Bench Mark: "a" cut in top of Northeast wingwall 15.3' left of Station 460+45.3, Elev. 382.23

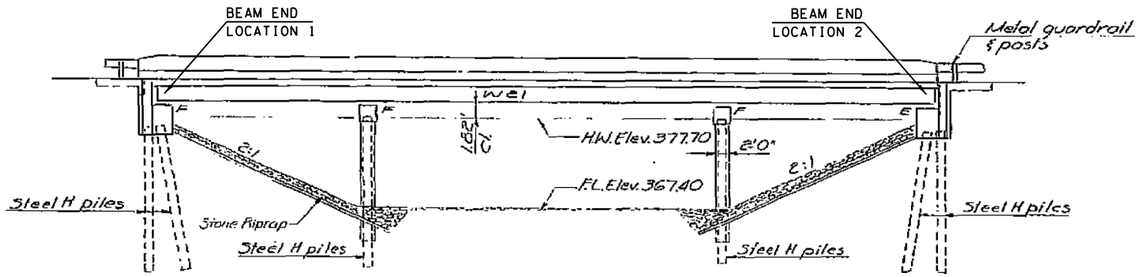
Existing Structure: # 002-0015. The existing structure built in 1936 as SA. Route 144, Section 16-B is a 91.10' bk. to bk. three span bridge. The existing superstructure consists of a 6" R.C. slab on 18" wf steel beams with an out to out of 26'-3". The existing substructure is composed of four pile bents with timber caps. The existing structure shall be removed and replaced with a new bridge. Traffic shall be maintained at all times utilizing stage construction. No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

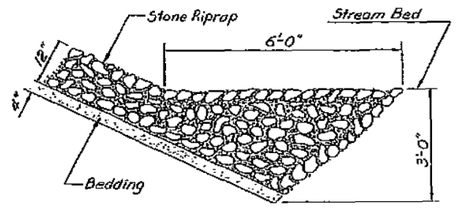
002-0029

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1907	17B-2	ALEXANDER	22	11
DESIG. ROAD SYST. NO.	PLAN NO.	FED. AID PROJECT NO.		

SHEET NO. 1
12 SHEETS

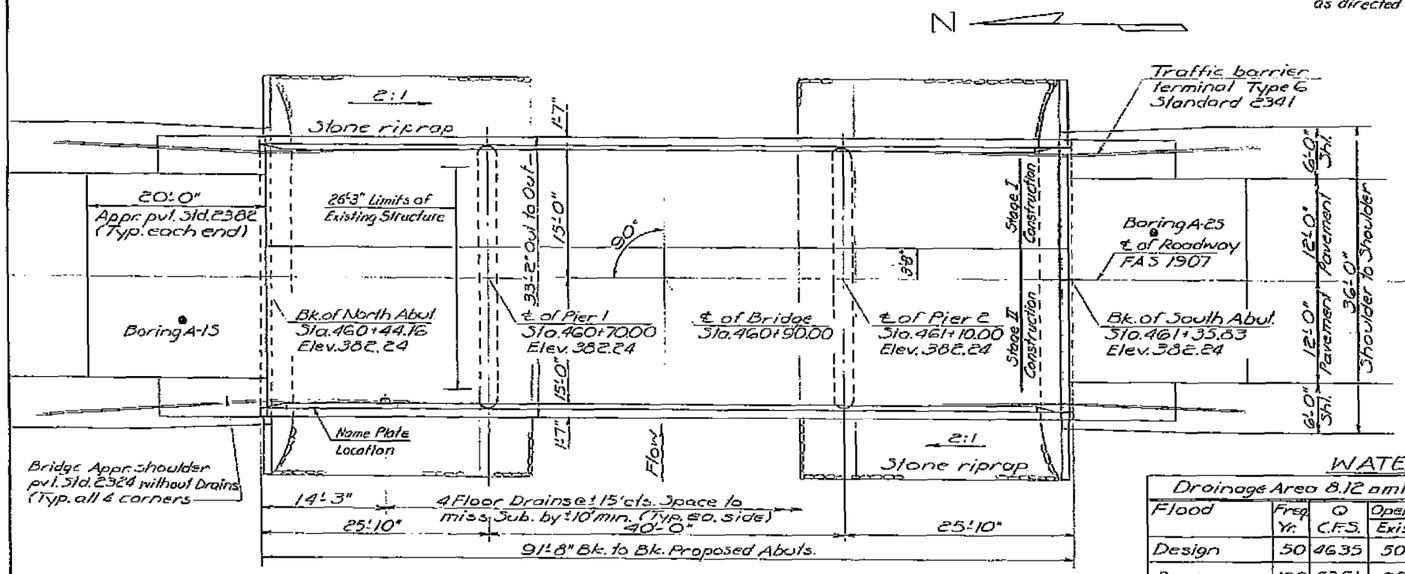


ELEVATION



STONE RIPRAP ANCHOR DETAIL

Note: Layout of stone riprap may be varied in the field to suit ground conditions as directed by the Engineer.



PLAN

STATION 460+90.00
COOPER CREEK
BUILT 19
F.A.S. RT. 1907 SEC. 17B-2
E.A. PROJ. BRS-1907(105)
LOADING H520
*STR. NO.

NAME PLATE
(See Std. 2113)

* Structure Number to be supplied by District.

GENERAL NOTES

SEE PROPOSAL FOR BORING DATA.

FASTENERS SHALL BE HIGH STRENGTH BOLTS (AASHTO M 164, TYPE 3), BOLTS 3/4"DIA., OPEN HOLES 13/16" DIA., UNLESS OTHERWISE NOTED.

CALCULATED WEIGHT OF STRUCTURAL STEEL = 35,920 LBS. M222 AND 1600 LBS. M183.

THE BASIC LEAD SILICO CHROMATE PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL EXCEPT WHERE OTHERWISE NOTED.

ALL STRUCTURAL STEEL SHALL BE AASHTO M 222 EXCEPT EXPANSION JOINT ANGLES AND ATTACHED BARS WHICH SHALL BE AASHTO M 183.

ALL CONTACT SURFACES OF JOINTS FOR THE DIAPHRAGMS SHALL BE FREE OF PAINT OR LACQUER.

EXPANSION JOINT ANGLES AND ATTACHED BARS SHALL BE SHOP PAINTED WITH TWO COATS OF BASIC LEAD SILICO CHROMATE PAINT.

AASHTO M 222 STRUCTURAL STEEL SHALL NOT BE PAINTED EXCEPT FOR A DISTANCE OF THREE TIMES THE DEPTH OF THE BEAMS (BUT NOT EXCEEDING 10 FEET) EACH WAY FROM THE DECK JOINTS. THE AASHTO M 222 STRUCTURAL STEEL TO BE PAINTED SHALL BE CLEANED AND GIVEN ONE COAT OF THE BASIC LEAD SILICO CHROMATE PRIMER AND MAROON FIELD COAT. BOTH COATS SHALL BE APPLIED IN THE SHOP WITH SPOT PAINTING ONLY IN THE FIELD.

FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF BEAMS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM THE PIER SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

ANCHOR BOLTS SHALL BE SET BEFORE BOLTING DIAPHRAGMS OVER SUPPORTS.

THE MAIN LOAD CARRYING MEMBER COMPONENTS SUBJECT TO TENSILE STRESS SHALL CONFORM TO THE SUPPLEMENTAL REQUIREMENTS FOR NOTCH TOUGHNESS ZONE 2. THESE COMPONENTS ARE THE WIDE FLANGE BEAMS AND ALL SPLICE PLATE MATERIAL.

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 31 OR M 53 GRADE 60.

BEARING SEAT SURFACES SHALL BE CONSTRUCTED OR ADJUSTED TO THE DESIGNATED ELEVATIONS WITHIN A TOLERANCE OF 1/8 INCH. ADJUSTMENT SHALL BE MADE EITHER BY GRINDING THE SURFACE OR BY SHIMMING THE BEARING. TWO 1/8" ADJUSTING SHIMS, OF THE DIMENSIONS OF THE BOTTOM BEARING PLATE, SHALL BE PROVIDED FOR EACH BEARING IN ADDITION TO ALL OTHER PLATES OR SHIMS.

THE CONTRACTOR SHALL DRIVE 1-HP10X42 STEEL TEST PILE IN A PERMANENT LOCATION AT PIER 2 AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE PILES.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		168	168
Floor Drains	Each	8		8
Protective Coat	Sq. Yd.	385		385
Class X Concrete	Cu. Yd.	91.6	118.5	210.1
Structural Steel	Lump Sum	1		1
Stud Shear Connectors	Each	500		500
Reinforcement Bars	Lbs.		8100	8100
Reinforcement Bars (Epoxy Coated)	Lbs.	23060		23060
Steel Piles, HP10x42	Lin. Ft.		2224	2224
Test Pile Steel HP10x42	Each		1	1
Name Plates	Each	1		1
Stone Riprap	Sq. Yd.		304	304
Preformed Joint Seal (2½")	Lin. Ft.	33		33
Temporary Bridge Rail	Lin. Ft.	130		130
Slope Wall Removal	Sq. Yd.		350	350

WATERWAY INFORMATION

Drainage Area 8.12 sq. mi. Low Grade Elev. 381.5' @ Sta. 469+00

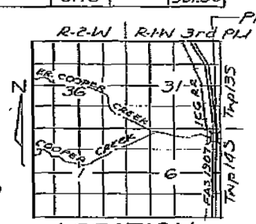
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head-Ft. Exist.	Head-Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	4635	500	604	377.7'	3.46	2.38	381.16	380.08
Base	100	5351	524	632	378.0'	3.68	2.83	381.68	380.85
Overtopping									
Max. Calc.	500	7062		683	378.5'		3.46		381.96

DESIGN STRESSES

f'c = 3500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (Structural) AASHTO M 222
= 36,000 psi (Structural) AASHTO M 183

Allow 25#/s' for future wearing surf.
Design Specifications: 1977 AASHTO and 1978, 1979, 1980, 1981 and 1982 interim specs.

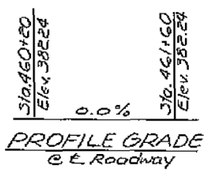
LOADING ~~H320-44~~



LOCATION SKETCH

DESIGNED	Rick Brunette
CHECKED	M. Bloxdorf
DRAWN	Rick Brunette jas
CHECKED	DJR M.B.

June 24 1983
EXAMINED
PASSED
APPROVED
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES
DIRECTOR OF HIGHWAYS



PROFILE GRADE
℄ E. Roadway

STATE OF ILLINOIS 2287

GENERAL PLAN
ILL RTE. 127 OVER COOPER CREEK
FAS ROUTE 1907
SECTION 17B-2
ALEXANDER COUNTY
STATION 460+90.00

FOR INFORMATION ONLY

FILE NAME = c:\pw_work\pwidot\dahmerja\d0392003\78428-sht-plan.dgn	USER NAME = Dahmerja	DESIGNED -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	DRAWN -	REVISED -
Default	PLOT DATE = 8/15/2014	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SN 002-0029

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D9 BRIDGE PAINT 2015-1	VARIOUS	23	21
		CONTRACT NO. 78428		
	ILLINOIS FED. AID PROJECT			