

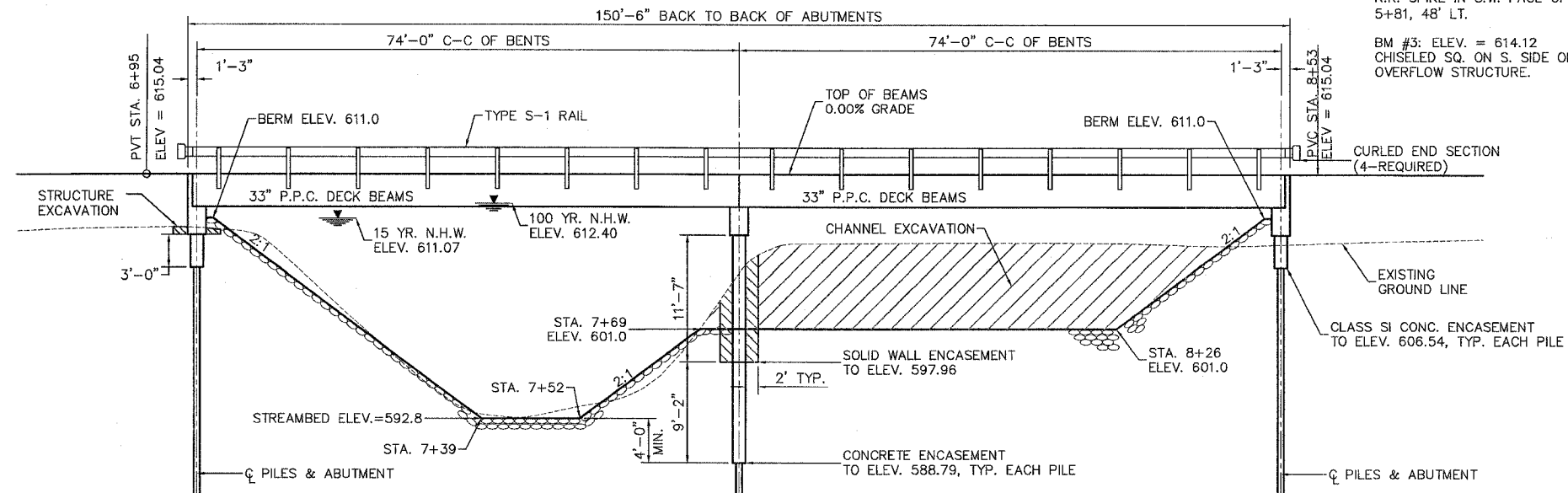
•EXISTING STRUCTURE: 6-SPAN STRUCTURE WITH A 70 FOOT MAIN SPAN PONY TRUSS ON STEEL CAISSONS. APPROACH SPANS ARE ON CONCRETE PIERS AND ABUTMENTS. TIMBER DECK AND RUNNERS (S.N. 066-4804)

•SALVAGE: NO SALVAGE.

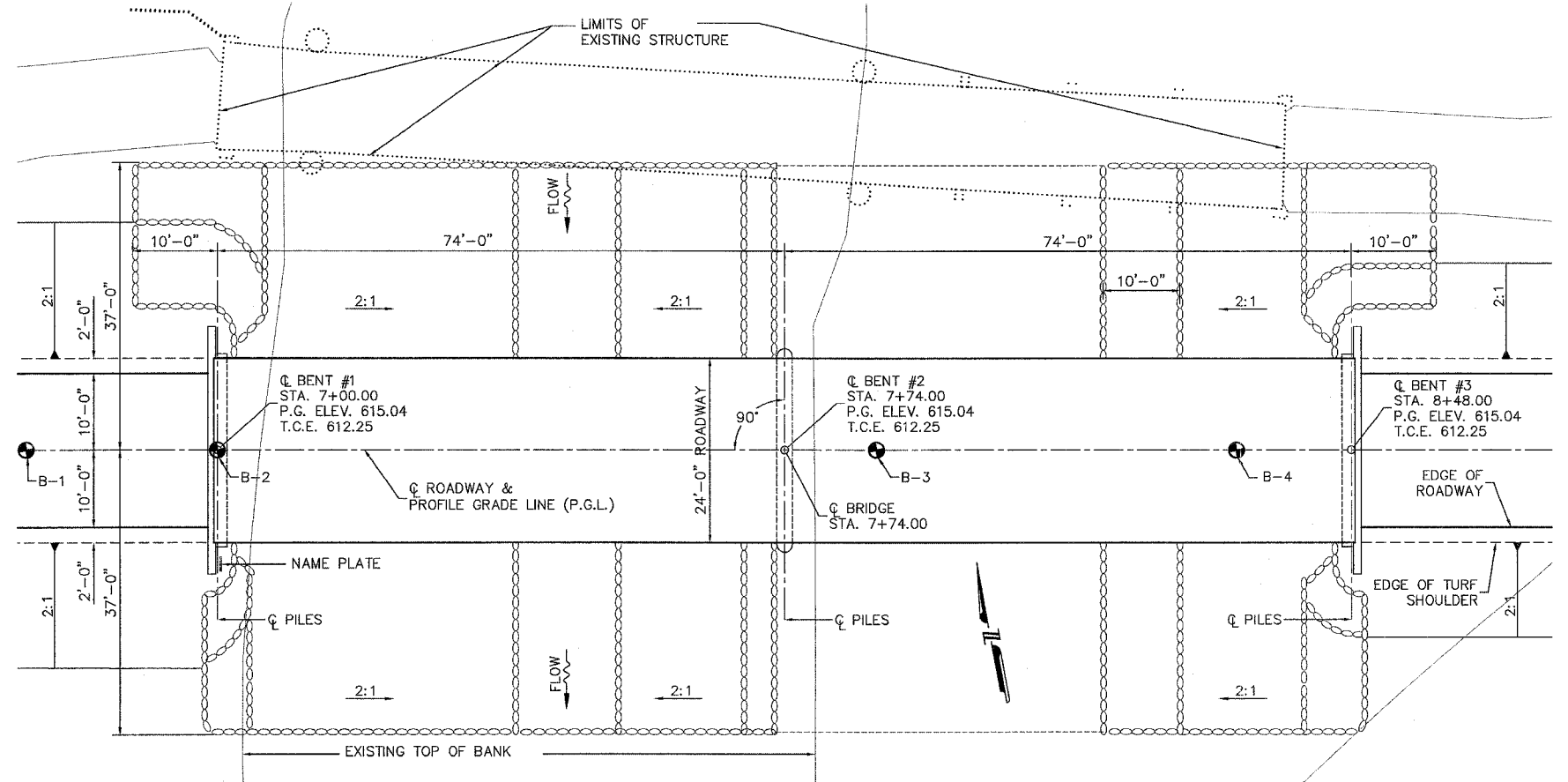
BENCHMARKS:

BM #2: ELEV. = 612.57
R.R. SPIKE IN S.W. FACE OF TREE (3-30"Ø) STA. 5+81, 48' LT.
BM #3: ELEV. = 614.12
CHISELED SQ. ON S. SIDE OF WEST HEADWALL OF OVERFLOW STRUCTURE.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	MERCER	23	14
			ILLINOIS	BR-OS-131(44)
* 97-06118-00-BR				89250



ELEVATION



PLAN

GENERAL NOTES

CLASS SI CONCRETE SHALL BE USED IN ALL CONCRETE STRUCTURES, EXCEPT FOR THE PRECAST PRESTRESSED CONCRETE (P.P.C.) DECK BEAMS.
THE CONTRACTOR SHALL DRIVE 3 TEST PILES AS SPECIFIED, IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER, BEFORE ORDERING THE REMAINING PILES.
SEE SHEETS 21 & 22 FOR BORING LOGS.
A CALCIUM NITRATE CORROSION INHIBITOR, AS COVERED IN THE SPECIAL PROVISIONS, SHALL BE USED IN THE CONCRETE FOR THE PRECAST PRESTRESSED CONCRETE DECK BEAMS.
THE WATERPROOFING MEMBRANE SYSTEM AND THE BITUMINOUS CONCRETE SURFACE COURSE SHOWN ON THE STANDARDS SHALL NOT BE PROVIDED.
LAYOUT OF SLOPE PROTECTION SYSTEM MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.
T.C.E. = TOP OF CAP ELEVATION

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUBSTRUCTURE		TOTAL
			PIERS	ABUTS.	
REMOVAL OF EXISTING STRUCTURES (#1)	EA	---	---	---	1
CHANNEL EXCAVATION	CY	---	---	---	5,493
STRUCTURE EXCAVATION	CY	---	58.7	6.2	64.9
CONCRETE STRUCTURES	CY	---	35.5	18.6	54.1
P.P.C. DECK BEAMS (33" DEPTH)	SF	3,572	---	---	3,572
STEEL RAILING, TYPE S1	FOOT	298	---	---	298
REINFORCEMENT BARS	LBS	---	2,350	2,480	4,830
FURNISHING STEEL PILES HP 12x53	FOOT	---	175	260	435
DRIVING STEEL PILES HP 12x53	FOOT	---	175	260	435
TEST PILES STEEL HP 12x53	EA	---	1	2	3
NAME PLATES	EA	1	---	---	1
STONE RIPRAP, CLASS A5	SY	---	---	---	988
FILTER FABRIC	SY	---	---	---	988
UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EA	---	1	---	1
CONCRETE ENCASEMENT	CY	---	6.2	3.4	9.6

DRAINAGE AREA = 338 SQ.MI. LOW GRADE ELEV. = 609.43 @ STA. 13+25

FLOOD	FREQ. YR.	Q C.F.S.	OPENING SQ.FT.*		NAT. H.W.E.	HEAD-FT.		HEADWATER EL.	
			EXIST.	PROP.		EXIST.	PROP.	EXIST.	PROP.
DESIGN	15	9,100	---	1494	611.07	---	0.10	---	611.17
BASE	100	14,148	---	1622	612.40	---	0.04	---	612.44
OVERTOPPING	---	4,590	---	1253	609.37	---	---	---	---
MAX. CALC.	500	18,262	---	1822	613.23	---	0.04	---	613.27

* DOES NOT INCLUDE OVER THE ROAD FLOW

EDWARDS RIVER
BUILT 20__ BY
MERCER ROAD DISTRICT
MERCER COUNTY
SEC. 97-06118-00-BR
STA. 7+74
STR. NO. 066-4817 LOADING HS20

LETTERING FOR NAME PLATE
LOCATE NAME PLATE AT NORTHWEST CORNER OF BRIDGE (SEE STD. 515001)

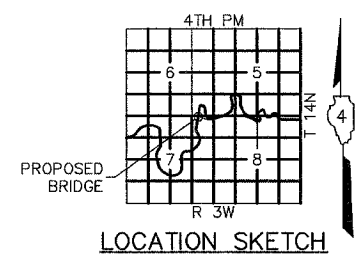
DESIGN SPECIFICATIONS
2002 AASHTO
HS20-44 LOADING. LOAD FACTOR DESIGN.
DESIGN 25#/SF FOR FUTURE WEARING SURFACE.

DESIGN STRESSES

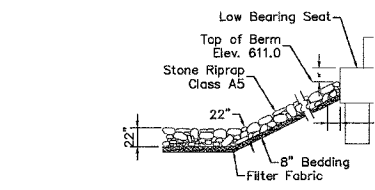
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi

PRECAST UNITS

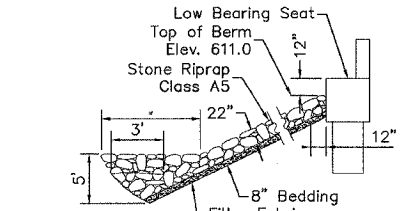
f'c = 5,000 psi
f'ci = 4,000 psi
f's = 270,000 psi (1/2" dia. strands)
f'si = 201,960 psi (1/2" dia. strands)



LOCATION SKETCH



TOE STONE ANCHOR DETAIL



STREAM CROSSING ANCHOR DETAIL



I CERTIFY THAT TO THE BEST OF KNOWLEDGE, INFORMATION, AND BELIEF THIS BRIDGE DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH THE REQUIREMENTS OF THE CURRENT "AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES".

John B. Fellman
JOHN B. FELLMAN, S.E.
LICENSE EXPIRES 11-30-2006
4-11-2006 DATE

GENERAL BRIDGE PLAN & ELEVATION

SECTION 97-06118-00-BR
T.R. 132, STA. 7+74.00
MERCER COUNTY
S.N. 066-4817