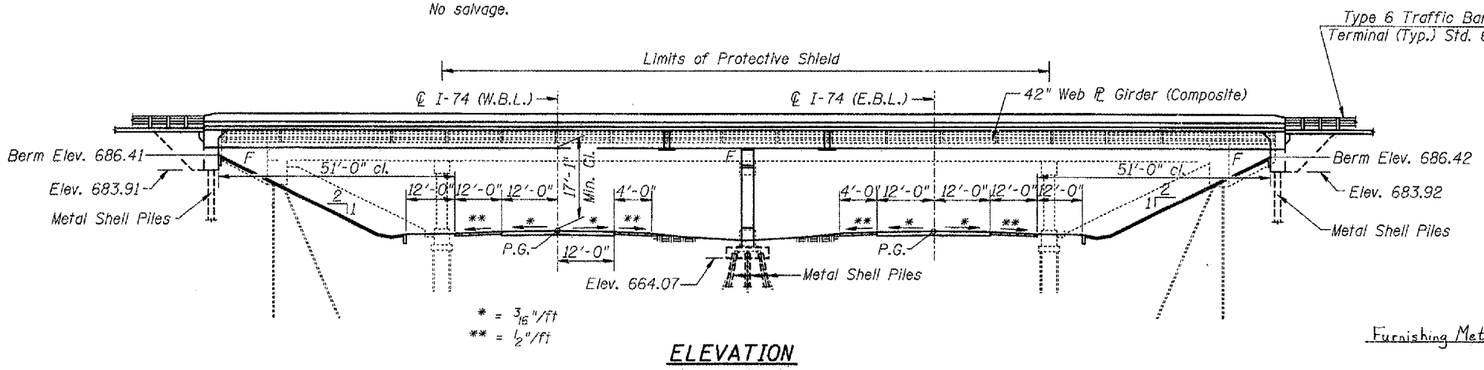
B.M: Chiseled "□" on East Foundation of Sign for Eastbound I-74 on East Side of C.H. 22 (IL Rte 49S) and South of Southeast Ramp. Elev. = 666.96

Existing Structure: S.N. 010-0097 Built in 1959. Four Simple Spans R.C. Deck with P.P.C. I-Beams on R.C. Piers and Abutments. The Structure is 28'-0" wide between curbs and spans 185'-6" Back to Back Abutments. Structure is to be removed and replaced. The proposed structure allows for a third lane in each direction in anticipation of the future widening of I-74. Road will be closed and traffic detoured during construction. No salvage.

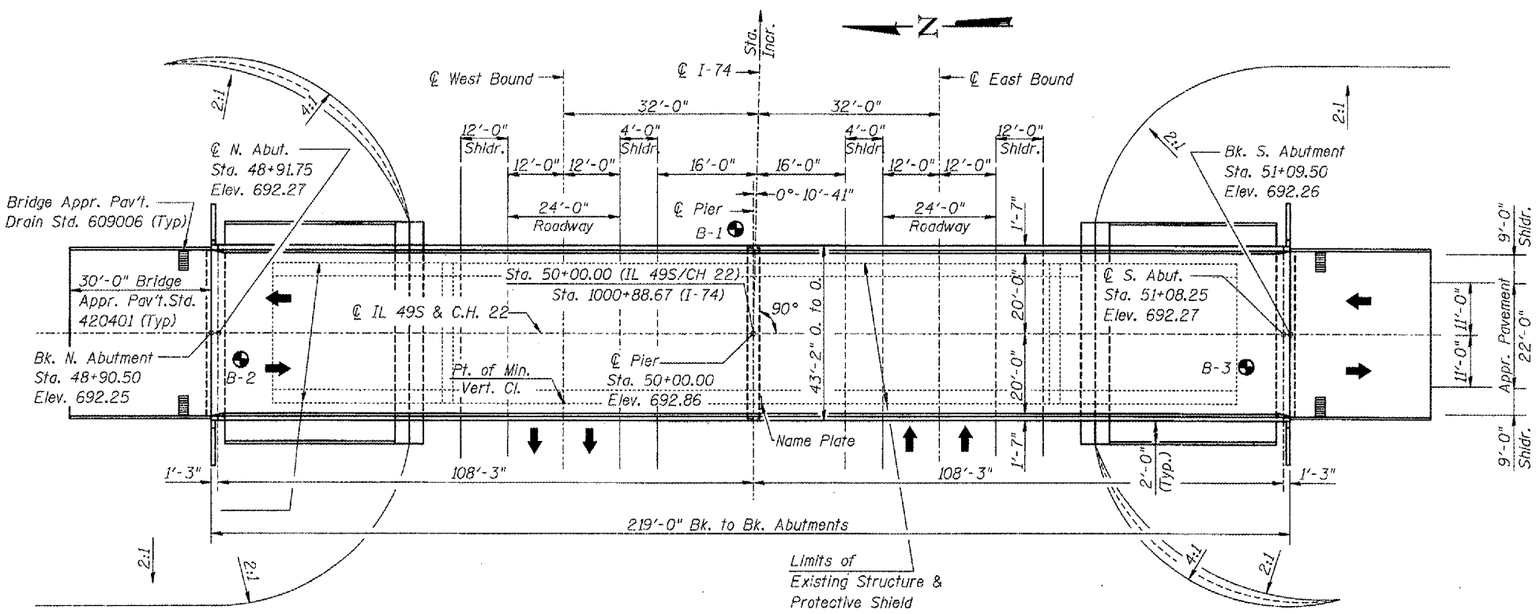
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 74	★	CHAMPAIGN	122	52
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

★ (10-92-8HB-1)BR CONTRACT 70001

SHEET NO. 1
17 SHEETS



ELEVATION
(Looking East)



● Indicates Boring

PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. yd		108	108
Structure Excavation	Cu. yd		148	148
Concrete Structures	Cu. yd		104.5	104.5
Concrete Superstructure	Cu. yd	307.3		307.3
Bridge Deck Grooving	Sq. yd.	925		925
Reinforcement Bars, Epoxy coated	Pound	~~76830~~	17210	~~94040~~ 93,930 76,720
Furnishing and Erecting Structual Steel	Lump Sum	1		1
Protective Coat	Sq. yd	1152		1152
Stud Shear Connectors	Each	3600		3600
Name Plates	Each		1	1
~~Furnishing Metal Pile Shells (14" ϕ)~~	Foot		2071	2071
Driving ~~and Filling Shells~~ Piles	Foot		2071	2071
Test Pile Metal Shells	Each		1	1
Slope Wall, 4"	Sq. yd		452	452
Bar Splicers	Each	80		80
Removal of Existing Structures No. 1	Each	1		1
Protective Shield	Sq. yd.	429		429

Furnishing Metal Shell Piles 14" x 0.25"

LOADING HL93 (STRUCT. STEEL, DECK & BEARINGS)

LOADING HS20-44 (SUBSTRUCTURE)

Allow 50 psf for future wearing surface.

DESIGN SPECIFICATIONS

Superstructure

1998 AASHTO LRFD Bridge Design Specifications with 1999 thru 2002 interims.

Substructure

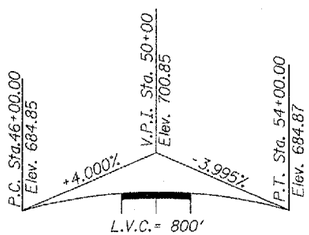
1996 AASHTO Standard Specifications with 1997 thru 2002 interims.

APPROVED
For Structural Adequacy Only

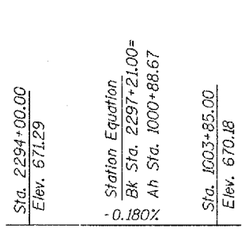
Ralph E Anderson (TJD)
Engineer of Bridges & Structures

STATE OF ILLINOIS PAUL B. LIN No. 4419 SPRINGFIELD, ILLINOIS LICENSED STRUCTURAL ENGINEER

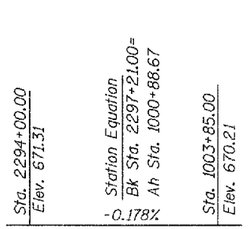
Paul B. Lin 3/23/05
ILLINOIS STRUCTURAL NO. 4419 DATE



PROFILE GRADE
(IL 49S along ℄ Roadway)



PROFILE GRADE
(F.A.I. Rte. 74 E.B.)



PROFILE GRADE
(F.A.I. Rte. 74 W.B.)

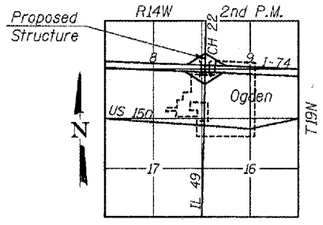
SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.048g
Site Coefficient (S) = 1.2

DESIGN STRESSES

FIELD UNITS

f'_c = 3.5 ksi
f_y = 60 ksi (reinf.)
f_y = 50 ksi (Struct. Steel, AASHTO M270 Gr. 36)
f_y = 50 ksi (Struct. Steel, AASHTO M270 Gr. 50)



LOCATION SKETCH

REVISIONS NAME	DATE

LIN ENGINEERING, LTD.
210 W. Chestnut, Chatham, Illinois 62629
(217) 483-1165 FAX (217) 483-4705
Designed By: MTH | Checked By: STD | Drawn By: JAD
Date: 11/02 | File: GEO277.DGN

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

FAS RTE 518 (IL 49S) & FAP RTE 836 (C.H.22)
OVER FAI RTE 74 (I-74)
SECTION (10-92-8HB-1) BR
CHAMPAIGN COUNTY
STA. 1000+88.67 (I-74)
STA. 50+00.00 (IL 49S & C.H. 22)
STRUCTURE NO. 010-0277