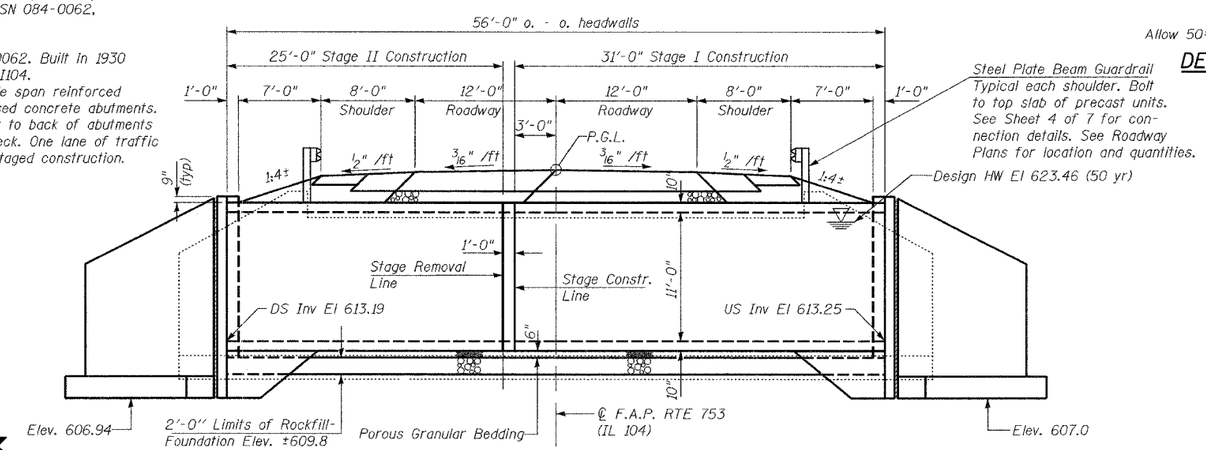
Bench Mark: Chiseled square in top of wingwall, Southeast corner of bridge SN 084-0062. Elevation 625.65.

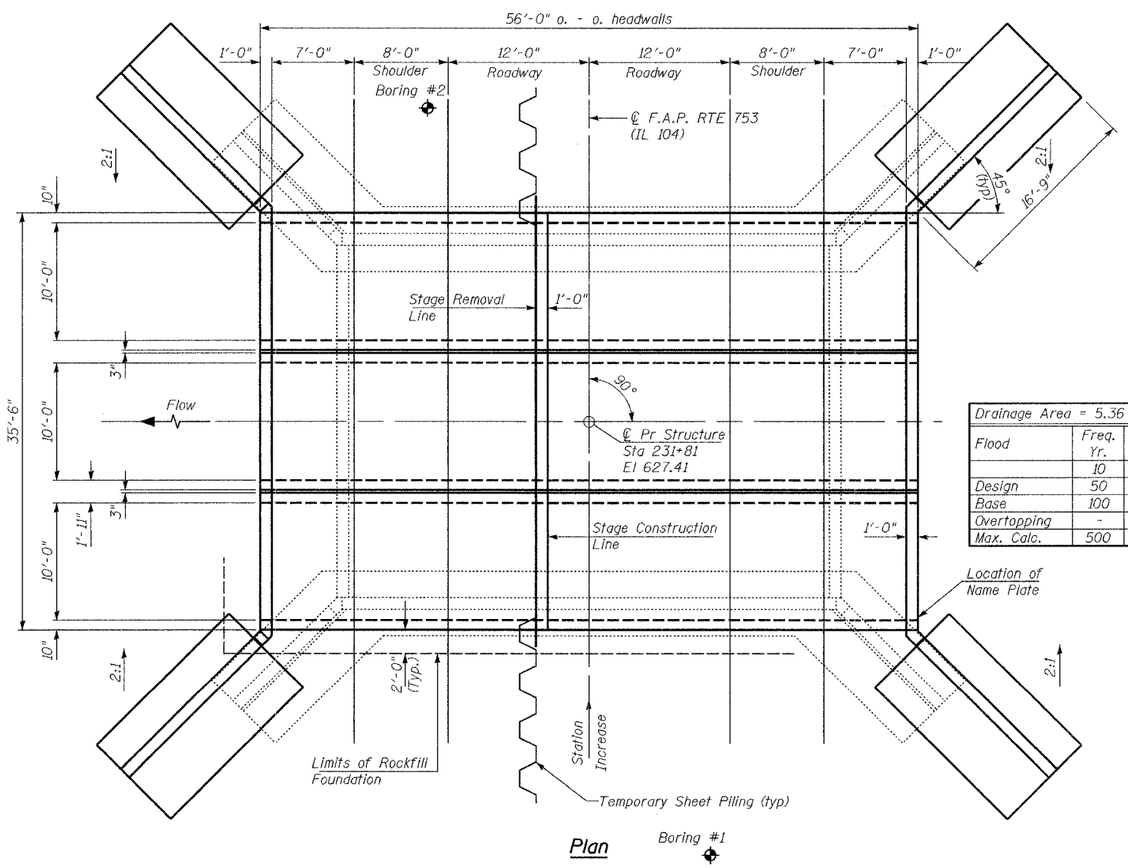
Existing Structure: SN 084-0062. Built in 1930 under Section 139B, Rte SBI104. Existing structure is a single span reinforced concrete slab bridge on closed concrete abutments. The structure is 32'-0" back to back of abutments and 42'-2" out to out of deck. One lane of traffic will be maintained utilizing staged construction.

No Salvage.



LONGITUDINAL SECTION

(Looking East)



Plan

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO

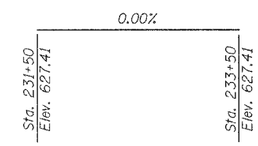
DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)

PRECAST UNITS

f'_c = 5,000 psi
f_y = 65,000 psi (Welded Wire Fabric)



PROFILE GRADE

℄ Roadway

STATION 231+81.00
BUILT 20__ BY
STATE OF ILLINOIS
FAP ROUTE 753, SECTION 139 BR-1
LOADING HS20
STR. NO. 084-2507

NAME PLATE

See Std. 515001

WATERWAY INFORMATION

Drainage Area = 5.36 mi² Low Grade Elev. 626.13 @ Sta. 227+50

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.
	10	1065	269	303	622.32	0.12	0.13	622.44	622.45
Design	50	1713	304	330	623.46	0.27	0.41	623.73	623.87
Base	100	1997	318	330	623.93	0.44	0.57	624.37	624.50
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	2695	332	330	624.41	1.14	1.07	625.55	625.48

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 753 (IL 104)	139BR-1	SANGAMON	36	15
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
7 SHEETS

Contract No. 72689

GENERAL NOTES

1.) Layout Of Riprap May Be Varied In The Field To Suit Ground Conditions As Directed By The Engineer.
2.) Cast-In-Place Concrete Exposed Edges Shall Be Beveled 3/4 in.
3.) Class SI Copncrete Shall Be Used Throughout.
4.) Reinforcement Bars Shall Conform To The Requirements of ASTM A 706 Grade 60 (IL Modified). See Special Provisions.
5.) Reinforcement Bars Designated (E) Shall Be Epoxy Coated.
6.) Bars Indicated Thus, 4x2-#5 Etc., Indicates 4 Lines Of Bars With 2 Lengths Per Line.
7.) It Shall Be The Responsibilty Of The Contractor To Divert The Stream Flow During Construction In Order To Keep The Construction Area Free Of Water. The Method Of Water Diversion Shall Be Subject To The Approval Of The Engineer And The Cost Shall Be Included With The Cost of "Concrete Box Culverts"
8.) See Sheets 6 & 7 For Boring Data.
9.) Excavation Behind Existing Abutment Walls Shall Be Done Before Removing The Existing Top Slab. The Contractor Shall Sawcut The Existing Abutment Walls At The Stage Removal Line Before Stage I Removal.
10.) Structural Seal Is For Cast-In-Place Portion Of Structure Only.
11.) Precast Concrete Box Culvert Sections Shall Conform To The Requirements Of Article 540.06 Of The Standard Specifications And The Applicable Requirements Of AASHTO M 259.
12.) For Backfilling And Embankment, See Special Provisions.
13.) See Sheet 2 for Stage Construction Details and Riprap Layout and Details.
14.) See Sheet 3 For Temporary Sheet Piling.
15.) Outside End of Precast Sections Shall Not Have A Bell Or Spigot.
16.) The End Sections and Wingwalls Shall Be Cast-In-Place.
17.) Boulders may be encountered during excavation.
18.) The limits and quantity of Rockfill-Foundation are based on the boring data. Prior to excavating below the theoretical elevation of the bottom of the bedding material, the Engineer shall be contacted and shall be present to determine the actual limits and depth of excavation for Rockfill-Foundation.
19.) Lifting Holes Shall Be Filled With Concrete Plugs And Mastic After Box Sections Are In Place.
20.) The joints between precast box sections shall be sealed and all voids filled with mastic joint sealer. In addition, the joints shall be externally sealed on all four sides using 13 inch wide external sealing bands. The seal shall be centered over the joint, secured in place and protected from damage during the backfilling operation.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal of Existing Structures	Each	1
Temporary Sheet Piling	Sq Ft	1114
Concrete Box Culverts	Cu Yd	105.4
Reinforcement Bars, Epoxy Coated	Pound	1710
Reinforcement Bars	Pound	5990
Name Plates	Each	1
Stone Riprap, Class A4	Sq Yd	582
Filter Fabric	Sq Yd	582
Precast Concrete Box Culvert 10' x 11'	Foot	168
Rockfill - Foundation	Ton	225

LICENSED STRUCTURAL ENGINEER
MARY COOMBE BLOXDORF
4859
SPRINGFIELD
STATE OF ILLINOIS

Illinois Structural No. 4859
Expires 11-30-2008
Date: 2/1/2007

ILLINOIS DEPARTMENT OF TRANSPORTATION

SHEET TITLE: GENERAL PLAN AND ELEVATION

PROJECT: IL. ROUTE 104 OVER JOHNS CREEK
FAP ROUTE 753 SECTION 139BR-1
SANGAMON COUNTY
STATION 231+81
STRUCTURE NUMBER 084-2507

PROJECT NO. 02124-2
SCALE
DATE 02/01/07
DRAWN BY TFG/CFC
CHECKED BY CME/REG/MCB
DRAWING NO. 1 OF 7 SHTS

COOMBE-BLOXDORF P.C.
Engineers / Land Surveyors
Springfield, Illinois
Design Firm License No. 184-002703