



January 6th, 2015

Tracey Braun, M.Sc.
Director, Environmental Assessment and Licensing
Manitoba Conservation
123 Main Street, Suite 160,
Winnipeg, Manitoba R3C 1A5

Dear Ms. Braun:

Re: Notice of Alteration for Maple Leaf Foods Inc., 6355 Richmond Avenue East, Brandon – Environment Act Licence No. 2311 S2 4R

As part of our company's commitment to continuous improvement in humane animal handling, we are submitting this letter in accordance with Section 14 (1)(a) of *The Environment Act*, as a request for a minor alteration to our plant licence No. 2311 S2 4R.

We are requesting your authorization to proceed with the construction and operation of a Butina-MPS carbon dioxide stunning system to replace the current electrical stunners. Increasingly, in large, high-throughput pork processing plants in North America and Europe, CO₂ is being used for the stunning of pigs. CO₂ has been proven to be the most reliable and preferred stunning slaughter method for ensuring consistency in terms of humane animal handling practices and product quality in North America and Europe.

ALTERATION

The project will involve a small 7253 ft² addition to the plant building to widen the current stunning tunnel on the south side (see attached drawing). Inside the widened stunning tunnel two CO₂ Butina units will be installed. These units consist of a gondola system and a pit dug 32 feet below grade.

OPERATIONS

A high concentration of CO₂ is maintained in the pits. When the pigs arrive at the stunning system, they are brought into the stunning box in groups of 5-8. The box is lowered into the CO₂ atmosphere until the anesthesia is sufficient to allow shackling and sticking of the pigs before they return to sensibility. Since carbon dioxide is heavier than air, the maximum concentration is at the bottom. However, the gas should be of a suitable concentration (min. 85%) to take effect on the animals as soon as they are lowered into the stun pit. When the box is raised, the stunned pigs are unloaded to the exsanguination table and processed.

Batch or group stunning has proven and notable humane animal handling benefits and meat quality advantages over traditional single file electrical stunning. For the system to be as humane as possible, it is essential that animals are exposed to the maximum concentration of carbon dioxide as soon as

**passionate people;
passionate about food**



possible and that the dwell time is sufficient to ensure that animals do not regain consciousness prior to exsanguination.

ENVIRONMENTAL EFFECTS

The environmental effects of this project are expected to be very small. These effects are discussed below.

Air Emissions

The only measurable environmental effect will be a slight increase in the plant's carbon dioxide emissions. The pits will be charged with a total of 7920 kg of CO₂ on a double shift production day. This number includes the initial charge at the beginning of shift and all top-ups due to absorption by the pigs. This amount will be released each production day during the purge of the pits at the end of shift as well as a small amount released from the animals during exsanguination.

This process will increase the plant's CO₂ emissions by approximately 2140 tonnes per year. In our most recent greenhouse gas inventory the plant's direct (Scope 1) emissions totaled 23,651.5 tonnes of CO₂e. The implementation of CO₂ stunning represents an 8.3% increase in Scope 1 emissions from the plant. The plant's total (Scopes 1,2 and 3) emissions on the most recent greenhouse gas inventory totaled 51,233 tonnes of CO₂e. Implementing the CO₂ stunning will increase the plant's emissions by 4%.

We feel that this small increase is justified by the improvement in humane animal handling that will result from this change.

Wastewater/Drainage

There are no expected effects to wastewater or drainage as a result of the operation of the CO₂ stunning. However, if groundwater is encountered during the excavation of the pits during the construction phase, it will be pumped to the site's drainage ditch and sent to the surrounding fields to infiltrate. This will be a temporary measure only during construction.

Noise

We anticipate no noise effects from this project.

Odour

We anticipate no odour effects from this project.



Truck Traffic

There will be a small increase in truck traffic during the construction phase. When operational, the system will require 2 trucks per week to supply CO₂ to the system. Due to the remote area of the site and the already high level of truck traffic at the plant, this effect is considered negligible.

PROJECT TIMELINE

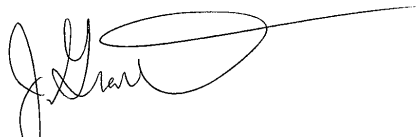
The bulk of construction will take place in the spring with a target date of August 1st, 2015 for startup. The project is currently in the preparatory phase, detailed drawings are available upon request.

CONCLUSION

Maple Leaf Foods is committed to exceeding the highest standards of animal welfare in all of our operations. To that end, we feel that the replacement of our current electrical stunners with the Butina CO₂ units is a very positive step and outweighs the very small increase in CO₂ emissions.

Ms. Braun, I greatly appreciate the effort that you and your staff will make in processing this request for alteration. Should you or your staff have any questions or concerns, please do not hesitate to contact me at 204-235-8232 or on my cell at 204-229-9594.

Sincerely,

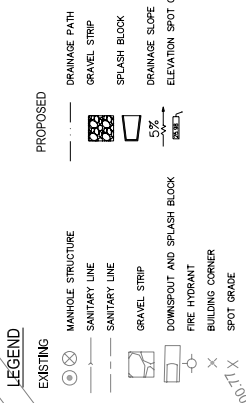
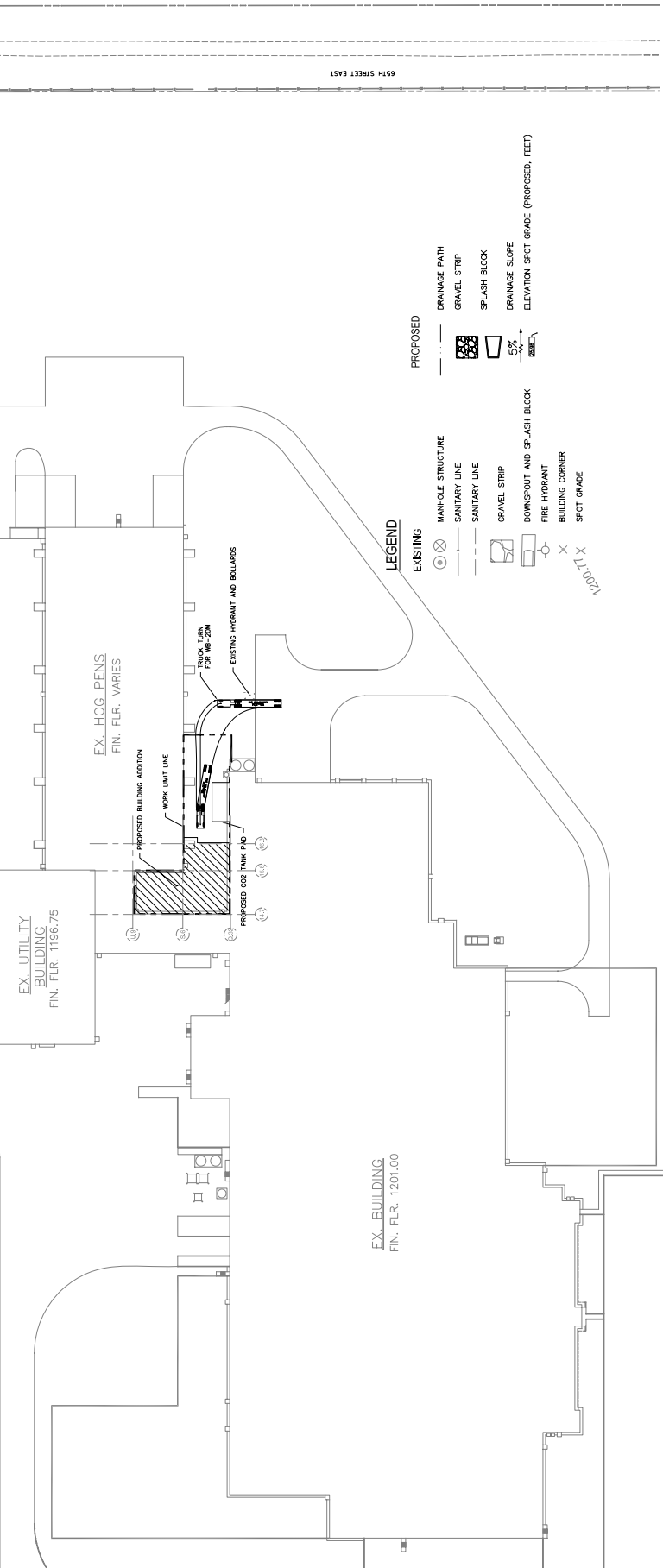
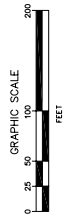


Joel Grant, M.Sc.
Manager, Environment and Sustainability - West
Maple Leaf Foods Inc.

- cc. Siobhan Burland Ross, Manitoba Conservation
- Jennifer Winsor, Manitoba Conservation
- Morgan Curran-Blaney, Plant Manager, Maple Leaf Foods
- Dan Lenton, Production Manager, Maple Leaf Foods
- Anne Tennier, VP Environmental Affairs and Sustainability, Maple Leaf Foods
- Steve Ingram, VP Manufacturing, Maple Leaf Foods

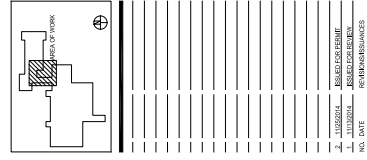
KEYNOTES:

EX. WASTEWATER
PRE-TREATMENT
FIN. FLR. 1195.00



GENERAL NOTES

1. CONTRACTOR TO NOTIFY ALL GOVERNING MUNICIPALITIES, UTILITY AGENCIES AND DEPARTMENTS PRIOR TO THE START OF CONSTRUCTION.
2. ALL WORK SHALL BE IN CONFORMANCE WITH THE CITY OF BRANDON STANDARD CONSTRUCTION SPECIFICATIONS AND THE REGULATIONS OF OTHER AGENCIES HAVING JURISDICTION OVER THE PROJECT.
3. CONTRACTOR IS TO APPLY FOR AND OBTAIN ALL REQUIRED PERMITS PRIOR TO THE START OF CONSTRUCTION.
4. CONTRACTOR SHALL HAVE A "TRIBUT SET" OF DRAWINGS AVAILABLE AT THE SITE AT ALL TIMES.
5. CONSTRUCTION INFORMATION HAS BEEN PROVIDED BY ALUS GEOTECHNICAL, 100-108 17TH ST. BRANDON, MANITOBA R7A 4A4. TOLL FREE: 1-800-366-9755. DATED OCTOBER 29, 2014.
6. THE EXISTING SITE INFORMATION IS BASED OFF THE SURVEY, WHICH CAN BE FOUND ON SHEET C002.
7. REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF BUILDING AND EQUIPMENT.
8. REFER TO THE STRUCTURAL PLANS FOR THE COLUMN GRID LAYOUT AND INFORMATION REQUIRED TO LAYOUT THE BUILDING WITHIN THE FOUNDATIONS.
9. DIMENSIONS ARE GIVEN TO EDGE OF PAVEMENT COLUMN LINE, CENTER OF STRUCTURES UNLESS OTHERWISE NOTED.
10. PROPOSED ELEVATIONS ARE TOP OF PAVEMENT OR FINISHED GRADE UNLESS OTHERWISE NOTED.
11. SPOT ELEVATIONS SHOWN REPRESENT THE FINISH GRADE ELEVATION. THE GRADING SUBCONTRACTOR SHALL ESTABLISH THE FINISH GRADE ELEVATION BASED ON THE BUILDING FOUNDATION SECTION, PAVING SECTIONS, TOPSOIL CONDITION, AND OTHER SITE RELATED CONDITIONS WHICH ARE REPRESENTED ON THESE PLANS AND OTHERS.
12. A GEOTECHNICAL REPORT HAS BEEN PREPARED BY DREGORY ROBINSON INC., 101-1555 ST. JAMES ST. WINNIPEG, MB R3M 1B5. JULY 2014.
13. REFER TO INTERIOR PLUMBING DRAWINGS FOR THE-OR OF ALL UTILITIES.
14. CONTRACTOR IS TO DRAIN, PURGE, OR OTHERWISE REMOVE, COLLECT AND LEGALLY CONFORM WITH ALL LOCAL GOVERNMENTAL RULES AND REGULATIONS, DISPOSE OF CHEMICALS, GASES, EFFLUENTS, ASBESTOS, FUMES, FUMIGANTS, AGENTS OR OTHER HAZARDOUS MATERIALS AND WASTE BEFORE PROCEEDING WITH EROSION OPERATIONS.
15. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATORY REQUIREMENTS. HAZARDOUS MATERIALS ARE DISCLOSED. THE CONTRACTOR SHALL NOTIFY THE OWNER AND ARCHITECT IMMEDIATELY AND COMPLY WITH ALL APPLICABLE REGULATORY REQUIREMENTS.
16. THE CONTRACTOR IS TO REPAIR ALL DAMAGES TO ADJACENT FACILITIES CAUSED BY CONSTRUCTION OPERATIONS.



EPSTEIN
Building & Infrastructure

Address: 1000
Phone: 204-754-2200
Fax: 204-754-2200
Website: www.epstein.ca

Project Number: 1121
Project Manager: D. McCORMICK
Scale: AS SHOWN
Drawn By: AS SHOWN
Checked By: D. BELTY

**OVERALL SITE PLAN,
GENERAL NOTES, &
LEGEND**

C-001

MALE LEAF

Engineer of Record
Architect of Record

Owner
1000
204-754-2200
1000

Structural Design Engineer
Civil Design Engineer
MEP Design Engineer

Design Architect

MEP Design Engineer
Civil Design Engineer

Architect of Record
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Engineer of Record
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Architect of Record
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