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June 4, 2013

Dear Sir,

Lafarge Canada Inc. is applying for a Class 1 Environmental Permit for a new portable concrete batch plant near Sturgeon Road in Winnipeg. Please find enclosed a copy of the Proposal Form, and the required copies of the Environmental Assessment Report.

Should you have any questions in regards to this proposal please contact Dawn Fraser at (204) 958-6331 or by email at [dawn.fraser@lafarge-na.com](mailto:dawn.fraser@lafarge-na.com).

Sincerely,

Dawn Fraser  
Manager, Environment & Public Affairs  
Lafarge Canada Inc.

CC: Eshetu Beshada,  
Joel Malkoske,  
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# Environment Act Proposal Report

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**Lafarge Ready-Mix**

**CCW Concrete Batch Plant**



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## **1 Executive Summary**

Lafarge Canada Inc. is requesting an environmental permit for the CCW Concrete Batch Plant. The project is on a two-and-a-half acre site that will hold a portable concrete batching plant for four months this year. The purpose of the facility is to meet the tender requirements as awarded by Manitoba Government, Manitoba Infrastructure and Transportation Department (MIT) for the Centre Port Way project. The site is being developed on existing agricultural land directly beside the MIT road appropriation along Sturgeon Rd.

Environmental effects are expected to be low to none in areas of water, dust, erosion, wildlife impact and pollution. The site will either remain as is or be returned to its current use upon completion of the lease depending on the decision of the owners at that time.

## **2 Introduction and Background**

In May of 2013, Lafarge Ready-Mix was awarded the contract to provide concrete for the Centre Port Way road construction. Centre Port Way is a key transportation route for the ongoing development of the Centre Port project. Due to the amount of concrete required, meeting pour time requirements and city traffic it was decided that a portable plant near the Centre Port site would be the best option to complete the job to specifications. A couple of acres of land just off of Sturgeon Rd have been leased for this use. The CCW Concrete Batch Plant will be set up in June and in operation for four months until the middle of October when it will be dismantled. The site will either remain as is or be returned to its current use upon completion of the lease depending on the decision of the owners at that time.

Lafarge Ready-Mix Winnipeg services the Greater Winnipeg Area for commercial and residential projects. It currently has a main location on Dawson Rd and a portable plant just off of McPhillips Rd. Lafarge Winnipeg Ready Mix's last portable operation was set up on Manitoba Infrastructure and Transportation land between the North and South bound lanes of PTH #12 just north of #1 Hwy for the reconstruction of East bound #1 Hwy.

### **2.1 Products and Services**

The site will have a brand new portable concrete batch plant, a Vince Hagan - Haganator Travel-all 12400C-65, that will be brought in direct from the manufacturer. It has updated batch plant technology which eliminates the need for a bag house to reduce dust emissions, and speeds process, and recycles aggregate. See Appendix A for Plant specifications.

Material inputs for the product will include cement, aggregates, admixtures and water. The plant will produce approximately 35,000 m<sup>3</sup> of concrete during its operation.

## **3 Description of Proposed Development**

### **3.1 Land Rights**

The site is located on 2.5 acres of land on the west side of Sturgeon Rd just north of Saskatchewan Avenue on OTM Lot 11 in the Parish of St. James. The land title is held by Unique Centre & 2936632 Manitoba Ltd. See Appendix B for survey and complete legal description and the Land Title.

### **3.2 Existing Land Use**

The site is currently zoned by City of Winnipeg as Agricultural<sup>1</sup>. The land has been harvested for alfalfa in previous years. Zoning consultations between the Province, City of Winnipeg and the RM of Rosser are currently under way in regards to the Centre Port Project.

### **3.3 Proposed Development**

The site will consist of approximately 2.5 acres in area and will have on site one concrete plant, one auxiliary cement silo, one control trailer for operating the plant, one lunch room trailer, one water tank supplied by one onsite well and one Hydro pole for power supply to the site.

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<sup>1</sup> City of Winnipeg, 2013

The site will be prepared for use by Neilson River contractors by laying down a geo-textile cloth and covering the area with 12 inch thick granular base followed by compaction and grading.

The site runs along the West side of Sturgeon Rd. Two access roads will be created to allow access and egress for the site. The first will be a one way entrance off of the south bound Sturgeon Rd. The second will be a two way access off of the newly constructed portion of Sturgeon Road. Culverts will be put in place along road ditches to MIT specification. This site has been discussed with MIT in the presence of City of Winnipeg Staff without any stated objections. The site plan, including the proposed access and egress has been submitted to MIT and City of Winnipeg and received approval see Appendix C.

Planning and design for the site occurred in April and May of 2013. Site preparation will follow, with the plant arriving in mid June to set up. Once complete and in place an inspection by the Manitoba Ready Mix Concrete Association (MRMCA) will certify the plant for operation. See Appendix D for MRMCA certification standard. Operation will commence as soon as certification is achieved. Upon completion of the project the plant will be dismantled and returned to Ontario. The site will either remain as is or be returned to its current use at the end of the lease depending on the decision of the owner at that time.

## **4 Description of Existing Environment in the Project Area**

### **4.1 Biophysical Environment**

The site is currently cultivated agricultural land located within the limits of the City of Winnipeg. The terrain is flat with a ditch running down the east side of the property between the city road and the field. The agricultural land is classified Class 1, Black Soil in the Chernozemic order.<sup>2</sup> Surrounding land resource use includes agricultural land, road allowances, nearby commercial properties for soils, aggregates and tire recycling. Across the road, Sturgeon Tire, at 2901 Sturgeon Road, is listed on the Manitoba Conservation Contaminated and Impacted site list.<sup>3</sup>

#### **4.1.1 Climate**

Winnipeg climate is in the Prairie zone. Winnipeg averages 513.7 mm of annual precipitation with temperatures ranging on average from -22°C to 25°C.<sup>4</sup> The closest weather monitoring station to the site is located at Richardson Winnipeg International Airport approximately 3km away.<sup>5</sup>

#### **4.1.2 Water**

A ditch runs the East length of the property between the road and field. All run off from the area runs toward Turo Creek which lies approximately 150m to the North of site running West to East. The Turo Creek empties into the Assiniboine River at Bruce Park.

The proposed CCW Concrete Batch Plant location is situated in the Gunton Member of the Stony Mountain Formation. The water quality is expected to be brackish with expected TDS values ranging

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<sup>2</sup> Agriculture Canada, 2013

<sup>3</sup> Manitoba Conservation, 2012

<sup>4</sup> Environment Canada, 2013, Canadian Climate Normals

<sup>5</sup> Environment Canada, 2013, Hourly Data Report



from 1000 to 1500 mg/L. Surface topography is expected to be between 780 to 790 feet. The nearest provincial monitoring station to the site is GO5MJ037 located 500 yards East of Air Canada Maintenance Hanger. The water level measured in the station ranges from 743 feet to 761 feet within the last 30 years. The expected geology based on the drill log of the monitoring station is as follows: 0-27 ft. from the ground: clay, 27-80 ft.: stony grey till, 80 – 90 ft.: soft limestone with shale and 90-184 ft.: limestone.<sup>6</sup>

#### **4.1.3 Flora & Fauna**

As cultivated agricultural land no native vegetation or wildlife is expected be affected by the development. A search of Manitoba Conservation’s Databases identified no threatened, rare, or endangered species in connection with the site.<sup>7</sup>

### **4.2 Socio-Economic Environment**

The area is within the city of Winnipeg service area but in a rural area of the city. Surrounding land is agricultural with some small business along Sturgeon Rd. There are no protected areas, historical resources or First Nations communities in the immediate vicinity of the proposed development. Aside from the contaminated/impacted site previously mentioned in 4.1, there are no public safety and health risks near the site.

## **5 Description of Environmental Effects of the Proposed Development**

### **5.1 Land**

Compaction of agricultural soil is a concern if the site is to be returned to agricultural production. Effects arising from the use of the gravel pad site include silt erosion into nearby ditches and fugitive dust.

### **5.2 Water**

Well groundwater will be used for production. The expected depth of the proposed well is between 185 ft – 300 ft. Extraction amounts are expected to be 7000 m<sup>3</sup><sup>8</sup> over the duration of the project. Storm water on site is expected to infiltrate into the ground, runoff will be directed towards a low lying area on site for continued infiltration with minimal additions to the road side ditches.

### **5.3 Pollution and Hazardous Wastes**

There are no hazardous wastes produced in the manufacture of concrete. All chemicals on site will be kept in secondary containment. See appendix E for list of chemicals and storage volumes.

Dust pollution is a possible environmental effect from the production of concrete. The gravel base pad is a possible source of fugitive dust and sediment erosion into nearby ditches.

### **5.4 Socio-Economic Impacts**

This project will create 4500 man hours to be supplied by the Lafarge Ready-Mix workforce.

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<sup>6</sup> Friesen Drillers, Personal Communication, June 4, 2013

<sup>7</sup> MB Conservation, 2013

<sup>8</sup> Figure approximated from number of concrete meters, 200l/m<sup>3</sup> of concrete.

Subcontractor and service work contracts for this site will contribute \$50,000 to the economy. Material purchases will be approximately \$3.5 million.

This contract is part of the 20,000 acre Centre Port project involving multiple stakeholders and all levels of government which will result in a potentially significant increase to the Manitoba economy.<sup>9</sup>

## **6 Mitigation and Residual Environmental Effects**

### **6.1 Environmental Management**

Environmental management of the site will be consistent with all applicable federal, provincial and municipal laws and regulations. In addition it will also meet the standards of Lafarge's internal Environmental Management System to ensure the protection of the health of the environment.

### **6.2 Pollution and Hazardous Waste**

Chemicals stored onsite will consist of admixtures for concrete production. See Appendix E for list of chemicals and storage volumes. All chemicals on site will be stored in secondary containment and be inspected regularly. All employees are trained in spill response techniques and spill response equipment will be on site and in their vehicles as per Lafarge's Environmental Management System requirements and procedures.

No hazardous waste will be produced during production. Should an uncontrolled release of any admixture, hydro-carbon or other chemical occur on site it will be contained, cleaned up, and removed immediately by a third party environmental disposal company for appropriate disposal in compliance with Lafarge EMS procedures and applicable hazardous waste legislation.

### **6.3 Erosion and Dust control**

Compaction of agricultural soil is of low concern due to the ongoing development of the area for the Centre Port project. The site will be graded towards the west reduce run off during storm events into drainage ditches. Water will be sprayed on the pad to suppress fugitive dust.

Production dust control will be managed by innovative design of the new portable concrete plant, which removes the need for additional bag house filtration and maintenance for dust suppression. Industry standard dust collection bags will be placed on cement pump air outtake locations to stop dust releases during product delivery.

Dust control will be monitored by site employees through maintenance and routine inspections. Should a dust release occur, Lafarge EMS work procedures will be followed to mitigate the impact and identify the cause.

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<sup>9</sup> Centre Port Canada, 2013

## 6.4 Site Use

After the project is complete the plant will be dismantled and returned to Ontario. All other trailers and storage areas will be removed from the site as well. The removal or ongoing use of the gravel base pad will be up to the land owners when the project is complete.



## 7 References

Agriculture Canada, 2013. AgriMap Manitoba, Agriculture and Agri-Food Canada, Government of Canada. [www.agr.gc.ca](http://www.agr.gc.ca). Accessed May 21, 2013.

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Manitoba Conservation, 2012. Manitoba Contaminated/Impacted Site List, [http://www.gov.mb.ca/conservation/envprograms/contams/pdf/manitoba\\_sites\\_list\\_2012.pdf](http://www.gov.mb.ca/conservation/envprograms/contams/pdf/manitoba_sites_list_2012.pdf). accessed May 21, 2013.

Manitoba Conservation. 2013. Email correspondence, C. Friesen.. received June 3, 2013



**Appendix A – Plant specification brochure**





**Appendix B – Land title, Land Use Approval and Survey of Site with Legal description**



**Appendix C – MIT site plan for access roads**



**Appendix D – MRMCA certification standard**



## Appendix E – Chemicals on site

Chemicals on Site	
Name of Chemical	Max. Storage Volume (L)
Micro Air	5000
210 N	5000





## Appendix F – Contacts

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