Distributed at the Planning and Development Council Meeting of April 15, 2019 Re: Item 2 – Update Report, Oakville Green Development Inc., Part of Lot 25, Concession 1, NDS, File No. Z.1325.07, 24T-18006/1325 and Item 5 – Supplementary Information Report, Zoning By-law Amendment, 393 Dundas LP, 393 Dundas Street West, File No. ZBA 1319.07

Whiteoaks Communications Group Limited

Presentation to Town of Oakville Re Proposed Developments (Health Sciences & Technology District and 393 Dundas St. W.)



O'Connor MacLeod Hanna LLP April 15, 2019

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About Whiteoaks



- Operates two AM radio stations: CJYE 1250 kHz & CJMR 1320 kHz
- Broadcasting from the Town of Oakville since 1956. At current location (1303 Dundas Street West) since 1979)
- 6 x 186-foot-tall radio telecommunication towers transmit 10,000 watts, 24 hours a day, seven days a week
- Federally licensed and regulated (Innovation, Science and Economic Development Canada)



AM Radio and Development – two way impacts

- AM Radio transmission sites can be adversely impacted by nearby mid-rise and high-rise development, compromising their long-term viability
- AM Radio transmission can also impact mid-rise and high-rise development from construction right through to occupation, unless properly mitigated
- One of the main culprit is something called re-radiation: long metal objects conduct current from the RF frequencies emitted by the telecommunication towers



Re-Radiation Impacts

- distorts and disrupts AM radio
- can cause contact burns and electric shocks
- can disrupt electronic equipment



Potential Impacts

Whiteoaks retained Lawrence Behr Associates Inc. ("LBA") to conduct preliminary modeling of the Health Sciences and Technology District (.6 km from transmitter site). LBA found potential two-way impacts:

- a serious threat to the safety of construction workers and post-construction residents, including contact burns, shocks, and increased risk of catastrophic accidents leading to serous physical injuries and damage to property;
- disruption / distortion of the radio signals of both stations, causing them to be outside of licensed parameters and potentially interfere with other radio stations signals; and
- 3. interference with construction equipment and consumer electronics, leading them to malfunction or fail, including catastrophic failures.

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Lawn Cemeter

North Park - 1

Total: 0.59 km

Lions

Valley Park

Glenavr G

Potential Impacts

LBA provided a letter of opinion regarding 393 Dundas (modeling was not conducted):

 despite the greater distance (1.49km), LBA could not rule out negative two-way impacts; although, it indicated the impacts would likely not be "as strong" complex as those of a nearer development

Lawn Cemetery

LBA recommended modeling to quantify impacts and risks

Riverbank

Gladeside

Total: 1.49 km

Lions Valley Park

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North

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Potential Solutions

- 1. **prior to approval:** modeling of both construction phase impacts and impacts post-construction, based on detail design and construction workplans
- 2. where modeling confirms potential impacts, prior to approval: develop a detailed mitigation plan and design, containing:
 - initial mitigation design based on modeling of the detailed design of the development, based on an iterative modeling and design process
 - an RF engineer available on-site during the construction phase to adapt mitigation
 - on-going monitoring of both the construction site and the AM radiation pattern during construction to assess mitigation effectiveness
 - an emergency response plan for the construction phase to address any issues before they result in serious negative impacts to either the construction workers or the AM radiation pattern
 - post-construction availability of an RF engineer to address issues on a case-by-case basis
 - periodic monitoring of the AM radiation pattern and adaptive mitigation as required
 - > if necessary, warning clauses to warn purchasers of the potential risks



Building Detuning Skirt System



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Questions?

Konstantine J. Stavrakos <u>stavrakos@omh.ca</u>

O'Connor MacLeod Hanna LLP 700 Kerr Street Oakville, ON L6K 3W5 905.842.8030

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