Bench Mark: Chiseled square on northwest corner of hub guard. Sta. 290+47, 15.9' Lt., Elev. 680.53

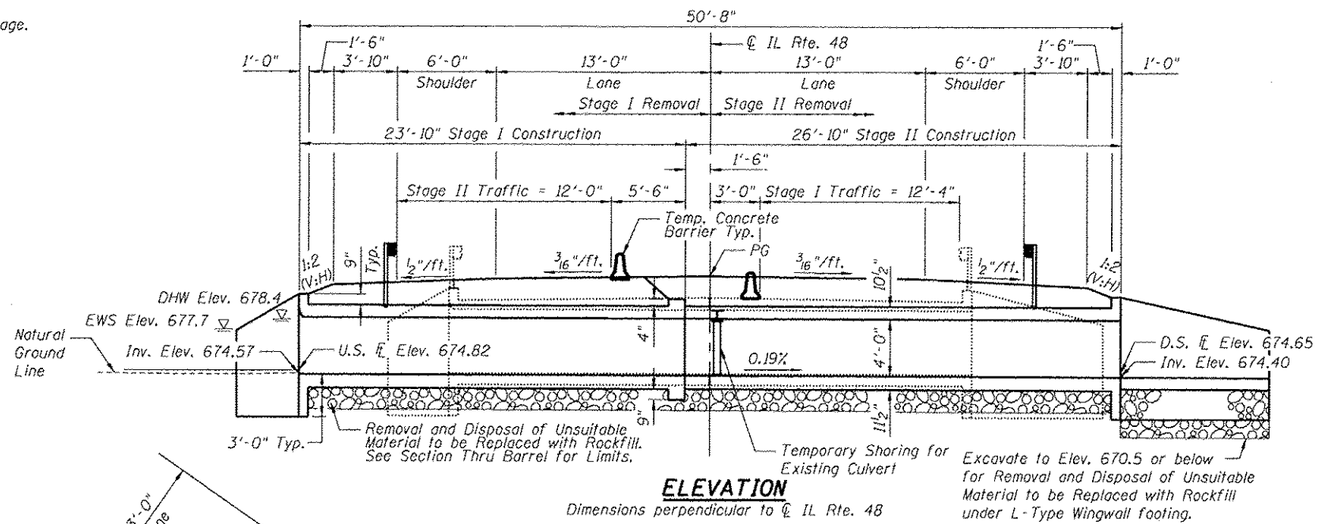
Existing Structure: S.N. 058-2006 built in 1970 as triple 6'-3"x4'-6" R.C. box culvert. 30'-8" face to face of headwall with culvert length of 56'-11½".

Traffic to be maintained utilizing stage construction.

No Salvage.

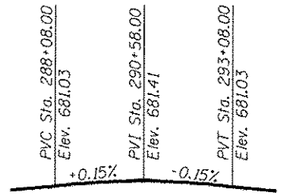
GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
3. Precast alternative is not allowed.



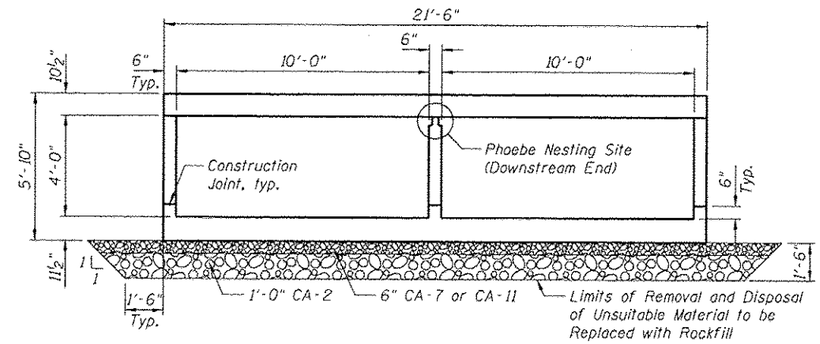
ELEVATION

Dimensions perpendicular to ℄ IL Rte. 48



PROFILE GRADE

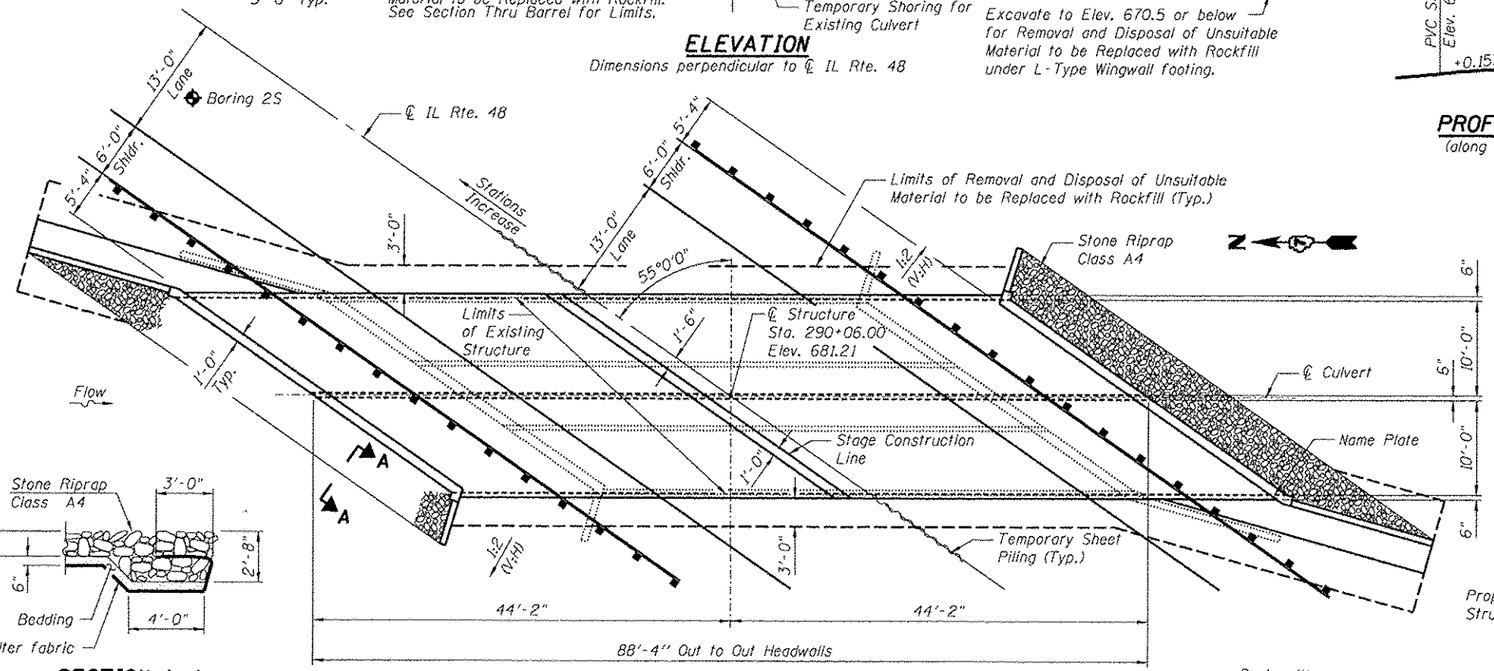
(along ℄ IL Route 48)



SECTION THRU BARREL

TOTAL BILL OF MATERIAL

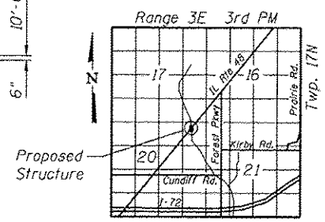
ITEM	UNIT	TOTAL
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	174.8
Stone Riprap, Class A4	Sq. Yd.	34.4
Filter Fabric	Sq. Yd.	34.4
Removal of Existing Structures	Each	1
Reinforcement Bars	Pound	700
Reinforcement Bars, Epoxy Coated	Pound	65760
Bar Splicers	Each	119
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	168.9
Temporary Sheet Piling	Sq. Ft.	457.2
Temporary Support System	L Sum	1
Rockfill	Cu. Yd.	174.8



PLAN

SECTION A-A

INDEX OF SHEETS



LOCATION SKETCH

WATERWAY INFORMATION

Drainage Area = 1.46 sq. mi.

Exist. Low Grade Elev. = 680.03 @ Sta. 290+50
Prop. Low Grade Elev. = 680.87 @ Sta. 295+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	238	55	61	678.0	0.3	0.1	678.3	678.1
Design	50	381	62	69	678.4	0.7	0.4	679.1	678.8
Base	100	444	66	72	678.6	0.9	0.7	679.5	679.3
Overtopping	250	530	68		678.7	1.4		680.1	
Max. Calc.	500	596	70	72	678.8	1.5	1.7	680.3	680.5

10-Year Velocity through Existing Bridge = 4.33 fps
10-Year Velocity through Proposed Bridge = 3.90 fps

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	D.S. Invert	U.S. Invert
	671.40	671.57

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)

STATION 290+06.00
BUILT 201_ BY
STATE OF ILLINOIS
F.A.U. RT. 7464 SEC. (126BR)B
LOADING HS20-44
STR. NO. 058-2012

LETTERING FOR NAME PLATE

See Std. 515001

APPROVED
For Structural Adequacy Only

Engineer of Bridges & Structures

LICENSED STRUCTURAL ENGINEER * DANIEL FEUERBORN 81-5433 * STATE OF ILLINOIS

Daniel Feuerborn — Date 2/27/13
License Expires 11-30-2014

GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 48 OVER UNNAMED STREAM
F.A.U. RTE. 7464 - SEC. (126BR)B
MACON COUNTY
STATION 290+06.00
STRUCTURE NO. 058-2012

PRINTED DATE: 1/24/2013
FILE NAME: N:\PROJECTS\1001\PTB 148, Item 25 - 07 Various Design\Work Order #1\CADD\Drawings\Sheets\295.01.01.GPE.dgn

ESI CONSULTANTS, LTD
Excellence, Service, Integrity

USER NAME = $USER$	DESIGNED - DF	REVISED -
	CHECKED - JA	REVISED -
PLOT SCALE = 81.0000 '/' IN.	DRAWN - ADG	REVISED -
PLOT DATE = 1/31/2013	CHECKED - JA	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 8 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7464	(126BR)B	MACON	44	30
		CONTRACT NO. 74156		
	ILLINOIS FED. AID PROJECT			