

J.M.T. Holdings Inc.
Concrete and Asphalt Crushing/Recycling Plant
Environment Act Proposal

Date Prepared: November 30, 2015

Table of Contents

Title	Page
1. 0 Introduction and Background	1
2.0 Proposed Development	1
3.0 Existing Land Use	1
4.0 Concrete & Asphalt Recycling Plant: Installation and Operation	2
5.0 Existing Environment in the Project Area	3
6.0 Environmental Hazards and Controls	5
6.1 Site Preparation and Installation Concrete/Asphalt Recycling Plant	5
6.2 Crushing/Recycling Plant Operations	7
7.0 Other General Environmental Mitigation Measures	12
8.0 Greenhouse Gas Emissions	12
9.0 Residual Environmental Effects	12
10.0 Decommissioning the Plant	12
11.0 Monitoring and Reporting	13
12.0 Conclusions	13
Appendix A	14
• Certificate of Title for Lease site and Letter of Consent from Landowner	

1.0 Introduction and Background

J.M.T. Holdings Inc. is proposing to establish and operate a portable concrete/asphalt recycling plant. Our family business has been involved in the construction industry in Manitoba since 1977. We are proposing to expand our existing concrete recycling operations.

The concrete/asphalt recycling plant is portable and will be used to recycle waste concrete/asphalt recovered from road/sidewalk construction projects. The crushed concrete/asphalt will be used as base material in our construction projects. We feel the concrete/asphalt recycling plant will provide economic benefits for our business and also offers an effective opportunity to reuse waste concrete/asphalt in a timely manner.

Our proposed concrete & asphalt recycling plant will create new jobs and also create beneficial competition in the concrete industry.

2.0 Proposed Development

Property Location

We have a 10-year lease in place for the proposed plant location. The lease is contingent upon environmental approval of this concrete & asphalt recycling plant application.

60 Risque Avenue, : The proposed location for the portable concrete/asphalt recycling plant is Parcel G Plan Roll # 40062 part of S.E. ¼ sec. 17-11-4 E.P.M. The location is at the northwest corner of Day St. and Risque Avenue in the R.M. of Springfield and the property address is 60 Risque Avenue. The property size is 29.9 acres – our operations will encompass approximately 5 acres in the northwest area of the property. The owner of the land is 4144784 Manitoba Ltd. (see Certificate of Title in Appendix A) which is a company in good standing in the Province of Manitoba. The land is currently zoned as industrial use.

3.0 Existing Land Use at the site and adjoining properties

The southern area of the property has a few buildings mainly used as workshops and storage. An outdoor storage business is also located near the south boundary. The remaining 20+ acres is largely unused other than some clean fill, waste concrete and other waste wood being dumped in a few areas as well as the start of an access road to the north area of the property. The adjoining property to the west is an industrial site with some buildings and equipment storage with a large low lying area up to the lease area. North of the property is the location of the Central Manitoba Railway (CMR) rail yard and facilities. A single residence is on the south boundary of the property at the intersection of Risque Avenue and Winona Street. The residence and other buildings in the vicinity are approximately 300-350 metres from the proposed plant location. Directly north of the proposed plant location on the property is largely undeveloped tree and grass area with the CMR rail tracks.

4.0 Concrete & Asphalt Crushing/Recycling Plant: Installation and Operation

The crushing/recycling plant is portable and will be moved to the Risque Avenue location on an intermittent basis based on our project needs at the time. The plant is portable in design and generally takes only one day to dismantle, transport and set up between recycling sites.

The plant is proposed to be constructed in the spring/summer of 2016. The construction will involve moving the parts onto the site and assembly of the plant using various pieces of heavy equipment including tractors with flatbed trailers. The proposed hours of operation for the concrete crushing/recycling plant are 7:00 a.m. to 8:00 p.m., Monday to Saturday.

The crushing/recycling plant will be in operation on an intermittent basis from May 1 to October 31 of each year. We estimate the plant will only operate a total of 60 days from May 1 to October 31 of each year. The crushing/recycling plant will remain operational for an indefinite number of years as long as the operation is economically and environmentally feasible.

Waste Concrete/Asphalt Delivery and Storage

Waste concrete from our road/sidewalk construction projects will be delivered by tractor trailer and tandem dump trucks and stockpiled at the site. The amounts of waste concrete will vary by the type and number of projects we have running at the time. We will continually use the crushed concrete as base material in our road, sidewalk, and parking lot construction projects. The stockpile sizes will be reasonable as the waste material will be crushed and reused as soon as possible.

Operation of the Crushing/Recycling Plant

The concrete & asphalt crushing/recycling plant is composed of a primary jaw/impact crusher which is fed waste concrete & asphalt by a wheeled loader – the waste concrete slabs are crushed down to 4-6 inches and then it is stockpiled and then loaded by a tracked excavator into a hopper with a conveyor going to the screener and secondary jaw roll crusher where the concrete and asphalt is crushed to $\frac{3}{4}$ inch and stockpiled and then loaded by wheeled loader into tractor trailer end dumps and taken to worksites where it is used as base material. The crushing plant is powered by a diesel generator.

Water Usage

Water will be used for dust suppression on the travel areas and roadways, stockpiles and on the crushers, conveyors and hoppers using spray bars. Water will come for the well at our nearby property on Plessis Street.

5.0 Existing Environment in the Project Area

Biophysical Environment

Soil classification by Agriculture and Agri-Food Canada for the area is that of clayey soils. The property is generally vegetated with variety of grass, forbs and shrubs. Some small patches of trees and willows exist on the property. A dugout had been constructed several years ago located near the southwest boundary of the property. Some low lying areas of the property likely hold water in the spring and after rain events. The property is providing terrestrial and aquatic habitat for numerous wildlife species including what appears to be a good number of white-tailed deer using the area for feeding, bedding, etc. Our development is proposed for a location on the property where we will not have to remove many trees (one tree and a willow stand are all that will likely be removed for the plant location). Maintaining trees on the property is in our best interest as it helps to buffer winds through the site which will help with dust control.

Figure A. Photo at Property – looking NNE across the property. This area has small pockets of cattail (*Typha latifolia*), willow spp. and various domesticated grass species plus a variety of weeds such as Canada Thistle. Waste piles of soil are in the foreground. Photo was taken in November 2015. The plant will be located north of these waste piles.



Figure B. Photo at property looking WSW from the end of the existing access road (access road is under construction by the property owner). The plant is proposed to be set up west of the patch of trees in the distance. Photo was taken in November 20015.





Figure C. Aerial view of 60 Risque Ave. Property – property boundary line is approximate.



Figure D. Aerial view of proposed area for crushing/recycling plant operation at 60 Risque Ave. Property

Socioeconomic Environment

Public safety will not be negatively impacted by the proposed development. The concrete crushing/recycling plant operation during peak volumes will result in approximately 10 waste concrete deliveries to the plant each day and up to 20 crushed concrete/road base material deliveries each day to road construction projects throughout and nearby Winnipeg.

Based on the limited traffic currently in the area our traffic should not impact public safety.

We will have in place practices to limit any mud tracking onto the roadways. Our proposed control to protect the environment will also provide safety measures such as our dust suppression techniques.

Protected Areas

There are no protected areas in the immediate vicinity of the proposed development location. Kilcona Park is approximately 1.5 kilometres NW of the proposed site.

Heritage Resources

There are no known heritage resources in the vicinity of the proposed development locations.

First Nation Communities

There are no First Nation communities in the vicinity of the proposed development locations.

6.0 Environmental Hazards and Controls

This section identifies the environmental effects, referred to here as environmental hazards, created by the work activities during installation and operation of the concrete batch plant and concrete crushing/recycling plant. The hazard controls to mitigate the environmental effects are also discussed in this section. Following the discussion directed at the work activities we've also included our environmental considerations made at the design stage of the project.

6.1 Site Preparation and Installation of Crushing/Recycling Plant

Work Activity:	Site Clearing and Grading
Environmental Hazards:	Vegetation Removal resulting in loss of habitats for wildlife, insects, etc.
Hazard Controls	Reduce the amount of vegetation removal to only what is needed by clearly identifying to equipment operators where clearing is needed for site development. Using boundary tapes and stakes will also aid during actual clearing and grading operations.

Work Activity:	Site Clearing and Grading
Environmental Hazards:	Exposing soils resulting in soil erosion by wind and water
Hazard Controls	Reduce the amount of vegetation removal to only what is needed as noted above. Proper site development planning, implement erosion controls – revegetate exposed soil or cover with traffic gravel as soon as practicable.

Work Activity:	General vehicle and heavy equipment movement during site clearing/grading and also material deliveries
Environmental Hazards:	Greenhouse gas emissions – point source emissions – see calculations at end of this section
Hazard Controls	Reduced idling and well maintained equipment (engine/exhaust)

Work Activity:	General vehicle and heavy equipment movement during site clearing/grading and also material deliveries
Environmental Hazards:	Fugitive Dust Emissions – yard and roads
Hazard Controls	<ol style="list-style-type: none"> 1. controlled travel speeds 2. watering worksite and roads as needed 3. training and awareness of dust emission concerns and how to estimate dust emission rates (visual opacity observation) – site supervisor and equipment operators

Work Activity:	General vehicle and heavy equipment movement during site clearing/grading and also material deliveries
Environmental Hazards:	Noise pollution
Hazard Controls	<ol style="list-style-type: none"> 1. proper vehicle inspections maintenance – engine, exhaust, etc. 2. hours of operation

Work Activity:	General vehicle and heavy equipment movement
Environmental Hazards:	Tracking out mud to public roadways (safety and environmental hazard)
Hazard Controls	<ol style="list-style-type: none"> 1. proper travel routes on worksite to minimize mud caking on vehicles leaving the site 2. clean up of roadway on a regular basis – loader scrapes roadway 3. monitoring road conditions leaving the worksite – site supervisor is responsible

6.2 Crushing/Recycling Plant Operations

Work Activity:	Front end loader material handling
Environmental Hazards:	Dust emissions
Hazard Controls	<ol style="list-style-type: none"> 1. follow Front-end loader safe work practices/procedures 2. Water down stockpiles if dust becomes excessive 3. water down travel routes for loader – water truck/spray bar 4. visual qualitative monitoring of dust emissions (visual opacity observations) – plant operator and loader operator

Work Activity:	Haul Roads and Yard travel routes for aggregate and waste concrete deliveries to the site, dump truck departures with crushed concrete base material, loader movements in yard area
Environmental Hazards:	Dust Emissions
Hazard Controls	<ol style="list-style-type: none"> 1. apply water to road surface or general travel routes in the yard (no contaminated water will be used in road applications – batch plant process water or settling pond waters) 2. Assign and enforce a speed limit on the haul roads – initial consideration is for a 15 kph limit. 3. Create a Worker/Driver awareness of dust emissions resulting from their vehicle operation on roads and in the yard. 4. visual qualitative monitoring of dust emissions – plant operator, loader operator, drivers 5. shutdown during excessive winds and/or increase watering efforts on haul roads and yard area – consider use of an environmentally responsible surfactant if water is not acceptably controlling dust emissions from the site.

Work Activity:	Stockpiling of Aggregate/Waste Concrete – use of stacking conveyors and general storage of stockpiles
Environmental Hazards:	Dust emissions
Hazard Controls	<ol style="list-style-type: none"> 1. Watering stockpiles. 2. Drop heights from stacking conveyor – manage heights to reduce dust from dropping aggregate material. 3. Site location for stockpiles considering prevailing south winds – take advantage of landform and trees.

Work Activity:	General operations at the crushing/recycling plant
Environmental Hazards:	Noise pollution
Hazard Controls	<ol style="list-style-type: none"> 1. maintain equipment to reduce noise increases from worn parts and exhaust systems on equipment and diesel generator. 2. limit hours and days of operation 3. installation of pumps and motors on rubber mounts where feasible 4. minimal free fall height of aggregates 5. the plant is proposed to be located as far as is practical from the property line of neighbours who may be disturbed. 6. minimize truck box gate slamming noise while dumping – usually not an issue with dumping waste concrete.

Work Activity:	Fuel Transfer
Environment Hazards:	Spills and/or fires during transfer
Hazard Controls	<ol style="list-style-type: none"> 1. worker training and enforce fuel transfer safe work practice – worker is to be at the nozzle at all times during transfer 2. fuel appropriate distance from water bodies 3. fuel at designated site that doesn't drain to watercourse; 4. spill kit at designated site and/or on all vehicles with slip tanks; worker training on fuel transfer and spill kits; follow spill response plan, proper disposal of affected soil and clean up material (hazardous waste pick-up), notify Manitoba Conservation if any fuel spills occur greater than 100 L- at 204- 944-4888 24 hours. 5. Follow good housekeeping practices

Work Activity:	Diesel Fuel and Lubricant Storage
Environmental Hazards:	Spills and/or fires at storage area/Soil and water contamination
Hazard Controls	<ol style="list-style-type: none"> 1. Appropriate storage site 100 m away from surface water 2. use of double-walled tank and/or secondary containment – 110% capacity the tank. Professional installation of the tank by Licensed Petroleum Technician. 3. spill kit at storage site; worker training with spill kits, follow spill response plan, grounding tanks, secure the site for potential vandalism, equipment collision, etc.; proper disposal of affected soil and clean up material (hazardous waste pick-up), notify Manitoba Conservation if any fuel spills greater than 100 L - at 204- 944-4888 4. monitor fuel use 5. WHMIS training – annual refresher and specific to hazardous products on-site, safe handling reviewed at WHMIS training and through toolbox talks and safe work practices 6. Gasoline or associated products not stored on site. 7. Proper security precautions – locking valves to prevent access or vandalism by unauthorized persons. 8. Routine inspections of the fuel tanks and other lubricant containers. 9. Follow good housekeeping practices 10. Comply with MR55/2003

Work Activity:	Maintenance of Machinery – mobile and stationary equipment
Environmental Hazards:	oils, hydraulic fluid spills and leaks; soil contamination
Hazard Controls	<ol style="list-style-type: none"> 1. single maintenance area to be used and located 100 meters from watercourse – equipment to be moved to maintenance area as soon as possible 2. daily equipment inspections before use 3. immediate response/repair of leaks 4. drip pans used during maintenance activities 5. spill kit at maintenance area; immediate clean up of spills, worker training with spill kits; follow spill response plan, proper disposal of affected soil and clean up material (hazardous waste pick-up), notify Manitoba Conservation if any spills occur - at 204-944-4888 24 hours 6. clean up maintenance materials including fluid pails, etc. 7. worksite inspections to ensure proper work practices and housekeeping at maintenance area

Work Activity:	Non-hazardous waste accumulation
Environmental Hazards:	Litter, waste,
Hazard Controls	<ol style="list-style-type: none"> 1. Clean up site on daily basis 2. Maintain designate waste collection site and removal of waste on a regular basis or as needed 3. good housekeeping 4. worksite inspections 5. Recyclable material to be recycled – oil containers/filters, plastics, paper, wood 6. green purchasing – consider packaging, etc.

Work Activity:	Hazardous waste collection, storage and disposal
Environmental Hazards:	Spills, soil and water contamination
Hazard Controls	<ol style="list-style-type: none"> 1. Regular pick up of hazardous wastes – do not allow haz waste storage onsite for long periods of time – used oil and lubricants, antifreeze, lead acid batteries, solvents, paints, 2. spill kit at hazardous waste storage area; worker training on spill kit use; follow spill response plan, containment proper disposal of affected soil and clean up material (hazardous waste pick-up), notify Manitoba Conservation if any spills occur - at (204) 944-4888 24 hours; 3. registration as hazardous waste generator (and carrier if transporting hazardous waste to appropriate facility) – use professional haz waste transporter for pickup and disposal 4. Follow Transportation of Dangerous Goods Act requirements

Work Activity:	General vehicle and heavy equipment movement
Environmental Hazards:	Rutting in sensitive areas
Hazard Controls	<ol style="list-style-type: none"> 1. Repair rutting outside normal work area 2. worker awareness of the site and negative impacts of rutting and benefits of maintaining the existing vegetation on the site

Work Activity:	General vehicle and heavy equipment movement
Environmental Hazards:	Greenhouse gas emissions Noise Pollution
Hazard Controls	Reduced idling and well maintained equipment (engine/exhaust)

7.0 Other General Environmental Mitigation Measures

Plant Location on the Property

The crushing/recycling plant location on the property has been chosen to reduce the amount of nuisance dust and noise that may be created by vehicles and general plant operation. Storm water will drain to the ditch on either the north or west side of the property.

Traffic Flow around the sites

The traffic flow will be designed to be efficient and safe but also consider the environment by not allowing vehicle movement through standing water or sheet runoff of storm water. Keeping vehicles out of the water we can reduce the chance of introducing hydrocarbons to the aquatic environment on-site.

8.0 Greenhouse Gas Emissions

By using a greenhouse gas emissions conversion factor of 2.66 for burning diesel fuel and following Environment Canada guidelines we are able to estimate our greenhouse gas emissions.

Emissions for Concrete Crushing/Recycling Plant Operation

It is estimated the concrete crushing/recycling plant and associated equipment will consume on average 400L of diesel fuel/day and the plant will be operating for approximately 60 days resulting in the consumption of approximately 24,000L of diesel fuel per year. $24,000\text{L/year} \times 2.66 = 63,840$ kg of CO_{2e} annually.

9.0 Residual Environmental Effects

There should be no residual environmental effects of the proposed development after application of the abovementioned environmental mitigation measures. The dust suppression practices will reduce our impacts to air quality. The environmental management practices we're following will also minimize our impacts to vegetation, wildlife and aquatic organisms.

10.0 Decommissioning the Plant

Prior to permanent closure of the concrete batch plant or concrete crushing/recycling plant locations a formal decommissioning plan for the site will be developed and submitted to Manitoba Environment for approval.

11.0 Monitoring and Reporting

We will continually monitor for our potential impacts on the environment.

We will be implementing accepted management practices and evaluating their success. As new information and environmental management techniques come available we will assess applicability and feasibility for our operations.

We will be holding toolbox talks every two weeks during operation. During the toolbox talks we discuss safety and environment. We will also be conducting documented worksite inspections every two weeks – during these worksite inspections we will be looking for needed improvements in both safety and environment.

The abovementioned worksite inspections are in addition to our daily inspections of the fuel tanks, and daily equipment inspections.

We will also be able to show our maintenance records for all the machinery and equipment in use at the concrete crushing/recycling plant.

We will also provide the sampling data and reports to Manitoba Conservation as required by the Director.

12.0 Conclusions

We will implement the environmental mitigation measures outlined in this report and it is believed the environmental effects will be negligible.

Appendix A

- Certificate of Title and Letter of Consent from Landowner leasing the property

STATUS OF TITLE

Title Number **2065568/1**
Title Status **Accepted**
Client File **sstewart**

The Property Registry

A Service Provider for the Province of Manitoba



1. REGISTERED OWNERS, TENANCY AND LAND DESCRIPTION

4144784 MANITOBA LTD.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON, IN THE FOLLOWING DESCRIBED LAND:

PARCEL 1: ALL THAT PORTION OF SE 1/4 17-11-4 EPM, WHICH LIES BETWEEN THE 2 DESCRIBED BOUNDARIES, THE NLY OF WHICH IS A STRAIGHT LINE DRAWN FROM A POINT IN THE EASTERN LIMIT OF SAID SE 1/4, DISTANT SLY THEREON 1177.8 FEET FROM THE NORTHERN LIMIT OF SAID SE 1/4 TO A POINT IN THE WESTERN LIMIT OF SAID SE 1/4, DISTANT SLY THEREON 408.8 FEET FROM SAID NORTHERN LIMIT, AND THE MOST SLY OF SAID BOUNDARIES BEING A LINE DESCRIBED AS FOLLOWS: COMMENCING AT THE POINT OF INTERSECTION OF THE NORTHERN LIMIT OF ROAD, PLAN 4030 WLTO, WITH THE ABOVE DESCRIBED LINE THENCE WLY, ALONG THE NORTHERN LIMIT OF SAID ROAD TO THE EASTERN LIMIT OF PLAN 1919 WLTO, THENCE NLY, ALONG SAID EASTERN LIMIT, TO THE NORTHERN LIMIT OF SAID PLAN 1919, THENCE WLY, ALONG THE NORTHERN LIMIT OF SAID PLAN 1919, TO A POINT IN THE WESTERN LIMIT OF SAID SE 1/4 SUBJECT TO THE EXCEPTIONS, RESERVATIONS AND PROVISIOES RESPECTING MINES AND MINERALS AND OTHER MATTERS AS SAME ARE MORE FULLY SET FORTH IN INSTRUMENT NO. 728090 WLTO.

PARCEL 2: PARCEL "K" PLAN 40062 WLTO SUBJECT TO THE EXCEPTIONS, RESERVATIONS AND PROVISIOES RESPECTING MINES AND MINERALS AND OTHER MATTERS AS SAME ARE MORE FULLY SET FORTH IN INSTRUMENT NO. 728090 WLTO; IN 17-11-4 EPM, AND IN GOVERNMENT ROAD ALLOWANCE (NOW CLOSED) BETWEEN E 1/2 17 AND W 1/2 16-11-4 EPM.

The land in this title is, unless the contrary is expressly declared, deemed to be subject to the reservations and restrictions set out in section 58 of *The Real Property Act*.

2. ACTIVE INSTRUMENTS

Instrument Type: **Personal Property Security Notice**
Registration Number: **3088211/1**
Instrument Status: **Accepted**

Registration Date: 2005-01-21
From/By: CARPATHIA CREDIT UNION LIMITED
To: HARVEY DIAMOND, AS SOLICITOR & AGENT

Amount:
Notes: No notes
Description: INTEREST EXPIRES JAN 1/2010

Instrument Type: **Caveat**
Registration Number: **3088212/1**
Instrument Status: **Accepted**

Registration Date: 2005-01-21
From/By: CARPATHIA CREDIT UNION LIMITED
To: HARVEY DIAMOND, AS SOLICITOR & AGENT

Amount:
Notes: No notes
Description: GENERAL ASSIGNMENT OF LEASES & RENTS

Instrument Type: **Mortgage**
Registration Number: **3088213/1**
Instrument Status: **Accepted**

Registration Date: 2005-01-21
From/By: 4144784 MANITOBA LTD.
To: CARPATHIA CREDIT UNION LIMITED

Amount: \$450,000.00
Notes: No notes
Description: No description

INSTRUMENTS THAT AFFECT THIS INSTRUMENT

<u>Registration Number</u>	<u>Instrument Type</u>	<u>Status</u>
3971037/1	Amending Agreement	Accepted

Instrument Type:	Amending Agreement
Registration Number:	3971037/1
Instrument Status:	Accepted
Registration Date:	2010-08-25
From/By:	CARPATHIA CREDIT UNION LIMITED
To:	4144784 MANITOBA LTD.
Amount:	
Notes:	No notes
Description:	No description
3. ADDRESSES FOR SERVICE	
4144784 MANITOBA LTD. C/O 428 JAMISON AVE WINNIPEG, MB. R2K 1N2	
4. TITLE NOTES	
NO FURTHER DEALINGS WITH ANY PART OF THIS LAND WILL BE ACCEPTED FOR REGISTRATION UNTIL A PLAN IS REGISTERED. APRIL 18/67	
5. LAND TITLES DISTRICT	
Winnipeg	
6. DUPLICATE TITLE INFORMATION	
Duplicate not produced	
7. FROM TITLE NUMBERS	
1844868/1 All	
8. REAL PROPERTY APPLICATION / CROWN GRANT NUMBERS	
No real property application or grant information	
9. ORIGINATING INSTRUMENTS	
Instrument Type:	Transfer Of Land
Registration Number:	3088210/1
Registration Date:	2005-01-21
From/By:	NANCY HUBERT AS EXECUTRIX
To:	4144784 MANITOBA LTD.
Consideration:	\$270,000.00

10. LAND INDEX

Lot K Plan 40062
EXC RES, PARCEL

SE 17-11-4E
PART

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA STORAGE
SYSTEM OF TITLE NUMBER 2065568/1

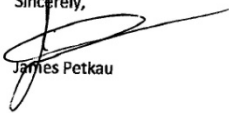
James Petkau
89 Tommy Douglas Dr.
Winnipeg, MB R3W 0E5

November 25, 2015

Dear Mr. Teixeira,

As a signing officer for 414784 Manitoba LTD. You have my approval to establish and operate a concrete and asphalt plant under the terms of our commercial lease agreement which pertains to our property on 60 Risque Avenue in the R.M of Springfield, Manitoba.

Sincerely,



James Petkau