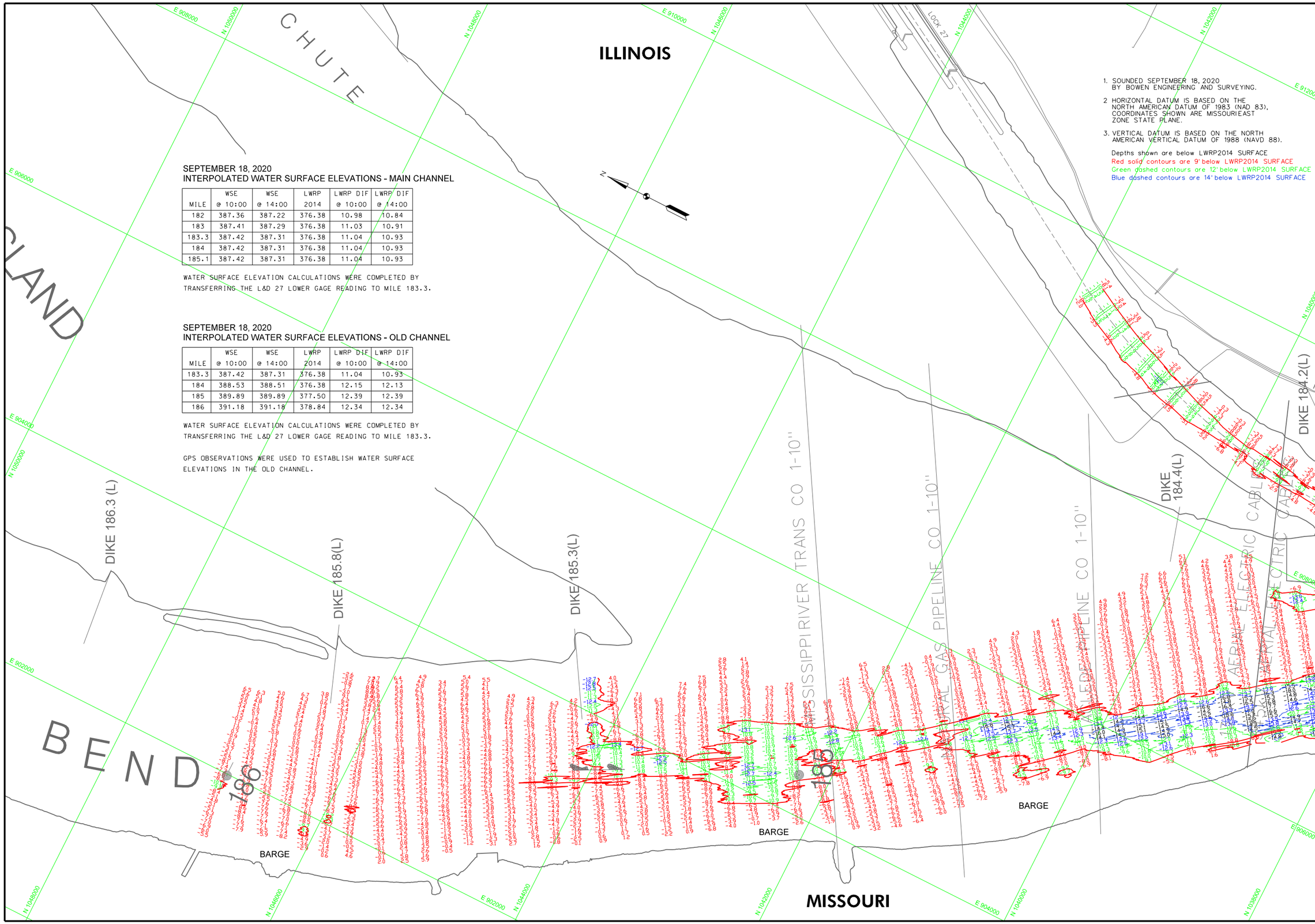


US Army Corps of Engineers
St. Louis District

1. SOUNDED SEPTEMBER 18, 2020 BY BOWEN ENGINEERING AND SURVEYING.
2. HORIZONTAL DATUM IS BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD 83), COORDINATES SHOWN ARE MISSOURI EAST ZONE STATE PLANE.
3. VERTICAL DATUM IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

Depths shown are below LWRP2014 SURFACE
Red solid contours are 9' below LWRP2014 SURFACE
Green dashed contours are 12' below LWRP2014 SURFACE
Blue dashed contours are 14' below LWRP2014 SURFACE

SEPTEMBER 18, 2020
INTERPOLATED WATER SURFACE ELEVATIONS - MAIN CHANNEL

MILE	WSE @ 10:00	WSE @ 14:00	LWRP 2014	LWRP DIF @ 10:00	LWRP DIF @ 14:00
182	387.36	387.22	376.38	10.98	10.84
183	387.41	387.29	376.38	11.03	10.91
183.3	387.42	387.31	376.38	11.04	10.93
184	387.42	387.31	376.38	11.04	10.93
185.1	387.42	387.31	376.38	11.04	10.93

WATER SURFACE ELEVATION CALCULATIONS WERE COMPLETED BY TRANSFERRING THE L&D 27 LOWER GAGE READING TO MILE 183.3.

SEPTEMBER 18, 2020
INTERPOLATED WATER SURFACE ELEVATIONS - OLD CHANNEL

MILE	WSE @ 10:00	WSE @ 14:00	LWRP 2014	LWRP DIF @ 10:00	LWRP DIF @ 14:00
183.3	387.42	387.31	376.38	11.04	10.93
184	388.53	388.51	376.38	12.15	12.13
185	389.89	389.89	377.50	12.39	12.39
186	391.18	391.18	378.84	12.34	12.34

WATER SURFACE ELEVATION CALCULATIONS WERE COMPLETED BY TRANSFERRING THE L&D 27 LOWER GAGE READING TO MILE 183.3.

GPS OBSERVATIONS WERE USED TO ESTABLISH WATER SURFACE ELEVATIONS IN THE OLD CHANNEL.

GAGE RECORD

	GPS OBSERVATION 1	GPS OBSERVATION 2	L&D 27 LOWER	ST. LOUIS, MO
ZERO N.A.V.D.	0.00	0.00	349.49	379.58
MILE	186.0 (OLD CHANNEL)	184.2 (OLD CHANNEL)	185.1	180.0
LWRP 2014	X	X	376.38	376.38
18 SEP 2020	391.18(13.46)	388.85(13.51)	37.93(10.00)	37.82(14.00) 7.69(10.00) 7.59(14.00)

Surveyed by: BOWEN ENGINEERING
Survey Date: SEPTEMBER 18, 2020
Drawn by: X
Ckd by: X
Reviewed by: X
SUBMITTED: X
APPROVED: X
Plot date: ##########
File name: ##########

U.S. ARMY ENGINEER DIVISION
CORPS OF ENGINEERS
ST. LOUIS, MISSOURI

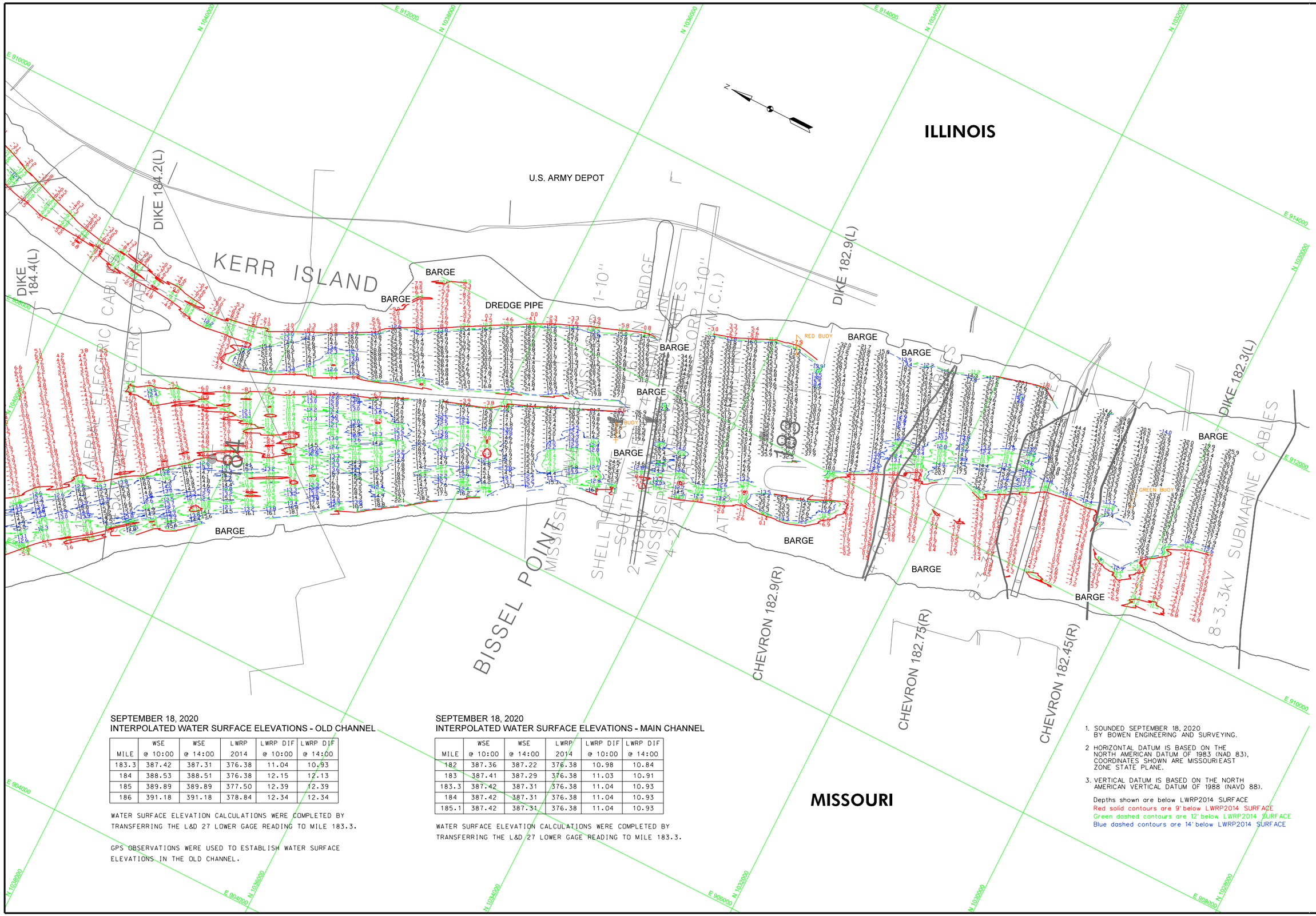
UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

240 METERS
120 0 120
400 0 400
800 FEET

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYING THE GENERAL CONDITIONS EXISTING AT THAT TIME AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

PRE DREDGE SURVEY
RIVER MILES 186.0 – 182.3

PLATE NUMBER
XX
SHEET 1 OF 2



SEPTEMBER 18, 2020
INTERPOLATED WATER SURFACE ELEVATIONS - OLD CHANNEL

MILE	WSE @ 10:00	WSE @ 14:00	LWRP 2014	LWRP DIF @ 10:00	LWRP DIF @ 14:00
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WATER SURFACE ELEVATION CALCULATIONS WERE COMPLETED BY TRANSFERRING THE L&D 27 LOWER GAGE READING TO MILE 183.3.

GPS OBSERVATIONS WERE USED TO ESTABLISH WATER SURFACE ELEVATIONS IN THE OLD CHANNEL.

SEPTEMBER 18, 2020
INTERPOLATED WATER SURFACE ELEVATIONS - MAIN CHANNEL

MILE	WSE @ 10:00	WSE @ 14:00	LWRP 2014	LWRP DIF @ 10:00	LWRP DIF @ 14:00
182	387.36	387.22	376.38	10.98	10.84
183	387.41	387.29	376.38	11.03	10.91
183.3	387.42	387.31	376.38	11.04	10.93
184	387.42	387.31	376.38	11.04	10.93
185.1	387.42	387.31	376.38	11.04	10.93

WATER SURFACE ELEVATION CALCULATIONS WERE COMPLETED BY TRANSFERRING THE L&D 27 LOWER GAGE READING TO MILE 183.3.

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US Army Corps of Engineers
St. Louis District

GAGE RECORD

	GPS OBSERVATION 1	GPS OBSERVATION 2	L&D 27 LOWER	ST. LOUIS, MO
ZERO N.A.V.D.	0.00	0.00	349.49	379.58
MILE	186.0 (OLD CHANNEL)	184.2 (OLD CHANNEL)	185.1	180.0
LWRP 2014	X	X	376.38	376.38
18 SEP 2020	391.18(13.46)	388.85(13.51)	37.93(10.00) 37.82(14.00)	7.69(10.00) 7.59(14.00)

Surveyed by: BOWEN ENGINEERING
Survey Date: SEPTEMBER 18, 2020
Drawn by: X
Ckd by: X
Reviewed by: X
SUBMITTED: X
APPROVED: X
Plot date: ####/##/## TIME:####
File name: ####\####\NAME.DGN

U.S. ARMY ENGINEER DIVISION
CORPS OF ENGINEERS
ST. LOUIS, MISSOURI

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

240 METERS 120 0 120 400
800 FEET 400 0 400 800
THE INFORMATION REPORTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE AT THE TIME INDICATED AND MAY NOT BE ACCURATE AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

PRE DREDGE SURVEY
RIVER MILES 186.0 – 182.3

PLATE NUMBER
XX
SHEET 2 OF 2