

PLANNING RATIONALE

IN SUPPORT OF PROPOSAL FOR SITE PLAN CONTROL APPROVAL

6150 THUNDER ROAD & 5368 BOUNDARY ROAD, OTTAWA

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6150 THUNDER ROAD & 5368 BOUNDARY ROAD, OTTAWA AUGUST 2021

August 2021

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1.0 INTRODUCTION

Avenue 31 has retained Re: public Urbanism to prepare a planning rationale in support of an application for Site Plan Control (SPC) approval affecting 3 contiguous properties at 6150 Thunder Road, 5368(A) Boundary Road, and 5368(B) Boundary Road – shown on Figure 1 (opposite). The purpose of this application is to facilitate the development of the subject lands for light industrial, logistics, and distribution warehouse uses within an existing Rural Employment Area located around the Boundary Road – Highway 417 interchange, creating new opportunities for economic development, growth, and diversity in the City.

The proposal generally involves the development of five new light industrial buildings, intending to serve users in distribution, light industrial, logistics, and warehousing sectors. This proposal is a follow-up to the previously submitted proposals for Official Plan and Zoning By-law Amendments on the lands to allow for employment uses to be established.

This report has been prepared in support of the proposed development, and has been organized into the following sections:

- Section 2.0 provides an overview of the subject lands, including site location, notable features, current uses, and the local land use context in the immediate vicinity;
- Section 3.0 provides an overview of the site plan and proposed development.
- Section 4.0 summarizes and analyses the policy framework applicable to the proposal including the Provincial Policy Statement and City of Ottawa Official Plan:
- Section 5.0 summarizes the supporting application materials identified by City Staff as required as part of a complete application;
- Section 6.0 provides a conclusion and recommendation on the proposed development.



2.0 OVERVIEW OF SUBJECT LANDS & LOCAL CONTEXT

2.1 SITE LOCATION

The subject lands are located at a major eastern gateway to the National Capital Region, approximately 2.5 km south of the Village of Carlsbad Springs in the City of Ottawa (Figure 2). The lands are situated immediately south of the Highway 417/Boundary Road interchange on Thunder Road, and west of an established and designated rural employment area anchored by Amazon's distribution warehouse at 5371 Boundary Road. The subject lands are an assembly of three parcels: 5160 Thunder Road, 5368(A) Boundary Road, and 5368(B) Boundary Road as previously shown on Figure 1. While the subject lands are an assembly of three contiguous parcels of land, the subject lands will be developed as two distinct sites.

2.2 SITE DETAILS

The subject lands are approximately 17.75 hectares with frontages on both Thunder Road (423 metres) and Boundary Road (82 metres). The lands are relatively flat with some tree cover, and are bisected by an unnamed drain at the north end of the subject lands crossing west-east. This drain creates a natural division of the lands with a 2.41 ha "northern" parcel and a 15.34 ha "southern" parcel. As part of this proposal, only the 15.34 ha parcel of lands south of the intersecting drain will be developed.

While the majority of the lands are undeveloped, two developed areas do exist within each of these respective parcels:

- On the "northern parcel", a single detached dwelling homesite occupies approximately 0.75 ha and fronts onto Thunder Road.
- On the "southern parcel" a second single detached dwelling homesite occupies approximately 0.13 ha, which fronts onto Boundary Road.

The above developed areas also contain two of the three existing road entrances to the subject lands. A third existing road entrance is located adjacent to the northernmost boundary of the subject lands. It is intended that the buildings and other improvements on the lands be removed to facilitate the proposed development.



2.3 CURRENT & PROPOSED OFFICIAL PLAN DESIGNATION

The subject lands are currently designated "General Rural Area" on Schedule A of the City of Ottawa Official Plan (OP), as shown below in Figure 3. Per the ongoing proposal for OP amendment, the owner is currently in the process of redesignating the lands to "Rural Employment Area". As such, the lands were reviewed as if the proposed "Rural Employment Area" designation is in place.

Section 3.7.5 of the OP states that the intent of this designation is to support and encourage clustering of industrial uses not suitable in the urban area or general rural area. The section additionally notes that those Rural Employment Areas located in close proximity to 400-series highway interchanges are uniquely suited to transportation facilities such as truck terminals, warehouses, courier and freight facilities that support inter- and intra-provincial movement of goods. Subsection 3.7.5.2 further outlines the permitted uses in the Rural Employment Area, which generally include those uses proposed under this application for site plan control approval - new heavy and light industrial uses; new transportation, warehouse and storage operations.

All development within the Rural Employment Area is subject to Site Plan Control, and must be supportable on individual well and septic systems unless the City agrees to the development of small water/wastewater works.

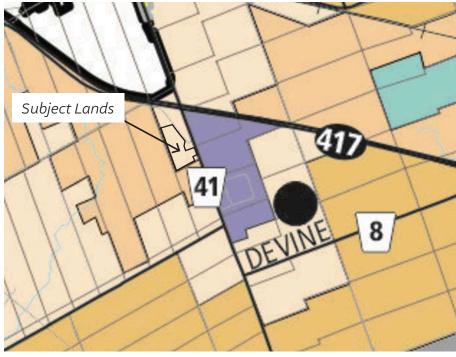
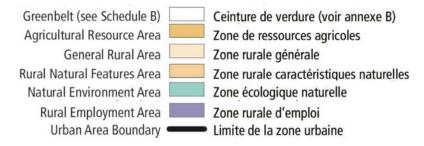


Figure 3 - City of Ottawa Official Plan Schedule A



2.4 CURRENT & PROPOSED ZONING

The subject lands are currently zoned "Rural Countryside (RU) Zone" under City of Ottawa Zoning By-law No. 2008-250 (ZBL), as shown below in Figure 4. Per the ongoing proposal for ZBL Amendment, the owner is currently in the process of rezoning the lands to "Rural General Industrial (RG) Zone". As such, the lands were reviewed as if the proposed RG Zoning is in place.

The ZBL states that the general purpose of the RG zone is to:

- permit the development of light industrial uses in areas mainly designated as General Rural Area, Village and Carp Road Corridor Rural Employment in the Official Plan;
- accommodate a range of light industrial uses and limited service commercial uses for the traveling public; and,
- regulate development in a manner that respects adjacent land uses and will have a minimal impact on the surrounding rural area.

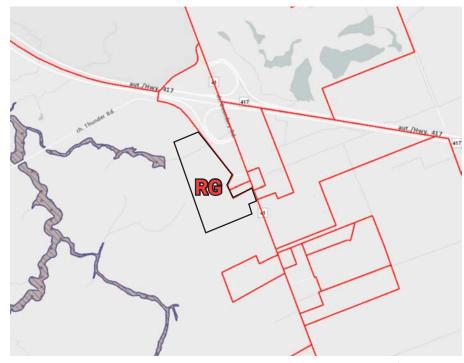


Figure 4 - Proposed Site Zoning

Section 219 of the ZBL establishes the permitted uses and provisions applicable to uses in the RG Zone. Below is a brief overview of the permitted uses:

animal care establishment*	kennel
animal hospital	leaf and yard waste composting facility
automobile body shop	light industrial uses
automobile dealership	parking lot
automobile service station	personal service business*
bank machine*	printing plant
bar*	restaurant*
Cannabis Production Facility, and contained within a building that is not a greenhouse*	retail store*
car wash*	service and repair shop
convenience store*	storage yard
drive-through facility	truck transport terminal
dwelling unit	warehouse
gas bar	waste processing and transfer facility

heavy equipment and vehicle sales, rental and servicing

^{*}Conditional permitted use

2.5 LOCAL CONTEXT

Surrounding lands were examined to provide an understanding of the local land use/development context of the immediate area to help identify any potential challenges or opportunities that may exist. The findings of this investigation are provided in Figure 5 and the table below.

NORTH

- · 4 large rural-residential parcels each containing a single detached dwelling
- Trans-Canada Highway 417 as well as the Boundary Road Interchange
- (north of Highway 417, east of Boundary Road) Southeast extent of the Ottawa Greenbelt
- (north of Highway 417, west of Boundary Road) Grey Hawk Golf Club

EAST

- Some highway commercial uses at the Thunder Road/Boundary Road intersection (gas/service station, road-side restaurant, open storage, auto parts service/vehicle storage yards)
- Highway 417/Boundary Road Rural Employment Area, containing a range of light to heavy industrial uses, including the +1
 million ft² Amazon Distribution Warehouse, a number of contractor shops/yards, automobile salvage, equipment rentals, as
 well as the future Capital Region Resource Recovery Centre
- One existing single detached dwelling immediately south of the Boundary Road frontage, and two existing single detached dwellings on the east side of Boundary Road
- Two properties containing single detached dwellings are located immediately south of the subject lands on Boundary Road, one of which appears to also accommodate a home-based contracting/landscaping business
- · An undeveloped lot that is largely forested

SOUTH

- Further south (approx. 310 m) there is a third residential property containing a single detached dwelling, as well as a 7.65 ha property zoned for Rural Heavy Industrial uses. It is our understanding that preliminary development proposals have been created for these properties to accommodate a future 60,000 ft² truck transportation terminal/warehouse
- The lands immediately south of the Boundary Road and Mitch Owens Road intersection have also been recently developed to accommodate a 50,000ft² transport tuck terminal/warehouse

WEST

• The lands to the west of the site are completely forested and contain a number of smaller drains/watercourses, locally known as the "Bear Brook Headwaters"



3.0 PROPOSED DEVELOPMENT

3.1 PROJECT DESCRIPTION

The proposed development is seeking to build on the existing Rural Employment Area at Highway 417/Boundary Road interchange, and see the development of the subject lands for light industrial, logistics, and distribution warehouse uses. Given the size of the site, direct access to a major transportation corridor, and location within an existing cluster of industrial uses, the subject lands present an excellent opportunity to accommodate users in the logistics sector who require large sites, direct highway access, and separation from sensitive land uses/areas.

The site plan is provided in Figure 6 - for more specific detail, the individual site plan drawings should be referenced. As shown on Figure 6, the proposal includes five industrial buildings each intended to accommodate light industrial/warehouse users. Each of the buildings would consist of general warehousing space, along with associated office and other administrative space. Based on the intended users, the site could easily accommodate several hundred employees.

Development of the lands is generally broken into two distinct areas:

- Area 1, the largest development area, would accommodate five (5) warehouse facilities having a combined overall footprint of 41,065 m², heights ranging from 6.1m to 7.3m, 60 oversize truck docks, and parking for 315 vehicles (plus 10 barrier free spaces). An open storage area is planned to be situated in the centre of the four larger buildings, which allows for screening from Thunder Road and adjacent properties this location will also contain water storage cisterns for firefighting purposes. The site's central stormwater detention pond and waste treatment facility would be situated north of the developed area here, serving as an overall catchment/management centre for the entire site.
- Area 2, the second area of the site will be severed under a concurrent consent application currently being processed by the City. The specific development intended for this site is not finalized at this time.

A private internal road will serve the development area, allowing truck/employee traffic to enter the site from one of two entrances on Thunder Road and a new Boundary Road entrance. The internal road network would assist in separating employee/truck traffic, as well as circulation on site, while providing driveways and parking areas appropriately suited to the size of the vehicles.

The significant size of the site allows for adequate setbacks from the unnamed drain separating Areas 1 and 2, separation from adjacent rural land uses to the southeast and north, and allows for a considerable amount of green space to be maintained following development. The significant amount of tree cover around the site will further assist with buffering and mitigating potential impacts due to

noise, lighting, and/or the visual presence/scale of the buildings and operations. As detailed in Section 6.0, an Environmental Impact Statement (EIS) was carried out to ensure that the future development of the subject lands does not negatively impact and/or affect the natural heritage or other features on and around the site.

The proximity of the site to Highway 417 as well as the design capacity of the existing road network in the immediate area would serve to benefit users of the site who would rely on this connection for their operations. As outlined in Section 5.0 of this report, a Traffic Impact Assessment (TIA) was prepared in support of the proposal to ensure that the impacts on the transportation network are appropriately considered and/or mitigated through design. Considering the existing industrial design capacity of Boundary Road and the minimal travel distance to access Highway 417, only minor improvements to the existing network are anticipated in order to accommodate future development on the site. A design brief component is inlcuded within Section 4.3 of this document, and further information on the TIA is provided in Section 5.0.

The site does not have access to municipal storm, sanitary, or traditional water service as the infrastructure does not exist on Boundary Road or Thunder Road; however, the site is within the service boundary of the Carlsbad Springs trickle-feed water system. The subject lands will therefore employ partial services: municipal water via the Carlsbad Springs Trickle Feed System from Thunder Road and/or Boundary Road; and a private individual on-site sewage treatment system. The proposed servicing arrangements for the site are detailed further in the Functional Serviceability Report prepared by LRL Engineering in Section 5.0.

Considering the scale and nature of the proposed development, it will also be important to consider the applicant's obligation for undertaking public consultation in accordance with the City of Ottawa's requirements. Public consultation will be undertaken with the community as part of the ongoing OP and ZBL amendment processes. The date, location, and form of the consultation as part of the proposal will be developed in close coordination with the City of Ottawa to ensure all requirements are met.

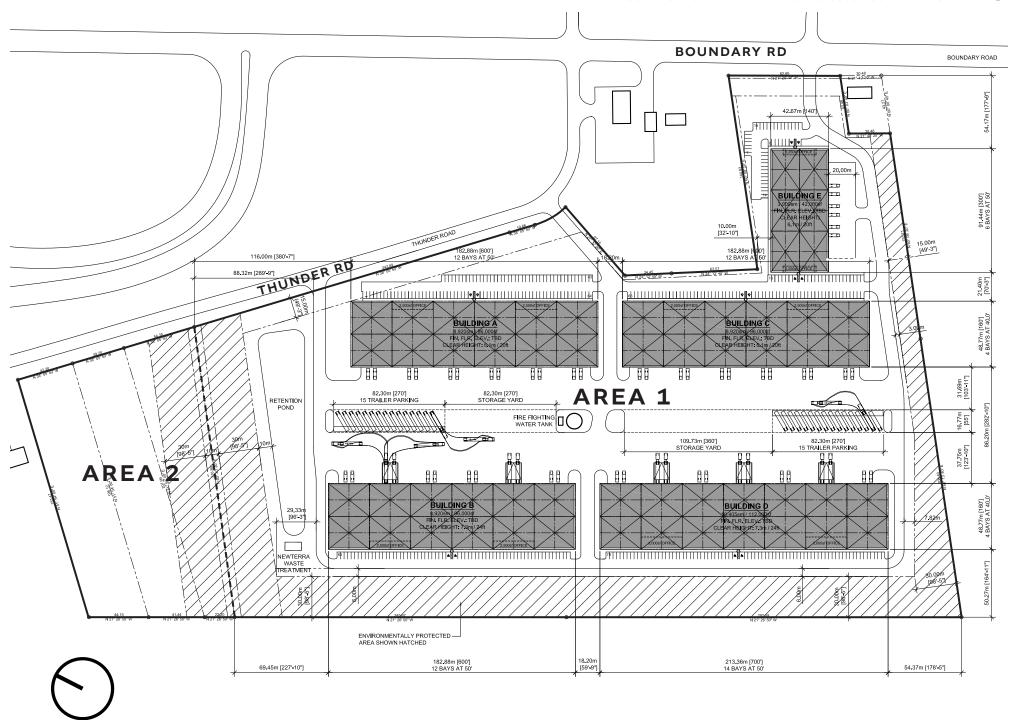


Figure 6 - Site Plan

3.2 PENDING OFFICIAL PLAN AMENDMENT (2021)

The subject lands are currently designated "General Rural Area" on Schedule A of the City of Ottawa Official Plan (OP). The owner is currently in the process of redesignating the lands to "Rural Employment Area" in order to permit the development of the lands for industrial users.

The overall purpose of the proposed amendment is to provide a suitable location for users in the logistics sector who require a large site, direct highway access, and separation from sensitive land uses/areas. These three criteria are becoming increasingly difficult to satisfy in the City of Ottawa considering the current supply of undeveloped employment land. However, in order to achieve this, it is necessary to change the underlying designation of the subject lands as City Staff are of the opinion that the scale of the proposed development does not reflect the intent of the General Rural Area designation. The area around the Highway 417-Boundary Road Interchange continues to grow as a rural employment node, and few opportunities remain for large-scale employment uses here without an expansion to the area.

The proposed development reflects the growing rates of logistics-focused economies, industry, and inventory management, and the need for larger tracts of industrial lands situated at or near major transportation corridors like the 417. Furthermore, the subject lands present an good opportunity to provide for larger tracts of additional needed employment lands in an established Rural Employment Area adjacent to a 400-series interchange that are not feasible to find or situate inside the urban area. As clearly demonstrated by the rapid rates of development of the employment lands on the east side of Boundary Road, the west side of Boundary Road is well-positioned to provide for a logical expansion of employment lands to satisfy market demands, while making efficient use of existing transportation, hydro, and water infrastructure.

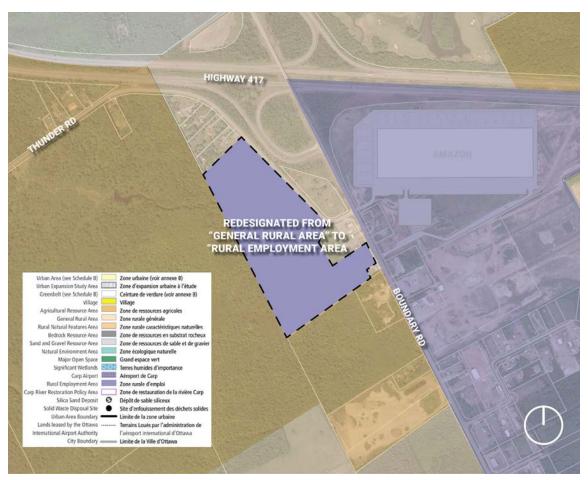


Figure 7 - Proposed Amendment to Official Plan Schedule A

3.3 PENDING ZONING BY-LAW AMENDMENT (2021)

Pursuant to the City of Ottawa Zoning By-law No. 2008-250, the subject lands are currently zoned "Rural Countryside (RU) Zone".

To conform with the proposed official plan amendment redesignating the lands from "General Rural Area" to "Rural Employment Area", the applicant is proposing a Zoning By-law Amendment to rezone the lands from "Rural Countryside (RU) Zone" to "Rural General Industrial (RG) Zone" in order to accommodate the proposed development. The proposed Zoning By-law Amendment is shown in Figure 8.

The effect of the amendment would be to accommodate the proposed development of the lands for industrial warehouse uses in general accordance with the proposal for site plan control approval. In our opinion, the site can meet and/or exceed the minimum provisions of the RG Zone - as evidenced in the zoning performance review carried out for the proposed development in Section 4.4.

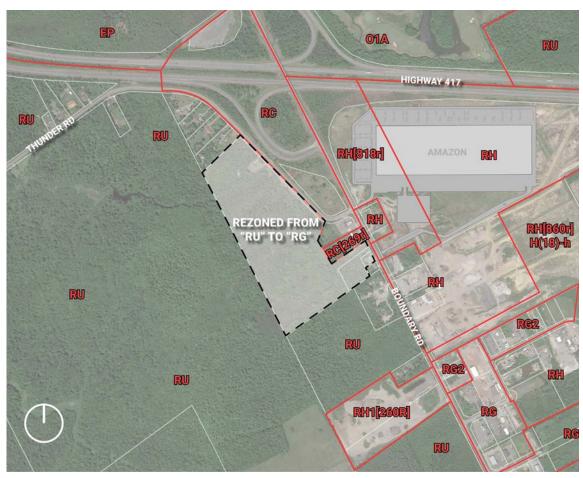


Figure 8 - Proposed Amendment to Zoning By-law No. 2008-250

4.0 POLICY FRAMEWORK & RATIONALE

This section contains an analysis of all relevant policies, regulations, and guide-lines applicable to the subject lands and the development - including the proposed OP and ZBL Amendments and Site Plan Control proposal. *Italicized text* summarizes the relevant planning directive, followed by an analysis and rationalization of the directive in plain text.

4.1 PROVINCIAL POLICY STATEMENT (2020)

The Provincial Policy Statement (PPS) is the Province's policy statement on land use planning and Section 3 of the Planning Act requires that decisions affecting planning matters 'be consistent' with policy statements issued under the Act. The purpose of the PPS is to promote more effective and efficient approaches to land use planning that protect resources of provincial interest, public health and safety, and the quality of the natural and built environment, in order to help build resilient and sustainable communities across the province.

Section 1.1.1 states that Healthy, liveable and safe communities are sustained in part by:

- promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term; and,
- accommodating an appropriate range and mix of residential, employment, institutional, recreation, park and open space, and other uses to meet longterm needs

The proposed development seeks to expand an established employment area at a 400-series highway interchange to support the logistics sector in the City and the broader region. Specifically, the proposal would provide an opportunity for larger logistics users to establish at a key gateway to the City with regional connections assisting in provision of an appropriate mix of land uses to meet long-term needs. Further as the proposed development would form part of a larger contiguous existing employment area, it would efficiently expand upon the existing land use pattern of the area minimizing inefficient infrastructure expansion and maintenance.

Section 1.1.2 states that sufficient land shall be made available to accommodate an appropriate range and mix of land uses to meet projected needs for a time horizon of up to 25 years, and further that employment areas may be planned beyond a 25-year time horizon.

The findings of the 2016 Employment Lands Review undertaken by the City of Ottawa (detailed further herein) concluded that the City's overall employment lands supply is sufficient to meet long term demand to 2036 and possibly to

2041. However, the Review also notes that with current use permissions there are few urban locations within the City that can meet highway-dependent industrial development suited to logistics operations and other heavy industrial users that require large sites, and immediate / close access to major highways. Given the lack of appropriately sized and located employment lands within already designated employment areas it is appropriate to plan and consider additional employment lands, particularly adjacent to existing employment areas.

Section 1.1.4.1(e)(f) state that Healthy, integrated and viable rural areas should be supported in part by:

- using rural infrastructure and public service facilities efficiently
- promoting diversification of the economic base and employment opportunities through goods and services, including value-added products and the sustainable management or use of resources

The proposal seeks to take advantage of the site's proximity to an existing and upgraded highway interchange and the area's existing water supply system and road system without the need for major upgrades or expansions (as confirmed by the accompanying TIA information). Further the industrial / logistics uses would assist in diversifying the City's employment base and providing additional employment opportunities, particularly in the City's east end and eastern rural area.

Sections 1.1.5.4 & 1.1.5.5 state that Development that is compatible with the rural landscape and can be sustained by rural service levels should be promoted, and that development shall be appropriate to the infrastructure which is planned or available, and avoid the need for the unjustified and/or uneconomical expansion of this infrastructure

The proposed development would be an expansion to the existing employment area to the east of the subject lands and developed at a similar density to the existing area. Landscaping and retention of mature vegetation on-site will ensure compatibility with the existing employment area and surrounding rural area. The domestic water demands of the site would be intended to be met using the flow provided by the Carlsbad Springs trickle-feed water system in conjunction with building-specific water tanks or cisterns to meet peak instantaneous demands.

Section 1.3.1(a)(b) states that Planning authorities shall promote economic development and competitiveness in part by:

- providing for an appropriate mix and range of employment, institutional, and broader mixed uses to meet long-term needs
- providing opportunities for a diversified economic base, including maintain-

SITE PLAN CONTROL - 6150 THUNDER ROAD & 5368 BOUNDARY ROAD

ing a range and choice of suitable sites for employment uses which support a wide range of economic activities and ancillary uses, and take into account the needs of existing and future businesses

The subject development present an opportunity for the City to increase its inventory of employment lands suitable to those industrial users requiring larger sites and easy highway access, given the limited opportunities in the City's existing employment areas. With the continued growth and importance of the logistics sector, this proposal provides an for the City to continue to support a diversified economic base that takes into account the needs of existing and future businesses.

Sections 1.3.2.6 states that planning authorities shall protect employment areas in proximity to major goods movement facilities and corridors for employment uses that require those locations, and that major goods movement facilities and corridors shall be protected for the long term, and that freight-supportive approaches should be used in the development of lands within or adjacent to these facilities or corridors.

The east side of Boundary Road was identified for a Rural Employment Area designation following the 2016 Employment Lands Study, in order to protect this area for future employment uses/users requiring highway access. This proposal would represent an expansion to this existing highway-adjacent employment area and further solidify the planned function of the area as supporting logistics operations, freight and goods movement.

Section 1.6.6 establishes the provincial policies respecting sewage, water, and wastewater servicing arrangements for development. This section further establishes the following servicing hierarchy, in order of preference: municipal; private communal; individual on-site; wherein selection criteria is based on whether the most preferred service arrangement is available, planned, or feasible. Section 1.6.6.4 states that where municipal sewage services and municipal water services or private communal sewage services and private communal water services are not available, planned or feasible, individual on-site sewage services and individual on-site water services may be used provided that site conditions are suitable for the long-term provision of such services with no negative impacts. Section 1.6.6.5 also permits the use of partial services in circumstances where the proposal would constitute a rounding out of existing development, and where it would represent a logical and financially viable connection to the existing partial service.

As detailed in Section 4.2 of this report, Policy 2.3.2(14) of the City of Ottawa Official Plan states where no provision for public services exists, the City may permit development on private services in defined Public Service Areas if (among other conditions) full servicing is not technically or financially feasible and the proposed

servicing arrangements are adequate. The proposed development will employ partial services, with municipal water connections via the Carlsbad Springs Trickle Fee System (located on Thunder Road and Boundary Road) and private on-site individual sewage systems. Onsite sewage treatment and collection facility(ies) will be designed in detail to release treated effluent to the unnamed drain running through the property. Based on the information provided in the Functional Serviceability Report prepared by LRL Engineering, it is in our opinion that the site conditions are suitable for the long term provision of these arrangements, which will be further revisited as necessary through the site plan control process.

Section 1.6.6.7 states that planning for stormwater management shall: be integrated with planning for sewage and water services; minimize/prevent increases in contaminant loads; minimize erosion and changes in water balance; mitigate risks to human health, safety, property and the environment; maximize the extent and function of vegetative and pervious surfaces; and, promote stormwater management best practices, including stormwater attenuation and re-use, water conservation and efficiency, and low impact development.

Stormwater runoff currently flows uncontrolled to the South & West borders of the property. The property is mostly pervious area, and in developing the lot into a "light industrial" lot, further impervious areas will be introduced on the property. The increase in impervious area, along with City of Ottawa design requirements, will require the site to implement a stormwater quantity and quality management system. As detailed in the Functional Serviceability Report prepared by LRL Engineering, a combination of an on site sewer network, detention areas, quality treatment units, best management practices and low impact development principles are to be implemented to ensure the proposed development will meet the City's stormwater quantity and quality requirements. Stormwater management for the site will meet the minimum requirements of the City of Ottawa, and achieve a high level of conformity with section 1.6.6.7 of the PPS.

Section 1.6.8.2 and 1.6.8.3 states that new development proposed on adjacent lands to existing or planned corridors and transportation facilities should be compatible with, and supportive of, the long-term purposes of the corridor and should be designed to avoid, mitigate or minimize negative impacts on and from the corridor and transportation facilities.

The proposed users for the site are logistics-oriented, and require high-capacity roadways, easy access to highways, and separation from more dense/incompatible urban areas typically observed in villages/settlement areas. The proposal is compatible with and supportive of the long-term purposes of the Highway 417 corridor as an important regional / inter-provincial corridor.

Section 1.7.1(a) states that Long-term economic prosperity should be supported in part by promoting opportunities for economic development and community investment-readiness.

The City's 2016 Employment Lands Review noted that since the supply of vacant employment land within the Greenbelt is limited, and most available parcels are constrained by their size, shape or accessibility, there is a need to maintain vacant Employment Lands outside the Greenbelt, particularly for industrial businesses and employers requiring large sites. The most attractive and suitable Employment Lands likely will be those adjacent to highway interchanges. The proposal will allow for the City to expand its inventory of rural employment lands supporting investment-readiness.

Section 1.8.1(d) states that planning authorities shall support energy conservation and efficiency, improved air quality, reduced greenhouse gas emissions, and preparing for the impacts of a changing climate through land use and development patterns which focus freight-intensive land uses to areas well served by major highways, airports, rail facilities and marine facilities.

The subject site is situated directly south of a 400-series highway interchange and is well-served by the existing local arterial road network, reducing the higher fuel consumption rates and emissions associated with urban travel for larger vehicles.

Section 2.1 establishes policies respecting the protection of Natural Heritage features.

Natural heritage features (namely woodlands) have been identified on and adjacent to the subject lands pursuant to Schedule L1 of the City of Ottawa Official Plan. In order to address these features, an Environmental Impact Statement (EIS) was carried out by Kilgour & Associates Ltd. in accordance with the requirements of the PPS and the City of Ottawa Official Plan. The EIS found that while a portion of significant woodland is proposed to be removed (approximately 4.1 ha forest and 0.8 ha of thicket swamp), they are part of small area of regrowth on former farm fields extending out from the main, more-mature forest block to the west. This area to be cleared represents 3% of the broader forested area, and the impacts anticipated to the Significant Woodland are considered to be minor.

Section 2.2 establishes policies respecting the protection of Water.

There is an unnamed drain that bisects the northern part of the subject lands. As shown on the site plan, every effort will be made to ensure that the future development of the subject lands respect minimum setbacks from this water feature. Based on the site plan, all development on the lands (aside from the stormwater works) would be capable of achieving a minimum 60 metre setback from the top of bank of the unnamed drain. Furthermore, the Environmental Impact Statement (EIS) carried out by Kilgour & Associates Ltd. for the proposed development

outlines a number of mitigation measures to be implemented through further site planning/development to protect the unnamed drain, including but not limited to: multi-faceted approaches to erosion and sediment control; retention of existing vegetation where possible; and maintaining overland sheet flow to avoid concentrated flows. The overall stormwater management plan prepared for the site has taken the presence of this unnamed drain into consideration, and the design/location of the future detention pond will allow for runoff to be managed so as not to overload this receptor.

Section 2.6 requires that planning authorities conserve and protect cultural heritage resources including archaeological resources.

As described further in Section 4.2 of this report, a Stage 1 Archaeological Assessment of the subject lands was carried out by Paterson Group Inc., which concluded that there was low potential for pre-contact Aboriginal and low-medium potential for historic Euro-Canadian archaeological resources within the study area. A Stage 1 site visit confirmed that the entire property is either wet and low-lying or significantly disturbed and thus meets the criteria for exclusion from Stage 2 survey.

Section 3.2 establishes policies to reduce the potential for public cost or risk to residents from human-made hazards

Phase I & II Environmental Site Assessments (ESAs) were carried out by Paterson Group Inc. The presence of a former gas station situated immediately east of the site triggered the requirement for a Phase II for further investigation. The Phase II ESA concluded that soil sampling results and groundwater analysis comply with the selected MECP Table 2 Industrial Standards for potable-water conditions. No further concerns were raised, and no further investigation was required following the Phase II ESA, and as such, there are no concerns regarding compliance with Section 3.2 of the PPS.

4.2 CITY OF OTTAWA OFFICIAL PLAN (2003, AS AMENDED)

The Official Plan (OP) of the City of Ottawa (2003, As Amended) establishes the vision and policy framework to guide the physical growth of the City's urban and rural areas to the year 2036.

Section 2 outlines the strategic directions with which the City will pursue to meet the challenges of growth, which include the following as they relate the proposed development:

- Managing Growth, specifically by ensuring Infill and redevelopment will be compatible with the existing context or planned function of the area and contribute to the diversity of housing, employment, or services in the area; and,
- Building Liveable Communities, specifically by providing for a wide range

of economic activities in suitable locations to provide a balance of jobs both inside and outside the Greenbelt

The proposed development is directly aligned with the City's strategic directions for managing growth, as the proposed development would be compatible with the range of existing industrial/commercial uses in the immediate area and would further diversify the existing employment area and provide additional employment opportunities. As noted previously, opportunities for larger sites with good highway access are very limited within the Greenbelt – furthermore, the immediate Highway 417 / Boundary Road Employment Area does not currently have any vacant lands available for the proposed scale of development.

Policy 2.3.1(43) states that the City will preserve strategic locations with superior access to major highways, the airport, railroads and the arterial road network for distribution centres that intercept goods transported long distances by air, rail or truck and transfer them to smaller, more energy efficient vehicles for distribution within the city. The centres reduce the cost and increase the speed of deliveries within the city and divert heavy truck traffic from local roads.

In addition to their size, the location of the subject lands adjacent to and easily accessible from Highway 417 and an existing employment area at a major gateway to the City the lands constitute a strategic location for employment and logistics uses. Redesignating the lands for employment uses would fulfill the intent of the said policy to preserve such locations for employment and logistics uses.

Policy 2.3.2(14) states where no provision for public services exists, the City may permit development on private services in defined Public Service Areas provided that it can be demonstrated to the satisfaction of the City that such development:

- Is proposed in a circumstance where public services are not currently technically or financially feasible
- Can adequately be serviced by private individual services in accordance with Section 4.

It is recognized that the site is not located within the City of Ottawa sanitary service area, and that on-site private sewage collection and treatment will be required for the proposed development. For this reason, public sewage services are not feasible for implementation on the site. However, the Carlsbad Springs Trickle Feed System located on Thunder Road and Boundary Road is intended to serve the proposed development on the site. Further information is provided in the summary of the Functional Serviceability Report in Section 5.0.

2.3.3(1) states that development will be in accordance with the system capacity for drainage and will implement stormwater management and where relevant, will conform to stormwater site management plans, the Infrastructure Master Plan and community design plans practices necessary to protect, improve or restore the quality

and quantity of water in the receiving watercourse.

As detailed in the Functional Serviceability Report prepared by LRL Engineering, a combination of an on site sewer network, detention areas, quality treatment units, best management practices and low impact development principles are to be implemented to ensure the proposed development will meet the City's stormwater quantity and quality requirements. Stormwater management will meet the minimum requirements of the City of Ottawa, and achieve a high level of conformity with section Policy 2.3.3(1). Further information is provided in the summary of the Functional Serviceability Report in Section 5.0 and stormwater management plan provided as part of the site plan submission.

2.4.2(3) states that regardless of whether the features are designated in this Plan, an Environmental Impact Statement is required for development proposed within or adjacent to features described in policy 1 above, with the exception of surface and groundwater features. Development and site alteration within or adjacent to these features will not be permitted unless it is demonstrated through an Environmental Impact Statement that there will be no negative impact on the feature or its ecological functions.

Natural heritage features have been identified on and adjacent to the subject lands, which largely consist of woodlands. Accordingly, pursuant to Policy 2.4.2(3) above, as well as the requirements of the PPS, an Environmental Impact Statement was carried out by Kilgour & Associates Ltd. The findings of the EIS are briefly outlined in Section 5 of this report, which demonstrates that no negative impacts are anticipated to the natural heritage features and/or their ecological functions. The EIS further addresses the additional policies in 3.2.4 of the OP respecting rural natural heritage features.

Section 3.7.5 states that Rural Employment Areas are intended to support and encourage clustering of primarily industrial uses not suitable in the Urban Area or General Rural Area, and add to the diversity of opportunities for economic development and those seeking large sites and proximity to the urban area and further, Those rural employment areas located in close proximity to 400 Series Highway interchanges are uniquely suited to transportation facilities such as truck terminals, warehouses, courier and freight facilities that support inter — and intra-provincial movement of goods.

The industrial logistics/distribution uses intended for the site are not reasonably capable of being located within an urban area, due to their requirements for large parcels and access to high-capacity transportation infrastructure. However, the location of the subject lands at a major gateway to the City still allows for proximity to the urban area.

Policy 3.7.5(2)(b) states that uses permitted within rural employment areas include, but are not limited to new transportation, warehouse and storage operations; these uses are encouraged to locate on sites in close proximity to arterial roads and highway

interchanges where they would not be more appropriately located within a village or settlement area.

The proposed uses intended for the site would conform to the uses intended for the Rural Employment Area designation. The proposed development will also generate a large amount of vehicle traffic that would not be appropriate within a village, and is more suitably accommodated by the provincial and regional road infrastructure that serves the site/immediate area. Furthermore, the proposed development is consistent with the rural industrial character of the surrounding area to the east of Boundary Road and south of the subject lands, wherein a mix of "Rural Heavy Industrial (RH)" and "Rural General Industrial (RG)" Zones are in place. The proposed "RG" zoning for the subject lands would be consistent with the Rural Employment Area designation policies in the OP.

Policy 3.7.5(4) states that all new development must be supportable on individual well and septic systems unless the City agrees to the development of a number of sites on the basis of a small water and wastewater works as described in Section 4.4.2.4. Policy 4.4.2.4(4) states that the proponent of any development that includes a small water or wastewater works is required to submit the following additional information at the time of application:

- Hydrogeology and terrain analyses that demonstrate the long-term sustainability of water supply and wastewater disposal;
- A vulnerability assessment in accordance with the terms of reference as specified at the time of a pre-application consultation;
- A Reasonable Use Study to determine the impact from the sewage system(s)
 on the groundwater, as described by the Ministry of the Environment guidelines; and
- The identification of any risk to the water supply and the mitigation necessary to protect that supply.

The Functional Serviceability Report prepared by LRL Engineering in support of the proposed amendments recognizes the requirement for further investigation and design considerations for the servicing arrangements proposed. This information has been prepared and submitted as part of the site plan control approval. Based on the preliminary conclusions of the Functional Serviceability Report, no concerns have been identified with respect to the ability for future development to conform with Policies 3.7.5(4) & 4.4.2.4(4) of the OP.

Section 4.2 outlines the general policies respecting adjacent land use designations and the potential triggers for further investigations on potential impacts.

Notwithstanding the current "General Rural Area" and proposed "Rural Employment Area" designations, the lands immediately adjacent (west) of the subject lands are designated "Rural Natural Features Area" on Schedule A and contain

natural heritage system feature(s) (woodlands), as identified on Schedule K. This triggered the requirement for the completion of an EIS to investigate the potential impacts on these features, as well as to demonstrate there will be no negative impacts to the natural heritage feature and/or their ecological function. Accordingly, an EIS was carried out by Kilgour & Associates Ltd. in support of the proposal, the findings of which are generally summarized in Section 5.0. Further environmental investigation/impact assessment has been carried out as part of the site plan control submission in coordination with the City and South Nation Conservation.

Section 4.3 outlines the policies with respect to walking, cycling, transit, roads, and parking lots.

Pursuant to Policy 4.3(6), as the proposal has the potential to impact transportation network(s) in the immediate area, a Transportation Impact Assessment (TIA) is required in support of any proposed development, in order to ensure that potential impacts on the transportation network are evaluated and addressed. Furthermore, the subject lands are situated within the Ministry of Transportation of Ontario (MTO) Permit Control Area; therefore, any proposed development is subject to review and approval from MTO.

In order to address the above, Crozier & Associates Inc. were retained to prepare a TIA in support of the proposal, in accordance with the City of Ottawa's "Transportation Impact Assessment Guidelines (2017)" and MTO's "Traffic Impact Study Guideline (2014)". At total buildout in 2025, the TIA projects a total generation of 134 and 143 two-way auto trips during the weekday a.m. and p.m., respectively. While no major concerns were noted in the TIA, given the capacity of the existing road network, a number of site-specific recommendations related to parking, roadway imporvements, and traffic demand management. Further information is provided in Section 5.0.

Section 4.4 outlines the policies with respect to Water and Wastewater Servicing, in order to ensure that there is a reliable supply of good quality water and safe disposal of wastewater. More specifically, Policy 4.4.2(1) states that anywhere development is proposed on the basis of private individual services and requires an application for an Official Plan or Zoning By-law amendment or involves a plan of subdivision, plan of condominium, severance or site plan approval, the City will require sufficient information with the application to assess the likelihood that the operation of the on-site wastewater system on the new lot(s) will not adversely impact a well to be constructed on the proposed lot(s) and on the wells of neighbouring properties

In addition to the Functional Serviceability Report, a Groundwater Impact Assessment (GIA) was prepared by Paterson Group Inc. in support of the proposed amendments, in order to address the requirements of policy 4.4.2(1) respecting the use of private individual services. Among other conclusions contained in this report, it specifically concluded that; the subject site is an ideal location for the proposed treated effluent surface discharge due to the lack of potential down-

stream receptors and the industrial nature of the neighbouring properties; the use of the planned private sewage treatment system for the site will not result in negative impacts on the till or Carlsbad Shale bedrock aguifers; and, the proposed treated effluent surface discharge to the unnamed drain is not expected to negatively impact the surface water in the area. Further information on the GIA is provided in Section 5.0.

Section 4.6.2 outlines the policies respecting cultural heritage resources. Specifically, Policy 4.6.2(2) states that when reviewing plans of subdivision and condominium, site-specific official plan amendments and site plans involving large parcels of undisturbed land, the City will determine whether any portion of a proposal has the potential for the discovery of archaeological resources.

Pursuant to the above, a Stage 1 Archaeological Assessment of the subject lands was carried out by Paterson Group Inc. to assess the archaeological potential of the property and determine whether further archaeological study was required. The assessment concluded that there was low potential for pre-contact Aboriginal and low-medium potential for historic Euro-Canadian archaeological resources within the study area. A Stage 1 site visit confirmed that the entire property is either wet and low-lying or significantly disturbed and thus meets the criteria for exclusion from Stage 2 survey. Therefore, no further work was recommended.

Section 4.7.3 requires the protection of rivers, streams, lakes, and other surface water features.

There is an unnamed drain that bisects the northern part of the subject lands. As shown on the concept plan, every effort will be made to ensure that the future development of the subject lands respect minimum setbacks from this water feature (30 metrs minimum). All development on the lands (aside from the stormwater works) would be capable of achieving a minimum 60 metre setback from the top of bank of the unnamed drain. Furthermore, the Environmental Impact Statement (EIS) carried out by Kilgour & Associates Ltd. for the proposed development outlines a number of mitigation measures to be implemented through further site planning/development to protect the unnamed drain, including but not limited to: multi-faceted approaches to erosion and sediment control; retention of existing vegetation where possible; and maintaining overland sheet flow to avoid concentrated flows. The stormwater management plan prepared for the site takes the presence of this unnamed drain into consideration, and the design/location of the future detention pond will allow for runoff to be managed so as not to overload this receptor. The Groundwater Impact Assessment prepared in support of the proposal further concluded that treated effluent from the site is not expected to negatively impact the natural systems west of the subject lands.

Section 4.7.8 states that an Environmental Impact Statement is required for development and site alteration proposed within and adjacent to natural heritage features designated as Rural Natural Features and adjacent to land designated as Urban

Natural Feature, Significant Wetland, and Natural Environment Area.

Rural Natural Features have been identified on Schedule K of the OP: therefore. an Environmental Impact Statement was carried out by Kilgour & Associates Ltd., the findings of which are generally summarized in Section 5.0. No concerns with respect to potential impacts on these features was identified.

Section 4.8.4 outlines policies respecting contaminated sites and the protection of public health and safety.

Phase I & II Environmental Site Assessments (ESAs) were carried out by Paterson Group Inc. The presence of a former gas station situated immediately east of the site triggered the requirement for a Phase II for further investigation. The Phase II ESA concluded that soil sampling results and groundwater analysis comply with the selected MECP Table 2 Industrial Standards for potable-water conditions. No further concerns were raised, and no further investigation was required following the Phase II ESA, and as such, there are no concerns regarding compliance with Section 4.8.4 of the OP.

4.3 DESIGN BRIEF COMPONENT

A Design Brief is required to accompany applications for Site Plan Control in order to ensure that the proposal conforms to the City-wide design objectives and policies outlined in the Official Plan. Section 2.5.1 of the OP outlines the city-wide design objectives, and Section 4.11 outlines the site-specific and neighbourhood centric design policies. This design brief component has been incorporated into the rationale in order to fulfill this requirement, and the following section outlines how the proposed development conforms with the design objectives and policies of the OP. In addition to the following review of site design considerations, please refer to Section 2.5 for a contextual analysis of surrounding lands, and the remainder of Section 4 for a full policy analysis.

Section 2.5.1 outlines the City's design objectives, which generally speak to ensuring compatible development through good design, taking into account both the current and future context of the immediate area. The following is an overview of how the proposed development meets each of the 7 design objectives.

• To enhance the sense of community by creating and maintaining places with their own distinct identity.

The site is situated within an established rural-employment node along a major gateway to the City of Ottawa (Highway 417). The high quality building design and uses being proposed on the site are compatible with the surrounding rural employment area, and will further strengthen the area's identity as a hub for industry. With the former establishment of Amazon just east of the subject lands, the area is generally forming a distribution

and logistics-focused identity with it's proximity to Highway 417.

- To define quality public and private spaces through development
 Given the industrial nature of the proposed development, private amenity spaces will predominately function as outdoor break areas for employees, as well as transitional buffers between adjacent properties. The central area of the site along the drain and stormwater pond offers a shared greenspace on the site that can also be enjoyed, and is well-located along Thunder Road. The orientation of development on the site towards the Boundary Road/Thunder Road intersection also helps to further frame this employment area gateway, and will likely lead to further improvements of the public realm in this area (introduction of sidewalks, bike paths, public parks) not currently observed here.
- To create places that are safe, accessible and are easy to get to, and move through.
 - In most areas of the site, small vehicle parking areas are physically separated from the larger truck entrances and shipping areas to ensure safety of users/visitors to the site. Considering the area is rural/employment in character, pedestrian and other non-vehicular amenities are few. Notwithstanding this, the strategic design of separate entranceways, along with the site's close proximity to Highway 417 ensures that heavier truck traffic can easily access transportation routes with minimal risk of impacting the local roads system.
- To ensure that new development respects the character of existing areas.
 - The site is located within an established rural employment area, increasingly being developed for industrial users requiring larger buildings/sites and easy access to major highways, not typically available in more urban centres. The proposed development is similar in scale, architectural design, and use to other existing employment uses in the area. Strategic landscaping, buffering, and other transitional elements will be employed to ensure that less compatible uses are not adversely impacted. Notwithstanding this, it is important to recognize the further evolution and growth of the surrounding area at the Highway 417/Boundary Road interchange into an employment node.
- To consider adaptability and diversity by creating places that can adapt and evolve easily over time and that are characterized by variety and choice.
 - The design of the buildings and layout of the site allow for a high level of flexibility in the types of employment-focused users that could be established there, and it is intended that the site be used for employment in

perpetuity.

- To understand and respect natural processes and features in development design.
 - The layout of the proposed development has carefully taken into consideration both the existing drain bisecting the north and south portions of the site, as well as the natural heritage features located on the lands to the immediate west. Appropriate setback distances (30 metres from the top of bank of the drain, as well as the western property boundary) have been incorporated into the siting of the buildings in order to ensure minimal impacts on these natural features. An EIS was prepared in support of the proposed development, which outlined a number of recommendations for ensuring these features are appropriately considered.
- To maximize energy-efficiency and promote sustainable design to reduce the resource consumption, energy use, and carbon footprint of the built environment.
 - The primary appeal and benefit of the subject lands for users in the distribution and logistics sectors is proximity and accessibility to the Highway 417 interchange, which serves as a major regional and provincial artery. This help to reduce the travel time and distance for heavier trucks, and reducing emissions. Buildings will also be designed to meet the Ontario Ministry of Municipal Affairs and Housing Supplemental Standard (SB-10, January 1, 2017) of the Ontario Building Code (OBC). OBC Part 12 Resource Conservation and Environmental Integrity and Supplementary Standard SB-10 Energy Efficiency Supplement. Typically, the buildings energy performance is required to beat the national average for buildings of this type by 30%. Ontario has one of the most stringent energy performance requirements for buildings in Canada.

Section 4.11 establishes the policies respecting City-wide urban design and compatibility, and include policies to provide direction on matters such as, but not limited to: views; building design; massing and scale; and outdoor amenity areas. The following is an overview of how the proposed development conforms with the applicable policies of this section, divided into the broad policy categories outlined in Section 4.11. Figures 6 and 9 through 13, and the remainder of this rationale is meant to be read in conjunction with this design brief component.

4.11 - Building Design

The design of the building fits in with the existing rural/rural-industrial character and planned employment function of the surrounding area though the following:

Setbacks, heights, and transition of the proposed buildings on the site

were reviewed against the applicable provisions of the zoning by-law and determined to be compliant. Increased setback distances are proposed from natural heritage features to the west, as well as from adjacent rural-residential properties to the north, in order to allow for sufficient separation and natural buffering of this transition zone, compliant with zoning (see Section 4.4).

- Facades have been designed with accented office areas with distinct architectural features to separate the different functions of the buildings. Roofline articulation is consistent with other similar industrial buildings located in the area. As shown on the elevation drawings, architectural features such as stepped-rooflines, projections of office areas, as well as the use of different coloured paneling and materials seek to achieve a high-level of visual quality and interest while reducing the perceived mass of the buildings themselves.
- As shown on the site plan, renderings, and elevations, the main facades of the buildings are oriented to Thunder Road and Boundary Road, include windowed office areas and utilize architectural elements to accentuate main entrances. Storage and loading facilities have been strategically oriented to the centre of the site, which allows for the buildings to screen these ares from public view.
- While the site is situated indirect to the Boundary/Thunder Road intersection, high quality building design and orientation has been employed to ensure this gateway to the employment area is visually enhanced and respected.

4.11 - Massing and Scale

- The massing and scale of the buildings on the site are similar in nature to other employment users in the immediate area. Notwithstanding this, there are a handful of residential and smaller-scale highway commercial/ industrial sites located adjacent to the site.
- Building heights and the overall lot coverage of the developed area on the site comply with the minimum requirements outlined in the zoning bylaw for the proposed uses. In the developed area near the Boundary Road frontage, the proposed location of the building will allow for increased setbacks from the neighbouring residential use and strategic plantings along the shared boundary with the dwelling.
- The buildings are designed to be 1-storey, as such, the primary means to which transitions will be implemented will be through setbacks and strategic landscaping.

<u>4.11 - Outdoor Amenity Areas</u>

- Amenity areas on the site are situated primarily along the Thunder Road and Boundary Road Frontages, along the internal drain that bisects the north and south portions of the site, as well as along the west boundary abutting natural heritage features.
- Shipping and loading areas have been oriented toward the centre of the site, so as to ensure impacts on neighbouring properties are minimized, including associated lighting.
- The separation of development from the areas around the central drain and stormwater pond will allow for an inviting natural space to offset the industrial development and hard space being introduced on the site

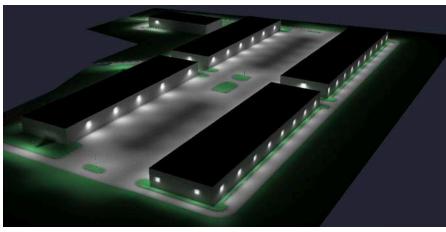


Figure 9a - Lighting study redndering for site.



Figure 9b - Rendering of main development (centre of site looking northeast)



Figure 9c - Rendering of main development (looking southwest onto site)



Figure 10 - Typical Building Elevation Proposed for Development

4.11 - Views

While these policies generally deal with the impacts of views from building height and massing in the more central areas of the City, the site is located at a "Scenic Entry Route", as identified on Schedule I of the OP (although the designated portion of this route terminates at the Highway 417 - Boundary Road Interchange). The site is therefore subject to conformity with the policies and criteria of Section 4.6.4(2), which are intended to guide patterns of development in a way which creates and upholds a favourable first impression of Ottawa.

The subject lands are heavily screened from those traveling both east and westbound on Highway 417 by mature vegetation incorporated into the Boundary Road/417 interchange. This screening and existing vegetation is shown on the streetview imagery taken from Google Maps. The distance (approximately 200 metres at closest) and orientation of the site in relation to Highway 417/Boundary Road travelers would result in minimal view opportunities and/or potential for negative visual impacts on the Highway 417 gateway. The location of the site at a "Scenic-Entry Route" has been considered in the design of the development, including building orientation and massing. However, the generous amount of vegetation around the subject lands and distance from the right-of-way only allow for minimal view opportunities for highway travelers.

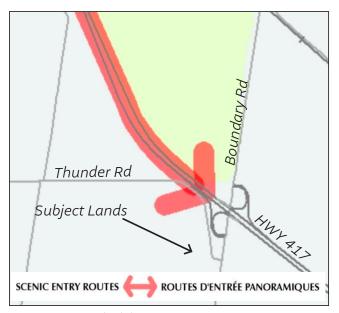


Figure 11 - OP Schedule I, Scenic Entry Routes



Figure 12 - Streetview Key for Figure 14 (heavy screening vegetation shown in bright green)

PLANNING RATIONALE SITE PLAN CONTROL - 6150 THUNDER ROAD & 5368 BOUNDARY ROAD 27

View southeast toward the site from the eastbound lane of Highway 417 - Amazon's distribution warehouse can be seen to the left (Fall)



View southeast toward the site from the eastbound lane of Highway 417 - Amazon's distribution warehouse can be seen to the left (Summer)



View southeast toward the site from the eastbound lane of Highway 417 (Fall)



View south toward the site from the westbound lane of Highway 417 (Fall)



Figure 13 - Street views of site from Highway 417

4.4 CITY OF OTTAWA ZONING BY-LAW NO. 2008-250

The purpose of the RG – Rural General Industrial Zone is to:

- permit the development of light industrial uses in areas mainly designated as General Rural Area, Village and Carp Road Corridor Rural Employment in the Official Plan;
- accommodate a range of light industrial uses and limited service commercial uses for the traveling public; and,
- regulate development in a manner that respects adjacent land uses and will have a minimal impact on the surrounding rural area.

Based on the review of the permitted uses of under the Rural General Industrial (RG) Zone, the proposed uses of the site fall within the existing list of permitted uses and no exceptions to the existing list of permitted uses is be sought through this application.

A zoning performance review was carried out for the proposed development - shown on the following tables. As evidenced in the performance reviews, the proposed development achieves a high level of conformity with the minimum provisions of the zoning by-law.

Zoning Performance

Building/Site Details					
Development Area		15.34ha			
Gross Floor Area	Building A	Building A		8,920 m ²	
	Building B Building C Building D			8,920 m ² 8,920 m ² 10,405 m ²	
	Building E	Building E		3,900 m ²	
TOTAL 41,065 m ²					
Proposed Uses				Light Industrial Uses / Warehouse	
Rural General Industria	I (RG) Zone Pro	visions))	Required	Provided
Lot Width (min)		**************************************		30m	280m (Thunder Rd) 81m (Boundary Rd)
Lot Area (min)			- 8	4,000m ²	153,400m ²
Yard Requirements (both	n) Front			15m	+15m (east)
- 17 - 17 - 17 - 17 - 17 - 17 - 17 - 17	Rear (abutting natural heritage feature)			30m	44.2m (west)
	Interior Side (abutting RG, RH, or RG Zone)		3m	+3m (east)
	Interior Side (abutting any other Zone)		8m	+8m (south)
		1		<u> </u>	+8m (north)
Building Height (max)	Buildings, A, (15m	6.1m
200	Buildings B & D			15m	7.3m
Lot Coverage (max)	- Participal Degreed Control of Control		50%	26.8%	
Zoning Provisions - Pa			<u> </u>	Required	Provided
Number of Parking Spac		Building A		55 + 1 BF	83 + 2 BF
0.8 per 100m2 for first 5,0		Building B		55 + 1 BF	59 + 2 BF
0.4 per 100m ² after 5,00	0m²	Building C		55 + 1 BF	62 + 2 BF
		Building D		61 + 1 BF	77 + 2 BF
		Building E		35 + 1 BF	34 + 2 BF
			TOTAL	261 + 5 BF	315 + 10 BF
Number of Loading Space	es	Building A		2 Oversize	12 Oversize
		Building B		2 Oversize	12 Oversize
		Building C		2 Oversize	12 Oversize
		Building D		2 Oversize	12 Oversize
		Building E		2 Oversize	12 Oversize
			TOTAL	10 Oversize	60 Oversize
Bicycle Parking (full site)		19 spaces Required	To be provided		
Zoning Provisions - General					Provided
Setback from Watercours	se (Buildings A &	15m	+60m		

4.5 ONTARIO MINISTRY OF ENVIRONMENT, CONSERVA-TION, AND PARKS (MECP) D-SERIES LAND USE PLANNING GUIDELINES

The Ontario Ministry of Environment, Conservation, and Parks (MECP) maintains a series of environmental land use planning guides - the "D-Series Guidelines" - to address land use compatibility considerations and requirements for industrial land uses, sensitive lands, sewage and water services, as well as private wells. Guideline D-6: Compatibility between Industrial Facilities, provides guidance for both land use planning authorities and proponents in determining what types of land uses are appropriate near industrial facilities, and how to evaluate and address potential impacts due to incompatibilities. An assessment of the potential impacts with respect to the D-6 Guidelines was undertaken as part of the Planning Rationale for the Official Plan and Zoning By-law Amendments on the subject lands. A brief summary of this assessment is provided below.

The Building E site has the highest potential to impact the two adjacent sensitive uses located immediately southeast (dwellings). However, it should be noted that the two dwellings (5384 & 5376 Boundary Road) are currently situated immediately adjacent to the existing Rural Employment Area and built-out Industrial Park serviced via Boundary Road. Furthermore, only the dwelling at 5376 Boundary Road would be located within the minimum recommended separation distance of 70 metres in the D-Series Guidelines, while the dwelling at 5384 Boundary Road is associated with a contracting/landscaping business located on the same property.

There is an existing industrial park and associated industrial uses, some of which could be considered Class II & Class III Facilities, located immediately east of Boundary Road (including an asphalt plant, major logistics centre, and heavy construction contractors). Furthermore, there are a handful of commercial uses located on the west side of Boundary Road, some of which contain dwellings, or abut residential properties. The industrial-focused nature of the area as an evolving employment hub is evidenced in these existing and expanding uses and the proximity of this node to Highway 417.

Due to the existing intensity of industrial/commercial activity in the south and east fringes of the site around Boundary Road, it is unlikely that the proposed development of Building E would further exacerbate any existing/potential impacts that may already be experienced by the dwellings, given their location.

Given the distance of the remaining development area from adjacent residences, the uses here would be able to meet and/or exceed the minimum recommended separation distance of 70m, as detailed in the guidelines. Building E maynot be able to meet the minimum recommended separation distance of 70m from the dwelling immeitately adjacent. Notwithstanding this, as noted previously, the existing dwellings adjacent to the site are already located within a major employ-

ment area and some are used for commercial / industrial purposes. It is in our opinion that the proposed scale and design of Building E, the increased separation distance from the adjacent dwellings, as well as considerable amount of open space suitable for landscaping will allow for any impacts (which are likely to be minimal) to be mitigated.

5.0 SUPPORTING STUDIES & TECHNICAL INFORMATION

The following studies and supporting information were identified in consultation with City of Ottawa Staff as being required to constitute a complete application for the OPA and ZBLA. A brief overview of each document and the conclusions/recommendations, where applicable, is provided in this section. Additional information, reports, and studies (including updates) as required by the City have been provided as part of the SPC submission, and may not necessarily be listed herein.

5.1 SITE PLAN - MCROBIE ARCHITECTS & INTERIOR DESIGNERS (AUG 2021)

The site plan for the development of "Area 1" of the subject lands, depicting siting for all planned improvements and zoning standards (setbacks, areas, parking, etc.)

5.2 STAGE 1 ARCHAEOLOGICAL ASSESSMENT – PATERSON GROUP INC. (JAN 2020)

Paterson Group undertook a Stage 1 archaeological assessment of the subject lands. This assessment is in accordance with the Ministry of Heritage, Sport, Tourism, and Culture Industries' Standards and Guidelines for Consultant Archaeologists (2011). The objectives of the investigation were to assess the archaeological potential of the property and determine whether further archaeological study was required. This archaeological assessment was required by the City of Ottawa on the study area prior to development activities in accordance with the Planning Act.

The Stage 1 assessment included a review of the Ontario Ministry of Heritage, Sport, Tourism, and Culture Industries archaeological sites database, relevant environmental, historical and archaeological literature, primary historical research, and a site visit. The subject property was identified as having archaeological potential based on its proximity to a water source (Bear Brook). Additionally, portions of the study area were identified as having potential as indicated by the City of Ottawa archaeological management plan (Archaeological Services Inc. and Geomatics International Inc. 1999). A subsequent site visit revealed that the entire property is either deeply disturbed or is low-lying and permanently wet. Based on the results of the investigation it was recommended that no further archaeological study is required for the subject lands.

5.3 GEOTECHNICAL INVESTIGATION - PATERSON GROUP INC. (JUL 2021)

Paterson Group conducted a geotechnical investigation for the proposed development. The objectives of the investigation were to:

- Determine the subsoil and groundwater conditions at this site by means of boreholes.
- Provide geotechnical recommendations for the design of the proposed

development including construction considerations which may affect the design.

The investigation concluded that the subject site is considered satisfactory for the proposed development, and it is expected that the proposed buildings can be supported on conventional shallow foundations. The report provides further recommendations on topsoil/fill, foundation design and footings, grade raising, design for earthquakes, slab on grade construction, and pavement structure. No concerns were raised.

The investigation also presented design and construction precautions with respect to foundation drainage and backfill, protection of footings against frost action, excavation of side slopes, pipe bedding and backfill, groundwater control, winter construction, corrosion potential and sulphate, and tree planting restrictions.

5.4 TRANSPORTATION IMPACT ASSESSMENT – CROZIER & ASSOCIATES INC. (JULY 2021 UPDATE)

C.F. Crozier & Associates Inc. (Crozier) was retained by the proponent to prepare a Transportation Impact Assessment in support of the Official Plan Amendment (OPA), Zoning By-Law Amendment (ZBA) and Site Plan Approval (SPA) applications to facilitate the proposed development. An original TIA was submitted in April 2021, and was subsequently updated in accordance with comments received from the City in July 2021. The study examined the current conditions and operating capacity of existing infrastructure, and projected the level of impact the development would have in future scenarios. No major concerns were raised.

With a proposed buildout of 2025, the site is projected to generate a total of 134 and 143 two-way auto trips during the weekday a.m. and p.m. peak hours, respectively. The TIA also noted that the proposed site accesses are projected to operate efficiently and safely without any issues related to sight-lines, corner clearance, access conflicts, truck movements and transit operational conflicts. Vehicle parking supply of for each of the buildings exceeds the City's Zoning By-Law minimum parking requirements.

Based on the findings of the study, it was concluded that the traffic generated by the proposed industrial development at Thunder Road and Boundary Road can be accommodated by the Boundary Road network. The Official Plan Amendment (OPA), Zoning By-Law Amendment (ZBA) and Site Plan Approval (SPA) applications can be supported from a traffic operations perspective as the boundary road system is forecast to adequately accommodate the increase in traffic volumes attributable to the proposed development.

5.5 FUNCTIONAL SERVICEABILITY REPORT - LRL ENGINEERING (JULY 2021 UPDATE)

LRL Engineering prepared a functional serviceability report in support of the proposed OPA and ZBLA for the site, which are still applicable to the SPC application. The original report, prepared in December 2020 was updated to address specific site plan components in July 2021. The report investigated servicing options for potential future development on the subject lands for uses such as light industrial, logistics and/or a distribution warehouse, and was prepared in consideration of the demonstration plan prepared by Avenue 31. The site does not have access to municipal storm, sanitary or traditional water service as the infrastructure does not exist on Boundary Road or Thunder Road; however, the site is within the service boundary of the Carlsbad Springs trickle-feed water system.

The following conclusions/considerations were presented in the Functional Serviceability Report:

Water

- Domestic demands will be required to be supplied by the Carlsbad Springs trickle- feed supply system. However, based on an assumed buildout scenario, demands are higher than previously allocated equivalent water units.
- Since the trickle-feed water supply system was installed in 1997, the City has monitored water use patterns and confirmed that actual concurrent use is lower than originally planned. As a result, there is a potential for more connections which may prove to accommodate the domestic demands of the subject site.
- Considering the proposed development and uses for the site, average daily demands are expected to be in the range of 23,600 L/day, which would be an eauivalent of 9 residential connections.
- A storage tank and pressure system to provide the water required for fire suppression is required to meet the fire demands of development on the subject property.

Sanitary Sewage

 An onsite sewage treatment and collection facility will be designed in detail to release treated effluent to the unnamed drain running through the property. This effluent will be considered during the stormwater management design as well to ensure post development flow rates do not exceed predevelopment conditions.

Stormwater

• Currently stormwater runoff flows uncontrolled to the South & West borders of

the property.

• The property is mostly pervious area in existing conditions. In developing the lot into a "light industrial" lot, the development will increase the impervious area of the property. The increase in impervious area, along with City of Ottawa design requirements, will require the site to implement a stormwater quantity and quality management system.

$5.6~{\rm PHASE}$ I ENVIRONMENTAL SITE ASSESSMENT – PATERSON GROUP INC. (NOV 2018 – ORIGINAL) / (SEPT2020 - UPDATE)

Patterson Group conducted a Phase I ESA for the subject lands originally in 2018. An update to the 2018 ESA was submitted in September 2020 to address the proposed development. The purpose of th Phase I was to research the past and current use of the site and study area and to identify any environmental concerns with the potential to have impacted the subject properties.

Adjacent properties were developed between 1976 and 1991 for mixed residential and commercial use, including a retail fuel outlet that neighbours the site (which is considered a potentially contaminating activity (PCA). The results of the records review, previous reports, and site inspection indicated that there was a potential environmental concern on the subject lands, largely resulting from the former retail fuel outlet that neighbours the site. Based on the results of this Phase I ESA, a Phase II Environmental Site Assessment was required for the subject property (as outlined below).

5.7 PHASE II ENVIRONMENTAL SITE ASSESSMENT – PATERSON GROUP INC. (SEPT 2020)

Patterson Group conducted a Phase II ESA for the subject lands. The purpose of the Phase II ESA was to address the potentially contaminating activity (PCA) that was identified during the Phase I ESA Update and considered to result in an area of potential environmental concern (APEC) on the Phase II Property and update the current site conditions. The initial subsurface investigation was carried out in conjunction with a Geotechnical Investigation in September 2019, and consisted of drilling three (3) boreholes, all of which were constructed with groundwater monitoring wells. The more recent subsurface investigation conducted in June 2020, consisted of drilling seven (7) boreholes.

Soil samples were obtained from the boreholes and screened using visual observations and organic vapour measurements. Groundwater samples from monitoring wells were also recovered and analysed for benzene, toluene, ethylbenzene and xylenes (BTEX) and petroleum hydrocarbons (PHCs, F1-F4). No detectable BTEX or PHC concentrations were identified in the boreholes or groundwater monitoring wells. All soil and groundwater results were found to be in compliance

with the MECP Table 2 Standards.

Based on the findings of the Phase II ESA, no further environmental investigation was required.

5.8 ENVIRONMENTAL IMPACT STATEMENT – KILGOUR & ASSOCIATES LTD. (JULY 2021)

Kilgour & Associates Ltd. prepared an EIS in support of the proposed development on the subject lands. The purposes of this EIS are to identify:

- natural heritage features on or adjacent to the Site
- potential impacts of the proposed development to those features, and
- mitigation measures to minimize or eliminate those impacts.

Further detail on the above can be found in the EIS report.

The EIS noted that the site is adjacent to and includes areas identified by the City as being potentially part of the Natural Heritage System per Schedule L of the City's Official Plan (OP; City of Ottawa, 2020b. The EIS therefore examined potential impacts to the Natural Heritage System and to species at risk (SAR) that may potentially occur on or adjacent to the site. Following this examination, a number of recommendations were presented to guide the development of the lands in accordance with the requirements of the City and findings of the EIS.

The EIS concluded that no significant negative impacts are anticipated to species-at-risk, SWH, or aquatic habitat present in the broader vicinity under the proposed project if all mitigation recommendations provided within the report are followed. Mitigation measures include standard ESC measures, general wildlife management for construction sites (City of Ottawa, 2015), and tree planting, the latter of which is to be detailed in the site landscape plan. Impacts to the broader Significant Woodland under future development of the Site are anticipated to be minor; the impacted area represents the youngest portion of the extended feature, which includes no uncommon vegetation coverage and does not provide functionality as SWH.

$5.9~{\rm HEADWATER}$ DRAINAGE FEATURE ASSESSMENT – KILGOUR & ASSOCIATES LTD. (JULY 2021)

Kilgour & Associates Ltd. prepared an assessment of headwater drainage features in support of the proposed development on the subject lands.

Seven headwater drainage features (HDFs) on the Site were initially reviewed in 2018 using field methodologies identified with the Evaluation, Classification and Management of Headwater Drainage Features Guidelines (CVC & TCRA, 2013) (the "HDF Guidelines"). Six HDFs (R1 through R6) all drain to a permanent water-course identified within this report as channel R7 - this has been referred to as

the "Unnamed Drain" within this Planning Rationale. The features were studied during the spring and summer of 2018 as part of a due-diligence review of the site prior to the commencement of planning for the site, though the formal HDFA report was not completed at the time. Two additional existing channels have been noted since that time along the western boundary of the Site, which was not part of the initial review in 2018, with two further temporary drainage channels being added to the Site in 2021.

The goals of the HDF Assessment were to evaluate and classify the various headwater features on the site and present management directives in three main categories:

- Mitigation these features are not required to be maintained per se, but their functionality must be replicated or enhanced through lot level conveyance measures as part of the site stormwater management system.
- Conservation the feature may be maintained or be realigned using
 natural channel design techniques to enhance their overall productivity. If
 realigned, the features may be relocated on or off the Site. In either case,
 the riparian corridors must be maintained or enhanced.
- Protection the feature may be maintained and/or enhanced, but should not generally be relocated. Improvements, however, could be possible to its overall channel form and thus some minor realignment may be considered within that context. The riparian zone should be protected and enhanced where feasible. The hydro-period must be maintained.

The assessment will be important in ensuring site grading, stormwater management, and site design/development appropriately accounts for the management directives outlined in the HDF Assessment, most notably ensuring minimal impacts to the main "Unnamed Drain" watercourse bisecting Areas 1 & 2 of the site.

5.10 GROUNDWATER IMPACT ASSESSMENT – PATERSON GROUP INC. (APR 2021)

Patterson Group conducted a GIA for the subject lands in support of the proposal, with particular focus on the proposed use of a private wastewater treatment facility and the potential impacts related to a surficial discharge of the highly treated sewage effluent within the unnamed drain and associated surficial surface connections on the site. To inform the report, Paterson approached a manufacturer of Modified Sequencing Batch Reactor (MSBR) package plants and Membrane Bioreactor (MBR) package plants for the design, supply and commissioning of a sewage treatment solution for the proposed development.

The following general conclusions/findings were identified in the GIA report:

 the proposed direct discharge of treated sewage effluent is anticipated to meet and/or exceed the MECP guidelines for direct surface discharge;

- as the Bear Brook Municipal Drain is located approximately 1.3 km downstream (west) of the discharge location, and treated effluent is expected to meet the MECP guidelines for direct discharge, it is not expected to negatively impact the natural systems within the Drain downstream;
- based upon the deep silty clay stratum (>20 m) underlying the site; which provides isolation between the proposed treated effluent surface discharge, there will be no negative impacts on the till or Carlsbad Shale bedrock aquifers from the proposed discharge at the subject site;
- the proposed treated effluent surface discharge to the unnamed drain is not expected to negatively impact the surface water in the area considering that the proposed MSBR or MBR package plants will provide effluent quality design values at less than half of the regulatory limit for the parameters: BOD5, TSS, Ammonia, Total Phosphorous and E. Coli;
- the subject site is an ideal location for the proposed treated effluent surface discharge due to the lack of potential downstream receptors and the industrial nature of the neighbouring properties.

6.0 CONCLUSION

As outlined in this report, the proposed development intends to take advantage of the site's strategic location adjacent to the Highway 417 corridor, and bolster the existing rural employment area around a key interchange. Due to the current lack of industrial lands in the City suitable to accommodate this type of development, official plan and zoning by-law amendments were necessary to precede this proposal for site plan control approval (of which are still pending at the time of writing). Subject to approval of those preceding amendments, the proposed development would be aligned with the policies of the PPS and goals of the City's OP, given the:

- Immediate access of the site to Highway 417;
- · Low number of incompatible or sensitive land uses in the vicinity;
- · Ability for the existing transportation network to accommodate the proposed development;
- · Inclusion of site design elements intended to protect and conserve natural features and buffer adjacent land uses;
- High level of conformity with the minimum provisions of the zoning by-law; and,
- Potential that exists for new efficiencies (improved servicing, public transit opportunities) and synergies (co-locating similar users, complementary service providers) to be realized by strengthening the Boundary Road / Highway 417 interchange as an important employment node in the City.

As demonstrated in this rationale through a review of the subject lands and surrounding context, analysis of applicable planning policy and related frameworks, and with support from the associated technical studies, it is respectfully submitted that the proposed application for site plan control be APPROVED by the City of Ottawa as it:

- is consistent with the Provincial Policy Statement;
- conforms to the City of Ottawa Official Plan and Rural Employment Area designation proposed for the site; and,
- represents good planning aligned with the City's vision for strengthening employment areas adjacent to major 400-series highway interchanges.

It is further in the opinion of the undersigned that the proposal constitutes an appropriate and complementary development within an existing employment node, bolstering a major economic gateway to the City.

oury truly,

Paul Hicks, MCIP, RPP Urban Planner | Principal Re: public Urbanism

