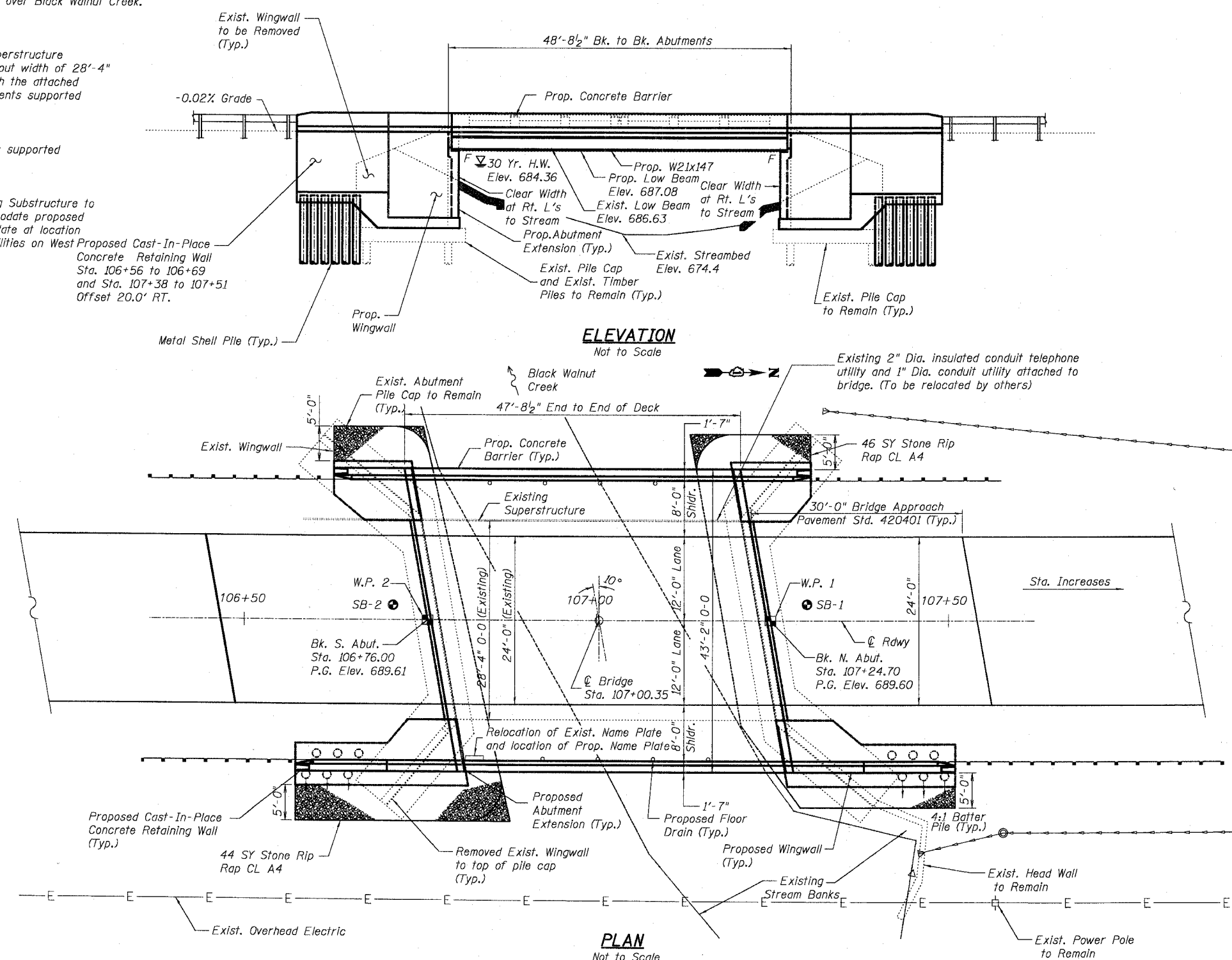


Benchmarks:
 BM 1: Cut square in top of concrete wingwall at the South East corner of the Harlem Avenue Bridge over Black Walnut Creek. Elev. 689.71
 BM 2: Cut square in top of concrete headwall adjacent to the wingwall at the North East corner of the Harlem Avenue Bridge over Black Walnut Creek. Elev. 685.35

Existing Structure:
 Bridge Constructed in 1962 (S.N.# 099-3091). The Superstructure consists of a precast concrete bridge with an out-to-out width of 28'-4" and a total length of 48'-8 1/2" to be removed along with the attached bridge rail. The Substructure consists of closed abutments supported on untreated timber piles to remain.

New Structure:
 One span composite concrete deck on Steel W sections supported on existing closed abutments.

Salvage:
 Existing Superstructure to be removed and the existing Substructure to be partially demolished, repaired and modified to accommodate proposed Superstructure. Salvage and re-install existing Name Plate at location indicated below. Also salvage and re-install existing utilities on West Fascia of proposed bridge.



DESIGN SPECIFICATIONS
 2002 AASHTO with 2003 & 2004 Interims

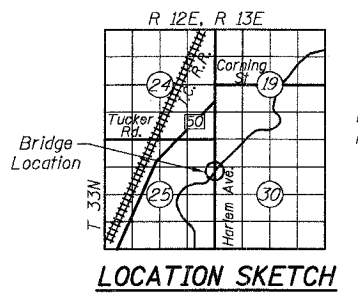
***LOADING HS20-44**
 50#/sq. ft. for future wearing surface.
 * Also designed for 120,000 Lb. Permit loading

DESIGN STRESSES

FIELD UNITS
 f_y = 60,000 psi (Reinforcement Bars)
 f_c = 4,000 psi (Class SD)
 f_c = 3,500 psi (Class BD)
 f_s = 27,500 psi (Structural Steel)

SEISMIC DATA

Seismic Performance Category (SPC) = "A"
 Bedrock Acceleration Coefficient (A) = 0.04g
 Site Coefficient (S) = 1.0



DRECKSLER BRIDGE
 REBUILT 200- BY
 WILL COUNTY
 SEC. 01-00139-02-BR
 LOADING HS20-44
 S.N. 099-3091

NAME PLATE
 See Std. 515001

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".

Robert D. D...
 IL Licensed Structural Engineer

5/26/05
 Date

Licensed Expires



WATERWAY INFORMATION

Drainage Area = 15.7 mi ²		Low Grade Elev. 689.45 ft.		Sta. 107+76.2		
Freq. Yr.	Q C.F.S.	Opening Exist.	Sq. Ft. Prop.	Nat. H.W.E.	Head-Ft. Exist. Prop.	Headwater El. Exist. Prop.
Design	30	1455	323.0	323.0	684.36	0.09 684.45
Base	100	2091	397.0	384.6	686.09	0.00 0.16 686.04 686.19

DESIGNED	MGH
CHECKED	RGD
DRAWN	WJH
CHECKED	NRF

SMITH ENGINEERING CONSULTANTS, INC.
 CIVIL/STRUCTURAL ENGINEERS
 AND SURVEYORS

REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 General Plan and Elevation
 Harlem Avenue/Dreckslers Road
 Over Black Walnut Creek
 Will County
 Section 01-00139-02-BR
 SN. 099-3091
 DATE 5-26-2005