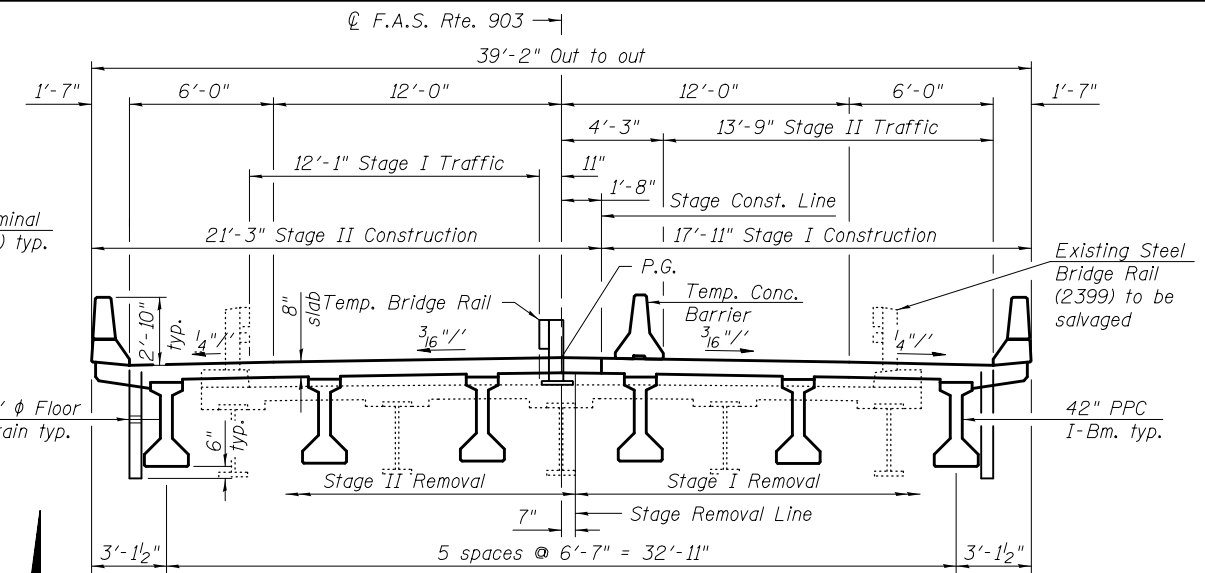
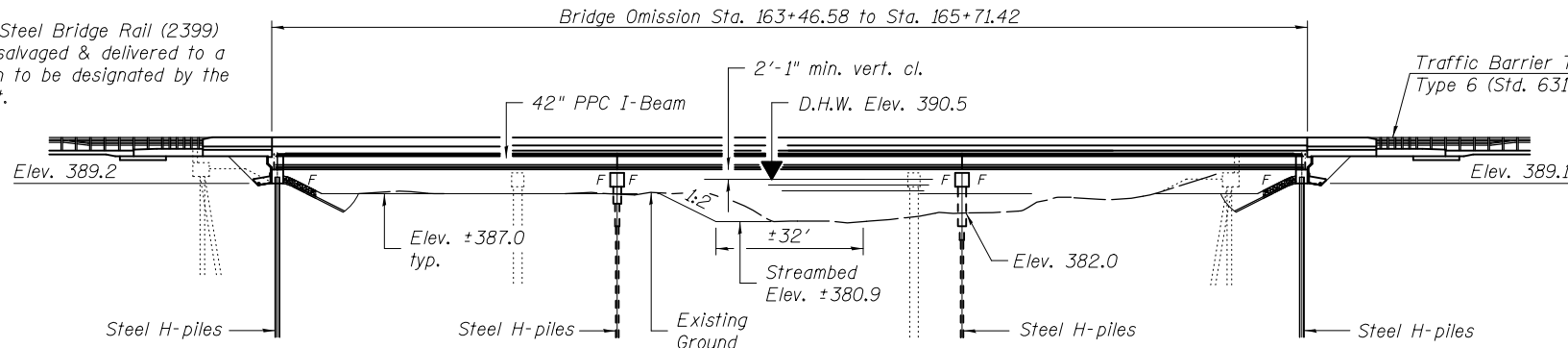


Bench Mark: #127 Square cut in wingwall S.N. 100-3011. Elevation 396.91

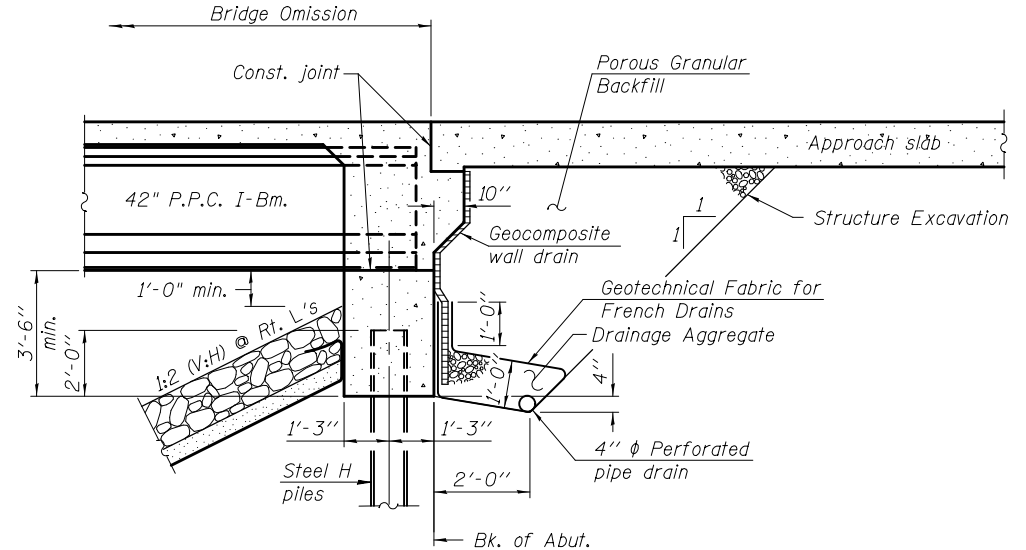
Existing Structure: S.N. 100-3011 built 1956 as F.A.S. Route 906, Section 390 at Station 164+43.  
Structure consists of three span continuous WF beams and reinforced concrete deck supported by spill-thru abutments and open concrete pile bent piers. 227'-1" back-to-back abutments. 30'-0" out-to-out deck.  
Structure to be removed and replaced using stage construction.

Existing Steel Bridge Rail (2399) to be salvaged & delivered to a location to be designated by the District.

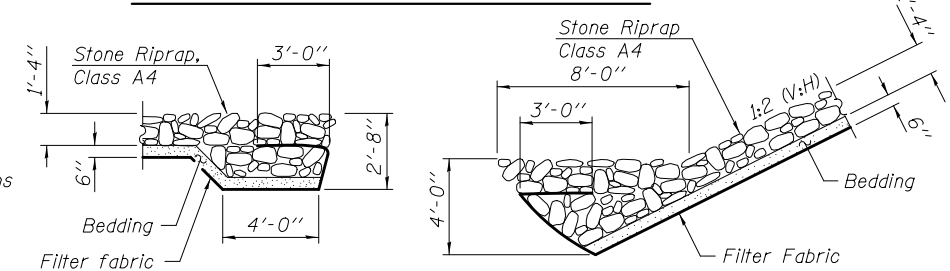


**CROSS SECTION**

(Looking East)



**SECTION THRU INTEGRAL ABUTMENT**



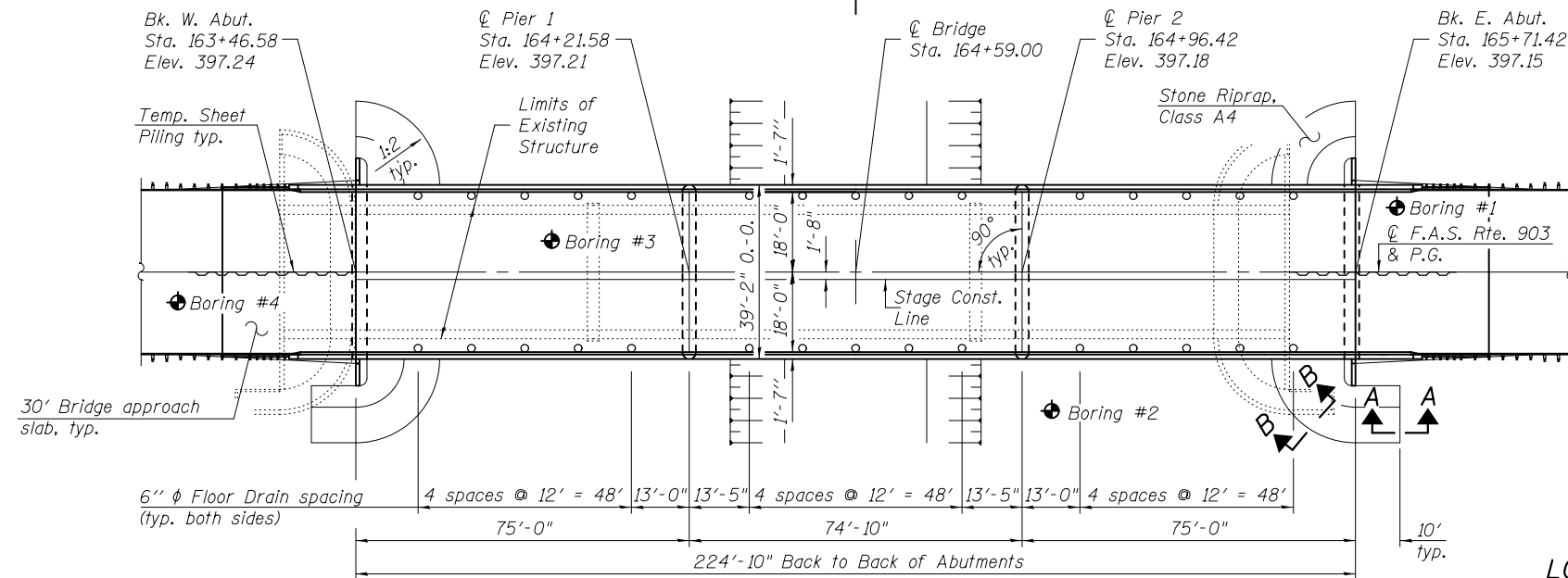
**SECTION A-A**

**SECTION B-B**

**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (ft.)	W. Abut.	Pier 1	Pier 2	E. Abut.
	389.2	377.0	377.0	389.1

**ELEVATION**



**PLAN**

**HIGHWAY CLASSIFICATION**

Herrin Road - F.A.S. Rte. 903  
Functional Class: Major Collector  
ADT: 6,000 (2002); 8,100 (2022)  
ADTT: 180 (2002); 243 (2022)  
DHV: 810  
Speed: 55 m.p.h. (posted); 55 m.p.h. (design)  
Two-way traffic Directional Dist. 50:50

**LOADING HL 93**

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

**DESIGN SPECIFICATIONS**

2010 AASHTO LRFD Bridge Design Specifications

**DESIGN STRESSES**

**FIELD UNITS**

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

**PRECAST PRESTRESSED UNITS**

$f'_c = 6,000$  psi  
 $f'_i = 5,000$  psi  
 $f_{pu} = 270,000$  psi ( $\frac{1}{2}$ "  $\phi$  low lax. strands)  
 $f_{pbt} = 201,960$  psi ( $\frac{1}{2}$ "  $\phi$  low lax. strands)

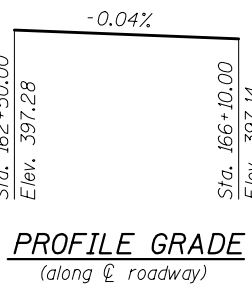
**SEISMIC DATA**

Seismic Performance Category (SP2) = 2  
Design Spectral Acceleration at 1.0 sec. ( $S_{D1}$ ) = 0.18g  
Design Spectral Acceleration at 0.2 sec. ( $S_{D5}$ ) = 0.65g  
Soil Site Class = B

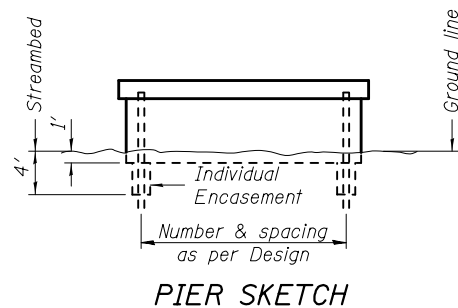
**WATERWAY INFORMATION**

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. Head - Ft.		Headwater El.		
			Exist.	Prop.	H.W.E. Exist.	Prop.	Exist.	Prop.	
Design	50	3210	1019.6	1132.6	390.5	0.5	0.3	391.0	390.8
Base	100	3620	1062.9	1174.7	390.7	0.6	0.4	391.3	391.1
Max. Calc.	500	4580	1149.6	1259.4	391.1	0.8	0.5	391.9	391.6

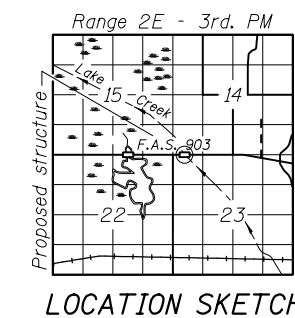
10 year velocity through existing bridge = 2.4 fps 10 year velocity through prop. bridge = 2.4 fps



**PROFILE GRADE**  
(along  $\phi$  roadway)



**PIER SKETCH**



**LOCATION SKETCH**

**GENERAL PLAN & ELEVATION**  
**HERRIN ROAD OVER LAKE CREEK**  
**F.A.S. RTE. 903 - SEC. 39Q(4B-1)**  
**WILLIAMSON COUNTY**  
**STATION 164+59.00**  
**STRUCTURE NO. 100-0083**

FILE NAME =	USER NAME =	DESIGNED -	REVISD -
		CHECKED -	REVISD -
	PLOT SCALE =	DRAWN -	REVISD -
	PLOT DATE =	CHECKED -	REVISD -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

SHEET NO. 1 OF 1 SHEETS

F.A.S. RTE. 903	SECTION 39Q(4B-1)	COUNTY WILLIAMSON	TOTAL SHEETS	SHEET NO.
			CONTRACT NO. 98729	

ILLINOIS FED. AID PROJECT