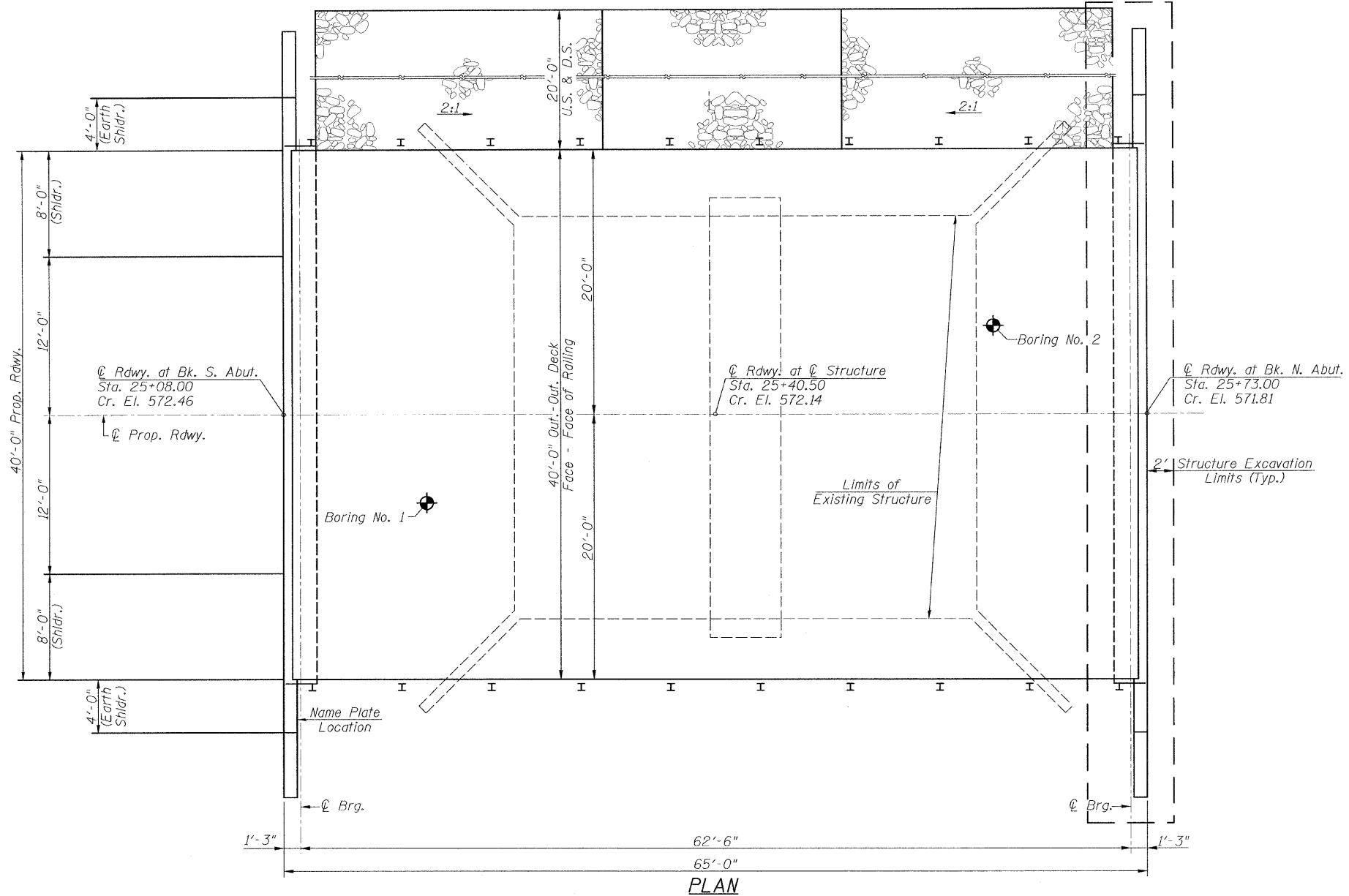
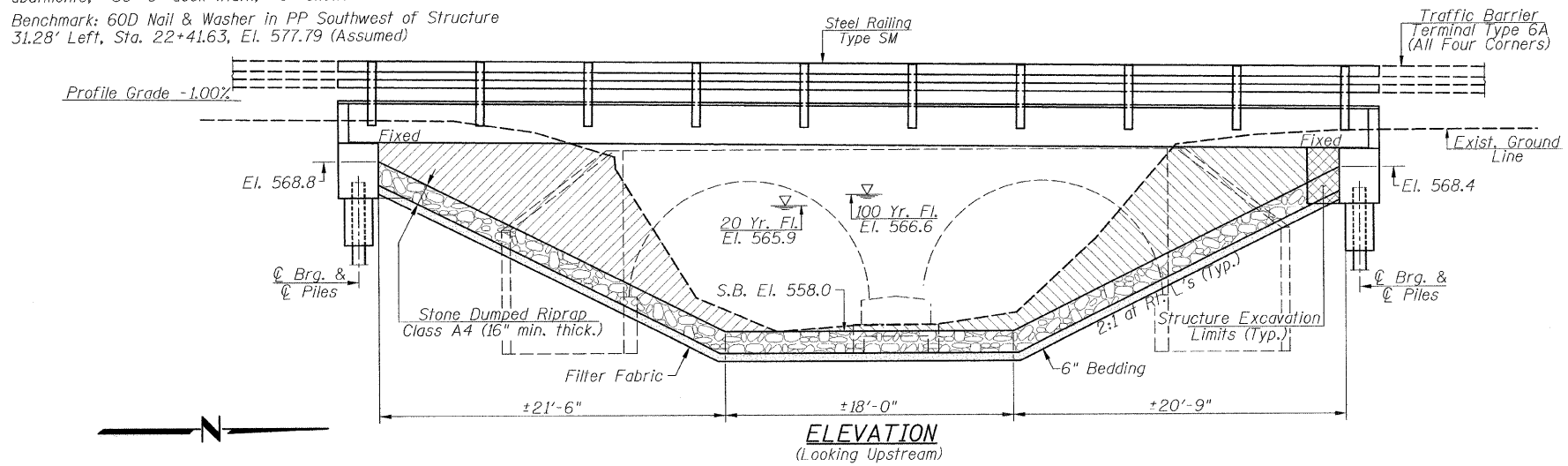


Existing Structure 084-2003: Two multi-plate arch culverts. ±35'-0" Bk.-Bk. abutments, ±30'-0" deck width, ±0° skew.
 Benchmark: 60D Nail & Washer in PP Southwest of Structure
 31.28' Left, Sta. 22+41.63, El. 577.79 (Assumed)



USER NAME = #USER#	DESIGNED - ---	REVISED - ---
PLOT SCALE = #SCALE#	DRAWN - ---	REVISED - ---
PLOT DATE = #DATE#	CHECKED - ---	REVISED - ---
	DATE - ---	REVISED - ---

Allen Henderson & Associates, Inc.
 Civil and Structural Engineers Springfield, IL
 62703 Phone: (217)544-8033 IL Design Firm
 No. 184-001907

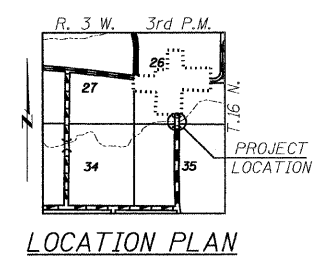
ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			542
Stone Dumped Riprap, Class A4	Ton			389
Filter Fabric	Sq. Yd.			578
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.			147
Concrete Structures	Cu. Yd.		43.2	43.2
Concrete Encasement	Cu. Yd.			4.2
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	2547		2547
Reinforcement Bars	Pound		5030	5030
Steel Railing Type SM	Foot	130		130
Furnishing Steel Piles HP 12x53	Foot		480	480
Driving Piles	Foot		480	480
Test Pile, Steel HP 12x53	Each		2	2
Name Plates	Each		1	1
Waterproofing Membrane System	Sq. Yd.	289		289
Portland Cement Mortar Fairing Course	Foot	144		144
Hot Mix Asphalt Surface Course, Mix C N50	Ton	32		32

Flood		Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Natural H.W.E.	Head - ft. Exist.	Prop.	Headwater El. Exist.	Prop.
Design		20	1167	180	267	565.9	0.4	0.0	566.3	565.9
Base		100	1781	201	303	566.6	1.4	0.1	568.0	566.7
Exist. Overtop.		Greater than 500 years								
Prop. Overtop.		Greater than 500 years								
Max. Calc.		500	2392	217	329	567.1	3.4	0.3	570.5	567.4

GRIFFITH CREEK
 STA. 25+40.50
 F.A.S. ROUTE 635
 BUILT 20 BY
 SANGAMON COUNTY
 SECTION 07-00055-01-BR
 STR. NO. 084-3509 LOADING HL-93
NAME PLATE
 (Standard 515001)

LOADING HL-93
 Allow 50#/sq. ft. for future wearing surface.
DESIGN SPECIFICATIONS
 2007 AASHTO LRFD Bridge Design Specifications, 4th Edition
DESIGN STRESSES
FIELD UNITS
 $f'_c = 3500$ psi
 $f_y = 60000$ psi (Reinforcement)
PRECAST PRESTRESSED UNITS
 $f'_c = 6000$ psi
 $f'_{ci} = 5000$ psi
 $f_{pu} = 270000$ psi ($\frac{1}{2}$ " low lax strands)
 $f_{pbt} = 201960$ psi ($\frac{1}{2}$ " low lax strands)

GENERAL NOTES
 See Proposal for Boring Data.
 Reinforcement bars shall conform to the requirements of ASTM A706, Grade 60. See Special Provisions.
 The layout of the riprap slopewall may be varied to suit ground conditions in the field as determined by the Engineer.
 The contractor shall drive one test pile in a permanent location at each abutment as directed by the Engineer in the field prior to ordering the remainder of piles.



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. LRFD Bridge Design Specifications."
 Mark Henderson 1-22-09
 Expiration Date 11/30/2010



GENERAL PLAN AND ELEVATION		C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SCALE: NONE	SHEET NO. 8 OF 25 SHEETS	19	07-00055-01-BR	SANGAMON	25	8
STA. 7+00.00 TO STA. 11+60.00		FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT		CONTRACT NO. 3483		