

August 9, 2022

City of Toronto Sign Bylaw Unit
100 Queen Street West, Floor 1E
Toronto, ON M5H 2N2

Re: 2290 Markham Road Variance Application Summary

OUTFRONT Media Canada (OFM) is applying for 4 variances to the City's Sign By-Law for the installation of an electronic LED third party sign located at 2290 Markham Road, Scarborough on the northern frontage of the premises. The proposed structure will be 12 meters in height and will contain 1 face measuring 2.26 meters vertically and 8.68 meters horizontally for a total sign face area of 19.99 square meters. The display face will face East and oriented 12 degrees outward towards westbound traffic along Finch Ave.

The variances sought out for approval are the following:

1. The sign height shall not exceed 10 meters; the Proposed Sign is 12 meters in height;
2. The sign shall not be erected within 60 meters of any premises located, in whole or in part in an OS Sign District; the Proposed Sign is located within 60 meters of the OS Sign Districts;
3. Where a sign is located within 250 meters of an OS Sign District, the sign cannot face any premises in an OS Sign District; the Proposed Sign is located within 250 meters and facing into the OS Sign District; and
4. There shall be no more than one ground sign erected on the premises; the Proposed Sign will be erected on a premises containing one existing first party ground sign.

Thorough due diligence has been done to ensure that the Proposed Sign will have negligible effects on the relief we seek for these variances, as described in the Rationale attached.

Sincerely,



Jocelyn Wigley

Real Estate and Development Representative

Email: Jocelyn.Wigley@OUTFRONT.ca

Phone: 416-521-6410

Fax: 416-255-2063



SIGN LOCATION LEASE

Date: February 18, 2022

Ground Lease #: 51338

2250 Markham Road Inc.

OUTFRONT Media Canada L.P., through its
General Partner OUTFRONT Media Canada GP Co.

5 Director Court, Suite 201
Woodbridge, ON, L4L 4S5

377 Homer Avenue
Toronto ON M6H 1Z5

(LESSOR)

(LESSEE)

1. In consideration of \$1.00, acknowledged by LESSOR as paid to LESSOR by LESSEE, and such other good and valuable consideration as is provided for herein, 2250 Markham Road Inc. (hereinafter called LESSOR), hereby leases and grants exclusively to OUTFRONT Media Canada L.P., through its General Partner OUTFRONT Media Canada GP Co. (hereinafter called LESSEE), the use of the premises at 2250, 2260, 2270, 2280 Markham Road, Toronto, ON (with free, safe and unobstructed access to and upon same) for the purpose of installing, operating, maintaining and removing LESSEE's advertising sign(s) thereon including supporting structures, illumination facilities, connections, static or electronic display faces, back-up faces, service ladders and other appurtenances and ancillary equipment (the "Sign(s)", or "Sign Structure(s)").

2. LESSOR grants to LESSEE and/or its agents the right to vehicular and pedestrian ingress and egress to and from the Sign Structures over and across the premises for (i) all purposes reasonably necessary for the erection, construction, installation, placing, operating, maintaining, servicing and removal of the Sign Structure(s), (ii) the right to provide or establish electrical power to the Sign Structure(s) (at LESSEE'S sole expense), (iii) the right to place incidental and ancillary equipment thereon.

3.

4.

5. LESSOR warrants that LESSOR is the owner of the above-described real estate and has full authority to make this agreement and the LESSEE shall have the right to make any necessary applications with, and obtain permits from, governmental bodies for the maintenance of LESSEE's Sign(s) and Sign Structure(s) at the sole discretion of LESSEE. LESSEE shall be and remain owner of any such permits. LESSOR shall sign any reasonable documentation that such governing bodies may require with respect to obtaining such permits, provided that LESSOR shall incur no costs in connection therewith.

6. [REDACTED]

[REDACTED]

[REDACTED]

9. [REDACTED]

10. [REDACTED]

11. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

LESSOR:
2260 Markham Road Inc.

BY: 

I/we have authority to bind the company:
Adam Schwartz
Chief Financial Officer

DATE: April 18, 2022

EXECUTED by the LESSOR in the presence of

Who is hereby requested to sign as witness.

LESSEE:
OUTFRONT Media Canada L.P., through its
General Partner OUTFRONT Media Canada GP Co.

BY: 

I have authority to bind the Lessee:
Michele Erskine, CEO - Canada

DATE: April 22, 2022

EXECUTED by the LESSEE in the presence of

Who is hereby requested to sign as witness.

July 15, 2022

City of Toronto Sign Bylaw Unit
100 Queen Street West, Floor 1E
Toronto, ON M5H 2N2

Re: Third Party Advertising Sign Application, 2290 Markham Road, Toronto, ON

OUTFRONT Media Canada (OFM) is applying for 3 variances to the City's Sign By-Law for the installation of an electronic LED third party sign located at 2290 Markham Road, Scarborough on the northern frontage of the premises. The proposed structure will be 12 meters in height and will contain 1 face measuring 2.26 meters vertically and 8.68 meters horizontally for a total sign face area of 19.99 square meters. The display face will face East and oriented 12 degrees outward towards westbound traffic along Finch Ave.

Image #1: *A Mockup of the Proposed Electronic Third-Party Sign Face*



The proposed sign belongs to a sign class permitted in the sign district where the premises is located:

The property at 2290 Markham Road is designated as a E-Employment Sign District, which permits the installation of third-party ground signs with static electronic copy.

The proposed sign face area is less than the 20 square meter surface area allowance required under the City Sign By-Law. The structure in its entirety will contain one face compatible with the City Sign By-Law. As such, the proposed size type and format is appropriate for the sign district where the premise is situated.

**377 Horner Avenue, Toronto, ON, M8W 1Z6
T. 416.255.1392 W. outfrontmedia.ca**

The sign meets criteria 694-30.A (4) of the Sign By-Law:

The sign structure supports the Official Plan objectives for the subject premises and surrounding area. Section 4.6.1 of the Official Plan Policy describes Employment Areas as places of business and economic activity, which house buildings and facilities for uses such as offices, manufacturing, warehousing, distribution, research and development facilities, utilities, restaurants, small scale stores, etc. The installation of the proposed electronic sign structure will support the objectives of this area by advertising businesses in the area. This creates a healthy competitive functional Employment area.

By providing local businesses the opportunity to promote their goods and services, the sign structure will help enhance those businesses and provide economic opportunities to them, creating an increase in economic activity to the Employment Area.

The sign will not block any visibility to the businesses on site and their ability to identify their business from the street by way of first party sign. This will support competitive, attractive, highly functional Employment Areas by supporting the promotion of business in the area.

The sign structure will not adversely affect the Official Plan's policies for Ravines and Open Space areas. The sign itself is an electronic static copy which has a low carbon footprint. It eliminates the activity of printing a paper copy and the emissions produced by driving to the site to post. The proposed sign structure has the ability to flip from one advertisement to the next (10 second dwell time and 1 second transition time) all controlled within our office. By controlling and posting electronically, we can reduce our company's carbon footprint, protect the City of Toronto's air quality and reduce carbon emissions that contribute to climate change.

As the existing and proposed sign is in close proximity to an OS-Open Space Sign District, OUTFRONT Media is cognizant of the fact that this type of zoning could house endangered species, flora and/or fauna. To ensure that this is not the case, and the sign will have a negligible effect on the OS-Open Space Sign District, we have commissioned WSP to complete a comprehensive Environmental Impact Study. The study identifies the natural environment, the species within the Open Space and assesses impact of the static electronic sign structure at 12 meters high at the proposed location. The study, attached to the application, shows that the Open Space land use will not be negatively affected by the proposed sign structure. This would be an example of OUTFRONT Media performing due diligence in order to protect the Ravines and Open Space Area confirming that the sign structure will have no negative impact.

Additionally, the OS sign district is not utilized as a park for the surrounding community. Constructing the proposed sign structure will not limit the land uses compromised in the OS-Open Space Sign District. We are not altering the Open Space's physical form, design, character, or function. We are removing the existing copy and paste sign structure which creates more waste, has a bigger carbon footprint and that is closer to the Open Space and replacing it, moving it further back with a lower carbon footprint sign structure. This proposal will not affect the natural features of the Open Space and its functions.

In conjunction with the compatibility with the Official Plan, OUTFRONT Media has reached out to The Toronto Regional Conservation Authority (TRCA) which is the City's Partner in Managing the Natural

Environment to confirm the proposed sign structure will not affect the Highland Creek Watershed. The proposed sign will not expand and/or increase the density of the buildings on site and will not impact any existing natural heritage features. Therefore, TRCA staff has no objection to the proposed works. The proposed works are not subject to O.Reg 166/06 and a TRCA permit is not required.

The proposed face is compatible with the development of the premises and surrounding area:

The subject property is utilized as a Caribbean Eatery and the majority of the other buildings in the immediate area are 1-2 stories and are utilized as commercial purposes (McDonalds, Lindt chocolate shop, used auto repair shop, Mazda dealership, Real Estate and Medical Offices).

The proposed electronic sign structure will be located directly across the street from a Mazda Dealership. This is very representative of the commercial character of the area. All neighboring properties located within a 60 meter radius are zoned E-Employment Sign Districts, C-Commercial Sign Districts and a small area of OS- Open Space Sign District on the East side on the property. All properties located East (the direction the sign is facing) within a 150 meter distance are zoned E-Employment Sign Districts and C-Commercial Sign Districts with the exception of the small portion of OS- Open Space Sign District to the North and East of our proposed sign structure. To mitigate the concerns of proximity to the small portion of OS-Open Space Sign District, OUTFRONT Media has commissioned WSP to complete an Ecological Impact Study that will consider the proposed electronic sign structure and its light shed impact. The study described further in the Rationale concludes that there are no significant flora, fauna or wildlife that would be negatively impacted by the sign and its emitted light.

Furthermore, there are no residentially zoned properties within the immediate area where light trespass would be a concern, making the proposed third-party electronic signage compatible with the character of the local area.

Image #2: Sign District Zoning Map Of Local Area. The Purple Coloring Denotes E-Employment Sign District Zoning, Which Is Appropriate For Digital Signage.



Image #3: A Picture Of The Immediate Adjacent Neighboring Properties To The North – Commercial In Nature.



Image #4: A Picture Of The Immediate Adjacent Neighboring Properties To The West – Employment Industrial In Nature



Image #5: A Picture Of The Immediate Adjacent Neighboring Properties To The South – Commercial In Nature



Image #6: A Picture Of The Immediate Adjacent Neighboring Properties To The East – Commercial in Nature



On the Northeast Corner and a narrow portion North on the property, is designated as OS-Open Space Sign District (herein OS) in which an electronic sign cannot be within 60 meters of OS and cannot face into it closer than 250 meters. The proposed structure will be setback 20.9 meters West of OS (on the Northeast portion of the property) and 6 meters South from OS on the Northern portion of the property.

Image #7: A Picture Of The OS-Open Space Sign District On The North East And North Portion On The Property In Relation To The Proposed Sign



Image #8: A Picture Of The Immediate Adjacent Zoning On The Premises– OS-Open Space Sign District North East Portion



Image #9: A Picture Of The Immediate Adjacent Zoning On The Premises - Northern Portion Of The Premises Zoned As OS Sign District



Image #10: A Picture of the Northern Portion of the Premises – Aerial View

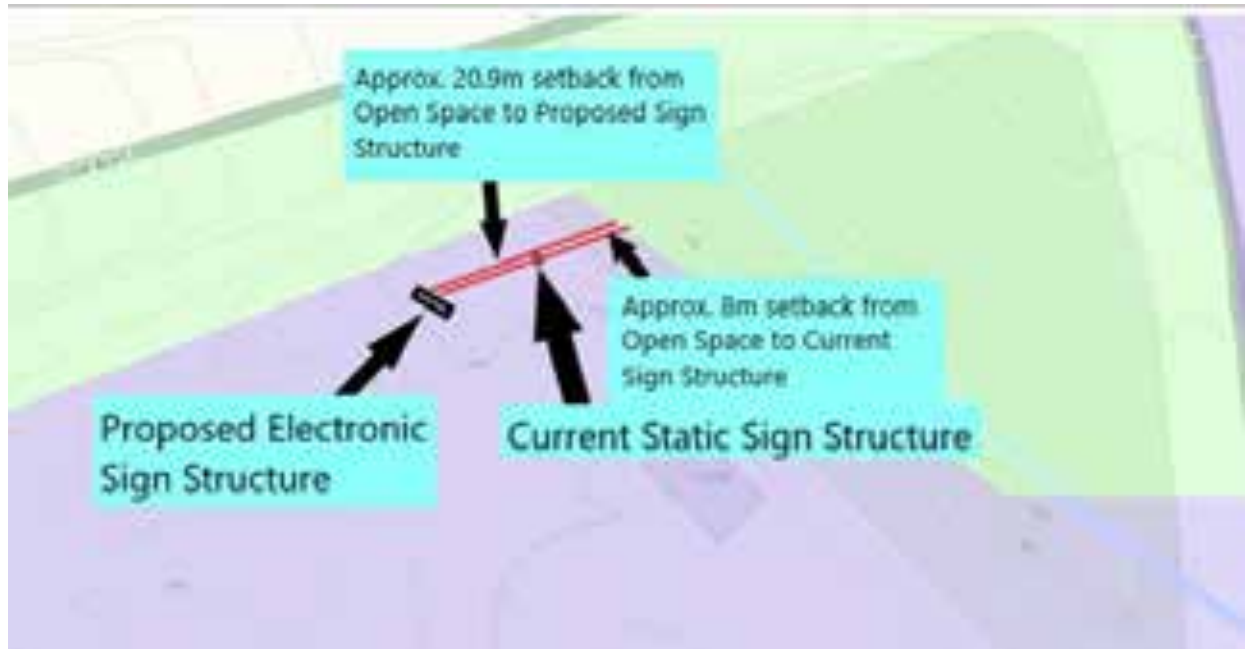


The proposed face's illumination will not negatively impact the local OS-Open Space Sign District:

It is OUTFRONT Media's belief that the application will require 2 variances under Section 694-25.C.(2)(e) and (f) in which the proposed digital sign structure, is facing within 60 meters of OS and facing towards OS within 250 meters. The City of Toronto's Sign By-Law requires a sign to be setback 60 meters from OS and where a sign is located within 250 meters of OS, the sign cannot face into OS.

Currently there is a doubled sided 10'x20' static sign structure on the property. OUTFRONT Media will be removing this sign structure adjacent to OS. The proposed electronic sign structure will be further setback, of approximately 20.9 meters from OS to the Northeast of the premises.

Image #11: A Picture Of The Proposed Electronic Sign Structure And Its Setback From The Northeastern Portion Of The OS Sign District.



To the North on the premises, is a narrow strip categorized as OS. The current sign structure is approximately 6 meters setback from this narrow strip. The proposed sign will also be setback by approximately 6 meters but will not face into into this specific portion of OS.

Image #12: A Picture Of The Proposed Electronic Sign Structure And Its Setback From The North Portion Of The OS.



The OS on the Northern portion of the premises (refer to image 9) is described as a grassy hill with an elevation of 4.5 meters from Finch Avenue. There are no sensitive flora, fauna or wildlife.

The area categorized as OS to the Northeast on the premises is a ravine depressed from Finch Avenue Road level and is surrounded by a dense tree line. The trees will provide a natural barrier from any potential light emitted from the proposed electronic face acting to prohibit light shed from reaching the district. The diagrams below visually demonstrate the natural barriers to any potential light illumination from the proposed electronic sign.

Image #13 and 14: Pictures Of The Northeastern Portion Of The OS Sign District, Described as a Depressed Ravine And Lined With Trees – Aerial Views



Image #15: A Picture Of The Tree Barrier On The Northeastern Portion Of The Premises, Street View



To ensure that there will be no negative impacts to the OS in relation to our proposed Electronic Sign Structure, OUTFRONT Media has relied upon an unbiased consultant WSP, a globally recognized environmental professional firm whose interests are to protect the environment and maintain sustainable development practices. The reports WSP delivers, include strong research to achieve optimal due diligence while promoting and maintaining sustainable development.

WSP's Ecological Impact Report attached for review, confirms that the OS characterized as a depressed ravine outlined with trees does not contain any sensitive flora, fauna or wildlife. As such, we are confident that there would be no impact on this area from the proposed sign.

There is a TRCA regulation limit overlayed on the OS on the Northeast portion of the premises. The current sign structure is located within the limit and will be removed. The placement of the proposed sign structure will be outside the limit. To ensure the proximity of the proposed sign structure complies with TRCA regulations and its impact will be negligible, OUTFRONT Media has notified TRCA of our proposal. TRCA has indicated that clearance will be given as the proposed sign structure will not be within the Regulation Limit. Clearance is provided by way of e-mail and can be shared if requested.

Image #16: TRCA Regulation Mapping Showing The Current Digital Sign Structure Is Not Within The TRCA Regulation Limit.



To further mitigate light shed going into the OS, we are proposing that we operate the electronic display face at a reduced level of illumination of 150 nits. For clarity, the local Sign By-Law allows for digital signage to operate at a maximum illumination of 300 nits. By operating the sign at 50% of the allowable nit level, this further reduces the amount of light shed entering the OS.

The sign will not alter the character of the premises or surrounding area.

The premises and surrounding area have building that range from 8-12 meters in height and are commercial in nature. Along with the buildings in and around the area there a telecom tower to the Northwest on the premises which height is greater than 30 meters.

Image #17: *A Picture Of The Telecom Tower On The Northwest Portion Of The Premises, Street View*



There is currently a static sign on the premises of 2290 Markham Road, which is illustrated in the image below. Replacing the current static sign structure with an Electronic Sign structure will not alter the character of the character or premises.

Image #18: *A Picture Of The Current Static Sign Structure On The Premises, Street View*



It is OUTFRONT Media's belief that the application will require 1 variances under Section 694-25.C.(2)(b) in which the proposed electronic sign structure height will be 12 meters, higher than that permitted by the City Sign By-Law, of 10 meters. The increased height is due to the elevated roadway overpass adjacent to the proposed sign structure. The grade of the roadway overpass measures approximately 4.5 meters in height, compared to the ground level of the premises situated at 2290 Markham Road where the foundation of the sign will be installed. The requested height of 12 meters would be required so that the sign can be physically visible to the vehicular traffic passing by on Finch Ave., the target traffic. The sign itself will be elevated only 7.5 meters above grade Finch Ave. overpass, which is in fact a lower elevation, relative to the grade of the road. Thus we also feel that this variance/required amendment is minor in nature. Please reference the diagram below.

Image #19: *A Picture Of The Elevation Distance From The Ground Of Premises To The Elevated Roadway*



Similar variances involving height have been granted for other electronic LED signs that have been installed along elevated roadway overpasses, where without such variances for height, the signs would not be visible to the vehicular traffic travelling along the adjacent roadway. These examples are depicted in the pictures below.

Image #20: *Picture Of Electronic LED Sign At York Mills Rd 375M E/O Leslie St SS – Elevated To Be Seen From Adjacent Overpass*



Image #21: *Picture of Electronic LED Sign at 1400 The Queensway – Elevated To Be Seen From Adjacent Overpass*



The proposed sign will not adversely affect public safety:

We also confirm that the proposed digital billboard will meet all the requirements laid out in section 14(l) of By-Law 2010-694 with respect to operating standards (i.e no animation, audio, flashing effects, odors, 10 second minimum dwell times, etc.).

Not Contrary To Public Interest:

The proposed sign will not have any negative social impacts. The third-party advertisements published on the proposed Sign will abide by the Canadian Code of Advertising Standards (<https://adstandards.ca/code/the-code-online/>). This will help to ensure that all messaging is appropriate and that the general public is not exposed to any offensive, explicit, or indecent forms of advertising.

Furthermore, the electricity required to operate the proposed sign shall be provided by and in conjunction with a distributor recognized and licensed by the Ontario Energy Boards and shall be governed by an agreement to purchase renewable energy (Distributor: Bullfrog Power). A copy of said renewable energy agreement for the proposed site is enclosed with OUTFRONT Media's application.

Regarding illumination, the proposed sign will only be operated between the hours of 7am and 11pm. The illumination of the proposed face shall not exceed illumination levels of 150 nits (whereas the By-Law allows for the maximum illumination of 300 nits) during the period between sunset and sunrise. In addition, the sign faces themselves are also monitored by camera 24 hours per day to ensure that in the case of display malfunction, any problems are recognized and repaired in short order.



We thank you for taking the time to evaluate our application and we would encourage you to contact us for further discussion should you have any questions regarding our variance application.

A handwritten signature in grey ink, appearing to read "JW", located below the thank you message.

Jocelyn Wigley

Real Estate and Development Representative

Email: Jocelyn.Wigley@OUTFRONT.ca

Phone: 416-521-6410

Fax: 416-255-2063

METRIC MEASUREMENTS SHOWN
ON THIS PLAN ARE IN METRES
AND CAN BE CONVERTED TO
FEET BY DIVIDING BY 0.3048.

NO R, RA OR OS SIGN DISTRICT WITHIN
30m RADIUS OTHER THAN AS SHOWN

NO 3rd PARTY SIGNS WITHIN
150.0m RADIUS OTHER THAN AS SHOWN

SKETCH SHOWING PROPOSED DIGITAL SIGN ON
No. 2290 MARKHAM ROAD
CITY OF TORONTO
SCALE 1:1000

20 10 0 20 40 60 80 METRES

© COPYRIGHT SCHAEFFER DZALDOV BENNETT LTD.



FINCH AVENUE EAST

OPEN SPACE (OS)
SIGN DISTRICT

OPEN SPACE (OS)
SIGN DISTRICT

EMPLOYMENT (E)
SIGN DISTRICT

EMPLOYMENT INDUSTRIAL OFFICE DISTRICT
(EIO) SIGN DISTRICT

MARKHAM ROAD

PROPOSED
LOCATION OF NEW
SINGLE SIDED
DIGITAL SIGN
(FACING EASTING)
(26.47m Long and
7.41m Wide)

LOCATION OF
EXISTING 10'X20'
DOUBLED SIDED SIGN
(TO BE REMOVED)

1 STOREY
STONE
AND STUCCO
BUILDING

1 STOREY
COMMERCIAL BUILDING

1 STOREY
BUILDING

COMMERCIAL (C)
SIGN DISTRICT

SURVEYOR'S CERTIFICATE
THIS SKETCH IS NOT A PLAN OF SURVEY AND SHALL ONLY
BE USED FOR THE PURPOSE INDICATED IN THE TITLE BLOCK.
DATE: JUNE 9, 2022.

Schaeffer
SAN DZALDOV
ONARIO LAND SURVEYOR

SCHAEFFER DZALDOV BENNETT LTD.
ONTARIO LAND SURVEYORS
84 JARDIN DRIVE CONCORD, ONTARIO L4K 3P3 TEL: (416) 887-0401
DRAWN: AGAD/LW CHECKED: SD SCALE: 1:1000 JOB NO. 23-088-90

9. The candidate must verify all documents and all conditions in order to try to get a passport. The candidate must also verify all documents and all conditions in order to get a passport. (Both lists are provided and conditions are provided for the passport.)
10. The candidate must verify all documents and all conditions in order to get a passport.
11. It is not possible to get a passport without a passport. The passport is not a passport. (The passport is not a passport.)
12. The passport is not a passport. The passport is not a passport. (The passport is not a passport.)
13. The passport is not a passport. The passport is not a passport. (The passport is not a passport.)
14. The passport is not a passport. The passport is not a passport. (The passport is not a passport.)
15. The passport is not a passport. The passport is not a passport. (The passport is not a passport.)

[illegible]

¹⁰⁰ The Chicago Tribune is to be credited with being the first newspaper to report on the assassination of John F. Kennedy. It was the Tribune that first reported that Kennedy had been shot. The Tribune's report was the first to appear in the newspaper. The Tribune's report was the first to appear in the newspaper. The Tribune's report was the first to appear in the newspaper.

State	Average 2000-2001		2001	2000
	2000	2001		
Alabama	1.0	1.0	1.0	1.0
Alaska	1.0	1.0	1.0	1.0
Arizona	1.0	1.0	1.0	1.0
Arkansas	1.0	1.0	1.0	1.0
California	1.0	1.0	1.0	1.0
Colorado	1.0	1.0	1.0	1.0
Connecticut	1.0	1.0	1.0	1.0
Delaware	1.0	1.0	1.0	1.0
District of Columbia	1.0	1.0	1.0	1.0
Florida	1.0	1.0	1.0	1.0
Georgia	1.0	1.0	1.0	1.0
Hawaii	1.0	1.0	1.0	1.0
Idaho	1.0	1.0	1.0	1.0
Illinois	1.0	1.0	1.0	1.0
Indiana	1.0	1.0	1.0	1.0
Iowa	1.0	1.0	1.0	1.0
Kansas	1.0	1.0	1.0	1.0
Kentucky	1.0	1.0	1.0	1.0
Louisiana	1.0	1.0	1.0	1.0
Maine	1.0	1.0	1.0	1.0
Maryland	1.0	1.0	1.0	1.0
Massachusetts	1.0	1.0	1.0	1.0
Michigan	1.0	1.0	1.0	1.0
Minnesota	1.0	1.0	1.0	1.0
Mississippi	1.0	1.0	1.0	1.0
Missouri	1.0	1.0	1.0	1.0
Montana	1.0	1.0	1.0	1.0
Nebraska	1.0	1.0	1.0	1.0
Nevada	1.0	1.0	1.0	1.0
New Hampshire	1.0	1.0	1.0	1.0
New Jersey	1.0	1.0	1.0	1.0
New Mexico	1.0	1.0	1.0	1.0
New York	1.0	1.0	1.0	1.0
North Carolina	1.0	1.0	1.0	1.0
North Dakota	1.0	1.0	1.0	1.0
Ohio	1.0	1.0	1.0	1.0
Oklahoma	1.0	1.0	1.0	1.0
Oregon	1.0	1.0	1.0	1.0
Pennsylvania	1.0	1.0	1.0	1.0
Rhode Island	1.0	1.0	1.0	1.0
South Carolina	1.0	1.0	1.0	1.0
South Dakota	1.0	1.0	1.0	1.0
Tennessee	1.0	1.0	1.0	1.0
Texas	1.0	1.0	1.0	1.0
Utah	1.0	1.0	1.0	1.0
Vermont	1.0	1.0	1.0	1.0
Virginia	1.0	1.0	1.0	1.0
Washington	1.0	1.0	1.0	1.0
West Virginia	1.0	1.0	1.0	1.0
Wisconsin	1.0	1.0	1.0	1.0
Wyoming	1.0	1.0	1.0	1.0

10. All of the following are true of the *Staphylococcus aureus* bacterium except that it is Gram negative.

1. All members within a cluster must be ≥ 100 m² except for the representative of the cluster (i.e. ≥ 100 m² + 10%).
2. No individual (non-representative) ≥ 100 m² + 10% may be larger than the representative of the cluster (i.e. ≥ 100 m² + 10%).
3. In meeting, each sample with the representative of the representative unit (i.e. ≥ 100 m²) must be in the same room as the representative of the cluster (i.e. ≥ 100 m² + 10%).
4. The sample collection for each meeting of a cluster must be within 100 m of the representative of the cluster (i.e. ≥ 100 m² + 10%).

1. *What is the function of the Ebers-Moll equation and a parameter that can be related to the forward or reverse saturation current, I_{S0} or I_{S0R} ?*
2. *Describe a simple and approximate way to approximate current in a diode under forward and reverse bias.*
3. *Describe the relation with the diode area and the current density and also why the diode is forward biased.*

10. If $\mathbf{A}$ is a 2×2 matrix and $\mathbf{B}$ is a 2×2 matrix, then $\mathbf{A} + \mathbf{B}$ is a 2×2 matrix. Is this statement true or false? Justify your answer.
11. If $\mathbf{A}$ is a 2×2 matrix and $\mathbf{B}$ is a 2×2 matrix, then $\mathbf{A} \cdot \mathbf{B}$ is a 2×2 matrix. Is this statement true or false? Justify your answer.
12. If $\mathbf{A}$ is a 2×2 matrix and $\mathbf{B}$ is a 2×2 matrix, then $\mathbf{A} \cdot \mathbf{B} = \mathbf{B} \cdot \mathbf{A}$. Is this statement true or false? Justify your answer.
13. If $\mathbf{A}$ is a 2×2 matrix and $\mathbf{B}$ is a 2×2 matrix, then $\mathbf{A} \cdot \mathbf{B} = \mathbf{A}$. Is this statement true or false? Justify your answer.
14. If $\mathbf{A}$ is a 2×2 matrix and $\mathbf{B}$ is a 2×2 matrix, then $\mathbf{A} \cdot \mathbf{B} = \mathbf{B}$. Is this statement true or false? Justify your answer.
15. If $\mathbf{A}$ is a 2×2 matrix and $\mathbf{B}$ is a 2×2 matrix, then $\mathbf{A} \cdot \mathbf{B} = \mathbf{0}$. Is this statement true or false? Justify your answer.

1. The presence of a structural opening (e.g. in concrete, brickwork and masonry) creates a specific design, engineering and safety issue, resulting in the need to ensure that the opening does not compromise structural performance (consequences).
2. The structural opening allows for the installation of services, for example, ventilation, the removal of waste, the removal of air, the installation of windows, for construction purposes.
3. Potential adverse existing buildings and structures may require specific remedial work as a consequence of structural opening, resulting in the construction of a new building (see further text).
4. The Commission's policy of early assessment prior to mapping functions.
5. Two individuals (a BPS) responsible for assessing early events using assessment and threat analysis (BPS).
6. Increased risk assessment, what happens? Assessment of risk and what happens to the risk, what is the risk and how to fix it.
7. In some cases, the assessment of the risk may be based on the assessment of the risk.

[illegible]

[illegible]

Fernanda Patza

From: Heather Rodriguez <Heather.Rodriguez@trca.ca>
Sent: June 16, 2022 5:46 PM
To: Wigley, Jocelyn
Subject: RE: TRCA Clearance
Attachments: TRCA Sign Clearance.pdf

EXTERNAL EMAIL

Good afternoon Jocelyn,

Thank you for your email and patience. My apologies for the delay, we are experiencing higher than normal volumes.

The subject site municipally described as **2290 Markham Road** in the City of Toronto (Scarborough Community Council Area) is within a TRCA Regulated Area of the Highland Creek Watershed. The subject site is partially regulated by the TRCA with respect to the stream corridor and regulatory floodplain of East Highland Creek located adjacent to the subject site along the eastern property limits. I have attached the site plan I have reviewed to this email.

It is our understanding that the proposal is to facilitate a sign. Although the subject site is partially within a TRCA Regulated Area of the Highland Creek Watershed, the proposed sign is located outside of the Regulated Area. In addition, the proposed sign will not expand and/or increase the density of the building and will not impact any existing natural heritage features. Therefore, TRCA staff has no objection to the proposed works. **The proposed works are not subject to O.Reg 166/06 and a TRCA permit is not required.**

I trust this is satisfactory. Please feel free to contact me directly if you have any questions or concerns with respect to this matter.

Kind regards,

Heather Rodriguez, M.Sc (Pl) (she/her)

Planner I, Development Planning and Permits

Development Planning and Permits | Development and Engineering Services

T: [\(416\) 661-6600](tel:4166616600) ext. 6487

E: heather.rodriguez@trca.ca

A: [101 Exchange Avenue, Vaughan, ON, L4K 5R6](https://www.trca.ca/101-Exchange-Avenue-Vaughan-ON-L4K-5R6) | [trca.ca](https://www.trca.ca)



From: Wigley, Jocelyn <jocelyn.wigley@outfront.ca>
Sent: June 9, 2022 2:44 PM
To: Heather Rodriguez <Heather.Rodriguez@trca.ca>
Subject: TRCA Clearance
Importance: High

Hi Heather,

I hope all is well! I have finally received our draft site plan back for our prospective project at 2290 Markham Road.

I was hoping you could provide clearance for this sign and confirm that this will not be contentious with TRCA. Is it possible to receive something back by tomorrow? The purpose being, I have to submit an application by end of day tomorrow and confirm that this will not require approval from you.

Thank you kindly in advance!

Yours truly,

Jocelyn Wigley

Real Estate Development Representative



Direct: 416 521 6410 • Fax: 416 255 2063
377 Horner Ave, Toronto ON, M8W 1Z6

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OUTFRONT MEDIA

NATURAL HERITAGE IMPACT STUDY

2290 MARKHAM ROAD, TORONTO, ON

JULY 7, 2022





NATURAL HERITAGE IMPACT STUDY

2290 MARKHAM ROAD, CITY
OF TORONTO, ON

OUTFRONT MEDIA

PROJECT NO.: 211-05640-00

DATE: JULY 07, 2022

WSP
100 COMMERCE VALLEY DRIVE WEST
THORNHILL, ON
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WSP.COM 



July 07, 2022

Outfront Media
1230 Dundas Street East
Toronto, ON
M4M 1S3

Attention: Jocelyn Wigley

Dear Ms. Wigley

Subject: 2290 Markham Road - Draft Natural Heritage Impact Study Report

We are pleased to present the draft Natural Heritage Impact Study (NHIS) for the proposed replacement of a digital media sign fronting Finch Avenue to be located on the property at 2290 Markham Road, City of Toronto. Please review and provide your comments. If you have any questions I can be reached by e-mail at jeff.warren@wsp.com or by telephone at 289-982-4219.

Yours sincerely,

A handwritten signature in dark ink, appearing to read 'Jeff Warren'.

Jeff Warren, B.Sc., CERP
Senior Ecologist / Senior Project Manager

WSP ref.: 211-05640-00

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REVISION HISTORY

FIRST ISSUE

July 7, 2022	Draft Report			
Prepared by	Reviewed by	Approved By		
Jeff Warren Senior Ecologist		Jeff Warren Senior Ecologist		
REVISION 1				
REVISION 2				

SIGNATURES

APPROVED BY



July 7, 2022

Jeff Warren, B.Sc.
Senior Project Manager / Senior Ecologist

Date

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1 INTRODUCTION

WSP Canada Inc. (WSP) was retained by Outfront Media to conduct a Natural Heritage Impact Study for the replacement of a static roadside message sign with a larger sized digital media sign. The sign is to be located on the south side of Finch Avenue at 2290 Markham Road, City of Toronto. The property and proposed sign location is shown on **Figure 1 (Appendix A)**. The existing sign is located within the Natural Heritage System and Ravine Protection By-law of the City of Toronto and the Toronto Region Conservation Authority regulated area. The proposed location of the new sign has been sighted to occur outside of the limit of the regulated areas identified above.

The proximity of the new sign location to the regulated areas has triggered the requirement for a Natural Heritage Impact Study. This Natural Heritage Impact Study report provides a review of background information, a description of existing conditions identified through a site visit and an assessment of potential impacts and opportunities for ensuring no adverse effects on the adjacent natural features.

2 PLANNING OVERVIEW

2.1 CITY OF TORONTO OFFICIAL PLAN

The City of Toronto Official Plan (office consolidation 2019) contains goals, objectives and policies for natural heritage and environmental protection. Chapter 3 Section 3.4 of the Official Plan outlines the policies protecting the Natural Heritage System (NHS) and provides for the conservation of Toronto's urban forest, ravines and river valleys. The NHS is made up of areas where the City prioritizes the protection, restoration and enhancement of the natural features and functions. The Natural Heritage System of the Official Plan, as reviewed through the City's interactive mapping tool (2021), extends onto the tableland and contains the existing static sign location. The Natural Heritage System at this location is identified as the East Highland Creek valleyland, that includes the creek bottomland, valley slopes and portion beyond the vegetated crest of slope. **Appendix A: Figure 2** shows the location of the subject site and existing sign relative to the NHS. In conformance with the policies outlined in Chapter 3 of the Official Plan, development is generally not permitted in the NHS. As per the plan's policy section, when development is proposed on or adjacent to lands shown as part of the NHS, the proposed impact on the system is to be evaluated. In accordance with these guidelines, this NHIS has been prepared to identify and address potential impacts.

The existing sign location occurs within the City's Ravine Protection By-law limits, similar in extent to the Natural Heritage System. **Appendix A: Figure 2**.

2.2 CONSERVATION AUTHORITIES ACT (1990) AND ONTARIO REGULATION 166/06

The existing sign is located within the Toronto and Region Conservation Authority (TRCA) regulated area limit under Ontario Regulation 166/06 – Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses. The regulation limit is associated with the top of valley slope of the East Highland Creek valleyland. The new sign location will occur to the west of the regulatory limit (**Appendix A: Figure 2**).

2.3 PROVINCIAL POLICY STATEMENT

The Provincial Policy Statement (PPS) (Ontario Ministry of Municipal Affairs and Housing (OMMAH), 2020) is a planning document that provides a framework for guiding development in the Province of Ontario. To preserve various ecological resources deemed significant in the Province, development lands must be assessed for the presence of Natural Heritage Features (NHF) prior to construction or site alteration. Generally, NHFs within the 120 m area of influence of development must be assessed. These NHFs (listed below) are both defined and afforded protections under the PPS. Linkages between NHFs, surface water and groundwater features are also recognized and afforded similar protections under the policy. Section 2.1.2 of the PPS also requires that the diversity and connectivity of all NHFs and the long-term ecological function of natural heritage systems be maintained, restored or improved where possible.

Under the PPS (OMMAH, 2020), development or site alteration is prohibited within significant wetlands in Ecoregions 5E, 6E and 7E and in significant coastal wetlands, but may be allowed adjacent to these features provided the adjacent lands have been evaluated and it has been demonstrated that there will be no negative impacts to these features or their ecological functions. Development may be permitted in or adjacent to significant wetlands north of Ecoregions 5E, 6E and 7E, significant woodlands and significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Mary's River), significant wildlife habitat, and significant areas of natural and scientific interest (ANSI), provided there will be no negative impacts to these features or their ecological function due to the proposed undertaking. In addition, development and site alteration is not permitted in fish habitat unless in accordance with provincial and federal legislation.

NHFs as defined by the PPS (OMMAH, 2020) include:

- Natural Heritage Systems;
- Fish Habitat;
- Habitats of Endangered and Threatened Species;
- Significant Areas of Natural and Scientific Interest;
- Significant Wetlands;
- Significant Coastal Wetlands;
- Significant Wildlife Habitat;
- Significant Woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Mary's River); and,
- Significant Valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Mary's River).

Natural Heritage Areas mapping produced by the Ministry of Natural Resources and Forestry (MNRF 2021) identifies East Highland Creek and the vegetated valleyland slopes.

The East Highland Creek valley east of the subject site is designated as NHS on the City of Toronto's interactive mapping tool (2021). The valley corridor connects with the City's NHS shown on Map 9: Natural Heritage System. East Highland Creek is identified as warmwater fish habitat.

3 BACKGROUND INFORMATION

Several resources were reviewed, including satellite imagery (Google Earth, 2021), City of Toronto interactive mapping (2021), City of Toronto Official Plan schedules and a search of the MNRF Natural Heritage Information Centre (NHIC) database (2021). The background review was conducted to identify potential species at risk (SAR) and designated natural areas within one (1) kilometre (km) of the subject site. SAR are species designated Extirpated, Endangered, Threatened or Special Concern under the provincial Endangered Species Act, 2007 (ESA) and the federal Species at Risk Act, 2002 (SARA) that are protected through designation provisions. Examples of provincially designated natural areas are ANSIs, Provincially Significant Wetlands (PSWs), Environmentally Significant Areas (ESAs) and Conservation Areas. Information on SAR was developed from 1 km grids located adjacent to the site as the site itself was not located within a mapped grid.

There were no provincially designated natural areas identified within the vicinity of the site. Four (4) SAR were identified: Eastern Meadowlark (*Sturnella magna*) (Threatened), Barn Swallow (*Hirundo rustica*) (Threatened), Blandings turtle (*Emydoidea blandingii*) (Threatened) and Redside Dace (*Clinostomus elongatus*) (Endangered). A review of the potential for these species to occur at the site and the likelihood of being impacted from the proposed works is presented in the SAR Screening Table (**Appendix B**).

A request was made to the MNRF Aurora District office and the Ministry of the Environment Conservation and Park (MECP) to obtain information pertaining to NHFs, SAR and Species of Conservation Concern (SCC) within the study area. The request for information was sent out July 7, 2022 and as of the date of filing of this report information had not been received from any of the agencies.

4 EXISTING CONDITIONS

Field investigations were conducted on May 13, 2022 to confirm the presence of NHFs, determine general characteristics of the subject site and make observations of any Species at Risk and their habitat. The study area included the tableland adjacent to the existing and proposed sign location, East Highland Creek valleyland and tableland on the east of the creek. The field investigations included an inventory of vegetation, wildlife observations, nesting birds and consideration of potential SAR habitat. Prior to the field investigations, satellite images of the property, land use and topographical maps were reviewed to identify the presence of NHFs, available wildlife habitat and the potential for SAR and SCC. Representative photographs of site conditions are provided in **Appendix C**. The site visit details are provided in **Table 4-1**.

Table 4-1 Site Visit Details

DATE	WEATHER CONDITIONS
May 13, 2022	Sunny, 20°C, slight breeze

NHFs and existing conditions are shown in **Figure 2 (Appendix A)**. The subject site contains a row of abandoned houses, a gravel laneway in the rear of the houses, a car dealership with a paved parking lot and an automotive mechanic shop.

4.1 PHYSIOGRAPHY AND DRAINAGE

The location of the existing and proposed new sign is generally flat but with localized mounds and low areas resulting from past disturbances likely involving fill placement. The ground is now vegetated. Finch Avenue south embankment provides higher elevation to the north and the East Highland Creek represents the site of lowest elevation in the study area to the east of the sign location.

The major drainage is provided by East Highland Creek. There were no evident surface drainage paths on the site leading to the creek.

4.2 VEGETATION

Vegetation at the site consists mostly of cultural meadow species. It is found in the location of the existing and proposed sign location as well as along the East Highland Creek valley slope. A narrow treed fencerow extends along the crest of the valley slope. These two vegetation types are described below and are shown in **Figure 3 (Appendix A)**.

Cultural Meadow (CUM1-1)

The vegetation type was the dominant vegetation cover at the site. It was found in the area of the existing sign and extending westerly on the south side of Finch Avenue. It was also found along the west valley slope of the East Holland River valleyland. The species recorded included brome grass (*Bromus inermis*), Kentucky bluegrass (*Poa pratensis*), black medick (*Medicago lupulina*), dandelion (*Taraxacum officinale*), Queen Anne's lace (*Daucus carota*), cow vetch (*Vicia cracca*) and smooth bedstraw (*Galium mollugo*). The invasive species garlic mustard (*Alliaria petiolata*) and dog strangling vine (*Vincetoxicum rossicum*) were also present.

A few planted trees were found in this vegetation type and included red maple (*Acer rubrum*) and Ohio buckeye (*Aesculus glabra*).

Cultural Woodland (CUW1)

This vegetation type consists of scattered trees and shrubs with a ground cover consisting mostly of CUM species. It is found along the top of slope of the west valleyland and occupies the valley slope and tableland on the east side of East Highland Creek.

The common tree species along the top of the west valleyland slope included sugar maple (*Acer saccharum*), Freemans maple (*Acer freemanii*), Manitoba Maple (*Acer negundo*), green ash (*Fraxinus pennsylvanica*), trembling aspen (*Populus tremuloides*) and Canada poplar (*Populus x canadensis*). Also noted in the area included shrubs such as European buckthorn (*Rhamnus cathartica*), staghorn sumac (*Rhus typhina*) and honeysuckle (*Lonicera* sp.). Ground cover included brome grass, Kentucky bluegrass, dog strangling vine and bitter wintercress (*Barbarea vulgaris*).

Other species noted included those found adjacent to the creek. These included reed canary grass (*Phalaris arundinacea*), coltsfoot (*Tussilago farfara*), red-tinged bulrush (*Scirpus microcarpus*) and narrow-leaved cattail (*Typha angustifolia*).

4.3 WILDLIFE

Incidental wildlife observations were documented during the 2022 field investigation. Visual observations of wildlife and / or wildlife evidence at the subject site included common mammals and birds found in urban areas.

Birds observed and / or heard adjacent to the proposed sign location included species that could nest in the CUM or CUW habitat. These included: American Robin (*Turdus migratorius*), Baltimore Oriole (*Icterus galbula*), Northern Cardinal (*Cardinalis cardinalis*), Red-winged Blackbird (*Agelaius phoeniceus*), Yellow Warbler (*Dendroica petechia*), Song Sparrow (*Melospiza melodia*) and Downy Woodpecker (*Picoides villosus*). There was no evidence of birds nesting within the existing sign structure nor in the East Highland Creek double-cell culvert.

Other wildlife observed or evidence of presence included Eastern Cottontail (*Sylvilagus floridanus*) and Raccoon (*Procyon lotor*).

No SAR were observed during the site visit.

4.4 SPECIES AT RISK SCREENING

SAR considered in the screening included those that were identified for the area of the site from a review of background information, receipt of observations from MECP and the opinion of WSP ecologists who conducted the site investigation. The potential species were reviewed based on the presence of preferred habitat and observations and evidence of using the site. The results of the screening are presented in **Appendix B**. The habitat potential of *None*, *Low*, *Moderate* or *High*, was assigned to each species and represents a conservative ranking based on field observations and a broad-scale review of habitat types identified using satellite imagery (Google Earth, 2022).

Based on the limited habitat (small meadow area, cultural woodland (fencerow) and surrounding developed lands, no SAR were observed and the expectation for SAR to occur is generally low to none.

Monarch may be present at the site however, its food plant, milkweed, was not observed at the time of the survey. The presence of milkweed would provide a greater probability that the species could be present.

5 ASSESSMENT OF IMPACTS

5.1 PROPOSED DEVELOPMENT

The proposed location of a new static electronic (digital) sign is shown in **Figures 1-3 (Appendix A)**. The sign has been located to be outside of the regulated areas as discussed in section 2. The proposed sign is 2.26 m tall x 8.68 m wide and will face east. The total height of the sign structure will be between 12 and 14 m. The sign will be illuminated from 7 am to 11 pm and will operate on a 60 second loop with 10 second dwell time per image. There will be no animation. The screen will be black from 11 pm to 7 am.

The proposed sign will be approximately 28.2 m setback from the open space zoning to the east and 7.4 m to the north and will be 15 m distant from the existing sign location. The new location will occur outside of the TRCA regulation limit.

The existing sign will be removed.

5.2 NATURAL HERITAGE SYSTEM

The Natural Heritage System is the East Highland Creek valleyland. The west limit of the system is just beyond the crest of the slope where the vegetation cover is mostly cultural meadow. A row of trees within the NHS occurs along the crest of the slope. The slope leading to East Highland Creek is vegetated

by cultural meadow species on the west side and shrub and tree cover and cultural meadow on the east side. There were no rare or uncommon plant species or wildlife species observed in the valleyland. The twin cell culverts that passes the creek did not contain any bird nests.

The potential impacts that may occur to the NHS are associated with removal of the existing sign, installation of the new sign and light effects to wildlife from operation of the sign.

Removal of Existing Sign

Removal of the existing sign although located just within the edge of the NHS, does not contain any significant species or habitat. Anticipated works would include staging with crane(s) and larger construction vehicles to remove and then secure the sign for transport from the site, some excavation and short-term stockpiling of excavated soil. With proper mitigation such as siltation fencing surrounding the removal area on its east side soils will be prevented from being carried downgradient toward the creek. There is expected to be no interaction between the removal site and the NHS and therefore no anticipated impacts to the NHS from the proposed removal.

Installation of New Sign

Installation of the new sign will involve augering a 0.9 m diameter opening to a depth of approximately 5.2 m to construct the below ground foundation for the sign. The below ground foundation will be formed of concrete and rebar. A staging area of approximately 18 m long x 6.1 m in width will be required for vehicle access and new sign assembly. It is unknown if dewatering from the excavation will be required and if it is the appropriate storage and treatment of the water will be carried out to meet regulatory requirements. Siltation fencing will be installed around the work site to prevent the erosion of soils outside of the work area.

Effect of Sign Lighting on Wildlife

Wildlife that are present at the site that could be affected by sign lighting that can be reasonably assessed include mammal and birds. As identified above, the screen will be black between 11 pm and 7 am. For this assessment we will examine the winter and late spring to end of August period when most wildlife are biologically active.

In the winter period when the sign is in operation from approximately 5 pm until 11 pm, most wildlife typically found in the summer period are not present as they have either migrated or are in some form of hibernation, or for resident species such as grey squirrel, they have retreated to their overnight shelter. Deer which can be active at night in the winter are most likely not present due to the lack of safe movement and forage sites in the area. The effect of light on wildlife in this period is negligible.

In the late spring to end of August period, by the time the sign turns on at 7 am, ambient daylight is present and would offset any potential effects caused by the sign. In the evening, in the same period ambient light fades between 7:30 and 8 pm in the early period, approaches 9 pm by June 21 and then fades again by 7:30 and 8 pm at the end of the period.

Wildlife activity during the early portion of this period would include bird calling, nesting and fledgling movement from the nest. Bird calling will not be affected as it responds to ambient light in the dawn period when the media sign is turned off. Bird nests are usually concealed by vegetation or in a structure and therefore for those species their nests can be protected from the light source. Ambient street lighting at this location is expected to dominate the evening light regime. Mammals such as raccoon and skunk that are active at night usually avoid light sources in order to remain safe as they travel through an area in search of food and are likely more affected by the tall ambient street lights of Finch Avenue and Markham Road and less by the localized media sign. The East Highland Creek valleyland may provide a safe refuge habitat for urban wildlife during the day and night time and it is anticipated that the new sign will not alter that function as the tall street lights on Finch Avenue occur adjacent to the valleyland and likely already project into the valleyland.

The SAR Screening Table identifies that there is limited potential for SAR bats to be present in the immediate vicinity of the site due to the lack of roosting habitat (tree snags/abandoned buildings). Therefore, the light emitted from the sign is not expected to affect maternity roost habitat. SAR bats could forage over the site in the evening and overnight hours. It is believed that the street lighting adjacent to the site affects the opportunity for foraging bats by either attracting them (insect concentration) or avoiding them as these lights are in operation through the evening and overnight hours.

6 MITIGATION

The following general mitigation measures that will be implemented in order to minimize impacts to vegetation, retained trees, associated habitat features, and wildlife within and adjacent to the proposed development.

Project Planning

- An Emergency Response Plan is to be developed by the Contractor to be implemented immediately in the event of a sediment release or a spill of a deleterious substance.
- The limit of any area to be disturbed will be clearly marked prior to the commencement of the work and the markings will be maintained for the duration of the contract.

Operation of Machinery

- Machinery must arrive on site in a clean condition and maintained free of fluid leaks.
- Any wildlife encountered during construction will not be knowingly harmed. Animals within the construction zone will be allowed to move away from the area on their own and if they do not, the Contract Administrator shall be notified.

Migratory Bird Protection

- To reduce the possibility of contravention of the Migratory Birds Convention Act (MBCA), ground disturbance and vegetation removal should be scheduled to occur outside of the overall bird nesting season of April 1 to August 31. Some birds may nest before and after this peak bird nesting season due to annual seasonal fluctuations. If a nest of a migratory bird is found within the construction area outside of this nesting period it still receives protection.
- If vegetation must be removed during the bird nesting season:
 - Nest and nesting activity searches will be conducted in areas defined as simple habitat (i.e., a Mineral Cultural Meadow community) by a qualified Biologist between 24 and 48 hours prior to vegetation removal. Nesting activity will be documented when it consists of confirmed breeding evidence, as defined by OBBA criteria (Cadman, 2009).
 - If an active nest or confirmed nesting activity of a migratory bird is observed in simple habitat, regardless of the timing window recommended, a species-specific buffer area following Environment and Climate Change Canada's (ECCC) guidelines will be applied to the nest or confirmed nesting activity wherein no vegetation removal will be permitted until the young have fledged from the nest. The radius of the buffer will depend on species, level of disturbance and landscape context (ECCC 2018), which will be confirmed by a qualified Biologist, but will protect a minimum of 10 m around the nest or nesting activity.
 - The results of all nest searches will be documented at the end of each survey day in a Technical Memorandum, including information on the searcher, date, time conducted, weather conditions, habitat type, vegetation community type, observations of breeding activity, observations of

confirmed nests including co-ordinates, and, if required, the buffer applied to identified breeding / nesting sites.

Restoration of Disturbed Areas

- Following removal of the existing sign and completion of installation of the new sign, any ground that has been disturbed should be regraded, as required, and seeded with a native meadow seed mix such as TRCA Ontario Resilient Area Meadow Mix (TRCA-SD-4).

7 CONCLUSION

The proposed installation of a digital media sign at the property at 2290 Markham Road, Toronto occurs in an area that has low ecological sensitivity and concern for potential effects. The installation site and staging will occur outside of the Natural Heritage Features identified at the site and mitigation recommended will prevent the interaction of site construction and the adjacent East Highland Creek valleyland. No SAR and available habitat were identified at the site. Should the proposed works be carried out during the migratory bird nesting period, a nest survey is recommended prior to the proposed works.

8 REFERENCES

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- City of Toronto. Toronto Interactive Maps. Available online: https://map.toronto.ca/maps/map.jsp?app=TorontoMaps_v2. Accessed: August 2021.
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- Ontario Ministry of Natural Resources and Forestry. 2020. Species at Risk in Ontario (SARO) list. Queen's Printer for Ontario.

APPENDIX

A EXISTING NATURAL ENVIRONMENT CONDITIONS



LEGEND

- PROPOSED DIGITAL STRUCTURE
- RAILWAY
- STUDY AREA



CLIENT:		OUTFRONT MEDIA CANADA LP	
PROJECT:			
2290 MARKHAM ROAD NHIS			
PROJECT NO: 221-05640-00		DATE: JULY 2022	
DESIGNED BY:			
DRAWN BY:			
LT			
CHECKED BY:			
JW			
FIGURE NO: A-1		SCALE: 1:10,000	
TITLE:			
STUDY AREA			
DISCIPLINE:		ENVIRONMENT	
ISSUE:			



LEGEND

- PROPOSED DIGITAL STRUCTURE
- RAILWAY
- PERMANENT WATERCOURSE
- STUDY AREA
- RAVINE AND NATURAL FEATURE PROTECTION AREA
- NATURAL HERITAGE SYSTEM AREA
- TRCA REGULATED AREA



CLIENT:		OUTFRONT MEDIA CANADA LP	
PROJECT:		2290 MARKHAM ROAD NHIS	
PROJECT NO:	221-05640-00	DATE:	JULY 2022
DESIGNED BY:			
DRAWN BY:			
LT			
CHECKED BY:			
JW			
FIGURE NO:	A-2	SCALE:	1:1,000
TITLE:			
DESIGNATED NATURAL FEATURES			
DISCIPLINE:			
ENVIRONMENT			
ISSUE:			



LEGEND

- PROPOSED DIGITAL STRUCTURE
- RAILWAY
- PERMANENT WATERCOURSE
- STUDY AREA
- ELC
- CUM1-1: DRY - MOIST OLD FIELD MEADOW
- CUW1: MINERAL CULTURAL WOODLAND



CLIENT:
OUTFRONT MEDIA CANADA LP

PROJECT:
2290 MARKHAM ROAD NHIS

PROJECT NO: 221-05640-00	DATE: JULY 2022
-----------------------------	--------------------

DESIGNED BY:

DRAWN BY:
LT

CHECKED BY:
JW

FIGURE NO: A-3	SCALE: 1:1,000
-------------------	-------------------

TITLE:
ELC

DISCIPLINE:
ENVIRONMENT

ISSUE:

APPENDIX

B SAR SCREENING TABLE

Species At Risk Designations	
ENDANGERED	
THREATENED	
SPECIAL CONCERN	
EXTIRPATED	

Species Code	Common Name	Scientific Name	Species	ESA Status ¹ and Regional Occurrence	ESA Protection ²	Source of Record (Date)	Key Habitats Used by Species in Ontario	Reasonable Likelihood of Presence in Study Area	Surveys Undertaken	Results of Field Surveys	Likelihood and Magnitude of Impacts to Species or Habitat
Amphibians			N								
BARS	Barn Swallow	<i>Hirundo rustica</i>	Barn Swallow (<i>Hirundo rustica</i>)	THR	Species and General Habitat Protection		prefers farmland; lake/river shorelines; wooded clearings; urban populated areas; rocky cliffs; and wetlands. They nest inside or outside buildings; under bridges and in road culverts; on rock faces and in caves etc. (MNRF Guelph - Waterloo List, 2014)	Minimal. Suitable nesting structures not present. Small foraging area.	General survey of available habitat	No birds or nests observed at adjacent buildings, in existing sign and twin-cell culvert at East Highland Creek	None. Species not observed and no evidence of nesting.
BOBO	Bobolink	<i>Dolichonyx oryzivorus</i>	Bobolink (<i>Dolichonyx oryzivorus</i>)	THR	Species and General Habitat Protection		Generally prefers open grasslands and hay fields. In migration and in winter uses freshwater marshes and grasslands (MNRF Guelph - Waterloo List, 2014)	None. Adjacent meadow habitat too small.	General survey of available habitat	Not observed	None. Species not observed and habitat not suitable.
EAME	Eastern Meadowlark	<i>Sturnella magna</i>	Eastern Meadowlark (<i>Sturnella magna</i>)	THR	Species and General Habitat Protection		Generally prefers grassy pastures, meadows and hay fields. Nests are always on the ground and usually hidden in or under grass clumps (MNRF Guelph - Waterloo List, 2014)	None. Adjacent meadow habitat too small.	General survey of available habitat	Not observed	None. Species not observed and habitat not suitable.
REDA	Redside Dace	<i>Clinostomus elongatus</i>	Redside Dace (<i>Clinostomus elongatus</i>)	END	Species Protection and Habitat Regulation		Generally found in pools and slow-moving areas of small headwater streams with a moderate to high gradient (MNRF Guelph - Hamilton List, 2013).	Not found in East Highland Creek.	General survey of available habitat	Not investigated	None. Not present in East Highland Creek and work will not affect watercourse.
RPBB	Rusty-patched Bumble Bee	<i>Bombus affinis</i>	Rusty-patched Bumble Bee (<i>Bombus affinis</i>)	END	Species and General Habitat Protection		Generally inhabits a range of diverse habitats including mixed farmland, sand dunes, marshes, urban and wooded areas. It usually nests underground in abandoned rodent burrows (MNRF Guelph - Waterloo List, 2014)	Minimal. Urban and disturbed nature of site is considered poor habitat for the species.	General survey of available habitat	Not investigated	None. Poor habitat conditions and area of proposed disturbance is small in size.
MONA	Monarch Butterfly	<i>Danaus plexippus</i>	Monarch Butterfly (<i>Danaus plexippus</i>)	SC	N/A		Exist primarily wherever milkweed and wildflowers exist; abandoned farmland, along roadsides, and other open spaces	Moderate. Suitable habitat if milkweed present.	General survey of available habitat	Neither the species nor milkweed were observed during the survey	Minimal. Species and milkweed may be present. Disturbance limited to a small area.
BLTU	Blanding's Turtle	<i>Emydoidea blandingii</i>	Blanding's Turtle (<i>Emydoidea blandingii</i>)	THR	Species and General Habitat Protection	ORAA	Generally occur in freshwater lakes, permanent or temporary pools, slow-flowing streams, marshes and swamps. They prefer shallow water that is rich in nutrients, organic soil and dense vegetation. Adults are generally found in open or partially vegetated sites, and juveniles prefer areas that contain thick aquatic vegetation including sphagnum, water lilies and algae. They dig their nest in a variety of loose substrates, including sand, organic soil, gravel and cobblestone. Overwintering occurs in permanent pools that average about one metre in depth, or in slow-flowing streams (MNRF Guelph - Waterloo List, 2014)	None. Habitat not present.	General survey of available habitat	Not observed.	None. Species not expected to be present and works contained to area above tableland. Tableland conditions not suitable as nesting habitat.
SNTU	Snapping Turtle	<i>Chelydra serpentina</i>	Snapping Turtle (<i>Chelydra serpentina</i>)	SC	N/A	ORAA	Generally inhabit shallow waters where they can hide under the soft mud and leaf litter. Nesting sites usually occur on gravelly or sandy areas along streams. Snapping Turtles often take advantage of man-made structures for nest sites, including roads (especially gravel shoulders), dams and aggregate pits (MNRF Guelph - Waterloo List, 2014)	None. Habitat not present.	General survey of available habitat	Not observed.	None. Species not expected to be present and works contained to area above tableland. Tableland conditions not suitable as nesting habitat.
LBBA	Little Brown Bat (Little Brown Myotis)	<i>Myotis lucifugus</i>	Little Brown Bat (Little Brown Myotis) (<i>Myotis lucifugus</i>)	END	Species and General Habitat Protection		Overwintering habitat: Caves and mines that remain above 0 degrees Celsius. Maternal Roosts: Often associated with buildings (attics, barns etc.). Occasionally found in trees (25-44 cm dbh) (MNRF Guelph - Waterloo List, 2014)	Minimal. Could forage over site. Forage suitability based on surrounding urban environment. No maternity roost habitat present.	General survey of available habitat	Maternity roost habitat not present.	None. Species may not be present and the new lighted sign although only operational for a few evening hours does not add to the overall effect of high mast street lighting.
EAPI	Tri-colored Bat	<i>Perimyotis subflavus</i>	Tri-colored Bat (<i>Perimyotis subflavus</i>)	END	Species and General Habitat Protection		Overwintering habitat: Caves and mines that remain above 0 degrees Celsius. Maternal Roosts: Manmade structures or tree cavities. Foraging over still water, rivers, or in forest gaps (COSEWIC 2019)	Minimal. Could forage over site. Forage suitability based on surrounding urban environment. No maternity roost habitat present.	General survey of available habitat		None. Species may not be present and the new lighted sign although only operational for a few evening hours does not add to the overall effect of high mast street lighting.
NLEB	Northern Long-eared Bat (Northern Myotis)	<i>Myotis septentrionalis</i>	Northern Long-eared Bat (Northern Myotis) (<i>Myotis septentrionalis</i>)	END	Species and General Habitat Protection		Overwintering habitat: Caves and mines that remain above 0 degrees Celsius. Maternal Roosts: Often associated with cavities of large diameter trees (25-44 cm dbh). Occasionally found in structures (attics, barns etc.) (MNRF Guelph - Waterloo List, 2014)	Minimal. Could forage over site. Forage suitability based on surrounding urban environment. No maternity roost habitat present.	General survey of available habitat		None. Species may not be present and the new lighted sign although only operational for a few evening hours does not add to the overall effect of high mast street lighting.
SFBA	Small-footed Bat	<i>Myotis leibii</i>	Small-footed Bat (<i>Myotis leibii</i>)	END	Species and General Habitat Protection		Overwintering habitat: Caves and mines that remain above 0 degrees Celsius. Maternal Roosts: primarily under loose rocks on exposed rock outcrops, crevices and cliffs, and occasionally in buildings, under bridges and highway overpasses and under tree bark (MNRF Guelph - Waterloo List, 2014)	Minimal. Could forage over site. Forage suitability based on surrounding urban environment. No maternity roost habitat present.	General survey of available habitat		None. Species may not be present and the new lighted sign although only operational for a few evening hours does not add to the overall effect of high mast street lighting.
	Butternut	<i>Juglans cinerea</i>	Butternut (<i>Juglans cinerea</i>)	END	Species and General Habitat Protection		Generally grows in rich, moist, and well-drained soils often found along streams. It may also be found on well-drained gravel sites, especially those made up of limestone. It is also found, though seldomly, on dry, rocky and sterile soils. In Ontario, the Butternut generally grows alone or in small groups in deciduous forests as well as in hedgerows	None. Habitat not suitable.	General survey of available habitat	Species not observed.	None. Species not observed. Works carried out in cultural meadow.

¹Status Sources:

¹ESA (Endangered Species Act) Status (provincial status from MNRF May 2014)

²ESA (Endangered Species Act) Protection (provincial status from MNRF May 2014)

³COSEWIC (Committee on the Status of Endangered Wildlife in Canada) (federal status from COSEWIC)

⁴SARA (Species at Risk Act) Status (federal status - listed)

APPENDIX

C REPRESENTATIVE SITE PHOTOS





Plate 1. Location of proposed sign in cultural meadow.



Plate 3. West valley slope of East Highland Creek valleyland with trees at crest of slope.



Plate 2. Existing sign to be removed.



Plate 4. Cultural woodland at east valley slope of East Highland Creek valleyland.