Existing Structure: Existing culvert is a 6'x5' RC box culvert with vetical cantilever wingwalls built in 1947 under Section 83. The existing culvert is approximately 63'-8" out to out headwalls. The upstream end of the existing culvert will be extended. At the downstream end, the existing concrete wingwalls will be removed and replaced with sheet pile wingwalls. One lane of traffic to be maintained at all times utilizing staged construction.

No salvage.

DESIGN SPECIFICATIONS

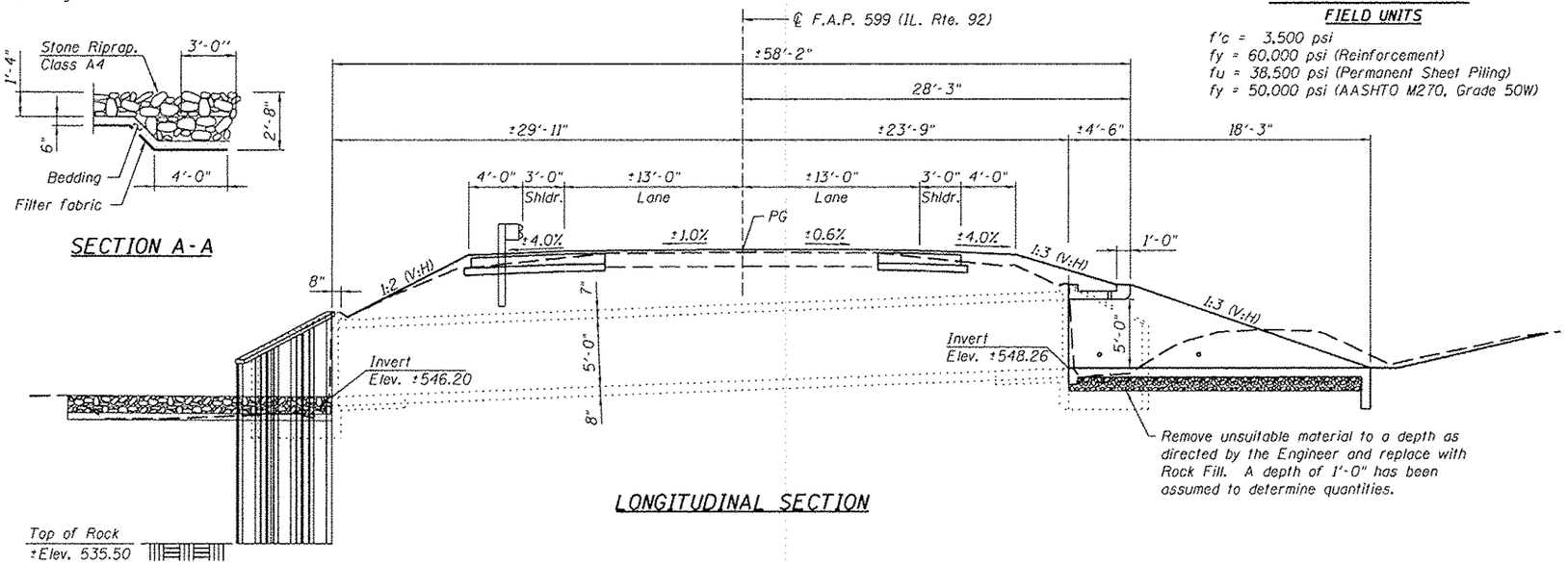
2002 AASHTO Bridge Design Specifications

DESIGN STRESSES

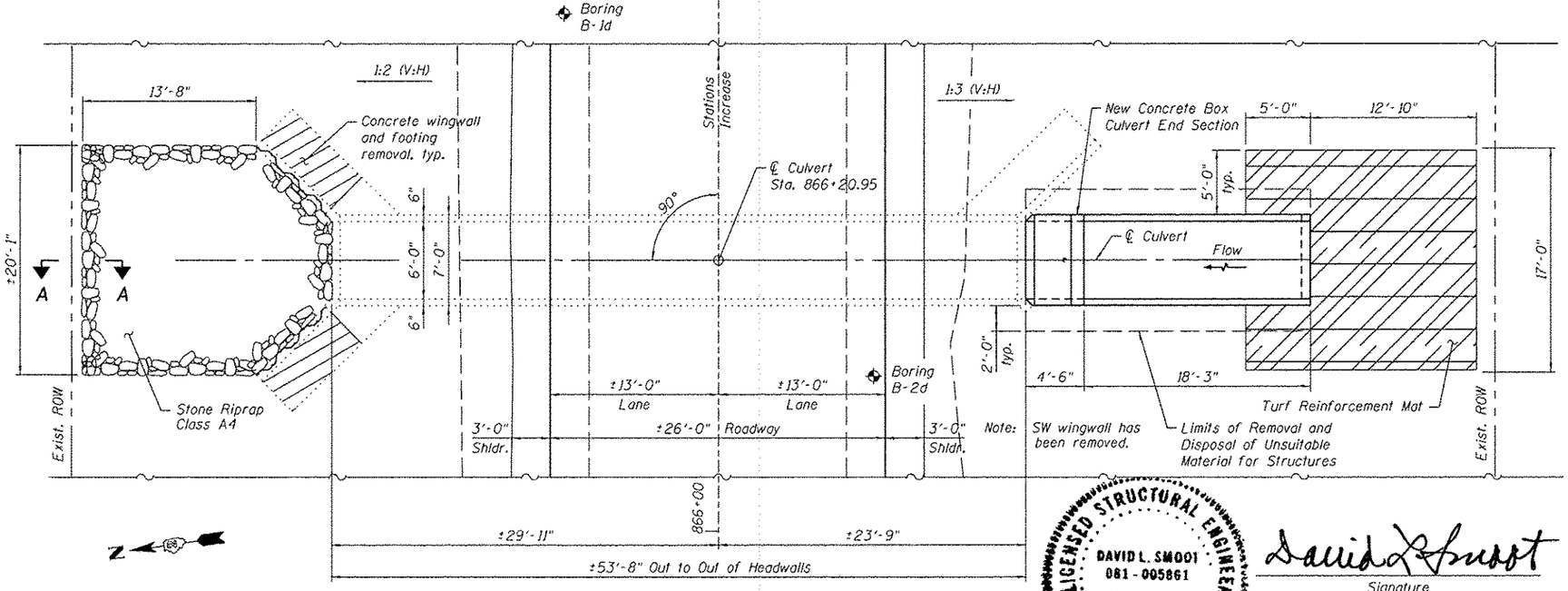
FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fu = 38,500 psi (Permanent Sheet Piling)
fy = 50,000 psi (AASHTO M270, Grade 50W)

SECTION A-A



LONGITUDINAL SECTION



PLAN

GENERAL NOTES

1. *Plan dimensions and details have been taken from existing plans or survey/ field checks. As such, these dimensions and details are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.*
2. *The sheet piling for the wingwalls shall conform to the special provision Permanent Steel Sheet Piling. The minimum effective section modulus for the Permanent Steel Sheet Piling shall be 3.3 in^3/ft.*
3. *The fabricated steel cap shall be AASHTO M270 Grade 50W. The cap, bolts, nuts and washers shall not be paid for separately, but shall be included in the cost for Permanent Steel Sheet Piling.*
4. *Fasteners shall be AASHTO M164 Type 3.*
5. *New coarse aggregate shall be placed behind the existing headwall for the full length of the headwall and shall be 12" wide by 6" high. The coarse aggregate shall be gradation CA 7 or CA 11 material. This item shall not be paid for separately, but shall be included in the cost of Concrete Wingwall Removal.*
6. *All exposed concrete edges shall be chamfered $\frac{3}{4}$" unless noted otherwise. All construction joints shall be bonded.*
7. *This work shall conform to the requirements of the applicable portions of Sections 501, 503, 505, 508 and 584 of the Standard Specifications.*
8. *A precast option is not allowed at this location.*
9. *Drainage holes shall conform to the requirements of Article 503.11 of the Standard Specifications.*
10. *Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.*

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Turf Reinforcement Mat	Sq. Yd.	30
Stone Riprap, Class A4	Sq. Yd.	41
Filter Fabric	Sq. Yd.	41
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	10
Box Culvert End Section, Culvert No. 04	Each	1
Concrete Wingwall Removal	Each	2
Permanent Steel Sheet Piling	Sq. Ft.	278
Traversable Pipe Grate	Foot	34.8
Rock Fill	Ton	17

INDEX OF SHEETS

LICENSED STRUCTURAL ENGINEER
DAVID L. SMOOT
081-005861
ST. CHARLES
ILLINOIS
STATE OF ILLINOIS

Signature
Date: March 13, 2013
License Expires 11/30/2014

GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 92
F.A.P. RTE 599 - SEC. (83MFT & 103MFT)W
ROCK ISLAND COUNTY
STATION 866+20.95
STRUCTURE NO. 081-1054

FILE NAME = W:\Projects\2018\128128 PTB 157\25\cadd\Structural\Dgn\W0 #3 IL 92 Culvert\Station866+20.95\Final Submittal 13\128128-866+20.95-64H11-GPE.dgn

WILLS BURKE KELSEY ASSOCIATES LTD. 116 West Main Street, Suite 201 St. Charles, Illinois 60174	USER NAME = npeters	DESIGNED - AWH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION – STA. 866+20.95 STRUCTURE NO. 081-1054
		CHECKED - AEU	REVISED -		
	PLOT SCALE =	DRAWN - AWH	REVISED -		
	PLOT DATE = 3/21/2013	CHECKED - AEU	REVISED -		SHEET NO. 1 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
599	(83MFT & 103MFT)W	ROCK ISLAND	340	153
		CONTRACT NO. 64H11		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		