Docusign Envelope ID: 5B5E3861-CBEE-8D54-8165-A3006CF990FA

09/08/99

CONTRACT: DM00538 BRIDGE PROJECT: 18313.1011139.PR / 18313.1011225.PR

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS



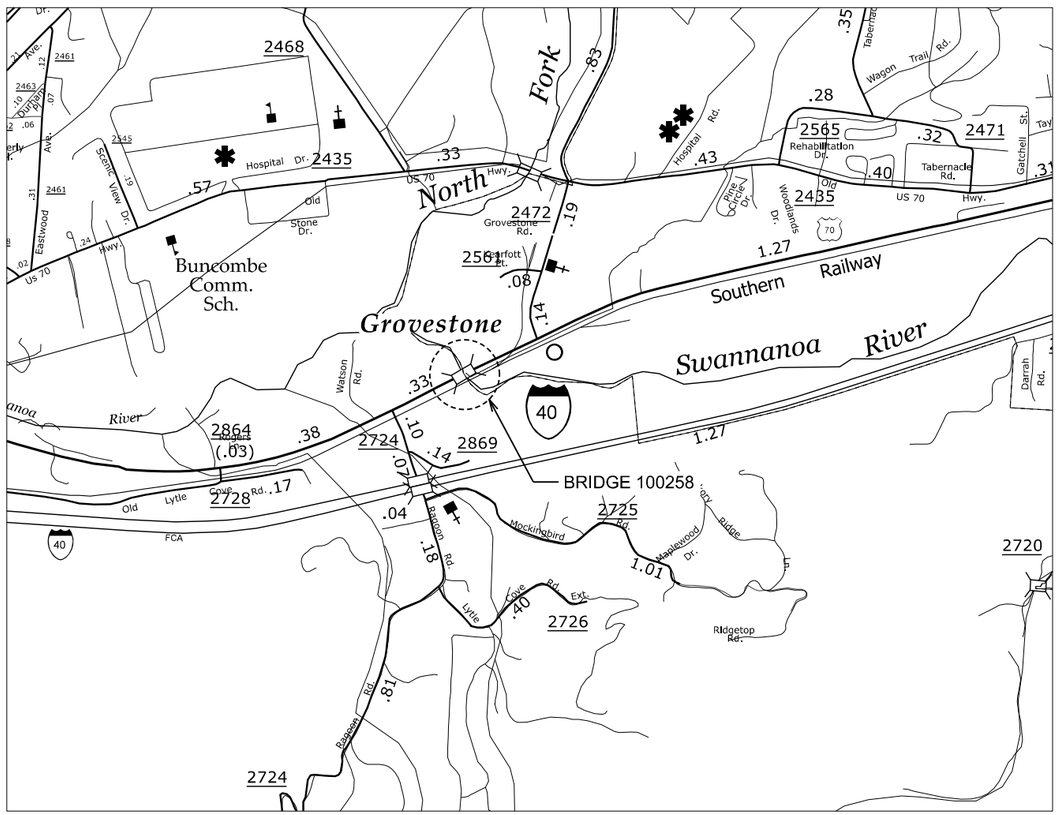
BUNCOMBE COUNTY

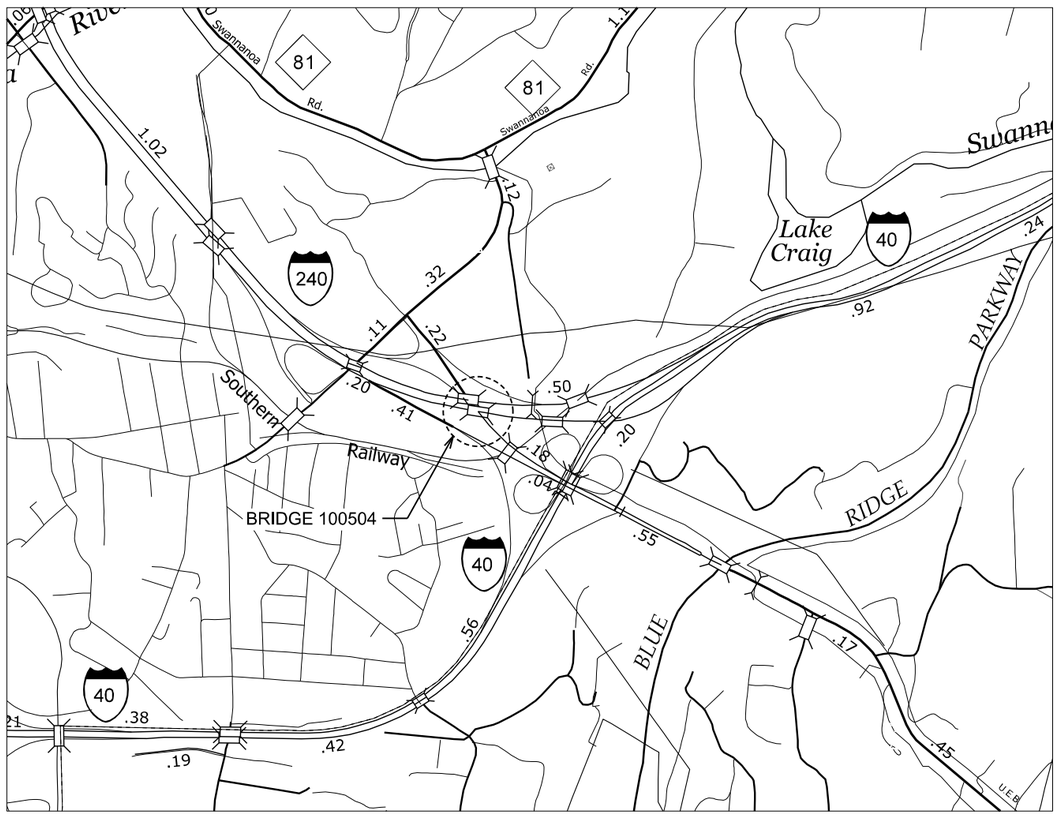
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	18313.1011139.PR & 18313.1011225.PR		

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
18313.1011139.PR	N/A	BRIDGE 100258
18313.1011225.PR	N/A	BRIDGE 100504

LOCATION: *BRIDGE #100258 ON US-70 OVER SWANNANOA RIVER*
BRIDGE #100504 ON I-240 EBL OVER US 74/I-240 RAMP

TYPE OF WORK: *STRUCTURE REPAIRS*





DESIGN DATA BRIDGE 100258	DESIGN DATA BRIDGE 100504	PROJECT LENGTH
ADT 2021 = 14500 ADT 2040 = 28000 V = 45 MPH * TTST = DUAL FUNC CLASS = URBAN OTHER PRINCIPAL ARTERIAL	ADT 2020 = 23500 ADT 2040 = 47000 V = 70 MPH * TTST = DUAL FUNC CLASS = URBAN PRINCIPAL ARTERIAL - INTERSTATE	PROJECT LENGTH FOR BRIDGE 100258 = 0.021 MILES PROJECT LENGTH FOR BRIDGE 100504 = 0.095 MILES

NCDOT Contact: JOEL M. DAVIS
Prepared in the Office of: VHB Engineering NC, P.C. (C-3705) 940 Main Campus Drive, Suite 500 Raleigh, NC 27606

2024 STANDARD SPECIFICATIONS

LETTING DATE:
DECEMBER 2, 2026

CHIRAG PATEL, PE
PROJECT ENGINEER

STRUCTURES ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 030878 ENGINEER W. KEVIN FISCHER

DocuSigned by: Kevin Fischer 9/25/2026
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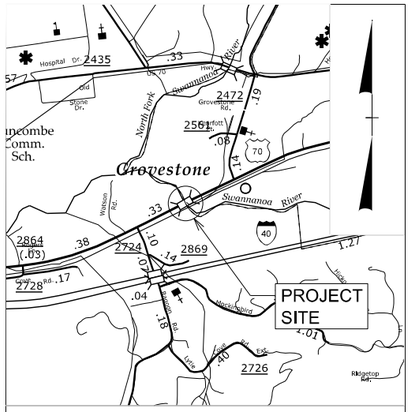
W. KEVIN FISCHER, PE
SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

Docusign Envelope ID: 5B5E3861-CBEE-8D54-8165-A3006CF990FA

09/08/99

CONTRACT: DM00538 BRIDGE PROJECT: 18313.1011139.PR



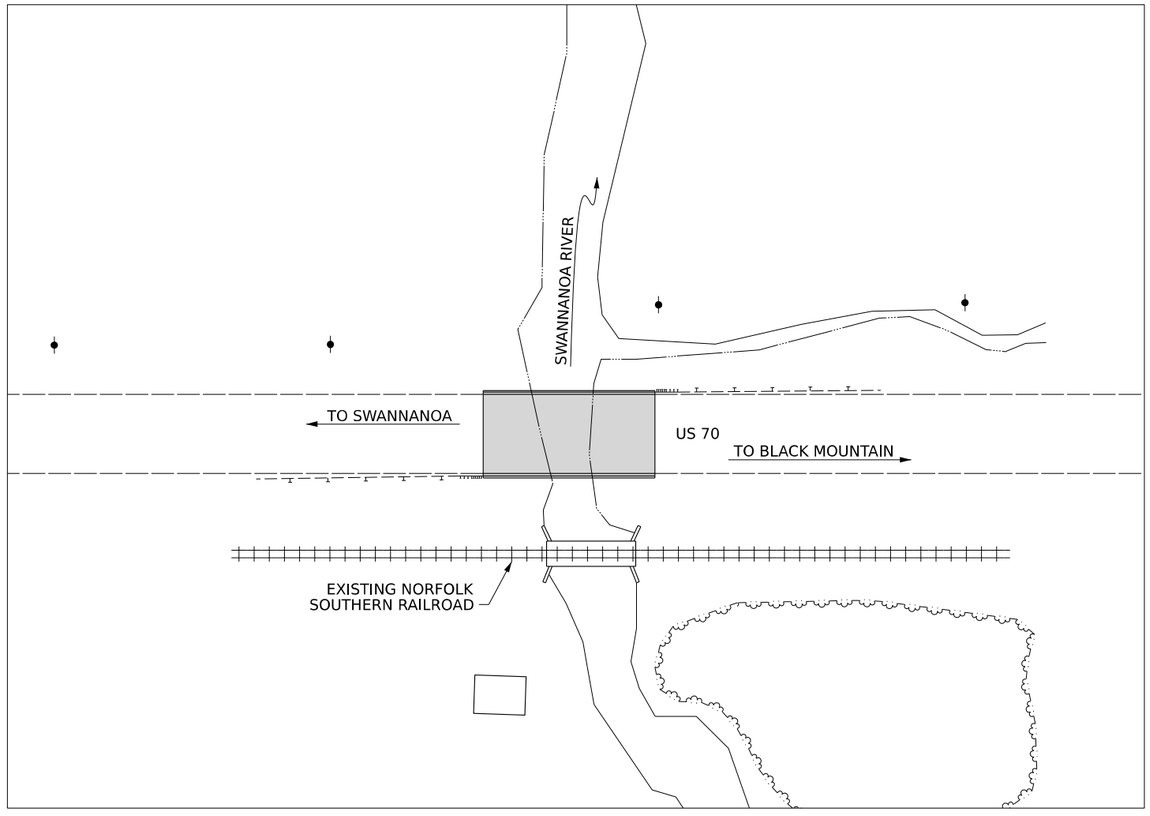
VICINITY MAP (NTS)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

BUNCOMBE COUNTY

LOCATION: *REPAIR BRIDGE #100258 ON US-70 OVER SWANNANOA RIVER*

TYPE OF WORK: *BRIDGE REPAIRS*



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	18313.1011139.PR		

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
18313.1011139.PR	N/A	CONSTRUCTION





DESIGN DATA

ADT 2021 = 14500
ADT 2040 = 28000

V = 45 MPH
* TTST = DUAL
FUNC CLASS =
URBAN OTHER
PRINCIPAL ARTERIAL

PROJECT LENGTH

PROJECT LENGTHS FOR BRIDGE PROJECT 18313.1011139.PR:

TOTAL LENGTH PROJECT 18313.1011139.PR = 0.021 MILES

NCDOT Contact: JOEL M. DAVIS

Prepared in the Office of: vhb — VHB Engineering NC, P.C. (C-3705) 940 Main Campus Drive, Suite 500 Raleigh, NC 27606

2024 STANDARD SPECIFICATIONS

CHIRAG PATEL, PE
PROJECT ENGINEER

LETTING DATE:
DECEMBER 2, 2026

STRUCTURES ENGINEER

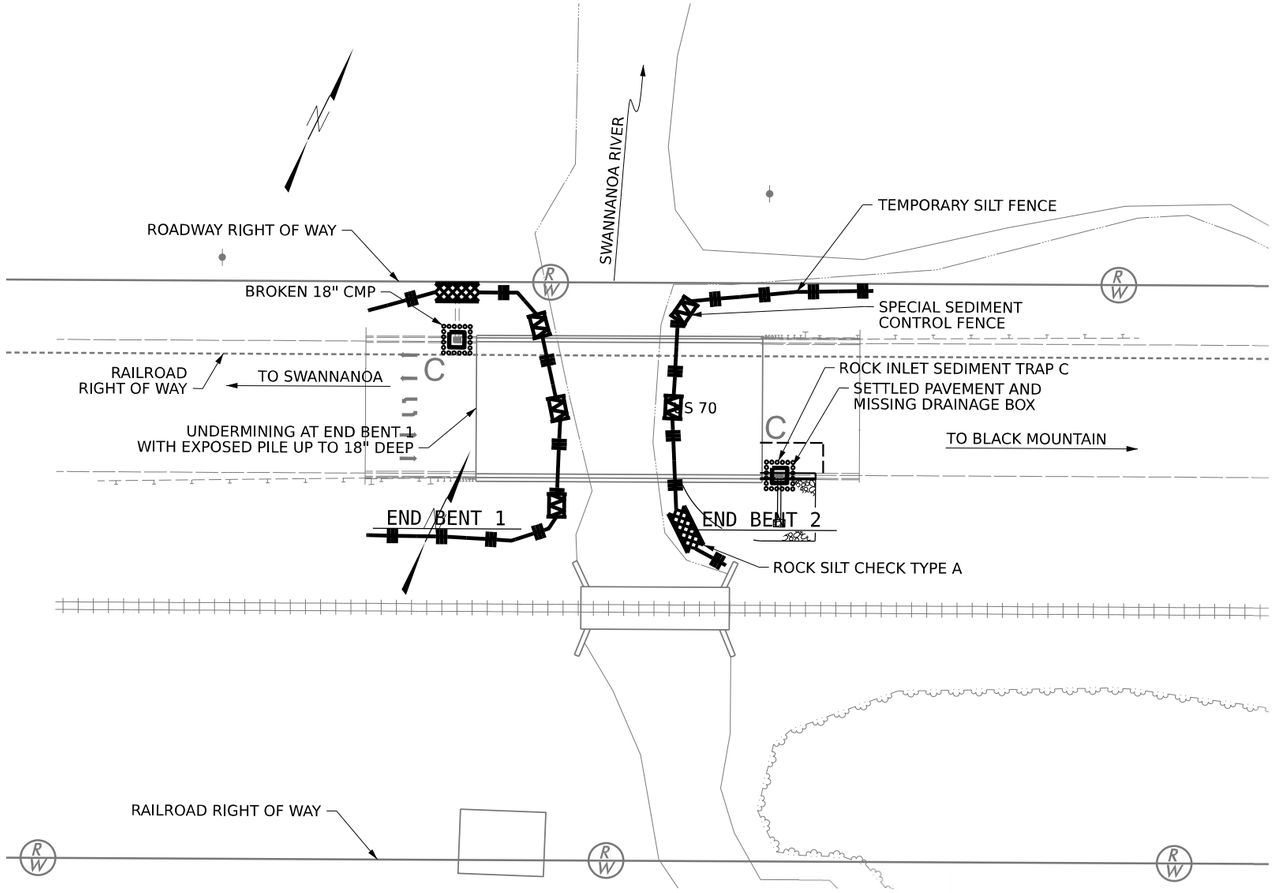
NORTH CAROLINA PROFESSIONAL SEAL 030878 ENGINEER W. KEVIN FISCHER

DocuSigned by: Kevin Fischer 339FA2D658AB4DC... 9/25/2026

W. KEVIN FISCHER, PE
SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION

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EROSION CONTROL SKETCH

EC NOTES:

-EROSION CONTROL SKETCH WAS NOT BASED ON ACTUAL SURVEY. CONTRACTOR TO FIELD VERIFY PLACEMENT OF PROPOSED EROSION CONTROL DEVICES AND QUANTITIES REQUIRED FOR THIS PROJECT.

Line Item	Description	Quantity	Unit
3656000000-E	GEOTEXTILE FOR DRAINAGE	95	SY
6000000000-E	TEMPORARY SILT FENCE	425	LF
6006000000-E	EROSION CONTROL STONE, CLASS A	35	TON
6009000000-E	EROSION CONTROL STONE, CLASS B	20	TON
6012000000-E	SEDIMENT CONTROL STONE	35	TON
6015000000-E	TEMPORARY MULCHING	0.5	ACR
6018000000-E	SEED FOR TEMPORARY SEEDING	100	LB
6021000000-E	FERTILIZER FOR TEMPORARY SEEDING	0.5	TON
6024000000-E	TEMPORARY SLOPE DRAINS	200	LF
6029000000-E	SAFETY FENCE	60	LF
6030000000-E	SILT EXCAVATION	30	CY
6036000000-E	MATTING FOR EROSION CONTROL	1000	SY
6042000000-E	1/4" HARDWARE CLOTH	145	LF
6084000000-E	SEEDING AND MULCHING	0.5	ACR
6087000000-E	MOWING	0.5	ACR
6090000000-E	SEED FOR REPAIR SEEDING	50	LB
6093000000-E	FERTILIZER FOR REPAIR SEEDING	0.25	TON
6096000000-E	SEED FOR SUPPLEMENTAL SEEDING	50	LB
6108000000-E	FERTILIZER TOPDRESSING	0.25	TON
6114500000-N	SPECIALIZED HAND MOWING	10	MHR
6114800000-N	MANUAL LITTER REMOVAL	1	MHR
6114900000-E	LITTER DISPOSAL	1	TON
6117000000-N	RESPONSE FOR EROSION CONTROL	13	EA
6117500000-N	CONCRETE WASHOUT STRUCTURE	1	EA
6132000000-N	GENERIC EROSION CONTROL ITEM - PREFABRICATED CONCRETE WASHOUT	2	EA

VHB Engineering NC, P.C. (C-3705)
940 Main Campus Drive, Suite 500
Raleigh, NC 27606

DRAWN BY : J.R. HOPSON DATE : 6/2025
CHECKED BY : K. FISCHER DATE : 6/2025
DESIGN ENGINEER OF RECORD: _____ DATE : _____

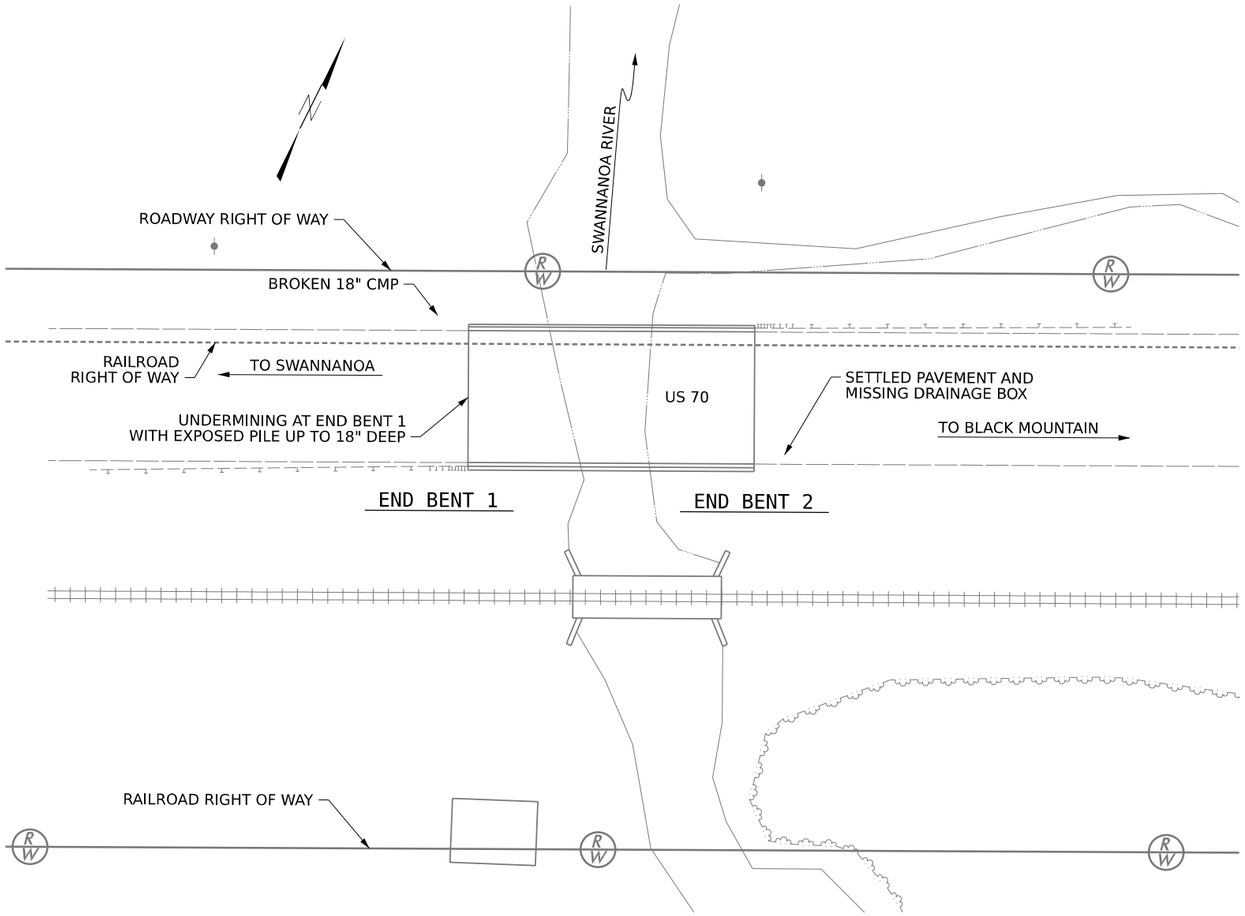
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dhinnant

PROJECT NO. 18313.1011139.PR
BUNCOMBE COUNTY
STATION: _____

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

REPAIRS FOR BRIDGE 100258 ON US 70 OVER SWANNANOA RIVER

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	EC1-1
1			3			TOTAL SHEETS
2			4			6





LOCATION SKETCH

SCOPE OF WORK

1. PLACE TRAFFIC IN TEMPORARY PATTERNS AS SHOWN ON THE TMP.
2. REMOVE ASPHALT AND EXCAVATE AS SHOWN AND INSTALL DRAINAGE BOX AND OUTLET PIPE.
3. BACKFILL BEHIND END BENT 2, INSTALL CURB AND GUTTER, AND REPAVE THE TRAVEL LANE AND SHOULDER AS SHOWN.
4. INSTALL FLOWABLE FILL UNDER END BENT 1 AND 2 AS SHOWN.
5. REOPEN TRAFFIC TO ORIGINAL PATTERN.

EXISTING DIMENSIONS AND BRIDGE CONDITIONS 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; THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT OF TRANSPORTATION FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN THAT SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

Line Item	Sec No.	Description	Quantity	Unit
0000820000-N	SP	RAILROAD CONTRACTOR PROTECTIVE SERVICES	15	DAY
0194000000-E	265	SELECT GRANULAR MATERIAL, CLASS III	20	CY
0196000000-E	270	GEOTEXTILE FOR SOIL STABILIZATION	90	SY
0043000000-N	226	GRADING	1	LS
0335200000-E	305	15" DRAINAGE PIPE	24	LF
0335300000-E	305	18" DRAINAGE PIPE	30	LF
1491000000-E	610	ASPHALT CONC BASE COURSE, TYPE B25.0C	9	TON
1503000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C	8	TON
1519000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	6	TON
1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	6	TON
3635000000-E	876	RIP RAP, CLASS II	40	TON
3649000000-E	876	RIP RAP, CLASS B	7	TON
2275000000-E	SP	FLOWABLE FILL	5	CY
2286000000-N	840	MASONRY DRAINAGE STRUCTURE	1	EA
2374000000-N	840	FRAME WITH GRATE & HOOD, STD 840.03, TYPE E	1	EA
2549000000-E	846	2'-6" CONCRETE CURB & GUTTER	22	LF
3345000000-E	864	REMOVE & RESET EXISTING GUARDRAIL	30	LF

VHB Engineering NC, P.C. (C-3705)
940 Main Campus Drive, Suite 500
Raleigh, NC 27606

DRAWN BY : D.B. HINNANT DATE : 5/2025
CHECKED BY : K. FISCHER DATE : 5/2025
DESIGN ENGINEER OF RECORD: K. FISCHER DATE : 2/2026

11/10/2026
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PROJECT NO. 18313.1011139.PR
BUNCOMBE COUNTY
STATION:

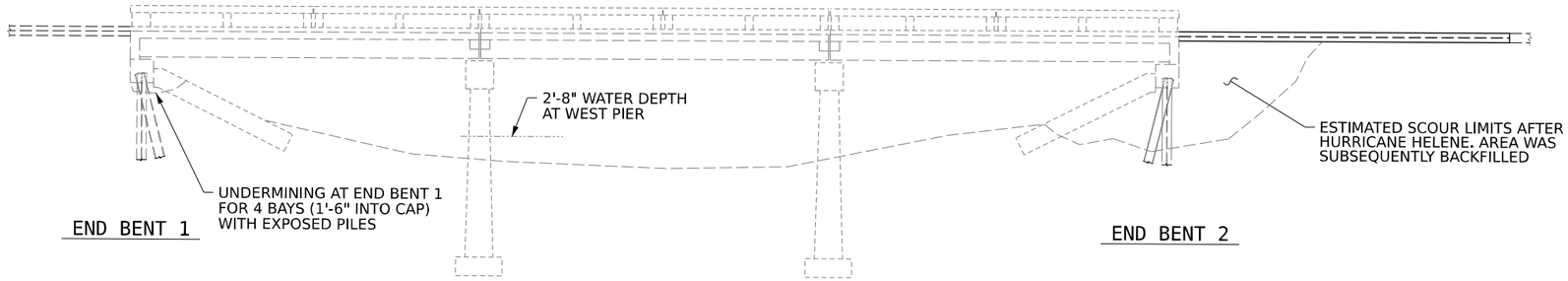
NORTH CAROLINA PROFESSIONAL SEAL 030878 ENGINEER KEVIN E. FISCHER
Kevin Fischer
11/10/2026

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

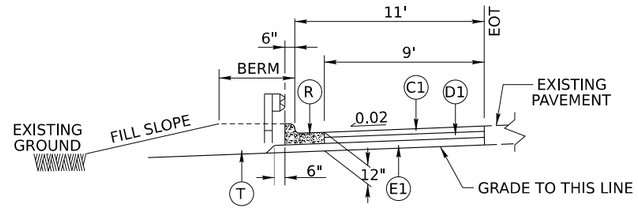
REPAIRS FOR BRIDGE 100258 ON US 70 OVER SWANNANOA RIVER

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-1
1			3			TOTAL SHEETS
2			4			6

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SECTION ALONG ℄ ROADWAY

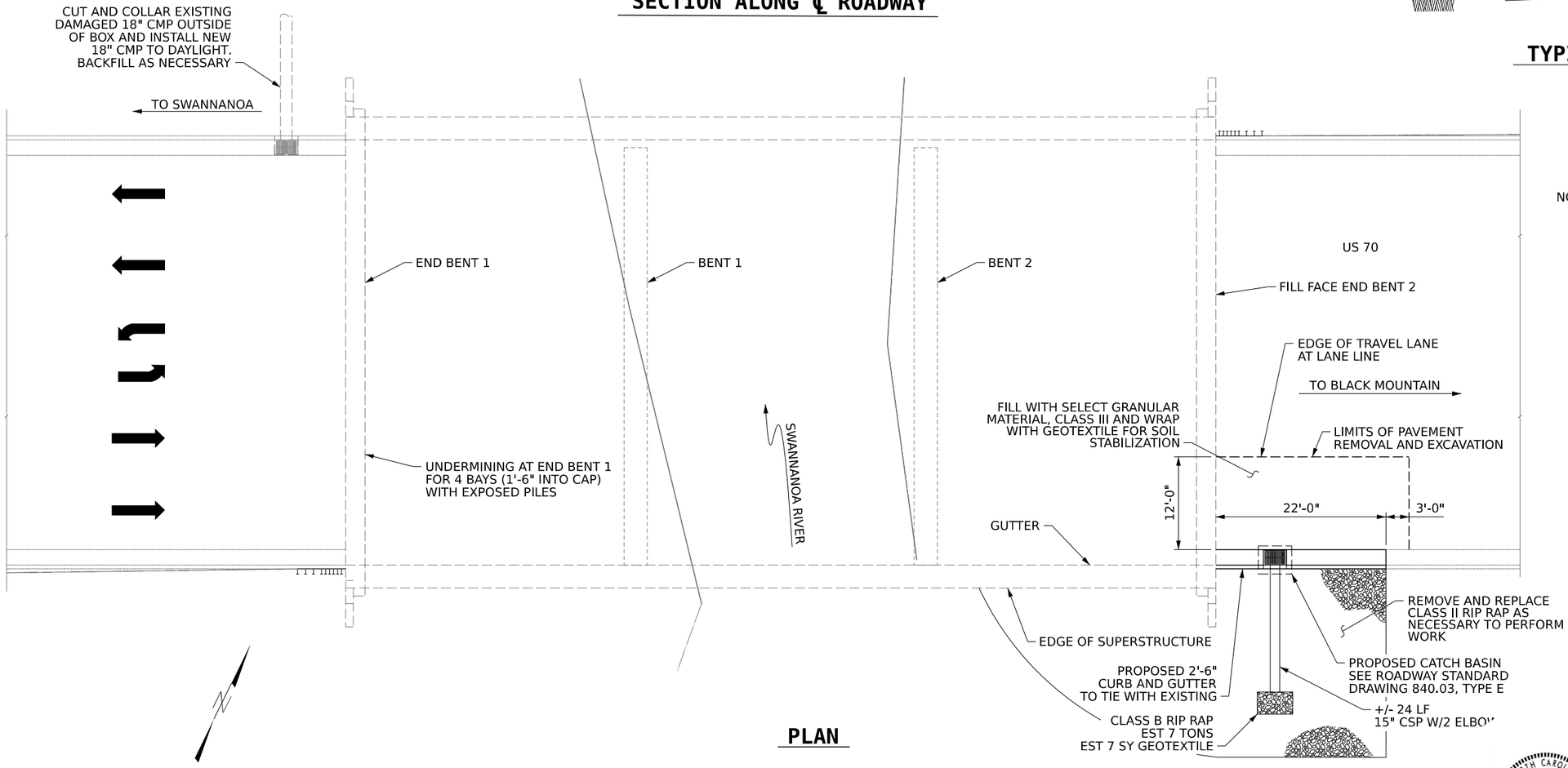


TYPICAL SECTION PAVEMENT

NOT TO SCALE

PAVEMENT SCHEDULE	
C1	3" S9.5C
D1	4" 19.OC,
E1	5" B25.OC,
R1	2'-6" CURB AND GUTTER
T	EARTH MATERIAL

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



PLAN

PROJECT NO. 18313.1011139.PR

BUNCOMBE COUNTY

STATION:

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

REPAIRS FOR BRIDGE 100258 ON US 70 OVER SWANNANOA RIVER

NORTH CAROLINA PROFESSIONAL SEAL 030878 ENGINEER K. KEVIN FISCHER

DocuSigned by: kevin Fischer 8/21/2026

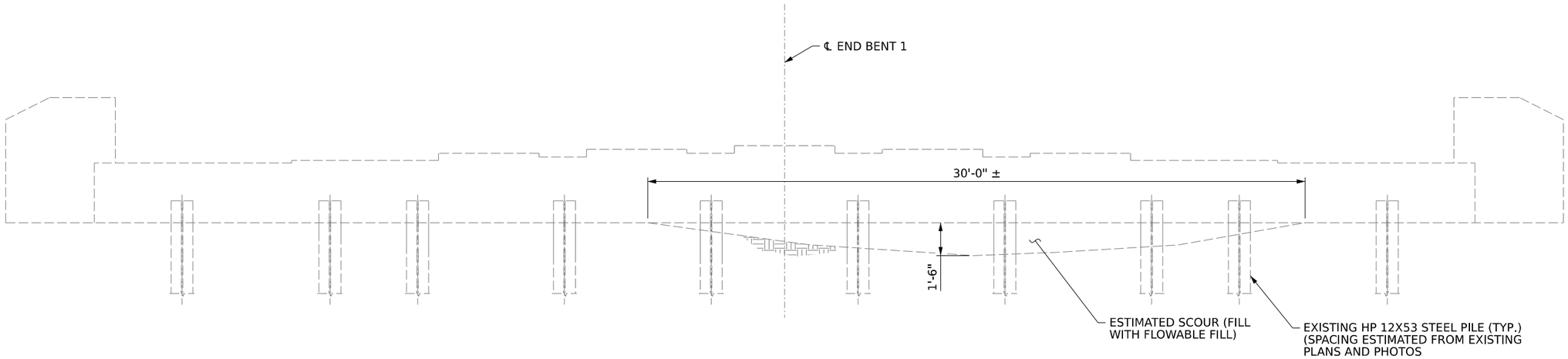
VHB Engineering NC, P.C. (C-3705)
940 Main Campus Drive, Suite 500
Raleigh, NC 27606

DRAWN BY : D.B. HINNANT DATE : 5/2025
CHECKED BY : K. FISCHER DATE : 5/2025
DESIGN ENGINEER OF RECORD: K. FISCHER DATE : 2/2026

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-2
1			3			TOTAL SHEETS
2			4			6

8/21/2026
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jeffwilson

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END BENT 1 - ELEVATION

VHB Engineering NC, P.C. (C-3705)
940 Main Campus Drive, Suite 500
Raleigh, NC 27606

DRAWN BY : D.B. HINNANT DATE : 5/2025
CHECKED BY : K. FISCHER DATE : 5/2025
DESIGN ENGINEER OF RECORD: K. FISCHER DATE : 2/2026

2/11/2026
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dhinnant

NORTH CAROLINA PROFESSIONAL SEAL 030878 ENGINEER W. KEVIN FISCHER

DocuSigned by: Kevin Fischer 339FA2D658AB4DC... 6/10/2026

PROJECT NO. 18313.1011139.PR
BUNCOMBE COUNTY
STATION:

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

REPAIRS FOR BRIDGE 100258 ON US 70 OVER SWANNANOA RIVER

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-3
1			3			TOTAL SHEETS
2			4			6

Docusign Envelope ID: B5A817BC-F176-82E8-808B-64D00FA33A42

MANAGEMENT STRATEGIES

THE FOLLOWING LISTED WORK ZONE STRATEGIES ARE RECOMMENDED FOR INCLUSION WITHIN THIS TRANSPORTATION MANAGEMENT PLAN (TMP).

RECOMMENDED STRATEGIES:

TRAFFIC MANAGEMENT STRATEGIES:
- LANE SHIFTS OR CLOSURES
- SHOULDER CLOSURES
- NIGHT WORK
- WEEKEND WORK
- WORK HOUR RESTRICTIONS FOR PEAK TRAVEL

WORK ZONE SAFETY & MOBILITY STRATEGIES:
- SEQUENTIAL LIGHTING

TRAFFIC / INCIDENT MANAGEMENT & SPEED ENFORCEMENT STRATEGIES:
- ITS FOR TRAFFIC MONITORING / MANAGEMENT (SMART WORKZONE)
- COORDINATION WITH STATE TRAFFIC OPERATIONS CENTER (STOC)

CONTRACTING & INNOVATIVE CONSTRUCTION STRATEGIES:
- INTERMEDIATE CONTRACT TIMES / LIQUIDATED DAMAGES

PHASING

MAINTAIN VEHICULAR ACCESS TO ALL RESIDENCES AND BUSINESSES DURING THE LIFE OF THE CONTRACT UNLESS OTHERWISE NOTED IN THE PHASING OR DIRECTED BY THE ENGINEER.

PHASE I

STEP 1 – CLOSE THE CENTER TURN LANE ON US 70 AND SHIFT THE EASTBOUND TRAVEL LANES INTO THE CENTER TURN LANE AND THE INSIDE TRAVEL LANE AS SHOWN ON SHEET S-5.

STEP 2 – WHILE MAINTAINING THE CENTER TURN LANE CLOSURE AND TRAFFIC SHIFT, USING RSD 1101.02, SHEET 3 OF 19 AS NEEDED, CLOSE THE OUTSIDE TRAVEL LANE ON US 70 EB IN ADVANCE OF LYTLE COVE ROAD AND MAINTAIN ONE EASTBOUND TRAVEL LANE IN THE CENTER TURN LANE AS SHOWN ON SHEET S-5. COMPLETE THE REPAIRS. SAFELY RESTORE THE WORK AREA PRIOR TO THE END OF EACH WORK PERIOD AND REOPEN THE OUTSIDE TRAVEL LANE.

STEP 3 – REMOVE THE CENTER TURN LANE CLOSURE AND TRAFFIC SHIFT AND RESTORE THE PAVEMENT MARKINGS. USING RSD 1101.02, SHEET 3 OF 19 AS NEEDED, CLOSE THE OUTSIDE TRAVEL LANE ON US 70 WB ON THE BRIDGE TO COMPLETE THE PIPE REPAIR.

STEP 4 – REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES AND OPEN ALL LANES TO TRAFFIC.

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.
THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

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

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
US 70	6:00 A.M. TO 9:00 A.M. AND 4:00 P.M. TO 7:00 P.M. MONDAY THRU FRIDAY

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME
US 70

HOLIDAY
1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st TO 7:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00 P.M. THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
9. FOR LEAF SEASON, BETWEEN THE HOURS OF 6:00 A.M. AND 7:00 P.M. EACH DAY FOR THE FIRST THREE WEEKS IN OCTOBER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

A) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.

B) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

C) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 5 FT OF AN OPEN TRAVEL LANE ON AN UNDIVIDED FACILITY, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 10 FT OF AN OPEN TRAVEL LANE ON A DIVIDED FACILITY, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

E) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

F) USE SEQUENTIAL FLASHING WARNING LIGHTS ON DRUMS USED FOR THE MERGING TAPERS OF NIGHTTIME LANE CLOSURES IN ACCORDANCE WITH SECTION 1140 IN THE STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.

G) NOTIFY THE NCDOT STATEWIDE TRANSPORTATION OPERATIONS CENTER (STOC) AT 877-627-7862 APPROXIMATELY 30 MINUTES PRIOR TO INSTALLING AND WITHIN 15 MINUTES AFTER REMOVING LANE CLOSURES ON INTERSTATES, FREEWAYS, CONTROLLED ACCESS FACILITIES, AND US ROUTES.

PAVEMENT EDGE DROP OFF REQUIREMENTS

H) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

I) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

J) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

K) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

L) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC CONTROL DEVICES

M) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

N) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

PAVEMENT MARKINGS AND MARKERS

O) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
US 70	TEMPORARY TAPE	TEMPORARY RAISED

P) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

Q) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

VHB Engineering NC, P.C. (C-3705)
940 Main Campus Drive, Suite 500
Raleigh, NC 27606

DRAWN BY : J. TOWNSEND DATE : 6/B02B25
CHECKED BY : K. FISCHER DATE : 6/B02B25
DESIGN ENGINEER OF RECORD: J. TOWNSEND DATE : 2/2026

NORTH CAROLINA PROFESSIONAL SEAL 031533 ENGINEER JOHN G. TOWNSEND

DocuSigned by: John Townsend 6/10/2026
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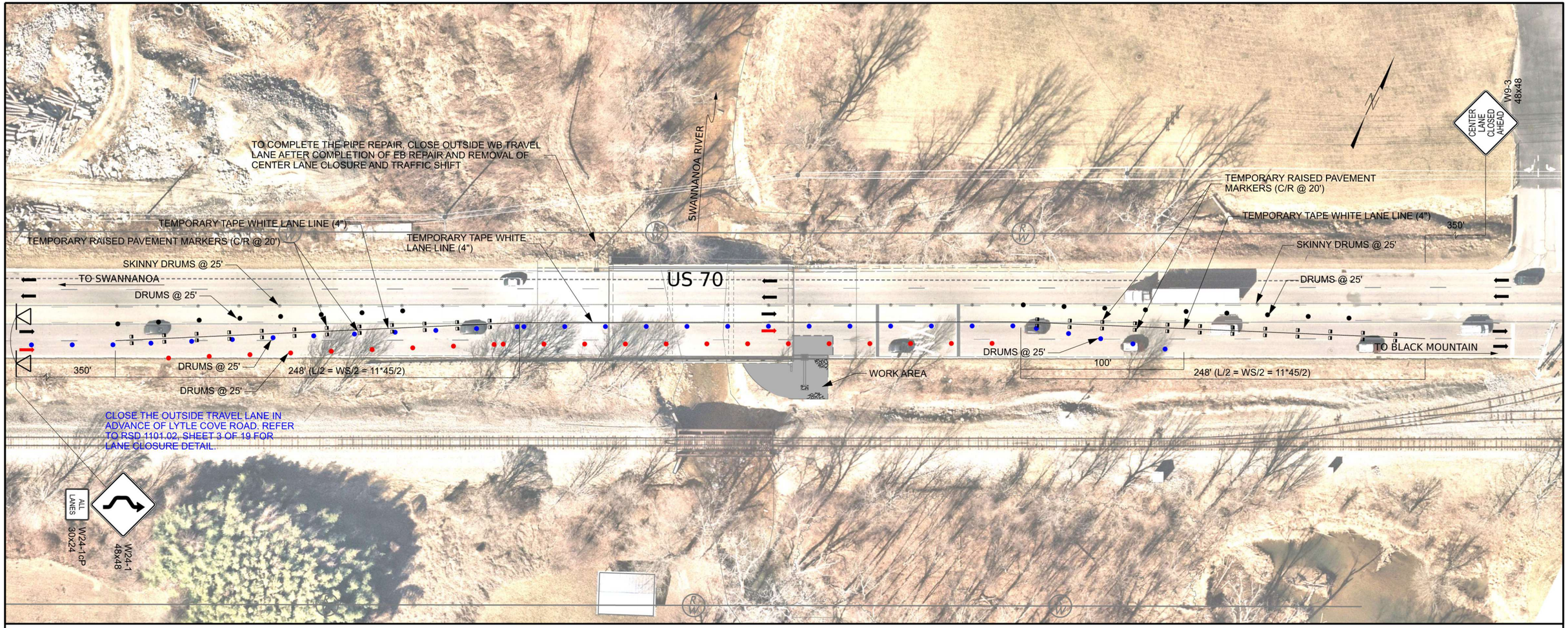
PROJECT NO. 18313.1011139.PR
BUNCOMBE COUNTY
STATION:

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

REPAIRS FOR BRIDGE 100258 ON US 70 OVER SWANNANOA RIVER

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

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SCOPE OF WORK

- CLOSE THE CENTER TURN LANE AND SHIFT THE EASTBOUND TRAVEL LANES INTO THE CENTER TURN LANE AND INSIDE TRAVEL LANE (RED).
- WHILE MAINTINING THE CENTER TURN LANE CLOSURE AND TRAFFIC SHIFT, TEMPORARILY CLOSE THE OUTSIDE EASTBOUND TRAVEL LANE TO COMPLETE THE REPAIRS (BLUE). SAFELY RESTORE THE WORK AREA PRIOR TO THE END OF EACH WORK PERIOD AND REOPEN THE OUTSIDE TRAVEL LANE.
- REMOVE THE CENTER TURN LANE CLOSURE AND TRAFFIC SHIFT. CLOSE THE OUTSIDE WESTBOUND TRAVEL LANE TO COMPLETE THE PIPE REPAIR ON THE NORTHWEST SIDE OF THE BRIDGE.
- REMOVE ALL TEMPRORARY TRAFFIC CONTROL DEVICES AND OPEN ALL LANES TO TRAFFIC.

Pay Item No.	Sec No.	Description	Quantity	Unit
4402000000-E	SP	HIGH VISIBILITY STATIONARY SIGNS	128	SF
4407000000-E	SP	HIGH VISIBILITY PORTABLE SIGNS	176	SF
4415000000-N	1115	FLASHING ARROW BOARD	1	EA
4420000000-N	1120	PORTABLE CHANGEABLE MESSAGE SIGN	1	EA
4432000000-N	SP	HIGH VISIBILITY DRUMS	65	EA
4432000000-N	SP	HIGH VISIBILITY SKINNY DRUMS	55	EA
4434000000-N	1140	SEQUENTIAL FLASHING WARNING LIGHTS	20	EA
4480000000-N	1165	TMA	1	EA
4600000000-N	SP	GENERIC TRAFFIC CONTROL ITEM - CONNECTED LANE CLOSURE SYSTEM	1	EA
4650000000-N	1251	TEMPORARY RAISED PAVEMENT MARKERS	50	EA
4770000000-E	1205	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE 4 (4")	805	LF

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DRAWN BY : J. TOWNSEND DATE : 6/2025
CHECKED BY : K. FISCHER DATE : 6/2025
DESIGN ENGINEER OF RECORD: J. TOWNSEND DATE : 2/2026

NORTH CAROLINA PROFESSIONAL SEAL 031533 ENGINEER JOHN G. TOWNSEND
DocuSigned by: John Townsend 6/10/2026
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PROJECT NO. 18313.1011139.PR
BUNCOMBE COUNTY
STATION:

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

REPAIRS FOR BRIDGE 100258 ON US 70 OVER SWANNANOA RIVER

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TC1-2
1			3			TOTAL SHEETS
2			4			6

Docusign Envelope ID: 5B5E3861-CBEE-8D54-8165-A3006CF990FA

09/08/99

CONTRACT: DM00538 BRIDGE PROJECT: 18313.1011225.PR

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

BUNCOMBE COUNTY

LOCATION: *REPAIR BRIDGE #100504 ON I-240 EBL OVER US 74/I-240 RAMP*

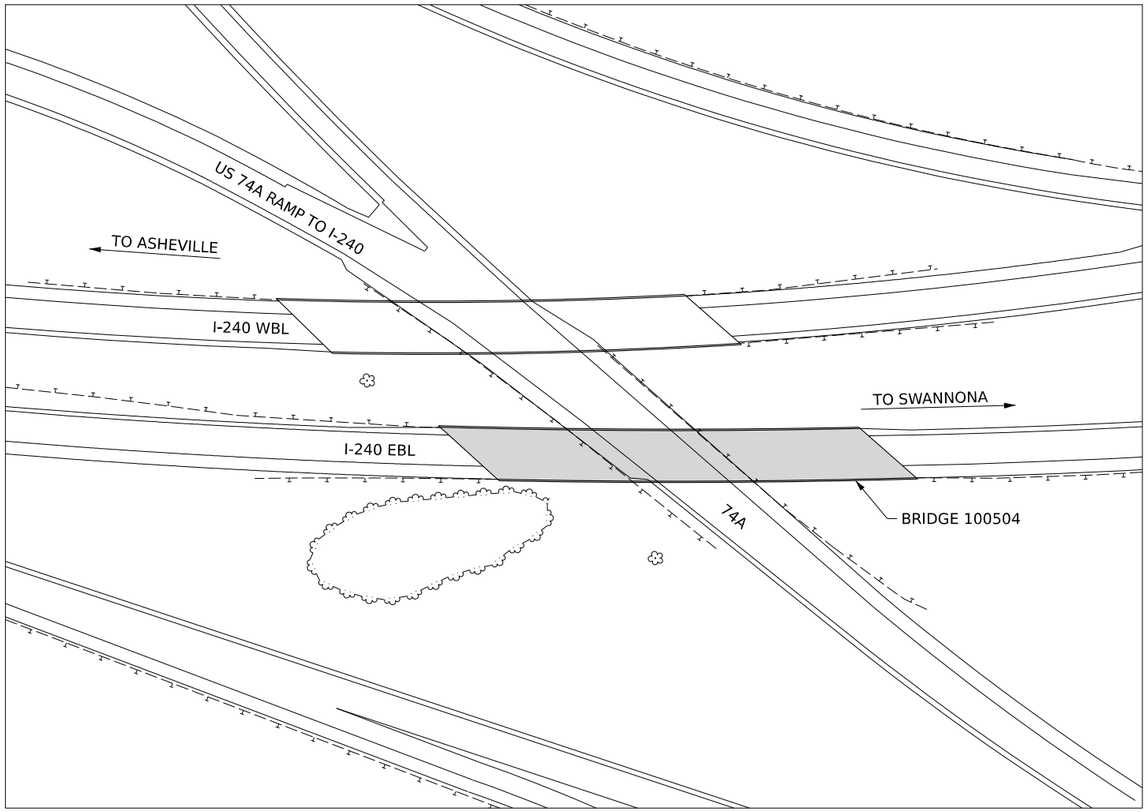
TYPE OF WORK: *STRUCTURE REPAIRS*

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	188313.1011225.PR		
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
18313.1011225.PR	N/A	CONSTRUCTION	



VICINITY MAP (NTS)







DESIGN DATA

ADT 2020 = 23500

V = 70 MPH
* TTST = DUAL
FUNC CLASS =
URBAN PRINCIPAL
ARTERIAL - INTERSTATE

PROJECT LENGTH

PROJECT LENGTHS FOR BRIDGE PROJECT 18313.1011225.PR:

TOTAL LENGTH PROJECT 18313.1011139.PR = 0.095 MILES

NCDOT Contact: JOEL M. DAVIS

Prepared in the Office of: VHB Engineering NC, P.E. (C-3705) 940 Main Campus Drive, Suite 500 Raleigh, NC 27606

2024 STANDARD SPECIFICATIONS

CHIRAG PATEL, PE
PROJECT ENGINEER

LETTING DATE:
DECEMBER 2, 2026

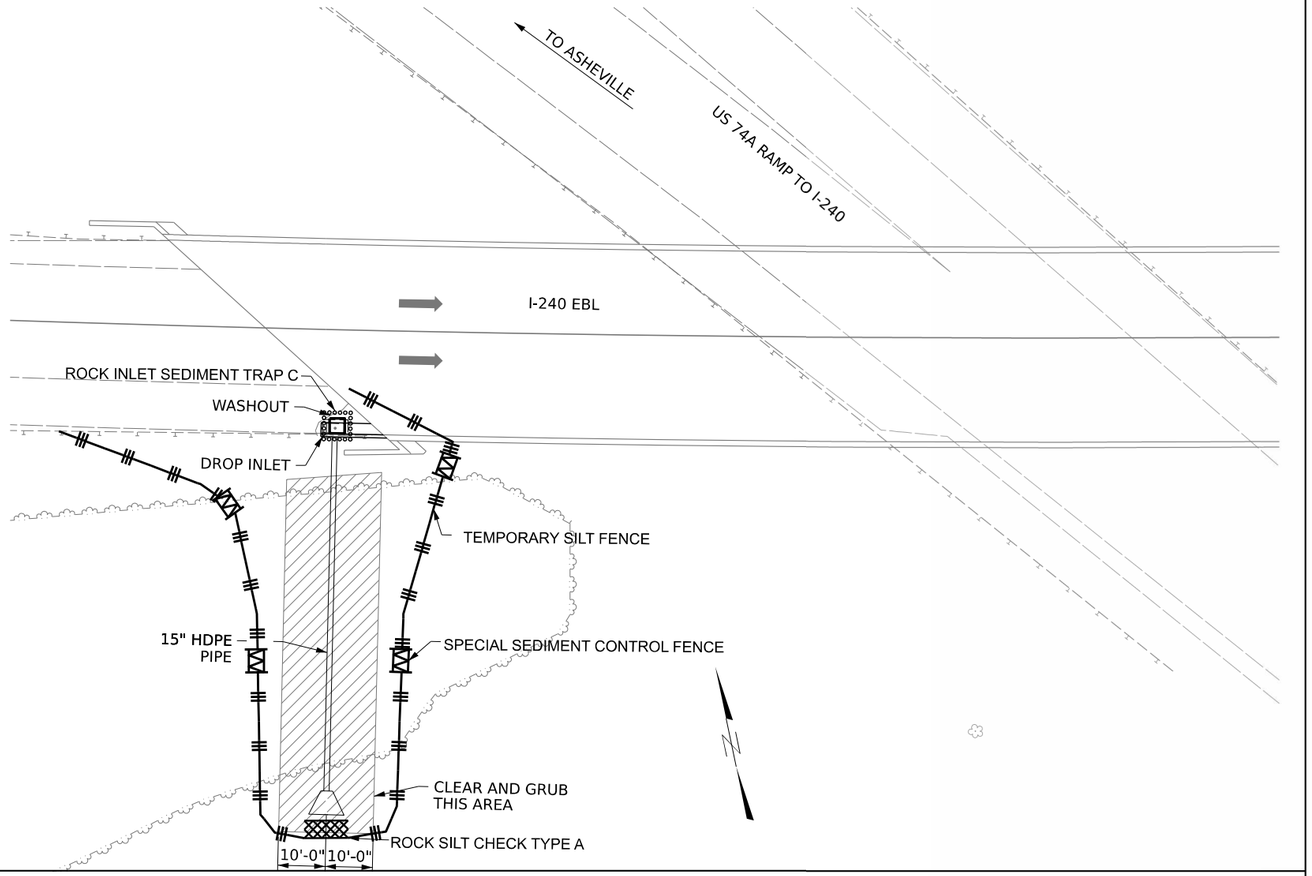
STRUCTURES ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 030878 ENGINEER W. KEVIN FISCHER

DocuSigned by: Kevin Fischer 339FA2D658AB4DC... 9/25/2026

W. KEVIN FISCHER, PE
SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •





EROSION CONTROL SKETCH

EC NOTES

- EROSION CONTROL SKETCH WAS NOT BASED ON ACTUAL SURVEY. CONTRACTOR TO FIELD VERIFY PLACEMENT OF PROPOSED EROSION CONTROL DEVICES AND QUNATITIES REQUIRED FOR THIS PROJECT.

Line Item	Description	Quantity	Unit
3656000000-E	GEOTEXTILE FOR DRAINAGE	120	SY
6000000000-E	TEMPORARY SILT FENCE	325	LF
6006000000-E	EROSION CONTROL STONE, CLASS A	35	TON
6009000000-E	EROSION CONTROL STONE, CLASS B	10	TON
6012000000-E	SEDIMENT CONTROL STONE	25	TON
6015000000-E	TEMPORARY MULCHING	0.5	ACR
6018000000-E	SEED FOR TEMPORARY SEEDING	100	LB
6021000000-E	FERTILIZER FOR TEMPORARY SEEDING	0.5	TON
6024000000-E	TEMPORARY SLOPE DRAINS	200	LF
6029000000-E	SAFETY FENCE	60	LF
6030000000-E	SILT EXCAVATION	20	CY
6036000000-E	MATTING FOR EROSION CONTROL	1,000	SY
6042000000-E	1/4" HARDWARE CLOTH	100	LF
6084000000-E	SEEDING AND MULCHING	0.5	ACR
6087000000-E	MOWING	0.5	ACR
6090000000-E	SEED FOR REPAIR SEEDING	50	LB
6093000000-E	FERTILIZER FOR REPAIR SEEDING	0.25	TON
6096000000-E	SEED FOR SUPPLEMENTAL SEEDING	50	LB
6108000000-E	FERTILIZER TOPDRESSING	0.25	TON
6114500000-N	SPECIALIZED HAND MOWING	10	MHR
6114800000-N	MANUAL LITTER REMOVAL	1	MHR
6114900000-E	LITTER DISPOSAL	1	TON
6117000000-N	RESPONSE FOR EROSION CONTROL	13	EA
6117500000-N	CONCRETE WASHOUT STRUCTURE	1	EA
6132000000-N	GENERIC EROSION CONTROL ITEM - PREFABRICATED CONCRETE WASHOUT	2	EA

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Raleigh, NC 27606

DRAWN BY : I. HUNAG DATE : 6/2025
CHECKED BY : B. BARHAM DATE : 6/2025
DESIGN ENGINEER OF RECORD: _____ DATE : _____

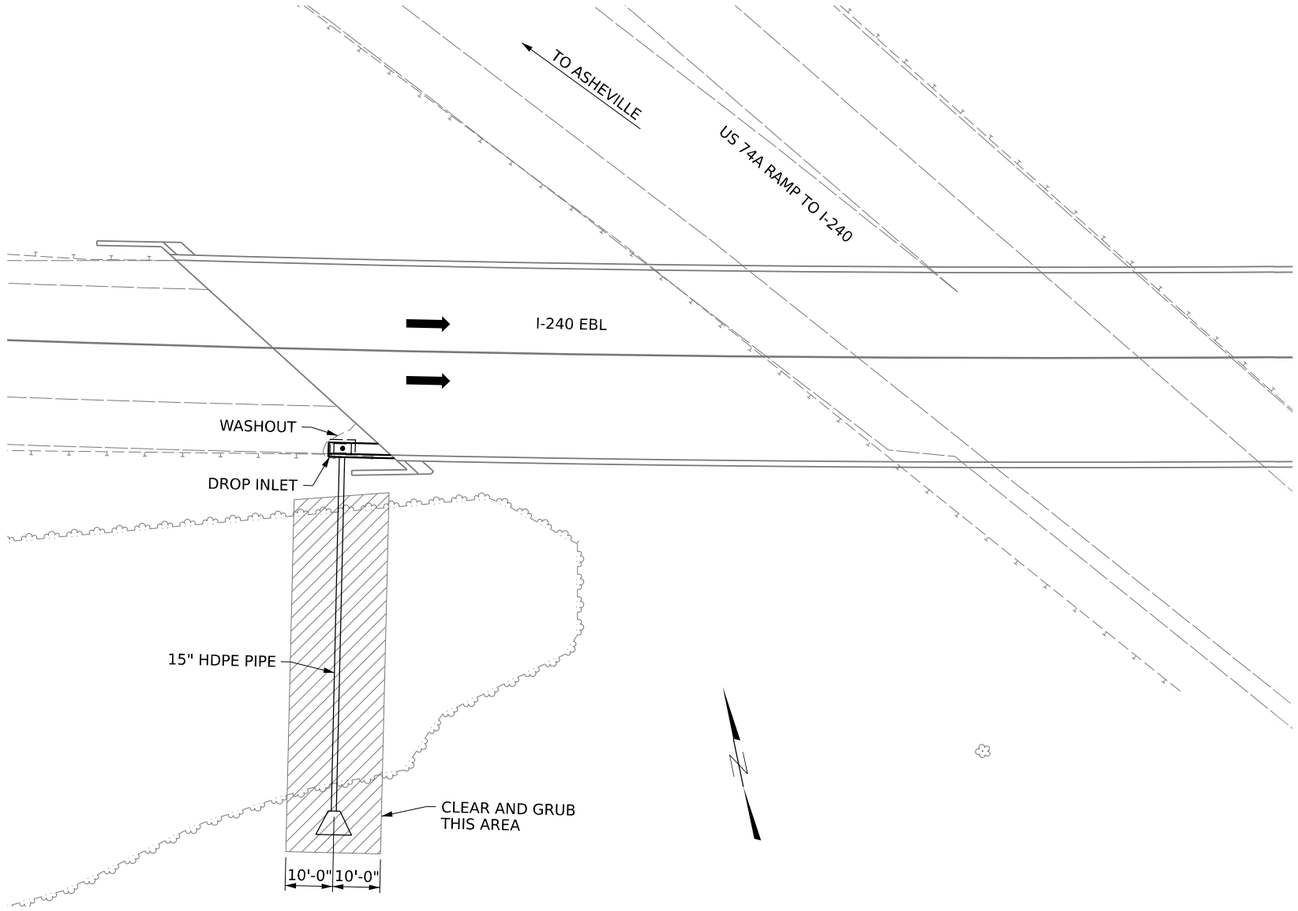
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jeffwilson

PROJECT NO. 18313.1011225.PR
BUNCOMBE COUNTY
STATION: _____

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

REPAIRS FOR BRIDGE 100504 ON I-240 EBL OVER US 74/I-240 RAMP

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	EC2-1
1			3			TOTAL SHEETS
2			4			5





LOCATION SKETCH

SCOPE OF WORK

- PLACE TEMPORARY TRAFFIC BARRIER AS NECESSARY TO PERFORM THE WORK IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS SHEETS 4 AND 5.
- REMOVE TEMPORARY RIP RAP, ASPHALT, GUARDRAIL AND EXCAVATE TO THE LIMITS SHOWN.
- CLEAR AND GRUB PIPE LOCATION AS SHOWN ON THE LOCATION SKETCH.
- INSTALL DRAINAGE BASIN, DISCHARGE PIPE, AND CONNECT TO DRAINAGE SYSTEM BEHIND THE END BENT.
- INSTALL TYPE I BACKFILL BEHIND ABUTMENT IN SHOULDER.
- INSTALL SHOULDER BERM GUTTER, REINSTALL GUARDRAIL, AND REPAVE SHOULDER.
- REMOVE TEMPORARY TRAFFIC BARRIER.

Line Item	Sec No.	Description	Quantity	Unit
0194000000-E	265	SELECT GRANULAR MATERIAL, CLASS III	40	CY
0196000000-E	270	GEOTEXTILE FOR SOIL STABILIZATION	70	SY
0043000000-N	226	GRADING	1	LS
0335200000-E	305	15 " DRAINAGE PIPE	70	LF
1491000000-E	610	ASPHALT CONC BASE COURSE, TYPE B25.0C	6	TON
1503000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C	5	TON
1519000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	4	TON
1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	5	TON
2077000000-E	815	6" PERFORATED SUBDRAIN PIPE	15	LF
2275000000-E	SP	FLOWABLE FILL	1	CY
2286000000-N	840	MASONRY DRAINAGE STRUCTURE	1	EA
2355000000-N	840	FRAME WITH GRATE, STD 840.29	1	EA
2556000000-E	846	SHOULDER BERM GUTTER	14	LF
3345000000-E	864	REMOVE & RESET EXISTING GUARDRAIL	50	LF

EXISTING DIMENSIONS AND BRIDGE CONDITIONS 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; THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT OF TRANSPORTATION FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN THAT SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

vhb
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Raleigh, NC 27606

DRAWN BY : D.B. HINNANT DATE : 6/2025
CHECKED BY : K. FISCHER DATE : 6/2025
DESIGN ENGINEER OF RECORD: K. FISCHER DATE : 2/2026

11/10/2026
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NORTH CAROLINA PROFESSIONAL SEAL 030878 ENGINEER KEVIN FISCHER
Signed by: Kevin Fischer
11/10/2026

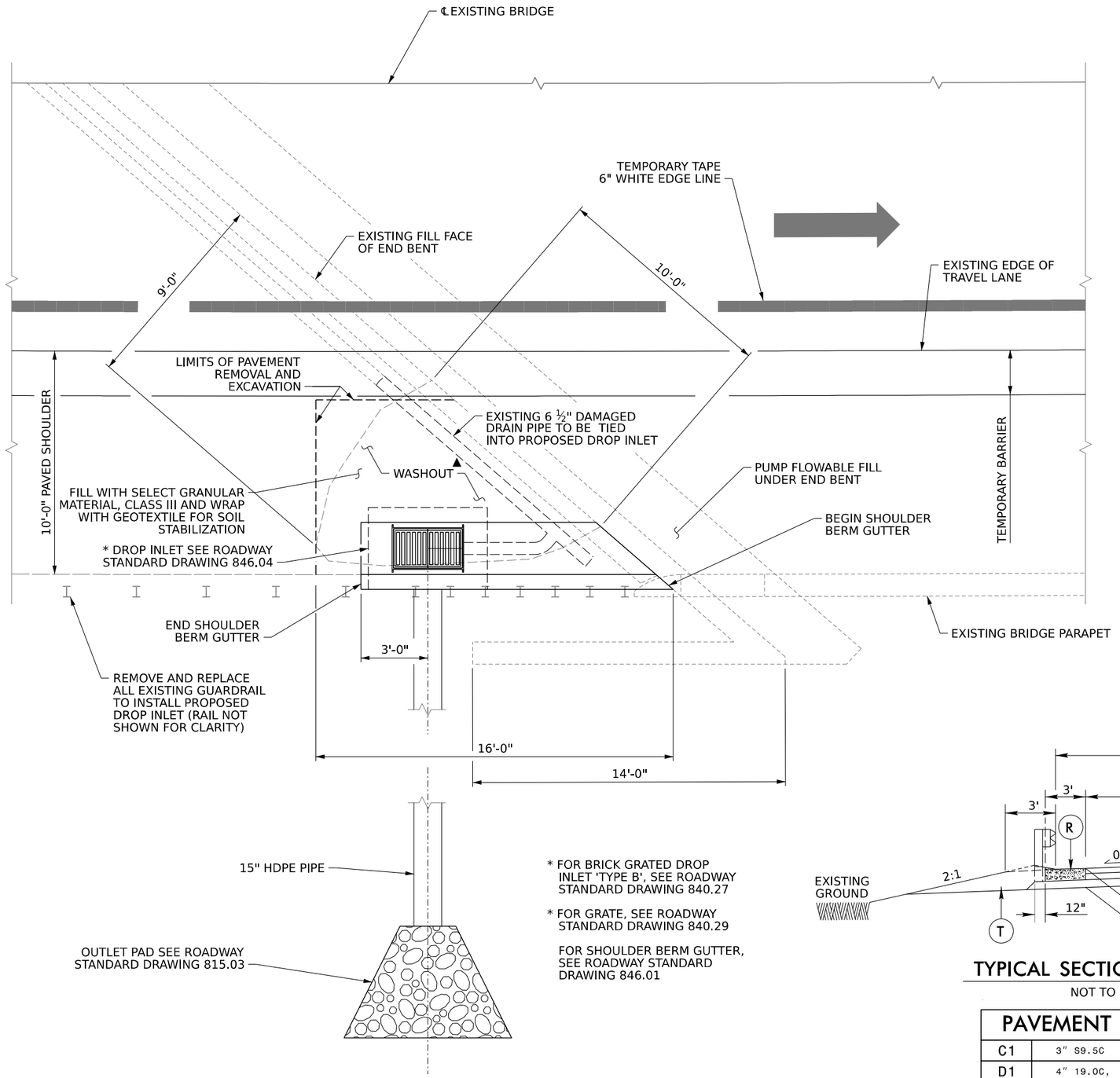
PROJECT NO. 18313.1011225.PR
BUNCOMBE COUNTY
STATION:

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

REPAIRS FOR BRIDGE 100504 ON I-240 EBL OVER US 74/I-240 RAMP

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S2-1
1			3			TOTAL SHEETS
2			4			5

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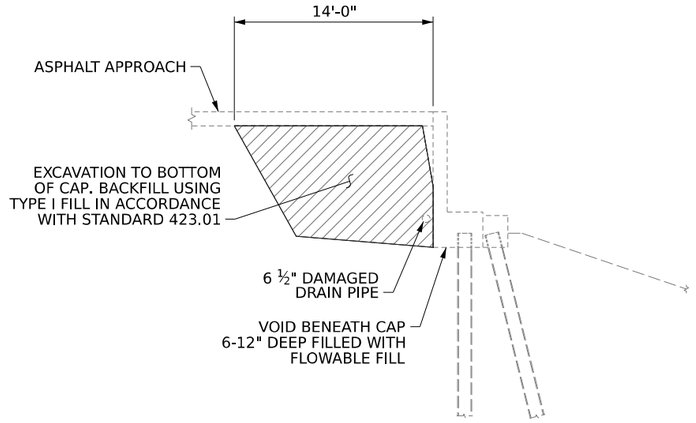
* FOR BRICK GRATED DROP INLET 'TYPE B', SEE ROADWAY STANDARD DRAWING 840.27

* FOR GRATE, SEE ROADWAY STANDARD DRAWING 840.29

FOR SHOULDER BERM GUTTER, SEE ROADWAY STANDARD DRAWING 846.01

PLAN

SCALE: ⅜" = 1'-0"



SECTION

SCALE: 3/16" = 1'-0"

▲ THE LIMITS OF THE WASHOUT WERE MEASURED NOVEMBER 26, 2025 PRIOR TO BACKFILLING. THE HOLE HAS NOW BEEN FILLED WITH COMPACTED STONE AND RIP RAP PLACED ON TOP. SIGNS OF CONTINUED EROSION ARE EVIDENT PRIOR TO LETTING AND THE CONTRACTOR SHOULD BE AWARE THAT ADDITIONAL EROSION BEYOND THESE MEASUREMENTS SHALL BE REPAIRED DURING CONSTRUCTION.

TYPICAL SECTION PAVEMENT

NOT TO SCALE

PAVEMENT SCHEDULE	
C1	3" S9.5C
D1	4" 19.0C,
E1	5" B25.0C,
R	SHOULDER BERM GUTTER
T	EARTH MATERIAL

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

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Raleigh, NC 27606

DRAWN BY : D.B. HINNANT DATE : 6/2025
CHECKED BY : K. FISCHER DATE : 6/2025
DESIGN ENGINEER OF RECORD: K. FISCHER DATE : 2/2026

8/21/2026
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jeffwilson

NORTH CAROLINA PROFESSIONAL SEAL 030878 ENGINEER K. KEVIN FISCHER
DocuSigned by: Kevin Fischer 339FA2D658AB4DC...
8/21/2026

PROJECT NO. 18313.1011225.PR
BUNCOMBE COUNTY
STATION:

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

REPAIRS FOR BRIDGE 100504 ON I-240 EBL OVER US 74/I-240 RAMP

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S2-2
1			3			TOTAL SHEETS
2			4			5

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MANAGEMENT STRATEGIES

THE FOLLOWING LISTED WORK ZONE STRATEGIES ARE RECOMMENDED FOR INCLUSION WITHIN THIS TRANSPORTATION MANAGEMENT PLAN (TMP).

RECOMMENDED STRATEGIES:

TRAFFIC MANAGEMENT STRATEGIES:
- LANE SHIFTS OR CLOSURES
- SHOULDER CLOSURES
- NIGHT WORK
- WEEKEND WORK
- WORK HOUR RESTRICTIONS FOR PEAK TRAVEL

WORK ZONE SAFETY & MOBILITY STRATEGIES:
- SEQUENTIAL LIGHTING
- PRESENCE LIGHTING

TRAFFIC / INCIDENT MANAGEMENT & SPEED ENFORCEMENT STRATEGIES:
- ITS FOR TRAFFIC MONITORING / MANAGEMENT (SMART WORKZONE)
- COORDINATION WITH STATE TRAFFIC OPERATIONS CENTER (STOC)

CONTRACTING & INNOVATIVE CONSTRUCTION STRATEGIES:
- INTERMEDIATE CONTRACT TIMES / LIQUIDATED DAMAGES

PHASING

MAINTAIN VEHICULAR ACCESS TO ALL RESIDENCES AND BUSINESSES DURING THE LIFE OF THE CONTRACT UNLESS OTHERWISE NOTED IN THE PHASING OR DIRECTED BY THE ENGINEER.

PHASE I

STEP 1 – USING RSD 1101.02, SHEET 3 OF 19 AS NEEDED, CLOSE THE INSIDE TRAVEL LANE ON I-240 EB IN ADVANCE OF THE EXIT 8 ON RAMP FROM US 74-A (FAIRVIEW ROAD) AND THEN SHIFT THE I-240 EB TRAVEL LANE FROM THE OUTSIDE STARTING AT THE GORE OF THE EXIT 9 OFF RAMP TO I-40 WEST TO THE INSIDE PRIOR TO THE WORK AREA. INSTALL TEMPORARY PORTABLE CONCRETE BARRIER WITH DRAINAGE SLOTS AND CRASH CUSHION AND TEMPORARY PAVEMENT MARKINGS AS SHOWN ON SHEET S-4 TO CLOSE THE OUTSIDE SHOULDER ON I-240 EB IN ACCORDANCE WITH RSD 1101.04, SHEET 1 OF 2.

STEP 2 – AWAY FROM TRAFFIC AND BEHIND BARRIER, REMOVE ASPHALT AND GUARDRAIL AND EXCAVATE TO THE LIMITS SHOWN IN THE PLANS. INSTALL DRAINAGE BASIN, DISCHARGE PIPE, AND CONNECT TO DRAINAGE SYSTEM BEHIND THE END BENT. INSTALL TYPE I BACKFILL BEHIND ABUTMENT IN SHOULDER. INSTALL SHOULDER BERM GUTTER, REINSTALL GUARDRAIL, AND REPAVE SHOULDER.

STEP 3 – USING RSD 1101.02, SHEET 3 OF 19 AS NEEDED, CLOSE THE INSIDE TRAVEL LANE ON I-240 EB IN ADVANCE OF THE EXIT 8 ON RAMP FROM US 74-A (FAIRVIEW ROAD) AND THEN SHIFT THE I-240 EB TRAVEL LANE FROM THE OUTSIDE STARTING AT THE GORE OF THE EXIT 9 OFF RAMP TO I-40 WEST TO THE INSIDE PRIOR TO THE WORK AREA. REMOVE THE BARRIER AND CRASH CUSHION AND COMPLETE THE REPAIR. IF THE REPAIR CANNOT BE COMPLETED IN ONE WORK PERIOD, SAFELY RESTORE OR COVER THE AREA AND CLOSE THE SHOULDER USING DRUMS IN ACCORDANCE WITH RSD 1101.04, SHEET 1 OF 2.

STEP 4 – REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES AND MARKINGS AND OPEN ALL LANES TO TRAFFIC.

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.
THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

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

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
I-240 AND RAMPS	6:00 A.M. TO 7:00 P.M. MONDAY THRU SUNDAY

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME
I-240 AND RAMPS

HOLIDAY
1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st TO 7:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00 P.M. THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

   IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
9. FOR LEAF SEASON, BETWEEN THE HOURS OF 6:00 A.M. AND 7:00 P.M. EACH DAY FOR THE FIRST THREE WEEKS IN OCTOBER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

A) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.

B) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

C) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 5 FT OF AN OPEN TRAVEL LANE ON AN UNDIVIDED FACILITY, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 10 FT OF AN OPEN TRAVEL LANE ON A DIVIDED FACILITY, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

E) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

F) USE SEQUENTIAL FLASHING WARNING LIGHTS ON DRUMS USED FOR THE MERGING TAPERS OF NIGHTTIME LANE CLOSURES IN ACCORDANCE WITH SECTION 1140 IN THE STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.

G) NOTIFY THE NCDOT STATEWIDE TRANSPORTATION OPERATIONS CENTER (STOC) AT 877-627-7862 APPROXIMATELY 30 MINUTES PRIOR TO INSTALLING AND WITHIN 15 MINUTES AFTER REMOVING LANE CLOSURES ON INTERSTATES, FREEWAYS, CONTROLLED ACCESS FACILITIES, AND US ROUTES.

PAVEMENT EDGE DROP OFF REQUIREMENTS

H) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

I) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

J) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

K) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

L) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC BARRIER

M) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRANSPORTATION MANAGEMENT PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION PROCEED IN A CONTINUOUS MANNER TO COMPLETE THE PROPOSED WORK IN THAT LOCATION UNLESS OTHERWISE STATED IN THE TRANSPORTATION MANAGEMENT PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PERFORMED BEHIND THE TEMPORARY BARRIER FOR A PERIOD LONGER THAN TWO (2) MONTHS, REMOVE / RESET TEMPORARY BARRIER AT NO COST TO THE DEPARTMENT UNLESS OTHERWISE STATED IN THE TRANSPORTATION MANAGEMENT PLANS, TEMPORARY BARRIER IS PROTECTING A HAZARD, OR AS DIRECTED BY THE ENGINEER.

INSTALL TEMPORARY BARRIER WITH THE TRAFFIC FLOW BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE TEMPORARY BARRIER AGAINST THE TRAFFIC FLOW BEGINNING WITH THE DOWNSTREAM SIDE OF TRAFFIC.

INSTALL AND SPACE DRUMS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH) TO CLOSE OR KEEP THE SECTION OF THE ROADWAY CLOSED UNTIL THE TEMPORARY BARRIER CAN BE PLACED OR AFTER THE TEMPORARY BARRIER IS REMOVED.

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

PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER FROM ONCOMING TRAFFIC AT ALL TIMES BY A TEMPORARY CRASH CUSHION UNLESS THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER IS OFFSET FROM ONCOMING TRAFFIC AS FOLLOWS OR AS SHOWN IN THE PLANS: (SEE ALSO 1101.05)

POSTED SPEED LIMIT	MINIMUM OFFSET
40 OR LESS	15 FT
45 – 50	20 FT
55	25 FT
60 MPH or HIGHER	30 FT

TRAFFIC CONTROL DEVICES

O) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

P) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

PAVEMENT MARKINGS AND MARKERS

Q) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
I-240 EB	TEMPORARY TAPE	NONE

R) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

S) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

VHB Engineering NC, P.C. (C-3705)
940 Main Campus Drive, Suite 500
Raleigh, NC 27606

DRAWN BY : J. TOWNSEND DATE : 6/2025
CHECKED BY : K. FISCHER DATE : 6/2025
DESIGN ENGINEER OF RECORD: J. TOWNSEND DATE : 2/2026

PROJECT NO. 18313.1011225.PR
BUNCOMBE COUNTY
STATION:

NORTH CAROLINA PROFESSIONAL SEAL 031533 ENGINEER JOHN G TOWNSEND
DocuSigned by: John Townsend 6/10/2026
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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

REPAIRS FOR BRIDGE 100504 ON I-240 EBL OVER US 74/I-240 RAMP

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TC2-1
1			3			TOTAL SHEETS
2			4			5

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SCOPE OF WORK

- CLOSE THE OUTSIDE SHOULDER IN ACCORDANCE WITH RSD 1101.04, SHEET 1 OF 2.
- PLACE TEMPORARY PORTABLE CONCRETE BARRIER AS SHOWN.
- REMOVE ASPHALT, GUARDRAIL AND EXCAVATE TO THE LIMITS SHOWN.
- INSTALL DRAINAGE BASIN, DISCHARGE PIPE, AND CONNECT TO DRAINAGE SYSTEM BEHIND THE END BENT.
- INSTALL TYPE I BACKFILL BEHIND ABUTMENT IN SHOULDER.
- INSTALL SHOULDER BERM GUTTER, REINSTALL GUARDRAIL, AND REPAVE SHOULDER.

Pay Item No.	Sec No.	Description	Quantity	Unit
4402000000-E	SP	HIGH VISIBILITY STATIONARY SIGNS	128	SF
4407000000-E	SP	HIGH VISIBILITY PORTABLE SIGNS	138	SF
4415000000-N	1115	FLASHING ARROW BOARD	1	EA
4420000000-N	1120	PORTABLE CHANGEABLE MESSAGE SIGN	1	EA
4424000000-N	SP	WORK ZONE PRESENCE LIGHTING	14	EA
4432000000-N	SP	HIGH VISIBILITY DRUMS	65	EA
4465000000-N	1160	TEMPORARY CRASH CUSHIONS	1	EA
4480000000-N	1165	TMA	1	EA
4485000000-E	1170	PORTABLE CONCRETE BARRIER	465	LF
4600000000-N	SP	GENERIC TRAFFIC CONTROL ITEM - CONNECTED LANE CLOSURE SYSTEM	1	EA
4775000000-E	1205	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE 4 (6")	510	LF

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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TC2-2
1			3			TOTAL SHEETS
2			4			5