

Benchmark: Top of Right of Way marker at approximate Sta. 117+65, offset 33' right of C U.S. Route 20. Elev. 880.33.

Existing Structure: S.N. 056-0088 originally constructed in 1922 as Route 5 Section 11 is a reinforced concrete single box culvert with a 5' span and 4' rise. The culvert length is 39'-4" from headwall to headwall. No skew. One lane of traffic to be maintained utilizing stage construction.

No salvage.

INDEX OF SHEETS

- S1. General Plan
- S2. Culvert Details (1 of 2)
- S3. Culvert Details (2 of 2)
- S4. Temporary Concrete Barrier for Stage Construction
- S5. Soil Borings Logs
- S6. Existing Culvert Plans

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges 17th Edition

LOADING HS 20-44 & ALT.

DESIGN STRESSES

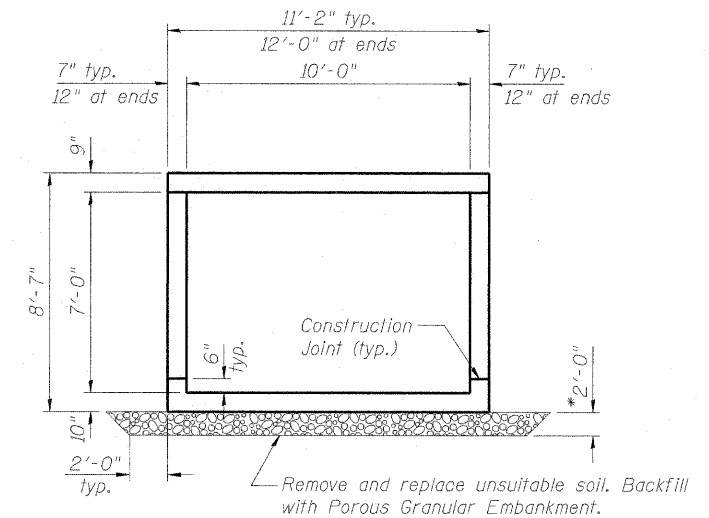
FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

STATION 115+15.54
 BUILT 2011 BY
 STATE OF ILLINOIS
 F.A.P. RT. 525 SEC. 11-T-1
 LOADING HS20 & ALT.
 STR. NO. 056-0276

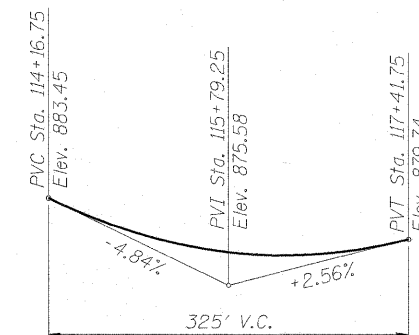
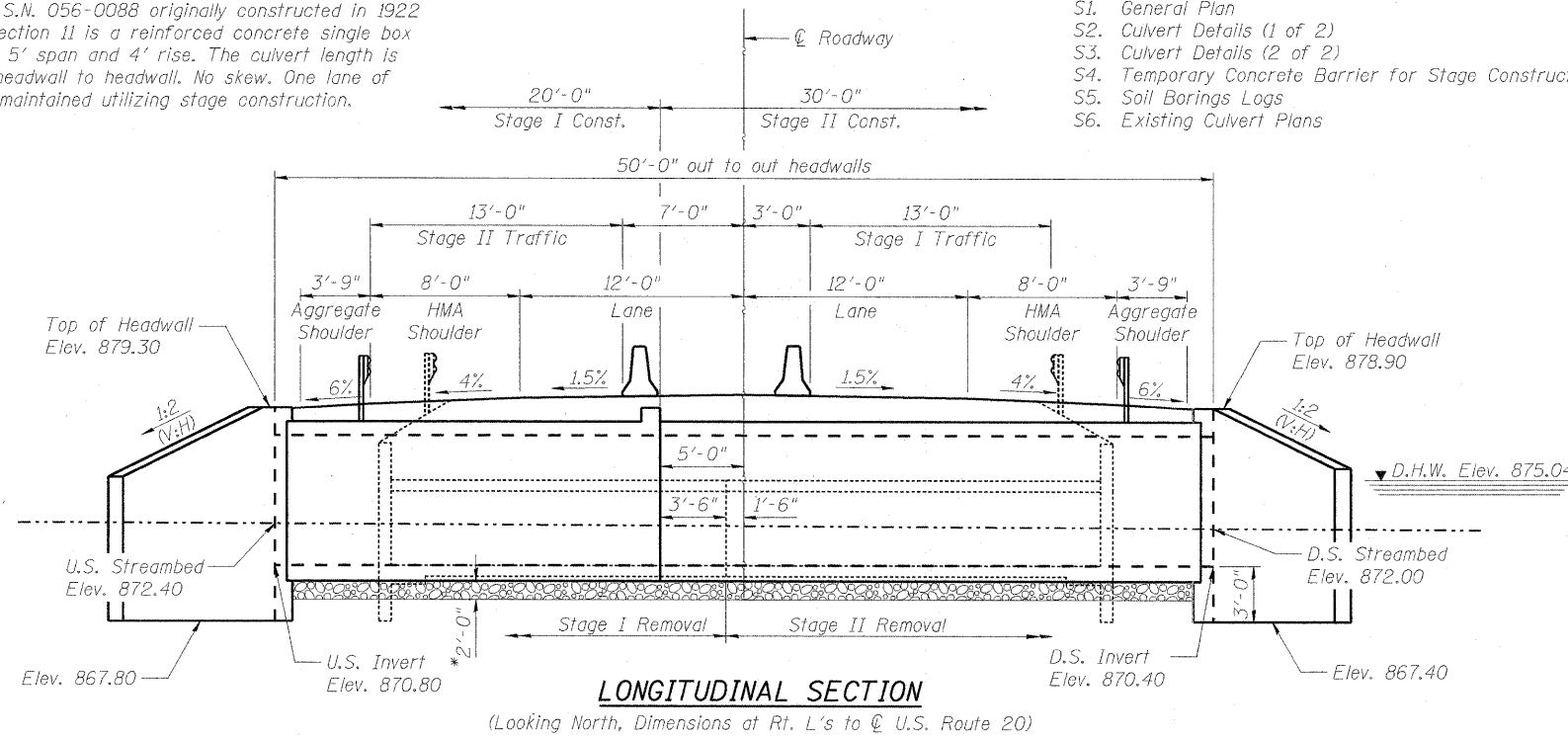
NAME PLATE

See Highway Standard 515001-03 for dimensions and placement



SECTION THROUGH CULVERT

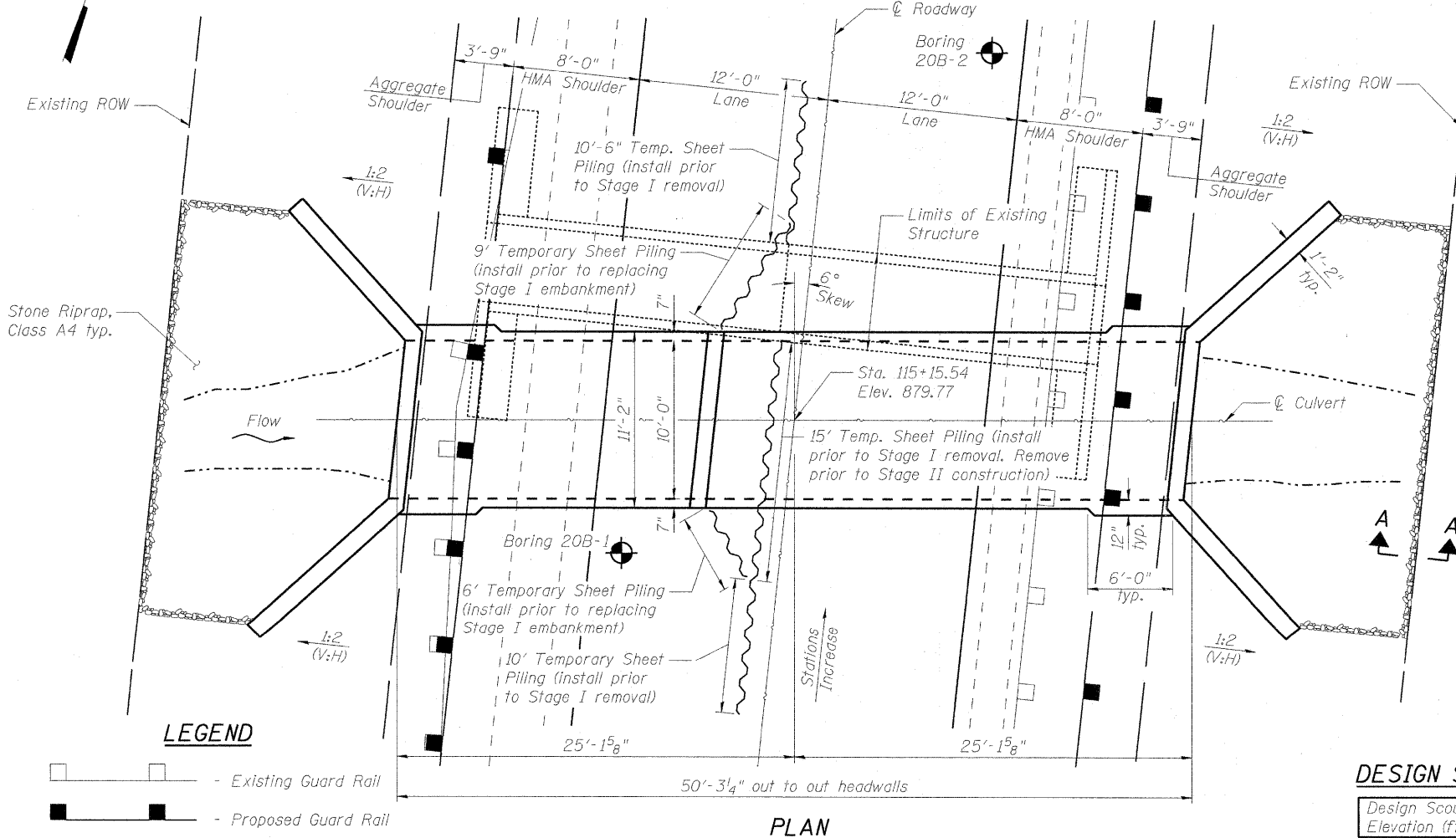
* Increase the removal and replacement of unsuitable soil to 3'-0" if the precast alternative is selected. The quantity of Removal and Disposal of Unsuitable Material and Porous Granular Embankment should be adjusted accordingly.



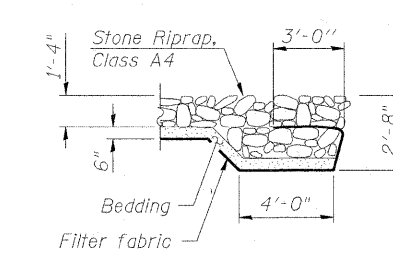
PROFILE GRADE

TOTAL BILL OF MATERIAL

ITEM	UNIT	QTY.
Removal and Disposal of Unsuitable Material	Cu Yd	76
Porous Granular Embankment	Cu Yd	76
Stone Riprap, Class A4	Sq Yd	74
Removal of Existing Structures	Each	1
Reinforcement Bars	Pound	14,420
Name Plates	Each	1
Concrete Box Culverts	Cu Yd	72.9
Temporary Sheet Piling	Sq Ft	1275



PLAN



SECTION A-A

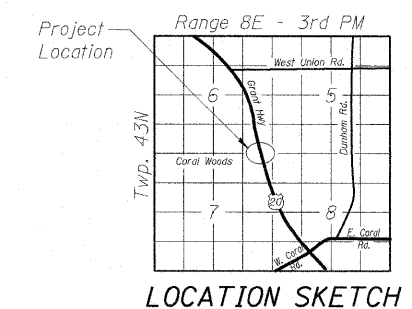
WATERWAY INFORMATION

Drainage Area = 0.147 sq. mi. Low Grade Elev. 878.00 @ Sta. 116+40

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	H.W.E. Exist.	Prop.	Exist.	Prop.	
Design	10	77	20.0	33.3	874.67	0.82	0.00	875.49	874.67
Base	50	124	20.0	38.2	875.04	2.64	0.00	877.68	875.04
Overtopping	100	143	20.0	40.4	875.13	2.82	0.00	877.95	875.13
Max. Calc.	>500	191	20.0	45.7	875.33	2.81	0.04	878.14	875.37

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	867.80	867.40



LOCATION SKETCH



USER NAME = z2eagrb
 PLOT SCALE = N/A
 PLOT DATE = 7/6/2011

DESIGNED - TWO
 CHECKED - BHS
 DRAWN - TWO
 CHECKED - BHS

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
 S.N. 056-0279 - U.S. ROUTE 20 OVER DRAINAGE DITCH

SHEET NO. S1 OF 6 SHEETS

F.A.P. RTE. 525 SECTION 11-T-1 COUNTY McHENRY TOTAL SHEETS 34 SHEET NO. 15 CONTRACT NO. 60M53
 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

FILE NAME = g:\projects\2102155_003\cadd\structure\0560276_001\0560276_001.dgn