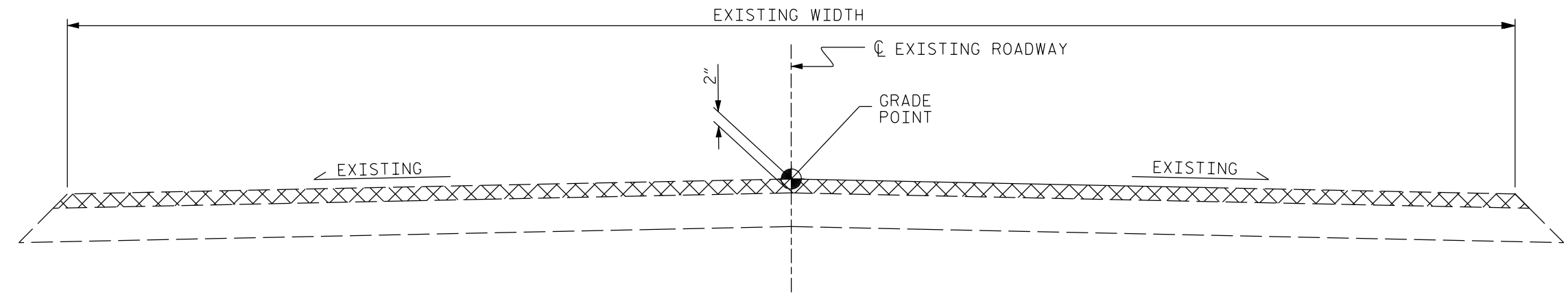
-  DECK SCARIFICATION AND HYDRODEMOLITION
-  ASPHALT MILLING

PLAN



TYPICAL ROADWAY SECTION

C1 PROPOSED VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF 9.5C AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1" IN DEPTH OR GREATER THAN 1 1/2" IN DEPTH.



TYPICAL ROADWAY MILLING SECTION
(MILL TO 2" DEPTH)

NOT TO SCALE

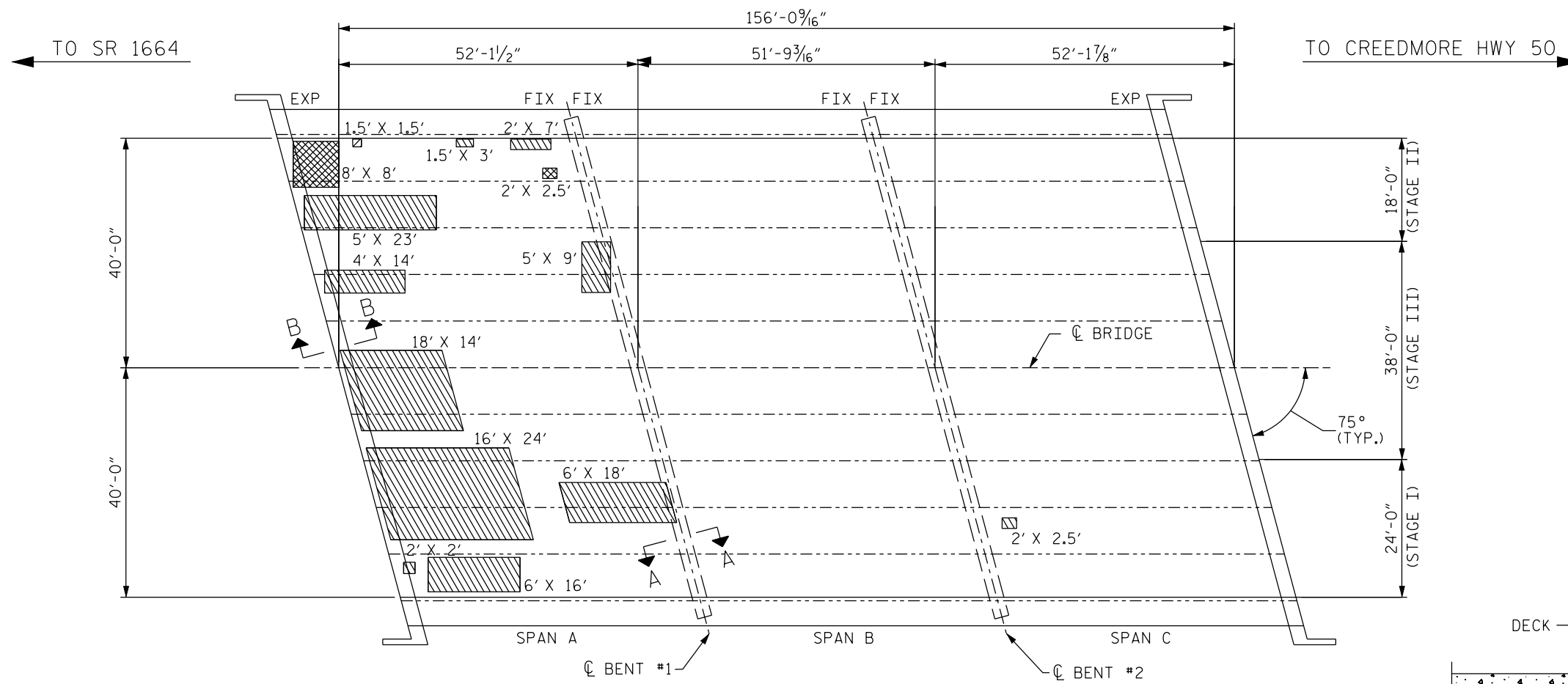
PROJECT NO. BK-5101 T
 COUNTY: WAKE
 DECK REPAIR BRIDGE NO. 494

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

ROADWAY TYPICAL SECTION AND MILLING DETAILS

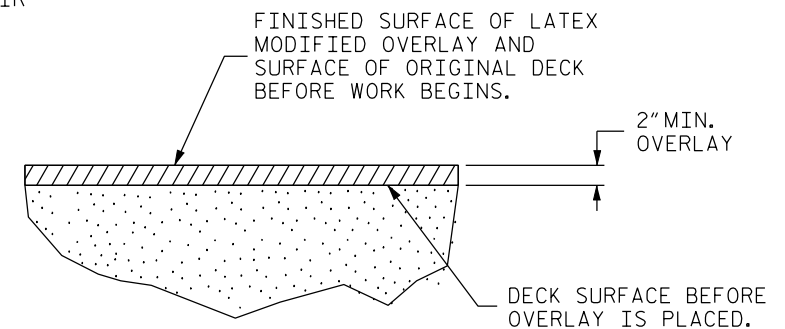
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 CHECKED BY: EBN DATE: 5/10

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S-4
1			3			TOTAL SHEETS
2			4			7



PLAN VIEW

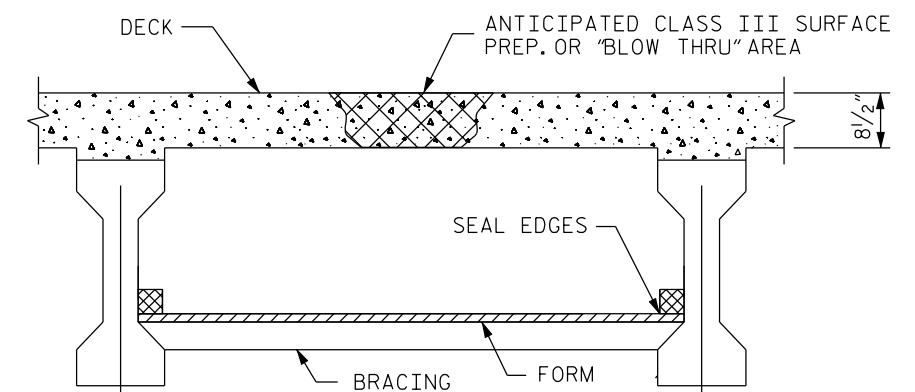
- APPROX. AREA: CLASS II REPAIR
- APPROX. AREA: CLASS III REPAIR



DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY

NOTES

FOR OVERLAY OF BRIDGE WITH LATEX MODIFIED CONCRETE- VERY EARLY STRENGTH, SEE SPECIAL PROVISIONS.
 SEE SPECIAL PROVISIONS FOR SURFACE PREPARATION.
 FOR HYDRO-DEMOLITION, SEE SPECIAL PROVISIONS .
 FOR UNDER DECK CONTAINMENT SEE SPECIAL PROVISIONS.
 THE CONTRACTOR MUST COLLECT, TREAT AND DISPOSE OF RUN -OFF WATER FROM THE HYDRO- DEMOLITION PROCESS, SEE SPECIAL PROVISIONS.
 BRIDGE DECK DRIANS SHALL BE PLUGGED DURING HYDRODEMOLITION PROCEES.
 THE BOUNDARIES OF AREAS IDENTIFIED FOR CLASS III SURFACE PREPARATION ARE APPROXIMATE.
 FOR EVAZOTE JOINT SEALS, SEE SPECIAL PROVISIONS.
 FOR ELASTOMERIC CONCRETE, SEE SPECIAL PROVISIONS.
 BRIDGE DECK DRIANS SHALL BE PLUGGED DURING HYDRODEMOLITION PROCESS. SEE HYDRODEMOLITION SPECIAL PROVISIONS.



TYP. "BLOW THRU" CONTAINMENT AND FORMWORK

A METHOD TO CAPTURE WATER AND DEBRIS FROM BLOW THRU DURING HYDRO-DEMOLITION SHALL BE INSTALLED IN AREAS INDICATED AS CLASS III SURFACE PREPARATION.
 SUBMIT DETAILS OF PROPOSED FORMWORK FOR APPROVAL PRIOR TO BEGINNING WORK.
 COST FOR INSTALLING AND REMOVING FORMWORK SHALL BE INCIDENTAL TO THE PRICE PER SQ. YARD OF HYDRO-DEMOLITION.

TOTAL BILL OF MATERIAL

* SCARIFYING BRIDGE DECK	* CLASS I SURFACE PREPARATION	* CLASS II SURFACE PREPARATION	* CLASS III SURFACE PREPARATION	HYDRO-DEMOLITION OF BRIDGE DECK	LATEX MODIFIED CONCRETE VERY EARLY STRENGTH	PLACING & FINISHING LATEX MODIFIED CONCRETE VERY EARLY STRENGTH	EVAZOTE JOINT SEALS	GROOVING BRIDGE FLOOR	PAVEMENT MARKING
SQ.YDS.	SQ.YDS.	SQ.YDS.	SQ.YDS.	SQ.YDS.	C.Y.	SQ.YDS.	LUMP SUM	SQ. FT.	LF
1387	1261	118	8	1387	96	1387	LUMP SUM	12,484	LF

* QUANTITY SHOWN IS FOR INFORMATION ONLY.

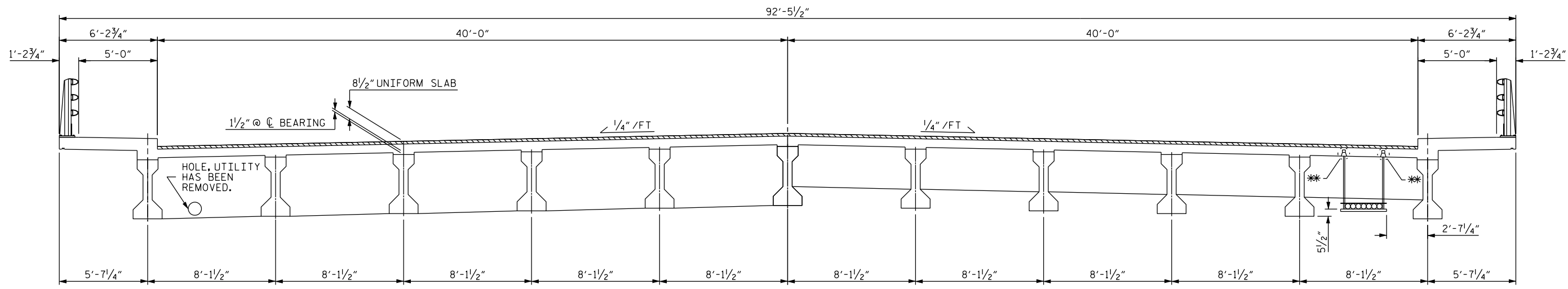
PROJECT NO. BK-5101 T
 COUNTY: WAKE
 DECK REHAB BRIDGE NO. 527

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 PLAN VIEW OF BRIDGE
 #527 ON SR 3009
 OVER CRABTREE CREEK

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S-5
1			3			TOTAL SHEETS
2			4			7

DRAWN BY : CLB DATE : 05/10
 CHECKED BY : EBN DATE : 05/10

*****SYSTEMTIME***** *****USERNAME*****



@ BENT DIPHRAM

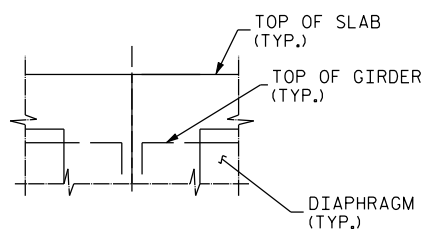
@ INTERMEDIATE DIPHRAM

TYPICAL SECTION

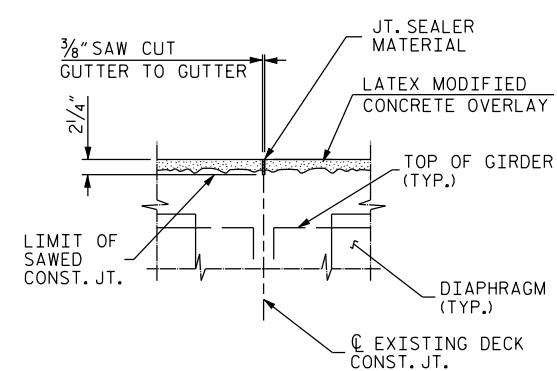
** SURFACE PREPARATION AT UTILITY HANGER LOCATIONS SHALL NOT EXPOSE HANGER INSERTS. DEPTH OF CUT AT THESE LOCATIONS CAN BE ADJUSTED TO INSURE INSERTS ARE NOT EXPOSED.

NOTES

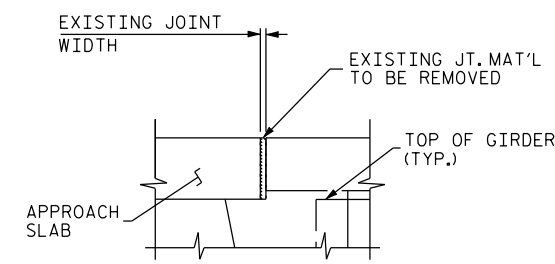
FOR EVAZOTE JOINT SEAL, SEE SPECIAL PROVISIONS.
 THE INSTALLED EVAZOTE JOINT SEALS SHALL BE WATERTIGHT.
 NOMINAL UNCOMPRESSED SEAL WIDTH OF EVAZOTE JOINT SEAL SHALL BE 2 1/2" AT BENTS.
 THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINT FOR THE EVAZOTE JOINT SEAL IN LIEU OF SAWING THE JOINT.



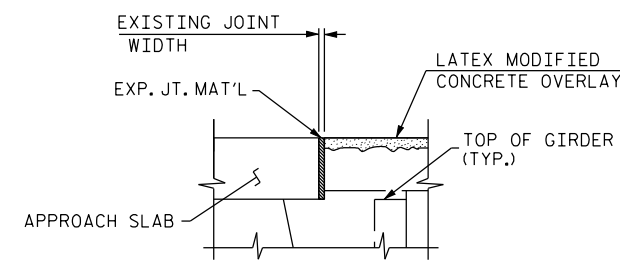
SECTION A-A
(EXISTING JOINT)



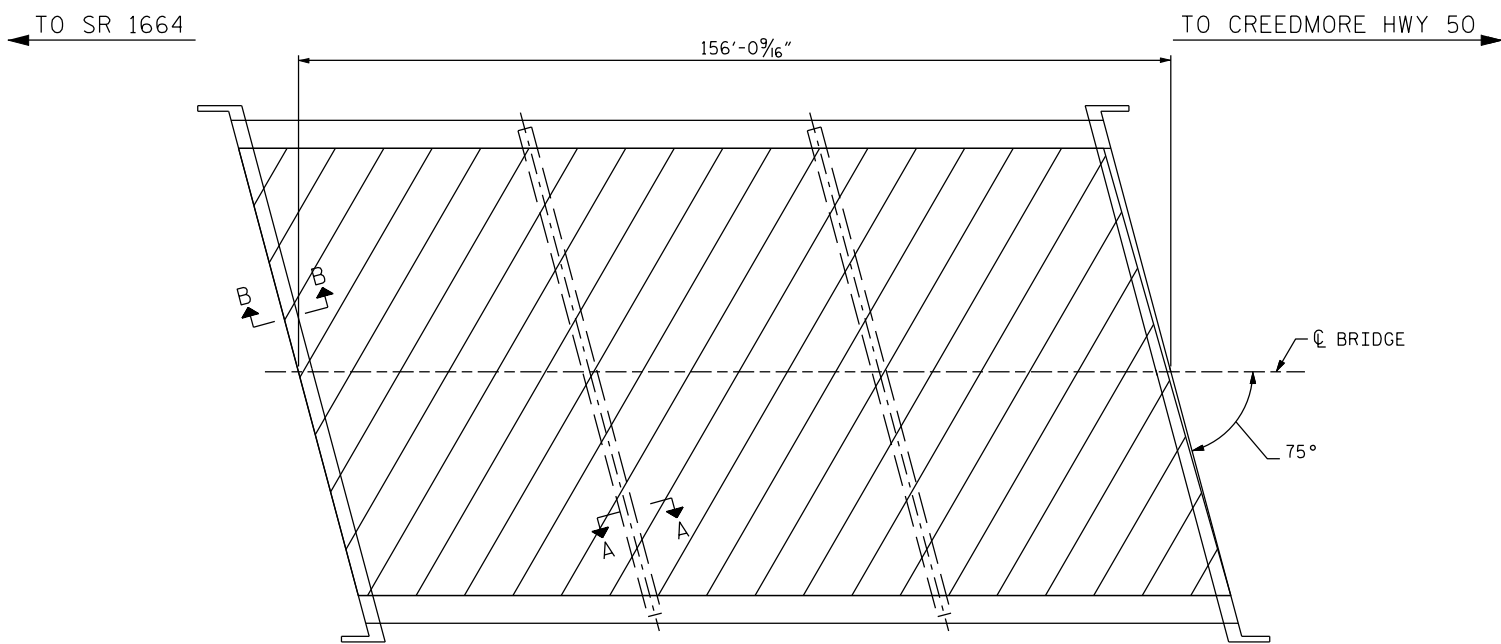
SECTION A-A
(PROPOSED JOINT)



SECTION B-B
(EXISTING JOINT)



SECTION B-B
(PROPOSED JOINT)



BRIDGE 527

PLAN

DECK SCARIFICATION AND HYDRODEMOLITION

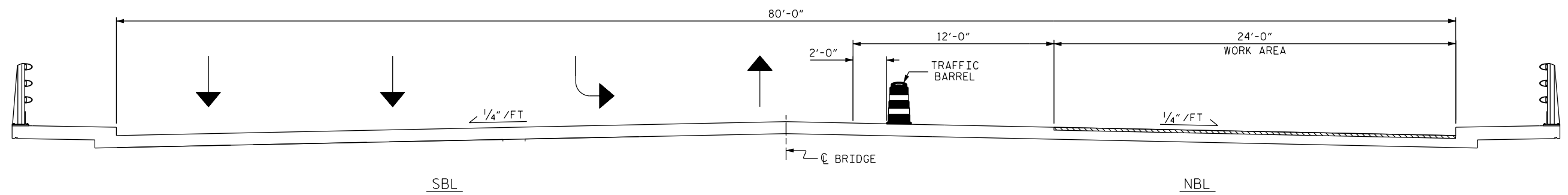
DECK SCARIFICATION

PROJECT NO. BK-5101 T
 COUNTY: WAKE
 DECK REPAIR BRIDGE NO. 527

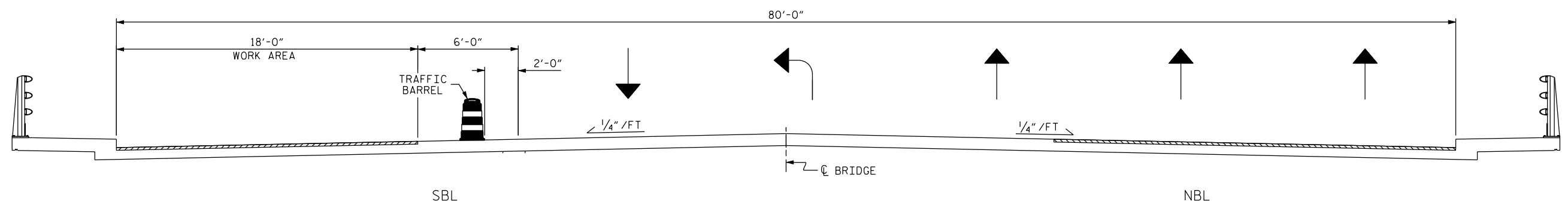
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 TYPICAL SECTION
 JOINT DETAILS
 &
 DECK SCARIFICATION

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S-6
1			3			TOTAL SHEETS
2			4			7

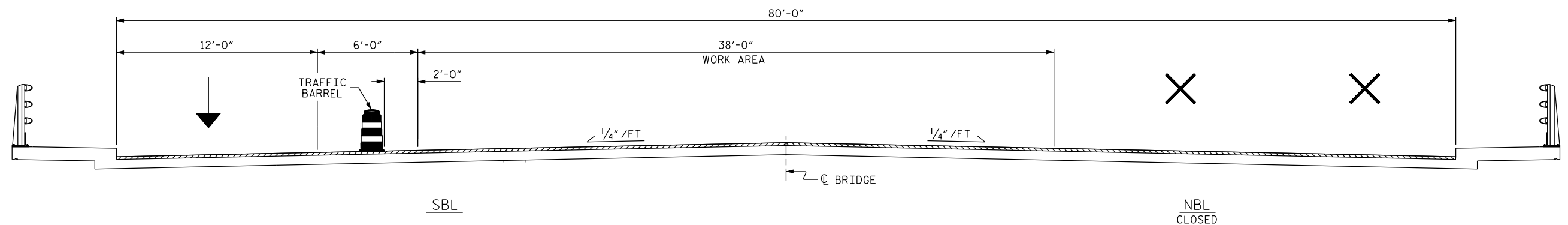
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 CHECKED BY: EBN DATE: 05/10



TYPICAL SECTION
(STAGE I)



TYPICAL SECTION
(STAGE II)



TYPICAL SECTION
(STAGE III)

PROJECT NO. BK-5101 T
 COUNTY: WAKE
 DECK REPAIR BRIDGE NO. 527

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

STAGING OF
 BRIDGE #527

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S-7
1			3			TOTAL SHEETS
2			4			7

DRAWN BY: CLB DATE: 05/10
 CHECKED BY: EBN DATE: 05/10

*****USERNAME***** *****SYSTEM*****