

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.P. 607	129BR	KENDALL	61	16
FED. ROAD DIST. NO.	ILL. ROAD DIST. NO.	FED. AID PROJECT		

Contract #66667

GENERAL NOTES

This box culvert has a design fill height of 3.1 feet. The Precast Concrete Box Culvert sections shall conform to the requirements of AASHTO M-259.
Reinforcement bars designated (E) shall be epoxy coated. Reinforcement bars shall conform to the requirements of ASTM A706 Gr 60 (IL Modified). See Special Provisions
Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications

LOADING HS20-44

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

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 36,000$ psi (soldier piles)

PRECAST UNITS

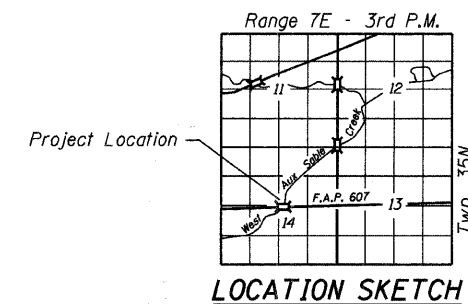
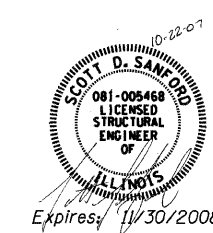
$f'_c = 5,000$ psi
 $f_y = 65,000$ psi (welded wire fabric)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal of Existing Structures	Each	1
Concrete Structures	Cu. Yd.	26.2
Stud Shear Connectors	Each	273
Untreated Timber Lagging	Sq. Ft.	470
Furnishing Soldier Piles (HP Section)	Foot	465
Reinforcement Bars, Epoxy Coated	Pound	13,400
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	64.8
Precast Concrete Box Culvert 10'x8'	Foot	90
Geocomposite Wall Drain	Sq. Yd.	52
Steel Plate Beam Guardrail, Attached To Structures	Foot	68
Geotextile Retaining Wall	Sq. Ft.	76
Temporary Soil Retention System	Sq. Ft.	470
Driving Soldier Piles	Foot	302

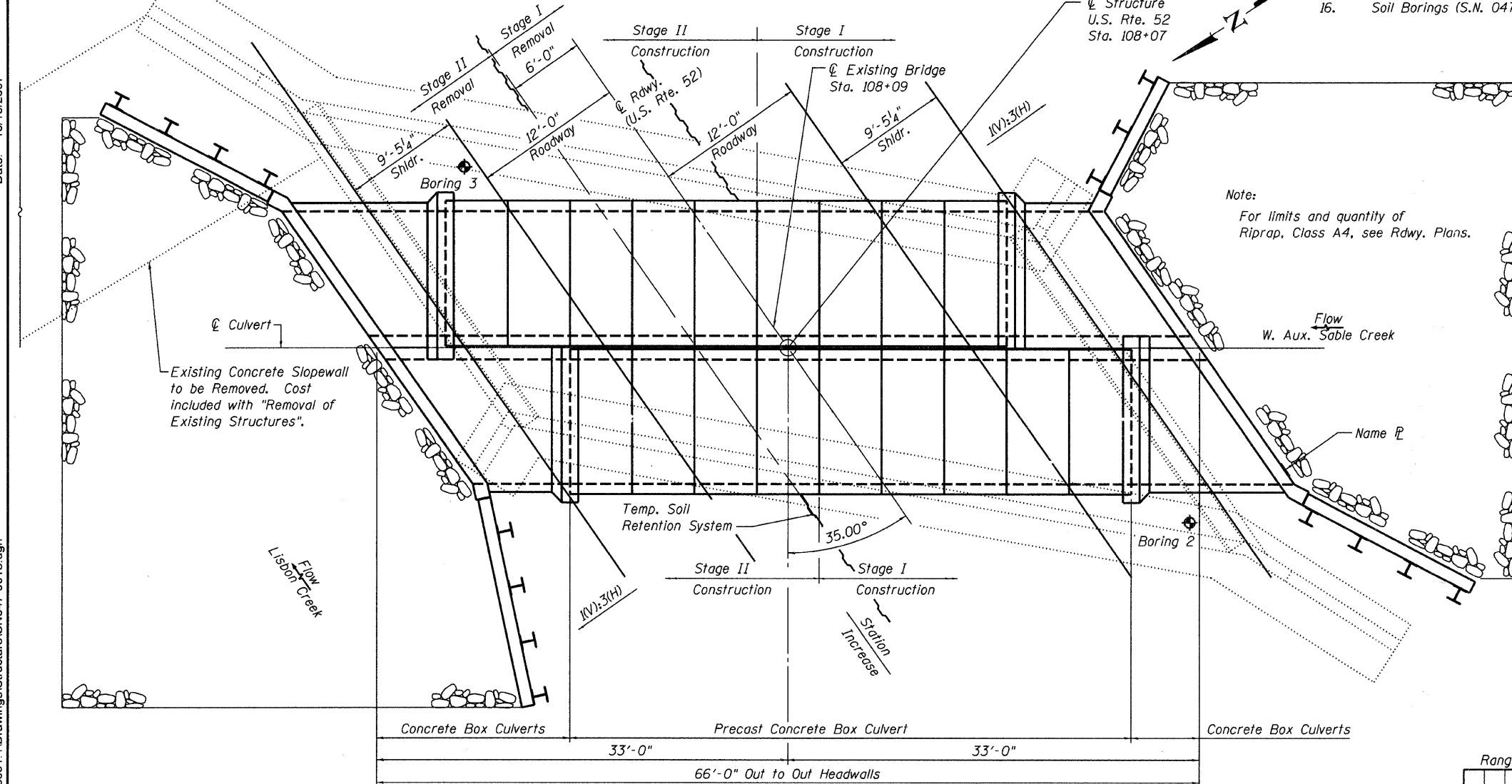
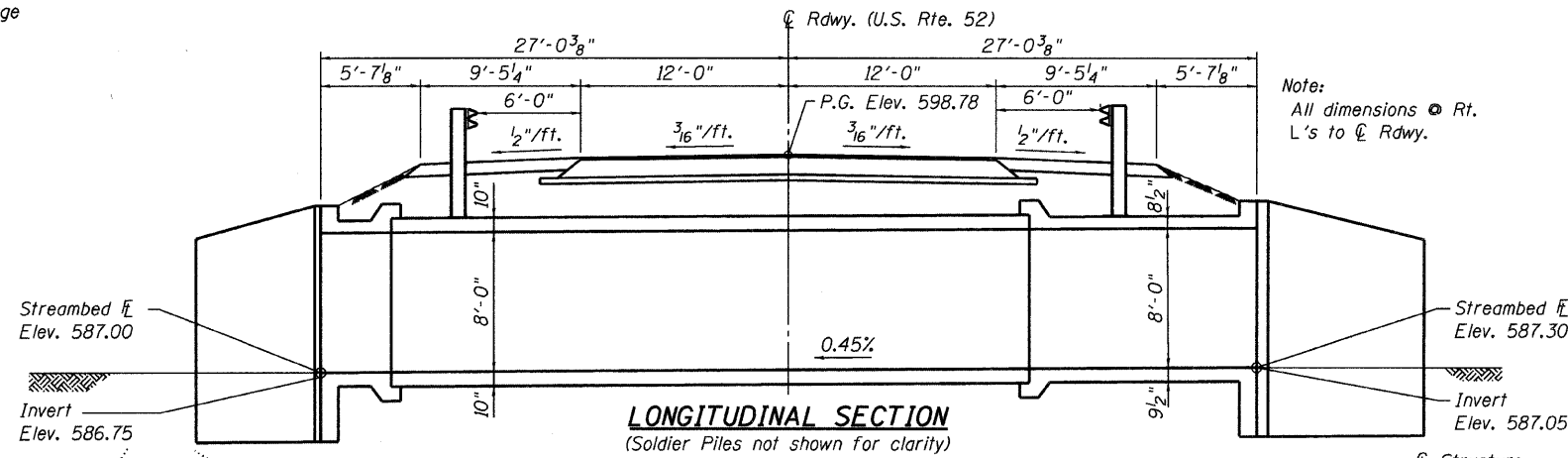
STATION 108+07
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RT. 607 SEC. 129BR
LOADING HS20
STR. NO. 047-2019

NAME PLATE
See Std. 515001



Benchmark: Railroad spike in wood post, Sta. 106+31.08, 38.09' Lt. Elev. 598.476
Existing Structure: S.N. 047-0016 built in 1933 as S.B.I. Route 69, Sec. 129-B. Single span reinforced concrete slab on closed abutments. 30'-10" back to back abutments, 42'-2" out to out. Traffic will be maintained utilizing stage construction.

No salvage



PLAN WATERWAY INFORMATION

		Exist. Low Grade Elev. = 598.57 @ Sta. 108+00		Prop. Low Grade Elev. = 598.78 @ Sta. 108+00		
Flood	Freq. Yr.	0	Opening Sq. Ft.	Nat. H.W.E.	Head - Ft.	Headwater El.
		C.F.S.	Exist. Prop.	Exist. Prop.	Exist. Prop.	Exist. Prop.
Design	10	405	136	160	595.10	0.40 0.10 595.50 595.10
Base	50	598	147	160	595.70	0.50 0.30 596.20 595.90
	100	674	151	160	595.80	0.60 0.40 596.40 596.20
Max. Calc.	500	851	153	160	596.00	0.80 0.60 596.80 596.40

DESIGNED	S.D.S.
CHECKED	C.W.C.
DRAWN	D.L.H.
CHECKED	S.D.S./C.W.C.

WHKS & CO.
ENGINEERS PLANNERS LAND SURVEYORS
MASON CITY, IOWA DUBUQUE, IOWA AMES, IOWA
E. DUBUQUE, ILLINOIS SPRINGFIELD, ILLINOIS ROCHESTER, MINNESOTA

Operator: dheberling Date: 10/19/2007 Filename: L:\Jobs\DOT_D-36691-1\Drawings\Structure\SN047-0016.dgn