Bismarck Department of Public Works

MEMORANDUM

TO: Jason Tomanek – Assistant City Administrator

FROM: Jeff Heintz – Public Works Service Operations Director

DATE: June 7, 2016

RE: Consent Agenda Item – Consider the request from the Burleigh County Water Resource District to provide a source for clay borrow to assist with their construction of permanent flood protection for the Missouri River Correctional Center and nearby residents from future Missouri River flood events

Please place on the June 14th, 2016 Board of City Commissioner meeting agenda the request from the Missouri River Correctional Center for the City of Bismarck to donate 53,400 cubic yards of clay to assist with their construction of the Missouri River flood protection for properties in south Bismarck

Michael Gunsch PE, Houston Engineering, Inc, working for the Burleigh County Water Resource District, contacted me in February, asking if the city would have suitable material for a clay embankment to help protect the detention center and residents south of Bismarck. I indicated that we may not be in a position to provide this material, but with our current expansion effort getting ready to start for the east end of cell #3 and the inert waste cell excavation underway, we could be in a position to allow them to have access to the material they need. Michael has provided a formal request today that lists the project and provides maps that illustrate the impact to the area with regards to flood impacts.

The clay would be excavated by the BCWD contractor at no cost to the city, using material that needs to be dug out of the next solid waste disposal cell and inert waste disposal cell. By allowing this material to be excavated and hauled at their cost, it saves our landfill customers and residents the expense occurred digging the future waste cell expansion. During the 2011 flood fight, we were able to have our west side of cell #3 excavated at no cost to the utility. Typical bid prices of excavation are $3/cubic yard which would save the Solid Waste Utility

approximately $160,200 in construction cost. Future pit construction will yield additional clay material that will not be needed in the operation or closure of the cells, yielding additional surplus.

I will be present at the City Commission meeting to respond to questions the Board may have regarding this matter. Please contact me if you have questions or require additional information.

Technical Memorandum

To: Jeff Heintz, Director of Service Operations, City of Bismarck
Brad Wright, Bismarck City Engineering
Dennis Reep Chairman BCWRD
Greg Larson, BCWRD Manager

From: Michael H Gunsch PE, Houston Engineering, Inc.
Senior Project Manager

Subject: City of Bismarck Landfill Clay Borrow
Date: June 8, 2016
Project: Missouri River Correctional Facility Flood Control Project
Burleigh County Water Resource District

INTRODUCTION

On June 19, 2015 residents within the designated assessment district, established by the Burleigh County Water Resource District (BCWRD), voted to approve a permanent flood control project to protect themselves and the Missouri River Correctional Center from future Missouri River flood events. The BCWRD is proceeding with project implementation with funding being provided through the North Dakota Department of Corrections, a direct legislative appropriation and special assessments. See attached briefing document that was provided to the North Dakota Legislative Water Topics Policy Committee. Our reason for contacting you is that the project requires imported clay fill materials which are not readily available near the construction site. We have had several discussions regarding this approach and general concurrence prior to bidding.

REQUEST

The BCWRD opened bids on the project yesterday, with Weisz and Sons, being the apparent low bidder. The BCWRD intends to consider awarding the project at its meeting on June 15th, and the project is proceeding. Therefore, per our discussions and on behalf of the BCWRD we formally request approval to obtain the required clay materials from the City of Bismarck Landfill for this public project.

The project is estimated to require approximately 53,400 cubic yards of clay borrow. The clay materials from within the landfill area, as discussed, have characteristics suitable for the levee construction and are a viable source for such use. The contractors bid this project with the landfill as the source for their borrow material. As you know we did consider other alternatives in the area, however during the 2011 event it was difficult to locate any available clay materials.

The current construction schedule, pending final permit approval by the North Dakota State Engineer, is for construction to start is late June or early July and conclude in mid-November of 2016. The logistics for the contractor procedures for the removal of materials from the landfill and hauling requirements have been included in the project specifications, and are subject to City of Bismarck approval and site designation.

Please advise if you require additional information.

Burleigh County Water Resource District

1811 East Thayer Avenue
Bismarck, North Dakota 58501
(701) 222-3499
www.bcwrd.org

Missouri River Correctional Center Flood Control Project
Water Topics Policy Committee Briefing Document

The Burleigh County Water Resource District (BCWRD) is proceeding with the design and construction of the Missouri River Correctional Center Flood Control Project (MRCC Project). This project has been progressing through the development process since the Missouri River Flood of 2011. The following is a summary of project events that have occurred.

1. The North Dakota State Engineer's office approved cost share fund to evaluate project alternatives and feasibility evaluation for the MRCC Flood Control Project after the request was submitted on August 15, 2012. The local cost for temporary flood control measures implemented in this area during the 2011 event was approximately $2 Million.

2. This flood control project was established by action of the BCWRD November 12, 2013, as part of the Burleigh County Flood Control Plan (BCFCP), and is an extension of the 48th Avenue grade raise that is part of that plan. The BCFFCP was prepared by the Burleigh County Highway Department, after consultation with the BCWRD, and approved by the Burleigh County Commission.

3. Several public informational meetings related to the project were held prior to the Board's resolution, including discussion on the Burleigh County Highway Department's 48th Avenue grade raise, which was completed as part of the overall BCFCP. The MRCC Flood Control Project Preliminary Engineering Report was prepared in accordance with NDCC 61-16.1 and noted its location, project costs and anticipated assessment district. This report was approved by the BCWRD on November 18, 2013 and notice of its completion mailed to the residents on November 20, 2013.

4. The 2013 North Dakota Legislature, recognizing the value of this project in providing flood protection to the Missouri River Correctional Center allocated $349,950 toward project implementation and their share of the roadway grade raise into the facility. These funds remain available and will be requested and utilized for its completion.

5. A Public Hearing was held December 13, 2013 for the benefited landowners. The landowners were then given until January 13, 2014 to cast their votes. The vote failed with 46% in favor and 54% opposed – representing 68% of the total eligible votes. Discussions after the conclusion of this process determined that the vote failed in part due to unknowns associated with state cost participation levels and unrelated local issues. Notice was provided to the landowners on January 26, 2014 that the vote had failed and the project was de-authorized by the BCWRD.

6. The landowners subsequently discussed the project and joined together to file a petition with the BCWRD, received September 9, 2014, to re-establish this project. The signatory's on the petition represented 63% of the benefited properties within the original assessment district. The petition submittal occurred after following the receipt of a conditional cost share assistance letter from the North Dakota State Engineer.

Current Board Members:

Terry Fleck, Chairman, Bismarck 223-9768 Dennis Reep, Vice Chairman, Bismarck 557-9621 Gordon Weixel, Secretary/Treasurer, Bismarck 258-5390

Greg Larson, Manager, Bismarck 400-7217 Rick Detwiller, Manager, Bismarck 223-8782

7. The BCWRD reauthorized the MRCC Flood Control Project on December 9, 2014, followed by the Public Hearing May 19, 2015. The 2013 Preliminary Engineering Report was updated and publish April 28, 2015, primarily to reflect changes since its original completion related to costs increasing. This second project vote was closed on July 19, 2015, with 62% voting in favor and 38% opposed – representing 78% of the total benefited properties. There are 154 parcels and rural residential properties (154) in the assessment district. The Missouri River Correctional Center is not included in this total and was not part of the assessment district voting process as they have a direct contribution to its construction.

8. The BCWRD has authorized Houston Engineering, Inc. to proceed with project design with the intent to advertise for bids in early 2016, followed by a spring construction start and fall completion.

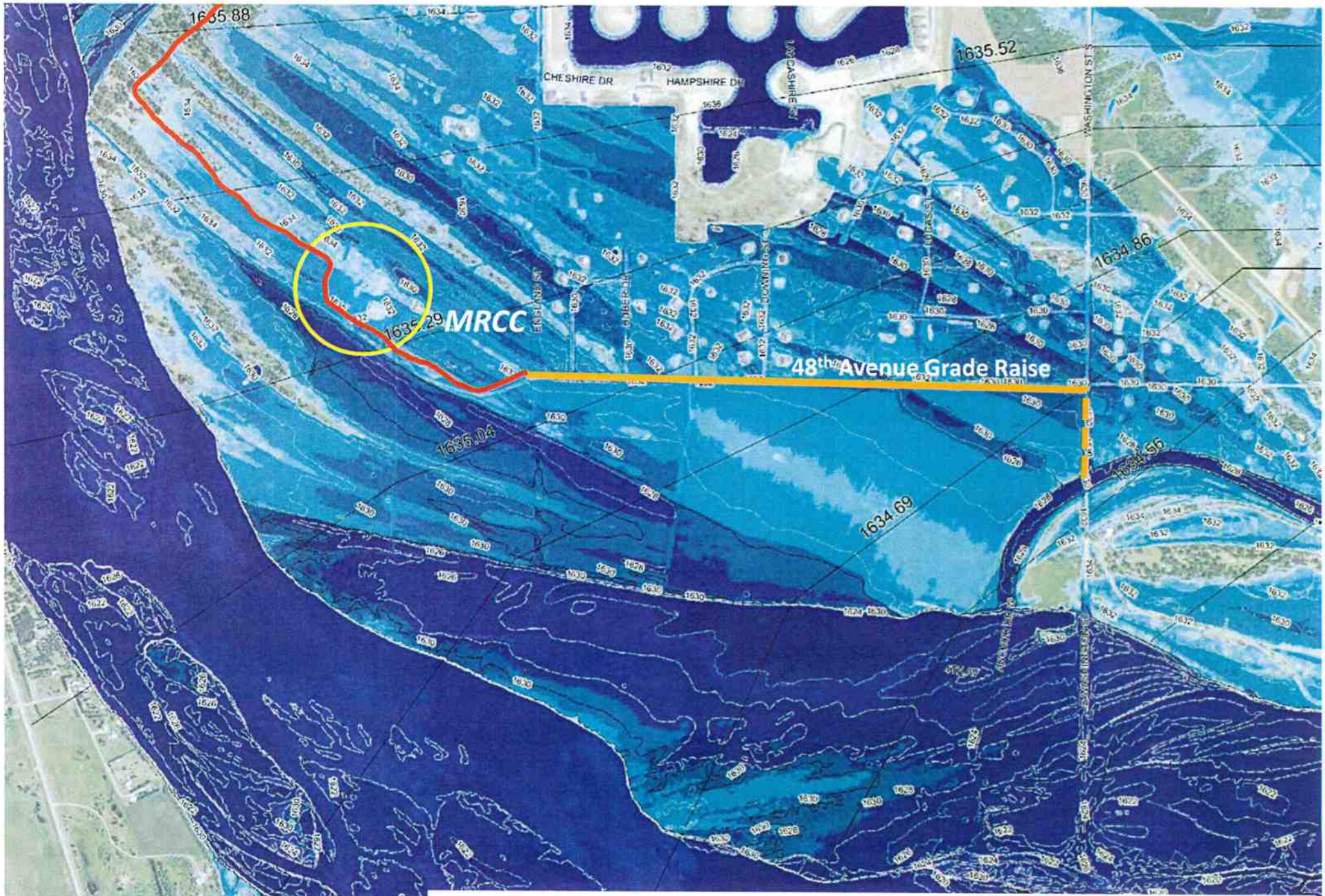
The $1.2 Million in funding allocated by the North Dakota Legislature in HB 2020 for the Missouri River Correctional Center Flood Control Project has been requested and received by the BCWRD. The BCWRD has placed these funds into a separate project account and upon project completion, or as requested, will provide an accounting for the use of these funds. The current opinion of probable project cost is $1.7 million, and is subject to market and bidding conditions in 2016.

Respectfully,

Terry Fleck, Chairman

- ✓ 2009 Ice Jam Flood Aerial
- ✓ 2011 Flood Extents without protection
- ✓ 2011 Project Limits and protected area
- ✓ 2011 Assessment District Area

MRCC – Department of Corrections Property

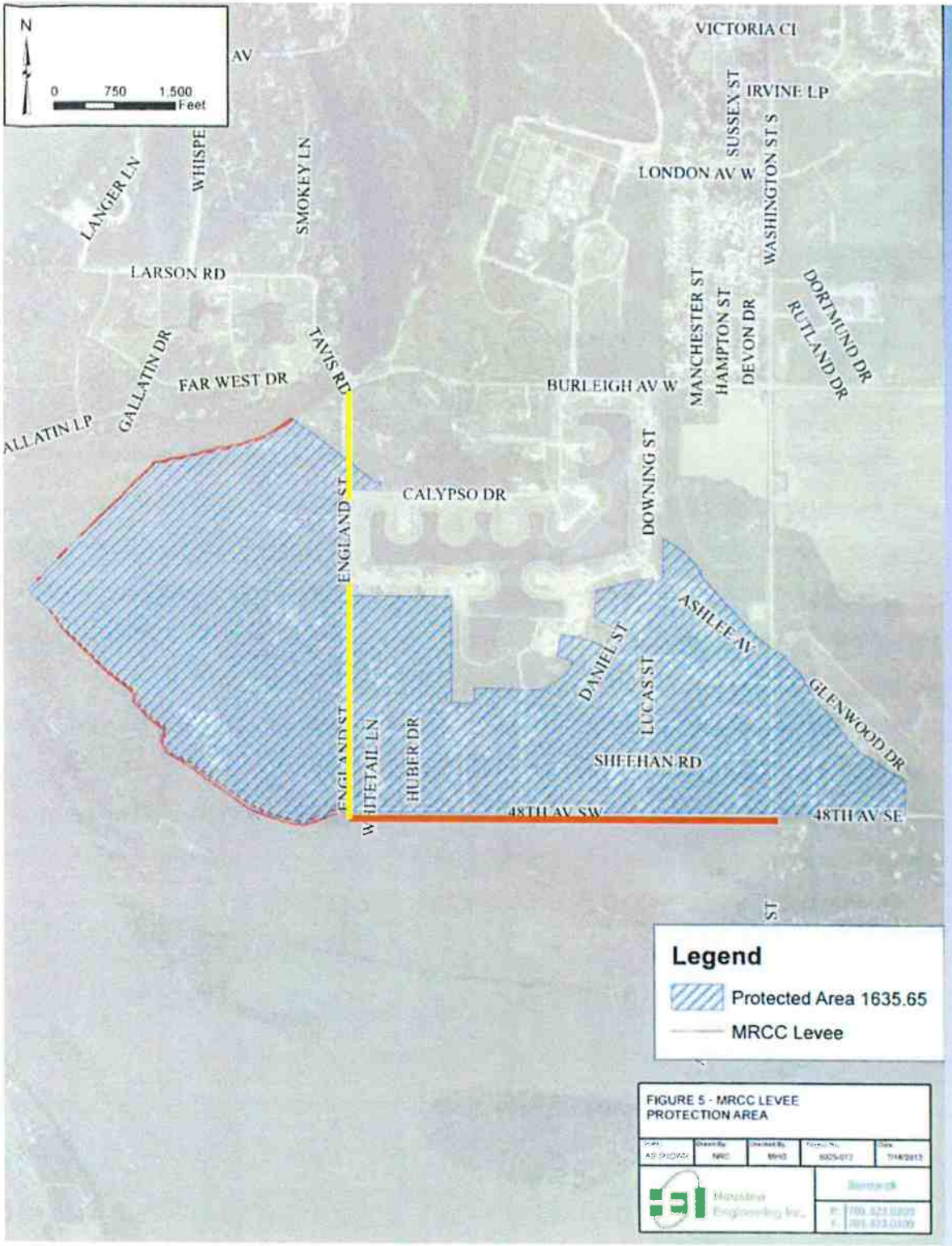


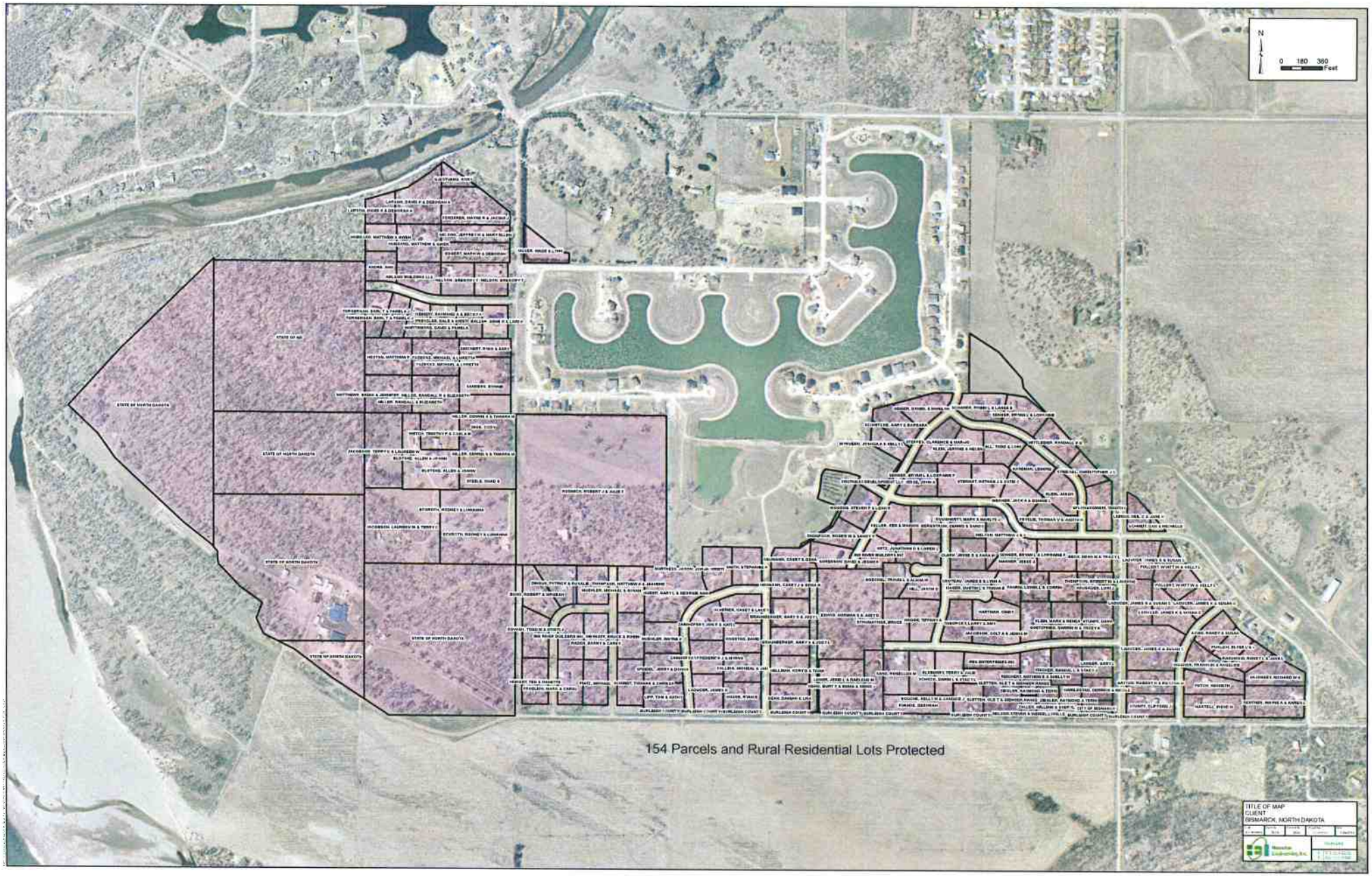
Missouri River Correctional Center Flood Control Project
19.5 Foot Stage – Existing Conditions Unprotected Flood Limits

Missouri River Correctional Center Protection Area

Assessed Properties based on extent of 2011 Flood Boundary and Benefit.

- *2011 Temporary Levee*
- *#24 - 48th Avenue Grade Raise (2014)*




N
0 180 360
Feet
154 Parcels and Rural Residential Lots Protected
TITLE OF MAP
CLIENT
BISMARCK, NORTH DAKOTA