

# Part 2 – Technical Requirements



Application under the *Agricultural Operation Practices Act* for a confined feeding operation, manure collection area, and/or manure storage facility(ies)

<b>NRCB USE ONLY</b>	Application number <b>RA25028</b>	Legal land description <b>NW 3-43-26 W4M</b>
<input checked="" type="checkbox"/> Approval <input type="checkbox"/> Registration <input type="checkbox"/> Authorization <input type="checkbox"/> Amendment		

## APPLICATION DISCLOSURE

This information is collected under the authority of the *Agricultural Operation Practices Act (AOPA)*, and is subject to the provisions of the *Freedom of Information and Protection of Privacy Act*. This information is public unless the NRCB grants a written request that certain sections remain private.

**Any construction prior to obtaining an NRCB permit is an offence and is subject to enforcement action, including prosecution.**

I, the applicant, or applicant's agent, have read and understand the statements above, and I acknowledge that the information provided in this application is true to the best of my knowledge.

Cor Haagsma

Cor Haagsma

Digitally signed by Cor Haagsma  
Date: 2025.03.29 09:23:56 -06'00'

Date of signing

Signature

March 28, 2025

Cor Haagsma

Corporate name (if applicable)

Print name

## GENERAL INFORMATION REQUIREMENTS

<b>Proposed facilities:</b> list all proposed confined feeding operation facilities and their dimensions. Indicate whether any of the proposed facilities are additions to existing facilities. (attach additional pages if needed)	
Proposed facilities	Dimensions (m) (length, width, and depth)
East barn with centre manure pit.	104.9 x 36.6
Connector between east and west barn	7.3 x 6.1 x 1.2m

<b>Existing facilities:</b> list ALL existing confined feeding operation facilities and their dimensions		
Existing facilities	Dimensions (m) (length, width, and depth)	NRCB USE ONLY
T- shaped dairy barn, including liquid manure pits	104.9 x 33.5 and 51.6 x 23.8	
Young stock facility with concrete floor, including manure	85 x 15.25	
Calfbarn	29.9 x 21.4	
<b>NRCB USE ONLY</b>		

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Existing facilities continued	Dimensions (m) (length, width, and depth)	NRCB USE ONLY
Solid manure storage building	42.7 x 15.25	
Deep liquid manure storage facility	100 x 75 x 5	
Solid Manure Storage	33.5 x 48.8	

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If a new facility is replacing an old facility, please explain what will happen to the old facility and when.  N/A

Construction completion date for proposed facilities December 2025

**Additional information**

Find attached the floor plan for the east barn.

**Livestock numbers:** Complete only if livestock numbers are different from what was identified in the Part 1 application. Note: if livestock numbers increase in your Part 2 application, a new Part 1 application must be submitted which may result in a loss of priority for minimum distance separation (MDS).

Livestock category and type (Available in the Schedule 2 of the Part 2 Matters Regulation)	Permitted number	Proposed increase or decrease in number (if applicable)	Total
Lactating cows plus all associated dries, heif	400	225	625

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**DECLARATION AND ACKNOWLEDGMENT OF APPLICANT CONCERNING WATER ACT LICENCE**  
 issued by Alberta Environment and Protected Areas (EPA) for a confined feeding operation (CFO)  
*Date and sign one of the following four options*

**OPTION 1: Applying through the NRCB for both the AOPA permit and the Water Act licence**

I **DO** want my water licence application coupled to my AOPA permit application.

Signed this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
*Signature of Applicant or Agent*

**OPTION 2: Processing the AOPA permit and Water Act licence separately**

1. I (we) acknowledge that the CFO will need a new water licence from EPA under the *Water Act* for the development or activity proposed in this AOPA application.
2. I (we) request that the NRCB process the AOPA application **independently** of EPA’s processing of the CFO’s application for a water licence.
3. In making this request, I (we) recognize that, if this AOPA application is granted by the NRCB, the NRCB’s decision will not be considered by EPA as improving or enhancing the CFO’s eligibility for a water licence under the *Water Act*.
4. I (we) acknowledge that any construction or actions to populate the CFO with livestock pursuant to an AOPA permit in the absence of a *Water Act* licence will **not** be relevant to EPA’s consideration of whether to grant the *Water Act* licence application.
5. I (we) acknowledge that any such construction or livestock populating will be at the CFO’s sole risk if the *Water Act* licence application is denied or if the operation of the CFO is otherwise deemed to be in violation of the *Water Act*. This risk includes being required to depopulate the CFO and/or to cease further construction, or to remove “works” or “undertakings” (as defined in the *Water Act*).
6. **AS RELEVANT:** I (we) acknowledge that the CFO is located in the South Saskatchewan River Basin and that, pursuant to the *Bow, Oldman and South Saskatchewan River Basin Water Allocation Order* [Alta. Reg. 171/2007], this basin is currently closed to new surface water allocations.
7. **Provide:** Water licence application number(s) 00349533-00-00

Signed this 28 day of March, 2025.

**Cor Haagsma**

Digitally signed by Cor Haagsma  
 Date: 2025.03.29 09:24:46 -06'00'

\_\_\_\_\_  
*Signature of Applicant or Agent*

**OPTION 3: Additional water licence not required**

1. I (we) declare that the CFO will not need a new licence from EPA under the *Water Act* for the development or activity proposed in this AOPA application.
2. **Provide:** Water license number(s) or water conveyance agreement details \_\_\_\_\_

Signed this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
*Signature of Applicant or Agent*

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### **OPTION 4: Uncertain if *Water Act* licence is needed; acknowledgement of risk (for existing CFOs only)**

1. At this time, I (we) do not know whether a new water licence is needed from EPA under the *Water Act* for the development or activity proposed in this AOPA application.
2. If a new *Water Act* licence is needed, I (we) request that the NRCB process the AOPA application **independently of** EPA's processing of the CFO's application for a water licence.
3. In making this request, I (we) recognize that, if this AOPA application is granted by the NRCB, the NRCB's decision will not be considered by EPA as improving or enhancing the CFO's eligibility for a water licence under the *Water Act*.
4. I (we) acknowledge that any construction or actions to populate the CFO with additional livestock pursuant to an AOPA permit in the absence of a *Water Act* licence will **not** be relevant to EPA's consideration of whether to grant my *Water Act* licence application, if a new water licence is needed.
5. I (we) acknowledge that any such construction or livestock increase will be at the CFO's sole risk if the *Water Act* licence application is denied or if the operation of the CFO is otherwise deemed to be in violation of the *Water Act*. This risk includes being required to depopulate the CFO and/or to cease further construction, or to remove "works" or "undertakings" (as defined in the *Water Act*).
6. **AS RELEVANT:** I (we) acknowledge that the CFO is located in the South Saskatchewan River Basin and that, pursuant to the *Bow, Oldman and South Saskatchewan River Basin Water Allocation Order* [Alta. Reg. 171/2007], this basin is currently closed to new surface water allocations.
7. **Provide:** Water license number(s) or water conveyance agreement details \_\_\_\_\_

Signed this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
*Signature of Applicant or Agent*

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### GENERAL ENVIRONMENTAL INFORMATION

*(complete this section for the worst case of the existing facility which is the closest to water bodies or water wells and for each of the proposed facilities)*

Facility description / name *(as indicated on site plan)*

Existing: west barn Proposed 1: east barn

Proposed 2: \_\_\_\_\_ Proposed 3: \_\_\_\_\_

Facility and environmental risk information		Facilities				NRCB USE ONLY	
		Existing	Proposed 1	Proposed 2	Proposed 3	Meets requirements	Comments
Flood plain information	What is the elevation of the floor of the lowest manure storage or collection facility above the 1:25 year flood plain or the highest known flood level?	<input checked="" type="checkbox"/> >1 m	<input checked="" type="checkbox"/> >1 m	<input type="checkbox"/> >1 m	<input type="checkbox"/> > 1 m	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	
		<input type="checkbox"/> ≤ 1 m	<input type="checkbox"/> ≤ 1 m	<input type="checkbox"/> ≤ 1 m	<input type="checkbox"/> ≤ 1 m		
Surface water information	How many springs are within 100 m of the manure storage facility or manure collection area?	0	0			<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	
	How many water wells are within 100 m of the manure storage facility or manure collection area?	2	2				
	What is the shortest distance from the manure collection or storage facility to a surface water body? (e.g., lake, creek, slough, seasonal)	480	480				
Groundwater information	What is the depth to the water table?	7	7			<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	
	What is the depth to the groundwater resource/aquifer you draw water from?	82	82				

Additional information (attach supporting information, e.g. borehole logs, records, etc. you consider relevant to your application)

Attachment 3 and 4

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### DISTANCE OF ANY MANURE STORAGE FACILITY (EXISTING OR PROPOSED) TO NEIGHBOURING RESIDENCES

Neighbour name(s)	Legal land description	Distance (m)	NRCB USE ONLY				
			Zoning (LUB) category	MDS category (1-4)	Distance (m)	Waiver attached (if required)	Meets regulations
Churchill	SW10-43-26-W4	395					
Fenske	SW10-43-26-W4	461					
Anderson	SW10-43-26-W4	545					
Jones	NE4-34-26-W4	637					
Vleemng	NW3-43-26-W4	626					

### LAND BASE FOR MANURE AND COMPOST APPLICATION (complete only if an increase in livestock or manure production will occur)

Name of land owner(s)*	Legal land description	Usable area** (ha)	Soil zone ***	NRCB USE ONLY	
				Usable area (ha)	Agreement attached (if required)
Poly-C Farms Ltd	N1/2 3-43-26-W4	100	Black		
Poly-C Farms Ltd	SE10-43-26-W4	122	Black		
Poly-C Farms Ltd	W1/2 15-43-26-W4	90	Black		
Poly-C Farms Ltd	SW2-43-25-W4	54	Black		
Poly-C Farms Ltd	NE6-43-27-W4	51	Black		
Total					

\* If you are **not** the registered landowner, you must attach copies of land use agreements signed by all landowners.

\*\* Available manure spreading area (excluding setback areas from residences, common bodies of water, water wells, etc. as identified in Agdex 096-5 [Manure Spreading Regulations](#))

\*\*\* Brown, dark brown, black, grey wooded, or irrigated

**Additional information (attach any additional information as required)**

-Churchill and Fenske property are built after Poly-C Farms established the current MDS.

-Surveyor report included to show determined distances to Anderson. (attachment 5 and 6)

-Additional land base for manure spreading; All owned by C&C Haagsma, N1/2 16-43-26-W4 120 ha, SE9-43-26-W4 58 ha and NW32-43-26-W4 37 ha. All of these have black soil zone.

Last updated September 11, 2023

Figure 2 Detailed Site Layout Plan



N  
↑  
M03-43-26-W4  
Poly-C Farms Ltd



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## LIQUID MANURE COLLECTION AND/OR STORAGE: In-barn - Concrete liner

(complete a copy of this section for **EACH** proposed in-barn liquid manure storage facility with a concrete liner)

- Facility description / name (as indicated on site plan)
1. East barn liquid manure storage including connector.
  2. \_\_\_\_\_
  3. \_\_\_\_\_

Manure storage capacity (use one row in the table for **EACH** in-barn storage. Attach additional pages if you require more rows)

Pit  
Barn

	Length (m)	Width (m)	Total depth (m)	Depth below ground level (m)	<b>NRCB USE ONLY</b> Calculated storage capacity (m <sup>3</sup> )
1.	42.7	3.5	1.2	1.4	
2.	104.9	36.6			
3.					
TOTAL CAPACITY					

### Concrete liner details

Scrape alleys or unslatted portions of barn floors (if applicable)	Concrete thickness 13 cm		Method of sulphate protection Type 50 concrete		
	Concrete strength 35 mpa at 56 days		Concrete reinforcement size and spacing 10 mm rebar on 40 cm spacing		
In-barn manure pit floors	Concrete thickness 20 cm		Method of sulphate protection Type 50 concrete		
	Concrete strength 35 mpa at 56 days		Concrete reinforcement size and spacing 15 mm on 30 cm spacing		
In-barn manure pit walls	Concrete thickness 20 cm		Method of sulphate protection Type 50 concrete		
	Concrete strength 35 mpa at 56 days	Horizontal reinforcement size and spacing 15 mm rebar on 15 cm spacing	Vertical reinforcement size and spacing 15 mm rebar on 30 cm spacing		



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## LIQUID MANURE COLLECTION AND/OR STORAGE: In-barn - Concrete liner (cont.)

Describe how the joints at the junction of the pit walls, pit floors and any other joints will be sealed

Volclay waterstop will be used at junctions and any other joints

Describe sealing practices for piping, etc. that penetrates the liner

Volclay water stop will be used at junctions and any other joints.

Concrete requirements can be found in Technical Guideline Agdex 096-93

Guideline minimums:

Solid manure (wet): 30MPa (C)

Liquid manure: 32MPa (B)

Category A is required to be engineered

Method of sulphate protection:

Type 50 or Type 10 with fly ash or equivalent

### NRCB USE ONLY

Requirements met:  YES  NO

Condition required:  YES  NO

### Additional information

See attachment 9 for Manure Pit Detail.

### NRCB USE ONLY

Liquid manure storage volume calculator attached:  YES  NO

Depth to water table: \_\_\_\_\_

Requirements met:  YES  NO

Depth to uppermost groundwater resource: \_\_\_\_\_

Requirements met:  YES  NO

ERST completed:  see ERST page for details

### Concrete liner requirements

Leakage detection system required:  YES  NO If yes, please explain why

Attachment 5

**BEMOCO LAND SURVEYING LTD.**  
PROFESSIONAL LAND SURVEYORS

Our File: S-003-25

February 28<sup>th</sup>, 2025

Cor Haagsma  
Box 1, Site 3, RR#4  
Ponoka, Alberta, T4J 1R4

RE: N.W. ¼ Sec. 3, Twp 43, Rge 26, W4Mer  
And  
Lot 4, Block 1, Plan 052 2226  
Proximity of Feeding Operations to Residence

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Based upon our field measurements on January 14<sup>th</sup>, 2025 we have determined that the distance between the residence within Lot 4, Block 1, Plan 052 2226 and the closest barn corners within the N.W. ¼ Sec. 3, Twp 43, Rge 26, W4Mer is 545m (1788') and 594m (1949') respectively.

Enclosed is a sketch mark up of the survey measurements

Kind Regards



Kevin Vennard, A.L.S.

Bemoco Land Surveying Ltd.

Attachment 6



Figure 1 Area plan

NW 3-43-26-W4

Untitled project  
File View Add Tools Help

Slideshow

Search

- 1 Churchill 395 m
- 2 Fenske 461 m
- 3 Anderson 545 m
- 4 Jones 637 m
- 5 Vleeming 626 m

↑  
↑



Google 100% Data attribution 4/29/2023

300 m Camera: 3



P.O. Box 4248  
Ponoka, AB.  
T4J 1R6  
Telephone: 403-783-8229  
Facsimile: 403-783-5222

November 8, 2013

*Attachment 8*

NRCB  
#301 4920 51<sup>st</sup> Street  
Red Deer, AB  
T4N 6K8  
Attention: Francisco Echegaray, P.Ag  
Approval Officer

**Re: EMS Construction Inspection  
Authorization RA12058  
NW 3-43-26-W4M  
Poly-C Farms Ltd.**

Dear Francisco Echegaray,

In accordance with condition 1 of Authorization RA12058, Envirowest Engineering undertook an inspection and testing of the construction of the EMS located at NW1/4 3-43-26-W4M. Inspections and consultation with the construction contractor occurred during construction with final testing occurring on November 8, 2013. Some construction was yet to be completed at the time of inspection. The wall dividing the new portion of the EMS from the existing storage was yet to be removed and an additional lift was required on a portion of the floor.

The EMS was found to be 100 meters long and 75 meters wide. The overall depth is 5 meters. The above grade dykes were approximately 0.5 meters above grade. The topsoil was yet to be placed on the freeboard and dyke crest. The inside dyke wall slope is approximately 3:1. The storage capacity of the facility is in excess of the 9 months manure production required by the AOPA regulations.

A compacted clay liner was installed in the side walls and floor of the EMS. The liner depth was verified to be 1 meter thick. The liner material used was that tested as part of the original site assessment and the facility is located in the area proposed. Some of the liner material used was from the material excavated from the area. The remainder was from a borrow area to the east of the construction site. Other areas further east were investigated for potential liner material during construction of the facility. Material was located in the second borrow area however sufficient material was able to be removed from the original borrow site to complete the liner. Some mixing of liner material occurred during removal from the borrow area.

The recommended construction procedures were followed. There was some freezing of the liner material but compaction could still be achieved as the material was worked. Compaction was accomplished with a sheep foot roller. No groundwater was encountered during the construction of the EMS. The groundwater was more than 1 meter below the bottom of the EMS at the time of construction. Several wet sand pockets were encountered during construction of the liner. The pockets were removed and filled with compacted clay.

Compaction testing of the liner was undertaken for the EMS. Results of the testing are detailed below.

Test Location	Maximum Dry Density (kg/m <sup>3</sup> )	Optimum Moisture (%)	Tested Density (kg/m <sup>3</sup> )	Moisture Content (%)	% Compaction
North Wall Center	1760	19	2069.8	9.8	100+
South Wall East	1760	19	1868.6	5.9	100+
Floor Northeast	1760	19	1978.9	6.9	100+

The liner compaction meets the specified requirements. The moisture content was less than optimal. This was likely due to some mixing of liner material and weather conditions.

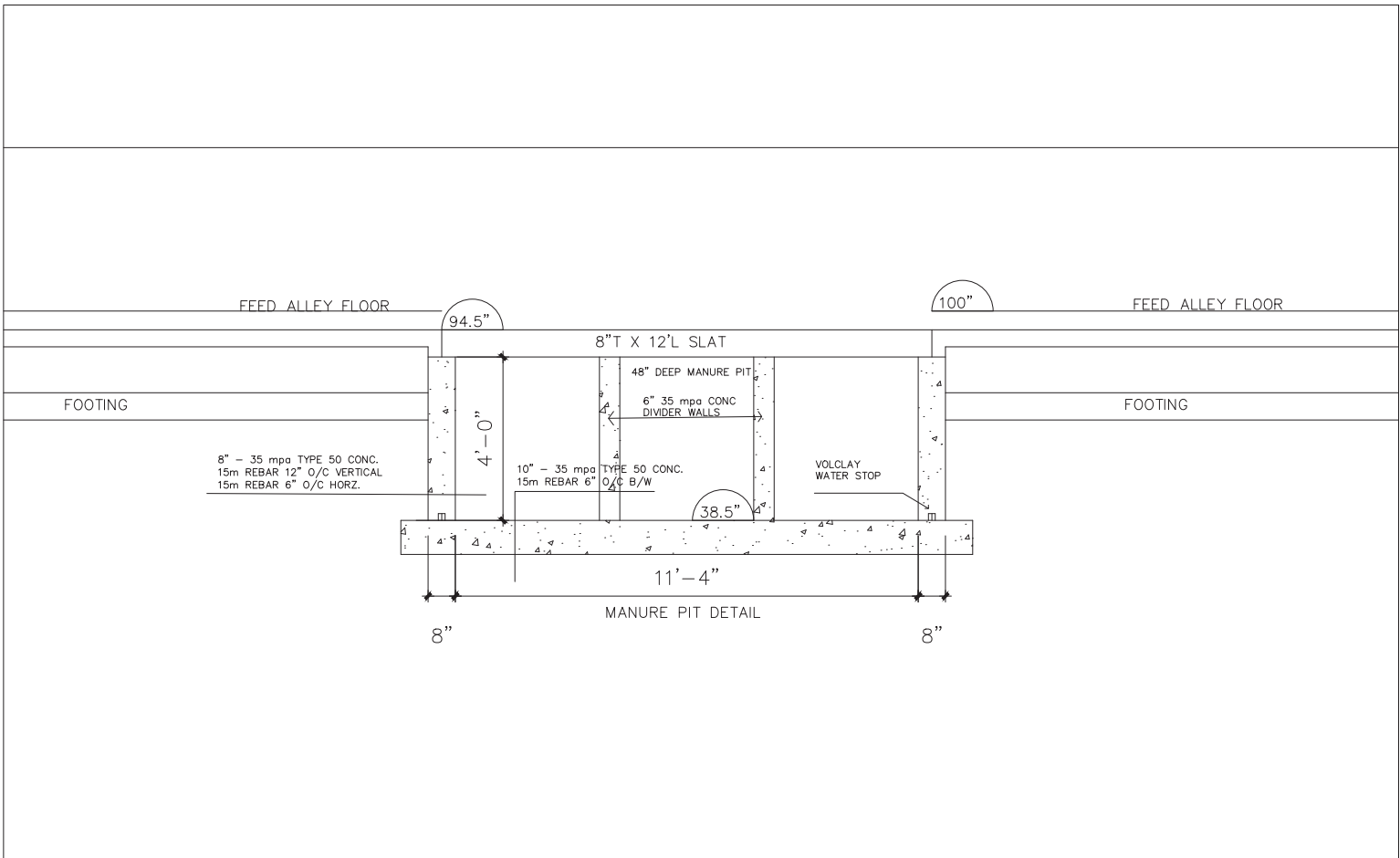
With this testing and report, condition 1 of the authorization is considered to be complete. No further action is considered necessary at this time.

Yours truly



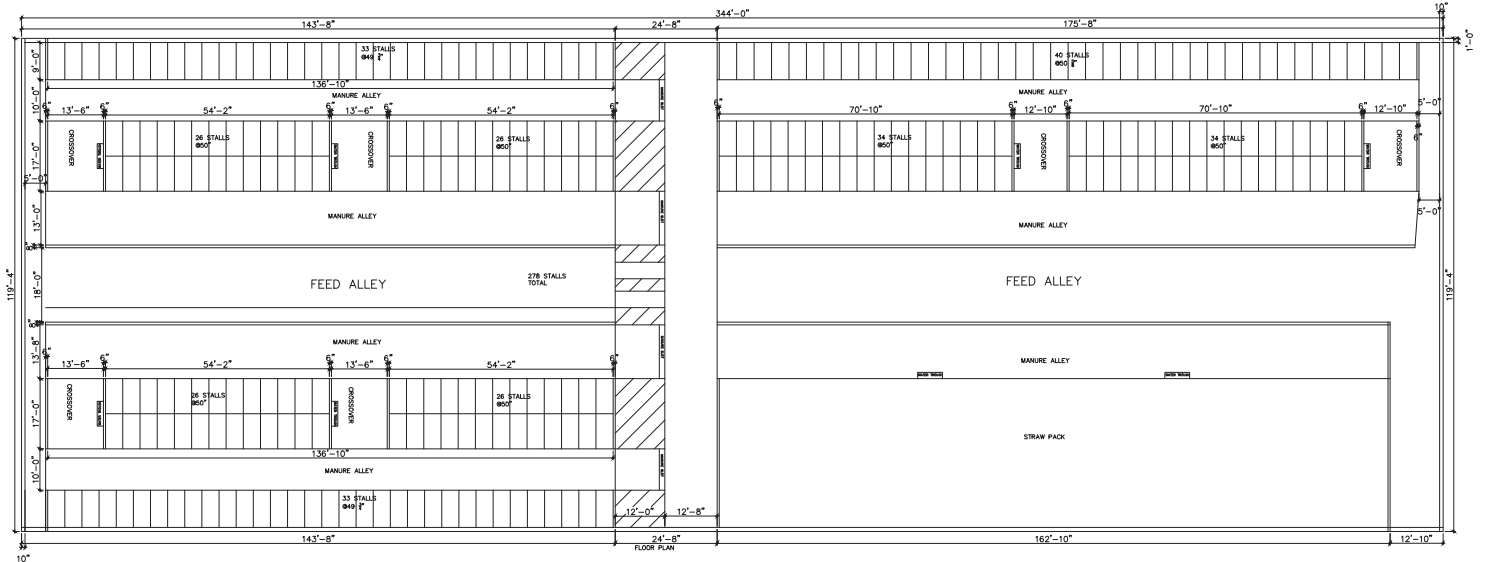
Shawna Low, P.Eng  
 Envirowest Engineering Inc.

c.c: Poly-C Farms Ltd.



DSC/684310 ALBERTA LTD.	CLIENT NAME:	POLY - C FARMS	DRAWING:	MANURE PIT DETAIL	SCALE:	NOT TO SCALE	NOTES:
	PROJECT:	119'4" X 344' DAIRY BARN	DRAWN BY:	GARRY KIRWER	LAST UPDATED:	MAR. 27, 2025	





	CLIENT NAME: POLY-C FARMS PROJECT: 119'4" X 344' DAIRY BARN		DRAWING: FLOOR PLAN DRAWN BY: GARRY KIRWER		SCALE: NOT TO SCALE LAST UPDATED: MAR. 27, 2025		NOTES:
	DSC/684310 ALBERTA LTD.				PAGE:		