

Benchmark:

WRI051: N.G.S. Monument, ±Sta. 348+76.31, ±34.47' Lt., Elev. 559.35

WRI050: N.G.S. Monument, ±Sta. 357+31.32, ±24.86' Lt., Elev. 542.46

Existing Structure:

SN 050-0058 was originally built in 1931 to carry IL-69 over Fox River. In 1980, the existing structure's concrete spandrels and deck were removed and replaced. The structure consists of a 7½" normal crowned reinforced concrete slab deck on a five-span reinforced concrete open spandrel arch bridge with closed abutments supported on spread footings bearing on rock and four solid piers supported on spread footings. The structure is square and an overall length of 459'-0" from back-to-back of abutments. The out-to-out width of the structure is 35'-2". Existing structure is to be removed and replaced. Traffic will be detoured.

No salvage.

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

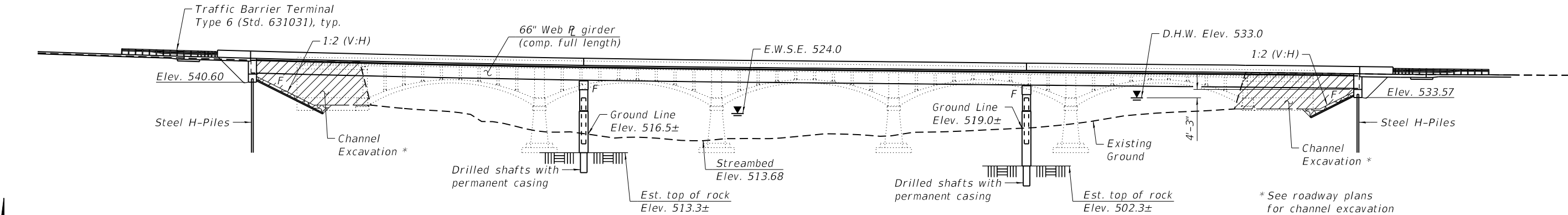
f'c = 4,000 psi (Superstructure)
f'c = 3,500 psi (Substructure)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50W)

HIGHWAY CLASSIFICATION

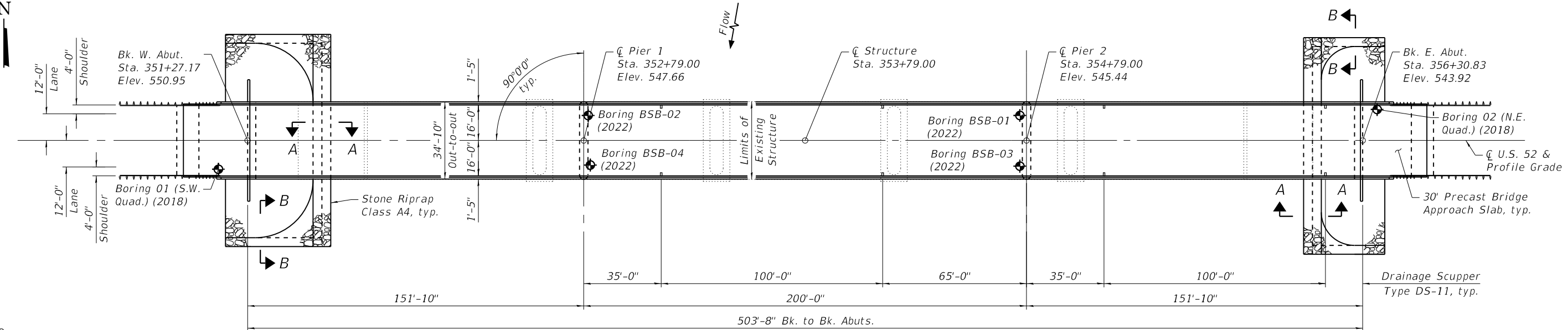
F.A.P. US Route 52
Functional Class: Minor Arterial
ADT: 2415 (2026); 2875 (2046)
ADTT: 275 (2026); 330 (2046)
DHW: 290
Design Speed: 55 m.p.h.
Posted Speed: 55 m.p.h.
2-Way Traffic
Directional Distribution: 50:50

SEISMIC DATA

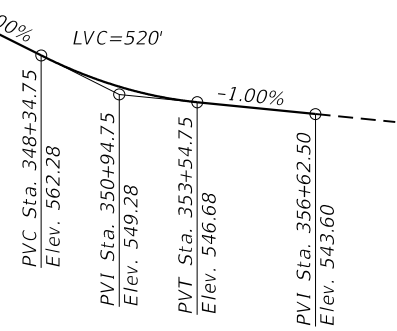
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.068
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.126
Soil Site Class = C



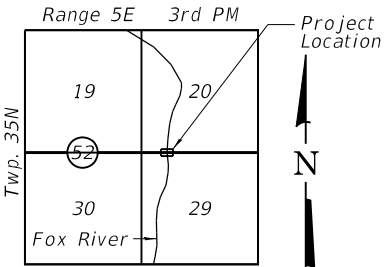
ELEVATION



PLAN



PROFILE GRADE
(along C U.S. 52)



LOCATION SKETCH

GENERAL PLAN & ELEVATION
US ROUTE 52 OVER FOX RIVER
PUBLIC WATER
F.A.P. RTE. 607 - SEC. (125)BR-1
LASALLE COUNTY
STATION 353+79.00
STRUCTURE NO. 050-0266

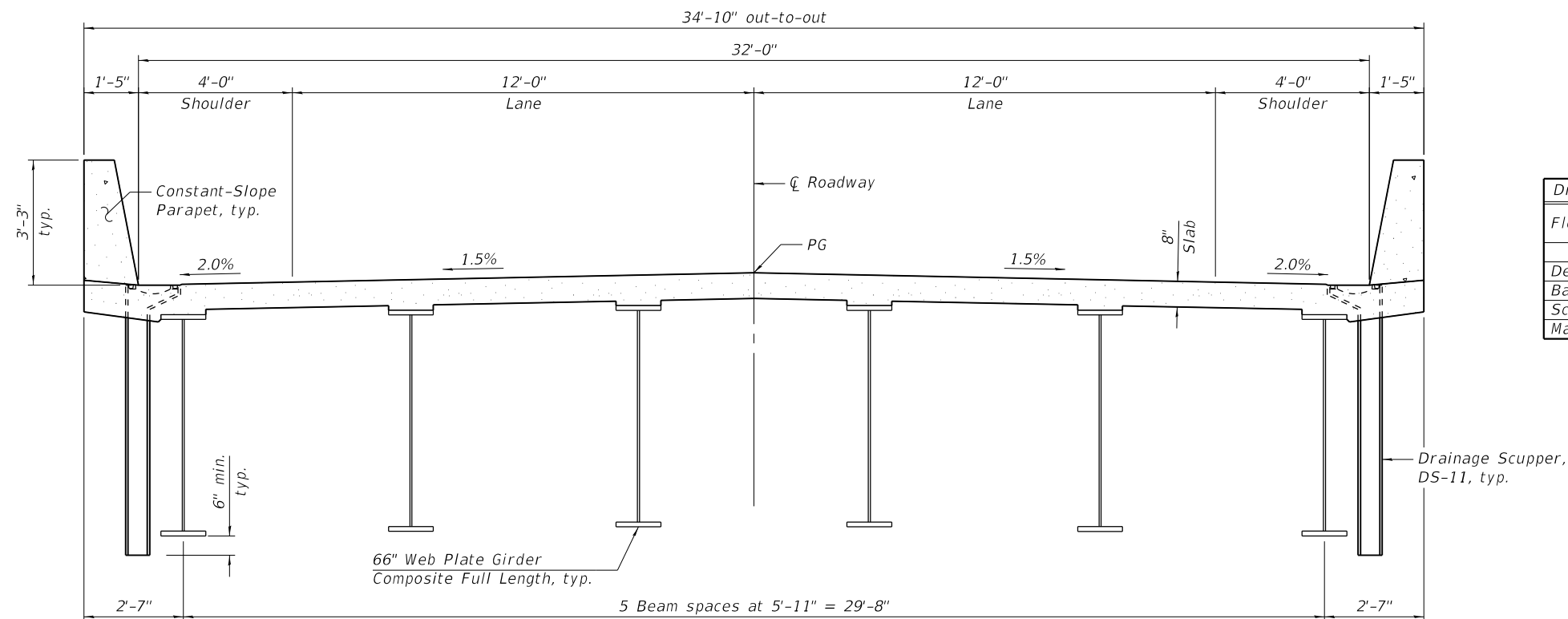
EFK Moen
Civil Engineering Design

USER NAME = acb	DESIGNED - CMC	REVISED -
	DRAWN - CMC	REVISED -
PLOT SCALE = 2,000' / in.	CHECKED - ACB	REVISED -
PLOT DATE = 6/9/2023	DATE - 6/9/2023	REVISED -

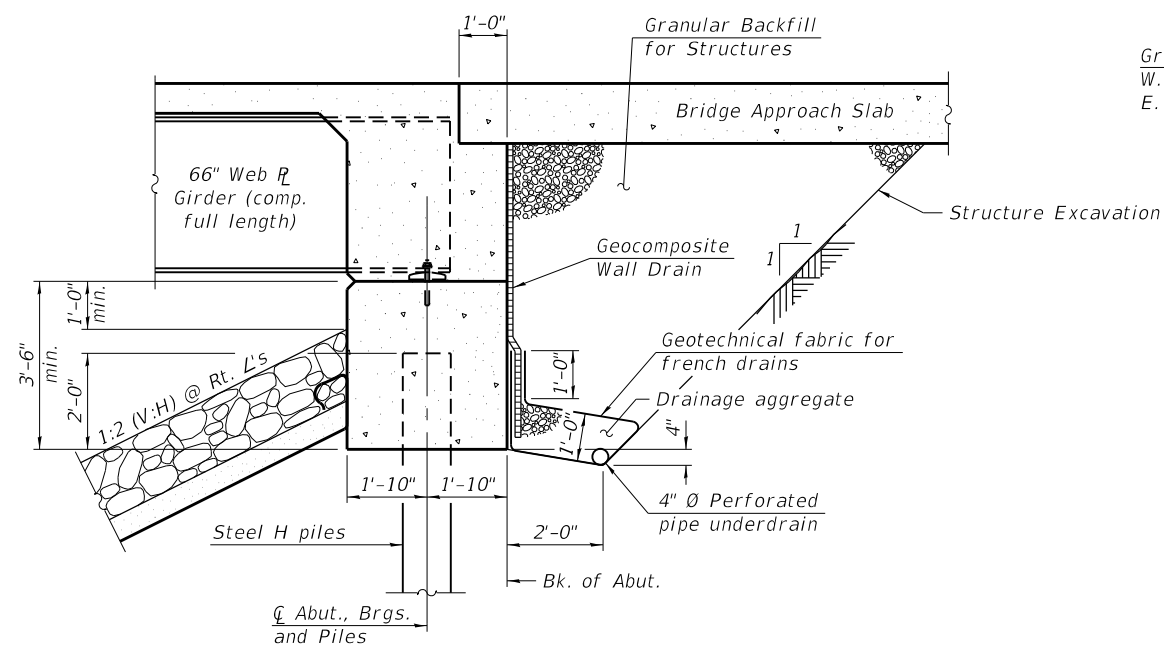
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 2 SHEETS

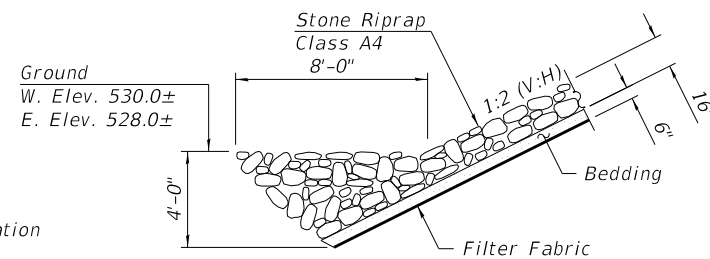
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
607	(125)BR-1	LASALLE		
CONTRACT NO. 66F85				
ILLINOIS FED. AID PROJECT				



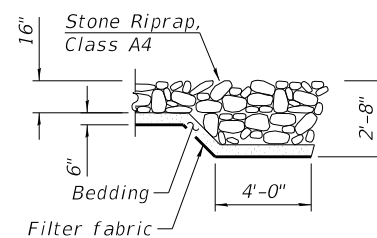
CROSS SECTION
(Looking East)



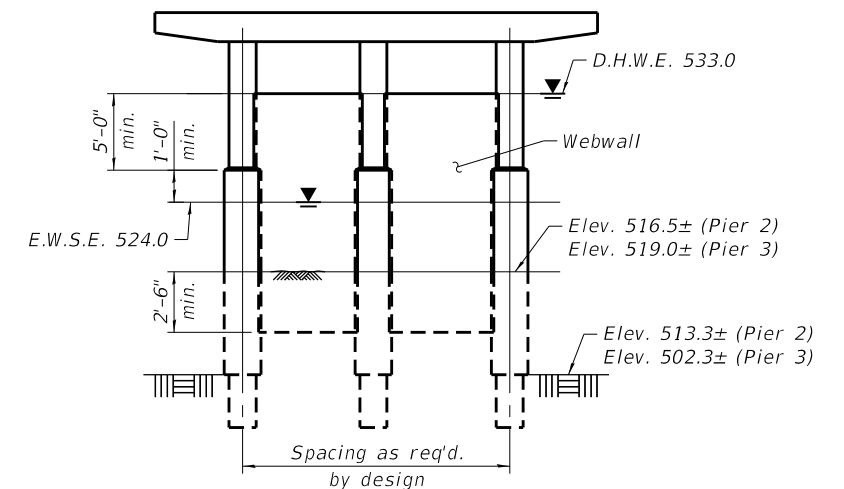
SECTION THRU INTEGRAL ABUTMENT



SECTION A-A



SECTION B-B



PIER SKETCH

DETAILS
US ROUTE 52 OVER FOX RIVER
PUBLIC WATER
F.A.P. RTE. 607 - SEC. (125)BR-1
LASALLE COUNTY
STATION 353+79.00
STRUCTURE NO. 050-0266