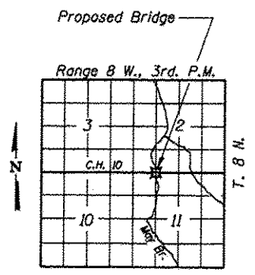
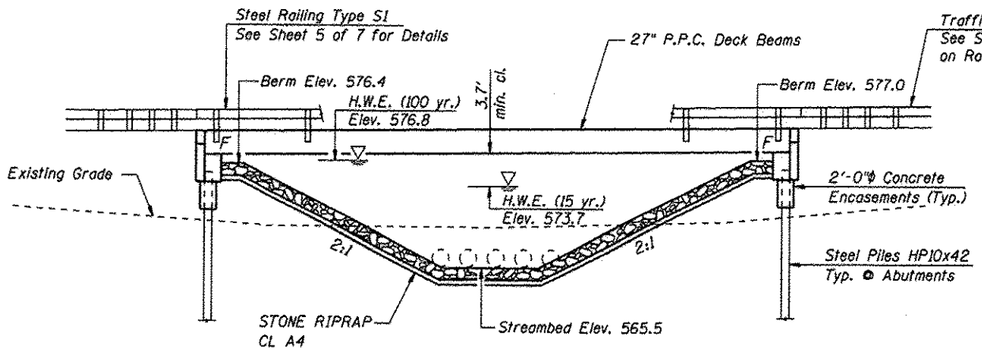
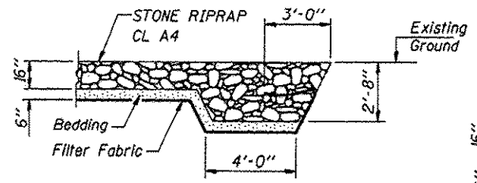
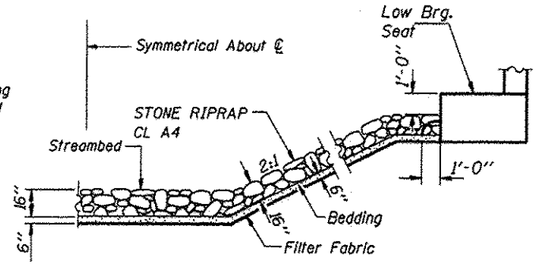


LOCATION PLAN



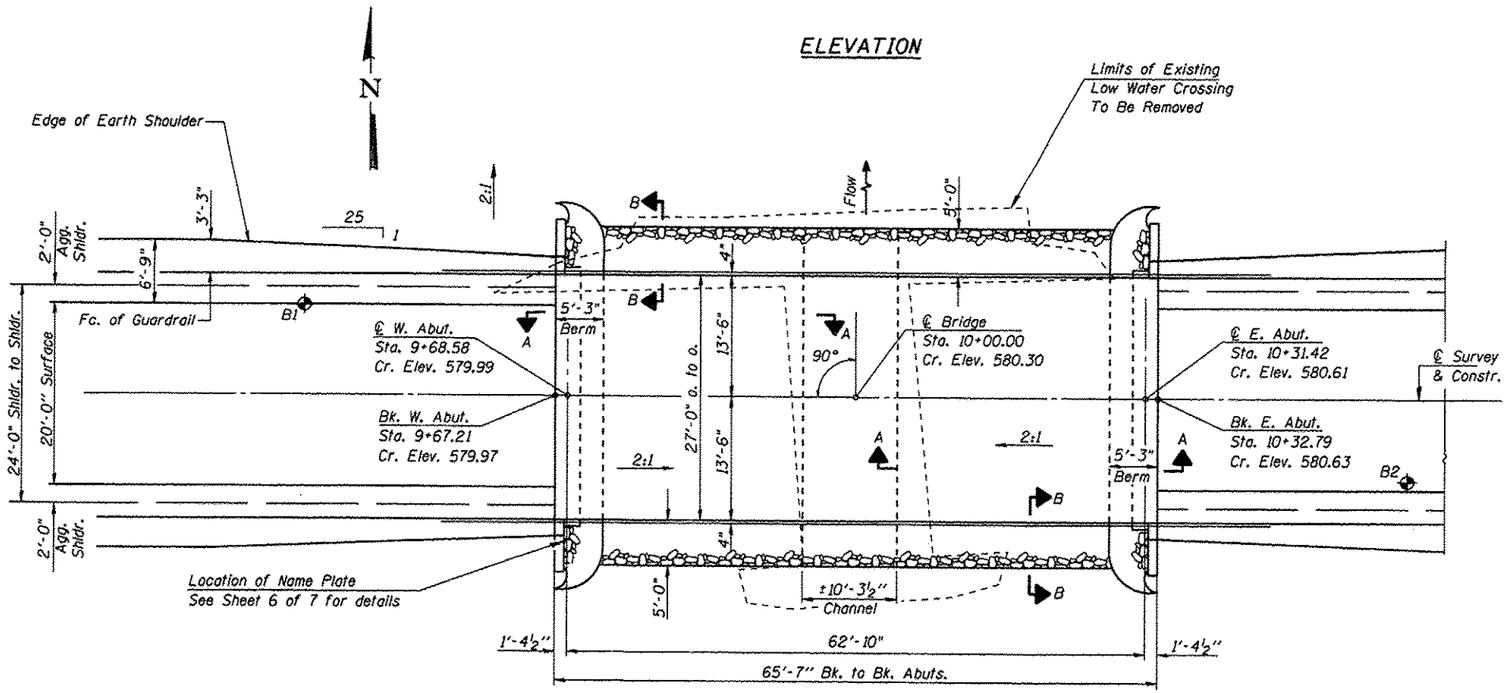


SECTION B-B
FLANK STONE RIPRAP DETAIL



SECTION A-A
STONE RIPRAP DETAIL

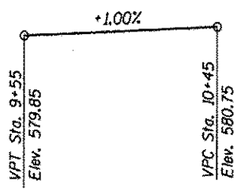
ELEVATION



DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	E. Abut.
	574.60	575.26

PLAN



PROFILE GRADE
(along ℄ C.H. 10)

WATERWAY INFORMATION

Drainage Area	4.2 Sq. Mi.
Required Opening (15 Yr.)	220 Sq. Ft.
Existing Opening (15 Yr.)	13 Sq. Ft.
Approach Opening (15 Yr.)	360 Sq. Ft.
Proposed Opening (15 Yr.)	220 Sq. Ft.
Required Opening (100 Yr.)	374 Sq. Ft.
Existing Opening (100 Yr.)	13 Sq. Ft.
Approach Opening (100 Yr.)	890 Sq. Ft.
Proposed Opening (100 Yr.)	374 Sq. Ft.
Design Discharge (15 Yr.)	1640 C.F.S.
Created Head (15 Yr.)	0.8 Ft.
100 Year Discharge	2710 C.F.S.
100 Yr. Created Head	0.4 Ft.

DESIGN STRESSES

FIELD UNITS

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

PRECAST PRESTRESSED UNITS

f'_c = 6,000 psi
f'_{ci} = 5,000 psi
f_{pu} = 270,000 psi (½" ϕ low lax. strands)
f_{pet} = 201,960 psi (½" ϕ low lax. strands)
f_y = 60,000 psi (Reinforcement)

LOADING HL-93

Design Specifications: 2007 AASHTO LRFD with 2008 Interims
Allow 50#/Sq. Ft. for future wearing surface.

MAY BRANCH
BUILT 20__ BY
MACOUPIN COUNTY
SEC. 08-00092-00-BR
COUNTY HIGHWAY 10
F.A. PROJ. BROS-0117(077)
STR. NO. 059-3329 LOADING HL93

LETTERING FOR NAME PLATE

See Std. 515001

"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current 'AASHTO Standard Specifications for Highway Bridges'".

Michael D. Cummins 1/11/13
ILLINOIS STRUCTURAL NO. 4822 (Expires 11/30/14)

GENERAL NOTES

See Special Provisions for Boring data.

Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

The Steel H-Piles shall be according to AASHTO M270 Grade 50. The Contractor shall drive one steel test pile in a permanent location at the East Abutment, as directed by the Engineer, before ordering the remainder of piles. The test piles shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
* Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1728		1728
Concrete Structures	Cu. Yd.		24.4	24.4
* Reinforcement Bars	Pound	-	2880	2880
Steel Railing, Type S1	Foot	131		131
Name Plates	Each		1	1
Furnishing Steel Piles, HP10X42	Foot		247	247
Driving Piles	Foot		247	247
Test Pile, Steel HP10x42	Each		1	1
Stone Riprap Class A4	Ton		240	240
Concrete Encasement	Cu. Yd.		3.6	3.6
Filter Fabric	Sq Yd		253	253

* See Special Provisions

GENERAL PLAN & ELEVATION
C.H. 10 OVER MAY BRANCH
SECTION 08-00092-00-BR
MACOUPIN COUNTY
STATION 10+00
STRUCTURE NO. 059-3329

CEC Cummins Engineering Corporation
Civil and Structural Engineering

JOB = 2228		DESIGNED	A.A.N.
FILE = 2228gpe.dgn		CHECKED	M.D.C.
DATE = 5/14/2009		DRAWN	T.S.H.
		CHECKED	M.D.C.

Sheet	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1 of 7	CH 10	08-00092-00-BR	MACOUPIN	23	10
			CONTRACT NO. 93595		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		