

Bench Mark: "□" cut on southeast wingwall of structure 099-0032. Elev. 594.65

Existing Structure: S.N. 099-0032, constructed in 1956 as FA Rte 34, Sec 27, is a single-span 22'-9" bk. to bk. abutments, 39'-4" out to out R.C. slab bridge on closed abutments with no skew. The contractor shall remove the existing superstructure and portions of the abutments as required and replace it with a single-span R.C. slab bridge. The structure shall be kept open to one lane of traffic in each direction utilizing stage construction.

No Salvage.

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	27 BR	WILL	29	10
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO.
1 of 8

Contract No.: 62424

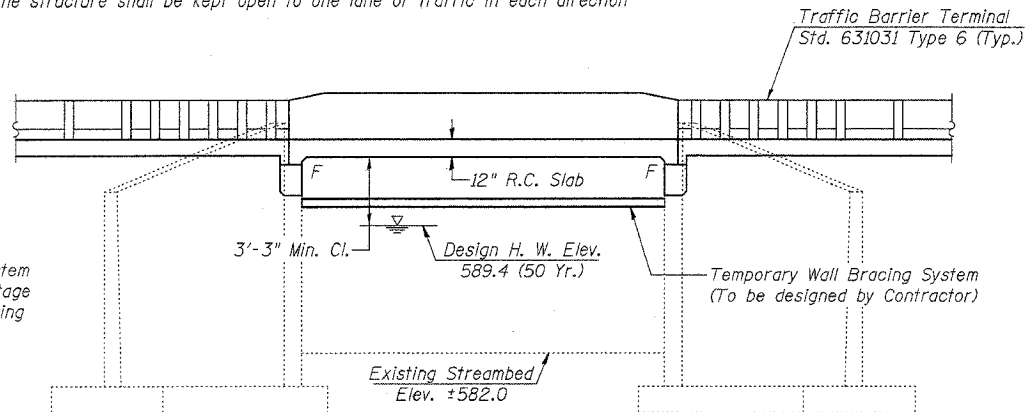
GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M 31, or M 322 Grade 60.
 Backfill shall be placed down to the elevation of the concrete removal line behind the abutment after the superstructure has been poured and the falsework removed. See Article 502.10 of the Standard Specifications.
 The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection.
 Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
 All construction joints shall be bonded.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment	Cu. Yd.		11.2	11.2
Concrete Removal	Cu. Yd.		6.4	6.4
Protective Coat	Sq. Yd.	108		108
Removal of Existing Superstructures	Each	1		1
Structure Excavation	Cu. Yd.		11.2	11.2
Concrete Structures	Cu. Yd.		6.2	6.2
Concrete Superstructure	Cu. Yd.	39.0		39.0
Bridge Deck Grooving	Sq. Yd.	83		83
Reinforcement Bars, Epoxy Coated	Pound	8820	1080	9900
Temporary Wall Bracing System	L. Sum			1
Name Plates	Each	1		1
Bar Splacers	Each	46	12	58
Formed Concrete Repair (Depth equal to or less than 5")	Sq. Ft.		16	16
Epoxy Crack Sealing	Foot		47	47

NOTE:
 Temporary Wall Bracing System shall be installed in each stage before removal of the existing superstructure begins.



ELEVATION

INDEX OF SHEETS

Sheet No.	Description
1	General Plan
2	Stage Construction Details
3	Superstructure
4	Superstructure Details
5	North Abutment
6	South Abutment
7	Bar Splicer Assembly Details
8	Temporary Concrete Barrier For Stage Construction

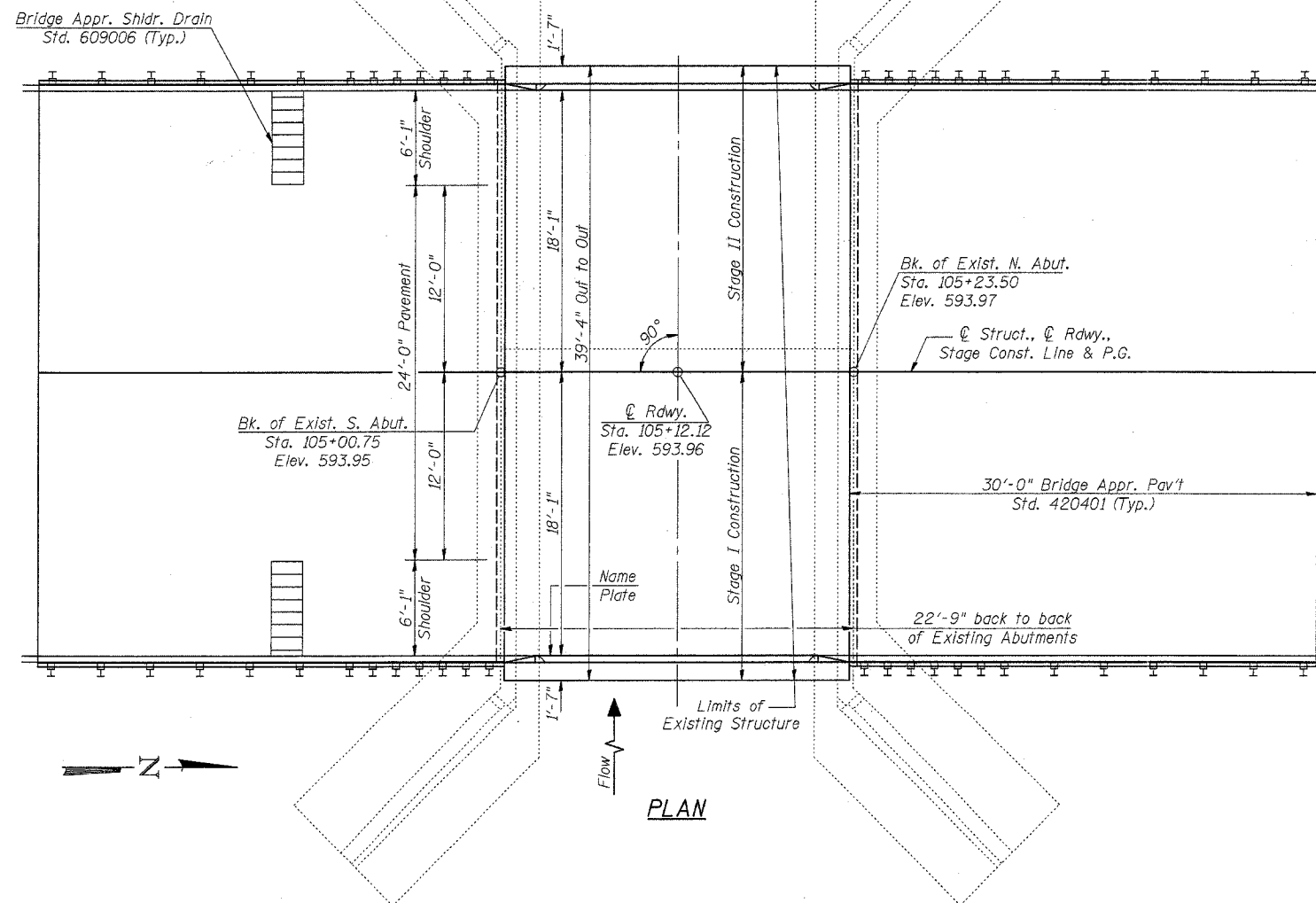
LOADING HS20-44
 Allow 50#/sq. ft. for future wearing surface.
DESIGN SPECIFICATIONS
 2002 AASHTO

DESIGN STRESSES

New Construction
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
Existing Construction
 $f'_c = 800$ psi (substructure)
 $f_s = 20,000$ psi (reinforcement)

SEISMIC DATA

Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = .04g
 Site Coefficient (S) = 1.2

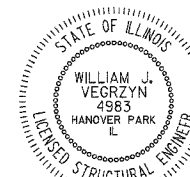


PLAN

STATION 105+12.13
 REBUILT 20 BY
 STATE OF ILLINOIS
 F.A.I. RT. 55 SEC. 27 BR
 LOADING HS20
 STR. NO. 099-0032

NAME PLATE

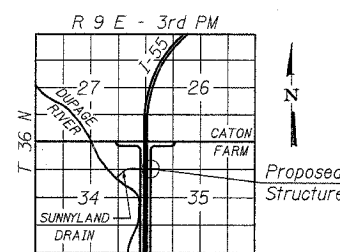
See Std. 515001
 Note: Existing name plate to be cleaned and relocated next to new plate. Cost is included with Name Plates.



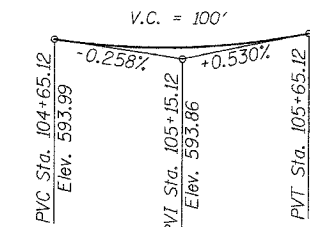
APPROVED
 FOR STRUCTURAL ADEQUACY ONLY **PROFILE GRADE**

Robert E. Anderson
 ENGINEER OF BRIDGES AND STRUCTURES

William J. Vegrzyn 11-10-04
 Expires 11-30-06



LOCATION SKETCH



WATERWAY INFORMATION

Drainage Area = 5.30 mi ²		Low Grade Elev. 594.0		Sta. 105+23					
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Nat. Exist. Prop.	Head-Ft. H.W.E. Exist. Prop.	Headwater El. Exist. Prop.			
	10	410	152	152	589.3	0.2	0.2	589.5	589.5
Design	50	700	155	155	589.4	0.5	0.5	589.9	589.9
Base	100	850	157	157	589.5	0.8	0.8	590.3	590.3
Overtopping	-	-	-	-	-	-	-	-	-
Max Calc.	500	1440	163	163	589.8	1.9	1.9	591.7	591.7



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 GENERAL PLAN
 FAI RTE. 55 (EAST FRONTAGE ROAD)
 OVER SUNNYLAND DRAIN
 SECTION 27 BR
 WILL COUNTY
 STATION 105+12.13
 STRUCTURE NO. 099-0032
 DRAWN BY BLB
 CHECKED BY WJV
 DATE: 11/10/04