

**COUNTY OF MIDDLESEX - INTERROGATORY #1**

**Interrogatory**

**References**

None.

**Preamble**

None.

**Questions / Requests**

Please provide detailed engineering drawings showing the exact location of all poles and other appurtenances proposed to be located within County road allowances for transmission lines, including all material and construction specifications of poles, wires, guying, foundations, trenching, temporary conditions, and any other items related to this infrastructure.

**Response**

Please see profile drawings in **Appendix 'A'** in respect of EB-2013-0040 and **Appendix 'B'** in respect of EB-2013-0041 depicting the current design, which is subject to final engineering. Earlier versions of these sets of drawings were provided to the County's Engineer on November 12, 2012. These drawings show the proposed pole, wire and anchor locations. Plans with respect to foundations, materials and construction specifications are not yet finalized. The physical design specifications for the proposed transmission line, including with respect to potential materials, are described in Exhibit D, Tab 1, Schedule 1. In addition, illustrations of potential pole structures and framing designs are provided in Figure 4 of Exhibit B, Tab 2, Schedule 5.

**COUNTY OF MIDDLESEX - INTERROGATORY #2**

**Interrogatory**

**References**

None.

**Preamble**

NextEra has informed the County that either it or the Applicants are owners of easement rights adjacent to County road allowances which in the applications, are proposed to be located nearly exclusively for the transmission and connection lines.

**Questions / Requests**

Please identify through explanation, drawings and plans, any and all easement rights owned by the Applicants, NextEra or any of NextEra's affiliates which are adjacent to County road allowances. Please identify the PIN, lot, concession number and owner of each easement.

**Response**

See responses to Board Staff Interrogatories #9 and #15.

**COUNTY OF MIDDLESEX - INTERROGATORY #3**

**Interrogatory**

**References**

None.

**Preamble**

None.

**Questions / Requests**

Please provide a fulsome explanation and any and all evidence with respect to the nature and scope of easement negotiations engaged in by the Applicants with land owners adjacent to County road allowances.

**Response**

Upon determining that its preferred routing would be along the County ROWs and that the County's preference in such circumstances would be for the transmission line to be situated as close to the edge of the ROWs as practicable, the Applicants continued to pursue easements for adjacent lands to allow for the possibility, if needed, of overhang, as well as for purposes of contingency in the event that unanticipated design constraints were encountered that required the use of adjacent lands due, for example, to the presence of existing utilities in the ROW. During the course of such negotiations, landowners were offered agreements that are consistent with the forms of land agreements filed in Exhibit F, Tab 2, Schedule 1 of the Applications. Agreements will be entered into on an as-needed basis. See also responses to Board Staff IR #9 and #15.

**COUNTY OF MIDDLESEX - INTERROGATORY #4**

**Interrogatory**

**References**

None.

**Preamble**

None.

**Questions / Requests**

Please provide a fulsome explanation and any and all evidence with respect to the nature and scope of environmental and/or archaeological assessments engaged in by the Applicants in relation to potential routes for transmission and/or connection lines.

**Response**

This request is not relevant to the proceeding. Please see response to Intervenor Group IR #2(a). Moreover, if by “connection lines” the intervenor is referring to the low voltage collector system associated with one of the generation facilities, such lines are not within the scope of the proceeding.



**COUNTY OF MIDDLESEX - INTERROGATORY #5**

**Interrogatory**

**References**

None.

**Preamble**

In both applications, the Applicants note that final engineering and project planning may require the use of land adjacent to County road allowances and requested for the potential use of adjacent lands. NextEra has informed the County that either it or the Applicants are the owners of easement rights adjacent to County road allowances. Nonetheless, the applications proposed to use County road allowances nearly exclusively for transmission and connection lines.

**Questions / Requests**

Please provide a fulsome explanation, complete with all evidence, as to why the route provided for in the applications would not make use of easement rights owned by NextEra and/or the Applicants so to minimize negative impact on County taxpayers, rather than proposing a route which eliminates and/or negatively impacts the ability for the County to safely and efficiently move persons and goods through the road system; places limitations/restrictions on the installation of and construction methods for installing utilities; prevents the use of regular maintenance methods, precludes the construction of other utilities; increases the likelihood of future relocation of utilities; and decreases road user safety while increasing County risk?

**Response**

The Applicants do not agree with the assertions made by the intervenor in its request with respect to impacts on the County or its taxpayers. The rationale for the Applicant's route selection is provided in Exhibit B, Tab 4, Schedule 1 of each Application. As explained in response to Board Staff IRs #9 and #15, the Applicants are designing the proposed transmission facilities so as to be situated as close to the outside edge of the ROW as practicable in order to minimize potential impacts on the travelled portion of the ROW, road maintenance and existing/future utilities. Moreover, as explained in responses to County IR #11 and Intervenor Group IR #3, the Applicants have been working with each of Hydro One and Bell Canada to minimize impacts of the transmission line on existing utilities in the ROWs. It is also important to note that the presence of the proposed transmission facilities in the ROW will have no greater impact on the ROW than do distribution lines that are located within road allowances generally.

Given the parcels of adjacent private lands that the Applicants have been able to secure to date, as well as the locations of existing Hydro One and Bell Canada facilities along the route, any routing and transmission line design involving such lands, in combination with portions of the road allowances where no adjacent private lands have been secured, would require numerous cross-overs back and forth from either the non-travelled portion of the road allowance or the adjacent private lands on one side of the road to the non-travelled portion of the road allowance or the adjacent private lands on the other side of the road, along the entire length of the route. This would require increased use of guy wires, span guys, bigger foundations and a larger footprint for the transmission line. Frequent cross overs changes of direction would also have a greater visual impact and it is the Applicants' understanding that the County's preference would also be to minimize cross overs. See also the Applicants' response to County IR #9.

## **COUNTY OF MIDDLESEX - INTERROGATORY #6**

### **Interrogatory**

#### **References**

None.

#### **Preamble**

The County Official Plan prescribes minimum road allowance widths, which have been determined using sound engineering judgment. In some locations in the County, legacy road allowances exist which are less than the prescribed widths for various historical reasons. The applications propose for transmission lines to be located in County road allowances along roadways with less than the prescribed road allowance widths, in some cases, where there is a deficiency of more than ten (10) metres. NextEra and/or the Applicants are the owners of easement rights adjacent to the aforementioned narrow roads.

#### **Questions / Requests**

Please provide a fulsome explanation, complete with all evidence, as to why the route provided for in the applications would not make use of easement rights owned by NextEra and/or the Applicants, particularly where the County road allowances are less than the required Official Plan widths, rather than proposing a route which eliminates and/or negatively impacts the ability for the County to safely and efficiently move persons and goods through the road system; places limitations/restrictions on the installation of and construction methods for installing utilities; prevents the use of regular maintenance methods, precludes the construction of other utilities; increases the likelihood of future relocation of utilities, and places the transmission lines so close to the travelled portion of the road (5 metres or less in some cases) so to decrease road user safety and increase County risk?

#### **Response**

See response to County IR #5 and Intervenor Group IR #6. In addition, with respect to the comments relating to road safety, the Applicants note that the current design and placement of the proposed transmission line structures would in all locations be more than 5 meters offset from the edge of the travelled portion of the road allowance. This separation of the transmission line structures from the travelled portion of the road allowance is consistent with Ministry of Transportation's Roadside Safety Manual, Chapter 2.2 "Clear Zone Policy" for roads with up to 90 km/h speed limits.

**COUNTY OF MIDDLESEX - INTERROGATORY #7**

**Interrogatory**

**References**

None.

**Preamble**

None.

**Questions / Requests**

In the event the answer to 5 and 6 above is related to either timing limitations with respect to negotiations with landowners, archaeological assessments or any other studies, please explain why negotiations, assessments or studies not completed or made a higher priority, given that the connection route is needed by the Applicants to connect the Bornish Wind Energy Centre ("BWEC"), Adelaide Wind Energy Centre ("AWEC"), Jericho Wind Energy Centre ("JWEC") and possibly Suncor Energy Cedar Point Wind Power Project ("Cedar Point") and Parkhill Interconnect Transmission Route ("Parkhill") (hereinafter collectively, the "wind projects") to the IESO controlled grid.

**Response**

It is the Applicant's view that all negotiations, assessments and studies were given appropriate priority.

**COUNTY OF MIDDLESEX - INTERROGATORY #8**

**Interrogatory**

**References**

None.

**Preamble**

None.

**Questions / Requests**

In the event the answer to 5 and 6 above is related to either timing limitations and/or restrictions applicable to being the result of applications made to the Ontario Energy Board, please provide a fulsome answer with respect to what abilities the Ontario Energy Board has to:

- a) allow for revisions/amendments to the applications to allow for the use of adjacent easement rights owned by NextEra and/or the Applicants for the transmission line and connection line route;
- b) allow for negotiations for private easement rights to continue;
- c) allow for necessary studies to be completed prior to construction/installation in order to ensure that the road allowances, which benefit Middlesex County residents are not compromised, due to haste; and
- d) allow an amended or re-application to allow the use of adjacent easements?

**Response**

- a) This request is, essentially, for a legal opinion. It would not be appropriate for the Applicants to provide a legal opinion to the County. Interrogatories are intended to provide an opportunity for parties to clarify evidence and engage in a factual inquiry. The Applicants have been engaged with the County on the issue of transmission route selection for a significant period of time and, moreover, the Applicants have put in a very significant amount of time and effort to explore all reasonable routing options using both road allowances (including through the pursuit of joint use arrangements with Hydro One) as well as private easement rights along adjacent lands, and a combination of both road allowances and private easement rights. The Applicants have selected the proposed transmission routing based on this effort and upon giving considerable thought and

analysis to the potential design of the transmission facilities having regard to the available land rights.

- b) See response to (a).
- c) See response to (a).
- d) See response to (a).

**COUNTY OF MIDDLESEX - INTERROGATORY #9**

**Interrogatory**

**References**

None.

**Preamble**

None.

**Questions / Requests**

In the event the answer to 5 and 6 above is related to either timing limitations related to negotiations with landowners, archaeological assessments or any other studies and/or is related to the submission of applications to Ontario Energy Board, please explain why in the opinion of the experts of the Applicants, expediency and the private interests of private corporations should take precedence over road user safety, the safe and efficient movement of persons and goods through the road system, efficient maintenance of road allowances, the sound installation and construction of utilities, and the avoidance of unnecessary and costly future relocation of utilities?

**Response**

This question is based upon an incorrect and unsupported assertion and premise. In particular, the Applicants do not agree with the intervenor's assertion that it is "the opinion of the experts of the Applicants, (that) expediency and the private interests of private corporations should take precedence over road user safety, the safe and efficient movement of persons and goods through the road system, efficient maintenance of road allowances, the sound installation and construction of utilities, and the avoidance of unnecessary and costly future relocation of utilities." The Applicants were granted electricity supply contracts from the OPA under the FIT Program which include specific timeframes for development of the contracted facilities. Having obtained such contracts, and subject to the Applicants obtaining the necessary permits and approvals, the Applicants have a right to connect their generation facilities. This right arises from Sections 25.36 and 26 of the *Electricity Act*, section 6.1.9 of the Transmission System Code and from the terms of Hydro One's transmission license and OEB-approved connection procedures. Moreover, pursuant to section 41 of the *Electricity Act* a transmitter has a statutory right to construct and install the structures, equipment and other facilities that it considers necessary for purposes of its transmission system, including poles and lines, over, under or on any public street or highway. Whether or not transmission facilities are owned by a public utility

or privately is not relevant to the applicability of either the right to connect or the right to situate transmission facilities along road allowances.

With respect to the County's concerns regarding road safety, road maintenance and existing utilities, the Applicants note that privately owned transmission facilities are no different from public utility-owned facilities. For road safety, road maintenance and existing utilities that share the road allowances, any potential impacts are well understood and are manageable. The proposed transmission facilities will be designed in accordance with applicable standards so as to minimize potential impacts on road safety, maintenance and existing utilities (see response to Intervenor Group IR #6). Moreover, the use of road allowances makes use of existing infrastructure corridors, minimizes impacts on private lands, minimizes the impact on agricultural and environmentally sensitive lands, reduces the need for new access roads and provides for the most direct and efficient route possible. See also response to County IR #5.



**COUNTY OF MIDDLESEX - INTERROGATORY #10**

**Interrogatory**

**References**

Both applications, Exh B-4-1, pg. 4-5

**Preamble**

None.

**Questions / Requests**

In both applications, at Exh B-4-1, pg. 4-5, the Co-owners indicate that they have consulted with Hydro One Networks Inc. ("Hydro One") with respect to co-location of transmission lines, but that Hydro One would not accommodate their requests. Please provide a summary of all co-location discussions, fully describe the issues and impasse between Hydro One and the Applicants with respect to co-locations and provide an expert engineering opinion as to whether the impasse can be resolved to allow co-location and prevent poles on each side of the travelled portion the roadways.

**Response**

The Applicants and Hydro One had discussions and exchanged technical information commencing in October 2011 and continuing until November 2012 concerning the Applicants' request to place its transmission lines along Hydro One's existing distribution structures. The main concerns from Hydro One were reliability and safety issues related to (1) Distribution-Transmission Circuit Contact, (2) Inductive Coupling, and (3) Lightning. In the discussions, the parties considered, amongst other things, how similar circumstances are addressed in other jurisdictions and exchanged technical information. Over the course of the period of these discussions and information exchanges, Hydro One developed or clarified its internal policy for joint use applications related to transmission voltages. Ultimately, Hydro One maintained that it could not accommodate the Applicants' request for joint use on its distribution structures. The Applicants understand that the County has been aware of the specific concerns related to joint use for some time. In particular, representatives of Hydro One met directly with representatives of the County, including the County Engineer, to discuss the issue of joint use on November 14, 2012 and Hydro One issued a letter to the County on November 19, 2012 summarizing its rationale for not accommodating the Applicants' request for joint use. A copy of this letter is provided in **Appendix 'C'**.

**COUNTY OF MIDDLESEX - INTERROGATORY #11**

**Interrogatory**

**References**

None.

**Preamble**

In EB-2013-0040 Exh B-4-1, the Co-owners identify two areas on Elginfield Road/Nairn Road where the transmission line route is not specified as being within a County road allowance. The reasoning is related to Bell Canada overhead telecommunications facilities and Hydro One distribution facilities.

**Questions / Requests**

Please identify the extent to which the transmission line route in these locations may avoid cross overs and potentially co-locate, which could prevent poles on each side of the travelled portion the roadway

**Response**

The preamble incorrectly states that there are two areas where the route is not in a County ROW. The transmission line route at the point referenced is proposed to be within the County road allowance, but was proposed to switch from the South side to the North side to avoid an existing Bell Canada overhead line. However, since the original application was prepared, the Applicant has been able to work with Bell Canada and Bell Canada has agreed to bury their existing infrastructure in that location. Given this agreement, the applicant no longer believes it will be necessary to cross the road in this location.

**COUNTY OF MIDDLESEX - INTERROGATORY #12**

**Interrogatory**

**References**

None.

**Preamble**

In EB-3013-0041 Exh B-4-1, the Applicants identify that the transmission line route at the crossing of the Ausable River is on the opposite side of the travelled portion of the roadway as existing Hydro-One distribution facilities.

**Questions / Requests**

Please identify the extent to which the transmission line route proposed by the Applicants in these locations can avoid cross overs and can potentially co-locate. Please advise as whether or not the cross over is absolutely necessary and whether or not there is any possibility of co-location, which could prevent poles on each side of the travelled portion the roadway.

**Response**

The preamble is not correct. Exhibit B, Tab 4, Schedule 1, p. 4 states that “along the portion of the route that crosses the Ausable River, while there are no Hydro One facilities, there are existing Bell Canada overhead facilities on one side of the ROW.” See response to Board Staff #14(b). With respect to cross overs, as explained in response to County IR #10 it is Hydro One’s policy to not allow the sharing of distribution poles for transmission lines. This necessitates moving to the other side of the ROW in areas with existing Hydro One distribution facilities, which requires a cross over.

**COUNTY OF MIDDLESEX - INTERROGATORY #13**

**Interrogatory**

**References**

None.

**Preamble**

None.

**Questions / Requests**

Please confirm that the scope of the Applicant's request to use County road allowances for transmission and connection lines includes permission to use, install, construct, maintain and operate electricity transmission lines, connection lines and related appurtenances but excludes the use of the road allowances for stations, structures, facilities and equipment related to power generation?

**Response**

The Applicant confirms that its proposed transmission line route would include the use of County road allowances for transmission lines and poles. As described in Exhibit F, Tab 1, Schedule 1 (p. 2 in EB-2013-0040 and p. 3 in EB-2013-0041), the Applicants rely on their rights under section 41 of the *Electricity Act* for purposes of constructing or installing such transmission poles and lines over, under or on the County's road allowances.

**COUNTY OF MIDDLESEX - INTERROGATORY #14**

**Interrogatory**

**References**

None.

**Preamble**

None.

**Questions / Requests**

Please provide detailed plans drawn to scale which:

- a) show the locations of each of the wind projects, the proposed route of transmission and collection lines, the municipal description, legal description and the location of relevant County road allowances, locations where NextEra and/or the Applicants have easement rights; and where the Applicants are required to use private lands for electrical infrastructure;
- b) identify the location, size, elevation and scope of the electrical infrastructure proposed to be located within, on or under County road allowances; and
- c) demonstrate that the electrical infrastructure will comply with applicable safety, technical standards, regulatory standards and applicable law.

**Response**

- a) The locations of the wind generation facilities and collection lines are not relevant to the Applications. The proposed transmission route is described throughout the pre-filed evidence, including in the figures provided in Exhibit B, Tab 2, Schedule 4 of each Application. The legal descriptions of the relevant County road allowances are included in the landowner line lists in Exhibit F, Tab 1, Schedule 1, Appendix A of each Application. See also responses to Board Staff IR #9 and #15, as well as to County IR #1. Land matters are further discussed in Exhibit F, Tab 1, Schedule 1.
- b) See Exhibit D, Tab 1, Schedule 1 and the response to County IR #1.
- c) See Exhibit E, Tab 2, Schedule 1. The Applicants further note that the Board typically grants leave to construction conditional upon the proponent obtaining all necessary permits and approvals and complying with the requirements of the System Impact

Assessment of the IESO and the Customer Impact Assessment of the applicable licensed transmitter, which in this case is Hydro One.

**COUNTY OF MIDDLESEX - INTERROGATORY #15**

**Interrogatory**

**References**

None.

**Preamble**

None.

**Questions / Requests**

Please acknowledge or deny that in the event the County were to grant the Applicants permission for County's road allowances to be used, the Applicants' willingness to:

- a) wherever possible, use existing or private easements, rather than County road allowances for the transmission line and connection line route;
- b) wherever possible, minimize the number of road crossings in the transmission line and connection line route;
- c) obtain the approval of any federal, provincial, county or municipal government or agency (if any) required in connection with their activities;
- d) install all transmission lines above-grade in the location approved by the County Engineer at an appropriate elevation so to avoid conflicts with other existing infrastructure or road maintenance responsibilities of the County;
- e) co-locate all transmission lines with existing Hydro-One stand facilities (poles) whenever it is possible and safe to do so, as determined by the Hydro One, its successors or assigns and the County Engineer;
- f) locate all connection lines below-grade at an appropriate depth so as to avoid conflict with other existing infrastructure and road maintenance responsibilities of the County;
- g) to minimize the potential interference with and be 100% responsible for damages to all existing equipment, installations, utilities, and other facilities within, on or under County road allowances;
- h) prior to any installation, placement, installation, construction, re-construction, inspection, maintenance, operation, alteration, enlarging, repair, replacement, relocation and/or removal of any electrical infrastructure over, along, across, within or under County road allowances, obtain written approval from the County Engineer prior to installation, placement, installation, construction, re-construction, inspection, maintenance, operation, alteration, enlarging, repair, replacement, relocation and/or removal of electrical infrastructure;

- i) ensure that any and all electrical infrastructure installed within, on or under the County road allowances shall at all times remain at least 7.0 metres distance from the outer limit of the travelled portion of the County road;
- j) apply, obtain and pay for any and all permits, approvals and authorization that County by-laws and/or the County Engineer requires to use the road allowances;
- k) act in accordance at all times with County and other municipal by-laws, the *Highway Traffic Act*, and all other applicable law;
- l) arrange, pay for and maintain insurance satisfactory to the County which insures the Applicants, their guarantors, and the County from all claims related to the use of the road allowance for electrical infrastructure;
- m) release, indemnify, defend and save harmless the County from any and all claims related to the use of the County road allowances for electrical infrastructure and ensure that such indemnity will not be discharged by any change in the existence, structure, constitution, name, control or ownership of the Applicants or any insolvency, bankruptcy, reorganization or other similar proceeding affecting the Applicants or their assets;
- n) not to transfer or assign any easements potential rights enjoyed by the Applicants without the written consent of the County;
- o) agreeable to making all security deposits required by the County;
- p) acknowledge that any easement rights granted by the County would be non-exclusive in the nature and subject to the rights and privileges that the County may grant to other persons on the road allowances; and
- q) install, construct, re-construct, inspect, maintain, operate, alter, enlarge, repair, replace, relocate and remove electrical infrastructure and related appurtenances over, along, across, within or under County road allowances at 100% its own expense;

## Response

Although the Applicant and the County have been in discussions concerning a Road Use Agreement for some time, it appears that the County delayed negotiations of the Road Use Agreement until the present proceeding got underway. The Applicant first approached the County, through the County Engineer, with regard to negotiating a Road Use Agreement on October 3, 2012. On November 27, 2012 a delegation from the Applicant companies attended at a meeting of the County Council to reiterate its request to move forward with the agreement. As of mid-December the County advised that it was still finalizing the draft agreement. However, in late February 2013 the Applicants were advised by the County Solicitor that the County was waiting for direction from the Ontario Energy Board on the leave to construct application. Further requests for updates on the Road Use Agreement were made by the Applicants in early April 2013. Finally, on April 15, 2013 the Applicants held a conference call with the County Solicitor and County Engineer to discuss the agreement and an electronic copy of same was provided to the Applicants for review and comment on April 23, 2013.



With reference to this County IR #15 as well as to County IRs #16 and #17, the County seems to be using the interrogatory process in an attempt to negotiate the Road Use Agreement before the Board, and is using the Leave to Construct process to press its position. The Applicant is not required to negotiate terms of a Road Use Agreement with a municipality as part of a leave to construct proceeding under Section 92 of the *Ontario Energy Board Act*.

The Applicant also does not agree with the preamble. Given the statutory rights provided under section 41 of the *Electricity Act* with respect to the use of public roads for locating electricity infrastructure, municipal authorities are not in a position to grant or deny permission for the use of public roadways to support facilities such as transmission lines.

That said, the Applicants are reasonably attempting to negotiate a road use agreement with the County. Notwithstanding any such road use agreement, the Applicants note that a number of the listed obligations are consistent with the commitments that the Applicants would typically make in negotiating an agreement of this nature. However, there are also a number of items listed by the intervenor which are commercial matters that are to be negotiated between the parties and which are not relevant to the Application. Moreover, the Applicants assume that references to “connection lines”, such as in items (a), (b) and (f), means distribution facilities (i.e. collector lines) which are not relevant to the Application.

More specifically, in reference to items (c), (j) and (k), the Applicants are committed to developing, designing, constructing, operating and maintaining the proposed transmission facilities in accordance with legally enforceable laws applicable to the proposed transmission facilities. In reference to items (g), (l), (m), (n), (o) and (q), the Applicants note that these are commercial matters to be negotiated between the parties and are not relevant to the Application.

With respect to item (a), the Applicants have indicated in response to Board Staff IR #9 that the proposed transmission line will be located within the ROW but may rely on adjacent private easements in order to situate poles as close to the edge of the ROW as practicable or as may be needed to address unforeseen design constraints. With respect to (b), as described in response to County IR #11, Board Staff IR #8 and Board Staff IR #14(d), the Applicants have endeavoured to minimize the number of road crossings along the proposed transmission line route.

With respect to items (d) and (h), although the County Engineer does not exercise approval authority with respect to the location of transmission lines within the ROWs or related matters, as discussed in response to Intervenor Group IR #6 the Applicants have nevertheless consulted extensively with the County Engineer to minimize potential impacts on existing infrastructure, road safety and road maintenance.

With respect to item (i), the Applicants note that a setback requirement of 7 meters from the outer edge of the travelled portion of the road allowance would be in excess of applicable standards. See response to County IR #6.

With respect to item (e), the Applicants have described in response to County IR #10 the significant effort made to pursue co-location with existing Hydro One distribution facilities, which Hydro One has concluded it cannot accommodate.

With respect to item (p), the Applicants acknowledge that such rights would be non-exclusive in nature.

**COUNTY OF MIDDLESEX - INTERROGATORY #16**

**Interrogatory**

**References**

None.

**Preamble**

None.

**Questions / Requests**

Please advise as to whether or not the Applicants will provide any legal compensation to the County to cover legal time of the County Solicitor in drafting and reviewing draft road user agreements?

**Response**

This is a commercial matter to be negotiated between the parties and is not relevant to the Application. See response to County IR #15.

**COUNTY OF MIDDLESEX - INTERROGATORY #17**

**Interrogatory**

**References**

EB-2013-0040 Exh C-1-1 and Exh E-2-1

EB-2013-0041 Exh C-1-1 and Exh E-2-1

**Preamble**

None.

**Questions / Requests**

Please acknowledge or deny that in the event the County were to grant the Applicants permission for County's road allowances to be used, the Applicants' willingness to:

- a) to be 100% responsible for safe deactivation, removal and disposal pursuant to a timeline acceptable to the County when the need for electrical infrastructure has terminated; and
- b) to be repair, reinstate and restore the road allowances to the same or better condition to that which existed prior to its activities when the need for the electrical infrastructure has terminated;

**Response**

- a) This is a commercial matter to be negotiated between the parties and is not relevant to the Application. See response to County IR #15.
- b) This is a commercial matter to be negotiated between the parties and is not relevant to the Application. See response to County IR #15. Nevertheless, the Applicants note that they will comply with the decommissioning plans referenced in the Renewable Energy Approval.

**COUNTY OF MIDDLESEX - INTERROGATORY #18**

**Interrogatory**

**References**

None.

**Preamble**

The names of the applications under the FIT program with respect to the Bornish Wind Energy Centre (BWEC), Adelaide Wind Energy Centre (AWEC) and Jericho Wind Energy Centre (JWEC) in July 2011 were Bornish Wind LP, Summerhaven Wind, LO and Boulevard Associates Canada, Inc. The Applicants for BWEC, AWEC and JWEC are Bornish Wind LP, Kerwind Wind, Inc. and Jericho Wind Inc.

**Questions / Requests**

Please describe the events which transpired to cause the change in applicants.

**Response**

See response to Board Staff Interrogatory #2.

**COUNTY OF MIDDLESEX - INTERROGATORY #19**

**Interrogatory**

**References**

None.

**Preamble**

The applications provide that Bornish Wind, LP is a limited partnership established under the laws of Ontario, and Kerwind Wind, Inc. and Jericho Wind Inc. are corporations established under the laws of the Province of New Brunswick. The applications note that Bornish is a general partner of Bornish Wind GP, Inc., Bornish-Consestogo LP, Inc., NextEra Energy Canada, ULC and NextEra Energy Resources, LLC and NextEra Energy, Inc. The use of the road allowances for transmission lines to supply the wind projects is a joint venture as between these parties, whether those parties own or license the electrical infrastructure. Given the long and complex corporate structure, it unclear as to whether some, any, or all of the aforementioned entities are able to provide sufficient security for the infrastructure proposed to be located on Middlesex County road allowances such that Middlesex County can feel confident that they will be reliable and responsible entities in using its road allowances. While it is understood that corporate responsibility may be a concept that is diametrically opposed for the reasoning behind diversified corporate portfolios, Middlesex County nonetheless expects the joint venturers who wish to share in the benefits which the use of the road allowances would allow to share in the responsibility of being responsible for the covenants made to Middlesex County so that Middlesex County and its taxpayers in potentially allowing road allowances need not worry about risks, such as shell corporations without assets and/or bankruptcy or dissolution of the arm of a corporate portfolio in which it is dealing.

**Questions / Requests**

Are Bornish Wind GP, Inc., Bornish-Consestogo LP, Inc., NextEra Energy Canada, ULC and NextEra Energy Resources, LLC and NextEra Energy, Inc. willing to act as Indemnifiers to each of their respective road use agreements with the County, thus providing performance guarantees to Middlesex County and its taxpayers?

**Response**

This is a commercial matter to be negotiated between the parties and is not relevant to the Application. No road use agreements are before the Board or require approval of the Board as part of the Applications. As such, this question is not relevant to the proceeding.

**COUNTY OF MIDDLESEX - INTERROGATORY #20**

**Interrogatory**

**References**

None.

**Preamble**

Suncor Energy Products Inc. ("Suncor") is a proponent of Cedar Point, a proposed renewable energy generation facility in Lambton County. There is a possibility that Cedar Point may connect to the IESO-controlled grid through JWEC transmission facilities.

**Questions / Requests**

Regardless of whether or not Suncor uses the electrical infrastructure located on Middlesex County road allowances as either an owner or licensee, please confirm whether or not Suncor is prepared to act as Indemnifier to each of their respective road use agreements with the County, thus providing performance guarantee to Middlesex County and its taxpayers?

**Response**

This is a commercial matter to be negotiated between the parties and is not relevant to the Application. No road use agreements are before the Board or require approval of the Board as part of the Applications. Moreover, the transmission line through which Jericho and, potentially, Suncor would connect to the BCSS are not the subject of the present application. As such, this question is not relevant to the proceeding.

Filed: May 23, 2013  
EB-2013-0040 and EB-2013-0041  
Exhibit B  
Tab 1  
Schedule 3  
Responses to County of  
Middlesex Interrogatories  
Appendix A

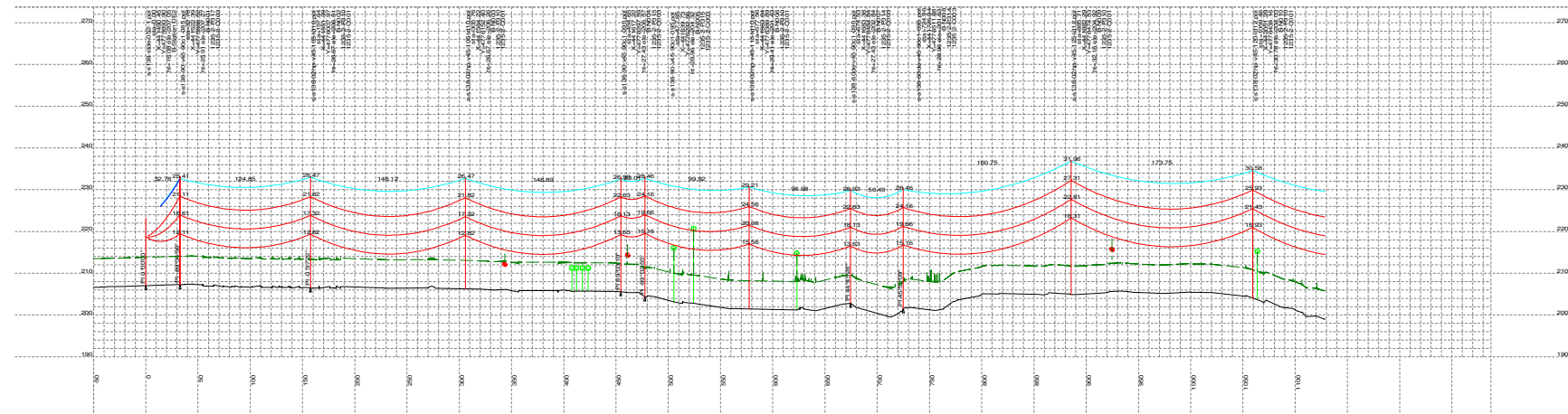
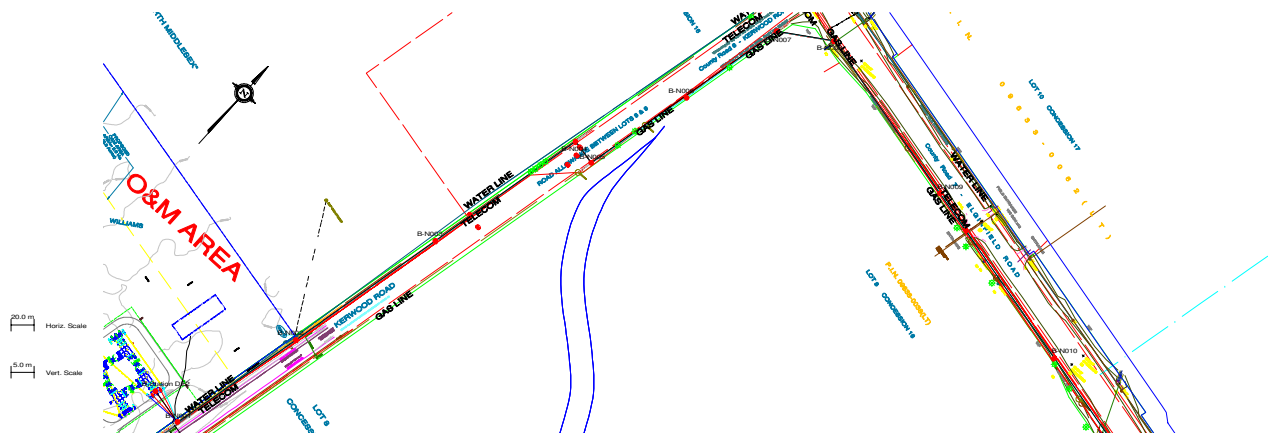
**APPENDIX 'A'**

**IR #1**





PLS-CADD Drawing



PLAN & PROFILE LEGEND:

- 2 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
- SHIELD WIRE
- GROUND CLEARANCE LINE
- HYDRO WIRE
- TREE

STRUCTURE DESCRIPTION LEGEND:

- s-s138-02hp-v45-105-ld10.pol
- sta
- UTM EASTING
- UTM NORTHING
- STRUCTURE HEIGHT ABOVE GROUND (M)
- GROUND ELEVATION (M)
- STRUCTURE NO.
- FRAMING DRAWING NO.
- FOUNDATION DRAWING NO.

NOTES:

- GROUND CLEARANCE LINE SHOWN AT 6.8M (FOR VEHICULAR TRAFFIC).
- CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
- OPGW & SHIELD WIRE SAG AT 40°C.
- ALL DIMENSIONS ARE IN METERS U.N.O.

REV	DATE	DESCRIPTION	BY	CHK	APP	ISS	DATE	DESCRIPTION	BY	CHK	APP	ISS
G	15/05/13	ISSUED FOR TENDER	M.H.	E.K.			G	15/05/13	ISSUED FOR TENDER			
F	01/03/13	ISSUED FOR TENDER	M.H.	E.K.			F	01/03/13	ISSUED FOR REVIEW			
E	14/02/13	ISSUED FOR TENDER	M.H.	E.K.			E	14/02/13	ISSUED FOR REVIEW			
D	18/01/13	ISSUED FOR TENDER	M.H.	E.K.			D	18/01/13	ISSUED FOR REVIEW			
C	11/06/12	PRELIMINARY CONCRETE & STEEL POLE DESIGN	M.H.	E.K.			C	11/06/12	ISSUED FOR REVIEW			
B	26/09/12	PRELIMINARY DESIGN	M.H.	E.K.			B	26/09/12	ISSUED FOR REVIEW			
A	24/09/12	PRELIMINARY DESIGN	J.C.	E.K.			A	24/09/12	ISSUED FOR REVIEW			

REF	NUMBER	TITLE
1		
2		
3		
4		
5		
6		

CLIENT PROJECT MGR.	DEPARTMENT MGR.	PROJECT MGR.
PROJECT PHASE:		
PROJECT NO.	ACTIVITY NO.	BY
		DSN/EKWONG
		DRN/M.HUANG
SCALE	PACKAGE CODE	CHK
N.T.S.		APP

AREA	SUBJECT
1001 115kV TRANSMISSION LINE	STEEL POLE DESIGN PLAN & PROFILE DRAWINGS SHEET 1 OF 12
CLIENT DWG. NO.	REV.
DRAWING NO. 1235-2-P012-S1	G

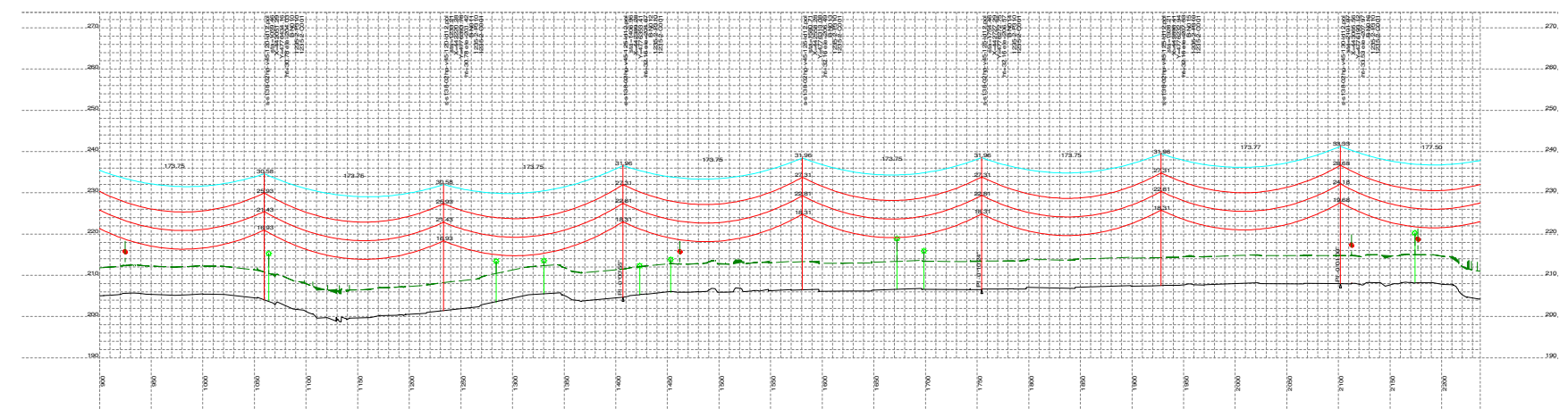
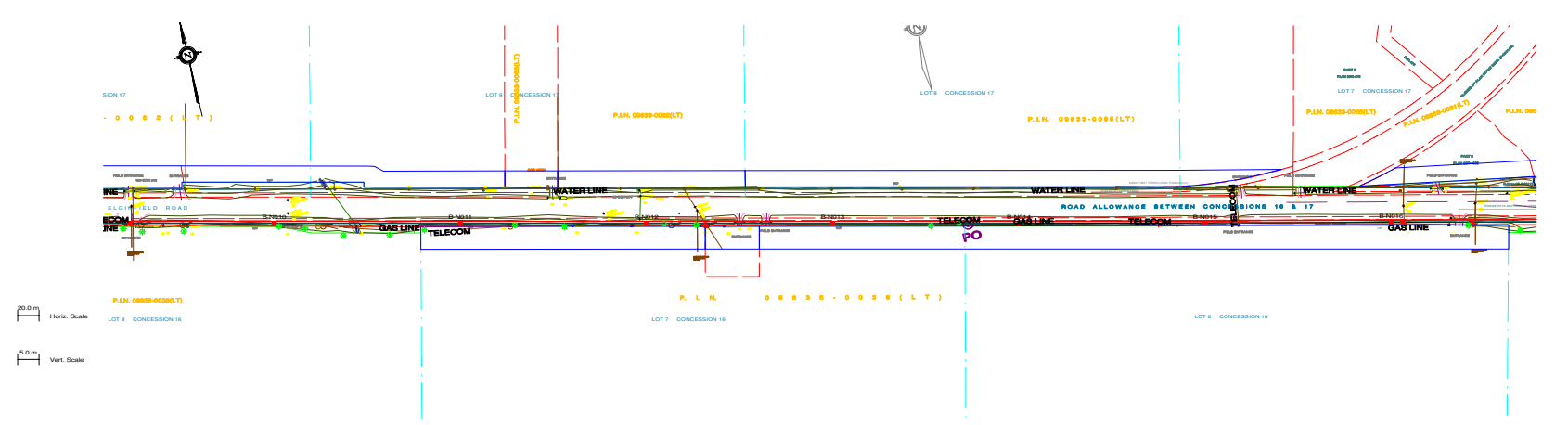


Chimax Inc.  
Engineering Company  
3200 Fourteenth Ave. East, Suite 508  
Markham, Ont. L3R 6A9  
Email: chimax@chimax.ca

CAD FILE: PLS-Cadd 1235-2-P012-I



PLS-CADD Drawing



- PLAN & PROFILE LEGEND:**
- 2 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
  - SHIELD WIRE
  - GROUND CLEARANCE LINE
  - HYDRO WIRE
  - TREE
- STRUCTURE DESCRIPTION LEGEND:**
- s-s138-02hp-v45-105-ld10.pol
  - sta
  - UTM EASTING
  - UTM NORTHING
  - STRUCTURE HEIGHT ABOVE GROUND (M)
  - GROUND ELEVATION (M)
  - STRUCTURE NO.
  - FRAMING DRAWING NO.
  - FOUNDATION DRAWING NO.
- NOTES:**
- GROUND CLEARANCE LINE SHOWN AT 6.8M (FOR VEHICULAR TRAFFIC).
  - CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
  - OPGW & SHIELD WIRE SAG AT 40°C.
  - ALL DIMENSIONS ARE IN METERS U.N.O.

REV	DATE	BY	CHK	APP	ISS	DESCRIPTION
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F	01/03/13					ISSUED FOR TENDER
E	14/02/13					ISSUED FOR TENDER
D	18/01/13					ISSUED FOR TENDER
C	11/06/12					PRELIMINARY CONCRETE & STEEL POLE DESIGN
B	26/09/12					PRELIMINARY DESIGN
A	24/09/12					PRELIMINARY DESIGN

REV	DATE	BY	CHK	APP	ISS	DESCRIPTION
G	15/05/13					ISSUED FOR TENDER
F	01/03/13					ISSUED FOR REVIEW
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D	18/01/13					ISSUED FOR REVIEW
C	11/06/12					ISSUED FOR REVIEW
B	26/09/12					ISSUED FOR REVIEW
A	24/09/12					ISSUED FOR REVIEW

REV	DATE	BY	CHK	APP	ISS	DESCRIPTION
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E	14/02/13					ISSUED FOR TENDER
D	18/01/13					ISSUED FOR TENDER
C	11/06/12					PRELIMINARY CONCRETE & STEEL POLE DESIGN
B	26/09/12					PRELIMINARY DESIGN
A	24/09/12					PRELIMINARY DESIGN

PROJECT NO.	ACTIVITY NO.	BY	DATE	SUBJECT
1001115K115V TRANSMISSION LINE		DSN/EKWONG	24/09/12	STEEL POLE DESIGN
		DRN/M.HUANG	24/09/12	PLAN & PROFILE DRAWINGS
		CHK		SHEET 2 OF 12
		APP		

SCALE	PACKAGE CODE	DATE
N.T.S.		

STAMP/SEAL	PROPRIETARY INFORMATION
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3050 Fourteenth Ave. East, Suite 508  
Markham, ON L3R 6A9  
Email: chimax@chimax.ca

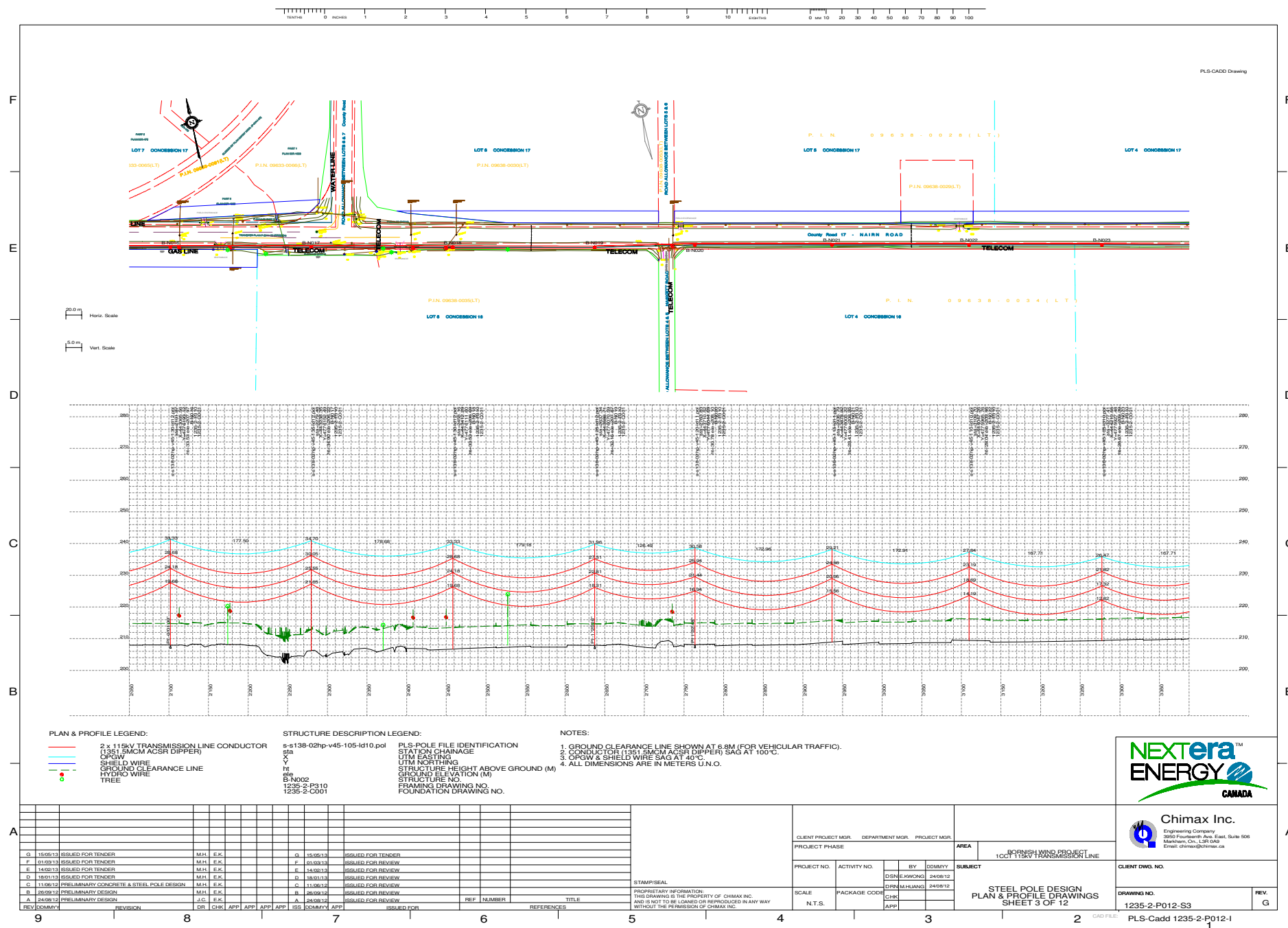
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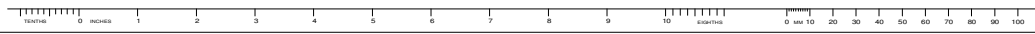
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CLIENT DWG. NO.	DRAWING NO.	REV.
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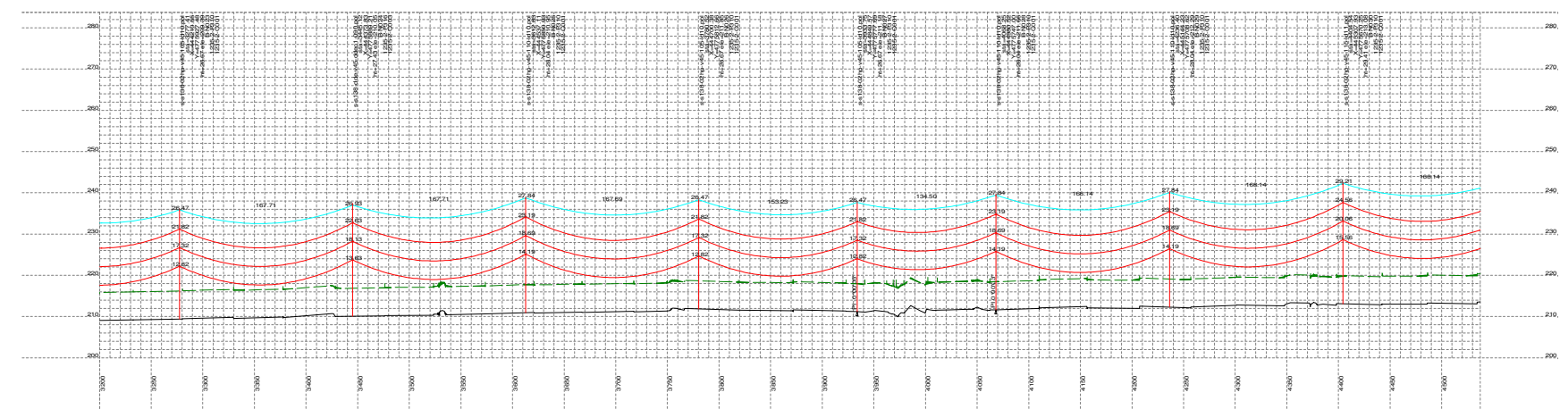
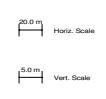
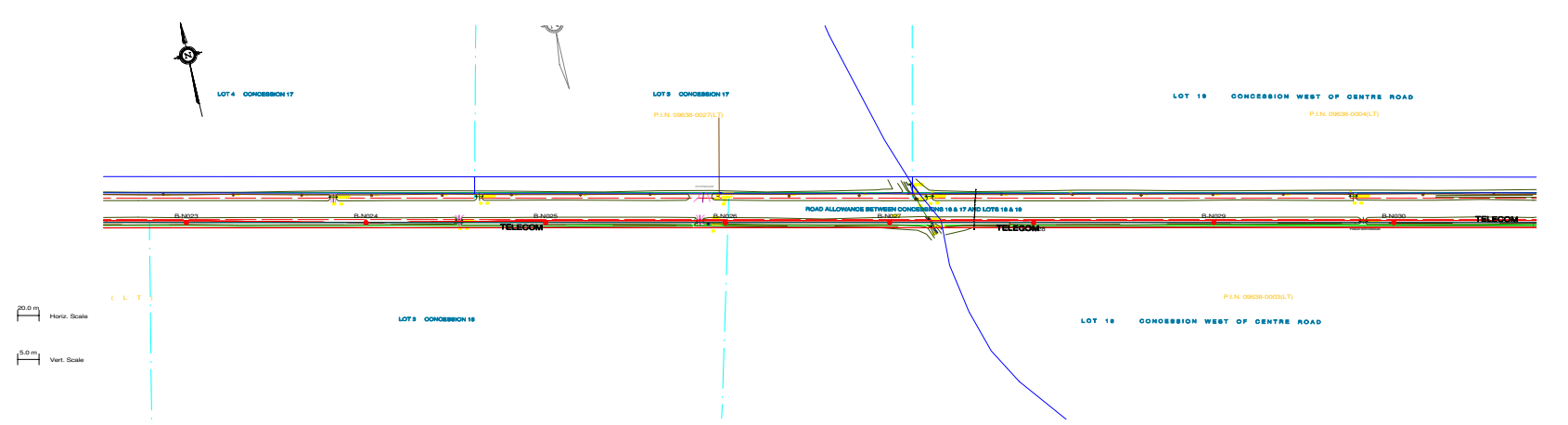
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A





PLS-CADD Drawing



**PLAN & PROFILE LEGEND:**  
— 2 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)  
— SHIELD WIRE  
— GROUND CLEARANCE LINE  
— HYDRO WIRE  
— TREE

**STRUCTURE DESCRIPTION LEGEND:**  
s-s138-02hp-v45-105-ld10.pol  
sta  
X  
H  
B-N002  
1235-2-P310  
1235-2-C001

**PLS-POLE FILE IDENTIFICATION**  
STATION CHAINAGE  
UTM EASTING  
UTM NORTHING  
STRUCTURE HEIGHT ABOVE GROUND (M)  
GROUND ELEVATION (M)  
STRUCTURE NO.  
FRAMING DRAWING NO.  
FOUNDATION DRAWING NO.

**NOTES:**  
1. GROUND CLEARANCE LINE SHOWN AT 6.8M (FOR VEHICULAR TRAFFIC).  
2. CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.  
3. OPW & SHIELD WIRE SAG AT 40°C.  
4. ALL DIMENSIONS ARE IN METERS U.N.O.

REV	DATE	BY	CHK	APP	ISS	DESCRIPTION
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F	01/03/13					ISSUED FOR REVIEW
E	14/02/13					ISSUED FOR REVIEW
D	18/01/13					ISSUED FOR REVIEW
C	11/06/12					PRELIMINARY CONCRETE & STEEL POLE DESIGN
B	26/09/12					PRELIMINARY DESIGN
A	24/09/12					PRELIMINARY DESIGN

REV	DATE	BY	CHK	APP	ISS	DESCRIPTION
G	15/05/13					ISSUED FOR TENDER
F	01/03/13					ISSUED FOR REVIEW
E	14/02/13					ISSUED FOR REVIEW
D	18/01/13					ISSUED FOR REVIEW
C	11/06/12					ISSUED FOR REVIEW
B	26/09/12					ISSUED FOR REVIEW
A	24/09/12					ISSUED FOR REVIEW

REV	DATE	BY	CHK	APP	ISS	DESCRIPTION
G	15/05/13					ISSUED FOR TENDER
F	01/03/13					ISSUED FOR REVIEW
E	14/02/13					ISSUED FOR REVIEW
D	18/01/13					ISSUED FOR REVIEW
C	11/06/12					ISSUED FOR REVIEW
B	26/09/12					ISSUED FOR REVIEW
A	24/09/12					ISSUED FOR REVIEW

**STAMP/SEAL**  
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CLIENT PROJECT MGR.	DEPARTMENT MGR.	PROJECT MGR.
PROJECT PHASE:		
PROJECT NO.	ACTIVITY NO.	BY
		DSN/EKWONG
SCALE	PACKAGE CODE	DATE
N.T.S.	APP	24/09/12

**STEELE WIND PROJECT LINE**

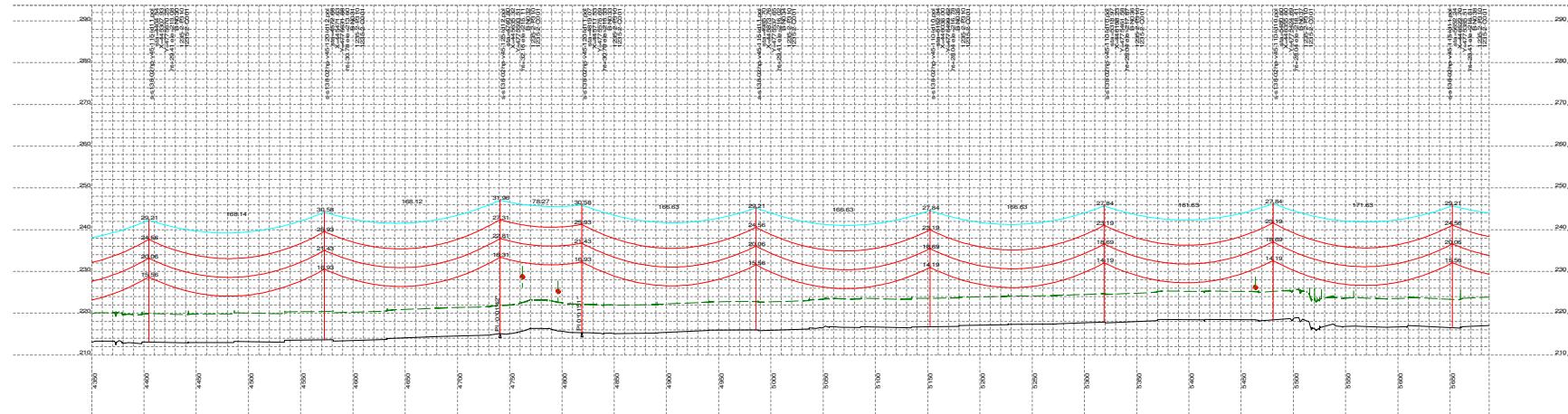
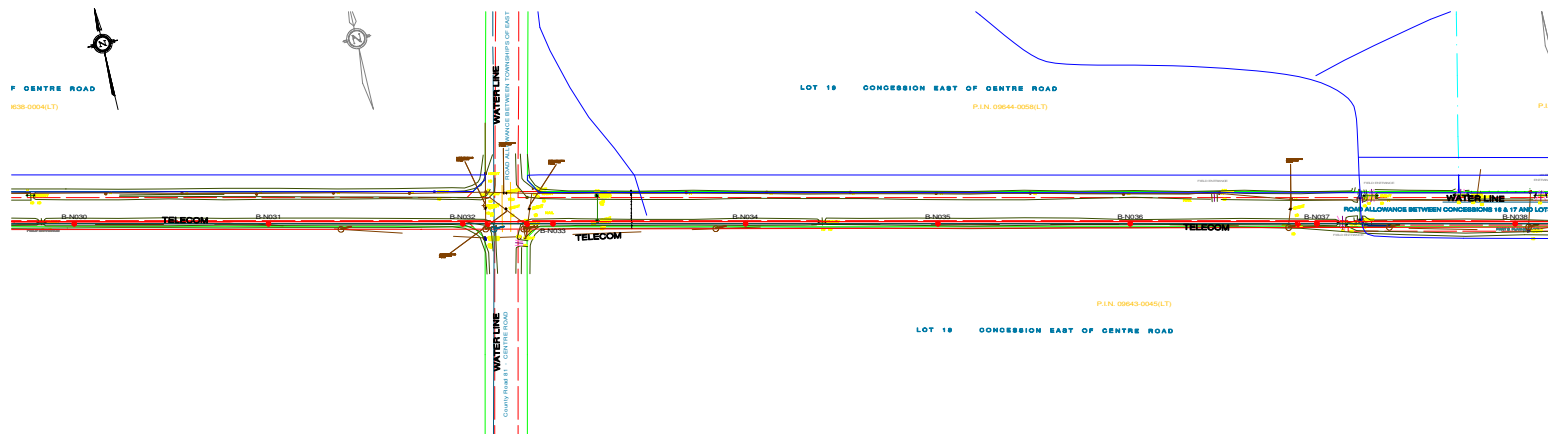
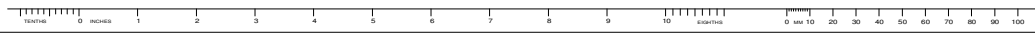
**STEEL POLE DESIGN  
PLAN & PROFILE DRAWINGS  
SHEET 4 OF 12**

**Chimax Inc.**  
Engineering Company  
3920 Fourteenth Ave. East, Suite 508  
Markham, Ont. L3R 6A9  
Email: chimax@chimax.ca

**CLIENT DWG. NO.**  
DRAWING NO.  
1235-2-P012-S4

**REV.**  
G





PLAN & PROFILE LEGEND:

- 2 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
- OPGW
- SHIELD WIRE
- GROUND CLEARANCE LINE
- HYDRO WIRE
- TREE

STRUCTURE DESCRIPTION LEGEND:

s-s138-02hp-v45-105-ld10.pol  
sta  
X  
H  
B  
B-0002  
1235-2-P310  
1235-2-C001

PLS-POLE FILE IDENTIFICATION  
STATION CHAINAGE  
UTM EASTING  
UTM NORTHING  
STRUCTURE HEIGHT ABOVE GROUND (M)  
GROUND ELEVATION (M)  
STRUCTURE NO.  
FRAMING DRAWING NO.  
FOUNDATION DRAWING NO.

NOTES:

- GROUND CLEARANCE LINE SHOWN AT 6.8M (FOR VEHICULAR TRAFFIC).
- CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
- OPGW & SHIELD WIRE SAG AT 40°C.
- ALL DIMENSIONS ARE IN METERS U.N.O.

REV	DATE	DESCRIPTION	BY	CHKD	APPD	ISS	DATE	DESCRIPTION	BY	CHKD	APPD	ISS
G	15/05/13	ISSUED FOR TENDER	M.H.	E.K.			G	15/05/13	ISSUED FOR TENDER			
F	01/03/13	ISSUED FOR TENDER	M.H.	E.K.			F	01/03/13	ISSUED FOR REVIEW			
E	14/02/13	ISSUED FOR TENDER	M.H.	E.K.			E	14/02/13	ISSUED FOR REVIEW			
D	18/01/13	ISSUED FOR TENDER	M.H.	E.K.			D	18/01/13	ISSUED FOR REVIEW			
C	11/06/12	PRELIMINARY CONCRETE & STEEL POLE DESIGN	M.H.	E.K.			C	11/06/12	ISSUED FOR REVIEW			
B	26/09/12	PRELIMINARY DESIGN	M.H.	E.K.			B	26/09/12	ISSUED FOR REVIEW			
A	24/09/12	PRELIMINARY DESIGN	J.C.	E.K.			A	24/09/12	ISSUED FOR REVIEW			

REV	DATE	DESCRIPTION	BY	CHKD	APPD	ISS	DATE	DESCRIPTION	BY	CHKD	APPD	ISS
G	15/05/13	ISSUED FOR TENDER	M.H.	E.K.			G	15/05/13	ISSUED FOR TENDER			
F	01/03/13	ISSUED FOR TENDER	M.H.	E.K.			F	01/03/13	ISSUED FOR REVIEW			
E	14/02/13	ISSUED FOR TENDER	M.H.	E.K.			E	14/02/13	ISSUED FOR REVIEW			
D	18/01/13	ISSUED FOR TENDER	M.H.	E.K.			D	18/01/13	ISSUED FOR REVIEW			
C	11/06/12	PRELIMINARY CONCRETE & STEEL POLE DESIGN	M.H.	E.K.			C	11/06/12	ISSUED FOR REVIEW			
B	26/09/12	PRELIMINARY DESIGN	M.H.	E.K.			B	26/09/12	ISSUED FOR REVIEW			
A	24/09/12	PRELIMINARY DESIGN	J.C.	E.K.			A	24/09/12	ISSUED FOR REVIEW			

CLIENT PROJECT MGR.	DEPARTMENT MGR.	PROJECT MGR.
PROJECT PHASE:		
PROJECT NO.	ACTIVITY NO.	BY
		DSN/EKWONG
		DRN/M.HUANG
		CHK
		APP
SCALE	PACKAGE CODE	
N.T.S.		

Engineering Company  
3920 Fairview Ave. East, Suite 508  
Markham, On. L3R 6A9  
Email: chimax@chimax.ca

Engineering Company  
3920 Fairview Ave. East, Suite 508  
Markham, On. L3R 6A9  
Email: chimax@chimax.ca

CLIENT DWS. NO.

DRAWING NO.

1235-2-P012-S5

REV. G

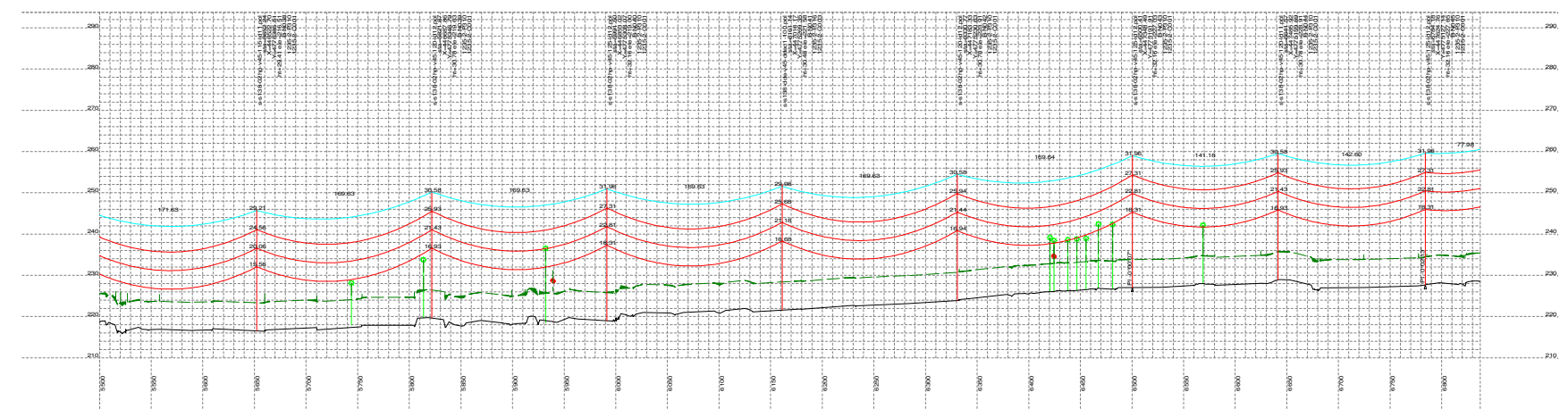
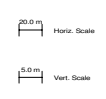
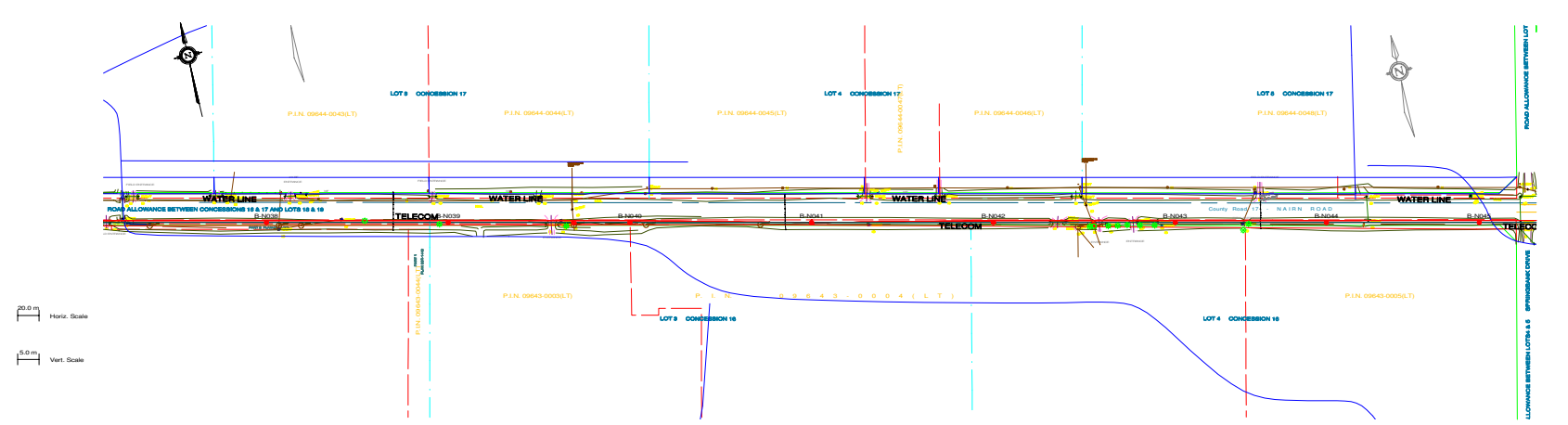
STEEL POLE DESIGN  
PLAN & PROFILE DRAWINGS  
SHEET 5 OF 12

PLS-Cadd 1235-2-P012-1





PLS-CADD Drawing



- PLAN & PROFILE LEGEND:**
- 2 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
  - OPGW
  - SHIELD WIRE
  - GROUND CLEARANCE LINE
  - HYDRO WIRE
  - TREE
- STRUCTURE DESCRIPTION LEGEND:**
- s-s138-02hp-v45-105-ld10.pol
  - sta
  - Y
  - ht
  - ht
  - B-N002
  - 1235-2-P310
  - 1235-2-C001
- PLS-POLE FILE IDENTIFICATION**
- STATION CHAINAGE
  - UTM EASTING
  - UTM NORTHING
  - STRUCTURE HEIGHT ABOVE GROUND (M)
  - GROUND ELEVATION (M)
  - STRUCTURE NO.
  - FRAMING DRAWING NO.
  - FOUNDATION DRAWING NO.

- NOTES:**
1. GROUND CLEARANCE LINE SHOWN AT 6.8M (FOR VEHICULAR TRAFFIC).
  2. CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
  3. OPGW & SHIELD WIRE SAG AT 40°C.
  4. ALL DIMENSIONS ARE IN METERS U.N.O.

REV	DATE	BY	CHKD	APP	ISS	DESCRIPTION
G	15/05/13					ISSUED FOR TENDER
F	01/03/13					ISSUED FOR REVIEW
E	14/02/13					ISSUED FOR REVIEW
D	18/01/13					ISSUED FOR REVIEW
C	11/06/12					PRELIMINARY CONCRETE & STEEL POLE DESIGN
B	26/09/12					PRELIMINARY DESIGN
A	24/09/12					PRELIMINARY DESIGN

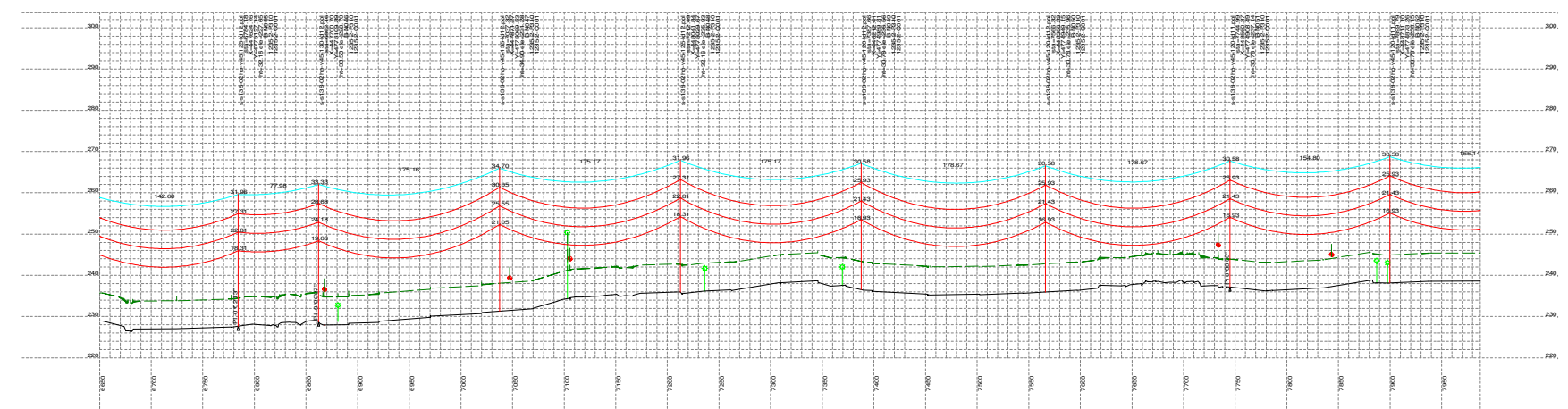
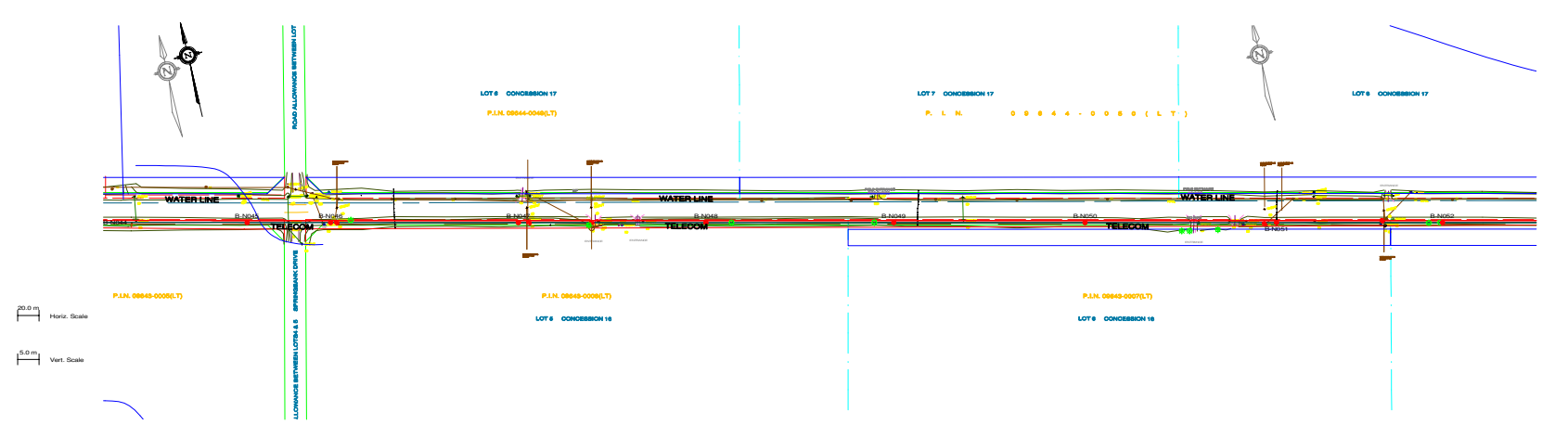
PROJECT NO.	ACTIVITY NO.	BY	DATE	SUBJECT
1001	1	DSN	24/09/12	STEEL POLE DESIGN
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1001	3	CHK	24/09/12	SHEET 6 OF 12

Engineering Company  
3000 Fairview Ave. East, Suite 500  
Markham, ON L3R 6A9  
Email: chimax@chimac.ca

CLIENT DWG. NO.  
DRAWING NO.  
1235-2-P012-S6  
REV. G



PLS-CADD Drawing



- PLAN & PROFILE LEGEND:**
- 2 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
  - OPGW
  - SHIELD WIRE
  - GROUND CLEARANCE LINE
  - HYDRO WIRE
  - TREE
- STRUCTURE DESCRIPTION LEGEND:**
- s-s138-02hp-v45-105-ld10.pol
  - sta
  - UTM EASTING
  - UTM NORTHING
  - STRUCTURE HEIGHT ABOVE GROUND (M)
  - GROUND ELEVATION (M)
  - STRUCTURE NO.
  - FRAMING DRAWING NO.
  - FOUNDATION DRAWING NO.
- NOTES:**
- GROUND CLEARANCE LINE SHOWN AT 6.8M (FOR VEHICULAR TRAFFIC).
  - CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
  - OPGW & SHIELD WIRE SAG AT 40°C.
  - ALL DIMENSIONS ARE IN METERS U.N.O.



**Chimax Inc.**  
Engineering Company  
3800 Fairview Ave. East, Suite 508  
Markham, ON L3R 6A9  
Email: chimax@chimax.ca

REV	DATE	BY	CHK	APP	ISS	DESCRIPTION
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F	01/03/13					ISSUED FOR TENDER
E	14/02/13					ISSUED FOR TENDER
D	18/01/13					ISSUED FOR TENDER
C	11/06/12					PRELIMINARY CONCRETE & STEEL POLE DESIGN
B	26/08/12					PRELIMINARY DESIGN
A	24/08/12					PRELIMINARY DESIGN

PROJECT NO.	ACTIVITY NO.	BY	DATE	SUBJECT
1001115KV TRANSMISSION LINE		DSN/EKW/NO	24/08/12	STEEL POLE DESIGN
		DRN/MH/LJNO	24/08/12	PLAN & PROFILE DRAWINGS
		CHK		SHEET 7 OF 12
		APP		

CLIENT DWG. NO.	DRAWING NO.	REV.
	1235-2-P012-S7	G

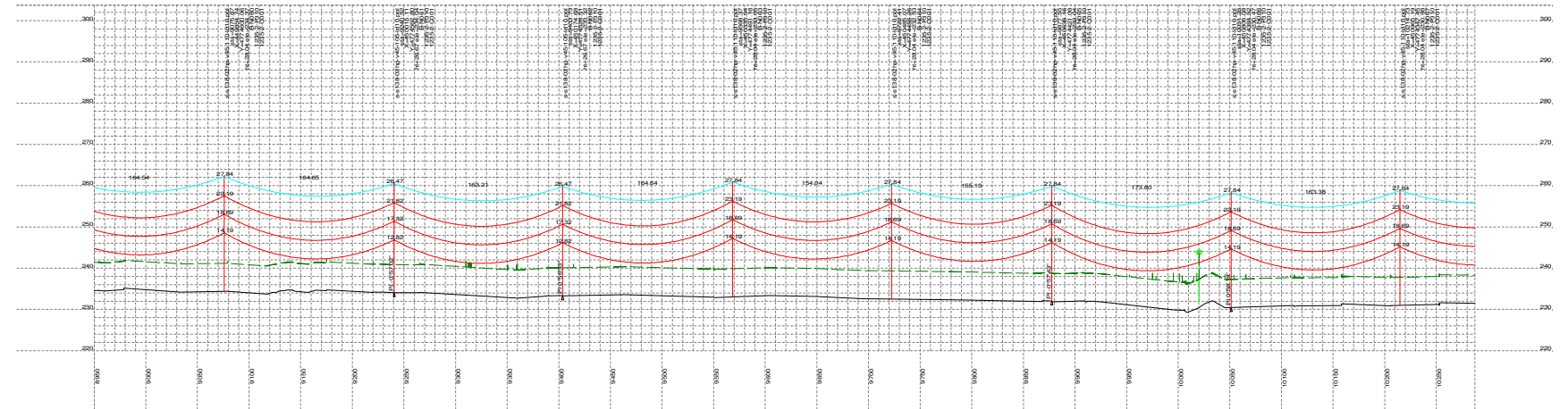
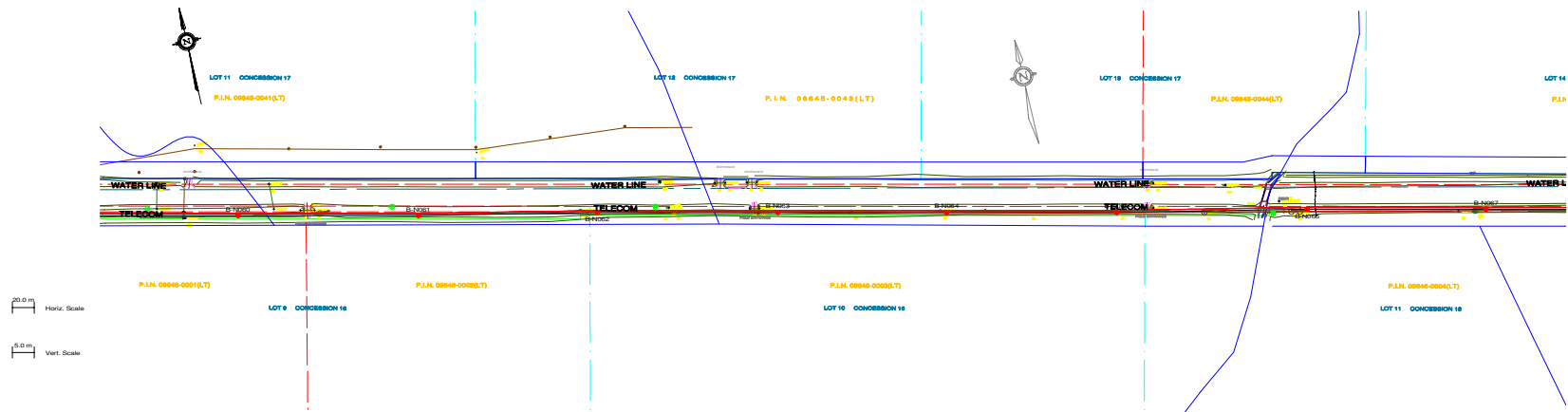
PLS-Cadd 1235-2-P012-1







PLS-CADD Drawing



PLAN & PROFILE LEGEND:

- 2 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
- OPGW
- SHIELD WIRE
- GROUND CLEARANCE LINE
- HYDRO WIRE
- TREE

STRUCTURE DESCRIPTION LEGEND:

- s-s138-02hp-v45-105-ld10.pol
- Sta
- X
- Y
- HT
- B-N002
- 1235-2-P310
- 1235-2-C001

- PLS-POLE FILE IDENTIFICATION
- STATION CHAINAGE
- UTM EASTING
- UTM NORTHING
- STRUCTURE HEIGHT ABOVE GROUND (M)
- GROUND ELEVATION (M)
- STRUCTURE NO.
- FRAMING DRAWING NO.
- FOUNDATION DRAWING NO.

NOTES:

- GROUND CLEARANCE LINE SHOWN AT 6.8M (FOR VEHICULAR TRAFFIC).
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REV	DATE	BY	CHKD	APP	ISS	DESCRIPTION
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F	01/03/13					ISSUED FOR REVIEW
E	14/02/13					ISSUED FOR REVIEW
D	18/01/13					ISSUED FOR REVIEW
C	11/06/12					PRELIMINARY CONCRETE & STEEL POLE DESIGN
B	26/09/12					PRELIMINARY DESIGN
A	24/09/12					PRELIMINARY DESIGN

REV	DATE	BY	CHKD	APP	ISS	DESCRIPTION
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D	18/01/13					ISSUED FOR REVIEW
C	11/06/12					ISSUED FOR REVIEW
B	26/09/12					ISSUED FOR REVIEW
A	24/09/12					ISSUED FOR REVIEW

CLIENT PROJECT MGR.	DEPARTMENT MGR.	PROJECT MGR.
PROJECT PHASE:		
PROJECT NO.	ACTIVITY NO.	BY
		DSN/EKWONG
		DRN/MHJUNG
		CHK
		APP
SCALE	PACKAGE CODE	
N.T.S.		

SUBJECT	STAMP/SEAL
1001115KV TRANSMISSION LINE	PROPRIETARY INFORMATION: THIS DRAWING IS THE PROPERTY OF CHIMAX INC. AND IS NOT TO BE LOANED OR REPRODUCED IN ANY WAY WITHOUT THE PERMISSION OF CHIMAX INC.
STEEL POLE DESIGN PLAN & PROFILE DRAWINGS SHEET 9 OF 12	

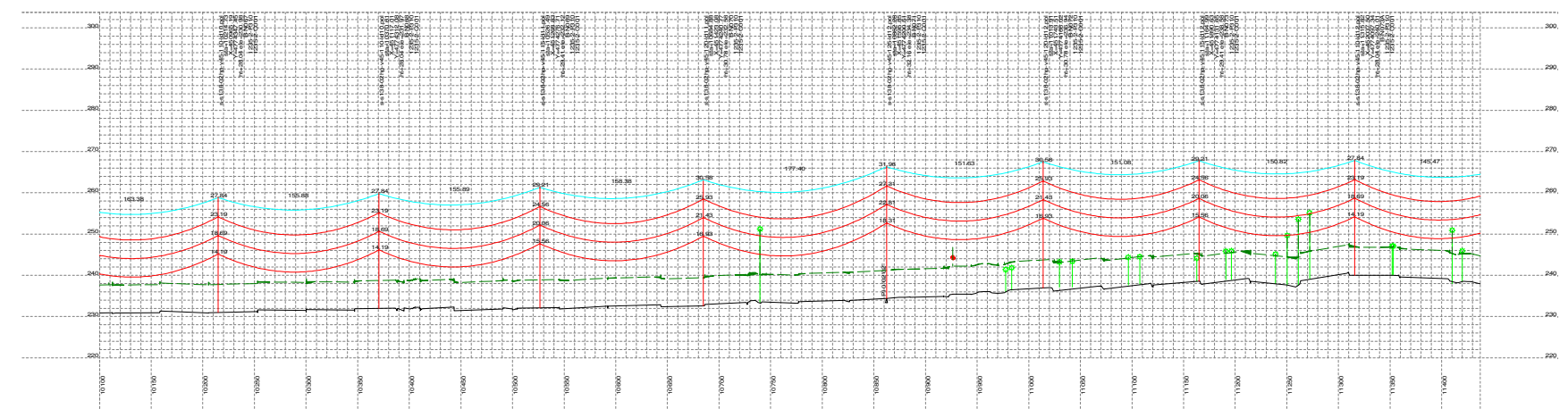
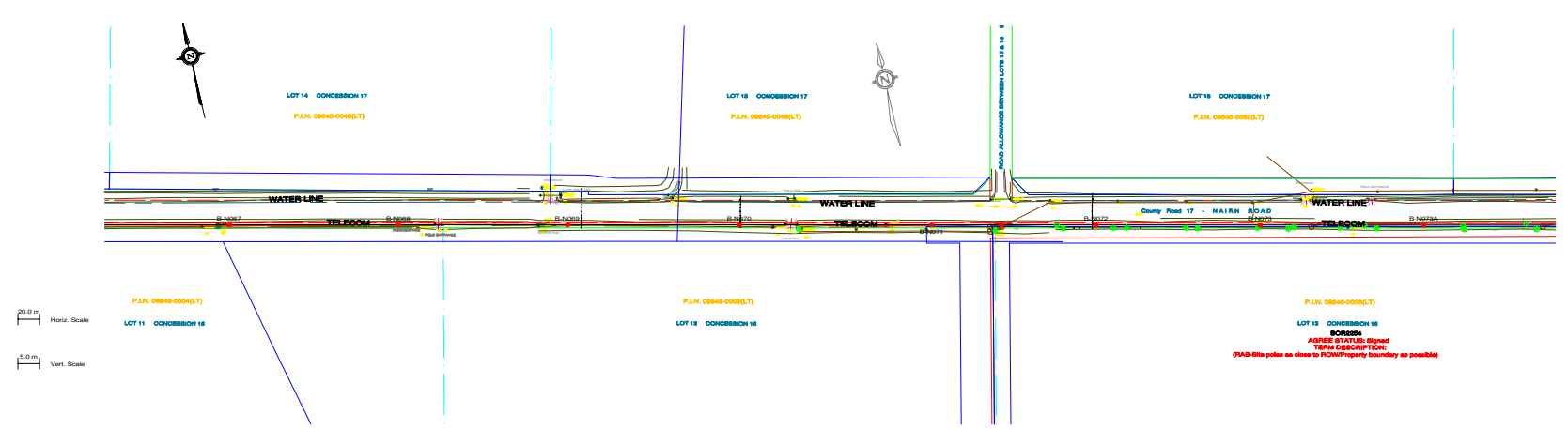
CLIENT DWS. NO.	DRAWING NO.	REV.
	1235-2-P012-S9	G



Chimax Inc.  
Engineering Company  
3900 Fairview Ave. East, Suite 508  
Markham, On. L3R 6A9  
Email: chimax@chimax.ca



PLS-CADD Drawing



- PLAN & PROFILE LEGEND:**
- 2 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
  - OPGW
  - SHIELD WIRE
  - GROUND CLEARANCE LINE
  - HYDRO WIRE
  - TREE
- STRUCTURE DESCRIPTION LEGEND:**
- s-s138-02hp-v45-105-ld10.pol
  - sta
  - UTM EASTING
  - UTM NORTHING
  - STRUCTURE HEIGHT ABOVE GROUND (M)
  - GROUND ELEVATION (M)
  - STRUCTURE NO.
  - FRAMING DRAWING NO.
  - FOUNDATION DRAWING NO.
- NOTES:**
- GROUND CLEARANCE LINE SHOWN AT 6.8M (FOR VEHICULAR TRAFFIC).
  - CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
  - OPGW & SHIELD WIRE SAG AT 40°C.
  - ALL DIMENSIONS ARE IN METERS U.N.O.

REV	DATE	BY	CHK	APP	ISS	DESCRIPTION
G	15/05/13					ISSUED FOR TENDER
F	01/03/13					ISSUED FOR TENDER
E	14/02/13					ISSUED FOR TENDER
D	18/01/13					ISSUED FOR TENDER
C	11/06/12					PRELIMINARY CONCRETE & STEEL POLE DESIGN
B	26/09/12					PRELIMINARY DESIGN
A	24/09/12					PRELIMINARY DESIGN

REV	DATE	BY	CHK	APP	ISS	DESCRIPTION
G	15/05/13					ISSUED FOR TENDER
F	01/03/13					ISSUED FOR REVIEW
E	14/02/13					ISSUED FOR REVIEW
D	18/01/13					ISSUED FOR REVIEW
C	11/06/12					ISSUED FOR REVIEW
B	26/09/12					ISSUED FOR REVIEW
A	24/09/12					ISSUED FOR REVIEW

REV	DATE	BY	CHK	APP	ISS	DESCRIPTION
G	15/05/13					ISSUED FOR TENDER
F	01/03/13					ISSUED FOR REVIEW
E	14/02/13					ISSUED FOR REVIEW
D	18/01/13					ISSUED FOR REVIEW
C	11/06/12					ISSUED FOR REVIEW
B	26/09/12					ISSUED FOR REVIEW
A	24/09/12					ISSUED FOR REVIEW

STAMP/SEAL

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AND IS NOT TO BE LOANED OR REPRODUCED IN ANY WAY  
WITHOUT THE PERMISSION OF CHIMAX INC.

CLIENT PROJECT MGR.	DEPARTMENT MGR.	PROJECT MGR.
PROJECT PHASE:		
PROJECT NO.	ACTIVITY NO.	BY
		DSN/EKWONG
		DRN/M.HUANG
		CHK
		APP
SCALE	PACKAGE CODE	DATE
N.T.S.		24/09/12

AREA

100' 115kV TRANSMISSION LINE

SUBJECT

STEEL POLE DESIGN  
PLAN & PROFILE DRAWINGS  
SHEET 10 OF 12

CLIENT DWG. NO.

1235-2-P012-S10

DRAWING NO.

1235-2-P012-S10

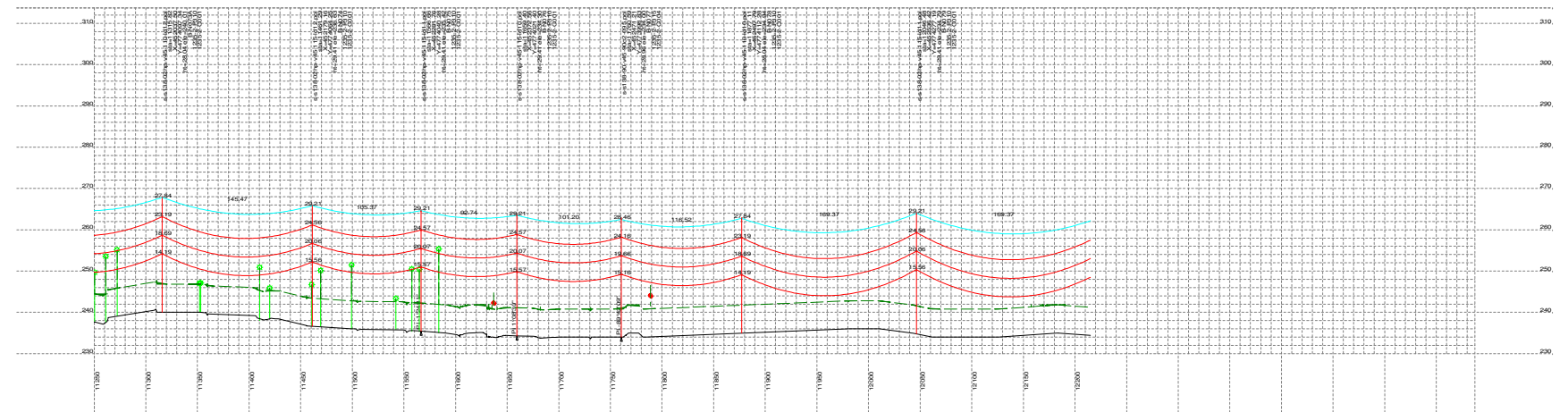
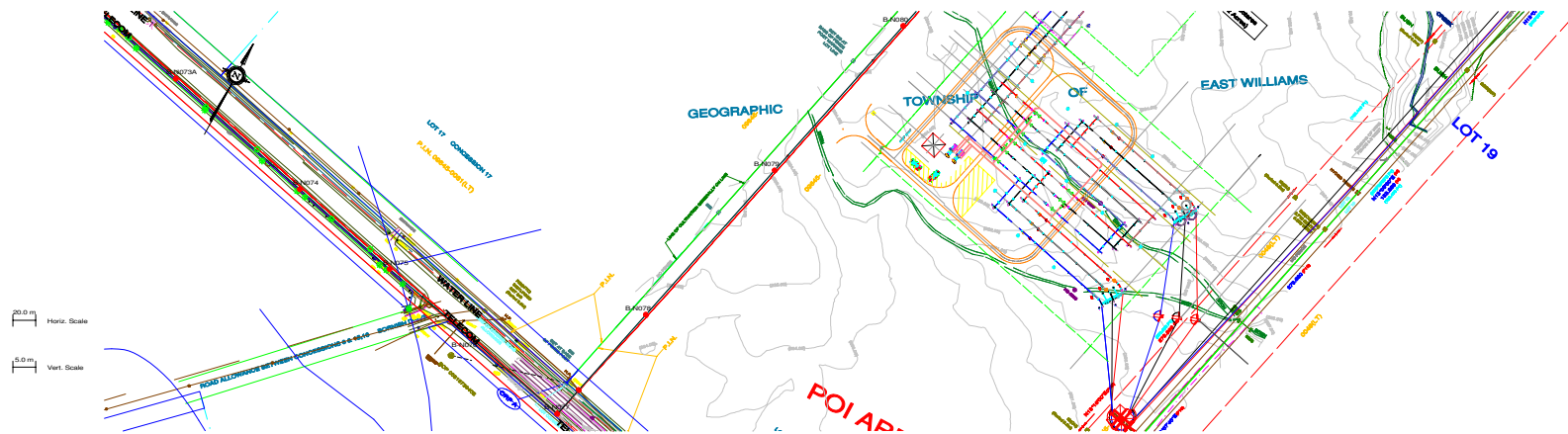
REV.

G





PLS-CADD Drawing



PLAN & PROFILE LEGEND:

- 2 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
- SHIELD WIRE
- GROUND CLEARANCE LINE
- HYDRO WIRE
- TREE

STRUCTURE DESCRIPTION LEGEND:

- s-s138-02hp-v45-105-ld10.pol
- STA
- UTM EASTING
- UTM NORTHING
- STRUCTURE HEIGHT ABOVE GROUND (M)
- GROUND ELEVATION (M)
- STRUCTURE NO.
- FRAMING DRAWING NO.
- FOUNDATION DRAWING NO.

NOTES:

- GROUND CLEARANCE LINE SHOWN AT 6.8M (FOR VEHICULAR TRAFFIC).
- CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
- OPGW & SHIELD WIRE SAG AT 40°C.
- ALL DIMENSIONS ARE IN METERS U.N.O.

REV	DATE	BY	CHK	APP	ISS	DESCRIPTION
G	15/05/13					ISSUED FOR TENDER
F	01/03/13					ISSUED FOR REVIEW
E	14/02/13					ISSUED FOR REVIEW
D	18/01/13					ISSUED FOR REVIEW
C	11/06/12					PRELIMINARY CONCRETE & STEEL POLE DESIGN
B	26/09/12					PRELIMINARY DESIGN
A	24/09/12					PRELIMINARY DESIGN

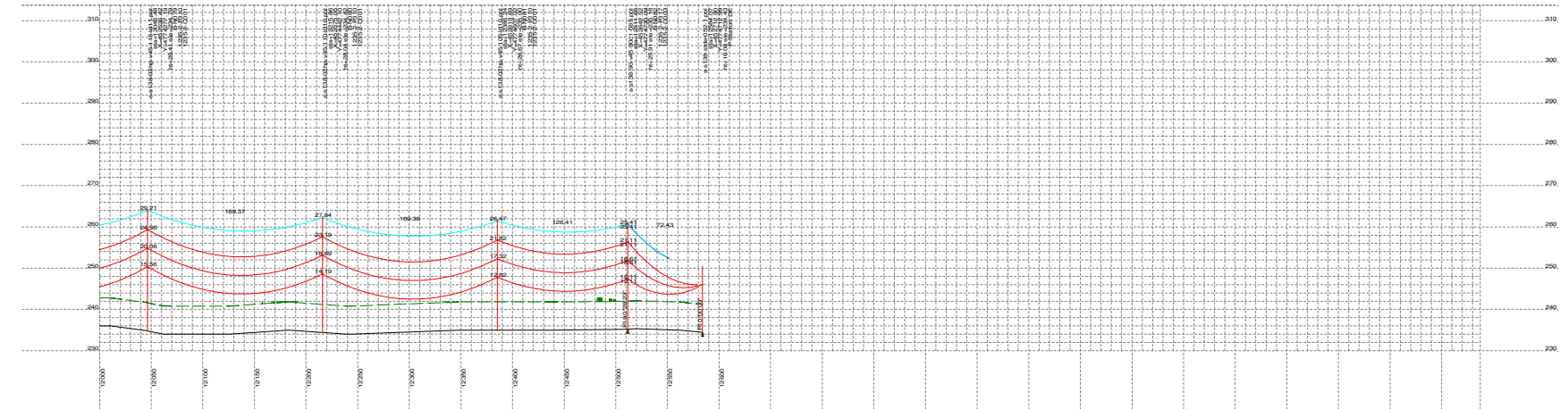
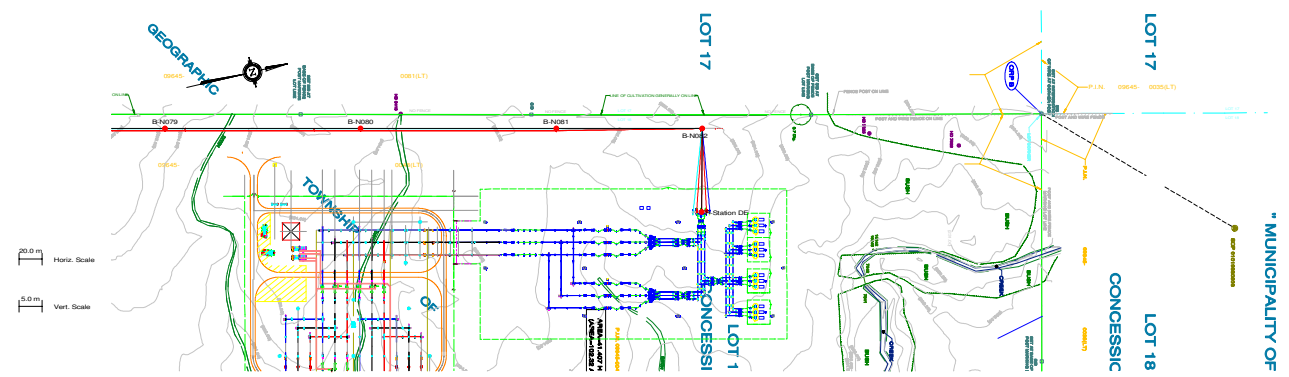
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			1001 115KV TRANSMISSION PROJECT LINE	STEEL POLE DESIGN PLAN & PROFILE DRAWINGS SHEET 11 OF 12
PROJECT NO.	ACTIVITY NO.	BY	DATE	SCALE
		DSN/EKWONG	24/05/12	N.T.S.
PACKAGE CODE	CHK	APP	DATE	REV.
			24/05/12	G



**Chimax Inc.**  
Engineering Company  
3050 Fairview Ave. East, Suite 508  
Markham, ON L3R 6A9  
Email: chimax@chimax.ca



PLS-CADD Drawing



PLAN & PROFILE LEGEND:

- 2 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
- OPGW
- SHIELD WIRE
- GROUND CLEARANCE LINE
- HYDRO WIRE
- TREE

STRUCTURE DESCRIPTION LEGEND:

- s-s138-02hp-v45-105-ld10.pol
- Sta
- X
- Y
- UTM
- B-S-N002
- 1235-2-P310
- 1235-2-C001

PLS-POLE FILE IDENTIFICATION

- STATION CHAINAGE
- UTM EASTING
- UTM NORTHING
- STRUCTURE HEIGHT ABOVE GROUND (M)
- GROUND ELEVATION (M)
- STRUCTURE NO.
- FRAMING DRAWING NO.
- FOUNDATION DRAWING NO.

NOTES:

1. GROUND CLEARANCE LINE SHOWN AT 6.8M (FOR VEHICULAR TRAFFIC).
2. CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
3. OPGW & SHIELD WIRE SAG AT 40°C.
4. ALL DIMENSIONS ARE IN METERS U.N.O.

REV	DATE	BY	CHKD	APP	ISS	DESCRIPTION
G	15/05/13					ISSUED FOR TENDER
F	01/03/13					ISSUED FOR TENDER
E	14/02/13					ISSUED FOR TENDER
D	18/01/13					ISSUED FOR TENDER
C	11/06/12					PRELIMINARY CONCRETE & STEEL POLE DESIGN
B	26/08/12					PRELIMINARY DESIGN
A	24/08/12					PRELIMINARY DESIGN

PROJECT NO.	ACTIVITY NO.	BY	DATE	SUBJECT
		DSN	15/05/13	1001115KV TRANSMISSION LINE
		DRN	15/05/13	
		CHK	15/05/13	
		APP	15/05/13	

SCALE	PACKAGE CODE	REV	DATE
N.T.S.			

STAMP/SEAL	PROPRIETARY INFORMATION
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CLIENT DWS. NO.	DRAWING NO.	REV.
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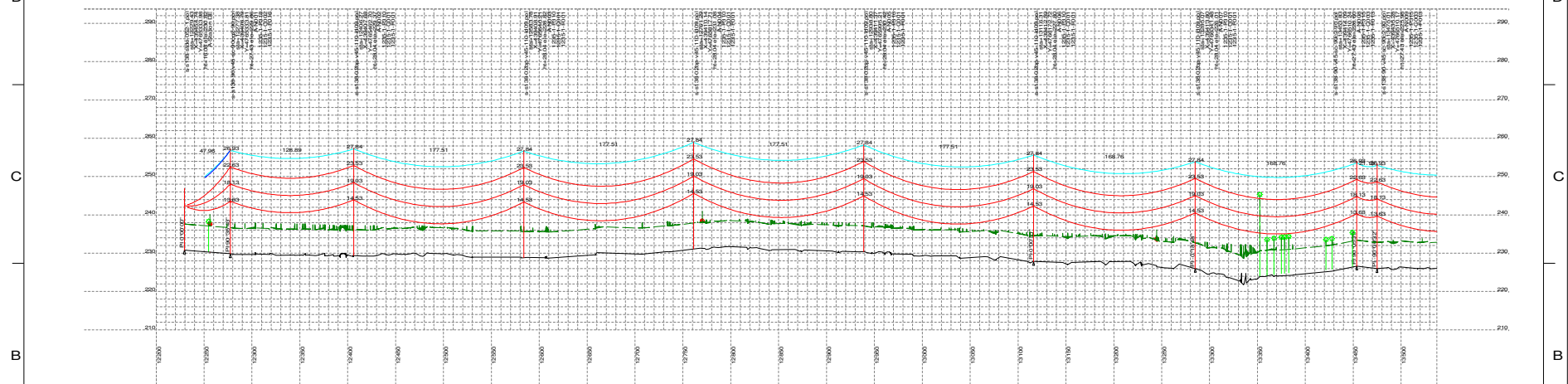
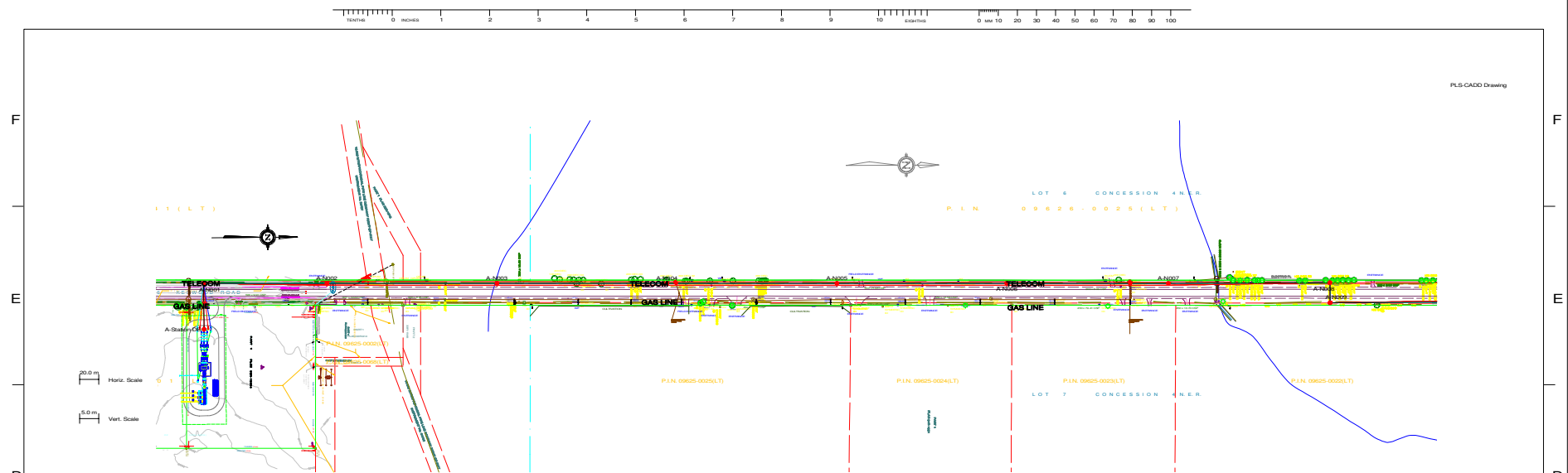


Chimax Inc.  
Engineering Company  
3000 Fairview Ave. East, Suite 500  
Markham, ON L3R 6A9  
Email: chimax@chimax.ca

Filed: May 23, 2013  
EB-2013-0040 and EB-2013-0041  
Exhibit B  
Tab 1  
Schedule 3  
Responses to County of  
Middlesex Interrogatories  
Appendix B

**APPENDIX 'B'**

**IR #1**



PLAN & PROFILE LEGEND:

1 x 115kV TRANSMISSION LINE CONDUCTOR  
(1351.5MCM ACSR DIPPER)  
OPGW  
SHIELD WIRE  
GROUND CLEARANCE LINE  
HYDRO WIRE  
TREE

STRUCTURE DESCRIPTION LEGEND:

s-s138-02bp-v45-110-ld09.p  
sta  
X  
Y  
ht  
ele  
A-N002  
1235-1-P310  
1235-1-C001  
1235-1-F001

LEGEND:

PLS-POLE FILE IDENTIFICATION  
STATION CHAINAGE  
UTM EASTING  
UTM NORTHING  
STRUCTURE HEIGHT ABOVE GROUND (M)  
GROUND ELEVATION (M)  
STRUCTURE NO.  
FRAMING DRAWING NO.  
FOUNDATION DRAWING NO.  
STEEL POLE ENGINEERING DRAWING NO.

NOTES:

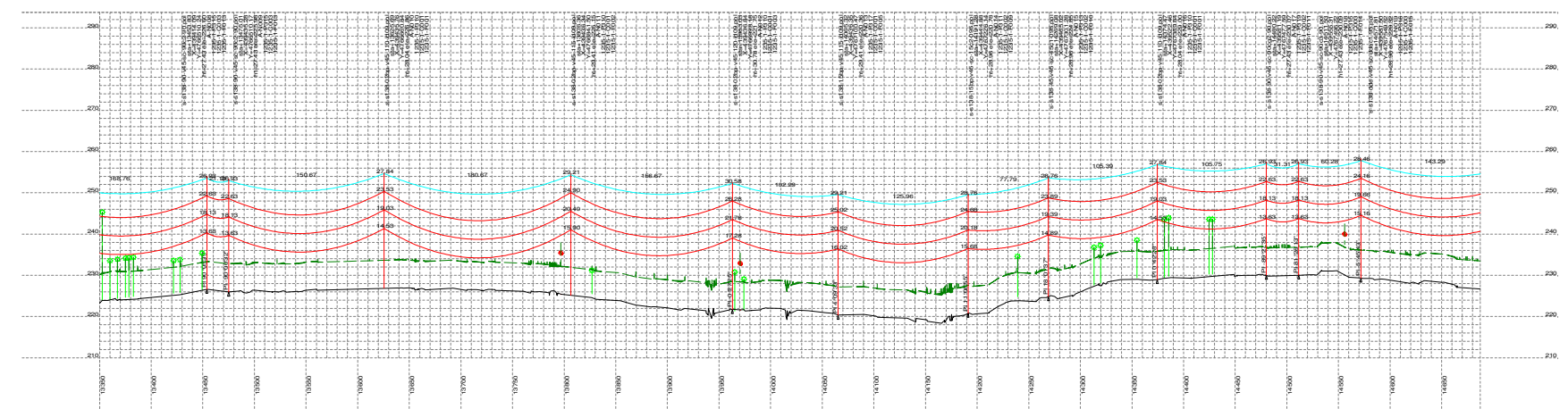
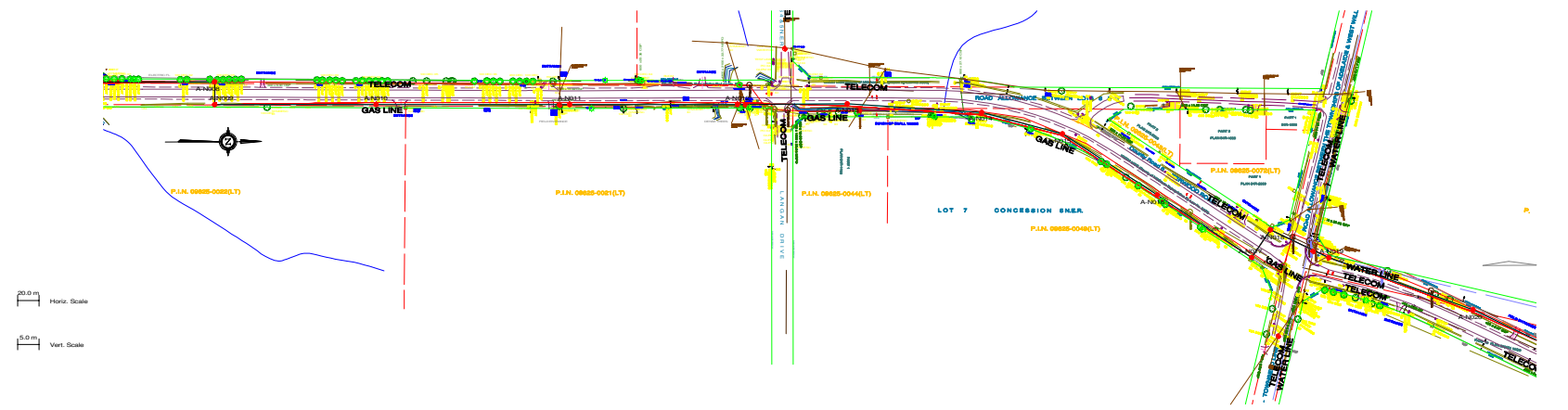
1. GROUND CLEARANCE LINE SHOWN AT 6.8M (FOR VEHICULAR TRAFFIC).
2. CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
3. OPGW & SHIELD WIRE SAG AT 40°C.
4. ALL DIMENSIONS ARE IN METERS U.N.O.

[illegible]





PLS-CADD Drawing



- PLAN & PROFILE LEGEND:**
- 1 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
  - OPGW
  - SHIELD WIRE
  - GROUND CLEARANCE LINE
  - HYDRO WIRE
  - TREE

- STRUCTURE DESCRIPTION LEGEND:**
- s-s138-02bp-v45-110-ld09.pol
  - sta
  - X
  - UTM
  - UTM NORTHING
  - STRUCTURE HEIGHT ABOVE GROUND (M)
  - GROUND ELEVATION (M)
  - STRUCTURE NO.
  - FRAMING DRAWING NO.
  - FOUNDATION DRAWING NO.
  - STEEL POLE ENGINEERING DRAWING NO.

- NOTES:**
1. GROUND CLEARANCE LINE SHOWN AT 6.8M (FOR VEHICULAR TRAFFIC).
  2. CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
  3. OPGW & SHIELD WIRE SAG AT 40°C.
  4. ALL DIMENSIONS ARE IN METERS U.N.O.

REV	DATE	DESCRIPTION	BY	CHK	APP	ISS	DATE	DESCRIPTION	BY	CHK	APP	ISS
A	24/09/12	PRELIMINARY DESIGN	M.H.	E.K.								
B	26/09/12	PRELIMINARY CONCRETE & STEEL POLE DESIGN	M.H.	E.K.								
C	11/06/12	ISSUED FOR REVIEW	M.H.	E.K.								
D	28/03/12	ISSUED FOR REVIEW	M.H.	E.K.								
E	28/04/12	ISSUED FOR REVIEW	M.H.	E.K.								
F	15/05/12	ISSUED FOR TENDER	M.H.	E.K.								

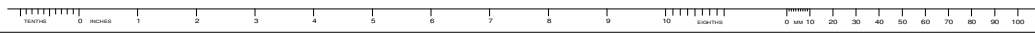
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3	1235-1-F001	1235-1-F001

PROJECT NO.	ACTIVITY NO.	BY	DATE	SUBJECT
1235-1-P012-S2	1235-1-P012-S2	DRN/M.H.WONG	21/08/12	STEEL POLE DESIGN PLAN & PROFILE DRAWINGS SHEET 2 OF 10
SCALE	PACKAGE CODE	CHK	APP	
N.T.S.				

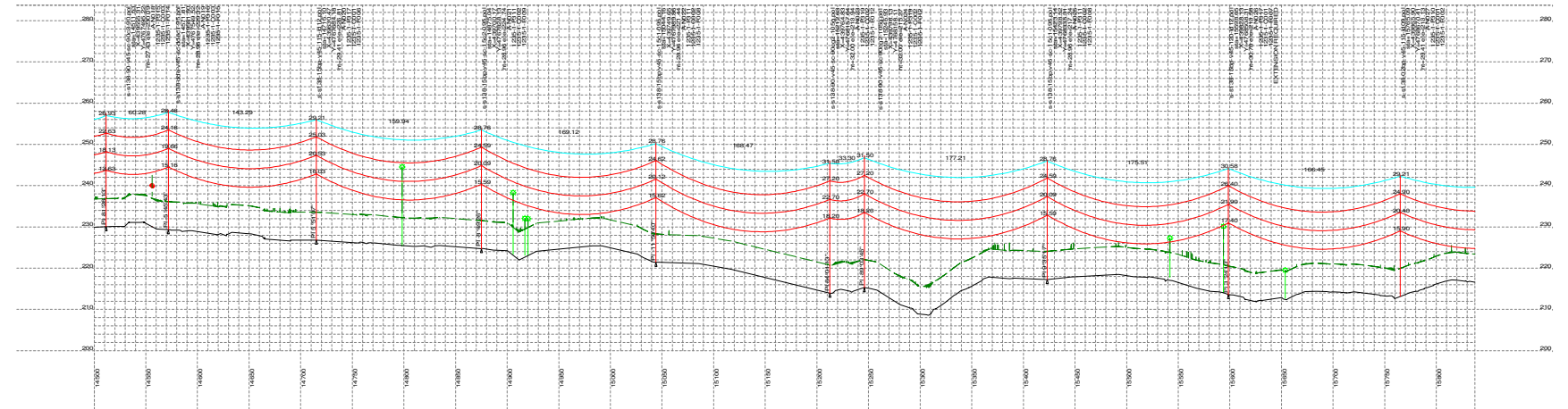
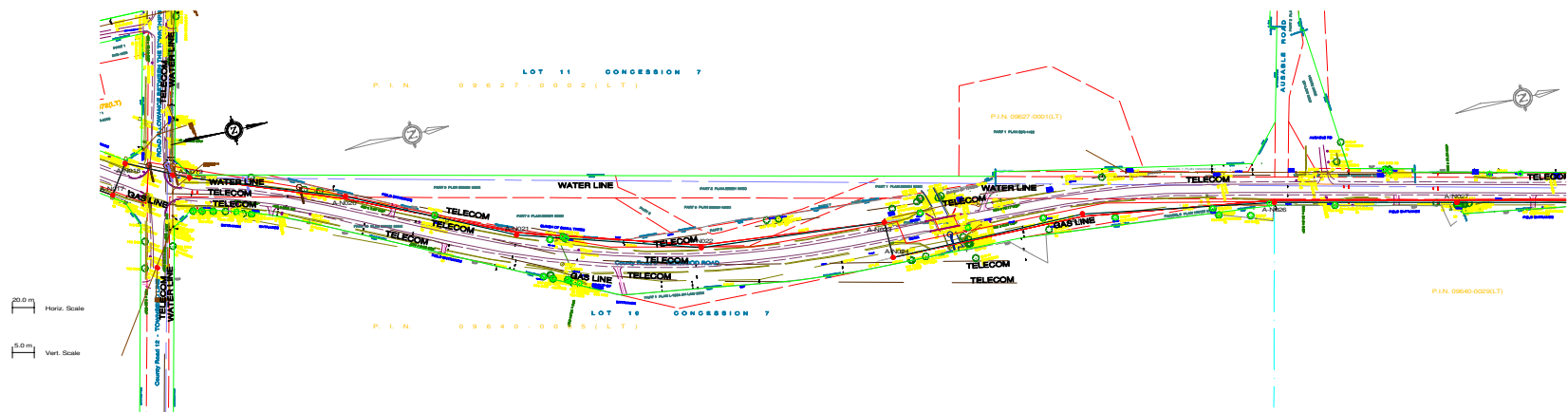
**Chimax Inc.**  
Engineering Company  
3000 Fairview Ave. East, Suite 500  
Markham, ON L3R 6A9  
Email: chimax@chimax.ca

CLIENT DWG. NO.	1235-1-P012-S2
DRAWING NO.	1235-1-P012-S2
REV.	F

CAD FILE: PLS-Cadd 1235-1-P012-F



PLS-CADD Drawing



PLAN & PROFILE LEGEND:

- 1 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
- OPGW
- SHIELD WIRE
- GROUND CLEARANCE LINE
- HYDRO WIRE
- TREE

STRUCTURE DESCRIPTION LEGEND:

s-s138-02bp-v45-110-ld09.pol  
sta  
X  
H  
R/L  
A-N002  
1235-1-P310  
1235-1-C001  
1235-1-F001

PLS-POLE FILE IDENTIFICATION  
STATION CHAINAGE  
UTM EASTING  
UTM NORTHING  
STRUCTURE HEIGHT ABOVE GROUND (M)  
GROUND ELEVATION (M)  
STRUCTURE NO.  
FRAMING DRAWING NO.  
FOUNDATION DRAWING NO.  
STEEL POLE ENGINEERING DRAWING NO.

NOTES:

- GROUND CLEARANCE LINE SHOWN AT 6.8M (FOR VEHICULAR TRAFFIC).
- CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
- OPGW & SHIELD WIRE SAG AT 40°C.
- ALL DIMENSIONS ARE IN METERS U.N.O.

REV	DATE	DESCRIPTION	BY	CHK	APP	ISS	DATE	DESCRIPTION	BY	CHK	APP	ISS
P	15/05/13	ISSUED FOR TENDER	M.H.	E.K.			F	15/05/13	ISSUED FOR TENDER			
D	28/04/13	ISSUED FOR TENDER	M.H.	E.K.			E	28/04/13	ISSUED FOR REVIEW			
D	28/03/13	ISSUED FOR TENDER	M.H.	E.K.			D	28/03/13	ISSUED FOR REVIEW			
G	11/05/12	PRELIMINARY CONCRETE & STEEL POLE DESIGN	M.H.	E.K.			C	11/05/12	ISSUED FOR REVIEW			
B	26/09/12	PRELIMINARY DESIGN	M.H.	E.K.			B	26/09/12	ISSUED FOR REVIEW			
A	24/09/12	PRELIMINARY DESIGN	J.C.	E.K.			A	24/09/12	ISSUED FOR REVIEW			
REV	DATE	DESCRIPTION	DR	CHK	APP	APP	ISS	DATE	DESCRIPTION	BY	CHK	APP
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7							6					
5							4					
3							2					
1												

PROJECT NO.	ACTIVITY NO.	BY	DATE	SUBJECT
1235-1-P012-F	1	DSN/EK/WONG	21/08/12	STEEL POLE DESIGN
1235-1-P012-F	2	DRN/MH/LUONG	21/08/12	PLAN & PROFILE DRAWINGS
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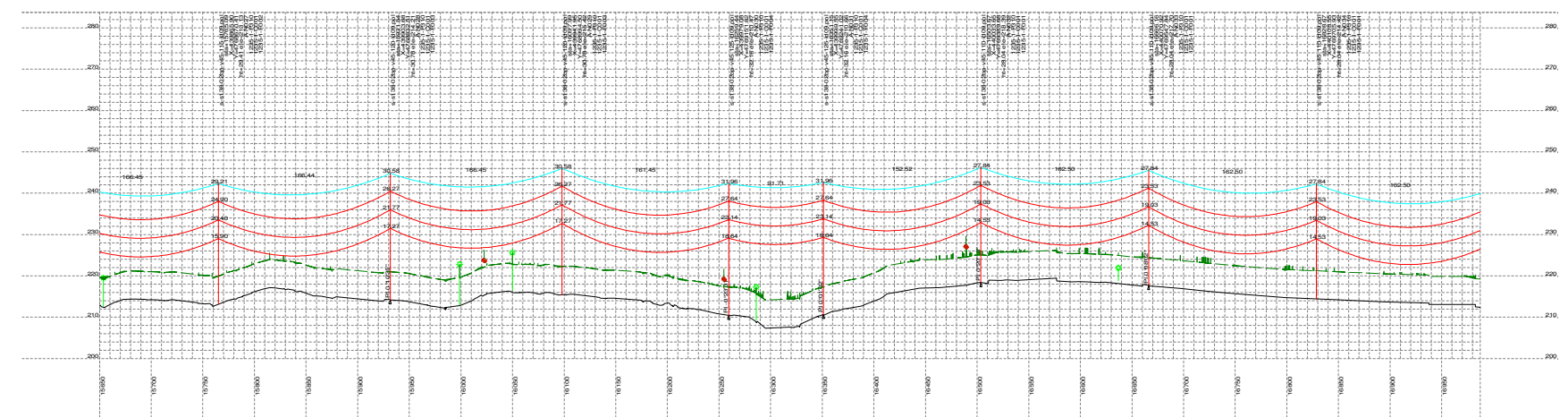
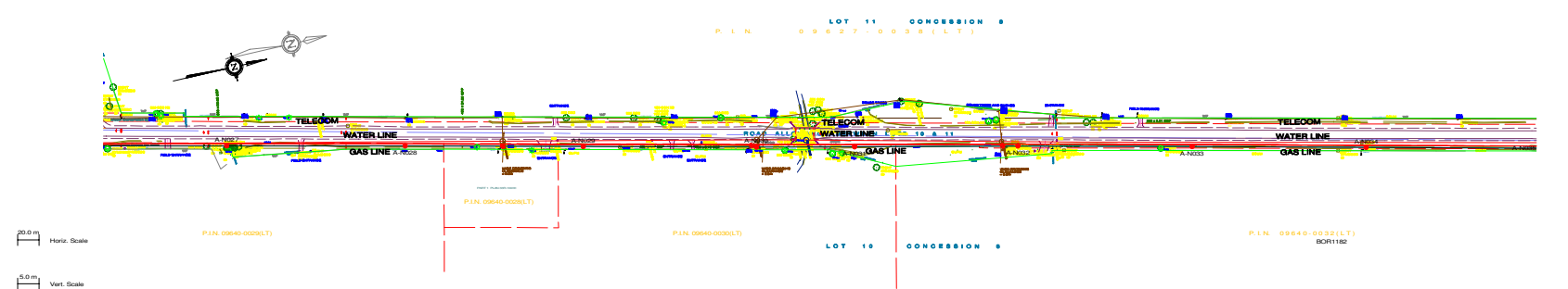
Chimax Inc.  
Engineering Company  
3800 Fairview Ave. East, Suite 508  
Markham, Ont. L3R 6A9  
Email: chimax@chimax.ca

CLIENT DWG. NO.	DRAWING NO.	REV.
1235-1-P012-F	1235-1-P012-F	F





PLS-CADD Drawing



PLAN & PROFILE LEGEND:

- 1 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
- OPGW
- SHIELD WIRE
- GROUND CLEARANCE LINE
- HYDRO WIRE
- TREE

STRUCTURE DESCRIPTION LEGEND:

- s-s138-02bp-v45-110-ld09.pol
- sta
- X
- HT
- HT
- A-N002
- 1235-1-P310
- 1235-1-F001
- 1235-1-F001

PLS-POLE FILE IDENTIFICATION

- STATION CHAINAGE
- UTM EASTING
- UTM NORTHING
- STRUCTURE HEIGHT ABOVE GROUND (M)
- GROUND ELEVATION (M)
- STRUCTURE NO.
- FRAMING DRAWING NO.
- FOUNDATION DRAWING NO.
- STEEL POLE ENGINEERING DRAWING NO.

NOTES:

- GROUND CLEARANCE LINE SHOWN AT 6.8M (FOR VEHICULAR TRAFFIC).
- CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
- OPGW & SHIELD WIRE SAG AT 40°C.
- ALL DIMENSIONS ARE IN METERS U.N.O.

REV	DATE	DESCRIPTION	BY	CHK	APP	ISS	DATE	DESCRIPTION	BY	CHK	APP	ISS
P	15/05/13	ISSUED FOR TENDER	M.H.	E.K.			F	15/05/13	ISSUED FOR TENDER			
D	28/04/13	ISSUED FOR TENDER	M.H.	E.K.			E	28/04/13	ISSUED FOR REVIEW			
D	28/03/13	ISSUED FOR TENDER	M.H.	E.K.			D	28/03/13	ISSUED FOR REVIEW			
G	11/05/12	PRELIMINARY CONCRETE & STEEL POLE DESIGN	M.H.	E.K.			C	11/05/12	ISSUED FOR REVIEW			
B	26/09/12	PRELIMINARY DESIGN	M.H.	E.K.			B	26/09/12	ISSUED FOR REVIEW			
A	24/09/12	PRELIMINARY DESIGN	J.C.	E.K.			A	24/09/12	ISSUED FOR REVIEW			

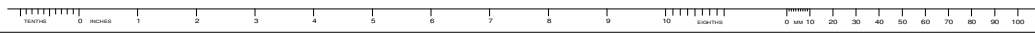
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2		
3		
4		
5		
6		
7		
8		
9		

CLIENT PROJECT MGR.	DEPARTMENT MGR.	PROJECT MGR.	AREA	SUBJECT
PROJECT PHASE:				
PROJECT NO.	ACTIVITY NO.	BY	DATE	
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		DRN	21/08/12	
SCALE	PACKAGE CODE	CHK		
N.T.S.		APP		

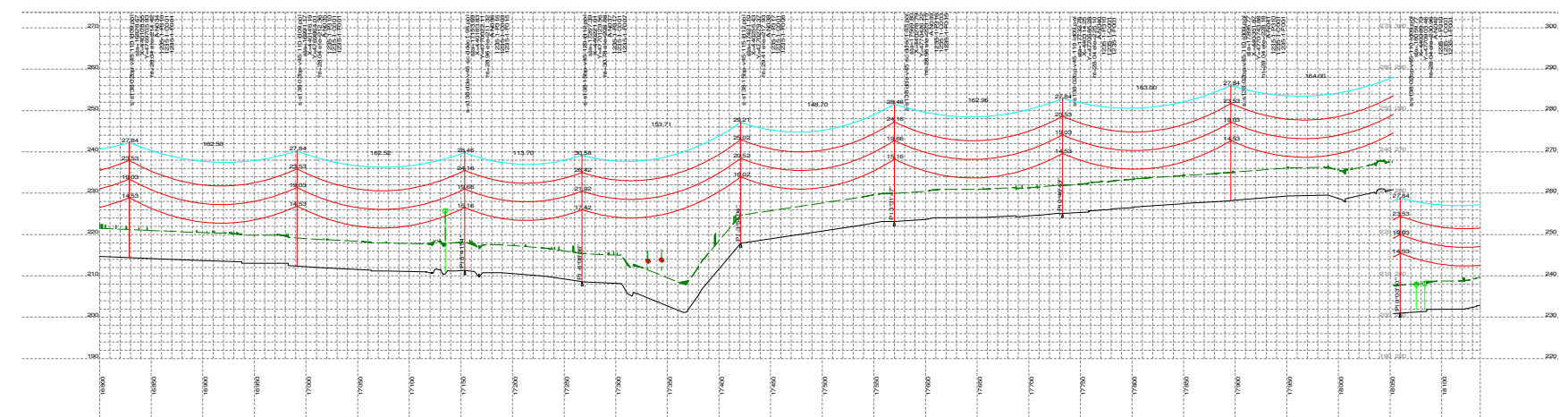
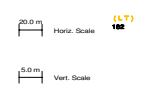
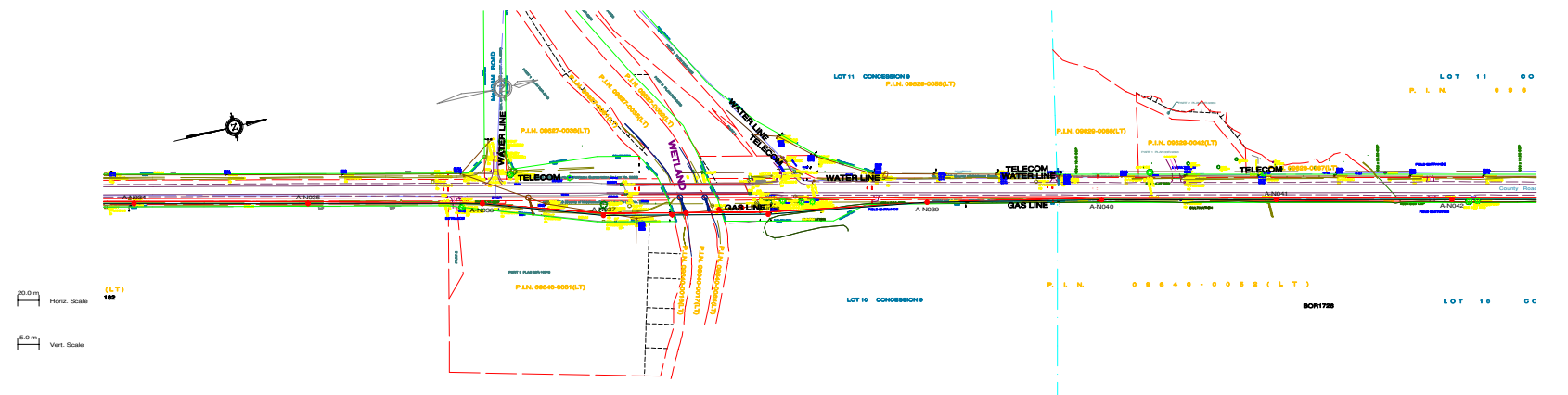
**Chimax Inc.**  
Engineering Company  
3000 Fourteenth Ave. East, Suite 500  
Markham, On. L3R 6A9  
Email: chimax@chimax.ca

CLIENT DWG. NO.	REV.
1235-1-P012-S4	F

PLS-Cadd 1235-1-P012-F



PLS-CADD Drawing



- PLAN & PROFILE LEGEND:**
- 1 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
  - OPGW
  - SHIELD WIRE
  - GROUND CLEARANCE LINE
  - HYDRO WIRE
  - TREE
- STRUCTURE DESCRIPTION LEGEND:**
- s-s138-02bp-v45-110-ld09.pol
  - sta
  - UTM EASTING
  - UTM NORTHING
  - STRUCTURE HEIGHT ABOVE GROUND (M)
  - GROUND ELEVATION (M)
  - STRUCTURE NO.
  - FRAMING DRAWING NO.
  - FOUNDATION DRAWING NO.
  - STEEL POLE ENGINEERING DRAWING NO.

- NOTES:**
- GROUND CLEARANCE LINE SHOWN AT 6.8M (FOR VEHICULAR TRAFFIC).
  - CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
  - OPGW & SHIELD WIRE SAG AT 40°C.
  - ALL DIMENSIONS ARE IN METERS U.N.O.

REV	DATE	BY	CHK	APP	ISS	DESCRIPTION
A	24/09/12	J.C.	E.K.			PRELIMINARY DESIGN
B	26/09/12	M.H.	E.K.			PRELIMINARY DESIGN
C	11/06/12	M.H.	E.K.			PRELIMINARY CONCRETE & STEEL POLE DESIGN
D	28/03/12	M.H.	E.K.			ISSUED FOR TENDER
E	28/04/12	M.H.	E.K.			ISSUED FOR TENDER
F	15/06/12	F				ISSUED FOR TENDER

REV	DATE	BY	CHK	APP	ISS	DESCRIPTION
A	24/09/12	J.C.	E.K.			PRELIMINARY DESIGN
B	26/09/12	M.H.	E.K.			PRELIMINARY DESIGN
C	11/06/12	M.H.	E.K.			PRELIMINARY CONCRETE & STEEL POLE DESIGN
D	28/03/12	M.H.	E.K.			ISSUED FOR TENDER
E	28/04/12	M.H.	E.K.			ISSUED FOR TENDER
F	15/06/12	F				ISSUED FOR TENDER

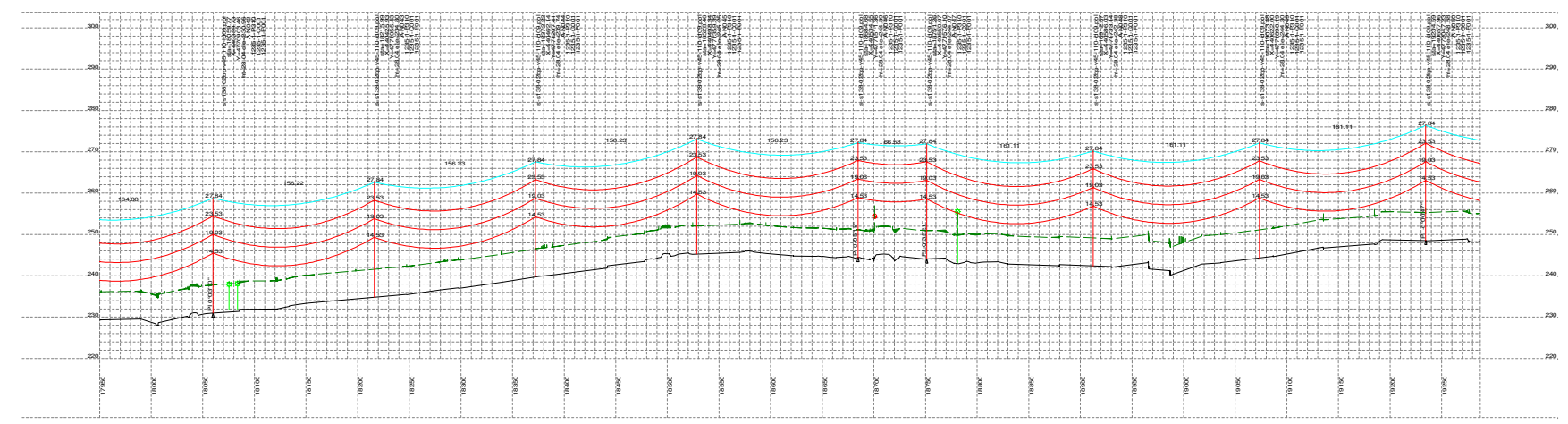
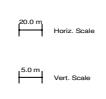
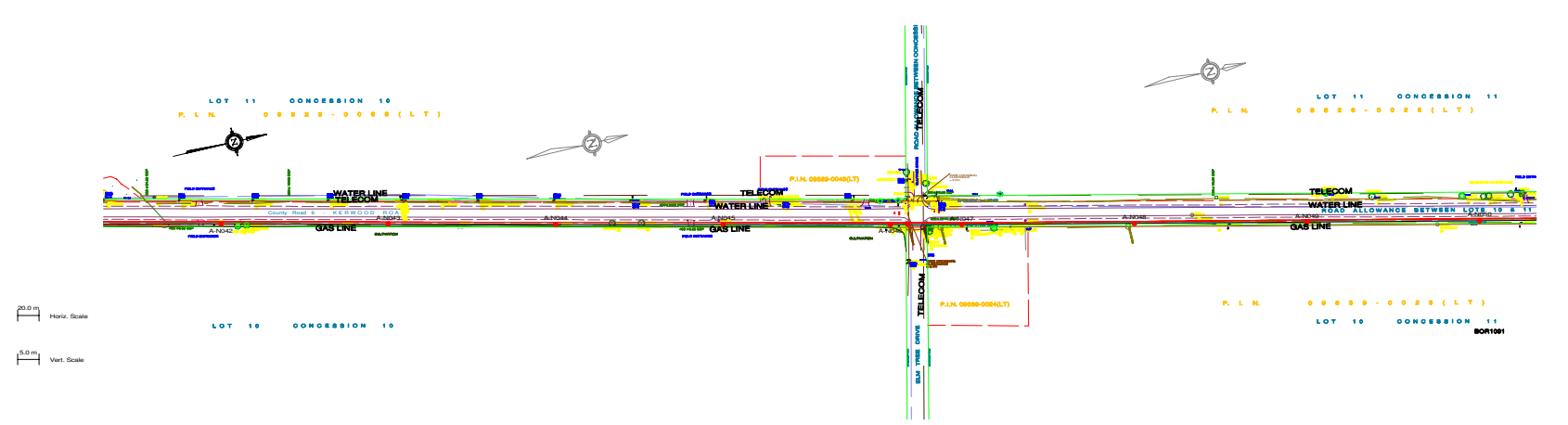
CLIENT PROJECT MGR.		DEPARTMENT MGR.		PROJECT MGR.	
PROJECT PHASE:					
PROJECT NO.	ACTIVITY NO.	BY	DATE	SUBJECT	
		DSN/EK/WD	21/08/12	1001 115kV TRANSMISSION LINE	
SCALE	PACKAGE CODE	CHK	APP	STAMP/SEAL	
N.T.S.				PROPRIETARY INFORMATION: THIS DRAWING IS THE PROPERTY OF CHIMAX INC. AND IS NOT TO BE LOANED OR REPRODUCED IN ANY WAY WITHOUT THE PERMISSION OF CHIMAX INC.	

Chimax Inc.  
Engineering Company  
3800 Fairview Ave. East, Suite 508  
Markham, ON L3R 6A9  
Email: chimax@chimax.ca

CLIENT DWG. NO.	DRAWING NO.	REV.
1235-1-P012-S5	1235-1-P012-S5	F



PLS-CADD Drawing



- PLAN & PROFILE LEGEND:**
- 1 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
  - SHIELD WIRE
  - GROUND CLEARANCE LINE
  - HYDRO WIRE
  - TREE
- STRUCTURE DESCRIPTION LEGEND:**
- s-s138-02bp-v45-110-ld09.pol
  - STA
  - UTM EASTING
  - UTM NORTHING
  - STRUCTURE HEIGHT ABOVE GROUND (M)
  - GROUND ELEVATION (M)
  - STRUCTURE NO.
  - FRAMING DRAWING NO.
  - FOUNDATION DRAWING NO.
  - STEEL POLE ENGINEERING DRAWING NO.
- NOTES:**
- GROUND CLEARANCE LINE SHOWN AT 6.8M (FOR VEHICULAR TRAFFIC).
  - CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
  - OPW & SHIELD WIRE SAG AT 40°C.
  - ALL DIMENSIONS ARE IN METERS U.N.O.

REV	DATE	BY	CHK	APP	ISS	DESCRIPTION
A	24/09/12	J.C.	E.K.			PRELIMINARY DESIGN
B	26/09/12	M.H.	E.K.			PRELIMINARY DESIGN
C	11/06/12	M.H.	E.K.			PRELIMINARY CONCRETE & STEEL POLE DESIGN
D	28/03/13	M.H.	E.K.			ISSUED FOR TENDER
E	28/04/13	M.H.	E.K.			ISSUED FOR TENDER
F	15/06/13	F				ISSUED FOR TENDER

REV	DATE	BY	CHK	APP	ISS	DESCRIPTION
A	24/09/12	J.C.	E.K.			PRELIMINARY DESIGN
B	26/09/12	M.H.	E.K.			PRELIMINARY DESIGN
C	11/06/12	M.H.	E.K.			PRELIMINARY CONCRETE & STEEL POLE DESIGN
D	28/03/13	M.H.	E.K.			ISSUED FOR TENDER
E	28/04/13	M.H.	E.K.			ISSUED FOR TENDER
F	15/06/13	F				ISSUED FOR TENDER

REV	DATE	BY	CHK	APP	ISS	DESCRIPTION
A	24/09/12	J.C.	E.K.			PRELIMINARY DESIGN
B	26/09/12	M.H.	E.K.			PRELIMINARY DESIGN
C	11/06/12	M.H.	E.K.			PRELIMINARY CONCRETE & STEEL POLE DESIGN
D	28/03/13	M.H.	E.K.			ISSUED FOR TENDER
E	28/04/13	M.H.	E.K.			ISSUED FOR TENDER
F	15/06/13	F				ISSUED FOR TENDER

CLIENT PROJECT MGR.		DEPARTMENT MGR.		PROJECT MGR.	
PROJECT PHASE:					
PROJECT NO.	ACTIVITY NO.	BY	DATE	SUBJECT	
		DSN	21/08/12	STEEL POLE DESIGN	
		DRN	21/08/12	PLAN & PROFILE DRAWINGS	
		CHK		SHEET 6 OF 10	
SCALE	PACKAGE CODE	APP			
N.T.S.					

STAMP/SEAL	PROPRIETARY INFORMATION:
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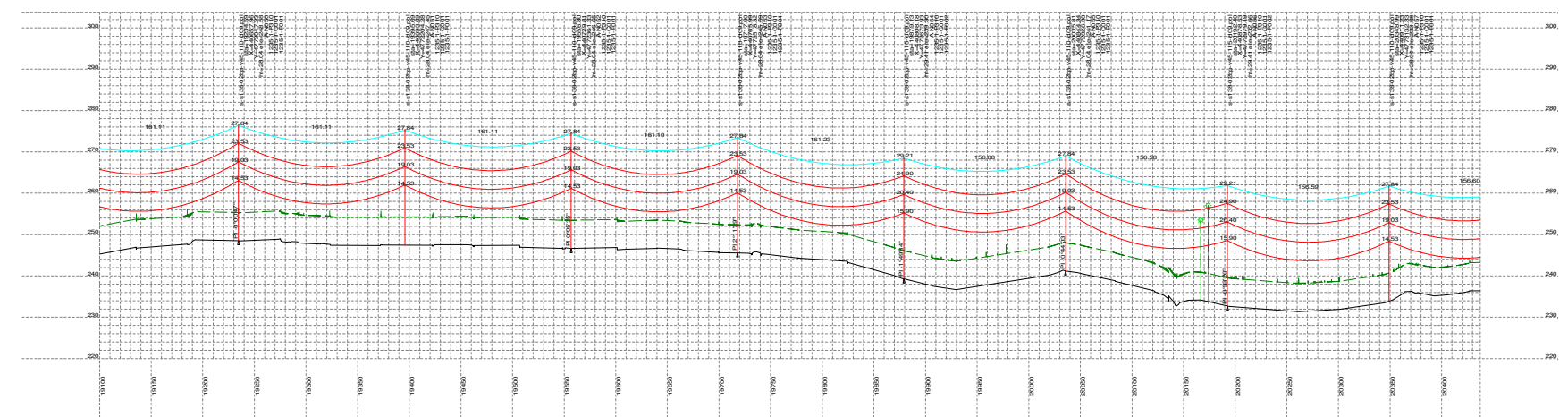
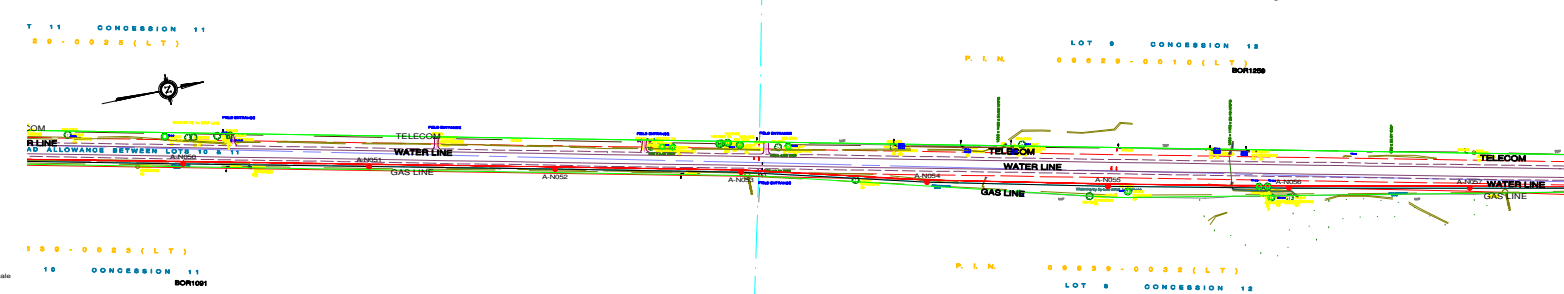
CLIENT DWG. NO.	DRAWING NO.	REV.
	1235-1-P012-S6	F



Engineering Company  
3800 Fourteenth Ave. East, Suite 508  
Markham, Ont. L3R 6A9  
Email: chimax@chimax.ca



PLS-CADD Drawing



- PLAN & PROFILE LEGEND:**
- 1 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
  - SHIELD WIRE (1351.5MCM ACSR DIPPER)
  - GROUND CLEARANCE LINE
  - HYDRO WIRE
  - TREE
- STRUCTURE DESCRIPTION LEGEND:**
- s-s138-02bp-v45-110-ld09.pol
  - A-N002
  - 1235-1-P310
  - 1235-1-F001
- NOTES:**
1. GROUND CLEARANCE LINE SHOWN AT 6.8M (FOR VEHICULAR TRAFFIC).
  2. CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
  3. OPGW & SHIELD WIRE SAG AT 40°C.
  4. ALL DIMENSIONS ARE IN METERS U.N.O.



**Chimax Inc.**  
Engineering Company  
3000 Fairview Ave. East, Suite 500  
Markham, ON L3R 6A9  
Email: chimax@chimax.ca

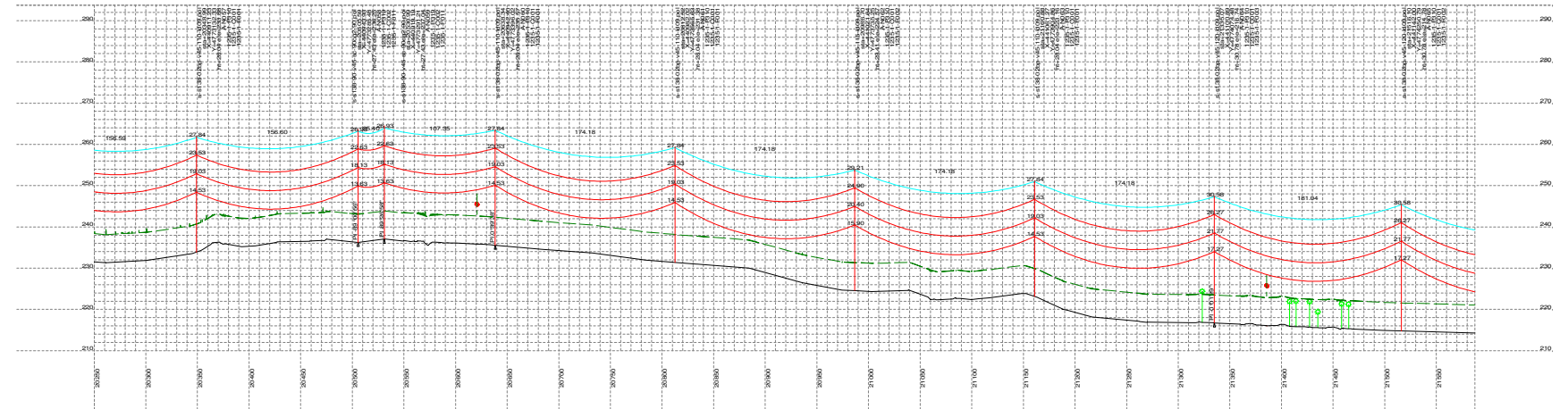
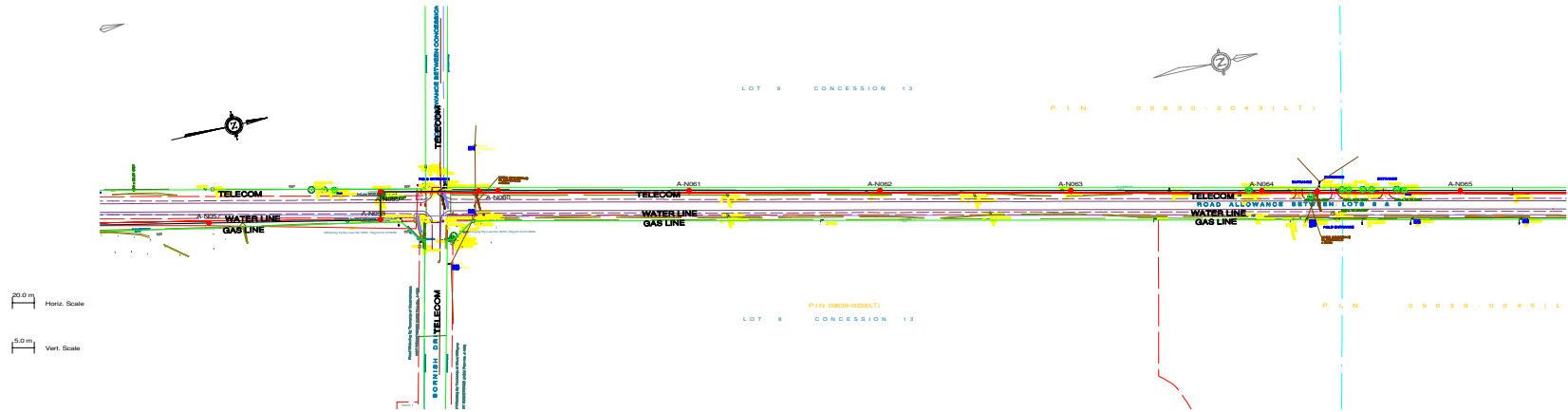
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D	28/04/12	M.H.	E.K.			ISSUED FOR TENDER
D	28/03/12	M.H.	E.K.			ISSUED FOR TENDER
G	11/06/12	M.H.	E.K.			PRELIMINARY CONCRETE & STEEL POLE DESIGN
B	26/09/12	M.H.	E.K.			PRELIMINARY DESIGN
A	24/09/12	J.C.	E.K.			PRELIMINARY DESIGN

PROJECT NO.	ACTIVITY NO.	BY	DATE	SUBJECT
1235-1-P012-S7	1	DRN	21/08/12	STEEL POLE DESIGN
1235-1-P012-S7	2	DRN	21/08/12	STEEL POLE DESIGN
1235-1-P012-S7	3	DRN	21/08/12	STEEL POLE DESIGN
1235-1-P012-S7	4	DRN	21/08/12	STEEL POLE DESIGN
1235-1-P012-S7	5	DRN	21/08/12	STEEL POLE DESIGN
1235-1-P012-S7	6	DRN	21/08/12	STEEL POLE DESIGN
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1235-1-P012-S7	10	DRN	21/08/12	STEEL POLE DESIGN

CLIENT DWG. NO.	DRAWING NO.	REV.
1235-1-P012-S7	1235-1-P012-S7	F



PLS-CADD Drawing



PLAN & PROFILE LEGEND:

- 1 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
- SHIELD WIRE (1351.5MCM ACSR DIPPER)
- GROUND CLEARANCE LINE
- HYDRO WIRE
- TREE

STRUCTURE DESCRIPTION LEGEND:

- s-s138-02bp-v45-110-ld09.pol
  - sta
  - X
  - HT
  - HT
  - A-N002
  - 1235-1-P310
  - 1235-1-C001
  - 1235-1-F001
- PLS-POLE FILE IDENTIFICATION  
STATION CHAINAGE  
UTM EASTING  
STRUCTURE HEIGHT ABOVE GROUND (M)  
GROUND ELEVATION (M)  
STRUCTURE NO.  
FRAMING DRAWING NO.  
FOUNDATION DRAWING NO.  
STEEL POLE ENGINEERING DRAWING NO.

NOTES:

- GROUND CLEARANCE LINE SHOWN AT 6.8M (FOR VEHICULAR TRAFFIC).
- CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
- OPGW & SHIELD WIRE SAG AT 40°C.
- ALL DIMENSIONS ARE IN METERS U.N.O.

REV	DATE	BY	CHK	APP	ISS	DESCRIPTION
A	24/09/12	J.C.	E.K.			PRELIMINARY DESIGN
B	26/09/12	M.H.	E.K.			PRELIMINARY DESIGN
C	11/06/12	M.H.	E.K.			PRELIMINARY CONCRETE & STEEL POLE DESIGN
D	28/03/13	M.H.	E.K.			ISSUED FOR TENDER
E	28/03/13	M.H.	E.K.			ISSUED FOR REVIEW
F	15/06/12	F				ISSUED FOR TENDER

REF	NUMBER	TITLE
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2	1235-1-C001	FOUNDATION DRAWING NO.
3	1235-1-F001	FRAMING DRAWING NO.

PROJECT NO.	ACTIVITY NO.	BY	DATE	SUBJECT
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1235-1	2	DRN	21/08/12	STEEL POLE DESIGN
1235-1	3	CHK	21/08/12	STEEL POLE DESIGN
1235-1	4	APP	21/08/12	STEEL POLE DESIGN

**Chimax Inc.**  
Engineering Company  
3800 Fairview Ave. East, Suite 508  
Markham, ON L3R 6A9  
Email: chimax@chimax.ca

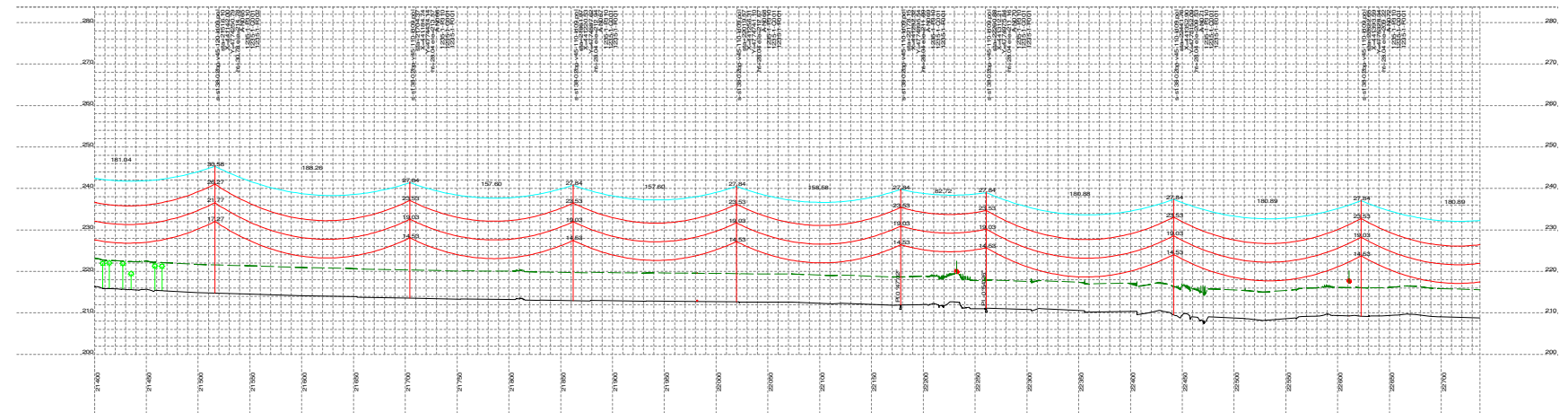
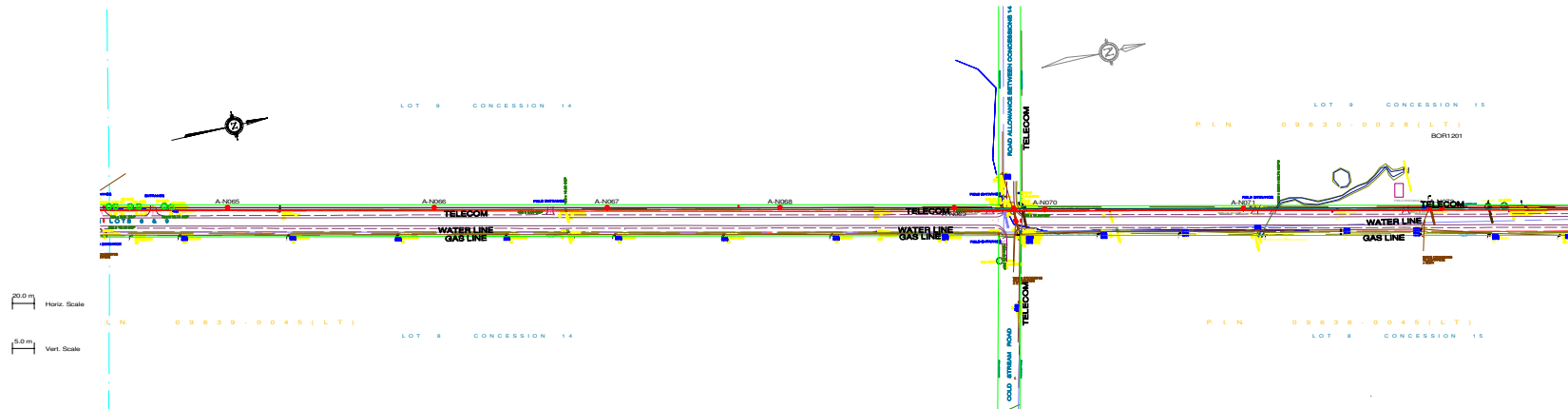
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DRAWING NO.	1235-1-P012-S8
REV.	F

PLS-Cadd 1235-1-P012-F





PLS-CADD Drawing



PLAN & PROFILE LEGEND:

- 1 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
- OPGW
- SHIELD WIRE
- GROUND CLEARANCE LINE
- HYDRO WIRE
- TREE

STRUCTURE DESCRIPTION LEGEND:

s-s138-02bp-v45-110-ld09.pol  
sta  
X  
H  
A-N002  
1235-1-P310  
1235-1-C001  
1235-1-F001

PLS-POLE FILE IDENTIFICATION  
STATION CHAINAGE  
UTM EASTING  
UTM NORTHING  
STRUCTURE HEIGHT ABOVE GROUND (M)  
GROUND ELEVATION (M)  
STRUCTURE NO.  
FRAMING DRAWING NO.  
FOUNDATION DRAWING NO.  
STEEL POLE ENGINEERING DRAWING NO.

NOTES:

1. GROUND CLEARANCE LINE SHOWN AT 6.8M (FOR VEHICULAR TRAFFIC).
2. CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
3. OPGW & SHIELD WIRE SAG AT 40°C.
4. ALL DIMENSIONS ARE IN METERS U.N.O.



Chimax Inc.  
Engineering Company  
3920 Fourteenth Ave. East, Suite 506  
Markham, Ont. L3R 6A9  
Email: chimax@chimex.ca

CLIENT PROJECT MGR. DEPARTMENT MGR. PROJECT MGR.

PROJECT PHASE:

AREA  
1001 APPLANT WIND PROJECT LINE

PROJECT NO. ACTIVITY NO. BY DATE

DSN:ERWONG 21/08/12

DRN:HLJUNG 21/08/12

CHK APP

SUBJECT  
STEEL POLE DESIGN  
PLAN & PROFILE DRAWINGS  
SHEET 9 OF 10

SCALE  
N.T.S.

PACKAGE CODE

CLIENT DWG. NO.

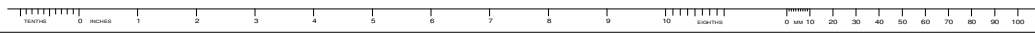
DRAWING NO.

1235-1-P012-S9

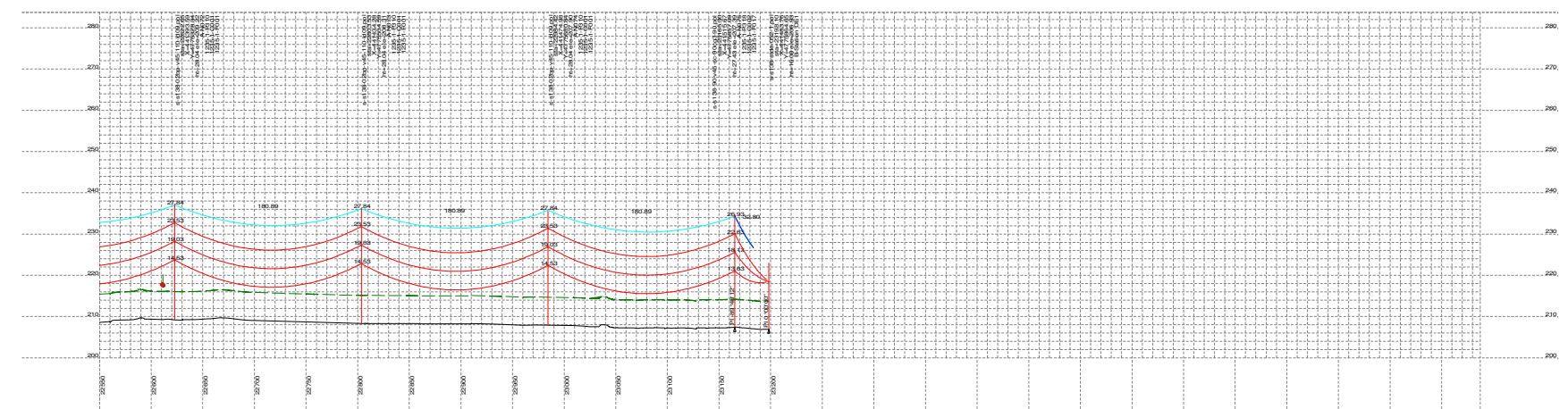
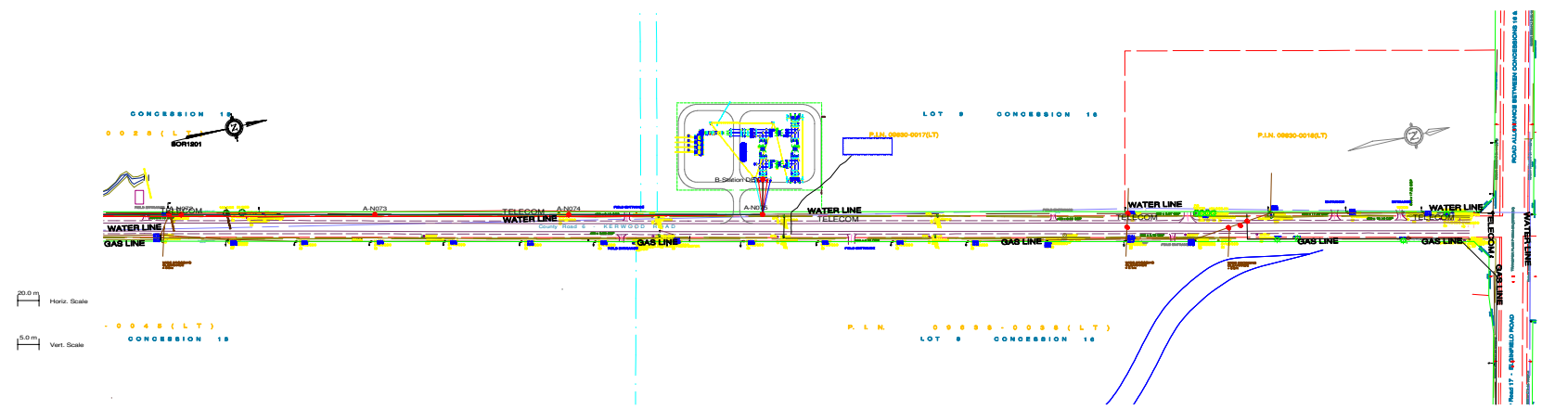
REV.

F

CAD FILE: PLS-Cadd 1235-1-P012-F



PLS-CADD Drawing



- PLAN & PROFILE LEGEND:**
- 1 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
  - SHIELD WIRE
  - GROUND CLEARANCE LINE
  - HYDRO WIRE
  - TREE
- STRUCTURE DESCRIPTION LEGEND:**
- s-s138-02bp-v45-110-ld09.pol
  - sta
  - UTM EASTING
  - UTM NORTHING
  - STRUCTURE HEIGHT ABOVE GROUND (M)
  - GROUND ELEVATION (M)
  - STRUCTURE NO.
  - FRAMING DRAWING NO.
  - FOUNDATION DRAWING NO.
  - STEEL POLE ENGINEERING DRAWING NO.
- NOTES:**
- GROUND CLEARANCE LINE SHOWN AT 6.8M (FOR VEHICULAR TRAFFIC).
  - CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
  - OPGW & SHIELD WIRE SAG AT 40°C.
  - ALL DIMENSIONS ARE IN METERS U.N.O.

REV	DATE	BY	CHK	APP	ISS	DESCRIPTION
A	24/09/12	J.C.	E.K.			PRELIMINARY DESIGN
B	26/09/12	M.H.	E.K.			PRELIMINARY DESIGN
C	11/06/12	M.H.	E.K.			PRELIMINARY CONCRETE & STEEL POLE DESIGN
D	28/03/13	M.H.	E.K.			ISSUED FOR TENDER
E	28/04/13	M.H.	E.K.			ISSUED FOR REVIEW
F	15/06/13	F				ISSUED FOR TENDER

PROJECT NO.	ACTIVITY NO.	BY	DATE	SUBJECT
1235-1-P012-S10	1	DSN	21/08/12	APPLANT WIND PROJECT
1235-1-P012-S10	2	DRN	21/08/12	STEEL POLE DESIGN
1235-1-P012-S10	3	CHK	21/08/12	PLAN & PROFILE DRAWINGS
1235-1-P012-S10	4	APP	21/08/12	SHEET 10 OF 10

**NEXTERA ENERGY CANADA**

**Chimax Inc.**  
Engineering Company  
3800 Fourteenth Ave. East, Suite 508  
Markham, ON L3R 6A9  
Email: chimax@chimax.ca

CLIENT DWS. NO. 1235-1-P012-S10

DRAWING NO. 1235-1-P012-S10

REV. F

Filed: May 23, 2013  
EB-2013-0040 and EB-2013-0041  
Exhibit B  
Tab 1  
Schedule 3  
Responses to County of  
Middlesex Interrogatories  
Appendix C

**APPENDIX 'C'**

**IR #10**



**Hydro One Networks Inc.**  
**Program Integration –**  
**Joint Use**  
185 Clegg Rd  
Markham, ON L6G 1B7

Tel: (888) 332-2249 x 3214  
Cell: (613) 264-2557  
Fax: (613) 267-5406  
Email [john.boldt@HydroOne.com](mailto:john.boldt@HydroOne.com)



John Boldt  
Commercial Agreements Manager  
Business Integration

November 19, 2012

Middlesex County  
County Engineer's Office  
399 Ridout Street North  
London, ON N6A 2P1

Attention: Mr. Chris Traini

Subject: Review of Hydro One Networks Inc.'s Joint Use Policy

Dear Chris:

Thank you again for meeting with us on November 14 in your London office to discuss Hydro One Networks Inc.'s ("HONI") Joint Use Policy and to address some of your questions.

As I stated at the meeting, HONI has a good working relationship with 364 municipalities and First Nations in Ontario and has joint use agreements in place with 76 LDCs, approximately 100 independent telephone, cable and fibre companies; three reciprocal telephone agreements (Thunder Bay, Northern Tel and Lansdowne Tel); Bell Canada, Bell Aliant, approximately 30 large generators with four agreements each, and other customers with agreements for attachments such as airport lights and nuclear radiation warning devices, for a total of approximately 665 agreements managed.

To date, HONI has established joint use with generators, in the power space on poles, for generator collector systems on 3331 HONI-owned poles.

HONI has encouraged the joint use arrangements noted above as they are in line with HONI's policy and standards. HONI's standards do NOT allow both Transmission and Distribution lines on the same structure. This position adheres to HONI's main focus, which is system reliability and safety to staff and your constituents. HONI's practices must also hold our ratepayers and the constituent's ratepayers whole.

More specifically:

- HONI will not subject the distribution system to undue risks with such things as Temporary Over Voltage or increased Neutral to Earth Voltage. The probability of this happening with voltages greater than 50kV running parallel above the lower voltage circuit is greater in comparison to a perpendicular crossing only. That is, the attachment of high voltage lines longitudinally above lower voltage lines carries the risk of direct contact between them. Contact between a high and a low voltage line would subject customers served from the lower voltage line to incidences of Temporary Over Voltage which would be significantly higher than normal. This would potentially lead to significant equipment damage and (as each Hydro One low voltage feeder can serve several thousand customers), large-scale service disruptions requiring extensive restoration times. Hydro One could invest in much taller poles to accommodate the necessary separation between the high vs. low voltage lines, but this does not eliminate the risk of contact. Furthermore, the potential of increased lightning strikes with taller poles also rises, thereby increasing the chance of pole fires, equipment damage and outages to your constituents.
- With respect to system reliability, HONI not only works to minimize risk to customers and the system to the extent possible, it also requires the capability to mount a quick response for power restoration when storms do occur. HONI has limited its joint use pole heights to 80 feet in length with a total of five circuits, as we have local equipment readily available to respond and work on up to 80-foot poles. As noted above, with lines carrying voltages of greater than 50kV above a line carrying voltages of less than 50kV, increased separation between the wires is needed, thereby requiring poles to be above the 80-foot limit and resulting in the need for a pole of up to 100 feet or greater. HONI does not commonly stock 100-foot poles, nor special equipment such as cranes and large buckets, locally, for this use. Furthermore, the cranes required to set poles of this size require roads to be blocked for periods of time. All of these considerations would increase restoration times and costs to ratepayers.
- As stated above, HONI's Transmission and Distribution systems are on separate structures. For efficiencies, HONI has separate field staff supporting each system. Therefore, not all HONI lines personnel are trained to work on both voltages.

As part of HONI's due diligence, a great deal of time and effort was spent to analyze the potential risks of these requests; engineering studies were proactively done; and HONI also reached out to other electricity distributor contacts through the Canadian Electrical Association. These efforts led us to find that our practices in establishing joint use as indicated above are consistent with those of other utilities in Canada. The possibility of departing from those practices raises concerns which we believe are well-founded.

In closing, we stress that our focus is on system reliability and providing safe reliable power to the people of Ontario. For the reasons listed above, HONI has established a joint use policy that will allow joint use to be established for circuits up to 50kV only.

If you have any additional questions, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read "John Boldt".

John Boldt

cc. F. Allen Wiley, Vice President, Development Canada and Northeast U.S.  
NextEra Energy Resources, LLC

Len McMillan, Vice President - Lines & Forestry

Rick Stevens, Vice President - Asset Management