


COUNCIL COMMUNICATION

	Number:	21-058	Meeting:	February 8, 2021
	Agenda Item:	8	Roll Call:	[]
	Submitted by:	Steven L. Naber, P.E., City Engineer and Jonathan A. Gano, P.E., Public Works Director		

AGENDA HEADING:

Approving and authorizing the execution of Iowa Department of Transportation (IDOT) Agreements for resurfacing with milling of Merle Hay Road (U.S. Highway 6) from Hickman Road to Douglas Avenue and Douglas Avenue (U.S. Highway 6) from Merle Hay Road to the Des Moines River.

SYNOPSIS:

Recommend approval and authorizing the execution of two (2) IDOT Agreements:

- IDOT Agreement No. 2021-6-069 for Douglas Avenue (U.S. Highway 6) from Merle Hay Road to the Des Moines River will construct hot mix asphalt resurfacing utilizing IDOT funds, at an estimated cost of approximately \$2,050,000. As requested by the City, this project includes constructing the Pilot Project converting Douglas Avenue from Merle Hay Road to Lower Beaver Road from a 4-lane cross section to a 3-lane cross section. The City will be responsible for the costs of sanitary and storm sewer manhole adjustments and spot replacement of curb and gutter within City limits from Merle Hay Road to the Des Moines River, estimated to be \$334,355.
- IDOT Agreement No. 2021-6-070 for Merle Hay Road (U.S. Highway 6) from Hickman Road to Douglas Avenue will construct hot mix asphalt resurfacing utilizing IDOT funds, at an estimated cost of approximately \$1,100,000. The City will only be responsible for the costs of sanitary and storm sewer manhole adjustments and spot replacement of curb and gutter within City limits from Hickman Road to Douglas Avenue, estimated to be \$228,996.

FISCAL IMPACT:

Amount: \$563,351

Funding Source: 2020-2021 CIP, \$500,000 Street - 6, Douglas Avenue Merle Hay Road to Lower Beaver Road; and the remaining \$63,351 in Storm Water Utility Funds.

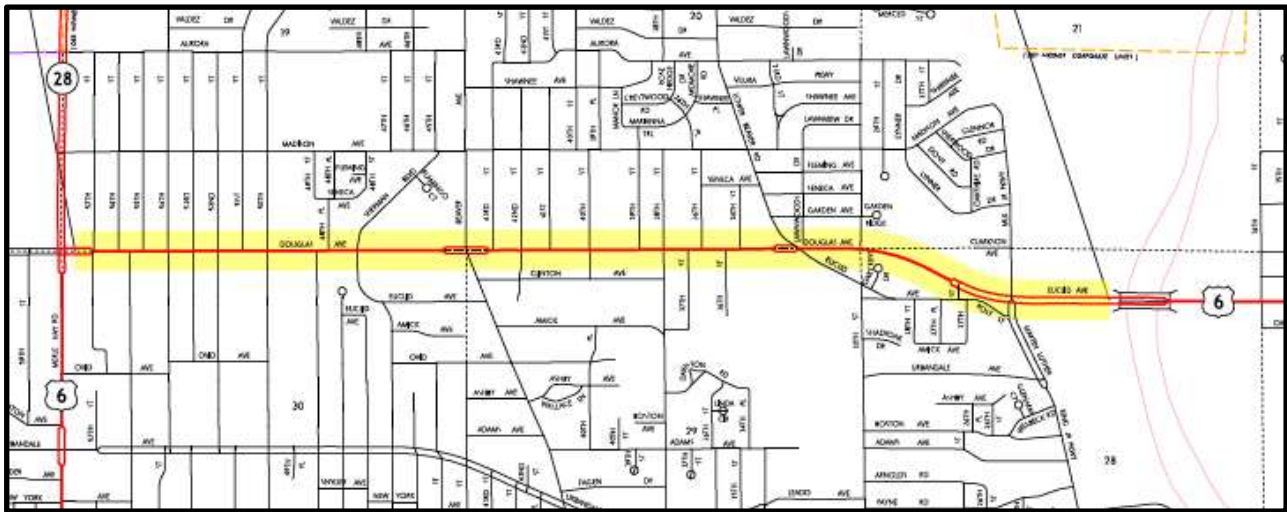
If, at the end of 2023, the Pilot Project is not found to be successful as defined by the proposed Pilot Project Evaluation Criteria set by the City and approved by IDOT, the City will be responsible for making any necessary revisions to the project and/or re-striping Douglas Avenue back to its 4-lane cross section by the end of 2024.

ADDITIONAL INFORMATION:IDOT Agreement No. 2021-6-069 Douglas Avenue (U.S. Highway 6) from Merle Hay Road to the Des Moines River

- Douglas Avenue between Merle Hay Road and Lower Beaver Road is currently a 4-lane cross-section (two {2} westbound lanes and two {2} eastbound lanes). Douglas Avenue includes left-turn lanes at the intersections of Merle Hay Road, Beaver Avenue, and Lower Beaver Road.
- The Douglas Avenue Coalition completed a corridor plan in February 2020. The goal of the corridor plan was to create a vision for the Douglas Avenue corridor from Merle Hay Road to Martin Luther King Jr. Parkway. The corridor plan proposes Douglas Avenue from Merle Hay Road to Lower Beaver Road be converted to a 3-lane cross-section with the goals of improving vehicle and pedestrian safety by calming traffic and generating additional economic development along the corridor.
- A traffic study, completed by a traffic engineering consultant as part of the corridor plan, identified the crash rate over the past five (5) years for the corridor from Merle Hay Road to Lower Beaver Road to be over three (3) times the statewide average for similar corridors.
- The traffic study indicated that overall level of service and delay at the signalized intersections would remain similar between the existing geometry and the 3-lane Pilot Project with existing traffic volumes. Because the existing intersection geometry at Merle Hay Road, Beaver Avenue, and Lower Beaver Road will remain the same through the Pilot Project and into the future, these intersections are projected to operate like the existing conditions.
- The signalized intersections of 38th Street and 50th Street will be converted from a 4-lane cross-section (with no exclusive left turn lanes) to a 3-lane cross-section (with exclusive left-turn lanes). With existing traffic volumes, there is expected to be increased queuing at these intersections in the peak hours; however, the level-of-service at these intersections is expected to remain at an acceptable level.
- Based on 2040 projected traffic volumes, traffic operations are anticipated to degrade along the corridor regardless if the corridor remains four (4) lanes or if it is converted to three (3) lanes. With the anticipated future reduction in level of service along Douglas Avenue, traffic diversion to parallel routes, particularly Madison Avenue, may occur during peak times.
- In response to the completed corridor study and the request of the Douglas Avenue Coalition, City staff prepared a Proposal for a Pilot Project, which converts Douglas Avenue from Merle Hay Road to Lower Beaver Road to a 3-lane cross-section (one {1} westbound lane, one {1} eastbound lane, and a center continuous 2-way left-turn lane). The existing geometry at the intersections of Merle Hay Road, Beaver Avenue, and Lower Beaver Road includes a 5-lane cross-section and will remain as currently configured. The Pilot Project improvements would be accomplished with pavement markings and signage as part of a planned resurfacing project by the IDOT.

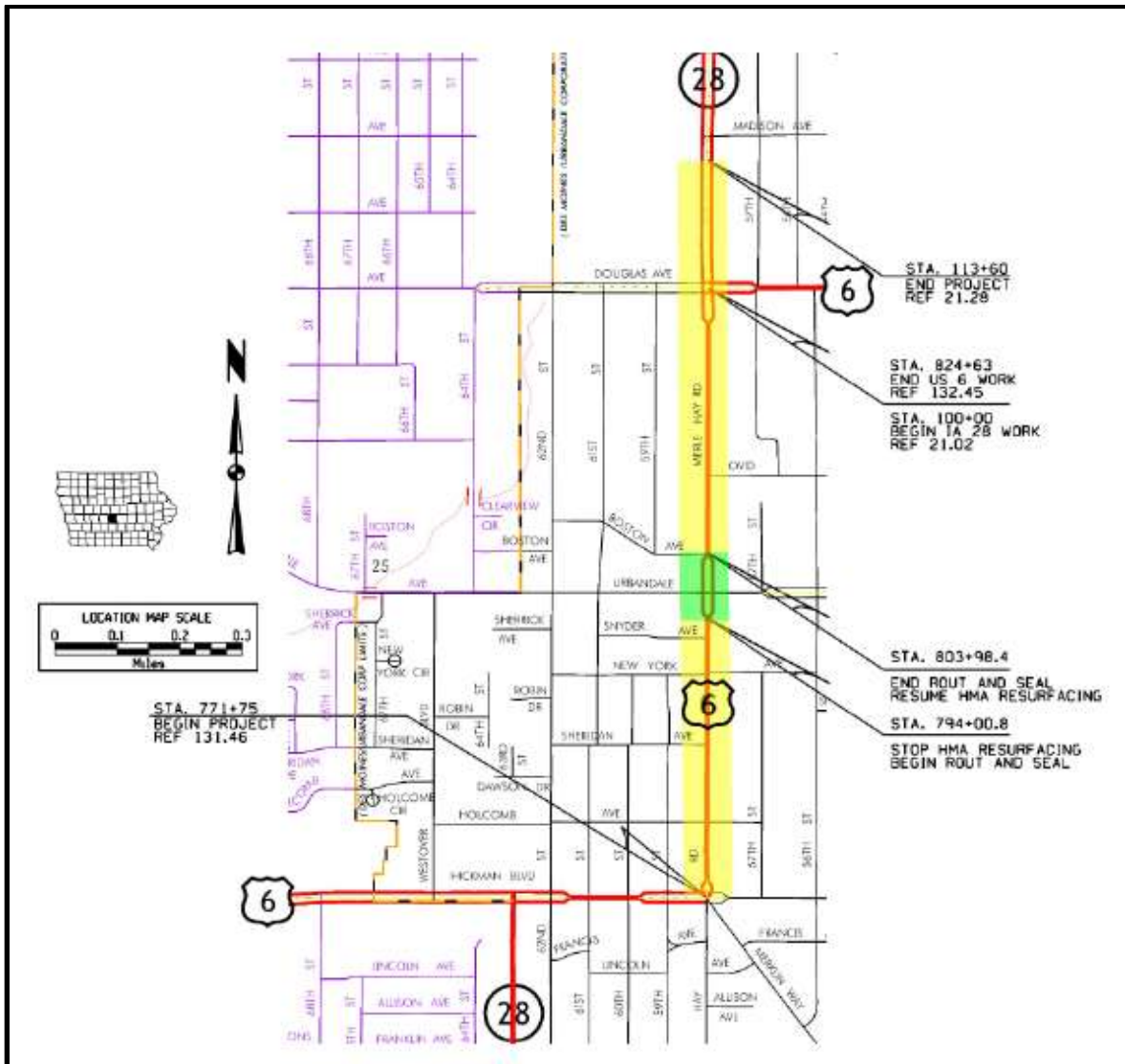
- During initial meetings with the IDOT staff about the Pilot Project, IDOT staff requested the City provide Pilot Project Evaluation Criteria to determine if the Pilot Project is a success (and permanent improvements should be future considered) or not (and Douglas Avenue should be restored to the existing cross-section).
- The Pilot Project Evaluation Criteria includes looking at crash data for Douglas Avenue, traffic volumes on parallel routes (diverting traffic), speeds on Douglas Avenue and Madison Avenue, and travel time on Douglas Avenue.
- Should all five (5) of the Pilot Project Evaluation Criteria be considered effective as defined by the Pilot Project Evaluation Criteria, the City will begin design of permanent improvements for the corridor. The design of the permanent improvements would be submitted to the IDOT for review and approval prior to anticipated construction in 2025 or 2026.
- Should the Pilot Project not be considered effective as defined by the Pilot Project Evaluation Criteria, the City will reevaluate the project and consider revisions to the project and/or re-striping Douglas Avenue to its cross-section prior to the Pilot Project.
- After the evaluation period, City staff will report back to the neighborhood associations, City's Transportation Safety Committee, City Council, and IDOT with collected post-project data and comparison with criteria and determine next course of action.
- City staff and the City's traffic engineering consultant will collect "Before Pilot Project Traffic Data" for the Pilot Project Evaluation Criteria this spring (March or April).
- IDOT will be completing a resurfacing with milling project in 2021 on Douglas Avenue (U.S. Highway 6) from Merle Hay Road to the Des Moines River.
- IDOT will be the contracting authority responsible for the construction of the project, including maintenance of traffic. Douglas Avenue (U.S. Highway 6) will have road closures anticipated over four (4) weekends between 54th Street and Lower Beaver Road from 10:00 p.m. Friday to 5:00 a.m. Monday to facilitate completion of work. IDOT is responsible for notifying all residents and businesses along the roadways, within City limits, of the work and the time frame for construction, including road closures.
- As part of the 2021 IDOT resurfacing with milling project, IDOT will construct the Pilot Project with pavement markings to convert Douglas Avenue from Merle Hay Road to Lower Beaver Road to a 3-lane cross-section (one {1} westbound lane, one {1} eastbound lane, and a center continuous 2-way left-turn lane). The existing geometry at the intersections of Merle Hay Road, Beaver Avenue, and Lower Beaver Road includes a 5-lane cross-section and will remain as currently configured.
- The 2021 IDOT resurfacing with milling project, including the Pilot Project implementation, is estimated by IDOT to cost approximately \$2,050,000. The City will be responsible for the costs of sanitary and storm sewer manhole adjustments and spot replacement of curb and gutter within City limits from Merle Hay Road to the Des Moines River, estimated to be \$334,355.
- The IDOT resurfacing with milling project, including the Pilot Project implementation, will be constructed this year and reopened to traffic by end of 2021.

- The “After Pilot Project Data” will be collected and the Pilot Project performance will be evaluated in 2022 and 2023.
- If, at the end of 2023, the Pilot Project is not found to be successful, the City will be responsible for milling the surface, placing a new surface, and repainting to the 4-lane section by the end of 2024.
- If, at the end of 2023, the Pilot Project is found to be successful, the City will begin design of permanent improvements with anticipated construction starting in 2026 pending IDOT approval.



IDOT Agreement No. 2021-6-070 Merle Hay Road (U.S. Highway 6) from Hickman Road to Douglas Avenue

- IDOT will be completing a resurfacing with milling project in 2021 on Merle Hay Road (U.S. Highway 6) from Hickman Road to Douglas Avenue, at an estimated cost of approximately \$1,100,000. The City will only be responsible for the costs of sanitary and storm sewer manhole adjustments and spot replacement of curb and gutter within City limits from Hickman Road to Douglas Avenue, estimated to be \$228,996.
- IDOT will be the contracting authority responsible for the construction of the project, including maintenance of traffic. Merle Hay Road (U.S. Highway 6) will have road closures anticipated over two (2) weekends between Hickman Road and Urbandale Avenue from 10:00 p.m. Friday to 5:00 a.m. Monday. IDOT is responsible for notifying all residents and businesses along the roadways, within City limits, of the work and the time frame for construction, including road closures.



PREVIOUS COUNCIL ACTION(S):

Date: April 20, 2020

Roll Call Number: [20-0610](#)

Action: [Approving](#) the draft proposal for Douglas Avenue (U.S. Highway 6) Lane Reduction Pilot Project and direct City staff to submit the proposal to the IDOT for review and approval. ([Council Communication No. 20-166](#)) Moved by Gatto to adopt. Motion Carried 7-0.

BOARD/COMMISSION ACTION(S):

Board: Plan & Zoning Commission

Date: February 6, 2020

Resolution Number: 21-2020-4.03

Action: Emily Webb made a motion to recommend that Plan DSM Creating Our Tomorrow be amended to incorporate the Douglas Avenue Corridor Plan as an element. Approved 11:0.

Board: Transportation Safety Committee

Date: June 9, 2020

Resolution Number: N/A

Action: Motion was made by Robin Witt to approve the Douglas Avenue Lane Reduction Pilot Project; seconded by Scott Bents. Motion passed 5:0.

ANTICIPATED ACTIONS AND FUTURE COMMITMENTS:

- If, at the end of 2023, the Pilot Project is not found to be successful, the City will be responsible for milling the surface, placing a new surface, and repainting to the 4-lane section by the end of 2024, which would result in action items related to the design and construction of a public improvement project.
- If, at the end of 2023, the Pilot Project is found to be successful, the City will begin design of permanent improvements with anticipated construction starting in 2026 pending IDOT approval, which would result in action items related to the design and construction of a public improvement project.

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