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**FILED ELECTRONICALLY AND VIA COURIER**

July 26, 2011

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Ms. Kirsten Walli  
Board Secretary  
Ontario Energy Board  
2300 Yonge Street  
PO Box 2319, 27th Floor  
Toronto, ON  
M4P 1E4

Dear Ms. Walli:

**RE:           Application by Canadian Distributed  
              Antenna Systems Coalition ("CANDAS");  
              Board File No.: EB-2011-0120**

We represent CANDAS in connection with its application to the Board regarding access to the power poles of licensed electricity distributors for the purpose of attaching wireless telecommunications equipment ("**Application**").

In accordance with Procedural Order No. 1, CANDAS is filing the written evidence of: Mr. Bob Boron, Public Mobile Inc.; Mr. Tormod Larsen, ExteNet Systems, Inc.; Ms. Johanne Lemay, Lemay-Yates Associates Inc.; Mr. Brian O'Shaughnessy, Public Mobile Inc.; and Mr. George Vineyard, ExteNet Systems, Inc.

CANDAS will file two paper copies of the above-noted evidence tomorrow.

Yours very truly,

***(signed) H.T. Newland***

HTN/ko

cc:       Mr. George Vineyard  
          ExteNet Systems, Inc.  
          Mr. Mark Rodger  
          Borden Ladner Gervais  
          All Intervenors

**ONTARIO ENERGY BOARD**

**IN THE MATTER OF** the *Ontario Energy Board Act, 1998*,  
S.O. 1998, c. 15 (Schedule B);

**AND IN THE MATTER OF** an Application by the **Canadian  
Distributed Antenna Systems Coalition** for certain  
orders under the *Ontario Energy Board Act, 1998*.

**WRITTEN EVIDENCE**

**OF**

**GEORGE A. VINYARD**

**26 July 2011**

**A. INTRODUCTION****Q.1 Who is ExteNet Systems and what is its business?**

- A. ExteNet Systems (Canada), Inc. ("ExteNet") is a telecommunications infrastructure company that, directly and through contractors, designs, builds, monitors, and maintains distributed antenna systems ("DAS") networks (as described below) in Canada. ExteNet resells DAS network services, for use by Canadian wireless telecommunications carriers, in locations where DAS network technology provides a superior solution for improving wireless services through improved coverage, enhanced capacity and more efficient utilization of radio resources, including licensed radio frequency spectrum. ExteNet is a Canadian corporation that is registered with the CRTC as a reseller of telecommunications services. ExteNet is a subsidiary of ExteNet Systems, Inc. ("ExteNet Systems"), a Delaware corporation that has been engaged in designing, building, owning, operating, monitoring and maintaining DAS networks at locations across the United States for several years.

**Q.2 What is your background and experience relative to the wireless telecommunications industry, generally, and to DAS networks. ExteNet Systems, ExteNet and its activities in Ontario, in particular?**

- A. I am an attorney in the United States and have been engaged in the practice of law continuously since 1977. Most of my career was spent at a law firm in Chicago, Illinois, where my practice was focused primarily on corporate, commercial and financial transactions, as well as intellectual property licensing and development matters, including representation of a variety of technology companies. At times I have also served as the chief legal officer and as the vice president for intellectual property of publicly held corporations. Starting in 2004, I served as the primary legal counsel for ExteNet Systems while I continued to practice law at my firm in Chicago. Since January 2008, I have been employed by ExteNet Systems in the capacity of Vice President and General Counsel (chief legal officer). As such, I am responsible for the provision of legal services to ExteNet Systems and its subsidiaries, including ExteNet. Among other things, my duties at ExteNet Systems include representing and supervising the representation of the Company and its subsidiaries in proceedings of the various federal and state agencies that regulate telecommunications services and facilities and the utilities that are mandated to grant access for

attachments of telecommunications facilities to existing utility infrastructure. For a more detailed description and history of my qualifications and career, please refer to my *curriculum vitae* attached hereto.

**Q.3 What is the nature of ExteNet's interest in this proceeding?**

- A. ExteNet is one of three members of the Canadian Distributed Antenna Systems Coalition ("CANDAS"), the Applicant in this proceeding. ExteNet was selected by Public Mobile to develop and provision a DAS network to enable the offering of Public Mobile's new mobile wireless services to the residents and local businesses of Toronto. On August 6, 2009, ExteNet and Public Mobile entered into a DAS Network Design, Provisioning, and Services Agreement for a "Toronto DAS Network" (as described in more detail in the CANDAS Application and below). The Toronto DAS Network was designed and planned for installation in the public rights-of-way, with the fiber optic cabling and distributed antennas and related radio equipment to be attached to the poles of Toronto Hydro-Electric System Limited ("THESL") and Toronto Hydro Energy Services Inc. ("THESI") pursuant to the respective attachment rights and agreements of two underlying service providers, Cogeco Data Services Inc. ("Cogeco") and DAScom Inc. ("DAScom") and in accordance with the Board's CCTA Order.

In June of 2010, as a result of: (i) continuing delays in THESL's and THESI's processing of Cogeco's and DAScom's attachment permit applications; and (ii) the overriding uncertainty as to when or whether the Toronto DAS Network could be completed as planned, the contractual arrangements for the committed use of the Toronto DAS Network by Public Mobile were terminated. At that time, the Toronto DAS Network was partially constructed, but no part of it was useful and that is the situation that continues to this date.

ExteNet remains hopeful that Public Mobile or perhaps other carriers will contract for DAS services in areas covered by some or all or a portion of the Toronto DAS Network that has been designed and built to date. In addition, ExteNet has at various times received expressions of interest from Public Mobile and other new entrant wireless carriers with respect to DAS network deployments in areas outside the City of Toronto. However, it has been made very clear that none of these potential DAS networks will be of interest to any prospective wireless carrier customers unless and until ExteNet can provide reasonable assurances that construction

of the networks can be completed within a reasonable time frame and according to a reasonably predictable schedule, and that they will be available for sustained use by the wireless carriers over a sufficiently long time period to justify the required capital investment. ExteNet's objective for participating in this proceeding, as a member of CANDAS, is to obtain appropriate rulings from the Board to make the ongoing development of DAS network infrastructure in Ontario a feasible alternative for meeting the needs of wireless carriers.

**Q.4 What is the purpose of your written evidence in this proceeding?**

- A. The purpose of this written evidence is to provide facts and analysis that will inform the Board's consideration of the issues in this proceeding and facilitate the articulation of policies, terms and conditions relating to attachment of telecommunications equipment to electric distribution poles that will permit DAS technology to serve as a viable option for use by wireless telecommunications carriers in Ontario so that they may provide their services in a manner that is most effective and efficient and best serves both their customers and the public interest.

**B. TERMS AND CONDITIONS GOVERNING POLE ATTACHMENTS**

**Q.5 Could you describe the scope of ExteNet's experience in dealing with utility pole attachment issues?**

- A. ExteNet Systems' experience in arranging for attachment of DAS network facilities in the United States is extensive. Directly or through its operating subsidiaries, ExteNet Systems has entered into approximately 80 attachment agreements with over 35 utilities, most of which involve attachment to power poles. Many of these arrangements in respect of attachments of antennas and related equipment, including radio units. Negotiations with over 20 other utilities are currently ongoing in connection with over 30 new attachment agreements.

In the course of its dealings with various electricity distribution companies in the United States, ExteNet Systems has encountered and had occasion to deal with many legal and practical issues related to both wireline and wireless attachments to distribution poles. Moreover, ExteNet Systems has actively participated in FCC and state utility commission proceedings related to pole attachment terms and conditions. The foregoing experiences, together with the experiences of ExteNet, DAScom and Cogeco in connection with the Toronto DAS Network project and ExteNet's communications with other utilities in Ontario to assess the feasibility of potential

DAS network projects outside the City of Toronto, form the basis of the conclusions set forth in this submission.

**Q.6 What terms and conditions of access are necessary or desirable in order for the underlying policies and interests of the various constituencies to be served in a meaningful way?**

By virtue of the nature of DAS network technology, specifically the substantial fiber optic cabling component and the large number of antenna sites (albeit smaller ones) that need to be developed, DAS deployments require substantial up-front capital investments. In order to induce private parties to make such investments in infrastructure and to commit to the ongoing use thereof, it is necessary to provide both investors and prospective customers with reasonably predictable time frames for completion of the network build-out and with reasonable assurances that the asset will continue to be available for use over a sustained period that is sufficient to permit the required investments by both developers and carrier customers to be profitable.

In light of the above, the terms and conditions governing attachments to utility infrastructure must, at minimum: (i) establish time frames for the processing of attachment permit or license applications and for the performance of any required “make ready” work that are both reasonable and reasonably predictable; and (ii) provide that the duration of any attachment include an initial term and/or renewal terms of sufficient length to justify the necessary capital investments and contractual commitments for use of the network facilities, subject only to appropriately narrow exceptions to assure ongoing compliance with applicable safety standards and reasonable reliability and engineering requirements of the pole owner. Without such provisions, DAS technology cannot be made available in a given market and any policy mandating access to electricity distribution poles is likely to be severely undermined, if not rendered entirely illusory. Like justice, access delayed is very often access denied.

In addition, if the public interest is to be served, access to electricity distribution poles for telecommunications facilities attachments cannot be granted on a basis that is neither competitively neutral nor non-discriminatory. The unilateral adoption, without regulatory oversight, of policies and standard terms and conditions in non-negotiable, confidential attachment agreements, does not promote confidence that access is being granted in a

equitable and non-discriminatory fashion. Indeed, the insistence of THESL that even its standard attachment agreement be held in confidence suggests otherwise. ExteNet believes that transparency is key for assuring fair and non-discriminatory treatment for all similarly situated attachers. For this reason and also to minimize the potential for abuse of monopoly power in the negotiation of attachment agreements, ExteNet requests that approved terms and conditions of access be published in a tariff or rates schedule. Given that attachment rates are a matter of public record and not the subject of private negotiations that could be compromised by disclosure, that virtually all attachments to hydro poles are actually carried out in public view and that all attachers should be subject to the same terms and conditions, confidentiality or non-disclosure provisions in attachment agreements should be strictly limited to the need to protect truly confidential customer or utility technical information and maintain the security of facilities.

ExteNet acknowledges and accepts that telecommunications attachments to electricity distribution poles should be accommodated and carried out in a manner that: (i) is fully compliant with all applicable safety regulations; (ii) does not interfere with the primary function of the pole owner, i.e., the reliable delivery of power to electricity customers; and (iii) does not impose incremental costs or burdens on rate-payers that are not recovered in rates, e.g. by requiring construction of additional pole lines or imposing obligations to perform make-ready work, including pole replacements, where the attachers do not pay the full cost of the required work. Moreover, utilities and their rate-payers should not incur liability or costs as a result of the attachments or the acts or omissions of the attachers. Appropriate contractual provisions can address all of these issues. On the other hand, however, utilities should not be permitted to immunize themselves from liability for the wrongdoing or negligence of their own personnel or contractors through the inclusion of non-negotiable, one-sided terms of access. The terms and conditions of service related to pole attachments should address the foregoing issues in a fair and reasonable manner.

**Q.7 What are reasonable terms and conditions regarding the processing of pole attachment applications?**

- A. As suggested above, a key factor affecting the provision of meaningful and useful access to poles for telecommunications attachments is the time required to process individual pole attachment

applications and issue the necessary permits or licenses. This process includes the clear delineation of any conditions or pre-requisites related to “make ready” work that may be required to accommodate a proposed attachment on a given pole or line poles and the time required for the performance of the such work. Terms and conditions of attachment should define reasonable, fixed time frames within which the review and approval or rejection of the applications that serve as the administrative vehicle for providing the necessary engineering data to the hydro, together with all associated consultations, inspections and make-ready tasks, will be completed. The time frames adopted by the FCC in FCC Decision 11-50 (Application, Tab 22) are reasonable. Such time frames may be subject to reasonable exceptions based on *force majeure* events or the prospective licensee’s failure or refusal to adhere to reasonable procedures and standards, but compliance by the utility with the time frames with regard to any and all license applications should not be condition upon unfailing compliance by the prospective licensee in every instance.

Generally speaking, the efficiency and effectiveness of the process for granting attachment permits or licenses and, hence, the capacity of the parties to comply with the established time frames, is greatly enhanced if the utility and the attacher consult in advance for purposes of jointly reviewing the applicable standards, the scope of the proposed telecommunications facilities deployment, the types, locations and general condition of the available existing poles, the hydro’s immediate and concrete plans for changes and additional uses of the poles, the proposed telecommunications equipment configurations and attachment methods, and the procedures for determining and performing any required make-ready work in a planned and coordinated manner. For large projects such consultations should be carried out as a matter of routine so that the utilities may anticipate the volume of applications and procure the resources necessary for processing applications and make ready work in a commercially reasonable and timely manner.

- Q.8 What are reasonable terms and conditions governing the duration of any given pole attachment?**
- A. Ideally, a license for an attachment to a particular pole, once granted, should continue indefinitely, subject only to: (i) termination by the licensee whenever the attachment is no longer needed by the attacher; or (ii) termination by the pole owner in the event the attacher



commits a material breach of the applicable attachment terms and conditions which breach continues after expiration of a reasonable notice and cure period; or (iii) termination by the pole owner with reasonable advance notice where such termination is necessary and justifiable on the basis of enumerated criteria related to external events and circumstances or to the utility's legitimate needs and requirements in connection with carrying out its primary functions. In the case of termination pursuant to clause (iii), the terms and conditions should include reasonable provisions for the utility to make available alternative infrastructure to accommodate attachments that would otherwise have to be removed where it is feasible to do so. If it is deemed necessary or desirable for administrative or other reasons to establish a standard fixed term for the duration of attachment licenses, this should include a minimum initial term of at least 15 years, with a minimum of three, five-year renewal terms at the election of the licensee. Termination by the licensee should be for convenience with reasonable advance notice and subject to the licensee's obligations to remove the attachments and restore the poles or other infrastructure as appropriate.

**Q.9 What are reasonable terms and conditions for assuring full compliance with all applicable safety regulations and protecting the reliability of the hydro's primary services, while also accommodating, to the extent feasible, the legitimate needs of the telecommunications carriers?**

A. Safety and engineering standards and the data required to be submitted in support of attachment license applications should be clearly articulated and published by the utilities in advance. Except in circumstances with actual implications for the safety of workers or the public, changes in requirements should be communicated in advance of their implementation and should not be applied retroactively. Where proposed attachments involve configurations of equipment or attachment methods that have not been previously been either: (i) employed by the utilities or by other attachers to that utility's poles; or (ii) reviewed and approved by a relevant government agency or industry standard setting body in which the utility has participated, provision should be made for the utility's timely review and approval (or disapproval accompanied by reasonably detailed reasons) of the proposed configuration or attachment method.

**Q.10 What are reasonable terms and conditions for assuring that telecommunications attachments are not subsidized by electricity rate-payers?**

- A. The principal method for avoiding the imposition of costs on utility ratepayers should be the establishment of appropriate rates or rate formulas designed to allow the utility to capture any and all costs that are attributable or properly allocable to the attachments in question. Such an approach appears to be reflected in the current rates for attachments established by the Board. However, if utilities believe that the approved rate is not sufficient to cover the costs of attachments of various kinds, the appropriate remedy is to seek a change in the applicable approved rates. Depending upon the extent, if any, to which the established rates or rate formulae fail to account for incremental administrative costs associated with processing particular attachment license applications and the costs of performing related make-ready work, provision should be made for payment of such costs, by the attacher, through some combination of reasonable application fees and reimbursement of the reasonable costs and expenses actually incurred by the utility.

**Q.11 What are reasonable terms and conditions relating to indemnification, limitations of liability, insurance and security for certain obligations?**

- A. As noted above, it is appropriate and reasonable for that utility and their rate-payers be indemnified against liability and costs resulting from attachments, their proposed use and the wrongful acts or negligence of the attachers. Thus, the terms and conditions governing pole attachments typically include provisions relating to indemnification of the pole owners, limitations on their liability for damages of various kinds, requirements that the attachers maintain appropriate insurance coverages, and in some cases, requirements that attachers provide security or assurance for the performance of certain obligations (such as for removal and restoration following termination of an attachment permit or license). Such security could be in the form of a surety bond or similar instrument.

ExteNet Systems and ExteNet's experience is that some electricity distributors insist on indemnifications that are overly broad, one-sided or so disproportionate to the harm they are intended to protect against as to create barriers to entry. Indemnifications should be reciprocal, where appropriate in light of mutual risk and responsibility. Those that impose

immediate costs on the attacher should be reasonable, having regard to the realistic risks and costs for which provision is being made and proportional to the size and scope of the attachments and the number of poles affected. Under no circumstances should the indemnification and limitation of liability provisions be so broad as to insulate the pole owner from the direct damages or losses caused by its own wrongful or negligent acts or omissions or the wrongful or negligent acts or omissions of its employees or contractors.

**C. UNITED STATES LAWS, REGULATIONS & PRACTICES REGARDING UTILITY POLE ACCESS**

**Q.12 How have the laws, regulations and practices evolved in the United States with respect to telecommunications attachments to electric distribution poles and conduits generally and with respect to DAS network attachments in particular?**

- A. The United States federal statutes mandate non-discriminatory access for cable companies and telecommunications carriers to poles, conduits, ducts and rights of way owned by utilities. Including regulated electricity distributors [47 U.S.C. Sec. 224]. Initially the law mandated access only for cable companies, but it was amended in the 1990s to include telecommunications carriers. The jurisdiction of the FCC to regulate the rates, terms and conditions for attachments is limited to utilities in states that have not pre-empted such jurisdiction by regulating the relevant rates, terms and conditions and certifying to the federal government that they are doing so. To this point, over 20 states have submitted certifications.

The mandate for electric utilities is subject to an exception for non-discriminatory denial of access to poles, etc. where the denial is justified on the basis of “insufficient capacity and for reasons of safety, reliability and generally applicable engineering purposes”. Historically, there has been tremendous variation in the attitudes of electric utilities with regard to telecommunications attachments generally and attachments of antennas and related wireless equipment in particular. While some utilities have been both accommodating and responsive to attachment permit requests and have developed attachment agreements, policies and procedures that are completely reasonable, others have attempted to impose unreasonable terms and conditions through their form agreements or through their lack of responsiveness. Others have appeared to discriminate between wireline and wireless attachments (a great number of them require separate contracts for aerial wireline, conduit wireless and wireless

equipment attachments, whether or not the terms and conditions differ substantially). Some of these utilities have appeared to discourage attachments by failing or refusing to enter into reasonable agreements or to allocate sufficient human resources to process permit applications or perform make ready work in a reasonably timely manner. Finally, some of these utilities have instituted policies and practices that included arbitrary and unjustified financial requirements and/or technical requirements and limitations governing or even explicitly prohibiting certain attachments, such as blanket refusals to permit pole-top antenna attachments. As a matter of practice most of the electric utilities that have not actively attempted to prohibit or discourage attachments on their poles have promulgated terms and conditions governing the assessment, performance and payment for “make ready” that allow for reasonable accommodation of new attachers up to and including replacing old and undersized poles on a cost reimbursement basis. As a result of this, the very large numbers of poles in existence in more densely populated areas, and the careful selection of the particular poles to which attachments are made, ExteNet Systems has seldom, if ever, encountered a situation in the United States in which it could not attach its facilities by reason of insufficient capacity.

The report and order adopted by the FCC in Docket No. 07-245 in April 2011 recognized and dealt with a number of these issues in a manner that added significant clarity to the obligations of the utilities over which the FCC retains jurisdiction, particularly with respect to attachment rates, access to pole-tops for antenna placement and the time frames within which requests for access for attachments must generally be processed. The FCC proceeding on these issues which culminated in the new rule consumed nearly four years and included a very extensive record in which many electric utilities offered unconvincing assertions that pole-top antenna attachments inevitably entail unsafe conditions. I represented ExteNet Systems in this matter and, along with representatives of PCIA, a trade association of wireless infrastructure providers, attended several meetings with FCC staff and participated in reviewing portions of the record and commenting on industry submissions in the proceeding. To my knowledge, the electric utility industry never introduced into the record any instance of actual harm or damage caused by any of the many hundreds and thousands of pole-top wireless attachments that have been deployed in the United States over the past several years. Ultimately, as reflected in the FCC Report and Order, the FCC rejected the proposition that a blanket refusal to allow pole-top antenna attachments regardless of the particulars of the poles involved would be justifiable. Under the

rule, denials of requests for access must be accompanied by reasonably specific explanations of the grounds for the denial.

The FCC Report and Order relating to pole attachments is now in effect, although electric industry members have requested reconsideration by the FCC and sought relief in the courts. It is anticipated that some of the states that have filed certificates to pre-empt the FCCs jurisdiction with respect to utilities under their jurisdiction will now undertake to harmonize their regulation with the new FCC rules. Similar activity is anticipated with respect to making appropriate amendments, if required, to cause existing attachment agreements with utilities subject to FCC jurisdiction to be consistent and compliant with the new rules.

**D. STATUS OF THE TORONTO DAS NETWORK**

**Q.13 What are the implications for ExteNet if the Board does not grant the relief that CANDAS is seeking in this proceeding?**

A. Without the relief that CANDAS is seeking in this proceeding, ExteNet will have no option but to withdraw entirely from the market for outdoor DAS network services in Ontario. In so doing, ExteNet would realize the loss of its entire investment in the Toronto DAS Network, net of any amounts recoverable from contractors or third parties, e.g., advance payments for work that cannot be completed. In addition, ExteNet might be required to incur the cost of removing the attachments previously constructed on THESL poles.

**Q.14 If the Board orders Ontario electricity distributors to provide pole access for wireless attachments and grants the other relief requested with respect to terms and conditions applicable to both wireline and wireless attachments, what will that mean for ExteNet on a go-forward basis?**

A. If the Board grants the relief that CANDAS is seeking as described above, it will mean that ExteNet and DAScom, along with other potential providers of DAS network infrastructure and services, will have the opportunity to obtain contracts from wireless carriers for the design, construction, monitoring and maintenance of DAS networks and the provision related services at competitive rates. The viability of such business opportunities will depend, in significant part, on the extent to which such prospective customers and those being asked to provide the

necessary capital investment, perceive that the Board has clearly and unequivocally resolved the issues presented in a way that effectively eliminates the uncertainties related to attachment rights and obligations, including the terms and conditions thereof that currently serve to effectively and entirely prevent such investments and service offerings.

## **George A. Vinyard**

*3030 Warrenville Road, Suite 340  
Lisle, Illinois 60532*

### **Employment History:**

*January 2008 – Present. Vice President, General Counsel & Corporate Secretary,  
ExteNet Systems, Inc. Lisle, Illinois*

Chief Legal Officer; also in charge of Regulatory Affairs

*September 2005 – December 2007. Of Counsel, Sachnoff & Weaver, Ltd. (succeeded  
by Reed Smith LLP in 2007)*

Practice focused on counseling start-up, early stage and emerging growth enterprises with respect to corporate and securities matters and counseling companies of all sizes with respect to strategic intellectual property issues. Devoted 2-3 days per week to providing legal services on-site at ExteNet Systems, Inc. (f/k/a ClearLinx Network Corporation).

*March 2001 – August 2005. Member, Sachnoff & Weaver, Ltd., Chicago Illinois*

Headed Intellectual Property and Information Technology Practice Group. Practice focused on counseling start-up, early stage and emerging growth enterprises with respect to corporate and securities matters and counseling companies of all sizes with respect to strategic intellectual property issues.

*June, 1999 – March 2001. Of Counsel, Sachnoff & Weaver, Ltd., Chicago, Illinois*

Practice focused on counseling start-up, early stage and emerging growth enterprises with respect to corporate and securities matters and counseling companies of all sizes with respect to strategic intellectual property issues.

*June, 1997 – March, 1999. Vice President, Intellectual Property and Associate  
General Counsel, 3Com Corporation, Rolling Meadows, Illinois*

In this position I headed the Legal Department practice group responsible for intellectual property programs and disputes (patents, trade secrets, trademarks, copyrights and related licensing and litigation). From fiscal 1997 through fiscal 1999, 3Com's U.S. Patent filings more than tripled to over 400 per year. During my tenure, we also negotiated major patent cross licenses with Motorola and IBM, managed several patent, trademark and copyright infringement cases (including disputes with Motorola,

Xerox, Microsoft, Lucent Technologies and others), and developed a comprehensive Intellectual Property Strategy for the company.

*February, 1994 – June, 1997.* Vice President, **General Counsel** and Secretary, **U.S. Robotics Corporation**, Skokie, Illinois

As U.S. Robotics' first inside lawyer, I founded and built the Legal Department from scratch during a period in which the Company's sales grew from just under \$200 million in fiscal 1993 to nearly \$2 billion in fiscal 1996. During this time the company completed five relatively small acquisitions (including Megahertz Corporation and Palm Computing) and evaluated several others. Contacts with 3Com Corporation beginning in late January, 1997 led to the consummation a combination with that company in June, 1997 which, at approximately \$8 billion, was to that point the largest transaction or its type in the data networking equipment industry.

*September, 1981 – January, 1994.* Senior Attorney (Equity Shareholder), Sachnoff & Weaver, Ltd.

In private practice, my experience was focussed primarily in the areas of corporate, securities and computer law. I represented technology-oriented issuers and underwriters in public offerings, private placements and venture capital deals, was involved in a variety of merger and acquisition transactions ranging from the purchase or sale of small software companies to the auctioning of a publicly held regional bank holding company and the leveraged buy-out of a national furniture chain. At various times I also did a substantial amount of work representing banks and borrowers in commercial lending transactions, and represented creditors (including indenture trustees) in some bankruptcy reorganizations. For a few years I served as the Senior Attorney in charge of administration for the law firm.

*June, 1997 – August, 1981.* Associate Attorney, Sachnoff, Schrager, Jones, Weaver & Rubenstein, Ltd.

Early in my legal career I worked on numerous real estate syndications, gained a modest amount of experience in litigation, including securities and class action cases, worked on hostile tender offers and proxy fights and was involved in the SIPC liquidation of a securities brokerage firm.

*May – August, 1976.* Summer Law Clerk, Sachnoff, Schrager, Jones & Weaver, Ltd.

*January, 1972 -- August, 1974.* Administrative Assistant to the President and the Dean of the University, Illinois Wesleyan University, Bloomington, Illinois



## **Professional & Civic Activities and Associations:**

Professional Memberships -- American Association of Corporate Counsel; American Bar Association, Chicago Bar Association (Chaired the Development of the Law Committee, 1993-94),

Former Adjunct Law Faculty – The John Marshall Law School; on three different occasions during the 1980s I taught Corporation Law; In 2004 I team-taught a writing class related to Intellectual Property

Former Board Member and Secretary – Public Interest Law Initiative

Trustee and Board Secretary -- Illinois Wesleyan University (Board Chair, 2006-present; Trustee since 1977; member of Executive Committee, Investment Committee, former Chair of the Academic Affairs Committee)

Former Director and Board Chair – Center for Neighborhood Technology, Chicago, Illinois

Former Trustee and Board President -- Oak Park Public Library

President, University of Michigan Law School Student Senate (1976-77)

President, Illinois Wesleyan University Student Senate (1970-71)

## **Education:**

J.D., University of Michigan Law School (1977, Cum Laude)

B.A., Illinois Wesleyan University (English Literature, 1971, Magna Cum Laude)

**ONTARIO ENERGY BOARD**

**IN THE MATTER OF** the *Ontario Energy Board Act, 1998*,  
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**WRITTEN EVIDENCE**

**OF**

**TORMOD LARSEN**

**26 July 2011**

**A. INTRODUCTION**

**Q.1 What is your background and experience relative to the wireless telecommunications industry, generally, and to DAS networks, ExteNet Systems, ExteNet and its activities in Ontario, in particular?**

A. I am an electrical engineer and have worked in the wireless communications industry for more than 16 years in Europe and the United States. For most of my career I have focused on DAS technology and on designing, equipping, maintaining and optimizing DAS networks. I have served as the Chief Technology Officer of ExteNet Systems and its subsidiaries since 2004 and in that capacity I oversaw the design and planning of the Toronto DAS Network. For a detailed description and history of my qualifications and career, please refer to Exhibit "A".

**Q.2 What is the purpose of your written evidence in this proceeding?**

A. The purpose of this written evidence is to provide information that will enable the Board to understand the scientific and technical characteristics of DAS technology, with particular focus on how these relate to the essential need to deploy DAS networks on existing utility poles in the public rights of way in a manner that best serves the needs of users of wireless services and the public interest.

**B. OUTDOOR DAS SYSTEMS – TECHNICAL CHARACTERISTICS AND BENEFITS**

**Q.3 What are the key components and characteristics of outdoor DAS network technology?**

A. An outdoor DAS network comprises three main components:

- (i) multiple node sites;
- (ii) a comprehensive fibre optic network; and
- (iii) one or several hub locations connected to the node sites via the fibre optic cabling.

**(i) Node Sites** are typically constructed with multiband antennas at fairly low (typically 9-14 meters) elevation centers. These antennas are connected to small remote radio units. Each node site also may include a backup battery power unit to allow continuous node operation during short power outages.

(ii) **The fibre optic network** connects the multiple remote radio units to one or more aggregation points called BTS Hubs.

(iii) **A BTS Hub** is a central facility that aggregates the signals from many node sites (a few to as many as several hundred) and serves as point of interconnection with the wireless carrier customer's broader communications network.

A DAS network is characterized by a number of features, many of which are implicit in the acronym "DAS" which stands for **Distributed Antenna System**. As this term implies, the antennas are distributed rather than centralized at one site or location. It also implies that these distributed antennas are interconnected through a system or a network. The fact that the antennas are distributed means that the antennas can be located closer to the end-users' mobile devices. This proximity to the end-users, in turn, offers several benefits that relate to the ability to confine and more precisely define the wireless coverage area served by each node site. The BTS hub and its ability to aggregate and provide a common interface for signals originating and being sent over a larger geographical area enables greater flexibility and scalability, with resulting improved efficiencies when deploying today's wireless networks. Attached as Exhibit "B" is a copy of a slide deck (prepared in 2009) that provides further background and illustration of DAS technology.

**Q.4 How are outdoor DAS networks primarily or typically designed, configured and constructed?**

- A. A DAS network is typically designed to meet the known needs of one or more wireless carriers for improved coverage and/or enhanced capacity in a specified geographic area (the "coverage area"). The design process begins with a survey and inspection of existing utility infrastructure within the coverage area. The requirements for the entire coverage area are considered and a comprehensive network approach is applied, unlike a site-by-site approach that might be used with more traditional wireless deployments. The DAS design approach starts with mapping out the availability of existing support infrastructure – typically utility poles, streetlight poles, traffic light standards etc. The objective is to identify not only poles suitable for supporting node sites, but also the more extensive infrastructure (poles and conduits) that is available to support the fibre optic cabling because both of these components are essential to the functionality of the DAS network. The critical considerations in identifying suitable support infrastructure are:

- (i) **Node Site Locations:** The preferred locations are at street corners or similar locations where the radio signal can propagate the desired distance and not be blocked by buildings or other obstructions. The antennas utilized are typically omni-directional or multi-directional to enable propagation of the radio signals in multiple directions (e.g., along both, North-South and East-West streets). It is also important that the antenna locations be reasonably separated from occupied areas. In other words, the antenna should be located a certain distance away from the general public and from occupied indoor spaces in order to comply with applicable Industry Canada or FCC regulations relating to human Radio Frequency emissions exposure. The required distance depends on frequency band and effective radiated radio frequency energy, but placement on electric utility poles in the public rights of way generally assures appropriate separation from occupied outdoor and indoor spaces. Line of sight propagation enabled by the greater proximity to end users at street level also reduces the operating output power of the connecting mobile devices.
- (ii) **Antenna Height:** The preferred height for DAS Antennas is in the range of 9-14 meters. At these elevations the radio frequency signal will propagate the desired distance and support the required number of mobile end-users. The increase in data usage combined with limited radio frequency spectrum is driving the need for more confined and smaller coverage footprints. Typical DAS networks have from 3 to 7 node sites per square kilometre depending on capacity requirements, the technologies and frequencies deployed and the surrounding topography.
- (iii) **Fibre Connectivity:** The connectivity between the node sites and the BTS hubs is critical to the operation of a DAS network. Connectivity is a major challenge for all wireless and wireline networks. It is important during the design process to identify a practical approach to secure reliable connectivity.
- (iv) **Power availability:** The node sites require low to medium power consumption. The availability and process of providing power to the node sites is an important

consideration during design evaluation. A consistent and efficient approach is preferred.

- (v) **Physical Access:** Ease of access to the node sites and fibre segments during both construction and ongoing operation is an important element of the design of DAS networks. DAS node and fibre line deployment locations that can be accessed with relative ease, as is the case with existing utility poles in the public rights of way, are critical to ensure speedy deployment and repair, and efficient and reliable operation.

The vast number (typically several hundred per sq. km) of utility poles in most populated areas enable a flexible DAS network design approach addressing all of the elements outlined above, while also allowing for relative uniformity in the configuration and construction of the node sites and the fibre attachments. Utilizing utility poles has therefore been the predominant approach for design of DAS networks.

A typical configuration of a DAS node site is as follows:

- (i) **A pole top antenna:** A 60cm tall canister antenna with a diameter equal to or slightly larger than the pole is typically used. These antennas are typically multiband and can support multiple services and carriers. The antennas also have flexibility in terms of the radiation pattern and can support either omni directional propagation or sector/directional propagation. This is beneficial in order to support high capacity scenarios in a flexible manner. Pole top antennas provide better propagation characteristics due to the incremental height and also the reduced amount of obstructions (e.g. the pole itself) relative to the alternative of mounting them on a sidearm lower down on the pole in or near to the designated communications space. It is also a fact that with the antenna on the top of the pole it is farther away from power lines, fibre and other equipment improving the operational environment for everyone. An antenna located on top of the pole is also generally considered a more aesthetically attractive solution.

**(ii) Remote radio unit:** A remote radio unit is typically located in an enclosure mounted below the designated co space. The size of a typical remote radio unit is similar to or smaller than that of a standard cable TV battery backup power unit.

**(iii) Backup battery power unit:** A backup battery power unit is typically either integrated into the same enclosure as the remote radio unit or is in a separate enclosure that is also mounted on the pole below the remote radio unit.

**(iv) Fibre optic interconnection:** A fibre interconnection panel connecting the remote radio unit to the fibre network providing connectivity back to the BTS hub

DAS networks are typically configured and constructed with the fibre optic capacity to support multiple wireless carriers. The reason is the relatively low marginal effort and cost to deploy higher capacity fibre optic cabling and other network elements, together with the resulting potential to spread the capital cost of the initial DAS deployment costs over multiple users who can be added at relatively low incremental design and construction cost. The fibre optic cable components of the DAS Network are a key factor where adding additional fibre strands in a cable does not complicate the deployment. These additional fibre strands can then be used both for DAS network services and for other telecommunication services. In addition, this shared infrastructure approach provides opportunities for more environmentally and economically sound solutions.

The flexibility of the DAS network architecture provides the ability to change the configuration with limited or no change to the physical infrastructure. The majority of the changes can be effected in the BTS hub rather than at the node sites. These changes include re-sectorization or cell splits, as well as the addition of new technologies and/or services.

The construction of a typical DAS network consists of traditional fibre deployments in addition to the node site construction. These activities are generally carried out in parallel. Due to the generally consistent deployment methodology, the overall process can be streamlined through pre-construction and kitting activities. The construction of typical DAS networks is therefore relatively quick and involves limited disruption to the community. ExteNet has used these methods to deploy large scale DAS networks in the following metropolitan areas: Toronto (partial), Montreal, New York, San Francisco, Las Vegas, Boston and Providence with actual

construction activity limited to several weeks or a few months. Attached as Exhibit "C" are depictions of DAS installations.

**Q.5 From a technical standpoint, how did the design, configuration and construction of the planned Toronto DAS Network compare with the usual or typical outdoor DAS network described above?**

A. The design and configuration for the Toronto DAS network was generally very typical of other DAS networks designed and deployed by ExteNet Systems and others across the United States. The most atypical thing about the Toronto DAS Network design was that it was restricted by the unavailability of pole-top antenna installations. As a result the design called for all the antennas to be mounted on cross-arms attached to the poles in or near to the communications space, with the result that the typical antenna elevation was in the range of 6-7 metres above grade, much lower than is typical. As a result, more node sites were required for the Toronto DAS Network than would otherwise have been needed. See Exhibit "C" and sample engineering drawings, which are attached as Exhibit "D", all for illustrative purposes.

**Q.6 What benefits do outdoor DAS deployments typically achieve or enable in comparison to other methods of wireless network deployment? In particular, can traditional macro cell sites or self-contained micro cells with antennas mounted on building tops or towers be effectively deployed to achieve the same objectives as DAS networks?**

A. Traditional cellular telephone network technology relies on "Macro Cell Sites," comprising large antenna arrays mounted on tall communication towers or on building tops. These sites transmit high powered radio signals over large areas. Especially in urban settings, these large, wireless installations are typically more obtrusive and often provide incomplete or poor coverage in areas around tall buildings due to a combination of blocked radio signals and interference from many sites. The coverage areas are typically too large and are less flexible in areas where capacity requirements may be changing. It does not allow for the most efficient use of radio spectrum and radio equipment. It is hence less suited to providing the high data through-put required by "smart phone" services. Compounding these problems is the fact that increases in the demand for high data rate services can only be met through the construction of more Macro Cell Sites.



The benefits of DAS networks compared to other deployment methods such as building top macro sites include, among others:

- (i) **Improved coverage:** DAS networks can be deployed to provide precise, targeted coverage in areas that are not easily accessible to Macro Cell Sites. The proximity to the users allows for better coverage in the areas where the subscribers are located. DAS technology has been used for years in tunnels, canyons, indoors and other hard to reach areas. Based on the increasing demands not only for voice service, but also for high quality data service, the same requirements and techniques are applied in urban corridors and dense suburban areas. An analogy can be drawn between streetlights versus large lamps on top of buildings. The streetlights provide a much more complete and consistent coverage than the large lamp on the top of a building. Outdoor DAS network can also provide improved coverage of adjacent indoor spaces especially for services operating at higher frequencies.
- (ii) **Increased capacity:** A DAS network has the ability to increase the capacity in a wireless network. The increase in capacity stems from several factors some of which are outlined as additional benefits below. The first factor is the ability to provide a confined and precisely defined coverage footprint from each node site. Suppose that a cellular site can support a fixed number of simultaneous users, the larger coverage footprint from a particular site, the more likely it is that the site will run out of capacity or the users will experience blocked calls. If the coverage area is smaller and better defined, it is possible to manage the footprint more dynamically and ensure that blocking is not occurring. Another factor is the concept of capacity pooling. The BTS hub contains capacity equal to a larger number of macro sites. The peak capacity in a given areas can thus be increased by reallocating resources to such areas when user demand is higher. In an environment with increasing market penetration rate and use of smartphone devices this has become even more important. Greater spectrum

efficiency and reduced interference will also increase the overall network capacity because these factors enable for a more efficient network capable of greater data through-put.

- (iii) **Greater spectrum efficiency:** A DAS network provides greater spectrum efficiency. One of the key factors to achieve greater spectrum efficiency is the frequency or PN (pseudo noise) code reuse ratio. This is the ratio of how often a particular frequency channel or PN code can be reused. The typical ratio for a macro network is 1:7 versus 1:3 in DAS or microcell environments (Ref. *Source: US Patent 5,067,347 (Lee)*). This is especially important for carriers with limited radio frequency spectrum like Public Mobile, Wind and Mobilicity in Canada, or MetroPCS and Cricket in the US. Frequency spectrum suitable for wireless communication is a scarce resource, and both Industry Canada and the FCC have recognized that more efficient use of spectrum is required to maintain the increasing reliance on wireless services and to foster healthy competition.
- (iv) **Reduced interference:** As described above, a DAS node site will have a very defined coverage area. As a result it will be less likely to overshoot and interfere in areas that it is not intended to cover. A macro site on top of a building will “see” a much larger geographical area and hence potentially interfere with signals from other sites.
- (v) **Improved signal transport and backhaul efficiencies:** DAS network has built in transport or connectivity by reason of its extensive optical fibre component which provides high speed transport of the signal traffic to an aggregation point (BTS Hub). This transport capacity is dedicated and does not have the same limitations as traditional TDM or Ethernet backhaul. Besides the capacity benefit, it is also practical and economically beneficial to eliminate provisioning of traditional backhaul connectivity to a lot of macro sites. This is particularly beneficial to new entrants that may lack without arrangements with large providers of backhaul services. Backhaul is estimated to be about 30% of a carrier’s operating expense and it is reported to be increasing at a rate of >30%

- (vi) **Flexibility and scalability:** The wireless industry is developing and changing rapidly. 4G (LTE) has only recently been introduced, and it is following 2G and 3G technology that has only been deployed over the last 10 years. It is becoming more important to deploy wireless network infrastructure solutions that can keep up with these rapid changes. A DAS network is more flexible and scalable as most of the changes can be done in the BTS hubs rather than at each node site. The back end “plumbing” can be changed to meet the changing demands. The analogy might be a sprinkler system. The macro site is a system with only one sprinkler head and the valve right at the sprinkler. A DAS network will have multiple supply lines and valves and the interconnections to the various zones and multiple sprinkler heads can easily be managed or configured from the central location.
- (vii) **Reduced time to market:** Deployments of DAS networks are typically faster than deploying a number of macro sites sufficient to cover the same areas. The reason is that DAS networks are generally deployed in the public rights of way on fairly uniform and highly available existing infrastructure i.e. utility and streetlight poles. The approach enables both optimal location and connectivity
- (viii) **Low Aesthetic Impact:** DAS node equipment generally has a low profile and is similar to other equipment located on utility poles. Unlike macro sites that are above the urban or suburban clutter, DAS node sites are typical below existing buildings, poles or tree lines.
- (ix) **Low Environmental Impact** The amount of new infrastructure required is minimized as DAS networks utilize existing infrastructure. The fact that major elements in a DAS network are designed to be shared also reduces the ultimate impact on the environment.

The foregoing benefits cannot be achieved by utilizing traditional macro cell sites or self-contained micro cells with antennas mounted on building tops or towers. The main reasons are

related to the lack of consistency of these solutions and the fact that they do not enable consistent deployment of DAS antennas in the appropriate elevation ranges so as to achieve proximity to the end-users (see Exhibit "C").

**Q.7 What developments and trends in the wireless services industry are stimulating the deployment of increasing numbers of outdoor DAS networks?**

- A. The increase in wireless usage as a whole is driving the need for more wireless sites. However, the major trend impacting the wireless networks today is the explosive growth in wireless data traffic. For example, AT&T has experienced an 8,000 percent increase in their wireless data traffic during the last three years. This has severely stressed their networks in all major markets throughout the US. The estimate is that in order to meet the demands, 5-10 times more wireless sites are required. In addition, the transport and backhaul needs are estimated to be increased by a factor of at least 10 for each wireless site. This development, combined with the fact that most wireless data plans are either flat rate or involve a nominal charge for each additional mega byte used suggests that a more efficient approach is required. Distributed network architectures are the way of the future. This is illustrated through both the work in international standardization bodies and the products under development by large companies such as Alacatel Lucent and Ericsson etc.

**Q.8 Where and to what extent have outdoor DAS networks been deployed in the United States and Canada?**

Outdoor DAS networks or variants of the distributed network approach have been deployed in the United States and Canada since the mid 1990s. The initial deployments were either fibre fed repeaters or off-air repeaters utilized to fill in coverage "holes". Examples of these initial deployments are coverage solutions along canyons and scenic routes in California where AT&T and Sprint deployed hundreds of fibre fed repeaters on existing utility poles. BCTel deployed similar solutions in western Canada in the late 1990s or early 2000s utilizing its fibre network to connect to repeaters on poles in Stanley Park and other prominent areas in Vancouver. Other carriers, including Rogers and Bell, have a fairly large installed base of off-air and fibre fed repeaters some of which are installed on utility infrastructure in Toronto and Montreal.

Outdoor DAS, as deployed today, started in the US around 2002. The initial deployments were mainly focused on high- end residential areas. However, over the last 4-5 years the majority have been capacity focused deployments. It is estimated that there are more than 20,000 outdoor DAS nodes currently operational in the United States alone. This estimate includes major deployments in cities like New York, Boston, Chicago, Los Angeles, Las Vegas, Philadelphia, San Diego and San Francisco. These are more than 2000 DAS operational nodes just in the New York metro area. The main drivers for large scale deployments have been new carriers with limited spectrum and very competitive rate plans, e.g. MetroPCS and Cricket. In addition, AT&T, Verizon, Sprint and T-Mobile have seen a need to improve their networks due to the explosive increase in wireless data traffic.

Beyond the repeater configurations deployed by major carriers as described above, there are at least two recently deployed operating DAS networks in Canada, both in the City of Montreal. Both of these DAS networks are located within existing rights of way along traffic corridors and are attached to the existing utility and streetlight pole infrastructure. One of these networks is owned and operated by Le Group Vidéotron Ltée. The other is a partially completed network that DAScom and ExteNet are constructing in collaboration with a local fibre provider. Public Mobile is already using this network to deliver cellular service in Montreal.

**C. UTILITY POLE ACCESS AS AN ESSENTIAL ELEMENT OF OUTDOOR DAS DEPLOYMENTS**

**Q.9 Why is deployment on electric utility infrastructure in the Public Rights of Way typically necessary in order for outdoor DAS networks to be effective and economically viable?**

- A. As described above there are a number of technical reasons that electric utility poles not only comprise the preferred solution but are a practical necessity for outdoor DAS deployments. The utility infrastructure is designed to distribute electric energy in a similar fashion as distributed antenna systems are designed to distribute wireless radio signals. In today's environment it can be argued they are both considered a utility and should be treated as such. The location, the connectivity, access and availability of power of this infrastructure make it necessary, both technically and economically, in order for the benefits offered by DAS networks to be realized.

There are no real practical alternatives to electrical utility infrastructure for large scale outdoor DAS deployments. In order to be able to deploy DAS networks in a timely and efficient manner

a relatively uniform design approach is required. Although each of the discrete elements comprising a DAS network (individual nodes and fibre segments) is relatively simple, larger DAS networks involve significant complexity, including interconnection and optimization of large numbers of nodes with other network elements. If every node site required special customized design adjustments for variations in location and elevation of the antenna, connectivity, provisioning of power and access, it would increase the deployment cost and the ongoing operational and economic burdens to a point where DAS networks would not be a viable alternative for wireless services provisioning. In the case of the Toronto DAS Network, alternative solutions (e.g. placement of antennas on buildings), even if workable sites had been available, would have required literally hundreds of agreements with private property owners to permit placing the node equipment on their structures and providing the needed fibre connectivity would require taking fibre connections through many streets and sidewalks. The estimated impact on construction costs could exceed \$200,000/node site just to provide such connectivity, with the total running into many millions of dollars which would render the project economically unfeasible.

## CURRICULUM VITAE (RESUME)

**Tormod Larsen**

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### Experience

#### **Chief Technology Officer**

*November 2004 - ExteNet Systems Inc, Lisle, IL*

Senior executive responsible for the company's strategy and technology initiatives. Joined the executive team during start up phase and has had major role in developing the strategic and tactical plans for the company. Managing and directing team responsible for supporting technical operation and support. Selected accomplishments:

- Launched first LTE outdoor DAS network in North America
- Launched first LTE indoor DAS network in North America
- ITA Finalist for CTO of the year in 2010
- Several pending patents

#### **Vice President Coverage Sales and Engineering, North America**

*July 2002-November 2004 LGP Allgon Ltd, Forth Worth, TX*

Senior executive tasked with developing and expanding coverage system business in the North America market, primarily through turnkey delivery of indoor and outdoor DAS coverage systems. Reported overall profit and loss for division to the president. Directed management team consisting of Director of Project Management, RF Design Manager and Regional Sales Managers. Selected accomplishments:

- Secured contract (\$11.2M) with Chicago Transit Authority for the first multiservice wireless DAS system in a US subway - the single largest project contract in LGP Allgon 's history
- Implemented the first shared DAS network in the US involving UMTS
- Average annual revenue growth for division of almost 50%

#### **Director of Technology and Engineering, North America**

*July 2002-November 2004 Allgon Telecom Ltd, Forth Worth, TX*

Executive with overall responsibility for technical support, product management and project services for the region. Reported directly to the President, and was the technical focal between headquarters and the North American region. Functions managed included:

- Product Manager Base station Antenna Systems
- Product Manager Repeater and DAS Systems
- Product Manager Base station Sub Systems
- RF System Design Engineers and RF Field Engineers

Selected accomplishments:

- Established a common structure for company's project support and technical support groups
- Developed product and business plans for the various product areas
- Invited as speaker and industry expert at various conferences.

## CURRICULUM VITAE (RESUME)

**Tormod Larsen**

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## CURRICULUM VITAE (RESUME)

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### **Director of Technology and Engineering, North America**

*March 1999-July 2002 Allgon Telecom Ltd, Forth Worth, TX*

Regional Manager with overall technical responsibility for coverage engineering in the region. Reported directly to regional VP of Sales and with dotted line to global VP of Coverage Engineering. Established and managed core team of RF Systems Engineers and Field Engineers dedicated to provide DAS engineering services to clients in region. Responsible for developing and implementing design guidelines and procedures, as well as, developing and implementing project model and management

Selected accomplishments:

- Design and project lead for Moscone Convention Center project - the first multioperator/neutral host distributed antenna system (DAS) deployed in the USA .
- Team lead responsible for roll out of 100+ full turn key repeater/DAS sites in Mexico.

### **Global Product Manager, Repeaters and DAS**

*March 1997- January 1999 Siemens AS, Oslo, Norway*

Product Manager for Siemens AG's global portfolio of repeater and DAS products where the responsibilities included:

- Planning and implementation of the initial product launch including extensive travel in Europe, Africa and Asia to promote and support the product line.
- Development of product strategies and roadmap
- Development of sales and marketing strategies
- Development of sales tools
- Providing global technical and sales support
- Co-ordinating R&D, production and sales activities

### **RF and Product Engineer , Confined Environments**

*December 1995- March 1997 Siemens AS, Oslo, Norway*

Product Engineer for Siemens AG's repeater products where the responsibilities included:

- Supporting Product Management with technical material and presentations
- Development of product design specifications
- Detailed follow up and coordination between R&D and production
- Developing application notes and other sales material

RF System Engineer where the responsibilities included:

- Design and implementation of repeater and DAS systems for wireless coverage in confined environments including: tunnels, subways, public



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venues and large buildings

- RF propagation testing
- RF link analysis

### Education

**Norwegian University of Science and Technology (NTNU),  
Trondheim, Norway**  
1990-1995

**M.Sc. Electrical Engineering**

Graduated with cum laude from Institute of Telecommunication, Radio Systems. Diploma thesis was called '*Radio Communication in Tunnels*', and it was a done in collaboration with Siemens AS.



# Exhibit B: Distributed Network Architectures

ExteNet Systems (Canada) Inc.



# About ExteNet Systems & DAScom

- ExteNet

- Designs, Builds, Monitors, Maintains and Operates or Resells Distributed Network Services – Using Both Outdoor & Indoor Distributed Antenna Systems (DAS) Networks
- “Open” Network Provider Using Common Network Infrastructure to Support Multiple Wireless Carrier Customers
- ExteNet Systems Canada Inc. is a Canadian corporation registered with the CRTC as a re-seller of telecommunications services.
- In Canada, we use local suppliers and service providers to help us build and provision DAS services for our Canadian wireless carrier customers
- Over 2,000 Outdoor DAS Nodes In Operation or Under Construction in Canada (currently in Montreal and Toronto) and the United States (currently in California, Florida, Illinois, Massachusetts, Michigan, Nevada, New York, Rhode Island & Texas)

- DAScom

- A Canadian Corporation registered with the CRTC as a telecommunications carrier
- Develops and owns telecommunications transmission facilities that may be made available for use by ExteNet’s customers as components of DAS networks.

- Customer Services

- Signal Transport & Distribution for Wireless Carriers that hold Spectrum Licenses
- Operating Networks in Use by All of the Major US Wireless Carriers and two of the “New Entrants” in the US Market

# Outdoor Distributed Network Topology



## ■ BTS Hub Facility

- Carrier Base Station Equipment
- RF Signal Conditioners & Combiners + RF/Optical Converters
- Digital Base Band Units
- Back-up Power Supplies

## — Fiber Network

- High Count Single Mode Fiber Optic Cabling
- Embedded Backhaul Capacity

## ■ Node Sites

- Antenna: Multiband
- Distributed remote radio units (nodes): RF/Optical Converters + Radio Amplifiers or
- Optional Battery Backup

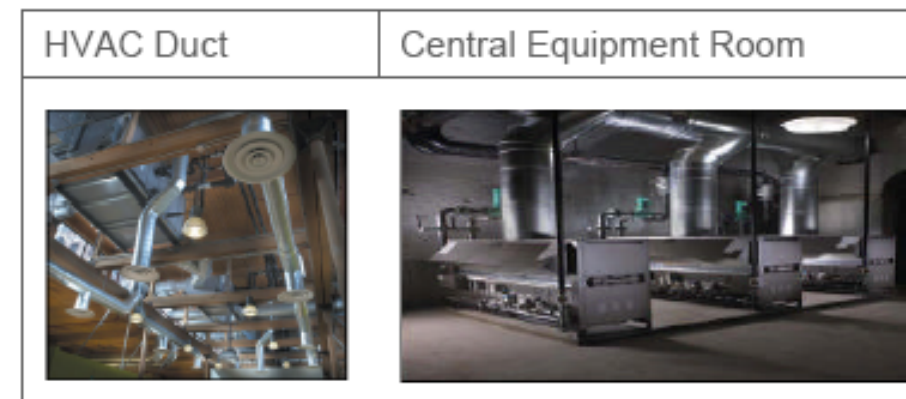
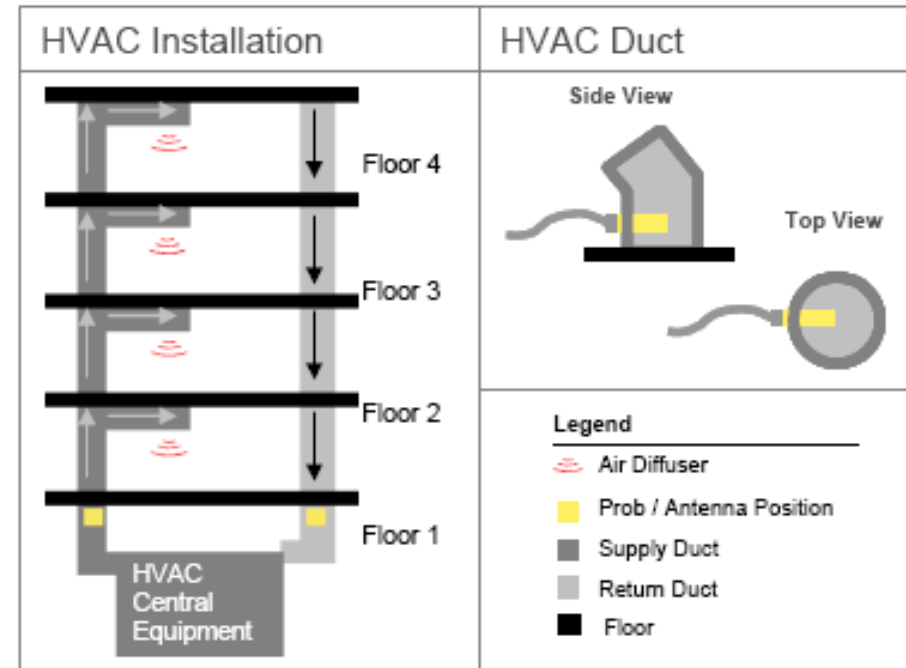
# Indoor DAS Solutions

## Description

- Indoor wireless infrastructure solutions designed to overcome poor in-building coverage, minimize interference and improve spectrum utilization
- Proprietary HVAC solution leverages existing heating, ventilation and air conditioning ducts as wave guides
- Wireless signal injected into the HVAC by antenna located in a centralized location

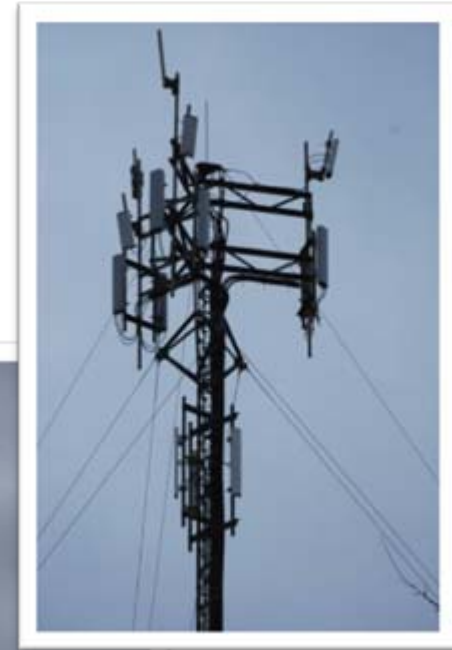
## ExteNet Solution Advantage

Parameter	HVAC Solution	Traditional
Cost Efficient	✓	X
Time To Market	✓	X
Installation Disturbance	✓	X
Flexibility	✓	X
Uptime & Reliability	✓	X



# Traditional Wireless Infrastructure

- Large wireless antennae and dishes are installed by most carriers.
- This twenty-five year old technology has limitations
  - Installations require a significant amount of space
  - They are not attractive
  - Must add more towers every year to meet demand, especially for data-intensive Next Generation applications
  - For urban settings they have poor coverage in and around buildings





# DAS -- The wireless solution for modern cities

- DAS Networks combine a number of small, low power and low elevation antennae and remote radio units (Nodes) with a fibre-optic network connecting them to a hub facility.
- Smaller and less obtrusive -- the antennae (58cmx25cm) and radio units (60cmx48cmx20cm) are installed on utility poles to blend into the environment as much as possible.
- Allow new carriers with limited spectrum to be more competitive.



# Distributed Networks Offer Multiple Benefits Supporting Enhanced Wireless Services, Including Wireless Broadband

## Coverage

- An architecture that provides coverage in areas that cannot be effectively addressed with traditional "macro" cell sites

## Capacity

- Better management of available radio resources given the ability to closely align capacity to actual market requirements

## Spectrum

- More efficient use of available frequency spectrum by having an increased number of low power transmission points

## Interference

- Reductions in interference; lower elevation antennae and lower output power, enabling greater data transmission rates

## Backhaul

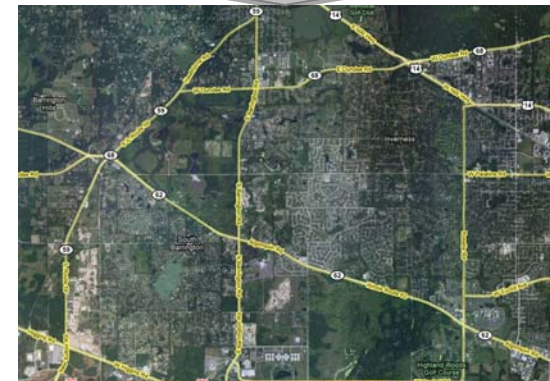
- Better utilization of transmission infrastructure due to aggregation from central hub location

## Scalability

- A network that can be scaled to meet future capacity requirements by adding carrier base station equipment at Hub Site

## Adaptability

- A network architecture which provides the ability to quickly respond to market dynamics, changes in equipment architecture and new technologies



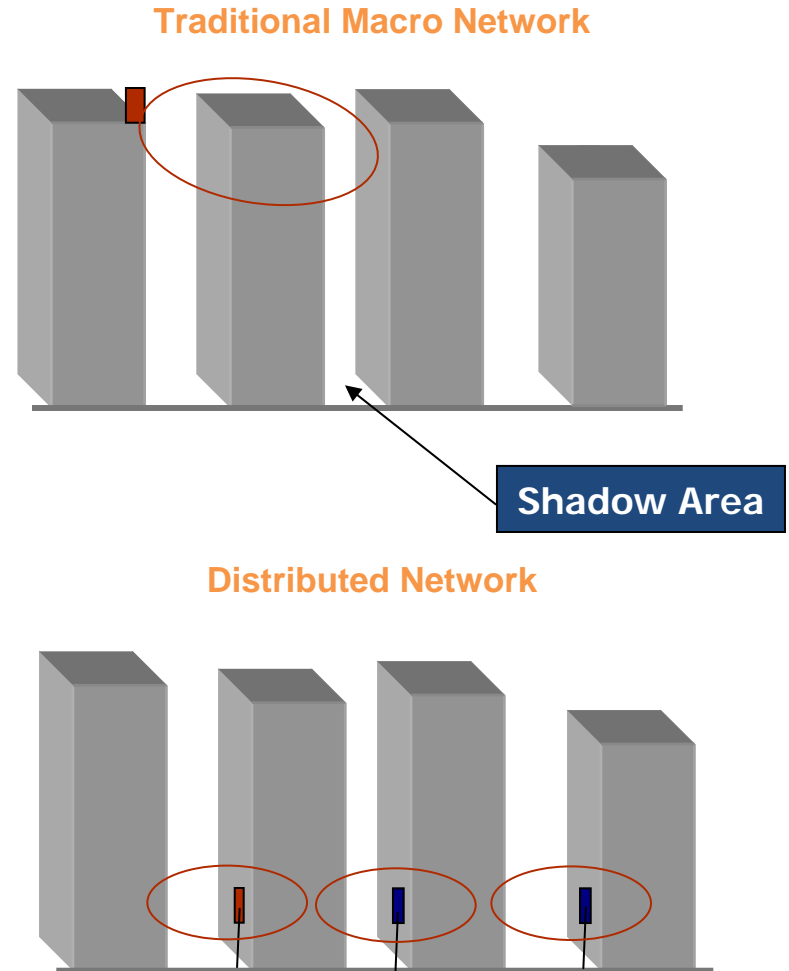


# Economic & Environmental Efficiency of DAS Networks

- Outdoor DAS Networks are Typically Deployed on Existing Infrastructure Located in the Public Rights-of-Way
  - Existing or Refurbished Hydro Utility Poles and Conduits
  - Existing or Refurbished Telecom Poles and Conduits
- Co-location on existing structures is efficient and allows the cost of maintenance and repair to be spread over multiple users to the benefit of hydro rate-payers
- The Flexibility and Adaptability of DAS Systems Allows for More Efficient Deployment of Assets and Resources More Precisely Where and When Needed – Capacity Can be Added With Minimal Additional Construction and Disruption.
- The Smaller Size and Lower Elevations and Power Requirements of the DAS Nodes Makes the Systems More Energy Efficient and Aesthetically Less Intrusive.

# Coverage Challenged Areas

- Urban Canyons / Shadow Areas
- Areas with Terrain Limitations
  - Extensive Tree Cover
  - Topographical Variances (e.g., Canyons)
- Tunnels
- Highway Corridors
- Existing Coverage Gaps



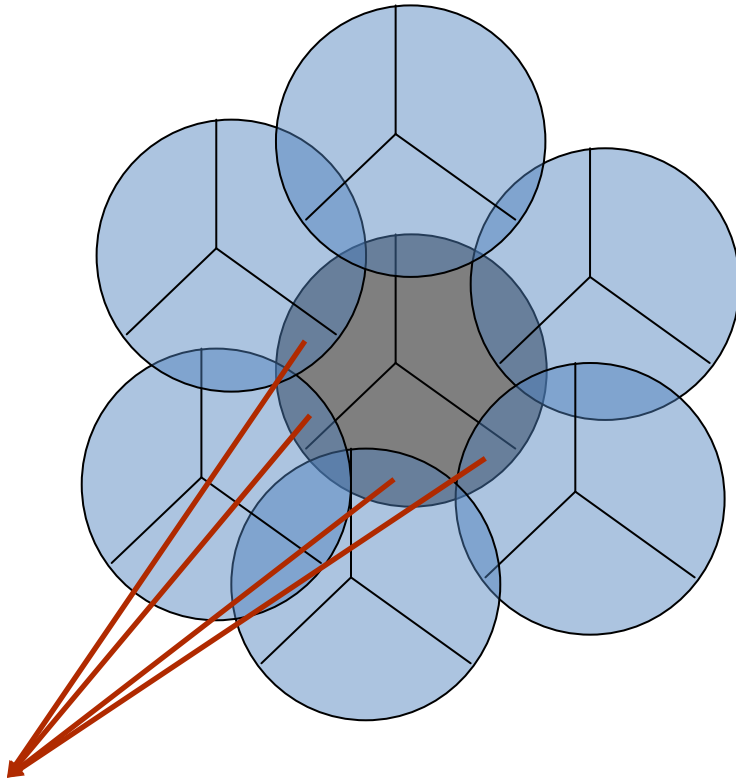
# Improved Capacity Management

- Carrier Base Station equipment is centralized in a DAS network. From a capacity perspective, this provides the ability to:
  - Support higher peak capacity by architecting the network with larger (higher capacity) cells.
  - Align available capacity with actual market requirements.
  - Support increases in capacity by reallocating or efficiently adding new radio resources at the Hub Site.
  - Adjust capacity to support shifts (seasonal, daily or event-driven) in demand via scheduled capacity allocation.



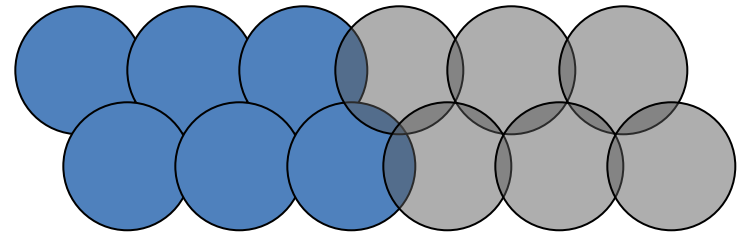
# DAS Network Capacity & Spectrum Efficiency

Traditional CDMA Macro Network



- In a typical CDMA Macro Cell network mobile users are in soft-handoff in 30% to 50% of the coverage area.

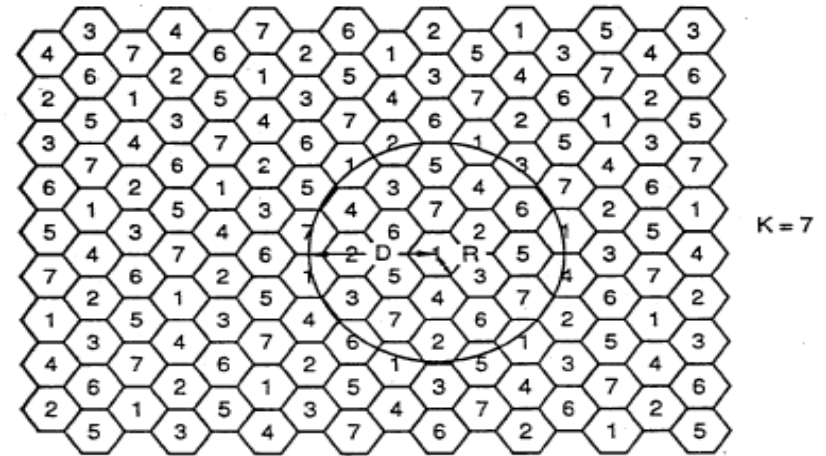
DAS Network



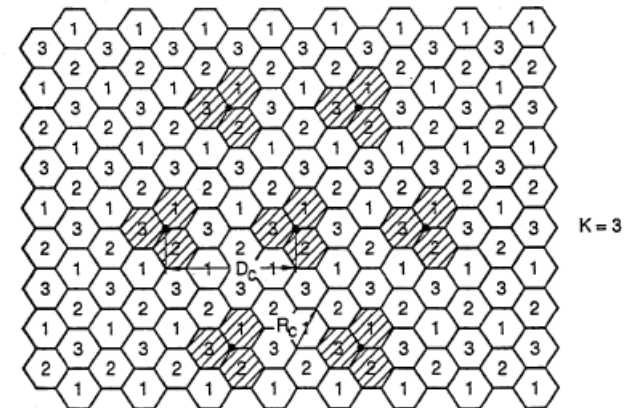
- Soft handoff areas are typically smaller given the lower power and radiation centers.
- In a low capacity area hand-offs are reduced because of fewer sectors and smaller handoff areas.
- In a high capacity environment the frequency re-use ratio is improved and the impact of pilot pollution is reduced.

# Frequency Reuse

- A typical macro network utilizes a frequency reuse of 7
- DAS and microcell networks can achieve a frequency reuse of 3
  - 133% improvement in spectrum efficiency



**FIG.\_5**  
(PRIOR ART)



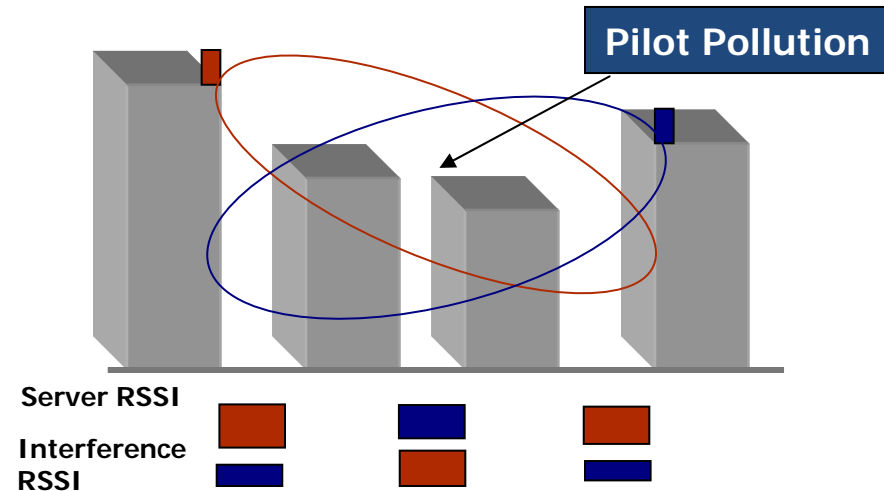
**FIG.\_7**

Source: US Patent 5,067,347 (Lee)

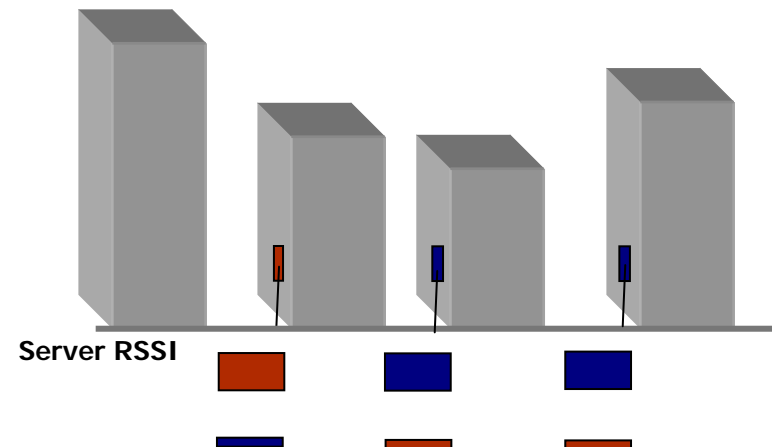
# Interference Management

- Lower Radiation Centers
- Lower Radiated Power
- Node (Transmission Point) Proximity to Users
  - Lower Uplink Power Requirement
  - Lower Downlink Power Requirement
  - Reduced Fading
- RF that is “Contained” by Terrain or Buildings

Traditional Macro Network



Distributed Network



# Improved Data Rates

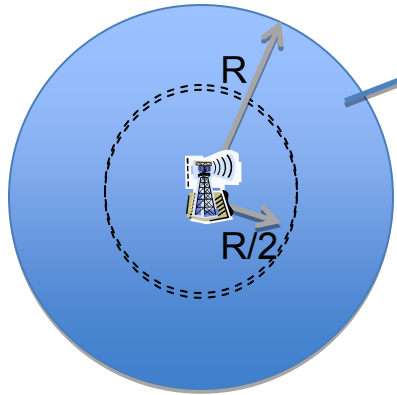
- If LTE and WiMAX are intended to be alternatives to DSL and cable data services, the following requirements need to be met:
  - Good indoor coverage
  - Data Rates  $>5\text{Mbit/s}$
- The required levels of residential indoor coverage & data through-put capacity cannot be achieved with macro sites located far from the users
- DAS is the most viable solution





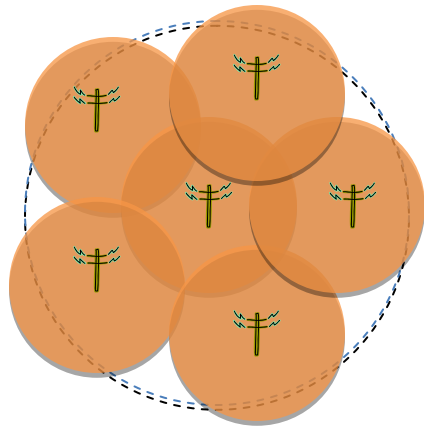
# Improved Data Rates *(cont'd)*

## Macro



- 75% of the users are more than  $R/2$  away from the macro site (assumes even distribution of users)
  - Weaker received signal level
  - Higher mobile transmit power
    - More interference
    - Reduced battery life
  - BTS power used to **reach** users rather than providing higher data rates or support more users

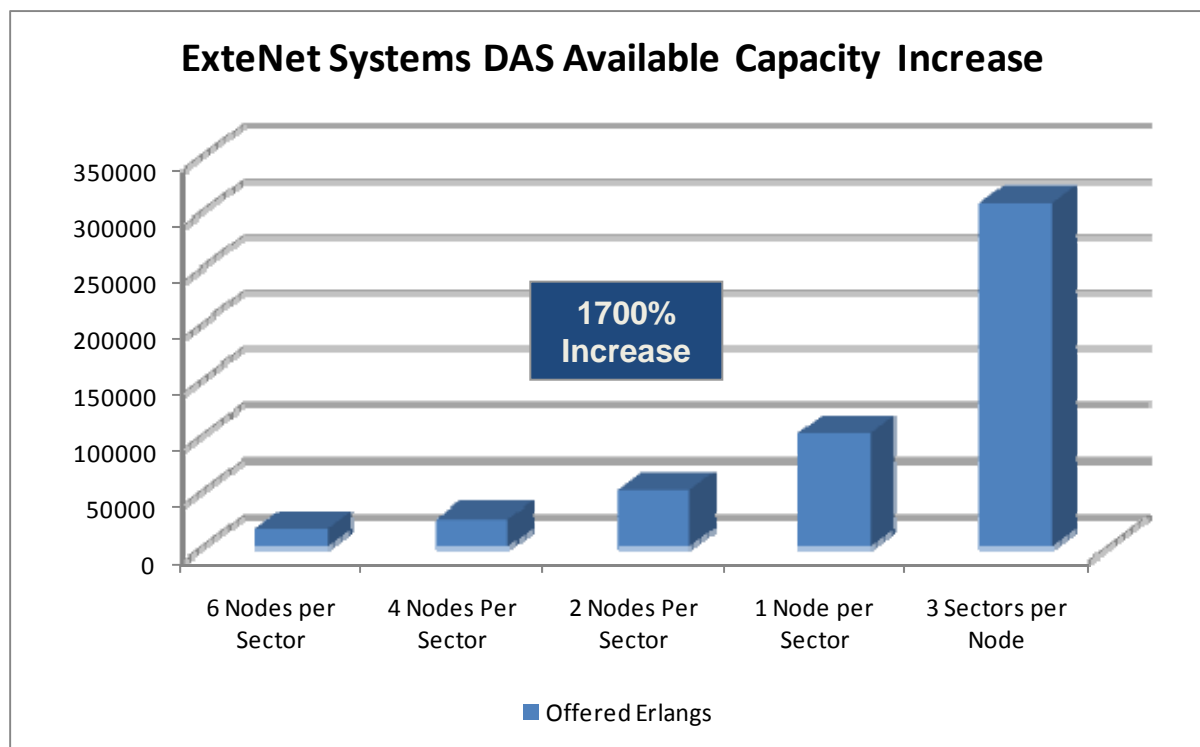
## DAS



- Nodes in closer proximity to users
  - More uniform signal distribution
  - Average stronger received signal
  - Reduced transmit power required of mobile units
    - Less interference
    - Extended battery life
  - Increased data rates and support of more users



# Scalability & Adaptability

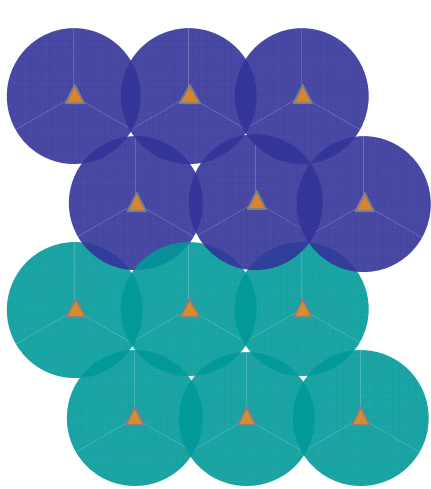


- **DAS Network Capacity Scalability**

- No additional Node Sites are required
- No additional hardware is required at the Node Sites (assuming proper antenna configuration)

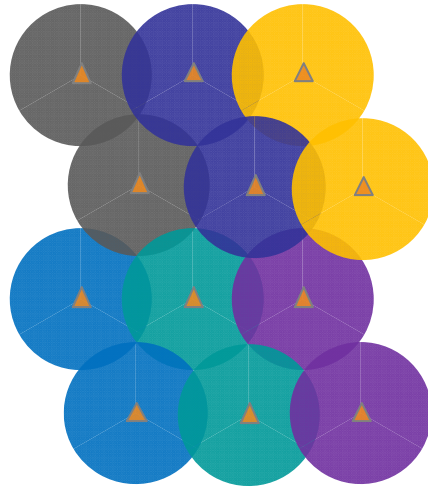
# Scalability & Adaptability *(cont'd)*

No Change in Number of Node Sites or Node Equipment Configuration  
(assuming proper Antenna configuration at outset)



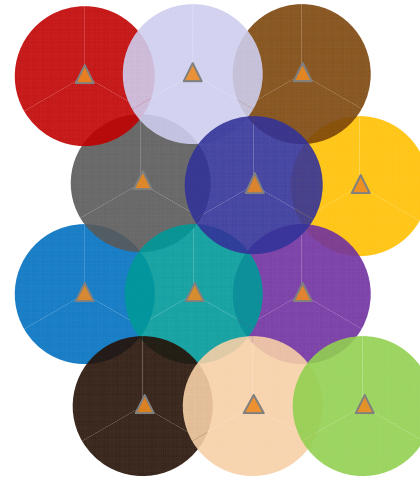
**Low Capacity**  
240 Erlangs

- 12 Nodes
- 6 Nodes per Sector
- 40 Erlangs per Sector per Channel
- 3 Channels



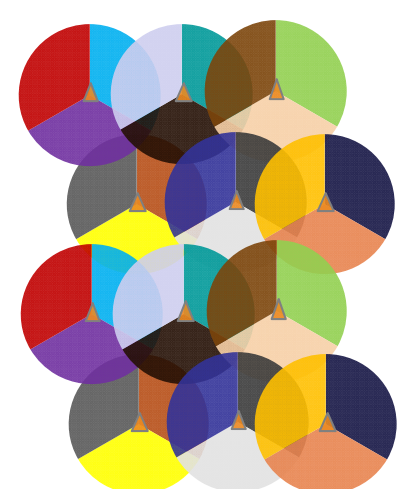
**Medium Capacity**  
720 Erlangs

- 12 Nodes
- 2 Nodes per Sector
- 40 Erlangs per Sector per Channel
- 3 Channels



**High Capacity**  
1440 Erlangs

- 12 Nodes
- 1 Node per Sector
- 40 Erlangs per Sector per Channel
- 3 Channels



**Very High Capacity**  
4320 Erlangs

- 12 Nodes
- 3 Sectors per Node
- 40 Erlangs per Sector per Channel
- 3 Channels



# Thank You.

For more information on Distributed Network  
Architectures Go To: [www.extenetsystems.com](http://www.extenetsystems.com)





# Exhibit C: DAS Deployment Pictures

ExteNet Systems Canada Inc. and DAScom Inc.





## Las Vegas – DAS Nodes





## Detroit – DAS Nodes





## Toronto DAS – Poletop Installations



## Toronto DAS – Sidearm Installations







Thank You.

For more information on Distributed Network  
Architectures Go To: [www.extenetsystems.com](http://www.extenetsystems.com)



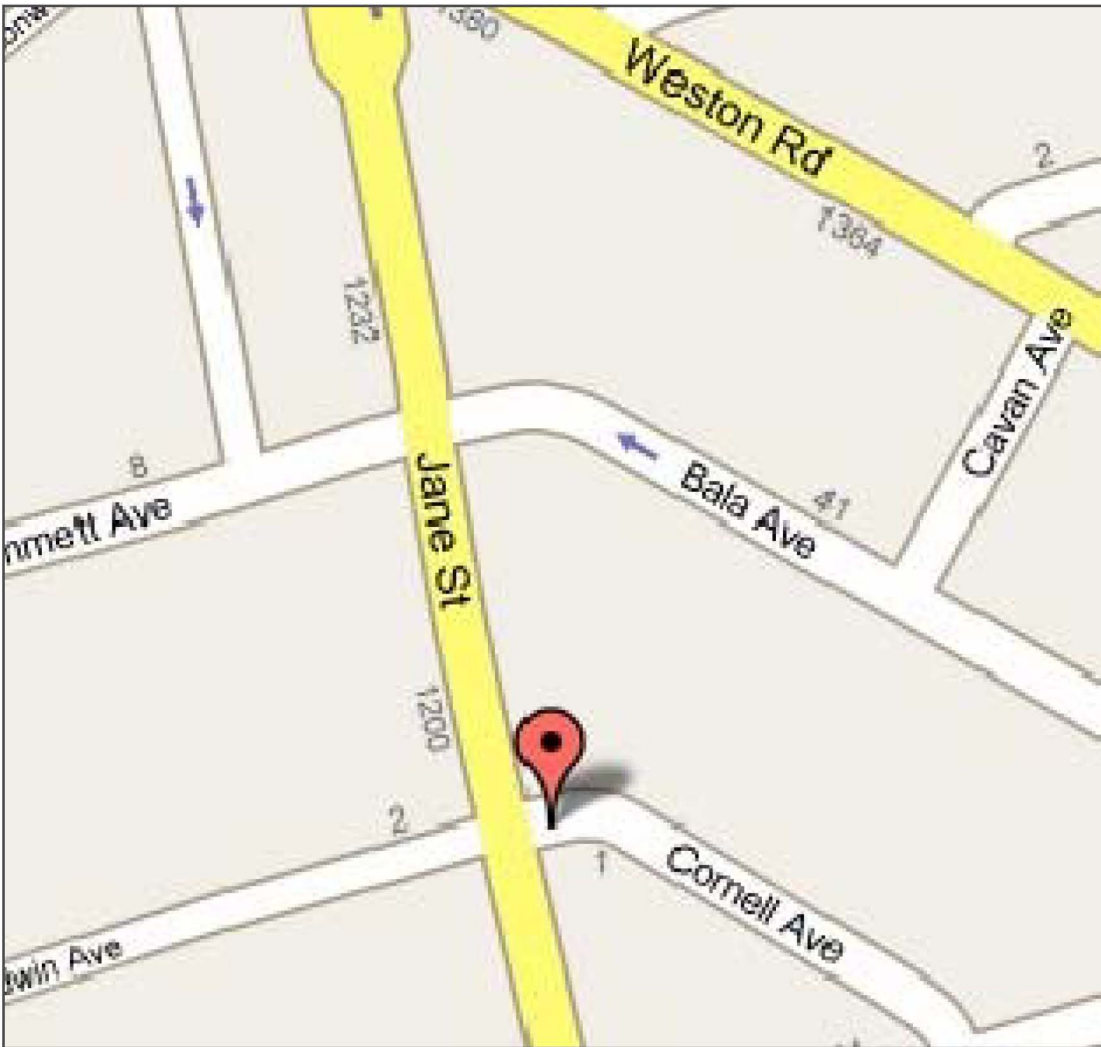


# AS-BUILT

## FIBER OPTIC NODE INSTALLATION - 559

1233 JANE ST, 2nd POLE NORTH OF CORNELL AVE, EAST SIDE, POLE # 253  
TORONTO, CANADA

SITE LOCATION MAP



SITE LOCATION PHOTO



(Latitude: N43.689265°)  
(Longitude: W79.500232°)



CONTACT: NEHA CANJAR  
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www.arizon.ca

### REVISIONS

REV	DATE	DESCRIPTION	BY
01	SEPT 01/09	PERMIT DRAWING	A.E.
02	APR 15/10	AS BUILT DRAWING	A.E.
03			
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TITLE: AS BUILT  
FIBER OPTIC NODE 559  
INSTALLATION  
TORONTO, CANADA

DRAWN BY:	CHECKED BY:	APPROVED BY:
A.E.		

PROJECT NUMBER:	09 - 0015A
FILE NUMBER:	TORONTO NODE 559
DATE DRAWN:	SEPTEMBER 01, 2009
SCALE:	N.T.S.
SHEET:	1 OF 4

### INDEX TO SHEETS

1. TITLE, SITE MAP, SITE PHOTO
2. GENERAL NOTES
3. EQUIPMENT SPECIFICATION
4. PROJECT PLAN VIEW



## GENERAL NOTES

Developer: DASCOM  
ATTN: DAVE FASSHAUER  
3030 WARRENVILLE ROAD  
SUITE 340  
LISLE, IL 60532

**Contractor: TBD**

**Engineer: G.G. SAIN**  
**ARIZON TECHNOLOGY**

## SCOPE OF WORK

1. INSTALLATION OF EXANTEN NODE EQUIPMENT AND ALL RELATED APPURTENANCES FOR FIBER OPTIC CABLE INSTALLATION. SEE PLANS FOR EXACT LOCATION, LENGTHS, QUANTITIES, AND DIMENSIONS OF PROPOSED IMPROVEMENTS.
2. THE CONTRACTOR SHALL PROVIDE ALL MATERIAL, EQUIPMENT, LABOUR, INSTALLATION, RESTORATION, UTILITY RELOCATION CHARGES, JOB SITE DELIVERY COSTS TO COMPLETE THE DESCRIBED, OR ILLUSTRATED WORK, UNDER THIS CONTRACT.
3. ANY CHANGE-ORDER REQUEST MUST BE PRESENTED IN WRITING TO THE OWNER'S REPRESENTATIVE; AND APPROVED PRIOR TO PROCEEDING WITH THE REQUESTED CHANGE. DOCUMENTATION CONCERNING ANY AND ALL CHANGE ORDERS WILL BE REDUCED TO FORMAL RECORD, FILED WITH THE OWNER'S REPRESENTATIVE, AND BE MADE AVAILABLE FOR FUTURE REFERENCE.
4. THE ENGINEER WILL NOT BE RESPONSIBLE NOR ASSUME ANY LIABILITY FOR NEGLIGENT ACTS OR ERRORS OF OMISSIONS OF ANY CONTRACTOR, ANY SUBCONTRACTOR, OR ANY OF THE CONTRACTOR'S OR SUBCONTRACTORS' AGENTS OR EMPLOYEES OR ANY OTHER PERSONS (EXCEPT ENGINEER'S OWN EMPLOYEES) AT THE PROJECT SITE OR OTHERWISE PERFORMING ANY OF THE WORK OF THE PROJECT. ANY CONTRACTOR OR SUB-CONTRACTOR, AS WELL AS THE ENGINEER, WILL BE RESPONSIBLE FOR HIS OWN SAFETY PROGRAM. NEITHER THE PROFESSIONAL ACTIVITIES OF THE ENGINEER, NOR THE PRESENCE OF THE ENGINEER OR HIS OR HER EMPLOYEES AND SUB CONSULTANTS AT THE CONSTRUCTION SITE, SHALL RELIEVE ANY CONTRACTOR OF HIS OR HER OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING OR COORDINATING ALL PORTIONS OF THE WORK OF CONSTRUCTION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. THE ENGINEER AND HIS OR HER PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR OTHER ENTITY OR THEIR EMPLOYEES IN CONNECTION WITH ANY HEALTH OR SAFETY PRECAUTIONS.

## MATERIALS

1. ALL MATERIALS INSTALLED WITHIN THE LIMITS OF THE PROJECT SHALL BE IN CONFORMANCE WITH STANDARD RECOMMENDATIONS OF THE NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION AND CANADIAN NATIONAL STANDARDS INSTITUTE.
2. ALL TRENCHED CONDUIT, ELBOWS AND COUPLINGS SHALL BE 100mm (4") HDPE, UNLESS OTHERWISE NOTED.
3. JOB SITE MATERIAL WILL BE DELIVERED TO, AND MAINTAINED AT THE STREET WORK AREAS IN A WELL MANAGED MANNER, TO MINIMIZE CONGESTION OR INCONVENIENCE TO OTHER WORKERS, OR CONTRACTORS WORKING UNDER ALTERNATE PERMITS.

### GENERAL NOTES

1. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.
2. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
3. PRIOR TO THE SUBMISSION OF THE BIDS, THE CONTRACTORS SHALL VISIT THE JOB SITE AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS, AND CONFIRMING THAT THE MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
4. THE CONTRACTOR SHALL RECEIVE IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
5. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
6. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK, MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
7. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTIONS MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATION ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE ENGINEER AND WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE.
8. SEAL PENETRATIONS THROUGH THE RATED AREAS WITH U.L. LISTED FIRE CODE APPROVED MATERIALS.
9. PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A OR 2-A10BC WITHIN 75 FEET TRAVEL DISTANCE TO ALL PORTIONS OF THE PROJECT AREA DURING CONSTRUCTION.
10. DETAILS ARE INTENDED TO SHOW END RESULTS OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
11. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACES, ETC... AND UPON COMPLETION OF WORK REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTRANET
12. KEEP GENERAL AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST OR SMUDGES OF ANY NATURE.
13. REPRESENTATIONS OF TRUE NORTH, OTHER THAN THOSE FOUND ON THE OF SURVEY DRAWING, SHALL NOT BE USED TO IDENTIFY OR ESTABLISH THE BEARING OF TRUE NORTH AT THE SITE. THE CONTRACTOR SHALL RELY SOLELY ON THE PLAT OF SURVEY DRAWING AND ANY SURVEYOR'S MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF TRUE NORTH, AND SHALL NOTIFY THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWING AND THE TRUE NORTH ORIENTATION IS DEPICTED ON THE CIVIL SURVEY. THE CONTRACTOR SHALL ASSUME SOLE LIABILITY FOR ANY FAILURE TO NOTIFY THE ENGINEER.
14. PENETRATIONS OF ROOF MEMBRANES SHALL BE PATCHED/FLASHED AND MADE WATERTIGHT USING LIKE MATERIALS IN ACCORDANCE WITH NRCA ROOFING STANDARDS AND DETAILS. CONTRACTOR SHALL OBTAIN DETAILING CLARIFICATION FOR SITE-SPECIFIC CONDITIONS FROM ENGINEER, IF NECESSARY, BEFORE PROCEEDING. PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY, UNLESS NOTED OTHERWISE.
15. ALL ITEMS REMOVED DURING CONSTRUCTION WORK (I.E. DRYWALL, PLYWOOD, CEILING PANELS, ETC.) SHALL BE REPLACED TO MATCH EXISTING.
16. PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE DIAGRAMMATIC OUTLINE ONLY, UNLESS NOTED OTHERWISE.
17. DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALES SHOWN ON THE DRAWING. DIMENSIONS SHOWN ARE ESTIMATED AND SHALL BE VERIFIED BY A SURVEYOR OR BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
18. ALL SITE WORK SHALL BE CAREFULLY COORDINATED BY GENERAL CONTRACTOR WITH LOCAL UTILITY COMPANY, TELEPHONE COMPANY, AND ANY OTHER UTILITY COMPANIES HAVING JURISDICTION OVER THIS LOCATION.
19. CONTRACTOR IS ADVISED TO READ ALL NOTES ON DRAWINGS, CAREFULLY. THE CONTRACTOR SHALL CHECK AND VERIFY ALL CONDITIONS, CLEARANCES, AND DIMENSIONS AT THE SITE AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

20. THE CONTRACTOR SHALL PERFORM TEST HOLES AT ALL UTILITY CROSSINGS TO VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO ANY EXCAVATION. AND TO LOCATE ANY POSSIBLE CONSTRUCTIONS. CONTRACTOR TO FIELD VERIFY LOCATIONS OF ALL OVERHEAD OBSTRUCTIONS PRIOR TO COMMENCEMENT OF WORK.
21. THE POSITION OF POLE LINES, CONDUITS, WATER MAINS, SEWERS AND OTHER UNDERGROUND AND ABOVE GROUND UTILITIES AND STRUCTURES ARE NOT NECESSARILY SHOWN AS EXACT. THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM. THE CONTRACTOR SHALL CONTACT ONTARIO ONE CALL (800) 400-2255 TO REQUEST LOCATING AND MARKING OF EXISTING UTILITIES PRIOR TO PERFORMING ANY EXCAVATION WORK IN OR AROUND ANY UTILITY. THE CONTRACTOR SHALL OBTAIN ALL PERMITS FOR THE INSTALLATION OF THE NEW UTILITIES AND SHALL COMPLY WITH ALL REQUIREMENTS OF ALL AGENCIES HAVING JURISDICTION OVER THE WORK.
22. THE CONTRACTOR SHALL VERIFY EXISTING STREET RIGHTS OF WAY TO THE EXTENT NECESSARY TO VERIFY PROPOSED WORK REMAINS WITHIN THESE RIGHTS OF WAY AND DOES NOT INFRINGE ONTO A PRIVATE PROPERTY NOT OWNED BY THE OWNER.
23. ALL DISCREPANCIES SHOULD BE REPORTED TO EXTENET SYSTEMS. ANY QUESTIONS OR COMMENTS THE CONTRACTOR MAY HAVE ARE TO BE DISCUSSED WITH THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION COMMENTS.
24. FURTHER THE CONTRACTOR SHALL RECORD THE LOCATION AND ELEVATION OF ALL UTILITIES ENCOUNTERED, AND INSTALLATION OF NEW WORK, AS THE WORK PROGRESSES AND SHALL PREPARE RECORD DRAWINGS (RED-LINES) BASED ON HIS RECORDS. THESE RECORDS TO BE SUPPLIED TO DASCOM SYSTEMS, AT COMPLETION OF WORK.
25. SCALE FOR DRAWINGS IS FOR GENERAL INFORMATION ONLY. LOCATIONS AND DIMENSIONS SHALL BE TAKEN AS SHOWN AND THE DRAWINGS SHALL NOT BE SCALED.
26. THE CONTRACTOR SHALL HAVE ALL PERMITS ONSIDE AND COMPLY WITH THE REQUIREMENTS OF ALL AGENCIES HAVING JURISDICTION OVER THE WORK AND SHALL COORDINATE HIS WORK WITH THE WORK PERFORMED BY OTHERS.
27. CONTRACTOR SHALL COORDINATE ALL WORK WITH ALL PUBLIC AND PRIVATE UTILITIES AS WELL AS CITY OF TORONTO.
28. CONTRACTOR SHALL TAKE ALL NECESSARY SAFETY PRECAUTIONS TO PROTECT UTILITIES, PEDESTRIANS, WORKERS AND VEHICULAR TRAFFIC. THE CONTRACTOR SHALL PROVIDE TEMPORARY FENCES, BARRICADES, ETC. AS REQUIRED TO PROTECT ADJACENT PROPERTY AND THE PUBLIC DURING ALL PHASES OF CONSTRUCTION.
29. THE CONTRACTOR SHALL INSTALL AND DESIGN WOODEN PASSAGEWAYS TO DIVERT THE GENERAL PUBLIC AROUND THE CONSTRUCTION SITE IN A SAFE AND ORDERLY MANNER, AS REQUIRED.
30. NO STORAGE OR EQUIPMENT OR MATERIALS IN THE ROADWAY IS PERMITTED UNLESS THE CONTRACTOR OBTAINS WRITTEN PERMISSION FROM THE CITY OF TORONTO.
31. CONTRACTOR SHALL ASSUME ALL CABLES ARE ENERGIZED AND SHALL BE SUPPORTED SO AS NOT TO STRESS ANY PORTION OF THE CABLE.
32. CONTRACTOR RESPONSIBLE FOR OBTAINING AND PROVIDING REVIEW AND DESIGN OF ANY AND ALL TEMPORARY UTILITY SUPPORT SYSTEMS PRIOR TO CONSTRUCTION.
33. ALL CONSTRUCTION MUST COMPLY WITH:
  - a. EXTENET STANDARDS.
  - b. TRANSPORT CANADA GENERAL ORDERS E11 & E12 AND CANADIAN STANDARDS ASSOCIATION STANDARD CAN/CSA-C22.3 No. 1-M87 AND CAN 3-C22.3 No. 7-M84 AS APPLICABLE.
  - c. ONTARIO ELECTRICAL CODE.
  - d. EUSA (ELECTRICAL UTILITIES SAFETY ASSOCIATION) RULEBOOK.
  - e. OCCUPATIONAL HEALTH AND SAFETY ACT.



**CONTACT: NEHA CANJAR**  
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FAX: (416) 752-8859  
EMAIL: [ncanjar@arizon.ca](mailto:ncanjar@arizon.ca)  
[www.arizon.ca](http://www.arizon.ca)

## REVISIONS

REV	DATE	DESCRIPTION	BY
01	SEPT 01/09	PERMIT DRAWING	A.E.
02	APR 15/10	AS BUILT DRAWING	A.E.
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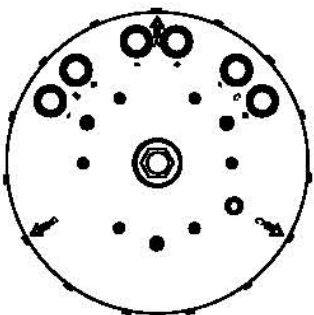
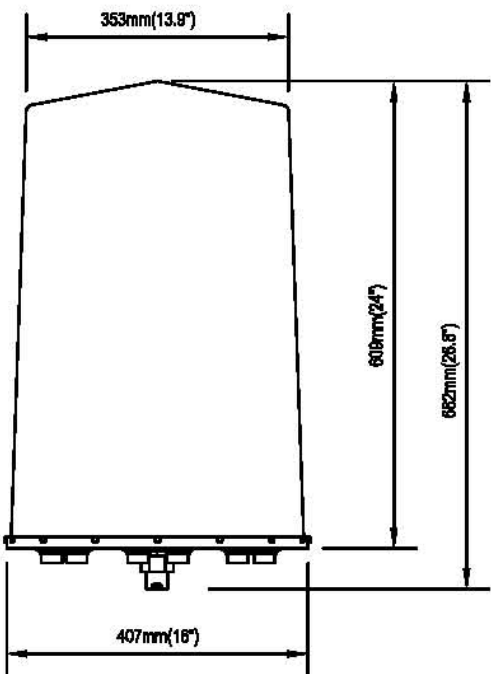
**TITLE: AS BUILT  
FIBER OPTIC NODE 559  
INSTALLATION  
TORONTO, CANADA**

DRAWN BY:	CHECKED BY:	APPROVED BY:
A.E.		

PROJECT NUMBER:	09 - 0015A
FILE NUMBER:	TORONTO NODE 559
DATE DRAWN:	SEPTEMBER 01, 2009
SCALE:	N.T.S.

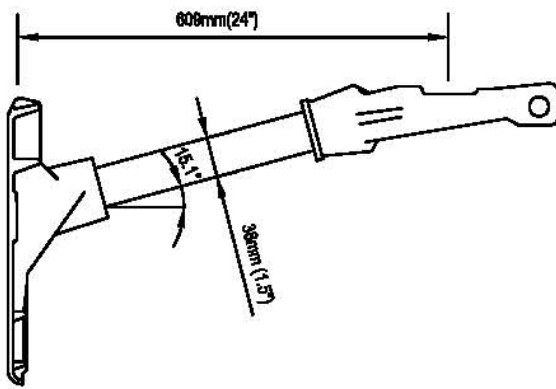
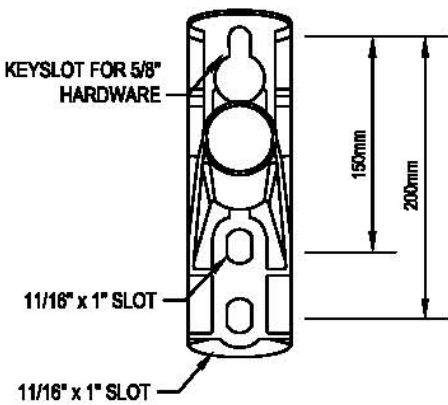


EQUIPMENT SPECIFICATION



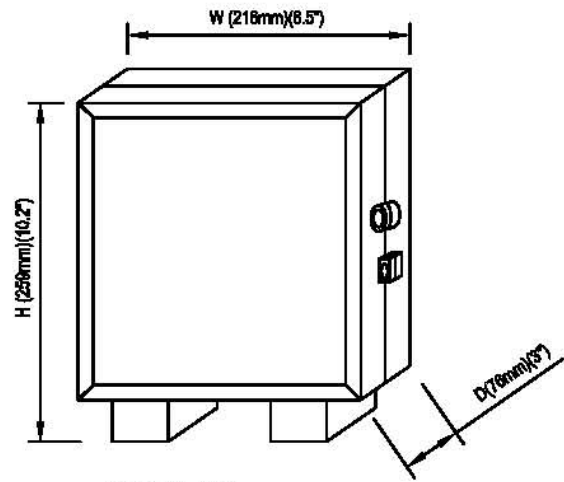
DUALBAND X-POL OMNI ANTENNA (KATHREIN 840-10506)  
FREQUENCY RANGE: 806-960MHz, 1710-2170 MHz  
WEIGHT: 20.4kg  
HEIGHT: 609mm  
WIND SURVIVAL RATING: 160kph

**A** ANTENNA DETAIL  
SCALE: N.T.S.



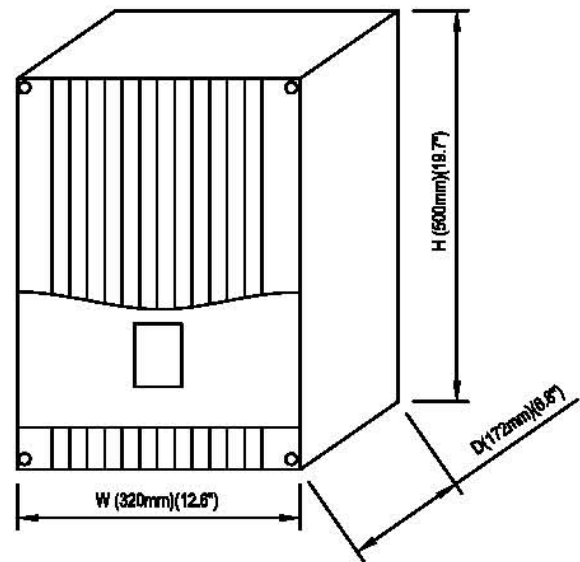
15° STANDOFF UNIVERSAL BRACKET (G1MAA324AU)  
609mm(24") x 38mm(1.5")  
WEIGHT: 8.4lbs

**B** ANTENNA BRACKET DETAIL  
SCALE: N.T.S.



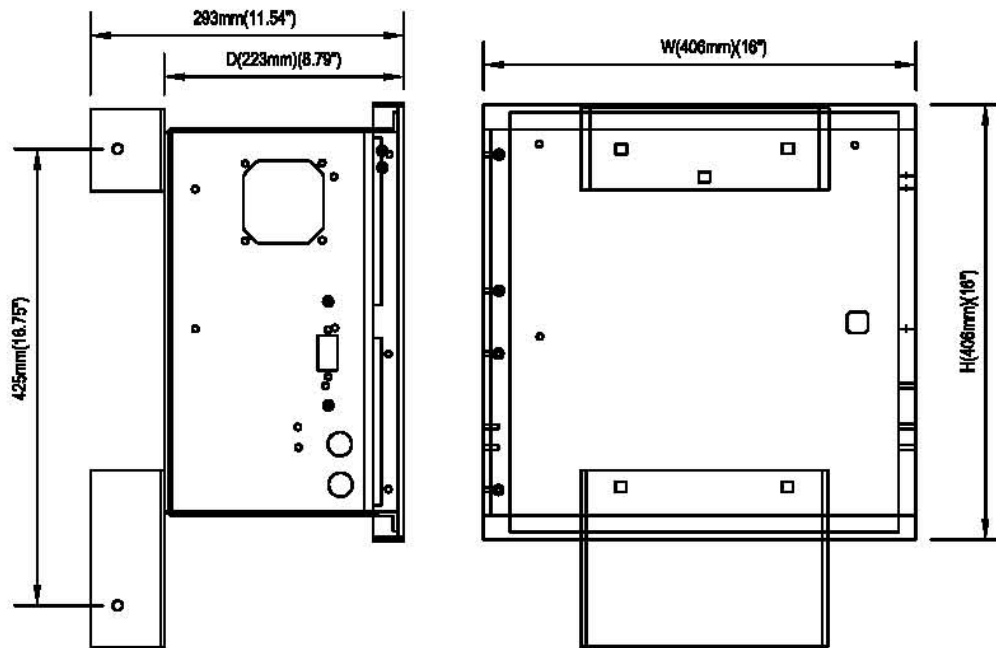
FTE BOX (CDP-0807)  
H x W x D : 259mm(10.2") x 216mm(8.5") x 76mm(3")  
WEIGHT : 0.44kg(0.97lb)

**C** FTE BOX DETAIL  
SCALE: N.T.S.



RADIO (ZXSDR R8880)  
H x W x D : 500mm(19.7") x 320mm(12.6") x 172mm(6.7")  
WEIGHT : 22kg

**D** RADIO DETAIL  
SCALE: N.T.S.



UPS (DC-UPS-250-6070)  
H x W x D : 406mm(16") x 406mm(16") x 223mm (8.79")  
WEIGHT : 43kg (94.6lbs)

**E** UPS DETAIL  
SCALE: N.T.S.



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EMAIL: neha@arion.ca  
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REVISIONS

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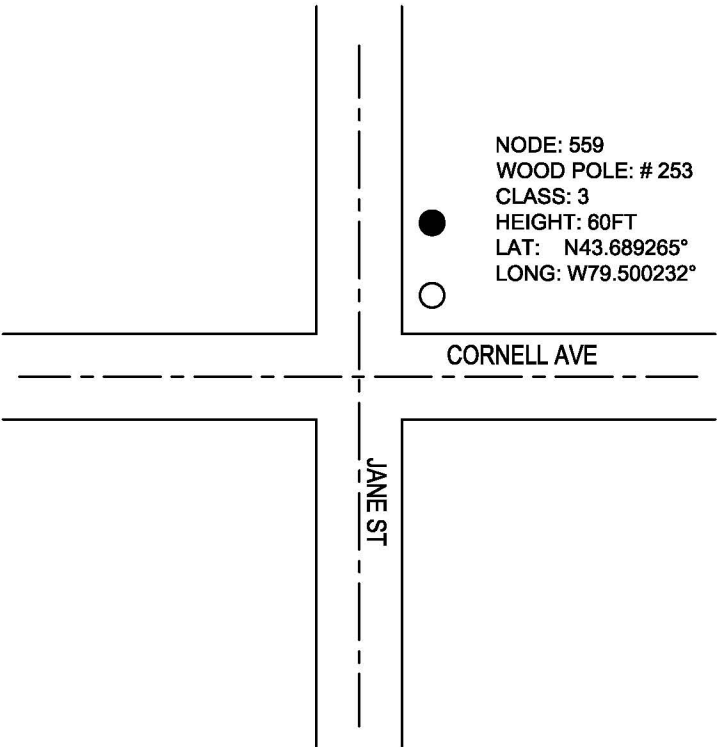
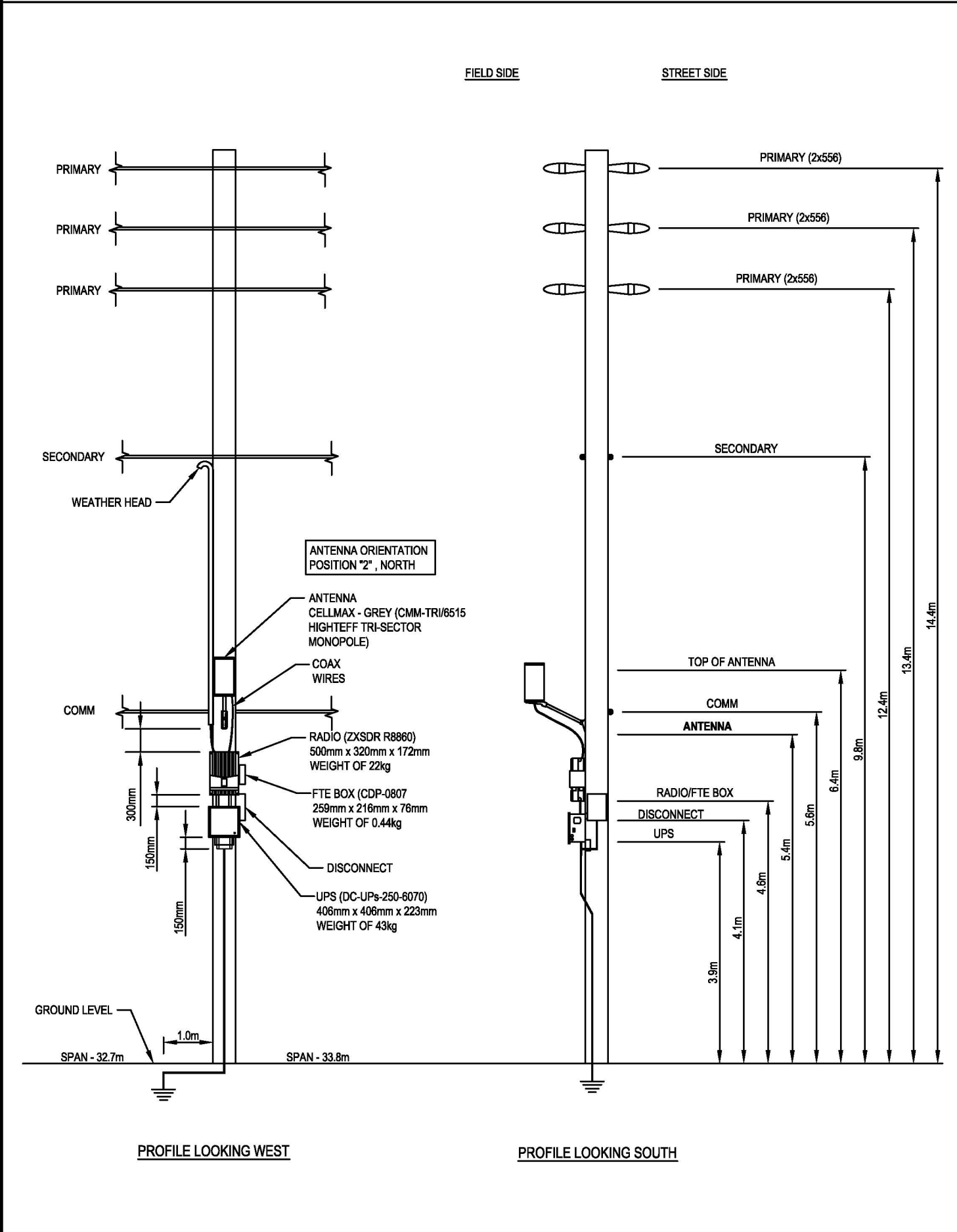
FILE NUMBER: TORONTO NODE 559

DATE DRAWN: SEPTEMBER 01, 2009

SCALE: N.T.S.

SHEET: 3 OF 4

PLAN VIEW



ROW GROUND CONSTRUCTION NOTES:

- 120/240V POWER REQUIRED FOR 3-WIRE SERVICE
- CONTRACTOR TO REMOVE/CLEAN ALL DEBRIS, NAILS, STAPLES, OR NON-USED VERTICALS OFF THE POLE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF TORONTO REQUIREMENTS
- ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.

STANDARD GROUNDING NOTES:

- GROUND TESTED AT 5 OHMS OR LESS.
- 20mm X 2.0m ROD, CAD WELD BELOW GRADE.
- #6 GROUND AND BCND WIRE.
- WOOD MOULDING STAPLED EVERY 1.0m AND AT EACH END.
- GROUND ROD PLACED MINIMUM 1.0m FROM POLE.

STANDARD CONDUIT NOTES:

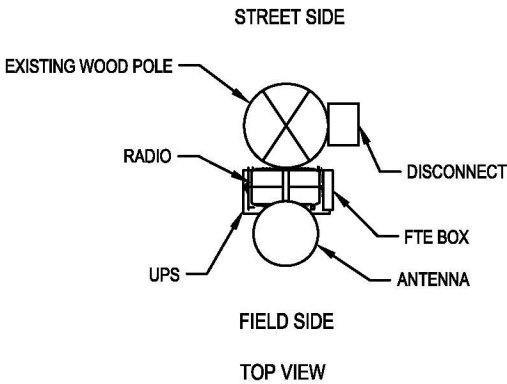
- FOR UNDERGROUND USE SCHEDULE 40.
- FOR RISERS USE SCHEDULE 80.
- PLACE 50mm GALVANIZED STEEL CONDUIT FOR ANY CONDUIT UNDER 80mm, CONVERT 100mm DASCOM CONDUIT TO 80mm AT BASE POLE.
- GC TO STUB UP POLE 250mm W/80mm POWER CONDUIT, POWER CO.
- ALL CONDUIT WILL BE EQUIPPED WITH ROPE.

STANDARD TRENCHING NOTES:

- MAINTAIN 1.0m MINIMUM COVER FOR ELECTRICAL CONDUIT.
- MAINTAIN 750mm MINIMUM COVER FOR COMMUNICATIONS CONDUIT

ROW UTILITY POLE CONSTRUCTION NOTES:

- NO BOLT THREADS TO PROTRUDE MORE THAN 40mm.
- FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.
- ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.
- CABLE NOT TO IMPEDE 38cm CLEAR SPACE OFF POLE FACE (12:0000).
- 90° SHOET SWEEPS UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).
- USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 50mm EXTENET CABLE ID TAGS ON BOTH SIDES OF ARMS.
- USE 90° CONNECTOR AT THE CABLE CONNECTION TO OMNI DOWN ANTENNAS.
- PLACE GPS ON ARM WITH SOUTHERN SKY EXPOSURE AT MINIMUM 2.0m FROM TRANSMIT ANTENNA, WHICH IS 610mm AWAY FROM CENTER OF POLE.
- USE 10mm CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
- FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INGRESS.



RECORD OF INSPECTION STAMP  
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RECORD OF INSPECTION

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☐ AERIAL INSTALLATION

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ATTACHMENT OWNER

PERMIT #

DATE

PRINT NAME

POSITION

SIGNATURE

The installation work covered by this plan meets the Safety Requirements of section 4 of Ontario Regulation 22/04

NORTH DISTRICT

SOUTH DISTRICT

EAST DISTRICT

WEST DISTRICT

NOTES

- EQUIPMENT/ANTENNA PLACING NEAR POWER LINES AND COMMUNICATION CABLES INSTALLED PER POLE OWNER/UTILITY COMPANY SPECIFICATIONS.
- EQUIPMENT MOUNTING HEIGHTS AND ORIENTATION ARE SHOWN FOR ILLUSTRATION PURPOSES & MAY VARY. EQUIPMENT INSTALLED PER POLE OWNER/UTILITY COMPANY SPECIFICATIONS.

CERTIFICATE OF APPROVAL

THIS CONSTRUCTION STANDARD (S) MEETS THE SAFETY REQUIREMENTS OF SECTION 4 OF ONTARIO REGULATION 22/04

G. SAIN P. ENG. SEP 10 2010

DATE

G.G. SAIN

SEP 10 2010

PROVINCE OF ONTARIO

ARIZON Technologies Inc.

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REVISIONS

REV	DATE	DESCRIPTION	BY
01	SEPT 01/09	PERMIT DRAWING	A.E.
02	APR 15/10	AS BUILT DRAWING	A.E.
03			
04			
05			
06			
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08			

DASCOM

TITLE: AS BUILT  
FIBER OPTIC NODE 559  
INSTALLATION  
TORONTO, CANADA

DRAWN BY: A.E.

CHECKED BY:

APPROVED BY:

PROJECT NUMBER: 09 - 0015A

FILE NUMBER: TORONTO NODE 559

DATE DRAWN: SEPTEMBER 01, 2009

SCALE: N.T.S.

SHEET: 4 OF 4

**ONTARIO ENERGY BOARD**

**IN THE MATTER OF** the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15 (Schedule B);

**AND IN THE MATTER OF** an Application by the **Canadian Distributed Antenna Systems Coalition** for certain orders under the *Ontario Energy Board Act, 1998*.

**WRITTEN EVIDENCE**

**OF**

**BOB BORON**

**26 July 2011**

INTRODUCTION

Q1. What position do you hold with Public Mobile?

A. I am Vice President, Legal and Regulatory Affairs and General Counsel of Public Mobile Inc., one of Canada's newest mobile telecommunications carriers. I hold a Bachelor of Science degree from Dalhousie and McGill Universities, and a law degree from Dalhousie Law School. I have over twenty years' experience in the areas of telecommunications and e-commerce, focused mainly on the areas of law, transactions and regulation, with both large organizations and smaller, early stage companies. I served as Executive Vice-President (Legal and Regulatory) and General Counsel with Call-Net Enterprises and Sprint Canada during a period of acute change and rapid growth in the telecommunications industry. During my time at Call-Net and Sprint Canada, I was elected to the board of directors of Microcell Telecommunications, a publicly-traded national cellular telephone company that operated across Canada under the Fido brand name. I was a Co-Founder, Executive Vice-President and General Counsel at a start-up telecom internet access venture, Riptide Communications. I also had responsibility for global e-marketing and knowledge management for Deloitte Touche Tohmatsu, one of the world's largest professional services organizations. More recently, I was a Co-Founder and President of Jade Tower Inc., a company focused on owning and managing wireless communications (cellular) towers and antenna sites, which was sold in 2009 to SBA Communications, one of the largest independent wireless communications tower companies in the United States.

Q2. What is the purpose of your written evidence in this proceeding?

A. The purpose of this evidence is to address some of the issues raised, for the first time, in a letter dated June 10, 2011 from counsel for Toronto Hydro Electric System Limited ("THESL") to the Ontario Energy Board ("OEB"), ostensibly in relation to costs. In addition, I have reviewed the Application filed in this proceeding dated April 21, 2011 and, in particular Section 10 entitled "Grounds". The description of the applicable legal and regulatory principles in the Application accords with my understanding of the law.

THESL LETTER OF JUNE 10, 2011

- Q3. In paragraph 3 of its letter, THESL suggested that the Application was filed for the purposes of advancing a business model that was based on a “regulatory arbitrage opportunity.” Do you agree?
- A. I do not understand the term “regulatory arbitrage opportunity.” If, by this, THESL is suggesting that the board-approved attachment rate is too low for wireless attachments and that the applicants are seeking to take advantage of this situation, I disagree. To the extent THESL is suggesting that the applicants are seeking to unfairly take advantage of an inappropriate rate, I also disagree. Moreover, to the extent THESL or any LDC is of the view that the rate is insufficient to recover the cost of delivering the attachment service, the appropriate remedy is to apply to the OEB for a new rate. I am advised that THESL has never applied to vary the attachment rate set forth in the 2005 CCTA Order. In any event, I am of the view that dissatisfaction on the part of a regulated entity with a prescribed rate can never justify a refusal to provide the regulated service (in this case, access to power poles).
- Q4. Do you agree with THESL’s assertion in paragraph 4 of its letter that LDCs are not exercising any monopoly power in respect of wireless attachments?
- A. I disagree. To the extent that there is no alternative but to attach DAS equipment to existing power poles, access to such poles does constitute a monopoly-controlled resource.
- Q5. Do you agree that access to essential facilities is limited to non-profit corporations, as is apparently suggested in THESL’s letter?
- A. THESL appears to suggest that it is not required to grant access to its power poles because the Applicants are “private, profit seeking” entities. Given that members of the CCTA were, and are, also “private, profit seeking” organizations (as were those granted access in the NB Pole Access Case, as defined in s. 3.18 of the Application), any such limitation would be quite surprising. It would be strange indeed if power poles were classified as essential facilities for cable companies and wireline attachers, but not for wireless attachers. Moreover, there is no regulatory precedent that we can find either in Canada or the United States to support such a distinction. Nor have we located any precedent in Canada or the United States in pole access cases where a



distinction is being made between wireless and wireline attachers, and the former have been excluded.

ADDITIONAL REGULATORY ISSUES

Q6. In regulatory jurisprudence, may safety concerns justify a refusal to connect to essential facilities?

A. I do not quarrel with the general proposition that, in certain circumstances, impaired safety might constitute a basis for declining to attach equipment to poles. But it goes without saying that the safety concerns would have to be valid and documented. Without a proper basis, there is a concern that the owner of the poles might simply be raising a safety concern to justify an otherwise improper refusal to attach (in this regard see FCC Decision 11-50, at Tab 22 of the Application, p. 342 of 1378, para. 75-76). To the extent evidence suggesting any real safety issue is filed in this proceeding, the applicants reserve their right to file reply evidence.

Q7. Is lack of capacity considered in regulatory jurisprudence to be a justification for refusal to connect to essential facilities?

A. Lack of capacity can never justify discriminatory access. If there is lack of capacity (and I am not aware of any evidence to support such a conclusion), all available capacity must be distributed equitably, in a non-discriminatory and transparent fashion - to all classes of users. THESL cannot decide to grant access to wireline attachers and cable companies, but not wireless attachers, on the basis of professed but unsubstantiated capacity issues.

**ONTARIO ENERGY BOARD**

**IN THE MATTER OF** the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15 (Schedule B);

**AND IN THE MATTER OF** an Application by the **Canadian Distributed Antenna Systems Coalition** for certain orders under the *Ontario Energy Board Act, 1998*.

**WRITTEN EVIDENCE**

**OF**

**BRIAN O'SHAUGHNESSY**

**26 July 2011**

**A. INTRODUCTION**

Q.1 What position do you hold with Public Mobile Inc.?

A. I am Public Mobile's Chief Technology Officer. I have held this position since 2008. With a background leading the deployment of new wireless and communications networks for 25 years, I have been the driving force behind the development of Public Mobile's technology and wireless network capabilities.

I am responsible for network design, deployment and operations. I hold an electrical engineering degree from Queen's University and have been a licensed professional engineer since 1985. I joined Bell Cellular in 1985 as the first radio frequency engineer, and have held numerous senior management positions within Bell Canada, including Vice-President, Wireless Technology Development, Director of Network Engineering and Director of Technology Planning. Most recently I held the position of Vice-President, Video and Access Network Technology Development, a role that included the development of DSL (a type of internet access deployed by telecommunications companies) and fiber to the home, as well as the introduction of digital video and home networking technologies.

I was President of the CDMA (a type of wireless technology) Development Group from 1998 to 2002, an organization responsible for advancements and future developments of CDMA technology.

Q.2 Who is Public Mobile and what is its business?

A. Public Mobile is a mobile wireless carrier that has been licensed by Industry Canada to provide mobile wireless services to customers in Toronto as well as in other geographic regions in Ontario and Québec. It is registered with the CRTC as a Canadian wireless carrier.

Q.3 What is the nature of Public Mobile's interest in this proceeding?

- A. Public Mobile is one of the three members of the Canadian Distributed Antenna Systems Coalition ("CANDAS"), the Applicant in this proceeding. In 2009, Public Mobile determined that the DAS technology, offered by DAScom and ExteNet, was its preferred solution for delivering new mobile wireless services to Toronto residents and local businesses and selected ExteNet Systems (Canada) Inc. ("ExteNet") to develop a DAS network in Toronto. It did so based on its understanding of the arrangements between ExteNet and Toronto Hydro Electric System Limited ("THESL") and Toronto Hydro Energy Services Inc. ("THESI") for the attachment of wireless equipment to utility poles in Toronto. In or around June, 2010, as a result of continuing delays in the processing of attachment applications from DAScom and Cogeco Data Services Inc. by THESL and THESI and in light of the uncertainty as to when the Toronto DAS Network would be completed, Public Mobile and ExteNet agreed to terminate arrangements for the committed use of the Toronto DAS Network by Public Mobile.

Public Mobile remains interested in utilizing DAS technology for portions of its network in Toronto although it will not commit to do so unless and until it receives credible assurances that long-term pole access will be available on a timely basis and on commercially reasonable terms and conditions.

Public Mobile's objective in participating in CANDAS and in this proceeding is the creation of a level playing field with our competitors who do have access to power poles in Ontario. Without fair and equitable access to such poles on commercially reasonable terms and conditions, the delivery of wireless services using DAS technology in Ontario will not be feasible. In Public Mobile's view, such an outcome would be contrary to good public policy and the public interest.

Q.4 What is the purpose of your written evidence in this proceeding?

- A. The purpose of my written evidence is to: (i) explain the reasons why Public Mobile originally decided to employ DAS technology to deliver its services in Toronto and

elsewhere; and (ii) describe the impact, on Public Mobile, of THESL and THESI's decisions to deny wireless attachers access to their respective utility poles.

**B. FREQUENCY SPECTRUM**

Q.5 Are different parts of the radio spectrum used for different radio transmission technologies and applications?

A. Yes. Radio spectrum comprises a continuum of frequency ranges or bands. Frequency bands are assigned by governments around the world to various uses and are typically referred to by that use. In North America, such frequency assignments include:

- (i) the 1.0 MHz range for AM broadcast radio;
- (ii) the 100 MHz range for FM broadcast radio;
- (iii) the 800 MHz range for cellular mobile telecommunications service;
- (iv) the 1900 MHz range for personal communication mobile telecommunications service ("PCS");
- (v) the 1700 MHz / 2100 MHz range for advanced wireless mobile telecommunications service ("AWS"); and
- (vi) the 2500 MHz range for broadband radio service ("BRS"); the federal government intends to reassign this spectrum to mobile services.

Wireless and/or broadcast service providers in each group (i.e., AM radio, FM radio, cellular mobile source, etc.) are assigned blocks of frequency within each frequency band.

Q.6 The Canadian government, through Industry Canada, is responsible for managing and licensing radio spectrum and, periodically, awards licences through auction processes. These licences assign radio spectrum in specific frequency bands to private providers of cellular and broadcast services. Has Public Mobile acquired radio spectrum through this type of process?

A. Yes it has. In 2008, Industry Canada held an auction for radio spectrum in the AWS and PCS bands. Public Mobile participated in this auction and was successful in obtaining 10 MHz of PCS spectrum in the 1900 MHz band (1910-1915 MHz and 1990-1995 MHz) in southern Ontario, eastern Ontario, southern Quebec and eastern Quebec, a geographic area with a total population of approximately 19 million people. Public Mobile paid \$52,385,077 for the spectrum licences that cover these areas.

Q.7 How does the radio spectrum that Public Mobile is licensed to use compare with that of its competitors?

A. Public Mobile's principal competitors are Bell, Telus, Rogers, Vidéotron, Wind and Mobilicity. Each of these wireless service providers has been licensed for different amounts of spectrum, at difference frequency bands, as follows:

- (i) Bell and Telus share 182 MHz of spectrum across multiple frequency bands (Cellular, PCS, AWS and BRS);
- (ii) Rogers has 155 MHz of spectrum across multiple frequency bands (Cellular, PCS, AWS and BRS);
- (iii) Wind has 20 MHz of AWS spectrum in Toronto; and
- (iv) Mobilicity has 10 MHz of AWS spectrum in Toronto.

Q.8 Do different radio spectrum bands have difference characteristics and advantages and disadvantages?

A. Yes they do. Lower frequency radio signals travel farther than higher frequency signals. This explains why an AM radio signal (1 MHz) travels farther than an FM radio signal

(100 MHz). This is best exemplified by the phenomenon experienced when one is driving one's car away from a city and the sound quality of an FM radio broadcast deteriorates before that of the city's AM stations. The same is true for mobile telecommunication services. Moreover, signals transmitted at lower frequencies also penetrate farther into above and below grade buildings than do signals transmitted at 1900 MHz.

Also related to the type of frequency is the required number of cell towers, and the fact that each portion of spectrum can support only a fixed number of simultaneous users on each transmission tower (also known as a "Cell Site"). When traffic increases as a result of the addition of new customers or existing customers using more services, service providers must either: (i) purchase additional licensed spectrum for deployment at existing Cell Sites; or (ii) build new Cell Sites between existing Cell Site locations. The latter method is referred to as "cell splitting". As spectrum auctions for mobile services are relatively rare (the last auction was in 2008), and spectrum licenses are limited and extremely expensive, increased customer demand is typically met by cell splitting<sup>1</sup>.

Q.9 What are the implications of these phenomena for Public Mobile?

A. As I have stated, Public Mobile is licensed to transmit at frequencies in the 1900 MHz band. This band requires four transmission towers (or "Cell Sites") compared to the one site or tower required by a transmitter for the 800 MHz band in order to provide services to the same geographic area. So as to provide a high quality service to its customers in cities such as Toronto, Public Mobile needs to construct more Cell Sites than competitors, such as Bell and Rogers, who are licensed in the 800 MHz band. Moreover, companies such as Bell, Rogers and Telus, who have large amounts of spectrum under licence, are able to meet their customers' demands through the use of their licensed spectrum. On the other hand, new entrants such as Public Mobile, Wind

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<sup>1</sup> Two portions of spectrum are expected to be auctioned in 2012. The rules for this auction have not been set and one can only speculate on the chance that a particular company will be able to participate and prevail in such auction.

and Mobilicity who have much less spectrum under licence, must construct new Cell Sites (for cell splitting) in order to meet their customers' demands.

**C. DAS TECHNOLOGY AS THE SOLUTION**

Q.10 Could you explain the reasons why Public Mobile initially selected DAS technology for its network in Toronto?

A. The projected growth of our customer base, coupled with the high per customer traffic, caused Public Mobile to explore new and innovative ways of providing increased cell density without having to construct more and larger Cell Sites (known as Macro Cell Sites) on rooftops and tower structures. A Macro Cell Site solution is not sustainable, especially in dense urban residential areas, because Macro Cell Sites must be located either on rooftops of buildings with heights between 20 and 40 metres or on special-purpose tower structures. DAS technology, on the other hand, allows wireless companies to provide service to their customers in an unobtrusive manner, using pre-existing pole structures, without the need to build new tower structures in residential neighbourhoods.

While new to Canada, DAS technology has been deployed successfully for many years by companies such as ExteNet, in partnership with electrical utilities in the United States, to meet the needs of all major and new wireless service providers in that country. When looking to build a new network and faced with the coverage and capacity construction challenges described above, Public Mobile embraced the DAS concept that has been widely deployed and well received south of the border.

The Toronto DAS Network, as originally conceived, would have comprised a one-time build of approximately 700 to 800 nodes to provide the capacity to meet the needs of Public Mobile's customers for four to five years. Public Mobile also entered into agreements with ExteNet to build a DAS network on the Island of Montreal, in partnership with Hydro Québec and the Municipality of Montreal.



Q.11 Would DAS technology appeal to the large, incumbent wireless service providers such as Bell, Rogers and Telus?

A. These companies do not have the same short-term need for DAS technology because they operate large Macro Cell Site networks and have large spectrum holdings. Eventually, however, even these service providers will require additional capacity as the broadband wireless internet world becomes more important to customers in Toronto. Higher speed data services provide incredibly useful services to consumers, businesses, public safety and public service departments, however, they are very “spectrum hungry” applications. DAS architecture puts many smaller high capacity nodes in each neighbourhood to allow these “spectrum hungry” services to be delivered to many people. It is likely that all wireless carriers will move towards a DAS-type architecture in the future. Once the first DAS network is built, all service providers can then gain access to that same network, sharing the fibre and nodes to distribute their services.

**D. IMPACT OF LOSS OF TORONTO DAS NETWORK**

Q.12 How did the inability to proceed using DAS technology impact Public Mobile’s plans?

A. When, at the end of 2009, it became evident that THESL was not going to allow already installed nodes to be connected with fibre in a timely manner, Public Mobile had to adapt a new deployment strategy that could be implemented in a timeframe that would allow it to compete with other new entrants. Accordingly, Public Mobile decided to switch to a traditional Macro Cell Site strategy, installing antennas on building rooftops and special-purpose towers. Public Mobile constructed these Macro Cell Sites in a low impact method so that they could be removed easily and without damaging the leased roof top spaces in contemplation of the Toronto DAS Network being eventually delivered. Unfortunately, that point in time never came and, in the summer of 2010, Public Mobile was compelled to shift to a more permanent Macro Cell Site deployment. It is now incurring the cost of upgrading each temporary Cell Site to a permanent structure.

A. The loss of the Toronto DAS network opportunity, delayed Public Mobile's Toronto market launch by six months (to May 2010), resulting in a related loss of market share. Moreover, Public Mobile has incurred the increased cost of building rooftop Macro Cell Sites as mentioned earlier.

Q.13 What are the implications for Public Mobile if the Board does not grant the relief that CANDAS is seeking in this proceeding?

A. If the inability to deploy DAS technology continues, Public Mobile (and other similarly situated wireless service providers) will have to build more and larger Macro Cell Sites in residential neighbourhoods. This will, of course, become increasingly difficult as few home owners want new tower structures in their neighbourhoods or on buildings proximate to their homes. Moreover, it's a colossal waste to construct new tower structures given the large number of utility poles available across the city that could be used instead. At some point carriers, such as Public Mobile, with less spectrum and spectrum at higher frequencies will hit a wall, where their inability to construct further Cell Sites hampers their ability to add new subscribers or even serve existing subscribers

Q.14 If the Board requires Ontario's electricity distributors to provide pole access for wireless attachments, what will that mean for Public Mobile, on a go-forward basis?

A. If pole access is affirmed on commercially reasonable terms and conditions, Public Mobile will be in a position to consider restoring its network build planning process in partnership with ExteNet.

**E. TERMS AND CONDITIONS OF POLE ACCESS**

Q.15 In its Application, CANDAS requests the Board to establish well-defined and equitable terms and conditions of access to poles for wireless attachments, similar to those adopted by the Federal Communications Commission in the United States, including application processing procedures, technical attachment requirements and a standard

form of licensed occupancy agreement (Application, para. 10.38). Do you have anything to add in this regard?

- A. Public Mobile will not commit to the use of the Toronto DAS Network unless and until it is confident that long term attachment arrangements are in place on commercially reasonable terms and conditions. As the attachment applicants, DAScom and ExteNet are best positioned to speak to the issue of what these specific terms and conditions are. There is one issue – the technical attachment requirements – that I would like to address however. This issue has to do with what appears to be the current THESL restriction on communication attachments to a two-foot communication zone below the power zone. Permitting antennas to be installed at the top of a utility pole would facilitate better node coverage in terms of both range and quality, thereby reducing the total number of nodes required to provide service to customers.



**Lemay-Yates  
Associates  
Inc.**

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# **The Deployment of Distributed Antenna Systems (DAS) on Utility Poles**

**REPORT Presented to CANDAS**

**July 26, 2011**



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## **1. Introduction**

### **1.1      *Background of Lemay-Yates Associates Inc.***

LEMAY-YATES ASSOCIATES INC. (LYA) is a management-consulting firm that specialises in telecommunications. LYA was founded in 1993. We have been advising many industry stakeholders, including telecommunications carriers and governmental departments and agencies, including Industry Canada, the Canadian Radio-television and Telecommunications Commission (CRTC) and the City of Toronto among others.

LYA has also over the years developed expert reports on and analysis of a number of different wireless technologies and spectrum bands for of its clients, including most recently, the preparation of an expert report on behalf of Rogers Communications Inc. which discusses Long Term Evolution (LTE) mobile broadband technologies and spectrum in the 700 MHz band.

LYA also conducts its own primary research and publishes independent market research reports on topics of interest to industry stakeholders. Additional information on LYA and on Ms. Johanne Lemay, the author of this Report, is provided at the end of this Report and on our web site at [www.lya.com](http://www.lya.com).

LYA has been asked by CANDAS (the “Canadian Distributed Antenna Systems Coalition”) to provide some background information on the policy framework that governs telecommunications in Canada, including the government of Canada’s policy to promote a competitive environment for facilities-based mobile wireless carriers, and to discuss the deployment of outdoor Distributed Antenna Systems (DAS) against the



backdrop of this policy framework. We begin first with an overview of the current status and growth prospects of the mobile telecommunications services sector in Canada.



## **2. Canada's Mobile Wireless Industry**

### **2.1       *The Mobile Industry Environment***

Mobile wireless services have been growing rapidly throughout the world as well as in Canada, both in terms of market penetration, expressed as a percentage of consumers who use a mobile service, as well as in the range of services being provided by mobile or cellular carriers.

This growth is fuelled by the migration of telecommunications traffic (including voice, data, Internet, audio and video) from the conventional wireline networks of telecommunications carriers, including cable distributors, to mobile networks.

These developments are underpinning the success of companies such as Apple as well as of Canadian mobile carriers. The growth of mobile services in Canada is strong. CRTC industry statistics indicate that total wireless revenues were close to \$17 billion in 2009 and that the Compounded Average Growth Rate (CAGR) for these services was 11.3% from 2005 to 2009 inclusively, as shown in the Table 1 below.<sup>1</sup>

As Table 1 demonstrates, the revenue growth of wireless telecommunications is stronger than all other telecommunications services, including wireline broadband Internet services, reported as part of Internet services, and cable TV distribution services, reported as part of the Broadcasting Distribution Undertaking or BDU segment. Canadian consumers, and in particular consumers in Canadian cities, are demanding access to the Internet and various data intensive applications and content whenever and wherever they wish, and this demand supports the growth in mobile services.

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<sup>1</sup> CRTC 2010 Canadian Communications Monitoring Report, page 16





**Table 1 – 2005-2009 Revenue evolution of key segments of the Canadian communications services industries**

	2005	2006	2007	2008	2009	Growth 2008- 2009	CAGR 2005- 2009
Wireline	23.5	23.4	23.7	24.2	24.1	-0.5%	0.7%
Wireless	11.0	12.7	14.5	16.0	16.9	5.3%	11.3%
Total telecommunications revenues	34.5	36.1	38.2	40.3	41.0	1.8%	4.4%
Radio AM/FM	1.3	1.4	1.5	1.6	1.5	-5.2%	3.1%
Television	4.7	5.0	5.3	5.5	5.5	-0.2%	4.1%
BDU	5.3	5.8	6.3	6.9	7.5	7.4%	8.9%
Total broadcasting revenues	11.3	12.2	13.1	14.0	14.4	3.0%	6.3%
Total telecommunications and broadcasting revenues	45.8	48.3	51.3	54.3	55.4	2.1%	4.9%

Source: CRTC data collection

To further support consumer demand, new mobile broadband technologies being deployed and launched such as High Speed Packet Access (or HSPA) as well as more recent Long Term Evolution (or LTE) technology, launched in July 2011 by Rogers in Ottawa,<sup>2</sup> now enable mobile broadband carriers to not only complement, but also compete, with the conventional broadband Internet services that are offered by telecommunications carriers on their wireline networks because of the faster speeds of these technologies.

For example, Rogers provides up to 12-25 megabits per second (Mbps) downstream average speeds on its new LTE service in Ottawa, which is similar to or even better than the wireline broadband Internet services found in many Canadian homes, and it has announced that peak downstream speeds of up to 150 Mbps will be offered on its wireless network in the future. According to Rogers:

<sup>2</sup> Rogers Communications Inc., Press Release, *Rogers lights up Canada's first LTE network today*, July 7, 2011.



*At launch the Rogers LTE Rocket Stick will be capable of maximum theoretical download speeds of up to 75 Mbps on the Rogers LTE Network. Typical download speeds can range from 12 Mbps to 25 Mbps, which is significantly faster than the speeds Canadians experience on any other network today. As device selection evolves, maximum theoretical download speeds will increase to up to 150 Mbps.*

Other Canadian mobile carriers are also actively working on deploying these high-speed broadband technologies, which enable enhanced capabilities and applications such as video streaming on mobile devices including tablets. Indeed, Internet surfing and especially video applications require significantly more network capacity than voice communications and, consequently, require significantly more capacity and coverage from today's mobile broadband networks.

The following are examples of the type of growth in traffic that is being experienced around the world, including in Canada, drawn from Cisco's *Visual Networking Index (VNI): Global Mobile Data Traffic Forecast Update, 2010–2015*, released on February 1, 2011. (NB Much more information can be found at the web link provided below).

***Global mobile data traffic grew 2.6-fold in 2010, nearly tripling for the third year in a row. The 2010 mobile data traffic growth rate was higher than anticipated. Last year's forecast projected that the growth rate would be 149 percent. This year's estimate is that global mobile data traffic grew 159 percent in 2010.***

***Global mobile data traffic will increase 26-fold between 2010 and 2015. Mobile data traffic will grow at a compound annual growth rate (CAGR) of 92 percent from 2010 to 2015, reaching 6.3 exabytes per month by 2015.<sup>3</sup>***

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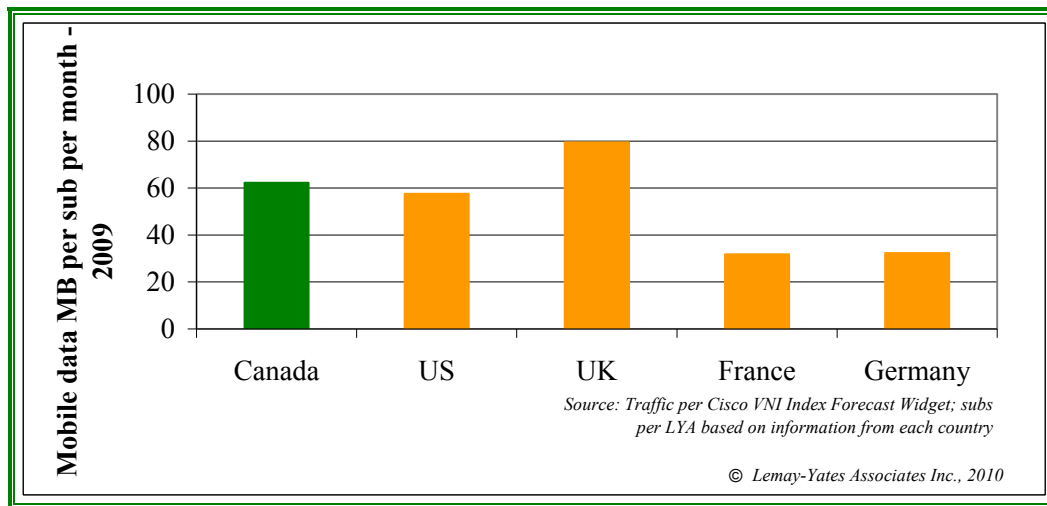
<sup>3</sup> Cisco *Visual Networking Index (VNI): Global Mobile Data Traffic Forecast Update, 2010–2015*, February 1, 2011 available online at: [http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white\\_paper\\_c11-520862.html](http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-520862.html)



LYA has previously analyzed mobile data usage growth in Canada based on Cisco VNI data and has concluded that mobile data usage in Canada was on par with what is being experienced in other countries such as the United States, the United Kingdom, France and Germany.

The results of this analysis are shown in the figure below, which compares the estimated monthly mobile data usage per subscriber among these countries.<sup>4</sup>

**Figure 1 – Comparison of Mobile MB Consumption per Month per Subscriber in 2009**



In addition to the investments needed to deploy new mobile broadband technologies, fulfilling the surge in demand for mobile data and video requires increased amounts of radio spectrum for mobile wireless carriers, which is often acquired via spectrum auctions held by Industry Canada, as well as many new antenna sites which are needed to provide high quality coverage for data intensive mobile broadband services.

<sup>4</sup> *The Performance of Canada's Consumer Broadband Networks in 2010*, Report presented to Rogers Communications Inc., July 9, 2010 FINAL REPORT, page 41, available online at: [http://www.lya.com/en/spotlight/public\\_reports.php](http://www.lya.com/en/spotlight/public_reports.php)



It should also be noted that many consumers have disconnected their wireline or conventional home phone service and now rely exclusively on their mobile phones for voice communications. This trend is expected to continue, as more Canadians have expressed the intention to eventually disconnect their wireline home phone lines.

Ontario consumers are at the forefront of these trends when compared to other regions of Canada. For example, LYA published an independent research report in 2010 based on extensive primary research, entitled *The Wireless-Only Future of Phone Service in Canada*, which made the following findings:

*Close to 4.3 million Canadians live in households that have already disconnected their fixed home phone service...*

*Respondents in Ontario had the highest response to the question of intent to disconnect, and Quebec the lowest.<sup>5</sup>*

Data publicly released by Statistics Canada in 2009 highlighted that, as of December 2008, 7.4% of Ontario households use cellular phones as their only type of phone service.<sup>6</sup>

In order to properly address consumer needs for the replacement of their wireline telephone service with their mobile phones and associated services, it is critical for all mobile carriers, including new entrants such as Wind Mobile, Mobilicity and Public Mobile, as well as the larger incumbent carriers, to have enhanced coverage so that they can provide a high quality of service both outdoors as well as indoors in residential areas.

Thus, investment in wireless telecommunications infrastructure is an investment in the future that is beneficial to consumers and to their communities across the country.

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<sup>5</sup>[http://www.lya.com/en/store/documents/LYAWireless-onlyBackgroundandExtractofKeyFindings\\_001.pdf](http://www.lya.com/en/store/documents/LYAWireless-onlyBackgroundandExtractofKeyFindings_001.pdf)

<sup>6</sup> Statistics Canada, *The Daily*, Monday June 15, 2009, Residential Telephone Service Survey, available online at: <http://www.statcan.gc.ca/daily-quotidien/090615/dq090615-eng.pdf>



Wireline and wireless services are part of the same telecommunications market and both compete as well as complement each other.

Investment in wireless infrastructure also goes hand in hand with the need for more sites for antennas to provide enhanced coverage indoors and outdoors and to provide for a significant leap in speed and capacity on mobile networks. In fact, we note in this regard that Rogers Communications Inc. has already stated publicly that it has embarked on a “network densification” program, which is intended to meet the surging demand for mobile data.<sup>7</sup> We have highlighted in **bold** certain statements made recently by Rogers regarding its network densification program, which entails adding more antenna sites in order to increase network capacity.

*Rogers’ 9 million customers are demanding faster mobile broadband services to satisfy their growing need to stay in touch and access the information and content they want, any time, any where, on any device. In response to this demand, Rogers is using all of its available mobile spectrum to implement Long Term Evolution (LTE) technology in Canada’s top markets. LTE technology will allow Rogers to provide the unprecedented data speeds that are necessary to support lightening fast mobile broadband services. **At the same time, Rogers is undertaking a network densification program in order to add further capacity to our network in major urban markets through the installation of new cell sites.** Despite these substantial efforts, Rogers will require some 700 MHz spectrum to provide additional spectrum capacity in order to keep pace with the unprecedented demand for mobile broadband services that will continue over the next several years.*

As indicated in this extract, Rogers states that its network densification program is to add capacity specifically in major urban markets. Consumers in major urban centres such as Toronto tend to be higher users of sophisticated mobile devices, such as high-end smartphones and tablet computers, as well as of mobile data and video services, compared to those found in smaller cities or rural areas.

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<sup>7</sup> Rogers Communications Partnership, ABRIDGED, Response to Canada Gazette Notice No. SMSE-018-10, page 3.



In June 2011, LYA published an independent market research report entitled *Over-The-Top (OTT) Service Trends in Canada*, which discusses the penetration of various communications devices and the use of Over-The-Top (OTT) services (which include services such as YouTube, Netflix and Apple TV) on both fixed and mobile networks in Canada based on extensive primary research conducted across the country in May 2011. This Report was quoted by Rogers in a recent submission to the CRTC in the context of a fact-finding consultation on OTT services. We have highlighted the reference by Rogers to the higher penetration of these devices in Toronto compared to other areas in Canada.

*As a result, OTT-capable devices are quickly becoming ubiquitous in Canada, as noted in the LYA Report:*

- *60% of Internet households in Canada are expected to have at least one OTT-capable device at the start of 2012;*
- *based on the expressed intentions to buy over the next six months, 3 million OTT-capable devices could be added in Canada before the end of this year, with a disproportionate share in Toronto (twice its population weight in terms of intention to buy).<sup>8</sup>*

We note that not all OTT-capable devices are mobile devices but this reference is included here to underscore the point that the highest demand for mobile broadband services and, hence, for added network capacity and antenna sites is found in large urban centers and that, in Canada, Toronto is at the forefront of this surge in demand.

Coupled with the much higher density of users in large urban centres, these combined forces create further pressure on mobile wireless providers to deploy new antenna sites for mobile communications services in large cities.

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<sup>8</sup> Rogers Communications Comments re: BNC CRTC 2011-344 July 5, 2011 page 15 of 26, available at: <https://services.crtc.gc.ca/pub/ListeInterventionList/Default-Defaut.aspx?en=2011-344&dt=i&lang=e>



The next section of this Report discusses the telecommunications policy framework for mobile communications in Canada and how it has been applied by the Federal Government in recent years to promote competition in Canada's mobile wireless market. We also discuss the role and need for Distributed Antenna Systems (DAS), of utility poles as support structures for DAS, as well as the deployment of DAS in the city of Montreal.

## **2.2      *Overview of Canadian telecommunications policy focusing on wireless communications services***

The Canadian government has long pursued a telecommunications policy that is focused on the promotion of facilities-based competition, as opposed to resale based competition, to enhance benefits to Canadian consumers, promote investment in telecommunications facilities and infrastructure and ensure sustainable competition in the long term. In recent years, the government's policy of promoting facilities-based competition has been largely focused on the market for mobile wireless services.

The starting point is Section 7 of the *Telecommunications Act*, which sets out Canada's telecommunications policy. We have reproduced this section below and have highlighted in bold Subsection 7(c), which states that one of the objectives of Canada's telecommunications policy is to enhance the efficiency and competitiveness of Canadian telecommunications at the national and international levels.

### ***CANADIAN TELECOMMUNICATIONS POLICY***

*7. It is hereby affirmed that telecommunications performs an essential role in the maintenance of Canada's identity and sovereignty and that the Canadian telecommunications policy has as its objectives*

*(a) to facilitate the orderly development throughout Canada of a telecommunications system that serves to safeguard, enrich and strengthen the social and economic fabric of Canada and its regions;*



*(b) to render reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada;*

***(c) to enhance the efficiency and competitiveness, at the national and international levels, of Canadian telecommunications;***

*(d) to promote the ownership and control of Canadian carriers by Canadians;*

*(e) to promote the use of Canadian transmission facilities for telecommunications within Canada and between Canada and points out- side Canada;*

*(f) to foster increased reliance on market forces for the provision of telecommunications services and to ensure that regulation, where required, is efficient and effective;*

*(g) to stimulate research and development in Canada in the field of telecommunications and to encourage innovation in the provision of telecommunications services;*

*(h) to respond to the economic and social requirements of users of telecommunications services; and*

*(i) to contribute to the protection of the privacy of persons.*

The telecommunications policy objectives set out in the *Telecommunications Act* have been reaffirmed on many occasions since the Act was first passed 1993. We highlight a few of these instances below, focusing on wireless communications, and on the specific objective of enhancing competitiveness in Canadian telecommunications.

In April 2005, the then federal Industry Minister, the Honourable David L. Emerson, appointed an independent panel, called the Telecommunications Policy Review Panel (TPRP), to conduct a review of Canada's telecommunications policy and regulatory framework. The Panel was asked to make recommendations on how to move Canada





towards a modern telecommunications framework in a manner that benefits Canadian industry and consumers.

In its 2006 Final Report, the TPRP specifically addressed the issue of competition in the mobile wireless sector and noted that Canada's mobile wireless industry lagged behind that of other several other countries based on several key indicators and that measures were needed to promote greater levels of competition in this segment of the economy. According to the Panel:

*The smaller number of mobile providers in Canada — and the fact that all three national wireless service providers are also owned by large telecommunications service providers that also provide wireline services — may mean that there is less competition in the Canadian wireless market than in the U.S. market, **which consequently has resulted in higher prices, less innovation, lower uptake and lower rates of usage.***

*After reviewing this evidence, the Panel concludes that Canada's mobile wireless industry lags behind its major trading partners on a number of key measures. **This finding reinforces the Panel's belief that because of the growing importance of this segment, Canada should develop a more efficient and vibrant wireless industry.***<sup>9</sup>

These conclusions of the TPRP as well as separate consultations carried out by the federal Department of Industry (Industry Canada) prior to the award of new radio licenses via spectrum auctions, led the Canadian government to establish a framework for the 2008 auction of Advanced Wireless Services (AWS) spectrum and other spectrum in the 2 GHz band which included a mechanism to set aside certain blocks of radio frequencies that could only be bid upon by new entrants in the market.

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<sup>9</sup> Telecommunications Policy Review Panel, Final Report, 2006, Page I-21, emphasis added, available at: [http://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/tprp-final-report-2006.pdf/\\$FILE/tprp-final-report-2006.pdf](http://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/tprp-final-report-2006.pdf/$FILE/tprp-final-report-2006.pdf)



On November 28, 2007, the then Minister of Industry Canada, the Honourable Jim Prentice made the following comments when releasing the government's rules for how it would conduct the auction of AWS and other 2 GHz spectrum licenses:<sup>10</sup>

*"Having considered all of the comments received during our public consultation, we agree with the TPRP that measures should be taken to enhance competition in this market," said Minister Prentice. "Spectrum is a scarce and valuable resource that is used by all Canadians. It is up to the government to decide how it is to be deployed, to best meet the growing and diverse needs of Canadians."*

*"We are looking for greater competition in the market and further innovation in the industry. At the end of the day, our goals are lower prices, better service and more choice for consumers and business," said Minister Prentice. "That is why we are setting aside a portion of radio spectrum exclusively for new entrants into the wireless market."*

The 2008 spectrum auction was successful in fulfilling its objective of encouraging new entry into Canada's mobile wireless market as many new companies ultimately acquired spectrum in the auction, including Globalive Wireless (WIND Mobile), Mobilicity, Public Mobile, Shaw Communications, Videotron, Eastlink, and a few other smaller companies.

We note that virtually all of the new entrants acquired spectrum licenses on a regional basis, and that Globalive has the largest geographic footprint with spectrum holdings in all locations across Canada except for certain areas in the Province of Quebec.

The City of Toronto emerged as a hotbed for new entrants with Globalive, Mobilicity, Public Mobile as well as Videotron all securing spectrum licenses covering the city. To date, all new entrants with the exception of Videotron have launched service in the Toronto area.

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<sup>10</sup> Industry Canada Press Release, "Government Opts for More Competition in the Wireless Sector", November 28, 2007, available at <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf10021.html>



In addition to a set-aside of spectrum for new entrants, the Canadian government also adopted mobile roaming and antenna tower and site sharing rules which also served as key elements underpinning its policy to promote greater competition in Canada's mobile wireless market.

Despite these developments, it should be noted that most new entrants in the Canadian wireless communications sector hold relatively small amounts of spectrum and are still very much in their early deployment stages. For example, Public Mobile and Mobilicity each hold 10 MHz of spectrum in the markets that they serve.

This situation is similar to what has been experienced in the US where, for example, smaller regional carriers, such as MetroPCS and Leap Wireless,<sup>11</sup> which entered the market later than the incumbent mobile carriers (eg. such as AT&T and Verizon), also hold much smaller amounts of spectrum when compared to the national incumbents.

Because of their smaller spectrum holdings, an efficient use of spectrum resources is very important for new entrants. In Section 3 of this Report, we comment on how DAS networks and systems can help mitigate issues related to spectrum scarcity for mobile carriers.

In 2010, the Canadian government launched a public consultation with the objective of developing a Digital Economy Strategy for Canada. One of the key aspects of this consultation focused on ensuring that all Canadians have access to a world-class digital infrastructure. Strengthening competition in wireless services as well as tower sharing and access to support structures were discussed in this context. We have reproduced below excerpts from the consultation paper that was published by Industry Canada in

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<sup>11</sup> Prior to the auction of 700 MHz spectrum in the US, Leap Wireless held from 10 to 30 MHz of spectrum in any given market it serves while MetroPCS held from 10 MHz to 40 MHz, again in the markets it serves.



connection with this consultation, which deal with the particular issue of competition in Canada's mobile wireless market and the need for a leading edge digital infrastructure.

*Canada needs a world-class digital infrastructure, on which Canadians will be able to locate, utilize and share Canadian digital content.<sup>12</sup>*

***The Minister of Industry has also taken measures to strengthen competition in wireless services. The 2008 Advanced Wireless Services (AWS) auction included a set-aside of spectrum exclusively for new entrants to bid on, in conjunction with provisions for tower sharing and mandated roaming.<sup>13</sup>***

***Other impediments to investment and competition may include difficult access to passive infrastructure for deploying fibre optics, such as rights-of-way, ducts and support structures. Passive infrastructure development such as digging trenches for ducts often represents a large portion of the costs in deploying fibre. Facilitating access through collaborative efforts by various stakeholders, including provincial and municipal governments, presents a significant opportunity to reduce deployment costs.<sup>14</sup>***

In late 2010, Industry Canada launched another public consultation relating to the mobile wireless market, this time dealing with a new spectrum auction in the 700 MHz band which is expected to take place sometime in late 2012. In its consultation document, Industry Canada highlighted the important role played by telecommunications services in relation to the competitiveness and productivity of Canada's economy and of its efforts to encourage and promote competition in mobile wireless services in order to reap the benefits of lower prices and greater choice for consumers, businesses and the public sector

*Industry Canada is committed to ensuring that Canadian consumers, businesses and public institutions continue to benefit from the availability of new, advanced and affordable telecommunications services in all regions of the country. Such services directly impact the adoption and use*

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<sup>12</sup> Industry Canada, *Improving Canada's Digital Advantage*, Consultation Paper on a Digital Economy Strategy for Canada, page 9.

<sup>13</sup> *Ibid*, page 17, emphasis added.

<sup>14</sup> *Ibid*, page 18, emphasis added.



*of digital technologies and, more generally, the competitiveness and productivity of the Canadian economy. In pursuing these objectives, **the Department has acted to encourage a competitive telecommunications marketplace, as it believes that competition stimulates innovation and investment by the industry, which can lead to lower prices, better services and more choice for consumers, businesses and public sector users.***<sup>15</sup>

In the same consultation document, Industry Canada highlighted the “explosive growth in wireless broadband usage”, which we described earlier in this Report, and the need for more spectrum to address all types of new services and applications, including those of first responders and public safety, as well as the need to ensure that spectrum is used efficiently to drive the emergence and adoption of new wireless devices and applications.

*Spectrum is continuously being used in new ways by a broad range of players including commercial telecommunications service providers, broadcasters, first responders/public safety organizations, the scientific community and government. **The demand for spectrum is expected to increase due to the explosive growth predicted in wireless broadband usage.***

***Ensuring that radio spectrum is used efficiently and made available in a timely fashion is critical for growth and innovation in the wireless sector, and for users in the economy as a whole. Access to spectrum will continue to drive the emergence and adoption of new wireless devices, services and applications.***<sup>16</sup>

Our conclusion from this review of Canada’s telecommunications policy is that the Canadian government has implemented and, indeed, continues to actively pursue a policy that is designed to ensure that Canadians have access to the latest devices and services offered by multiple and vigorously competitive facilities-based mobile carriers.

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<sup>15</sup> Industry Canada, *Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum*, November 30, 2010, page 1.

<sup>16</sup> *Ibid* page 18.



Efficient use of spectrum as well as sharing of antenna sites are key elements to the implementation of this policy to benefit all Canadian consumers as well as the Canadian economy.

We also note, however, that there is relatively little spectrum available for auction in the 700 MHz spectrum band (in the order of 50-60 MHz in total), and the 2500 MHz spectrum band which is also expected to be the subject of a future auction (also in the order of 60 MHz in total).

In an area such as Toronto where 6 carriers already provide service, to the benefit of consumers in those cities, this scarcity of new spectrum implies that spectrum efficiency will be extremely important for all mobile carriers for the foreseeable future.

### **2.3      *Obligations related to the sharing of antenna towers and sites***

Industry Canada requires wireless carriers to share their antenna towers and sites. The current policy governing mandated tower and site sharing can be found in *Policy Framework for the Auction for Spectrum Licenses for Advanced Wireless Services and other Spectrum in the 2 GHz range*, which was published in November 2007.<sup>17</sup> At page 9 of this document, Industry Canada cites compelling social and economic reasons to mandate the sharing of antenna sites and explains why the refusal to provide access to these sites acts as a barrier to competition:

*The reports of the Telecom Panel and the National Antenna Tower Policy Review indicate that **there are compelling social and economic reasons to mandate antenna tower and site sharing**. These reasons include dealing with antenna tower proliferation and local concerns as well as **how these facilities can be used as barriers to entry and competition**.*

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<sup>17</sup> *Policy Framework for the Auction for Spectrum Licenses for Advanced Wireless Services and other Spectrum in the 2 GHz range*, November 2007, available online at: <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08833.html>



*Industry Canada has concluded that it is in accordance with the orderly development and efficient operation of radiocommunication in Canada to mandate antenna tower and site sharing and to prohibit exclusive site arrangements for all licensees including broadcasting certificate holders. Licensees will be directed to binding arbitration to resolve disputes where they cannot finalize an agreement to share within certain time frames. Before the auction commences, the department will undertake a supplementary consultation to add these conditions to existing licences, excluding those where sharing would affect national security or where the site is used for personal enjoyment (e.g. amateur radio). The final decision on the operation and wording of the licence conditions regarding sharing will be taken before the auction starts.<sup>18</sup>*

All licensees are therefore required by this policy to share their antenna towers and sites. The Industry Canada Circular, entitled *Radiocommunication and Broadcasting Antenna Systems*,<sup>19</sup> which describes the process that must be followed when planning new antenna locations, is applicable to any party that is planning to either install or modify an existing antenna system.

The first element of the planning process is to investigate sharing or reusing existing infrastructure before proposing new antenna supporting structures, as expressed as follows:

***Proponents are not normally expected to build new antenna-supporting structures where it is feasible to locate their antenna on an existing structure, unless a new structure is preferred by land-use authorities.***

*Owners and operators of existing antenna systems are to respond to a request to share in a timely fashion and to negotiate in good faith to facilitate sharing where feasible. It is anticipated that 30 days is reasonable time for existing antenna system owners/operators to reply to a request by a proponent in writing with either: a proposed set of*

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<sup>18</sup> *Ibid*, page 9.

<sup>19</sup> *Radiocommunication and Broadcasting Antenna Systems*, Client Procedures Circular 2-0-03, Issue 4 (CPC 2-0-03), available at <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08777.html>





*reasonable terms to govern the sharing of the antenna system; or a detailed explanation of why sharing is not possible.*<sup>20</sup>

The obligations imposed on mobile carriers to share their antenna towers and sites make it clear that the failure to provide access to such facilities can be used by those with control over these facilities to thwart market entry and the development of competition.

Although these obligations apply to all mobile carriers, they are especially critical for new entrants because these entities do not have an existing portfolio of antenna sites that they can offer to the more established carriers when negotiating site sharing arrangements which they require in order to build out their networks.

While Industry Canada's antenna tower and site sharing rules do not deal directly with utility poles or lampposts, in areas where this may be the only infrastructure available to provide adequate levels of service coverage, it is our view that a denial of access to these structures would have a significant impact on the development of a competitive wireless market based on current technological trends.

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<sup>20</sup> *Ibid*, emphasis added.



### **3. Is it necessary for mobile wireless carriers to deploy outdoor DAS systems?**

Distributed Antenna Systems or DAS networks are comprised of a network of small antennas linked together via a high-speed fibre optic network to provide the link between the antennas and base stations situated in hub locations. People often forget that the deployment of a wireless or mobile network is actually based on an extensive wireline network and that only the last portion of the network provides for its mobile capabilities. Thus access to infrastructure to deploy both wireline and wireless equipment is integral to the deployment of a mobile network and of a DAS based mobile network.

Furthermore, as capacity needs on mobile networks have increased dramatically over the last few years, using fibre optics to provide backhaul links to central hub locations is increasingly *de rigueur* to deploy future-proof networks. The deployment of DAS networks with antennas linked via fibre optic capabilities is therefore a forward-looking technology solution that is very well suited to meet the explosion in demand for mobile data. This approach brings the high capacity of fibre optic technology very close to the end user since fibre optic facilities are deployed for backhaul on every pole for the DAS network. As we highlight below, Verizon, the large US mobile carrier first out of the gate with an extensive deployment of LTE technology, has been deploying outdoor DAS networks in certain areas to fulfill these very objectives.

The advantages of deploying outdoor DAS systems in their networks are therefore numerous for mobile carriers. These advantages include:

- Better coverage, especially in residential areas where higher buildings or other structures are either non-existent or unavailable.



- Enhances the ability of carriers to increase capacity on mobile networks to meet the surge in demand for mobile broadband services.
- Ensures efficient use of scarce spectrum resources by increasing the reuse of frequencies within a given area due to the small size of each cell area. PCIA, the Washington based Wireless Infrastructure Association, has indicated in an Ex Parte Presentation to the FCC that DAS deployments can increase spectrum efficiency by up to 130% in a given service area.<sup>21</sup>
- DAS can also provide a speedier deployment, compared to the development of large macro antenna sites, especially when access to existing infrastructure such as utility poles or lampposts is provided as part of the build-out. These deployments can be accomplished in a matter of months (for example 9 months) versus delays of more than 1 year that are increasingly becoming the norm to deploy macro wireless sites.
- DAS deployment is environmentally friendly and has lower visual impact than traditional towers, an increasingly important criterion. Moreover, neutral DAS deployments, such as those contemplated by CANDAS, can be accessed by more than a single mobile carrier which provides additional significant benefits because they minimize the environmental and visual impacts associated with multiple attachments a single pole or lampposts.

The advantages of DAS are particularly important to wireless new entrants as they hold relatively smaller amounts of spectrum and need to deploy their networks as quickly as possible in order to gain a foothold in the market and remain competitive. In addition, the strategy of many wireless new entrants is to offer mobile phone service as a complete replacement for conventional wireline phone service.

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<sup>21</sup> PCIA Letter of March 31, 2011 to the Secretary of the FCC, Ex Parte Presentation, WC Docket No. 07-245; GN Docket 09-51.



For example, Cricket Communications, a regional mobile carrier in the United States focusing on low cost mobile phone service as a replacement to conventional wireline phone service, launched service using a DAS based mobile network in san Diego as far back as 2007. Deployment was completed in 9 months.<sup>22</sup>

This strategy requires exceptional coverage especially in residential areas, to ensure that users receive high quality and reliable coverage wherever they may be located, both inside as well as outside of their homes. DAS technology is very well suited to fulfill this requirement.

For larger incumbent carriers (such as Bell, Telus and Rogers), DAS deployment will also be extremely important because they can be used to enhance coverage and quality of service as well as add much needed capacity to existing networks as demand for mobile data usage explodes.

American Towers Corp. (ATC), one of the largest wireless tower companies operating worldwide with more than 27,000 macro sites in the US, Mexico and other countries, highlighted the benefits of outdoor DAS in a presentation made to the FCC on May 13, 2010 which discusses the challenges in realizing the FCC's National Broadband Strategy.<sup>23</sup> In its presentation to the FCC, ATC highlights that:

- DAS are designed to support broadband services;
- DAS provides low power, point-to-point coverage closer to the mobile user;
- DAS provides seamless coverage and capacity, and;
- DAS is a **targeted solution that is becoming a carrier necessity**.<sup>24</sup>

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<sup>22</sup> NextG Networks, Press Release, February 28, 2007, "NectG Networks has best year yet in 2006".

<sup>23</sup> ATC Presentation to the FCC, in the context of a public consultation related to the FCC's Rules and Policies Governing Pole Attachments, WC Docket No. 07-245, available online at <http://fjallfoss.fcc.gov/ecfs/document/view?id=7020459420>.

<sup>24</sup> *Ibid*, emphasis added.



We highlight below comments relating to DAS made by the Chief Technology Officer AT&T, a large US incumbent mobile carrier, as reported in *MuniWireless* on March 22, 2011.

*At the CTIA Wireless show here Tuesday AT&T chief technology officer John Donovan confirmed that Ma Bell has a new team focused solely on DAS deployments, with a headcount in the hundreds.*

*I won't tell you exactly how many, but we do have hundreds of people working on DAS [deployments]," said Donovan in a brief interview following one of his many panel appearances Tuesday. According to Donovan AT&T already has several DAS deployments operational, including another outdoor one in Chicago where the small DAS antennas are attached to light poles.<sup>25</sup>*

In the US, in addition to AT&T and Cricket Communications, many mobile carriers, both larger and smaller, have chosen to deploy DAS based networks over the last few years. This includes, T-Mobile,<sup>26</sup> MetroPCS, in a number of areas including suburbs of New York City,<sup>27</sup> as well as Verizon for the purposes of deploying its LTE mobile broadband network.<sup>28</sup>

The FCC recently reviewed its rules relating to pole attachments to help fulfill the objectives of its national broadband strategy. Its decision was published on April 7, 2011.<sup>29</sup>

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<sup>25</sup> <http://www.muniwireless.com/2011/03/22/donovan-att-has-hundreds-working-on-das/>

<sup>26</sup> Pole Attachments: Advancing National Broadband Objectives Via Mobile Infrastructure, March 11, 2011

<sup>27</sup> [http://www.extenetsystems.com/aboutus/newsreleases\\_20090331.html](http://www.extenetsystems.com/aboutus/newsreleases_20090331.html)

<sup>28</sup> [http://www.agl-mag.com/newsletter/DB012611\\_Verizon.htm](http://www.agl-mag.com/newsletter/DB012611_Verizon.htm)

<sup>29</sup> FCC, *In the Matter of Implementation of Section 224 of the Act A National Broadband Plan for Our Future*, Report and Order and Order on Reconsideration, FCC 11-50, WC Docket No. 07-245/GN Docket No. 09-51, Adopted and Released on April 7, 2011, (the FCC Pole Attachments Order) available online at: [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2011/db0407/FCC-11-50A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2011/db0407/FCC-11-50A1.pdf)



The first paragraph of this decision highlights the importance of pole attachments to improve efficiency and to promote competition and the availability of broadband services, as reproduced below:

## ***I. INTRODUCTION***

*1. In this Report and Order and Order on Reconsideration (Order), we comprehensively revise our pole attachment rules to improve the efficiency and reduce the potentially excessive costs of deploying telecommunications, cable, and broadband networks, in order to accelerate broadband build out. **The Order is designed to promote competition and increase the availability of robust, affordable telecommunications and advanced services to consumers throughout the nation.***<sup>30</sup>

The Chairman of the FCC, Mr. Julius Genachowski, also noted that access to poles is key to the deployment of DAS and that DAS provides service more efficiently than conventional wireless antennas.

*The record in this proceeding demonstrates that today, the process by which broadband providers get access to utility poles frequently is so unpredictable, takes so long, and costs so much that it discourages providers from entering the marketplace and significantly delays broadband build-out. **So our Order provides for a fixed timeline for getting access to poles that providers can count on, for both wired and wireless broadband build-out.***

*It also provides a timeline for accessing the tops of poles, which are key for the deployment of wireless broadband technologies like distributed antenna systems – DAS for short. DAS deployments use multiple antennas to extend wireless coverage and provide service more efficiently than conventional wireless antennas. As a result of this Order, DAS providers estimate that their cumulative capital investment could total more than \$15 billion over the next six years.*<sup>31</sup>

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<sup>30</sup> *Ibid*, para. 1.

<sup>31</sup> *Ibid*, pp.138-139, emphasis added.



DAS deployment has therefore become a critical and necessary tool in the arsenal of mobile carriers to ensure the widespread availability of mobile services and of high-quality broadband services.

In the next section we note that both Videotron and Public Mobile have chosen to deploy part of their new mobile networks in Canada using DAS technology.





#### **4. DAS deployments in Canada**

Although still in its early stages of deployment in Canada, LYA is aware of the deployment of two DAS systems in the city of Montreal as well as the system in Toronto that was being developed by the members of CANDAS, but which has not been completed because of the issues that are in dispute with Toronto Hydro. This latter system was the subject of a Municipal Access Agreement (MAA) between DAScom and the City of Toronto that was approved by the City Council of Toronto in August 2009, and contemplated the deployment of 730 DAS nodes throughout the city of which approximately 90% would be on hydro poles.<sup>32</sup>

With respect to the deployment of DAS systems in the city of Montreal, there are two carriers that are building these systems. The first carrier, Videotron, is a large cable and telecommunications carrier headquartered in Montreal, that became a new entrant in the wireless market as a result of Industry Canada's 2008 spectrum auction.

Videotron has already deployed its Montreal DAS network, including in the West Island area of Montreal, which encompasses several residential areas, such as the city of Beaconsfield, a residential suburb of Montreal. A 2009 article from TheSuburban.com<sup>33</sup> describes a town hall meeting between Videotron representatives and Beaconsfield citizens where the Videotron DAS system was explained to the meeting attendees. 12 to 15 sites had been selected as suitable sites for the attachment of a series of DAS nodes each of which would be attached to hydro poles or exterior street lamps. The article highlights that of these 12-15 sites, a total of 10 hydro poles had been selected for the deployment of DAS nodes, which represents the majority of the DAS node sites in this particular community.

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<sup>32</sup> <http://www.toronto.ca/legdocs/mmis/2009/pw/bgrd/backgroundfile-21474.pdf>

<sup>33</sup> <http://www.thesuburbannews.ca/content/en/4007>



The City of Montreal has also entered into an agreement with DAScom for the deployment of DAS on 259 lampposts and streetlights, to enable Public Mobile to provide better coverage throughout the city while minimizing the associated visual impact.

This agreement was described in an article in the Metro Montreal newspaper.<sup>34</sup> The article also states that the agreement between DAScom and the City of Montreal was concluded after a pilot project was completed in August 2010 with 25 integrated DAS nodes deployed in the downtown Borough of Ville-Marie and for which no complaints were received. The City of Montreal expects to receive revenues over a 20-year period from this agreement and will be able to use some of the underlying fibre optic network associated with the DAS network, which the City will be able to use to remotely control streetlights.

In addition to DAS network deployment LYA also researched antenna sites that have been deployed by Toronto Hydro and the Toronto Transit Commission (TTC). This research was conducted by searching Industry Canada's public database of antenna sites across the country, called "Spectrum Direct", which can be found on Industry's Canada web site. We note that the Spectrum Direct database only covers antennas using licensed spectrum, however based on a search of this database<sup>35</sup>, TTC and Toronto Hydro appear to have more than 1,800 sites with antennas in various frequency ranges across the City of Toronto. A detailed list of these records is provided in Appendix B to this Report.

We also highlight that based on our analysis of Industry Canada's Spectrum Direct database, many of these antenna sites support mobile communications. In addition, although the information available does not indicate the type of support infrastructure that is being used for these antennas, roughly 300 of these antennas are located at heights

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<sup>34</sup> <http://www.jouârnalmetro.com/ArticlePrint/782553?language=fr>

<sup>35</sup> As of July 25, 2011



compatible with installations on utility poles (from 5 to 7.5 meters). In addition, the licence information associated with many of these antenna sites states that they are being used for mobile communications. We note that the TTC's use of Toronto Hydro's utility poles for a separate system operated by the TTC is described in paragraphs 24 and 25 of the 2009 decision of the Ontario Superior Court of Justice which can be found at Tab 17 of the CANDAS application to the OEB.<sup>36</sup>

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<sup>36</sup> 2009 CarswellOnt 3203, (2009) 5 C.T.C. 281, 2009, G.T.C. 2147 (eng)



**5. Is it necessary for DAS systems to be deployed using hydro infrastructure or could other infrastructure serve the same purpose (e.g., rooftops, balconies, macro-structures, etc.)?**

The deployment of DAS networks requires the availability of support structures that exhibit the following characteristics:

- they can be found almost everywhere,
- they are recurrent and evenly spaced in order to provide reliable and good quality of coverage
- they are of a relatively uniform height or elevation that is within the optimal range to yield the type of coverage that is needed by wireless carriers,
- they are accessible by road and, indeed, are located in traffic corridors from which the coverage provided can reach the most users,
- access to power is already available or easily provisioned,
- they are ideally suited for the most efficient and least disruptive deployment of the high capacity fiber optic cabling that is an essential component of a DAS system capable of high speed data through-put.

Utility poles including hydro poles, lampposts and streetlights are clearly the support structure that best fulfills these requirements. The deployment of a mobile broadband infrastructure using a DAS network on utility poles enables a carrier to take advantage of a uniform network engineering and deployment approach that can be applied in all types of settings and locations that include not only residential areas but also urban core areas where the types of buildings present or their location may negatively impact the quality



of coverage that can be achieved if rooftop installations were to be used instead of a DAS system.

The deployment of DAS networks on utility poles does not imply that rooftops and macro sites are not required. In some cases, DAS equipment is also installed on rooftops as part of a specific deployment where appropriate buildings exist. For example, in the article noted above which describes Videotron's DAS network in Beaconsfield, it was noted that 10 of the 12-15 node sites in Beaconsfield would be located on utility poles, but two rooftops would also be used for DAS nodes. The point is that the deployment of DAS networks cannot be done only with rooftops. They require utility poles for the vast majority of antenna sites.

As for balconies, these are not suited for the deployment of DAS, as they do not meet all of the criteria listed above. In addition, the installation of DAS infrastructure on balconies would significantly reduce one of the key benefits of DAS, which is to minimize the visual impact and clutter that can arise when providing mobile coverage. In fact, we note that the City of Montreal has adopted new rules earlier this year regarding the deployment of wireless antennas in order to provide a framework for addressing the visual impacts of such deployments. As part of these rules, the deployment of antennas on balconies is prohibited. Equipment deployed on lampposts or streetlights will need to be painted the same color as the street furniture.<sup>37</sup> This new regulation of the City of Montreal will be the subject of a public consultation in the coming months.

As discussed above, DAS network deployment has become a critical and necessary tool for carriers to achieve their network coverage requirements in order to ensure the widespread availability of mobile services and of high quality mobile broadband services

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<sup>37</sup><http://m.ledevoir.com/politique/montreal/326385/montreal-va-encadrer-l-installation-d-antennes-de-telecommunications>



The US based Cellular Telecommunications Industry Association (CTIA) which represents mobile carriers in the United States, including both incumbents as well as newer entrants, has publicly stated in a presentation to the FCC, entitled *Ensuring Non-discriminatory Access and Rates for Wireless Pole Attachments*, that prompt attachments to electric utility poles are “***critical to a wireless carrier’s business***”.<sup>38</sup>

In his Statement accompanying the FCC’s Pole Attachments Order, FCC Chairman, Julius Genachowski, noted that utility poles are essential to provide both wireline and wireless broadband services:

*The Pole Attachments Order we adopt today comprehensively reforms the Commission’s pole attachment rules for the first time since the 1990s, taking account of major changes in the marketplace and incorporating smart policies pioneered by various states.*

*Some might wonder what the connection is between utility poles and broadband service. **Utility poles are essential to providing broadband service, wired and wireless, because that’s where communications companies string cables and, increasingly, place wireless antennas.** If every company that wanted to provide broadband service had to build its own separate set of poles to carry its equipment, we wouldn’t have much broadband in this country—it would simply be too expensive, and often impossible, to build an entirely new network of poles.*

*This is why the Commission has historically taken steps to ensure that communications providers have reasonable access to the poles that already exist throughout the country.*<sup>39</sup>

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<sup>38</sup> On page 9 of the presentation that can be found at <http://fjallfoss.fcc.gov/ecfs/document/view?id=7021034091>

<sup>39</sup> FCC 11-50, PP. 138-139, emphasis added.



## **6. Concluding remarks**

Canadian consumers and businesses, and particularly those in major urban areas such as Toronto and other cities, are leading a revolution in how they use mobile communications, which in turn has created an explosion in the capacity and coverage requirements of mobile networks.

We conclude that wireless attachments to utility poles including hydro poles are necessary for the deployment of DAS networks, which include both extensive fibre optic cable deployment as well as antenna sites, to bring high capacity mobile broadband networks closer to the end customer and provide high quality coverage in many areas.

We also highlight that both wireline and wireless technologies are referred to in the synonymously as being necessary to fulfill the objectives of providing high quality broadband access everywhere. This is true in the FCC's National Broadband Strategy for the US. While Canada has yet to announce the details of its own strategy, the 2010 Consultation document referred to in Section 2 of this Report highlights the important role played by wireless communications in building a world-class digital infrastructure for Canada.

Rogers' new LTE mobile broadband service is proof that mobile broadband is a competitor as well as a complement to conventional wireline broadband access services and that we are entering a new phase in the deployment of wireless technologies.

As noted by the FCC Chairman, both wireless and wireline carriers need access to the essential facilities, such as utility poles, in order to provide broadband coverage everywhere and to promote competition for these services.





It is our view that there should be no distinction made as to how wireline and wireless carriers are treated when it comes to access to support structures and utility pole attachments.



## **7. APPENDIX A**

Lemay-Yates Associates Inc.



## Lemay-Yates Associates Inc. - Background

Lemay-Yates Associates Inc. (LYA) is a key advisor to the telecom industry, helping to drive major investment decisions and strategy as well as telecommunications policy and regulatory support.

Development and implementation of business strategy has been at the heart of Lemay-Yates Associates Inc. (LYA) services since 1993, providing us with a unique ability to integrate market, technical, network, economic, regulatory and investment analyses – helping address all the Strategic **C**'s – across the blurring lines of mobile-telecom-cable, as well as carriage-content, in a competitive environment that is increasingly dynamic, complex and risky.

LYA also conducts independent strategic research and has published a number of reports on telecom markets with topics covering Local Competition, Foreign Investment, Mobile 911, Consumer Telecom, Mobile Broadband Services and others.

### **c-Ahead, c-Sharp, c-Change, c-Results**

#### *LYA's Strategic "**C**" Research Program*

Our research, experience and capabilities are resources for you to see ahead, see clearly, see changes and get results, to support addressing all the **c**'s of business strategy...

LYA focuses on providing timely, accurate and actionable insight about your **c**ustomers and **c**ompetitors via **c**-Ahead Research Reports and **c**-Sharp database products. Our **c**-Sharp databases of business information let you focus clearly on the quantitative to help build competitive advantage by providing business intelligence and insight.



In the fast-moving age of instant information, strategic research is essential to be able to see ahead especially when the future is closer than you may think and possibly bigger than it appears. We address this with quantifiable, reliable research integrated with our strategic insight and forward looking approach for your product and service planning.

In concert with our research, our strategy consulting services support the other Strategic **C**'s – assessment of the **c**apabilities required to implement strategy and evaluation of the **c**ost of investing to do so. You will **c**-Change and **c**-Results.

**c**-Change means consulting services to help see change coming and to support making a sea change in your business. LYA helps you move to the next level... you will **c**-Results from us and from the implementation of you new plans, products and services.

Please visit our web site: [www.LYA.com](http://www.LYA.com).

#### NOTE

LYA is a registered trademark of Lemay-Yates Associates Inc. Registered in the U.S. Patent and Trademark Office. Registered in the Canadian Intellectual Property Office.

**c**-Ahead, **c**-Sharp, **c**-Change and **c**-Results are trademarks of Lemay-Yates Associates Inc.



**Biographical Notes of Ms. Johanne Lemay, P. Eng., MBA,**  
**Co-President, LEMAY-YATES ASSOCIATES INC.**

Ms. Lemay is Co-President of LEMAY-YATES ASSOCIATES INC. She has more than 25 years of experience in the communications industry including the first 10 years at Nortel (Northern Telecom) and Bell-Northern Research.

Ms. Lemay is a recognized expert in telecommunications and broadcasting, with particular emphasis on the development of business plans, due diligence, market research, development and assessment of pricing plans and estimation of capital investment requirements to offer new services. Ms. Lemay has also been actively involved in regulatory proceedings and in consultations for the development of public policy in communications, including the new rules for the AWS spectrum auctions as well as the framework for mandated roaming and tower sharing.

Over the last year, Ms. Lemay has been an expert witness in a CRTC hearing dealing with carriage capacity on Canada's satellite television distribution undertakings and has submitted an expert report focusing on 700 MHz spectrum and LTE technology as part of a consultation initiated by Industry Canada.

Ms. Lemay has co-authored many independent market research reports published by LEMAY-YATES ASSOCIATES INC.

Prior to founding LEMAY-YATES ASSOCIATES INC., Ms. Lemay was in charge of International Marketing for all Nortel transmission equipment product lines. At Nortel, Ms. Lemay also created a fiber multiplex product line which was extensively deployed by operators in the US and Canada.

Ms. Lemay is a frequent speaker at industry conferences and seminars in Canada, in the United States and abroad as well as on BNN and other media. She holds an Engineering Physics degree from Laval University and an MBA, Executive Option, from Concordia University.



## **8. APPENDIX B**

List of Antenna Sites for Licensed Spectrum of Toronto Hydro and TTC per Industry

Canada Spectrum Direct Database (under separate cover)



**Lemay-Yates**  
**Associates**  
Inc.

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# **The Deployment of Distributed Antenna Systems (DAS) on Utility Poles**

## **APPENDIX B**

**REPORT Presented to CANDAS**

**July 26, 2011**

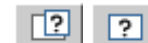




Industry Canada > Radio, Spectrum and Telecommunications > Spectrum Direct > Licensee Name Search > Licensee Name Search Results

## Spectrum Direct

### Licensee Name Search Results



On this page: [▼ Search Results](#) [▼ Search Criteria](#)

### Search Results



#### Notes:

- These results **do not include protected frequency records**. Valid EMC studies require coordination with protected frequency owners. To obtain a list of protected frequency owners by microwave frequency band and longitude range, go to the [Protected Microwave Frequency Information Search](#).
- **NEW** Data from unsubmitted microwave applications is no longer available in the search results. Search results do include data on new, pending microwave stations that have been submitted and are under study.
- Information in coded fields can be decoded using the [TAFL Search Field Decode Files](#).
- Use the [search form](#) at the bottom of the page to download these results in ASCII or XML Format.

The records listed below were found for the selected licensee.

**20 record(s) retrieved.**

### Search Results

Tx Frequency (MHz)	Rx Frequency (MHz)	Station Location	Tx Antenna Height Above Ground Level (m)	Licensee Name	Licence Number
1817.500000	1817.500000	TORONTO CPE-1-3(6 FOREST LANEWAY)ON	9	Toronto Hydro Electric System Attn: Stephen Walker	5104290
1817.500000	1817.500000	TORONTO CPE-2-2 (3233 WESTON) ON	22	Toronto Hydro Electric System Attn: Stephen Walker	5104296
1817.500000	1817.500000	TORONTO CPE-3-4 (500 DUPLEX) ON	9	Toronto Hydro Electric System Attn: Stephen Walker	5104294
1817.500000	1817.500000	TORONTO-BS201 (6 FOREST LANEWAY) ON	80	Toronto Hydro Electric System Attn: Stephen Walker	5104202



Industry Canada > Radio, Spectrum and Telecommunications > Spectrum Direct > Licensee Name Search > Licensee Name Search Results

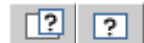
## Spectrum Direct

### Licensee Name Search Results



On this page: [▼ Search Results](#) [▼ Search Criteria](#)

### Search Results



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- **NEW** Data from unsubmitted microwave applications is no longer available in the search results. Search results do include data on new, pending microwave stations that have been submitted and are under study.
- Information in coded fields can be decoded using the [TAFL Search Field Decode Files](#).
- Use the [search form](#) at the bottom of the page to download these results in ASCII or XML Format.

The records listed below were found for the selected licensee.

**68 record(s) retrieved.**

### Search Results

Tx Frequency (MHz)	Rx Frequency (MHz)	Station Location	Tx Antenna Height Above Ground Level (m)	Licensee Name	Licence Number
932.243750	941.243750	TORONTO, ONT. 15 ROTHERHAM AV (MCS)	20	TORONTO HYDRO ELECTRIC SYSTEM LTD. YORK - Paul Kalra	4705470
932.243750	941.243750	TORONTO, ONT. 15 ROTHERHAM AV (MCS)	20	TORONTO HYDRO ELECTRIC SYSTEM LTD. YORK - Paul Kalra	4705470
932.243750	941.243750	TORONTO, ONT. 15 ROTHERHAM AV (MCS)	20	TORONTO HYDRO ELECTRIC SYSTEM LTD. YORK - Paul Kalra	4705470
932.243750	941.243750	TORONTO, ONT. 15 ROTHERHAM AV (MCS)	20	TORONTO HYDRO ELECTRIC SYSTEM LTD. YORK - Paul Kalra	4705470

[illegible]



Industry Canada > Radio, Spectrum and Telecommunications > Spectrum Direct > Licensee Name Search > Licensee Name Search Results

## Spectrum Direct

### Licensee Name Search Results



On this page: [▼ Search Results](#) [▼ Search Criteria](#)

### Search Results



#### Notes:

- These results **do not include protected frequency records**. Valid EMC studies require coordination with protected frequency owners. To obtain a list of protected frequency owners by microwave frequency band and longitude range, go to the [Protected Microwave Frequency Information Search](#).
- **NEW** Data from unsubmitted microwave applications is no longer available in the search results. Search results do include data on new, pending microwave stations that have been submitted and are under study.
- Information in coded fields can be decoded using the [TAFL Search Field Decode Files](#).
- Use the [search form](#) at the bottom of the page to download these results in ASCII or XML Format.

The records listed below were found for the selected licensee.

**450 record(s) retrieved.**

### Search Results

Tx Frequency (MHz)	Rx Frequency (MHz)	Station Location	Tx Antenna Height Above Ground Level (m)	Licensee Name	Licence Number
72.260000		TORONTO ON 400 GREENWOOD AVE.	12	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5026714
72.360000		TORONTO ON - 160 TRANSIT ROAD	12	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5040128
151.520000	148.360000	TORONTO, ONT. 1138 BATHURST ST	41	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4698175
				TORONTO	

151.520000	148.360000	TORONTO, ONT. 1900 YONGE ST	34	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4698177
151.925000	151.925000	TORONTO, ONT. 1138 BATHURST ST	39	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4698175
151.925000	151.925000	TORONTO, ONT. 1138 BATHURST ST	50	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4504809
151.925000	151.925000	TORONTO, ONT. 1900 YONGE ST	31	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	2054899
151.925000	151.925000	TORONTO, ONT. 1900 YONGE ST	34	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4698177
151.925000	151.925000	TORONTO, ONT. METRO AREA (VHF ML)		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	2374437
153.635000	153.635000	TORONTO, ONT. 1138 BATHURST ST	41	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4698175
153.635000	153.635000	TORONTO, ONT. 1900 YONGE ST	34	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4698177
154.890000	154.890000	TORONTO, ONT. 1138 BATHURST ST	41	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4698175
154.890000	154.890000	TORONTO, ONT. 1900 YONGE ST	34	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4698177
156.195000	149.410000	TORONTO, ONT. 1138 BATHURST ST	41	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4698175

156.195000	149.410000	TORONTO, ONT. 1900 YONGE ST	34	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4698177
210.000000	210.000000	TORONTO, ONT. 1138 BATHURST ST		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	3776805
210.000000	210.000000	TORONTO, ONT. 400 GREENWOOD AVE		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	3777391
214.000000	214.000000	TORONTO, ONT. 400 GREENWOOD AVE		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	3777391
227.125000	227.125000	TORONTO, ONT. 1138 BATHURST ST		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	3776805
235.125000	235.125000	TORONTO, ONT. 1138 BATHURST ST		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	3776805
235.125000	235.125000	TORONTO, ONT. 400 GREENWOOD AVE		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	3777391
239.125000	239.125000	TORONTO, ONT. 1138 BATHURST ST		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	3776805
239.125000	239.125000	TORONTO, ONT. 400 GREENWOOD AVE		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	3777391
406.112500	406.112500	TORONTO, ONT. METRO AREA (UHF PBL)		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	2374530
406.112500	406.112500	TORONTO, ONT. SUBWAY LINE		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4735838

412.037500	417.037500	TORONTO, ONT. 2180 YONGE ST	100	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4892174
412.037500	417.037500	TORONTO, ONT. 301 FRONT ST (CN TWR)	362	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	2054922
412.062500	417.062500	TORONTO, ONT. 2180 YONGE ST	100	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4892174
412.062500	417.062500	TORONTO, ONT. 301 FRONT ST (CN TWR)	362	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	2054922
412.112500	417.112500	TORONTO, ONT. 2180 YONGE ST	97	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4892174
412.112500	417.112500	TORONTO, ONT. 301 FRONT ST (CN TWR)	362	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	2054922
412.212500	417.212500	NORTH YORK, ONT. 570 WILSON AVE	20	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4736188
412.212500	417.212500	TORONTO, ONT. 1900 YONGE ST	10	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4736190
412.212500	417.212500	TORONTO, ONT. 400 GREENWOOD AVE	20	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4736186
412.587500	417.587500	SCARBOROUGH, ONT. KENNEDY - MIDLAND	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	2225132
412.587500	417.587500	TORONTO, ONT. 2180 YONGE ST	97	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4892174

412.587500	417.587500	TORONTO, ONT. 301 FRONT ST (CN 362 TWR)		TORONTO TRANSIT COMMISSION 2054922 Attn: Supervisor, Accounts Payable
412.612500	417.612500	TORONTO, ONT. 2180 YONGE ST	100	TORONTO TRANSIT COMMISSION 4892174 Attn: Supervisor, Accounts Payable
412.612500	417.612500	TORONTO, ONT. 301 FRONT ST (CN 362 TWR)		TORONTO TRANSIT COMMISSION 2054922 Attn: Supervisor, Accounts Payable
412.712500	417.712500	TORONTO, ONT. 1138 BATHURST ST	37	TORONTO TRANSIT COMMISSION 4698175 Attn: Supervisor, Accounts Payable
412.712500	417.712500	TORONTO, ONT. 1900 YONGE ST	37	TORONTO TRANSIT COMMISSION 4698177 Attn: Supervisor, Accounts Payable
412.712500	417.712500	TORONTO, ONT. METRO AREA (UHF ML)		TORONTO TRANSIT COMMISSION 2374478 Attn: Supervisor, Accounts Payable
412.712500	417.712500	TORONTO, ONT. METRO AREA (UHF PBL)		TORONTO TRANSIT COMMISSION 2374530 Attn: Supervisor, Accounts Payable
412.712500	417.712500	TORONTO, ONT. SUBWAY LINE		TORONTO TRANSIT COMMISSION 4735838 Attn: Supervisor, Accounts Payable
412.962500	417.962500	SCARBOROUGH, ONT. ELLESMERE STN	15	TORONTO TRANSIT COMMISSION 2225134 Attn: Supervisor, Accounts Payable
412.962500	417.962500	SCARBOROUGH, ONT. KENNEDY - MIDLAND	1	TORONTO TRANSIT COMMISSION 2225132 Attn: Supervisor, Accounts Payable
413.187500	418.187500	SCARBOROUGH, ONT. MCCOWAN YARD	15	TORONTO TRANSIT COMMISSION 2225130 Attn: Supervisor,



				Accounts Payable TORONTO
414.637500	419.637500	TORONTO, ONT. 1138 BATHURST ST	37	TRANSIT COMMISSION 4698175 Attn: Supervisor, Accounts Payable
414.637500	419.637500	TORONTO, ONT. 1900 YONGE ST	37	TORONTO TRANSIT COMMISSION 4698177 Attn: Supervisor, Accounts Payable
414.637500	419.637500	TORONTO, ONT. METRO AREA (UHF ML)		TORONTO TRANSIT COMMISSION 2374478 Attn: Supervisor, Accounts Payable
414.637500	419.637500	TORONTO, ONT. METRO AREA (UHF PBL)		TORONTO TRANSIT COMMISSION 2374530 Attn: Supervisor, Accounts Payable
414.637500	419.637500	TORONTO, ONT. SUBWAY LINE		TORONTO TRANSIT COMMISSION 4735838 Attn: Supervisor, Accounts Payable
416.862500	411.862500	TORONTO, ONT. 1138 BATHURST ST	37	TORONTO TRANSIT COMMISSION 4698175 Attn: Supervisor, Accounts Payable
416.862500	411.862500	TORONTO, ONT. 1900 YONGE ST	38	TORONTO TRANSIT COMMISSION 4698177 Attn: Supervisor, Accounts Payable
417.037500	412.037500	SCARBOROUGH, ONT. 290 BOROUGH DR	15	TORONTO TRANSIT COMMISSION 4997585 Attn: Supervisor, Accounts Payable
417.037500	412.037500	SCARBOROUGH, ONT. 5050 SHEPPARD AVE	1	TORONTO TRANSIT COMMISSION 2054897 Attn: Supervisor, Accounts Payable
417.037500	412.037500	TORONTO, ONT. 1138 BATHURST ST	37	TORONTO TRANSIT COMMISSION 4698175 Attn: Supervisor, Accounts Payable
417.037500	412.037500	TORONTO, ONT. 1411 QUEEN ST E	1	TORONTO TRANSIT COMMISSION 2054908

				Attn: Supervisor, Accounts Payable TORONTO
417.037500	412.037500	TORONTO, ONT. 1627 DANFORTH AVE	1	TRANSIT COMMISSION 2118882 Attn: Supervisor, Accounts Payable TORONTO
417.037500	412.037500	TORONTO, ONT. 1900 YONGE ST	38	TRANSIT COMMISSION 4698177 Attn: Supervisor, Accounts Payable TORONTO
417.037500	412.037500	TORONTO, ONT. 20 THE QUEENSWAY	1	TRANSIT COMMISSION 2054918 Attn: Supervisor, Accounts Payable TORONTO
417.037500	412.037500	TORONTO, ONT. 2170 YONGE ST	1	TRANSIT COMMISSION 2054910 Attn: Supervisor, Accounts Payable TORONTO
417.037500	412.037500	TORONTO, ONT. 400 EVANS AVE	10	TRANSIT COMMISSION 2054920 Attn: Supervisor, Accounts Payable TORONTO
417.037500	412.037500	TORONTO, ONT. 424 DANFORTH AVE	1	TRANSIT COMMISSION 2054905 Attn: Supervisor, Accounts Payable TORONTO
417.037500	412.037500	TORONTO, ONT. 640 LANSDOWNE AVE	4	TRANSIT COMMISSION 2054912 Attn: Supervisor, Accounts Payable TORONTO
417.037500	412.037500	TORONTO, ONT. 699 DAVENPORT RD	1	TRANSIT COMMISSION 2054916 Attn: Supervisor, Accounts Payable TORONTO
417.037500	412.037500	TORONTO, ONT. METRO AREA (UHF ML)		TRANSIT COMMISSION 2374478 Attn: Supervisor, Accounts Payable TORONTO
417.037500	412.037500	TORONTO, ONT. METRO AREA (UHF PBL)		TRANSIT COMMISSION 2374530 Attn: Supervisor, Accounts Payable TORONTO
417.037500	412.037500	TORONTO, ONT. WILSON & WILSON	7	TRANSIT COMMISSION 2054914

417.057500	412.057500	WILSON & WILSON / HTS		COMMISSION	2054714
				Attn: Supervisor, Accounts Payable	
417.062500	412.062500	SCARBOROUGH, ONT. 5050 SHEPPARD AVE	1	TORONTO TRANSIT COMMISSION	2054897
				Attn: Supervisor, Accounts Payable	
417.062500	412.062500	TORONTO, ONT. 1411 QUEEN ST E	1	TORONTO TRANSIT COMMISSION	2054908
				Attn: Supervisor, Accounts Payable	
417.062500	412.062500	TORONTO, ONT. 1627 DANFORTH AVE	1	TORONTO TRANSIT COMMISSION	2118882
				Attn: Supervisor, Accounts Payable	
417.062500	412.062500	TORONTO, ONT. 20 THE QUEENSWAY	1	TORONTO TRANSIT COMMISSION	2054918
				Attn: Supervisor, Accounts Payable	
417.062500	412.062500	TORONTO, ONT. 2170 YONGE ST	1	TORONTO TRANSIT COMMISSION	2054910
				Attn: Supervisor, Accounts Payable	
417.062500	412.062500	TORONTO, ONT. 400 EVANS AVE	10	TORONTO TRANSIT COMMISSION	2054920
				Attn: Supervisor, Accounts Payable	
417.062500	412.062500	TORONTO, ONT. 424 DANFORTH AVE	1	TORONTO TRANSIT COMMISSION	2054905
				Attn: Supervisor, Accounts Payable	
417.062500	412.062500	TORONTO, ONT. 640 LANSDOWNE AVE	4	TORONTO TRANSIT COMMISSION	2054912
				Attn: Supervisor, Accounts Payable	
417.062500	412.062500	TORONTO, ONT. 699 DAVENPORT RD	1	TORONTO TRANSIT COMMISSION	2054916
				Attn: Supervisor, Accounts Payable	
417.062500	412.062500	TORONTO, ONT. METRO AREA (UHF ML)		TORONTO TRANSIT COMMISSION	2374478
				Attn: Supervisor, Accounts Payable	
				TORONTO	

417.062500	412.062500	TORONTO, ONT. METRO AREA (UHF PBL)		TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	2374530
417.062500	412.062500	TORONTO, ONT. WILSON & WILSON 7 HTS		TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	2054914
417.112500	412.112500	SCARBOROUGH, ONT. 290 BOROUGH DR	15	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4997585
417.112500	412.112500	SCARBOROUGH, ONT. 5050 SHEPPARD AVE	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	2054897
417.112500	412.112500	TORONTO, ONT. 1138 BATHURST ST	37	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4698175
417.112500	412.112500	TORONTO, ONT. 1411 QUEEN ST E	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	2054908
417.112500	412.112500	TORONTO, ONT. 1627 DANFORTH AVE	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	2118882
417.112500	412.112500	TORONTO, ONT. 1900 YONGE ST	38	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4698177
417.112500	412.112500	TORONTO, ONT. 20 THE QUEENSWAY	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	2054918
417.112500	412.112500	TORONTO, ONT. 2170 YONGE ST	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	2054910
417.112500	412.112500	TORONTO, ONT. 400 EVANS AVE	10	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	2054920

417.112500	412.112500	TORONTO, ONT. 424 DANFORTH AVE	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	2054905
417.112500	412.112500	TORONTO, ONT. 640 LANSDOWNE AVE	4	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	2054912
417.112500	412.112500	TORONTO, ONT. 699 DAVENPORT RD	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	2054916
417.112500	412.112500	TORONTO, ONT. METRO AREA (UHF ML)		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	2374478
417.112500	412.112500	TORONTO, ONT. METRO AREA (UHF PBL)		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	2374530
417.112500	412.112500	TORONTO, ONT. WILSON & WILSON 7 HTS	7	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	2054914
417.212500	412.212500	TORONTO, ONT. SUBWAY LINE		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4735838
417.587500	412.587500	SCARBOROUGH, ONT. 290 BOROUGH DR	15	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4997585
417.587500	412.587500	SCARBOROUGH, ONT. 5050 SHEPPARD AVE	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	2054897
417.587500	412.587500	SCARBOROUGH, ONT.		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	2225135
417.587500	412.587500	TORONTO, ONT. 1138 BATHURST ST	37	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4698175

417.587500	412.587500	TORONTO, ONT. 1411 QUEEN ST E	1	Accounts Payable TORONTO TRANSIT COMMISSION 2054908 Attn: Supervisor, Accounts Payable
417.587500	412.587500	TORONTO, ONT. 1627 DANFORTH AVE	1	TORONTO TRANSIT COMMISSION 2118882 Attn: Supervisor, Accounts Payable
417.587500	412.587500	TORONTO, ONT. 1900 YONGE ST	38	TORONTO TRANSIT COMMISSION 4698177 Attn: Supervisor, Accounts Payable
417.587500	412.587500	TORONTO, ONT. 20 THE QUEENSWAY	1	TORONTO TRANSIT COMMISSION 2054918 Attn: Supervisor, Accounts Payable
417.587500	412.587500	TORONTO, ONT. 2170 YONGE ST	1	TORONTO TRANSIT COMMISSION 2054910 Attn: Supervisor, Accounts Payable
417.587500	412.587500	TORONTO, ONT. 400 EVANS AVE	10	TORONTO TRANSIT COMMISSION 2054920 Attn: Supervisor, Accounts Payable
417.587500	412.587500	TORONTO, ONT. 424 DANFORTH AVE	1	TORONTO TRANSIT COMMISSION 2054905 Attn: Supervisor, Accounts Payable
417.587500	412.587500	TORONTO, ONT. 640 LANSDOWNE AVE	4	TORONTO TRANSIT COMMISSION 2054912 Attn: Supervisor, Accounts Payable
417.587500	412.587500	TORONTO, ONT. 699 DAVENPORT RD	1	TORONTO TRANSIT COMMISSION 2054916 Attn: Supervisor, Accounts Payable
417.587500	412.587500	TORONTO, ONT. METRO AREA (UHF ML)		TORONTO TRANSIT COMMISSION 2374478 Attn: Supervisor, Accounts Payable
417.587500	412.587500	TORONTO, ONT. METRO AREA (UHF		TORONTO TRANSIT COMMISSION 2374530

		PBL)		Attn: Supervisor, Accounts Payable
		TORONTO		TORONTO
417.587500	412.587500	TORONTO, ONT. WILSON & WILSON 7 HTS		TRANSIT COMMISSION 2054914 Attn: Supervisor, Accounts Payable
		SCARBOROUGH, ONT. 290	15	TORONTO TRANSIT COMMISSION 4997585 Attn: Supervisor, Accounts Payable
		BOROUGH DR		
		SCARBOROUGH, ONT. 5050	1	TORONTO TRANSIT COMMISSION 2054897 Attn: Supervisor, Accounts Payable
		SHEPPARD AVE		
		TORONTO, ONT. 1138 BATHURST ST	37	TORONTO TRANSIT COMMISSION 4698175 Attn: Supervisor, Accounts Payable
		TORONTO, ONT. 1411 QUEEN ST E	1	TORONTO TRANSIT COMMISSION 2054908 Attn: Supervisor, Accounts Payable
		TORONTO, ONT. 1627 DANFORTH AVE	1	TORONTO TRANSIT COMMISSION 2118882 Attn: Supervisor, Accounts Payable
		TORONTO, ONT. 1900 YONGE ST	38	TORONTO TRANSIT COMMISSION 4698177 Attn: Supervisor, Accounts Payable
		TORONTO, ONT. 20 THE QUEENSWAY	1	TORONTO TRANSIT COMMISSION 2054918 Attn: Supervisor, Accounts Payable
		TORONTO, ONT. 2170 YONGE ST	1	TORONTO TRANSIT COMMISSION 2054910 Attn: Supervisor, Accounts Payable
		TORONTO, ONT. 3038 YONGE ST	8	TORONTO TRANSIT COMMISSION 2054903 Attn: Supervisor, Accounts Payable
		TORONTO, ONT. 100 FRONT ST E	10	TORONTO TRANSIT COMMISSION 2054920

		400 EVANS AVE			Attn: Supervisor, Accounts Payable TORONTO
417.612500	412.612500	TORONTO, ONT. 424 DANFORTH AVE	1		TRANSIT COMMISSION 2054905 Attn: Supervisor, Accounts Payable TORONTO
417.612500	412.612500	TORONTO, ONT. 640 LANSDOWNE AVE	4		TRANSIT COMMISSION 2054912 Attn: Supervisor, Accounts Payable TORONTO
417.612500	412.612500	TORONTO, ONT. 699 DAVENPORT RD	1		TRANSIT COMMISSION 2054916 Attn: Supervisor, Accounts Payable TORONTO
417.612500	412.612500	TORONTO, ONT. METRO AREA (UHF ML)			TRANSIT COMMISSION 2374478 Attn: Supervisor, Accounts Payable TORONTO
417.612500	412.612500	TORONTO, ONT. METRO AREA (UHF PBL)			TRANSIT COMMISSION 2374530 Attn: Supervisor, Accounts Payable TORONTO
417.612500	412.612500	TORONTO, ONT. WILSON & WILSON 7 HTS	7		TRANSIT COMMISSION 2054914 Attn: Supervisor, Accounts Payable TORONTO
417.712500	412.712500	TORONTO, ONT. 1138 BATHURST ST	37		TRANSIT COMMISSION 4698175 Attn: Supervisor, Accounts Payable TORONTO
417.712500	412.712500	TORONTO, ONT. 1900 YONGE ST	37		TRANSIT COMMISSION 4698177 Attn: Supervisor, Accounts Payable TORONTO
417.962500	412.962500	SCARBOROUGH, ONT.			TRANSIT COMMISSION 2225135 Attn: Supervisor, Accounts Payable TORONTO
418.187500	413.187500	SCARBOROUGH, ONT.			TRANSIT COMMISSION 2225135 Attn: Supervisor, Accounts Payable TORONTO
418.627500	414.627500	TORONTO, ONT. 1138 BATHURST ST	37		TRANSIT COMMISSION 4698175 Attn: Supervisor, Accounts Payable TORONTO



419.637500	414.637500	1138 BATHURST ST	37	COMMISSION	4698175
				Attn: Supervisor, Accounts Payable	
419.637500	414.637500	TORONTO, ONT. 1900 YONGE ST	37	TORONTO TRANSIT COMMISSION	4698177
				Attn: Supervisor, Accounts Payable	
422.225000	427.225000	TORONTO ON, ZONE 1 KIPLING	1	TORONTO TRANSIT COMMISSION	5110620
				Attn: Supervisor, Accounts Payable	
422.225000	427.225000	TORONTO ON, ZONE 10 FINCH	1	TORONTO TRANSIT COMMISSION	5110929
				Attn: Supervisor, Accounts Payable	
422.225000	427.225000	TORONTO ON, ZONE 11, YONGE/SHEPPARD	1	TORONTO TRANSIT COMMISSION	5110930
				Attn: Supervisor, Accounts Payable	
422.225000	427.225000	TORONTO ON, ZONE 12 DON MILLS	1	TORONTO TRANSIT COMMISSION	5110931
				Attn: Supervisor, Accounts Payable	
422.225000	427.225000	TORONTO ON, ZONE 2 KEELE	1	TORONTO TRANSIT COMMISSION	5110921
				Attn: Supervisor, Accounts Payable	
422.225000	427.225000	TORONTO ON, ZONE 3 BAY	1	TORONTO TRANSIT COMMISSION	5110922
				Attn: Supervisor, Accounts Payable	
422.225000	427.225000	TORONTO ON, ZONE 4 GREENWOOD	1	TORONTO TRANSIT COMMISSION	5110923
				Attn: Supervisor, Accounts Payable	
422.225000	427.225000	TORONTO ON, ZONE 5 KENNEDY	1	TORONTO TRANSIT COMMISSION	5110924
				Attn: Supervisor, Accounts Payable	
422.225000	427.225000	TORONTO ON, ZONE 6 DOWNSVIEW	1	TORONTO TRANSIT COMMISSION	5110925
				Attn: Supervisor, Accounts Payable	
		TORONTO ON,		TORONTO TRANSIT	

422.225000	427.225000	ZONE 7 ST. CLAIR W.	1	COMMISSION Attn: Supervisor, Accounts Payable TORONTO	5110926
422.225000	427.225000	TORONTO ON, ZONE 8 UNION STATION	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	5110927
422.225000	427.225000	TORONTO ON, ZONE 9 DAVISVILLE	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	5110928
422.325000	427.325000	TORONTO ON, ZONE 1 KIPLING	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	5110620
422.325000	427.325000	TORONTO ON, ZONE 10 FINCH	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	5110929
422.325000	427.325000	TORONTO ON, ZONE 11, YONGE/SHEPPARD	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	5110930
422.325000	427.325000	TORONTO ON, ZONE 12 DON MILLS	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	5110931
422.325000	427.325000	TORONTO ON, ZONE 2 KEELE	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	5110921
422.325000	427.325000	TORONTO ON, ZONE 3 BAY	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	5110922
422.325000	427.325000	TORONTO ON, ZONE 4 GREENWOOD	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	5110923
422.325000	427.325000	TORONTO ON, ZONE 5 KENNEDY	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable -----	5110924

422.325000	427.325000	TORONTO ON, ZONE 6 DOWNSVIEW	1	TORONTO TRANSIT COMMISSION 5110925 Attn: Supervisor, Accounts Payable
422.325000	427.325000	TORONTO ON, ZONE 7 ST. CLAIR W.	1	TORONTO TRANSIT COMMISSION 5110926 Attn: Supervisor, Accounts Payable
422.325000	427.325000	TORONTO ON, ZONE 8 UNION STATION	1	TORONTO TRANSIT COMMISSION 5110927 Attn: Supervisor, Accounts Payable
422.325000	427.325000	TORONTO ON, ZONE 9 DAVISVILLE	1	TORONTO TRANSIT COMMISSION 5110928 Attn: Supervisor, Accounts Payable
422.425000	427.425000	TORONTO ON, ZONE 1 KIPLING	1	TORONTO TRANSIT COMMISSION 5110620 Attn: Supervisor, Accounts Payable
422.425000	427.425000	TORONTO ON, ZONE 10 FINCH	1	TORONTO TRANSIT COMMISSION 5110929 Attn: Supervisor, Accounts Payable
422.425000	427.425000	TORONTO ON, ZONE 11, YONGE/SHEPPARD	1	TORONTO TRANSIT COMMISSION 5110930 Attn: Supervisor, Accounts Payable
422.425000	427.425000	TORONTO ON, ZONE 12 DON MILLS	1	TORONTO TRANSIT COMMISSION 5110931 Attn: Supervisor, Accounts Payable
422.425000	427.425000	TORONTO ON, ZONE 2 KEELE	1	TORONTO TRANSIT COMMISSION 5110921 Attn: Supervisor, Accounts Payable
422.425000	427.425000	TORONTO ON, ZONE 3 BAY	1	TORONTO TRANSIT COMMISSION 5110922 Attn: Supervisor, Accounts Payable
422.425000	427.425000	TORONTO ON, ZONE 4 GREENWOOD	1	TORONTO TRANSIT COMMISSION 5110923 Attn: Supervisor, Accounts Payable

422.425000	427.425000	TORONTO ON, ZONE 5 KENNEDY	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5110924
422.425000	427.425000	TORONTO ON, ZONE 6 DOWNSVIEW	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5110925
422.425000	427.425000	TORONTO ON, ZONE 7 ST. CLAIR W.	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5110926
422.425000	427.425000	TORONTO ON, ZONE 8 UNION STATION	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5110927
422.425000	427.425000	TORONTO ON, ZONE 9 DAVISVILLE	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5110928
422.525000	427.525000	TORONTO ON, ZONE 1 KIPPLING	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5110620
422.525000	427.525000	TORONTO ON, ZONE 10 FINCH	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5110929
422.525000	427.525000	TORONTO ON, ZONE 11, YONGE/SHEPPARD	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5110930
422.525000	427.525000	TORONTO ON, ZONE 12 DON MILLS	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5110931
422.525000	427.525000	TORONTO ON, ZONE 2 KEELE	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5110921
422.525000	427.525000	TORONTO ON, ZONE 3 BAY	1	TORONTO TRANSIT COMMISSION Attn: Supervisor,	5110922

				Accounts Payable
				TORONTO
				TRANSIT
422.525000	427.525000	TORONTO ON, ZONE 4 GREENWOOD	1	COMMISSION 5110923 Attn: Supervisor, Accounts Payable
				TORONTO
				TRANSIT
422.525000	427.525000	TORONTO ON, ZONE 5 KENNEDY	1	COMMISSION 5110924 Attn: Supervisor, Accounts Payable
				TORONTO
				TRANSIT
422.525000	427.525000	TORONTO ON, ZONE 6 DOWNSVIEW	1	COMMISSION 5110925 Attn: Supervisor, Accounts Payable
				TORONTO
				TRANSIT
422.525000	427.525000	TORONTO ON, ZONE 7 ST. CLAIR W.	1	COMMISSION 5110926 Attn: Supervisor, Accounts Payable
				TORONTO
				TRANSIT
422.525000	427.525000	TORONTO ON, ZONE 8 UNION STATION	1	COMMISSION 5110927 Attn: Supervisor, Accounts Payable
				TORONTO
				TRANSIT
422.525000	427.525000	TORONTO ON, ZONE 9 DAVISVILLE	1	COMMISSION 5110928 Attn: Supervisor, Accounts Payable
				TORONTO
				TRANSIT
422.625000	427.625000	TORONTO ON, ZONE 1 KIPLING	1	COMMISSION 5110620 Attn: Supervisor, Accounts Payable
				TORONTO
				TRANSIT
422.625000	427.625000	TORONTO ON, ZONE 10 FINCH	1	COMMISSION 5110929 Attn: Supervisor, Accounts Payable
				TORONTO
				TRANSIT
422.625000	427.625000	TORONTO ON, ZONE 11, YONGE/SHEPPARD	1	COMMISSION 5110930 Attn: Supervisor, Accounts Payable
				TORONTO
				TRANSIT
422.625000	427.625000	TORONTO ON, ZONE 12 DON MILLS	1	COMMISSION 5110931 Attn: Supervisor, Accounts Payable
				TORONTO
				TRANSIT
		TORONTO ON		

422.625000	427.625000	TORONTO ON, ZONE 2 KEELE	1	COMMISSION Attn: Supervisor, Accounts Payable TORONTO TRANSIT	5110921
422.625000	427.625000	TORONTO ON, ZONE 3 BAY	1	COMMISSION Attn: Supervisor, Accounts Payable TORONTO TRANSIT	5110922
422.625000	427.625000	TORONTO ON, ZONE 4 GREENWOOD	1	COMMISSION Attn: Supervisor, Accounts Payable TORONTO TRANSIT	5110923
422.625000	427.625000	TORONTO ON, ZONE 5 KENNEDY	1	COMMISSION Attn: Supervisor, Accounts Payable TORONTO TRANSIT	5110924
422.625000	427.625000	TORONTO ON, ZONE 6 DOWNSVIEW	1	COMMISSION Attn: Supervisor, Accounts Payable TORONTO TRANSIT	5110925
422.625000	427.625000	TORONTO ON, ZONE 7 ST. CLAIR W.	1	COMMISSION Attn: Supervisor, Accounts Payable TORONTO TRANSIT	5110926
422.625000	427.625000	TORONTO ON, ZONE 8 UNION STATION	1	COMMISSION Attn: Supervisor, Accounts Payable TORONTO TRANSIT	5110927
422.625000	427.625000	TORONTO ON, ZONE 9 DAVISVILLE	1	COMMISSION Attn: Supervisor, Accounts Payable TORONTO TRANSIT	5110928
422.662500	427.662500	ZONE 1, KIPLING	1	COMMISSION Attn: Supervisor, Accounts Payable TORONTO TRANSIT	4736867
422.662500	427.662500	ZONE 10, FINCH	1	COMMISSION Attn: Supervisor, Accounts Payable TORONTO TRANSIT	4740842
422.662500	427.662500	ZONE 2, KEELE	1	COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4736869

422.662500	427.662500	ZONE 3, BAY	1	TRANSIT COMMISSION 4736871 Attn: Supervisor, Accounts Payable TORONTO
422.662500	427.662500	ZONE 4, GREENWOOD	1	TRANSIT COMMISSION 4740830 Attn: Supervisor, Accounts Payable TORONTO
422.662500	427.662500	ZONE 5, KENNEDY	1	TRANSIT COMMISSION 4740838 Attn: Supervisor, Accounts Payable TORONTO
422.662500	427.662500	ZONE 6, DOWNSVIEW	1	TRANSIT COMMISSION 4740840 Attn: Supervisor, Accounts Payable TORONTO
422.662500	427.662500	ZONE 7, ST. CLAIR W.	1	TRANSIT COMMISSION 4740832 Attn: Supervisor, Accounts Payable TORONTO
422.662500	427.662500	ZONE 8, UNION STATION	1	TRANSIT COMMISSION 4740834 Attn: Supervisor, Accounts Payable TORONTO
422.662500	427.662500	ZONE 9, DAVISVILLE	1	TRANSIT COMMISSION 4740836 Attn: Supervisor, Accounts Payable TORONTO
422.687500	427.687500	ZONE 1, KIPLING	1	TRANSIT COMMISSION 4736867 Attn: Supervisor, Accounts Payable TORONTO
422.687500	427.687500	ZONE 10, FINCH	1	TRANSIT COMMISSION 4740842 Attn: Supervisor, Accounts Payable TORONTO
422.687500	427.687500	ZONE 2, KEELE	1	TRANSIT COMMISSION 4736869 Attn: Supervisor, Accounts Payable TORONTO
422.687500	427.687500	ZONE 3, BAY	1	TRANSIT COMMISSION 4736871 Attn: Supervisor, Accounts Payable TORONTO

422.687500	427.687500	ZONE 4, GREENWOOD	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4740830
422.687500	427.687500	ZONE 5, KENNEDY	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4740838
422.687500	427.687500	ZONE 6, DOWNSVIEW	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4740840
422.687500	427.687500	ZONE 7, ST. CLAIR W.	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4740832
422.687500	427.687500	ZONE 8, UNION STATION	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4740834
422.687500	427.687500	ZONE 9, DAVISVILLE	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4740836
422.800000	427.800000	ZONE 1, KIPLING	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4736867
422.800000	427.800000	ZONE 10, FINCH	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4740842
422.800000	427.800000	ZONE 2, KEELE	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4736869
422.800000	427.800000	ZONE 3, BAY	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4736871
422.800000	427.800000	ZONE 4, GREENWOOD	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4740830



				TORONTO	
422.800000	427.800000	ZONE 5, KENNEDY	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4740838
422.800000	427.800000	ZONE 6, DOWNSVIEW	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4740840
422.800000	427.800000	ZONE 7, ST. CLAIR W.	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4740832
422.800000	427.800000	ZONE 8, UNION STATION	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4740834
422.800000	427.800000	ZONE 9, DAVISVILLE	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4740836
422.825000	427.825000	ZONE 1, KIPLING	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4736867
422.825000	427.825000	ZONE 2, KEELE	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4736869
422.825000	427.825000	ZONE 3, BAY	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4736871
422.825000	427.825000	ZONE 4, GREENWOOD	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4740830
422.825000	427.825000	ZONE 5, KENNEDY	1	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4740838
423.012500	428.012500	TORONTO, ONT. 301 FRONT ST (CN TWR)	362	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	2054922

423.125000	428.125000	ZONE 10, FINCH	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4740842
423.125000	428.125000	ZONE 6, DOWNSVIEW	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4740840
423.125000	428.125000	ZONE 7, ST. CLAIR W.	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4740832
423.125000	428.125000	ZONE 8, UNION STATION	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4740834
423.125000	428.125000	ZONE 9, DAVISVILLE	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4740836
423.175000	428.175000	ZONE 1, KIPLING	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4736867
423.175000	428.175000	ZONE 10, FINCH	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4740842
423.175000	428.175000	ZONE 2, KEELE	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4736869
423.175000	428.175000	ZONE 3, BAY	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4736871
423.175000	428.175000	ZONE 4, GREENWOOD	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4740830
423.175000	428.175000	ZONE 5, KENNEDY	1	TORONTO TRANSIT COMMISSION Attn: Supervisor	4740838

				Attn: Supervisor, Accounts Payable TORONTO
423.175000	428.175000	ZONE 6, DOWNSVIEW	1	TRANSIT COMMISSION 4740840 Attn: Supervisor, Accounts Payable TORONTO
423.175000	428.175000	ZONE 7, ST. CLAIR W.	1	TRANSIT COMMISSION 4740832 Attn: Supervisor, Accounts Payable TORONTO
423.175000	428.175000	ZONE 8, UNION STATION	1	TRANSIT COMMISSION 4740834 Attn: Supervisor, Accounts Payable TORONTO
423.175000	428.175000	ZONE 9, DAVISVILLE	1	TRANSIT COMMISSION 4740836 Attn: Supervisor, Accounts Payable TORONTO
423.200000	428.200000	ZONE 1, KIPLING	1	TRANSIT COMMISSION 4736867 Attn: Supervisor, Accounts Payable TORONTO
423.200000	428.200000	ZONE 10, FINCH	1	TRANSIT COMMISSION 4740842 Attn: Supervisor, Accounts Payable TORONTO
423.200000	428.200000	ZONE 2, KEELE	1	TRANSIT COMMISSION 4736869 Attn: Supervisor, Accounts Payable TORONTO
423.200000	428.200000	ZONE 3, BAY	1	TRANSIT COMMISSION 4736871 Attn: Supervisor, Accounts Payable TORONTO
423.200000	428.200000	ZONE 4, GREENWOOD	1	TRANSIT COMMISSION 4740830 Attn: Supervisor, Accounts Payable TORONTO
423.200000	428.200000	ZONE 5, KENNEDY	1	TRANSIT COMMISSION 4740838 Attn: Supervisor, Accounts Payable TORONTO
423.200000	428.200000	ZONE 6,	1	TRANSIT COMMISSION 4740840 Attn: Supervisor, Accounts Payable TORONTO

423.200000	428.200000	DOWNSVIEW	1	COMMISSION	4740840
				Attn: Supervisor, Accounts Payable	
423.200000	428.200000	ZONE 7, ST. CLAIR W.	1	TORONTO TRANSIT COMMISSION	4740832
				Attn: Supervisor, Accounts Payable	
423.200000	428.200000	ZONE 8, UNION STATION	1	TORONTO TRANSIT COMMISSION	4740834
				Attn: Supervisor, Accounts Payable	
423.200000	428.200000	ZONE 9, DAVISVILLE	1	TORONTO TRANSIT COMMISSION	4740836
				Attn: Supervisor, Accounts Payable	
423.237500	423.237500	TORONTO, ONT. 1900 YONGE ST	31	TORONTO TRANSIT COMMISSION	2366955
				Attn: Supervisor, Accounts Payable	
423.250000	428.250000	TORONTO, ONT. 700 ARROW RD	23	TORONTO TRANSIT COMMISSION	2366943
				Attn: Supervisor, Accounts Payable	
423.262500	423.262500	TORONTO, ONT. 1900 YONGE ST	31	TORONTO TRANSIT COMMISSION	2366955
				Attn: Supervisor, Accounts Payable	
423.275000	428.275000	TORONTO, ONT. 700 ARROW RD	23	TORONTO TRANSIT COMMISSION	2366943
				Attn: Supervisor, Accounts Payable	
423.287500	428.287500	NORTH YORK, ONT. 1138 BATHURST ST	50	TORONTO TRANSIT COMMISSION	2366941
				Attn: Supervisor, Accounts Payable	
423.287500	428.287500	TORONTO, ONT. YORK MILLS & YONGE ST	2	TORONTO TRANSIT COMMISSION	3638106
				Attn: Supervisor, Accounts Payable	
423.300000	428.300000	TORONTO, ONT. 434 DANFORTH RD	50	TORONTO TRANSIT COMMISSION	2366947
				Attn: Supervisor, Accounts Payable	
				TORONTO	

		NORTH YORK, ONT.		TRANSIT	
423.312500	428.312500	1138 BATHURST ST	50	COMMISSION	2366941
				Attn: Supervisor, Accounts Payable TORONTO	
423.312500	428.312500	TORONTO, ONT. YORK MILLS & YONGE ST	2	TRANSIT COMMISSION	3638106
				Attn: Supervisor, Accounts Payable TORONTO	
423.325000	428.325000	TORONTO, ONT. 434 DANFORTH RD	50	TRANSIT COMMISSION	2366947
				Attn: Supervisor, Accounts Payable TORONTO	
423.337500	428.337500	TORONTO, ONT. 570 WILSON AVE	27	TRANSIT COMMISSION	2366937
				Attn: Supervisor, Accounts Payable TORONTO	
423.350000	428.350000	TORONTO, ONT. 400 GREENWOOD AVE	31	TRANSIT COMMISSION	2366953
				Attn: Supervisor, Accounts Payable TORONTO	
423.362500	428.362500	TORONTO, ONT. 570 WILSON AVE	27	TRANSIT COMMISSION	2366937
				Attn: Supervisor, Accounts Payable TORONTO	
423.375000	428.375000	TORONTO, ONT. 400 GREENWOOD AVE	31	TRANSIT COMMISSION	2366953
				Attn: Supervisor, Accounts Payable TORONTO	
423.387500	428.387500	ETOBICOKE, ONT. 3300 BLOOR ST W	85	TRANSIT COMMISSION	2366945
				Attn: Supervisor, Accounts Payable TORONTO	
423.387500	428.387500	TORONTO, ONT. YONGE & LAWRENCE	1	TRANSIT COMMISSION	3641384
				Attn: Supervisor, Accounts Payable TORONTO	
423.400000	428.400000	SCARBOROUGH, ONT. 3050 PHARMACY AVE	73	TRANSIT COMMISSION	2366951
				Attn: Supervisor, Accounts Payable TORONTO	
423.412500	428.412500	ETOBICOKE, ONT. 3300 BLOOR ST W	85	TRANSIT COMMISSION	2366945
				Attn: Supervisor, Accounts Payable	

423.425000	428.425000	SCARBOROUGH, ONT. 3050 PHARMACY AVE	73	TORONTO TRANSIT COMMISSION	2366951
				Attn: Supervisor, Accounts Payable	
423.437500	428.437500	NORTH YORK, ONT. 1138 BATHURST ST	50	TORONTO TRANSIT COMMISSION	2366941
				Attn: Supervisor, Accounts Payable	
423.450000	423.450000	TORONTO, ONT. 24 HENDON AVE	27	TORONTO TRANSIT COMMISSION	2366939
				Attn: Supervisor, Accounts Payable	
423.462500	428.462500	NORTH YORK, ONT. 1138 BATHURST ST	50	TORONTO TRANSIT COMMISSION	2366941
				Attn: Supervisor, Accounts Payable	
423.475000	428.475000	TORONTO, ONT. 24 HENDON AVE	27	TORONTO TRANSIT COMMISSION	2366939
				Attn: Supervisor, Accounts Payable	
423.487500	428.487500	TORONTO, ONT. 301 FRONT ST (CN TWR)	362	TORONTO TRANSIT COMMISSION	2054922
				Attn: Supervisor, Accounts Payable	
423.500000	428.500000	SCARBOROUGH, ONT. 5110 SHEPPARD AVE	31	TORONTO TRANSIT COMMISSION	2366949
				Attn: Supervisor, Accounts Payable	
423.500000	428.500000	TORONTO, ONT. BAY & LAKESHORE BLVD	1	TORONTO TRANSIT COMMISSION	3522086
				Attn: Supervisor, Accounts Payable	
423.500000	428.500000	TORONTO, ONT. BLOOR ST W & SPADINA	1	TORONTO TRANSIT COMMISSION	4815567
				Attn: Supervisor, Accounts Payable	
423.512500	428.512500	TORONTO, ONT. 1900 YONGE ST	31	TORONTO TRANSIT COMMISSION	2366955
				Attn: Supervisor, Accounts Payable	
423.525000	428.525000	TORONTO, ONT. 700 ARROW RD	23	TORONTO TRANSIT COMMISSION	2366943
				Attn: Supervisor, Accounts Payable	

				Accounts Payable	
423.537500	428.537500	NORTH YORK, ONT. 1138 BATHURST ST	50	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	2366941
423.550000	428.550000	TORONTO, ONT. 1900 YONGE ST	31	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	2366955
423.562500	428.562500	TORONTO, ONT. 700 ARROW RD	23	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	2366943
423.575000	428.575000	NORTH YORK, ONT. 1138 BATHURST ST	50	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	2366941
423.587500	428.587500	TORONTO, ONT. 434 DANFORTH RD	31	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	2366947
423.587500	428.587500	TORONTO, ONT. YONGE & ST CLAIR W	1	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	3641386
423.600000	428.600000	TORONTO, ONT. 570 WILSON AVE	27	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	2366937
423.612500	428.612500	TORONTO, ONT. 400 GREENWOOD AVE	31	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	2366953
423.625000	428.625000	ETOBICOKE, ONT. 3300 BLOOR ST W	85	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	2366945
423.625000	428.625000	SCARBOROUGH, ONT. 5110 SHEPPARD AVE	31	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	2366949
423.637500	428.637500	TORONTO, ONT. 570 WILSON AVE	27	TORONTO TRANSIT COMMISSION Attn: Supervisor	2366937

				Attn: Supervisor, Accounts Payable
423.650000	428.650000	TORONTO, ONT. 400 GREENWOOD AVE	31	TORONTO TRANSIT COMMISSION 2366953 Attn: Supervisor, Accounts Payable
423.662500	428.662500	ETOBICOKE, ONT. 3300 BLOOR ST W	85	TORONTO TRANSIT COMMISSION 2366945 Attn: Supervisor, Accounts Payable
423.662500	428.662500	TORONTO, ONT. YONGE & LAWRENCE	1	TORONTO TRANSIT COMMISSION 3641384 Attn: Supervisor, Accounts Payable
423.675000	428.675000	SCARBOROUGH, ONT. 3050 PHARMACY AVE	31	TORONTO TRANSIT COMMISSION 2366951 Attn: Supervisor, Accounts Payable
423.687500	428.687500	NORTH YORK, ONT. 1138 BATHURST ST	50	TORONTO TRANSIT COMMISSION 2366941 Attn: Supervisor, Accounts Payable
423.700000	428.700000	TORONTO, ONT. 301 FRONT ST (CN TWR)	362	TORONTO TRANSIT COMMISSION 2054922 Attn: Supervisor, Accounts Payable
423.712500	428.712500	SCARBOROUGH, ONT. 3050 PHARMACY AVE	31	TORONTO TRANSIT COMMISSION 2366951 Attn: Supervisor, Accounts Payable
423.725000	428.725000	NORTH YORK, ONT. 1138 BATHURST ST	50	TORONTO TRANSIT COMMISSION 2366941 Attn: Supervisor, Accounts Payable
423.737500	428.737500	SCARBOROUGH, ONT. 5110 SHEPPARD AVE	31	TORONTO TRANSIT COMMISSION 2366949 Attn: Supervisor, Accounts Payable
423.737500	428.737500	TORONTO, ONT. BAY & LAKESHORE BLVD	1	TORONTO TRANSIT COMMISSION 3522086 Attn: Supervisor, Accounts Payable
423.737500	428.737500	TORONTO, ONT. BLOOR ST W &	1	TORONTO TRANSIT COMMISSION 4815567



		SPADINA		Attn: Supervisor,
				Accounts Payable
			TORONTO	
423.750000	428.750000	TORONTO, ONT. 24 HENDON AVE	27	TRANSIT COMMISSION 2366939 Attn: Supervisor, Accounts Payable
				TORONTO
423.762500	428.762500	TORONTO, ONT. 434 DANFORTH RD	50	TRANSIT COMMISSION 2366947 Attn: Supervisor, Accounts Payable
				TORONTO
423.762500	428.762500	TORONTO, ONT. YONGE & ST CLAIR 1 W	1	TRANSIT COMMISSION 3641386 Attn: Supervisor, Accounts Payable
				TORONTO
426.937500	421.937500	TORONTO, ONT. 1138 BATHURST ST	37	TRANSIT COMMISSION 4698175 Attn: Supervisor, Accounts Payable
				TORONTO
426.937500	421.937500	TORONTO, ONT. 1900 YONGE ST	38	TRANSIT COMMISSION 4698177 Attn: Supervisor, Accounts Payable
				TORONTO
427.087500	422.087500	TORONTO, ONT. 1138 BATHURST ST	37	TRANSIT COMMISSION 4698175 Attn: Supervisor, Accounts Payable
				TORONTO
427.087500	422.087500	TORONTO, ONT. 1900 YONGE ST	38	TRANSIT COMMISSION 4698177 Attn: Supervisor, Accounts Payable
				TORONTO
427.225000	422.225000	TORONTO ON, SUBWAY LINE		TRANSIT COMMISSION 5110932 Attn: Supervisor, Accounts Payable
				TORONTO
427.325000	422.325000	TORONTO ON, SUBWAY LINE		TRANSIT COMMISSION 5110932 Attn: Supervisor, Accounts Payable
				TORONTO
427.425000	422.425000	TORONTO ON, SUBWAY LINE		TRANSIT COMMISSION 5110932 Attn: Supervisor, Accounts Payable
				TORONTO
427.525000	422.525000	TORONTO ON,		TRANSIT COMMISSION 5110932

427.625000	422.625000	SUBWAY LINE	COMMISSION	5110932
			Attn: Supervisor,	
			Accounts Payable	
			TORONTO	
427.625000	422.625000	TORONTO ON, SUBWAY LINE	TRANSIT COMMISSION	5110932
			Attn: Supervisor,	
			Accounts Payable	
			TORONTO	
427.662500	422.662500	TORONTO, ONT. SUBWAY LINE	TRANSIT COMMISSION	4735838
			Attn: Supervisor,	
			Accounts Payable	
			TORONTO	
427.687500	422.687500	TORONTO, ONT. SUBWAY LINE	TRANSIT COMMISSION	4735838
			Attn: Supervisor,	
			Accounts Payable	
			TORONTO	
427.800000	422.800000	TORONTO, ONT. SUBWAY LINE	TRANSIT COMMISSION	4735838
			Attn: Supervisor,	
			Accounts Payable	
			TORONTO	
427.825000	422.825000	TORONTO, ONT. SUBWAY LINE	TRANSIT COMMISSION	4735838
			Attn: Supervisor,	
			Accounts Payable	
			TORONTO	
428.100000	423.100000	TORONTO, ONT. METRO AREA	TRANSIT COMMISSION	2366957
			Attn: Supervisor,	
			Accounts Payable	
			TORONTO	
428.125000	423.125000	TORONTO, ONT. SUBWAY LINE	TRANSIT COMMISSION	4735838
			Attn: Supervisor,	
			Accounts Payable	
			TORONTO	
428.175000	423.175000	TORONTO, ONT. SUBWAY LINE	TRANSIT COMMISSION	4735838
			Attn: Supervisor,	
			Accounts Payable	
			TORONTO	
428.200000	423.200000	TORONTO, ONT. SUBWAY LINE	TRANSIT COMMISSION	4735838
			Attn: Supervisor,	
			Accounts Payable	
			TORONTO	
428.237500	423.237500	TORONTO, ON 1461 BATHURST STREET	TRANSIT COMMISSION	5042389
			Attn: Supervisor,	
			Accounts Payable	
			TORONTO	
		TORONTO ON	TRANSIT	

428.237500	423.237500	TORONTO, ON 3050 YONGE STREET	3	TORONTO TRANSIT COMMISSION	5042385
				Attn: Supervisor, Accounts Payable	
428.237500	423.237500	TORONTO, ON 371 BLOOR STREET WEST	6	TORONTO TRANSIT COMMISSION	5042391
				Attn: Supervisor, Accounts Payable	
428.237500	423.237500	TORONTO, ON 4020 YONGE STREET	6	TORONTO TRANSIT COMMISSION	5042387
				Attn: Supervisor, Accounts Payable	
428.250000	423.250000	TORONTO, ON 4020 YONGE STREET	6	TORONTO TRANSIT COMMISSION	5042387
				Attn: Supervisor, Accounts Payable	
428.262500	423.262500	TORONTO, ON 1461 BATHURST STREET	6	TORONTO TRANSIT COMMISSION	5042389
				Attn: Supervisor, Accounts Payable	
428.262500	423.262500	TORONTO, ON 3050 YONGE STREET	3	TORONTO TRANSIT COMMISSION	5042385
				Attn: Supervisor, Accounts Payable	
428.262500	423.262500	TORONTO, ON 371 BLOOR STREET WEST	6	TORONTO TRANSIT COMMISSION	5042391
				Attn: Supervisor, Accounts Payable	
428.262500	423.262500	TORONTO, ON 4020 YONGE STREET	6	TORONTO TRANSIT COMMISSION	5042387
				Attn: Supervisor, Accounts Payable	
428.275000	423.275000	TORONTO, ON 4020 YONGE STREET	6	TORONTO TRANSIT COMMISSION	5042387
				Attn: Supervisor, Accounts Payable	
428.287500	423.287500	TORONTO, ON 1461 BATHURST STREET	6	TORONTO TRANSIT COMMISSION	5042389
				Attn: Supervisor, Accounts Payable	
428.287500	423.287500	TORONTO, ON 371 BLOOR STREET WEST	6	TORONTO TRANSIT COMMISSION	5042391
				Attn: Supervisor, Accounts Payable	

428.287500	423.287500	TORONTO, ON 48 FRONT STREET	4	TORONTO TRANSIT COMMISSION 5042393 Attn: Supervisor, Accounts Payable
428.312500	423.312500	TORONTO, ON 1461 BATHURST STREET	6	TORONTO TRANSIT COMMISSION 5042389 Attn: Supervisor, Accounts Payable
428.312500	423.312500	TORONTO, ON 371 BLOOR STREET WEST	6	TORONTO TRANSIT COMMISSION 5042391 Attn: Supervisor, Accounts Payable
428.312500	423.312500	TORONTO, ON 48 FRONT STREET	4	TORONTO TRANSIT COMMISSION 5042393 Attn: Supervisor, Accounts Payable
428.337500	423.337500	TORONTO, ON 3050 YONGE STREET	3	TORONTO TRANSIT COMMISSION 5042385 Attn: Supervisor, Accounts Payable
428.337500	423.337500	TORONTO, ON 4020 YONGE STREET	6	TORONTO TRANSIT COMMISSION 5042387 Attn: Supervisor, Accounts Payable
428.350000	423.350000	TORONTO, ON 1461 BATHURST STREET	6	TORONTO TRANSIT COMMISSION 5042389 Attn: Supervisor, Accounts Payable
428.350000	423.350000	TORONTO, ON 3050 YONGE STREET	3	TORONTO TRANSIT COMMISSION 5042385 Attn: Supervisor, Accounts Payable
428.350000	423.350000	TORONTO, ON 48 FRONT STREET	4	TORONTO TRANSIT COMMISSION 5042393 Attn: Supervisor, Accounts Payable
428.362500	423.362500	TORONTO, ON 3050 YONGE STREET	3	TORONTO TRANSIT COMMISSION 5042385 Attn: Supervisor, Accounts Payable
428.362500	423.362500	TORONTO, ON 4020 YONGE STREET	6	TORONTO TRANSIT COMMISSION 5042387 Attn: Supervisor, Accounts Payable

				TORONTO	
428.375000	423.375000	TORONTO, ON 1461 BATHURST STREET	6	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5042389
428.375000	423.375000	TORONTO, ON 3050 YONGE STREET	3	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5042385
428.375000	423.375000	TORONTO, ON 48 FRONT STREET	4	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5042393
428.387500	423.387500	TORONTO, ON 371 BLOOR STREET WEST	6	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5042391
428.387500	423.387500	TORONTO, ON 48 FRONT STREET	4	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5042393
428.400000	423.400000	NORTH YORK, ONT. 1700 SHEPPARD AV 14 E		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4942749
428.412500	423.412500	TORONTO, ON 371 BLOOR STREET WEST	6	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5042391
428.412500	423.412500	TORONTO, ON 48 FRONT STREET	4	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5042393
428.425000	423.425000	NORTH YORK, ONT. 1700 SHEPPARD AV 14 E		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4942749
428.437500	423.437500	TORONTO, ON 1461 BATHURST STREET	6	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5042389
428.437500	423.437500	TORONTO, ON 371 BLOOR STREET WEST	6	TORONTO TRANSIT COMMISSION Attn: Supervisor	5042391

		WEST		Attn: Supervisor, Accounts Payable
428.437500	423.437500	TORONTO, ON 48 FRONT STREET	4	TORONTO TRANSIT COMMISSION 5042393 Attn: Supervisor, Accounts Payable
428.462500	423.462500	TORONTO, ON 1461 BATHURST STREET	6	TORONTO TRANSIT COMMISSION 5042389 Attn: Supervisor, Accounts Payable
428.462500	423.462500	TORONTO, ON 371 BLOOR STREET WEST	6	TORONTO TRANSIT COMMISSION 5042391 Attn: Supervisor, Accounts Payable
428.462500	423.462500	TORONTO, ON 48 FRONT STREET	4	TORONTO TRANSIT COMMISSION 5042393 Attn: Supervisor, Accounts Payable
428.487500	423.487500	TORONTO, ONT. METRO AREA		TORONTO TRANSIT COMMISSION 2366957 Attn: Supervisor, Accounts Payable
428.512500	423.512500	TORONTO, ON 1461 BATHURST STREET	6	TORONTO TRANSIT COMMISSION 5042389 Attn: Supervisor, Accounts Payable
428.512500	423.512500	TORONTO, ON 3050 YONGE STREET	3	TORONTO TRANSIT COMMISSION 5042385 Attn: Supervisor, Accounts Payable
428.512500	423.512500	TORONTO, ON 371 BLOOR STREET WEST	6	TORONTO TRANSIT COMMISSION 5042391 Attn: Supervisor, Accounts Payable
428.512500	423.512500	TORONTO, ON 4020 YONGE STREET	6	TORONTO TRANSIT COMMISSION 5042387 Attn: Supervisor, Accounts Payable
428.525000	423.525000	TORONTO, ON 4020 YONGE STREET	6	TORONTO TRANSIT COMMISSION 5042387 Attn: Supervisor, Accounts Payable
428.537500	423.537500	TORONTO, ON 1461 BATHURST	6	TORONTO TRANSIT COMMISSION 5042389

		STREET		Attn: Supervisor,
				Accounts Payable
		TORONTO, ON 371		TORONTO
428.537500	423.537500	BLOOR STREET 6		TRANSIT
		WEST		COMMISSION 5042391
				Attn: Supervisor,
				Accounts Payable
				TORONTO
		TORONTO, ON 48		TRANSIT
428.537500	423.537500	FRONT STREET 4		COMMISSION 5042393
				Attn: Supervisor,
				Accounts Payable
				TORONTO
		TORONTO, ON		TRANSIT
428.550000	423.550000	1461 BATHURST 6		COMMISSION 5042389
		STREET		Attn: Supervisor,
				Accounts Payable
				TORONTO
		TORONTO, ON		TRANSIT
428.550000	423.550000	3050 YONGE 3		COMMISSION 5042385
		STREET		Attn: Supervisor,
				Accounts Payable
				TORONTO
		TORONTO, ON 371		TRANSIT
428.550000	423.550000	BLOOR STREET 6		COMMISSION 5042391
		WEST		Attn: Supervisor,
				Accounts Payable
				TORONTO
		TORONTO, ON		TRANSIT
428.550000	423.550000	4020 YONGE 6		COMMISSION 5042387
		STREET		Attn: Supervisor,
				Accounts Payable
				TORONTO
		TORONTO, ON		TRANSIT
428.562500	423.562500	4020 YONGE 6		COMMISSION 5042387
		STREET		Attn: Supervisor,
				Accounts Payable
				TORONTO
		TORONTO, ON		TRANSIT
428.575000	423.575000	1461 BATHURST 6		COMMISSION 5042389
		STREET		Attn: Supervisor,
				Accounts Payable
				TORONTO
		TORONTO, ON 371		TRANSIT
428.575000	423.575000	BLOOR STREET 6		COMMISSION 5042391
		WEST		Attn: Supervisor,
				Accounts Payable
				TORONTO
		TORONTO, ON 48		TRANSIT
428.575000	423.575000	FRONT STREET 4		COMMISSION 5042393
				Attn: Supervisor,
				Accounts Payable
				TORONTO
		TORONTO, ON		TRANSIT

428.600000	423.600000	TORONTO, ON 3050 YONGE STREET	3	TRANSIT COMMISSION	5042385
				Attn: Supervisor, Accounts Payable TORONTO	
428.600000	423.600000	TORONTO, ON 4020 YONGE STREET	6	TRANSIT COMMISSION	5042387
				Attn: Supervisor, Accounts Payable TORONTO	
428.612500	423.612500	TORONTO, ON 1461 BATHURST STREET	6	TRANSIT COMMISSION	5042389
				Attn: Supervisor, Accounts Payable TORONTO	
428.612500	423.612500	TORONTO, ON 3050 YONGE STREET	3	TRANSIT COMMISSION	5042385
				Attn: Supervisor, Accounts Payable TORONTO	
428.612500	423.612500	TORONTO, ON 48 FRONT STREET	4	TRANSIT COMMISSION	5042393
				Attn: Supervisor, Accounts Payable TORONTO	
428.625000	423.625000	TORONTO, ON 371 BLOOR STREET WEST	6	TRANSIT COMMISSION	5042391
				Attn: Supervisor, Accounts Payable TORONTO	
428.625000	423.625000	TORONTO, ON 48 FRONT STREET	4	TRANSIT COMMISSION	5042393
				Attn: Supervisor, Accounts Payable TORONTO	
428.637500	423.637500	TORONTO, ON 3050 YONGE STREET	3	TRANSIT COMMISSION	5042385
				Attn: Supervisor, Accounts Payable TORONTO	
428.637500	423.637500	TORONTO, ON 4020 YONGE STREET	6	TRANSIT COMMISSION	5042387
				Attn: Supervisor, Accounts Payable TORONTO	
428.650000	423.650000	TORONTO, ON 1461 BATHURST STREET	6	TRANSIT COMMISSION	5042389
				Attn: Supervisor, Accounts Payable TORONTO	
428.650000	423.650000	TORONTO, ON 3050 YONGE STREET	3	TRANSIT COMMISSION	5042385
				Attn: Supervisor, Accounts Payable TORONTO	



428.650000	423.650000	TORONTO, ON 48 FRONT STREET	4	TRANSIT COMMISSION	5042393	Attn: Supervisor, Accounts Payable TORONTO
428.662500	423.662500	TORONTO, ON 371 BLOOR STREET WEST	6	TRANSIT COMMISSION	5042391	Attn: Supervisor, Accounts Payable TORONTO
428.662500	423.662500	TORONTO, ON 48 FRONT STREET	4	TRANSIT COMMISSION	5042393	Attn: Supervisor, Accounts Payable TORONTO
428.675000	423.675000	NORTH YORK, ONT. 1700 SHEPPARD AV 14 E	14	TRANSIT COMMISSION	4942749	Attn: Supervisor, Accounts Payable TORONTO
428.687500	423.687500	TORONTO, ON 1461 BATHURST STREET	6	TRANSIT COMMISSION	5042389	Attn: Supervisor, Accounts Payable TORONTO
428.687500	423.687500	TORONTO, ON 371 BLOOR STREET WEST	6	TRANSIT COMMISSION	5042391	Attn: Supervisor, Accounts Payable TORONTO
428.687500	423.687500	TORONTO, ON 48 FRONT STREET	4	TRANSIT COMMISSION	5042393	Attn: Supervisor, Accounts Payable TORONTO
428.712500	423.712500	NORTH YORK, ONT. 1700 SHEPPARD AV 14 E	14	TRANSIT COMMISSION	4942749	Attn: Supervisor, Accounts Payable TORONTO
428.725000	423.725000	TORONTO, ON 1461 BATHURST STREET	6	TRANSIT COMMISSION	5042389	Attn: Supervisor, Accounts Payable TORONTO
428.725000	423.725000	TORONTO, ON 371 BLOOR STREET WEST	6	TRANSIT COMMISSION	5042391	Attn: Supervisor, Accounts Payable TORONTO
428.725000	423.725000	TORONTO, ON 48 FRONT STREET	4	TRANSIT COMMISSION	5042393	Attn: Supervisor, Accounts Payable TORONTO

		TORONTO, ONT.		TORONTO TRANSIT	
469.262500	469.262500	ENG & MAINT DEPT		COMMISSION Attn: Supervisor, Accounts Payable	4022230
		TORONTO, ONT.		TORONTO TRANSIT	
815.162500	860.162500	1138 BATHURST ST	47	COMMISSION Attn: Supervisor, Accounts Payable	4698175
		TORONTO, ONT.		TORONTO TRANSIT	
815.162500	860.162500	1900 YONGE ST	39	COMMISSION Attn: Supervisor, Accounts Payable	4698177
		TORONTO, ONT.		TORONTO TRANSIT	
815.187500	860.187500	1138 BATHURST ST	47	COMMISSION Attn: Supervisor, Accounts Payable	4698175
		TORONTO, ONT.		TORONTO TRANSIT	
815.187500	860.187500	1900 YONGE ST	39	COMMISSION Attn: Supervisor, Accounts Payable	4698177
		TORONTO, ONT.		TORONTO TRANSIT	
816.437500	861.437500	1138 BATHURST ST	47	COMMISSION Attn: Supervisor, Accounts Payable	4698175
		TORONTO, ONT.		TORONTO TRANSIT	
816.437500	861.437500	1900 YONGE ST	39	COMMISSION Attn: Supervisor, Accounts Payable	4698177
		TORONTO, ONT.		TORONTO TRANSIT	
816.487500	861.487500	1138 BATHURST ST	47	COMMISSION Attn: Supervisor, Accounts Payable	4698175
		TORONTO, ONT.		TORONTO TRANSIT	
816.487500	861.487500	1900 YONGE ST	39	COMMISSION Attn: Supervisor, Accounts Payable	4698177
		TORONTO, ONT.		TORONTO TRANSIT	
816.662500	861.662500	1138 BATHURST ST	47	COMMISSION Attn: Supervisor, Accounts Payable	4698175
		TORONTO, ONT.		TORONTO TRANSIT	
816.662500	861.662500	1900 YONGE ST	39	COMMISSION Attn: Supervisor,	4698177

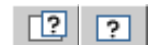
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816.687500	861.687500	TORONTO, ONT. 1900 YONGE ST	39	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4698177
816.937500	861.937500	TORONTO, ONT. 1138 BATHURST ST	47	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4698175
816.937500	861.937500	TORONTO, ONT. 1900 YONGE ST	39	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4698177
821.237500	866.237500	TORONTO, ONT. 1138 BATHURST ST	47	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4698175
821.237500	866.237500	TORONTO, ONT. 1900 YONGE ST	39	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4698177
821.262500	866.262500	TORONTO, ONT. 1138 BATHURST ST	47	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4698175
821.262500	866.262500	TORONTO, ONT. 1900 YONGE ST	39	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4698177
822.237500	867.237500	TORONTO, ONT. 1138 BATHURST ST	47	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4698175
822.237500	867.237500	TORONTO, ONT. 1900 YONGE ST	34	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4698177
822.612500	867.612500	TORONTO, ONT. 1138 BATHURST ST	47	TRANSIT COMMISSION Attn: Supervisor, Accounts Payable TORONTO	4698175

		ST		Attn: Supervisor, Accounts Payable	
822.612500	867.612500	TORONTO, ONT. 1900 YONGE ST	39	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4698177
822.987500	867.987500	TORONTO, ONT. 1138 BATHURST ST	47	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4698175
822.987500	867.987500	TORONTO, ONT. 1900 YONGE ST	39	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4698177
823.087500	868.087500	TORONTO, ONT. 1138 BATHURST ST	47	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4698175
823.087500	868.087500	TORONTO, ONT. 1900 YONGE ST	39	TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	4698177
911.500000	911.500000	TORONTO, ONT. SUBWAY & SRT (RADAR)		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5019623
	72.260000	TORONTO ON 400 GREENWOOD AVE.		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5026714
	72.360000	TORONTO ON - 160 TRANSIT ROAD		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	5040128
	417.037500	ETOBICOKE, ONT. 3300 BLOOR ST W		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	2054901
	417.037500	SCARBOROUGH, ONT. 5050 SHEPPARD AVE		TORONTO TRANSIT COMMISSION Attn: Supervisor, Accounts Payable	2054897
	417.037500	TORONTO, ONT.		TORONTO TRANSIT COMMISSION	2054897

417.037500	1900 YONGE ST	COMMISSION	2054899
		Attn: Supervisor, Accounts Payable	
		TORONTO	
417.062500	ETOBICOKE, ONT. 3300 BLOOR ST W	TRANSIT COMMISSION	2054901
		Attn: Supervisor, Accounts Payable	
		TORONTO	
417.062500	SCARBOROUGH, ONT. 5050 SHEPPARD AVE	TRANSIT COMMISSION	2054897
		Attn: Supervisor, Accounts Payable	
		TORONTO	
417.062500	TORONTO, ONT. 1900 YONGE ST	TRANSIT COMMISSION	2054899
		Attn: Supervisor, Accounts Payable	
		TORONTO	
417.112500	ETOBICOKE, ONT. 3300 BLOOR ST W	TRANSIT COMMISSION	2054901
		Attn: Supervisor, Accounts Payable	
		TORONTO	
417.112500	SCARBOROUGH, ONT. 5050 SHEPPARD AVE	TRANSIT COMMISSION	2054897
		Attn: Supervisor, Accounts Payable	
		TORONTO	
417.112500	TORONTO, ONT. 1900 YONGE ST	TRANSIT COMMISSION	2054899
		Attn: Supervisor, Accounts Payable	
		TORONTO	
417.587500	ETOBICOKE, ONT. 3300 BLOOR ST W	TRANSIT COMMISSION	2054901
		Attn: Supervisor, Accounts Payable	
		TORONTO	
417.587500	SCARBOROUGH, ONT. 5050 SHEPPARD AVE	TRANSIT COMMISSION	2054897
		Attn: Supervisor, Accounts Payable	
		TORONTO	
417.587500	TORONTO, ONT. 1900 YONGE ST	TRANSIT COMMISSION	2054899
		Attn: Supervisor, Accounts Payable	
		TORONTO	
417.612500	ETOBICOKE, ONT. 3300 BLOOR ST W	TRANSIT COMMISSION	2054901
		Attn: Supervisor, Accounts Payable	
		TORONTO	
	SCARBOROUGH	TRANSIT	

417.612500	SCARBOROUGH, ONT. 5050 SHEPPARD AVE	TRANSIT COMMISSION 2054897 Attn: Supervisor, Accounts Payable TORONTO TRANSIT COMMISSION 2054899 Attn: Supervisor, Accounts Payable TORONTO TRANSIT COMMISSION 2366957 Attn: Supervisor, Accounts Payable
417.612500	TORONTO, ONT. 1900 YONGE ST	
10050.000000	TORONTO, ONT. METRO AREA	

Search Criteria



Search Criteria

Licensee Name:

TORONTO TRANSIT COMMISSION Attn: Supervisor, Accou

Output Format:

- ☒ HTML with selected fields (for viewing online)
- ☐ ASCII with selected fields only (for downloading)
- ☐ ASCII with all fields (for downloading), including:

None 

- ☐ [XML](#) with all fields (for downloading), including:

None 

Find

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Date Modified: 2011-07-25

		AV (MCS)		SYSTEM LTD.	
		TORONTO, ONT.		YORK - Paul Kalra	
932.243750	941.243750	15 ROTHERHAM	20	TORONTO HYDRO	
		AV (MCS)		ELECTRIC	4705470
				SYSTEM LTD.	
				YORK - Paul Kalra	
		TORONTO, ONT.		TORONTO HYDRO	
932.243750	941.243750	15 ROTHERHAM	20	ELECTRIC	4705470
		AV (MCS)		SYSTEM LTD.	
				YORK - Paul Kalra	
		TORONTO, ONT.		TORONTO HYDRO	
932.243750	941.243750	15 ROTHERHAM	20	ELECTRIC	4705470
		AV (MCS)		SYSTEM LTD.	
				YORK - Paul Kalra	
		TORONTO, ONT.		TORONTO HYDRO	
932.243750	941.243750	15 ROTHERHAM	20	ELECTRIC	4705470
		AV (MCS)		SYSTEM LTD.	
				YORK - Paul Kalra	
		TORONTO, ONT.		TORONTO HYDRO	
932.243750	941.243750	15 ROTHERHAM	20	ELECTRIC	4705470
		AV (MCS)		SYSTEM LTD.	
				YORK - Paul Kalra	
		TORONTO, ONT.		TORONTO HYDRO	
932.243750	941.243750	15 ROTHERHAM	20	ELECTRIC	4705470
		AV (MCS)		SYSTEM LTD.	
				YORK - Paul Kalra	
		TORONTO, ONT.		TORONTO HYDRO	
932.243750	941.243750	15 ROTHERHAM	20	ELECTRIC	4705470
		AV (MCS)		SYSTEM LTD.	
				YORK - Paul Kalra	
		TORONTO, ONT.		TORONTO HYDRO	
932.243750	941.243750	15 ROTHERHAM	20	ELECTRIC	4705470
		AV (MCS)		SYSTEM LTD.	
				YORK - Paul Kalra	
		TORONTO, ONT.		TORONTO HYDRO	
932.243750	941.243750	15 ROTHERHAM	20	ELECTRIC	4705470
		AV (MCS)		SYSTEM LTD.	
				YORK - Paul Kalra	
		TORONTO, ONT.		TORONTO HYDRO	
932.243750	941.243750	15 ROTHERHAM	20	ELECTRIC	4705470
		AV (MCS)		SYSTEM LTD.	
				YORK - Paul Kalra	

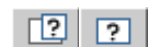
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## Search Criteria



## Search Criteria

**Licensee Name:**

TORONTO HYDRO ELECTRIC SYSTEM LTD. YORK - Paul Kal:

**Output Format:**

- ☒ HTML with selected fields (for viewing online)
- ☐ ASCII with selected fields only (for downloading)
- ☐ ASCII with all fields (for downloading), including:

None

- [XML](#) with all fields (for downloading), including:

None



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Date Modified: 2011-07-25



Industry Canada > Radio, Spectrum and Telecommunications > Spectrum Direct > Licensee Name Search > Licensee Name Search Results

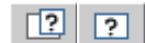
## Spectrum Direct

### Licensee Name Search Results



On this page: [▼ Search Results](#) [▼ Search Criteria](#)

### Search Results



#### Notes:

- These results **do not include protected frequency records**. Valid EMC studies require coordination with protected frequency owners. To obtain a list of protected frequency owners by microwave frequency band and longitude range, go to the [Protected Microwave Frequency Information Search](#).
- **NEW** Data from unsubmitted microwave applications is no longer available in the search results. Search results do include data on new, pending microwave stations that have been submitted and are under study.
- Information in coded fields can be decoded using the [TAFL Search Field Decode Files](#).
- Use the [search form](#) at the bottom of the page to download these results in ASCII or XML Format.

The records listed below were found for the selected licensee.

**37 record(s) retrieved.**

### Search Results

Tx Frequency (MHz)	Rx Frequency (MHz)	Station Location	Tx Antenna Height Above Ground Level (m)	Licensee Name	Licence Number
413.537500	418.537500	TORONTO, ON - METROPOLITAN AREA		Toronto Hydro-Electric System Limited - Underground Paul Kalra	5036748
413.637500	418.637500	TORONTO ONT. 44 CHARLES ST.W.	158	Toronto Hydro-Electric System Limited - Underground Paul Kalra	3114311
413.637500	418.637500	TORONTO ONTARIO, 1080 KINGSTON RD.	52	Toronto Hydro-Electric System Limited - Underground Paul Kalra	3114325
				Toronto Hydro-	

413.637500	418.637500	TORONTO ONTARIO, 444 LOGAN AVE.	73	Electric System Limited - Underground Paul Kalra	3114323
413.637500	418.637500	TORONTO ONTARIO, 45 OAKMOUNT AVE.	52	Toronto Hydro- Electric System Limited - Underground Paul Kalra	3114321
413.637500	418.637500	TORONTO ONTARIO, 55 ERSKINE	56	Toronto Hydro- Electric System Limited - Underground Paul Kalra	3114317
413.637500	418.637500	TORONTO, ONTARIO 301 FRONT ST. W.	444	Toronto Hydro- Electric System Limited - Underground Paul Kalra	3114319
413.637500	418.637500	TORONTO, ONTARIO, 48 ST. CLAIR W.	57	Toronto Hydro- Electric System Limited - Underground Paul Kalra	3114315
418.537500	413.537500	TORONTO ONT.		Toronto Hydro- Electric System Limited - Underground Paul Kalra	3600808
418.537500	413.537500	TORONTO, ON - METROPOLITAN AREA		Toronto Hydro- Electric System Limited - Underground Paul Kalra	5036748
418.537500	413.537500	TORONTO, ONT. METRO AREA		Toronto Hydro- Electric System Limited - Underground Paul Kalra	3771745
418.537500	413.537500	TORONTO, ONT.		Toronto Hydro- Electric System Limited - Underground Paul Kalra	3722693
418.537500	413.537500	TORONTO, ONTARIO		Toronto Hydro- Electric System Limited - Underground Paul Kalra	3891723
418.537500	413.537500	TORONTO		Toronto Hydro- Electric System Limited - Underground Paul Kalra	3195100
				Toronto Hydro-	

418.637500	413.637500	TORONTO ONT.		Electric System Limited - Underground Paul Kalra Toronto Hydro- Electric System Limited - Underground Paul Kalra	3600808
418.637500	413.637500	TORONTO, ONT. METRO AREA		Toronto Hydro- Electric System Limited - Underground Paul Kalra	3771745
418.637500	413.637500	TORONTO, ONT.		Toronto Hydro- Electric System Limited - Underground Paul Kalra	3722693
418.637500	413.637500	TORONTO, ONTARIO		Toronto Hydro- Electric System Limited - Underground Paul Kalra	3891723
418.637500	413.637500	TORONTO		Toronto Hydro- Electric System Limited - Underground Paul Kalra	3195100
418.637500		TORONTO, ONT. 60 EGLINTON AVE. W	41	Toronto Hydro- Electric System Limited - Underground Paul Kalra	4505052
459.200000	459.200000	TORONTO ONT.		Toronto Hydro- Electric System Limited - Underground Paul Kalra	3473640
464.962500	464.962500	TORONTO, ONT. 13-19 WILTSHIRE AVE	8	Toronto Hydro- Electric System Limited - Underground Paul Kalra	3790584
464.962500	464.962500	TORONTO, ONT. 13-19 WILTSHIRE AVE		Toronto Hydro- Electric System Limited - Underground Paul Kalra	3790586
464.962500	464.962500	TORONTO, ONT. 700 HURON ST	8	Toronto Hydro- Electric System Limited - Underground Paul Kalra	3790579
464.962500	464.962500	TORONTO, ONT. 700 HURON ST		Toronto Hydro- Electric System Limited - Underground Paul Kalra	3790581

469.962500	469.962500	TORONTO, ONT. 120-124 TECUMSETH ST	Toronto Hydro- Electric System Limited - Underground Paul Kalra	3666104
469.962500	469.962500	TORONTO, ONT. 2829 YONGE ST	Toronto Hydro- Electric System Limited - Underground Paul Kalra	3666106
469.962500	469.962500	TORONTO, ONT. 532 BAY ST	Toronto Hydro- Electric System Limited - Underground Paul Kalra	3666102
	418.637500	TORONTO ONTARIO, 2 JANE STREET	Toronto Hydro- Electric System Limited - Underground Paul Kalra	3114309
	418.637500	TORONTO ONTARIO, 300 COXWELL AVE	Toronto Hydro- Electric System Limited - Underground Paul Kalra	3346983
	418.637500	TORONTO ONTARIO, 399 BATHURST ST	Toronto Hydro- Electric System Limited - Underground Paul Kalra	3114301
	418.637500	TORONTO ONTARIO, 730 DOVERCOURT	Toronto Hydro- Electric System Limited - Underground Paul Kalra	3114303
	418.637500	TORONTO ONTARIO, 96 GERRARD ST E.	Toronto Hydro- Electric System Limited - Underground Paul Kalra	3353188
	418.637500	TORONTO ONTARIO, 740 PAPE AVENUE	Toronto Hydro- Electric System Limited - Underground Paul Kalra	3114305
	418.637500	TORONTO, ONT. 61 PELHAM PARK PL	Toronto Hydro- Electric System Limited - Underground Paul Kalra	3114299
	418.637500	TORONTO, ONTARIO 245 DUNN AVE.	Toronto Hydro- Electric System Limited - Underground Paul Kalra	3114307

418.637500

TORONTO,  
ONTARIO, 161  
OAKWOOD AVE.

Toronto Hydro-  
Electric System  
Limited - 3114313  
Underground Paul  
Kalra

Search Criteria



Search Criteria

Licensee Name:

Toronto Hydro-Electric System Limited -Underground

Output Format:

- ☒ HTML with selected fields (for viewing online)
- ☐ ASCII with selected fields only (for downloading)
- ☐ ASCII with all fields (for downloading), including:

None 

- ☐ [XML](#) with all fields (for downloading), including:

None 

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Date Modified: 2011-07-25

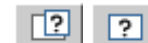




Industry Canada > Radio, Spectrum and Telecommunications > Spectrum Direct > Licensee Name Search > Licensee Name Search Results

## Spectrum Direct

### Licensee Name Search Results



On this page: [▼ Search Results](#) [▼ Search Criteria](#)

### Search Results



#### Notes:

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The records listed below were found for the selected licensee.

**12 record(s) retrieved.**

### Search Results

Tx Frequency (MHz)	Rx Frequency (MHz)	Station Location	Tx Antenna Height Above Ground Level (m)	Licensee Name	Licence Number
928.681250	952.681250	TORONTO, ONT. 1095 NEILSON RD	10	TORONTO HYDRO ELECTRIC SYSTEM LTD. SCARBOROUGH - Paul Kalra	4992999
928.706250	952.706250	TORONTO, ONT. 3077 WESTON RD	10	TORONTO HYDRO ELECTRIC SYSTEM LTD. SCARBOROUGH - Paul Kalra	4820454
928.818750	952.818750	TORONTO, ONT. 1300 ISLINGTON AVE	10	TORONTO HYDRO ELECTRIC SYSTEM LTD. SCARBOROUGH - Paul Kalra	4820452
				TORONTO HYDRO	

932.043750	941.043750	TORONTO, ONT. 6 FOREST LANEWAY	10	ELECTRIC SYSTEM LTD. SCARBOROUGH - Paul Kalra TORONTO HYDRO	4992995
932.143750	941.143750	TORONTO, ONT. 444 LOGAN AVE	10	ELECTRIC SYSTEM LTD. SCARBOROUGH - Paul Kalra TORONTO HYDRO	4992993
932.243750	941.243750	TORONTO, ONT. 3434 EGLINTON AVE E	10	ELECTRIC SYSTEM LTD. SCARBOROUGH - Paul Kalra TORONTO HYDRO	4992997
941.043750	932.043750	TORONTO, ONT. 6 FOREST LANEWAY	80	ELECTRIC SYSTEM LTD. SCARBOROUGH - Paul Kalra TORONTO HYDRO	4992995
941.143750	932.143750	TORONTO, ONT. 444 LOGAN AVE	64	ELECTRIC SYSTEM LTD. SCARBOROUGH - Paul Kalra TORONTO HYDRO	4992993
941.243750	932.243750	TORONTO, ONT. 3434 EGLINTON AVE E	49	ELECTRIC SYSTEM LTD. SCARBOROUGH - Paul Kalra TORONTO HYDRO	4992997
952.681250	928.681250	TORONTO, ONT. 1095 NEILSON RD	43	ELECTRIC SYSTEM LTD. SCARBOROUGH - Paul Kalra TORONTO HYDRO	4992999
952.706250	928.706250	TORONTO, ONT. 3077 WESTON RD	77	ELECTRIC SYSTEM LTD. SCARBOROUGH - Paul Kalra TORONTO HYDRO	4820454
952.818750	928.818750	TORONTO, ONT. 1300 ISLINGTON AVE	52	ELECTRIC SYSTEM LTD. SCARBOROUGH - Paul Kalra	4820452

Search Criteria



Search Criteria

Licensee Name:

TORONTO HYDRO ELECTRIC SYSTEM LTD. SCARBOROUGH - P

Output Format:

- ☒ HTML with selected fields (for viewing online)
- ☐ ASCII with selected fields only (for downloading)
- ☐ ASCII with all fields (for downloading), including:

None



☐ [XML](#) with all fields (for downloading), including:

None 

Find

Reset

Date Modified: 2011-07-25



Industry Canada > Radio, Spectrum and Telecommunications > Spectrum Direct > Licensee Name Search > Licensee Name Search Results

## Spectrum Direct

### Licensee Name Search Results



On this page: [▼ Search Results](#) [▼ Search Criteria](#)

### Search Results



#### Notes:

- These results **do not include protected frequency records**. Valid EMC studies require coordination with protected frequency owners. To obtain a list of protected frequency owners by microwave frequency band and longitude range, go to the [Protected Microwave Frequency Information Search](#).
- **NEW** Data from unsubmitted microwave applications is no longer available in the search results. Search results do include data on new, pending microwave stations that have been submitted and are under study.
- Information in coded fields can be decoded using the [TAFL Search Field Decode Files](#).
- Use the [search form](#) at the bottom of the page to download these results in ASCII or XML Format.

The records listed below were found for the selected licensee.

**170 record(s) retrieved.**

### Search Results

Tx Frequency (MHz)	Rx Frequency (MHz)	Station Location	Tx Antenna Height Above Ground Level (m)	Licensee Name	Licence Number
412.637500	417.637500	DOWNSVIEW, ONT. SCC 175 GODDARD ST	52	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	4604451
417.637500	412.637500	N Y, ON, 50 NORTH PARK DR. POLE 54	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2200311
417.637500	412.637500	N.Y, POLE 1649 (JANE ST/SPEERS AVE)	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA -	3390081

417.637500	412.637500	N.Y. POLE 13 BRADSTOCK RD WESTON RD	2	Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2200279
417.637500	412.637500	N.Y. POLE 2959 STEELES AVE E	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3597693
417.637500	412.637500	NY, ONT. 1 JETHRO RD	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2723955
417.637500	412.637500	NY, ONT. 1 SUNNYBROOK EASEMENT	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2693689
417.637500	412.637500	NY, ONT. 1020 LAWRENCE AVE W	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3390073
417.637500	412.637500	NY, ONT. 118 ALLEN RD	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3597663
417.637500	412.637500	NY, ONT. 121 FENMAR DR	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2680060
417.637500	412.637500	NY, ONT. 14 FISHERVILLE RD	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2723947
417.637500	412.637500	NY, ONT. 144 FAYWOOD BLVD	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2723949

417.637500	412.637500	NY, ONT. 146 BOND ST	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2672218
417.637500	412.637500	NY, ONT. 1581 AVENUE RD	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3597667
417.637500	412.637500	NY, ONT. 1620 WILSON AVE	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2723953
417.637500	412.637500	NY, ONT. 1634 SHEPPARD AVE E	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3597683
417.637500	412.637500	NY, ONT. 18 OAKDALE RD	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3597677
417.637500	412.637500	NY, ONT. 193 AVONDALE AVE	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2680068
417.637500	412.637500	NY, ONT. 2 POST RD	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3597681
417.637500	412.637500	NY, ONT. 2 RIVALDA RD	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3597679
417.637500	412.637500	NY, ONT. 2002 SHEPPARD AVE E	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3597669
				TORONTO	

417.637500	412.637500	NY, ONT. 216 MILVAN RD	2	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2693687
417.637500	412.637500	NY, ONT. 228 VAN HORNE	2	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2672212
417.637500	412.637500	NY, ONT. 228 WILSON AVE	3	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	3597687
417.637500	412.637500	NY, ONT. 241 PELLATT AVE	2	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2723957
417.637500	412.637500	NY, ONT. 2790 OLD LESLIE ST	3	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	3597665
417.637500	412.637500	NY, ONT. 2881 BAYVIEW AVE	3	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	3597673
417.637500	412.637500	NY, ONT. 2895 BATHURST ST	2	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2723951
417.637500	412.637500	NY, ONT. 2908 VICTORIA PK	2	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2672216
417.637500	412.637500	NY, ONT. 3142 BAYVIEW AVE	2	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2723945

417.637500	412.637500	NY, ONT. 3437 BATHURST ST	3	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	3597671
417.637500	412.637500	NY, ONT. 39 THE DONWAY E	2	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2693693
417.637500	412.637500	NY, ONT. 4246 CHESSWOOD DR	2	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2680072
417.637500	412.637500	NY, ONT. 442 SHEPPARD AVE E	3	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	3597685
417.637500	412.637500	NY, ONT. 481 SENTINEL RD	3	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	3597695
417.637500	412.637500	NY, ONT. 539 FINCH AVE W	2	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2680070
417.637500	412.637500	NY, ONT. 546 LAWRENCE AVE W	3	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	3597675
417.637500	412.637500	NY, ONT. 55 TYCOS DR	2	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2680066
417.637500	412.637500	NY, ONT. 551 CUMMER AVE	2	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2672220



417.637500	412.637500	NY, ONT. 72 LESMILL	2	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2672214
417.637500	412.637500	NY, ONT. 819 YORK MILLS RD	2	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2680064
417.637500	412.637500	NY, ONT. 95 BARTOR RD	2	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2680062
417.637500	412.637500	NY, ONT. 950 LAWRENCE AVE W	3	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	3597689
417.637500	412.637500	NY, ONT. P1 CNR ROW/OVERLAND DR	2	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2054771
417.637500	412.637500	NY, ONT. P10 BOND ST/E OF LESLIE	3	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	3049198
417.637500	412.637500	NY, ONT. P1002 YORK MILLS	3	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	3049178
417.637500	412.637500	NY, ONT. P1023 CALEDONIA RD	2	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2680078
417.637500	412.637500	NY, ONT. P1077 WILSON AVE/KEELE	3	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	3049172

417.637500	412.637500	NY, ONT. P11 CNR ROW/PRINCE ANDREW	3	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	3049188
417.637500	412.637500	NY, ONT. P11 EASEMENT/CARNFORTH	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2054769
417.637500	412.637500	NY, ONT. P11 STEELES AVE W	3	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	3390083
417.637500	412.637500	NY, ONT. P110 WILSON AVE/SAUNDERS	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2054759
417.637500	412.637500	NY, ONT. P1160 SHEPPARD E/CNR ROW	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2054799
417.637500	412.637500	NY, ONT. P1292 VIC PK/LAWRENCE E	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2054767
417.637500	412.637500	NY, ONT. P138 BROOKHAVEN DR	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2054795
417.637500	412.637500	NY, ONT. P143 HEPC ROW/FINCH&DONMLS	3	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	3049200
417.637500	412.637500	NY, ONT. P152 CLAYSON RD/WILSON	3	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	3049202
		NY, ONT. P1594 VIC		ELECTRIC	

417.637500	412.637500	PK/ONTH ROW	2	SYSTEM LTD. N 2054755 YORK SCADA - Paul Kalra TORONTO HYDRO
417.637500	412.637500	NY, ONT. P160 CACTUS AVE	3	ELECTRIC SYSTEM LTD. N 3049192 YORK SCADA - Paul Kalra TORONTO HYDRO
417.637500	412.637500	NY, ONT. P176 BENTWORTH AVE	3	ELECTRIC SYSTEM LTD. N 3049174 YORK SCADA - Paul Kalra TORONTO HYDRO
417.637500	412.637500	NY, ONT. P1763 BAYVIEW AVE	3	ELECTRIC SYSTEM LTD. N 3049184 YORK SCADA - Paul Kalra TORONTO HYDRO
417.637500	412.637500	NY, ONT. P18 FINCH AVE/TANGIERS	2	ELECTRIC SYSTEM LTD. N 2054805 YORK SCADA - Paul Kalra TORONTO HYDRO
417.637500	412.637500	NY, ONT. P183 RAILSIDE RD	3	ELECTRIC SYSTEM LTD. N 3049180 YORK SCADA - Paul Kalra TORONTO HYDRO
417.637500	412.637500	NY, ONT. P19 CPR ROW/DON MLS&WYNFRD	2	ELECTRIC SYSTEM LTD. N 2723943 YORK SCADA - Paul Kalra TORONTO HYDRO
417.637500	412.637500	NY, ONT. P2 MILVAN RD/N OF FINCH	2	ELECTRIC SYSTEM LTD. N 2693685 YORK SCADA - Paul Kalra TORONTO HYDRO
417.637500	412.637500	NY, ONT. P21 JOHNSON AVE	3	ELECTRIC SYSTEM LTD. N 3049206 YORK SCADA - Paul Kalra TORONTO HYDRO
417.637500	412.637500	NY, ONT. P2111 AVENUE	2	ELECTRIC 2054763

		RD/RIDLEY			SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	
417.637500	412.637500	NY, ONT. P2126 BAYVIEW/BLYTHWOOD	2		ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2054775
417.637500	412.637500	NY, ONT. P2230 VIC PK/YORK MLS	2		ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2054761
417.637500	412.637500	NY, ONT. P2257 SHEPPARD AVE W	2		ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2692407
417.637500	412.637500	NY, ONT. P230 NORFINCH/STEELES	2		ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2054765
417.637500	412.637500	NY, ONT. P235 SHAUGHNESSY BLVD	2		ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200283
417.637500	412.637500	NY, ONT. P251 BROOKE AVE	3		ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	3049176
417.637500	412.637500	NY, ONT. P2558 BAYVIEW/YORK MLS	2		ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2054773
417.637500	412.637500	NY, ONT. P2731 KEELE/WILSON	2		ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2054789
417.637500	412.637500	NY, ONT. P2781 JANE ST/FINCH AVE	3		ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	3049166

417.637500	412.637500	NY, ONT. P2782 KEELE/WILSON	2	YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N	2054787
417.637500	412.637500	NY, ONT. P2801 WESTON RD/WALLASEY	2	YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N	2054809
417.637500	412.637500	NY, ONT. P2854 KEELE ST	2	YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N	2693683
417.637500	412.637500	NY, ONT. P29 CLAYSON RD/BARTOR RD	2	YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N	2054811
417.637500	412.637500	NY, ONT. P3048 DUFFERIN/LAWRENCE	2	YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N	2054783
417.637500	412.637500	NY, ONT. P3077 BATHURST/LAWRENCE	2	YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N	2054777
417.637500	412.637500	NY, ONT. P3108 VIC PK/MCNICOLL	2	YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N	2054797
417.637500	412.637500	NY, ONT. P323 CHURCHILL AVE	3	YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N	3597691
417.637500	412.637500	NY, ONT. P334 WILLINGTON AVE	3	YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N	3049168

417.637500	412.637500	NY, ONT. P3681 WESTON RD/KENHAR	2	YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N 2054753 YORK SCADA - Paul Kalra
417.637500	412.637500	NY, ONT. P381 SENLAC RD	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N 3390077 YORK SCADA - Paul Kalra
417.637500	412.637500	NY, ONT. P3815 BATHURST/SOUTHBOURNE	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N 2054779 YORK SCADA - Paul Kalra
417.637500	412.637500	NY, ONT. P4 ASHWARREN RD	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N 2680074 YORK SCADA - Paul Kalra
417.637500	412.637500	NY, ONT. P4064 VICTORIA PK AVE	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N 3049186 YORK SCADA - Paul Kalra
417.637500	412.637500	NY, ONT. P432 MILVAN DR	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N 3390085 YORK SCADA - Paul Kalra
417.637500	412.637500	NY, ONT. P457 DUFFERIN/GLENPARK	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N 2054785 YORK SCADA - Paul Kalra
417.637500	412.637500	NY, ONT. P468 BAYVIEW/SHEPPARD	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N 2054803 YORK SCADA - Paul Kalra
417.637500	412.637500	NY, ONT. P497 BAYVIEW/CUMMER	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N 2054801

417.637500	412.637500	NY, ONT. P5 ON S/W RAMP TO HWY404 2	YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N 2693691 YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N 3390075 YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N 3049204 YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N 3390067 YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N 3049194 YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N 3390071 YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N 3049170 YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N 3390079 YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N 3049190 YORK SCADA -
417.637500	412.637500	NY, ONT. P5 RAITHERN RD 3	
417.637500	412.637500	NY, ONT. P521 FENMAR DR 3	
417.637500	412.637500	NY, ONT. P532 WILSON AVE 3	
417.637500	412.637500	NY, ONT. P534 SIGNET DR 3	
417.637500	412.637500	NY, ONT. P553 RUSTIC RD 3	
417.637500	412.637500	NY, ONT. P557 ALNESS ST 3	
417.637500	412.637500	NY, ONT. P5661 STEELES AVE W 3	
417.637500	412.637500	NY, ONT. P61 CUMMER AVE/E OF YONGE 3	

417.637500	412.637500	NY, ONT. P63 SHEPPARD AVE E	2	Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2200263
417.637500	412.637500	NY, ONT. P7 TAMWORTH RD	2	Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2680076
417.637500	412.637500	NY, ONT. P72 HIGHLAND HILL/RANEE	2	Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2054781
417.637500	412.637500	NY, ONT. P729 TRETHEWEY DR	2	Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2054757
417.637500	412.637500	NY, ONT. P8 TORHARRIE RD	3	Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3049196
417.637500	412.637500	NY, ONT. P8 WESTON RD/WALLASEY AV	2	Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2054807
417.637500	412.637500	NY, ONT. P82 PARKWOODS VILLAGE DR	3	Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3049182
417.637500	412.637500	NY, ONT. P85 DUFFLAW/ORFUS RD	2	Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2054791
417.637500	412.637500	NY, ONT. P851 ALNESS RD	3	Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3390069



417.637500	412.637500	NY, ONT. P907 CALEDONIA/GLENCAIRN	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2054793
417.637500	412.637500	NY, ONT. SW183 2588 VICTORIA PK	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3907470
417.637500	412.637500	NY, ONT. SW184 191 BROOKE AVE	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3907468
417.637500	412.637500	NY, ONT. SW186 5952 BATHURST ST	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3907466
417.637500	412.637500	NY, ONT. SW187 2872 VICTORIA PK	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3907464
417.637500	412.637500	NY, ONT. SW189 DON MILLS RD	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3907460
417.637500	412.637500	NY, ONT. SW189 DON MILLS RD	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3907462
417.637500	412.637500	NY, ONT. SW190 1887 LESLIE ST	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3907476
417.637500	412.637500	NY, ONT. SW191 FINCH/HWY #404	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3907474

417.637500	412.637500	NY, ONT. SW192 LESLIE/VAN HORNE	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3907472
417.637500	412.637500	NY, ONT. SW193 DON MLS/MOATFIELD	3	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	3907458
417.637500	412.637500	NY, ONT.	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2200247
417.637500	412.637500	NY, ONT.	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2200249
417.637500	412.637500	NY, ONT.	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2200251
417.637500	412.637500	NY, ONT.	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2200253
417.637500	412.637500	NY, ONT.	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2200255
417.637500	412.637500	NY, ONT.	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2200257
417.637500	412.637500	NY, ONT.	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2200259

417.637500	412.637500	NY, ONT.	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2200261
417.637500	412.637500	NY, ONT.	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2200265
417.637500	412.637500	NY, ONT.	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2200267
417.637500	412.637500	NY, ONT.	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2200269
417.637500	412.637500	NY, ONT.	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2200271
417.637500	412.637500	NY, ONT.	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2200273
417.637500	412.637500	NY, ONT.	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2200275
417.637500	412.637500	NY, ONT.	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2200277
417.637500	412.637500	NY, ONT.	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO	2200281

417.637500	412.637500	NY, ONT.	2	TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200285
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200287
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200289
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200291
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200293
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200295
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200297
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200299
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200301

417.637500	412.637500	NY, ONT.	2	HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200303
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200305
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200307
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200309
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200313
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200315
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200317
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200319
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC	2200321

417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200323
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200325
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200327
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2200329
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2215114
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2215116
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2215118
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2215120
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2215122
417.637500	412.637500	NY, ONT.	2	ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO	2215124

417.637500	412.637500	NY, ONT.	2	YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2215128
417.637500	412.637500	NY, ONT.	2	YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2215130
417.637500	412.637500	NY, ONT.	5	YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra TORONTO HYDRO ELECTRIC SYSTEM LTD. N YORK SCADA - Paul Kalra	2215126

**Search Criteria**
?

**Search Criteria**

**Licensee Name:**

**Output Format:**
☒ HTML with selected fields (for viewing online)  
☐ ASCII with selected fields only (for downloading)  
☐ ASCII with all fields (for downloading), including:  

  
☐ [XML](#) with all fields (for downloading), including:

Date Modified: 2011-07-25



Industry Canada > Radio, Spectrum and Telecommunications > Spectrum Direct > Licensee Name Search > Licensee Name Search Results

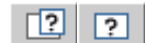
## Spectrum Direct

### Licensee Name Search Results



On this page: [▼ Search Results](#) [▼ Search Criteria](#)

### Search Results



#### Notes:

- These results **do not include protected frequency records**. Valid EMC studies require coordination with protected frequency owners. To obtain a list of protected frequency owners by microwave frequency band and longitude range, go to the [Protected Microwave Frequency Information Search](#).
- **NEW** Data from unsubmitted microwave applications is no longer available in the search results. Search results do include data on new, pending microwave stations that have been submitted and are under study.
- Information in coded fields can be decoded using the [TAFL Search Field Decode Files](#).
- Use the [search form](#) at the bottom of the page to download these results in ASCII or XML Format.

The records listed below were found for the selected licensee.

**8 record(s) retrieved.**

### Search Results

Tx Frequency (MHz)	Rx Frequency (MHz)	Station Location	Tx Antenna Height Above Ground Level (m)	Licensee Name	Licence Number
18090.000000	19650.000000	TORONTO (3077 WESTON ROAD) ON	66	Toronto Hydro Electric System Ltd. ITS - Paul Kalra	5099691
18090.000000	19650.000000	TORONTO (3077 WESTON ROAD) ON	68	Toronto Hydro Electric System Ltd. ITS - Paul Kalra	5099691
18090.000000	19650.000000	TORONTO (500 DUPLEX AVE.) ON	98	Toronto Hydro Electric System Ltd. ITS - Paul Kalra	5099693
18090.000000	19650.000000	TORONTO (500 DUPLEX AVE.) ON	98	Toronto Hydro Electric System Ltd. ITS - Paul Kalra	5099693



19650.000000	18090.000000	TORONTO (1300 ISLINGTON AVE) ON	93	Toronto Hydro Electric System Ltd. ITS - Paul Kalra	5099692
19650.000000	18090.000000	TORONTO (1300 ISLINGTON AVE) ON	94	Toronto Hydro Electric System Ltd. ITS - Paul Kalra	5099692
19650.000000	18090.000000	TORONTO (4 FOREST LANEWAY) ON	95	Toronto Hydro Electric System Ltd. ITS - Paul Kalra	5099690
19650.000000	18090.000000	TORONTO (6 FOREST LANEWAY) ON	95	Toronto Hydro Electric System Ltd. ITS - Paul Kalra	5099694

Search Criteria

Search Criteria

Licensee Name:

Toronto Hydro Electric System Ltd. ITS - Paul Kalra

Output Format:

☒ HTML with selected fields (for viewing online)

☐ ASCII with selected fields only (for downloading)

☐ ASCII with all fields (for downloading), including:

None

☐ XML with all fields (for downloading), including:

None

Find

Reset

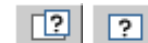
Date Modified: 2011-07-25



Industry Canada > Radio, Spectrum and Telecommunications > Spectrum Direct > Licensee Name Search > Licensee Name Search Results

## Spectrum Direct

### Licensee Name Search Results



On this page: [▼ Search Results](#) [▼ Search Criteria](#)

### Search Results



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- **NEW** Data from unsubmitted microwave applications is no longer available in the search results. Search results do include data on new, pending microwave stations that have been submitted and are under study.
- Information in coded fields can be decoded using the [TAFL Search Field Decode Files](#).
- Use the [search form](#) at the bottom of the page to download these results in ASCII or XML Format.

The records listed below were found for the selected licensee.

**4 record(s) retrieved.**

#### Search Results

Tx Frequency (MHz)	Rx Frequency (MHz)	Station Location	Tx Antenna Height Above Ground Level (m)	Licensee Name	Licence Number
928.681250	952.681250	ETOBICOKE, ONT. 330 DIXON RD (MCS)	100	TORONTO HYDRO ELECTRIC SYSTEM LTD. ETOBICOKE - Paul Kalra	4976308
932.512500	941.512500	ETOBICOKE, ONT. 10 BELFIELD (M- CTL)	15	TORONTO HYDRO ELECTRIC SYSTEM LTD. ETOBICOKE - Paul Kalra	3853628
941.512500	932.512500	ETOBICOKE, ONT. 330 DIXON RD (MCS)	100	TORONTO HYDRO ELECTRIC SYSTEM LTD. ETOBICOKE - Paul Kalra	4976308
				TORONTO HYDRO	

952.681250

928.681250

ETOBICOKE, ONT. 100  
330 DIXON RD  
(MCS)

ELECTRIC 4976308  
SYSTEM LTD.  
ETOBICOKE - Paul  
Kalra

## Search Criteria



## Search Criteria

**Licensee Name:**

TORONTO HYDRO ELECTRIC SYSTEM LTD. ETOBICOKE - Pau

**Output Format:**

- ☒ HTML with selected fields (for viewing online)
- ☐ ASCII with selected fields only (for downloading)
- ☐ ASCII with all fields (for downloading), including:

None 

- ☐ [XML](#) with all fields (for downloading), including:

None 

Find

Reset

Date Modified: 2011-07-25



Industry Canada > Radio, Spectrum and Telecommunications > Spectrum Direct > Licensee Name Search > Licensee Name Search Results

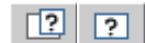
## Spectrum Direct

### Licensee Name Search Results



On this page: [▼ Search Results](#) [▼ Search Criteria](#)

### Search Results



#### Notes:

- These results **do not include protected frequency records**. Valid EMC studies require coordination with protected frequency owners. To obtain a list of protected frequency owners by microwave frequency band and longitude range, go to the [Protected Microwave Frequency Information Search](#).
- **NEW** Data from unsubmitted microwave applications is no longer available in the search results. Search results do include data on new, pending microwave stations that have been submitted and are under study.
- Information in coded fields can be decoded using the [TAFL Search Field Decode Files](#).
- Use the [search form](#) at the bottom of the page to download these results in ASCII or XML Format.

The records listed below were found for the selected licensee.

**103 record(s) retrieved.**

### Search Results

Tx Frequency (MHz)	Rx Frequency (MHz)	Station Location	Tx Antenna Height Above Ground Level (m)	Licensee Name	Licence Number
936.637500	897.637500	TORONTO, ON 1095 NEILSON ROAD	41	Toronto Hydro-Electric System Limited and City of Toronto (works)	4922413
936.637500	897.637500	TORONTO, ON 1300 ISLINGTON AVE	75	Toronto Hydro-Electric System Limited and City of Toronto (works)	4922361
936.637500	897.637500	TORONTO, ON 3434 ELGINTON AVE E.	47	Toronto Hydro-Electric System Limited and City of Toronto (works) Toronto Hydro-	4922243

936.637500	897.637500	TORONTO, ON. 6 FOREST LANEWAY	78	Electric System Limited and City of Toronto (works)	4922363
936.637500	897.637500	TORONTO, ON. 3077 WESTON ROAD	50	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922417
936.637500	897.637500	TORONTO, ON. 444 LOGAN AVENUE	62	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922415
936.650000	897.650000	TORONTO, ON 1095 NEILSON ROAD	41	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922413
936.650000	897.650000	TORONTO, ON 1300 ISLINGTON AVE	75	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922361
936.650000	897.650000	TORONTO, ON 3434 ELGINTON AVE E.	47	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922243
936.650000	897.650000	TORONTO, ON. 6 FOREST LANEWAY	78	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922363
936.650000	897.650000	TORONTO, ON. 3077 WESTON ROAD	50	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922417
936.650000	897.650000	TORONTO, ON. 444 LOGAN AVENUE	62	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922415
936.662500	897.662500	TORONTO, ON 1095 NEILSON ROAD	41	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922413
936.662500	897.662500	TORONTO, ON 1300 ISLINGTON AVE	75	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922361

936.662500	897.662500	TORONTO, ON 3434 ELGINTON AVE E.	47	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922243
936.662500	897.662500	TORONTO, ON. 6 FOREST LANEWAY	78	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922363
936.662500	897.662500	TORONTO, ON. 3077 WESTON ROAD	50	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922417
936.662500	897.662500	TORONTO, ON. 444 LOGAN AVENUE	62	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922415
936.675000	897.675000	TORONTO, ON 1095 NEILSON ROAD	41	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922413
936.675000	897.675000	TORONTO, ON 1300 ISLINGTON AVE	75	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922361
936.675000	897.675000	TORONTO, ON 3434 ELGINTON AVE E.	47	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922243
936.675000	897.675000	TORONTO, ON. 6 FOREST LANEWAY	78	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922363
936.675000	897.675000	TORONTO, ON. 3077 WESTON ROAD	50	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922417
936.675000	897.675000	TORONTO, ON. 444 LOGAN AVENUE	62	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922415
936.687500	897.687500	TORONTO, ON 1095 NEILSON ROAD	41	Toronto Hydro- Electric System Limited and City of Toronto	4922413

936.687500	897.687500	TORONTO, ON 1300 ISLINGTON AVE	75	(works) Toronto Hydro- Electric System Limited and City of Toronto (works)	4922361
936.687500	897.687500	TORONTO, ON 3434 ELGINTON AVE E.	47	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922243
936.687500	897.687500	TORONTO, ON. 6 FOREST LANEWAY	78	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922363
936.687500	897.687500	TORONTO, ON. 3077 WESTON ROAD	50	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922417
936.687500	897.687500	TORONTO, ON. 444 LOGAN AVENUE	62	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922415
936.875000	897.875000	TORONTO, ON 1095 NEILSON ROAD	41	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922413
936.875000	897.875000	TORONTO, ON 1300 ISLINGTON AVE	75	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922361
936.875000	897.875000	TORONTO, ON 3434 ELGINTON AVE E.	47	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922243
936.875000	897.875000	TORONTO, ON. 6 FOREST LANEWAY	78	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922363
936.875000	897.875000	TORONTO, ON. 3077 WESTON ROAD	50	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922417
936.875000	897.875000	TORONTO, ON. 444 LOGAN AVENUE	62	Toronto Hydro- Electric System Limited and City of Toronto	4922415

938.387500	899.387500	TORONTO, ON 1095 NEILSON ROAD	41	(works) Toronto Hydro- Electric System Limited and City of Toronto (works)	4922413
938.387500	899.387500	TORONTO, ON 1300 ISLINGTON AVE	75	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922361
938.387500	899.387500	TORONTO, ON 3434 ELGINTON AVE E.	47	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922243
938.387500	899.387500	TORONTO, ON. 6 FOREST LANEWAY	78	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922363
938.387500	899.387500	TORONTO, ON. 3077 WESTON ROAD	50	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922417
938.387500	899.387500	TORONTO, ON. 444 LOGAN AVENUE	62	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922415
938.400000	899.400000	TORONTO, ON 1095 NEILSON ROAD	41	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922413
938.400000	899.400000	TORONTO, ON 1300 ISLINGTON AVE	75	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922361
938.400000	899.400000	TORONTO, ON 3434 ELGINTON AVE E.	47	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922243
938.400000	899.400000	TORONTO, ON. 6 FOREST LANEWAY	78	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922363
938.400000	899.400000	TORONTO, ON. 3077 WESTON	50	Toronto Hydro- Electric System Limited and City	4922417



		ROAD		of Toronto (works)	
938.400000	899.400000	TORONTO, ON. 444 LOGAN AVENUE	62	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922415
938.412500	899.412500	TORONTO, ON 1095 NEILSON ROAD	41	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922413
938.412500	899.412500	TORONTO, ON 1300 ISLINGTON AVE	75	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922361
938.412500	899.412500	TORONTO, ON 3434 ELGINTON AVE E.	47	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922243
938.412500	899.412500	TORONTO, ON. 6 FOREST LANEWAY	78	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922363
938.412500	899.412500	TORONTO, ON. 3077 WESTON ROAD	50	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922417
938.412500	899.412500	TORONTO, ON. 444 LOGAN AVENUE	62	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922415
938.425000	899.425000	TORONTO, ON 1095 NEILSON ROAD	41	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922413
938.425000	899.425000	TORONTO, ON 1300 ISLINGTON AVE	75	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922361
938.425000	899.425000	TORONTO, ON 3434 ELGINTON AVE E.	47	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922243
938.425000	899.425000	TORONTO, ON. 6 FOREST	78	Toronto Hydro- Electric System Limited and City	4922363



		LANEWAY			of Toronto (works)	
938.425000	899.425000	TORONTO, ON. 3077 WESTON ROAD	50		Toronto Hydro- Electric System Limited and City of Toronto (works)	4922417
938.425000	899.425000	TORONTO, ON. 444 LOGAN AVENUE	62		Toronto Hydro- Electric System Limited and City of Toronto (works)	4922415
938.437500	899.437500	TORONTO, ON 1095 NEILSON ROAD	41		Toronto Hydro- Electric System Limited and City of Toronto (works)	4922413
938.437500	899.437500	TORONTO, ON 1300 ISLINGTON AVE	75		Toronto Hydro- Electric System Limited and City of Toronto (works)	4922361
938.437500	899.437500	TORONTO, ON 3434 ELGINTON AVE E.	47		Toronto Hydro- Electric System Limited and City of Toronto (works)	4922243
938.437500	899.437500	TORONTO, ON. 6 FOREST LANEWAY	78		Toronto Hydro- Electric System Limited and City of Toronto (works)	4922363
938.437500	899.437500	TORONTO, ON. 3077 WESTON ROAD	50		Toronto Hydro- Electric System Limited and City of Toronto (works)	4922417
938.437500	899.437500	TORONTO, ON. 444 LOGAN AVENUE	62		Toronto Hydro- Electric System Limited and City of Toronto (works)	4922415
938.450000	899.450000	TORONTO, ON 1095 NEILSON ROAD	41		Toronto Hydro- Electric System Limited and City of Toronto (works)	4922413
938.450000	899.450000	TORONTO, ON 1300 ISLINGTON AVE	75		Toronto Hydro- Electric System Limited and City of Toronto (works)	4922361
		TORONTO, ON			Toronto Hydro- Electric System	

938.450000	899.450000	3434 ELGINTON AVE E.	47	Limited and City of Toronto (works)	4922243
938.450000	899.450000	TORONTO, ON. 6 FOREST LANEWAY	78	Toronto Hydro-Electric System Limited and City of Toronto (works)	4922363
938.450000	899.450000	TORONTO, ON. 3077 WESTON ROAD	50	Toronto Hydro-Electric System Limited and City of Toronto (works)	4922417
938.450000	899.450000	TORONTO, ON. 444 LOGAN AVENUE	62	Toronto Hydro-Electric System Limited and City of Toronto (works)	4922415
938.462500	899.462500	TORONTO, ON 1095 NEILSON ROAD	41	Toronto Hydro-Electric System Limited and City of Toronto (works)	4922413
938.462500	899.462500	TORONTO, ON 1300 ISLINGTON AVE	50	Toronto Hydro-Electric System Limited and City of Toronto (works)	4922361
938.462500	899.462500	TORONTO, ON 3434 ELGINTON AVE E.	47	Toronto Hydro-Electric System Limited and City of Toronto (works)	4922243
938.462500	899.462500	TORONTO, ON. 6 FOREST LANEWAY	78	Toronto Hydro-Electric System Limited and City of Toronto (works)	4922363
938.462500	899.462500	TORONTO, ON. 3077 WESTON ROAD	75	Toronto Hydro-Electric System Limited and City of Toronto (works)	4922417
938.462500	899.462500	TORONTO, ON. 444 LOGAN AVENUE	62	Toronto Hydro-Electric System Limited and City of Toronto (works)	4922415
938.475000	899.462500	TORONTO, ON. 6 FOREST LANEWAY	78	Toronto Hydro-Electric System Limited and City of Toronto (works)	4922363
				Toronto Hydro-	

938.475000	899.475000	TORONTO, ON 1095 NEILSON ROAD	41	Electric System Limited and City of Toronto (works)	4922413
938.475000	899.475000	TORONTO, ON 1300 ISLINGTON AVE	50	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922361
938.475000	899.475000	TORONTO, ON 3434 ELGINTON AVE E.	47	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922243
938.475000	899.475000	TORONTO, ON. 3077 WESTON ROAD	75	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922417
938.475000	899.475000	TORONTO, ON. 444 LOGAN AVENUE	62	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922415
938.887500	899.887500	TORONTO, ON 1095 NEILSON ROAD	41	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922413
938.887500	899.887500	TORONTO, ON 1300 ISLINGTON AVE	50	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922361
938.887500	899.887500	TORONTO, ON 3434 ELGINTON AVE E.	47	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922243
938.887500	899.887500	TORONTO, ON. 6 FOREST LANEWAY	78	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922363
938.887500	899.887500	TORONTO, ON. 3077 WESTON ROAD	75	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922417
938.887500	899.887500	TORONTO, ON. 444 LOGAN AVENUE	62	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922415

938.900000	899.900000	TORONTO, ON 1095 NEILSON ROAD	41	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922413
938.900000	899.900000	TORONTO, ON 1300 ISLINGTON AVE	50	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922361
938.900000	899.900000	TORONTO, ON 3434 ELGINTON AVE E.	47	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922243
938.900000	899.900000	TORONTO, ON. 6 FOREST LANEWAY	78	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922363
938.900000	899.900000	TORONTO, ON. 3077 WESTON ROAD	75	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922417
938.900000	899.900000	TORONTO, ON. 444 LOGAN AVENUE	62	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922415
938.912500	899.912500	TORONTO, ON 1095 NEILSON ROAD	41	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922413
938.912500	899.912500	TORONTO, ON 1300 ISLINGTON AVE	50	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922361
938.912500	899.912500	TORONTO, ON 3434 ELGINTON AVE E.	47	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922243
938.912500	899.912500	TORONTO, ON. 6 FOREST LANEWAY	78	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922363
938.912500	899.912500	TORONTO, ON. 3077 WESTON ROAD	75	Toronto Hydro- Electric System Limited and City of Toronto	4922417



		ROAD		OF TORONTO	
938.912500	899.912500	TORONTO, ON. 444 LOGAN AVENUE	62	(works) Toronto Hydro- Electric System Limited and City of Toronto (works)	4922415
938.925000	899.925000	TORONTO, ON. 6 FOREST LANEWAY	80	Toronto Hydro- Electric System Limited and City of Toronto (works)	4922363

Search Criteria  

Search Criteria

Licensee Name:

Output Format:

☒ HTML with selected fields (for viewing online)  
☐ ASCII with selected fields only (for downloading)  
☐ ASCII with all fields (for downloading), including:  
   
☐ [XML](#) with all fields (for downloading), including:  
 

Find Reset

Date Modified: 2011-07-25



Industry Canada > Radio, Spectrum and Telecommunications > Spectrum Direct > Licensee Name Search > Licensee Name Search Results

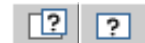
## Spectrum Direct

### Licensee Name Search Results



On this page: [▼ Search Results](#) [▼ Search Criteria](#)

### Search Results



#### Notes:

- These results **do not include protected frequency records**. Valid EMC studies require coordination with protected frequency owners. To obtain a list of protected frequency owners by microwave frequency band and longitude range, go to the [Protected Microwave Frequency Information Search](#).
- **NEW** Data from unsubmitted microwave applications is no longer available in the search results. Search results do include data on new, pending microwave stations that have been submitted and are under study.
- Information in coded fields can be decoded using the [TAFL Search Field Decode Files](#).
- Use the [search form](#) at the bottom of the page to download these results in ASCII or XML Format.

The records listed below were found for the selected licensee.

**840 record(s) retrieved.**

#### Search Results

Tx Frequency (MHz)	Rx Frequency (MHz)	Station Location	Tx Antenna Height Above Ground Level (m)	Licensee Name	Licence Number
897.400000	938.400000	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980835
897.625000	936.625000	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980909
897.637500	936.637500	MORNING SIDE YARD, TORONTO	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4964023
				Toronto Hydro-	

897.637500	936.637500	TORONTO, ON - 1 TRANSFER PLACE	9	Electric System Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980917
897.637500	936.637500	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980800
897.637500	936.637500	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974423
897.637500	936.637500	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974360
897.637500	936.637500	TORONTO, ON 1050 ELLESMERE RD #A	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974504
897.637500	936.637500	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980816
897.637500	936.637500	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974485
897.637500	936.637500	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980902
897.637500	936.637500	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974417
897.637500	936.637500	TORONTO, ON 1401 CASTLEFIELD RD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974463
897.637500	936.637500	TORONTO, ON 150 DISCO ROAD	7	Toronto Hydro- Electric System Limited and City of Toronto (Works) Toronto Hydro-	4974502



897.637500	936.637500	TORONTO, ON 188 BURMONDSEY ROAD	15	Electric System Limited and City of Toronto (Works)	4980819
897.637500	936.637500	TORONTO, ON 25 OLD EGLINTON	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974478
897.637500	936.637500	TORONTO, ON 275 MERTON STREET	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974421
897.637500	936.637500	TORONTO, ON 2751 LESLIE ST	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980674
897.637500	936.637500	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974460
897.637500	936.637500	TORONTO, ON 320 BERING ROAD	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498
897.637500	936.637500	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980915
897.637500	936.637500	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980912
897.637500	936.637500	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980909
897.637500	936.637500	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980868
897.637500	936.637500	TORONTO, ON 433 EASTERN AVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974495
				Toronto Hydro-	

897.637500	936.637500	TORONTO, ON 5 BARTONVILLE	4	Electric System Limited and City of Toronto (Works)	4980661
897.637500	936.637500	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980835
897.637500	936.637500	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974415
897.637500	936.637500	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980806
897.637500	936.637500	TORONTO, ON 7 LESLIE STREET	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974500
897.637500	936.637500	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974475
897.637500	936.637500	TORONTO, ON 86 INGRAM DRIVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974480
897.637500	936.637500	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974472
897.637500	936.637500	TORONTO, ON		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964031
897.650000	936.650000	MORNING SIDE YARD, TORONTO	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964023
897.650000	936.650000	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980917

897.650000	936.650000	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980800
897.650000	936.650000	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974423
897.650000	936.650000	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974360
897.650000	936.650000	TORONTO, ON 1050 ELLESMERE RD #A	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974504
897.650000	936.650000	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980816
897.650000	936.650000	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974485
897.650000	936.650000	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980902
897.650000	936.650000	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974417
897.650000	936.650000	TORONTO, ON 1401 CASTLEFIELD RD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974463
897.650000	936.650000	TORONTO, ON 150 DISCO ROAD	7	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974502
897.650000	936.650000	TORONTO, ON 188 BURMONDSEY ROAD	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980819

897.650000	936.650000	TORONTO, ON 25 OLD EGLINTON	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974478
897.650000	936.650000	TORONTO, ON 275 MERTON STREET	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974421
897.650000	936.650000	TORONTO, ON 2751 LESLIE ST	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980674
897.650000	936.650000	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974460
897.650000	936.650000	TORONTO, ON 320 BERING ROAD	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498
897.650000	936.650000	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980915
897.650000	936.650000	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980912
897.650000	936.650000	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980909
897.650000	936.650000	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980868
897.650000	936.650000	TORONTO, ON 433 EASTERN AVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974495
897.650000	936.650000	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980661

897.650000	936.650000	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980835
897.650000	936.650000	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974415
897.650000	936.650000	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980806
897.650000	936.650000	TORONTO, ON 7 LESLIE STREET	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974500
897.650000	936.650000	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974475
897.650000	936.650000	TORONTO, ON 86 INGRAM DRIVE	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974480
897.650000	936.650000	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974472
897.650000	936.650000	TORONTO, ON		Toronto Hydro-Electric System Limited and City of Toronto (Works)	4964031
897.662500	936.662500	MORNING SIDE YARD, TORONTO	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4964023
897.662500	936.662500	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980917
897.662500	936.662500	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro-Electric System Limited and City of Toronto	4980800

897.662500	936.662500	TORONTO, ON 1008 YONGE ST	5	(Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974423
897.662500	936.662500	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974360
897.662500	936.662500	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980816
897.662500	936.662500	TORONTO, ON 1050 ELLESMERE RD #A	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974504
897.662500	936.662500	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974485
897.662500	936.662500	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980902
897.662500	936.662500	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974417
897.662500	936.662500	TORONTO, ON 1401 CASTLEFIELD 3 RD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974463
897.662500	936.662500	TORONTO, ON 150 DISCO ROAD	7	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974502
897.662500	936.662500	TORONTO, ON 188 BURMONDSEY ROAD	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980819
897.662500	936.662500	TORONTO, ON 25	6	Toronto Hydro- Electric System Limited and City	4974478

		OLD EGLINTON		of Toronto (Works)	
897.662500	936.662500	TORONTO, ON 275 MERTON STREET	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974421
897.662500	936.662500	TORONTO, ON 2751 LESLIE ST	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980674
897.662500	936.662500	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974460
897.662500	936.662500	TORONTO, ON 320 BERING ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498
897.662500	936.662500	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980915
897.662500	936.662500	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980912
897.662500	936.662500	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980868
897.662500	936.662500	TORONTO, ON 433 EASTERN AVE	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974495
897.662500	936.662500	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980661
897.662500	936.662500	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980835
		TORONTO, ON 505		Toronto Hydro- Electric System	

897.662500	936.662500	TORONTO, ON 503 RICHMOND STREET W.	15	Electric System Limited and City of Toronto (Works)	4974415
897.662500	936.662500	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980806
897.662500	936.662500	TORONTO, ON 7 LESLIE STREET	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974500
897.662500	936.662500	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974475
897.662500	936.662500	TORONTO, ON 86 INGRAM DRIVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974480
897.662500	936.662500	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974472
897.662500	936.662500	TORONTO, ON		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964031
897.675000	936.675000	MORNING SIDE YARD, TORONTO	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964023
897.675000	936.675000	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980917
897.675000	936.675000	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980800
897.675000	936.675000	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974423



897.675000	936.675000	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974360
897.675000	936.675000	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980816
897.675000	936.675000	TORONTO, ON 1050 ELLESMERE RD #A	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974504
897.675000	936.675000	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974485
897.675000	936.675000	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980902
897.675000	936.675000	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974417
897.675000	936.675000	TORONTO, ON 1401 CASTLEFIELD RD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974463
897.675000	936.675000	TORONTO, ON 150 DISCO ROAD	7	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974502
897.675000	936.675000	TORONTO, ON 188 BURMONDSEY ROAD	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980819
897.675000	936.675000	TORONTO, ON 25 OLD EGLINTON	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974478
897.675000	936.675000	TORONTO, ON 275 MERTON STREET	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974421

897.675000	936.675000	TORONTO, ON 2751 LESLIE ST	4	(Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980674
897.675000	936.675000	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974460
897.675000	936.675000	TORONTO, ON 320 BERING ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498
897.675000	936.675000	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980915
897.675000	936.675000	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980912
897.675000	936.675000	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980909
897.675000	936.675000	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980868
897.675000	936.675000	TORONTO, ON 433 EASTERN AVE	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974495
897.675000	936.675000	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980661
897.675000	936.675000	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980835
897.675000	936.675000	TORONTO, ON 505 RICHMOND STREET W	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974415

		STREET W.		of Toronto (Works)	
897.675000	936.675000	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980806
897.675000	936.675000	TORONTO, ON 7 LESLIE STREET	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974500
897.675000	936.675000	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974475
897.675000	936.675000	TORONTO, ON 86 INGRAM DRIVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974480
897.675000	936.675000	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974472
897.675000	936.675000	TORONTO, ON		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964031
897.687500	936.687500	MORNING SIDE YARD, TORONTO	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964023
897.687500	936.687500	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980917
897.687500	936.687500	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980800
897.687500	936.687500	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974423
		TORONTO, ON		Toronto Hydro- Electric System	

897.687500	936.687500	1026 FINCH AVE W.	8	Limited and City of Toronto (Works)	4974360
897.687500	936.687500	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980816
897.687500	936.687500	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980902
897.687500	936.687500	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974417
897.687500	936.687500	TORONTO, ON 1401 CASTLEFIELD RD	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974463
897.687500	936.687500	TORONTO, ON 188 BURMONDSEY ROAD	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980819
897.687500	936.687500	TORONTO, ON 275 MERTON STREET	9	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974421
897.687500	936.687500	TORONTO, ON 2751 LESLIE ST	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980674
897.687500	936.687500	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974460
897.687500	936.687500	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980915
897.687500	936.687500	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980912

Toronto Hydro

897.687500	936.687500	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980909
897.687500	936.687500	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980868
897.687500	936.687500	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980661
897.687500	936.687500	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980835
897.687500	936.687500	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974415
897.687500	936.687500	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980806
897.687500	936.687500	TORONTO, ON		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964031
897.862500	936.862500	MORNING SIDE YARD, TORONTO	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964023
897.862500	936.862500	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980917
897.862500	936.862500	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980800
897.862500	936.862500	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974423

897.862500	936.862500	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974360
897.862500	936.862500	TORONTO, ON 1050 ELLESMERE RD #A	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974504
897.862500	936.862500	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980816
897.862500	936.862500	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974485
897.862500	936.862500	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980902
897.862500	936.862500	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974417
897.862500	936.862500	TORONTO, ON 1401 CASTLEFIELD RD	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974463
897.862500	936.862500	TORONTO, ON 150 DISCO ROAD	7	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974502
897.862500	936.862500	TORONTO, ON 188 BURMONDSEY ROAD	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980819
897.862500	936.862500	TORONTO, ON 25 OLD EGLINTON	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974478
897.862500	936.862500	TORONTO, ON 275 MERTON STREET	9	Toronto Hydro-Electric System Limited and City of Toronto	4974421

897.862500	936.862500	TORONTO, ON 2751 LESLIE ST	4	(Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980674
897.862500	936.862500	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974460
897.862500	936.862500	TORONTO, ON 320 BERING ROAD	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498
897.862500	936.862500	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980915
897.862500	936.862500	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980912
897.862500	936.862500	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980909
897.862500	936.862500	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980868
897.862500	936.862500	TORONTO, ON 433 EASTERN AVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974495
897.862500	936.862500	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980661
897.862500	936.862500	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974415
897.862500	936.862500	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto	4980806

897.862500	936.862500	TORONTO, ON 7 LESLIE STREET	3	(Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974500
897.862500	936.862500	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974475
897.862500	936.862500	TORONTO, ON 86 INGRAM DRIVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974480
897.862500	936.862500	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974472
897.862500	936.862500	TORONTO, ON		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964031
897.875000	936.875000	MORNING SIDE YARD, TORONTO	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964023
897.875000	936.875000	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980917
897.875000	936.875000	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980800
897.875000	936.875000	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974423
897.875000	936.875000	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974360
897.875000	936.875000	TORONTO, ON 1050 ELLESMERE RD.	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974504



		RD #A		of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	
897.875000	936.875000	TORONTO, ON 1050 ELLESMERE RD #A	5		4980816
897.875000	936.875000	TORONTO, ON 1050 ELLESMERE RD #A	6		4974504
897.875000	936.875000	TORONTO, ON 1116 KING ST WEST	6		4974485
897.875000	936.875000	TORONTO, ON 1116 KING ST WEST	6		4974485
897.875000	936.875000	TORONTO, ON 120 DISCO ROAD	6		4980902
897.875000	936.875000	TORONTO, ON 140 MERTON STREET	12		4974417
897.875000	936.875000	TORONTO, ON 1401 CASTLEFIELD RD	3		4974463
897.875000	936.875000	TORONTO, ON 150 DISCO ROAD	7		4974502
897.875000	936.875000	TORONTO, ON 150 DISCO ROAD	7		4974502
897.875000	936.875000	TORONTO, ON 188 BURMONDSEY ROAD	15		4980819
897.875000	936.875000	TORONTO, ON 25 CLIFTON	6		4974478

		OLD EGLINTON		of Toronto (Works)	
897.875000	936.875000	TORONTO, ON 25 OLD EGLINTON	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974478
897.875000	936.875000	TORONTO, ON 275 MERTON STREET	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974421
897.875000	936.875000	TORONTO, ON 2751 LESLIE ST	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980674
897.875000	936.875000	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974460
897.875000	936.875000	TORONTO, ON 320 BERING ROAD	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498
897.875000	936.875000	TORONTO, ON 320 BERING ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498
897.875000	936.875000	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980915
897.875000	936.875000	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980912
897.875000	936.875000	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980909
897.875000	936.875000	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980868
897.875000	936.875000	TORONTO, ON 433	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974405

897.875000	936.875000	EASTERN AVE	4	Limited and City of Toronto (Works)	4974495
897.875000	936.875000	TORONTO, ON 433 EASTERN AVE	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974495
897.875000	936.875000	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980661
897.875000	936.875000	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980835
897.875000	936.875000	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974415
897.875000	936.875000	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980806
897.875000	936.875000	TORONTO, ON 7 LESLIE STREET	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974500
897.875000	936.875000	TORONTO, ON 7 LESLIE STREET	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974500
897.875000	936.875000	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974475
897.875000	936.875000	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974475
897.875000	936.875000	TORONTO, ON 86 INGRAM DRIVE	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974480
		TORONTO, ON 84		Toronto Hydro-Electric System	

897.875000	936.875000	TORONTO, ON 60 INGRAM DRIVE	6	Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974480
897.875000	936.875000	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974472
897.875000	936.875000	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974472
897.875000	936.875000	TORONTO, ON		Toronto Hydro- Electric System Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964031
899.387500	938.387500	MORNING SIDE YARD, TORONTO	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964023
899.387500	938.387500	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro- Electric System Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980917
899.387500	938.387500	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980800
899.387500	938.387500	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro- Electric System Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974423
899.387500	938.387500	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro- Electric System Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974360
899.387500	938.387500	TORONTO, ON 1050 ELLESMERE RD #A	4	Toronto Hydro- Electric System Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974504
899.387500	938.387500	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro- Electric System Limited and City of Toronto (Works) Toronto Hydro-	4980816

899.387500	938.387500	TORONTO, ON 1116 KING ST WEST	6	Electric System Limited and City of Toronto (Works)	4974485
899.387500	938.387500	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980902
899.387500	938.387500	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974417
899.387500	938.387500	TORONTO, ON 1401 CASTLEFIELD RD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974463
899.387500	938.387500	TORONTO, ON 150 DISCO ROAD	7	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974502
899.387500	938.387500	TORONTO, ON 188 BURMONDSEY ROAD	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980819
899.387500	938.387500	TORONTO, ON 25 OLD EGLINTON	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974478
899.387500	938.387500	TORONTO, ON 275 MERTON STREET	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974421
899.387500	938.387500	TORONTO, ON 2751 LESLIE ST	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980674
899.387500	938.387500	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974460
899.387500	938.387500	TORONTO, ON 320 BERING ROAD	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498

				(WORKS)	
899.387500	938.387500	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980915
899.387500	938.387500	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980912
899.387500	938.387500	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980909
899.387500	938.387500	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980868
899.387500	938.387500	TORONTO, ON 433 EASTERN AVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974495
899.387500	938.387500	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980661
899.387500	938.387500	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980835
899.387500	938.387500	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974415
899.387500	938.387500	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980806
899.387500	938.387500	TORONTO, ON 7 LESLIE STREET	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974500
899.387500	938.387500	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro- Electric System Limited and City of Toronto	4974475

				OF TORONTO	
899.387500	938.387500	TORONTO, ON 86 INGRAM DRIVE	4	(Works) Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974480
899.387500	938.387500	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974472
899.387500	938.387500	TORONTO, ON		Toronto Hydro-Electric System Limited and City of Toronto (Works)	4964031
899.400000	938.400000	MORNING SIDE YARD, TORONTO	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4964023
899.400000	938.400000	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980917
899.400000	938.400000	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980800
899.400000	938.400000	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974423
899.400000	938.400000	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974360
899.400000	938.400000	TORONTO, ON 1050 ELLESMERE RD #A	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974504
899.400000	938.400000	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980816
		TORONTO, ON		Toronto Hydro-Electric System	

899.400000	938.400000	1116 KING ST WEST	6	Limited and City of Toronto (Works)	4974485
899.400000	938.400000	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980902
899.400000	938.400000	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974417
899.400000	938.400000	TORONTO, ON 1401 CASTLEFIELD RD	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974463
899.400000	938.400000	TORONTO, ON 150 DISCO ROAD	7	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974502
899.400000	938.400000	TORONTO, ON 188 BURMONDSEY ROAD	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980819
899.400000	938.400000	TORONTO, ON 25 OLD EGLINTON	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974478
899.400000	938.400000	TORONTO, ON 275 MERTON STREET	9	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974421
899.400000	938.400000	TORONTO, ON 2751 LESLIE ST	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980674
899.400000	938.400000	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974460
899.400000	938.400000	TORONTO, ON 320 BERING ROAD	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974498
				Toronto Hydro-	



		TORONTO, ON		Electric System	
899.400000	938.400000	3350 VICTORIA PARK	9	Limited and City of Toronto (Works)	4980915
899.400000	938.400000	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980912
899.400000	938.400000	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980909
899.400000	938.400000	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980868
899.400000	938.400000	TORONTO, ON 433 EASTERN AVE	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974495
899.400000	938.400000	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980661
899.400000	938.400000	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980835
899.400000	938.400000	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974415
899.400000	938.400000	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980806
899.400000	938.400000	TORONTO, ON 7 LESLIE STREET	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974500
899.400000	938.400000	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974475

899.400000	938.400000	TORONTO, ON 86 INGRAM DRIVE	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974480
899.400000	938.400000	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974472
899.400000	938.400000	TORONTO, ON		Toronto Hydro-Electric System Limited and City of Toronto (Works)	4964031
899.412500	938.412500	MORNING SIDE YARD, TORONTO	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4964023
899.412500	938.412500	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980917
899.412500	938.412500	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980800
899.412500	938.412500	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974423
899.412500	938.412500	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974360
899.412500	938.412500	TORONTO, ON 1050 ELLESMERE RD #A	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974504
899.412500	938.412500	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980816
899.412500	938.412500	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro-Electric System Limited and City of Toronto	4974485

		WEST		OF TORONTO (Works)	
899.412500	938.412500	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980902
899.412500	938.412500	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974417
899.412500	938.412500	TORONTO, ON 1401 CASTLEFIELD 3 RD		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974463
899.412500	938.412500	TORONTO, ON 150 DISCO ROAD	7	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974502
899.412500	938.412500	TORONTO, ON 188 BURMONDSEY ROAD	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980819
899.412500	938.412500	TORONTO, ON 25 OLD EGLINTON	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974478
899.412500	938.412500	TORONTO, ON 275 MERTON STREET	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974421
899.412500	938.412500	TORONTO, ON 2751 LESLIE ST	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980674
899.412500	938.412500	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974460
899.412500	938.412500	TORONTO, ON 320 BERING ROAD	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498
899.412500	938.412500	TORONTO, ON 2250 VICTORIA	0	Toronto Hydro- Electric System Limited and City	4980015

899.412500	938.412500	3330 VICTORIA PARK	7	Limited and City of Toronto (Works) Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980913
899.412500	938.412500	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980912
899.412500	938.412500	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980909
899.412500	938.412500	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980868
899.412500	938.412500	TORONTO, ON 433 EASTERN AVE	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974495
899.412500	938.412500	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980661
899.412500	938.412500	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980835
899.412500	938.412500	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974415
899.412500	938.412500	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980806
899.412500	938.412500	TORONTO, ON 7 LESLIE STREET	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974500
899.412500	938.412500	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974475
		TORONTO, ON 37		Toronto Hydro-Electric System	

899.412500	938.412500	TORONTO, ON 86 INGRAM DRIVE	4	Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974480
899.412500	938.412500	TORONTO, ON, 677 WELLINGTON ROAD	3	Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974472
899.412500	938.412500	TORONTO, ON		Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964031
899.425000	938.425000	MORNING SIDE YARD, TORONTO	4	Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964023
899.425000	938.425000	TORONTO, ON - 1 TRANSFER PLACE	9	Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980917
899.425000	938.425000	TORONTO, ON - 64 MURRAY ROAD	3	Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980800
899.425000	938.425000	TORONTO, ON 1008 YONGE ST	5	Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974423
899.425000	938.425000	TORONTO, ON 1026 FINCH AVE W.	8	Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974360
899.425000	938.425000	TORONTO, ON 1050 ELLESMERE RD #A	4	Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974504
899.425000	938.425000	TORONTO, ON 1050 ELLESMERE RD #A	5	Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980816
899.425000	938.425000	TORONTO, ON 1116 KING ST WEST	6	Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974485

899.425000	938.425000	TORONTO, ON 120 DISCO ROAD 6	Electric System Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980902
899.425000	938.425000	TORONTO, ON 140 MERTON STREET 12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974417
899.425000	938.425000	TORONTO, ON 1401 CASTLEFIELD 3 RD	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974463
899.425000	938.425000	TORONTO, ON 150 DISCO ROAD 7	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974502
899.425000	938.425000	TORONTO, ON 188 BURMONDSEY 15 ROAD	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980819
899.425000	938.425000	TORONTO, ON 25 OLD EGLINTON 6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974478
899.425000	938.425000	TORONTO, ON 275 MERTON STREET 9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974421
899.425000	938.425000	TORONTO, ON 2751 LESLIE ST 4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980674
899.425000	938.425000	TORONTO, ON 30 NORTHLINE 6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974460
899.425000	938.425000	TORONTO, ON 320 BERING ROAD 4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498
899.425000	938.425000	TORONTO, ON 3350 VICTORIA 9 PARK	Toronto Hydro- Electric System Limited and City of Toronto (Works) Toronto Hydro-	4980915

899.425000	938.425000	TORONTO, ON 35 VANLEY CRES	3	Electric System Limited and City of Toronto (Works)	4980912
899.425000	938.425000	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980909
899.425000	938.425000	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980868
899.425000	938.425000	TORONTO, ON 433 EASTERN AVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974495
899.425000	938.425000	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980661
899.425000	938.425000	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980835
899.425000	938.425000	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974415
899.425000	938.425000	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980806
899.425000	938.425000	TORONTO, ON 7 LESLIE STREET	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974500
899.425000	938.425000	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974475
899.425000	938.425000	TORONTO, ON 86 INGRAM DRIVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974480
				Toronto Hydro	

		TORONTO, ON,		Toronto Hydro- Electric System	
899.425000	938.425000	677 WELLINGTON ROAD	3	Limited and City of Toronto (Works)	4974472
899.425000	938.425000	TORONTO, ON		Toronto Hydro-Electric System Limited and City of Toronto (Works)	4964031
899.437500	938.437500	MORNING SIDE YARD, TORONTO	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4964023
899.437500	938.437500	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980917
899.437500	938.437500	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980800
899.437500	938.437500	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974423
899.437500	938.437500	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974360
899.437500	938.437500	TORONTO, ON 1050 ELLESMERE RD #A	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974504
899.437500	938.437500	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980816
899.437500	938.437500	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974485
899.437500	938.437500	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980902



899.437500	938.437500	TORONTO, ON 140 12 MERTON STREET	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974417
899.437500	938.437500	TORONTO, ON 1401 CASTLEFIELD 3 RD	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974463
899.437500	938.437500	TORONTO, ON 150 7 DISCO ROAD	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974502
899.437500	938.437500	TORONTO, ON 188 BURMONDSEY 15 ROAD	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980819
899.437500	938.437500	TORONTO, ON 25 6 OLD EGLINTON	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974478
899.437500	938.437500	TORONTO, ON 275 9 MERTON STREET	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974421
899.437500	938.437500	TORONTO, ON 2751 LESLIE ST 4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980674
899.437500	938.437500	TORONTO, ON 30 6 NORTHLINE	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974460
899.437500	938.437500	TORONTO, ON 320 4 BERING ROAD	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498
899.437500	938.437500	TORONTO, ON 3350 VICTORIA 9 PARK	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980915
899.437500	938.437500	TORONTO, ON 35 3 VANLEY CRES	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980912

899.437500	938.437500	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980909
899.437500	938.437500	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980868
899.437500	938.437500	TORONTO, ON 433 EASTERN AVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974495
899.437500	938.437500	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980661
899.437500	938.437500	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980835
899.437500	938.437500	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974415
899.437500	938.437500	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980806
899.437500	938.437500	TORONTO, ON 7 LESLIE STREET	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974500
899.437500	938.437500	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974475
899.437500	938.437500	TORONTO, ON 86 INGRAM DRIVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974480
899.437500	938.437500	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto	4974472

				(Works)	
899.437500	938.437500	TORONTO, ON		Toronto Hydro-Electric System Limited and City of Toronto (Works)	4964031
899.450000	938.450000	MORNING SIDE YARD, TORONTO	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4964023
899.450000	938.450000	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980917
899.450000	938.450000	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980800
899.450000	938.450000	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974423
899.450000	938.450000	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974360
899.450000	938.450000	TORONTO, ON 1050 ELLESMERE RD #A	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974504
899.450000	938.450000	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980816
899.450000	938.450000	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974485
899.450000	938.450000	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980902
		TORONTO, ON 140		Toronto Hydro-Electric System	

899.450000	938.450000	TORONTO, ON 140 MERTON STREET	12	Limited and City of Toronto  (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974417
899.450000	938.450000	TORONTO, ON 1401 CASTLEFIELD RD	3	Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974463
899.450000	938.450000	TORONTO, ON 150 DISCO ROAD	7	Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974502
899.450000	938.450000	TORONTO, ON 188 BURMONDSEY ROAD	15	Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980819
899.450000	938.450000	TORONTO, ON 25 OLD EGLINTON	6	Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974478
899.450000	938.450000	TORONTO, ON 275 MERTON STREET	9	Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974421
899.450000	938.450000	TORONTO, ON 2751 LESLIE ST	4	Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980674
899.450000	938.450000	TORONTO, ON 30 NORTHLINE	6	Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974460
899.450000	938.450000	TORONTO, ON 320 BERING ROAD	4	Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498
899.450000	938.450000	TORONTO, ON 3350 VICTORIA PARK	9	Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980915
899.450000	938.450000	TORONTO, ON 35 VANLEY CRES	3	Limited and City of Toronto (Works) Toronto Hydro-	4980912

899.450000	938.450000	TORONTO, ON 35 VANLEY CRES	15	Electric System Limited and City of Toronto (Works)	4980909
899.450000	938.450000	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980868
899.450000	938.450000	TORONTO, ON 433 EASTERN AVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974495
899.450000	938.450000	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980661
899.450000	938.450000	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980835
899.450000	938.450000	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974415
899.450000	938.450000	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980806
899.450000	938.450000	TORONTO, ON 7 LESLIE STREET	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974500
899.450000	938.450000	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974475
899.450000	938.450000	TORONTO, ON 86 INGRAM DRIVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974480
899.450000	938.450000	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974472

899.450000	938.450000	TORONTO, ON		Toronto Hydro-Electric System Limited and City of Toronto (Works)	4964031
899.462500	936.462500	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974415
899.462500	938.462500	MORNING SIDE YARD, TORONTO	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4964023
899.462500	938.462500	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980917
899.462500	938.462500	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980800
899.462500	938.462500	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974423
899.462500	938.462500	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974360
899.462500	938.462500	TORONTO, ON 1050 ELLESMERE RD #A	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974504
899.462500	938.462500	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980816
899.462500	938.462500	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974485
899.462500	938.462500	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro-Electric System Limited and City of Toronto	4980902

899.462500	938.462500	TORONTO, ON 140 MERTON STREET	12	(Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974417
899.462500	938.462500	TORONTO, ON 1401 CASTLEFIELD 3 RD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974463
899.462500	938.462500	TORONTO, ON 150 DISCO ROAD	7	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974502
899.462500	938.462500	TORONTO, ON 188 BURMONDSEY 15 ROAD	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980819
899.462500	938.462500	TORONTO, ON 25 OLD EGLINTON	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974478
899.462500	938.462500	TORONTO, ON 275 MERTON STREET	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974421
899.462500	938.462500	TORONTO, ON 2751 LESLIE ST	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980674
899.462500	938.462500	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974460
899.462500	938.462500	TORONTO, ON 320 BERING ROAD	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498
899.462500	938.462500	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980915
899.462500	938.462500	TORONTO, ON 35 VALLEY CREEK	3	Toronto Hydro- Electric System Limited and City	4980912

		VANLEY CRES		of Toronto (Works)	
899.462500	938.462500	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980909
899.462500	938.462500	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980868
899.462500	938.462500	TORONTO, ON 433 EASTERN AVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974495
899.462500	938.462500	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980661
899.462500	938.462500	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980835
899.462500	938.462500	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980806
899.462500	938.462500	TORONTO, ON 7 LESLIE STREET	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974500
899.462500	938.462500	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974475
899.462500	938.462500	TORONTO, ON 86 INGRAM DRIVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974480
899.462500	938.462500	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974472
				Toronto Hydro- Electric System	



899.462500	938.462500	TORONTO, ON		Limited and City of Toronto	4964031
				(Works)	
899.475000	938.475000	MORNING SIDE YARD, TORONTO	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4964023
899.475000	938.475000	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980917
899.475000	938.475000	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980800
899.475000	938.475000	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974423
899.475000	938.475000	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974360
899.475000	938.475000	TORONTO, ON 1050 ELLESMERE RD #A	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974504
899.475000	938.475000	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980816
899.475000	938.475000	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974485
899.475000	938.475000	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980902
899.475000	938.475000	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974417

		TORONTO, ON		Toronto Hydro-Electric System	
899.475000	938.475000	1401 CASTLEFIELD 3 RD		Limited and City of Toronto (Works)	4974463
899.475000	938.475000	TORONTO, ON 150 DISCO ROAD	7	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974502
899.475000	938.475000	TORONTO, ON 188 BURMONDSEY ROAD	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980819
899.475000	938.475000	TORONTO, ON 25 OLD EGLINTON	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974478
899.475000	938.475000	TORONTO, ON 275 MERTON STREET	9	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974421
899.475000	938.475000	TORONTO, ON 2751 LESLIE ST	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980674
899.475000	938.475000	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974460
899.475000	938.475000	TORONTO, ON 320 BERING ROAD	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974498
899.475000	938.475000	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980915
899.475000	938.475000	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980912
899.475000	938.475000	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980909

899.475000	938.475000	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980868
899.475000	938.475000	TORONTO, ON 433 EASTERN AVE	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974495
899.475000	938.475000	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980661
899.475000	938.475000	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980835
899.475000	938.475000	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974415
899.475000	938.475000	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980806
899.475000	938.475000	TORONTO, ON 7 LESLIE STREET	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974500
899.475000	938.475000	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974475
899.475000	938.475000	TORONTO, ON 86 INGRAM DRIVE	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974480
899.475000	938.475000	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974472
899.475000	938.475000	TORONTO, ON		Toronto Hydro-Electric System Limited and City of Toronto	4964031

				(works) Toronto Hydro-	
899.487500	938.487500	MORNING SIDE YARD, TORONTO	4	Electric System Limited and City of Toronto (Works)	4964023
899.487500	938.487500	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980917
899.487500	938.487500	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980800
899.487500	938.487500	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974423
899.487500	938.487500	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974360
899.487500	938.487500	TORONTO, ON 1050 ELLESMERE RD #A	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974504
899.487500	938.487500	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980816
899.487500	938.487500	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974485
899.487500	938.487500	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980902
899.487500	938.487500	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974417
899.487500	938.487500	TORONTO, ON 1401 CASTLEFIELD RD	3	Toronto Hydro- Electric System Limited and City of Toronto	4974463

				(Works)	
				Toronto Hydro-	
899.487500	938.487500	TORONTO, ON 150 DISCO ROAD	7	Electric System Limited and City of Toronto (Works)	4974502
899.487500	938.487500	TORONTO, ON 188 BURMONDSEY ROAD	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980819
899.487500	938.487500	TORONTO, ON 25 OLD EGLINTON	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974478
899.487500	938.487500	TORONTO, ON 275 MERTON STREET	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974421
899.487500	938.487500	TORONTO, ON 2751 LESLIE ST	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980674
899.487500	938.487500	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974460
899.487500	938.487500	TORONTO, ON 320 BERING ROAD	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498
899.487500	938.487500	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980915
899.487500	938.487500	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980912
899.487500	938.487500	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980909
899.487500	938.487500	TORONTO, ON 400 COMMISSIONERS ST	12	Toronto Hydro- Electric System Limited and City of Toronto	4980868

		ST.		OF TORONTO (Works)	
899.487500	938.487500	TORONTO, ON 433 EASTERN AVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974495
899.487500	938.487500	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980661
899.487500	938.487500	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980835
899.487500	938.487500	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974415
899.487500	938.487500	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980806
899.487500	938.487500	TORONTO, ON 7 LESLIE STREET	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974500
899.487500	938.487500	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974475
899.487500	938.487500	TORONTO, ON 86 INGRAM DRIVE	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974480
899.487500	938.487500	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974472
899.487500	938.487500	TORONTO, ON		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964031
899.500000	938.500000	MORNING SIDE VARD TORONTO	4	Toronto Hydro- Electric System Limited and City	4964023

		TARD, TORONTO		of Toronto (Works)	
899.500000	938.500000	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980917
899.500000	938.500000	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980800
899.500000	938.500000	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974423
899.500000	938.500000	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974360
899.500000	938.500000	TORONTO, ON 1050 ELLESMERE RD #A	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974504
899.500000	938.500000	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980816
899.500000	938.500000	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974485
899.500000	938.500000	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980902
899.500000	938.500000	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974417
899.500000	938.500000	TORONTO, ON 1401 CASTLEFIELD 3 RD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974463
899.500000	938.500000	TORONTO, ON 150	7	Toronto Hydro- Electric System Limited and City	4974502

877.500000	938.500000	DISCO ROAD	7	Limited and City of Toronto (Works)	4774502
899.500000	938.500000	TORONTO, ON 188 BURMONDSEY ROAD	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980819
899.500000	938.500000	TORONTO, ON 25 OLD EGLINTON	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974478
899.500000	938.500000	TORONTO, ON 275 MERTON STREET	9	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974421
899.500000	938.500000	TORONTO, ON 2751 LESLIE ST	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980674
899.500000	938.500000	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974460
899.500000	938.500000	TORONTO, ON 320 BERING ROAD	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974498
899.500000	938.500000	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980915
899.500000	938.500000	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980912
899.500000	938.500000	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980909
899.500000	938.500000	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980868
				Toronto Hydro-Electric System	



899.500000	938.500000	TORONTO, ON 433 EASTERN AVE	4	Electric System Limited and City of Toronto	4974495
899.500000	938.500000	TORONTO, ON 5 BARTONVILLE	4	(Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980661
899.500000	938.500000	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980835
899.500000	938.500000	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974415
899.500000	938.500000	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980806
899.500000	938.500000	TORONTO, ON 7 LESLIE STREET	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974500
899.500000	938.500000	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974475
899.500000	938.500000	TORONTO, ON 86 INGRAM DRIVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974480
899.500000	938.500000	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974472
899.500000	938.500000	TORONTO, ON		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964031
899.887500	938.887500	MORNING SIDE YARD, TORONTO	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964023

899.887500	938.887500	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980917
899.887500	938.887500	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980800
899.887500	938.887500	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974423
899.887500	938.887500	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974360
899.887500	938.887500	TORONTO, ON 1050 ELLESMERE RD #A	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974504
899.887500	938.887500	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980816
899.887500	938.887500	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974485
899.887500	938.887500	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980902
899.887500	938.887500	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974417
899.887500	938.887500	TORONTO, ON 1401 CASTLEFIELD RD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974463
899.887500	938.887500	TORONTO, ON 150 DISCO ROAD	7	Toronto Hydro- Electric System Limited and City of Toronto	4974502

899.887500	938.887500	TORONTO, ON 188 BURMONDSEY ROAD	15	(Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980819
899.887500	938.887500	TORONTO, ON 25 OLD EGLINTON	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974478
899.887500	938.887500	TORONTO, ON 275 MERTON STREET	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974421
899.887500	938.887500	TORONTO, ON 2751 LESLIE ST	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980674
899.887500	938.887500	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974460
899.887500	938.887500	TORONTO, ON 320 BERING ROAD	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498
899.887500	938.887500	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980915
899.887500	938.887500	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980912
899.887500	938.887500	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980909
899.887500	938.887500	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980868
899.887500	938.887500	TORONTO, ON 433	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974495

877.887500	938.887500	EASTERN AVE	7	Limited and City of Toronto (Works)	4974475
899.887500	938.887500	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980661
899.887500	938.887500	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980835
899.887500	938.887500	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974415
899.887500	938.887500	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980806
899.887500	938.887500	TORONTO, ON 7 LESLIE STREET	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974500
899.887500	938.887500	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974475
899.887500	938.887500	TORONTO, ON 86 INGRAM DRIVE	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974480
899.887500	938.887500	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974472
899.887500	938.887500	TORONTO, ON		Toronto Hydro-Electric System Limited and City of Toronto (Works)	4964031
899.900000	938.900000	MORNING SIDE YARD, TORONTO	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4964023
				Toronto Hydro-Electric System	

899.900000	938.900000	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980917
899.900000	938.900000	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980800
899.900000	938.900000	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974423
899.900000	938.900000	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974360
899.900000	938.900000	TORONTO, ON 1050 ELLESMERE RD #A	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974504
899.900000	938.900000	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980816
899.900000	938.900000	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974485
899.900000	938.900000	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980902
899.900000	938.900000	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974417
899.900000	938.900000	TORONTO, ON 1401 CASTLEFIELD 3 RD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974463
899.900000	938.900000	TORONTO, ON 150 DISCO ROAD	7	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974502
				Toronto Hydro	

899.900000	938.900000	TORONTO, ON 188 BURMONDSEY ROAD	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980819
899.900000	938.900000	TORONTO, ON 25 OLD EGLINTON	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974478
899.900000	938.900000	TORONTO, ON 275 MERTON STREET	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974421
899.900000	938.900000	TORONTO, ON 2751 LESLIE ST	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980674
899.900000	938.900000	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974460
899.900000	938.900000	TORONTO, ON 320 BERING ROAD	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498
899.900000	938.900000	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980915
899.900000	938.900000	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980912
899.900000	938.900000	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980909
899.900000	938.900000	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980868
899.900000	938.900000	TORONTO, ON 433 EASTERN AVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974495

899.900000	938.900000	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980661
899.900000	938.900000	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980835
899.900000	938.900000	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974415
899.900000	938.900000	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980806
899.900000	938.900000	TORONTO, ON 7 LESLIE STREET	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974500
899.900000	938.900000	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974475
899.900000	938.900000	TORONTO, ON 86 INGRAM DRIVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974480
899.900000	938.900000	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974472
899.900000	938.900000	TORONTO, ON		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964031
899.912500	938.912500	MORNING SIDE YARD, TORONTO	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964023
899.912500	938.912500	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro- Electric System Limited and City	4980917

		TRANSFER FEE			
899.912500	938.912500	TORONTO, ON - 64 MURRAY ROAD	3	of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980800
899.912500	938.912500	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974423
899.912500	938.912500	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974360
899.912500	938.912500	TORONTO, ON 1050 ELLESMERE RD #A	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974504
899.912500	938.912500	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980816
899.912500	938.912500	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974485
899.912500	938.912500	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980902
899.912500	938.912500	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974417
899.912500	938.912500	TORONTO, ON 1401 CASTLEFIELD 3 RD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974463
899.912500	938.912500	TORONTO, ON 150 DISCO ROAD	7	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974502
899.912500	938.912500	TORONTO, ON 188 BLVD MONDSEY	15	Toronto Hydro- Electric System Limited and City	4980910



899.912500	938.912500	DURHAM/DURSET ROAD	13	Limited and City of Toronto (Works)	4980619
899.912500	938.912500	TORONTO, ON 25 OLD EGLINTON	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974478
899.912500	938.912500	TORONTO, ON 275 MERTON STREET	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974421
899.912500	938.912500	TORONTO, ON 2751 LESLIE ST	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980674
899.912500	938.912500	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974460
899.912500	938.912500	TORONTO, ON 320 BERING ROAD	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498
899.912500	938.912500	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980915
899.912500	938.912500	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980912
899.912500	938.912500	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980909
899.912500	938.912500	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980868
899.912500	938.912500	TORONTO, ON 433 EASTERN AVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974495
		TORONTO, ON 5		Toronto Hydro- Electric System	

899.912500	938.912500	TORONTO, ON 5 BARTONVILLE	4	Limited and City of Toronto (Works)	4980661
899.912500	938.912500	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980835
899.912500	938.912500	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974415
899.912500	938.912500	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980806
899.912500	938.912500	TORONTO, ON 7 LESLIE STREET	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974500
899.912500	938.912500	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974475
899.912500	938.912500	TORONTO, ON 86 INGRAM DRIVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974480
899.912500	938.912500	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974472
899.912500	938.912500	TORONTO, ON		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964031
899.925000	938.925000	MORNING SIDE YARD, TORONTO	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964023
899.925000	938.925000	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980917
				Toronto Hydro- Electric System	

899.925000	938.925000	TORONTO, ON - 64 MURRAY ROAD	3	Electric System Limited and City of Toronto (Works)	4980800
899.925000	938.925000	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974423
899.925000	938.925000	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974360
899.925000	938.925000	TORONTO, ON 1050 ELLESMERE RD #A	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974504
899.925000	938.925000	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980816
899.925000	938.925000	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974485
899.925000	938.925000	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980902
899.925000	938.925000	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974417
899.925000	938.925000	TORONTO, ON 1401 CASTLEFIELD 3 RD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974463
899.925000	938.925000	TORONTO, ON 150 DISCO ROAD	7	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974502
899.925000	938.925000	TORONTO, ON 188 BURMONDSEY ROAD	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980819
				Toronto Hydro-	

899.925000	938.925000	TORONTO, ON 25 OLD EGLINTON	6	Electric System Limited and City of Toronto (Works)	4974478
899.925000	938.925000	TORONTO, ON 275 MERTON STREET	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974421
899.925000	938.925000	TORONTO, ON 2751 LESLIE ST	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980674
899.925000	938.925000	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974460
899.925000	938.925000	TORONTO, ON 320 BERING ROAD	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498
899.925000	938.925000	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980915
899.925000	938.925000	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980912
899.925000	938.925000	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980909
899.925000	938.925000	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980868
899.925000	938.925000	TORONTO, ON 433 EASTERN AVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974495
899.925000	938.925000	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980661
				Toronto Hvdro-	

899.925000	938.925000	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro-Electric System Limited and City of Toronto	4980835
899.925000	938.925000	TORONTO, ON 505 RICHMOND STREET W.	15	(Works) Toronto Hydro-Electric System Limited and City of Toronto	4974415
899.925000	938.925000	TORONTO, ON 61 TORYORK ROAD	6	(Works) Toronto Hydro-Electric System Limited and City of Toronto	4980806
899.925000	938.925000	TORONTO, ON 7 LESLIE STREET	4	(Works) Toronto Hydro-Electric System Limited and City of Toronto	4974500
899.925000	938.925000	TORONTO, ON 703 DON MILLS RD	40	(Works) Toronto Hydro-Electric System Limited and City of Toronto	4974475
899.925000	938.925000	TORONTO, ON 86 INGRAM DRIVE	4	(Works) Toronto Hydro-Electric System Limited and City of Toronto	4974480
899.925000	938.925000	TORONTO, ON, 677 WELLINGTON ROAD	3	(Works) Toronto Hydro-Electric System Limited and City of Toronto	4974472
899.925000	938.925000	TORONTO, ON		(Works) Toronto Hydro-Electric System Limited and City of Toronto	4964031
899.937500	938.937500	MORNING SIDE YARD, TORONTO	4	(Works) Toronto Hydro-Electric System Limited and City of Toronto	4964023
899.937500	938.937500	TORONTO, ON - 1 TRANSFER PLACE	9	(Works) Toronto Hydro-Electric System Limited and City of Toronto	4980917
899.937500	938.937500	TORONTO, ON - 64 MURRAY ROAD	3	(Works) Toronto Hydro-Electric System Limited and City of Toronto	4980800

899.937500	938.937500	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974423
899.937500	938.937500	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974360
899.937500	938.937500	TORONTO, ON 1050 ELLESMERE RD #A	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974504
899.937500	938.937500	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980816
899.937500	938.937500	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974485
899.937500	938.937500	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980902
899.937500	938.937500	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974417
899.937500	938.937500	TORONTO, ON 1401 CASTLEFIELD 3 RD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974463
899.937500	938.937500	TORONTO, ON 150 DISCO ROAD	7	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974502
899.937500	938.937500	TORONTO, ON 188 BURMONDSEY ROAD	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980819
899.937500	938.937500	TORONTO, ON 25 OLD EGLINTON	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974478

899.937500	938.937500	TORONTO, ON 275 MERTON STREET	9	(WORKS) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974421
899.937500	938.937500	TORONTO, ON 2751 LESLIE ST	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980674
899.937500	938.937500	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974460
899.937500	938.937500	TORONTO, ON 320 BERING ROAD	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498
899.937500	938.937500	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980915
899.937500	938.937500	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980912
899.937500	938.937500	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980909
899.937500	938.937500	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980868
899.937500	938.937500	TORONTO, ON 433 EASTERN AVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974495
899.937500	938.937500	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980661
899.937500	938.937500	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro- Electric System Limited and City of Toronto	4980835

				ST. JEROME (Works)	
				Toronto Hydro- Electric System	
899.937500	938.937500	TORONTO, ON 505 RICHMOND STREET W.	15	Limited and City of Toronto (Works)	4974415
899.937500	938.937500	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980806
899.937500	938.937500	TORONTO, ON 7 LESLIE STREET	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974500
899.937500	938.937500	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974475
899.937500	938.937500	TORONTO, ON 86 INGRAM DRIVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974480
899.937500	938.937500	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974472
899.937500	938.937500	TORONTO, ON		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964031
899.950000	938.950000	MORNING SIDE YARD, TORONTO	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964023
899.950000	938.950000	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980917
899.950000	938.950000	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980800
		-----		Toronto Hydro- Electric System	



899.950000	938.950000	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974423
899.950000	938.950000	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974360
899.950000	938.950000	TORONTO, ON 1050 ELLESMERE RD #A	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974504
899.950000	938.950000	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980816
899.950000	938.950000	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974485
899.950000	938.950000	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980902
899.950000	938.950000	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974417
899.950000	938.950000	TORONTO, ON 1401 CASTLEFIELD 3 RD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974463
899.950000	938.950000	TORONTO, ON 150 DISCO ROAD	7	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974502
899.950000	938.950000	TORONTO, ON 188 BURMONDSEY ROAD	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980819
899.950000	938.950000	TORONTO, ON 25 OLD EGLINTON	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974478
				Toronto Hydro-	

899.950000	938.950000	TORONTO, ON 275 MERTON STREET	9	Electric System Limited and City of Toronto (Works)	4974421
899.950000	938.950000	TORONTO, ON 2751 LESLIE ST	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980674
899.950000	938.950000	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974460
899.950000	938.950000	TORONTO, ON 320 BERING ROAD	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498
899.950000	938.950000	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980915
899.950000	938.950000	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980912
899.950000	938.950000	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980909
899.950000	938.950000	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980868
899.950000	938.950000	TORONTO, ON 433 EASTERN AVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974495
899.950000	938.950000	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980661
899.950000	938.950000	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980835

899.950000	938.950000	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974415
899.950000	938.950000	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980806
899.950000	938.950000	TORONTO, ON 7 LESLIE STREET	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974500
899.950000	938.950000	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974475
899.950000	938.950000	TORONTO, ON 86 INGRAM DRIVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974480
899.950000	938.950000	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974472
899.950000	938.950000	TORONTO, ON		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964031
899.962500	938.962500	MORNING SIDE YARD, TORONTO	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964023
899.962500	938.962500	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980917
899.962500	938.962500	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980800
899.962500	938.962500	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro- Electric System Limited and City of Toronto	4974423

				(Works)	
				Toronto Hydro-Electric System	
899.962500	938.962500	TORONTO, ON 1026 FINCH AVE W.	8	Limited and City of Toronto (Works)	4974360
899.962500	938.962500	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980816
899.962500	938.962500	TORONTO, ON 1050 ELLESMERE RD #A	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974504
899.962500	938.962500	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974485
899.962500	938.962500	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980902
899.962500	938.962500	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974417
899.962500	938.962500	TORONTO, ON 1401 CASTLEFIELD RD	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974463
899.962500	938.962500	TORONTO, ON 150 DISCO ROAD	7	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974502
899.962500	938.962500	TORONTO, ON 188 BURMONDSEY ROAD	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980819
899.962500	938.962500	TORONTO, ON 25 OLD EGLINTON	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974478
899.962500	938.962500	TORONTO, ON 275 -----	9	Toronto Hydro-Electric System Limited and City	4974421

		MERTON STREET		of Toronto (Works) Toronto Hydro-	
899.962500	938.962500	TORONTO, ON 2751 LESLIE ST	4	Electric System Limited and City of Toronto (Works) Toronto Hydro-	4980674
899.962500	938.962500	TORONTO, ON 30 NORTHLINE	6	Electric System Limited and City of Toronto (Works) Toronto Hydro-	4974460
899.962500	938.962500	TORONTO, ON 320 BERING ROAD	6	Electric System Limited and City of Toronto (Works)	4974498
899.962500	938.962500	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980915
899.962500	938.962500	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980912
899.962500	938.962500	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980909
899.962500	938.962500	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980868
899.962500	938.962500	TORONTO, ON 433 EASTERN AVE	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974495
899.962500	938.962500	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980661
899.962500	938.962500	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980835
				Toronto Hydro-	

899.962500	938.962500	TORONTO, ON 505 RICHMOND STREET W.	15	Electric System Limited and City of Toronto (Works)	4974415
899.962500	938.962500	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980806
899.962500	938.962500	TORONTO, ON 7 LESLIE STREET	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974500
899.962500	938.962500	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974475
899.962500	938.962500	TORONTO, ON 86 INGRAM DRIVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974480
899.962500	938.962500	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974472
899.962500	938.962500	TORONTO, ON		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964031
899.975000	938.975000	MORNING SIDE YARD, TORONTO	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964023
899.975000	938.975000	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980917
899.975000	938.975000	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980800
899.975000	938.975000	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974423

899.975000	938.975000	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro- Electric System Limited and City of Toronto	4974360
899.975000	938.975000	TORONTO, ON 1050 ELLESMERE RD #A	4	(Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974504
899.975000	938.975000	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980816
899.975000	938.975000	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974485
899.975000	938.975000	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980902
899.975000	938.975000	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974417
899.975000	938.975000	TORONTO, ON 1401 CASTLEFIELD RD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974463
899.975000	938.975000	TORONTO, ON 150 DISCO ROAD	7	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974502
899.975000	938.975000	TORONTO, ON 188 BURMONDSEY ROAD	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980819
899.975000	938.975000	TORONTO, ON 25 OLD EGLINTON	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974478
899.975000	938.975000	TORONTO, ON 275 MERTON STREET	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974421

899.975000	938.975000	TORONTO, ON 2751 LESLIE ST	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980674
899.975000	938.975000	TORONTO, ON 30 NORTHLINE	6	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974460
899.975000	938.975000	TORONTO, ON 320 BERING ROAD	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974498
899.975000	938.975000	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980915
899.975000	938.975000	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980912
899.975000	938.975000	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980909
899.975000	938.975000	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980868
899.975000	938.975000	TORONTO, ON 433 EASTERN AVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974495
899.975000	938.975000	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980661
899.975000	938.975000	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980835
899.975000	938.975000	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974415



899.975000	938.975000	TORONTO, ON 61 TORYORK ROAD	6	(WORKS) Toronto Hydro- Electric System Limited and City	4980806
899.975000	938.975000	TORONTO, ON 7 LESLIE STREET	4	of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974500
899.975000	938.975000	TORONTO, ON 703 DON MILLS RD	40	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974475
899.975000	938.975000	TORONTO, ON 86 INGRAM DRIVE	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974480
899.975000	938.975000	TORONTO, ON, 677 WELLINGTON ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974472
899.975000	938.975000	TORONTO, ON		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964031
899.987500	938.987500	MORNING SIDE YARD, TORONTO	4	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964023
899.987500	938.987500	TORONTO, ON - 1 TRANSFER PLACE	9	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980917
899.987500	938.987500	TORONTO, ON - 64 MURRAY ROAD	3	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4980800
899.987500	938.987500	TORONTO, ON 1008 YONGE ST	5	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974423
899.987500	938.987500	TORONTO, ON 1026 FINCH AVE W.	8	Toronto Hydro- Electric System Limited and City of Toronto	4974360

899.987500	938.987500	TORONTO, ON 1050 ELLESMERE RD #A	4	(Works) Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974504
899.987500	938.987500	TORONTO, ON 1050 ELLESMERE RD #A	5	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980816
899.987500	938.987500	TORONTO, ON 1116 KING ST WEST	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974485
899.987500	938.987500	TORONTO, ON 120 DISCO ROAD	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980902
899.987500	938.987500	TORONTO, ON 140 MERTON STREET	12	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974417
899.987500	938.987500	TORONTO, ON 1401 CASTLEFIELD RD	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974463
899.987500	938.987500	TORONTO, ON 150 DISCO ROAD	7	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974502
899.987500	938.987500	TORONTO, ON 188 BURMONDSEY ROAD	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980819
899.987500	938.987500	TORONTO, ON 25 OLD EGLINTON	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974478
899.987500	938.987500	TORONTO, ON 275 MERTON STREET	9	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974421
899.987500	938.987500	TORONTO, ON 2751 LESLIE ST	4	Toronto Hydro-Electric System Limited and City of Toronto	4980674

899.987500	938.987500	TORONTO, ON 30 NORTHLINE	6	ST. JEROME (Works) Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974460
899.987500	938.987500	TORONTO, ON 320 BERING ROAD	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974498
899.987500	938.987500	TORONTO, ON 3350 VICTORIA PARK	9	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980915
899.987500	938.987500	TORONTO, ON 35 VANLEY CRES	3	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980912
899.987500	938.987500	TORONTO, ON 35 VANLEY CRES	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980909
899.987500	938.987500	TORONTO, ON 400 COMMISSIONERS ST.	12	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980868
899.987500	938.987500	TORONTO, ON 433 EASTERN AVE	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974495
899.987500	938.987500	TORONTO, ON 5 BARTONVILLE	4	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980661
899.987500	938.987500	TORONTO, ON 50 INGRAM DRIVE	18	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980835
899.987500	938.987500	TORONTO, ON 505 RICHMOND STREET W.	15	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4974415
899.987500	938.987500	TORONTO, ON 61 TORYORK ROAD	6	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4980806

					of Toronto (Works) Toronto Hydro- Electric System	
899.987500	938.987500	TORONTO, ON 7 LESLIE STREET	4		Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974500
899.987500	938.987500	TORONTO, ON 703 DON MILLS RD	40		Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974475
899.987500	938.987500	TORONTO, ON 86 INGRAM DRIVE	4		Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974480
899.987500	938.987500	TORONTO, ON, 677 WELLINGTON ROAD	3		Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4974472
899.987500	938.987500	TORONTO, ON			Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4964031
936.862500	897.862500	TORONTO, ON, 6 FOREST LANEWAY	80		Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	5002949
938.487500	899.487500	TORONTO, ON, 6 FOREST LANEWAY	80		Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	5002949
938.500000	899.500000	TORONTO, ON, 6 FOREST LANEWAY	80		Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	5002949
938.937500	899.937500	TORONTO, ON, 6 FOREST LANEWAY	80		Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	5002949
938.950000	899.950000	TORONTO, ON, 6 FOREST LANEWAY	80		Limited and City of Toronto (Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	5002949
		TORONTO, ON 6			Toronto Hydro- Electric System	

938.962500	899.962500	TORONTO, ON, 6 FOREST LANEWAY	80	Limited and City of Toronto (Works) Toronto Hydro-	5002949
938.975000	899.975000	TORONTO, ON, 6 FOREST LANEWAY	80	Electric System Limited and City of Toronto (Works) Toronto Hydro-	5002949
938.987500	899.987500	TORONTO, ON, 6 FOREST LANEWAY	80	Electric System Limited and City of Toronto (Works)	5002949

Search Criteria

Search Criteria

Licensee Name:

Toronto Hydro-Electric System Limited and City of T

Output Format:

☒ HTML with selected fields (for viewing online)

☐ ASCII with selected fields only (for downloading)

☐ ASCII with all fields (for downloading), including:

None

☐ XML with all fields (for downloading), including:

None

Find

Reset

Date Modified: 2011-07-25



Industry Canada > Radio, Spectrum and Telecommunications > Spectrum Direct > Licensee Name Search > Licensee Name Search Results

## Spectrum Direct

### Licensee Name Search Results



On this page: [▼ Search Results](#) [▼ Search Criteria](#)

### Search Results



#### Notes:

- These results **do not include protected frequency records**. Valid EMC studies require coordination with protected frequency owners. To obtain a list of protected frequency owners by microwave frequency band and longitude range, go to the [Protected Microwave Frequency Information Search](#).
- **NEW** Data from unsubmitted microwave applications is no longer available in the search results. Search results do include data on new, pending microwave stations that have been submitted and are under study.
- Information in coded fields can be decoded using the [TAFL Search Field Decode Files](#).
- Use the [search form](#) at the bottom of the page to download these results in ASCII or XML Format.

The records listed below were found for the selected licensee.

**121 record(s) retrieved.**

#### Search Results

Tx Frequency (MHz)	Rx Frequency (MHz)	Station Location	Tx Antenna Height Above Ground Level (m)	Licensee Name	Licence Number
897.637500	936.637500	TORONTO, ON, 14 CARLTON STREET	11	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4534828
897.637500	936.637500	TORONTO, ON. 10 BELFIELD RD.	11	Toronto Hydro-Electric System Limited and City of Toronto (Works)	4534830
897.637500	936.637500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro-Electric System Limited and City of Toronto (Works)	3960703
		TORONTO, ON.		Toronto Hydro-	

897.637500	936.637500	28 UNDERWRITERS ROAD	11	Electric System Limited and City of Toronto (Works)	3960703
897.637500	936.637500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.637500	936.637500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.637500	936.637500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.637500	936.637500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.637500	936.637500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.637500	936.637500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.637500	936.637500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.637500	936.637500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.637500	936.637500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.637500	936.637500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.637500	936.637500	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701
				Toronto Hydro-	

897.637500	936.637500	TORONTO, ON. 5800 YONGE ST.	11	Electric System Limited and City of Toronto (Works)	3960701
897.637500	936.637500	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701
897.637500	936.637500	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701
897.637500	936.637500	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701
897.637500	936.637500	TORONTO, ONT. METRO AREA (ML)		Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960781
897.637500	936.637500	TORONTO, ONT. METRO AREA (PBL)		Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960705
897.637500	936.637500	VARIOUS TORONTO LOCATIONS		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4922242
897.650000	936.650000	TORONTO, ON, 14 CARLTON STREET	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4534828
897.650000	936.650000	TORONTO, ON. 10 BELFIELD RD.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4534830
897.650000	936.650000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.650000	936.650000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
				Toronto Hydro-	



897.650000	936.650000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Electric System Limited and City of Toronto (Works)	3960703
897.650000	936.650000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.650000	936.650000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.650000	936.650000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.650000	936.650000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.650000	936.650000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.650000	936.650000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.650000	936.650000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.650000	936.650000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.650000	936.650000	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701
897.650000	936.650000	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701

897.650000	936.650000	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701
897.650000	936.650000	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701
897.650000	936.650000	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701
897.650000	936.650000	TORONTO, ONT. METRO AREA (ML)		Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960781
897.650000	936.650000	TORONTO, ONT. METRO AREA (PBL)		Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960705
897.650000	936.650000	VARIOUS TORONTO LOCATIONS		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4922242
897.662500	936.662500	TORONTO, ON, 14 CARLTON STREET	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4534828
897.662500	936.662500	TORONTO, ON. 10 BELFIELD RD.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4534830
897.662500	936.662500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.662500	936.662500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.662500	936.662500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703

897.662500	936.662500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.662500	936.662500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.662500	936.662500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.662500	936.662500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.662500	936.662500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.662500	936.662500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.662500	936.662500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.662500	936.662500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.662500	936.662500	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701
897.662500	936.662500	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701
897.662500	936.662500	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701

897.662500	936.662500	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701
897.662500	936.662500	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701
897.662500	936.662500	TORONTO, ONT. METRO AREA (ML)		Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960781
897.662500	936.662500	TORONTO, ONT. METRO AREA (PBL)		Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960705
897.662500	936.662500	VARIOUS TORONTO LOCATIONS		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4922242
897.675000	936.675000	TORONTO, ON, 14 CARLTON STREET	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4534828
897.675000	936.675000	TORONTO, ON. 10 BELFIELD RD.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4534830
897.675000	936.675000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.675000	936.675000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.675000	936.675000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.675000	936.675000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto	3960703

897.675000	936.675000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	(Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.675000	936.675000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.675000	936.675000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.675000	936.675000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.675000	936.675000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.675000	936.675000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.675000	936.675000	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.675000	936.675000	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701
897.675000	936.675000	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701
897.675000	936.675000	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701
897.675000	936.675000	TORONTO, ON.	11	Toronto Hydro- Electric System Limited and City	3960701

		5800 YONGE ST.		of Toronto (Works)	
897.675000	936.675000	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701
897.675000	936.675000	TORONTO, ONT. METRO AREA (ML)		Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960781
897.675000	936.675000	TORONTO, ONT. METRO AREA (PBL)		Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960705
897.675000	936.675000	VARIOUS TORONTO LOCATIONS		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4922242
897.687500	936.687500	TORONTO, ON, 14 CARLTON STREET	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4534828
897.687500	936.687500	TORONTO, ON. 10 BELFIELD RD.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4534830
897.687500	936.687500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.687500	936.687500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.687500	936.687500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.687500	936.687500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
		TORONTO, ON.		Toronto Hydro- Electric System	

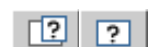
897.687500	936.687500	28 UNDERWRITERS ROAD	11	Electric System Limited and City of Toronto (Works)	3960703
897.687500	936.687500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.687500	936.687500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.687500	936.687500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.687500	936.687500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.687500	936.687500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.687500	936.687500	TORONTO, ON. 28 UNDERWRITERS ROAD	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960703
897.687500	936.687500	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701
897.687500	936.687500	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701
897.687500	936.687500	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701
897.687500	936.687500	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701

897.687500	936.687500	TORONTO, ON. 5800 YONGE ST.	11	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960701
897.687500	936.687500	TORONTO, ONT. METRO AREA (ML)		Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960781
897.687500	936.687500	TORONTO, ONT. METRO AREA (PBL)		Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960705
897.687500	936.687500	VARIOUS TORONTO LOCATIONS		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4922242
897.875000	936.875000	TORONTO, ONT. METRO AREA (ML)		Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960781
897.875000	936.875000	VARIOUS TORONTO LOCATIONS		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4922242
899.387500	938.387500	TORONTO, ONT. METRO AREA (ML)		Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960781
899.387500	938.387500	VARIOUS TORONTO LOCATIONS		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4922242
899.400000	938.400000	TORONTO, ONT. METRO AREA (ML)		Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960781
899.400000	938.400000	VARIOUS TORONTO LOCATIONS		Toronto Hydro- Electric System Limited and City of Toronto (Works)	4922242
899.412500	938.412500	TORONTO, ONT. METRO AREA (ML)		Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960781



899.412500	938.412500	VARIOUS TORONTO LOCATIONS	(Works) Toronto Hydro- Electric System Limited and City of Toronto (Works)	4922242
899.425000	938.425000	TORONTO, ONT. METRO AREA (ML)	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960781
899.425000	938.425000	VARIOUS TORONTO LOCATIONS	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4922242
899.437500	938.437500	TORONTO, ONT. METRO AREA (ML)	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960781
899.437500	938.437500	VARIOUS TORONTO LOCATIONS	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4922242
899.450000	938.450000	TORONTO, ONT. METRO AREA (ML)	Toronto Hydro- Electric System Limited and City of Toronto (Works)	3960781
899.454500	938.450000	VARIOUS TORONTO LOCATIONS	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4922242
935.387500	935.387500	VARIOUS TORONTO LOCATIONS	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4922242
935.437500	935.387500	VARIOUS TORONTO LOCATIONS	Toronto Hydro- Electric System Limited and City of Toronto (Works)	4922242

Search Criteria



Search Criteria

Licensee Name:

Toronto Hydro-Electric System Limited and City of Toronto

Output Format:

- ☒ HTML with selected fields (for viewing online)
- ☐ ASCII with selected fields only (for downloading)



Industry Canada > [Radio, Spectrum and Telecommunications](#) > Spectrum Direct > Licensee Name Search > Licensee Name Search Results

## Spectrum Direct

### Licensee Name Search Results



On this page: [▼ Search Results](#) [▼ Search Criteria](#)

### Search Results



#### Notes:

- These results **do not include protected frequency records**. Valid EMC studies require coordination with protected frequency owners. To obtain a list of protected frequency owners by microwave frequency band and longitude range, go to the [Protected Microwave Frequency Information Search](#).
- **NEW** Data from unsubmitted microwave applications is no longer available in the search results. Search results do include data on new, pending microwave stations that have been submitted and are under study.
- Information in coded fields can be decoded using the [TAFL Search Field Decode Files](#).
- Use the [search form](#) at the bottom of the page to download these results in ASCII or XML Format.

The records listed below were found for the selected licensee.

**59 record(s) retrieved.**

#### Search Results

Tx Frequency (MHz)	Rx Frequency (MHz)	Station Location	Tx Antenna Height Above Ground Level (m)	Licensee Name	Licence Number
10050.000000		DOWNSVIEW	5	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381611
10050.000000		DOWNSVIEW	5	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381619
				TORONTO TRANSIT COMMISSION	

10050.000000	DOWNSVIEW	5	ATTN: SUPERVISOR, ACCOUNTS PAYABLE TORONTO TRANSIT COMMISSION	2381621
10050.000000	ETOBICOKE	1	ATTN: SUPERVISOR, ACCOUNTS PAYABLE TORONTO TRANSIT COMMISSION	2381577
10050.000000	ETOBICOKE	1	ATTN: SUPERVISOR, ACCOUNTS PAYABLE TORONTO TRANSIT COMMISSION	2381645
10050.000000	ETOBICOKE	5	ATTN: SUPERVISOR, ACCOUNTS PAYABLE TORONTO TRANSIT COMMISSION	2381605
10050.000000	ETOBICOKE	5	ATTN: SUPERVISOR, ACCOUNTS PAYABLE TORONTO TRANSIT COMMISSION	2381607
10050.000000	METROPOLITAN TORONTO ONTARIO	5	ATTN: SUPERVISOR, ACCOUNTS PAYABLE TORONTO TRANSIT COMMISSION	972618
10050.000000	METROPOLITAN TORONTO ONTARIO	5	ATTN: SUPERVISOR, ACCOUNTS PAYABLE TORONTO TRANSIT COMMISSION	2863686
10050.000000	METROPOLITAN TORONTO ONTARIO	5	ATTN: SUPERVISOR, ACCOUNTS PAYABLE TORONTO TRANSIT	2863688

10050.000000	METROPOLITAN TORONTO ONTARIO	5	COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2863690
10050.000000	NORTH YORK ONTARIO	6	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2515112
10050.000000	NORTH YORK ONTARIO	6	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2515114
10050.000000	NORTH YORK	1	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381553
10050.000000	NORTH YORK	1	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381555
10050.000000	NORTH YORK	1	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381557
10050.000000	NORTH YORK	1	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381561
10050.000000	NORTH YORK	1	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE TORONTO	2381563

10050.000000	NORTH YORK	1	TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381565
10050.000000	NORTH YORK	1	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381567
10050.000000	NORTH YORK	1	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381569
10050.000000	NORTH YORK	1	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381573
10050.000000	NORTH YORK	1	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381575
10050.000000	NORTH YORK	1	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381579
10050.000000	NORTH YORK	1	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381585
10050.000000	NORTH YORK	1	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS	2381587

10050.000000	NORTH YORK	1	PAYABLE TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381589
10050.000000	NORTH YORK	1	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381647
10050.000000	NORTH YORK	1	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381649
10050.000000	NORTH YORK	1	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381651
10050.000000	NORTH YORK	1	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381653
10050.000000	NORTH YORK	5	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381609
10050.000000	NORTH YORK	5	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381623
10050.000000	NORTH YORK	5	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR,	2381625

10050.000000	NORTH YORK	5	ACCOUNTS PAYABLE TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381627
10050.000000	NORTH YORK	5	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381629
10050.000000	NORTH YORK	5	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381631
10050.000000	NORTH YORK	5	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381633
10050.000000	NORTH YORK	5	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381641
10050.000000	TORONTO ONTARIO	5	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	3693813
10050.000000	TORONTO	1	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381559
10050.000000	TORONTO	1	TORONTO TRANSIT COMMISSION ATTN:	2381571

10050.000000	TORONTO	1	SUPERVISOR, ACCOUNTS PAYABLE TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381583
10050.000000	TORONTO	1	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381591
10050.000000	TORONTO	1	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381643
10050.000000	TORONTO	1	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2384273
10050.000000	TORONTO	5	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381593
10050.000000	TORONTO	5	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	2381595
10050.000000	TORONTO	5	TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE TORONTO TRANSIT COMMISSION	2381597



10050.000000	TORONTO	5	ATTN: SUPERVISOR, ACCOUNTS PAYABLE  TORONTO TRANSIT COMMISSION	2381599
10050.000000	TORONTO	5	ATTN: SUPERVISOR, ACCOUNTS PAYABLE  TORONTO TRANSIT COMMISSION	2381601
10050.000000	TORONTO	5	ATTN: SUPERVISOR, ACCOUNTS PAYABLE  TORONTO TRANSIT COMMISSION	2381603
10050.000000	TORONTO	5	ATTN: SUPERVISOR, ACCOUNTS PAYABLE  TORONTO TRANSIT COMMISSION	2381637
10050.000000	TORONTO	5	ATTN: SUPERVISOR, ACCOUNTS PAYABLE  TORONTO TRANSIT COMMISSION	2381639
10050.000000	WILLOWDALE	5	ATTN: SUPERVISOR, ACCOUNTS PAYABLE  TORONTO TRANSIT COMMISSION	2381613
10050.000000	WILLOWDALE	5	ATTN: SUPERVISOR, ACCOUNTS PAYABLE  TORONTO TRANSIT COMMISSION	2381615
10050.000000	YORK	5	ATTN: SUPERVISOR, ACCOUNTS PAYABLE  TORONTO TRANSIT	2381635

17880.000000	19440.000000	TORONTO (700 ARROW RD.) ON	23	TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUNTS PAYABLE	5092320
19440.000000	17880.000000	TORONTO (160 TRANSIT RD) ON	23		5092322

Search Criteria

Search Criteria

Licensee Name:

TORONTO TRANSIT COMMISSION ATTN: SUPERVISOR, ACCOUI

Output Format:

☒ HTML with selected fields (for viewing online)

☐ ASCII with selected fields only (for downloading)

☐ ASCII with all fields (for downloading), including:

None

☐ XML with all fields (for downloading), including:

None

Find

Reset

View with selected fields only (for downloading)

☐ ASCII with all fields (for downloading), including:

None 

☐ [XML](#) with all fields (for downloading), including:

None 

Find

Reset

Date Modified: 2011-07-25

1817.500000	1817.500000	TORONTO-BS202 (500 DUPLEX AVE) ON	86	Toronto Hydro Electric System Attn: Stephen Walker	5104203
1817.500000	1817.500000	TORONTO-BS203 (3077 WESTON ROAD) ON	62	Toronto Hydro Electric System Attn: Stephen Walker	5104204
1822.500000	1822.500000	TORONTO CPE-1- 2(6 FOREST LANEWAY)ON	9	Toronto Hydro Electric System Attn: Stephen Walker	5104289
1822.500000	1822.500000	TORONTO CPE-2- 1 (3233 WESTON) ON	9	Toronto Hydro Electric System Attn: Stephen Walker	5104295
1822.500000	1822.500000	TORONTO CPE-3- 2 (500 DUPLEX) ON	9	Toronto Hydro Electric System Attn: Stephen Walker	5104293
1822.500000	1822.500000	TORONTO CPE-3- 3 (500 DUPLEX) ON	9	Toronto Hydro Electric System Attn: Stephen Walker	5104292
1822.500000	1822.500000	TORONTO-BS201 (6 FOREST LANEWAY) ON	80	Toronto Hydro Electric System Attn: Stephen Walker	5104202
1822.500000	1822.500000	TORONTO-BS202 (500 DUPLEX AVE) ON	86	Toronto Hydro Electric System Attn: Stephen Walker	5104203
1822.500000	1822.500000	TORONTO-BS202 (500 DUPLEX AVE) ON	86	Toronto Hydro Electric System Attn: Stephen Walker	5104203
1822.500000	1822.500000	TORONTO-BS203 (3077 WESTON ROAD) ON	62	Toronto Hydro Electric System Attn: Stephen Walker	5104204
1827.500000	1827.500000	TORONTO CPE-1- 1(4 FOREST LANEWAY)ON	9	Toronto Hydro Electric System Attn: Stephen Walker	5104288
1827.500000	1827.500000	TORONTO CPE-2- 3 (3233 WESTON) ON	9	Toronto Hydro Electric System Attn: Stephen Walker	5104297
1827.500000	1827.500000	TORONTO CPE-3- 1 (500 DUPLEX) ON	9	Toronto Hydro Electric System Attn: Stephen Walker	5104291
				Toronto Hydro	

1827.500000	1827.500000	TORONTO-BS200 (4 FOREST LANEWAY) ON	80	Electric System Attn: Stephen Walker	5104201
1827.500000	1827.500000	TORONTO-BS202 (500 DUPLEX AVE) ON	86	Toronto Hydro Electric System Attn: Stephen Walker	5104203
1827.500000	1827.500000	TORONTO-BS203 (3077 WESTON ROAD) ON	62	Toronto Hydro Electric System Attn: Stephen Walker	5104204

#### Search Criteria



#### Search Criteria

**Licensee Name:**

Toronto Hydro Electric System Attn: Stephen Walker

**Output Format:**

- ☒ HTML with selected fields (for viewing online)
- ☐ ASCII with selected fields only (for downloading)
- ☐ ASCII with all fields (for downloading), including:

None 

- ☐ [XML](#) with all fields (for downloading), including:

None 

Find

Reset

Date Modified: 2011-07-25