
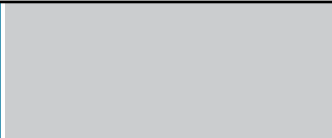


I-35/I-80/I-235 Northeast Mixmaster
System Interchange Transformation

HDR **IOWA DOT**

September 28, 2022

01 Project History **04** In the Program
02 Build Alternative **05** Beyond the Program
03 Stage Construction

01 Project History



Project Purpose and Need

PROJECT APPROACH

Guiding Principles

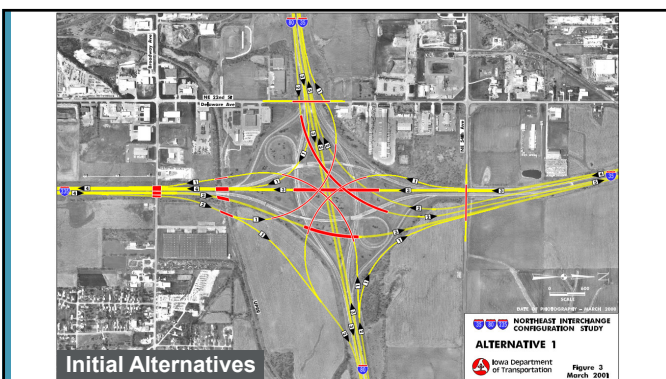
NB-235 to WB-80 loop remain in place

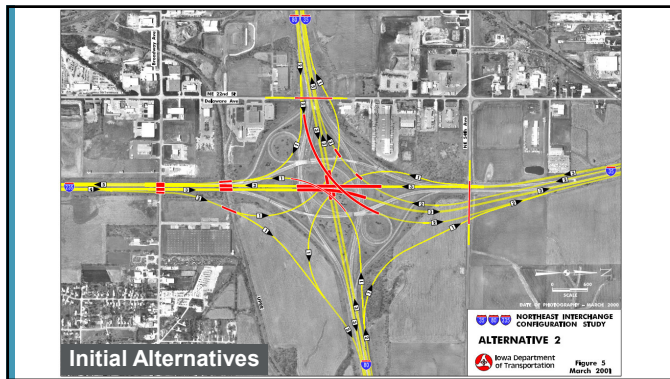
Prioritize Movements on I-80, I-35 & I-235

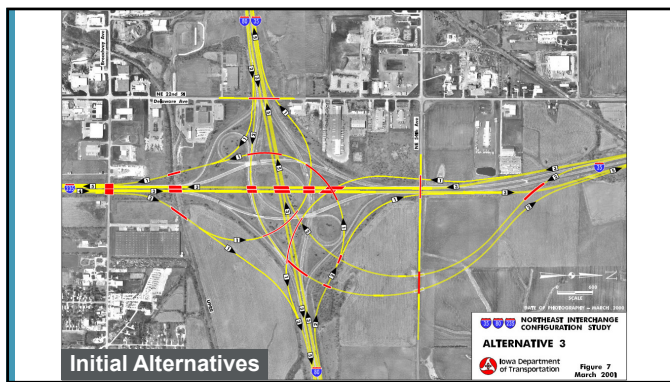
Mainline movements 70mph -
directional ramp 60mph design speed

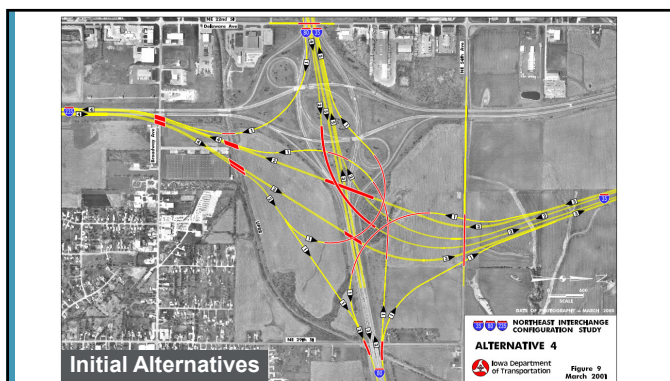
Maintain 6 basic lanes in core of the interchange

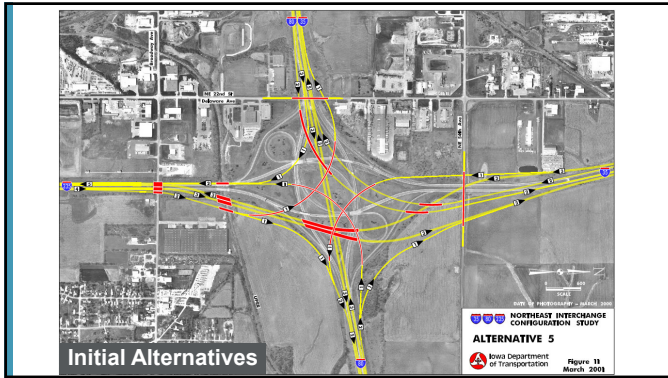
Lane balance provided for all mainline movements

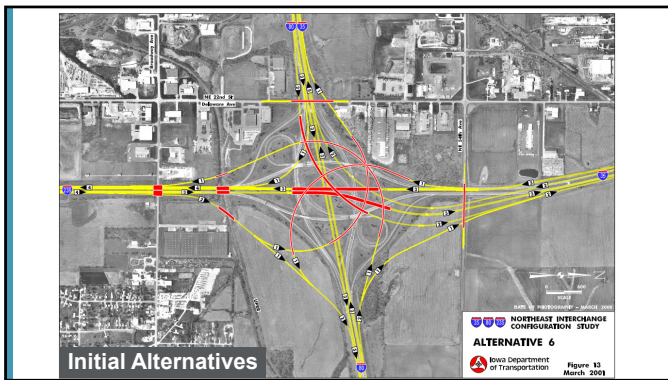


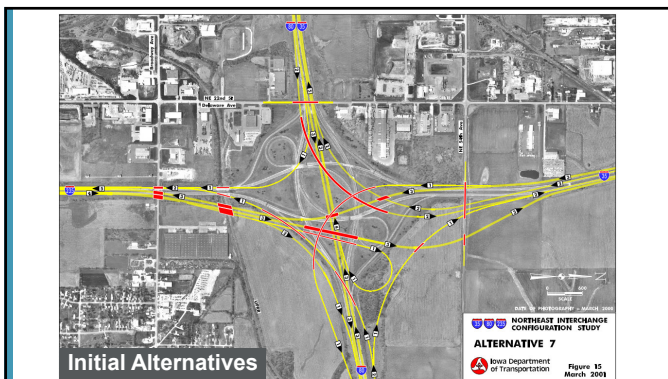


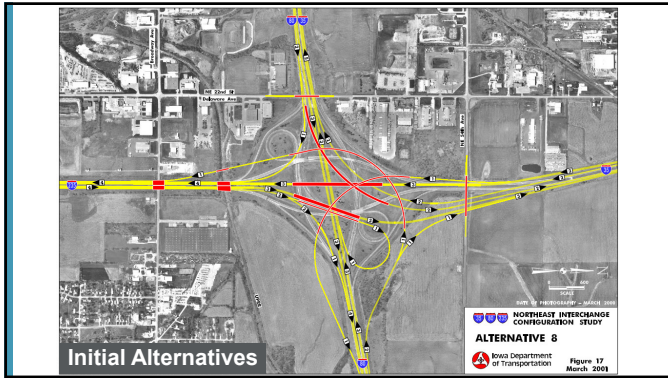


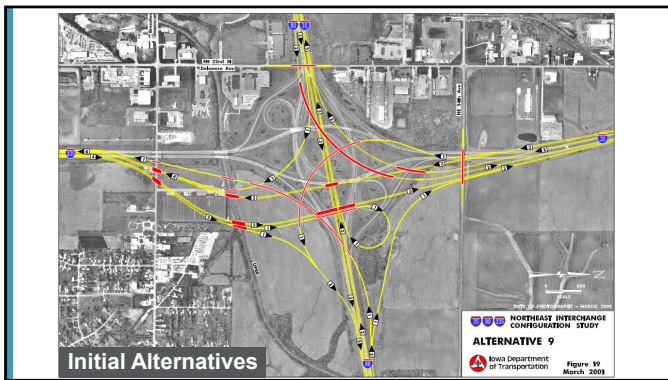


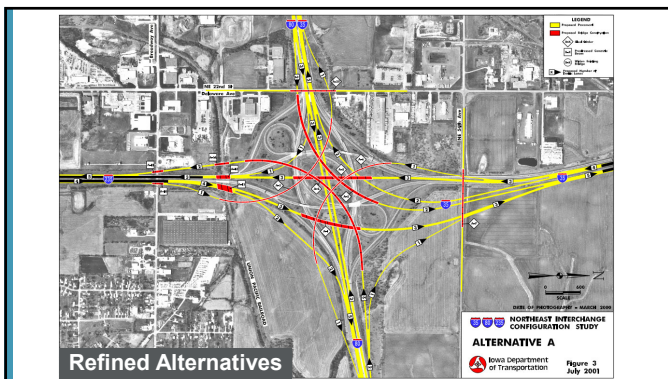


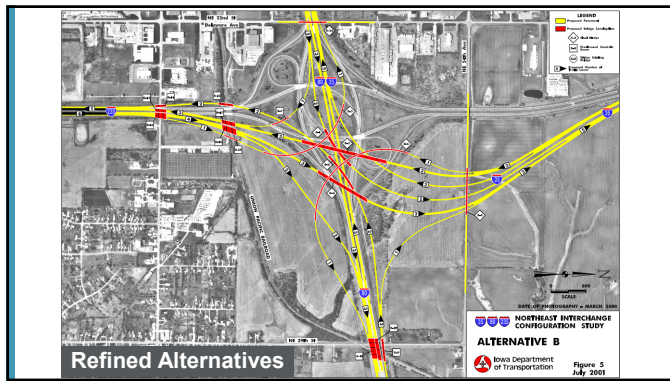


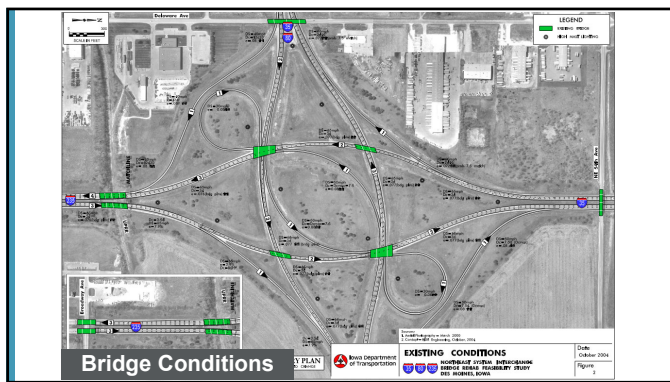


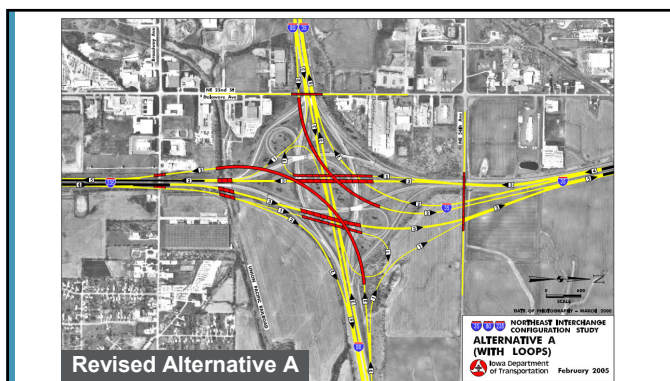


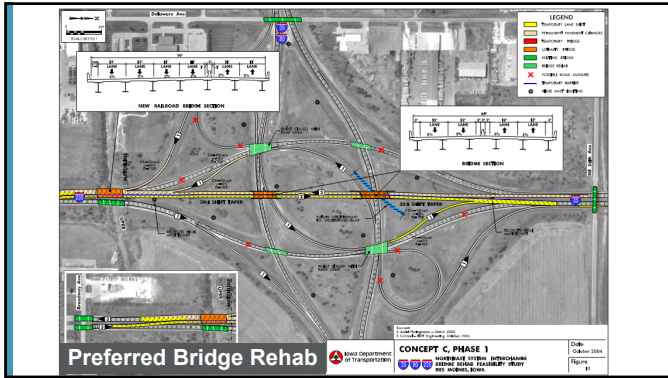


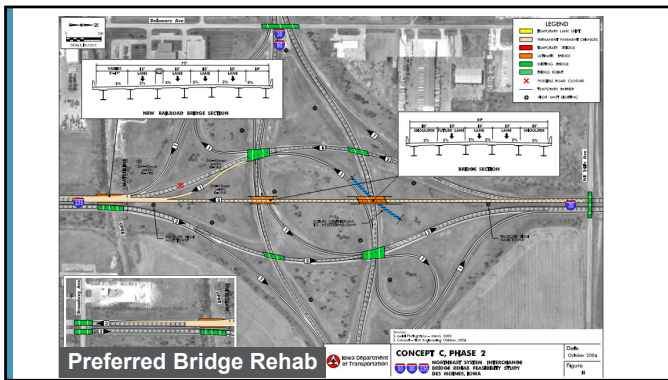


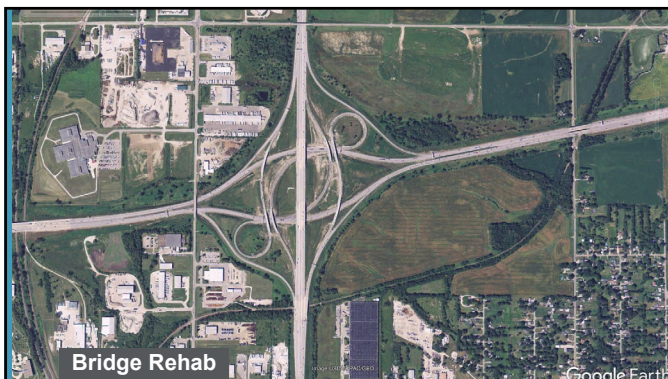












BUILD ALTERNATIVE UPDATE (Part 2B)

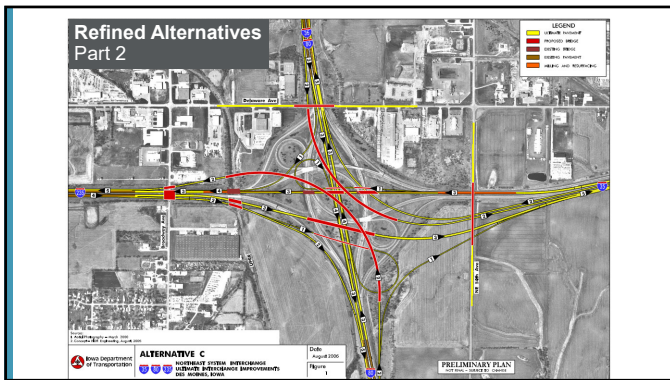
Late 2005

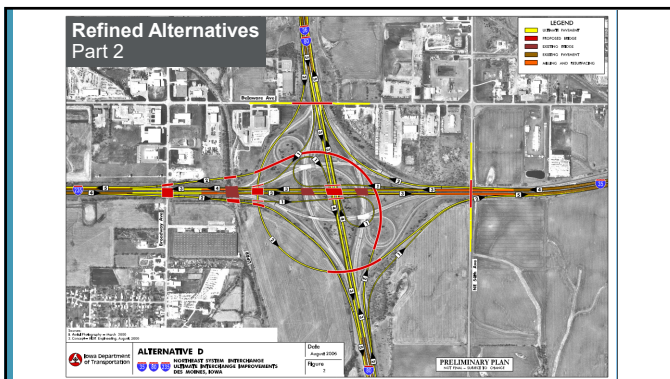
Goal build from 2001 alternatives A & B

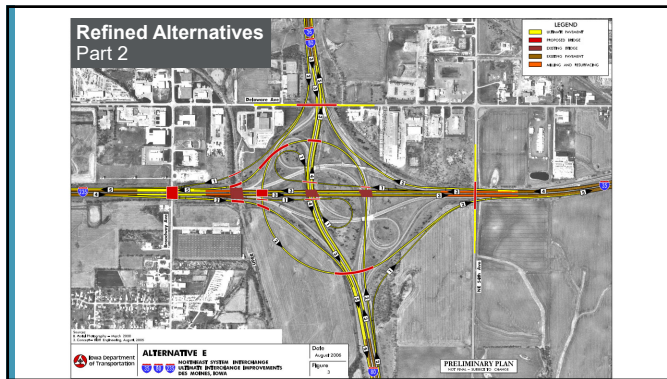
Used same guiding principles

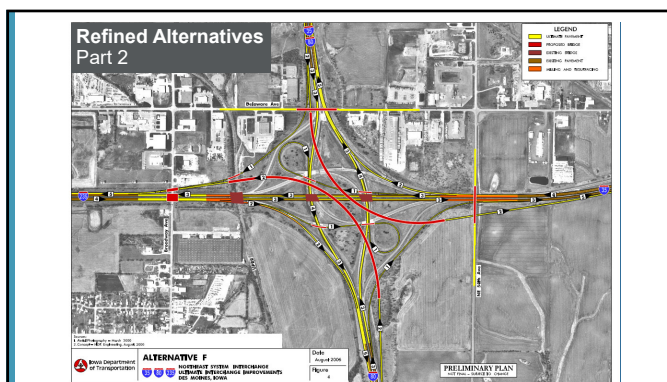
Develop additional alternatives that incorporates loops in the SB to EB and NB to WB I-80 movements

Alternatives that utilize proposed SB I-235 bridges down the middle







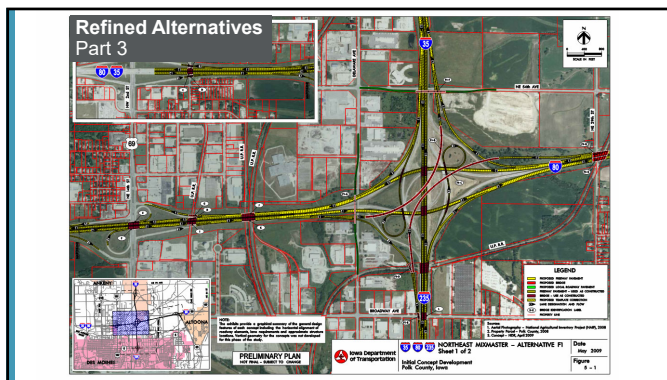


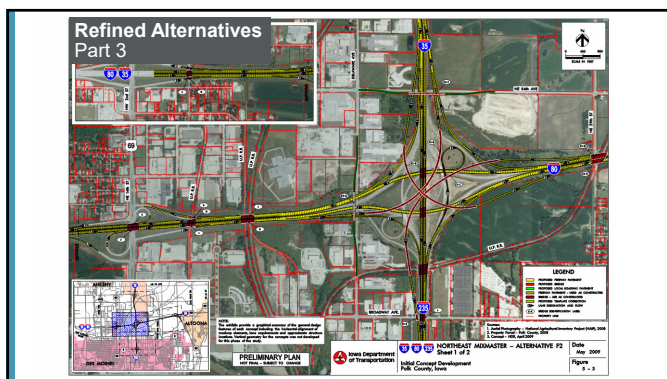
02

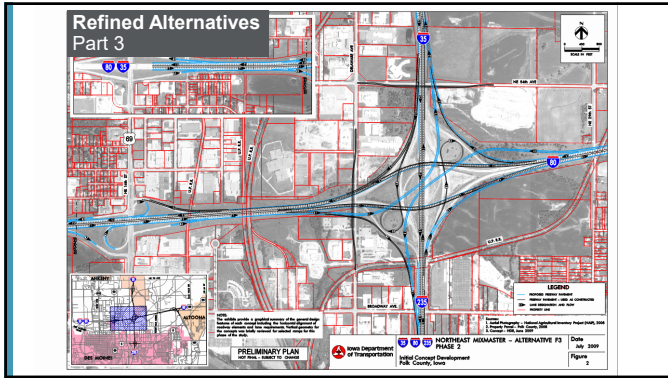
Build Alternative

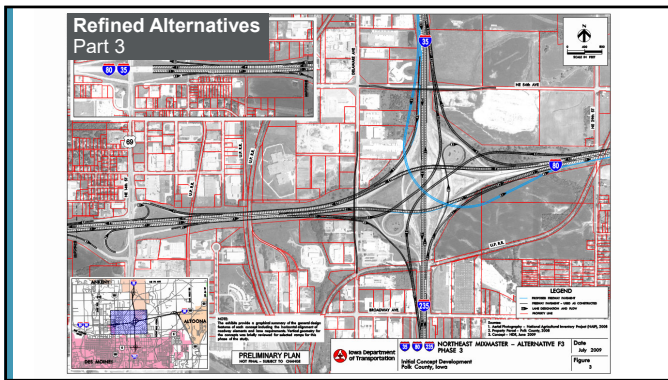
BUILD ALTERNATIVE UPDATE (Part 3)

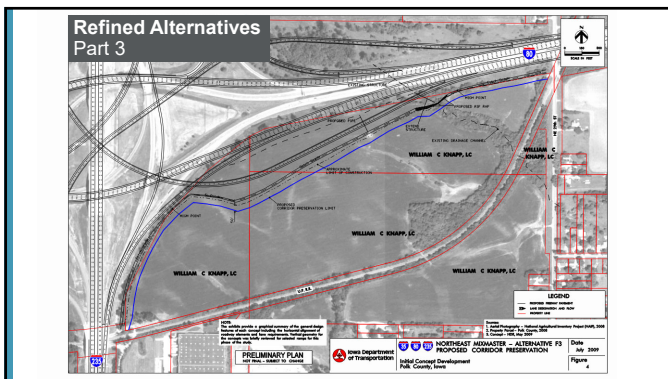
- 2008
- Development pressure in the SE quadrant
- Alternatives developed in 2005 were 2D only – additional detail
- Build off previous Alternative F
- Utilize the 6 new ramp bridges and I-235 bridges over 80 into future build as much as possible
- Consider staging in the geometrics to be phased over time due to funding
- Goal to have Corridor Preservation Zone established
- Due to increase in traffic Build Alternative to accommodate future expandability
- 5 basic-lanes in each direction on all four legs (does not include auxiliary lanes)
- 4-lanes in each direction on I-80 in core of the interchange
- 3-lanes in each direction on I-235 in core of the interchange
- 2-lanes on all flyover ramps
- Flipped shoulder width for inside shoulder to be wider and maintain sight distance in the curve on the bridge











BUILD ALTERNATIVE UPDATE (Part 4)

2013

Preliminary Design

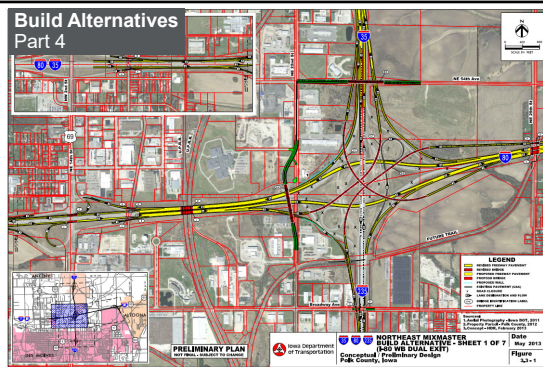
Confirm ultimate interchange geometrics to support replacing NE 54th Ave (2016) and NE 22nd St (2017) lettings

Alternative F3 as bases for design

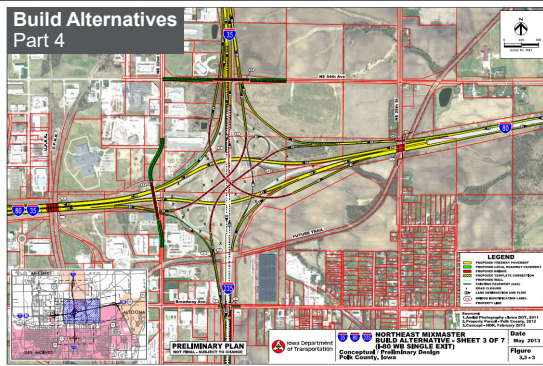
Primary differences to NE 54th (on alignment) and NE 22nd Ave (off alignment)

2 Variations

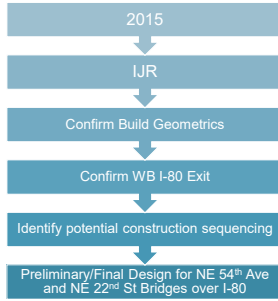
Build Alternatives Part 4



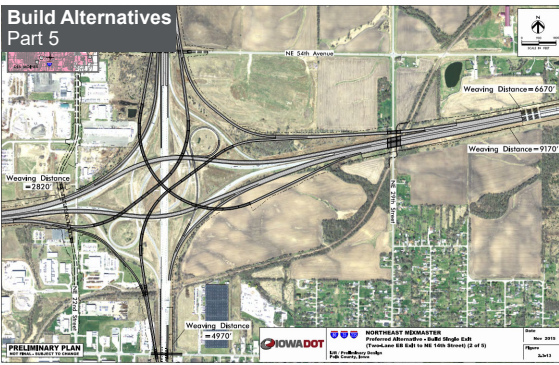
Build Alternatives Part 4



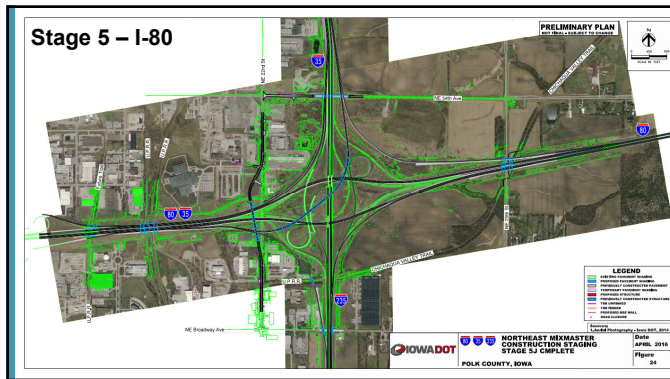
BUILD ALTERNATIVE UPDATE (Part 5)

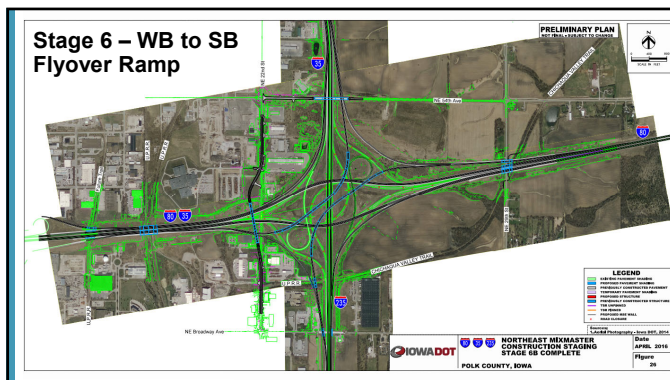


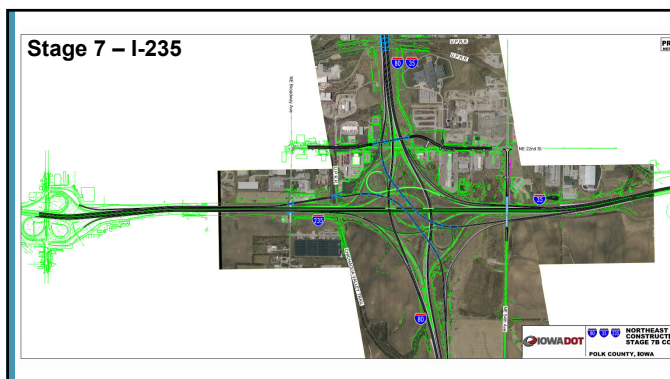
Build Alternatives Part 5

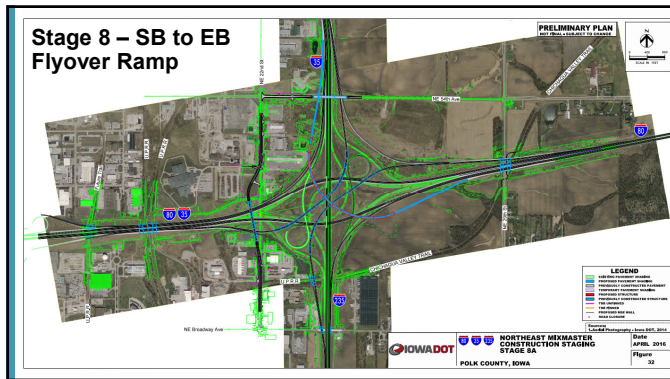


03 Stage Construction

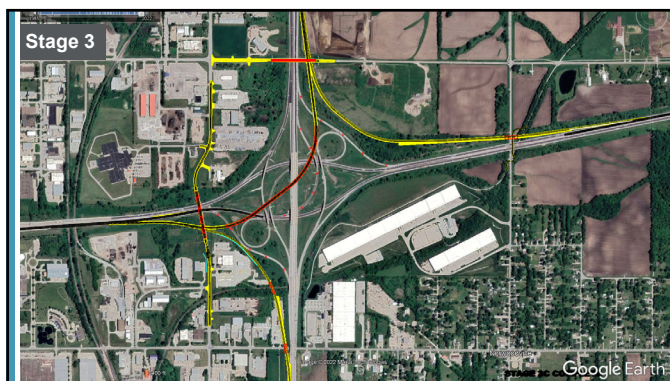




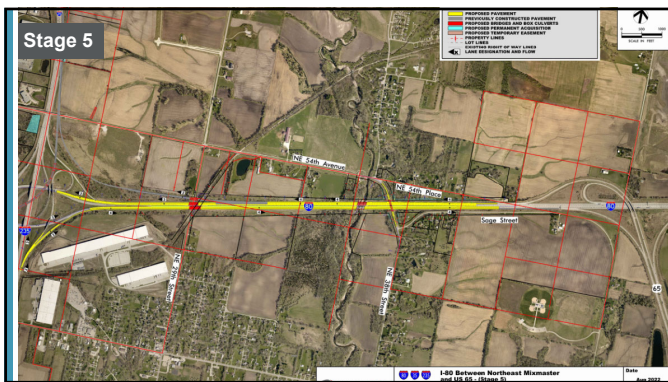








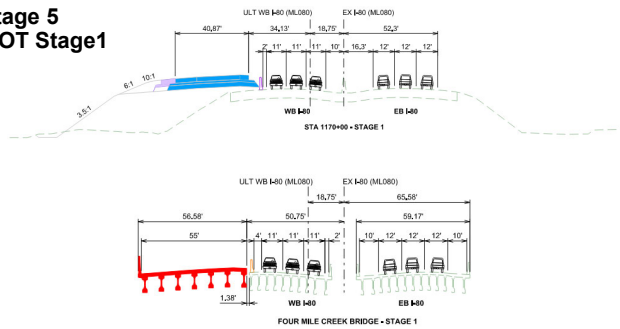




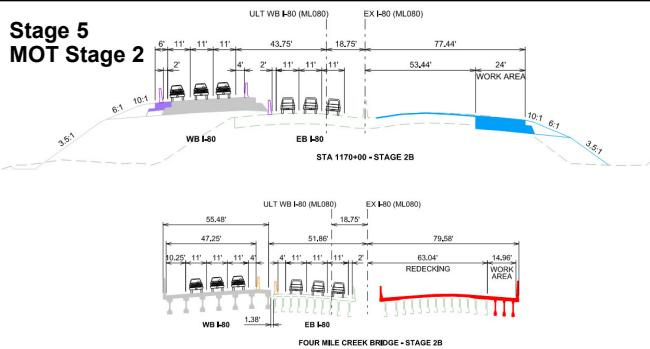
STAGE 5

- Goal to maintain existing lanes during construction (3-lanes in each direction)
- 29th St and Fourmile Creek existing bridges does not allow to maintain 3-lanes and widen the bridges
- Centerline shift of about 19' north to maintain 3-lanes of traffic during construction
- Add capacity on I-80 by widening 1 lane in both EB and WB direction to 4-basic lanes
- US 65 WB merge adds fourth lane in the WB Direction
- NB 235 to EB I-80 Ramp converted to 2-lane ramp and merge with EB I-80
- Due to bridge conditions over 29th St and 4-mile Creek both will be widened and redecked
- EB I-80 will be overlaid at the same time.

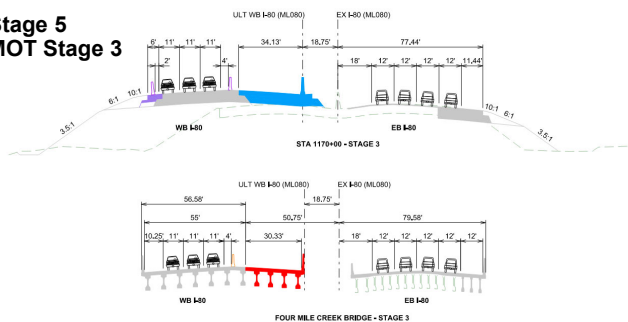
Stage 5 MOT Stage1

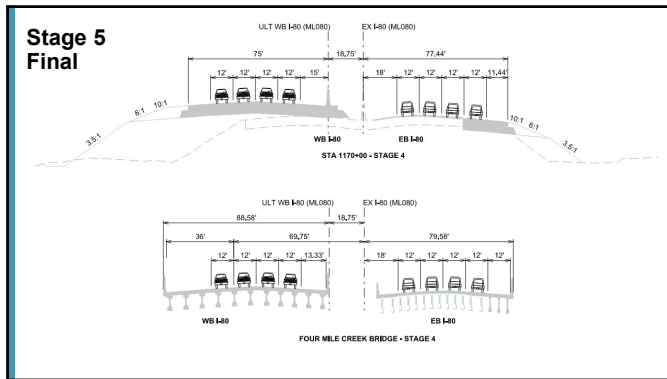


Stage 5 MOT Stage 2



Stage 5 MOT Stage 3





05 Beyond the Program

