# Notice of Alteration Form



Client File No.: 5805.00	Environment Act Licence No. : 3177
Legal name of the Licencee: Fede	erated Co-operatives Limited
Name of the development: Brand	on Bulk Fertilizer Storage Facility
Category and Type of development pe	er Classes of Development Regulation:
Manufacturing	Bulk materials handling facilities
Licencee Contact Person: Brian Gi	riffith
Mailing address of the Licencee: 14	51 65th Street East
City: Brandon Phone Number:(204) 761-9894 Fa	Province: Manitoba Postal Code: R7A 7L5
Name of proponent contact person fo Wara Chiyoka, Wood Environmer	or purposes of the environmental assessment (e.g. consultant): nt & Infrastructure Solutions
Phone: (204) 793-9081	Mailing address: 440 Dovercourt Drive
Fax:	Winnipeg, MB R3Y 1N4
Email address: wara.chiyoka@woo	odplc.com
Short Description of Alteration (max	90 characters):
Expansion of the fertilizer storage by	building constituting a minor alteration.
Alteration fee attached: Yes: ✓	No:
If No, please explain:	
Date: 2020-10-14	Signature:  Printed name: Brian Griffith
	Finiteurianie.
A complete Notice of Alteration (No consists of the following component	te:
<ul> <li>✓ Cover letter</li> <li>✓ Notice of Alteration Form</li> <li>✓ 2 hard copies and 1 electronic the NoA detailed report (see "Bulletin - Alteration to Develowith Environment Act Licence</li> <li>✓ \$500 Application fee, if application fee, if application fee in the Minister of Fine Processing Processing Section 1 (Section 1)</li> </ul>	Environmental Approvals Branch Manitoba Sustainable Development  1007 Century Street Winnipeg, Manitoba R3H 0W4  Formore information:  Phone: (204) 945-8321  Fax: (204) 945-5229
	nup.//www.gov.mp.ca/sdreat

Note: Per Section 14(3) of the Environment Act, Major Notices of Alteration must be filed through submission of an Environment Act Proposal Form (see "Information Bulletin – Environment Act Proposal Report Guidelines")

#### Federated Co-operatives Limited

P.O. Box 1050 401 – 22nd Street East Saskatoon SK S7K 3M9 Canada T 306-244-3311 F 306-244-3403 inquiries@fcl.crs www.fcl.crs



14 October 2020

Ms. Shannon Kohler, Director Environmental Approvals Branch Manitoba Conservation and Climate 1007 Century Street Winnipeg, MB R3H 0W4

RE: Notice of Alteration for Environment Act Licence No. 3177 – Federated Co-operative Limited Proposed Fertilizer Storage Building Expansion

Dear Ms. Kohler:

Federated Co-operative Limited (FCL) is making an application under The Environment Act for an alteration to the bulk fertilizer storage facility (the Facility) located in legal land location SW15-10-18 WPM, at 1451 65<sup>th</sup> Street East in the City of Brandon, Manitoba (the Site). The Facility is a Class 1 Development per the Classes of Development Regulation of The Environment Act, M.R 39/2016 and is operated in accordance with Environment Act Licence No. 3177, issued in 2016. The proposed alteration consists of a 30% expansion of the fertilizer storage building at the Facility to increase FCL's storage capacity for granular fertilizer. Given that the Site is already developed with the existing facility, with the proposed fertilizer storage building expansion, the Facility will remain a Class 1 Development.

FCL is anticipating the construction of the fertilizer storage building's expansion to begin in late October 2020 to meet the planned in-service date of July 2021. The proposed alteration is an expansion of the fertilizer storage building only, with insignificant environmental effects and thus should qualify as a "minor alteration" under the Act. FCL recognizes that there are time frames associated with the review and determination of the NoA application. However, the review period may intersect with the proposed construction schedule. Given that the alteration is minor in scope, we trust that the review process could be expediated.

Please find enclosed with this cover letter, a filled-out Environment Act Proposal Form, 2 hard copies and 1 electronic copy (USB) of the Notice of Alteration Report, and a cheque of \$500 (fee for a Minor Alteration application).

Should you have any questions, please do not hesitate to contact the undersigned or Wara Chiyoka at Wood Environment & Infrastructure Solutions (<u>wara.chiyoka@woodplc.com</u>, 204-793-9081) who is coordinating our Notice of Alteration submission.

Sincerely

Brian Griffith, Fertilizer Terminal Manager Federated Co-operatives Limited



22 October 2020 Wood Project No. WX1773102

Ms. Shannon Kohler, Director Environmental Approvals Manitoba Conservation and Climate 1007 Century Street Winnipeg, MB R3H 0W4 Wood Environment & Infrastructure Solutions, a Division of Wood Canada Limited 440 Dovercourt Drive Winnipeg, Manitoba, R3Y 1N4 Canada

T: 204-488-2997

RE: Notice of Alteration for Federated Co-operatives Limited's *Environment Act* Licence No. 3177
Change in Site Boundaries and Proposed Fertilizer Storage Building Expansion for the Brandon Bulk Fertilizer Storage Facility

Wood Environment & Infrastructure Solutions (Wood) has prepared this Notice of Alteration Report on behalf of Federated Co-operatives Limited (FCL) for Manitoba Conservation and Climate (MCC) review and approval.

### 1.0 Introduction

FCL owns and operates a bulk granular fertilizer storage facility (the Facility) in legal land location SW15-10-18-W1, at 1451 65<sup>th</sup> Street East in the City of Brandon (Brandon), Manitoba (the Site). A site location plan is shown on Figure 1 (Attachment A). The Facility stores, blends and distributes granular fertilizer products to Co-op retail locations in the Brandon region area which in turn sell fertilizers to agricultural producers. The Facility is a Class 1 Development per the *Classes of Development Regulation of The Environment Act, M.R 39/2016* and is operated per Manitoba *Environment Act* Licence No. 3177 (the Licence), issued April 2016 for its construction and operation. There have been no revisions to the Licence.

## 2.0 Existing Development

The Facility is located near the eastern city limits of Brandon, in a largely industrial area, and is surrounded by Maple Leaf Foods (west), Nutrien Ag Solutions and CF Industries (south), and CHEM Industries (southeast).

The Facility consists of a 27,500-metric tonne (MT) fertilizer storage building built of 16 feet (ft.) high concrete walls and a fabric top; fertilizer receiving and loading areas and associated offices; a clean-out pad with elevated platform; and an administration office building, which includes a two-bay mechanical shop (see Figure 2, Attachment A). The Facility includes an in-load conveyor with a capacity to transfer 800 MT per hour of granular fertilizer from both truck and rail into the storage building. There is a continuous flow blender, which can blend between 300 to 400 tonnes of fertilizer per hour with six macronutrients bins. Additionally, there are, depending on requirements, two to three micronutrient bins capable of blending five products. While the Facility receives most of its fertilizer shipments by rail via its 1-kilometre (km) long Canadian Pacific rail spur, a small portion of fertilizer shipments are via truck/trailer (i.e., semi-trucks). Up to 25 rail cars can be accommodated within the Facility's rail spur. Truck fertilizer deliveries are typically via 44-MT capacity trucks. Photographs showing the Facility's components are included in Attachment B.

The Facility distributes granular fertilizers, including, urea, environmentally smart nitrogen (ESN), monoammonium phosphate (MAP), potash, Crystal Green, patented Micronized Sulfur Technology (MST) sulfur, ammonium sulfate, and Croplex, which are stored in the fertilizer storage building's existing four storage compartments.



The fertilizer storage building's design consists of:

- Wide-flange epoxy coated steel framework above the 16-ft. high concrete base.
- A 40-ft wide alleyway for easy access from product storage to the blending system.
- Four concrete compartments to allow for separate storage of products.
- A high capacity conveyor system attached to the steel framework for moving products into the building,
   and
- An expansion joint that was incorporated into the design to allow for building expansion and contraction due to temperature effects.

The Facility is run by five full-time staff. It relies on natural gas for heating and hydroelectricity for power. There is an on-site groundwater well which is used for the Facility's non-potable water needs. The Facility purchases and hauls in water for domestic water use.

Waste generated at the Facility primarily consists of office waste, spilt or scrap fertilizer, and septic waste. Office waste is collected for disposal by a third-party contractor while fertilizer waste is sold to a local agricultural producer who applies the waste fertilizer to his fields. The Facility's four septic tanks are emptied by a third-party contractor for disposal.

To reduce the potential for adverse environmental impacts due to the Facility granular fertilizer operations, there is concrete surfacing at and immediately around the fertilizer transfer areas, and the truck clean-out pad. The fertilizer receiving and loading areas are also covered by sheds which provide weather-proof receiving and loading environments. FCL implements good housekeeping practices and promptly collects spilt granular fertilizer for disposal via spreading onto agricultural fields.

Accidents or malfunctions that could arise at the Site include fire, serious injury or fatality, granular fertilizer spill and burglary. FCL understands the safety and health hazards associated with fertilizer storage facilities as it maintains a network of these types of facilities across the Prairie provinces (i.e., Manitoba, Saskatchewan, and Alberta). FCL has an emergency response plan (ERP) for the Site which has been reviewed and approved by the City of Brandon's Fire Chief and outlines the response procedures for the various emergencies that could arise at the Site. FCL continually reviews and updates the ERP as needed to ensure its continued appropriacy for the Site's operations and activities. Staff at the Site are trained on operational, safety and emergency response procedures. Emergency response supplies and contact information are readily available on-site.

# 3.0 Proposed Alterations

FCL is proposing two minor alterations to the Facility noted below. As per the *Environment Act*, minor alterations are those that pose "insignificant environmental effects" and these proposed alterations will not cause significant environmental effects.

## 3.1 Update of Legal Land Description of Facility Location

Per the Licence, FCL's landbase occurs within SW  $\frac{1}{4}$  Sec and SE  $\frac{1}{4}$  Sec 15-10-18-W1. However, in July 2020, FCL sold the SE  $\frac{1}{4}$  Sec 15-10-18 WPM portion. Therefore, the Site currently consists only of SW  $\frac{1}{4}$  Sec 15-10-18 WPM.

The Licence requires updating to reflect that the Facility is only now occupying SW 1/4 Sec 15-10-18WPM.

## 3.2 Expansion of the Fertilizer Storage Building

FCL plans to expand the Facility's fertilizer storage building by approximately 33% of the current capacity to accommodate an additional 9,000-MT of storage capacity. Following the expansion, the Facility would be able to

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• • • wood

store a total of 36,500 MT of fertilizer. The existing fertilizer storage building was originally designed and built to accommodate an expansion in the future. The proposed expansion consists of three new fertilizer storage compartments built immediately west of the existing fertilizer storage (see the attached civil engineering drawings in Attachment A), similar in structure to the existing fertilizer storage building. Other minor modifications include access to the new fertilizer storage compartments to accommodate the fertilizer storage building expansion. Following the expansion, the Facility will continue to store granular fertilizer including urea, ESN, MAP, Crystal Green, Croplex, potash, MST sulfur, and ammonium sulfate. Staffing at the Facility will increase with one additional onsite personnel.

The proposed expansion's footprint is entirely within the Site and there is no additional land being acquired to undertake the expansion. Site conditions will be altered slightly to accommodate access to the new fertilizer storage compartments. The expansion is not anticipated to create changes to the Site's drainage plan nor impact on the existing environment. As a result, it is anticipated that the proposed alteration will not have significant environmental impacts and not likely change the environmental effects identified in the original environmental assessment report for the Facility.

## 4.0 Project Timelines

The planned in-service date for the expanded fertilizer storage building is July 2021. Construction should commence no later than the end of October 2020 to achieve the in-service date.

### 5.0 Closure

Wood trusts that this submission meets MCC requirements. If you require anything further, please contact Wara Chiyoka of Wood (204-793-9081), or Brian Griffith of FCL (204-727-8743).

Please direct all written correspondence to Wood and the FCL contacts listed below:

Federated Co-operatives Limited
1451 65th Street East
Brandon, MB R7A 7L5
Attn: Mr. Brian Griffith, Fertilizer
Terminal Manager
Brian.Griffith@fcl.crs

Federated Co-operatives Limited
401 - 22nd Street East, Box 1050
Saskatoon, SK, S7K 3M9
Attention: Ms. Colleen Steele,
Environmental Advisor
Colleen.Steele@fcl.crs

Sincerely,

. . .

**Wood Environment & Infrastructure Solutions** 

Wara Chiyoka, M.Sc., P.Ag. Environmental Scientist Fiona Scurrah, M.Sc.
Senior Associate Environmental Scientist

Krystal Penner, Pesticide and Agricultural Program Specialist (MCC)
 Brian Griffith, Fertilizer Terminal Manager (FCL)
 Chris Ross, Project Manager (FCL)
 Colleen Steele, Environmental Advisor (FCL)

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wood.

Change in Site Boundaries and Proposed Fertilizer Storage Building Expansion for Federated Co-operatives Limited's Brandon Bulk Fertilizer Storage Facility

Notice of Alteration for Environment Act Licence No. 3177

Attachments: Attachment A – Figures and Civil Drawings

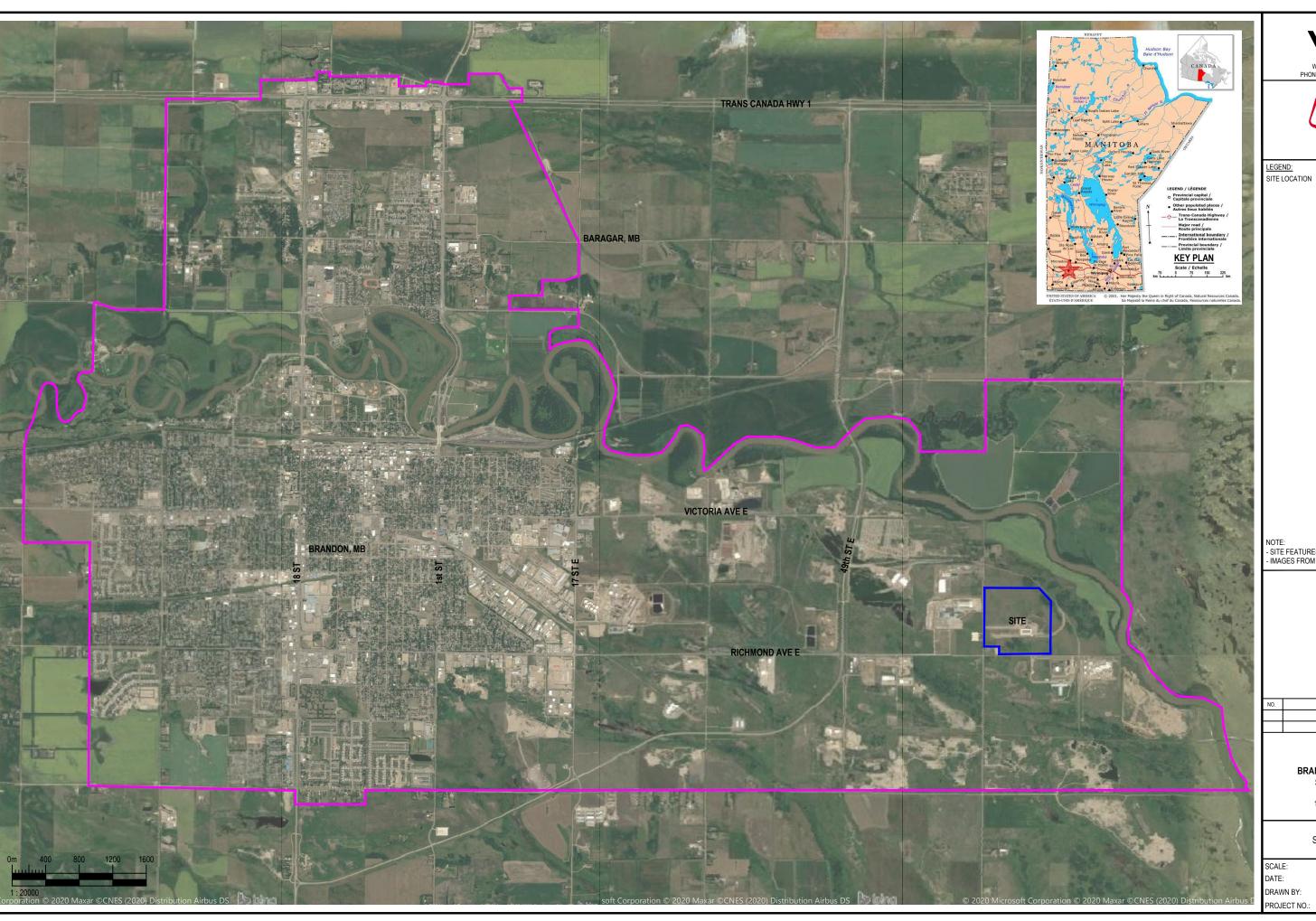
Attachment B – Site Photographs

<u>WX177310</u>2 | 10/22/2020 \_\_\_\_\_Page 4 of 4

Change in Site Boundaries and Proposed Fertilizer Storage Building Expansion for Federated Co-operatives Limited's Brandon Bulk Fertilizer Storage Facility

Notice of Alteration for Environment Act Licence No. 3177

**Attachment A - Figures and Civil Drawings** 



440 DOVERCOURT DRIVE WINNIPEG, MANITOBA R3Y 1N4 PHONE: 204.488.2997 FAX:204.489.8261



NOTE:
- SITE FEATURES AND LOCATIONS ARE APPROXIMATE.
- IMAGES FROM AUTODESK IMAGERY.



REVISION	DATE	BY

NOTICE OF ALTERATION

# BRANDON BULK FERTILIZER STORAGE FACILITY

1451 - 65th STREET EAST BRANDON, MANITOBA

SITE LOCATION PLAN

ALE:	AS SHOWN
E:	OCTOBER 2020
AWN BY:	MD
DJECT NO.:	WX1773102

FIGURE 1



440 DOVERCOURT DRIVE WINNIPEG, MANITOBA R3Y 1N4 PHONE: 204.488.2997 FAX:204.489.8261



NOTE: - SITE FEATURES AND LOCATIONS ARE APPROXIMATE. - IMAGES FROM AUTODESK IMAGERY AND TOPO MAP.



NO.	REVISION	DATE	BY
	12.12.11		

NOTICE OF ALTERATION

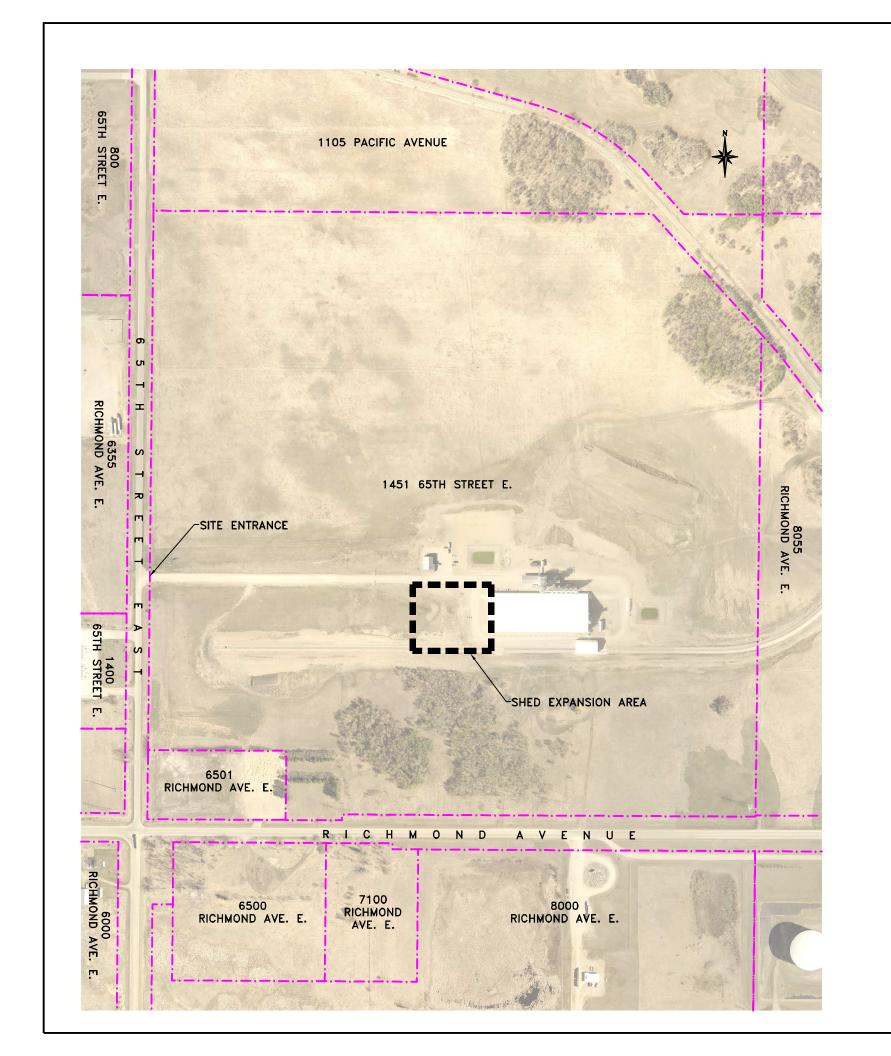
# BRANDON BULK FERTILIZER STORAGE FACILITY

1451 - 65th STREET EAST BRANDON, MANITOBA

FIGURE 2

FACILITY COMPONENTS

CALE:	AS SHOWN
ATE:	OCTOBER 2020
RAWN BY:	MD
ROJECT NO.:	WX1773102

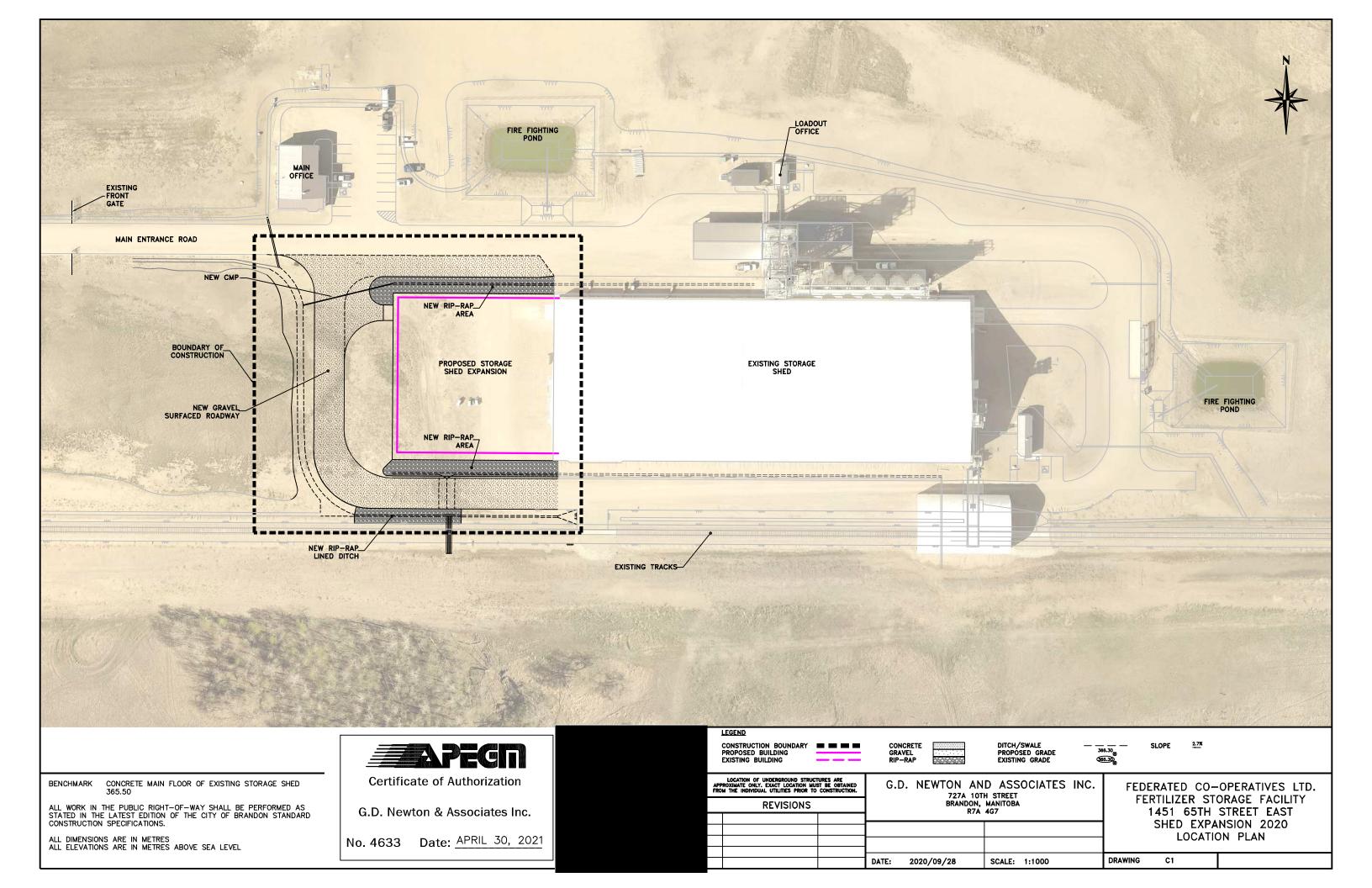


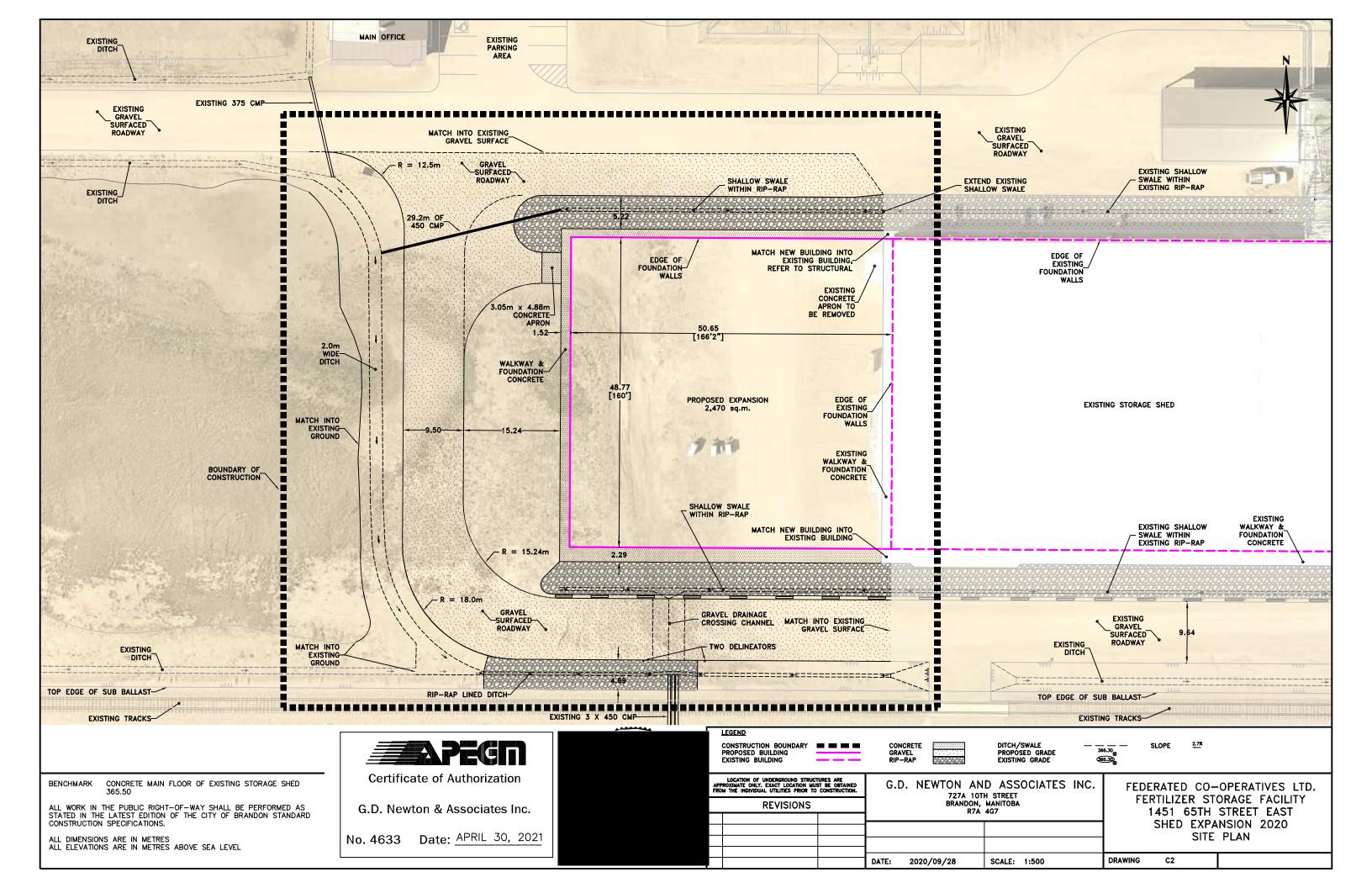
FEDERATED CO-OPERATIVES LTD.
FERTILIZER STORAGE FACILITY
1451 65TH STREET EAST
SHED EXPANSION 2020

SEPTEMBER 2020

G.D. NEWTON & ASSOCIATES INC. 727A 10TH STREET BRANDON, MB R7A 4G7

PHONE (204) 725 1688





#### PRE VS. POST DEVELOPMENT RUNOFF CALCULATION MODIFIED SURFACE AREA = 6219.6 sq.m.

#### PRE-DEVELOPMENT

SURFACE TYPE	AREA [sq.m.]	C-VALUE	
ROOF, CONC., IMPERVIOUS SURFACES	98.3	0.95	ı
GRAVEL SURFACE	1,700.0	0.65	ı
SAND, GRASS, TREE COVER, LANDSCAPING	4421.3	0.15	١
100 ur 5 min PAINFALL INTENSITY is 29	4 /h	0.30	ļ٧

100 YR PEAK RUNOFF DISCHARGE, Opeak = 0.15 cu.m/s 100 YR TOTAL DISCHARGE VOLUME, V = 45.7 cu.m.

5 yr, 5 min, RAINFALL INTENSITY, i: 176 mm/hr 5 yr PEAK RUNOFF DISCHARGE, Qpeak = 0.09 cu.m/s 5 yr TOTAL DISCHARGE VOLUME, V = 27.4 cu.m.

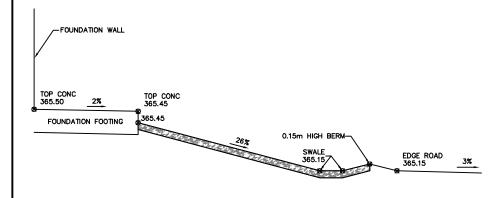
#### POST-DEVELOPMENT

SURFACE TYPE	AREA [sq.m.]	C-VALUE
ROOF, CONC., IMPERVIOUS SURFACES	2747.6	0.95
GRAVEL SURFACE	2711.0	0.65
SAND, GRASS, TREE COVER, LANDSCAPING	0	0.15
RIP-RAP	761.0	0.40
100 yr. 5 min. RAINFALL INTENSITY, i: 294 mm/hr		0.75

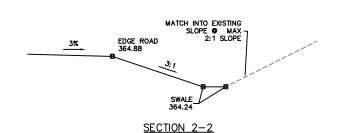
100 yr, 5 min, RAINFALL INTENSITY, i: 294 mm/hr
PEAK RUNOFF RATE, Opeek = 0.38 cu.m/s
TOTAL RUNOFF VOLUME, V = 114.3 cu.m.
100 yr vs 100 yr TOTAL REQUIRED STORAGE VOLUME = 68.6 cu.m. 5 yr vs 100 yr TOTAL REQUIRED STORAGE VOLUME = 86.9 cu.m.

PREVIOUSLY A STORMWATER MANAGEMENT PLAN HAD BEEN PREPARED IN APRIL OF 2016 FOR THE ORIGINAL DEVELOPMENT OF THIS STORAGE FACILITY THAT WAS BUILT IN 2016. THIS REPORT NOTED THAT THE LOW LYING INFILITATION AREA TO THE SOUTH AND EAST HAS APPROXIMATELY 8,300 cu.m. OF EXTRA UNUTILIZED STORMWATER RETENTION VOLUME.

THE EXISTING INFILTRATION AREA TO THE SOUTH AND EAST HAS MORE THEN SUFFICENT CAPACITY TO ACCOMODATE THE EXTRA STORMWATER RUNOFF FROM THIS PROPOSED STORAGE FACILITY SHED EXPANSION AS SHOWN IN THIS DRAWING PACKAGE.



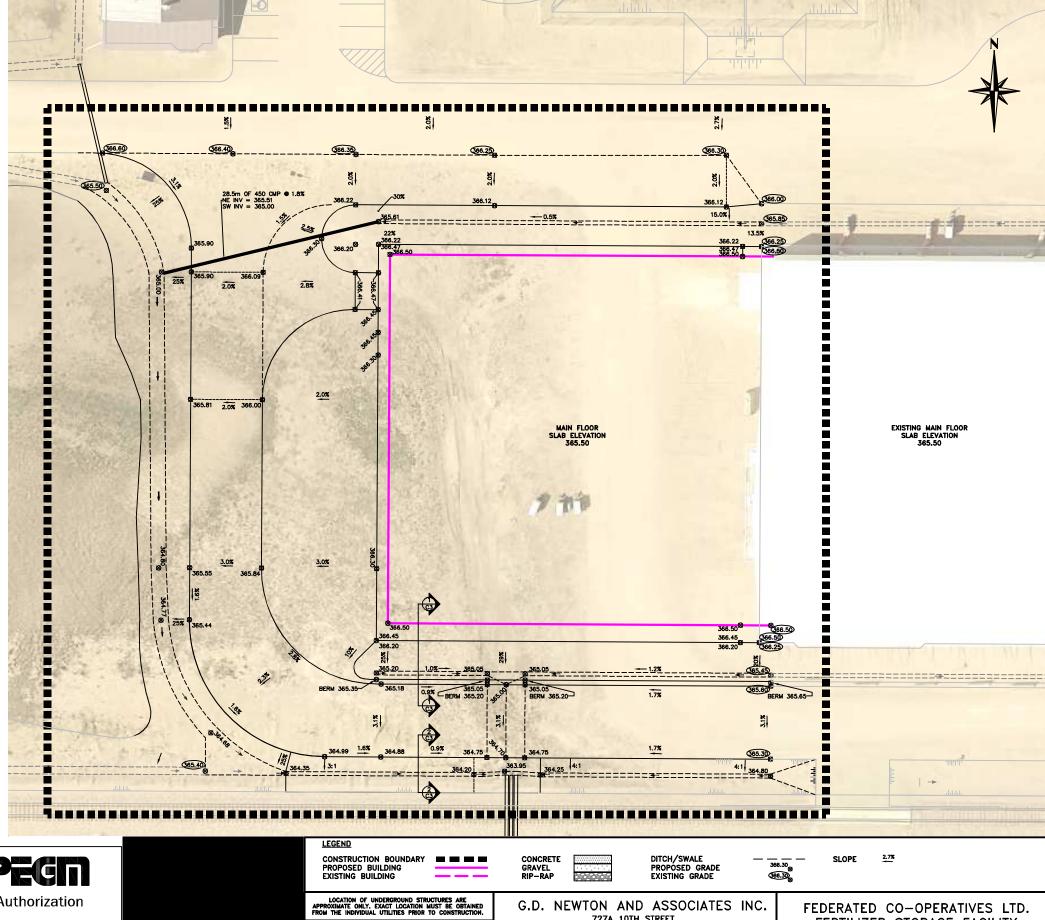
SECTION 1-1



BENCHMARK CONCRETE MAIN FLOOR OF EXISTING STORAGE SHED

ALL WORK IN THE PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED AS STATED IN THE LATEST EDITION OF THE CITY OF BRANDON STANDARD CONSTRUCTION SPECIFICATIONS.

ALL DIMENSIONS ARE IN METRES ALL ELEVATIONS ARE IN METRES ABOVE SEA LEVEL





727A 10TH STREET BRANDON, MANITOBA **REVISIONS** R7A 4G7

2020/09/28

SCALE: 1:500

FERTILIZER STORAGE FACILITY 1451 65TH STREET EAST SHED EXPANSION 2020 GRADING PLAN

DRAWING

C3

Change in Site Boundaries and Proposed Fertilizer Storage Building Expansion for Federated Co-operatives Limited's Brandon Bulk Fertilizer Storage Facility

Notice of Alteration for Environment Act Licence No. 3177

**Appendix B – Site Photographs** 



Photograph 1: View of the Site from 65<sup>th</sup> Street East, facing east.



Photograph 2: View of the administrative building at the Site which includes a two-bay mechanical shop, facing west.



Notice of Alteration Application FCL Fertilizer Storage Facility Brandon, Manitoba



Photograph 3: The fertilizer receiving area (left) and fertilizer storage building (right) with load receiving office in the foreground, facing west.



Photograph 4: The load receiving office, facing north.



Notice of Alteration Application FCL Fertilizer Storage Facility Brandon, Manitoba



Photograph 5: The fertilizer storage building, facing west.



Photograph 6: The clean-out pad, facing east.



Notice of Alteration Application FCL Fertilizer Storage Facility Brandon, Manitoba



Photograph 7: Load out area, facing west.



Photograph 8: Load out office, facing north.



Notice of Alteration Application FCL Fertilizer Storage Facility Brandon, Manitoba