



St. Louis District

**SURVEY NOTES:**

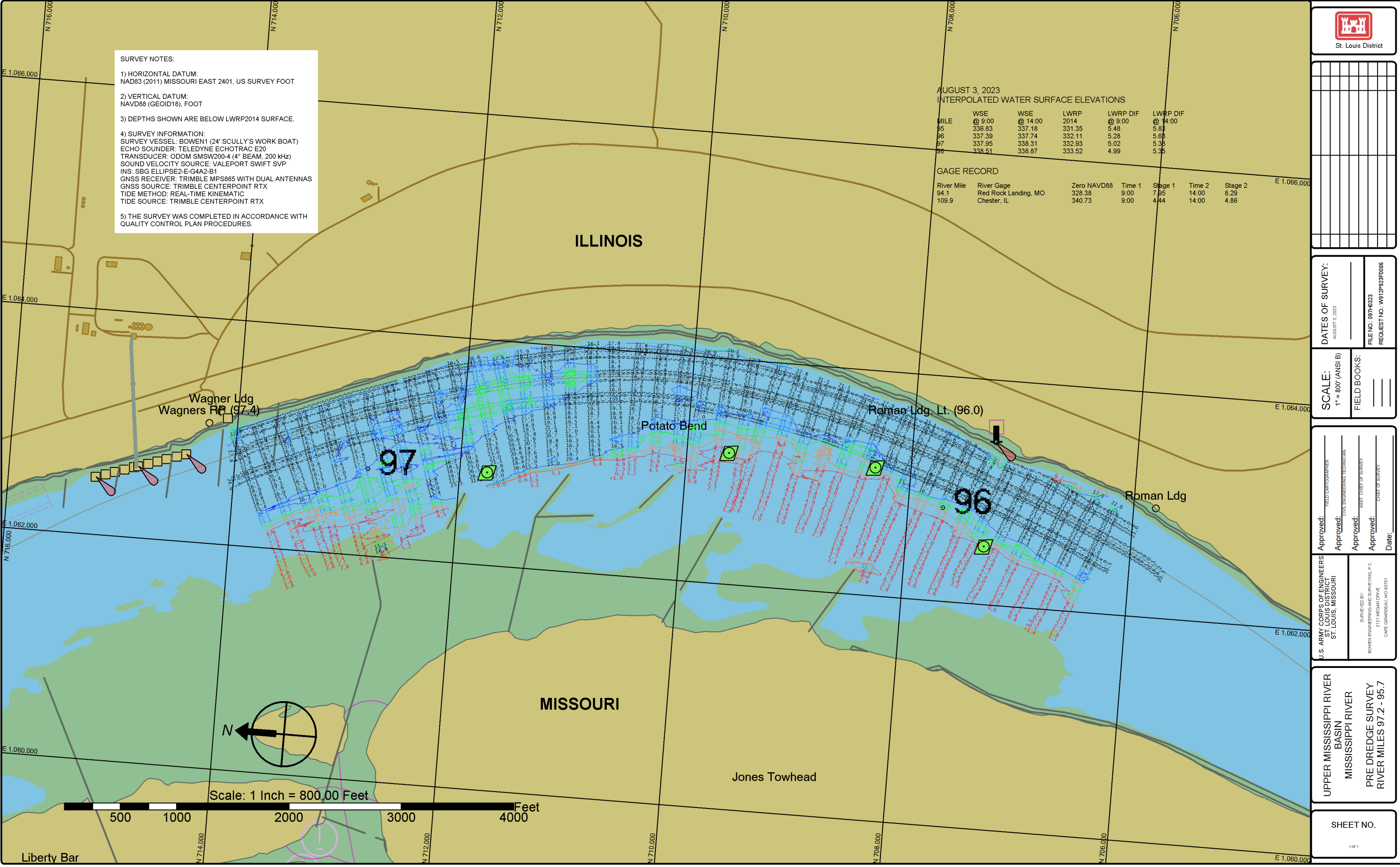
- 1) HORIZONTAL DATUM:  
NAD83 (2011) MISSOURI EAST 2401, US SURVEY FOOT
- 2) VERTICAL DATUM:  
NAVD88 (GEOID18), FOOT
- 3) DEPTHS SHOWN ARE BELOW LWRP2014 SURFACE.
- 4) SURVEY INFORMATION:  
SURVEY VESSEL: BOWEN1 (24' SCULLY'S WORK BOAT)  
ECHO SOUNDER: TELEDYNE ECHOTRAC E20  
TRANSDUCER: ODOM SMSW200-4 (4° BEAM, 200 kHz)  
SOUND VELOCITY SOURCE: VALEPORT SWIFT SVP  
INS: SBG ELLIPSE2-E-G4A2-B1  
GNSS RECEIVER: TRIMBLE MPS865 WITH DUAL ANTENNAS  
GNSS SOURCE: TRIMBLE CENTERPOINT RTX  
TIDE METHOD: REAL-TIME KINEMATIC  
TIDE SOURCE: TRIMBLE CENTERPOINT RTX
- 5) THE SURVEY WAS COMPLETED IN ACCORDANCE WITH QUALITY CONTROL PLAN PROCEDURES.

AUGUST 3, 2023  
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 9:00	WSE @ 14:00	LWRP 2014	LWRP DIF @ 9:00	LWRP DIF @ 14:00
95	336.83	337.18	331.35	5.48	5.83
96	337.39	337.74	332.11	5.28	5.63
97	337.95	338.31	332.93	5.02	5.38
98	338.51	338.87	333.52	4.99	5.35

GAGE RECORD

River Mile	River Gage	Zero NAVD88	Time 1	Stage 1	Time 2	Stage 2
94.1	Red Rock Landing, MO	328.38	9:00	7.95	14:00	8.29
109.9	Chester, IL	340.73	9:00	4.44	14:00	4.86



NO.	DATE	DESCRIPTION

**DATES OF SURVEY:**  
AUGUST 3, 2023

**FILE NO.:** 09740323  
**REQUEST NO.:** W91P23P086

**SCALE:**  
1" = 800' (ANSI B)

**FIELD BOOKS:**

**Approved:** FIELD CARTOGRAPHER  
**Approved:** CIVIL ENGINEERING TECHNICIAN  
**Approved:** ASST. CHIEF OF SURVEY  
**Approved:** CHIEF OF SURVEY  
**Date:**

**U.S. ARMY CORPS OF ENGINEERS  
ST. LOUIS, MISSOURI**

**SURVEYED BY:**  
BOWEN ENGINEERING AND SURVEYING, P.C.  
2121 MEGAN DRIVE  
CAPE GIRARDEAU, MO 63701

**UPPER MISSISSIPPI RIVER  
BASIN  
MISSISSIPPI RIVER  
PRE DREDGE SURVEY  
RIVER MILES 97.2 - 95.7**

**SHEET NO.**

1 of 1