



NOVA CENTRE

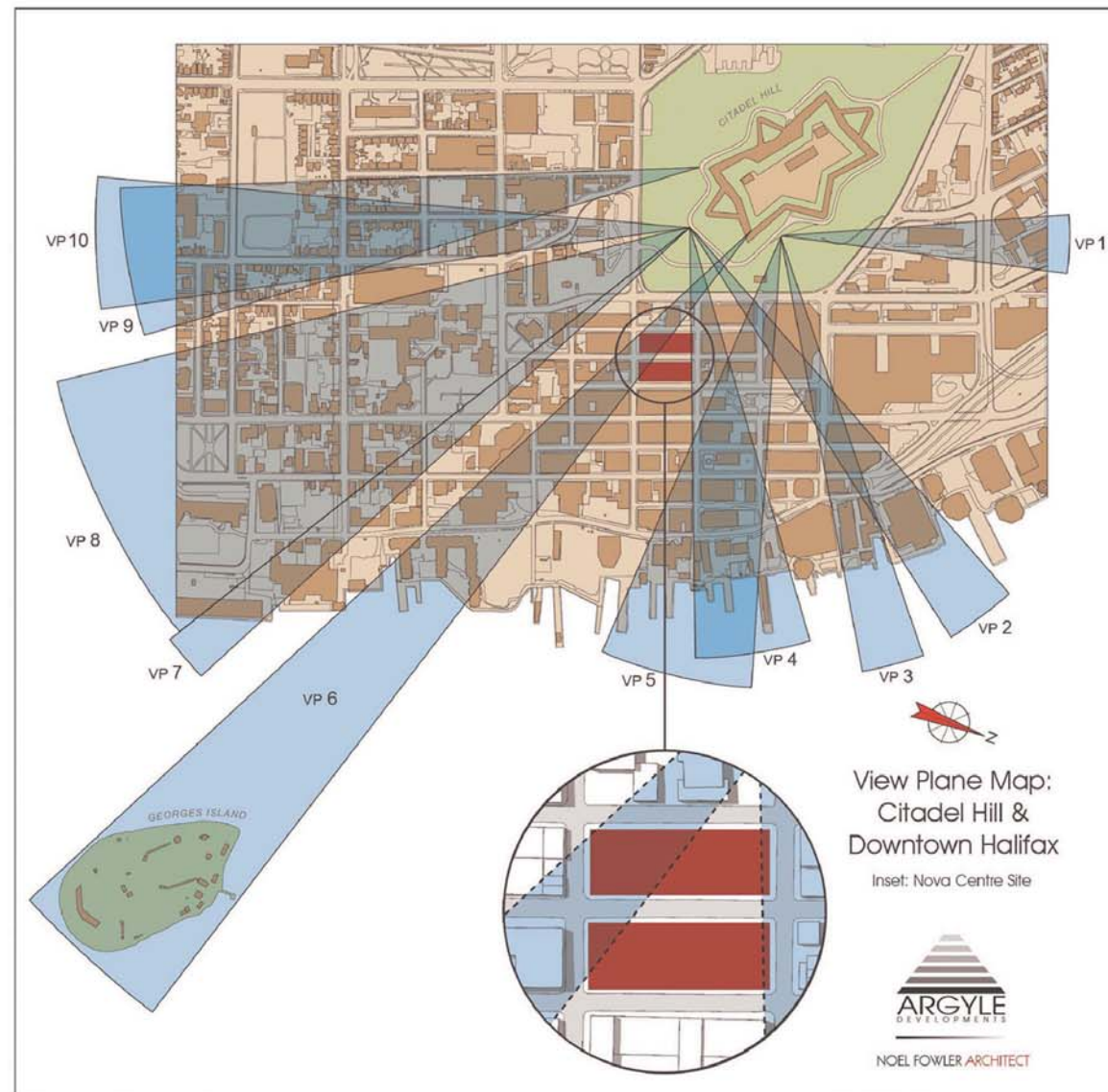
ATTACHMENT "B"

DESIGN RATIONALE
& OTHER SUPPORTING DOCUMENTS
SUBSTANTIVE SITE PLAN APPROVAL

JUNE 3 2014



IBI GROUP ATLANTIC ARCHITECTS
NOEL FOWLER ARCHITECT



INTRODUCTION

By any measure, Nova Centre represents a significant development for downtown Halifax and its impact on the City will be decisive. With a footprint of almost 100,000 square feet and a gross building area of approximately one million square feet, on completion, this development will transform two city blocks in the heart of Halifax's Central Business District and initiate the long overdue revitalization of the downtown. Nova Centre will be a true mixed use development for Halifax consisting of six major occupancies including a convention centre, a convention hotel, an office tower, commercial and retail occupancies, food and beverage and a below grade parking garage.

The principal design challenge presented by Nova Centre was that of developing a unified expression for such diverse uses while successfully integrating this expression with the delicate, finely textured street grid pattern of downtown Halifax. This was especially challenging given the exceptionally large Convention Centre components of the composition.

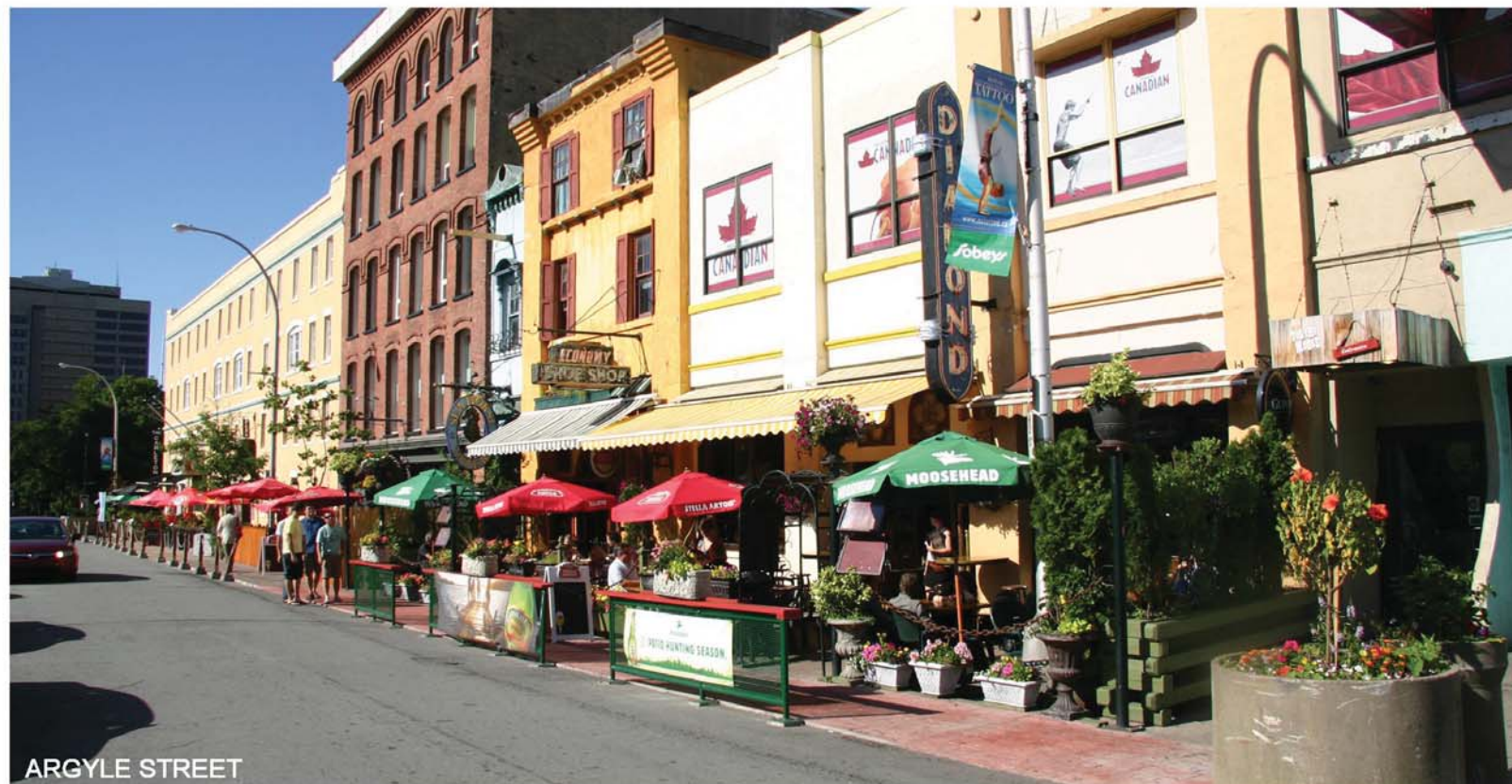
Critical to this is being consistent with the policies of the Downtown Precinct

Guidelines, Section 2.6, Precinct 6: Upper Central Downtown.

Through this Design Rational Report, we will cross reference where the design intent has been met, as guided by the policy.

Nova Centre has also been the subject of a province wide public consultation where the views and aspirations of citizens for this project were discussed. This input proved to be pivotal in the development of Nova Centre as the design endeavoured to give form to the ideas expressed through this process.

Context is arguably the most powerful generator of built form. From context, buildings may derive a sense of scale, rhythm, texture or colour all of which may be meaningless if employed only a few blocks away and even more so if applied to a "green field" site. But, in a broader sense, context provides much more than visual cues to the creation of built form. If context can be considered to include the requirements and aspirations of citizens, various governmental agencies, land use by-laws and public opinion, then building expression and form are inextricably tied to context.



ARGYLE STREET

Nova Centre, the subject of this application has, in no small measure, derived its expression and form over several years of emersion in “context”. The project is clearly a product of this “emersion” and its expression and form a measure of its responsiveness to these influences.

The over-riding principles of the Precinct 6: Upper Central Downtown Design Criteria have been followed with respect to the following areas:

- *Improving the street functionality (2.6.b);*
- *Maintaining the downtown historic grid including the Grafton mid-block connection, an important part of the design and a core space (2.6.c);*
- *Framing the urban network leading up to Citadel Hill through the provision of consistent, animated streetwalls (2.6.d);*
- *Continuous streetwalls and uninterrupted pedestrian experience (2.6.f);*
- *No surface parking (2.6.g);*
- *Pedestrian and retail along Argyle, Grafton, with protection through canopies (2.6.h);*
- *Protection of view corridors (2.6.i);*

- *Street level activity of retail, restaurants, bars, permanent sidewalk cafes, hotels, cultural uses along Argyle and Grafton mid-block (2.6.l); and*
- *Portions of green roof, as visible from Citadel Hill (2.6.m).*

The scale of the downtown core of Halifax is, to a large extent, determined by its’ tight street grid pattern which was established at its’ founding. These comparatively small city blocks impart a particular rhythm and texture to the City which extends from the Citadel Hill in the west to the Harbour in the east and from Duke Street in the north to Spring Garden Road in the south. The character and ambience of the downtown owes much to the “rules” implied by this pattern. With few notable exceptions, this grid remains intact and now enjoys the protection of Halifax’s Land Use By-Law for Downtown. The issue of scale was, therefore, of primary concern through the design process and was addressed from two perspectives, the pedestrian experience and the Project as expressed through building form.

Conceptually, with respect to the pedestrian experience, Nova Centre relies on the



development of Grafton Street as the primary organizing component for the entire Project. Conceived as an “events plaza” this public space of almost 25,000 square feet represents the heart of Nova Centre and provides the “sense of place” essential to the pedestrian experience while at the same time promoting an understanding of a project of this scale and diversity. *Consistent with Section 3.1.1 pedestrian oriented commercial where the intended space will ensure the vitality and critical mass of activities that engage and animate the sidewalk.*

Nova Centre, as expressed through building form or massing, relies on the dominance of the Convention Centre Ballroom to provide its primary imagery. Designed as a formal gathering place, the living room of the City, this monolithic “blue box” suspended over two city blocks provides the visual context necessary to unify and organize the entire composition with a single clear and powerful expression.

The use of these two organizing principles, the “events plaza” and the “blue box”, were instrumental in both resolving the significant issues of scale presented by this Project while bringing a degree of order and clarity to a very large and complex project.

DOWNTOWN HALIFAX LAND USE BY-LAW & DESIGN MANUAL

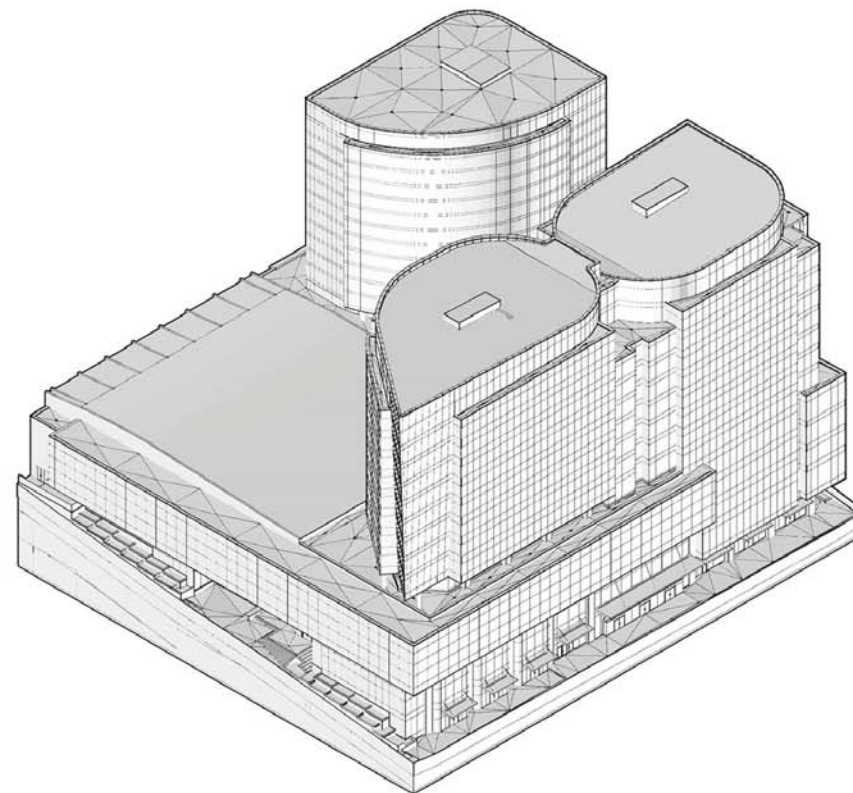
Cities emerge from humble beginnings where the necessities of daily living are most often clustered around critical infrastructure. From its founding, Halifax’s critical infrastructure was established between the Harbour and the Citadel, clearly, its “raison d’etre”. This geographically well defined place evolved naturally as the city’s centre providing the full range of amenities required by an ever expanding city.

While responding to a city’s need for a variety of amenities is a prerequisite to its functioning successfully, this alone does not a great city make. Providing amenity is not enough. The hallmark of a great city can be measured not only by the amenities it provides but more importantly, the manner in which they are provided.

In recent years, the City of Halifax has addressed the “manner in which amenities are provided” through substantial revisions to the Downtown Halifax Land Use By-law which includes the addition of a new Design Manual. While the Land Use By-law itself addresses the more quantitative elements of projects proposed for the Downtown, the



SACKVILLE STREET ELEVATION



VIEW FROM SOUTHEAST

qualitative elements are the subject of the Design Manual. Qualitative elements addressed in this manual include issues of building design, massing, colour, texture, streetscapes, the public realm, sustainability, etc.

Understandably, the focus of the Design Manual is placed on those projects which could reasonably be anticipated in a city the size of Halifax. Issues associated with additions and modifications to existing buildings are addressed as well as infill projects, where new buildings are placed between or adjacent to existing ones. The Design Manual also anticipates larger projects occupying portions of city blocks up to full city blocks. Guidance is offered with respect to the streetwall, pedestrian streetscapes, building design, civic character, parking, services and utilities. Sustainability is also addressed in the Design Manual where a bonus zoning program is offered to encourage all projects to embrace sustainable design strategies.

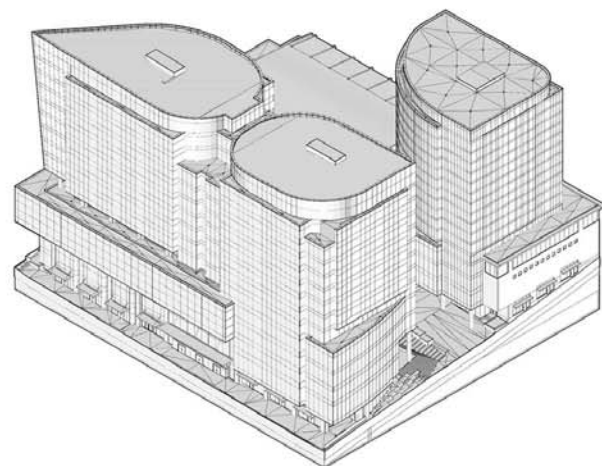
There is a separate section in the Design Manual dealing specifically with the question of placing new buildings in a heritage context, an important issue for a city with such a rich architectural heritage.

The Downtown Halifax Land Use By-law and the Design Manual provide clear direction on the development possibilities for Downtown Halifax as well as guidance on issues of design quality and execution. While these documents are clearly appropriate for the great majority of projects anticipated for the Downtown, it became apparent at the earliest stages of the Nova Centre design that the Downtown Halifax Land Use By-law and the Design Manual did not anticipate a project of the scope and scale of Nova Centre.

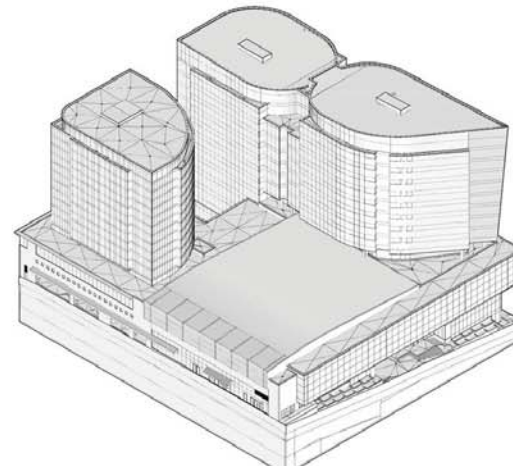
Specifically, the very large spaces and volumes required by the convention centre component of the project could not be accommodated on the relatively small city blocks of downtown Halifax. Typically, downtown city blocks of Halifax have an area of approximately 38,500 square feet. To accommodate the Convention Centre Ballroom alone with its associated pre-function areas requires in excess of 60,000 square feet. Clearly, the scale of this project was not anticipated and therefore not addressed by the Downtown Halifax Land Use By-law and the Design Manual. Of necessity, changes in the Land Use By-law were initiated specifically to accommodate the unique requirements of Nova Centre. While these changes addressed the



VIEW FROM ARGYLE & SACKVILLE



VIEW FROM NORTHEAST



VIEW FROM SOUTHWEST

quantitative aspects of the Project essentially allowing it to conform to the amended Downtown Halifax Land Use By-law, qualitative aspects normally addressed by the Design Manual remained problematic. Again, the Design Manual did not anticipate and therefore did not address a project of this scale.

The issue then remains one of appropriately addressing the qualitative aspects of Nova Centre without strictly adhering to the Design Manual. While not intended for projects of this scope and scale, one can, nevertheless draw from the Design Manual its intent with respect to issues of streetscape, the street wall, massing, colour, texture, the public realm, sustainability, etc. Clearly, a discussion of these issues is always appropriate in the context of creating timeless civic works of high quality irrespective of scope and scale.

BUILDING MASSING & FORM

Seen from afar and formed by its dramatically sloping site and adherence to view planes and ramparts legislation, Nova Centre presents a clear, unique and striking composition. Consisting of three discrete

components, the podium, the “blue box” and the towers, three distinctly individual architectural expressions begin to establish a scale which belies a project spanning two city blocks. While the podium is concerned more with the scale of the street and pedestrian engagement, the “blue box”, as the Ballroom has come to be known, has the visual power to organize the whole composition while providing the iconic imagery expected of significant civic buildings. The towers are clearly not anonymous as they draw on complex geometries in response to their place in the overall composition and the city.

At the perimeter of the site, the towers present a rectilinear geometry in response to the rectilinear grid of the city and rhythms established by surrounding buildings. As the towers look inward to the site and away from the surrounding streets, they assume curvilinear forms effectively providing foils to the street geometry while offering a more informal and relaxed face to the Citadel. The almost total reliance on glass as a “skin” for the towers is intended to lighten and simplify the composition where the preference is to rely on the tower’s geometry as the primary expression.



The “blue box” or Ballroom is 35 feet in height and covers 75% of the site. Hovering above Grafton and Argyle streets, the “blue box” is both the expression of the Convention Centre and a powerful organizing element in the overall composition. Architecturally, the “blue box” can be seen as a very elaborate cornice “writ large”. As such, the cornice completes the building’s streetwall establishing a pedestrian realm and scale below while clearly delineating a distinctly different zone above inhabited by geometrically rich glass towers.

The podium is the base of the overall composition and responds primarily to the public realm and the scale of the street. It is responsible for creating a sense of “place” and establishing the character of a streetscape distinctly focused on encouraging and supporting a vibrant pedestrian experience.

This is consistent with Section 3.3 – Building Design, where the importance of building articulation is discussed in the context of base, middle and top. The design is also responsive to the discussion of materials, entrances and rooflines in this section. The Project is also responsive to Section 3.4 Civic Character where buildings serving important civic functions have a greater civic obligation

to meet the highest possible standards in design.

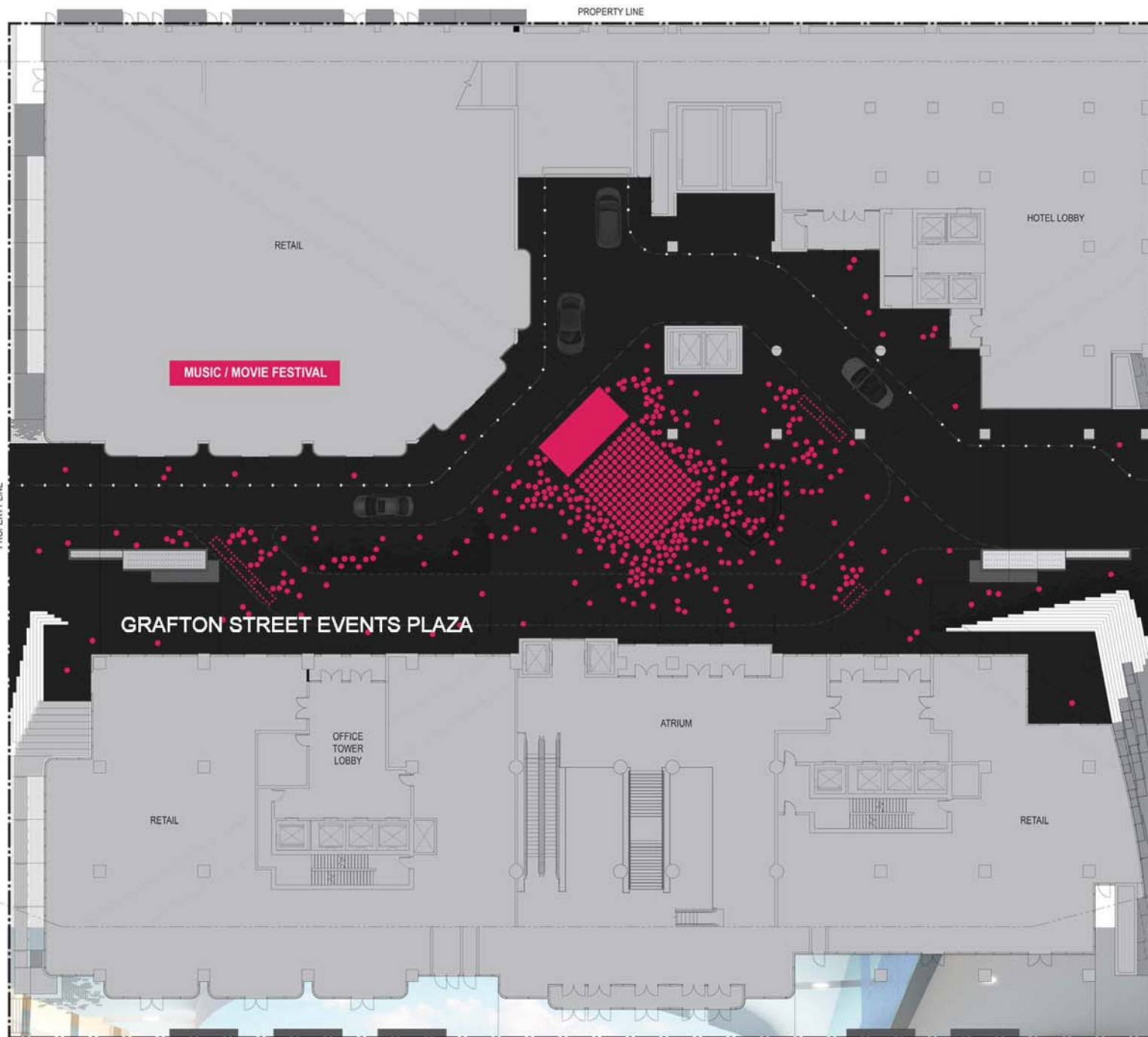
ARGYLE STREET

Argyle Street is understood to be the centre of the entertainment district in Halifax. The street is populated by food, beverage and entertainment venues all relying on the use of sidewalk cafes to heighten the Argyle experience. From the outset, the design of Nova Centre, which faces on the west side of Argyle, drew upon the lessons of this street to enhance and complete this vibrant pedestrian space.

While the “blue box” or cornice extends to the property line along Argyle, the remainder of the streetwall to the sidewalk is set back from the property line. *Consistent with Section 3.1.2 (a) Streetwall Setback.* This provides ample space at street level to accommodate sidewalk cafes which are a hallmark of Argyle. The two story zone between the cornice and sidewalk is designated for pedestrian-orientated commercial uses consistent with the street. *Consistent with 3.2.3 (a, b, d, e, f)* The scale, rhythm and vertical character of the streetwall are drawn from “rules” established along Argyle. *Consistent with 3.2.1 (a, b, e,*

SACKVILLE ST

PROPERTY LINE



f). The pedestrian scale and character of this façade is also enhanced by the use of canopies at all entrance points.

A significant component of the Argyle façade is the four story glazed atrium connecting Argyle to the “Events Plaza” along Grafton Street. This mid-block pedestrian connection is a powerful element in the composition as it heightens the porosity of the façade along Argyle while establishing a continuity in the pedestrian experience of the two streetscapes.

Consistent with Section 3.1 – Streetwall and 3.1.1 – Pedestrian-Oriented Commercial and 3.2.2 (a) clearly defined primary entry points that directly access the sidewalk.

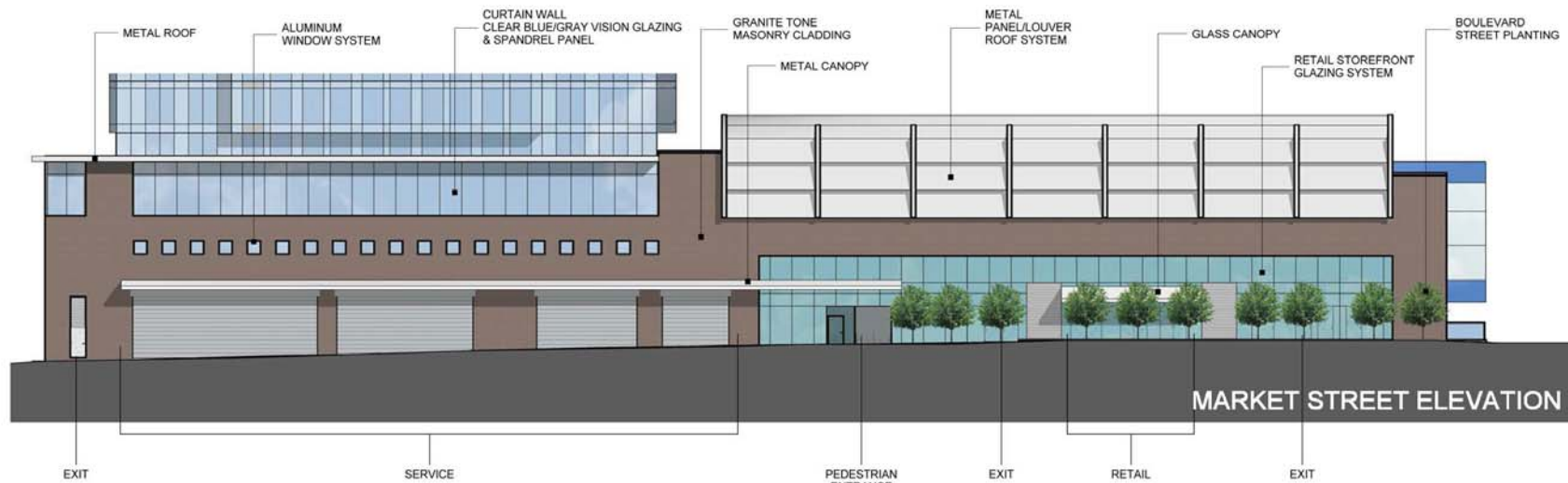
GRAFTON STREET

The Grafton Street “Events Plaza” is primarily a two story, weather protected space of approximately 25,000 square feet designed to accommodate in excess of 2,000 people. This space continues to develop many of the themes established along Argyle including its focus on pedestrian-oriented commercial uses. The “Events Plaza” is intended to provide Halifax with a unique civic space capable of supporting a variety of public functions including live entertainment,

exhibitions, craft fairs and farmers markets. Water features have been provided to celebrate the civic nature of this space and to enhance the acoustical experience for the users. Special attention has also been given to the lighting of the “Events Plaza” to reinforce the ambience of the space for both daytime and nighttime uses.

Because Grafton provides vehicular access to the hotel, convention centre and parking garage, this space will also function as a “shared street”. Through the use of paving patterns, bollards and water features, the traffic route is well delineated. There are now many examples of very successful shared streets in both Europe and North America and this design therefore draws heavily on these experiences. Argyle Street, the mid-block atrium connection and the “Events Plaza” at Grafton are intended to provide a seamless pedestrian experience and “sense of place” unlike anything available in the City. *Consistent with Section 3.2 – Pedestrian Streetscapes 3.2.1 (a), (b), (e), (f), (g) and 3.2.2 (a)*

PRINCE ST



MARKET STREET

Because of its assembly occupancy, unlike most building types, the convention centre component of Nova Centre, places an extremely high demand on infrastructure and servicing contributing additional challenges to an already challenging project. The exiting from the convention centre alone requires a total width of 30 meters for stairs and an additional 30 meters for exterior doors. The air handling system requires 40 square meters to facilitate air intake and exhaust. The loading docks are extensive and require a total width of 50 meters to accommodate the garage doors. These are significant demands which are very often in conflict with the development of the pedestrian-oriented streetscapes which are essential to the success of this or any civic project.

For the most part the design of Nova Centre avoids locating these infrastructure and servicing elements on Argyle and Grafton in an effort to maximize the pedestrian-oriented commercial opportunities. *Consistent with 3.2.1 (g)*

The single largest infrastructure and servicing component of the convention centre is the loading docks. Market Street was

selected as the location for these docks given the topography of the site and its proximity to Brunswick Street, a main thoroughfare. Additionally, Market Street tends to be more service oriented and tractor trailers can access the facility without penetrating too deeply into the downtown core where they would certainly be unwelcome.

Nevertheless, the design recognizes the importance of respecting Market Street and presents a well composed façade of appropriate scale and detail. The podium's three story masonry streetwall is punctuated by translucent acrylic garage doors both concealing the loading dock while allowing the passage of light in both directions. Other servicing components and a small amount of retail are clad with a combination of glass and spandrel panels again reducing the mass of the podium. The substantial air handling requirements of the convention centre are concealed in the sloped metal roof of the Ballroom which is integrated with the Market Street façade to enhance continuity and complete the composition. *Consistent with 3.3.4 (d), (f).*



PRINCE STREET

While both the Prince Street and Sackville Street facades conceal a variety of infrastructure and servicing components including the ramp to the parking garage, a number of fire exiting stairs, air handling systems, the north end of the loading dock and a huge commercial kitchen, they also present the additional challenge of being located on streets with a slope in excess of 10 percent. This slope also makes it extremely difficult to align floor slabs with grade entry points necessary to accommodate accessibility requirements.

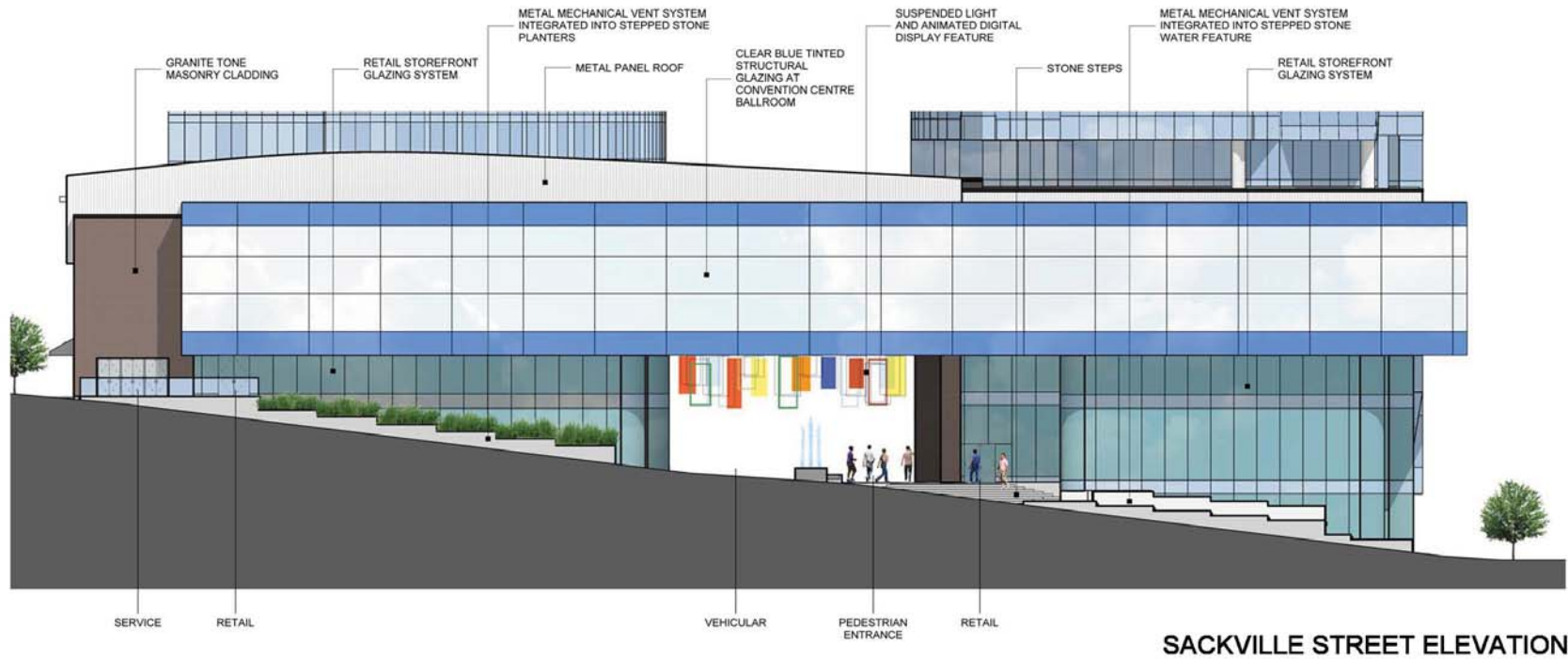
The Prince Street presents two distinctly different facades separated by the entry to the Grafton Street "Events Plaza". The eastern façade has a four story glazed street wall resting on a single story base of glazed storefront and masonry concealing exiting stairs. This façade is curved towards the "Events Plaza" entry point and is incorporated into a stepped planting feature and grand stair leading to the entry point of the north financial tower. Where pedestrian-oriented commercial uses are not possible, the stepped planting feature and grand stair provide relief from an otherwise blank wall while providing important opportunities for

the public to inhabit this space for sitting, meeting or just watching the passers-by. Informal or casual spaces such as this are an important and often overlooked feature in the urban landscape.

The western façade of Prince Street has a four story masonry streetwall concealing the convention centre exiting stairs, the north end of the loading docks and commercial kitchen. Again, the sloping site makes accessing floor slabs for pedestrian-oriented commercial uses very difficult. Due to the uses concealed behind the façade, there is little opportunity to open this face to the street. However, at the grade level, shallow display windows with canopies have been incorporated into the façade to reduce the mass of this component and the uppermost floor of the podium is fully glazed again contributing to a reduction in the mass of this element.

The overall composition of the Prince Street façade to the top of the podium presents two distinctly different streetwalls with a significant break between. While the language used in these compositions is similar, they both have a different story to tell thereby enhancing the visual interest and pedestrian experience. *Consistent with 3.2.5 (a), (b), (c), (e), (f).*





SACKVILLE STREET

The south facing Sackville Street façade of Nova Centre arguably presents the most powerful image of the project. The composition of this facade is dominated by the “blue box cornice” Ballroom which defines the limits streetwall. Set against the sloping grade of the site, the strong rectilinear form of the Ballroom seems to float easily above the street. While the Ballroom extends to the property line along Sackville Street, the glazed transparent base is set back to both enhance the “floating” aspect of the Ballroom while allowing space at grade to accommodate stepped planters and a water feature extending from Market Street to Argyle Street. The glazed streetwall supporting the Ballroom is once again broken by the access to the Grafton “Events Plaza” thereby reducing the scale of the streetwall and clearly recognizing and reinforcing the grid block pattern of downtown Halifax. While there is no pedestrian access from Sackville Street to these commercial uses because of grade issues, the stepped planting and water feature is intended to enhance the streetscape and pedestrian experience by providing additional opportunities for sitting, meeting or just people watching. .

Consistent with 3.2.5 (a), (b), (c), (d), (e).

SUSTAINABILITY

From the outset, Nova Centre has targeted a LEED Gold certification. To ensure this target is achieved, a LEED consultant has been retained and has developed a “score card” to guide the process from the demolition of the existing buildings, the excavation of the site through to project completion. *Consistent with Section 5.2 – Sustainability Guidelines.*

ROOF

The project’s mechanical equipment has been well integrated into the architectural expression and there is therefore no rooftop equipment visible. *Consistent with 3.3.4 (d, e).* Where practicable, landscaping treatments have been incorporated into the design of the building’s flat roofs. Areas where this has not been achieved are at the perimeter of the Ballroom where the long span steel roof structure was incapable of supporting the additional loading required of the landscaping treatment. *Consistent with 3.3.4 (c).*

Due to the exceptionally long spans required over the Ballroom and the proximity of view plane No. 6, this roof assumes a curved geometry to achieve the structural depth





required to satisfy the loading conditions. Because of its visibility, a high quality PVC roofing membrane system will be used to both accentuate this geometry and reinforce its importance in the overall composition. The roofing system used at Sky Dome is an example of this approach.

LIGHTING

Night lighting is an important component of the overall design of Nova Centre. As discussed, there are three major components to the design of Nova Centre, the podium, the Ballroom and the towers. The approach to the lighting of each of these major components is distinctly different and appropriate to the forms being illuminated.

The fully glazed Ballroom, which seems to float above Argyle and Sackville streets will be illuminated from the interior with a wash of LED lighting over the entire interior surface of the glass. This feature will be constant even when the Ballroom is not in use. The geometry of the towers will be reinforced by a wash of exterior LED lighting at the rooflines and leading edge or prow of the south tower. The podium, which is populated by commercial occupancies, will

be illuminated from the interior. These large expanses of illuminated glass will cast a warm glow of light unto the sidewalk adding to the ambience of this pedestrian realm.

The Grafton Street "Events Plaza" will be illuminated both day and night to ensure the pedestrian experience in this covered civic space is a positive one. This feature is still under development by a specialist consultant who has prepared the night lighting images in this offered in this document. The water features and the various landscaping elements will also be highlighted at nighttime where discrete source illumination will be incorporated into the design. *Consistent with 3.5.4 - Lighting*

SIGNAGE

Because the podium area of Nova Centre will be populated primarily by commercial uses including restaurants, bars, shops, etc. the demand for quality signage will be significant. Properly integrated into the design, signage can play an important role in animating the street and reinforcing the scale of the public realm. Nova Centre are working with a signage and way finding consultant to develop concepts and parameters to ensure





consistency in the application of this component of the design.

Generally, signage will consist of individual metal letters integrated with the canopy designs which appear at all commercial entrances. All signage will be illuminated at night. *Consistent with 3.5.5 - Signs*

CONCLUSION

While designers and developers have a responsibility to respond to the requirements of various tenants, budgets and project schedules in the provision of built form, they have no less a responsibility to the cities in which they build to provide buildings and streetscapes which respond to civic aspirations for a vibrant, livable city. Nova Center has been born out of a dynamic response to these diverse spheres of influence, and its design rationale is reflected in this significant architectural statement for the City of Halifax.

VIEW AT ARGYLE & PRINCE

Appendix A

DESIGN RATIONALE

The HRM “By Design” Guidelines with their often overlapping requirements make a multi block comprehensive redevelopment difficult.

The following design responses to specific references in the DHLUB Schedule S-1: Design Manual are offered to illustrate how the Nova Centre Design addresses the intent of the guidelines:

Streetwalls/Pedestrian Oriented Commercial

3.1.1a The articulation of narrow shop fronts, characterized by close placement to the sidewalk.

Design Response:

- A series of 30' wide modules have been created through a combination of curved bay windows with stone pilasters between along Argyle and Grafton streets to reflect the individual retail frontages and historic pattern of the adjacent development.

3.2.1a The streetwall should contribute to the fine grained character of the streetscape by articulating the façade in a vertical rhythm that is consistent with the prevailing character of narrow buildings and storefronts.

Design Response:

- The above 3 storey retail facades along Argyle replicate in a modern vernacular the narrow building storefronts opposite.

3.2.1e Streetwalls should be designed to have the highest possible material quality and detail.

Design Response:

- Street walls at grade are either elegantly curved glazed store fronts as described above or brick and masonry pilasters and building facades to reflect Halifax's predominant quality building material.

3.2.1f Streetwalls should have many windows and doors to provide eyes on the street and a sense of animation and engagement.

Design Response:

- Retail shopfronts, outdoor café seating, and strong, wide pedestrian ways will ensure maximum "eyes on the street".

3.2.1g Along pedestrian frontages at grade level, blank walls shall not be permitted, nor shall any mechanical or utility functions (vents, trash vestibules, propane vestibules, etc.) be permitted.

Design Response:

- The vast majority of all pedestrian frontages are glazed and provide views into the building. Solid corners are only provided where the all glass

curtain wall of the upper building requires some mass to act as a counter balance to the overall composition. The extensive mechanical venting and exhausts required for a building with 400 underground parking spaces and two major assembly occupancies has been hidden behind and underneath the planting and water features and through the use of metallic "wave" sculptures.

- The design of the perimeter of the complex, where it meets the street, has been animated with stepped or terraced planters which allow for visual interest and animation, and to reduce scale. The planters have been designed to be in the range of 450mm to 600mm, not exceeding a seat wall height, so that a comfortable pedestrian scale is created along the sloping street;
- Materials selected reflect the local basaltic stone and tie into the dark grey brick selected for the base of the building;
- In the case of Sackville Street, a terraced fountain steps down the hill towards the water, animating the edge and celebrating the relation to the ocean;
- Any mechanical venting is well concealed behind these design features so they are not visible from the street.

3.5.1f Locate heating, venting and air conditioning vents away from public streets. Locate utility hook-ups and equipment (i.e. gas

meters) away from public streets and to the sides and rear of buildings, or in underground vaults.

Design Response:

- Venting has been concealed with landscape elements and integrated into the landscape features so as not to be visible from the street level.

Building Orientation and Placement/Retail Uses

3.2.2a All buildings should orient to, and be placed at, the street edge with clearly defined primary entry points that directly access the sidewalk.

Design Response:

- All primary entry points have been addressed as design features, that are welcoming and inviting from the street. Pedestrian access is clearly defined and stairs have been located and designed to enhance the pedestrian experience, with generous treads and wherever possible, stairs are blended into the grade, addressing the steep slopes along Sackville and Prince Streets;
- The landscape elements including the fountains and bench seating is designed to step with the grades down to the street, from the Grafton central plaza, and to separate the vehicular traffic zone from the pedestrian areas.

3.2.3d Minimize the transition zone between retail and the public realm. Locate retail immediately adjacent

to, and accessible from, the sidewalk.

Design Response:

- The retail zone is located parallel to, and adjacent to the public realm, and all efforts will be made to minimize the horizontal and vertical separation between the two zones;
- The design intent along the retail edge of Argyle is to reflect the storefront scale patios on the opposite side of the street and to animate the Nova Centre with a vibrant and inviting retail experience.

3.2.3f Ensure retail entrances are located at or near grade. Avoid split level, raised or sunken retail entrances. Where a changing grade along a building frontage may result in exceedingly raised or sunken entries it may be necessary to step the elevation of the main floor slab to meet the grade changes.

Design Response:

- The public realm will be kept uncluttered and will allow for generous pedestrian access and wherever possible, at the same grade. Due to the extreme sloping site conditions with respect to grades, any grade change will be blended or minimized in steps between the retail zone and the public realm zone and will be integrated with any balustrades or site furnishings, i.e.) benches or bollards;
- Wherever possible, the retail zones will be flush with the public realm

and where grade changes are required, these zones will attempt to minimize steps and/or ramps and these will be coordinated with the retail tenancy.

Sloping Conditions

3.2.5a Maintain active uses at-grade, related to the sidewalk, stepping with the slope. Avoid levels that are distant from grade.

Design Response:

- S/A

3.2.5c Provide windows, doors and other design articulation along facades; blank walls are not permitted.

Design Response:

- Extensive windows, doors, opaque and fritted glazing, and glass canopies have been used on the non prime retail street frontages described above to provide maximum transparency (including into required exit stairs and delivery areas) to continue a retail precinct feel similar to Vancouver's Gas town area.

3.2.5e Wrap retail display windows a minimum of 4.5 metres around the corner along sloping streets, where retail is present on the sloping street.

Design Response:

- Display windows are stepped around all prime retail streets except where solid corners are provided for strong design reasons. Note – the four new Grafton street corners have twice stepping display windows to maximize commercial and to provide best view triangles from the EW streets.

3.2.5f Wherever possible, provide pedestrian entrances on sloping streets. If buildings are fully accessible at other entrances, consider small flights of steps or ramps up or down internally to facilitate entrances on the slope.

Design Response:

- The finished floor has been stepped where possible to accommodate entrances. Along the main Grafton Street entrances on Sackville and Prince, the entrances have been opened up to be more inviting and to extend the entrances along these steep streets to make the spaces more inviting for pedestrians;
- Where entrances are not located, these edges have been animated with planting terraces and stepping fountains to further create visual interest along the street.

Civic Buildings - Corner Sites

3.4.2b Provision of distinctive architectural treatments such as spires, turrets, belvederes, porticos, arcades, or archways.

Design Response:

- The major corner "gateways" of the development from the downtown have been identified by distinctive architectural elements. The Sackville /Argyle intersection is marked by the creation of the "Blue Box" window looking into the downtown with the "ship's Prowl" bay window rising above and seeming "to point out to sea".

- The view across the the Grand Parade from Barrington street is terminated by a curved clear glass bay window that appears to dramatically cantilever out into the Prince/Argyle intersection.

- The New Grafton Street pedestrian "Arcade" and square seems to be exactly what the guidelines call for and the 5 level atrium at mid block and generous stairway continuing across Grafton up to Market Street extend the public realm at grade and the porosity and pedestrian connectivity of the development.

3.4.2c Developments on all corner sites must provide a frontal design to both street frontages.

Design Response:

- As noted above, the development addresses the surrounding streets in a rich variety of ways at the civic and the pedestrian scales.

3.4.2d Alternatively, buildings may be sited to define the edge of an on-site public open space, for example, plazas, promenades, or

eroded building corners resulting in the creation of public space.

Design Response:

- Specific design responses have been created at the corners of the buildings on the four main corners of the block and at the midblock entrances at Grafton Street. In all cases, the buildings and the landscape are integrated with stairs, planters, and fountains and allow the steep grades of Sackville and Prince Streets to turn the corner and meet the more subtle grades of the north south streets.
- The creation of the new “NOVA Square” at mid block on Grafton Street introduces a unique to Halifax covered “galleria” open space for all types of community and civic uses.

Roofs

2.6m As roofscapes are highly visible from the Citadel in this precinct, they shall be well-designed, carrying the architectural language of the building onto the roof. Flat roofs are required to be landscaped, with living green roofs given strong preference.

Design Response:

- The (Alvar Alto inspired) Curvilinear shape of the ballroom roof viewed from above and from the south complements the curved interior facades of the surrounding hotel and office buildings which look inward onto this sculptural fifth façade which it is intended will be lit to glow softly at night similar to the effect of the dome on SkyDome.

- Living roofs have been created specifically in the areas where the flat roofs are situated, adjacent the hotel roof. The living roof has been divided into two conditions – accessible and visual. The accessible roof allows to a generous terrace with a combination of planting and hardscape, allowing for outdoor functions. The perimeter living roof represents a sedum roofscape which will reflect visual bands of planting reflecting the alignments of the viewplanes in the city.

3.3.4c Landscaping treatment of all flat rooftops is required. Special attention shall be given to landscaping rooftops in precincts 3, 5, 6 and 9, which abut Citadel Hill and are therefore pre-eminently visible. The incorporation of living green roofs is strongly encouraged.

Design Response:

- SA

3.3.4d Ensure all rooftop mechanical equipment is screened from view by integrating it into the architectural design of the building and the expression of the building top. Mechanical rooms and elevator and stairway head-houses should be incorporated into a single well-designed roof top structure. Sculptural and architectural elements are encouraged to add visual interest.

Design Response:

- All mechanical equipment has been incorporated into the building enclosure.

Vehicular Access, Circulation, Loading and Utilities

3.5.1e Coordinate and integrate utilities, mechanical equipment and meters with the design of the building, for example, using consolidated rooftop structures or internal utility rooms.

Design Response:

- For a building type with an extraordinary amount of mechanical, every effort has been made to incorporate, integrate or otherwise hide related exposed elements.

3.5.1f Locate heating, venting and air conditioning vents away from public streets. Locate utility hook ups and equipment (i.e. gas meters) away from public streets and to the sides and rear of buildings, or in underground vaults.

Design Response:

- Again, any venting has been concealed with landscape elements and integrated into the landscape features so as not to be visible from the street level.
- As noted previously, all mechanical venting has been disguised in/under sculptural elements or the water feature. The gas meters at the base of the SW Sackville frontage have been recessed into a masonry alcove and will be screened by sculptural metal latticework gates similar to the

design of the wave fins above the water feature east along Sackville Street.

Lighting

3.5.4a Attractive landscape and architectural features can be highlighted with spot lighting or general lighting placement.

Design Response:

- Lighting is intended to be a major focus of the public realm and retail edge, including canopy lighting, lighting of landscape features, lighting of planters and fountains, and lighting of Grafton Street space, under the ballroom.

3.5.4b Consider a variety of lighting opportunities inclusive of street lighting, pedestrian lighting, building up or down lighting, internal building lighting, internal and external signage illumination (including street addressing), and decorative or display lighting.

Design Response:

- Lighting is seen as a critical part of the design of the building edge, the retail, the canopies, any public art elements, the Blue Box, Argyle Street; Grafton Street, and the rooftop of the Nova Centre in general.

APPENDIX "B"

STRUCTURAL ENGINEER'S LETTER REGARDING ROOF LOADINGS



June 2, 2014

Argyle Developments
Suite 4007, 7071 Bayers Road
Halifax, Nova Scotia
B3L 2C2

ATTENTION: Mr. Joe Ramia

RE: NOVA CENTRE - ROOF LOADINGS

Dear Sir:

The roof structure over the Halifax Convention Centre ballroom consists of long span steel trusses to provide large column free spaces. The depths of the trusses are limited by the required ceiling heights in the ballroom and the available height to the underside of View Plane Number 6. The view plane falls diagonally across the south west corner of the building.

To provide a roof structure adequate to support the loads within the available space required that the amount of roof load be minimized. The installation of a growing green roof would significantly increase the weight of the materials supported by the roof trusses. This additional load would result in a deeper structure. Since the building cannot project into the View Plane, increased depth would result in a lower ceiling height in the ballroom. The Convention Centre program does not allow for lower ceiling heights.

The cladding wind study prepared by RWDI shows that there are high uplift pressures at the roof parapet along Sackville Street and locally on the ballroom roof. It has been reported that wind uplift on living green roofs can result in plant and root mat materials being blown off the roof onto sidewalks and streets below.

In areas when the roofing is supported on concrete slabs a living green roof can be installed. These areas are shown on the latest architectural drawings.

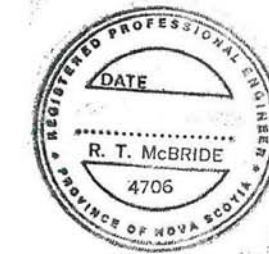
I trust this information will be helpful in evaluating the areas of living green roof. If you have any questions on the information presented please feel free to contact me.

Yours truly,

BMR Structural Engineering

Original signed

Roy T. McBride, M.Sc., P. Eng.



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the strength of experience

APPENDIX "C"
SURVEYOR'S LETTER
HEIGHT PRECINCT & VIEW PLANES

THOMPSON CONN LIMITED

Rodney E. Humphreys, N.S.L.S.
Kenneth M. Lord, N.S.L.S.
John D. Conn, B.A., N.S.L.S.
Kenneth M. Whalen, N.S.L.S.
Allan J. Owen, B.Sc., N.S.L.S., C.L.S.
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Land Surveyors

3597 Dutch Village Road
Halifax, Nova Scotia B3N 2T1 Canada
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E-mail: info@tcl.ca

May 29, 2014

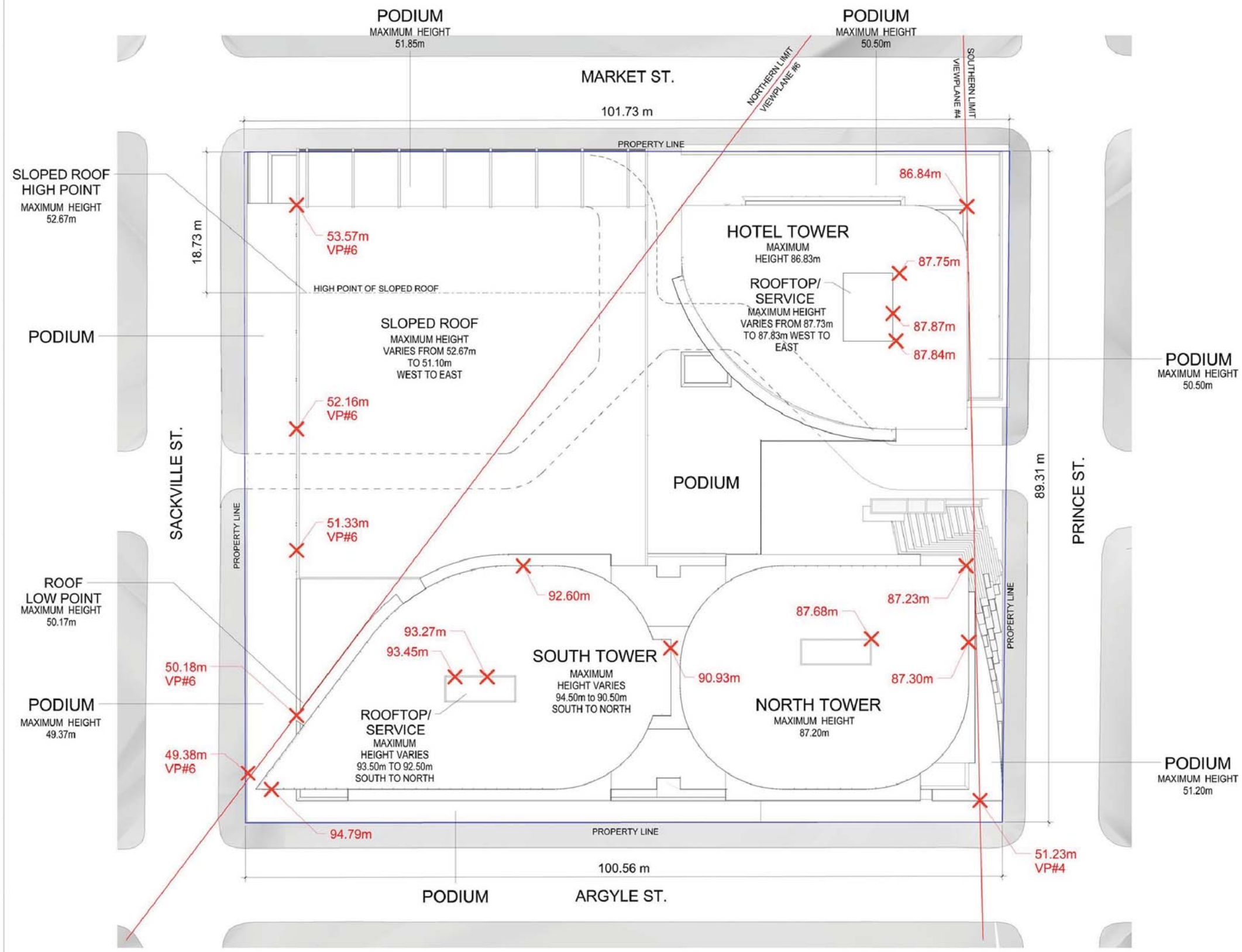
**Re: Height Precinct and View Plane By-law Compliance-
Nova Centre, Halifax, Nova Scotia**

I hereby certify that the proposed Nova Centre as shown on: "Site Plan Maximum Allowable Heights", drawing SPA-030, dated May 29, 2014, prepared by IBI Group, conforms to the Downtown Halifax Land Use By-law (Section 8(14)) and the Halifax Peninsula Land Use By-law (Section 24) with respect to View Planes, as such View Planes are shown on Map Number TT-17-20158A dated January 31, 1974.

I further certify that the proposed Nova Centre as shown on: "Site Plan Maximum Allowable Heights", drawing SPA-030, dated May 29, 2014, prepared by IBI Group, conforms to the Downtown Halifax Land Use By-law (Section 8(17)) and the Halifax Peninsula Land Use By-law (Section 26B) with respect to maximum building height requirements as defined on Height Precinct Map ZM-17 and the published rampart elevations shown thereon.

Original signed

Allan J. Owen, B.Sc., N.S.L.S., C.L.S.



LEGEND

X VIEWPLANE AND RAMPART ELEVATION (GEODETIC)
xx.xx m

NOTES

- MAXIMUM HEIGHT REFERS TO THE MAXIMUM ALLOWABLE BUILDING HEIGHT WITH RESPECT TO THE HEIGHT PRECINT DEFINED BY HALIFAX REGIONAL MUNICIPALITY ZONING MAP ZM-17 USING PUBLISHED RAMPART ELEVATIONS WITHIN THE BLOCK DEFINED BY MARKET STREET, PRINCE STREET, GRAFTON STREET, SACKVILLE STREET, AND ARGYLE STREET.
- MAXIMUM BUILDING HEIGHTS ARE REFERENCED TO GEODETIC ELEVATIONS (SEE NOTE BELOW).
- ELEVATIONS ARE REFERENCED TO THE GEODETIC DATUM AND WERE DERIVED FROM THE MAXIMUM ALLOWABLE BUILDING HEIGHTS PLAN DRAWINGS, PREPARED BY NOVA SCOTIA LAND SURVEYORS THOMPSON CONN LIMITED, DATED JUNE 15, 2010.

Nova Centre
Halifax, Nova Scotia
May 29, 2014

SITE PLAN. MAXIMUM ALLOWABLE HEIGHTS
SPA-030
3/64" = 1'-0"

