

Benchmark: BM #8: Chiseled square on the Southwest corner of S.N. 020-2004. 21.82' Rt. at Sta. 2142+11.63, Elev. 729.62.

Existing Structure: S.N. 020-2004 was built in 1938 as F.A. Rte. 161, Section 15B-1, at Sta. 2142+60. In 1982, the original concrete railings and the outer 2' of the top slab were removed and replaced with steel railings. The existing structure is a five barrel 6'-6"x7'-0" R.C. box culvert, 41'-0" face to face of curbs with a culvert length of 61.28' on a 45° skew to the roadway. The existing structure is to be removed and replaced. One lane of traffic shall be maintained using signals and a temporary runaround, see Rdwy. Plans.

No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

1. General Plan and Elevation
2. Top of Slab Elevations
- 3-4. Culvert Details
- 5-6. Bridge Approach Slab Details
7. Steel Railing, Type 2399
8. Bar Splicer Assembly Details
9. Soil Borings

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
Reinforcement bars designated (E) shall be epoxy coated.
Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
Precast alternate not allowed.
An aluminum tablet of the type shown on Standard 667101 shall be placed on the proposed structure as directed by the Engineer. The bench mark elevation will be established and marked by the Department. This work will be paid for at the contract unit price Each for Permanent Bench Marks.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu. Yd.	193
Geotechnical Fabric for Ground Stabilization	Sq. Yd.	215
Stone Riprap, Class A4	Sq. Yd.	197
Filter Fabric	Sq. Yd.	197
Removal of Existing Structures	Each	1
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	547
Floor Drains	Each	4
Concrete Structures	Cu. Yd.	33.2
Concrete Superstructure	Cu. Yd.	113.1
Bridge Deck Grooving	Sq. Yd.	405
Protective Coat	Sq. Yd.	455
Stud Shear Connectors	Each	96
Reinforcement Bars	Pound	27300
Reinforcement Bars, Epoxy Coated	Pound	55210
Bar Splicers	Each	76
Steel Railing, Type 2399	Foot	88
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	195.5
Permanent Steel Sheet Piling	Sq. Ft.	1600
Rock Fill - Foundation	Ton	129
Permanent Bench Marks	Each	1

LOADING HS20-44

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

DESIGN SPECIFICATIONS

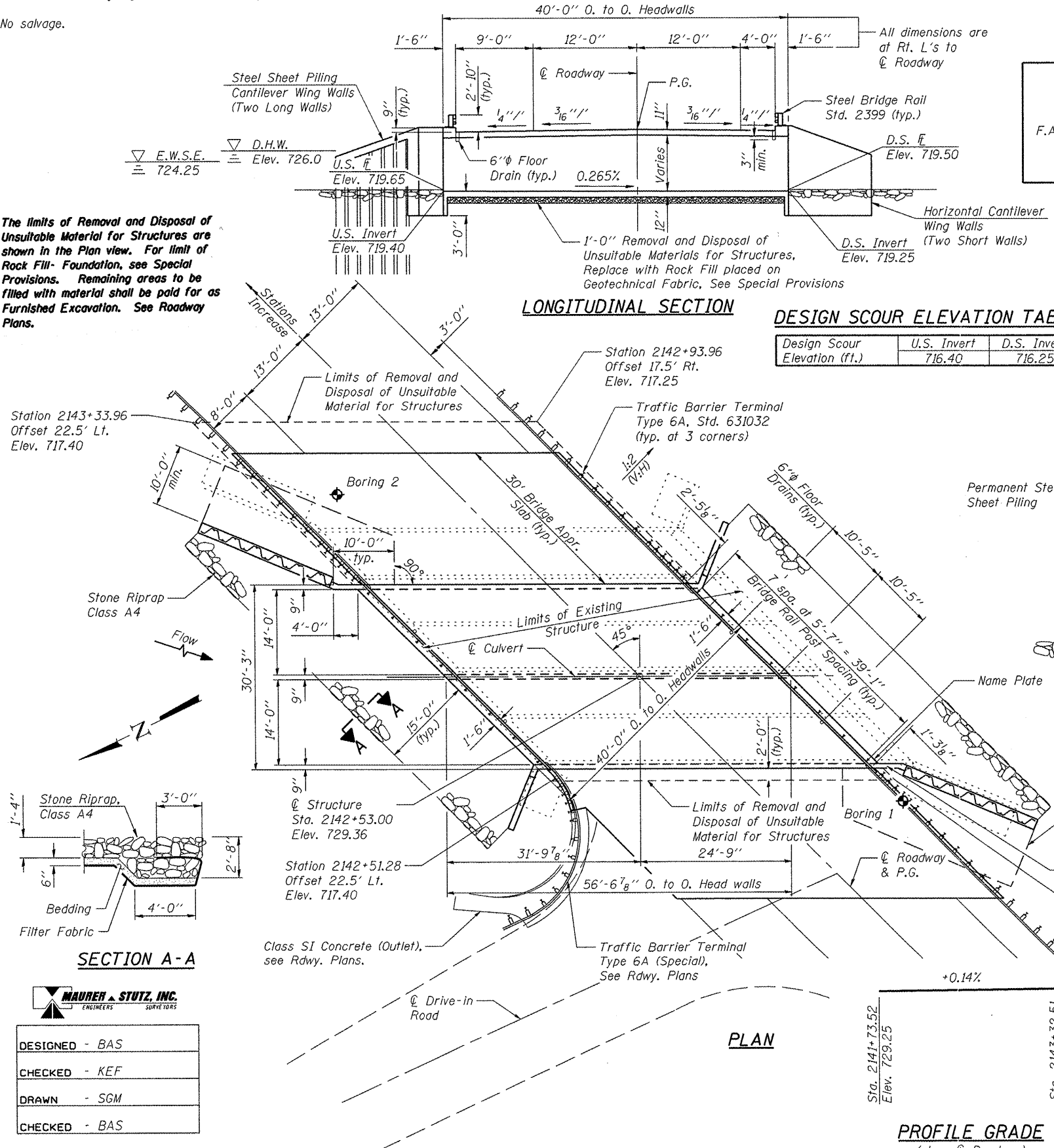
2002 AASHTO

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

The limits of Removal and Disposal of Unsuitable Material for Structures are shown in the Plan view. For limit of Rock Fill - Foundation, see Special Provisions. Remaining areas to be filled with material shall be paid for as Furnished Excavation. See Roadway Plans.



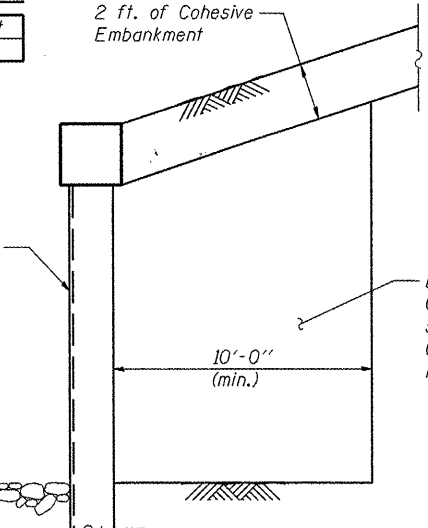
STATION 2142+53
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RTE. 71 SEC. (15B-1)BR-1
LOADING HS20
STRUCTURE NO. 020-2014

NAME PLATE

See Std. 515001

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	U.S. Invert	D.S. Invert
	716.40	716.25



TYP. SECTION AT SHEET PILING WING WALLS

Backfill with Porous Granular Embankment. Compaction of embankment within 6 ft. of wall shall be made only with Hand Operated Plate Compactors. Cost for the excavation will be included with Porous Granular Embankment.

WATERWAY INFORMATION

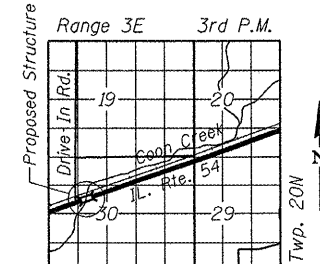
Flood	Freq. Yr.	Opening C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	50	914	164	185	726.0	0.8	0.8	726.8	726.8
Base	100	1068	167	191	726.2	0.9	0.9	727.1	727.1
Max. Calc.	500	1442	177	211	727.0	1.0	1.0	728.0	728.0

10 Year Velocity Through Exist. Bridge = 3.53 fps
10 Year Velocity Through Prop. Bridge = 3.23 fps

APPROVED

For Structural Adequacy Only

Dr. Carl P. ...
Engineer of Bridges & Structures



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
IL 54 OVER COON CREEK
F.A.P. RTE. 71 SEC. (15B-1)BR-1
DEWITT COUNTY
STATION 2142+53
STRUCTURE NO. 020-2014



Bryan Swanson
Date Signed: 11-30-10
Exp. Date: 11-30-12

PROFILE GRADE

(along Centerline of Roadway)

SECTION A-A



DESIGNED - BAS
CHECKED - KEF
DRAWN - SGM
CHECKED - BAS

SHEET NO. 1	F.A.P. RTE. 71	SECTION (15B-1)BR-1	COUNTY DEWITT	TOTAL SHEETS 76	SHEET NO. 27
9 SHEETS	CONTRACT NO. 70271		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		