

August 7, 2019

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**Re: Shantz Station Pit – Capital Paving Inc. - License Application for a Category 3, Class A License under the *Aggregate Resources Act* – Part of Lots 81 and 82, German Company Tract (former Township of Waterloo) – Township of Woolwich, Region of Waterloo - MNRF Comments**

Mr. DeRuyter,

The Ministry of Natural Resources and Forestry (MNRF) Guelph District Office is in receipt of the Capital Paving Inc. application for the proposed Shantz Station Pit - Category 3, Class A license under the *Aggregate Resources Act* (ARA). The license application is supported by several technical reports, including a Planning Justification Report and ARA Summary Statement, a Level 1 and 2 Hydrogeological Report, and a Level 1 and 2 Natural Environment (NE) Report. The MNRF has reviewed the technical reports and the site plans and we can offer the following comments for your consideration.

We understand that the license area of the proposed pit is approximately 93.5 ha. The limit of extraction will also total 67.9 ha. Extraction is proposed to remain a minimum of 1.5 m above the established water table. The maximum annual tonnage of the pit will be 500,000 tonnes. Final rehabilitation will be to return areas of the pit to an agricultural condition and natural environment (reforestation and naturalized areas). MNRF staff completed a site visit with Capital Paving Inc. and the project team on July 5, 2019.

The Aggregate Resources Inventory Paper (ARIP #161) for the Region of Waterloo indicates that the site includes some identified sand and gravel deposits of tertiary significance. We understand that Capital Paving Inc. also completed more site-specific resource testing on the site and has confirmed that there is significant sand and gravel resources in the proposed pit totalling approximately 3 million tonnes.

### **MNRF Comments**

#### **Planning Justification Report**

The Planning Justification Report describes that approximately 16 ha of the proposed license area is within the provincial natural heritage system (NHS) for the Growth Plan.

To meet with our staff please be sure to call ahead and make an appointment.  
For general information visit: [www.mnr.gov.on.ca](http://www.mnr.gov.on.ca) or [www.ontario.ca](http://www.ontario.ca)

As you are aware, the Province released 'A Place to Grow': Growth Plan for the Greater Golden Horseshoe (GGH) in May 2019. A Place to Grow came into effect on May 16, 2019. All planning decisions made after this effective date are required to conform to the Plan, subject to any transitional policies or regulations. MNRF staff recommended during pre-consultation that the Planning Justification Report be updated to include an analysis of the policy changes in A Place to Grow, and how these changes may affect the proposed pit. We understand that the Planning Justification Report is supported by an Addendum (dated May 27, 2019) that addresses A Place to Grow.

The Addendum indicates that a key policy change in A Place to Grow is the implementation approach for the provincial NHS. The Addendum points out that Policy 4.2.2.4 in the Plan has delayed the implementation of the provincial NHS mapping, until such time that the system has been implemented in an upper- or single-tier Official Plan. The Addendum also points out that in the interim the policies in the Plan that refer to the provincial NHS are to be applied to local systems (outside of settlement areas) identified in Official Plans that were approved and in effect as of July 1, 2017.

The Addendum provides two interpretations as to why the implementation changes in Policy 4.2.2.4 in A Place to Grow do not affect the license application. First, the Addendum notes that Policy 4.2.8.2 directs that 'notwithstanding the policies in subsections 4.2.1, 4.2.2, 4.2.3 and 4.2.4, within the NHS for the Growth Plan, mineral aggregate operations are subject to the following' under this policy. The Addendum offers that because of the 'notwithstanding' clause in Policy 4.2.8.2, mineral aggregate operations are exempt from the direction in Policy 4.2.2.4. This suggests that new mineral aggregate operations are to apply the provincial NHS mapping, even though Policy 4.2.2.4 has delayed the implementation of the provincial system until it has been implemented in an upper- or single-tier Official Plan. Second, the Addendum notes that even if the direction in Policy 4.2.2.4 does apply to mineral aggregate operations, the Regional Official Plan has not identified the site as being within a local NHS.

We appreciate the planning analysis provided in the Planning Justification Report and the Addendum. Unfortunately, the MNRF is not in a position at this time to address the NHS related policies for new mineral aggregate operations in A Place to Grow, in connection to our review of this license application. Further discussions between the MNRF and the Ministry of Municipal Affairs and Housing (MMAH) on these NHS related policies may be required. Please note that our review of the license application may need to be updated at a later date to address these policies.

There are also policies in A Place to Grow that apply to new mineral aggregate operations outside of the provincial NHS. The MNRF's review of these policies is incorporated in our comments on the NE Report and the site plans below.

### **Natural Environment Report**

- During pre-consultation on the application the MNRF identified that the unevaluated wetlands on and adjacent to the site were being evaluated in accordance with the Ontario Wetland Evaluation System (OWES) and would likely become provincially significant. The evaluation of the Breslau Wetland Complex is now complete, and we can confirm that the complex is

provincially significant. The boundaries of the Breslau Wetland Complex will be made available through Land Information Ontario (LIO) at the following: <https://www.ontario.ca/page/land-information-ontario>. In the interim, please refer to the attached map for the boundaries of the Breslau Wetland Complex.

We appreciate that the NE Report considered these wetlands to be provincially significant. The report confirms that the proposed limit of extraction will be setback a minimum of 30 m from the boundary of the Breslau Wetland Complex. However, it is understood that the existing laneway that bisects the wetland complex will need to be widened by up to 4 m to allow truck access to the pit. Under Policy 2.1.4 a) in the Provincial Policy Statement (PPS), development and site alteration is not permitted in significant wetlands. PPS Policy 2.1.8 also protects significant wetlands and their ecological functions from negative impacts that may be associated with development and site alteration on adjacent lands.

We understand that the widening of the access laneway is not proposed within the Breslau Wetland Complex. The NE Report has also recommended some mitigation measures to help protect and potentially enhance the functions of the feature. We have some concerns however that the report and the site plans do not provide enough information to show how the policy protections afforded to the Breslau Wetland Complex will be achieved.

It is recommended that a management plan be developed to inform how the proposed laneway enhancements (widening and extension) and any proposed mitigation measures are to be implemented. The site plans should also be updated to reflect this information. The following information should be included in the management plan:

- Taking into consideration the limited space between the wetlands, it is recommended that the management plan be supported by a detailed design drawing that shows how the laneway widening, any associated infrastructure and the proposed mitigation measures will be implemented fully outside of the Breslau Wetland Complex. It is understood that the wetland boundaries along the existing laneway were flagged with the GRCA. This information should be used to inform the detailed design drawing;
- The design and locations of the proposed culverts/ecopassages should be described. The management plan should also identify what the target species (e.g. turtles) and functions the culverts/ecopassages will address, to ensure connectivity between natural heritage features and areas (e.g. significant wetlands, significant woodlands and significant wildlife habitat) is maintained. The 2016 'Best Management Practices for Mitigating the Effects of Roads on Amphibian and Reptile Species at Risk in Ontario' technical guide may provide some references to inform the design. ([https://files.ontario.ca/bmp\\_herp\\_2016\\_final\\_final\\_resized.pdf](https://files.ontario.ca/bmp_herp_2016_final_final_resized.pdf));
- The management plan should show the design and installation direction for the proposed exclusionary fencing. For example, to maintain effectiveness the bottom of the fence should be buried. It is recommended that the project team review the 2013

technical guide 'Best Management Practices – Reptile and Amphibian Exclusion Fencing' ([https://files.ontario.ca/environment-and-energy/species-at-risk/mnr\\_sar\\_tx\\_rptl\\_amp\\_fnc\\_en.pdf](https://files.ontario.ca/environment-and-energy/species-at-risk/mnr_sar_tx_rptl_amp_fnc_en.pdf)) for design and installation guidance. The timing of the exclusionary fencing installation and removal should also be described; and

- The report and the site plan also describe that sediment and erosion control measures are to be established to protect the adjacent provincially significant wetlands. If these measures are different than the proposed exclusionary fencing, the design and installation guidance should also be described in the management plan.
- The NE Report confirms that the wooded areas (FOD, FOM and SWM vegetation communities) on and adjacent (north and northeast) to the site are significant woodland. This appears to be based on the Regional Official Plan's size criteria for significant woodlands. The report recommends that the limit of extraction should be setback a minimum of 30 m from the dripline of the woodland. However, it is understood that 0.16 ha of the woodland will need to be removed to allow for the extension of the proposed haul road into the site. The report notes that the proposed alignment of the haul road extension has been selected to minimize impacts to the woodland, but there will still likely be an impact to the feature. Habitat compensation plantings are proposed during the rehabilitation of the site to address these impacts.

Provincial policy supports a comprehensive and integrated approach when addressing matters of provincial interest. The PPS recognizes the interim nature of mineral aggregate resource extraction, where progressive and final rehabilitation of sites are required to accommodate compatible land uses. The PPS also requires that mineral aggregate operations minimize impacts to the environment. This is also reflected under Section 12(1) of the *Aggregate Resources Act*. The Ministry may support on a case-by-case basis using progressive rehabilitation to assess and ensure environmental impacts are minimized. Rehabilitation of mineral aggregate operations may also be taken into consideration to help demonstrate consistency with Policy 2.1.5 b) of the PPS, when the rehabilitation of significant woodlands and their ecological functions is scientifically feasible. This approach is referenced in Section 2.3.3 of the Natural Heritage Reference Manual (NHRM, 2010).

Section 4.2.8 in A Place to Grow also provides direction for the rehabilitation of new mineral aggregate operations in the GGH that maybe relevant to the woodland. For example, Policy 4.2.8.4 a) directs that disturbed areas of a site will be rehabilitated to a state of equal or greater ecological value and, for the entire site, long-term ecological integrity will be maintained or enhanced.

Based on the information provided, the MNRF believes it is reasonable to conclude that this woodland should be considered significant for the purposes of the PPS. We have some concerns however that the report may not fully characterize the significance of the woodland to inform the policy protections afforded to the feature. We appreciate that the Regional Official Plan contains significant woodland criteria (e.g. size). However, the PPS now directs that significant woodlands are to be identified using criteria established by the MNRF.

The Ministry's criteria for identifying significant woodlands under the PPS are contained in the 2010 NHRM. We appreciate that the original intent of the NHRM was to provide technical guidance for the natural heritage policies in the 2005 PPS. The manual however still provides some technical information and guidance that are relevant to the 2014 PPS and should be used as the best available information. Table 7-2 in the NHRM provides criteria for identifying significant woodlands and these criteria represent minimum standards. Woodland size is a criterion of woodland significance. The table also includes other criteria as well, such as ecological functions, uncommon characteristics and economic and social functions.

It is recommended that the report be updated to include an assessment of these additional significant woodland criteria. This assessment may be important to ensure any proposed mitigation measures are appropriately designed to address the significant woodland and its ecological functions.

- The NE Report references that the recommended habitat compensation measures are incorporated in the Rehabilitation Plan. The Rehabilitation Plan identifies where these habitat compensation measures (e.g. reforestation and naturalization areas) will generally be established on the site during rehabilitation.

We understand that the habitat compensation measures are proposed, in-part, to address the protections afforded to the identified significant woodland. As noted above, rehabilitation of mineral aggregate operations may be taken into consideration to help demonstrate consistency with Policy 2.1.5 b) of the PPS. The proposed compensation approaches may also align with the rehabilitation requirements for new mineral aggregate operations under A Place to Grow (e.g. Policy 4.2.8.4 a)). We appreciate that the general location of the proposed habitat compensation measures has been shown on the site plans. However, we have some concerns that the NE Report and the site plans do not provide enough information to show how the policy protections afforded to the significant woodland will be achieved.

It is recommended that a management plan be developed to direct how the habitat compensation measures will be established and monitored. The site plans should also be updated to reflect this information. The following information should be included in the management plan:

- It is recommended that the management plan outline the timing of when each proposed habitat compensation measure will be established. Based on the Rehabilitation Plan, it appears that some measures are outside of the proposed limit of extraction and could be initiated at the onset of operations. Any measures within the proposed limit of extraction could then be established when there is an opportunity to progressively rehabilitate the area;

- The Rehabilitation Plan appears to identify areas that are to be reforested/naturalized. The management plan should clearly identify what areas on the site will be actively planted, and what areas may be left to naturalize on their own over time;
  - Reforestation areas should be supported by information on how these areas will be prepared before planting and what species will be planted in each area;
  - Woodland soils may represent an important resource, as the material can contain a bank of native seeds and the material may support a significant diversity of microorganisms that contribute to nutrient cycling. The management plan should develop a strategy to conserve and immediately reuse any woodland soils that may be disturbed on the site (i.e. proposed extension of the haul road) to support the reforestation measures;
  - An overall monitoring and maintenance program should be developed to support the different habitat compensation measures. This should include targets for each measure (e.g. target community types, and % survival of planted species), and the frequency and duration of the monitoring. If the monitoring determines that the targets are not being achieved, the management plan should also describe actions that will be taken to achieve these targets; and
  - The management plan would benefit from including a design for the two wetland areas to be created offsite. This design should reflect the report and site plan's objective that these wetland areas be suitable for turtles.
- The woodland (FOD6-1) east of the proposed license area adjacent to Hopewell Creek has been identified in the report as a non-significant woodland. As noted above, the PPS now directs that significant woodlands are to be identified using criteria established by the MNRF. It would be appreciated if the NE Report could provide more information to support why this feature should not be considered a significant woodland. Additionally, If the report confirms that this woodland should be considered significant, it is recommended that the recommendations in the report (e.g. 5 m dripline setback) be reviewed to ensure the feature and its ecological functions will be protected.

This woodland also appears to be within the provincial NHS. The identification of key natural heritage features in the Growth Plan NHS is also based on criteria provided by the Province. To-date the Province has not developed technical criteria for the specific purpose of identifying significant woodlands in the Growth Plan NHS. In the interim, we encourage that best available information be used for identifying significant woodlands in the system (e.g. the Greenbelt Technical Paper). If the MNRF provides additional comments on the NHS related policies in A Place to Grow, we may also recommend that the report provide further comment on whether this woodland represents a key natural heritage feature for the purposes of the Plan.

- It would be appreciated if the NE Report could clarify if the boundary of the unevaluated 'western wetland' extends within the proposed license area. The site plans appear to suggest that this wetland does extend within the license boundary. Although this wetland is not considered provincially significant, it may still represent a key hydrological feature for the purposes of A Place to Grow. If this wetland may be disturbed by the proposed operations of the pit (e.g. berm), it is recommended that the report review how Policy 4.2.8.4 in the Plan will be addressed.
- The NE Report recommends that specialized barrier fencing for reptiles be established at the northern and northeastern limit of extraction. This recommendation has been included on the Operational Notes Plan. The Operational Plan however appears to show that exclusionary fencing is also proposed along the eastern boundary of the license area as well. It is recommended that the report recommendations and the direction on the site plans be reviewed for consistency. It also recommended that the site plans provide more details on the design and installation direction for the proposed exclusionary fencing. Please refer to the above management plan recommendations regarding the proposed exclusionary fencing.
- We understand that targeted turtle overwintering surveys were completed between April (ice-out) and June 15 in support of the NE Report. The results of these surveys confirmed that the northern wetland area should be considered significant wildlife habitat (SWH) for turtle overwintering. This is based on the presence of Snapping Turtle (special concern) and the number of recorded Midland Painted Turtles using the feature.

It does not appear that targeted turtle nesting surveys were completed in support of the report. Turtle nesting areas may also represent SWH. Taking into consideration the confirmed turtle overwintering habitat adjacent to the site, it is recommended that further rationale be provided to support why targeted nesting surveys were not completed. This rationale should describe why the proposed license area, and the areas offsite that may be subject to habitat compensation plantings, would not provide suitable habitat for turtle nesting. For an area to function as a turtle nesting area, it must be in an open area with high sun exposure. In addition, turtles prefer sandy/gravelly soil that allow them to dig nest sites. Agricultural areas can also be used by turtles for nesting if suitable habitat conditions are present. If it is determined that suitable nesting habitat is present, and this habitat may be impacted by the operations of the proposed pit, targeted surveys are recommended.

### **Hydrogeological Report**

- As a point of clarification, the Hydrogeological Report (Section 2.2) describes that the wetlands along Hopewell Creek are 'locally significant,' but are apart of the Hopewell Creek Riparian provincially significant wetland complex. These wetlands are apart of the Hopewell Creek Riparian non-provincially significant wetland complex.

The MNRF does recognize that wetlands are dynamic systems that may change over time. Therefore, wetland evaluation records are considered open files. The MNRF may identify new

wetland areas, redefine wetland boundaries, or change the score or status of an evaluated wetland if new information becomes available.

- The Hydrogeological Report concludes that there will be no adverse impacts associated with the proposed pit operations on 'Wetland 1.' This is due to the expected reduction in runoff contributions being offset by an increase in infiltration and groundwater contributions. Figure 3 appears to show that 'Wetland 1' represents different wetland areas within the Breslau Wetland Complex. This includes the northwestern wetland near MP6 and the northern wetland near MP5. The micro drainage analysis in Appendix F for 'Wetland 1' also appears to combine these wetland areas into one assessment.

The information provided in the report appears to suggest that the recharge components for these wetland areas may be different. For example, Table 4 in the report identifies the groundwater gradients at monitoring locations MP5 and MP6. The data appears to suggest that the northwestern wetland received groundwater discharge in April and July 2018, whereas the northern wetland was found to have a neutral groundwater gradient. In addition, the interpreted groundwater flow on Figure 1.2 in Appendix F appears to suggest that groundwater flow within the overall catchment area for 'Wetland 1' is moving towards the northwestern wetland but not towards the northern wetland. It is recommended that the report provide further rationale to support that the post-development water balance for both the northwestern and northern wetlands will not be adversely impacted by the pit.

- Figure 5 in the report also appears to suggest that a portion of Phase 1 may be tile drained, with the drain outlet being towards the northern wetland. This area appears to be within the proposed limit of extraction in Phase 1. If this area is tile drained, has this augmented the recharge to the northern wetland and how would the removal of the drain affect the feature?

## **Site Plans**

Based on the above comments on the technical reports, the MNRF is not able to complete a fulsome review of the proposed Shantz Station Pit site plans at this time. We can however provide the following preliminary comments on the site plans for the project team's consideration.

- As a general comment, we are concerned that the technical notes on the site plans do not provide clear direction on how the site is to be operated. For example, throughout the site plans several technical notes include qualifying terms like 'should' and 'recommend.' It is recommended that the site plans be reviewed comprehensively to ensure the technical notes provide clear direction where appropriate (e.g. replace these terms with 'shall' or 'will be').

## Operational Plan

- The Internal Haul Road notation describes that the location of the laneway extension shown is approximate and will be refined in consultation with the landowner and the applicable review agencies. This is also referenced in technical note 1.2.4 on the Operational Notes Plan. It is recommended that the alignment of the laneway extension be determined in support of the license application, as the alignment may affect mitigation measures that should be referenced on the plan. Please refer to the above management plan recommendations regarding the proposed laneway widening and extension.
- Technical note 1.2.10 (Topsoil and Overburden Stockpiles) directs that stockpiles may be located within 30 m of the licensed area. For consistency, it is recommended that this note reference that the NE Report Recommendations (1.1.27) require that the setbacks from environmental features (e.g. significant wetlands and woodlands) be undisturbed by the operations of the pit.
- Technical note 1.2.11 references that recycling of 'RAP' material may be permitted on the site. If this is intended to refer to 'asphalt material,' it is recommended that the note be updated to reference this material. In addition, it is recommended that plan identify the location where recycling is to occur on the site.
- It is recommended that technical note 1.2.16 (Extraction Depth) reference that the maximum depth of extraction will maintain a 1.5 m setback from the established groundwater table.
- The Hydrogeological Report Recommendations directs that water levels should be collected on a seasonal basis (three times per year) for the life of the pit. The NE Report Recommendations however recommends that water level measurements should be recorded annually. It is recommended that the common recommendations in the technical report be reviewed for consistency.
- Technical note 1.2.17 (Processing Equipment) directs that the processing plant will be located in Phase 1 once the pit floor has been established. However, the Noise Recommendations on the plan appears to suggest that extraction in Phase 1 cannot occur until the berms around the processing plant and the equipment has been constructed first. If these berms are to be established on the pit floor, it is unclear how the direction in the Noise Recommendations would support this approach. It is recommended that this be reviewed for consistency.

## Rehabilitation Plan

- Technical note 1.3.2 describes that material may be imported to achieve the required 3:1 rehabilitated side slopes, whereas technical note 1.3.6 and 1.4.1 appears to broaden the potential use of imported material to include side slopes greater than 3:1 and for berm construction. It would be appreciated if further clarification could be provided on how imported material may be used during the operation and rehabilitation of the site.

## Closing

Considering the above comments, the MNRF objects to the proposed Shantz Station Pit (Category 3, Class A) license application at this time.

The Ministry would appreciate a response to the comments provided on the technical reports and the site plans. Please be advised that MNRF staff may have additional comments to provide on the technical reports and the site plans when a response to the above has been provided for review. We may also provide further comment on the NHS related policies in Section 4.2.8 of A Place to Grow.

The Ministry would be pleased to discuss the content of this letter with the project team. Please contact Ian Thornton (Resource Operations Supervisor) at 519-826-4928 or [ian.thornton@ontario.ca](mailto:ian.thornton@ontario.ca) if further comment or clarification is required.

Regards,

A handwritten signature in black ink, appearing to read 'D Marriott', with a long horizontal flourish extending to the right.

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