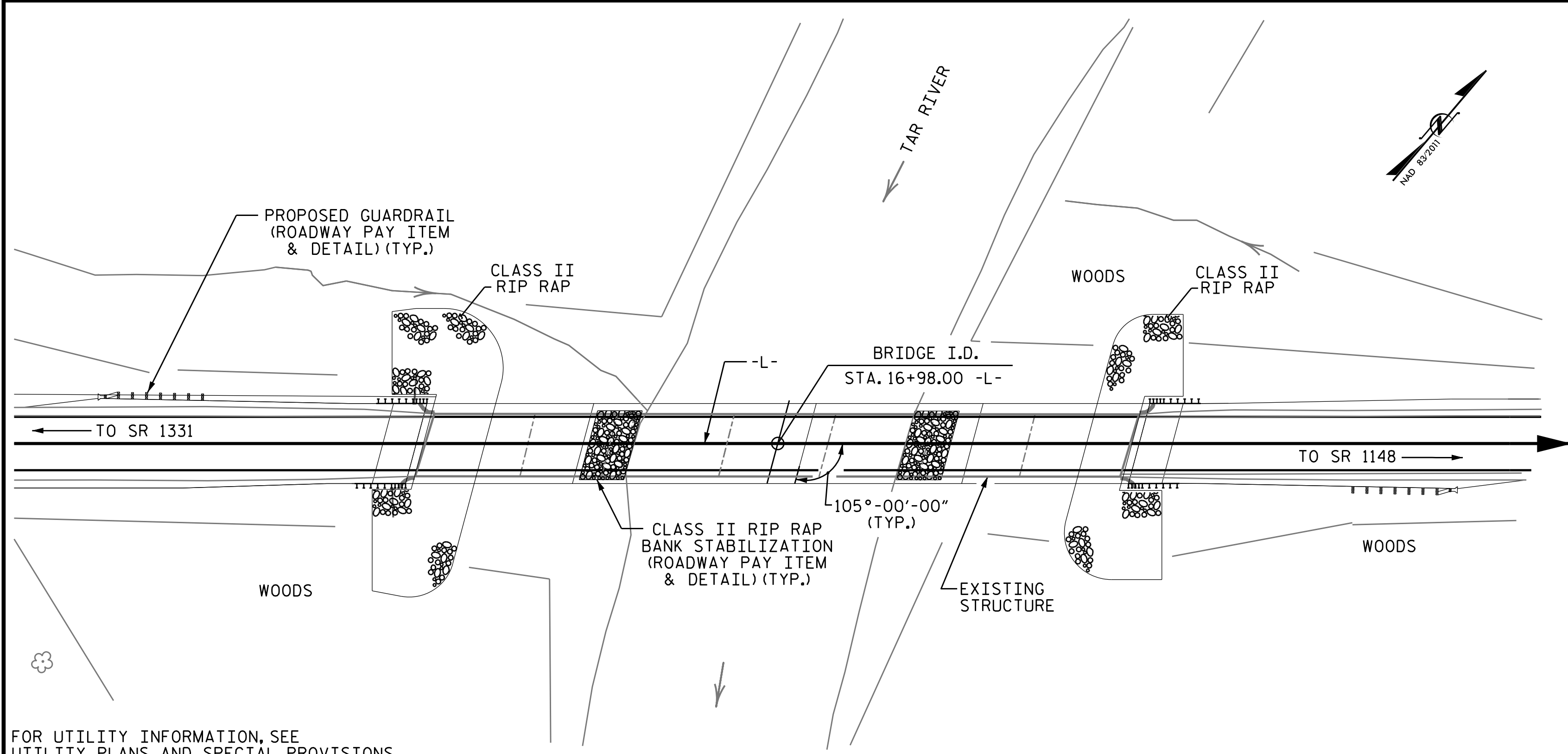## TOTAL BILL OF MATERIAL

| | CONSTRUCTION, MAINTENANCE, AND REMOVAL OF TEMPORARY ACCESS | REMOVAL OF EXISTING STRUCTURE STA. 16+98.00 | ASBESTOS ASSESSMENT | 3'-6" Ø DRILLED PIERS IN SOIL | 3'-6" Ø DRILLED PIERS NOT IN SOIL | PERMANENT STEEL CASING FOR 3'-6" Ø DRILLED PIER | PDA TESTING | SID INSPECTIONS | CSL TESTING | UNCLASSIFIED STRUCTURE EXCAVATION | REINFORCED CONCRETE DECK SLAB | GROOVING BRIDGE FLOORS | CLASS A CONCRETE | BRIDGE APPROACH SLABS | REINFORCING STEEL | SPIRAL REINFORCING STEEL | 54" PRESTRESSED CONCRETE GIRDERS | PILE DRIVING EQUIPMENT SETUP FOR HP 12 x 53 STEEL PILES | HP 12 x 53 STEEL PILES | STEEL PILE POINTS | CONCRETE BARRIER RAIL | RIP RAP CLASS II (2'-0" THICK) | GEOTEXTILE FOR DRAINAGE | ELASTOMERIC BEARINGS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LUMP SUM | LUMP SUM | LUMP SUM | LIN. FT. | LIN. FT. | LIN. FT. | EACH | EACH | EACH | LUMP SUM | SQ. FT. | SQ. FT. | CU. YDS. | LUMP SUM | LBS. | LBS. | NO. LIN. FT. | EACH | NO. LIN. FT. | EACH | LIN. FT. | TONS | SQ. YDS. | LUMP SUM |
| SUPERSTRUCTURE | | | | | | | | | | | 12,776 | 11,623 | | LUMP SUM | | | 16  1,294.67 | | | | 651.0 | | | LUMP SUM |
| END BENT 1 | | | | | | | | | | | | | 32.4 | | 4,618 | | | 7 | 7  175 | 7 | | 475 | 528 | |
| BENT 1 | | | | 16.0 | 22.0 | 24.0 | | | | | | | 30.0 | | 11,835 | 1,547 | | | | | | | | |
| BENT 2 | | | | 7.4 | 21.0 | 10.4 | | | | | | | 32.7 | | 11,938 | 1,582 | | | | | | | | |
| BENT 3 | | | | 18.0 | 22.0 | 23.0 | | | | | | | 29.0 | | 9,943 | 1,503 | | | | | | | | |
| END BENT 2 | | | | | | | | | | | | | 32.4 | | 4,618 | | | 7 | 7  175 | 7 | | 374 | 415 | |
| TOTAL | LUMP SUM | LUMP SUM | LUMP SUM | 41.4 | 65.0 | 57.4 | 1 | 3 | 3 | LUMP SUM | 12,776 | 11,623 | 156.5 | LUMP SUM | 42,952 | 4,632 | 16  1,294.67 | 14 | 14  350 | 14 | 651.0 | 849 | 943 | LUMP SUM |

### BENCH MARK: B.M. #2 R/R SPIKE IN BASE OF 30"PINE, STA. 18+92.73 -L-, OFFSET 69.5' LT



## LOCATION SKETCH

TAR RIVER

PROPOSED GUARDRAIL (ROADWAY PAY ITEM & DETAIL) (TYP.)

CLASS II RIP RAP

CLASS II RIP RAP

WOODS

BRIDGE I.D. STA. 16+98.00 -L-

TO SR 1331

TO SR 1148

CLASS II RIP RAP BANK STABILIZATION (ROADWAY PAY ITEM & DETAIL) (TYP.)

105°-00'-00" (TYP.)

WOODS

EXISTING STRUCTURE

WOODS

FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

NAD 83/2011

## NOTES:

ASSUMED LIVE LOAD = HL-93 OR ALTERNATE LOADING.

THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

THIS BRIDGE IS LOCATED IN SEISMIC ZONE 1.

FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.

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.

PRESTRESSED CONCRETE DECK PANELS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.

REMOVABLE FORMS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.

NEEDLE BEAMS WILL NOT BE ALLOWED UNLESS OTHERWISE CALLED FOR ON THE PLANS OR APPROVED BY THE ENGINEER.

FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.

THE EXISTING STRUCTURE CONSISTS OF 7 SPANS @ 45'-0" WITH A CLEAR ROADWAY WIDTH OF 30.0 FT. WITH RC FLOOR AND RC DECK GIRDERS, END BENTS ARE RC CAP WITH H-PILES AND BENTS ARE ON A RC PIER AND BEAM, AND LOCATED AT PROPOSED STRUCTURE SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY NOT POSTED FOR LOAD LIMIT. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE DETERIORATE DURING CONSTRUCTION OF THE PROPOSED BRIDGE, A LOAD LIMIT MAY BE POSTED AND MAY BE REDUCED AS FOUND NECESSARY DURING THE LIFE OF THE PROJECT.

TEMPORARY FILL SHALL NOT BLOCK MORE THAN 50 PERCENT OF THE CHANNEL AT ANY TIME.

THE SUBSTRUCTURE OF THE EXISTING BRIDGE INDICATED ON THE PLANS IS FROM THE BEST INFORMATION AVAILABLE. THIS INFORMATION IS SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT OF TRANSPORTATION FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN THE EXISTING BRIDGE SUBSTRUCTURE SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

REMOVAL OF THE EXISTING BRIDGE SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL INTO THE WATER. THE CONTRACTOR SHALL SUBMIT DEMOLITION PLANS FOR REVIEW AND REMOVE THE BRIDGE IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.

THE MATERIAL SHOWN IN THE CROSS HATCHED AREA ON SHEET 1 OF 4 SHALL BE EXCAVATED FOR A DISTANCE OF 42' LEFT AND 63' RIGHT OF CENTERLINE ROADWAY AT END BENT #1, AND 50' LEFT AND 51' RIGHT OF CENTERLINE ROADWAY AT END BENT #2, OR AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID AT THE CONTRACT LUMP SUM PRICE FOR UNCLASSIFIED STRUCTURE EXCAVATION.
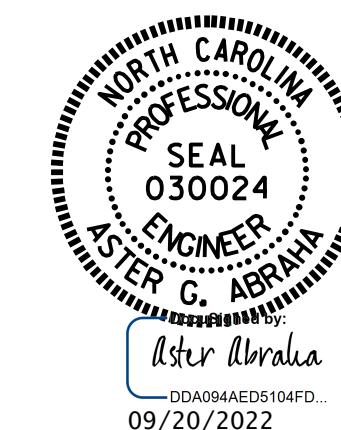
THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH "HEC 18-EVALUATING SCOUR AT BRIDGES."

AT THE CONTRACTOR'S OPTION, AND UPON REMOVAL OF THE CAUSEWAY, THE CLASS II RIP RAP USED IN THE CAUSEWAY MAY BE PLACED AS RIP RAP SLOPE PROTECTION. SEE SPECIAL PROVISIONS FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF TEMPORARY ACCESS AT STA. 16+98.00.

TEMPORARY CAUSEWAY SHALL NOT BE PERMITTED TO BLOCK THE CONFLUENCE OF ANY JURISDICTIONAL TRIBUTARY STREAM WITH THE TAR RIVER.

### HYDRAULIC DATA

| | |
|---|---|
| DESIGN DISCHARGE | = 33,000 CFS |
| FREQUENCY OF DESIGN FLOOD | = 50 YRS. |
| DESIGN HIGH WATER ELEVATION | = 168.8 FT. |
| DRAINAGE AREA | = 664 SQ. MI. |
| BASE DISCHARGE (Q100) | = 25337 CFS |
| BASE HIGH WATER ELEVATION | = 166.1 FT. |

### OVERTOPPING FLOOD DATA

| | |
|---|---|
| OVERTOPPING DISCHARGE | = 41700 CFS |
| FREQUENCY OF OVERTOPPING FLOOD | = 100+ YRS. |
| OVERTOPPING FLOOD ELEVATION | = 172.5 FT. |

PROJECT NO. **B-5670**

**NASH** COUNTY

STATION: **16+98.00 -L-**

SHEET 4 OF 4

## GENERAL DRAWING
### BRIDGE OVER TAR RIVER ON US 64 ALT BETWEEN SR 1331 AND SR 1148

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 030024 ASTER G. ABRAHA

Aster Abraha
DDA094AED5104FD...
09/20/2022

| | | |
|---|---|---|
| DRAWN BY: | M.M. AHMED | DATE: JUN 2022 |
| CHECKED BY: | S. WANCE | DATE: JUN 2022 |
| DESIGN ENGINEER OF RECORD: | M.M. AHMED | DATE: 07/2020 |

9/20/2022
R:\Structures\Plans\OBD\401_B5670_SMU_GD_S04_630029.dgn
agabraha

| REVISIONS | | | | | | |
|---|---|---|---|---|---|---|
| NO. | BY: | DATE: | NO. | BY: | DATE: | |
| 1 | | | 3 | | | |
| 2 | | | 4 | | | |

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SHEET NO. **S-4**

TOTAL SHEETS **40**