Dear Vallari Patel

I received your letter dated November 24, 2021, which addresses the errors contained in the original notification package for the tower proposed at 1175 Huron Road. However, I was disappointed that the letter failed to respond to a substantial majority of the concerns that I raised during the initial consultation period.

The concerns raised meet ISED's standard of being "reasonable and relevant" and therefore require a written response as prescribed by the public consultation process outlined in ISED's Client Procedures Circular CPC-2-0-03. Please be advised that issuing a response in and of itself (without addressing the concerns raised) does not satisfy the proponent's obligations under Industry Canada's default public consultation process.

While the revised notification package clarified the location of the tower and noted that it would be used to provide internet coverage, it did not, as stated in your letter, identify the name of the tenant that would be installing equipment on the tower. This information was only provided to me separately in your response letter.

The presentation that outlined my initial concerns with respect to the proposal has been updated to reflect the information contained in the revised notification package. A copy of this presentation is attached to the cover email for your reference. All questions and concerns that were not addressed by your letter have been outlined with a red rectangular box. Many of these concerns are reiterated below and cross-referenced to the relevant slides in the presentation.

<u>Project Justification</u>

Signum Wireless has not provided any substantive justification for the proposal. All justifications provided to date are based on mere assertions that have not been backed up by any concrete data, engineering reports, or technical analysis. In fact, these assertions have been copied and pasted verbatim from unrelated proposals and use generic non-site-specific language to argue that a) coverage is poor; b) no alternative structures are viable; and c) the only option is to build a new tower.

I have repeatedly asked the proponent to provide supporting documentation to substantiate these claims as they form the basis upon which the proposal has been justified. The response letter did not add any information of substance to these points.

At no point during the public consultation process has the proponent provided any local data, engineering reports, technical analysis, network coverage maps, or other verifiable information to justify the need for the tower, the site search selection area, the tower height and design, or the decision not to use existing structures.

Needs Analysis

The proponent has failed to present a compelling case as to why the tower is needed in the first instance. The information provided to nearby residents and the Township of Wilmot simply states that the need was determined by the proponent's clients and asserts that no existing structures in the area are viable for co-location. The lack of transparency and substance behind these statements is not only frustrating, but it is at odds with the spirit of Industry Canada's public consultation framework.

What is particularly concerning is that the stated purpose of the tower is to provide internet coverage, but the revised notification package continues to justify the tower by saying it will allow "future telecommunication carriers to avoid problematic situations such as poor voice and data quality, dropped calls and even the inability to make a mobile phone call".

This language suggests that the tower is principally a spec-build with the hope of leasing excess capacity to telecommunications carriers at some undetermined point in the future. Otherwise, the construction of a 65m tower for the sole purpose of providing internet to a low-population rural area (that is already well-serviced) for a single service provider cannot be justified. The proposal appears to be an unnecessary overbuild motivated by financial interests, rather than practical considerations.

Target Coverage Area

As requested previously, please disclose the precise target coverage area and population that the proponent's client (Xplornet) is attempting to reach.

As a neighbouring resident, I can attest to my own experience, which is that I currently receive reliable high-speed internet from Netflash, one of Xplornet's competitors. I also regularly receive unsolicited phone calls from both Rogers and Bell who want to offer me a comparable service.

On November 24, 2021, I contacted Xplornet directly and was told by one of their sales representatives that they already offered high-speed internet coverage in my area. I was told that they use LTE technology which has a coverage range of 25-30km from their towers. Subject to on-site confirmation, the sales representative said that I should expect download speeds of up to 50Mbps from their tower in the Doon South area, which is located approximately 6km away. Failing that, the sales representative said that I would at least be able to get download speeds of up to 25Mbps via their satellite solution. To put that into context, even the slower satellite option would provide download speeds fast enough for HD video streaming on multiple devices at the same time.

The network coverage maps published by Canada's four national telcos all report full LTE coverage in the area surrounding the proposed tower. The coverage maps for each carrier are shown on Slide 15 of the presentation and demonstrate that the existing infrastructure is sufficient to provide good coverage to the area.

With this information at hand, the assertion that the area suffers from poor coverage doesn't add up. As previously requested on Slide 25 of the presentation, please provide the results of the "drive test" that was conducted, which underpin the conclusion that the area suffers from poor coverage. Please also show how the target coverage area corresponds to the path of drive test and provide any coverage maps that indicate insufficiency of service.

Given that the justification for the proposed tower rests on the argument that the area has poor coverage, the proponent must provide some analysis or data to substantiate this claim. The Township of Wilmot and its residents deserve a response much better than "because we say so".

Existing Structures

The response letter fails to put any substance behind the proponent's decision not to use existing structures or nearby towers. Instead, it falls back on the same brand of generic language that was used in the notification package and justification report:

> "*Co-location not possible for a variety of reasons such as the tower design, height, and that our client is trying to reach a different coverage area. All towers are more than 2.5km away from the proposed site."*

First, the next-nearest tower is only 2.2km away which is a Rogers tower located at 1092 Bridge Street. This is a 65m steel lattice tower that is nearly identical in design to the tower that has been proposed at 1175 Huron Road. Moreover, it is located at a topographically superior site given its higher altitude. Slide 33 of the presentation includes a photo of this tower which I took from its base. The photo clearly shows that it is almost empty and has plenty of capacity host additional antennas.

The proponent is asked again to respond to the questions on Slide 34 of the presentation with respect to this tower, as well the adjacent Bell tower located on 835 Plains Road. Given the reach of LTE transmissions, the proponent would need to provide a compelling technical limitation to explain why Xplornet is not able to co-locate on one of these towers.

Equally, please explain what technical limitations make the tower located at the corner of Huron Road and Fischer-Hallman unviable for co-location.

Finally, the letter states that a 40m tower located at 1140 Huron Road was considered during the planning stage. It says that this tower is located 2.7km from the proposed site and that Bell Mobility is co-located here. This information is incorrect as there is no tower located at 1140 Huron Road. Further, this is the address of the property across the road from the proposed site which is no more than 400m away. Please clarify this information.

Grain Silo

The adjacent grain silo has already proven itself to be a viable alternative given that it currently hosts high-speed internet antenna for Xplornet's competitor, Netflash. Nonetheless, your letter contends that:

> *"The structural integrity of the grain silos would not be able to support the weight of additional antennas and electrical cabinets."*

I challenge this statement in its entirety given the load that a grain silo is designed to bear and the fact that LTE antennas only weigh between 3-5kg. Netflash currently has three LTE antennas on the silo, which provide six sectors of coverage. Even if wind-loading is taken into account, the notion that 10-

20kg of additional equipment at the top of the silo would be the straw that breaks the camel's back is absurd (refer to photos below which illustrate this point visually).

It is also absurd to suggest that silo would have to bear the weight of the electrical cabinets, as they would be located at ground level in a secure utility building -- no different than what has been proposed for the tower.

Would the adjacent steel structure need to be modified and/or reinforced to accommodate the additional antennas? This is a distinct possibility. Would the main cement silo require any structural modifications? No, I think this would be highly unlikely given its massive scale relative to the size and weight of LTE antennas. Most importantly, would this represent a more cost effective and lower-impact solution than building a 65m self-support lattice tower? Absolutely, and I would need to see an independently commissioned engineering report to the contrary to convince me otherwise. I therefore request the proponent to release the silo drawings so an independent assessment can be undertaken.

<u>Unnecessary Overbuild</u>

As discussed on Slides 43-44 of the presentation, Signum Wireless is in the business of building and acquiring large transmission towers (ideally with excess capacity) and then flipping them to buyers that pay up for the potential future growth optionality. It's a great business model, especially considering the permitting, zoning, and environmental exemptions afforded to such projects. However, it's at odds with Industry Canada's desire to limit tower proliferation by giving preference to low-impact co-location solutions wherever possible.

Without question, the 65m self-support steel lattice tower proposed at 1175 Huron Road is a gross overbuild for a single tenant to provide internet coverage to a low-population rural area. The proponent is promoting a design that is clearly motivated by financial interests rather than practical considerations

Netflash offers a good case in point, as they use existing structures (like the grain silo) in combination with relay node infills to service the same area. My internet service for example comes from a Netflash relay node located 0.6km away at 1876 Huron Road, which in turn receives its signal from a small base station located several kilometers away.

Rogers employs the same strategy and operates several relay nodes to provide LTE network coverage to the area. Slide 28 of the presentation contains a map that shows all of Rogers' relay nodes around the proposed site.

The proponent is asked to explain why Xplornet can't follow suit by using existing structures and nearby towers (complemented by low-impact relay nodes) to achieve coverage in the target area. Has the proponent discussed such options with Xplornet, or would this type of solution run counter to its business model and ultimately its involvement with the project?

I think it bears repeating that all four of Canada's national wireless carriers provide LTE network coverage to the area using a combination of existing infrastructure and relay node infills.

On Slide 36 of the presentation, the proponent was asked if alternative tower designs were considered. Is there any reason why Signum Wireless is committed to the high-mast steel lattice tower option when a lower impact monopole could meet current needs? This slide raises a number of other questions regarding the necessity for the tower to be 65m in height and requests information regarding the percentage of total tower capacity that Xplornet will occupy. None of these questions were addressed in the response letter and remain outstanding.

Site Selection Area

As discussed on Slide 35 of the presentation, the site selection search area appears to be inconsistent with the range of the technology that will be deployed on the proposed tower. As internet service is provided with LTE signals which have a transmission range of up to 25-30km, the narrow search area considered appears unjustifiably small. The proponent is asked again to explain in technical terms why a wider search area was not considered, given that it could have greatly expanded the opportunity set of available structures and co-location options.

Photo Simulation

The revised brochure contains the same outdated photos that were used in the original brochure. These photos are easily more than two years old as they do not show a storage shed which now sits at the base of the proposed site.

According to your letter, the photos were taken from Google Earth Pro. Please explain why outdated third-party photos are being used for site selection and planning activities. Why doesn't the proponent have their own current photos of the proposed site? Have representatives from Signum Wireless even visited the site in-person?

One of the photos in the revised notification brochure depicts the tower in the same location as the storage shed, which suggests that either the shed will need to be torn down or the tower is not shown in

the correct location. The utility building and chain-link fence compound are also not depicted in the photo. Additionally, the tower height appears to be grossly underrepresented as demonstrated by the photo comparison on Slide 10 of the presentation.

The proponent is asked to provide a photo simulation that uses current photos, depicts the full height of the proposed tower, includes the utility building and chain-link fence compound, and removes all ambiguity regarding the exact location of the tower with respect to the shed.

Inadequate Disclosure

In response to the fact that basic project details were not disclosed in the information brochure, the response letter states the following:

> *"We understand that the brochures seemed rehashed, but as a telecommunication consultancy company, we work on many sites and can only create so many different versions for notification material."*

My counterargument is that as a telecommunication consultancy company, this is what you're hired to do -- it's supposed to be your area of core competency. While it's understandable that you use the same template from one project to the next, it's simply not acceptable that you don't take the time to update each template to accurately disclose basic project details for each individual proposal.

Every proposal is unique in terms of its location, physical characteristics, coverage objectives, anchor tenants, technology to be deployed, availability of existing structures, and other local considerations. Disclosing fundamental project details in the notification package is not a personal request, it is a requirement of Industry Canada as set forth in CPC 02-03-2.

If Fontur International has so many proposals on the go that it cannot provide specific local justifications for each project, perhaps the company should hire more staff or focus on fewer proposals so each one is properly scoped and thoroughly justified.

The problem with using generic language from a boiler-plate template is that it does not accurately apply to all projects. As mentioned previously, the tower proposed on Huron Road is intended to provide internet coverage, but the brochure rehashes language used to justify telecommunication installations by saying it will help avoid problematic situations like poor voice and data quality, dropped calls, etc. This narrative doesn't fit the stated purpose of the tower.

Version control also appears to be an issue as the first notification package stated that the fenced compound would measure 17m x 12m, while the second said it would measure 12m x 12m. The response letter quotes the original 17m x 12m area. It's disconcerting that basic project details remain unclear considering that this is the second time through the public consultation process. Please clarify.

Limited Space

Slide 9 of the presentation criticized the original notification brochure for obscuring the existence of a grain silo (that already hosts communications equipment) that is located adjacent to the proposed site. The response letter excuses this omission by citing "the limited space on the notification material".

Please allow me to point out that ISED does not place any formatting or space limitations on the notification package that must be sent to nearby residents. The decision to use a single-page tri-folded brochure format is entirely at the discretion of Fontur International and is certainly no justification for omitting important project details.

Furthermore, this argument lacks credibility as the Justification Report provided to the Township of Wilmot (which ran a full 12 pages in length) also did not include any photos or mention of the adjacent grain silo or the communications equipment that it hosts.

Health & Safety

Slide 16 of the presentation asks the proponent to provide data and calculations to substantiate the claim that electromagnetic radiation from the proposed site will be "thousands of times below the allowable limits". The response letter side-steps the question by saying that the proposal is still in the municipal approvals stage and that "technical aspects" will start once the project has received municipal approval.

This is a surprising response, as one would expect the technical aspects to be thoroughly scoped as the first step in the planning process. It's not credible to believe that the proponent has selected a site, negotiated a land lease, commissioned a land survey, written a justification report, and submitted an application to the township without first understanding Xplornet's technical requirements in terms of the coverage area they seek to address and the frequencies and power outputs that would be required to meet their needs. That is the whole point of building the tower, isn't it?

It seems inconsistent to say on the one hand that it's too difficult to provide this information, but on the other boast that the electromagnetic output will be thousands of times below allowable limits. If the difference really is that significant, surely the proponent can provide some benchmark figures and local EMF readings to support this claim.

Public Notification

The response letter makes the following statement:

> "*We were given the option to not distribute at all, as the subject property encompasses the entire notification radius required by ISED. But we chose to circulate outside the radius regardless."*

The Township of Wilmot's Director of Planning recently reported to Council that they require tower proponents to send a notification package to all abutting properties, irrespective of whether they fall within ISED's guideline of three-times the tower height.

Please confirm if the expanded notification was a decision taken by Fontur International or Signum Wireless of their own volition, or if it was a requirement imposed by the Township of Wilmot.

I look forward to receiving your responses to the concerns outlined above as well as the outstanding points notated in the updated presentation.

Sincerely,

D. McDonald

SIGNUMWIRELESS

Telecommunications Tower Proposal

1175 Huron Rd, Wilmot, ON

Public Concerns and Information Requests

Background

- On October 27, 2021, Fontur International Inc., on behalf of Signum Wireless, sent a revised notification brochure by mail to property owners adjacent to the proposed site of a telecommunications tower to be built on Huron Road.
- The revised brochure supplanted the original notification that had been sent on September 1, 2021, which contained several material errors and omissions.
- The purpose of the brochure was to satisfy the public notification requirements set by Industry Canada, and to advise local residents of a public hearing to be held on November 29, 2021.
- While certain errors identified in the original brochure have been corrected, the body of the document remains largely unchanged and continues to fall short of Industry Canada's minimum requirements.
- The poorly drafted document lacks basic project details and fails to provide any substantive justification for the proposal.
- The Manager of Planning and Economic Development for the Township of Wilmot confirmed that the proponent did not provide any update to the original justification report or land survey that had been previously provided.

Purpose

The purpose of this presentation is threefold:

1) to review the materials sent by Signum Wireless to local residents and the Township of Wilmot concerning the proposal, including:
   - the revised notification brochure;
   - the justification report; and
   - the land use survey

2) to assess the merit of the proposal; and

3) to formally raise reasonable and relevant concerns to the proponent as part of the formal public consultation process

Governing Policy

Written Response Requirement

Governing Policy

Default Consultation Process

The Township of Wilmot has not adopted its own protocol for the siting of telecommunications towers. As such, Industry Canada's default public consultation applies (Client Procedures Circular CPC-2-0-03)[1].

Under Section 4.2 of this policy, where the local public or land-use authority raises a question, comment, or concern, the proponent must:

1) *respond to the party in writing within 14 days acknowledging receipt of the question, comment or concern and keep a record of the communication; and*

2) *address in writing all reasonable and relevant concerns within 60 days of receipt or explain why the question, comment or concern is not, in the view of the proponent, reasonable or relevant*

1) Industry Canada was recently renamed the Innovation, Science, and Economic Development Canada. For ease of reference, we use the department's original name throughout this presentation.

Governing Policy

Reasonable and Relevant Concerns

Industry Canada's policy includes a non-exhaustive list of "reasonable and relevant" concerns that would require a response from the proponent:

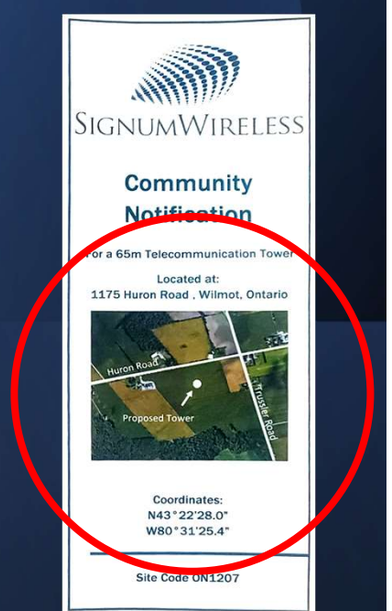
- *Why is the use of an existing antenna system or structure not possible?*
- *Why is an alternate site not possible?*
- *What is the proponent doing to ensure that the antenna system is not accessible to the general public?*
- *How is the proponent trying to integrate the antenna into the local surroundings?*
- *What options are available to satisfy aeronautical obstruction marking requirements at this site?*
- *What are the steps the proponent took to ensure compliance with the general requirements of this document including the Canadian Environmental Assessment Act (CEAA), Safety Code 6, etc.?*

The concerns raised in this presentation meet Industry Canada's standard of "reasonable and relevant" and therefore warrant a written response from Signum Wireless.

Notification Brochure

Material omissions and inconsistencies

Notification Brochure



Tower Location Discrepancy

- The original notification brochure identified two conflicting locations for the proposed tower.
- This ambiguity has been mostly clarified in the revised brochure, which specifies a location adjacent to a tall grain silo.
- In the map to the right, the white dot is where the original brochure showed the tower being sited.
- The red dot is where the revised brochure shows the tower being sited, which now corresponds to the GPS coordinates and the location shown in the land-use survey.

Notification Brochure

Deceptive Photo Hides Alternative Structure

Signum Wireless Photo Simulation

- One of the main complaints of the original notification brochure was that the photo simulation obscured the fact that the tower would be built next to a tall grain silo.
- The photo used by the proponent was taken from behind a tree that covered the silo (see image left). This image again appears in the revised brochure.
- An independent photo taken from the same location at a slightly different angle reveals a grain silo located approximately 100m from the proposed site.

- Noticeably absent from the photo in the brochure is the existence of the storage shed that sits behind the steel grain storage bins.
- The shed was built over two years ago, which indicates that the proponent's photos are at least two years out of date.
- By looking at the photo alone, one would think that either the shed will have to be torn down, or the exact tower location is not accurately represented.

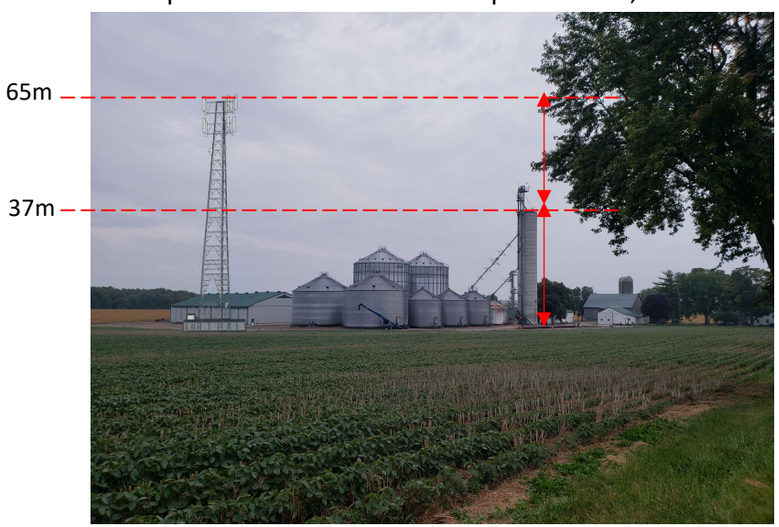
Independent Photo Taken on September 10, 2021

Notification Brochure

Misleading Photo Simulation

- The photo simulation grossly underrepresents the height of the tower and visual impact to the surrounding area.
- Using the silo height as a reference, we have superimposed what a 65m tower would *actually* look like at the proposed location.

Independent Photo Taken on September 10, 2021



Signum Wireless Photo Simulation

- The photo simulation provided by the proponent also fails to show the proposed 17x12m barbed-wire chain link fence that would surround the compound as well as the adjacent utility building.

Notification Brochure


SIGNUMWIRELESS

Community Notification

For a 65m Telecommunication Tower

Located at:
1175 Huron Road , Wilmot, Ontario

Huron Road

Trussler Road

Proposed Tower

Coordinates:
N43°22'28.0"
W80°31'25.4"

Site Code ON1207

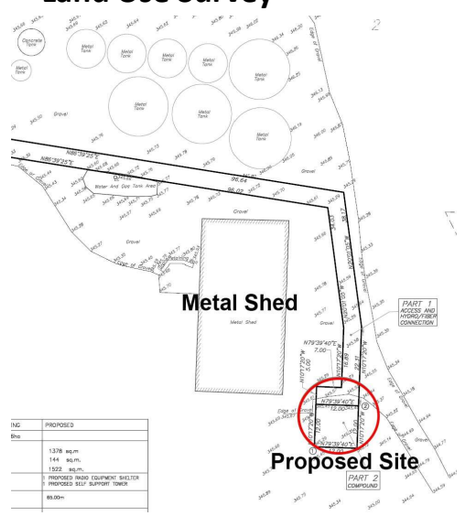
Photo Simulation Location

- The revised brochure includes a second photo simulation taken from a different vantage point. This photo shows the grain silo on the property but still underrepresents the true height of the tower.
- The tower is depicted at a slightly different location on the property in the second photo (much further away from the steel grain bins in the first photo). This location appears to align more closely with the land use survey, which is included below for comparison.

Photo Simulation #1

Photo Simulation #2

Land Use Survey



- The proponent is asked to provide a photo simulation that uses current photos, depicts the full height of the tower, includes the utility building and chain link fence, and removes all ambiguity regarding the exact location of the tower.

Notification Brochure


SIGNUMWIRELESS

Community Notification

For a 65m Telecommunication Tower

Located at:
1175 Huron Road , Wilmot, Ontario

Coordinates:
N43°22'28.0"
W80°31'25.4"

Site Code ON1207

Grain Silo Already Hosts Telecommunications Equipment

- The on-site grain silo is not just a *possible* alternative structure to host telecommunications equipment; it in fact already does so.
- As can be seen in the photo above, there appears to be a cell site, transmitters, and a receiver installed, along with an access platform equipped with a safety railing.
- Additionally, the telecommunications equipment is elevated a further 10m from the top of the silo, which puts it at a height of approximately 47m.
- This is more than sufficient to support a high-speed internet installation that would serve the surrounding area, which is the stated purpose for building a 65m tower.

Notification Brochure


SIGNUMWIRELESS

Community Notification

For a 65m Telecommunication Tower

Located at:
1175 Huron Road , Wilmot, Ontario

Huron Road

Trussler Road

Proposed Tower

Coordinates:
N43°22'28.0"
W80°31'25.4"

Site Code ON1207

Insufficient Project Justification

- Signum Wireless provides no concrete data to justify why a tower is needed at the specific location proposed.
- They simply state the need was determined by their "clients" and claim that no existing structures in the area were viable alternatives.
- The lack of transparency and substance behind these generic assertions is not only frustrating, but at odds with the spirit of Industry Canada's public consultation framework.
- What is particularly concerning is that the stated purpose of the tower is to provide Internet coverage. However, the justification makes reference to *future telecommunication carriers* avoiding problematic situations such as poor voice quality and dropped calls.

Excerpts from Huron Road Notification Brochure

Why is a new tower required?

In this case, Signum Wireless' clients have determined the need for new antennas in the area in order to adequately provide contiguous internet coverage and service to customers in Wilmot. Signum Wireless chose this site to provide internet and also allow future telecommunication carriers to avoid problematic situations for customers such as poor voice and data quality, dropped calls, or even the inability to place a mobile call in the subject area.

Signum Wireless strongly supports co-location on existing towers and structures. The use of existing structures minimizes the number of new towers required in a given area and is generally a more cost effective way of doing business. Unfortunately in this case, there were no existing structures in the area that were viable alternatives. The next-nearest tower is approximately 2.2km from the proposed location.

- This language suggests that the tower is a spec-build with the hope of leasing excess capacity at some point in the future to telecommunications carriers. Otherwise, the construction of a 65m tower for the sole purpose of high-speed internet infill cannot be justified.
- The proposal appears to be an unnecessary overbuild motivated by financial interests, rather than practical considerations that would prioritize meeting current needs while minimizing impact.

Notification Brochure


SIGNUMWIRELESS

Community Notification

For a 65m Telecommunication Tower

Located at:
1175 Huron Road , Wilmot, Ontario

Huron Road
Trussler Road
Proposed Tower

Coordinates:
N43°22'28.0"
W80°31'25.4"

Site Code ON1207

Copy-Paste Repeat


SIGNUMWIRELESS

Community Notification

For a 50m Telecommunications Tower

Located at:

1535 New Dundee Road
North Dumfries, Ontario

Signum Wireless Site Code
ON1009

SIGNUMWIRELESS

Community Notification

For a 40m Telecommunication Tower

Located at:
879 Sixth Street , Collingwood, Ontario

Proposed Tower Location
Sixth Street

Coordinates:
N44°29'15.1"
W80°15'39.0"

Site Code ON1403

SIGNUMWIRELESS

Community Notification

For a 65m Telecommunication Tower

Located at:
1175 Huron Road , Wilmot, Ontario

Huron Road
Trussler Road
Proposed Tower

Coordinates:
N43°22'28.0"
W80°31'25.4"

Site Code ON1207

SIGNUMWIRELESS

Community Notification

For a 60m Telecommunication Tower

Located at:
5825 Nottawasaga 27/28 Sideroad , Clearview, Ontario

Nottawasaga 27/28 Sideroad
Mowat St N
Proposed Tower Location

Coordinates:
44.437494
-80.084631

Site Code ON1072

- Upon investigation, it has become apparent that Signum Wireless uses the same notification brochure for all of its tower proposals.
- Apart from swapping out the maps and images, updating the tower specifications, and changing the name of the local land-use authority, the brochures are nearly identical.
- In each case, they offer the same generic justification for a new tower -- literally copied and pasted from one brochure to the next without any mention of specific local considerations.
- By way of example, the justification given for a proposal in Collingwood is identical to the one given for Huron Road, which is language that has been recycled from proposals dating as far back as 2016 (compare excerpt below with previous slide).

Excerpts from Collingwood Notification Brochure

Why is a new tower required?

In this case, Signum Wireless' clients have determined the need for new antennas in the area in order to adequately provide contiguous coverage and service to customers in Collingwood. Signum Wireless chose this site to allow carriers to avoid problematic situations for customers such as poor voice and data quality, dropped calls, or even the inability to place a mobile call in the subject area.

Signum Wireless strongly supports co-location on existing towers and structures. The use of existing structures minimizes the number of new towers required in a given area and is generally a more cost effective way of doing business. Unfortunately in this case, there were no existing structures in the area that were viable alternatives. The next-nearest tower is approximately 2km from the proposed location.

Notification Brochure


SIGNUMWIRELESS

Community Notification

For a 65m Telecommunication Tower

Located at:
1175 Huron Road , Wilmot, Ontario

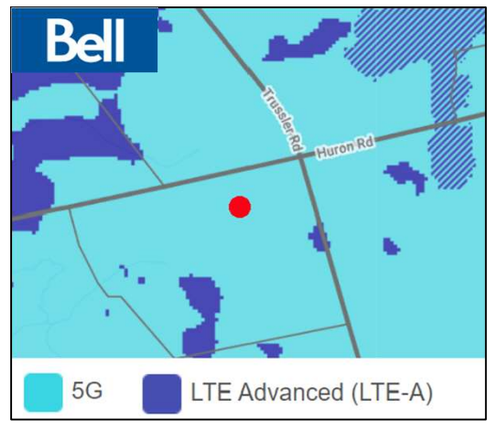
Huron Road
Trussler Road
Proposed Tower

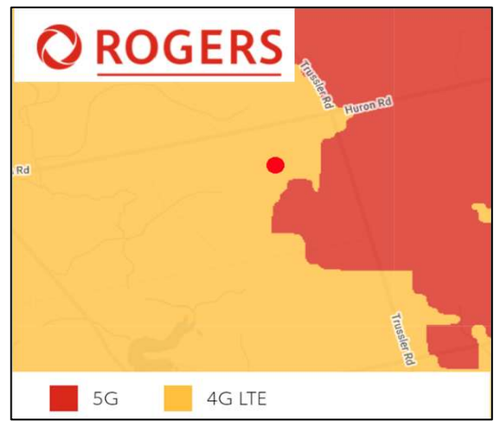
Coordinates:
N43°22'28.0"
W80°31'25.4"

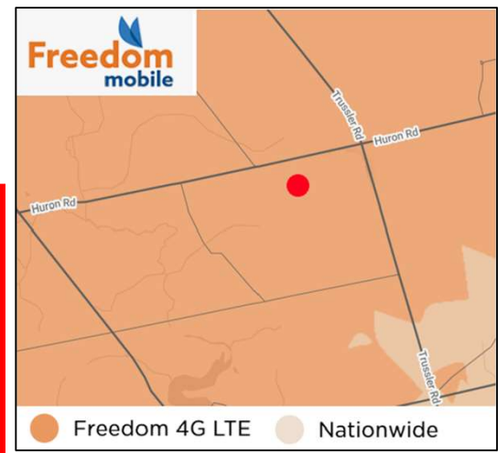
Site Code ON1207

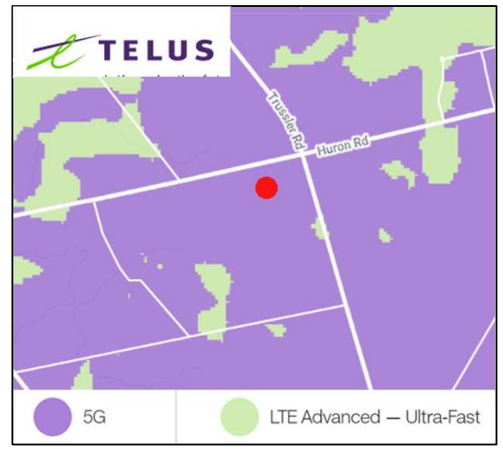
Existing Tower Infrastructure Provides Adequate Coverage

- High speed internet in rural areas is typically provided by LTE technology.
- Canada's national telcos (Bell, Rogers, Telus and Freedom), all report full LTE coverage in the area surrounding the proposed tower.
- Cell phone users residing at the property next to the proposed location regularly use these networks for music and video streaming as well as GPS navigation without reporting any coverage issues.
- This begs the question: if the existing infrastructure is sufficient for all four national carriers to offer high speed data (LTE) in the target coverage area, why would a new 65m tower be needed to serve the same area?









● proposed tower location

Source: Company websites

Notification Brochure


SIGNUMWIRELESS

Community Notification

For a 65m Telecommunication Tower

Located at:
1175 Huron Road , Wilmot, Ontario

Coordinates:
N43°22'28.0"
W80°31'25.4"

Site Code ON1207

Health & Safety - Radiation Limits

- Industry Canada requires an attestation that the general public will be protected in compliance with Health Canada's Safety Code 6.

- The brochure contains the following statement:

  "Signum Wireless ensures that all of its facilities operate well below the allowable limits measured, taking into account all pre-existing sources and combined effects of additional carrier co-locations; in fact, this site will be thousands of times below the allowable limits"

- The company is asked to substantiate this claim by providing the following:
  - output powers and frequencies expected to be transmitted;
  - readings of existing electromagnetic radiation in the target area;
  - calculation of total expected radiation post installation and at full capacity; and
  - comparison of calculated totals to the exposure limits set in Safety Code 6

Notification Brochure

Inadequate Disclosure and Transparency

- A running theme throughout the brochure is a lack of basic project details.
- At a minimum, the company should:
  - use current photos in the photo simulation;
  - accurately depict the exact location and relative scale of the proposed tower;
  - identify the clients they represent with respect to the proposed tower;
  - disclose the radiofrequency that will be transmitted from the tower;
  - list any alternative structures that were considered; and
  - explain why these alternative structures were deemed unsuitable
- In terms of transparency, the brochure states that Signum Wireless is committed to effective public consultation and invite comments and inquiries by mail, email, and fax.
- Notably absent from the brochure is **any** direct contact information for Signum Wireless. The only contact information provided is for their consultant, Fontur International.
- Along a similar vein, the brochure mentions that a public hearing will be held on November 29th via a Zoom call. Strangely, while local dial-in numbers are provided for San Jose, New York, Tacoma, Washington DC, Chicago, and Houston, no local or toll-free numbers are provided for residents of the Township of Wilmot who may not be able to access Zoom.

Notification Brochure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Opaque and Unprofessional

- In light of the fact that the shortcomings of the brochure were already brought to the attention of the proponent during the first notification period, the continued lack of disclosure the second time around appears deliberate.
- Again, we summarize the following inaccuracies and omissions:
  - outdated photos show the tower in a location where there is now a shed;
  - the exact location of the tower ambiguous based on the two photos provided;
  - the actual height of the tower is greatly underrepresented in the photos;
  - the generic copy-paste justification contains no local analysis to demonstrate project need;
  - the precise geographic area and/or population being targeted is not identified;
  - the identity of the proponent's client(s) has not been disclosed;
  - the radiofrequencies that will be transmitted from the tower have not been disclosed;
  - the existence of a firm long-term lease agreement with an anchor tenant is not disclosed; and
  - no direct contact details for Signum Wireless or its employees have been disclosed
- By issuing a notification brochure of such low quality, the proponent has shown a lack of respect to local residents and the Township of Wilmot, and a disregard for the public consultation process established by Industry Canada.

Notification Brochure

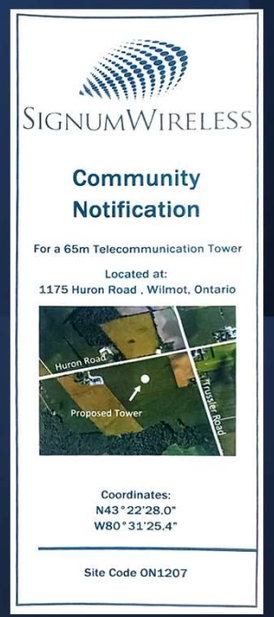
Compliance Audit

- Industry Canada specifies minimum information requirements for all public notification brochures (CPC-2-0-03 Appendix I).
- The brochure provided by Signum Wireless for the tower proposed on Huron Road is measured against these requirements in the table below:

	#	Information Requirement	Comment
✗	1	The proposed antenna system's purpose, the reasons why existing antenna systems or other infrastructure cannot be used, a list of other structures that were considered unsuitable and future sharing possibilities for the proposal;	Insufficient information provided regarding purpose (target area/population). No list provided of other structures that were considered unsuitable.
✗	2	The proposed location within the community, the geographic coordinates and the specific property or rooftop;	Location somewhat ambiguous based on the two photo simulation photos provided.
✗	3	An attestation (Footnote 19) that the general public will be protected in compliance with Health Canada's Safety Code 6 including combined effects within the local radio environment at all times;	Attestation does not follow the form footnoted by Industry Canada and does not identify a company representative.
✓	4	Identification of areas accessible to the general public and the access/demarcation measures to control public access;	Not applicable.
✗	5	Information on the environmental status of the project, including any requirements under the *Canadian Environmental Assessment Act, 2012* ;	Environmental statement does not meet the requirement of Section 7.4 with respect to making a written statement about the project's status under CEAA 2012.

continues on next page ➡

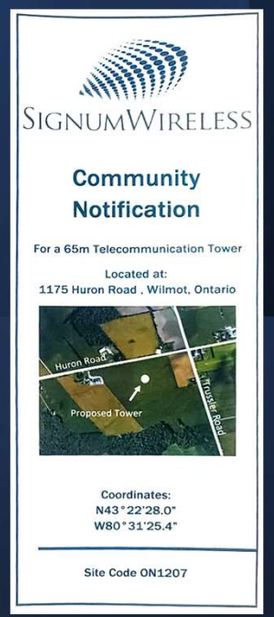
Notification Brochure



Compliance Audit (cont'd)

	#	Information Requirement	Comment
✗	6	A description of the proposed antenna system including its height and dimensions, a description of any antenna that may be mounted on the supporting structure and simulated images of the proposal;	No description of the types of antennas that may be mounted on the tower have been provided.
✗	7	Transport Canada's aeronautical obstruction marking requirements (whether painting, lighting or both) if available; if not available, the proponent's expectation of Transport Canada's requirements together with an undertaking to provide Transport Canada's requirements once they become available;	Not available. Proponent makes no undertaking to provide this information when it becomes available.
✓	8	An attestation that the installation will respect good engineering practices including structural adequacy;	
✓	9	Reference to any applicable local land-use requirements such as local processes, protocols, etc.;	
✓	10	Notice that general information relating to antenna systems is available on Industry Canada's Spectrum Management and Telecommunications website (http://www.ic.gc.ca/towers);	
✗	11	Contact information for the proponent, land-use authorities and the local Industry Canada office; and	No direct contact information provided for Signum Wireless. Contact information only provided for their consultant, Fontur International Inc.
✓	12	Closing date for submission of written public comments (not less than ***30 days*** from receipt of notification).	

Notification Brochure



Public Notification Not Satisfied

- The compliance audit clearly demonstrates that the information contained in the notification brochure falls short of the minimum requirements set by Industry Canada under Client Procedure Circular 2-0-03.

- The notification requirement has therefore not been properly satisfied.

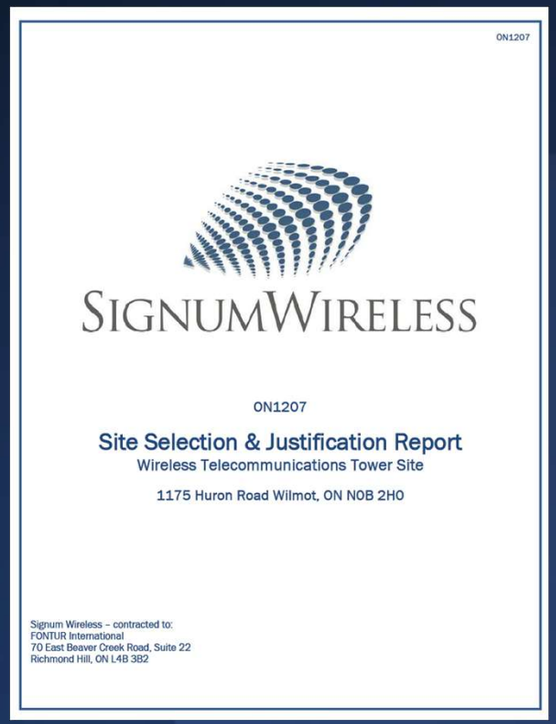
Government of Canada / Gouvernement du Canada

CPC-2-0-03 — Radiocommunication and Broadcasting Antenna Systems

Issue 5

Effective: July 15, 2014

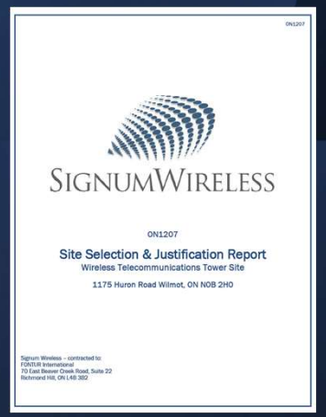
https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08777.html



Justification Report

Uncompelling and Unsubstantiated

Justification Report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SIGNUMWIRELESS

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Site Selection & Justification Report

Wireless Telecommunications Tower Site

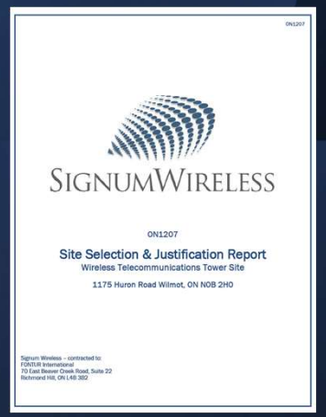
1175 Huron Road Wilmot, ON N0B 2H0

Signum Wireless - contracted to:
FONTUR International
70 East Beaver Creek Road, Suite 22
Richmond Hill, ON L4B 3B2

No Data. No Analysis. No Substance.

- Disappointingly, the justification report contains no local data or network coverage analysis to justify the need for a new tower on Huron Road.
- The case is built entirely on unsubstantiated assertions and anecdotal results from what appears to be an informal drive test.
- While the report provides some additional detail around the target area of interest and nearby towers, it remains silent on basic project details like the identity of the proponent's clients, how the need for a new tower was determined, and the technology to be deployed on the tower.
- In many instances, the information in the justification report raises more questions than it provides answers. Moreover, the report doubles down on some of the same errors that were in the original notification brochure.

Justification Report



Justification Rationale

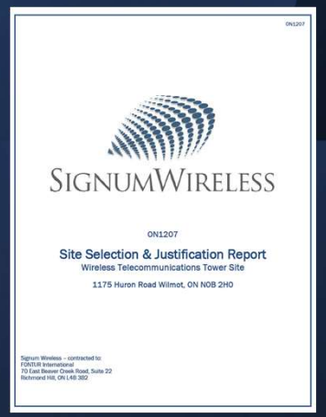
Signum Wireless makes three arguments to support the case for a new tower:

1) A drive test along Trussler Road, Huron Road, and Queen Street found weak coverage and poor signal strength;
2) There is a gap in wireless telecommunications infrastructure in the area of coverage need; and
3) There are no existing towers in the search area that meets their clients' coverage requirements.

None of these statements are backed by any concrete evidence.

Each point is considered in the following slides.

Justification Report



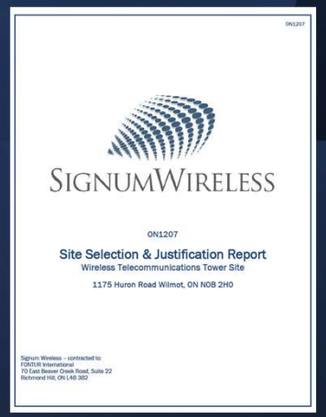
Argument #1 - Drive Test

- The drive test is used as the primary argument to support the proposed tower. It is described in the report as follows:

> A drive test was conducted by some of our clients along area roads, such as Huron Road, Queen Street, and Trussler Road, for the purpose of determining our coverage objectives. Very weak coverage areas with poor signal strength were found around and along these major roads and sideroads, which generate significant coverage requirements as a result of the density of users and lack of existing coverage.

- Without any information to the contrary, this sounds like an informal 5-10 minute drive around the area with a mobile phone.
- One would hope that industry accepted measurement techniques and advanced telecommunication instruments were used to collect data and assess network coverage.
- Signum Wireless is asked to share the results of these drive tests, as they ultimately lay the foundation for the justification of a new tower.
- Signum Wireless is also asked to define the target coverage area and show on a map how it corresponds to the route taken on the drive test.

Justification Report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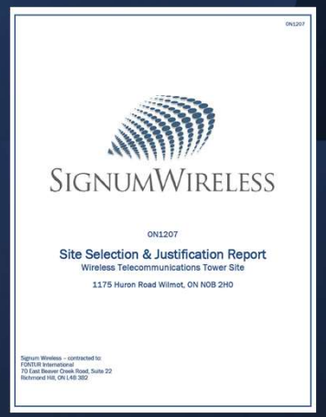
Argument #1 - Drive Test (cont'd)

- The excerpt on the previous slide states there are "significant coverage requirements as the result of the density of users and lack of existing coverage".
- The satellite image below shows that the area in question is predominately agricultural land. Population density is low in this area. The boundaries of the test drive encompass countryside homes, farm operations, and a church.
- Additionally, the claim that there is a lack of existing coverage doesn't agree with the coverage maps published by the four major wireless carriers as previously shown.

Drive Test Path

Justification Report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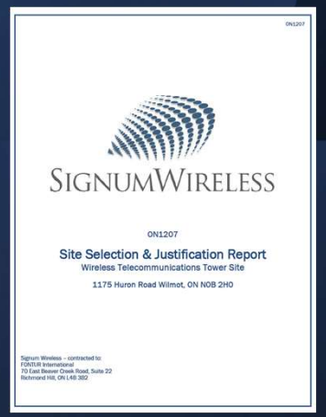
Argument #2 - Gap Between Towers

- The argument that the target area has poor network coverage due to a gap between telecommunication towers is flawed. It ignores all nodes sites which commonly provide coverage between towers. The use of nodes to infill coverage is more common than ever, as 5G transmitters have a significantly shorter range than 4G.

- The satellite map in the justification report (reproduced below) does not show any node sites. It is also missing a tower located 2.6km away from the proposed site at Schlegel Park (near the corner of Huron Road and Fisher-Hallman).

Justification Report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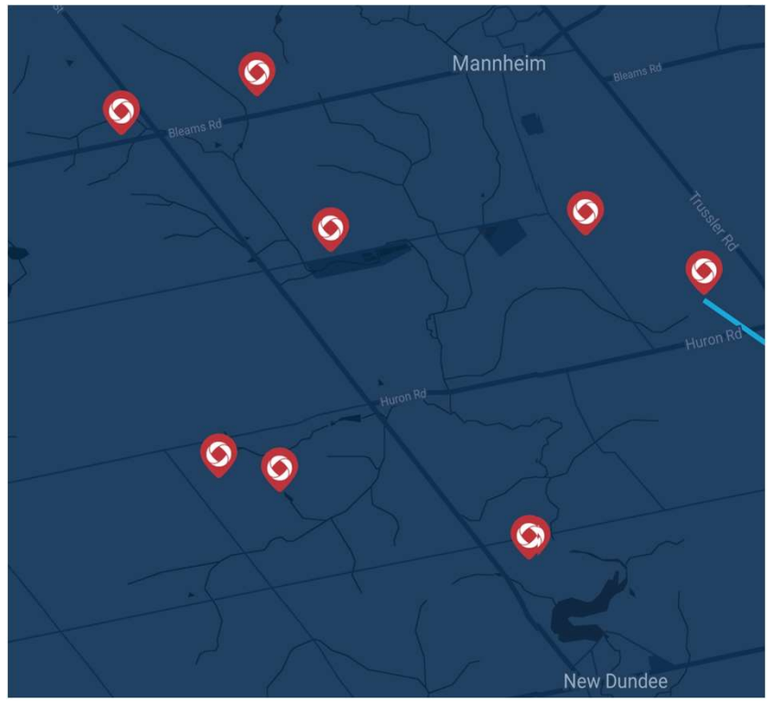
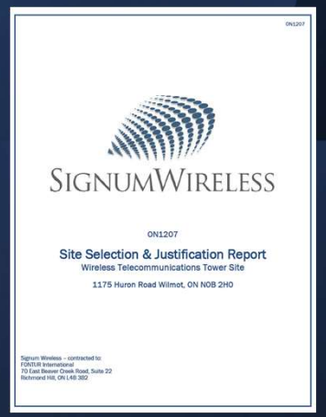
Argument #2 - Gap Between Towers (cont'd)

- A free Android app called OpenSignal was used to scan the target coverage area for node infills.
- Using a phone connected to the Rogers network, and measuring from only a single location, the app quickly identified several nodes in the surrounding area.
- If Rogers has cell nodes distributed throughout the target area, it would be reasonable to expect that other wireless carriers also have a presence.
- Looking at tower locations alone doesn't tell the whole story when it comes to network coverage.
- Signum Wireless is asked to explain why the deployment of relay nodes cannot offer a viable alternative to constructing a 65m tower.

OPENSIGNAL



Justification Report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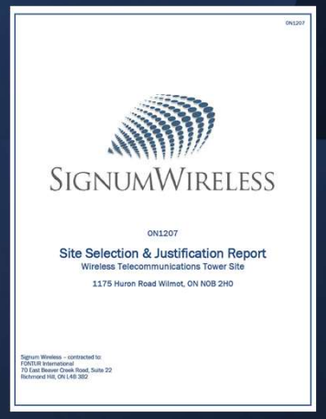
Argument #2 - Gap Between Towers (cont'd)

- A review of several justification reports for Signum Wireless projects reveals they all make the same argument: the next-nearest tower is **too far away** to provide coverage to the target area.
- The distances cited vary, but in a proposal submitted to the City of Oshawa, the next-nearest tower was just 1.4km away, but was characterized as being too far.
- On a separate project in Niagara Falls, Signum Wireless obtained approval to erect a tower, but did not commence construction within the three-year eligibility period.
- Rogers then came along and proposed a tower 1km away from the site that Signum Wireless had previously secured. In response, Signum Wireless requested an extension to their letter of concurrence and attempted to block the Rogers proposal, arguing that it would be built ***"within a very close proximity"*** to its own site.
- In a letter to Niagara Falls City Council written by Fontur International on behalf of Signum Wireless, the following argument was posited:

> Due to the low wireless user density in the surrounding area, towers are not required to be sited within one kilometre of each other. These small separation distances are often found in more dense, urban areas. In rural locations towers can function efficiently with spacing of much greater than one kilometre.

- With this in mind, we note the next-nearest tower to the Huron Road proposal is only 2.2km away, and there are two additional towers located 2.6km away.

Justification Report



Argument #2 - Gap Between Towers (cont'd)

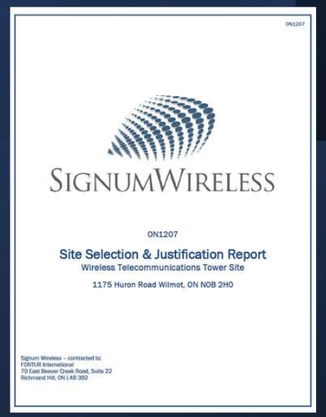
So, how did the stories end?

- The tactic worked in Niagara Falls. Signum Wireless successfully blocked Rogers' proposal and was granted an extension to their letter of concurrence.
- Oshawa, on the other hand, **rejected** Signum Wireless' proposal. The city issued a Letter of Non-Concurrence due to strong public opposition to the proposed location of the tower.

What can be inferred from these examples?

- The arguments made by Signum Wireless are inconsistent and appear to be based more on the company's preferences rather than technical limitations. On one hand, 1.4km is too far away where a third-party tower could offer a viable alternative. On the other, 1km is suddenly too close (especially in a rural area) when a competitor wants to site a tower near a Signum Wireless installation.
- Signum Wireless appears to be prepared to acquire sites for strategic reasons (even when there is no immediate plan to commence construction) and then defend these sites to prevent competition.
- In Oshawa, the company put its interests ahead of the community by proposing a 40m lattice structure in the scenic marina district. According to residents, the location of the tower was poorly conceived as it would have disrupted the skyline and negatively impacted harbour views.

Justification Report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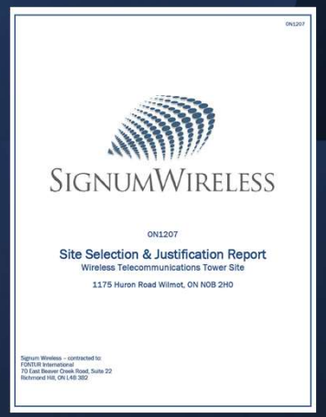
Argument #3 - Existing Structures Not Suitable

- Remarkably, the report makes no mention of the grain silo immediately adjacent to the proposed site.
- At a peak height of 47m, the silo is a prime candidate to be considered as an alternative to a new tower. Not only does it offer a clear line of sight across the target coverage area, but it already hosts telecommunications equipment.
- From the top of the silo, one can see six nearby towers with the naked eye, including towers on Huron Road, Fisher-Hallman, Plains Road, Bridge Street, Bethel Road, and at Baden Hill.
- Better Farming recently published an article about how grain elevators were used in Lambton County to effectively reduce tower proliferation. A copy of this article is included in Appendix II.

Grain Silo At Proposed Site

Justification Report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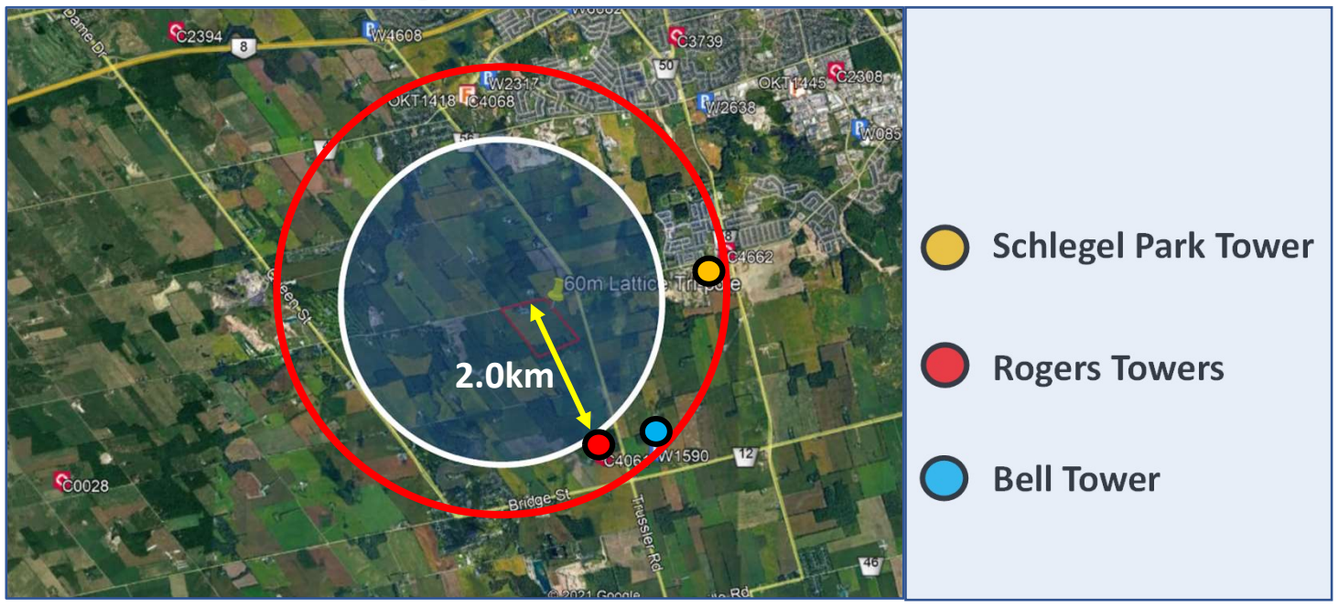
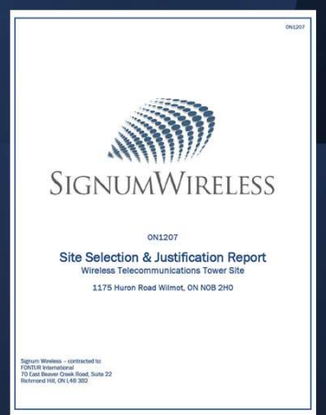
Argument #3 - Existing Structures Not Suitable (cont'd)

- According to the report, Signum Wireless considered existing tower structures within a 3km radius of the proposed site (the area depicted by the red circle on the map below).
- This area encompasses three telecommunication towers, with the nearest tower located just 2.2km away (not 2.5km as erroneously stated in the report). This tower measures 65m in height and is owned by Rogers.
- Approximately 500m east of this tower is a 48m tower owned by Bell. Another tower, located at Schlegel Park, is within the defined radius, but was not mentioned in the report.

Signum Wireless Search Area



Justification Report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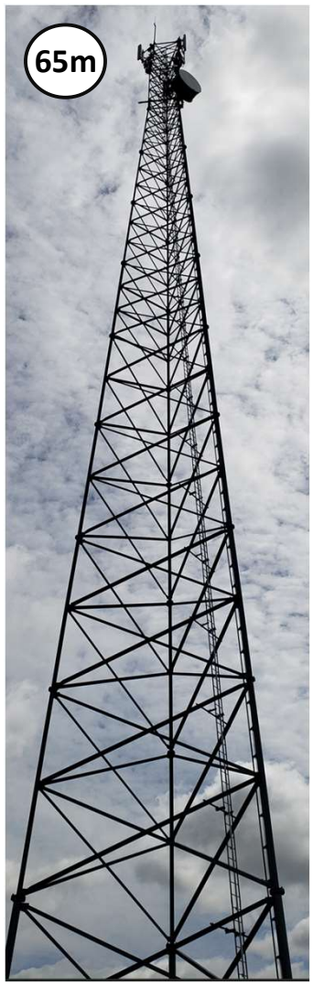
Argument #3 - Existing Structures Not Suitable (cont'd)

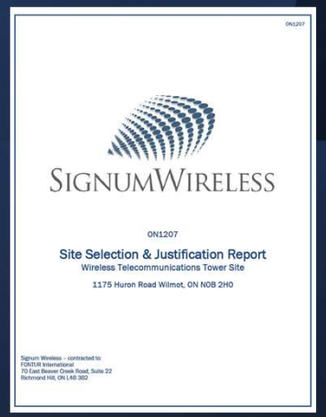
- The report claims the Rogers tower is not suitable due to the tower type, and because of insufficient height. The Bell tower is dismissed as being too far away from the search area.
- Photos of each tower show they are both tri-pole lattice towers, identical to the design that has been proposed for Huron Road.
- Each tower appears to have capacity for additional transmitters on the side facing the target coverage area. This is particularly apparent on the Rogers tower which hosts very little equipment.
- As the Rogers tower is the same height as the proposed tower, and is built at a higher elevation, the argument that it is insufficient in height is not credible.

Rogers (Bridge St)



Bell (Plains Rd)

Justification Report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Argument #3 - Existing Structures Not Suitable (cont'd)

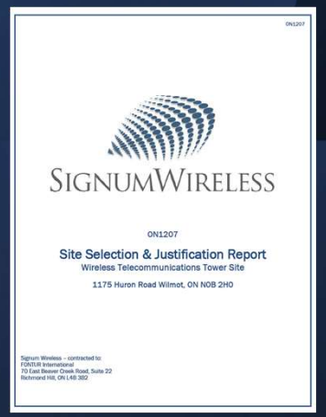
With respect to the Rogers and Bell towers, Signum Wireless is asked to:

- provide evidence that a legitimate attempt was made to contact Rogers and Bell to explore co-location options;
- disclose the underlying detail if technical challenges were determined to be the negating issue for co-location feasibility; and
- demonstrate that reasonable efforts were made to overcome any technical challenges identified

Signum Wireless is also asked to:

- explain why the report makes no mention of the silo located at the proposed site
- justify why the silo is not suitable to address immediate client needs; and
- comment on the feasibility of co-locating on the tower in Schlegel Park

Justification Report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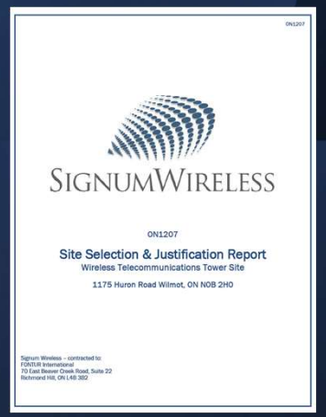
Narrow Search Area

- The site selection search area identified in the report is depicted by the shaded circle on the map to the right.
- The circle has a radius of 2km and is centered just north-west of the proposed site.
- A tightly defined search area of this size might make sense for 5G technology, where the transmission range is only 500m.
- However, it makes much less sense in the context of LTE, where the transmission range is up to 10-15km.

Site Selection Search Area

- In other words, the defined search area appears unjustifiably small compared to the coverage radius that an LTE network can reach for high-speed Internet.
- Signum Wireless is asked to explain in technical terms why a wider search area was not considered, given that it would have expanded the opportunity set of available structures and co-location options.

Justification Report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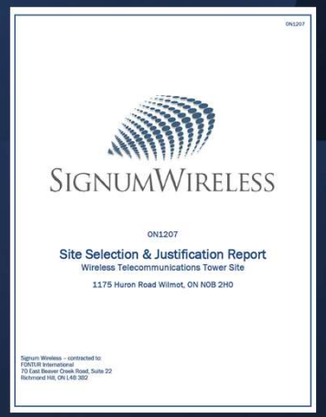
Alternative Tower Designs

- The justification report does not address whether alternative tower designs were considered. It focuses exclusively on a single option: a 65m tri-pole self-support tower.
- A tower of this height would place it among the tallest in the area. Signum Wireless is therefore asked to justify the height of the tower with respect to **current** client needs.

- Specifically, the company is asked to provide the following information:
  - identity of the clients they represent with respect to the proposed tower;
  - confirm the existence of committed long-term lease agreements with these clients;
  - provide an estimate of the percentage of total theoretical tower capacity that would be occupied by clients for which they have firm commitments; and
  - disclose any technical imperatives that require the tower to be 65m, other than building spare capacity for potential leasing opportunities in the future

Justification Report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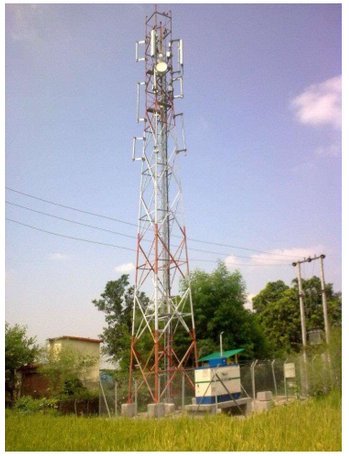
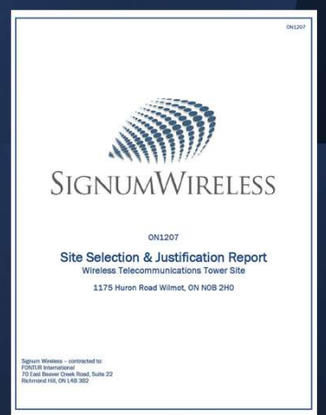
Alternative Tower Designs (cont'd)

- On the surface, this looks like an unnecessary overbuild motivated by financial interests rather than practical considerations. This is underscored by the fact that there is already a suitable structure on site that has been omitted from the report.



- As recent history shows, technology changes rapidly. In the past ten years alone, cellular networks have moved from 3G to LTE, to 4G, and are now transitioning to 5G.
- Transmission towers have the opposite trait, persisting on our landscapes for decades at a time. Careful consideration should be paid to all new builds, so our communities don't become a wasteland in the future of decommissioned towers as technology advances.

Justification Report


ON1207

SIGNUMWIRELESS

ON1207

Site Selection & Justification Report

Wireless Telecommunications Tower Site

1175 Huron Road Wilmot, ON N0B 2H0

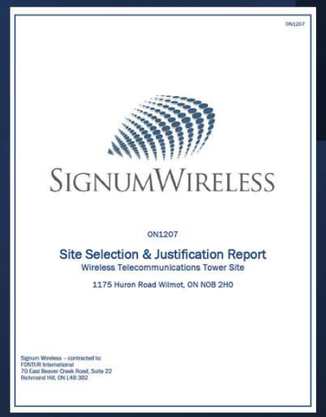
Signum Wireless – contracted to
FONTUR International
70 East Beaver Creek Road, Suite 22
Richmond Hill, ON L4B 3B2

Alternative Tower Designs (cont'd)

- Many communities have expressed a preference for concealed tower designs which blend in with the surrounding landscape, opposed to lattice towers built in open areas.
- These "stealth designs" come in many forms, from using monopole towers in flagpole designs or disguised as artificial trees, to taking advantage of existing structures.

- Signum Wireless is asked to provide a list of any alternative tower designs that were considered for the proposed site, along with the rationale for why they were not chosen.
- For example, are there any specific technical reasons why a 40m monopole structure at the proposed site would not meet Signum Wireless' clients' needs? This type of structure would have a much lower visual impact on the community.

Justification Report


ON1207

SIGNUMWIRELESS

ON1207

Site Selection & Justification Report

Wireless Telecommunications Tower Site

1175 Huron Road Wilmot, ON N0B 2H0

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FONTUR International
70 East Beaver Creek Road, Suite 22
Richmond Hill, ON L4B 3B2

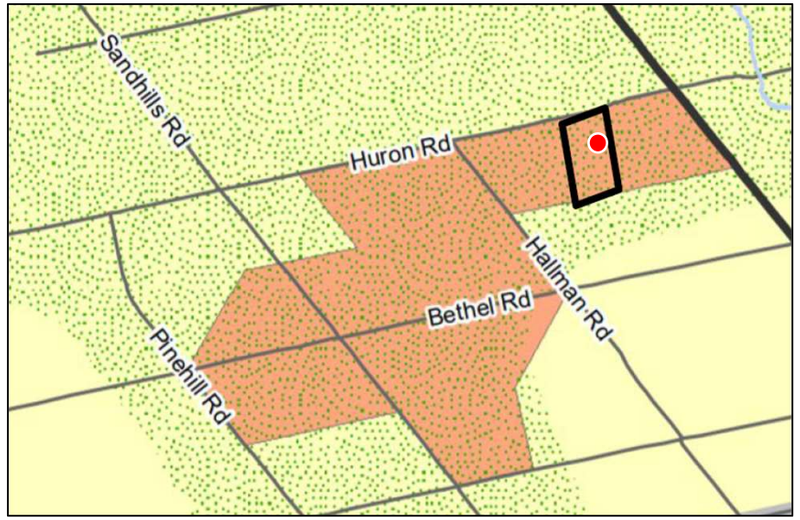
Protected Prime Agricultural Land

- The justification report rightly points out that the proposed site sits on lands designated as Protected Countryside, Rural Areas, and Prime Agricultural, in the Region of Waterloo's Regional Official Plan.

- Given the large swaths of surrounding land that fall outside of the designated protected area, and the wide reach of LTE technology, the proposed site appears insensitive to regional objectives.

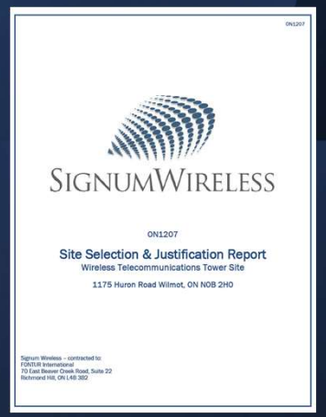
- Again, Signum Wireless is asked to provide a concrete justification, backed by network coverage data, to support the notion that there are no other viable locations in the area.

Protected Countryside Land



Protected Area

Justification Report


ON1207

SIGNUMWIRELESS

ON1207

Site Selection & Justification Report

Wireless Telecommunications Tower Site

1175 Huron Road Wilmot, ON N0B 2H0

Signum Wireless - contracted to:
FONTUR International
70 East Beaver Creek Road, Suite 22
Richmond Hill, ON L4B 3B2

More Copy-Paste

- Similar to the notification brochure, a vast majority of the justification report was lifted from a template that Signum Wireless uses for all of its tower proposals. This helps explain why the rationale provided doesn't always match up with the proposed location or local surroundings.

Clearview Justification Report (June 2019)

A drive test was conducted by some of our clients along area roads, such as Nottawasaga 27/28 Sideroad and Highway 26, for the purpose of determining our coverage objectives. Very weak coverage areas with poor signal strength were found around and along these major roads and sideroads, which generate significant coverage requirements as a result of the density of users and lack of existing coverage.

Huron Road Justification Report (September 2021)

A drive test was conducted by some of our clients along area roads, such as Huron Road, Queen Street, and Trussler Road, for the purpose of determining our coverage objectives. Very weak coverage areas with poor signal strength were found around and along these major roads and sideroads, which generate significant coverage requirements as a result of the density of users and lack of existing coverage.

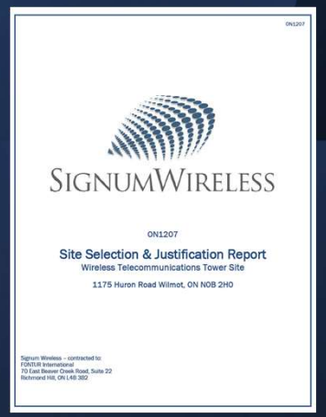
Niagara-On-The-Lake Justification Report – June 2015

Based on research conducted by Radio Frequency Engineering teams at major wireless telecommunication carriers, a general search area location was chosen centered on the intersection of Niven Road and Lakeshore Road. A site within the search ring on the map below **(Figure 6.1 – Search Area)** would, from an engineering point of view, meet the coverage objectives of the carriers. Typically, in semi-urban areas, the search area can have a radius of between 300 and 1000 metres.

Huron Road Justification Report (September 2021)

Based on research by each of our clients' respective Radio Frequency Engineering teams, a general search area location was chosen centered on Huron Road from Queen Street to Trussler Road. A site within the search ring on the map below (**Figure 5**) would, from an engineering point of view, meet the coverage objectives of our clients' networks. Typically, in rural areas and agricultural areas, the search area can have a radius of between 300 and 1000 metres.

Justification Report


ON1207

SIGNUMWIRELESS

ON1207

Site Selection & Justification Report

Wireless Telecommunications Tower Site

1175 Huron Road Wilmot, ON N0B 2H0

Signum Wireless - contracted to:
FONTUR International
70 East Beaver Creek Road, Suite 22
Richmond Hill, ON L4B 3B2

Location Inconsistency

- The justification report provided to the Township of Wilmot was not updated to reflect the correct location of the tower.
- It report contains the same location inconsistency that was in the original notification brochure and depicts the tower in the middle of the adjacent field.

Justification Report – Tower Location

- Signum Wireless is asked to provide the Township of Wilmot with an updated justification report that accurately reflects the location of the proposed tower.

SIGNUMWIRELESS

Signum Wireless

Financial Investor. Not Community Partner.

Signum Wireless

Pinpoint
ADVISORS IN CAPITAL

Investing In Profits. Not Communities.

- Signum Wireless has a track record of accumulating telecommunication towers and then packaging them up for sale to foreign interests.
- Over the six-year period from 2013-19, the company amassed a portfolio of 60 towers across Canada, predominately in Southwestern Ontario. It then retained Pinpoint Advisors, a corporate advisory firm, to run a competitive sales process.
- The process followed an auction format consisting of multiple bidding rounds. It concluded with the portfolio being awarded to the highest bidder, InSite Wireless, a company headquartered in Virginia.
- InSite Wireless was subsequently acquired by American Tower, the largest publicly listed US tower company, which boasts over 40,000 towers in their portfolio.

Signum Wireless

Playbook: Overbuild and Flip

Inside Towers

www.insidetowers.com
March 18, 2021

"The future lease-up potential of the portfolio fueled the process. Such lease up potential provided the opportunity for bidders to achieve substantial site rental growth and enhance their returns. As a result, SIGNUM Wireless' portfolio was highly sought after" -- Pinpoint Capital Advisors.

- According to Pinpoint Capital, and as reported by media outlet Inside Towers, the "lease-up potential" of the portfolio offered bidders "substantial site rental growth". Put another way, the towers were overbuilt and still had significant spare capacity remaining.
- The motivations of Signum Wireless appear to be clear. As a short-term financial investor, they are incentivized to overbuild tower capacity to maximize returns. They are not long-term partners in the communities where they operate, nor do they actively seek low-cost, low-impact alternative solutions that would negate new tower construction.
- By contrast, when a cell phone company like Bell expands their network, they are doing so to address immediate coverage needs. They do not overbuild their network to sell spare capacity at a profit. They seek the lowest cost solution, invest for the long-term, and are accountable to their end customers.
- While the useful life and community impact of telecommunication towers is measured in decades, Signum Wireless is apt to be long gone after a handful of years.

Signum Wireless

Who Is Signum Wireless?

- The materials provided for the proposed tower on Huron Road have been prepared by Fontur International Inc. acting as consultant to Signum Wireless.
- As noted previously, the information provided does not contain any contact details for individuals employed by Signum Wireless.
- There is limited public information about the company, other than photos and biographies of its two principals on the company website.

Robert H. Lane

Fernando Aroujo

- In the interests of transparency and accountability, it would be desirable for representatives directly employed by Signum Wireless to make themselves available for contact during the public consultation period.

Concluding Remarks

Support for Telecommunication Towers

Concluding Remarks

Author Is Not Anti-Tower

- The author of this document does not have a specific bias against the construction of telecommunication towers. In fact, the concerned citizen supports the Federal Government's initiative to bring high speed Internet to rural communities across Canada.

- However, such projects should follow not just the letter of the law, but the spirit of the law. The first priority, set forth in CPC-2-0-03, is to "investigate sharing or using existing infrastructure before proposing new antenna-supporting structures to limit the impact to the surrounding lands and community".

- Canada's national wireless carriers are generally well-aligned with this objective, as they are in the business of providing a service, not building and leasing telecommunications towers for profit. As such, they are incentivized to find the lowest-cost solution to meet their network coverage needs.

- Incentives become misaligned where third-party tower operators enter the equation and construct towers for-profit. These entities are incentivized to overbuild their infrastructure, with the hope of a) leasing excess capacity at some undetermined point in the future; b) marketing the spare capacity to juice valuations in a sales process; or c) blocking out competing towers by building on strategic locations.

- Telecommunication towers enjoy exemptions from local zoning and building permit requirements. These are not trivial exemptions, and they exist to support Federal policy objectives to foster growth of the information economy and provide connectivity to all Canadians. These exemptions do not exist to be exploited by for-profit enterprises who view them as loopholes to fast-track approvals and profits.

Concluding Remarks

Third Party Operators

- The emergence of third-party tower operators is a positive development from the standpoint of limiting the proliferation of telecommunication towers across the landscape.
- Third-party tower owners stand to benefit the most when they can lease their tower infrastructure to multiple tenants. Communities also benefit when multiple users share the same infrastructure, rather than having each provider build out their own separate network.
- However, as previously mentioned, the motivations of third-party tower companies differ from wireless carriers. As such, care must be taken to ensure that they are not exploiting zoning and permit exemptions to overbuild unnecessary capacity with only short-term financial goals in mind.

Concluding Remarks

A Sensible Approach

Consistent with the spirit of Industry Canada's framework, the author supports new tower construction where the following criteria can be satisfied:

- there is a demonstrable need, backed by unmet user demand, network coverage data, and underwritten by firm long-term lease commitments with telecommunication providers;
- the proponent defines a site search area that corresponds to the local need and technology to be installed;
- the proponent actively engages with nearby tower operators and owners of alternative structures to explores co-location opportunities and low-impact solutions;
- where alternative structures are deemed unsuitable, well-founded justifications are provided, supported by an explanation of any technical limitations;
- where tower specifications (tower type/height) correspond to near-term needs (not spec-builds or overbuilds designed to meet uncertain future demand)
- efforts are made to limit the structure's impact on the surrounding community; and
- the proponent actively engages with the municipality and public in an open and transparent manner, and not only responds to their concerns as a matter of process, but makes legitimate efforts to address them

Concluding Remarks

Areas of Concern

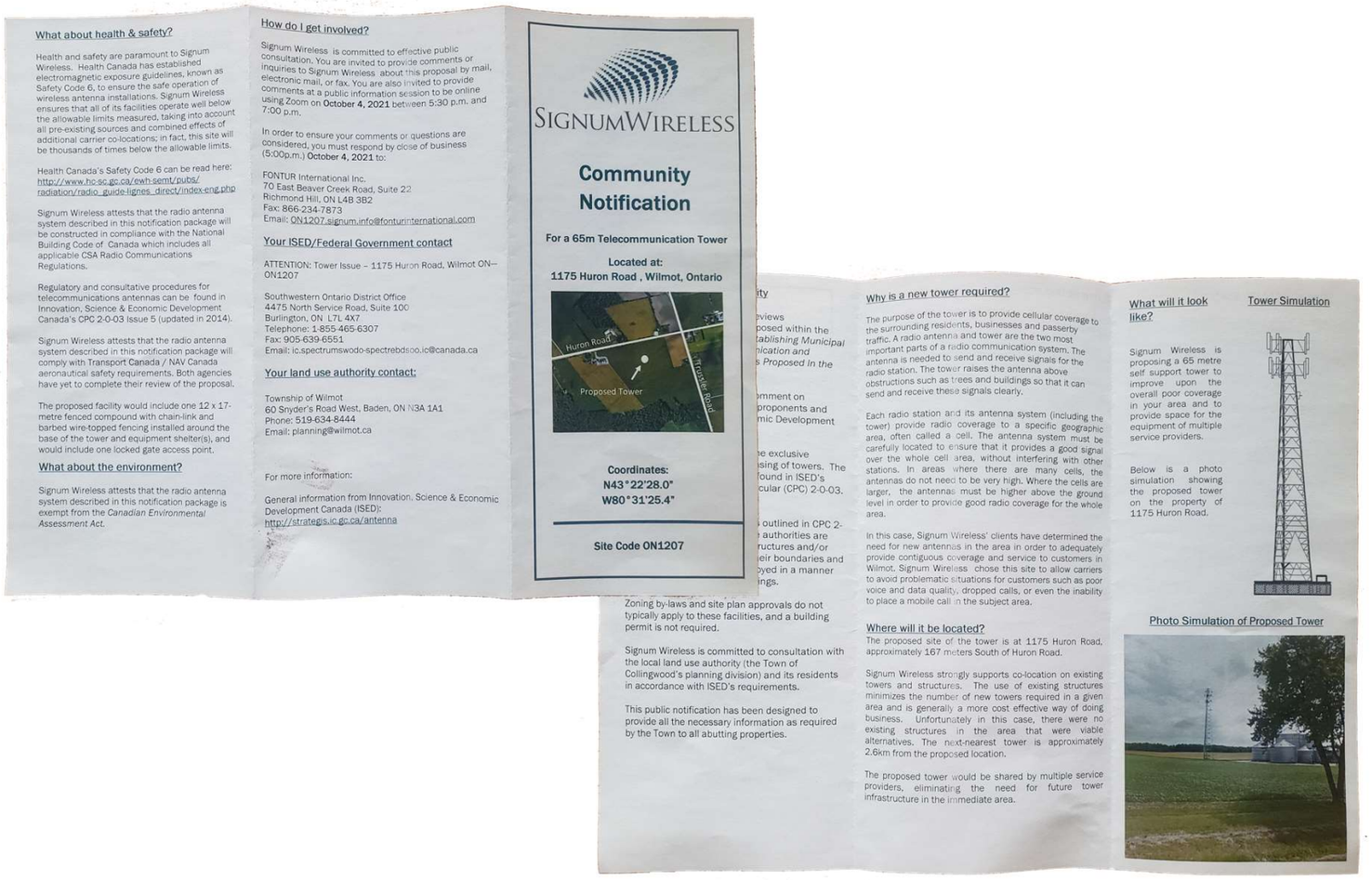
Concerns should be raised where the proponent of a new tower:

- fails to provide a defensible justification for the tower;
- fails to thoroughly investigate alternative structures/locations to find a solution that limits community impact;
- provides incorrect, incomplete, or deceptive information regarding the proposal;
- downplays the visual impact of the structure (i.e. misleading photo simulations);
- does not meet the relevant authority's public notification or consultation requirements;
- opportunistically exploits zoning and permitting exemptions to secure sites for strategic positioning, without having immediate construction plans; or
- preys on municipalities that have not adopted their own telecommunications protocols in order to push approvals through the federal process with as little oversight as possible

Appendices

Appendix I

Original Notification Brochure



What about health & safety?

Health and safety are paramount to Signum Wireless. Health Canada has established electromagnetic exposure guidelines, known as Safety Code 6, to ensure the safe operation of wireless antenna installations. Signum Wireless ensures that all of its facilities operate well below the allowable limits measured, taking into account all pre-existing sources and combined effects of additional carrier co-locations; in fact, this site will be thousands of times below the allowable limits.

Health Canada's Safety Code 6 can be read here: http://www.hc-sc.gc.ca/ewh-semt/pubs/radiation/radio_guide-lignes_direct/index-eng.php

Signum Wireless attests that the radio antenna system described in this notification package will be constructed in compliance with the National Building Code of Canada which includes all applicable CSA Radio Communications Regulations.

Regulatory and consultative procedures for telecommunications antennas can be found in Innovation, Science & Economic Development Canada's CPC 2-0-03 Issue 5 (updated in 2014).

Signum Wireless attests that the radio antenna system described in this notification package will comply with Transport Canada / NAV Canada aeronautical safety requirements. Both agencies have yet to complete their review of the proposal.

The proposed facility would include one 12 x 17-metre fenced compound with chain-link and barbed wire-topped fencing installed around the base of the tower and equipment shelter(s), and would include one locked gate access point.

What about the environment?

Signum Wireless attests that the radio antenna system described in this notification package is exempt from the *Canadian Environmental Assessment Act*.

How do I get involved?

Signum Wireless is committed to effective public consultation. You are invited to provide comments or inquiries to Signum Wireless about this proposal by mail, electronic mail, or fax. You are also invited to provide comments at a public information session to be online using Zoom on **October 4, 2021** between 5:30 p.m. and 7:00 p.m.

In order to ensure your comments or questions are considered, you must respond by close of business (5:00p.m.) **October 4, 2021** to:

FONTUR International Inc.
70 East Beaver Creek Road, Suite 22
Richmond Hill, ON L4B 3B2
Fax: 866-234-7873
Email: ON1207.signum.info@fonturinternational.com

Your ISED/Federal Government contact

ATTENTION: Tower Issue – 1175 Huron Road, Wilmot ON—ON1207

Southwestern Ontario District Office
4475 North Service Road, Suite 100
Burlington, ON L7L 4X7
Telephone: 1-855-465-6307
Fax: 905-639-6551
Email: ic.spectrumswodo-spectrebdsoo.ic@canada.ca

Your land use authority contact:

Township of Wilmot
60 Snyder's Road West, Baden, ON N3A 1A1
Phone: 519-634-8444
Email: planning@wilmot.ca

For more information:

General information from Innovation, Science & Economic Development Canada (ISED):
http://strategis.ic.gc.ca/antenna

SIGNUMWIRELESS

Community Notification

For a 65m Telecommunication Tower

Located at:
1175 Huron Road , Wilmot, Ontario

Coordinates:
N43°22'28.0"
W80°31'25.4"

Site Code ON1207

Zoning by-laws and site plan approvals do not typically apply to these facilities, and a building permit is not required.

Signum Wireless is committed to consultation with the local land use authority (the Town of Collingwood's planning division) and its residents in accordance with ISED's requirements.

This public notification has been designed to provide all the necessary information as required by the Town to all abutting properties.

Why is a new tower required?

The purpose of the tower is to provide cellular coverage to the surrounding residents, businesses and passerby traffic. A radio antenna and tower are the two most important parts of a radio communication system. The antenna is needed to send and receive signals for the radio station. The tower raises the antenna above obstructions such as trees and buildings so that it can send and receive these signals clearly.

Each radio station and its antenna system (including the tower) provide radio coverage to a specific geographic area, often called a cell. The antenna system must be carefully located to ensure that it provides a good signal over the whole cell area, without interfering with other stations. In areas where there are many cells, the antennas do not need to be very high. Where the cells are larger, the antennas must be higher above the ground level in order to provide good radio coverage for the whole area.

In this case, Signum Wireless' clients have determined the need for new antennas in the area in order to adequately provide contiguous coverage and service to customers in Wilmot. Signum Wireless chose this site to allow carriers to avoid problematic situations for customers such as poor voice and data quality, dropped calls, or even the inability to place a mobile call in the subject area.

Where will it be located?

The proposed site of the tower is at 1175 Huron Road, approximately 167 meters South of Huron Road.

Signum Wireless strongly supports co-location on existing towers and structures. The use of existing structures minimizes the number of new towers required in a given area and is generally a more cost effective way of doing business. Unfortunately in this case, there were no existing structures in the area that were viable alternatives. The next-nearest tower is approximately 2.6km from the proposed location.

The proposed tower would be shared by multiple service providers, eliminating the need for future tower infrastructure in the immediate area.

What will it look like?

Signum Wireless is proposing a 65 metre self support tower to improve upon the overall poor coverage in your area and to provide space for the equipment of multiple service providers.

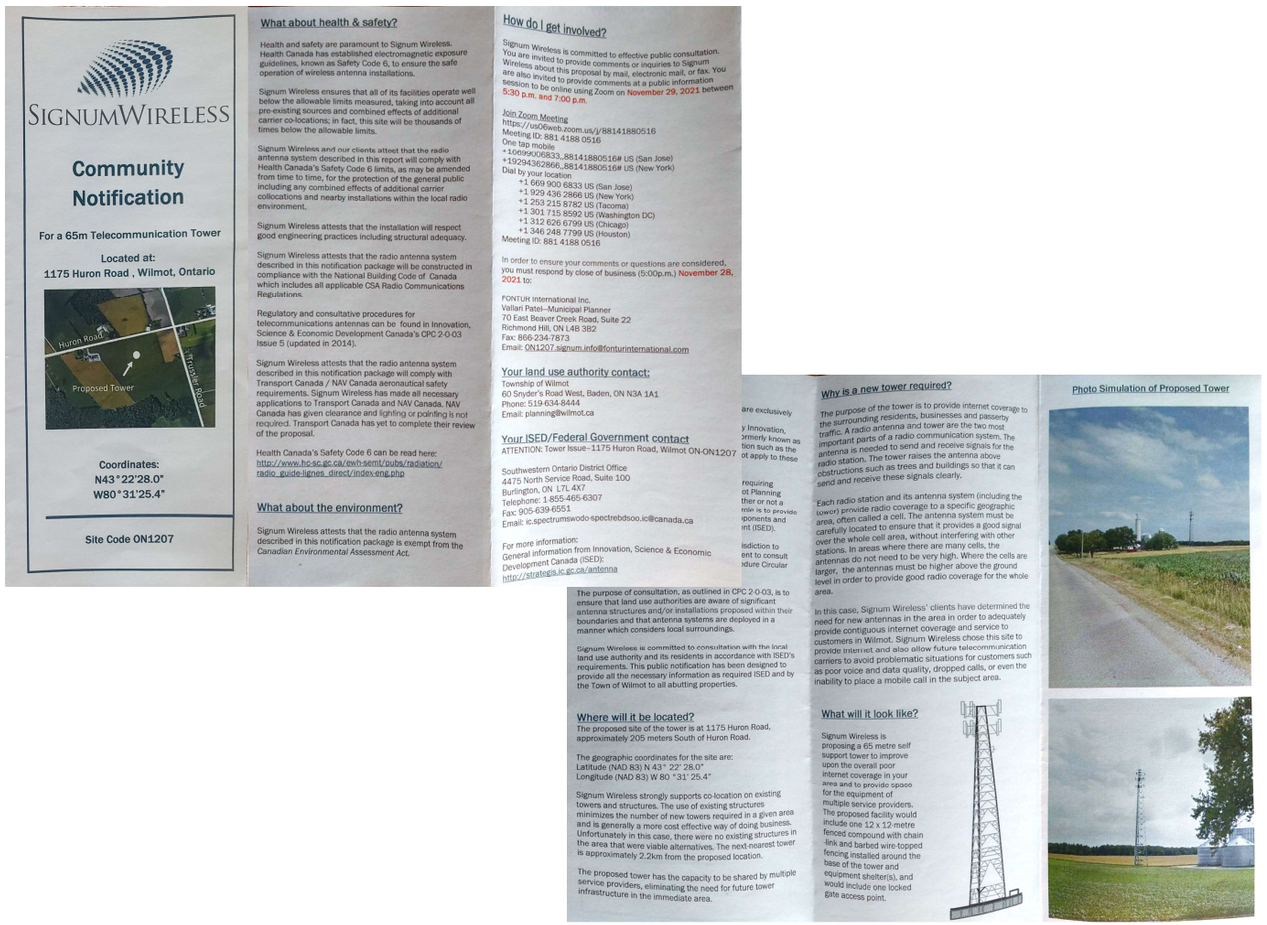
Below is a photo simulation showing the proposed tower on the property of 1175 Huron Road.

Tower Simulation

Photo Simulation of Proposed Tower

Appendix II

Revised Notification Brochure



SIGNUMWIRELESS

Community Notification

For a 65m Telecommunication Tower

Located at:
1175 Huron Road , Wilmot, Ontario

Coordinates:
N43°22'28.0"
W80°31'25.4"

Site Code ON1207

What about health & safety?

Health and safety are paramount to Signum Wireless. Health Canada has established electromagnetic exposure guidelines, known as Safety Code 6, to ensure the safe operation of wireless antenna installations.

Signum Wireless ensures that all of its facilities operate well below the allowable limits measured, taking into account all pre-existing sources and combined effects of additional carrier co-locations; in fact, this site will be thousands of times below the allowable limits.

Signum Wireless and our clients attest that the radio antenna system described in this report will comply with Health Canada's Safety Code 6 limits, as may be amended from time to time, for the protection of the general public including any combined effects of additional carrier collocations and nearby installations within the local radio environment.

Signum Wireless attests that the installation will respect good engineering practices including structural adequacy.

Signum Wireless attests that the radio antenna system described in this notification package will be constructed in compliance with the National Building Code of Canada which includes all applicable CSA Radio Communications Regulations.

Regulatory and consultative procedures for telecommunications antennas can be found in Innovation, Science & Economic Development Canada's CPC 2-0-03 Issue 5 (updated in 2014).

Signum Wireless attests that the radio antenna system described in this notification package will comply with Transport Canada / NAV Canada aeronautical safety requirements. Signum Wireless has made all necessary applications to Transport Canada and NAV Canada. NAV Canada has given clearance and lighting or painting is not required. Transport Canada has yet to complete their review of the proposal.

Health Canada's Safety Code 6 can be read here:
http://www.hc-sc.gc.ca/ewh-semt/pubs/radiation/radio_guide-lignes_direct/index-eng.php

What about the environment?

Signum Wireless attests that the radio antenna system described in this notification package is exempt from the *Canadian Environmental Assessment Act*.

How do I get involved?

Signum Wireless is committed to effective public consultation. You are invited to provide comments or inquiries to Signum Wireless about this proposal by mail, electronic mail, or fax. You are also invited to provide comments at a public information session to be online using Zoom on November 29, 2021 between 5:30 p.m. and 7:00 p.m.

Join Zoom Meeting
https://us06web.zoom.us/j/88141880516
Meeting ID: 881 4188 0516
One tap mobile
+16699006833,,88141880516# US (San Jose)
+19294362866,,88141880516# US (New York)
Dial by your location
+1 669 900 6833 US (San Jose)
+1 929 436 2866 US (New York)
+1 253 215 8782 US (Tacoma)
+1 301 715 8592 US (Washington DC)
+1 312 626 6799 US (Chicago)
+1 346 248 7799 US (Houston)
Meeting ID: 881 4188 0516

In order to ensure your comments or questions are considered, you must respond by close of business (5:00p.m.) November 28, 2021 to:

FONTUR International Inc.
Vallari Patel–Municipal Planner
70 East Beaver Creek Road, Suite 22
Richmond Hill, ON L4B 3B2
Fax: 866-234-7873
Email: ON1207.signum.info@fonturinternational.com

Your land use authority contact:
Township of Wilmot
60 Snyder's Road West, Baden, ON N3A 1A1
Phone: 519-634-8444
Email: planning@wilmot.ca

Your ISED/Federal Government contact
ATTENTION: Tower Issue–1175 Huron Road, Wilmot ON-ON1207

Southwestern Ontario District Office
4475 North Service Road, Suite 100
Burlington, ON L7L 4X7
Telephone: 1-855-465-6307
Fax: 905-639-6551
Email: ic.spectrumswodo-spectrebdsoo.ic@canada.ca

For more information:
General information from Innovation, Science & Economic Development Canada (ISED):
http://strategis.ic.gc.ca/antenna

The purpose of consultation, as outlined in CPC 2-0-03, is to ensure that land use authorities are aware of significant antenna structures and/or installations proposed within their boundaries and that antenna systems are deployed in a manner which considers local surroundings.

Signum Wireless is committed to consultation with the local land use authority and its residents in accordance with ISED's requirements. This public notification has been designed to provide all the necessary information as required ISED and by the Town of Wilmot to all abutting properties.

Where will it be located?
The proposed site of the tower is at 1175 Huron Road, approximately 205 meters South of Huron Road.

The geographic coordinates for the site are:
Latitude (NAD 83) N 43° 22' 28.0"
Longitude (NAD 83) W 80 °31' 25.4"

Signum Wireless strongly supports co-location on existing towers and structures. The use of existing structures minimizes the number of new towers required in a given area and is generally a more cost effective way of doing business. Unfortunately in this case, there were no existing structures in the area that were viable alternatives. The next-nearest tower is approximately 2.2km from the proposed location.

The proposed tower has the capacity to be shared by multiple service providers, eliminating the need for future tower infrastructure in the immediate area.

Why is a new tower required?

The purpose of the tower is to provide internet coverage to the surrounding residents, businesses and passerby traffic. A radio antenna and tower are the two most important parts of a radio communication system. The antenna is needed to send and receive signals for the radio station. The tower raises the antenna above obstructions such as trees and buildings so that it can send and receive these signals clearly.

Each radio station and its antenna system (including the tower) provide radio coverage to a specific geographic area, often called a cell. The antenna system must be carefully located to ensure that it provides a good signal over the whole cell area, without interfering with other stations. In areas where there are many cells, the antennas do not need to be very high. Where the cells are larger, the antennas must be higher above the ground level in order to provide good radio coverage for the whole area.

In this case, Signum Wireless' clients have determined the need for new antennas in the area in order to adequately provide contiguous internet coverage and service to customers in Wilmot. Signum Wireless chose this site to provide internet and also allow future telecommunication carriers to avoid problematic situations for customers such as poor voice and data quality, dropped calls, or even the inability to place a mobile call in the subject area.

What will it look like?

Signum Wireless is proposing a 65 metre self support tower to improve upon the overall poor internet coverage in your area and to provide space for the equipment of multiple service providers. The proposed facility would include one 12 x 12 metre fenced compound with chain -link and barbed wire-topped fencing installed around the base of the tower and equipment shelter(s), and would include one locked gate access point.

Photo Simulation of Proposed Tower

Appendix III

Grain Elevators Can Reduce Tower Proliferation

Better Farming | It's farming. And it's better.

GRAIN ELEVATORS AS TELECOM TOWERS

A novel Internet project in Ontario is using existing grain elevators as part of rural broadband infrastructure.

As part of CENGN's Dawn-Euphemia Township project, Internet service provider (ISP) MPVWifi installed its equipment on grain elevators in Lambton County rather than build new towers.

"Normally there would've needed to be two or three very high (up to 400 feet or 120 metres) telecommunications towers to get the service across the entire township," Kirby Koster, senior manager of broadband programs with CENGN, told *Better Farming*. "But these grain elevator systems can have towers within them up to 150 feet (45 metres) in height."

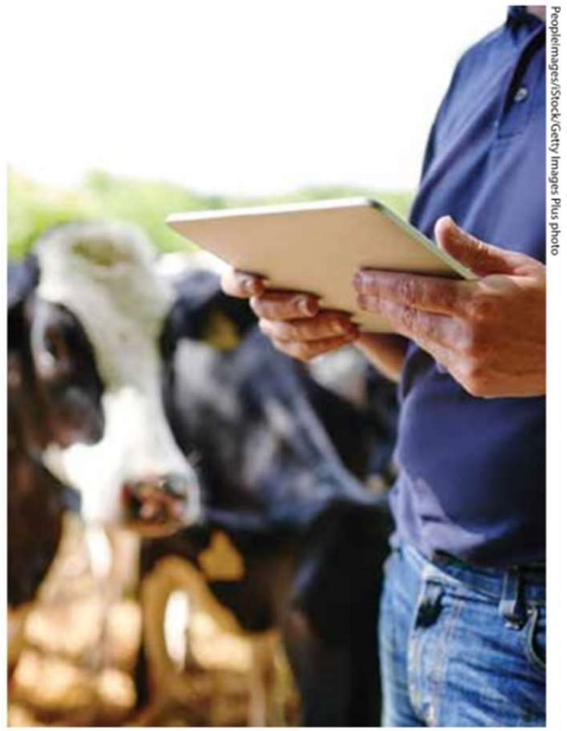
In addition to the necessary height, these towers have ladders, platforms and railings to allow workers to install the equipment safely.

MPVWifi and elevator owners enter an agreement allowing the ISP to install radio broadcasting equipment on the elevator and to maintain and repair the equipment as necessary.

Businesses choosing to participate in this kind of project may also be eligible for a discount or upgrade on their services, Koster said.

Early feedback from agribusinesses has been positive.

"Local businesses are very happy because they have very high bandwidth requirements as they negotiate grain prices in real time. Participating in these projects gives them a higher capacity rate than residents have." BF



People/images/iStock/Getty Images Plus photo

Source: Better Farming – February 2021

Appendix III

Recipients

An electronic copy of this presentation has been sent to:

- Fontur International Inc.
- The Township of Wilmot
  - Mayor
  - Township Clerk
  - Township Council
  - Land Use Authority (Planning and Economic Development)
- Innovation, Science and Economic Development Canada
  - Southwestern Ontario Local District Office
- Region of Waterloo
  - Community Planning Department