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**FILED ELECTRONICALLY AND VIA COURIER**

**Helen T Newland**

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DIRECT 416-863-4471

August 25, 2011

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**").

CANDAS is filing the enclosed Supplementary Responses to Interrogatories of Toronto Hydro-Electric System Limited ("THESL"), Consumers Council of Canada ("CCC"), Canadian Electricity Association ("CEA"), and Board Staff ("Staff").

The enclosed Supplementary Responses provide additional information to the Responses to Interrogatories filed with the Board on August 16, 2011 (THESL and Staff), August 18, 2011 (CCC), and August 19, 2011 (CEA).

Yours very truly,

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

HTN/ko

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

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.

**SUPPLEMENTARY RESPONSES TO INTERROGATORIES OF  
TORONTO HYDRO-ELECTRIC SYSTEM LIMITED  
(THESL)  
(on the evidence of the Applicant, CANDAS)**

**August 25, 2011**

**Questions:**

12. *Reference: p. 15, para. 6.3*

CANDAS states that the plan for the Toronto DAS Network involved constructing approximately 790 node sites.

(a) Please identify the planned location for each of the 790 node sites.

**Responses:**

See the maps attached as Schedule 12(a)-1.

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Project Information

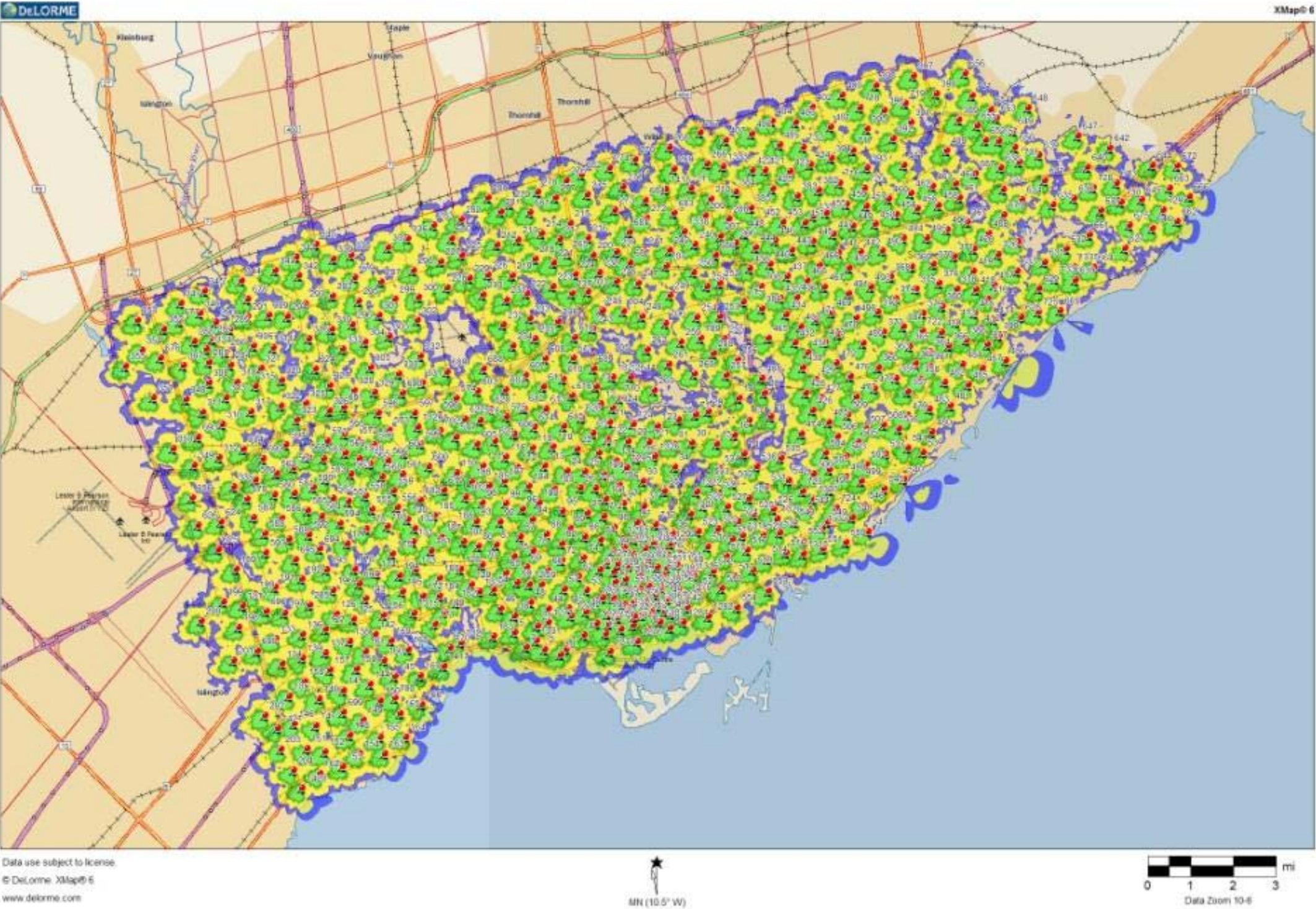
Project ID:	CN-ON-TORONTO-PMO
Project Name:	Toronto, CA
Client:	Public Mobile
Production Date:	Wednesday, August 12, 2009
Design Version:	V2

RF Signal Level Data

Color	
Light Green	
DarkGreen	
Yellow	
Blue	

Node Pole and Contour Data

Contour Area - Sq M/KM		N/A
Utility Pole	Red Map Pin	791
Street Lamp - Traffic Signal	Blue Map Pin	XX
New Pole—Look Alike	Grey Map Pin	XX
Other—Specify		0
Total Nodes		791

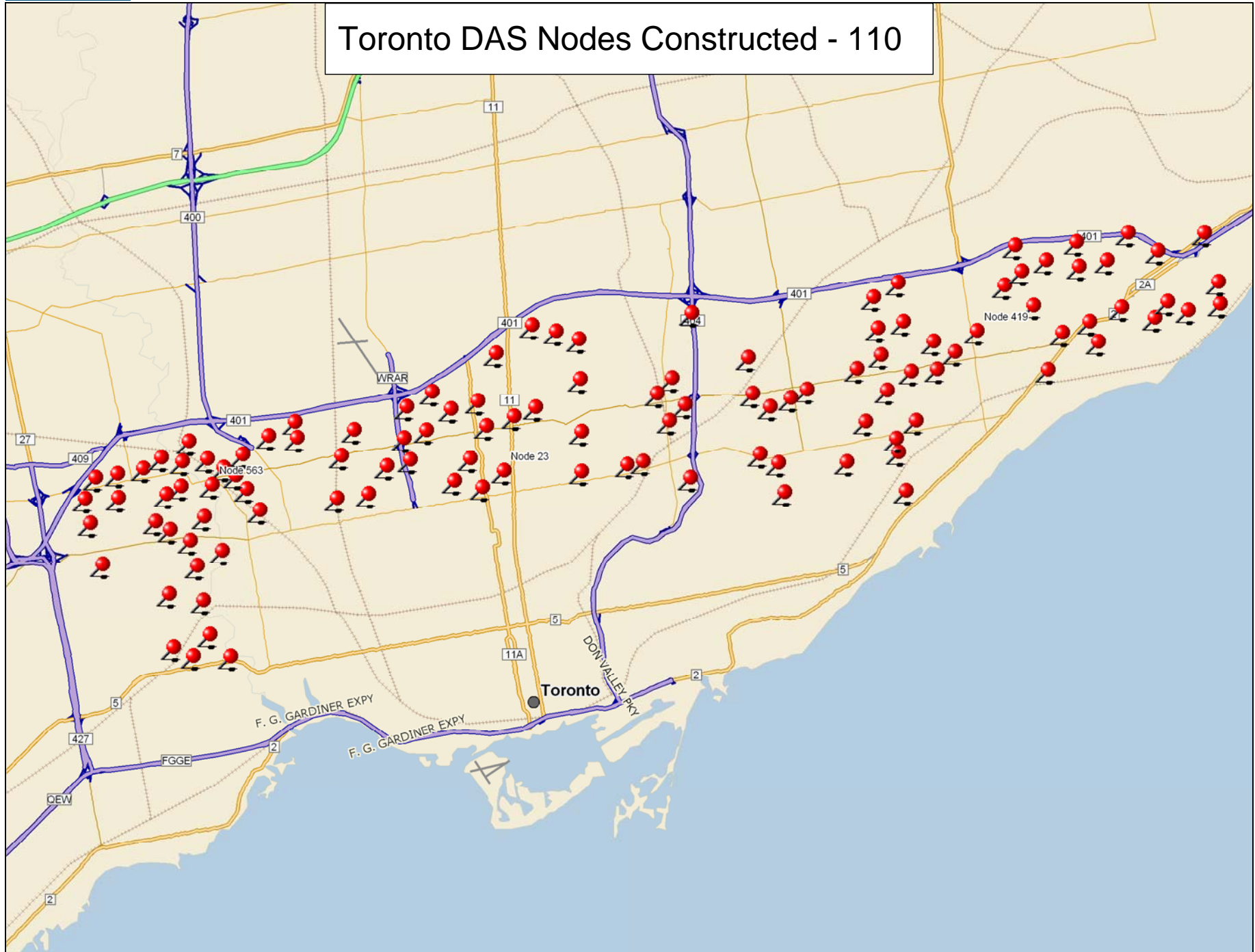


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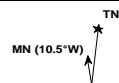
# Toronto DAS Nodes Constructed - 110



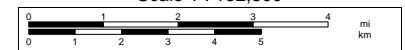
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www.delorme.com



Scale 1 : 162,500



1" = 2.56 mi

Data Zoom 10-3

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**SUPPLEMENTARY RESPONSES TO INTERROGATORIES OF  
CONSUMERS COUNCIL OF CANADA  
(CCC)  
(on the evidence of the Applicant, CANDAS)**

**August 25, 2011**

**Questions:**

12. Sections 3.18 and 3.19 of the application refer to a decision of the New Brunswick Board of Commissioners of Public Utilities.
- (a) Please describe the arrangements that are in place in New Brunswick regarding pole access.

**Responses:**

In its decision dated October 27, 2005, the New Brunswick Board of Commissioners of Public Utilities, now the New Brunswick Energy and Utilities Board (the "Board"), held that, under its governing statute, it had the jurisdiction to establish a pole attachment rate. At that time, the Board ordered the New Brunswick Power Distribution and Customer Service Corporation ("DISCO") to file evidence as to the appropriate rate with respect to its poles. In a subsequent decision dated June 19, 2006, the Board considered this evidence and found the quality and accuracy of financial and operational information submitted to be insufficient for the purpose of rate setting. Accordingly, the Board ordered DISCO to consult with Board Staff and other interested parties and submit a study regarding its poles, equipment and related costs to be used to review attachment rates at a future hearing. DISCO filed the study on September 30, 2009.

CANDAS understands that no one has asked the Board to consider evidence regarding terms and conditions to be included in a model third party pole attachment agreement. CANDAS is not privy to any non-public pole attachment agreements that may exist.

**Questions:**

15. The terms and conditions adopted by the FCC appear to be those set out in a “Report and Order on Reconsideration” adopted April 7, 2011 (the “FCC Report”). At section 59 of the FCC Report it states that “if the pole owner is an electric utility, it retains the statutory right to deny access where there is insufficient capacity or for reasons of safety, reliability, or generally applicable engineering purposes. [Emphasis added]
- (a) Please identify circumstances in the United States where an electric utility has denied access for reasons of “safety, reliability, or generally applicable engineering purposes”, and where that denial has been subject to regulatory review.

**Responses:**

In the United States, the circumstances in which electric utilities have denied access to poles for reasons of “safety, reliability or generally applicable engineering purposes” generally fall into two categories: (i) those circumstances in which utilities have asserted blanket denials based on broad generic claims of the foregoing nature; and (ii) those circumstances in which the utilities have denied access to particular poles based on specific applications of such grounds. The record of the FCC proceedings culminating in FCC Order 11-50 is replete with generalized assertions of the first kind as purported justification for blanket denials of access to pole tops for placement of antennas or blanket denials of access for attachments of wireless equipment more generally. As noted in the Application, FCC Order 11-50 and the Written Evidence of George Vinyard (Q.12), the FCC has reviewed and resolved these issues and has mandated that denials of access based on these grounds must set out the specific particulars. Where electric utilities have issued particularized denials of access based on these grounds, while the denied attachers theoretically have recourse to regulatory review by the FCC or possibly the appropriate state utilities regulators, CANDAS has no knowledge of such proceedings. In such circumstances it is the experience of ExteNet Systems that the attacher and the utility typically resolve the issues in a mutually satisfactory manner through the selection of alternative poles that do not present the specified concerns and/or through make-ready modifications to the poles or changes to the attachment designs.



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**SUPPLEMENTARY RESPONSES TO INTERROGATORIES OF  
CANADIAN ELECTRICITY ASSOCIATION  
(CEA)  
(on the evidence of the Applicant, CANDAS)**

**August 25, 2011**

**Questions:**

16. At paragraph 6.3, page 15 of the application, reference is made to CANDAS seeking to attach to 790 poles within the City of Toronto.
- (d) How much existing fiber is scheduled to be utilized to support the 790 node deployment?

**Responses:**

ExteNet Systems anticipated that the Toronto DAS Network deployment as originally proposed would utilize in the range of 200 to 300 km of existing fibre optic cabling, with the specific amount to be determined based on detailed fibre route designs that have not been completed. The number of separate optical fibre strands at various points along the fibre route would vary depending on the distance from the Hub facilities and the numbers of nodes to be supported by any particular branch of the fibre component of the DAS network.

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**SUPPLEMENTARY RESPONSES TO INTERROGATORIES OF  
BOARD STAFF**

**(on the evidence of the Applicant, CANDAS)**

**August 25, 2011**

**Questions:**

19. Please provide typical installation drawings, showing the number and diameter of holes required to be drilled in a pole for mounting of DAS antennas and accessories on a pole.

**Responses:**

Please see attached Schedule 19-1.

## Holes Required For Typical DAS Node Attachments to Electric Distribution Poles:

A total of four 5/8" bolt holes through the pole for each Node, as follows:

### 1. **Antenna Mounting:**

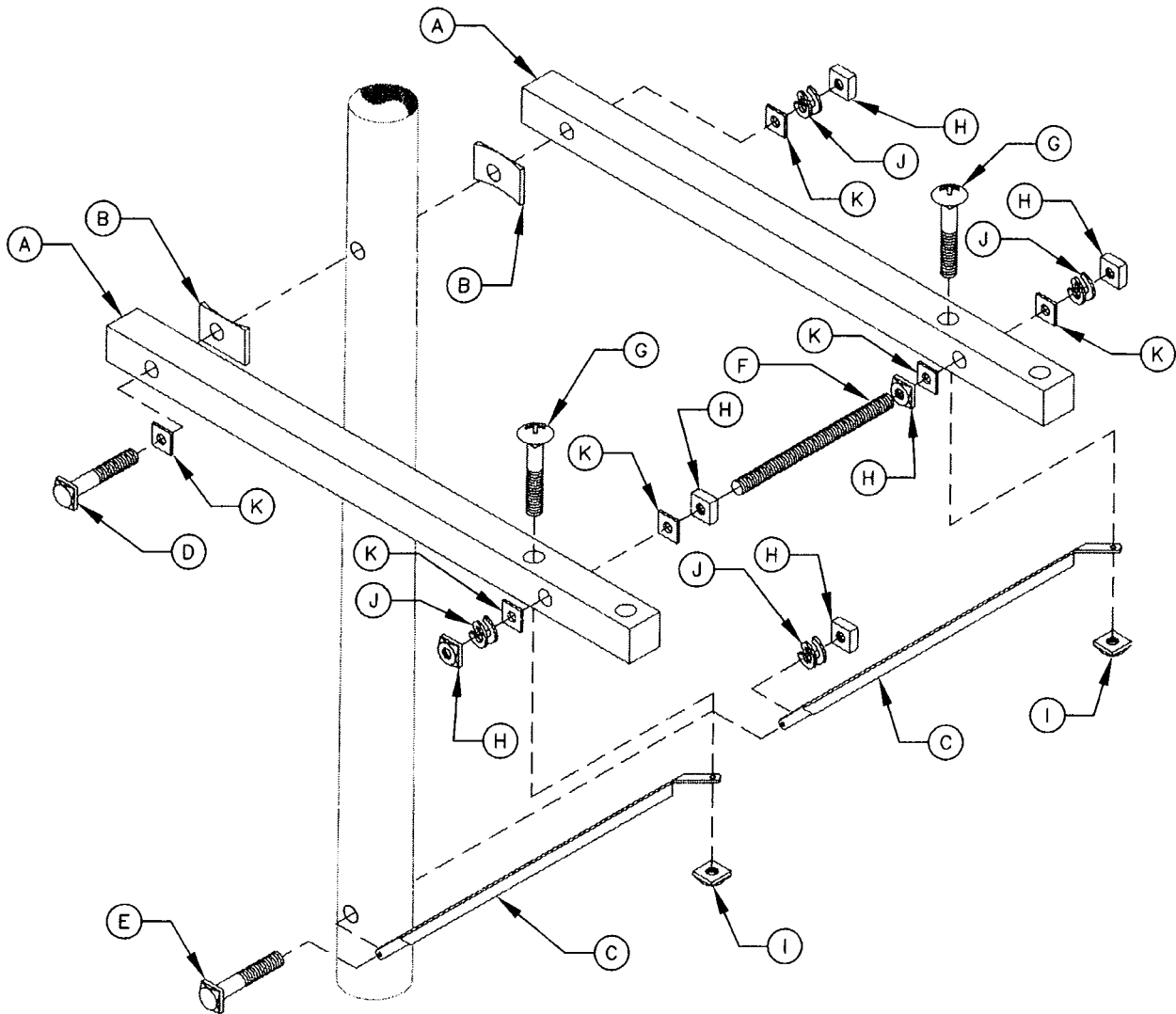
- A. **Extension Arm:** See drawing number CE821. One 5/8" through bolt is used to attach the wood cross arms to the pole (callout D) and one 5/8" through bolt is used to attach the lower end of the extension arm brace to the pole below the extension arm (callout E); or
- B. **Pole Top:** See drawing number 3.2. Two 5/8" through bolts are used to attach the antenna mounting bracket to the pole.

### 2. **DAS Equipment Mounting Below the Communication Space:** See drawing number 3.1.3, Figure 1. Two 5/8" through bolts are used to attach the consolidated mounting bracket to the pole.

**[Note: Where it is not appropriate to drill holes in the pole alternative mounting methods are available to eliminate the need for holes.]**

**[Note: only one of the two Antenna Mounting options is used on any given pole. All images are representations of standard installation methods depending on Antenna Mounting option selected.]**





SCALE: NONE

### PARTS LIST

CALLOUT	QTY	DESCRIPTION	CALLOUT	QTY	DESCRIPTION
A	2	WOOD CROSS ARM 6' x 3 1/2" x 4 1/2"	H	6	SQUARE NUT 5/8"
B	2	GAIN PLATE 4 1/2" x 4 1/2"	I	2	SQUARE NUT 1/2"
C	2	EXTENSION ARM BRACE 47" x 1 3/4" x 3/4"	J	4	DOUBLE COIL SPRING WASHER
D	1	MACHINE BOLT 24" x 5/8"	K	6	FLAT SQUARE WASHER 2 1/4" x 2 1/4" x 3/16"
E	1	MACHINE BOLT 16" x 5/8"			
F	1	DOUBLE ARM BOLTS 26" x 5/8"			
G	2	CARRIAGE BOLTS 6" x 1/2"			

CREATED FOR



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www.extenetsystems.com

PREPARED BY

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1000 E. Ocean Avenue, Suite 100, Oceanside, CA 92038  
949.251.1177 fax 949.251.1120 msa@msa-aps.com

DRAWING NAME

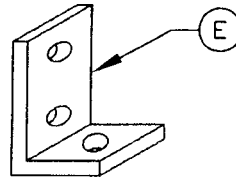
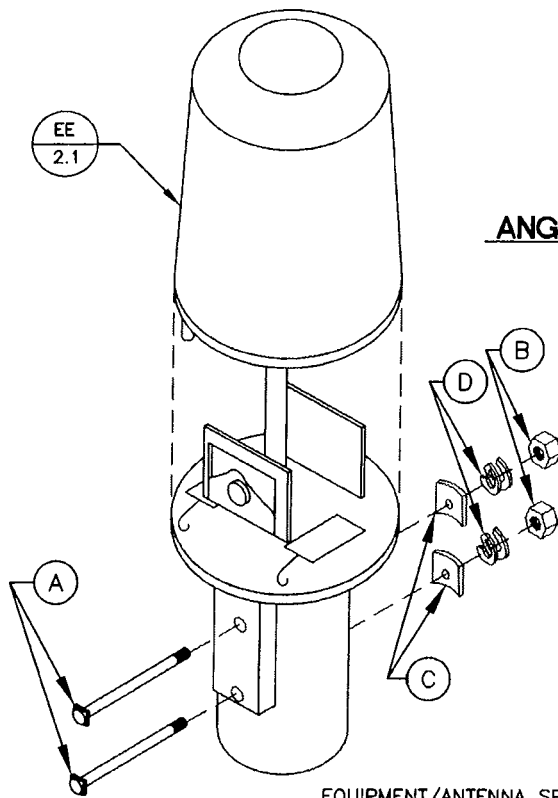
**EXTENET DOUBLE EXTENSION ARM**

NOTES:

1. CROSS ARMS AND BRACES MAY VARY IN LENGTH AND DIMENSIONS.
2. 5/8" MACHINE BOLTS WILL VARY DUE TO POLE DIAMETER.
3. 5/8" DOUBLE ARM BOLTS WILL VARY DUE TO POLE DIAMETER.
4. ALL LINE HARDWARE TO BE HOT DIPPED GALVANIZED IRON.
5. BRACES MAY BE REVERSED DUE TO POLE CONDITIONS.
6. CROSS ARM DIMENSIONS SHOWN TYPICAL. CROSS ARM TO BE INSTALLED PER POLE OWNER/UTILITY COMPANY SPECIFICATIONS.

**PROPRIETARY AND CONFIDENTIAL**

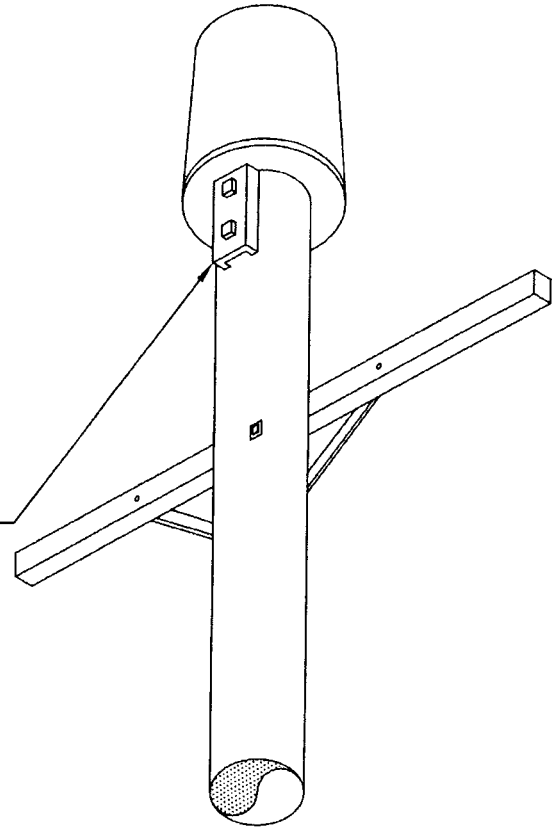
DRAWING NUMBER  
**CE821**



### ANGLE BRACKET FOR ARM MOUNTING

(SEE NOTE 2)

EQUIPMENT/ANTENNA SPACING NEAR  
POWER LINES AND COMMUNICATION  
CABLES TO BE INSTALLED PER POLE  
OWNER/UTILITY COMPANY SPECIFICATIONS.



### ANTENNA MOUNTING

### FULLY ASSEMBLED

SCALE: NONE

### PARTS LIST

CALLOUT	QTY	DESCRIPTION	CALLOUT	QTY	DESCRIPTION
A	2	5/8" X *" MACHINE BOLT			
B	2	5/8" NUT			
C	2	2 1/2" CURVED WASHER			
D	2	DOUBLE COIL SPRING WASHER			
E	1	4" X 6" CUSTOM ARM BRACKET (IF ARM MOUNTED)			

CREATED FOR



1901 S. MEYERS RD, SUITE 190  
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PREPARED BY



DRAWING NAME

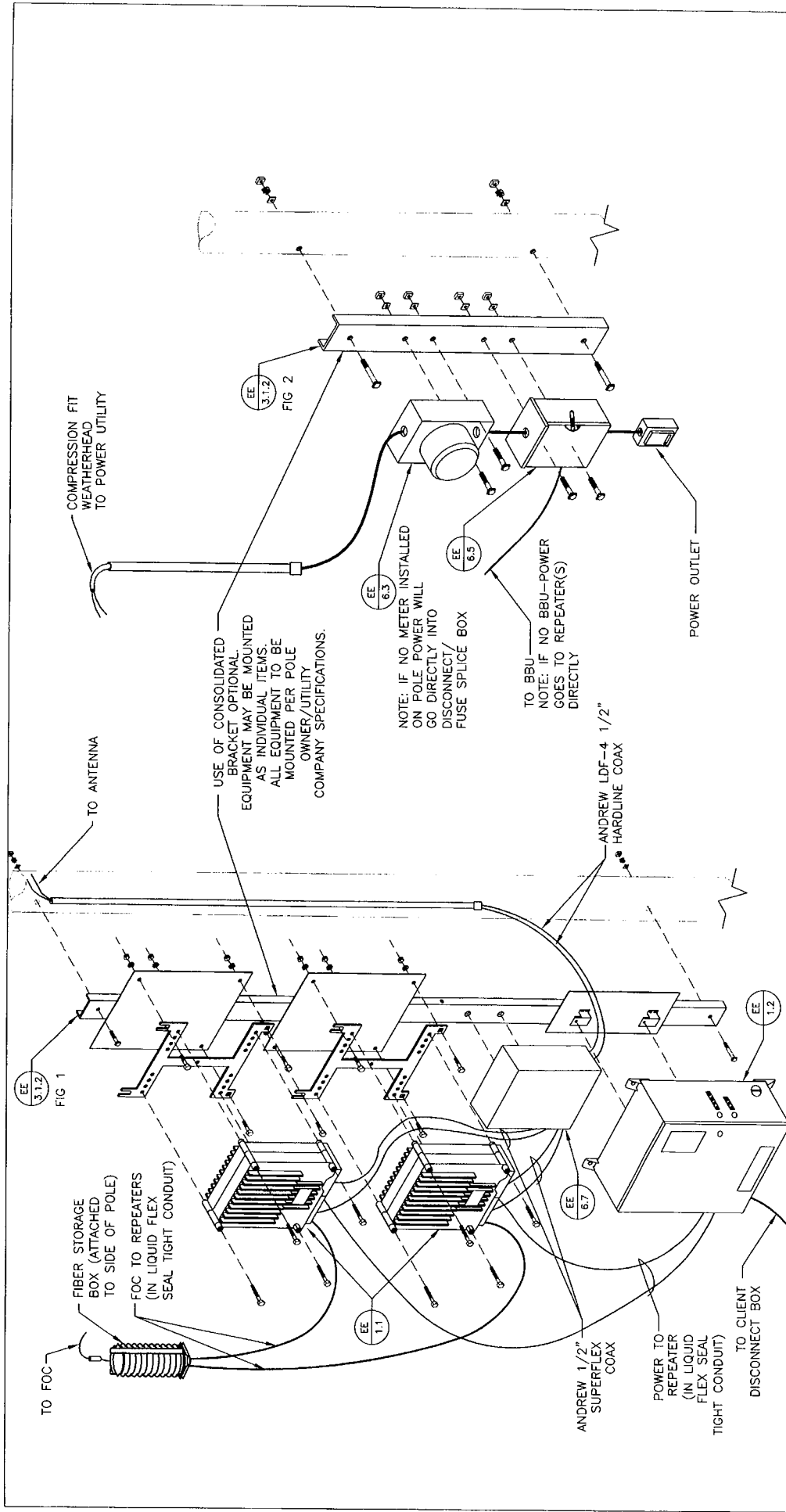
### EXTENET CANISTER ANTENNA POLE TOP MOUNT

NOTES:

1. THROUGH BOLT LENGTH (\*) WILL VARY DUE TO POLE DIAMETER
2. ANGLE BRACKET MAY BE FABRICATED AND UTILIZED FOR ARM MOUNTING

PROPRIETARY AND CONFIDENTIAL

DRAWING NUMBER  
**3.2**



SCALE: NONE

DRAWING NAME: **EXTENET POLE MOUNT BACK PLATE DETAIL**

PREPARED BY: **MSA Architecture & Planning**  
 1000 S. KENNESAW BLVD., SUITE 100  
 KENNESAW, GA 30144  
 404.875.1107 FAX 404.875.1100

DESIGNED FOR: **extenet**  
 1000 S. KENNESAW BLVD., SUITE 100  
 KENNESAW, GA 30144  
 404.875.1107 FAX 404.875.1100

NOTE:  
 1. DUAL REPEATER (POWERWAVE) INSTALLATION SHOWN  
 2. IF SINGLE REPEATER INSTALLATION - DELETE ONE REPEATER AND HYBRID COMBINER  
 3. BBU-POWER MAY NOT BE UTILIZED  
 4. EQUIPMENT MOUNTING DISTANCE FROM POLE TO BE DETERMINED BY POLE OWNER/UTILITY COMPANY SPECIFICATIONS

PROPRIETARY AND CONFIDENTIAL **3.1.3**