

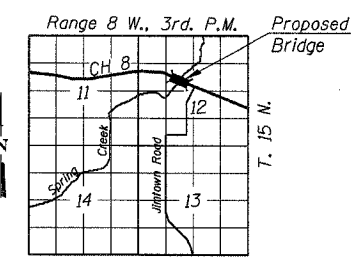
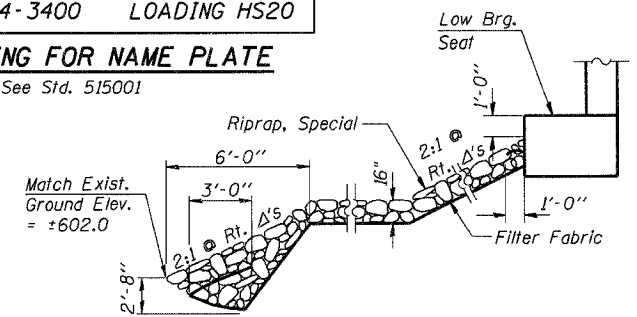
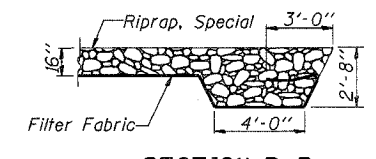
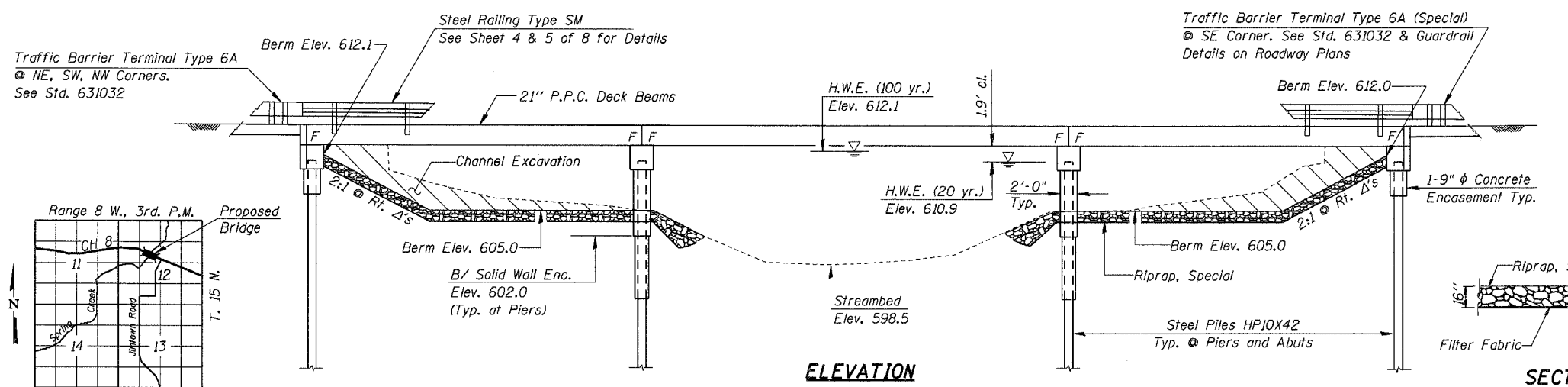
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 8	07-00092-01-BR	SANGAMON	24	12

Sheet 1 of 8

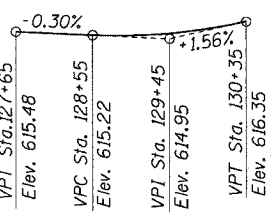
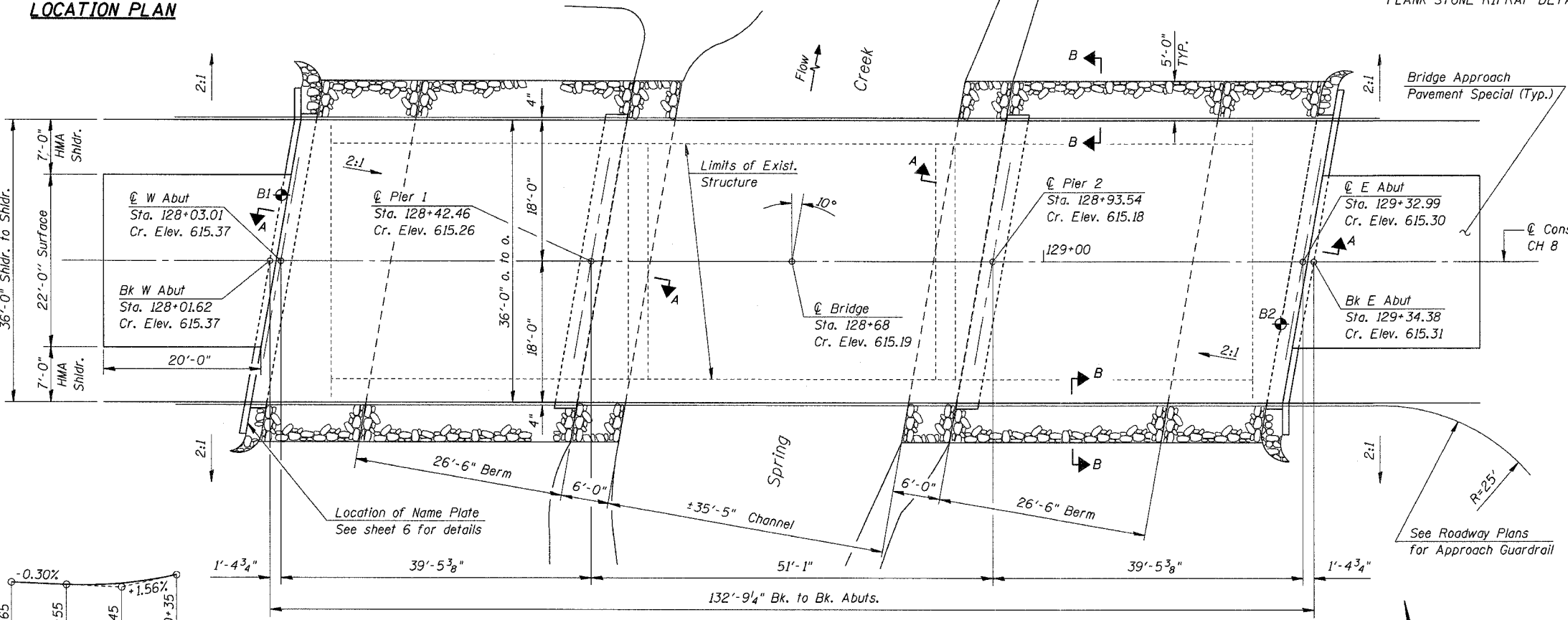
**SPRING CREEK  
BUILT 200\_ BY  
SANGAMON COUNTY  
SEC. 07-00092-01-BR  
COUNTY HIGHWAY 8  
F.A. PROJ. BRS-613 (115)  
STR. NO. 084-3400 LOADING HS20**

**LETTERING FOR NAME PLATE**

See Std. 515001



**LOCATION PLAN**



**PROFILE GRADE**

DESIGNED	T.S.H.
CHECKED	A.A.N.
DRAWN	A.J.H.
CHECKED	M.D.C.

**CONSTRUCTION PERMITS**

Requirements of the IDNR/OWR have been fulfilled in accordance with the Statewide Permit No. 2

**WATERWAY INFORMATION**

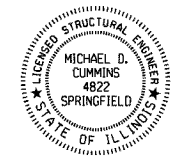
Drainage Area	21.0 Sq. Mi.
Existing Opening (20 Yr.)	770 Sq. Ft.
Proposed Opening (20 Yr.)	875 Sq. Ft.
Existing Opening (100 Yr.)	880 Sq. Ft.
Proposed Opening (100 Yr.)	996 Sq. Ft.
Design Discharge (20 Yr.)	2900 C.F.S.
Created Head (20 Yr.)	0.1 Ft.
100 Year Discharge	4300 C.F.S.
100 Yr. Created Head	0.2 Ft.

**DESIGN STRESSES**

$f'_c = 5,000$  p.s.i. (Prestressed Beams)  
 $f'_{ci} = 4,000$  p.s.i. (Prestressed Beams)  
 $f'_c = 1,400$  p.s.i. (Class SI Concrete)  
 $f'_s = 270,000$  p.s.i. (Prestressed Strands)  
 $f'_{si} = 201,960$  p.s.i. (Prestressed Strands)  
 $f'_s = 20,000$  p.s.i. (Reinf. Bars -- Field Units)  
 $f'_y = 60,000$  p.s.i. (Reinf. Bars -- Field Units)  
 $n = 9$  (Class SI Concrete)  
 LOADING HS20-44  
 Design Specifications: 2002 AASHTO  
 Allow 50# $\frac{1}{2}$  Sq. Ft. for future wearing surface.

"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 (e/eg/bs)  
 ILLINOIS STRUCTURAL NO. 4822 (Expires 11/30/08)



**GENERAL NOTES**

See Special Provisions for Boring data.

Reinforcement bars shall conform to the requirements of AASHTO A 706 Grade 60. See Special Provisions.

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 four steel test piles HP 10x42 in a permanent location, one at each abutment and at each pier 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.

The existing bridge rail shall be salvaged for the Sangamon County Highway Department. The contractor shall load the salvaged material on to a County trailer for removal from the site by the County.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	4716		4716
Concrete Structures	Cu. Yd.		93.8	93.8
Reinforcement Bars	Pound		7360	7360
Steel Railing, Type SM	Foot	263		263
Name Plates	Each		1	1
Furnishing Steel Piles HPI0X42	Foot		804	804
Driving Piles	Foot		804	804
Test Pile Steel HPI0x42	Each		4	4
Riprap, Special	Ton		280	280
Structure Excavation	Cu. Yd.		164	164
Hot-Mix Asphalt Surface Course, Mix "C", N50	Ton	84		84
Portland Cement Mortar Fairing Course	Foot	361		361
Waterproofing Membrane System	Sq. Yd.	542		542
Underwater Structure Excavation Protection Location 1 (Pier 1)	Each		1	1
Underwater Structure Excavation Protection Location 2 (Pier 2)	Each		1	1
Concrete Encasement	Cu. Yd.		13.4	13.4

\* See Special Provisions

**GENERAL PLAN & ELEVATION**

C.H. 8 OVER SPRING CREEK  
 SECTION 07-00092-01-BR  
 SANGAMON COUNTY  
 STA. 128+68