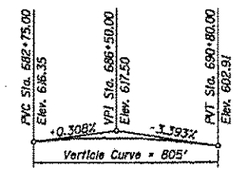
Benchmarks:
1.) BM 100 Chiseled "□" at the Southwest corner of concrete foundation of East pier of I-72 bridge over SB I-55. Elev. 589.75.
2.) BM 101A Chiseled "□" on the Northwest parapet wall of I-72 bridge over SB I-55. Elev. 615.80.
3.) MON 9911 Brass tablet set in concrete. North side of EB I-72, ±50' West of West end of bridge I-72 over SB I-55. Elev. 615.04.

Existing Structure: Structure No. 084-0078, built in 1962 as Section 84-3HB-5. The superstructure consists of a continuous three span non-composite welded plate girder bridge with a 7" concrete slab. The substructure consists of concrete pile bent abutments supported by steel piles and concrete multiple column pile bent piers supported by timber piles. The back-to-back of abutments dimension measures 347'-0" and the out-to-out of deck dimension measures 351'-0". The span lengths are 101'-0", 152'-10" and 83'-8" (℄ bearing to ℄ bearing) with a 62°43'18" left forward skew. The existing beams, piers and a portion of the abutments will be reincorporated into the new structure. One lane of traffic will be maintained utilizing stage construction.

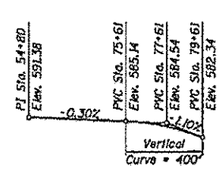
STATION 686+29.09
REBUILT 20__ BY
STATE OF ILLINOIS
F.A.I. RTE. 72 SEC. (84-3HB-5)BR
LOADING HS20-44
STRUCTURE NO. 084-0078

NAME PLATE
See Std. 515001

Existing name plate shall be cleaned and relocated next to the new name plate. Cost included with Name Plates.

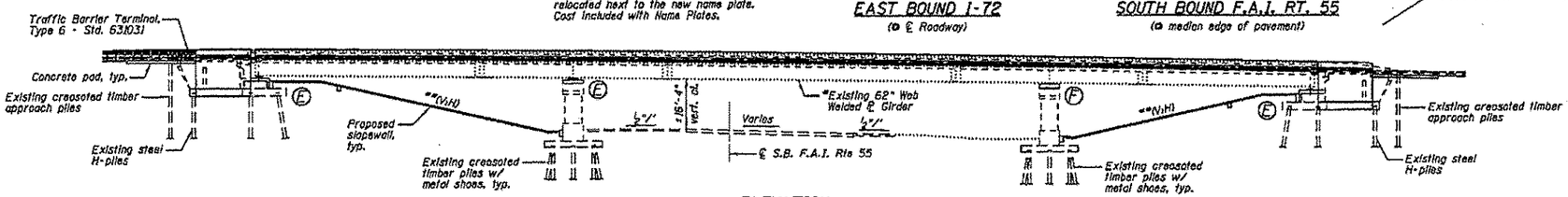


PROFILE GRADE EAST BOUND I-72
(℄ Roadway)

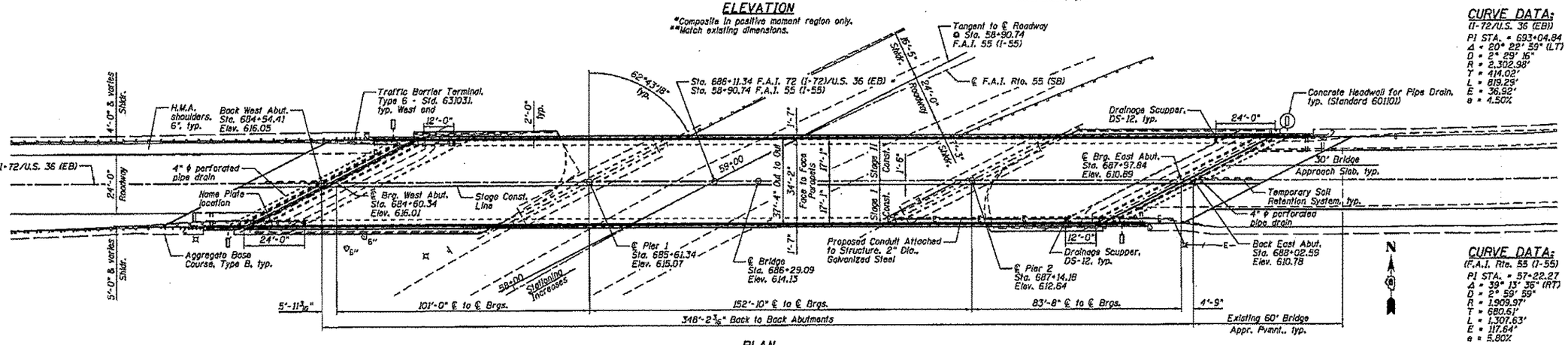


PROFILE GRADE (EXIST. PLANS) SOUTH BOUND F.A.I. RT. 55
(℄ median edge of pavement)

SCOPE OF WORK
1.) Remove and replace the existing reinforced concrete deck utilizing stage construction.
2.) Remove and replace the existing concrete approach pavement.
3.) Repair structural steel as required including new end diaphragms.
4.) Raise the existing structural steel 5" in order to meet the vertical clearance requirement.
5.) Remove and replace the existing expansion bearings at the Abutments and Pier #1 with elastomeric bearings.
6.) Remove and replace the existing fixed bearings at Pier #2.
7.) Install stud shear connectors in the positive moment region in order to make the existing welded plate girders composite with the cast-in-place reinforced concrete deck.
8.) Remove and replace the existing abutment backwall and a portion of the wingwalls as shown.
9.) Place additional concrete on the abutment and pier caps in order to meet the proposed grade change.
10.) Remove and replace East and West slopewalls.
11.) Repair abutments and piers as required.
12.) Clean and paint existing structural steel under on separate contract.



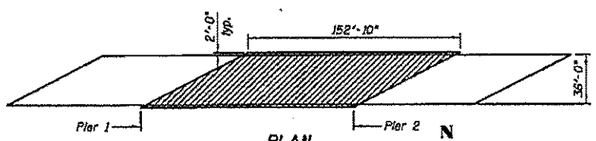
ELEVATION
*Composite in positive moment region only.
**Match existing dimensions.



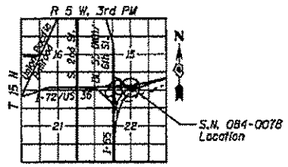
CURVE DATA:
(I-72/U.S. 36 (EB))
PI STA. = 693+04.84
Δ = 20° 22' 59" (LT)
D = 2° 29' 15"
R = 2,302.98'
T = 414.02'
L = 819.29'
E = 36.92'
e = 4.50%

CURVE DATA:
(F.A.I. Rte. 55 (I-55))
PI STA. = 57+22.27
Δ = 39° 13' 35" (RT)
D = 2° 59' 59"
R = 1,909.97'
T = 680.61'
L = 1,307.63'
E = 117.64'
e = 5.80%

PLAN



PLAN
(Limits of Protective Shield)
Proposed Protective Shield



LOCATION SKETCH

INDEX TO SHEETS

SHEET NO.	TITLE
B1	GENERAL PLAN AND ELEVATION
B2	GENERAL DATA
B3	STAGE CONSTRUCTION
B4	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
B5	TOP OF SLAB ELEVATION LOCATIONS
B6-B8	TOP OF SLAB ELEVATIONS
B9	TOP OF WEST APPROACH SLAB ELEVATIONS
B10	TOP OF EAST APPROACH SLAB ELEVATIONS
B11-B13	SUPERSTRUCTURE DECK
B14	SUPERSTRUCTURE CROSS SECTION
B15-B16	SUPERSTRUCTURE DETAILS
B17	WEST BRIDGE APPROACH SLAB DETAILS
B18	EAST BRIDGE APPROACH SLAB DETAILS
B19	DRAINAGE SCUPPER, DS-12
B20	PREFORMED JOINT STRIP SEAL
B21	MODULAR EXPANSION JOINT DETAILS
B22-B24	STRUCTURAL STEEL
B25	FIXED BEARING DETAILS
B26-B27	TYPE II ELASTOMERIC BEARING DETAILS
B28	GUIDED EXPANSION HLMR BEARING DETAILS
B29	WEST ABUTMENT REMOVAL
B30-B32	WEST ABUTMENT
B33	EAST ABUTMENT REMOVAL
B34-B36	EAST ABUTMENT
B37	PIER NO. 1 REPAIR
B38	PIER NO. 1
B39	PIER NO. 2 REPAIR
B40	PIER NO. 2
B41	BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
B42	CONCRETE PARAPET SLIPFORMING OPTION

EXISTING DESIGN STRESSES
f'c = 1,400 psi
fs = 20,000 psi (Reinforcement)
fs = 18,000 psi (Structural Steel)
n = 10

DESIGN SPECIFICATIONS
2002 AASHTO Standard Specifications for Highway Bridges

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi (Cast-in-Place)
fy = 60,000 psi (Reinforcement)
fy = 36,000 psi (Structural Steel - M270 Grade 36)
fy = 50,000 psi (Structural Steel - M270 Grade 50)

LOADING HS20-44 & ALT.
Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.048
Site Coefficient (S) = 2.0

JOSEPH W. LOWRANCE
062-006446
REGISTERED STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
ILLINOIS

Date
JOSEPH W. LOWRANCE
ILLINOIS STRUCTURAL ENGINEER
NO. 081-006446
Exp. Date 11/30/10

GENERAL PLAN AND ELEVATION
I-72 / U.S. 36 OVER
S.B. F.A.I ROUTE 72
SECTION (84-3HB-5)BR
SANGAMON COUNTY
STATION 686+29.09
STRUCTURE NO.084-0078

FOR INFORMATION ONLY

FILE NAME = S:\Bridgeplans_CAD\72F85 - D6 PAINTING 2013\plansheet1.dgn	USER NAME = copenbargerds	DESIGNED -	REVISED -
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Default	PLOT DATE = Dec-28-2012 8%1A%91AM	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL
PLAN AND ELEVATION

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	D6 PAINTING 2013	SANGAMON	26	17
		CONTRACT NO. 72F85		
		ILLINOIS FED. AID PROJECT		