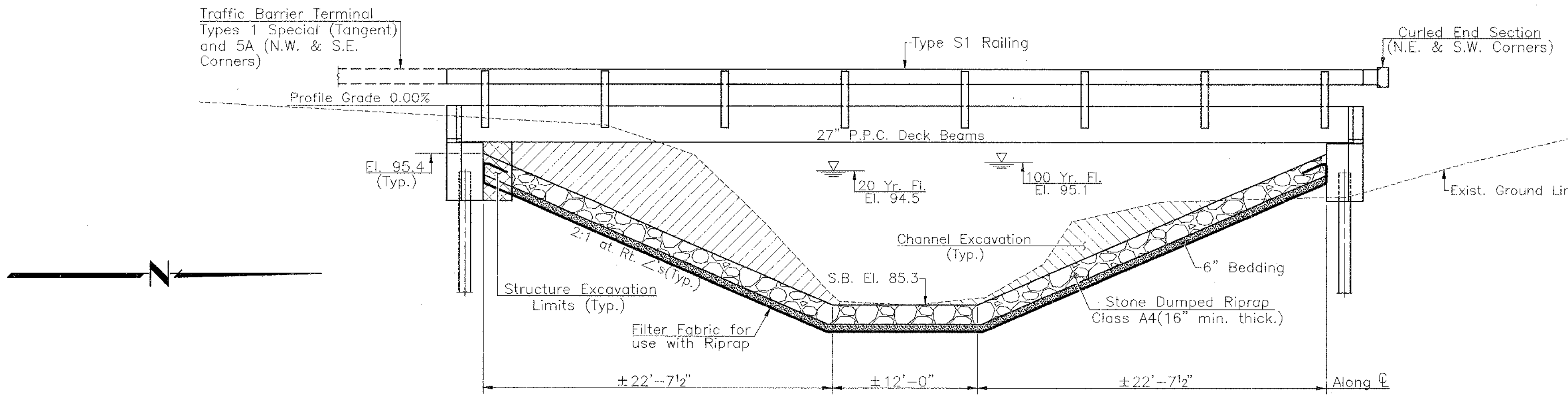
93389

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 7	*	MENARD	9	4
PROJECT				

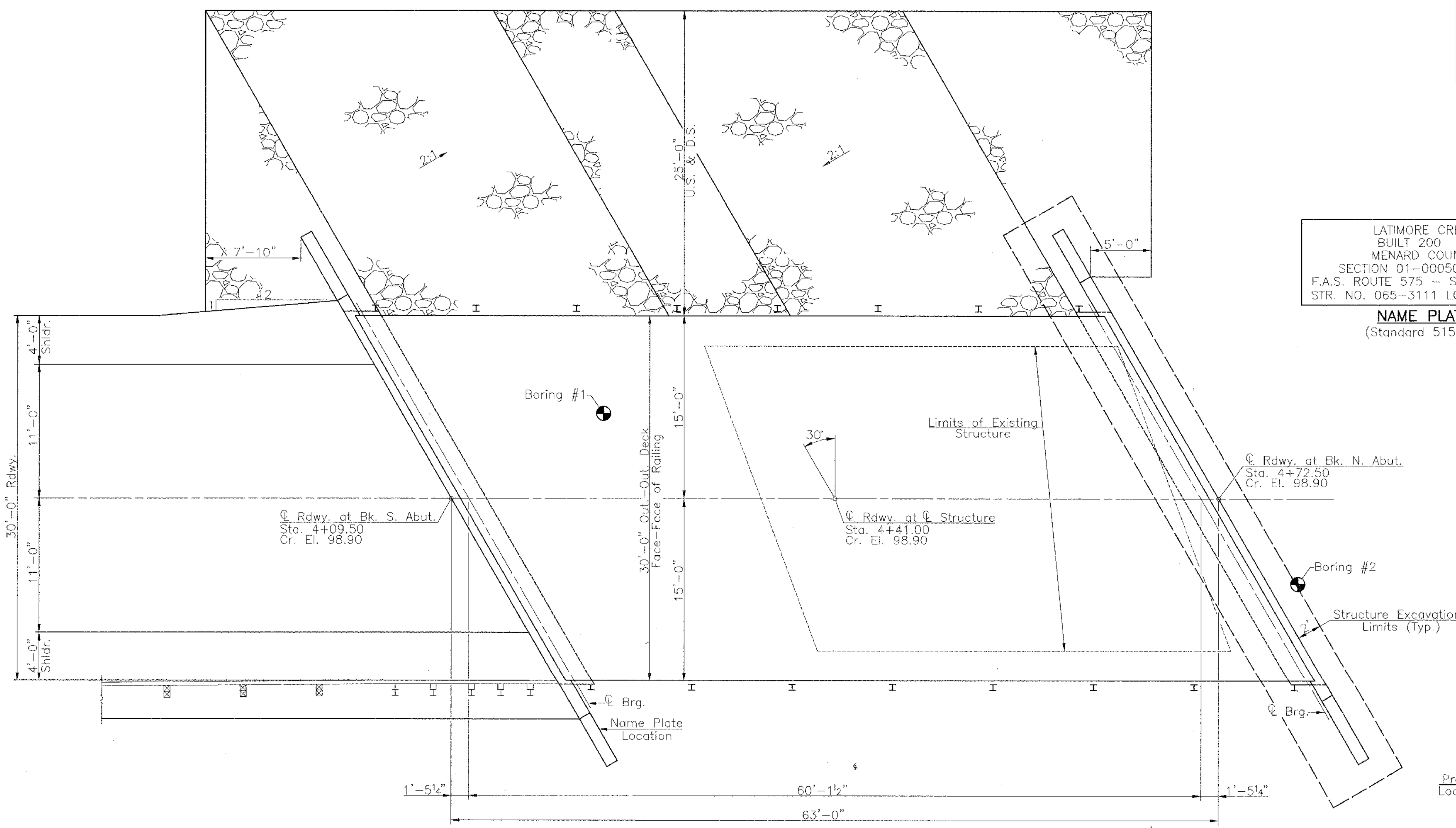
* 01-00050-00-BR

Existing Structure: Single span cast in place concrete deck on steel I - Beams supported by timber abutments on timber piling. ±35'-6" Bk.-Bk. Abutments. ±24'-0" clear deck width, steel channel railing. 20° skew Rt. Forward.
Existing Structure No. 065-3006
Salvage: To County
Existing Structure Estimated Quantities: Concrete 23.0 - Cu. Yds.
Structural Steel - 21000 Pounds

Benchmarks: BM#1 - 60d Nail & Washer in Power Pole
35' Rt. Sta. 2+40 El. 100.00(Assumed)



ELEVATION



PLAN

TOTAL BILL OF MATERIAL

Item		Super	Sub	Total
Channel Excavation	Cu. Yd.			197
Stone Dumped Riprap, Class A4	Ton			396
Filter Fabric	Sq. Yd.			665
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.			82
Concrete Structures	Cu. Yd.		37.6	37.6
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1844		1844
Reinforcement Bars	Pound		3645	3645
Steel Railing Type S1	Foot	126		126
Furnishing Metal Pile Shells 12"	Foot		789	789
Driving and Filling Shells	Foot		789	789
Test Pile, Metal Shells	Each		1	1
Name Plates	Each	1		1

WATERWAY INFORMATION

Drainage Area = 2.16 Sq. Miles   Low Grade Elev. = 98.90   @ Sta. 4+41

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head-Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	20	714	139	251	94.5	0.0	0.0	94.5	94.5
Base	100	1095	157	279	95.1	0.6	0.0	95.7	95.1
Exist. Overtop	Greater than 500 Years								
Prop. Overtop	Greater than 500 Years								
Max. Calc.	500	1481	169	302	95.5	1.5	0.3	97.0	95.8

DESIGN STRESSES

FIELD UNITS

fc = 1400 psi
vc = 56.2 psi
fs = 24000 psi
n = 9

PRECAST PRESTRESSED UNITS

f'c = 5000 psi
f'ci = 4000 psi
½"⌀ Strands < f's = 270000 psi
f'si = 189000 psi

LATIMORE CREEK
BUILT 200 BY
MENARD COUNTY
SECTION 01-00050-00-BR
F.A.S. ROUTE 575 - STA. 4+41.00
STR. NO. 065-3111 LOADING HS20

NAME PLATE
(Standard 515001)

GENERAL NOTES

See Proposal for Boring Data.

Reinforcement bars shall conform to the requirements of A.A.S.H.T.O. M-31, M-42, or M-53, Grade 60.

The layout of the riprap slopewall may be varied to suit conditions in the field as determined by the engineer.

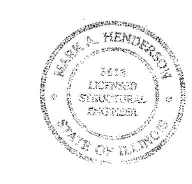
The contractor shall drive one test pile in a permanent location at the South abutment as directed by the Engineer in the field prior to ordering the remainder of piles.

DESIGN SPECIFICATIONS

2002 A.A.S.H.T.O. Specifications and 2003 Interim Specifications.

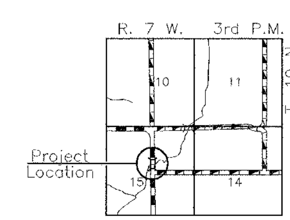
LOADING HS 20-44

Allow 50#/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 "A.A.S.H.T.O. Standard Specifications For Highway Bridges".

Mark A. Henderson 2/11/05
Expiration Date 11/30/2006



LOCATION SKETCH

GENERAL PLAN & ELEVATION
F.A.S. 575 - C.H. 7
(N. PETERSBURG ROAD)
OVER LATIMORE CREEK
SECTION 01-00050-00-BR
MENARD COUNTY

ALLEN HENDERSON & ASSOCIATES, INC. CONSULTING CIVIL AND STRUCTURAL ENGINEERS SPRINGFIELD, IL. PHONE: (217) 544-8033