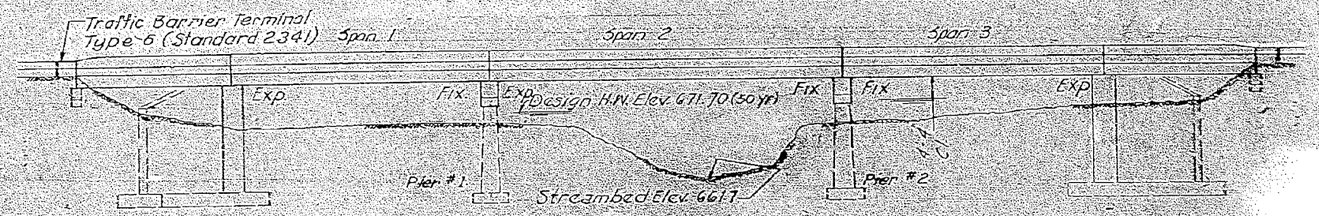
Bench Mark #113 Chiseled "5" N.E. Wingwall Elev. 678.58
Existing Structure: Built as F.A. 119 Sec. 120-B N.P.H. in 1936 R.C.D.G. with conc. piers & closed R.C. Abuts @ Sta 126+95.3 Span R.C.D.G. to be removed. Replace with P.P.C. Deck Bms. using Stage Construction & temp. Bridgerail No Salvage. Exist. Structure No. 057-0091. See Special Provisions for deck removal sequence.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Keyway surfaces shall be cleaned to remove form oil & other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

ADMIN. CO.	VARIOUS	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 53	120BR	MC LEAN	30	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1
SHEETS 8



ELEVATION

STA. 126+95.70
BUILT 198_ BY
STATE OF ILLINOIS
F.A. RT. 53 SEC. 120 BR
FA. PROJ. BHF 53(36)
LOADING HS 20
STR. NO. 057-0091

NAME PLATE
SEE STANDARD 2113

WATERWAY INFORMATION

Drainage Area	7598 Acres
Character	level, nothing cultivated
Present Opening	437 Sq. Ft.
Proposed Opening	437 Sq. Ft.
Required Opening	437 Sq. Ft.
Designed Q(50)	1970 C.F.S.
Q(100)	2405 C.F.S.
H.W. Elev. 672.05 (100 yr)	

THE "STATE OF ILLINOIS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" Adopted 10-1-79 SHALL APPLY.

CONCRETE: CLASS X CONCRETE SHALL BE USED THROUGHOUT EXCEPT FOR PRECAST PRESTRESSED UNITS. SEE THE APPLICABLE SPECIFICATIONS FOR CONCRETE REQUIREMENTS FOR PRECAST PRESTRESSED UNITS.

REINFORCEMENT BARS SHALL CONFORM TO AASHTO M-31 OR M-53, GRADE 60.

Expansion bolts shall consist of approved exp. anchors, providing min. proof load = 4,080# and 3/4"φ x 12" hooked bolts.

ALL STRUCTURAL STEEL SHALL BE SHOP PAINTED WITH 2 COATS OF BASIC LEAD SILICO CHROMATE PAINT

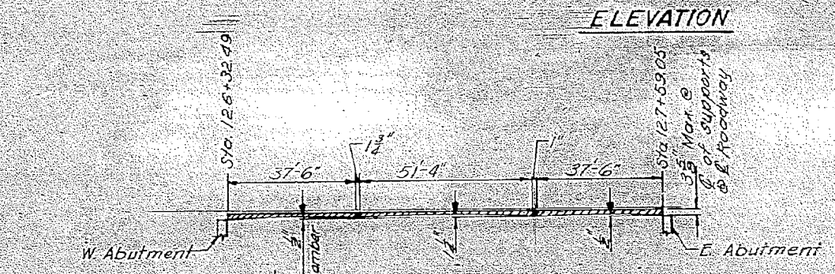
ALL BAR BEND DIMENSIONS ARE SHOWN OUT TO OUT OF BARS

THE CONCRETE RAIL SECTION ABOVE THE TOP OF THE DECK BEAM SHALL BE CONSTRUCTED OF CLASS X CONCRETE, EXCEPT THE AGGREGATES SHALL CONFORM TO THE REQUIREMENTS FOR HANDRAIL CONCRETE.

PROTECTIVE COAT SHALL NOT BE APPLIED TO SURFACES TO WHICH WATERPROOFING MEMBRANE SYSTEM IS APPLIED

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS

THE TOP SURFACE OF THE BEAMS SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 505.06 OF THE STANDARD SPECIFICATIONS EXCEPT THAT THE SURFACE SHALL NOT BE ROUGHENED BY BROOMING. THE FINISHED SURFACE SHALL BE FREE OF DEPRESSIONS OR HIGH SPOTS WITH SHARP CORNERS, AND THE TOP EDGE OF KEYS SHALL BE ROUNDED OR CHAMFERED A MIN. OF 1/4"



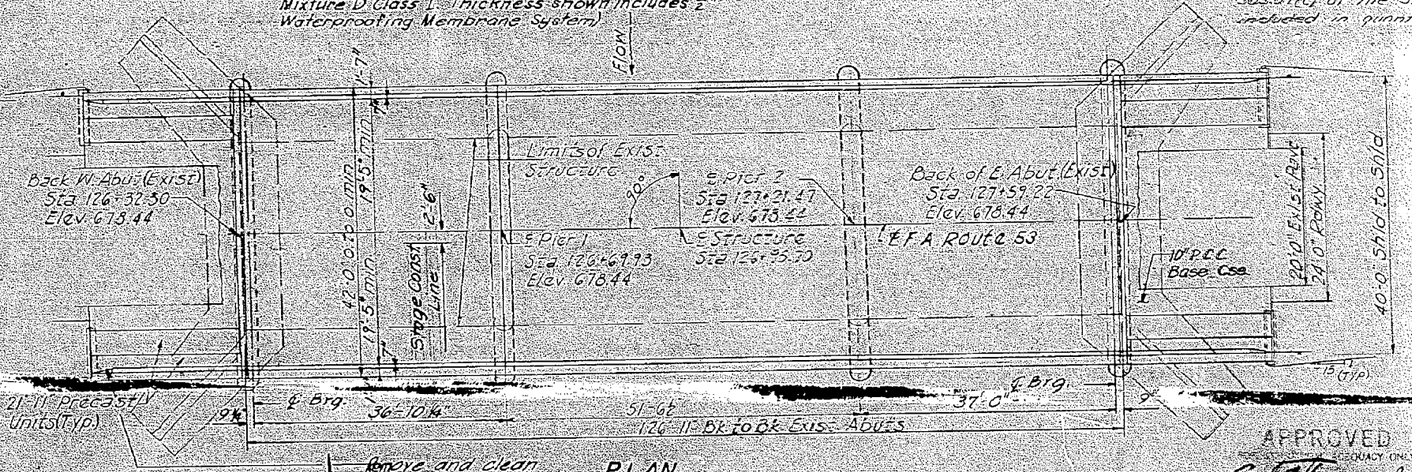
BITUMINOUS SURFACE PROFILE
(Limits of Bituminous Concrete Surface Course Mixture D Class I. Thickness shown includes 2" Waterproofing Membrane System)

NOTE: See sheet 8 for stage construction sequence

Expansion guards which are not cast in the precast unit shall be fabricated and erected in accordance with Art. 503.07(c) of the Std. Specs and are included in quantity of Str. Steel.

BILL OF MATERIALS

ITEM	UNIT	QUANTITY SUPERSTR.	SUBSTR.	TOTAL
BIT. CONC. SURFACE CSE., MIX. D, CL. I	TON	80.4	---	80.4
PORTLAND CEMENT CONCRETE BASE COURSE 10"	SQ. YD.	---	---	34
PAVEMENT FABRIC	SQ. YD.	---	---	50
REM. OF EXIST. SUPER-STRUCTURES	EACH	1	---	1
CONC. REMOVAL	CU. YD.	---	17.9	17.9
EXPANSION BOLTS 3/4" φ 9"	EACH	---	104	104
PROTECTIVE COAT	SQ. YD.	135	---	135
CLASS "X" CONC.	CU. YD.	44.6	59.2	103.8
3/4" φ ANCHOR BOLTS, 12"	EACH	---	---	60
PRECAST CONCRETE BRIDGE SLABS	SQ. FT.	658	---	658
PRECAST PRESTRESSED CONC. DECK BEAM 21"	SQ. FT.	5305	---	5305
WATERPROOFING MEMBRANE SYSTEM	SQ. YD.	545	---	545
STRUCTURAL STEEL	LB.	8031	---	8031
REINFORCEMENT BARS	LB.	4530	10,000	14,530
REINFORCEMENT BARS (EPOXY COATED)	LB.	365	---	365
NAME PLATES	EACH	---	---	1
PAVEMENT REMOVAL	SQ. YD.	---	---	14
PAVEMENT REPLACEMENT	SQ. YD.	---	---	16
PREFORMED JOINT SEAL 2"	LIN. FT.	126	---	126
TEMP. BRIDGERAIL	LIN. FT.	127	---	127
PORTLAND CEMENT MORTAR FAIRING COURSE	LIN. FT.	1642	---	1642
EXPANSION				



PLAN

Remove and clean exist. Name Plate and place below new Name Plate @ south-west corner

Sta 126+00 Elev. 678.44
Sta 128+00 Elev. 678.44
-0.00%

PROFILE GRADE

DESIGN STRESSES

FIELD UNITS
f_c = 3500 p.s.i.
f_y = 60,000 p.s.i.
n = 9

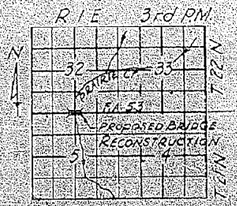
PRECAST UNITS
f'_c = 4500 psi
f_c = 1800 psi
f_s = 20000 psi
n = 8

PRECAST PRESTR. UNITS
f'_c = 5000 psi
f_c = 1400 psi
f'_s = 270000 psi 2 Strands
f_s = 189000 psi 2 Strands

Allow 5" for future wearing surface
Design Specifications: 1977 AASHTO-1978, 1979, 1980 & 1981

LOADING HS 20 PL 44 (Non Const.)

APPROVED
FOR ADEQUACY ONLY
Carl E. Thummel
Bridge Engineer Structures



LOCATION SKETCH

10-8-76 Woodrow C. Chenault, Jr.
DATE
WOODROW C. CHENAULT, JR
ILL. REG. STRUCTURAL ENGINEER
NO. 3567

GENERAL PLAN & ELEVATION
F.A. ROUTE 53
OVER PRAIRIE CREEK
SECTION 120 BR
MCLEAN COUNTY
STATION 126+95.70

Revised

DESIGNED
CHECKED
DRAWN
CHECKED

Rev. 7-78 3/4" φ Bolts 1 per 152 in.² Dis. Each 1000 Lbs. Cap. To Attach 30 Pcs. D.D.

FILE NAME =	USER NAME = stultsjw	DESIGNED -	REVISED -
c:\pw_work\PWIDOT\STULTSJW\d0169514\D570524-sht-exbridge.dgn	PLOT SCALE = 40.00 ' / IN.	DRAWN -	REVISED -
Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois	PLOT DATE = 10/20/2009	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN / ELEVATION OF EXISTING BRIDGE
(FOR INFORMATION ONLY)

SCALE: NONE | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	120BR-1	MCLEAN	49	29
		CONTRACT NO. 70524		
		ILLINOIS FED. AID PROJECT		