

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|----------------|----------|------------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FAU 1441 | 00-00059-00-BR | KANE | 154 | 72 |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | FED. AID PROJECT | |

Contract # 83869

HIGHWAY CLASSIFICATION

Wilson Street
Functional Class: Minor Arterial
ADT: 24,600 (2004); 34,000 (2030)
DHW: 3400
Design Speed: 30 m.p.h.
Posted Speed: 25 m.p.h.

LOADING HS20-44

DESIGN SPECIFICATIONS

AASHTO 17th Edition (2002)

DESIGN STRESSES

| | |
|---|------------------------------------|
| CONC. DECK SLAB | REINFORCED CONCRETE |
| $f'_c = 6000$ psi (HPC) | $f'_c = 3500$ psi |
| $f_y = 60,000$ psi (reinforcement) | $f_y = 60,000$ psi (reinforcement) |
| $f'_s = 270,000$ psi (0.6" ϕ low relaxation) | STRUCTURAL STEEL |
| CONC. PIER | $f_y = 50,000$ psi |
| $f'_c = 3500$ psi | |
| $f_y = 60,000$ psi (reinforcement) | |
| $f'_s = 270,000$ psi (0.6" ϕ low relaxation) | |

SEISMIC DATA

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

- B.M.#3 - Chiseled '+' on the sidewalk at the NW corner of Wilson Street and River Street Elev. 680.11

- Existing Structure- The existing structure, number 045-6050, is a three-span cast-in-place steel reinforced concrete filled spandrel arch built in 1911. The total length of the bridge back to back of abutments is 274'±. Individual spans measure 68'±, 88'± and 68'±. The out-to-out deck dimension is 62'-4"±. The abutments are steel reinforced concrete counterfort type and piers are steel reinforced concrete. The abutments and piers are supported on spread footings resting on bedrock. Traffic to be maintained utilizing staged construction.

- Salvage existing roadway lights, monument at NW corner of bridge and portions of the existing abutments.

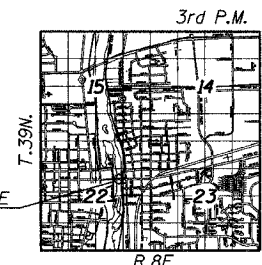


License Expires: 11/30/2008
Current Date: 11/6/2006

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 the structure and complies with requirements of the current "AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES"

Existing Single Story Masonry Bldg. Supported by Drilled Shaft Foundations Bearing on Rock (VIF)

Existing 3-Story Masonry Bldg. Supported by Spread Foundations Bearing on Bedrock (VIF)



LOCATION SKETCH

Reconstruct Exist. Patio See Civil

Prop. Retaining Wall F

Bridge Approach Pavement Drain, See Civil Plans
C Brg. W. Abut. Sta. 11+57.74 Elev. 674.09

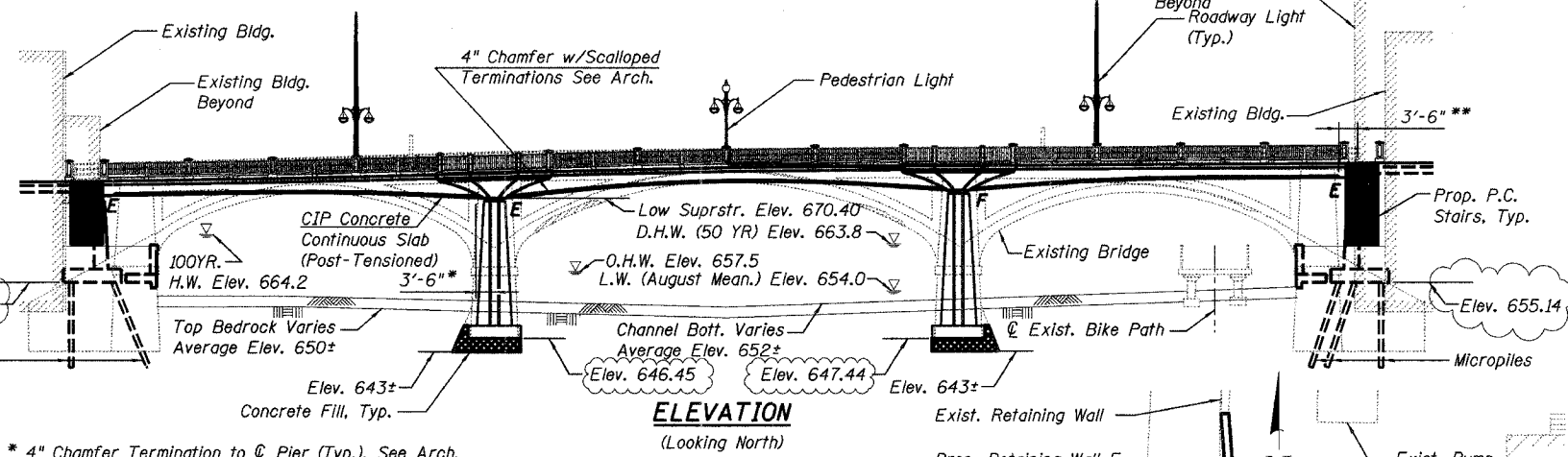
30'-0" Bridge Approach Pav. (Special), Typ.

Existing 2-Story Masonry Bldg. Supported by Spread Foundations Bearing on Rock (VIF)

FOX RIVER
BUILT 2007 BY
CITY OF BATAVIA
KANE COUNTY
LOADING HS20
STR. NO. 045-6051

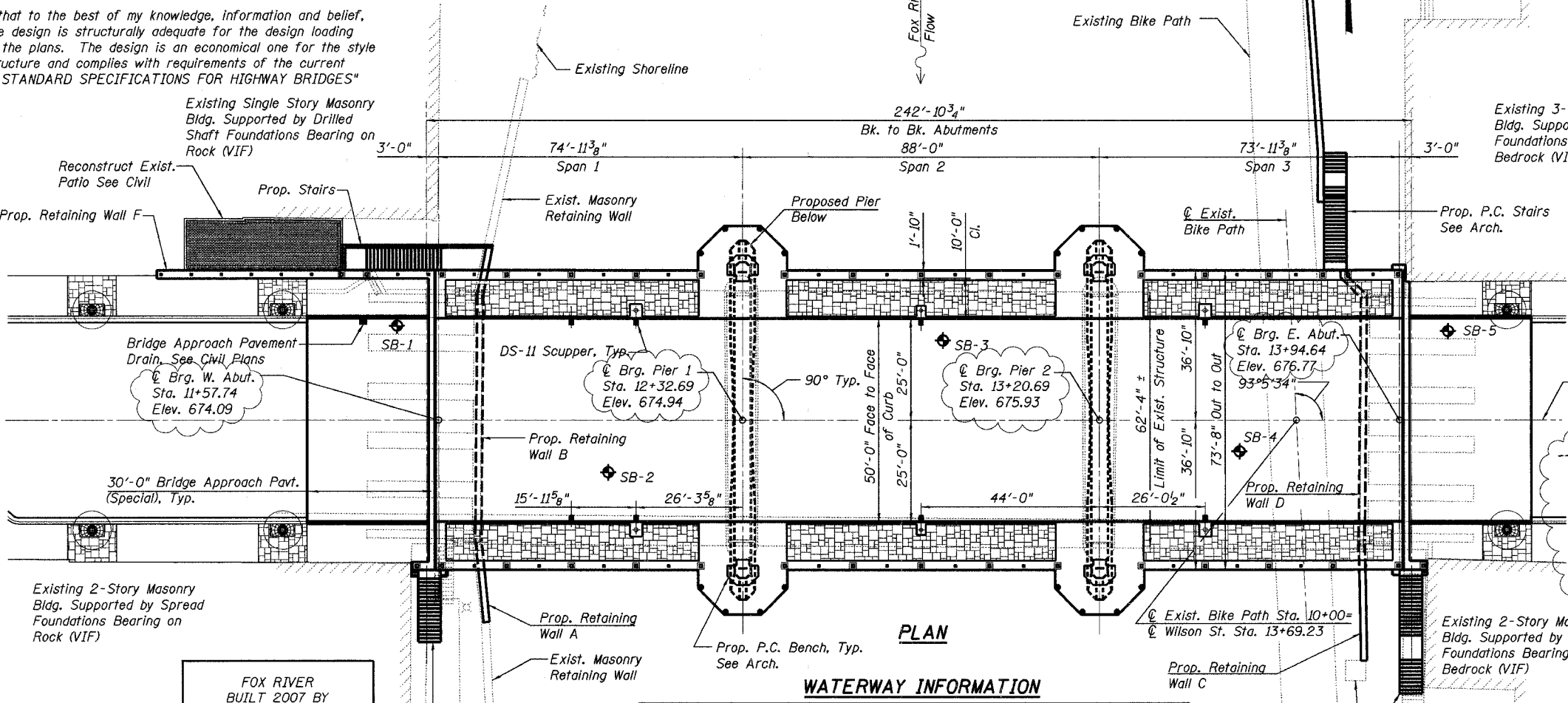
Note: For Mounting See Sheet No. 83

NAME PLATE
See Std. 515001



ELEVATION
(Looking North)

* 4" Chamfer Termination to C Pier (Typ.), See Arch.
** 4" Chamfer Termination to End of Deck Slab (Typ.), See Arch.



PLAN

WATERWAY INFORMATION

Drainage Area = 1629 sq. mi. Low Grade Elev. 672.9 @ Sta. 9+62

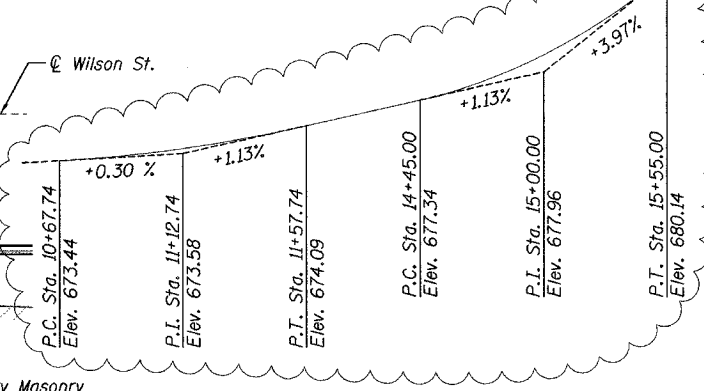
| Flood | Freq. Yr. | Q C.F.S. | Opening Sq. Ft. | | Nat. H.W.E. | Head - Ft. | | Headwater El. | |
|-------------|-----------|----------|-----------------|-------|-------------|------------|-------|---------------|-------|
| | | | Exist. | Prop. | | Exist. | Prop. | Exist. | Prop. |
| Design | 10 | 8500 | 1674 | 1674 | 661.3 | 0.2 | 0.1 | 661.5 | 661.4 |
| Base | 50 | 12500 | 2125 | 2176 | 663.7 | 0.2 | 0.1 | 663.9 | 663.8 |
| Overtopping | 100 | 13500 | 2196 | 2265 | 664.1 | 0.2 | 0.1 | 664.3 | 664.2 |
| Max. Calc. | 500 | 17630 | 2468 | 2622 | 665.7 | 0.4 | 0.2 | 666.1 | 665.9 |

LEGEND

Soil Boring, see Sheet No's. 122 and 123

PROPOSED PROFILE GRADE LINE

(Along C Wilson St.)



NOTES

- For typical bridge cross section, see Sheet No. 74.
- For existing and proposed utilities, see Civil Plans.
- For Benchmark's, Alignment and Ties, see Sheet No. 13.

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

GENERAL PLAN & ELEVATION

WILSON ST OVER FOX RIVER
SECTION 00-00059-00-BR
KANE COUNTY
STRUCTURE NO. 045-6051