



## Meeting Minutes

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Event:	Community Advisory Panel (CAP) Paris Pit CAP # 10 Technical Services
Date & Time:	Tuesday November 12, 2013 7:00 - 9:00 PM
Place:	Paris Golf Country Club, Oak Hall
Chair:	Linda Smith, Facilitator

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Participants:

Robb Edwards, Neighbour  
Jeff Broomfield, CCOB member and neighbour  
Ross Moore, Neighbour  
Micheal H Fox, Neighbour  
Gary Strauss, Neighbour  
Elizabeth Norris, Neighbour  
Murray Powell, Councilor  
Shirley Simons, Councilor  
Dale Lukas, Neighbour  
Alex Faux, Neighbour  
Kevin Mitchell, Dufferin Aggregates  
Bill Galloway, Dufferin Aggregates

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Guests:	Gustavo Julio-Betancourt, Holcim Canada Jasmine Samandi, Holcim Canada
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Minutes:	Courtney Somers, Facilitator
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Regrets:

Steve Schmitt, Councillor  
Cyril Parsons, Neighbour  
Bill Telfer, Neighbour  
John McAllister, Neighbour  
Marilyn Sewell, Neighbour  
Jake Vandenburg, Neighbour  
Fred Natolochny, Grand River Conservation Authority

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### Minutes

Linda Smith brought the meeting to order and the CAP reviewed the minutes. Question 15 was updated and the CAP approved the minutes.

### **Paris Pit Update**

Kevin Mitchell provided an update on the Paris Pit operations:

- Permit to Take Water



- The Ministry of the Environment is still processing the application and Dufferin Aggregates expects a decision by the end of 2013 or early 2014
- The well survey will be completed by the end of the year
- County of Brant
  - Road design work is underway at the pit entrance. A significant amount of surveying has been completed and will continue through the winter

Question One: What roads are the well surveys on?

- Kevin Mitchell said the survey is being done on properties adjacent to the Paris Pit lands located on Watts Pond Road, Paris Links Road and Paris Plains Church Road.

Trespassing

- Kevin Mitchell explained that Dufferin Aggregates and consultants have been on site regularly and noticed many hunters on the property.
- Dufferin Aggregates will be putting up signage as well as fencing to deter trespassers but would like the CAP help disseminate the message that the land is private property.

Question Two: With the ECA application, is there going to be anything on the EBR?

- Kevin Mitchell responded there is no public process for the ECA application as it is not an instrument of the crown. The application can be found on the Paris Pit website.

Question Three: Will the health department in the County review the information?

- Kevin Mitchell said all information has been provided to the County for their review.

Kevin Mitchell introduced Gustavo Julio-Betancourt, Manager of Quality Control and Laboratories at Holcim Canada.

## Geology

Gustavo reviewed the geology behind aggregate material and the material found in Brant County:

- Physical and chemical properties of aggregate depend on the properties of the rock that forms the earth's crust
- Bedrock is found in Brant County in the Grand River valley north and south of Paris
- The oldest rock found in Brant County is Silurian rock
- The rock that outcrops in Paris, and there are not many outcrops, is Upper Silurian grey-brown dolomites and grey and red shale's, some limestone and in some areas salt and gypsum

Gustavo reviewed a map that shows what rock is located where in Ontario. He points out that Paris is located in the Silurian formation. He explained that the aggregate deposit was created as a result of thinning ice leaving a substantial amount of pro-glacial outwash gravel and gravelly sand.

## Gravel Pit

Gustavo explained that a gravel pit has a combination of sand and gravel (loose) material. He said the material is a result of breaking large rocks by mechanical and chemical processes.

## Aggregate Production

Gustavo explained the aggregate production process:

- Stripping
  - Removal of overburden material from the deposit
- Extraction
  - Sand and gravel deposits are extracted by loaders or shovels digging directly into the bank
- Loading and hauling
  - Transportation of bank material to the processing plant
- Crushing
  - Primary: reduction of large stone into particle sizes that can be processed by secondary crushing
  - Secondary: Reducing material into smaller product size
- Screening
  - Aggregate is sorted by size depending on the specifications needed for the final product
- Washing
  - Aggregate products to be used in concrete and asphalt products normally requires naturally occurring fine sand, silt and clay to be removed
- Stockpiling
  - Material is organized into stockpiles to store before being used to create the final material
- Shipping
  - Transportation of products by trucks to customers

Question Four: When are the quality assurance tests done?

- Gustavo explained that testing is done through the entire production process. Before extraction begins there are tests to ensure that the product will meet the material needs.

## Products and Applications

Gustavo showed the CAP a small version of a sorting screen used to sort the material. The material is sorted by size.

Gustavo explained the different material and what it is used for:

- Granular A: a mix of sand and gravel with particles smaller than 26.5 mm. It is typically the top layer in road construction
- Granular B: a mix of sand and gravel with particles smaller than 150 mm. It is used as a granular sub base in road construction and granular backfill.
- Clear Stone: a graded aggregate with different nominal maximum sizes (53, 19, 16, 13.2, and 9.5 mm). It is used in several applications (concrete and asphalt) such as drainage, bedding and backfill.

Gustavo explained that much of the public does not understand the importance of aggregate because we don't really see it and understand how it is used. Aggregate is used to improve transportation and structures; something the public sees and uses everyday.

Gustavo explained what concrete stone and concrete sand is:

- Concrete stone: a well graded aggregate with different nominal sizes (19, 16, 13.2, 9.5. And 6.7 mm). These products are used in the production of structural concrete, sidewalks, curbs and gutters.

- Concrete sand: Particles of natural sand range between 4.75 mm and a lower limit of 75-um. In addition to the applications used for concrete stone, sand can be used as a base under interlocking paving stone.

Gustavo showed the CAP an example of polished concrete, which contains 75% aggregate material. He explained that the aggregate used to make the concrete has very specific requirements and must meet certain specifications.

Gustavo used an x-ray room in a hospital as an example. An x-ray room has walls that 1.5 meters thick and the concrete is specially made for that specific room

### Quality Control and Testing

Gustavo explained that the testing done on aggregate material is better than tests done on food. The material must comply with many specifications to ensure it will preform well in different environments.

- Gradation: the operation of dividing an aggregate sample into fractions of the same size
- Fineness modules: parameter that helps characterize a graded aggregate for use in concrete

Kevin Mitchell explained that the when Dufferin Aggregates build the road, a certain gradation will be used. The screens are used to determine what kind/size of product is used.

Bill Galloway explained that on a public contract, the town and MTO have specific requirements for the road. They expect Dufferin Aggregates to deliver and will double check that Dufferin Aggregates does deliver on what is asked for.

Gustavo reviews the testing done on the product:

- Physical properties:
  - Absorption and porosity
  - Density and specific gravity
  - Particle shape and texture
  - Strength, toughness and hardness
  - Attrition and abrasion
- Chemical properties:
  - Mineral and petrographic composition
  - Organic impurities
  - Soundness (shale, sulphate, iron pyrites)
  - Alkali-silica reaction
  - Alkali-carbonate reaction
- Thermal properties
  - Thermal expansion, specific heat, and conductivity

### Specifications and Requirements

Gustavo explained that there are many specifications and requirements that the material must meet in order to be used:

- Aggregate used in Ontario has to meet Ministry of Transportation of Ontario (MTO) specifications.

- Once products show compliance with specifications or have demonstrated acceptable field performance, they are listed in the MTO Aggregate Source List (ASL).
- Quality Assurance (QA) is done by hiring QA laboratories to check materials conformance with required specifications.
- Failure to meet the physical requirements may result in rejection, removal, price reduction or penalty.

Gustavo brings his presentation to a close saying aggregates will always be used to build and fix cities and are required for growth. Over 50% of the material taken from pits is used to build the roads we use everyday.

## Questions

Question Five: For testing, what size is the sample and how often do you test it?

- Kevin Mitchell explained that depending on the site, they will test the material about every 1000 to 4000 tonnes. The sample taken is about 25-30kg.

Question Six: Do you sample the virgin material or the final material?

- Bill Galloway explained that the material is tested on site to ensure we can meet the requirements.
- Kevin Mitchell explained that the MTO or whoever is using the product would test it to ensure it meets the specifications needed for what is being built. Dufferin Aggregates test the product more than is needed to ensure it will perform under many different conditions.

Question Seven: Did the government make the map showing the rock formations and outwash deposits? Would they have tested the material?

- Kevin Mitchell explained that the government did do the map and it can be found in the Aggregate Inventory Papers.

Question Eight: When the material comes out of the ground, is it washed?

- Kevin Mitchell responded, the material comes out and is sorted – sand and stone is divided – and then it is washed. If the product is being used for road gravel, it does not need to be washed. Washing depends on the product being made.

Question Nine: There will be some construction happening in Paris this week and it is suppose to be cold. Who decides if asphalt can be put down based on weather conditions?

- Kevin Mitchell explained that a third party normally retained by the owner of the project is brought in and will decide if the weather conditions are optimal for asphaltting. Asphalt is tested at the plant where it is created and as it is being laid. Temperature can affect it because it might cool too quickly and not compact as well.

Question Ten: What about pouring concrete in the winter?

- When concrete is needed in the winter it is done in an insulated area to ensure the area stays warm to allow the concrete to cure properly

Question Eleven: Can Dufferin Aggregates tell if our water is good now and if it will be good once the pit is open?

- Kevin Mitchell responded, yes we test the water in the area before, during and after extraction..

Question Twelve: What size will the stone be here at the Paris Pit?

- Kevin Mitchell explained that there will be a range of stone sizes ranging from some boulders the larger than basketballs to stone the size of a pea. Most stone will be smaller than a grapefruit

Question Thirteen: What about Silica? When you are doing all the crushing won't it come into the air?

- Kevin Mitchell explained that there is minimal silica in sand and gravel.
- Gustavo confirmed that glacial outwash does have some silica in it but it is granular and extremely minimal.

Question Fourteen: Won't there be dust and particles will be blown in the wind? What does silica do to a person?

- Kevin Mitchell explained that there is a dust program in place on site so it would be rare to have any particles or dust blowing around because everything will be wet.
- Bill Galloway said that silica is not an issue in Brant County because of the geology and if it were an issue, Dufferin Aggregate would not be here.

Question Fifteen: Do employees on site wear anything to protect themselves from fumes or particles?

- Kevin Mitchell responded, safety gear (PPE) is worn on site and a dust program is in place. Kevin said respirators are used in the cement plant.
- Bill Galloway said protection is only used if there is a serious issue such as specialized production of silica based products manufactured in a building

Question Sixteen: What measures are taken to ensure that the equipment on site does not make too much noise? Will the crusher make a lot of noise?

- Kevin Mitchell responded, berms will prevent the noise travelling to nearby properties. The noise coming from the crusher can be mitigated with the berms and placement of stockpiles

Question Seventeen: Is there a warranty on the building of a road, what if deteriorates before it is suppose to?

- Kevin Mitchell explained work is done by geological technicians and engineers who look at what is below the road. Here in Paris, the base is sand a gravel which is best for building a road on.

Question Eighteen: We have heard at Council that many stakeholders are meeting, along side the MOE, on a decision for the PTTW. When do you think you will get a decision on the permit?

- Kevin Mitchell explained that ultimately it's the MOE that issues the PTTW. A few months ago Dufferin Aggregates met with the Grand River Conservation Authority, County of Brant, the Health Unit, MOE and CCOB and the MOE may decide to bring that group back together before a decision is made.

Question Nineteen: Does Dufferin Aggregates and others in the industry meet with representatives from the Top 10 Municipalities?

- Bill Galloway said that Dufferin Aggregates has not been invited to speak but that the president of the Aggregates Association of Ontario participates in the Top Aggregate Producing Municipalities of Ontario (TAPMO) agenda.

Question Twenty: Has the government made anything official regarding funding municipalities receive based on the tonnage shipped from the site?

- Kevin Mitchell explained that the Aggregate Levy is being discussed right now.



- Bill Galloway explained that Dufferin Aggregates is supporting a private members bill regarding the use of recycled versus virgin material. He said that the use of virgin material costs municipalities money and that recycled material is just as good.

Question Twenty-One: If you get the PTTW and the road is done, are you ready to start extraction?

- Kevin Mitchell explained that once the road is complete, the pit can be opened and start to extract dry material. The PTTW is only needed to wash the material.

Question Twenty-Two: What if you don't get the PTTW?

- Kevin Mitchell responded, we would run the material as dry products.

Question Twenty-Three: Do you have a status on the Ecology Report that was presented at the last CAP?

- Kevin Mitchell said Mark Cece from MMM Group is still working on the report and Dufferin Aggregates has not received any information, other than what was presented. Dufferin Aggregates should see the report by the end of the year and it will be posted to the Dufferin Paris Pit website.

Question Twenty-Four: What has been going on at the Blair Pit?

- Kevin Mitchell responded most of the land has been sold to the owner of the adjacent land. He will be rehabilitating it to farmland.

Question Twenty-Five: How long will the Paris Pit be in operation?

- Kevin Mitchell said the pit would be in operation for about 32 years, depending on demand.

Courtney Somers is asked to email the CAP members when updates are made to the Paris Pit website.

#### **Next Steps**

- Road design will continue through the winter
- PTTW & ECA (isw) – MOE will make a decision over the next several months

Possible CAP meeting topics:

- Specific timeline of the operation and extraction phases
- Amendments to any plans

Date: Courtney will send out date suggestions for February 2014

Adjourn