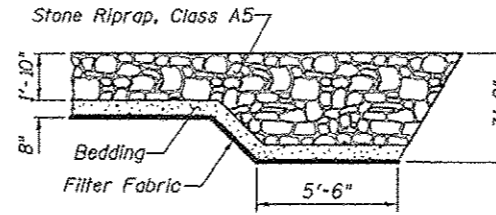
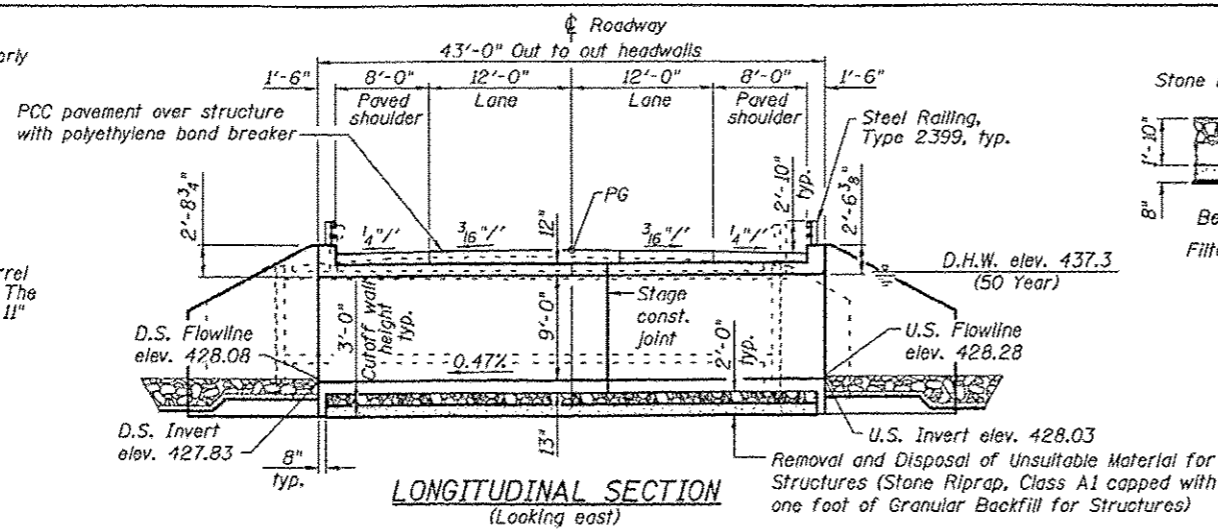


BENCHMARK: BM 04120031-  
Chiseled square on the NW corner  
of traffic signal handhole in southwestern  
quadrant of Rte. 142 and entrance to  
General Trm. Elev. 437.72.

EXISTING STRUCTURE:  
SN 041-2003 was originally built in  
1939 as Route 142, Section 113B-1.  
It is a triple barrel 9'-1" by 6'-6" R  
cast-in-place reinforced concrete box  
culvert with L-Type wingwalls and side  
and top mounted steel railing. The barrel  
length is 41'-4" out to out headwalls. The  
length along centerline roadway is 29'-11".  
There is no skew. Traffic shall be  
maintained using stage construction.

No salvage.

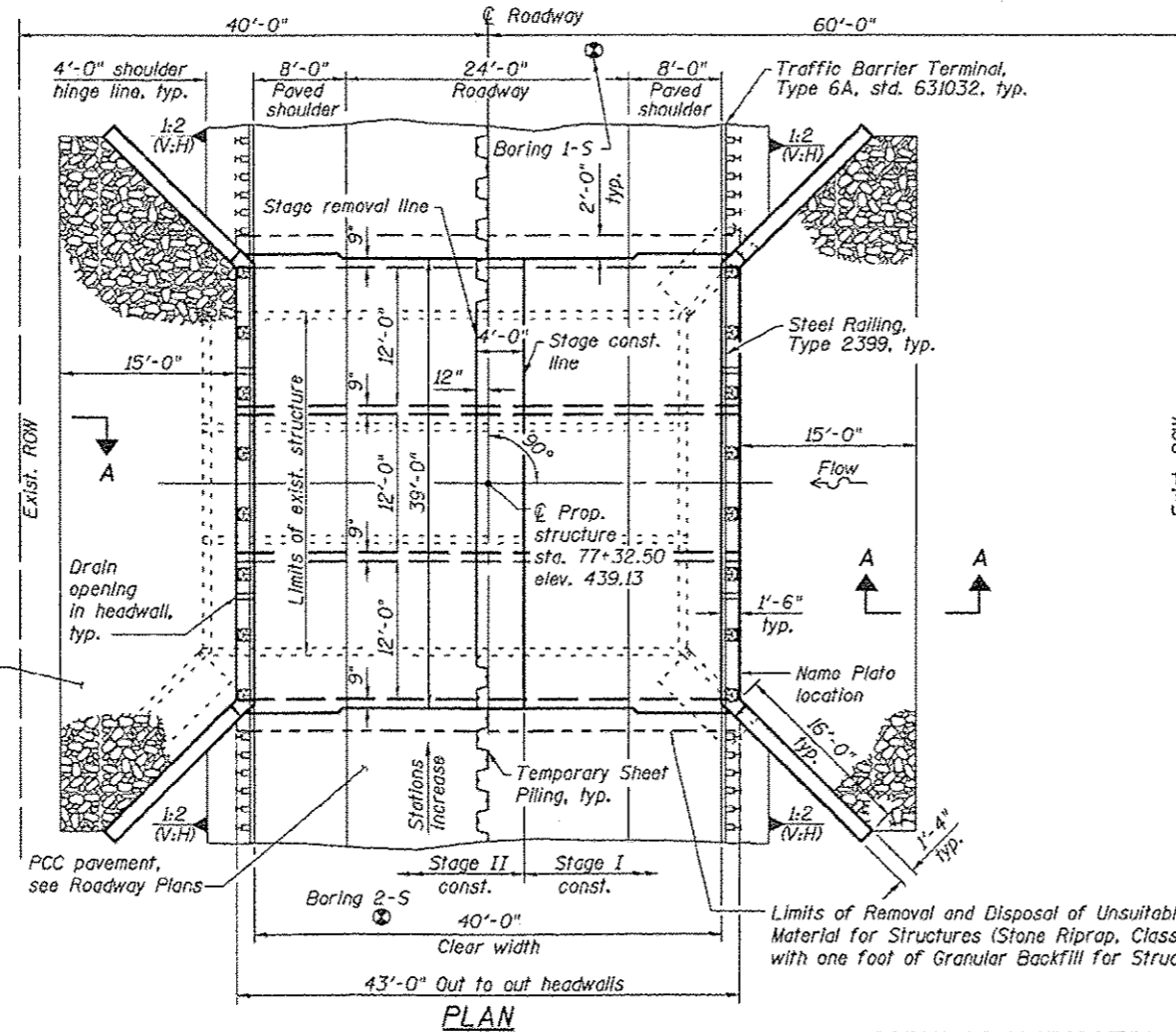


STRUCTURE INDEX OF SHEETS

General Plan & Elevation	Sheet No. 1 of 9
Stage Construction Details	Sheet No. 2 of 9
Box Culvert Details	Sheet No. 3 & 4 of 9
Steel Railing, Type 2399	Sheet No. 5 of 9
Bar Splicer Assembly and Mechanical Splicer Details	Sheet No. 6 of 9
Temporary Concrete Barrier For Stage Construction	Sheet No. 7 of 9
Boring Logs	Sheet No. 8 & 9 of 9

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
3. For backfilling and embankment, see Standard Specifications. Backfill culvert excavation with Granular Backfill for Structures, except the outer 3' at each end of the culvert shall be backfilled with Impervious material. See sheet 2 of 9 for limits of Granular Backfill for Structures.
4. Precast alternate is not allowed.
5. The limits and quantities of removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.
6. The barrel of the culvert shall be constructed on a 12" minimum depth of Stone Riprap, Class A1 capped with one foot of Granular Backfill for Structures.
7. Modify existing channel to match culvert at each end as directed by the Engineer, cost included in the pay item for Stone Riprap, Class A5.
8. Excavation for construction of the box culvert, including the excavation necessary to construct the granular backfill, is included in Earth Excavation, see roadway plans.



STATION 77+32.50  
BUILT 20\_\_ BY  
STATE OF ILLINOIS  
F.A.P. RT. 849 SEC. 113B-1  
LOADING HS20-44  
STRUCTURE NO. 041-2021

NAME PLATE  
(See highway std. 515001)

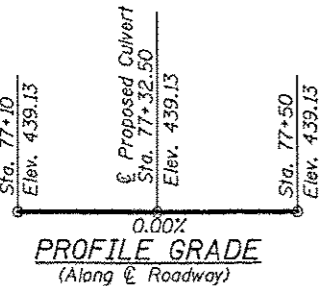


EXPIRES 11-30-2014  
SIGNATURE  
DATE 01-15-2013  
**APPROVED**  
For Structural Adequacy Only  
Engineer of Bridges & Structures

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Granular Backfill for Structures	Cu. Yd.	340
Stone Riprap, Class A1	Sq. Yd.	200
Stone Riprap, Class A5	Sq. Yd.	178
Filter Fabric	Sq. Yd.	178
Removal of Existing Structures	Each	1
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	133
Reinforcement Bars, Epoxy Coated	Pound	36,660
Bar Splicers	Each	223
Steel Railing, Type 2399	Foot	82
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	226.8
Temporary Sheet Piling	Sq. Ft.	1830

See Roadway Plans for quantities of Temporary Concrete Barrier, Earth Excavation, and Pavement Removal.



SCOUR INFORMATION

Design Scour Elevation (Ft.)	Downstream	Upstream
	424.83	425.03

WATERWAY INFORMATION

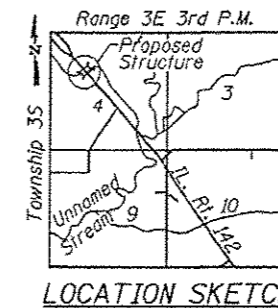
Flood	Freq. Yr.	Q C.F.S.	Opening-Sq. Ft.	Nat. H.W.E. Exlst.	Prop. H.W.E. Exlst.	Head-Ft. Exlst.	Headwater El. Prop.
Design	10	1097	171	311	436.8	0.2	437.0
Design	50	1690	177	324	437.3	1.5	438.8
Base	100	1914	177	324	437.5	1.7	439.2
Overtopping	300	2275	-	324	437.7	-	438.8

DESIGN SPECIFICATIONS  
2002 AASHTO

LOADING HS20-44  
Allow 50 psf for future wearing surface.

DESIGN STRESSES

FIELD UNITS  
f'c = 3,500 psi  
fy = 60,000 psi (Reinf.)



GENERAL PLAN & ELEVATION  
IL 142 OVER UNNAMED STREAM  
FAP ROUTE 849 - SECTION 113B-1  
JEFFERSON COUNTY  
STATION 77+32.50  
STRUCTURE NO. 041-2021



USER NAME: hbn	DESIGNED: JTS 01/12	REVISED: -
ESCA PROJECT NO. 980.18	CHECKED: JAF/RDP 02/12	REVISED: -
PLOT SCALE: 8.17' / IN.	DRAWN: HAS 02/12	REVISED: -
PLOT DATE: 6/19/2014 7:45:03 AM	CHECKED: RDP 06/14	REVISED: -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
849	113B-1	JEFFERSON	36	22

CONTRACT NO. 78210

ILLINOIS FED. AID PROJECT