

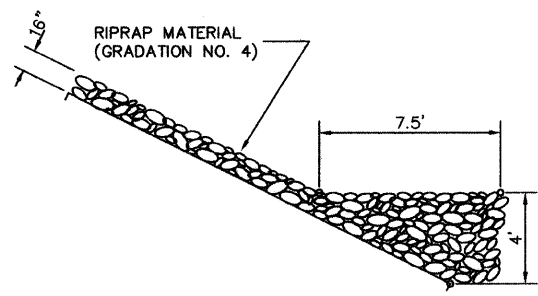
RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 5	*	MASON	12	6

GENERAL PLAN & ELEVATION
* SEC. 05-00016-01-BR

T.B.M. #1 - RAILROAD SPIKE IN POWER POLE
STA. 100+71, 44.0' LT, ELEV. - 503.89

EXISTING STRUCTURE - SN 063-3024
STA. 43+50.00, NO SKEW
1 SPAN, 28.00' B/B ABUTMENT
REINFORCED CONCRETE DECK
CONCRETE ENCASED TIMBER PILE
CLOSED ABUTMENTS

SALVAGE- CONTRACTOR MAY SALVAGE ALL MATERIALS.



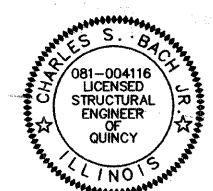
TYPICAL RIPRAP TREATMENT

	RIPRAP, SPECIAL
SOUTH ABUTMENT:	130 TON
NORTH ABUTMENT:	130 TON
TOTAL	260 TON

SAMUELS DITCH
BUILT 20__ BY
MASON COUNTY
SEC 05-00016-01-BR
FAS RT 572 STATION 43+50.00
STR. NO. 063-3025 LOADING HS-20

LETTERING FOR NAME PLATE

LOCATE NAME PLATE AT NORTHWEST CORNER OF BRIDGE (SEE STD. CN)



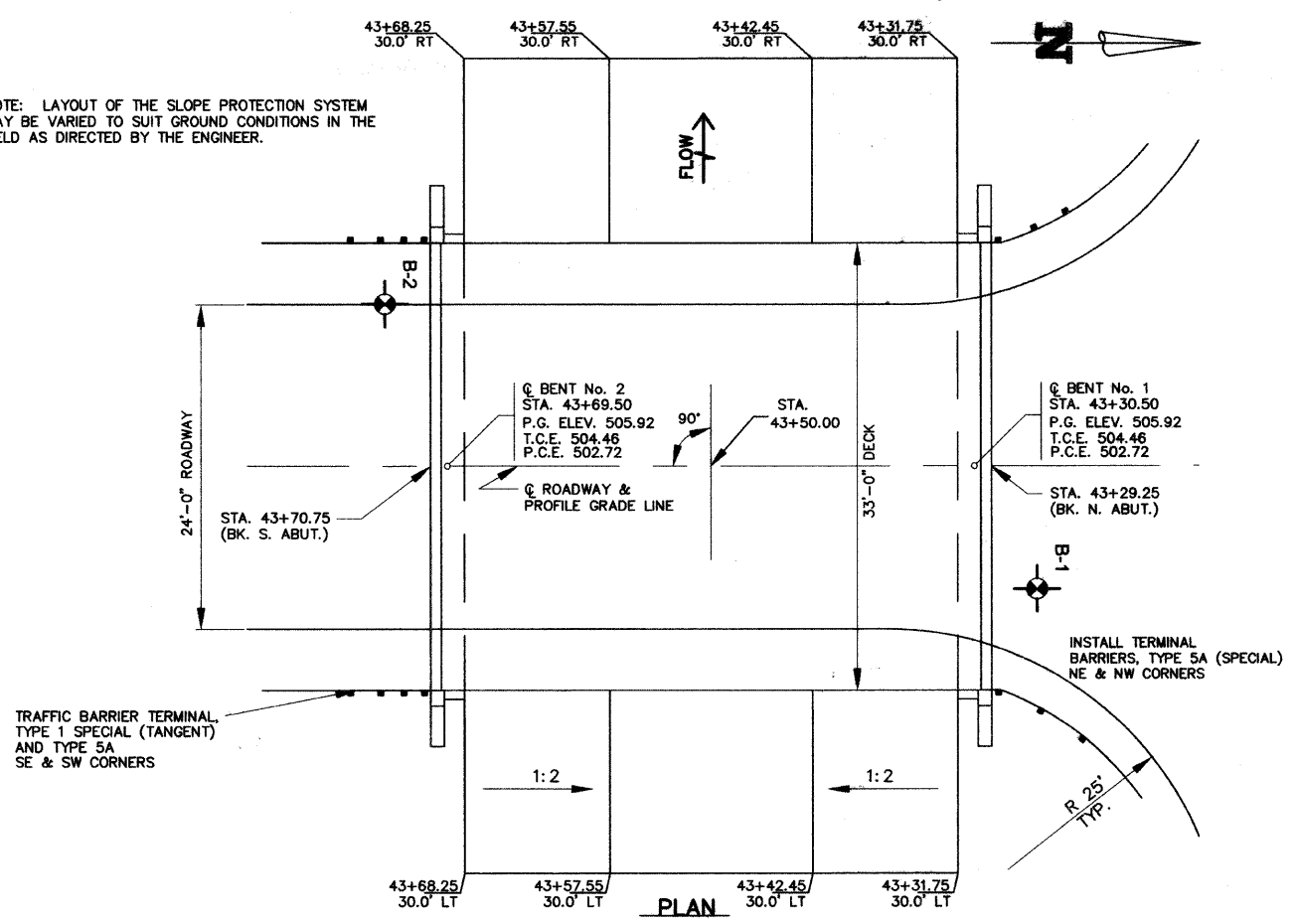
CHARLES S. BACH, JR.
LICENSED STRUCTURAL ENGINEER
QUINCY, ILLINOIS
EXPIRES: 11/30/08

I CERTIFY THESE STANDARD BRIDGE PLANS FOR FOUNDATION TREATMENT ONLY.

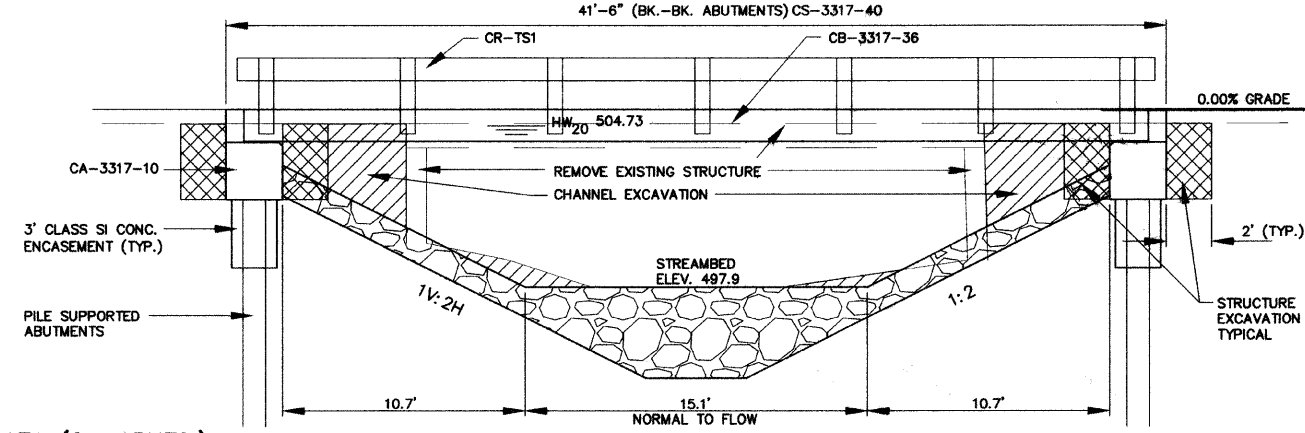
Charles S. Bach, Jr.
SIGNATURE

1/07/08
DATE

NOTE: LAYOUT OF THE SLOPE PROTECTION SYSTEM MAY BE VARIED TO SUIT GROUND CONDITIONS IN THE FIELD AS DIRECTED BY THE ENGINEER.



PLAN



ELEVATION

PILE DATA (2- ABUTS.)

- TYPE: * 12" METAL SHELL
0.25 INCH WALL THICKNESS
- NOMINAL REQUIRED BEARING: 150 KIPS
- ALLOWABLE RESISTANCE AVAILABLE: 50 KIPS
- ESTIMATED LENGTH: (BENT 1-35', BENT 2-40')
- NUMBER REQUIRED: 12 (INCLUDES 1 TEST PILE LOCATED IN BENT #2)
- * METAL SHELL PILES SHALL BE ACCORDING TO ASTM A252 GRADE 3

DESIGN SPECIFICATIONS

2002 AASHTO STANDARD SPECIFICATIONS- 17TH ED.
AASHTO HS20-44 LOADING.
LOAD FACTOR DESIGN

THIS STRUCTURE HAS BEEN DESIGNED TO BE STABLE FOR SCOUR CONDITIONS IN ACCORDANCE WITH THE FHWA TECHNICAL ADVISORY T-1540.23 "EVALUATING SCOUR AT BRIDGES" AND HYDRAULIC ENGINEER CIRCULAR 18 - EVALUATING SCOUR AT BRIDGES.

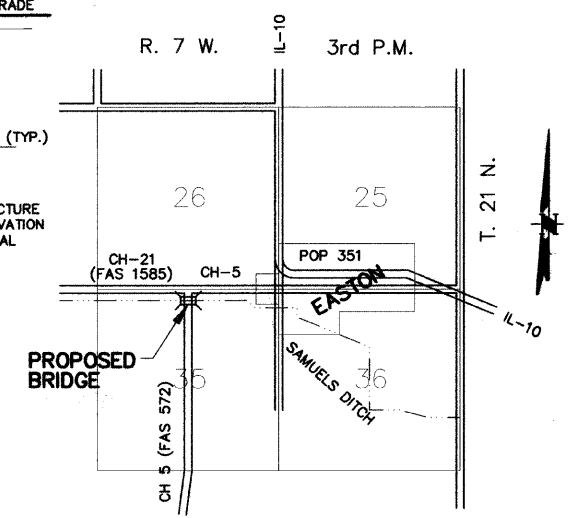
SEISMIC DATA
SEISMIC PERFORMANCE CATEGORY (SPC) = A
BEDROCK ACCELERATION COEFFICIENT (A) = 4.5%
SITE COEFFICIENT (S) = 1.2

GENERAL NOTES

- CLASS SI CONCRETE SHALL BE USED THROUGHOUT EXCEPT IN THE DECK BEAMS
- THE CONTRACTOR SHALL DRIVE 1 TEST PILE, AS SPECIFIED IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINING PILES. THE TEST PILE SHALL BE DRIVEN TO 110% OF THE NOMINAL REQUIRED BEARING AS SPECIFIED IN THE PILE DATA.
- SEE SPECIAL PROVISIONS FOR BORING LOGS.
- ALL GROUT ON THIS PROJECT SHALL BE NON-SHRINK.
- REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A706 GRADE 60. SEE SPECIAL PROVISIONS.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB.		TOTAL
			PIERS	ABUTS.	
CHANNEL EXCAVATION	CU YD				177
* RIPRAP, SPECIAL	TON				260
REMOVAL OF EXISTING STRUCTURE	EACH				1
STRUCTURE EXCAVATION	CU YD			41	41
CONCRETE STRUCTURES	CU YD			22.0	22.0
CONCRETE ENCASEMENT	CU YD			3.2	3.2
PRECAST PRESTRESSED CONC. DECK. BM. 17" DEPTH	SQ FT	1320			1320
* REINFORCEMENT BARS	POUND			2860	2860
STEEL RAILING, TYPE S1	FOOT	80			80
FURNISHING METAL SHELL PILES 12"	FOOT			410	410
DRIVING PILES	FOOT			410	410
TEST PILE METAL SHELL	EACH				1
NAME PLATES	EACH				1
* SEE SPECIAL PROVISIONS					



LOCATION SKETCH

WATERWAY INFORMATION

DRAINAGE AREA = 6.1 SQ. MI. LOW GRADE ELEV. = 505.35 AT STA. 44+50.00

FLOOD	FREQ. YR.	Q C.F.S.	OPENING SQ. FT.		NATURAL H.W.E.	HEAD-FT.		HEADWATER EL.	
			EXIST.	PROP.		EXIST.	PROP.	EXIST.	PROP.
DESIGN	20	1,453	112	164	504.73	2.05	1.25	506.78	505.98
BASE	100	2,231	112	164	505.16	1.91	1.87	507.07	507.03
OVERTOPPING									
MAX. CALC	500	3,011	112	164	505.46	1.84	1.81	507.30	507.27

INDEX OF STANDARDS

- STANDARD CS-3317-40
- STANDARD CB-3317-36
- STANDARD CA-3317-10
- STANDARD CR-TS1
- STANDARD CN
- STANDARD CX-1

GENERAL PLAN & ELEVATION

CH 5 (FAS 572)
OVER SAMUELS DITCH
SHERMAN TOWNSHIP
SEC. 05-00016-01-BR
MASON COUNTY
STATION 43+50.00