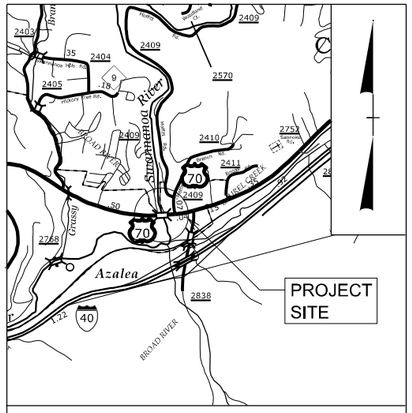
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CONTRACT: DM00530 BRIDGE PROJECT: 18313.1011127.PR



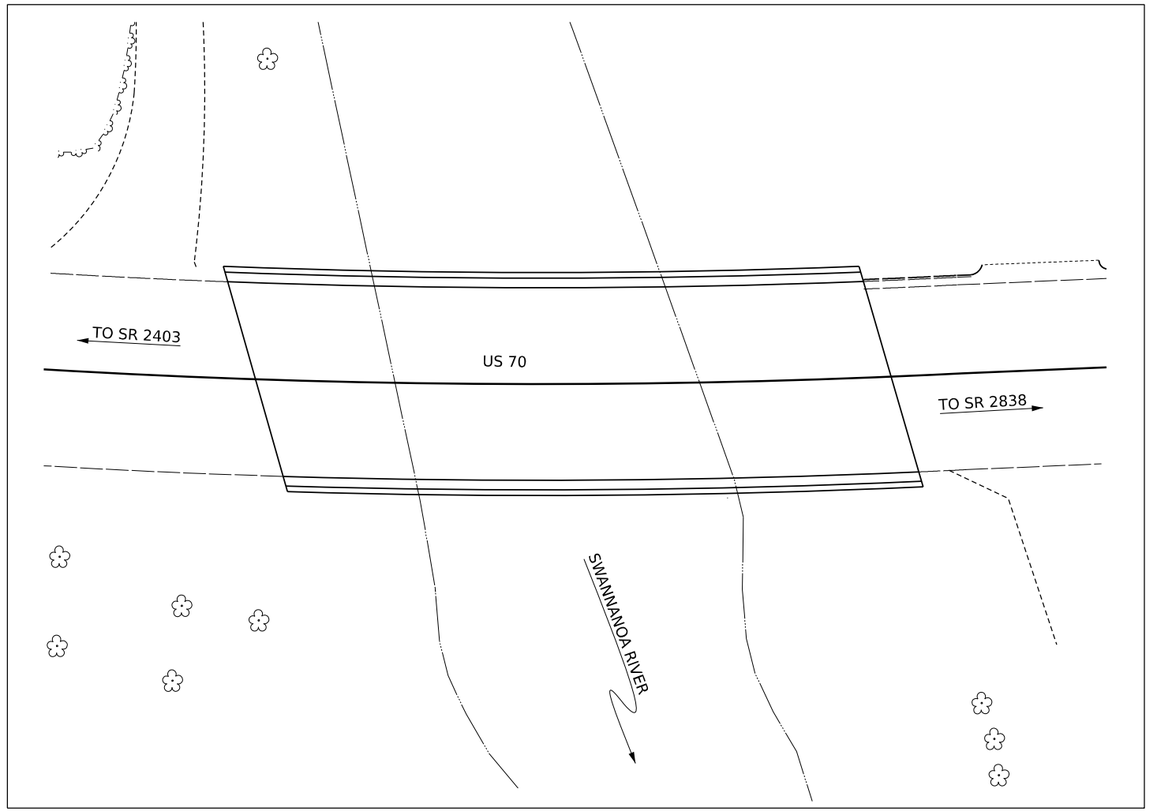
VICINITY MAP (NTS)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

BUNCOMBE COUNTY

LOCATION: *BRIDGE #100239 ON US 70 OVER SWANNANOA RIVER*

TYPE OF WORK: *GRADING, DRAINAGE, AND STRUCTURE REPAIRS*



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	18313.1011127.PR		
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
18313.1011127.PR	N/A	CONSTRUCTION	





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DESIGN DATA

ADT 2022 = 16000
ADT 2040 = 32000

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

PROJECT LENGTH

PROJECT LENGTHS FOR BRIDGE PROJECT 18313.1011127.PR:

TOTAL LENGTH PROJECT 18313.1011127.PR = 0.032 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

LETTING DATE:
DECEMBER 2, 2026

W. KEVIN FISCHER, PE
PROJECT ENGINEER

STRUCTURES ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 040384 ENGINEER JEFFREY C. WILSON

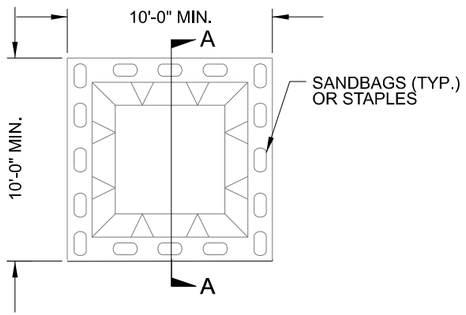
Signed by: Jeffrey C. Wilson 11/5/2026
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JEFFREY C. WILSON, PE
SIGNATURE

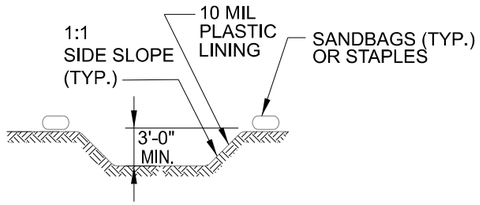
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ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



PLAN



SECTION A-A



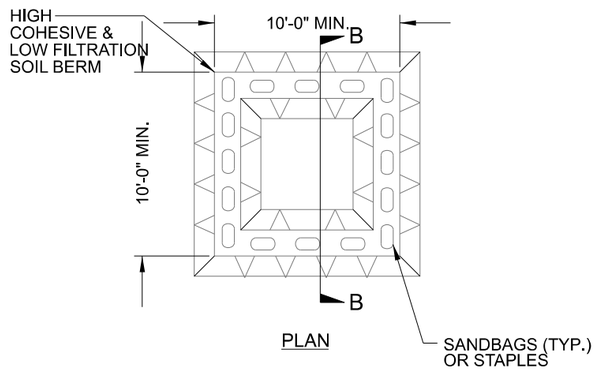
NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.

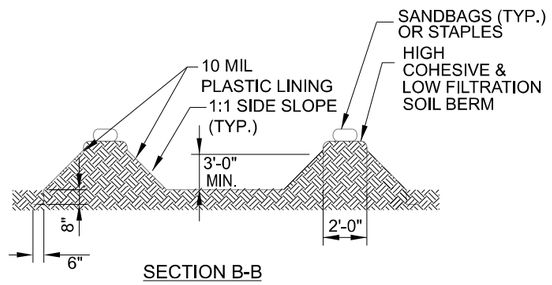
3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

BELOW GRADE WASHOUT STRUCTURE

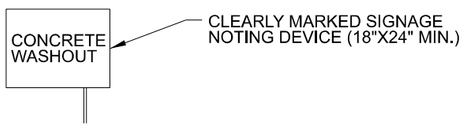
NOT TO SCALE



PLAN



SECTION B-B



NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.

3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

ABOVE GRADE WASHOUT STRUCTURE

NOT TO SCALE

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

DRAWN BY : LUCY GRINDSTAFF DATE : 8/2026
CHECKED BY : J.R. HOPSON, PE DATE : 8/2026
DESIGN ENGINEER OF RECORD: _____ DATE : _____

8/12/2026
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dhinnant

PROJECT NO. 18313.1011127.PR
BUNCOMBE COUNTY
STATION: _____

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

REPAIRS FOR BRIDGE 100239 ON US 70 OVER SWANNANOA RIVER

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

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DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 TO 4:1	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH WITH SLOPES STEEPER THAN 4:1. 7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES

PROJECT NO. **18313.1011127.PR**

BUNCOMBE COUNTY

STATION: _____

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

REPAIRS FOR BRIDGE 100239 ON US 70 OVER SWANNANOA RIVER

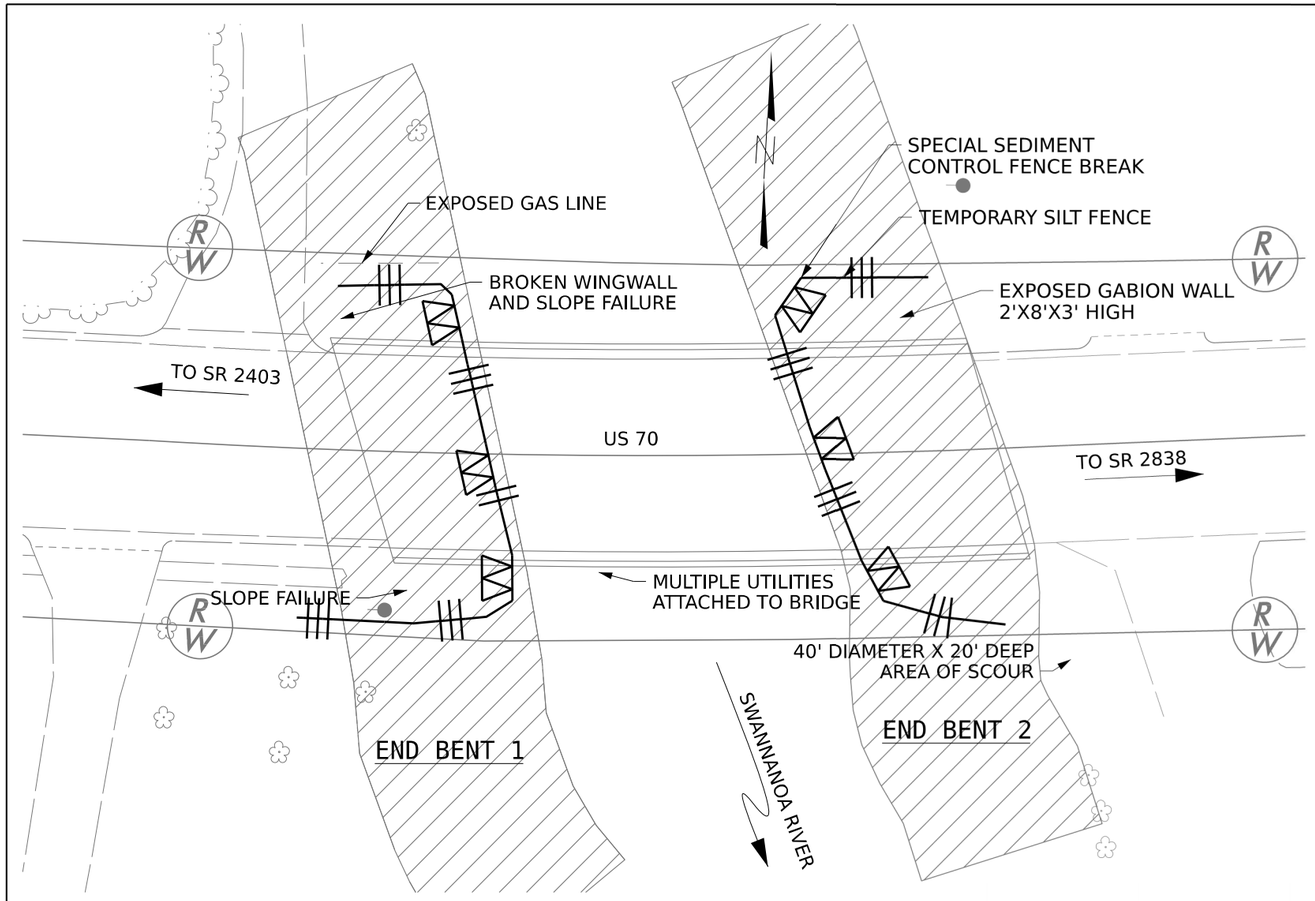
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EROSION CONTROL SKETCH

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT

Refer To E. C. Special Provisions for Special Considerations.

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.

PAY ITEM NO.	SEC. NO.	DESCRIPTION	QTY	UNIT
3656000000-E	876	GEOTEXTILE FOR DRAINAGE	190	SY
6000000000-E	1605	TEMPORARY SILT FENCE	325	LF
6006000000-E	1610	EROSION CONTROL STONE, CLASS A	65	TON
6012000000-E	1610	SEDIMENT CONTROL STONE	25	TON
6015000000-E	1615	TEMPORARY MULCHING	0.5	ACR
6018000000-E	1620	SEED FOR TEMPORARY SEEDING	100	LB
6021000000-E	1620	FERTILIZER FOR TEMPORARY SEEDING	0.5	TON
6024000000-E	1622	TEMPORARY SLOPE DRAINS	200	LF
6029000000-E	SP	SAFETY FENCE	260	LF
6036000000-E	1631	MATTING FOR EROSION CONTROL	6250	SY
6042000000-E	1632	1/4" HARDWARE CLOTH	115	LF
6084000000-E	1660	SEEDING AND MULCHING	0.5	ACR
6087000000-E	1660	MOWING	0.5	ACR
6090000000-E	1661	SEED FOR REPAIR SEEDING	50	LB
6093000000-E	1661	FERTILIZER FOR REPAIR SEEDING	0.25	TON
6096000000-E	1662	SEED FOR SUPPLEMENTAL SEEDING	50	LB
6108000000-E	1665	FERTILIZER TOPDRESSING	0.25	TON
6111000000-E	SP	IMPERVIOUS DIKE	65	LF
6114500000-N	1667	SPECIALIZED HAND MOWING	10	MHR
6117000000-N	1675	RESPONSE FOR EROSION CONTROL	13	EA
6117500000-N	SP	CONCRETE WASHOUT STRUCTURE	1	EA
6132000000-N	SP	GENERIC EROSION CONTROL ITEM - PREFABRICATED CONCRETE WASHOUT	3	EA

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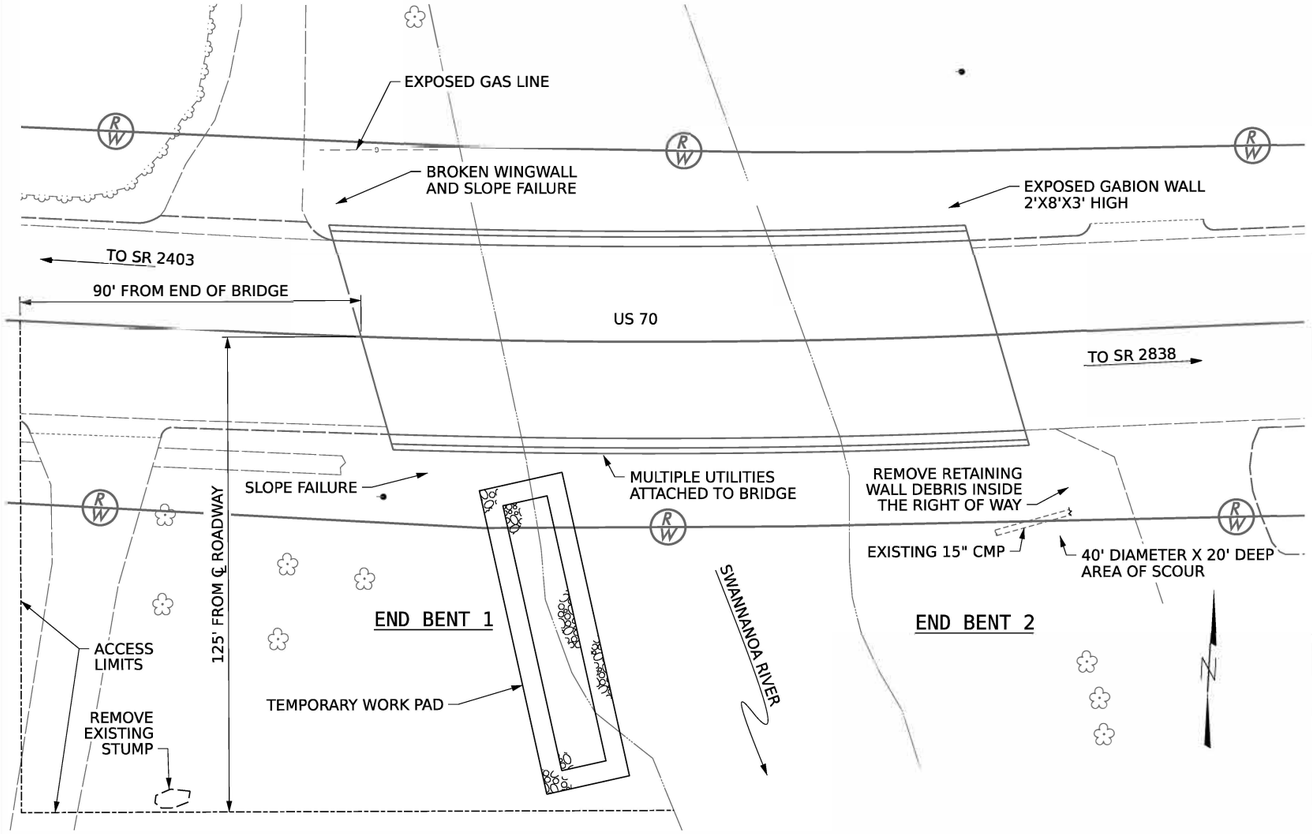
PROJECT NO. 18313.1011127.PR
BUNCOMBE COUNTY
STATION: _____

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

REPAIRS FOR BRIDGE 100239 ON US 70 OVER SWANNANOA RIVER

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

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LOCATION SKETCH



SCOPE OF WORK

- REPLACE WING AT END BENT 1 UPSTREAM SIDE.

- REMOVE RETAINING WALL DEBRIS THAT IS LOCATED INSIDE THE RIGHT OF WAY AT THE SOUTHEAST CORNER OF THE BRIDGE.

- INSPECT EXISTING 15" DIAMETER CMP ON SOUTHEAST CORNER OF BRIDGE AND REPLACE ANY FAILED PORTIONS. EXTEND EXISTING PIPE TO NEW FILL SLOPE IF NECESSARY.

- REBUILD SLOPE AND INSTALL RIP RAP AT BOTH END BENTS.

NOTES

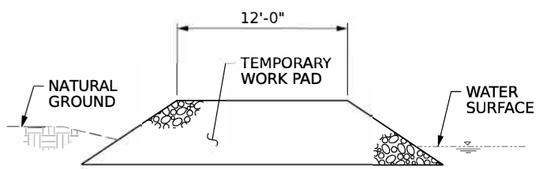
EXISTING DIMENSIONS AND BRIDGE CONDITIONS ARE FROM BEST INFORMATION AVAILABLE; THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER; THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT OF TRANSPORTATION FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN THAT SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

REMOVAL OF THE RETAINING WALL DEBRIS IN THE RIGHT OF WAY AT THE SOUTHEAST CORNER OF THE BRIDGE WILL BE PAID FOR UNDER THE UNCLASSIFIED STRUCTURE EXCAVATION PAY ITEM.

CONTRACTOR TO INSPECT EXISTING 15" CMP ON SOUTHEAST CORNER OF THE BRIGE AND REPLACE ANY FAILED PORTIONS. EXTEND PIPE TO NEW FILL SLOPE AS NECESSARY. ALL PIPE WORK WILL BE DONE UNDER 15" DRAINAGE PIPE PAY ITEM.

GRADING PAY ITEM INCLUDES ALL WORK NECESSARY TO RECONSTRUCT THE FILL SLOPES TO PRE STORM ELEVATIONS AS DIRECTED BY PLANS.

Line Item	Sec No.	Description	Quantity	Unit
0000100000-N	800	MOBILIZATION	1	LS
0043000000-N	226	GRADING	1	LS
0194000000-E	265	SELECT GRANULAR MATERIAL, CLASS III	350	CY
0335200000-E	305	15" DRAINAGE PIPE	40	LF
8017000000-N	SP	CONSTRUCTION, MAINTENANCE, & REMOVAL OF TEMPORARY ACCESS (BRIDGE 100239)	1	LS
8121000000-N	412	UNCLASSIFIED STRUCTURE EXCAVATION (BRIDGE 100239)	1	LS
8182000000-E	420	CLASS A CONCRETE (BRIDGE)	1.3	CY
8217000000-E	425	REINFORCING STEEL (BRIDGE)	103	LB
8608000000-E	876	RIP RAP II (2'-0")	1060	TON
8622000000-E	876	GEOTEXTILE FOR DRAINAGE	1180	SY



TEMPORARY WORK PAD DETAIL

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940 Main Campus Drive, Suite 500
Raleigh, NC 27606

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CHECKED BY : K. FISCHER DATE : 8/2026
DESIGN ENGINEER OF RECORD: J.C. WILSON DATE : 8/2026

NORTH CAROLINA PROFESSIONAL SEAL 040384 ENGINEER JEFFREY C WILSON
Signed by: Jeffrey C. Wilson 11/5/2026
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PROJECT NO. 18313.1011127.PR
BUNCOMBE COUNTY
STATION:

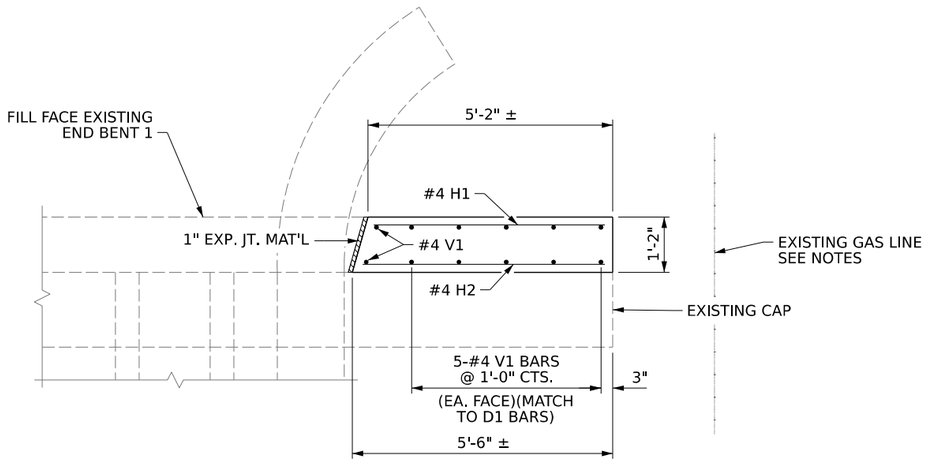
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RALEIGH

REPAIRS FOR BRIDGE 100239 ON US 70 OVER SWANNANOA RIVER

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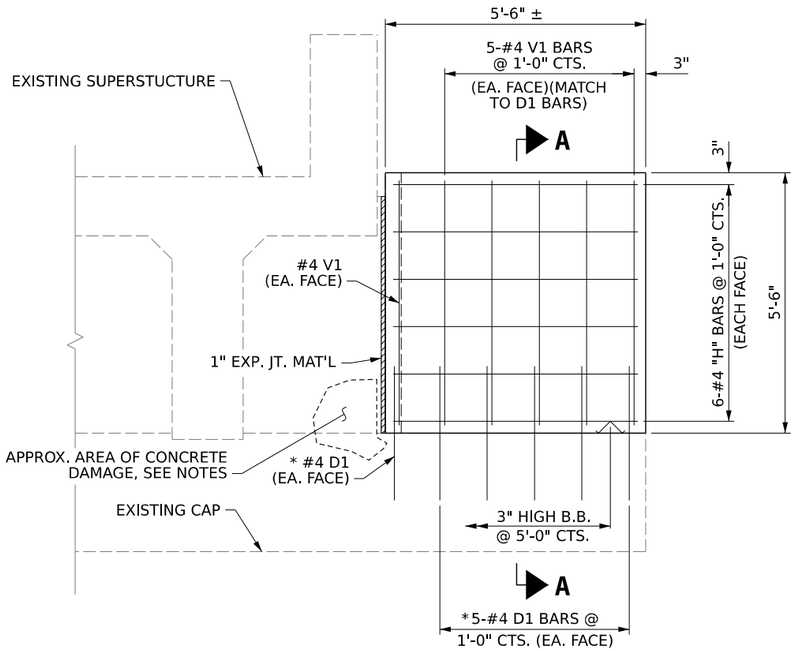
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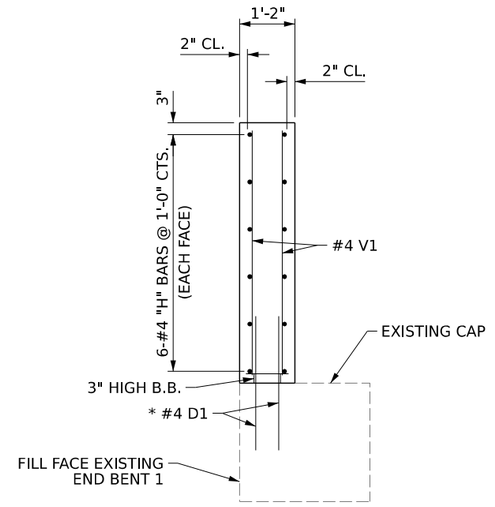


END BENT 1 - PLAN OF WING (UPSTREAM)

* #4 D1 BARS TO BE ADHESIVELY ANCORED INTO EXISTING CAP (1'-5" MIN. EMBEDMENT)



END BENT 1 - ELEVATION OF WING (UPSTREAM)



SECTION A-A

NOTES

THERE ARE AREA OF EXPOSED REBAR AND CONCRETE SPALLS WHERE THE EXISTING WING SEPARATED FROM THE CAP. REPAIR EXISTING CONCEDE CAP AS NECESSARY TO ENSURE PROPER BOND OF NEW CONCRETE WING AND COVER ANY EXPOSED EXISTING REINFORCING. CONCRETE REPAIR WILL BE PAID FOR IN THE CLASS A CONCRETE (BRIDGE) PAY ITEM AND NO SEPARATE PAYMENT SHALL BE MADE.

CONTRACTOR SHALL LOCATE EXISTING GAS LINE BEFORE BEGINNING CONSTRUCTION. CONTRACTOR SHALL NOT DAMAGE THE GAS LINE DURING CONSTRUCTION. WING LENGTH CAN BE SHORTENED TO AVOID CONFLICT WITH EXISTING GAS LINE.

BILL OF MATERIAL

END BENT 1 WING

BAR	NO	SIZE	TYPE	LENGTH	WEIGHT
D1	12	#4	STR	2' - 10"	23
H1	6	#4	STR	4' - 10"	19
H2	6	#4	STR	5' - 1"	20
V1	12	#4	STR	5' - 2"	41

REINFORCING STEEL	LBS.	103
CLASS A CONCRETE	C.Y. =	1.3

PROJECT NO. 18313.1011127.PR

BUNCOMBE COUNTY

STATION:

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

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Signed by: Jeffrey C. Wilson 8/14/2026
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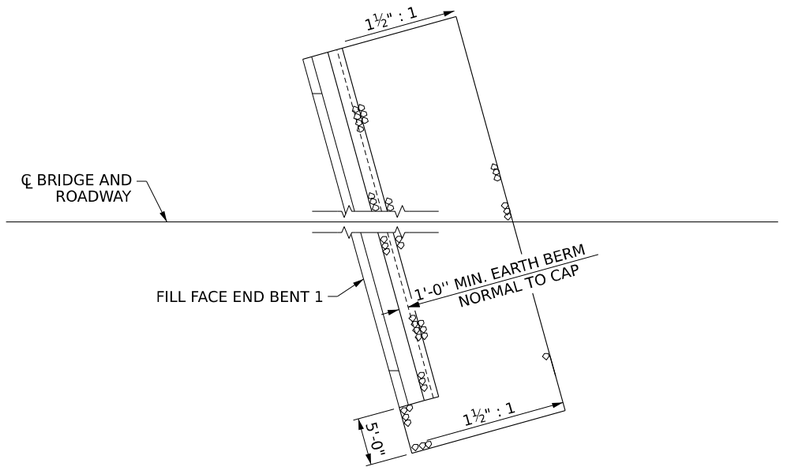
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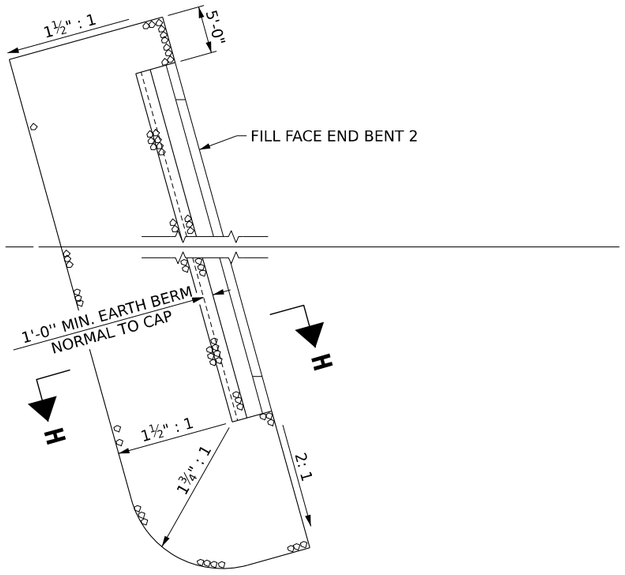
REPAIRS FOR BRIDGE 100239 ON US 70 OVER SWANNANOA RIVER

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-2
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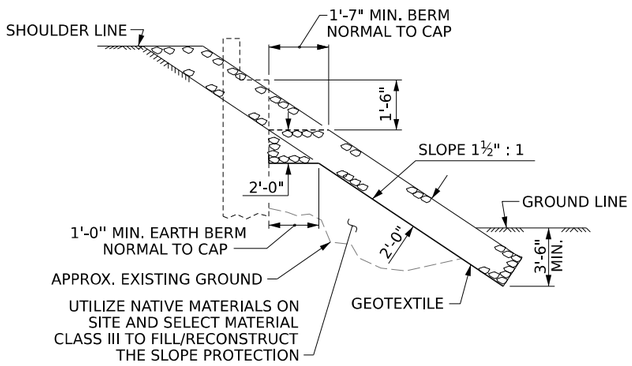
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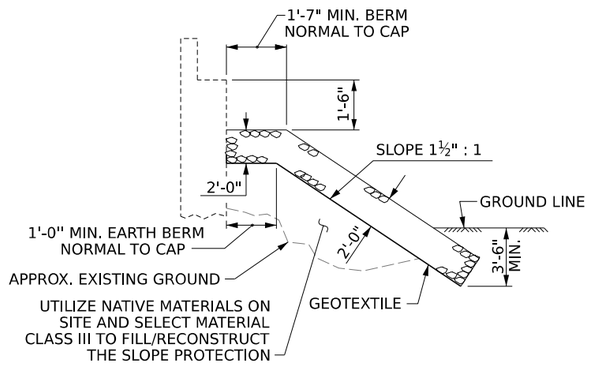
END BENT 1



END BENT 2



SECTION H-H



℄ SECTION

BERM RIP RAPPED

NOTES :

UTILIZE NATIVE MATERIAL ON SITE AND SELECT MATERIAL CLASS III AT EACH END BENT TO FILL AND RECONSTRUCT THE SLOPE PROTECTION ALONG THE FACE OF THE END BENTS AND WINGS. PAYMENT FOR THE RECONSTRUCTION WILL BE MADE UNDER THE LUMP SUM GRADING PAY ITEM.

INSTALL GEOTEXTILE FABRIC AND RIP RAP AS INDICATED ON THE DETAILS.

TOTAL QUANTITY OF SELECT MATERIAL CLASS III IS 350 CY. QUANITY IS THE APPROXIMATE AMOUNT OF MATERIAL NEEDDED TO REBUILD SLOPE AND MAY VARY BASED ON SUTIABLE MATERIAL ON SITE.

ESTIMATED QUANTITIES		
	RIP RAP CLASS II (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE
	TONS	SQUARE YARDS
END BENT 1	460	520
END BENT 2	600	660

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DESIGN ENGINEER OF RECORD:	J.C. WILSON	DATE : 8/2026

DRAWN BY : REK 1/84	REV. 10/1/11	MAA/GM
CHECKED BY : RDU 1/84	REV. 12/21/11	MAA/GM
	REV. 12/17	MAA/THC

8/12/2026
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NORTH CAROLINA PROFESSIONAL SEAL 040384 ENGINEER JEFFREY C. WILSON

Signed by: Jeffrey C. Wilson
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8/14/2026

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RALEIGH

REPAIRS FOR BRIDGE 100239 ON US 70 OVER SWANNANOA RIVER

PROJECT NO. 18313.1011127.PR

BUNCOMBE COUNTY

STATION:

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1			3			TOTAL SHEETS
2			4			7

STD. NO. RR1

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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 OUTSIDE TRAVEL LANE ON WESTBOUND US 70 IN ADVANCE OF BRIDGE 100239 TO COMPLETE REPAIRS WITHIN THE CLOSED AREA. MAINTAIN DRIVEWAY ACCESS BEFORE AND AFTER THE BRIDGE.

STEP 2 – USING RSD 1101.02, SHEET 3 OF 19 AS NEEDED, CLOSE THE OUTSIDE TRAVEL LANE ON EASTBOUND US 70 IN ADVANCE OF BRIDGE 100239 TO COMPLETE REPAIRS WITHIN THE CLOSED AREA. MAINTAIN DRIVEWAY ACCESS BEFORE AND AFTER THE BRIDGE.

STEP 3 – 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
US 70	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
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 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
US 70	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.

Pay Item No.	Sec No.	Description	Quantity	Unit
4402000000-E	SP	HIGH VISIBILITY STATIONARY SIGNS	128	SF
4407000000-E	SP	HIGH VISIBILITY PORTABLE SIGNS	96	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	40	EA
4480000000-N	1165	TMA	1	EA
4600000000-N	SP	GENERIC TRAFFIC CONTROL ITEM - CONNECTED LANE CLOSURE SYSTEM	1	EA

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DRAWN BY : J. TOWNSEND DATE : 8/2026
CHECKED BY : J.C. WILSON DATE : 8/2026
DESIGN ENGINEER OF RECORD: J. TOWNSEND DATE : 8/2026

NORTH CAROLINA PROFESSIONAL SEAL 031533 ENGINEER JOHN G. TOWNSEND
DocuSigned by: John Townsend 6B2101C41D6F4AC...
8/14/2026

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PROJECT NO. 18313.1011127.PR
BUNCOMBE COUNTY
STATION:

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

REPAIRS FOR BRIDGE 100239 ON US 70 OVER SWANNANOA RIVER

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