



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting

Wednesday July 17, 2019

Agenda Item

Item 6. D. - Dredge Management

Prepared By

Linda Loomis, Administrator

Summary

i. Funding for dredge material management

Lisa Frenette and I met with Patrick Phenow of MNDOT Navigation division. We met to discuss the LMRWD eligibility for the Port Development Assistance Program. Legal Counsel for MNDOT do not feel that the statutes as written qualifies the LMRWD for the program (notwithstanding the fact the LMRWD has received funding in the past through the program). MNDOT does not feel that the LMRWD meets the definition of a commercial navigation committee as defined in [MN Statute 457A.01](#).

We discussed getting a definitive opinion from MNDOT regarding LMRWD's qualification under the program. In the meantime, Lisa will contact the MN Port Authority Association and I will work with the terminal operators to pursue a change to language in statute if needed. We also discussed the types of projects that the LMRWD would seek funding for.

ii. Vernon Avenue Dredge Material Management site

A hearing before the Savage Planning Commission is scheduled for 7:00pm July 18, 2019. The request from the LMRWD to amend the Conditional Use Permit for the Vernon Avenue dredge site is being considered. The public hearing notice and the portion of the Savage Planning Commission meeting packet is attached for the Board information. Managers are invited to attend. (I would also point out that is the same evening as the Metro MAWD meeting)

iii. Private Dredge Material Placement

Private material was removed from the site in June. I have not been informed that any new material has been brought in. The notice of dredging at the USACE website does not include any cuts on the Minnesota River so I don't think that any barge movement has occurred on the MN River.

Attachments

Public Hearing Notice

Savage Planning Commission meeting packet that pertains to the LMRWD request

Recommended Action

No recommended action

**NOTE: THIS ITEM WAS ORIGINALLY SCHEDULED FOR
THE PLANNING COMMISSION MEETING ON
THURSDAY, JUNE 20, 2019, BUT IS BEING RESCHEDULED
TO THE DATE SHOWN BELOW**

City of Savage
Notice of Hearing
Conditional Use Permit
Lower Minnesota River Watershed District
12020 Vernon Avenue

NOTICE IS HEREBY GIVEN that the Planning Commission will conduct a public hearing in the Council Chambers at Savage City Hall, 6000 McColl Drive, Savage, Minnesota at 7:00 p.m., or as soon thereafter as possible, on Thursday, July 18, 2019, to receive public comments and consider the request of the Lower Minnesota River Watershed District, for a conditional use permit, as required by Section 152.359(B) of the Savage Zoning Ordinance, to reconfigure and allow modifications to the existing site used for the temporary storage of material from dredging operations on the Minnesota River on property legally described as:

Lots 5 and 6, Auditor's Subdivision No. 1, Savage, Minnesota, a duly recorded plat, Scott County, Minnesota and that part of Lot 1, Auditor's Subdivision No. 3, Savage, Minnesota, a duly recorded plat, Scott County, Minnesota lying northerly of the following described line and its westerly extension: Commencing at the northeast corner of Section 9, Township 115, North, Range 21 West, Scott County, Minnesota; thence South 00 degrees 03 minutes 13 seconds west, assumed bearing, along the westerly line of said Lot 1 a distance of 55.48 feet; thence southeasterly 237.76 feet along the westerly line of said Lot 1 and along a non tangential curve concave to the southwest having a radius of 647.97 feet and a central angle of 21 degrees 01 minutes 26 seconds, the chord of said curve is 236.43 feet in length and bears South 23 degrees 11 minutes 54 seconds east to the point of beginning of the line to be described; thence north 87 degrees 20 minutes 18 seconds east 1322 feet more or less to the shoreline of the Minnesota River, said shoreline also being the northeasterly line of said Lot 1, and said line there terminating.

For questions or additional information, please contact Senior Planner Terri Dill at tdill@ci.savage.mn.us or 952-882-2698.

/s/ Terri Dill,
Terri Dill, Senior Planner



Planning Commission Agenda Memorandum

Meeting Date: July 18, 2019
Agenda Item Number: 4B
Originating Department: Planning
Prepared by: Terri Dill, Senior Planner

Action Requested:

Consider Conditional Use Permit Amendment for Lower MN River Watershed District (LMRWD) to allow modifications to dredge site located at 12020 Vernon Avenue, Project #17-25.

Guiding Principle:

"Savage will facilitate thoughtfully planned, balanced, and diverse development."

Background:

The Minnesota River provides barge navigation for several of the world's largest grain marketing companies who operate terminals along the river. In the 1950's, the US Army Corps of Engineers (USACE) was ordered to deepen the Minnesota River Navigational Channel beginning at the confluence with the Mississippi River to river mile 14.7 in Savage so barges could transport grain and other materials. The USACE was required to partner with a local entity to provide a dredge placement site and in 1960, the Lower Minnesota River Watershed District (LMRWD) was established to act as this sponsor. The LMRWD is required to provide and manage placement sites for the dredge material. The LMRWD also has private agreements with Cargill, CHS and Riverland Ag to provide a site for the temporary storage of dredge material from their private slips.

In 2006, the LMRWD purchased property from Cargill located on the east side of Vernon Avenue along the Minnesota River for a dredge placement site. The LMRWD requested a conditional use permit (CUP) from the City to allow the materials to be stored within the floodway district which is allowed as a conditional use in the I-1 Limited Industrial zoning district. An amendment to the CUP was approved in 2014 that lifted an original condition that limited hauling to 15 truck trips per day after a traffic study was completed and with the addition of different restrictions for hauling (see Resolution 14-83).

The truck hauling process has been monitored since 2014 and staff has not seen any issues related to hauling of the dredge materials. One condition of approval required providing the City with 24 hour notice of hauling and staff is recommending that this condition be removed since there have been no incidents in the last five years that required any type of additional traffic control. Vernon Avenue is a city roadway from TH 13 to the Minnesota River even though

it is minimally maintained. Any future roadway improvements will be at the cost of the LMRWD.

To keep a 9 foot navigational channel open, sediment that accumulates in the river must be removed. The sediment is dredged from the river with a backhoe located on the deck of a barge. The dredging spoils are moved to the storage site to dewater within different storage cells and once dried, the material is hauled off site. The site contains approximately 19.42 acres and approximately 12 acres is used for storing dredge materials.

The LMRWD has a Dredge Material Site Management Plan for monitoring and managing the dredge spoils. The plan includes detailed analysis of dredge material samples obtained over a number of years to determine which materials may require special management and disposal. Dredge material extracted from the main river channel consists of granular material that can be reused as a fill material in certain construction projects. Material removed from private slips consists of mostly silt and clay and is disposed of at a local landfill.

The Minnesota State Legislature awarded the LMRWD \$480,000 for site modifications in 2017 which requires an amendment to their existing CUP. The proposed modification project will consist of three cells where the dredge materials will be stored (see Attachment A). Cell one will contain the dredge material from the private slips, cell two is for USACE dredge material and cell three is for continued watering and secondary storage. The site will continue to use the two existing unload locations. The modifications also aim at improving dewatering and will provide permanent, structurally sound berms located around the storage cells.

The site is located within the Floodway District which includes the river channel and adjacent land area that is preserved to carry and discharge floodwaters during flood events. Regulations for the floodway are more stringent and only uses that do not adversely affect the capacity of the floodway are allowed. The original CUP approval required the removal of all dredge material in the event of flooding so as not to impede the natural drainage or contribute to upstream flooding. As part of the modification design, the project includes permanently designed berms which are only allowed if the modifications will not result in a 0.00 feet of impact to the floodplain.

Barr Engineering performed the required hydraulic modeling analysis to determine the impact of the proposed modifications on the floodway using the HEC-RAS (Hydrologic Engineering Center – River Analysis System) model used by the U.S. Army Corps. of Engineers. The modeling indicated the proposal will not impact the flood elevation by raising or lowering more than 0.00 feet as required with a Minnesota “No-Rise” Certification.

In order to approve a conditional use permit, in accordance with Section 152.031 of the Zoning Ordinance, the following findings must be demonstrated:

- 1. The conditional use will not be detrimental to or endanger the public health, safety, comfort, convenience, or general welfare.**

Barr Engineering has performed the hydraulic modeling and submitted the required “No-Rise” Certification indicating there will not be an impact to the floodway and the proposed dredge site modifications will not be detrimental to or endanger the public health safety, comfort, convenience, or general welfare.

- 2. The conditional use will not be injurious to the use and enjoyment of other property in the vicinity and will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district.**

The dredge site has been operating for 13 years without being injurious to adjacent properties. The proposed hauling operation is not creating a use that does not already exist in the area and is keeping with the normal and orderly development of surrounding properties.

- 3. The conditional use will be designed, constructed, operated, and maintained in a manner that is compatible in appearance with the existing or intended character of the surrounding area.**

The area along the Minnesota River is comprised of river related industries of which some already have their own private dredging sites. The proposal is very similar and comparable to the existing businesses in the surrounding area and will not change the intended character of the surrounding area.

- 4. The conditional use will not impose hazards or disturbing influences on neighboring properties.**

The dredging operation keeps the river navigable for the adjacent river related industries and will not impose hazards or disturbing influences on adjacent properties.

- 5. The conditional use will not substantially diminish the value of neighboring properties.**

The proposed dredging operation and hauling of material will not affect the value of neighboring properties as the use has already been in existence since 2006 without any negative impacts on property values.

- 6. The site is served adequately by essential public facilities and services, including utilities, access roads, drainage, police and fire protection and schools or will be served adequately as a result of improvements proposed as part of the conditional use.**

The site is adequately served for the proposed dredging operation needs and will not create a burden for the city to provide any additional public services. The dredge operation does not require public utilities; it will not generate students that would affect the capacity of area schools; and would not require any additional police or fire services.

- 7. Adequate measures have been or will be taken to minimize traffic congestion in the public streets and to provide for adequate on-site circulation of traffic.**

Conditions restricting allowable hours for truck hauling and limiting certain traffic movements have been imposed to minimize traffic congestion and provide adequate circulation of traffic on public streets.

8. The conditional use is consistent with the applicable policies and recommendations of the City's Comprehensive Plan or other adopted land use studies.

The CUP is consistent with the policies and goals of the Comprehensive Plan by allowing the Lower Minnesota River Watershed District to modify their dredging operation that keeps the waterway channels navigable for the river related industries located along the Minnesota River.

9. The conditional use, in all other respects, conforms to the applicable regulations of the district in which it is located.

The conditional use complies with the all of the requirements within the Savage Zoning Ordinance.

The Development Review Committee is recommending approval of the conditional use permit amendment contingent on the following conditions:

1. Approval is subject to Engineering's final review and approval of construction and site modification plans. All plans must be signed by a MN Licensed Engineer and prior to final inspection the engineer shall submit as-built plans and an as-built survey.
2. The applicant shall obtain all necessary permits required from the US Corps of Engineers, Minnesota Pollution Control Agency and Minnesota Department of Natural Resources. All wetland permits shall be obtained prior to commencing work.
3. The Lower MN River Watershed District shall be responsible for the upkeep and ongoing maintenance of Vernon Avenue, including plowing and street repairs, unless the City chooses at some point in the future to do so. All costs for roadway improvements and maintenance will be responsibility of LMRWD. The roadway condition, as documented in 2014, shall remain in equal to or better condition
4. There shall be no U turns allowed on TH 13. At no time shall any trucks stack onto TH 13 or any other roadways except Vernon Avenue. Trucks shall be prohibited from blocking railroad tracks.
5. Truck hauling during peak periods shall be limited to the hours of 7 a.m. – 5 p.m. Monday through Friday. Hauling during nights and weekends shall require prior approval from the City.
6. Truck traffic on local roadways shall only be limited to: 1.) empty eastbound trucks returning to the site shall use the south frontage road to Quentin Avenue where they may travel north to the Quentin Avenue stoplight to go westbound on TH 13 to Vernon

Avenue and 2.) loaded trucks exiting the site that need to travel eastbound shall turn left at Dakota Avenue after exiting onto westbound TH 13 and travel east along the south frontage road to Yosemite Avenue to exit onto eastbound TH 13. No other local truck traffic shall be allowed on local roadways.

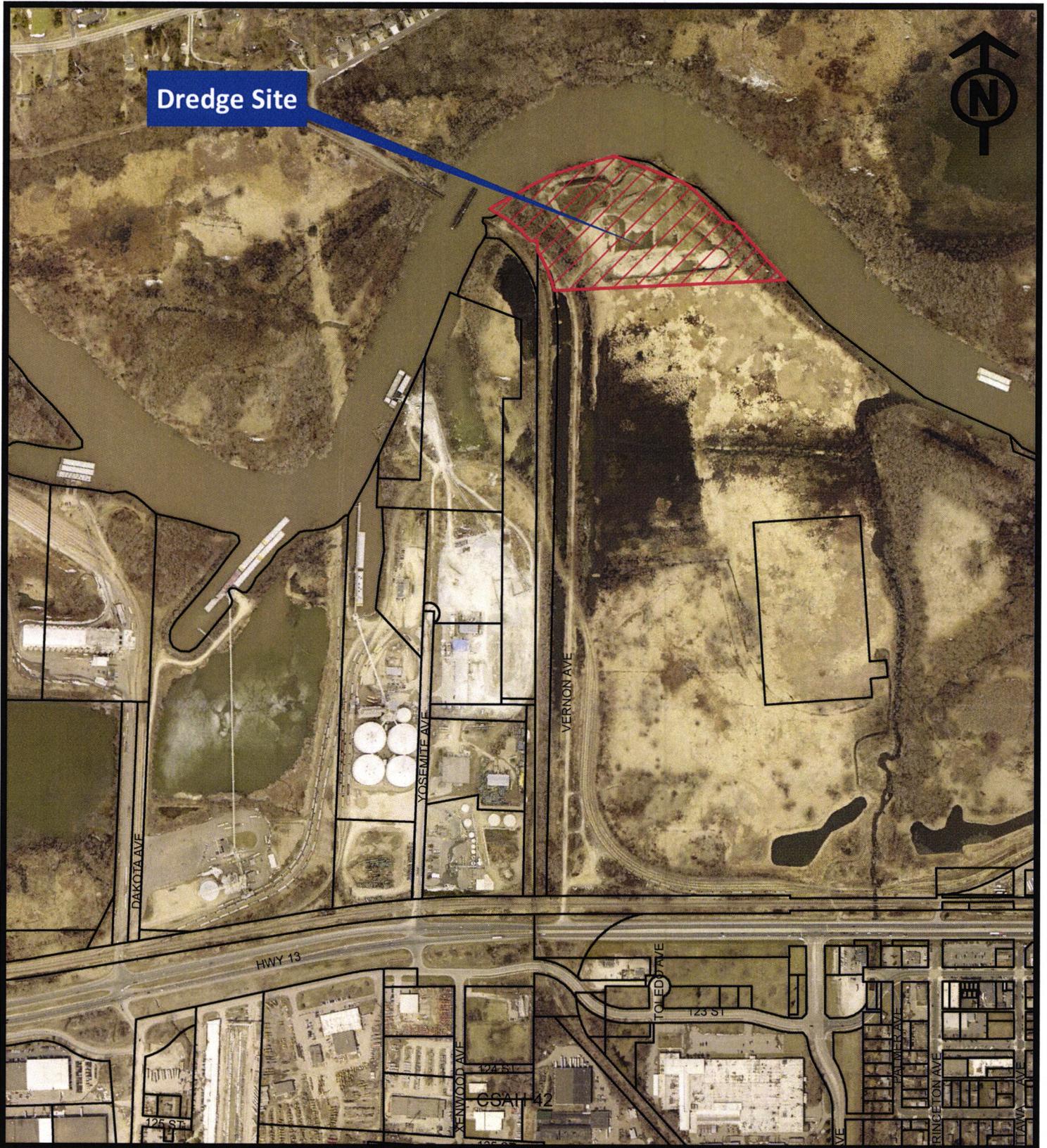
7. Vernon Avenue shall remain open for two-way truck traffic up to the existing gate at the railroad tracks and may be reduced to one-lane truck traffic north of the gate. The shoulders of Vernon Avenue shall be adequate to handle large size trucks and their turning movements.
8. A quarterly report shall be submitted to the City providing detailed information of the dredging operation including but not limited to amount of material removed and added, amounts disposed in landfill, amounts hauled offsite and locations if known, number of truck trips per month, and any other miscellaneous information pertinent to the dredging operation the City may require. The City shall be notified immediately of any truck hauling related accidents.
9. The site modifications and on-going dredging operation shall be done in accordance with the final approved plans and as specified in the hydraulic modeling as part of the "No-Rise" Certification. Any changes shall be brought back to the City for review and approval.

Alternatives:

1. Recommend approval of conditional use permit amendment contingent on DRC conditions.
2. Recommend denial.
3. Table the request for additional information.

Action/Recommendation:

Staff recommends alternative #1.



LOCATION MAP

Lower MN River Watershed District
12020 Vernon Avenue
CUP Amendment



RESOLUTION NO. R-06-~~82~~

RESOLUTION GRANTING CONDITIONAL USE PERMIT
FOR DREDGING AND FILL WITHIN THE FLOODWAY DISTRICT
LOWER MINNESOTA RIVER WATERSHED DISTRICT

WHEREAS, the Lower Minnesota River Watershed District, Chaska, Minnesota, has applied to the City of Savage for a conditional use permit, as required by Section 9-19-4-B(4) of the Savage Zoning Ordinance, to allow for the fill of earthen materials upon a property located in a Floodway District; and

WHEREAS, the applicant has proposed the removal of dredge materials from the Minnesota River, the deposit of such materials upon adjacent property and (when the material has dried) the transport of the material to off-site locations; and

WHEREAS, the subject property, owned by Cargill, Inc., is legally described as follows:

Lots 5 and 6, Auditor's Subdivision No. 1, Savage, Minnesota, a duly recorded plat, Scott County, Minnesota and that part of Lot 1, Auditor's Subdivision No. 3, Savage, Minn., a duly recorded plat, Scott County, Minnesota lying northerly of the following described line and its westerly extension: Commencing at the northeast corner of Section 9, Township 115 North, Range 21 West, Scott County, Minnesota; thence South 00 degrees 03 minutes 13 seconds West, assumed bearing, along the westerly line of said Lot 1 a distance of 55.48 feet; thence southeasterly 237.76 feet along the westerly line of said Lot 1 and along a non tangential curve concave to the southwest having a radius of 647.97 feet and a central angle of 21 degrees 01 minutes 26 seconds, the chord of said curve is 236.43 feet in length and bears South 23 degrees 11 minutes 54 seconds East to the point of beginning of the line to be described; thence North 87 degrees 20 minutes 18 seconds East 1322 feet more or less to the shoreline of the Minnesota River, said shoreline also being the northeasterly line of said Lot 1, and said line there terminating..

WHEREAS, the LMRWD, which already owns 1.2 acres along the northeasterly boundary of the river, has entered into a purchase agreement with Cargill for the purchase of an additional 18.3 acres to store the dredge material; and

WHEREAS, the LMRWD will build an access driveway from Vernon Avenue east to the dredge site, which will impact about .25 acres of wetland; and

WHEREAS, said impact area is, in fact, mostly floodplain forest with no standing water, cattails or normal wetland vegetation; and

WHEREAS, the dredge storage area will encompass a 12-acre portion of the 19.42 acre site, and low berms measuring 3-4 feet in height will be constructed to reduce erosion and sedimentation; and

WHEREAS, analyses indicate that the dredge material consists of a higher portion of fine sand (less silts and clay) and samples indicate no presence of pesticides or PCB's; and

WHEREAS, THE LMRWD is in the process of receiving necessary approvals to allow a portion of wetland to be filled; and

WHEREAS, in the event of flooding, the dredge material must be removed so as not to impede the natural drainage or contribute to flooding upstream; and

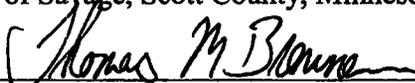
WHEREAS, the application was reviewed by the staff Development Review Committee, by the Planning Commission during a duly authorized public hearing of June 22, 2006, and by the City Council during the meeting of July 10, 2006; and

WHEREAS, the following was determined: the project is necessary for maintenance of a 9-foot navigational channel to accommodate barge travel on the Minnesota River; it is the express duty of the LMRWD to implement a dredged material management plan; the proposed dredge site is not visible from public view and is well screened with existing vegetation and trees; the dredge operation will not produce offensive odors; increased traffic (maximum 15 loads per day) will not cause adverse conditions on Highway 13; the request meets criteria for a conditional use permit as set forth by Section 9-2-7 of the Zoning Ordinance.

NOW THEREFORE, BE IT RESOLVED that the Mayor and Council of the City of Savage, Scott County, Minnesota hereby grant a conditional use permit to the Lower Minnesota River Watershed District, to allow for the placement of dredge materials upon the above described parcel of land, conditioned upon the following:

1. Approval is subject to Engineering Department review and approval of all site, grading, construction and storm water management plans and erosion control plans.
2. The site shall be developed according to those plans submitted by the District. Any changes to such plans shall be brought back to the City for further consideration and approval.
3. No grading shall be allowed within required wetland buffers and vegetation must remain as natural wetland grasses.
4. Wetland delineation and mitigation plans shall be approved by the Savage City Council.
5. Once the dredging operation has ended, the District shall be responsible to remove the material and restore the site to a height not to exceed 720 feet and seed the site with native vegetative species approved by the Natural Resources Coordinator.
6. The City will not be responsible for the upkeep and ongoing maintenance of Vernon Avenue unless the City chooses at some point in the future to do so. If the District decides it needs such upkeep and ongoing maintenance of Vernon Avenue, the District will provide such upkeep and ongoing maintenance at its expense.
7. The City shall be provided with the correct key for the access gate.
8. The conditional use permit shall be recorded with the Scott County Recorder's Office.

Adopted by the Mayor and Council of the City of Savage, Scott County, Minnesota this tenth day of July, 2006.


Thomas M. Brennan, Mayor

Attest:


Barry A. Stock
City Administrator

Motion by Williams

Second by McColl
Brennan aye Victorey aye
Williams aye McColl aye
Abbott aye

RESOLUTION NO. R-14-83

RESOLUTION APPROVING AMENDMENT TO CONDITIONAL USE PERMIT
ALLOWING DREDGING AND FILL WITHIN THE FLOODWAY DISTRICT
LOWER MINNESOTA RIVER WATERSHED DISTRICT
12020 VERNON AVENUE

WHEREAS, the Lower Minnesota River Watershed District (LMRWD) has applied to the City of Savage for an amendment to their original conditional use permit (CUP) granted by Resolution No. 06-82 on July 10, 2006 that allowed for the placement of dredging materials within the Floodway District on the following legally described property:

Lots 5 and 6, Auditor's Subdivision No. 1, Savage, Minnesota, a duly recorded plat, Scott County, Minnesota and that part of Lot 1, Auditor's Subdivision No. 3, Savage, Minnesota, a duly recorded plat, Scott County, Minnesota lying northerly of the following described line and its westerly extension: Commencing at the northeast corner of Section 9, Township 115, North, Range 21 West, Scott County, Minnesota; thence South 00 degrees 03 minutes 13 seconds west, assumed bearing, along the westerly line of said Lot 1 a distance of 55.48 feet; thence southeasterly 237.76 feet along the westerly line of said Lot 1 and along a non tangential curve concave to the southwest having a radius of 647.97 feet and a central angle of 21 degrees 01 minutes 26 seconds, the chord of said curve is 236.43 feet in length and bears South 23 degrees 11 minutes 54 seconds east to the point of beginning of the line to be described; thence north 87 degrees 20 minutes 18 seconds east 1322 feet more or less to the shoreline of the Minnesota River, said shoreline also being the northeasterly line of said Lot 1, and said line there terminating.

WHEREAS, the US Army Corps of Engineers dredges accumulated sediment the Minnesota River to keep open the 9-foot navigational channel to allow for barge transportation and the LMRWD is required to provide and manage a placement site for the dredge materials; and

WHEREAS, in 2006, the LMRWD purchased 18 acres and was granted a CUP for a placement site located along on the east side of Vernon Avenue and due to recent difficulties in finding uses for the dredge material, the stockpile had grown to approximately 110,000 cubic yards from dredging operation occurring from 2008 through 2011; and

WHEREAS, recent soil boring tests has found the dredge materials contains more sand than originally thought and the LMRWD has found a contractor, Rachel Contracting, willing to purchase the material to be used for soil corrections in construction projects; and

WHEREAS, the 2006 CUP conditions limited truck traffic to 15 trucks per day; and

WHEREAS, the truck traffic limitation does not allow the removal process to be cost-effective for a contractor to utilize the stockpile for construction projects due to the large volume of material needed and short time frames allowed for construction projects; and

WHEREAS, the LMRWD proposes to reduce the stockpile to a more manageable size by removing the 110,000 cubic yards over the next three construction seasons in addition to approximately 20,000 to 30,000 cubic yards of new dredge material the US Army Corps of Engineers will need to place per year; and

WHEREAS, approximately 38,000 cubic yards need to be removed per season to downsize the stockpile which results in approximately 20 hauling days with up to 300 truck loads hauled per day; and

WHEREAS, after the stockpile has been reduced to a manageable level, it is anticipated that approximately 10 hauling days per year will be need to remove the dredge materials each season; and

WHEREAS, the Vernon Avenue access from TH 13 is a right-in/right-out only turning movement and the City required the applicant to submit a Traffic Impact Study to evaluate truck traffic circulation and proposed impact on TH 13 traffic volumes; and

WHEREAS, staff worked with the applicant on truck traffic routes that would have the least impact to local roadways; and

WHEREAS, the Minnesota River provides barge navigation for several of the world's largest grain marketing companies who operate terminals along the river and the need to remove dredge materials to allow continual dredging of the river to move barge traffic is critical to the economic vitality of these industries; and

WHEREAS, the request was reviewed by the Development Review Committee and new conditions of approval have been included to achieve the goal of reducing the dredge stockpile to a manageable level with the least amount of impact; and

WHEREAS, the following findings are hereby adopted in accordance with Section 152.031 of the Zoning Ordinance:

- 1. The conditional use will not be detrimental to or endanger the public health, safety, comfort, convenience, or general welfare.**

The City required the applicant to conduct a traffic impact study to provide an analysis of the potential impacts the increased hauling operations will have. The study completed by SEH did not indicate any factors that would be detrimental or endanger public health and conditions are being applied to prohibit certain traffic movements.

- 2. The conditional use will not be injurious to the use and enjoyment of other property in the vicinity and will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district.**

TH 13 already experiences large truck traffic due to the type of industries located along the roadway. The proposed hauling operation is not creating a use that does not already exist in the area and is keeping with the normal and orderly development of surrounding properties.

- 3. The conditional use will be designed, constructed, operated, and maintained in a manner that is compatible in appearance with the existing or intended character of the surrounding area.**

The area along the Minnesota River is comprised of river related industries of which some already have their own private dredging sites. The proposal is very similar and comparable to the existing businesses in the surrounding area and will not change the intended character of the surrounding area.

- 4. The conditional use will not impose hazards or disturbing influences on neighboring properties.**

The proposed dredging operation and increase in truck traffic won't impose any hazards or disturbing influences on the surrounding area because commercial truck traffic already exists along the TH 13 corridor.

- 5. The conditional use will not substantially diminish the value of neighboring properties.**

The proposed dredging operation and hauling of material will not affect the value of neighboring properties as the use has already been in existence since 2006 without any negative impacts on property values.

- 6. The site is served adequately by essential public facilities and services, including utilities, access roads, drainage, police and fire protection and schools or will be served adequately as a result of improvements proposed as part of the conditional use.**

The site is adequately served for the proposed dredging operation needs and will not create a burden for the city to provide any additional public services. Hauling of the dredge material

will not require public utilities; it will not generate students that would affect the capacity of area schools; and would not require any additional police or fire services.

7. Adequate measures have been or will be taken to minimize traffic congestion in the public streets and to provide for adequate on-site circulation of traffic.

The traffic impact study provided an analysis for staff to apply limitations and conditions regarding allowable hours of operation for truck traffic and limiting certain traffic movements to minimize traffic congestion and provide adequate circulation of traffic on public streets.

8. The conditional use is consistent with the applicable policies and recommendations of the City's Comprehensive Plan or other adopted land use studies.

The CUP is consistent with the policies and goals of the 2030 Comprehensive Plan by allowing the Lower Minnesota River Watershed District to continue their dredging operation that keeps the waterway channels open for navigation for the river related industries located along the Minnesota River.

9. The conditional use, in all other respects, conforms to the applicable regulations of the district in which it is located.

The conditional use complies with the all of the requirements within the Savage Zoning Ordinance.

WHEREAS, the application was reviewed by the Development Review Committee and by the Planning Commission during a duly authorized public hearing on June 19, 2014 whereby it was determined the request met the required findings for a conditional use permit as set forth in Section 152.031 of the Savage Zoning Ordinance;

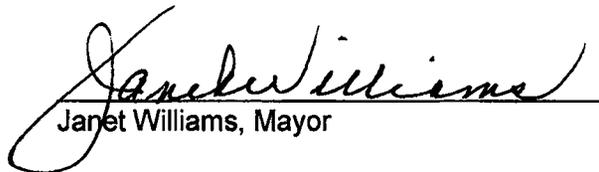
NOW THEREFORE, BE IT RESOLVED that the recitals set forth above are incorporated herein; and

NOW THEREFORE, BE IT RESOLVED that the Mayor and Council of the City of Savage, Scott County, Minnesota, hereby amend the conditional use permit for the Lower Minnesota River Watershed District, subject to the following conditions:

1. Approval is subject to Engineering Department review and approval of all site, grading, construction, and storm water management plans and erosion control plans
2. No grading shall be allowed within required wetland buffers and vegetation must remain as natural wetland grasses.
3. Once the dredging operation has ended, the District shall be responsible to remove the material and restore the site to a height not to exceed 720 feet and seed the site with native vegetative species approved by the Natural Resources Coordinator.
4. The District shall be responsible for the upkeep and on-going maintenance of Vernon Avenue, including any plowing and the road shall be left in equal to or better condition after the 3rd hauling season is completed in 2017. The road's existing condition shall be documented before hauling begins and a meeting on-site with city staff shall be required to determine what restoration is needed to bring the road to the original condition. Final restoration, at a minimum, will include patching with bituminous.
5. The City shall be provided with 24 hour notification of hauling days.
6. There shall be no U turns allowed on TH 13. At no time shall any trucks stack onto TH 13 or any other roadways except Vernon Avenue. Trucks shall be prohibited from blocking railroad tracks.

7. Truck hauling during peak periods shall be limited to the hours of 7 am – 5 pm Monday through Friday. Hauling during nights and weekends shall be with permission only from the City Engineer/Public Works Director.
8. Truck traffic on local roadways shall only be limited to: 1.) empty eastbound trucks returning to the site shall use the south frontage road to Quentin Avenue where they may travel north to the Quentin Avenue stoplight to go eastbound on TH 13 to Vernon Avenue and 2.) loaded trucks exiting the site that need to travel eastbound shall turn left at Dakota Avenue after exiting onto westbound TH 13 and travel east along the south frontage road to Yosemite Avenue to exit onto eastbound TH 13. No other local truck traffic shall be allowed on local roadways.
9. Vernon Avenue shall remain open for two-way truck traffic up to the existing gate at the railroad tracks and may be reduced to one-lane truck traffic north of the gate. The shoulders of Vernon Avenue shall be adequate to handle large size trucks and their turning movements.
10. A monthly report shall be submitted to the City for any month in the calendar year that incurs removal of dredge material. The report shall provide detailed information of the amounts removed, number of trucks hauled, contractor removing material, truck accidents and any other miscellaneous information that may be pertinent to the hauling operation. Information regarding the addition of new dredge material added to the stock pile site shall be provided to the City as they become available.
11. Sediment deposit on public streets as a result of such hauling shall be removed and streets cleaned as required by City staff.
12. The CUP will be formally reviewed by the Planning Commission and City Council after the first hauling season is completed to address any issue that may arise and to possibly add additional conditions regarding the truck hauling operations.

Adopted by the Mayor and Council of the City of Savage, Scott County, Minnesota, this 7th day of July 2014.


 Janet Williams, Mayor

ATTEST:


 Barry A. Stock
 City Administrator

Motion by: Abbott

Second by: McColl

	<u>Aye</u>	<u>Nay</u>
Williams	<u>X</u>	_____
McColl	<u>X</u>	_____
Victorey	<u>X</u>	_____
Abbott	<u>X</u>	_____
Kelly	<u>X</u>	_____

Unload location:
Commercial slips

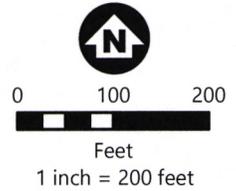
Unload location:
USACE operations

Cell 2
Dredge material from
USACE dredging operations

Cell 1
Dredge material from
commercial slips

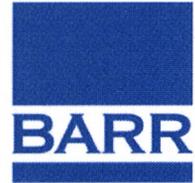
Cell 3
Additional storage space
Secondary storage for
continued dewatering

- Access Road
- Cell 1
- Cell 2
- Cell 3
- Project Boundary
- Mn River Centerline



DREDGE SITE
PROJECT AREA





Technical Memorandum

To: Della Schall Young, Young Environmental Consulting Group
From: Jeff Weiss, Barr Engineering Co.
Subject: Minnesota River No-Rise Certification Evaluation - DRAFT
Date: March 8, 2019
Project: 23701082

The purpose of this memorandum is to provide a summary of the evaluation of potential impacts of the proposed modifications to the Cargill East River Dredge Material Site (Dredge Site) on the modeled water surface elevations for 1% Annual Exceedance Probability Flood, commonly referred to as the 100-year flood, on the Minnesota River. The Dredge Site Project will require information that supports a Minnesota "No-Rise" Certification, which certifies the project will have not result in a modification of the flood plain by more than 0.00 feet. The memorandum summarizes the analysis completed to determine the conditions for which a "No-Rise" Certification can be achieved.

Project Overview and Study Area

The purpose of the Dredge Site Project is to establish permanent berms and facilities to store and dewater dredge material generated from the Minnesota River and nearby commercial facilities. Dredge material is current stored at the site on a temporary basis; however, the Dredge Site Project will establish a permanent configuration for stored materials. Background information on the Dredge Site Project is included in a technical memorandum from Burns & McDonnell and Young Environmental Consulting Group, dated February 15, 2017, and the Cargill East River (MN – 14.2 RMP) Dredge Material Site Management Plan (Lower Minnesota River Watershed District, 2013).

The study area is on the floodplain of the Minnesota River, near the Soo Line Railroad Bridge in Savage, MN (Figure 1). The main study area was concentrated between rivers stations 35 and 39; however, as discussed in the hydraulic analysis section below, the analysis reviewed modeling results further upstream of River Station 39.

Hydraulic Analysis

The hydraulic analysis utilized the HEC-RAS model (version 5.0.6) used by the U.S. Army Corps of Engineers (USACE) to develop the effective floodplain for the Minnesota River within the study area. The USACE developed the base model in 2004 (see Attachment A). The original model configuration was preserved as a reference, and to be consistent with other FEMA floodplain analyses the original configuration is referred to as the Duplicate Effective Model.

The following bullet points highlight key modifications to create the Corrected Effective Model:

- Ineffective flow areas upstream and downstream of the TCWRR Bridge were modified to more accurately model the flow at the bridge
- Manning's n roughness values were adjusted in some areas to reflect existing vegetation cover.
- Additional cross sections were added in the study area to more accurately model transitions between different topographic features.

All other aspects of the model (e.g. flows, boundary conditions, modeling parameters, etc.) were left unchanged between the duplicate effective and corrected effective models. However, one feature that should be noted is that neither the Duplicate Effective Model nor the Corrected Effective Model include the temporary berms and dredge material that is often on site.

Ineffective flow areas

The modifications to the ineffective flow areas were the most significant change made to the Corrected Effective Model and warrant additional discussion. The ineffective flow areas were initially adjusted by using guidelines in the Bridge Hydraulic Analysis with HEC-RAS (USACE, 1996). The ineffective flow areas were further modified to more accurately account for the specific flow characteristics regarding depth of overtopping flow and the height of the railroad in relation to the floodplain. The top of the railroad is significantly higher (~16 feet) than much of the adjacent floodplain. If flood flows remain below the top of the railroad, then the railroad creates a significant "shadow" where most of the water adjacent to the railroad is effectively backwater and not actively flowing. A portion of the railroad and bridge is overtopped by a relatively small depth (~2.5 feet on average) during the 100-year flood; however the depth of overtopping the railroad is significantly smaller than the elevation difference between the top of the railroad and the adjacent floodplain. To accurately account for the effective flow area upstream and downstream of the bridge, the effective flow and ineffective flow areas were modeled in the following ways:

- The expansion and contraction of the effective flow areas were modeled using guidelines in Bridge Hydraulic Analysis with HEC-RAS (USACE, 1996)
- The area of effective flow above the top of the bridge due to overtopping flows was preserved in upstream and downstream cross sections
- Areas of ineffective flow were preserved if they were too far from the bridge opening to be effective flow or too far below the elevation of the overtopping railroad and bridge to be effective flow.

The difference in the modeled ineffective flow areas for the Duplicate Effective Model and the Corrected Effective Model are illustrated in Figures 2 and 3.

To: Della Schall Young, Young Environmental Consulting Group
From: Jeff Weiss, Barr Engineering Co.
Subject: Minnesota River No-Rise Certification Evaluation - DRAFT
Date: March 8, 2019
Page: 4

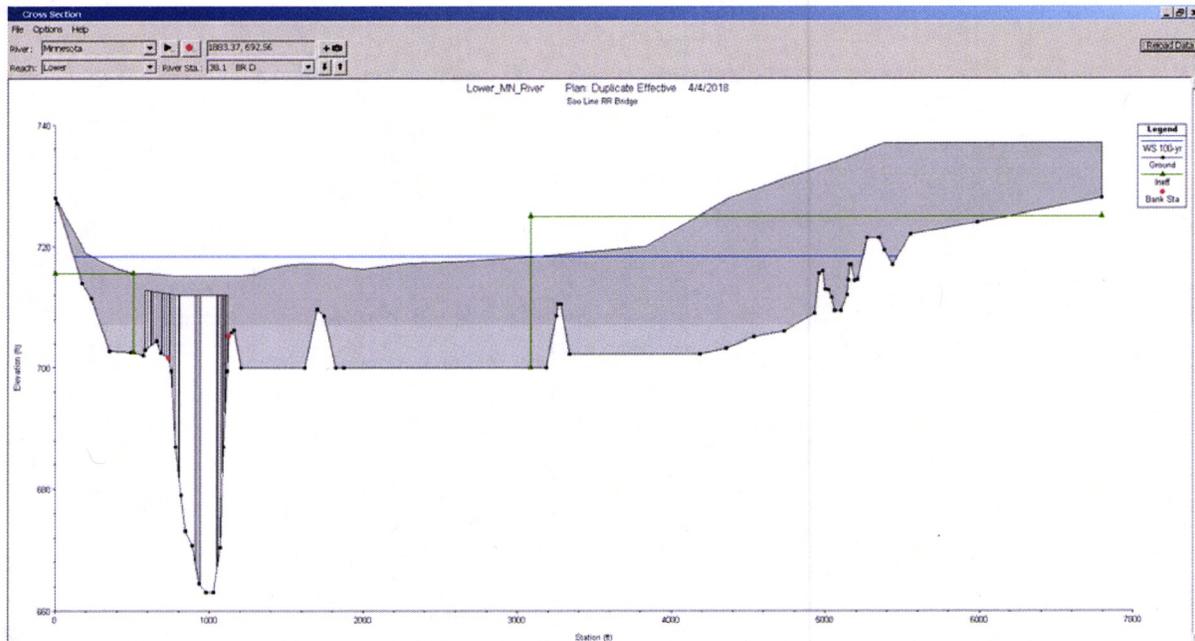


Figure 2 – Cross Section at Railroad Bridge in Duplicate Effective Model. Note little ineffective flow area (inside green outline) below the top of the railroad

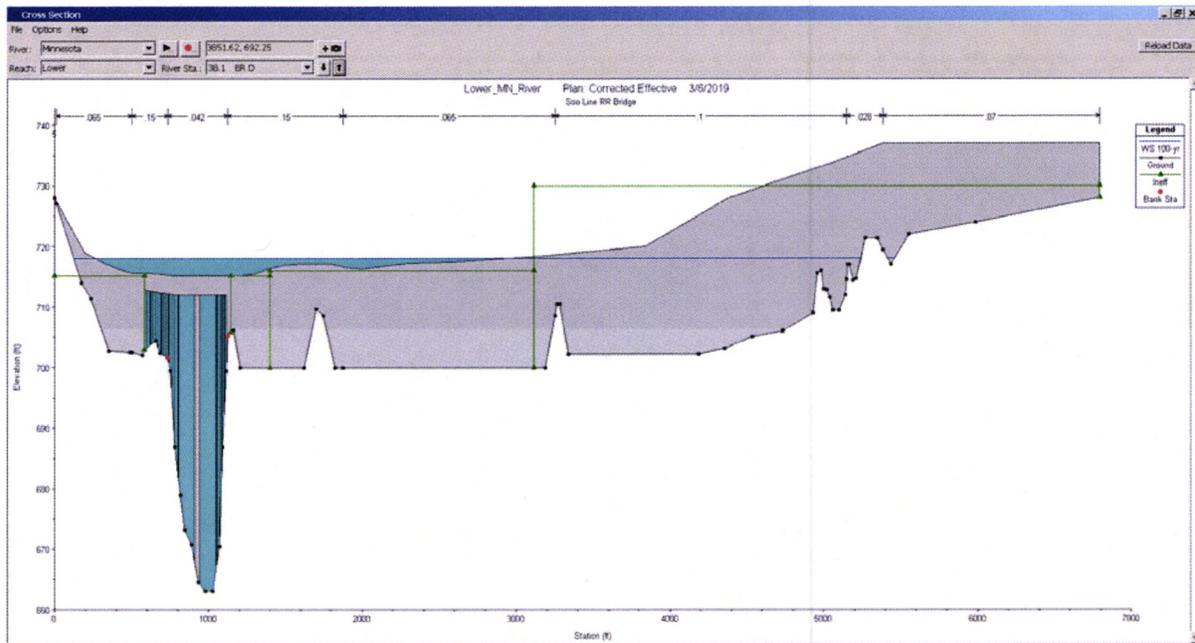


Figure 3 – Cross Section at Railroad Bridge in Corrected Effective Model. Note added ineffective flow area (green outlines) below the top of the railroad

Proposed Conditions Model

The modifications made to create the Corrected Effective Model were carried forward to the Proposed Conditions Model such that the only changes made to the proposed conditions model was to add the proposed permanent storage and dewatering areas for dredge materials. The comparison of existing and proposed cross sections is shown in Figures 4 and 5 on the following page.

Table 1 includes the comparison of modeled water surface elevations for the Corrected Effective and Proposed conditions models. The no-rise certification requires a change of no more than 0.00 for any modeled water surface elevation. The proposed berm elevations are 715.0 for the northtwo western storage areas and 706.0 feet for the eastern storage area. These initial berm elevations were found to create changes to the modeled 100-year floodplain, so the berm elevations were modified iteratively until the maximum elevations were found that would also comply with the criteria to complete a No-Rise Certification. Table 1 shows the modeling results for the project area.

Table 1 HEC-RAS model results for water surface elevations within the study area

River Station		35	35.5 ^a	35.75 ^a	36	36.5 ^a	37	TCWRR Bridge	39	40
1% AEP Event	Corrected Effective	717.36	717.41	717.45	717.53	717.67	717.75		718.00	718.61
	Proposed	717.36	717.41	717.45	717.53	717.67	717.75		718.00	718.61
	Difference	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00
Floodway	Corrected Effective	717.58	717.62	717.67	717.73	717.91	717.98		718.18	718.78
	Proposed	717.58	717.62	717.66	717.73	717.91	717.98		718.18	718.78
	Difference	0.00	0.00	-0.01	0.00	0.00	0.00		0.00	0.00

^a – Cross section added to more accurately model the project area

The no-rise certification requires no more than a 0.00 change in the water surface elevation for any modeled cross section for both the 1% AEP Event and the Floodway. As can be seen in Table 1, this criteria is met for all cross sections except for cross section 35.75, where the proposed conditions model results have a decrease of 0.01 feet for the Floodway model. When the model results are expanded to more decimal places, the modeled water surface elevations for the corrected effective and proposed conditions for the Floodway model are 717.6660 and 717.6649, respectively. Therefore, the difference in the modeled water surface elevation is only 0.0011 feet and the difference shown in Table 1 is attributed to rounding. The HEC-RAS model results are both the 1% AEP Event and the Floodway model are included as attachments A and B to this memorandum.

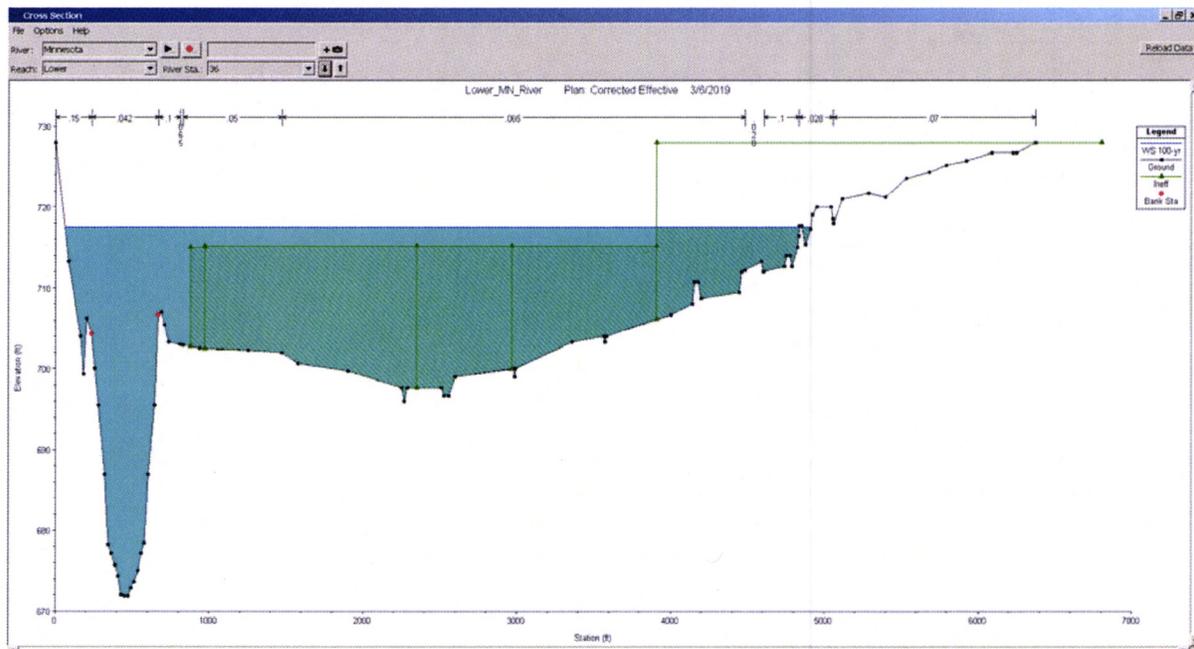


Figure 4 – Cross Section at River Station 36 in Corrected Effective Model. Green hatch areas are ineffective flow areas.

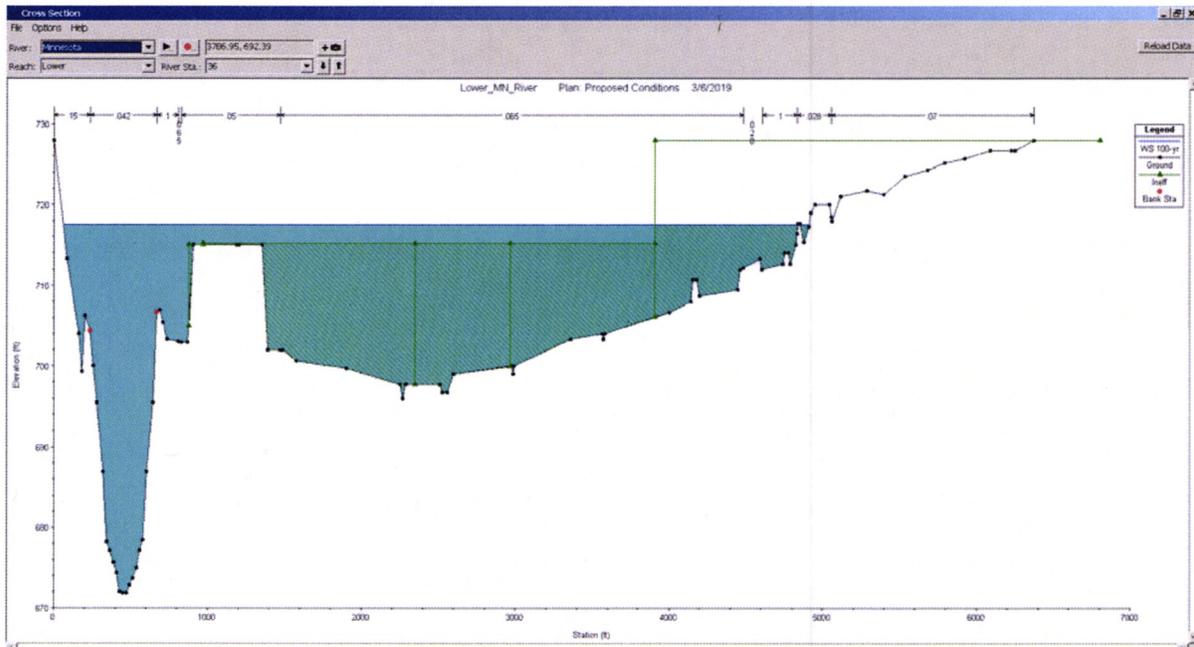


Figure 5 - Cross Section at River Station 36 in Proposed Conditions Model. Green hatch areas are ineffective flow areas. Ground was modified to show proposed berms and storage areas

To: Della Schall Young, Young Environmental Consulting Group
From: Jeff Weiss, Barr Engineering Co.
Subject: Minnesota River No-Rise Certification Evaluation - DRAFT
Date: March 8, 2019
Page: 7

Conclusion

The proposed project to construct permanent berms within the project area will not cause an increase in modeled flood elevations, and a no-rise certification is justified.

References

Burns & McDonnell, Technical Memorandum, February 15, 2017

LMRWD. January 2013. "Cargill East River (MN – 14.2 RMP) Dredge Material Site Management Plan"
Lower Minnesota River Watershed District.

USACE. April 1996. "Bridge Hydraulic Analysis with HEC-RAS" TP – 151. US Army Corps of Engineers
Institute for Water Resources, Hydrologic engineering Center, Davis, CA

Attachments:

Attachment A: HEC-RAS model results for the 1% AEP Event
Attachment B: HEC-RAS model results for the Floodway model
Attachment C: Minnesota "No-Rise" Certification

MINNESOTA "NO-RISE" CERTIFICATION

This is to certify that I am a duly qualified professional engineer licensed to practice in the State of Minnesota.

It is further to certify that the attached technical data supports the fact that the proposal

to construct a permanent dredge
material management site

(development name / short project description)

will not impact the floodway width or 100-year flood elevation (will not raise or lower by more than 0.00 feet) on the Minnesota River (Name of stream) at published sections in the Flood Insurance Study for Savage (Name of Community) dated _____ (Study Date) and will not impact the 100-year flood elevation (will not raise or lower by more than 0.00 feet) at unpublished cross-sections in the vicinity of the proposed development / project.

Attached are the following documents that support my findings:

HEC-RAS output tables

Summary memorandum

Date: 3/8/19

Signature: [Signature] PE 48031 {SEAL}

Title: Sr. Water Resources Engineer

TOPOGRAPHIC SURVEY

LOWER MINNESOTA RIVER WATERSHED DISTRICT, DREDGE SITE

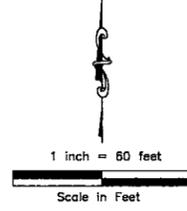
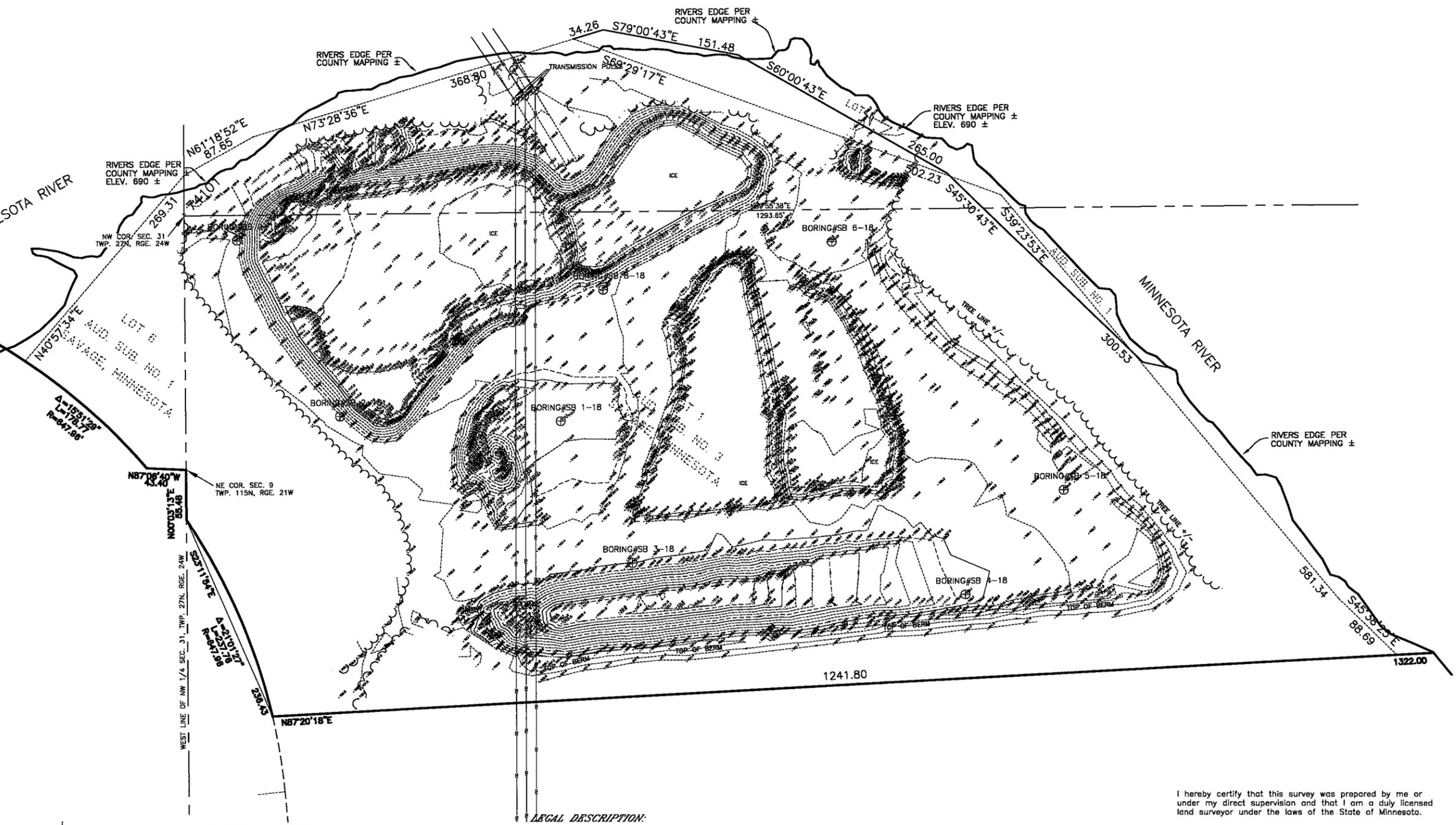
12020 VERNON AVENUE, SAVAGE, MN 55378

LEGEND

- ◆ FIRE HYDRANT
- ⊙ WATER VALVE
- MANHOLE
- ⊠ CATCH BASIN
- ⊕ POWERPOLE
- ⊛ LIGHT POLE
- GUY
- ⊠ TRANSFORMER
- ⊠ ELECTRIC METER
- ⊠ TV PEDestal
- ⊠ TELEPHONE PEDestal
- ⊠ AIR CONDITIONER
- ⊠ HAND HOLE
- ⊠ SEMAPHORE
- ⊠ GAS METER
- S SANITARY SEWER
- ST STORM SEWER
- W WATERMAIN
- G UNDERGROUND GAS MAIN
- T UNDERGROUND TELEPHONE
- E UNDERGROUND ELECTRIC
- TV UNDERGROUND CABLE TV
- OU OVERHEAD UTILITY LINES
- IRON MONUMENT FOUND
- IRON PIPE MONUMENT SET
- EXISTING SPOT ELEVATION
- SOIL BORING
- ▲ SIGN
- DECIDUOUS TREE
- CONIFEROUS TREE
- DENOTES TREE AND BRUSH LIMITS
- DENOTES PROPOSED DRAINAGE ARROW
- (+4.00) DENOTES PROPOSED ELEVATION
- CURB STOP
- CLEAN OUT
- BUSH
- ⊠ BARSBECUE GRILL
- AUTO SPRINKLER
- ⊠ BASKETBALL HOOP
- ⊠ BENCH
- WATER SPROUT
- ⊠ TRENCH DRAIN
- ⊠ MONITORING WELL
- ⊠ STORM DISPATER
- ⊠ SATELLITE DISH
- ⊠ TELEPHONE
- ⊠ ELECTRIC PEDestal
- FLAG POLE
- ⊠ GROUND LITE
- ⊠ MAILBOX
- ⊠ ROOF BRACH
- ⊠ TRANSMISSION TOWER
- ⊠ VENT PIPE
- ⊠ WELL
- DENOTES ELEC. LINE
- DENOTES FENCE LINE
- DENOTES FIBER OPTIC
- DENOTES GAS LINE
- DENOTES SANITARY SEWER
- DENOTES STORM SEWER
- DENOTES TELEPHONE LINE
- DENOTES TV LINE
- DENOTES OVERHEAD UTL.
- DENOTES WATERMAIN
- DENOTES WETLAND
- DENOTES RAIL ROAD

Alterations to this drawing are prohibited without the express written permission of PTS Land Services, Inc.

This survey reflects above ground indications of utilities and information available from asbuilt drawings. The surveyor makes no guarantee that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated, although he does certify that they are located as accurately as possible from information available. The surveyor has not physically located underground utilities.



SURVEYORS NOTES:

- THIS SURVEY IS BASED ON THE FOLLOWING:
- HORIZONTAL: NADB3(1996) MINNESOTA STATE PLANE--SOUTH ZONE.
 - VERTICAL: NAVD83
- BENCHMARKS USED:
- MNDOT STATIONS ; BORN 2013 AND 7001 BA 2013 FOR HORIZONTAL AND VERTICAL ADJUSTMENT.
3. LEGAL DESCRIPTION AND BOUNDARY INFORMATION SUPPLIED BY THE CITY OF SAVAGE.

LEGAL DESCRIPTION:

Lots 5 and 6, Auditor's Subdivision No. 1, Savage, Minnesota, a duly recorded plat, Scott County, Minnesota and that part of Lot 1, Auditor's Subdivision No. 3, Savage, Minnesota, a duly recorded plat, Scott County, Minnesota lying northerly of the following described line and its westerly extension: Commencing at the northeast corner of Section 9, Township 115, North, Range 21 West, Scott County, Minnesota; thence South 00 degrees 03 minutes 13 seconds west, assumed bearing, along the westerly line of said Lot 1 a distance of 55.48 feet; thence southeasterly 237.76 feet along the westerly line of said Lot 1 and along a non tangential curve concave to the southwest having a radius of 647.97 feet and a central angle of 21 degrees 01 minutes 26 seconds, the chord of said curve is 236.43 feet in length and bears South 23 degrees 11 minutes 54 seconds east to the point of beginning of the line to be described; thence north 87 degrees 20 minutes 18 seconds east 1322 feet more or less to the shoreline of the Minnesota River, said shoreline also being the northeasterly line of said Lot 1, and said line there terminating.

I hereby certify that this survey was prepared by me or under my direct supervision and that I am a duly licensed land surveyor under the laws of the State of Minnesota.

Signed the 9th day of January, 2019

Timothy S. Peterson
 Timothy S. Peterson
 Minnesota License No. 45332
 For PTS Land Services, Inc.
 REVISED 6-27-19 BOUNDARY AND LEGAL DESCRIPTION

PTS LAND SERVICES, INC.
 COMPLETE LAND SURVEYING SERVICES



LEGEND

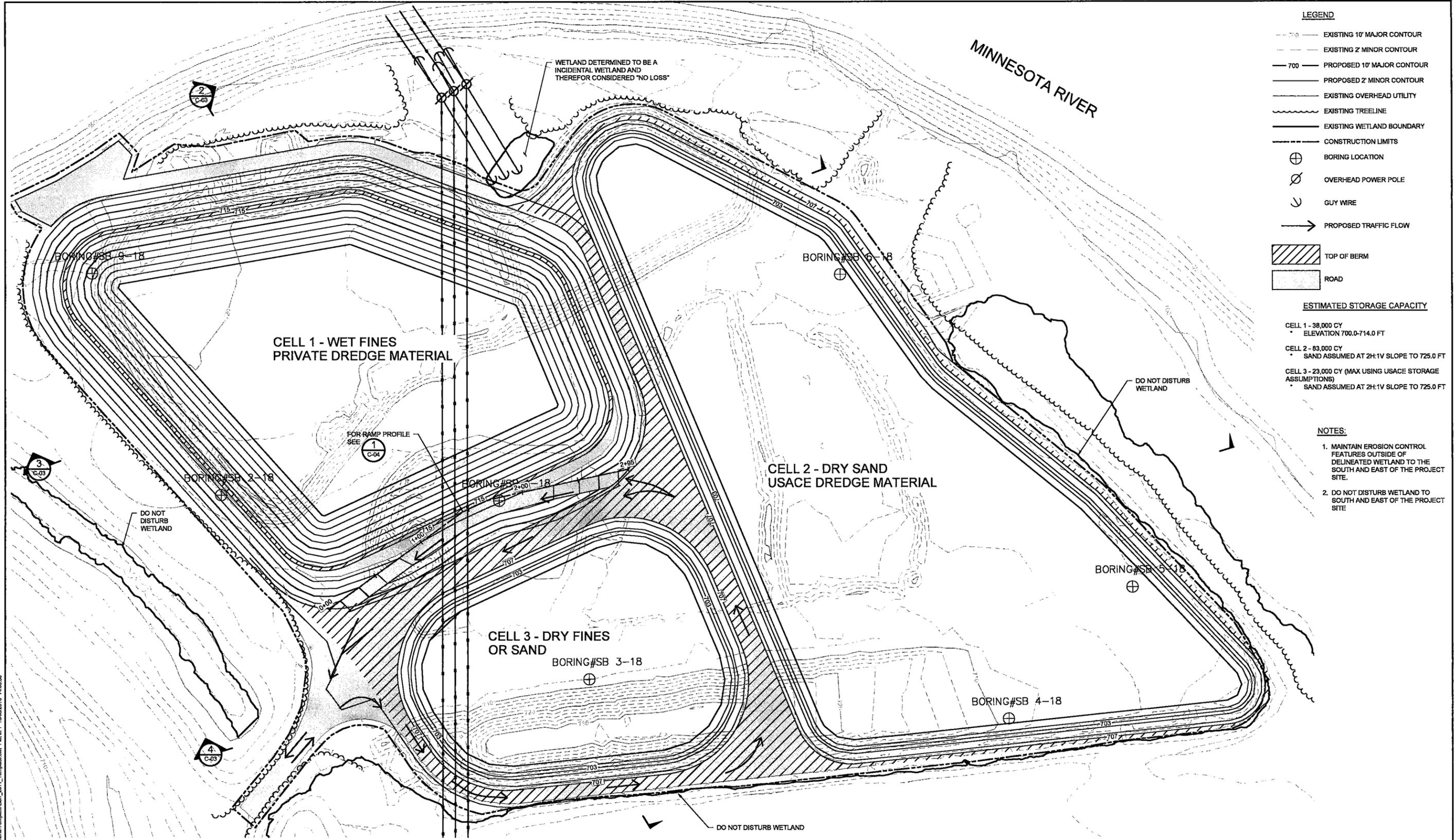
- 10' MAJOR CONTOUR
- 2' MINOR CONTOUR
- EXISTING OVERHEAD UTILITY
- EXISTING TREELINE
- EXISTING WETLAND BOUNDARY
- PARCEL BOUNDARY
- ⊕ BORING LOCATION
- ⊗ OVERHEAD POWER POLE
- ∩ GUY WIRE
- ▨ EXCAVATION OF PRIVATE DREDGE MATERIAL
- ▩ EXCAVATION OF CLEAN MATERIAL PRIOR TO BERM AND ROAD CONSTRUCTION

1 PLAN: EXISTING DREDGE STOCKPILES
 SCALE IN FEET
 0 40 80

90% FOR PERMITTING
 NOT FOR CONSTRUCTION

		THEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINTED NAME: <u>JEFFERY WEISS</u> SIGNATURE: _____ DATE: <u>05/02/2019</u> LICENSE # <u>48031</u>		CLIENT: <u>02/08/19</u> BID: _____ CONSTRUCTION PERMIT: <u>02/28/19 05/02/19</u> RELEASED TO/FOR: _____ DATE RELEASED: _____		 Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE Suite 200 MINNEAPOLIS, MN 55435 Ph: 1-800-632-2277 Fax: (652) 832-2601 www.barr.com		Scale: <u>AS SHOWN</u> Date: <u>01/17/2019</u> Drawn: <u>ATS</u> Checked: <u>JLB2</u> Designed: <u>ATS</u> Approved: <u>JDW</u>		LOWER MINNESOTA RIVER WATERSHED DISTRICT		DREDGE STOCKPILES AREAS SAVAGE, MINNESOTA		BARR PROJECT No. <u>23701082.00</u> CLIENT PROJECT No. _____																							
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>BY</th> <th>CHK</th> <th>APP.</th> <th>DATE</th> <th>REVISION DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>		NO.	BY	CHK	APP.	DATE	REVISION DESCRIPTION																									EXISTING SITE CONDITIONS AND REVMOALS		DWG. No. <u>C-01</u>		REV. No. <u>C</u>	
NO.	BY	CHK	APP.	DATE	REVISION DESCRIPTION																																

CADD USER: Amanda Remington FILE: M:\DESIGN\2019\00207010200_C-02.DWG PLOT SCALE: 1:2 PLOT DATE: 5/20/2019 5:20 PM
 BARR M:\AutoCAD 2011\AutoCAD 2011\Support\enu\Templates\Barr_2011_Template.dwt Plot at: 1:00052010 1403350



LEGEND

- EXISTING 10' MAJOR CONTOUR
- EXISTING 2' MINOR CONTOUR
- 700 --- PROPOSED 10' MAJOR CONTOUR
- PROPOSED 2' MINOR CONTOUR
- EXISTING OVERHEAD UTILITY
- EXISTING TREELINE
- EXISTING WETLAND BOUNDARY
- CONSTRUCTION LIMITS
- ⊕ BORING LOCATION
- ⊗ OVERHEAD POWER POLE
- ⤵ GUY WIRE
- ➔ PROPOSED TRAFFIC FLOW
- ▨ TOP OF BERM
- ▭ ROAD

ESTIMATED STORAGE CAPACITY

CELL 1 - 38,000 CY
 * ELEVATION 700.0-714.0 FT

CELL 2 - 83,000 CY
 * SAND ASSUMED AT 2H:1V SLOPE TO 725.0 FT

CELL 3 - 23,000 CY (MAX USING USACE STORAGE ASSUMPTIONS)
 * SAND ASSUMED AT 2H:1V SLOPE TO 725.0 FT

- NOTES:**
1. MAINTAIN EROSION CONTROL FEATURES OUTSIDE OF DELINEATED WETLAND TO THE SOUTH AND EAST OF THE PROJECT SITE.
 2. DO NOT DISTURB WETLAND TO SOUTH AND EAST OF THE PROJECT SITE.

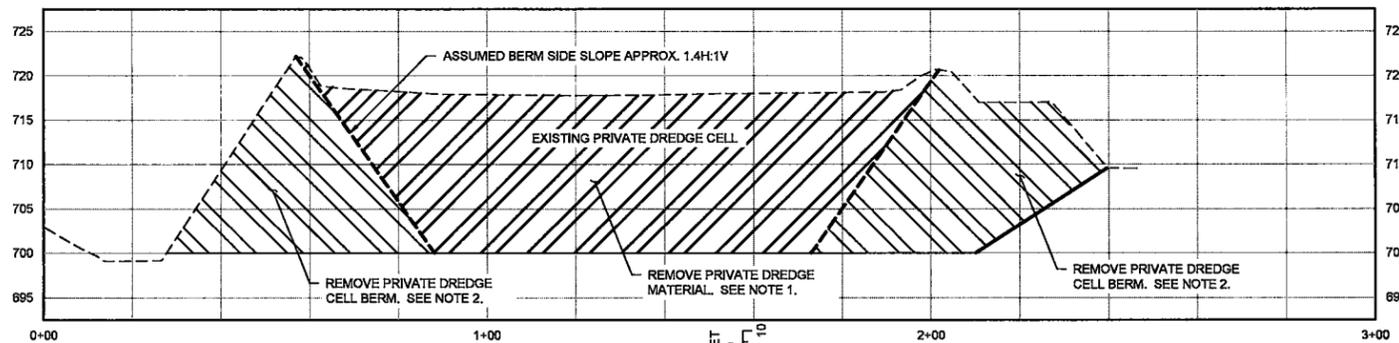
1 PLAN: PROPOSED DREDGE STOCKPILES

0 40 80
 SCALE IN FEET

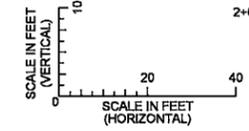
⬆ N

90% FOR PERMITTING
 NOT FOR CONSTRUCTION

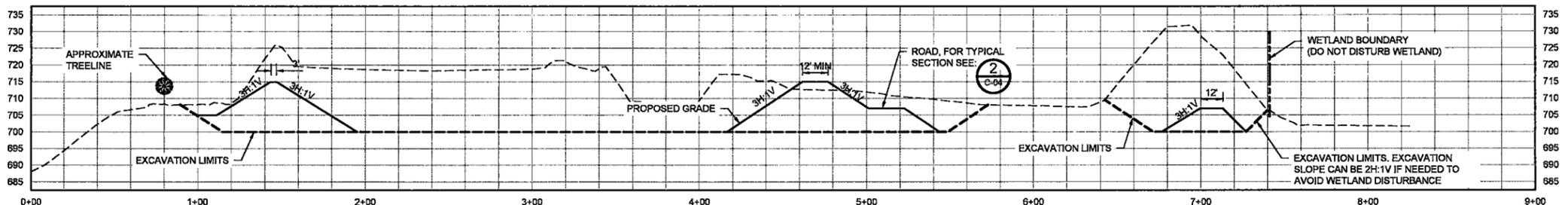
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINTED NAME: JEFFERY WEISS SIGNATURE: _____ DATE: 05/02/19 LICENSE #: 48031				CLIENT: 12/21/18 02/08/19 CONSTRUCTION PERMITTING: 02/26/19 05/02/19 RELEASED TO FOR: A B C D O 1 2 DATE RELEASED:				BARR Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-832-2277 Fax: (652) 832-2801 www.barr.com		Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE Suite 200 MINNEAPOLIS, MN 55435 Ph: 1-800-832-2277 Fax: (652) 832-2801 www.barr.com		Scale: AS SHOWN Date: 01/17/2019 Drawn: ATS Checked: JLB2 Designed: ATS Approved: JDW		LOWER MINNESOTA RIVER WATERSHED DISTRICT		DREDGE STOCKPILES AREAS SAVAGE, MINNESOTA PROPOSED SITE CONDITIONS PLAN VIEW		BARR PROJECT No. 23701082.00 CLIENT PROJECT No.		DWG. No. C-02 REV. No. D	
NO.	BY	CHK	APP.	DATE	REVISION DESCRIPTION																



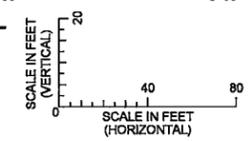
1 SECTION: REMOVAL
C-01



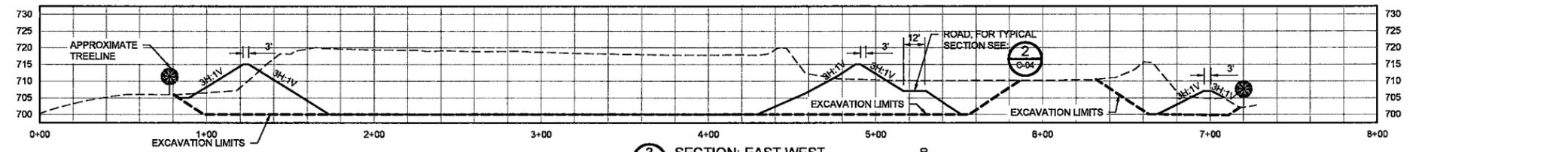
- NOTES (FOR SECTION 1):
1. REMOVE EXISTING PRIVATE DREDGE MATERIAL AND DISPOSE OF OFFSITE. ANY BERM MATERIAL CONTAMINATED WITH PRIVATE DREDGE MATERIAL SHALL ALSO BE DISPOSED OF OFFSITE.
 2. CLEAN PRIVATE DREDGE BERM MATERIAL TO BE REMOVED AND STOCKPILED ONSITE FOR FUTURE USE.



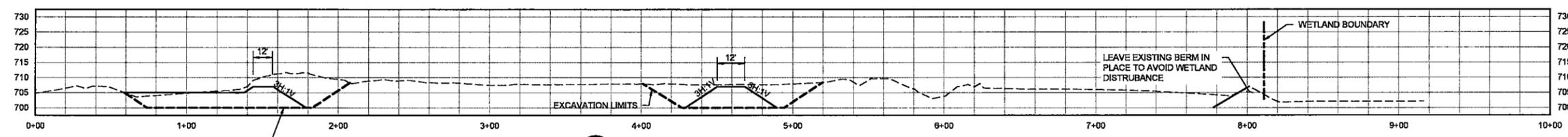
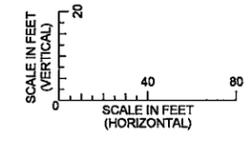
2 SECTION: NORTH SOUTH
C-02



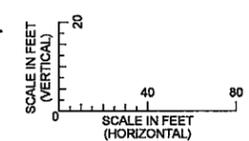
- NOTES:
1. EXCAVATION TO OCCUR PRIOR TO BERM AND ROAD CONSTRUCTION
 2. ALL EXCAVATION SLOPES TO BE 3H:1V UNLESS OTHERWISE NOTED



3 SECTION: EAST WEST
C-03



4 SECTION: EAST WEST 2
C-02



90% FOR PERMITTING
NOT FOR CONSTRUCTION

CADD USER: Amanda Remanson FILE: M:\DESIGN\23701082\00_BARE-CSD-DESIGN\DWG PLOT SCALE: 1:1 PLOT DATE: 5/22/2018 5:27 PM
 BAR: M:\AutoCAD 2011\Support\Templates\Barr_2011_Template.dwt Plot at: 1 10/02/2010 14:03:50

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINTED NAME: JEFFERY WEISS SIGNATURE: _____ DATE: 05/02/2018 LICENSE #: 48031		CLIENT: 12/21/18 CONSTRUCTION: 12/21/2018 PERMITTING: 02/29/19 03/02/19 RELEASED TO/FOR: A B C D O 1 2 DATE RELEASED:		BARR Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE Suite 200 MINNEAPOLIS, MN 55435 Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277 Fax: (652) 832-2601 www.barr.com		Scale: AS SHOWN Date: 12/21/2018 Drawn: ATS Checked: JLB2 Designed: ATS Approved: JDW		LOWER MINNESOTA RIVER WATERSHED DISTRICT		DREDGE MATERIAL STOCKPILES SAVAGE, MINNESOTA DREDGE MATERIAL STOCKPILE SECTIONS		BARR PROJECT No. 23701082.00 CLIENT PROJECT No. DWG. No. C-03 REV. No. D	
NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION								