

Nicollet County Planning and Zoning Advisory Commission



May 17, 2021

**The meeting will begin following the adjournment of the
Nicollet County Board of Adjustment and Appeals Meeting**

Doors Open at 6:45 PM

County Board Room, Nicollet County Government Center, 501 South Minnesota Avenue, Saint Peter MN 56082

Due to the COVID-19 (coronavirus) pandemic and resulting state and federal emergency declarations and guidance about limiting unnecessary person-to-person contact, the Planning and Zoning Advisory Commission meetings will be conducted under Minnesota Statute 13D.021 – Meetings by Telephone or Other Electronic Means. Some members may participate by telephone or other electronic means.

Due to the current health pandemic, only a limited number of persons will be allowed in the meeting room at one time. Persons in attendance must maintain proper social distancing at all times while in the building.

Copies of the meeting agenda and packet are available on the Nicollet County website at:
<https://mn-nicolletcounty.civicplus.com/AgendaCenter>

Questions or comments regarding the meeting can be directed to Mandy Landkamer, Property Services Director, at 507-934-7074, or mandy.landkamer@co.nicollet.mn.us.

-
1. Call to Order
 2. Roll Call
 3. Review of Cancellations and Additions
 4. Approval of Minutes: *April 19, 2021*
 5. **PUBLIC HEARING PLN 21-20**
Applicant: Nick Peters
Owner: Peters Family LLLP
Request: Establish a swine feedlot
Location: Southwest 1/4 of the Northwest 1/4 of Section 32-110-27 in Oshawa Township
Parcel Number: 10.132.0200
 6. Review Permits
 7. Old Business
 8. Other Business
 9. Communications: *County Board meets May 25, 2021*
 10. Adjourn

Mission Statement

Providing efficient services
with innovation and
accountability.

Leadership. Efficiency. Accountability.
Innovation. Integrity.

www.co.nicollet.mn.us

Vision Statement

Setting the standard for providing superior
and efficient county government services
through leadership, accountability and
innovation to a growing and diverse society.



Planning & Zoning Advisory Commission

MINUTES

APRIL 19, 2021

8:29 PM

NICOLLET COUNTY
GOVERNMENT CENTER

BOARD MEMBERS	David Hermanson ☒ Chair	David Wendinger ☒ Vice Chair	Marie Dranttel ☒ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☒	Ron Regenscheid ☒	Dave Ubel ☒
ABSENT EXCUSED	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☐
ABSENT	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☐
STAFF PRESENT	Property and Public Services Director Mandy Landkamer ☒		
	Deputy Zoning Administrator/Planner Jon Hammel ☒		
	Assistant County Attorney Megan E. Gaudette Coryell ☒		
	Other Staff ☐		

REVIEW OF CANCELLATIONS & ADDITIONS		None.	
MOTION TO APPROVE MINUTES OF JANUARY 25, 2021		APPROVE ☒	APPROVE WITH REVISIONS ☐
1 ST	David Hermanson ☐ Chair	David Wendinger ☒ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☐
2 ND	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☒
VOTE TO APPROVE MINUTES		PASS ☒	FAIL ☐ VOTE: 6-0
PUBLIC APPEARANCES	None.		

PUBLIC HEARINGS:

APPLICANT: LINCOLN LANGHORST/JACLYN LANGHORST REVOCABLE TRUST

FILE: PLN21-13

DESCRIPTION: REGISTERED LAND SURVEY NO. 77

APPLICANT COMMENT	Lincoln Langhorst was present. He explained the request was part of a land exchange with a neighboring property owner.		
PUBLIC COMMENT	Chris Krohn called to inquire about the proposal. He did not object to the request.		
PUBLIC TESTIMONY	None.		
PUBLIC PARTICIPATION	None.		
MOTION	APPROVE WITH CONDITIONS ☒		DENY ☐
1ST	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☒
2nd	David Hermanson ☐ Chair	David Wendinger ☒ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☐
COMMISSIONER DISCUSSION	None.		
VOTE TO APPROVE REQUEST	PASS ☒	FAIL ☐	VOTE:6-0

APPLICANT: LJ FARMS, LLC

FILE: PLN21-07

DESCRIPTION: MODIFY AN EXISTING CATTLE FEEDLOT INTO A SWINE FEEDLOT

APPLICANT COMMENT	Lincoln Langhorst was present. He stated the conditions were acceptable.		
PUBLIC COMMENT	Chris Krohn called to inquire about the proposal. He did not object to the request.		
PUBLIC TESTIMONY	None.		
PUBLIC PARTICIPATION	None.		
MOTION	APPROVE WITH CONDITIONS ☒		DENY ☐
1ST	David Hermanson ☐ Chair	David Wendinger ☒ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☐
2nd	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☒
COMMISSIONER DISCUSSION	Regenscheid asked about manure storage capacity. Langhorst responded the facility will have one year capacity. For safety purposes they would spread manure twice a year.		
VOTE TO APPROVE REQUEST	PASS ☒	FAIL ☐	VOTE: 6-0
MOTION TO ADOPT FINDINGS OF FACT			
1ST	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☒	Dave Ubel ☐
2ND	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☒ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☐

VOTE TO ADOPT FINDINGS OF FACT	PASS ☒	FAIL ☐	VOTE: 6-0
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APPLICANT: MARK AND JULIE FRANKAMP

FILE: PLN21-10

DESCRIPTION: AFTER-THE-FACT CONDITIONAL USE PERMIT FOR A LEVEL 2 HOME OCCUPATION

APPLICANT COMMENT	Paul Tanis was present representing the applicant. He had no comment.		
PUBLIC COMMENT	None.		
PUBLIC TESTIMONY	None.		
PUBLIC PARTICIPATION	None.		
MOTION	APPROVE WITH CONDITIONS ☐		DENY ☐
1ST	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☒	Ron Regenscheid ☐	Dave Ubel ☐
2nd	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☒	Dave Ubel ☐
COMMISSIONER DISCUSSION	None.		
VOTE TO APPROVE REQUEST	PASS ☒	FAIL ☐	VOTE: 6-0
MOTION TO ADOPT FINDINGS OF FACT			
1ST	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☒	Ron Regenscheid ☐	Dave Ubel ☐
2ND	David Hermanson ☐ Chair	David Wendinger ☒ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☐
VOTE TO ADOPT FINDINGS OF FACT	PASS ☒	FAIL ☐	VOTE: 6-0

APPLICANT: WILLIS WALTER

FILE: PLN21-01

DESCRIPTION: THREE-YEAR REVIEW OF A MINERAL EXTRACTION PERMIT TO MINE, CRUSH, AND STOCKPILE GRAVEL

APPLICANT COMMENT	Willis Walter was present. He had no comment.		
PUBLIC COMMENT	None.		
PUBLIC TESTIMONY	None.		
PUBLIC PARTICIPATION	None.		
MOTION	APPROVE WITH CONDITIONS ☒		DENY ☐
1ST	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☒
2nd	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☒	Ron Regenscheid ☐	Dave Ubel ☐
COMMISSIONER DISCUSSION	Commissioner Dranttel recused herself from the hearing.		

VOTE TO APPROVE REQUEST		PASS ☒	FAIL ☐	VOTE: 6-0
MOTION TO ADOPT FINDINGS OF FACT				
1ST	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate	
	Justin Laven ☐	Ron Regenscheid ☒	Dave Ubel ☐	
2ND	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate	
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☒	
VOTE TO ADOPT FINDINGS OF FACT		PASS ☒	FAIL ☐	VOTE: 6-0

APPLICANT: W. LORENTZ & SONS CONSTRUCTION, INC.

FILE: PLN21-12

DESCRIPTION: MINERAL EXTRACTION PERMIT TO MINE, CRUSH, STOCKPILE, PROCESS, RECYCLE, AND WASH GRAVEL

APPLICANT COMMENT	Andrew and Nicholas Lorentz were present representing the applicant.			
PUBLIC COMMENT	Kenneth Drill called and objected to the request.			
PUBLIC TESTIMONY	Darin Drill testified on behalf of Kenneth Drill. He said that as far as he knows there is no existing access easement for the proposed mine.			
PUBLIC PARTICIPATION	None.			
MOTION	APPROVE WITH CONDITIONS ☒		DENY ☐	
1ST	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate	
	Justin Laven ☒	Ron Regenscheid ☐	Dave Ubel ☐	
2ND	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate	
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☒	
COMMISSIONER DISCUSSION	Wendinger asked what would happen if the adjacent pit operator mined into the existing driveway. Nicholas Lorentz replied the landowner has an existing prescriptive easement to access the proposed mine. Wendinger asked if the easement was recorded. Lorentz said it was not. He stated the driveway would not be allowed to be removed because of the prescriptive easement. Landkamer noted condition 13 would address issues regarding access. Wendinger asked if access could come from CR25. Lorentz said it would be easier to access the site from CR25. Landkamer stated the road authority would have to approve any access to CR25. Lorentz noted he had discussed access from CR25 with the County Engineer but they had not reached an agreement. Laven stated he supported condition 13 requiring access verification. Landkamer stated the condition would allow the request to move forward and allow the parties to resolve access or look for an alternate access prior to issuance of the conditional use permit. Laven stated he met individually with the landowner on the property. Wendinger stated he too had visited the property.			
VOTE TO APPROVE REQUEST		PASS ☒	FAIL ☐	VOTE: 6-0
MOTION TO ADOPT FINDINGS OF FACT				
1ST	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate	
	Justin Laven ☐	Ron Regenscheid ☒	Dave Ubel ☐	
2ND	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☒ Commissioner Terry Morrow ☐ Commissioner, Alternate	
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☐	

VOTE TO ADOPT FINDINGS OF FACT	PASS ☒	FAIL ☐	VOTE: 6-0
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APPLICANT: FOREST-LAWN HOLSTEINS, INC.

FILE: PLN21-15

DESCRIPTION: MODIFY AN EXISTING CATTLE FEEDLOT

APPLICANT COMMENT	Paul and Ashley Swenson were present. Mr. Swenson stated their existing facility is overcrowded and they do not have enough manure storage capacity. The proposal would alleviate both of these issues.		
PUBLIC COMMENT	None.		
PUBLIC TESTIMONY	None.		
PUBLIC PARTICIPATION	None.		
MOTION	APPROVE WITH CONDITIONS ☐		DENY ☐
1ST	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☒	Ron Regenscheid ☐	Dave Ubel ☐
2ND	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☒
COMMISSIONER DISCUSSION	Chair Hermanson recused himself from the hearing.		
VOTE TO APPROVE REQUEST	PASS ☒	FAIL ☐	VOTE: 6-0
MOTION TO ADOPT FINDINGS OF FACT			
1ST	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☒ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☐
2ND	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☒	Dave Ubel ☐
VOTE TO ADOPT FINDINGS OF FACT	PASS ☒	FAIL ☐	VOTE: 6-0

APPLICANT: JOHN AND VALERIE RIEKE

FILE: PLN21-16

DESCRIPTION: MODIFY AN EXISTING SWINE FEEDLOT

APPLICANT COMMENT	John and Valerie Rieke were present and had no comment.		
PUBLIC COMMENT	None.		
PUBLIC TESTIMONY	None.		
PUBLIC PARTICIPATION	None.		
MOTION	APPROVE WITH CONDITIONS ☐		DENY ☐
1ST	David Hermanson ☐ Chair	David Wendinger ☒ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☐
2ND	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☒	Ron Regenscheid ☐	Dave Ubel ☐

COMMISSIONER DISCUSSION		None.	
VOTE TO APPROVE REQUEST		PASS ☒	FAIL ☐ VOTE: 6-0
MOTION TO ADOPT FINDINGS OF FACT			
1ST	David Hermanson ☐ Chair	David Wendinger ☒ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☐
2ND	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☒ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☐
VOTE TO ADOPT FINDINGS OF FACT		PASS ☒	FAIL ☐ VOTE: 6-0

OTHER:

OLD BUSINESS	None.		
OTHER BUSINESS	Laven asked if there was a way to have an alternative meeting date scheduled in case weather prohibited meeting on the original date – as was the case in March of 2020. Landkamer noted there were scheduling and noticing concerns with designating alternative dates. The bylaws would also need to be amended. In the past several years there have been only two instances where meetings had to be postponed due to weather.		
REVIEW OF PERMITS	The permits for the month of March were reviewed.		
COMMUNICATIONS	None.		
MOTION TO ADJOURN	10:18 P.M.		
1ST	David Hermanson ☐ Chair	David Wendinger ☒ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☐
2ND	David Hermanson ☐ Chair	David Wendinger ☐ Vice Chair	Marie Dranttel ☐ Commissioner Terry Morrow ☐ Commissioner, Alternate
	Justin Laven ☐	Ron Regenscheid ☐	Dave Ubel ☒
VOTE TO ADJOURN	PASS ☒	FAIL ☐	VOTE: 6-0

DAVID HERMANSON, CHAIR		DATE	
JON HAMMEL, DEPUTY ZONING ADMINISTRATOR/ PLANNER		DATE	



CONDITIONAL USE PERMIT

ESTABLISH A SWINE FEEDLOT

**NICK PETERS /
PETERS FAMILY, LLLP**

PLN21-20

NICOLLET COUNTY PLANNING & ZONING ADVISORY COMMISSION

SUBJECT:	PLN21-20, Conditional Use Permit
APPLICANT:	Nick Peters
LANDOWNER:	Peters Family, LLLP
LOCATION:	Southwest 1/4 of the Northwest 1/4 of Section 32-110-27 in Oshawa Township
PARCEL NO:	10.132.0200
EXISTING ZONING:	Agricultural Preservation
HEARING DATE:	May 17, 2021

REQUEST

The applicant proposes to establish a swine feedlot with the construction of two total confinement barns measuring: 135' x 189' (25,515 square feet) and 184' x 217' (39,928 square feet). The 135' x 189' structure would be a farrowing barn. The 184' x 217' structure would be a gestation barn. The barns will have concrete underfloor liquid manure storage areas measuring: 135' x 189' x 2' (281,000 gallons) and 184' x 217' x 9' (2,256,000 gallons). The proposal also includes the construction of a connecting hallway, a load out, an office, and a compost building.

Proposed Feedlot Components

Size	Structure Type	Animal Type	Number of Animals
135' x 189'	Total confinement barn	Swine over 300 lbs.	473
135' x 189' x 2'	Underfloor manure storage area		
184' x 217'	Total confinement barn	Swine over 300 lbs.	1,152
184' x 217' x 9'	Underfloor manure storage area		

The proposed facility would consist of 1,625 swine weighing over 300 pounds. The total number of animal units would be 650.

Proposed # of Animals and Animal Units		
Animal Type	Number	A.U.
Swine over 300 lbs.	1,625	650
TOTAL	1,625	650

Existing Land Use:

The existing land use is agricultural. The property does not contain any existing structures. The property contains 40 acres of land and is zoned Agricultural Preservation.

Surrounding Land Use:

The surrounding land use is predominantly agricultural.

Access:

The proposed facility is located along 417th Avenue. The road authority is Oshawa Township. Prior to issuance of this conditional use permit the applicant must provide verification of access approval from the road authority.

Dead Animal Disposal:

The applicant's method of disposal is to compost.

Manure Management Plan:

A Manure Management Plan has been submitted in accordance with Minnesota Rules Section 7020.2225. The applicant has 873 spreading acres available. Only 93 spreading acres are required per year.

Manure Handling:

The manure from the total confinement barn will be stored in the below barn concrete pits. The manure will be emptied in the fall and will be transported and incorporated in accordance with Minnesota Pollution Control Agency rules.

Setbacks:

The proposal exceeds the County's requirements for development in the Agricultural Preservation zoning district. The proposed setbacks are as follows:

Minimum Setbacks		
Type	Required	Proposed
Front Yard (E)	35'	550'
Side Yard (N)	20'	780'
Side Yard (S)	20'	70'
Rear Yard (W)	20'	490'
OFFSET Odor Modeling 93% to non-associated dwelling (S)	1,997'	2,710'
OFFSET Odor Modeling 99% to City of Nicollet (SW)	1.9 miles	3.6 miles
Ditch (N)	100'	175'

Sewage Treatment:

The office will have restroom and showering facilities. A sewage treatment design for the office will be required prior to issuance of a zoning permit for the proposed feedlot.

MINNESOTA POLLUTION CONTROL AGENCY STANDARDS

The project does not meet the large concentrated animal feeding operation (CAFO) animal number threshold nor the animal unit threshold for issuance of a state issued feedlot permit. The federal threshold is 2,500 or more swine weighing 55 pounds or more. The state threshold is 1,000 animal units or more. The proposal is for 1,625 swine weighing more than 300 pounds, which is equivalent to 650 animal units. It does not meet the aforementioned thresholds. The applicant intends to apply for a Construction Short Form Permit through Nicollet County.

NEIGHBOR NOTIFICATION

Property owners were notified of the request per the standards of Section 505 of the Zoning Ordinance and Minnesota State Statute 394.26.

CONDITIONAL USE PERMIT CRITERIA

- 1. Given the nature of the land, the requested use is compatible with the general welfare, public health and safety.**

True, because:

- The proposed facility meets the applicable standards of Sections 505, 602, and 715 of the Zoning Ordinance for feedlots in the Agricultural Preservation zoning district.
- The size and design of the barn appears to be typical of feedlot developments within the county.
- The proposal appears to meet the applicable Minnesota Pollution Control Agency standards for swine feedlots.

- 2. The requested use will not create an unreasonably excessive burden on the existing roads or utilities.**

True, because:

- The size and function of the proposed facility is not unreasonable for the surrounding infrastructure.
- It appears the existing public infrastructure is suited for agricultural development.
- Oshawa Township was noticed of the request, but did not provide comment.

- 3. The requested use is compatible with the surrounding area and will not significantly depreciate nearby properties.**

True, because:

- The location is within an agricultural area.
- The proposal meets the required OFFSET setback from neighboring dwellings.

4. The structure and the use shall have an appearance that will not have an unreasonably adverse effect on nearby properties.

True, because:

- The land use in the area is agricultural in nature.
- The barn sizes and function appear to be typical of feedlot development within the county.
- The proposal meets all applicable setbacks, including the front, side, and rear yard and OFFSET setbacks.

5. The requested use is consistent with the Nicollet County Land Use Ordinances.

True, because:

- The requested use meets the applicable setbacks, standards, and requirements found in Sections 602 and 715 of the Zoning Ordinance for feedlots in the Agricultural Preservation zoning district.
- The request meets the standards of Section 505 of the Zoning Ordinance, pertaining to the approval and issuance of conditional use permits.

6. The requested use is not in conflict with the Nicollet County Comprehensive Plan.

True, because:

- The plan notes the importance of agriculture to the county and to the local economy.
- The proposal is for an agricultural use within an existing agricultural area.

7. The requested use will not create an unreasonably adverse effect because of noise, odor, glare, or general unsightliness, for nearby property owners.

True, because:

- The barns will be of a size and function that is typical for a swine feedlot.
- The proposal meets the required OFFSET setback.
- The applicable state standards for manure handling and manure management will be met.

8. The requested use is reasonably related to the existing land use and environment.

True, because:

- The surrounding land use is agricultural.
- The site is located in an existing farm landscape.

9. There are no apparent unreasonable health risks posed to neighbors or the public in general.

True, because:

- The site meets the required OFFSET setback to nearby non-associated residences.
- The proposal will meet the applicable state standards for manure handling and management.
- The facility will follow Board of Animal Health regulations for the disposal of dead animals.

10. The requested use will/will not have an adverse effect upon public health, safety and welfare due to the following other factors:

Will Not – True, because:

- The request is proposed to meet the standards for feedlots in the Agricultural Preservation zone, with no apparent adverse effects to the public health, safety, and welfare.

RECOMMENDATIONS

If approved, staff recommends the following conditions be attached to the conditional use permit:

1. The applicant undertakes the project according to the plans and specifications submitted to the county with the application.
2. The zoning permit is invalid if the holder has not substantially completed the building within the period of time allowed on the zoning permit connected with this conditional use permit.
3. The conditional use permit will be periodically reviewed by the county to ensure compliance with the permit and permit conditions.
4. The county may enter onto the premises at reasonable times and in a reasonable manner to ensure the permit holder is in compliance with the conditions and all other applicable statutes, rules, and ordinances.
5. The applicant must provide, maintain, and follow an approved manure management plan under the guidelines set forth in Minnesota Rules Chapter 7020.2225.
6. Manure that is in liquid or slurry form is to be injected or spread and incorporated within 24 hours of spreading.

7. Manure when transported by truck/spreader to fields off site must be covered or in a leak proof tank to avoid any potential manure spills on public roads.
8. If required, the applicant must obtain a Department of Natural Resources Division of Waters' Water Appropriations Permit.
9. Dead animals must be disposed of in accordance with the Board of Animal Health regulations.
10. The applicant must notify Property Services at least three days prior to start of construction, including any related earth work.
11. If required, a Construction Stormwater permit must be obtained prior to start of construction.
12. Before construction begins, the applicants must have the appropriate county feedlot and zoning permits in hand.
13. The approved feedlot permit application, conditional use permit, and supporting information will remain on file with Property Services.
14. The applicants must maintain the described and necessary technology to meet the 93% and 99% OFFSET Annoyance Free Odor Rating.
15. Any solid waste associated with the construction of the proposed structures must meet all applicable regulations for the disposal of solid waste, including the Nicollet County Solid Waste Ordinance and Minnesota Pollution Control Agency Rules.
16. The applicant must submit access approval from the Road Authority prior to issuance of this conditional use permit.
17. Prior to the issuance of a zoning permit for the feedlot facility, a sewage treatment system design, prepared by a septic system designer licensed in the State of Minnesota, must be submitted and approved by Property Services.

Parcel No: 10.132.0200
Map No: 1332100002

Applicant: Nick Peters
Landowner: Peters Family, LLLP

PLN21-20

- ATTACHMENT A Application**
- ATTACHMENT B Criteria for Conditional Use Permit**
- ATTACHMENT C Location Map**
- ATTACHMENT D Aerial**
- ATTACHMENT E Neighbor Notification List**
- ATTACHMENT F OFFSET Model**
- ATTACHMENT G Documents Submitted by Applicant**
- G.1 Site Plan
 - G.2 MPCA Permit Application
 - G.3 Engineering Plans



PROPERTY SERVICES DIVISION
501 SOUTH MINNESOTA AVENUE, SAINT PETER MN 56082
507-934-7070

PLANNING & ZONING ADVISORY COMMISSION
APPLICATION

Total Fees: \$446.00

Map#: 1332106002
Parcel#: 101320200
Permit#: PLN21-00020
Date: April 23, 2021

Applicant: NICK PETERS, PETERS FAMILY LLLP, 41129 STATE HIGHWAY 99, NICOLLET MN 56074-0077
Phone:
Owner: PETERS FAMILY LLLP, 41129 STATE HIGHWAY 99, NICOLLET MN 56074-0077
Property Address: 0,
Abbreviated Legal Description: SW 1/4 OF NW 1/4 ACRES 40.00
Township: Oshawa Township

Record Type: Conditional Use

Category: Feedlot

Project Description: Establish a swine feedlot with the construction of two total confinement barns measuring 135' x 189' with a 135' x 189' x 2' underfloor manure storage area, and 184' x 217' with a 184' x 217' x 9' underfloor manure storage area. Project includes a connecting hallway and office area. The total number of animal units is 650. Ref: 505, 602, 715.

Planning Commission Hearing Date: 05/17/2021

Board of Commissioners Date: 05/25/2021



APPLICANT SIGNATURE

4/23/2021
DATE

ATTACHMENT A
Application



NICOLLET COUNTY PLANNING AND ZONING ADVISORY COMMISSION CRITERIA FOR GRANTING A CONDITIONAL USE PERMIT

Name of Applicant: Nick Peters
Property Owner: Peters Family, LLLP
Use Requested: Establish a swine feedlot

Date: May 17, 2021
File #: PLN21-20

FINDINGS OF FACT

Authority for issuance of conditional use permits is derived from Minnesota State Statute §394.301 and Nicollet County Zoning Ordinance, Section 505. The conditional use must maintain the health, safety, morals, and general welfare of the community.

1. Given the nature of the land, the requested use is compatible with the general welfare, public health and safety.

	YES	NO	ABSTAINED	ABSENT	<u>WHY:</u>
David Hermanson	☐	☐	☐	☐	
David Wendinger	☐	☐	☐	☐	
Justin Laven	☐	☐	☐	☐	
Marie Dranttel	☐	☐	☐	☐	
Ron Regenscheid	☐	☐	☐	☐	
Dave Ubel	☐	☐	☐	☐	

2. The requested use will not create an unreasonably excessive burden on the existing roads or utilities.

	YES	NO	ABSTAINED	ABSENT	<u>WHY:</u>
David Hermanson	☐	☐	☐	☐	
David Wendinger	☐	☐	☐	☐	
Justin Laven	☐	☐	☐	☐	
Marie Dranttel	☐	☐	☐	☐	
Ron Regenscheid	☐	☐	☐	☐	
Dave Ubel	☐	☐	☐	☐	

3. The requested use is compatible with the surrounding area and will not significantly depreciate nearby properties.

	YES	NO	ABSTAINED	ABSENT	<u>WHY:</u>
David Hermanson	☐	☐	☐	☐	
David Wendinger	☐	☐	☐	☐	
Justin Laven	☐	☐	☐	☐	
Marie Dranttel	☐	☐	☐	☐	
Ron Regenscheid	☐	☐	☐	☐	
Dave Ubel	☐	☐	☐	☐	

ATTACHMENT B
Criteria for Conditional Use Permit

4. The structure and the use shall have an appearance that will not have an unreasonably adverse effect on nearby properties.

	YES	NO	ABSTAINED	ABSENT	<u>WHY:</u>
David Hermanson	☐	☐	☐	☐	
David Wendinger	☐	☐	☐	☐	
Justin Laven	☐	☐	☐	☐	
Marie Dranttel	☐	☐	☐	☐	
Ron Regenscheid	☐	☐	☐	☐	
Dave Ubel	☐	☐	☐	☐	

5. The requested use is consistent with the Nicollet County Land Use Ordinances.

	YES	NO	ABSTAINED	ABSENT	<u>WHY:</u>
David Hermanson	☐	☐	☐	☐	
David Wendinger	☐	☐	☐	☐	
Justin Laven	☐	☐	☐	☐	
Marie Dranttel	☐	☐	☐	☐	
Ron Regenscheid	☐	☐	☐	☐	
Dave Ubel	☐	☐	☐	☐	

6. The requested use is not in conflict with the Nicollet County Comprehensive Plan.

	YES	NO	ABSTAINED	ABSENT	<u>WHY:</u>
David Hermanson	☐	☐	☐	☐	
David Wendinger	☐	☐	☐	☐	
Justin Laven	☐	☐	☐	☐	
Marie Dranttel	☐	☐	☐	☐	
Ron Regenscheid	☐	☐	☐	☐	
Dave Ubel	☐	☐	☐	☐	

7. The requested use will not create an unreasonably adverse effect because of noise, odor, glare, or general unsightliness, for nearby property owners.

	YES	NO	ABSTAINED	ABSENT	<u>WHY:</u>
David Hermanson	☐	☐	☐	☐	
David Wendinger	☐	☐	☐	☐	
Justin Laven	☐	☐	☐	☐	
Marie Dranttel	☐	☐	☐	☐	
Ron Regenscheid	☐	☐	☐	☐	
Dave Ubel	☐	☐	☐	☐	

8. The requested use is reasonably related to the existing land use and environment.

	YES	NO	ABSTAINED	ABSENT	<u>WHY:</u>
David Hermanson	☐	☐	☐	☐	
David Wendinger	☐	☐	☐	☐	
Justin Laven	☐	☐	☐	☐	
Marie Dranttel	☐	☐	☐	☐	
Ron Regenscheid	☐	☐	☐	☐	
Dave Ubel	☐	☐	☐	☐	

9. There are no apparent unreasonable health risks posed to neighbors or the public in general.

	YES	NO	ABSTAINED	ABSENT	<u>WHY:</u>
David Hermanson	☐	☐	☐	☐	
David Wendinger	☐	☐	☐	☐	
Justin Laven	☐	☐	☐	☐	
Marie Dranttel	☐	☐	☐	☐	
Ron Regenscheid	☐	☐	☐	☐	
Dave Ubel	☐	☐	☐	☐	

10. The requested use will/will not (Circle One) have an adverse effect upon public health, safety and welfare due to the following other factors:

	YES	NO	ABSTAINED	ABSENT	<u>WHY:</u>
David Hermanson	☐	☐	☐	☐	
David Wendinger	☐	☐	☐	☐	
Justin Laven	☐	☐	☐	☐	
Marie Dranttel	☐	☐	☐	☐	
Ron Regenscheid	☐	☐	☐	☐	
Dave Ubel	☐	☐	☐	☐	

SPECIAL CONDITIONS ARE LISTED ON THE RECORDED CONDITIONAL USE PERMIT AND IN THE RECORD

THE NICOLLET COUNTY PLANNING AND ZONING ADVISORY COMMISSION:

(☐ APPROVES) (☐ DENIES)

THE REQUESTED CONDITIONAL USE PERMIT

This decision is based on:

- ☐ Application
- ☐ Staff Report
- ☐ Pictures
- ☐ Information received at public hearing

Viewed by Members of Board:

- ☐ Hermanson
- ☐ Wendinger
- ☐ Laven
- ☐ Dranttel
- ☐ Regenscheid
- ☐ Ubel

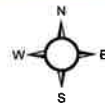
Facts supporting the answer to each question above are hereby certified as the Findings of the Nicollet County Planning and Zoning Advisory Commission.

Date: _____ Chair: _____



ATTACHMENT C Location Map

Disclaimer: The information herein is intended to be a true representation of available records. However, there is no guarantee to the user as to the accuracy, suitability, or reliability of this data for any purpose. The Property Services Division of Nicollet County assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data.

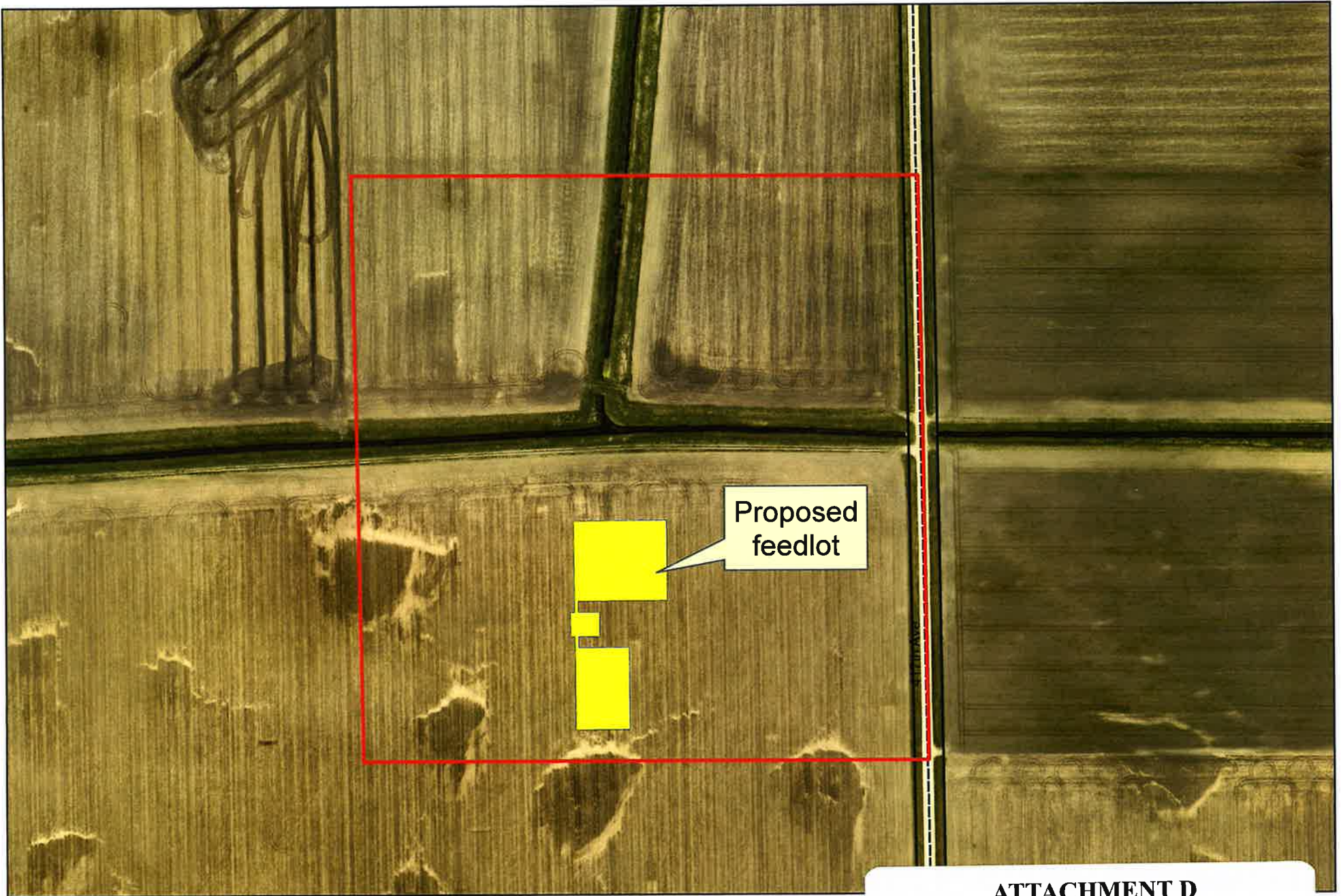


1:30,000 1 inch = 2,500 feet

0 1,200 2,400 Feet

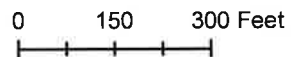
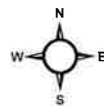
Name: _____

Date: _____



Disclaimer: The information herein is intended to be a true representation of available records. However, there is no guarantee to the user as to the accuracy, suitability, or reliability of this data for any purpose. The Property Services Division of Nicollet County assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data.

1:3,600 1 inch = 300 feet



Name: _____

Date: _____

ATTACHMENT D Aerial

JEREMY & KARI ARNDT
42472 STATE HIGHWAY 99
NICOLLET MN 56074

DOUGLAS EDWARDS
41654 STATE HIGHWAY 99
SAINT PETER MN 56082

FARMERS ELEVATOR COMPANY
37491 COUNTY ROAD 15
SAINT PETER MN 56082

TIM HULKE
42022 STATE HIGHWAY 99
SAINT PETER MN 56082

CHARLES & KELLY MANS
41607 470TH ST
NORTH MANKATO MN 56003

MARTENS FAMILY TRUST & T MARTENS
& S COLLINS & S BUSER
44007 478TH ST
NICOLLET MN 56074

TASHINA OACHS
42380 STATE HIGHWAY 99
NICOLLET MN 56074-4334

PETERS FAMILY LLLP
41129 STATE HIGHWAY 99
SAINT PETER MN 56082

NICHOLAS & EMILY PETERS
45047 417TH AVE
SAINT PETER MN 56082

JEREMY POLLOCK
41800 450TH ST
SAINT PETER MN 56082

CLIFFORD WENNER
44891 COUNTY ROAD 13
SAINT PETER MN 56082

GARY WENNER
44891 COUNTY ROAD 13
SAINT PETER MN 56082

OSHAWA TOWNSHIP
36601 450TH LN
SAINT PETER MN 56082

ATTACHMENT E
Neighbor Notification List

2/19/2021
Peters Family Farm Inc.
TBD
13-32-100-002
Proposed Swine 650 AU

Odor From Feedlots Setback Estimation Tool (OFFSET)

		width (ft)	length (ft)	# of source	Odor emission #	Odor control factor	Odor emission factor
Source 1	Barn #1- Swine Farrow Pull Plug	125	189	1	14	1	33.08
Source 2	Barn #2 - Swine Gestation Deep Pit	184	214	1	50	1	196.88
Source 3							
Source 4							
Source 5							
Total odor emission factor							229.96

Distance to nearest non accessory dwelling:

3435' to ne
3940' to n
4015' to nw
4180' to ne
2710' to s
2790' to se
3450' to sw
3945' to se
18,800' to Nicollet

Annoyance free level	Setbacks (feet)	Setbacks (mile)
99%	10159.65	1.92
98%	6194.14	1.17
97%	3964.47	0.75
96%	3066.15	0.58
94%	2196.85	0.42
93%	1996.65	0.38
91%	1608.01	0.30

Note: Frequencies 99%, 98%, 97%, 95%, 93% are equivalent to 7,14,22, 36, 50 hrs. /mo, respectively



1 inch 1,000 feet



ATTACHMENT G.1
Site Plan

Animal feedlot or manure storage area permit application

CSF and Interim Permit Program

Doc Type: Permit Application

Applicability: Use this form to obtain, modify, or extend the term of a construction short form (CSF) or interim permit.
Keep a copy of this application form and all submittals for your records.

After completing and signing this form, submit it and any required enclosures as instructed below:

For facilities located in a delegated county, send the signed form and any enclosures to the County Feedlot Officer (CFO).
All other facilities must submit this form and any enclosures to the Minnesota Pollution Control Agency (MPCA) as follows:

- Scan and email the signed form and any enclosures to FeedlotSubmittal.pca@state.mn.us.
- If submission via email is not possible, you can mail the signed form and any enclosures to:

Attn: Feedlot Master File Staff
Minnesota Pollution Control Agency
18 Wood Lake Drive SE
Rochester, MN 55904

I. Permit type and reason for application

Feedlot Registration Number: TBD

Please indicate which type of feedlot permit you are applying for (choose only one):

☒ Construction Short Form ☐ Interim (correcting a pollution hazard)

Please indicate the reason for the permit application (choose only one):

- ☒ New Permit
(No existing CSF or interim permit)
- ☐ Permit Modification
(Changes to sites with an existing CSF or interim permit)
- ☐ Permit Extension - Current CSF or Interim Permit number: _____
(Work not completed prior to permit expiration)



Indicate below the reason(s) the work may not be completed prior to permit expiration

Estimated amount of time required to complete the work: _____ ☐ days ☐ months
Note: The length of the extension is limited to 24 months for CSF permits and 90 days for interim permits

A permit extension request only requires completion of pages 1 and 6 of this application form (the remaining pages can be left blank).
Note: When the notice to neighbors and property owners is applicable (page 6) the content of the notice must include the date the original permit was issued and the new proposed completion date as well as the normally required information.

ATTACHMENT G.2
MPCA Permit Application

II. Owner's name(s) and address(es) - (All partners of a Limited Liability Partnership (LLP) must be listed.)

Primary owner – Will be used as the mailing address

Name: Peters Family Farm Inc.
Address: 41129 State Hwy 99
City: St Peter State: MN
Phone: 507-381-5256 Zip: 56082
Email: petersfamilyfarm1@gmail.com

Additional owner – attach additional sheets as necessary

Name: _____
Address: _____
City: _____ State: _____
Phone: _____ Zip: _____
Email: _____

Note: The term owner includes all persons having possession, control, or title to an animal feedlot or manure storage area (including lessees or renters). All owners must be listed. Attach to this application the names, addresses, and phone numbers of all additional owners.

III. Facility name and site address

Site Name: Peters Family Farm Inc.
☐ Facility is a MN Ag Water Quality Certified Farm (MAWQCP)
Complete if facility address is different than the primary owner address:
Street: 45647 Ave TBD 7
City: St Peter State: MN
Phone: 507-381-5256 Zip: 56082

Contact person for day-to-day activities

Name: Nick Peters
Street: 41129 State Hwy 99
City: St Peter State: MN
Phone: 507-381-5256 Zip: 56082
Cell phone: _____
Email: petersfamilyfarm1@gmail.com
(General letters/notices may be sent by email where one is indicated.)

Personal Address

IV. Facility location

County: Nicollet Township name: Oshawa

Township (26 - 71 or 101 - 168)	Range (1 - 51)	Section (1 - 36)	¼ Section (160 acre) (NW, NE, SW, SE)	¼ of ¼ Section (40 acre) (NW, NE, SW, SE)
T 109 N	R 27 W	32	SW ¼ of the NW ¼	

NW

SW

V. Sensitive features

- Is any part of the facility within 1,000 feet of any type of surface waters or tile intake? ☒ Yes ☐ No
If Yes, select all types below
☐ Lake ☐ River ☐ Stream (Perennial or Intermittent) ☒ Tile Intake
☐ Pond ☐ Creek ☒ Ditch ☐ Wetland ☐ Calcareous Fen ☐ Unknown
- Is any part of the facility located within 300 feet of a river/stream? ☐ Yes ☒ No
- Is any part of the facility located within a delineated flood plain (100 year flood)? ☐ Yes ☒ No
- Is any part of the facility located within designated shoreland? ☐ Yes ☒ No
- Is any part of the facility located within 1,000 feet of a karst feature? (sinkholes, caves, disappearing springs, resurgent springs, karst windows, dry valleys, or blind valleys) ☐ Yes ☒ No
If Yes, complete a. and b. below:
 - Are there 4 or more sinkholes within 1,000 feet? ☐ Yes ☒ No
 - Is any part of the facility within 300 feet of a known sinkhole? ☐ Yes ☒ No
- Is any part of the facility located within 1,000 feet of the following types of wells: ☐ Yes ☒ No
If Yes, select the applicable well type below:
☐ a community water supply well
☐ a well serving a public school as defined under Minn. Stat. § 120A.05
☐ a well serving a private school excluding home school sites
☐ a well serving a licensed child care center where the well is vulnerable (Minn. R. 4720.5550, subp. 2)

VI. Environmental Review (complete when construction or expansion is proposed)

Mandatory environmental review is required when the addition of 1,000 or more animal units (AU) is proposed as part of the construction/expansion at any facility. The threshold when environmental review is mandatory is reduced to 500 AU when any part of the facility is located within a "sensitive area". The facility is within a sensitive area when any of the following apply.

- Any part of the facility is within a delineated floodplain (yes to question 3 above)
- Any part of the facility is within designated shoreland (yes to question 4 above)
- Any part of the facility is within 1,000 feet of a karst feature (yes to question 5 above)
- Any part of the facility is within a vulnerable drinking water supply management area
- Any part of the facility is within a federal, state, or local wild and scenic river district
- Any part of the facility is located within the Minnesota River Project Riverbend area or the Mississippi headwaters area

Additionally mandatory environmental review is required for "Phased actions". Phased actions are defined under Minnesota law (Minn. R. ch. 4410) as two or more projects located in the same geographic area and constructed sequentially within three years of each other by the same proposer. When this is the case, the animal units from all projects are combined to determine if environmental review is required. The following will assist the MPCA to evaluate if your project qualifies as a "phased action".

Do you have ownership interest in another livestock operation that was constructed/expanded within the past three years or are you substantially certain you will be constructing/expanding another livestock operation within the next three years?

☐ Yes ☒ No

If Yes, how far away (straight-line distance) is it located from the project proposed in this application? _____ miles

There are also rule provisions to require completion of the environmental review process in the event of a citizen petition or upon the discretion of the MPCA. Please see the MPCA fact sheet entitled "[When is Environmental Review Required for Feedlots](https://www.pca.state.mn.us/quick-links/environmental-review)" (available on the MPCA website at <https://www.pca.state.mn.us/quick-links/environmental-review> and/or Minn. R. 4410 for further details.

VII. Animal numbers and animal unit (AU) calculation

Complete the table below to identify the **maximum** number of animals housed at that facility. All animal numbers and animal sizes used to complete this table should reflect the animal holding **capacity** of the facility even if the facility does not currently house or propose to house that number of animals. At no time is the number of animals at the facility allowed to exceed the capacity provided below without first obtaining a permit or permit modification.

Current Capacity - List the current head count **capacity** for each animal type in column 3 below. For sites with a permit, this should match the currently permitted number of animals. Next, multiply the AU Factor in column 2 by the number of animals listed in column 3 to get the **Current AU Capacity** for each animal type (column 4). Finally, add together all AU's in column 4 to get a total at the bottom of the chart. *If this application is for a brand-new feedlot site leave columns 3 and 4 blank. (ie. bare piece of ground)*

Final Capacity - List the final head count **capacity** for each animal type in column 5 below. This number should include current animals plus or minus any expansion or reduction in each animal type. This should reflect the maximum AU capacity requested with this permit application. Next, multiply the AU Factor in column 2 by the number of animals listed in column 5 to get the **Final AU Capacity** for each animal type (column 6). Finally, add together all AU's in column 6 to get a total at the bottom of the chart.

1. Animal type	2. Animal unit factor	Current facility capacity		Final facility capacity (Current +/- Changes)	
		3. Head count	4. Animal units = column 2 x column 3	5. Head count	6. Animal units = column 2 x column 5
A. Dairy cattle					
Mature cow (milked or dry) over 1,000 lbs.	1.4				
Mature cow (milked or dry) under 1,000 lbs.	1.0				
Heifer	0.7				
Calf	0.2				
B. Veal					
Veal	0.2				
C. Beef cattle					
Slaughter steer/heifer, stock cow, or bull	1.0				
Feeder cattle (stocker or backgrounding), heifer	0.7				
Cow and calf pair	1.2				
Calf (weaned)	0.2				
D. Swine					
Over 300 lbs.	0.4			1625	650
Between 55 and 300 lbs.	0.3				
Under 55 lbs.	0.05				
E. Horses					
Horse	1.0				
F. Sheep					
Sheep or Lamb	0.1				
G. Chickens with a liquid manure system					
Layer Hens or Broilers	0.033				
H. Chickens with a dry manure system					
Broilers over 5 lbs.	0.005				
Broilers under 5 lbs.	0.003				
Layer Hens over 5 lbs.	0.005				
Layer Hens under 5 lbs.	0.003				
I. Turkeys					
Over 5 lbs.	0.018				
Under 5 lbs.	0.005				
J. Ducks					
Duck (with a liquid manure handling system)	0.01				
Duck (with a dry manure handling system)	0.01				
K. Animals not listed in A to J (AU factor in column 2 = average weight of the animal type divided by 1,000 lbs.)					
Animal type:					
Total animal unit capacity			Current AU capacity		Final AU capacity
Add all numbers in column 4 for Current AU total					650
Add all numbers in column 6 for Final AU total					

VIII. Animal holding areas

Complete the table below for all your animal holding areas.

If you have more than six animal holding areas on your site, continue your list on an additional copy of this page.

Animal holding area ID

List each animal holding area in a separate column

Facility Site Sketch ID (i.e., #1, A, Barn 1)						
Status: (check one box only)	☒ Proposed	☒ Proposed	☐ Proposed	☐ Proposed	☐ Proposed	☐ Proposed
Proposed - not permitted previously	☐ Approved	☐ Approved	☐ Approved	☐ Approved	☐ Approved	☐ Approved
Approved - permitted but not yet operational	☐ Existing	☐ Existing	☐ Existing	☐ Existing	☐ Existing	☐ Existing
Existing - current operational component	☐ Modifying	☐ Modifying	☐ Modifying	☐ Modifying	☐ Modifying	☐ Modifying
Modifying - change to a permitted component	☐ Eliminating	☐ Eliminating	☐ Eliminating	☐ Eliminating	☐ Eliminating	☐ Eliminating
Distance to nearest well (ft.)						
Pasture Access	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

Type of animal holding areas

(indicate dimensions and floor type)

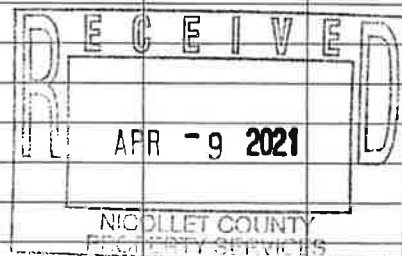
Write approximate dimensions in feet in the space below
(width x length or area with units for irregular shapes)

Total confinement barn (slatted floor)	134' 4" x 189'	184' x 217'				
Total confinement barn (solid floor)						
Partial confinement barn						
Open lot with runoff controls						
Open lot without runoff controls						
Animal Holding Area Floor Type (check all that apply)	☒ Concrete ☐ Asphalt ☐ Soil ☐ Other	☒ Concrete ☐ Asphalt ☐ Soil ☐ Other	☐ Concrete ☐ Asphalt ☐ Soil ☐ Other	☐ Concrete ☐ Asphalt ☐ Soil ☐ Other	☐ Concrete ☐ Asphalt ☐ Soil ☐ Other	☐ Concrete ☐ Asphalt ☐ Soil ☐ Other

Indicate the maximum capacity (number of animals) of each animal holding area

The total number of all animals listed should match the final animal numbers listed on page 3.

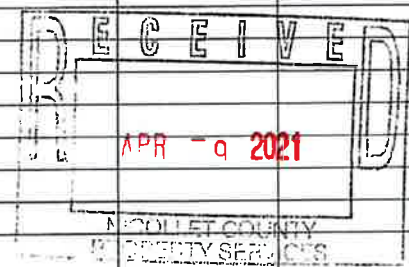
Animal numbers						
Mature dairy cows (over 1,000 lbs.)						
Mature dairy cows (under 1,000 lbs.)						
Dairy heifers						
Dairy calves						
Veal						
Slaughter steer/heifer, stock cow or bull						
Feeder cattle-stocker/background/heifer						
Cow and calf pair						
Beef calves (weaned)						
Swine over 300 lbs.	473	1152				
Swine between 55 and 300 lbs.						
Swine under 55 lbs.						
Horses						
Sheep or lamb						
All chickens with liquid manure system						
Broiler chickens over 5 lbs. - dry system						
Broiler chickens under 5 lbs. - dry system						
Laying hens over 5 lbs. - dry system						
Laying hens under 5 lbs. - dry system						
Turkeys - over 5 lbs.						
Turkeys - under 5 lbs.						
Ducks						
Other:						



IX. Manure handling, feed storage, and dead animal areas

Complete the table below for your manure storage, feed/silage storage areas and dead animal disposal areas on your site. If you have more than six manure storage, feed/silage storage, and dead animal management areas on your site, continue your list on an additional copy of this page.

Manure, feed, or dead animal areas		List each manure handling, feed storage, and dead animal area in a separate column				
Facility Site Sketch ID (i.e., #1, A, Basin 1)						
Status: (check one box only)	☒ Proposed	☒ Proposed	☐ Proposed	☐ Proposed	☐ Proposed	☐ Proposed
Proposed - not permitted previously	☐ Approved	☐ Approved	☐ Approved	☐ Approved	☐ Approved	☐ Approved
Approved - permitted but not yet operational	☐ Existing	☐ Existing	☐ Existing	☐ Existing	☐ Existing	☐ Existing
Existing - current operational component	☐ Modifying	☐ Modifying	☐ Modifying	☐ Modifying	☐ Modifying	☐ Modifying
Modifying - change to a permitted component	☐ Eliminating	☐ Eliminating	☐ Eliminating	☐ Eliminating	☐ Eliminating	☐ Eliminating
Distance to nearest well (ft.)						
Type of liquid manure or process wastewater storage/treatment areas (indicate dimensions)		Write approximate top dimensions in feet in the space below (width x length x depth or volume with units for irregular shapes)				
Earthen or GCL lined basin	134' x 124' x 1.99' x 2'	184' x 21' x 9'				
Below barn concrete tank	281,000 gal	2,238,000 gal				
In-ground concrete tank/basin (outdoor)		2,256,000				
Above-ground concrete tank						
Synthetic lined (HDPE, EPDM, etc.) basin						
Steel tank (i.e., slurry-store)						
Composite lined (2 liner types) basin/tank						
Vegetated Infiltration Area						
Other (describe):						
Type of solid manure, feed storage, and dead animal areas (indicate dimensions and floor type)		Write approximate dimensions in feet in the space below (width x length or area with units for irregular shapes)				
Permanent Stockpile	NO					
Dead Animal Management Area	24x60					
Covered Feed Storage Area	bulk bins					
Uncovered Feed Storage Area	NO					
Sweet Corn Silage Storage						
Storage Pad Area	NO					
Tonnage on site at any one time						
Other (describe):						
Stockpile, Feed Storage, or Mortality Area Floor/Liner Type (check all that apply)	☐ Concrete ☐ Asphalt ☐ Soil ☐ Other	☐ Concrete ☐ Asphalt ☐ Soil ☐ Other	☐ Concrete ☐ Asphalt ☐ Soil ☐ Other	☐ Concrete ☐ Asphalt ☐ Soil ☐ Other	☐ Concrete ☐ Asphalt ☐ Soil ☐ Other	☐ Concrete ☐ Asphalt ☐ Soil ☐ Other



X. Changes to groundwater monitoring plan (complete only if applicable)

If groundwater monitoring is required at the facility, this application can request changes to the MPCA-approved groundwater monitoring plan. In order to request changes to the groundwater monitoring plan, please indicate the type of change requested.

- ☐ Elimination of monitoring
 ☐ Change to sampling frequency
☐ Change to sample testing protocol
 ☐ Other

When a change is requested, please include with this permit application documentation from a qualified professional that provides a technical analysis and justification for the requested changes.

XI. Non-delegated county public meeting minutes (complete only if applicable)

A county which has not accepted delegation of the feedlot program must hold a public meeting prior to issuance of a feedlot permit by the MPCA for an animal feedlot with a capacity of 300 or more animal units.

Date meeting has occurred or is scheduled to occur: _____

Verification of public meeting.

A copy of the meeting minutes must be provided to the MPCA for verification of completion prior to permit issuance.

XII. 500 or more AU: Notice to residents and property owners within 5,000 feet

When required. A notice is required in *either* of the following situations:

- **Construction of a new** feedlot, or manure storage area, which will have a capacity of 500 AU or more.
- **Expansion of an existing** feedlot, or manure storage area, which currently has, or will have upon completion of the expansion, a capacity of 500 AU or more.

Notice methods. The owner shall not less than 20 business days before the anticipated issuance date of the permit, provide notice to each resident and each owner of real property within 5,000 feet of the perimeter of the proposed facility. This notice *must* include, at a minimum, the information provided in Minn. R. 7020.2000, subp.4.

An example notice can be found in the factsheet *Permit Notification Requirements – Feedlots with more than 500 Animal Units* available on the MPCA website <https://www.pca.state.mn.us/sites/default/files/wq-f3-09.pdf>.

Verification of notice. The MPCA must verify that this notice has been completed prior to permit issuance. Documentation that this notice has been completed can be provided with the permit application (preferred) or submitted at a later date, prior to permit issuance.

When the notice has been completed prior to this application

Please include with this application one of the following to provide verification that the required notice has been completed:

- An affidavit of publication from a newspaper of general circulation used to provide this notification.
- A list of all parties, with their location, that were notified by certified mail and copies of all signed mail return receipts.
- A list of all parties, with their location, that were personally visited with a date and signature from each party and certification signed by a notary public indicating in detail what was discussed.

When the notice has not been completed prior to this application

Please include with this permit application both of the following:

- A copy of the content of the notification
- Date notification is scheduled to occur: _____

Note: The permit cannot be issued prior to receiving verification that the notice has actually taken place.
This verification must be one of the three items listed above.



XIII. Certifications and signature

Notification to local officials

The Applicant certifies that, if the application includes construction of a new facility or expansion of an existing facility, all local zoning authorities have been notified in accordance with Minn. R. 7020.2000 subp. 5.

Construction Stormwater (CSW) Requirements

The Applicant certifies that, if construction will disturb 5 or more acres, they have made a separate application for a CSW permit. For construction activities that disturb at least 1 acre but less than 5 acres, the Applicant certifies to comply with the requirements of the current CSW NPDES general permit (Minn. R. 7090.2020 provides permit coverage even though no application has been made).

Need for NPDES or SDS permit

If the MPCA determines that a NPDES or SDS permit is required, the Applicant certifies that this application will serve as an application for a NPDES or SDS permit, as appropriate. The Applicant agrees to submit additional information, as requested by the MPCA, in order to complete the NPDES or SDS permit application process including payment of the applicable permit application fee.

Applicant Signature

I hereby certify that the design, construction, and operation of the facility will be in accordance with this application and plans, specifications, reports, and related communications approved by the MPCA, and in accordance with applicable permit conditions or regulations/standards of the MPCA. I also certify under penalty of law that this document and all attachments were prepared under my direction or supervision and the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

The person that signs this application must be one of the following:

- A. For a corporation, a principal executive officer of at least the level of vice president
- B. For a partnership, a general partner
- C. For a sole proprietorship, the proprietor

Print name: Nick Peters Print official title: owner
Office phone: _____ Cell phone: 507-381-5256
Signature: [Signature] Date: 4/9/2021

To sign up for electronic communications including the MPCA feedlot newsletters, please go to the MPCA website at <https://public.govdelivery.com/accounts/MNP/CA/subscriber/new>.

Required enclosures (Permit applications submitted without all required enclosures are incomplete.)

All forms are available on the [CSF & Interim permits](https://www.pca.state.mn.us/feedlots) page of the MPCA feedlot program website at:
<https://www.pca.state.mn.us/feedlots>

- ☐ A. A site sketch/aerial photograph indicating the location of the existing and proposed facility components.
- ☒ B. A Manure/Nutrient Management Plan (MMP) – The following are optional forms to assist with MMP development:

When **all** manure is transferred to another entity for utilization, complete a MMP using the form:

[MMP requirements when ownership of manure is transferred.](#)

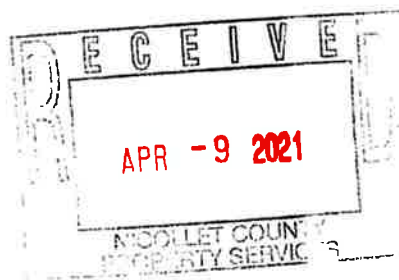
When **any** portion of manure is applied to land owned, rented, or leased by the applicant(s), or applied to other land where nutrient application decisions are made by the applicant(s), complete a MMP using the spreadsheet form:

[MPCA Manure Management Planner.](#)

Notes: The MMP requirements when ownership of manure is transferred form is incorporated into the spreadsheet to account for instances when only some of the manure is transferred.

A hand-entry version of the [MPCA Manure Management Planner.](#)

- ☐ C. Plans and Specifications for construction, modification, or expansion of any liquid manure storage area.
- ☒ D. **Conditional** - Environmental Assessment Worksheet (EAW) Fee
When the project requires environmental review and is located in a county that has not accepted delegation of the county feedlot program, there is a fee of \$4,650 for processing of an Environmental Assessment Worksheet (EAW) that must be included with this permit application. (Check payable to: Minnesota Pollution Control Agency)
- ☒ E. **Optional** – Verification of the notifications required in part XII of this application. If not submitted with the application, the MPCA must receive the verification prior to permit issuance. It is strongly recommended that the applicable verifications be included with the permit application.



w/ checklist



ATTACHMENT G.3
Engineering Plans

Peters Family Farm, Inc.

NW 1/4 Section 32, T110N, R27W
Oshawa "W" Township, Nicollet County

Date: April 2021
Project No.: 21-25103



Architecture
Engineering
Environmental
Planning
ISGinc.com

OWNER:
Peters Family Farm, Inc.
41129 St. Hwy 99
St. Peter, MN 56082
Petersfamilyfarm1@gmail.com

FROM:
ISG - Mankato
115 East Hickory Street, Suite 300
Mankato, MN 56001
Contact: Matt Hudson
Phone: 507-317-2526
Email: matt.hudson@isginc.com

APRIL 21, 2021

Peters Family Farm, Inc.
Nick Peters
41129 State Highway 99
St. Peter, MN 56082
Petersfamilyfarm1@gmail.com

ISG

RE: Soil Borings for Peters Family Farm Sow Site - St. Peter

Dear Mr. Peters:

On April 5, 2021, ISG was present during excavation of 4 observation pits and recorded the soil profiles. A backhoe was used to excavate the 4 test holes. After recording the soil profiles, the holes were backfilled and compacted by placing the soil in the holes to provide the original soil profile.

The seasonal high water table was at 31". The water table will be controlled by using a 4" perforated drain tile installed to gravity-drain to an existing farm tile of sufficient depth. This tile will prevent any ground water intrusion and damage to the concrete pit walls.

We have reviewed the concrete pit design along with the soils report and find the soils to be acceptable for this project.

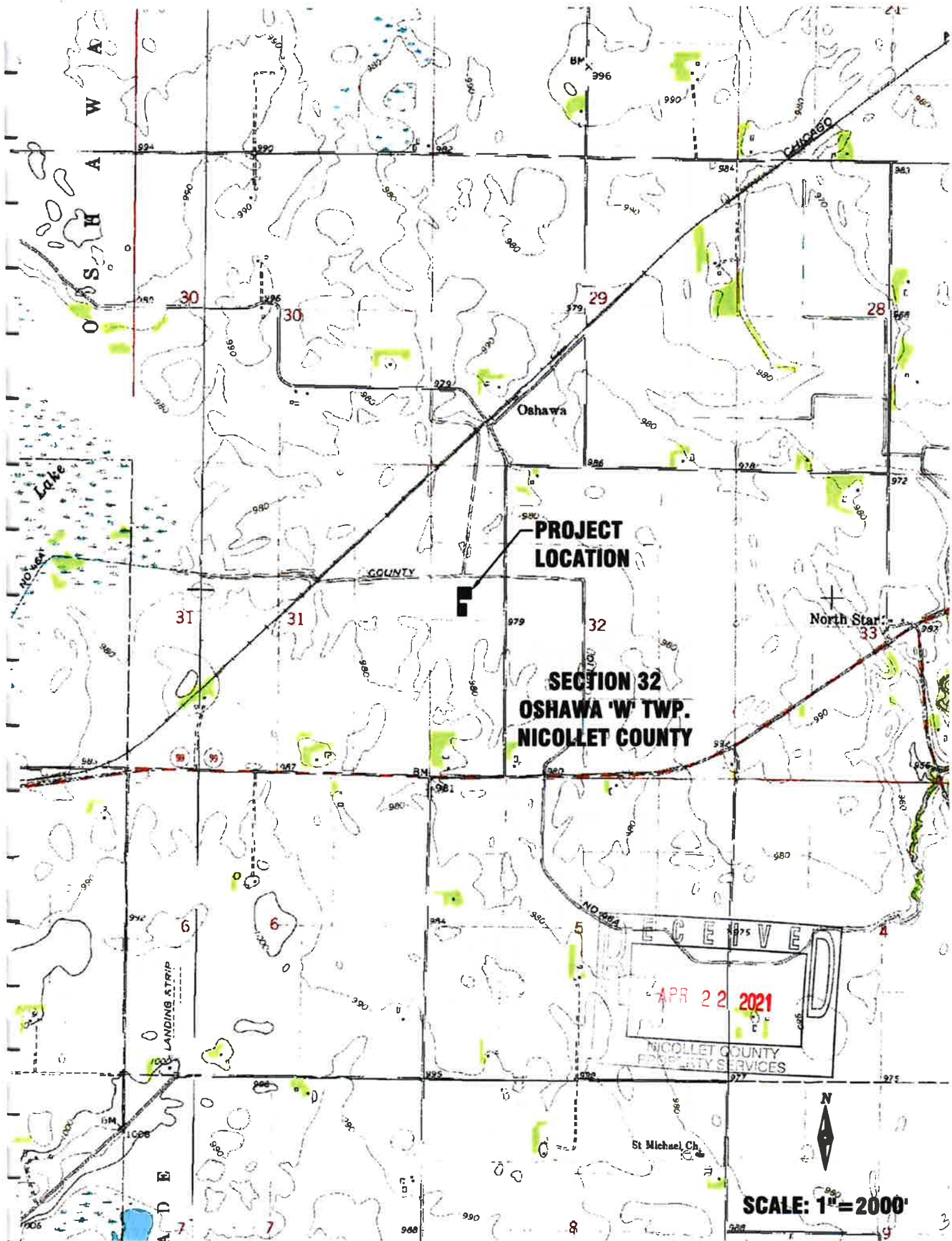
If you have any questions, please call.

Sincerely,

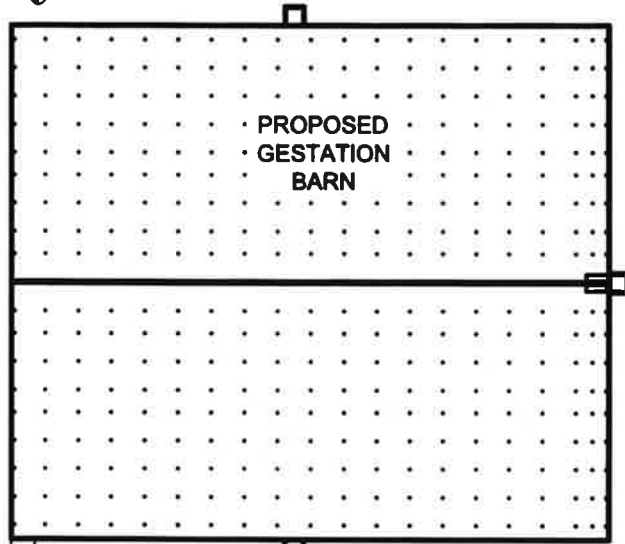


Jason E. Hoehn, PE
Principal and Practice Group Leader
Jason.Hoehn@ISGInc.com





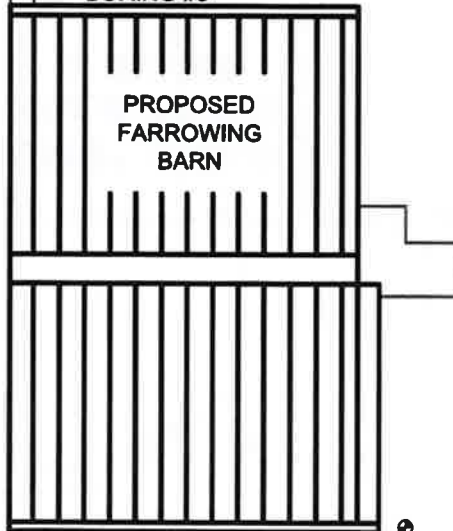
SOIL
BORING #1



PROPOSED
GESTATION
BARN

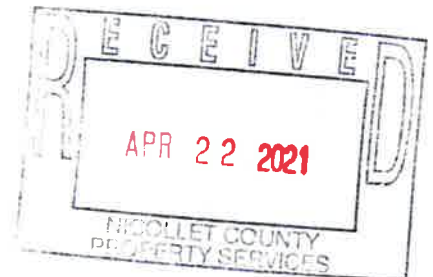
SOIL
BORING #2

SOIL
BORING #3



PROPOSED
FARROWING
BARN

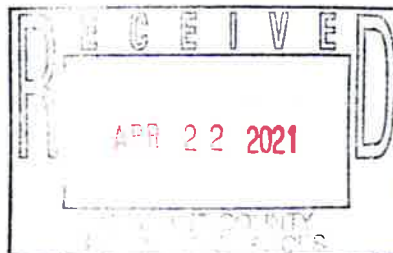
SOIL
BORING #4



SOIL PROFILE LOCATIONS

PETERS FAMILY FARM, INC.
SECTION 32, OSHAWA W TWP., NICOLLET COUNTY
PROJECT NO. 21-25103

SOIL BORING REPORT



Test No: 1

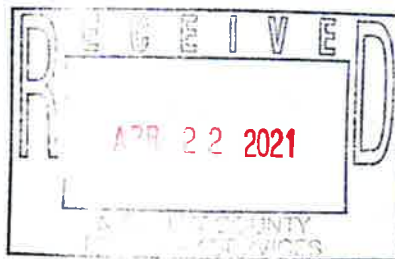
Project Name: Peters Family Farm, Inc.
ISG Project Number: 21-25103
Location: NW 1/4 Section 32
Township: Oshawa 'W', T110N, R27W
County: Nicollet
Description: Gestation Barn

Date: 4/5/2021
Temp: 84 Deg.
Conditions: Sunny, Windy
Inspector: Matt Hudson

Assum. Elev.	Depth	USCS Symbol	Description of Materials	WL	SH	Notes
979.00'	+39"					Proposed Slat Elevation
975.75'	0"					Existing Grade
974.58'	-14"	10yr 2/1	Top Soil			
973.75'	-24"	10yr 3/1	Clay Loam			
973.08'	-32"	10yr 6/1	Clay Loam		≡	Seasonal High Water Table
		10yr 6/1	Silty Clay Loam			
		10yr 5/8	w/ Mottling			
970.00'	-69"					Proposed Pit Floor Elevation
968.75'	-84"				≡	Water at Time of Testing
964.58'	-134"					End of Soil Boring

Nearest Body of Water:	Location: North	Type: County Ditch No. 46A	Distance: 200'	Approx. Elev.: 967.50'
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SOIL BORING REPORT



Test No: 2

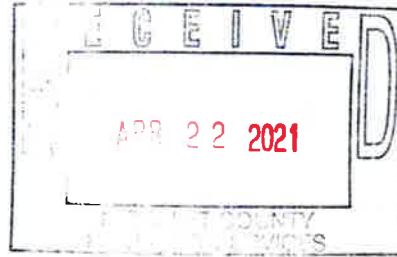
Project Name: Peters Family Farm, Inc.
ISG Project Number: 21-25103
Location: NW 1/4 Section 32
Township: Oshawa 'W', T110N, R27W
County: Nicollet
Description: Gestation Barn

Date: 4/5/2021
Temp: 84 Deg.
Conditions: Sunny, Windy
Inspector: Matt Hudson

Assum. Elev.	Depth	USCS Symbol	Description of Materials	WL	SH	Notes
979.00'	+14"					Proposed Slat Elevation
977.83'	0"					Existing Grade
		10yr 2/1	Top Soil			
976.00'	-22"					
975.25'	-31"	10yr 3/1	Clay Loam			
		10yr 6/1	Clay Loam			
973.83'	-48"			===		Seasonal High Water Table
		10yr 6/1 10yr 5/8	Clay Loam w/ mottling			
971.83'	-72"			===		Water at Time of Testing
970.00'	-94"					Proposed Pit Floor Elevation
964.50'	-160"					End of Soil Boring

Nearest Body of Water:	Location: North	Type: County Ditch No. 46A	Distance: 401'	Approx. Elev.: 967.50'
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SOIL BORING REPORT



Test No: 3

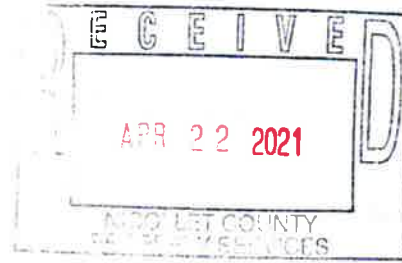
Project Name: Peters Family Farm, Inc.
ISG Project Number: 21-25103
Location: NW 1/4 Section 32
Township: Oshawa 'W', T110N, R27W
County: Nicollet
Description: Farrowing Barn

Date: 4/5/2021
Temp: 84 Deg.
Conditions: Sunny, Windy
Inspector: Matt Hudson

Assum. Elev.	Depth	USCS Symbol	Description of Materials	WL	SH	Notes
981.00'	+42"					Proposed Slat Elevation
			24" Deep Farrowing Pit			
979.00'	+18"					Proposed Pit Floor Elevation
			Fill Material Required			
977.50'	0"					Existing Grade
		10yr 2/1	Top Soil			
975.75'	-21"					
		10yr 3/1	Clay Loam / Transition			
974.92'	-31"				=====	Seasonal High Water Table
		10yr 6/1 10yr 5/8	Clay Loam w/ Mottling			
971.33'	-74"			=====		Water at Time of Testing
971.17'	-76"					End of Soil Boring

Nearest Body of Water:	Location: North	Type: County Ditch No. 46A	Distance: 502'	Approx. Elev.: 967.50'
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SOIL BORING REPORT



Test No: 4

Project Name: Peters Family Farm, Inc.
ISG Project Number: 21-25103
Location: NW 1/4 Section 32
Township: Oshawa 'W', T110N, R27W
County: Nicollet
Description: Sow Site

Date: 4/5/2021
Temp: 84 Deg.
Conditions: Sunny, Windy
Inspector: Matt Hudson

Assum. Elev.	Depth	USCS Symbol	Description of Materials	WL	SH	Notes
981.00'	+52"					Proposed Slat Elevation
			24" Deep Farrowing Pit			
979.00'	+28"					Proposed Pit Floor Elevation
			Fill Material Required			
976.67'	0"					Existing Grade
		10yr 2/1	Top Soil			
975.17'	-18"					
		10yr 3/1	Clay Loam / Transition			
973.67'	-36"				=====	Seasonal High Water Table
		10yr 6/1 10yr 5/8	Clay Loam w/ Mottling			
970.00'	-80"			=====		Water at Time of Testing
969.58'	-85"					End of Soil Boring

Nearest Body of Water:	Location: North	Type: County Ditch No. 46A	Distance: 682'	Approx. Elev.: 967.50'
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CONCRETE LINED STORAGE STRUCTURE

A Concrete lined manure structure is a fabricated structure for the temporary storage of animal or other organic wastes to conserve nutrients, prevent pollution and protect the environment. The following guidelines are provided for your use in operating and maintaining your structure:

- A.** Animal manure shall be handled and utilized as specified in the Manure Management plan.
- B.** Poisonous, noxious or explosive gases produced in the tank must be controlled by ventilation. Evacuate the building if practical during agitation.
- C.** Regular inspection should be made of the structure and its surroundings for leaks, deterioration of grills, slats, covers, and ladders. Deteriorating items should be replaced to avoid future accidents.
- D.** Concrete should be checked for large cracks, which could expose the reinforcing steel to corrosive elements. Joints should be inspected for unusual openings.
- E.** Concrete surfaces should be checked for erosion, scaling and exposed reinforcing steel.
- F.** If any concrete deterioration is evident, call your local MPCA office. Depending on the damage, an engineer may be needed to evaluate the pit and propose a solution.
- G.** Regular inspections should be made of the perimeter tile, shut off valves, and inspection risers to ensure proper operations of the system.

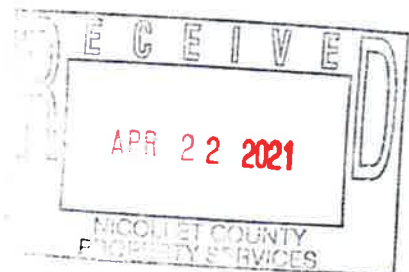


PRE-CONSTRUCTION MEETING

A pre-construction meeting is a meeting that involves the owner, the contractor, the design engineer, the inspector and the MPCA or the County feedlot officer. The object of the meeting is to ensure that the structure is built to comply with the rules of the MPCA and the designed plans. Any questions or comments can be discussed at this meeting. Any changes to the plans or specifications must be submitted to the Engineer and the MPCA / County prior to the start of construction.

The project schedule, proper notifications, contact information for contractors, owners, MPCA and County Feedlot Officer, and any sub-contractor information will be discussed at this meeting.

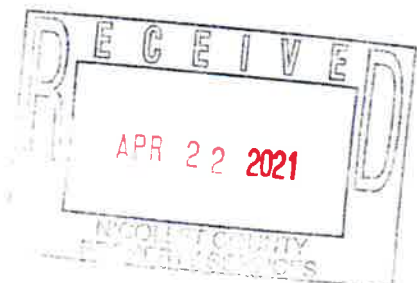
The Pre-construction meeting shall be scheduled at least one week before construction is to begin on the structure. This will be determined mainly by when the contractor can begin work and the owner and engineer's agreement to the timing of the meeting. A time of day and location for the meeting shall be agreed upon by the contractor, owner, design engineer and inspector. The owner shall be responsible for contacting all of the above and scheduling the meeting.



INSPECTION PLAN

An owner constructing a liquid manure storage area, except for concrete lined manure storage areas with a capacity of 20,000 gallons or less, shall have plans designed by a licensed engineer and inspections completed during the construction process which comply with the following:

- A.** The inspector must be one or more of the following:
 - 1. A professional engineer licensed in the State of Minnesota or a person working under the Professional Engineer's direct supervision;
 - 2. A qualified Natural Resources Conservation Services Staff Person; or
 - 3. If the manure storage area has a concrete liner, an American Concrete Institute or Minnesota Department of Transportation concrete field testing technician grade/level I certified and concrete field inspector level II certified.
- B.** The General Contractor / Owner is required to call the inspector a minimum of 48 hours prior to beginning excavation and 24 hours prior to placing concrete. Contact will be kept with the inspector throughout the project until the concrete lined storage area is complete.
- C.** The General Contractor / Owner is required to call the MPCA / County Feedlot Officer 3 days before any construction activity begins.
- D.** The General Contractor / Owner is required to call the MPCA / County Feedlot Officer 3 days before the perimeter pit walls are backfilled. A final inspection by the MPCA / County Feedlot Officer is required prior to backfill.
- E.** During construction of each manure storage area the inspector shall record observations related to conformance to the design plans and specifications and construction standards of the following:
 - 1. Subgrade conditions prior to liner placement including soil texture, strength and moisture content, and presence of any frozen soils;
 - 2. Location and proper functioning of the perimeter drainage tile system, if required, and inspection/monitoring access;



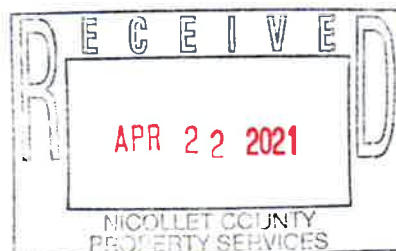
3. For all concrete-lined manure storage areas:
 - a. Reinforcing steel size, grade, spacing, cover, and that steel is free of loose rust, oil, or other debris;
 - b. Handling, placement, consolidation, and finishing of concrete;
 - c. Curing and protection of concrete after placement, including hot and cold weather protective measures;
 - d. Location, forming, and surface preparation of construction, contraction, and expansion joints;
 - e. Placement of flexible waterstop materials in joints; and
 - f. Application of surface applied or injected crack and joint sealant materials;
4. Repair of construction defects; and
5. Conformance to the liner penetration prohibitions

F. Concrete Testing:

1. A test of concrete shall include all of the following: Cylinders, Slump, Air Content and Temperature. A test shall be taken once every 100 cubic yards of concrete placed and at least one test every day 10 or more cubic yards of concrete are placed. Additional testing is required to represent new mixes and different concrete suppliers.
2. Three (3) concrete cylinders shall be taken for each 100 cubic yards of concrete placed but not less than three 3 test cylinders each day that 10 or more cubic yards are placed. Keep one of each three cylinders on the job site and allow to field cure. Within two days, deliver two of the three cylinders to a licensed testing laboratory to be cured and tested at seven 7 days and 28 days. Additional testing and cylinders are required to represent new mixes and different concrete suppliers.
3. Concrete Rebound Hammer tests may be taken after the pit is complete and at least 7 days after the concrete to be tested was poured. Concrete shall be tested according to ASTM C 805.

G. The owner shall ensure that the following information is submitted to the Design Engineer for incorporation into the construction report.

1. The name and qualifications of the inspector;
2. The name of the Concrete Contractor.





**Minnesota Pollution
Control Agency**

520 Lafayette Road North
St. Paul, MN 55155-4194

Liquid Manure Storage Area Construction Inspection Form

Feedlot Program

Doc Type: Inspection

Applicability: This form must be utilized to document construction of a liquid manure storage area (LMSA). Both the required inspector and the contractor that installed the LMSA liner must contribute information to this form. This form must be provided to the design engineer to incorporate into the final construction report. All instances of construction of a LMSA must utilize this form except for LMSAs that are concrete-lined with a capacity of 20,000 gallons or less or for those that qualify for the exemption of Minn. R. 7020.2100, subp 1, item D or E.

Return this completed form to the design engineer: The owner must submit a construction report to the Minnesota Pollution Control Agency (MPCA) or county feedlot pollution control officer within 60 days of the completion of any new or modified manure storage area. The report must be prepared and signed by the design engineer and must contain an assessment of whether the completed manure storage area conforms to the design plans and specifications submitted to the commissioner or county feedlot pollution control officer.

I. Facility Information

Name of owner(s): _____

Legal name of facility: _____

Permit number _____

Location: _____
County Township

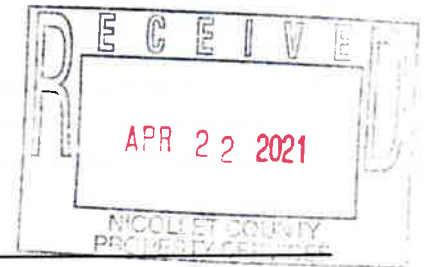
Sect. ¼ Sec. ¼ of ¼

II. Inspector's Information (inspector must complete Parts 3 to 6 of this form)

Name of inspector: _____

Phone: _____

Company/Agency: _____



Inspector qualifications (check all that apply):

☐ Professional engineer licensed in the state of Minnesota.

License No.: _____

☐ Person working under the direct supervision of a professional engineer.

Engineer's name: _____

MN license no.: _____

☐ Natural Resources Conservation Services staff.

☐ American Concrete Institute (ACI) or Minnesota Department of Transportation (MNDOT) concrete field testing technician Grade/Level I certified and concrete field inspector Level II certified.

Note: For concrete-lined structures only.

List certificate no.: _____

III. Notifications

A. Did the owner notify the **design engineer** a minimum of three business days *prior to commencement of construction*?

☐ Yes ☐ No

Date notification given: _____
(mm/dd/yyyy)

B. Did the owner notify the **MPCA or county feedlot officer** a minimum of three business days *prior to commencement of construction*?

☐ Yes ☐ No

Date notification given: _____
(mm/dd/yyyy)

C. Did the owner notify the **MPCA or county feedlot officer** within three business days *following completion of the manure storage area liner*?

☐ Yes ☐ No

Date notification given: _____
(mm/dd/yyyy)

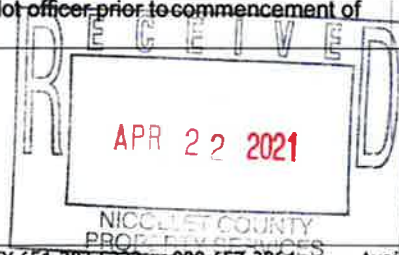
1. If a concrete-lined structure, did the owner complete the notice before the vertical walls of the concrete structure were backfilled

☐ Yes ☐ No ☐ N/A

IV. Inspection Checklist and Observations

This section (A-H, below) must be completed by the inspector listed in Part II. The liner contractor does not need to complete this section. Attach additional sheets for comments as needed.

	Yes	No	N/A
A. Were subgrade conditions adequate for liner placement, including soil texture, strength, and moisture content, and no frozen soils were present?	☐	☐	
Comments:			
B. Was a perimeter drain tile system specified in the design plans? If yes, answer Questions 1 to 4. If no, go to Question C.	☐	☐	
1. If concrete-lined, is drainage tile located a horizontal distance of at least 1 ft. outside the footing of a concrete-lined structure (unless incorporated into the form material)?	☐	☐	
2. Is a dedicated drain tile system in place for each manure storage area?	☐	☐	
3. Is a dedicated tile riser, manhole, or other access (i.e. daylight) that allows collection of tile-water samples in place and functioning for each dedicated tile system?	☐	☐	
Comments:			
C. Concrete-lined LMSAs only - Did you verify that the following items (1-7 below) were in conformance with the design engineer's plans and specifications:	☐	☐	☐
1. Reinforcing steel size, grade, spacing, cover, and that steel was free of loose rust, oil, or other debris?	☐	☐	
2. Concrete quality for air entrainment, temperature, and strength? (include test results with photocopy of laboratory results for strength)	☐	☐	
3. Handling, placement, consolidation, and finishing of concrete?	☐	☐	
4. Curing and protection of concrete after placement, including hot and cold weather protective measures?	☐	☐	
5. Location, forming, and preparation of construction and contraction/expansion joints?	☐	☐	
6. Specified product, placement, and installation of flexible waterstop materials in joints?	☐	☐	
7. Specified product and installation of surface applied or injected crack and joint sealant materials?	☐	☐	
Comments:			
D. Were there any construction defects that needed repair?	☐	☐	
If yes, describe:			
E. Were any water supply systems, fuel lines, electrical conduit, or other equipment not solely functioning as part of the manure handling or transfer system installed to penetrate the liner of the liquid storage structure?	☐	☐	
F. Was testing completed according to the methods and frequencies specified in the design engineer's quality assurance and quality control plan? (results should be forwarded to the engineer)	☐	☐	
G. Were any engineering changes or modifications made related to the liner specifications, structure location, depth, or separation distance to bedrock?	☐	☐	
If yes, complete 1 and 2 below:			
1. Describe the changes:			
2. Were these changes approved by the MPCA or county feedlot officer prior to commencement of construction of the change?	☐	☐	
H. Other comments:			



V. Inspector's Certification

I hereby certify that I am the inspector listed in Part II of this form. I hereby certify that the construction of the facilities referenced in this form were completed in accordance with all plans, specifications, reports, permit application submittals, and related communications approved by the MPCA or delegated county feedlot officer. By my signature below, I represent that the information submitted in this form is, to the best of my knowledge and belief, true, accurate, and complete.

Signature of Inspector: _____

Date: _____

VI. Contractor's Information and Certification

Contact name: _____

Phone: _____

Liner Contractor Company: _____

Indicate type of liner installed: ☐ Earthen ☐ Concrete ☐ Steel Tank ☐ HDPE, LLDPE, or EPDM ☐ GCL (bentonite)
(Check all that apply) ☐ Other: _____

I hereby certify that I represent the liner contractor and further certify that the construction of the liner indicated above, was completed in accordance with the design plans and specifications and construction standards.

Signature of Contractor: _____

Date: _____

Second Liner Contractor (if used)

Contact name: _____

Phone: _____

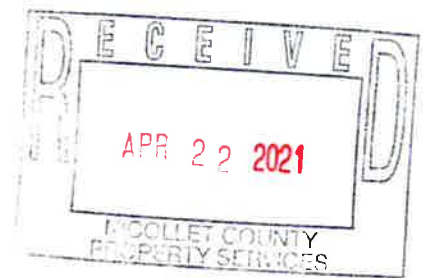
Liner Contractor Company: _____

Indicate type of liner installed: ☐ Earthen ☐ Concrete ☐ Steel Tank ☐ HDPE, LLDPE, or EPDM ☐ GCL (bentonite)
(Check all that apply) ☐ Other: _____

I hereby certify that I represent the liner contractor and further certify that the construction of the liner indicated above, was completed in accordance with the design plans and specifications and construction standards.

Signature of Contractor: _____

Date: _____



OPERATION AND MAINTENANCE PLAN

A plan for operation, inspections, and maintenance of the manure storage area should be created to ensure the quality of the existing pit.

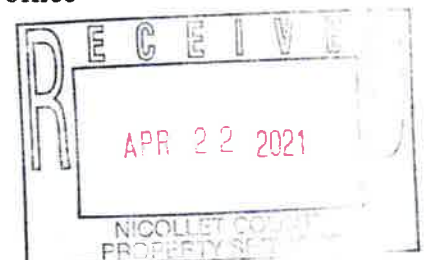
A. Pit Inspections & Maintenance:

1. Routine inspections should be made of the structure and its surroundings for leaks, deterioration of grills, slats, covers, and ladders.
 - a. Monitor the frequency of manure removal from the storage structure and note any significant fluctuations (an increase or decrease) in time between successive manure removal events.
 - b. Control the level of the liquid manure inside such that the maximum operating depth is not exceeded.
 - c. Records shall be kept explaining the type of defects, location, and repair methods. If any leaking is detected, contact your local MPCA office.
 - d. Prior to initial manure loading, consult with the design engineer to determine the need for protecting the foundation and floor slab from freezing temperatures. It may be advisable to add water to the structure to prevent frost damage. It may also be advisable to obtain, and have analyzed, a perimeter tile water sample prior to the addition of manure to the structure.

B. Perimeter Tile Inspections:

1. Routine inspections of the perimeter tile outlets and inspection manholes should be done to ensure proper operations of the tile system. Follow your MPCA / County Livestock Permit requirements for the frequency of tile inspections and testing.
 - a. The tile should be inspected for traces of manure, high flows in a dry period, broken tile, and anything else unusual.
 - b. Records should be kept on the dates the tile was inspected, methods of inspection, and what was observed. If manure is observed in the tile, contact your local MPCA office immediately.

End of Operation and Maintenance Plan



STRUCTURAL NOTES

A. General:

1. Notes and details on the structural drawings take precedence over these structural notes.
2. The contractor shall verify all dimensions, elevations, and site conditions before starting work. The engineer shall be notified of any changes.
3. In no case shall dimensions be scaled from plans, sections, or details on the structural drawings.
4. All materials and workmanship shall conform to the requirements of the following codes:
 - a. International Building Code (IBC)
 - b. Minnesota State Building Code
 - c. American Concrete Institute (ACI)
 - d. Concrete Reinforcing Steel Institute (CRSI)
Manual of Standard Practice

B. Drain Tile:

1. The drain tile shall be heavy-duty perforated polyethylene tubing 4" diameter.
2. The tile shall be covered with a washed aggregate, up to the top of the footing elevation, as shown on the plans.
2. Connect the drain tile to an existing farm tile if available, discharge to surface drainage, or drain to a sump and pump to surface.

C. Temporary Bracing and Backfill:

1. Provide temporary lateral support for all walls where grade varies on the two sides until the permanent structural support system is in place.
3. Backfill only after the floor slats or solid floor has been installed.



D. Footings and Foundations:

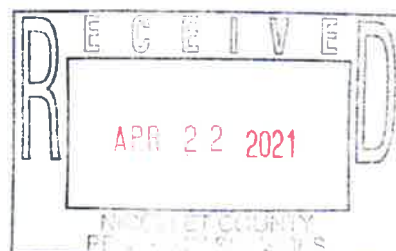
1. Soil bearing design value: 2500 PSF (Assumed) on virgin soil or compacted fill for footings.
2. Protect foundation excavations from frost. Do not place concrete on frozen ground.
3. Foundation excavation shall be kept free of loose material and standing water.
4. Anchor bolts shall be $\frac{1}{2}$ " diameter with 7" embedment and 2 $\frac{3}{4}$ " projection.

E. Reinforced Concrete:

1. Concrete shall have a minimum 28-day compressive strength of $F'_c = 4000$ psi.
2. Water cement ratio shall be 0.45 maximum.
3. Cement shall conform to ASTM C150, Type I.
4. Coarse aggregate shall be $\frac{3}{4}$ " Max.
5. Ready-mix concrete shall be mixed and delivered in accordance with ASTM C94.
6. Slump shall be a maximum of 6".
7. Air Content shall be between 4%-6%.
8. Concrete work shall conform to all the requirements of ACI 301.
9. Admixtures may be used with prior approval of the engineer for the purpose of increasing the workability but not to reduce the specified minimum cement content. Calcium chloride shall not be used.

F. Reinforcing Steel:

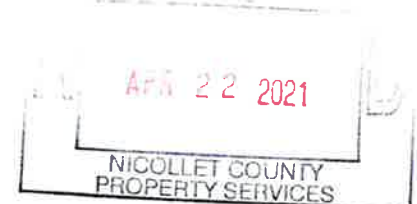
1. Bar reinforcement shall be ASTM A615, Grade 40 or 60.
2. Minimum lap splice or reinforcing bar, based on ACI 318, Class B, shall be as follows unless noted otherwise:
 - a. #3 Bars – 15"
 - b. #4 Bars – 20"
 - c. #5 Bars – 24"
 - d. #6 Bars – 30"
 - e. #7 Bars – 36"
 - f. #8 Bars – 42"



3. Reinforcing steel shall be provided with the following minimum cover unless noted otherwise:
 - a. Concrete placed against earth – 3"
 - b. Formed concrete exposed to earth or weather:
 - 1) #6 Bars through #8 Bars – 2"
 - 2) #5 Bars and smaller – 1 ½"
 - 3) Stirrups & Ties – 1 ½"
4. All reinforcing steel, anchor bolts, dowels, and inserts shall be secured in position with wire positioners, or equal, before placing concrete.
5. Dowels between footings and walls shall be the same grade, size, and spacing as vertical wall reinforcement.
6. All lap splices shall be tied at 3 locations.

G. Tolerances and Quality Control:

1. Column finish elevations shall be + or – ¼" from design elevation.
2. Wall alignment (horizontal) shall deviate no more than ¼" in 10 feet and no more than ¾" over the full length of the wall.
3. Wall bearing ledge elevations shall be + or – 1/4" from design from design elevation in 10 feet and no more than 1/2" over the full length of the wall.
4. Overall foundation length and width dimensions and diagonal dimensions should be within ½" of plan dimensions.
5. Minor honeycombing shall be repaired on the same day that the forms are removed. Major honeycombing (greater than 1 ½" deep) shall be inspected by the engineer and repaired or removed at his direction.
6. Cracks which may extend through the concrete liner must be cleaned and sealed with MasterSeal NP1 Polyurethane Sealant, or approved equal. Larger cracks or defects may need an inspection by the engineer to determine the proper repair.
7. Test Cylinders: Take three (3) test cylinders for each 100 cubic yards of concrete placed but not less than three (3) test cylinders each day that 10 or more cubic yards are placed. Keep one of each three cylinders on the job and allow to field cure. Deliver two of the three cylinders to a licensed testing laboratory to be cured and tested at 7 days and 28 days.



H. Electrical Ground:

1. Install reinforcing bars as shown on the drawing. Verify Electrical Ground requirements with Electrical Contractor. Notify electrical inspector for inspection prior to placing concrete.

I. Cold Weather Concrete:

1. When, for more than 3 successive days, the mean daily temperature drops below 40 degrees Fahrenheit, the contractor shall place and protect the concrete in accordance with ACI 306.

J. Hot Weather Concreting:

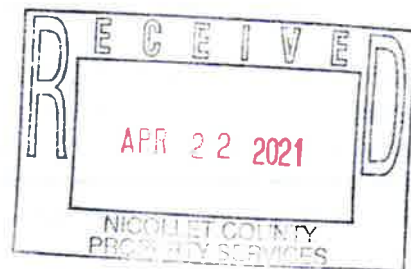
1. When it is likely that temperatures between 75 degrees Fahrenheit and 100 degrees Fahrenheit will be approached or exceeded; that low relative humidity is present, or wind velocity will exceed 10 mph, the contractor shall place and protect the concrete in accordance with Chapter 4 & 5 of ACI 305.

K. Waterstops:

1. Waterstop can be 3/8" x 3/4" Bentonite/Butyl rubber, Equal to waterstop – RX, Ultrastop, Swellstop or a 4" ribbed with center bulb PVC Waterstop, Equal to Vinylex RCB -4316. Waterstops shall be placed in all construction joints on the floor and in the perimeter walls. Location and number of construction joints are to be determined by the contractor.

L. Fibermesh:

1. Fibermesh fibers shall be added to the concrete mix at a minimum rate of 2.0 pounds per cubic yard of concrete. The fibermesh shall be fibrillated polypropylene Olefin fibers, 3/4" in length.



CAST-IN-PLACE CONCRETE

This section includes specifications for formwork, reinforcement, accessories, cast-in-place concrete, finishing and curing.

A. Quality Assurance:

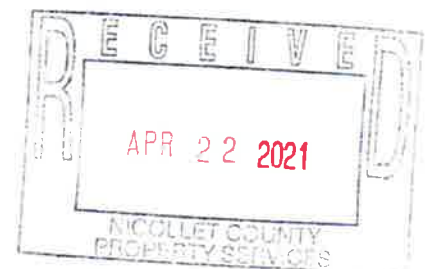
1. Construct and erect concrete formwork in accordance with ACI301
2. Perform concrete reinforcing work in accordance with ACI Manual of Practice
3. Perform cast-in-place concrete work in accordance with ACI318

B. Form Materials and Accessories:

1. Plywood: sound undamaged sheets with clean true edges
2. Lumber: grade as required
3. Prefabricated Steel Type: matched, tight fitting, stiffened to support weight of concrete
4. Pan Type: Steel of size and profile required
5. Tubular Column Type: Round, spirally wound laminated materials, inside surface treated with release agent, of size required
6. Form Ties: Snap-off, metal type of adjustable length
7. Form Release Agent: Colorless mineral oil which will not stain concrete or impair natural bonding characteristics of coating intended for use on concrete

C. Reinforcement Materials:

1. Reinforcing Steel: ASTM A615; deformed billet steel bars, plain finish.
2. Cement: ASTM C150, Normal-Type I Portland type.
3. Water: Clean and not detrimental to concrete.



4. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for support of reinforcing.
5. Fabricate concrete reinforcing in accordance with ACI 318 and CRSI.

D. Compounds, Hardeners and Sealer:

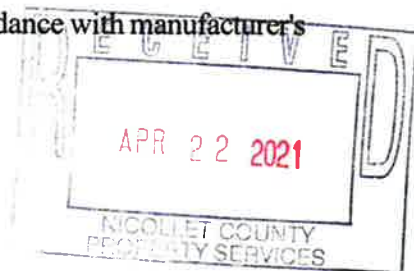
1. Curing Compound: ASTM C309, Type 1, Class B type by:
Master Kure by Master Builders Technologies
Super Pliocure by Euclid Chemical Company
Dress and Seal #30 by L & M Construction Chemicals
2. Absorptive Mats: ASTM C171, Burlap-Polyethylene.

E. Concrete Mix:

1. Mix and deliver concrete in accordance with ASTM C94, Alternative 2.
2. Provide concrete of the following specifications:
3. Compressive strength 4000 psi 28 day (floors, walls, piers, and footings).
4. Slump shall be a maximum of 6 inches, 9" with the use of superplasticizers. Testing should follow ASTM C 143.
5. Maximum water/cement ratio: 0.45.
6. Concrete shall be placed according to ASTM C 94 on normal temperature days with an Air Content of 4.0% to 6.0%. Samples shall be obtained and tested in accordance with ASTM C 172.
7. Concrete temperature shall be tested according to ASTM C 1064. Concrete temperature during normal daytime temperatures shall be below 90 Deg. F.

F. Formwork Erection:

1. Erect formwork, shoring and bracing to achieve design requirements.
2. Camber slabs and framing to achieve ACI 301 tolerances.
3. Provide bracing to ensure stability of formwork.
4. Apply form release agent to formwork in accordance with manufacturer's



instructions, prior to placing for accessories and reinforcement.

5. Clean forms as erection proceeds, to remove foreign matter.

G. Inserts, Embedded Components and Openings:

1. Provide formed openings where required for work to be embedded in and passing through concrete members.
2. Coordinate work of other sections in forming and setting openings, slots, recesses, chases, sleeves, bolts, anchors, and other inserts.
3. Install concrete accessories straight, level, and plumb.
4. Install waterstops where shown on the plan and at all pit penetrations and cold joints.

H. Reinforcement Placement:

1. Place reinforcement, supported and secured against displacement.
2. Ensure reinforcing is clean, free of loose scale, dirt, or other foreign coatings.

I. Placing Concrete:

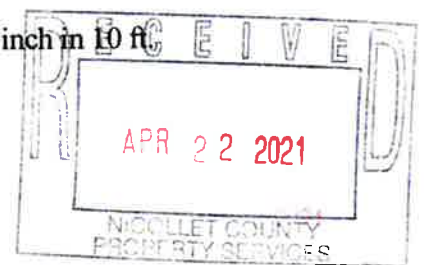
1. Place concrete continuously between predetermined expansion, control and construction joints. Screed floors, slabs-on-grade and concrete toppings level.

J. Form Removal:

1. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads. Remove formwork progressively and in accordance with code requirements.

K. Finishing:

1. Uniformly spread, screed, and float concrete.
2. Maintain surface flatness, with maximum variation of 1/4 inch in 10 ft.



L. Curing:

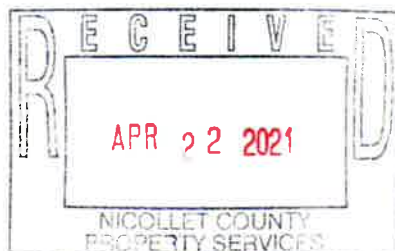
1. Immediately after placement, protect concrete from premature drying.
2. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.

M. Concrete Testing:

1. A test of concrete shall include all of the following: Cylinders, Slump, Air Content and Temperature. Each test shall be taken once every 100 cubic yards of concrete placed and at least one test every day 10 or more cubic yards of concrete are placed. Additional testing is required to represent new mixes and different concrete suppliers.
2. Concrete cylinders:
 - a. Take three 3 test cylinders for 100 cubic yards of concrete placed but not less than three 3 test cylinders each day that 10 or more cubic yards are placed. Keep one of each three cylinders on the job site and allow to field cure. Within two days, deliver two of the three cylinders to a licensed testing laboratory to be cured and tested at seven 7 days and 28 days. Additional testing is required to represent new mixes and different concrete suppliers.
3. Concrete Rebound Hammer:
 - a. Rebound hammer tests may be taken after the pit is complete and at least 7 days after the last concrete was poured. Concrete shall be tested according to ASTM C 805.

N. Defective Concrete:

1. Modify or replace concrete not conforming to required lines, details, elevations or strength as directed by Engineer.
2. Cracks which may extend through the concrete liner must be cleaned and sealed with MasterSeal NP1 Polyurethane Sealant, or approved equal. Larger cracks or defects may need an inspection by the Engineer to determine the proper repair.
3. Honeycombing shall be patched with a sand/grout mix or commercial patching products such as TK-Complete Concrete Patch, Meadow-Patch 5 or approved equal.

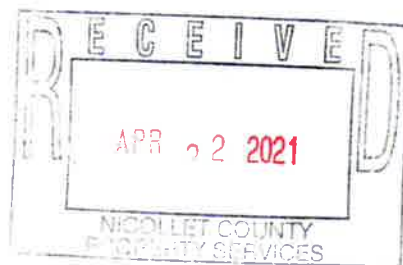


COLD WEATHER CONCRETING

- A. Cold weather is defined as a period when for more than 3 successive days the mean daily temperature drops below 40°F. When temperatures above 50°F occur during more than half of any 24-hour period, the concrete should no longer be regarded as winter concrete. Cold weather concrete shall be placed, cured, and protected according to ACI 306 COLD WEATHER CONCRETING and these abbreviated specifications taken from ACI 306 COLD WEATHER CONCRETING.
- B. Plans to protect fresh concrete from freezing and to maintain temperatures above the designated minimum for the required time after placing should be made in advance of expected freezing temperatures. Preparation for cold weather concreting consists primarily in insuring that all surfaces to be in contact with newly placed concrete are at a temperature that cannot cause early freezing or seriously delay proper curing (hardening) of the concrete. Originally, the temperature of these contact surfaces, including sub-grade materials, need not be higher than a few degrees above freezing.
- C. In moderately cold weather, when heavy frost or freezing is forecast at the job site, all unformed concrete surfaces should be protected from freezing for at least 24-hrs after it is placed.
- D. During colder weather when mean daily temperatures are generally below 40°F, concrete shall be placed at a temperature not lower than:
1. 60°F when temperature is above 30°F.
 2. 65°F when temperature is 0°F to 30°F.
 3. 70°F when temperature is below 0°F.
 4. Maintain the placed concrete at a minimum temperature of 55°F for that time period indicated in E. below.
 5. Concrete should be placed at or near the lowest allowable temperature and not more than 10°F above the temperatures indicated above.



- E. **Air entrained concrete (5% to 7%) shall be used for cold weather concrete.** Footings and pit floor slabs shall be maintained at a minimum temperature of 55°F for 2 days following placement. Walls shall be maintained at a minimum temperature of 55°F for 3 days following placement.
- F. Heated enclosures, if used, must be strong, windproof, and weatherproof. Heating units should be vented and not permitted to heat or dry the concrete locally.
- G. Generally, the outline below should be followed:
1. Never place concrete on frozen ground or on snow or ice.
 2. Supply the concrete mix at a temperature in accordance with D. above but not less than 55°F.
 3. After placement of the concrete mix, keep the concrete at a temperature of 55°F for 2 days (floors and footings) and 3 days (walls) by the use of insulated blankets, straw, or the use of properly applied heat. Leave forms in-place during these days.
 4. Be particularly concerned with thin concrete, edges, and openings that will be exposed to wind or drafts.
 5. Have the necessary insulating material on site before placement of concrete when cold weather is likely to occur.



HOT WEATHER CONCRETING

Hot Weather is defined as any combination of high air temperature, low relative humidity, and wind velocity tending to impair the quality of fresh or hardened concrete or otherwise resulting in abnormal properties. When any of these conditions are present, the contractor shall place and protect the concrete in accordance with Chapter 4 of ACI 305 as described below:

4.1 General

4.1.1 The requirements for good results in hot weather concrete placing and curing is no different than in other seasons. The same necessities exist:

- a. That concrete be handled and transported with a minimum of segregation and slump loss.
- b. That concrete is placed where it is to remain.
- c. That the concrete be placed in layers shallow enough to assure vibration well into the layer below.
- d. That joints be made on sound, clean concrete.
- e. That finishing operations and their timing be guided only by the readiness of the concrete for them, and nothing else.
- f. That curing be conducted in such a manner that at no time during the prescribed period will the concrete lack ample moisture and temperature control, so that hydration continues to develop the full potential of strength and durability of the concrete.

4.2 Preparations for placing and curing

4.2.1 Preparations for placing and curing in hot weather include recognition at the start of work that certain abnormal conditions will exist which will require some items of preparation that cannot readily be provided the last minute before concrete is placed. If concrete temperatures as placed are expected to be abnormally high, preparation must be made to transport, place, consolidate, and finish the concrete at the fastest possible rate.

4.2.1.1 This means, first, delivery of concrete to the job must be scheduled so it will be placed promptly on arrival, particularly the first batch. Many concrete operations get off to a bad start because concrete was ordered before the job was ready and slump control was lost at this most critical time.

4.2.1.2 Equipment for placing the concrete must have adequate capacity to perform its functions efficiently so there will be no delays at distant portions of the work. There should be ample vibration equipment and manpower to consolidate the concrete quickly after placement and to maintain the rate of

APR 22 2021

NICOLLET COUNTY
PROPERTY SERVICES

placement in difficult areas. All equipment should be in first class operating condition. Breakdowns or delays that stop or slow the placement can seriously affect the quality of the work. Cold joints may be apparent when forms are removed; vibration failure can cause obvious lack of consolidation.

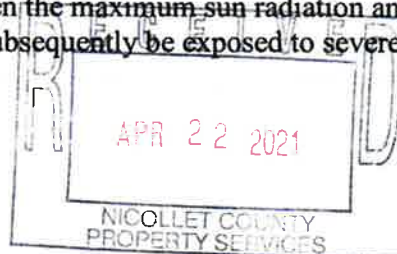
4.2.1.3 Due to more rapid slump loss in hot weather, the strain on vibrating equipment will be greater. Accordingly, provision should be made for an ample number of standby vibrators, at least one standby for each three vibrators in use. A concrete placing operation is in serious trouble, especially in hot weather, when vibration equipment fails and the standby equipment is inadequate. If possible, arrangements should be made in advance to secure another crane or pump quickly, in event of an equipment breakdown.

4.2.2 When there is to be flatwork on grade, early planning may make it feasible to plan a temporary windbreak or provide shade. In any event, the job should be equipped with ample water supply hose. The subgrade should be moist but free of standing water and soft spots at the time of concreting. Fogging can be used to cool and moisten surrounding air to prevent excessive evaporation from flatwork during finishing. Fog nozzles for this use should produce a fog blanket and they should not be confused with the common garden hose nozzles, which produce an excessive washing spray.

4.2.3 Preparation for placing includes proper location and preparation of construction joints. In hot weather, due to faster setting and hardening of the concrete, the timing of clean up by various methods, such as green cutting or surface retardant application, becomes more critical. Preparation must be made for prompt and adequate attention to these matters at the right time.

4.2.4 Work plans should include preparation to limit the temperature of concrete as placed. As the selected limiting temperature, usually but not always between 75 F (24C) and 100 F (38C) is approached and exceeded, it is increasingly likely that the unfavorable effects of high temperature will occur.

4.2.4.1 Whatever temperature limitation is considered worthwhile can be maintained to best advantage if mixers, belts, pump lines, and chutes are shaded. Where they cannot be shaded, they will absorb appreciably less heat from the sun if painted white and kept white. Pump lines and other surfaces can be kept appreciably cooler by covering them with damp burlap, kept damp with soil soaker hose. When daytime temperature and drying conditions may be critical, scheduling concrete placement to begin in the late afternoon will materially improve placing conditions. On massive slabs and pavements this has been found to result in much less thermal shrinkage and cracking. Concrete placed during the early morning may attain an undesirably high temperature, particularly during the middle of the day, when the maximum sun radiation and heat of hydration occur. Such concrete could subsequently be exposed to severe thermal stress on cooling.



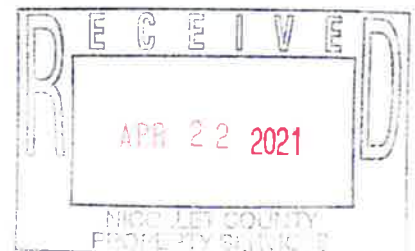
4.2.5 Finally, preparation for placing concrete in hot weather includes the special provisions necessary for its hot proper protection and curing, since hot weather causes rapid drying. To avoid serious damage and cracking, facilities must be ready to protect promptly all exposed surfaces from drying. Water curing is much to be preferred for most concrete work, but it is recognized that prompt application of white-pigmented curing compound (ASTM C309) Type 2, is more practical for curing vast areas of flatwork on subgrade. Other alternatives for curing are described in ACI 308. Water curing must be continuous and the continuity of water curing is best assured if provision is made for covering all exposed surfaces, vertical, horizontal, and otherwise, with saturated material (burlap, cotton mats, old carpets, etc.) kept wet with soil soaker hose. This material should be kept in direct contact with the concrete surface at all times. Alternate cycles of wetting and drying promote the development of pattern cracking, and should be avoided. Curing water should not be much colder than the concrete because of temperature change stresses, which could be introduced with resultant cracking.

4.3 Placement and Finishing

4.3.1 Speed-up of placement and finishing materially reduces hot weather difficulties. Delays increase slump loss and invite the addition of water to offset it. Each operation in concrete finishing should be carried out promptly when the concrete is ready for it. It is necessary to make sure that concrete is not placed in the forms faster than it can be properly consolidated by men and equipment, or be properly finished by the men at hand. If the placing rate is not coordinated with available men and equipment, a job will soon be marked with cold joints, poor consolidation, and irregular surface finishes.

4.3.2 Regardless of the thickness of layers of concrete as placed under normal temperatures, each layer may have to be shallower in hot weather to assure coverage of the previous layer while it will still respond readily to vibration. The interval between monolithic wall and deck placements (to let the wall concrete develop its settlement shrinkage) becomes very short in hot weather, especially with warm concrete.

4.3.3 In placing beam and deck concrete, it is necessary in hot weather to keep the operation confined to a small area and to proceed on a front having a minimum amount of exposed surface to which concrete is to be added. A fog nozzle should be used generously to cool the air, to cool the forms and steel immediately ahead, and to lessen rapid evaporation from the concrete surface before and after each finishing operation. Excessive fog spraying (that which would wash the fresh concrete surface or cause water to stand on the surface during floating or troweling) must be avoided.



4.3.3.1 Without such fog spray between the finishing operations in hot weather, particularly if it is windy and humidity is low, water may be evaporated from the surface faster than it will rise naturally to the surface. This will create a growing tension in the surface, which often causes irregular, plastic-shrinkage cracking. Careful use of the fog spray previously mentioned, spreading and removing polyethylene sheeting between finishing operations, or application of monomolecular films after the strike-off, are recommended. Sometimes in relatively massive placement, revibration prior to floating will prevent the development of plastic-shrinkage cracking. When such cracking occurs prior to the final set, the cracks can be closed by striking the surface on each side of the crack with a float. It serves no lasting purpose to merely trowel slurry over them.

4.3.4 In summary, for best assurance of good results with concrete placing in hot weather, the initial concrete placement temperature should be limited to preferably between 75F (24C) and 100F (38C) as discussed in Sections 2.2.2 and 4.2.4. Every effort should be made to keep the concrete temperature uniform. All necessary precautions should be taken to see that concrete is promptly placed on arrival at the job and immediately vibrated after placement. Flatwork should be protected from excessive drying during finishing operations, and each operation should be performed without delay as soon as the concrete is ready for it. Under extreme conditions of high ambient temperature, exposure to direct rays of the sun, low relative humidity, and wind – perhaps aggravated by a slow rate of placement due to complexity of the structure in size and shape – careful and complete adherence to the foregoing practices may not produce the degree of quality desired for the work. Under such circumstances, it has been found worthwhile to restrict concrete placement to late afternoon or evening.

4.4 Curing and Protection

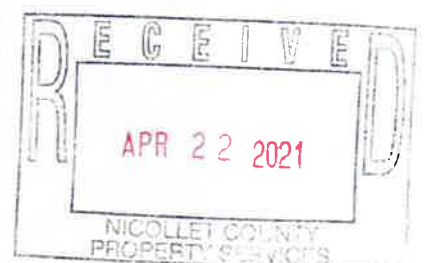
4.4.1 Curing and protection have been largely covered under Section 4.2. It should be emphasized that in hot weather there is great need for continuous curing, preferably by water. The need is greatest during the first few hours, and in fact throughout the first day after concrete is placed. All surfaces should be protected from drying, even intermittently, as this contributes to development of pattern cracking.

4.4.2 For water containment structures absorptive wood forms remaining in place should not be considered as a satisfactory means of curing in hot, drying weather. Forms should be covered and kept moist. The forms should be loosened, as soon as this can be done without damage to the concrete, and provisions made for the curing water to run down inside them. During form removal, care should be taken to provide wet cover to newly exposed surfaces to avoid exposure to hot sun and wind. Form tie cone holes can be filled and any necessary repairs made by uncovering a small portion at a time as necessary to carry on this work. These repairs should be completed in the first few days after stripping, so the repairs and



cone hole fillings can cure with the surrounding concrete. At the end of the prescribed curing period (7 days minimum; 10 is better), the coverage should be left in place without wetting for several (4 days suggested), so that the concrete surface will dry slowly and be less subject to surface shrinkage cracking. The effects of drying are further minimized by closing such structures as tunnels and pipelines against drafts and free circulation of drying air.

4.4.3 In summary, providing proper temperature and moisture conditions for curing of concrete are much more critical and important in hot weather than under normal temperatures. It is, therefore, of first importance that curing be promptly commenced, ample in coverage, and continued without interruption.



PETERS FAMILY FARM SOW SITE

ISG

PROJECT CONTACTS

OWNERS

PETERS FAMILY FARM, INC.
41125 ST. HWY 59
ST. PETER, MN 56062
NICK PETERS 507-317-2556

DESIGN ENGINEER

ISG
115 EAST HIGHWAY STREET
MAUKATO, MN 56003
PROJECT MANAGER
MATT HUDSON 507-317-2526

SHEET INDEX

TITLE SHEET

- T1 SHEET INDEX, CONTACT INFORMATION,
AERIAL PHOTO - SITE LOCATION MAP
T2 LIQUID MANURE STORAGE AREA SPECIFICATIONS
AND SITE LAYOUT

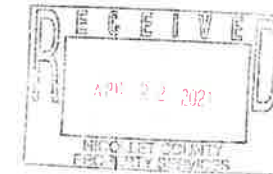
STRUCTURAL PLANS

- S1 GESTATION BARN - FOOTINGS & FOUNDATION PLAN
S2 GESTATION BARN - DETAILS
S3 GESTATION BARN - DETAILS
S4 GESTATION BARN - DETAILS
S5 FARROWING BARN - FOOTINGS & FOUNDATION PLAN
S6 FARROWING BARN - PULL PLUG LAYOUT
S7 FARROWING BARN - DETAILS
S8 FARROWING BARN - DETAILS
S9 FARROWING BARN - DETAILS



VICINITY MAP

SCALE: 1"=1000'



CONSTRUCTION NOTIFICATIONS

☐ NICOLLET COUNTY
DEANNA BIENN
507-634-7073

3 DAY PRE CONSTRUCTION NOTIFICATION

☐ THE OWNER SHALL NOTIFY THE
MPCA/CFO 3 BUSINESS DAYS BEFORE
ANY CONSTRUCTION BEGINS.
DATE OF NOTIFICATION:

3 DAY POST CONSTRUCTION NOTIFICATION

☐ THE OWNER SHALL NOTIFY THE
MPCA/CFO WITHIN 3 BUSINESS DAYS
FOLLOWING COMPLETION OF
CONSTRUCTION, BEFORE BACKFILL.
DATE OF NOTIFICATION:

CONSTRUCTION INSPECTIONS

☐ NOTIFY ISG MINIMUM OF 24 HOURS PRIOR
TO ALL CONCRETE POURS.
PROJECT MANAGER - MATT HUDSON
507-317-2526

15-PL-00

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR
REPORT WAS PREPARED BY ME OR UNDER MY DIRECT
SUPERVISION AND THAT I AM A DULY LICENSED
PROFESSIONAL ENGINEER UNDER THE LAWS OF THE
STATE OF MINNESOTA.

JASON E. HUDSON
Jason E. Hudson
4-21-21 LC NO. 05022

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REPORT WAS PREPARED BY ME OR UNDER MY DIRECT
SUPERVISION AND THAT I AM A DULY LICENSED
PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF
MINNESOTA.

DATE: 4-21-21

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PROJECT

**PETERS FAMILY
FARM, INC.
SOW SITE**

41125 ST. HIGHWAY 59
ST. PETER, MN 56062
NW 1/4 SECTION 32, T110N, R21W
OSHAWA TWP., NICOLLET CO., MN

REVISIONS	
NO.	DATE

PROJECT NO.	21-25103
DATE	2/20/21
DESIGNED BY	ISG
DRAWN BY	ISG
REVIEWED BY	ISG
DATE	4/21/21
CHECKED BY	ISG

DATE

TITLE SHEET

SHEET

T1

STRUCTURAL NOTES

- A. GENERAL**
- NOTES AND DETAILS ON THE STRUCTURAL DRAWINGS TAKE PRECEDENCE OVER THESE STRUCTURAL NOTES.
 - THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS BEFORE STARTING WORK. THE ENGINEER SHALL BE NOTIFIED OF ANY CHANGES.
 - IN NO CASE SHALL DIMENSIONS BE SCALED FROM PLANS, SECTIONS, OR DETAILS ON THE STRUCTURAL DRAWINGS.
 - ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE FOLLOWING CODES:
 - INTERNATIONAL BUILDING CODE (IBC)
 - MINNESOTA STATE BUILDING CODE
 - AMERICAN CONCRETE INSTITUTE (ACI)
 - CONCRETE REINFORCING STEEL INSTITUTE (CRSI) MANUAL OF STANDARD PRACTICE
- B. DRAIN TILE**
- THE DRAIN TILE SHALL BE HEAVY DUTY PERFORATED POLYETHYLENE TUBING, 4" DIAMETER.
 - CONNECT THE DRAIN TILE TO AN EXISTING FARM TILE IF AVAILABLE; DISCHARGE TO SURFACE DRAINAGE; OR DRAIN TO A PUMP AND PUMP TO THE SURFACE.
- C. TEMPORARY BRACING AND BACKFILL**
- PROVIDE TEMPORARY LATERAL SUPPORT FOR ALL WALLS WHERE GRADE VARIES ON THE TWO SIDES UNTIL THE PERMANENT STRUCTURAL SUPPORT SYSTEM IS IN PLACE.
 - BACKFILL ONLY AFTER THE FLOOR SLATS OR SOLID FLOOR HAS BEEN INSTALLED.
- D. FOUNDATION FILL MATERIAL:**
- COMPACTED CLAY FILL SHALL BE PLACED AND COMPACTED TO 95% OF STANDARD PROCTOR DENSITY.
 - COMPACTION EQUIPMENT (ROLLERS) SHALL HAVE A TOOTH LENGTH LONGER THAN THE MAXIMUM LIFT THICKNESS IN ORDER TO PROVIDE ADEQUATE KNEADING ACTION TO JOIN THE LIFTS TOGETHER. THE CONTRACTOR SHALL HAVE EQUIPMENT ON SITE TO WET OR DRY THE SOIL TO OBTAIN THE REQUIRED MOISTURE CONTENT FOR PROPER COMPACTION.
 - CHOSEN VALLEY TESTING SHALL BE CONTACTED FOR COMPACTION TESTING ON FILL MATERIAL USED FOR PROPOSED BUILDING PADDS.
- E. FOOTINGS AND FOUNDATION**
- SOIL BEARING DESIGN VALUE = 3000 PSF (ASSUMED) ON VIRGIN SOIL OR COMPACTED FILL FOR FOOTINGS.
 - PROTECT FOUNDATION EXCAVATIONS FROM FROST. DO NOT PLACE CONCRETE ON FROZEN GROUND.
 - FOUNDATION EXCAVATION SHALL BE KEPT FREE OF LOOSE MATERIAL AND STANDING WATER. ANCHOR BOLTS SHALL BE 1/2" DIAMETER WITH 7" EMBEDMENT AND 2-3/4" PROJECTION.
- F. REINFORCED CONCRETE**
- CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF $F_c = 4000$ PSI.
 - WATER CEMENT RATIO SHALL BE 0.45 MAXIMUM.
 - CEMENT SHALL CONFORM TO ASTM C150 TYPE 1.
 - COARSE AGGREGATE SHALL BE 3/4" MAX.
 - READY-MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C94.
 - SLUMP SHALL BE 6" MAXIMUM.
 - CONCRETE WORK SHALL CONFORM TO ALL THE REQUIREMENTS OF ACI 308.
 - ADMIXTURES MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER FOR THE PURPOSE OF INCREASING THE WORKABILITY BUT NOT TO REDUCE THE SPECIFIED MINIMUM CEMENT CONTENT. CALCIUM CHLORIDE SHALL NOT BE USED.
- G. REINFORCING STEEL**
- BAR REINFORCEMENT SHALL BE ASTM A615, GRADE 60.
 - MINIMUM LAP SPICE OF REINFORCING BAR BASED ON ACI 318, CLASS B, SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE:
 - #3 BARS = 15"
 - #4 BARS = 20"
 - #5 BARS = 24"
 - #6 BARS = 30"
 - #7 BARS = 32"
 - #8 BARS = 42"
- 3. REINFORCING STEEL SHALL BE PROVIDED WITH THE FOLLOWING MINIMUM COVER UNLESS NOTED OTHERWISE:**
- CONCRETE PLACED AGAINST EARTH = 3"
 - FORMED CONCRETE EXPOSED TO EARTH OR WEATHER:
 - #6 BARS THROUGH #8 BARS = 2"
 - #5 BARS AND SMALLER = 1 1/2"
 - STIRRUPS & TIES = 1 1/2"
- 4. ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS, AND INSERTS SHALL BE SECURED IN POSITION WITH WIRE POSITIONERS, OR EQUAL, BEFORE PLACING CONCRETE.**
- 5. DOWELS BETWEEN FOOTINGS AND WALLS SHALL BE THE SAME GRADE, SIZE, AND SPACING AS VERTICAL WALL REINFORCEMENT.**
- 6. ALL LAP SPICES SHALL BE TIED AT 3 LOCATIONS.**
- H. TOLERANCES AND QUALITY CONTROL**
- COLUMN FINISH ELEVATIONS SHALL BE $\pm 1/4"$ FROM DESIGN ELEVATION.
 - WALL ALIGNMENT (HORIZONTAL) SHALL DEViate NO MORE THAN 1/4" IN 10' NOR MORE THAN 3/4" OVER THE FULL LENGTH OF THE WALL.
 - WALL BEARING EDGE ELEVATIONS SHALL BE $\pm 1/4"$ FROM DESIGN ELEVATION IN 10' AND NO MORE THAN 1/2" OVER THE FULL LENGTH OF THE WALL.
 - OVERALL FOUNDATION LENGTH AND WIDTH DIMENSIONS AND DIAGONAL DIMENSIONS SHOULD BE WITHIN 1/2" OF PLAN DIMENSIONS.
 - MINOR HONEYCOMBING SHALL BE REPAIRED ON THE SAME DAY THAT THE FORMS ARE REMOVED. MAJOR HONEYCOMBING (GREATER THAN 1" DEEP) SHALL BE INSPECTED BY THE ENGINEER AND REPAIRED OR REMOVED AT HIS DIRECTION.
 - TEST CYLINDERS: TAKE THREE (3) TEST CYLINDERS FOR EACH 100 CUBIC YARDS OF CONCRETE PLACED BUT NOT LESS THAN THREE (3) TEST CYLINDERS EACH DAY THAT 10 OR MORE CUBIC YARDS ARE PLACED. KEEP ONE OF EACH THREE CYLINDERS ON THE JOB SITE AND ALLOW TO FIELD CURE. DELIVER 2 OF THE 3 CYLINDERS TO A LICENSED TESTING LABORATORY TO BE CURED AND TESTED AT 7 AND 28 DAYS.
- I. ELECTRICAL GROUND**
- INSTALL REINFORCING BARS AS SHOWN ON THE DRAWING. VERIFY ELECTRICAL GROUND REQUIREMENTS WITH ELECTRICAL CONTRACTOR. NOTIFY ELECTRICAL INSPECTOR FOR INSPECTION PRIOR TO PLACING CONCRETE.
- J. COLD WEATHER CONCRETE**
- WHEN, FOR MORE THAN 3 SUCCESSIVE DAYS, THE MEAN DAILY TEMPERATURE DROPS BELOW 40 DEG. F, THE CONTRACTOR SHALL PLACE AND PROTECT THE CONCRETE IN ACCORDANCE WITH ACI 305.
- K. HOT WEATHER CONCRETE**
- WHEN IT IS LIKELY THAT TEMPERATURES BETWEEN 75 DEG. F. AND 100 DEG. F. WILL BE APPROACHED OR EXCEEDED; THAT LOW RELATIVE HUMIDITY IS PRESENT; OR WIND VELOCITY WILL EXCEED 10 MPH, THE CONTRACTOR SHALL PLACE AND PROTECT THE CONCRETE IN ACCORDANCE WITH CHAPTERS 4 & 5 OF ACI 305.
- L. WATERSTOPS**
- WATERSTOP CAN BE BENTONITE/UTYL RUBBER, EQUAL TO WATERSTOP-RX, ULTRASTOP, SWELLSTOP OR A 4" RIBBED WITH CENTER RIB & PVC WATERSTOP. EQUAL TO VINYLE-X RCB-4318. WATERSTOP SHALL BE PLACED IN ALL CONSTRUCTION JOINTS ON THE FLOOR AND IN THE PERIMETER WALLS. LOCATION AND NUMBER OF CONSTRUCTION JOINTS ARE TO BE DETERMINED BY THE CONTRACTOR.
- M. FIBERMESH**
- FIBERMESH FIBERS SHALL BE ADDED TO THE CONCRETE MIX AT A MINIMUM RATE OF 2.0 LBS PER CUBIC YARD OF CONCRETE. THE FIBERMESH SHALL BE FIBRILLATED POLYPROPYLENE OLEFIN FIBERS, 3/4" IN LENGTH.

NOTES

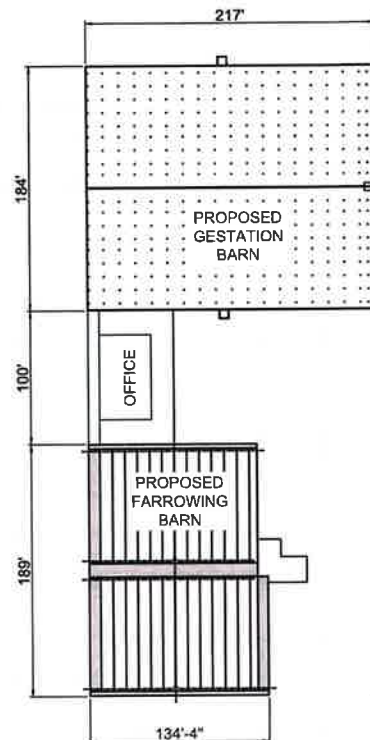
STEM WALLS:
PIT CONTRACTOR SHALL COORDINATE WITH THE OWNER, BUILDING CONTRACTOR AND EQUIPMENT CONTRACTOR FOR DIMENSIONS OF STEM WALLS AND LOCATIONS OF FAN OPENINGS AND DOOR OPENINGS.

FAN OPENINGS:
PIT CONTRACTOR SHALL COORDINATE WITH THE OWNER, BUILDING CONTRACTOR AND EQUIPMENT CONTRACTOR FOR DIMENSIONS OF FAN OPENINGS, TYPES OF FANS AND LOCATIONS OF ALL FAN OPENINGS.

CONCRETE SLATS / NURSERY FLOORING:
PIT CONTRACTOR SHALL COORDINATE WITH THE OWNER, BUILDING CONTRACTOR AND EQUIPMENT CONTRACTOR FOR DIMENSIONS AND LOCATIONS OF SLAT LEDGE AND TYPE OF FLOORING.
PRECAST CONCRETE BEAMS AND SLATS SHALL BE INSTALLED AND GROUDED PRIOR TO BACKFILL OF THE PERIMETER PIT WALLS.

A PERFORATED DRAIN TILE SHALL BE INSTALLED AROUND EACH BARN. EACH BARN WILL HAVE A SEPARATE INSPECTION RISER. THE TILE WILL DRAIN AND DAYLIGHT TO THE EAST SIDE OF THE BARN, WITHIN THE LIMITS OF THE PROPERTY.

WATER SUPPLY LINES, FUEL LINES, ELECTRICAL CONDUIT, OR OTHER EQUIPMENT NOT SOLELY FUNCTIONING AS PART OF THE MANURE HANDLING OR TRANSFER SYSTEM MUST NOT BE DESIGNED OR CONSTRUCTED TO PENETRATE THE LINER OF THIS LIQUID MANURE STORAGE AREA.



BUILDING LAYOUT
SCALE: 1"=50'



VOLUME OF PROPOSED GESTATION PIT
9'-0" DEEP PIT
- 1'-3" FREEBOARD
2,256,000 GALLONS - 12 MONTH STORAGE

VOLUME OF PROPOSED FARROWING PIT
2'-0" DEEP PIT, TEMPORARY STORAGE, DRAINS INTO PROPOSED GESTATION BARN

ISG

KEY PLAN

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JASON E. HOEHN
6-21-21 LIC. NO. 40422

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE: 11-21-21

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PROJECT

PETERS FAMILY FARM, INC. SOW SITE

41529 ST. HIGHWAY 99
ST. PETER, MN 56082
NW 1/4 SECTION 32, T110N, R27W
OSHAWA W TWP., NICOLLET CO., MN

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT NO: 21-25103

FILE NAME: 2103111.DWG

DRAWN BY: JCH

DESIGNED BY: JCH

REVIEWED BY: JCH

SCALE DATE: 4/21/21

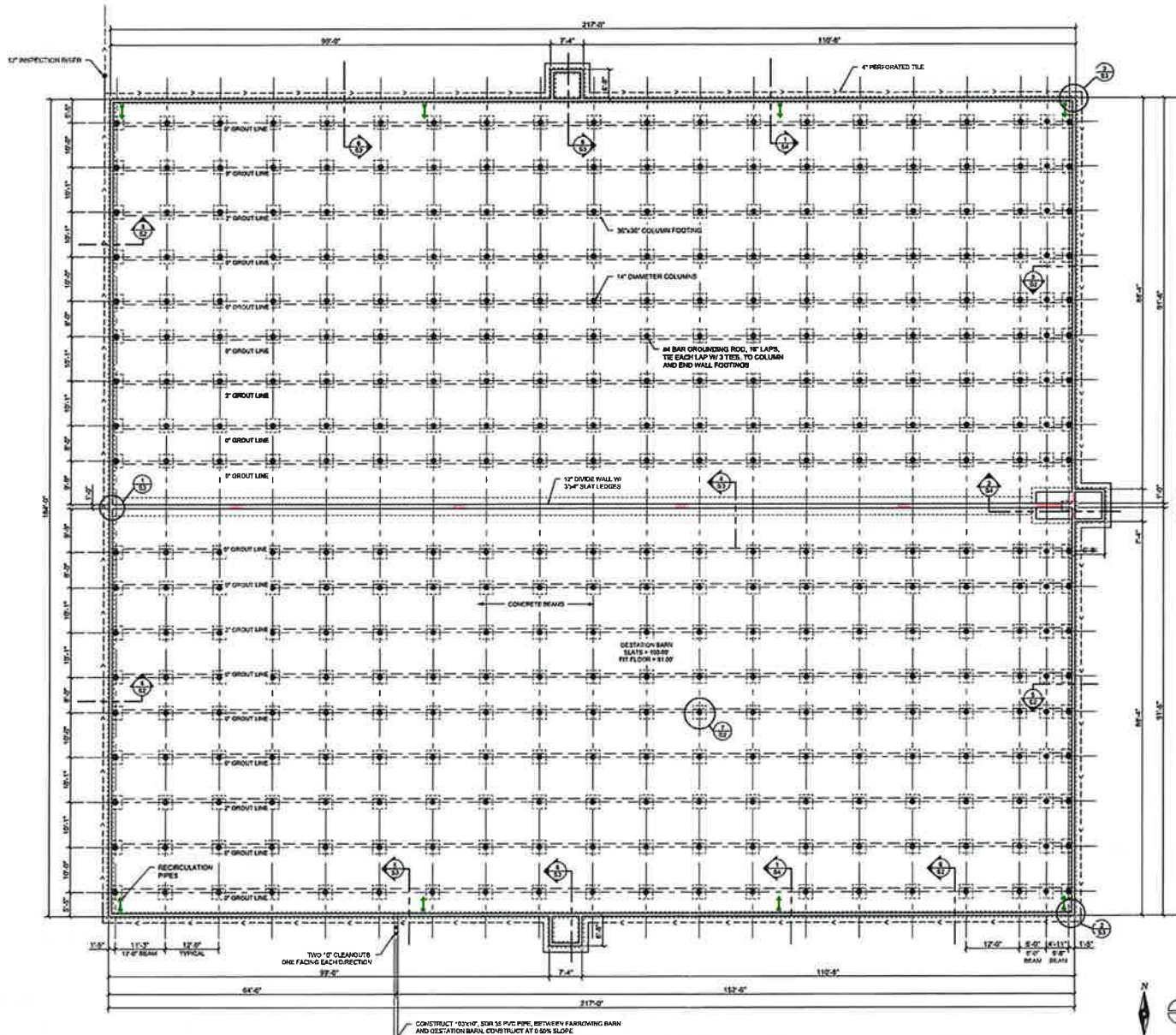
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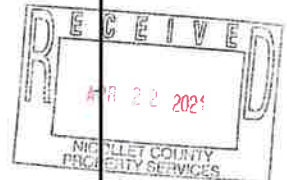
SPECIFICATIONS

SHEET

T2



1
S1
PIT PLAN
SCALE 3/32" = 1'-0"



KEY PLAN
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JASON E. HORN
Jason E. Horn
4-21-21 LIC. NO. 60432
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

CATE LIC. NO.
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PROJECT
PETERS FAMILY FARM, INC. SOW SITE

41125 ST. HIGHWAY 99
ST. PETER, MN 56082
NW 1/4 SECTION 32, T110N, R27W
OSHAWA W TWP., NICOLLET CO., MN

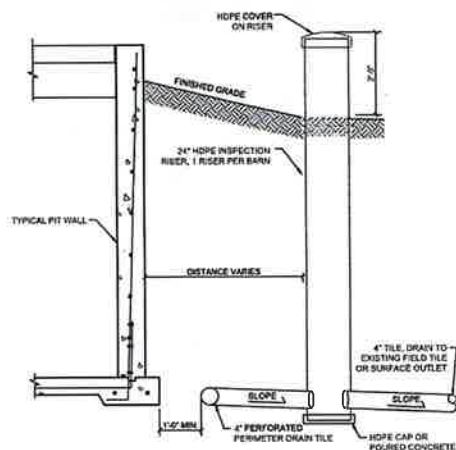
NO.	DATE	REVISIONS SCHEDULE	DESCRIPTION

PROJECT NO.	21-25103
FILE NAME	25103 E1.03
DRAWN BY	MOH
DESIGNED BY	MOH
REVIEWED BY	JEH
DATE	4-21-21
CLIENT PROJECT NO.	

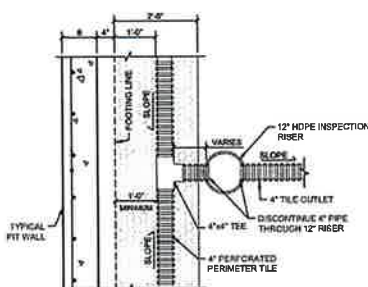
TITLE
GESTATION BARN FOOTINGS AND FOUNDATION PLAN

SHEET
S1

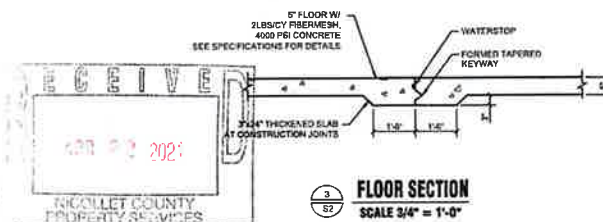
ISG



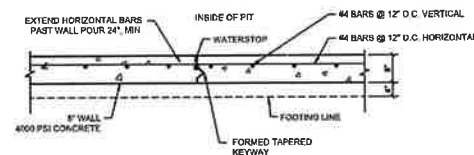
INSPECTION RISER DETAIL - SECTION VIEW
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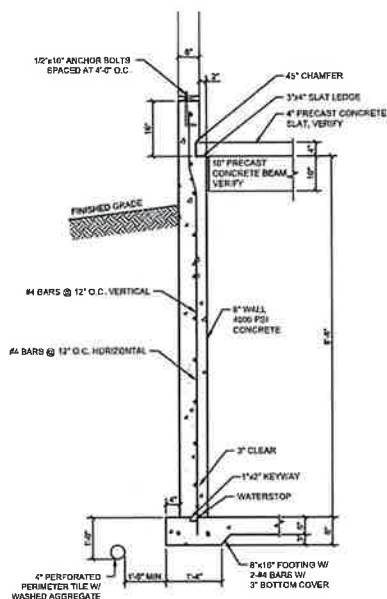
INSPECTION RISER DETAIL - PLAN VIEW
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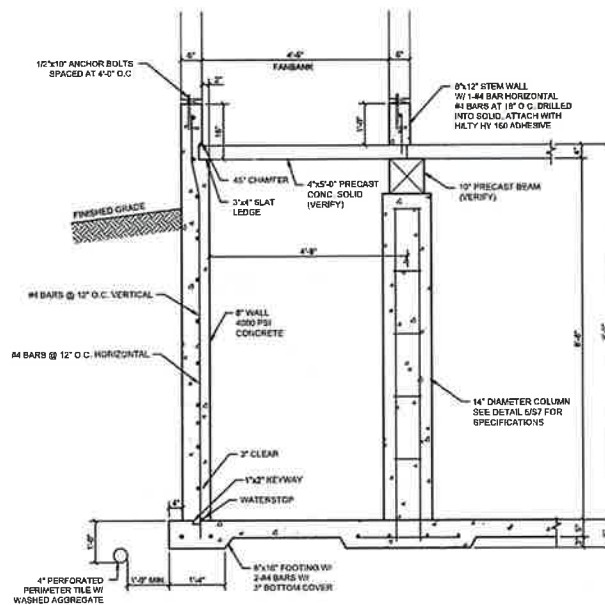
FLOOR SECTION
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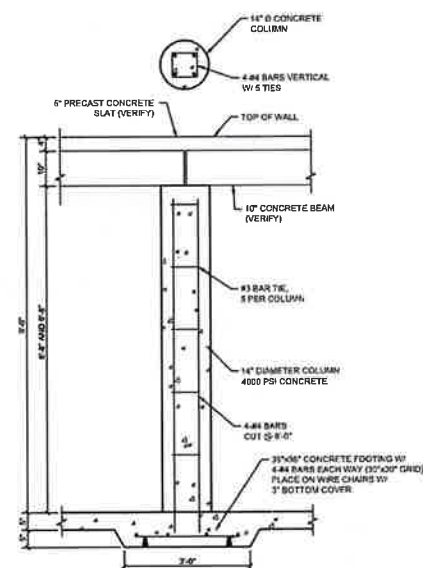
WALL CONSTRUCTION JOINT DETAIL
SCALE 3/4" = 1'-0"



ENDWALL DETAIL
SCALE 3/4" = 1'-0"



SIDEWALL DETAIL
SCALE 3/4" = 1'-0"



COLUMN DETAIL
SCALE 3/4" = 1'-0"

KEY PLAN

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JASON E. HODGMAN
J.E.H.
5.21.21 LIC. NO. 40422

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DATE: 5.21.21 LIC. NO. 40422

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PROJECT

PETERS FAMILY FARM, INC. SOW SITE

41129 ST. HIGHWAY 59
ST. PETER, MN 56052
NW 1/4 SECTION 32, T110N, R27W
OSHAWA TWP., NICOLLET CO., MN

NO.	DATE	REVISION	DESCRIPTION

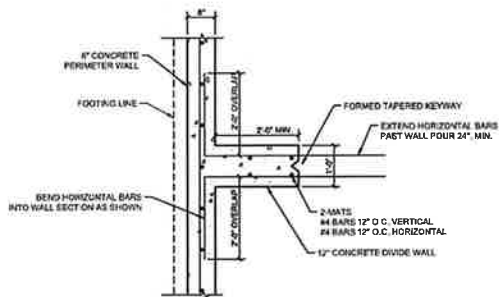
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FILE NAME	21055 51-54
DRAWN BY	MDH
DESIGNED BY	MDH
REVIEWED BY	JEH
ISSUE DATE	4-21-21
CLIENT PROJECT NO.	

TITLE

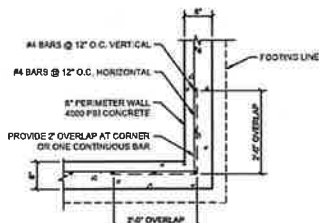
GESTATION BARN DETAILS

SHEET

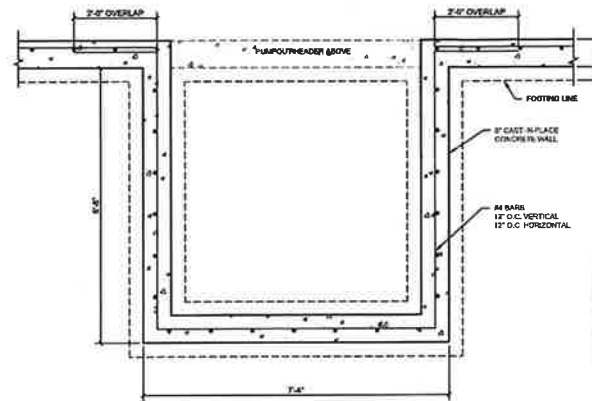
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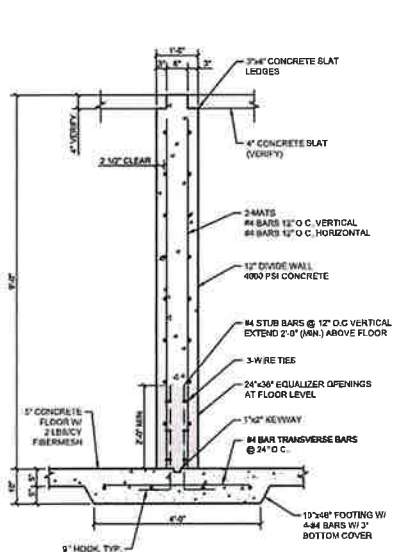
12" DIVIDE WALL DETAIL
SCALE 3/4" = 1'-0"



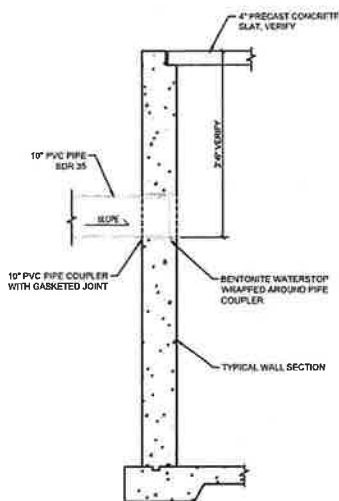
CORNER DETAIL
SCALE 3/4" = 1'-0"



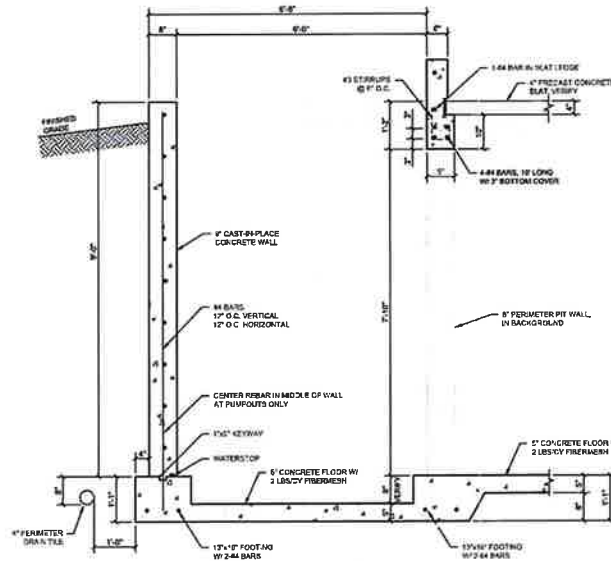
PUMPOUT DETAIL
SCALE 3/4" = 1'-0"



12" DIVIDE WALL SECTION
SCALE 3/4" = 1'-0"

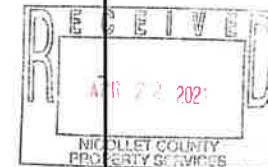


PIPE INLET SECTION THROUGH WALL
SCALE 3/4" = 1'-0"



PUMPOUT DETAIL
SCALE 3/4" = 1'-0"

ISG



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JASON E. HOENIG
Jason E. Hoening
6.21.21 UC NO. 40422
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DATE: UC NO:
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PROJECT
PETERS FAMILY FARM, INC. SOW SITE

41129 ST. HIGHWAY 89
ST. PETER, MN 56082
NW 1/4 SECTION 32, T110N, R27W
OSHAWA W TWP., NICOLLET CO., MN

REVISION SCHEDULE		
NO.	DATE	DESCRIPTION

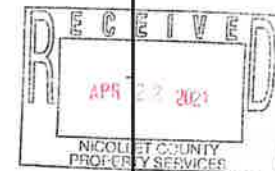
PROJECT NO. 21-25103
DATE: 7/12/21
DRAWN BY: JKH
CHECKED BY: JKH
REVIEWED BY: JKH
DATE: 6.21.21
CLIENT PROJECT NO.

TITLE
GESTATION BARN DETAILS

SHEET

S3

ISG



KEY PLAN
I HEREBY CERTIFY THAT THIS PLAN SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
JASON E. HOEHN
Jason E. HoeHN
4-21-21 LIC NO. 45622
I HEREBY CERTIFY THAT THIS PLAN SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE: 4-21-21 LIC NO:
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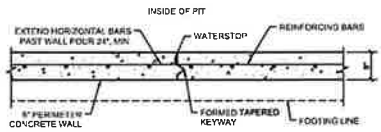
PROJECT
PETERS FAMILY FARM, INC. SOW SITE
41128 ST. HIGHWAY 99
ST. PETER, MN 56002
NW 1/4 SECTION 32, T110N, R27W
OSHAWA W TWP., NICOLLET CO., MN

NO.	DATE	DESCRIPTION

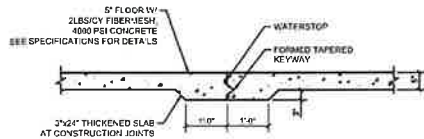
PROJECT NO: 21-05100
FILE NAME: 21-05100.dwg
DRAWN BY: JCH
CHECKED BY: JCH
REVIEWED BY: JCH
ISSUE DATE: 4-21-21
CLIENT PROJECT NO:

TITLE
FARROWING BARN FOOTINGS & FOUNDATION PLAN

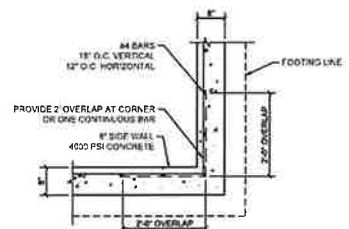
SHEET
S5



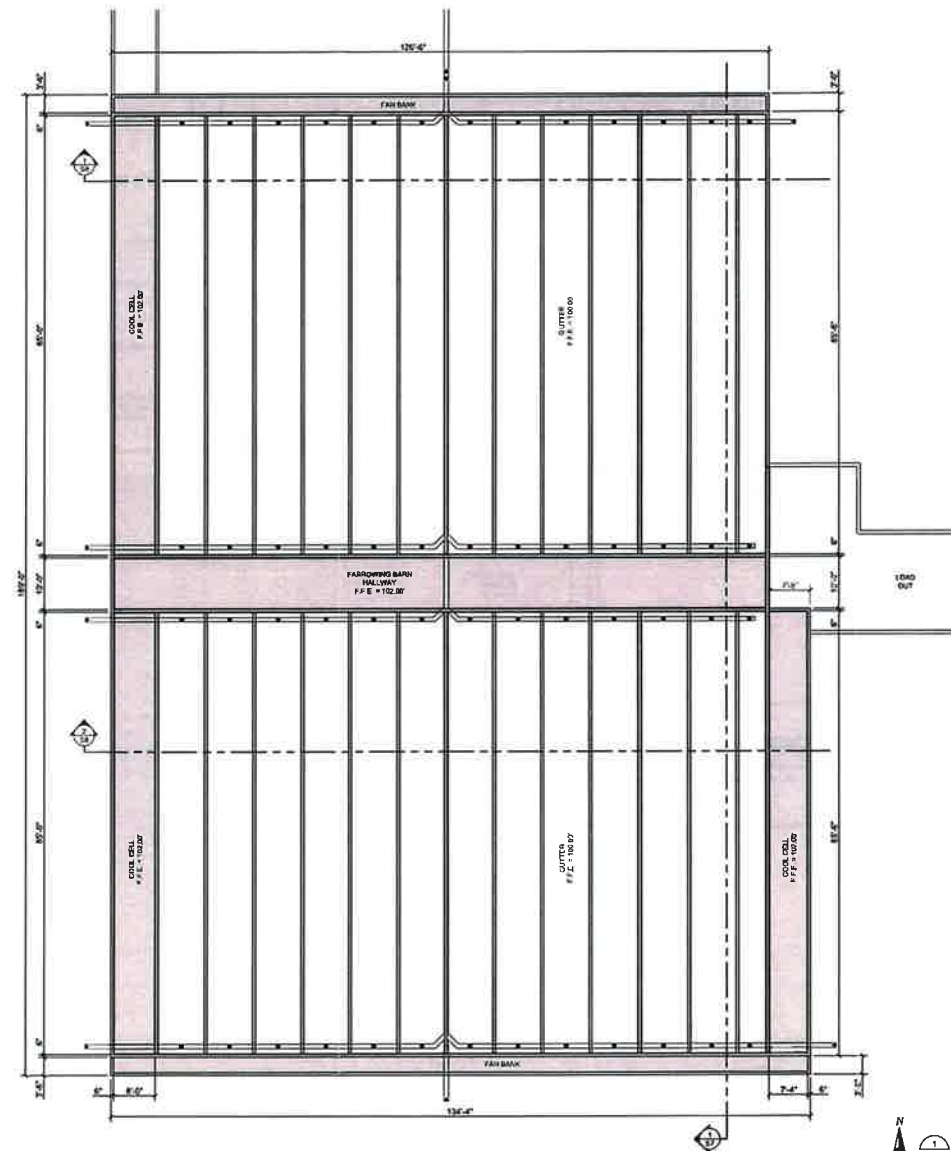
2 WALL CONSTRUCTION JOINT DETAIL
SCALE 3/4" = 1'-0"



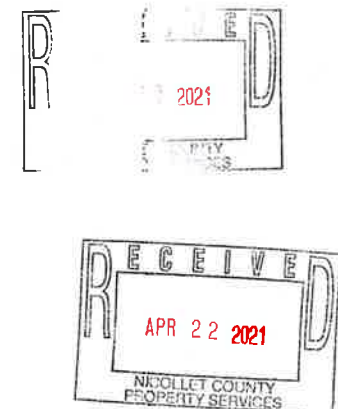
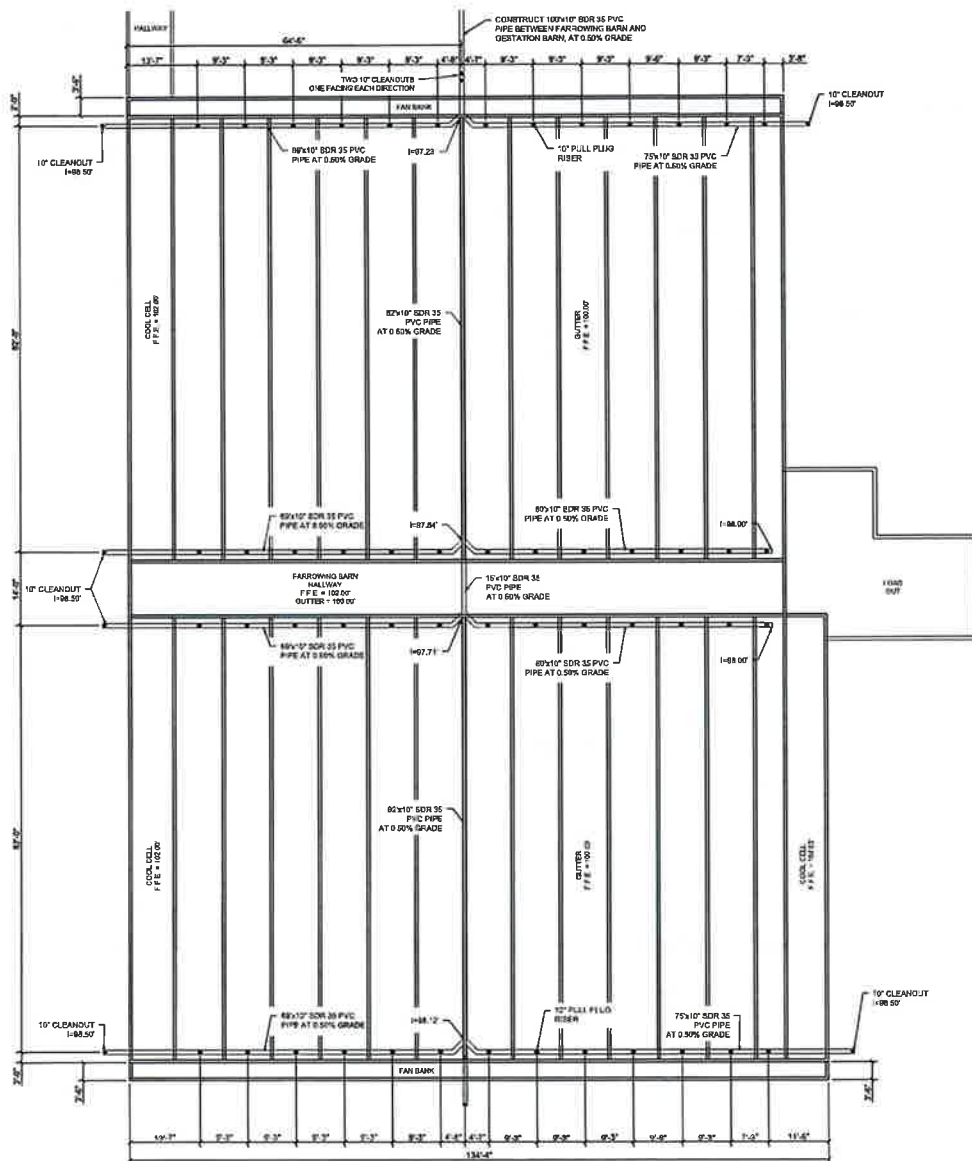
3 FLOOR SECTION
SCALE 3/4" = 1'-0"



4 CORNER DETAIL
SCALE 3/4" = 1'-0"



1 PIT PLAN
SCALE 3/32" = 1'-0"



PIT PLAN - PULL PLUG LAYOUT
SCALE 3/32" = 1'-0"

ISG

KEY PLAN

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Jason E. Hoshin
JASON E. HOSHIN
4-21-21 LIC. NO. 40422

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DATE: 4-21-21 LIC. NO.

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PROJECT

PETERS FAMILY FARM, INC. SOW SITE

41129 ST. HIGHWAY 99
ST. PETER, MN 56082
NW 1/4 SECTION 32, T110N, R27W
OSHAWA W TWP., NICOLLET CO., MN

REV.	DATE	DESCRIPTION

PROJECT NO. 21-25103

FILE NAME 2103.21-99

DRAWN BY MDH

CHECKED BY MDH

REVIEWED BY JPH

ISSUE DATE 4-21-21

CLIENT PROJECT NO.

TITLE

FARROWING BARN PULL PLUG LAYOUT

PROJECT

S6

ISG

KEY PLAN

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

JASON E. HOERN
Jason E. Hoern
 DATE: 6-21-21 LIC. NO.: 60422

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE: 6-21-21

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PROJECT

**PETERS FAMILY
 FARM, INC.
 SOW SITE**

41129 ST. HIGHWAY 59
 ST. PETER, MN 56082
 NW 1/4 SECTION 32, T110N, R27W
 OSHANNA TWP., NICOLLET CO., MN

NO.	DATE	REVISION/DESCRIPTION

PROJECT NO: 21-25103
 FILE NAME: 21101 01.05
 DRAWN BY: MCH
 CHECKED BY: MCH
 DESIGNED BY: JEH
 ISSUE DATE: 6-21-21
 CLIENT PROJECT NO:

TITLE

**FARROWING BARN
 DETAILS**

SHEET

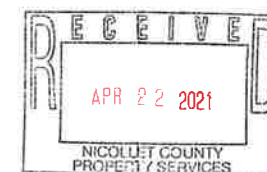
S8

BUILDING SECTION
 SCALE 3/16" = 1'-0"

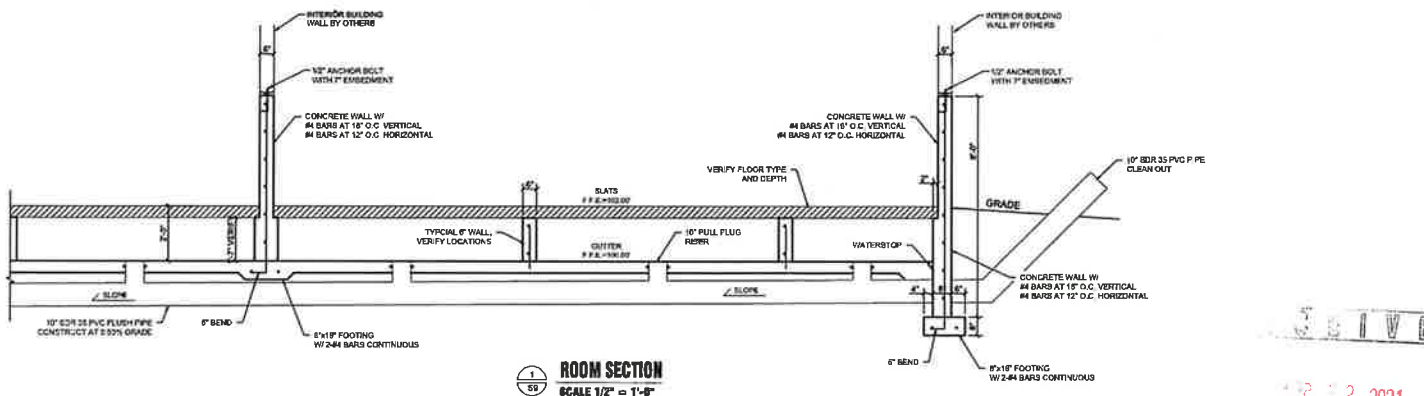
BUILDING SECTION
 SCALE 3/16" = 1'-0"

COOL CELL SECTION
 SCALE 3/4" = 1'-0"

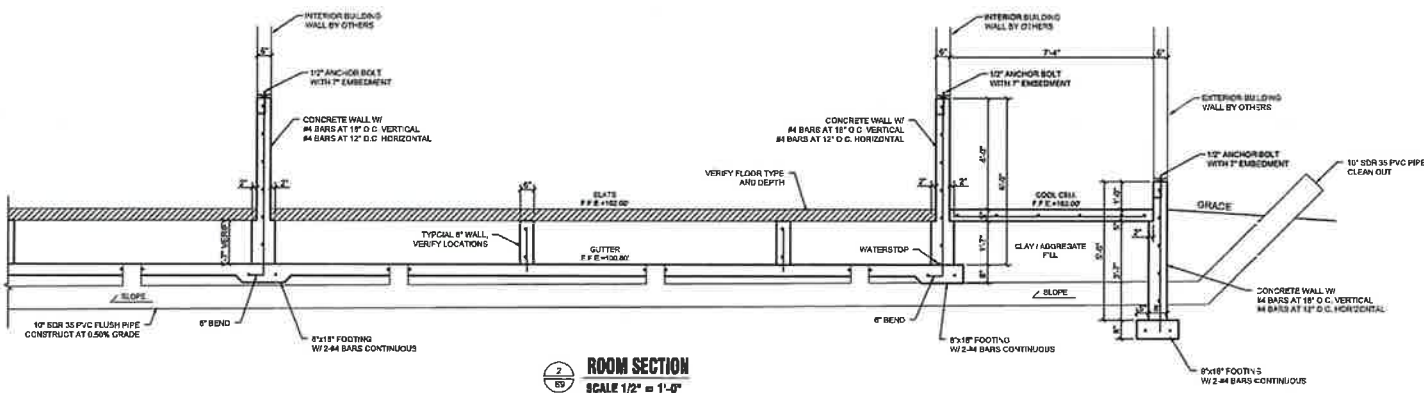
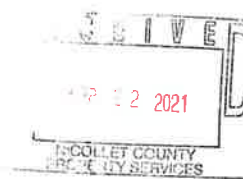
TYPICAL WALL SECTION
 SCALE 3/4" = 1'-0"



ISG



ROOM SECTION
SCALE 1/2" = 1'-0"



ROOM SECTION
SCALE 1/2" = 1'-0"

KEY PLAN

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

JASON E. HOERN
JASON E. HOERN
4-21-21 LIC. NO. 60422

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE: LIC. NO.

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PROJECT

**PETERS FAMILY
FARM, INC.
SOW SITE**

41129 ST. HIGHWAY 88
ST. PETER, MN 56082
NW 1/4 SECTION 32, T110N, R27W
OSHAWA W TWP, NICOLLET CO., MN

NO.	DATE	REVISIONS	DESCRIPTION

PROJECT NO. 21-25103
FILE NAME: 21-25103
CITY: NDH
DESIGNED BY: NDH
REVIEWED BY: JEH
ISSUE DATE: 4-21-21
CLIENT PROJECT NO.

TITLE

**FARROWING BARN
DETAILS**

PROJECT

S9



Permit Report - April 2021

RECORD ID	RECORD TYPE	DESCRIPTION	ADDRESS	OWNER NAME
BLD21-00050	SSTS Permit	Replacement septic system for a 5 bedroom house. New Septic Tank, New Pump Tank and Alteration to existing mound redoing the rock bed and expanding the system to 5 bedrooms	47302 391ST LN ST PETER, MN 56082	LARSON JEREMY & JANEL LARSON
BLD21-00051	Structure Permit	Construct a grain bin. Contractor is Whitcomb Brothers. Capacity is 60,000. Diameter is 48'.	43338 470TH ST NICOLLET, MN 56074	RUDENICK JORDAN RONALD
BLD21-00052	SSTS Compliance Inspection	Compliance inspection from property transfer. Connected to field tile	58628 350TH ST LAFAYETTE, MN 56054	MESSERLI STEVEN J & SAMANTHA JO MESSERLI
BLD21-00053	Structure Permit	Construct a replacement 5-bedroom single family dwelling (1,701 sf) with a basement, porch (162 sf), and attached garage (1,320 sf). Original dwelling destroyed by fire. Total footprint is 3,183 sf. Septic design submitted. Contractor is Krohn Construction, license number BC721903.	47302 391ST LN ST PETER, MN 56082	LARSON JEREMY & JANEL LARSON
BLD21-00054	Structure Permit	Construct a 54' x 160' (8,640 sf) cattle barn. Total AU is 291. (AU < 300, no conditional use permit required.) Contractor is Agri-Engineering Buildings.	37007 641ST AVE GIBBON, MN 55335	FORST GLENN & JACQUELYN FORST
BLD21-00055	SSTS Compliance Inspection	Compliance inspection for property transfer	63053 FORT RD NEW ULM, MN 56073	BRUNNER ARLINE M
BLD21-00056	SSTS Compliance Inspection	Compliance inspection for property transfer	50032 OLD RIVER BLUFF RD N MANKATO, MN 56003	SABA BARBARA JEAN
BLD21-00057	Structure Permit	Construct 24' x 40' (960 sf) a replacement shed with a 14' x 32' (448 sf) lean-to. Total footprint of 1,408 sf. Will have electrical. No plumbing. No insulation. Using existing cement pad. Contractor is Merlin Benson BC002941.	53253 430TH ST COURTLAND, MN 56021	BENSON ERIC W & LINDSAY K BENSON
BLD21-00058	SSTS Compliance Inspection	System abandoned - connected to city	589 FOREST HEIGHTS DR N MANKATO, MN 56003	FRYDENDALL MERRILL J & KAREN L FRYDENDALL
BLD21-00059	SSTS Permit	Replacement septic system. New Soil Treatment Area and New Tanks for a 4 bedroom house. Interior remodel to move laundry to main floor making 1 bedroom on the main and 3 upstairs.	48552 471ST AVE NICOLLET, MN 56074	KETTNER LYLE
BLD21-00060	Structure Permit	Construct a 48' x 52' (2,496 sf) shop and a 54' x 72' (3,888 sf) storage shed. Total footprint of 6,384 sf. Shop will be heated with concrete floor. Storage portion to be cold storage with gravel floor. 16' walls. Cleary Building Corp. #Z0076522	58104 392ND LN NEW ULM, MN 56073	BERANEK CRAIG W & SHARI LUCILLE BERANEK
BLD21-00061	SSTS Permit	Replacement septic system for a 5 bedroom house. New septic tank, new pump tank, rebuilt 3 bedroom sized mound controlled for flow with a time dose panel. Max flow per day of 315 gallons per day.	42111 KERNS DR N MANKATO, MN 56003	DALLUGE TIMOTHY J & ELIZABETH JEAN DALLUGE
BLD21-00062	SSTS Compliance Inspection	Compliance inspection 2013 system - Compliant	51133 405TH AVE N MANKATO, MN 56003	HERRLEY JOHN M & LEANN M HERRLEY
BLD21-00063	SSTS Compliance Inspection	Compliance inspection for deck permit in shoreland	42433 KERNS DR N MANKATO, MN 56003	SCHUMANN MATT & JENNA SCHUMANN
BLD21-00064	SSTS Permit	Replacement system for a 4 bedroom house. Remodeling plans received. New Septic tank and New Pump Tank. New Mound drainfield soil treatment area	45996 350TH ST GAYLORD, MN 55334	RODNING ELNA J
BLD21-00065	Structure Permit	Construct a 20' x 20' (400 sf) deck to the east side of the dwelling. Compliance inspection submitted.	50044 COUNTY ROAD 15 NICOLLET, MN 56074	GIESEKE JEFFREY
BLD21-00066	SSTS Permit	Cluster system for two houses:40750 441st and 40754 441st, and a shop bathroom. Combined 7 bedrooms. New 2000 gallon septic tank and new 1000 pump tank. Time dose a 600 gpd mound design soil treatment area.	40750 441ST AVE NICOLLET, MN 56074	COMPART DEAN M
BLD21-00066	SSTS Permit	Cluster system for two houses:40750 441st and 40754 441st, and a shop bathroom. Combined 7 bedrooms. New 2000 gallon septic tank and new 1000 pump tank. Time dose a 600 gpd mound design soil treatment area.	40750 441ST AVE NICOLLET, MN 56074	COMPARTS BOAR STORE INC
BLD21-00066	SSTS Permit	Cluster system for two houses:40750 441st and 40754 441st, and a shop bathroom. Combined 7 bedrooms. New 2000 gallon septic tank and new 1000 pump tank. Time dose a 600 gpd mound design soil treatment area.	40750 441ST AVE NICOLLET, MN 56074	COMPART DEAN M
BLD21-00066	SSTS Permit	Cluster system for two houses:40750 441st and 40754 441st, and a shop bathroom. Combined 7 bedrooms. New 2000 gallon septic tank and new 1000 pump tank. Time dose a 600 gpd mound design soil treatment area.	40750 441ST AVE NICOLLET, MN 56074	COMPARTS BOAR STORE INC
BLD21-00066	SSTS Permit	Cluster system for two houses:40750 441st and 40754 441st, and a shop bathroom. Combined 7 bedrooms. New 2000 gallon septic tank and new 1000 pump tank. Time dose a 600 gpd mound design soil treatment area.	40754 441ST AVE NICOLLET, MN 56074	COMPART DEAN M
BLD21-00066	SSTS Permit	Cluster system for two houses:40750 441st and 40754 441st, and a shop bathroom. Combined 7 bedrooms. New 2000 gallon septic tank and new 1000 pump tank. Time dose a 600 gpd mound design soil treatment area.	40754 441ST AVE NICOLLET, MN 56074	COMPARTS BOAR STORE INC
BLD21-00066	SSTS Permit	Cluster system for two houses:40750 441st and 40754 441st, and a shop bathroom. Combined 7 bedrooms. New 2000 gallon septic tank and new 1000 pump tank. Time dose a 600 gpd mound design soil treatment area.	40754 441ST AVE NICOLLET, MN 56074	COMPART DEAN M

BLD21-00066	SSTS Permit	Cluster system for two houses:40750 441st and 40754 441st,and a shop bathroom. Combined 7 bedrooms. New 2000 gallon septic tank and new 1000 pump tank. Time dose a 600 gpd mound design soil treatment area.	40754 441ST AVE NICOLLET, MN 56074	COMPARTS BOAR STORE INC
BLD21-00067	SSTS Permit	Replacement septic system for a 3 bedroom house. New Septic Tank New Pump tank and a new mound soil treatment area with 2 feet of sand.	45344 400TH ST NICOLLET, MN 56074	COMPARTS BOAR STORE INC
BLD21-00068	Structure Permit	Construct a 54' x 80' (4,320 sf) storage shed. Gravel floor, not insulated. Will have electrical and water service. Contractors are Wench Construction and Puhlman Lumber. Floodplain elevation determined and flagged by Bolton and Menk. Structure to be constructed above floodplain elevation of 823.75 feet. See attached survey.	72055 COUNTY RD 21 FAIRFAX, MN 55332	MERKEL DANIEL R & ANDREA MERKEL
BLD21-00069	Structure Permit	Construct a replacement deck. New deck will have a total footprint of 682 sf. Includes an 16' x 18' upper deck portion and a 12' x 32' lower deck portion. To be built by applicant. Bluff setback verified by staff. Compliance inspection for Shoreland submitted.	42433 KERNS DR N MANKATO, MN 56003	SCHUMANN MATT & JENNA SCHUMANN
BLD21-00070	Renewable Energy Permit	Construct a large, one-megawatt solar energy system on up to eight acres of land. See PLN19-17 for details. Construction cost estimated at \$2,000,000.	0	RENGSTORF UNTERNEHMEN LLC
BLD21-00071	SSTS Permit	Septic holding tank for new office/control room bathroom. Pumping contract with Searies Well Drilling	47947 370TH ST NICOLLET, MN 56074	GIESEKE ROBBY B
BLD21-00072	SSTS Permit	Holding tank for replacement hunting shack.	43439 507TH LN NEW ULM, MN 56073	NELSON POINT WILDLIFE ASSOCIATION INC
BLD21-00074	Structure Permit	Construct an 24' x 40' (960 sf) office and two grain bins. Bins will have a diameter of 21' and a capacity of 14,000 bu. Contractor is UFC.	0	GIESEKE ROBBY B
BLD21-00075	SSTS Compliance Inspection	Compliance inspection for zoning permit. 4 bedroom house.	50044 COUNTY ROAD 15 NICOLLET, MN 56074	GIESEKE JEFFREY
BLD21-00076	SSTS Permit	Replacement septic system for a 3 bedroom house.	36821 COUNTY ROAD 20 ST PETER, MN 56082	WILLAERT RICHARD H & LINDA L
BLD21-00077	Structure Permit	Construct a grain bin on property. Diameter of 30 feet. 16,800 bu capacity. Contractor is Fairfax Ag.	51846 COUNTY ROAD 21 COURTLAND, MN 56021	ZIMMERMAN DALE & DAVID & LANCE ZIMMERMAN
BLD21-00078	Structure Permit	Essential services. Construct a substation on up to two acres of land. See PLN21-08 for details.	0	OLSEN LAVONNE
BLD21-00079	SSTS Compliance Inspection	Compliance Inspection for Zoning Permit	38310 490TH ST ST PETER, MN 56082	CULLEN DEAN R & LORI D CULLEN
BLD21-00081	SSTS Compliance Inspection	Compliance Inspection for house addition. 2 offices and a family room. Not designed as bedrooms	45646 COUNTY ROAD 13 ST PETER, MN 56082	KENNEDY CULLEN & AMANDA KENNEDY
BLD21-00082	Structure Permit	Construct a 40' x 60' (2,400 sf) storage shed. Concrete floor. Insulated. Will have electrical and plumbing. Contractor is Les Wendinger.	51961 COUNTY ROAD 15 NEW ULM, MN 56073	HAAS JEFF M
BLD21-00083	Structure Permit	Construct a 957 sf home addition. Addition to include two offices, a living room, and a bathroom. Compliance inspection submitted. Contractor is Mankato Family Homes, BC751775.	45646 COUNTY ROAD 13 ST PETER, MN 56082	KENNEDY CULLEN & AMANDA KENNEDY
BLD21-00084	Structure Permit	Construct a 16' x 38' addition to dwelling. Main floor addition to include three bedrooms and a bathroom. Basement floor addition to be a recreational room. Contractor is Messner Builders. BC224496.	45996 350TH ST GAYLORD, MN 55334	RODNING ELNA J
BLD21-00085	SSTS Permit	Septic system of a new house on a new parcel	34161 425th AVE LeSueur, MN 56058	BRANDT BRIAN J
BLD21-00086	SSTS Compliance Inspection	Compliance inspection for Property Transfer	56936 BROOKVIEW LN NEW ULM, MN 56073	WENDINGER MARVIN E
FDL21-00001	Feedlot Construction	Glenn Forst - Expand feedlot numbers from 176.3 au to 291 au with the construction of a 54' x 160' cattle barn.	37007 641ST AVE GIBBON, MN 55335	FORST GLENN & JACQUELYN FORST
FDL21-00002	Feedlot Construction	Dairy feedlot construction. 64' x 92' total confinement barn and 150' x 300' x 18' earthen basin. No increase in animal units.	45612 380TH ST NICOLLET, MN 56074	SWENSON PAUL H & CYNTHIA L SWENSON