

Bench Mark: Brass Plug on SE wingwall US51 (Bus) N.B. SN 058-0008 over IL 105 Elevation = 640.56

Existing Structure: S.N. 058-0010 built in 1962 as S.B.I Rt. 2 Section 48X-B2 & F2 at Station 655+79.10. The superstructure consists of three span continuous steel plate girders with a reinforced concrete deck slab. Approach slabs are supported off of vaulted abutments and approach bents on precast piles. The solid wall piers are supported on precast piled footings. The structure length measure 530'-0" bk-to-bk of approach bents and 38'-8" out-to-out of deck with no skew. Spans 1 & 3 are 146'-0" and Span 2 is 188'-0". The vaulted abutments slabs are 22'-0" long. Existing concrete decks, abutment backwalls and abutment bearings to be removed and replaced.

Traffic to be maintained using a detour to SN 058-0049 (S.B. IL 105) with crossovers.

No Salvage

LOADING HS20-44

Allow 25 #/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

(NEW CONSTRUCTION)

2002 AASHTO Standard Specifications

SEISMIC DATA

Seismic Performance Category (SPC)=A
Bedrock acceleration coefficient (A) = 0.048
Site Coefficient (S) = 1.2

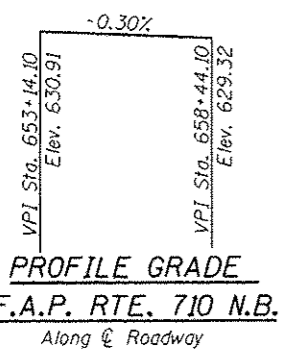
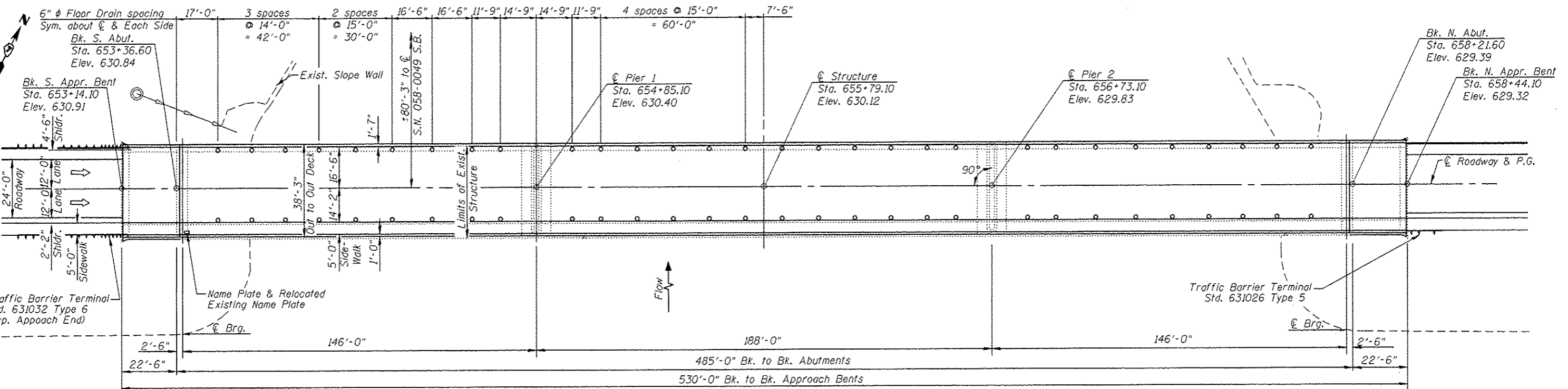
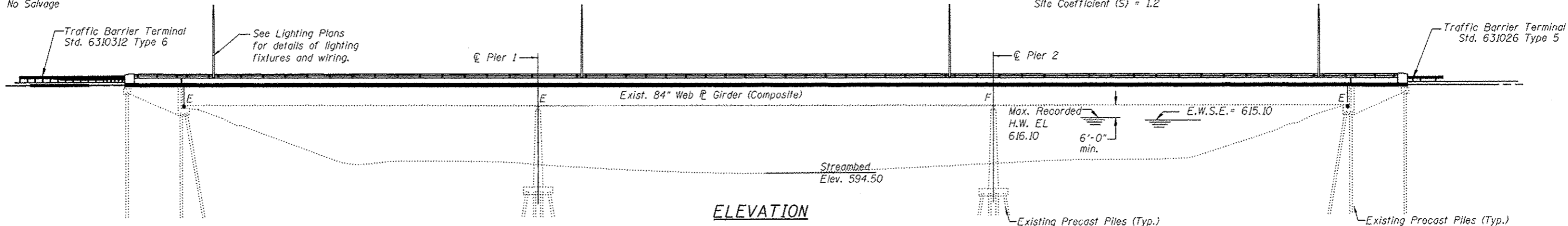
DESIGN STRESSES

FIELD UNITS (NEW CONSTRUCTION)

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 36,000 psi (Steel)

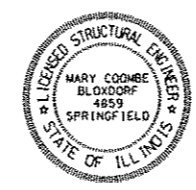
FIELD UNITS (EXIST. CONSTRUCTION)

fy = 33,000 psi (Structural Steel)
f'c = 3,500 psi (Substructure)
fy = 40,000 psi (Reinforcement)

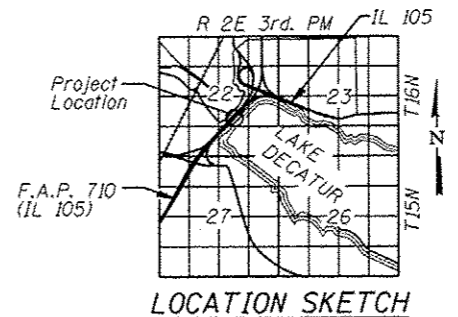


APPROVED
For Structural Adequacy Only

Carl Ruyter
Engineer of Bridges & Structures



Mary Coombe Blosdorf
ILLINOIS STRUCTURAL NO. 4859
EXPIRES 11/30/14
DATE: 06/11/14



GENERAL PLAN AND ELEVATION
IL 105 NORTHBOUND
OVER LAKE DECATUR
F.A.P. 710 - SEC. (48X-B-2)BR & (48BR)BR
MACON COUNTY
STATION 655+79.10
STRUCTURE NO. 058-0010

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894				STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		GENERAL PLAN AND ELEVATION STRUCTURE NO. 058-0010 SHEET NO. 1 OF 34 SHEETS		F.A.P. RTE. 710 (48X-B-2)BR & (48BR)BR		MACON	TOTAL SHEETS 144	SHEET NO. 78
FILE NAME *	USER NAME *	DESIGNED PBB	REVISD -					CONTRACT NO. 74438		ILLINOIS FED. AID PROJECT		
		CHECKED MCB	REVISD -									
		DRAWN MLO	REVISD -									
		CHECKED PBB/MCB	REVISD -									