

CHIPPEWA COUNTY
PLANNING & ZONING COMMITTEE
REGULAR MEETING
SEPTEMBER 22, 2022
CHIPPEWA COUNTY COURTHOUSE, RM 302
4:30 PM

1. CALL TO ORDER

2. ROLL CALL

Attendee Name	Organization	Title	Status	Arrived
David Eisenhuth	Chippewa County	District 15 (Chair)	Present	
Jason Bergeron	Chippewa County	District 7 (Vice-Chair)	Present	
Dean Gullickson	Chippewa County	District 5	Absent	
Caden Berg	Chippewa County	District 13	Present	
Chuck Hull	Chippewa County	District 19	Present	

3. MEMBERS OF THE PUBLIC WISHING TO BE HEARD

None.

4. CONSENT AGENDA

Motion to Approve.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Jason Bergeron, District 7 (Vice-Chair)
SECONDER:	Caden Berg, District 13
AYES:	Eisenhuth, Bergeron, Berg, Hull
ABSENT:	Gullickson

1. Approve the Agenda

2. Approve the Minutes

Planning & Zoning Committee - Regular Meeting - Aug 18, 2022 4:30 PM

3. Schedule Next Meeting Date - October 20, 2022 @ 4:30 PM

5. PUBLIC HEARINGS - FOR DISCUSSION AND ACTION

1. 2022-0009 - Schumacher - Rezone - Town of Woodmohr

Motion to Approve with conditions as listed in the staff report as follows:

- a. The owner or buyer shall submit the necessary information per the Uniform Dwelling Code for approval and permitting for the residential portion of the structure.
- b. The applicable UDC inspections shall occur prior to utilizing the structure for living quarters and the issuance of an Occupancy Permit.
- c. If applicable, the owner shall submit the necessary information to the State of Wisconsin for the inclusion of the living quarters within the commercial structure. Any approvals from the State of Wisconsin shall be

Planning & Zoning Committee

Minutes
Regular Meeting

Chippewa County Courthouse, Rm 302

September 22, 2022
4:30 PM

forwarded to the Department of Planning & Zoning.

- d. The owner or buyer shall submit the necessary information for the evaluation of the septic system to show that it is sized for the residential use and the proposed commercial use of the structure.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	David Eisenhuth, District 15 (Chair)
SECONDER:	Jason Bergeron, District 7 (Vice-Chair)
AYES:	Eisenhuth, Bergeron, Berg, Hull
ABSENT:	Gullickson

2. 2022-0009 - Halfman Trust - Haas Sons - CUP - Town of Woodmohr
Motion to approve with the conditions as listed in the draft CUP permit dated 09-20-2022.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Jason Bergeron, District 7 (Vice-Chair)
SECONDER:	Caden Berg, District 13
AYES:	Eisenhuth, Bergeron, Berg, Hull
ABSENT:	Gullickson

6. AGENDA ITEMS FOR FUTURE CONSIDERATION

None

7. ADJOURN

Motion to Adjourn.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Jason Bergeron, District 7 (Vice-Chair)
SECONDER:	Chuck Hull, District 19
AYES:	Eisenhuth, Bergeron, Berg, Hull
ABSENT:	Gullickson

CHIPPEWA COUNTY
PLANNING & ZONING COMMITTEE
REGULAR MEETING
AUGUST 18, 2022
CHIPPEWA COUNTY COURTHOUSE, RM 302
4:30 PM

1. CALL TO ORDER

2. ROLL CALL

Attendee Name	Organization	Title	Status	Arrived
David Eisenhuth	Chippewa County	District 15 (Chair)	Present	
Jason Bergeron	Chippewa County	District 7 (Vice-Chair)	Present	
Dean Gullickson	Chippewa County	District 5	Present	
Caden Berg	Chippewa County	District 13	Present	
Chuck Hull	Chippewa County	District 19	Present	

3. MEMBERS OF THE PUBLIC WISHING TO BE HEARD

None.

4. CONSENT AGENDA

Motion to Approve.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Dean Gullickson, District 5
SECONDER:	Chuck Hull, District 19
AYES:	Eisenhuth, Bergeron, Gullickson, Berg, Hull

1. Approve the Agenda

2. Approve the Minutes

Planning & Zoning Committee - Regular Meeting - Jul 21, 2022 4:30 PM

3. Schedule Next Meeting Date - September 22, 2022 @ 4:30 PM

5. PUBLIC HEARINGS - FOR DISCUSSION AND ACTION

1. 2022-0008 - One Energy Development LLC - CUP - Town of Hallie

Beth Esser and Peter discussed the request of the CUP. An updated site plan was created to extend the vegetative screening on 40th Avenue to easterly. A general discussion occurred regarding the effect on property values, health concerns and timeline for installation. Motion to approve a CUP per the submitted information and the updated site plan showing the extension of the vegetative buffer easterly along 40th Avenue.

Minutes Acceptance: Minutes of Aug 18, 2022 4:30 PM (Consent Agenda)

Planning & Zoning Committee

Minutes
Regular Meeting

Chippewa County Courthouse, Rm 302

August 18, 2022
4:30 PM

RESULT:	APPROVED WITH CONDITIONS [UNANIMOUS]
MOVER:	Jason Bergeron, District 7 (Vice-Chair)
SECONDER:	Caden Berg, District 13
AYES:	Eisenhuth, Bergeron, Gullickson, Berg, Hull

2. Ord. 07-22: Ordinance to Amend Chapter 70, Article IV. Supplemental Regulations, Division 3. Signs, Sections 70-147, 70-148, 70-149 and 70-150 of the Chippewa County Code of Ordinances - Second Reading
Tony Roder, Zoning Inspector, gave a brief overview of the proposed changes. Motion to approve as presented.

RESULT:	FORWARD TO COUNTY BOARD [UNANIMOUS]	Next: 9/13/2022 6:00 PM
MOVER:	Dean Gullickson, District 5	
SECONDER:	Chuck Hull, District 19	
AYES:	Eisenhuth, Bergeron, Gullickson, Berg, Hull	

3. Ord. 08-22: Ordinance to Amend Chapter 70, Article IV. Supplemental Regulations, Division I. Generally., Section 70-115 Home Occupations - Second Reading - Doug Clary
Tony Roder, Zoning Inspector, gave a brief overview of the proposed changes. Motion to Approve

RESULT:	FORWARD TO COUNTY BOARD [UNANIMOUS]	Next: 9/13/2022 6:00 PM
MOVER:	Dean Gullickson, District 5	
SECONDER:	Jason Bergeron, District 7 (Vice-Chair)	
AYES:	Eisenhuth, Bergeron, Gullickson, Berg, Hull	

6. BUSINESS ITEMS

1. Res. 47-22: Resolution to Authorize the Sale of 1.04 Acres of Type B Tax-Deeded Land in the Town of Lake Holcombe that was Acquired through the Enforcement of Delinquent Real Estate Taxes
Todd Pauls, Corporation Counsel, discussed the background on this resolution. Motion to Approve.

RESULT:	FORWARD TO COUNTY BOARD [UNANIMOUS]	Next: 9/13/2022 6:00 PM
MOVER:	Chuck Hull, District 19	
SECONDER:	Dean Gullickson, District 5	
AYES:	Eisenhuth, Bergeron, Gullickson, Berg, Hull	

7. AGENDA ITEMS FOR FUTURE CONSIDERATION

None.

8. ADJOURN

Motion to adjourn at 5.40pm.

Minutes Acceptance: Minutes of Aug 18, 2022 4:30 PM (Consent Agenda)

Planning & Zoning Committee

Minutes
Regular Meeting

Chippewa County Courthouse, Rm 302

August 18, 2022
4:30 PM

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Jason Bergeron, District 7 (Vice-Chair)
SECONDER:	Caden Berg, District 13
AYES:	Eisenhuth, Bergeron, Gullickson, Berg, Hull

Minutes Acceptance: Minutes of Aug 18, 2022 4:30 PM (Consent Agenda)

(Publish – Chippewa Herald – September 8 and September 15, 2022)

CHIPPEWA COUNTY PLANNING & ZONING COMMITTEE
NOTICE OF PUBLIC HEARING
STATE OF WISCONSIN

PUBLIC NOTICE is hereby given to all persons in the County of Chippewa, Wisconsin, that a public hearing will be held on **September 22, 2022** beginning at **4:30 PM** at the Chippewa County Courthouse, Room 302, 711 N Bridge Street, Chippewa Falls, Wisconsin relative to the following request:

Rezone Petition: 2022-0009

Petitioner: Steven J. Schumacher, LLC

Lot 2 of Certified Survey Map 3651, Parcel Number 23009-1134-73651002, which is located in the SE ¼ of the SW ¼, Section 11, Township 30 North, Range 09 West, Town of Woodmohr. Physical Address: 11368 County Hwy SS.

From: Industrial

To: Local Commercial

Conditional Use Permit: 2022-0009

Petitioner: Haas Sons Inc

Property Owner: Leonard & Laura Jean Halfman Trust

To allow a new non-metallic mine (Halfman Pit) in the Agricultural District in accordance with sections 70-71(b)(2), 70-108 and 70-180 through 70-187 of the Chippewa County Zoning Ordinance on parcels which are located in the SE ¼ of the NW ¼, the NE ¼ of the SW ¼ and the NW ¼ of the SE ¼, Section 06, Township 30 North, Range 08 West. Town of Woodmohr.

Specific information regarding these public hearings can be obtained at the Chippewa County Department of Planning & Zoning. All persons interested are invited to attend these hearings.

Dated this 24th day of August, 2022

Douglas Clary, Director
Department of Planning & Zoning
Chippewa County

Attachment: 2022-0009 - Schumacher Rezone - Public Hearing Notices & Maps (7271 : 2022-0009 - Steven Schumacher - Rezone)

CHIPPEWA COUNTY DEPARTMENT OF PLANNING & ZONING

• 711 North Bridge Street, Chippewa Falls, WI 54729 • Phone: 715.726.7940 • Fax: 715.726.4596 • www.co.chippewa.wi.us •

Land Management

Land Planning

Land Records & G.I.S.

POWTS & Wells

Date: August 24, 2022

To: Property Owner(s)

From: Douglas Clary, Director



Re: Public Meetings & Hearing

Dear Property Owner(s):

The Chippewa County Department of Planning & Zoning has received a rezone petition on a parcel of land that is located either adjacent to or in the vicinity of property owned by you. You are receiving this notice because your property has been determined to be within the legal public hearing notification distance per county and state requirements. I have enclosed a map identifying the location of the parcel associated with this petition. Please contact me at (715) 726-7941 if you have any questions regarding this petition.

REZONE PETITION #2022-0009

Petitioner: Steven J. Schumacher, LLC

Lot 2 of Certified Survey Map 3651, Parcel Number 23009-1134-73651002, which is located in the SE ¼ of the SW ¼, Section 11, Township 30 North, Range 09 West, Town of Woodmohr. Physical Address: 11368 County Hwy SS.

From: Industrial

To: Local Commercial

Woodmohr Town Plan Commission:

The Woodmohr Plan Commission will **REVIEW** this petition on **September 8, 2022 at 7:00 pm**, at the Woodmohr Town Hall, 16738 125th Street, Bloomer, Wisconsin 54724. The Plan Commission will forward an **ADVISORY** recommendation to the Woodmohr Town Board to approve, disapprove or approve with modification(s) and/or condition(s).

Woodmohr Town Board:

The Woodmohr Town Board will **REVIEW** this petition on **September 14, 2022 at 7:00 PM**, at the Woodmohr Town Hall, 16738 125th Street, Bloomer, Wisconsin 54724. The Town Board will forward an **ADVISORY** recommendation to the Chippewa County Planning & Zoning Committee to approve or disapprove or approve with modification(s) and/or condition(s).

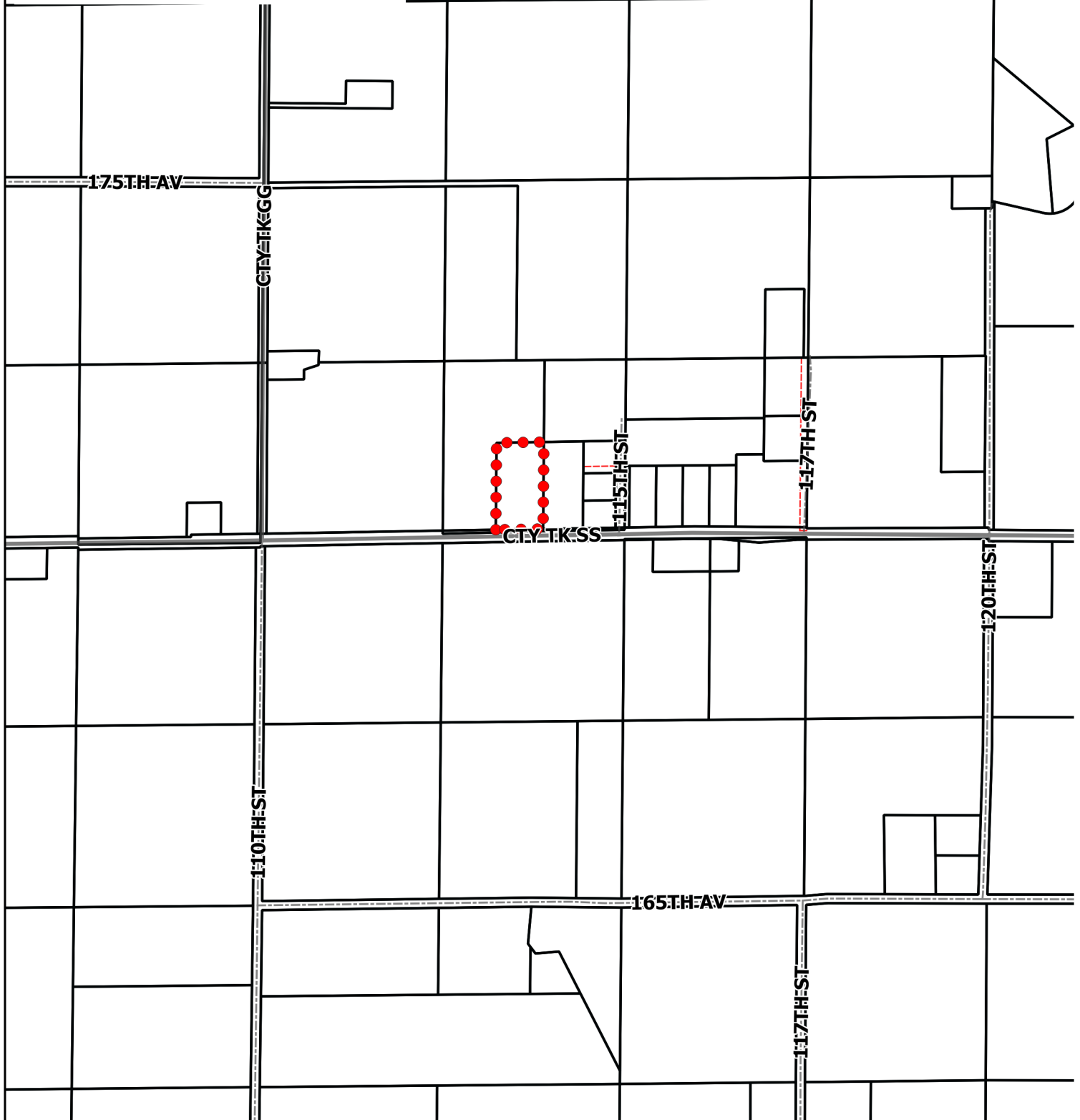
Chippewa County Planning & Zoning Committee:

The Chippewa County Planning & Zoning Committee will hold a **PUBLIC HEARING** for this petition on **September 22, 2022 at 4:30 PM**, in room 302, of the Chippewa County Courthouse located at 711 N. Bridge Street, Chippewa Falls, Wisconsin. The Committee will make a determination on the petition to approve, disapprove or approve with modifications(s) and/or conditions. If the Planning & Zoning Committee approves or approves with modification modifications(s) and/or conditions, the petition will be forwarded to the County Board of Supervisors meeting on October 11, 2022 for their consideration. If the Planning & Zoning Committee disapproves, the petition will fail.

Attachment: 2022-0009 - Schumacher Rezone - Public Hearing Notices & Maps (7271 : 2022-0009 - Steven Schumacher - Rezone)

2022-0009 Steve J. Schumacher, LLC - Rezone Request - Location Map

-  Rezone Request Location
-  Parcel Tax ID
-  Underlying Lots/Portions of Lots



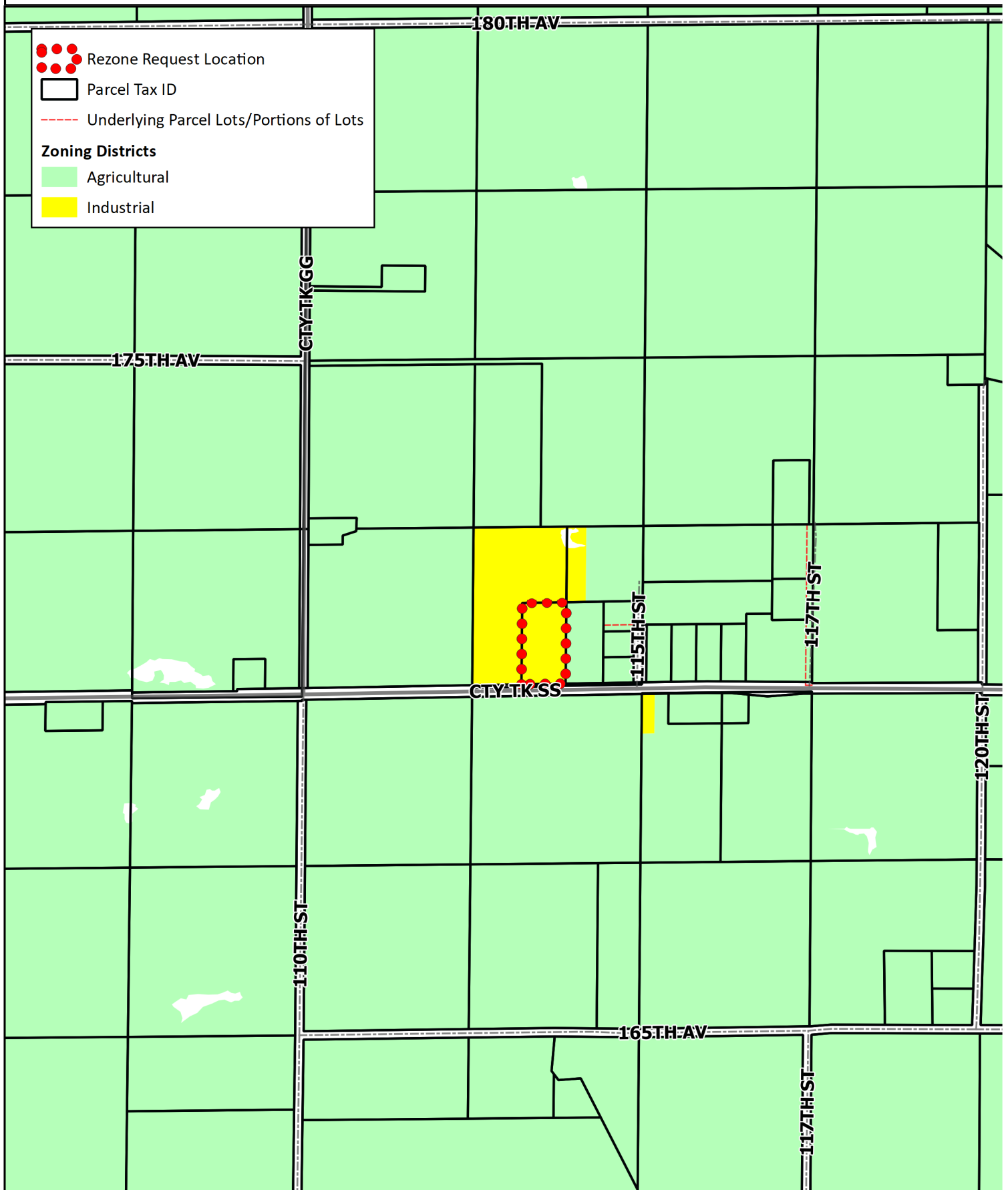
Attachment: 2022-0009 - Schumacher Rezone - Public Hearing Notices & Maps (7271 : 2022-0009 - Steven Schumacher - Rezone)

2022-0009 Steve J. Schumacher, LLC - Rezone Request - Aerial (2020)



Attachment: 2022-0009 - Schumacher Rezone - Public Hearing Notices & Maps (7271 : 2022-0009 - Steven Schumacher - Rezone)

2022-0009 Steve J. Schumacher, LLC - Rezone - Zoning Districts

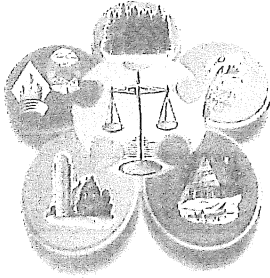


Attachment: 2022-0009 - Schumacher Rezone - Public Hearing Notices & Maps (7271 : 2022-0009 - Steven Schumacher - Rezone)

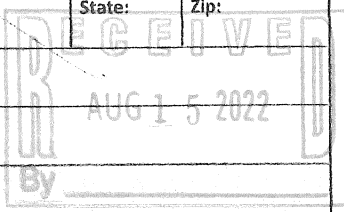
CHIPPEWA COUNTY DEPARTMENT OF PLANNING & ZONING

• 711 North Bridge Street, Chippewa Falls, WI 54729 • Phone: 715.726.7940 • Fax: 715.726.4596 • www.co.chippewa.wi.us •

2022 Rezone Application



Comprehensive zoning consists of written text (commonly referred to as the zoning ordinance) and an official zoning map. The zoning ordinance is a guideline for permitted and conditional uses, which are separated into zoning classifications or districts. The zoning map shows how a town board has designated the particular zoning classifications or districts to parcels of land within their particular jurisdiction. A **REZONE** is where a property owner or other authorized entity seeks to amend the official zoning map, which would allow a use that is currently not permitted on the parcels of land based on the existing zoning classification or district. This is referred to as a zoning map amendment or "rezoning". The requested rezoning change may not be granted if it does not fit with the comprehensive plan and community goals for the respective town and county.

SECTION I: Parcel Owner Information			SECTION II: Agent Information		
Name: <u>Steven J Schumacher</u>			Name:		
Mailing Address: <u>11368 Hwy 55</u>			Mailing Address:		
City: <u>Bloomer</u>	State: <u>WI</u>	Zip: <u>54724</u>	City:	State:	Zip:
Telephone: <u>715-210-2401</u>			Telephone:		
Email Address (Required): <u>pevan@sbcglobal.net</u>			Email Address (Required):		
					
SECTION III: Parcel Information					
Town of: <u>Woodmohr</u>			Property Address: <u>11368 Hwy 55</u>		
Parcel Number(s): <u>23009-1134-73651002</u>			City: <u>Bloomer</u>	State: <u>WI</u>	Zip: <u>54724</u>
Existing Zoning District(s): <u>Industrial - G2</u>			Proposed Zoning District(s): <u>Local Commercial</u>		

GENERAL DIRECTIONS:

- Complete this Application form and the required four (4) parts:
 - ☒ Part 1: General Questions related to the request
 - ☒ Part 2: Planning & Zoning Committee Schedule - 2022
 - ☒ Part 3: General Rezoning Process
 - ☒ Part 4: Applicant Acknowledgement/Signature
- Submit the completed application, all required information and a \$350.00 public hearing fee (Make check payable to: Chippewa County Treasurer) by the deadline (as listed in Part 2) to the Chippewa County Department of Planning & Zoning, Room 009, 711 N. Bridge Street, Chippewa Falls, Wisconsin 54729.
- Make arrangements to attend or have a representative attend any local town plan commission or town board meetings, and the required Planning & Zoning public hearing. This presence is needed so that questions can be answered and concerns addressed.

FOR DEPARTMENT OF PLANNING & ZONING STAFF USE:		
Receipt Number: <u>20875</u>	Appeal Number: <u>2022-0009</u>	Public Hearing Date: <u>9-22-22</u>

Attachment: 2022-0009 - Schumacher Rezone - Application (7271 : 2022-0009 - Steven Schumacher - Rezone)

Chippewa County – 2022 Rezone Application

Once the completed application is received, the Department will prepare a public hearing notice and publish it within the Chippewa Herald. The public hearing notice will include the location and time of the required public hearing before the Chippewa County Planning & Zoning Committee. In addition, your neighbors, the Town Board and any appropriate county or state agencies will be notified. At the public hearing, any party may appear in person or may be represented by an agent or attorney to present information to the Planning & Zoning Committee in support or opposition of the rezone request.

Part 1: General Questions. Please use a separate 8.5" x 11" sheet to answer these questions.

1. As the applicant, do you have legal title to the parcel(s)? If you do not have legal title to the property, please have the property owner sign this application.
2. Identify the parcel(s) that are or will be part of this rezone request. If needed, an additional sheet listing those parcels can be attached.
3. Describe the present and, if known, any proposed improvements on each parcel of land.
4. Explain why you are requesting to rezone of each parcel. Please identify the proposed use of each parcel.
5. Explain the compatibility of your proposed use(s) with the existing use(s) on adjacent parcels and those in the vicinity of this parcel(s).
6. Discuss any additional issues you feel that supports the consistency of your proposed use with County ordinances and plans as well as any Town ordinances or plans.

Be prepared to give a detailed presentation when called upon at the public hearing before the Planning and Zoning Committee. Prepare an outline of your proposal, something similar to a "business plan", detailing for the Planning & Zoning Committee your proposal. Include any documentation you feel is necessary as part of your presentation in defining your proposal for the Committee and possibly the County Board. It is vital to your application to consult with professionals you feel may be able to assist with your application (i.e. surveyor, attorney, engineer, etc.)

Part 2: Planning & Zoning Committee Schedule - 2022

Applications will not be placed on the appropriate agenda unless they are properly completed and include ALL required supporting information or documents and payment of the public hearing fee. Applicants are encouraged to consult with staff of the Department of Planning & Zoning prior to the filing of the application. This is an important step to insure that all pertinent issues are identified and to determine what information in addition to the application forms might be necessary in order for the department to accept and process your application. Please CIRCLE or HIGHLIGHT the meeting you intend on attending:

<u>Application Deadline: 12:00 Noon</u>	<u>Public Hearing</u>
December 22, 2021	January 20, 2022
January 27, 2022	February 24, 2022
February 24, 2022	March 24, 2022
Due to the County Board Reorganization, the April meeting will not occur.	
April 21, 2022	May 19, 2022
May 26, 2022	June 23, 2022
June 23, 2022	July 21, 2022
July 21, 2022	August 18, 2022
August 25, 2022	September 22, 2022
September 22, 2022	October 20, 2022
October 20, 2022	November 17, 2022
November 17, 2022	December 15, 2022

Note: Applications and all supporting information are due at 12:00 Noon on the designated date.

Note: Typically, the Planning & Zoning Committee meetings start at 4:30 PM on the designated dates above.

Note: Deadlines, public hearing dates and times after April 1st are subject to change due to the County Board Reorganization.

Part 3: General Rezoning Process:

- (A) The rezone application is filed with the Department of Planning & Zoning. This includes the legal description of the parcels to be rezoned, a written statement addressing the questions as listed in Part 1 and any other information your feel will aid in a decision on this request.

Chippewa County – 2022 Rezone Application

- (B) The Town Board will be notified of the rezone application. The Town Board can recommend approval or denial of a rezoning request. If the Town Board denies a rezone request, the Planning & Zoning Committee can only recommend an approval with modification to the rezone request or deny the rezone request.
- (C) A Class 2 Public Hearing Notice will be published in the Chippewa Herald detailing the request and the date and time of the Public Hearing.
- (D) Property owners of the land and those property owners within 400' (or maybe a greater distance) of the requested rezone change are notified directly by mail as well as the Town Board Chair and Town Clerk. The notice to the property owners will generally contain a portion of the public hearing notice and information pertaining to meetings to be held at the Town level (plan commission, town board, etc) as well as the Public Hearing in front of the Planning & Zoning Committee.
- (E) General maps (location map, aerial view and existing zoning districts map) will be prepared for the request by the Department.
- (F) A department staff report is prepared and sent to the Planning & Zoning Committee, while comments from the general public are solicited.
- (G) Following the Public Hearing, the Planning & Zoning Committee will make a motion to either approve, approve with modification or deny the rezoning request. If the rezone request receives an approval or approval with modification an ordinance amendment will be prepared and placed on the next County Board meeting agenda for their approval.
- (H) If the County Board approves the rezone and the town board files an objection to the approval, the town board will then have 45 days to veto the rezone request following the applicable state statutes.
- (I) If the rezone request receives County Board approval, the final step is the publication of the amendment in the Chippewa Herald. Once published, the zoning district amendment takes effect. The entire process from application deadline to final publication can take two months or more to complete depending upon the scheduling of hearing dates.

Part 4: Applicant Acknowledgement/Signature

This application must be signed by the property owner or in case of an agreement to purchase the property, a letter from the property owner acknowledging the potential buyer is seeking the rezone.

- I certify that the information I have provided in this application is true, accurate and complete.
- I or a representative will have an opportunity to present to the Planning & Zoning Committee information in favor of this request.
- I have the authority to allow the staff of the Department of Planning & Zoning and Planning & Zoning Committee member's access to the property to conduct necessary inspections related to this request.
- I understand that I cannot speak to any member of the Planning & Zoning Committee about this application, except at the public hearing.
- I understand that I cannot direct any written communication about this application to a member of the Planning & Zoning Committee, unless I also file a copy with the Department of Planning & Zoning and direct additional copies to each person who has registered an interest in this application.
- I also understand that if I or my representative fail to appear in front of the Planning & Zoning Committee during the designated public hearing or my failure to observe the above mentioned rules, my request may be **DENIED**.

Signed: _____

Owner/Agent

Date: _____

8-15-22

Part 5: Planning & Zoning Department Mailing List

Applicant
 Property Owner Owners within 400'
 Planning & Zoning Committee Members
 Town Board Chair & Clerk
 County Board Supervisor
 News Media
 Others
 Wisconsin DNR

US Army Corp of Engineers
 Wisconsin DOT

1. Yes
2. 23009 - 1134-73651002
3. None
4. I Am selling the Building,
And New owners (Buyers) want to Live
within the Building
- 5 ?
- 6 ?

ReZoning Application

1. Owner has legal title to parcel, but has an accepted offer with William and Shanna McMullin who need proof (for lender) that living quarters are allowed on premises before lender will loan on property.
2. Parcel # 23009-1134-73651002 Address: 11368 Cty Hwy SS – Bloomer WI 54724
3. No improvements or additions to building will be made - just a change of business.
4. The parcel is currently zoned industrial, but also currently has a complete living quarters, so we are looking to have it rezoned to local commercial that would allow a residence in conjunction with a business.
5. All adjacent parcels are residential, farm or vacant land. Should not affect any adjacent parcels.
6. Current owner says Town of Woodmohr approved the building for residential and commercial use when he purchased in 2009.

August 15, 2022

Chippewa County Department of Planning and Zoning
711 North Bridge Street
Chippewa Falls, WI 54729

To Whom it May Concern:

Shanna and William McMullin have my permission to attend any and all zoning related hearings and meetings on my behalf regarding the rezoning of my property located at 11368 County Hwy SS in Bloomer, WI. Shanna and William are purchasing this property from me and therefore will better be able to answer any questions the committee may have regarding intended use, etc.

Thank you,

DocuSigned by:

79BF72FCCFC3437...

Steve Schumacher

Attachment: 2022-0009 - Schumacher Rezone - Application (7271 : 2022-0009 - Steven Schumacher - Rezone)

CHIPPEWA COUNTY DEPARTMENT OF PLANNING & ZONING

• 711 North Bridge Street, Chippewa Falls, WI 54729 • Phone: 715.726.7940 • Fax: 715.726.4596 • www.co.chippewa.wi.us •

Land Management

Land Planning

Land Records & G.I.S.

POWTS & Wells

Date: September 21, 2022

To: David Eisenhuth, Planning & Zoning Committee Chair

From: Douglas Clary, Director

Re: Steven J. Schumacher, LLC - Rezone Request

Rezone Information – 2022-0009

1. **Property Owner:** Steven J. Schumacher, LLC
2. **Petitioner/Agent Name:** Shanna McMullin
3. **General Property Location:** Please see the location map that has been provided.
4. **Type of Appeal:** Rezone from Industrial (IND) to Local Commercial (LC). Lot is 5.00 Acres.
5. **Staff Comments - Rezone:** The minimum lot size in the Industrial District is 1.00 acres. However, the Town of Woodmohr has a 2.00 acre minimum lot size requirement.

The current owner created living quarters within this structure without the proper permitting. The proper permitting would have included the submittal of plans to our department for review and approval of the proposed living quarters as well as the necessary inspections.

The rezone petition can still move forward. However, the septic and the living quarters will need to be addressed but not necessarily prior to the rezone approvals. The issue with the septic is that it was sized for a warehouse with 6 employees. So, the 2,000 gallon holding tank might not be sized appropriately for the proposed use and the living quarters. We will need to have the change of use reviewed, submitted and approved by the owner.

The issue with the building is that the previous owner added living quarters to the structure. This would have required a permit from our office and UDC inspections. It would have most likely also included approval of the plans from the State of Wisconsin because this structure is a Commercial Structure.

6. **Staff Recommendation:** I would recommend **APPROVAL** of the rezone with the following conditions:
 - a. The owner or buyer shall submit the necessary information per the Uniform Dwelling Code for approval and permitting for the residential portion of the structure.
 - b. The applicable UDC inspections shall occur prior to utilizing the structure for living quarters and the issuance of an Occupancy Permit.
 - c. If applicable, the owner shall submit the necessary information to the State of Wisconsin for the inclusion of the living quarters within the commercial structure. Any approvals from the State of Wisconsin shall be forwarded to the Department of Planning & Zoning.
 - d. The owner or buyer shall submit the necessary information for the evaluation of the septic system to show that it is sized for the residential use and the proposed commercial use of the structure.
 - e. Any other conditions as seen justifiable to the Planning & Zoning Committee.

CC: File

Attachment: 2022-0009 - Schumacher Rezone - Staff Report (7271 : 2022-0009 - Steven Schumacher - Rezone)



STATEMENT OF EXPLANATION
2022-0009 - HALFMAN TRUST - HAAS SONS - CUP - TOWN OF
WOODMOHR

To allow a non-metallic mine (Halfman Pit) in the Agricultural District in accordance with sections 70-71(b)(2), 70-108 and 70-180 through 70-187 of the Chippewa County Zoning Ordinance on parcels which are located in the SE 1/4 of the NW 1/4, the NE 1/4 of the SW 1/4 and the NW 1/4 of the SE 1/4, Section 06, Township 30 North, Range 08 West. Town of Woodmohr

(Publish – Chippewa Herald – September 8 and September 15, 2022)

CHIPPEWA COUNTY PLANNING & ZONING COMMITTEE
NOTICE OF PUBLIC HEARING
STATE OF WISCONSIN

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Petitioner: Steven J. Schumacher, LLC

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From: Industrial

To: Local Commercial

Conditional Use Permit: 2022-0009

Petitioner: Haas Sons Inc

Property Owner: Leonard & Laura Jean Halfman Trust

To allow a new non-metallic mine (Halfman Pit) in the Agricultural District in accordance with sections 70-71(b)(2), 70-108 and 70-180 through 70-187 of the Chippewa County Zoning Ordinance on parcels which are located in the SE ¼ of the NW ¼, the NE ¼ of the SW ¼ and the NW ¼ of the SE ¼, Section 06, Township 30 North, Range 08 West. Town of Woodmohr.

Specific information regarding these public hearings can be obtained at the Chippewa County Department of Planning & Zoning. All persons interested are invited to attend these hearings.

Dated this 24th day of August, 2022

Douglas Clary, Director
Department of Planning & Zoning
Chippewa County

Attachment: 2022-0009 Haas Sons, Inc. (Halfman Pit) - CUP - Public Hearing Notices & Maps (7272 : 2022-0009 - Halfman Trust - CUP)

CHIPPEWA COUNTY DEPARTMENT OF PLANNING & ZONING

• 711 North Bridge Street, Chippewa Falls, WI 54729 • Phone: 715.726.7940 • Fax: 715.726.4596 • www.co.chippewa.wi.us •

Land Management

Land Planning

Land Records & G.I.S.

POWTS & Wells

Date: August 24, 2022

To: Property Owner(s)

From: Douglas Clary, Director

Douglas Clary

Re: Public Meetings & Hearing

Dear Property Owner(s):

The Chippewa County Department of Planning & Zoning has received a request for a conditional use permit on parcels of land that are located either adjacent to or in the vicinity of property owned by you. You are receiving this notice because your property has been determined to be within the legal public hearing notification distance per county and state requirements. I have enclosed a map identifying the location of the parcels associated with this conditional use petition. If you have any questions regarding this conditional use petition, please contact me at (715) 726-7941.

CONDITIONAL USE PETITION #2022-0009

Petitioner: Haas Sons Inc, Agent

Property Owners: Leonard & Laura Jean Halfman Trust

To allow a new non-metallic mine (Halfman Pit) in the Agricultural District in accordance with sections 70-71(b)(2), 70-108 and 70-180 through 70-187 of the Chippewa County Zoning Ordinance on parcels which are located in the SE ¼ of the NW ¼, the NE ¼ of the SW ¼ and the NW ¼ of the SE ¼, Section 06, Township 30 North, Range 08 West. Town of Woodmohr.

Woodmohr Town Plan Commission:

The Woodmohr Plan Commission will **REVIEW** this petition on **September 8, 2022 at 7:00 pm**, at the Woodmohr Town Hall, 16738 125th Street, Bloomer, Wisconsin 54724. The Plan Commission will forward an **ADVISORY** recommendation to the Woodmohr Town Board to approve, disapprove or approve with modification(s) and/or condition(s).

Woodmohr Town Board:

The Woodmohr Town Board will **REVIEW** this petition on **September 14, 2022 at 7:00 PM**, at the Woodmohr Town Hall, 16738 125th Street, Bloomer, Wisconsin 54724. The Town Board will forward an **ADVISORY** recommendation to the Chippewa County Planning & Zoning Committee to approve or disapprove or approve with modification(s) and/or condition(s).

Chippewa County Planning & Zoning Committee

The Chippewa County Planning & Zoning Committee will hold a **PUBLIC HEARING** on **September 22, 2022 at 4:30 PM**. The Committee will make a final determination to approve or disapprove of the conditional use petition.

Attachment: 2022-0009 Haas Sons, Inc. (Halfman Pit) - CUP - Public Hearing Notices & Maps (7272 : 2022-0009 - Halfman Trust - CUP)

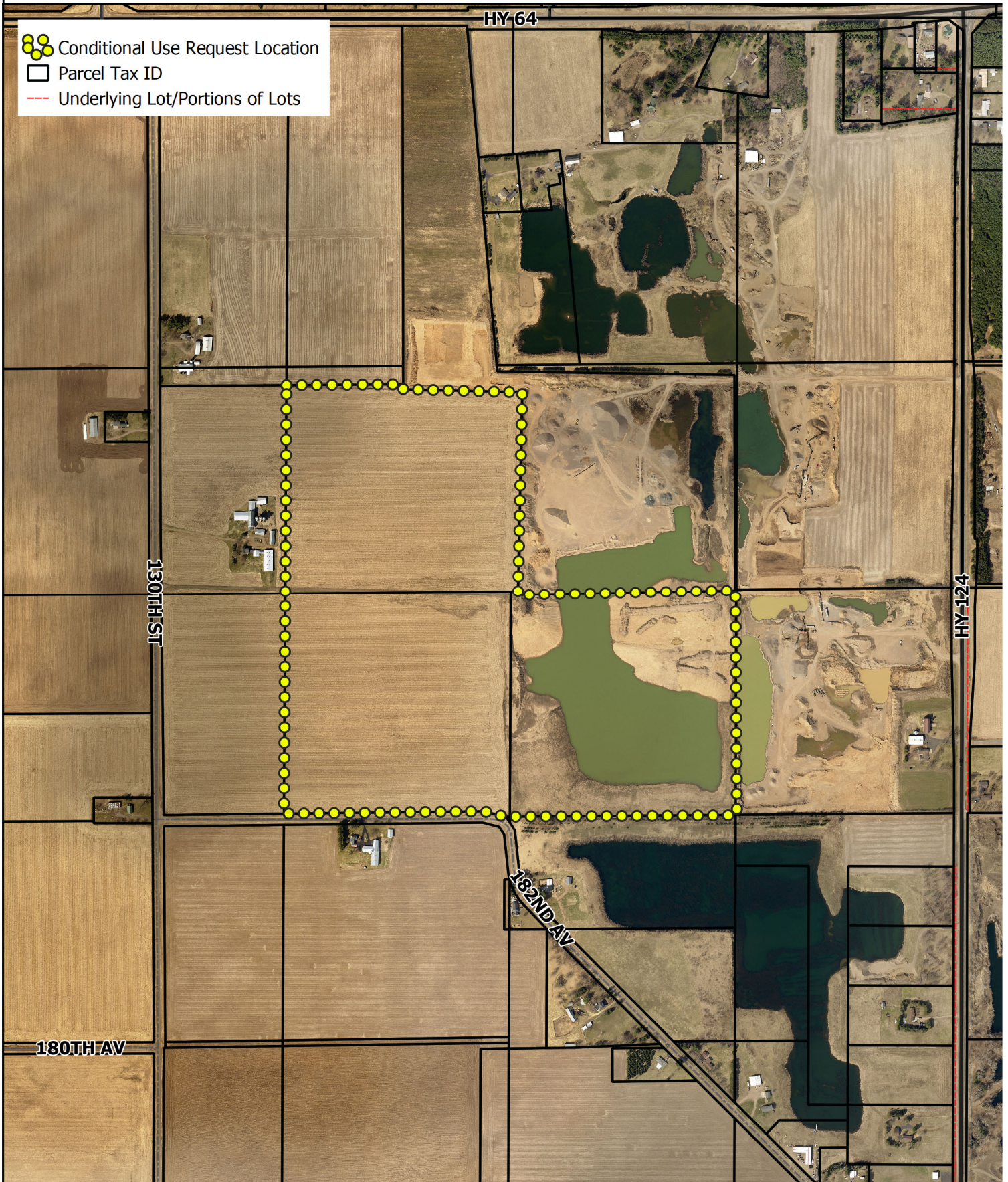
2022-0009 Haas Sons, Inc. (Halfman Pit) - Conditional Use Permit Request - Location Map

-  Conditional Use Request Location
-  Parcel Tax ID
-  Underlying Lots/Portions of Lots



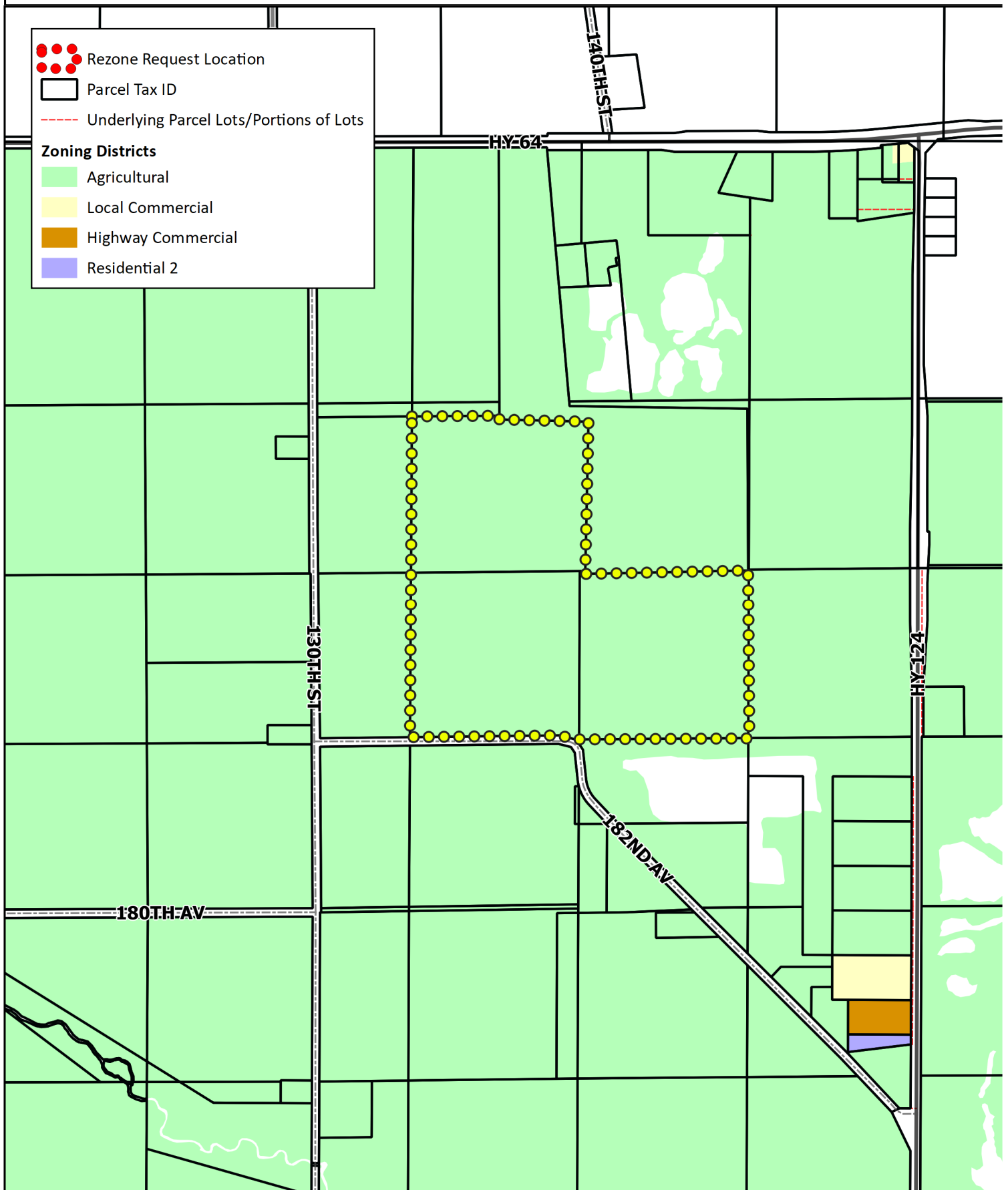
Attachment: 2022-0009 Haas Sons, Inc. (Halfman Pit) - CUP - Public Hearing Notices & Maps (7272 : 2022-0009 - Halfman Trust - CUP)

2022-0009 Haas Sons, Inc. (Halfman Pit) - Conditional Use Permit Request - Aerial (2020)



Attachment: 2022-0009 Haas Sons, Inc. (Halfman Pit) - CUP - Public Hearing Notices & Maps (7272 : 2022-0009 - Halfman Trust - CUP)

2022-0009 Haas Sons, Inc. (Halfman Pit) - Conditional Use Permit Request - Zoning Districts



Attachment: 2022-0009 Haas Sons, Inc. (Halfman Pit) - CUP - Public Hearing Notices & Maps (7272 : 2022-0009 - Halfman Trust - CUP)

NON-METALLIC MINING RECLAMATION PLAN

Operator: Haas Sons, Inc.

Owner: Leonard & Laura Halfman

Table of Contents

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Location Map.....	Appendix D
Soils & Groundwater Map.....	Appendix E
PAL Erosion Control Matrix.....	Appendix F

Summary

This reclamation plan has been developed to provide information about the existing site of the proposed mine, the proposed site operations, and how the mine will be reclaimed to the proposed post mining land use.

This reclamation plan is for a 79.5-acre field located west State Highway 124, south of State Highway 64 and east of 130th Street in the township of Woodmohr. The land is currently used for agricultural production and managed for crop production.

The operator will mine sand and gravel that is located on glacial outwash that is characterized as meltwater stream sediment from the Chippewa Lobe. A majority of the site will be mined below the water table and reclaimed as a wildlife pond. A small portion the site will be mined above the water table and will be reclaimed to wildlife habitat and agricultural land uses.

A. Site Information

1. Landowner

Landowner: Leonard & Laura Halfman
 Address: 18303 130th St.
 City, State, ZIP: Bloomer, WI 54724

Applicant: Haas Sons, Inc.
 Address: 203 E. Birch Street
 City, State, ZIP: Thorp, WI 54771

2. Lease:

The operator has signed a lease with the landowner for the purpose of mining sand and gravel on their property for 10 years.
See attached lease (Appendix C).

3. Legal Description

Tax Parcel Number(s): 23008-0624-00020000, 23008-0631-00000000

Described as follows: SE ¼ of the NW ¼ of Section 6, Township 30 North, Range 8 West, EXCEPT the North 6.5 Rods thereof; and EXCEPT CSM 2720 recorded in V, 12, page 203, as Document No. 686606; but including that part of the SW ¼ of the NE ¼ of Section 6-30-8W lying west of CSM 2720; and NE ¼ of the SW ¼ of Section 6, Township 30 North, Range 8 West;

4. Property Owners Within 660 Feet of Project Sit

Francis & Judith Jenneman	Haas Sons Properties	Raymond & Lanna Michels
Eric & Debi Lewis	Joseph & Beulah Koehler	Michael Erickson
Andrew & Shannon Steinmetz		

5. Soil & Groundwater Information

Soil Survey of Chippewa County shows the soils at the mine site are mapped as Rosholt Sandy loam (RoA), (RoB) and Sattre loam (SbA). RoA soils have approximately 7 inches of topsoil and 14 inches of subsoil. RoB soils have approximately 8 inches of topsoil and 24 inches subsoil. Approximately 36 acres of RoA and 16 acres of RoB are mapped as Rosholt sandy loam soils at the mine site. Sattre loam soils have approximately 9 inches of topsoil and 23 inches of subsoil. Approximately 22 acres of the mine site are mapped as Sattre loam soils.

During site investigations the operator documented the following soils horizon thicknesses in the test holes.

A horizon – 6 inches of topsoil

B horizon - Approx. 10 inches of red/brown clay (SbA, RoA, RoB)

Using the soil survey estimates the maximum volume of topsoil for the entire mine site is 59,693 cubic yards of topsoil and 99,090 cubic yards of subsoil.

Groundwater elevation was determined by pervious mining in the initial Halfmans pit as well as test holes that that were dug in the expansion.

B. Site Operations**1. Description of Materials to be Extracted**

Sand and gravel products will be extracted and processed at the site.

2. Extraction and Processing to be Conducted at the Site

The existing driveway will be used from County Highway 124. Sand & gravel will be mined, crushed, washed, and removed from the site. A portable crushing & washing plant will be used to process the material and stockpile it on site. Materials within the mine will be excavated and transported using bulldozers, excavators, draglines, and conveyors.

Sand and gravel will be excavated from the mine above the water table in one lift approximately 15 feet deep. An area in the floor of the mine will be excavated below the water table to create wash ponds. Water for sand and gravel washing process will be pumped from these ponds. No high capacity wells will be installed or used to support sand and gravel processing.

No flocculants or other chemicals will be used to support sand and gravel processing. No waste materials that are generated off-site will be hauled to the mine, stockpiled or used in site reclamation.

3. Volumes of Materials

A sequence of mine Cells are planned to systematically mine and reclaim the site. The anticipated area of disturbance and estimated volume of raw materials to be removed during the life of the mine is as follows.

Cell	Area (acre)	During 1 st two years (cubic yards)	During Full Life of Operation (cubic yards)
1	28	Approx. 100,000 yds.	1,120,000
2	18	0	720,000
3	13.5	0	540,000
4	14.5	0	580,000
Total	74	Approx. 100,000	2,960,000

4. Site Dewatering and Effluent Discharge

This will be an internally drained site located in glacial outwash plain. No site dewatering or effluent discharge will take place. It is anticipated that sand and gravel will be mined below the water table in all cells.

5. Stormwater Permits/Management

The operator will obtain a Wisconsin DNR Nonmetallic Mining stormwater permit and manage stormwater in accordance with the standards established in the permit. At a minimum storm water will be contained within the mine boundaries for all rainfall events according to the 25 year, 24 hour frequency storm (4.87 inches).

Soil berms created during topsoil and subsoil stripping will be stabilized and used to contain and direct stormwater runoff towards the excavated floor of the mine where it will infiltrate. Stormwater will be managed this way over the entire life of the mine. A notice of intent will be sent to the DNR.

6. Erosion Control & Permits

All topsoil and subsoil stockpiles will be graded to a slope of 3:1 or flatter and stabilized as soon as conditions allow to conserve soil and limit erosion. Silt fence will be installed along all soil stockpiles to control erosion. Berms will be stabilized using best management practices including seeding, mulching, erosion control mat, hydro-seeding, etc. Erosion and sediment control best management practices will be installed as determined by the Wisconsin Erosion Control Product Acceptability List (PAL) Channel and Slope Erosion Control Matrices (Appendix F).

7. Reclamation Activities During Operations

A process of contemporaneous reclamation will be used to systematically mine and reclaim the site. Under this process the site will be reclaimed as soon as possible after materials have been extracted and processed using the planned Cell sequence.

Cell 1 and Cell 2 will be restored as Cell 3 is being mined. Cell 3 and Cell 4 will be restored at the end of mining operations.

At the beginning of the mining operations for each cell all the topsoil (estimated 9 inches) will be stripped and stockpiled in berms. Following topsoil stripping operations all the subsoil (estimated 23 inches) will be stripped and stockpiled in berms that are separate from the topsoil berms. All berms will be shaped to a 3:1 slope or flatter and seeded with DOT Seed Mix 20. Mining operations will then excavate, process, and remove sand and gravel from the site.

When excavation of sand and gravel in a Cell is complete rough grading work will be performed to create slopes around the perimeter of the mine that are 3:1 or flatter. Rough grading will also be performed to establish reclamation grades for the mine floor. Subsoil will then be placed over the slopes and flat lying areas of mine to a depth of 10 inches or more.

Topsoil will then be placed over the subsoil to a depth of 6 inches or more. Upon completion of subsoil and topsoil re-application, soils testing will be performed following procedures established in the Wisconsin Nutrient Management Standard 590 to determine the organic matter, phosphorus, potassium and pH. Soil amendments (including lime and fertilizer) will be applied based on the soil test results to meet the fertility requirements needed to achieve the intended post mining land use.

The site will then be seeded. Areas with slopes steeper than 10:1 will have straw mulch applied. Areas flatter than 10:1 will not receive mulch.

Reclamation test plots will be established within the first two years of mining. Test plots will be established for each post mining land use. These test plots will be monitored and used to help determine success in future areas of mine reclamation.

8. Timetable/Sequence of Operations

Location Activity

- Cell 1 Plant will be set in existing Haas pit and we will mine and establish the initial stockpile and plant area. We will start on the east boundary of that area and mine towards the south until we reach the mine boundary. This will take approx. 5 years.
- Cell 2 We will set and pile south of the initial stockpile and plant area. Then we will mine out the initial area from east to west. This will take approximately 3 years. While mining this area, we will restore the south boundary of Cell 1.
- Cell 3 We will set plant in Cell 1 on the northeast end. Then we will mine Cell 3 from south to north. This will take approx. 2 years. We will restore the west and south boundary of Cell 2 while mining this area and pile into Cell 1.
- Cell 4 We will then set the plant in Cell 3 and mine from east to west. We will restore the west boundary of Cell 4 once mining is complete. This will take about 3 years.

9. Timetable

Estimated period of operation/extraction for each cell:

Cell 1	5 years
Cell 2	3 years
Cell 3	2 years
Cell 4	3 years
Total _____	13 years

C. Final Site

1. Disposition of Structures and Roads

A gravel paved driveway approximately 2500 feet long will remain in place at the location of the mine access road connection to County Highway 124. The driveway will

provide access to the agricultural field and wildlife habitat areas.

Structures such as the scale, scale house, and scale will be removed prior to final reclamation. The ponds created in Cell 1, Cell 2, Cell 3, and Cell 4 will remain in place as shown on the Final Site Map (See Appendix A – Cross Sections). There are no areas of concentrated flow entering, leaving, or within the reclaimed mine site.

2. Soil Reapplication & Reconditioning

Overburden piles will be leveled off or used on slopes. This work will be done with scrapers or bulldozers. Slopes will be stabilized using best management practices including seeding, mulching, erosion control mat, hydro-seeding, etc. Erosion and sediment control best management practices will be installed as determined by the Wisconsin Erosion Control Product Acceptability List (PAL) Channel and Slope Erosion Control Matrices (Appendix F).

Subsoil material will then be removed from the berms with excavators or loaders and transported in dump trucks to the area in the mine to be reclaimed. Trucks will be routed to limit traffic over areas where subsoil has already been applied. Trucks will dump subsoil and bulldozers will spread the material to be 10 inches thick on the slopes and floor of the mine. The use of tracked equipment while spreading subsoil will limit soil compaction.

Topsoil material will then be removed from the berms with excavators or loaders and transported in dump trucks to the area in the mine to be reclaimed. Trucks will be routed to limit traffic over areas where subsoil or topsoil has already been applied. Trucks will dump topsoil and bulldozers will spread the material to be 6 inches thick on the slopes and floor of the mine. The use of tracked equipment while spreading topsoil will limit soil compaction.

In the event that rubber tire equipment cannot be routed to prevent subsoil and topsoil compaction deep tillage equipment will be used to alleviate compaction in the upper 12 to 14 inches of the soil profile.

Soils testing will be performed following procedures established in the Wisconsin Nutrient Management Standard 590 to determine the organic matter, phosphorus, potassium and pH. Soil amendments (including lime and fertilizer) will be applied based on the soil test results to meet the fertility requirements needed to achieve the intended post mining land use.

3. Safety Assurances

Given the slopes on the reclaimed mine site and the post mining land uses there are very limited safety concerns. The pond will have a 3:1 slope that extends 6 feet below the water line. Areas reclaimed as Wildlife habitat will have 3:1 slopes. Areas reclaimed to Agricultural use will be nearly flat.

4. Seeding Plan

Seeding will be selected to achieve the post mining land use that is planned for each designated area. Areas that will be reclaimed to wildlife habitat will be seeded to native grasses. Seed will be broadcast seeded and rolled to improve seed – soil contact. DNR Seed Mix 2 will be used in these areas and applied at the rates listed (see Appendix B). The wildlife pond area will be allowed to vegetate using below the water line natural seed distribution without seeding by the operator.

Areas that will be reclaimed to agricultural row crop production will be planted to a crop rotation of alfalfa and corn. A crop rotation of four years of alfalfa, and four years of corn will be implemented. To establish the rotation the initial seeding will be alfalfa with a cover crop of oats. Seeding rates will be 15lb/ac. for alfalfa and 15lb/ac for oats. The seeding rate for corn will be 30,000 seeds per acre.

5. Future Use

The mine site will be reclaimed to establish two different post mining land uses including upland grassland wildlife habitat and wildlife pond habitat. The approximate location of each post mining land use is shown on the Final Site Map.

Upland Grassland Wildlife Habitat Post Mining Land Use

Steep slopes around the perimeter of the mine will be reclaimed to an Upland Grassland Wildlife Habitat.

The proposed performance measures used to determine reclamation success are:

- a. The establishment of a mine soil profile with a minimum of 6 inches of topsoil and 10 inches of subsoil.
- b. The establishment of full plant rooting depth.
- c. The establishment of target soil chemistry and fertility to achieve and sustain the post mining land use.
- d. The establishment of the seeding so that:
 - i. All species in the seeding are present.
 - ii. No more than 50% of the total vegetation is one species from the seed mix.
 - iii. Biomass shall be a minimum of one ton per acre per year.

Site monitoring will be conducted to assess the success of the seeding and monitor the site for invasive or noxious plant species. Areas of failed seeding shall be examined to determine the cause of the failure. Invasive or noxious species will be spot treated with herbicide according to the product label or hand removal and disposed of properly.

Wildlife Pond Habitat Post Mining Land Use

Areas of the mine that are below the water table will be reclaimed as a Wildlife Pond.

The proposed performance measures used to determine reclamation success are:

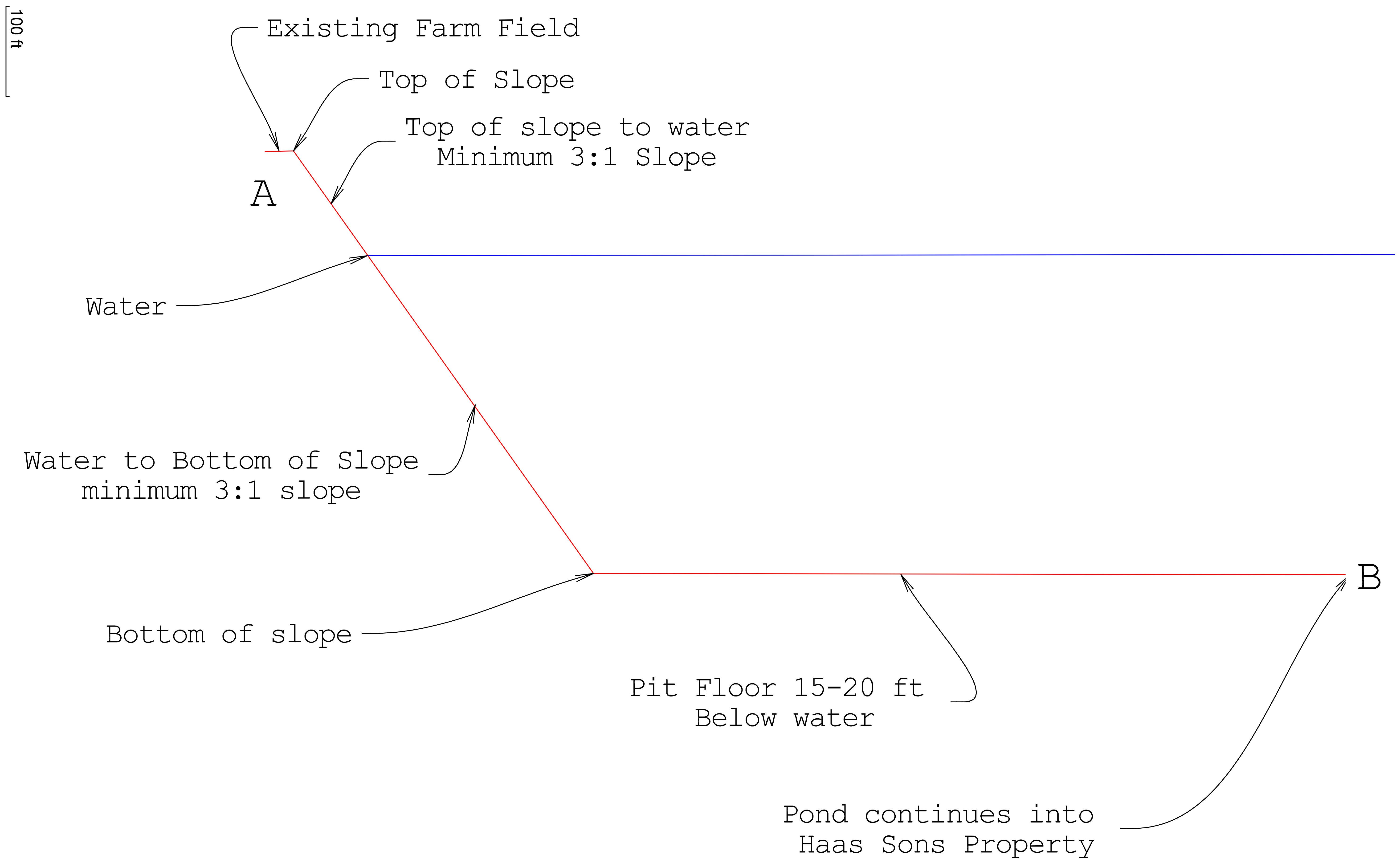
- a. The establishment of irregular shorelines that vary in shape and slope.
- b. The establishment of shoreline slopes that vary from 3:1 to 10:1 and extend a

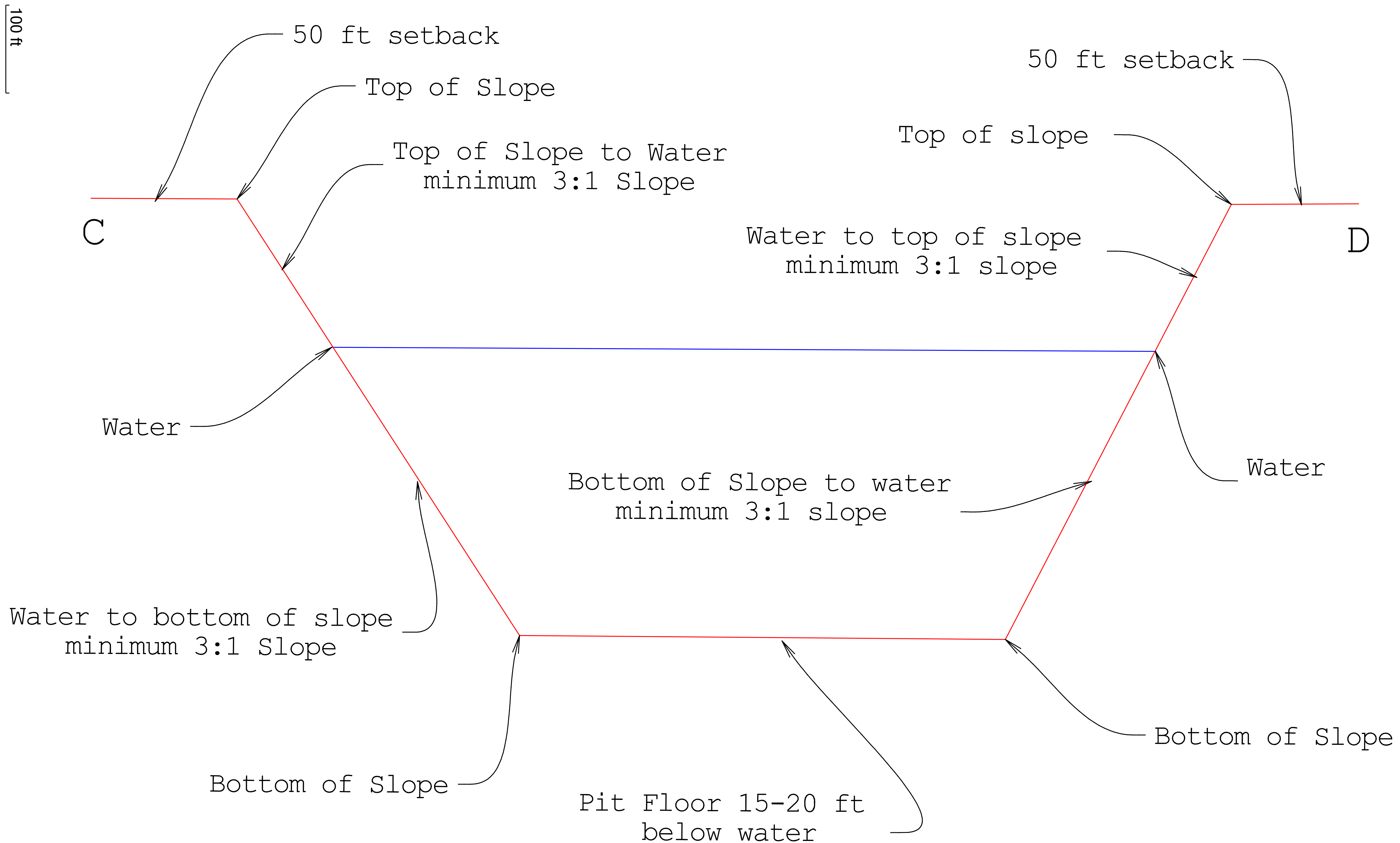
- minimum of 6 feet vertically below the water line.
- c. The establishment of a minimum of 6 inches of topsoil placed along the shoreline and on the slope a minimum of two feet vertically below the water line to encourage vegetative growth.

Site monitoring will be conducted to assess the success of vegetation establishment and monitor the site for invasive or noxious plant species. Areas poor vegetation establishment shall be examined to determine the cause. Invasive or noxious species will be spot treated with herbicide according to the product label or hand removal and disposed of properly.

Attachments

- APPENDIX A: Cross Section
APPENDIX B: Seeding Plan
APPENDIX C: Land Lease
APPENDIX D: Land Location Map
APPENDIX E: Soils & Groundwater Map
APPENDIX F: PAL Erosion Control Matrices





WORKING DRAFT - NON-METALLIC MINE RECLAMATION - POST MINING LAND USE

CATEGORY OF POST MINING LAND USE	SUB-CATEGORY	LAND COVER	DEVELOPMENT DENSITY/INTENSITY	PUBLIC ACCESS/U
Wildlife Habitat/Conservancy	Terrestrial	Grassland/Prairie	No Residential, Commercial, or Industrial Development	No Public Use -vs-
	Mixed	Grassland/Prairie/Forest Savannah		Defined Public Use
	Aquatic	Wet/Sedge Meadow		
		Shallow ponded/Deep Pondered		
Agricultural	Ag Production	Cultivated cropland; Row Crop	No Development ▪Non-Irrigated ▪Irrigated	No Public Use -vs-
		Cultivated Cropland; Forage Based		Defined Public Use
		Pasture		
		Other		
Forest	Forest Production	Even aged species	No Development Low Density	No Public Use -vs-
		Mixed aged species		Defined Public Use
Residential	Ag/Forest Residential		Low Density	Defined Dev. Plan
	Res Subdivision		Med. Density	
			High Density	
Commercial	Light		Low Intensity	Defined Dev. Plan
	Heavy		Med. Intensity	
			High Intensity	
Industrial	Light		Low Intensity	Defined Dev. Plan
	Heavy		Med. Intensity	
			High Intensity	
Institutional	Public Inst.			
	Private Inst.			
Any other land use category that may currently or potentially apply to the subject mine site, as defined in an approved comprehensive plan or zoning ordinance.				

MIX 1 - PASTURE

<u>Common Name</u>	<u>Scientific Name</u>	<u>Lb./Ac.*</u>	<u>Price/Lb.</u>	<u>Price</u>
Timothy	<i>Phleum pratense</i>	4	\$ 1.50	\$ 6.00
Tall Fescue	<i>Festuca arundinaceae</i>	5	\$ 1.50	\$ 7.50
Canada Wild Rye	<i>Elymus canadensis</i>	3	\$ 12.00	\$ 36.00
Agricultural Rye	<i>Secale cereale</i>	4.5	\$ 1.00	\$ 9.00
Alfalfa**	<i>Medicago sativa</i>	10	\$ 4.00	\$ 40.00
Alsike Clover**	<i>Trifolium hybridum</i>	4.5	\$ 2.00	\$ 9.00
	Total	31 lbs.	Total	\$ 107.50

MIX 2 – STABILIZATION/WILDLIFE/GRAZING (Mix 3 would be suitable too)

<u>Common Name</u>	<u>Scientific Name</u>	<u>Lb./Ac.*</u>	<u>Price/Lb.</u>	<u>Price</u>
Agricultural Rye	<i>Secale cereale</i>	4	\$ 1.00	\$ 4.00
Timothy	<i>Phleum pratense</i>	2	\$ 1.50	\$ 3.00
Tall Fescue	<i>Festuca arundinaceae</i>	3	\$ 1.50	\$ 4.50
Switchgrass	<i>Panicum virgatum</i>	1	\$ 13.50	\$ 13.50
Big Bluestem	<i>Andropogon gerardi</i>	1	\$ 10.50	\$ 10.50
Canada Wild Rye	<i>Elymus canadensis</i>	3	\$ 12.00	\$ 36.00
Alsike Clover**	<i>Trifolium hybridum</i>	4	\$ 2.00	\$ 8.00
Red Clover**	<i>Trifolium repens</i>	4	\$ 2.00	\$ 8.00
Alfalfa**	<i>Medicago sativa</i>	5	\$ 4.00	\$ 20.00
	Total	27 lbs.	Total	\$ 107.50

MIX 3 – NATIVE MIX FOR WILDLIFE/PASSIVE RECREATION

Common Name	Scientific Name	Unit	Unit/Ac.*	Price/Unit	Price
Big Bluestem	<i>Andropogon gerardi</i>	lb.	1	\$ 10.50	\$ 10.50
Canada Wild Rye	<i>Elymus canadensis</i>	lb.	3	\$ 12.00	\$ 36.00
Switchgrass	<i>Panicum virgatum</i>	lb.	1	\$ 13.50	\$ 13.50
Indiangrass	<i>Sorghastrum nutans</i>	lb.	3	\$ 16.00	\$ 48.00
Purple Prairie Clover**	<i>Dalea purpurea</i>	oz.	2	\$ 4.50	\$ 9.00
Canada Tick Trefoil**	<i>Desmodium canadensis</i>	oz.	5	\$ 20.75	\$ 103.75
New England Aster	<i>Aster novae angliae</i>	oz.	0.2	\$ 48.75	\$ 9.75
Purple Cone Flower	<i>Echinacea purpurea</i>	oz.	4	\$ 4.50	\$ 18.00
Dotted Mint**	<i>Monarda punctata</i>	oz.	4	\$ 51.25	\$ 205.00
Bergamot**	<i>Monarda fistulosa</i>	oz.	5	\$ 25.75	\$ 128.75
Yellow Coneflower	<i>Ratibida pinnata</i>	oz.	3	\$ 4.50	\$ 13.50
Blackeyed Susan	<i>Rudbeckia hirta</i>	oz.	0.5	\$ 3.00	\$ 1.50
Blue Vervain	<i>Verbena hastata</i>	oz.	1	\$ 6.75	\$ 6.75
		Total	~9.5 lbs.	Total	\$ 604.00

MIX 4 – WET SOILS/POND EDGE/WEDLAND AREA

Common Name	Scientific Name	Unit	Unit/Ac.*	Price/Unit	Price
Canada Wild Rye	<i>Elymus canadensis</i>	lb.	3	\$ 12.00	\$ 36.00
Switchgrass	<i>Panicum virgatum</i>	lb.	1	\$ 13.50	\$ 13.50
Timothy	<i>Phleum pratense</i>	lb.	2	\$ 1.50	\$ 3.00
Blue Joint Grass	<i>Calamagrotis canadensis</i>	oz.	3.2	\$ 56.25	\$ 180.00
Annual Oats	<i>Avena sativa</i>	lb.	8	\$ 2.00	\$ 16.00
Alsike Clover**	<i>Trifolium hybridum</i>	lb.	1	\$ 2.00	\$ 2.00
Red Clover**	<i>Trifolium repens</i>	lb.	1	\$ 2.00	\$ 2.00
Culver's Root	<i>Veronicastrum virginicum</i>	oz.	2	\$ 77.00	\$ 154.00
Canada Tick Trefoil**	<i>Desmodium canadensis</i>	oz.	5	\$ 20.75	\$ 103.75
Blackeyed Susan	<i>Rudbeckia hirta</i>	oz.	0.2	\$ 3.00	\$ 0.60
Smooth Aster	<i>Aster laevis</i>	oz.	2	\$ 48.75	\$ 97.50
New England Aster	<i>Aster novae angliae</i>	oz.	0.6	\$ 30.75	\$ 18.45
Joe Pye Weed	<i>Eupatorium maculatum</i>	oz.	1	\$ 36.00	\$ 36.00
		Total	~17 lbs.	Total	\$ 662.80

* Seeding rates assume broadcast seeding and may be multiplied by 0.5 to approximate rates if drilled.

** Denotes legumes, which must be inoculated according to the seed provider's instructions prior to seeding.

Pricing for native species found at Agrecol in 2012.

<http://www.agrecol.com>

MINERAL LEASE

This lease entered into on November 5, 2021, by and between the following parties:

OWNER:

Leonard G. & Laura Jean Halfman Trust
By Natalie Halfman and Bill Halfman, Co-Trustees

AND

LESSEE:

Haas Sons, Inc., c/o Jason Haas, Director

In consideration of the mutual covenants contained herein OWNER and LESSEE agree as follows:

OWNER, hereby leases exclusively to LESSEE, its successors and assigns, for a term of 10 years commencing from the effective date of this agreement, the following real estate located in the Town of Woodmohr, Chippewa County, Wisconsin, described as follows (PROPERTY):

Parcel No: 23008-0624-00020000
23008-0631-00000000

Legal Description

SE ¼ of the NW ¼ of Section 6, Township 30 North, Range 8 West, EXCEPT the North 6.5 rods thereof; and EXCEPT CSM 2720 recorded in V. 12, page 203, as Document No. 686606; but including that part of the SW ¼ of the NE ¼ of Section 6-30-8W lying west of CSM 2720; and

NE ¼ of the SW ¼ of Section 6, Township 30 North, Range 8 West;

All in the Town of Woodmohr, Chippewa County, Wisconsin.

LESSEE shall have the option to renew this lease on said PROPERTY at the end of the lease term, for another 10-year term by giving the OWNER written notice prior to the expiration of the lease. This is a lease of less than 99 years and not subject to a transfer return.

During any term of the Lease, OWNER does hereby grant to LESSEE the right of first refusal to purchase the PROPERTY or any portion thereof, for an amount equal to any bona fide written offer to purchase tendered to OWNER by any third party.

LESSEE shall have the exclusive right to erect and operate materials processing equipment on the leased premises that is needed to produce, stockpile and sell mining products. The leased premises may be used for processing, stockpiling and selling mining products removed from the property. All stockpiled mining products shall remain the property of the LESSEE at the expiration of the lease term and shall be removed at the LESSEE'S convenience. LESSEE shall have 2 years to remove any processed material after the lease has expired.

OWNER shall pay all real estate taxes and assessments levied against the PROPERTY. LESSEE shall pay all taxes levied against personal property brought on or installed on the premises. The OWNER may continue to use any portion of the land unused by LESSEE during the term of this lease; provided however that OWNERS' use of said premises shall be incidental and subordinate to the removal of gravel and dirt therefrom and shall in no manner interfere with LESSEE's operations.

In the event the PROPERTY is depleted of usable materials, or LESSEE'S operation becomes economically unfeasible for any reason as determined by LESSEE, LESSEE may terminate this Lease.

LESSEE may construct and utilize such access roads over the PROPERTY and over adjacent lands belonging to OWNER as may be required for LESSEE'S use of the PROPERTY.

LESSEE shall keep records of the total yards of all rock, sand and gravel it removes from the PROPERTY. Upon the basis of said records, LESSEE agrees to pay OWNER a royalty for minerals extracted and removed in the amount stated on Addendum A.

Royalties will be paid quarterly to the OWNER, unless OWNER directs otherwise in writing.

OWNER warrants and represents that OWNER has good and sufficient title to the PROPERTY and that OWNER has the right and power to execute this lease.

This lease is contingent upon LESSEE obtaining the following:

1. Chippewa County NR135 permit
2. DNR chapter 30 permit
3. DNR storm water permit
4. Town and County Zoning Permits

LESSEE will obtain permits for gravel extraction and will maintain them. LESSEE agrees to restore PROPERTY according to Chippewa County Zoning ordinances with all usable materials remaining on site.

This lease shall be binding upon the heirs, successors, legal representatives and assigns of the parties hereto. If a third party succeeds to OWNERS interest in this Lease, OWNER and the third party shall immediately notify LESSEE in writing of such successor.

If it is determined that any provision of this Lease is invalid, the validity of the remaining provisions shall not be affected.

This Lease contains all of the agreements of these parties hereto, and there are no representations, agreements, or conditions other than those expressly included herein.

Addendum A contains personal identifying information of the parties to this lease and the terms of the royalty payments. If this document is recorded, Addendum A shall be omitted from recording.

IN WITNESS WHEREOF, the parties have executed this document with an effective date of November 5th, 2021.

OWNER:

Date Signed: 11-11-21

Natalie Halfman
* Natalie Halfman, Co-Trustee

William Halfman
* Bill Halfman, Co-Trustee

STATE OF WISCONSIN }
COUNTY OF Monroe } ss.

Personally came before me on November 11, 2021, the above-named Natalie Halfman and Bill Halfman, Co-Trustees of the Leonard G. & Laura Jean Halfman Trust, to me known to be the persons who executed the foregoing instrument and acknowledged the same.

Mary A. Brieske {Notary Signature}
Mary A. Brieske {Notary Name – Printed or Typed}
Notary Public, State of Wisconsin
My Commission Expires: November 7, 2025

LESSEE:

Date Signed: 11-17-21

HAAS SONS, INC.
Jason Haas
By: Jason Haas, Director

STATE OF WISCONSIN }
COUNTY OF Clark } ss.

Personally came before me on November 17, 2021, the above-named Jason Haas, Director of Haas Sons, Inc., to me known to be the persons who executed the foregoing instrument and acknowledged the same.

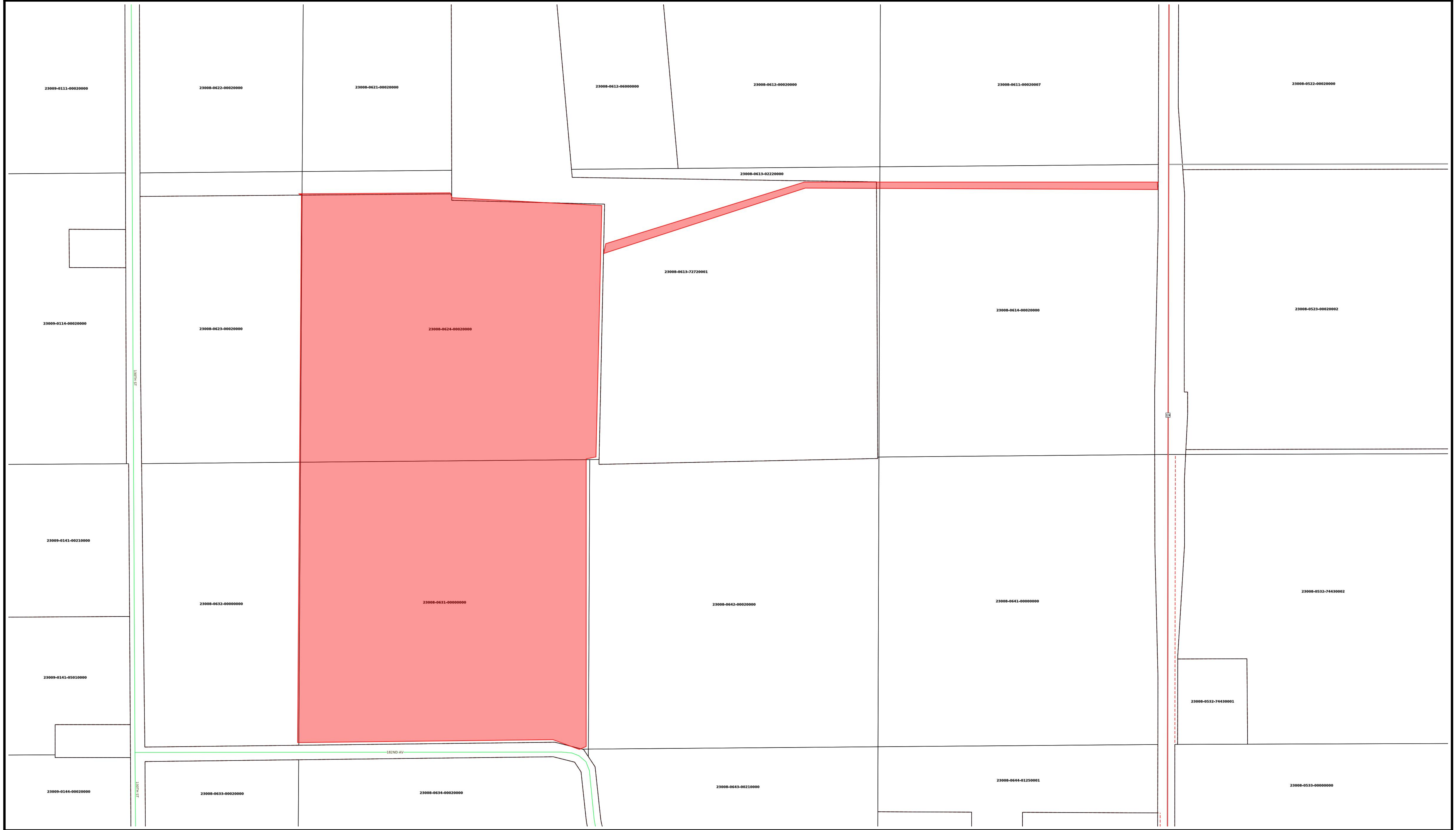
Tara L. Wisniewski {Notary Signature}
Tara L. Wisniewski {Notary Name – Printed or Typed}
Notary Public, State of Wisconsin
My Commission Expires: 11/1/2022

This Document Drafted By:
Jason Haas for Haas Sons, Inc.

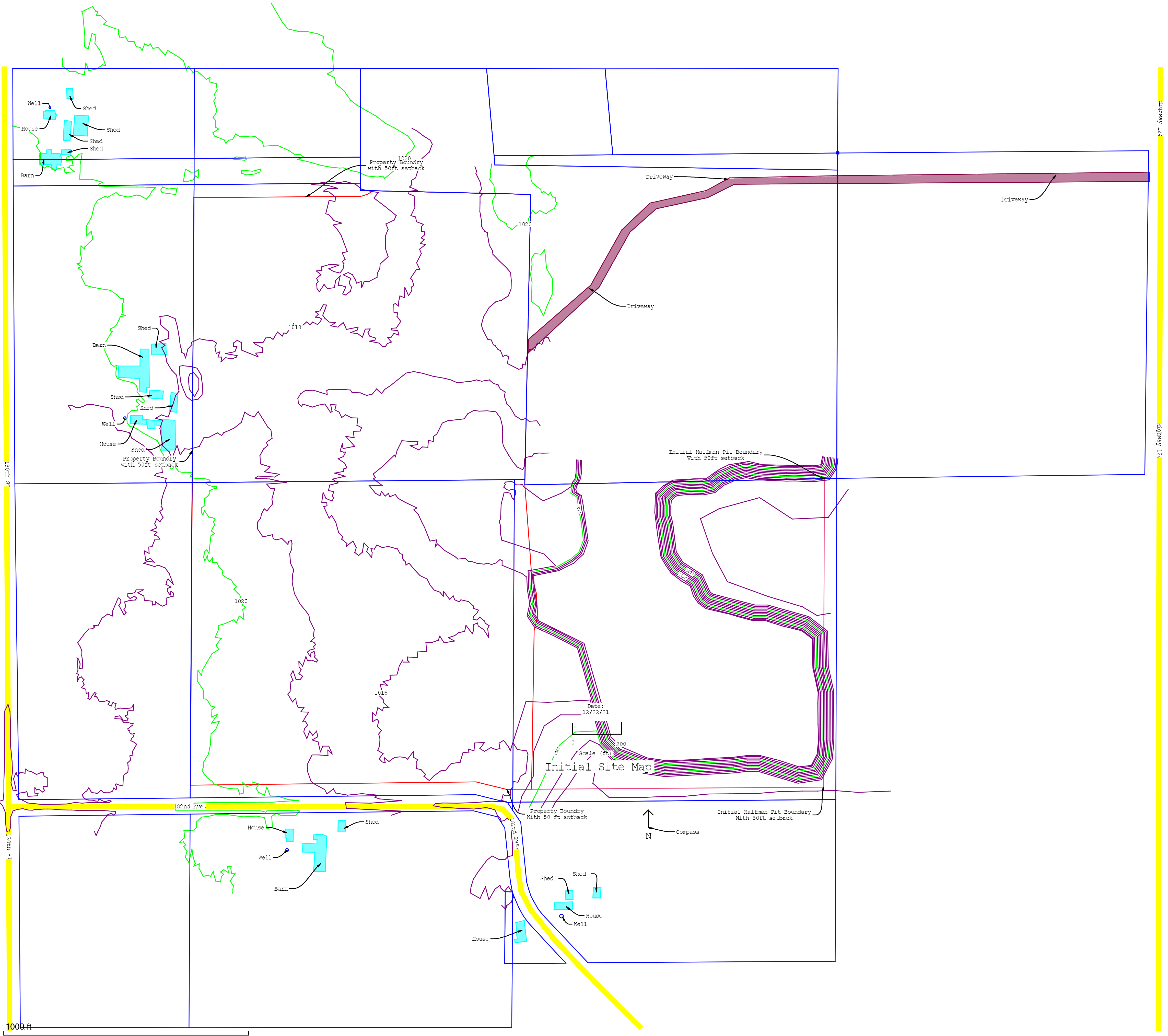


Site location Map

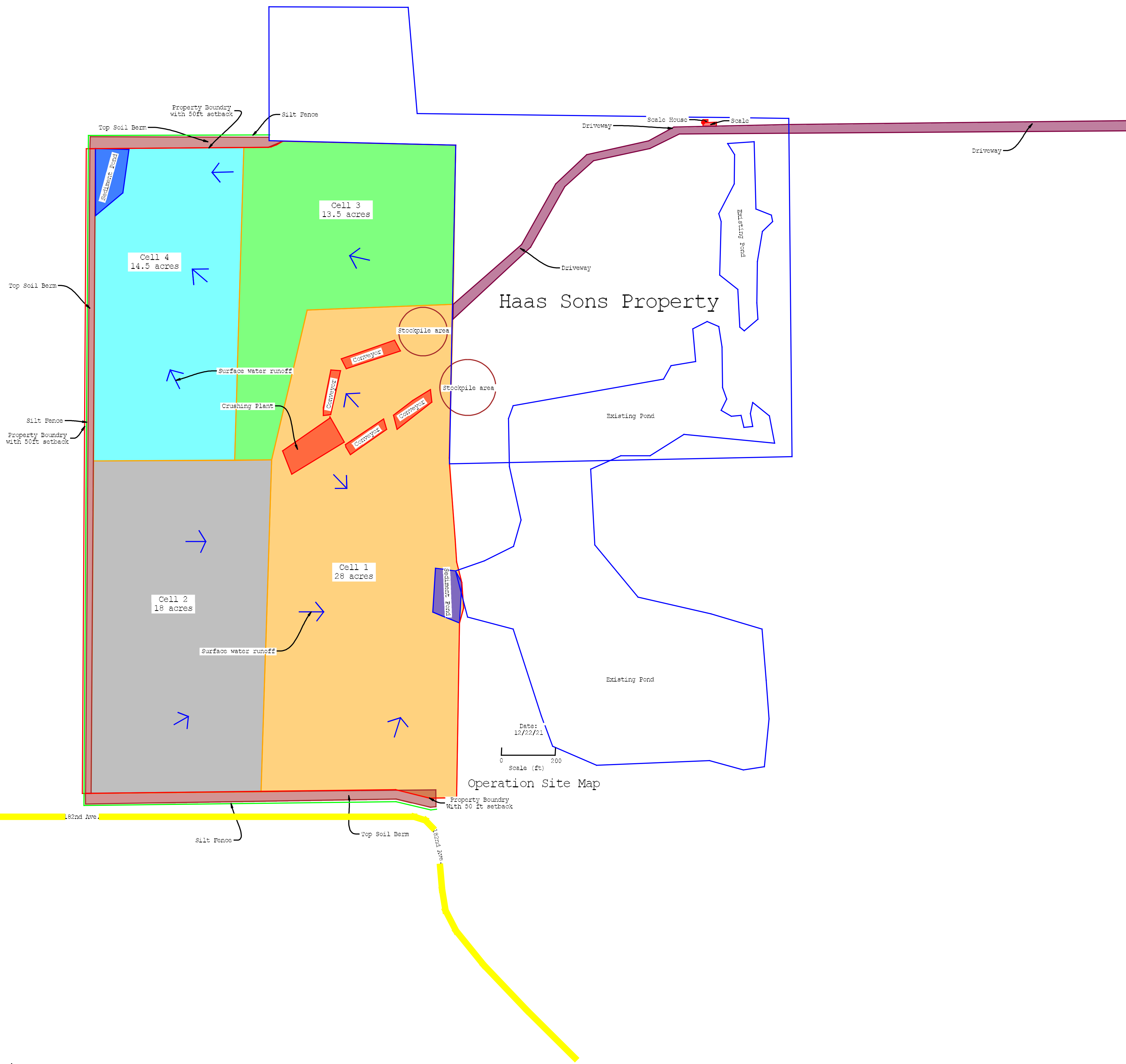
Printed 01/04/2022 Scale = 1:192'



Disclaimer: This map is a compilation of records as they appear in the Chippewa County Offices affecting the area shown and is to be used only for reference purposes.



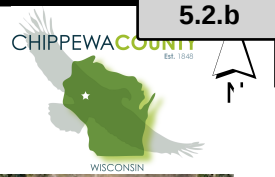




Soils Map

Printed 05/02/2022

Scale = 1:578'



Attachment: 2022 NMM Reclamation Plan (7272 : 2022-0009 - Halfman Trust - CUP)

Disclaimer: This map is a compilation of records as they appear in the Chippewa County Offices affecting the area shown and is to be used only for reference purposes.

Groundwater Map

Printed 05/02/2022

Scale = 1:541'



Attachment: 2022 NMM Reclamation Plan (7272 : 2022-0009 - Halfman Trust - CUP)

Disclaimer: This map is a compilation of records as they appear in the Chippewa County Offices affecting the area shown and is to be used only for reference purposes.

Erosion Control

Product Acceptability Lists
for
Multi – Modal Applications

PAL



July 2012 Edition

EROSION CONTROL PRODUCT ACCEPTABILITY LISTS (PAL)

Prepared by:

The WisDOT ECSW Committee

Peter J Kemp, Chair

WisDOT - BTS

Prepared for:

The WisDOT Engineering & Project

Development Staff and Consultants.

Updated July 2012

Wisconsin Department of Transportation

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EROSION CONTROL

PRODUCT ACCEPTABILITY LISTS (PAL)

Introduction:

This is a list maintained for the Wisconsin Department of Transportation projects. It may not be a complete list of all applicable practices for private and commercial projects administered or permitted through either the Department of Commerce or the Department of Natural Resources. Please contact those agencies directly for alternate approval methods.

The department reserves the right to conduct field trials or limited use of products on projects even if all requirements for approval are satisfied. This will be at the discretion of the Erosion Control Storm Water, Product Acceptability Sub-Committee.

The Wisconsin Department of Transportation (WisDOT), compiles the Erosion Control Product Acceptability Lists (PAL) for Erosion Mats, Soil Stabilizers, Tackifiers, inlet protection, and temporary ditch checks. All products in these lists shall meet the Department's Standard Specifications for Road and Bridge Construction. **Products included in these lists shall be manufactured with the same quality and composition as the test material originally submitted for evaluation.**

The lists below are organized into four major erosion control product categories. A section intended to clarify the criteria in the PAL and outline the general requirements for product acceptability supplements each category. The lists are updated as needed and posted online for WisDOT engineering staff, erosion control manufacturers, distributors, contractors, consulting engineers and other interested parties. Any person interested in the status of a product or in obtaining a copy of the latest PAL may do so online at <http://www.dot.wisconsin.gov/business/engrserv/pal.htm>.

All requested changes or additions to the PAL should follow the instructions at the web page address given above or be forwarded to the Bureau of Technical Services or in writing to:

New Product Engineer
WisDOT
3502 Kinsman Blvd
Truax Center
Madison, WI 53704

All installation instructions submitted by the manufacturer, or the distributor, to WisDOT shall contain reliable methods of installation for all of the following project locations applicable: slopes, channels, shorelines, high wind locations, and areas next to live traffic lanes. The manufacturer or distributor, as appropriate, shall include a copy of these instructions with the submittal

Pal Submittal Procedure

To be included on WisDOT PAL, manufacturers will need to send complete product information to Wisconsin Department of Transportation by September 2nd and April 2nd of each period for review. Late applications will default to the next review period. If an altered or a new product is to be considered for placement on the PAL, the

Erosion Control and Storm Water (ECSW) Work Group must approve it. The approval process involves reviewing the product data submitted by the manufacturer or distributor. **The PAL will be posted in its entirety as needed.**

WisDOT requires the following product information for product approval:

1. Product sample size of approximately a 10 ft² (1.0 m²) sample will be required for mat and geotextile products (rolled products shall be sent rolled); representative samples shall be included for all other products.
2. Product Specifications, Product literature, Installation references, Field performance data, Lab test data (Certified lab results from a qualified laboratory capable of performing the required tests typically independent from Manufacturer's tests), any other state agency that has testing in progress, tests completed and/or product approval.
3. A completed Product Preliminary Information Sheet (PIS) provided by WisDOT -Technology Advancement Unit, (See form sample in Appendix A).
4. Private label identification: Provide a letter from the private labeler identifying his source and name of material along with a companion letter from the manufacturer. Material properties and identifying names shall be included in the letters of certification.

Products passing lab tests are not guaranteed a place on WisDOT PAL. WisDOT standards must be met. WisDOT retains the right to make any changes, additions or deletions to the PAL as needed and also seek concurrence from the Wisconsin Department of Natural Resources on products' environmental compatibility. Products not environmentally compatible will be disallowed. For products to be approved and placed in their appropriate categories, certified lab results, as well as a statement of compliance with WisDOT standards are required. Wisconsin DOT reserves the right to remove a product from the list when laboratory or field performance proves to be unsatisfactory. The most recent PAL at the time the project letting for any project remains valid for that project, however new products added to the PAL after the letting may be allowed on the project.

Product information submitted by the manufacturers to WisDOT will not be considered confidential unless otherwise noted.

Tackifiers must meet the minimum requirements of Michigan DOT and listed on their approved lists. In addition, Wisconsin DOT does not approve asphalt based tackifiers or products deemed environmentally incompatible.

Temporary ditch checks index values will be reviewed for comparison to products already approved. Products found to have similar material properties and product performance will be considered for approval. Non-traditional materials may require a field demonstration in addition to a literature review.

EROSION MATS

WisDOT defines "erosion mat" as a manufactured blanket or mat that is delivered to the work site in rolls or strips, with a minimum thickness of 1/4 inch (6 mm). Erosion Control Mats are organized into three Classes of mats, which are further broken down into various Types. Each Type of mat must be capable of sustaining the required Minimum Product Permissible Shear Stress for the duration specified in the Class to which it is assigned.

The requirements listed below must be met for an erosion mat product to be considered in the WisDOT PAL. See also the WisDOT Facilities Development Manual, Procedure 10-10-15 for more information.

Private label identification: A letter of certification shall be provided from the private labeler identifying his source and name of material along with a companion certification letter from the manufacturer. The certification shall address the source, material properties and identifying names in the letters of certification.

GENERAL SPECIFICATIONS

1. **Channel and Slope Erosion Protection:** ASTM D6459-07 and ASTM D6460-07 test results from the American Association of State and Highway Transportation Officials (AASHTO) National Transportation Product Evaluation Program (NTPEP) , will be submitted for approval of all erosion mats. Products with quick degrading netting due to ultraviolet exposure may be approved based on mats of identical design from a company's product line with ultraviolet stabilized netting.

Reports to WisDOT shall include but not limited to:

1. Procedure
2. Site conditions
3. Geotechnical information
4. Material type, installation, and index values on tested material following the NTPEP procedures. This does not include bench scale soil loss testing.
5. Calibration
6. Test set up
7. Test procedure and data collection.
8. Analysis and data interpretation including the revised universal soil loss index number, shear stresses for channels, channel velocity, energy slope and Manning's resistance coefficient at all flows.
9. Summary of test results
10. All raw data and calculations

2. **Minimum Product Permissible Shear Stress:** All approved erosion mats must meet the minimum product permissible shear stress requirements for the category that they have been assigned to while maintaining a level of soil protection in a bare soil condition. Failure in shear is defined by the loss of 0.50 inch of soil in the channel. The 0.50 inch of soil loss is defined for this test as the average sums of the soil degradation not to include areas of soil aggregation.

Modifications to ASTM D6460 are as follows:

1. 7.1.2 - Test in one soil type. Soil to be a loam as defined by standard.

2. 3 channel runs with erosion mat for each channel to be from a different lot of material.
3. **Slope Erosion Protection:** All approved erosion mats must meet the minimum product Cover Management (C) Factor from the Revised Universal Soil Loss Equation (RUSLE) of the USDA-ARS Agricultural handbook 703 for the category that they have been assigned to while maintaining a level of erosion protection in a bare soil condition. The reports shall report the C factor at an R of 231 from a plot of rainfall-runoff erosivity factor (R) vs. C. In addition the corresponding best fit regression equation and R squared number generated from plots using best fit regression. Regressions using linear, power and exponential shall be evaluated and referenced and their corresponding C factor and R squared number with the best fit line forced through zero.

Modifications to ASTM D6459-07 are as follows:

1. 7.1.2 - Test in one soil type. Soil to be a loam as defined by standard.
2. Material tested shall be to be from a different lot of material for each of 3 test plot.
3. Total kinetic energy calculation in 8.1.4 shall not be required.
4. **Vegetative Enhancement:** results for vegetative enhancement will be submitted from a recognized testing facility. All erosion mats in the PAL must allow vegetation to achieve the following minimum vegetative density when compared to mulched soil;
 - A) 70% for sandy soils
 - B) 80% for clay soils
5. **Recertification:** Recertification of products on a 3 year cycle will be required for products to remain on the approved list. Recertification will require the products to be tested through the AASHTO NTPEP Erosion Control Products Panel. Products will adhere to the NTPEP cycle regardless of date of application.

Please contact Evan Rothblatt , AASHTO NTPEP Representative at (202) 624-3648 for more information on the NTPEP testing program or visit www.ntpep.org .
6. **Airport Restrictions:** The following apply to **ALL** airport projects:
 - A. Only Class I, Urban erosion mats that are double netted shall be allowed within 10 feet (3.05 m) of any airport pavement used by aircraft with the exception of airports classified as air carrier or corporate/transport. If the airport is classified as an air carrier or corporate/transport, there will be no erosion mats allowed within 30 feet (9.14 m) of pavement used by aircraft.
 - B. Only biodegradable anchoring devices shall be allowed in the installation of any erosion mat for airport applications. Biodegradable anchoring devices shall meet the requirements specified for Class I, Type Urban erosion mat anchoring devices. No metal staples will be allowed.
7. **Random Sampling of Products:** Once a product is on the PAL, random sampling may be conducted by WisDOT for comparison with the samples originally submitted to the State for approval. Comparative testing will be done against the representative sample. **Inconsistencies between product samples may result in the product's removal from the PAL until recertification is provided and compliance is established by the Erosion Control Storm Water Committee (ECSW).**

8. **Modification To An Approved Product:** The product quality or composition must not be changed in any way after the erosion mat product has been placed on the PAL unless WisDOT has approved these changes via the PAL Submittal Procedure on page iv of this document. Changes made without proper notice and adherence to standard procedures will result in the removal of the product from the PAL.
9. **Installation Instructions and Procedures:** All installations will conform to section 628 of the Wisconsin Department of Transportation Standard Specifications for Highway and Bridge Construction. **Installation procedures must insure that the mat will remain in contact with the soil.** Both the product and installation method, together, will determine performance. The failure of a product to perform acceptably will result in removal from the PAL list.
10. **Netted Photodegradable Products:** Erosion mats **Class 1, TYPE A** that are netted photodegradable products shall not be approved for use after September 1st. These products have a design life expectancy of 6 to 8 weeks. After this time has passed the products exhibit loss in strength and structural integrity. Proper time must be allowed for these products to establish vegetation prior to winter months. It has been shown that products installed after the September 1st deadline will not perform through the winter months and the following spring to allow vegetation to be established. These products do not degrade rapidly enough to be included in the Class I Type Urban Category.

CLASS AND TYPE SPECIFICATIONS

CLASS I

A short term duration (6 months or greater), light duty, organic, "Erosion Control Revegetative Mat" (ECRM). Non-organic, photodegradable or biodegradable netting allowed.

For those Class I mats that have netting attached, the netting and stitching shall be photodegradable and/or biodegradable as specified for that Class and Type of mat. The photodegradeable stitching shall be of the same material with similar properties as the netting such that the expected degradation periods are the same. The weight of the netting shall not exceed 15% of the total blanket weight.

The netting shall be bonded sufficiently to the parent material to prevent separation of the net from the parent material for the life of the product. This is particularly important as the vegetation starts to grow. If not sufficiently bonded the net has a tendency to float, which causes damage to maintenance equipment when slopes are mowed and increases the risk of animals being caught in the netting.

TYPE A

Minimum Product Permissible Shear Stress: 1.0 lbs/ft²(50Pa):

A netted product for use on slopes 2.5:1 and flatter with a C factor from the Revised Universal Soil Loss Equation of 0.10 or less. **Not to be used in channels.**

Type B may be used in replacement for Type A mats at the contractor's option with no additional cost to the department.

TYPE B

Minimum Product Permissible Shear Stress: 1.50 lbs/ft²(70Pa):

A double netted product for use on slopes 2:1 or flatter with a C factor from the Revised Universal Soil Loss Equation of 0.10 or less, or, in channels here the calculated (design) shear stress is 1.5 lbs/ft² (70 Pa) or less.

URBAN - Not to be used in channels

A short term duration (6 months or greater), light duty, organic, "Erosion Control Revegetative Mat" (ECRM) meant for use in urban areas, or lawns, where mowing may be accomplished within two weeks with little or no snagging of the netting or mat.

All Type Urban mats shall conform to the requirements for Erosion Mats, with the following modifications:

1. Urban mats netting must be 100% organic biodegradable. This shall include parent material, stitching, and netting.
2. Class I Type B Urban mats may be single, double or no netted products.
3. The minimum mat thickness shall be 3/8 inch (9 mm) as measured in place.
4. All products approved in Urban Type A category will be allowed on slopes up to 4:1.

5. Slopes that are between 4:1 and 2.5:1 are required to use mats in the Urban Type B category.
6. The netting shall be stitched to prevent separation of the net from the parent material.
7. The netting shall be capable of withstanding moderate foot traffic without tearing or puncturing, and shall be in accordance with section 628 of the WisDOT Standard Specifications.
8. Neither the netting, nor the installation, shall pose a safety risk to pedestrians walking on, or crossing it

URBAN TYPE A

(No Minimum Product Permissible Shear Stress Required for netted products) A product for use on slopes 4:1 and flatter with a C factor from the Revised Universal Soil Loss Equation of 0.20 or less. Non netted materials must have a minimum permissible shear stress of 1.0 lb/sf.

Urban Type B may be used in replacement for Urban Type A mats at the contractor's option with no additional cost to the department.

Recommended for use in environmentally sensitive areas that have a high probability of entrapping animals in plastic netting.

URBAN TYPE B

(Minimum Product Permissible Shear Stress: 1.0 LBS/sq. ft.); product for use on 2.5:1 slopes and flatter with a C factor from the Revised Universal Soil Loss Equation of 0.10 or less. **Recommended for use in environmentally sensitive areas that have a high probability of entrapping animals in plastic netting.**

Anchoring Devices (URBAN)

1. All materials and additive components that are used to manufacture the anchoring devices shall be completely biodegradable as determined by ASTM D 5338-92.
2. All materials shall be environmentally safe, and shall have no potential for soil and/or water contamination.
3. Steel wire pins or staples will not be approved.
4. Petroleum based plastics or composites containing petroleum based plastics will not be allowed.
5. Materials deemed to present a hazard from splintering or spearing will not be approved. This shall include solid wood devices. However, devices manufactured from wood byproducts may be approved.
6. The anchoring devices shall maintain their mechanical anchoring ability for at least 2 (two) months, and substantially degrade within 4 (four) months during the months of warm soil conditions (above 53 degrees Fahrenheit).
7. The anchoring devices shall be shaped, using barbs, twists, bends, or other methods, to provide additional mechanical pull resistance when installed in the soil.

Class I Type A

PRODUCTS	MANUFACTURER
*Curlex I WH	American Excelsior
Curlex I	American Excelsior
Curlex I CL	American Excelsior
AEC Premier Straw SN	American Excelsior
ECS-1	East Coast Erosion Blankets
*ECS-1D	East Coast Erosion Blankets
ECX-1	East Coast Erosion Blankets
ECM S1000	Enviroscape
*ECM S1000D	Enviroscape
S31	Erosion Control Blanket.com
*S31UVD	Erosion Control Blanket.com
SS (formerly Proguard, S1 or Standard)	Erosion Control Systems
S75	North American Green
* DS75	North American Green
* DS150	North American Green
SC150	North American Green
Landlok S1	Propex
*Landlok S1RD	Propex
SNS	SoilTex
V 75 S	Verdyol
*V 75 S FD	Verdyol
Excel SR-1	Western Excelsior
Excel SR-1 Rapid Go	Western Excelsior
WintersStraw *SNW	Winters Excelsior
Winters Straw SNG	Winters Excelsior

Class I, Urban, Type A

PRODUCTS	MANUFACTURER
Curlex I Fibrenet	American Excelsior
Curlex II Fibrenet	American Excelsior
AEC Premier Straw Fibrenet	American Excelsior
S 75 BN	North American Green
S 150 BN	North American Green
SC 150 BN	North American Green
C 125 BN	North American Green
WintersStraw Bio	Winters Excelsior
Excel SR-1 All Natural	Western Excelsior

***Products with UV degradable netting not to be installed after September 1st**

PRODUCTS	MANUFACTURER
Curlex High Velocity	American Excelsior
AEC Premier Straw DN	American Excelsior
Curlex II	American Excelsior
Curlex II CL	American Excelsior
Curlex LT	American Excelsior
AEC Premier Straw/Coconut	American Excelsior
ECS-2	East Coast Erosion Blankets
*ECS-2D	East Coast Erosion Blankets
ECM S2000	Enviroscape
*ECM S2000D	Enviroscape
EG-2S	Ero-Guard
S32	Erosion Control Blanket.com
ETRS-2	Erosiontech
ProGuard DS	Erosion Control Systems
S150	North American Green
DS150	North American Green
SC 150	North American Green
Landlok CS2	Propex
Landlok S2	Propex
DNS	SoilTex
V 150 S	Verdyol
Excel SS-2	Western Excelsior
*Excel SS-2 Rapid Go	Western Excelsior
*Winters Straw HVW	Winters Excelsior
Winters Straw HVG	Winters Excelsior
Winters Choice HV	Winters Excelsior

Class 1, Urban, Type B

PRODUCTS	MANUFACTURER
Curlex NetFree	American Excelsior
EXCEL SS-2 All Natural	Western Excelsior
Erosion Control Blanket.com	S32BD

ANCHORING DEVICES FOR CLASS I, URBAN EROSION MAT

PRODUCTS	MANUFACTURER
E-Staple	American Excelsior
CF Bio Staple	CFM Corp.
Green Stake	Green Stake
Bio-Stake	North American Green
Enviro-Stake	ODC Inc.

*Products with UV degradable netting not to be installed after September 1st

CLASS II

A long term duration (3 years or greater), Coconut Fiber, "Erosion Control

Revegetative Mat" (ECRM).

The weight of the netting shall not exceed 15% of the total blanket weight. The netting shall be bonded sufficiently to the parent material to prevent separation of the net from the parent material for the life of the product. This is particularly important as the vegetation starts to grow. If found deficient at the bond the product will be removed from the PAL. The net if not bonded sufficiently, has a tendency to float as the vegetation grows and may cause damage to maintenance equipment when slopes are mowed and increases the risk of animals being caught in the netting. All Type II mats shall have a C factor from the Revised Universal Soil Loss Equation of 0.1 or less.

TYPE A - Jute fiber only

Jute shall conform to the Wisconsin Department of Transportation Standard Specifications for Highway and Bridge Construction section 628.2.2. This netting is used for reinforcing sod. No approval is required for this Class and Type.

TYPE B

(Minimum Product Permissible Shear Stress: 2.0 lbs/ft² (95 Pa)): For use on slopes 2:1 or flatter, or in channels when the calculated (design) shear stress is 2.0 lbs/ft² (95 Pa) or less. Non-organic, photodegradable or biodegradable netting allowed.

TYPE C

(Minimum Product Permissible Shear Stress: 2.0 lbs/ft² (95 Pa)): For use on slopes 2:1 or flatter, or in channels when the calculated (design) shear stress is 2.0 lbs/ft² (95 Pa) or less. Only 100% organic fibers allowed. Woven mats are allowed with a maximum opening of ½ inch (12 mm). **Recommended for use in environmentally sensitive areas that have a high probability of entrapping animals in plastic netting.**

Class II Types B& C Fiber Longevity

The parent material of Class II Type B & C mats shall have a maximum water absorption rate of 300%, by weight, as per ASTM D1117; and a maximum swell (wet thickness change) of 30% as per ASTM D1777. The lignin content shall be greater than or equal to 33%, as determined by the ¹Klason Method.

¹Technical Association of the Pulp and Paper Industry Test Method, Acid Insoluble lignin in wood and pulp, T222 om-98 method

APPROVED CLASS II TYPE EROSION MATS

CLASS II TYPE A

100% Jute Mats only no specific products identified or approved. See 628.2.2 of the Wisconsin Department of Transportation Standard Specifications for specific requirements, used for sod Reinforcement.

CLASS II TYPE B

PRODUCTS	MANUFACTURER
AEC Premier Coconut	American Excelsior
C 32	Erosion Control Blanket.com
C4000	Enviroscape
C 125	North American Green
C 125 BN	North American Green
C 350	North American Green
LandLock C 2	SI Geosolutions
DNC	SoilTex
V 125 C	Verdyol
WintersCoir HV	Winters Excelsior
Excel CC-4	Western Excelsior

CLASS II TYPE C

PRODUCTS	MANUFACTURER
Dekowe 700	Belton Industries
Dekowe 900	Belton Industries
BioD-Mat 70	RoLanka

A permanent, 100% synthetic "Erosion Control Revegetative Mat" (ECRM) or "Turf Reinforcement Mat" (TRM).

Class II Type A mats are required to provide a C factor from the Revised Universal Soil Loss Equation of 0.10 or less. Class II Type B, C, and D shall provide a C factor from the Revised Universal Soil Loss Equation of 0.20 or less

WisDOT DEFINITION OF TRM and ECRM: TRM's are designed to be filled with soil when installed. ECRM's are designed to be placed on top of soil. TRM's shall be continuously bonded at the filament intersections. Filaments, which are discontinuous or loosely held together by woven, stitched or glued, netting, for example, will not be permitted in this category.

TYPE A

(Minimum Product Permissible Shear Stress: 2.0 lbs/ft² (95 Pa)): An ECRM mat, as opposed to a TRM mat, for use on slopes 2:1 or flatter, or in channels when the calculated (design) shear stress is 2.0 lbs/ft² (95 Pa) or less.

TYPE B

(Minimum Product Permissible Shear Stress: 2.0 lbs/ft² (95 Pa)): A TRM mat for use on slopes 2:1 or flatter, or in channels when the calculated (design) shear stress is 2.0 lbs/ft² (95 Pa) or less.

TYPE C

(Minimum Product Permissible Shear Stress: 3.5 lbs/ft² (170 Pa)): A TRM mat for use on slopes 2:1 or flatter, or in channels when the calculated (design) shear stress is 3.5 lbs/ft² (170 Pa) or less.

TYPE D

(Minimum Product Permissible Shear Stress: 5.0 lbs/ft² (240 Pa)): A TRM mat for use on slopes 1:1 or flatter, or in channels when the calculated (design) shear stress is 5.0 lbs/ft² (240 Pa) or less.

TRM'S REQUIRED MINIMUM THICKNESS AND AREA HOLDING CAPACITY:

TRM Categories	Minimum Thickness mm (Inches)	Minimum Area Holding Capacity L/m ² (In ³ /Yd ²)
Type B	10(0.4)	8.8 (450)
Type C	18(0.7)	17.6 (900)
Type D	18(0.7)	17.6(900)

Class III - Type B, C and D "Turf Reinforcement Mats" (TRM) are permanent, 100% synthetic, open-weaved mats that shall be continuously bonded at the filament intersections. **WisDOT requires that all classes of TRM mats shall be completely filled with topsoil immediately after installation.** Loosely packaged discontinuous filaments are not permitted in this category.

To prevent initial soil loss, Class III TRM mats, Type B, Type C, and Type D, must be covered with one of the following materials during installation: (These materials shall be considered incidental to the installation of Class III TRM mats)

FOR SLOPE APPLICATION

1. An approved Soil Stabilizer Type A
2. An approved ECRM mat for slope applications

FOR CHANNEL APPLICATION

1. An approved ECRM mat for channel applications

APPROVED CLASS III TYPE EROSION MATS

Class III Type A

PRODUCTS

MANUFACTURER

Pek Mat	American Excelsior
Recyclex	American Excelsior
Recyclex TRM V	American Excelsior
Miramat 1800	Nicolon Mirafi
Miramat2400	Nicolon Mirafi
P550	North American Green
P300	North American Green
Contech C-45	SI Geosolutions
Contech C-60	SI Geosolutions
TB 1000	Tensar
Landlok 450	Propex
Landlok 1060	Propex

Class III Type B

PRODUCTS

MANUFACTURER

Enkamat 7010	Colbond Geosynthetics
Enkamat 7018	Colbond Geosynthetics
MacMat N10	Maccaferri
TM3000	Tensar

Class III Type C

PRODUCTS

MANUFACTURER

Enkamat 7020	Colbond Geosynthetics
MacMat N20	Maccaferri
Landlok 300	Propex

Class III Type D

PRODUCTS

MANUFACTURER

Enka S	Colbond Geosynthetics
Pyramat	Propex

TACKIFIERS

The list shown below is WisDOT's Product Acceptability List (PAL) for Tackifiers. Products in this category must meet or exceed the minimum requirements of Michigan Department of Transportation's Qualified Product List. WisDOT **will not** approve any **asphalt based** products or any product deemed environmentally incompatible. Tackifiers shall be mixed and applied in accordance with the manufacturers published directions.

General Specifications

1. **Latex-Base:** The components for the latex-base adhesive shall meet the following requirements: The composition, by weight, of the latex emulsion polymer shall be 48 percent Styrene, 50 percent Butadiene, and 2 percent additive; 42.0-46.0 percent solids; and a PH, as shipped, of 8.5 to 10.0. The emulsion shall not be allowed to freeze or to be exposed to sunlight for a prolonged period of time.
2. **Guar Gum.** Guar gum tackifiers shall consist of a minimum of 95% Guar gum by weight; the remaining shall consist of dispersing and cross-linking additives.
3. **Other Tackifiers.** Other tackifiers shall include the following but not limited to: water soluble natural vegetable gums or guar gums blended with gelling and hardening agents or a water soluble blend of hydrophilic polymers, viscosifiers, sticking aids, and other gums.

Construction Methods

Mulch Anchoring. Anchoring of the mulch shall be accomplished by spraying the tackifier immediately after the mulch has been placed. Spraying shall not be performed during periods of windy conditions that would prevent the proper placement of adhesive. The Contractor shall protect all traffic, signs, structures, and other objects from being marked or disfigured by the tackifier material. The tackifiers shall be applied at the following minimum rates per hectare:

1. **Latex-Base:** mix 37 gal (140 L) of adhesive or the manufacturers recommended rate whichever is greater with a minimum of 620 LB (280 kg) of Recycled Newsprint as a tracer with 925 gallons (3.5 kl) of water.
2. **Guar gum:** mix 120 LB (55 kg) of dry adhesive and a minimum of 620 LB (280 kg) of Recycled Newsprint as a tracer with 3,225 gallons (12.2 kl) of water.
3. **Other Tackifiers:** (Hydrophilic Polymers) mix 110 kg (240 LB) of dry adhesive or the manufacturer's recommended rate whichever is greater and a minimum of 280 kg (620 LB) recycled newsprint as a tracer with 3,225 gallons (12.2 kl) of water.

APPROVED TACKIFIERS

5.2.b

LATEX BASE ADHESIVE**PRODUCTS****MANUFACTURER**

BUTOFAN NS 268	BASF Corp.
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GUAR GUM BASE ADHESIVE**PRODUCT****MANUFACTURER**

Lawn Tack	Amturf Seeds
Second Nature Tacpac GTX	Central Fiber Corp.
Landtack	Erosion Control Technologies
Eco Tak-OP	Eastern Products Inc.
Finn A500 Hydro-Stik	Finn Corporation
Landtack Guar	Innovative Turf Solutions
GG Tack	Innovative Turf Solutions
Hydra Glue	Innovative Turf Solutions

OTHER TACKIFIERS (Hydrophilic Polymers)**PRODUCT****MANUFACTURER**

Exact-Tac (E-T)	American Excelsior Co.
Con-Tack A/T	Con Wed
Eco Tak-SAT	Eastern Products Inc.

Attachment: 2022 NMM Reclamation Plan (7272 : 2022-0009 - Halfman Trust - CUP)

Soil stabilizers are intended as soil bonding agents to prevent or minimize erosion of bare soil. They must be harmless to fish, wildlife, and plants, along with being non-toxic and non-combustible.

General Requirements for Soil Stabilizers

Manufacturers of Soil Stabilizers may request approval of their products by supplying:

1. Acute and chronic toxicity test reports from an accredited testing laboratory. The toxicity test report shall be reviewed and a use restriction issued by the Wisconsin Department of Natural Resources (WDNR).
2. Certified test data showing the products ability to reduce soil loss induced by a rainfall simulator, as detailed in the **American Association of State Highway and Transportation Officials National Transportation Evaluation Program (2, 4, 6 inch per hour)**

The outcome of the WDNR review and the test results shall determine whether or not a product is placed in the PAL. All products must have a label identifying the product and date that this product was manufactured.

Asphalt based products will not be approved for use as soil stabilizers.

Soil stabilizers are considered a short term duration (6 months or less) erosion control device. When used alone, they shall be used on slopes 3:1 or flatter. They shall **not** be used in channels.

TYPE A

Soil stabilizer, Type A, shall be a cementitious soil binder added to wood cellulose fiber mulch, or a bonded fiber matrix. They are intended to form a thick heavy bodied crust or mat like barrier that controls water and wind induced erosion. Soil Stabilizer, Type A, is approved for use as a temporary cover on Class III, Type B, C, and D soil filled turf reinforcement mats on slope applications. In addition to the above requirements soil stabilizers must show equal vegetative density and sediment loss standards as Class I erosion mats. Certified large-scale test data conforming to ASTM D6459 as modified in the Erosion Mat General specifications starting on page 1 of this document.

TYPE B

Soil stabilizer, Type B, shall be a flocculent intended to reduce the erodibility of bare soils during construction activities or to enhance the performance of mulching on permanent slopes. Soil stabilizer, Type B, shall have proven abilities to bond soil particles, effectively increasing the soil particle size to 1.0 mm or larger. It shall reduce the movement of soil through chemical bonding, increase the particle size thus making silt fence more effective, and increase the water absorption of the soil. Testing should show that the product works in a range of soil including acidic soil with a pH of 5.

Only the anionic form of polyacrylamide PAM shall be used. Cationic PAM is toxic and shall not be used. PAM and PAM mixtures/additives shall be environmentally compatible, harmless to fish, wildlife and plants. They shall be non-combustible. Detailed information on all additives shall be provided to the Wisconsin Department of Transportation.

Anionic PAM, in pure form shall have no more than 0.05% acrylic monomer by weight, as established by the Food and Drug Administration and the Environmental Protection Agency. To maintain the $\leq 0.05\%$ acrylic monomer content, the application rate for PAM, in its pure form, on slopes and channels, shall not exceed 200 lbs/acre (224 kg/ha).

Soil loss in large scale ASTM D6459 testing not to exceed a Cover Management (C) Factor of 0.50 as defined in the Revised Universal Soil Loss Equation (RUSLE) from the USDA-ARS Agricultural handbook 703.

Construction Methods for Type A and B

1. Application for Soil Stabilizer, Types A & B is intended to be done with conventional hydraulic seeding equipment. Soil Stabilizer, Type B, may also be placed through dry spreading. When dry spreading is used, the contractor must ensure that the material is applied uniformly. The manufacturer shall provide detailed instructions on the storage, mixing and application procedures to insure proper safety and effectiveness of the product.
2. Soil Stabilizer Type B when hydraulically applied typically need time in solution to allow polymer chain to unwind, refer to manufactures instructions for time recommendations.
3. For optimum performance of soil stabilizers Type B, soils that are either very acidic or very basic should be brought closer to a ph of 7.0, refer to manufacturers' recommendations.
4. Seeding must be done in a manner that ensures direct contact with the soil. For Soil Stabilizer, Type A, seed must be sown separately and prior to the application of the soil stabilizer.
5. Minimum application rates shall be as noted in the chart based upon submitted performance testing regardless of other application rates recommended by the manufacturer.
6. For Soil Stabilizer, Type B, when used on permanent slopes, WisDOT approved mulch must be applied in addition to the Soil Stabilizer Type B to protect the seed.

¹ AASHTO NTPEP Project Work Plan for Laboratory Evaluation of Erosion Control Products (ECP) , 2012.

APPROVED SOIL STABILIZERS**TYPE A**

Products	Manufacturer	Application Rate (minimum)
Airtrol Plaster (to be used only in combination with a wood mulch)	US Gypsum Company	4500 lb/ac in addition to 1650 lb/ac of a standard processed wood fiber mulch
Soil Guard	Mat, Inc.	3500 lb/ac
Hydra CX-2	North American Green	3500 lb/ac
Hydra CM	North American Green	3500 lb/ac
Bindex	American Excelsior	3200 lb/ac

TYPE B

CF 2000	Construction Fabrics and Materials	20 lb/ac
Natural Earth PolyStable Plus	Earth & Road	20 lb/ac
PolyPlus	Polymer Plus, LLC	20 lb/ac
TRIPAM	Soilnet	54 lb/ac
35	Soilnet	54 lb/ac
50	Soilnet	54 lb/ac
B100	Agrecol	20 lb/ac
PAM-12 Plus	ENCAP	2000 lb/ac

INLET PROTECTION

General Requirements of Inlet Protection

Application

Inlet protection products are intended to intercept, pond, and filter sediment-laden runoff. They generally consist of geotextile fabric and fabric hold down systems for inlet protection as shown on the Department's details or plans. All fabrics used as part of an inlet protection must be included on the list of fabrics certified for Inlet Protection, Geotextile Fabric, Type FF in the current edition of the PAL. Approved manufactured products used as alternatives to the Department's Standard Details are listed below will also be manufactured of Type FF Fabric.

The Department will include a listing of acceptable fabrics for Inlet Protection, Geotextile Fabric, Type FF in the Product Acceptability List. To be considered for certification, suppliers or manufacturers of geotextiles must submit products to the Department.

Materials

Product acceptance will be based on compliance with the following requirements.

Product Material: Woven polypropylene.

Physical Properties:

<u>Test</u>	<u>Method</u>	<u>Value</u> ⁽¹⁾
Grab Tensile Strength, lb. (N)	ASTM D-4632	200 (900) min.
Puncture Strength, lb. (N)	ASTM D-4833	105 (460) min.
Apparent Breaking Elongation,	ASTM D-4632	24 min.
Apparent Breaking Elongation,	ASTM D-4632	
Machine Direction, %		10 min
Cross Direction, %		
Apparent Opening Size, μm	ASTM D-4751	600 max.
Permittivity, s^{-1}	ASTM D-4491	1.9 min.

⁽¹⁾All numerical values represent minimum/maximum average roll values (i.e., the average of minimum test results on any roll in a lot should meet or exceed the minimum specified values).

Certification Procedures

To be considered for certification, the supplier or the manufacturer must supply the PAL Committee with the following items for each product submitted.

1. Certified Report of Test and Analysis showing full compliance with the listed requirements.
2. Private label identification: Provide a letter from the private labeler identifying his source and name of material along with a companion letter from the manufacturer. Material properties and identifying names shall be included in the letters of certification.

3. Three samples of the material obtained from separate rolls of material. Each sample shall be a minimum of 3 feet in length and the full width of the roll.

5.2.b

Product acceptability will be determined by Department under the administration of the PAL Committee. No product will be considered for certification without the receipt of an acceptable Certified Report of Test and Analysis. In addition, the Department will conduct laboratory testing of the received samples. Initially, two of the received samples will be tested for compliance with the listed requirements. If both samples are in full compliance, the product will be certified. If both samples fail to meet full compliance, the product will be rejected. If one of the samples fails to meet full compliance, the third sample will be tested and certification or rejection will be based on the test results of that sample.

Field Control

The contractor has the responsibility of providing identification of the fabric supplied for inlet protection units. Such identification shall be attached to the unit and shall allow the project manager to determine if the supplied material is on the list of certified materials for Inlet Protection, Geotextile Fabric, Type FF contained in the current PAL. Field samples are not required as part of the standard project material acceptance as these fabrics are sensitive to sampling techniques that may alter the material properties tested for conformance.

TYPE A

Inlet protection Type A shall be utilized around field inlets until permanent stabilization methods have been established. Inlet protection Type A shall be utilized on pavement inlets prior to installation of curb and gutter or pavement.

TYPE B

Inlet protection Type B shall be utilized on street inlets without curb head, once surrounding surfaces are in place.

TYPE C

Inlet protection Type C shall be utilized on street inlets with curb heads. A 1 ½" x 3 ½" (37mm by 87 mm) minimum, piece of wood shall be wrapped and secured in the fabric and placed in front of the curb head as shown in the plans. The wood shall not block the entire opening of the curb box.

TYPE D

Inlet protection Type D shall be utilized in areas where other types of inlet protection are identified as incompatible with roadway and traffic conditions causing possible safety hazards when ponding occurs at the inlet. The inlet protection shall conform to the standard detail drawing as shown in the plans.

Attachment: 2022 NMM Reclamation Plan (7272 : 2022-0009 - Halfman Trust - CUP)

Must use an approved FF Fabric

TYPE A

PRODUCT	MANUFACTURER
Verti – Pro	Alpine Stormwater Management Co.
Grate Inlet Protector, PCD-1000	Suntree Isles Inc.

TYPE B

PRODUCT	MANUFACTURER
Dandy Bag	Dandy Products Inc.

TYPE C

PRODUCT	MANUFACTURER
Slammer	Alpine Stormwater Management Co.
Beaver Dam	Dandy Products Inc.

Type D

PRODUCT	MANUFACTURER
Siltsac	ACF Environmental
The Catch-All (WisDOT Model)	Marathon Materials Inc. (Mar Mac)
The Road Drain Curb and Gutter High Flow	WIMCO
Inlet Protection	Lange Industries
FLEXSTORM (WisDOT Model)	Inlet & Pipe Protection, Inc. (IPP)

GEOTEXTILE FABRIC TYPE FF

PRODUCT	MANUFACTURER
WevTex 403	Kintex
GTF 403	Linq
W401	TNS
TerraTex EP12	WebTec

Purpose & Operation

Products in this category are intended for use at the bottom of fill slopes and in channels to intercept and pond sediment-laden runoff. Ponding the water reduces the velocity of the incoming flow and allows most of the sediments to settle out. Water exits the check by either filtering through or flowing over the top.

Construction Methods

This work shall be in accordance with the requirements of the State of Wisconsin Department of Transportation Standard Specification for Highway and Structure Construction, and the Standard Detail Drawing in the WisDOT Facility Development Manual. In addition to the above, temporary ditch checks shall be placed perpendicular to the flow line of the ditch and shall extend far enough so that the ground level at the ends of the checks are higher than the low point on the crest of the check. The installed material shall have a minimum height of 10 inches above the flow line in the installed condition. All products shall be entrenched a minimum of 2.0 inches on bare soil. Ditch checks installed in a channel that is continuously lined with erosion mat need not be entrenched if installed over the top of the erosion mat. Installations shall have stakes on the downstream side of the temporary ditch check and shall not reduce the height of the temporary ditch check. Fabric type products may be entrenched with a narrow check slot on the upstream side.

Approved manufactured alternatives to the Department's details are listed below.

APPROVED TEMPORARY DITCH CHECKS

PRODUCT	MANUFACTURER
Curlex 12 inch Sediment Log	American Excelsior
Curlex 20inch Sediment Log	American Excelsior
AEC Premier 12 inch Wattle	American Excelsior
AEC Premier 20 inch Wattle	American Excelsior
Stenlog 12	Erosion Control Blanket.com
Triangular Silt Dike	Triangular Silt Dike
Aspen Xcel Excelsior Log	Western Excelsior
Ditch Chexx	Filtrexx
Bio-D Silt Check	Ro Lanka
WS-12	North American Green

Purpose & Operation

In-Stream sediment traps are intended for use in streams or channels to trap and remove or stabilize sediments during in-stream construction activities. The product consists of a flat pad with protruding vanes designed to trap sediment within the confines of a concentrated flow area or stream. The pad, which is placed singularly or in a group on the stream-bed immediately downstream of a disturbed area, filters out the sediment carried by the stream current or water runoff.

Construction Methods

Mats shall be placed at locations shown on the plans or as directed by the engineer. Mats shall be installed flat on the stream bed to intercept and retain sediments caused by in stream activities. It shall be anchored by staking or other methods approved by the engineer. Overlap of the trailing edge of upstream mats and sides of adjacent mats shall be a minimum of 6 inches or 150 mm. When ordered by the engineer, mats shall be replaced or removed. Care shall be taken during removal to minimize loss of entrapped sediments.

These products shall only be used in streams with the concurrence of WisDNR.

APPROVED IN-STREAM SEDIMENT TRAP

PRODUCT

MANUFACTURER

Sedimat	Indian Valley Industries
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Purpose & Operation

Articulated concrete block revetment systems are a flexible manufactured erosion control system that is able to expand and contract with the subgrade. The systems are made of individual concrete block units, which are physically integrated through mechanical interlock, cables, grids, or other means to produce an erosion-resistant lining. The articulated concrete blocks are organized into five types based upon sustaining a minimum permissible shear stress.

General Specifications

- 1. Bed Shear Stress:** All articulated concrete block systems are placed in categories based upon performance at an adequate testing facility meeting protocols and procedures as described in this section. In order to be placed in a particular category, an articulated concrete block system must perform to a minimum product permissible bed shear stress in a channel and meet the minimum permissible bed shear stress for that category. For example, articulated concrete block systems placed in an Open Class Type E category must withstand a minimum product permissible bed shear stress of 1425Pa (30 lbs/ft²). See item #2 under the general specifications for specific testing requirements and documentation.
- 2. Testing Procedure and Documentation:** All articulated concrete block systems must be tested in accordance with FHWA-RD-88-181 or FHWA-RD-89-199 and a minimum slope of 2:1 prior to being placed on WisDOT's Erosion Control Product Acceptability List (PAL). Articulated concrete block systems must be installed as tested. This includes anchors, drainage nets, and cables.

It is recognized by WisDOT that some systems utilize a cable for installation purposes. However it is also possible that the cable can enhance the performance of the system. Therefore, any system, which is tested with a cable and placed in a specific category, must be installed with a cable. This does not prevent systems, which were not tested with cables to be installed with cables. Articulated Concrete Block Revetment systems, which do not have a positive interlock at least in one direction, are required to use cables for installation and testing. Positive interlock is defined as block that is united firmly in a direction of forward motion such as by hooking or dovetailing.

It is also recognized by WisDOT that some testing facilities will use a turf reinforcement mat similar to a Class III Type D in order to place water monitoring devices required for the testing. This practice is consistent with the procedure that was completed in the FHWA-RD-89-199 report. Mats or other devices used for this purpose will not be required in the field.

The hydraulic conditions at the threshold of failure determine the hydraulic stability of a systems performance. Failure of a system is defined as the "loss of intimate contact between an articulating concrete block system and the subgrade soil"

All systems must be tested as full scale production units in order for extrapolation to be accepted for inclusion on WisDOT's PAL. To be considered for WisDOT's Erosion Control Product acceptability List, the following reporting information is required to be performed at an independent testing facility and reported by a licensed professional engineer.

- Description of the testing facility, including plan/profile schematics, water management scheme, measurement devices and instrumentation, and maximum flow capabilities.
- Description of revetment system, including dimensioned drawings of block components, description of infill material (if used), geotextile properties, and any ancillary features such as cables, anchors, connectors, etc.
- Computations and a diagram of a 10 foot by 10 foot area of the system determining percent open area measured at the bottom of the block.
- Documentation of embankment soil properties and description of embankment construction methods.
- Description of revetment installation, including wall details, crest and toe terminations, method of interlock, and ancillary components such as anchors, cables, grids etc. Include photographs illustrating relevant aspects.
- Description of the testing procedures, including the overtopping depth(s) and discharge(s) examined, data collection procedures, and qualitative description of revetment system performance. Include photos of tests in progress and post test revetment system condition.
- Summary of measured data and calculated hydraulic conditions for each test.
- Discussion of the identification (interpretation) of stability threshold location and hydraulic conditions, with supporting calculations.
- Calculations of any extrapolated data for revetment systems of varying thickness of the same family of block. Note that extrapolation will only be accepted from testing on full scale production units.
- Appendix containing raw data and measurements.

3. Materials

General: The articulated concrete block revetment system and all materials used to manufacture the system shall have a minimum effective life span of 50 years.

Concrete: The concrete used to manufacture the individual blocks shall meet a compressive strength of 4000 psi using ASTM-C-140 for dry cast products and ASTM-C-39 for wet cast products. Cast concrete blocks shall conform to ASTM-C-1262 in a 3% saline solution at forty (40) cycles and not to exceed a 1% loss of its initial weight. or shall conform to ASTM C 666, the block shall retain 80% of the relative dynamic modulus with no more than 1% loss of initial weight. Compliance with these procedures shall be accomplished by certification from an AMRL (A.A.S.H.T.O. Material Registered Laboratory) certified plant. This Certification shall be done when a change is incurred in the mix design, supplying plant, and/or source materials in addition to yearly recertification.

Cable: For articulated concrete block systems that utilize cables during the testing procedure, the cables shall have a tested effective life span of 50 years. A minimum factor of safety of 5 shall be applied to the cables for lifting and placing purposes.

4. Installation: Articulated concrete block systems shall be built in a reasonably close conformity to the lines, grades, dimensions, details and design indicated on the plans in accordance with the pertinent requirements of the specifications for all work necessary to complete the work in accordance to the contract. The contractor will be responsible for supplying the department with the design of anchor trenches, side trenches and toe trenches to ensure a surface that is flush with the top surface of the articulating concrete mat.

5. **Filter Fabric:** All articulating concrete mats approved for WisDOT use shall be installed with a filter fabric beneath the mat that meets the following specifications.

TEST	METHOD	VALUE
Grab Tensile Strength	ASTM D 4632	1450 N (320 lbs) min
Puncture Strength	ASTM D 4833	510 N (115 lbs) min
Apparent Breaking Elongation	ASTM D 4632	26% min Machine Direction
Apparent Breaking Elongation	ASTM D 4632	15% min Cross Direction
Apparent Opening Size	ASTM D 4751	600um (30 US Std. Sieve)
Permittivity	ASTM D 4491	2.14 sec ⁻¹
Permeability	ASTM D 4491	.142 cm/sec

¹All numerical values represent minimum average roll values (i.e., the average of the minimum test results on any roll in a lot should meet or exceed the minimum specified values.

7. **Recertification:** To remain on the approved list all block suppliers must resubmit freeze thaw and strength testing by an approved AMRL lab by October first of each year.
8. **Quality Assurance:** For quality assurance WisDOT will conduct random tests on selected projects to determine if the supplied blocks meet the specifications. If they do not meet the specifications, the project engineer will determine a credit to the project in accordance with section 105.3 of the State of Wisconsin, Standard Specifications for Highway and Structure Construction. The credit will not exceed the cost of replacement of the blocks including labor of installation, and removal of the old blocks. Subsequently the block supplier / manufacturer will be removed from the list

Class and Type Specifications

Class Open Cell

(Open cell articulated concrete block systems must have a minimum open area of 20% measured at the bottom of the block for the system.)

Type A: (Minimum Product Permissible Bed Shear Stress: 240 Pa (5 lbs/ft²))

Type B: (Minimum Product Permissible Bed Shear Stress: 475 Pa (10 bs/ft²))

Type C: (Minimum Product Permissible Bed Shear Stress: 715 Pa (15 lbs/ft²))

Type D: (Minimum Product Permissible Bed Shear Stress: 950 Pa (20 lbs/ft²))

Type E: (Minimum Product Permissible Bed Shear Stress: 1425 Pa (30 lbs/ft²))

Class Closed Cell

(Closed Cell articulated concrete block systems are systems that have a maximum open area of 10% measured at the bottom of the block in the system.)

Type A: (Minimum Product Permissible Bed Shear Stress: 240 Pa (5 lbs/ft²))

Type B: (Minimum Product Permissible Bed Shear Stress: 475 Pa (10 bs/ft²))

Type C: (Minimum Product Permissible Bed Shear Stress: 715 Pa (15 lbs/ft²))

Type D: (Minimum Product Permissible Bed Shear Stress: 950 Pa (20 lbs/ft²))

Type E: (Minimum Product Permissible Bed Shear Stress: 1425 Pa (30 lbs/ft²))

APPROVED ARTICULATED CONCRETE BLOCK REVETMENT SYSTEM**Closed cell****TYPE A**

Product	Manufacturer	Plant Name / location
Geolink PL-41216	Petrattech	Americast Concrete Products, Woodstock, IL
Geolink PL-61216	Petrattech	Americast Concrete Products, Woodstock, IL
Armorflex 45 S	Armortec	Americast Concrete Products
Armorflex 55 S	Armortec	Americast Concrete Products
Armorflex 45	Armortec	Americast Concrete Products
Armorflex 55	Armortec	Americast Concrete Products
Armorflex 75	Armortec	Americast Concrete Products
Armorflex 85	Armortec	Americast Concrete Products

Type B

Product	Manufacturer	Plant Name / location
Geolink PL-41216	Petrattech	Americast Concrete Products, Woodstock, IL
Geolink PL-61216	Petrattech	Americast Concrete Products, Woodstock, IL
Armorflex 45 S	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 55 S	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 45	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 55	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 75	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 85	Armortec	Americast Concrete Products, Woodstock, IL

Type C

Product	Manufacturer	Plant Name / location
Geolink PL-41216	Petrattech	Americast Concrete Products, Woodstock, IL
Geolink PL-61216	Petrattech	Americast Concrete Products, Woodstock, IL
Armorflex 55 S	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 45	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 55	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 75	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 85	Armortec	Americast Concrete Products, Woodstock, IL

TYPE D

Product	Manufacturer	Plant Name / location
Geolink PL-41216	Petrattech	Americast Concrete Products, Woodstock, IL
Geolink PL-61216	Petrattech	Americast Concrete Products, Woodstock, IL
Armorflex 45	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 55	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 75	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 85	Armortec	Americast Concrete Products, Woodstock, IL
CC 20	Cable Concrete	Royal Concrete Pipe Products, Stacey, MN

TYPE E

Product	Manufacturer	Plant Name / location
Geolink PL-61216	Petrattech	Americast Concrete Products, Woodstock, IL
Armorflex 55	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 75	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 85	Armortec	Americast Concrete Products, Woodstock, IL
CC 35	Cable Concrete	Royal Concrete Pipe Products, Stacey, MN
CC 45	Cable Concrete	Royal Concrete Pipe Products, Stacey, MN
CC 70	Cable Concrete	Royal Concrete Pipe Products, Stacey, MN
CC 45 OS	Cable Concrete	Royal Concrete Pipe Products, Stacey, MN
CC 65 OS	Cable Concrete	Royal Concrete Pipe Products, Stacey, MN
CC 90 OS	Cable Concrete	Royal Concrete Pipe Products, Stacey, MN

Open cell**TYPE A**

Product	Manufacturer	Plant Name / location
PL-41216 Geolink	Petrattech	Americast Concrete Products, Woodstock, IL
PL-61216 Geolink	Petrattech	Americast Concrete Products, Woodstock, IL
Armorflex 30 S	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 50 S	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 40	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 50	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 60	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 70	Armortec	Americast Concrete Products, Woodstock, IL
TYPE BProduct	Manufacturer	Plant Name / location
Geolink PL-41216	Petrattech	Americast Concrete Products, Woodstock, IL
Geolink PL-61216	Petrattech	Americast Concrete Products, Woodstock, IL
Armorflex 50 S	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 40	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 50	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 60	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 70	Armortec	Americast Concrete Products, Woodstock, IL

TYPE C

Product	Manufacturer	Plant Name / location
Geolink PL-41216	Petrattech	Americast Concrete Products, Woodstock, IL
Geolink PL-61216	Petrattech	Americast Concrete Products, Woodstock, IL
Armorflex 30 S	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 50 S	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 40	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 50	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 60	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 70	Armortec	Americast Concrete Products, Woodstock, IL

TYPE D

Product	Manufacturer	Plant Name / location
Geolink PL-41216	Petrattech	Americast Concrete Products, Woodstock, IL
Geolink PL-61216	Petrattech	Americast Concrete Products, Woodstock, IL
Armorflex 40	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 50	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 60	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 70	Armortec	Americast Concrete Products, Woodstock, IL

TYPE E

Product	Manufacturer	Plant Name / location
Geolink PL-61216	Petrattech	Americast Concrete Products, Woodstock, IL
Armorflex 50	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 60	Armortec	Americast Concrete Products, Woodstock, IL
Armorflex 70	Armortec	Americast Concrete Products, Woodstock, IL

Appendix A:

PRODUCT EVALUATION

DT2164 6/2005 Ch. 84 Wis. Stats.

Wisconsin Department of Transportation

Trade Name of Product	Description - What is it?	Date Submitted
-----------------------	---------------------------	----------------

RECOMMENDED USES

1. Primary

2. Alternate

Outstanding Features or Advantages Claimed

Manufacturer	Address	City	State	ZIP Code
Representative – Name and Firm	Address and Telephone Number	City	State	ZIP Code

PRODUCT STATUSNew on Market ☐ Yes ☐ No

Year First Introduced

Introduced as Alternate For

PRODUCT INFORMATION

1. Composition

2. Cost

3. Specifications

Furnished by Manufacturer

☐ Yes ☐ No

Availability of Specifications

☐ Attached ☐ To be Mailed ☐ Not Available

Product Meets the Following Standard Specifications

☐ AASHTO☐ ASTM☐ Federal☐ Other:

4. Patented

☐ Yes ☐ No ☐ Applied For

5. Proprietary Product

☐ Yes ☐ No Royalty Costs:

6. Product Guaranteed

☐ Yes ☐ Copy Attached ☐ No

Conditions

7. Will Free Sample be Furnished?

☐ Yes ☐ No

Laboratory Analysis Furnished with Sample?

☐ Yes ☐ No

8. Other Highway Agencies Approving its Use

ADDITIONAL INFORMATION

(Attach pages for additional information if necessary.)

Name of Person Furnishing Information	Title
---------------------------------------	-------

(Authorized Signature)

(Date)

For consideration by the Wisconsin Department of Transportation, submit the original of this form to the person contacted in the Department.
The name and address is:

CHANNEL EROSION CONTROL MATRIX

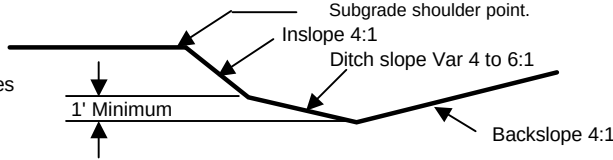
(Concentrated Flow Application)

TYPE OF EROSION CONTROL DEVICE	PERMISSIBLE SHEAR LBS/FT.	DITCH GRADE															REMARKS
		< 2%			2% - 4%			4% - 6%			6% - 9% *			9% - 12% *			
		Max. Length (ft.)			Max. Length (ft.)			Max. Length (ft.)			Max. Length (ft.)			Max. Length (ft.)			
		300	600	1200	300	600	1200	300	600	1200	300	600	1200	300	600	1200	
Seed with properly anchored mulch	0.6																Anchor mulch per specifications.
Sod ditch checks with seed and mulch	N/A																Install one ditch check for every 1 foot of drop. Sod stakes required.
Temporary ditch checks (hay bales or approved manufactured alternatives listed in the WisDOT PAL)	N/A																Install one ditch check for every 2 feet of drop. Maximum 200' spacing. Not recommended for slopes less than 1%.
Sod ditch liner	1.0																Upstream end must be buried. Additional sod stakes required.
Double netted light duty (WisDOT Class I Type B) erosion mat	1.5																Only mat type products allowed.
Sod reinforced with a double netted jute (WisDOT Class II Type A) erosion mat	1.5																Upstream end must be buried. Additional sod stakes required. Two bid items needed.
Stone or rock ditch checks, or Rock-Filled Filter Bags	N/A																Use No. 2 coarse aggregate, railroad ballast, or breaker run. Install one ditch check for every 2 feet of drop. Use in conjunction with a channel lining.
Medium duty coconut erosion mat (WisDOT Class II Type B or C)	2.0																
Heavy duty synthetic (WisDOT Class III Type A) erosion mat or turf reinforcement mat (WisDOT Class III Type B)	2.0																Germination may be a problem with Class III Type A mats. An ECRM is required for initial erosion protection for Class III Type B mats.
Heavy duty synthetic turf reinforcement (WisDOT Class III Type C) mat	3.5																An ECRM is required for initial erosion protection. Contact manufacturer if higher shears are needed.
Riprap ditch checks	N/A																Place top of downstream ditch check level with bottom of upstream ditch check. Use in conjunction with a channel lining.
Heavy duty synthetic turf reinforcement (Class III Type D) mat	5																An ECRM is required for initial erosion protection. Contact manufacturer if higher shears are needed.
Light riprap	4																Outfalling, overtopping and scour need to be addressed. Use 2' minimum ditch depth.
Medium riprap	5																
Heavy riprap	8																
Riprap measures apply to all ditch types. Use of these measure requires engineering judgement and design.																	

Attachment: 2022 NMM Reclamation Plan (7272 : 2022-0009 - Halfman Trust - CUP)

CHANNEL EROSION CONTROL MATRIX

(Concentrated Flow Application)

TYPE OF EROSION CONTROL DEVICE	PERMISSIBLE SHEAR LB/S.F.	DITCH GRADE															REMARKS
		< 2%			2% - 4%			4% - 6%			6% - 9% *			9% - 12% *			
		Max. Length (ft.)			Max. Length (ft.)			Max. Length (ft.)			Max. Length (ft.)			Max. Length (ft.)			
		300	600	1200	300	600	1200	300	600	1200	300	600	1200	300	600	1200	
Grouted rip rap	N/A	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	Address outfalling, overtopping and scour. Line with Grotexile fabric Type "HR", (see Chap. 10, Const. Detail and special provision). Use 2' minimum ditch depth.	
Articulated Concrete Block Type A	5	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	ACBs apply to all ditch types. Use of these measures requires engineering judgement and design.	
Articulated Concrete Block Type B	10	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●		
Articulated Concrete Block Type C	15	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●		
Articulated Concrete Block Type D	20	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●		
Articulated Concrete Block Type E	30	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●	●●●●●●●●●●●●●●●●		
Standard Ditch Section 																	
NOTES 1) Ditch flow rates used to develop bar chart are based on a 60 ft. right of way from pavement centerline and a 2-Yr. rainfall event for temporary liners or a 25-Yr. rainfall event for permanent (Class III mat or riprap) liners. If the drainage area extends outside the 60 foot right of way or unusual flows are expected, use the shear stress column values to determine the suitability of a liner. See FDM procedures in Chapter 10 and in Section 13-30-10. 2) Erosion mats shall extend upslope 1.0 ft. min. vertically from the ditch bottom or 6" higher than the design flow depth. There shall be no joints within 18" of the low point. 3) Cost shall be a consideration in the selection of these devices. 4) Add sediment traps at the bottom of channel slopes. 5) Refer to FDM Chapter 10 for any channels exceeding the limits shown. 6) Approved materials for erosion products are referenced from the Wisconsin Department of Transportation Erosion Control Product Acceptability Lists (PAL), found at the web site: http://www.dot.wisconsin.gov/business/engrserv/pal.htm 7) On long or steep channels that require a higher class mat, use the appropriate lower class mat for the first 300 ft to 600 ft of the channel. 8) Effective erosion control involves minimizing the amount of time soil is exposed and the selection of a combination of practices, and not reliance on just one practice.																	
KEY Effective range of device for Sandy or Clayey Soil: ●●●●●●●●●●●●●●●● Device applicable, may not be cost effective: ●●●●●●●●●●●●●●●● "C" effective for clayey soil only Not applicable. Use in conjunction with other BMPs: ○●●●●●●●●●●●●●●●● ECRM - Erosion control revegetation mat. All Class I and II mats are ECRMs. TRM - Turf reinforcement mat. FDM - WisDOT Facilities Development Manual BMP - Best Management Practice PAL - See Note 6 * For ditch grades over 9% special design considerations may be required. ** Soils that are not sandy should be treated as clay soils.																	

SLOPE EROSION CONTROL MATRIX

TYPE OF EROSION CONTROL	SLOPE																		REMARKS			
	6:1 or flatter (7)						4:1			3:1			2.5:1			2:1				1:1		
	SLOPE LENGTH			SLOPE LENGTH			SLOPE LENGTH			SLOPE LENGTH			SLOPE LENGTH			SLOPE LENGTH						
	0 - 30'	30 - 60'	60 - 120'	0 - 30'	30 - 60'	60 - 120'	0 - 30'	30 - 60'	60 - 120'	0 - 30'	30 - 60'	60 - 120'	0 - 30'	30 - 60'	60 - 120'	0 - 30'	30 - 60'	60 - 120'				
Seed with properly anchored mulch																						
Single netted light duty (WisDOT Class I Type A) erosion mat																						
Light duty single netted 100% biodegradeable (WisDOT Urban Type A) erosion mat																			Use only 100% biodegradeable anchors for urban mats.			
Light duty double netted 100% biodegradeable (WisDOT Urban Type B) erosion mat																			Use only 100% biodegradeable anchors for urban mats.			
Bonded Mulch (WisDOT Type A Soil Stabilizer)																			May be applied over Class III Type B, C, or D mats in place of erosion control revegetation mats.			
Polymer (WisDOT Type B Soil Stabilizer)	Used in conjunction with other BMPs effective up to a 2:1 slope. Not effective in sand. When used alone effective up to a 3:1 slope. Stand alone use appropriate for earthen stock piles, temporary, and late season applications																					
Double netted light duty (WisDOT Class I Type B) erosion mat																						
Sod																						
Medium duty coconut erosion mat (WisDOT Class II Type B or C)																						
Sod reinforced with a double netted jute (WisDOT Class II Type A) erosion mat																			Sod stakes required. Two bid items needed.			
Heavy duty synthetic erosion control revegetation mat (WisDOT Class III Type A)																			Germination may be a problem with Class III Type A mats			
Riprap																			Angle of repose must be considered, see FDM Chapter 13.			
Heavy duty synthetic turf reinforcement (WisDOT Class III Type B or C) mat																			A soil stabilizer or ECRM will be required for initial erosion protection.			
Heavy duty synthetic turf reinforcement (WisDOT Class III Type D) mat																			A soil stabilizer or ECRM will be required for initial erosion protection.			
Slope paving or grouted riprap																			Consider clear zone requirements. Only use in limited circumstances such as overflow areas near bridges.			

SLOPE EROSION CONTROL MATRIX

Benches	Consider benches when cuts exceed 20', bench at approximately 15' vertical intervals to collect and drain water. Treat benches as channels (ditches). Adjust elevations to provide drainage. Consider flumes at transitions.
Intercepting embankments	Used to intercept runoff from abutting lands. Flumes may be necessary to direct runoff.
Silt fence	Used at toe of slopes to intercept and detain small amounts of sediment. Use only WisDOT approved silt fence as listed in the PAL.
Temporary ditch checks or Erosion bales	Used at toe of slopes to intercept and detain small amounts of sediment.
Slope drains/flumes	May be necessary on slopes (see channel matrix for design guidance).
Sediment traps	Used to trap sediment laden runoff. Could be used at the inlet or outlet end of slope drain.
KEY: Not applicable. Use in conjunction with other BMPs:  Effective range of device for Sandy or Clayey Soil:  Device applicable, may not be cost effective:  * Soils that are not sandy should be treated as clay soils. ECRM - Erosion control revegetation mat. All Class I and II mats are ECRMs. TRM - Turf reinforcement mat. FDM - WisDOT Facilities Development Manual PAL - See Note 5 NOTES 1) Cost shall be a consideration in the selection of these devices. 2) Designers should review FDM Chapter 10 prior to selection of erosion mats. 3) Install intercepting ditches to limit slope lengths to 15' vertical intervals. (See FDM Chapter 10) 4) Refer to FDM Chapter 10 for any slopes exceeding the limits shown. 5) Approved materials for erosion products are referenced from the Wisconsin Department of Transportation Erosion Control Product Acceptability Lists (PAL), found at the web site: http://www.dot.wisconsin.gov/business/engrserv/pal.htm 6) On steeper slopes that require a higher class mat, use the appropriate lower class mat or seed and mulch for the first 30 ft to 60 ft of the slope. 7) Unless project conditions require otherwise, seed and mulch all slopes that are flatter than a 5% grade, regardless of length. If practicable, bench the slopes. 8) Effective erosion control involves minimizing the amount of time soil is exposed and the selection of a combination of practices, and not reliance on just one practice.	

CHIPPEWA COUNTY – PLANNING & ZONING COMMITTEE

NOTICE OF ACTION

Conditional Use Permit for a Non-Metallic Mine Halfman Pit (Town of Woodmohr)

APPEAL NUMBER: # 2022-0009

APPEAL DATE: 09-XX-2022

EXPIRATION DATE: 09-XX-2024

LAND OWNER(S):

Leonard G & Laura Jean Halfman Trust, 27534 Ermine Avenue, Tomah, Wisconsin 54660 (Parcel #: 23008-0624-00020000)

Leonard G & Laura Jean Halfman Trust, 27534 Ermine Avenue, Tomah, Wisconsin 54660 (Parcel #: 23008-0631-00000000)

Leonard G & Laura Jean Halfman Trust, 27534 Ermine Avenue, Tomah, Wisconsin 54660 (Parcel #: 23008-0642-00020000)

OPERATOR:

Haas Sons Inc., 203 E. Birch Street, Thorp, Wisconsin 54771

Dear Leonard G & Laura Jean Halfman Trust and Haas Sons, Inc.,

On September XX, 2022, the Planning & Zoning Committee considered your request for the renewal of a Conditional Use Permit, which allows for extraction of natural minerals and resources in the Agricultural District pursuant to 70-71(b)(2), 70-108 and sections 70-180 through 70-187 of the Chippewa County Zoning Ordinance. The land associated with this particular conditional use permit is in the SE ¼ of the NW ¼, the NE ¼ of the SW ¼ and the NW ¼ of the SE ¼, Section 06, Township 30 North, Range 08 West. Town of Woodmohr.

DECISION:

The Planning & Zoning Committee has **GRANTED** the conditional use permit with the following conditions:

1. This is a 2year permit, set for renewal prior to **September XX, 2024**. Off-site hauling of material following permit expiration and in case of revocation is prohibited.
2. Permit will allow activities and reclamation in all cells.
3. Activities to be in compliance with WDNR WPDES Permit.
4. Separation distance of 50' from all property lines must be maintained unless an agreement in writing is obtained from the property owners and submitted to the County DPZ.
5. No discharge of water is allowed from the site.
6. Mining activities cannot be any closer than 250' to a residence and/or well.
7. Plans show that a 65 +/- acre pond will be included in the site reclamation. NMMing is requested below the water table, which is estimated to be 1010' above mean sea level (MSL). The bottom of the pond is estimated to be around 990' to 995' MSL.
8. Hours of operation shall be limited to 6:00 a.m. to 9:00 p.m. Monday through Friday, 6:00 a.m. to 3:00 p.m. Saturdays. No Sundays or holidays. All other hours to be brought before the Planning & Zoning Committee for special approval.
9. A sign must be placed by the entrance stating the property owners name and the operator as well as hours of operation. A driveway permit and 911 number will be required.
10. Operator to follow: 1) All provisions of Chippewa County Non-Metallic Mining Reclamation Ordinance and; 2) Wisconsin Administrative Rule NR 135.
11. Activities to be conducted in compliance with the approved Non-Metallic Mining Reclamation "Plan Narrative" and the "Initial Site Map", "Site Operations Map", and "Final Site Map" all dated May 2, 2022.
12. Off-site hauling of material following permit expiration and in case of revocation will be prohibited. It is the responsibility of the landowner and/or operator to keep all applicable permits current.

13. Onsite hauling of material for the purpose of washing, crushing or storage will be prohibited, except as allowed under this permit.
14. Onsite temporary storage of recycled asphalt and/or concrete is allowed.
15. No burying of any materials will be allowed onsite.
16. Grade soil piles to a 3 (horizontal) to 1 (vertical) slope & mulch with seeding.
17. The washing & crushing of sand and gravel will occur onsite, but is limited to the site specific material. The operator will construct a wash pond onsite.
18. Operator has agreed that no chemicals or flocculants will be utilized and as part of this permit would be prohibited.
19. Ingress/Egress Access: Any access point(s) will need to be approved by the jurisdiction having authority over that particular access point.
20. A concrete batch will be allowed as an accessory use to the non-metallic mining permit.

A complete record of the hearing and the decision of the Planning & Zoning Committee are available for inspection in the Chippewa County Planning & Zoning Department, Room 009, 711 N. Bridge Street, Chippewa Falls, Wisconsin.

RENEWAL OF THE CONDITIONAL USE PERMIT:

The Planning & Zoning Committee may renew conditional use permits authorizing nonmetallic mining activities subject to the following:

- (1) Applications for the renewal of a conditional use permit must be submitted at least 45 calendar days prior to the expiration date of the existing conditional use permit. Applications are not required to include any items shown on previously submitted applications, unless the information has changed. Renewal applications may merely indicate no change in such items. Any proposed changes from prior applications shall be required to submit the applicable required information under this division.
- (2) Unless a public informational hearing is requested by a person who owns property within 660 feet of the proposed nonmetallic mining site, no public hearing shall be required to be held with the respect to the conditional use permit renewal application. However, if the application provides for an enlargement of a permitted nonmetallic mining site, or otherwise provides for an alteration or change in the method of operations or reclamation previously approved, a new conditional use permit shall be required and approved by the Committee only after finding such change will not adversely properties within 660'..
- (3) Conditional Use Permit renewals may be conditioned upon correction of any unanticipated environmental impacts, which occurred during the term of initial or renewal permits.
- (4) The conditional use permit may be renewed by the Committee for up to an additional 4 years based on the operators compliance with the requirements of the conditional use permit and this division. To ensure compliance, the Department shall bi-annually inspect the nonmetallic mining operation.

TERMINATION:

This conditional use permit shall not be terminated or denied without first providing the operator with a notice of a public hearing and a public hearing at which the operator shall be given the right to respond to any alleged noncompliance of the conditions of the permit and this division. Termination or non-renewal shall occur only in the event of an operator's failure to comply with any material term of the initial or renewed conditional use permit, the Reclamation Plan, the performance standards incorporated herein, or upon a significant change, as determined by the Committee, in material circumstances rendering continued operation under the conditional use permit to be contrary to the health, safety, or welfare of the County.

TRANSFER OF PERMIT:

In the event an operator succeeds the interest of another at an uncompleted nonmetallic mine site, the former operator shall be released of the responsibilities imposed by the current permit issued to the former operator upon satisfaction of the following conditions.

Draft: 09-20-2022

- (1) The nonmetallic mine site is in compliance with the requirements of this division and the permit for the operation of the nonmetallic mine site.
- (2) The new operator assumes the responsibility of the former operator to complete the reclamation of the entire permitted nonmetallic mining site by a written, signed and notarized document and provides adequate financial assurance for approved reclamation of the nonmetallic mine site.

NONMETALLIC MINE SITE ENLARGEMENT:

Any proposed nonmetallic mining site enlargement shall be processed as a new application pursuant to this division. All provisions of this division shall apply to the proposed enlargement.

FAILURE TO OPEN AND OPERATE:

Failure of an operator to take substantial steps to open and operate a nonmetallic mining site within 1 year of the initial permit issuance shall invalidate the permit. A new permit application shall be required for any future nonmetallic mining activity.

ABANDONMENT OF NONMETALLIC MINE OPERATIONS:

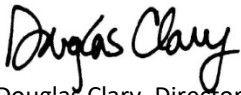
Any nonmetallic mine site on which no nonmetallic mining activity has taken place for 24 consecutive months shall be determined to be abandoned. If the abandonment of a nonmetallic mine site occurs, the conditional use permit shall be terminated and all applicable reclamation standards and bonds shall be enforced or executed. Nonmetallic mining operations shall not be conducted within the boundaries of the previously permitted nonmetallic mine site, unless a new nonmetallic mine permit has been issued under this division.

WRIT OF CERTIORARI

Any person or persons jointly or severally aggrieved by this decision of the Planning & Zoning Committee or any taxpayer, or any officer, department, board or bureau of the County, may commence an action in the circuit court for writ of certiorari to review the legality of such decision.

Dated this XX day of September, 2022.

By the Order of the Planning & Zoning Committee.



Douglas Clary, Director
 Department of Planning & Zoning

CC: Pete Hanson, Woodmohr Town Chair – via email
 Lynda Schweikert, County Conservationist, Land Conservation & Forest Management – via email
 File

Attachment: 2022-0009 Haas Sons - Halfman Pit - CUP 2022 Issued - DRAFT_PERMIT (7272 : 2022-0009 - Halfman Trust - CUP)