

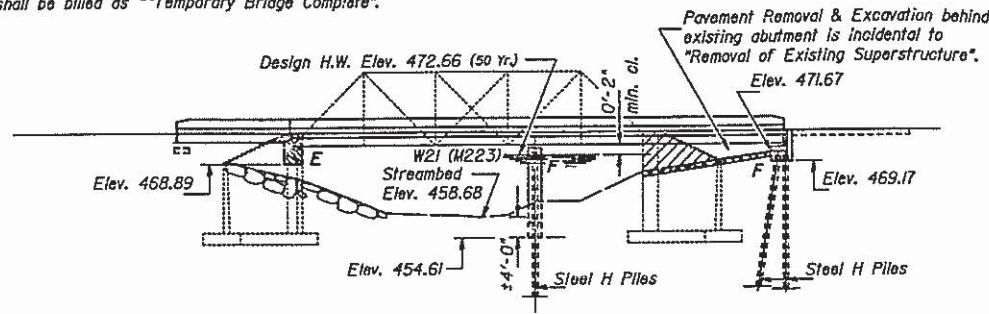
Bench Mark: #U-245 Sta. 274+53.10 U.S.C. & G.S. tablet stamped 1-2-54 top of east end of north abutment of bridge, 15.6' Lt.
Elev. 472.28

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DATE	BY	NO.	REV.	SHEET NO.
08/28/14	SCOTT	32	10	20 SHEETS

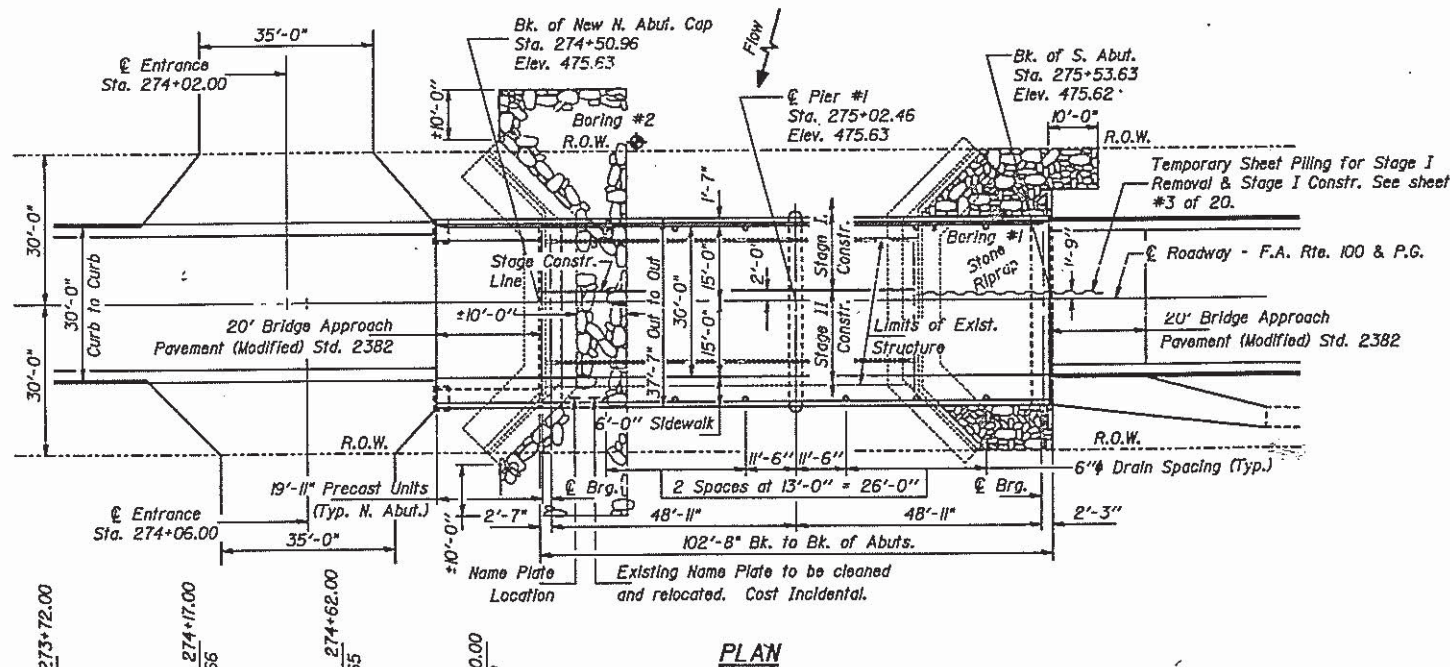
Existing Structure: Sta. 274+90.00 S.B.I. Rte. 100, Section 116-C, Built in 1931, Structure Number #086-0006
Superstructure is a one span pony truss 75'-10" Bk. to Bk. abut. with a clear roadway width of 22'-6" and a 4'-0" sidewalk on closed abutments. The south abutment and superstructure are to be removed and replaced with a 2 span WF superstructure on pile bent pier and new south abutment. Existing north abut. will be reused. Stage construction shall be utilized, and the contractor shall provide for pedestrian traffic during all stages of construction. Contractors plans for temporary pedestrian structure shall be submitted to the district office for approval. Temporary pedestrian structure shall be billed as "Temporary Bridge Complete".

No Salvage.

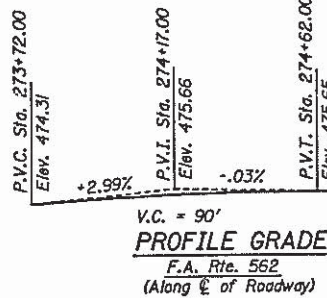


Hatched area indicates "Concrete Removal". See sheet #2 of 20.

ELEVATION



PLAN



PROFILE GRADE
F.A. Rte. 562
(Along E of Roadway)

* "Temporary Bridge Complete" specifications shall be:

- 4'-0" Min. Width
- 76'-0" Min. Length
- 729 Sq. Ft. Min. waterway opening
- 85 Lbs. per Sq. Ft. design live load

WATERWAY INFORMATION

Drainage Area = 9.57 sq. mi. Low Grade Elev. 472.42 @ Sta. 272+50.00									
Flood Yr.	Q	Opening Sq. Ft.	Nat. H.W.E.	Head - Ft.	Headwater El.	Prop. H.W.E.	Prop. Headwater El.		
Design	50	4110	729	741	472.66	0.38	0.34	473.04	473.00
Base	100	4730	729	741	473.39	0.44	0.44	473.83	473.83
Overtopping	35	3750	-	703	472.18	-	0.22	-	472.4
Max. Calc.	500	-	-	-	-	-	-	-	-

GENERAL NOTES

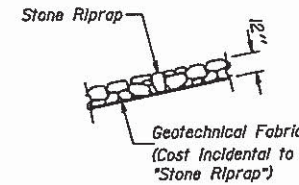
See Proposal for Boring Data.
Fasteners shall be high strength bolts. Bolts 7/8", open holes 1 1/8", unless otherwise noted.
All high strength bolt connections shall conform to the requirements of the latest issue of the "Specifications for Structural Joints Using ASTM A325 (M164) or A490 (M253) Bolts" for slip-critical connections. Except tightening methods using either the load indicating washers or the calibrated wrench are not allowed.
Calculated weight of Structural Steel: 12,910 Lbs. (AASHTO M183)
Calculated weight of Structural Steel: 58,640 Lbs. (AASHTO M223)
The Zinc-silicate and vinyl paint system shall be used for shop and field painting of Structural Steel except where otherwise noted.
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 support. 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 beam (W21x83) and all splice plate material of the wide flange beams.
Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.

Shoulder transition to wingwall shall be shaped with broken concrete. Cost incidental.
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.
Expansion bolts shall consist of approved expansion anchors, providing minimum certified proof load = 4,080 lbs., and 3/4" x 12" hooked bolts.
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 1/2" 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 one steel (HPI0x42) test pile in a permanent location at the South Abutment as directed by the Engineer before ordering the remainder of piles.
For cantilever forming brackets see special provisions.

Note: The Contractor shall provide temporary timber shoring to protect the roadway at the North Abutment during Stage I and II Construction and at the new South Abutment during Stage II Construction. Cost is incidental to "Structure Excavation".

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Class X Concrete Superstructure	Cu. Yd.	133.0		133.0
Class X Concrete	Cu. Yd.		89.2	89.2
Floor Drains	Each	12		12
Reinforcement Bars (Epoxy Coated)	Lbs.	25,480		25,480
Reinforcement Bars	Lbs.	820	9,340	10,160
Steel Piles (HPI0x42)	Lin. Ft.		793	793
Test Piles Steel (HPI0x42)	Each		1	1
Guide Plates	Each	1		1
Stone Riprap	Tons		150	150
Structure Excavation	Cu. Yd.		124	124
Preformed Joint Seal (1 1/2")	Lin. Ft.	40		40
Preformed Joint Seal (4")	Lin. Ft.	40		40
Temporary Bridge Roll	Lin. Ft.	143		143
Protective Coat	Sq. Yd.	133		133
Structural Steel	L.S.			1
Temporary Support System	L.S.			1
Aluminum Railing, Type L	Lin. Ft.	119		119
Elastomeric Bearing Assembly, Type II	Each	7		7
Expansion Bolts (3/4")	Each	30		30
Removal of Existing Superstructure	Each			1
Concrete Removal	Cu. Yd.		35	35
Precast Concrete Bridge Slab	Sq. Ft.		150	150
Stud Shear Connectors	Each	1,736		1,736
Furnishing Steel Pile (HP8x36)	Lin. Ft.		15	15
Epoxy Crack Sealing	Lin. Ft.		8	8
Temporary Sheet Piling	Sq. Ft.		936	936
Temporary Bridge Complete	Each			1



STONE RIPRAP DETAIL

STATION 275+02.30
REBUILT BR BY
STATE OF ILLINOIS
F.A. RT. 562 SEC. 116BR-1
F.A. PROJ. BHF-562(3)
LOADING HS20
STR. NO. 086-0006

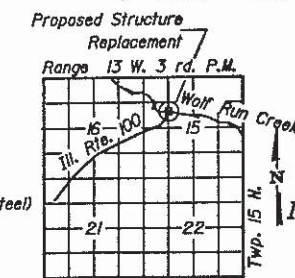
NAME PLATE
See Std. 2113

DESIGN SPECIFICATIONS

AASHTO 1983, 1984 and 1985 Interims.
LOADING HS 20-44
Allow 25#/sq. ft. for future wearing surface.

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinf.)
fy = 50,000 psi (AASHTO M223 Gr. 50) (Structural Steel)
fy = 36,000 psi (AASHTO M183) (Structural Steel)
PRECAST UNITS
f'c = 4,500 psi
fs = 20,000 psi (Reinf.)
fc = 1,800 psi



LOCATION SKETCH

GENERAL PLAN
ILL. ROUTE 100 OVER WOLF RUN CREEK
F.A. ROUTE 562 SECTION 116 BR-1
SCOTT COUNTY
STATION 275+02.30
STRUCTURE NUMBER 086-0006

DESIGNED	VECTOR VELAZ
CHECKED	Y Esmail
DRAWN	John F. Schneller Jr.
CHECKED	V.V.

APR 2 1987
APPROVED
James J. Schneller
DIRECTOR OF HIGHWAYS