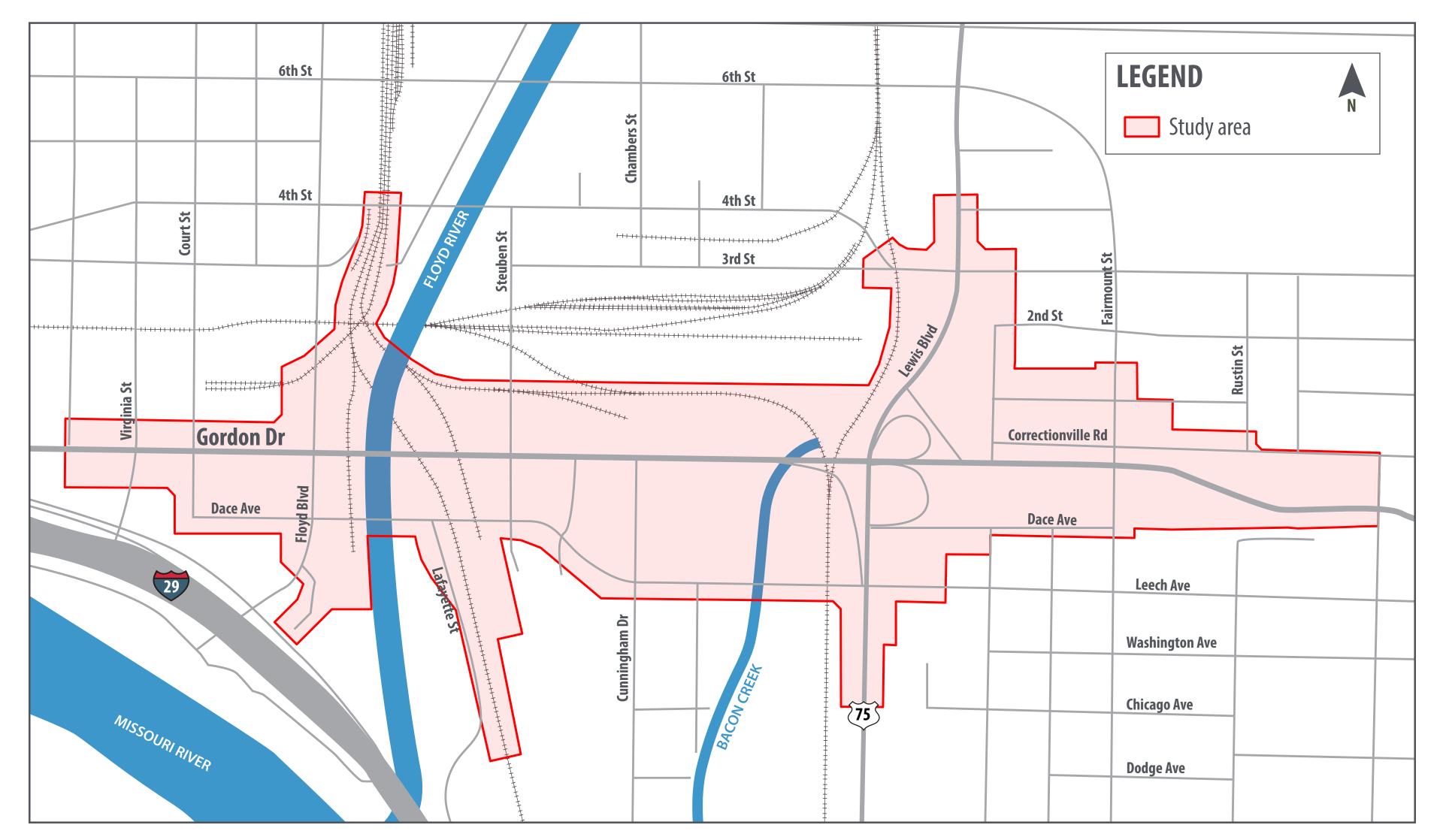


### PROJECT OVERVIEW & BACKGROUND

### WELCOME

Iowa DOT is presenting alternatives being considered for the Gordon Drive Viaduct and Bacon Creek Conduit from Virginia Street to Rustin Street. To support traffic and connectivity needs in this area, the Iowa DOT is proposing reconstruction of the Gordon Drive Viaduct.



The Viaduct, Lewis Junction, Floyd Boulevard, Cunningham Drive, and Bacon Creek conduit areas represent possible project locations and do not show exact project footprints or right-of-way need.





The purpose of the proposed action is to sustain vehicular and pedestrian/bicyclist mobility of IA 12 (Gordon Drive) between Virginia Street and Rustin Street, and address structural deficiencies associated with the Bacon Creek Conduit beneath Gordon Drive in Sioux City, Iowa.

The need for the proposed action on the Gordon Drive Viaduct is based on Roadway Deficiencies (FHWA, 1987), including the deficiencies listed below:



High Maintenance Costs



Inadequate Cross-Section



**Substandard Geometrics** 



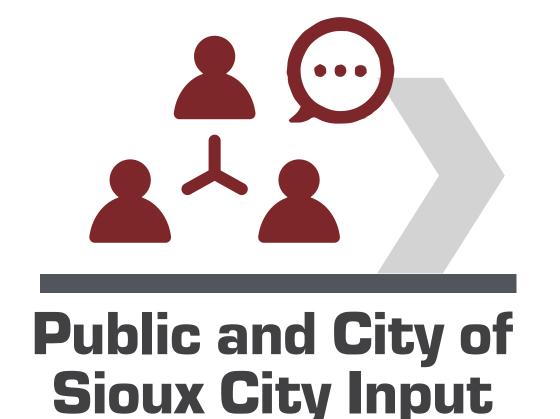
Load Limits on Structures





### PROPOSED EVALUATION CRITERIA

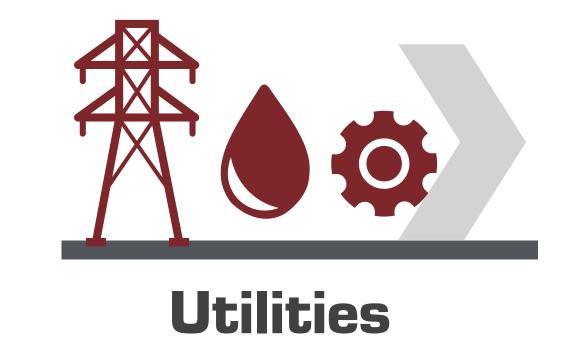
When developing alternatives, Iowa DOT considers a variety of criteria, including:



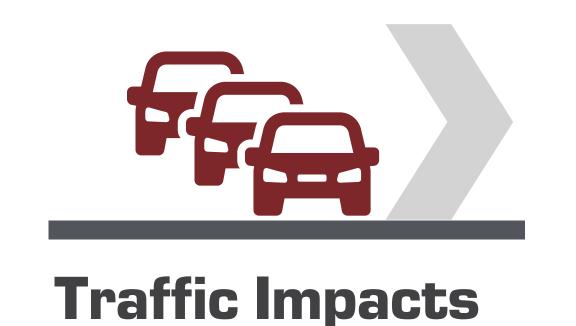


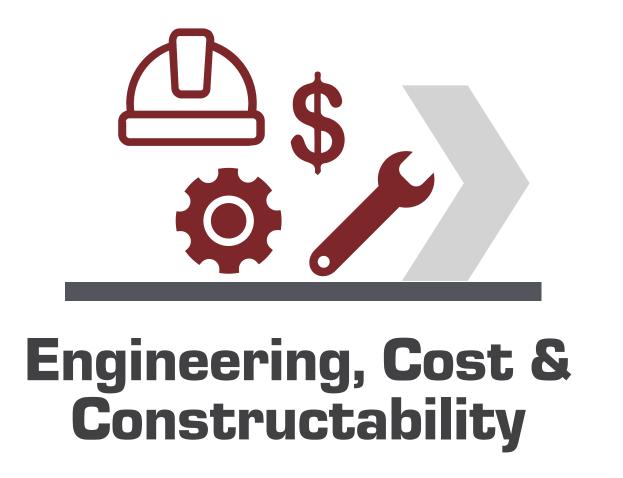










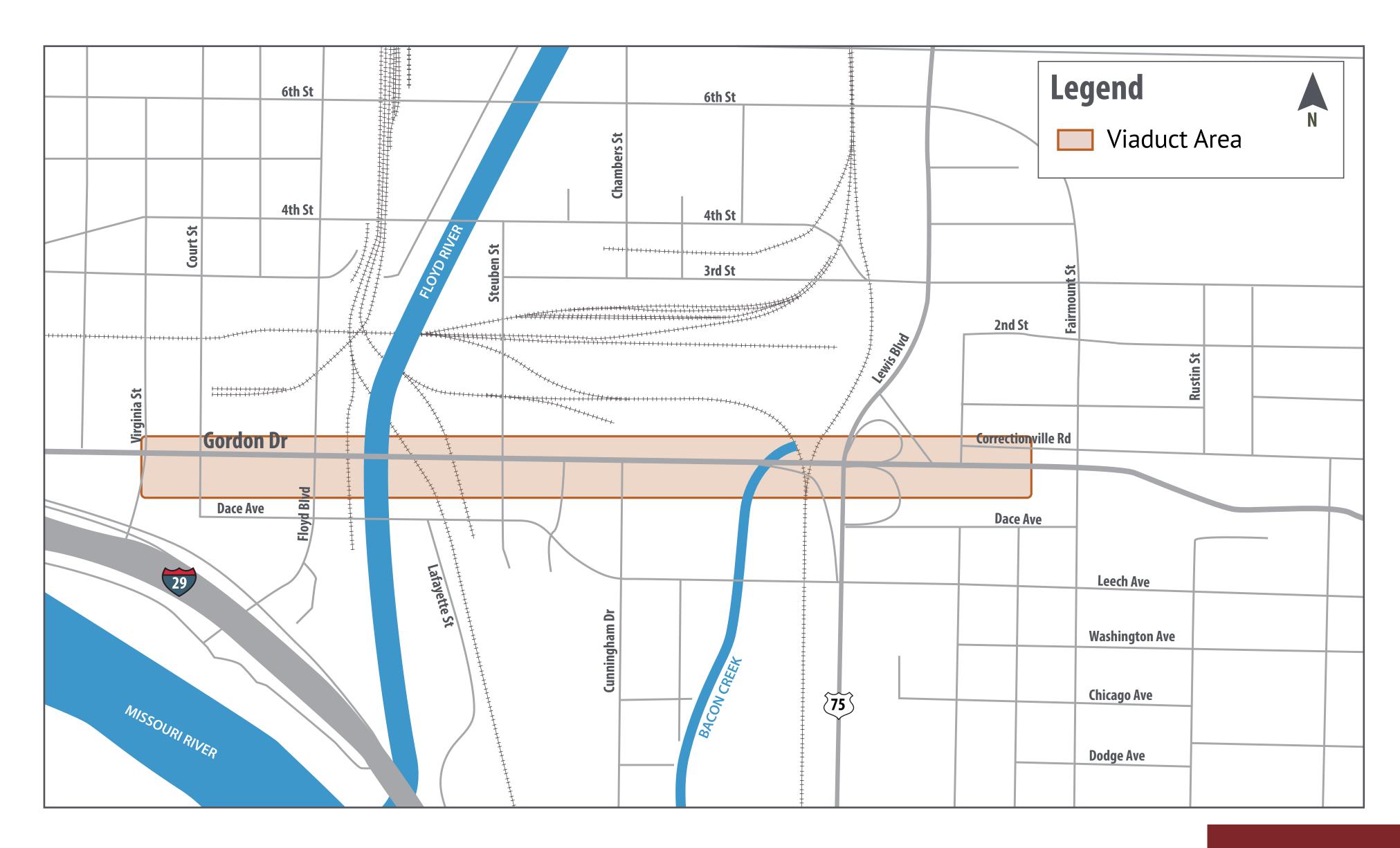






## ONGOING MAINTENANCE

The outer eastbound lane and sidewalk recently reopened on Gordon Drive following maintenance to this multi-modal facility. A larger maintenance project is currently being designed and will be completed in 2024.







### INITIAL SCREENING OF ALTERNATIVES



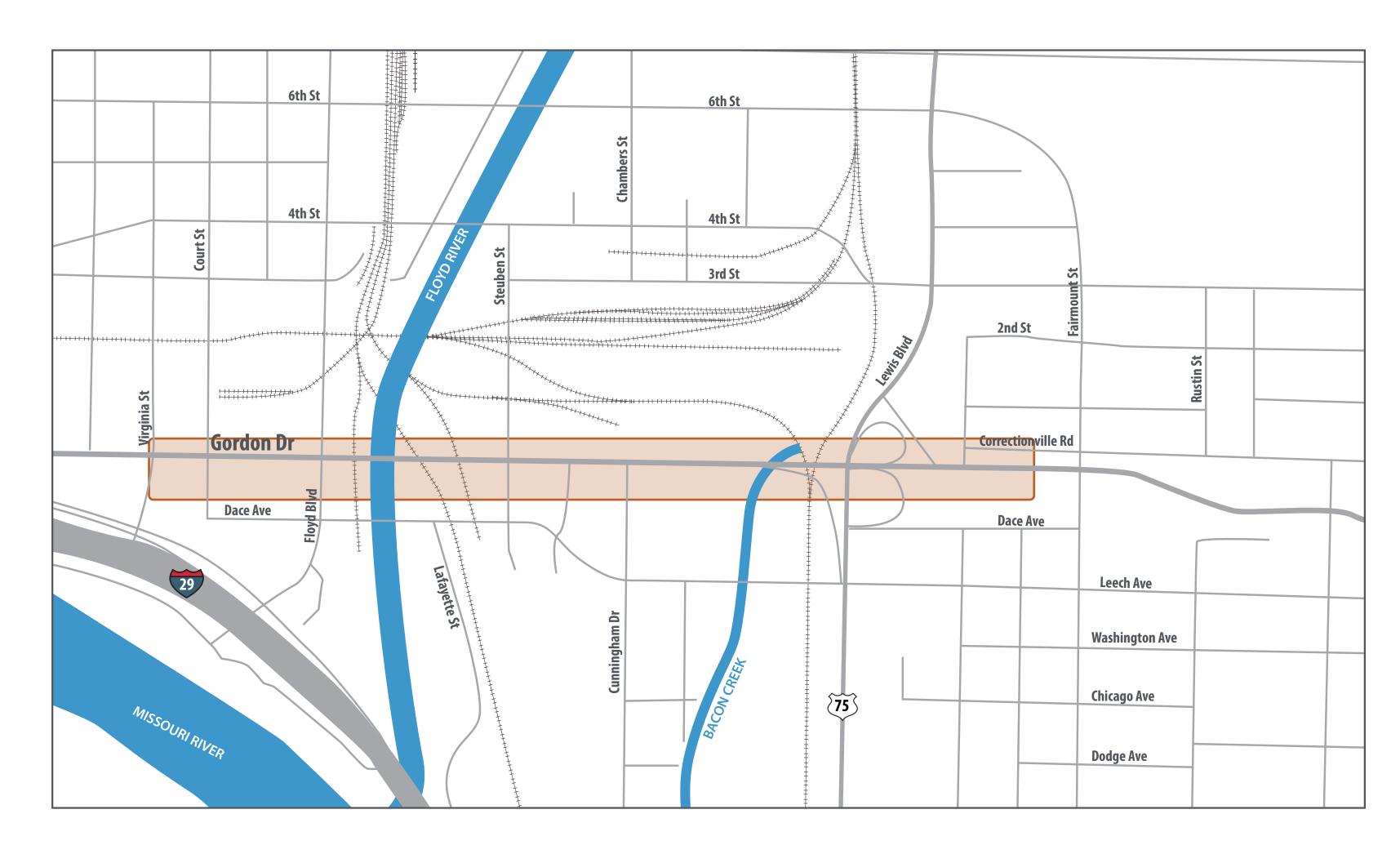
- Using environmental evaluation information, along with public and stakeholder input gathered during public meetings held in 2019 and 2021, the Iowa DOT has identified initial alternatives to further consider and refine.
- ▶ Using input from these public meetings, initial alternatives will be either carried forward for further analysis or eliminated.
- Eliminated alternatives include those that do not meet project purpose and need, would not function within the context of the corridor, and/or required additional right-of-way impacts without sufficient benefits.





### ON-ALIGNMENT ALTERNATIVE

The existing viaduct would be completely replaced in the same location along Gordon Drive from Virginia Street to Fairmount Street. The existing structure would not be able to accommodate all traffic during construction. Complicated construction phasing would result in more traffic impacts and detours.



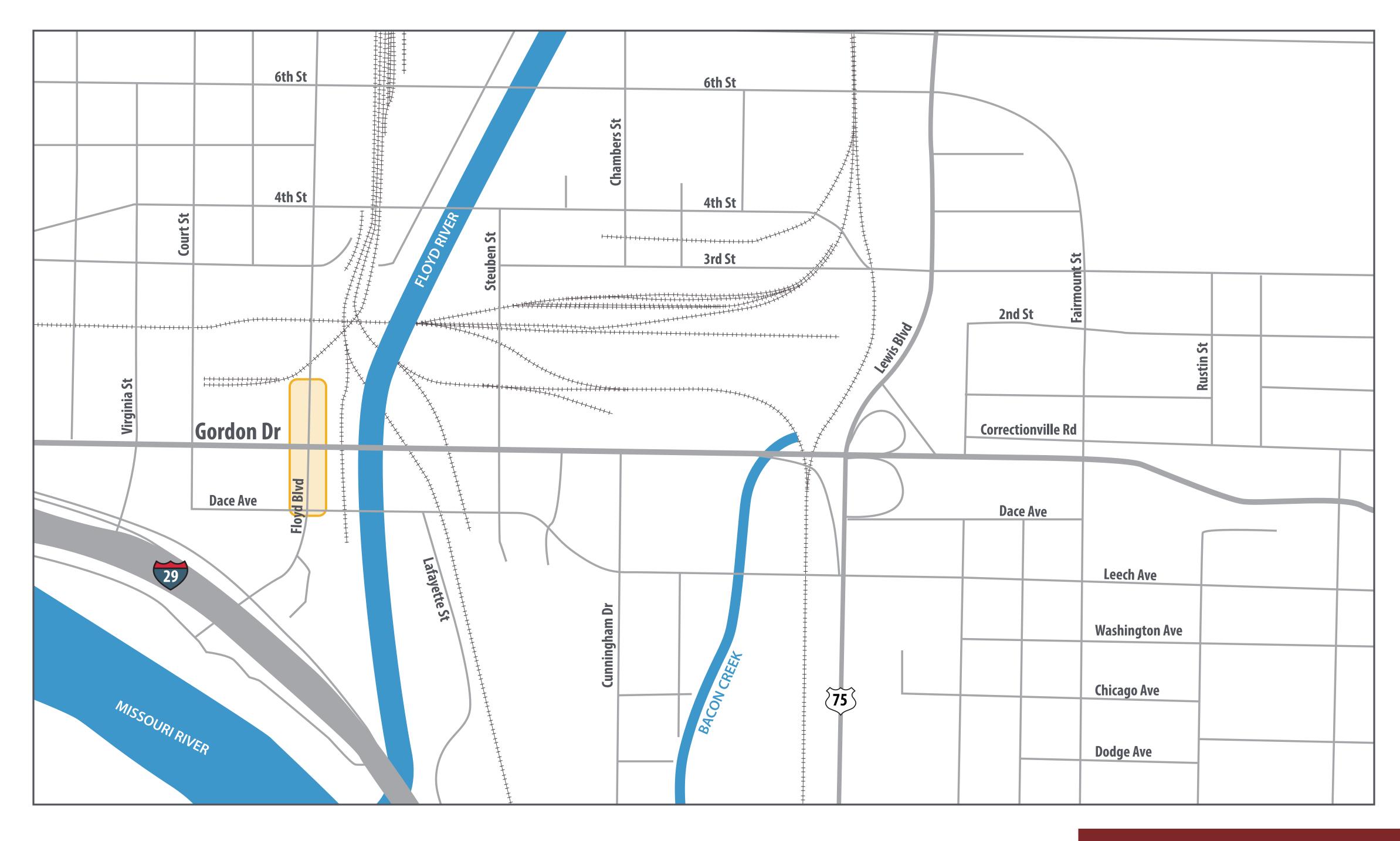
### SOUTH ADJACENT ALIGNMENT ALTERNATIVE

A new Gordon Drive would be built just south of the existing viaduct from Virginia Street to Fairmount Street. New bridges would be built over the Floyd River and Union Pacific Railroad on the west end and over Bacon Creek and the BNSF Railroad on the east end. New bridge locations would offer shorter structures that are better aligned with the features they cross.



# FLOYD BOULEVARD AREA

The Iowa DOT is evaluating a possible Floyd Boulevard intersection on Gordon Drive.



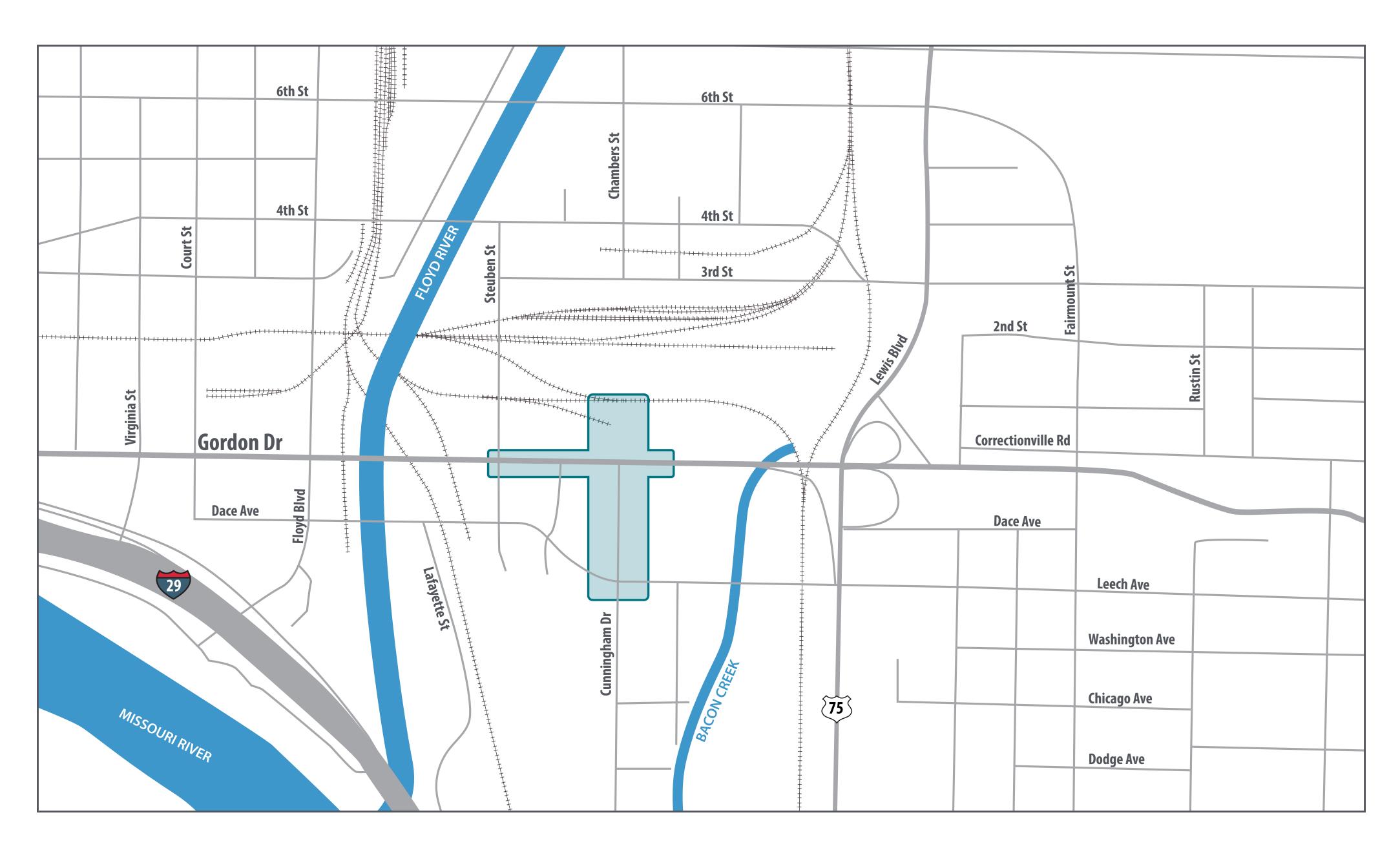




## CUNNINGHAM DRIVE AREA

### INTERSECTION ALTERNATIVE

A new signalized intersection would be added where Cunningham Drive currently passes beneath the existing Gordon Drive Viaduct. The south leg of the new Cunningham Drive intersection would provide access to The Yards and the north leg would provide access for businesses north of the Viaduct.



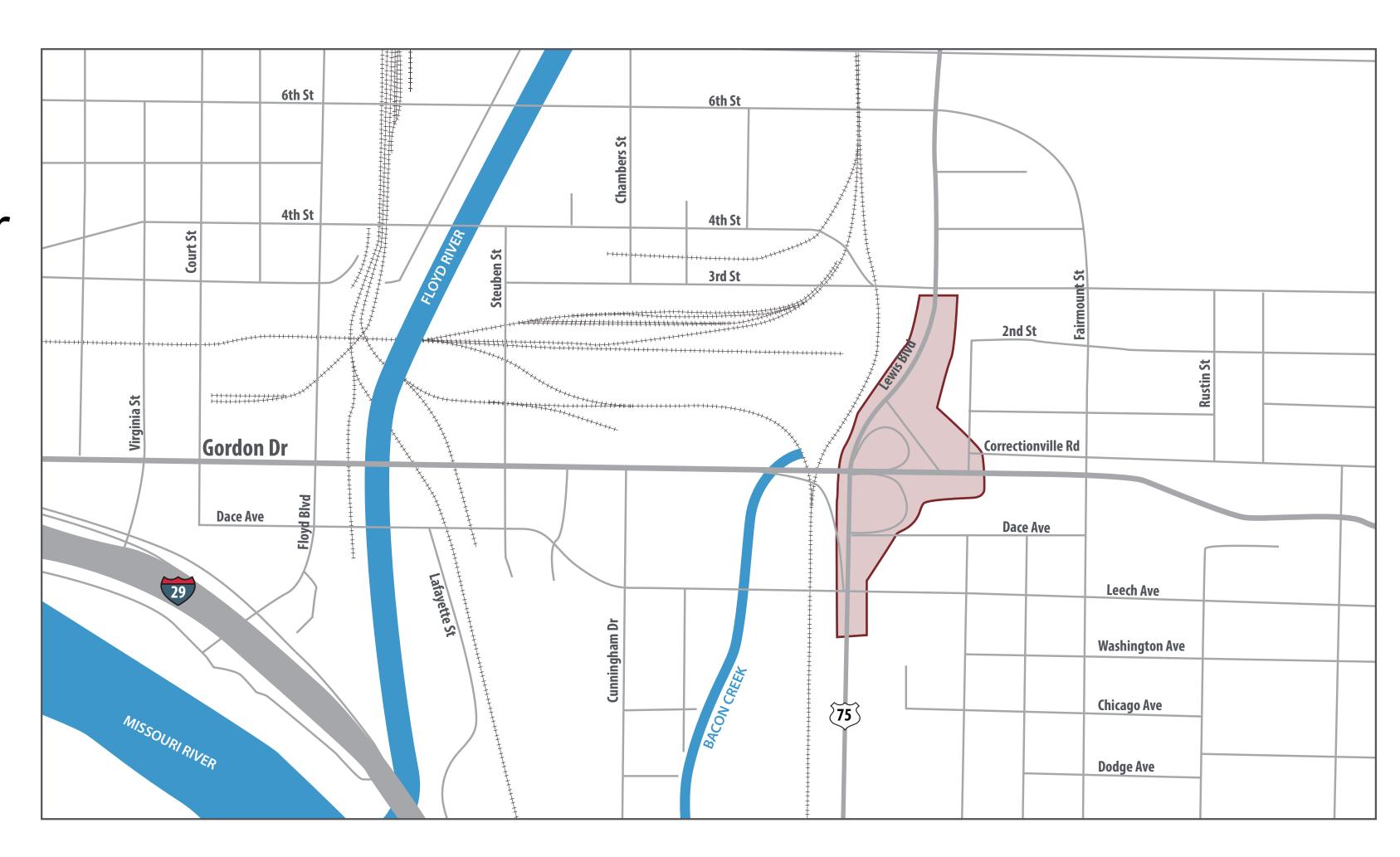




## LEWIS BOULEVARD JUNCTION AREA

# PARTIAL CLOVERLEAF INTERCHANGE ALTERNATIVE

This proposed replacement would be most similar to the existing Lewis Boulevard interchange but would eliminate the eastbound to southbound ramp, routing that traffic to the southeast quadrant loop and through a new signal at the intersection of Lewis Boulevard. This would simplify the interchange and save construction costs by eliminating a ramp bridge that is no longer needed due to changing traffic patterns.



CIOWADOT

#### NE QUADRANT INTERCHANGE ALTERNATIVE

This alternative features a connecting roadway between Gordon Drive and Lewis Boulevard in the northeast quadrant of the junction. In this alternative, vehicles turning from one roadway on to the other would pass through at-grade signalized intersections on both Gordon Drive and Lewis Boulevard.

#### AT-GRADE INTERSECTION ALTERNATIVE

This alternative would reconstruct the Lewis Boulevard interchange as an at-grade, or same level, signalized intersection, similar to other major intersections along Gordon Drive. Lewis Boulevard would be shifted to the east and its elevation increased through the intersection area to connect with Gordon Drive.



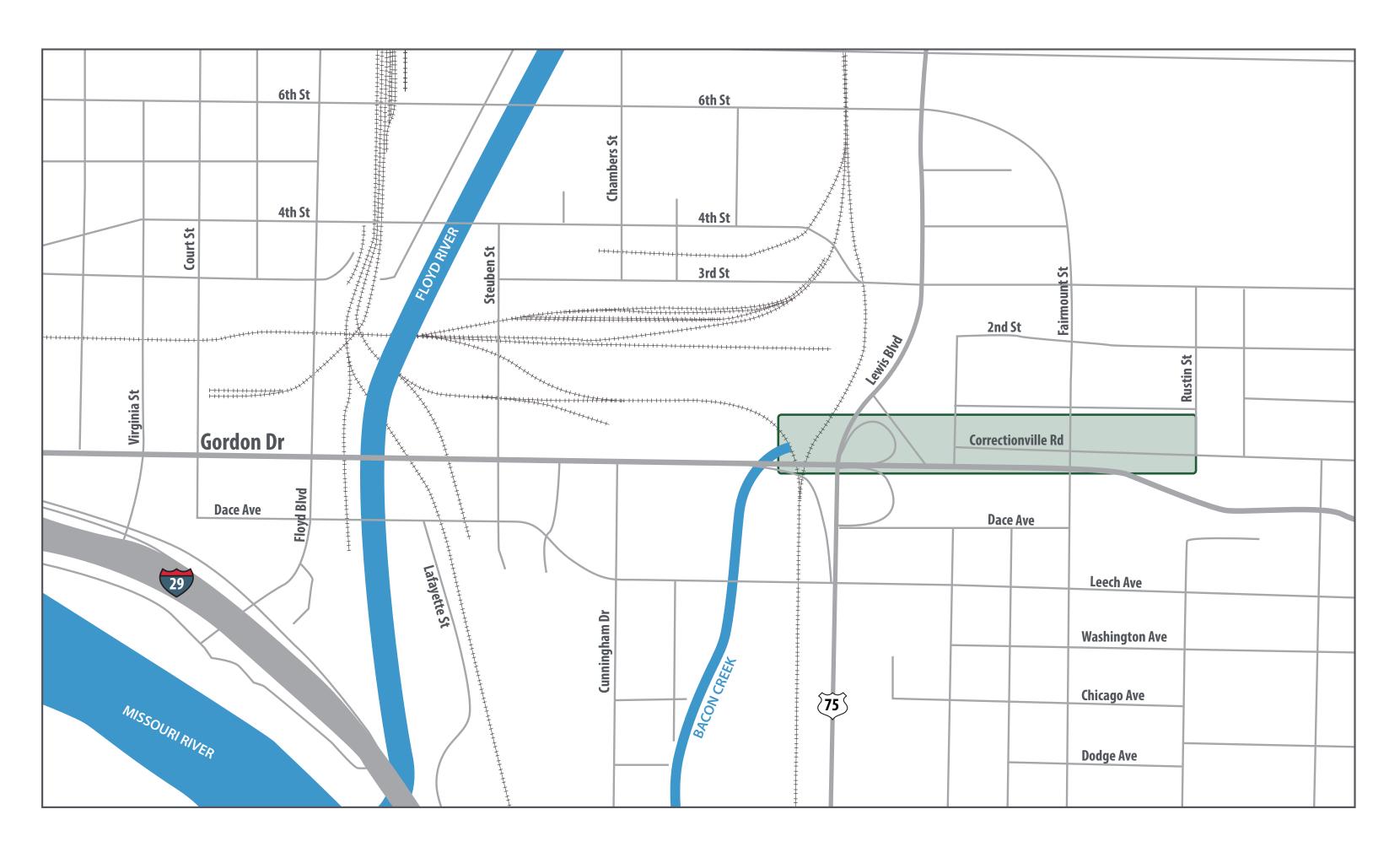
## BACON CREEK CONDUIT AREA

#### ON-ALIGNMENT

The proposed Bacon Creek Conduit would be constructed from its Rustin Street inlet to its outlet west of Lewis Boulevard in roughly the same location as the existing south Bacon Creek Conduit, which runs beneath Gordon Drive. Gordon Drive would be removed over the conduit and reconstructed when the new culvert is complete.

#### **OFF-ALIGNMENT**

The proposed Bacon Creek Conduit would be constructed from its Rustin Street inlet to its oulet west of Lewis Boulevard on a new alignment lying between Gordon Drive and Correctionville Road. Properties between Gordon Drive and Correctionville Road would be directly impacted by conduit construction.



#### PARTIAL REPLACEMENT

In a "Partial Replacement" scenario, the south barrel of the Bacon Creek Conduit system would be replaced with a somewhat larger structure. The combined capacity of the existing Bacon Creek center conduit, which would remain in service, and the new south conduit would convey all runoff in the upstream channel during a 100-year storm event. The existing south conduit would be removed in the On-Alignment Alternative and either removed or filled and abandoned in the Off-Alignment Alternative.

#### FULL REPLACEMENT

In a "Full Replacement" scenario, the combined capacity of the south and middle conduits would be replaced and expanded by a single larger Bacon Creek Conduit replacement. The total capacity of the larger conduit would convey all runoff in the upstream channel during a 100-year storm event. The existing south and center conduits could be removed or filled.





A combination of federal, state and local funds will be utilized to cover project costs. The DOT has programmed \$20.6 Million for ROW in 2027.



Gordon Drive Combined Alternative: \$118 - 144 Million

Bacon Creek Conduit Area: \$25-34 Million





### PROJECT SCHEDULE & NEXT STEPS

