

CITY OF HEBRON, NORTH DAKOTA

STREET & UTILITY IMPROVEMENTS

PAVING THE WAY TO PROJECT SUCCESS.



FEBRUARY 17, 2016



UNDERSTANDING THE SITUATION

HOW DID WE GET HERE? WHERE ARE WE GOING?



Historical Maintenance



Addressing Challenges



Project Priority Approach



Overview of Improvements



Funding the Improvements



Next Steps





HISTORICAL MAINTENANCE

DOING THE BEST WITH LIMITED FUNDING

- Pavement surface is cracked with pieces missing and rutting in heavy traffic areas
- Periodic chip seal to maintain road service
- Periodic overlays to repair rutting
- Now facing significant challenges the City must address





ADDRESSING CHALLENGES

SAFETY HAZARDS AND POOR DRIVING CONDITIONS

- Creating safety hazards and all around poor driving conditions for individual motorists and public transportation (school buses, ambulance, etc.)





ADDRESSING CHALLENGES

VEHICLE DAMAGE

- ▶ Just in ND, it is estimated that there is \$131 million per year in costs to motorists from driving on roads in need of repair
(http://www.infrastructurereportcard.org/north_dakota/north-dakota-overview/)
- ▶ Costs can reach \$2,000+ over the life of a vehicle to repair damage from poor road conditions, according to insurance agents.



ADDRESSING CHALLENGES

AGING WATER MAIN

- Aging asbestos cement (AC) water mains experience frequent breaks, requiring the City to remove parts streets during excavation.





ADDRESSING CHALLENGES

AGING SANITARY SEWER

- Vitrified clay pipeline (VCP) originally installed over 80 years ago.
- Significant Infiltration and Inflow (I/I) observed which signifies cracks and damage.





ADDRESSING CHALLENGES

AGING STORM SEWER

- Some storm sewer has shifted over time, requiring them to be adjusted.
- Adding additional inlets to reduce ponding - adds life to pavement





PROJECT PRIORITY APPROACH

PHILOSOPHY OF PRIORITIZATION

- City conducted Capital Improvement Planning in 2014 to address aging infrastructure and focused on:
 - Roadways
 - Drinking water system and pipelines
 - Sanitary sewer system and pipelines
- Prioritized streets that experience heaviest traffic
- Streets that may also have water and sewer upgrades needed (dual purpose and funding mechanisms may be available)





PROJECT PRIORITY APPROACH

CONSIDERATION FOR APPROACH

- Most critical areas of infrastructure and those in worst condition (and had the best option for funding):
 - Main Avenue from West Street to Elm Street
 - Elm Street from Main Avenue to Summit Avenue





OVERVIEW OF IMPROVEMENTS

A DETAILED LOOK

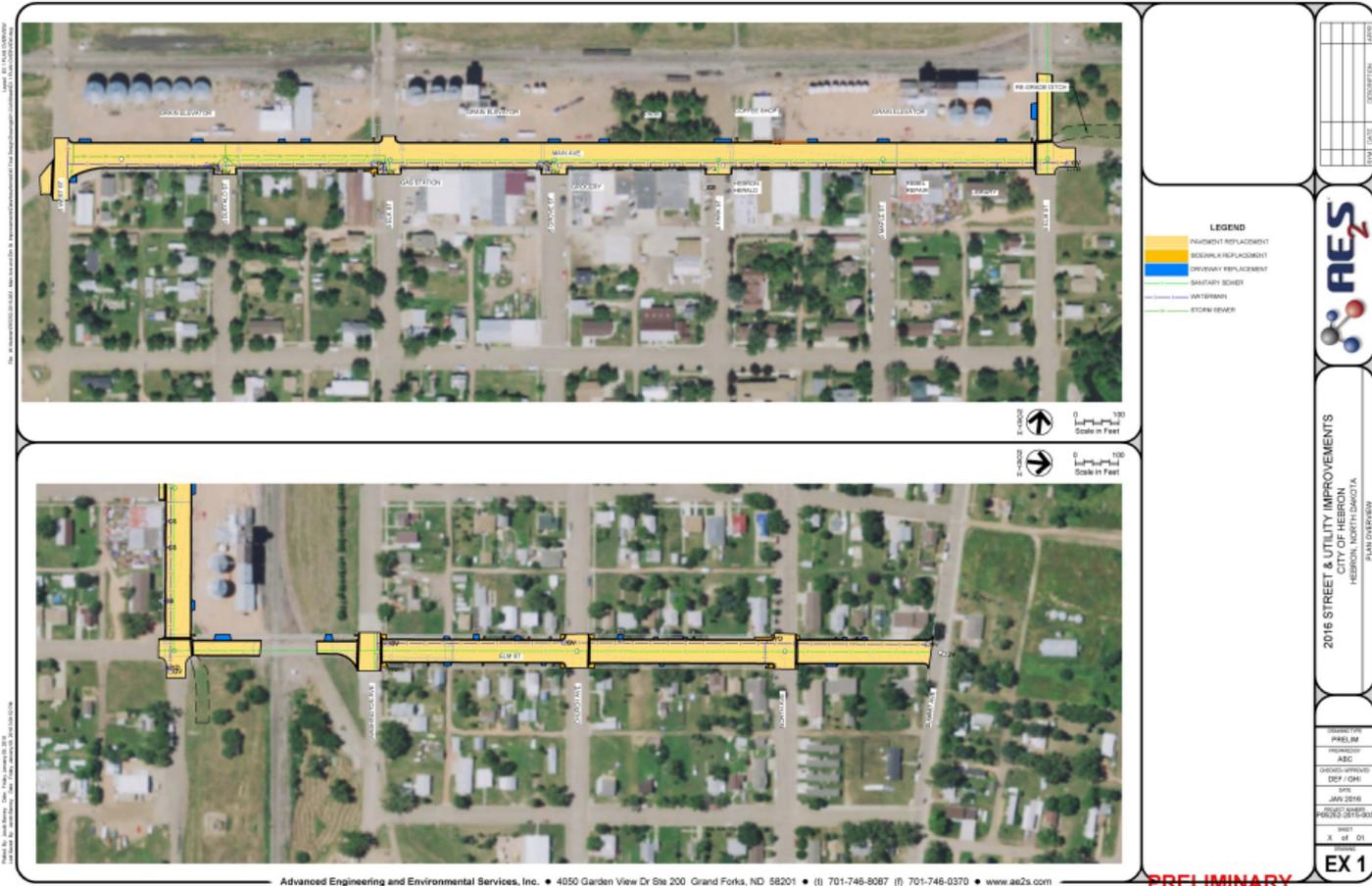
- City hired AE2S to conduct a thorough examination of Main Avenue and Elm Street in a Preliminary Engineering Report (PER)
- Recommended to improve streets, water main, sanitary sewer, and storm sewer to address aging infrastructure and service issues
- The City favors construction of improvements as soon as possible
 - Take advantage of Morton County Grant
 - Take advantage of low interest rates
 - Costs will only rise with time.





OVERVIEW OF IMPROVEMENTS

A DETAILED LOOK





OVERVIEW OF IMPROVEMENTS

A DETAILED LOOK

- Replace road surface with new asphalt pavement
- New concrete curb and gutter
- Grading improvements to address drainage concerns
- New PVC water pipe, 10 new hydrants, new gate valves and service to approximately 70 connections
- New PVC sanitary pipe, nine manholes, and service to approximately 70 connections
- Replacement and additions of necessary storm sewer for safe drainage of roadways





OVERVIEW OF IMPROVEMENTS

BUSINESS ACCESS AND TRAFFIC PLAN

- Improvements will be made in scheduled sections to minimize road closures
- Sidewalks to remain open as much as possible
- Less of an impact on businesses





OVERVIEW OF IMPROVEMENTS

A DETAILED LOOK

- Total engineers estimate is approximately \$5.8M
- Project to be advertised for competitive bids and construction starting in 2016 if bids are favorable





FUNDING THE IMPROVEMENTS

LOCAL, STATE, AND FEDERAL OPTIONS

- Morton County Highway Department has agreed to fund a portion of the paving replacement if City can fund the underground infrastructure (\$900,000)





FUNDING THE IMPROVEMENTS

LOCAL, STATE, AND FEDERAL OPTIONS

- Special Improvement Districts: common method used to finance street & utility improvements
- Two part Special Assessment Process
 - Part 1: Opportunity to Protest Streets Only
 - Water and Sewer no Protests
 - Part 2: Special Assessment Commission
 - Determination of individual assessments





FUNDING THE IMPROVEMENTS

ADDRESSING LOCAL PORTION

- NDPFA State Revolving Fund (SRF) Loan
 - Drinking Water
 - Clean Water
- USDA Water & Waste Disposal Loan & Grant Program
- Bond Market
- Bank of North Dakota Infrastructure Loan Program

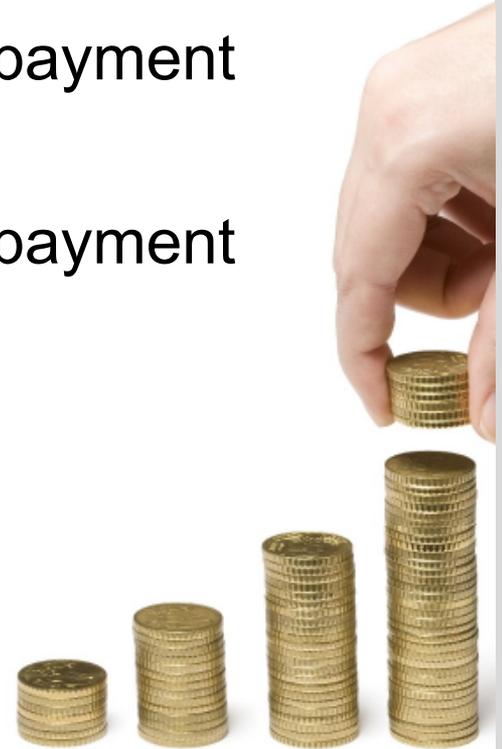


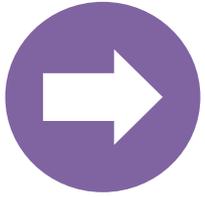


FUNDING THE IMPROVEMENTS

ADDRESSING LOCAL PORTION

- ▶ Estimated individual assessment of \$5,030
- ▶ \$369 annual principal and interest payment over 20 years (@4.00%)
- ▶ \$451 annual principal and interest payment over 15 years (@4.00%)





NEXT STEPS

CITY MOVING FORWARD PROACTIVELY

- Applying for all grant and loan funding programs that are appropriate
- Starting the Special Assessment program and communicating process to citizens
- Prepping design and construction documents on most critical street improvements to be “shovel ready”
- Resolution of necessity – Opportunity to Protest Streets



QUESTIONS ON THE PROJECT?

ASK NOW, ATTEND OPEN FORUMS, OR EMAIL
QUESTIONS TO HEBRON.STREETS@AE2S.COM

