

CHIPPEWA COUNTY
PLANNING & ZONING COMMITTEE
REGULAR MEETING
SEPTEMBER 23, 2021
CHIPPEWA COUNTY COURTHOUSE, RM 302
4:30 PM

1. CALL TO ORDER

2. ROLL CALL

Attendee Name	Organization	Title	Status	Arrived
Chuck Hull	Chippewa County	District 14 (Chair)	Excused	
Don Hauser	Chippewa County	District 6 (Vice-Chair)	Present	
Ronald McGill	Chippewa County	District 15	Present	
David Eisenhuth	Chippewa County	District 11	Present	
Dean Gullickson	Chippewa County	District 7	Present	

3. MEMBERS OF THE PUBLIC WISHING TO BE HEARD

None.

4. CONSENT AGENDA

Motion to Approve.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Ronald McGill, District 15
SECONDER:	Dean Gullickson, District 7
AYES:	Hauser, McGill, Eisenhuth, Gullickson
EXCUSED:	Hull

1. Approve the Agenda
2. Approve the Minutes

Planning & Zoning Committee - Regular Meeting - Aug 19, 2021 4:30 PM

3. Schedule Next Meeting Date - October 21, 2021 @ 4:30 PM

5. PUBLIC HEARINGS - FOR DISCUSSION AND ACTION

1. 2021-0009 Solhawk Dairy, Inc. - Conditional Use Request
Ketty Clow with LCFM provided an overview on ATCP 51 standards and advised committee that all standards were met. Dennis Hawkins spoke briefly about expansion and necessity in order to keep growing the business. Jesse Jones, 8317 50th Ave spoke and discussed her displeasure and wish for an alternative with the incineration process for dead livestock. Dennis stated that he would like to go to a composting process with those animals in the future. Jackie Vavra, 3245 90th Street spoke and asked whether the water content of the manure waste could be minimized. Dennis Hawkins commented that future plans would include a digester which may help eliminate some smell and water. Jesse Jones asked

Planning & Zoning Committee

Minutes
Regular Meeting

Chippewa County Courthouse, Rm 302

September 23, 2021
4:30 PM

whether any data has been gathered regarding nitrates in drinking water in this area. Dan Masterpole, LCFM commented on the historical data and modeling that has been completed.

Motion to Approve.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Ronald McGill, District 15
SECONDER:	Dean Gullickson, District 7
AYES:	Hauser, McGill, Eisenhuth, Gullickson

2. 2021-0010 Daniel Olson - Conditional Use Permit

Motion to approve with the conditions as addressed in the draft Conditional Use Permit.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Dean Gullickson, District 7
SECONDER:	David Eisenhuth, District 11
AYES:	Hauser, McGill, Eisenhuth, Gullickson

3. 2021-0011 David Crane - Conditional Use Request

Crane spoke and explained that while his initial submittal was for two new buildings with 5 hangers, he received approval at the Town level and would like Committee approval for 5 separate hanger buildings with room for 10 aircrafts. Crane also explained that there would be no fuel storage on-site. Discussion occurred on revising the language to give preliminary approval for 5 hangers and 10 aircrafts per review of the Town of Lafayette minutes specifying a similar decision.

Motion to approve with the conditions of the draft conditional use permit with a change in condition 5 which would allow for a total of five (5) additional hangers with a total of ten (10) aircraft.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	David Eisenhuth, District 11
SECONDER:	Dean Gullickson, District 7
AYES:	Hauser, McGill, Eisenhuth, Gullickson

6. **AGENDA ITEMS FOR FUTURE CONSIDERATION**

None.

7. **ADJOURN**

Motion to adjourn.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	David Eisenhuth, District 11
SECONDER:	Dean Gullickson, District 7
AYES:	Hauser, McGill, Eisenhuth, Gullickson

CHIPPEWA COUNTY
PLANNING & ZONING COMMITTEE
REGULAR MEETING
AUGUST 19, 2021
CHIPPEWA COUNTY COURTHOUSE, RM 302
4:30 PM

1. CALL TO ORDER

2. ROLL CALL

Attendee Name	Organization	Title	Status	Arrived
Chuck Hull	Chippewa County	District 14 (Chair)	Present	
Don Hauser	Chippewa County	District 6 (Vice-Chair)	Present	
Ronald McGill	Chippewa County	District 15	Present	
David Eisenhuth	Chippewa County	District 11	Present	
Dean Gullickson	Chippewa County	District 7	Excused	

3. MEMBERS OF THE PUBLIC WISHING TO BE HEARD

None.

4. CONSENT AGENDA

McGill indicated that he was 'present' vs 'remote' at the July 15, 2021 PZC meeting. Motion to Approve the Consent Agenda with the correction to the July 15, 2021 minutes.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Ronald McGill, District 15
SECONDER:	David Eisenhuth, District 11
AYES:	Hull, Hauser, McGill, Eisenhuth
EXCUSED:	Gullickson

1. Approve the Agenda
2. Approve the Minutes
3. Planning & Zoning Committee - Regular Meeting - Jul 15, 2021 4:30 PM
4. Schedule Next Meeting Date - September 23, 2021

5. PUBLIC HEARINGS - FOR DISCUSSION AND ACTION

1. 2021-0013 - Robert Brown - Rezone - Town of Lafayette - Doug Clary
Motion to Approve of the rezone with the understanding that the property owner will be leaving as much vegetation as possible between the parking lot and 57th Avenue, while allowing for two rows of parking.

Planning & Zoning Committee

Minutes
Regular Meeting

Chippewa County Courthouse, Rm 302

August 19, 2021
4:30 PM

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Don Hauser, District 6 (Vice-Chair)
SECONDER:	Ronald McGill, District 15
AYES:	Hull, Hauser, McGill, Eisenhuth
EXCUSED:	Gullickson

6. REPORTS

1. Review and Action on Request to Sell Type B Tax Deeded Land - Doug Clary
No requests were received.

7. BUSINESS ITEMS

1. Review and Action on Offers to Purchase Received on Type A Tax Deed Property - Doug Clary
Clary informed the PZC that the appraisal was ordered, but there would be a delay.

8. AGENDA ITEMS FOR FUTURE CONSIDERATION

None discussed.

9. ADJOURN

Motion to Adjourn.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Ronald McGill, District 15
SECONDER:	David Eisenhuth, District 11
AYES:	Hull, Hauser, McGill, Eisenhuth
EXCUSED:	Gullickson

Minutes Acceptance: Minutes of Aug 19, 2021 4:30 PM (Consent Agenda)



STATEMENT OF EXPLANATION
2021-0009 SOLHAWK DAIRRY, INC. - CONDITIONAL USE REQUEST

5.1

To allow the expansion of an existing Livestock Operation in the Agricultural District in accordance with Sections 70-71(b)(16), 70-108 and 70-160 through 70-173 of the Chippewa County Zoning Ordinance. Parcels are located in the N ½ of the NE ¼, Section 20, Township 28 North, Range 09 West. Town of Wheaton. Physical Address: 8777 County Highway X.

(Publish – Chippewa Herald – September 9 and 16, 2021)

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 23, 2021** beginning at **4:30 PM** at the Chippewa County Courthouse, Room 302, 711 N Bridge Street, Chippewa Falls, Wisconsin relative to the following request.

Conditional Use Request: 2021-0009

Petitioner: Solhawk Dairy, Inc

Agent: Dennis Hawkins and Mike Buchner of Auth Consulting & Associates, Inc.

To allow the expansion of an existing Livestock Operation in the Agricultural District in accordance with Sections 70-71(b)(16), 70-108 and 70-160 through 70-173 of the Chippewa County Zoning Ordinance. Parcels are located in the N ½ of the NE ¼, Section 20, Township 28 North, Range 09 West. Town of Wheaton. Physical Address: 8777 County Highway X.

Conditional Use Request: 2021-0010

Petitioner: Daniel Olson

Agent: CBS Squared/Tyler Hastings

To allow a contractor storage yard (Dan's Construction & Excavating, Inc.) in the Agricultural District in accordance with Sections 70-71(b)(5) and 70-108 of the Chippewa County Zoning Ordinance on a parcel which is located in the NW ¼ of the SW ¼, Section 15, Township 28 North, Range 09 West. Town of Wheaton. Vacant land, County Highway X.

Conditional Use Request: 2021-0011

Petitioner: David Crane

To allow private aircraft storage in the Agricultural District in accordance with Sections 70-71(b)(4) and 70-108 of the Chippewa County Zoning Ordinance. Lot 1, CSM 5140, which is located in the SW ¼ of the NW ¼, Section 16, Township 28 North, Range 07 West. Town of Lafayette. Physical Address: 21064 45th Ave.

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 **27th** day of **August**, 2021.

Douglas Clary, Director
Department of Planning & Zoning
Chippewa County

NOTICE TO ADJACENT PROPERTY OWNERS

STATE OF WISCONSIN – LIVESTOCK FACILITY SITING – CONDITIONAL USE REQUEST

Wis. Stats. s. 93.90; Wis. Adm. Code ch. ATPC 51

The Chippewa County Department of Planning & Zoning has received an application from **Solhawk Dairy, Inc.** to approve the expansion of an existing livestock facility located at 8777 County Highway X, Chippewa Falls, Wisconsin 54729. The property is located in the N ½ of the NE ¼, Section 20, Township 28 North, Range 09 West, Town of Wheaton. The applicant has filed the application form and worksheets prescribed by state law describing the proposed facility in detail. They are also designed to document compliance with uniform state livestock facility siting standards, including standards related to:

- Odor management.
- Property line and road setbacks.
- Manure management.
- Manure storage facilities.
- Runoff management.

On Friday, August 6, 2021, the Department notified the applicant that the application was complete. Under state law, Chippewa County must normally grant or deny the application within 90 days after the date of approval. Under state law, Chippewa County must approve the application unless it finds, based on other clear and convincing evidence, that the application fails to meet state standards. A political subdivision, such as Chippewa County, may not ordinarily consider other siting criteria, or apply standards that differ from the state standards.

Copies of the application form and worksheets are on file with the Department of Planning & Zoning, and are open to public inspection. Interested persons may submit comments and information, in writing, by 12:00 noon on Wednesday, September 22, 2021 or they may attend the public hearing as shown below. Individuals may review the siting application, and submit written comments, at the following address:

Department of Planning & Zoning
Chippewa County Courthouse, Room 009
711 N. Bridge Street
Chippewa Falls, Wisconsin 54729

PUBLIC NOTICE is hereby given to all persons in the County of Chippewa, Wisconsin, that a public hearing will be held on **September 23, 2021** beginning at **4:30 PM** at the Chippewa County Courthouse, Room 302, 711 N Bridge Street, Chippewa Falls, Wisconsin relative to the following request.

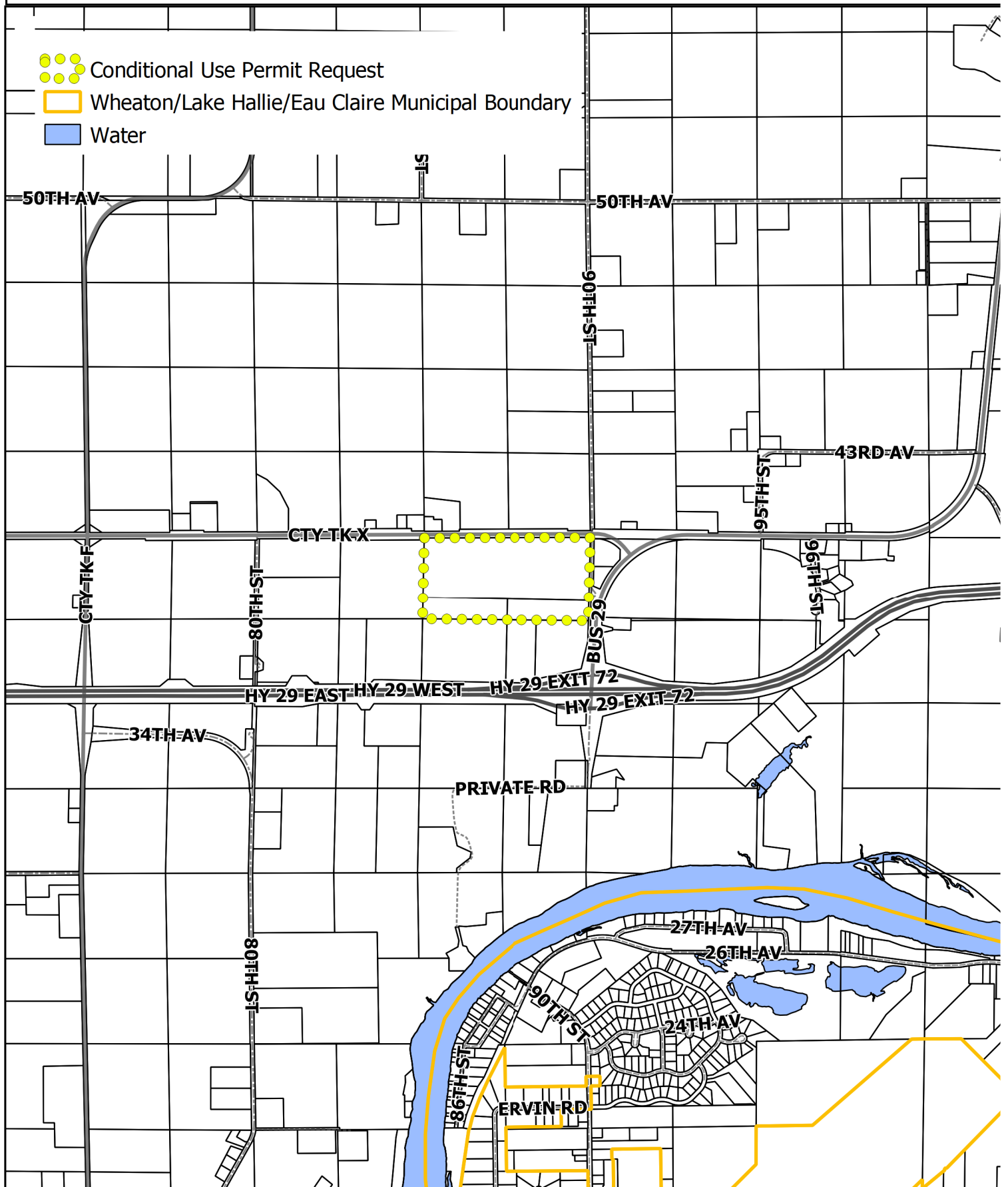
An applicant, or a person who resides or owns land within 2 miles of the proposed livestock facility, may appeal the Chippewa County's decision to the Wisconsin Livestock Facility Siting Review Board. An appeal, if any, must be filed within 30 days. The Siting Review Board will review the local decision based on state law, and evidence in the local record (the Board will not hold a new hearing or accept new evidence).

On the back side of this notice, you will find a short summary of state livestock facility siting requirements. For more information, you may call Douglas Clary at (715) 726-7941 or visit the state website at <http://livestocksiting.wi.gov/>

State Livestock Facility Siting Requirements (For New or Expanded Livestock Operations that Need a Local Permit)

Requirement	Applies to	Provisions
Application and Worksheets	All applicants	- Describes proposed livestock operation in detail. - Shows number of “animal units” (AU) proposed. - Documents compliance with state siting standards.
Odor Management (see worksheet)	Applicants whose livestock operation will be both of the following: - Located within 2500 feet of closest neighbor. - Over 500 AU for new livestock operation or 1000 AU for expansion.	- Odor score must meet state standard. - Odor score depends on predicted odor from livestock structures (varies by structure size and type), odor management practices used, distance to nearest neighbors, and density of neighboring development.
Waste and Nutrient Management (see worksheet)	All applicants	- Shows maximum amount of waste that will be generated (manure and other). - Describes waste management plan, including landspreading and storage if any. - Identifies proposed manure storage and capacity. - Identifies land available for spreading. - Professional checklist shows that waste disposal plan is adequate to handle projected waste, and meets state standards (not required for operations under 500 AU that have adequate land base).
Waste Storage Facilities (see worksheet)	All applicants with manure storage facilities	- New facilities constructed to current state standards. - Existing facilities appear to be safe (no indication of leakage or failure). - Abandoned facilities are properly closed. - Professional evaluation and construction plan.
Runoff Management (see worksheet)	All applicants	- Meet state nonpoint pollution standards. - Control runoff from animal lots and feed storage.
Setbacks (see site map)	All applicants	- Meet local setbacks (cannot exceed state maximums of 100 to 200 feet depending on size). 350 ft. setback for new waste storage. - Existing structures “grandfathered” (can continue and expand, but not toward property line). - Must comply with existing water quality setbacks (wetland, floodplain, well setbacks).
Training and Response Plans	All applicants	- Incident response plan (spills and odor events). - Employee training (manure and odor mgmt.).

2021-0009 Solhawk Dairy, Inc - Conditional Use Request - Location Map



Produced on August 27, 2021 by the Chippewa County Department of Planning & Zoning and is for reference purposes only.

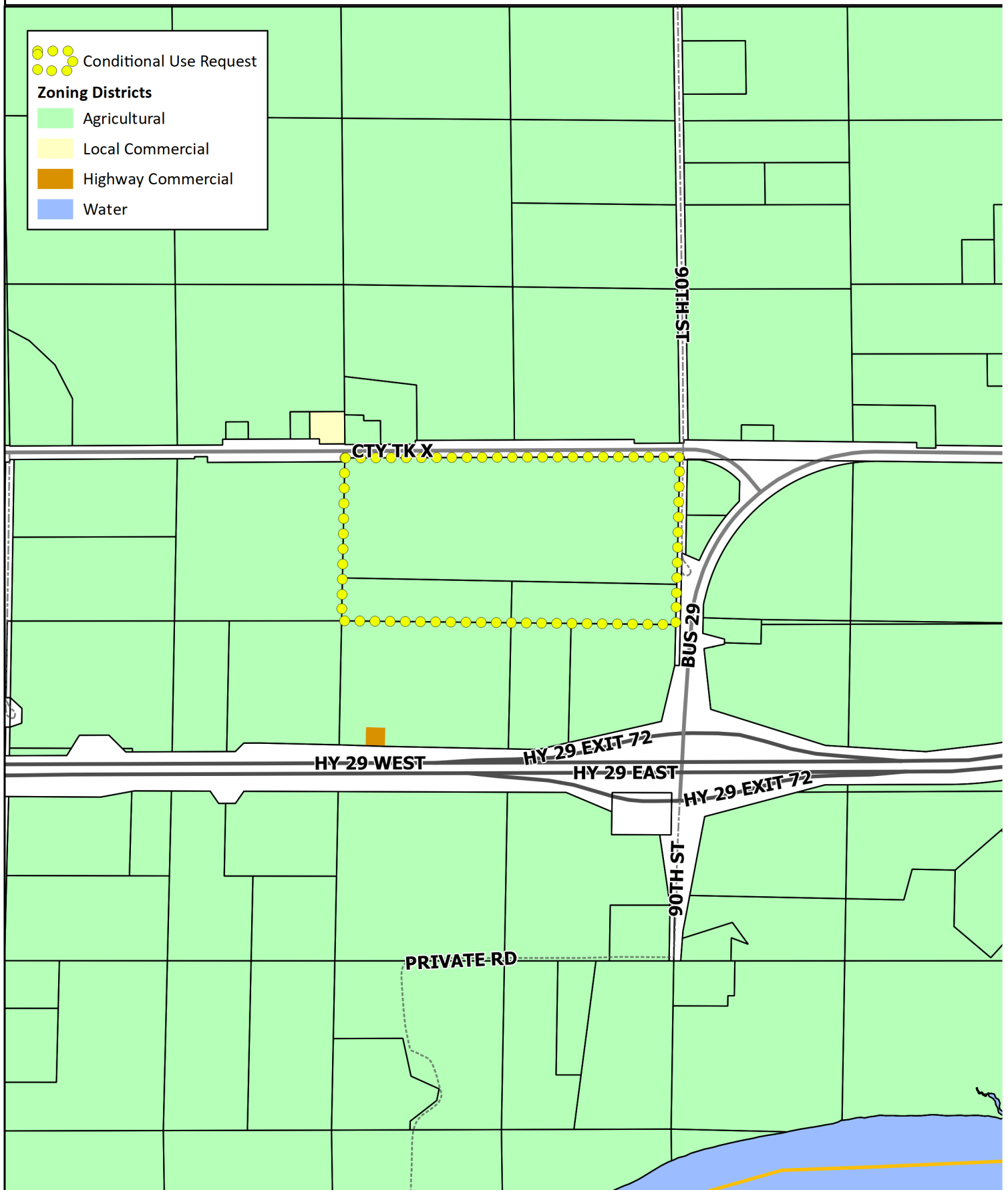
2021-0009 Solhawk Dairy, Inc - Conditional Use Request - Aerial (2020)

Conditional Use Request



Attachment: 2021-0009 Solhawk Dairy, Inc. - Public Hearing Notices & Maps (6611 : 2021-0009 Solhawk Dairy, Inc - Conditional Use Request)

2021-0009 Solhawk Dairy, Inc - Conditional Use Request - Zoning Districts

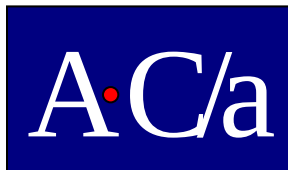


Attachment: 2021-0009 Solhawk Dairy, Inc. - Public Hearing Notices & Maps (6611 : 2021-0009 Solhawk Dairy, Inc - Conditional Use Request)

ATCP51 Permit Application Solhawk Dairy, Inc.

July 2021

Compiled by:



Auth Consulting & Associates, Inc. (AC/a)

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Attachment: (A) Cover Page (6611 : 2021-0009 Solhawk Dairy, Inc - Conditional Use Request)

ATCP51 Permit Application

Chapter ATCP 51
APPENDIX A
APPLICATION FORM AND WORKSHEETS

Application for Local Approval
New or Expanded Livestock Facility



Wisconsin Department of Agriculture, Trade and Consumer Protection
2811 Agriculture Drive
P.O. Box 8911
Madison, WI 53708-8911
(608) 224-4622
(608) 224-4500

Introduction

Use this application form to obtain local approval for a *new* or *expanded* livestock facility (cattle, swine, poultry, sheep or goats) that will exceed 500 “animal units” (or a lower threshold established by local zoning ordinance prior to July 19, 2003).

Some local governments require local approval, but others do not. Check with your local government (county and town or municipality) to see if local approval is required in your area.

In some cases, you may need local approval from more than one local government (for example, the county and the town, or 2 towns if your livestock facility straddles the town line). But the application and approval process should be the same.

The construction of a new or altered *livestock structure* does not, by itself, constitute an “expansion” (unless there will also be an increase in *animal units*). If you already have a permit or local approval, you may not need another approval unless your planned expansion exceeds the number of animals previously authorized by your local government.

Local approval, if required, is governed by statewide uniform standards in Wisconsin Statutes s. 93.90 and Wisconsin Administrative Code chapter *ATCP 51*. This application documents compliance with those standards.

The Livestock Facility

A livestock facility includes livestock, livestock structures, the land on which they are located (it does not include pastures or winter grazing areas). *Related livestock facilities* (see definition below) are treated as a single livestock facility, for purposes of local approval. However:

- A *separate species facility* (see definition below) may be treated as a separate livestock facility, even if it is owned by the same person and located on the same land parcel as another livestock facility.
- A mere acquisition of a neighboring livestock facility does not constitute an *expansion* unless more *animal units* are added to the combined facilities.

Completing the Application

If local approval is required, complete this entire application form (including the worksheets). Follow the instructions in the application form. Attach all of the supplementary documentation required. Your application must be complete, credible and internally consistent.

The application form and worksheets ask for information to show compliance with Wisconsin livestock facility siting standards. A local government has *very limited* authority to modify the standards by local ordinance (modifications, if any, must be reflected in the local version of this application form).

As part of your application, you must specify the number of *animal units* that you will keep at a new or expanded livestock facility. If the local government approves your requested number, this will be the maximum number that you may keep for 90 days or more in any 12-month period.

A local government may require you to submit up to 4 duplicate copies of the complete application, worksheets, maps and other attachments. But you are not required to submit duplicate copies of engineering design specifications.

Worksheets

This application includes the following worksheets:

- *Animal units* (worksheet 1)
- Odor management (worksheet 2)
- Waste and nutrient management (worksheet 3)
- Waste storage facilities (worksheet 4)
- Runoff management (worksheet 5)

Complete the worksheets following all instructions (including those on each worksheet). You may use a convenient automated spreadsheet in place of Tables A and B of worksheet 2 if you prefer (results are identical). The spreadsheet is available at <http://www.datcp.state.wi.us>.

If the Wisconsin Department of Natural Resources (*DNR*) has issued a Wisconsin Pollutant Discharge Elimination System (*WPDES*) permit for your proposed livestock facility, you can check a box on worksheets 3, 4 and 5, and submit a copy of that permit with the worksheets. A *WPDES* permit does not affect the requirements for completing worksheets 1 and 2.

Fees

A local government may require a fee to offset its reasonable costs to review and process this application. The fee, if any, must be established by local ordinance and may not exceed \$1,000. A local government may NOT charge any other fee, or require you to post any bond or security.

Local Approval Process

If you complete the application properly, the local government **MUST APPROVE** the proposed livestock facility unless it finds, based on clear and convincing evidence in the local record, that the facility fails to meet the state standards.

Within 45 days after you submit your application, the local government must notify you whether your application is complete. If you failed to complete part of the application, you must submit the missing information. The local government must grant or deny the application within 90 days after it declares the application complete, and issue its decision in writing. The approval must include a duplicate copy of the approved application, marked "approved." The duplicate copy shall include all the worksheets, maps, and other attachments included in the application, with the exception of the engineering design specifications. The local government must make a record of its decision making process, and the evidence supporting its decision. The record must include your application.

Appeal of Local Decision

If you disagree with the local government's decision on your application, you may appeal that decision to the Wisconsin Livestock Facility Siting Review Board ("Board"). Other "aggrieved persons" may also appeal to the Board. An "aggrieved person" includes any person who resides or owns land within 2 miles of your proposed livestock facility.

You must file your appeal within 30 days after the local government issues its decision (or, if you pursue a local administrative appeal process first, within 30 days after that appeal process is complete). The Board will review the local decision based on the evidence in the local record (it will not hold a new hearing or accept new testimony or evidence). You must file your appeal in writing at the following address:

Wisconsin Livestock Facility Siting Review Board
c/o Secretary, Department of Agriculture, Trade and Consumer Protection
P.O. Box 8911
Madison, WI 53708-8911

Terms Used in this Application Form

In this application form, you will see a number of **italicized** terms. Those terms are defined below (for more specific definitions, see ATCP 51):

"Adjacent" – Located on land parcels that touch each other, or on land parcels that are separated only by a river, stream, or transportation or utility right-of-way.

"Affected Neighbors" – Residences or *high-use buildings* within 2500 feet of any livestock structure at the proposed facility, other than those owned by the applicant or by persons who have agreed to exclude them from the applicant's odor score calculation. The total odor score for a *livestock facility* depends, in part, on the proximity and density of "affected neighbors."

"Animal housing area" – That portion of an animal housing structure to which animals have access, and in which manure may accumulate. "Animal housing area" includes free-stalls and travel lanes. It does NOT include holding areas, feed alleys, storage areas or milking parlors.

"Animal lot" – A feedlot, barnyard or other outdoor facility where livestock are concentrated for feeding or other purposes. Pastures and winter grazing areas are NOT "animal lots." Treat multiple "animal lots" as a single "animal lot" if runoff from the "animal lots" drains to the same treatment area or if runoff from the "animal lot" treatment areas converges or reaches the same surface water within 200 feet of any of those treatment areas.

"Animal units" – Equivalent units of *livestock*. The number of animals constituting an "animal unit" varies by species. For example, one milking dairy cow equals 1.4 "animal units." A beef animal over 600 lbs. equals 1.0 "animal units." A pig over 55 lbs. equals 0.4 "animal units." A laying chicken equals 0.01 "animal unit." The number of "animal units" kept at a *livestock facility* means the largest number of "animal units" that will be at the *livestock facility* on at least 90 days in any 12-month period. Calculate "animal units" according to worksheet 1.

"BARNY runoff model" – The Wisconsin version of a model that is commonly used to predict nutrient runoff from *animal lots*. An Excel computer spreadsheet version is available on the DATCP website (engineering directory).

"Certified agricultural engineering practitioner" – A practitioner who is properly qualified under ATCP 50.46.

"Cluster" – Any group of one or more *livestock structures* within a *livestock facility*. If you wish to do so, you may calculate separate odor scores for "clusters" that are separated by more than 750 feet.

“Complete application for local approval” – An application that contains everything required under ss. [ATCP 51.30\(1\)](#) to [\(4\)](#).

“DATCP” – Wisconsin Department of Agriculture, Trade and Consumer Protection. The application form cites DATCP rules including Wis. Adm. Code chs. [ATCP 51](#) (livestock facility siting), [ATCP 50](#) (soil and water resource management) and [ATCP 17](#) (livestock premises registration).

“DNR” – Wisconsin Department of Natural Resources. The application form cites DNR rules including Wis. Adm. Code chs. [NR 243](#) (*WPDES* permits), [NR 811](#) (community wells) and [NR 812](#) (private wells).

“Expanded livestock facility” – The entire *livestock facility* created by an *expansion*, including new, existing and altered *livestock structures* (existing structures are subject to less rigorous standards). Your application must indicate the maximum number of *animal units* that you will keep at the “expanded livestock facility.”

“Expansion” – An increase in the largest number of *animal units* kept at a *livestock facility* on at least 90 days in any 12-month period. The acquisition of an existing livestock facility, by the operator of an *adjacent* facility, is not an “expansion” unless the operator increases the largest number of *animal units* kept at the combined livestock facilities on at least 90 days in any 12-month period.

“High-use building” – A residential building that has at least 6 distinct dwelling units; a restaurant, hotel, motel, or tourist rooming house; a school building; a hospital or licensed care facility; or a non-farm business or workplace that is open at least 40 hours a week. The odor score for your *livestock facility* depends, in part, on the proximity and density of neighboring “high-use buildings.”

“Karst features” – Sinkholes, fractured bedrock or like features that may result in direct pollution runoff to groundwater.

“Livestock” – Cattle, swine, poultry, sheep or goats.

“Livestock facility” – A feedlot, dairy farm, or other operation where *livestock* are or will be fed, confined, maintained, or stabled for a total of 45 days or more in any 12-month period. A “livestock facility” includes all of the tax parcels on which the facility is located, but it does NOT include a parcel used only for *pasture* or as a *winter grazing area*. *Related livestock facilities* are considered a single “livestock facility,” except a livestock operator may elect to treat a *separate species facilities* as a separate livestock facility.

“Livestock structure” – A building or structure such as a barn, milking parlor, feed storage facility, feeding facility, *animal lot* or *waste storage structure*. *Pastures*, *winter grazing areas* and machine sheds are NOT “livestock structures.”

“Local approval” – A license, permit, special zoning exception, conditional use permit, or other local authorization for a *new or expanded livestock facility*. This application form applies, regardless of the form of local approval. However, this application form does NOT cover any of the following permits (for which separate requirements may apply):

- Building, electrical or plumbing permits (if local standards are consistent with state code).
- Manure storage system permits (*see ATCP 50.56*), UNLESS construction is part of a *new or expanded livestock facility*.
- Permits required by certain local ordinances related to shoreland zoning, floodplain zoning, construction site erosion control or stormwater management.

“New livestock facility” – A *livestock facility* used for the first time, or for the first time in at least 5 years.

“NRCS” – The Natural Resource Conservation Service of the United States Department of Agriculture. Wisconsin livestock siting standards refer to NRCS Technical Guide standards.

“Pasture” – Land on which livestock graze or otherwise seek feed in a manner that maintains the vegetative cover over all of the grazing or feeding area.

“Premises ID” – The unique ID number assigned to your *livestock facility* under the Wisconsin Livestock Premises Registration Program ([ATCP 17](#)). Go to <http://www.datcp.state.wi.us> for more information. To register your *livestock facility*, go to <http://www.wiid.org/>.

“Qualified nutrient management planner” – A person, other than the applicant, who is qualified under [ATCP 50.48](#).

“Related livestock facilities” – Two or more *livestock facilities* that are owned or managed by the same person and meet any of the following criteria:

- They are located on the same tax parcel or *adjacent* tax parcels.
- They use any of the same *livestock structures* to collect or store manure.
- They generate manure that is applied to the same parcel of land.

“Separate Species Facility” – A distinct part of a *livestock facility* that meets all of the following criteria:

- It has only one of the following types of livestock, and that type is not found in any other part of the *livestock facility*:
 - Cattle
 - Swine
 - Poultry
 - Sheep
 - Goats
- It has no more than 500 *animal units*.
- Its animal housing and manure storage structures, if any, are located at least 750 feet from *livestock structures* that are used by other parts of the *livestock facility*.

“Substantially altered” livestock structure – A *livestock structure* that undergoes a material change in construction or use such as:

- An increase in the capacity of a *waste storage facility*.
- The addition of a liner to a *waste storage facility*.
- An increase of more than 20% in the area or capacity of a *livestock structure* used to house, feed, or confine *livestock* or to store livestock feed.
- An increase of more than 20% in the number of *animal units* that will be kept in a *livestock structure* on at least 90 days in any 12– month period.

“Waste storage structure” – An embankment structure, excavated pit, dugout or fabricated structure that is used to store manure, milking center waste or other organic waste generated by a *livestock facility*. For the purposes of waste storage structure setback (application form, A-2) and worksheet 2, a “waste storage structure” does not include a structure used to collect and store waste under an animal housing facility, or a manure digester consisting of a sealed structure in which manure is subjected to managed biological decomposition.

“Waste storage facility” — A *waste storage structure* and any attached piping or equipment used to load or unload the structure.

“Winter grazing area” – Cropland or *pasture* where *livestock* feed on dormant vegetation or crop residue, with or without supplementary feed, during the period October 1 to April 30. “Winter grazing area” does *not* include any of the following:

- An area, other than a *pasture*, where *livestock* are kept during the period from May 1 to September 30.
- An area which at any time has an average of more than 4 *animal units* per acre.
- An area from which *livestock* have unrestricted access to navigable waters of the state.
- An area in which manure deposited by *livestock* causes nutrient levels to exceed standards in ATCP 51.16.

“WPDES permit” – Wisconsin Pollutant Discharge Elimination System permit issued by DNR for a concentrated animal feeding operation over 1000 *animal units*, or for operations of any size that discharge pollutants directly to waters of the state.

ATCP 51 Appendix A

WISCONSIN ADMINISTRATIVE CODE

390-16

arm-lwr- 11/04 January, 2006

**Wisconsin Department of Agriculture, Trade and Consumer Protection**

2811 Agriculture Drive, PO Box 8911, Madison WI 53708-8911

Phone: (608) 224-4622 or (608) 224-4500

Application for Local Approval

Wis. Statutes s. 93.90

New or Expanded Livestock Facility

Wis. Adm. Code ch. ATCP 51

1. Legal Name of Applicant (Business Entity):

Solhawk Dairy, Inc.

2. Type of Business Entity: check one

☐ Individual
 ☒ Corporation
 ☐ Partnership
 ☐ Cooperative
 ☐ LLC

☐ Trust
 ☐ Other
 Describe:

3. Other names, if any, under which applicant does business (list all):**4. Contact Individual:**

Name: Solhawk Dairy, Inc.

Phone:

715-579-6371

E-mail:

dennishawk70@gmail.com

5. Business Address:

Street Address:

8544 County Highway X

City/Village/Town:

Chippewa Falls

County:

Chippewa

State:

WI

Zip:

54729

6. Principal Owners or Officers (list if applicant is an entity other than an individual):

Name:

Dennis Hawkins

Title:

Secretary &
Treasurer

Phone:

715-579-6371

Address:

8544 County Highway X

City:

Chippewa Falls

State:

WI

Zip:

54729

Name:

Doug Hawkins

Title:

President

Phone:

715-579-6371

Address:

8544 County Highway X

City:

Chippewa Falls

State:

WI

Zip:

54729

Name:

Title:

Phone:

Address:

City:

State:

Zip:

7. Description of Proposed Livestock Facility

Check one:

☐ New Livestock Facility☒ Expanded Livestock Facility

Premises ID:

Address of Proposed
Livestock Facility:

8777 County Highway X

City/Village/Town:

Chippewa Falls

County:

Chippewa

State:

WI

Zip:

54729

Town #

28N

Range # (E or W)

09W

Section #

20

¼ Section #

NE

Application (continued)
8. Total Animal Units Enter total <i>animal units</i> from worksheet 1: Total Animal Units: <u>4,559</u>. This is the maximum <i>livestock facility</i> size for which the applicant requests approval at this time.
9. Area Map of Livestock Facility Attach a scale map or aerial photo of the proposed <i>livestock facility</i> and surrounding area. The map or photo must be appropriately sized and marked, so that it clearly and legibly shows all of the following: • All existing and proposed <i>livestock structures</i>. Label each <i>livestock structure</i> to show structure type, and whether existing or proposed. • The area lying within 2 miles of any of the <i>livestock structures</i>. Show all existing buildings, property lines, roadways, and navigable waters lying within that area. • All residences and <i>high use buildings</i> within 2500 ft. of any <i>livestock structure</i>. Show which (if any) of those buildings are owned by the applicant, or by persons who have agreed to exclude the buildings from the applicant's odor worksheet calculations. • Topographic lines at 10 ft. elevation intervals. • Map scale and north direction indicator. ~ See Attached ~
10. Site Map of Livestock Facility Attach a scale map or aerial photo of the proposed <i>livestock facility</i> site. The map or photo shall be appropriately sized and marked, so that it clearly and legibly shows all of the following: • All existing and proposed <i>livestock structures</i>. Label each <i>livestock structure</i> to show structure type, and whether existing or proposed. • The area lying within 1,000 ft. of any of the <i>livestock structures</i>. Show all existing buildings, property lines, roadways, navigable waters, and known <i>karst features</i> within that area. • Topographic lines, at 2 ft. elevation intervals, for the area within 300 feet of the <i>livestock structures</i>. • Map scale and north direction indicator. ~ See Attached ~
11. Location of Livestock Structures The applicant certifies that: • All <i>livestock structures</i> comply with applicable local property line and road setbacks (see <i>ATCP 51.12</i>). • All <i>waste storage structures</i> comply with setbacks in <i>ATCP 51.12(2)</i>. • All <i>livestock structures</i> comply with applicable local shoreland, wetland, and floodplain zoning ordinances (copies available from local government). • Wells comply with the Wisconsin well code (<i>NR 811</i> and <i>812</i>). <i>New or substantially altered livestock structures</i> are separated from existing wells (including neighbors' wells) by setback distances required in <i>NR 811</i> and <i>812</i>. ~ See Attached Site Map ~

Application (continued)**12. Employee Training Plan**

Attach an Employee Training Plan for employees who will work at the *livestock facility*. Applicant determines plan contents, as long as the plan identifies all of the following:

- Training topics including, at a minimum, nutrient management, odor management, runoff management, manure and waste handling, employee safety, and environmental incident response.
- The number and job categories of employees to be trained.
- The form and frequency of training, which at a minimum must include a plan for at least one training per year.
- Training presenters (these may include *livestock facility* managers, consultants or professional educators).
- A system for taking and recording attendance.

~ See Attached ~

13. Environmental Incident Response Plan

~ See Attached ~

Attach an Environmental Incident Response Plan for the *livestock facility*. Applicant determines plan contents, as long as the plan identifies all of the following:

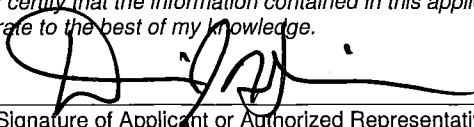
- Types of environmental incidents covered. These must include, at a minimum, overflows and spills from waste storage facilities, catastrophic system failures, manure spills during transport and application, movement of manure during or after application, catastrophic mortality disposal emergency, and odor complaints.
- The name and business telephone number of at least one individual who will handle public questions and concerns related to environmental incidents.
- The names and telephone numbers of first responders (e.g. DNR, fire departments, excavation contractors).
- Incident response procedures, including emergency response, recordkeeping and reporting procedures.

14. Odor Management Plan (Optional) ~ No Odor Management Plan Attached ~

An applicant required to complete the odor management worksheet may attach an *optional* odor management plan. The applicant determines plan contents, as long as the plan addresses all of the following: activities to reduce community conflict; practices used to reduce dust; practices used to reduce odor from feed storage leachate; practices used to conserve water; and practices used to reduce odor from dead animals.

~ See Odor Management Section Below ~

Application (continued)	
15. Other Laws The following laws, among others, may apply to the operation of a <i>livestock facility</i>. Local approval of a <i>livestock facility</i> siting application is NOT based on these laws, except as specifically provided in <i>ATCP 51</i>. However, violations may have other legal consequences: • Soil conservation and nonpoint pollution laws (contact your county land conservation department). Livestock facilities that have 1,000 or more animal units, or that discharge pollutants directly to waters of the state, must also obtain a <i>WPDES permit</i> from <i>DNR</i>. • Pesticide and agricultural chemical laws administered by <i>DATCP</i>. • Animal disease control laws administered by <i>DATCP</i>. • Animal mortality laws administered by <i>DATCP</i>. • Vehicle weight limits and state prohibitions against spilling waste on roads. • Food safety and animal health licenses administered by <i>DATCP</i>. All livestock operations must register, and some (such as dairy farms) must hold a state license. • Air pollution control regulations administered by <i>DNR</i>. • Building, electrical, plumbing and sanitation codes administered by the Wisconsin Department of Safety and Professional Services. A local authority may disapprove a proposed <i>livestock facility</i> that violates a conforming local code. • Construction site erosion control laws administered by <i>DNR</i>. • Local erosion control and stormwater management ordinances. • Petroleum storage laws administered by the Wisconsin Department of Safety and Professional Services. • High capacity well regulations administered by <i>DNR</i>.	
16. Worksheets Complete worksheets as required (follow instructions on each worksheet) and attach to application.	
Worksheet 1 – Animal Units.	~ See Below ~
Worksheet 2 – Odor Management.	~ See Below ~
Worksheet 3 – Waste and Nutrient Management. If you hold a <i>WPDES permit</i> from <i>DNR</i> for the same proposed <i>livestock facility</i> (for an equal or greater number of <i>animal units</i>), check the appropriate box on this worksheet, and submit a copy of the permit with this application.	~ See Below ~
Worksheet 4 – Waste Storage Facilities. If you hold a <i>WPDES permit</i> from <i>DNR</i> for the same proposed <i>livestock facility</i> (for an equal or greater number of <i>animal units</i>), check the appropriate box on this worksheet, and submit a copy of the permit with this application.	~ See Below ~
Worksheet 5 – Runoff Management. If you hold a <i>WPDES permit</i> from <i>DNR</i> for the same proposed <i>livestock facility</i> (for an equal or greater number of <i>animal units</i>), check the appropriate box on this worksheet, and submit a copy of the permit with this application.	~ See Below ~

Application (continued)	
Authorized Signature: <i>I certify that the information contained in this application (including worksheets and all attachments) is complete and accurate to the best of my knowledge.</i>  _____ Signature of Applicant or Authorized Representative <u>7-13-21</u> Date <u>Dennis S Hawkins</u> Print Name <u>See.</u> Title	
For Office Use Only:	
Application #:	
Date Application Received:	
Date Completeness Determined:	Date Notice Sent to Applicant:
Date Notice Sent to Adjacent Landowners:	
Decision Date:	
Approved or Disapproved:	
Date Appeal Filed (if any):	

arm-lwr- 11/04 January 2006



Wisconsin Department of Agriculture, Trade and Consumer Protection
2811 Agriculture Drive, PO Box 8911, Madison WI 53708-8911
Phone: (608) 224-4622 or (608) 224-4500

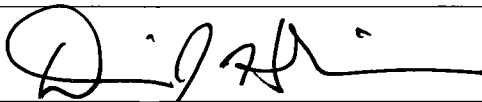
Worksheet 1 – Animal Units

Instructions: Use this worksheet to determine the number of *animal units* for which you request approval. You may request approval for a number that is large enough to accommodate current and potential future expansions. If the local government approves the requested number of *animal units*, that is the maximum number that you may keep for 90 days or more in any 12-month period. You may not exceed that number without additional approval.

To complete this worksheet:

1. Identify each type of *livestock* that you might keep at the proposed facility. Enter the maximum number of animals of each type that you might keep for at least 90 days in any 12-month period.
2. Multiply the number of animals of each type by the relevant Animal Unit Factor to obtain *animal units* of each type.
3. Sum the *animal units* for all *livestock* types to obtain the Total *Animal Units* for which you request approval.

	Livestock Type	Animal Unit Factor	Animal Units For Proposed Facility		
Example – Milking & Dry Cows			1.4 x	800	= 1120 AU
Dairy	Milking and Dry Cows	1.4	1.4 x	2,400	= 3,360
	Heifers (800 lbs. to 1200 lbs.)	1.1	1.1 x	590	= 649
Cattle	Heifers (400 lbs. to 800 lbs.)	0.6	0.6 x	720	= 432
	Calves (up to 400 lbs.)	0.2	0.2 x	590	= 118
Beef	Steers or Cows (600 lbs. to market)	1.0	1.0 x		=
	Calves (under 600 lbs.)	0.5	0.5 x		=
	Bulls (each)	1.4	1.4 x		=
Swine	Pigs (55 lbs. to market)	0.4	0.4 x		=
	Pigs (up to 55 lbs.)	0.1	0.1 x		=
	Sows (each)	0.4	0.4 x		=
	Boars (each)	0.5	0.5 x		=
Poultry	Layers (each)	0.01	0.01 x		=
	Broilers (each)	0.005	0.005 x		=
	Broilers – continuous overflow watering	0.01	0.01 x		=
	Layers or Broilers – liquid manure system	0.033	0.033 x		=
	Ducks – wet lot (each)	0.2	0.2 x		=
	Ducks – dry lot (each)	0.01	0.01 x		=
	Turkeys (each)	0.018	0.018 x		=
Sheep (each)		0.1	0.1 x		=
Goats (each)		0.1	0.1 x		=
Total Animal Units for Which Applicant Requests Approval					= 4,559


Signature of Applicant or Authorized Representative

7-13-21
Date

Arm-lwr- 11/04 January 2006



Wisconsin Department of Agriculture, Trade and Consumer Protection
 2811 Agriculture Drive, PO Box 8911, Madison WI 53708-8911
 Phone: (608) 224-4622 or (608) 224-4500

Worksheet 2 – Odor Management

Instructions: This worksheet addresses odor from *livestock structures*. You are NOT required to complete this worksheet if any of the following apply (check box if applicable):

- ☐ I am requesting approval for a *new livestock facility* with fewer than 500 *animal units*.
- ☐ I am requesting approval for an *expanded livestock facility* with fewer than 1,000 *animal units*.
- ☐ All *livestock structures* will be at least 2500 ft. from the nearest affected neighbor.

If you checked any of the above boxes, just sign below and submit this page with your application. If you did NOT check any of the above boxes, you must complete this worksheet to calculate the odor score (Box 4) for your proposed *livestock facility*. To meet the odor management standard, you must have a total odor score of 500 or more.

If *livestock structures* are located in *clusters* that are separated by more than 750 feet, you may elect to complete a separate worksheet for each *cluster*. If you choose that option, each *cluster* must meet the odor management standard.

A complete worksheet must include Tables A and B. You may use a convenient automated spreadsheet in place of Tables A and B if you prefer (submit spreadsheet output instead of tables, results will be identical). However, you must still sign and submit this signature page. The spreadsheet is available at the DATCP website, <http://www.datcp.state.wi.us>.

TO COMPLETE THIS WORKSHEET, FOLLOW THESE STEPS:

Step 1: Complete Table A to determine the Predicted Odor from your *livestock structures*. Enter the Predicted Odor in Box 3 below (NOT Box 1).

Step 2: Complete Table B to determine your Separation Score. Enter your Separation Score in Box 1 below. (NOT Box 2).

Step 3: Enter your management credits in Box 2 (maximum 100 points). All applicants may enter 80 points for completing required incident response and employee training plans (described on page A-3). Applicants completing an optional odor management plan (described on page A-3), may add an additional 20 points. Applicants determine plan contents, as long as the plan addresses the required topics.

Step 4: Add Box 1 and Box 2. Subtract Box 3 and enter the total in Box 4. This is your Odor Score.

756	+	80	-	189	=	647
Box 1 Separation Score (from Step 2)		Box 2 Management Score (from Step 3)		Box 3 Predicted Odor (from Step 1)		Box 4 Odor Score

A local government must approve a *livestock facility* with an odor score of 500 or more (Box 4). You may add odor control practices to increase your odor score to 500 or more. A local government may approve, but is not required to approve, a *livestock facility* with an odor score less than 500 but not less than 470.

Signature of Applicant or Authorized Representative

7-13-21

Date

1. Aerial Photo

ID	Measurements	Ground Area	Overall Area	Dominant Nodules	Current Prediction	Risk Factor	Current Prediction	Risk Factor	Current Prediction	Risk Factor	Predicted Odor
B1	Frontal - Data - Structure	4	2800	144	Dominant	0.8	Dominant	0.0	N	1	
B2	Frontal - Data - Structure	4	0100	144	Dominant	0.8	Dominant	0.0	N	1	
B3	Frontal - Data - Structure	4	4000	144	Dominant	0.8	Dominant	0.0	N	1	12
B4	Frontal - Data - Structure	4	4400	144	Dominant	0.8	Dominant	0.0	N	1	1
B5	Frontal - Data - Structure	4	22100	44	Dominant	0.8	Dominant	0.0	N	1	
B6	Frontal - Data - Structure	4	12000	200	Dominant	0.8	Dominant	0.0	N	1	
1G											
1H											
1I											
1J											
1K											
1L											

2. Wind Speed

ID	Measurements	Ground Area	Overall Area	Dominant Nodules	Current Prediction	Risk Factor	Current Prediction	Risk Factor	Current Prediction	Risk Factor	Predicted Odor
WS1	Wind Speed - Low	1	82800	1000	Nodules	0.0	Nodules	1	N	1	2
WS2	Wind Speed - Low	1	11000	1000	Nodules	0.0	Nodules	1	N	1	4
WS3	Wind Speed - Low	1	14000	00	Nodules	0.0	Nodules	1	N	1	4
2D											
2E											
2F											

3. Aerial Photo

ID	Measurements	Ground Area	Overall Area	Dominant Nodules	Current Prediction	Risk Factor	Current Prediction	Risk Factor	Current Prediction	Risk Factor	Predicted Odor
A											
B											

4. Scorecard Data

Wind Speed - Low	12
Wind Speed - High	12
Wind Speed - Very High	1400

5. Management

Basic Management	P	N
Advanced Management	P	N

Total Predicted Odor

Separation Score	18
Basic Management Score	80
Advanced Management Score	0

ATCP 51 Appendix A

WISCONSIN ADMINISTRATIVE CODE

390-24

Worksheet 2 (continued)

Table B: Separation Score

INSTRUCTIONS		RESULTS
Step 1: Enter, at right, the result from Table A, Column G (page A-7).		Distance (ft.) to Nearest Affected Neighbor: <u>1,273</u>
Step 2: Select multiplier based on the compass direction looking from the <i>livestock facility</i> to the nearest <i>affected neighbor</i> . Enter at right.		Multiplier: <u>1.1</u>
Compass Direction	Multiplier	
North	1.0	
Northeast	1.0	
East	1.1	
Southeast	1.2	
South	1.2	
Southwest	1.2	
West	1.3	
Northwest	1.1	
Step 3: Calculate wind-adjusted separation distance (Distance to nearest <i>affected neighbor</i> x multiplier). Enter at right.		Wind-Adjusted Separation Distance (ft.) <u>1,400</u>
Step 4: Determine <i>affected neighbor</i> density and enter at right: <i>Low density</i> = No more than 5 residences and no <i>high-use buildings</i> within 1300 ft of each structure. <i>High density</i> = 6 or more residences or at least one <i>high-use building</i> within 1300 ft of each structure.		Low or High Density? <u>LOW</u>
Step 5: Use results above and Chart 1 to find your Separation Score. Enter at right and on Page A-6 in Box 1 .		Separation Score <u>756</u>

Chart 1: Separation Score

Wind-Adjusted Separation Distance (ft.)	Low Density	High Density
0-99	505	503
100-149	506	504
150-199	511	507
200-249	516	510
250-299	521	514
300-349	527	518
350-399	534	523
400-449	541	528
450-499	548	533
500-599	560	542
600-699	577	555
700-799	595	569
800-899	615	585
900-999	636	601
1000-1099	658	619
1100-1199	681	637
1200-1299	705	657
1300-1399	730	
1400-1499	756	
1500-1599	783	
1600-1699	810	
1700-1799	839	
1800-1899	868	
1900-1999	899	
2000-2099	930	
2100-2199	962	
2200-2299	994	
2300-2399	1027	
2400-2499	1061	
2500-2749	1123	
2750-2999	1214	
3000-3249	1309	

Worksheet 2 (continued)

Chart 2: Odor Generation Numbers

Animal Housing Area Type	Housing/ Management Type Code	Manure Management Method	Odor Generation Number	Exempt Buildings Maximum Size (ft²) (May exclude up to 4)
Dairy Stanchion	DSDC	Daily to weekly cleaning	2	7500
Dairy Free Stall and Beef & Dairy Heifers (Forage Ration)	DBSS	Slatted floor (includes floor and pit below)	6	2500
	DBSC	Scrape	4	3500
	DBAF	Alley flush to storage	10	1500
	DBBP	Bedded pack	2	7500
Beef Finishing (High Energy Ration)	BFSF	Slatted floor (includes floor and pit below)	12	1000
	BFSC	Scrape	8	2000
	BFBP	Bedded pack	4	3500
Pork Gestation/ Farrow/Nursery	PGSF	Slatted floor (includes floor and pit below)	46	N/A
	PGPP	Pull plug to storage	22	N/A
Pork Finishing	PFSF	Slatted floor (includes floor and pit below)	34	N/A
	PFPP	Pull plug to storage	20	N/A
	PFSS	Scrape systems to storage	11	1500
	PFDB	Deep bedded	4	3500
Poultry	PBLT	Broiler (litter)	1	15000
	PDLQ	Ducks (liquid)	20	N/A
	PLAY	Layers	20	N/A
	PTDL	Turkey and Ducks (litter)	2	7500

Type Codes	Waste Storage Facility Types <i>Note: Storage under slatted floor is addressed under animal housing.</i>	Odor Generation Number
WSSS	Solid (stack)	2
WSLT	Long term (6 months or longer as determined in Column E of worksheet 3)	13
WSST	Short term (less than 6 months as determined in Column E of worksheet 3)	28

Animal Lot Codes	Animal Lot Types		Odor Generation Number
ALPV	Paved		4
UPDB	Unpaved	Dairy/Beef/Sheep/Goats	6
UPSW		Swine/Poultry	11

Worksheet 2 (continued)

Chart 3: Odor Control Practices

Category	Practice Code	Practice Name (Practices must meet specifications on pages A-11 to A-13)	Multiplier*
Animal Housing Area			
A	A1	Diet manipulation	0.8
B (Choose only 1)	B1	Bio-filter	0.1
	B2	Vegetable oil sprinkling (for swine only)	0.4
	B3	Fresh water flush	0.4
	B4	Treated water flush	0.7
	B5	Air Dam (for swine only)	0.9
C	C1	Windbreak (includes man-made berms)	0.9
D	D1	Frequent cleaning of animal housing area	0.9
Waste Storage Facilities			
E (Choose only 1)	E1	Anaerobic digestion	0.2
	E2	Chemical or biological additives	0.8
	E3	Compost	0.2
	E4	Solids Separation and Reduction	0.6
	E5	Water Treatment	0.1
F (Choose only 1)	F1	Aeration	0.3
	F2	Bio-cover	0.4
	F3	Geotextile cover	0.5
	F4	Impermeable cover	0.1
	F5	Natural crust	0.3
	F6	Bottom fill	0.9
G	G1	Windbreak (includes man-made berms)	0.9
Animal Lots			
H (Choose only 1)	H1	Frequent cleaning of <i>animal lot</i>	0.4
	H2	Drag <i>animal lot</i>	0.5
I	I1	<i>Animal lot</i> moisture control	0.8
J	J1	Windbreak (includes man-made berms)	0.9

*Smaller multiplier = more odor controlled (e.g. a multiplier of 0.4 represents a 60% control).

Innovative Odor Control Practices (all odor sources):

You may take credit for odor control practices not listed in Chart 3 if *DATCP* pre-approves a multiplier for each of those practices. Follow the procedure in *ATCP 51.14(5)(c)* to obtain *DATCP* approval. If you obtain *DATCP* approval, you may include the approved practice and multiplier in odor worksheet calculations in the same manner as for odor control practices listed in Chart 3 (attach *DATCP* approval to your application).

Worksheet 2 (continued)

Odor Control Practice Specifications

Odor control practices identified in Chart 3 must meet the following specifications:

Animal Housing

Diet manipulation (A1) – Limit protein in animal diet by one of the following means:

- Match nutrient supply with animal requirements.
- Formulate low-protein amino acid supplemented diets.
- Add phytase enzyme ingredients.
- Process ingredients in ways that limit protein content of processed feed.
- Use phase feeding.
- Use split sex feeding.
- Minimize feed wastage.

Bio-filter (B1) – Vent air from *animal housing areas* through a bio-filter consisting of compost and wood chips, mixed at a rate of 30:70 to 50:50 (ratio by weight of compost to wood chips). The mixture must be at least 40% moisture by weight. The bio-filter must be 10" to 18" thick, and must have an area of at least 50 to 85 sq. ft. per 1000 cu. ft. per minute (cfm) of airflow.

Vegetable oil sprinkling (B2) – Sprinkle vegetable oil on floors in *animal housing areas* (swine) each day. Apply oil at start-up rate of approximately 40 milliliters per square meter per day (mL/m²-day) in the first 1–2 days of each production cycle. During the remainder of each production cycle, apply oil at maintenance rate of 5 mL/m²-day. Avoid oil applications to pens near fans, to areas near heaters, and to areas surrounding feeders.

Fresh water flush (B3) – Use fresh water to flush manure from floors of *animal housing areas* into collection or *waste storage structures*. Flush at least 3 times a day, and more often if necessary, to prevent manure from drying and sticking to floors. Flush must be adequate to remove manure solids effectively.

Treated water flush (B4) – Use treated manure effluent to flush manure from floors of *animal housing areas* into collection or *waste storage structures*. Flush at least 3 times a day, and more often if necessary, to prevent manure from drying and sticking to floors. Flush with waste storage effluent treated by one of the following means:

- *Solids Separation and Reduction (see E4 below).*
- *Aeration (see F1 below).*
- *Anaerobic digestion (see E1 below).*

Air Dam (B5) – Erect and maintain a wall (typically a 10-foot x 10-foot pipe frame and tarpaulin) placed at the end of a swine-finishing building, immediately downwind of the exhaust to deflect air and odor plume. Replace material used for the barriers (tarpaulins on a frame of solid wood, for example) as needed, which may be from a few years to decades, depending on the material.

Windbreak (C1) – Maintain a solid or porous windbreak, 10 to 50 feet from the odor source, which reduces forward momentum of airflow and vertically disperses the odor plume. The length of a windbreak shall be at least half of the perimeter of the animal housing. A windbreak may be constructed of vegetation or other materials. Vegetation windbreaks must contain at least 3 rows of trees and shrubs, of both fast and slow-growing species, that are well suited for the site. Windbreaks must be designed and constructed according to NRCS Technical Guide Standard 380 (June, 2002).

Frequent cleaning of animal housing area (D1) – Scrape and remove manure from *animal housing areas* at least 3 times a day.

Worksheet 2 (continued)

Waste Storage Facilities

Anaerobic digestion (E1) – Subject manure to managed biological decomposition within a sealed oxygen-free container (“digester”). Anaerobic digestion must meet design and operational standards necessary to achieve adequate odor control, including requirements for solids concentration, flow rates, retention time, and minimum temperatures. Systems must meet the following:

- *Plug flow digester.* Treats manure with a total solids concentration of 8 to 14%. Must be kept in the digester for at least 20 days at a temperature of 95° to 104° F. (35° to 40° C). The digester's ratio of flow path width to fluid depth must be between 3.5:1 and 5:1.
- *Complete mix digester.* Treats manure with a total solids concentration of 2.5 to 10%. Must be kept in the digester for at least 17 days at a temperature of 95° to 104° F. (35° to 40° C.). The digester must have appropriate mixing devices to ensure complete mixing.
- *Fixed film digester.* Treats manure with a total solids concentration of not more than 5%. Must be kept in the digester for 1 to 6 days at a temperature of 59° to 99° F (15° to 39° C). Microbial support material must have at least 3-inch openings.
- *Other systems.* Use proprietary design and performance specifications that are commonly accepted and provide adequate odor mitigation.

Chemical or biological additives (E2) – Apply, to stored manure, chemical or biological additives that are scientifically proven to be effective in reducing odor from that manure when applied under applicable conditions and in applicable amounts.

Compost (E3) – Aerobically treat solid or semi-solid manure to create compost. Compost must have a carbon: nitrogen ratio of 25:1 to 40:1, and must consist of at least 40 to 60% moisture by weight. Composted material must be held at a temperature of more than 130° F. (54° C.) for more than 5 days.

Solids Separation and Reduction (E4) – Reduce the solid content of stored manure to an average of less than 2% solids through separation, multi-tiered pits or other means.

Water Treatment (E5) – Install and use a physical, chemical or biological process that removes the majority of contaminants from the waste stream, resulting in a liquid effluent meeting surface water discharge standards. The remaining solid fraction or sludge must be accounted for based on its form, and the management it is subject to.

Aeration (F1) – Use aeration equipment to maintain aerobic activity in stored manure. Aeration must maintain an average of 2 milligrams of dissolved oxygen per liter of manure stored in the upper foot of manure stored in the aerated structure between April and October.

Bio-cover (F2) – Cover the surface of waste storage structure with an 8” to 12” thick blanket of dry wheat, barley or good quality straw. The blanket must cover nearly all of the waste surface between the months of April and October. Add to the blanket as necessary (typically every 6 weeks to 4 months) to maintain the required cover.

Geotextile cover (F3) – Cover the surface of waste storage structure with a geotextile membrane that is at least 2.4 mm thick. The membrane must cover nearly all of waste surface between the months of April and October.

Impermeable cover (F4) – Cover the surface of waste storage structure with an impermeable barrier that prevents gas from escaping. Gas must be drawn off, and either treated or burned.

Natural crust (F5) – Maintain a natural crust of dry manure on the surface of stored manure. The natural crust must cover a substantial amount of the surface area of the stored manure, for most of the time between the months of April and October.

Bottom fill (F6) – Add manure to a liquid *manure storage structure* from the bottom so as to limit disturbance to the surface of the stored manure.

Windbreak (G1) – Maintain a solid or porous windbreak, 10 to 50 feet from the odor source, which reduces forward momentum of airflow and vertically disperses the odor plume. The length of a windbreak shall be at least half of the perimeter of the *waste storage facility*. A windbreak may be constructed of vegetation or other materials. Vegetation windbreaks must contain at least 3 rows of trees and shrubs, of both fast and slow-growing species, that are well suited for the site. Windbreaks must be designed and constructed according to *NRCS Technical Guide Standard 380* (June, 2002).

Worksheet 2 (continued)

Animal Lots

Frequent cleaning of *animal lot* (H1) – Scrape and remove manure from *animal lot* surfaces at least once every 3 days. You may leave an undisturbed, compacted manure layer (1 to 2 inches thick) on the surface of unpaved *animal lots* to provide good surface sealing.

Drag *animal lot* (H2) – Drag manure in *animal lots* with harrow or disk at least once every 7 days during the months of April through October, to aerate and dry the manure.

***Animal lot* moisture control (I1)** – Prevent runoff water from flowing onto *animal lots* from roofs and other surfaces. Use diversions or roof runoff systems identified in s. [ATCP 50.70](#) or [50.85](#). *Animal lots* must have a grade of at least one percent to promote drainage and drying.

Windbreak (J1) – Maintain a solid or porous windbreak, 10 to 50 feet from the odor source, which reduces forward momentum of airflow and vertically disperses the odor plume. The length of a windbreak shall be at least half of the perimeter of the *animal lot*. A windbreak may be constructed of vegetation or other materials. Vegetation windbreaks must contain at least 3 rows of trees and shrubs, of both fast and slow-growing species, that are well suited for the site. Windbreaks must be designed and constructed according to *NRCS* Technical Guide Standard 380 (June, 2002).

Arm-lwr- 11/04 January 2006



Wisconsin Department of Agriculture, Trade and Consumer Protection

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Phone: (608) 224-4622 or (608) 224-4500

Worksheet 3 – Waste and Nutrient Management

Part A. Waste Generation and Storage Summary

Instructions: You must complete Parts A and B of this worksheet. If your *livestock facility* will have fewer than 500 *animal units* you may be exempt from Part C, depending on results of Part B. If Part C applies, it must be signed by a *qualified nutrient management planner* (you must also sign).

You are NOT required to complete this worksheet if you already hold a *WPDES permit* for the proposed *livestock facility* (for the same or greater number of *animal units*). Simply check the following box, sign at the bottom of this page, and include a copy of the *WPDES permit* with your application.

☐ I enclose a copy of my *WPDES permit* in place of Worksheet 3.

Specify a single livestock type (dairy, beef, swine, etc.). *Use a separate worksheet for each livestock type.*

Livestock Type: _____

Description of Storage	Column A Waste Storage Capacity (Gallons or Tons)	Column B Source of Waste (Animal Waste, Wastewater, Leachate, etc.)	Column C Average Annual Volume of Waste Produced from Each Source (Gallons or Tons)	Column D Total Average Annual Volume Waste Produced (Gallons or Tons)	Column E Storage Duration in Days (Column A divided by Column D times 365 days)
Example: Unit 1 – lagoon	5,000,000 gallons	Animal waste	4,000,000 gallons	7,000,000 gallons	260 days
		Wastewater	1,000,000 gallons		
		Leachate	2,000,000 gallons		
Unit 1 WSF1	5,801,571 Gallons	Animal Waste	23,438,469 Gal.	30,333,715 Gallons	70 Days
		Waste Water	3,650,000 Gal.		
		Leachate/Runoff	3,255,246 Gal.		
Unit 2 WSF2	1,260,452 Gallons			30,333,715 Gallons	15 Days
Unit 3 WSF3	16,304,385 Gallons			30,333,715 Gallons	196 Days

Applicant affirms that the information provided in Part A is accurate.

Signature of Applicant or Authorized Representative

7-13-21

Date

Attachment: (B) ATCP 51 Application (6611 : 2021-0009 Solhawk Dairy, Inc - Conditional Use Request)

Worksheet 3 (continued)

Arm-lwr- 11/04 January 2006

Part B – Land Base for Applying Nutrients

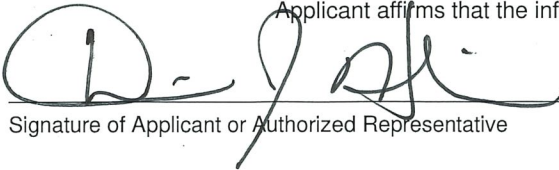
1. Enter total *animal units* in proposed *livestock facility* (from worksheet 1): 4,559 AU.
2. What percentage of the waste from the *livestock facility* will be:
- Applied to land: 100%. Attach map showing where waste will be applied to land.
 - Processed and sold as commercial fertilizer, under a fertilizer license: 0%.
 - Disposed of in other ways: 0%. Describe ways: _____
3. Multiply the percent in line 2a by the number of *animal units* in line 1. Result (# of *animal units*): 4,559 AU
4. Total acres of cropland currently available for land application (owned, rented, or landspreading agreement):
3,668 Acres
5. Divide # of acres in line 4 by # of *animal units* in line 3 to obtain ratio of acres to *animal units*: 0.80
6. Is the ratio in line 5 equal to or greater than the applicable ratio in Table 1? No
- If YES, and if the # of *animal units* in line 1 is less than 500, you need NOT complete Part C.
Otherwise, complete Part C.

Table 1: Acreage per Animal Unit

Animal Type	Acres per Animal Unit*
Dairy	1.5
Beef	1.5
Swine	1.0
Chickens/Ducks	2.5
Turkeys	5.5
Sheep/Goats	2.0

* NOTE: A *livestock facility* is NOT required to attain or exceed this ratio of acres to *animal units*. But IF your *livestock facility* will attain or exceed this ratio and will have fewer than 500 *animal units*, you need NOT complete Part C of this worksheet.

Applicant affirms that the information provided in Part B is accurate.



Signature of Applicant or Authorized Representative

7-15-21

Date

Worksheet 3 (continued)

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Part C – Nutrient Management Checklist

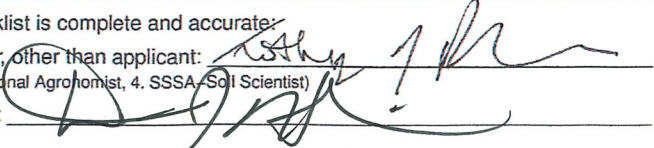
Instructions: All applicants must submit this checklist unless exempted under Part A or B. The checklist is based on the NRCS Technical Guide Nutrient Management Standard 590 (September, 2005).

County Name: Chippewa Date Submitted: 7/9/21 Township (T. 28N N., S.) – (R. 9W E., W.)

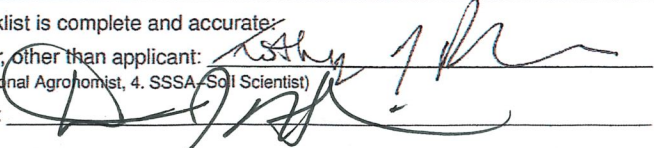
Cropland Acres: (owned, rented, or with manure spreading agreement) 3,783.6 Acres Name of livestock operator submitting checklist: Dennis Hawkins

	Yes	NA
1. Are the following field features identified on maps or aerial photos?	☒	
a) Field location, soil survey map unit(s), field boundary, and field identification number.	☒	
b) Areas prohibited from receiving nutrient applications: Surface water, established concentrated flow channels with perennial cover, permanent non-harvested vegetative buffer, non-farmed wetlands, sinkholes, lands where established vegetation is not removed, nonmetallic mines, and fields eroding at a rate exceeding tolerable soil loss (T).	☒	
c) Areas within 50 ft of a potable drinking water well where mechanically-applied manure is prohibited.	☒	
d) Areas prohibited from receiving winter nutrient applications: Slopes > 9% (12% if contour-cropped); Surface Water Quality Management Area (SWQMA) defined as land within 1,000 ft of lakes and ponds or within 300 ft of perennial streams draining to these waters, unless manure is deposited through winter gleaning/pasturing of plant residue and not exceeding the N and P requirements of this standard.	☒	
e) Areas where winter applications are restricted unless effectively incorporated within 72 hours: Land contributing runoff within 200 ft upslope of direct conduits to groundwater such as a well, sinkhole, fractured bedrock at the surface, tile inlet, or nonmetallic mine.	☒	
f) Sites vulnerable to N leaching: Areas within 1,000 ft of a municipal well, and soils listed in Appendix 1 of the Conservation Planning Technical Note WI-1.	☒	
2. Are erosion controls implemented so the crop rotation will not exceed T on fields that receive nutrients according to the conservation plan or WI P Index model?	☒	
3. Check the methods below used to determine field soil nutrient levels:		
a) Soil samples were collected and analyzed within the last 4 years according to UW Publication A2100 recommendations.	☒	
b) For fields not meeting (a.) above, soil test phosphorus levels are assumed to be greater than 100 ppm soil test P.*	☒	
c) For fields not meeting (a.) above, preliminary estimates of soil nutrients were determined using limited soil sampling (> 5 acre per sample) but analyzed by a DATCP certified laboratory.*	☒	
*For fields with soil nutrient levels determined under (b) or (c), the applicant must collect and analyze soil samples meeting the requirements of A2100 within 12 months of siting approval, and revise the nutrient management plan accordingly.		
4. Using the field's predominant soil series and realistic yield goals, are planned nutrient application rates, timing, and methods of all forms of N, P, and K listed in the plan and consistent with UW Publication A2809, Soil Test Recommendations for Field, Vegetable and Fruit Crops, and the 590 standard?	☒	
5. Do manure production and collection estimates correspond to the acreage needed in the plan? Are manure application rates realistic for the calibrated equipment used?	☒	
6. Is a single phosphorus (P) assessment of either the P Index or soil test P management strategy uniformly applied to all fields within a tract?	☒	
7. Are areas of concentrated flow, resulting in reoccurring gullies, planned to be protected with perennial vegetative cover?	☒	
8. Will nutrient applications on non-frozen soil within the SWQMA comply with the following?		
a) Unincorporated liquid manure on unsaturated soils will be applied according to Table 1 of the 590 standard to minimize runoff.	☒	
b) One or more of the following practices will be used: 1) Install/maintain permanent vegetative buffers, or 2) Maintain greater than 30% crop residue or vegetative coverage on the surface after nutrient application, or 3) Incorporate nutrients leaving adequate residue to meet tolerable soil loss, or 4) Establish fall cover crops promptly following application.	☒	
9. Is a narrative included which describes proposed manure collection, transportation, and application methods?		

I certify that the documentation supporting this checklist is complete and accurate:

Signature of *Qualified Nutrient Management Planner*, other than applicant: 

(qualified by 1. NAICC-CPCC, 2. ASA-CCA, 3. ASA-Professional Agronomist, 4. SSSA-Soil Scientist)

Signature of Applicant or Authorized Representative: 

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Arm-lwr- 11/04 January 2006

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Worksheet 4 – Waste Storage Facilities

Instructions: This worksheet must be signed by a registered professional engineer or *certified agricultural engineering practitioner*. This worksheet must identify every *waste storage facility* in the proposed *livestock facility* (including storage structures and transfer systems).

You are NOT required to complete this worksheet if you already hold a *WPDES permit* for the proposed *livestock facility* (for the same or greater number of *animal units*). Simply check the following box, sign at the bottom of this page, and include a copy of the *WPDES permit* with your application.

☐ I enclose a copy of my *WPDES permit* in place of Worksheet 4.

New or Substantially Altered Facilities: Design specifications for the following *new or substantially altered waste storage facilities* comply with *NRCS Technical Guide Standards 313* (November, 2004) and *634* (November, 2004). [Identify each facility and attach design specifications for each facility.]

Existing Facilities Retained: The following *waste storage facilities* will continue in use without being *substantially altered*. Each facility meets one of the following:

☐ The facility (list each facility _____) was constructed of concrete or steel or both, was constructed within the last 10 years according to then-existing *NRCS technical standards*, and shows no apparent signs of structural failure or significant leakage.

☒ The facility (list each facility WSF3) was constructed within the last 3 years according to then-existing *NRCS technical standards*, and shows no apparent signs of structural failure or significant leakage.

☒ The facility (list each facility WSF1 & WSF2 (Slurrystore)) was constructed to *NRCS technical standards* that existed at the time of construction, is in good condition and repair and shows no apparent signs of structural failure or significant leakage.

☐ The facility (list each facility _____) is in good condition and repair, shows no apparent signs of structural failure or significant leakage, and is located on a site at which the soils and separation distances to groundwater comply with *NRCS Technical Guide Manure Storage Facility Standard 313*, Table 1 (November, 2004).

☐ The facility (list each facility _____) is in good condition and repair, shows no apparent signs of structural failure or significant leakage, is located entirely above ground, and is located on a site at which the soils comply with *NRCS Technical Guide Manure Storage Facility Standard 313*, Table 5 (November, 2004).

Facilities To Be Abandoned: The following *waste storage facilities* will be closed according to a closure plan that complies with *NRCS Technical Guide Standard 360* (June, 2001). [Attach closure plan for each facility.]

Total Storage Capacity: The *waste storage facilities* in the proposed *livestock facility* have a combined useable storage capacity of _____ gallons or tons (cannot include required "freeboard" in useable capacity). 23,366,408 Gallons



David McDaniel 30605-6
Print Name of Engineer (Include WI License No.) or Certified Agricultural Engineering Practitioner

David McDaniel
Signature of Engineer or Practitioner Date

ACA, 406 Technology Dr E, Menomonie, WI
Name of Firm and Address

Arm-lwr- 11/04 January 2006

**Wisconsin Department of Agriculture, Trade and Consumer Protection**

2811 Agriculture Drive, PO Box 8911, Madison WI 53708-8911

Phone: (608) 224-4622 or (608) 224-4500

Worksheet 5 – Runoff Management **This Livestock Facility Has No Animal Lots**

Instructions: This worksheet must be signed by a registered professional engineer or *certified agricultural engineering practitioner* (you must also sign). Signers attest to statements in this worksheet. You are responsible for compliance.

You are NOT required to complete this worksheet if you already hold a *WPDES permit* for the proposed *livestock facility* (for the same or greater number of *animal units*). Simply check the following box, sign at the bottom of this page, and include a copy of the *WPDES permit* with your application.

☐ I enclose a copy of my *WPDES permit* in place of Worksheet 5.

Animal Lots¹

1. New or Substantially Altered Animal Lots: All *new* or *substantially altered* *animal lots* will be constructed according to the attached design specifications that comply with *NRCS Technical Guide Standard 635* (January, 2002). [Identify *animal lots* and attach design specifications for each *animal lot*.]

2. Existing Animal Lots Near Surface Waters: The following *animal lots* are located within 300 feet of a stream² or 1,000 feet of a lake. According to the *BARNY runoff model*, each of these *animal lots* has (or with minor alterations³ will have) predicted average annual phosphorus runoff of less than 5 lbs. per year (measured at the end of the treatment area). Runoff does not discharge to any direct conduit to groundwater. [Identify *animal lots* and minor alterations if any.]

3. Other Existing Animal Lots: The following *animal lots* are NOT located within 300 feet of a stream² or 1,000 feet of a lake. According to the *BARNY runoff model*, each *animal lot* has (or with minor alterations³ will have), a treatment area that reduces phosphorus runoff to an average of less than 15 lbs. per year (measured at the end of the treatment area). Runoff does not discharge to any direct conduit to groundwater. [Identify *animal lots* and minor alterations if any.]

Feed Storage**NO HIGH MOISTURE FEED STORED ON SITE**

1. General. The operator agrees to manage feed storage to prevent significant discharge of leachate or polluted runoff to waters of the state.

2. Existing Feed Storage (High Moisture Feed). Existing paved areas and bunkers that may be used to store or handle high moisture feed (70% or higher moisture content) will meet the following standards:

- a) Surface water runoff will be diverted from entering the paved area or bunker. ⁴
- b) Surface discharge of leachate will be collected before it leaves any paved area or bunker, if the paved area covers more than one acre. Collected leachate will be stored and disposed of in a manner that prevents discharge to waters of the state. ⁵

¹ Treat multiple lots as one *animal lot* if runoff from the *animals lots* drains to the same treatment area or if runoff from the *animal lot* treatment areas converges or reaches the same surface water within 200 feet of any of those treatment areas.

² Indicated by a solid or dashed blue line on a 1:24,000 scale USGS topographic map.

³ "Minor alterations" are repairs or improvements that do not result in a *substantially altered animal lot*. "Minor alterations" may include conservation practices such as runoff diversions, contouring, and planting vegetation.

⁴ Runoff may be diverted by means of earthen diversions, curbs, walls, gutters, waterways or other practices, as appropriate.

⁵ Use safe methods to dispose of collected leachate. For example, leachate may be transferred to *waste storage structures* and then applied to land at agronomic rates.

Worksheet 5 (continued)

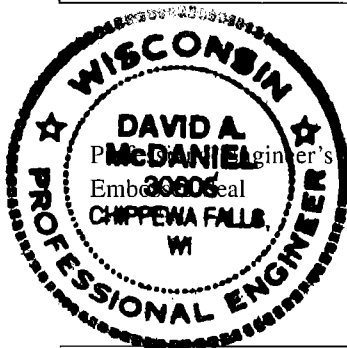
3. New or Substantially Altered Feed Storage Structures (High Moisture Feed): *New or substantially altered* feed storage structures (buildings, silos, bunkers or paved areas) used to store or handle high moisture feed (70% or higher moisture content) will be designed, constructed and maintained to the following standards [attach design specifications]:

- a) Surface water runoff will be diverted from entering the feed storage structure.¹
- b) Surface discharge of leachate will be collected before it leaves the feed storage structure.²
- c) The top of the feed storage structure floor will be at least 3 vertical feet from groundwater and bedrock.³
- d) Any feed storage structure with an area greater than 10,000 sq. ft. will have a subsurface drainage system to collect leachate that may leak through the structure floor. The subsurface drainage system must consist of drainfill material below the surface material, a tile drainage network designed to collect the leachate and deliver it to storage, and a subliner. The tile drainage network must, at a minimum, be installed at the perimeter of the structure only on the downgradient side(s). The sub-liner must, at a minimum, consist of one of the following:
 - Two feet of soil, either in place or installed, having a minimum of 50% fine soil particles (that pass a #200 soil sieve).
 - Two feet of soil, either in place or installed, having a minimum of 30% fine soil particles (that pass a #200 soil sieve) and a minimum PI (plasticity index) of 7.
 - A 40 mil liner of HDPE, EPDM or PVC.
 - A geosynthetic clay liner.
- e) Collected leachate will be stored and disposed of in a manner that prevents discharge to waters of the state.²

Nonpoint Pollution Standards

The livestock facility will be designed, constructed and maintained to do all of the following:

1. Divert runoff from contact with *animal lots, waste storage facilities*, paved feed storage areas or manure piles within 300 ft. of a stream or 1,000 ft. of a lake.
2. Avoid having any unconfined manure pile within 300 ft. of a stream or 1,000 ft. of a lake.
3. Prevent any overflow of *waste storage facilities*.
4. Restrict livestock access to waters of the state, as necessary to maintain adequate vegetative cover on banks adjoining the water (this does not apply to properly designed, installed and maintained livestock or farm equipment crossings).



[Signature]

Signature of Applicant or Authorized Representative

7-13-21
Date

David McDaniel

Print Name of Engineer (Include WI License No.) or Certified Practitioner

David McDaniel

Signature of Engineer or Practitioner

7-13-21
Date

ACA, 406 Technology Dr. E, Menomonie, WI
Name of Firm and Address

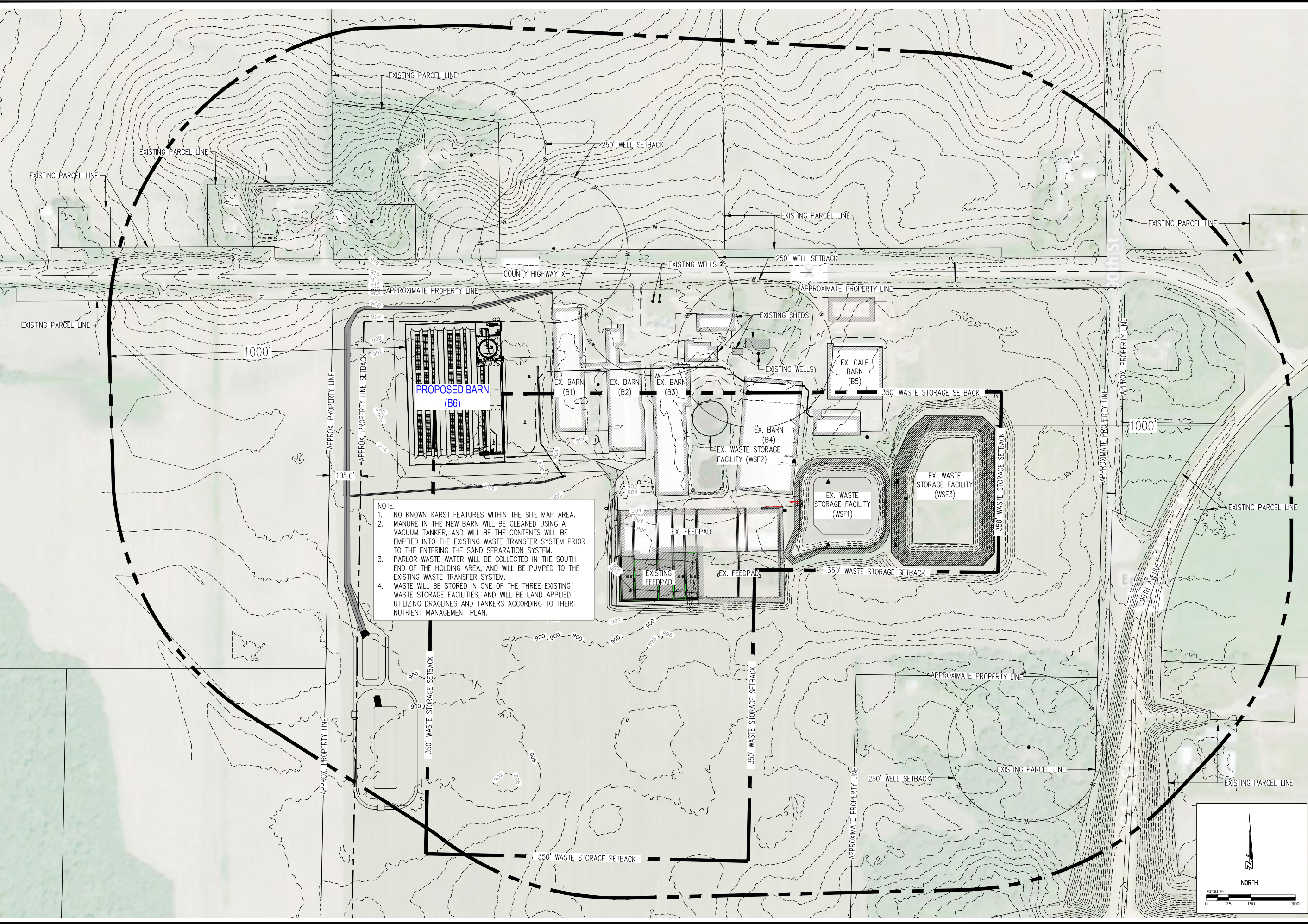
¹ Runoff may be diverted by means of earthen diversions, curbs, walls, gutters, waterways or other practices, as appropriate.

² Use safe methods to dispose of collected leachate. For example, leachate may be transferred to waste storage and then applied to land at agronomic rates.

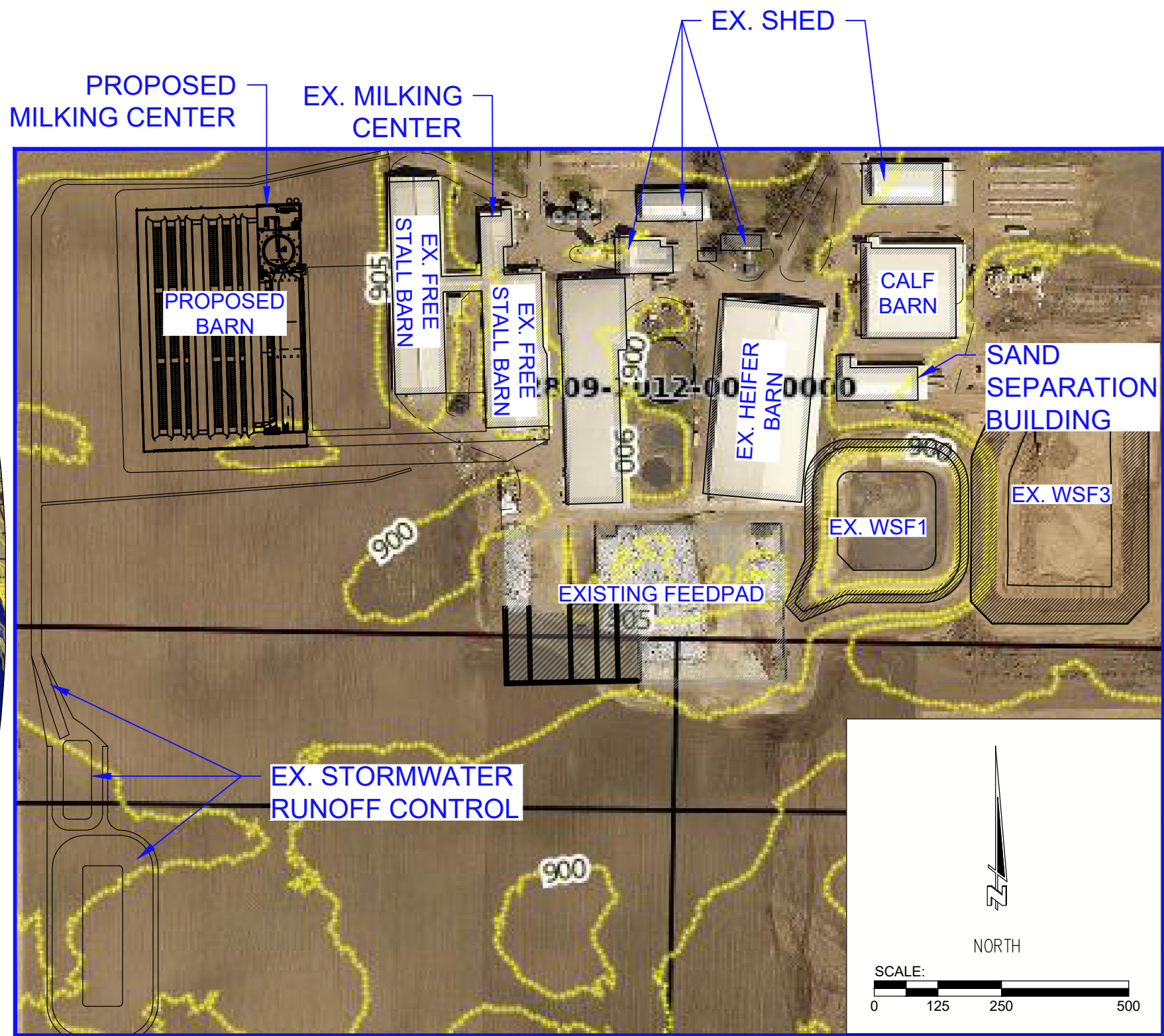
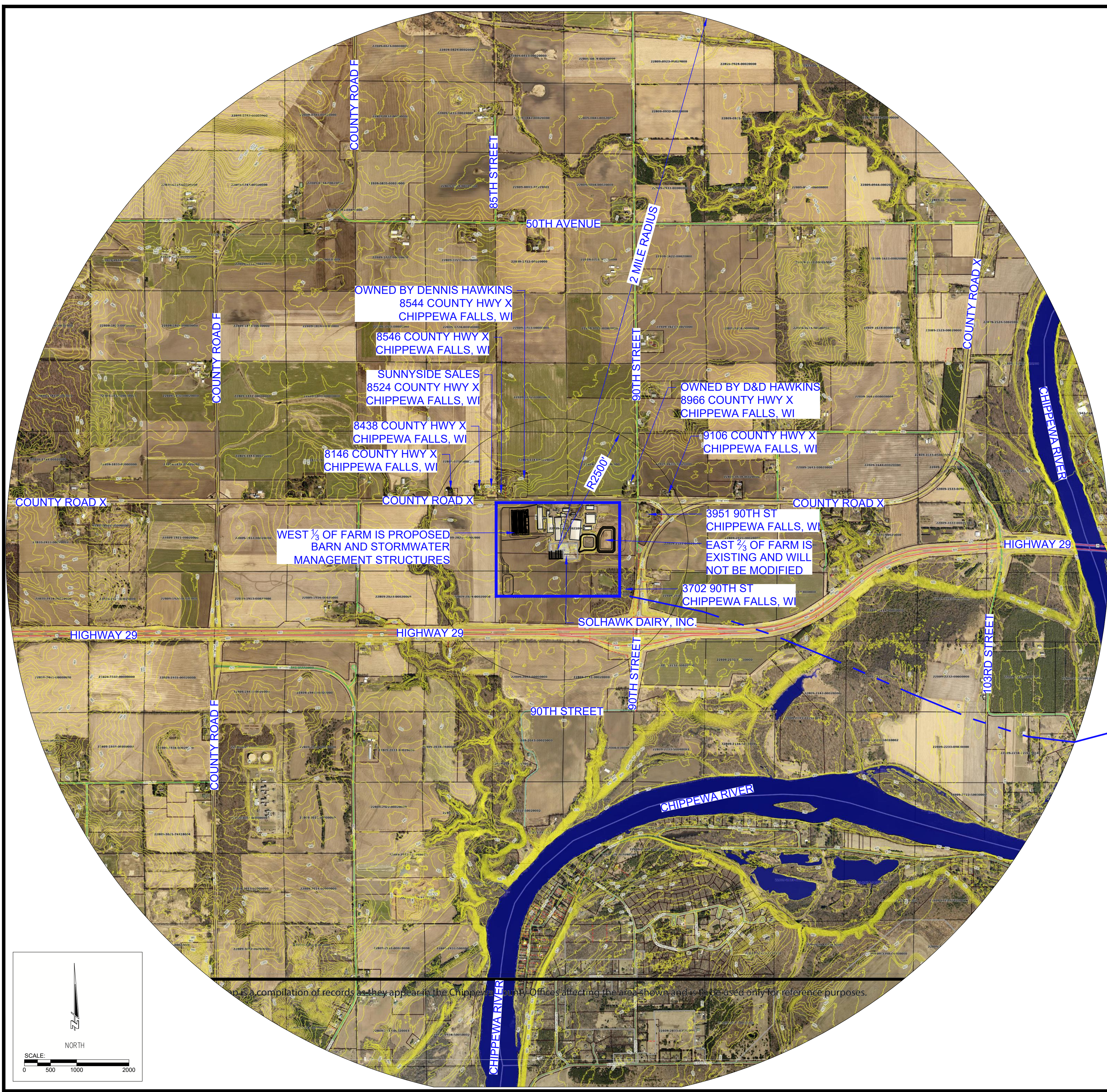
³ A tile system or curtain drain may be used to intercept lateral groundwater seepage, as necessary, to achieve the required distance to groundwater.

Maps

Ar 22 4
S 11 1



PROJECT:		SOLHAWK DAIRY		2021 FEEDPAD EXPANSION		TOWN OF WHEATON, CHIPPEWA COUNTY, WI		ATCP51 - SITE MAP		SHEET NO. 2		Packet Pg. 40	
DRAWING PHASE:		OWNER REVIEW		AGENCY REVIEW		BID DOCUMENT		FOR CONSTRUCTION		AS-BUILT DOCUMENT		DRAWN BY: JVF	
CHECKED BY: DAM		DATE: 01.05.21		DWG FILE: 862-005 - SITE MAP		REF FILE: 862-005 - SITE MAP		JOB NUMBER: 862-005 - SITE MAP		RELEASED FOR REVIEW		MJB	
DATE: 07.14.21		NAME:		REVISION DESCRIPTION:									
BRANCH OFFICE		3920 Balke Street		Suite 101		Hudson, WI 54016		Tel 715-381-5277		authconsulting.com		A.C/a	
CORPORATE OFFICE		408 Technology Drive East		Suite A		Menomonie, WI 54751		Tel 715-232-8490		authconsulting.com		Auth Consulting / associates	
												SEN Land Surveying a division of A.C/a	



PROJECT:

SOLHAWK DAIRY
2021 FEEDPAD EXPANSION
TOWN OF WHEATON, CHIPPEWA COUNTY, WI

SHEET NO.

AREA MAP

ATCP51 – AREA MAP

BRANCH OFFICE

406 Technology Drive E.
Suite A
Menomonie, WI 54751
Tel 715-232-8400
Fax 715-232-8492

CORPORATE OFFICE

2920 Pulse Street
Suite 101
Hudson, WI 54016
Tel 715-381-3277
Fax 715-381-3277

Auth-Consulting/associates

S&N Land Surveying

BRANCH OFFICE

406 Technology Drive E.
Suite A
Menomonie, WI 54751
Tel 715-232-8400
Fax 715-232-8492

CORPORATE OFFICE

2920 Pulse Street
Suite 101
Hudson, WI 54016
Tel 715-381-3277
Fax 715-381-3277

Auth-Consulting/associates

S&N Land Surveying

DRAWN BY:

MJB

CHECKED BY:

DAM

DATE:

07.09.21

DWG FILE:

862-005

REF FILE:

862.005 AREA WAP

JOB NUMBER:

862-005

REVISION DESCRIPTION:

NAME

DATE:

Employee Training Plan

Employee Training Plan

Solhawk Dairy, Inc

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Odor Management	
Runoff Management	
Manure and Waste Handling	
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Employee / Work Place Safety	
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Feedback, evaluation and improvement	
Example Checklists	
Manure Storage Facility	
Animal Lot	
Feed Storage Facility	

Training Goals

This training plan will enable employees and others to follow standards, procedures and practices to ensure that the livestock facility meets permit requirements and achieves other goals in this plan.

Specifically, training is required as part of the local permit issued in accordance with ATCP 51, Wis. Admin. Code (local siting permit), and this plan for training must include:

- Minimum content of training: nutrient management, odor management, runoff management, manure and waste handling, employee safety, and environmental incident response.
- The number and job categories of employees to be trained.
- The form and frequency of training, which at a minimum must include a plan for at least one training per year.
- Training presenters (these may include *livestock facility* managers, consultants or professional educators).
- A system for taking and recording attendance.

Training Objectives

The training program will enable employees and others to:

1. Understand and follow all standards, procedures and practices related to their assigned duties and tasks.
2. Understand basic permit requirements including more stringent local standards, and follow specific standards, procedures and practices to ensure compliance with these permits.
3. Receive current, science-based information to most effectively address key management issues, with specific focus on nutrient management, odor management, runoff management, manure and waste handling, employee safety, and environmental incident response.
4. Provide feedback concerning future training needs, and participate in the design of annual training activities.

Training Activities

Training activities will be designed to provide the necessary knowledge and skills tailored to specific needs of employees and others. Training approaches will be selected to ensure that information is effectively communicated, and may include classroom sessions, individual reading assignments and field exercises. Annual training activities will be customized to reflect changes in requirements, standards, procedures or practices; accommodate specific training needs; or provide new information critical to sound management of the livestock facility.

Requirements, standards, procedures and practices

Employees and others will be provided training on the requirements of the local siting permit as these relate to their assigned duties and tasks. They will learn the applicable standards, procedures and practices to ensure compliance with permit requirements. They also will learn other standards, procedures and practices that apply to the livestock facility as required by this training plan.

Training will cover the use of checklists and other tools used to inspect and monitor farm operations (see attached sample checklists)

The livestock operator will make available written documentation that describes permit requirements, standards, procedures and practices.

Training Content

Nutrient Management

Standards, procedures and practices are in place for all forms of manure application and must be followed by all employees, farm personnel assistants, and others. Solhawk Dairy's nutrient management plan is reviewed semi-annually by our crop manager and DNR representative. A copy of the plan will be available for review.

Training may include:

- Conservation planning
- Documenting manure applications – spreading logs and inspection sheets
- Recording and analyzing manure sample data
- Review soil fertility, crop rotations and yields

Odor Management

Standards, procedures and practices are in place to minimize odor, and must be followed by employees, farm personnel assistants and others. Among other things, they ensure that odor control practices work properly.

Training may include:

- Overview of odor, its causes and basic control strategies
- Regular cleaning and maintenance procedures to control odor

- Step-by-step routines to implement control practices (e.g. frequent cleaning) required under a permit
- Responding to odor complaints

Runoff Management

Standards, procedures and practices are in place to control runoff from animal lots and feed storage areas, and must be followed by employees, farm personnel assistants and others. For example, feed storage bunker leachate must be collected and pumped to the manure storage facility. In addition, compliance must be maintained with certain performance standards required in the local siting permit.

Training may include:

- Cleaning and regular maintenance of gutters, diversions, drains and sediment basins.
- Proper feed bunker tire and plastic placement and removal
- Leachate collection system operation, including pump operation
- Cleaning of traffic areas and pads
- Maintenance (e.g. regarding, seeding) and mowing of filter strips and other grassed areas.

Manure and Waste Handling

Standards, procedures and practices are in place to ensure proper storage, transfer and hauling of manure and waste. These must be followed by employees, farm personnel assistants and others.

Training may include:

- Review schedule and procedures for inspection and monitoring of manure storage, including frequent monitoring of manure levels
- Identification and use of proper agitation points
- Routine maintenance of vegetative areas
- Review procedures for pump operation, hose placement and pickup, equipment cleanup
- Proper procedures for hauling and applying manure

Employee Safety

Standards, procedures and practices are in place to ensure the health and safety of employees. These must be followed by employees, farm personnel assistants and others.

Training may include:

- Proper animal handling
- Proper equipment operations and certification where needed
- Accident reporting protocols
- Working in confined spaces
- Avoidance of dangerous conditions (including exposure to noxious gases)
- Maintaining fences, grates and protective areas

Environmental Incident Response

Standards, procedures and practices are in place to ensure proper responses in the event of manure spill or other incident. These must be followed by employees, farm personnel assistants and others. A written document with response procedures and emergency contacts is readily available.

Training may include:

- Review of Environmental Incident Response Plan
- Spill reporting and intermediate action steps

Employees To Be Trained

List of all employees to be trained by job category and number of employees in this category:

Managers
 Herdsman
 Assistant Herdsman
 Feeders
 Milkers
 Manure Handlers

Form and Frequency of Training

By position, the training for employees and others may include:

Managers

Describe the form, timing and scope of training appropriate to position's duties and functions such as training on education on nutrient management.

Herdsmen and Assistant Herdsmen

Describe the form, timing and scope of training appropriate to position's duties and functions such as training on cattle care and handling, and loading and transportation

Feeder

Describe the form, timing and scope of training appropriate to position's duties and functions such as training on equipment safety, and operation and maintenance

Milker

Describe the form, timing and scope of training appropriate to position's duties and functions such as training on cattle care and handling, equipment safety, and operation and maintenance

Manure Handler

Describe the form, timing and scope of training appropriate to position's duties and functions such as training on handling procedures and emergency response steps

[Will need to customize to reflect form, trimming and scope of training]

Training Presenters

Presenters may include:

Managers

Feed Consultants

Agronomy Consultant

Recording Attendance

For each internal training, attendance will be recorded using a sign up sheet which will include the date of the training and the employees who attended. Similar methods will be used to verify other training received.

Monthly Manure Storage Facility Checklist

Farm:

Facility ID:

Inspected by:

Date:

Manure/Effluent Level

Date:

Last Observation Date:

Liquid level, ft:

Depth remaining, ft:

[May add other items consistent with operation]

Other Observations	Yes	No	Corrective Action Taken/Planned
Is liquid level marker visible?			
Does adequate freeboard exist (measured from lowest point in dam, berm, or spillway to liquid level)?			
Runoff holding pond: Is sufficient volume available for runoff from 25-yr, 24-hr storm?			
Manure pump/transfer pipes functioning?			
Recycle pumps/transfer pipes functioning?			

Earthen Facility	Yes	No	Corrective Action Taken/Planned
Interior liner erosion observed . . .			
Due wave action?			
In vicinity of inlets?			
In vicinity of outlets?			
Due to erosion from rainfall?			
Near agitation equipment access points?			
Cracking or damage to liner?			
Signs of berm/dam damage due to . . .			
Burrowing animals?			
Presence of trees?			
Presence of large weeds?			
Erosion or gullies?			
Poorly established sod?			
Are there indications of . . .			
Damp, soft, or slumping areas on berms?			
Seepage near toe of berm?			
Seepage around pipes through the berm?			

Concrete/Steel Tanks	Yes	No	Corrective Action Taken/Planned
Signs of ...			
Cracks or structural damage?			
Leakage?			
Wet spots around base of tank?			
Clean water diversion			
Are perimeter drains plugged or blocked?			
Is roof water entering storage?			
Is field runoff entering storage?			
Are diversions/waterways maintained?			
Visual appearance and safety			
Is site neat and recently mowed?			
Is storage visually hidden from public?			
Are mortality or afterbirth observed?			
Are medical consumables observed?			
Is area fenced and properly marked?			
Is escape ladder available?			

Monthly Animal Lot Runoff Checklist

Farm:
Inspected by:

Lot ID:
Date:

	Yes	No	Corrective Action Taken/Planned
Is filter strip repair required?			
Runoff control structures intact?			
Solids collection location needs to be cleaned?			
Cattle mound needs repair?			

[May add other items consistent with operation]

Monthly Feed Storage Facility Checklist

Farm:
Inspected by:

Facility ID:
Date:

% moisture of feed placed in facility:

	Yes	No	Corrective Action Taken/Planned
Surface water diversion is operational?			
Leachate collection system, including pump, is operational?			
Does the collection structure need to be cleaned/pumped?			
Feed is adequately covered?			
Waste feed is properly stored?			

[May add other items consistent with operation]

Environmental Incident Response Plan

Environmental Incident Response Plan Solhawk Dairy, Inc.

Compiled by:



Auth Consulting & Associates, Inc. (AC/a)

401 Tolland Drive, East A

Middletown, WI 53551

1-202-840 0000

1-202-840 0000

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Environmental Incident Response Plan Summary
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Manure Spill During Transport or Application
Movement of Manure During or After Application
Catastrophic Mortality Disposal
Hazardous Material Spill

Emergency Accident Plan Incident Worksheet

Odor Management

Odor Monitoring Worksheet

Environmental Incident Response Plan Summary

For No. 1: Solihull District

On-site: District Head

For Address: 844 Chichester Road, Chichester, West Sussex PO19 1SE

Location: NE14 1SE, 20th Trench, West Sussex, T28NRW

Primary Farm Contacts

Telephone

District Head

01243-244111

For Office

01243-244111

Emergency Response

Name

Telephone

For Response

Chichester Fire District 011

01243-244110

Police

Chichester Community Support
District 011

011

01243-244101

Veterinary

Chichester District

01243-244111

Moorland Head

Princess Alexandra

01243-244111

Emergency

District Welfare

01243-244111

DNR Head of Service

800-44-0000

Emergency Response Plan
Solihull District

Personal Injury/Fire Emergency

Contacts

Fire Response

District Health

Fire Emergency Coordinator

Telephone

11

1-800-1

Emergency Information

Fire Address

Fire Station Emergency

Hazardous Materials Fire
Fire Location

Location

Fire Office

Fire Office
Vehicle

Fire Truck Service

Emergency Actions

1. Determine the location of the emergency and the appropriate response.
2. Call 11.
3. Assess the situation and determine the appropriate response and the location of the emergency.
4. Start CPR if necessary.
5. If the emergency is a fire, determine the location of the fire and the appropriate response.
6. Identify the emergency and determine the appropriate response.

Accidental Entry to Manure Storage or Transfer Facilities

Contacts

Farm Representative

Telephone

11

District Health Officer

Farm Emergency Coordinator

1-800-1

Emergency Information

Location

Relevant Emergency Response Information:

- Farmstead

Emergency Actions

1. Contain spill.
2. Stop all activities and remove personnel from area and decontaminate.
3. Initiate CPR if necessary.
4. Call 11.

Emergency Response Plan
Signed and Dated

Manure Storage Overflow

Contacts

District Health Officer

Manure Handler

Emergency

DNR Hazardous Site Unit

For Emergency Coordination

Prevention Assessment

DNR Wildlife

Telephone

1-800-0001

1-800-2-800

1-800-4-000

800-4-000

Emergency Information

- For more information on the emergency response plan.
- Understand the emergency response plan and the role of the emergency response team.
- Communicate with the emergency response team and the emergency response plan.

Emergency Actions

1. Contact For Emergency Coordination.
2. Stop the flow.
3. Assess the situation and the emergency response plan.
4. Notify the DNR Emergency Response Unit (800-4-000).
5. Begin the emergency response.
6. Implement the emergency response plan and the emergency response team.
7. Communicate with the emergency response team and the emergency response plan.
8. Understand the emergency response plan and the emergency response team.
9. Prepare the emergency response plan and the emergency response team.
10. Load the emergency response plan and the emergency response team.
11. Communicate with the emergency response team and the emergency response plan.

Manure Storage Leakage

Leakage of manure from storage tanks or other structures can cause environmental damage and health risks. The following are the steps to take in the event of a manure storage leakage:

- Determine the location and extent of the leakage.
- Notify the appropriate authorities and the emergency response team.

Communicate with the emergency response team and the emergency response plan.

Emergency Response Plan
Site Specific Details

Manure Storage Failure

Contacts

District Headquarters
Manure Handling
Emergency
DNR Headquarters

For Emergency Coordination
Procedures/Accident Response
DNR Website

Telephone

1-800-281-1111
1-800-281-1111
1-800-281-1111
800-44-0000

Emergency Information

- For more information on manure storage failure.
- Understand the environmental impacts of manure storage failure.
- Consideration of manure storage failure and its potential impacts on the environment.

Emergency Actions

1. Contact For Emergency Coordination.
2. Stop manure storage failure and its potential impacts on the environment.
3. Assess the environmental impact of manure storage failure.
4. Notify the DNR (800-44-0000).
5. Begin cleanup.
6. Implement manure storage failure and its potential impacts on the environment.
7. Consideration of manure storage failure and its potential impacts on the environment.
8. Understand the environmental impacts of manure storage failure.
9. Prepare for manure storage failure and its potential impacts on the environment.
10. Load manure storage failure and its potential impacts on the environment.
11. Consideration of manure storage failure and its potential impacts on the environment.
12. Consideration of manure storage failure and its potential impacts on the environment.
13. Review of manure storage failure.
14. Document manure storage failure.

Manure Spill During Transport or Application

Contacts

DNR H rd S L Telephone800--000

Emergency Information

- [illegible]

Emergency Actions

- [illegible]

Movement of Manure During or After Application

Contacts

DNR H¹ard¹ S¹ L¹ For E¹ r¹ C¹rd¹
DNR H¹ard¹ S¹ L¹

Telephone

1-800-841-0001
800-841-0001

Emergency Actions

1. Stop the application of manure. Assess the situation and determine if the application is safe. If not, stop the application and remove the manure from the area.
2. If the application is safe, continue the application. If the application is not safe, stop the application and remove the manure from the area.
3. Contact the DNR and the local health department to report the situation.
4. Evaluate the situation and determine if the application is safe. If not, stop the application and remove the manure from the area. If the application is safe, continue the application.

Catastrophic Mortality Disposal

Contacts

District Health
Veterinarian
Emergency

For Emergency Coordinator
County Director
District Wildlife

Telephone

1-800-833-1
1-202-833-8
1-800-4-22

Emergency Actions

1. Communicate with the appropriate authority or agency to coordinate the response.
2. Review the appropriate response to the incident and the potential impact on the community. The response should be coordinated with the appropriate authority or agency to ensure the response is effective and efficient.
3. Communicate with the appropriate authority or agency to ensure the response is coordinated with the appropriate authority or agency to ensure the response is effective and efficient.
4. Identify the appropriate response to the incident and the potential impact on the community. The response should be coordinated with the appropriate authority or agency to ensure the response is effective and efficient.

Hazardous Material Spill

Contacts

DNR Hazardous Material Emergency Response Coordinator

Telephone

610-282-2221

Fire Department Hazardous Materials Response Unit

611

DNR Hazardous Site Liaison

800-44-0001

Emergency Actions

1. Identify the hazardous material involved. Assess the extent of the spill.
2. Stop the spill. Try to contain the spill.
3. Assess the potential for fire or explosion.
4. Follow the spill response plan. Notify the appropriate agencies. Evacuate the area if necessary.
5. Establish a safety zone around the spill.
6. Control the spill to prevent further release.
7. Prioritize the response actions based on the severity of the spill.
8. Once the spill is contained, assess the damage and determine the next steps.
9. Document the spill response.

Emergency Accident Plan Incident Worksheet

Incident Description:

Location of Incident:

Personnel Affected:

Duration of Incident:

Witnesses:

Name of Incident Investigator:

Signature: _____

Date Completed: _____

Emergency Response Plan
Submitted Date:

Attachment: (E) Environmental Incident Response Plan (6611 : 2021-0009 Solhawk Dairy, Inc - Conditional Use Request)

Odor Management

Contacts

Dan H

For E Coord

Telephone

1-800-1

Odor Monitoring Program Actions

1. A of the monitoring program Odor Monitoring Workload
2. Review of the program
 - a. Monitor
 - b. Implement
 - c. Control
 - d. Arrange
3. Steps in the program
 - a. Provide
 - b. Add
 - c. Control
 - d. Perform
4. Monitor
 - a. Record
 - b. Note

Odor Management Worksheet

Downloaded from <https://www.cambridge.org/core>. For more information, see our <https://www.cambridge.org/core/terms> <https://doi.org/10.1017/9781315344430.006>

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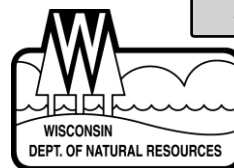
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$\frac{1}{2199023255552}$ oder $\frac{1}{4398046511104}$ oder $\frac{1}{8796093022208}$ oder $\frac{1}{17592186044416}$ oder $\frac{1}{35184372088832}$ oder $\frac{1}{70368744177664}$ oder $\frac{1}{140737488355328}$ oder $\frac{1}{281474976710656}$ oder $\frac{1}{562949953421312}$ oder $\frac{1}{1125899906842624}$ oder $\frac{1}{2251799813685248}$ oder $\frac{1}{4503599627370496}$ oder $\frac{1}{9007199254740992}$ oder $\frac{1}{18014398509481984}$ oder $\frac{1}{36028797018963968}$ oder $\frac{1}{72057594037927936}$ oder $\frac{1}{144115188075855872}$ oder $\frac{1}{288230376151711744}$ oder $\frac{1}{576460752303423488}$ oder $\frac{1}{1152921504606846976}$ oder $\frac{1}{2305843009213693952}$ oder $\frac{1}{4611686018427387904}$ oder $\frac{1}{9223372036854775808}$ oder $\frac{1}{18446744073709551616}$ oder $\frac{1}{36893488147419103232}$ oder $\frac{1}{73786976294838206464}$ oder $\frac{1}{147573952589676412928}$ oder $\frac{1}{295147905179352825856}$ oder $\frac{1}{590295810358705651712}$ oder $\frac{1}{1180591620717411303424}$ oder $\frac{1}{2361183241434822606848}$ oder $\frac{1}{4722366482869645213696}$ oder $\frac{1}{9444732965739290427392}$ oder $\frac{1}{18889465931478580854784}$ oder $\frac{1}{37778931862957161709568}$ oder $\frac{1}{75557863725914323419136}$ oder $\frac{1}{151115727451828646838272}$ oder $\frac{1}{302231454903657293676544}$ oder $\frac{1}{604462909807314587353088}$ oder $\frac{1}{1208925819614629174706176}$ oder $\frac{1}{2417851639229258349412352}$ oder $\frac{1}{4835703278458516698824704}$ oder $\frac{1}{9671406556917033397649408}$ oder $\frac{1}{19342813113834066795298816}$ oder $\frac{1}{38685626227668133590597632}$ oder $\frac{1}{77371252455336267181195264}$ oder $\frac{1}{154742504910672534362390528}$ oder $\frac{1}{309485009821345068724781056}$ oder $\frac{1}{618970019642690137449562112}$ oder $\frac{1}{1237940039285380274899124224}$ oder $\frac{1}{2475880078570760549798248448}$ oder $\frac{1}{4951760157141521099596496896}$ oder $\frac{1}{9903520314283042199192993792}$ oder $\frac{1}{19807040628566084398385987584}$ oder $\frac{1}{39614081257132168796771975168}$ oder $\frac{1}{79228162514264337593543950336}$ oder $\frac{1}{158456325028528675187087900672}$ oder $\frac{1}{316912650057057350374175801344}$ oder $\frac{1}{633825300114114700748351602688}$ oder $\frac{1}{1267650600228229401496703205376}$ oder $\frac{1}{2535301200456458802993406410752}$ oder $\frac{1}{5070602400912917605986812821504}$ oder $\frac{1}{10141204801825835211973625643008}$ oder $\frac{1}{20282409603651670423947251286016}$ oder $\frac{1}{40564819207303340847894502572032}$ oder $\frac{1}{81129638414606681695789005144064}$ oder $\frac{1}{162259276829213363391578010288128}$ oder $\frac{1}{324518553658426726783156020576256}$ oder $\frac{1}{649037107316853453566312041152512}$ oder $\frac{1}{1298074214633706907132624082305024}$ oder $\frac{1}{2596148429267413814265248164610048}$ oder $\frac{1}{5192296858534827628530496329220096}$ oder $\frac{1}{10384593717069655257060992658440192}$ oder $\frac{1}{20769187434139310514121985316880384}$ oder $\frac{1}{41538374868278621028243970633760768}$ oder $\frac{1}{83076749736557242056487941267521536}$ oder $\frac{1}{166153499473114484112975882535043072}$ oder $\frac{1}{332306998946228968225951765070086144}$ oder $\frac{1}{664613997892457936451903530140172288}$ oder $\frac{1}{1329227995784915872903807060280344576}$ oder $\frac{1}{2658455991569831745807614120560689152}$ oder $\frac{1}{5316911983139663491615228241121378304}$ oder $\frac{1}{10633823966279326983230456482242756608}$ oder $\frac{1}{21267647932558653966460912964485513216}$ oder $\frac{1}{42535295865117307932921825928971026432}$ oder $\frac{1}{85070591730234615865843651857942052864}$ oder $\frac{1}{170141183460469231731687303715884105728}$ oder $\frac{1}{340282366920938463463374607431768211456}$ oder $\frac{1}{680564733841876926926749214863536422912}$ oder $\frac{1}{1361129467683753853853498429727072845824}$ oder $\frac{1}{272225893536750770770699$

Proposed 2021 Barn Expansion – Project Manual

Complete Project Manual (as approved by WDNR on July 8, 2021, and submitted to Chippewa County Land Conservation & Forest Management)



July 8, 2021

FILE REF: R-2021-0104
WPDES Permit #: WI-0063274

Dennis Hawkins
Solhawk Dairy Inc
8544 County Highway X
Chippewa Falls, WI 54729

Subject: Conditional Approval of Plans & Specifications for a freestall barn waste transfer system at, Solhawk Dairy Inc at NW, NE T28N, R09W, Section 20 in Wheaton Township, Chippewa County

Dear Mr. Hawkins:

This letter is to inform you that the Wisconsin Department of Natural Resources (Department) has reviewed and conditionally approves the above referenced plans and specifications, submitted under certification by Dave McDaniel, Auth Consulting and received on May 11, 2021. The review was conducted in accordance with s. 281.41, Wis. Stats., chs. NR 151 and NR 243, Wis. Adm. Code, and applicable NRCS Standards. The attached engineering report describes the project, lists standards that apply and provides compliance analysis. Questions may be directed to the assigned regional staff or the review engineer Tony Salituro (contact information is at the end of this letter).

Proposed Project: The proposed project includes the following facilities that are reviewable under s. NR 243.15, Wis. Adm. Code: A precast Wieser waste transfer tank, a transfer pipeline to collect waste from holding area, and pressure pipeline connected to existing waste transfer system.

Conditions of Approval: The plans and specifications for project number R-2021-0113 are hereby approved and subject to chs. NR 151 and NR 243, Wis. Adm. Code, and the conditions listed below:

1. **Revisions:** If revisions are made to the approved plans and specifications, revised plans and specifications shall be submitted for approval modification, in accordance with ss. NR 108.03 and NR 108.04, Wis. Adm. Code, and s. 281.41(1)(c), Wis. Stats. Submit revised plans and specifications via the Department's e-Permitting System. Note: This includes revisions for local permitting. If a formal approval modification may not be warranted, contact the review engineer to confirm.
2. **Approval Period:** In accordance with ss. NR 243.15(1)(a)1., and NR 108.04(2)d., Wis. Adm. Code, if construction is not commenced within 2 years from the approval date, the approval is void, and a new approval must be obtained prior to commencing construction.
3. **Notification:** Prior to construction and when construction is complete, notify the Department's regional contact and county contact provided a copy of the approval (contact information is at the end of this letter).
4. **Inspection:** During the construction of critical components, inspection shall be performed by a Wisconsin registered professional engineer or other qualified third party (excludes the owner and construction contractor and their employees).
5. **Post-Construction Documentation:** In accordance with the permit, a post-construction report must be submitted to the DNR's e-Permitting website (<http://dnr.wi.gov/permits/water>) within 60 days of completing construction. The report must include documentation specified by s. NR 243.15(10), Wis. Adm. Code.

Limitation of Approval: The Department reserves the right to order changes or additions should conditions arise making this necessary. This approval is not to be construed as a determination on the issuance of a Wisconsin Pollutant Discharge Elimination System Permit or opinion as to the ability of the proposed system to comply with effluent limitations in such a permit, approval of an Environmental Impact Statement that may be prepared, or approval for any activities requiring a permit under chs. 30 or

Attachment: (F) Proposed 2021 Barn Expansion (6611 : 2021-0009 Solhawk Dairy, Inc - Conditional Use Request)

31, Wis. Stats. Where necessary, plans and specifications should be submitted to the Department of Safety and Professional Services or other state or local agencies to ensure conformance with applicable codes or regulations of such agencies.

Tax Treatment: Tangible personal property, that becomes part of a waste treatment of pollution abatement plant or equipment, may be exempt from sales tax under s. 77.45(26), Wis. Stats. Similarly, property purchased or constructed as a waste treatment facility and used for industrial waste treatment may be exempt from general property taxes under s. 70.11(21), Wis. Stats. A prerequisite to exemption is filing a statement on prescribed forms. To obtain the forms, and information about this sales tax exemption, please contact the Department of Revenue, P.O. Box 8933, Madison, WI 53708, or check their website <http://www.revenue.wi.gov/>.

NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to WIS. STAT. §§ 227.52 and 227.53, you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review must name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to WIS. STAT. § 227.42, you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with WIS. ADMIN. CODE § NR 2.05(5), and served on the Secretary in accordance with WIS. ADMIN. CODE § NR 2.03. The filing of a request for a contested case hearing does not extend the 30-day period for filing a petition for judicial review.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
For the Secretary



Bernie Michaud, P.E.
CAFO Engineer Supervisor
Watershed Management Program

Enclosures: Wisconsin DNR Engineering Report

email: Dennis Hawkins; Solhawk Dairy Inc
(715) 579-6371; dennishawk70@gmail.com

David McDaniel; Auth Consulting & Associates
(715) 232-8490; dmcdaniel@authconsulting.com

Dan Masterpole; Chippewa County
(715) 726-7920; dmasterpole@co.chippewa.wi.us

Matt Woodrow; DATCP
(920) 427-8505; matthew.woodrow@wisconsin.gov

Todd Prill; DNR-West Central Region
(715) 214-8576; Todd.Prill@wisconsin.gov

Bradley A Johnson; DNR-West Central Region
(715) 359-2872; Bradley.A.Johnson@wisconsin.gov

Tony Salituro; DNR-Central Office
(608) 444-2869; anthony.salituro@wisconsin.gov

Aaron O'Rourke; DNR, Eau Claire
(715) 839-3775; aaron.orourke@wisconsin.gov

WISCONSIN DEPARTMENT OF NATURAL RESOURCES ENGINEERING REPORT**GENERAL INFORMATION****Farm Name:** Solhawk Dairy Inc**WPDES Permit#:** WI-0066656**Location Address:** 8544 County Highway X, Chippewa Falls**DNR Project #:** R-2021-0113**Engineering Plans Certified by:****Initial Submittal:****Revised Submittal(s):**

Dave McDaniel, P.E.

May 11, 2021

NA

Site Assessment: Geographical features of the site include soils that are loams and sandy loams. The nearest stream is approximately 1,800 ft to the west and the nearest wetland is approximately 1,200 ft to the west of the proposed construction area. Clean runoff will be diverted around the freestall barn to a proposed stormwater basis. No karst features are known to exist within 1,000 ft of the proposed facilities or systems. No ground water supply wells are located within 250 feet of the proposed facilities or systems.

Soil investigations were performed in April 2021 consisting of four test pits in the proposed project area, which found the primary subsoils consist of Sand (SP). Bedrock and saturation were not found.

Proposed Facilities:

Waste Transfer System: The proposed design was submitted to meet with NRCS Standard 634 (1/14). The design is in compliance with s. NR 243.15(4), Wis. Adm. Code.

- The precast W20000 Wieser reception tank will be 12 ft x 30 ft x 11.3 ft deep with 6 inch thick concrete walls and 9 inch thick concrete floor. The tank will provide approximately 20,000 gallons of storage for the 13,500 gallon daily waste generation, before transferring to permanent storage.
- A 24-inch HDPE dual wall gravity pipeline (ASTM F2306) will collect and transfer waste from the proposed holding area to the precast Wieser tank. A riser manifold will connect to the finished freestall barn concrete floor to allow the waste from the holding area to enter the proposed transfer pipe. All HDPE to concrete connections will have Leakmaster sealant installed to create a liquid tight connection. A secondary 24-inch HDPE gravity pipeline will be stubbed out and capped for a future use with the Wieser tank.
- A 12-inch PE (ASTM 714 DR17) pressure pipeline will be installed in the Wieser tank to connect with the existing waste transfer system. The pipeline will utilize a 20HP flush pump that will provide an operating velocity of 6.0 ft/sec. The pipeline will be operated at a working pressure of 5.6 psi. Concrete thrust blocks will be installed at all pipe bends. The pipeline will connect to an existing 24-inch HDPE pipe. The connection will be capped and use Leakmaster sealant to create a liquid tight connection. The existing waste transfer system will not be changed after installation of the new pressure pipeline.

DAYS OF AVAILABLE LIQUID WASTE STORAGE: The proposed waste transfer system will not increase waste generation, but the proposed freestall barn will allow for an increase in animal units at Solhawk Dairy Inc. The submitted information states that Solhawk Dairy Inc will have 236 days of liquid waste storage based on the volumes listed in the table below with respect to s. NR 243.15(3)(i) to (k), Wis. Adm. Code. After the proposed freestall barn is constructed, animal units are estimated to be 5,890. The liquid waste volumes are based on the NRCS spreadsheet and other estimated or calculated values and a collection period of 365 days.

Total Liquid Waste Storage:	29,820,184 gallons
Total Solids Storage	511,152 gallons
Total 25-yr, 24-hr Precip. on Storage	783,846 gallons
Total 25-yr, 24-hr Collected Runoff	603,196 gallons
Total Freeboard Vol.	1,884,975 gallons
Total MOL Liquid Waste Storage:	26,037,015 gallons

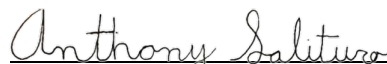
Manure and Bedding:	27,892,519 gallons
Parlor Wastewater	4,927,500 gallons
Total Feed Storage Leachate:	261,800 gallons
Total Feed Storage Runoff Collected:	3,947,921 gallons
Net Precipitation on Storage Surfaces:	3,273,805 gallons
Total Liquid Waste Stored Below the MOL	40,303,545 gallons

PURPOSE OF THIS REPORT: This report documents review of plans and specifications for each structure or practice indicated below, including findings regarding the structure or practice's compliance with applicable standards. The reviewer considered if management and site assessment were conducted, documented, and reflected in the final design, and if proper construction and related plans (operation and maintenance, inspection, erosion control if applicable) were provided, and demonstrated compliance with applicable rules standards.

DECISION RECOMMENDATION: Based on my review completed on July 7, 2021, the proposed plans and specifications meet ch. NR 243, Wis. Adm. Code, and applicable NRCS Standards. Therefore, I recommend the plans and specifications be approved.



Bernie Michaud, P.E.
Water Resources Engineer

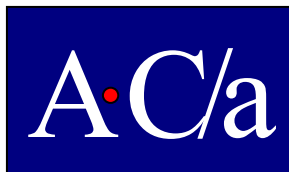


Tony Salituro, E.I.T.
Engineering Intern

Project Manual Solhawk Dairy, Inc. 2021 Barn Expansion

May 2021

Compiled by:



Auth Consulting & Associates, Inc. (AC/a)

406 Technology Drive E, Suite A
Menomonie, WI 54751
715-232-8490 ph
715-232-8492 fx

Attachment: (G) Project Manual (6611 : 2021-0009 Solhawk Dairy, Inc - Conditional Use Request)

Engineering Certification

Prepared for:

Solhawk Dairy, Inc.
8544 County Highway X
Chippewa Falls, WI 54729

Prepared by:

Auth Consulting & Associates, Inc. (AC/a)
406 Technology Drive E, Suite A
Menomonie, WI 54751
715-232-8490

To the best of my professional knowledge, judgment, and belief, this design and these construction plans meet all requirements of the NRCS Standard 342, 484, 533, 570 & 634.

Report Prepared by:

Jake Fleishauer

Date

Checked by:

David McDaniel

David McDaniel, PE



Date

8-6-21

Distribution List

No of Copies	Sent To
1	Dennis Hawkins Solhawk Dairy, Inc. 8544 County Highway X Chippewa Falls, WI 54729
1 (digital)	Wisconsin Department of Natural Resources 101 S Webster Street PO Box 7921 Madison, WI 53703
1	AC/a, Inc. File 862-005

Attachment: (G) Project Manual (6611 : 2021-0009 Solhawk Dairy, Inc - Conditional Use Request)

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- Attachment C-Construction Inspection Plan
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 - 3-Earthfill (May 2020)
 - 204-Earthfill for Waste Storage Facilities (September 2018)
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- 3.0-Overall Site Plan/Erosion Control
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- 5.1-Sections & Details
- 5.2-Sections & Details
- 6.0-Erosion Control Details
- 6.1-Erosion Control Details

These documents are to be utilized in conjunction with the Solhawk Dairy, -
2021 Barn Expansion Plan Set, RELEASED FOR REVIEW. 05.05.21

Executive Summary

Executive Summary

Background

This Project Manual is intended to describe the proposed barn expansion at Solhawk Dairy, Inc. in the Township of Wheaton, Chippewa County, Wisconsin. The facility is an operating WPDES permitted dairy farm, WPDES Permit #0063274. The project location is shown on Figure 1, "Site Location Map". The site address is:

Solhawk Dairy, Inc.
8544 County Highway X
Chippewa Falls, WI 54729
Contact: Dennis Hawkins

Existing Conditions:

Surface water on the site drains to the southwest to an un-named stream that flows to the Chippewa River which is approximately 1-mile south of the farm. No wetlands are located near the proposed project as shown on Figure 3 "Wetland Map". Review of NRCS soil survey data indicates that soil at the project site consist primarily of Meridian Loam & Billett Sandy Loam. NRCS soils data can be found in Figure 4 "Soils Map".

Current Operations:

Currently manure in the free stall barns is scraped to a flume and transferred to the sand separation and manure processing facility. Sand bedding is separated out for re-use, and the remaining waste is transferred to the waste storage facility. Waste is pumped and hauled to the fields for land application in accordance with an approved nutrient management plan.

Feed for the operation is stored on feedpad south of the barns. The existing feedpad and diversion swales cover approximately 198,705 SF. The existing feedpads slope to the north to the diversion swale which slopes to the east to the existing waste storage facility (WSF1). The existing collection system meets the current NRCS and DNR criteria for runoff collection.

Proposed Modifications

The proposed modifications for 2021-2022 that are detailed in this Project Manual include:

- A proposed freestall barn/holding area/parlor (321.0' x 476.0'). A vacuum truck will be used to collect and transfer waste from the proposed freestall barn to the existing waste storage facilities.
- W20000 Wieser precast waste transfer tank.
- 24" HDPE dual wall transfer pipe (ASTM F2306) to collect waste from the holding area and transfer it by gravity to the Wieser precast tank.
- 20HP flush pump connected to a 12" PE (ASTM 714 DR17) waste transfer pipe that shall be connected to the existing waste transfer system.

Additional information detailing the operation of the system is included in the attached Operation and Maintenance Plan.

Figures

Figure 1-Site Location Map

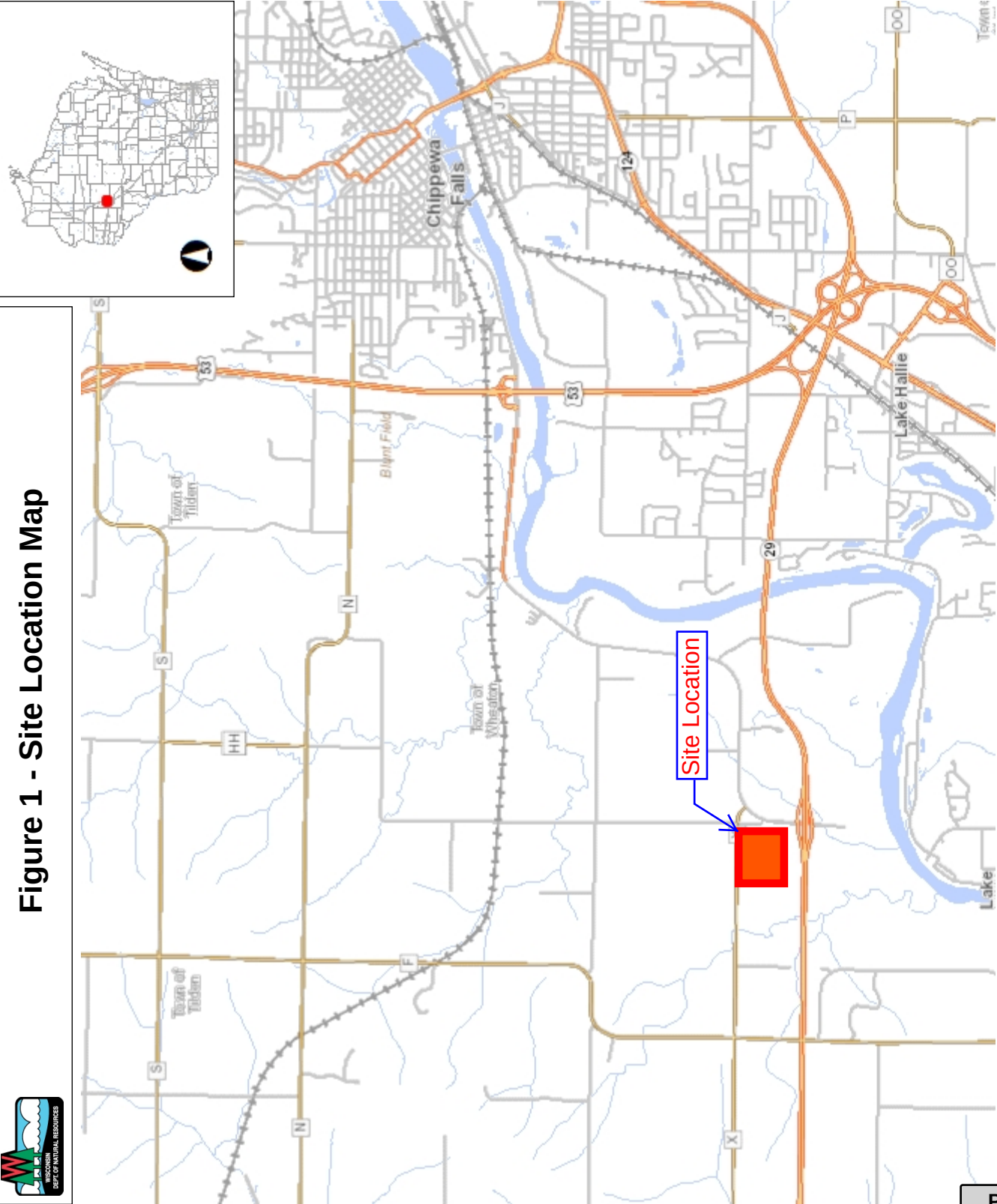
Figure 2-Topo Map

Figure 3-Wetland Map

Figure 4-Soils Map

Figure 5-Overall Site Plan

Figure 1 - Site Location Map



- Legend**
- Municipality
 - State Boundaries
 - County Boundaries
 - Major Roads
 - Interstate Highway
 - State Highway
 - US Highway
 - County and Local Roads
 - County HWY
 - Local Road
 - Railroads
 - Tribal Lands
 - Rivers and Streams
 - Intermittent Streams
 - Lakes and Open water

Notes

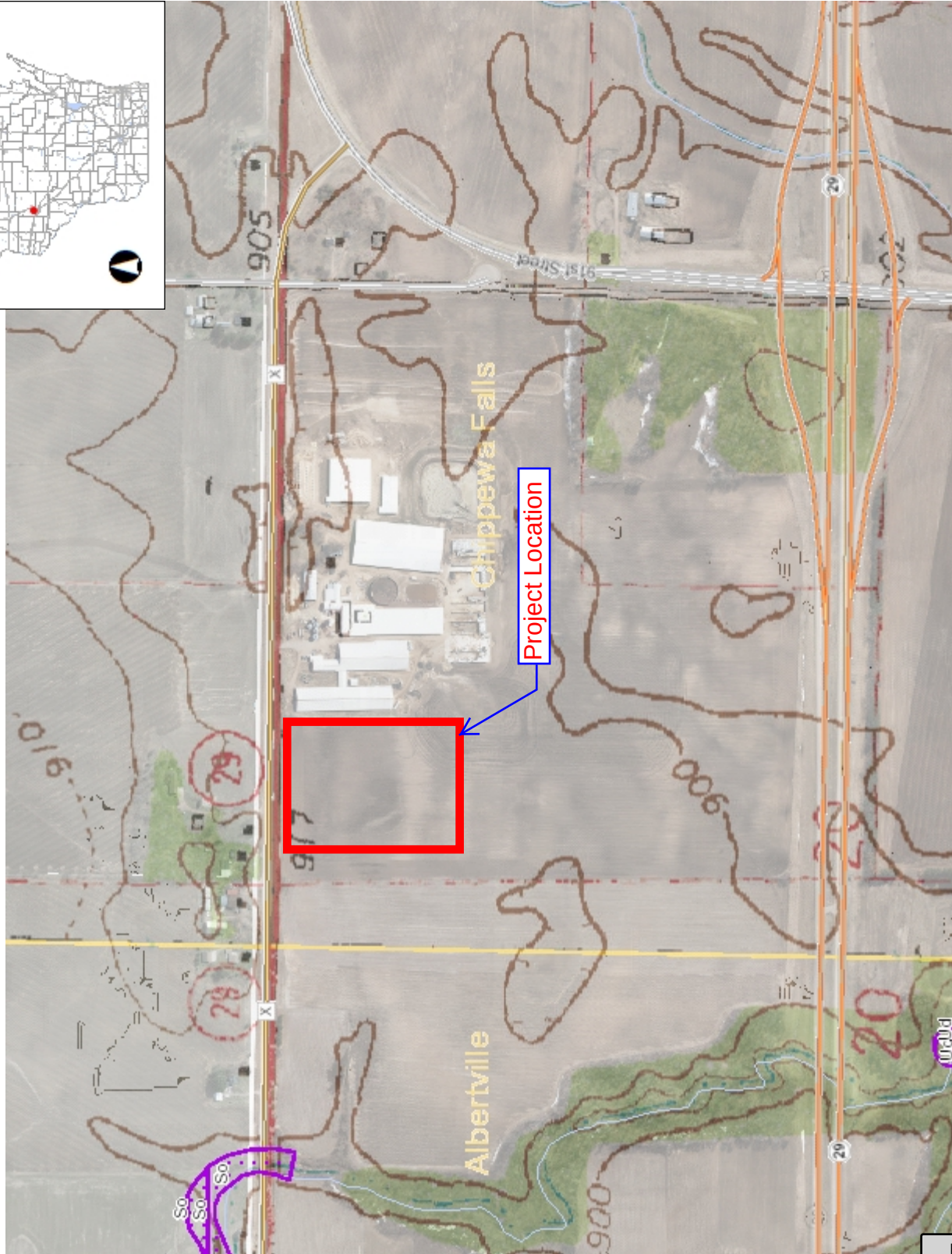
DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/legal/>

1: 63,360

Attachment: (H) Figures & Maps (6611 : 2021-0009 Solhawk Dairy, Inc - Conditional Use Request)



Figure 2 - Topo Map



- Legend**
- NRCS Wetspots
 - Maximum Extent Wetland Indicators
 - Municipality
 - State Boundaries
 - County Boundaries
 - Major Roads
 - Interstate Highway
 - State Highway
 - US Highway
 - County and Local Roads
 - County HWY
 - Local Road
 - Railroads
 - Tribal Lands
 - Rivers and Streams
 - Intermittent Streams
 - Lakes and Open water
 - 24K USGS Quad Index - Level 7 - 16
 - Index to EN_Image_Basemap_Leaf Off

Notes

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0.3 Miles

0.13

0

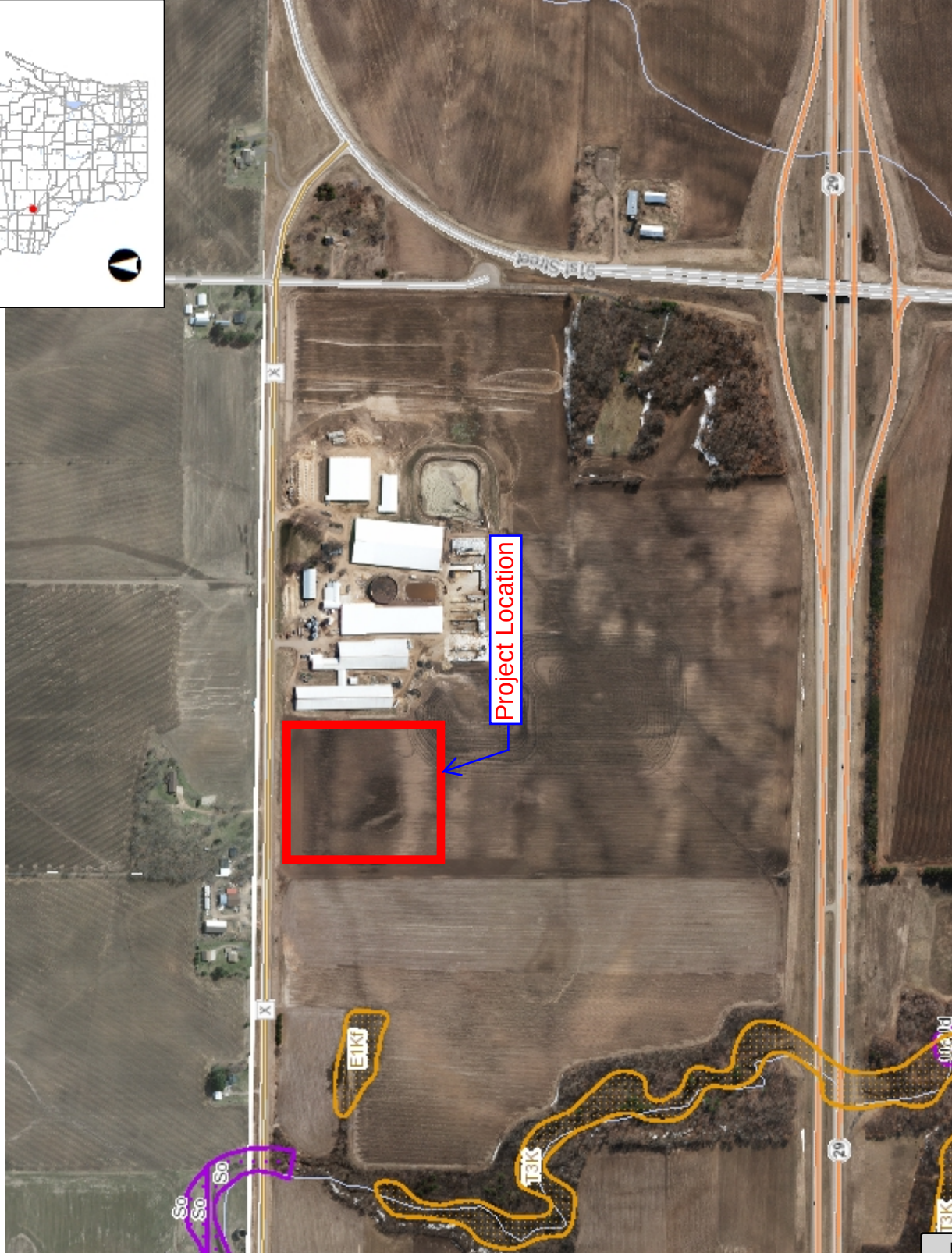
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AD_1983_HARN_Wisconsin_TM

Attachment: (H) Figures & Maps (6611 : 2021-0009 Solhawk Dairy, Inc - Conditional Use Request)



Figure 3 - Wetland Map



- Legend**
- Wetland Identifications and Confirmations
 - Wetland Class Points
 - Dammed pond
 - Excavated pond
 - Filled excavated pond
 - Filled/draind wetland
 - Wetland too small to delineate
 - Filled Points
 - Wetland Class Areas
 - Wetland
 - Upland
 - Filled Areas
 - Wetland Class Points
 - Dammed pond
 - Excavated pond
 - Filled excavated pond
 - Filled/draind wetland
 - Wetland too small to delineate
 - Filled Points
 - Wetland Class Areas
 - Wetland
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 - State Highway
 - US Highway
 - County and Local Roads

Notes

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0.3 Miles

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United States
Department of
Agriculture

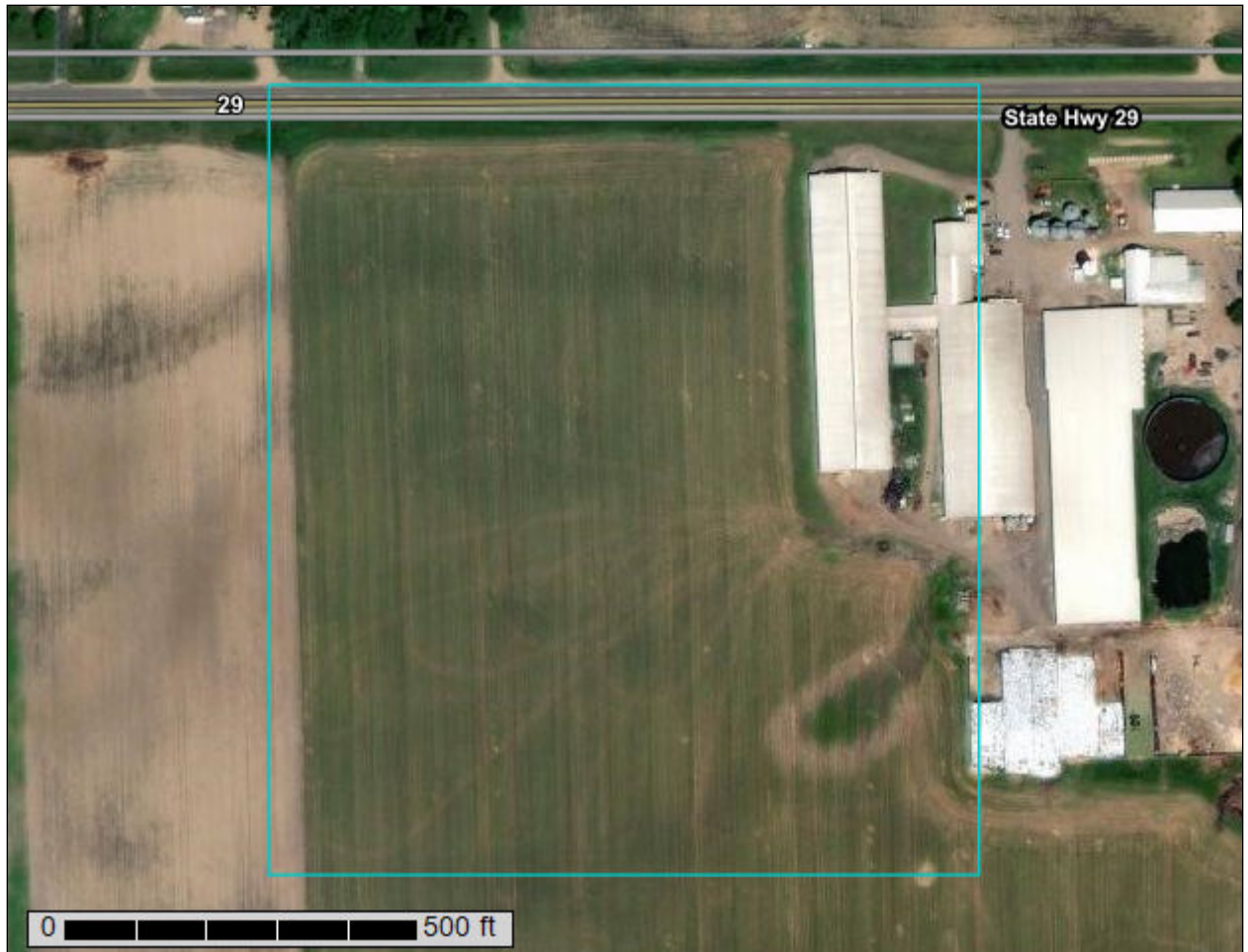
NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Chippewa County, Wisconsin

Figure 4 - Soils Map

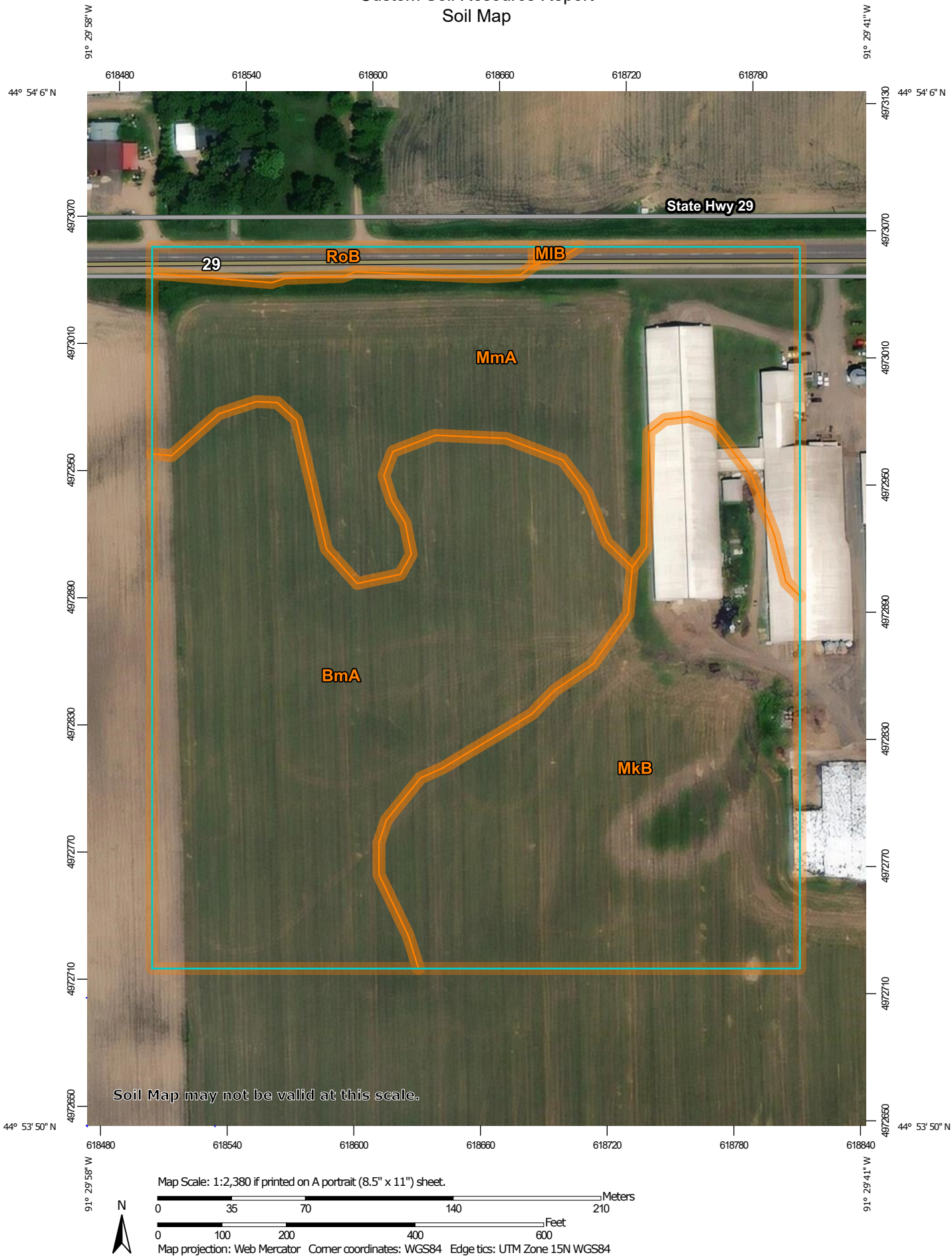


Attachment: (H) Figures & Maps (6611 : 2021-0009 Solhawk Dairy, Inc - Conditional Use Request)

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Attachment: (H) Figures & Maps (6611 : 2021-0009 Solhawk Dairy, Inc - Conditional Use Request)

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BmA	Billett sandy loam, moderately well drained, 0 to 3 percent slopes	10.0	38.5%
MkB	Menahga loamy sand, 0 to 6 percent slopes	7.9	30.5%
MIB	Meridian loam, 2 to 6 percent slopes	0.0	0.1%
MmA	Meridian loam, moderately well drained, 0 to 3 percent slopes	7.4	28.6%
RoB	Rosholt sandy loam, 2 to 6 percent slopes	0.6	2.4%
Totals for Area of Interest		25.9	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it

Attachment A Operation and Maintenance Plan

Attachment: (I) Attachment A - Operation & Maintenance Plan (6611 : 2021-0009 Solhawk Dairy, Inc - Conditional Use Request)

Operation and Maintenance Plan Solhawk Dairy, Inc. 2021 Barn Expansion

1.0 Contact Information

Location: NE¼ of Section 20, T28N, R9W
Town of Wheaton
Chippewa County, Wisconsin

Contact: 8544 County Highway X
Chippewa Falls, WI 54729
Dennis Hawkins

Plan Prepared by: Auth Consulting/associates, Inc. (AC/a, Inc.)
406 Technology Drive East, Suite A
Menomonie, Wisconsin 54751-2768
Dave McDaniel, P.E.
715-232-8490

2.0 Background

This plan defines the procedures for operations and maintenance of the overall system as assumed during the design process. The following provides a general description of the system operation procedures assumed in the design process:

- A proposed freestall barn/holding area/parlor (321.0' x 476.0'). A vacuum truck will be used to collect and transfer waste from the proposed freestall barn to the existing waste storage facilities.
- W20000 Wieser precast waste transfer tank.
- 24" HDPE dual wall transfer pipe (ASTM F2306) to collect waste from the holding area and transfer it by gravity to the Wieser precast tank.
- 20HP flush pump connected to a 12" PE (ASTM 714 DR17) waste transfer pipe that shall be connected to the existing waste transfer system.

3.0 Design Conditions

This project has been designed to meet design requirements specified in the NRCS Technical Guide. The following standards have been utilized in the design of this project.

Table 1-Design Standards

Number	Conservation Practice Standard	Responsible Agency or Discipline	Release Date
342	Critical Area Planting	NRCS-ENG	Jan. 2018
484	Mulching	NRCS-ENG	June 2016
533	Pumping Plant	NRCS-ENG	July 2016
570	Stormwater Runoff Control	NRCS-ENG	July 2016
634	Waste Transfer Pipe	NRCS-ENG	August 2016

3.1 Proposed Barn Expansion and Transfer System

The proposed freestall barn, holding area and parlor will be constructed on the west side of the existing farmstead in a crop field. The barn will utilize a manure vacuum truck to collect waste from the animals and transfer it to the existing separation facility or waste storage facilities. The holding area will have a 24" HDPE transfer Pipe (ASTM F2306) that will collect waste from the holding area and transfer it to a W20000 Wieser precast transfer tank. The W20000 Wieser precast transfer tank will utilize a 20HP flush pump connected to a 12" PE (ASTM 714 DR17) waste transfer pipe to transfer the waste collected from the holding area to the existing transfer system. The flush pump will be controlled by level indicator floats. The system is designed to operate at 1,850 gallons per minute, and at an operating pressure of 5.6 PSI. The system must be pressure tested prior to initial operation, as described in the construction inspection plan.

No modifications will be made to the function of the existing waste transfer system. A series of waterways and stormwater ponds shall be constructed to divert clean water around the site and allow for a borrow site for the proposed expansion fill material.

3.2 Existing Waste Storage

The existing waste storage facilities will provide approximately 236 days/8 months of storage for the manure, precipitation, freeboard and feed pad runoff according to NRCS Code 313 – "Waste Storage Facility". Using NRCS figures for manure production, the volume of storage required for the proposed operation is shown below, and assumes that the contents of the waste storage lagoons will be partially or entirely emptied every 8 months and field spread according to a nutrient management plan prepared to conform to the requirements of the NRCS Code 590 – "Nutrient Management". The existing concrete liner was designed to allow heavy equipment to clean the solids remaining in the pond when emptied.

Liquids Collected/Stored	Annual Gallons
Manure and Bedding	27,892,519
Parlor Wastewater	4,927,500
Feed Storage Leachate	261,800
Feed Storage Runoff Collected *	3,947,921
Feedlot Runoff**	0
Net Precipitation on Storage Surface(s) **	3,273,805
Stacking Pad Runoff Collected*	0
Offsite Waste	
Other	
Other	
Other	
Other	
Other	
TOTAL:	40,303,545

Waste Storage	Total Vol. from Settled Top to Bottom	-Solids Storage	-25-yr, 24-hr Precip. on Storage	25-yr, 24-hr Collected Runoff ***	-Freeboard Vol.	Max. Operating Level (MOL) Vol.
#1	7,693,928	0	251,047	603,196	592,790	6,246,896
#2	1,607,377	84,599	34,333	0	84,599	1,403,847
#3	20,518,879	426,553	498,466	0	1,207,586	18,386,274
#4	0	0	0	0	0	0
#5	0	0	0	0	0	0
#6						0
Total MOL Vol:						26,037,016
Days of Storage:						236
Meets Days of Storage Criteria:						YES

4.0 System Operation and Maintenance

The following operation and maintenance procedures must be followed to ensure safe and proper operation of the facility over the life of this facility. The lifespan of the proposed transfer system is approximately 15 years with routine preventative maintenance.

4.1 Waste Transfer

- Maintain level control floats at appropriate levels in the tank, approximately 1 foot up from the bottom of the tank, and 1.5 feet from the top of the tank.
- Inspect the waste transfer facility periodically. Inspect the covers and grates at every emptying cycle. Replace any covers and grates that are no longer serviceable due to wear and/or corrosion. Inspect safety shields to ensure that they are securely in-place.
- Repair damage components to original design conditions as soon as possible.
- Maintain pumps, agitators, piping, valves, controls or automation components, and electrical and mechanical equipment in good operating condition following the manufacturer's recommendations.
- Pump operation and maintenance shall be performed in accordance with manufacturer's recommendations as shown in attached documentation.
- Maintain necessary safety features. This includes proper fencing, warning signs, stop blocks, guardrails, covers, and similar items, see "Safety Around Waste Storage Structures". All ports to the tank must have a cover capable of safely supporting the loads described in ASAE EP 378.3. Grates shall have maximum sized openings that will not pass a six (6) inch diameter sphere. However, it is recommended that grate opening wider than two (2) inches be protected from livestock and human traffic with guardrails. A gate system shall be available to allow the blocking off of the access ports to prevent accidental entry by humans, machines, and animals during scraping or other maintenance. Once the reception pits are put into operation, **under no circumstances shall any person enter the transfer pit**, except trained personnel equipped with breathing apparatus.

4.2 Existing Waste Storage

- Maintain necessary safety features including proper fencing, warning signs, stop blocks, guardrails, covers and similar items.
- Do not fill above the maximum operating level (MOL) as marked.
- If liquid level reaches the MOL the landowner will pump material from the structure to maintain an operating level below the MOL.
- Follow the schedule for emptying the structure including removal of accumulated solids.

- Eradicate or otherwise remove all rodents or burrowing animals and repair damage caused by their activity.
- Inspect the concrete ANNUALLY for signs of significant damage including weathering, curling, significant cracks or exposed rebar. Repair damaged areas to restore concrete/soil composite liner to design conditions.
- “Do not enter an under-floor (underground) covered storage or pumping station without using the proper respirator equipment. In addition, these safety practices are needed: (a) Shut off any manure pumps, (b) ventilate storage or pumping station at the maximum rate, (c) test the storage or station air for O₂ level and toxic gas levels, (d) attach a safety harness and rope to the working person with at least one person standing by to help with a mechanical retrieval device, and (e) have on hand an extra set of proper respirator equipment for the person standing by.”
- Fatal or serious **inhalation hazards** of gases including hydrogen sulfide (H₂S), carbon dioxide (CO₂), methane (CH₄), and ammonia (NH₃) may exist where manure gases are generated through the handling of liquid or semi-solid manure through activities such as pumping, mixing, agitating, spreading, or cleaning-out.
- Agitating open air manure storage facilities can be especially hazardous when high humidity and low winds may cause hydrogen sulfide gas to reside near the storage.
- Use gas detection monitors to provide warnings of unsafe conditions

5.0 Emergency Response Plan

Clean up manure spills promptly and spread manure according to your 590 plan. If the manure storage facility begins to overflow, clean up the overflow and implement the contingency plan immediately (see below). Contact the local Land Conservation District (715-726-7920) and the local WDNR office Spill Hotline (1-800-943-0003) for any additional technical assistance that might be needed for implementation of this operation and maintenance plan for the structure.

5.1 Contingency Plan in the Event of a Spill

5.1.1 Manure spill on farmstead or downslope from manure storage facility

- 5.1.1.1 Contain spills by all means possible including blocking culverts, excavating or berming temporary storage locations and grading diversions to direct to temporary containment areas before it can enter surface water.
- 5.1.1.2 Prevent manure spill from entering road ditches or otherwise leaving the site.
- 5.1.1.3 Pump or load manure into approved structure or land apply manure and contaminated soils

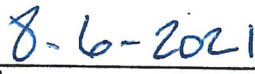
5.1.2 Manure spill on road

- 5.1.2.1 Contain spills by blocking culverts or grading berms and diversions
- 5.1.2.2 Pump or load manure into approved structure or land apply manure and contaminated soils
- 5.1.2.3 Contain the spill in the road ditch before it can enter surface water.

5.2 Report the Spill

- WDNR has a 24-hour toll free number for reporting spills: 800-943-0003


Signature: Dennis Hawkins


Date

Attachment A Operation and Maintenance Plan

Attachment: (I) Attachment A - Operation & Maintenance Plan (6611 : 2021-0009 Solhawk Dairy, Inc - Conditional Use Request)

Operation and Maintenance Plan Solhawk Dairy, Inc. 2021 Barn Expansion

1.0 Contact Information

Location: NE¼ of Section 20, T28N, R9W
Town of Wheaton
Chippewa County, Wisconsin

Contact: 8544 County Highway X
Chippewa Falls, WI 54729
Dennis Hawkins

Plan Prepared by: Auth Consulting/associates, Inc. (AC/a, Inc.)
406 Technology Drive East, Suite A
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No modifications will be made to the function of the existing waste transfer system. A series of waterways and stormwater ponds shall be constructed to divert clean water around the site and allow for a borrow site for the proposed expansion fill material.

3.2 Existing Waste Storage

The existing waste storage facilities will provide approximately 236 days/8 months of storage for the manure, precipitation, freeboard and feed pad runoff according to NRCS Code 313 – "Waste Storage Facility". Using NRCS figures for manure production, the volume of storage required for the proposed operation is shown below, and assumes that the contents of the waste storage lagoons will be partially or entirely emptied every 8 months and field spread according to a nutrient management plan prepared to conform to the requirements of the NRCS Code 590 – "Nutrient Management". The existing concrete liner was designed to allow heavy equipment to clean the solids remaining in the pond when emptied.

Liquids Collected/Stored	Annual Gallons
Manure and Bedding	27,892,519
Parlor Wastewater	4,927,500
Feed Storage Leachate	261,800
Feed Storage Runoff Collected *	3,947,921
Feedlot Runoff**	0
Net Precipitation on Storage Surface(s) **	3,273,805
Stacking Pad Runoff Collected*	0
Offsite Waste	
Other	
Other	
Other	
Other	
Other	
TOTAL:	40,303,545

Waste Storage	Total Vol. from Settled Top to Bottom	-Solids Storage	-25-yr, 24-hr Precip. on Storage	25-yr, 24-hr Collected Runoff ***	-Freeboard Vol.	Max. Operating Level (MOL) Vol.
#1	7,693,928	0	251,047	603,196	592,790	6,246,896
#2	1,607,377	84,599	34,333	0	84,599	1,403,847
#3	20,518,879	426,553	498,466	0	1,207,586	18,386,274
#4	0	0	0	0	0	0
#5	0	0	0	0	0	0
#6						0
Total MOL Vol:						26,037,016
Days of Storage:						236
Meets Days of Storage Criteria:						YES

4.0 System Operation and Maintenance

The following operation and maintenance procedures must be followed to ensure safe and proper operation of the facility over the life of this facility. The lifespan of the proposed transfer system is approximately 15 years with routine preventative maintenance.

4.1 Waste Transfer

- Maintain level control floats at appropriate levels in the tank, approximately 1 foot up from the bottom of the tank, and 1.5 feet from the top of the tank.
- Inspect the waste transfer facility periodically. Inspect the covers and grates at every emptying cycle. Replace any covers and grates that are no longer serviceable due to wear and/or corrosion. Inspect safety shields to ensure that they are securely in-place.
- Repair damage components to original design conditions as soon as possible.
- Maintain pumps, agitators, piping, valves, controls or automation components, and electrical and mechanical equipment in good operating condition following the manufacturer's recommendations.
- Pump operation and maintenance shall be performed in accordance with manufacturer's recommendations as shown in attached documentation.
- Maintain necessary safety features. This includes proper fencing, warning signs, stop blocks, guardrails, covers, and similar items, see "Safety Around Waste Storage Structures". All ports to the tank must have a cover capable of safely supporting the loads described in ASAE EP 378.3. Grates shall have maximum sized openings that will not pass a six (6) inch diameter sphere. However, it is recommended that grate opening wider than two (2) inches be protected from livestock and human traffic with guardrails. A gate system shall be available to allow the blocking off of the access ports to prevent accidental entry by humans, machines, and animals during scraping or other maintenance. Once the reception pits are put into operation, **under no circumstances shall any person enter the transfer pit**, except trained personnel equipped with breathing apparatus.

4.2 Existing Waste Storage

- Maintain necessary safety features including proper fencing, warning signs, stop blocks, guardrails, covers and similar items.
- Do not fill above the maximum operating level (MOL) as marked.
- If liquid level reaches the MOL the landowner will pump material from the structure to maintain an operating level below the MOL.
- Follow the schedule for emptying the structure including removal of accumulated solids.

- Eradicate or otherwise remove all rodents or burrowing animals and repair damage caused by their activity.
- Inspect the concrete ANNUALLY for signs of significant damage including weathering, curling, significant cracks or exposed rebar. Repair damaged areas to restore concrete/soil composite liner to design conditions.
- “Do not enter an under-floor (underground) covered storage or pumping station without using the proper respirator equipment. In addition, these safety practices are needed: (a) Shut off any manure pumps, (b) ventilate storage or pumping station at the maximum rate, (c) test the storage or station air for O₂ level and toxic gas levels, (d) attach a safety harness and rope to the working person with at least one person standing by to help with a mechanical retrieval device, and (e) have on hand an extra set of proper respirator equipment for the person standing by.”
- Fatal or serious **inhalation hazards** of gases including hydrogen sulfide (H₂S), carbon dioxide (CO₂), methane (CH₄), and ammonia (NH₃) may exist where manure gases are generated through the handling of liquid or semi-solid manure through activities such as pumping, mixing, agitating, spreading, or cleaning-out.
- Agitating open air manure storage facilities can be especially hazardous when high humidity and low winds may cause hydrogen sulfide gas to reside near the storage.
- Use gas detection monitors to provide warnings of unsafe conditions

5.0 Emergency Response Plan

Clean up manure spills promptly and spread manure according to your 590 plan. If the manure storage facility begins to overflow, clean up the overflow and implement the contingency plan immediately (see below). Contact the local Land Conservation District (715-726-7920) and the local WDNR office Spill Hotline (1-800-943-0003) for any additional technical assistance that might be needed for implementation of this operation and maintenance plan for the structure.

5.1 Contingency Plan in the Event of a Spill

5.1.1 Manure spill on farmstead or downslope from manure storage facility

- 5.1.1.1 Contain spills by all means possible including blocking culverts, excavating or berming temporary storage locations and grading diversions to direct to temporary containment areas before it can enter surface water.
- 5.1.1.2 Prevent manure spill from entering road ditches or otherwise leaving the site.
- 5.1.1.3 Pump or load manure into approved structure or land apply manure and contaminated soils

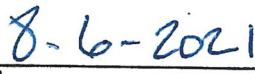
5.1.2 Manure spill on road

- 5.1.2.1 Contain spills by blocking culverts or grading berms and diversions
- 5.1.2.2 Pump or load manure into approved structure or land apply manure and contaminated soils
- 5.1.2.3 Contain the spill in the road ditch before it can enter surface water.

5.2 Report the Spill

- WDNR has a 24-hour toll free number for reporting spills: 800-943-0003


Signature: Dennis Hawkins


Date

Attachment C Construction Inspection Plan

Attachment: (K) Attachment C - Construction Inspection Plan (6611 : 2021-0009 Solhawk Dairy, Inc - Conditional Use Request)

Construction Inspection Plan Solhawk Dairy, Inc. 2021 Barn Expansion

1.0 Contact Information

Location: NE¼ of Section 20, T28N, R9W
Town of Wheaton
Chippewa County, Wisconsin

Contact: 8544 County Highway X
Chippewa Falls, WI 54729
Dennis Hawkins

Plan Prepared by: Auth Consulting/associates, Inc. (AC/a, Inc.)
406 Technology Drive East, Suite A
Menomonie, Wisconsin 54751-2768
David McDaniel, P.E.
715-232-8490

2.0 Background

This construction inspection plan together with the attached drawings and specifications sets forth the requirements for the installation of a waste transfer system for Solhawk Dairy. The project shall be constructed at the locations and to the lines and grades as shown on the enclosed drawings. The project includes the following components:

- A proposed freestall barn/holding area/parlor (321.0' x 476.0'). A vacuum truck will be used to collect and transfer waste from the proposed freestall barn to the existing waste storage facilities.
- W20000 Wieser precast waste transfer tank.
- 24" HDPE dual wall transfer pipe (ASTM F2306) to collect waste from the holding area and transfer it by gravity to the Wieser precast tank.
- 20HP flush pump connected to a 12" PE (ASTM 714 DR17) waste transfer pipe that shall be connected to the existing waste transfer system.

3.0 Responsibilities

3.1 Owner/Operator (*Solhawk Dairy*)

The owner/operator is the official spokesman for this project. Responsibilities include plan review and acceptance. He is also responsible to obtain all permits, provide site access and ensure construction is in accordance with the requirements as set forth in the plans. The owner/operator is financially responsible and is the sole person who can authorize any changes during construction that incur financial obligations.

3.2 Engineer (*Auth Consulting & Associates*)

The engineer (AC/a) has authority to observe construction and make necessary tests to document that work is in compliance with the construction plan. The engineer reviews proposed construction changes and assists owner/operator in evaluating proposed changes prior to owner/operator approval. The engineer maintains a job diary and prepares as-built drawings upon completion for submittal to regulatory personnel upon completion of construction.

3.3 Contractor (*Komro Sales & Services*)

The contractor has a contractual agreement with the owner/operator for completion of the project. The contractor shall not make changes to the construction plan without owner/operator approval. The contractor shall comply with all applicable permits and conduct the work in a safe manner. The contractor shall notify AC/a personnel of upcoming construction activities that require inspection.

4.0 Statement of Qualifications

AC/a will provide qualified staff to observe placement of fill material, concrete liner, and drain tile system in accordance with attached specifications. AC/a has completed construction observation on numerous projects of similar size and scope. AC/a staff performing the observation will be PEs or under the direction of a PE.

5.0 Construction Specifications

Construction specifications provide the minimum acceptable quality of work and materials for the project. The specifications may also reference a commercial standard such as the American Society of Testing Materials (ASTM) which identifies industry standard materials. If a conflict arises between the drawings and specifications, the specification governs the work and/or material. The following specifications are referenced as part of this plan.

Table 1-NRCS Construction Specifications

Number	Construction Specification	Responsible Agency or Discipline	Current Date
2	Excavation	NRCS-ENG	May 2018
3	Earthfill	NRCS-ENG	May 2020
204	Earthfill for Waste Storage Facilities	NRCS-ENG	September 2018
634	Waste Transfer Pipe	NRCS-ENG	August 2016

6.0 Documentation of Construction

The DNR and Chippewa County requires that a Final Inspection Report be submitted by the project engineer upon completion of construction. The report shall indicate that the structure(s) have been constructed according to NRCS Technical Standards and identify field modifications to the approved plans. AC/a will document activities at the construction site with photographs and field notes. Critical points during construction and required documentation are identified below.

Date and initial all documentation and keep in construction file.

PRECONSTRUCTION MEETING

- ☐ Establish pre-construction conference and notify all participants. (Owner, AC/a, Contractors and any county agencies concerned with project). Review plans, specifications and inspection plan, Address questions. Discuss anticipated schedules. Record names of individuals and companies present.

	Name	Company/Title	Phone
Attendee:			
Attendee:			
Attendee:			
Attendee:			
Attendee:			
Attendee:			

- ☐ Verify that the landowner or contractor notified all utilities prior to construction. Document Diggers Hotline Ticket Number

- ☐ Inspection services are to be provided under the direct supervision of the Project Engineer.

- ☐ Provide photo documentation throughout the construction process.

MATERIAL INSPECTION

- ☐ 24" HDPE dual wall corrugated transfer pipe (ASTM F2306)

- ☐ 12" PE waste transfer pipe (ASTM F2306 DR17)

- ☐ W2000 Wieser Precast Tank

EARTHWORK

- ☐ Prior to the commencing of earthwork all erosion control practices shall be in place in accordance with the approved WI DNR stormwater plan. Assure silt fence remains in place and in good condition throughout the project. Erosion control practices shall follow the requirements set forth in the WI NRCS 570 – Stormwater Runoff Control

- ☐ Upon completion of any disturbed areas the final grades shall be seeded and mulched in accordance with WI NRCS 342 – Seeding and WI NRCS 484 - Mulching

- ☐ As-built survey will be performed in order to insure compliance with plans.

EARTH FILL

- ☐ Document method of fill placement. Lift thickness, number of passes, and equipment used to compact lift. Check that method is specified in Table 1 of the Earth Fill for Waste Storage Specification #204. Document method of compaction.

- ☐ Survey cross-section and profile to document final lines and grades.

TRANSFER SYSTEM

- ☐ Document proper handling and storage of pipe in accordance with NRCS Spec 634.

- ☐ Verify contractor method to place pipe to lines and grades shown in plans and according to requirements of NRCS Spec 634.

- ☐ Verify bedding of pipe including materials and methods used to meet NRCS spec 634.

- ☐ Document placement of thrust blocks. Date completed.

- ☐ Document pipe backfill material and compaction method.

- ☐ Verify pump in waste transfer tank is securely mounted

- ☐ Verify pressure testing at 5.6 psi on the 12" HDPE (DR17) waste transfer pipe.

- ☐ Gradually pressurize the waste transfer pipe with water to 15.6 psi and let sit for three hours. Continue to pressurize with water as necessary to maintain 15.6 psi. for the three hours.
- ☐ After the three hour expansion phase reduce the pressure to the testing pressure of 5.6psi. and document the time. Do not add water during the testing phase.
- ☐ If after one hour the pressure has not dropped below 5.32 psi. the pipe is considered acceptable. Document end time of test.
- ☐ If the pressure dropped below 5.32 psi. find the leak and fix. Once the leak has been fixed, repeat the pressure test.
- ☐ Once the test has passed, gradually depressurize the pipe and dispose of the water.

CERTIFICATION

- ☐ Construction documents, including as-built plans, all supporting documentation detailed in this inspection plan, and a job diary providing a chronological record of work performed, shall be submitted to governing regulatory agencies upon project completion.

Attachment D Soil Information

Attachment: (L) Attachment D - Soil Information (6611 : 2021-0009 Solhawk Dairry, Inc - Conditional Use Request)

Soil Investigation Log

Date: 4/23/2021 Surface Elevation: 903.2

Landowner: Solhawk Dairy Obs Water Depth: >12'

County: Chippewa Depth to Bedrock: >12'

Logged By: JVF Karst Features w/in 1000': >1000'

Test Pit #: TP3 Landscape Position: Crop Field

Hor.	Depth	Elevation	Symbol (i.e.-ML)	Name (silt)	% B >12"	% C <12"	% G <3"	% S <1/4"	Fines P200	PI	Dominant Color & %	Redox/Mottles Color & %	Moisture	Consistency	Structure	Comments	Sample #
1	0 - 1.5	901.7	ML	Silt	--	--	--	20%	80%	NP	7.5YR 3/2	--	Moist	Soft	Laminated	Top Soil	--
2	1.5 - 3.0	900.2	Sand w/ Silt	Sand	--	--	--	90%	10%	NP	7.5YR 5/6	--	Moist	Firm	Granular	--	--
3	3.0 - 13.0	890.2	SP	Sand	--	--	--	95%	5%	NP	7.5YR 5/8	--	Moist	Firm	Granular	--	--
4	-																
5	-																
6	-																
7	-																
8	-																

Notes:

Soil Investigation Log

Date: 4/23/2021 Surface Elevation: 903.9

Landowner: Solhawk Dairy Obs Water Depth: >12'

County: Chippewa Depth to Bedrock: >12'

Logged By: JVF Karst Features w/in 1000': >1000'

Test Pit #: TP4 Landscape Position: Crop Field

Hor.	Depth	Elevation	Symbol (i.e.-ML)	Name (silt)	% B >12"	% C <12"	% G <3"	% S <1/4"	Fines P200	PI	Dominant Color & %	Redox/Mottles Color & %	Moisture	Consistency	Structure	Comments	Sample #
1	0 - 2.0	901.9	ML	Silt	--	--	--	20%	80%	NP	7.5YR 3/2	--	Moist	Soft	Laminated	Top Soil	--
2	2.0 - 3.5	900.4	Sand w/ Silt	Sand	--	--	--	90%	10%	NP	7.5YR 5/6	--	Moist	Firm	Granular	--	--
3	3.5 - 14.0	888.9	SP	Sand	--	--	--	95%	5%	NP	7.5YR 5/6	--	Moist	Firm	Granular	--	--
4	-																
5	-																
6	-																
7	-																
8	-																

Notes:

Soil Investigation Log

Date: 4/23/2021 Surface Elevation: 902.9

Landowner: Solhawk Dairy Obs Water Depth: >7'

County: Chippewa Depth to Bedrock: >7'

Logged By: JVF Karst Features w/in 1000': >1000'

Test Pit #: TP5 Landscape Position: Crop Field

Hor.	Depth	Symbol (i.e.-ML)	Name (silt)	% B >12"	% C <12"	% G <3"	% S <1/4"	Fines P200	PI	Dominant Color & %	Redox/Mottles Color & %	Moisture	Consistency	Structure	Comments	Sample #
1	0 - 2.0	ML	Silt	--	--	--	20%	80%	NP	7.5YR 3/2	--	Moist	Soft	Laminated	Top Soil	--
2	2.0 - 7.0	SP	Sand	--	--	--	90%	10%	NP	7.5YR 5/8	--	Moist	Firm	Granular	--	--
3	-															
4	-															
5	-															
6	-															
7	-															
8	-															

Notes:

Soil Investigation Log

Date: 4/23/2021 Surface Elevation: 902.2

Landowner: Solhawk Dairy Obs Water Depth: >7'

County: Chippewa Depth to Bedrock: >7'

Logged By: JVF Karst Features w/in 1000': >1000'

Test Pit #: TP6 Landscape Position: Crop Field

Hor.	Depth	Symbol (i.e.-ML)	Name (silt)	% B >12"	% C <12"	% G <3"	% S <1/4"	Fines P200	PI	Dominant Color & %	Redox/Mottles Color & %	Moisture	Consistency	Structure	Comments	Sample #
1	0 - 2.5	ML	Silt	--	--	--	20%	80%	NP	7.5YR 3/2	--	Moist	Soft	Laminated	Top Soil	--
2	2.5 - 7.0	SP	Sand	--	--	--	90%	10%	NP	7.5YR 5/8	--	Moist	Firm	Granular	--	--
3																
4	-															
5	-															
6	-															
7	-															
8	-															

Notes:

Attachment E

NRCS Construction Specifications

2-Excavation (May 2018)
3-Earthfill (May 2020)
204-Earthfill for Waste Storage Facilities (September 2018)
634-Waste Transfer Pipe (August 2016)

Attachment: (M) NRCS Construction Specifications (6611 : 2021-0009 Solhawk Dairy, Inc - Conditional Use Request)

Construction Specification 002 Excavation

SCOPE

The work shall consist of the excavation of all materials necessary for the construction of the work.

USE OF EXCAVATED MATERIALS

To the extent that they are needed, all suitable materials removed from the specified excavations shall be used in the construction of the required earthfill. The suitability of materials for specific purposes will be determined by the Technician. The Contractor shall not waste or otherwise dispose of suitable excavated materials.

DISPOSAL OF WASTE MATERIALS

All surplus or unsuitable excavated materials will be designated as waste and shall be disposed of at the locations shown on the drawings or as approved by the Technician. Waste materials shall not be placed in wetlands or regulated floodplains.

Material placed in designated waste disposal areas shall be left in a slightly condition and sloped to provide positive drainage. Compaction of the waste materials will not be required unless specified by the construction plans.

Waste material excavated from channels may be deposited in leveled spoilbanks or areas adjacent to the channel work (if permissible). The shape and slopes of the spoilbanks shall be indicated on the drawings or as approved by the Technician. Spoil piles shall be located a minimum of 12 feet from the top of the channel side slope.

Spoil piles or disposal areas shall be protected to minimize site erosion and the production of sediment. Protective measures may include but are not limited to diversions, seeding, mulching, sediment basins, and silt fences.

SPECIAL REQUIREMENTS FOR STRUCTURE AND TRENCH EXCAVATION

The required dimensions and side slopes of all structure and trench excavations shall be as shown on the drawings.

Excavation beyond the limits of the specified lines and grades shall be corrected by filling the resulting voids with approved compacted materials.

Excavation for the installation of pipes shall follow the practices contained in the Occupational Safety and Health Administration (OSHA) Subpart P, Excavation, of 29 CFR 1926.650, .651 and

.652.

Side slopes shall be excavated or braced to safeguard the work and workers. When bracing or supporting is required, the width of the excavation shall be adjusted to allow for the space occupied by the sheeting, bracing, or other supporting installations. The Contractor shall furnish, place, and subsequently remove such supporting installations.

REMOVAL OF WATER

The Contractor shall construct and maintain all necessary cofferdams, channels, flumes, pumping equipment, and/or other temporary diversion and protective work for dewatering the various parts of the work. Foundations, cutoff trenches, and other parts of the work shall be maintained free from water as required for constructing each part of the work. After having served their purpose, all cofferdams and other temporary protective works shall be removed or leveled to give a slightly appearance and so as not to interfere in any way with the operation, usefulness, or stability of the permanent structure.

BORROW EXCAVATION

When the quantities of suitable materials obtained from specified excavations are insufficient to construct the specified fill portions of the permanent works, additional materials shall be obtained from the designated borrow areas.

When shown on the drawings, sediment basins, terraces, diversions, or other measures shall be constructed to protect the borrow areas from erosion and retain sediment within the borrow area.

The upper six (6) inches of soil shall be stripped from all borrow areas. This stripping shall be performed immediately prior to use of the borrow material to reduce the time the area is exposed to erosion. For large borrow areas, only a portion of the area should be stripped at a time. This material shall be redistributed over the area from which it came after borrow excavation is completed.

The extent of excavation and the selection of materials from the borrow area shall be as directed by the Technician. On completion of excavation, all borrow areas shall be left in a sightly condition. All borrow areas shall be graded to blend with existing topography and sloped to prevent ponding and provide positive drainage.

Specific Site Requirements



Construction Specification 003 Earthfill

SCOPE

The work consists of the construction of embankments, other earthfills, and earth backfills required by the drawings and specifications. This specification does not apply to the earthfill required for waste storage facilities.

Earthfill is composed of natural earth materials that can be placed and compacted by construction equipment operated in a conventional manner.

Earth backfill is composed of natural earth material placed and compacted in confined spaces or adjacent to structures (including pipes) by hand tamping, manually directed power tampers or vibrating plates, or their equivalent.

MATERIALS

All fill materials shall be obtained from required excavations and designated borrow areas. The selection, blending, routing, and disposition of materials in the various fills shall be subject to approval by the Technician.

Fill materials shall contain no sod, brush, roots, frozen soil, or other perishable materials. Stones larger than two-thirds of the uncompacted layer thickness or as otherwise specified in the gradation requirements in the plans or specifications shall be removed from the materials prior to compaction of the fill.

FOUNDATION PREPARATION

The foundation area shall be cleared of trees, stumps, roots, brush, rubbish, and stones having a maximum dimension greater than six (6) inches. Foundations shall be stripped to remove vegetation and other unsuitable materials or to the depth shown on the drawings, whichever is greater. Topsoil shall be stripped from the foundation area and stockpiled for use as a top dressing for vegetation establishment unless otherwise shown on the drawings.

Earth foundations shall be graded to remove surface irregularities and slopes steeper than 1:1.

The foundation surfaces shall be scarified parallel to the centerline of the fill to a minimum depth of 2 inches. The surface materials of the foundation shall be compacted and bonded with the first layer of earthfill. The moisture content of the scarified materials shall be maintained as specified for the earthfill.

Earth abutment surfaces shall be free of loose, uncompacted earth in excess of 2 inches in depth normal to the slope and shall be at such a moisture content that the earthfill can be compacted against them to produce a good bond between the earthfill and the abutments.

Rock foundation and abutment surfaces shall be cleared of all loose material by hand or other effective means and shall be free of standing water when earthfill is placed upon them. Occasional rock outcrops in earth foundations for earthfill, except in dams and other structures designed to restrain the movement of water, shall not require special treatment if they do not interfere with compaction of the foundation and initial layers of the earthfill or the bond between the foundation and the fill.

Foundation and abutment surfaces shall be no steeper than one horizontal to one vertical unless otherwise specified. Test pits or other cavities shall be filled with compacted earthfill conforming to the specifications for the earthfill to be placed upon the foundation.

PLACEMENT

Earthfill shall not be placed until the required excavation and foundation preparation is completed and inspected and approved by the Technician. Earthfill shall not be placed upon a frozen surface nor shall snow, ice, or frozen material be incorporated in the earthfill matrix.

Earthfill shall be placed in approximately horizontal layers beginning at the lowest elevation of the foundation. The thickness of each layer of fill prior to compaction shall be as indicated on the drawings.

In the absence of this information on the drawings, follow the guidance in Table 1. Materials placed by dumping in piles or windrows shall be spread uniformly to not more than the specified layer thickness prior to compaction.

Adjacent to structures, earthfill shall be placed in 4-inch lifts (prior to compaction) in a manner adequate to prevent damage to the structure and to allow the structure to gradually and uniformly assume the backfill loads. The height of the earthfill shall be increased at approximately the same rate on all sides of the structure.

Placement of earthfill adjacent to concrete structures may begin after the concrete has cured for the minimum time specified in the Concrete specification.

Earthfill in dams, levees, and other structures designed to restrain the movement of water shall be placed to meet the following additional requirements:

1. The distribution of materials throughout each zone shall be essentially uniform, and the earthfill shall be free from lenses, pockets, streaks, or layers of material differing substantially in texture, moisture content, or gradation from the surrounding material. Zone earthfills shall be constructed concurrently unless otherwise specified.
2. The embankment top shall be maintained approximately level during construction with three exceptions: 1) A crown or cross-slope of about 2 percent shall be maintained to ensure effective drainage, 2) or as otherwise specified for drainfill, 3) or as otherwise specified for sectional (or phase) construction as described in (5) below.
3. Dam embankments shall be constructed in continuous layers from abutment to abutment, except where openings to facilitate construction or to allow passage of stream flow during construction are specified.
4. If the surface of any layer becomes too hard and smooth to achieve a suitable bond with the succeeding layer, it shall be scarified parallel to the axis of the earthfill to a depth of not less than 2 inches before the next layer is placed.
5. When sectional (or phase) construction of embankments is authorized, the work shall be accomplished in the following manner:
 - Each section of the embankment that is constructed in the first phase shall be so placed that a slope not steeper than 3 feet horizontal to 1 foot vertical is maintained at the end of the embankment section adjacent to the gap in construction or closure section.
 - Prior to placement of the closure sections, the surfaces of completed earthfills and excavations that will be in contact with the closure shall be stripped of all loose material, scarified, moistened, and recompacted as necessary when the new earthfill is placed against it. This ensures a good bond with the new earthfill and obtains the specified moisture content and density at the contact of the in-place and new earthfills.

CONTROL OF MOISTURE CONTENT

During placement and compaction of earthfill or earth backfill, the moisture content shall be as specified on the drawings or supplemental specifications. If this information is not included on the drawings or supplemental specifications, the earthfill or earth backfill shall have a moisture content sufficient to insure the required compaction. When kneaded in the hand, the soil will form a ball which does not readily separate and will not extrude out of the hand when squeezed tightly. The adequacy of the moisture content will be determined by the Technician.

Earthfill material or the top surface of the preceding layer of compacted earthfill that becomes too dry to permit suitable bond shall either be removed or scarified and wetted by sprinkling to an acceptable moisture content prior to placement of the next layer of earthfill. Uniform moisture distribution shall be obtained by disking prior to compaction.

Earthfill material that is too wet when deposited or the top surface of the preceding layer of compacted earthfill becomes too wet shall be either removed or allowed to dry to an acceptable moisture content before compaction or placing additional layers of earthfill.

COMPACTION

The Contractor shall furnish and operate the types and kinds of equipment necessary to compact the earthfill materials.

Unless otherwise specified on the plans or supplemental specifications, compaction requirements for each layer of earthfill material are as shown in Table 1 or by an approved equivalent method. The Technician shall determine the adequacy of compaction. Equipment passes in addition to those shown in Table 1 may be required.

Each pass shall consist of at least one complete coverage by the wheel, track, or roller over the entire surface of the earthfill layer in a direction parallel to the main axis of the earthfill.

Earth backfill—Earth backfill adjacent to structures shall be compacted to a density equivalent to that of the surrounding in-place earth material or to the adjacent required earthfill or earth backfill requirements. Compaction shall be accomplished by hand tamping or manually directed power tampers, plate vibrators, walk-behind, miniature, or self-propelled rollers. Unless otherwise specified heavy equipment including backhoe mounted power tampers or vibrating compactors and manually directed vibrating rollers shall not be operated within 3 feet of any structure. Towed or self-propelled vibrating rollers shall not be operated within 5 feet of any structure. Compaction by means of drop weights operating from a crane or hoist is not permitted.

The passage of heavy equipment will not be allowed:

- Over cast-in-place conduits within 14-days after placement of the concrete.
- Over cradled or bedded precast conduits within 7 days after placement of the concrete cradle or bedding.
- Over any type of conduit until the backfill has been placed above the top surface of the structure to a height equal to one-half the clear span width of the structure or pipe or 3 feet, whichever is greater, except as may be specified on the drawings.

Compacting of earth backfill adjacent to structures shall not be started until the concrete has attained the specified strength or has attained the curing period as specified in [Wisconsin Construction Specification 4-Concrete](#).

REWORKING OR REMOVAL AND REPLACEMENT OF DEFECTIVE EARTHFILL

Earthfill placed at densities lower than the specified minimum density or at moisture contents outside the specified acceptable range of moisture content or otherwise not conforming to the requirements of the specifications shall be reworked to meet the requirements or removed and replaced by acceptable earthfill. The replacement earthfill and the foundation, abutment, and earthfill surfaces upon which it is placed shall conform to all requirements of this specification for foundation preparation, approval, placement, moisture control, and compaction.

Table 1. Equipment Compaction Requirements

Equipment Type	Applicable Soils ¹	Maximum Fill Height ² (feet)	Layer Thickness ³ (inches)	Minimum Passes
Sheepsfoot roller (10,000 lb. min. operating weight)	ML, MH, CL, CH or SM, SC, GM, GC with >20% fines	None	9	1
Vibratory tamping roller (9,000 lb. min. operating weight)	SM, SC, GM, GC	None	9	2

Equipment Type		Applicable Soils ¹	Maximum Fill Height ² (feet)	Layer Thickness ³ (inches)	Minimum Passes
Rubber-tired scraper or articulated haul truck (fully loaded)		GM, GC, SM, SC, ML, MH, CL, CH	None	9	1
Rubber-tired front end loader (fully loaded)		GM, GC, SM, SC, ML, MH, CL, CH	20	6	1
Track-type crawler (standard tracks)	30,000 lb. min.	GM, GC, SM, SC, ML, CL	10 ^{**}	6	2
		SP, SW, GP, GW	6 ^{**}	12	4
		CL, ML, SC, SM	15 ^{##}	3	2
	less than 30,000 lb.	GM, GC, GP, GW, SM, SC, SP, SW, ML, CL	6 ^{**}	6	2
Farm tractor (2,400 lb. min.)		GM, GC, SM, SC, ML, MH, CL, CH	15	6	2
Smooth steel drum vibratory roller (10,000 lb. min.)		SP, SW, GP, GW	None ^{**}	12	2
¹ Unified Soil Classification System. ² Measured from the top of the fill to the lowest point along the centerline of the fill. ³ Prior to Compaction. ^{**} The fill shall not have a permanent body of water stored against it. ^{##} This method may only be used for embankments that will not have the potential for a permanent body of water stored against it that is greater than 1/4 acre in surface area or more than 6 feet deep.					

Specific Site Requirements

Construction Specification 204 Earthfill for Waste Storage Facilities

SCOPE

The work shall consist of all operations necessary to place the earthfill or soil liner required by the drawings or directed by the Technician.

MATERIALS

All fill materials shall be obtained from required excavations and designated borrow areas. The selection, blending, routing, and disposition of materials shall be subject to approval by the Technician.

Fill materials shall contain no sod, brush, roots, frozen soil, or other perishable materials. Stones larger than two-thirds of the uncompacted layer thickness shall be removed from the materials prior to compaction. Additional soil properties are shown on the drawings.

Sand and gravel fill required below concrete footings and floor slabs as indicated on any Wisconsin Standard Drawings shall consist of either in place or imported granular soils. These granular soils shall contain no rocks greater than 4" in maximum dimension and be reasonably well graded such that the surface is firm once wetted and compacted. The material shall have no more than 15%, by weight, passing the Number 200 sieve size.

Foundry sand shall be ferrous foundry sand with minimal concentrations of hazardous constituents, cores and other over-sized materials crushed or removed, and contain at least 5% bentonite.

GENERAL

Construction operations shall be carried out in such a manner and sequence that erosion and air and water pollution will be minimized. The completed job shall present a professional appearance and shall conform to the lines, grades, and elevations as shown on the drawings or as staked in the field. All operations shall be carried out in a safe and skillful manner. Safety and health regulations shall be observed and appropriate safety measures used by the contractor.

measures used by the contractor.

FOUNDATION PREPARATION

The foundation area shall be cleared of trees, stumps, roots, brush, rubbish, frozen soil, and stones having a maximum dimension greater than 6 inches. Foundations shall be stripped to remove vegetation and other unsuitable materials to a minimum depth of 6 inches or to a greater depth if so shown on the drawings. Topsoil shall be stripped from the foundation area and stockpiled for use as a top dressing for vegetation establishment unless otherwise shown on the drawings.

The moisture content of the scarified foundation materials shall be maintained as specified for the earthfill in Section 7. The surface materials of the foundation shall be compacted and bonded with the first layer of earthfill as specified for subsequent layers of earthfill.

EXCAVATION

The required excavations shall conform to the lines, grades, and elevations as shown on the drawings. Excavation beyond specified limits shall be corrected by filling with approved compacted materials.

The required dimensions and side slopes of all structure and trench excavations shall be as shown on the drawings. Trenches deeper than 4 feet shall have side slopes above the 4-foot depth excavated at 0.5:1 or flatter depending on the materials being excavated or the trench shall be braced to safeguard the work and workers. When backfilling pipe trenches in the waste storage facility embankment, the trench slopes shall be cut back to 1:1 from 12 inches above the top of the pipe. The backfill material and compaction shall be equivalent to the surrounding embankment.

To the extent that they are needed, all suitable materials removed from the specified excavations shall be used in the construction of the required earthfill or soil liner. The suitability of materials for specific purposes will be determined by the Technician.

All surplus or unsuitable excavated materials shall be disposed of at the locations shown on the drawings or as approved by the Technician. Surplus materials shall not be placed in wetlands.

BORROW AREAS

When the quantities of suitable materials obtained from specified excavations are insufficient to construct the specified fill portions of the permanent works, additional materials shall be obtained from the designated borrow areas. The borrow area shall be stripped to remove vegetation or other unsuitable materials to a minimum depth of 6 inches or to the depth shown on the drawings. This stripping shall be performed immediately prior to use of the borrow material to reduce the time the area is exposed to erosion. For large borrow areas, only a portion of the area should be stripped at a time.

FILL MOISTURE CONTENT

Fill materials shall have a moisture content sufficient to insure the required compaction. When kneaded in the hand, the soil will form a ball which does not readily separate and will not extrude out of the hand when squeezed tightly. The adequacy of the moisture content will be determined by the Technician.

If the top surface of compacted fill is too dry to permit suitable bond, it shall either be removed or scarified and wetted by sprinkling to an acceptable moisture content prior to placement of the next layer of fill. The applied water must be allowed time to be absorbed by the fill or disked into the dry layer.

Fill material that is too wet shall be allowed to dry to an acceptable moisture content before placement. If the top surface of compacted fill is too wet, it shall be either removed or allowed to dry to an acceptable moisture content before compaction or placing additional layers of fill.

FILL PLACEMENT

Fill shall not be placed until the required excavation and preparation of the underlying foundation is completed and approved by the Technician. Fill shall be placed beginning at the lowest elevation of the foundation. No fill shall be placed on a frozen surface.

If the surface of any layer becomes too hard and smooth for proper bond with the succeeding layer, it shall be scarified parallel to the axis of the fill to a depth of not less than 2 inches before the next layer is placed.

Available topsoil shall be placed on the top and the exposed outside slopes of the waste storage facility embankment, the borrow areas, and any other area where the topsoil was removed during construction and where vegetation will be established.

The pre-compacted thickness of each layer of fill and compaction requirements shall be as stated below unless otherwise specified in the construction plans. Materials placed by dumping in piles or windrows shall be spread uniformly to not more than the specified layer thickness prior to compaction. The Technician shall determine if adequate compaction is being achieved and may require more than the minimum specified passes of the compaction equipment.

1. Embankments. The fill shall be placed in horizontal layers extending the entire length and width of the embankment. Unless otherwise specified in the construction plans, compaction requirements shall be as shown in Table 1. Each layer shall be compacted by a minimum of one pass over the entire surface of the fill by the compaction equipment.
2. Adjacent to Structures and Pipes. Adjacent to structures or pipes, earthfill shall be placed in 4-inch lifts (prior to compaction) in a manner adequate to prevent damage to the structure and to allow the structure or pipe to gradually and uniformly assume the backfill loads. Compaction shall be accomplished by means of manually directed power tampers or plate vibrators or hand tamping unless otherwise specified. Heavy equipment shall not be operated within 2 feet of any structure or pipe. Compaction by means of drop weights operating from a crane or hoist of any type will not be permitted.

All intrusions into or penetrations of a clay or other soil liner will be backfilled with equivalent material and compacted to maintain its integrity. Pipe trenches into a storage facility will be backfilled with the same soils and compaction required for the storage facility for the distance shown on the drawings.

3. **Soil Liners.** A soil liner shall be installed as designated on the drawings. This work shall consist of constructing a low permeability earthliner for the inside slopes and the bottom of the earthen basin to the thickness shown on the drawings. It also includes the soil liner material placed in conjunction with other liner materials to form a composite liner as shown on the drawings. Only soils approved by the Technician will be used.

The soil liner fill shall be placed in layers with a maximum thickness of 6 inches prior to compaction. The liner material shall be disked or worked in such a manner as to obtain a maximum clod size of 4 inches prior to compaction. Each layer of liners that do not require a specified density shall be compacted by a minimum of one pass over the entire surface of the fill by a:

- Rubber-tired front end loader (fully-loaded); or
- Scraper (fully-loaded); or
- Articulated haul truck (fully-loaded); or
- Sheepsfoot; or Tamping roller

Smooth drum rollers are not suitable for compaction of fine-grained liners.

Operation of the compaction equipment will be continuous over the entire area during fill operations. Any liner area disturbed by subsequent construction operations will be scarified and recompact as specified.

4. **Small Areas of Unsuitable Materials.** Lenses or pockets of soil not meeting the criteria requirements in the applicable NRCS Standard or shown on the drawings, shall be removed and replaced with specified materials. The extent of removal and the quality of replacement materials will be as shown on the drawings or approved by the Technician. Excavated slopes shall be 1:1 or flatter. Replacement soil material placement, layer thickness, and compaction will be as stated for soil liners. Manually directed power tampers may be used for compaction and the soil shall be placed in 4-inch lifts prior to compaction.

Table 1 - Embankment Compaction Requirements

Equipment Type Thickness ³ Height ² (feet)	Applicable Soils ¹ (inches)	Maximum Fill	Layer
Sheepsfoot or tamping roller 10,000 lb. min. operating weight	ML, MH, CL, CH, SM, SC, GM, GC	None	9
Vibratory tamping roller 9,000 lb. min. operating weight	SM, SC, GM, GC	None	6
Smooth steel drum vibratory roller 10,000 lb. min.	SP, SW, GP GW	20	6
Rubber-tired scraper or articulated haul truck (fully loaded)	ML, MH, CL, CH SM, SC, GM, GC	None	9
Rubber-tired front end loader (fully loaded)	ML, MH, CL, CH SM, SC, GM, GC	20	6

Equipment Type Thickness ³ Height ² (feet)	Applicable Soils ¹ (inches)	Maximum Fill	Layer
Track-type crawler standard tracks 30,000 lb. min.	SM, SC, GM, GC, ML, CL, SP, SW, GP, GW	10	6
Farm tractor 2,400 lb. min.	ML, MH, CL, CH, SM, SC, GM, GC	15	6
¹ Unified Soil Classification System. ² Measured from the top of the fill to the lowest point along the centerline of the fill. ³ Prior to compaction.			

Specific Site Requirements

Construction Specification 634 Waste Transfer Pipe

SCOPE

The work shall consist of furnishing and installing waste transfer pipes, necessary fittings, and appurtenances as shown on the drawings.

MATERIALS

The pipe shall be homogeneous throughout and free from visible cracks, holes, foreign matter, or other defects. The pipe shall be as uniform in color, opacity, density, and other physical properties as is commercially practicable.

PVC pipe material shall be Type 1 (1120/1220) for pressure transfer systems. ABS pipe material shall be virgin plastic resin and meet ASTM D 3965. PE pipe material shall meet ASTM D 3350.

Pipes shall meet the criteria in Table 1. Pipes of equivalent strength, durability, and liquid tightness are acceptable. All pipe and fittings proposed for use shall be submitted for approval prior to installation.

Fittings and couplers shall meet or exceed the same strength requirements as those of the pipe. Standard manufactured pieces shall be used for angles required to make direction changes.

HANDLING AND STORAGE

Pipe shall be delivered to the job site and handled by means which provide adequate support to the pipe and does not subject it to undue stresses or damage. When handling and placing plastic pipe, care shall be taken to prevent impact blows, abrasion damage, and gouging or cutting. All special handling requirements of the manufacturer shall be strictly observed. Special care shall be taken to avoid impact when plastic pipe must be handled at temperatures of 40°F or less.

Pipe shall be stored on a relatively flat surface so that the barrels are evenly supported. Unless the pipe is specifically coated to withstand exposure to ultraviolet radiation, it shall be covered with an opaque material when stored outdoors for a period of 15 days or longer.

LAYING THE PIPE

The pipe shall be laid to the lines and grades as shown on the drawings. The pipe shall be laid so that there is no reversal of grade between joints, unless otherwise shown on the drawings. The pipe shall not be dropped or dumped on the bedding or into the pipe trench. The ground surface near the pipe trench shall be free of loose rocks and stones greater than 1 inch in diameter.

The pipe shall be laid starting from one end proceeding continuously upstream or downstream. The pipe shall not be laid at both ends and proceeding towards the middle.

Standard manufactured pieces shall be used for angles required to make direction changes. Directional pipe deflection shall be allowed in PVC and solid wall PE pipe per the manufacturer's allowable bend radius

Just before placement, each pipe section shall be inspected to ensure that all foreign material is removed from inside the pipe. The pipe ends and the couplings shall be free of foreign material when assembled. At the completion of a work shift, all open ends of the pipeline shall be temporarily closed off using a suitable cover or plug.

Care shall be taken to prevent distortion and damage to plastic pipe during unusually hot (over 90°F) or cold weather (under 40°F). After the pipe has been assembled in the trench, it shall be allowed to come within a few degrees of the ground temperature before backfilling to prevent pull out of joints due to thermal contraction.

Bell and spigot pipe should be laid with the bell pointed upstream. The pipe ends and couplings shall be free of foreign material when assembled.

The pipe shall be uniformly and continuously supported over its entire length on firm stable material. Blocking or mounding shall not be used to bring the pipe to final grade.

For pipe with bell joints, bell holes shall be excavated in the bedding material, as needed, to allow for unobstructed assembly of the joint and to permit the body of the pipe to be in contact with the bedding material throughout its length.

PIPE EMBEDMENT

Earth bedding – The pipe shall be firmly and uniformly placed on compacted earthfill bedding or an in-place earth material bedding of ample bearing strength to support the pipe without noticeable settlement. The earth material on which the pipe is placed shall be of uniform density to prevent differential settlement. Unless otherwise specified, a groove that closely conforms to the outside surface of the pipe shall be formed in the bedding. The depth of the groove shall be equal to or greater than 0.3 of the pipe diameter. Earth bedding shall be compacted to a density not less than adjacent undisturbed in-place earth material or be compacted earth backfill. Earthfill material used for compacted earth bedding shall be free of rocks or stones greater than 1 inch in diameter and earth clods greater than 2 inches in diameter. The pipe shall be loaded sufficiently during the compaction of bedding under the haunches and around the sides of the pipe to prevent displacement from its planned alignment. Pipe shall not be deformed to the extent that joint integrity is adversely impacted. Sand, gravel, or crushed rock bedding – When sand, gravel, or crushed rock bedding is specified, the pipe shall be firmly and uniformly placed on the bedding material. Material for bedding shall not exceed 1 inch in diameter. Unless otherwise shown on the drawings, the coarse-grained bedding material shall be carefully placed and compacted to a depth equal to or greater than 0.3 of the diameter of the pipe above the bottom of the pipe. The pipe shall be loaded sufficiently during backfilling and compaction around the sides to prevent displacement of the pipe from its final approved placement.

Pipe encased in drainfill – The pipe shall be firmly and uniformly placed on bedding of specified drainfill. Drainfill shall be placed and compacted as specified in NRCS FOTG Section IV, Wisconsin Construction Specification 8, or as shown on the drawings. The pipe shall be loaded sufficiently during backfilling around the sides and during compaction to prevent displacement of the pipe.

Pipe encased in concrete – Concrete encasement shall be carefully placed to form a continuous uniform support around the entire circumference of the pipe or as shown on the drawings. Pipes encased in concrete shall be securely anchored to prevent movement of the pipe during concrete placement. A clear distance of 1.5 inches shall be maintained between the pipe and any reinforcing steel.

LIQUID TIGHT PIPE PENETRATIONS

- Hydrophilic sealants (swell in contact with water) shall be non-bentonite.
- Sealant, grout, flexible connections, fitting, etc. used to seal pipe penetration joints between wall and pipe shall be liquid tight.
- Pipes shall be continuous through walls. (i.e. no pressure from pumps shall be exerted on penetration joints between wall and pipe.)
- Pipes at penetration joints shall be properly supported to prevent undue stress on the seal.
- Grouted joints shall be pinned, keyed, or otherwise attached to structure to prevent joint separation.
- Flexible connection systems shall be installed according to manufacturer's recommendations for the specific application.

BACKFILL

Initial backfill – Unless otherwise specified or shown on the drawings, initial backfill to 6 inches above the top of the conduit is required. Earth haunching and initial backfill material shall consist of soil material that is free of rocks, stones, or hard clods more than 1 inch in diameter. Coarse backfill material shall be the specified sand, gravel, crushed rock, or drainfill material.

Initial backfill shall be placed in two stages. In the first stage (haunching), backfill is placed to the center of the pipe. In the second stage, it is placed to 6 inches above the top of the pipe.

The first stage material shall be worked carefully under the haunches of the pipe to provide continuous support throughout the entire pipe length. The haunching backfill material shall be placed in layers that have a maximum thickness of about 6 inches and are compacted as shown on the drawings or as stated in the NRCS Wisconsin Construction Specification appropriate for the backfill material. During compaction operations, care shall be taken to ensure that the tamping or vibratory equipment does not come in contact with the pipe and the pipe is not deformed or displaced.

Final backfill – Final backfill shall consist of placing the remaining material required to complete the backfill from the top of the initial backfill to the ground surface, including mounding at the top of the trench. Final backfill material within 2 feet of the top of the pipe shall be free of debris or rocks larger than 3 inches nominal diameter. Coarse backfill material shall be the specified sand, gravel, crushed rock, or drainfill. Final backfill shall be placed in approximately uniform, compacted layers. Final backfill compaction and layer thickness requirements shall be as shown on the drawings or as stated in the NRCS Wisconsin Construction Specification appropriate for the backfill material.

PRESSURE TESTING

This pressure test procedure consists of filling, an initial expansion phase, a test phase, and depressurizing. Severe service transfer pipe shall be pressure tested in the following manner prior to being placed into service.

Before Pressure Testing

1. Solvent welded or heat fused joints of the assembled severe service transfer pipe shall be allowed to cure. Solvent-welded joints should be allowed to cure for a minimum of 24 hours, or more time if recommended by the glue manufacturer.
2. Severe service transfer pipe shall be flushed and cleaned.
3. All thrust control structures shall be in place, and all cast-in-place thrust blocks shall be allowed to cure according to one of the following options:
 - a. 3 days for early strength concrete (5,000 psi);
 - b. 7 days for normal strength concrete (3,500 psi); or
 - c. A strength of 500 psi is reached, with data that's field- or lab-verified to support.
4. Pipes shall be backfilled or otherwise restrained sufficiently along its length to anchor the pipe against movement during the pressure testing. The pipe shall also be braced and/or anchored at each end to prevent movement.
5. The ends of the pipe shall be plugged, and a pressure gauge shall be attached to the upstream and downstream ends. All high points along the severe service transfer pipe shall be vented to permit the complete removal of all air within the pipe.

Filling

Slowly fill the restrained test section completely with clear water. ***WARNING – Ensure that there is no air trapped in the test section. Failure to remove entrapped air can cause explosive release resulting in death or serious bodily injury. Use equipment vents at high points to remove air.***

Initial Expansion Phase

Gradually pressurize the test section with water to the working pressure (as specified in the construction plans) plus 10 psi and maintain that pressure for three hours. During the initial expansion phase, pipe may expand slightly, requiring additional water to maintain pressure.

Test Phase

Immediately following the initial expansion phase, reduce test pressure back to working pressure, stop adding water and isolate test section. If test pressure remains steady (within 5% of the target value) for one hour, no leakage is indicated and the test section passes.

Depressurizing

Following the test phase, and prior to putting the pipe into service, gradually reduce pressure on the test section, drain out and properly dispose of all test water.

Table 1 Pipe Specifications Note 1,2

Installation Type	Size	Material	Specification	Joint Performance Specs	Joint Fitting Spec. Note 3
GRAVITY PIPELINES (Including Abrasive Materials)	(4"-10")	HDPE	AASHTO M252, Type S	ASTM D 3212 (10.8 psi)	F2306/F477
	(12"-60")	HDPE	AASHTO M294, Type S or ASTM F2306	ASTM D 3212 (10.8 psi)	F2306/F477
	(18"-48")	PVC	ASTM F 679	ASTM D 3212, & D 3139 & D 2672	ASTM F 679
	(3"-15")	PVC	ASTM D 3034 (SDR 35)	ASTM D 3212, & D 3139 & D 2672	ASTM D 3034
	(1/8"-36")	PVC	ASTM D 2241 (SDR 32.5)	ASTM D 3212, & D 3139 & D 2672	ASTM D 2241
	<i>Any pipe listed below is also acceptable.</i>				
PRESSURE PIPELINES < 70 psi max. working pressure Non-Abrasive Materials	(1/8"-24")	PVC	ASTM D 1785 (Sch. 40)	ASTM D 3212, & D 3139 & D 2672	ASTM D 2464 & D 2466
	(1/8"-36")	PVC	ASTM D 2241 (SDR 26)	ASTM D 3212, & D 3139 & D 2672	ASTM D 2467
	(4"-12")	PVC	AWWA C900 (DR 25)	ASTM D 3212, & D 3139 & D 2672	Manufacturer recommendation
	(14"-48")	PVC	AWWA C905 (DR 25)	ASTM D 3212, & D 3139 & D 2672	Manufacturer recommendation
	(3.5"-54")	PE	ASTM F 714 (DR 21)	Per manufacturer recommendation / ASTM D 3261 / ASTM F 2620	ASTM D 2683
	(1/8"-42")	Steel	ASTM A 53 ASME B36.10 (Sch. 40)	Flanged: to ANSI B16.5 Threaded: to ANSI B 16.11 Butt-Weld	Flanged: to ANSI B16.1 Thread to ANSI B16.11 Butt-Weld
	<i>Any pipe listed below is also acceptable.</i>				

Installation Type	Size	Material	Specification	Joint Performance Specs	Joint Fitting Spec. ^{Note 3}
PRESSURE PIPELINES Note 4 ≥ 70 psi max. working pressure Abrasive Materials Recirculation Systems	(1/8"-24")	PVC	ASTM D 1785 (Sch. 80)	ASTM D 3212, & D 3139 & D 2672	ASTM D 2467
	(1/8"-36")	PVC	ASTM D 2241 (SDR 21)	ASTM D 3212, & D 3139 & D 2672	ASTM D 2467
	(1/8"-36")	PVC	ASTM D 2241 (SDR 17)	ASTM D 3212, & D 3139 & D 2672	ASTM D 2467
	(4"-12")	PVC	AWWA C900 (DR 18)	ASTM D 3212, & D 3139 & D 2672	Manufacturer recommendation.
	(14"-48")	PVC	AWWA C905 (DR 18)	ASTM D 3212, & D 3139 & D 2672	Manufacturer recommendation
	(3.5"-54")	PE	ASTM F 714 (DR 17)	Per manufacturer recommendation / ASTM D 3261 / ASTM F 2620	ASTM D 2683
	(1/8"-42")	Steel	ASTM A 53 ASME B36.10 / 19 (Sch. 80)	Flanged: to ANSI B16.5 Threaded: to ANSI B 16.11 Butt-Weld	Flanged: to ANSI B16.1 Thread to ANSI B16.11 Butt-Weld
	(3"-64")	Ductile Iron	ASTM A746 AWWA C150 / C151	AWWA C111 / C115	AWWA C110 or AWWA C153
Note 1 Pipe, joints, and fittings must meet the designed maximum operating pressure (for both daily use and during cleanout.) Note 2 PVC pipe material shall be Type 1 (1120/1220) for pressure pipelines. All glued PVC pipe joints shall meet ASTM D 2855 Standard Practice for the Two-Step (Primer and Solvent Cement) Method of Joining Poly (Vinyl Chloride) (PVC) or Chlorinated Poly (Vinyl Chloride) (CPVC) Pipe and Piping Components with Tapered Sockets Note 3 Other joints and metal/cast fittings may be used if pressure rating of fitting is equal to, or greater than, pressure rating of pipe used. Note 4 Use thicker walled pipes when waste contains abrasive material (i.e. sand) that may cause the pipe to wear (erode), or when pump operates at higher velocities.					

Pipes and Fittings that Meet Wisconsin Construction Specification 634-Waste Transfer Pipe

ASTM / AWWA / AASHTO	Description
ASTM A 53	Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
ASTM C 76	Standard Specification for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
ASTM C 478	Standard Specification for Reinforced Concrete Manhole Sections
ASTM C 1227	Standard Specification for Precast Concrete Septic Tanks
ASTM D 1785	Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120
ASTM D 2241	Standard Specification for Poly(Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series)
ASTM D 2321	Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications
ASTM D 2412	Standard Test Method for Determination of External Loading Characteristics of Plastic Pipe by Parallel-Plate Loading
ASTM D 2464	Standard Specification for Threaded Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80
ASTM D 2466	Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40
ASTM D 2467	Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80
ASTM D 2564	Standard Specification for Solvent Cements for Poly(Vinyl Chloride) (PVC) Plastic Piping Systems
ASTM D 2657	Standard Practice for Heat Fusion Joining of Polyolefin Pipe and Fittings
ASTM D 2661	Standard Specification for Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe and Fittings
ASTM D 2672	Standard Specification for Joints for IPS PVC Using Solvent Cement
ASTM D 2683	Standard Specification for Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing
ASTM D 2729	Standard Specification for Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings
ASTM D 2774	Standard Practice for Underground Installation of Thermoplastic Pressure Piping
ASTM D 2855	Standard Practice for the Two-Step (Primer and Solvent Cement) Method of Joining Poly (Vinyl Chloride) (PVC) or Chlorinated Poly (Vinyl Chloride) (CPVC) Pipe and Piping Components
ASTM D 3034	Standard Specification for Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings
ASTM D 3139	Standard Specification for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals
ASTM D 3212	Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
ASTM D 3261	Standard Specification for Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing

ASTM / AWWA / AASHTO	Description
ASTM D 3350	Standard Specification for Polyethylene Plastics Pipe and Fittings Materials
ASTM D 3965	Specification for Rigid Acrylonitrile-Butadiene-Styrene (ABS) Materials for Pipe and Fittings
ASTM F 412	Standard Terminology Relating to Plastic Piping Systems
ASTM F 477	Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe
ASTM F 480	Standard Specification for Thermoplastic Well Casing Pipe and Couplings Made in Standard Dimension Ratios (SDR), SCH 40 & 80
ASTM F 679	Standard Specification for Poly(Vinyl Chloride) (PVC) Large-Diameter Plastic Gravity Sewer Pipe and Fittings
ASTM F 714	Standard Specification for Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Outside Diameter
ASTM F 1417	Standard Test Method for Installation Acceptance of Plastic Gravity Sewer Lines Using Low-Pressure Air
ASTM F 1760	Standard Specification for Coextruded Poly(Vinyl Chloride) (PVC) Non-Pressure Plastic Pipe Having Reprocessed-Recycled Content
ASTM F 1668	Standard Guide for Construction Procedures for Buried Plastic Pipe
ASTM F 2306	Standard Specification for 12 to 60 in. [300 to 1500 mm] Annular Corrugated Profile-Wall Polyethylene (PE) Pipe and Fittings for Gravity-Flow Storm Sewer and Subsurface Drainage Applications
ASTM F 2487	Standard Practice for Infiltration and Exfiltration Acceptance Testing of Installed Corrugated High Density Polyethylene Pipelines
ASTM F 2620	Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings.
ASTM F 2736	Standard Specification for 6 to 30 in. (152 To 762 mm) Polypropylene (PP) Corrugated Single Wall Pipe and Double Wall Pipe
ASTM F 2764	Standard Specification for 30 to 60 in. [750 to 1500 mm] Polypropylene (PP) Triple Wall Pipe and Fittings for Non-Pressure Sanitary Sewer Applications
AASHTO M252	Standard Specification for Corrugated Polyethylene Drainage Pipe
AASHTO M294	Standard Specification for Corrugated Polyethylene Pipe, 300- to 1500-mm Diameter
AASHTO M306	Standard Specification for Drainage, Sewer, Utility, and Related Castings
AWWA C110	AWWA Standard for Ductile-Iron and Gray-Iron Fittings
AWWA C111	Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings
AWWA C115	Standard for Flanged Ductile-Iron Pipe With Threaded Flanges
AWWA C150	American National Standard for Thickness Design of Ductile-Iron Pipe

ASTM / AWWA / AASHTO	Description
AWWA C151	AWWA Standard for Ductile-Iron Pipe, Centrifugally Cast
AWWA C153	American National Standard for Ductile-Iron Compact Fittings for Water Service
AWWA C200	Steel Water pipe - 6 Inch and Larger
AWWA C605	Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water
AWWA C900	AWWA Standard for Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 In. Through 12 In. (100 mm Through 300 mm), for Water Transmission and Distribution
AWWA C905	AWWA Standard for Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 14 In. Through 48 In. (350 mm Through 1,200 mm), for Water Transmission and Distribution
AWWA C909	AWWA Standard for Molecularly Oriented Polyvinyl Chloride (PVCO) Pressure Pipe, 4 In. Through 24 In. (100 mm Through 600 mm), for Water, Wastewater, and Reclaimed Water Service

Pipes and Fittings that DO NOT meet Wisconsin Construction Specification 634-Waste Transfer Pipe

Note-Some of the ASTMs listed below allow a dual marking of the pipe. The second marking may include an ASTM that is included on the list of pipes that will meet this specification. This will make the dual marked pipe acceptable.

ASTM / AWWA / AASHTO	Description
ASTM C 425	Standard Specification for Compression Joints for Vitrified Clay Pipe and Fittings
ASTM C 700	Standard Specification for Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated
ASTM C 877	Standard Specification for External Sealing Bands for Concrete Pipe, Manholes, and Precast Box Sections
ASTM C 1244	Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test Prior to Backfill
ASTM D 2665	Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings
ASTM D 2680	Standard Specification for Acrylonitrile-Butadiene-Styrene (ABS) and Poly (Vinyl Chloride) (PVC) Composite Sewer
ASTM F 628	Standard Specification for Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe With a Cellular Core
ASTM F 667	Standard Specification for Large Diameter Corrugated Polyethylene Pipe and Fittings
ASTM F 891	Standard Specification for Coextruded Poly(Vinyl Chloride) (PVC) Plastic Pipe With a Cellular Core
ASTM F 949	Standard Specification for Poly(Vinyl Chloride) (PVC) Corrugated Sewer Pipe With a Smooth Interior and Fittings
ASTM F 1803	Standard Specification for Poly (Vinyl Chloride) (PVC) Closed Profile Gravity Pipe and Fittings Based on Controlled Inside Diameter

ASTM / AWWA / AASHTO	Description
ASTM F 1866	Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Schedule 40 Drainage and DWV Fabricated Fittings
ASTM F 2648	Standard Specification for 2 to 60 inch [50 to 1500 mm] Annular Corrugated Profile Wall Polyethylene (PE) Pipe and Fittings for Land Drainage Applications

Specific Site Requirements

Plan Sheets

- 1.0-Title Sheet/Location Map
- 2.0-Construction Notes
- 3.0-Overall Site Plan/Erosion Control
- 4.0-Site Plan – Proposed Barn
- 4.1-Site Plan – Stormwater Management
- 5.0-Section & Details
- 5.1-Sections & Details
- 5.2-Section & Details
- 6.0-Erosion Control Details
- 6.1-Erosion Control Details

SOLHAWK DAIRY

2021 BARN EXPANSION

TOWN OF WHEATON, CHIPPEWA COUNTY, WISCONSIN

5.1.0

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THIS PROJECT HAS BEEN DESIGNED PER THE UNITED STATES NATURAL RESOURCES CONSERVATION SERVICES STANDARDS

- 342 - CRITICAL AREA PLANTING (JANUARY 2018)
- 484 - MULCHING (JUNE 2016)
- 533 - PUMPING PLANT (JULY 2016)
- 570 - STORMWATER RUNOFF CONTROL (JULY 2016)
- 634 - WASTE TRANSFER (JANUARY 2014)

AND WILL BE CONSTRUCTED DURING THE 2021-2022 CONSTRUCTION SEASON

THIS PROJECT SHALL BE CONSTRUCTED ACCORDING TO THE FOLLOWING WISCONSIN NATURAL RESOURCES CONSERVATION SERVICES CONSTRUCTION SPECIFICATIONS

- 2 - EXCAVATION (MAY 2018)
- 3 - EARTHFILL (MAY 2020)
- 204 - EARTHFILL FOR WASTE STORAGE FACILITIES (SEPTEMBER 2018)
- 634 - WASTE TRANSFER PIPE (AUGUST 2016)

CONSTRUCTION NOTES

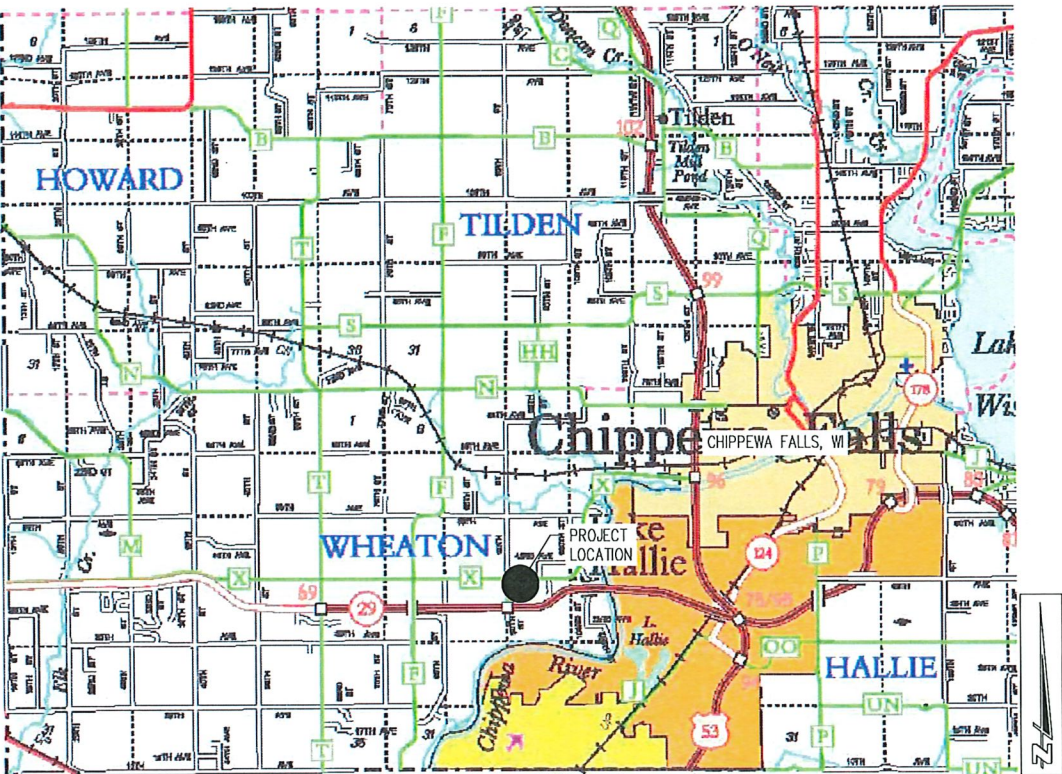
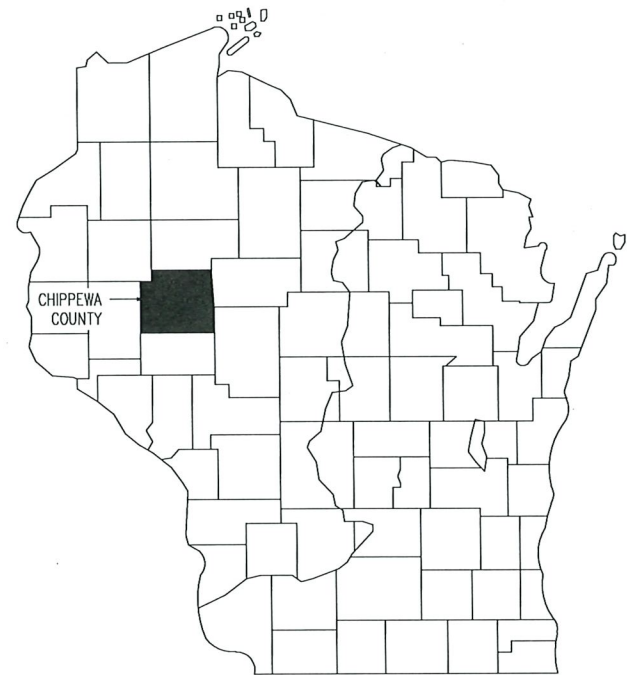
- CONTRACTOR/OWNER SHALL INSTALL ALL EROSION CONTROL MATERIALS PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL SALVAGE AND REPLACE TOPSOIL IN ALL DISTURBED AREAS.
- ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED IMMEDIATELY UPON COMPLETION.
- DISTURBED AREAS AND EMBANKMENTS SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH NRCS, FOTG STANDARD 342, CRITICAL AREA PLANTING.
- CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL ITEMS DURING THE DURATION OF THE PROJECT.
- ANY PERCHED WATER POCKETS ENCOUNTERED DURING CONSTRUCTION WILL BE DRAINED, EXCAVATED, & INCORPORATED INTO THE SITE GRADING. NO PERCHED WATER EXPECTED WITH THIS PROJECT.
- NO SINKHOLES OR DEPRESSIONS WERE ENCOUNTERED DURING INITIAL SITE SURVEY.

REFERENCE BENCHMARK

THE ELEVATIONS SHOWN ARE ON NAVD 1988 DATUM DERIVED FROM LIDAR AND GPS OBSERVATIONS.

SHEET INDEX

SHEET	SHEET DESCRIPTION
1.0	TITLE SHEET/LOCATION MAP
2.0	CONSTRUCTION NOTES
3.0	OVERALL SITE PLAN/EROSION CONTROL
4.0	SITE PLAN - PROPOSED BARN
4.1	SITE PLAN - STORMWATER MANAGEMENT
5.0	SECTIONS & DETAILS
5.1	SECTIONS & DETAILS
5.2	SECTIONS & DETAILS
6.0	EROSION CONTROL DETAILS
6.1	EROSION CONTROL DETAILS



LOCATION MAP - CHIPPEWA COUNTY

N.T.S.

PRACTICE: WASTE TRANSFER
OWNER: SOLHAWK DAIRY
ADDRESS: 8544 COUNTY HIGHWAY X
ADDRESS: CHIPPEWA FALLS, WI 54729
TOWNSHIP NAME: WHEATON
S/T/R: SECTION 20, T28N, R09W



David McDaniel
8-6-21

CORPORATE OFFICE
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Suite A
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AuthConsulting/associates

PROJECT:
SOLHAWK DAIRY
2021 BARN EXPANSION
TOWN OF WHEATON, CHIPPEWA COUNTY, WI

SHEET NO.

1.0

GENERAL SEEDING NOTES (REFER TO WI NRCS PRACTICE STANDARD 342 – CRITICAL AREA PLANTING)

VEGETATIVE MEASURES
WHERE APPROPRIATE, STABILIZE ALL AREAS DISTURBED BY CONSTRUCTION WITH VEGETATION AS SOON AS POSSIBLE AFTER CONSTRUCTION. REFER TO MI NRCS CPS, CRITICAL AREA PLANTING (CODE 342), FOR ESTABLISHMENT OF VEGETATION. IF VEGETATION IS NOT APPROPRIATE FOR THE SITE, USE OTHER MEASURES TO STABILIZE THE AREA.

DETENTION PONDS AND OTHER AREAS WHERE WATER IS DETAINED OR FLOWS SWIFTLY, CAN PRESENT HAZARDS TO THE PUBLIC. WHERE NECESSARY, INCLUDE APPROPRIATE SAFETY FEATURES TO WARN OF POTENTIAL DANGERS OR DETER ENTRY TO HAZARDOUS AREAS SUCH AS FENCES, GATES AND WARNING SIGNS.

STRAW BALE SEDIMENT BARRIERS SHOULD ONLY BE USED IN SITUATIONS WHERE A LIFE SPAN OF LESS THAN 3 MONTHS IS REQUIRED. STRAW BALE SEDIMENT BARRIERS SHALL BE INSTALLED ON THE CONTOUR, EXCEPT THAT THE ENDS SHALL BE EXTENDED UPSLOPE TO PREVENT WATER FROM BYPASSING THE ENDS. THE MAXIMUM LENGTH OF UNCONTROLLED SLOPE UPSTREAM FROM A STRAW BALE SEDIMENT BARRIER SHALL BE 10 FEET. BALE STAKES SHALL BE INSTALLED SUCH THAT THE BINDINGS ARE ORIENTED AROUND THE BALE, NO THE TOP AND BOTTOM OF THE BALE. THE BALE STAKES MUST BE WEDGED AT LEAST 4 INCHES INTO THE GROUND AND ANCHORED WITH TWO STAKES DRIVEN THROUGH THE BALE AND AT LEAST 12 INCHES INTO THE GROUND. THE STAKES SHALL BE 2" X 2" (NOMINAL) WOODEN STAKES. STANDARD STEEL FENCE POSTS, OR ½-INCH DIAMETER STEEL REINFORCING BARS, SOIL SHALL BE COMPACTED AGAINST THE UPSTREAM FACE OF THE BALES TO PREVENT UNDERMINING BY RUNOFF. GAPS BETWEEN BALES MUST BE FILLED BY WEDGING THEM FULL OF LOOSE STRAW, OR EQUIVALENT MATERIAL TO PREVENT WATER FLOW BETWEEN THE BALES. STRAW BALE SEDIMENT BARRIERS SHALL NOT BE USED IN CHANNELS OR OTHER AREAS OF CONCENTRATED FLOW. STRAW BALE SEDIMENT BARRIERS SHALL BE REMOVED ONCE THE DISTURBED AREA IS PERMANENTLY STABILIZED AND NO LONGER SUSCEPTIBLE TO EROSION.

GEOTEXTILE FABRIC SILT FENCE. USED TO TRAP SEDIMENT FROM DISTURBED AREAS SHALL BE INSTALLED ON THE CONTOUR, EXCEPT THAT THE ENDS SHALL BE EXTENDED UPSLOPE TO PREVENT WATER FROM BYPASSING THE STRUCTURE. THE MAXIMUM LENGTH OF UNCONTROLLED SLOPE UPSTREAM FROM THE SILT FENCE SHOULD BE 100 FEET. THE GEOTEXTILE FABRIC SILT FENCE SHALL NOT BE USED IN CHANNELS OR OTHER AREAS OF CONCENTRATED FLOW. COMMERCIALY AVAILABLE SILT FENCE PRODUCTS MAY CONSIST OF EITHER WOVEN OR NON-WOVEN POLYESTER, POLYPROPYLENE, STABILIZED NYLON, POLYETHYLENE, OR POLYVINYLIDENE CHLORIDE GEOTEXTILE FABRIC. A HEAVY-DUTY NYLON TOP SUPPORT CORD OR EQUIVALENT IS REQUIRED. WHERE JOINTS ARE NECESSARY, EACH END OF THE FABRIC SHALL BE SECURELY FASTENED TO A POST. THE POSTS SHALL THEN BE WRAPPED AROUND EACH OTHER TO PRODUCE A STABLE, SECURE JOINT. THE BOTTOM EDGE OF THE SILT FENCE FABRIC MUST BE ANCHORED BY BURYING IN A TRENCH 6 INCHES DEEP BY 4 INCHES WIDE ON THE UPSLOPE SIDE OF THE POSTS. THE FABRIC SHALL BE FOLDED TO FIT THE TRENCH AND BACKFILLED AND COMPACTED TO THE EXISTING GROUND LINE. THE MAXIMUM SPACING OF SUPPORT POSTS FOR NON-WOVEN SILT FENCE SHALL BE 3 FEET AND FOR WOVEN FABRIC, 8 FEET. WOOD SUPPORT POSTS SHALL BE A MINIMUM LENGTH OF 4 FEET AND THE FULL HEIGHT OF THE SILT POSTS SHALL BE A MINIMUM DIMENSION OF 1 1/2 INCHES BY 1 1/2 INCHES HARDWOOD. ALL POSTS SHALL BE DRIVEN AT LEAST 2 FEET INTO THE GROUND. STEEL SUPPORT POSTS SHALL BE THE FULL HEIGHT OF THE SILT FENCE. THE POSTS SHALL BE AT LEAST 5 FEET LONG WITH A STRENGTH OF 1,333 POUNDS PER FOOT AND HAVE PROJECTIONS FOR THE ATTACHMENT OF FASTENERS. THE SILT FENCE FABRIC SHALL BE ATTACHED TO THE POSTS IN AT LEAST THREE PLACES ON THE UPSLOPE SIDE. SILT FENCES SHALL BE REMOVED ONCE THE DISTURBED AREA IS PERMANENTLY STABILIZED AND NO LONGER SUSCEPTIBLE TO EROSION.

INLET PROTECTION BARRIERS SHALL BE CLUIDE, BUT ARE NOT LIMITED TO, FILTER FABRIC BARRIERS, STRAW BALES, SANDBAGS, OTHER MATERIAL FILLED BAGS AND SOCKS, AND STONE WEEPERS. FOR TEMPORARY BARRIERS THAT ARE INSTALLED AROUND STORM DRAIN INLETS THE PERIMETER LENGTH OF THE BARRIER MUST BE AT LEAST 4 TIMES THE PERIMETER OF THE STORM DRAIN INLET. WHERE STORM FLOWS COULD OVER-TOP THE BARRIER, THE TOP OF THE BARRIER NEEDS TO BE LEVEL THROUGHOUT THE PERIMETER LENGTH. BARRIERS SHALL BE LOCATED WHERE A TRAFFIC HAZARD WILL NOT BE CREATED AND WHERE TRAFFIC AND CONSTRUCTION ACTIVITIES WILL NOT DESTROY OR CAUSE CONSTANT NEED FOR MAINTENANCE OF THE BARRIERS. BARRIERS SHALL BE LOCATED SO THAT ANY RESULTING PONDING OF STORM WATER WILL NOT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT AREAS OR STRUCTURES.

FABRIC BARRIERS USED AS GULY CHECKS DURING VEGETATIVE ESTABLISHMENT SHALL BE SPACED 50 TO 100 FEET APART. THE FABRIC MUST BE 36 INCHES WIDE WITH 18 INCHES BURIED AND 18 INCHES LYING ON THE GROUND. BARRIERS SHALL EXTEND ACROSS THE WATERWAY BOTTOM AND UP THE SIDE SLOPES TO A MINIMUM DEPTH OF (0.7) X (DESIGN DEPTH) OR 0.5 FT., WHICHEVER IS GREATER.

A MINIMUM OF 4 INCHES OF FRIABLE SOIL MATERIAL OR TOPSOIL SHALL BE ADDED AND MIXED TO EXPOSED ROCKY, SANDY, GRAVELLY, SHALE MATERIAL, OR EXTREMELY FINE TEXTURED SUBSOIL. ALL GULLIES AND DEEP RILLS WILL BE FILLED AND LEVELLED DURING PREPARATION. DO NOT PLANT INTO GROUPEL FIELDS, WHERE THE HERBICIDES PREVIOUSLY APPLIED TO THE SITE WILL NOT "CARRY OVER" AND DAMAGE THE NEW SEEDING. SITE PREPARATION SHALL BE ADEQUATE TO ASSURE WEED SUPPRESSION AND TO PROMOTE GERMINATION AND GROWTH OF THE SPECIES PLANTED.

PLANTING EQUIPMENT TYPE, USE, AND TIMING SHALL BE APPROPRIATE FOR THE SITE CONDITIONS, SOIL CHARACTERISTICS, AND TYPE OF SEEDS (SIZE, ETC.) SELECTED TO ASSURE UNIFORM PLACEMENT AND GERMINATION. REFER TO WISCONSIN AGRONOMY TECHNICAL NOTES 5 AND 6 FOR DETAILED GUIDANCE FOR SPECIFIC SITUATIONS.

PLANTINGS SHALL BE MULCHED AS NECESSARY TO ENSURE ESTABLISHMENT. OTHER DISTURBED AREAS SHALL BE MULCHED AS NECESSARY TO PREVENT EROSION. MULCHING, TEMPORARY COVER, AND COMPANION CROPS ARE VITAL PRACTICES UTILIZED TO SUPPORT THE ESTABLISHMENT OF A CRITICAL AREA PLANTING. TEMPORARY COVER AND COMPANION CROPS SUPPRESS WEED GROWTH AND LIMIT SOIL EROSION DURING THE ESTABLISHMENT PERIOD. USE DEPENDS ON THE SITE CONDITIONS, METHOD OF PLANTING, AND SEED MIXTURE. FOR FURTHER DETAILS ON MULCHING, TEMPORARY COVER AND COMPANION CROP RECOMMENDATIONS, REFER TO WISCONSIN AGRONOMY TECHNICAL NOTES 5 AND 6.

APPROVED SPECIES FOR CRITICAL AREA PLANTING CAN BE FOUND IN WISCONSIN AGRONOMY TECHNICAL NOTES 5 AND 6. SPECIES NOT LISTED IN THE TECHNICAL NOTES MUST BE PLANTED IN ADVANCE BY THE STATE AGRONOMIST. INTRODUCED GRASS AND LEGUME PLANTINGS ON CRITICAL SITES, CUSTOM AND STANDARD MIXTURES WILL CONTAIN AT LEAST 50 PERCENT GRASS SEED OF WHICH 25 PERCENT WILL BE SOO (FROST NOT BUNCH) GRASS, A MINIMUM OF 160 SEEDS PER SQUARE FOOT IS REQUIRED FOR EITHER A SOLID STAND OF GRASSES OR A COMBINATION OF GRASSES AND LEGUMES. INCREASE SEEDING RATE BY 15 PERCENT WHEN DORMANT SEEDING OCCURS. REFER TO TABLE 8 OF AGRONOMY TECHNICAL NOTE 6 FOR SUGGESTED SEED MIXES.

NATIVE SPECIES ARE GENERALLY NOT RECOMMENDED FOR CRITICAL AREA PLANTINGS DUE TO THEIR SLOW ESTABLISHMENT AND BECAUSE THEY ARE CLUMP GRASSES RATHER THAN SOD FORMING. ONLY SOD FORMING GRASSES ARE PERMITTED IN CONCENTRATED FLOW CHANNELS. COMPETITION AND POOR ESTABLISHMENT OF SOME SPECIES. SEEDS PER SQUARE FOOT SHOULD NOT EXCEED 25 PERCENT OF THE MINIMUM REQUIREMENT, WITH THE EXCEPTION OF MIXTURES DESIGNED FOR WET MESIC AND WET SITES.

1. EXISTING SITE CONDITIONS REFLECTS TOPOGRAPHICAL INFORMATION PROVIDED BY AC/o AND CHIPPEWA COUNTY LIDAR. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS.
2. CONTRACTOR SHALL NOTIFY UTILITIES AND HAVE ALL UTILITIES LOCATED PRIOR TO ANY EXCAVATION.
3. ALL GRADES AND ELEVATIONS SHOWN ARE TO FINISHED GRADES, UNLESS OTHERWISE NOTED.
4. CONTRACTOR SHALL SALVAGE AND REPLACE TOPSOIL IN ALL DISTURBED AREAS.
5. SALVAGED MATERIALS TO BECOME PROPERTY OF THE OWNER.
6. NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE PRIOR APPROVAL OF THE OWNER.
7. CONTRACTOR SHALL MECHANICALLY COMPACT ALL TRENCHES UNDER ALL PAVED, CONCRETE, GRAVEL DRIVES AND BUILDING PAD AREAS.
8. GENERAL FILL MATERIAL TO BE COMPACTED PER WI NRCS CONSTRUCTION SPECIFICATION #3. - EARTHFILL, FILL FOR WASTE TRANSFER FACILITY TO BE COMPACTED PER WI NRCS CONSTRUCTION SPEC #204 - EARTHFILL FOR WASTE STORAGE FACILITIES. TOPSOIL TO BE REMOVED BEFORE FILL MATERIAL IS PLACED. NO ORGANIC OR FROZEN MATERIALS TO BE PLACED IN FILL AREAS.

1. ALL EROSION CONTROL DEVICES SHALL BE IN PLACE BEFORE BEGINNING CONSTRUCTION ACTIVITIES AND CONTINUOUSLY MAINTAINED.
2. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED IMMEDIATELY AFTER FINAL GRADE IS ESTABLISHED IN ANY PARTICULAR AREA. SEEDING AND MULCHING SHALL NOT WAIT UNTIL ALL GRADING IS COMPLETE ON THE ENTIRE SITE.
3. ALL DISTURBED SLOPES STEEPER THAN 3:1 SHALL BE SEEDED AND PROTECTED WITH EROSION MAT OR SHALL BE SODDED AND STAKED OR HYDROSEEDS AS AN ALTERNATIVE.
4. INSTALL SILT FENCE AS SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER. SEE DETAIL SHEET FOR SILT FENCE INSTALLATION.
5. ALL DITCH CHECKS ARE TO BE EROSION BALES, SEDIMENT LOGS, OR APPROVED EQUAL. SEE DETAIL SHEET FOR INSTALLATION.
6. SEEDING AND MULCHING ARE REQUIRED ON ALL DISTURBED AREAS AND SHALL CONFORM TO NRCS, FOTG STANDARD 342, "CRITICAL AREA PLANTING" A VEHICULAR TRACKING PAD MAY BE REQUIRED AT ENTRANCE ROAD INTO SITE TO CONTAIN SEDIMENT. SEE DETAIL SHEET FOR TRACKING PAD INSTALLATION.
7. ALL EROSION CONTROL MEASURES SHALL BE LEFT IN PLACE AND MAINTAINED UNTIL RESTORATION ON SITE HAS BEEN ESTABLISHED.
8. ANY SOIL STOCKPILES WHICH ARE LEFT MORE THAN 7 DAYS MUST BE PROTECTED BY SEEDING AND MULCHING, EROSION MAT, SILT FENCING, COVERING OR OTHER METHODS. THIS DOES NOT INCLUDE FILL OR TOPSOIL PILES THAT ARE IN ACTIVE USE.
9. SITE MONITORING OF EROSION AND SEDIMENT CONTROL PRACTICES FOR MAINTENANCE NEEDS SHALL BE COMPLETED AT THE INTERVALS SPECIFIED UNTIL THE SITE IS STABILIZED. SITE MONITORING SHALL OCCUR AT LEAST WEEKLY OR WITHIN 24 HOURS AFTER A RAINFALL EVENT OF 0.5 INCHES OR GREATER. A RAINFALL EVENT SHALL BE CONSIDERED TO BE THE TOTAL AMOUNT OF RAINFALL RECORDED IN ANY CONTINUOUS 24 HOUR PERIOD. MONITORING RECORDS SHALL BE KEPT AND CONTAIN, AT A MINIMUM, THE CONDITION OF THE EROSION AND SEDIMENT CONTROL PRACTICES AT THE INTERVALS SPECIFIED AND A DESCRIPTION OF THE MAINTENANCE CONDUCTED TO REPAIR OR REPLACE EROSION AND SEDIMENT CONTROL PRACTICES.
10. OFF-SITE SEDIMENT DEPOSITION RESULTING FROM THE FAILURE OF AN EROSION OR SEDIMENT CONTROL PRACTICE SHALL BE CLEANED UP WITHIN 24 HOURS. OFF-SITE SEDIMENT DEPOSITION RESULTING FROM CONSTRUCTION ACTIVITY, THAT CREATES A NUISANCE, SHALL BE CLEANED UP BY THE END OF THE WORK DAY. IF THE FAILURE OF EROSION OR SEDIMENT CONTROL PRACTICES RESULT IN AN IMMEDIATE THREAT OF SEDIMENT ENTERING PUBLIC SEWERS OR THE WATERS OF THE STATE, PROCEDURES SHALL BE IMPLEMENTED IMMEDIATELY TO REPAIR OR REPLACE THE PRACTICES.

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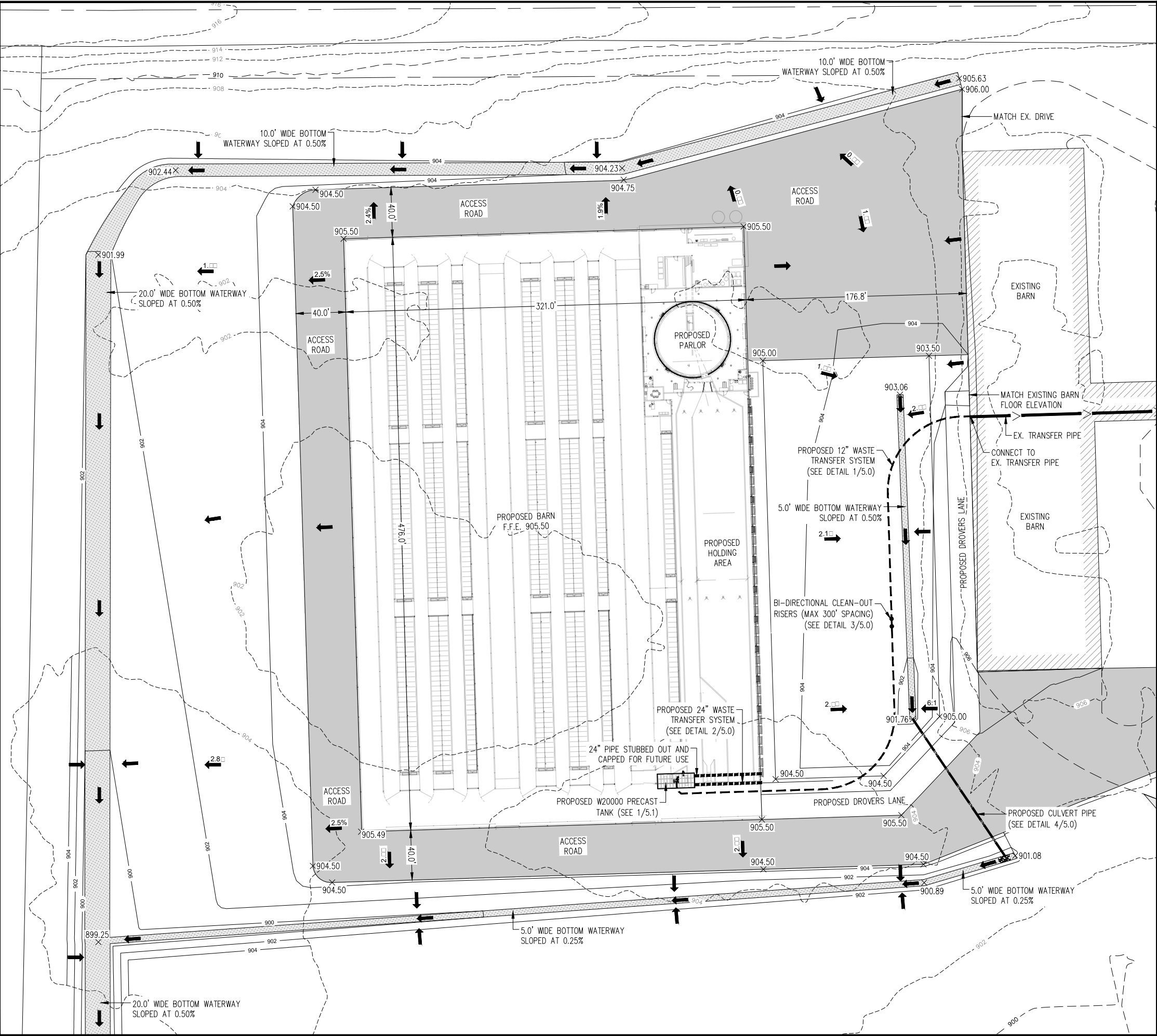
auticonsulting.com

Auth•Consulting/associates
SCAN Last Surveying a division of A•C/a

PROJECT:
SOLHAWK DAIRY
2021 BARN EXPANSION
TOWN OF WHEATON, CHIPPEWA COUNTY, WI

CONSTRUCTION NOTES





LEGEND

EXISTING 10 FT CONTOURS
EXISTING 2 FT CONTOURS
PROPOSED 10 FT CONTOURS
PROPOSED 2 FT CONTOURS

EXISTING BUILDING OR STRUCTURE
PROPOSED WATERWAY

PROPOSED GRAVEL/ACCESS ROAD

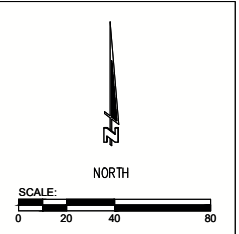
INV = INVERT ELEVATION

PROPOSED TRANSFER PIPE
EXISTING TRANSFER PIPE

PROPOSED CULVERT PIPE

4:1
1:5 = FINISHED GRADE SLOPE/DIRECTION

905.24 × = FINISHED GRADE SPOT ELEVATION



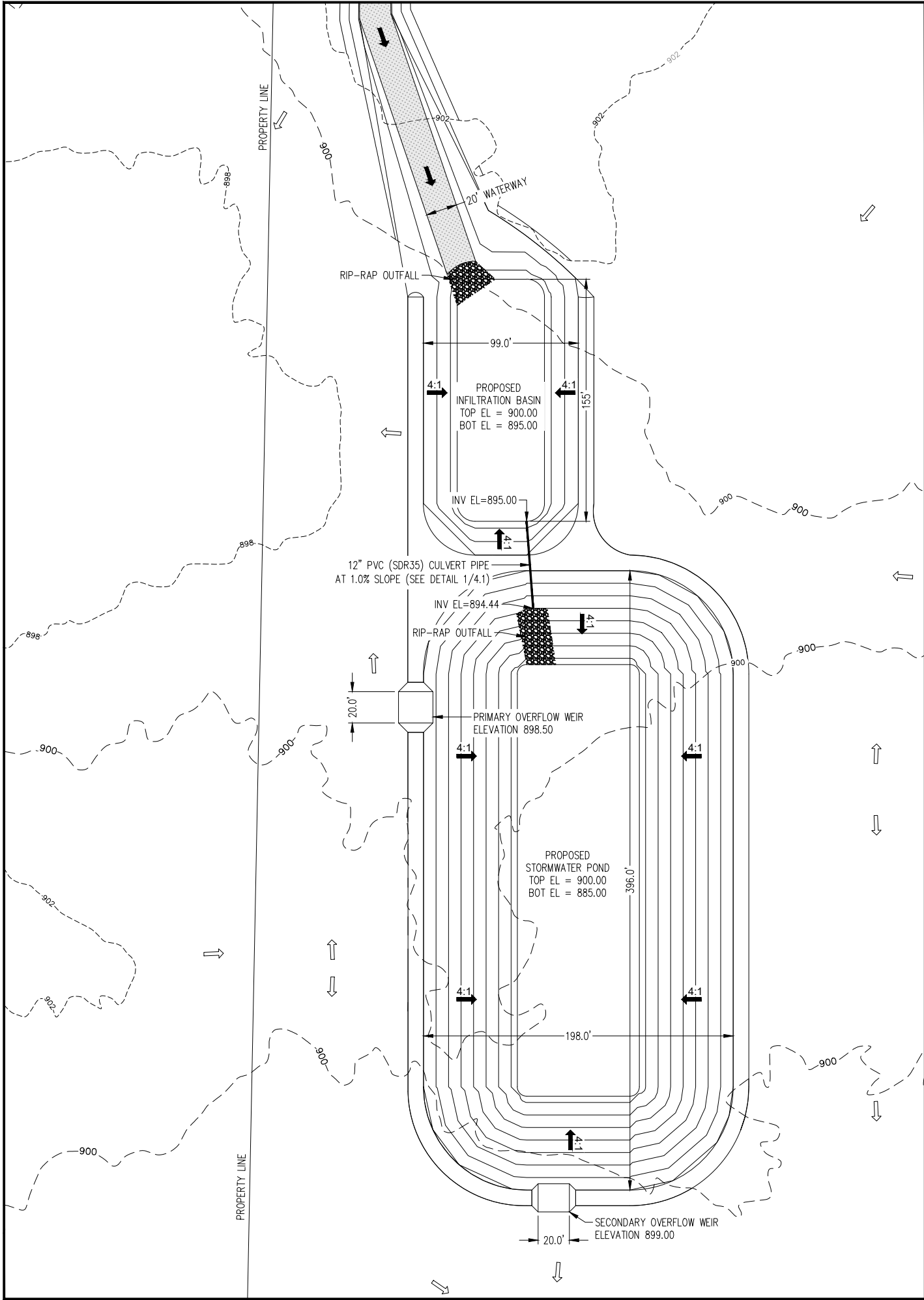
PROJECT: SOLHAWK DAIRY
2021 BARN EXPANSION
TOWN OF WHEATON, CHIPPEWA COUNTY, WI

SITE PLAN - PROPOSED BARN

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Tel 715-381-5277
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CORPORATE OFFICE
408 Technology Drive East
Suite A
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Tel 715-232-8490
authconsulting.com

DRAWN BY: JVF	CHECKED BY: DAM	DATE: 04.29.21	DWG FILE: 862-005 BARN	REF FILE: 862-005 BARN	JOB NUMBER: 862-005 BARN	NAME	DATE
DRAWING PHASE:	OWNER REVIEW	AGENCY REVIEW	BID DOCUMENT	FOR CONSTRUCTION	AS-BUILT DOCUMENT	RELEASED FOR REVIEW	REVISION DESCRIPTION
	X						



LEGEND

---850---
EXISTING 10 FT CONTOURS

---852---
EXISTING 2 FT CONTOURS

---850---
PROPOSED 10 FT CONTOURS

---852---
PROPOSED 2 FT CONTOURS

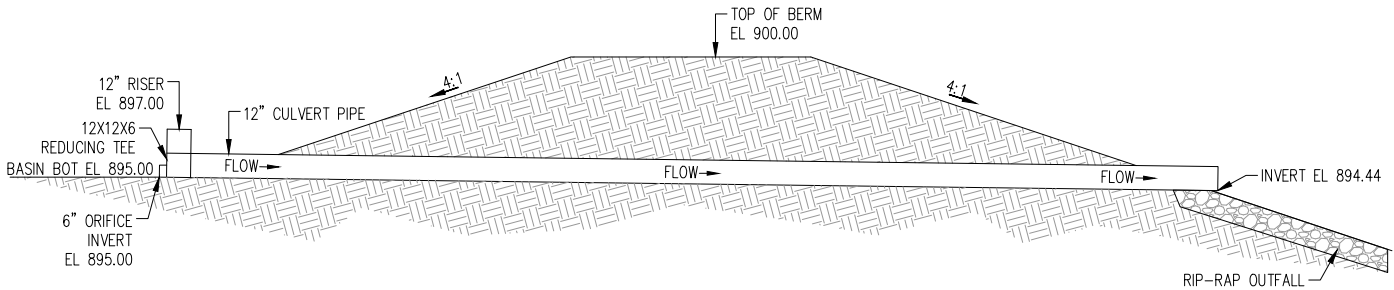
[Pattern Box]
PROPOSED WATERWAY

[Pattern Box]
PROPOSED GRAVEL/ACCESS ROAD

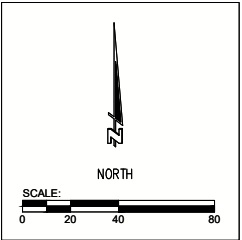
4:1
1.5%
= FINISHED GRADE
SLOPE/DIRECTION

905.24X
= FINISHED GRADE
SPOT ELEVATION

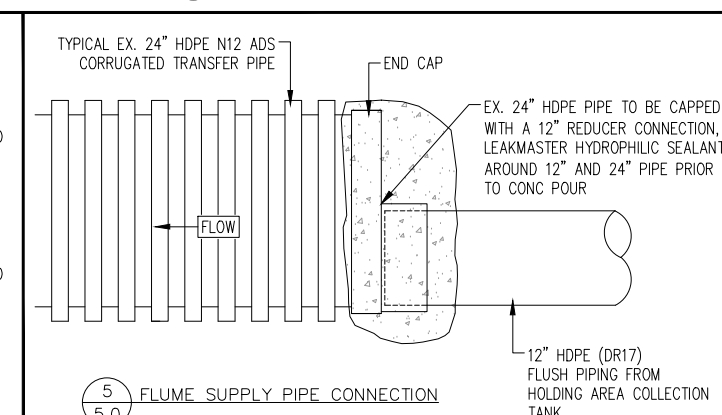
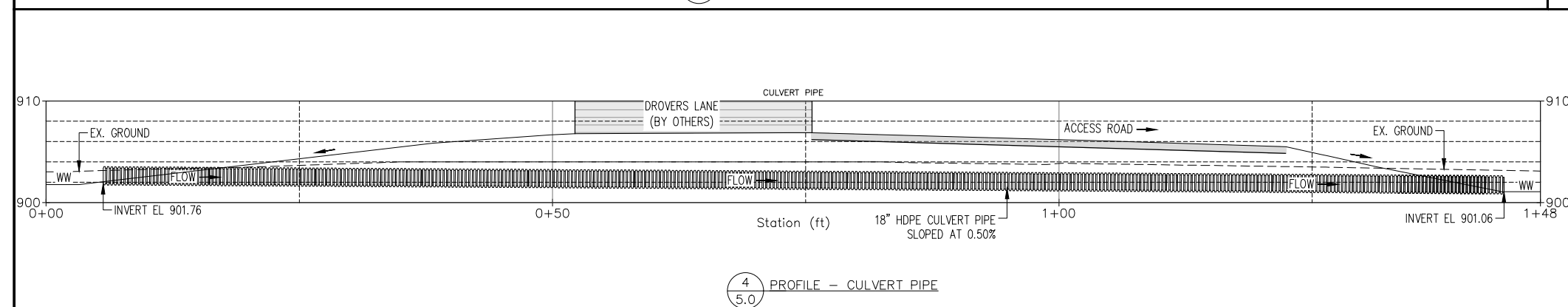
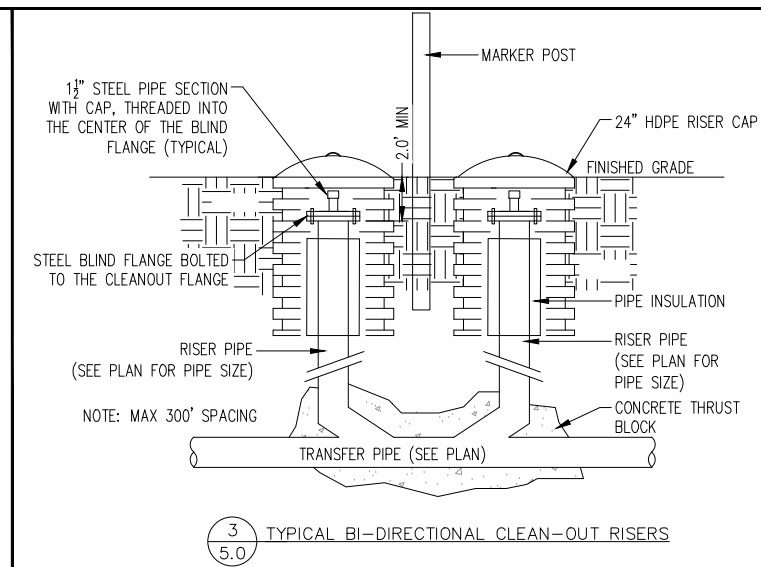
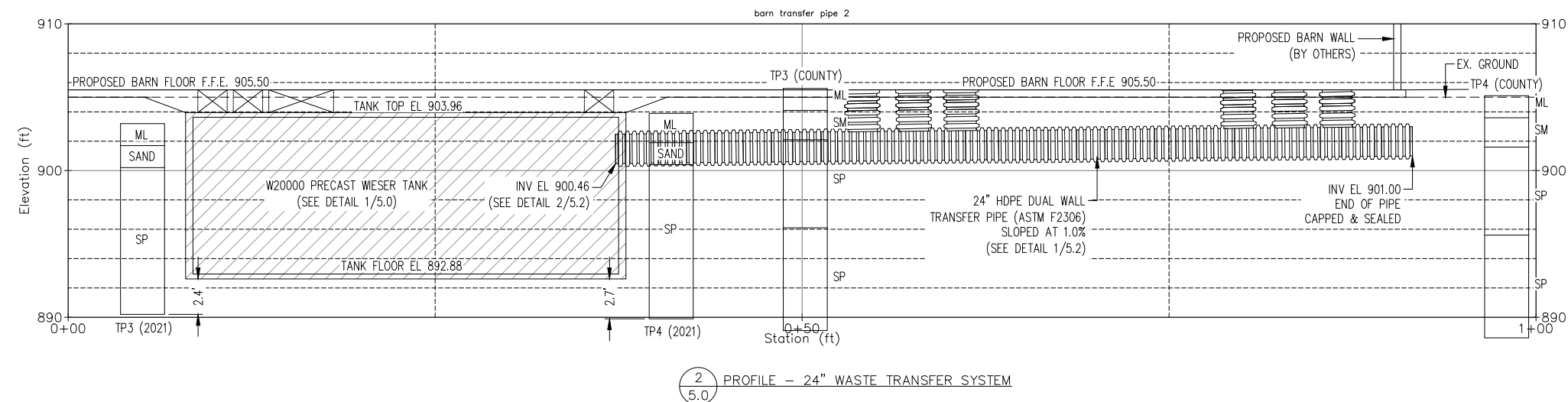
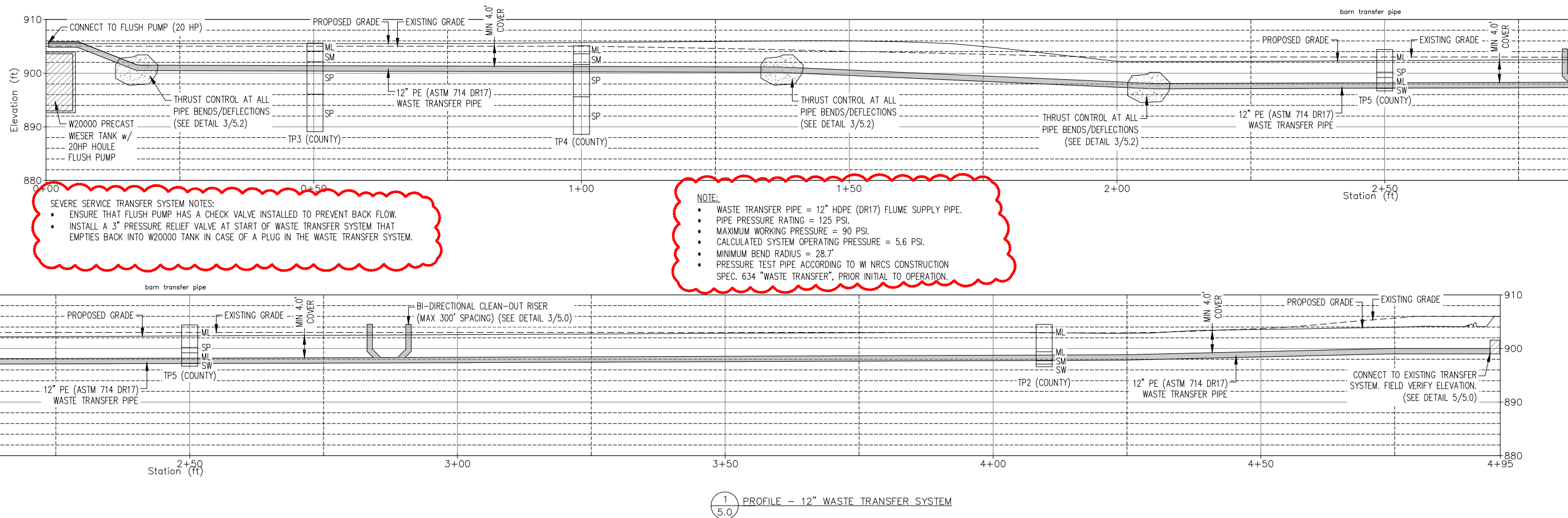
[Arrow]
= EXISTING GRADE
SLOPE/DIRECTION



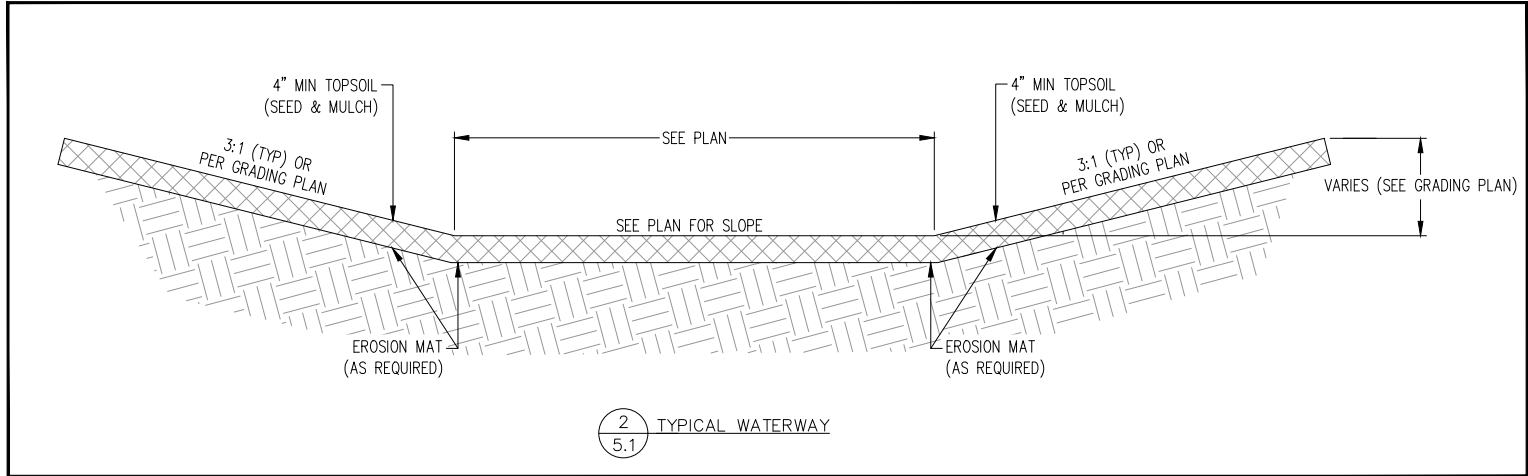
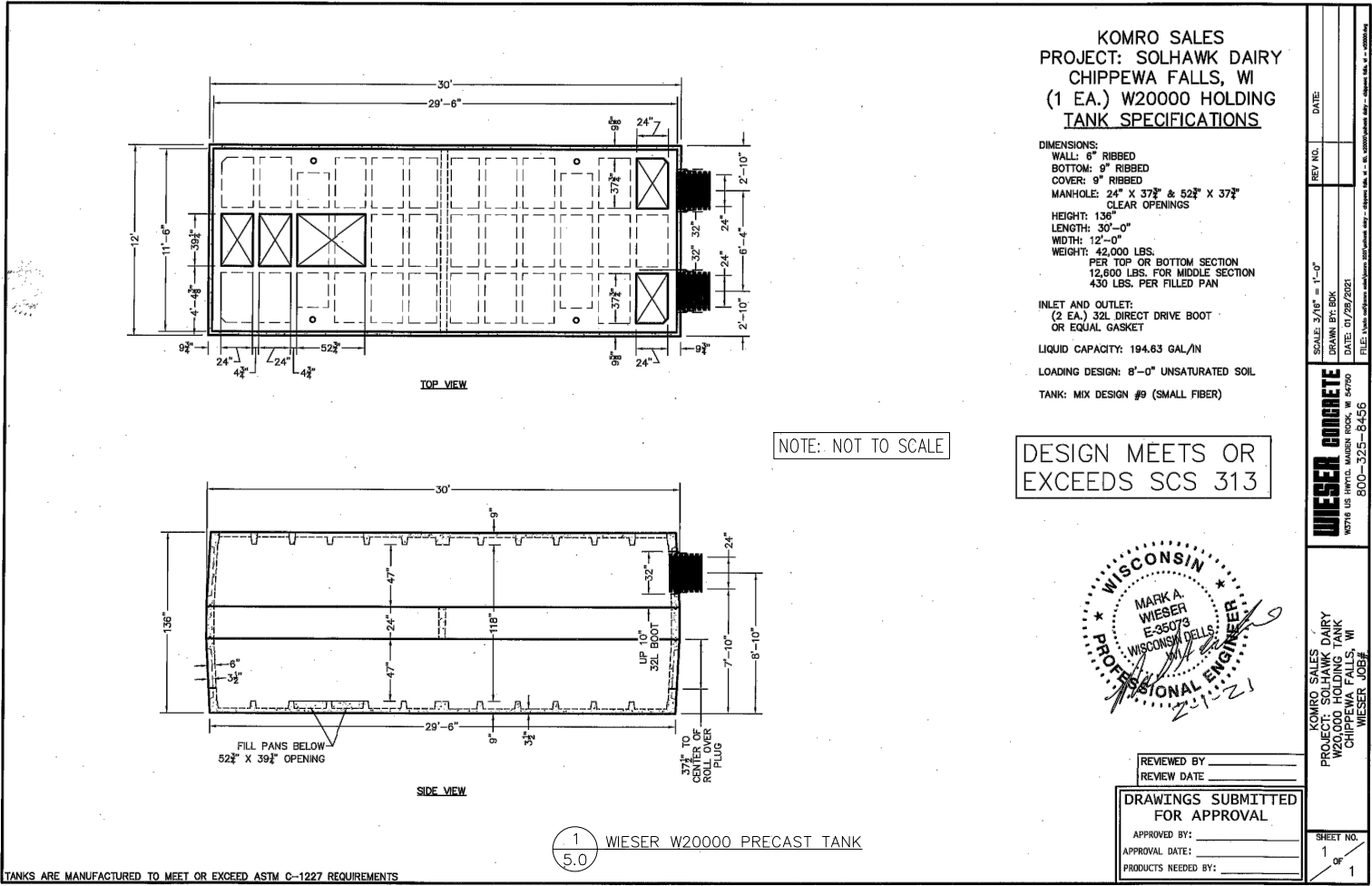
1
4.1
DETAIL - CROSSOVER PIPE



PROJECT: SOLHAWK DAIRY 2021 BARN EXPANSION TOWN OF WHEATON, CHIPPEWA COUNTY, WI		BRANCH OFFICE 3920 Eubank Street Suite 101 Hudson, WI 54016 Tel 715-381-5277 authconsulting.com		COMPANY OFFICE 408 Technology Drive East Suite A Menomonie, WI 54751 Tel 715-232-9490 authconsulting.com		Auth•Consulting/associates S&B Land Surveying a division of A/C/a	
SHEET NO. 4.1		SITE PLAN - STORMWATER MANAGEMENT		DATE: 05.05.21		NAME: JVF	
DRAWN BY: JVF		CHECKED BY: DAM		DATE: 04.29.21		DWG FILE: 862-005 BARN	
OWNER REVIEW		AGENCY REVIEW		BID DOCUMENT		FOR CONSTRUCTION	
X							
RELEASED FOR REVIEW		JVF		REVISION DESCRIPTION:		JOB NUMBER: 862-005 BARN	



DRAWN BY: JVF		CHECKED BY: DAM		DATE: 04.29.21		DWG FILE: 862-005 BARN		REF FILE: 862-005 BARN		JOB NUMBER: 862-005 BARN	
OWNER REVIEW		AGENCY REVIEW		BID DOCUMENT		FOR CONSTRUCTION		AS-BUILT DOCUMENT			
X											
BRANCH OFFICE		408 Technology Drive East		Suite 101		Hudson, WI 54016		Tel 715-381-5277		authconsulting.com	
COMPANY OFFICE		408 Technology Drive East		Suite 101		Hudson, WI 54016		Tel 715-381-5277		authconsulting.com	
PROJECT:		SOLHAWK DAIRY		2021 BARN EXPANSION		TOWN OF WHEATON, CHIPPEWA COUNTY, WI					
SHEET NO.											
RELEASED FOR COUNTY REVIEW		JVF		07.19.21							
BARN MOVED 15' NORTH		JVF		07.09.21							
RELEASED FOR REVIEW		JVF		05.05.21							
REVISION DESCRIPTION											
NAME											
DATE											



PROJECT:
SOLHAWK DAIRY
2021 BARN EXPANSION
TOWN OF WHEATON, CHIPPEWA COUNTY, WI

SECTIONS & DETAILS

A.C/a
Auth•Consulting/associates
S&B Land Surveying a division of A/C/a

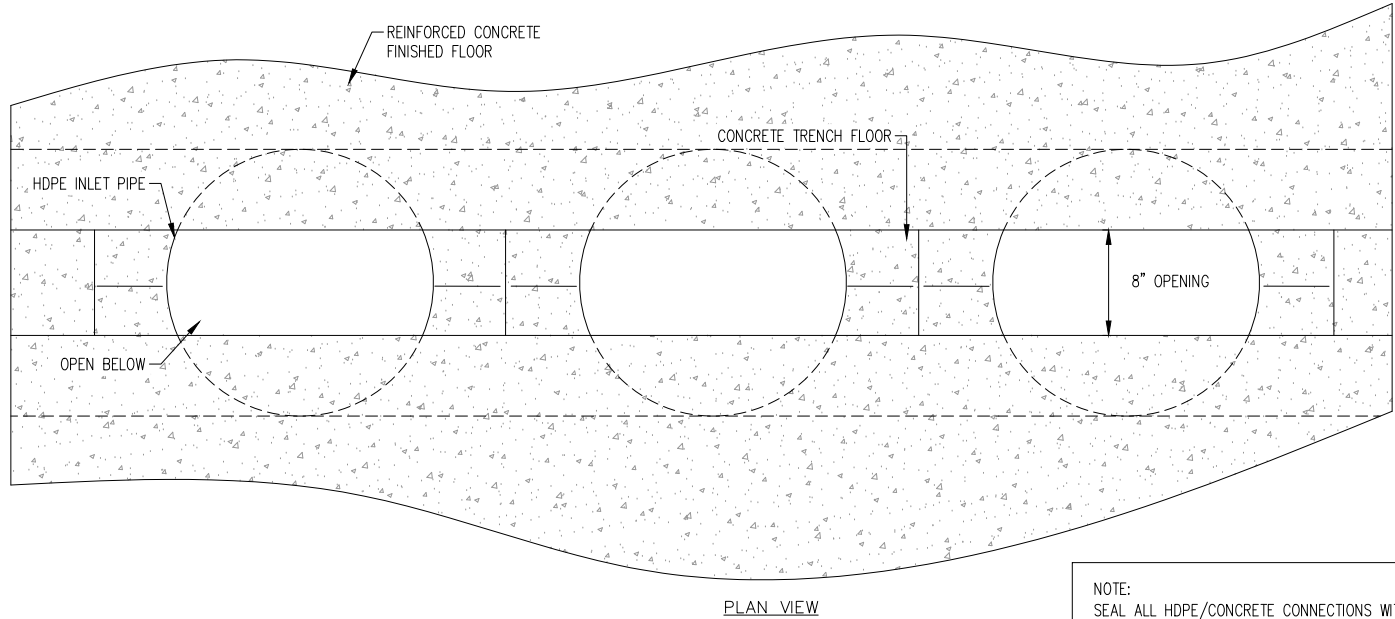
CORPORATE OFFICE
408 Technology Drive East
Suite A
Menomonie, WI 54751
Tel 715-232-9490

BRANCH OFFICE
3920 Embury Street
Suite 101
Hudson, WI 54016
Tel 715-381-5277
authconsulting.com

DRAWING PHASE:
OWNER REVIEW
AGENCY REVIEW
BID DOCUMENT
FOR CONSTRUCTION
AS-BUILT DOCUMENT

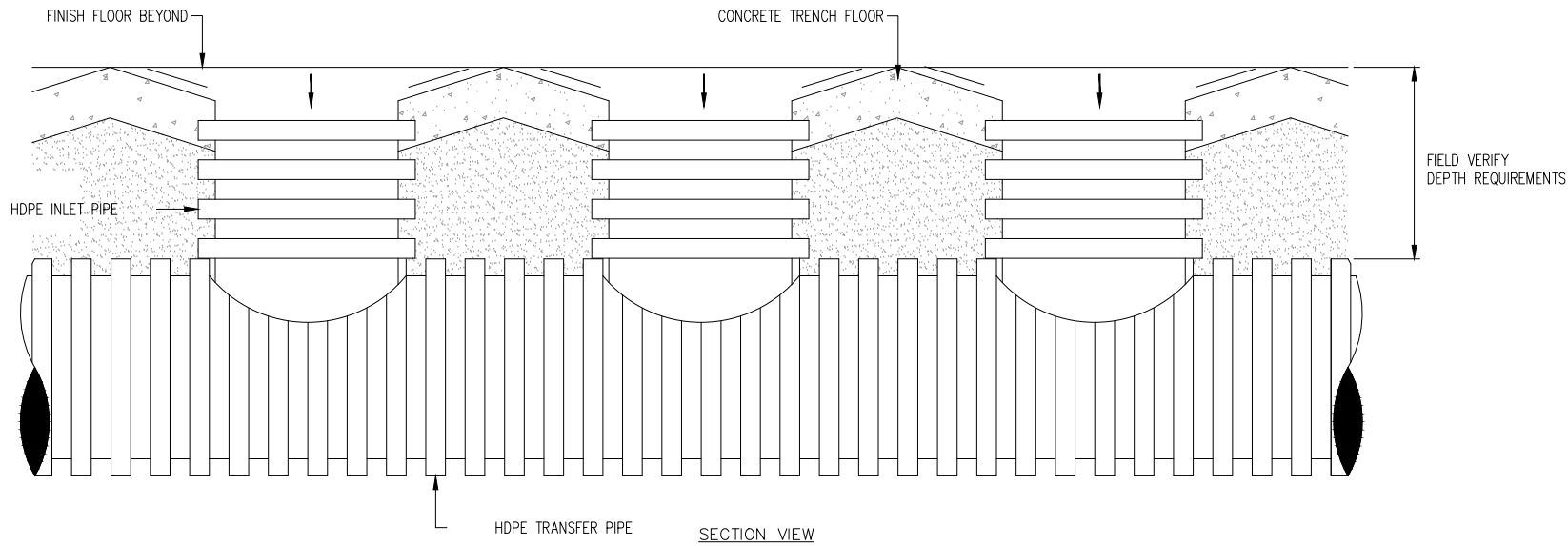
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DATE: 04.29.21
DWG FILE: 862-005.BARN
REF FILE: 862-005.BARN
JOB NUMBER: 862-005.BARN

RELEASED FOR REVIEW
JVF
05.05.21
NAME
DATE



NOTE:
SEAL ALL HDPE/CONCRETE CONNECTIONS WITH LEAKMASTER SEAL OR APPROVED EQUAL.

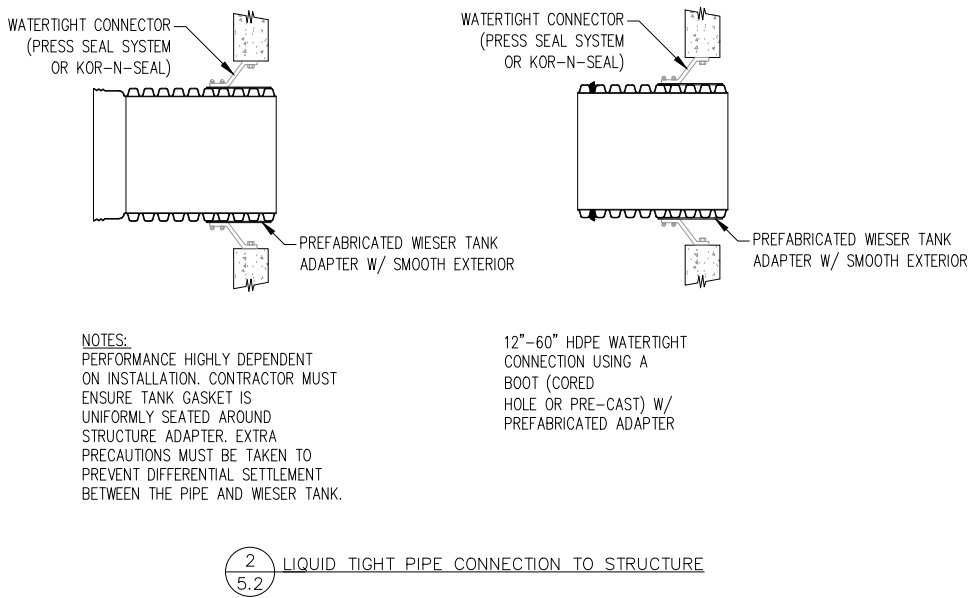
NOTE:
THE CONSTRUCTION REQUIREMENTS FOR THE MANURE MANIFOLD TRANSFER TRENCH ARE DETERMINED BY THE CONCRETE ELEVATIONS OF THE BARN FLOOR AND INVERT OF THE MANURE TRENCH.



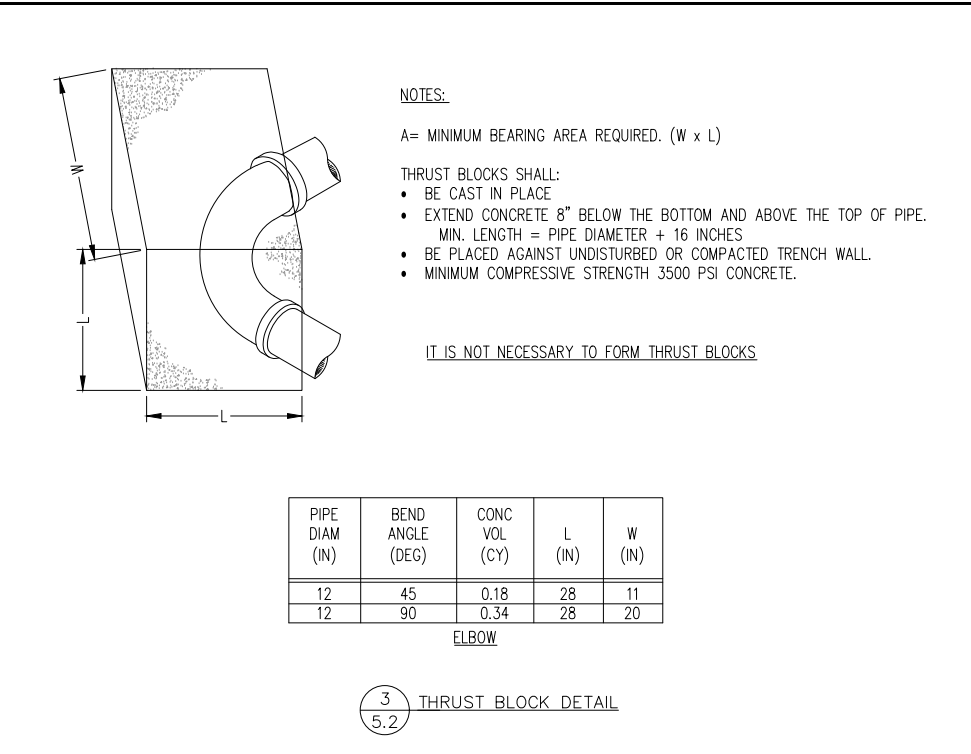
NOTE:
TRENCH MANIFOLD ASSEMBLY FACTORY CONSTRUCTED TO EXCEED NRCS REQUIREMENTS.
ALL JOINTS ARE FACTORY WELDED & EXCEED 10.8 PSI JOINT REQUIREMENTS.

CONSTRUCTION NOTES:
1. NUMBER OF POURS IS CONTRACTORS OPTION.
2. PIPE MUST BE HELD DOWN TO RESIST FLOTATION.
3. PIPE OPENING MAY BE CUT BEFORE OR AFTER CONCRETE IS POURED.

1
5.2 TYPICAL HDPE WASTE RISER MANIFOLD



2
5.2 LIQUID TIGHT PIPE CONNECTION TO STRUCTURE



PIPE DIAM (IN)	BEND ANGLE (DEG)	CONC VOL (CY)	L (IN)	W (IN)
12	45	0.18	28	11
12	90	0.34	28	20

ELBOW

3
5.2 THRUST BLOCK DETAIL

BRANCH OFFICE

408 Technology Drive East
Suite A
Menomonee, WI 54751
Tel 715-282-9490

COMPANY OFFICE

3920 E. Baber Street
Suite 101
Hudson, WI 54016
Tel 715-381-5277

A.C/a

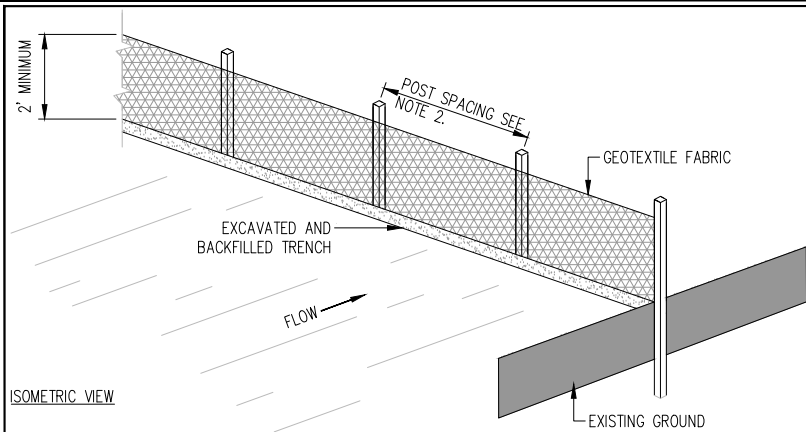
Auth•Consulting/associates
S&H Land Surveying a division of A.C/a

PROJECT:
SOLHAWK DAIRY
2021 BARN EXPANSION
TOWN OF WHEATON, CHIPPEWA COUNTY, WI

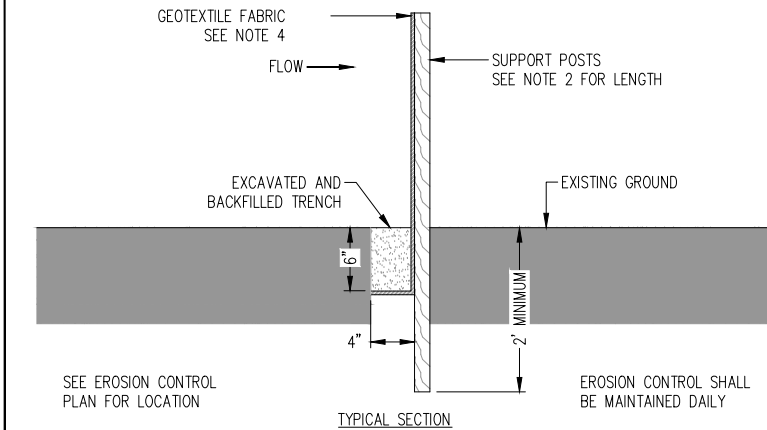
SECTIONS & DETAILS

DRAWING PHASE:	DRAWN BY:	CHECKED BY:	DATE:	DWG FILE:	REF FILE:	JOB NUMBER:
OWNER REVIEW	JVF	DAM	04.29.21	862-005 BARN	862-005 BARN	862-005 BARN
AGENCY REVIEW						
BID DOCUMENT						
FOR CONSTRUCTION						
AS-BUILT DOCUMENT						

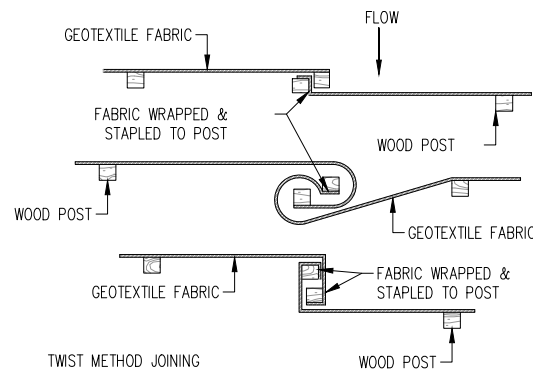
RELEASED FOR REVIEW	NAME	DATE
JVF		05.05.21



ISOMETRIC VIEW



TYPICAL SECTION



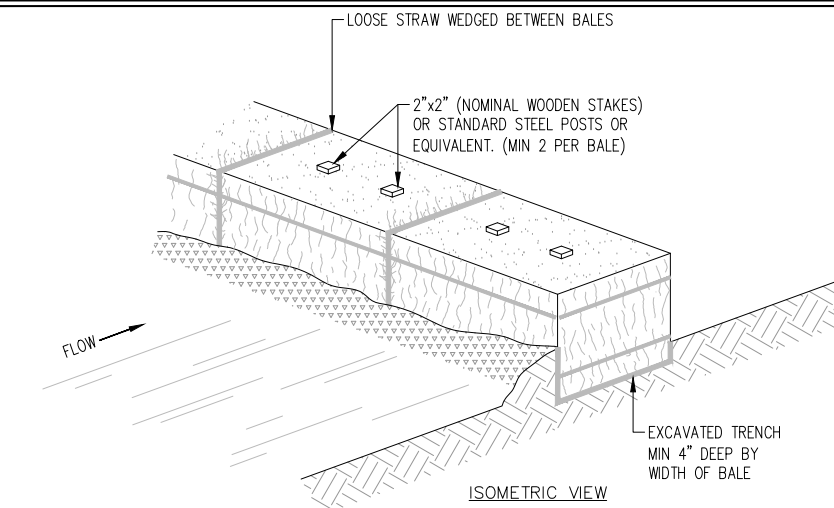
SILT FENCE EROSION BARRIER

- NOTES:
1. THE GEOTEXTILE FABRIC SHALL BE PLACED IN THE EXCAVATED TRENCH, BACKFILLED, AND COMPACTED TO THE EXISTING GROUND SURFACE.
 2. WOODEN SUPPORT POSTS SHALL BE A MINIMUM DIMENSION OF 1-1/8" x 1-1/8" AIR OR KILN DRIED OF HICKORY OR OAK AND 4 FEET LONG. STEEL POSTS SHALL BE STUDDED "TEE" OR "U" TYPE WITH A MINIMUM WEIGHT OF 1.3 POUNDS PER LINEAL FOOT AND 5 FEET LONG. POST SPACING SHALL BE A MAXIMUM OF 8 FEET FOR WOVEN FABRIC AND 3 FEET FOR NON-WOVEN FABRIC.
 3. THE GEOTEXTILE FABRIC SHALL BE ATTACHED DIRECTLY TO THE UP-SLOPE SIDE OF WOODEN POSTS WITH 0.5 INCH STAPLES IN AT LEAST 3 PLACES, OR WITH WOODEN LATH AND NAILS. ATTACHMENT TO STEEL POSTS WILL BE BY WIRE FASTENERS OR 50 POUND PLASTIC TIE STRAPS ON THE UP-SLOPE SIDE.
 4. THE GEOTEXTILE FABRIC SHALL CONSIST OF EITHER WOVEN OR NON-WOVEN POLYESTER, POLYPROPYLENE, STABILIZED NYLON, POLYETHYLENE, OR POLYVINYLIDENE CHLORIDE. NON-WOVEN FABRIC MAY BE NEEDLE PUNCHED, HEAT BONDED, RESIN BONDED, OR COMBINATIONS THEREOF. ALL FABRIC SHALL MEET THE FOLLOWING REQUIREMENTS:

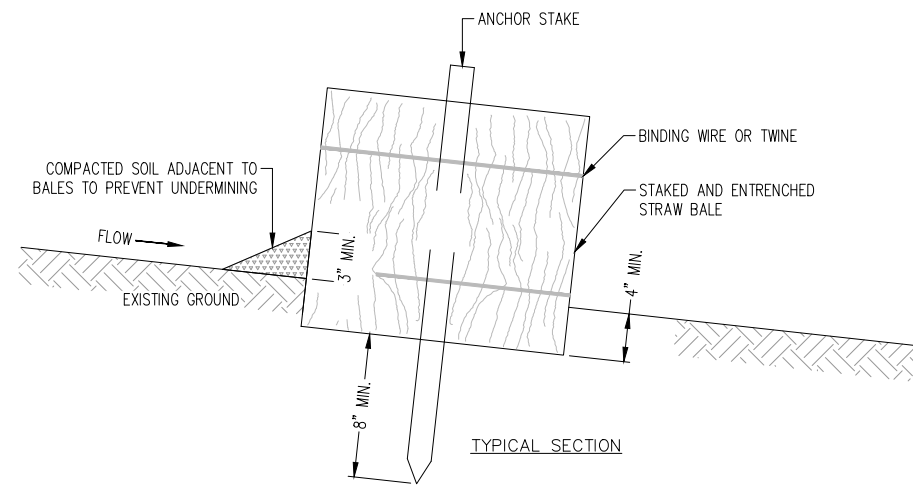
TEST REQUIREMENT	METHOD	VALUE *
MINIMUM GRAB TENSILE STRENGTH IN THE MACHINE DIRECTION	ASTM D 4632	120 LBS.
MINIMUM GRAB TENSILE STRENGTH IN THE CROSS MACHINE DIRECTION	ASTM D 4632	100 LBS.
MAXIMUM APPARENT OPENING SIZE EQUIVALENT STANDARD SIEVE	ASTM D 4751	NO. 30
MINIMUM PERMITTIVITY	ASTM D 4491	0.05 SEC ⁻¹
MAXIMUM PERMITTIVITY	ASTM D 4491	0.135 SEC ⁻¹ OR 10 gpm/sq ft at 50 mm constant head.
MINIMUM ULTRAVIOLET STABILITY PERCENTAGE OF STRENGTH RETAINED AFTER 500 HOURS OF EXPOSURE	ASTM D 4355	70%

* ALL NUMERICAL VALUES REPRESENT MINIMUM/MAXIMUM AVERAGE ROLL VALUES. (FOR EXAMPLE, THE AVERAGE OF MINIMUM TEST RESULTS ON ANY ROLL IN A LOT SHOULD MEET OR EXCEED THE MINIMUM SPECIFIED VALUES.)

SILT FENCE NOTES



ISOMETRIC VIEW

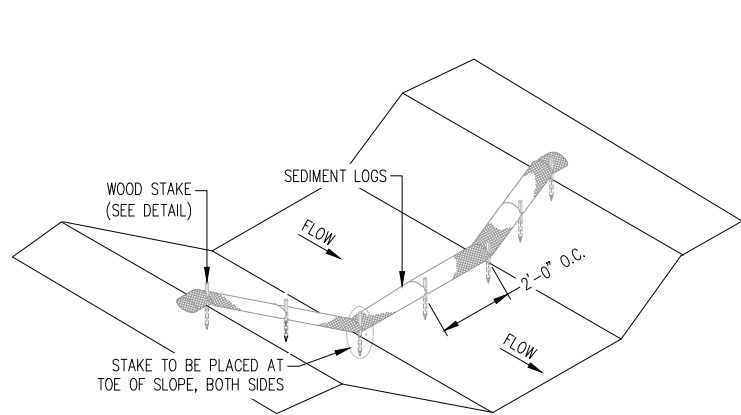


TYPICAL SECTION

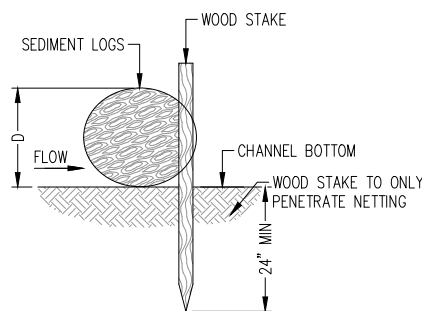
SEE EROSION CONTROL PLAN FOR LOCATION

- NOTES:
1. TURN THE ENDS OF THE STRAW BALE SEDIMENT TRAP UPSLOPE 1 TO 2 FEET IN ELEVATION TO PREVENT FLANKING.
 2. THE STRAW BALES SHALL BE BUTTED TOGETHER AS TIGHTLY AS POSSIBLE.
 3. THE FIRST ANCHOR STAKE SHALL BE DRIVEN TOWARD THE PREVIOUSLY ANCHORED BALE TO HELP CREATE A TIGHT FIT.

STRAW BALE EROSION BARRIER

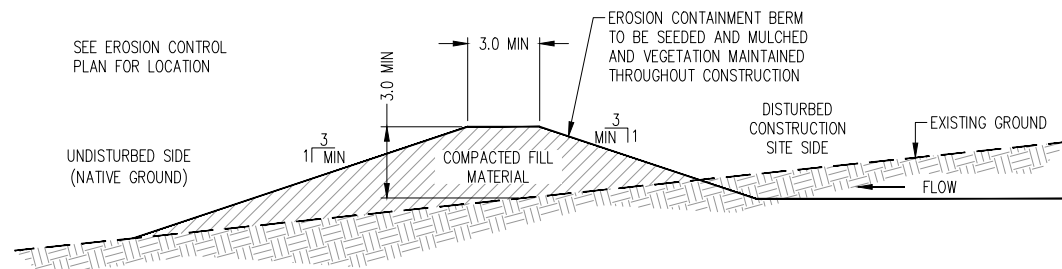


SEDIMENT LOGS
N.T.S.



STAKE DETAILS
N.T.S.

[DISTANCE BETWEEN CHANNEL BOTTOM AND TOP OF INSTALLED SEDIMENT LOGS (D)(FT) / CHANNEL GRADIENT (%)] X 100 = SEDIMENT LOGS SPACING (FT)



CONSTRUCTED BERM EROSION BARRIER

DRAWN BY: JVF		CHECKED BY: DAM		DATE: 04.29.21		DWG FILE: 862-005 BARN		REF FILE: 862-005 BARN		JOB NUMBER: 862-005 BARN	
DRAWING PHASE:		OWNER REVIEW		AGENCY REVIEW		BID DOCUMENT		FOR CONSTRUCTION		AS-BUILT DOCUMENT	
BRANCH OFFICE		3920 E. Main Street Suite 101 Hudson, WI 54016 Tel 715-381-5277		CORPORATE OFFICE		408 Technology Drive East Suite A Menomonee, WI 54751 Tel 715-282-8490		authconsulting.com		Auth•Consulting/associates S&B Land Surveying a division of A/C/a	
PROJECT: SOLHAWK DAIRY 2021 BARN EXPANSION TOWN OF WHEATON, CHIPPEWA COUNTY, WI											
EROSION CONTROL DETAILS											
SHEET NO. 2 OF 2											

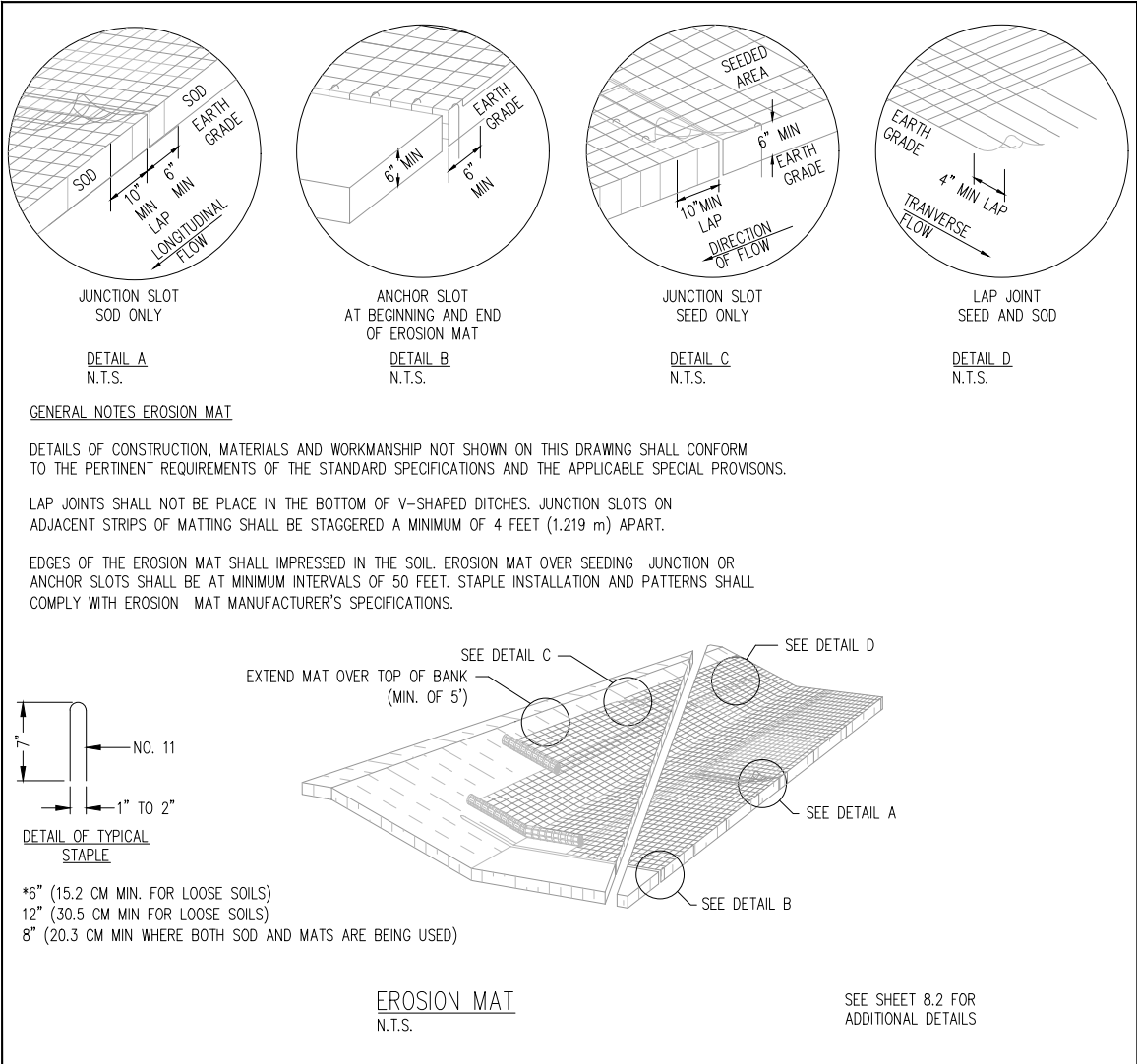


Figure 1. Planing Zones

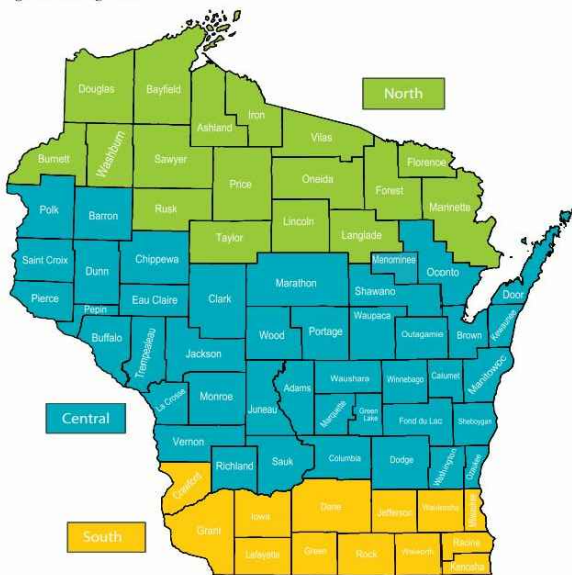


Table 1. Seeding Date/Ranges for Native Mixtures and Companion Crops

Zone	Spring Seeding
Northern	Thaw - 7/15
Central	Thaw - 6/30
Southern	Thaw - 6/30

Table 2. Seeding Date/Ranges for Introduced Grasses, Legumes, and Companion Crops

Planting Zone	Spring	Late Summer	Dormant
North	5/1 - 6/15	7/15 - 8/10	11/1 - Freeze Up
Central	4/15 - 6/1	8/1 - 8/21	11/1 - Freeze Up
South	4/1 - 5/15	8/7 - 8/29	11/1 - Freeze Up

GENERAL SEEDING NOTES (REFER TO WI NRCS PRACTICE STANDARD 342 – CRITICAL AREA PLANTING)

SEEDBED PREPARATION

A MINIMUM OF 4 INCHES OF FRIABLE SOIL MATERIAL OR TOPSOIL SHALL BE ADDED AND MIXED TO EXPOSED ROCKY, SANDY, GRAVELLY, SHALE MATERIAL, OR EXTREMELY FINE TEXTURED SUBSOIL. ALL GULLIES AND DEEP RILLS WILL BE FILLED AND LEVELED DURING SEEDBED PREPARATION. PRIOR TO PLANTING INTO CROPLAND FIELDS, VERIFY THAT HERBICIDES PREVIOUSLY APPLIED TO THE SITE WILL NOT 'CARRY OVER' AND DAMAGE THE NEW SEEDING. SITE PREPARATION SHALL BE ADEQUATE TO ASSURE WEED SUPPRESSION AND TO PROMOTE GERMINATION AND GROWTH OF THE SPECIES PLANTED. PLANTING EQUIPMENT TYPE, USE, AND TIMING SHALL BE APPROPRIATE FOR THE SITE CONDITIONS, SOIL CHARACTERISTICS, AND TYPE OF SEEDS (SIZE, ETC.) SELECTED TO ASSURE UNIFORM PLACEMENT AND GERMINATION. REFER TO WISCONSIN AGRONOMY TECHNICAL NOTES 5 AND 6 FOR DETAILED GUIDANCE FOR SPECIFIC SITUATIONS.

MULCHING, TEMPORARY COVER, AND COMPANION CROP

PLANTINGS SHALL BE MULCHED AS NECESSARY TO ENSURE ESTABLISHMENT. OTHER DISTURBED AREAS SHALL BE MULCHED AS NECESSARY TO PREVENT EROSION. MULCHING, TEMPORARY COVER, AND COMPANION CROPS ARE VITAL PRACTICES UTILIZED TO SUPPORT THE ESTABLISHMENT OF A CRITICAL AREA PLANTING. TEMPORARY COVER AND COMPANION CROPS SUPPRESS WEED GROWTH AND LIMIT SOIL EROSION DURING THE ESTABLISHMENT PERIOD. USE DEPENDS ON THE SITE CONDITIONS, METHOD OF PLANTING, AND SEED MIXTURE. FOR FURTHER DETAILS ON MULCHING, TEMPORARY COVER AND COMPANION CROP RECOMMENDATIONS, REFER TO WISCONSIN AGRONOMY TECHNICAL NOTES 5 AND 6.

CRITERIA FOR SEED MIXTURE DEVELOPMENT

SEEDING RATES ARE BASED ON SEEDS PER SQUARE FOOT OF PURE LIVE SEEDS. REFER TO WISCONSIN AGRONOMY TECHNICAL NOTES 5 AND 6 FOR THE RECOMMENDED SPECIES AND SEEDING RATES. APPROVED SPECIES FOR CRITICAL AREA PLANTING CAN BE FOUND IN WISCONSIN AGRONOMY TECHNICAL NOTES 5 AND 6. SPECIES NOT LISTED IN THE TECHNICAL NOTES MUST BE APPROVED IN ADVANCE BY THE STATE AGRONOMIST. INTRODUCED GRASS AND LEGUME PLANTINGS ON CRITICAL SITES. CUSTOM AND STANDARD MIXTURES WILL CONTAIN AT LEAST 50 PERCENT GRASS SEED OF WHICH 25 PERCENT WILL BE SOD FORMING (NOT BUNCH) GRASS. A MINIMUM OF 160 SEEDS PER SQUARE FOOT IS REQUIRED FOR EITHER A SOLID STAND OF GRASSES OR A COMBINATION OF GRASSES AND LEGUMES. INCREASE SEEDING RATE BY 15 PERCENT WHEN DORMANT SEEDING OCCURS. REFER TO TABLE 8 OF AGRONOMY TECHNICAL NOTE 6 FOR SUGGESTED SEED MIXES.

NATIVE HERBACEOUS PLANTINGS ON CRITICAL SITES

NATIVE SPECIES ARE GENERALLY NOT RECOMMENDED FOR CRITICAL AREA PLANTINGS DUE TO THEIR SLOW ESTABLISHMENT AND BECAUSE THEY ARE CLUMP GRASSES RATHER THAN SOD FORMING. ONLY SOD FORMING GRASSES ARE PERMITTED IN CONCENTRATED FLOW CHANNELS. COMPETITION AND POOR ESTABLISHMENT OF SOME SPECIES. SEEDS PER SQUARE FOOT SHOULD NOT EXCEED 25 PERCENT OF THE MINIMUM REQUIREMENT, WITH THE EXCEPTION OF MIXTURES DESIGNED FOR WET MESIC AND WET SITES.

SEEDING DATES

TIME PERIOD	DATES	TYPE OF SEEDING
Spring	April 15 through June 1	Permanent
Summer	June 2 through see WI-710ss pg 2	Temporary *
Late Summer	August 1 through August 21	Permanent
Fall	August 22 through see WI-710ss pg 2	Temporary *
Late Fall	November 1 through Snow Cover	Dormant
Winter	Snow Cover through April 14	Not Allowed

MATERIALS

If no soil test is available, apply a minimum of 150 pounds of 20-10-10 fertilizer per acre. This is equivalent to 30 pounds nitrogen (N), 15 pounds phosphate (P2O5), and 15 pounds potash (K2O) per acre. Apply two tons / acre of 80-89 lime or equivalent. (See page 2 for equivalent)

* Seed a temporary cover crop of Annual Ryegrass at 20 #/ac (0.8 bu/ac) A permanent seeding shall be completed during the next acceptable time period following a temporary seeding.

MINIMUM PURE LIVE SEED (PLS) ¹ RATE PER ACRE AND TOTAL POUNDS OF SEED NEEDED

SEEDING MIX (DESIGN)	LOCATION ACRES:	SEEDING MIX (AS-BUILT) ACRES:
SPECIES	RATE POUNDS	RATE POUNDS
Smooth Bromegrass	7.1 14.1	
Timothy	2.0 4.0	
Creeping Red Fescue	1.0 2.0	
Kentucky Bluegrass	1.0 2.0	
Perennial Ryegrass	3.0 6.1	
Red Clover	3.0 6.1	
Annual Ryegrass	6.0 12.0	

¹ PLS lbs. = (total % Germination / 100 * % Purity / 100) * Net Weight (lbs.)

ADDITIONAL SEED PERCENT: 1 %

Mulching Required Yes

** Companion Crop

Total % Germination may also be termed Total % Viable Seed on a tag. If a tag only shows % Germination, the user must include percentage of the seed that germinated during the lab test (% Germination) plus the percentage of hard and/or dormant seed. Hard seed and dormant seed are seeds that are still capable of germinating and producing a plant but did not germinate under the conditions of the test in the lab.

Additional native seeds may be required by permitting agencies. These addition are allowed.

Seed mixture shall meet all requirements of the WI weed laws.

Species identified as restricted or prohibited by law shall not be planted.

Certified seed shall be used, and the seeding rates will be based on pure live seed.

For dormant seedings, increase the seeds per square foot by 15%.

SEEDBED PREPARATION

Seedbed preparation shall immediately follow construction activities.

Prepare a fine, firm seedbed to a minimum depth of three inches. A seedbed is considered firm when a footprint penetrates less than 1/4 inch deep.

BRANCH OFFICE

3920 Embury Street
Suite 101
Hudson, WI 54016
Tel 715-381-5277

authiconsulting.com

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SA® Land Surveying a division of A.C/a

PROJECT:

SOLHAWK DAIRY

2021 BARN EXPANSION

TOWN OF WHEATON, CHIPPEWA COUNTY, WI

SHEET NO.

2-1

DRAFT: 09-23-2021

CHIPPEWA COUNTY – PLANNING & ZONING COMMITTEE NOTICE OF ACTION

Conditional Use Permit for a Livestock Facility (Town of Wheaton)

APPEAL NUMBER: # 2021-0009

APPEAL DATE: 09-23-2021

LAND OWNER(S):

Solhawk Dairy, Inc, 8777 County Highway X, Chippewa Falls, Wisconsin 54729
D & D Hawkins Farm, Inc, 8544 County Highway X, Chippewa Falls, Wisconsin 54729
D & D Hawkins Farm, Inc, 8544 County Highway X, Chippewa Falls, Wisconsin 54729

Parcel Number:

22809-2012-00210000
22809-2012-00020000
22809-2011-00020000

Dear Solhawk Dairy, Inc. and D & D Hawkins Farm, Inc,

On September 23, 2021, the Planning & Zoning Committee considered your request for a Conditional Use Permit, which would allow the expansion of an existing Livestock Facility in the Agricultural District in accordance with Sections 70-71(b)(16), 70-108 and 70-160 through 70-173 of the Chippewa County Zoning Ordinance. Parcels are located in the N ½ of the NE ¼, Section 20, Township 28 North, Range 09 West, Town of Wheaton.

DECISION:

The Planning & Zoning Committee has **GRANTED** the conditional use permit, per the submitted documents, because the application for the proposed livestock facility contains sufficient credible information to show, in the absence of clear and convincing information to the contrary, that the proposed livestock facility meets the standards of the Zoning Ordinance.

The permit expiration, compliance monitoring, terms of the permit and transferability of this permit are listed below:

Sec. 70-168 Expiration of Permit.

- (a) Expiration of Permit. A permit remains in effect regardless of the amount of time that elapses before the livestock operator exercises the authority granted under the permit, and regardless of whether the livestock operator exercises the full authority granted by the approval. However, the county may treat a permit as lapsed and withdraw the permit if the permit holder fails to do all of the following within 2 years after issuance of permit:
 - (1) *Begin* populating the new or expanded livestock facility.
 - (2) *Begin* constructing all of the new or expanded livestock housing or waste storage structures proposed in the permit application.
- (b) Permit Modifications. The operator shall notify the Administrator of any alteration or management changes that may affect compliance with the standards. The operator may make reasonable changes that maintain compliance with the standards in this ordinance, and the county shall not withhold authorization for those changes.

Sec. 70-169 Compliance Monitoring.

The Department shall monitor compliance with the ordinance as follows:

- (a) A livestock operator shall develop and submit to LCFM a complete nutrient management plan for the operation within 12 months of populating the permitted livestock facility.
 - (1) The operator shall maintain field specific nutrient management records, as needed to verify compliance, and shall develop and file annual updates to this plan. LCFM will review these records and plans on an

DRAFT: 09-23-2021

annual basis to monitor compliance with ATCP 51.16(1)(a)1. Written correspondence detailing the annual monitoring shall be sent to the Administrator and the livestock operator regarding compliance or non-compliance.

- (b) Upon given notice to the livestock facility owner requesting the right of the Department to personally view the permitted facility at a reasonable time and date to insure that all commitments of the application as approved are being complied with.
- (c) If the livestock facility owner refuses these authorities the right to view the permitted facility, the Administrator may obtain an inspection warrant from the circuit court to inspect the permitted facility for the purpose of protection of the public health and safety under Sec. 66.0119 of Wis. Statutes.
- (d) If a permitted facility is found not to be in compliance with the commitments made in the approved application, LCFM shall prepare an evaluation report that documents the points of non-compliance. LCFM shall provide this report to the Administrator. The Administrator shall issue a written notice to the livestock facility owner stating the conditions of non-compliance and directing that compliance of the commitments of the approved application be complied with in a reasonable amount of time stated in this written notice.
- (e) If non-compliance of the permit conditions as described in the written notice given by the Administrator continue past the stated reasonable time to comply, the Administrator may take further action as provided in this ordinance, including but not limited to issuance of a citation or seeking of injunctive relief.
- (f) If the livestock facility owner disputes that the conditions of the permit have not been complied with, the livestock facility owner may request a hearing in writing within five (5) days of receipt of the notice of noncompliance. The Committee shall schedule a hearing within five (5) days to determine if the conditions of the permit have been complied with or whether non-compliance of the commitments of the approved application and local approval exists.

Sec. 70-170 Terms of the Permit.

A permit and the privileges granted by a permit issued under this ordinance is conditioned on the livestock operator's compliance with the standards in this ordinance, and with commitments made in the application for a permit. The County is authorized to suspend a permit or seek other redress provided in this ordinance for non-compliance.

Sec. 70-171 Transferability

A permit and the privileges granted by the permit run with land, and remain in effect, despite a change in ownership of the livestock facility, as long as the new operator does not violate the terms of the local approval. An applicant may record with the Register of Deeds, at the applicant's expense, the duplicate copy of the approved application.

- (a) Upon change of ownership of the livestock facility, the new owner of the facility shall file information with the County Clerk providing pertinent information, including but not limited to such information as the name and address of the new owner and date of transfer of ownership.

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. Information can be reviewed and/or requested between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding Holidays.

Dated this 23rd day of September, 2021.

By the Order of the Planning & Zoning Committee.

Douglas Clary

APPEAL NUMBER: # 2021-0009
APPROVAL DATE: September 23, 2021

DRAFT: 09-23-2021

Douglas Clary, Director
Department of Planning & Zoning

CC: Solhawk Dairy, Inc, 8777 County Highway X, Chippewa Falls, Wisconsin 54729 – *Hard Copy*
D & D Hawkins Farm, Inc, 8544 County Highway X, Chippewa Falls, Wisconsin 54729 –
DATCP – *via email*

Attachment: 2021-0009 Solhawk Dairy, Inc. - CUP - DRAFT_Decision (6611 : 2021-0009 Solhawk Dairy, Inc - Conditional Use Request)



STATEMENT OF EXPLANATION
2021-0010 DANIEL OLSON - CONDITIONAL USE PERMIT

5.2

To allow a contractor storage yard (Dan's Construction & Excavating, Inc.) in the Agricultural District in accordance with Sections 70-71(b)(5) and 70-108 of the Chippewa County Zoning Ordinance on a parcel which is located in the NW $\frac{1}{4}$ of the SW $\frac{1}{4}$, Section 15, Township 28 North, Range 09 West. Town of Wheaton. Vacant land, County Highway X.

(Publish – Chippewa Herald – September 9 and 16, 2021)

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 23, 2021** beginning at **4:30 PM** at the Chippewa County Courthouse, Room 302, 711 N Bridge Street, Chippewa Falls, Wisconsin relative to the following request.

Conditional Use Request: 2021-0009

Petitioner: Solhawk Dairy, Inc

Agent: Dennis Hawkins and Mike Buchner of Auth Consulting & Associates, Inc.

To allow the expansion of an existing Livestock Operation in the Agricultural District in accordance with Sections 70-71(b)(16), 70-108 and 70-160 through 70-173 of the Chippewa County Zoning Ordinance. Parcels are located in the N ½ of the NE ¼, Section 20, Township 28 North, Range 09 West. Town of Wheaton. Physical Address: 8777 County Highway X.

Conditional Use Request: 2021-0010

Petitioner: Daniel Olson

Agent: CBS Squared/Tyler Hastings

To allow a contractor storage yard (Dan's Construction & Excavating, Inc.) in the Agricultural District in accordance with Sections 70-71(b)(5) and 70-108 of the Chippewa County Zoning Ordinance on a parcel which is located in the NW ¼ of the SW ¼, Section 15, Township 28 North, Range 09 West. Town of Wheaton. Vacant land, County Highway X.

Conditional Use Request: 2021-0011

Petitioner: David Crane

To allow private aircraft storage in the Agricultural District in accordance with Sections 70-71(b)(4) and 70-108 of the Chippewa County Zoning Ordinance. Lot 1, CSM 5140, which is located in the SW ¼ of the NW ¼, Section 16, Township 28 North, Range 07 West. Town of Lafayette. Physical Address: 21064 45th Ave.

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 **27th** day of **August**, 2021.

Douglas Clary, Director
Department of Planning & Zoning
Chippewa County

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

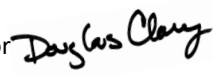
Land Planning

Land Records & G.I.S.

POWTS & Wells

Date: August 27, 2021

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 conditional use 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 conditional use petition. If you have any questions regarding this conditional use petition, please contact me at (715) 726-7941.

CONDITIONAL USE PETITION #2021-0010

Petitioner: Daniel Olson

Agent: CBS Squared/Tyler Hastings

To allow a contractor storage yard (Dan's Construction & Excavating, Inc.) in the Agricultural District in accordance with 70-71(b)(5) and 70-108 of the Chippewa County Zoning Ordinance on a parcel which is located in the NW ¼ of the SW ¼, Section 15, Township 28 North, Range 09 West. Town of Wheaton.

The Wheaton Parks and Planning Commission will **REVIEW** this request on **September 7, 2021 at 7:00 PM**, at the Wheaton Town Hall, 4975 County Highway T, Chippewa Falls, Wisconsin 54729. The Parks and Planning Commission will forward an **ADVISORY** recommendation to the Wheaton Town Board to approve, disapprove or approve with modification(s) and/or condition(s).

The Wheaton Town Board will **REVIEW** this request on **September 14, 2021 at 7:00 PM**, at the Wheaton Town Hall, 4975 County Highway T, Chippewa Falls, Wisconsin 54729. The Town Board will forward an **ADVISORY** recommendation to the Chippewa County Planning & Zoning Committee to approve, disapprove or approve with modification(s) and/or condition(s).

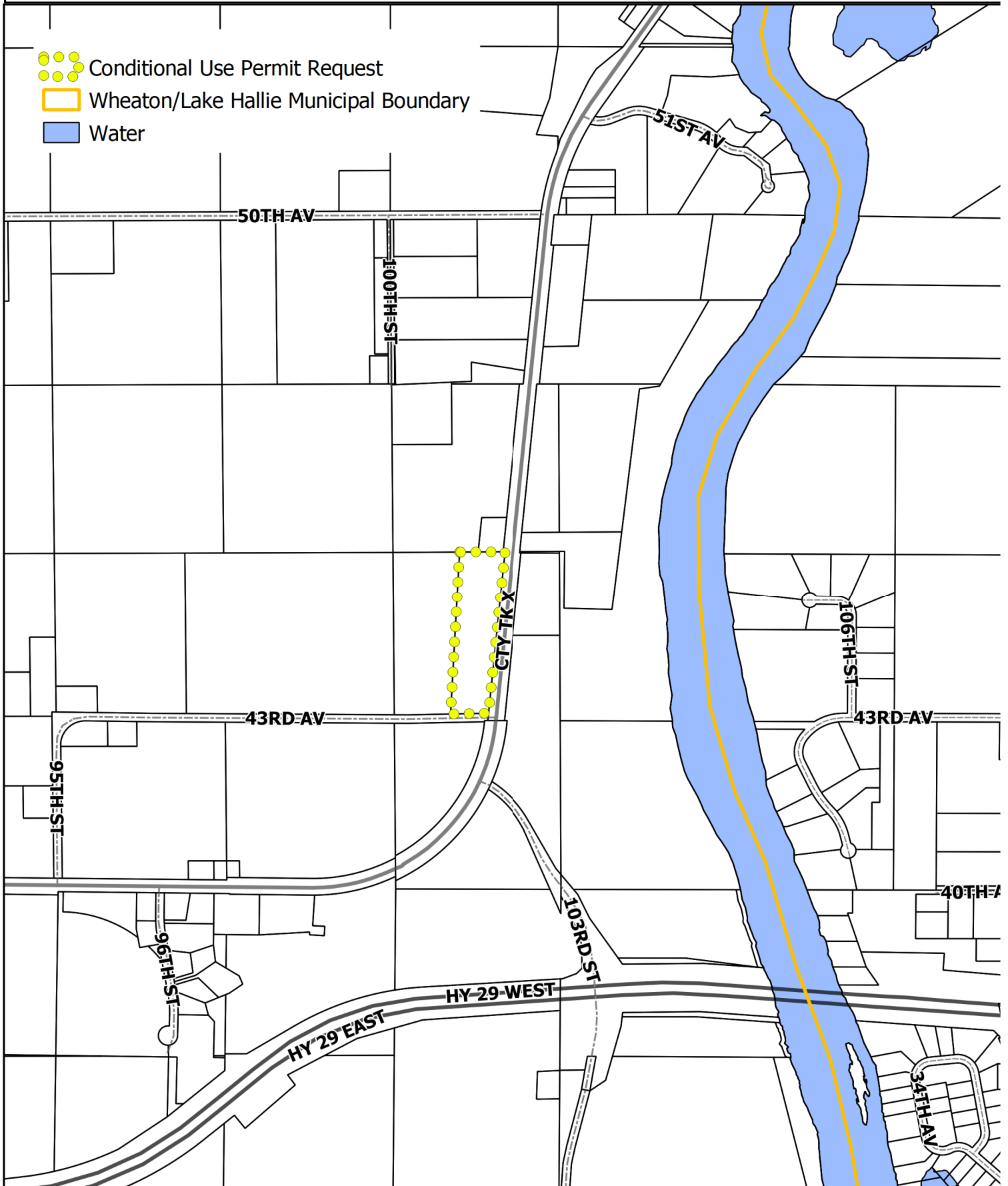
The Chippewa County Planning & Zoning Committee will hold a **PUBLIC HEARING** on **September 23, 2021 at 4:30 PM**, as a telephone conference call, please see the agenda for specifications on calling in to the meeting. The Committee will make a final determination to approve or disapprove of the conditional use petition.

Attachment: 2021-0010 Olson (Dan's Construction & Excavation, Inc) - Public Hearing Notices & Maps (6612 : 2021-0010 Daniel Olson -

**2021-0010 Olson (Dan's Construction & Excavating, Inc.)
Conditional Use Request - Location Map**

5.2.a

-  Conditional Use Permit Request
-  Wheaton/Lake Hallie Municipal Boundary
-  Water



Attachment: 2021-0010 Olson (Dan's Construction & Excavating, Inc.) - Public Hearing Notices & Maps (6612 : 2021-0010 Daniel Olson -

**2021-0010 Olson (Dan's Construction & Excavating, Inc.)
Conditional Use Request - Aerial (2021)**

5.2.a

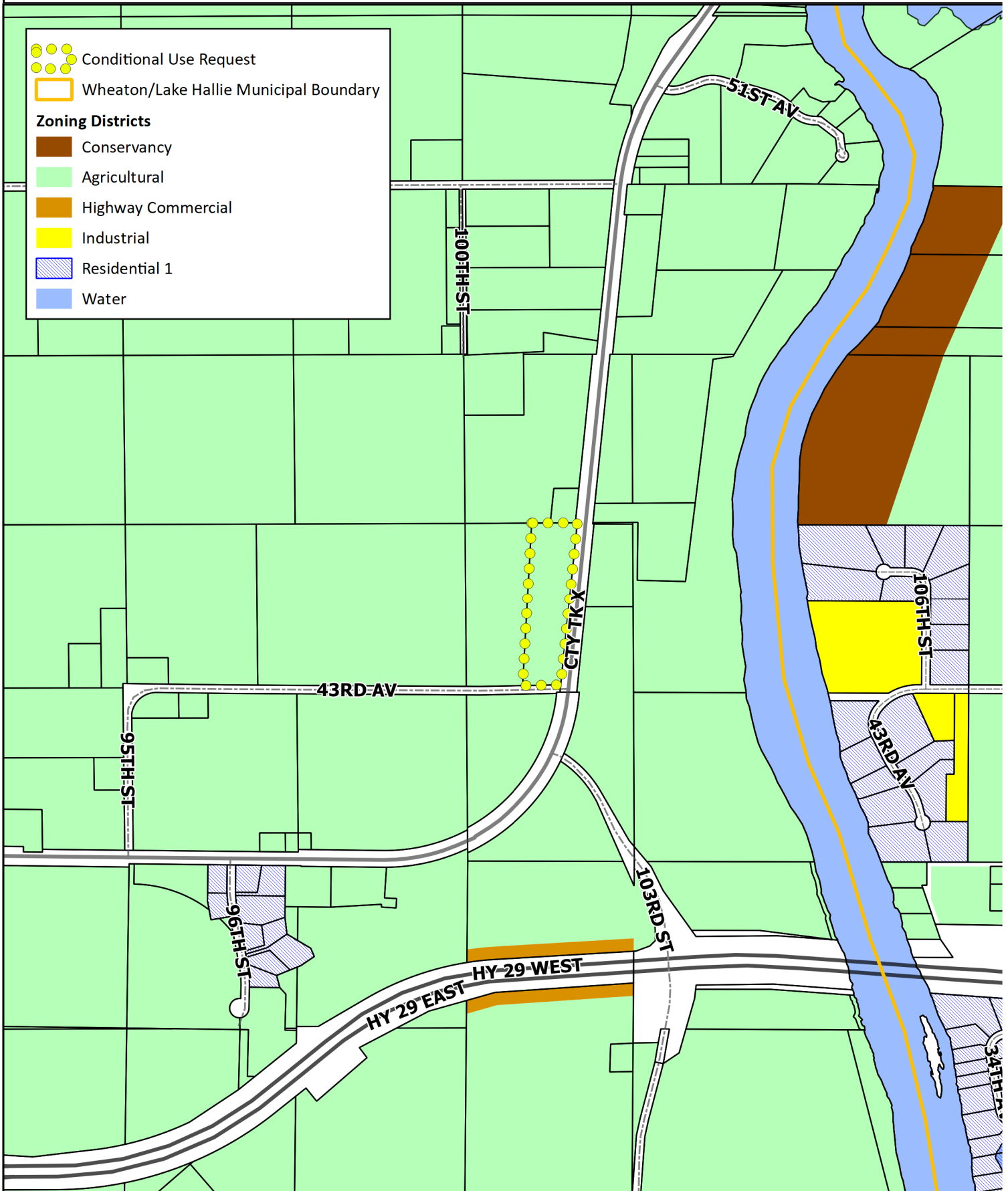
 Conditional Use Request



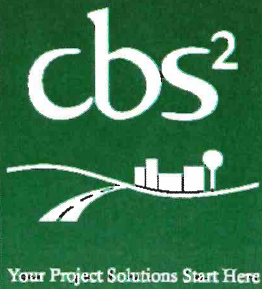
Attachment: 2021-0010 Olson (Dan's Construction & Excavation, Inc) - Public Hearing Notices & Maps (6612 : 2021-0010 Daniel Olson -

2021-0010 Olson (Dan's Construction & Excavating, Inc.) Conditional Use Request - Zoning Districts

5.2.a



Attachment: 2021-0010 Olson (Dan's Construction & Excavating, Inc.) - Public Hearing Notices & Maps (6612 : 2021-0010 Daniel Olson -



Date: August 25th, 2020

Chippewa County Planning and Zoning
Attn: Doug Clary, Director
711 N Bridge Street
Chippewa Falls, WI 54729

RE: Conditional Use Permit Application

Dear Mr. Clary:

Our office is assisting Dan's Construction and Excavation Inc. in its application for a conditional use permit for the property with Parcel ID 22809-1532-00020002 at County Highway X, Chippewa Falls, WI 54729 located in the Town of Wheaton. The land is owned by Daniel Olson of Dan's Construction and Excavation Inc.

The Property is currently zoned as Agriculture District (see Exhibit A) and Dan's Construction and Excavation Inc, is requesting to use the property as a contractor's storage yard which is a conditional use of property within the Agriculture District pursuant to Chippewa County Ordinance 70-71 (b) (5). As required by Chippewa County Ordinance 70-71 (b) (5) there will be a 5-foot berm that will act as a screening device. Trees will be planted on top of the berm to further improve screening. Where berms are not constructed, trees will be planted with spacing to provide screening.

Construction plans can be found in Exhibit B. The site will be used for storage of equipment, primarily in the winter, and have no customer traffic. The site will only be accessed when equipment is needed from storage. Other parts of the property will be maintained as a tree farm and potentially have bee hives. At this time there are no plans for expansion. The hours of operation will be Monday through Friday, 6 am to 7 pm. The site will be used immediately upon completion indefinitely. There will be minimal traffic impacts from this project, as it will only be accessed to store and retrieve equipment. Water may be applied to the gravel pad from time to time to control dust. As seen in Exhibit B, all setback requirements will be met. The stormwater plan has been approved by the Wisconsin DNR as compliant with NR 151.

If you or the Chippewa County Planning & Zoning Committee need any further documentation or have questions/concerns, please do not hesitate to contact us at (715) 505-8633.

Sincerely,

Tyler Hastings, PE

770 Technology Way
Chippewa Falls, WI
54729

info@cbssquaredinc.com

cbssquaredinc.com

Attachment: (1) Business Plan (6612 : 2021-0010 Daniel Olson - Conditional Use Request)

Dan's Construction and Excavation Inc.

New Shop

Wheaton, Wisconsin

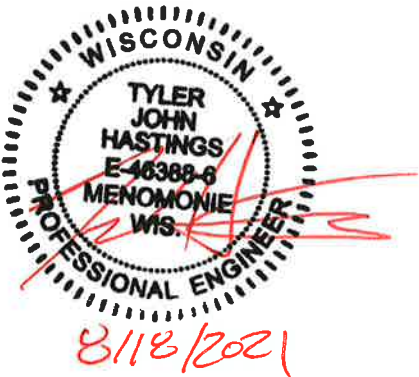
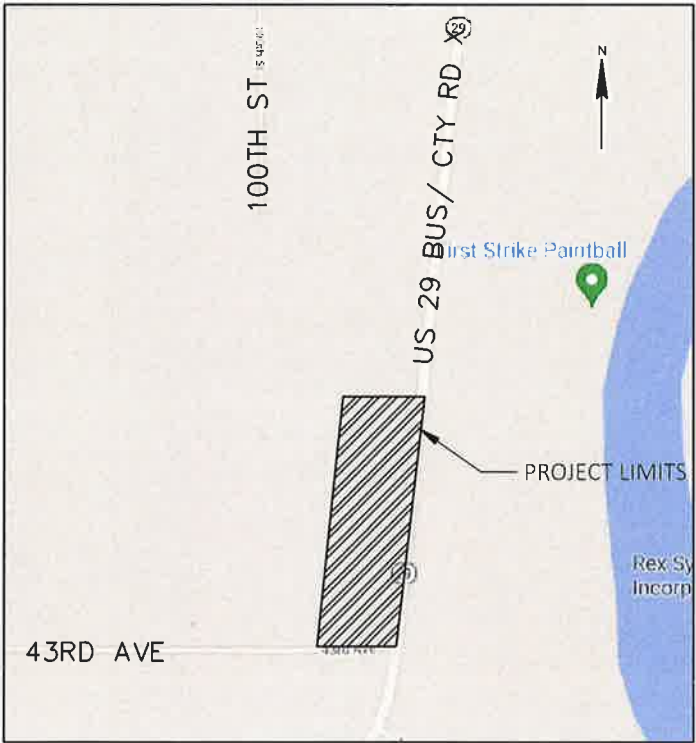
SHEET INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
CD01-CD03	CONSTRUCTION DETAILS
P01	SITE PLAN
G01	GRADING PLAN
EC01	EROSION CONTROL
SS01-SS02	STORM SEWER

LEGEND

EXISTING	PROPOSED
RIGHT OF WAY	STORM SEWER
PROPERTY LINE	SLOPE INTERCEPTS
SAN SANITARY SEWER	CONSTRUCTION LIMITS
W WATER SERVICE	INLET PROTECTION
W V WATER VALVE	DRAINAGE STRUCTURE
SS STORM SEWER	SS STORM SEWER MANHOLE
C CULVERT	
E UNDERGROUND ELECTRIC CABLE OR CONDUIT	
OH OVERHEAD ELECTRIC CABLE	
G UNDERGROUND GAS MAIN	
T UNDERGROUND TELEPHONE CABLE OR CONDUIT	
TV UNDERGROUND TELEVISION CABLE OR CONDUIT	
F FIRE HYDRANT	
E C ELECTRIC CONTROL CABINET/BOX	
M H MANHOLE	
E T ELECTRIC TRANSFORMER/PEDESTAL	
P P POWER POLE & GUY ANCHOR	
L P LIGHT POLE	
G V GAS VALVE	
C S CURB STOP	
U P UTILITY PEDESTAL	
C P CONTROL POINT REBAR	
T D TREE (DECIDUOUS)	
T C TREE (CONIFEROUS)	
B S BUSH-SHRUB	
B L D G BUILDING	

LOCATION MAP



NOTE:
THE EXACT LOCATION OF UNDERGROUND UTILITIES SUCH AS GAS, TELEPHONE, FIBER OPTIC, ELECTRIC, CABLE TV, AND PIPE LINES ARE UNKNOWN. THE CONTRACTOR SHALL CONTACT DIGGERS HOTLINE AND ALL OTHER UTILITY OWNERS WHICH ARE WITHIN PROJECT LIMITS, BEFORE COMMENCING EXCAVATION.

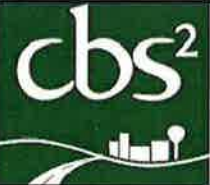


Dial 811 or (800) 242-8511
www.DiggersHotline.com

PROJECT DIRECTORY

OWNER/DEVELOPER
DAN OLSON
DAN'S CONSTRUCTION AND EXCAVATION INC.
7929 COUNTY HWY Q
CHIPPEWA FALLS, WI 54729
715.726.1262
CONTACTS: CHAD OLSON (dansconstructionexcavating@gmail.com)

PROJECT ENGINEER
CBS SQUARED, INC
770 TECHNOLOGY WAY
CHIPPEWA FALLS, WI 54729
715.861.5226
CONTACTS: CHAD OSTER, PROJECT MANAGER (coster@cbssquaredinc.com)
TYLER HASTINGS, PE (thastings@cbssquaredinc.com)



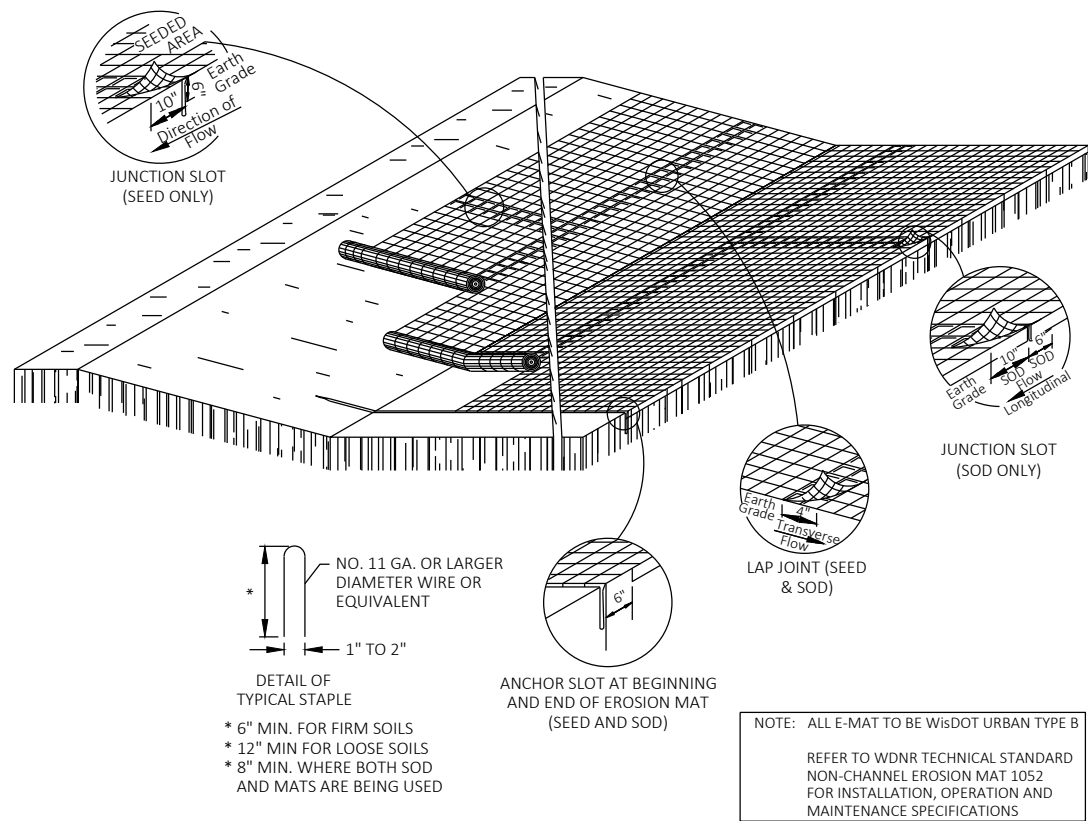
Engineers - Surveyors - Architects
770 Technology Way
Chippewa Falls, WI 54729
Phone: 715.861.5226
www.cbssquaredinc.com

DRAWN BY:	DLS	REVISIONS
DATE:	8/17/2021	DATE: DESCRIPTION:
CHECKED BY:	TJH	
HORIZ. SCALE:		
VERT. SCALE:		
PROJECT NO.	OLSON20001	

DAN'S CONSTRUCTION
NEW SHOP
WHEATON, WI

TITLE SHEET

SHEET
1



EROSION MAT

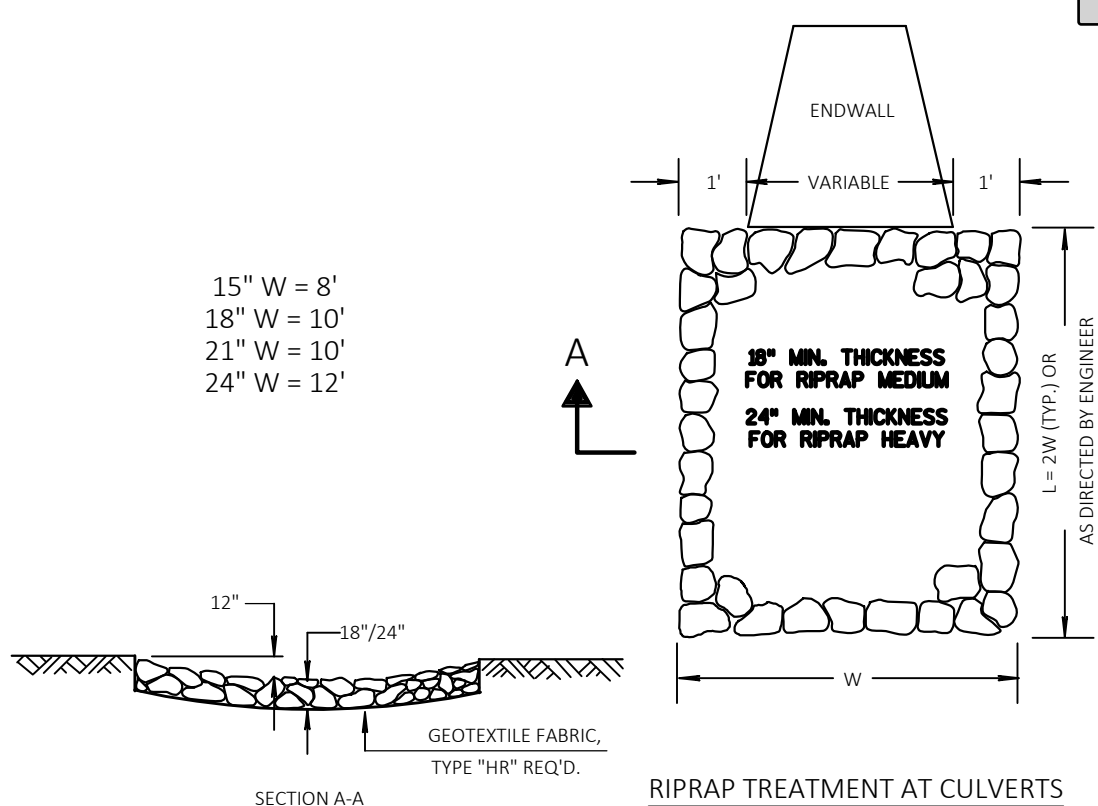
GENERAL NOTES: DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL SPECIFICATIONS.

GENERAL NOTES: VARIATIONS IN THE DIMENSIONS OF MATERIALS SHOWN HEREON SHALL BE PERMITTED IF THEY PROVIDE EQUIVALENT PROTECTION AND MATERIAL STRENGTH AND IF PRIOR APPROVAL OF THE ENGINEER IS OBTAINED.
LAP JOINTS SHALL NOT BE PLACED IN THE BOTTOM OF V-SHAPED DITCHES.
JUNCTION SLOTS ON ADJACENT STRIPS OF MATTING SHALL BE STAGGERED A MINIMUM OF 4 FEET APART.
EDGES OF THE EROSION MAT SHALL BE IMPRESSED IN THE SOIL.

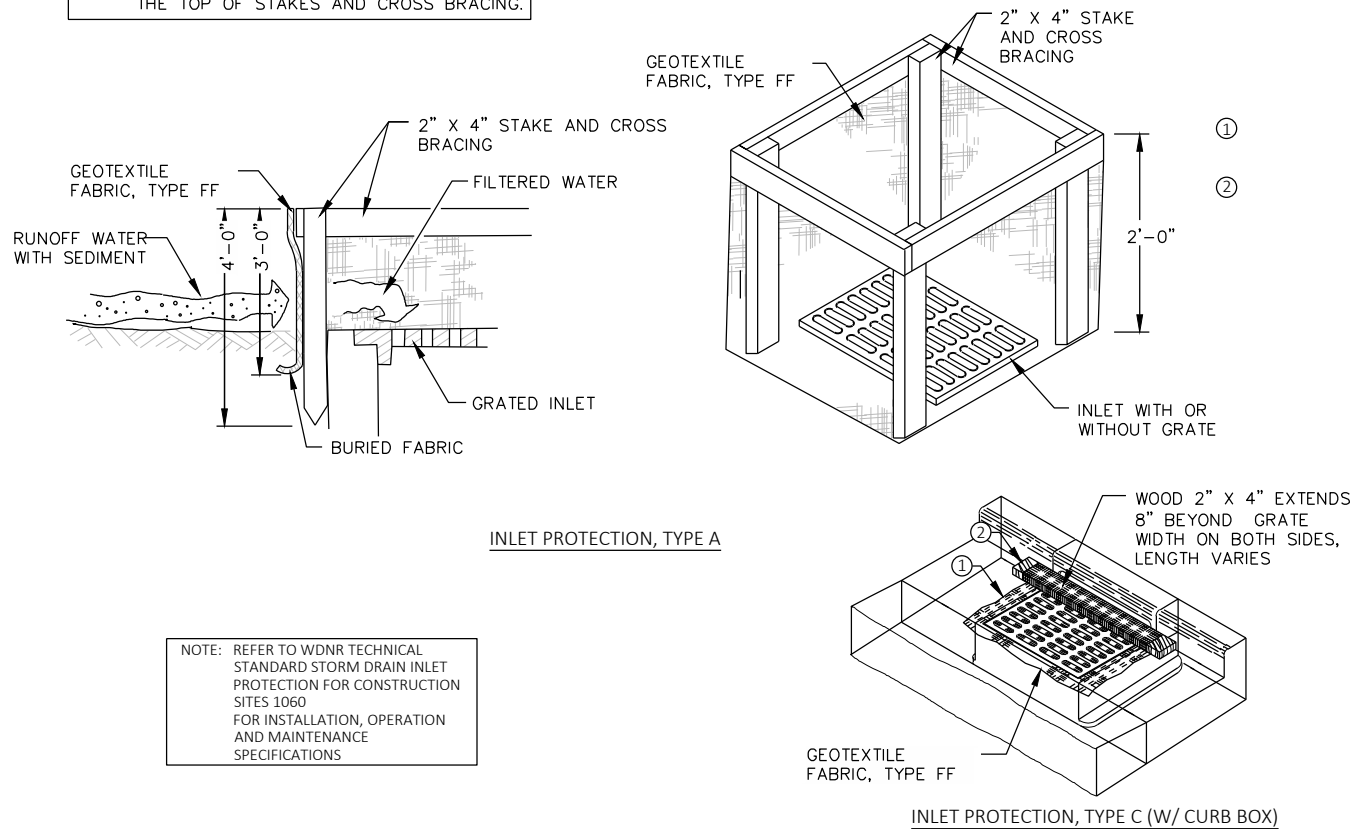
EROSION MAT OVER SOD: A: ONLY JUTE FABRIC WILL BE PERMITTED OVER SOD.
B: ROAD STAKES FOR THE SOD MAY BE OMITTED BY THE ENGINEER IF THE EXISTING SLOPE AND SOIL CONDITIONS SO WARRANT.
C: THE WIDTH OF EROSION MAT SHALL ALWAYS EQUAL THE SOD WIDTH.
D: SOD STRIPS MAY BE PLACED EITHER LONGITUDINALLY OR TRANSVERSELY TO THE FLOW LINE OF THE DITCH.

EROSION MAT OVER SEEDING: JUNCTION OR ANCHOR SLOTS SHALL BE AT MINIMUM INTERVALS OF 100 FEET ON GRADES UP TO AND INCLUDING 3 PERCENT, AND 50 FEET ON GRADES EXCEEDING 3 PERCENT.

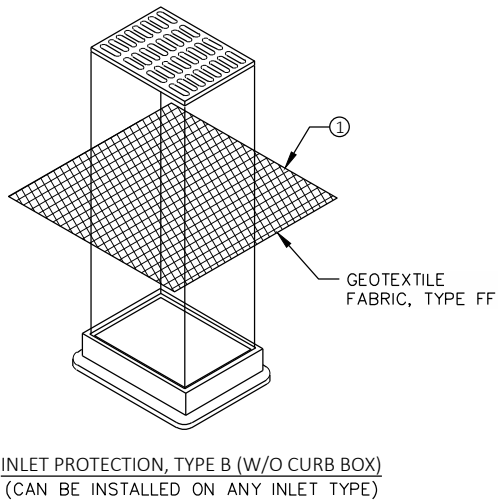
ROADWAY CLEANING: SWEEPING OF ROAD MUST BE DONE AT A MINIMUM OF ONCE A DAY OR MORE TO REMOVE ALL SEDIMENTS FROM THE ROADWAYS AS NEEDED.



NOTE: ATTACH GEOTEXTILE FABRIC, TYPE FF TO THE TOP OF STAKES AND CROSS BRACING.



INLET PROTECTION



GENERAL NOTES:

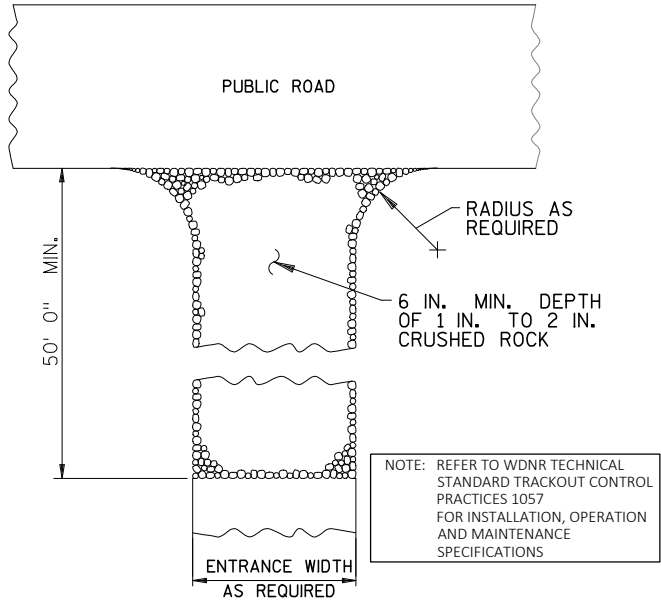
FABRIC SHALL BE REPLACED AT THE ENGINEERS DISCRETION. MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED FOR THE INLET PROTECTION TYPE SPECIFIED. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

FABRIC SIZE SHALL BE 8" (MIN) GREATER ON ALL SIDES OF THE INLET COVER TO PROVIDE A HAND HOLD WHEN MAINTENANCE OR REMOVAL IS REQUIRED.

FOR INLET PROTECTION, TYPE C, WITH A CURB BOX, AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX.

EROSION CONTROL NOTES

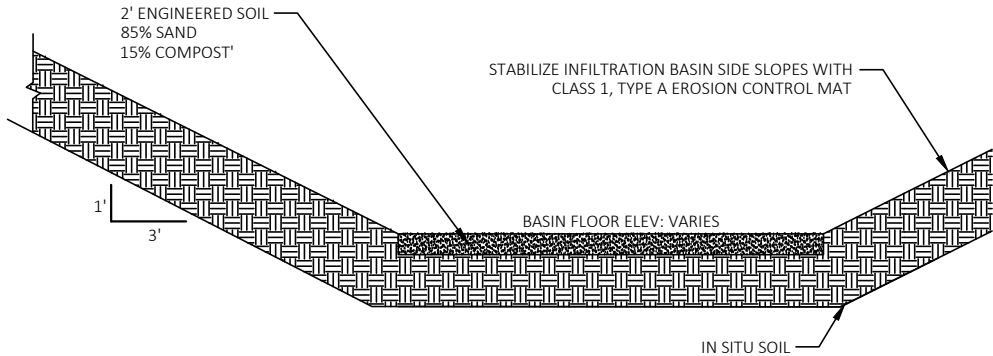
1. POST WDNR CERTIFICATE OF PERMIT COVERAGE ON SITE AND MAINTAIN UNTIL CONSTRUCTION ACTIVITIES HAVE CEASED, THE SITE IS STABILIZED, AND A NOTICE OF TERMINATION IS FILED WITH WDNR.
2. KEEP A COPY OF THE CURRENT EROSION CONTROL PLAN ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
3. CONTRACTOR IS RESPONSIBLE FOR ROUTINE SITE INSPECTIONS AT LEAST ONCE EVERY 7 DAYS AND WITHIN 24 HOURS AFTER A RAINFALL EVENT OF 0.5 INCHES OR GREATER. KEEP INSPECTION REPORTS ON-SITE AND MAKE THEM AVAILABLE UPON REQUEST.
4. INSPECT AND MAINTAIN ALL INSTALLED EROSION CONTROL PRACTICES UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
5. WHEN POSSIBLE: PRESERVE EXISTING VEGETATION (ESPECIALLY ADJACENT TO SURFACE WATERS), MINIMIZE LAND-DISTURBING CONSTRUCTION ACTIVITY ON SLOPES OF 20% OR MORE, MINIMIZE SOIL COMPACTION, AND PRESERVE TOPSOIL.
6. REFER TO THE WDNR STORMWATER CONSTRUCTION TECHNICAL STANDARDS AT [HTTP://DNR.WI.GOV/TOPI/C/STORMWATER/STANDARDS/CONST_STANDARDS.HTML](http://DNR.WI.GOV/TOPI/C/STORMWATER/STANDARDS/CONST_STANDARDS.HTML).
7. INSTALL PERIMETER EROSION CONTROLS AND ROCK TRACKING PAD CONSTRUCTION ENTRANCE(S) PRIOR TO ANY LAND-DISTURBING ACTIVITIES, INCLUDING CLEARING AND GRUBBING. USE WDNR TECHNICAL STANDARD *STONE TRACKING PAD AND TIRE WASHING #1057* FOR ROCK CONSTRUCTION ENTRANCE(S).
8. INSTALL INLET PROTECTION PRIOR TO LAND-DISTURBING ACTIVITIES IN THE CONTRIBUTING DRAINAGE AREA AND/OR IMMEDIATELY UPON INLET INSTALLATION. COMPLY WITH WDNR TECHNICAL STANDARD *STORM DRAIN INLET PROTECTION FOR CONSTRUCTION SITES #1060*.
9. STAGE CONSTRUCTION GRADING ACTIVITIES TO MINIMIZE THE CUMMULATIVE EXPOSED AREA. CONDUCT TEMPORARY GRADING FOR EROSION CONTROL PER WDNR TECHNICAL STANDARD *TEMPORARY GRADING PRACTICES FOR EROSION CONTROL #1067*.
- 10.PERMITTING OF GROUNDWATER DEWATERING IS THE RESPONSIBILITY OF THE CONTRACTOR. GROUNDWATER DEWATERING IS SUBJECT TO A DNR WASTEWATER DISCHARGE PERMIT AND A DNR HIGH CAPACITY WELL APPROVAL IF CUMULATIVE PUMP CAPACITY IS 70 GPM OR MORE.
- 11.PROVIDE ANTI-SCOUR PROTECTION AND MAINTAIN NON-EROSIVE FLOW DURING DEWATERING. PERFORM DEWATERING OF ACCUMULATED SURFACE RUNOFF IN ACCORDANCE WITH WDNR TECHNICAL STANDARD *DE-WATERING #1061*. (REV. FEBRUARY 2017)
- 12.CONSTRUCT AND PROTECT THE BIOINFILTRATION BASIN AND VEGETATION FROM RUNOFF AND SEDIMENT DURING CONSTRUCTION. REFERENCE THE WDNR TECHNICAL STANDARD BIORETENTION FOR INFILTRATION # 1004.
- 13.INSTALL AND MAINTAIN SILT FENCING PER WDNR TECHNICAL STANDARD *SILT FENCE #1056*. REMOVE SEDIMENT FROM BEHIND SILT FENCES AND SEDIMENT BARRIERS BEFORE SEDIMENT REACHES A DEPTH THAT IS EQUAL TO ONE-HALF OF THE FENCE AND/OR BARRIER HEIGHT.
- 14.REPAIR BREAKS AND GAPS IN SILT FENCES AND BARRIERS IMMEDIATELY. REPLACE DECOMPOSING STRAW BALES (TYPICAL BALE LIFE IS 3 MONTHS). LOCATE, INSTALL, AND MAINTAIN STRAW BALES PER WDNR TECHNICAL STANDARD *DITCH CHECKS #1062*.
- 15.IMMEDIATELY STABILIZE STOCKPILES AND SURROUND STOCKPILES AS NEEDED WITH SILT FENCE OR OTHER PERIMETER CONTROL IF STOCKPILES WILL REMAIN INACTIVE FOR 7 DAYS OR LONGER.
- 16.IMMEDIATELY STABILIZE ALL DISTURBED AREAS THAT WILL REMAIN INACTIVE FOR 14 DAYS OR LONGER. BETWEEN SEPTEMBER 15 AND OCTOBER 15: STABILIZE WITH MULCH, TACKIFIER, AND A PERENNIAL SEED MIXED WITH WINTER WHEAT, ANNUAL OATS, OR ANNUAL RYE, AS APPROPRIATE FOR REGION AND SOIL TYPE OCTOBER 15 THROUGH COLD WEATHER: STABILIZE WITH A POLYMER AND DORMANT SEED MIX, AS APPROPRIATE FOR REGION AND SOIL TYPE.
- 17.STABILIZE AREAS OF FINAL GRADING WITHIN 7 DAYS OF REACHING FINAL GRADE.
- 18.SWEEP/CLEAN UP ALL SEDIMENT/TRASH THAT MOVES OFF-SITE DUE TO CONSTRUCTION ACTIVITY OR STORM EVENTS BEFORE THE END OF THE SAME WORKDAY OR AS DIRECTED BY CITY OR ENGINEER. SEPARATE SWEEP MATERIALS (SOILS AND TRASH) AND DISPOSE OF APPROPRIATELY.
- 19.CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST PER WDNR TECHNICAL STANDARD*DUST CONTROL ON CONSTRUCTION SITES # 1068*.
20. PROPERLY DISPOSE OF ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, OR OTHER CONSTRUCTION MATERIALS) AND DO NOT ALLOW THESE MATERIALS TO BE CARRIED BY RUNOFF INTO THE RECEIVING CHANNEL.
21. MAKE PROVISIONS FOR WATERING DURING THE FIRST 8 WEEKS FOLLOWING SEEDING OR PLANTING OF DISTURBED AREAS WHENEVER MORE THAN 7 CONSECUTIVE DAYS OF DRY WEATHER OCCUR.
29. [ENTER RESPONSIBLE PARTY] IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE WDNR REMEDIATION AND WASTE MANAGEMENT REQUIREMENTS FOR HANDLING AND DISPOSING OF CONTAMINATED MATERIALS. SITE-SPECIFIC INFORMATION FOR AREAS WITH KNOWN OR SUSPECTED SOIL AND/OR GROUNDWATER CONTAMINATION CAN BE FOUND ON WDNR'S BUREAU OF REMEDIATION AND REDEVELOPMENT TRACKING SYSTEM (BRRTS) PUBLIC DATABASE AT: [HTTP://DNR.WI.GOV/BOTW/](http://DNR.WI.GOV/BOTW/)
30. INSTALL AND MAINTAIN A CONCRETE WASHOUT BASIN PER EPA 833-F-11-006: [HTTPS://WWW3.EPA.NOV/NPDES/PUBS/CONCRETEWASHOUT.PDF](https://www3.epa.gov/NPDES/PUBS/CONCRETEWASHOUT.PDF). REQUIRE USE BY ALL CONCRETE CONTRACTORS. LIQUID MAY BE REUSED IN CONCRETE MIXING, EVAPORATED, OR DISPOSED OF AS WASTEWATER.



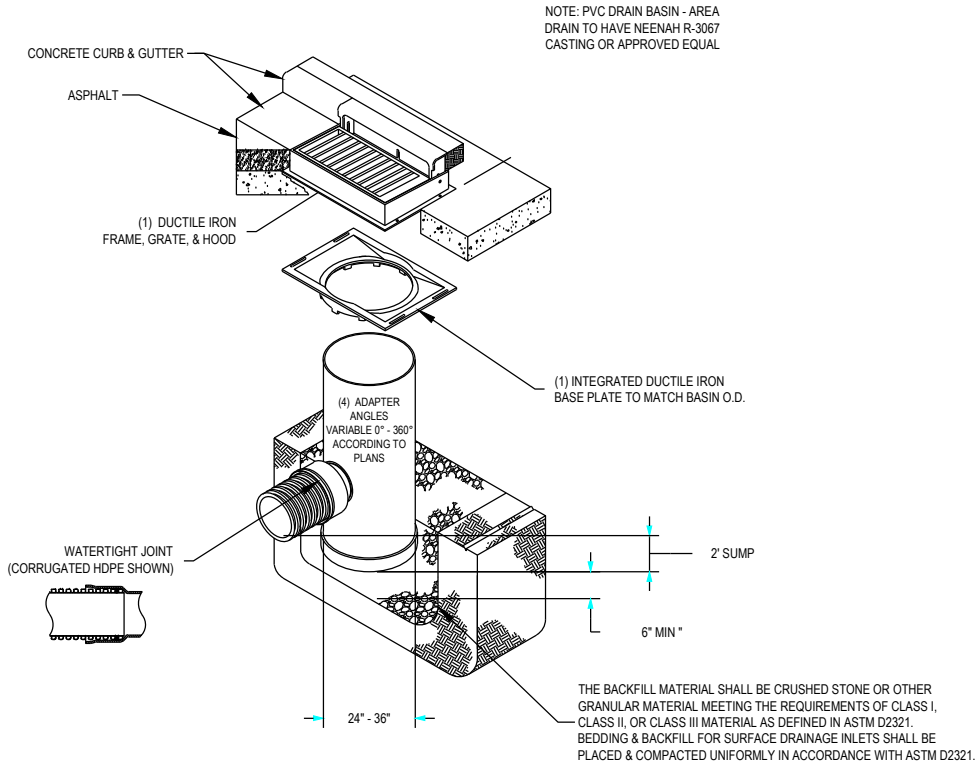
- NOTES:
- ② MAINTAIN TRACKING PAD IN GOOD CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING CLEAN UP & REMOVE ANY TRACKED MUD OR SEDIMENT LEAVING SITE IMMEDIATELY.

ROCK TRACKING PAD

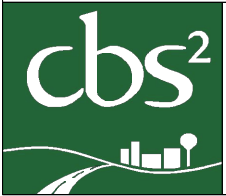
- NOTES:
1. EXCAVATION WITHIN 2' OF FINAL GRADE IS PROHIBITED UNTIL THE CONTRIBUTING DRAINAGE AREAS ARE CONSTRUCTED AND FULLY STABILIZED
 2. RIGOROUS SEDIMENT AND EROSION CONTROLS MUST BE USED TO DIVERT SEDIMENT LADEN RUNOFF AWAY FROM THE SYSTEM
 3. CONSTRUCTION MUST OCCUR IN DRY SOIL CONDITIONS. EXCAVATION, SOIL PLACEMENT, AND RAPID STABILIZATION OF PERIMETER SLOPES MUST BE ACCOMPLISHED PRIOR TO THE NEXT PRECIPITATION EVENT
 4. EXCAVATION SHALL BE PERFORMED BY AN EXCAVATOR WITH A TOOTHED BUCKET. USE EXCAVATOR BUCKET TO PLACE MATERIALS. CONSTRUCTION EQUIPMENT IS NOT ALLOWED IN THE BASIN
 5. PLANT BASIN BOTTOM WITH A NATIVE OR PRAIRIE GRASS SEED MIX (WISDOT TYPE 70A OR APPROVED EQUIVALENT) AND STABILIZE WITH CLASS 1 TYPE A EROSION CONTROL MAT

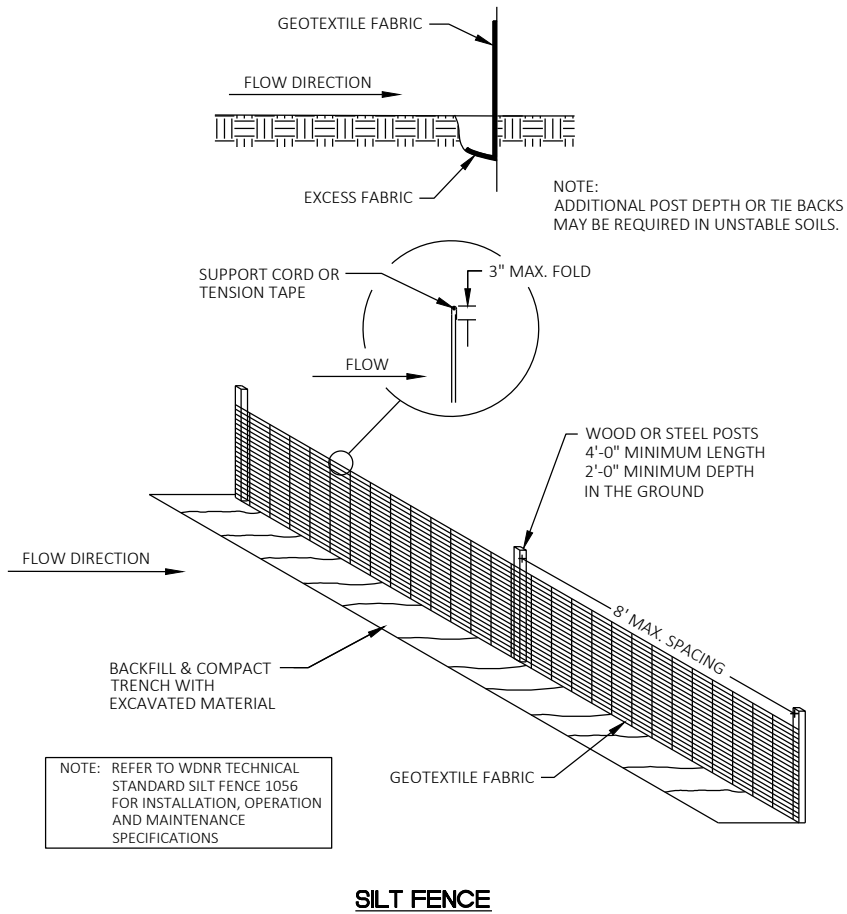
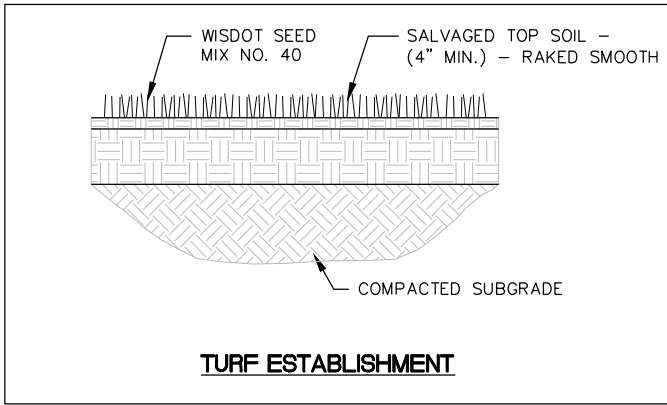
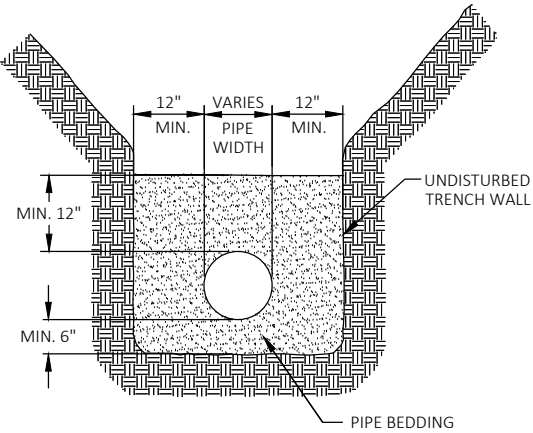
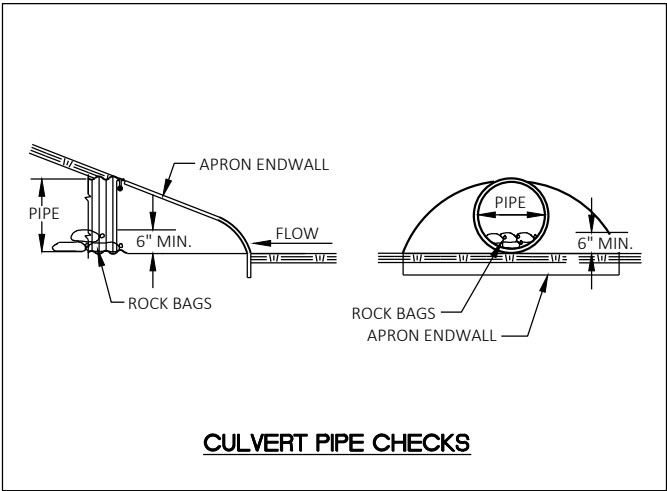


BIORETENTION BASIN



PVC DRAIN BASIN

	ENGINEERS - SURVEYORS - ARCHITECTS	DRAWN BY: DLS	REVISIONS	DAN'S CONSTRUCTION NEW SHOP WHEATON, WI	CONSTRUCTION DETAILS	SHEET CD02
	770 Technology Way Chippewa Falls, WI 54729 Phone: 715.861.5226 www.cbssquaredinc.com	DATE: 8/16/2021	DATE: DESCRIPTION:			
		CHECKED BY: TJH				
		HORIZ. SCALE:				
		VERT. SCALE:				
	PROJECT NO. OLSON20001					



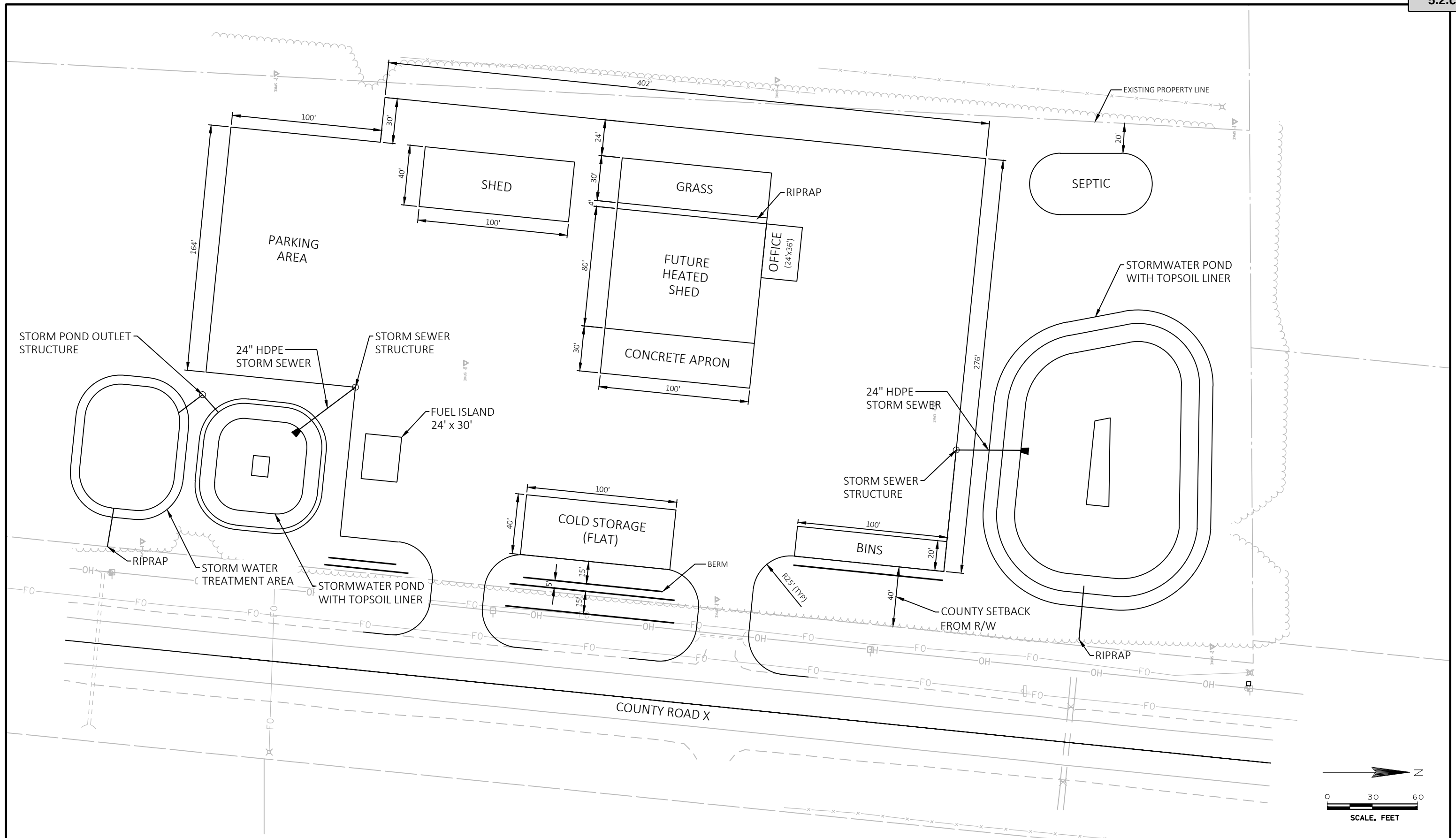
ENGINEERS - SURVEYORS - ARCHITECTS
770 Technology Way
Chippewa Falls, WI 54729
Phone: 715.861.5226
www.cbssquaredinc.com

DRAWN BY:	DLS	REVISIONS
DATE:	8/16/2021	DATE: DESCRIPTION:
CHECKED BY:	TJH	
HORIZ. SCALE:		
VERT. SCALE:		
PROJECT NO.	OLSON20001	

DAN'S CONSTRUCTION
NEW SHOP
WHEATON, WI

CONSTRUCTION DETAILS

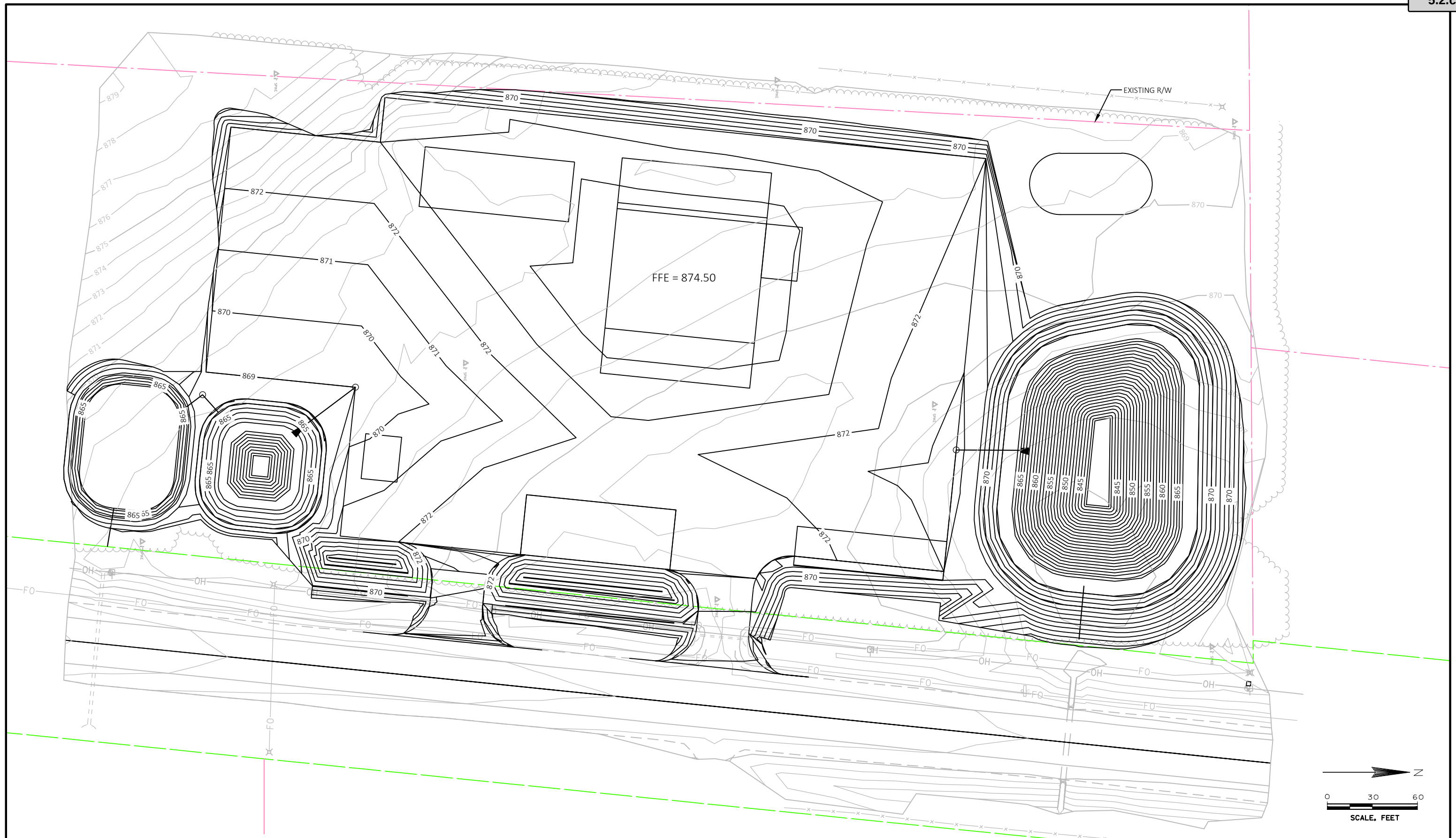
SHEET
CD03



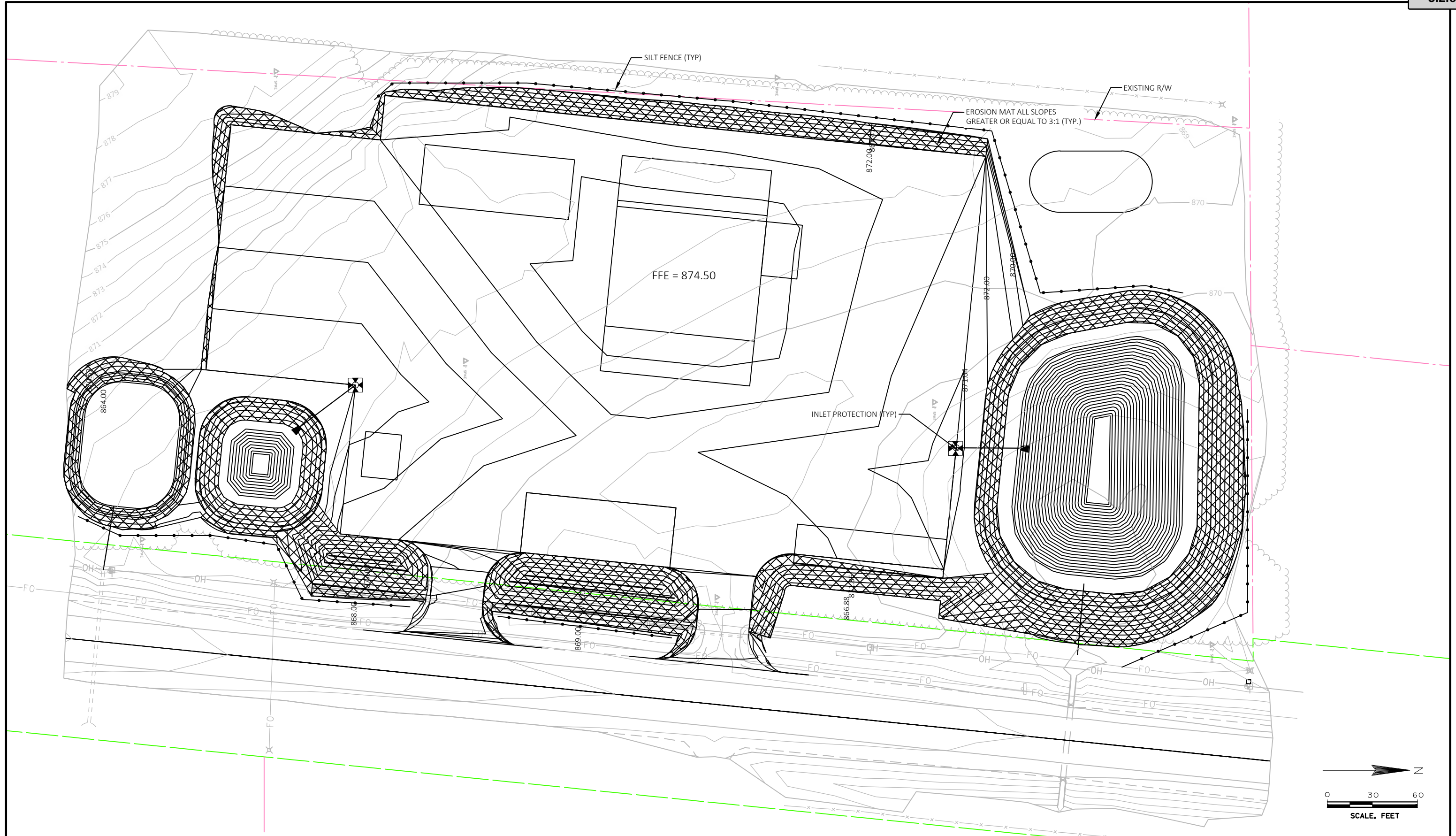
 ENGINEERS - SURVEYORS - ARCHITECTS 770 Technology Way Chippewa Falls, WI 54729 Phone: 715.861.5226 www.cbssquaredinc.com	DRAWN BY: BPS	REVISIONS	DAN'S CONSTRUCTION NEW SHOP WHEATON, WI	SITE LAYOUT PLAN	SHEET P01
	DATE: 08/13/2021	DATE: DESCRIPTION:			
	CHECKED BY: TJH	- -			
	HORIZ. SCALE:				
	VERT. SCALE:				
	PROJECT NO. OLSON 20001				

FILE NAME : P:\OLSON\20001 - SURVEY\CAD\C3D\SHEETS\PLAN\SITE PLAN_02.DWG

Packet Pg. 161

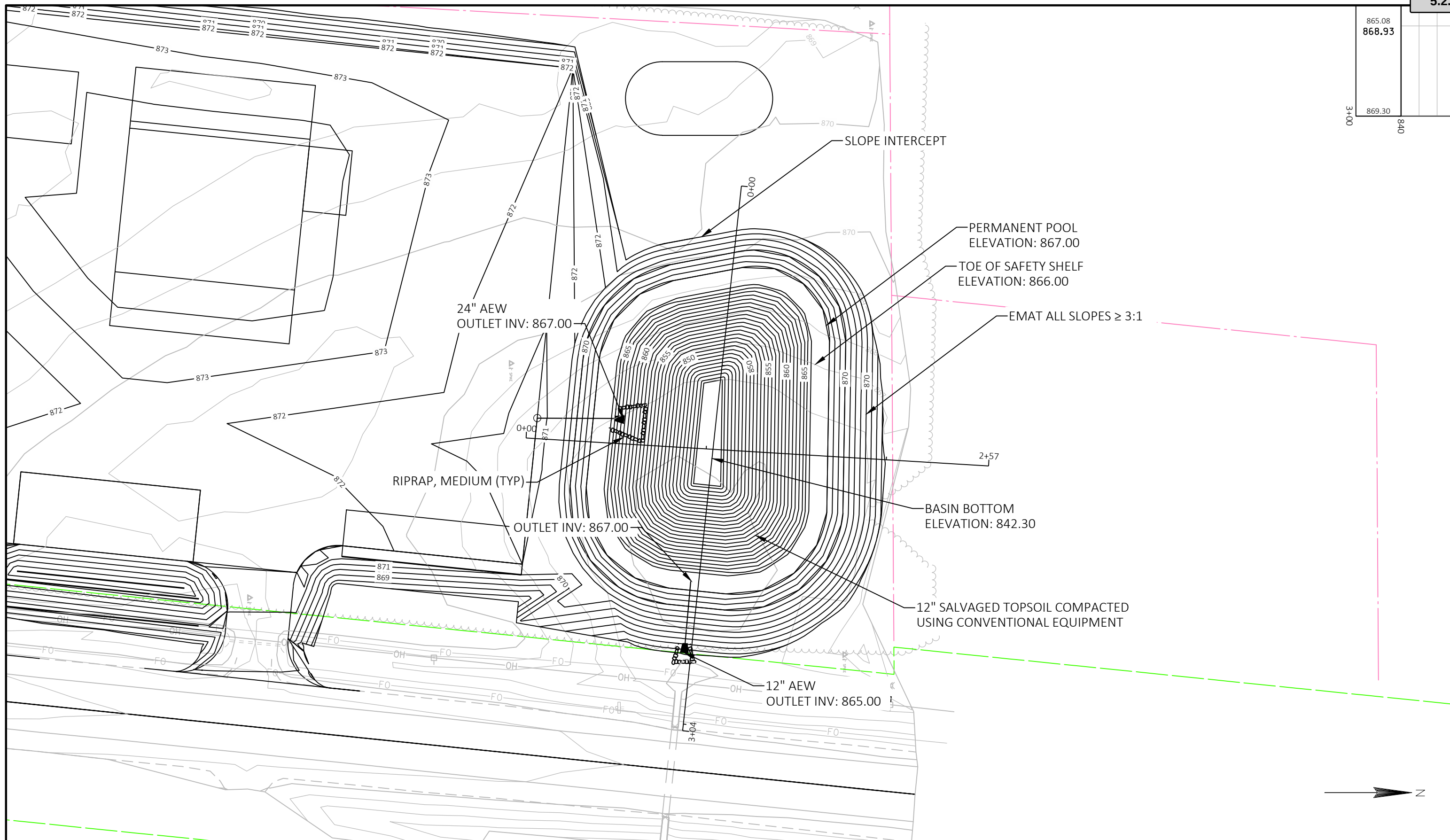


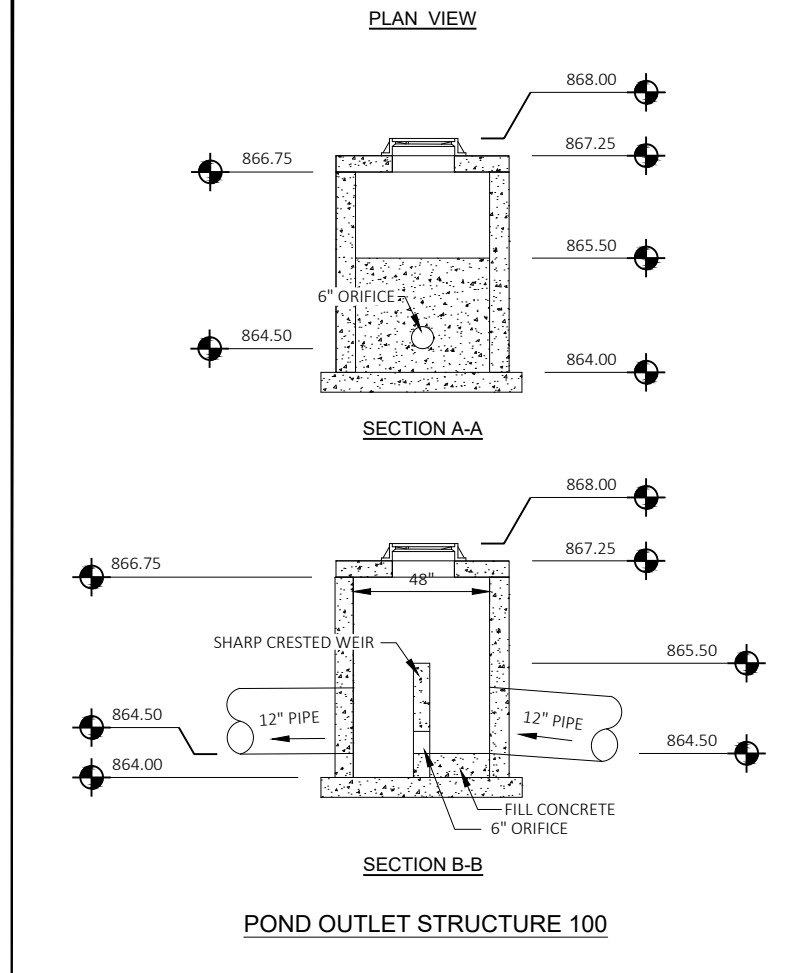
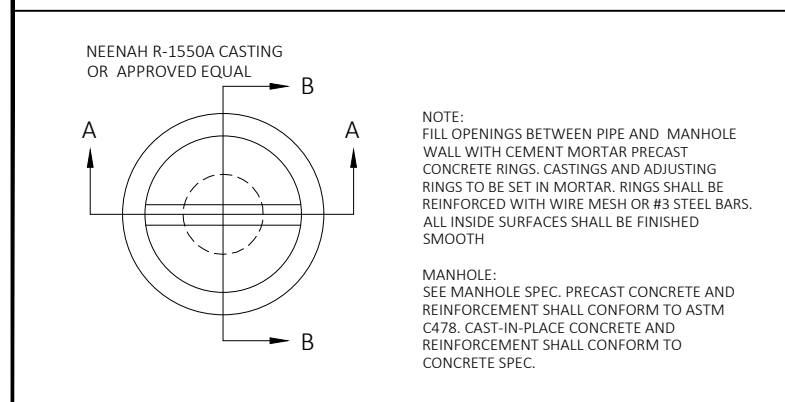
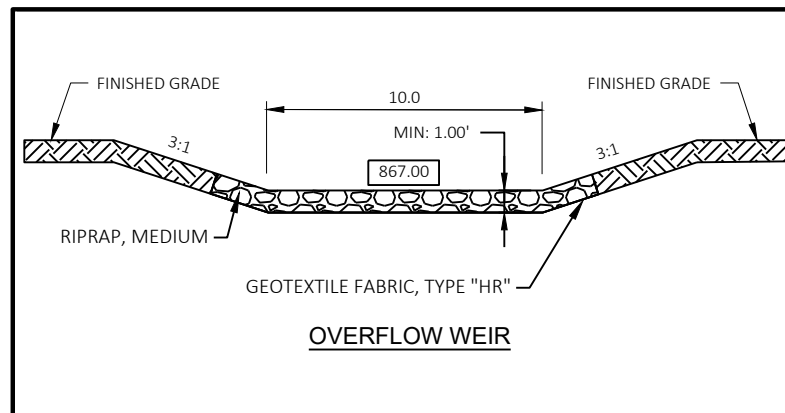
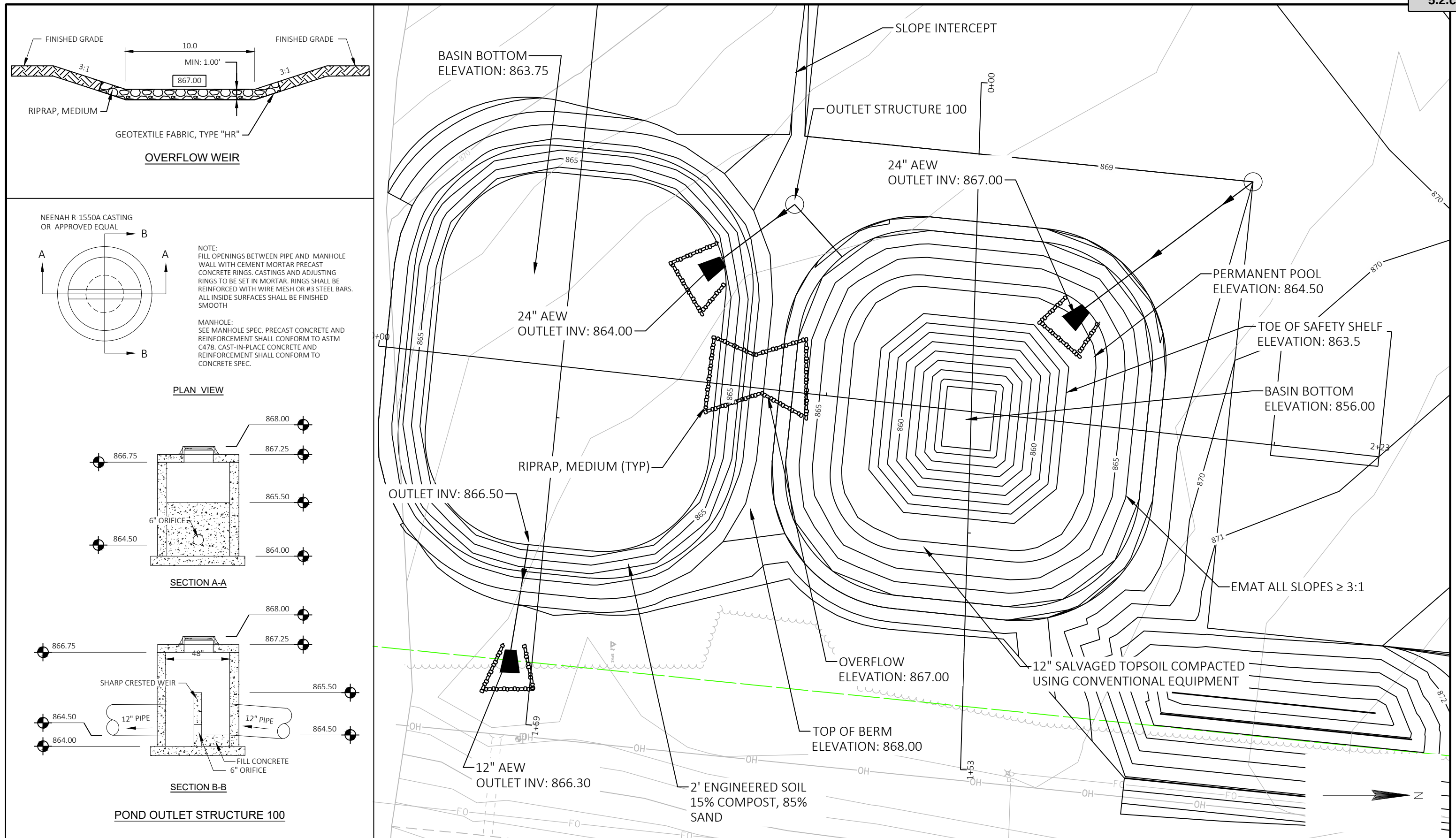
 cbs² ENGINEERS - SURVEYORS - ARCHITECTS 770 Technology Way Chippewa Falls, WI 54729 Phone: 715.861.5226 www.cbssquaredinc.com	DRAWN BY: DLS	REVISIONS	DAN'S CONSTRUCTION NEW SHOP WHEATON, WI	GRADING PLAN	SHEET
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	VERT. SCALE:				
PROJECT NO. OLSON 20001					Packet Pg. 162



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	DATE: 8/12/2021	DATE: DESCRIPTION:			
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	DATE: 8/13/2021	DATE: -			SS02
	CHECKED BY: TJH	DESCRIPTION: -			
	HORIZ. SCALE: 1" = 20'				
	VERT. SCALE:				
PROJECT NO. OLSON 20001					Packet Pg. 165



Project Manual

*Dan's Construction and Excavation Inc.
New Shop*

Wheaton, Wisconsin

CBS² No. OLSON 20001

Date: August 17, 2021



Attachment: (3) Dan's Construction Shop - Specs (6612 : 2021-0010 Daniel Olson - Conditional Use Request)

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Dan's Construction and Excavation Inc. New Shop

Wheaton, Wisconsin

CBS² No. OLSON 20001

Date: August 18, 2021



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SECTION 31 II 00

CLEARING AND GRUBBING (WisDOT 201)

PART 1 GENERAL**1.01 SUMMARY**

- A. Section Includes:
 - 1. Removal and disposal of trees, shrubs, brush, stumps, roots, windfalls, unsound branches and other plant life.
- B. Method of Measurement:
 - 1. Clearing:
 - a. Measure quantity by field count of trees cleared.
 - 1) To be counted, trees must be at least 3 inches in diameter at a point 4-1/2 feet above the ground.
 - a) Diameter is measured circumference divided by 3.
 - b) Grubbing is incidental.
 - c) Must be approved by Engineer.
 - 2. Grubbing:
 - a. Measure staked areas to the nearest 1/20 of an acre.
 - b. All measurements will be made horizontally.
- C. Basis of Payment:
 - 1. Pruning of branches on plantings being preserved shall be considered incidental.
 - 2. Payment for acceptable quantities of clearing and grubbing shall be at the contract unit price as listed on the Bid Form. All associated work items shall be considered incidental.

1.02 REFERENCES

- A. WisDOT 201 - Clearing and Grubbing

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION**3.01 PROTECTION**

- A. Confine operations to the areas staked or trees marked for removal.
- B. Protect all trees and plant materials that are not designated for removal.
- C. Conduct all operations in a manner that will not damage or injure surrounding plant life and property.

3.02 CLEARING OPERATIONS

- A. Cut and remove all designated trees, shrubs, bushes, windfalls and other vegetation.

- B. Prune and remove any low hanging or unsound branches.

3.03 GRUBBING OPERATIONS

- A. Remove and dispose of designated stumps, roots and other remains to a permitted disposal site.
- B. Remove stumps completely.
- C. Backfill depressions with native soils and compact.

3.04 DISPOSAL OPERATIONS

- A. Obtain all permits and pay all fees for disposal.

END OF SECTION

SECTION 31 23 10

EXCAVATION AND EMBANKMENT (WisDOT 205 AND 207)

PART 1 GENERAL**1.01 SUMMARY**

- A. Section includes construction of excavations and embankments within the designated construction limits.
- B. Related Sections:
 - 1. Section 31 23 33 Trench Excavation and Backfill
- C. Method of Measurement:
 - 1. Excavation Material:
 - a. Measure by volume of material in its original position.
 - b. Compute volumes in cubic yards by average end area method determined from original and final cross sections.
 - c. Dewatering incidental to excavation.
 - d. Contractor to obtain all dewatering permits.
 - e. Excavation volume does not include asphalt.
 - 2. Borrow Material (Granular Borrow, Top Soil, and Compost):
 - a. Measure by volume in cubic yards for each type.
 - b. Basis of measure will be Compacted Volume in place for borrow material.
 - c. Measure only materials that are accepted for use.
- D. Basis of Payment:
 - 1. Payment for acceptable quantities of excavation and embankment shall be at the contract unit price as listed on the Bid Form. All associated work items shall be considered incidental.

1.02 REFERENCES

- A. WisDOT:
 - 1. 205 - Roadway and Drainage Excavation
 - 2. 207 - Embankment
 - 3. 625 - Topsoil and Salvaged Topsoil
- B. WDNR
 - 1. S100 - Compost for Storm Water Management

PART 2 PRODUCTS**2.01 MATERIALS**

- A. Granular Borrow: WisDOT 209, Grade 2, except that all material must pass the 1-inch sieve.
- B. Compost: WDNR S100

PART 3 EXECUTION

3.01 GENERAL REQUIREMENTS

- A. If present, remove ice and snow prior to grading operations.
- B. All grading shall conform to the planned grades, cross-sections and stakes.
- C. Confine operations to established limits.
- D. Maintain Site in a well-drained condition at all times.
 - 1. Install planned drainage facilities concurrent with embankment operations.
 - 2. Provide temporary drainage facilities to maintain existing drainage courses until permanent facilities are operative.

3.02 PREPARATION OF EMBANKMENT FOUNDATION

- A. Remove topsoil, organic and unstable material from the roadbed prior to placing embankment.
- B. Disc Compost into pond subgrade to a depth of 6 inches.

3.03 EXCAVATING OPERATIONS

- A. Conform to lines, grades and slopes staked by Engineer.
- B. Provide seepage trenches for granular backfill replacement of unstable areas.

3.04 DISPOSAL OF EXCAVATED MATERIAL

- A. Use suitable excavated materials for embankment construction.
- B. Construct embankment layers from uniform materials.
- C. Place granular materials in upper most portion of the embankment.
- D. Mechanically mix non-uniform soils to produce uniform moisture content and density.
- E. Excavate all suitable topsoil material separately and stockpile.
- F. Do not place snow, ice, or frozen lumps in the roadbed embankment.
- G. Do not place stone, concrete or bituminous fragments exceeding 3 inches in any dimension roadbed embankment.
- H. Do not place stone, concrete, or bituminous fragments exceeding 3 inches in the upper 6 inches of roadbed embankment or within 18 inches of the structure.
- I. Excess materials may be placed on site in area(s) and quantities as shown on the plans and/or designated by the Engineer. Volume of material will be measured by GPS.
- J. All surplus excavated materials shall become the property of the Contractor for disposal.

3.05 PLACING EMBANKMENTS

- A. Do not place material on soil which is frozen.
- B. Backfill excavations below subgrade and seepage trenches in accordance with this Section.
- C. Deposit and spread material in uniform layers parallel to the profile grade extending over the full width of the embankment.
- D. Place upper 3 feet of roadbed in maximum 8-inch layers.
- E. Place remainder of roadbed in maximum 12-inch layers.
- F. Place compacted topsoil borrow in maximum 6-inch layers.

3.06 COMPACTING EMBANKMENTS

- A. Compact upper 3 feet of embankment to not less than 100 percent of Standard Proctor Density.
- B. Compact remainder of embankment to not less than 95 percent of Standard Proctor Density.
- C. Maintain proper moisture content during placement and compaction.

3.07 FINISHING OPERATIONS

- A. Finish all earthwork to within 0.1 foot of the staked grade.
- B. Conduct finishing and topsoiling concurrent with the grading operations to provide for erosion control.
- C. Till composted areas to a minimum depth of 1 foot.

END OF SECTION

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SECTION 31 23 33

TRENCH EXCAVATION AND BACKFILL

PART 1 GENERAL**1.01 SUMMARY**

- A. Section Includes:
 - 1. Trench excavation.
 - 2. Special pipe foundation.
 - 3. Trench backfill.
 - 4. Compaction.
 - 5. Pipe grade and alignment conflicts.
- B. Related Sections:
 - 1. Section 01 45 00-Quality Control for Street and Utility Construction
 - 2. Section 33 11 00 - Water Distribution Systems
 - 3. Section 33 31 00 - Sanitary Sewer Systems
 - 4. Section 33 41 00 - Storm Sewer Systems
- C. Method of Measurement:
 - 1. Trench Excavation and Backfill: Incidental to associated pipe installation.
 - 2. Special Pipe Foundation Materials:
 - a. Incidental to pipe installation.
 - b. Pipe foundation materials shall be used for the pipe zone as shown in the pipe bedding detail in the Drawing set.
 - 3. Replacement Backfill:
 - a. Measure by cubic yards compacted in place of material acceptably placed.
 - b. Bid price includes removal and disposal of material replaced.
 - 4. Compaction: Incidental to associated pipe installation.
 - 5. Dewatering:
 - a. Incidental to associated pipe installation.
- D. Basis of Payment:
 - 1. Payment for quantities measured in this Section shall be at the Contract Unit Price as listed on the Bid Form. All associated Work items shall be considered incidental.

1.02 SUBMITTALS

- A. Provide for each granular material:
 - 1. Name and location of source.
 - 2. Sample gradation.

1.03 SITE CONDITIONS

- A. Groundwater: Provide trench dewatering if groundwater surface is above or within 3 feet of pipe zone.
- B. Incidental to pipe construction.
- C. Contractor to obtain all permits for dewatering.

1.04 WARRANTY

- A. Repair all trench settlements and resulting damage or displacement of surface facilities that occur within the Contract correction period.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Granular Pipe Bedding: WisDOT 209, Grade 2, except that all material must pass the 1-inch sieve.
- B. Aggregate Pipe Bedding: WisDOT 305. ¾-inch virgin crushed aggregate base material.
- C. Replacement Backfill: WisDOT 209, Grade 2, except that all material must pass the 1-inch sieve.

PART 3 EXECUTION

3.01 CONSTRUCTION REQUIREMENTS

- A. Trench Excavation:
 - 1. Alignment and Grade:
 - a. Excavate trench to alignment and grade as staked.
 - b. Excavate no more than 100 feet in advance of pipe laying operation.
 - 2. Trench Width at Pipe Zone:
 - a. Center trench on pipe alignment.
 - b. Minimum width: Pipe outside dimension plus 12 inches.
 - c. Maximum width: Pipe outside dimension plus 24 inches (except rock excavation).
 - d. Utilize trench box for both mainline construction and service installation. Trench box for service installation shall be a narrower trench box designed for service pipe installation.
 - 3. Excavated Materials:
 - a. Use stable material for backfill.
 - b. Waste unstable material as directed.
 - c. Do not place materials on sidewalk, driveways, or drainageways.
 - 4. Drainage:
 - a. Provide dewatering trenches when required.
 - b. Drain trench water into natural channels or storm sewer.
 - c. Do not drain trench water into sanitary sewer.
- B. Pipe Foundations:
 - 1. Engineer to determine condition of trench bottom.
 - 2. Stable Trench Bottom Condition:
 - a. Shape trench bottom to conform to bottom half of pipe.
 - b. Excavate bell holes to permit proper jointing.
 - 3. Unstable Trench Bottom Condition:
 - a. Excavate below pipe grade to specified depth.
 - b. Refill with specified foundation material in accordance with Drawings details and contract.
- C. Trench Backfill:
 - 1. Pipe Zone:
 - a. Use specified foundation material free of rocks and other unsuitable debris.
 - b. Deposit material uniformly on both sides of pipe throughout entire trench width.
 - c. Place material in 6-inch lifts and mechanically compact.

2. Above Pipe Zone:
 - a. Use native materials free of debris and rock, concrete or clay lumps with a volume greater than 1/3 cubic foot.
 - b. Place in uniform lifts no more than 1 foot thick.
 - c. Mechanically compact each lift of the upper 3 feet of trench to a standard Proctor density of 100 percent.
 - d. Mechanically compact each lift under the upper 3 feet of trench to a standard Proctor density of 95 percent.
 - e. Do not backfill unless approved compaction equipment is operating.
 - f. Fine grade street subgrade to staked elevation and cross section.
3. Replacement Backfill:
 - a. Engineer to determine suitability of native material for backfill.
 - b. Use replacement backfill in lieu of native materials as directed.
4. Excess or Deficiency of Backfill Material:
 - a. Dispose of excess backfill material as directed after all trenches are backfilled.
 - b. Provide replacement backfill as required to establish required surface elevation.
- D. Trench Box
 1. A trench box is required for all pipe and service pipe installation.

3.02 FIELD QUALITY CONTROL

- A. Density tests on backfill materials will be as directed by Engineer.
- B. Recompect all areas represented by failed density tests.
- C. Owner will provide for initial test only.
- D. Costs of subsequent retests to be deducted from Contractor's payment.

3.03 PIPE CLEARANCES AND CONFLICTS

- A. Provide clearance between sewers and water main as follows:
 1. Maintain 8-foot horizontal between pipes.
 2. Maintain 18-inch vertical separation between pipes.
- B. When 18-inch vertical separation between sewer and water main cannot be maintained, provide special pipe crossing as follows:
 1. Advise Engineer of pipe conflict.
 2. Lower water main in accordance with Drawing or as directed.
 3. Provide 18-inch vertical separation between pipes.
 4. Construct sewer using pipe material and joints equal to water main at crossing point.
 5. Center pipe lengths at crossing point.
 6. Provide special foundation material for both pipes.
 7. Place insulation as directed.

END OF SECTION

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SECTION 31 23 50

PREPARING THE FOUNDATION (WisDOT 211)

PART 1 GENERAL**1.01 SUMMARY**

- A. Section includes shaping and compacting of subgrade prior to placement of base course.
- B. Related Sections:
 - 1. Section 01 45 00-Quality Control for Street and Utility Construction
 - 2. Section 31 23 10 - Excavation and Embankment
 - 3. Section 31 23 33 - Trench Excavation and Backfill
 - 4. Section 31 34 15 - Geotextile Fabrics
- C. Method of Measurement:
 - 1. Measurement shall be on a lump sum basis.
- D. Basis of Payment:
 - 1. Payment for subgrade preparation shall be at the contract unit price as listed on the Bid Form. All associated work items shall be considered incidental.

1.02 REFERENCES

- A. WisDOT 211 - Preparing the Foundation

1.03 SEQUENCING AND SCHEDULING

- A. Prepare subgrade after unstable areas have been repaired and in-place surface courses have been removed.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION**3.01 PREPARATION**

- A. Re-excavate, compact and shape the top 6 inches of subgrade area to provide smooth, stable surface for the placement of base course thereon.
- B. Compact subgrade material to 100 percent of Standard Proctor Density.
- C. Produce and maintain the necessary moisture content in the subgrade material by scarification or application of water.
- D. Continue operations until no rutting or displacement occurs under construction traffic.

- E. Provide a finished surface within 0.05 foot of the prescribed elevation at all locations.

END OF SECTION

Attachment: (3) Dan's Construction Shop - Specs (6612 : 2021-0010 Daniel Olson - Conditional Use Request)

SECTION 31 25 10**TEMPORARY EROSION CONTROL****PART 1 GENERAL****1.01 SUMMARY**

- A. Section Includes:
 - 1. Temporary measures to control soil erosion and sedimentation.
 - 2. Furnishing, installing and maintaining erosion or sediment control devices.
- B. Related Sections:
 - 1. Section 31 25 20 – Silt Fence
 - 2. Section 32 92 12 – Turf Establishment
- C. Method of Measurement:
 - 1. Erosion Mat: Measure by number of square yards furnished, acceptably installed and maintained.
 - 2. Culvert Pipe Checks (3 Rock Bags): Measure by each furnished, acceptably installed and maintained.
 - 3. Tracking Pad: Measure by each furnished, acceptably installed and maintained.
 - 4. Silt Fence:
 - a. Measure by linear foot furnished and acceptably installed. Includes silt fence maintenance.
 - b. Measure along base of fence from outside to outside of end posts.
 - 5. Inlet Protection: Measure by number furnished, acceptably installed and maintained.
- D. Basis of Payment:
 - 1. Payment for acceptable quantities of erosion control items shall be at the contract unit price as listed on the Bid Form. All associated work items shall be considered incidental.

1.02 REFERENCES

- A. WisDOT 628 - Erosion Control
- B. WisDOT Erosion Control Product Acceptability List (PAL)

PART 2 PRODUCTS**2.01 MATERIALS**

- A. Materials: WisDOT 628.2.
- B. Inlet Protection: Fast Flow (Type FF) Geotextile Fabric

PART 3 EXECUTION**3.01 GENERAL**

- A. Coordinate erosion control measures with earthwork and turf establishment operations.
- B. Complete grading, finishing, erosion control and turf establishment on a drainage area basis to prevent excessive soil erosion.

3.02 PLACING TEMPORARY EROSION CONTROL ITEMS

- A. Construct items in conformance with typical sections and elevation controls shown on the Drawings.
- B. Remove all items upon completion of the contract work.
- C. Spread and shape accumulated sediment to permit natural drainage and provide for turf establishment.

3.03 ACCEPTANCE OF WORK

- A. Maintain and repair erosion control items to insure proper function.

END OF SECTION

Attachment: (3) Dan's Construction Shop - Specs (6612 : 2021-0010 Daniel Olson - Conditional Use Request)

SECTION 31 25 20

SILT FENCE

PART 1 GENERAL**1.01 SUMMARY**

- A. Section includes silt fence.
- B. Related Sections:
 - 1. Section 31 23 33 - Trench Excavation and Backfill
 - 2. Section 31 25 20 - Temporary Erosion Control

1.02 REFERENCES

- A. United States Department of Agriculture - Soil Conservation Service - Silt fences

1.03 SUBMITTALS

- A. Product data in accordance with Section 01 78 23.

PART 2 PRODUCTS**2.01 MATERIALS**

- A. Posts and geotextile fabric: In accordance with the Soil Conservation Service criteria.
- B. WisDOT Erosion Control Product Acceptability List.

PART 3 EXECUTION**3.01 LOCATION**

- A. Locate silt fence at the Site as required to keep silt out of surface water, floodplain, drainageways and stormwater inlets and sewers.
- B. Locate silt fence along contour, arranged so runoff cannot bypass ends.
- C. Locate silt fence in independent units, each less than 600 feet long.

3.02 CONSTRUCTION

- A. Maximum post spacing 10 feet. Drive posts minimum 2 feet in ground.
- B. Secure geotextile fabric to posts. Bury fabric in 6-inch by 6-inch trench along bottom and 1 side. Backfill and compact trench.
- C. Locate splices at supporting post, with minimum 6-inch overlay, folded over and securely fastened.

- D. Inspect silt fence immediately after each runoff event, and at least daily during prolonged rain.
- E. Repair any damaged areas immediately.
- F. When sediment deposits are 1/2 the height of the fence, remove silt or construct second silt fence.
- G. Remove silt fence when vegetation is re-established.

END OF SECTION

Attachment: (3) Dan's Construction Shop - Specs (6612 : 2021-0010 Daniel Olson - Conditional Use Request)

SECTION 31 34 15

GEOTEXTILE FABRICS
WISDOT TYPE SAS**PART 1 GENERAL****1.01 SUMMARY**

- A. Section includes geosynthetic materials to be used in construction of trails or parking lots on soft base soils.
- B. Related Sections:
 - 1. Section 31 23 10 - Excavation and Embankment
- C. Method of Measurement:
 - 1. Measurement for the geotextile will be on a square yard basis. Overlapped fabric at seams as well as fabric placed in anchor trenches will be considered incidental.
- D. Basis of Payment:
 - 1. Payment for acceptable quantities of geotextile shall be at the contract unit price as listed in the Bid Form. All associated work shall be considered incidental.

1.02 REFERENCES

- 1. WisDOT 645 – Geotextile Fabrics

1.03 SUBMITTALS

- A. Certificate of Compliance:
 - 1. Submit manufacturer's Certificate of Compliance for the geotextile fabric furnished.
 - 2. Submit Certified Test Report from the manufacturer that show sewn seams meet minimum geotextile requirements.

PART 2 PRODUCTS**2.01 MATERIAL**

- A. Follow WisDOT 645.2 and WisDOT 645.2.2.2

PART 3 EXECUTION**3.01 SEAMS**

- A. Geotextile fabric seams may be of 2 types:
 - 1. Sewn.
 - 2. Overlapped.
- B. Sewn Seams: All factory and field seams shall be sewn with a thread having the same or greater durability as the material in the fabric. A 401 stitch conforming to Federal Standard No. 751a shall be used for all sewn seams.

- C. Overlapped Seams: Overlap material a minimum of 3 feet.

3.02 CONSTRUCTION METHODS

- A. Follow WisDOT 645.3.1.1 and WisDOT 645.3.1.2

END OF SECTION

Attachment: (3) Dan's Construction Shop - Specs (6612 : 2021-0010 Daniel Olson - Conditional Use Request)

SECTION 31 37 00

RIPRAP (WisDOT 606)

PART 1 GENERAL**1.01 SUMMARY**

- A. Section Includes:
 - 1. Stone riprap.
 - 2. Filter material.
- B. Method of Measurement:
 - 1. Riprap:
 - a. Measure by volume in cubic yards based on staked surface dimensions and specified thickness.
 - b. Measure each type and class separately.
 - 2. Filter Materials:
 - a. Geotextile filter:
 - 1) Incidental to riprap.
- C. Basis of Payment:
 - 1. Bid Price Includes:
 - a. Excavation.
 - b. Foundation preparation.
 - c. Geotextile filter:
 - 1) Type HR.
 - 2. Payment for riprap shall be at the contract unit price as listed on the Bid Form. All associated work items shall be considered incidental.

1.02 REFERENCES

- A. WisDOT:
 - 1. 606 - Riprap
 - 2. 645 - Geotextile Fabrics

PART 2 PRODUCTS**2.01 MATERIALS**

- A. All materials shall be in accordance with the respective WisDOT Specifications as follows:
 - 1. Riprap Materials: WisDOT 606, Except waste concrete shall not be acceptable.
 - 2. Fabric: WisDOT 645.

2.02 ACCESSORIES

- A. All accessories shall be in accordance with the respective WisDOT Specifications.

PART 3 EXECUTION**3.01 FOUNDATION PREPARATION**

- A. Excavate and shape foundation areas to the location and cross section staked by Engineer.
- B. Compact all loose foundation material prior to filter material placement.
- C. Provide smooth surface, free of stones, sticks, and other debris.

3.02 FILTER MATERIAL

- A. Geotextile Filter:
 - 1. Place multiple fabric widths with the longest dimension parallel to the direction of water flow.
 - 2. Splice multiple fabric widths by mechanical seaming or minimum 24-inch overlap (36 inches under water).
 - 3. Overlap joints in shingle arrangement.
 - 4. Bury upgrade edges of fabric to a minimum depth of 8 inches to prevent undermining.
 - 5. Anchor fabric to prevent movement during riprap placement.
 - 6. Do not operate equipment on fabric.

3.03 RIPRAP STONE

- A. Placement:
 - 1. Begin placement at the lowest elevation and work upgrade.
 - 2. Do not drop stones from greater than 1-foot height.
 - 3. Position stones to provide uniform size distribution and minimize void space.
 - 4. Level surface to provide uniform thickness and appearance.
 - 5. Seat smaller stones between the larger stones to produce a uniform surface.
 - 6. Suitable material obtained from on-site rock excavation may be used as chinking.

3.04 THICKNESS REQUIREMENTS

- A. All Areas: Minimum 85 percent of specified thickness.
- B. Average: Minimum 95 percent of specified thickness.

END OF SECTION

SECTION 32 II 26

CRUSHED AGGREGATE BASE COURSE (WisDOT 305)

PART 1 GENERAL**1.01 SUMMARY**

- A. Section includes construction of crushed aggregate base course on a prepared subgrade.
- B. Related Sections:
 - 1. Section 01 45 00-Quality Control for Street and Utility Construction
 - 2. Section 31 23 50 - Preparing the Foundation
- C. Method of Measurement:
 - 1. Measure by volume in compacted cubic yards based on planned roadway dimensions.
- D. Basis of Payment:
 - 1. Payment for acceptable quantities of crushed aggregate base course shall be at the Contract Unit Price as listed on Bid Form. All associated work items shall be considered incidental.

1.02 REFERENCES

- A. WisDOT 305 - Dense Graded Base

1.03 SUBMITTALS

- A. Provide for each aggregate material:
 - 1. Name and location of source.
 - 2. Two sample gradations taken within the past 30 days from each potential source, delivered to Architect at least 10 days prior to placement on the project.

1.04 HANDLING AND DELIVERY

- A. Stockpile and drain aggregate removed from below water for a minimum 24 hours prior to delivery.

1.05 SITE CONDITIONS

- A. Deposit aggregate only on dry, compact subgrade so that no rutting or displacement will occur under construction traffic.

PART 2 PRODUCTS**2.01 MATERIALS**

- A. Crushed Aggregate Base Course Materials: WisDOT 305.
- B. Aggregate Gradation: 1-1/4-inches.

PART 3 EXECUTION**3.01 CONSTRUCTION REQUIREMENTS**

- A. Placing and Mixing:
 - 1. Place aggregate in layers to produce a maximum 3 inches of compacted thickness.
 - 2. With vibratory compaction, place to produce maximum 6 inches of compacted thickness.
 - 3. Deposit only the amount of aggregate that is intended to be spread and compacted during the same day.
 - 4. Add water as may be required during mixing to produce proper compaction.
- B. Spreading and Compacting:
 - 1. Mix aggregate uniformly to maintain proper gradation.
 - 2. Spread and compact each layer to the required cross section and density prior to placing a succeeding layer.
 - 3. Compact each layer to 100 percent of Standard Proctor Density.
- C. Tolerances: Construct each course to within 0.05 foot of the planned grades and staked elevations at all locations.

3.02 PROTECTION

- A. Place initial surface course or otherwise protect the in-place aggregate base within 72 hours after placement.
- B. Remove and replace any portion of the material that becomes contaminated after placement.

END OF SECTION

Attachment: (3) Dan's Construction Shop - Specs (6612 : 2021-0010 Daniel Olson - Conditional Use Request)

SECTION 32 12 18

HOT MIX ASPHALT PAVEMENT (WisDOT 460)

PART 1 GENERAL**1.01 SUMMARY**

- A. Section Includes:
 - 1. Hot mix asphalt HMA Pavement
 - 2. Tack coat.
 - 3. Adjusting manhole castings.
 - 4. Adjusting valve boxes.
- B. Method of Measurement:
 - 1. Measurement shall be on a per ton basis based on the weight tickets supplied to Engineer.
 - 2. Weight will include the mixture of aggregate and asphalt delivered to and incorporated into the work. Asphaltic materials required for and incorporated into the mixture will not be measured separately for payment.
 - 3. Contractor shall furnish weight tickets at the time of delivery.
 - 4. Tack coat shall be **incidental to the paving operation**.
 - 5. Adjusting manhole castings are incidental.
 - 6. Adjusting valve boxes shall be measured by the unit for those fixtures installed new as part of this Project and existing remaining structures that require adjustment.
 - 7. Tonnage quantity for removal and installation of asphalt used for patching and adjusting manholes and valve boxes between paving lifts, whether new or existing, shall be considered incidental.
- C. Basis of Payment:
 - 1. Payment for asphaltic concrete pavement, measured as provided above, will be paid at the contract unit price per ton.
 - 2. Tack coat is incidental to pavement.
 - 3. Adjust manhole casting will be paid for at the contract unit price each.
 - 4. Adjust valve box will be paid for at the contract unit price each.

1.02 REFERENCES

- A. WisDOT - Standard Specifications for Highway and Structure Construction:
 - 1. 211 - Preparing the Foundation
 - 2. 305 - Dense Graded Base
 - 3. 350 - Subbase
 - 4. 450 - General Requirements for Asphaltic Pavements
 - 5. 455 - Asphaltic Materials
 - 6. 460 - Hot Mix Asphalt Pavement

1.03 SUBMITTALS

- A. Submittals in accordance with Section 01 33 00 - including:
 - 1. Asphalt mix design in accordance with WisDOT Section 460.2.7.

PART 2 PRODUCTS**2.01 MATERIALS**

- A. Asphaltic surface: Gradation 4, LT traffic volume, 58-34 asphalt material and standard binder (4LT 58-34S), WisDOT 460.3.
- B. Asphaltic material: PG 58-34S per WisDOT 455.2.

PART 3 EXECUTION**3.01 SCHEDULE**

- A. Contractor shall notify Engineer at least 36 hours in advance of scheduled paving operations.
- B. Asphalt shall not be placed after October 15 without approval of the Owner and Engineer.

3.02 APPLICATION

- A. Construct pavement conforming to the general provisions of WisDOT 450.3.
- B. Compaction of the pavement shall be in accordance with the HMA Pavement Density Maximum Density Method of WisDOT 460.3.3.
- C. Tack coat shall be in conformance with WisDOT 455.2.
- D. Contractor shall comply with Quality Management Program as described in WisDOT 460.

3.03 ADJUSTING

- A. Adjust valve boxes, manholes, cleanouts or other appurtenances to new surface elevation. Engineer shall approve method of adjustment.
- B. Items to be adjusted shall be protected with plates or caps and paved over during the first lift of paving. Once pavement has cooled, Contractor shall then remove asphalt and adjust structure up to the final elevation before final paving layer.
- C. Removal of pavement for adjustments shall be saw cut and patched prior to surface layer placement. Saw cuts shall be circular or diamond shaped. Asphalt shall be patched and compacted up to the level of the first paving lift.
- D. All temporary protection, saw cutting, asphalt patching, and adjustment materials and labor necessary to bring castings and valve boxes to final grade shall be considered incidental to the adjusted item.

END OF SECTION

SECTION 32 92 12

TURF ESTABLISHMENT

PART 1 GENERAL**1.01 SUMMARY**

- A. Section includes establishment of herbaceous ground cover on designated areas.
- B. Related Sections:
 - 1. Section 31 23 10 - Excavation and Embankment
 - 2. Section 31 25 10 - Temporary Erosion Control
- C. Method of Measurement:
 - 1. Turf Establishment: Measure turf establishment by the square yard.
 - 2. Establishment of turf in Contractor staging area(s) shall be considered incidental.
 - 3. All measurements to be within the area of construction.
- D. Basis of Payment:
 - 1. Payment for acceptable quantities of turf establishment shall be at the contract unit price as listed on the Bid Form. All associated work items including but not limited to topsoil, fertilizer, seed, mulch and water shall be considered incidental.

1.02 REFERENCES

- A. WisDOT:
 - 1. 625 - Topsoil and Salvaged Topsoil
 - 2. 627 - Mulching
 - 3. 629 - Fertilizer and Agricultural Limestone
 - 4. 630 - Seeding

1.03 SUBMITTALS

- A. Submit certified test report for each seed mixture.

1.04 ACCEPTANCE OF WORK

- A. Turf establishment will be accepted on a total project basis.
- B. All erosion control items must also be in place and properly maintained prior to acceptance.
- C. Once accepted, Contractor is relieved of any further maintenance or repair.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Protect seed from moisture, heat, rodents, and other damage prior to use.
- B. Deliver fertilizer in waterproof bags showing weight, chemical analysis and name of manufacturer.

1.06 SCHEDULE OF WORK

- A. Coordinate turf establishment to minimize lag time after topsoil placement.
- B. Plant seed between May 1 and September 20.

1.07 MAINTENANCE

- A. Maintain and repair all areas until acceptance.
- B. Contractor shall apply water as needed in accordance with the requirements of WisDOT 631.3.5. Watering is incidental to Turf Establishment.

PART 2 PRODUCTS**2.01 MATERIALS**

- A. Topsoil: WisDOT 625.2.
- B. Mulch: WisDOT 627.
- C. Fertilizer: WisDOT 629, Type B.
- D. Seed: WisDOT 630.2.1.5.

PART 3 EXECUTION**3.01 SOIL PREPARATIONS**

- A. Remove all undesirable weeds as directed.
- B. Loosen topsoil on all areas with 2:1 slopes or flatter prior to seeding.
- C. Cultivate to a depth of 3 inches using discs or other suitable equipment.
- D. Operate equipment at right angles to direction of drainage.
- E. Fill all washouts prior to cultivation.
- F. Finish all areas to provide a smooth, moist, even-textured foundation of uniform density.
- G. Approval of the Engineer is required prior to placing seed.

3.02 CONSTRUCTION REQUIREMENTS

- A. Applying Fertilizer and Conditioners:
 - 1. Apply fertilizer uniformly over the designated area using mechanical spreading devices.
 - 2. Apply at a rate of 7 pounds per 1,000 square feet.
 - 3. Apply fertilizer no more than 48 hours prior to seeding.

B. Sowing Seed:

1. Apply seed mixture 10 and 30 over designated areas at a rate of 1.5 pounds per 1,000 square feet for each mixture for a total rate of 3 pounds per 1,000 square feet.
2. Apply seed uniformly by mechanical or hydrospreading method.
3. Firm all seeded areas with a drag or cultipacker immediately after seeding and prior to mulching.

C. Watering:

1. Turf establishment areas shall be watered initially with 1-½ inches of water using a water truck with hoses, nozzles, or arms capable of watering the restored areas.
2. Continued watering is to be included in this bid item. On days 2-14 (or until complete germination, whichever comes last), following the seeding, the restored areas shall be watered ½ inch every other day. Natural rain events may substitute for watering, but perform additional watering on rain event days to achieve specified water amounts.

END OF SECTION

Attachment: (3) Dan's Construction Shop - Specs (6612 : 2021-0010 Daniel Olson - Conditional Use Request)

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SECTION 33 41 00

STORM SEWER SYSTEMS

PART 1 GENERAL**1.01 SUMMARY**

- A. Section Includes:
 - 1. Storm sewer pipe.
 - 2. Manholes and appurtenances.
 - 3. Aprons.
 - 4. Drain Tile.
 - 5. PVC Drain Basin and appurtenances.
- B. Related Sections:
 - 1. Section 31 23 33 – Trench Excavation and Backfill
 - 2. Section 31 37 00 - Riprap
- C. Method of Measurement
 - 1. Storm Sewer Pipe:
 - a. Measure by distance in linear feet.
 - b. Measure from structure centers and pipe ends not including end sections.
 - c. Measure each pipe size, type and class separately.
 - 2. PVC Drain Basin: Measure each type installed as a unit.
 - 3. Castings: Incidental to manhole, drain basin, or pond outlet structure.
 - 4. Pond Outlet Structure: Measure each type as an installed unit.
 - 5. Aprons: Measure each size and type installed as a unit.
- D. Basis of Payment:
 - 1. Payment for acceptable quantities of storm sewer items shall be at the Contract Unit Price as listed on the Bid form. All associated Work items shall be considered incidental.

1.02 REFERENCES

- A. ASTM:
 - 1. A48 - Specification for Gray Iron Castings
 - 2. D2321 - Recommended Practice for Installation of Flexible Thermo-Plastic Sewer Pipe
 - 3. F477 - Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe
 - 4. F667 - Standard Specifications for Large Diameter Corrugated Polyethylene Pipe and Fittings

1.03 SUBMITTALS

- A. Submit Certification of Compliance as required under Article 1.04.
- B. Provide Shop Drawings for each structure.

1.04 QUALITY ASSURANCE

- A. Provide certificate from manufacturer certifying that the following materials meet the respective requirements listed in Article 1.02.
 - 1. Storm Sewer Pipe
 - 2. Drain Basins
 - 3. Pond Outlet Structure
 - 4. Castings
 - 5. Drain Tile Pipe

1.05 DELIVERY OF MATERIALS

- A. Inspect all pipe and materials during the unloading process.
- B. Notify Engineer of any cracked, flawed or otherwise defective material.
- C. Remove all materials found to be unsatisfactory by Engineer from the Site.

PART 2 PRODUCTS**2.01 PIPE**

- A. High Density Polyethylene (HDPE) corrugated and smooth wall lined storm sewer pipe.
 - 1. Pipe Stiffness:
 - a. 50 psi: 12 inches.
 - b. 40 psi: 15 inches.
- B. Drain Tile: Shall be single wall, perforated, corrugated polyethylene drainage tubing with a sock. Ends of pipe shall be capped with an end cap fitting. Shall meet the requirements of AASHTO M252 designation.
- C. Provide all pipe from the same manufacturer.

2.02 POND OUTLET STRUCTURES

- A. See Drawings for diameter.
- B. Provide gasket joint.
- C. Provide base and cone section or flat top as shown on Drawing details.
- D. Manhole Steps:
 - 1. Provide 12-inch wide step in accordance with the following:
 - a. Cast aluminum by Modern Metals Foundry (A-12).
 - b. Polypropylene coated steel by M.A. Industries, Inc.
 - c. Cast iron or aluminum alloy by Neenah Foundries (R-1980-1).
- E. Castings: As indicated on the Drawings.
- F. Manhole Adjustment Rings: Ladtech Adjustment Rings or approved equal.

2.03 APRONS

- A. Provide the same strength class as the pipe.

2.04 PVC DRAIN BASIN

- A. Drain Basins shall be Nyloplast, Inc. Drain Basin, Harco Drain Basins, or approved equal manufactured to plan details. All Drain Basins shall have watertight outlet adaptors molded by manufacturer providing 2' sumps on all structures.
- B. See Drawings for diameter.
- C. Where required, INSERTA TEE tee or equal for connecting the corrugated HDPE storm sewer to the PVC Drain Basin, or approved equal, shall be used on Drain Basins requiring inlets per plan and shall be installed in the field.
- D. The pipe and accessories shall be PVC with either Elastomeric or solvent weld joints. All pipe and components shall be made from PVC components as defined and described in ASTM D-1784. PVC pipe and fitting shall conform to the requirements of ASTM D-3034 schedule 40. ASTM 3033 (1979) or ASTM F 679 (1980).
- E. Transition plates shall be Nyloplast, Inc. Catalog #24BASECD, compatible with Neenah Foundry R-3010 Catch Basin Frames, or approved equal.
- F. Sealant shall be Chem Link, M-1 Structural Adhesive Sealant, or approved equal, and shall be used on all new inlets between the casting and transition plate.
- G. Castings
 - 1. ATSM A48
 - 2. See Drawings for casting type.
 - 3. Grate Type
 - a. Type L Grate for one direction flow
 - b. Type R Grate for two direction flow

PART 3 EXECUTION**3.01 PREPARATION**

- A. Line and Grade:
 - 1. Conform to lines, elevations, and grades shown on the Drawings.
 - 2. Provide means for accurately transferring line and grade from ground surface stakes to the working point in the trench.

3.02 CONSTRUCTION REQUIREMENTS

- A. Unless otherwise noted in the Drawing, Contractor has choice to use double wall HDPE or Class 5 reinforced concrete pipe for storm sewer construction.
- B. Pipe Installation:
 - 1. Inspect pipe for defects while suspended before lowering into the trench.

2. Comply with ASTM D2321 for HDPE installation.
 - a. See Drawings for bedding details.
 3. Place pipe bell at upstream end of pipe length.
 4. Install pipe from lower to higher invert elevation.
 5. See Section 31 23 33 for pipe foundation and backfill procedures.
- C. Pond Outlet Structure Installation:
1. Place precast base on compacted granular subgrade.
 2. Install in accordance with drawing details.
 3. Locate steps within 1 inch of vertical alignment and within 1 inch of required vertical spacing.
 4. Install manhole adjustment rings to provide final horizontal and vertical adjustment within tolerances.
 5. Maximum horizontal tolerance: 3 inches in any direction.
 6. Construct watertight to prevent groundwater infiltration.
- D. Drain Tile Installation: Place pipe as shown on the drawings. Connect drain tile to PVC Drain Basins and Catch Basins. Place $\frac{3}{4}$ -inch washed stone to a thickness of 6-inches over the top and side of pipe prior to backfilling with granular subbase material.
- E. PVC Drain Basin Installation:
1. Install per manufacturer's recommendations.

3.03 FIELD QUALITY CONTROL

- A. Deflection Test:
1. Perform on HDPE pipe at least 30 days after trench backfill has been placed.
 2. Perform test by pulling a mandrel through each line between manholes without aid of mechanical pulling devices.
 3. Mandrel Diameter: 95 percent of nominal pipe size.
 4. The line will be considered acceptable if mandrel can progress through line without binding.
 5. Provide corrective measures for lines not meeting these requirements.

3.04 CLEANING

- A. Remove all dirt and foreign material from the pipe and structure interiors.

END OF SECTION



PROPERTY DESCRIPTION
ST HWY 29 BUS, CHIPPEWA FALLS, WI 54729
SW ¼ NW ¼ S15 T28N R9W
PIN: 22809-1532-00020002

EXISTING SOILS
PREDOMINANTLY: BURKHARDT SANDY LOAM 0%-3% SLOPES - HYDROLOGIC SOIL GROUP A
ALSO, MENAHGA LOAMY SAND 0%-6% SLOPES - HYDROLOGIC SOIL GROUP A
ALSO, MOUNDVILLE LOAMY SAND 0%-3% SLOPES - HYDROLOGIC SOIL GROUP A
EXISTING COVER TYPE: FOREST LAND, GOOD

 ENGINEERS - SURVEYORS - ARCHITECTS 770 Technology Way Chippewa Falls, WI 54729 Phone: 715.861.5226 www.cbssquaredinc.com	DRAWN BY: BPS	REVISIONS	DAN'S CONSTRUCTION NEW SHOP WHEATON, WI	PROJECT LOCATION	SHEET
	DATE: 08/13/2021	DATE: DESCRIPTION:			
	CHECKED BY: TJH	-			
	HORIZ. SCALE:				
	VERT. SCALE:				
PROJECT NO. OLSON 20001					

FILE NAME : P:\OLSON\20001 - SURVEY\CAD\C3D\SHEETS\PLAN\PROJECT LOCATION.DWG

Packet Pg. 202

DRAFT: 09-21-2021

CHIPPEWA COUNTY – PLANNING & ZONING COMMITTEE

NOTICE OF ACTION

Conditional Use Permit a Contractor's Storage Yard in the Agricultural District

APPEAL NUMBER: 2021-0008

APPEAL DATE: 06-24-2021

LAND OWNER(S):

Daniel Olson, 7929 County Highway Q, Chippewa Falls, Wisconsin 54729

PARCEL NUMBER:

22809-1532-00020002

LEASEE/FUTURE OWNER:

Dan's Construction & Excavation, Inc,

Dear Property Owner,

On June 24, 2021, the Planning & Zoning Committee considered your Conditional Use Permit request to allow a contractor's storage yard (First Choice Landscape LLC) in the Agricultural District pursuant to 70-71(b)(5) and 70-108. The parcel associated with this conditional use permit is 22808-1034-00020000, which is located in the SE ¼ of the SW ¼, Section 10, Township 28 North, Range 08 West. Town of Lafayette. Physical Address: 16404 50th Avenue.

DECISION:

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

1. **Description and Size of the Structure(s):** Principal Building: 24' x 36' Office with an 80' x 100' attached heated garage, a 40' x 100' accessory shed, a 24' x 30' fuel island, 20' x 100' bin area and a 40' x 100' Cold Storage (flat). All proposed buildings shall be built to the Wisconsin Commercial Building Code, unless exempt.
2. **Concise Description of the Permitted Use:** Approved as outlined in the introductory letter from CBS Squared dated August 25, 2021 and confined to the boundaries as shown on the site plan.
3. **Outdoor Storage:** All outdoor storage of equipment or business items for Dan's Construction & Excavation, Inc shall be placed or screened by plantings or fences, so that the storage of the equipment is not visible from any public highway or any residential building. Trees and/or shrubs shall be planted shall be able to reach a height of 5-8 feet within 3 years.
4. **Onsite Activities Prohibited:** The storage of materials such as gravel, sand, wood chips, stumps, etc would not be allowed on the property. The site shall not be used as a burrow site or a staging area for materials.
5. **Setback Requirements:** All setbacks of the Agricultural District shall be met with the proposed buildings. The outdoor storage of items shall be located at least 20' from all property lines.
6. **Road Access:** If not already granted, both access points shall be approved by the Chippewa County Highway Department prior to their construction
7. **Terms & Duration:** This conditional use permit is issued to Dan's Construction & Excavation, Inc. This permit would not be transferable to a future property owner, unless approved by the Planning & Zoning Committee after conducting a public hearing. A renewal period is not attached to this permit. The rental or leasing of land or building space to a third party under this conditional use permit is prohibited.
8. **Allowed Expansion:** Expansions of the proposed buildings are not allowed, unless approved by the Planning & Zoning Committee.
9. **Future Subdivision of the Property:** If the property is subdivided, this CUP shall be revised to include the new legal description and parcel number.

DRAFT: 09-21-2021

10. Parking Consideration: The parking of employee vehicles shall follow the setback requirements for outdoor storage under number 3 of this conditional use permit.
11. Drainage & Sanitary Disposal: All activities conducted on the site shall be in accordance with all applicable local, state and federal regulations.
12. Days and Hours of Operation: Outdoor activities would be allowed to begin one-half (1/2) hour after sunrise and shall cease one-half (1/2) hour prior to sunset, Monday through Saturday. Occasionally, the hours of operation might be outside these hours. No Sundays or holidays.
13. It is the responsibility of the owner to apply for and keep all required permits valid and in compliance.
14. Conditions as outlined in 70-108(d), (e) and (f) of the Chippewa County Zoning Ordinance.

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. Information can be reviewed and/or requested between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding Holidays.

TERMINATION AND REVOCATION

The conditional use permit shall lapse and is void:

- (1) Twelve (12) months after approval by the Committee unless the use is fully established and improvement to the property described in the permit is implemented.
- (2) On the date of expiration set forth in the conditional use permit.
- (3) At such time as the conditional use for which the permit was granted shall cease or be abandoned for twelve (12) consecutive months.
- (4) If any condition of the permit is violated or if the conditional use is substantially detrimental to persons or property in the neighborhood, the Committee, following notice to all parties listed in 70-108(b)(2), shall hold a public hearing on the revocation of the conditional use permit. If, upon finding of facts, any material condition of the conditional use permit has been violated or if the character and quality of the area has been substantially and adversely affected by the continuation of the conditional use permit, the Committee may revoke or modify the conditional use. The Committee may thereafter direct counsel for the county to initiate such legal actions as are necessary to ensure compliance with this chapter.

EFFECT OF REVOCATION

In the event of revocation or termination, the conditional use is void and the property shall be governed thereafter by the rules of the zoning district to which the property is zoned at the time of the termination.

BINDING EFFECT

The applicant shall acknowledge in their application and the conditional use permit shall recite that the use is conditional and binding upon the applicant, his successors, assigns and personal representatives and is a restriction that runs with the land.

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 23rd day of September, 2021.

By the Order of the Planning & Zoning Committee.



Douglas Clary, Director
 Department of Planning & Zoning

Dan's Construction & Excavation, Inc
Conditional Use Permit – 2021-0010
September 23, 2021

DRAFT: 09-21-2021

CC: Mark Blaskowski, Wheaton Town Chair – *via email*
File

Attachment: 2021-0010 Olson (Dan's Construction & Excavation, Inc) - DRAFT_DECISION (6612 : 2021-0010 Daniel Olson - Conditional Use



STATEMENT OF EXPLANATION
2021-0011 DAVID CRANE - CONDITIONAL USE REQUEST

5.3

To allow private aircraft storage in the Agricultural District in accordance with Sections 70-71(b)(4) and 70-108 of the Chippewa County Zoning Ordinance. Lot 1, CSM 5140, which is located in the SW $\frac{1}{4}$ of the NW $\frac{1}{4}$, Section 16, Township 28 North, Range 07 West. Town of Lafayette. Physical Address: 21064 45th Ave.

(Publish – Chippewa Herald – September 9 and 16, 2021)

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 23, 2021** beginning at **4:30 PM** at the Chippewa County Courthouse, Room 302, 711 N Bridge Street, Chippewa Falls, Wisconsin relative to the following request.

Conditional Use Request: 2021-0009

Petitioner: Solhawk Dairy, Inc

Agent: Dennis Hawkins and Mike Buchner of Auth Consulting & Associates, Inc.

To allow the expansion of an existing Livestock Operation in the Agricultural District in accordance with Sections 70-71(b)(16), 70-108 and 70-160 through 70-173 of the Chippewa County Zoning Ordinance. Parcels are located in the N ½ of the NE ¼, Section 20, Township 28 North, Range 09 West. Town of Wheaton. Physical Address: 8777 County Highway X.

Conditional Use Request: 2021-0010

Petitioner: Daniel Olson

Agent: CBS Squared/Tyler Hastings

To allow a contractor storage yard (Dan's Construction & Excavating, Inc.) in the Agricultural District in accordance with Sections 70-71(b)(5) and 70-108 of the Chippewa County Zoning Ordinance on a parcel which is located in the NW ¼ of the SW ¼, Section 15, Township 28 North, Range 09 West. Town of Wheaton. Vacant land, County Highway X.

Conditional Use Request: 2021-0011

Petitioner: David Crane

To allow private aircraft storage in the Agricultural District in accordance with Sections 70-71(b)(4) and 70-108 of the Chippewa County Zoning Ordinance. Lot 1, CSM 5140, which is located in the SW ¼ of the NW ¼, Section 16, Township 28 North, Range 07 West. Town of Lafayette. Physical Address: 21064 45th Ave.

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 **27th** day of **August**, 2021.

Douglas Clary, Director
Department of Planning & Zoning
Chippewa County

Attachment: 2021-0011 Crane - CUP - Public Hearing Notices & Maps (6613 : 2021-0011 David Crane - Conditional Use Request)

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

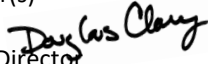
Land Records & G.I.S.

POWTS & Wells

Date: August 27, 2021

To: Property Owner(s)

From: Douglas Clary, Director



Re: Public Meetings & Public Hearing

Dear Property Owner(s):

The Chippewa County Department of Planning & Zoning has received a conditional use petition for a parcel 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 parcel associated with the conditional use petition. If you have any questions regarding this conditional use petition, please contact me at (715) 726-7941.

CONDITIONAL USE PETITION: #2021-0011

Petitioner: David Crane

To allow private aircraft storage in the Agricultural District in accordance with Sections 70-71(b)(4) and 70-108 of the Chippewa County Zoning Ordinance. Lot 1, CSM 5140, which is located in the SW ¼ of the NW ¼, Section 16, Township 28 North, Range 07 West. Town of Lafayette. Physical Address: 21064 45th Avenue.

Lafayette Town Park, Recreation & Land Use Planning Commission (PRLPC):

The PRLPC will **REVIEW** this request on **September 13, 2021** at approximately **7:00 PM**. The PRLPC will make an **ADVISORY** recommendation to the Lafayette Town Board to approve or disapprove. This meeting will be held at the Lafayette Town Hall, 5765 197th Street, Chippewa Falls, Wisconsin 54729 or via telephone.

Lafayette Town Board:

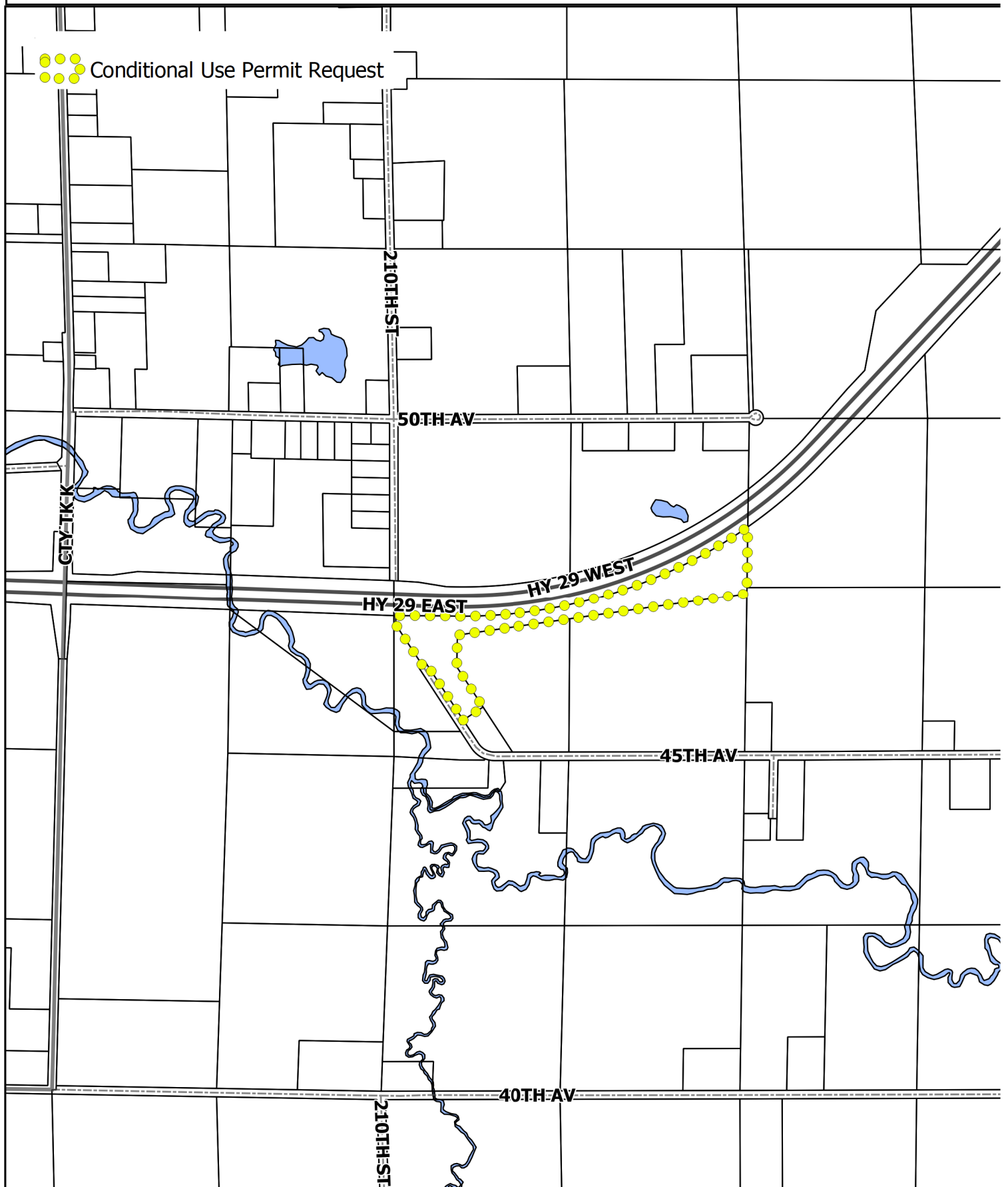
The Town Board will **REVIEW** this request on **September 20, 2021** at approximately **7:00 PM**. The Town Board will forward an **ADVISORY** recommendation to the Chippewa County Planning & Zoning Committee to approve, disapprove or approve with modification(s) and/or condition(s). This meeting will be held at the Lafayette Town Hall, 5765 197th Street, Chippewa Falls, Wisconsin 54729 or via telephone.

Chippewa County Planning & Zoning Committee:

The Chippewa County Planning & Zoning Committee will hold a **PUBLIC HEARING** for this petition on **September 23, 2021** at **4:30 PM** in the Chippewa County Courthouse, Room 302, 711 N Bridge Street, Chippewa Falls, Wisconsin. The Committee will make a determination on the petition to approve, disapprove or approve with modification(s) and/or conditions.

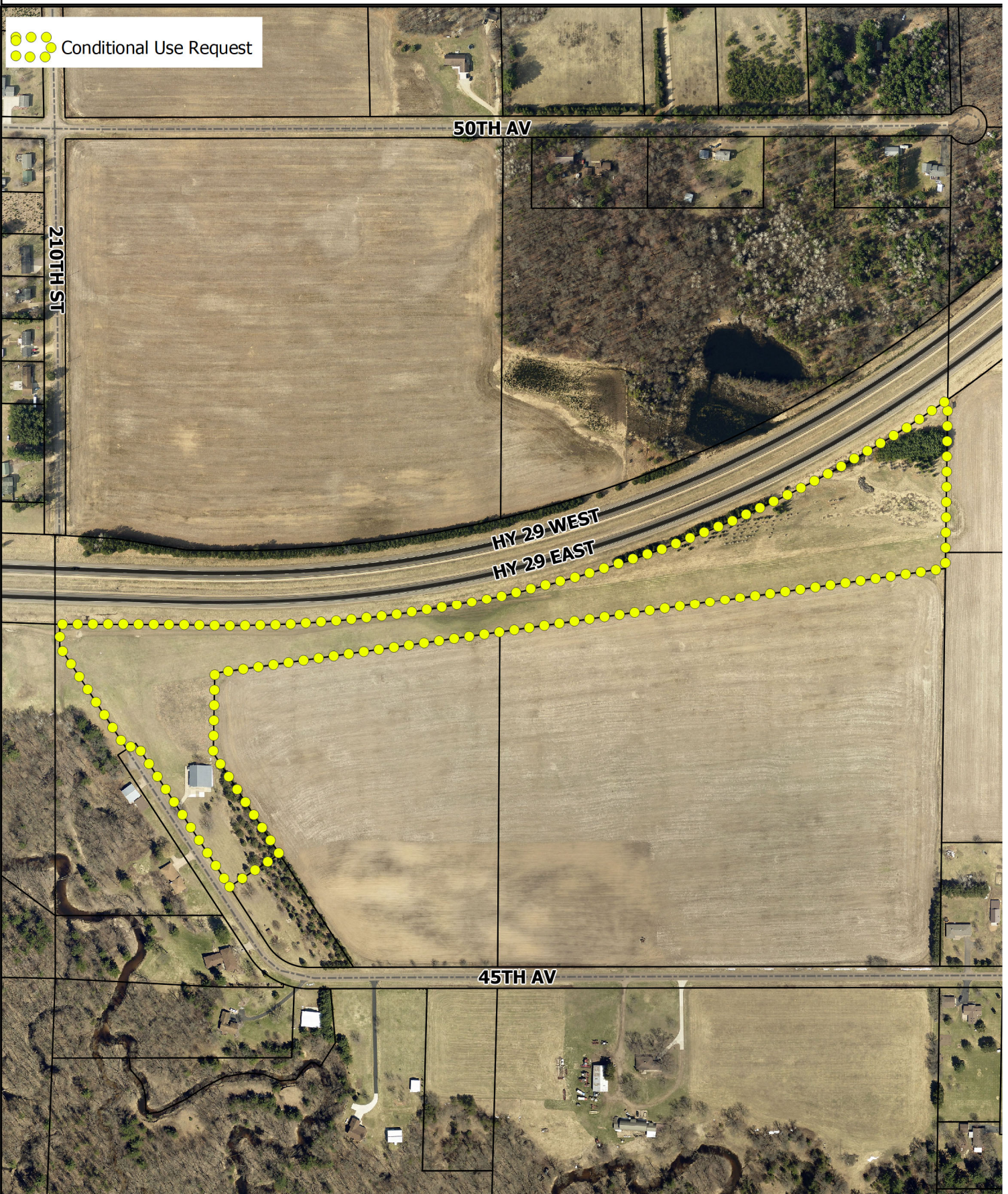
Attachment: 2021-0011 Crane - CUP - Public Hearing Notices & Maps (6613 : 2021-0011 David Crane - Conditional Use Request)

2021-0011 Crane - Conditional Use Request - Location Map



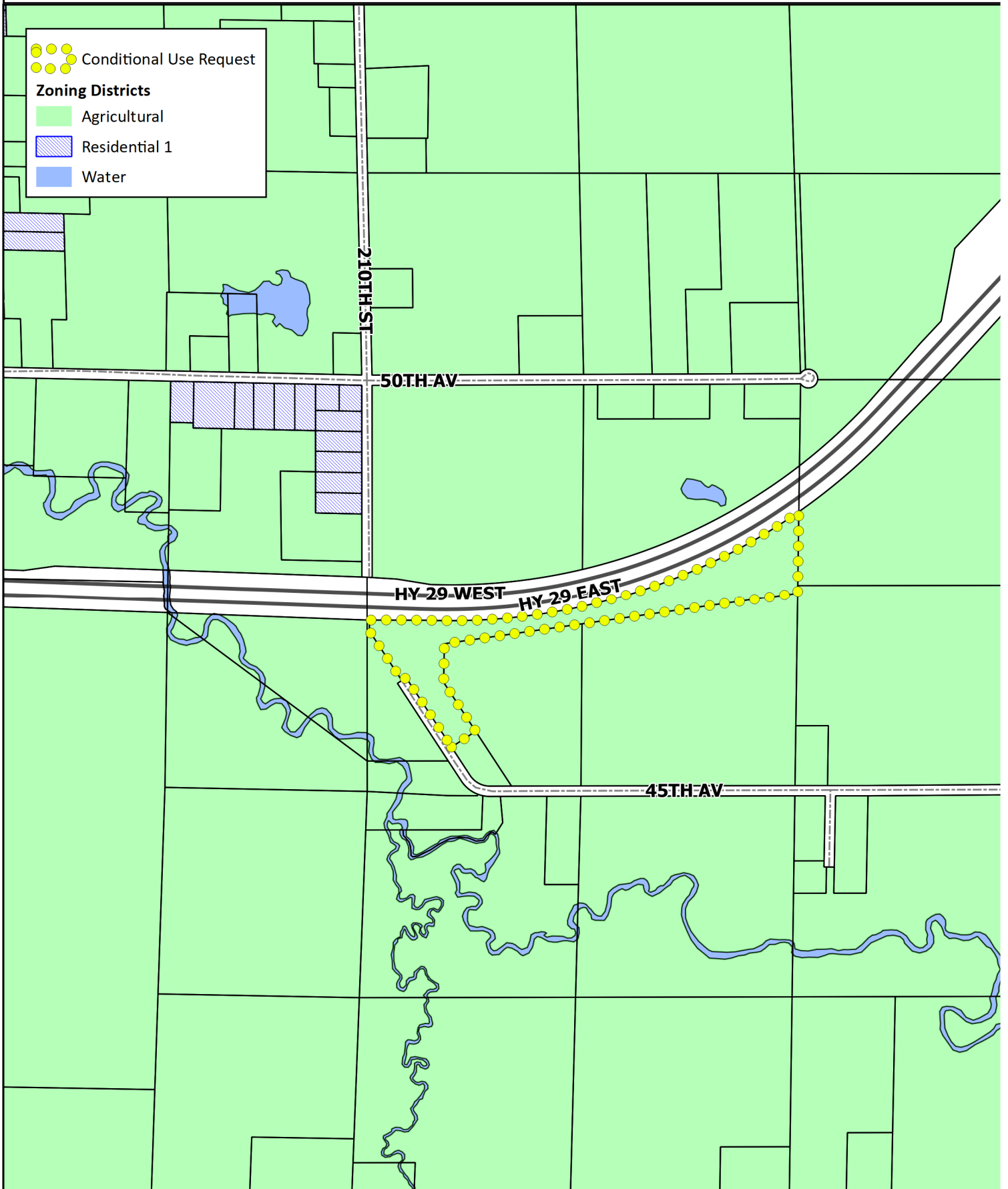
Attachment: 2021-0011 Crane - CUP - Public Hearing Notices & Maps (6613 : 2021-0011 David Crane - Conditional Use Request)

2021-0011 Crane - Conditional Use Request - Aerial (2020)



Attachment: 2021-0011 Crane - CUP - Public Hearing Notices & Maps (6613 : 2021-0011 David Crane - Conditional Use Request)

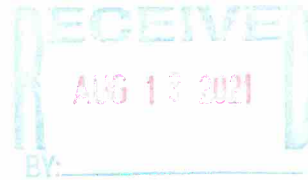
2021-0011 Crane - Conditional Use Request - Zoning Districts



Attachment: 2021-0011 Crane - CUP - Public Hearing Notices & Maps (6613 : 2021-0011 David Crane - Conditional Use Request)

August 16, 2021

Mr. Douglas Clary
Chippewa County Dept of Zoning
711 N. Bridge Street
Chippewa Falls, WI 54729



Dear Mr. Clary,

I would like to request a Conditional Use Permit for the construction of two additional airplane hangers at Crane Field Airport. There is currently one hanger located there. The address is 21064 45th Avenue, Cadott, WI, 54727. Site map enclosed.

Thank you.

Sincerely,

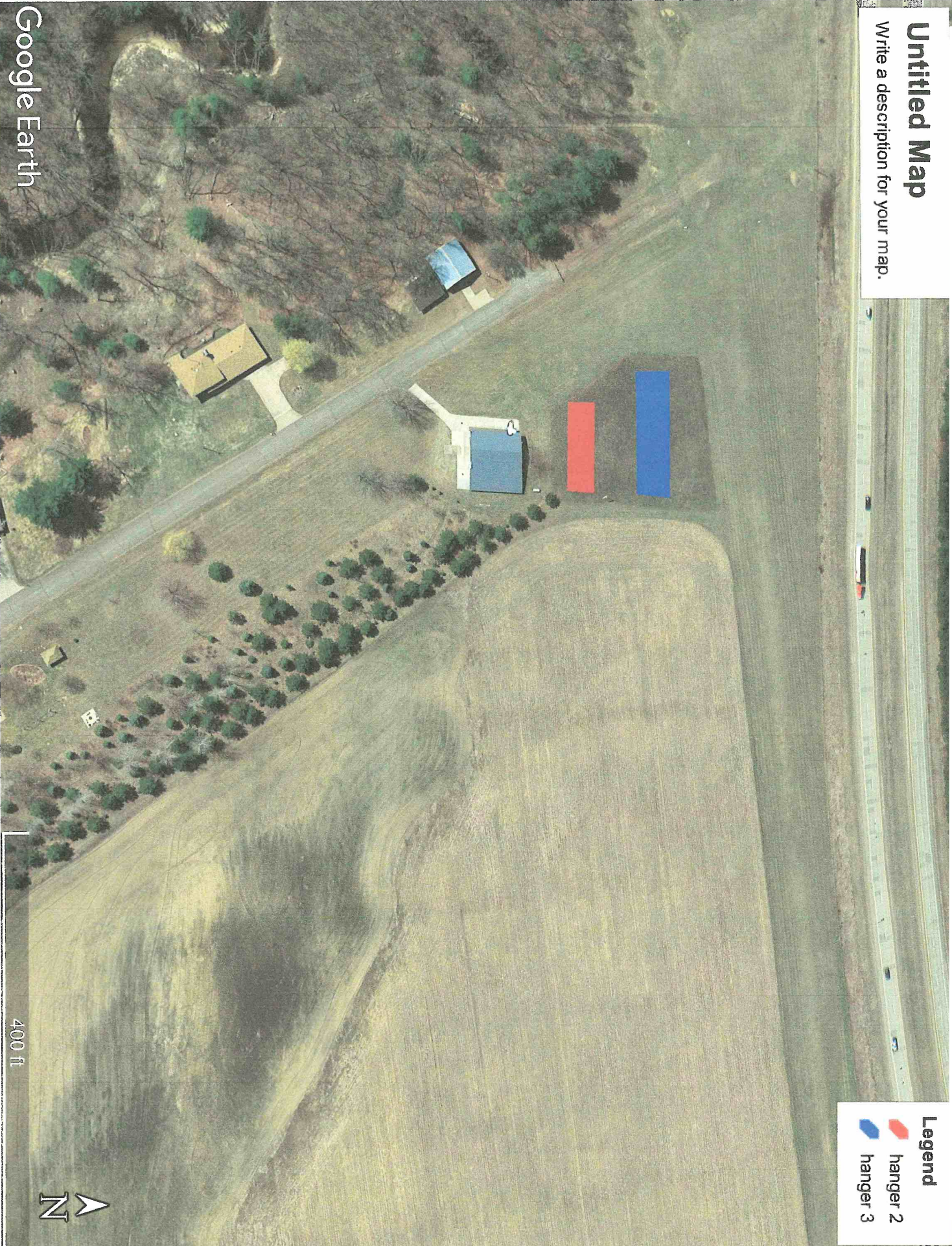
David D. Crane
21121 45th Avenue
Cadott, WI 54727
Cell: 715-828-7175

Untitled Map

Write a description for your map.

Attachment: 2021-0011 Crane - CUP - Submitted Information (6613 : 2021-0011 David Crane - Conditional Use Request)

- Legend**
-  hanger 2
 -  hanger 3



Google Earth

Draft: 09-23-2021

CHIPPEWA COUNTY – PLANNING & ZONING COMMITTEE

NOTICE OF ACTION

To Allow Additional Hangers to an Existing Aircraft Landing Field in the Agricultural District

APPEAL NUMBER: # 2021-0011

APPEAL DATE: 09-23-2021

LAND OWNER(S):

David D & Vicky L Crane Trust, 21121 45th Avenue, Cadott, Wisconsin 54727

(Parcel No: 22807-1623-75140001)

Dear David D & Vicky L Crane Trust,

On September 23, 2021, the Planning & Zoning Committee considered your request to allow additional hangers to an existing aircraft landing field in the Agricultural District in accordance with sections 70-71(b)(4) and 70-108 of the Chippewa County Zoning Ordinance. The land associated with this particular conditional use permit is Lot 1, CSM 5140, which is located in the SW ¼ of the NW ¼, Section 16, Township 28 North, Range 07 Wes., Town of Lafayette.

DECISION:

The Planning & Zoning Committee has **GRANTED** the revision of the conditional use permit. The following are now the conditions applied to this conditional use permit:

1. Permit is issued to the David D & Vicky L Crane Trust. This permit is not transferable to a subsequent property owner without the Planning & Zoning Committee's approval.
2. The parcel associated with this request shall not be further subdivided.
3. The hangers shall be owned by the property owner, but may be rented or leased out to separate individuals.
4. If the aircraft landing field use is discontinued for 12 consecutive months, this conditional use permit will be null and void.
5. Two additional hangers, with a total of 5 aircraft will be allowed as shown on the documents submitted.
6. Hangers shall not be located within 125' of the centerline of the landing strip and, at a minimum, be subject to the setback requirements in the Agricultural District and other applicable setbacks of the zoning ordinance.
7. Paving of the airstrip will not be allowed.
8. Property owner is still required to obtain all required permitting and approvals prior to the construction and/or placement of the hangers on the property.

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. Information can be reviewed and/or requested between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding Holidays.

TERMINATION AND REVOCATION

The conditional use permit shall lapse and is void:

1. Twelve (12) months after approval by the Committee unless the use is fully established and improvement to the property described in the permit is implemented.
2. On the date of expiration set forth in the conditional use permit.
3. At such time as the conditional use for which the permit was granted shall cease or be abandoned for twelve (12) consecutive months.
4. If any condition of the permit is violated or if the conditional use is substantially detrimental to persons or property in the neighborhood, the Committee, following notice to all parties listed in 70-108(b)(2), shall hold a public hearing on the revocation of the conditional use permit. If, upon finding of facts, any material condition of the conditional use permit has been violated or if the character and quality of the area has been substantially and adversely affected by the continuation of the conditional use permit, the Committee may revoke or modify the

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conditional use. The Committee may thereafter direct counsel for the county to initiate such legal actions as are necessary to ensure compliance with this chapter.

EFFECT OF REVOCATION

In the event of revocation or termination, the conditional use is void and the property shall be governed thereafter by the rules of the zoning district to which the property is zoned at the time of the termination.

BINDING EFFECT

The applicant shall acknowledge in their application and the conditional use permit shall recite that the use is conditional and binding upon the applicant, his successors, assigns and personal representatives and is a restriction that runs with the land.

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 23rd day of September, 2021.

By the Order of the Planning & Zoning Committee.



Douglas Clary, Director
 Department of Planning & Zoning

CC: David Staber, Lafayette Town Chair – *via email*
 File

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