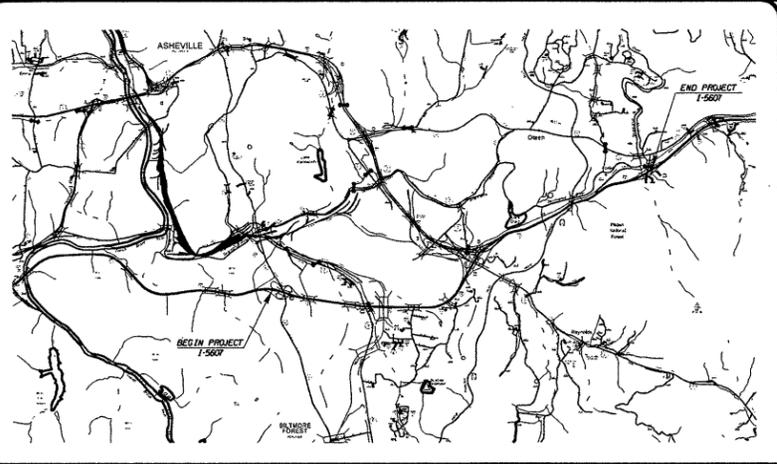


STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5607	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
45829.1.1	IMPP-040-1(246)50	PE	
45829.3.FS1	IMPP-040-1(246)50	CONST.	

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

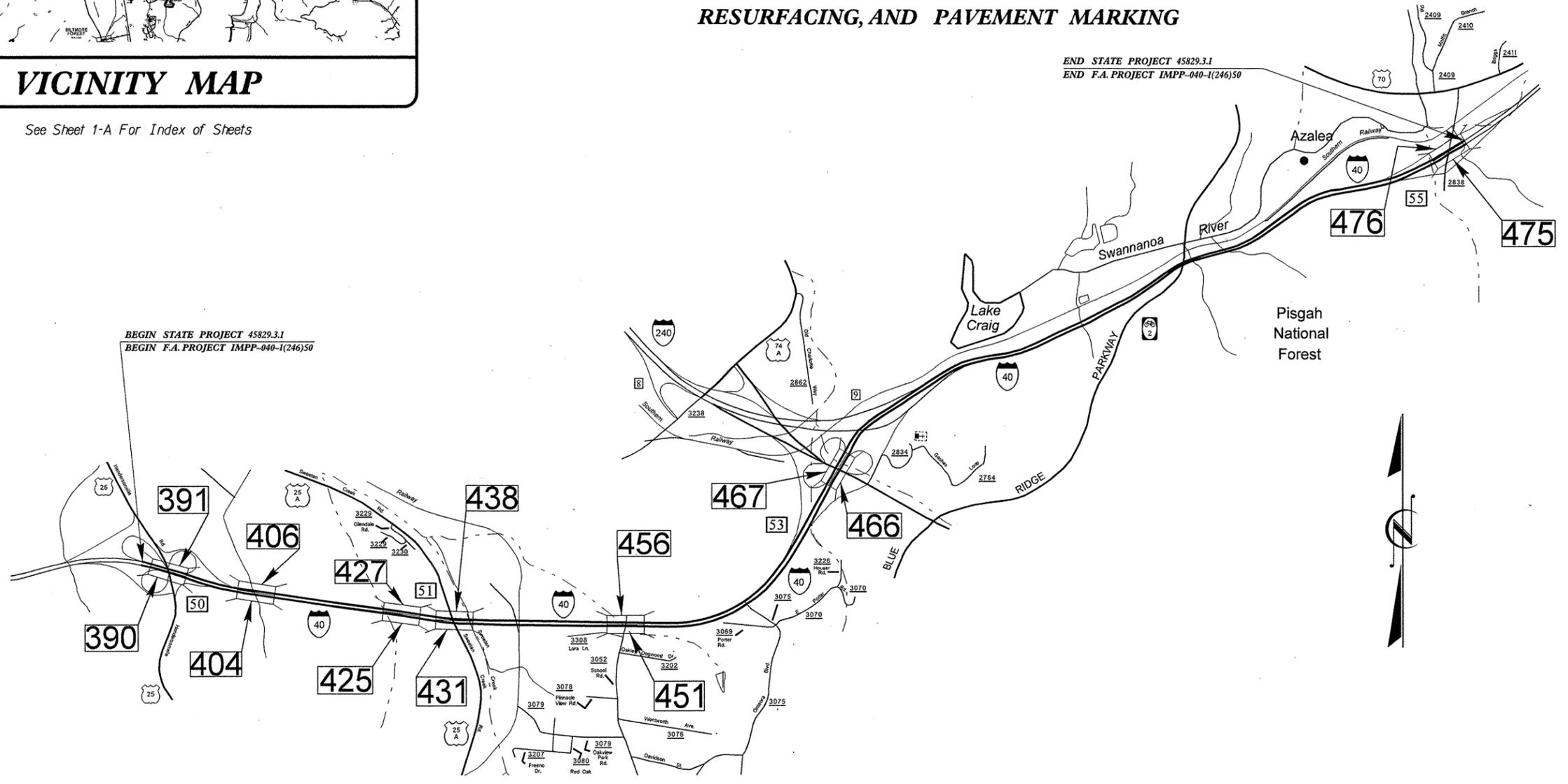
BUNCOMBE COUNTY

LOCATION: I-40 FROM MILEMARKER 50 TO MILEMARKER 55
TYPE OF WORK: MILLING, CONCRETE REPAIR, BRIDGE REHAB,
RESURFACING, AND PAVEMENT MARKING



VICINITY MAP

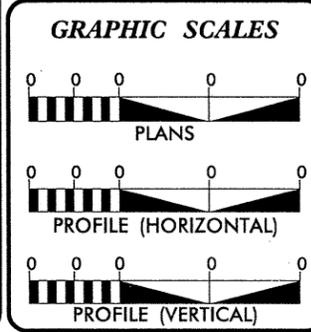
See Sheet 1-A For Index of Sheets



TIP PROJECT: I-5607

CONTRACT: C203385

16-JUL-2013 09:50 P:\Resurfacing\Resurfacing 2013 I-40 MP50 to MP55\I-5607_Title.dgn \$\$\$\$\$\$USERNAME\$\$\$\$\$



DESIGN DATA
ADT 2012 = 54000

PROJECT LENGTH
LENGTH OF PROJECT I-5607 = 5.05 MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS
55 Orange Street, Asheville, NC 28801

2012 STANDARD SPECIFICATIONS

LETTING DATE:
September 17, 2013

KENNETH ARTHUR WILSON, P.E.
PROJECT ENGINEER

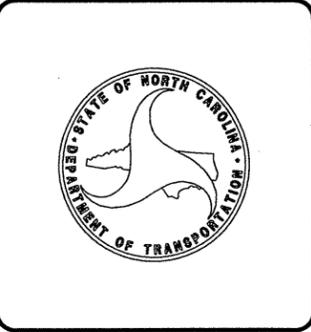
M.K. PENLAND
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



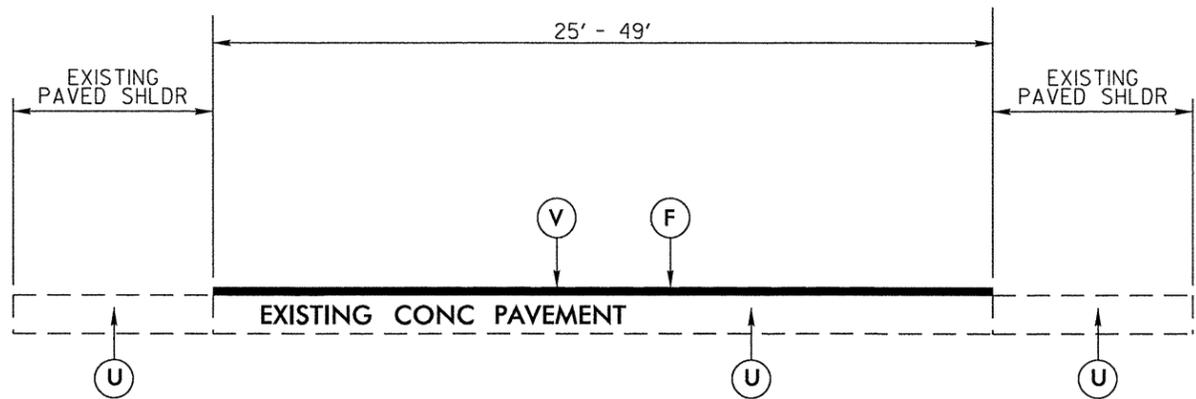
8/17/99

16-JUL-2013 09:56
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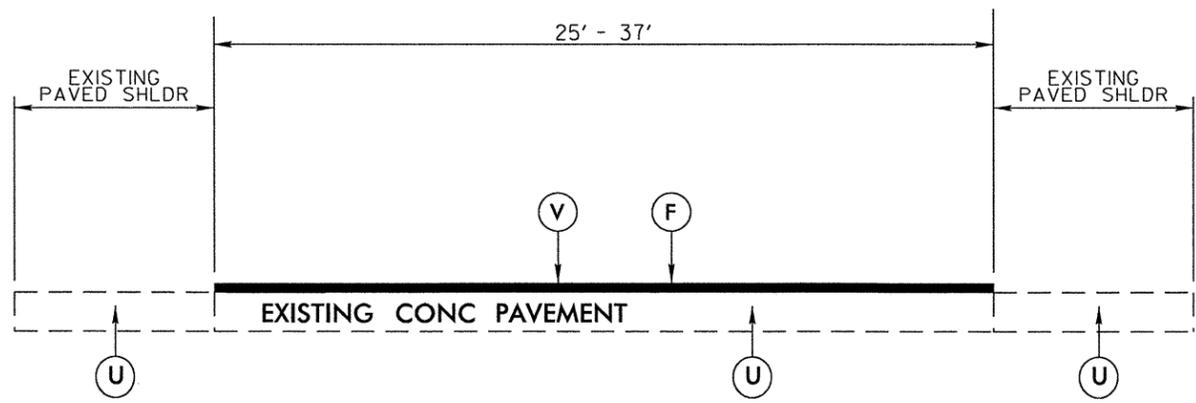
PROJECT REFERENCE NO.	SHEET NO.
I-5607	I-A
ROADWAY DESIGN ENGINEER	

SHEET NUMBER	SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS
2	RESURFACING TYPICAL SECTIONS
2-A	RESURFACING DETAIL
2-B	DETAIL FOR REPAIR OF CONTINUOUSLY REINFORCED CONCRETE PAVEMENT
3	SUMMARY OF QUANTITIES
4	BRIDGE PRESERVATION TITLE SHEET
5	BRIDGE PRESERVATION INDEX OF SHEETS
S-1 THRU S-42	BRIDGE PRESERVATION PLANS
TCP-1	TRAFFIC CONTROL PLANS

PROJECT NO.	SHEET NO.	TOTAL SHEETS
I-5607	2	



TYPICAL SECTION NO. 1

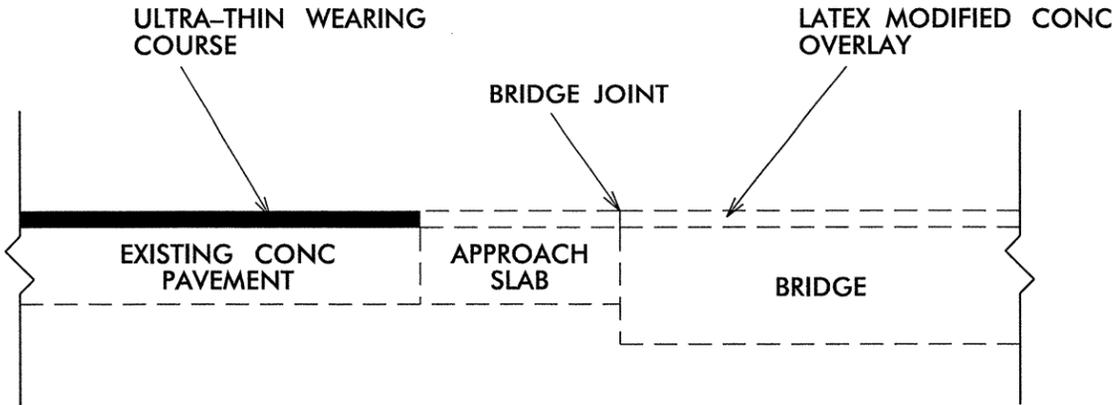


TYPICAL SECTION NO. 2

BUNCOMBE COUNTY

PAVEMENT SCHEDULE	
F	ULTRA-THIN BONDED WEARING COURSE
U	EXISTING PAVEMENT
V	MILLING ASPHALT PAVEMENT, 5/8" DEPTH

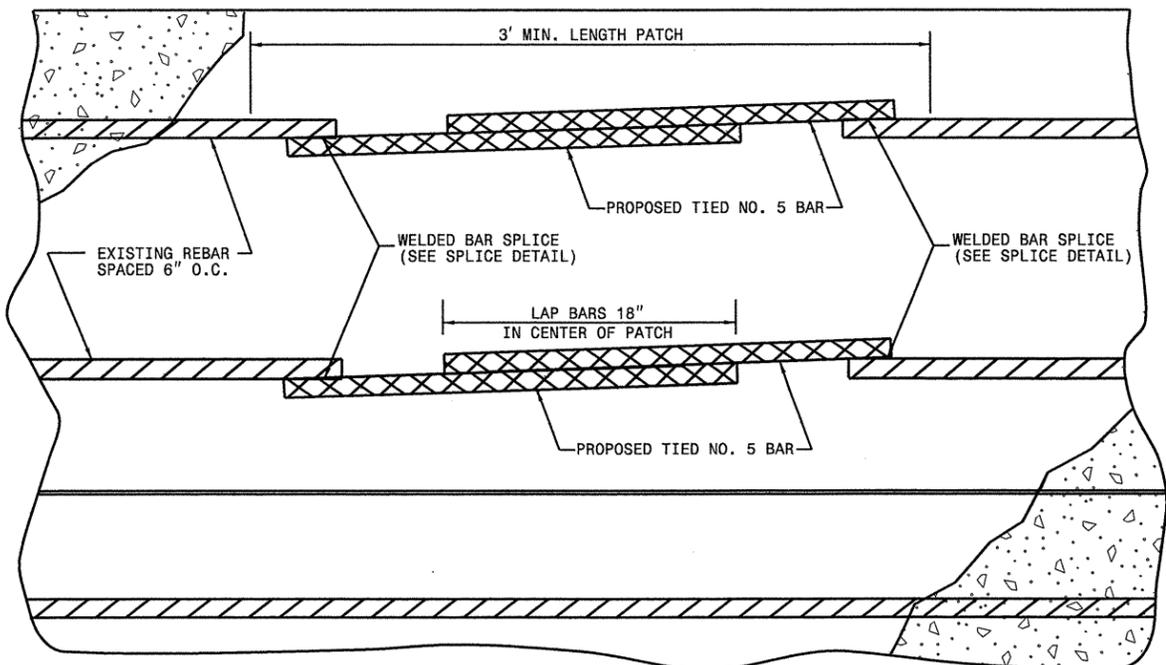
<i>PROJECT NO.</i>	<i>SHEET NO.</i>	<i>TOTAL SHEETS</i>
I-5607	2-A	



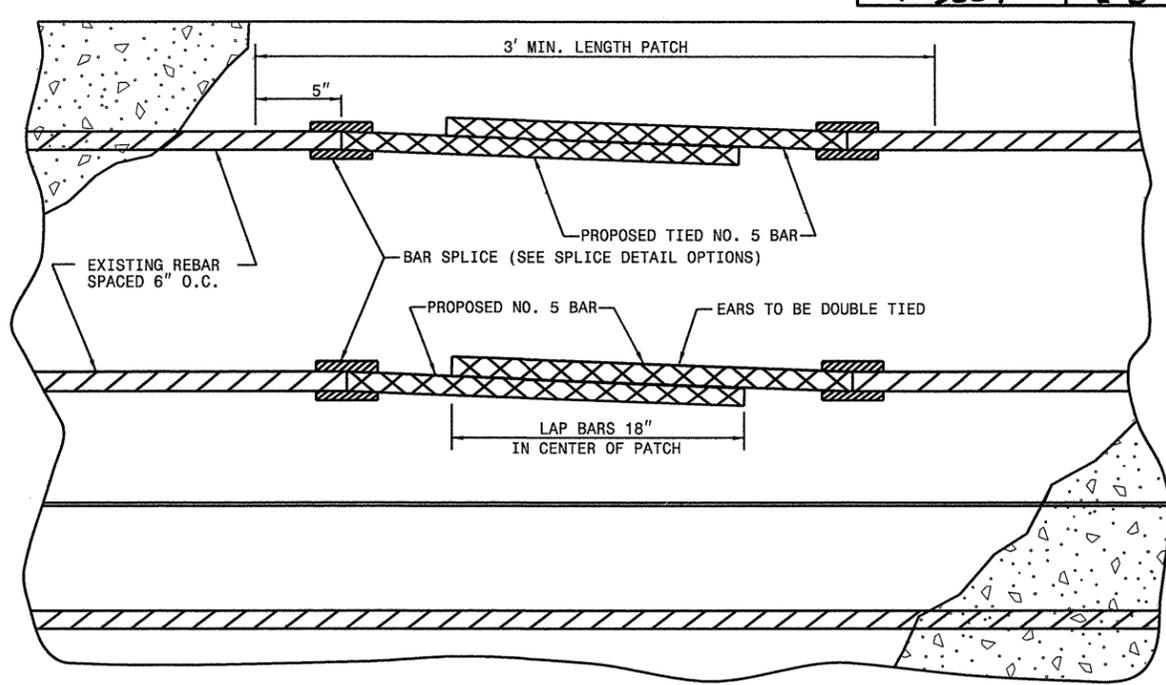
TIE-IN DETAIL AT BRIDGE

LATEX OVERLAY ELEVATION ON APPROACH SLABS MAY REQUIRE MODIFICATION TO MATCH FINISHED GRADE.
 GRADE TO BE DETERMINED IN FIELD.
 ACSC MAY BE USED TO WEDGE FOR TIE-IN AT APPROACH AS APPROVED BY ENGINEER.

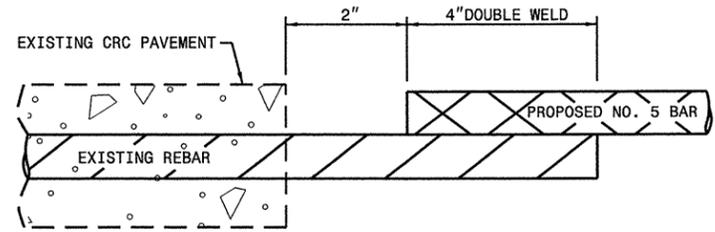
5/14/99



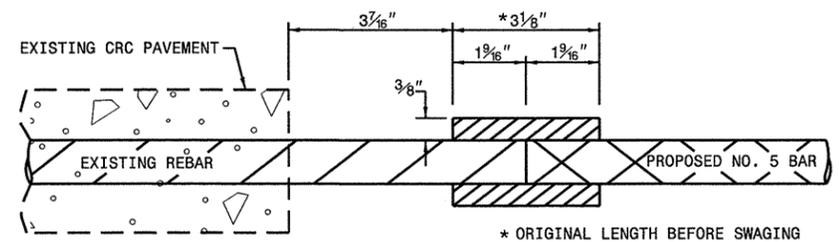
PLAN



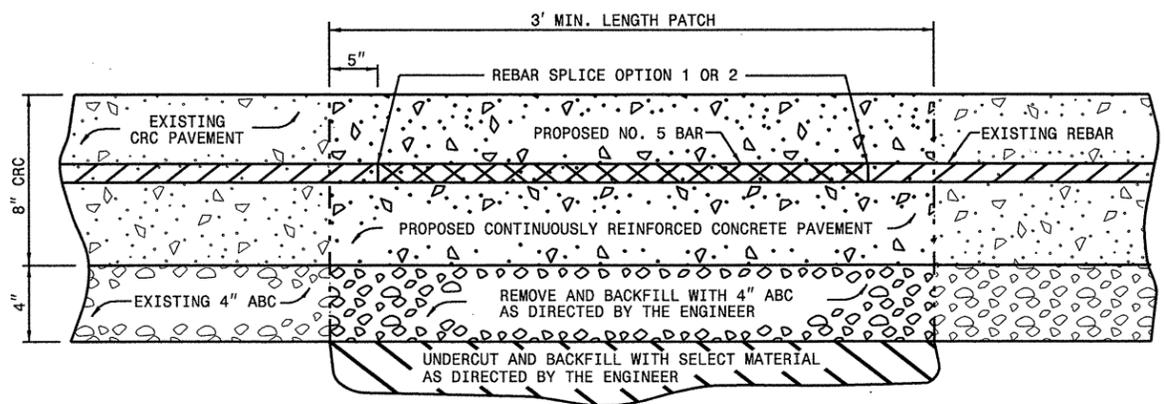
PLAN



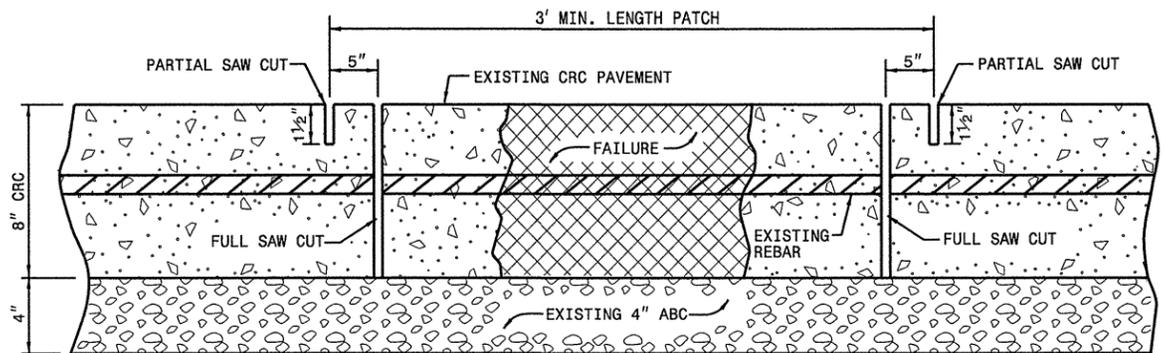
OPTION 1 - DETAIL OF WELDED SPLICE



OPTION 2 - DETAIL OF MECHANICAL SPLICE



DETAIL OF CONCRETE PAVEMENT REMOVAL AND REPLACEMENT



DETAIL OF SAW CUTS

PLACE BAR SUPPORTS ON 5' CENTERS FOR PATCHES GREATER THAN 10' IN LENGTH AND AT CENTER OF PATCH FOR REPAIRS LESS THAN 10'. HEIGHT OF SUPPORTS DETERMINED BY THE CONTRACTOR.

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950 FAX 919-250-4119	
DETAIL FOR REPAIR OF CONTINUOUSLY REINFORCED CONCRETE PAVEMENT	
ORIGINAL BY: E.E. WARD	DATE: 4-98
MODIFIED BY: JSH	DATE: 6-13
CHECKED BY:	DATE:
FILE SPEC.: usr/details/stand/crcrepair.dgn	

PROJECT NO.		SHEET NO.	TOTAL NO.
I-5607	45829.3.1	3	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	FINE MILLING SY	ASPHALT CONC SURFACE COURSE, TYPE S9.5C TONS	ASPHALT BINDER FOR PLANT MIX TONS	POLYMER MODIFIED ASPHALT BINDER FOR PLANT MIX TONS	ULTRA-THIN BONDED WEARING COURSE TON	APPLICATION OF ULTRATHIN HOT MIX SY	AGGREGATE BASE COURSE FOR BACKFILL TON	8" CONTINUOUSLY REINFORCED CONCRETE REPAIR SY
I-5607	Buncombe	1	I-40 EASTBOUND	FROM MP50 TO MP55	1	2	MD	NO	NO	5.05	25	80,630	100	6	169	3,250	85,391	100	4,032
		2	I-40 WESTBOUND	FROM MP55 TO MP50	2	2	MD	NO	NO	5.05	25	78,320	100	6	170	3,270	85,416	100	3,916
TOTAL FOR PROJ NO. 45829.3.1										10.10		158,950	200	12	339	6,520	170,807	200	7,948
GRAND TOTAL										10.10		158,950	200	12	339	6,520	170,807	200	7,948

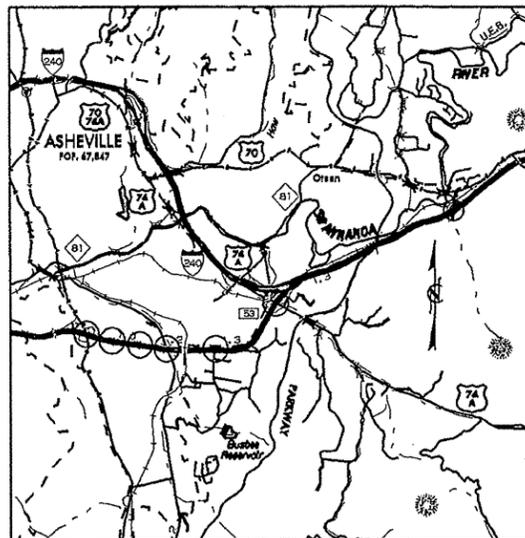
SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	GROOVING BRIDGE FLOORS SF	CLASS II, SURFCE PREPARATION SY	FOAM JOINT SEALS LS	SYNTHETIC RUBBER EXPANSION JOINT SEAL LS	VOLUMETRIC MIXER LS	LATEX MODIFIED CONC OVERLAY, VERY EARLY STRENGTH CY	CONCRETE FOR DECK REPAIR CF	BRIDGE JOINT DEMOLITION SF	HYDRO-DEMOLITION OF BRIDGE DECK SY	PLACING & FINISHING OF LATEX MODIFIED CONC OVERLAY SY	SCARIFYING BRIDGE DECK SY
I-5607	Buncombe	1	I-40 EASTBOUND	FROM MP50 TO MP55	1	2	MD	124,332	145	1	1	1	818	171	1,425	14,702	14,702	14,702
		2	I-40 WESTBOUND	FROM MP55 TO MP50	2	2	MD											
TOTAL FOR PROJ NO. 45829.3.1								124,332	145	1.0	1.0	1.0	818	171	1,425	14,702	14,702	14,702
GRAND TOTAL								124,332	145	1.0	1.0	1.0	818	171	1,425	14,702	14,702	14,702

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4366000000-E	4510000000-N	4589000000-N	4725000000-E	4815000000-E		4847100000-E		4847120000-E	4905000000-N
										WORK ZONE ADVANCE/ GENERAL WARNING SIGNS SF	LAW ENFORCEMENT HR	TEMPORARY TRAFFIC CONTROL LS	THERMO-PLASTIC PAVEMENT MARKING SYMBOL (90 MILS) MERGE ARROW EA	PAINT PAVEMENT MARKING LINES (6") WHITE LF	PAINT PAVEMENT MARKING LINES (6") YELLOW LF	POLYUREA PAVEMENT MARKING LINES (6", HIGHLY REFLECTIVE ELEMENTS) YELLOW LF	POLYUREA PAVEMENT MARKING LINES (6", HIGHLY REFLECTIVE ELEMENTS) WHITE LF	POLYUREA PAVEMENT MARKING LINES (12", HIGHLY REFLECTIVE ELEMENTS) WHITE LF	SNOW-PLOWABLE PAVEMENT MARKERS EA
I-5607	Buncombe	1	I-40 EASTBOUND	FROM MP50 TO MP55	1	2	MD	5.05	25	295.75	100	0.5	14	70,578	52,800	26,400	35,290	4,792	590
		2	I-40 WESTBOUND	FROM MP55 TO MP50	2	2	MD	5.05	25	295.75	100	0.5	12	70,404	52,800	26,400	35,205	4,953	602
TOTAL FOR PROJ NO. 45829.3.1								10.10		591.50	200	1.0	26	140,982	105,600	52,800	70,495	9,745	1,192
GRAND TOTAL								10.10		591.50	200	1.0	26	140,982	105,600	52,800	70,495	9,745	1,192

CONTRACT C203385 TIP NO: I-5607



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

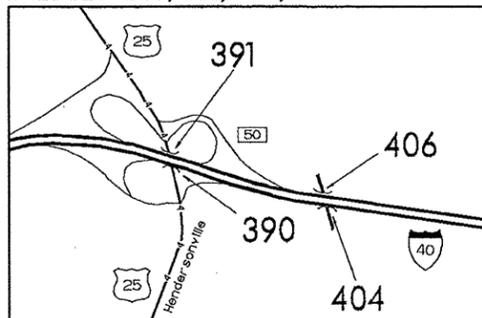
BUNCOMBE COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5607	4	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
45829.1.1	IMPP-040-1(246)50	PE	
45829.3.1	IMPP-040-1(246)50	CONST	

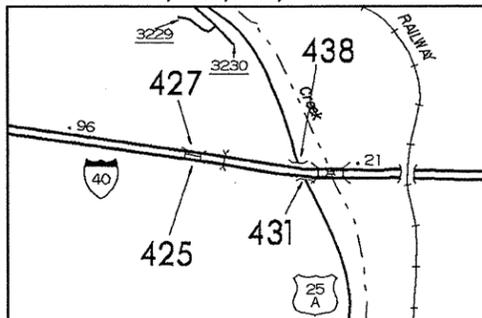
- LOCATION:
- BRIDGE #390 ON 140 EAST OVER US25 (HENDERSONVILLE RD.)
 - BRIDGE #391 ON 140 WEST OVER US25 (HENDERSONVILLE RD.)
 - BRIDGE #404 ON 140 EAST OVER LONDON RD.
 - BRIDGE #406 ON 140 WEST OVER LONDON RD.
 - BRIDGE #425 ON 140 EAST OVER SR3083 (CARIBOU RD.)
 - BRIDGE #427 ON 140 WEST OVER SR3083 (CARIBOU RD.)
 - BRIDGE #431 ON 140 EAST OVER US25A (SWEETEN CREEK RD.)
 - BRIDGE #438 ON 140 WEST OVER US25A (SWEETEN CREEK RD.)
 - BRIDGE #451 ON 140 EAST OVER SR3052
 - BRIDGE #456 ON 140 WEST OVER SR3052
 - BRIDGE #466 ON 140 EAST OVER US74A (CHARLOTTE HWY.)
 - BRIDGE #467 ON 140 WEST OVER US74A (CHARLOTTE HWY.)
 - BRIDGE #475 ON 140 EAST OVER SR2838 (PORTERS COVE RD.)
 - BRIDGE #476 ON 140 WEST OVER SR2838 (PORTERS COVE RD.)

TYPE OF WORK: BRIDGE PRESERVATION - DECK OVERLAY USING LATEX MODIFIED CONCRETE - VERY EARLY STRENGTH

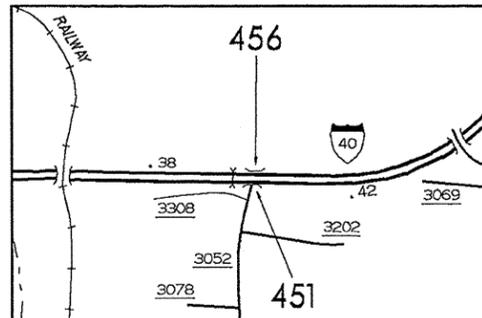
BRIDGES 390, 391, 404, & 406



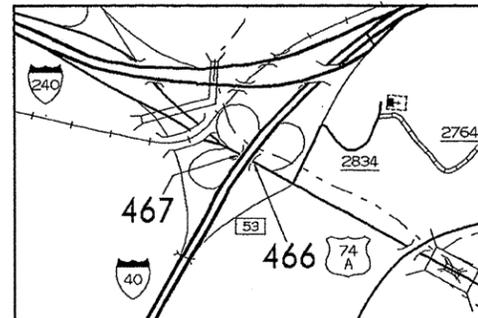
BRIDGES 425, 427, 431, & 438



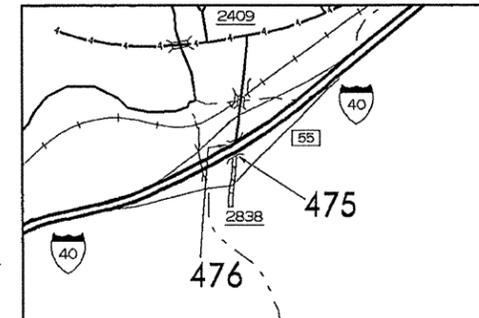
BRIDGES 451 & 456



BRIDGES 466 & 467



BRIDGES 475 & 476



DESIGN DATA
BUNCOMBE COUNTY

#390 ADT 2010 = 19,500	#438 ADT 2010 = 19,500
#391 ADT 2010 = 19,500	#451 ADT 2010 = 28,000
#404 ADT 2010 = 19,500	#456 ADT 2010 = 28,000
#406 ADT 2010 = 21,000	#466 ADT 2009 = 15,000
#425 ADT 2010 = 19,500	#467 ADT 2009 = 15,000
#427 ADT 2010 = 19,500	#475 ADT 2010 = 23,000
#431 ADT 2010 = 19,500	#476 ADT 2010 = 23,000

PROJECT LENGTH
BUNCOMBE COUNTY

BRIDGE #390 = 0.05 MILE	BRIDGE #438 = 0.03 MILE
BRIDGE #391 = 0.05 MILE	BRIDGE #451 = 0.03 MILE
BRIDGE #404 = 0.04 MILE	BRIDGE #456 = 0.03 MILE
BRIDGE #406 = 0.04 MILE	BRIDGE #466 = 0.04 MILE
BRIDGE #425 = 0.03 MILE	BRIDGE #467 = 0.04 MILE
BRIDGE #427 = 0.04 MILE	BRIDGE #475 = 0.04 MILE
BRIDGE #431 = 0.03 MILE	BRIDGE #476 = 0.04 MILE

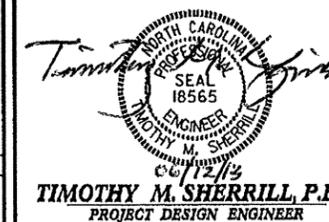
Prepared in the Office of:
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURES MANAGEMENT UNIT - PRESERVATION & REPAIR GROUP
1000 BIRCH RIDGE DR. RALEIGH, N.C. 27610

ROY GIROLAMI, P.E.

2012 STANDARD SPECIFICATIONS

LETTING DATE:
SEPTEMBER 17, 2013



TIMOTHY M. SHERRILL, P.E.
PROJECT DESIGN ENGINEER

CONTRACT C203385 TIP NO: I-5607



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

BUNCOMBE COUNTY

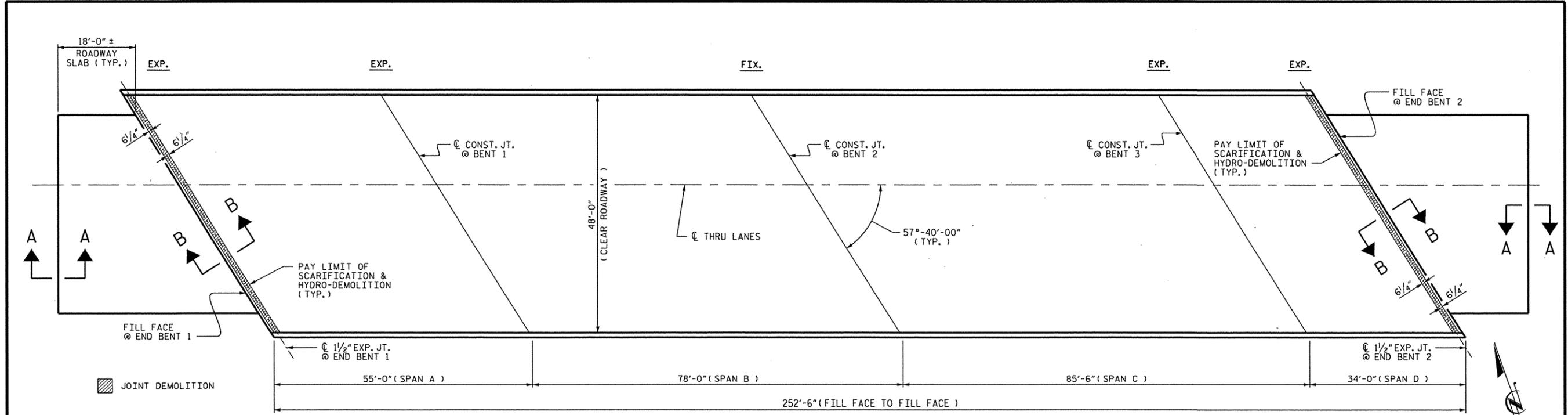
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5607	5	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
45829.1.1	IMPP-040-1(246)50	PE	
45829.1.1	IMPP-040-1(246)50	CONST	

LOCATION: BRIDGE #390 ON I40 EAST OVER US25 (HENDERSONVILLE RD.)
 BRIDGE #391 ON I40 WEST OVER US25 (HENDERSONVILLE RD.)
 BRIDGE #404 ON I40 EAST OVER LONDON RD.
 BRIDGE #406 ON I40 WEST OVER LONDON RD.
 BRIDGE #425 ON I40 EAST OVER SR3083 (CARIBOU RD.)
 BRIDGE #427 ON I40 WEST OVER SR3083 (CARIBOU RD.)
 BRIDGE #431 ON I40 EAST OVER US25A (SWEETEN CREEK RD.)
 BRIDGE #438 ON I40 WEST OVER US25A (SWEETEN CREEK RD.)
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 BRIDGE #456 ON I40 WEST OVER SR3052
 BRIDGE #466 ON I40 EAST OVER US74A (CHARLOTTE HWY.)
 BRIDGE #467 ON I40 WEST OVER US74A (CHARLOTTE HWY.)
 BRIDGE #475 ON I40 EAST OVER SR2838 (PORTERS COVE RD.)
 BRIDGE #476 ON I40 WEST OVER SR2838 (PORTERS COVE RD.)

TYPE OF WORK: BRIDGE PRESERVATION - DECK OVERLAY USING LATEX MODIFIED CONCRETE - VERY EARLY STRENGTH

INDEX OF SHEETS

SHEET #	DESCRIPTION
4	TITLE SHEET
5	INDEX OF SHEETS
S-1 THRU S-3	STRUCTURE PLANS - BRIDGE #390
S-4 THRU S-6	STRUCTURE PLANS - BRIDGE #391
S-7 THRU S-9	STRUCTURE PLANS - BRIDGE #404
S-10 THRU S-12	STRUCTURE PLANS - BRIDGE #406
S-13 THRU S-15	STRUCTURE PLANS - BRIDGE #425
S-16 THRU S-18	STRUCTURE PLANS - BRIDGE #427
S-19 THRU S-21	STRUCTURE PLANS - BRIDGE #431
S-22 THRU S-24	STRUCTURE PLANS - BRIDGE #438
S-25 THRU S-27	STRUCTURE PLANS - BRIDGE #451
S-28 THRU S-30	STRUCTURE PLANS - BRIDGE #456
S-31 THRU S-33	STRUCTURE PLANS - BRIDGE #466
S-34 THRU S-36	STRUCTURE PLANS - BRIDGE #467
S-37 THRU S-39	STRUCTURE PLANS - BRIDGE #475
S-40 THRU S-42	STRUCTURE PLANS - BRIDGE #476



NOTES:

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF BRIDGE DECK.

DURING CONSTRUCTION, BERMS OR APPROPRIATE MEASURES SHALL BE USED TO ENSURE HYDRO-DEMOLITION WATER DOES NOT FLOW OR MIGRATE INTO ACTIVE TRAVEL LANES.

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

FOR "SCARIFYING BRIDGE DECK", "HYDRO-DEMOLITION OF BRIDGE DECK", AND "CLASS II SURFACE PREPARATION" SEE "OVERLAY SURFACE PREPARATION" SPECIAL PROVISION.

FOR "BRIDGE JOINT DEMOLITION", SEE SPECIAL PROVISIONS.

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

FOR "SYNTHETIC RUBBER EXPANSION JOINT SEALS", SEE SPECIAL PROVISIONS.

FOR "ELASTOMERIC CONCRETE", SEE SPECIAL PROVISIONS.

FOR LOW MODULUS SILICONE SEALER, SEE STANDARD SPECIFICATIONS SECTION 102B.

FOR "SUBMITTAL OF WORKING DRAWINGS", SEE SPECIAL PROVISIONS.

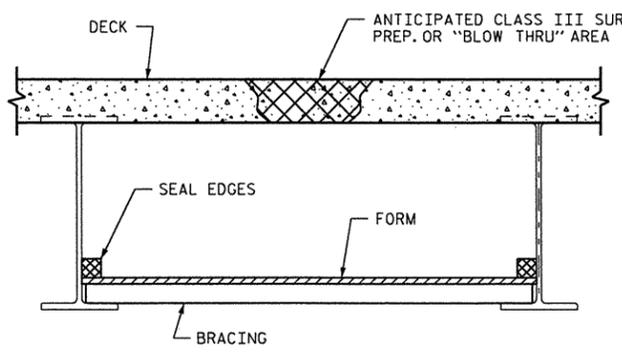
FOR "FALSEWORK AND FORMWORK", SEE SPECIAL PROVISIONS.

FOR "CRANE SAFETY", SEE SPECIAL PROVISIONS.

FOR "GROUT FOR STRUCTURES", SEE SPECIAL PROVISIONS.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLAN.

PLAN
(SEE "JOINT DETAILS" SHEET FOR SECTIONS)

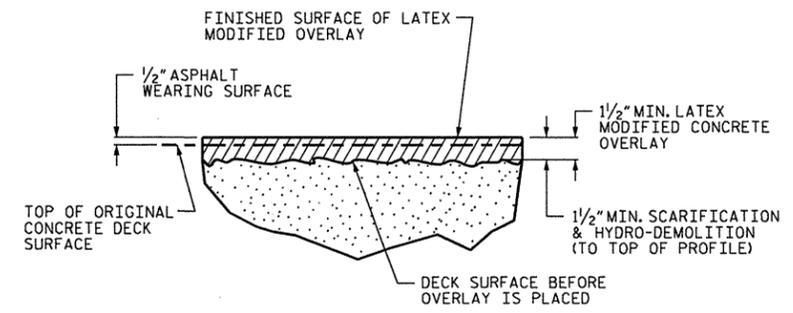


TYP. "BLOW THRU" CONTAINMENT AND FORMWORK

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.



DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY

TOTAL BILL OF MATERIAL

GROOVING BRIDGE FLOORS	CLASS II SURFACE PREPARATION	LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	PLACING & FINISHING LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	SYNTHETIC RUBBER EXPANSION JOINT SEALS	BRIDGE JOINT DEMOLITION	SCARIFYING BRIDGE DECK	HYDRO-DEMOLITION OF BRIDGE DECK
SO. FT.	SO. YDS.	CU. YDS.	SO. YDS.	LUMP SUM	SO. FT.	SO. YDS.	SO. YDS.
13,030	15	74.5	1,533	LUMP SUM	114	1,533	1,533

NO "CLASS II SURFACE PREPARATION" AREAS ARE SHOWN IN SKETCH, BECAUSE OF THE PRESENCE OF AN ASPHALT WEARING SURFACE, THE QUANTITY GIVEN IS AN ESTIMATE OF PATCHED AREAS IN THE CONCRETE DECK. ALL PATCHED AREAS IN CONCRETE DECK SHALL BE REMOVED USING "CLASS II SURFACE PREPARATION".

PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 390

SHEET 1 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

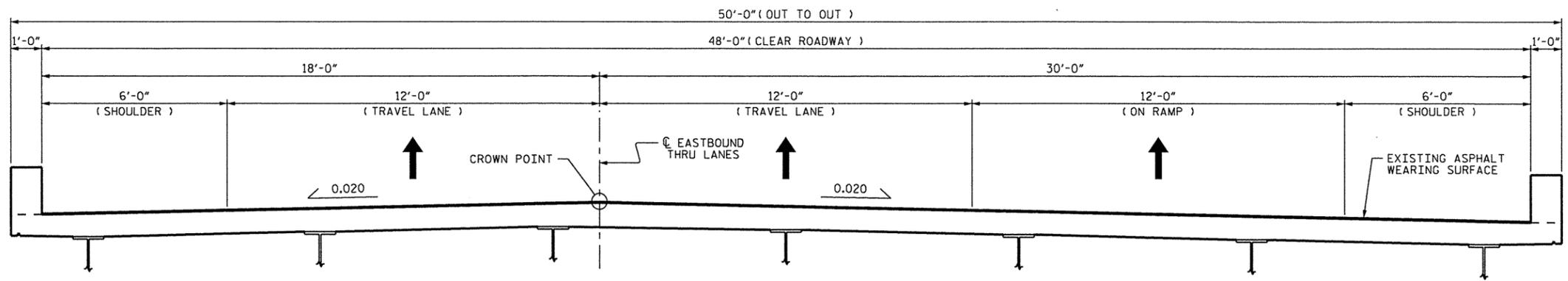
PLAN VIEW OF BRIDGE
 390 ON I40 EAST OVER
 US25 (HENDERSONVILLE RD.)



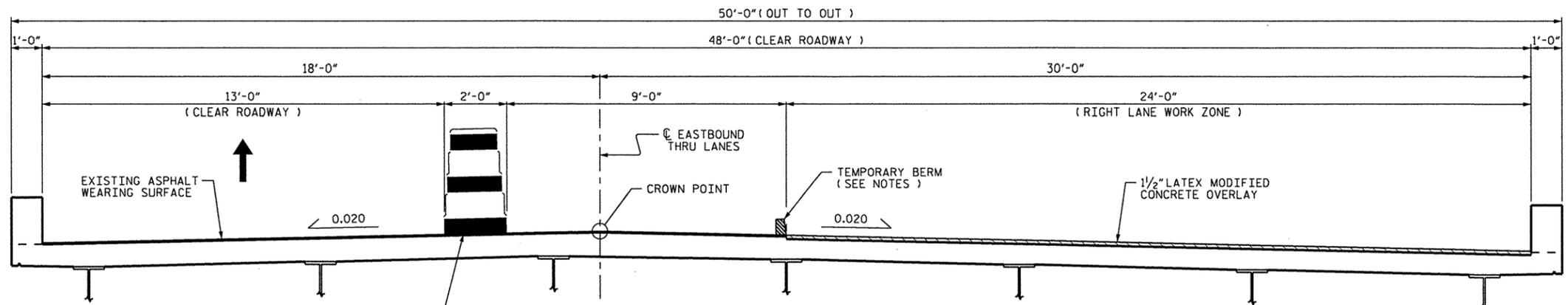
DRAWN BY: P.C. BREWER DATE: 5/13
 CHECKED BY: D.N. SNOKE DATE: 6/13
 DESIGN ENGINEER OF RECORD: DATE: -

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

TOTAL SHEETS: 42

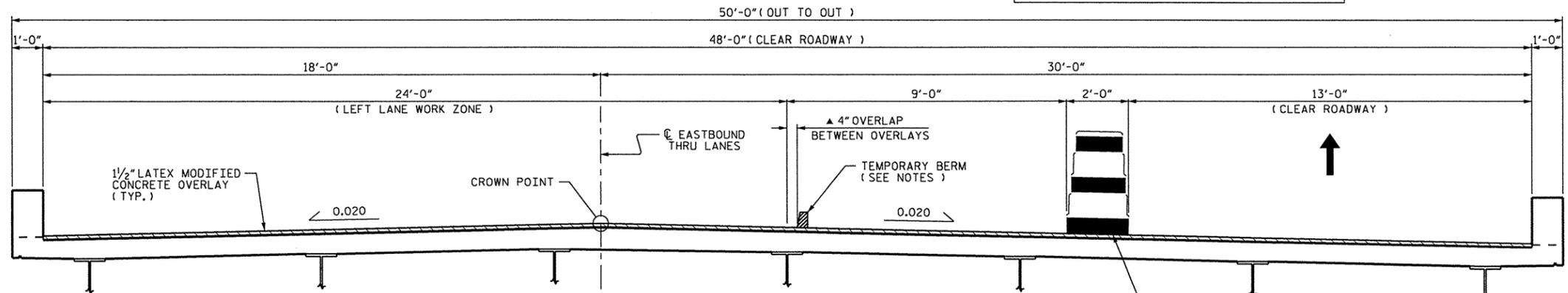


TYPICAL SECTION
(EXISTING) (LOOKING EAST)



TYPICAL SECTION
(RIGHT LANE WORK ZONE) (LOOKING EAST)

▲ 4" OVERLAP BETWEEN OVERLAYS
PREVIOUSLY POURED LMC-VES TO BE
HYDRO-DEMOLITIONED & RECAST WITH LMC-VES



TYPICAL SECTION
(LEFT LANE WORK ZONE) (LOOKING EAST)

NOTES:

THE WORK STAGING ON THIS PLAN SHEET INDICATES THAT THE RIGHT LANE LMC-VES WORK IS PERFORMED FIRST, FOLLOWED BY THE LEFT LANE LMC-VES WORK. THE CONTRACTOR MAY ELECT TO SEQUENCE THE WORK DIFFERENTLY, BUT THE DIMENSIONS OF THE WORK ZONE, CLEAR ROADWAY AREAS, AND THE LOCATIONS OF THE DRUM SHALL MATCH THAT INDICATED ON THIS PLAN SHEET, RESPECTIVE TO THE LANE WHERE THE LMC-VES WORK IS BEING PERFORMED.

PROJECT NO. I-5607
BUNCOMBE COUNTY
BRIDGE NO. 390

SHEET 2 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STAGING SEQUENCE

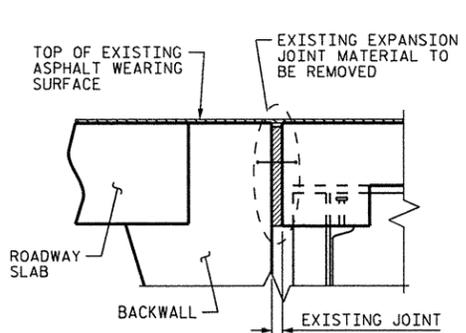
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S-2
2			4			42

DRAWN BY : P.C. BREWER DATE : 5/13
CHECKED BY : D.N. SNOKE DATE : 6/13
DESIGN ENGINEER OF RECORD: DATE :

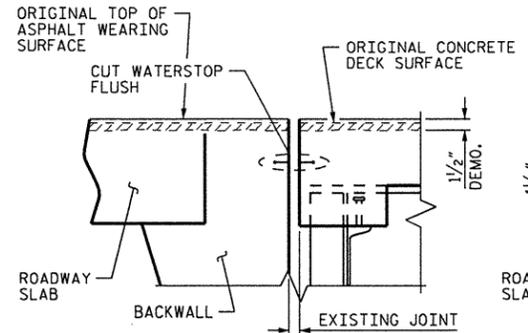


IF THE EMBEDDED PORTION OF THE EXISTING PLASTIC WATERSTOP IS EXPOSED DURING REMOVAL OF UNSOUND CONCRETE OR IF UNSOUND CONCRETE IS REMOVED TO WITHIN 2" OF THE WATERSTOP, THE ENTIRE WATERSTOP SHALL BE REMOVED

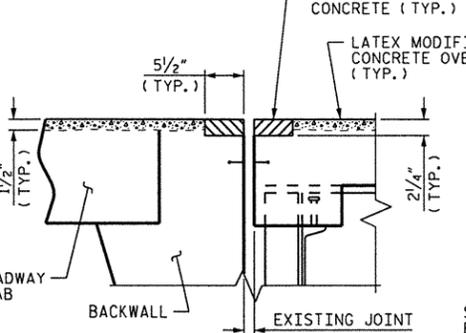
▲ SAW CUT SHALL BE 3/4" BELOW THE BOTTOM OF THE JOINT SEAL. SEE MANUFACTURER'S RECOMMENDATIONS



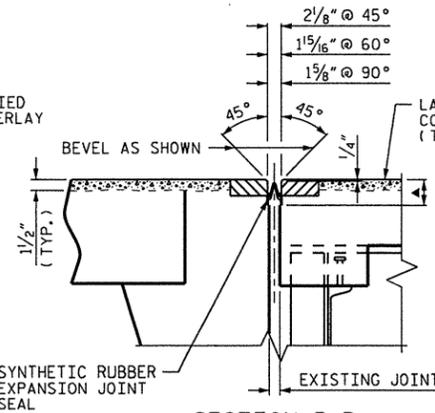
SECTION B-B
(EXISTING)



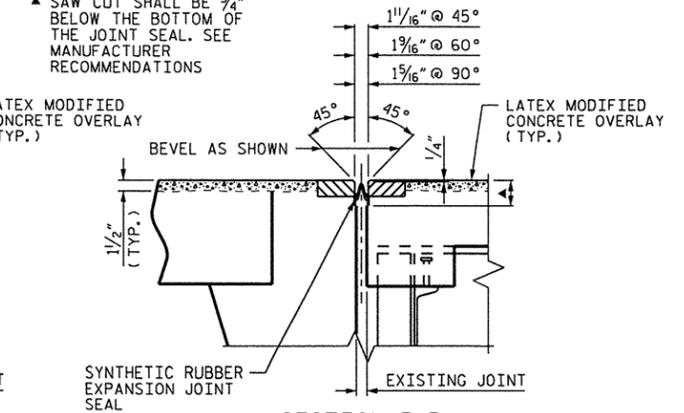
SECTION B-B
(MINIMUM EXISTING JOINT DEMOLITION)



SECTION B-B
(PROPOSED JOINT PRE-SAWED DIMENSIONS)



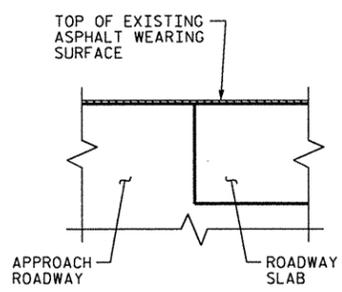
SECTION B-B
(END BENT 1)
(PROPOSED SYNTHETIC RUBBER EXPANSION JOINT SEAL)



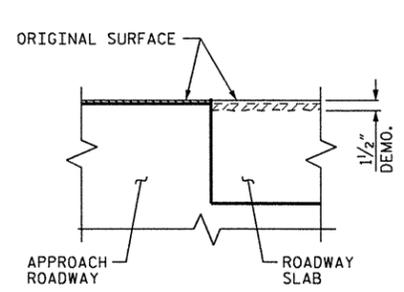
SECTION B-B
(END BENT 2)
(PROPOSED SYNTHETIC RUBBER EXPANSION JOINT SEAL)

HYDRO-DEMOLITION OR EXCAVATION OF CONCRETE AT THE EXISTING JOINT SHALL RESULT IN THE BOTTOM OF THE EXCAVATION BEING REASONABLY FLAT, TO PROVIDE SUFFICIENT SUBSTRATE FOR PLACEMENT AND SUPPORT OF REPAIR CONCRETE.

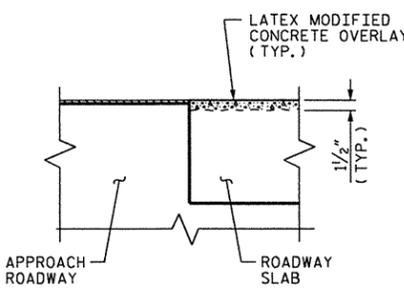
SYNTHETIC RUBBER EXPANSION JOINT SEALS SHALL ACCOMMODATE A MINIMUM OF 1" EXPANSION AND MEET THE MANUFACTURER'S RECOMMENDATION FOR THE SIZE OF OPENING ON THE PLANS.
CONTRACTOR SHALL SUBMIT FOR APPROVAL THE PROPOSED SYNTHETIC RUBBER EXPANSION JOINT SEAL, WITH SUPPORTING INFORMATION AND DOCUMENTATION CONFIRMING THE APPROPRIATE SEAL SIZE.



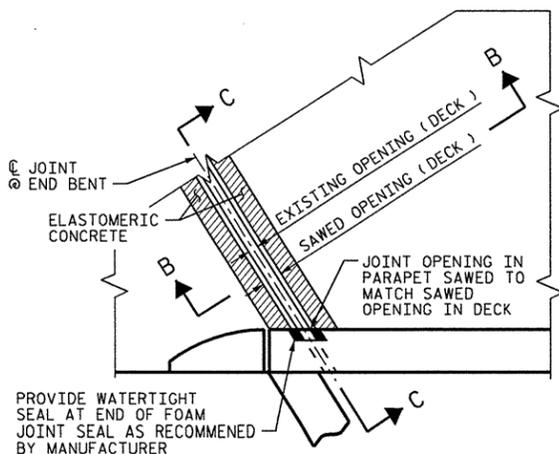
SECTION A-A
(EXISTING)



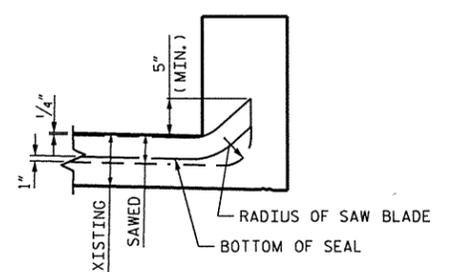
SECTION A-A
(MINIMUM EXISTING JOINT DEMOLITION)



SECTION A-A
(PROPOSED)



PLAN



SECTION C-C

PROJECT NO. I-5607
BUNCOMBE COUNTY
BRIDGE NO. 390

SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

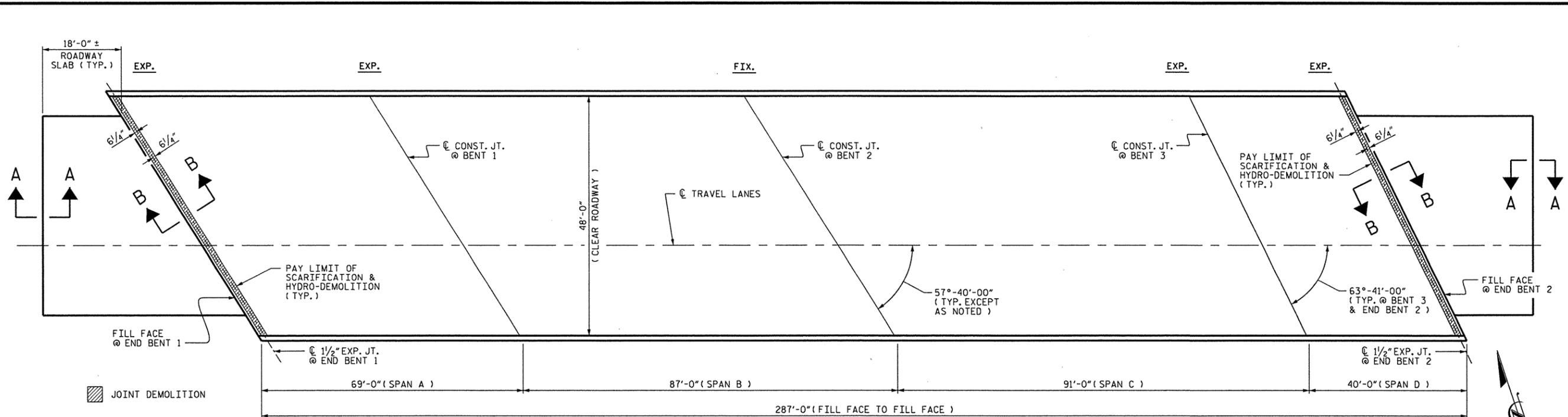
JOINT DETAILS

DRAWN BY : P.C. BREWER DATE : 5/13
CHECKED BY : D.N. SNOKE DATE : 6/13
DESIGN ENGINEER OF RECORD: DATE :



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

TOTAL SHEETS: 42



PLAN
(SEE "JOINT DETAILS" SHEET FOR SECTIONS)

NOTES:

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF BRIDGE DECK.

DURING CONSTRUCTION, BERMS OR APPROPRIATE MEASURES SHALL BE USED TO ENSURE HYDRO-DEMOLITION WATER DOES NOT FLOW OR MIGRATE INTO ACTIVE TRAVEL LANES.

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

FOR "SCARIFYING BRIDGE DECK", "HYDRO-DEMOLITION OF BRIDGE DECK", AND "CLASS II SURFACE PREPARATION" SEE "OVERLAY SURFACE PREPARATION" SPECIAL PROVISION.

FOR "BRIDGE JOINT DEMOLITION", SEE SPECIAL PROVISIONS.

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

FOR "SYNTHETIC RUBBER EXPANSION JOINT SEALS", SEE SPECIAL PROVISIONS.

FOR "ELASTOMERIC CONCRETE", SEE SPECIAL PROVISIONS.

FOR LOW MODULUS SILICONE SEALER, SEE STANDARD SPECIFICATIONS SECTION 1028.

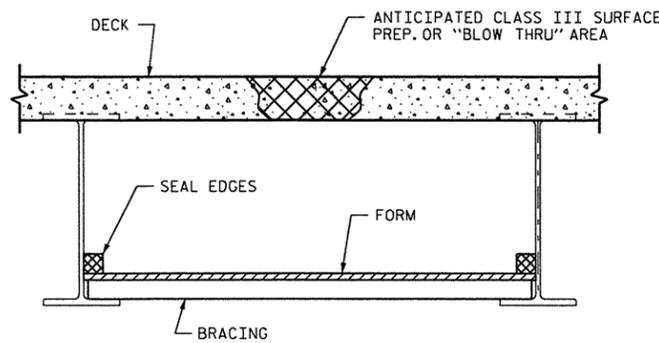
FOR "SUBMITTAL OF WORKING DRAWINGS", SEE SPECIAL PROVISIONS.

FOR "FALSEWORK AND FORMWORK", SEE SPECIAL PROVISIONS.

FOR "CRANE SAFETY", SEE SPECIAL PROVISIONS.

FOR "GROUT FOR STRUCTURES", SEE SPECIAL PROVISIONS.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLAN.

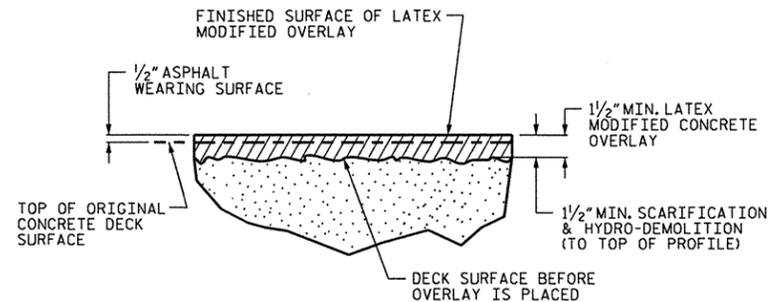


TYP. "BLOW THRU" CONTAINMENT AND FORMWORK

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 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.



DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY

PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 391

SHEET 1 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN VIEW OF BRIDGE
 391 ON I40 WEST OVER
 US25 (HENDERSONVILLE RD.)

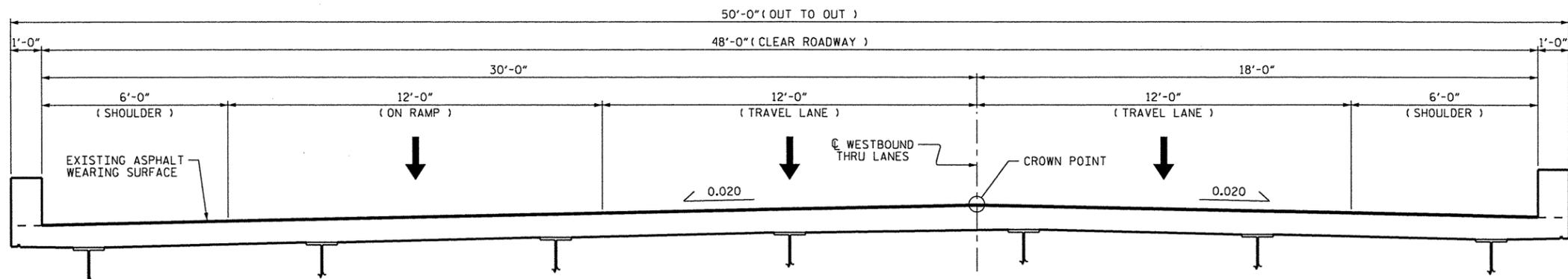


REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-4	
1			3			TOTAL SHEETS	
2			4			42	

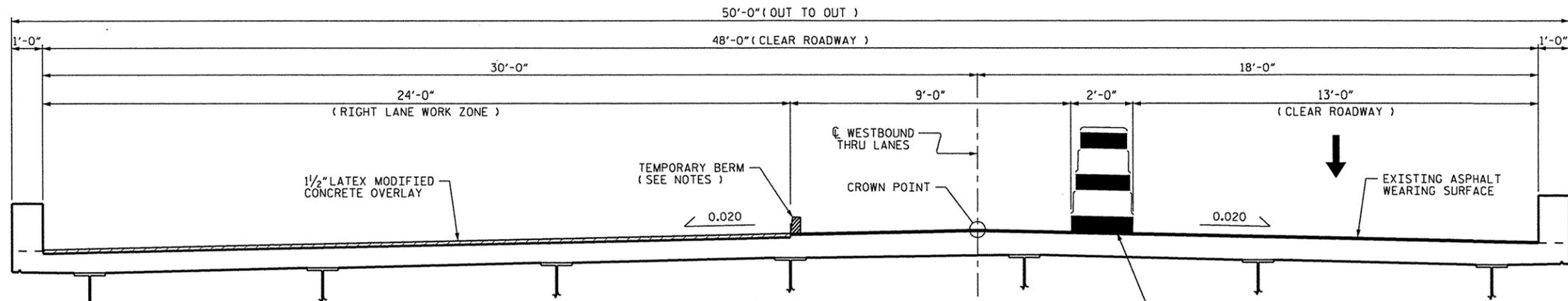
TOTAL BILL OF MATERIAL							
GROOVING BRIDGE FLOORS	CLASS II SURFACE PREPARATION	LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	PLACING & FINISHING LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	SYNTHETIC RUBBER EXPANSION JOINT SEALS	BRIDGE JOINT DEMOLITION	SCARIFYING BRIDGE DECK	HYDRO-DEMOLITION OF BRIDGE DECK
SO. FT.	SO. YDS.	CU. YDS.	SO. YDS.	LUMP SUM	SO. FT.	SO. YDS.	SO. YDS.
14,590	17	83.5	1,718	LUMP SUM	114	1,718	1,718

NO "CLASS II SURFACE PREPARATION" AREAS ARE SHOWN IN SKETCH. BECAUSE OF THE PRESENCE OF AN ASPHALT WEARING SURFACE, THE QUANTITY GIVEN IS AN ESTIMATE OF PATCHED AREAS IN THE CONCRETE DECK. ALL PATCHED AREAS IN CONCRETE DECK SHALL BE REMOVED USING "CLASS II SURFACE PREPARATION".

DRAWN BY: P.C. BREWER DATE: 5/13
 CHECKED BY: D.N. SNOKE DATE: 6/13
 DESIGN ENGINEER OF RECORD: _____ DATE: _____

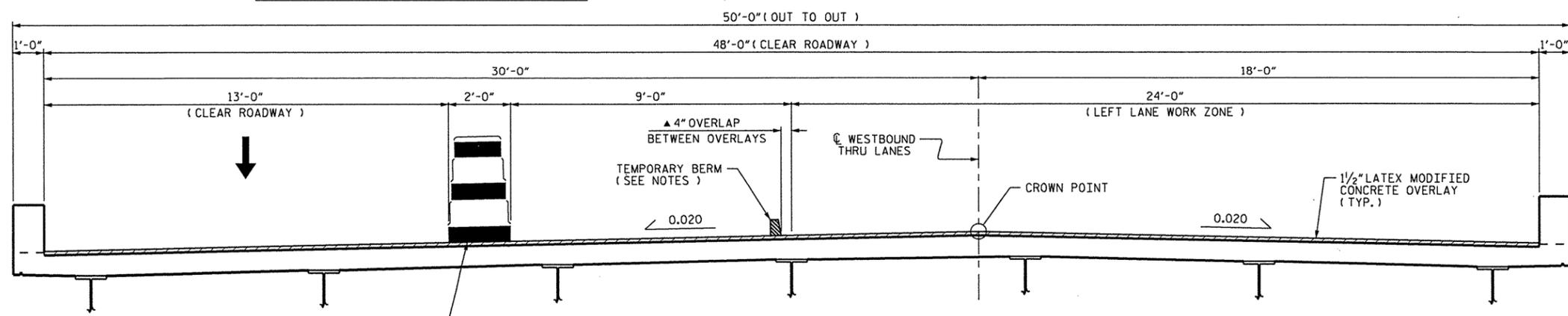


TYPICAL SECTION
(EXISTING) (LOOKING EAST)



TYPICAL SECTION
(RIGHT LANE WORK ZONE) (LOOKING EAST)

▲ 4" OVERLAP BETWEEN OVERLAYS
PREVIOUSLY POURED LMC-VES TO BE
HYDRO-DEMOLITIONED & RECAST WITH LMC-VES



TYPICAL SECTION
(LEFT LANE WORK ZONE) (LOOKING EAST)

NOTES:
THE WORK STAGING ON THIS PLAN SHEET INDICATES THAT THE RIGHT LANE LMC-VES WORK IS PERFORMED FIRST, FOLLOWED BY THE LEFT LANE LMC-VES WORK. THE CONTRACTOR MAY ELECT TO SEQUENCE THE WORK DIFFERENTLY, BUT THE DIMENSIONS OF THE WORK ZONE, CLEAR ROADWAY AREAS, AND THE LOCATIONS OF THE DRUM SHALL MATCH THAT INDICATED ON THIS PLAN SHEET, RESPECTIVE TO THE LANE WHERE THE LMC-VES WORK IS BEING PERFORMED.

PROJECT NO. I-5607
BUNCOMBE COUNTY
BRIDGE NO. 391

SHEET 2 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

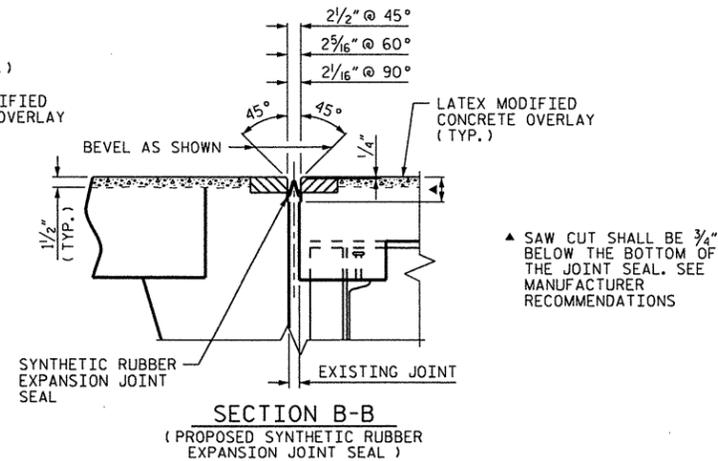
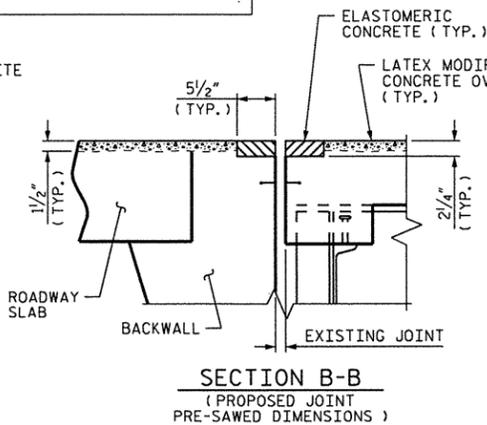
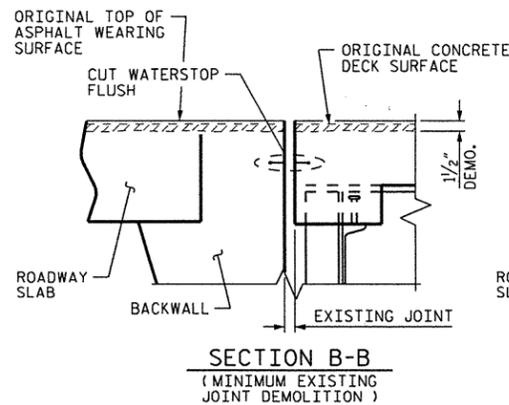
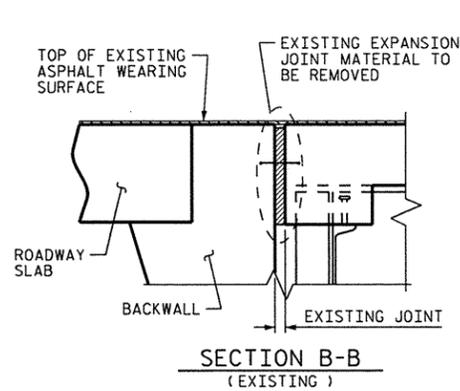
STAGING SEQUENCE

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-5
1			3			TOTAL SHEETS
2			4			42



DRAWN BY: P.C. BREWER DATE: 5/13
CHECKED BY: D.N. SNOKE DATE: 6/13
DESIGN ENGINEER OF RECORD: _____ DATE: _____

IF THE EMBEDDED PORTION OF THE EXISTING PLASTIC WATERSTOP IS EXPOSED DURING REMOVAL OF UNSOUND CONCRETE OR IF UNSOUND CONCRETE IS REMOVED TO WITHIN 2" OF THE WATERSTOP, THE ENTIRE WATERSTOP SHALL BE REMOVED

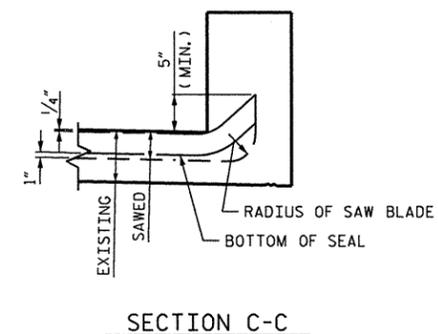
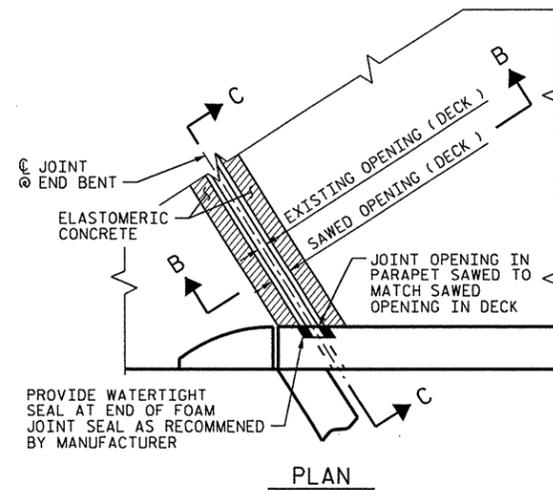
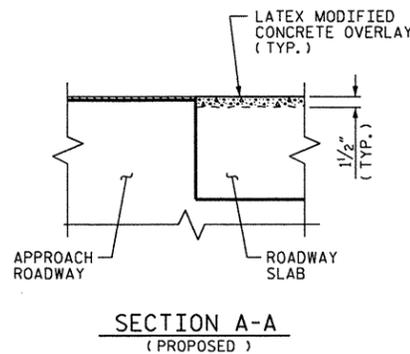
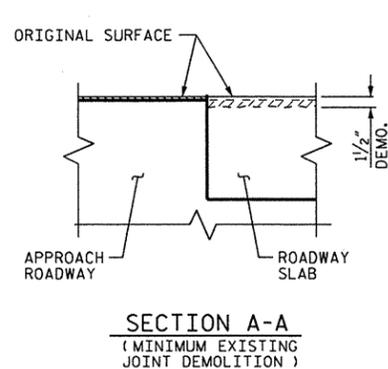
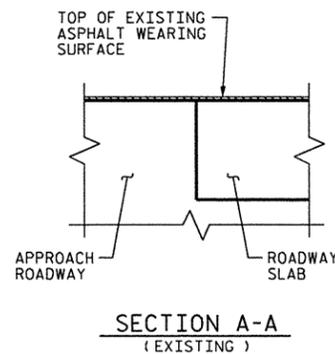


▲ SAW CUT SHALL BE 3/4" BELOW THE BOTTOM OF THE JOINT SEAL. SEE MANUFACTURER RECOMMENDATIONS

HYDRO-DEMOLITION OR EXCAVATION OF CONCRETE AT THE EXISTING JOINT SHALL RESULT IN THE BOTTOM OF THE EXCAVATION BEING REASONABLY FLAT, TO PROVIDE SUFFICIENT SUBSTRATE FOR PLACEMENT AND SUPPORT OF REPAIR CONCRETE.

SYNTHETIC RUBBER EXPANSION JOINT SEALS SHALL ACCOMMODATE A MINIMUM OF 1" EXPANSION AND MEET THE MANUFACTURER'S RECOMMENDATION FOR THE SIZE OF OPENING ON THE PLANS.

CONTRACTOR SHALL SUBMIT FOR APPROVAL THE PROPOSED SYNTHETIC RUBBER EXPANSION JOINT SEAL, WITH SUPPORTING INFORMATION AND DOCUMENTATION CONFIRMING THE APPROPRIATE SEAL SIZE.



PROVIDE WATERTIGHT SEAL AT END OF FOAM JOINT SEAL AS RECOMMENDED BY MANUFACTURER

DRAWN BY : P.C. BREWER DATE : 5/13
 CHECKED BY : D.N. SNOKE DATE : 6/13
 DESIGN ENGINEER OF RECORD: DATE :

25-JUL-2013 11:40
 S:\PDS\POC\Squad C\Preservation_Projects\I-5607\391\100391.SD.LMC.dgn
 dsnoke



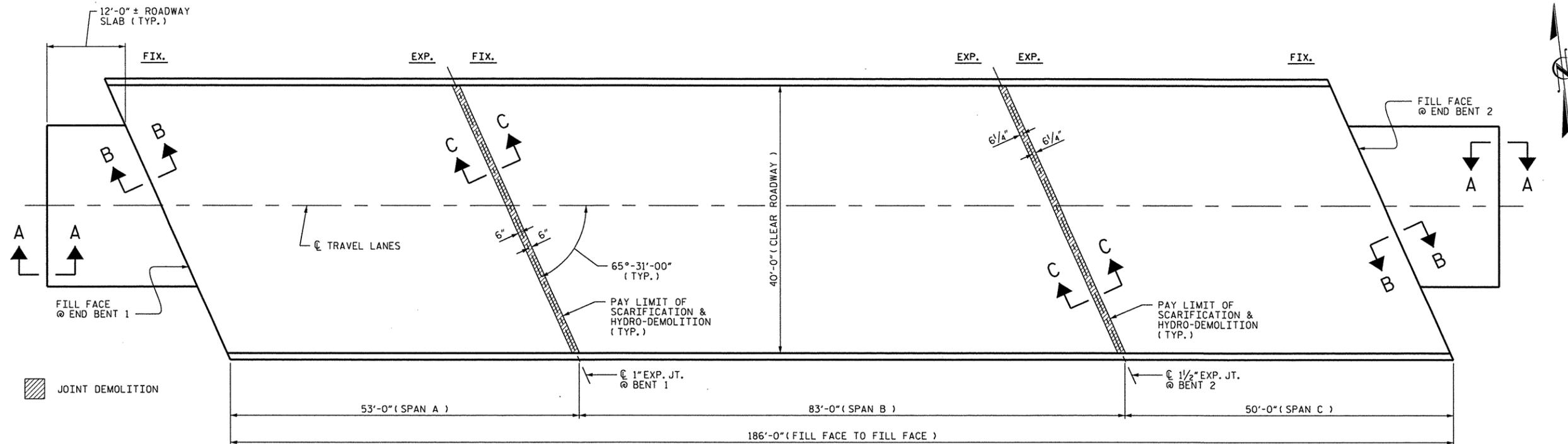
PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 391

SHEET 3 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

JOINT DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-6
1			3			TOTAL SHEETS
2			4			42



NOTES:

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF BRIDGE DECK.

DURING CONSTRUCTION, BERMS OR APPROPRIATE MEASURES SHALL BE USED TO ENSURE HYDRO-DEMOLITION WATER DOES NOT FLOW OR MIGRATE INTO ACTIVE TRAVEL LANES.

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

FOR "SCARIFYING BRIDGE DECK", "HYDRO-DEMOLITION OF BRIDGE DECK", AND "CLASS II SURFACE PREPARATION" SEE "OVERLAY SURFACE PREPARATION" SPECIAL PROVISION.

FOR "BRIDGE JOINT DEMOLITION", SEE SPECIAL PROVISIONS.

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

FOR "SYNTHETIC RUBBER EXPANSION JOINT SEALS", SEE SPECIAL PROVISIONS.

FOR "ELASTOMERIC CONCRETE", SEE SPECIAL PROVISIONS.

FOR LOW MODULUS SILICONE SEALER, SEE STANDARD SPECIFICATIONS SECTION 1028.

FOR "SUBMITTAL OF WORKING DRAWINGS", SEE SPECIAL PROVISIONS.

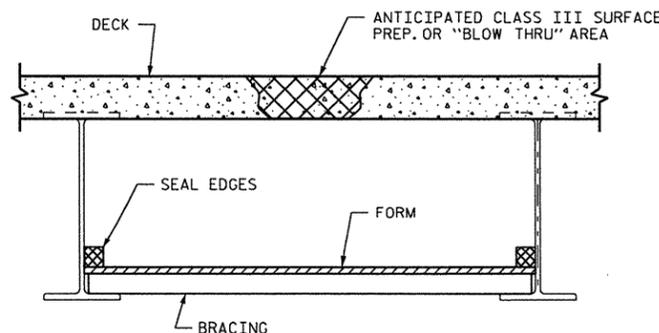
FOR "FALSEWORK AND FORMWORK", SEE SPECIAL PROVISIONS.

FOR "CRANE SAFETY", SEE SPECIAL PROVISIONS.

FOR "GROUT FOR STRUCTURES", SEE SPECIAL PROVISIONS.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLAN.

PLAN
(SEE "JOINT DETAILS" SHEET FOR SECTION VIEWS)

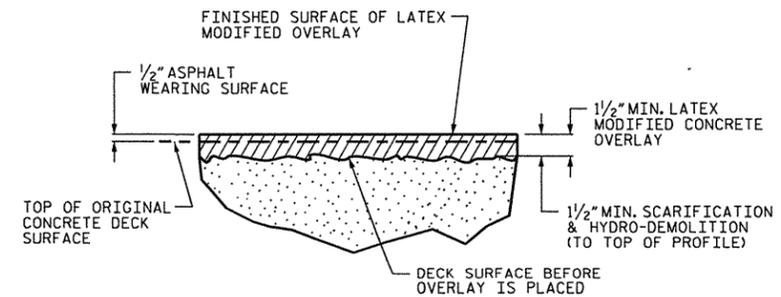


TYP. "BLOW THRU" CONTAINMENT AND FORMWORK

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.



DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY

PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 404

SHEET 1 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN VIEW OF BRIDGE
 404 ON I40 EAST OVER
 LONDON ROAD

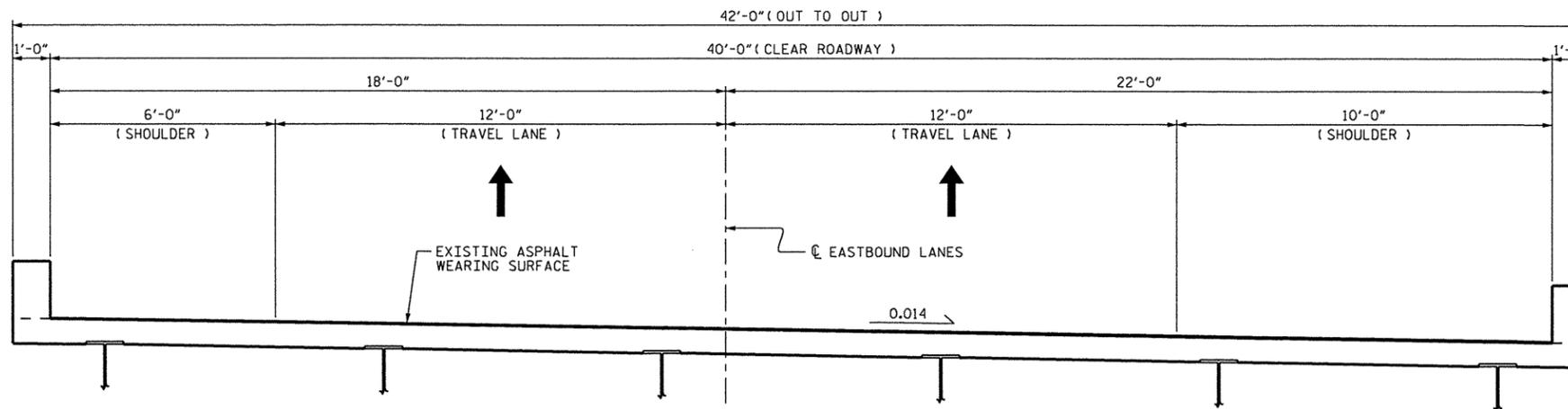
REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-7	
1			3			TOTAL SHEETS	
2			4			42	

TOTAL BILL OF MATERIAL							
GROOVING BRIDGE FLOORS	CLASS II SURFACE PREPARATION	LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	PLACING & FINISHING LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	SYNTHETIC RUBBER EXPANSION JOINT SEALS	BRIDGE JOINT DEMOLITION	SCARIFYING BRIDGE DECK	HYDRO-DEMOLITION OF BRIDGE DECK
SQ. FT.	SQ. YDS.	CU. YDS.	SQ. YDS.	LUMP SUM	SQ. FT.	SQ. YDS.	SQ. YDS.
6,990	8	40.7	837	LUMP SUM	89	837	837

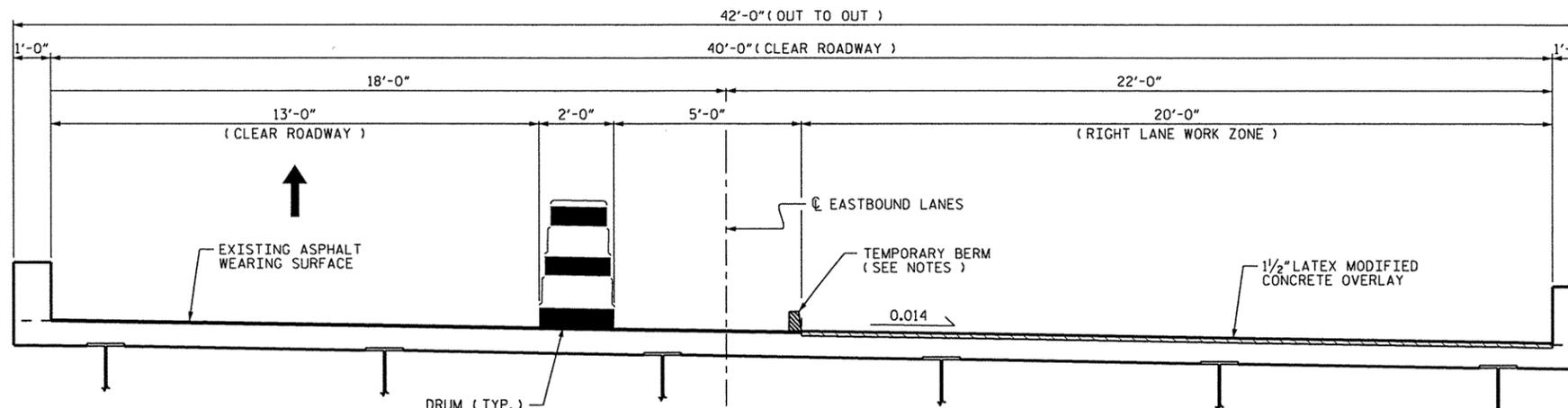
NO "CLASS II SURFACE PREPARATION" AREAS ARE SHOWN IN SKETCH. BECAUSE OF THE PRESENCE OF AN ASPHALT WEARING SURFACE, THE QUANTITY GIVEN IS AN ESTIMATE OF PATCHED AREAS IN THE CONCRETE DECK. ALL PATCHED AREAS IN CONCRETE DECK SHALL BE REMOVED USING "CLASS II SURFACE PREPARATION".

DRAWN BY: P.C. BREWER DATE: 5/13
 CHECKED BY: D.N. SNOKE DATE: 6/13
 DESIGN ENGINEER OF RECORD: _____ DATE: _____



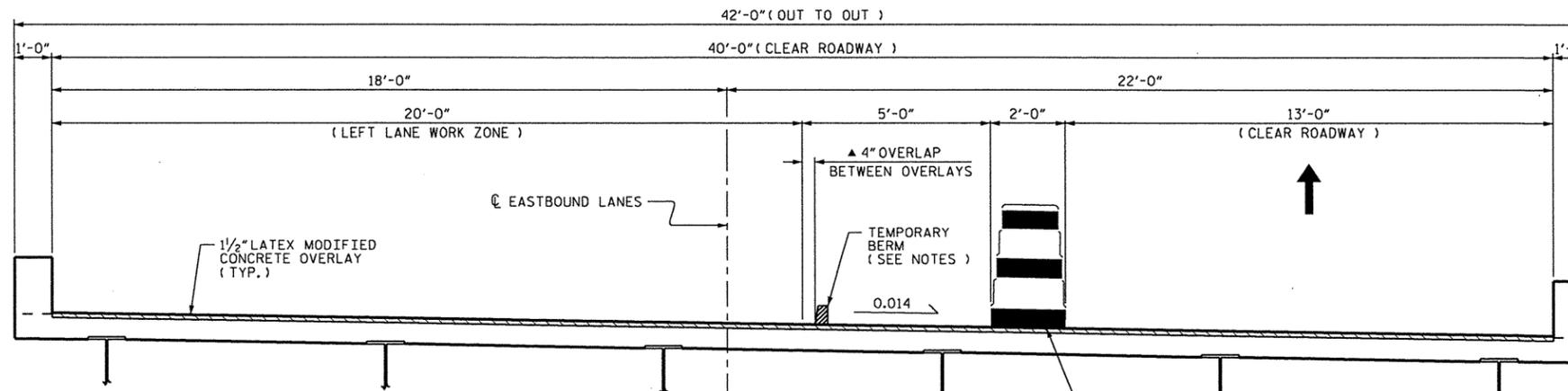


TYPICAL SECTION
(EXISTING) (LOOKING EAST)



TYPICAL SECTION
(RIGHT LANE WORK ZONE) (LOOKING EAST)

▲ 4" OVERLAP BETWEEN OVERLAYS
PREVIOUSLY POURED LMC-VES TO BE
HYDRO-DEMOLITIONED & RECAST WITH LMC-VES



TYPICAL SECTION
(LEFT LANE WORK ZONE) (LOOKING EAST)

DRUM (TYP.)
(SEE TRAFFIC
MANAGEMENT
PLANS)

NOTES:

THE WORK STAGING ON THIS PLAN SHEET INDICATES THAT THE RIGHT LANE LMC-VES WORK IS PERFORMED FIRST, FOLLOWED BY THE LEFT LANE LMC-VES WORK. THE CONTRACTOR MAY ELECT TO SEQUENCE THE WORK DIFFERENTLY, BUT THE DIMENSIONS OF THE WORK ZONE, CLEAR ROADWAY AREAS, AND THE LOCATIONS OF THE DRUM SHALL MATCH THAT INDICATED ON THIS PLAN SHEET, RESPECTIVE TO THE LANE WHERE THE LMC-VES WORK IS BEING PERFORMED.

PROJECT NO. I-5607
BUNCOMBE COUNTY
BRIDGE NO. 404

SHEET 2 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STAGING SEQUENCE

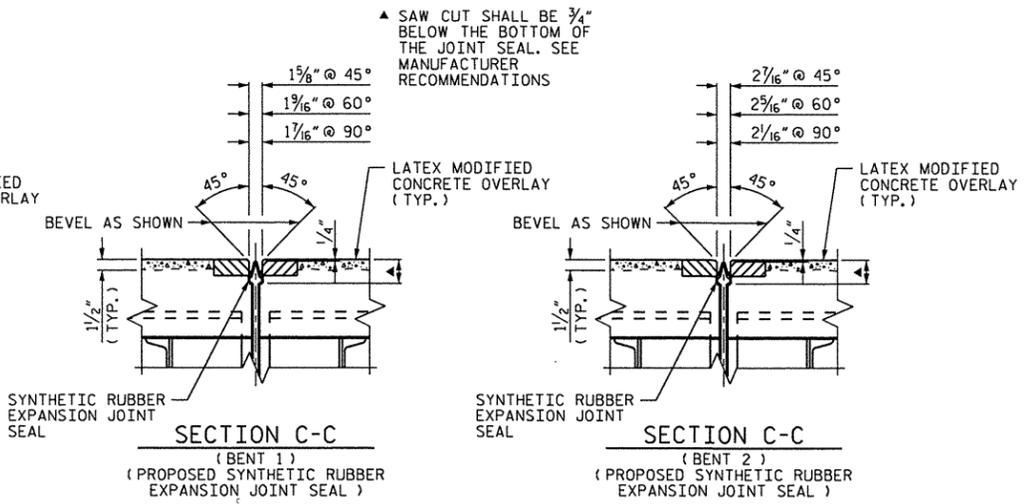
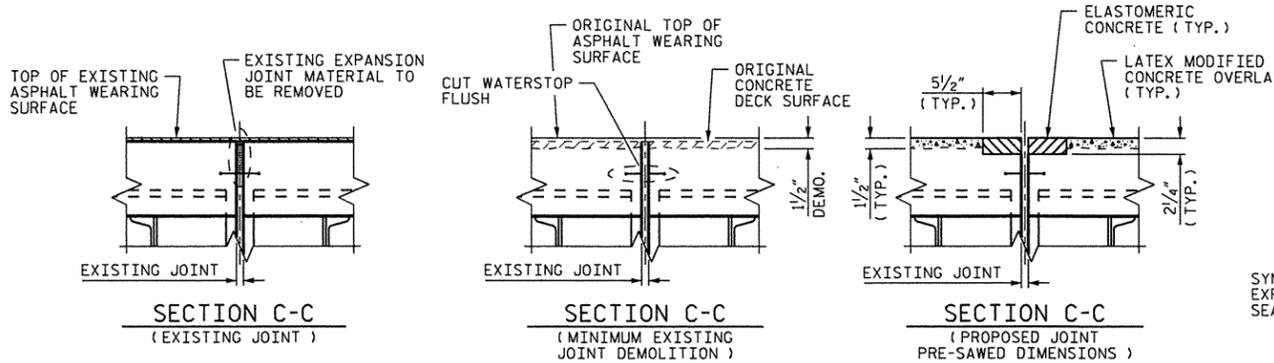
REVISIONS				SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

S-8
TOTAL SHEETS
42



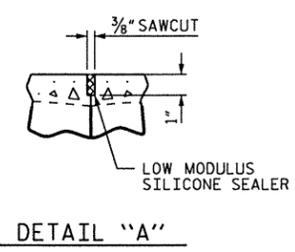
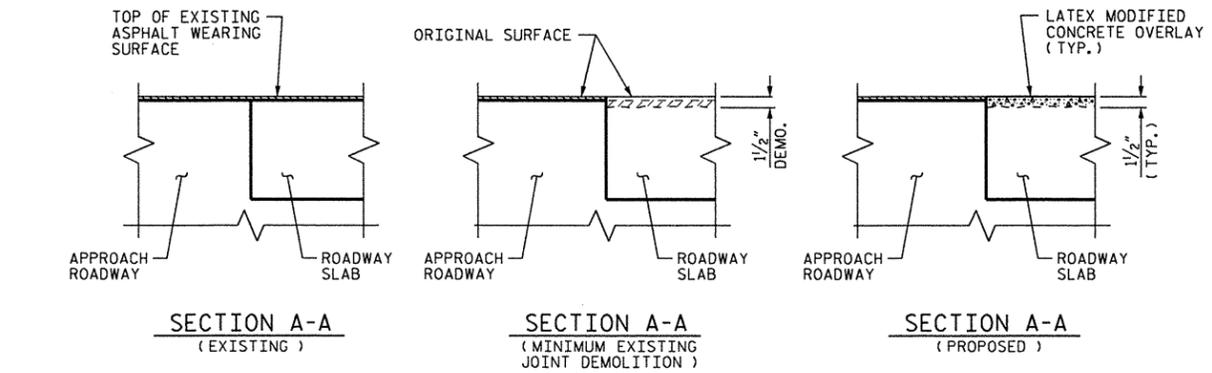
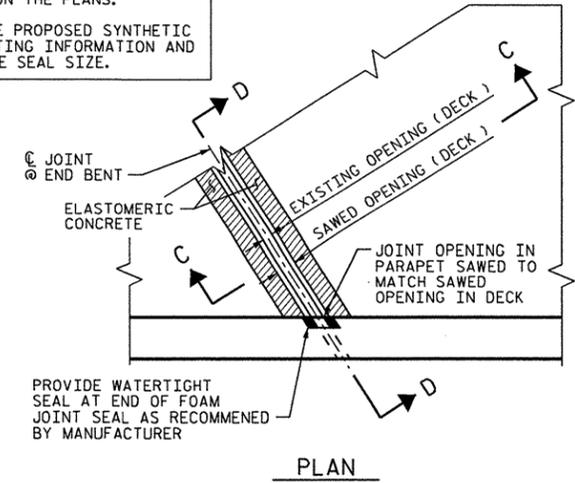
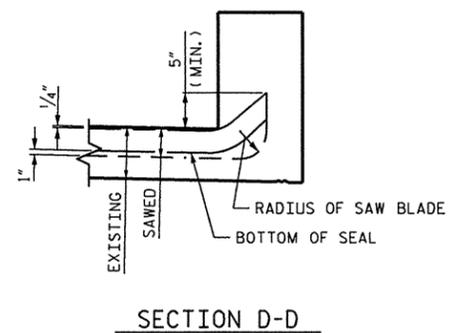
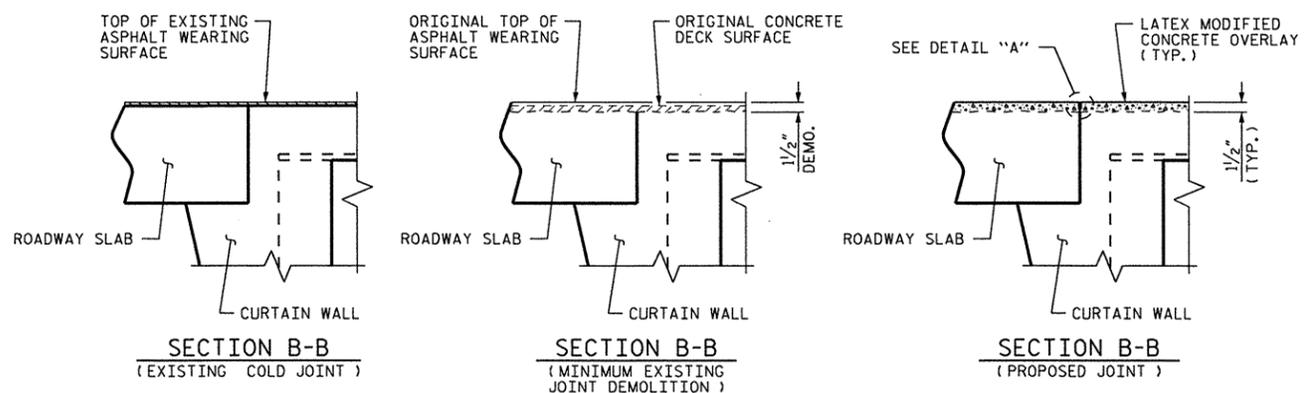
DRAWN BY : P.C. BREWER DATE : 6/13
CHECKED BY : D.N. SNOKE DATE : 6/13
DESIGN ENGINEER OF RECORD: DATE :

IF THE EMBEDDED PORTION OF THE EXISTING PLASTIC WATERSTOP IS EXPOSED DURING REMOVAL OF UNSOUND CONCRETE OR IF UNSOUND CONCRETE IS REMOVED TO WITHIN 2" OF THE WATERSTOP, THE ENTIRE WATERSTOP SHALL BE REMOVED



HYDRO-DEMOLITION OR EXCAVATION OF CONCRETE AT THE EXISTING JOINT SHALL RESULT IN THE BOTTOM OF THE EXCAVATION BEING REASONABLY FLAT, TO PROVIDE SUFFICIENT SUBSTRATE FOR PLACEMENT AND SUPPORT OF REPAIR CONCRETE.

SYNTHETIC RUBBER EXPANSION JOINT SEALS SHALL ACCOMMODATE A MINIMUM OF 1" EXPANSION AND MEET THE MANUFACTURER'S RECOMMENDATION FOR THE SIZE OF OPENING ON THE PLANS.
CONTRACTOR SHALL SUBMIT FOR APPROVAL THE PROPOSED SYNTHETIC RUBBER EXPANSION JOINT SEAL, WITH SUPPORTING INFORMATION AND DOCUMENTATION CONFIRMING THE APPROPRIATE SEAL SIZE.



PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 404

SHEET 3 OF 3

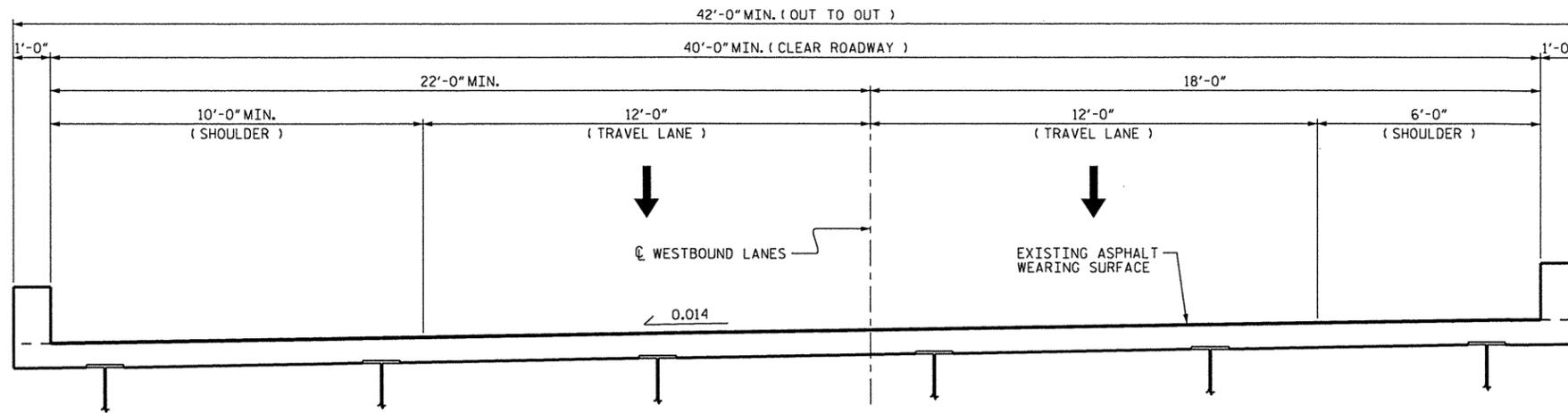
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

JOINT DETAILS

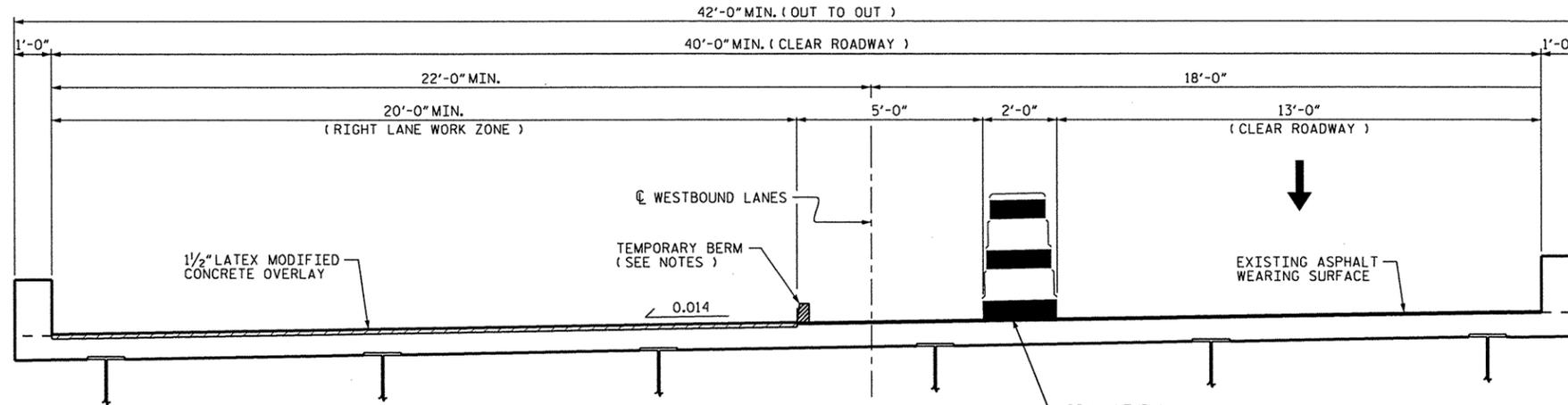
DRAWN BY: P.C. BREWER DATE: 5/13
 CHECKED BY: D.N. SNOKE DATE: 6/13
 DESIGN ENGINEER OF RECORD: DATE: -



REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-9
1			3			TOTAL SHEETS
2			4			42

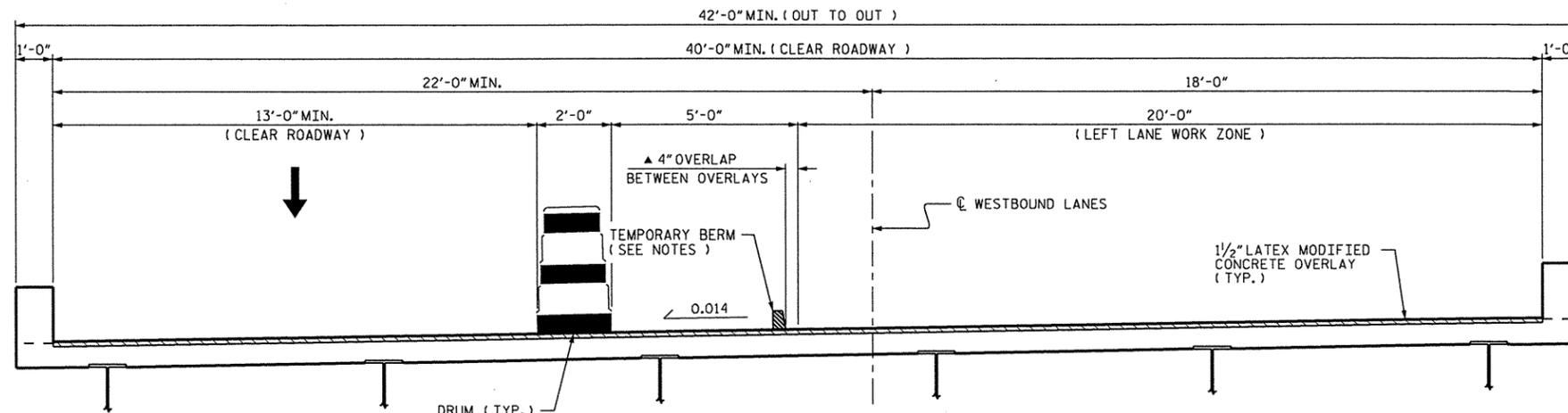


TYPICAL SECTION
(EXISTING) (LOOKING EAST)



TYPICAL SECTION
(RIGHT LANE WORK ZONE) (LOOKING EAST)

▲ 4" OVERLAP BETWEEN OVERLAYS
PREVIOUSLY POURED LMC-VES TO BE
HYDRO-DEMOLITIONED & RECAST WITH LMC-VES



TYPICAL SECTION
(LEFT LANE WORK ZONE) (LOOKING EAST)

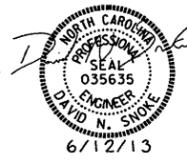
NOTES:
THE WORK STAGING ON THIS PLAN SHEET INDICATES THAT THE RIGHT LANE LMC-VES WORK IS PERFORMED FIRST, FOLLOWED BY THE LEFT LANE LMC-VES WORK. THE CONTRACTOR MAY ELECT TO SEQUENCE THE WORK DIFFERENTLY, BUT THE DIMENSIONS OF THE WORK ZONE, CLEAR ROADWAY AREAS, AND THE LOCATIONS OF THE DRUM SHALL MATCH THAT INDICATED ON THIS PLAN SHEET, RESPECTIVE TO THE LANE WHERE THE LMC-VES WORK IS BEING PERFORMED.

PROJECT NO. I-5607
BUNCOMBE COUNTY
BRIDGE NO. 406
SHEET 2 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

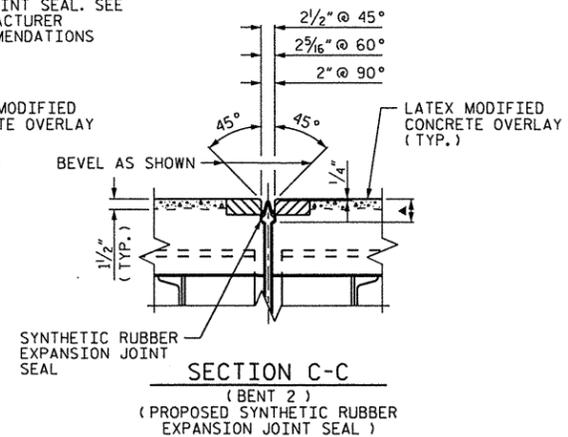
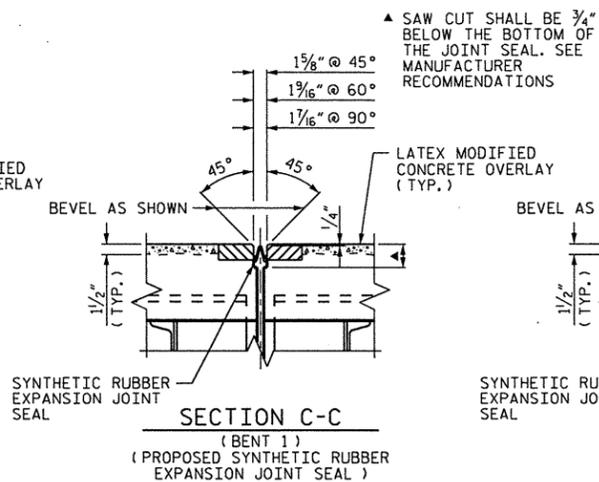
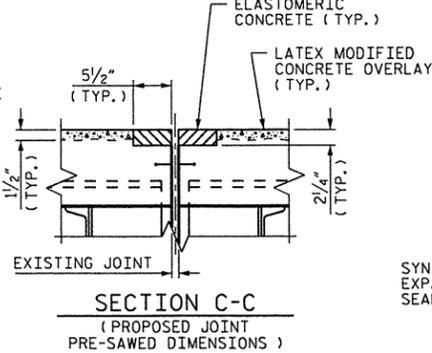
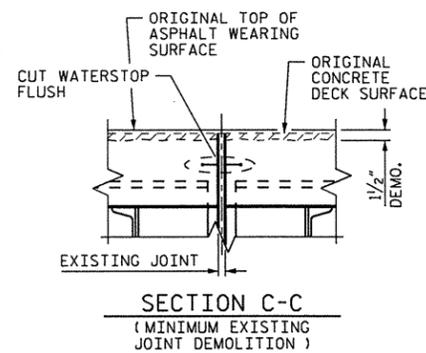
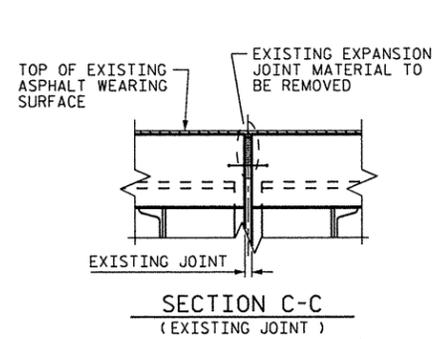
STAGING SEQUENCE

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-11
1			3			TOTAL SHEETS
2			4			42

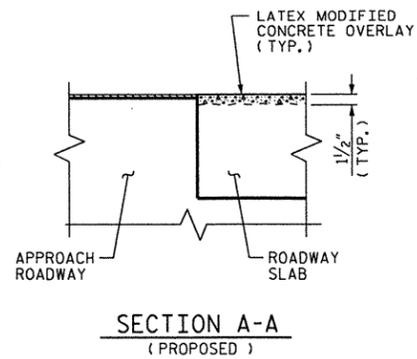
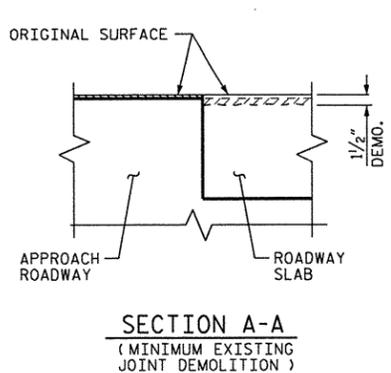
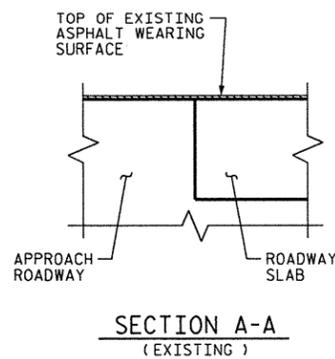
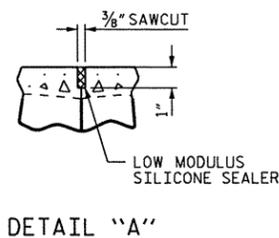
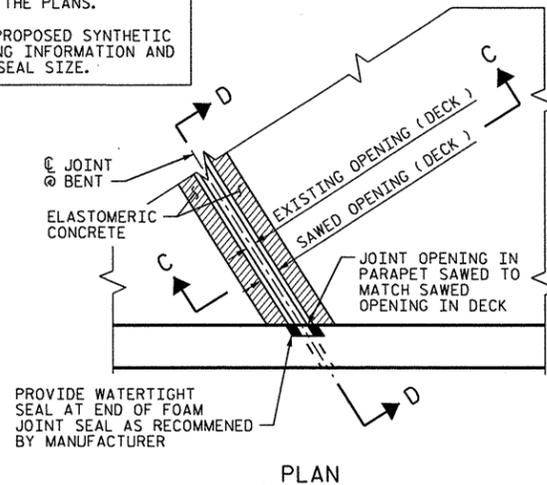
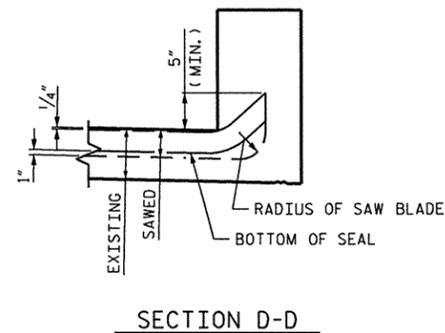
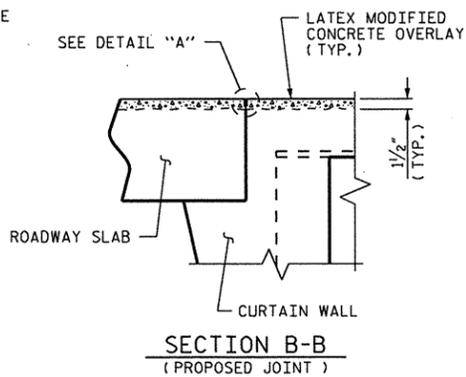
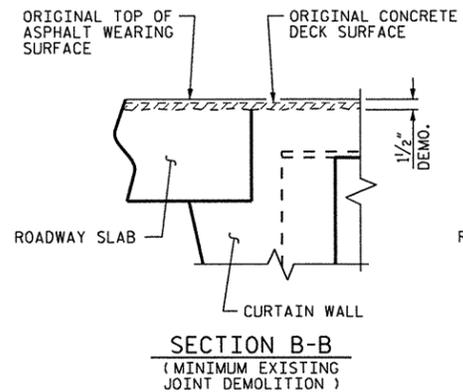
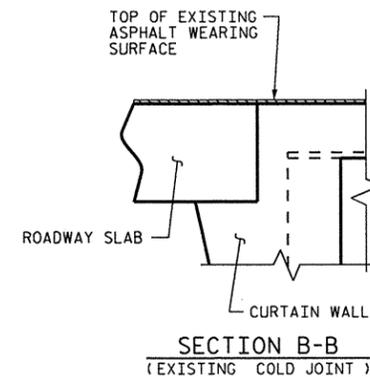


DRAWN BY : P.C. BREWER DATE : 6/13
CHECKED BY : D.N. SNOKE DATE : 6/13
DESIGN ENGINEER OF RECORD: DATE :

IF THE EMBEDDED PORTION OF THE EXISTING PLASTIC WATERSTOP IS EXPOSED DURING REMOVAL OF UNSOUND CONCRETE OR IF UNSOUND CONCRETE IS REMOVED TO WITHIN 2" OF THE WATERSTOP, THE ENTIRE WATERSTOP SHALL BE REMOVED



HYDRO-DEMOLITION OR EXCAVATION OF CONCRETE AT THE EXISTING JOINT SHALL RESULT IN THE BOTTOM OF THE EXCAVATION BEING REASONABLY FLAT, TO PROVIDE SUFFICIENT SUBSTRATE FOR PLACEMENT AND SUPPORT OF REPAIR CONCRETE.



PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 406

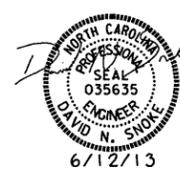
SHEET 3 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

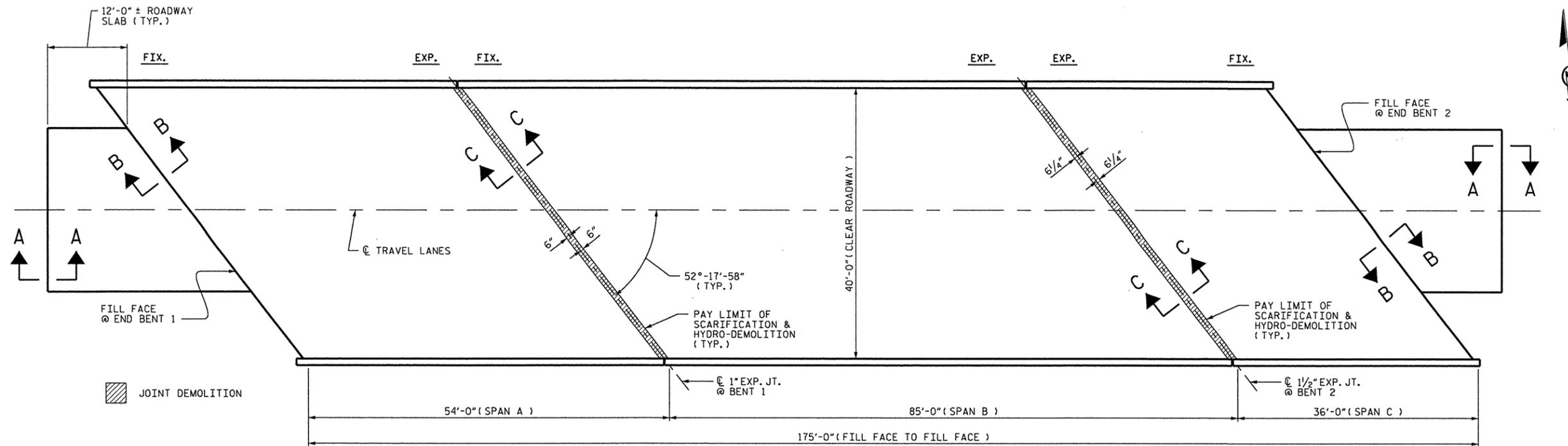
JOINT DETAILS

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

TOTAL SHEETS: 42

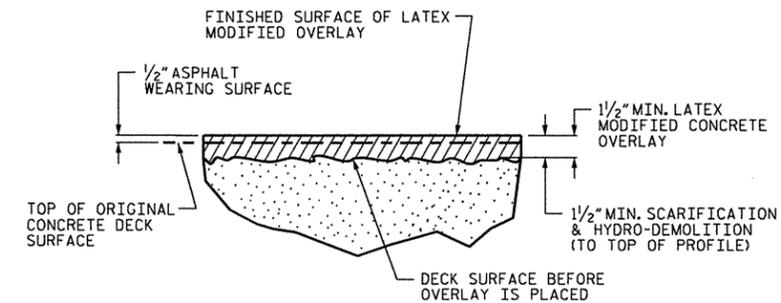
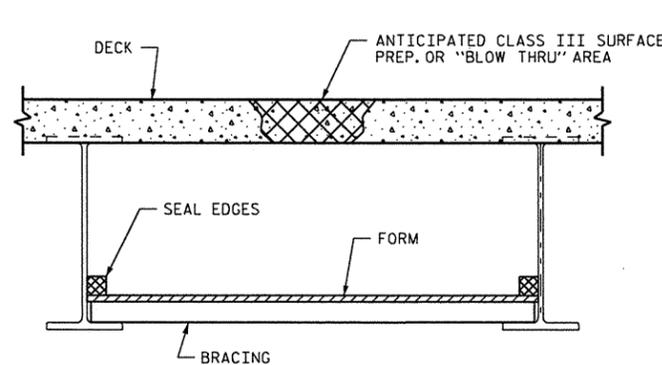


DRAWN BY: P.C. BREWER DATE: 6/13
 CHECKED BY: D.N. SNOISE DATE: 6/13
 DESIGN ENGINEER OF RECORD: DATE:



PLAN

(SEE "JOINT DETAILS" SHEET FOR SECTION VIEWS)



DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY

NOTES:

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF BRIDGE DECK.

DURING CONSTRUCTION, BERMS OR APPROPRIATE MEASURES SHALL BE USED TO ENSURE HYDRO-DEMOLITION WATER DOES NOT FLOW OR MIGRATE INTO ACTIVE TRAVEL LANES.

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

FOR "SCARIFYING BRIDGE DECK", "HYDRO-DEMOLITION OF BRIDGE DECK", AND "CLASS II SURFACE PREPARATION" SEE "OVERLAY SURFACE PREPARATION" SPECIAL PROVISION.

FOR "BRIDGE JOINT DEMOLITION", SEE SPECIAL PROVISIONS.

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

FOR "SYNTHETIC RUBBER EXPANSION JOINT SEALS", SEE SPECIAL PROVISIONS.

FOR "ELASTOMERIC CONCRETE", SEE SPECIAL PROVISIONS.

FOR LOW MODULUS SILICONE SEALER, SEE STANDARD SPECIFICATIONS SECTION 1028.

FOR "SUBMITTAL OF WORKING DRAWINGS", SEE SPECIAL PROVISIONS.

FOR "FALSEWORK AND FORMWORK", SEE SPECIAL PROVISIONS.

FOR "CRANE SAFETY", SEE SPECIAL PROVISIONS.

FOR "GROUT FOR STRUCTURES", SEE SPECIAL PROVISIONS.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT 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 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

GROOVING BRIDGE FLOORS	CLASS II SURFACE PREPARATION	LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	PLACING & FINISHING LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	SYNTHETIC RUBBER EXPANSION JOINT SEALS	BRIDGE JOINT DEMOLITION	SCARIFYING BRIDGE DECK	HYDRO-DEMOLITION OF BRIDGE DECK
SO. FT.	SO. YDS.	CU. YDS.	SO. YDS.	LUMP SUM	SO. FT.	SO. YDS.	SO. YDS.
6,860	8	39.9	822	LUMP SUM	102	822	822

NO "CLASS II SURFACE PREPARATION" AREAS ARE SHOWN IN SKETCH. BECAUSE OF THE PRESENCE OF AN ASPHALT WEARING SURFACE, THE QUANTITY GIVEN IS AN ESTIMATE OF PATCHED AREAS IN THE CONCRETE DECK. ALL PATCHED AREAS IN CONCRETE DECK SHALL BE REMOVED USING "CLASS II SURFACE PREPARATION".

PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 425

SHEET 1 OF 3

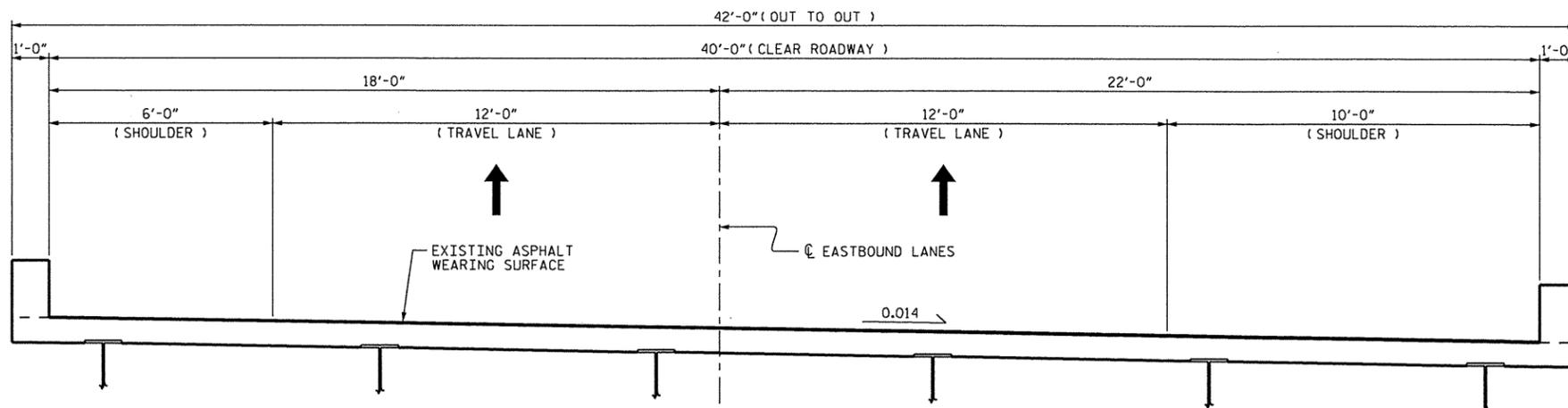
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN VIEW OF BRIDGE
 425 ON I40 EAST OVER
 SR3083 (CARIBOU RD.)

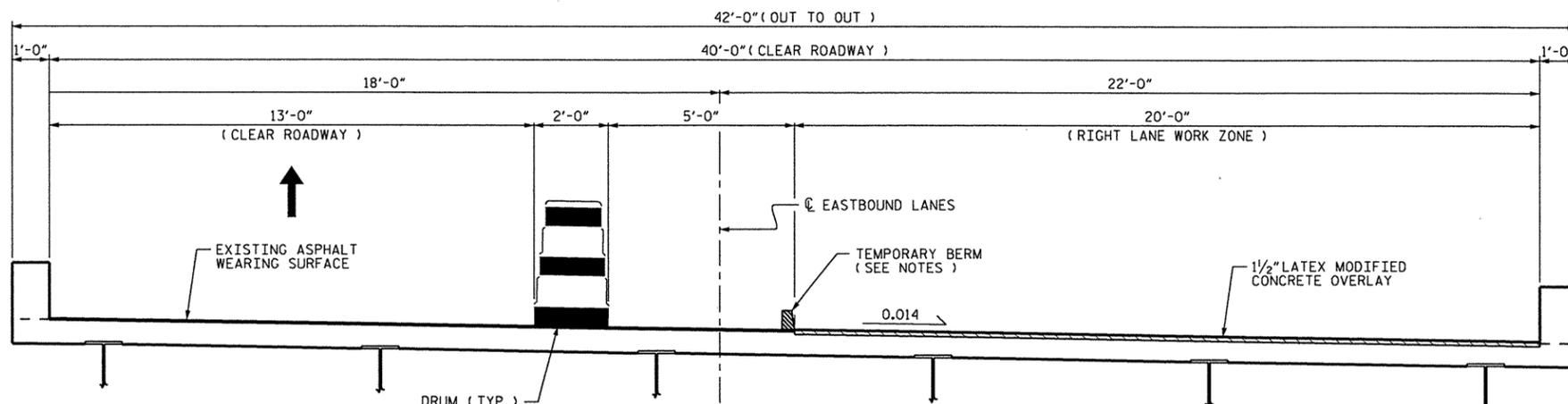


DRAWN BY: P.C. BREWER DATE: 6/13
 CHECKED BY: D.N. SNOISE DATE: 6/13
 DESIGN ENGINEER OF RECORD: DATE:

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-13
1			3			TOTAL SHEETS
2			4			42

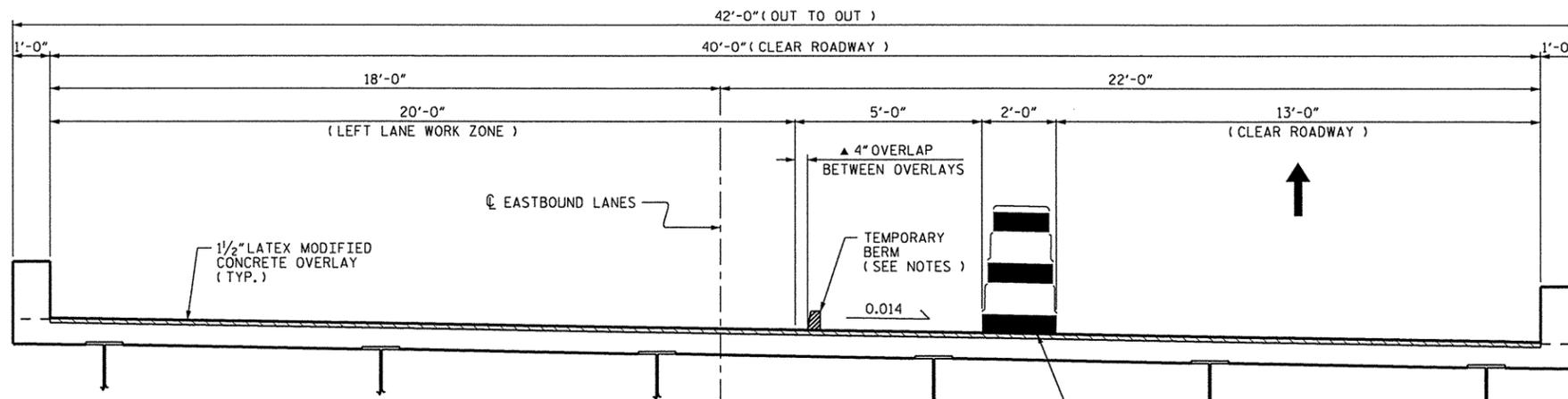


TYPICAL SECTION
(EXISTING) (LOOKING EAST)



TYPICAL SECTION
(RIGHT LANE WORK ZONE) (LOOKING EAST)

▲ 4" OVERLAP BETWEEN OVERLAYS
PREVIOUSLY POURED LMC-VES TO BE
HYDRO-DEMOLITIONED & RECAST WITH LMC-VES



TYPICAL SECTION
(LEFT LANE WORK ZONE) (LOOKING EAST)

NOTES:

THE WORK STAGING ON THIS PLAN SHEET INDICATES THAT THE RIGHT LANE LMC-VES WORK IS PERFORMED FIRST, FOLLOWED BY THE LEFT LANE LMC-VES WORK. THE CONTRACTOR MAY ELECT TO SEQUENCE THE WORK DIFFERENTLY, BUT THE DIMENSIONS OF THE WORK ZONE, CLEAR ROADWAY AREAS, AND THE LOCATIONS OF THE DRUM SHALL MATCH THAT INDICATED ON THIS PLAN SHEET, RESPECTIVE TO THE LANE WHERE THE LMC-VES WORK IS BEING PERFORMED.

PROJECT NO. I-5607
BUNCOMBE COUNTY
BRIDGE NO. 425

SHEET 2 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

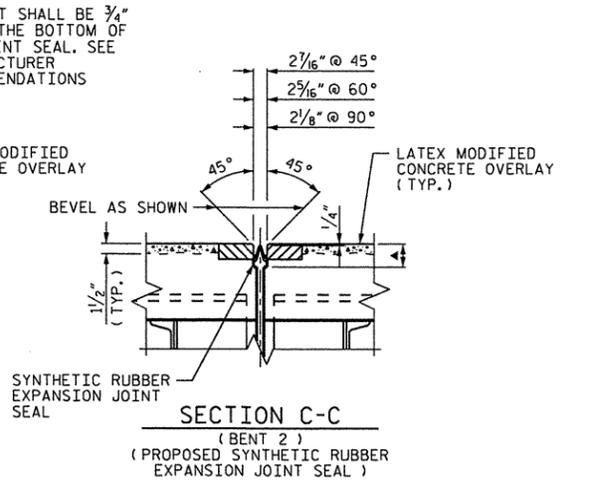
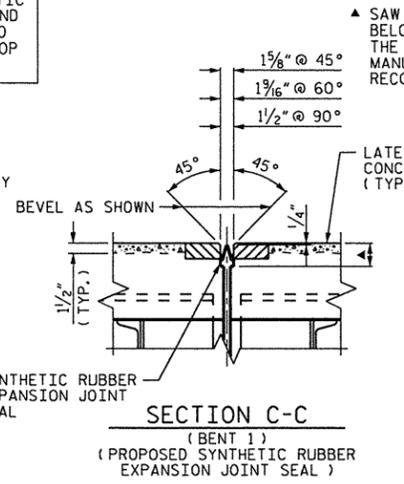
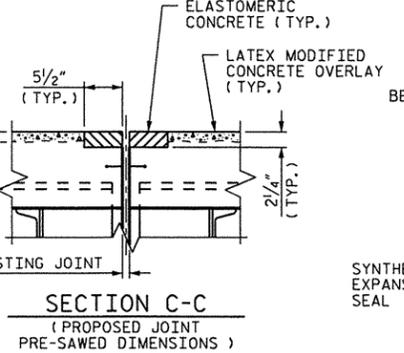
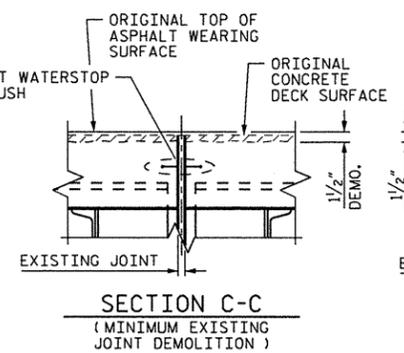
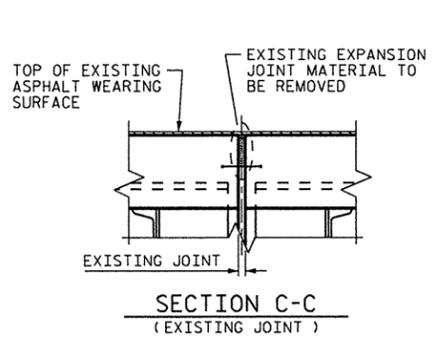
STAGING SEQUENCE



DRAWN BY : P.C. BREWER DATE : 6/13
CHECKED BY : D.N. SNOKE DATE : 6/13
DESIGN ENGINEER OF RECORD: DATE :

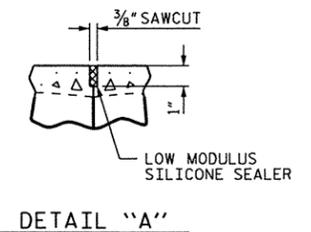
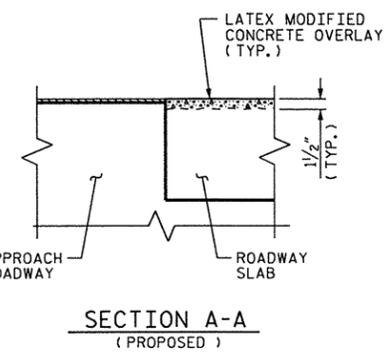
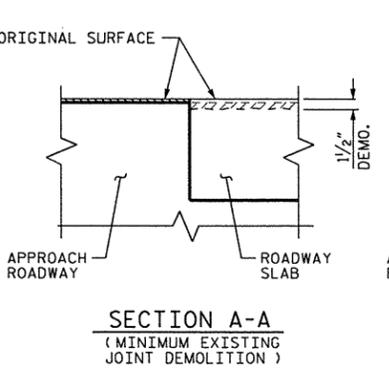
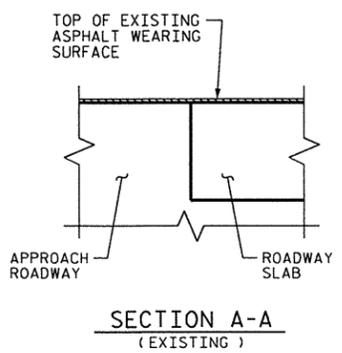
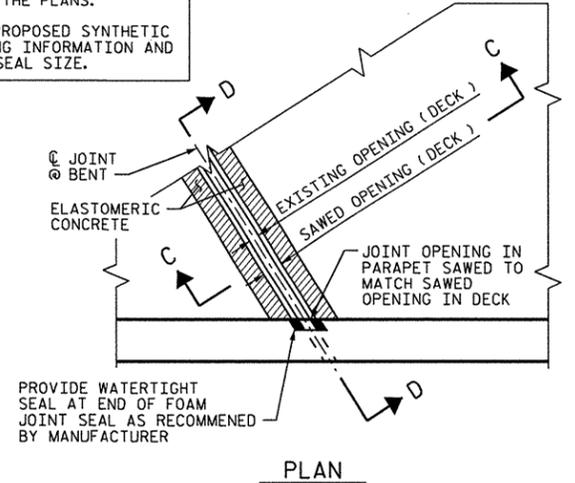
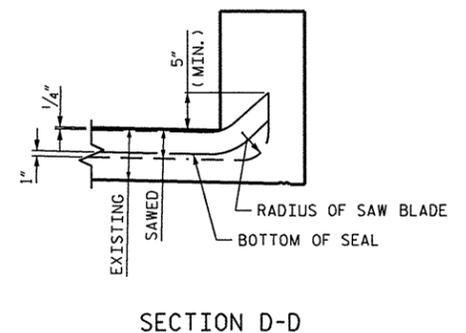
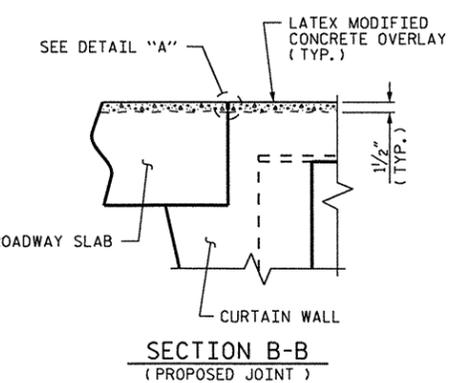
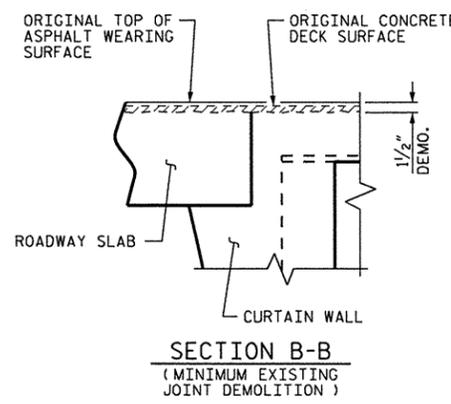
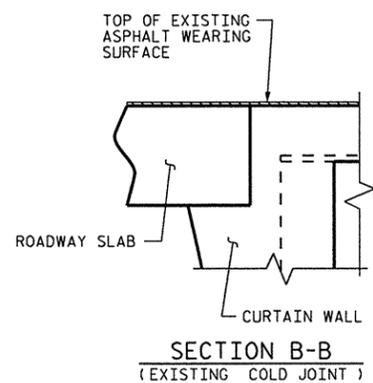
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-14
1			3			TOTAL SHEETS
2			4			42

IF THE EMBEDDED PORTION OF THE EXISTING PLASTIC WATERSTOP IS EXPOSED DURING REMOVAL OF UNSOUND CONCRETE OR IF UNSOUND CONCRETE IS REMOVED TO WITHIN 2" OF THE WATERSTOP, THE ENTIRE WATERSTOP SHALL BE REMOVED



HYDRO-DEMOLITION OR EXCAVATION OF CONCRETE AT THE EXISTING JOINT SHALL RESULT IN THE BOTTOM OF THE EXCAVATION BEING REASONABLY FLAT, TO PROVIDE SUFFICIENT SUBSTRATE FOR PLACEMENT AND SUPPORT OF REPAIR CONCRETE.

SYNTHETIC RUBBER EXPANSION JOINT SEALS SHALL ACCOMMODATE A MINIMUM OF 1" EXPANSION AND MEET THE MANUFACTURER'S RECOMMENDATION FOR THE SIZE OF OPENING ON THE PLANS.
CONTRACTOR SHALL SUBMIT FOR APPROVAL THE PROPOSED SYNTHETIC RUBBER EXPANSION JOINT SEAL, WITH SUPPORTING INFORMATION AND DOCUMENTATION CONFIRMING THE APPROPRIATE SEAL SIZE.



PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 425

SHEET 3 OF 3

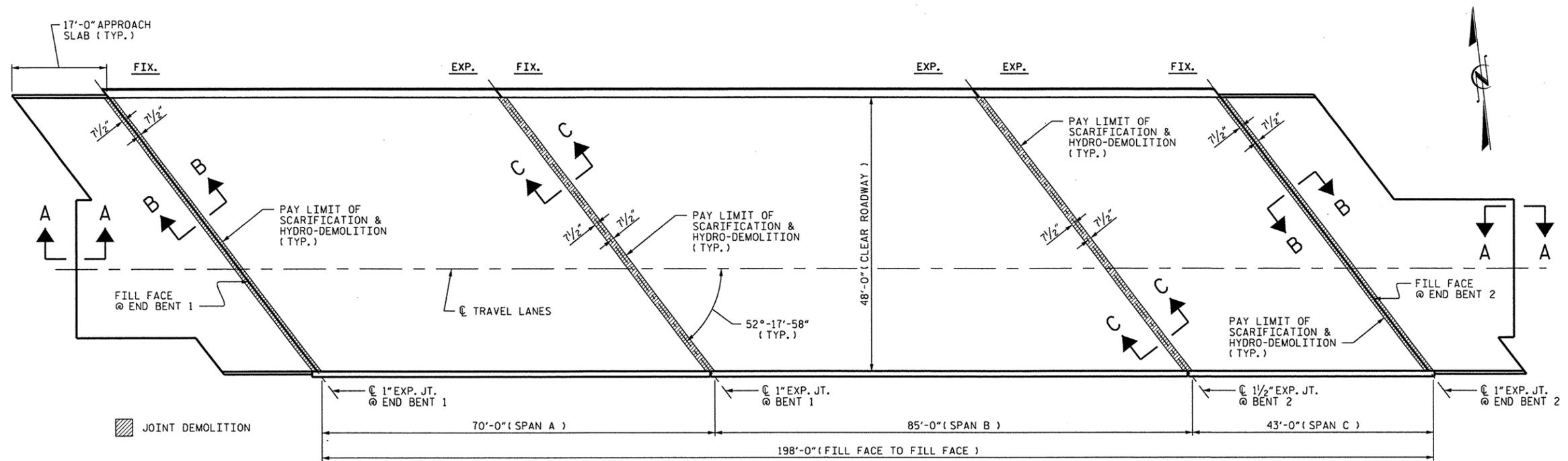
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

JOINT DETAILS

DRAWN BY: P.C. BREWER DATE: 6/13
 CHECKED BY: D.N. SNOKE DATE: 6/13
 DESIGN ENGINEER OF RECORD: _____ DATE: _____



REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-15
1			3			TOTAL SHEETS
2			4			42



PLAN

(SEE "JOINT DETAILS" SHEET FOR SECTION VIEWS)

NOTES:

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF BRIDGE DECK.

DURING CONSTRUCTION, BERMS OR APPROPRIATE MEASURES SHALL BE USED TO ENSURE HYDRO-DEMOLITION WATER DOES NOT FLOW OR MIGRATE INTO ACTIVE TRAVEL LANES.

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

FOR "SCARIFYING BRIDGE DECK", "HYDRO-DEMOLITION OF BRIDGE DECK", AND "CLASS II SURFACE PREPARATION" SEE "OVERLAY SURFACE PREPARATION" SPECIAL PROVISION.

FOR "BRIDGE JOINT DEMOLITION", SEE SPECIAL PROVISIONS.

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

FOR "SYNTHETIC RUBBER EXPANSION JOINT SEALS", SEE SPECIAL PROVISIONS.

FOR "FOAM JOINT SEALS", SEE SPECIAL PROVISIONS.

FOR "ELASTOMERIC CONCRETE", SEE SPECIAL PROVISIONS.

FOR LOW MODULUS SILICONE SEALER, SEE STANDARD SPECIFICATIONS SECTION 1028.

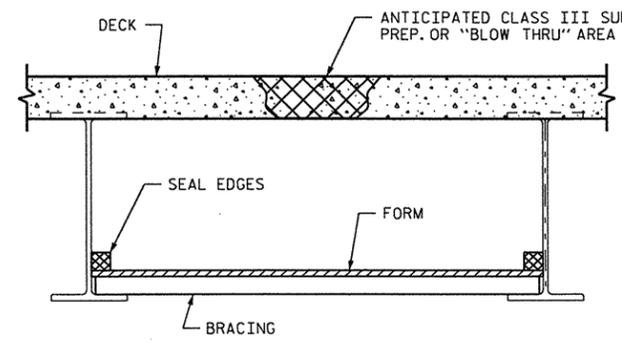
FOR "SUBMITTAL OF WORKING DRAWINGS", SEE SPECIAL PROVISIONS.

FOR "FALSEWORK AND FORMWORK", SEE SPECIAL PROVISIONS.

FOR "CRANE SAFETY", SEE SPECIAL PROVISIONS.

FOR "GROUT FOR STRUCTURES", SEE SPECIAL PROVISIONS.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLAN.

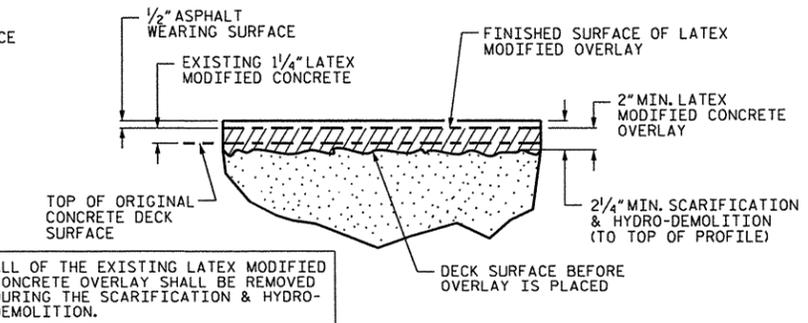


TYP. "BLOW THRU" CONTAINMENT AND FORMWORK

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 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.



DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY

(FINISHED SURFACE OF THE LATEX MODIFIED CONCRETE OVERLAY IS APPROX. 1/4" BELOW THE SURFACE OF THE EXISTING ASPHALT WEARING SURFACE)

PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 427

SHEET 1 OF 3

TOTAL BILL OF MATERIAL										
GROOVING BRIDGE FLOORS	CLASS II SURFACE PREPARATION	LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	PLACING & FINISHING LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	FOAM JOINT SEALS	SYNTHETIC RUBBER EXPANSION JOINT SEALS	VOLUMETRIC MIXER	CONCRETE FOR DECK REPAIR	BRIDGE JOINT DEMOLITION	SCARIFYING BRIDGE DECK	HYDRO-DEMOLITION OF BRIDGE DECK
SO. FT.	SO. YDS.	CU. YDS.	SO. YDS.	LUMP SUM	LUMP SUM	LUMP SUM	CU. FT.	SO. FT.	SO. YDS.	SO. YDS.
10,322	12	76.0	1,216	LUMP SUM	LUMP SUM	LUMP SUM	61	122	1,216	1,216

NO "CLASS II SURFACE PREPARATION" AREAS ARE SHOWN IN SKETCH. BECAUSE OF THE PRESENCE OF AN ASPHALT WEARING SURFACE, THE QUANTITY GIVEN IS AN ESTIMATE OF PATCHED AREAS IN THE CONCRETE DECK. ALL PATCHED AREAS IN CONCRETE DECK SHALL BE REMOVED USING "CLASS II SURFACE PREPARATION".

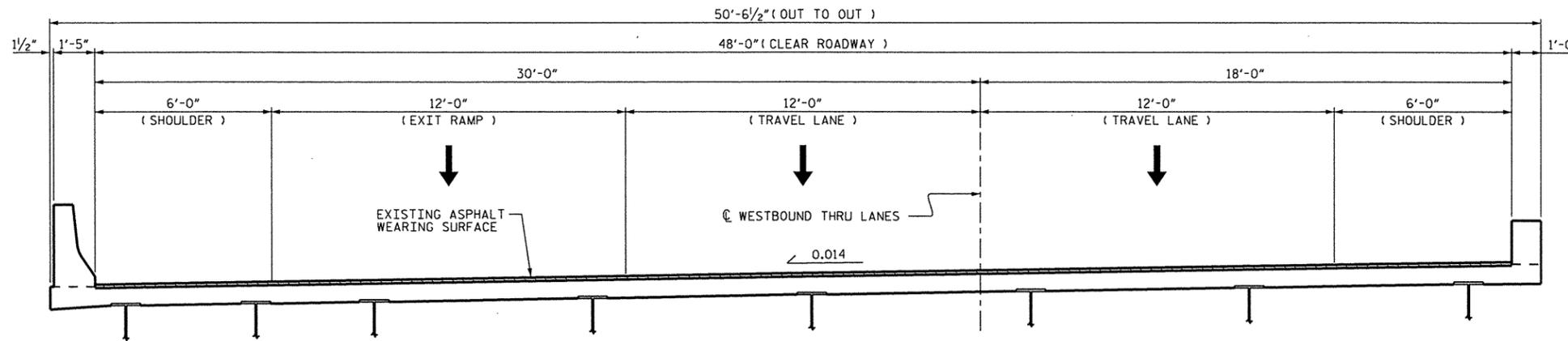
DRAWN BY: P.C. BREWER DATE: 6/13
 CHECKED BY: D.N. SNOKE DATE: 6/13
 DESIGN ENGINEER OF RECORD: _____ DATE: _____



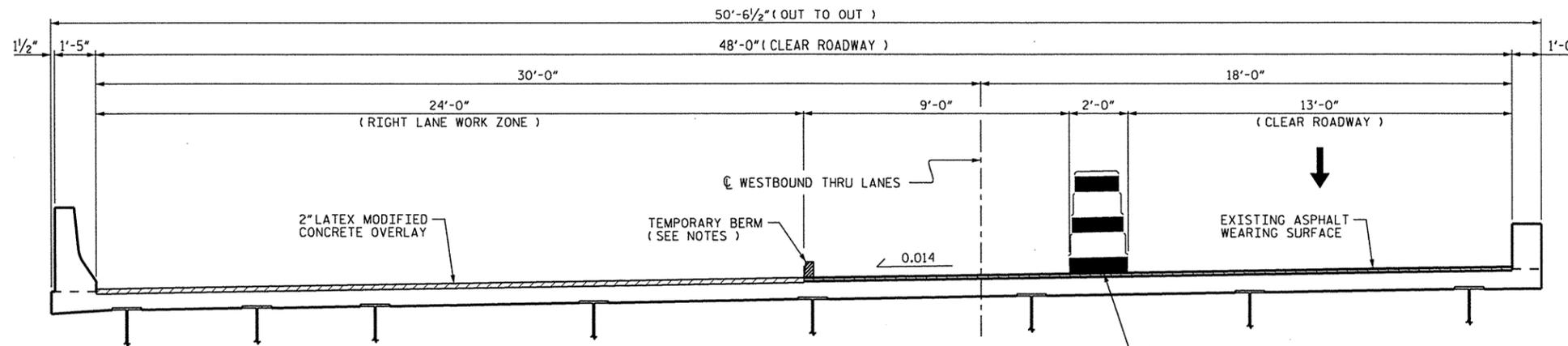
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN VIEW OF BRIDGE
 427 ON I40 WEST OVER
 SR3083 (CARIBOU RD.)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-16
1			3			TOTAL SHEETS
2			4			42

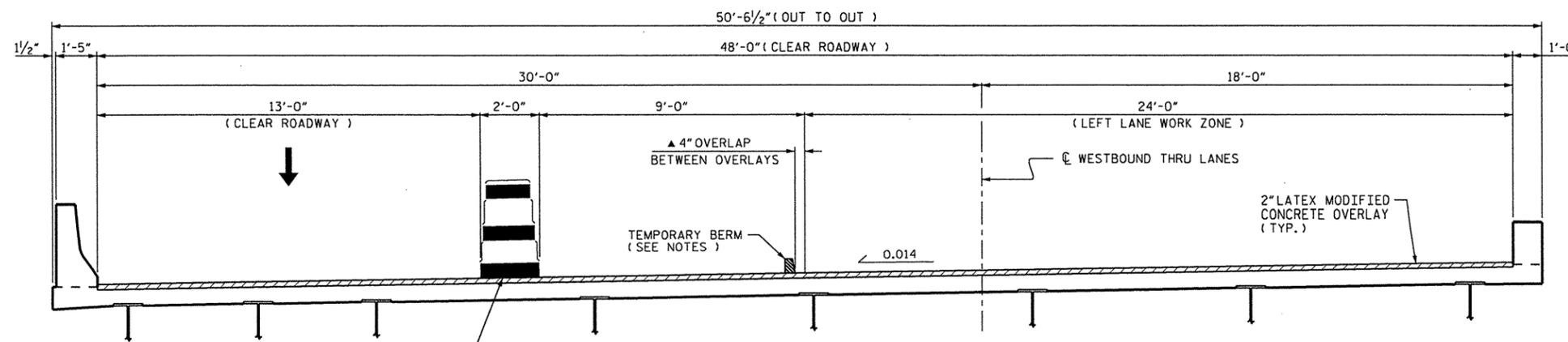


TYPICAL SECTION
(EXISTING) (LOOKING EAST)



TYPICAL SECTION
(RIGHT LANE WORK ZONE) (LOOKING EAST)

▲ 4" OVERLAP BETWEEN OVERLAYS
PREVIOUSLY POURED LMC-VES TO BE
HYDRO-DEMOLITIONED & RECAST WITH LMC-VES



TYPICAL SECTION
(EXISTING) (LOOKING EAST)

NOTES:

THE WORK STAGING ON THIS PLAN SHEET INDICATES THAT THE RIGHT LANE LMC-VES WORK IS PERFORMED FIRST, FOLLOWED BY THE LEFT LANE LMC-VES WORK. THE CONTRACTOR MAY ELECT TO SEQUENCE THE WORK DIFFERENTLY, BUT THE DIMENSIONS OF THE WORK ZONE, CLEAR ROADWAY AREAS, AND THE LOCATIONS OF THE DRUM SHALL MATCH THAT INDICATED ON THIS PLAN SHEET, RESPECTIVE TO THE LANE WHERE THE LMC-VES WORK IS BEING PERFORMED.

PROJECT NO. I-5607
BUNCOMBE COUNTY
BRIDGE NO. 427

SHEET 2 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

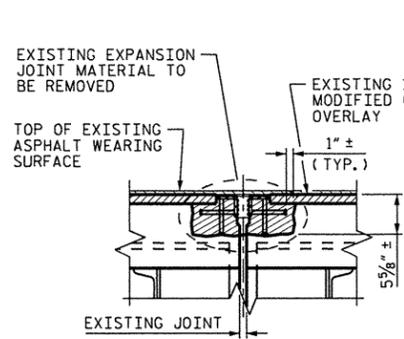
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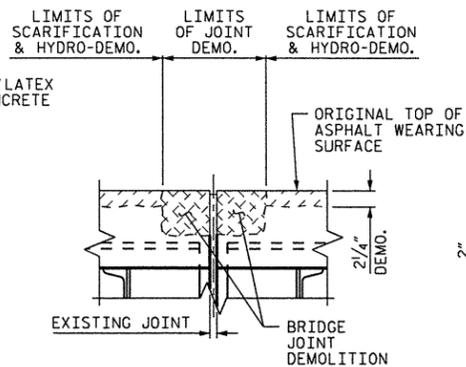
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CHECKED BY : D.N. SNOISE DATE : 6/13
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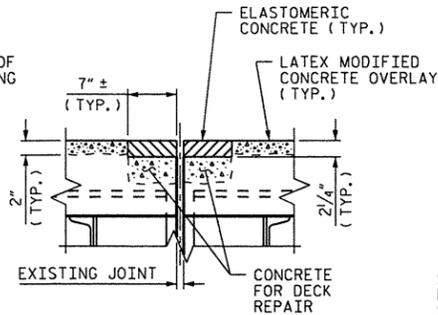
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-17
1			3			TOTAL SHEETS
2			4			42



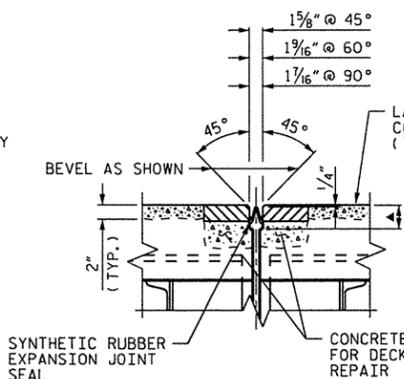
SECTION C-C
(EXISTING JOINT)



SECTION C-C
(MINIMUM EXISTING JOINT DEMOLITION)
(DEMOLISH TO EXTENT NECESSARY TO REMOVE EXISTING JOINT ASSEMBLY AND ARMORING)

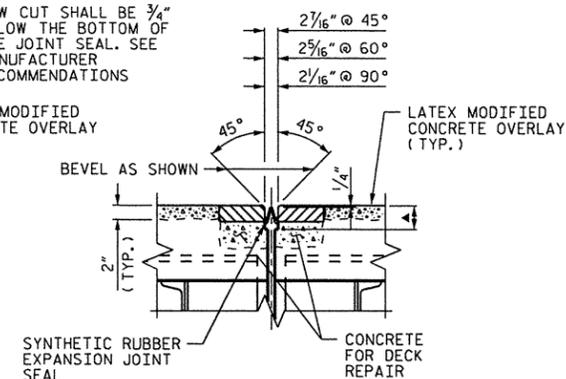


SECTION C-C
(PROPOSED JOINT PRE-SAWED DIMENSIONS)



SECTION C-C
(BENT 1)
(PROPOSED SYNTHETIC RUBBER EXPANSION JOINT SEAL)

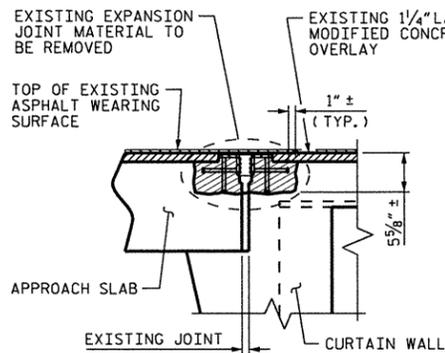
▲ SAW CUT SHALL BE 3/4" BELOW THE BOTTOM OF THE JOINT SEAL. SEE MANUFACTURER'S RECOMMENDATIONS



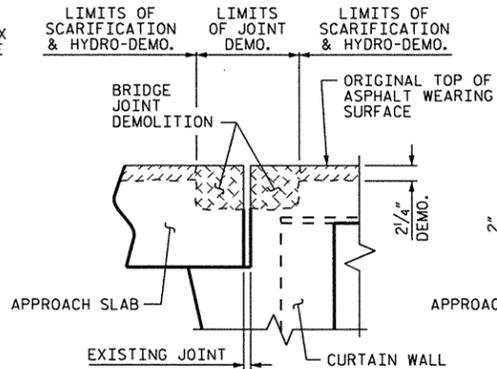
SECTION C-C
(BENT 2)
(PROPOSED SYNTHETIC RUBBER EXPANSION JOINT SEAL)

HYDRO-DEMOLITION OR EXCAVATION OF CONCRETE AT THE EXISTING JOINT SHALL RESULT IN THE BOTTOM OF THE EXCAVATION BEING REASONABLY FLAT, TO PROVIDE SUFFICIENT SUBSTRATE FOR PLACEMENT AND SUPPORT OF REPAIR CONCRETE.

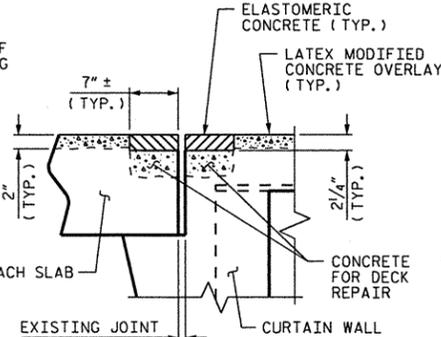
SYNTHETIC RUBBER EXPANSION JOINT SEALS SHALL ACCOMMODATE A MINIMUM OF 1" EXPANSION AND MEET THE MANUFACTURER'S RECOMMENDATION FOR THE SIZE OF OPENING ON THE PLANS.
CONTRACTOR SHALL SUBMIT FOR APPROVAL THE PROPOSED SYNTHETIC RUBBER EXPANSION JOINT SEAL, WITH SUPPORTING INFORMATION AND DOCUMENTATION CONFIRMING THE APPROPRIATE SEAL SIZE.



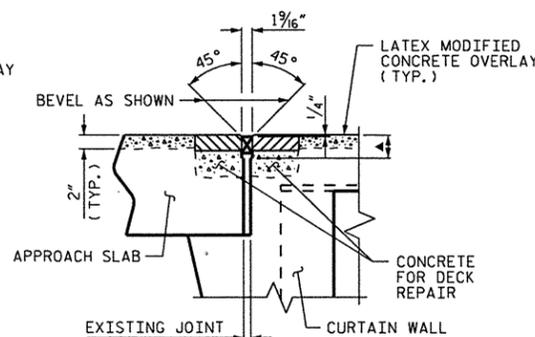
SECTION B-B
(EXISTING JOINT)



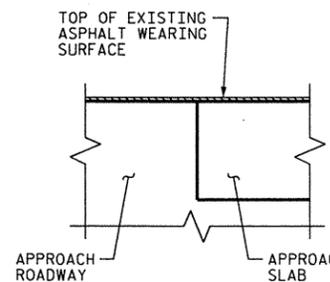
SECTION B-B
(MINIMUM EXISTING JOINT DEMOLITION)
(DEMOLISH TO EXTENT NECESSARY TO REMOVE EXISTING JOINT ASSEMBLY AND ARMORING)



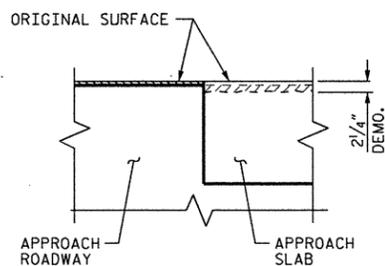
SECTION B-B
(PROPOSED JOINT PRE-SAWED DIMENSIONS)



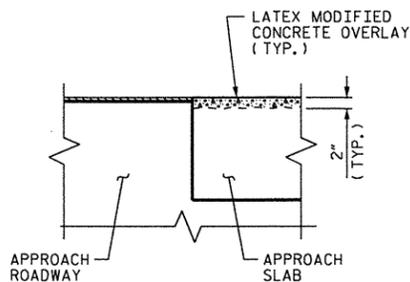
SECTION B-B
(PROPOSED FOAM JOINT SEAL)



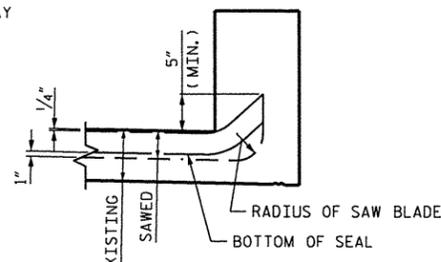
SECTION A-A
(EXISTING)



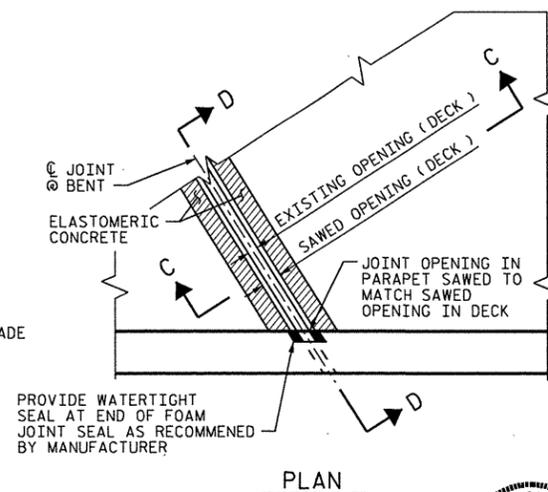
SECTION A-A
(MINIMUM EXISTING JOINT DEMOLITION)



SECTION A-A
(PROPOSED)



SECTION D-D



PROVIDE WATERTIGHT SEAL AT END OF FOAM JOINT SEAL AS RECOMMENDED BY MANUFACTURER

PLAN

PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 427

SHEET 3 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

JOINT DETAILS

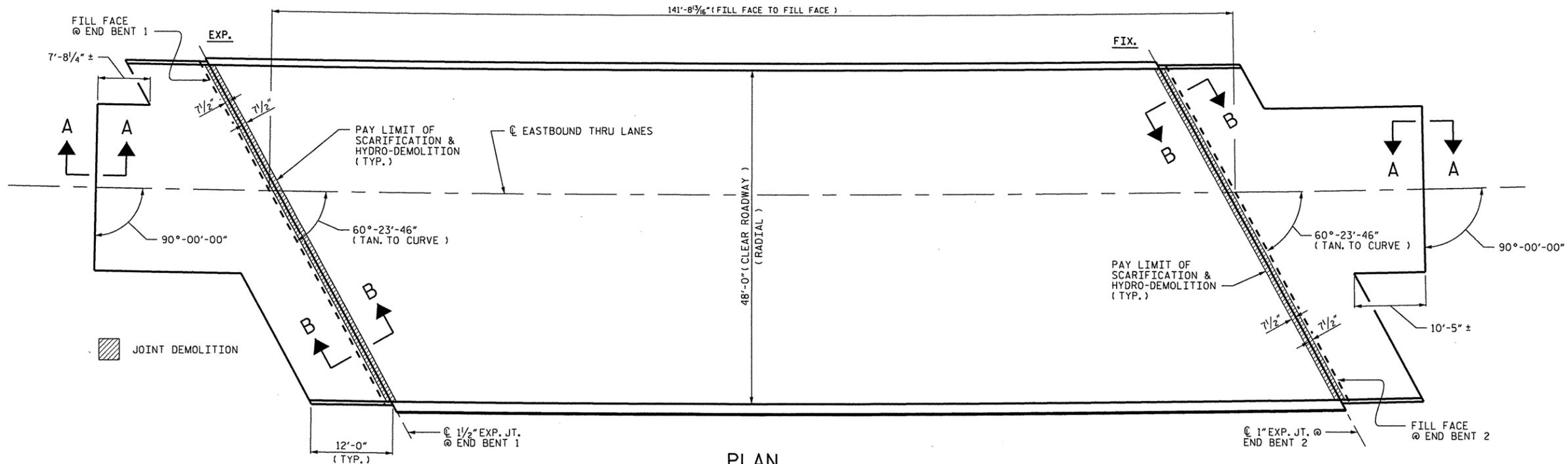
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 CHECKED BY: D.N. SNOKE DATE: 6/13
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REVISIONS				SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO. S-18
 TOTAL SHEETS 42



PLAN

(SEE "JOINT DETAILS" SHEET FOR SECTIONS)

NOTES:

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF BRIDGE DECK.

DURING CONSTRUCTION, BERMS OR APPROPRIATE MEASURES SHALL BE USED TO ENSURE HYDRO-DEMOLITION WATER DOES NOT FLOW OR MIGRATE INTO ACTIVE TRAVEL LANES.

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

FOR "SCARIFYING BRIDGE DECK", "HYDRO-DEMOLITION OF BRIDGE DECK", AND "CLASS II SURFACE PREPARATION" SEE "OVERLAY SURFACE PREPARATION" SPECIAL PROVISION.

FOR "BRIDGE JOINT DEMOLITION", SEE SPECIAL PROVISIONS.

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

FOR "SYNTHETIC RUBBER EXPANSION JOINT SEALS", SEE SPECIAL PROVISIONS.

FOR "ELASTOMERIC CONCRETE", SEE SPECIAL PROVISIONS.

FOR LOW MODULUS SILICONE SEALER, SEE STANDARD SPECIFICATIONS SECTION 1028.

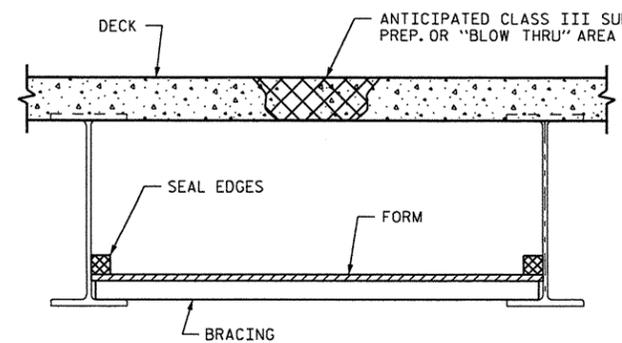
FOR "SUBMITTAL OF WORKING DRAWINGS", SEE SPECIAL PROVISIONS.

FOR "FALSEWORK AND FORMWORK", SEE SPECIAL PROVISIONS.

FOR "CRANE SAFETY", SEE SPECIAL PROVISIONS.

FOR "GROUT FOR STRUCTURES", SEE SPECIAL PROVISIONS.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLAN.

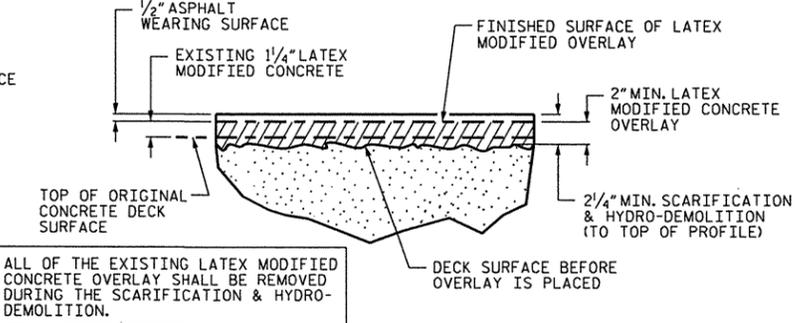


TYP. "BLOW THRU" CONTAINMENT AND FORMWORK

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 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.



DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY

(FINISHED SURFACE OF THE LATEX MODIFIED CONCRETE OVERLAY IS APPROX. 1/4" BELOW THE SURFACE OF THE EXISTING ASPHALT WEARING SURFACE)

TOTAL BILL OF MATERIAL									
GROOVING BRIDGE FLOORS	CLASS II SURFACE PREPARATION	LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	PLACING & FINISHING LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	SYNTHETIC RUBBER EXPANSION JOINT SEALS	VOLUMETRIC MIXER	CONCRETE FOR DECK REPAIR	BRIDGE JOINT DEMOLITION	SCARIFYING BRIDGE DECK	HYDRO-DEMOLITION OF BRIDGE DECK
SO. FT.	SO. YDS.	CU. YDS.	SO. YDS.	LUMP SUM	LUMP SUM	CU. FT.	SO. FT.	SO. YDS.	SO. YDS.
7,305	9	53.7	860	LUMP SUM	LUMP SUM	55	111	860	860

NO "CLASS II SURFACE PREPARATION" AREAS ARE SHOWN IN SKETCH, BECAUSE OF THE PRESENCE OF AN ASPHALT WEARING SURFACE, THE QUANTITY GIVEN IS AN ESTIMATE OF PATCHED AREAS IN THE CONCRETE DECK. ALL PATCHED AREAS IN CONCRETE DECK SHALL BE REMOVED USING "CLASS II SURFACE PREPARATION".

PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 431

SHEET 1 OF 3

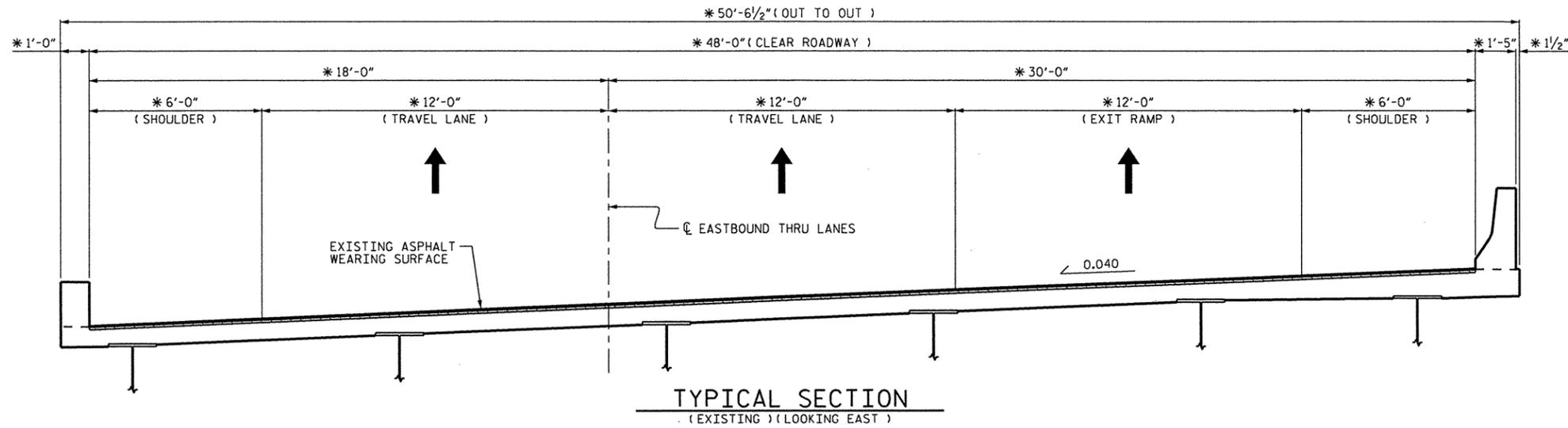
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN VIEW OF BRIDGE
 431 ON I40 EAST OVER
 US25A (SWEETEN CREEK RD)



DRAWN BY: P.C. BREWER DATE: 6/13
 CHECKED BY: D.N. SNOISE DATE: 6/13
 DESIGN ENGINEER OF RECORD: - DATE: -

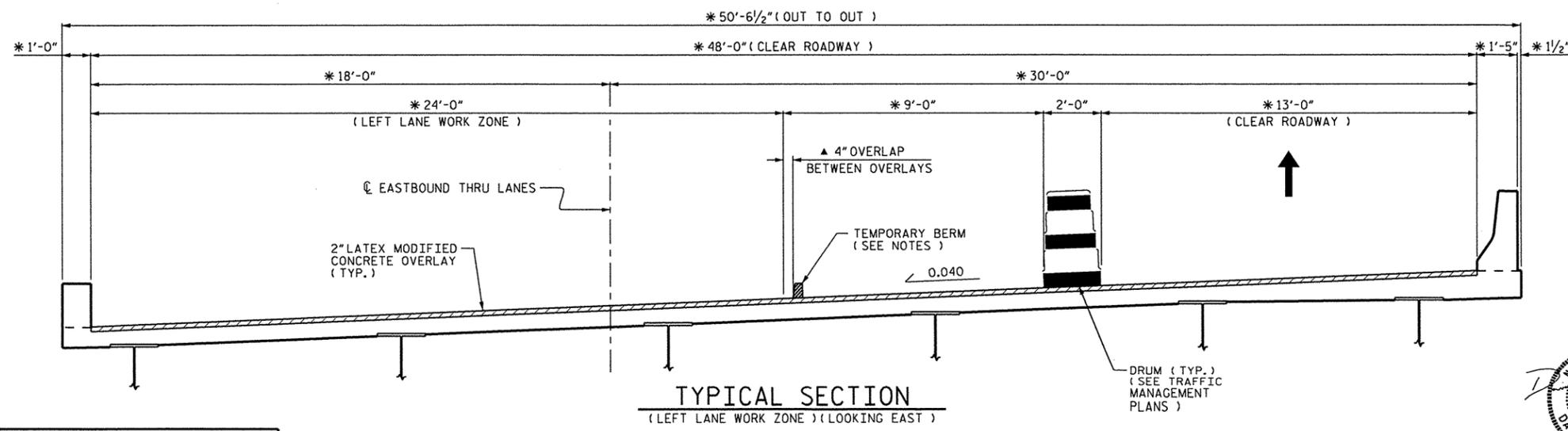
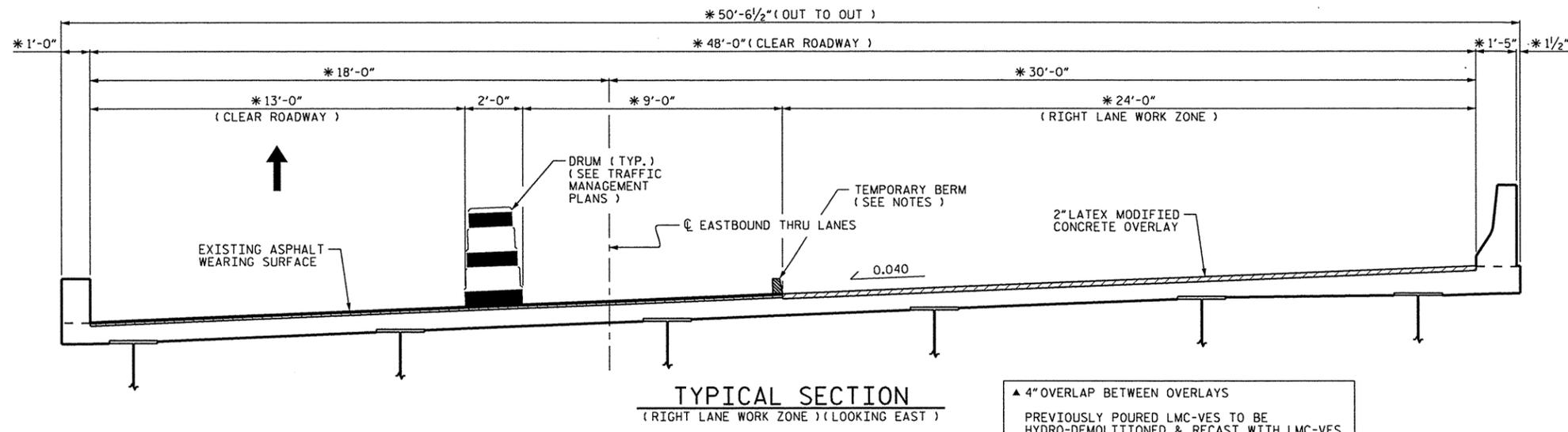
REVISIONS					SHEET NO.
NO.	BY	DATE	NO.	DATE	
1			3		S-19
2			4		TOTAL SHEETS 42



NOTES:

* RADIAL DIMENSIONS

THE WORK STAGING ON THIS PLAN SHEET INDICATES THAT THE RIGHT LANE LMC-VES WORK IS PERFORMED FIRST, FOLLOWED BY THE LEFT LANE LMC-VES WORK. THE CONTRACTOR MAY ELECT TO SEQUENCE THE WORK DIFFERENTLY, BUT THE DIMENSIONS OF THE WORK ZONE, CLEAR ROADWAY AREAS, AND THE LOCATIONS OF THE DRUM SHALL MATCH THAT INDICATED ON THIS PLAN SHEET, RESPECTIVE TO THE LANE WHERE THE LMC-VES WORK IS BEING PERFORMED.



PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 431

SHEET 2 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

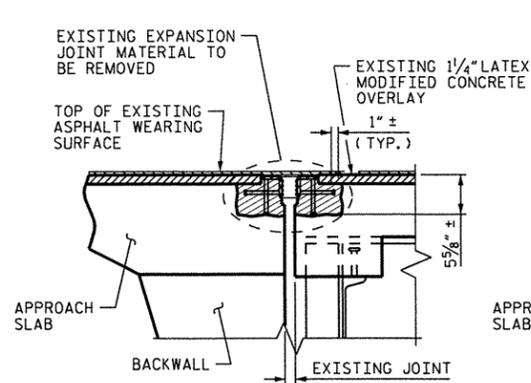
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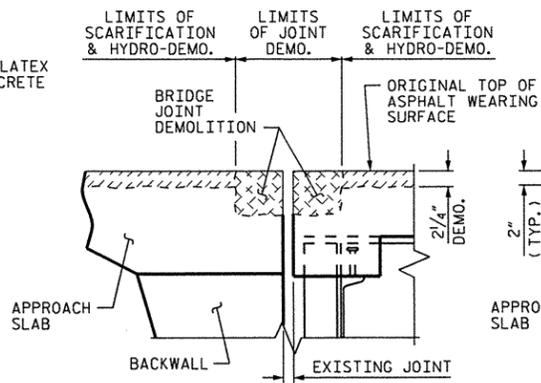
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 CHECKED BY : D.N. SNOKE DATE : 6/13
 DESIGN ENGINEER OF RECORD: DATE :

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	5-20
1			3			TOTAL SHEETS
2			4			42

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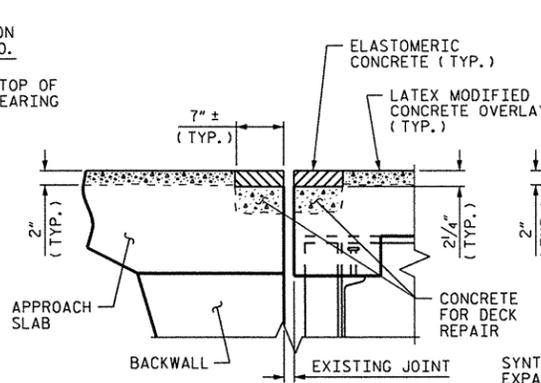


SECTION B-B
(EXISTING)

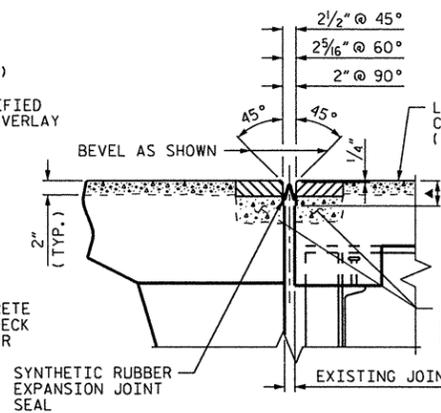


SECTION B-B
(MINIMUM EXISTING JOINT DEMOLITION)
(DEMOLISH TO EXTENT NECESSARY TO REMOVE EXISTING JOINT ASSEMBLY AND ARMORING)

HYDRO-DEMOLITION OR EXCAVATION OF CONCRETE AT THE EXISTING JOINT SHALL RESULT IN THE BOTTOM OF THE EXCAVATION BEING REASONABLY FLAT, TO PROVIDE SUFFICIENT SUBSTRATE FOR PLACEMENT AND SUPPORT OF REPAIR CONCRETE.

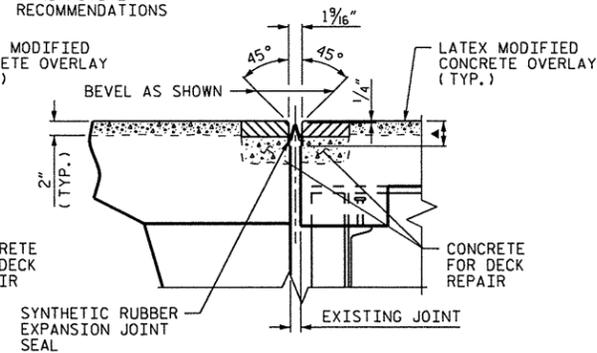


SECTION B-B
(PROPOSED JOINT PRE-SAWED DIMENSIONS)



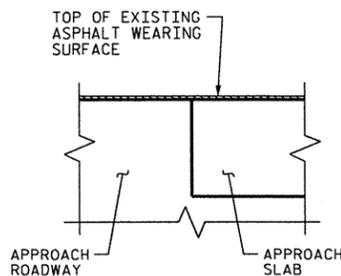
SECTION B-B
(END BENT 1)
(PROPOSED SYNTHETIC RUBBER EXPANSION JOINT SEAL)

▲ SAW CUT SHALL BE 3/4" BELOW THE BOTTOM OF THE JOINT SEAL. SEE MANUFACTURER RECOMMENDATIONS

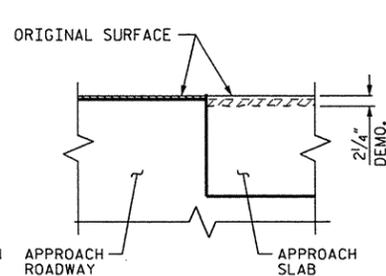


SECTION B-B
(END BENT 2)
(PROPOSED SYNTHETIC RUBBER EXPANSION JOINT SEAL)

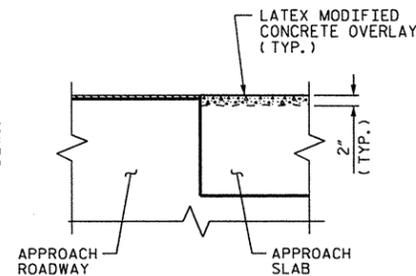
SYNTHETIC RUBBER EXPANSION JOINT SEALS SHALL ACCOMMODATE A MINIMUM OF 1" EXPANSION AND MEET THE MANUFACTURER'S RECOMMENDATION FOR THE SIZE OF OPENING ON THE PLANS.
CONTRACTOR SHALL SUBMIT FOR APPROVAL THE PROPOSED SYNTHETIC RUBBER EXPANSION JOINT SEAL, WITH SUPPORTING INFORMATION AND DOCUMENTATION CONFIRMING THE APPROPRIATE SEAL SIZE.



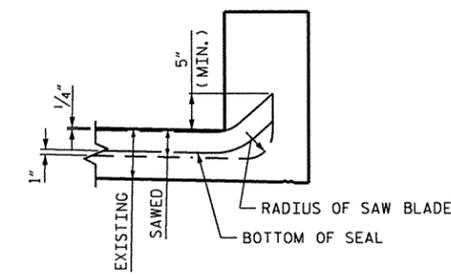
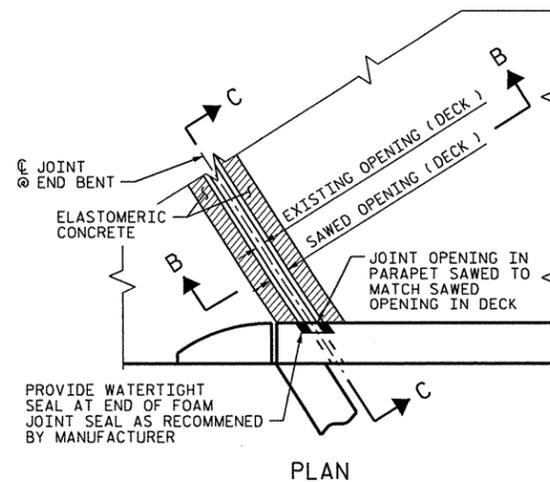
SECTION A-A
(EXISTING)



SECTION A-A
(MINIMUM EXISTING JOINT DEMOLITION)



SECTION A-A
(PROPOSED)



SECTION C-C

PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 431

SHEET 3 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

JOINT DETAILS

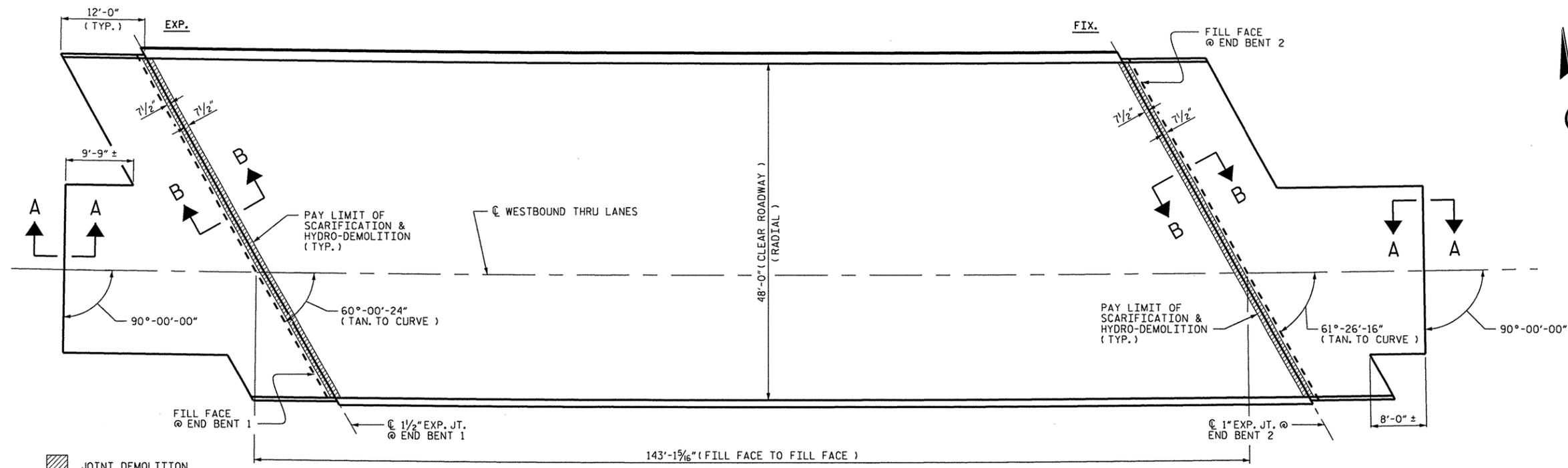
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REVISIONS				SHEET NO.
NO.	BY:	DATE:	NO.	DATE:
1			3	
2			4	

S-21
 TOTAL SHEETS
 42



PLAN

(SEE "JOINT DETAILS" SHEET FOR SECTIONS)

NOTES:

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FOR "SCARIFYING BRIDGE DECK", "HYDRO-DEMOLITION OF BRIDGE DECK", AND "CLASS II SURFACE PREPARATION" SEE "OVERLAY SURFACE PREPARATION" SPECIAL PROVISION.

FOR "BRIDGE JOINT DEMOLITION", SEE SPECIAL PROVISIONS.

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

FOR "SYNTHETIC RUBBER EXPANSION JOINT SEALS", SEE SPECIAL PROVISIONS.

FOR "ELASTOMERIC CONCRETE", SEE SPECIAL PROVISIONS.

FOR LOW MODULUS SILICONE SEALER, SEE STANDARD SPECIFICATIONS SECTION 1028.

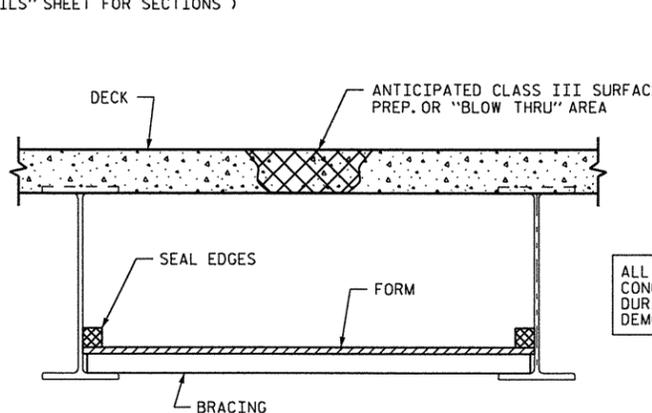
FOR "SUBMITTAL OF WORKING DRAWINGS", SEE SPECIAL PROVISIONS.

FOR "FALSEWORK AND FORMWORK", SEE SPECIAL PROVISIONS.

FOR "CRANE SAFETY", SEE SPECIAL PROVISIONS.

FOR "GROUT FOR STRUCTURES", SEE SPECIAL PROVISIONS.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLAN.

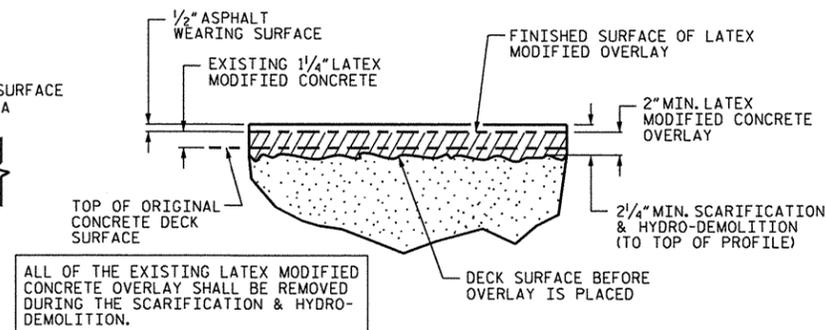


TYP. "BLOW THRU" CONTAINMENT AND FORMWORK

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

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



DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY

(FINISHED SURFACE OF THE LATEX MODIFIED CONCRETE OVERLAY IS APPROX. 1/4" BELOW THE SURFACE OF THE EXISTING ASPHALT WEARING SURFACE)

PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 438

SHEET 1 OF 3

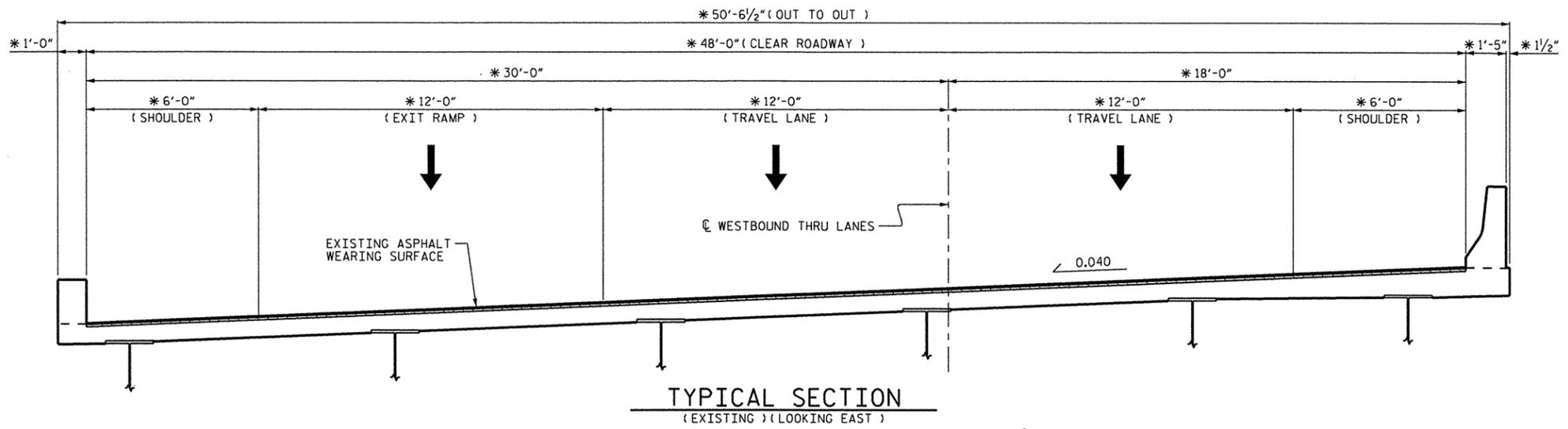
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN VIEW OF BRIDGE
 438 ON I40 WEST OVER
 US25A (SWEETEN CREEK RD)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-22
1			3			TOTAL SHEETS
2			4			42

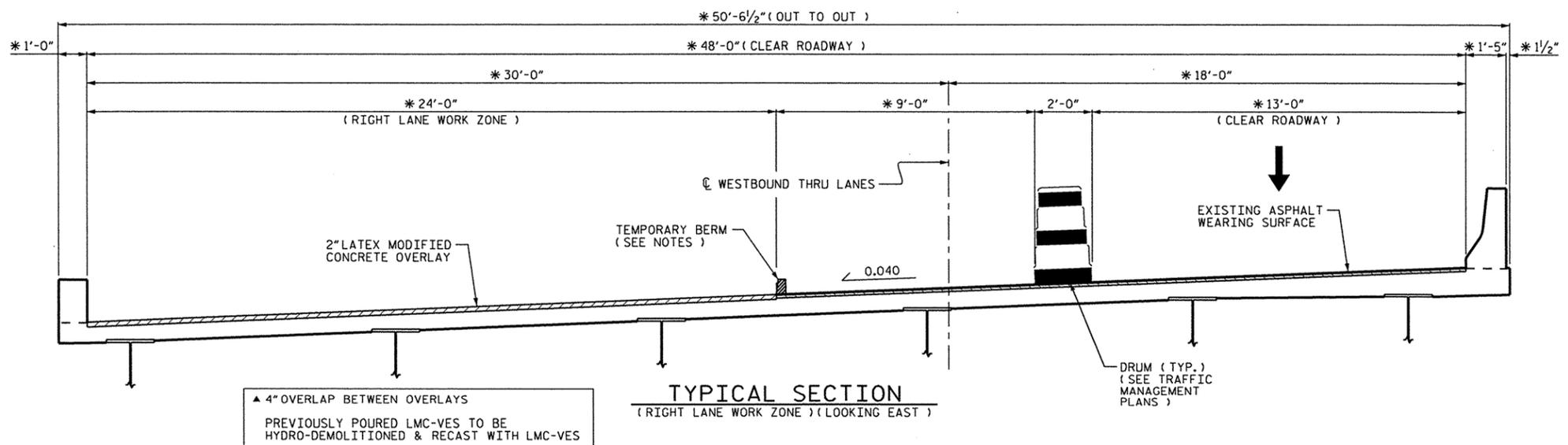


DRAWN BY: P.C. BREWER DATE: 6/13
 CHECKED BY: D.N. SNOISE DATE: 6/13
 DESIGN ENGINEER OF RECORD: _____ DATE: _____



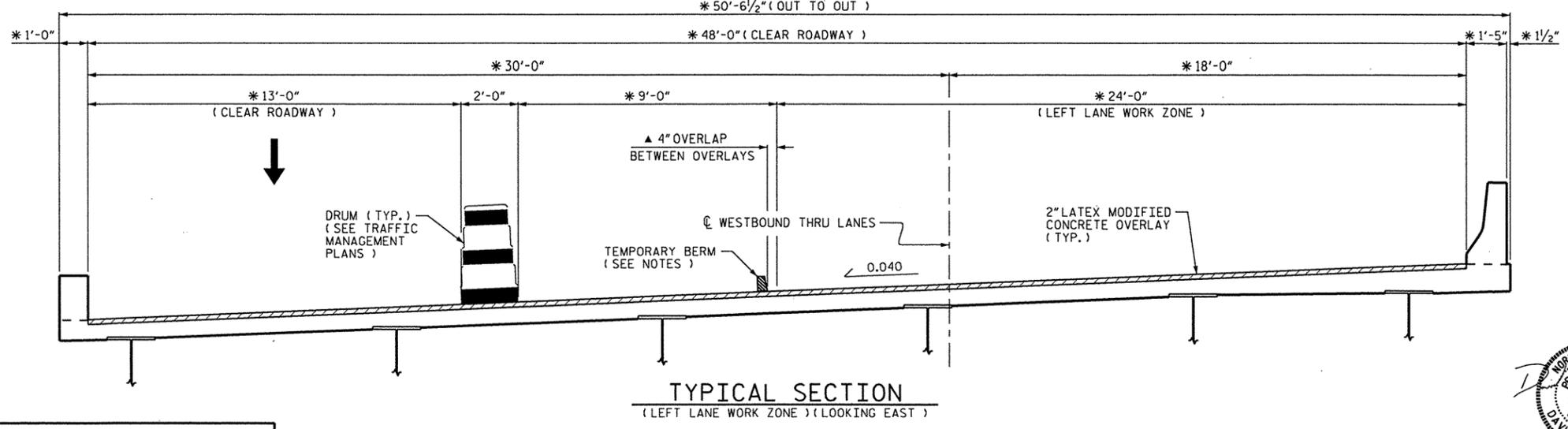
TYPICAL SECTION
(EXISTING) (LOOKING EAST)

NOTES:
 * RADIAL DIMENSIONS
 THE WORK STAGING ON THIS PLAN SHEET INDICATES THAT THE RIGHT LANE LMC-VES WORK IS PERFORMED FIRST, FOLLOWED BY THE LEFT LANE LMC-VES WORK. THE CONTRACTOR MAY ELECT TO SEQUENCE THE WORK DIFFERENTLY, BUT THE DIMENSIONS OF THE WORK ZONE, CLEAR ROADWAY AREAS, AND THE LOCATIONS OF THE DRUM SHALL MATCH THAT INDICATED ON THIS PLAN SHEET, RESPECTIVE TO THE LANE WHERE THE LMC-VES WORK IS BEING PERFORMED.



TYPICAL SECTION
(RIGHT LANE WORK ZONE) (LOOKING EAST)

▲ 4" OVERLAP BETWEEN OVERLAYS
 PREVIOUSLY POURED LMC-VES TO BE HYDRO-DEMOLITIONED & RECAST WITH LMC-VES



TYPICAL SECTION
(LEFT LANE WORK ZONE) (LOOKING EAST)

PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 438

SHEET 2 OF 3
 STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
STAGING SEQUENCE

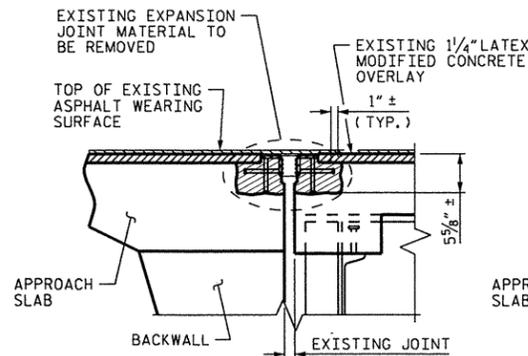


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 CHECKED BY: D.N. SNOKE DATE: 6/13
 DESIGN ENGINEER OF RECORD: _____ DATE: _____

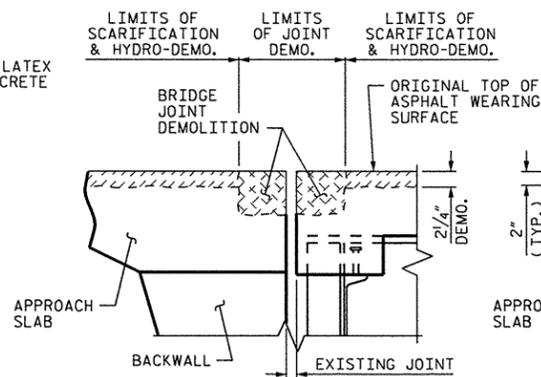
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REVISIONS				SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

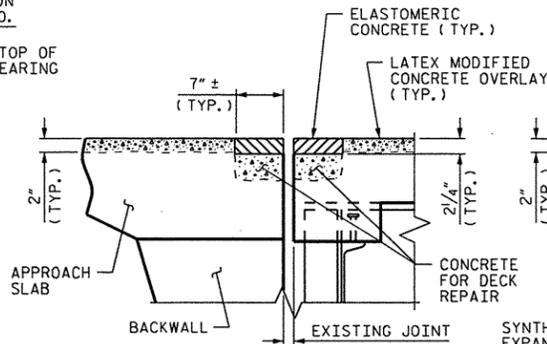
S-23
 TOTAL SHEETS: 42



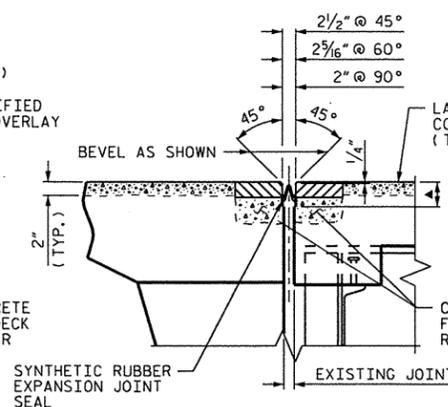
SECTION B-B
(EXISTING)



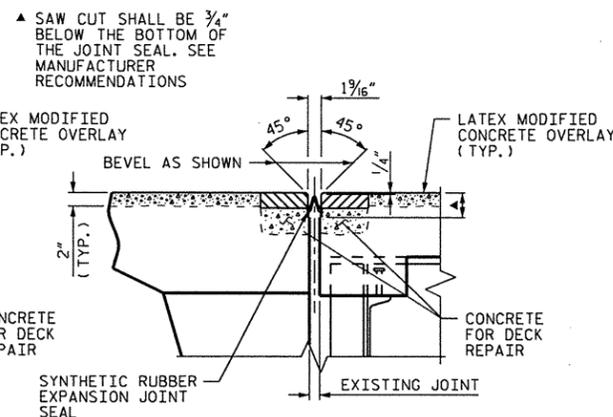
SECTION B-B
(MINIMUM EXISTING JOINT DEMOLITION)
(DEMOLISH TO EXTENT NECESSARY TO REMOVE EXISTING JOINT ASSEMBLY AND ARMORING)



SECTION B-B
(PROPOSED JOINT PRE-SAWED DIMENSIONS)



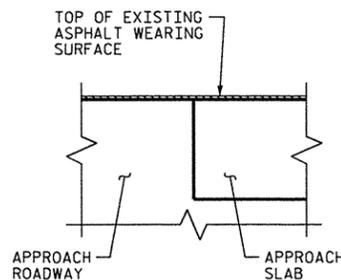
SECTION B-B
(END BENT 1)
(PROPOSED SYNTHETIC RUBBER EXPANSION JOINT SEAL)



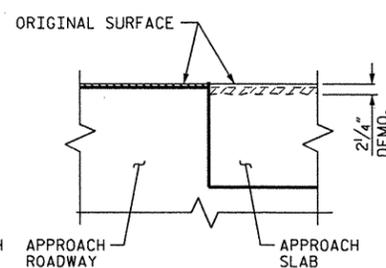
SECTION B-B
(END BENT 2)
(PROPOSED SYNTHETIC RUBBER EXPANSION JOINT SEAL)

HYDRO-DEMOLITION OR EXCAVATION OF CONCRETE AT THE EXISTING JOINT SHALL RESULT IN THE BOTTOM OF THE EXCAVATION BEING REASONABLY FLAT, TO PROVIDE SUFFICIENT SUBSTRATE FOR PLACEMENT AND SUPPORT OF REPAIR CONCRETE.

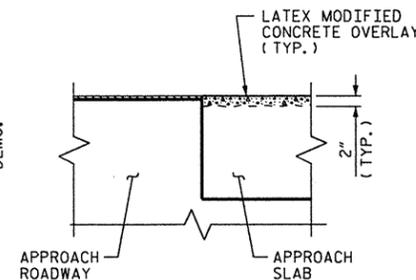
SYNTHETIC RUBBER EXPANSION JOINT SEALS SHALL ACCOMMODATE A MINIMUM OF 1\"/>



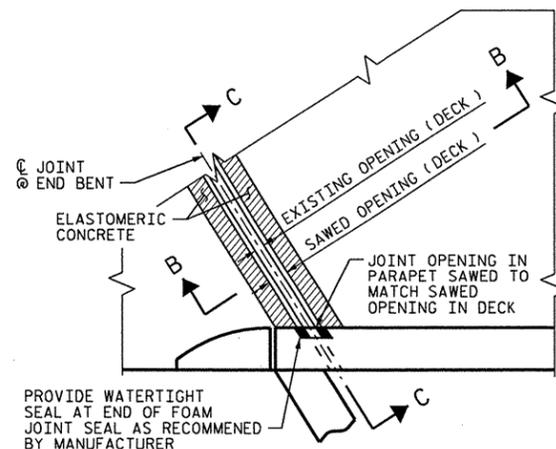
SECTION A-A
(EXISTING)



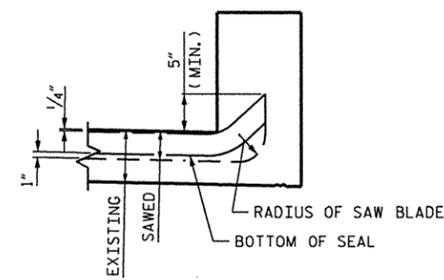
SECTION A-A
(MINIMUM EXISTING JOINT DEMOLITION)



SECTION A-A
(PROPOSED)



PLAN



SECTION C-C

PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 438

SHEET 3 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

JOINT DETAILS

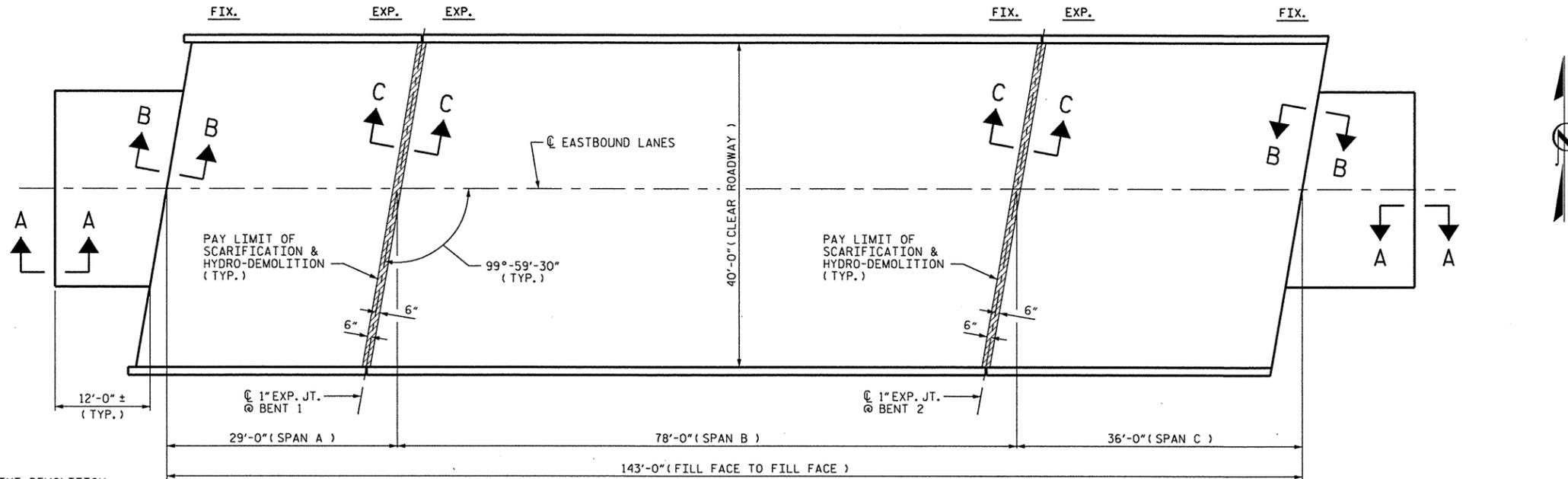
DRAWN BY: P.C. BREWER DATE: 6/13
 CHECKED BY: D.N. SNOKE DATE: 6/13
 DESIGN ENGINEER OF RECORD: _____ DATE: _____

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 dsnoke



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

TOTAL SHEETS: 42



PLAN
(SEE "JOINT DETAILS" SHEET FOR SECTION VIEWS)

NOTES:

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF BRIDGE DECK.

DURING CONSTRUCTION, BERMS OR APPROPRIATE MEASURES SHALL BE USED TO ENSURE HYDRO-DEMOLITION WATER DOES NOT FLOW OR MIGRATE INTO ACTIVE TRAVEL LANES.

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

FOR "SCARIFYING BRIDGE DECK", "HYDRO-DEMOLITION OF BRIDGE DECK", AND "CLASS II SURFACE PREPARATION" SEE "OVERLAY SURFACE PREPARATION" SPECIAL PROVISION.

FOR "BRIDGE JOINT DEMOLITION", SEE SPECIAL PROVISIONS.

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

FOR "SYNTHETIC RUBBER EXPANSION JOINT SEALS", SEE SPECIAL PROVISIONS.

FOR "ELASTOMERIC CONCRETE", SEE SPECIAL PROVISIONS.

FOR LOW MODULUS SILICONE SEALER, SEE STANDARD SPECIFICATIONS SECTION 1028.

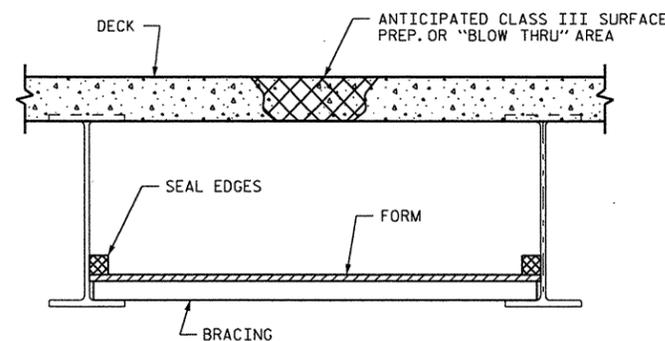
FOR "SUBMITTAL OF WORKING DRAWINGS", SEE SPECIAL PROVISIONS.

FOR "FALSEWORK AND FORMWORK", SEE SPECIAL PROVISIONS.

FOR "CRANE SAFETY", SEE SPECIAL PROVISIONS.

FOR "GROUT FOR STRUCTURES", SEE SPECIAL PROVISIONS.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLAN.

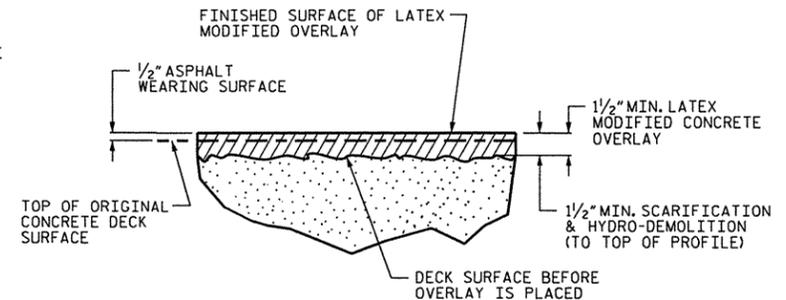


TYP. "BLOW THRU" CONTAINMENT AND FORMWORK

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 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.



DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY

PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 451

SHEET 1 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN VIEW OF BRIDGE
 451 ON I40 EAST OVER
 SR3052

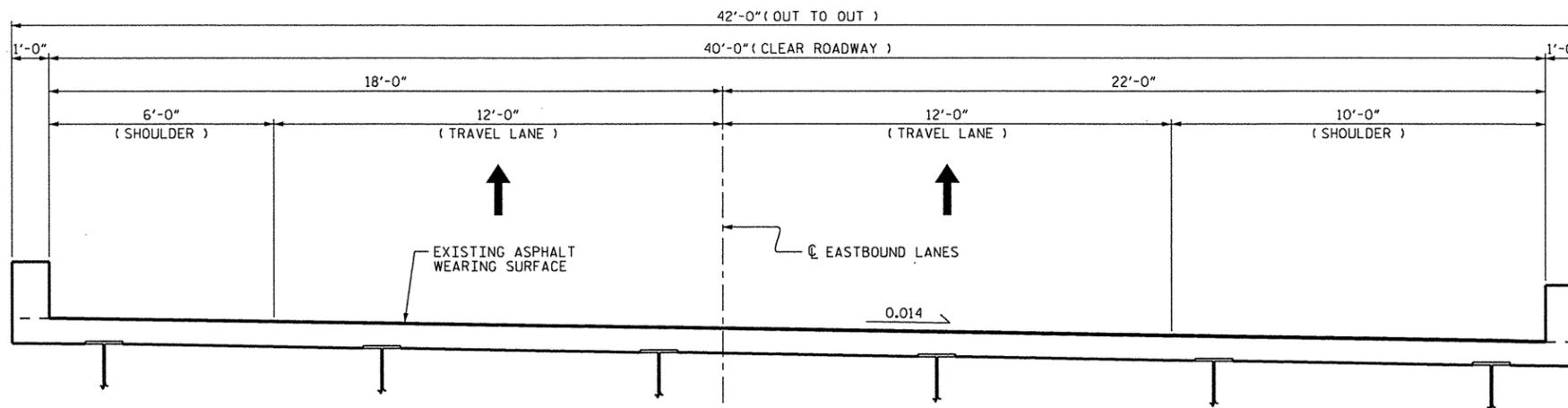
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-25
1			3			TOTAL SHEETS
2			4			42



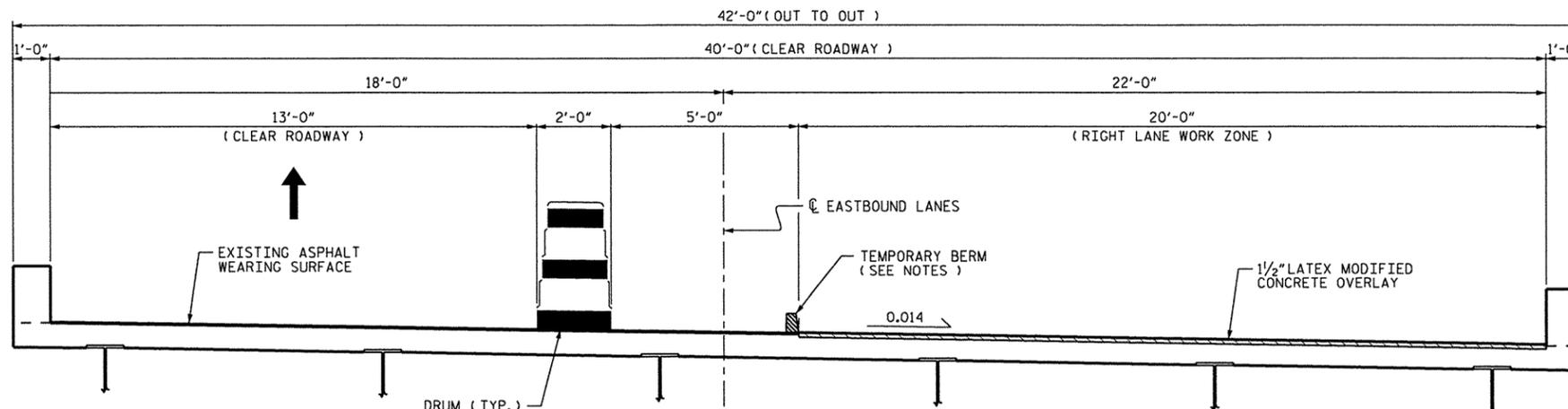
TOTAL BILL OF MATERIAL							
GROOVING BRIDGE FLOORS	CLASS II SURFACE PREPARATION	LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	PLACING & FINISHING LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	SYNTHETIC RUBBER EXPANSION JOINT SEALS	BRIDGE JOINT DEMOLITION	SCARIFYING BRIDGE DECK	HYDRO-DEMOLITION OF BRIDGE DECK
SQ. FT.	SO. YDS.	CU. YDS.	SO. YDS.	LUMP SUM	SO. FT.	SO. YDS.	SO. YDS.
5,167	6	38.7	619	LUMP SUM	82	619	619

NO "CLASS II SURFACE PREPARATION" AREAS ARE SHOWN IN SKETCH. BECAUSE OF THE PRESENCE OF AN ASPHALT WEARING SURFACE, THE QUANTITY GIVEN IS AN ESTIMATE OF PATCHED AREAS IN THE CONCRETE DECK. ALL PATCHED AREAS IN CONCRETE DECK SHALL BE REMOVED USING "CLASS II SURFACE PREPARATION".

DRAWN BY: P.C. BREWER DATE: 6/13
 CHECKED BY: D.N. SNOKE DATE: 6/13
 DESIGN ENGINEER OF RECORD: D.N. SNOKE DATE: -

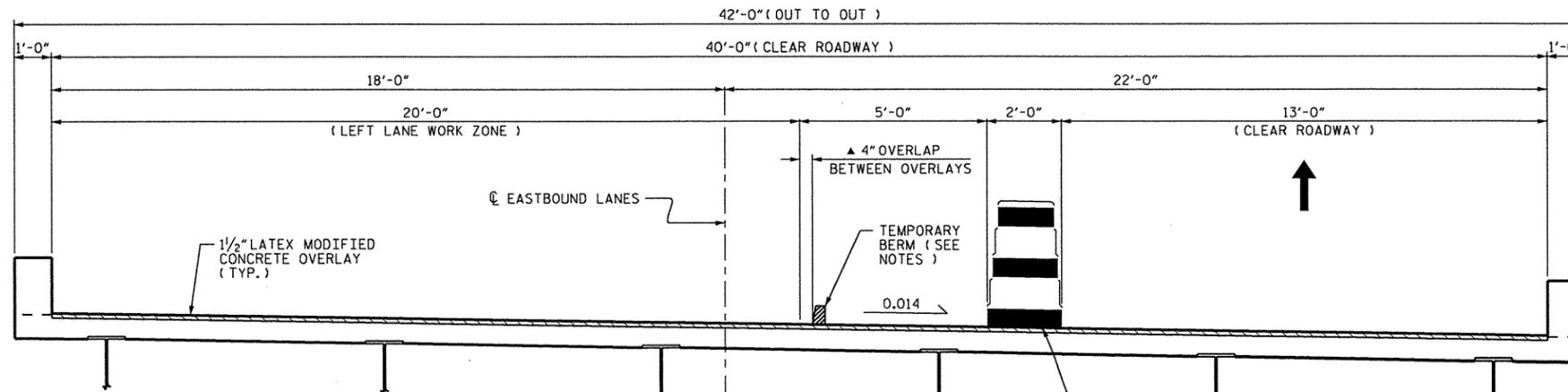


TYPICAL SECTION
(EXISTING) (LOOKING EAST)



TYPICAL SECTION
(RIGHT LANE WORK ZONE) (LOOKING EAST)

▲ 4" OVERLAP BETWEEN OVERLAYS
PREVIOUSLY POURED LMC-VES TO BE
HYDRO-DEMOLITIONED & RECAST WITH LMC-VES



TYPICAL SECTION
(LEFT LANE WORK ZONE) (LOOKING EAST)

DRUM (TYP.)
(SEE TRAFFIC
MANAGEMENT
PLANS)

NOTES:

THE WORK STAGING ON THIS PLAN SHEET INDICATES THAT THE RIGHT LANE LMC-VES WORK IS PERFORMED FIRST, FOLLOWED BY THE LEFT LANE LMC-VES WORK. THE CONTRACTOR MAY ELECT TO SEQUENCE THE WORK DIFFERENTLY, BUT THE DIMENSIONS OF THE WORK ZONE, CLEAR ROADWAY AREAS, AND THE LOCATIONS OF THE DRUM SHALL MATCH THAT INDICATED ON THIS PLAN SHEET, RESPECTIVE TO THE LANE WHERE THE LMC-VES WORK IS BEING PERFORMED.

PROJECT NO. I-5607
BUNCOMBE COUNTY
BRIDGE NO. 451

SHEET 2 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STAGING SEQUENCE

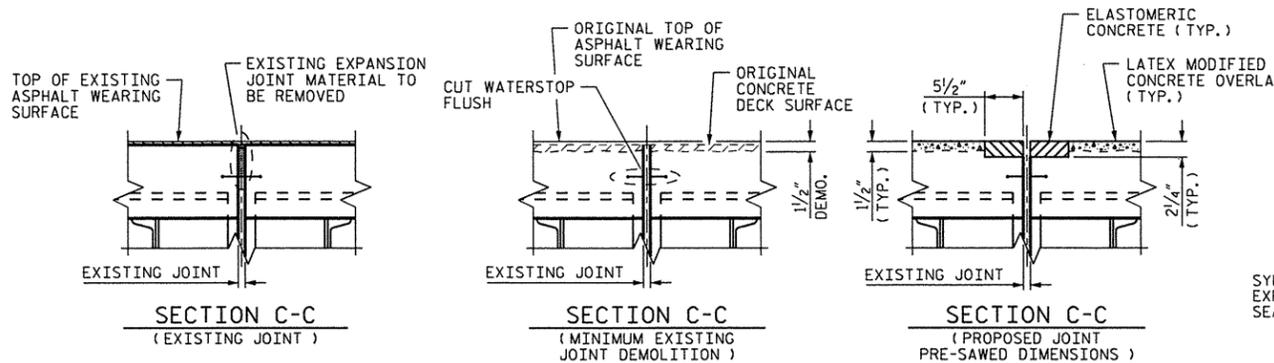
DRAWN BY : P.C. BREWER DATE : 6/13
CHECKED BY : D.N. SNOKE DATE : 6/13
DESIGN ENGINEER OF RECORD: DATE :



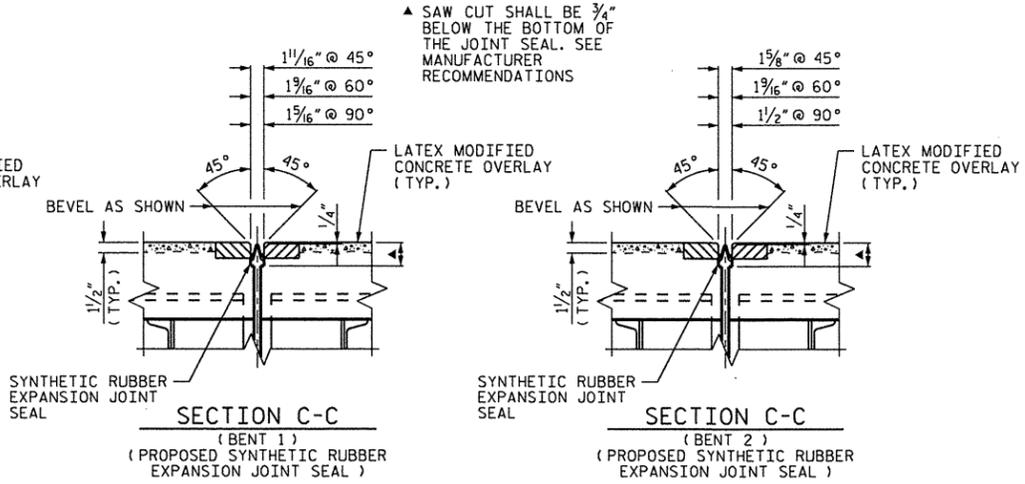
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NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

S-26	
TOTAL SHEETS	42

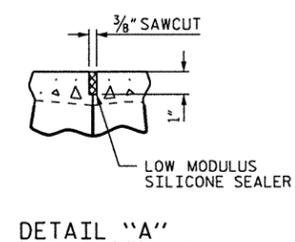
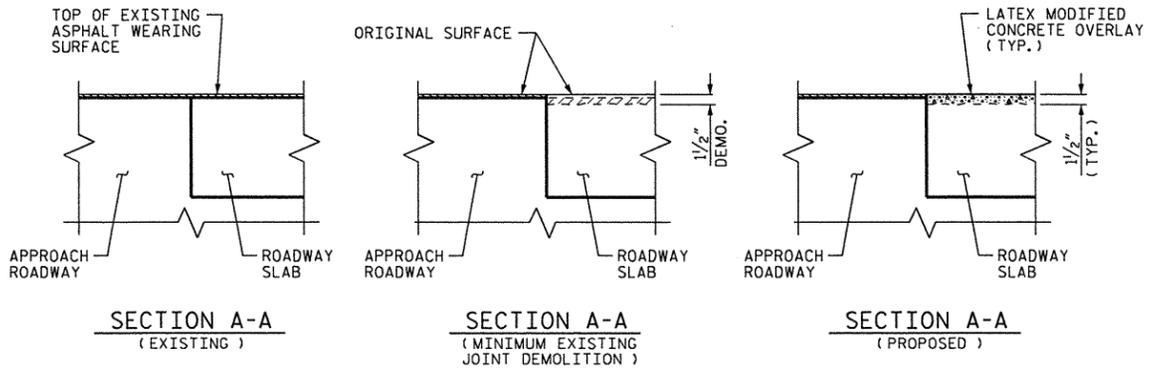
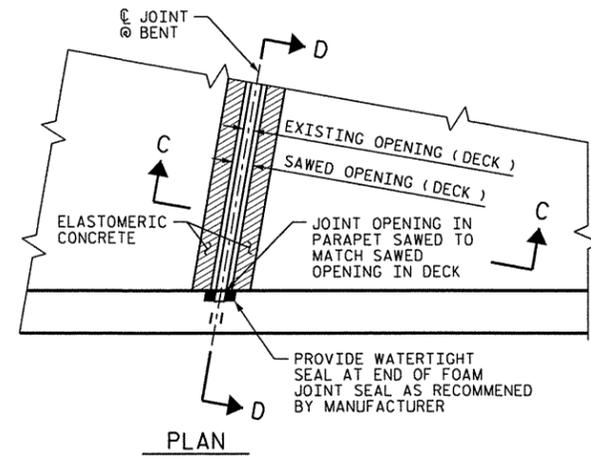
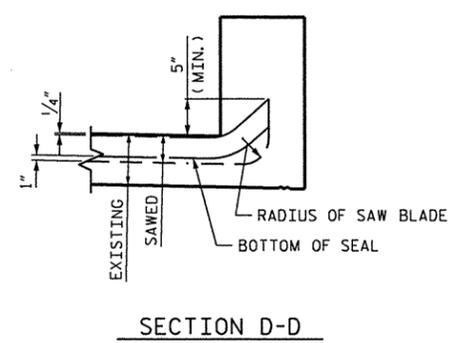
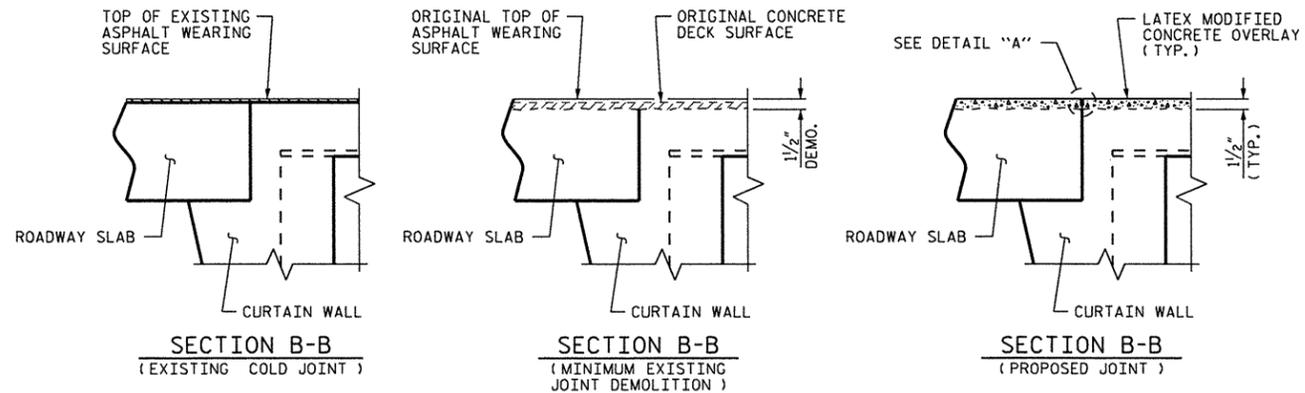
IF THE EMBEDDED PORTION OF THE EXISTING PLASTIC WATERSTOP IS EXPOSED DURING REMOVAL OF UNSOUND CONCRETE OR IF UNSOUND CONCRETE IS REMOVED TO WITHIN 2" OF THE WATERSTOP, THE ENTIRE WATERSTOP SHALL BE REMOVED



HYDRO-DEMOLITION OR EXCAVATION OF CONCRETE AT THE EXISTING JOINT SHALL RESULT IN THE BOTTOM OF THE EXCAVATION BEING REASONABLY FLAT, TO PROVIDE SUFFICIENT SUBSTRATE FOR PLACEMENT AND SUPPORT OF REPAIR CONCRETE.



SYNTHETIC RUBBER EXPANSION JOINT SEALS SHALL ACCOMMODATE A MINIMUM OF 1" EXPANSION AND MEET THE MANUFACTURER'S RECOMMENDATION FOR THE SIZE OF OPENING ON THE PLANS.
CONTRACTOR SHALL SUBMIT FOR APPROVAL THE PROPOSED SYNTHETIC RUBBER EXPANSION JOINT SEAL, WITH SUPPORTING INFORMATION AND DOCUMENTATION CONFIRMING THE APPROPRIATE SEAL SIZE.



PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 451

SHEET 3 OF 3

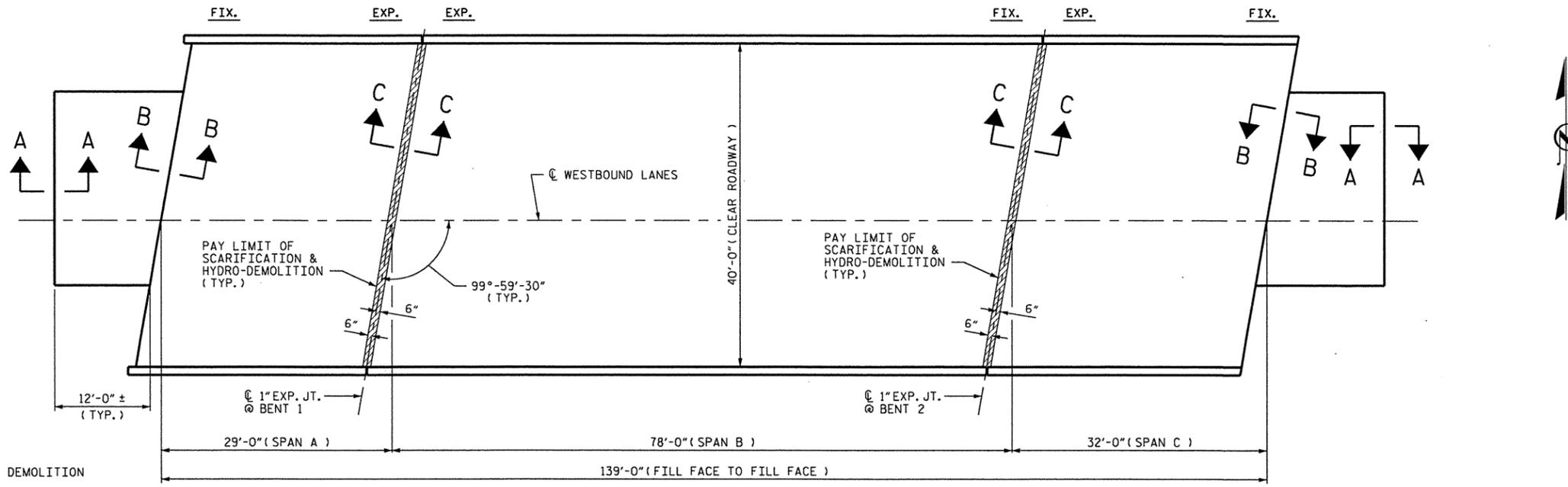
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

JOINT DETAILS

DRAWN BY: P.C. BREWER DATE: 6/13
 CHECKED BY: D.N. SNOKE DATE: 6/13
 DESIGN ENGINEER OF RECORD: DATE: -



REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-27
1			3			TOTAL SHEETS
2			4			42



PLAN
(SEE "JOINT DETAILS" SHEET FOR SECTION VIEWS)

NOTES:

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF BRIDGE DECK.

DURING CONSTRUCTION, BERMS OR APPROPRIATE MEASURES SHALL BE USED TO ENSURE HYDRO-DEMOLITION WATER DOES NOT FLOW OR MIGRATE INTO ACTIVE TRAVEL LANES.

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

FOR "SCARIFYING BRIDGE DECK", "HYDRO-DEMOLITION OF BRIDGE DECK", AND "CLASS II SURFACE PREPARATION" SEE "OVERLAY SURFACE PREPARATION" SPECIAL PROVISION.

FOR "BRIDGE JOINT DEMOLITION", SEE SPECIAL PROVISIONS.

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

FOR "SYNTHETIC RUBBER EXPANSION JOINT SEALS", SEE SPECIAL PROVISIONS.

FOR "ELASTOMERIC CONCRETE", SEE SPECIAL PROVISIONS.

FOR LOW MODULUS SILICONE SEALER, SEE STANDARD SPECIFICATIONS SECTION 1028.

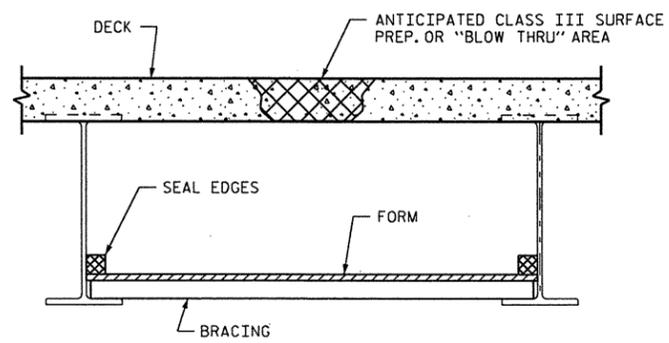
FOR "SUBMITTAL OF WORKING DRAWINGS", SEE SPECIAL PROVISIONS.

FOR "FALSEWORK AND FORMWORK", SEE SPECIAL PROVISIONS.

FOR "CRANE SAFETY", SEE SPECIAL PROVISIONS.

FOR "GROUT FOR STRUCTURES", SEE SPECIAL PROVISIONS.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLAN.

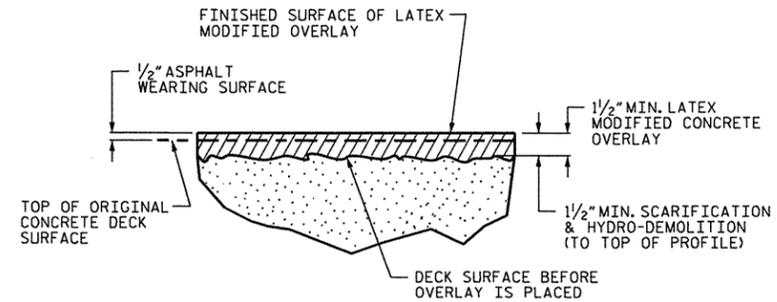


TYP. "BLOW THRU" CONTAINMENT AND FORMWORK

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 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.



DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY

TOTAL BILL OF MATERIAL							
GROOVING BRIDGE FLOORS	CLASS II SURFACE PREPARATION	LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	PLACING & FINISHING LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	SYNTHETIC RUBBER EXPANSION JOINT SEALS	BRIDGE JOINT DEMOLITION	SCARIFYING BRIDGE DECK	HYDRO-DEMOLITION OF BRIDGE DECK
SO. FT.	SO. YDS.	CU. YDS.	SO. YDS.	LUMP SUM	SO. FT.	SO. YDS.	SO. YDS.
6,151	7	45.4	727	LUMP SUM	82	727	727

NO "CLASS II SURFACE PREPARATION" AREAS ARE SHOWN IN SKETCH. BECAUSE OF THE PRESENCE OF AN ASPHALT WEARING SURFACE, THE QUANTITY GIVEN IS AN ESTIMATE OF PATCHED AREAS IN THE CONCRETE DECK. ALL PATCHED AREAS IN CONCRETE DECK SHALL BE REMOVED USING "CLASS II SURFACE PREPARATION".

PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 456

SHEET 1 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

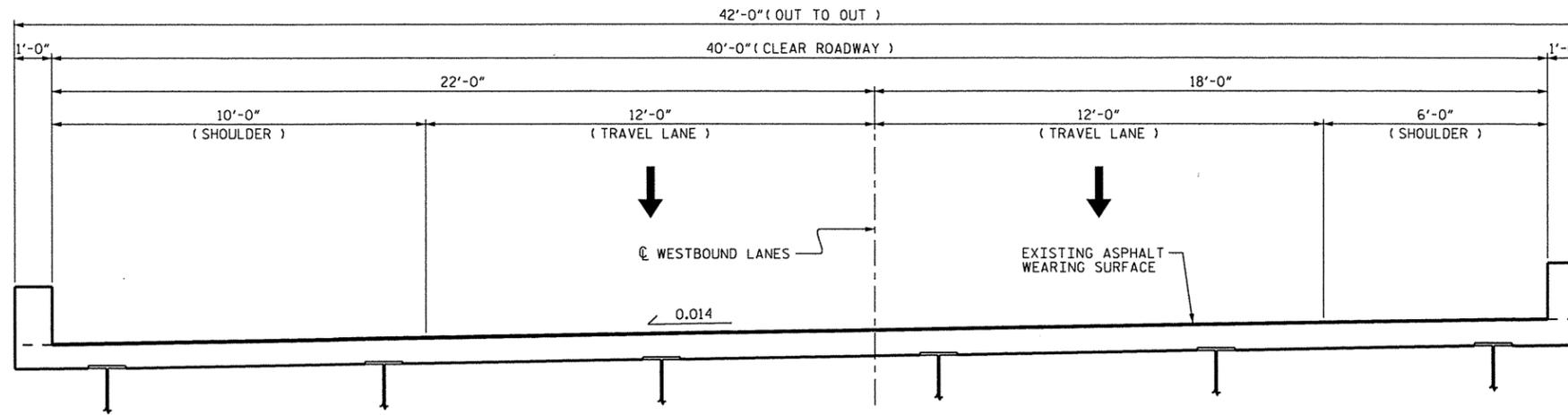
PLAN VIEW OF BRIDGE
 456 ON I40 WEST OVER
 SR3052



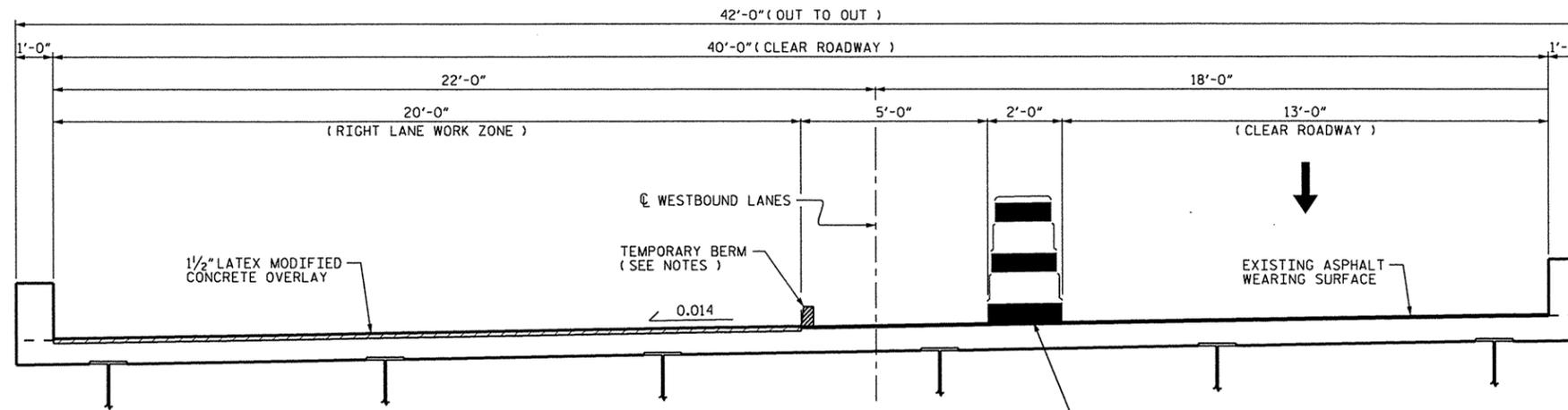
DRAWN BY: P.C. BREWER DATE: 6/13
 CHECKED BY: D.N. SNOKE DATE: 6/13
 DESIGN ENGINEER OF RECORD: _____ DATE: _____

REVISIONS				SHEET NO.
NO.	BY:	DATE:	NO.	DATE:
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2			4	

S-28
TOTAL SHEETS: 42

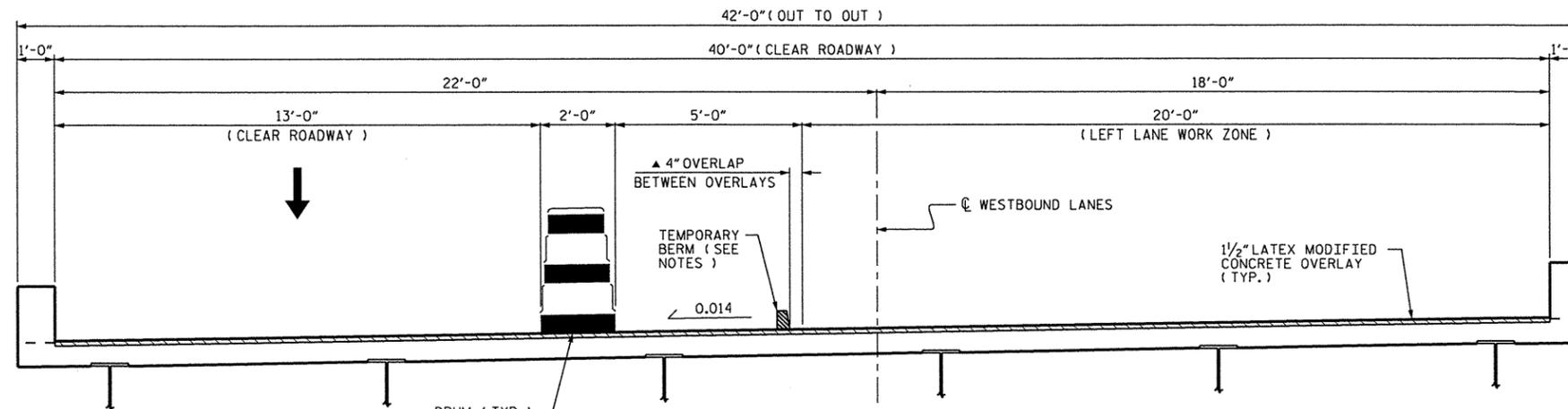


TYPICAL SECTION
(EXISTING) (LOOKING EAST)



TYPICAL SECTION
(RIGHT LANE WORK ZONE) (LOOKING EAST)

▲ 4" OVERLAP BETWEEN OVERLAYS
PREVIOUSLY POURED LMC-VES TO BE
HYDRO-DEMOLITIONED & RECAST WITH LMC-VES



TYPICAL SECTION
(LEFT LANE WORK ZONE) (LOOKING EAST)

NOTES:

THE WORK STAGING ON THIS PLAN SHEET INDICATES THAT THE RIGHT LANE LMC-VES WORK IS PERFORMED FIRST, FOLLOWED BY THE LEFT LANE LMC-VES WORK. THE CONTRACTOR MAY ELECT TO SEQUENCE THE WORK DIFFERENTLY, BUT THE DIMENSIONS OF THE WORK ZONE, CLEAR ROADWAY AREAS, AND THE LOCATIONS OF THE DRUM SHALL MATCH THAT INDICATED ON THIS PLAN SHEET, RESPECTIVE TO THE LANE WHERE THE LMC-VES WORK IS BEING PERFORMED.

PROJECT NO. I-5607
BUNCOMBE COUNTY
BRIDGE NO. 456

SHEET 2 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

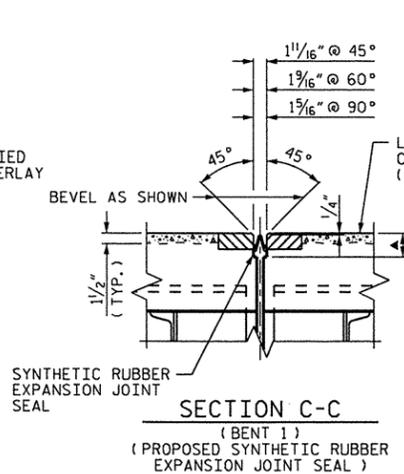
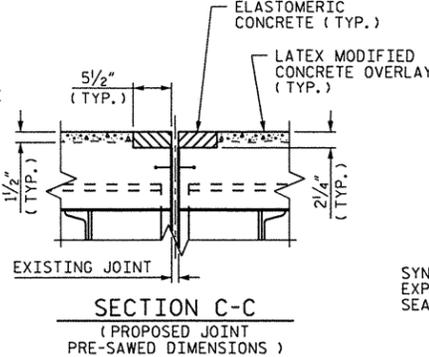
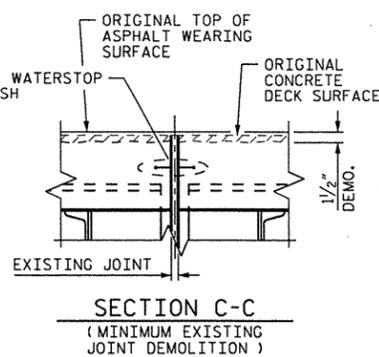
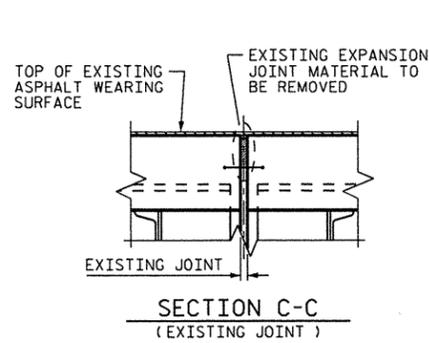
STAGING SEQUENCE



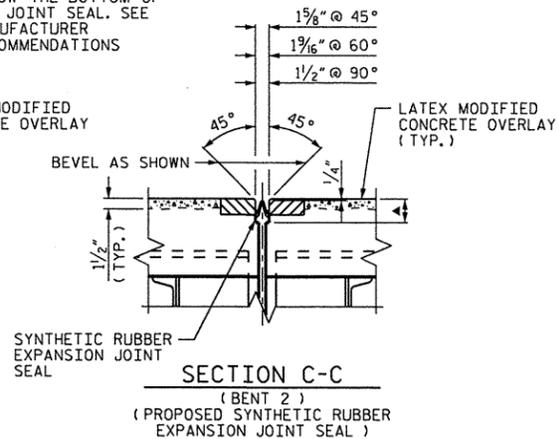
DRAWN BY: P.C. BREWER DATE: 6/13
CHECKED BY: D.N. SNOKE DATE: 6/13
DESIGN ENGINEER OF RECORD: DATE:

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-29
1			3			TOTAL SHEETS
2			4			42

IF THE EMBEDDED PORTION OF THE EXISTING PLASTIC WATERSTOP IS EXPOSED DURING REMOVAL OF UNSOUND CONCRETE OR IF UNSOUND CONCRETE IS REMOVED TO WITHIN 2" OF THE WATERSTOP, THE ENTIRE WATERSTOP SHALL BE REMOVED

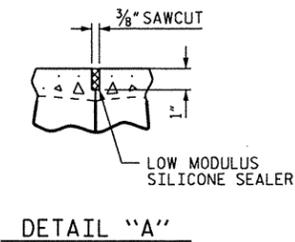
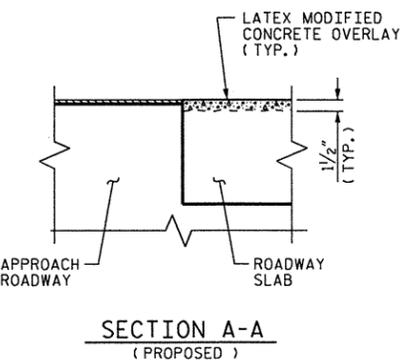
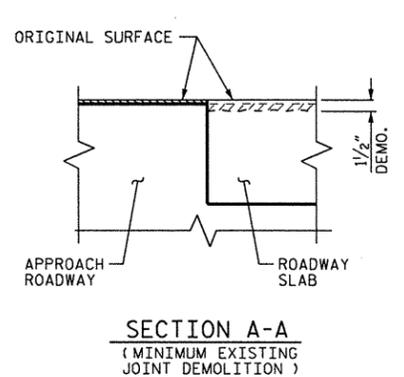
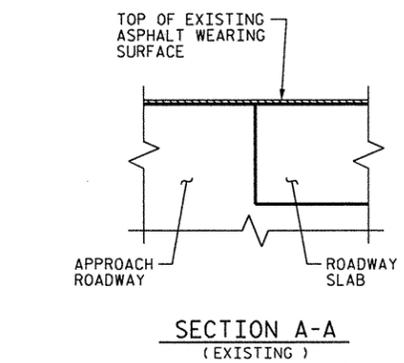
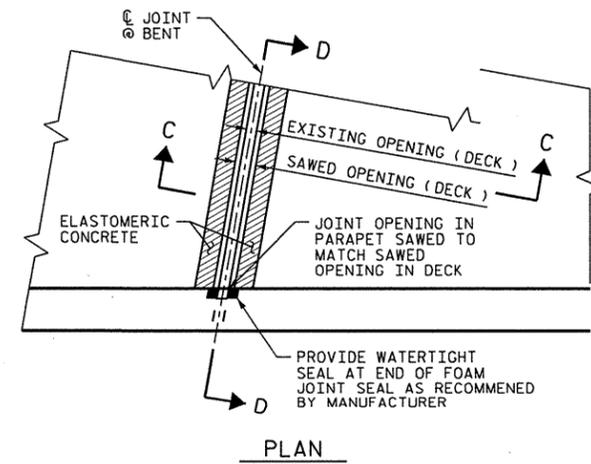
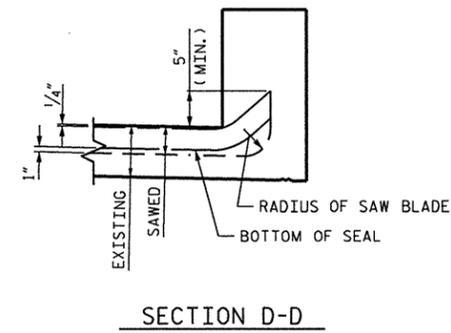
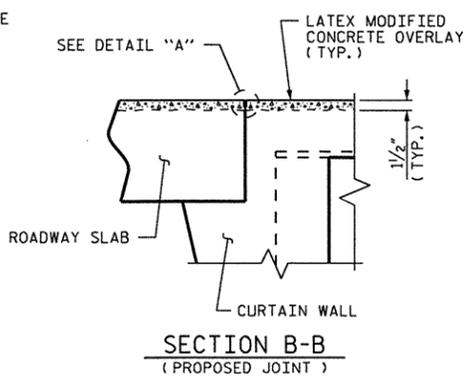
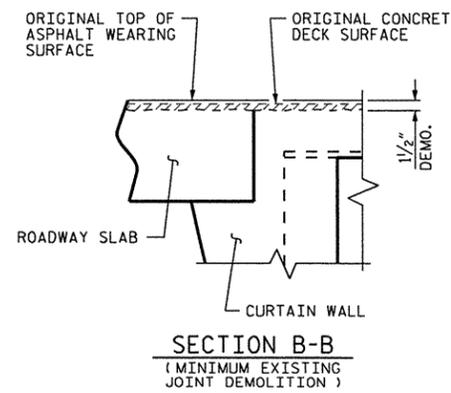
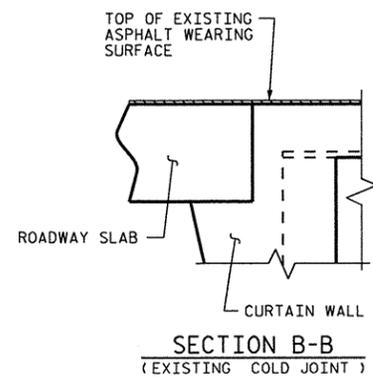


▲ SAW CUT SHALL BE 3/4" BELOW THE BOTTOM OF THE JOINT SEAL. SEE MANUFACTURER RECOMMENDATIONS



HYDRO-DEMOLITION OR EXCAVATION OF CONCRETE AT THE EXISTING JOINT SHALL RESULT IN THE BOTTOM OF THE EXCAVATION BEING REASONABLY FLAT, TO PROVIDE SUFFICIENT SUBSTRATE FOR PLACEMENT AND SUPPORT OF REPAIR CONCRETE.

SYNTHETIC RUBBER EXPANSION JOINT SEALS SHALL ACCOMMODATE A MINIMUM OF 1" EXPANSION AND MEET THE MANUFACTURER'S RECOMMENDATION FOR THE SIZE OF OPENING ON THE PLANS.
CONTRACTOR SHALL SUBMIT FOR APPROVAL THE PROPOSED SYNTHETIC RUBBER EXPANSION JOINT SEAL, WITH SUPPORTING INFORMATION AND DOCUMENTATION CONFIRMING THE APPROPRIATE SEAL SIZE.



PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 456

SHEET 3 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

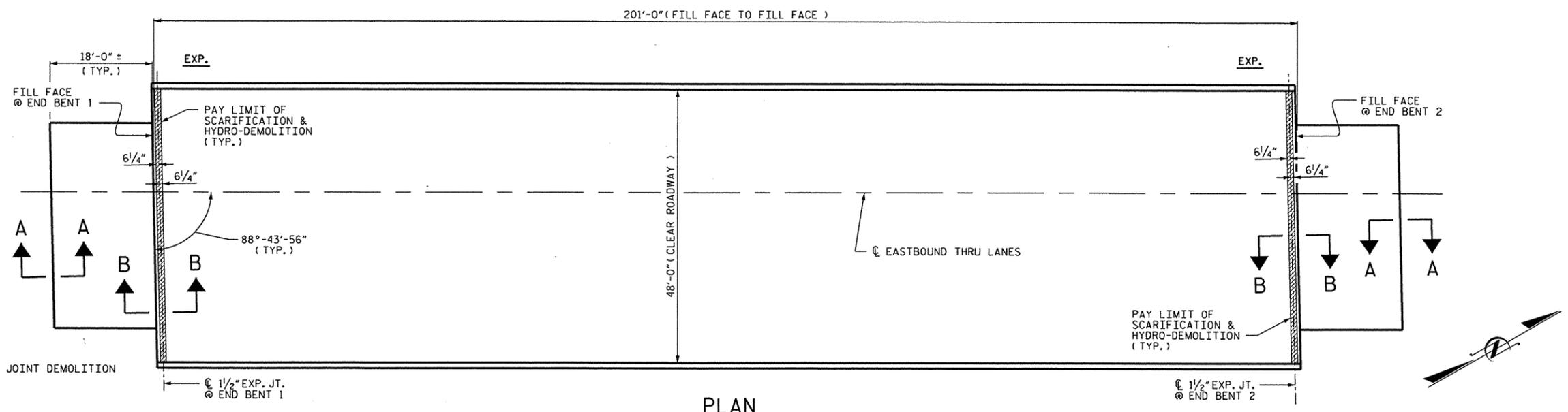
JOINT DETAILS



DRAWN BY: P.C. BREWER DATE: 6/13
 CHECKED BY: D.N. SNOKE DATE: 6/13
 DESIGN ENGINEER OF RECORD: DATE: -

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

S-30
TOTAL SHEETS: 42



PLAN
(SEE "JOINT DETAILS" SHEET FOR SECTIONS)

NOTES:

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DURING CONSTRUCTION, BERMS OR APPROPRIATE MEASURES SHALL BE USED TO ENSURE HYDRO-DEMOLITION WATER DOES NOT FLOW OR MIGRATE INTO ACTIVE TRAVEL LANES.

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

FOR "SCARIFYING BRIDGE DECK", "HYDRO-DEMOLITION OF BRIDGE DECK", AND "CLASS II SURFACE PREPARATION" SEE "OVERLAY SURFACE PREPARATION" SPECIAL PROVISION.

FOR "BRIDGE JOINT DEMOLITION", SEE SPECIAL PROVISIONS.

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

FOR "SYNTHETIC RUBBER EXPANSION JOINT SEALS", SEE SPECIAL PROVISIONS.

FOR "ELASTOMERIC CONCRETE", SEE SPECIAL PROVISIONS.

FOR LOW MODULUS SILICONE SEALER, SEE STANDARD SPECIFICATIONS SECTION 1028.

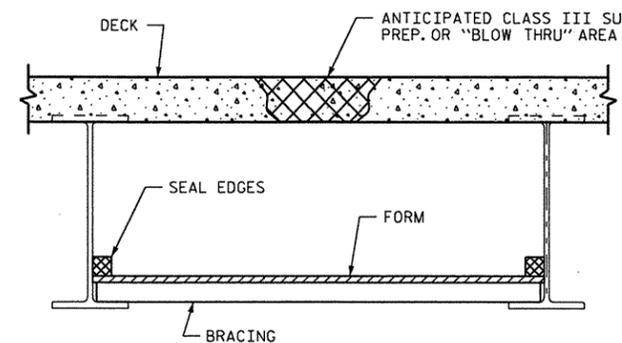
FOR "SUBMITTAL OF WORKING DRAWINGS", SEE SPECIAL PROVISIONS.

FOR "FALSEWORK AND FORMWORK", SEE SPECIAL PROVISIONS.

FOR "CRANE SAFETY", SEE SPECIAL PROVISIONS.

FOR "GROUT FOR STRUCTURES", SEE SPECIAL PROVISIONS.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLAN.

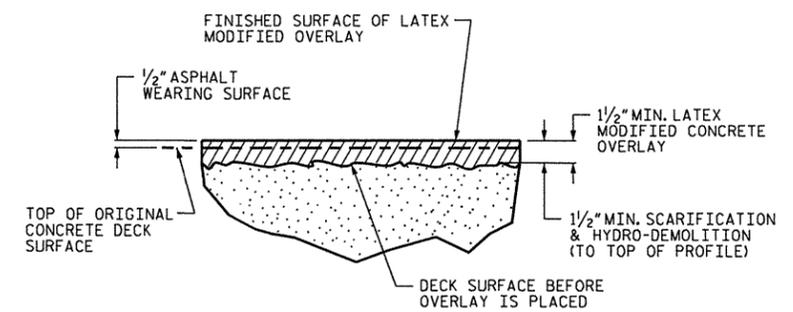


TYP. "BLOW THRU" CONTAINMENT AND FORMWORK

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 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.



DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY

TOTAL BILL OF MATERIAL							
GROOVING BRIDGE FLOORS	CLASS II SURFACE PREPARATION	LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	PLACING & FINISHING LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	SYNTHETIC RUBBER EXPANSION JOINT SEALS	BRIDGE JOINT DEMOLITION	SCARIFYING BRIDGE DECK	HYDRO-DEMOLITION OF BRIDGE DECK
SO. FT.	SO. YDS.	CU. YDS.	SO. YDS.	LUMP SUM	SO. FT.	SO. YDS.	SO. YDS.
9,364	11	69.1	1,105	LUMP SUM	97	1,105	1,105

NO "CLASS II SURFACE PREPARATION" AREAS ARE SHOWN IN SKETCH. BECAUSE OF THE PRESENCE OF AN ASPHALT WEARING SURFACE, THE QUANTITY GIVEN IS AN ESTIMATE OF PATCHED AREAS IN THE CONCRETE DECK. ALL PATCHED AREAS IN CONCRETE DECK SHALL BE REMOVED USING "CLASS II SURFACE PREPARATION".

PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 466

SHEET 1 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN VIEW OF BRIDGE
 466 ON I40 EAST OVER
 US74A (CHARLOTTE HWY.)

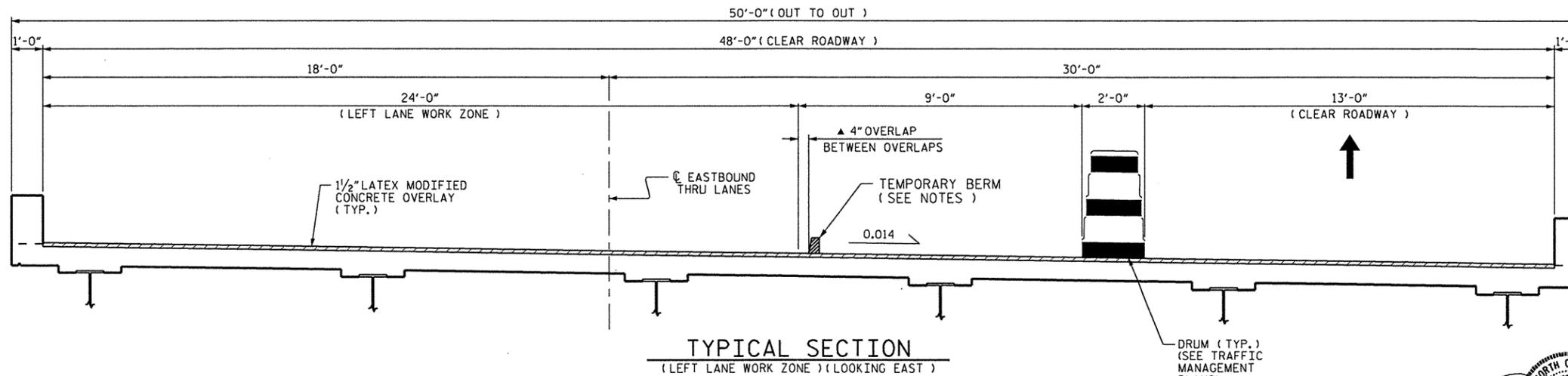
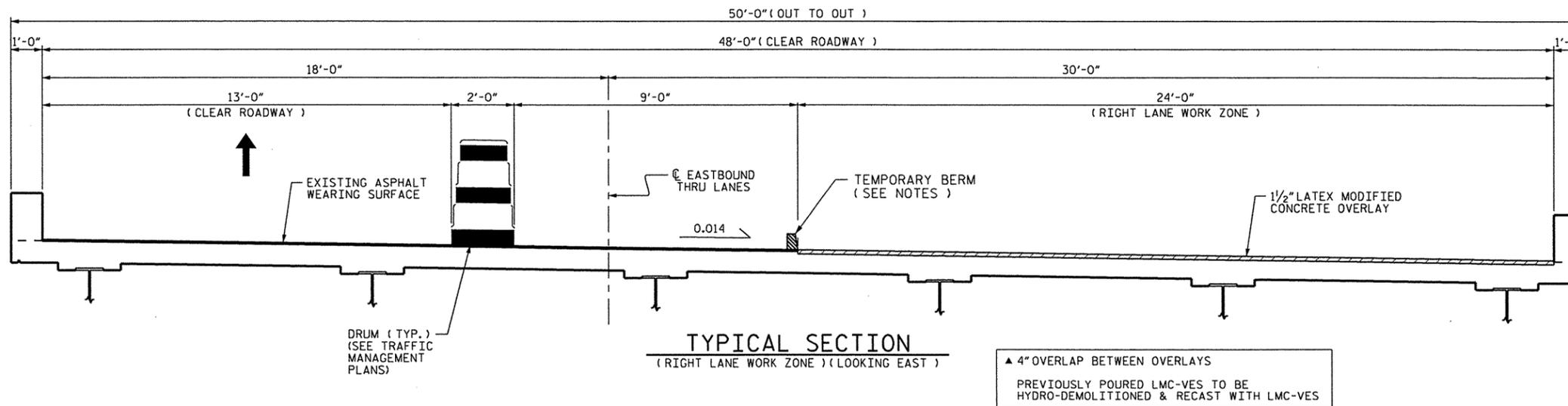
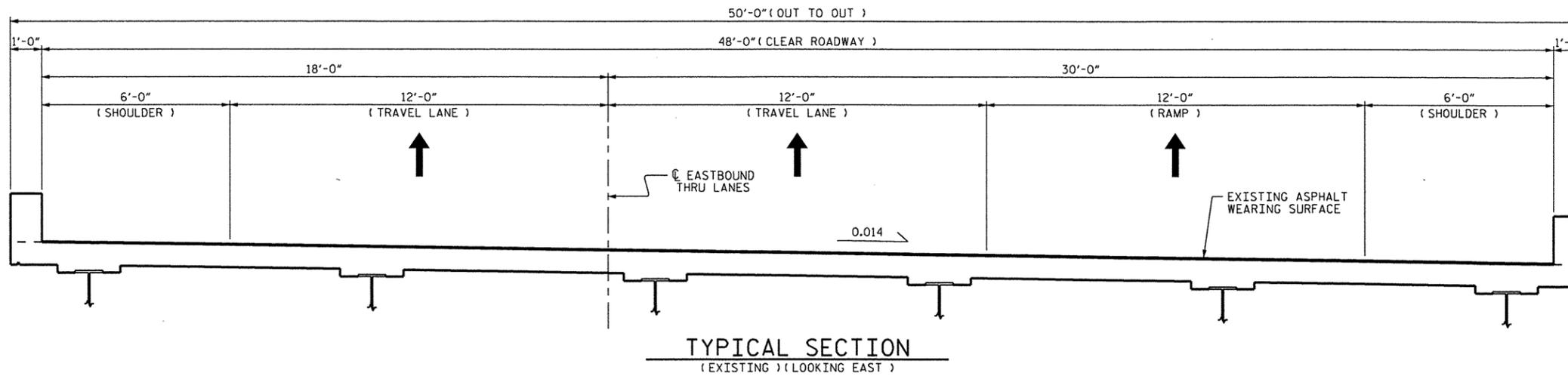
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-31
1			3			TOTAL SHEETS
2			4			42



DRAWN BY: P.C. BREWER DATE: 6/13
 CHECKED BY: D.N. SNOISE DATE: 6/13
 DESIGN ENGINEER OF RECORD: _____ DATE: _____

NOTES:

THE WORK STAGING ON THIS PLAN SHEET INDICATES THAT THE RIGHT LANE LMC-VES WORK IS PERFORMED FIRST, FOLLOWED BY THE LEFT LANE LMC-VES WORK. THE CONTRACTOR MAY ELECT TO SEQUENCE THE WORK DIFFERENTLY, BUT THE DIMENSIONS OF THE WORK ZONE, CLEAR ROADWAY AREAS, AND THE LOCATIONS OF THE DRUM SHALL MATCH THAT INDICATED ON THIS PLAN SHEET, RESPECTIVE TO THE LANE WHERE THE LMC-VES WORK IS BEING PERFORMED.



PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 466

SHEET 2 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

STAGING SEQUENCE

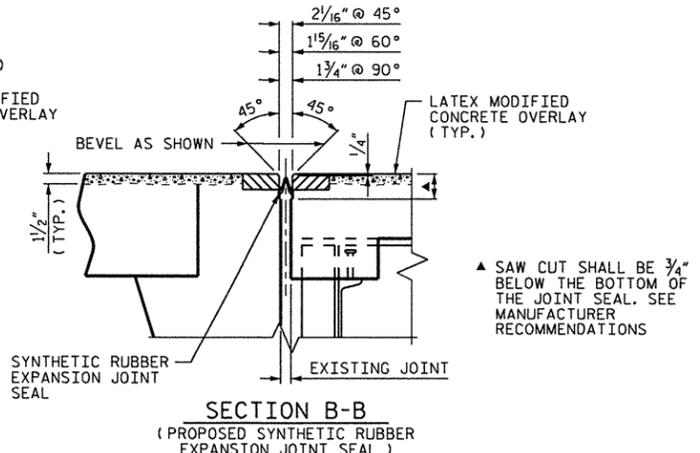
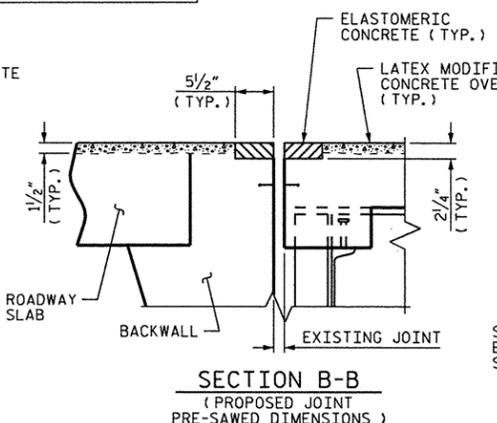
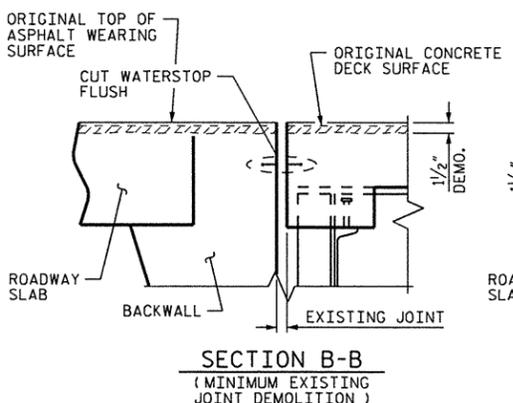
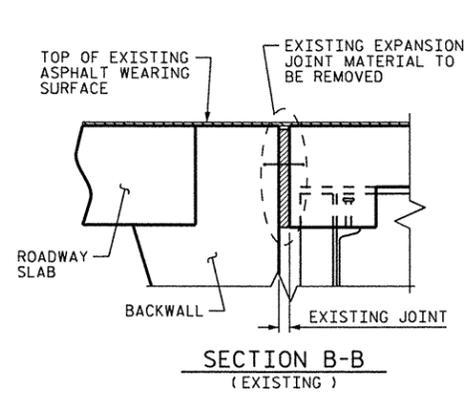
REVISIONS				SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO. **S-32**
TOTAL SHEETS **42**



DRAWN BY : P.C. BREWER DATE : 6/13
 CHECKED BY : D.N. SNOKE DATE : 6/13
 DESIGN ENGINEER OF RECORD: _____ DATE : _____

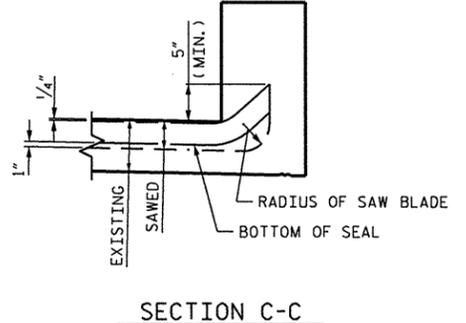
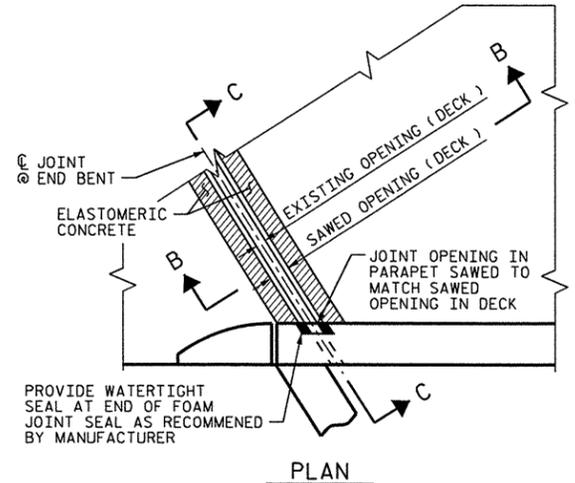
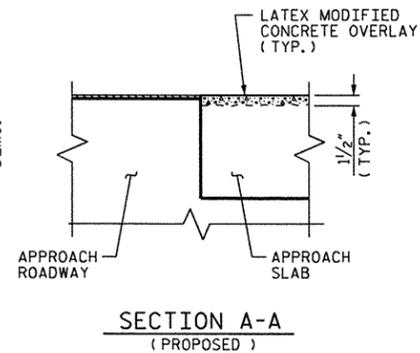
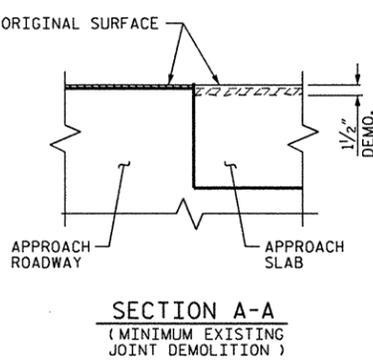
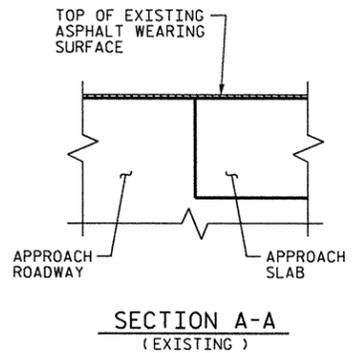
IF THE EMBEDDED PORTION OF THE EXISTING PLASTIC WATERSTOP IS EXPOSED DURING REMOVAL OF UNSOUND CONCRETE OR IF UNSOUND CONCRETE IS REMOVED TO WITHIN 2" OF THE WATERSTOP, THE ENTIRE WATERSTOP SHALL BE REMOVED



▲ SAW CUT SHALL BE 3/4" BELOW THE BOTTOM OF THE JOINT SEAL. SEE MANUFACTURER RECOMMENDATIONS

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PROVIDE WATERTIGHT SEAL AT END OF FOAM JOINT SEAL AS RECOMMENDED BY MANUFACTURER

PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 466

SHEET 3 OF 3

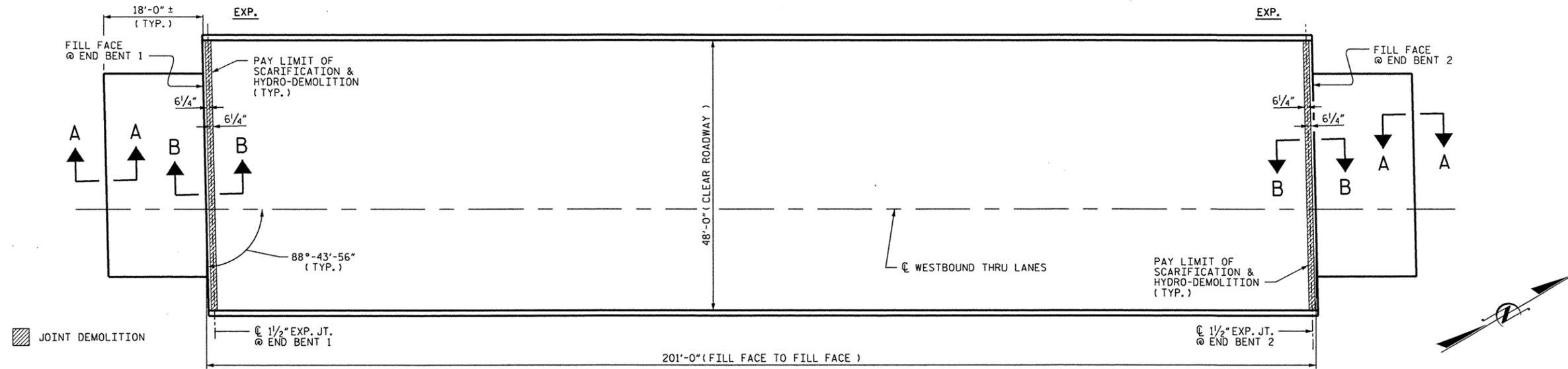
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

JOINT DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-33
1			3			TOTAL SHEETS
2			4			42



DRAWN BY : P.C. BREWER DATE : 6/13
 CHECKED BY : D.N. SNOKE DATE : 6/13
 DESIGN ENGINEER OF RECORD: _____ DATE : _____



PLAN
(SEE "JOINT DETAILS" SHEET FOR SECTIONS)

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FOR LOW MODULUS SILICONE SEALER, SEE STANDARD SPECIFICATIONS SECTION 1028.

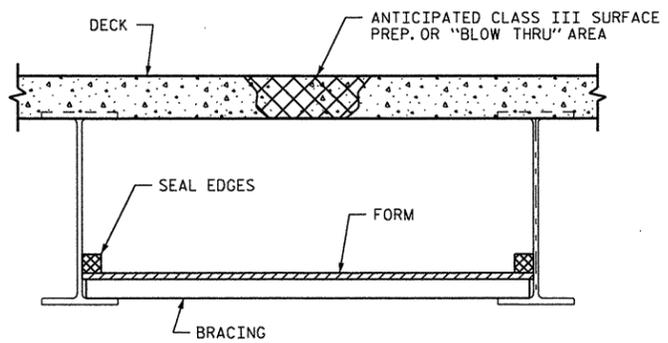
FOR "SUBMITTAL OF WORKING DRAWINGS", SEE SPECIAL PROVISIONS.

FOR "FALSEWORK AND FORMWORK", SEE SPECIAL PROVISIONS.

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FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLAN.

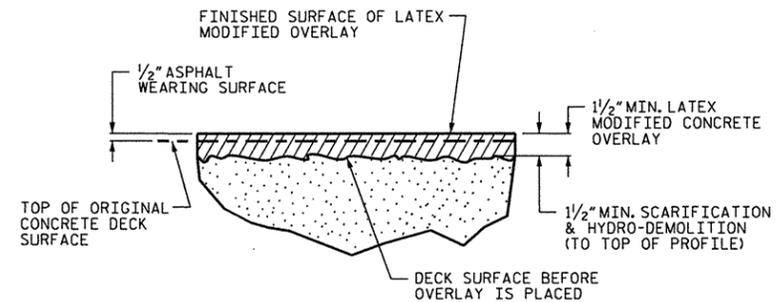


TYP. "BLOW THRU" CONTAINMENT AND FORMWORK

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DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY

TOTAL BILL OF MATERIAL							
GROOVING BRIDGE FLOORS	CLASS II SURFACE PREPARATION	LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	PLACING & FINISHING LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	SYNTHETIC RUBBER EXPANSION JOINT SEALS	BRIDGE JOINT DEMOLITION	SCARIFYING BRIDGE DECK	HYDRO-DEMOLITION OF BRIDGE DECK
SO. FT.	SO. YDS.	CU. YDS.	SO. YDS.	LUMP SUM	SO. FT.	SO. YDS.	SO. YDS.
9,364	11	69.1	1,105	LUMP SUM	97	1,105	1,105

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PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 467

SHEET 1 OF 3

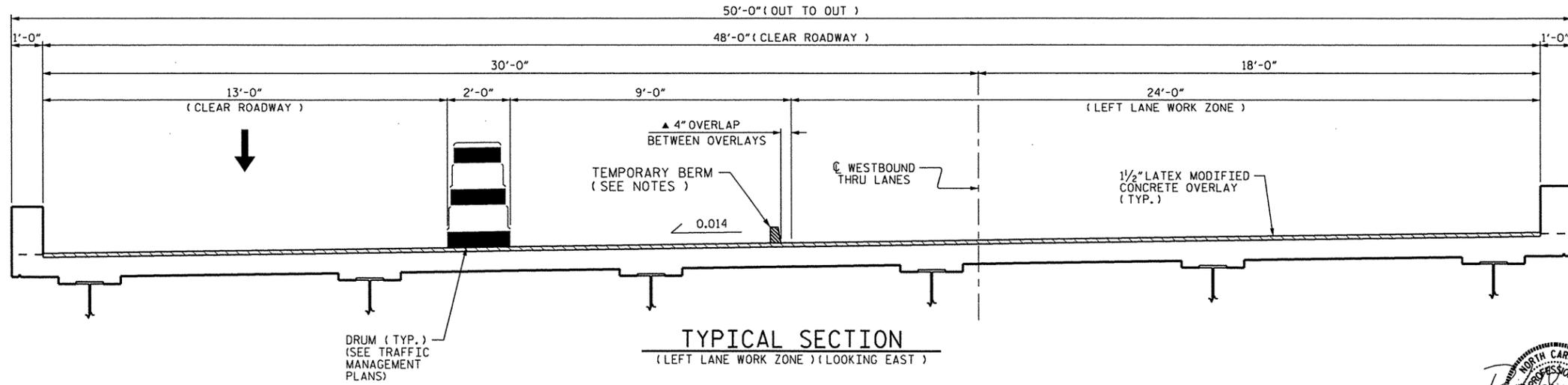
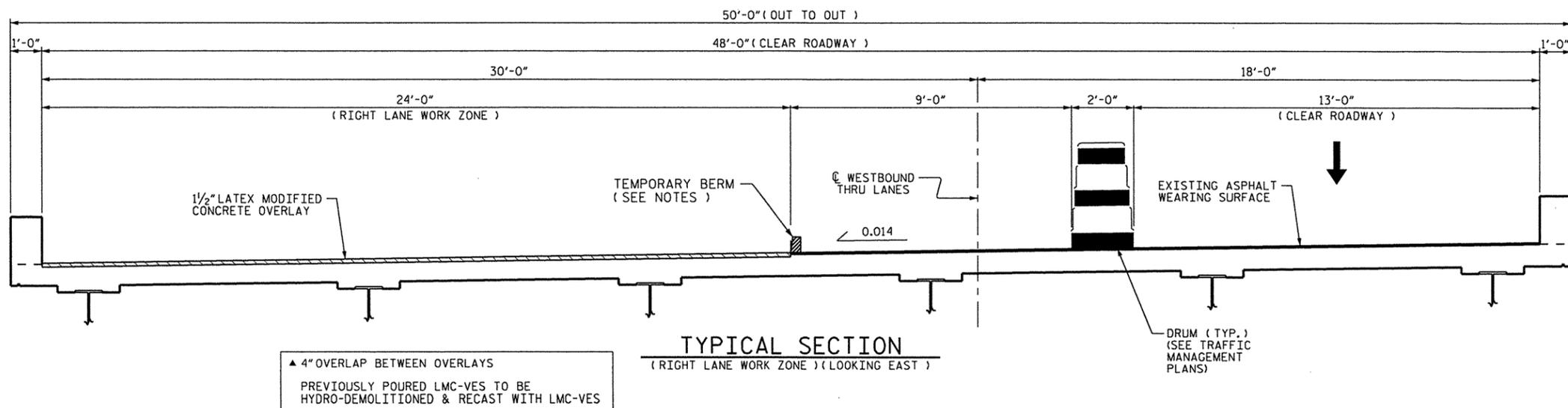
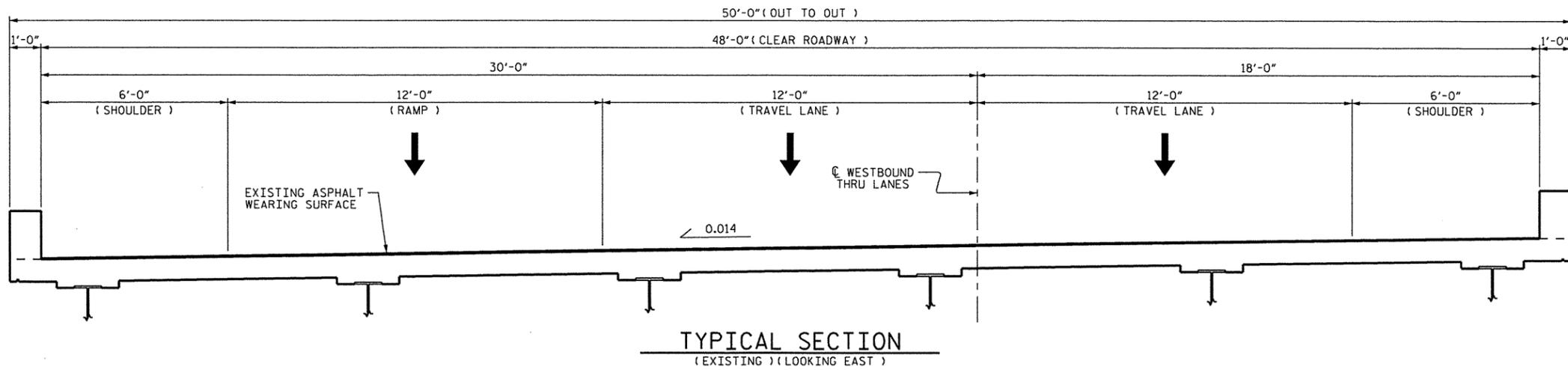
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN VIEW OF BRIDGE
 467 ON I40 WEST OVER
 US74A (CHARLOTTE HWY.)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-34
1			3			TOTAL SHEETS
2			4			42

DRAWN BY : P.C. BREWER DATE : 6/13
 CHECKED BY : D.N. SNOKE DATE : 6/13
 DESIGN ENGINEER OF RECORD: _____ DATE : _____





NOTES:
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PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 467

SHEET 2 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

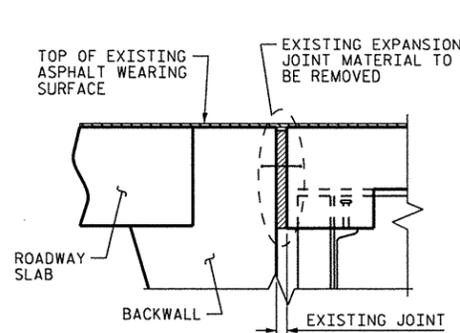
STAGING SEQUENCE

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-35
1			3			TOTAL SHEETS
2			4			42

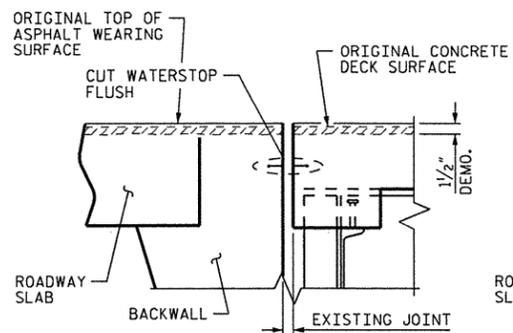
DRAWN BY: P.C. BREWER DATE: 6/13
 CHECKED BY: D.N. SNOKE DATE: 6/13
 DESIGN ENGINEER OF RECORD: _____ DATE: _____



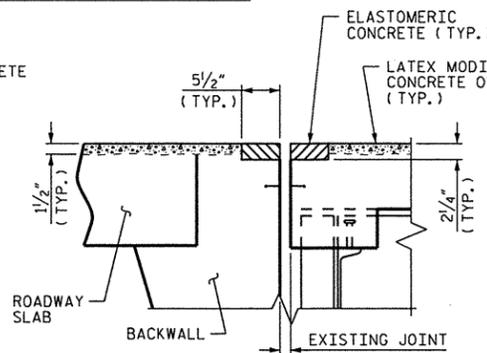
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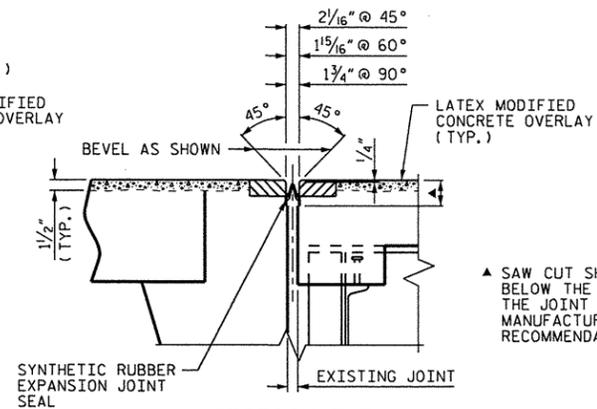
SECTION B-B
(EXISTING)



SECTION B-B
(MINIMUM EXISTING JOINT DEMOLITION)



SECTION B-B
(PROPOSED JOINT PRE-SAW DIMENSIONS)

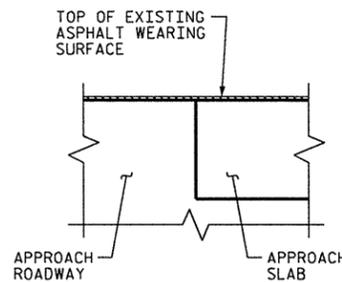


SECTION B-B
(PROPOSED SYNTHETIC RUBBER EXPANSION JOINT SEAL)

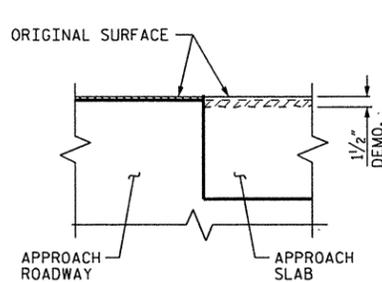
▲ SAW CUT SHALL BE 3/4" BELOW THE BOTTOM OF THE JOINT SEAL. SEE MANUFACTURER RECOMMENDATIONS

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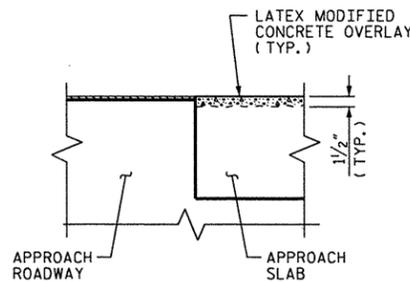
SYNTHETIC RUBBER EXPANSION JOINT SEALS SHALL ACCOMMODATE A MINIMUM OF 1" EXPANSION AND MEET THE MANUFACTURER'S RECOMMENDATION FOR THE SIZE OF OPENING ON THE PLANS.
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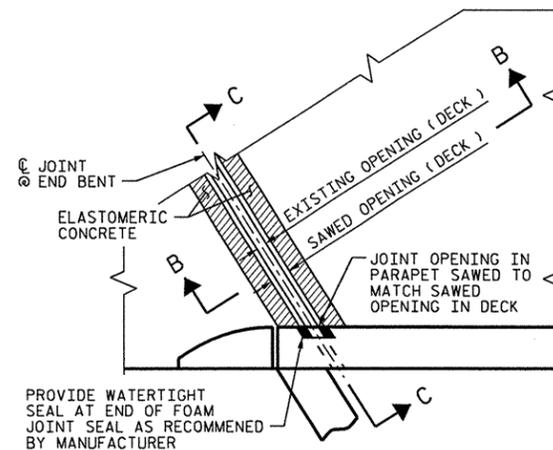
SECTION A-A
(EXISTING)



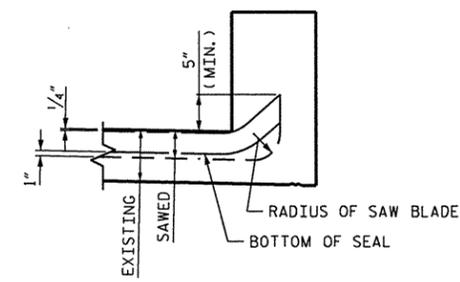
SECTION A-A
(MINIMUM EXISTING JOINT DEMOLITION)



SECTION A-A
(PROPOSED)



PLAN



SECTION C-C

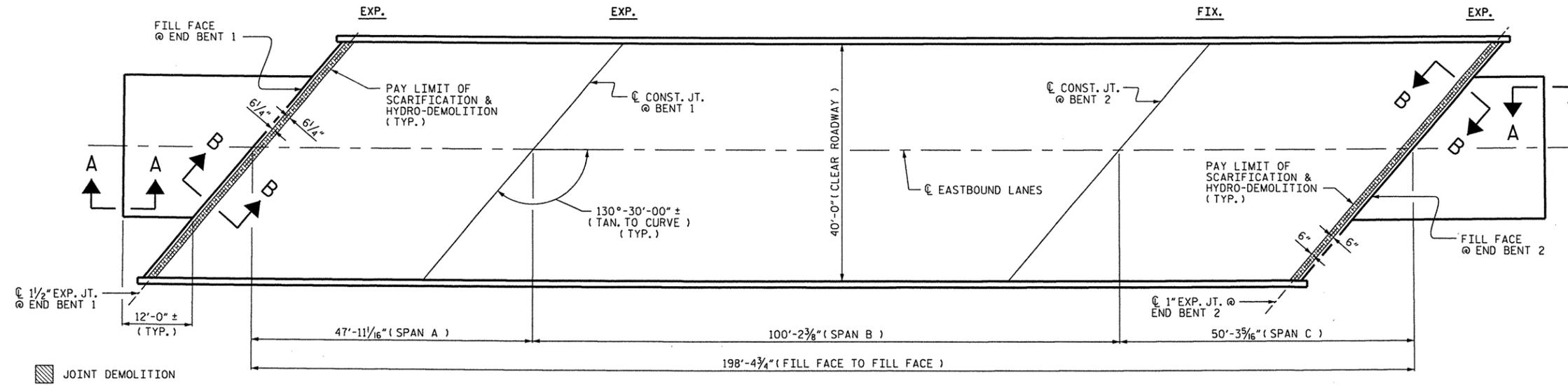
PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 467

SHEET 3 OF 3

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						SHEET NO. S-36
JOINT DETAILS						TOTAL SHEETS 42
REVISIONS						
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			
2			4			



DRAWN BY: P.C. BREWER DATE: 6/13
 CHECKED BY: D.N. SNOKE DATE: 6/13
 DESIGN ENGINEER OF RECORD: _____ DATE: _____



PLAN
(SEE "JOINT DETAILS" SHEET FOR SECTIONS)

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DURING CONSTRUCTION, BERMS OR APPROPRIATE MEASURES SHALL BE USED TO ENSURE HYDRO-DEMOLITION WATER DOES NOT FLOW OR MIGRATE INTO ACTIVE TRAVEL LANES.

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

FOR "SCARIFYING BRIDGE DECK", "HYDRO-DEMOLITION OF BRIDGE DECK", AND "CLASS II SURFACE PREPARATION" SEE "OVERLAY SURFACE PREPARATION" SPECIAL PROVISION.

FOR "BRIDGE JOINT DEMOLITION", SEE SPECIAL PROVISIONS.

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

FOR "SYNTHETIC RUBBER EXPANSION JOINT SEALS", SEE SPECIAL PROVISIONS.

FOR "ELASTOMERIC CONCRETE", SEE SPECIAL PROVISIONS.

FOR LOW MODULUS SILICONE SEALER, SEE STANDARD SPECIFICATIONS SECTION 1028.

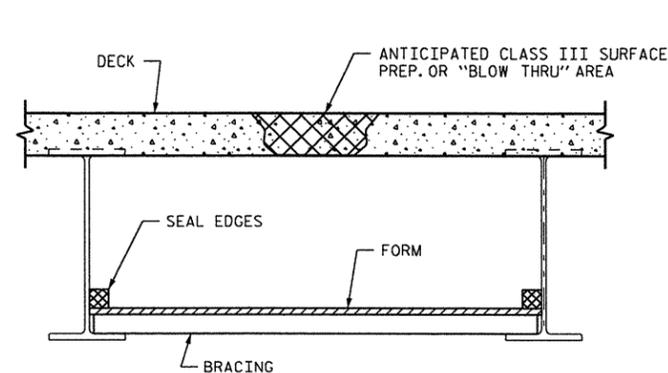
FOR "SUBMITTAL OF WORKING DRAWINGS", SEE SPECIAL PROVISIONS.

FOR "FALSEWORK AND FORMWORK", SEE SPECIAL PROVISIONS.

FOR "CRANE SAFETY", SEE SPECIAL PROVISIONS.

FOR "GROUT FOR STRUCTURES", SEE SPECIAL PROVISIONS.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLAN.

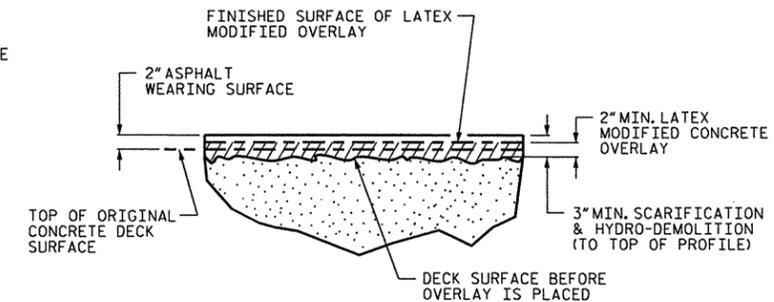


TYP. "BLOW THRU" CONTAINMENT AND FORMWORK

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 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.



DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY

(FINISHED SURFACE OF THE LATEX MODIFIED CONCRETE OVERLAY IS APPROX. 1" BELOW THE SURFACE OF THE EXISTING ASPHALT WEARING SURFACE)

PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 475

SHEET 1 OF 3

TOTAL BILL OF MATERIAL							
GROOVING BRIDGE FLOORS	CLASS II SURFACE PREPARATION	LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	PLACING & FINISHING LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	SYNTHETIC RUBBER EXPANSION JOINT SEALS	BRIDGE JOINT DEMOLITION	SCARIFYING BRIDGE DECK	HYDRO-DEMOLITION OF BRIDGE DECK
SO. FT.	SO. YDS.	CU. YDS.	SO. YDS.	LUMP SUM	SO. FT.	SO. YDS.	SO. YDS.
7,795	9	58.4	934	LUMP SUM	106	934	934

NO "CLASS II SURFACE PREPARATION" AREAS ARE SHOWN IN SKETCH. BECAUSE OF THE PRESENCE OF AN ASPHALT WEARING SURFACE, THE QUANTITY GIVEN IS AN ESTIMATE OF PATCHED AREAS IN THE CONCRETE DECK. ALL PATCHED AREAS IN CONCRETE DECK SHALL BE REMOVED USING "CLASS II SURFACE PREPARATION".

DRAWN BY: P.C. BREWER DATE: 6/13
 CHECKED BY: D.N. SMOKE DATE: 6/13
 DESIGN ENGINEER OF RECORD: _____ DATE: _____

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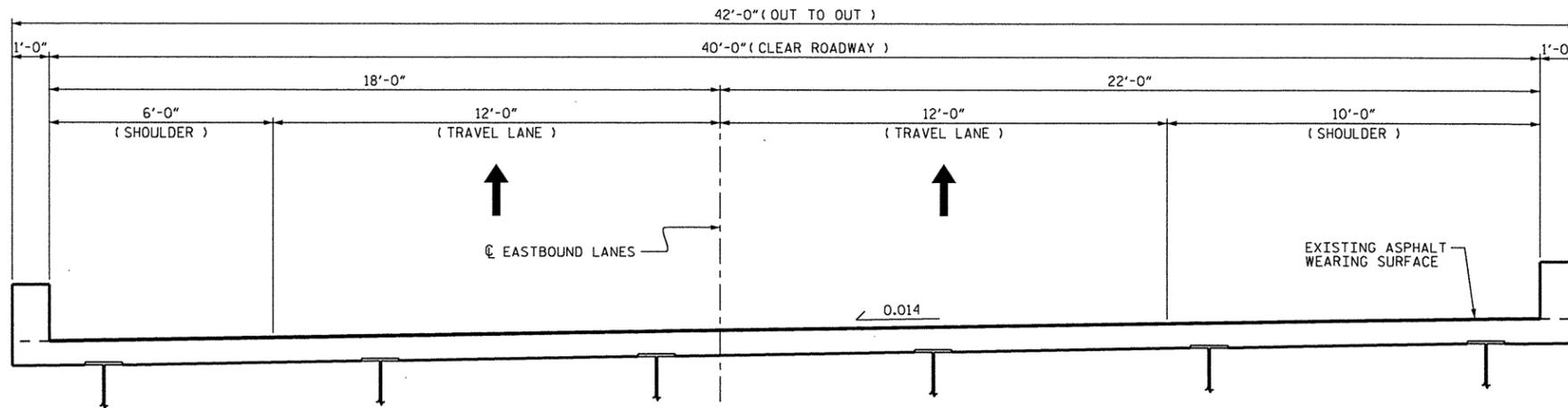


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

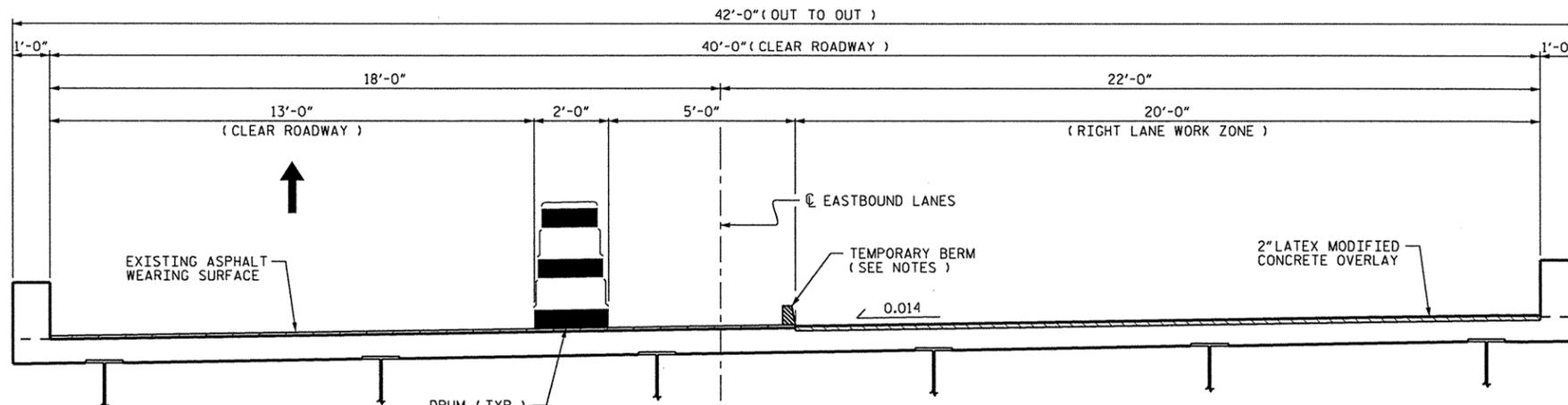
PLAN VIEW OF BRIDGE
 475 ON I40 EAST OVER
 SR2838 (PORTERS COVE RD.)

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

S-37
 TOTAL SHEETS
 42

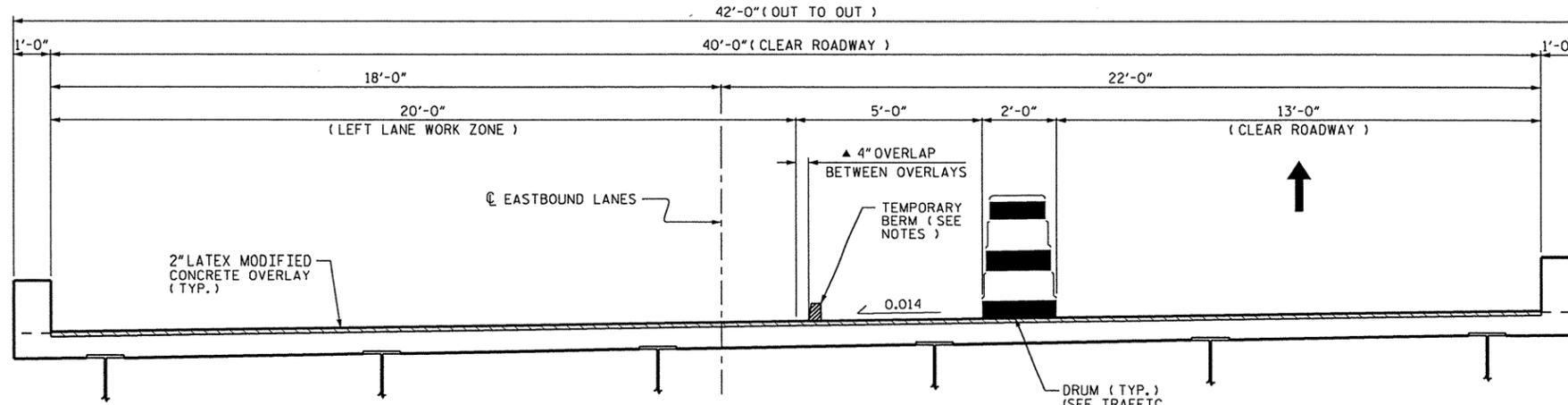


TYPICAL SECTION
(EXISTING) (LOOKING EAST)



TYPICAL SECTION
(RIGHT LANE WORK ZONE) (LOOKING EAST)

▲ 4" OVERLAP BETWEEN OVERLAYS
PREVIOUSLY POURED LMC-VES TO BE
HYDRO-DEMOLITIONED & RECAST WITH LMC-VES



TYPICAL SECTION
(LEFT LANE WORK ZONE) (LOOKING EAST)

NOTES:

THE WORK STAGING ON THIS PLAN SHEET INDICATES THAT THE RIGHT LANE LMC-VES WORK IS PERFORMED FIRST, FOLLOWED BY THE LEFT LANE LMC-VES WORK. THE CONTRACTOR MAY ELECT TO SEQUENCE THE WORK DIFFERENTLY, BUT THE DIMENSIONS OF THE WORK ZONE, CLEAR ROADWAY AREAS, AND THE LOCATIONS OF THE DRUM SHALL MATCH THAT INDICATED ON THIS PLAN SHEET, RESPECTIVE TO THE LANE WHERE THE LMC-VES WORK IS BEING PERFORMED.

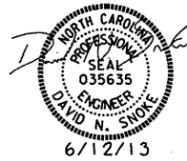
PROJECT NO. I-5607
BUNCOMBE COUNTY
BRIDGE NO. 475

SHEET 2 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

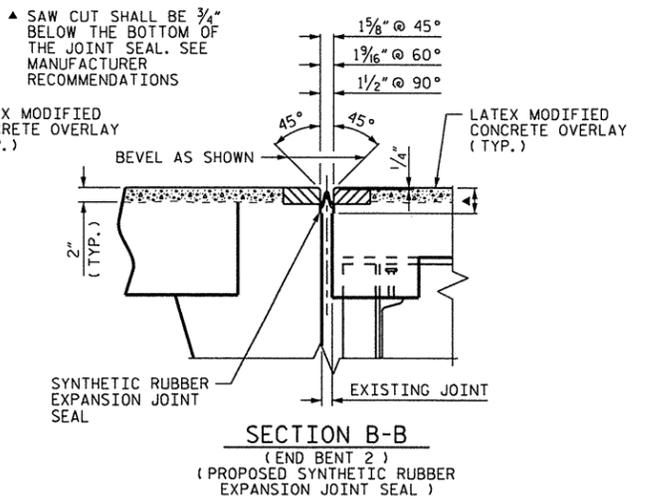
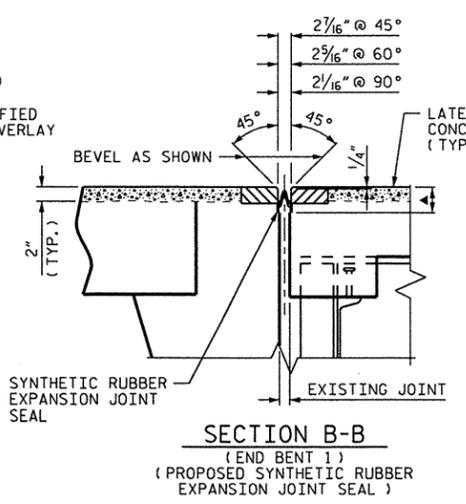
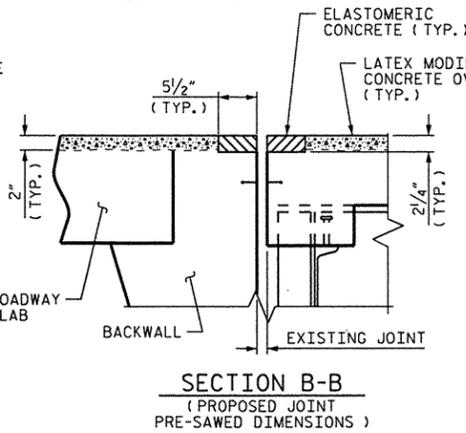
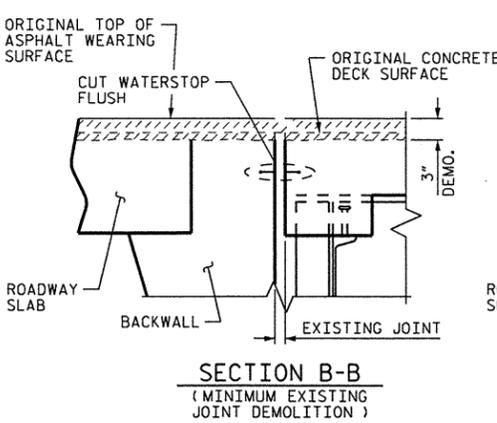
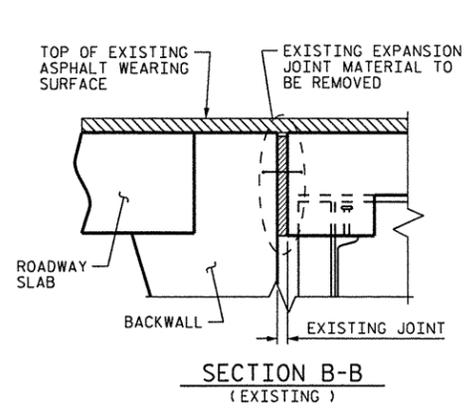
STAGING SEQUENCE

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-38
1			3			TOTAL SHEETS
2			4			42



DRAWN BY: P.C. BREWER DATE: 6/13
CHECKED BY: D.N. SNOKE DATE: 6/13
DESIGN ENGINEER OF RECORD: _____ DATE: _____

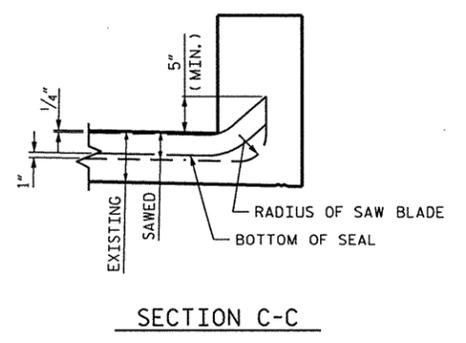
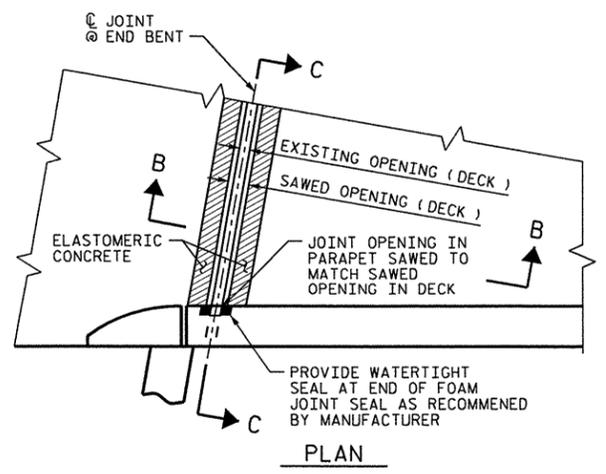
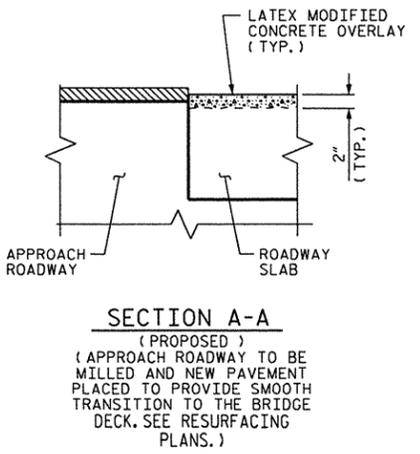
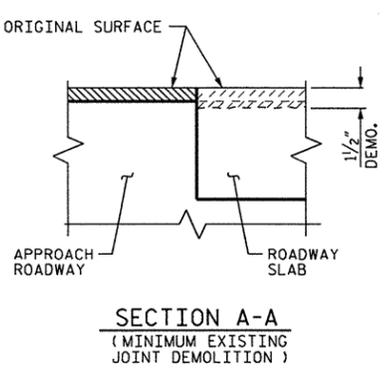
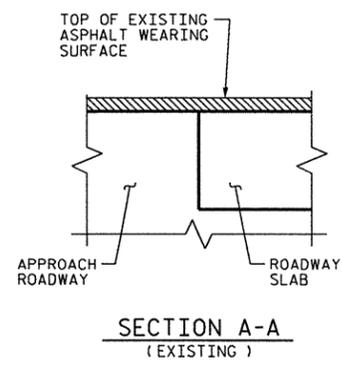
IF THE EMBEDDED PORTION OF THE EXISTING PLASTIC WATERSTOP IS EXPOSED DURING REMOVAL OF UNSOUND CONCRETE OR IF UNSOUND CONCRETE IS REMOVED TO WITHIN 2" OF THE WATERSTOP, THE ENTIRE WATERSTOP SHALL BE REMOVED



▲ SAW CUT SHALL BE 3/4" BELOW THE BOTTOM OF THE JOINT SEAL. SEE MANUFACTURER RECOMMENDATIONS

HYDRO-DEMOLITION OR EXCAVATION OF CONCRETE AT THE EXISTING JOINT SHALL RESULT IN THE BOTTOM OF THE EXCAVATION BEING REASONABLY FLAT, TO PROVIDE SUFFICIENT SUBSTRATE FOR PLACEMENT AND SUPPORT OF REPAIR CONCRETE.

SYNTHETIC RUBBER EXPANSION JOINT SEALS SHALL ACCOMMODATE A MINIMUM OF 1" EXPANSION AND MEET THE MANUFACTURER'S RECOMMENDATION FOR THE SIZE OF OPENING ON THE PLANS.
CONTRACTOR SHALL SUBMIT FOR APPROVAL THE PROPOSED SYNTHETIC RUBBER EXPANSION JOINT SEAL, WITH SUPPORTING INFORMATION AND DOCUMENTATION CONFIRMING THE APPROPRIATE SEAL SIZE.



DRAWN BY : P.C. BREWER DATE : 6/13
CHECKED BY : D.N. SNOKE DATE : 6/13
DESIGN ENGINEER OF RECORD: DATE :

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PROJECT NO. I-5607
BUNCOMBE COUNTY
BRIDGE NO. 475

SHEET 3 OF 3

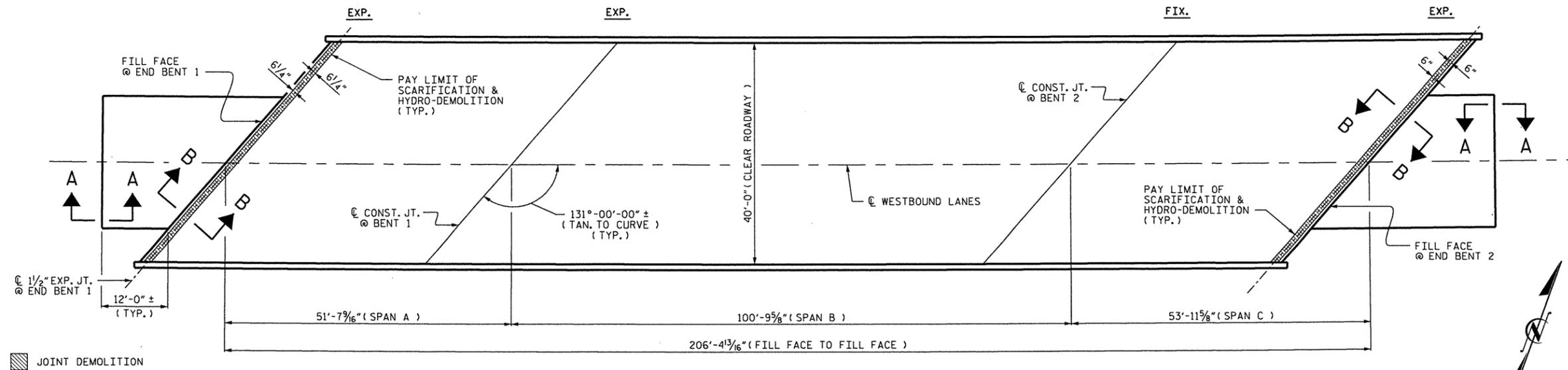
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

JOINT DETAILS



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

S-39
TOTAL SHEETS
42



PLAN
(SEE "JOINT DETAILS" SHEET FOR SECTIONS)

NOTES:

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF BRIDGE DECK.

DURING CONSTRUCTION, BERMS OR APPROPRIATE MEASURES SHALL BE USED TO ENSURE HYDRO-DEMOLITION WATER DOES NOT FLOW OR MIGRATE INTO ACTIVE TRAVEL LANES.

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

FOR "SCARIFYING BRIDGE DECK", "HYDRO-DEMOLITION OF BRIDGE DECK", AND "CLASS II SURFACE PREPARATION" SEE "OVERLAY SURFACE PREPARATION" SPECIAL PROVISION.

FOR "BRIDGE JOINT DEMOLITION", SEE SPECIAL PROVISIONS.

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

FOR "SYNTHETIC RUBBER EXPANSION JOINT SEALS", SEE SPECIAL PROVISIONS.

FOR "ELASTOMERIC CONCRETE", SEE SPECIAL PROVISIONS.

FOR LOW MODULUS SILICONE SEALER, SEE STANDARD SPECIFICATIONS SECTION 102B.

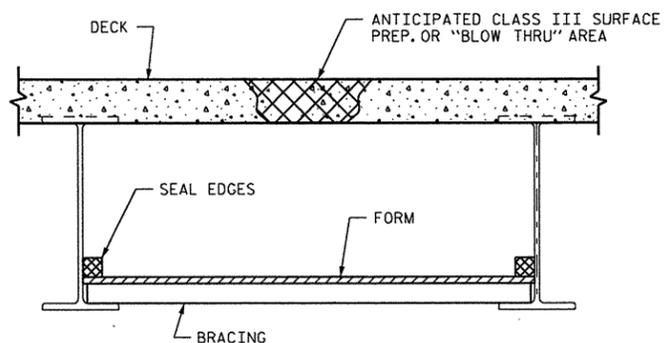
FOR "SUBMITTAL OF WORKING DRAWINGS", SEE SPECIAL PROVISIONS.

FOR "FALSEWORK AND FORMWORK", SEE SPECIAL PROVISIONS.

FOR "CRANE SAFETY", SEE SPECIAL PROVISIONS.

FOR "GROUT FOR STRUCTURES", SEE SPECIAL PROVISIONS.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLAN.

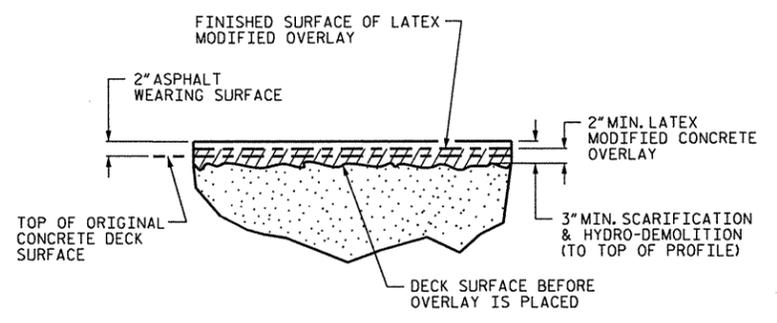


TYP. "BLOW THRU" CONTAINMENT AND FORMWORK

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

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



DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY

(FINISHED SURFACE OF THE LATEX MODIFIED CONCRETE OVERLAY IS APPROX. 1" BELOW THE SURFACE OF THE EXISTING ASPHALT WEARING SURFACE)

TOTAL BILL OF MATERIAL							
GROOVING BRIDGE FLOORS	CLASS II SURFACE PREPARATION	LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	PLACING & FINISHING LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH	SYNTHETIC RUBBER EXPANSION JOINT SEALS	BRIDGE JOINT DEMOLITION	SCARIFYING BRIDGE DECK	HYDRO-DEMOLITION OF BRIDGE DECK
SO. FT.	SO. YDS.	CU. YDS.	SO. YDS.	LUMP SUM	SO. FT.	SO. YDS.	SO. YDS.
9,511	11	54.8	1,128	LUMP SUM	107	1,128	1,128

NO "CLASS II SURFACE PREPARATION" AREAS ARE SHOWN IN SKETCH, BECAUSE OF THE PRESENCE OF AN ASPHALT WEARING SURFACE, THE QUANTITY GIVEN IS AN ESTIMATE OF PATCHED AREAS IN THE CONCRETE DECK. ALL PATCHED AREAS IN CONCRETE DECK SHALL BE REMOVED USING "CLASS II SURFACE PREPARATION".

DRAWN BY: P.C. BREWER DATE: 6/13
 CHECKED BY: D.N. SNOKE DATE: 6/13
 DESIGN ENGINEER OF RECORD: DATE: -



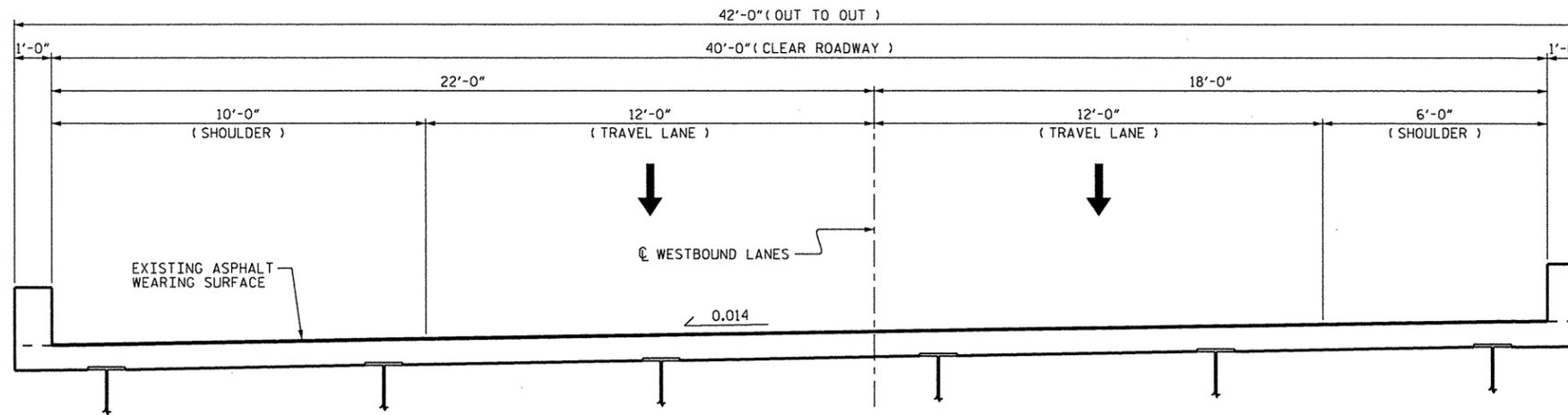
PROJECT NO. I-5607
BUNCOMBE COUNTY
 BRIDGE NO. 476

SHEET 1 OF 3

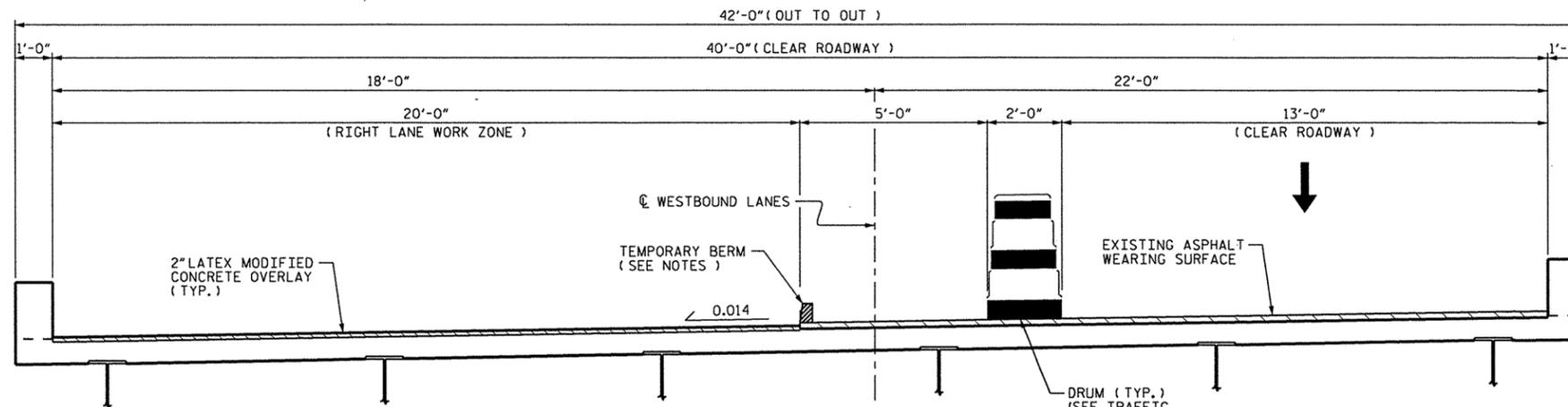
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN VIEW OF BRIDGE
 476 ON I40 WEST OVER
 SR2838 (PORTERS COVE RD.)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-40
1			3			TOTAL SHEETS
2			4			42

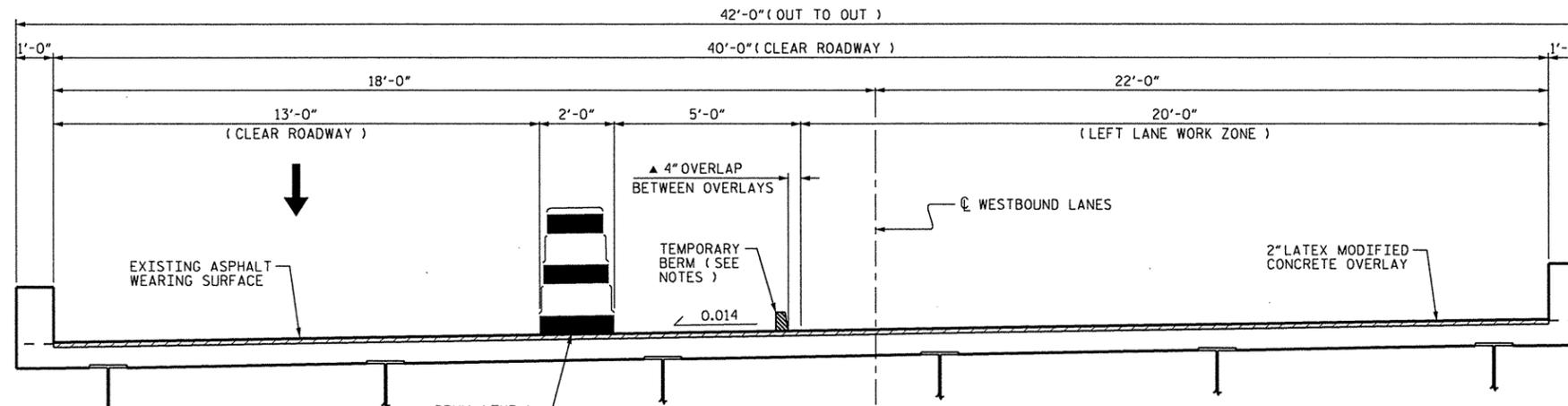


TYPICAL SECTION
(EXISTING) (LOOKING EAST)



▲ 4" OVERLAP BETWEEN OVERLAYS
PREVIOUSLY POURED LMC-VES TO BE
HYDRO-DEMOLITIONED & RECAST WITH LMC-VES

TYPICAL SECTION
(RIGHT LANE WORK ZONE) (LOOKING EAST)



DRUM (TYP.)
(SEE TRAFFIC
MANAGEMENT
PLANS)

TYPICAL SECTION
(LEFT LANE WORK ZONE) (LOOKING EAST)

NOTES:

THE WORK STAGING ON THIS PLAN SHEET INDICATES THAT THE RIGHT LANE LMC-VES WORK IS PERFORMED FIRST, FOLLOWED BY THE LEFT LANE LMC-VES WORK. THE CONTRACTOR MAY ELECT TO SEQUENCE THE WORK DIFFERENTLY, BUT THE DIMENSIONS OF THE WORK ZONE, CLEAR ROADWAY AREAS, AND THE LOCATIONS OF THE DRUM SHALL MATCH THAT INDICATED ON THIS PLAN SHEET, RESPECTIVE TO THE LANE WHERE THE LMC-VES WORK IS BEING PERFORMED.

PROJECT NO. I-5607
BUNCOMBE COUNTY
BRIDGE NO. 476

SHEET 2 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STAGING SEQUENCE

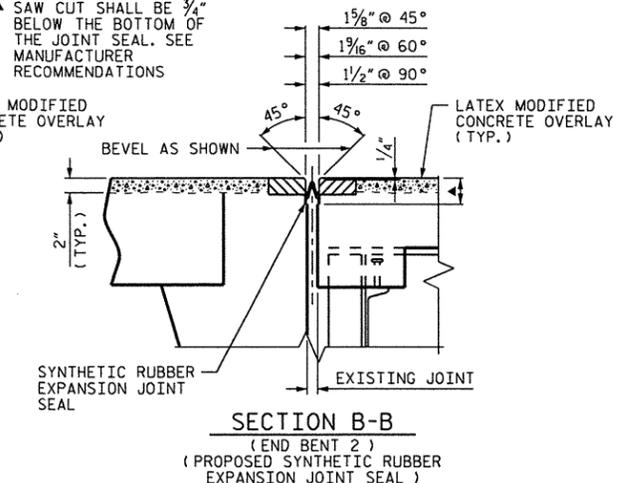
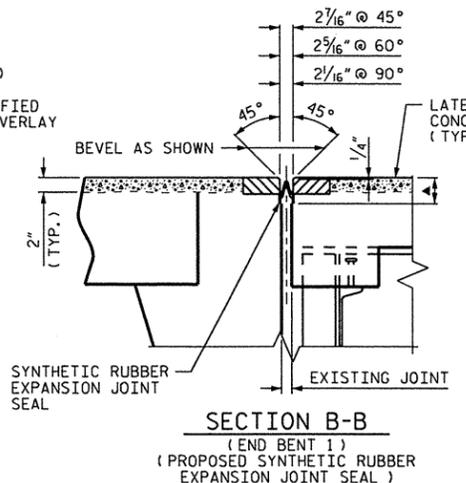
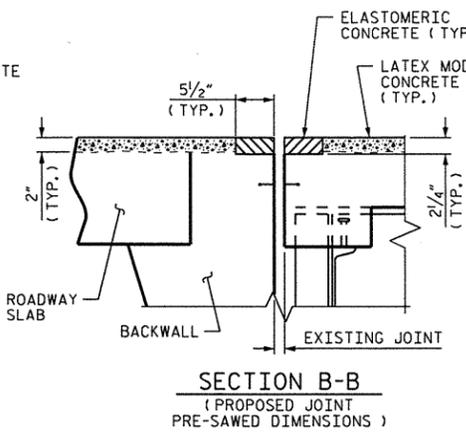
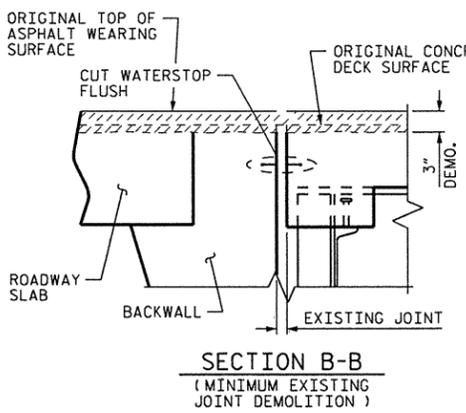
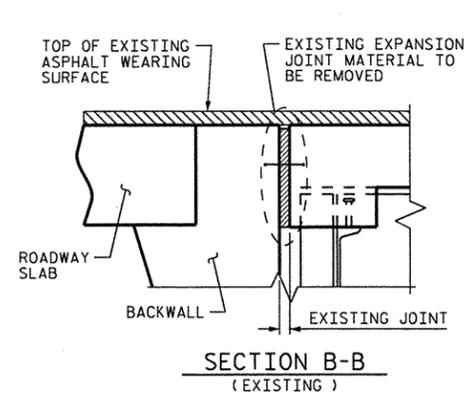


DRAWN BY: P.C. BREWER DATE: 6/13
CHECKED BY: D.N. SNOKE DATE: 6/13
DESIGN ENGINEER OF RECORD: _____ DATE: _____

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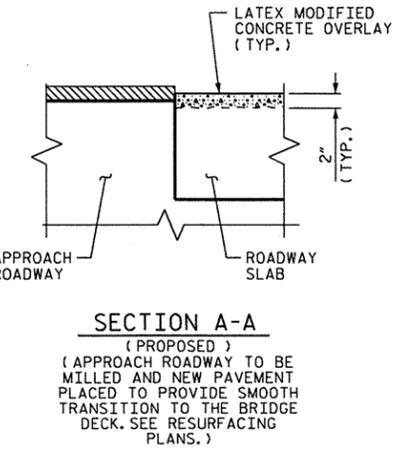
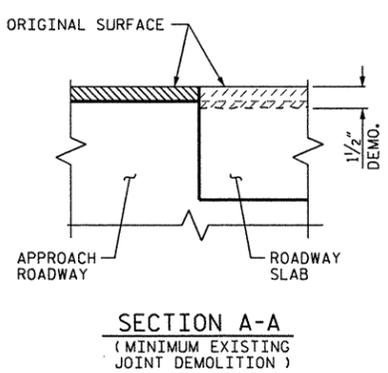
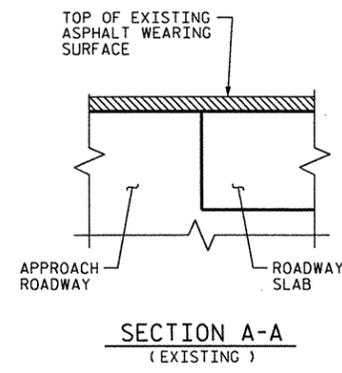
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-41
1			3			TOTAL SHEETS
2			4			42

IF THE EMBEDDED PORTION OF THE EXISTING PLASTIC WATERSTOP IS EXPOSED DURING REMOVAL OF UNSOUND CONCRETE OR IF UNSOUND CONCRETE IS REMOVED TO WITHIN 2" OF THE WATERSTOP, THE ENTIRE WATERSTOP SHALL BE REMOVED

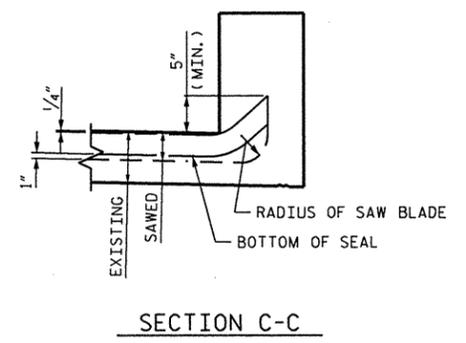
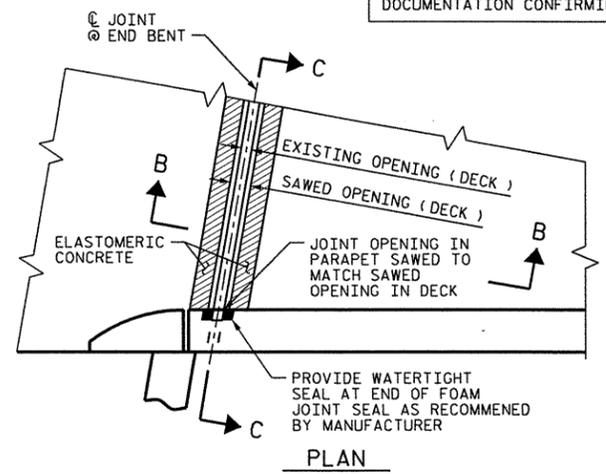


▲ SAW CUT SHALL BE 3/4" BELOW THE BOTTOM OF THE JOINT SEAL. SEE MANUFACTURER RECOMMENDATIONS

HYDRO-DEMOLITION OR EXCAVATION OF CONCRETE AT THE EXISTING JOINT SHALL RESULT IN THE BOTTOM OF THE EXCAVATION BEING REASONABLY FLAT, TO PROVIDE SUFFICIENT SUBSTRATE FOR PLACEMENT AND SUPPORT OF REPAIR CONCRETE.



SYNTHETIC RUBBER EXPANSION JOINT SEALS SHALL ACCOMMODATE A MINIMUM OF 1" EXPANSION AND MEET THE MANUFACTURER'S RECOMMENDATION FOR THE SIZE OF OPENING ON THE PLANS.
CONTRACTOR SHALL SUBMIT FOR APPROVAL THE PROPOSED SYNTHETIC RUBBER EXPANSION JOINT SEAL, WITH SUPPORTING INFORMATION AND DOCUMENTATION CONFIRMING THE APPROPRIATE SEAL SIZE.



DRAWN BY: P.C. BREWER DATE: 6/13
CHECKED BY: D.N. SNOKE DATE: 6/13
DESIGN ENGINEER OF RECORD: DATE:

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PROJECT NO. I-5607
BUNCOMBE COUNTY
BRIDGE NO. 476

SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

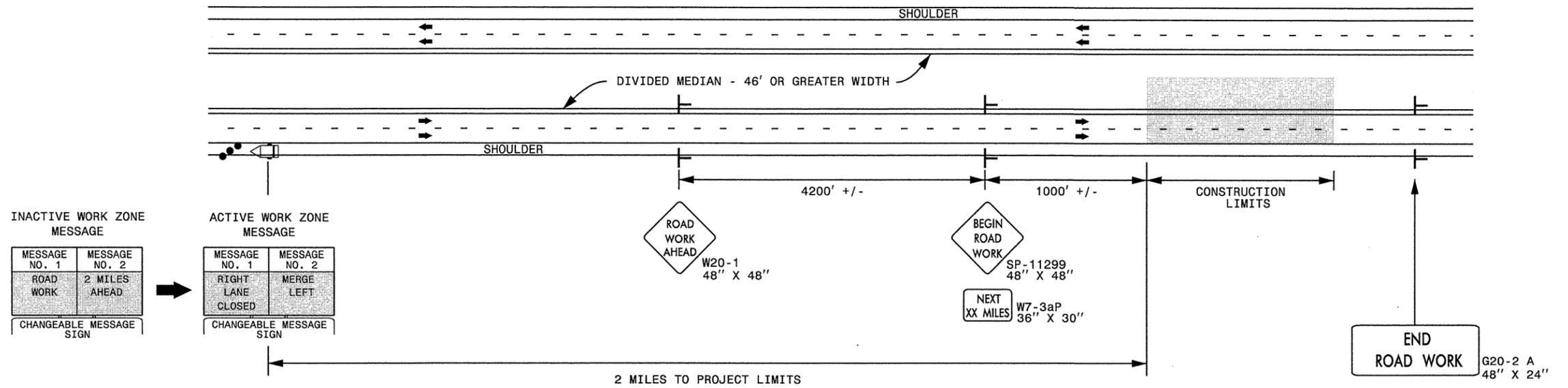
JOINT DETAILS

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

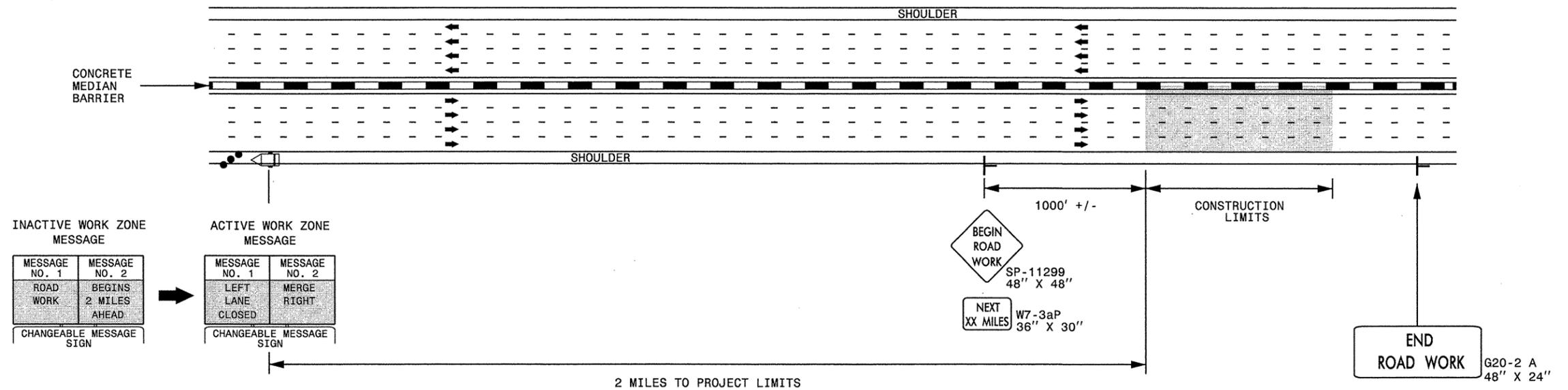
TOTAL SHEETS: 42



DIVIDED MEDIANS WITH WIDTHS 46' OR GREATER



DIVIDED MEDIANS WITH WIDTHS LESS THAN 46' OR WITH PERMANENT MEDIAN BARRIER

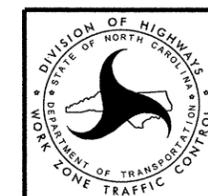


NOTES:

- 1) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 6' AS MEASURED FROM THE EDGE OF PAVEMENT.
- 2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURER'S RECOMMENDATIONS. THESE SYSTEMS SHALL BE NCHRP 350 COMPLIANT AND NCDOT APPROVED.
- 3) FOR MEDIAN WIDTHS LESS THAN 46' (MEASURED EDGELINE TO EDGELINE) USE THE BOTTOM DRAWING.
- 4) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 5) INSTALL "ROAD WORK AHEAD" (W20-1) ALONG ENTRANCE RAMP 500' PRIOR TO RAMP TERMINAL, AND "END ROAD WORK" (G20-2a) AT THE END OF EXIT RAMP WITHIN THE WORK ZONE.
- 6) IF MILLED AREAS ARE NOT PAVED BACK BY THE END OF THE WORK DAY, PORTABLE SIGNS SHALL BE USED TO WARN DRIVERS OF THE PRESENT CONDITIONS. THESE ARE TO INCLUDE, BUT NOT LIMITED TO "ROUGH ROAD" W8-8, "UNEVEN LANES" W8-11, "GROOVED PAVEMENT" W8-15 w/MOTORCYCLE PLAQUE MOUNTED BELOW. THESE ARE TO BE DOUBLE INDICATED ON MULTI-LANE ROADWAYS WITH SPEED LIMITS 45 MPH AND GREATER AND WITH DIVIDED MEDIANS OF 46' OR GREATER. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

LEGEND

- CHANGEABLE MESSAGE SIGN (CMS)
- STATIONARY SIGN
- DIRECTION OF TRAFFIC FLOW
- TRAFFIC DRUM



**RESURFACING ADVANCE
WARNING SIGNS FOR
HIGH SPEED FACILITIES
≥ 60 MPH**