

wood.

Bridging the Future: I-74 Mississippi River Bridge Project

March 2019



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Introductions



George Ryan, PE

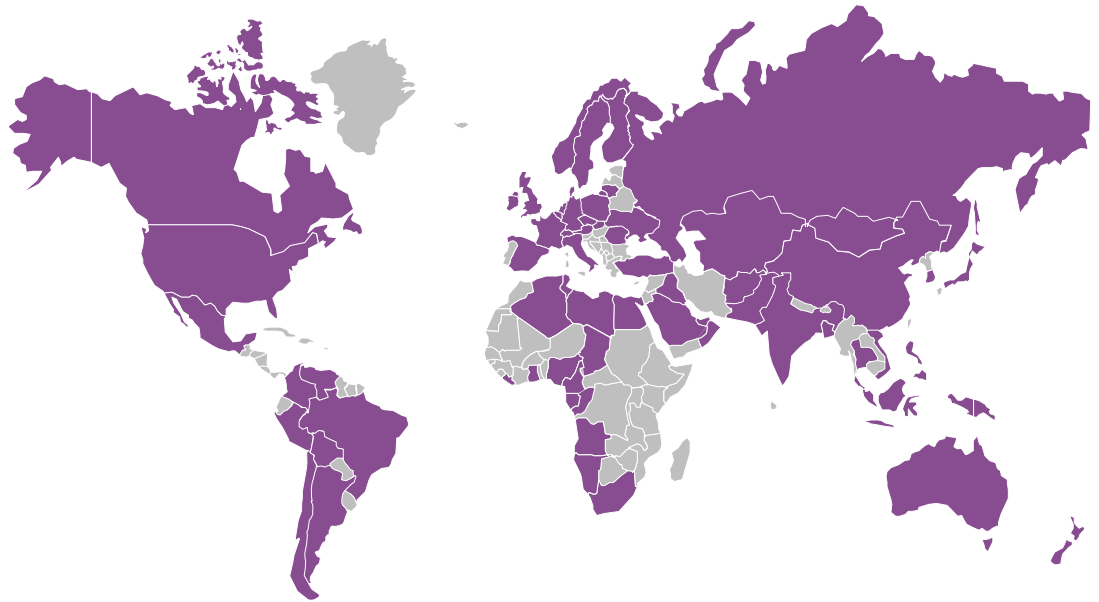
I-74 Corridor Manager / Vice President

- 7 years with Wood
- Former Illinois DOT Deputy Director of Highways / Region 2 Engineer (central Illinois)
- Project manager for the \$500 million reconstruction of I-74 in Peoria, Illinois (2006)
- B.S. Civil Engineering, Bradley University



Wood is a global leader

Providing technical, engineering and project services to infrastructure, industrial, energy, process and utility markets.



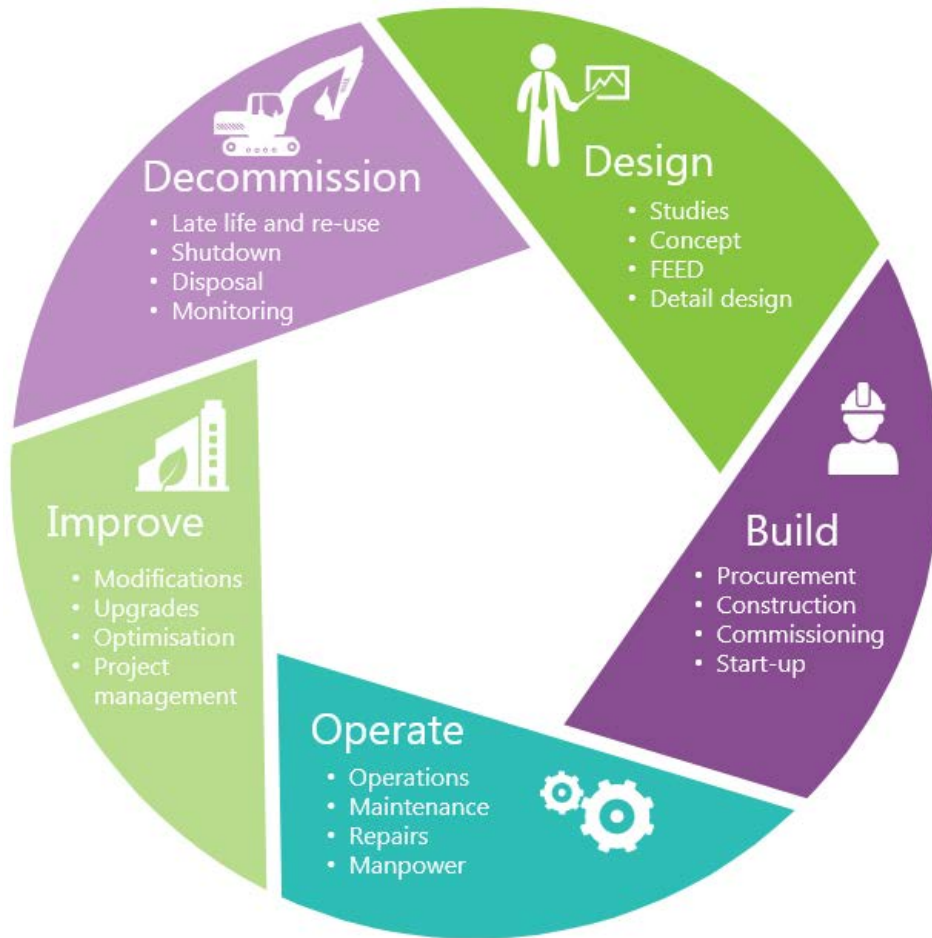
over
160
years of
experience

over
\$10 B
revenue

60,000+ people, 60 countries, 400+ offices worldwide



Bringing value across the full asset life cycle



Performance-driven solutions, from concept to decommissioning, across a broad range of markets.



Working across diverse sectors



Infrastructure

Transportation
Water
Built environment



Industrial & manufacturing

Pulp & paper
Aerospace
Automotive
Food & beverage
Life sciences



Government

Defense
Marine
Government agencies



Mining

Base metals
Precious metals
Industrial minerals
Other minerals



Power

Conventional
Nuclear
Renewables
Transmission and distribution



Oil & Gas

Upstream
Midstream
Downstream
Chemicals



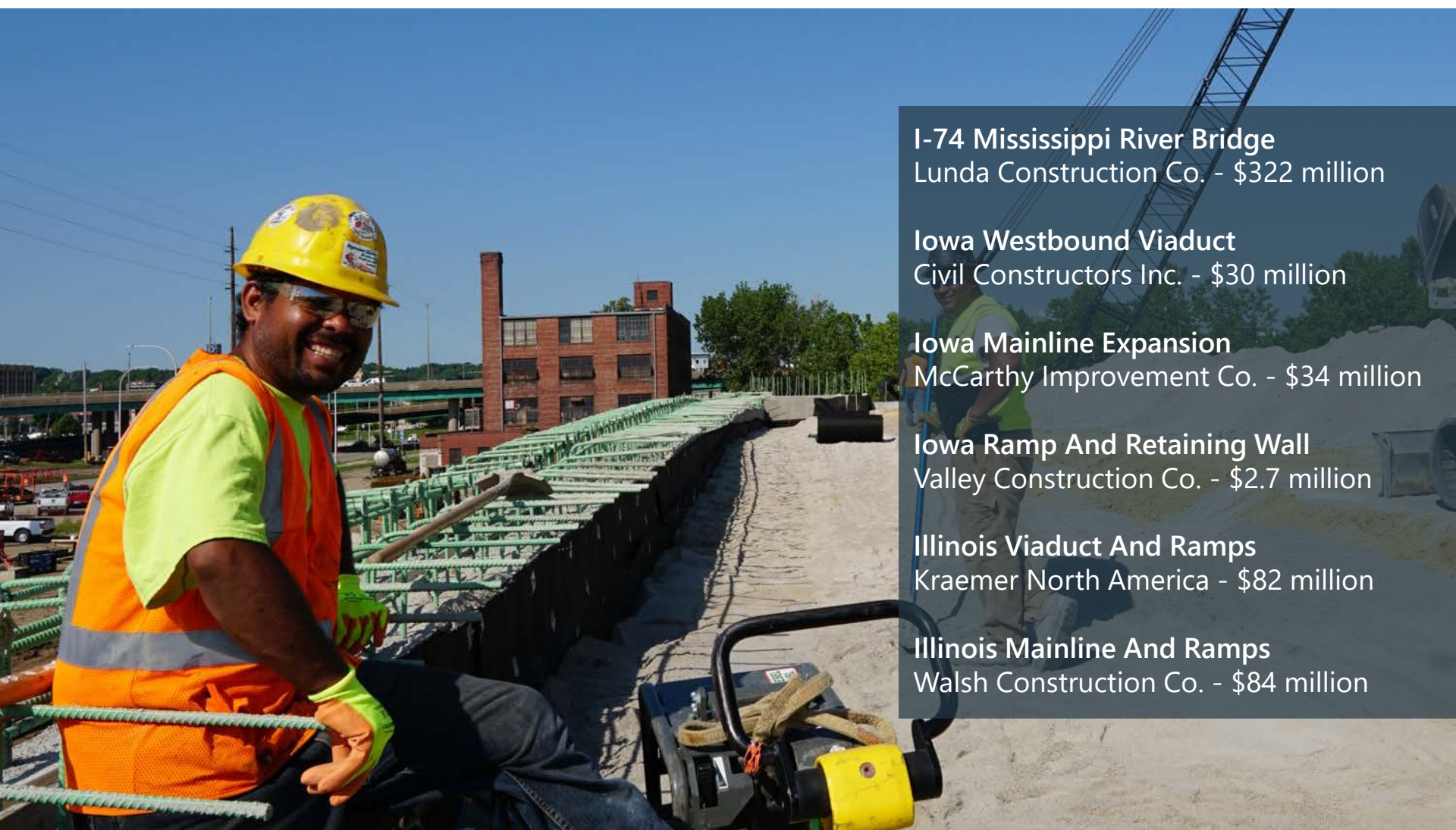


The I-74 Mississippi River Bridge Project

Project Leads



Contractors



I-74 Mississippi River Bridge
Lunda Construction Co. - \$322 million

Iowa Westbound Viaduct
Civil Constructors Inc. - \$30 million

Iowa Mainline Expansion
McCarthy Improvement Co. - \$34 million

Iowa Ramp And Retaining Wall
Valley Construction Co. - \$2.7 million

Illinois Viaduct And Ramps
Kraemer North America - \$82 million

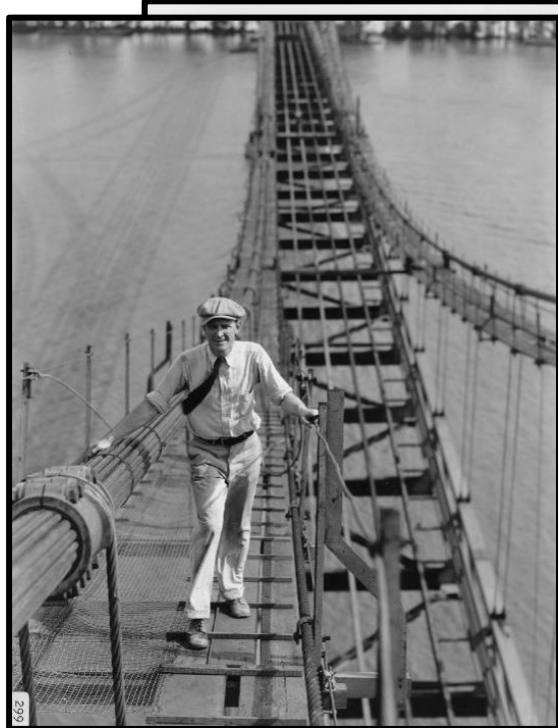
Illinois Mainline And Ramps
Walsh Construction Co. - \$84 million



Costs and Funding



History



Eastbound bridge
opened in 1960



Westbound bridge
opened in 1935



Existing Bridge

- Narrow with no shoulders
- Needs continuous repairs



New Bridge

State-of-the-art Mississippi River Bridge



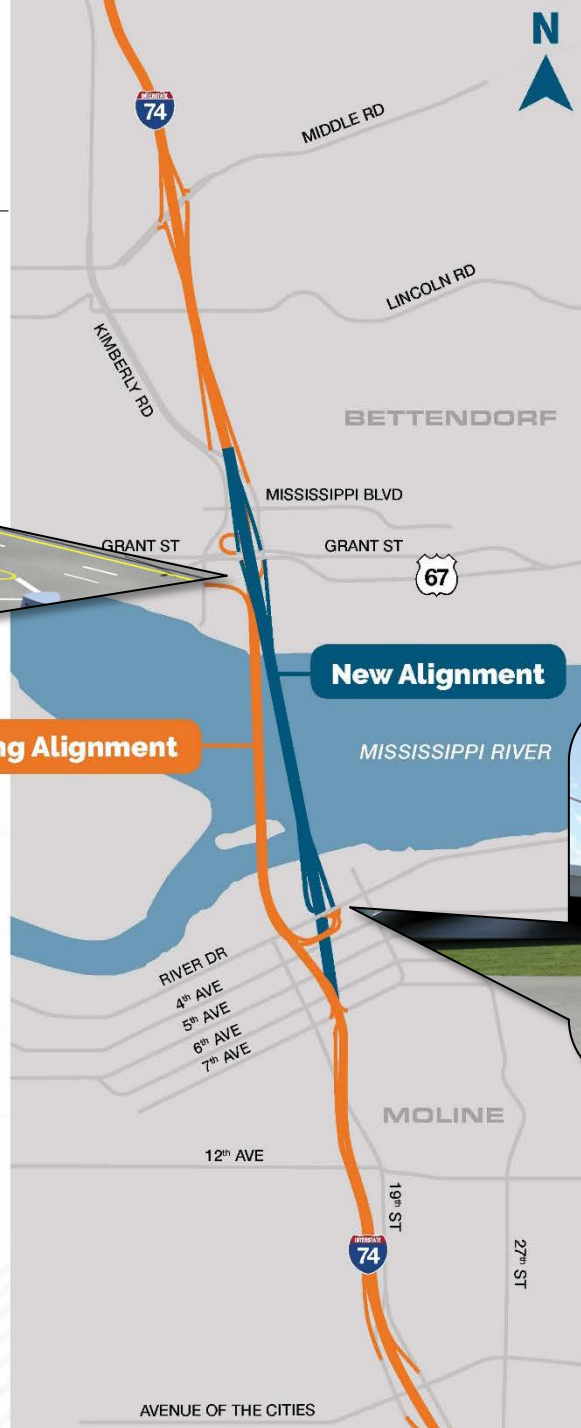


Alignment



Existing Alignment

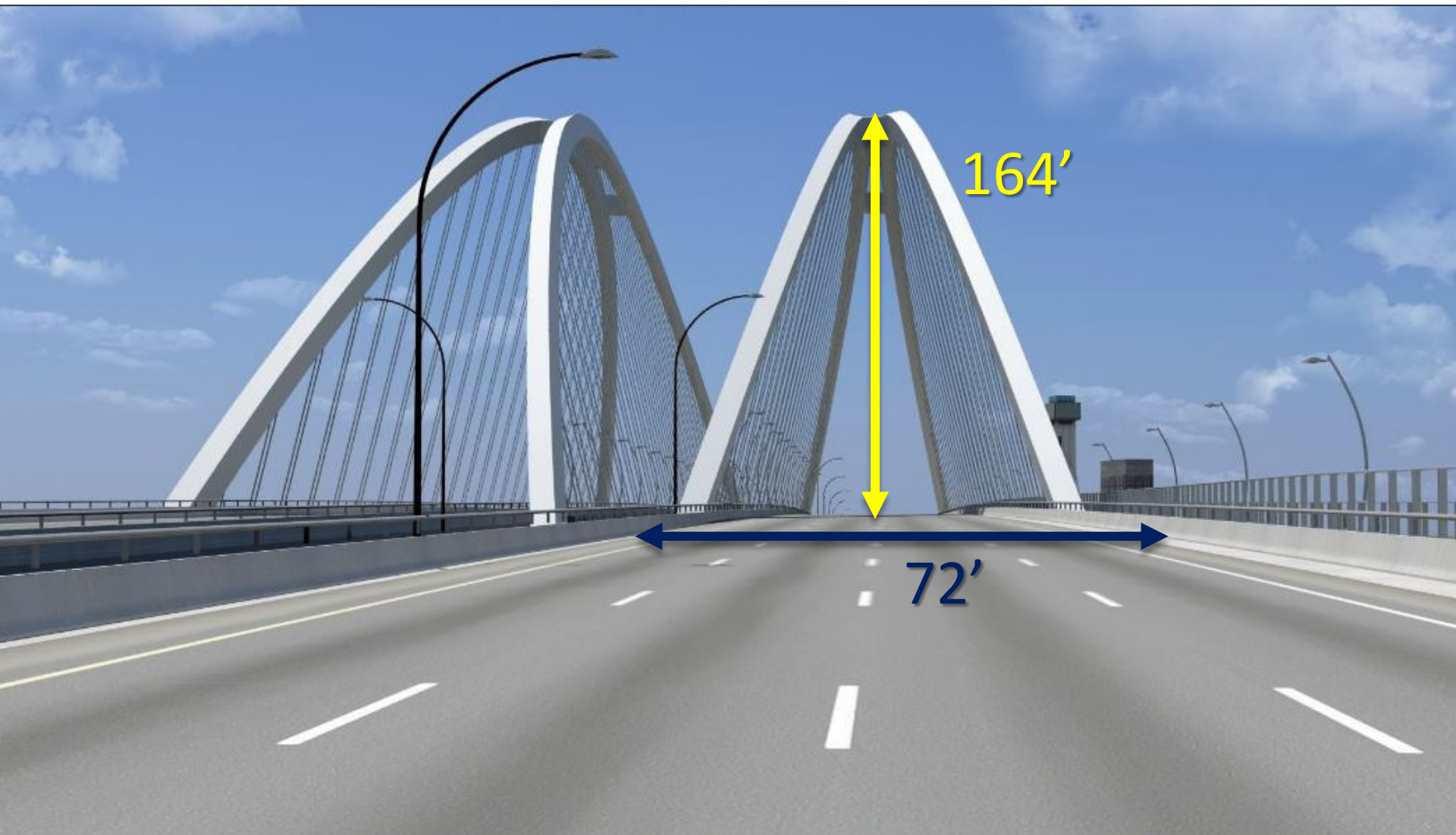
New Alignment



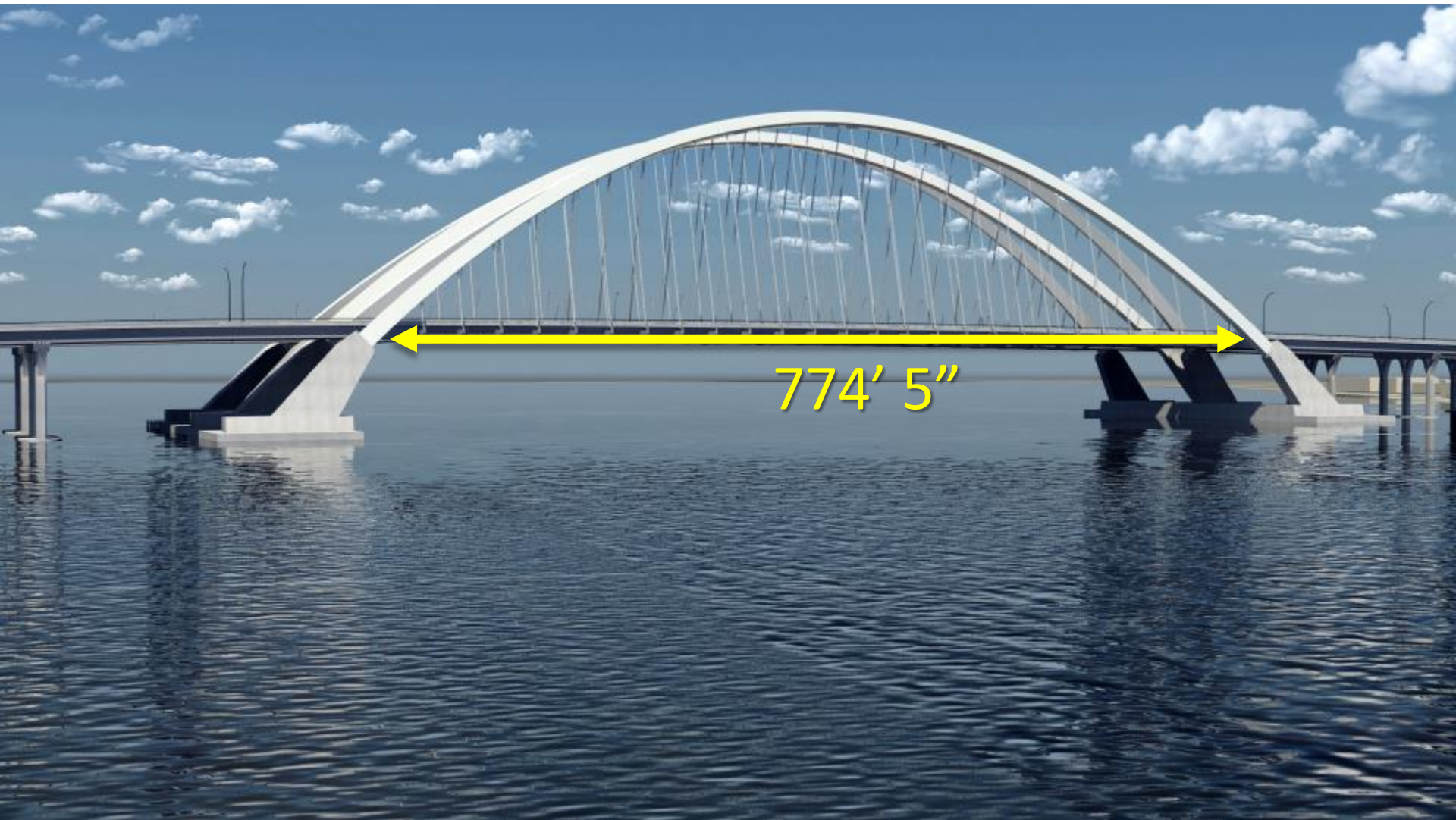
Side –by-Side Comparison



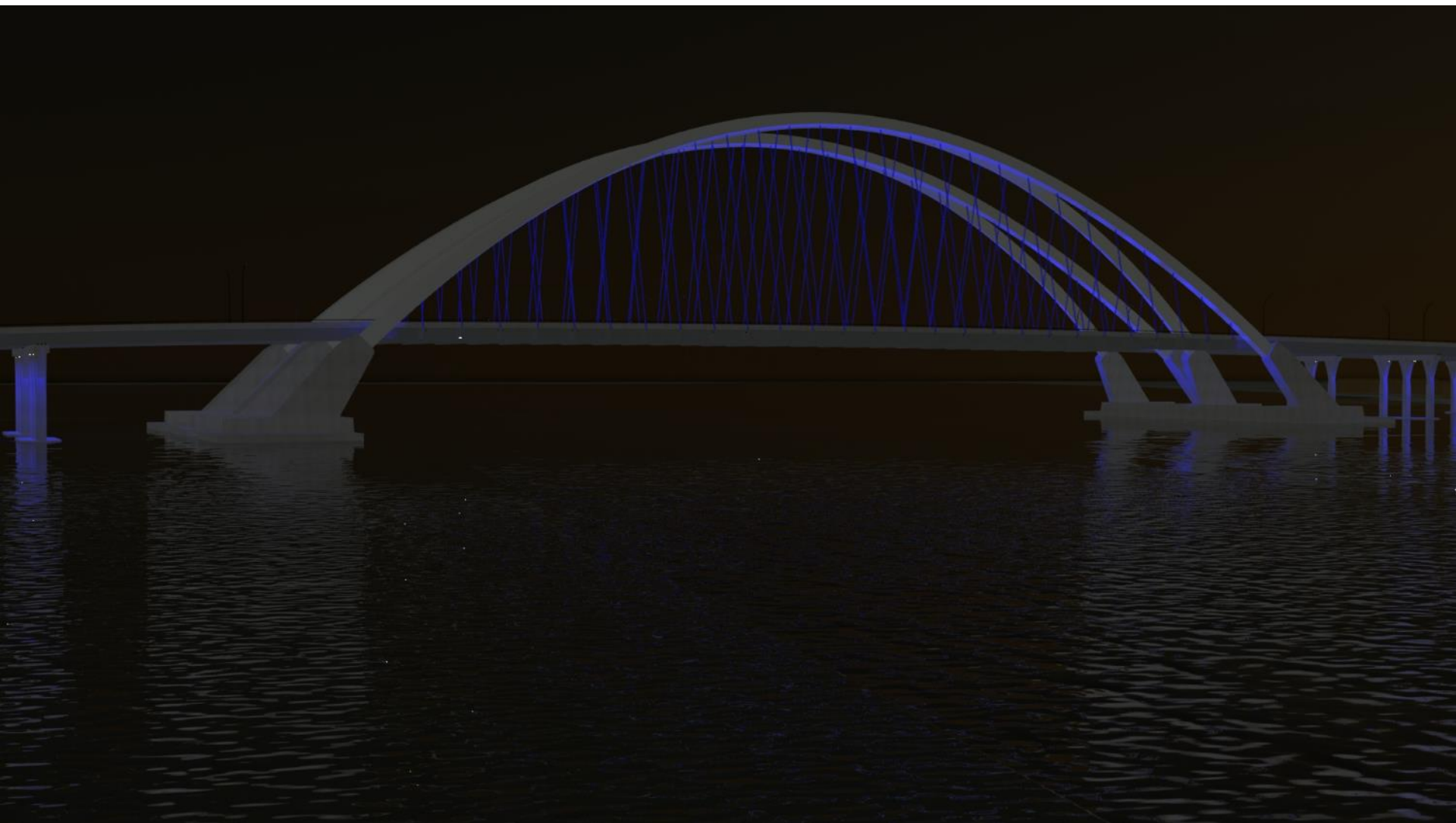
Four Lanes with Full-Width Shoulders



Arch Span



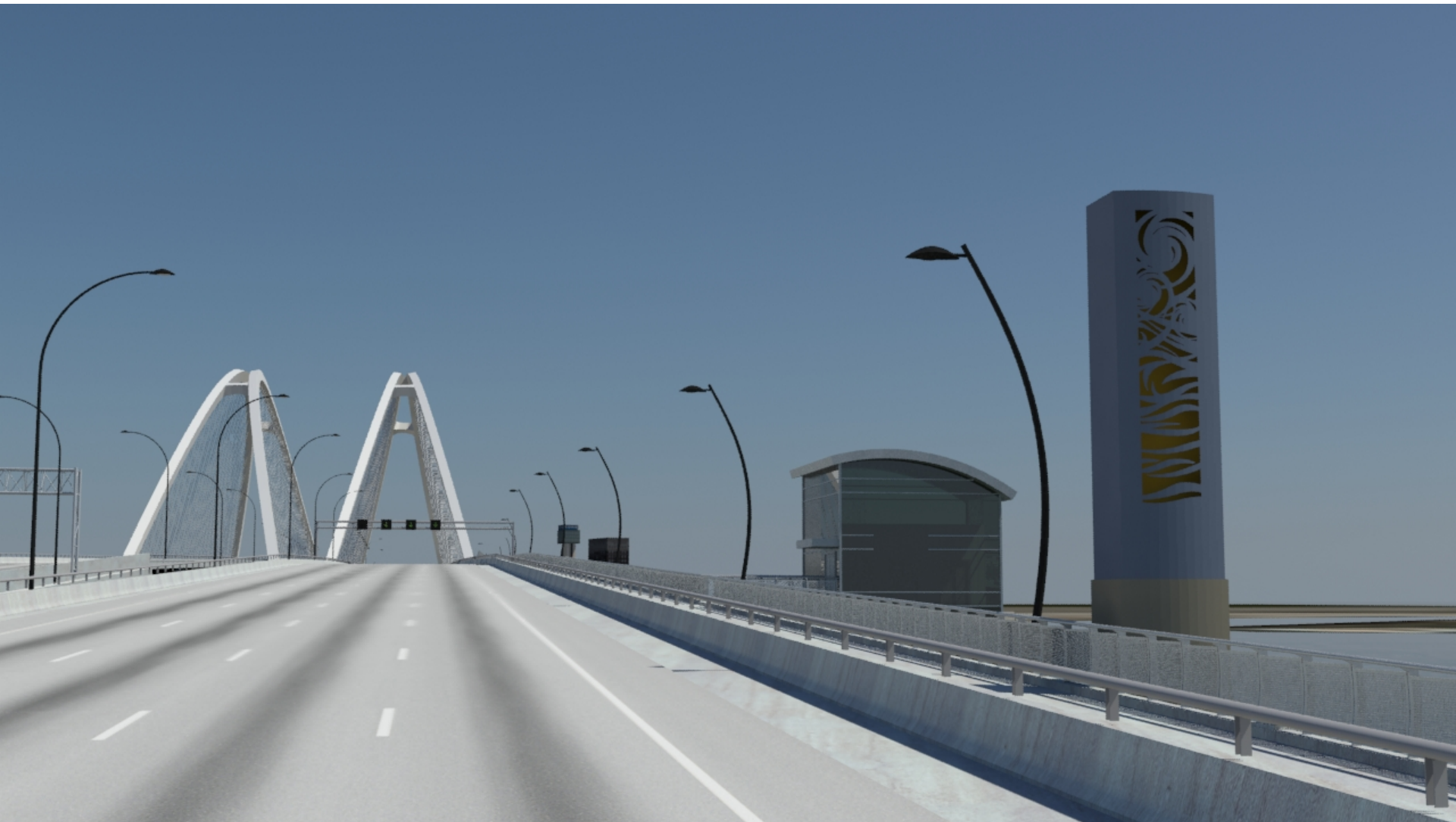
LED Lighting



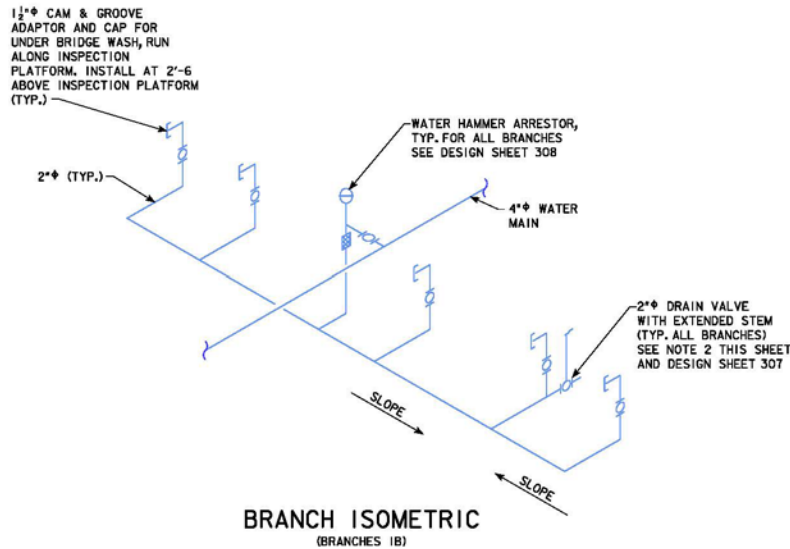
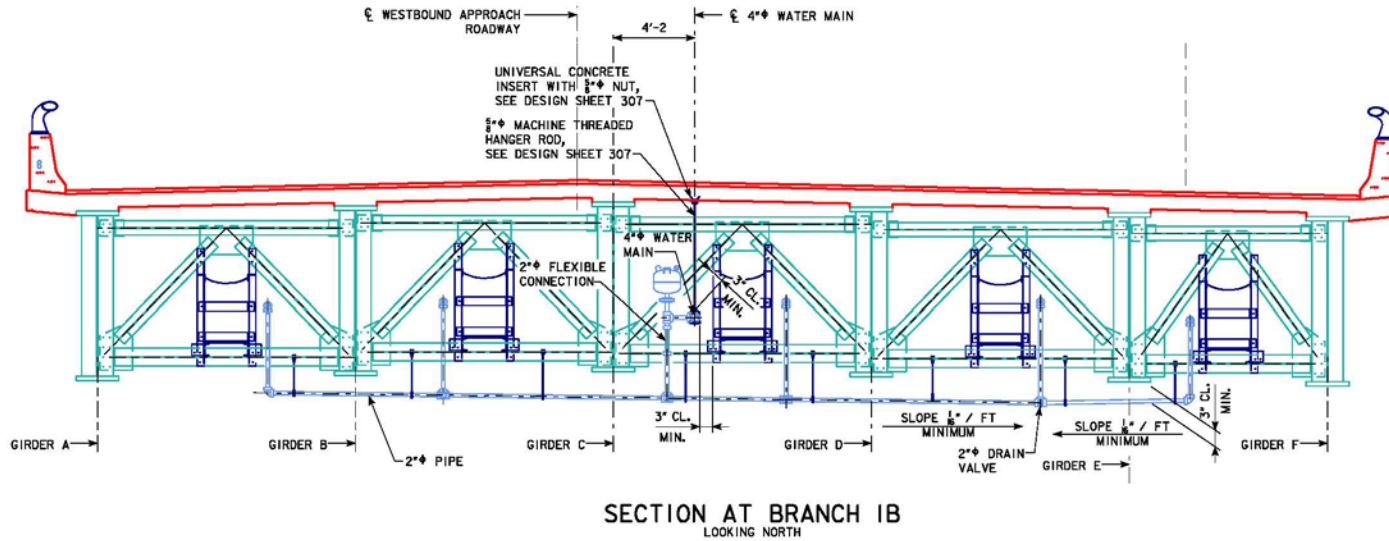
Pedestrian and Bicycle Accessibility



Health Monitoring System



Maintenance Waterline



GENERAL NO.

1. 4" MAIN SHALL BE S DRAIN THE PIPE THRU DURING WINTER.
2. FOR BRANCHES AND E SHEETS 297 AND 298
3. FOR PIPING HANGER C
4. HOSE FOR BRIDGE WA: & GROOVE TYPE COUF SEE DETAIL ON DESIC

1981'-0 :
WELD
148'-0 & 187'-0 ENC
MAINTENAN
STA. 6757+10.50 - 4



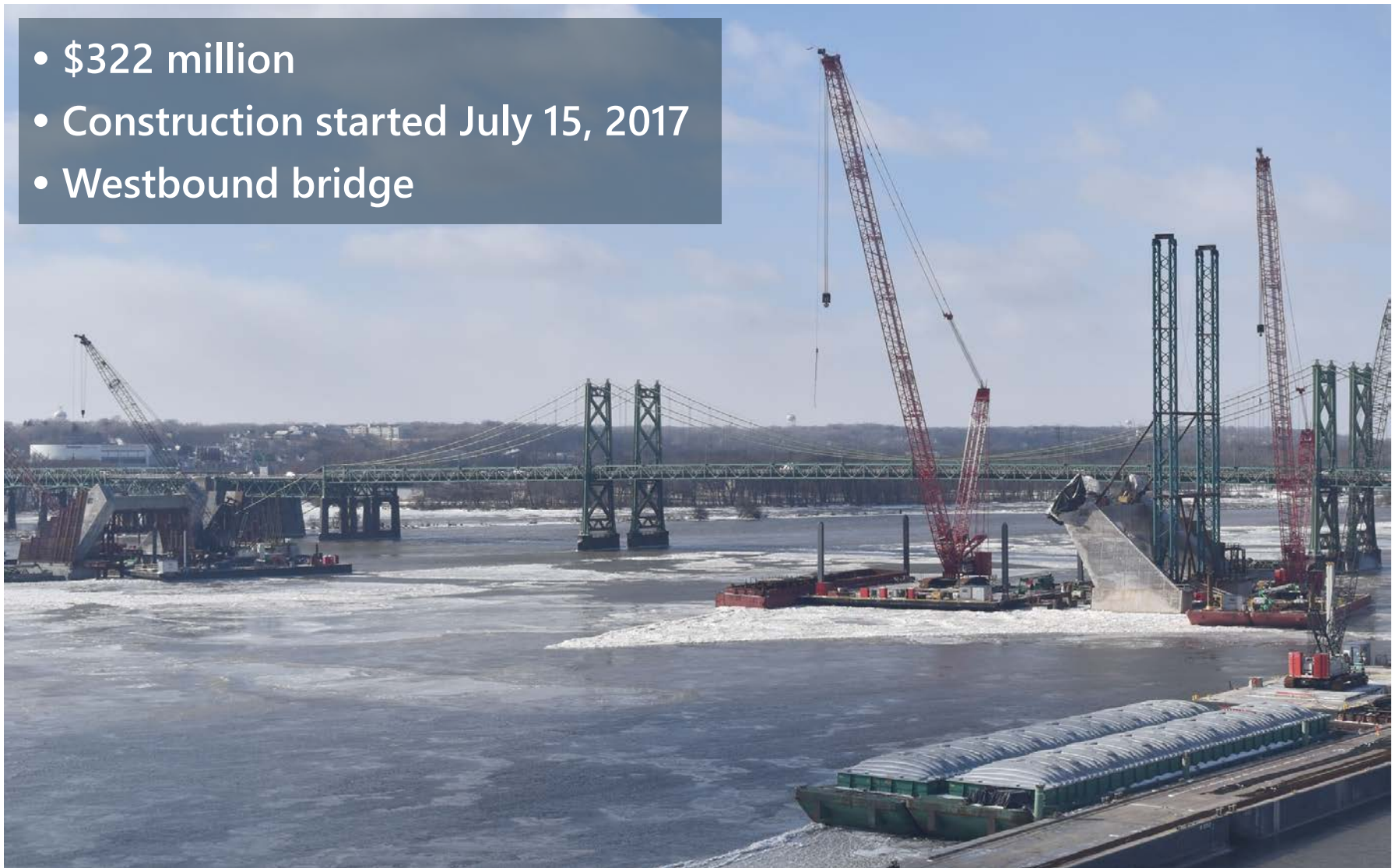
Construction Staging

- Complicated staging
- Construction started July 2017
- 3½ years

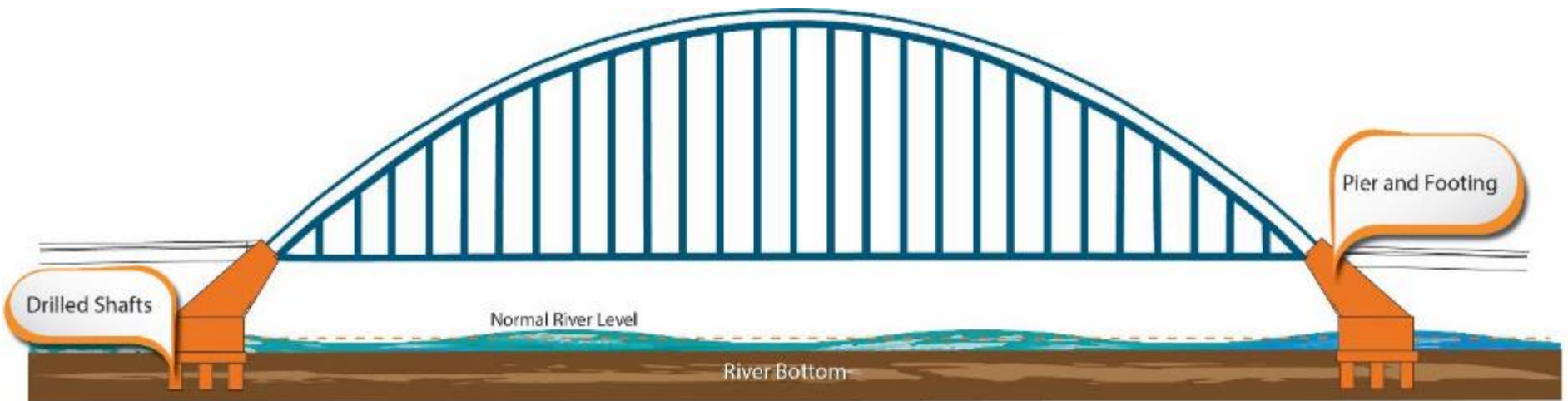


River Bridge – Lunda Construction Co.

- \$322 million
- Construction started July 15, 2017
- Westbound bridge



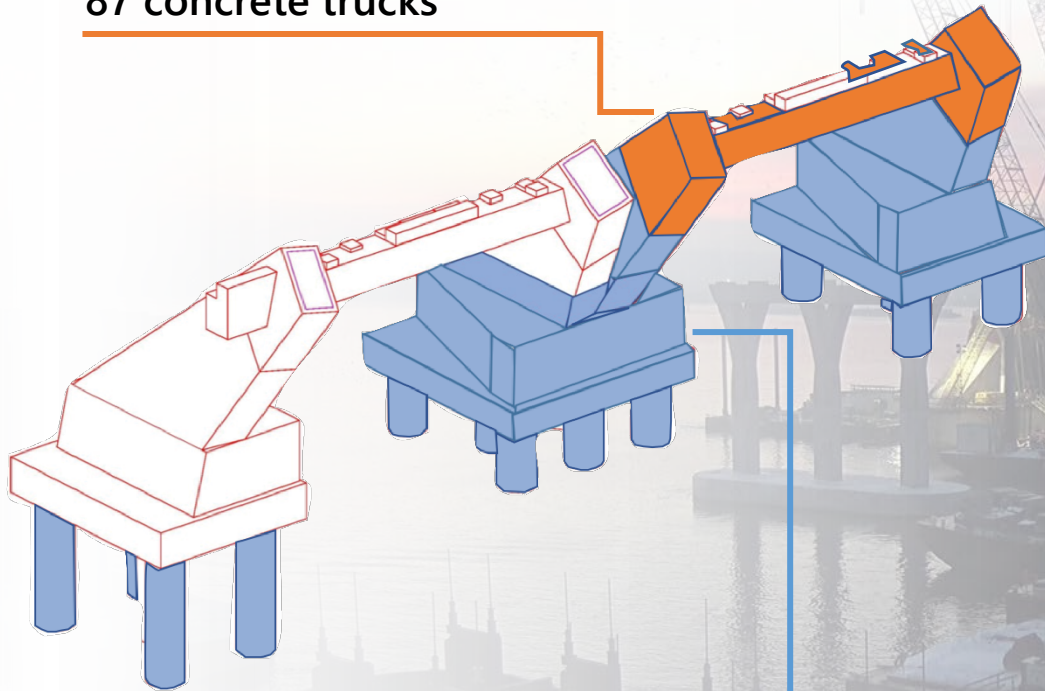
Shafts and Footings



Concrete Pour


870 CY of concrete (arch ribs and crossbeam)


87 concrete trucks



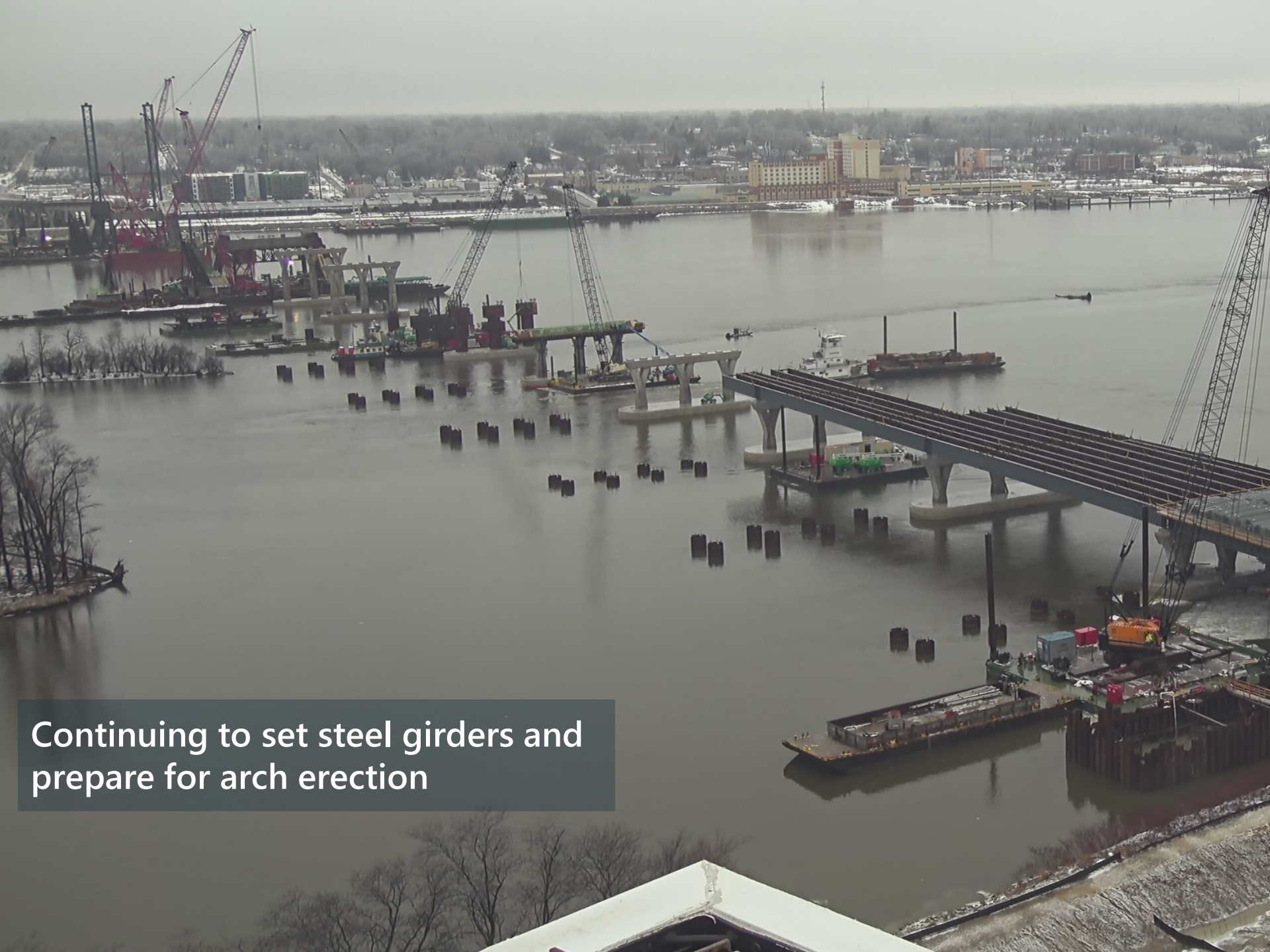
1,532 CY concrete (pedestal)

154 concrete trucks

 Concrete pour November 30, 2018

 Completed concrete pours





Continuing to set steel girders and prepare for arch erection

- Challenges: flooding and cold temperatures
- Preparing foundations for arch erection







Three construction workers are standing on a concrete slab. The worker on the left is wearing a white hard hat, sunglasses, a neon green shirt, and an orange safety vest. The worker in the middle is wearing a yellow-green hard hat, sunglasses, a neon green shirt, and a neon green safety vest. The worker on the right is wearing a white hard hat with 'HNTB' on it, sunglasses, an orange safety vest, and a red shirt. They appear to be in conversation.

The image shows a large steel structure under construction. It consists of several vertical columns supported by a horizontal beam. The columns are painted a light grey color. On the horizontal beam, there are several circular holes. Handwritten numbers are visible on the columns: 19, 2, 4, 8, 20, and 36. A brown coffee cup is sitting on the horizontal beam. Below the horizontal beam, there are several vertical bolts or rods. The structure is supported by a concrete slab. In the background, a red crane is visible against a clear blue sky.



Fabricated arch segments
delivered by barge





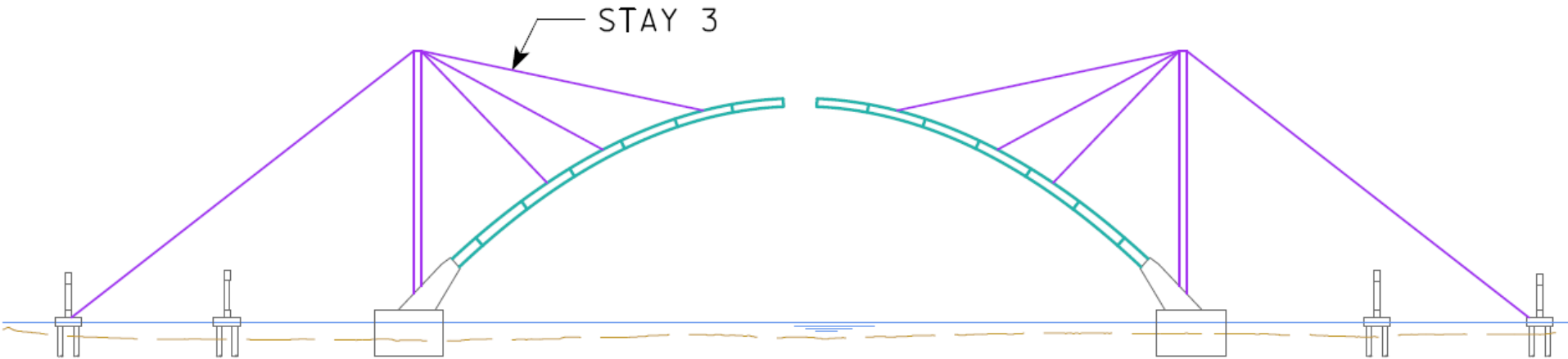








Stay Installation



INSTALL AND STRESS STAY 3

STAGE 13





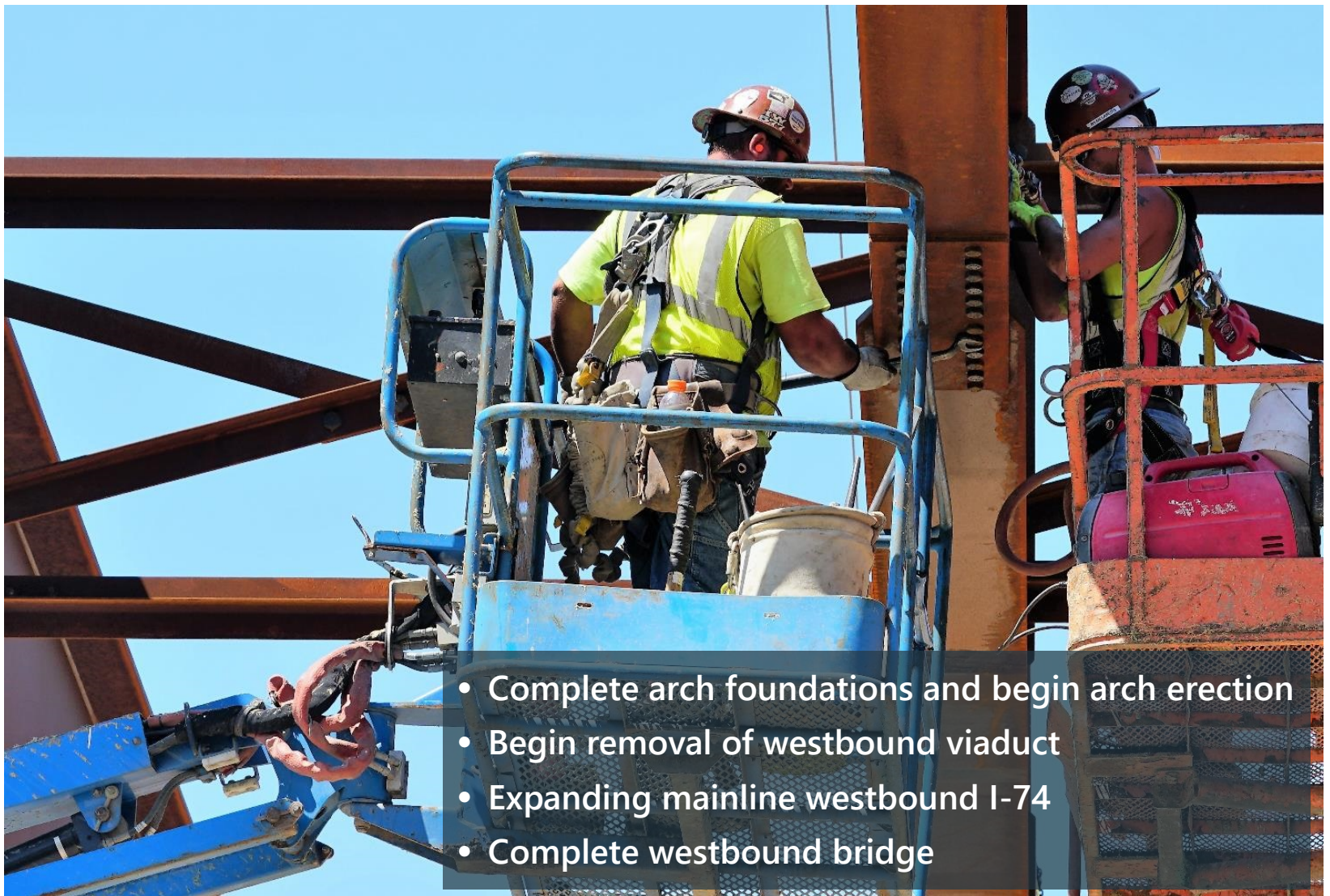
Forming westbound and eastbound deck





Completed I-74 expansion south of Avenue of the Cities in Moline

Next Steps



- Complete arch foundations and begin arch erection
- Begin removal of westbound viaduct
- Expanding mainline westbound I-74
- Complete westbound bridge



2021 – Bridge Removal



A variety of methods will be used, largely determined by:

- Coordination with barge traffic
- Protection of surrounding environmentally sensitive areas
- Contractor's methods for collection of debris



I74RiverBridge.com

Hotline: 1-866-I74-4ALL

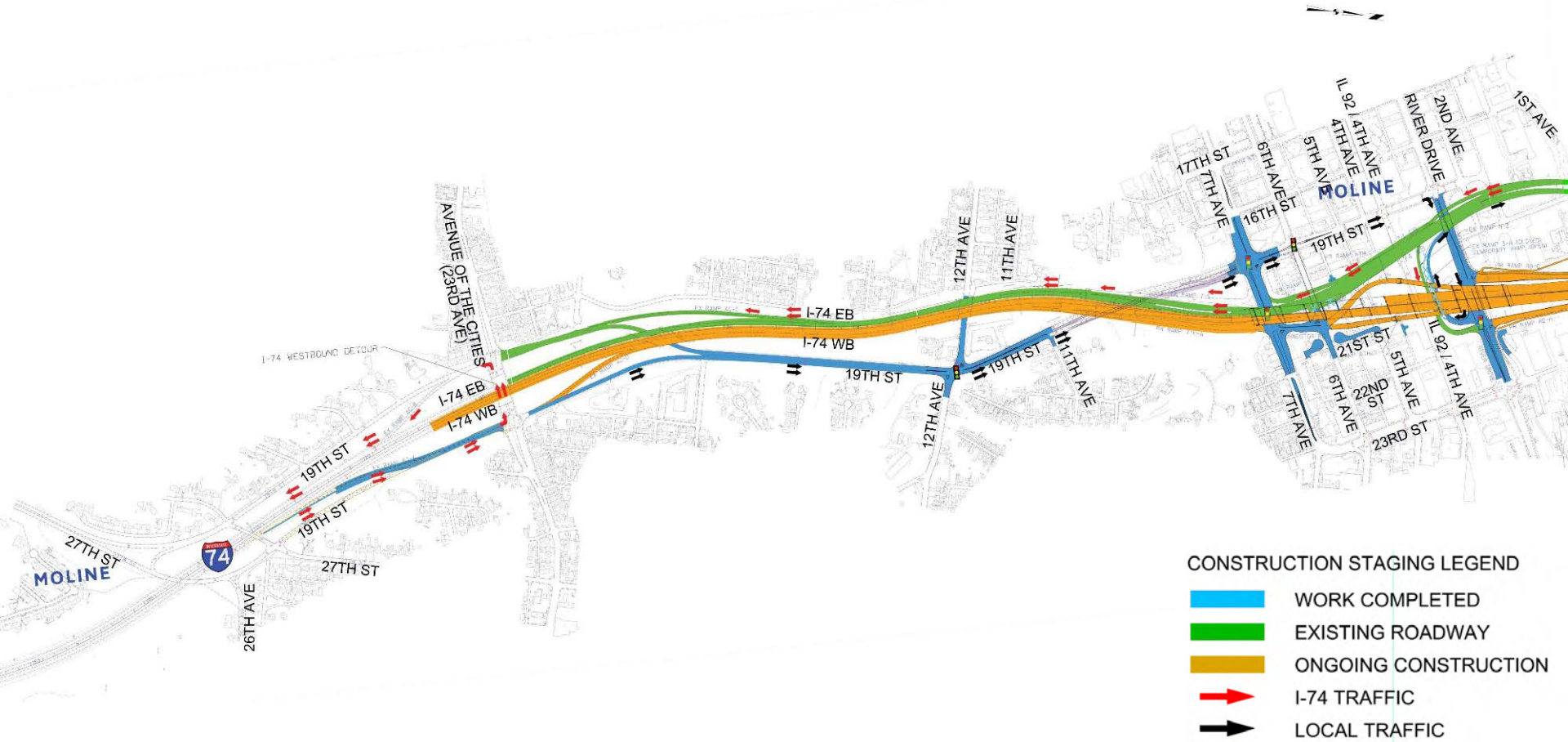


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Questions?

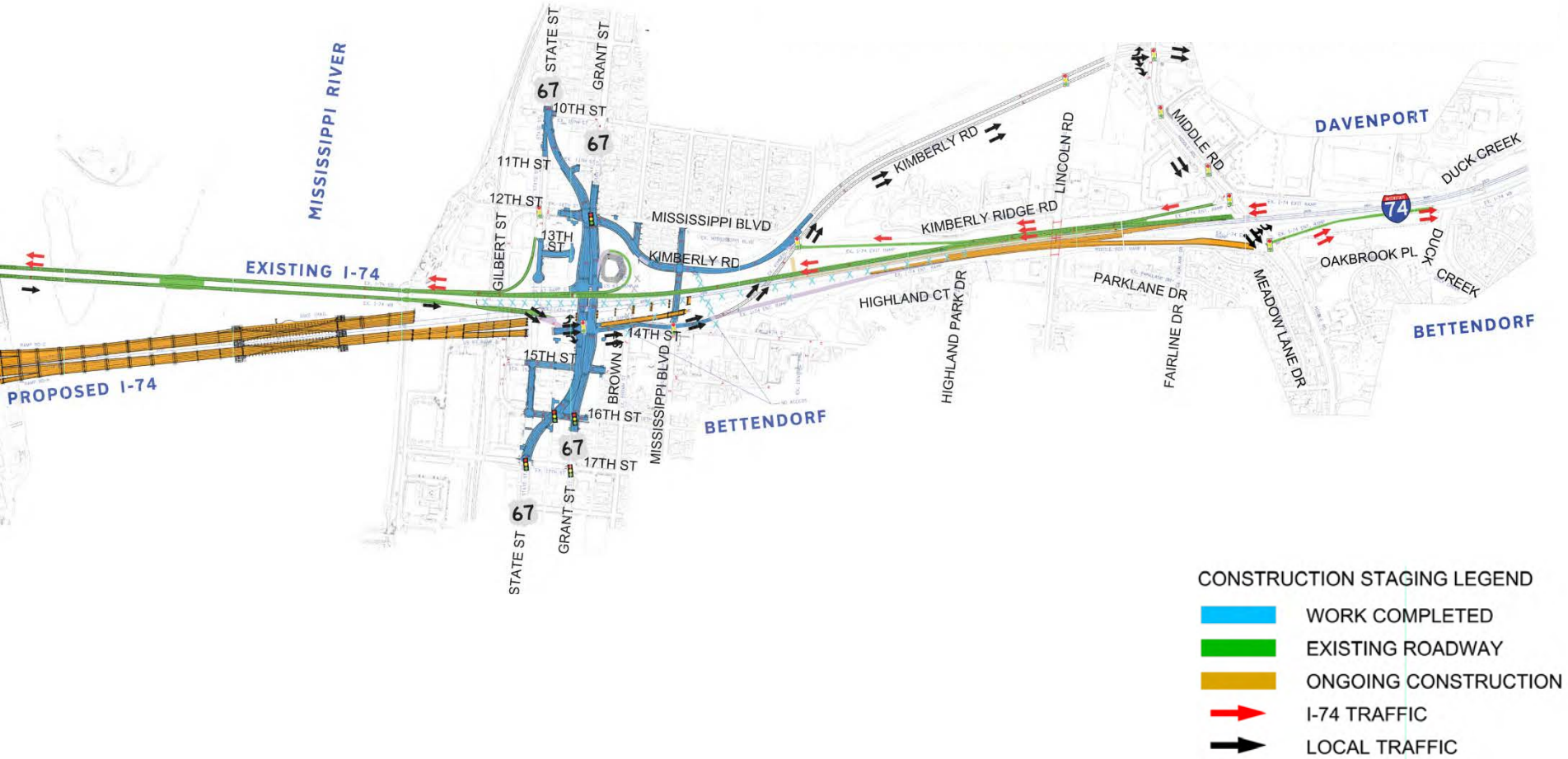
2019 Construction Staging – Illinois



2019 Construction Staging – Iowa

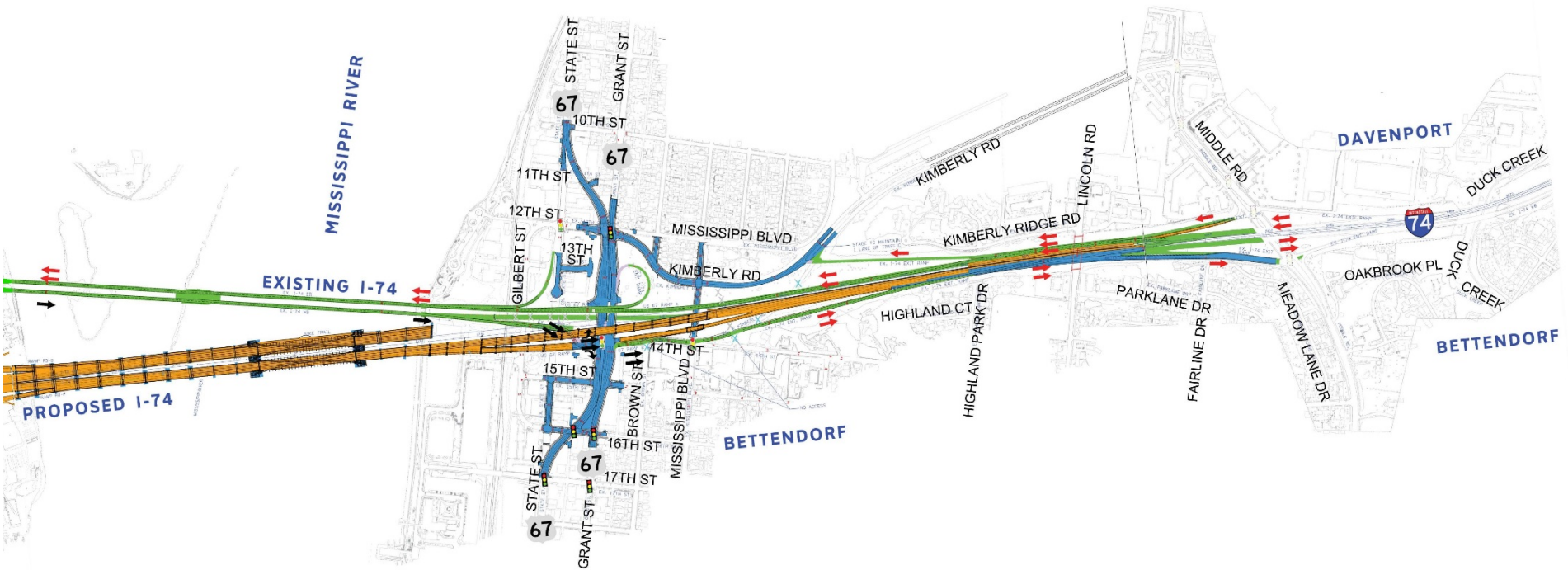
Kimberly Road - Stage 2A

Westbound Local Traffic Management



2019 Construction Staging – Iowa

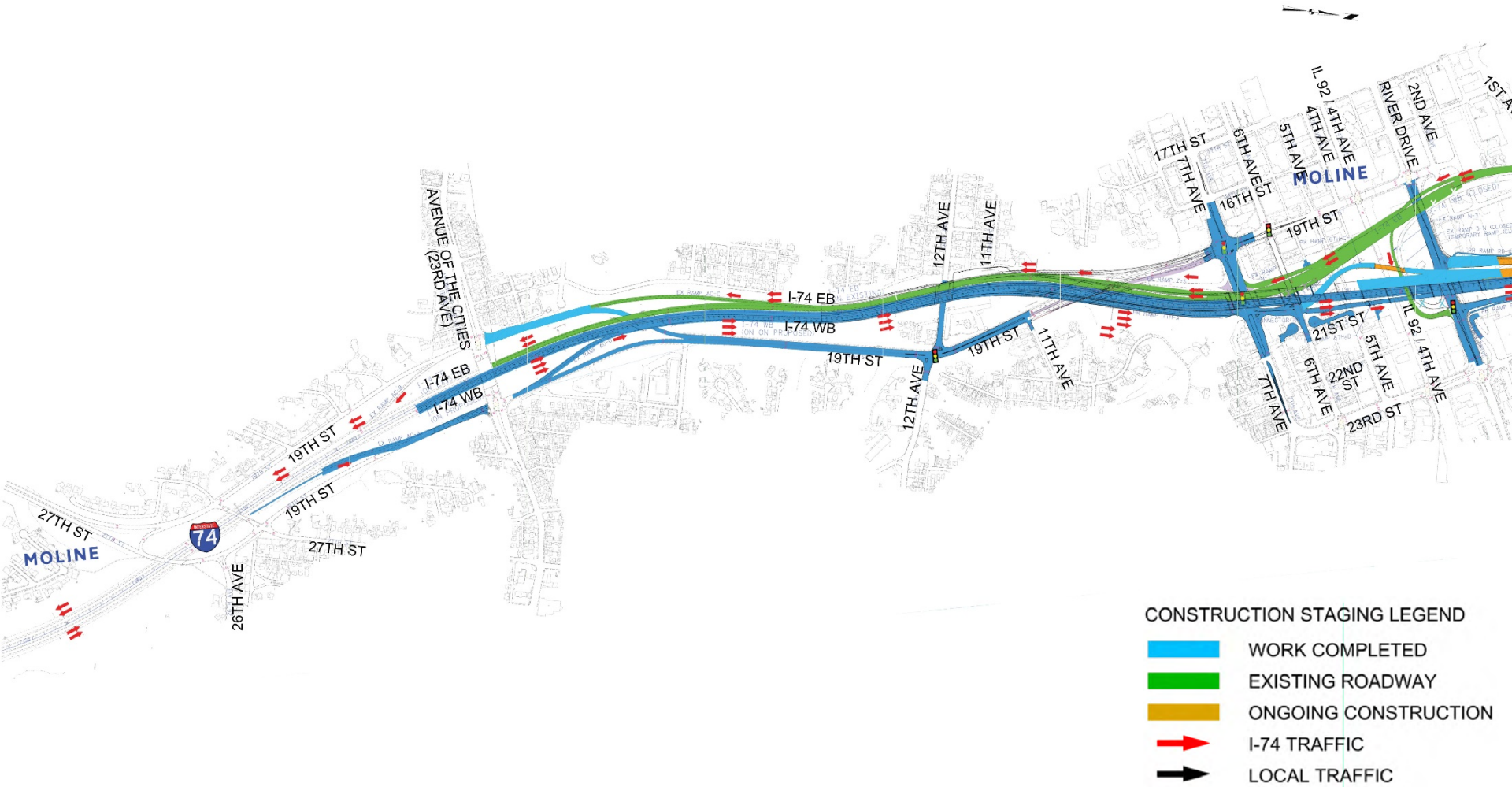
Stage 2B



- CONSTRUCTION STAGING LEGEND**
- WORK COMPLETED
 - EXISTING ROADWAY
 - ONGOING CONSTRUCTION
 - I-74 TRAFFIC
 - LOCAL TRAFFIC



Winter 2019/2020 Construction Staging – Illinois



Winter 2019/2020 Construction Staging – Iowa

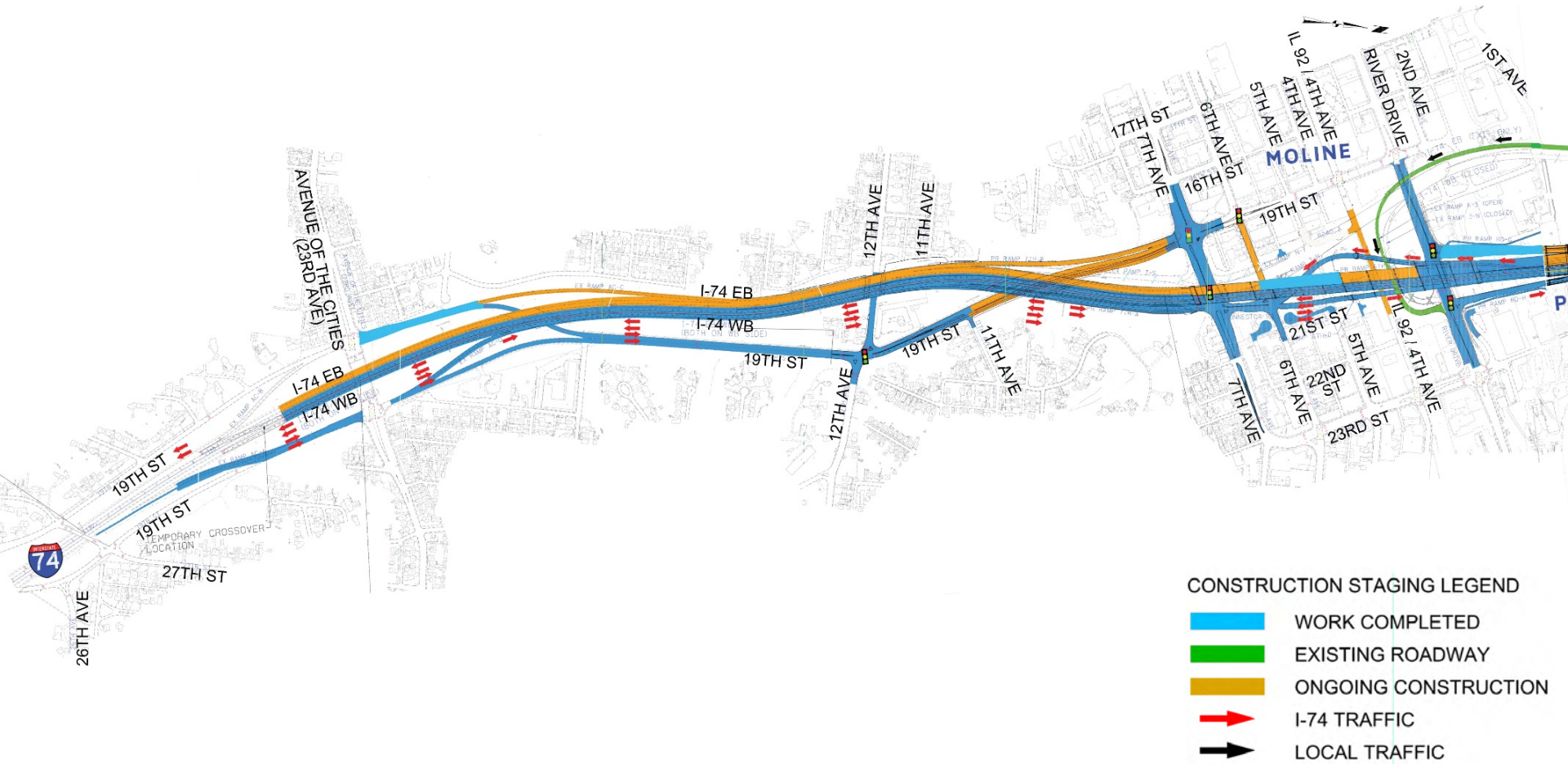


CONSTRUCTION STAGING LEGEND

- WORK COMPLETED
- EXISTING ROADWAY
- ONGOING CONSTRUCTION
- I-74 TRAFFIC
- LOCAL TRAFFIC



2020 Construction Staging – Illinois



2020 Construction Staging – Iowa



- CONSTRUCTION STAGING LEGEND**
- WORK COMPLETED
 - EXISTING ROADWAY
 - ONGOING CONSTRUCTION
 - I-74 TRAFFIC
 - LOCAL TRAFFIC





Thank you

For more information:

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