

Bench Mark: B.M. 17 Spike in P.P. at Sta. 30+20 (IL. 162), 53' L1. Elev. 423.51

Existing structure :

The original structure was constructed in 1987 as FAI Route 255, Section 60-8HVB. The dual structures consist of continuous two span composite welded plate girder bridges with 7 1/2" decks. The substructures consist of open vaulted abutments on steel piles and a concrete pier on concrete piles. The 7 1/2" thick abutment slabs rest on precast pre-stressed I-beams. The back-to-back of support bent dimension is 431'-9" (NB & SB) and out-to-out of deck dimension varies 78'-11 1/8" to 61'-2 1/4" (SB) and 72'-0 1/4" to 65'-8 7/8" (NB). The span lengths (CI bearing to CI bearing) are 177'-0" (NB & SB). Both structures have a 2°-42'-35" right forward skew. Two lanes of traffic will be maintained in each direction utilizing stage construction.

DESIGN SPECIFICATIONS

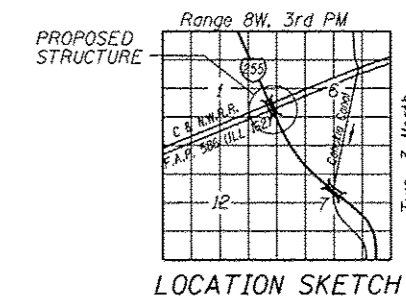
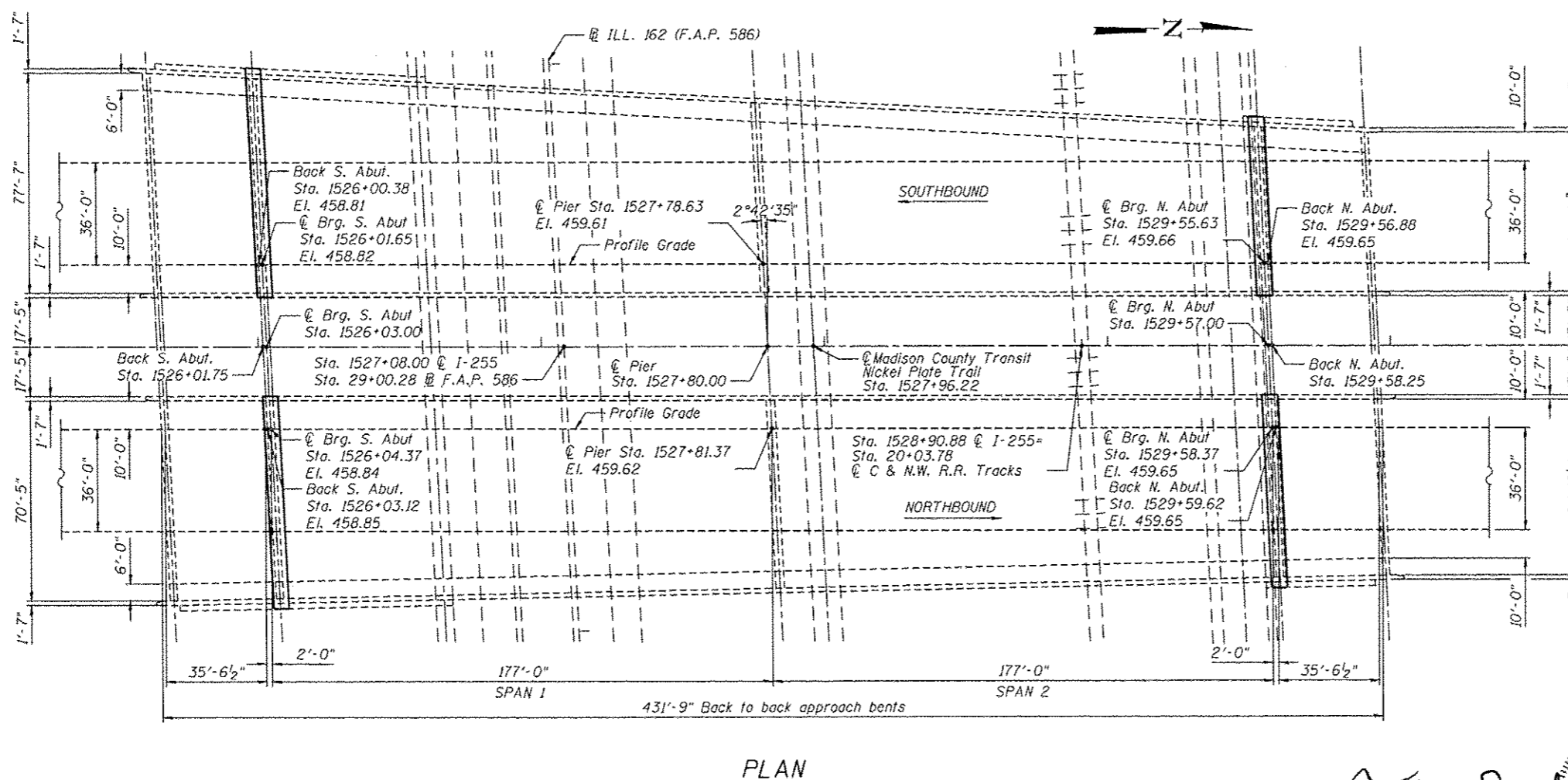
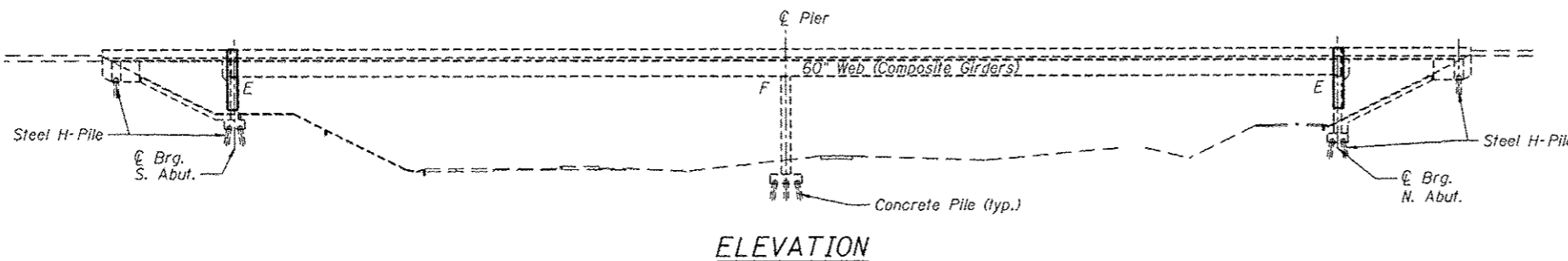
Original Construction
AASHTO 1977 plus Interim Specifications for 1978 thru 1982.

DESIGN CRITERIA:

Original Construction
Live Load: HS 20-44 and alternate
Allow 25 PSF for future wearing surface.

DESIGN STRESSES

Original Construction
Field Units
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (AASHTO M222 & M223 Grade50) (Structural Steel)
fy = 36,000 psi (AASHTO M183) (Structural Steel)
Precast Prestressed Units
f'c = 5,000 psi
f'ci = 4,000 psi
f's = 270,000 psi - 1/2" φ strands
f'si = 189,000 psi - 1/2" φ strands
New Construction
Field Units
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)



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NO. 081-005860
EXP. DATE 11/30/2014

10/18/13

F.A.I. 255 OVER
IL 162 (F.A.P. 586)
SEC 60-(8,9)RS-1
STATION 1527 + 08.00
MADISON COUNTY
STRUCTURE NO. 060-0220 (S.B.)
060-0221 (N.B.)

10/17/2013 10:17:20 AM C:\Users\jacob\Documents\Projects\060-0220\060-0221-76F10-01.dwg

FILE NAME = 4FILES



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|------------------------|----------------|-----------|
| USER NAME = jacob | DESIGNED - SDG | REVISED - |
| PLOT SCALE = #SCALE# | CHECKED - FAS | REVISED - |
| PLOT DATE = 10/17/2013 | DRAWN - DMC | REVISED - |
| | CHECKED - SDG | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 060-0220SB & 060-0221NB
SHEET NO. 1 OF 19 SHEETS

| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|---------------|---------|---------------------------|-----------|
| 255 | 60-(8,9) RS-1 | MADISON | 206 | 151 |
| CONTRACT NO. 76F10 | | | ILLINOIS FED. AID PROJECT | |