



# Riverwood Neighborhood Meeting

## Project #FM-19-A

August 27, 2019

5:30 PM





# Overview

- *Fargo-Moorhead Diversion Project Update*
- *In-Town Projects*
- *Riverwood Neighborhood*
- *Project Timeline*
- *Property Owner Comment*
- *Questions*





# *FM Diversion*



# Diversion Project

## “Plan B”

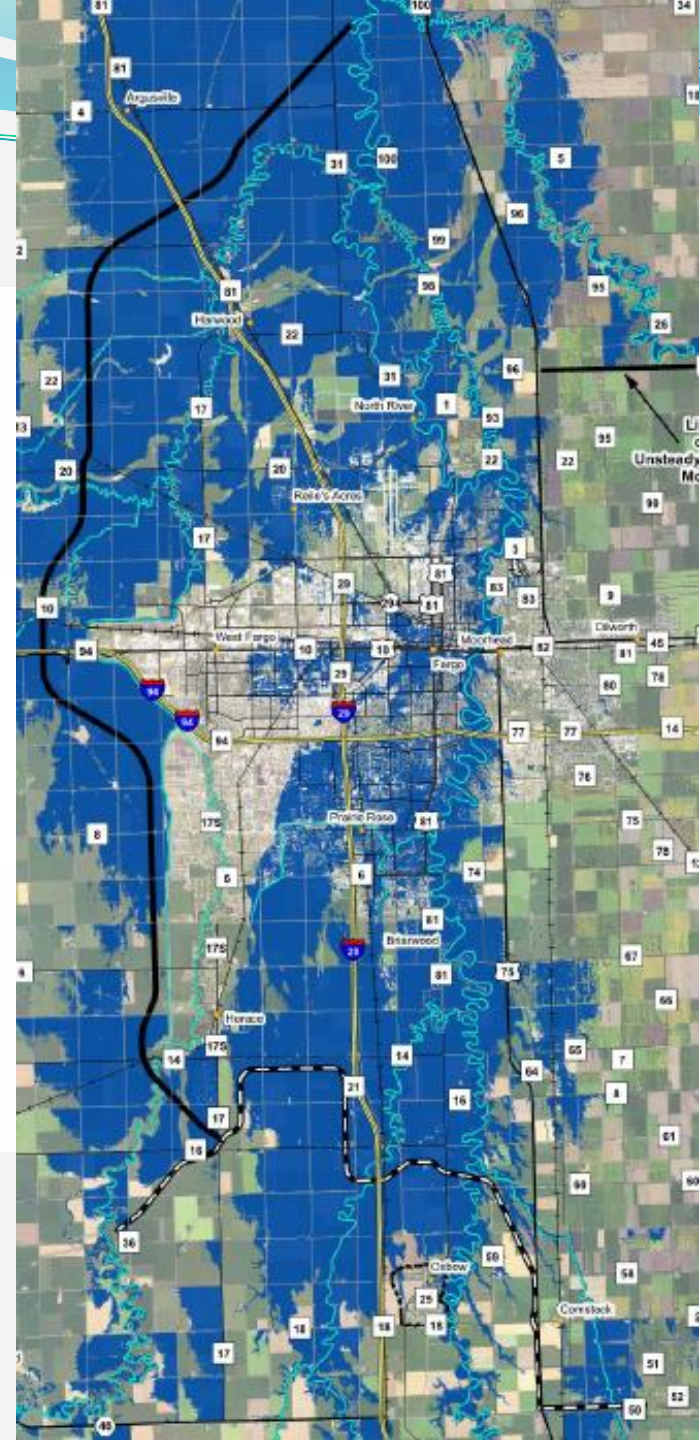
- 100-year Flood Protection Minimum
  - Some features designed to PMF (Probable Maximum Flood) as required by State and Federal Dam Safety Requirements
- Diversion Channel
- Southern Embankment and Control Structures
- Temporary Staging of Flood Waters Upstream to Prevent Downstream Impacts
- In-town Levees
  - Additional levees needed to safely pass RS 37-feet during 100yr flood.





# Existing Conditions

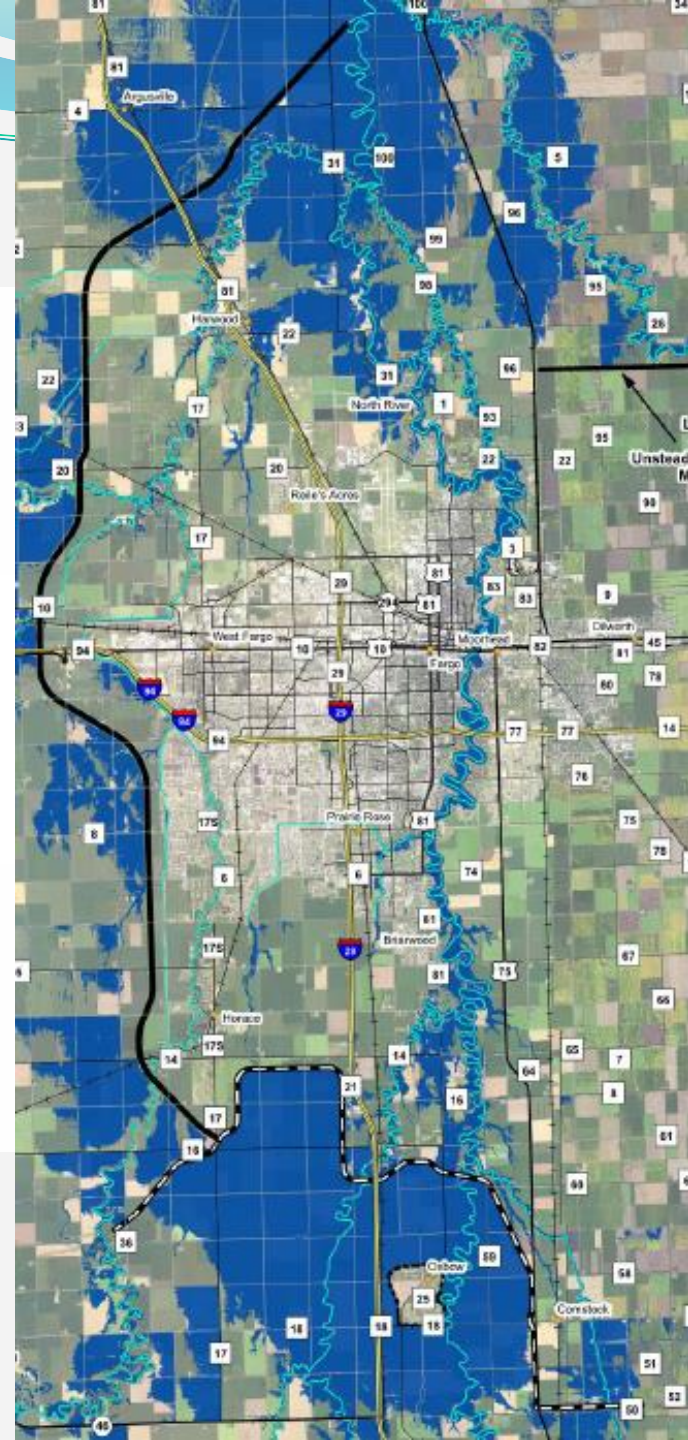
- 100-year floodplain shown in blue





## With Project

- 100-year floodplain with project shown in blue
- Project also gives the ability to defend against a 500-year flood
  - Would require 18-20 miles of temporary clay and sandbag levees





# Diversion Project “Plan B”

- 100-year Flood Protection Minimum
  - Some features designed to PMF (Probable Maximum Flood) as required by State and Federal Dam Safety Requirements
- Diversion Channel
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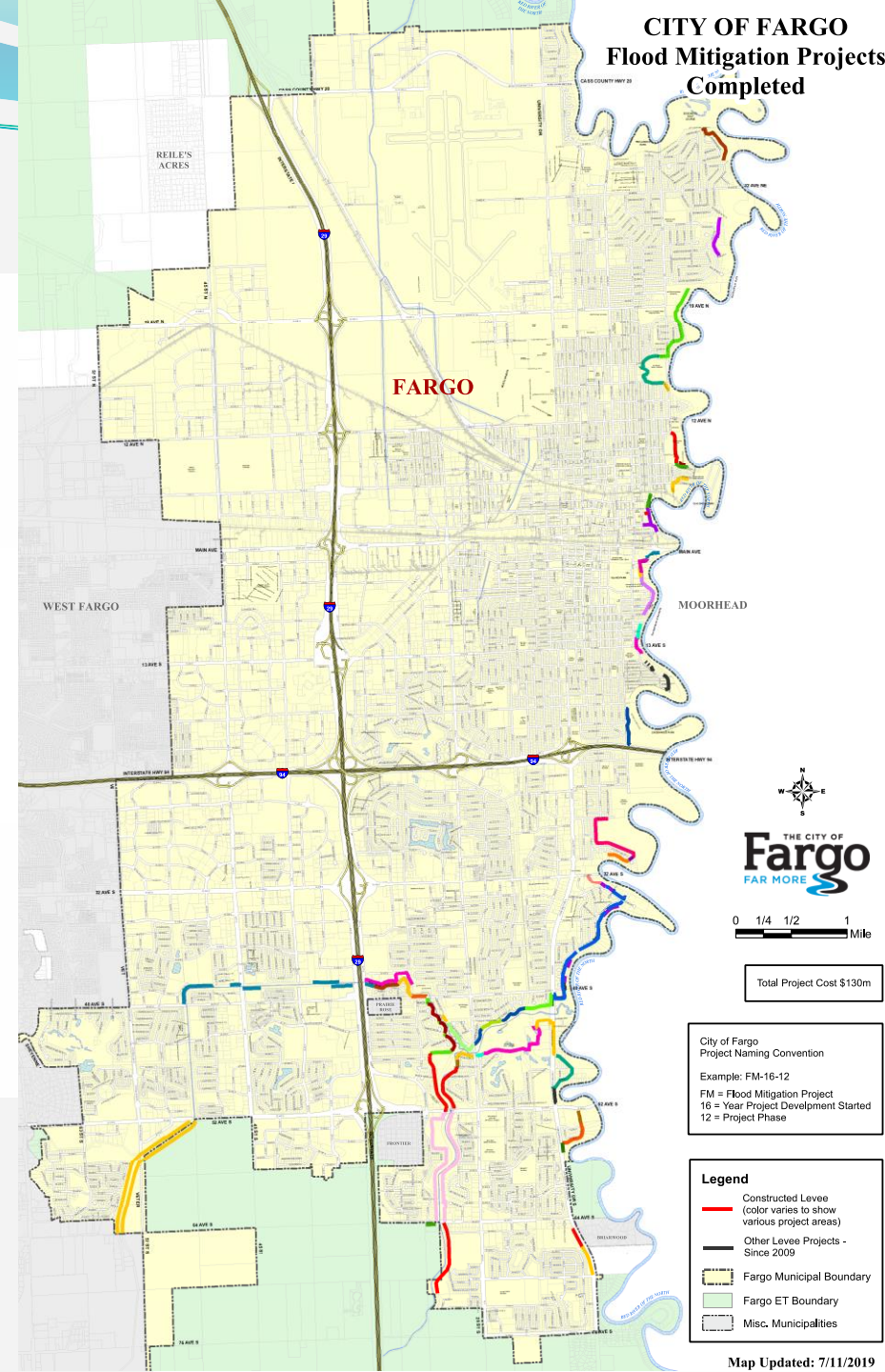


# *In-Town Projects*



# PROJECTS COMPLETED SINCE 2009

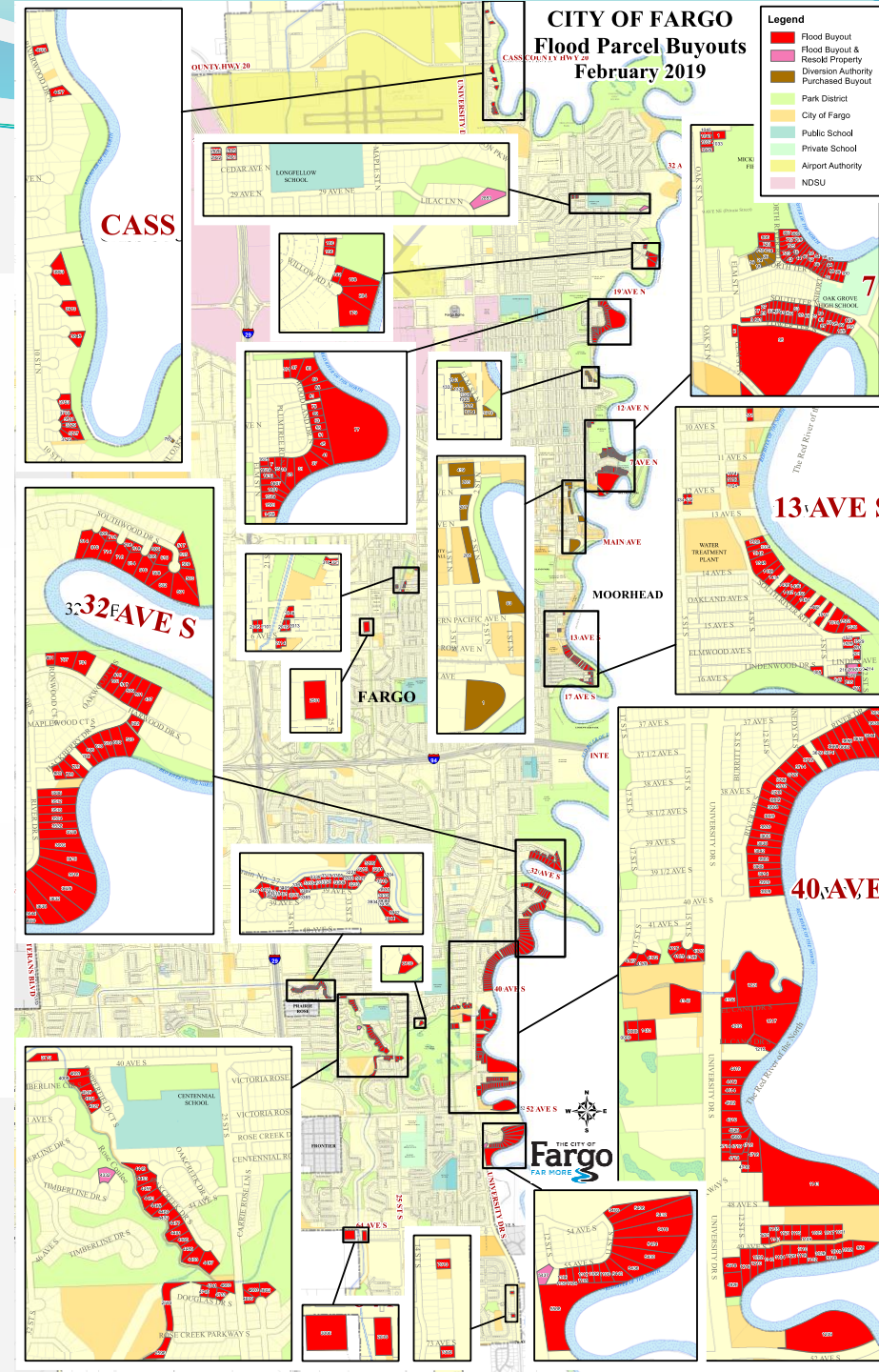
- Constructed over 21 miles
  - \*47 miles of emergency levees constructed by the City in 2009
- Project Cost ≈ \$280 million
- Reduces required sandbags by approximately 5 million
  - Needed over 6 million in 2009
- All completed projects are built to proper elevations to accommodate Plan B's proposed 37' flow thru town





# PROJECT ACQUISITIONS SINCE 2009

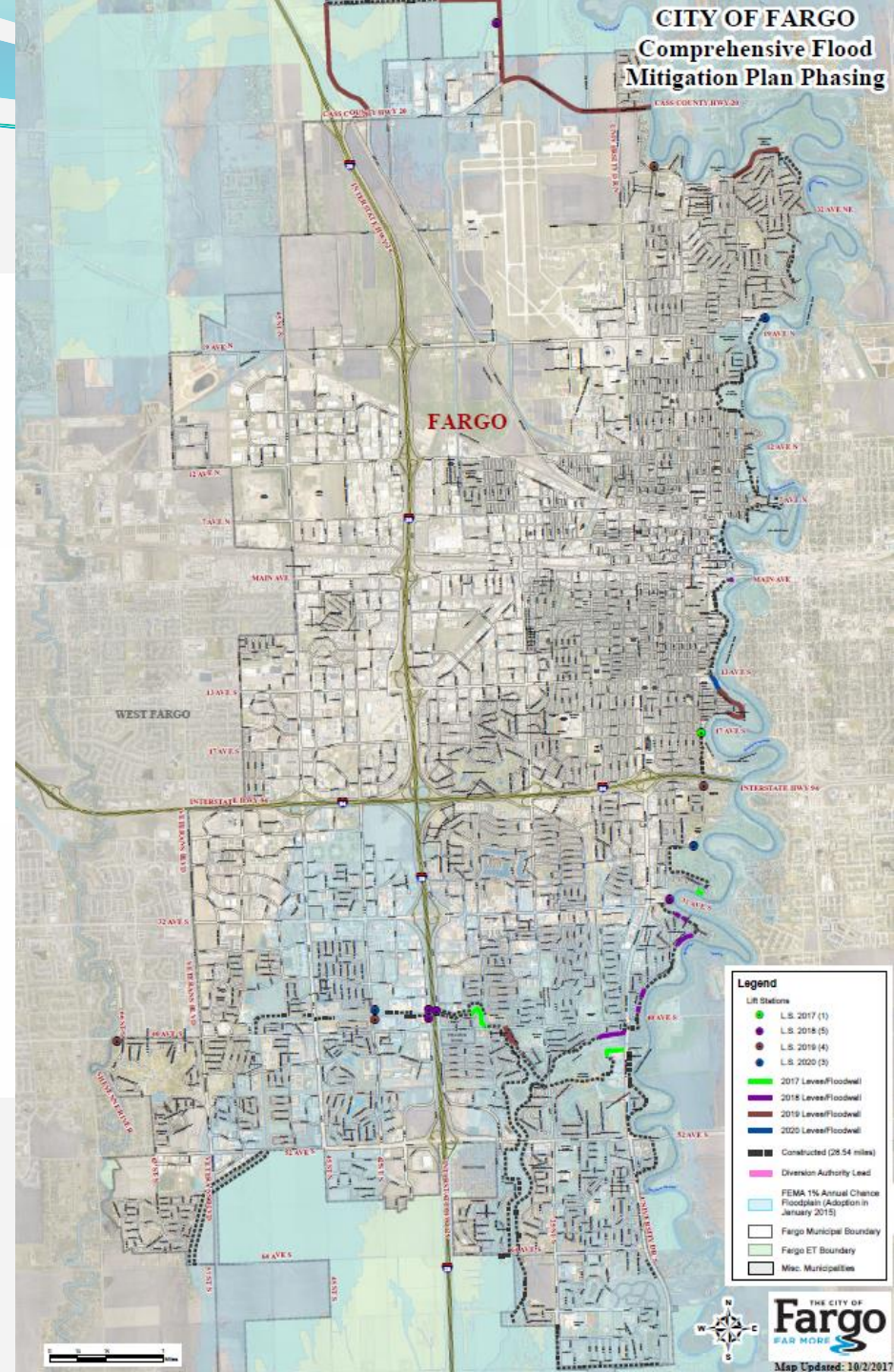
- 245 Properties Purchased
  - Over 380 since 1990
- At cost of over \$100 million
- Approximately 90 private property easement purchased





# 2019 PROJECTS UNDER CONSTRUCTION

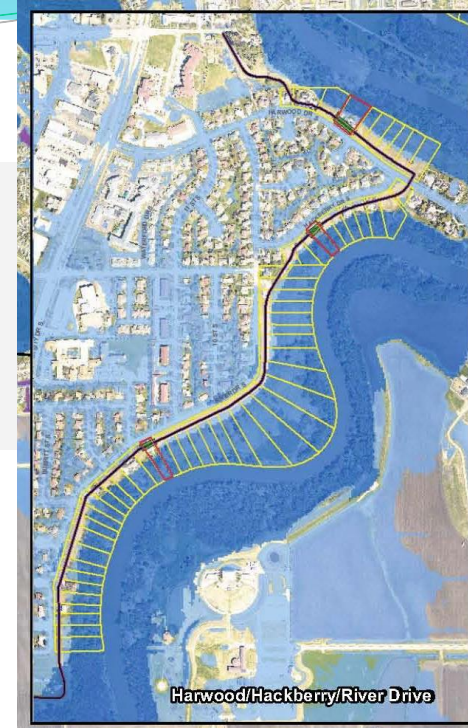
- Four Projects
  - Rosewood Addition – Final Phase
  - Oakcreek & Copperfield Ct – Final Phase
  - Belmont Park – 2<sup>nd</sup> Phase
  - 2<sup>nd</sup> Street S & Main Ave – Final Phase
- Total Length  $\approx$  0.75 mile
- Total Construction Cost  $\approx$  \$15.7M





# REMAINING PROJECTS

- 2016 Revised Comprehensive Plan Projects
  - Harwood, Hackberry & River Drives
    - 3 Acquisitions Remain
    - Levee Construction
  - Belmont Park
    - 3 Acquisitions Remain
    - Levee & Floodwall Construction
    - Water Intake Building Modifications
  - Drain 10/Airport Area
    - Levee Construction
    - Storm Sewer Lift Station Replacement
  - Storm Sewer Lift Stations Improvements

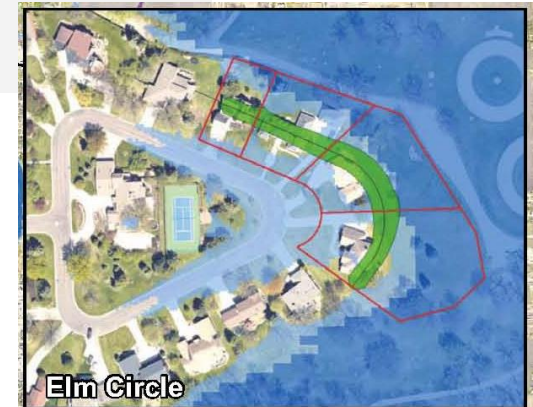
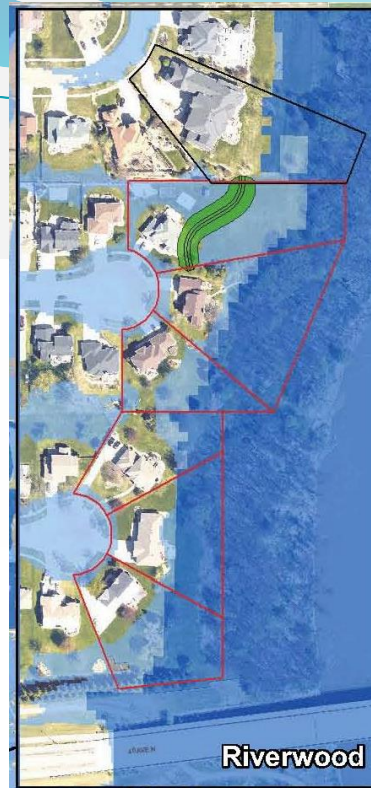




# REMAINING PROJECTS

- Plan B Additional In-Town Projects

- Riverwood Addition
  - Potential Acquisitions
  - Levee Construction
  - Storm Sewer Lift Station Replacement
- Royal Oaks
  - Potential Acquisitions
  - Levee Construction
- Woodcrest
  - Potential Acquisitions
  - Levee Construction
  - Storm Sewer Lift Station Replacement
- Elm Circle
  - Potential Acquisitions
  - Levee Construction
- Oak Grove
  - Potential Acquisitions
  - Levee Construction
- Storm Sewer Lift Stations Improvements





An aerial photograph of a residential neighborhood in winter. The ground is covered in snow, and many trees are bare. A large body of water, possibly a river or lake, is visible on the left side of the image. A road runs horizontally across the middle of the image. The word "Riverwood" is written in a large, black, serif font across the center of the image, overlaid on a semi-transparent blue rectangular background.

# *Riverwood*



# PROJECT OVERVIEW





# PROJECT OVERVIEW







# *Path Forward*

# PROJECT TIMELINE

- **Public Informational Meeting (tonight)**
  - **Public Comment Period (Until 9/6)**
- **September – Soil Borings**
- Revised Preliminary Project Design – Public Comments
- **2<sup>ND</sup> Neighborhood Meeting – December 2019**
- Present to City Commission for Alignment Approval (January 2020)
- Easement / Acquisition (Winter/Spring 2020)
- ND State Water Commission Review (Spring/Summer 2020)
- Bidding of Construction Project (TBD)
- Anticipated Construction Begins (TBD)
- Substantial Construction Completion (TBD)
- Final Construction Completion (TBD)



# Comment Form



## Riverwood Area Flood Risk Management Project

August 27, 2019 Informational Meeting

Landowner Project Opinion:

☐ Yes ☐ No - I support the preliminary plan for providing improved flood risk management for the Riverwood Area.

Additional Comments:

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**Please Return by September 6, 2019 to:**

Randy Engelstad  
Houston Engineering, Inc.  
1401 21st Avenue North  
Fargo, ND 58102  
Phone: (701) 499-2087  
Fax: (701) 237-5101  
Rengelstad@Houstoneng.com

Name: \_\_\_\_\_

Address: \_\_\_\_\_

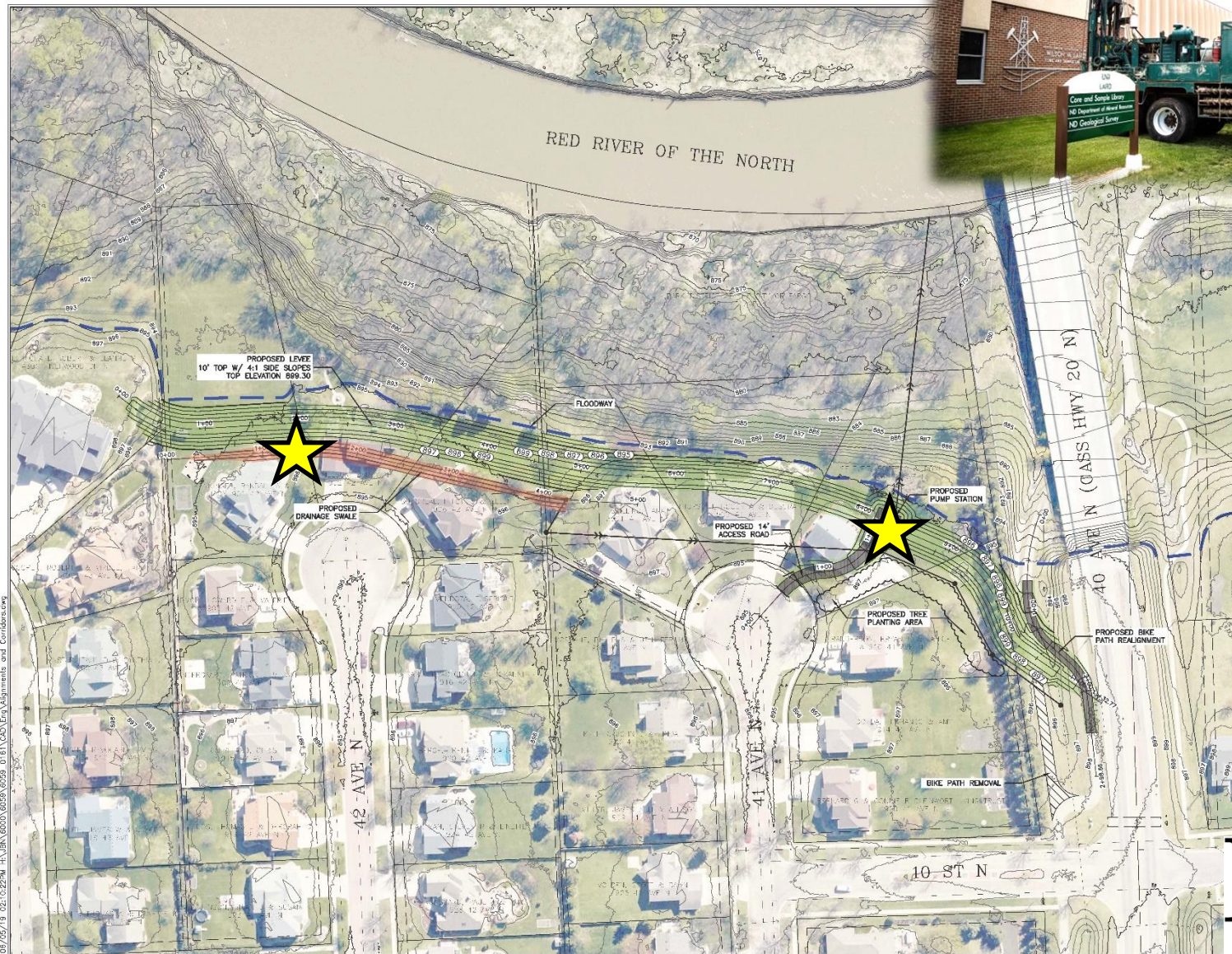
Date: \_\_\_\_\_

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# SOIL BORINGS



Proj. No. G059-0161  
Houston  
Engineering Inc.  
Ph: 701.237.5065

ALL ELEVATIONS ARE BASED ON  
THE U.S.G.S. VERTICAL DATUM OF 1988.  
(UNLESS NOTED OTHERWISE)

REVISIONS	
①	SEAL
②	

PRELIMINARY

Riverwood  
**CITY OF**  
**Fargo**

05/05/19 02:10:22 PM H:\N\G059-0161\G059-0161\CAD\Eng\Adj\Adjments and Corridors.dwg

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# *Questions*