

**CITY INITIATIVE TO AMEND
SIGN BY-LAW TO PERMIT DIGITAL SIGNS
City of Hamilton
PLANNING REPORT**

Fothergill Planning & Development Inc.

September 15, 2016

Planning Report

City Initiative to Amend Sign By-law to Permit Digital Signs
City of Hamilton



Prepared for:
CITY OF HAMILTON

Prepared by
FOTHERGILL PLANNING & DEVELOPMENT INC.

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1.0 Introduction

This Planning Report provides support for an initiative by the City of Hamilton to amend the Sign By-law 10-197 to permit the installation of digital billboard signs on City-owned properties. Section 2.2.4 of the Sign By-law provides an exception that notes that the by-law does not apply to signs displayed by municipal government. Given that the proposed signs are third party advertising or billboard signs, this provision of the by-law is not applicable. Therefore, the regulations of the sign by-law apply to the proposed program for the installation of digital signs on City lands.

The current Sign By-law regulates the type of signs permitted within the City as well as providing regulations with respect to the size and location of various types of signs. The Hamilton Sign By-law does not permit digital signs of any kind.

As a result, an amendment to the Sign By-law is required to permit digital signs. In addition, in each location, site specific provisions are required to regulate the installation of the signs.

This Report is structured in two parts. The first part will provide justification to permit digital billboard signs. This will include review of concerns which have been identified and addressed in other jurisdictions to deal with specific functional and locational elements of digital signs which differ from current static billboard structures. The report examines the differences between digital and static signs and identifies the manner in which potential impacts can and have been minimized. In addition to examining standard regulatory elements found in the existing by-law, i.e. height, size, setbacks, etc., the report also introduces and examines functional elements of digital signs which warrant the imposition of regulations that are not currently in the City of Hamilton by-law. As a result, a new set of regulations is introduced specifically to respond to the potential impacts of digital signs.

The second part of the report speaks specifically to site specific by-law regulations for each of the proposed sign locations.

In preparing this report, research was undertaken with respect to best practices in other jurisdictions. While utilizing some information provided by staff, my review was undertaken independently and consisted of other sources of information, including review of specific by-laws in other jurisdictions. The review process also included a number of meetings with technical representatives from Outfront Media, preparation of an information template that was used in the preparation of the applications for variances, providing input to each of the variance applications, and visiting each of the sites proposed for the installation of digital billboard signs.

The need to regulate digital signs has developed over the past few years in response to changes in technology which have created new opportunities for sign companies to more effectively provide an important service to their clients. Digital signs can convey a variety of messages throughout the day as opposed to static billboard signage which, in the past, maintains a consistent message and needed to be manually updated.

Along with the new technology came concerns about an increased risk to safety of pedestrians and motorists from the visual impact of digital signs, both because of concerns with respect to luminosity and movement. Also, in a manner similar to that of billboard signs, concerns arose with respect to compatibility with surrounding residential uses.

The intent of this report is to examine implications of the introduction of digital signs within the context of the intent of By-law 10-197, as identified in Section 2.3. In considering the proposed amendment, it will be important to ensure that the introduction of digital billboard signs, with appropriate regulations and mitigation measures, can meet the intent of each of these provisions:

"2.3 INTENT

The purpose of this By-law is to regulate signs in the City with the intent of authorizing signs that:

- (a) are appropriate in size, number, and location to the type of activity or use to which they pertain;**
- (b) provide reasonable and appropriate means for the public to locate and identify facilities, businesses, and services without difficulty or confusion;**

- (c) are compatible with their surroundings;
- (d) protect and enhance the aesthetic qualities and visual character of the City;
- (e) are consistent with the City's planning, urban design and heritage objectives;
- (f) do not create a distraction or safety hazard for pedestrians or motorists;
- (g) minimize adverse impacts on nearby public and private property."

The new signage must comply with the General Provisions and Regulations in Section 4.1 and Prohibited Signs in Section 5.1, with the exception of 5.1.1(f).

"GENERAL PROHIBITIONS AND REGULATIONS

4.1 No person shall display or permit to be displayed a sign:

- (a) for which a permit has be not been obtained, if a permit is required under this By-law;
- (b) which is not in compliance with this By-law or the conditions of any variance granted under this By-law;
- (c) which is not specifically permitted under this By-law;
- (d) which is on City property except:
 - 1. a Poster or Election Sign as permitted by this By-law; or
 - 2. with the permission of the City;
- (e) which is on property without the permission of the owner of the property;
- (f) which obstructs the view of any pedestrian or driver of a vehicle, obstructs the visibility of any traffic signal or traffic control device, or interferes with vehicular traffic in a manner that could endanger any person;
- (g) which is on any traffic signal or traffic control device;
- (h) which illuminates any adjacent property or the path of vehicular traffic;
- (i) which is not maintained in a proper state of repair, becomes unsightly, becomes structurally inadequate or faulty, or could be hazardous to a pedestrian or motorist;
- (j) which the Director has directed be removed;
- (k) which bears or displays the City logo, crest or seal in whole or in part, without the express written permission of the City; or

- (l) which does not comply with all applicable by-laws, statutes or regulations including, but not limited to, the Ontario Heritage Act."

"5.1 PROHIBITED SIGNS

5.1.1 No person shall display or permit to be displayed:

- (a) any sign with a video screen or any flashing, kinetic, or illusionary motion, except an electronic message display as permitted under this By-law.
- (b) any sign supported entirely or partly by the roof of a building or structure and which projects above the roof;
- (c) any sign displayed within a visibility triangle;
- (d) any sign displayed on a vehicle, trailer or truck which is parked or located on property in a manner that is unrelated to its normal use as a vehicle and is more consistent with the use of the vehicle as a sign;
- (e) any sign which obstructs or is displayed in a parking space required under the City's zoning by-laws; or
- (f) any sign within 400.0 m of the right of way of Highway 403, the Queen Elizabeth Way, the Lincoln M. Alexander Parkway or the Red Hill Valley Parkway."

The Sign By-law does not contain any direction for the consideration of amendments to the by-law. However, Section 6.5 of the By-law identifies four tests that have to be met for the consideration of a variance to the by-law. In the absence of any direction provided for the consideration of amendments to the by-law, the current initiative was assessed within the context of the tests found in Section 6.5 of the by-law which include the following:

"6.5 In considering an application for a variance, the Director shall have regard for:

- (a) special circumstances or conditions applying to the land, building or use referred to in the application;
- (b) whether strict application of the provisions of this By-law in the context of the special circumstances applying to the land, building or use, would result in practical difficulties or

unnecessary and unusual hardship for the applicant, inconsistent with the general intent and purpose of this By-law;

- (c) whether such special circumstances or conditions are pre-existing and not created by the sign owner or applicant; and
- (d) whether the sign that is the subject of the variance will alter the essential character of the area in which the sign will be located."

In considering variances to the by-law, given that all of the proposed digital signage will be considered as billboard signage, the regulations of Section 5.10 of the by-law was used as a template to identify site specific amendments to the regulations in the by-law.

"5.10 BILLBOARDS

5.10.1 No person shall display or permit to be displayed a Billboard except in accordance with the applicable general regulations under this By-law, and the specific regulations under this section of the By-law.

5.10.2 No Billboard shall be displayed except in accordance with the following regulations:

permit

- (a) obtain a permit under this By-law;

structure

- (b) maximum sign area of 18.0 m²;
- (c) maximum height of 12.0 m and maximum width of 4.0 m;

content

- (d) not animated, except a Tri-Vision Billboard;
- (e) may allocate a maximum 50% of the sign face to a read-o-graph;

location

- (f) not on property within there Downtown Community Improvement Project Area, the Waterdown Urban Area or the Waterdown Settlement Areas;
- (g) not less than 300.0 m from another Billboard;

- (h) not less than 300.0 m from any residentially zoned property;
 - (i) not less than 15.0 m from any property line;
 - (j) on vacant, undeveloped property zoned commercial or industrial.
- 5.10.3 Where a property on which a billboard is displayed ceases to be vacant or undeveloped, the sign owner shall remove the Billboard from the property."

2.0 Safety Considerations

One of the concerns expressed by municipalities with the introduction of digital signs was the potential for them to create safety concerns because of the distraction generated by movement on the signs. A review of the potential impact of digital signs on motor safety has been subject to review, both in the United States and Canada. From a review of a number of these studies, it is noted that collectively, they have provided a variety of differing opinions regarding the safety impact of digital signage. The presence of different, and often conflicting, views about the safety impact of signage is not surprising given the wide range of variables involved in such a study exercise, including examination of different kinds of signs, locational variations, differing methodologies, and differing characteristics of subjects that were being studied.

The reports also consistently noted that distraction by billboard signage of any form is one of a number of factors associated with vehicular safety. One of the difficulties and challenges in all of these studies was to assess and quantify the extent to which billboard signage plays a role along with other distractions and human error factors that contribute to road safety.

One of the common themes present throughout all of these studies was a recognition that signage in general can be a potential distraction to drivers. It was also noted that dynamic or moving signs, i.e. video signs, are more distracting than signs with static images. In that regard, one of the directives arising out of a study undertaken on behalf of Transport Association of Canada was the suggestion that regulatory authorities provide recommendations to control digital billboard signs such that they emulate static billboard

signage and therefore create no greater potential impact for distraction and road safety than that from current static billboard signage.

The locational context for digital signage can also have implications for safety considerations. For example, placing of signage behind or in close proximity to traffic signals can create confusion and distraction for motorists. In addition, signage located near key decision making points such as intersections and interchanges, can also be a factor in maintaining an appropriate element of safety in the vicinity of digital signs. As a result, for any location near an intersection or interchange, care has to be taken to ensure the signs are not located in an area which could cause a distraction at a time when key decisions have to be made with respect to merging, lane changing, etc.

Locally, a review was undertaken of certain intersection locations where existing digital signage is in place within the City. As shown in Appendix E to the staff report, there has been no pattern established which would lead to the conclusion that digital signage has an adverse impact on vehicular safety. It is noted that none of these locations are regulated by the provisions which are recommended in this report with respect to animation, dwell time, transition time and luminosity.

In response to the finding that demonstrates that digital advertising has a potential of attracting drivers' eyes away from the road for extended period of time, by-laws regulating digital signs have included provisions to control locational elements as well as functional elements of the signs including movement, luminosity, dwell time, and transition time of digital signage.

In order to deal with the concern of movement of signs, it is proposed that a prohibition of any animation on digital signs currently found in the Hamilton by-law (5.1.1(a)) remain in place. This prohibition is found in other jurisdictions and is deemed to be appropriate for the City of Hamilton.

In order to regulate sign movement, a minimum dwell time has been used and is recommended with respect to the proposed variances. The proposed dwell time of 6 seconds for the proposed signs means that the message on the sign can only be changed every 6 seconds. It allows for regular changing of sign messages without creating a visual distraction. This appears to be a widely accepted standard in most municipalities.

Minimizing the transition time, i.e., the time it takes to move from one image to another, is also a factor in minimizing distraction. A proposed transition time of 1 second for each of these signs is again a widely accepted standard which should be applied in this case.

In order to minimize distraction and eye movement away from the roadway, locational regulations are important. The current City of Hamilton by-law requires minimum setback from a property line of 15 metres. In most cases, having the sign located closer to the property line and therefore closer to the direct line of sight of motorists, helps to minimize eye movement and thus contributes to enhancing motorist safety. A review of other by-laws has found that no other municipality incorporates this type of setback. Generally, setbacks from the property line are in the range of 1.5 - 3 metres.

The implementation of all of the above provisions helps to minimize any distraction that could potentially be created by the installation of digital signs beyond that currently experienced with static billboard signs. By implementing these measures, driver distraction is minimized, while at the same time ensuring that the signs are clearly visible to achieve their intended purpose. As a result, the imposition of these provisions is recommended in all of the current applications for variances to the sign by-law.

3.0 Luminosity

As noted in other sections of this report, impacts of digital signage are also minimized through controlling of the light levels. The proposed standard of 300 candelas per square metre at night and 6,000 candelas per square metre per day are levels that are generally accepted in other jurisdictions.

Impacts are also minimized by limiting hours of operation. In the case of the proposed signage, they will be turned off during the hours of 12 o'clock midnight to 6 o'clock a.m.

In terms of luminosity or light impacts, a standard measure of impact that has been adopted by the Outdoor Advertising Association of America, which sets a limit of light impact from digital signs being no more than 0.3 foot candles above ambient light levels measured at a location which is perpendicular to the sign. That is, when light from surrounding uses becomes reduced, i.e., during evening hours, and the potential for light

impacts is greater, the brightness of the digital sign is reduced. Similarly, in brighter environments or during daylight hours when surrounding light is more intense, a greater level of light can be tolerated from a digital sign. This standard has been incorporated into the sign by-laws of many municipalities, and can be regulated through the installation of a light sensor on the sign itself that ensures the brightness from the sign meets this standard at all times.

Attached in correspondence from Outfront Media in Schedule 1 is a calculation which demonstrates that this criteria is met at a distance of 41.5 metres perpendicular to a digital sign which is 3.05 metres by 6.1 metres in size, similar to that proposed with these applications. The illustration also demonstrates that light impacts diminish as one moves away from a perpendicular position from the sign. This measurement of angle of brightness is an important factor in considering impact issues when examining the implications for the location of digital signage. The regulation of the luminosity of signs also enhances safety considerations by ensuring that the brightness of the sign itself does not create a distraction for drivers.

4.0 Locational Criteria

In order to meet the intent of the City of Hamilton Sign By-law as outlined in Section 2.3, the By-law includes a number of performance standards for any billboard sign in Section 5.10, including those related to area, height, content, and location. As part of this exercise, regulations in other sign by-laws were canvassed, and investigations were undertaken with respect to how other municipalities deal with the issue of digital billboard signage.

The first conclusion that can be reached is that while there are some common regulatory requirements, each municipality appears to have a different set of criteria based on their own experiences and circumstances. Most by-laws regulate the same sign features, i.e., height, width, and size, as well as locational setbacks from property lines, residential uses, other billboard signs, and in some cases major highways. However, each has its own distinct and different set of guidelines.

It is understood that the City of Hamilton will soon be undertaking a comprehensive review of the Sign By-law. This upcoming review will assess the merits of various regulations found in the Sign By-law, and will undoubtedly investigate best practices in other jurisdictions. The intent of this report is to provide support for the current City initiative and not to undertake a review of the current By-law. However, there are some significant differences between Hamilton regulations and other jurisdictions, which have been identified through this exercise that are appropriate to examine within the context of this review.

4.1 Commercial and Industrial Sites

The City of Hamilton Zoning By-law only permits billboard signs to be located on vacant industrial or commercial properties, and requires them to be removed if the site becomes developed (5.10.2(j) and 5.10.3). An amendment is required to this provision in all cases where new signage is proposed, given the lands are owned by the City of Hamilton and, for the most part, are zoned for Institutional uses.

One of the advantages to this initiative is that these proposed digital sign installations can be used as a test pilot project. Given that the signs are all located on municipal properties, the City retains control over the operation and monitoring of the success and/or impacts of the signs. Depending upon the results of this pilot project, changes to the sign locations initially established, can be modified, if so desired at a later date.

Given the extensive capital investment represented by the installation of each of these signs, it is not appropriate to include a provision that requires the removal of the signs should the property become developed. In this case again, the City has an advantage in that the properties will not be developed for other uses and, subject to proper monitoring and ensuring no adverse impacts, the significant investment that is required for the signage can be made with a greater level of confidence.

4.2 Intersection Setback

There is a standard requirement for digital signs in most municipal sign by-laws of a minimum distance separation from intersections which ranges from 30 metres in Calgary to 100 metres in Ottawa. While there is no specific regulation in the City of Hamilton Sign-By-law, in the consideration of location of the digital signs subject to this application to enhance safety measures, effort was made wherever possible to locate the signs as far as possible from existing intersections.

4.3 Property Line Setback

The City of Hamilton Zoning By-law has the setback requirement of 15 metres from a property line. As noted in Section 2.0 of this report, from a practical perspective, this setback plays a role in traffic safety in that a location closer to the property line brings the sign more into the line of sight of motorists. This is important, not only for the visibility of the sign, but also as a safety measure to minimize distraction. As signage is moved further from the street line for example, motorists must take their eyes off the road for a longer period of time to view the sign. This creates a potential safety hazard that should be avoided wherever possible. An amendment to the 15 metre setback is consistent with the experience of other municipalities which allow for a much reduced setback.

When compared with other municipalities, the 15 metre setback appears to be excessive. Setbacks in other municipalities range from 1.5 to 3.0 metres with 3.0 metres being a reasonably accepted standard. In the case of the subject sites, each sign is set back from the property line at least 3.5 metres. Therefore, every sign location requires an amendment to the current by-law setback standard.

4.4 Setback from Residential

The most complicated setback issue relates to that of providing an appropriate separation from residential uses. From a review of the experiences of other jurisdictions, there is a wide variation in setback requirements for digital signage from 15 metres in Saskatoon to

300 metres in Calgary and Ottawa. The intent of this exercise to review, assess, or provide an alternative to the City of Hamilton requirement. However, at the same time, in order to support changes to the standard requirement of 300 metres for a billboard sign, some examination of the standard in a general context is warranted.

As noted in the earlier discussion regarding luminosity, provided signs can be equipped with a monitoring device to adjust luminosity to correspond to changing ambient light levels, the potential impact on residential uses can be minimized. Further, in evidence provided by Outfront Media, light dissipation increases exponentially with distance. As illustrated in the chart in the correspondence in Schedule 1 for example, there is very little difference in luminosity between distances of 200 metres and 300 metres from a digital sign location.

As noted in Section 3.0 of this report and as demonstrated in the sketch in Schedule 1, visual impact of digital signage diminishes significantly as one moves away from a perpendicular position in front of the sign. In order to account for this diminishing impact, the City of Ottawa developed a light shed analysis tool based on a 140 degree angle of sight from the edge of billboard signs to assess potential impacts on residential. This measure, illustrated in Schedule 2, is consistent with the light dissipation evidence presented in Schedule 1. It is helpful in that it scopes and provides an objective illustration of the potential impact area for residential uses based on reasonable sight lines from each sign.

However, this assessment tool in itself does not measure, or reflect, actual impact. For example, it does not account for the shadow effect of intervening uses in residential neighbourhoods. Potential impact within a view shed area will be affected by intervening structures or features including other residential buildings, topographic variations and/or existing vegetation. As a result, any potential visual impact is limited primarily to the residential uses closest to the sign with any houses beyond this distance protected by the intervening buildings. The model also does not account for variations in topography and the presence of other buildings or structures, including noise walls and berm features or vegetation.

For the purposes of this exercise however, a revised Ottawa model was used as a preliminary assessment tool to examine potential impacts of the proposed signs in various locations. This proved to be a helpful exercise in focussing the area of assessment.

By introducing shields on the signs and properly orienting the faces of signs, potential impacts on residential uses can be minimized even further, thus providing an additional layer of buffering beyond that provided by distance separation. In this case, the sites were examined to identify and assess potential impacts on residential uses, also taking into account intervening structures or features.

4.5 Sign Size

In most cases, amendments are required to the size and width of the proposed signage. The modification of sign size from 18.0 square metres to 18.6 square metres is minor in nature, and in my opinion, can be supported in that it will not be a noticeable change. The increase in minimum width from 4 to 6 metres is more significant. However, it is noted that with the exception of signs on the Linc, all of the new signs being proposed at 10 metres, are 2 metres lower than the maximum height requirement. Therefore, by generally maintaining the sign area as required in the by-law, any potential impact from the increase in width is offset by a concurrent reduction in height.

The locations for the signs visible from the Linc are proposed to be larger given the prominence of these locations on the Linc and the time these signs are visible. A larger size is required because of the distance between the sign and the observer. Given the location and distance from residential units, there will be no impact on existing neighbourhoods from the installation of larger signage on these sites.

4.6 Lincoln Alexander Parkway

There are three new signs proposed adjacent to the Lincoln Alexander Parkway (the "Linc") which will be visible from this roadway. This represents a departure from the current practice which prohibits any billboard signs within 400 metres of major highways in the area, including the Linc (5.1.1(f)).

Areas of existing signage appear at both ends of the Linc, in the west end related to various businesses in the Meadowlands commercial centre, and in the east end with the commercial development at Highland Road and Dartnall. Other signage along the Linc includes the private business sign at Upper Wentworth south of Limeridge Mall and a private business sign near the intersection of Upper Wellington Street.

The proposed new locations represent an opportunity to establish a pilot project to introduce new signage that will take advantage of the economic opportunities provided to the sign company and its customers because of the high volumes of traffic on the Linc. These three new locations are strategic locations for new signage. By pursuing this as a pilot project, the effect and/or impact of the signs (if any) can be assessed before consideration is given as to whether the number of signs should be increased, remain the same, or that the new signs be removed.

There are other sign locations located closer than 400 metres from the Linc. These site specific amendments can be supported given that the sign messaging is not visible from the Linc.

5.0 Assessment of Individual Sign Locations

At the outset of this exercise, a number of new sign locations were proposed to be located in strategic locations on lands owned by the City throughout the municipality. In addition, two existing billboard sign locations are proposed to be changed to digital signs. Each of the existing and proposed sign locations was examined and evaluated within the context of the intent of the Sign By-law in Section 2.3 and the tests for the consideration of variances outlined in Section 6.5 of the by-law.

For each sign location, an amendment will be required to the by-law to permit a digital sign which is currently not permitted anywhere in the City. In addition, since none of the new sites are on lands zoned Industrial or Commercial, an amendment to this provision of the by-law will be required in all circumstances where new signs are proposed (Section 5.10(j)).

Given there are no regulatory limitations for digital signs in the by-law, specific regulations need to be included for each of the sites that will accommodate digital signage, including the following regulations that require that all digital signs:

1. Have a maximum luminosity level of 300 candelas per square metre at night and 6000 candelas per square metre during the day.
2. Be equipped with a monitoring device to ensure that the light generated by each sign does not exceed 0.3 foot candles above ambient light levels.
3. Not operate between the hours of 12 a.m. and 6 a.m.
4. Have a minimum dwell time of 6 seconds.
5. Have a maximum transition time of 1 second.

Since there is no definition of digital sign in the by-law, an amendment to the by-law will be required to introduce a proper definition. Suggested wording for a digital sign is as follows:

"Digital sign shall mean a sign that displays information or images on a digital or electronic screen where the sign copy is fixed for a set period of time."

In addition to these standards which apply to all cases, each individual sign location was assessed against all other provisions of the by-law.

From an initial review, it was determined that many of the sign locations and orientations proposed by the proponent would not meet the applicable criteria and therefore could not be supported. As a result, significant modifications were made to each of the sign locations. In some cases, the location of the sign was modified. In other locations, the orientation of the sign was adjusted to avoid residential areas. For some signs, shielding measures were introduced to minimize impact. In one location, a double-sided sign was modified to become a one-sided sign. In another case, one of the proposed sign locations was abandoned altogether because of concerns with respect to potential impacts.

In the review of alternative locations for some of the proposed signs, consideration had to be given to trade offs between competing interests. For example, movement of signs in some locations to satisfy one criteria, eg. separation from intersections, often resulted in greater impact on residential uses. In some situations, trade offs had to be considered to find an appropriate balance that would allow for an appropriate location of the sign, taking into account all of the relevant criteria identified above.

In my opinion, all the proposed locations satisfy the intent of Section 2.3 of the by-law. They meet the intent of Part 2.3(a) in that, other than locations along the Linc, the proposed signs are of a size generally consistent with that required in the by-law. Other than distance separation from other billboard signs, there is nothing in the by-law to regulate the number of signs that can be located within the City since each of the signs meet this criteria. With the exception of two signs at the Linc near the Golf Links Road interchange and on Upper Wentworth Street, this part of the intent of the by-law with respect to distance separation between signs is met. Justification for the location of each sign is provided in the detailed review of each sign location.

The intent of Section 2.3(b) is achieved in that each sign location was strategically located to take advantage of highly visible locations in high traffic areas. Input has been provided by the sign provider to ensure that the location of each sign is sufficient for their purposes.

The test of compatibility to satisfy Section 2.3(c) is reviewed in detail with respect to each sign location. Compatibility has been assessed with respect to sign height, size, location and orientation.

The visual character of the City has been protected by providing for a limited number of digital signs in strategic locations in diverse settings throughout the City. Aesthetic qualities are maintained through attractive design of new signs as well as limiting luminosity of each sign to be installed. These elements ensure that each application is consistent with the intent of Section 2.3(d). This issue is discussed later in the Report dealing with the four tests found in Section 6.5 of the By-law.

The sign locations achieve the intent of Section 2.3(e) and are consistent with the City's planning, urban design and heritage objectives by complying with all of the requirements of Part 4.0 of the By-law as well as most of the regulations that relate to billboard signs in Section 5.10.

The proposed sign locations in my opinion represent a reasonable balance between promoting the economic interests of the sign company which are an integral part of economic development objectives found within planning policy documents with the need to ensure that the sign in each location can be properly integrated into the context of the neighbourhood within which it is situated. Given that static billboard signs are a recognized and accepted part of the urban environment, the current applications facilitate the establishment of a development form that has proven to fit within the urban fabric of the City.

The major departure is the amendment to permit digital elements on a billboard sign which was not contemplated at the time the Sign By-law was prepared. Through the introduction of site specific provisions in the amendment, effort has been made to ensure that the potential visual impact of digital signage is not significantly different than that of static billboard signs.

The other major change from the By-law regulations is the reduced setback from the property line. This setback has been implemented in a manner which helps achieve the intent of the By-law as expressed in Part 2.3(b) and also protects the public interest identified in Section 2.3(f) of the By-law.

There are no heritage properties affected by the proposed signage.

Appropriate regulations are proposed to ensure that the new sign locations do not create a distraction or safety hazard for either pedestrians or motorists, thus achieving the intent of Section 2.3(f). This is achieved in part through the imposition of regulations which affect luminosity, appropriate setbacks, establishing a minimum dwell time of 6 seconds, and a maximum transition time of 1 second.

The current sign by-law in the City requires a minimum 15 metre setback from property line, with no specific provision for setbacks in intersections. As a result, current billboard signs can be installed within 15 metres of any intersection. Based on the literature review undertaken with respect to this project, it was deemed appropriate to set back signs a greater distance than the currently permitted 15 metres. As a result, all but one of the signs is set back from intersection at least 30 metres, and in most cases 40 metres or more. The only exception to this standard is the southerly facing sign on the east side of Upper Wentworth Street, which is located within 8 metres of the off ramp from the Linc. In that situation, there are no other practical alternatives in the area for the location of that sign.

Safety considerations have been investigated with respect to the sign locations north and south of the Lincoln Alexander Parkway near the Mohawk Road/Golf Links Road interchange. In both of those locations, consideration has been given to weaving movements due to the presence of on ramps and off ramps on the Linc in the area of the two signs. While it would appear from this review that there will not be any safety hazards created by the location of the signs, it is recommended that these two locations be carefully monitored to assess any potential safety impacts arising from the location of the signs. If any problems or concerns arise, signs can be shifted, relocated or removed altogether.

Each of the sign locations has been properly assessed and sign design and functional elements have been carefully designed to minimize any adverse impacts on nearby public and private property, thus meeting the intent of Section 5.3(g). Through this analysis, which is included in Schedule 3 of each of the reports, viewshed areas which potentially cause impact have been restricted to avoid residential areas. This potential impact area has been clearly and objectively illustrated.

Each of the sign locations complies with the general provisions of the By-law found in Section 4.1.

The City of Hamilton Sign By-law contains four tests to be considered by the Director in considering an application for a variance as outlined in Section 1.0 of this Report. While not all provisions apply to all sign locations, these tests were applied to each of the locations. In this case, some elements of tests of Section 6.5 apply universally to all sites.

In some cases, the specific test in Section 6.5(d) regarding potential character impacts, needs to be assessed differently for each sign location.

The following comments regarding the four tests apply to all new sign locations:

"6.5(a) Special circumstances or conditions applying to the land, building, or use referred to in the application."

In all cases, the ownership of land by the municipality is a special circumstance that needs to be recognized in the By-law which currently only permits billboard signs to be located on lands zoned for industrial or commercial uses. This generates the need for an amendment to the provisions of Section 5.10.2(j) of the By-law.

All sites require an amendment to Section 5.10.3 of the By-law which requires removal of the sign from the property when the property ceases to be vacant. This does not apply in part because a number of properties are not vacant. In addition, given the lands are owned by the City, and for the most part zoned Institutional, there are no future development opportunities anticipated on any of these sites beyond the current public use. It also can be supported by the fact that the installation of each sign is only to be permitted after careful consideration of all the matters contained in this report.

It is also noted that this is a pilot project, and will be subject to ongoing monitoring and review by the City. This can result in the change or relocation of any of the signs subject to these applications at any time in the future. Thus, even with the removal of the applicability of Section 5.10.3 of the By-law, this intent is maintained through public ownership and control of each location.

This report examines the special conditions that apply to each of the individual locations and assesses these special condition within the context of any potential conflicts that may arise from the location of these signs.

"6.5(b) Whether the strict application of the provisions of this By-law in the context of the special circumstances applying to the land, building or use would result in practical difficulties or unnecessary and unusual hardship for the applicant, inconsistent with the general intent and purpose of this By-law."

A special circumstance in this case which requires an amendment to the by-law is the prohibition of digital signs in the current By-law. As a result, an amendment is needed to Section 5.1.1(a).

A special second condition is the 15 metre setback from the property line that is not deemed to be appropriate in any of the sign locations for the reasons outlined in the Report. The proposed setbacks of 3.5 metres in every location help to minimize safety concerns by keeping signs with the line of sight and represent a situation that is consistently recognized in other municipal jurisdictions where regulations for digital signage are in place.

In most locations deemed suitable for the success of the proposed signage, it is not possible to locate a sign in an area that is not within 300 metres of a Residential zone. Strict compliance with this requirement would significantly limit the number of appropriate locations in which the signage could be placed.

This amendment can be supported, given the careful attention to minimizing potential impact on surrounding residential uses through regulating of luminosity of the signs, proper orientation of the signs, and the addition in some cases of shields which minimize any potential impact on nearby residential uses, along with spatial separation.

Throughout this exercise, effort has been taken to examine mitigating potential impact on residential uses between 200 and 300 metres from signage. As noted in the Report, there is little difference in luminosity between distances of 200 and 300 metres. In addition, within this area there are often intervening buildings, structures or features which would mitigate or block the direct line of sight from residential uses to the signs. This matter is explored in further detail with respect to a number of these specific sign locations.

"6.5(c) Whether such special circumstances or conditions are pre-existing and not created by the sign, owner or applicant."

There are no pre-existing conditions or circumstances which affect any of the eleven sign locations considered in this report, other than the existing community context which will be reviewed with respect to each sign location.

"6.5(d) Whether the sign that is subject to the variance will alter the essential character of the area in which the sign will be located."

With the introduction of new signage, some change will be expected. Given that the intent of signage is to be visible and convey a changing message, the introduction of this new signage will be noticeable, particularly in the short term as neighbourhood familiarity and acceptance evolves. The change in the character of the area is dependent upon the sign context, and is discussed in more detail with respect to each of the sign locations. There are no locations proposed where the installation of a digital sign will alter the essential character of the neighbourhood in which it is located.

5.1 Meadowlands Ancaster

(a) Rationale for Location

This sign location will take advantage of the high level of activity on Golf Links Road and on Martindale Crescent given the presence of the Meadowlands Power Centre.

(b) Site Context

The proposed sign location is within Meadowlands Power Centre at the north-west corner of Martindale Crescent and Golf Links Road, which is a major arterial through the Power Centre. Lands to the north are occupied by retail uses associated with the Power Centre, including retail, restaurants, personal service uses and office uses. The lands to the south have been developed for residential purposes including townhouse units, and 3 storey apartment buildings.

There is a variety of signage on buildings as well as pylon signs providing identification of uses within the Power Centre which is a consistently active commercial centre.

(c) Site Conditions and Setbacks

The proposed location is within a block of land owned by the City which is currently used as a stormwater facility and a sports field. Because of this function as a storm pond, the site slopes considerably both from Golf Links Road and Martindale Crescent. In addition to this limitation, the sign has been situated to avoid existing landscaping features which currently exist at the corner of Golf Links Road and Martindale Crescent. The sign is to be set back 3.5 metres from Golf Links Road and 30 metres from Martindale Crescent.

(d) Sign Details

The proposed sign is a double faced sign with a height of 10 metres, area of 18.6 metres, and width of 6.1 metres. These features do not comply with standard by-law requirements. Therefore, an amendment is required to accommodate the size and type of sign proposed. This amendment can be supported for the reasons outlined in Section 4.5 of this report.

(e) Visual Assessment

Given the proximity of residential uses on the south side of Golf Links Road, appropriate mitigation measures have been implemented. The installation of a standard double-sided sign in this location could have an impact on surrounding residential uses. As a result, the orientation of the sign has been modified to introduce a "V" shaped configuration which directs the face of the sign further to the north away from residential areas. In addition, shields will be attached to the sign, further reducing the potential visual

intrusion into the residential areas.

As can be shown on the Viewshed drawing in Schedule 3, with the installation of a shield, the viewshed area to the west excludes all residential uses within 300 metres. Similarly, to the east with the proper alignment of the sign and the installation of a shield, potential for impact on all residential uses within 300 metres to the east is mitigated.

In addition, given the existing high level of activity of buildings, activities and signage in the area, both during the day and during evening hours, it is not anticipated that the introduction of the proposed sign location will have unacceptable impacts on the residential community beyond that which is currently accepted. The new sign, therefore, will have less impact than that associated with a standard billboard sign which would not be equipped with shielding mechanism. On this basis, an amendment to the standard setback required of 300 metres from a residential zone can be supported. Given that the abutting residential zone is located in the middle of the road allowance on Golf Links Road, the setback amendment required is measured from the centre of the road to the location of the sign which is 40 metres.

(f) List of Amendments to Regulations

1. Notwithstanding Section 5.10.2(b) which requires a maximum sign area of 18.0 square metres, a maximum sign area of 18.6 square metres shall be permitted.
2. Notwithstanding Section 5.10.2(c) which requires a maximum sign width of 4.0 metres, a maximum sign width of 6.1 metres shall be permitted.
3. Notwithstanding Section 5.10.2(h) which requires a minimum 300 metre setback from any residentially zoned property, a minimum setback of 40 metres shall be permitted.

4. Notwithstanding Section 5.10.2(i), which requires a minimum 15 metre setback from a property line, a minimum 3.5 metre setback shall be permitted.
5. Notwithstanding Section 5.10.2(j), a digital billboard sign shall be permitted on land which is not zoned Commercial or Industrial.

(g) Tests of Section 6.5(d)

Given the high level of commercial activity and the proximity of commercial uses, which include both signage and lighting elements, the introduction of a digital sign in this location will not dramatically change the character of the neighbourhood. It will still remain an active Power Centre with a number of commercial uses, each with their own signage, as well as directory type of signage for the Power Centre itself.

5.2 Alexander Parkway and Golf Links (North)

(a) Rationale for Location

This location is desired by the sign company to take advantage of opportunities provided by the high level of westbound traffic on the Linc.

(b) Site Context

The sign is in the northeast quadrant of the intersection of the Linc with Golf Links Road and Mohawk Road. Residential uses on the north side of the Linc include an existing retirement home as well as single family residences that front onto Upper Horning Road. Both uses are separated by a Hydro right-of-way. These residential units are more than 300 metres from the sign and are separated by the Linc and buffered by changes in topography. Land uses to the south and west include a range of retail, office and restaurant uses associated with the Meadowlands Power Centre.

(c) Site Conditions and Setbacks

This sign location is at an elevation lower than that of the eastern portion of the Linc. It will be located 3.5 metres from the curb of the Linc and approximately 125 metres from the curb for the off-ramp to Mohawk Road.

This digital sign is approximately 180 metres from a single faced digital sign proposed to be located on the south side of the Linc which faces east. The provision in the by-law which permits billboard signs from being located no closer than 300 metres from one another is to regulate the distance between signs which are visible from a particular direction. Given that these are both proposed to be single faced signs viewed from opposite directions, the location of these two signs within 300 metres does not offend the intent of the by-law and hence can be supported.

(d) Sign Details

The proposed sign is a single faced sign with a height of 12 metres, area of 32.52 metres, and width of 10.67 metres. These features do not comply with standard by-law requirements. Therefore, an amendment is required to accommodate the size and type of sign proposed. This amendment can be supported for the reasons outlined in Section 4.5 of this report.

As outlined in Section 4.5, the size of sign in this location can be justified given the large sight distance of views of the sign from the Linc, speed of traffic on the Linc, the lack of impact on surrounding residential uses and the prominence of the sign location.

(e) Visual Assessment

The sign will be visible by those travelling westbound on the Linc as they approach the Mohawk Road/Golf Links Road exit. The location of the sign has the potential of creating a distraction for those exiting to the Mohawk Road/Golf Links Road off ramp. However, given the significant distance at which the sign will be visible, it would appear there will be sufficient time for motorists to make a decision with respect to exiting the Linc as the sign comes in to view.

Given the potential for distraction at this location, it is recommended that this site be monitored to examine the extent to which, if any, the sign location creates a distraction which could contribute to safety concerns in this area. If a problem is identified, the sign can be reoriented, relocated, or removed altogether.

(f) List of Amendments to Regulations

1. Notwithstanding Section 5.10.2(b) which requires a maximum sign area of 18.0 square metres, a maximum sign area of 32.52 square metres shall be permitted.
2. Notwithstanding Section 5.10.2(c) which requires a maximum sign width of 4.0 metres, a maximum sign width of 10.67 metres shall be permitted.
3. Notwithstanding Section 5.1.1(f) which requires a 400 metre setback from the Lincoln Alexander Parkway, a setback of 3.5 metres shall be permitted.
4. Notwithstanding Section 5.10.2(g) which requires a 300 metre setback from another billboard sign, a digital billboard shall be permitted within 180 metres.

5. Notwithstanding Section 5.10.2(h) which requires a minimum 300 metre setback from any residentially zoned property, a setback of 140 metres shall be permitted.
6. Notwithstanding Section 5.10.2(i), which requires a 15 metre setback from a property line, a 3.5 metre setback shall be permitted.
7. Notwithstanding Section 5.10.2(j), a digital billboard sign shall be permitted on land which is not zoned Commercial or Industrial.

(g) Tests of Section 6.5(d)

Given the lack of signage along the Lincoln Alexander Parkway, the introduction of a digital billboard sign in this location will introduce a visual change in terms of views from westbound traffic on this portion of the Linc. However, this change introduces a commercial type of use which is consistent with the commercial character of the area further to the west presented by the Meadowlands Power Centre on the south side of the Lincoln Alexander Parkway. The degree of change brought about by the introduction of a single-sided sign in this location however, will not dramatically alter the essential character of the Lincoln Alexander Parkway and it will still remain a relatively open, well landscaped, suburban freeway after the sign has been installed.

Given this signage program is a pilot project, the introduction of signage on the Linc represents an opportunity to introduce a test case to examine potential impacts both in terms of visual and functional considerations. From a review and assessment of this test case, consideration can be made to maintaining this level of signage activity on the Linc, removing the signs altogether, or considering the incremental addition of new signage in other strategic locations along the Linc.

5.3 Alexander Parkway and Golf Links (South)

(a) Rationale for Location

This location is desired by the sign company to take advantage of opportunities provided by the high level of traffic eastbound on the Linc.

(b) Site Context

The sign is in the southeast quadrant of the intersection of the Linc with Golf Links Road and Mohawk Road. The existing residential uses west of the location, both north and south of the Lincoln Alexander Parkway, will not be affected by the signage since it is a single-sided sign which faces in a westerly direction.

(c) Site Conditions and Setbacks

The sign is located at the end of Old Golf Links Road 3.5 metres from the southerly limit of the Lincoln Alexander Parkway and 5 metres from the end of the cul de sac.

This digital sign is approximately 180 metres from a single faced digital sign proposed to be located on the south side of the Linc which faces west. The provision in the by-law that permits billboard signs from being located no closer than 300 metres from one another is to regulate the distance between signs which are visible from a particular direction. This in part limits the proliferation of signage along a particular roadway. Given that these are both single faced signs viewed from opposite directions, the location of these two signs within 300 metres does not offend the intent of the by-law and hence can be supported.

(d) Sign Details

The proposed sign is a single faced sign with a height of 12 metres, area of 32.52 metres, and width of 10.67 metres. These features do not comply with standard by-law requirements. Therefore, an amendment is required to accommodate the size and type of sign proposed. This amendment can be supported for the reasons outlined in Section 4.5 of this report.

As outlined in Section 4.5, the size of sign in this location can be justified given the large sight distance of views of the sign from the Linc, speed of traffic on the Linc, the lack of impact on surrounding residential uses and the prominence of the sign location.

(e) Visual Assessment

There are no residential uses in the vicinity of the sign which would be affected by the presence of the digital sign.

This portion of the Lincoln Alexander Parkway accommodates three traffic weaving movement areas for eastbound motorists. The first area of significant weaving involves the merging of eastbound traffic onto the Linc from both eastbound and westbound off ramps of the 403 near the off ramp to Mohawk Road and Golf Links Road. This weaving is west of the sign location. Given the sign will not be visible from this location, there will be no impacts generated by the sign to those motorists involved in changing lanes through this area.

The second area of weaving occurs from the westbound exit ramp on Mohawk Road to the eastbound Linc. This ramp, which passes under Mohawk Road/Golf Links Road overpass, allows traffic to merge into the Linc. This merging activity takes place west of the sign location. However, the merging activity takes place before the sign is visible. As a result, it is not anticipated that the sign in this location will have an impact on that movement.

The third weaving or merging movement is from eastbound Golf Links Road to the eastbound Linc. The sign will be visible from the on ramp for traffic heading to the eastbound Linc. However, the merging activity takes place at a location adjacent to the sign itself. With the merging activity occurring east of the sign, it is not anticipated the views of sign location will have an adverse impact on traffic safety.

As suggested in comments with respect to the previous sign on the north side of the Linc, it is recommended that this site be monitored to examine the extent to which, if any, the sign location creates a distraction which could contribute to safety concerns in this area. If a problem is identified, the sign can be reoriented, relocated, or removed altogether.

(f) List of Amendments to Regulations

1. Notwithstanding Section 5.10.2(b) which requires a maximum sign area of 18.0 square metres, a maximum sign area of 32.52 square metres shall be permitted.
2. Notwithstanding Section 5.10.2(c) which requires a maximum sign width of 4.0 metres, a maximum sign width of 10.67 metres shall be permitted.
3. Notwithstanding Section 5.1.1(f) which requires a 400 metre setback from the Lincoln Alexander Parkway, a setback of 3.5 metres shall be permitted.
4. Notwithstanding Section 5.10.2(g) which requires a 300 metre setback from another billboard sign, a digital billboard shall be permitted within 180 metres.
5. Notwithstanding Section 5.10.2(h) which requires a minimum 300 metre setback from any residentially zoned property, a setback of 3.5 metres shall be provided.

6. Notwithstanding Section 5.10.2(i), which requires a 15 metre setback from a property line, a 3.5 metre setback is provided.
7. Notwithstanding Section 5.10.2(j), a digital billboard sign may be located on land which is not zoned Commercial or Industrial.

(g) Tests of Section 6.5(d)

Given the lack of signage along the Lincoln Alexander Parkway, the introduction of a digital billboard sign in this location will introduce a visual change in terms of views for eastbound traffic on this portion of the Linc. However, this change introduces a commercial use which is consistent with the commercial character of the area further to the west presented by the Meadowlands Power Centre on the south side of the Lincoln Alexander Parkway. The degree of change brought about by the introduction of a single-sided sign in this location however, will not dramatically alter the essential character of the Lincoln Alexander Parkway and it will still remain a relatively open, well landscaped, suburban freeway after the sign has been installed.

Given this signage program is a pilot project, the introduction of signage on the Linc represents an opportunity to introduce a test case to examine potential impacts both in terms of visual and functional considerations. From a review and assessment of this test case, consideration can be made to maintaining this level of signage activity on the Linc, removing the signs altogether, or considering the incremental addition of new signage in other strategic locations along the Linc.

5.4 Mountain Transit Centre

(a) Rationale for Location

This sign location is desirable because of the significant amount of traffic along Upper James Street. The significance of this roadway linkage and traffic movements along this portion of Upper James Street will increase over time as the Airport Business Park evolves.

(b) Site Context

The location is currently a semi-rural area with scattered residential development on large lots both north and south of the property. There is also an existing residential home immediately east of the property on the east side of Highway 6. There is also a school and existing commercial operation on the east and west side of Upper James Street respectively, north of the subject property. The site is currently used as a major transit centre for the storage and repair of transit vehicles for the City of Hamilton.

The lands on the east side of Upper James Street are within the Rural Area of the City of Hamilton which does not contemplate any further development. Lands on the west side of Upper James Street are designated as Airport Prestige Business and zoned E-1(104). It is anticipated that these lands will ultimately be developed for employment and/or commercial uses.

(c) Site Conditions and Setbacks

The site is open with good sight lines in both directions on Upper James Street. The sign location has been set in an area between existing parking area and an existing drainage swale. The sign will be set back 3.5 metres from Upper James Street as shown in Schedule 4.

(d) Sign Details

The proposed sign is a "V" shaped sign with a height of 10 metres, area of 18.6 metres, and width of 6.1 metres. These features do not comply with standard by-law requirements. Therefore, an amendment is required to accommodate the size and type of sign proposed. This amendment can be supported for the reasons outlined in Section 4.5 of this report.

(e) Visual Assessment

As can be seen in Schedule 3, there are no residential uses within 200 metres of the proposed sign location. There are a few dwellings located approximately 250-300 metres away on lands which are designated for employment and commercial purposes. It is therefore anticipated these residential uses will likely disappear over time. In the meantime, given the significant distance separation and intervening vegetation on each of the properties, the location of the sign will not have an adverse impact on the existing residential uses.

(f) List of Amendments to Regulations

1. Notwithstanding Section 5.10.2(b) which requires a maximum sign area of 18.0 square metres, a maximum sign area of 18.6 square metres shall be permitted.
2. Notwithstanding Section 5.10.2(c) which requires a maximum sign width of 4.0 metres, a maximum sign width of 6.1 metres shall be permitted.
3. Notwithstanding Section 5.10.2(h) which requires a minimum 300 metre setback from any residentially zoned property, a setback of 30 metres shall be provided.

4. Notwithstanding Section 5.10.2(i), which requires a 15 metre setback from a property line, a 3.5 metre setback is provided.
5. Notwithstanding Section 5.10.2(j), a digital billboard sign may be located on land which is not zoned Commercial or Industrial.

(g) Tests of Section 6.5(d)

This portion of Upper James Street contains a sporadic but regular presence of a variety of different commercial and employment uses, many with their own signage. The Transit Centre site itself includes directional signage. In my opinion, the introduction of the proposed sign in this location will not dramatically affect or change the essential character of Upper James Street.

Any potential impact of this proposed signage on the change of character must be considered within the context of future expectations for this portion of Upper James Street which will represent a major gateway arterial to the development of the Airport Business Park which includes 555 hectares of new employment uses. As the Business Parkway develops, it is expected that new economic opportunities will evolve along Upper James Street, resulting in a much more active and intense form of commercial development than that which currently exists.

5.5 Stone Church Road and Dartnall

(a) Rationale for Location

The sign has been located on an active arterial road which connects the East Mountain Employment Area with commercial lands to the east. The intersection also provides a key link between the Lincoln Alexander Expressway and commercial power centre and employment lands to the south.

(b) Site Context

The sign location is adjacent to the East Mountain Business Park which is fully developed. The sign location is on a property owned by the City of Hamilton that previously functioned as a landfill site known as the Upper Ottawa Street Landfill. Lands to the east are zoned and designated for Open Space purposes. Land uses further west include hotel conference centre and a variety of commercial and recreational uses.

(c) Site Conditions and Setbacks

The sign will be set back 3.5 metres from Stone Church Road and 44 metres from Dartnall Road. The sign will also be located in excess of 300 metres from an existing billboard sign to the west on the north side of Stone Church Road close to Nebo Road.

(d) Sign Details

The proposed sign is a "V" shaped sign with a height of 10 metres, area of 18.6 metres, and width of 6.1 metres. These features do not comply with standard by-law requirements. Therefore, an amendment is required to accommodate the size and type of sign proposed. This amendment can be supported for the reasons outlined in Section 4.5 of this report.

(e) Visual Assessment

There are no lands in the vicinity which are zoned, designated or used for residential purposes.

(f) List of Amendments to Regulations

1. Notwithstanding Section 5.10.2(b) which requires a maximum sign area of 18.0 square metres, a maximum sign area of 18.6 square metres shall be permitted.

2. Notwithstanding Section 5.10.2(c) which requires a maximum sign width of 4.0 metres, a maximum sign width of 6.1 metres shall be permitted.
3. Notwithstanding Section 5.1.1(f) which requires a 400 metre setback from the Lincoln Alexander Parkway, a setback of 300 metres shall be permitted.
4. Notwithstanding Section 5.10.2(i), which requires a 15 metre setback from a property line, a 3.5 metre setback is provided.
5. Notwithstanding Section 5.10.2(j), a digital billboard sign may be located on land which is not zoned Commercial or Industrial.

(g) Tests of Section 6.5(d)

Notwithstanding lack of development on the north side of Stone Church Road, this sign location is adjacent to an active industrial park development, and is set against the backdrop of a variety of industrial and commercial buildings, many of which have their own signage. It is my opinion that the introduction of a new double-sided sign in this location will not alter the existing employment character of the area.

5.6 Upper Wentworth (facing north)

(a) Rationale for Location

This sign will take advantage of the high volume of traffic on Upper Wentworth Street generated by the presence of Limeridge Mall which is a regional shopping centre and the interchange at Upper Wentworth Street and the Linc.

(b) Site Context

Located in the northwest quadrant of the interchange, the sign is in a area dominated by commercial uses along Upper Wentworth Street. Residential

uses are found both west and north of the property in the form of apartment buildings, townhouse units and single family dwellings.

(c) Site Conditions and Setbacks

The sign will be located 3.5 metres from Upper Wentworth Street in a location which will be elevated from Upper Wentworth Street, thus providing a clear sight line for traffic travelling south along Upper Wentworth Street from a distance of at least 300 metres.

This digital sign is approximately 40 metres from a single faced digital sign proposed to be located on the north side of the Linc on the east side of Upper Wentworth Street, which faces south. The provision in the by-law that permits billboard signs from being located no closer than 300 metres from one another is to regulate the distance between signs which are visible from a particular direction. Given that these are both single faced signs viewed from opposite directions, the location of these two signs within 300 metres does not offend the intent of the by-law and hence can be supported.

(d) Sign Details

The proposed sign is a single faced sign with a height of 10 metres, area of 18.6 metres, and width of 6.1 metres. These features do not comply with standard by-law requirements. Therefore, an amendment is required to accommodate the size and type of sign proposed. This amendment can be supported for the reasons outlined in Section 4.5 of this report.

(e) Visual Assessment

As shown in Schedule 3, the orientation of the sign has been set to avoid all residential areas to the west and north. As a result, there will be no impact on any of the surrounding residential uses. An amendment will, however, be required due to the proximity of the sign to residential uses and lands zoned residential to the west.

(f) List of Amendments to Regulations

1. Notwithstanding Section 5.1.1(f) which requires a 400 metre setback from the Lincoln Alexander Parkway, a setback of 60 metres shall be permitted.
2. Notwithstanding Section 5.10.2(b) which requires a maximum sign area of 18.0 square metres, a maximum sign area of 18.6 square metres shall be permitted.
3. Notwithstanding Section 5.10.2(c) which requires a maximum sign width of 4.0 metres, a maximum sign width of 6.1 metres shall be permitted.
4. Notwithstanding Section 5.10.2(g) which requires a 300 metre setback from another billboard sign, a digital billboard shall be permitted within 40 metres.
5. Notwithstanding Section 5.10.2(h) which requires a minimum 300 metre setback from any residentially zoned property, a setback of 40 metres shall be provided.
6. Notwithstanding Section 5.10.2(i), which requires a 15 metre setback from a property line, a 3.5 metre setback is provided.
7. Notwithstanding Section 5.10.2(j), a digital billboard sign may be located on land which is not zoned Commercial or Industrial.

(g) Tests of Section 6.5(d)

This sign location is compatible and consistent with the high level of economic activity in terms of commercial and retail uses found at Limeridge Mall and north along both sides of Upper Wentworth Street to Mohawk Road.

The sign will be visible for a significant distance north of the sign location, thus providing southbound drivers on Upper Wentworth Street sufficient opportunity to view the sign and make the choices needed with respect to the possible exiting of Upper Wentworth Street to the westbound Lincoln Alexander Parkway. Given that the sign is located within the area of an interchange and has the potential to create distractions for drivers, it is recommended the site be monitored to determine whether in fact the site does create a distraction for drivers, and thus lead to concerns about traffic safety. If concerns or issues are identified, the sign can be relocated or removed.

In my opinion, a sign in this location would not adversely change the character of the area, but would complement existing signage found on individual buildings for a number of the commercial uses, and signage associated with Limeridge Mall and other commercial uses.

5.7 Upper Wentworth (facing south)

(a) Rationale for Location

This sign will take advantage of the high volume of traffic on Upper Wentworth Street generated by the presence of Limeridge Mall which is a regional shopping centre and the interchange at Upper Wentworth Street and the Linc.

(b) Site Context

The sign is located in the northeast quadrant of the intersection of Upper Wentworth Street and the Linc near the intersection of Stone Church Road and Upper Wentworth Street. This single-sided sign will only be visible for motorists travelling north on Upper Wentworth Street.

(c) Site Conditions and Setbacks

The sign is located 3.5 metres from Upper Wentworth Street on a landscaped island between the westbound on-ramp from Upper Wentworth Street to the Lincoln Alexander Parkway and from the westbound off-ramp from the Lincoln Alexander Parkway to Upper Wentworth Street. The sign is located at a lower elevation than the Upper Wentworth Street overpass. Only a portion of the sign would be visible at a distance of 300 metres to the south at the current signalized intersection of Upper Wentworth Street and the eastbound off-ramp from the Lincoln Alexander Parkway.

This digital sign is approximately 40 metres from a single faced digital sign proposed to be located on the north side of the Linc on the west side of Upper Wentworth Street which faces south. The provision in the by-law that permits billboard signs from being located no closer than 300 metres from one another is to regulate the distance between signs which are visible from a particular direction. Given that these are both single faced signs viewed from opposite directions, the location of these two signs within 300 metres does not offend the intent of the by-law and hence can be supported.

(d) Sign Details

The proposed sign is a single-faced sign with a height of 10 metres, area of 18.6 metres, and width of 6.1 metres. These features do not comply with standard by-law requirements. Therefore, an amendment is required to accommodate the size and type of sign proposed. This amendment can be supported for the reasons outlined in Section 4.5 of this report.

(e) Visual Assessment

This sign is over 300 metres away from existing residential uses on the south side of the Linc. While within 40 metres of residentially zoned land on the

west side of Upper Wentworth Street, because of the orientation of the sign face, it will not be within the viewshed area of any of the residential uses in the northwest quadrant of Upper Wentworth Street and the Linc.

(f) List of Amendments to Regulations

1. Notwithstanding Section 5.1.1(f) which requires a 400 metre setback from the Lincoln Alexander Parkway, a setback of 60 metres shall be permitted.
2. Notwithstanding Section 5.10.2(b) which requires a maximum sign area of 18.0 square metres, a maximum sign area of 18.6 square metres shall be permitted.
3. Notwithstanding Section 5.10.2(c) which requires a maximum sign width of 4.0 metres, a maximum sign width of 6.1 metres shall be permitted.
4. Notwithstanding Section 5.10.2(g) which requires a 300 metre setback from another billboard sign, a digital billboard shall be permitted within 40 metres.
5. Notwithstanding Section 5.10.2(h) which requires a minimum 300 metre setback from any residentially zoned property, a setback of 40 metres shall be provided.
6. Notwithstanding Section 5.10.2(i), which requires a 15 metre setback from a property line, a 3.5 metre setback is provided.
7. Notwithstanding Section 5.10.2(j), a digital billboard sign may be located on land which is not zoned Commercial or Industrial.

(g) Tests of Section 6.5(d)

This sign location is compatible and consistent with the high level of economic activity in terms of commercial and retail uses found at Limeridge Mall and north along both sides of Upper Wentworth Street to Mohawk Road. As the sign becomes visible for northbound traffic on Upper Wentworth Street at a distance of approximately 150-200 metres, motorists and pedestrians also have within their viewshed a variety of other business signs related to commercial development along the west side of Upper Wentworth Street, and therefore a sign in this location would be consistent and compatible with this commercial environment.

From a traffic safety perspective, it is noted that the right lane for the westbound off-ramp to the Lincoln Alexander Parkway extends a distance over 200 metres from the sign and begins in a location where the sign is not visible. It is not anticipated that the sign location would create any safety concerns with respect to its proximity to the off-ramp as northbound traffic heading for the west off-ramp would be in the exit lane prior to the sign being visible.

This is the only sign location within 30 metres of an intersection, which in this case is the off ramp from the westbound Linc to Upper Wentworth Street. Given there are no other appropriate locations in the area that would allow for a 30 metre setback from intersection, this location is deemed to be the most suitable for this area. Given the proximity of the sign to this intersection, it is recommended that a monitoring program be undertaken to assess the extent to which, if any, the sign may contribute to traffic safety concerns. If concerns or issues are identified, this sign could be relocated or removed.

In my opinion, a sign in this location would not adversely change the character of the area, but would complement existing signage found on individual buildings for a number of the commercial uses, and signage associated with Limeridge Mall.

5.8 14 Mud Street West

(a) Rationale for Location

Signage in this location will be visible from both east and westbound traffic at Mud Street in the vicinity of Upper Centennial Parkway. Signage will also be visible from traffic travelling northbound on Upper Centennial Parkway south of Mud Street.

(b) Site Context

Lands in the northwest corner of the intersection were previously used as a landfill site and are designated primarily as Open Space in the City of Hamilton Official Plan. In addition to the Open Space designation, frontage of these lands along the north side of Mud Street between Upper Centennial Parkway and First Road West is designated as Arterial Commercial. Lands in both the northeast and southeast quadrants are currently in the Rural Area in the Hamilton Official Plan.

Lands in the southwest quadrant are currently used and being developed for a range of residential uses including single family dwellings and townhouse units.

Commercial uses located at the intersection of Mud Street and Upper Centennial Parkway include an existing gas station at the southwest corner as well as a restaurant on the southeast corner.

(c) Site Conditions and Setbacks

The sign is located on a flat area on the side of the rehabilitated quarry lands. It is set back 3.5 metres from Mud Street West and 100 metres from Upper Centennial Parkway.

(d) Sign Details

The proposed "V" shaped sign has a height of 10 metres, area of 18.6 metres, and width of 6.1 metres. These features do not comply with standard by-law requirements. Therefore, an amendment is required to accommodate the size and type of sign proposed. This amendment can be supported for the reasons outlined in Section 4.5 of this report.

(e) Visual Assessment

The sign is located 100 metres from Upper Centennial Parkway to minimize impacts associated with proximity to an intersection. The orientation of the sign has been adjusted and shields are proposed to ensure that all the residential uses in the southwest quadrant are outside of the viewshed area of the sign.

(f) List of Amendments to Regulations

1. Notwithstanding Section 5.10.2(b) which requires a maximum sign area of 18.0 square metres, a maximum sign area of 18.6 square metres shall be permitted.
2. Notwithstanding Section 5.10.2(c) which requires a maximum sign width of 4.0 metres, a maximum sign width of 6.1 metres shall be permitted.
3. Notwithstanding Section 5.10.2(h) which requires a minimum 300 metre setback from any residentially zoned property, a setback of 40 metres shall be provided.
4. Notwithstanding Section 5.10.2(i), which requires a 15 metre setback from a property line, a 3.5 metre setback is provided.

5. Notwithstanding Section 5.10.2(j), a digital billboard sign may be located on land which is not zoned Commercial or Industrial.

(g) Tests of Section 6.5(d)

The installation of a digital sign in this location will constitute a noticeable change in this quadrant of the intersection of Mud Street and Upper Centennial Parkway. However, the location is consistent with current commercial signage in the area along Upper Centennial Parkway, including commercial uses at the intersection.

Given the Commercial designations in the Official Plan, it is anticipated that future commercial activity will emerge both along the west side of Upper Centennial Parkway and to the north side of Mud Street, thus having a significant impact on generating a change to the neighbourhood character.

As this immediate area changes and evolves together with the mixed use residential neighbourhood to the southwest, any change introduced by the construction of a new digital sign in this location will be overshadowed by the natural evolution of new growth expected to continue within this neighbourhood.

5.9 Valley Park Recreation Centre (Paramount and Mud)

(a) Rationale for Location

This sign location will take advantage of the high volumes of traffic both east and westbound along Mud Street West.

(b) Site Context

The site is within a Mixed Use Area on the eastern mountain of the City of Hamilton. A commercial plaza is located in the northeast quadrant. The

northwest quadrant includes a church with the rear yards of residential units located further to the northwest at a distance of approximately 280 metres. The residential community to the southwest includes a variety of single family dwellings with rear yards facing Mud Street and Paramount Drive.

The southeast quadrant is occupied by a community park and recreation facility - Valley Park Recreation Centre.

(c) Site Conditions and Setbacks

The site is open and clear. The sign will be set back 3.5 metres from Mud Street West.

(d) Sign Details

The proposed sign is a double faced sign with a height of 10 metres, area of 18.6 metres, and width of 6.1 metres. These features do not comply with standard by-law requirements. Therefore, an amendment is required to accommodate the size and type of sign proposed. This amendment can be supported for the reasons outlined in Section 4.5 of this report.

(e) Visual Assessment

The main area of concern with respect to location of this sign was a residential community in the southwest quadrant of Mud Street and Paramount Drive. Through proper orientation of the sign, as shown in Schedule 3, the entire residential community is outside the viewshed area. The homes on the northwest quadrant are located approximately 280 metres beyond the sign. Any potential visual impact of the sign is buffered by the intervening church use as well as existing vegetation along the rear lot lines.

(f) List of Amendments to Regulations

1. Notwithstanding Section 5.10.2(b) which requires a maximum sign area of 18.0 square metres, a maximum sign area of 18.6 square metres shall be permitted.
2. Notwithstanding Section 5.10.2(c) which requires a maximum sign width of 4.0 metres, a maximum sign width of 6.1 metres shall be permitted.
3. Notwithstanding Section 5.10.2(h) which requires a minimum 300 metre setback from any residentially zoned property, a setback of 50 metres shall be provided.
4. Notwithstanding Section 5.10.2(i), which requires a 15 metre setback from a property line, a 3.5 metre setback is provided.
5. Notwithstanding Section 5.10.2(j), a digital billboard sign may be located on land which is not zoned Commercial or Industrial.

(g) Tests of Section 6.5(d)

This portion of the neighbourhood includes a significant retail component in the northeast quadrant of Paramount Drive and Mud Street West. A sign in this location will be consistent with the commercial activity and signage found on the north side of Mud Street. Therefore, the introduction of this sign will not alter the commercial character of this part of the larger mixed use neighbourhood.

The presence of an older sign, which will be removed upon the construction of the new sign, will further minimize any potential for the new sign to alter the character of the area.

5.10 1605-1645 Rymal Road East (Pritchard)

(a) Rationale for Location

This sign location will take advantage of the high volumes of traffic both east and westbound on Rymal Road East.

(b) Site Context

The sign is located within an area of transition with new employment and commercial uses being proposed on lands north and south of Rymal Road East, west of Trinity Church Road. The sign location is within the West Mountain Business Park in the area where lands are designated as Business Park in the Urban Hamilton Official Plan with properties along both sides of Rymal Road designated as Arterial Commercial. The City is in the process of constructing a future Trinity Church Road arterial connection to the north which would ultimately provide access through Employment lands to the commercial area to the north and eventually to the Linc and Red Hill Expressway.

Lands to the east of Trinity Church Road are governed by policies in the Trinity West Secondary Plan, north of Rymal Road East and the Rymal Road Secondary Plan for lands south of Rymal Road. This Secondary Plan places a Local Commercial designation on properties at the southwest corner of Trinity Church Road and Rymal Road. Lands on the north side of Rymal Road east of the new Trinity Church Arterial Corridor are designated as Mixed Use - Medium Density.

Surrounding land uses include a number of scattered residential uses along Rymal Road. One of these former residential uses has been converted to an office use consistent with the land use designation in the Urban Hamilton Official Plan of Arterial Commercial for lands south of Rymal Road East, between Pritchard Road and Trinity Church Road.

The two residential dwellings to the east on the south side of Rymal Road, which were previously used for residential purposes, have been purchased by the City and will be demolished to accommodate the future extension of the Trinity Church Road arterial connection south of Rymal Road.

Given the current Official Plan designation, it is anticipated that the existing dwelling at the northwest corner of Rymal Road and Pritchard Road will be developed and used for arterial commercial uses.

Further west of Pritchard Road a variety of commercial uses are located both north and south on Rymal Road. There is an existing church on the south side of Rymal Road, immediately south of the proposed sign location. A high school facility is located to the east on the south side of Rymal Road east of Trinity Church Road.

(c) Site Conditions and Setbacks

The sign location is in an open area on the north side of Rymal Road between Pritchard Road and the new roadway extension to the north. It will be set back 3.5 metres from Rymal Road East and 35 metres from the new Trinity Church arterial road connection.

(d) Sign Details

The proposed sign is a "V" shaped sign with a height of 10 metres, area of 18.6 metres, and width of 6.1 metres. These features do not comply with standard by-law requirements. Therefore, an amendment is required to accommodate the size and type of sign proposed. This amendment can be supported for the reasons outlined in Section 4.5 of this report.

(e) Visual Assessment

The residential dwelling at the northwest corner of Pritchard Road and Rymal Road is approximately 150 metres from the proposed sign location, and is buffered by Hydro infrastructure and vegetation located at the northeast corner of Rymal Road and Pritchard Road. Given this condition, and the expectation that this land will be redeveloped for industrial/commercial uses at some point in the future, it is my opinion that this sign location meets the intent of the By-law with respect to visual impact and compatibility.

There is an existing residential dwelling on the north side of Rymal Road approximately 200 metres east of the proposed sign. That dwelling unit is currently buffered by existing vegetation and would not be affected by the proposed sign location. It is anticipated that these lands will ultimately be redeveloped for mixed use purposes that could include a residential component. As the area becomes more developed, the visual presence of the sign will be diminished as new commercial and employment uses with associated signage of their own are established, including the possibility of an arterial commercial use being constructed between the sign location and the mixed use lands on the east side of proposed Trinity Church arterial corridor.

If, at the time of redevelopment of the mixed use medium density site at the north east corner of the Trinity Church Road arterial and Rymal Road, it is determined that additional buffering measures are required, they can be implemented on the property at that time.

(f) List of Amendments to Regulations

1. Notwithstanding Section 5.10.2(b) which requires a maximum sign area of 18.0 square metres, a maximum sign area of 18.6 square metres shall be permitted.

2. Notwithstanding Section 5.10.2(c) which requires a maximum sign width of 4.0 metres, a maximum sign width of 6.1 metres shall be permitted.
3. Notwithstanding Section 5.10.2(h) which requires a minimum 300 metre setback from any residentially zoned property, a setback of 20 metres shall be provided.
4. Notwithstanding Section 5.10.2(i), which requires a 15 metre setback from a property line, a 3.5 metre setback is provided.
5. Notwithstanding Section 5.10.2(j), a digital billboard sign may be located on land which is not zoned Commercial or Industrial.

(g) Tests of Section 6.5(d)

Development along Rymal Road to the west consists of a range of commercial and employment uses, many of which have their own signage. This particular portion of Rymal Road is an area of transition where a number of existing uses, including individual residential houses, are expected to be replaced by commercial uses in accordance with the Arterial Commercial designation in the City of Hamilton Official Plan.

As this area evolves into more of a commercial arterial area, and develops with increasing amounts of commercial uses and associated signage, the sign in this location will remain compatible with the neighbourhood. As a result, it is my opinion that the installation of a digital sign in this location will not fundamentally alter the character of the area which is experiencing ongoing change and redevelopment.

5.11 Upper Red Hill Valley Parkway Extension

(a) Rationale for Location

The site will take advantage of expected high traffic volumes on the Upper Red Hill Valley Parkway Extension which will provide an important arterial road connection between Rymal Road and the Red Hill Valley Parkway and the Lincoln Alexander Parkway. The single sided sign on the east side of the extension road will be visible for those travelling northbound on the extension from Rymal Road and Highland Road West to Stone Church Road, and ultimately to the Linc and Red Hill Creek Expressway.

(b) Site Context

The site is located within an area that includes commercial and industrial elements. Commercial development is expected to continue to be generated on the south side of Stone Church Road East, east of the Upper Red Hill Valley Parkway extension as an expansion of the main commercial centre currently in place at the north east corner of the Upper Red Hill Valley Parkway extension and Stone Church Road East. A mix of industrial uses is expected to develop south of Stone Church Road East on the west side of the Red Hill Valley Parkway extension as the new roadway construction opens up new employment opportunities. Lands on the east side of the Red Hill Valley Parkway extension and south of Highland Road are designated as neighbourhoods in the Official Plan and are located approximately 200 metres south of the proposed sign location.

(c) Site Conditions and Setbacks

The site is currently vacant. However, a significant amount of commercial and industrial development has occurred to the north along Stone Church Road.

(d) Sign Details

Set back 3.5 metres from the property line, this single sided sign which faces south will be a height of 10 metres and an area of 18.6 metres, with a width of 6.1 metres. Given that the provisions do not comply with standard by-law requirements, an amendment is required to accommodate the size and type of sign. This amendment can be supported for the reasons outlined in Section 4.5 of this report.

(e) Visual Assessment

There are no existing surrounding land uses in the area which could be impacted by the location of this sign. As the roadway extension opens up to the south, it is expected that lands on the east side of the new roadway south of Highland Road will be developed for some form of residential use. However, given the distance and orientation of the sign from the future residential community, it is not anticipated there will be any visual impacts created by the sign at the time residential development occurs. As noted, any future residential development in this area will be buffered by intervening commercial uses which are anticipated at the north east corner of Highland Road and the Red Hill Valley Parkway extension.

(f) List of Amendments to Regulations

1. Notwithstanding Section 5.10.2(b) which requires a maximum sign area of 18.0 square metres, a maximum sign area of 18.6 square metres shall be permitted.
2. Notwithstanding Section 5.10.2(c) which requires a maximum sign width of 4.0 metres, a maximum sign width of 10.67 metres shall be permitted.

3. Notwithstanding Section 5.10.2(j), a digital billboard sign may be located on land which is not zoned Commercial or Industrial.
4. Notwithstanding Section 5.10.2(i), which requires a 15 metre setback from a property line, a 3.5 metre setback is provided.

(g) Tests of Section 6.5(d)

Given that the area has not yet been developed, the installation of a sign in this location will represent a change for the area. However, as the roadway extension continues from Stone Church Road through Highland Road West to Rymal Road, new industrial and commercial development will occur over time. As this development occurs and the neighbourhood evolves into a mature state, the sign will be assimilated into the fabric of this commercial/industrial area.

6.0 Implementation

This City initiative to allow for the installation of digital signs in specific locations can be implemented through an amendment to the Sign By-law with the following provisions:

1. Introduction of a definition of a Digital Sign which reads as follows:

"Digital Sign shall mean a sign that displays information or images on a digital or electronic screen where the sign copy is fixed for a set period of time."

2. Notwithstanding the provisions of Section 5.1.1(a) of Sign By-law 10-197, a digital sign shall be permitted in the locations identified in this by-law amendment.

3. The provisions of Section 5.10.3 of the By-law do not apply to any signs governed by the provisions of this by-law amendment.
4. Any Digital Sign to be located on lands governed by the provisions of the by-law amendment shall comply with the following requirements:
 - (a) have a maximum luminosity level of 300 candelas per square metre at night and 6000 candelas per square metre during the daytime;
 - (b) be equipped with a monitoring device to ensure that the light generated by each sign does not exceed 0.3 foot candles above ambient light levels at 42 metres for a sign of 18.6 square metres or less or 76 metres for a sign area of up to 63 square metres;
 - (c) not operate between the hours of 12 a.m. and 6 a.m.;
 - (d) have a minimum dwell time of 6 seconds; and
 - (e) have a maximum transition time of 1 second.
5. Each of the proposed sign locations shall be subject to regulations as outlined in Section 5 of this report.

7.0 Summary

In my opinion, the proposed locations for each of the digital signs represent a proper balance of interests. It is important to ensure that each site provides the sign company proponents and their customers with an attractive opportunity to properly advertise goods and services in visible, high activity areas. At the same time, the sign locations have been carefully selected to ensure compatibility with surrounding neighbourhood and to minimize potential safety conflicts. To assist in achieving that objective, very specific regulations

through conditions to be applied to each site have been proposed with respect to luminosity, dwell time, transition time, size and height of signs, and appropriate setbacks.

In addition, a careful Viewshed Area analysis has been undertaken for each of the sign locations. Based on that review, sign location, orientation and shielding and other mitigation measures have been implemented where necessary to ensure there will be no unacceptable impact from the signs on existing or future residential communities.

All of the proposed sign locations have been assessed against the provisions of the City of Hamilton Sign By-law 10-197.

From that review, it is my opinion that the proposed amendment meets the intent of the By-law as outlined in Section 2.3. Further, the amendment does not offend the provisions of Section 4.1 of the By-law which provide general prohibitions and regulations. Each of the proposed sign locations, with appropriate mitigation, meets the four tests to be considered with any application for a variance to the Sign By-law found in Section 6.5 of the by-law. In my opinion, the proposed amendment can be supported as it represents good planning.

Respectfully Submitted,

FOTHERGILL PLANNING & DEVELOPMENT INC.

E.J. Fothergill, MCIP, RPP
President

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City Initiative to Amend Sign By-law to Permit Digital Signs
City of Hamilton

Planning Report

Schedules

- 1 Correspondence from Mr. G. Todd Lathan, VP, Digital Division, Outfront Media regarding visual impact of digital signs, dated May 12, 2016.
- 2 City of Ottawa Impact Evaluation Template
- 3 Viewshed Area Delineation
- 4 Sign Location Details
- 5 List of References

SCHEDULE 1

**Correspondence from Mr. G. Todd Lathan,
Outfront Media, May 12, 2016**



May 12, 2016

Mr. Ed Fothergill
Fothergill Planning & Development Inc.
62 Daffodil Cres.
Ancaster, ON L9K 1E1

RE: Luminosity of Digital Signs

Dear Mr. Fothergill,

Outfront Media has many years experience owning and operating outdoor digital displays in a very safe and environmentally conscious manner. We have collectively worked with other Out Of Home operators in assisting the Outdoor Advertising Association of America (OAAA) to establish self-regulatory standards. These standards have been adopted widely from small municipalities to transportation authorities at a state level. These standards have withstood both challenges by others and the test of time. We feel very comfortable in representing the functionality and success of these standards.

Using the OAAA standards, an operator using a standard "bulletin" display 14 feet high (4.27 meters) by 48 feet wide (14.63 meters) is limited to an overall increase in ambient light of 0.3 Foot-candles as measured directly in front of the display at a distance of 250' (76 meters). Within the proposed project at Hamilton, there are a couple of bulletin displays, but also some smaller poster sized displays at either 10' x 20' or 10' x 30'.

Array in Feet	Array in Meters	Dist. to 0.3fc F	Dist. to 0.3fc M
14 x 48	4.27 x 14.63	250	76
10 x 30	3.05 x 9.14	167	51
10 x 20	3.05 x 6.1	136	41.5

The light from the display is most intense directly perpendicular to the face. The light output diminishes as you move off angle. The enclosed illustration shows the distance at which a bulletin display could produce a max ambient light increase of 0.3 footcandles. It is represented as a boundary shown in yellow. As in the chart above, the distances to the boundary would change respectful to the size of the display. The technical term for this illustration of the variance of intensity as the light scatters at different angles from the face of the display would be *Relative Luminosity*.

Page 2

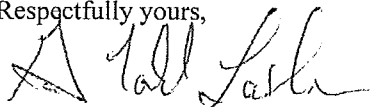
Beyond creating operating standards, it is common for us to educate others with regards to light. The enclosed line chart is an example of light intensity as it travels over distance. In this chart we can see that measuring light output just 5 meters in front of the displays would result in a considerable difference in total light output of the bulletin (grey line) as compared to the poster (blue line). However, measuring at a distance of 35 and 40 meters away, the results become much closer. Once the light obtains a distance of 100 meters, this chart cannot discern a difference between the 3 different sized displays. The human eye would struggle to sense that variance as well.

Setting the physics of light aside, safety and common sense are a primary focus to Out Of Home operators using digital displays. Operating a display at a brightness level that is too bright at night, is not only a potential safety issue or annoyance problem, it serves no purpose. Bright displays at night are hard to read, therefore our clients that pay to have copy on the display are not being represented in a manner that is acceptable to their audience.

Outfront Media recognizes that our brightness output is of the highest priority for the aforementioned reasons. We utilize both ambient light sensors and updated dusk and dawn tables at each display to vary the output to the required levels. Additionally, we log the brightness and output settings of the display multiple times every minute of the day. Any complaints can be reviewed to within a less than a 60 second timeframe.

We hope that this information is useful for you and will gladly answer any additional questions you may have.

Respectfully yours,



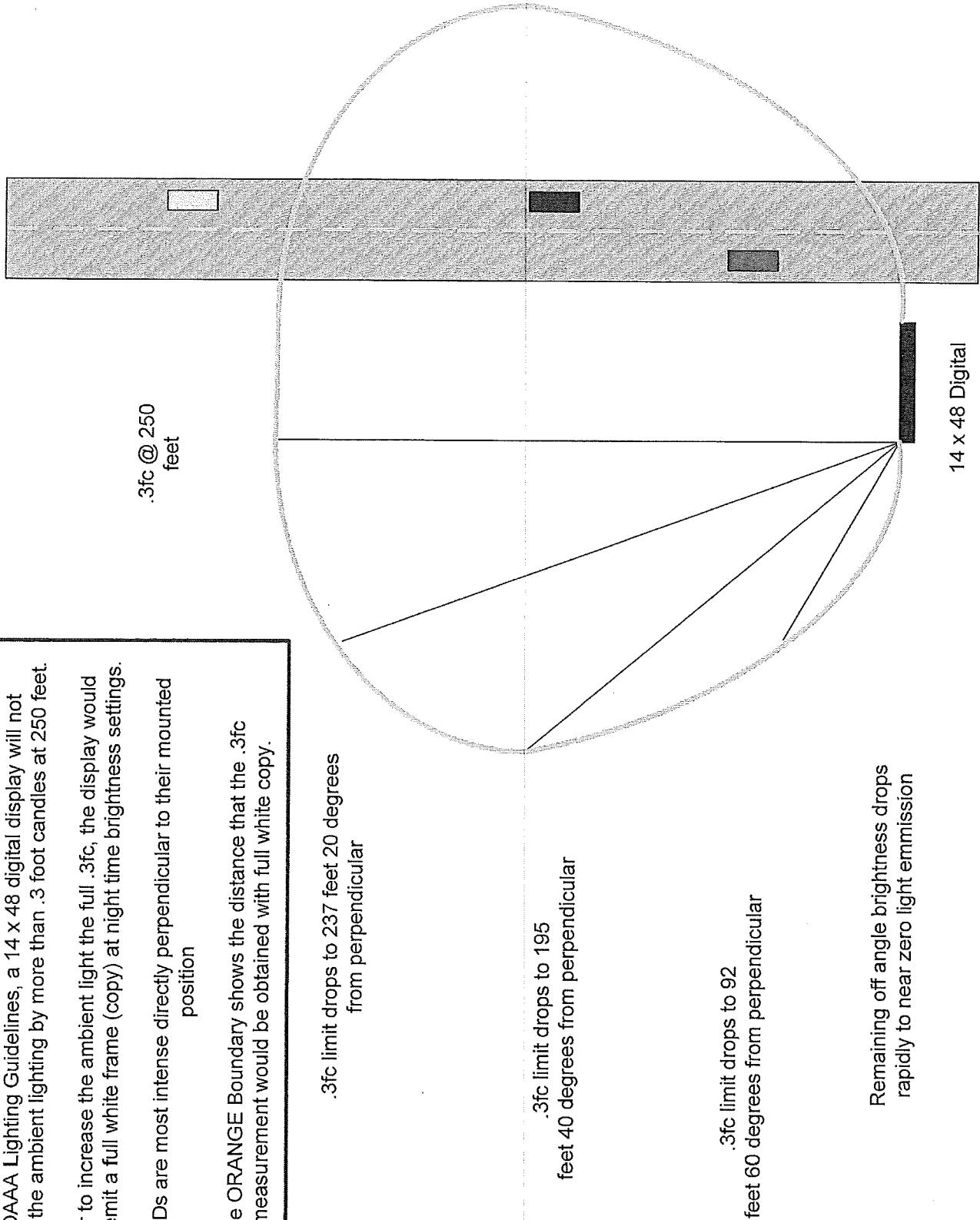
G. Todd Lathan
VP, Digital Division
Outfront Media

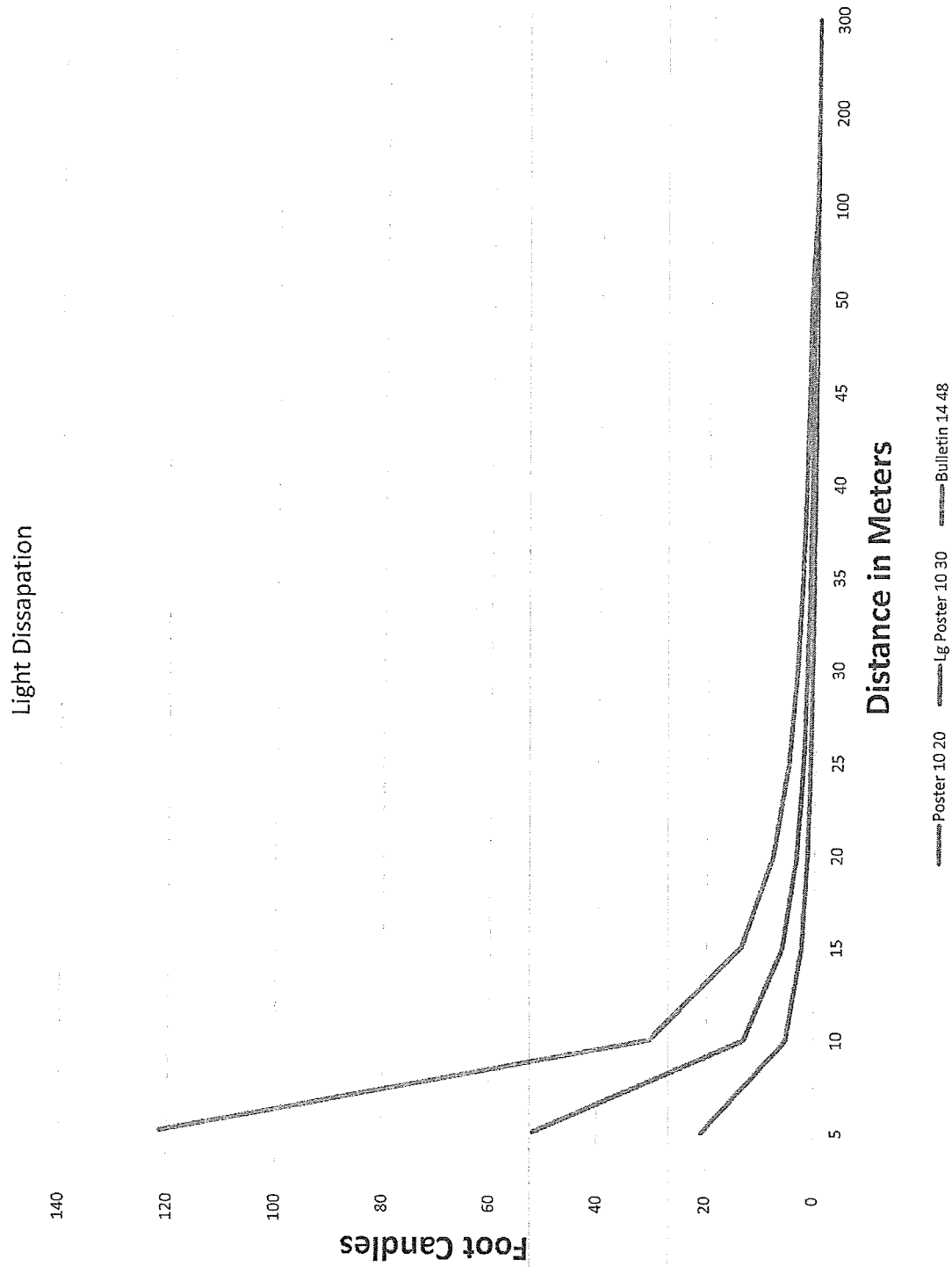
Per OAAA Lighting Guidelines, a 14 x 48 digital display will not increase the ambient lighting by more than .3 foot candles at 250 feet.

In order to increase the ambient light the full .3fc, the display would need to emit a full white frame (copy) at night time brightness settings.

The LEDs are most intense directly perpendicular to their mounted position

The ORANGE Boundary shows the distance that the .3fc measurement would be obtained with full white copy.





SCHEDULE 2

City of Ottawa Impact Evaluation Template

Report to/Rapport au :

Planning Committee
Comité de l'urbanisme

and Council / et au Conseil

September 14, 2012

14 septembre 2012

Submitted by/Soumis par : Nancy Schepers, Deputy City Manager/Directrice
municipale adjointe, Planning and Infrastructure/Urbanisme et Infrastructure

Contact Person / Personne ressource : *Arlene Grégoire, Director of Building Code
Services and Chief Building Official/Directrice des services du code du bâtiment et chef
du service du bâtiment, Planning and Growth Management/ Urbanisme et Gestion de la
croissance*

(613) 580-2424 x 41425, Arlene.Gregoire@ottawa.ca

CITY WIDE / À L'ÉCHELLE DE LA VILLE

Ref N°: ACS2012-PAI-PGM-0185

**SUBJECT: PERMANENT SIGNS ON PRIVATE PROPERTY –
AMENDMENTS TO PERMIT DIGITAL BILLBOARD SIGNAGE**

**OBJET : ENSEIGNES PERMANENTES SUR LES PROPRIÉTÉS PRIVÉES –
MODIFICATIONS AFIN DE PERMETTRE DES PANNEAUX
D'INFORMATION NUMÉRIQUES**

REPORT RECOMMENDATIONS

That the Planning Committee recommend Council:

1. Amend the Permanent Signs on Private Property By-law 2005-439, as amended, to allow digital billboards, subject to the regulations, substantially in the form as contained in Document 1, effective December 1, 2012; and
 2. Close the digital billboard pilot project, and direct the Planning and Growth Management Department to explore other emerging sign technologies with a view to establishing pilot programs if warranted, and return to Council in 2015 with an update on digital billboards and recommendations with respect to other emerging digital technologies in signs.
-

RECOMMANDATIONS DU RAPPORT

Que le Comité de l'urbanisme recommande au Conseil :

1. de modifier le règlement no 2005-439, Règlement sur les enseignes permanentes sur les propriétés privées, pour permettre l'utilisation de panneaux d'affichage numériques à compter du 1er décembre 2012, sous réserve de règlements conformes en substance à ceux figurant dans le Document 1; et
2. de mettre un terme au projet pilote sur les panneaux d'affichage numériques et demande aux Services de l'Urbanisme et de la Gestion de la croissance d'examiner et de mettre à l'essai d'autres nouvelles technologies pour les enseignes; et qu'un compte rendu concernant les panneaux d'affichage numériques ainsi que des recommandations relativement à d'autres technologies numériques émergentes pour les enseignes soient présentés au Conseil en 2015.

EXECUTIVE SUMMARY

Assumptions and Analysis

The City of Ottawa currently prohibits digital signage in the Permanent Signs on Private Property By-law 2005-439. In 2010, Council approved a pilot project that allowed the installation of four digital billboard screens on three City-owned properties, and directed staff to evaluate these signs and make recommendations as to whether digital signage should be permitted in Ottawa. The pilot was a response to a number of factors:

- requests from local businesses to use digital signs;
- applications from the sign industry to allow digital billboards;
- a recognition that the City's sign regulations were dated in terms of considering new signage technologies;
- revenue-generation possibilities of leasing City properties for digital billboards;
- opportunities for more effective delivery of public information; and
- the potential to support businesses and economic development.

The evaluation consisted of a review of digital billboard regulations in other municipalities, a literature review, and consultation with residents and stakeholders. It also included a technical review of the pilot digital billboards that included an examination of traffic safety data and operational characteristics, which resulted in numerous modifications since the installation of the signs in March 2011. An analysis was also undertaken to estimate the maximum potential number of digital billboards that could be expected in Ottawa, given the information available. Under the proposed regulations, 22 of the 393 documented conventional billboard faces in the City could be converted to digital.

This multi-faceted evaluation of the digital billboard pilot project has provided the required information to support the recommendation that the Permanent Signs on

Private Property By-law 2005-439 be amended to allow digital billboards, subject to new location and operational restrictions and regulations as further described in this report.

Financial Implications

The analysis of the existing conventional billboards determined that 22 would be eligible for conversion to digital. The conversion would result in incremental revenues of \$700/year per conversion. The number of conversions per year is unknown and therefore the additional annual revenues cannot be determined at this time. Once determined, the additional revenues will be brought forward in Building Code Services – Other Permits and Compliance Reporting draft operating budget. It is anticipated that the additional revenues in 2013 will be sufficient to fund the \$4,000 one-time cost of the handheld luminance meter required for enforcement.

Public Consultation/Input

Public consultation for the digital billboard pilot project included: two online surveys, two meetings with stakeholder groups, a presentation to the Business Advisory Committee, and the posting of draft proposals on the project website with email notices to residents and stakeholders who have been involved in the project with an invitation to provide comments. Overall, feedback was mixed; with the majority of comments related to concerns about safety and appearance, and some appreciation for improved aesthetics and public information.

RÉSUMÉ

Hypothèses et analyse

Actuellement, le règlement n° 2005-439, *Règlement sur les enseignes permanentes sur les propriétés privées*, interdit l'utilisation des panneaux d'affichage numériques à Ottawa. En 2010, le Conseil a approuvé un projet pilote qui autorisait l'installation de quatre panneaux d'affichage numériques sur trois propriétés de la Ville. Le Conseil avait en outre chargé le personnel des Services du Code du bâtiment d'évaluer ces panneaux et de présenter des recommandations indiquant si l'utilisation d'enseignes numériques devait être permise à Ottawa. La tenue de ce projet pilote était attribuable à différents facteurs :

- des demandes de la part d'entreprises locales d'utiliser des enseignes numériques
 - des demandes de la part de l'industrie des panneaux d'affichage numériques d'autoriser l'utilisation des enseignes numériques
 - la reconnaissance du fait que le moment était venu d'envisager, dans le cadre de la réglementation sur les enseignes de la Ville, l'utilisation de nouvelles technologies en matière de panneaux d'affichage
 - la possibilité d'obtenir des recettes par la location de propriétés de la Ville pour l'installation d'enseignes numériques
 - des occasions de communiquer plus efficacement les informations au public
 - un potentiel pour soutenir des entreprises et le développement économique
-

Digital billboards are designed to be viewed from a maximum angle of 140 degrees from the edge of the screen. It is therefore possible to determine the area of visual impact, which extends 300 metres out from the digital billboard screen, up to an angle of 140 degrees on each side. Where a digital billboard has a visual impact beyond 140 degrees, the sign owner will be required to install a louver, or blinder, that will limit the maximum viewing angle to 140 degrees from each edge of the billboard. The result is a "lightshed" area of visual impact that establishes the residential setback from each existing or potential digital billboard. Quite simply, if there is a residentially zoned lot (R1-R5, RR, RU, RM) within a 300 metre lightshed, a digital billboard would not be permitted. This methodology will only be used for some digital billboard setbacks, while the existing setbacks in By-law 2005-439 will continue to apply for conventional billboards.

The following illustration provides an approximation of these setbacks based on a 300 metre lightshed of impact, 140 degrees from each edge of the billboard, for a hypothetical proposed conversion of a double-sided conventional billboard to a double-sided digital billboard. The image below shows that the two lightsheds, with the top lightshed that does not contain any residential properties, and therefore could (subject to other setbacks) result in the conversion of the north-facing side of the billboard to a digital billboard. The bottom lightshed, on the other hand, does contain residentially zoned properties (in this case an R3Y zone), and therefore the south-facing side of the billboard could not be converted to a digital billboard.

Even if there are no residential lots in the lightshed setback area, there is the potential for a residential lot to be outside this setback, but quite close to a digital billboard. The current setbacks for conventional billboards address this by additionally requiring a 30 metre setback to any billboard, even if it is not visible from a residential lot. It is proposed that this remain in place for digital billboards.

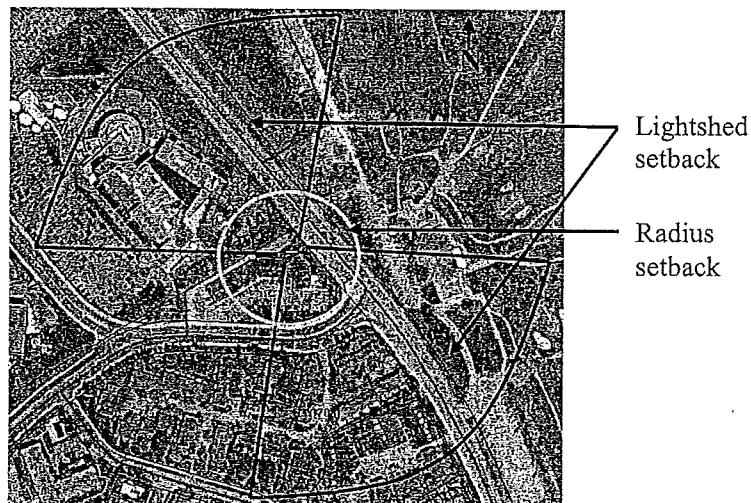
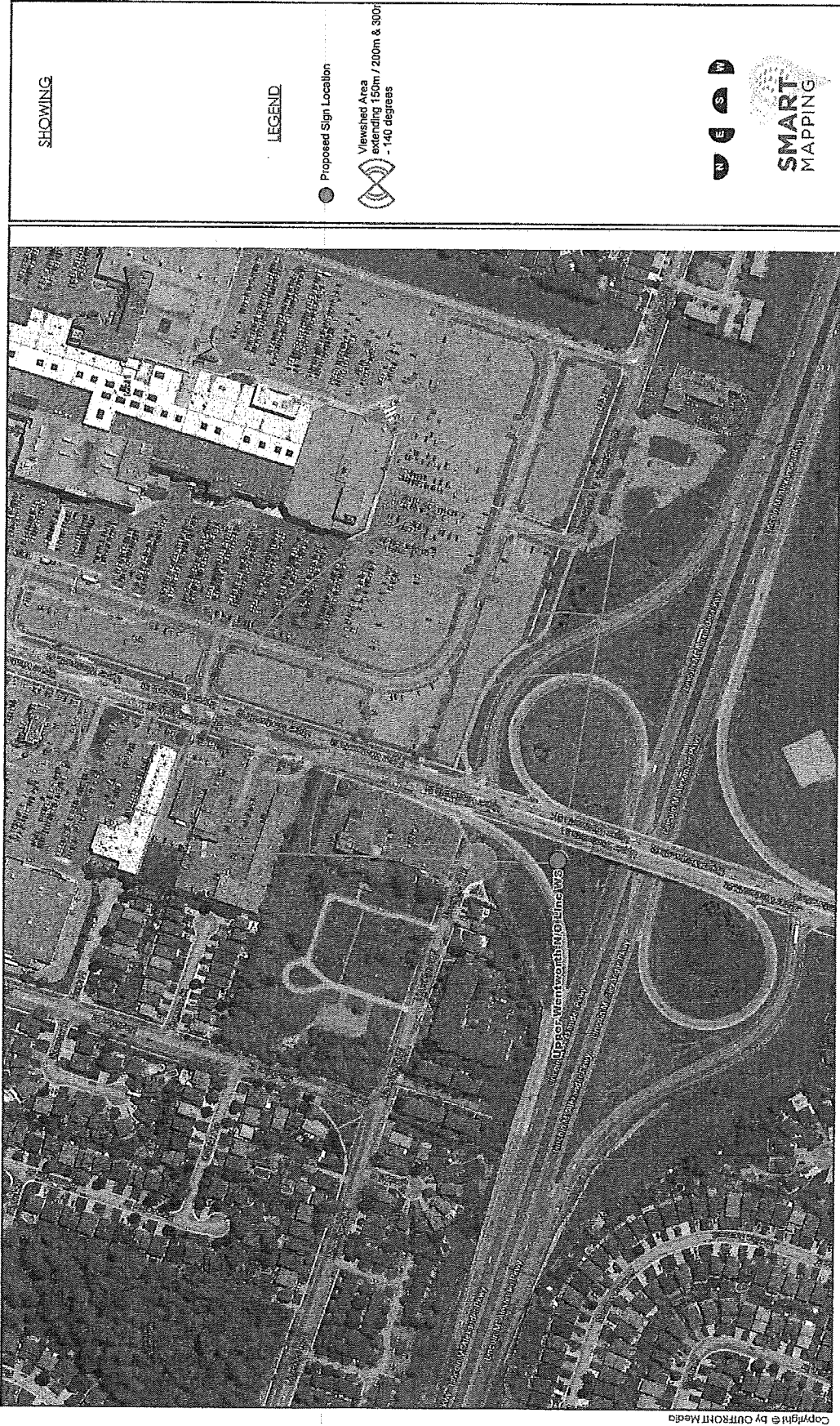
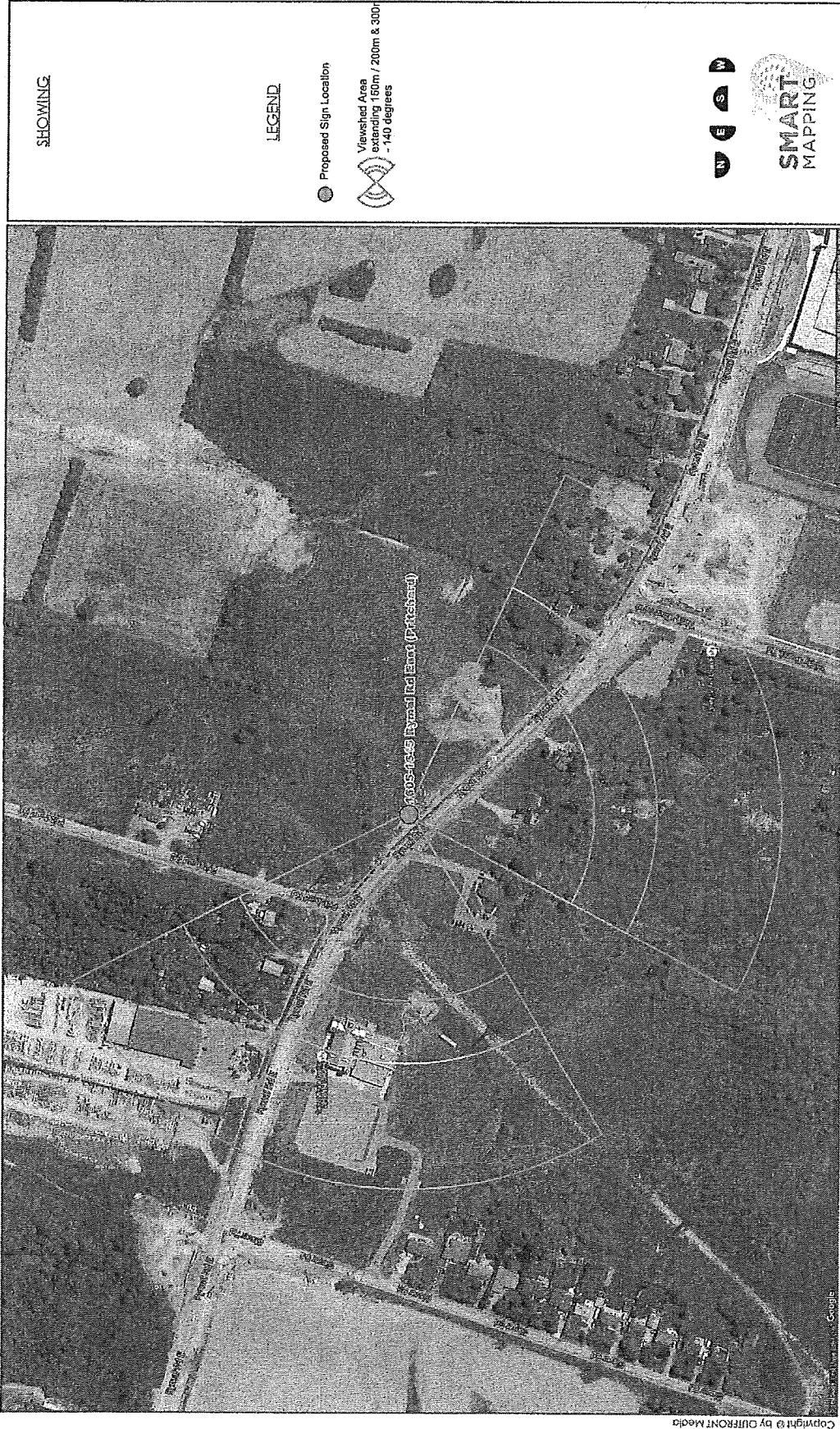


Image above: example of a proposed lightshed setback, extending 140° from each vertical edge of a double-sided billboard, and a 30 metre radius setback.

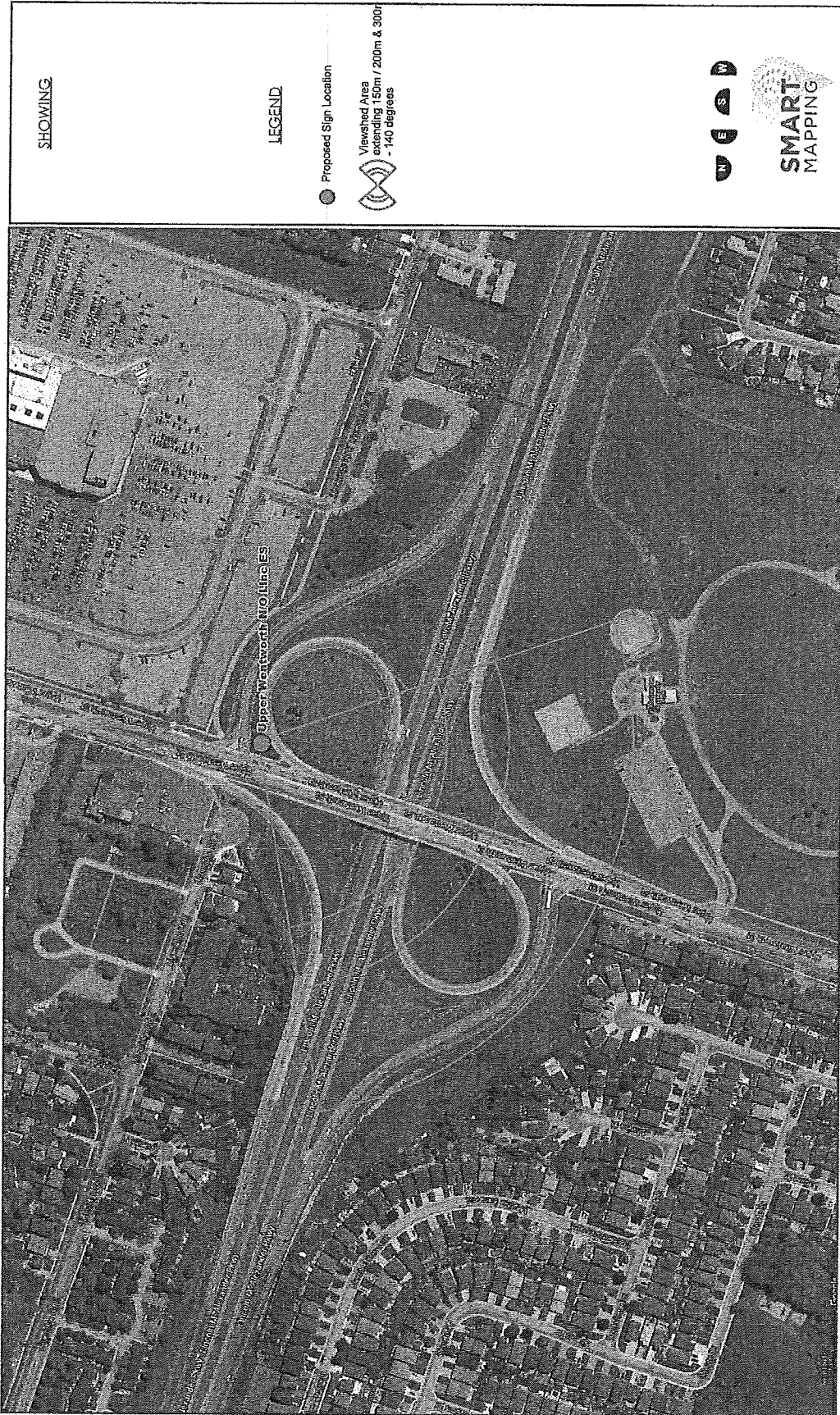




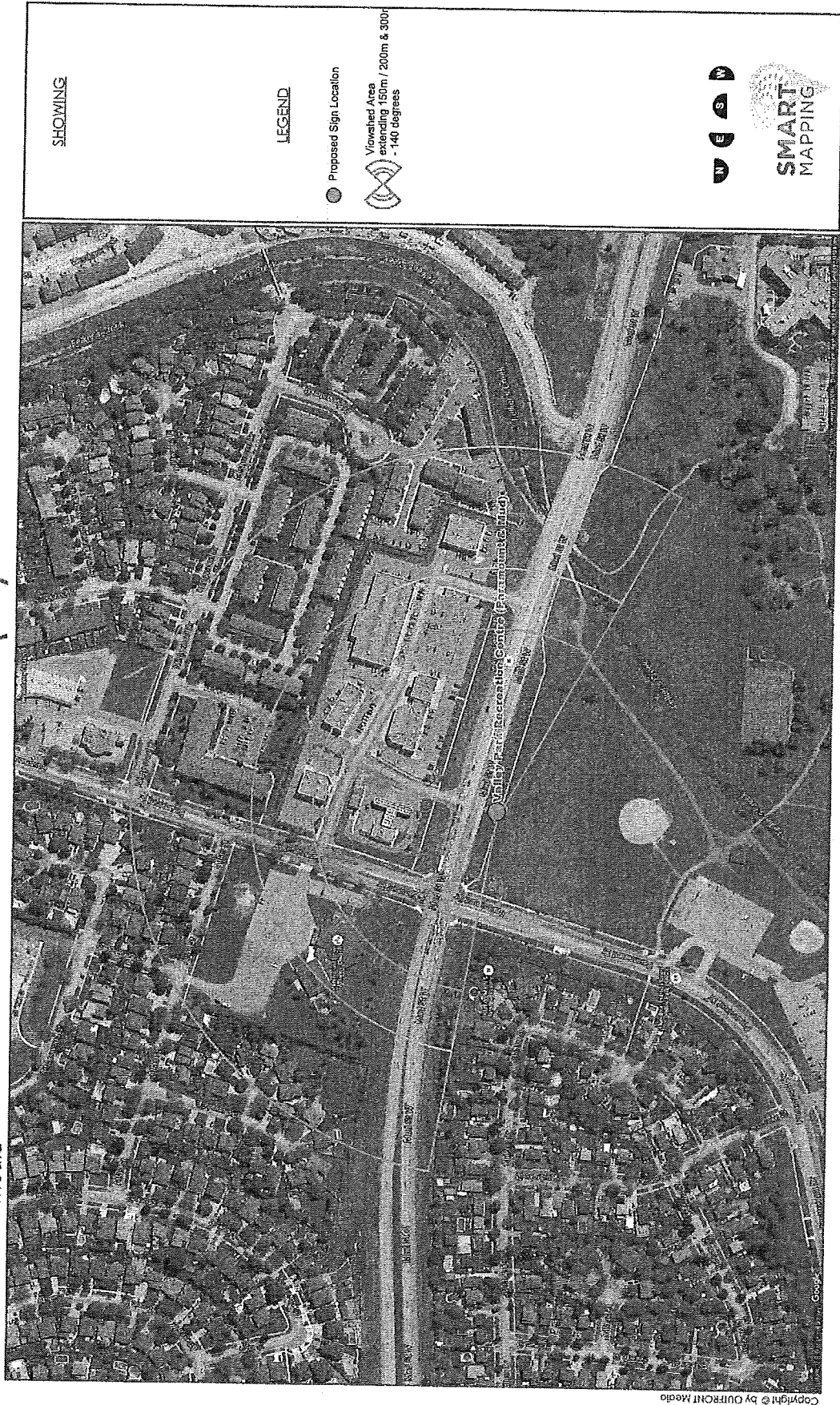




Hamilton (C)

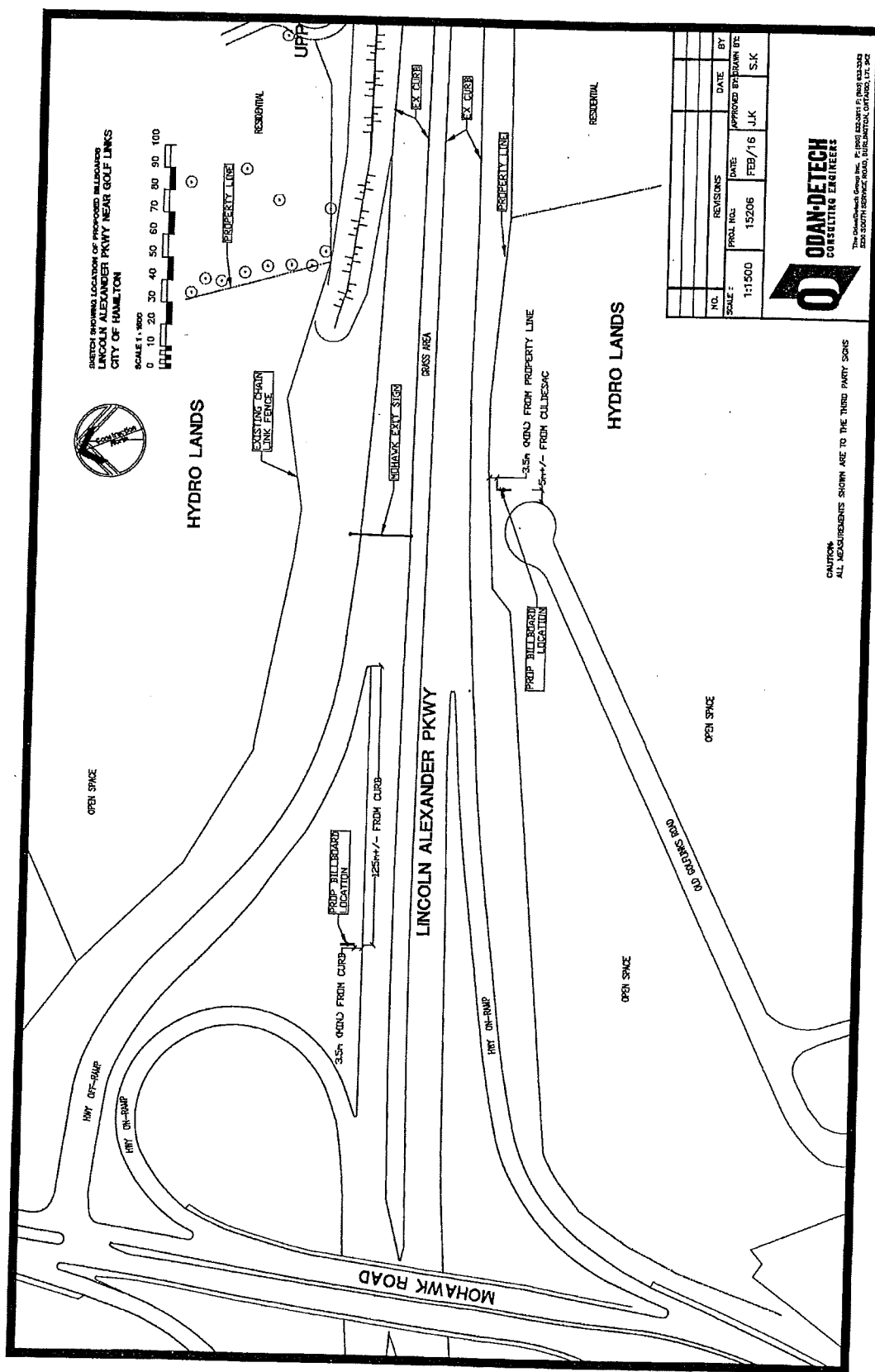


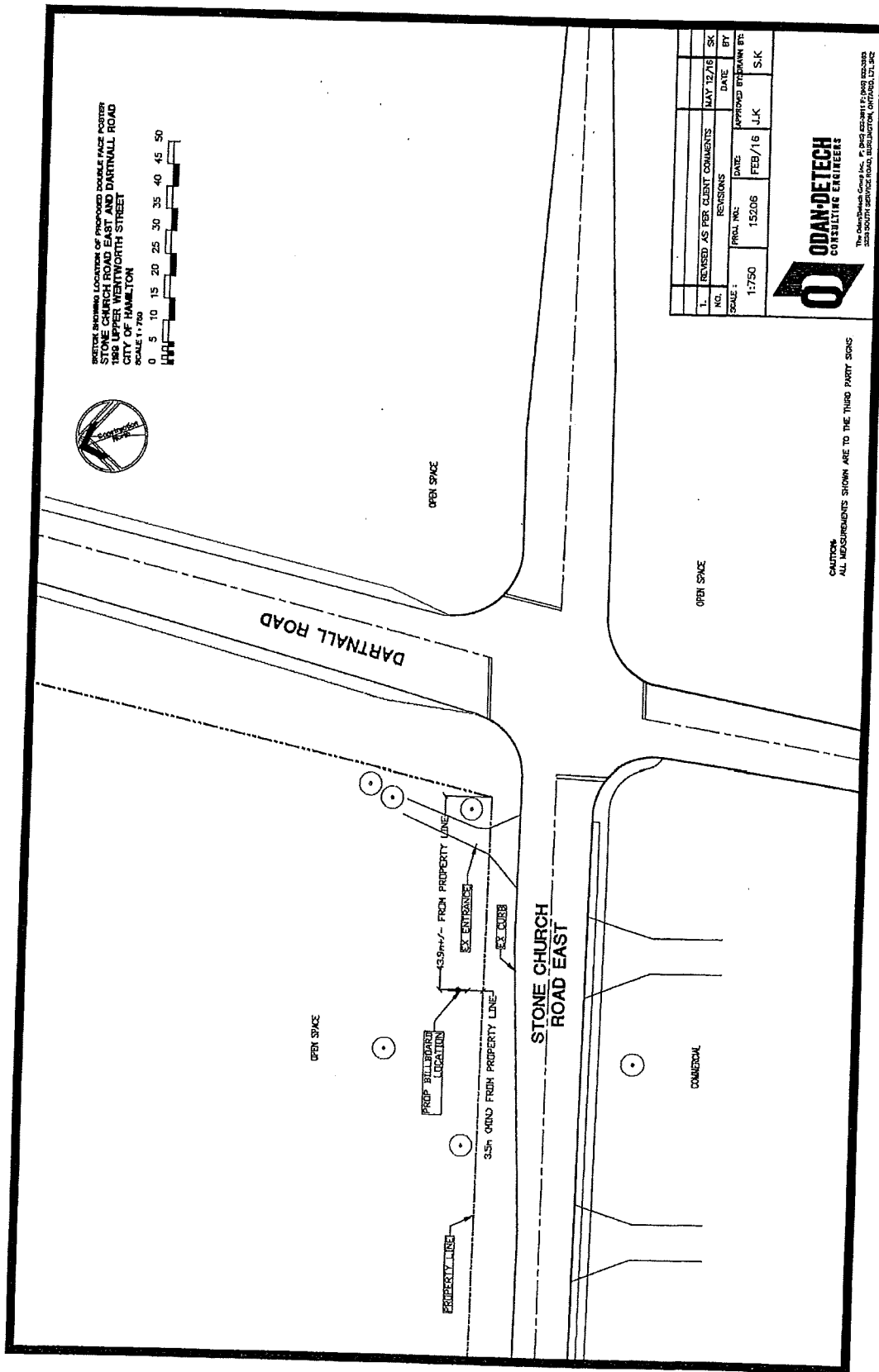
Hamilton (C)

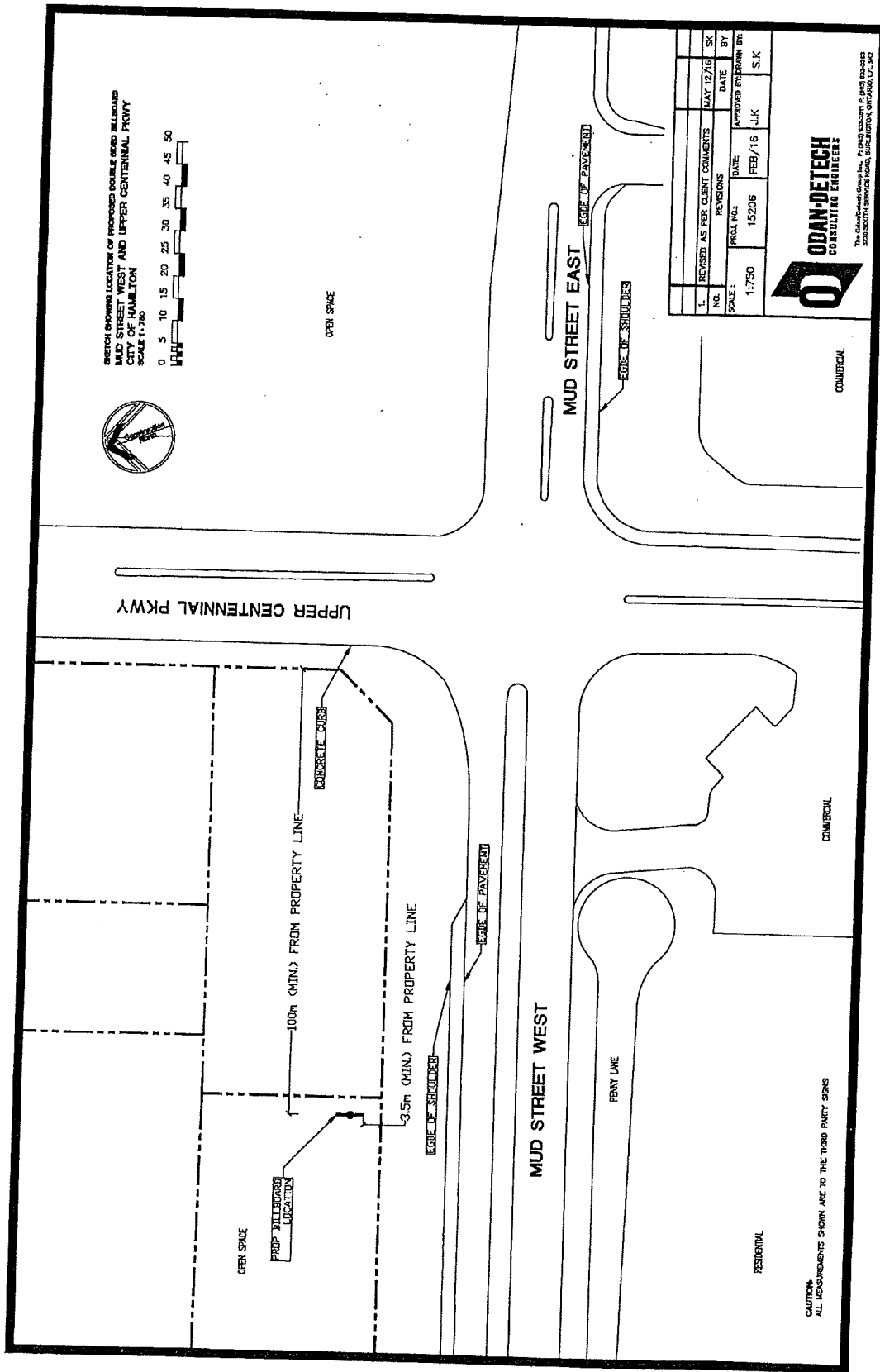


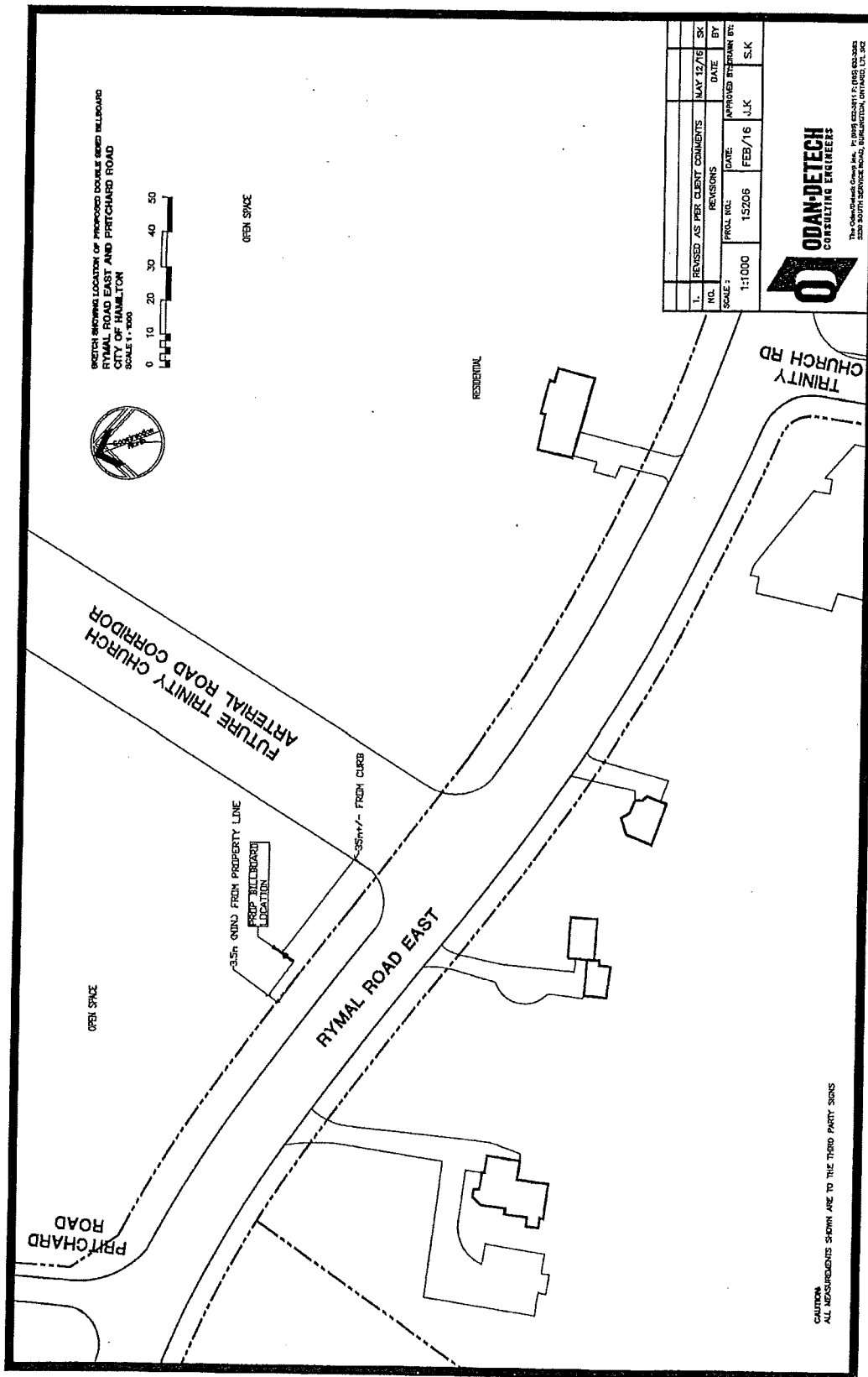
SCHEDULE 4

Sign Location Details









Schedule 5

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