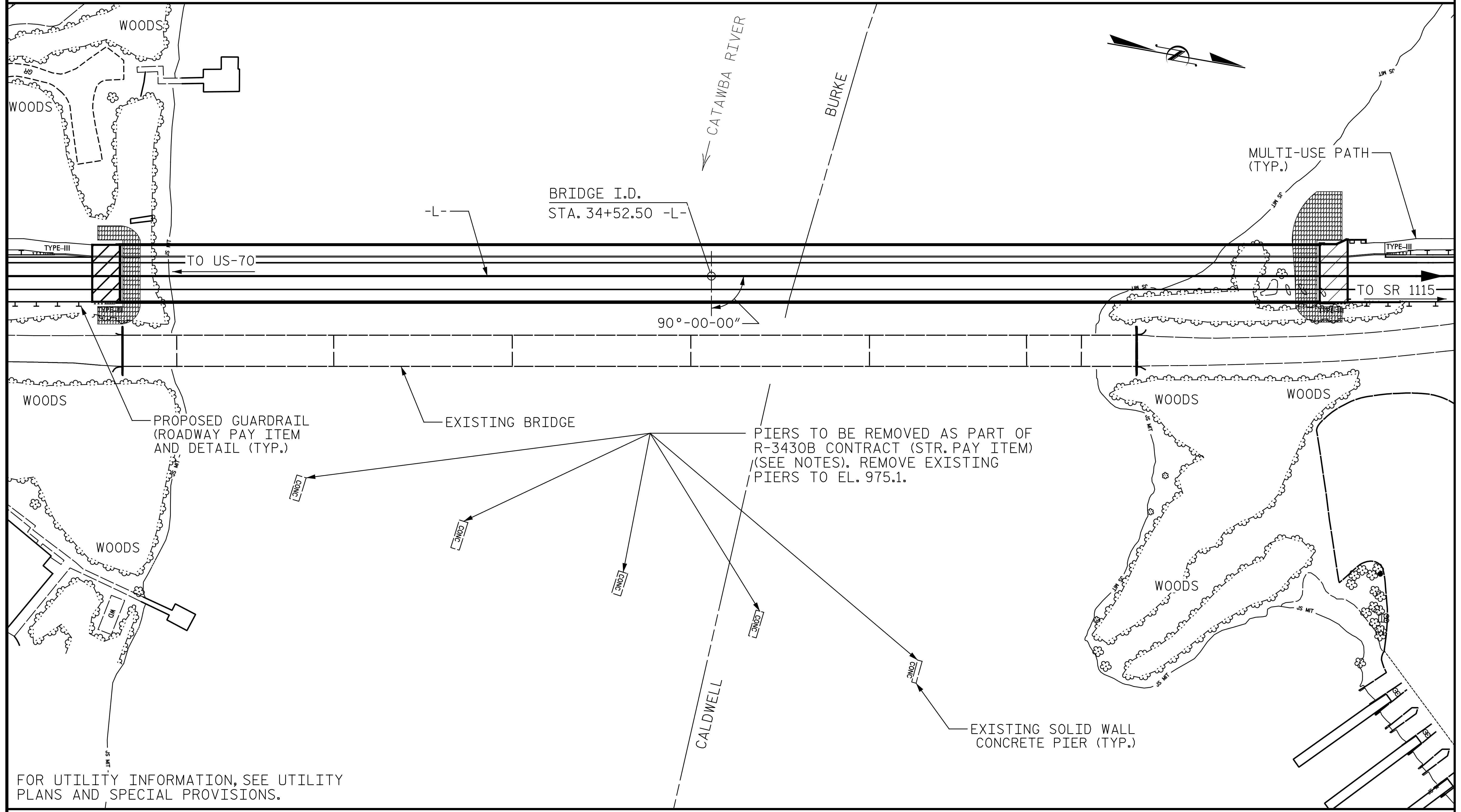
B.M. #4 METAL PLATE IN CONC. SLAB FOR POWER SUB. ELEV. 1032.29 -L- STA. 22+81.16 233.04′ LT.



LOCATION SKETCH

HYDRAULIC DATA

DESIGN DISCHARGE = 51,000 C.F.S.
FREQUENCY OF DESIGN DISCHARGE = 25 YR.
DESIGN HIGH WATER ELEVATION = 1000.2
DRAINAGE AREA = 1,063 SQ. MI.
BASE DISCHARGE (Q100) = 81,500 C.F.S.
BASE HIGH WATER ELEVATION = 1004.6

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE > 87,800 C.F.S.
FREQUENCY OF OVERTOPPING FLOOD = 500+YEARS
OVERTOPPING FLOOD ELEVATION = 1022.5

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 UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

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.

FOR SECURING OF VESSELS, SEE SPECIAL PROVISIONS.

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

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.

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

INASMUCH AS THE PAINT SYSTEM ON THE EXISTING STRUCTURAL STEEL CONTAINS LEAD, THE CONTRACTOR'S ATTENTION IS DIRECTED TO ARTICLE 107-1 OF THE STANDARD SPECIFICATIONS. ANY COSTS RESULTING FROM COMPLIANCE WITH APPLICABLE STATE OR FEDERAL REGULATIONS PERTAINING TO HANDLING THE MATERIALS CONTAINING LEAD BASED PAINT SHALL BE INCLUDED IN THE BID PRICE FOR "REMOVAL OF EXISTING STRUCTURE."

THE CLASS AA CONCRETE IN THE BRIDGE DECK SHALL CONTAIN FLY ASH OR GROUND GRANULATED BLAST FURNACE SLAG AT THE SUBSTITUTION RATE SPECIFIED IN ARTICLE 1024-1 AND IN ACCORDANCE WITH ARTICLES 1024-5 AND 1024-6 OF THE STANDARD SPECIFICATIONS. NO PAYMENT WILL BE MADE FOR THIS SUBSTITUTION AS IT IS CONSIDERED INCIDENTAL TO THE COST OF THE REINFORCED CONCRETE DECK SLAB.

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA (ON SHEETS 1 OF 7 & 2 OF 7) SHALL BE EXCAVATED FOR A DISTANCE OF 33 FT. +/- LEFT AND 28 FT. +/- RIGHT OF CENTERLINE ROADWAY AT END BENT 1, AND 0 FT. LEFT AND 144 FT. +/- RIGHT NEAR END BENT 2 AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR UNCLASSIFIED STRUCTURE EXCAVATION. SEE SECTION 412 OF THE STANDARD SPECIFICATIONS.

FOR LIMITS OF TEMPORARY SHORING FOR MAINTENANCE OF TRAFFIC, SEE TRAFFIC CONTROL PLANS. FOR PAY ITEM FOR TEMPORARY SHORING FOR MAINTENANCE OF TRAFFIC, SEE ROADWAY PLANS.

THE EXISTING STRUCTURE CONSISTING OF 8 SIMPLY SUPPORTED AND CONTINUOUS SPANS (1 @ 49′-6″, 1 @ 140′-6″, 3 @ 160′-0″, 1 @ 140′-6″, 1 @ 49′-6″, 1 @ 50′-0″); CLEAR ROADWAY WIDTH = 28′-0″ AND REINFORCED CONCRETE DECK ON STEEL BEAMS AND STEEL PLATE GIRDERS ON REINFORCED CONCRETE HAMMERHEAD BENTS AND LOCATED 25′ +/- DOWNSTREAM OF THE PROPOSED STRUCTURE SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY 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. IN ADDITION, THE ADJACENT EXISTING STRUCTURE CONSISTING OF 5 SOLID WALL CONCRETE PIERS AND LOCATED APPROXIMATELY 150′ TO 300′ DOWNSTREAM OF THE PROPOSED STRUCTURE SHALL BE REMOVED. PIERS FOR THE OF EXISTING STRUCTURE AND SOLID WALL CONCRETE PIERS OF EXISTING ADJACENT STRUCTURE SHALL BE REMOVED TO EL. 975.1 (20 FEET BELOW NORMAL WATER SURFACE ELEVATION).

THE SUBSTRUCTURE OF THE EXISTING BRIDGE(S) INDICATED ON THE PLANS IS FROM THE BEST INFORMATION AVAILABLE. SINCE 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(S) SHALL BE PERFORMED IN A MANNER THAT PREVENTS DEBRIS FROM FALLING INTO THE WATER. THE CONTRACTOR SHALL SUBMIT DEMOLITION PLANS FOR REVIEW AND REMOVE THE BRIDGE(S) IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS. FOR DEMOLITION PLAN, SEE SPECIAL PROVISIONS.

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH "HEC 18- EVALUATING SCOUR AT BRIDGES."

FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.

FOR ASBESTOS ASSESSMENT SEE SPECIAL PROVISIONS.

FOR STRIP SEAL EXPANSION JOINT SEALS, SEE SPECIAL PROVISIONS.

FOR MODIFIED 74″ PRESTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR VERTICAL CONCRETE BARRIER RAIL WITH MOMENT SLAB, SEE SPECIAL PROVISIONS.

FOR THERMAL INTEGRITY PROFILER TEST (TIP), SEE GEOTECHNICAL SPECIAL PROVISIONS.

FOR MASS CONCRETE, SEE SPECIAL PROVISIONS.

FOR NAVIGATIONAL SAFETY PLAN, SEE SPECIAL PROVISIONS.

FOR WORK IN, OVER OR ADJACENT TO NAVIGABLE WATERS, SEE SPECIAL PROVISIONS.

PROJECT NO. R-3430B
BURKE & CALDWELL COUNTY
STATION: 34+52.50 -L-

SHEET 6 OF 7

DocuSigned by:
Ryan D. Fisher
SEAL
029360
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RYAN D. FISHER
7/8/2025

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
FOR BRIDGE OVER CATAWBA
RIVER ON SR 1001
BETWEEN SR 1115 AND US-70

GANNETT FLEMING
One Glenwood Avenue
Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-6
1			3			TOTAL SHEETS
2			4			61

DRAWN BY : J. MYA DATE : 10/2023
CHECKED BY : R. FISHER DATE : 03/2024
DESIGN ENGINEER OF RECORD: DATE :

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