Benchmark – Chiseled square on north end of parapet wall at northeast corner of S.N. 090-0091. Elev. 733.04.
Existing Structure – S.N. 090-0091; Built in 1959 as F.A.I. Rte. 5, Section 90-14HB-1 at Sta. 363+40.81. Original structure was a 4-span continuous steel girder bridge, 33'-8" wide by 200'-2" long, with pile bent abutments and 3-column reinforced concrete piers. The structure was widened to 65'-2" in 1982 with a new concrete deck and additional steel girders, Section 90-14HB-1(BR). Several beams over the interstate below have been required to be replaced or straightened in 1993, 2008, 2010, 2012, and 2018 due to vehicular impact. The existing structure will be removed and replaced utilizing stage construction to maintain one lane of traffic in each direction on Pinecrest Drive.
Salvage – None.

HIGHWAY CLASSIFICATION

Pinecrest Drive – F.A.U. Rte. 6720	Interstate 74 – F.A.I. Rte. 74
Functional Class: Minor Arterial	Functional Class: Interstate
ADT: 4850 (2016); 6220 (2041)	ADT: 41300 (2017); 52440 (2041)
ADTT: 365 (2016); 468 (2041)	ADTT: 5500 (2017); 6984 (2041)
DHV: 622	DHV: 5244
Design Speed: 45 m.p.h.	Design Speed: 75 m.p.h.
Posted Speed: 40 m.p.h.	Posted Speed: 70 m.p.h.
Two-Way Traffic	Two-Way Traffic
Directional Distribution: 50:50	Directional Distribution: 50:50

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

LOADING HL-93

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

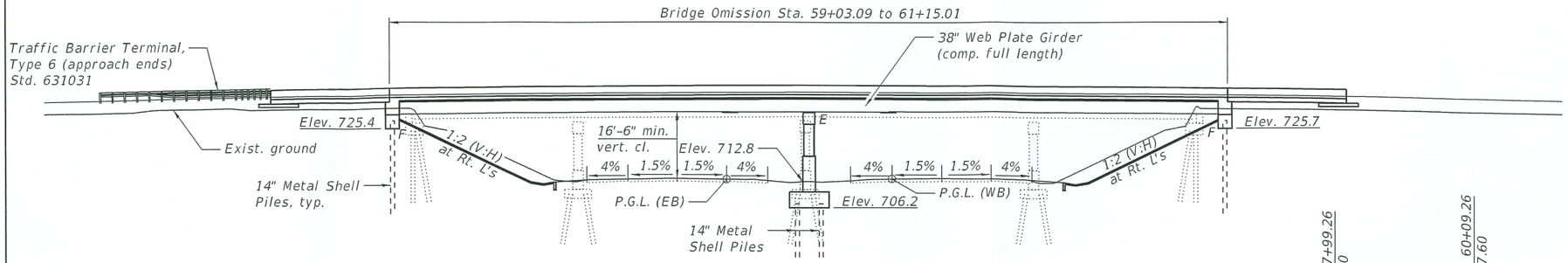
DESIGN STRESSES

FIELD UNITS

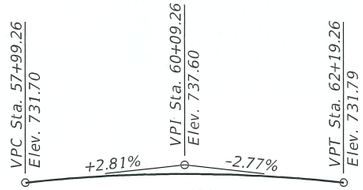
f'c = 3,500 psi
f'c = 4,000 psi (Superstructure)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50) (primary)
fy = 36,000 psi (M270 Grade 36)
All Structural Steel shall be Galvanized

SEISMIC DATA

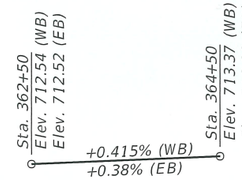
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.114 g
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.181 g
Soil Site Class = D



ELEVATION

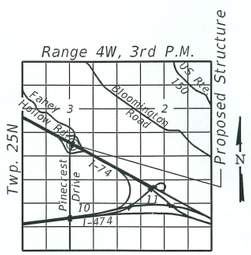


PROFILE GRADE
(NB & SB Pinecrest Dr.)

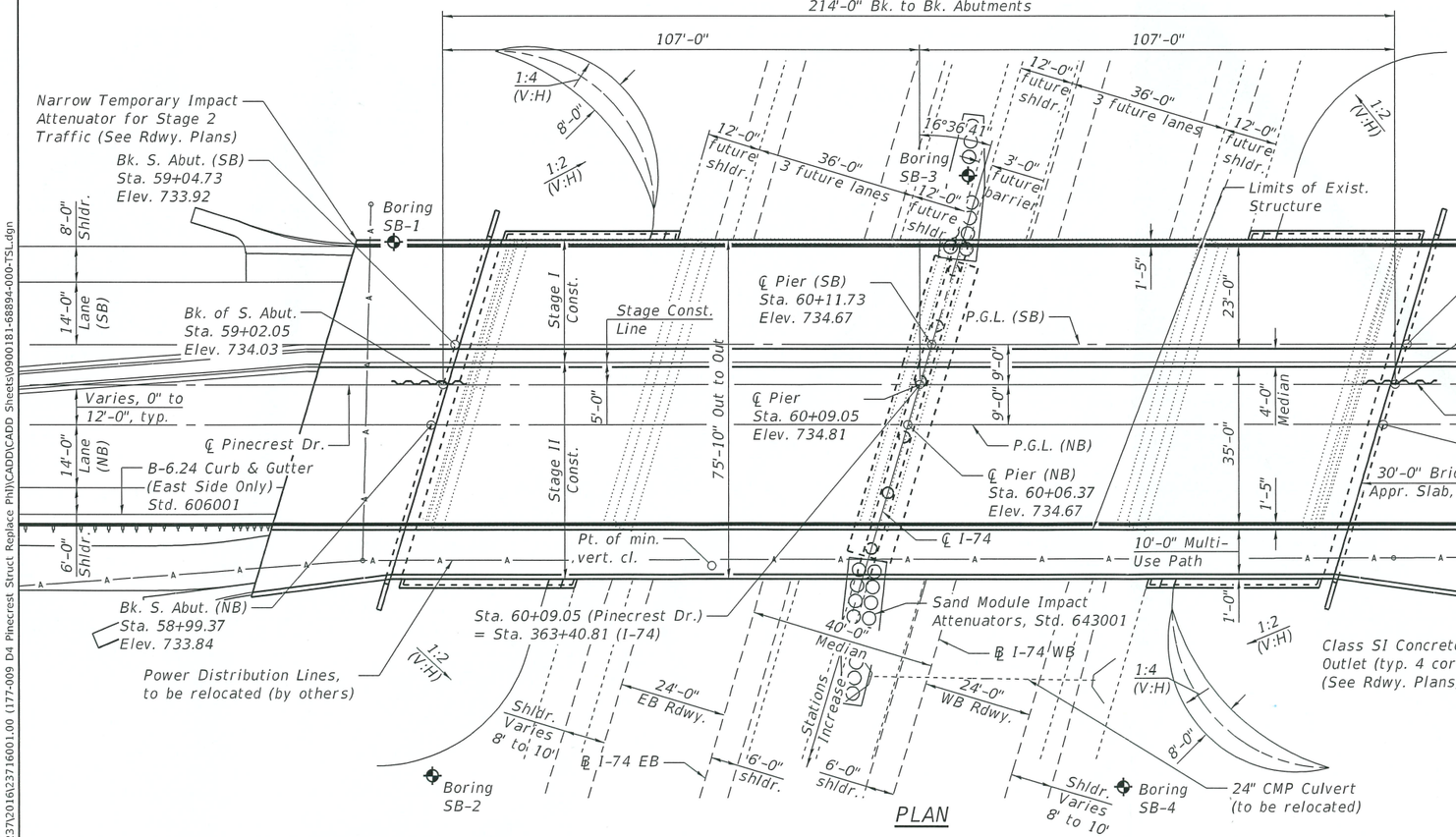


PROFILE GRADE
(℄ I-74 EB & WB)

Note: Slope wall elevations shall be set to accommodate future I-74 three-lane configuration with 16'-9" vertical clearance.



LOCATION SKETCH



PLAN

APPROVED

MAR 14 2019

AS A BASIS FOR PREPARATION OF DETAILED PLANS

GENERAL PLAN
PINECREST DRIVE OVER
INTERSTATE 74
F.A.I. 74 - SEC. (90-14HB-1)BR1
TAZEWELL COUNTY
STA. 363+40.81
STRUCTURE NO. 090-0181

MODEL: Default
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MAURER-STUTZ ENGINEERS SURVEYORS	USER NAME = baswanson	DESIGNED - BAS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - RJA	REVISED -	
	PLOT SCALE =	DRAWN - BAS	REVISED -	
	PLOT DATE = 3/8/2019	CHECKED -	REVISED -	

SHEET NO. 1 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(90-14HB-1)BR1	TAZEWELL		
		CONTRACT NO. 68894		
	ILLINOIS	FED. AID PROJECT		

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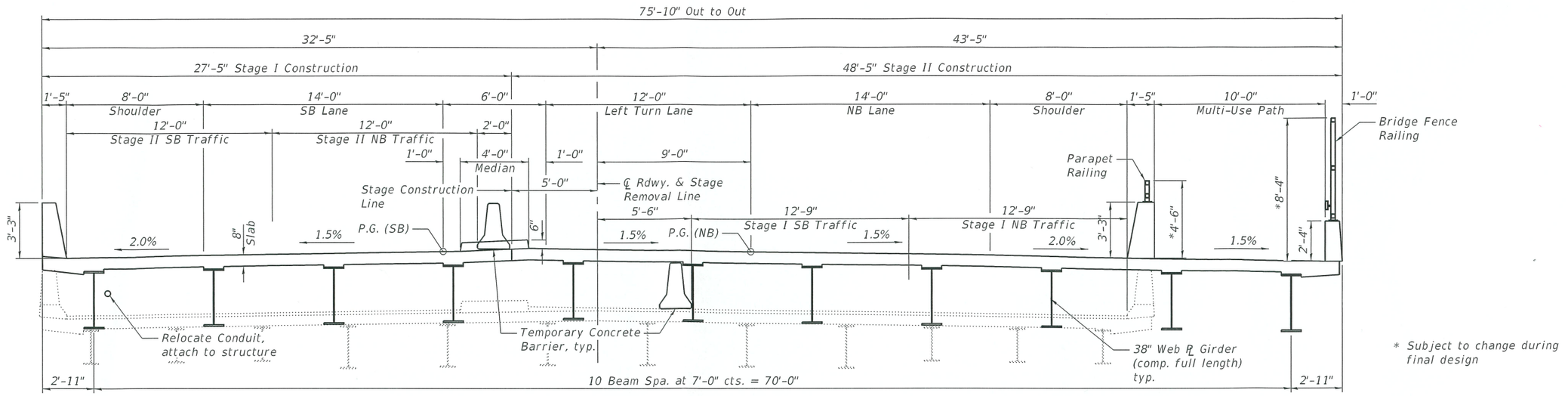
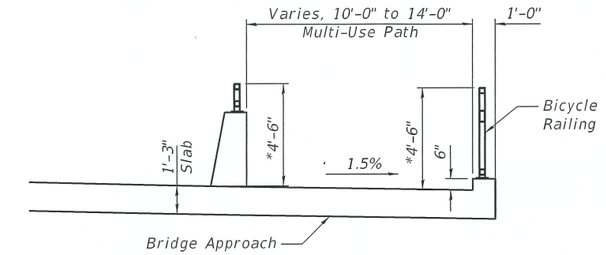


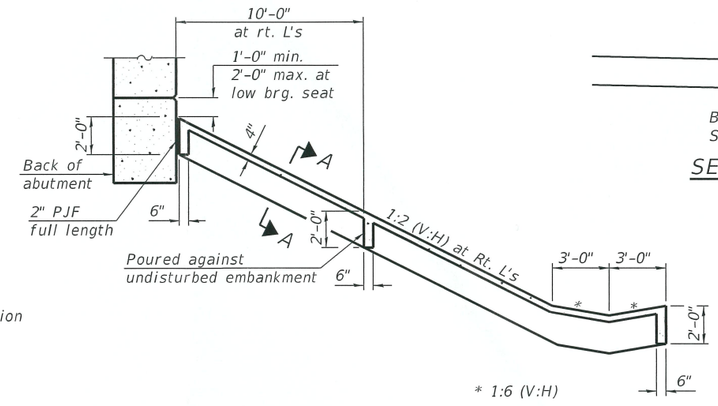
* Subject to change during final design

CROSS SECTION
(Looking North)

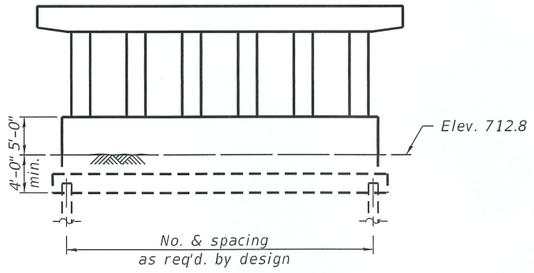


SECTION ON APPROACH SLAB
(Looking North)

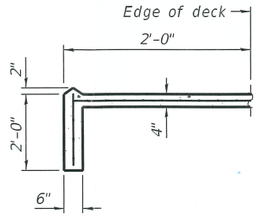
SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)



SECTION THRU CONCRETE SLOPEWALL



PIER SKETCH



SECTION A-A

APPROVED
MAR 1 4 2019
AS A BASIS FOR PREPARATION OF DETAILED PLANS

GENERAL PLAN
PINECREST DRIVE OVER
INTERSTATE 74
F.A.I. 74 - SEC. (90-14HB-1)BR1
TAZEWELL COUNTY
STA. 363+40.81
STRUCTURE NO. 090-0181

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MAURER-STUTZ ENGINEERS SURVEYORS

USER NAME = baswanson		DESIGNED - BAS		REVISED -	
		CHECKED - RJA		REVISED -	
PLOT SCALE =		DRAWN - BAS		REVISED -	
PLOT DATE = 3/8/2019		CHECKED -		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 2 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(90-14HB-1)BR1	TAZEWELL		
		CONTRACT NO. 68894		
	ILLINOIS	FED. AID PROJECT		