Bench Mark: Chiseled square on top of the northwest wingwall, 18.81' left @ Sta. 1131+16.98. Elevation = 656.32

Existing Structure: S.N. 021-0014, originally built in 1938 as S.B.I. Route 121, Section 144SB-1-FAGH, 144SF-1-FAGH as a three span wide flange structure. In 1974, the superstructure was replaced with PPC deck beams and the substructure was widened. The substructure consists of stub abutments and three-column piers on spread footings. The existing structure measures 95'-6½'' back to back of abutments and 45'-0'' out to out of deck. The existing structure is to be removed and replaced. Traffic will be detoured.

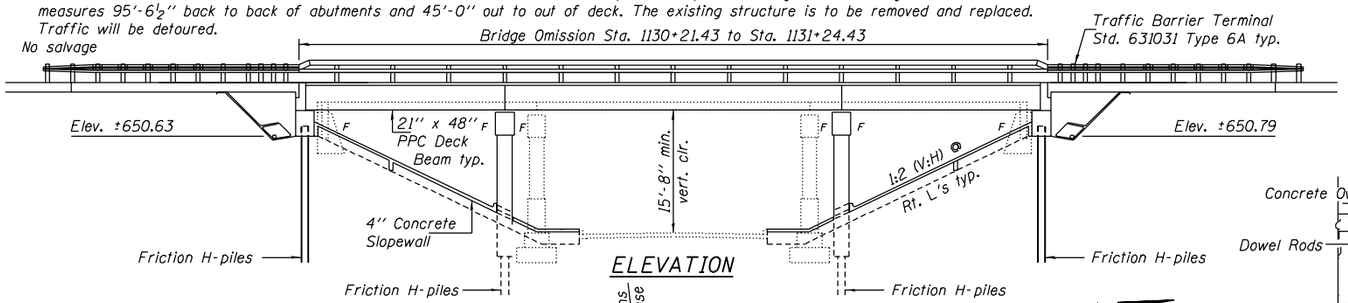
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| - | - | - | | |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT- | | |

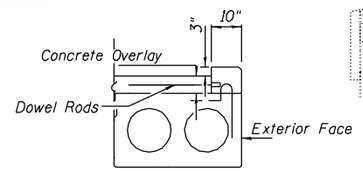
SHEET NO. 1
1 SHEETS

Contract #70258

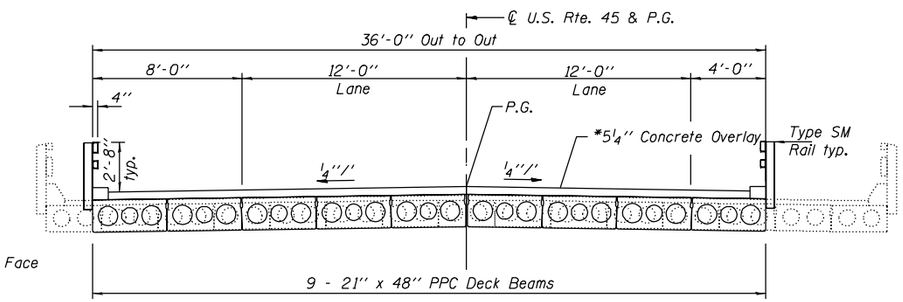
No salvage




ELEVATION

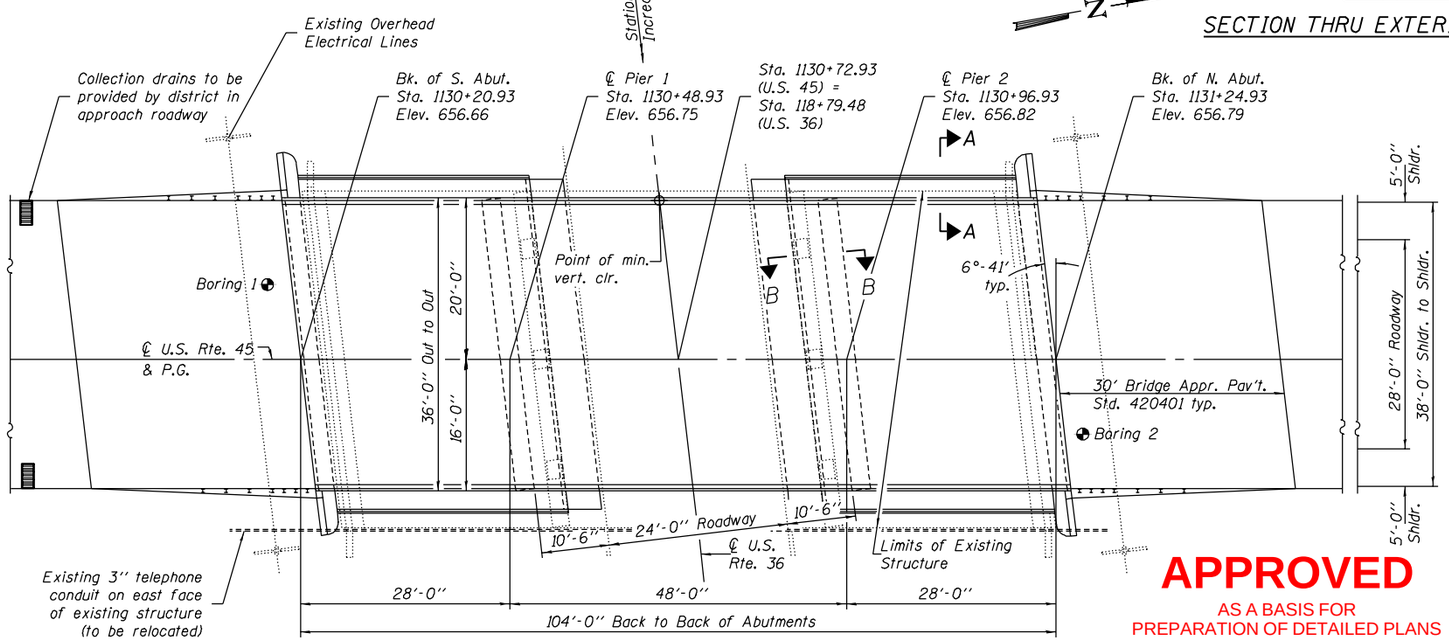



SECTION THRU EXTERIOR BEAMS



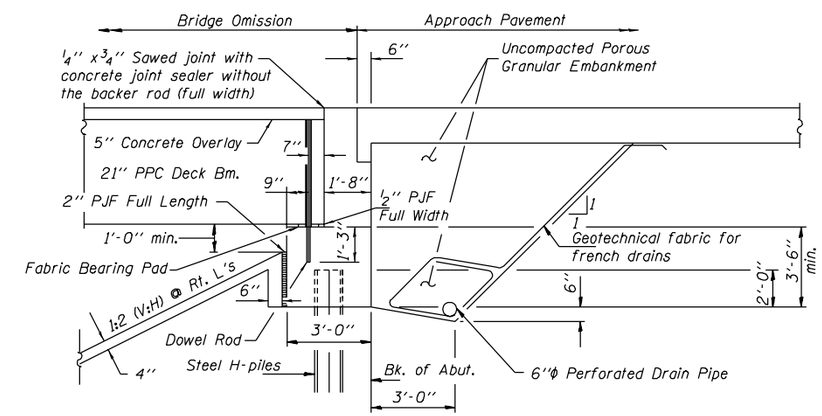

CROSS SECTION
(Looking North)

*Use Bridge Smoothness Specification

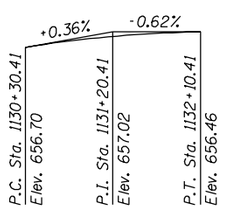



PLAN

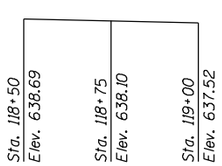
APPROVED
AS A BASIS FOR
PREPARATION OF DETAILED PLANS
JUN 16 2005




SECTION THRU INTEGRAL ABUTMENT
(Dimensions measured at right angles)




PROFILE GRADE
U.S. ROUTE 45
(along ℄ roadway)




PROFILE GRADE
U.S. ROUTE 36
(along ℄ roadway)

HIGHWAY CLASSIFICATION

F.A.S. Rte. 1671 - U.S. Rte. 45
Functional Class: Major Collector
ADT: 2650 (2003); 3500 (2023)
DHV: 325 (2023)
Design Speed: 60 m.p.h.
Posted Speed: 55 m.p.h.

F.A.P. Rte. 323 - U.S. Rte. 36
Functional Class: Other Primary Artery
ADT: 6100 (2003); 6400 (2023)
DHV: 510
Design Speed: 45 m.p.h.
Posted Speed: 40 m.p.h.

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

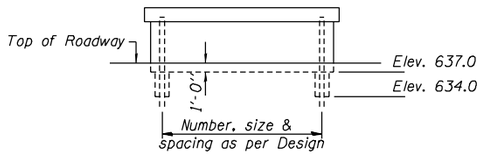
DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES

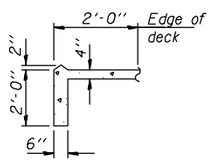
FIELD UNITS
$f'_c$ = 3,500 psi
$f_y$ = 60,000 psi (reinforcement)

PRECAST PRESTRESSED UNITS
$f'_c$ = 5,000 psi
$f'_{ci}$ = 4,000 psi
$f'_s$ = 270,000 psi (½'' low relax. strands)
$f_{si}$ = 201,960 psi (½'' low relax. strands)

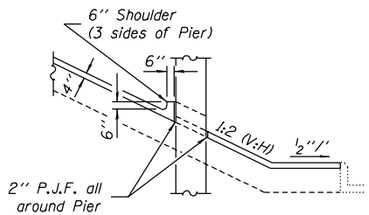
SEISMIC DATA
Seismic Performance Zone (SPZ) = 1
Bedrock Acceleration Coefficient (A) = 4.9%g
Site Coefficient (S) = 1.0



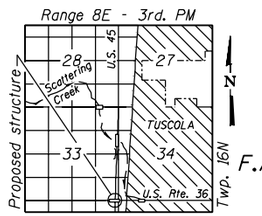

PIER SKETCH




SECTION A-A




SECTION B-B




LOCATION SKETCH

GENERAL PLAN
U.S. ROUTE 45 OVER
U.S. ROUTE 36
F.A.S. ROUTE 1671 - SECTION (22VBR)BR
DOUGLAS COUNTY
STATION 1130+72.93
STRUCTURE NO. 021-0062

| | |
|---|---|
| DESIGNED | J.A. Elston |
| CHECKED | A. Siudyla |
| DRAWN | W.D. Collins |
| CHECKED | A. Siudyla |

- 200

EXAMINED
ENGINEER OF BRIDGE DESIGN

PASSED
ENGINEER OF BRIDGES AND STRUCTURES