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# **Planning Rationale for Site Plan Control Application 5455 Boundary Road, Ottawa**

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**AUGUST 2020**

## **Prepared For:**

Ottawa D-Squared Asphalt Limited  
6811 Hiram Drive, PO Box 14  
Ottawa, ON K4P 1A2  
613-822-1042

## **Prepared By:**

J.F. Sabourin and Associates Inc.  
52 Springbrook Drive,  
Ottawa, ON  
K2S 1B9  
T 613-836-3884 F 613-836-0332

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Jocelyn N Chandler, M.Pl., RPP, MCIP  
(*J.F. Sabourin and Associates Inc.*)

jchandler@jfsa.com  
T 613-836-3884 x231



**TABLE OF CONTENTS:**

<b>1</b>	<b>INTRODUCTION.....</b>	<b>4</b>
1.1	DOCUMENT LIST .....	4
<b>2</b>	<b>SITE AND PROJECT INFORMATION.....</b>	<b>4</b>
2.1	EXISTING CONDITIONS .....	6
2.2	PROPOSED DEVELOPMENT.....	8
<b>3</b>	<b>PLANNING CONSIDERATIONS.....</b>	<b>10</b>
3.1	PROVINCIAL POLICY STATEMENT .....	10
3.2	OFFICIAL PLAN .....	10
3.3	ZONING BY-LAW .....	11
3.4	OTHER.....	12
3.4.1	Site Alteration By-law .....	12
<b>4</b>	<b>SERVICING.....</b>	<b>13</b>
4.1	WATER.....	13
4.2	WASTEWATER .....	14
4.3	FUEL.....	14
<b>5</b>	<b>ADDITIONAL CONSIDERATIONS .....</b>	<b>14</b>
5.1	FIRE SERVICES REVIEW .....	14
5.2	WATERCOURSES AND DRAINAGE.....	14
5.3	CONSULTATION .....	15
<b>6</b>	<b>SUPPORTING REPORT AND PLAN SUMMARIES .....</b>	<b>15</b>
<b>7</b>	<b>CONCLUSION .....</b>	<b>17</b>
<b>8</b>	<b>JFSA STATEMENT OF LIMITATIONS.....</b>	<b>17</b>

**FIGURES:**

Figure 1:	Site Location Aerial View.....	5
Figure 2:	Site Location with Road Fabric.....	5
Figure 3:	Adjacent Developments .....	6
Figure 4:	2017 Air Photo of Site .....	7
Figure 5 a,b,c:	Examples of Asphalt Plant Components.....	9
Figure 6:	Local Zoning .....	11
Figure 7 a, b:	Control Centre Trailer.....	13

**APPENDIX:**

Appendix A –

Correspondence with Ottawa staff regarding conformity with zoning by-law  
Correspondence with Ottawa planning staff regarding maximum height limits

Appendix B -

Service agreement for portable washroom trailer (draft)  
Correspondence with Chief Building Official for Part 8 OBC.

Appendix C -

Information on interim Compressed Natural Gas Servicing (CERTARUS)

Appendix D -

Correspondence with Ottawa Fire Services

Appendix E -

Correspondence regarding site drainage ditches and resolution

Appendix F -

Pre-consultation documents

Appendix G -

Air and Noise reports and ECA application confirmation

## 1 Introduction

This report has been prepared in support of a Small Rural Site Plan Control Application submitted on behalf of D-Squared Asphalt Limited, pursuant to pre-consultation with city staff on January 9, 2020, file # PC-19-0037.

The Site Plan Control Application Form and supporting documents are being submitted in electronic format as instructed. Hard copies will be available if requested.

A fee of \$767.00 is being submitted concurrent with this application by the owner/applicant.

This planning rational report provides a detailed project description, servicing options discussion, consultation strategy, a summary of the supporting technical reports, and the supporting planning policy. This application is accompanied by the signed application form, and the following reports and plans itemized in the following section.

### 1.1 Document List

- Site Plan 20003-SP1 dated July 2020, rev 1 04/08/20 prepared by Robinson Land Development.
- Site SWM/Drainage Plans D1, 2 & 3 dated July 2020 prepared by Robinson Land Development.
- Grading Plan 20003-GR1 dated July 2020 prepared by Robinson Land Development.
- Preliminary Geotechnical Investigation ~ Proposed Site Development 5455 Boundary Road, Ottawa, Ontario dated January 31, 2020 prepared by GEMTEC.
- 5455 Boundary Road, Ottawa, ON ~ Servicing and Stormwater Management Report dated July 2020 prepared by Robinson Land Development.
- 5455 Boundary Road ~ Transportation Impact Assessment (Step 1 Screening Report and Step 2 Scoping Report, dated May 2020 prepared by CGH Transportation.
- Erosion and Sediment Control Plan dated July 2020 prepared by Robinson Land Development.
- 5455 Boundary Road~Review of Channels dated June 19, 2020 prepared by Muncaster Environmental Planning Inc.
- Plant Layout Phase 1 & 2, Plant Elevations Phase 1 & 2 prepared by Astec Inc.
- Landscape Plan L1 & 2, Landscape Details L3 dated June 2020 prepared by Levstek Consultants Landscape Architects.
- Survey Plan Reference No: 19-10-156-00 dated February 3, 2020 signed by C.M. Fox at JD. Barnes Ltd.
- Phase One Environmental Site Assessment ~ 5455 Boundary Road, Navan Ontario, dated January 2020 prepared by GEMTEC.
- Phase Two Environmental Site Assessment ~ 5455 Boundary Road, Navan Ontario, dated May 29, 2020 prepared by GEMTEC.

## 2 Site and Project Information

The proponent is preparing to re-develop this 11.8 ha site to support an asphalt production plant, which will service construction work in the south east Ottawa region and be supplied primarily from a quarry east of Ottawa. The location is suitable for this land use as it is currently zoned "Heavy Industrial" and is in proximity to the Boundary Road and Highway 417 interchange. See Figures 1 and 2.

**Figure 1: Site Location Aerial View**



**Figure 2: Site Location with Road Fabric**



## 2.1 Existing Conditions

The site has been under operation by another owner, and is highly disturbed with piles of soil, aggregates, landscaping products and recycled cement product. It is occupied by a range of construction and aggregate machinery, vehicles and a Quonset hut.

Currently there is no vegetation of note on the site. The aerial photography indicates it was removed prior to 2011. Channels appear to have been dug, filled and re-dug at the rear of the site to provide drainage as the site has evolved.

The site is adjacent the recently constructed Amazon YOW Warehouse at 5225 Boundary Road, the future Taggart Miller Capital Region Resource Recovery Centre (CRRRC) at 5471 Boundary Road and an industrial subdivision under development to the south.

**Figure 3: Adjacent Developments**



**Figure 4: 2017 Air Photo of Site**



## 2.2 Proposed Development

The hot mix asphalt manufacturing operation requires the installation of a group of pre-fabricated machinery components (see Figure 5) and raw material storage. The proposed Asphalt Batch Plant is considered 'relocatable.' The components are trucked in from the manufacturer and assembled on-site. It can be taken apart to move it, but that is not the intention. It will be set on engineered concrete footings.

The existing Quonset hut will be relocated to respect the required property line setbacks.

A small staff of four people is expected to operate the facility. Services will be available by way of a portable washroom trailer and imported water.

The frontage on Boundary Road will have a lockable gate and be fenced and landscaped to improve the frontage appearance and screen the site from the road.

The owner expects to develop in three phases, and this application covers the first two phases of the project. This includes:

### *Phase 1*

- Relocatable asphalt manufacturing machine (batch plant).
- Control centre housed in a relocatable trailer.
- Temporary compressed natural gas trailers to power the plant until liquid natural gas is connected to the site in fall 2021.
- Portable washroom trailer facility
- Quonset hut relocated from current position
- Weigh scale and scale hut
- Noise mitigation barriers and fencing

### *Phase 2*

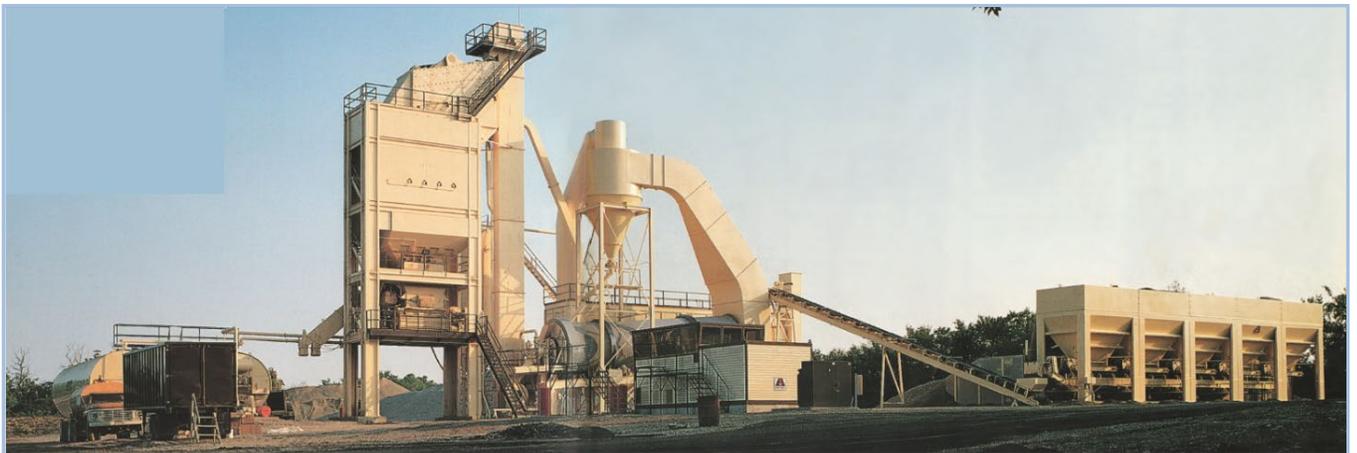
- Portable temporary crusher
- 3 Storage silos

### *Phase 3\**

- Unknown/unconfirmed at this time.

\*Area noted on site plan. Subject to future SPC revision

**Figure 5 a,b,c: Examples of Asphalt Plant Components**



## 3 Planning Considerations

### 3.1 Provincial Policy Statement

Section 1.1.5 of the P.P.S directs that development on rural lands shall include uses such as the management or use of resources which support rural economic activity. The proposed manufacturing and processing of aggregate resource materials for commercial use is appropriately located in a rural employment area that is planned to provide separation from sensitive land uses and serviced by the necessary infrastructure.

*1.1.5.2 On rural lands located in municipalities, permitted uses are: a) the management or use of resources; ...*

*1.1.5.7 Opportunities to support a diversified rural economy should be promoted by protecting agricultural and other resource-related uses and directing non-related development to areas where it will minimize constraints on these uses.*

#### 1.3.2 Employment Areas

*1.3.2.1 Planning authorities shall plan for, protect and preserve employment areas for current and future uses and ensure that the necessary infrastructure is provided to support current and projected needs.*

*1.3.2.2 At the time of the official plan review or update, planning authorities should assess employment areas identified in local official plans to ensure that this designation is appropriate to the planned function of the employment area. Employment areas planned for industrial and manufacturing uses shall provide for separation or mitigation from sensitive land uses to maintain the long-term operational and economic viability of the planned uses and function of these areas.*

### 3.2 Official Plan

The City of Ottawa Official Plan recognizes the value of heavy industrial uses for generating primary and secondary economic opportunities and directs them to be clustered at strategic locations where transportation is available and negative impacts are avoided.

*2.2.3 City-wide Employment Area Policies support the protection of business and economic activity clusters ... at strategic locations close to major goods movement facilities and corridors.*

*2.2.3 (1) Employment Areas corresponding to clusters of business and economic activities in the Provincial Policy Statement include: ... Rural Employment Areas designated on Schedule A of this Plan.*

The property is designated **Rural Employment Area** in the City of Ottawa's Official Plan Schedule A.

*2.2.3 (4) While it is the City's preference to locate most employment uses in the Urban Area and Villages, agriculture, aggregate resources and other agriculture-related industries will support employment throughout the Rural Area. Employment uses that are not appropriate in a Village due to their impacts, and which do not require municipal services, are encouraged to locate in designated Rural Employment Areas.*

*Rural Employment Areas are intended to support and encourage clustering of primarily industrial uses not suitable in the Urban Area or General Rural Area (section 3.7.5).*

*3.7.5 (2) Uses permitted within rural employment areas include: New heavy and light industrial uses, such as steel and concrete fabrication, farm equipment and supply centres, machine and vehicle sales service and repair, construction yards, building products yards, landscape contractors, nurseries.*

The proposed use is appropriate in the current land use designation.

*3.7.5 (3) Development will be subject to Site Plan Control and particular attention will be given to the physical design of the building and site including signage, buffering, landscaping and fencing. In particular suitable screening and landscaping must be provided for any new external storage areas for goods, material and equipment that abut a highway or arterial road.*

Screening and landscaping is provided as required along Boundary Road.

### 3.3 Zoning By-law

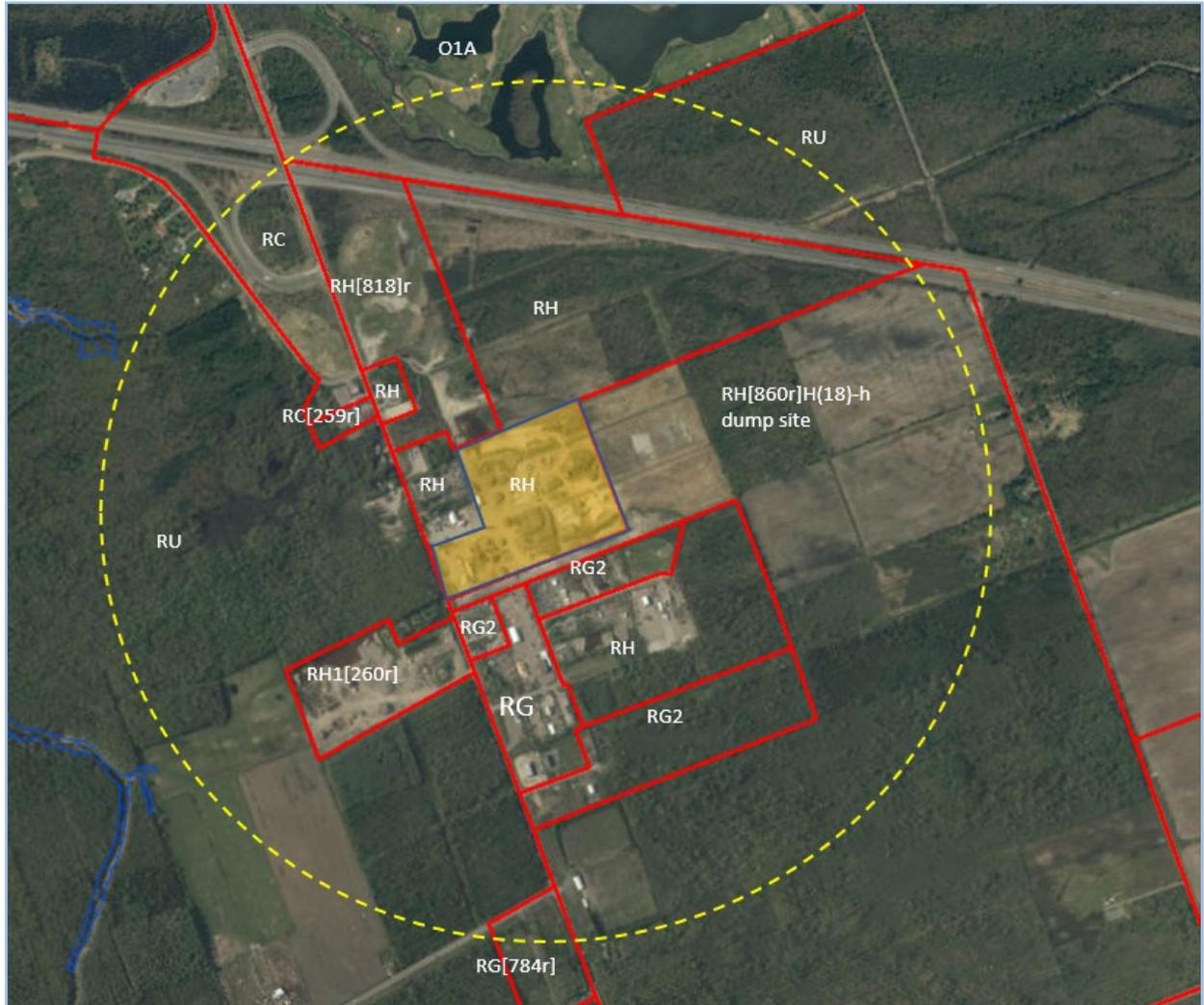
The property is currently zoned **RH (Rural Heavy Industrial)** for which the purpose is to:

“accommodate a range of heavy industrial uses and limited service commercial uses at locations which are neither environmentally sensitive nor in close proximity to incompatible land uses”

Permitted uses include: light industrial use and heavy industrial use, storage yard.

City planning staff have confirmed this designation is appropriate for the proposed asphalt plant (Appendix ‘A’).

**Figure 6: Local Zoning**



**Zone Provisions -Table 221**

<i>I Zoning Mechanisms</i>	<b>II Provisions</b>	<b>Provided</b>
(a) Minimum lot width (m)	50	121.61
(b) Minimum lot area (m2)	8,000	118,000
(c) Minimum front yard setback (m)	15	n/a
(d) Minimum rear yard setback (m)	15	>15
(e) Minimum interior side yard setback (m)	(i) Abutting an industrial zone	Quonset hut >3
	(ii) Other cases	n/a
(f) Minimum corner side yard setback (m)	15	n/a
(g) Maximum principal building height (m)	15	Quonset hut <15, see * below
(h) Maximum lot coverage (%)	50	<50
(i) Outdoor storage	(a) outside storage is not permitted within any required front yard or corner side yard;	none
	(b) outside storage must be screened from abutting residential uses and public streets by an opaque screen at least 1.8 metres in height from finished grade	Frontage on Boundary Road screened with 5.5 m berm and 2.0 m noise fence.

The proposal meets all the required provisions in the zoning by-law.

\*After a review undertaken by city planning staff, confirmation was received that the asphalt plant structures would be considered permitted projections, as they constitute “similar structures that may require a height in excess of maximum height limits in order to serve their intended purpose” above the height limit (Appendix ‘A’).

### 3.4 Other

#### 3.4.1 Site Alteration By-law

The property is outside the site alteration by-law, as identified on Schedule B of By-law 2018-164.

## 4 Servicing

### 4.1 Water

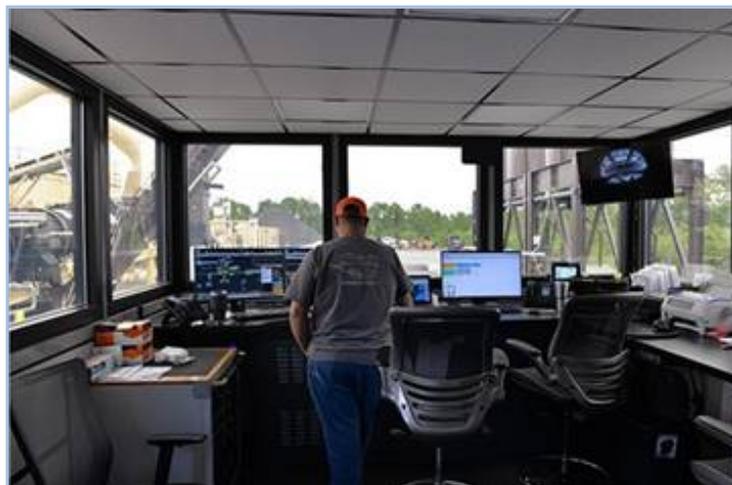
The site is in the public service area (PSA) associated with extension to the Carlsbad Springs Trickle Feed System. Development within a PSA must be serviced by the available public services, and one connection is allotted to this site, The Trickle Feed water supply is limited to 2,700 L/day and can only be used for potable water.

The proposed asphalt plant development does not include a building and no connection to the Carlsbad Trickle System is proposed at this time.

The site development includes a scale and accompanying scale-hut, the asphalt plant components, and an existing (relocated) Quonset hut for storage of equipment.

The plant components are primarily machinery for manufacturing the product, conveyor belts, storage silo's and bins. There is a 'control centre', a trailer/booth from which the plant manager controls and monitors the machinery operation (See Figure 7 a & b). The staff of 4 (manager, loader operator, grounds person and possible one other scale hut operator/general helper) generally take breaks in the control centre, however it is not serviced with water or wastewater.

**Figure 7 a, b: Control Centre Trailer**



The owner expects to provide bottled water and a full service relocatable washroom facility. These come equipped with a sink running hot/cold water, flushable toilet and heating. An agreement between the site owner and the water provider/ waste receivers is undertaken for these types of facilities as part of a long term rental agreement. The owner has not discounted ultimately constructing a building and connecting to the CS trickle system and constructing a private septic system if they successfully find additional uses to add to the site in future phases, which would also be subject to Site Plan Control.

For the industrial asphalt processing on the site, water use is minimal and would be primarily be for dust control and truck washing. It is our understanding that access to the Carlsbad Trickle system would not be permitted for this use. Hydrogeological investigations on adjacent sites and discussions with city staff have confirmed that groundwater quality in this area is mineralized and could potentially have a corrosive effect on the equipment. Further, due to the high salinity of groundwater in this area, private wells are not supported by MECP. Based on the very limited water requirements, it is proposed that water for the plant, dust control and truck washing, if required, will be drawn from the surface water storage in the drainage feature at the rear of the site or shall rely on trucked in water for these purposes.

## 4.2 Wastewater

With no proposed private or municipal water supply, or building on the site, there will not be sufficient effluent generated to support the function of (or need for) a private on-site wastewater system. Sanitary facilities for the limited staff are proposed as a portable washroom trailer. This on-site trailer shall be heated and lit, equipped with a toilet, sink, soap dispensers, and hot water. It shall operate under a service agreement for disposal and refill (see Appendix B). Discussion with the Chief Building Official for Part 8 of the Ontario Building Code (see Appendix B) has indicated this would be acceptable as a compliance alternative to a class 5 system. A permit from the Ottawa Septic System Office will be required.

## 4.3 Fuel

Currently, there is no piped natural gas available to the site. Enbridge has been engaged to include this development in the proposed gas line extension, currently in process, to service the Amazon Warehouse and the CRRRC site. The gas pipeline is expected to reach the frontage of the site in fall 2021. In the interim, compressed natural gas will be supplied to the site by trailer. Information on this interim gas servicing arrangement is available in Appendix 'C'.

# 5 Additional Considerations

## 5.1 Fire Services Review

Detailed information has been provided to Ottawa Fire Services (Allan Evans, Fire Protection Engineer/Prevention Division) regarding the natural gas supply (interim and long term) and the asphalt plant operations and materials. At this time, Ottawa Fire Management has indicated that “subject to OFS review – possible on-site <temporary> water storage may be required”. Until OFM determines what their exact requirements are, they have suggested that either the water retention pond at the rear of the property, or a temporary water tank will likely be adequate. A Risk & Safety Management Plan style document may need to be developed to ensure local fire services are aware of any special requirements of the site. At this time they have advised the site plan review commence and they will work in parallel (Appendix 'D').

## 5.2 Watercourses and Drainage

The site is highly disturbed and based on air photos was primarily cleared of vegetation between 2008 and 2011. Drainage channels have been established, filled and re-dug over time, generally out-letting towards the north east, now the rear of the property. Based on air photo records, ultimately drainage appears to have connected to Regimbald Municipal Drain on the other side of Highway 417 through adjacent lands.

In consultation with City of Ottawa and South Nation Conservation staff, it appears that the drainage ditches have been approved for total removal on the CRRRC site. Staff have agreed that no headwater assessment will be required on the subject site, as the remaining upstream portions of the channels are therefore defacto disconnected (Appendix 'E'). However, in the interest of maintaining contribution to the downstream channels and maintaining drainage for the subject site, an agreement in principle has been established with the CRRRC site and a connection along the north property boundary to the main north - south ditch on the adjacent Amazon site shall be re-established (Appendix 'E'). A permit under O. Regulation 170/06 from SNC shall be required to make the connection.

Inquiries have been made with the Municipal Drain Superintendent regarding Drainage Act requirements, if any.

Muncaster Environmental was retained to undertake a review of the channels on the site. Their report concludes that maintaining and enhancing the hydration contributions to downstream channels should be maintained and enhanced where possible. To achieve this, all surface water will be kept in the existing drainage area. The linear stormwater management feature planned for the rear of the development will maintain hydration in the downstream channels and provide water quality treatment, an improvement over the existing conditions. Planting of native trees and shrubs around the stormwater management feature will provide some thermal mitigation and local wildlife habitat.

### 5.3 Consultation

A consultation with Councillor George Darouze, the interim Council representative on rural planning authority matters for Cumberland was requested in May 2020. A copy of the site plan and supporting information and materials were provided for review. On June 12, 2020 an email was received from Councillor Darouze indicating that the file had been reviewed and he was in support of the application (Appendix F).

The agent and owner for the Taggart Miller CRRRC site, with the adjoining entrance, has been appraised and consulted regarding this proposal and have no issues.

Pomerleau, the owner/operator of the adjoining site along Boundary Road (and former owner of the subject site) is aware of this proposal and has no issues.

In general, for other surrounding lands, this application will improve the visual appearance of the site from the road and adjacent properties, bring the site into conformity with air and noise requirements, and establish improved property standards and operation management in comparison to the land use and activity that has been occurring on the site to date.

## 6 Supporting Report and Plan Summaries

The **Site Plan** shows the location of the structures, aggregate storage, parking and truck traffic pattern on site. An **Erosion and Sediment Control Plan** has been prepared to protect surface water quality and adjacent properties.

**Elevation and Plan Views** of plant components are included in the submission package as an information item only.

### **Servicing and SWM Report / Drainage and Grading Plans:**

Servicing for potable water and wastewater are being provided as discussed in Section 4.1 and 4.2 of this Planning Rational.

Stormwater from the site will be captured in a swale along the rear of the property and conveyed through the CRRRC site, connecting to the channel relocated around the Amazon Warehouse site. This is consistent with the existing drainage pattern and receiver. Enhanced quality and post to pre 5-year and 100-year quantity controls are designed into the system as required.

The circulated CRRRC site plan did inadvertently cut off the drainage from 5445 Boundary Road and they have been cooperative in addressing this moving forwards. The outlet from the subject site is proposed to be conveyed through a relocated channel through the CRRRC site. Robinson Consultants has had this discussion with the CRRRC engineering staff at Golder. We have spoken with the CRRRC application agent, Tim Chadder at JL Richards, and communicated with Taggart directly. It is our understanding that the new channel designed by Robinson will be accommodated in the next round of CRRRC plans. Capacity calculations for the outlet ditch are contained in the stormwater management report. This drainage channel coming from the 5455 Boundary Road site will be aligned up the north property boundary of the CRRRC site and connect to the remnant upstream stub of the Amazon site channel. No works are proposed on the Amazon site.

An Environmental Compliance Approval application for the industrial stormwater shall be submitted by direct submission, via the City of Ottawa, to the Ministry of Environment. This shall be done as soon as Ottawa staff provide their review and sign off.

Correspondence with Municipal Drainage staff was initiated, however no response regarding this matter as been received to date.

### **Environmental Site Assessments (Phase 1 and Phase 2)**

Based on the results of investigations, it has been determined that soil and groundwater meet the applicable MECP Table 2 site condition standards.

### **Geotechnical Study:**

Foundation design, grade elevations and drainage have accounted for the underlying soil conditions as described in this report.

### **Transportation Impact Assessment:**

A stage 2 assessment has been completed and accepted by City of Ottawa transportation review staff. The proposed operation of the plant is expected to result in approximately 1,600 asphalt trucks per year and 1,600 material delivery trucks per year. This would be approximately 8-10 vehicles during the AM and PM peaks, and an average of 2-3 inbound and outbound trucks per hour during the day.

### **Channel Review:**

A site visit was undertaken in June 2020 to evaluate potential watercourse values by a qualified biologist. In consideration of site conditions and downstream development, the existing channels were not considered retainable. Recommendations regarding protection of downstream watercourse were provided.

### **Landscape Plan:**

A street frontage berm and fencing shall provide a visual (and noise) barrier to the operations. Coniferous and deciduous trees, complemented by bushes are being planted along the berm and around the gated entrance. Additional vegetation is being added around the drainage collection channel at the rear of the site to support thermal mitigation and water quality. Signage shall be installed in keeping with by-laws.

### **Air and Noise Report (provided for information only):**

Air and noise control for adjacent lands has been evaluated and a permit for an Air and Noise Environmental Compliance Approval (ECA) is currently being processed by the Ministry of the Environment. Mitigation measures have been included in the design of the site plan which include the positioning of a noise berm fronting the site and aggregate stockpiles surrounding specific machinery where required (and/or storage containers if the aggregate piles are not sufficient).

## 7 Conclusion

The proposed development to support the operation of a hot asphalt plant is appropriately located for the land use and function. The site components are situated and designed in accordance with the applicable provincial regulations, municipal by-laws and best practices. Ottawa D-Squared Asphalt Ltd. expects to commence site construction in spring 2021 with plans to be operational by May.

## 8 JFSA Statement of Limitations

J.F. Sabourin and Associates Inc. (JFSA) has prepared this report, and performed the services described in this report, in a manner consistent with the level of care and skill normally exercised by registered professional planners currently practicing under similar conditions in the jurisdiction in which the services are provided, subject to the time limits and financial and physical constraints applicable to the services. No other warranty, expressed or implied, is made. This report has been prepared for the exclusive use of the client representative, for the specific site, objective, and purpose described to JFSA by the client. The factual data, interpretations and recommendations pertain to a specific project as described in this report and are not applicable to any other project or site location. Any change of site conditions, purpose and/or development plans may alter the validity of the report. The report, which specifically includes all tables, figures and appendices, is based on data and information assembled by JFSA, and is based on the conditions at the site and study area at the time of the work and on the information provided by others. JFSA has relied in good faith on all information provided and does not accept responsibility for any deficiencies, misstatements, or inaccuracies contained in the report as a result of omissions, misinterpretation, or fraudulent acts of the persons contacted or errors or omissions in the reviewed documentation and data. Any use which a third party makes of this report, or any reliance on, or decisions to be made based on it, are the responsibilities of such third parties. JFSA accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.