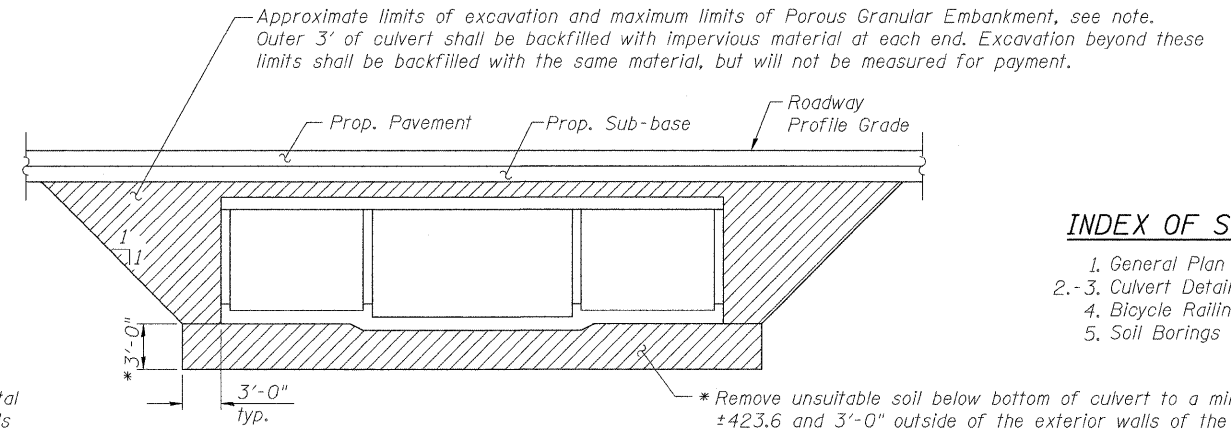
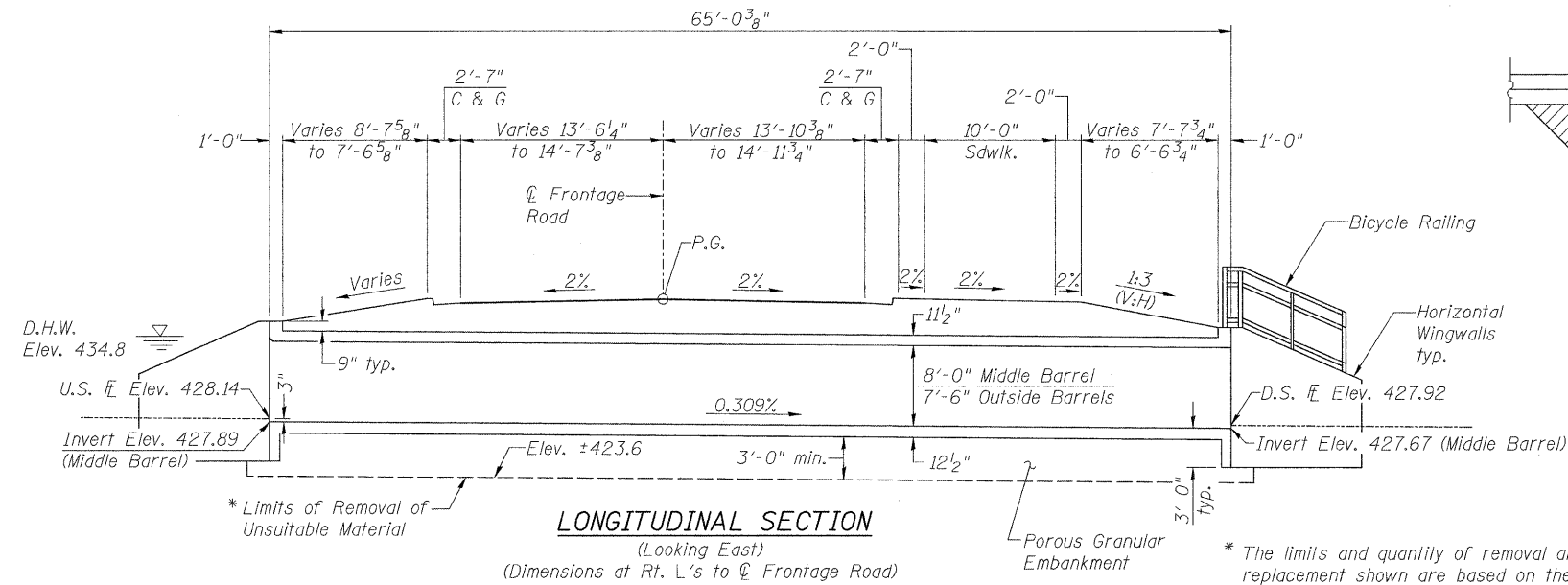


Benchmark: IP&C Southeast Quadrant of IL Rte. 13 E.B.L. and Walton Way, 35' East of \bar{C} Walton Way, Elev. 443.59
 Existing Structure: None



INDEX OF SHEETS

1. General Plan & Elevation
- 2.-3. Culvert Details
4. Bicycle Railing
5. Soil Borings

BACKFILL DETAILS
 (Dimensions at Rt. L's to Structure)

Pay Limits of Porous Granular Embankment

Note:

Porous Granular Embankment shall consist of CA-7 capped with 6" of compacted CA-6. The CA-7 shall be completely enveloped in a layer of 8 ounce, non-woven filter fabric. The filter fabric shall be installed and overlapped in accordance with the manufacturer's guidelines. The cost of the filter fabric shall be included with the cost of Porous Granular Embankment.

* The limits and quantity 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.

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	U.S. Invert	D.S. Invert
	424.89	424.67

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 in the field to suit ground conditions as directed by the Engineer. Precast alternate is not allowed.

LOADING HS20-44

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

DESIGN SPECIFICATIONS

2002 AASHTO

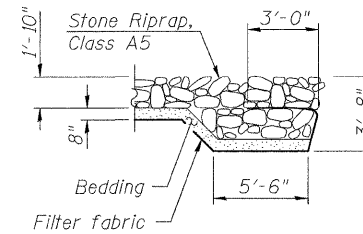
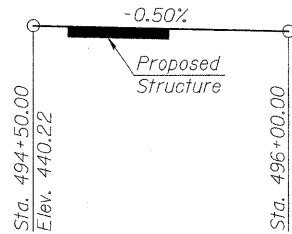
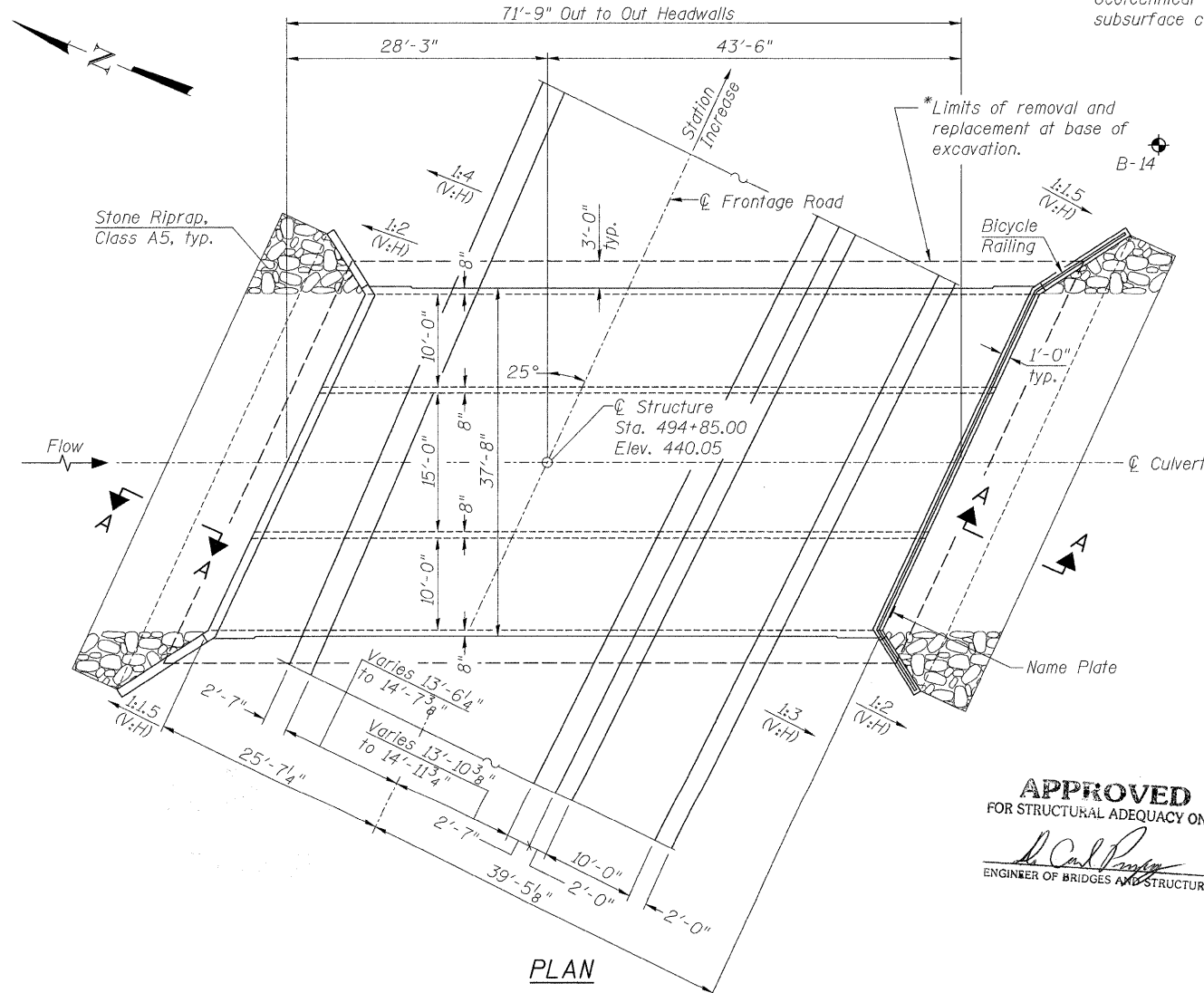
DESIGN STRESSES

FIELD UNITS

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

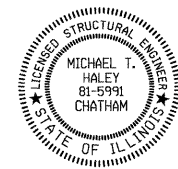
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Stone Riprap, Class A5	Sq. Yd.	164
Filter Fabric	Sq. Yd.	224
Reinforcement Bars, Epoxy Coated	Pound	55660
Bicycle Railing	Foot	61
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	282.1
Porous Granular Embankment	Cu. Yd.	1083
Removal and Disposal of Unsuitable Material	Cu. Yd.	436



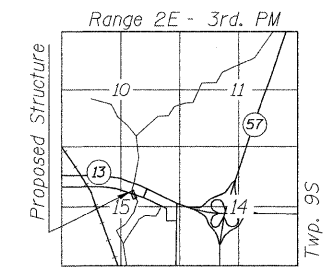
WATERWAY INFORMATION

		Exist. Low Grade Elev. N/A		Prop. Low Grade Elev. 437.9 @ Sta. 499+50		
Drainage Area = 2.0 sq. mi.		Opening	Sq. Ft.	Nat.	Head - Ft.	Headwater El.
Flood	Freq. Yr.	Q C.F.S.	Exist. Prop.	H.W.E.	Exist. Prop.	Exist. Prop.
	10	607	N/A 200.0	434.2	N/A 0.0	N/A 434.2
Design	50	1038	N/A 221.0	434.8	N/A 0.1	N/A 434.9
Base	100	1311	N/A 235.0	435.2	N/A 0.3	N/A 435.5
Max. Calc.	500	1780	N/A 256.0	435.8	N/A 0.7	N/A 436.5



Michael T. Haley
 Licensed Structural Engineer
 State of Illinois No. 81-5991
 Expires 11/30/2012

3-15-2011
 Date



GENERAL PLAN & ELEVATION
IL 13 FRONTAGE ROAD OVER
TRIBUTARY TO CRAB ORCHARD CREEK
F.A.P. RTE. 331 - SEC. (1X-1)R-7
WILLIAMSON COUNTY
STATION 494+85.00
STRUCTURE NO. 100-6024



USER NAME =	DESIGNED - TBP	REVISED -
FILE NAME =	CHECKED - MTH	REVISED -
PLOT SCALE =	DRAWN - TBP	REVISED -
PLOT DATE =	CHECKED - MTH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(1X-1)R-7	WILLIAMSON	79	34
			CONTRACT NO. 78251	

ILLINOIS FED. AID PROJECT