

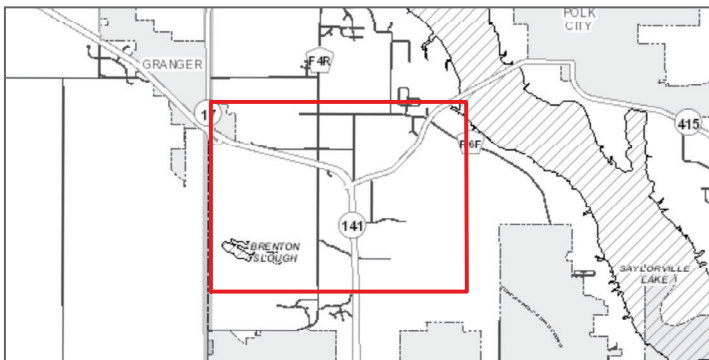
PUBLIC INFORMATION MEETING

IA141 CORRIDOR STUDY

WELCOME!

The purpose of this meeting is to update citizens and stakeholders on progress on the corridor study and alternative development and analysis. The previous public meeting held in March 2018 presented the corridor study area, the project goals and conceptual strategies. Public input was gathered regarding operational issues and the concepts presented. This public information meeting allows Polk County and the Iowa Department of Transportation (DOT) an opportunity to explain the studied alternatives including preliminary layouts and discuss pros and cons to the public and interested parties and allows the public to express their opinions and ask questions regarding the project. Feedback from this meeting will be used to inform project development decisions.

PROJECT STUDY AREA



CONCEPT REPORT OVERVIEW

Polk County and Iowa DOT have partnered to review traffic operations, safety history and consideration of future goals for the IA 141 corridor. The study is in response to traffic growth in portions of the corridor segments, crash history and severity at intersections, and land use change.

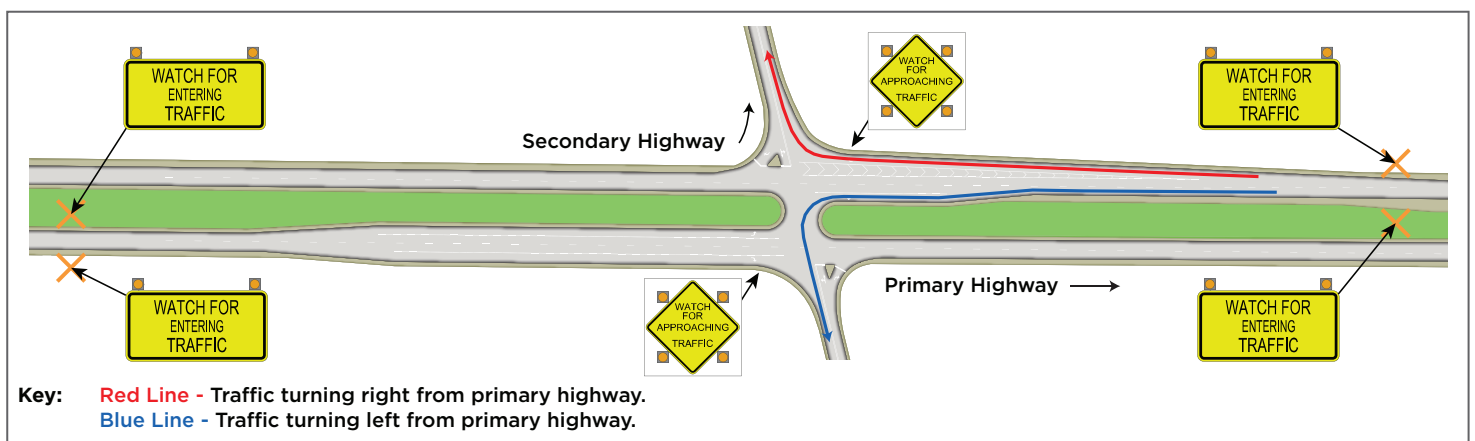
The primary purpose of this project is to address safety concerns related to the elevated crash rate at the Iowa 141 and NW 121st Street Intersection. This intersection is ranked #23 statewide on the Iowa DOT Safety Improvement Candidate Location list. Additionally, this intersection was studied to address operational issues. Four alternatives were developed and analyzed with respect to project goals.

Further, the intersection of Iowa 415 and NW Beaver Drive was studied to improve operational issues and decrease delay at this location. Alternatives include the construction of a roundabout or a traffic signal at this location.

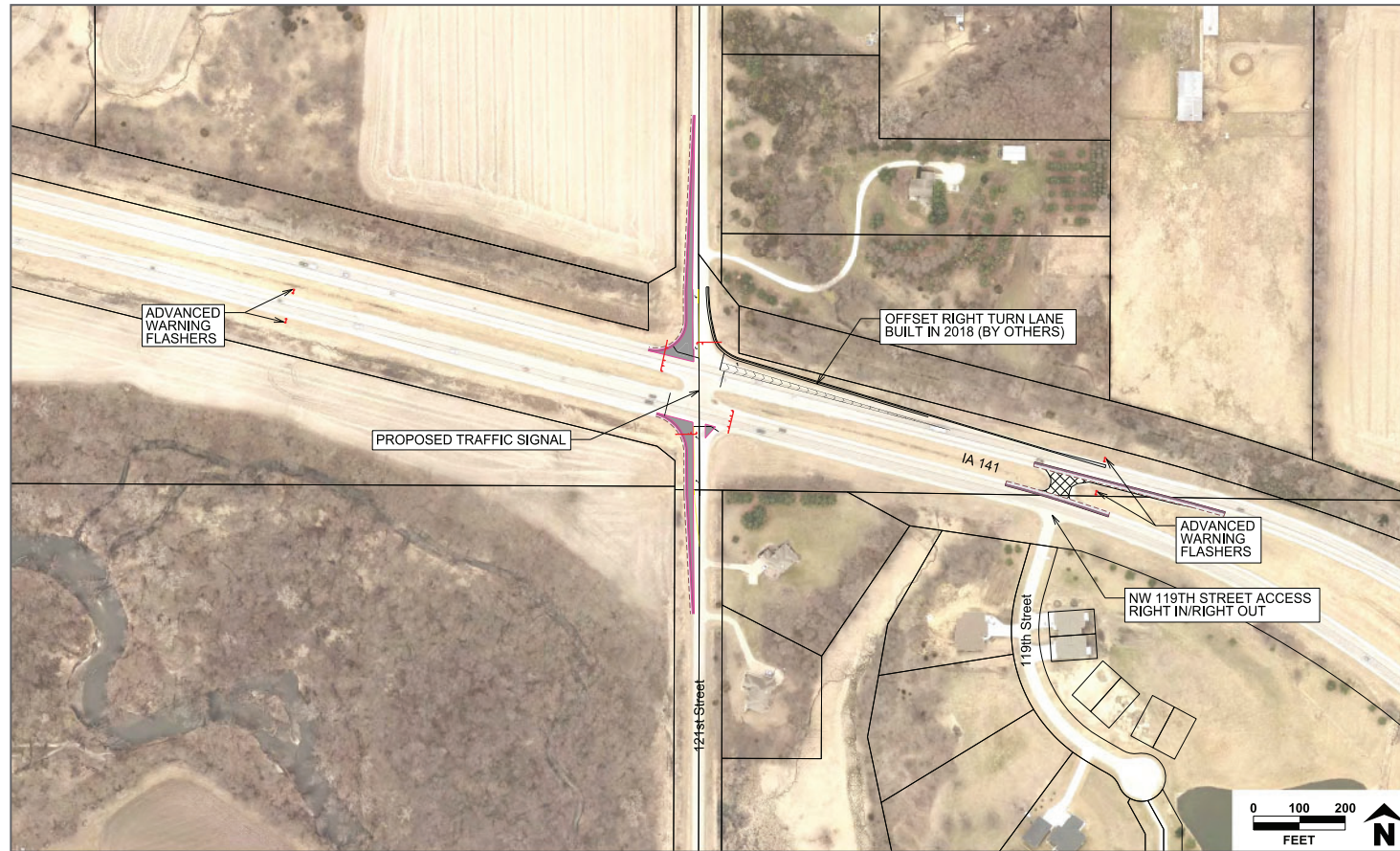
2018 INTERSECTION IMPROVEMENTS

Intersection Collision Warning System (ICWS) and Westbound Offset Turn Lane

*In advance of long term improvements contemplated by this study, the Iowa DOT has completed the construction of the offset right turn lane and is working to complete the installation of the intersection collision warning system at NW 121st and IA 141 in 2018.



ALTERNATIVE 1 SIGNAL AT NW 121ST STREET AND IA 141

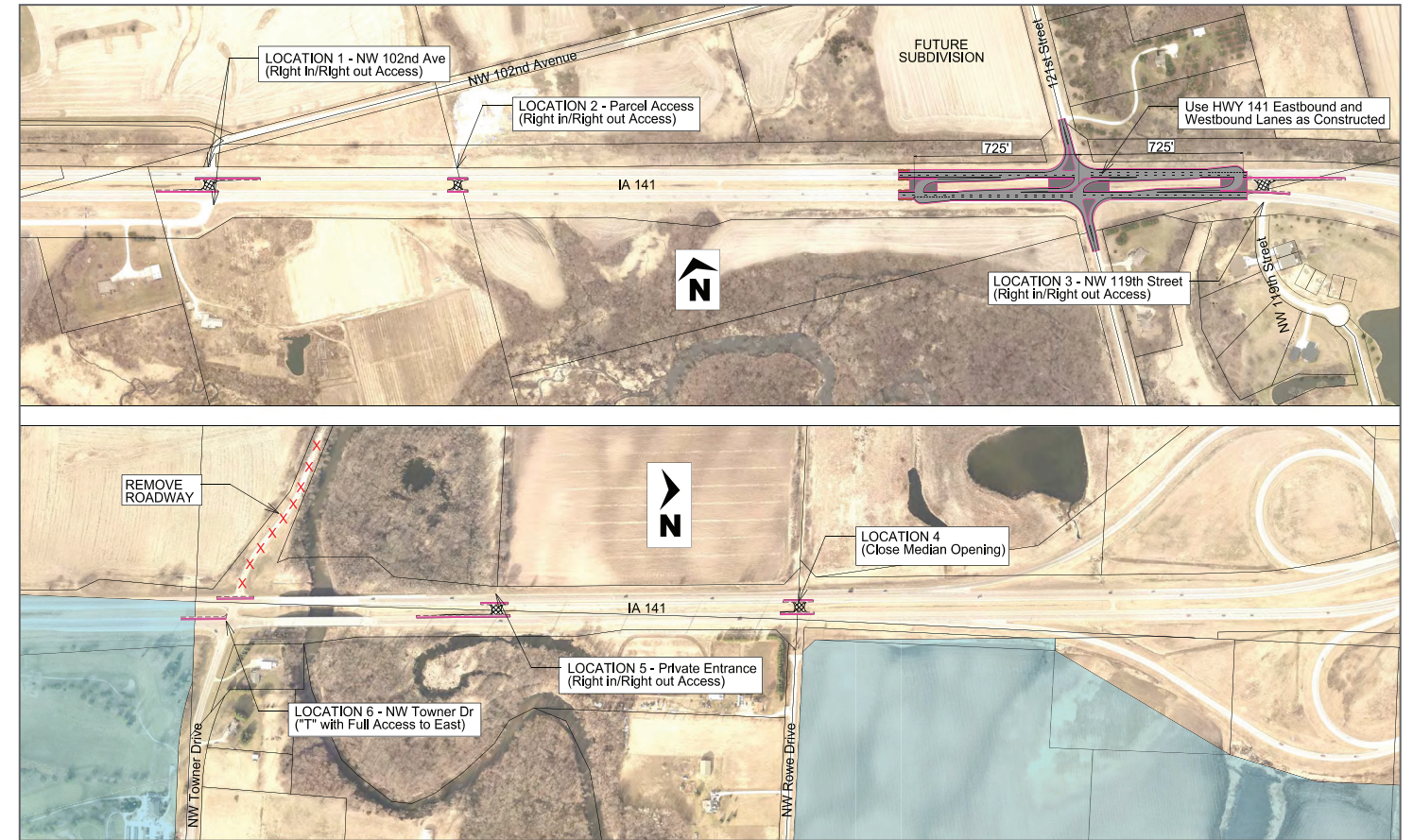


PROS
Acceptable intersection delays.
Provides good local access.
Minimal to no right-of-way needs.
Less traffic impact during construction.
Lowest cost alternative.

CONS
Safety concerns for signalized intersection on high speed roadway near an interchange and a horizontal curve. (High speed rear-end collisions)
Intersection location does not meet Access Management Manual criteria for spacing from adjacent westbound entrance ramp taper. (1770' existing vs 2640' recommended for major intersections)
Signal and spacing from interchange not consistent with driver expectations. (Lacks corridor continuity)
Intersection spacing from westbound entrance ramp taper to NW 119th Court does not meet Access Management Manual criteria for spacing between minor intersections. (950' existing vs 1320' recommended)
Elevated risk of high-speed high-severity crashes.

ESTIMATED COST **\$700,000**

ALTERNATIVE 2 J-TURN AT NW 121ST STREET

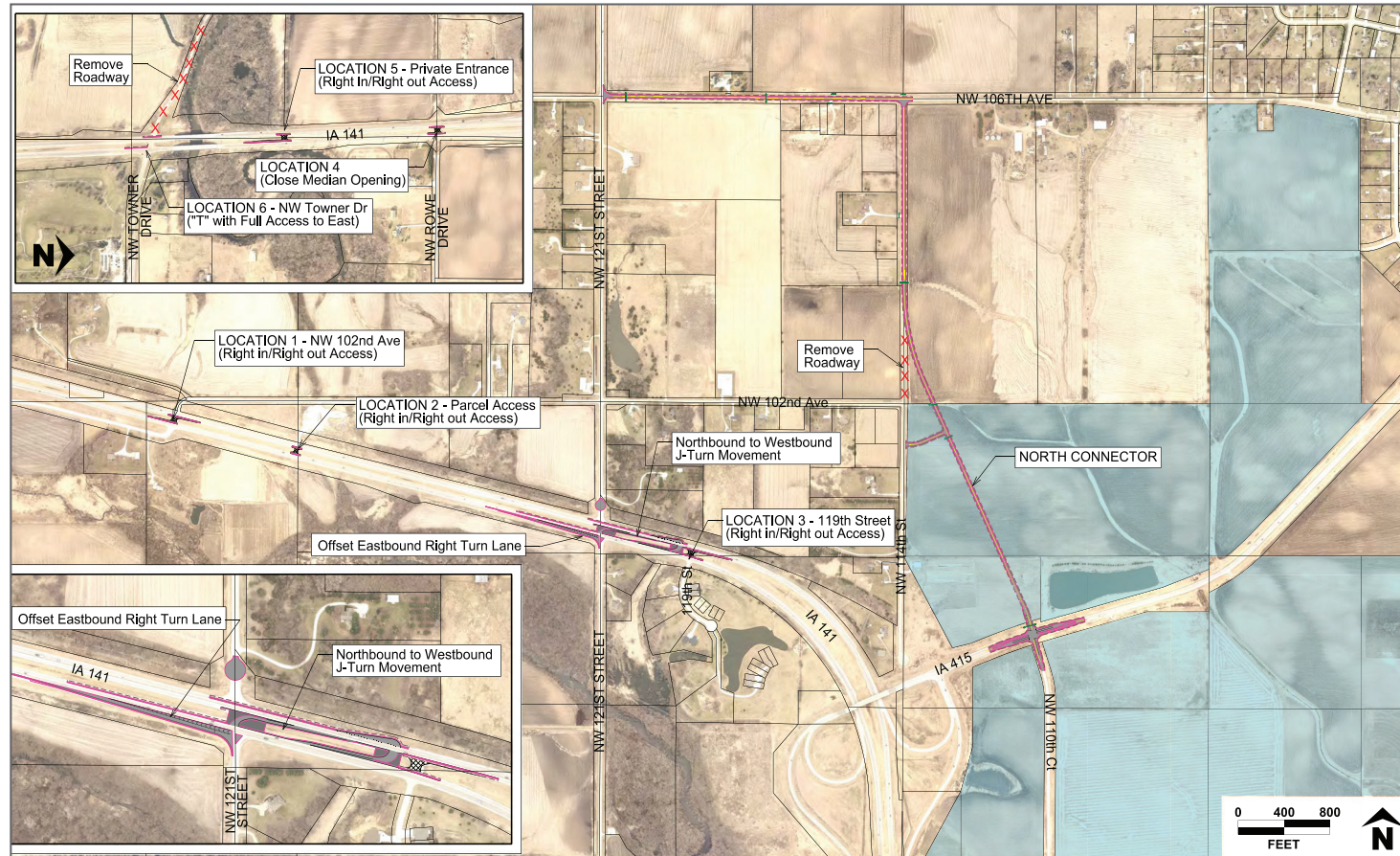


PROS
Improved safety compared to existing conditions or traffic signal.
Provides good local access.
Moderately low cost.

CONS
Intersection spacing from westbound entrance ramp taper to NW 119th Court does not meet Access Management Manual criteria for spacing between minor intersections. (950' existing vs 1320' recommended)
East U-turn movement close to 119 th Court intersection.
Potentially confusing for drivers.
The east U-turn movement close to IA 141 curve and 1045' from westbound entrance ramp taper.

ESTIMATED COST **\$2,030,000**

ALTERNATIVE 3 NORTH CONNECTOR AND CLOSURE OF NW 121ST STREET NORTH LEG



PROS
Reduced conflicts at NW 121 st Street intersection.
Provides good local access to area south of IA 141.
Supports development of future residential areas adjacent to North Connector.
Improved safety with other median closures.
Improved safety with closure of west leg of NW Towner Drive intersection at IA 141.
Maximizes safety for gaining access to/from IA 141 from/to local street network by utilizing the interchange.
Improved safety at IA 141/121 st Street intersection as compared to existing conditions or traffic signal.

CONS
The east U-turn movement close to IA 141 curve and 1045' from westbound entrance ramp taper.
Project will take longer to complete. (est. 5-10 years)
Potential traffic pattern impacts to residential areas along the North Connector Road and NW 106 th Ave."
Potential environmental and right-of-way impacts associated with this alternative.

ESTIMATED COST **\$7,750,000**

ALTERNATIVE 4 IA 141/415 CORRIDOR FULL BUILD

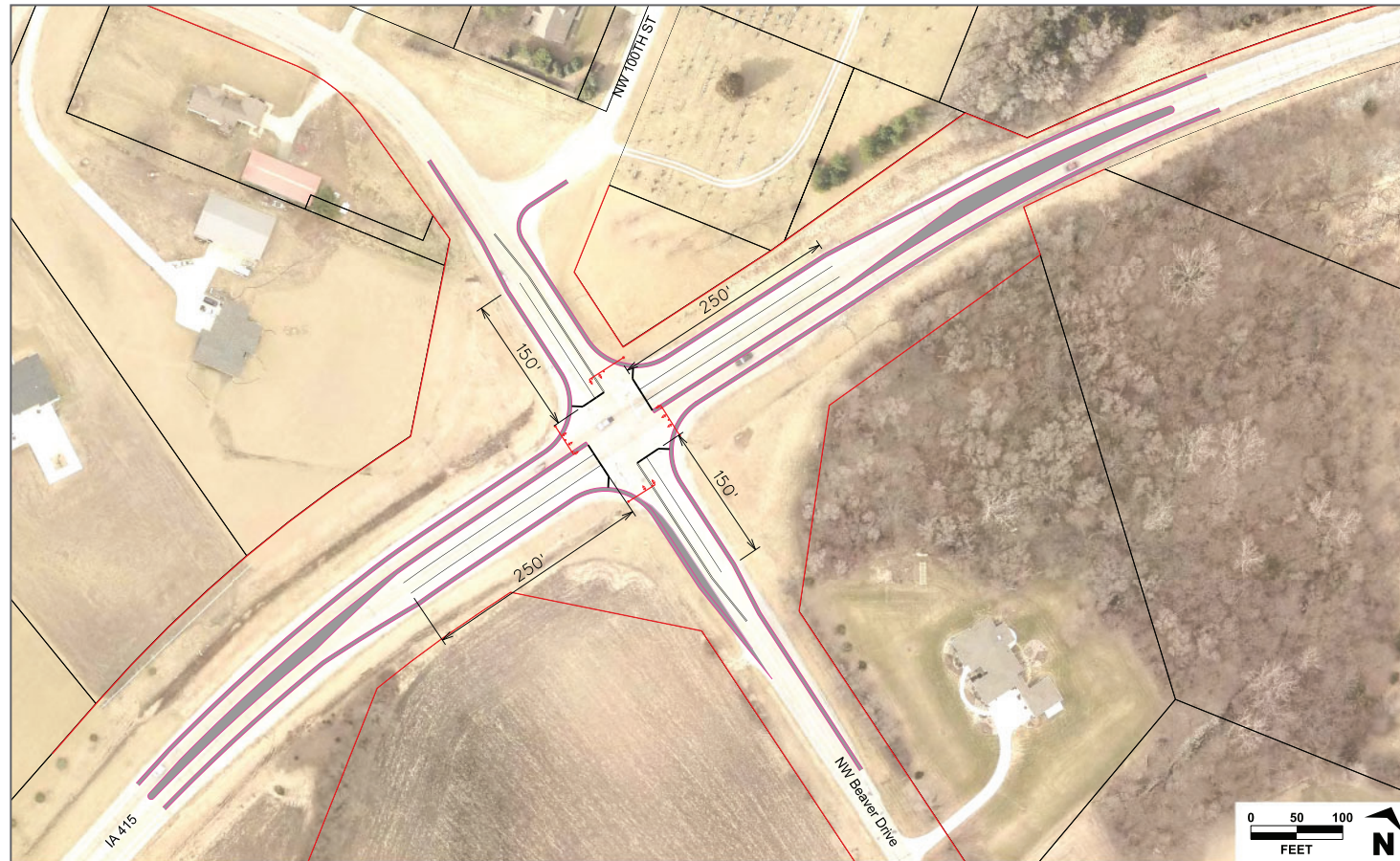


PROS
Improves safety at the IA 141 intersection with NW 121 st Street.
Provides good local access that supports increasing traffic volumes.
Improves intersection spacing within the IA 141 Corridor.
Greatly improves corridor continuity and driver expectations.
Maximizes safety for gaining access to/from IA 141 from/to local street network by fully utilizing the interchange.
Improves access to the 119 th Street Corridor.

CONS
High cost.
Project will take longer to complete. (est. 5-10 years)
Additional environmental impacts associated with crossing Beaver Creek west of IA 141.
Potential traffic pattern impacts to residential areas along the North Connector Road and NW 106 th Ave."
Potential environmental and right-of-way impacts associated with this alternative.

ESTIMATED COST **\$14,600,000**

ALTERNATIVE A TRAFFIC SIGNAL IA 415 & NW BEAVER INTERSECTION



PROS
Significantly reduces delays compared to existing all-way STOP (currently LOS E/F for EB and WB approaches).
Slightly reduced peak hour delays compared to roundabout.
Minimal to no right-of-way impacts.
Lower cost than roundabout.

CONS
Reduced safety compared to roundabout.
Increased predicted crash rate over four-way stop.
Intersection is not currently ranked high on the Statewide Safety Improvement Candidate List. (Statewide: #25,022 of 170,000 intersections. Polk County: 75 of top 200 intersections on the list are in Polk County)

ESTIMATED COST **\$920,000**

ALTERNATIVE B ROUNDABOUT IA 415 & NW BEAVER DRIVE



PROS
Significantly reduced delays compared to existing all-way STOP (Currently LOS E/F for EB and WB approaches).
Improved safety compared to traffic signal.
Minimal to no right-of-way impacts.
Reduced off-peak hour delays compared to traffic signal.

CONS
Higher cost than a traffic signal.
Slightly increased peak hour delay compared to traffic signal.
Intersection is not currently ranked high on the Statewide Safety Improvement Candidate List. (Statewide: #25,022 of 170,000 intersections. Polk County: 75 of the top 200 intersections on the list are in Polk County.)

ESTIMATED COST **\$1,950,000**

