

STATE PROJECT NUMBER			SHEET NO.
9859-07-71			
BENCHMARKS			
NO.	STATION	DESCRIPTION	ELEV.
1	1+962.85	603 NAIL IN 750 mm $\phi$ WHITE PINE	460.150
2	2+031.28	603 NAIL IN 750 mm $\phi$ WHITE PINE	459.278

**DESIGN DATA**

**LIVE LOAD**  
 DESIGN RATING : MS-18  
 INVENTORY RATING : MS-20  
 OPERATIONAL RATING : MS-34  
 MAX. STD. PERMIT VEHICLE LOAD = 1110 KN  
 STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 1.0 KN PER SQUARE METER.

**TRAFFIC DATA:**  
 A.D.T. (1998) = 5  
 A.D.T. (2018) = 10

**ULTIMATE DESIGN STRESSES:**  
 CONCRETE MASONRY - SLAB  $f_c' = 28$  MPa  
 - ALL OTHER  $f_c' = 24$  MPa

**HIGH STRENGTH AND COATED HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 420**  $f_y = 420$  MPa  
 915 mm PRESTRESSED GIRDER CONCRETE MASONRY  $f_c' = 42$  MPa  
 13 mm DIA. STRANDS WITH ULTIMATE TENSILE STRENGTH OF 1860 MPa  
 GLULAM RAIL (DRY CONDITION) 16.5 MPa

**FOUNDATION DATA:**  
 ABUTMENTS SHALL BE SUPPORTED ON HP 250 x 62 STEEL PILING WITH PILE POINTS DRIVEN TO A MINIMUM BEARING VALUE OF 490 kN PER PILE. ESTIMATED PILE LENGTHS ARE 7 m AT BOTH ABUTMENTS.

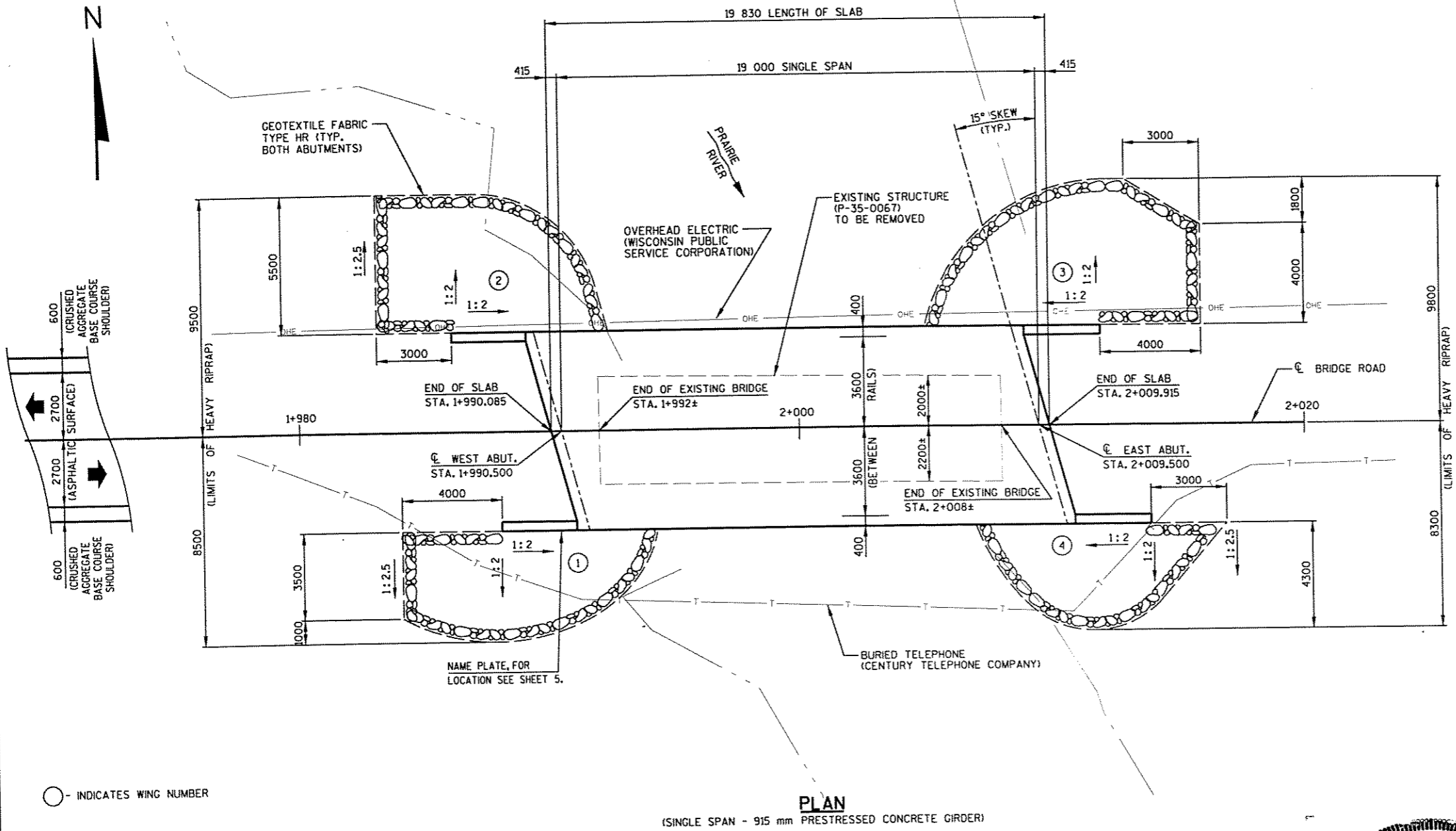
**HYDRAULIC DATA:**  
 100 YEAR FREQUENCY  
 DRAINAGE AREA 158 km<sup>2</sup>  
 $Q_{100}$  52.7 m<sup>3</sup>/s  
 VELOCITY 3.26 m/s  
 WATERWAY AREA 16.1 m<sup>2</sup>  
 HIGH WATER<sub>100</sub> ELEVATION 458.39±  
 SCOUR CRITICAL CODE 8  
 ROADWAY OVERFLOW DESIGN FREQUENCY N/A

**TEMPORARY STRUCTURE**  
 $Q_5$  26.1 m<sup>3</sup>/s  
 HIGH WATER<sub>5</sub> ELEVATION 457.72±  
 MINIMUM REQUIRED WATERWAY AREA 9.6 m<sup>2</sup>

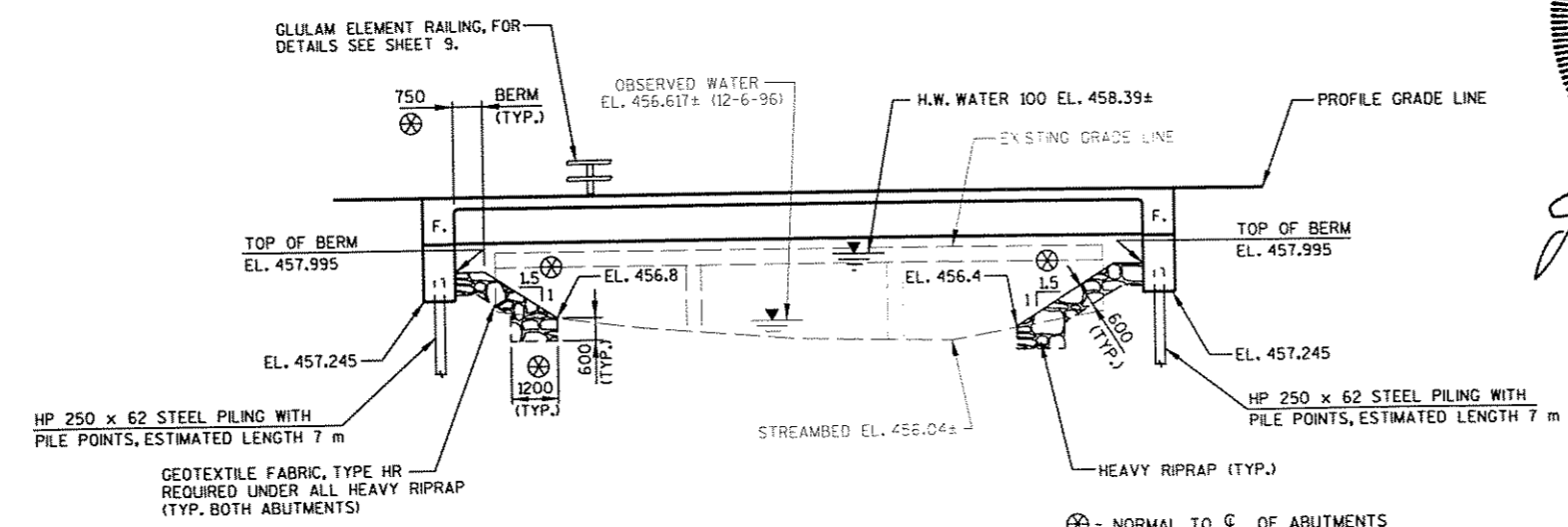
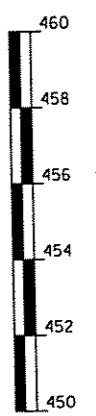
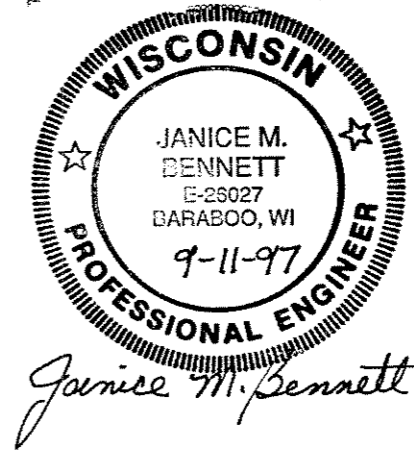
**LIST OF DRAWINGS**

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. ABUTMENTS
5. ABUTMENT DETAILS
6. 915 mm PRESTRESSED GIRDER DETAILS
7. SUPERSTRUCTURE
8. SUPERSTRUCTURE DETAILS
9. GLULAM ELEMENT RAILING

PLOT SCALE: 250  
 MSA #: 93966101  
 REV. DATE: 9-11-97  
 ORIGINATOR: RLR  
 LEVELS: DM - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



○ - INDICATES WING NUMBER



No.	Date	Revision	By
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STATE OF WISCONSIN			
DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-35-136			
BRIDGE ROAD OVER PRAIRIE RIVER			
County	LINCOLN	Town/City/Village	RUSSELL
Design Spec.	AASHTO 1996	Load	MS-18
Designed By	JMB	Checked	ORK
Drawn By	RLR	Phone	Checked JMB
Approved _____ Chief Structural Design Engineer			Date _____
GENERAL PLAN			SHEET 1 OF 9