

**Item No. 9.2 (i)**  
**Halifax Regional Council**  
**April 12, 2011**  
**May 10, 2011**

**TO:** Mayor Kelly and Members of Halifax Regional Council

**SUBMITTED BY:** Original signed by   
Richard Butts, Chief Administrative Officer

Original Signed by   
Mike Labrecque, Deputy Chief Administrative Officer

**DATE:** April 1, 2011

**SUBJECT:** **Case 01231: Development Agreement - 1595 Barrington Street,  
Halifax**

---

**ORIGIN**

- Application by 1595 Investments Limited to enter into a development agreement to permit a mixed use building at 1595 Barrington Street, Halifax.
- Staff Report of March 14, 2011.

**RECOMMENDATION**

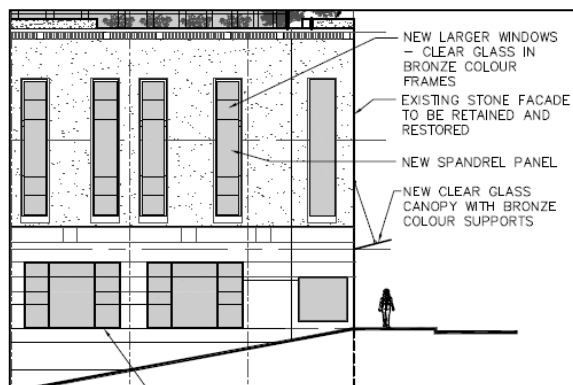
It is recommended that Halifax Regional Council:

1. Give Notice of Motion to consider the application by 1595 Investments Limited for a development agreement at 1595 Barrington Street, and schedule a public hearing;
2. Approve the development agreement, included as Attachment A1 of this report, to permit a mixed-use development; and
3. Require the agreement be signed by the property owner within 120 days, or any extension thereof granted by Council on request of the property owner, from the date of final approval by Council and any other bodies as necessary, including applicable appeal periods, whichever is later; otherwise this approval will be void and obligations arising hereunder shall be at an end.

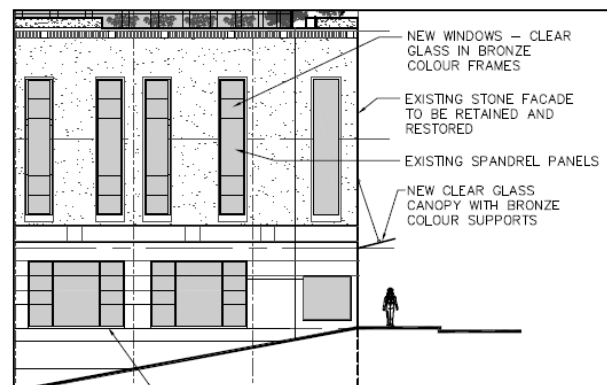
## **BACKGROUND/DISCUSSION**

The application for the Discovery Centre building involves the retention of its stone facades facing Barrington and Sackville streets. Part of this includes stone that is inset from the walls, between the second and third floor windows. Although this area of stone is to be retained, this was not reflected through the notations on the original drawings. Therefore, revisions to the notations have been made and are included in a revised proposed development agreement that is attached to this report (Attachment A1). The changes are as follows:

1. The previous note, “New Spandrel Panel” is changed to “Existing Spandrel Panel”; and
2. The previous note, “New larger windows - clear glass in bronze colour frames” is changed to, “New windows - clear glass in bronze colour frames.”



Previous notations



Revised notations

## **BUDGET IMPLICATIONS**

There are no budget implications. The Developer will be responsible for all costs, expenses, liabilities, and obligations imposed under or incurred in order to satisfy the terms of this Agreement. The administration of this Agreement can be carried out within the proposed budget with existing resources.

## **FINANCIAL MANAGEMENT POLICIES/BUSINESS PLAN**

This report complies with the Municipality’s Multi-Year Financial Strategy, the proposed Operating, Project and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Project and Operating reserves, as well as any relevant legislation.

## **COMMUNITY ENGAGEMENT**

See the March 14, 2011 staff report.

### ALTERNATIVES

1. Council may approve the proposed development agreement. This is the recommended course of action.
2. Council may refuse the development agreement and, in doing so, must provide reasons based on conflict with existing MPS policy.
3. Council may approve the development agreement with modifications which are acceptable to the applicant. Such modifications may require further negotiations with the applicant or revisions to the attached agreement.

### ATTACHMENTS

Attachment A1      Proposed Development Agreement

---

A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/agenda.html> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Report Prepared by:      Richard Harvey, Senior Planner, 490-5637

Report Approved by:      \_\_\_\_\_  
Austin French, Manager, Planning Services, 490-6717

Financial Approval by:      \_\_\_\_\_  
For Bruce Fisher, MPA, CMAA, A/Director of Finance/CFO 490-6308

Report Approved by:      \_\_\_\_\_  
Austin French, A/Director, Community Development, 490-6717

---

**Attachment A1**  
**Proposed Development Agreement**

THIS AGREEMENT made this \_\_\_\_ day of \_\_\_\_\_, 20\_\_,

BETWEEN:

**INSERT DEVELOPER NAME,**

a body corporate, in the Province of Nova Scotia  
(hereinafter called the "Developer")

OF THE FIRST PART

- and -

**HALIFAX REGIONAL MUNICIPALITY,**

a municipal body corporate, in the Province of Nova Scotia  
(hereinafter called the "Municipality")

OF THE SECOND PART

WHEREAS the Developer is the registered owner of certain lands located at PID \_\_\_\_\_ and identified as 1593-95 Barrington Street, Halifax and which said lands are more particularly described in Schedule A hereto (hereinafter called the "Lands");

AND WHEREAS the Developer has requested that the Municipality enter into a development agreement to allow for a building greater than 40 feet in height pursuant to the provisions of the *Halifax Regional Municipality Charter* and pursuant to Policy 3.5.1 of the Implementation Policies of Halifax Municipal Planning Strategy and Section 84 of the Halifax Peninsula Land Use By-law;

AND WHEREAS Regional Council approved this request at a meeting held on \_\_\_\_\_, referenced as Municipal Case Number 01231;

THEREFORE in consideration of the benefits accrued to each party from the covenants herein contained, the Parties agree as follows:

**PART 1: GENERAL REQUIREMENTS AND ADMINISTRATION**

**1.1 Applicability of Agreement**

- 1.1.1 The Developer agrees that the Lands shall be developed and used only in accordance with and subject to the terms and conditions of this Agreement.

## **1.2 Applicability of Land Use By-law and Subdivision By-law**

- 1.2.1 Except as otherwise provided for herein, the development, subdivision, and use of the Lands shall comply with the requirements of the Halifax Peninsula Land Use By-law in effect on October 23, 2009 and the Regional Subdivision By-law, as may be amended from time to time.

## **1.3 Applicability of Other By-laws, Statutes and Regulations**

- 1.3.1 Further to Section 1.2, nothing in this Agreement shall exempt or be taken to exempt the Developer, lot owner or any other person from complying with the requirements of any by-law of the Municipality applicable to the Lands (other than the Land Use By-law to the extent varied by this Agreement), or any statute or regulation of the Provincial and Federal Governments and the Developer and/or lot owner agree to observe and comply with all such laws, by-laws and regulations in connection with the development and use of the Lands.
- 1.3.2 The Developer shall be responsible for securing all applicable approvals associated with the on-site and off-site servicing systems required to accommodate the development, including but not limited to sanitary sewer system, water supply system, stormwater sewer and drainage system, and utilities. Such approvals shall be obtained in accordance with all applicable by-laws, standards, policies, and regulations of the Municipality and other approval agencies. All costs associated with the supply and installation of all servicing systems and utilities shall be the responsibility of the Developer. All design drawings and information shall be certified by a Professional Engineer or appropriate professional as required by other approval agencies.

## **1.4 Conflict**

- 1.4.1 Where the provisions of this Agreement conflict with those of any by-law of the Municipality applicable to the Lands (other than the Land Use By-law to the extent varied by this Agreement) or any provincial or federal statute or regulation, the higher or more stringent requirements shall prevail.
- 1.4.2 Where the written text of this Agreement conflicts with information provided in the Schedules attached to this Agreement, the written text of this Agreement shall prevail.

## **1.5 Costs, Expenses, Liabilities and Obligations**

- 1.5.1 The Developer shall be responsible for all costs, expenses, liabilities and obligations imposed under or incurred in order to satisfy the terms of this Agreement and all federal, provincial and municipal laws, by-laws, regulations, and codes applicable to the Lands.

## **1.6 Provisions Severable**

- 1.6.1 The provisions of this Agreement are severable from one another and the invalidity or unenforceability of one provision shall not affect the validity or enforceability of any other provision.

## **PART 2: DEFINITIONS**

### **2.1 Words Not Defined under this Agreement**

- 2.1.1 All words unless otherwise specifically defined herein shall be as defined in the applicable Land Use By-law and Subdivision By-law.

### **2.2 Definitions Specific to this Agreement**

- 2.2.1 The following words used in this Agreement shall be defined as follows:

“Building” means the building that is the subject of this Agreement and as shown in its Schedules.

“Cultural Uses” means uses oriented towards the arts and the improvement of knowledge and skills.

“Development” means the development of the Lands pursuant to this Agreement.

## **PART 3: USE OF LANDS, SUBDIVISION AND DEVELOPMENT PROVISIONS**

### **3.1 Schedules**

- 3.1.1 The Developer shall develop and use the Lands in a manner, which, in the opinion of the Development Officer, is generally in conformance with the Schedules attached to this Agreement, unless further specified under this Agreement, and filed in the Halifax Regional Municipality as Case Number 01231:

Schedule A	Legal Description of the Lands
Schedule B	Site Plan
Schedule R-1	Building Elevation (Sackville Street - North)
Schedule R-2	Building Elevation (South)
Schedule R-3	Building Elevation (Granville Street - East)
Schedule R-4	Building Elevation (Barrington Street - West)
Schedule R-5	P1 Parking Level
Schedule R-6	Granville Level & P2 Parking Level
Schedule R-7	Floor Plan - Barrington Street Level Retail
Schedule R-8	Floor Plan - Levels 2 and 3

### **3.2     Permitted Land Uses**

#### **3.2.1     Permitted uses for the development shall be:**

Any business or commercial enterprise permitted by the C-2 (General Business) Zone;  
Cultural uses;  
Institutional uses;  
Residential uses; and  
Accessory uses to any of the foregoing uses.

#### **3.2.2     Notwithstanding 3.2.1, only the following uses shall be permitted within areas identified as “storefronts” upon the Schedules, immediately facing Granville Street and Barrington Street:**

Retail uses;  
Restaurants;  
Lounges / Entertainment uses;  
Personal service uses; and  
Cultural uses.

### **3.3     Modifications to Floor Plans, Number of Storeys, and Height**

#### **3.3.1     Changes to the interior floor areas identified on the Schedules shall be permitted provided that other requirements of this Agreement are met.**

#### **3.3.2     Provided that the appearance of the building as shown on the Schedules is retained and that all other requirements of this Agreement are met, there may be a reduction in the number of storeys of the building.**

#### **3.3.3     Provided that all other requirements of this Agreement are met, there may be a reduction in the height of the building.**

### **3.4     View Requirements**

#### **3.4.1     For greater certainty, with regard to clause 3.1.1 (the Schedules of this Agreement), and notwithstanding any other provision of this Agreement, no element of the building, including any fixture which is to be attached to the building, shall violate the rampart requirements of the Land Use By-law.**

### **3.5 Existing Facades**

- 3.5.1 Every effort shall be made to retain the existing facades identified on the Schedules. If these facades are required to be removed to enable the development they shall be rebuilt, and if they are damaged, they shall be restored using the same type of stone, and with same style and detailing, as the existing facades.
- 3.5.2 Where minor repairs to the facades are required precast concrete or other materials may be used provided that the colour, style, and detailing of the facades is retained.

### **3.6 Awnings**

- 3.6.1 Where fixed or retractable awnings are shown on the Schedules as encroaching into the Municipal right-of-way, such encroachments shall be subject to separate Municipal approval pursuant to 1.3.1.

### **3.7 Roof Mounted Mechanical and Telecommunication Equipment**

- 3.7.1 Roof mounted mechanical equipment shall be as generally shown on the Schedules. Changes to the number, placement, size, and type of mechanical equipment shall be permitted where said equipment is visually concealed in a manner that is consistent with that which is shown on the Schedules.
- 3.7.2 Roof mounted telecommunication equipment shall be integrated into the roof design of the building.

### **3.8 Functional Elements**

- 3.8.1 Other than roof mounted mechanical equipment, pursuant to 3.7.1, mechanical equipment, exhausts (except exhausts for individual dwelling units), propane tanks, electrical transformers, and other utilitarian features shall be visually concealed from abutting properties, including municipal rights-of-way.
- 3.8.2 There shall be noise and odour reduction measures to reduce the impact of mechanical equipment, including exhaust fans, upon the lands and the surrounding properties.

### **3.9 Parking**

- 3.9.1 Vehicular parking shall be established as shown on the Schedules.
- 3.9.2 The Developer shall provide bicycle parking pursuant to the bicycle parking requirements of the Land Use By-law.



- 3.9.3 Notwithstanding 3.9.1, the developer may construct additional levels of underground parking, below those that are shown on the Schedules.

### **3.10 Building Lighting**

- 3.10.1 This Agreement shall not oblige the Developer to illuminate the building, but where the building is illuminated, such illumination shall generally comply with the Schedules.
- 3.10.2 Lighting for signage, walkways, patios, balconies, and entrances shall be permitted and is not subject to 3.10.1.
- 3.10.3 The lighting pursuant to 3.10.1 and 3.10.2 shall be directed away from surrounding properties, including municipal right-of-ways except to the extent as shown on the Schedules.
- 3.10.4 Lighting shall be not include illumination that flashes, moves, or varies in intensity.

### **3.11 Signs**

- 3.11.1 Signs shall be permitted pursuant to requirements of the Land Use By-law.
- 3.11.2 Notwithstanding 3.11.1, signs that are to be located upon the existing building facades, identified on the Schedules and facing Barrington Street and Sackville Street, or replacements thereof (pursuant to Section 3.5), shall be subject to the sign requirements of the Heritage Conservation (Barrington Street) District By-law (By-law H-500).

### **3.12 Outdoor Storage and Display**

- 3.12.1 No outdoor storage or outdoor display shall be permitted.

### **3.13 Landscaping**

- 3.13.1 Prior to the issuance of a Development Permit and Building Permit for the construction of the building, the Developer shall provide the Municipality with a detailed landscape plan, prepared by a Landscape Architect, which shall provide details of the rooftop landscaped area shown on the Schedules.
- 3.13.2 Planting types shall be suitable for a rooftop environment and conform to the Canadian Nursery Trades Association Metric Guide Specifications and Standards and sodded areas to the Canadian Nursery Sod Growers' Specifications.
- 3.13.3 Planting details for each type of plant material proposed on the landscape plan shall be provided, including species list with quantities, size of material, and

common and botanical names (species and variety). Mass shrub plantings or mixed shrub and ground cover plantings are preferred instead of perennial beds.

- 3.13.4 Prior to issuance of an Occupancy Permit, the Developer shall submit to the Development Officer a letter prepared by a member in good standing of the Canadian Society of Landscape Architects certifying that all landscaping has been completed according to the terms of this Development Agreement.
- 3.13.5 Notwithstanding the above, an Occupancy Permit may be issued provided that the weather and time of year does not allow the completion of the outstanding landscape work and the Developer supplies a security deposit in the amount of 110 percent of the estimated cost to complete the landscaping as shown on the Landscape Plan. The security shall be in favour of the Municipality and shall be in the form of a certified cheque or automatically renewing, irrevocable letter of credit issued by a chartered bank. The security shall be returned to the Developer only upon completion of the landscaping as described herein and as approved by the Development Officer. Should the Developer not complete the landscaping within twelve months of issuance of the Occupancy Permit, the Municipality may use the deposit to complete the landscaping. The Developer shall be responsible for all costs in this regard exceeding the deposit. The security deposit or unused portion of the security deposit shall be returned to the Developer upon completion of the work and its certification.

### **3.14 Wind Mitigation Measures**

- 3.14.1 Prior to the issuance of a development permit for construction, the Developer shall undertake wind tunnel testing of the development by a qualified professional and submit a report to the Development Officer that:
  - (a) Confirms that the sidewalks abutting the development will have a levels of comfort that fall within meet the categories of “standing” or walking” as identified in Schedule W-1; and
  - (b) Where necessary, proposes wind mitigation measures to achieve said expected levels of wind comfort.
- 3.14.2 Pursuant to 3.14.1, proposed mitigation measures may include modifications to the development, but such modifications shall not be so substantial that they, in the opinion of the Development Officer, are inconsistent with the Schedules or other terms of this Agreement.
- 3.14.3 Pursuant to 3.14.2, proposed modifications shall be identified on the building plans submitted for a development permit for construction and be completed prior to the issuance of an occupancy permit.

### **3.15 Maintenance**

- 3.15.1 The Developer shall maintain and keep in good repair all portions of the development on the Lands, including but not limited to, the interior and exterior of the building, fencing, walkways, recreational amenities, parking areas and driveways, and the maintenance of all landscaping including the replacement of damaged or dead plant stock, trimming and litter control, garbage removal and snow removal/salting of walkways and driveways.

### **3.16 Requirements Prior to Approval**

- 3.16.1 Prior to the issuance of a Development Permit and a Building Permit for the building, the Developer shall provide the following to the Development Officer:
- (a) Written certification and plans from a Professional Surveyor that the completed building complies with the rampart requirements of the Land Use By-law pursuant to Section 3.4;
  - (b) The landscape plan prepared pursuant to Section 3.13;
  - (c) The wind mitigation measures pursuant to Section 3.14; and
  - (c) Confirmation of the undergrounding arrangement in accordance with Section 4.2 of this Agreement.
- 3.16.2 Prior to the issuance of an Occupancy Permit for any of the components of the development on the Lands, the Developer shall provide all of the following to the Development Officer:
- (a) Written certification and plans from a Professional Surveyor that the completed building complies with the rampart requirements of the Land Use By-law; and
  - (b) Confirmation of the landscaping requirements pursuant to Section 3.13.
- 3.16.3 Notwithstanding any other provision of this Agreement, the Developer shall not occupy or use the Lands for any of the uses permitted by this Agreement unless an Occupancy Permit has been issued by the Municipality. No Occupancy Permit shall be issued by the Municipality unless and until the Developer has complied with all applicable provisions of this Agreement and the Land Use By-law (except to the extent that the provisions of the Land Use By-law are varied by this Agreement) and with the terms and conditions of all permits, licences, and approvals required to be obtained by the Developer pursuant to this Agreement.

## **PART 4: STREETS AND MUNICIPAL SERVICES**

### **4.1 General Provisions**

- 4.1.1 All construction shall conform to the Municipal Services Specifications unless otherwise varied by this Agreement and shall receive written approval from the Development Engineer prior to undertaking any work.
- 4.1.2 Any disturbance to existing off-site infrastructure resulting from the development, including streets, sidewalks, curbs and gutters, street trees, landscaped areas and utilities, shall be the responsibility of the Developer and shall be reinstated, removed, replaced, or relocated by the Developer as directed by the Municipal Engineer.

### **4.2 Underground Services**

- 4.2.1 The Developer agrees to place all primary and secondary utility services (electrical and communication distribution systems) underground. In addition to being responsible for the full cost of placing secondary services underground, the Developer agrees to pay for all infrastructure costs required to place the primary utility services underground that are currently above ground within those portions of Barrington Street, Sackville Street, and Granville Street which abut the Lands. The Developer is responsible for meeting the requirements of applicable utility companies.
- 4.2.2 The Municipal Engineer may waive or alter the requirements of 4.2.1 where improvements to utility services are necessary that are beyond the obligations of the Developer as specified in clause 4.2.1 and the Developer is unable to secure such improvements from an applicable utility provider.

### **4.3 Proposed Encroachments**

- 4.3.1 Any proposed building encroachments into the street rights-of-way, illustrated on the attached Schedules or otherwise, shall be subject to separate Municipal approval pursuant to 1.3.1.

## **PART 5: ENVIRONMENTAL PROTECTION MEASURES**

### **5.1 Archaeological Monitoring and Protection**

- 5.1.1 The Lands fall within the High Potential Zone for Archaeological Sites identified by the Province of Nova Scotia. The Developer agrees to contact the Curator of Special Places, Heritage Division, Tourism, Culture, and Heritage prior to any disturbance of the site and to comply with the requirements set forth by the Province of Nova Scotia in this regard.

## **5.2 Sulphide Bearing Materials**

- 5.2.1 The Developer agrees to comply with the legislation and regulations of the Province of Nova Scotia with regards to the handling, removal, and disposal of sulphide bearing materials, which may be found on the Lands.

## **PART 6: AMENDMENTS**

### **6.1 Substantive Amendments**

- 6.1.1 Amendments to any matters not identified under Section 6.2 shall be deemed substantive and may only be amended in accordance with the approval requirements of the *Halifax Regional Municipality Charter*.

### **6.2 Non-substantive Amendments**

- 6.2.1 The following items are considered by both Parties to be non-substantive and may be amended by resolution of Council:
- (a) Changes to the architectural appearance, materials, and colours of the building as shown on the Schedules;
  - (b) Changes to the Roof Mounted Mechanical and Telecommunication Equipment provisions specified in Section 3.7;
  - (c) Changes to the Functional Elements provisions specified in Section 3.8;
  - (d) Changes to the Parking provisions specified in Section 3.9;
  - (e) Changes to the Building Lighting provisions specified in Section 3.10;
  - (f) Changes to the Signs provisions specified in Section 3.11;
  - (g) Changes to the Landscaping provisions specified in Section 3.13;
  - (h) Changes to the building pursuant to the wind mitigation measures / solutions specified in clause 3.14.2;
  - (i) Changes to the Requirements Prior to Approval provisions specified in Section 3.16; and
  - (j) Changes to the Underground Services provisions specified in Section 4.2.

## **PART 7: ENFORCEMENT AND RIGHTS AND REMEDIES ON DEFAULT**

### **7.1 Enforcement**

- 7.1.1 The Developer agrees that any officer appointed by the Municipality to enforce this Agreement shall be granted access onto the Lands during all reasonable hours without obtaining consent of the Developer. The Developer further agrees that, upon receiving written notification from an officer of the Municipality to inspect the interior of any building located on the Lands, the Developer agrees to allow for such an inspection during any reasonable hour within twenty four (24) hours of receiving such a request.

### **7.2 Failure to Comply**

- 7.2.1 If the Developer fails to observe or perform any covenant or condition of this Agreement after the Municipality has given the Developer thirty (30) days written notice of the failure or default, except that such notice is waived in matters concerning environmental protection and mitigation, then in each such case:
- (a) The Municipality shall be entitled to apply to any court of competent jurisdiction for injunctive relief including an order prohibiting the Developer from continuing such default and the Developer hereby submits to the jurisdiction of such Court and waives any defense based upon the allegation that damages would be an adequate remedy;
  - (b) The Municipality may enter onto the Lands and perform any of the covenants contained in this Agreement or take such remedial action as is considered necessary to correct a breach of the Agreement, whereupon all reasonable expenses whether arising out of the entry onto the Lands or from the performance of the covenants or remedial action, shall be a first lien on the Lands and be shown on any tax certificate issued under the *Assessment Act*;
  - (c) The Municipality may by resolution discharge this Agreement, in whole or in part, whereupon this Agreement shall have no further force or effect and henceforth the development of the Lands shall conform with the provisions of the Land Use By-law; and/or,
  - (d) In addition to the above remedies, the Municipality reserves the right to pursue any other remedy under the *Halifax Regional Municipality Charter* or Common Law in order to ensure compliance with this Agreement.

## **PART 8: REGISTRATION, EFFECT OF CONVEYANCES AND DISCHARGE**

### **8.1 Registration**

- 8.1.1 A copy of this Agreement and every amendment and/or discharge of this Agreement shall be recorded at the Land Registry Office for Halifax County, Nova Scotia and the Developer shall incur all cost in recording such documents.

### **8.2 Subsequent Owners**

- 8.2.1 This Agreement shall be binding upon the Parties thereto, their successors, assigns, mortgagees, lessees and all subsequent owners, and shall run with the Lands which is the subject of this Agreement until this Agreement is discharged by Council.
- 8.2.2 Upon the transfer of title to any lot, the subsequent owner(s) thereof shall observe and perform the terms and conditions of this Agreement to the extent applicable to the lot.

### **8.3 Commencement of Development**

- 8.3.1 In the event that development on the Lands has not commenced within 3 years from the date of execution of this Agreement, the Agreement shall have no further force or effect and henceforth the development of the Lands shall conform to the provisions of the Land Use By-law.
- 8.3.2 For the purposes of clause 8.3.1, commencement of development shall mean the issuance of construction permits and the commencement of work for the parking levels shown on the Schedules.

### **8.4 Completion of Development**

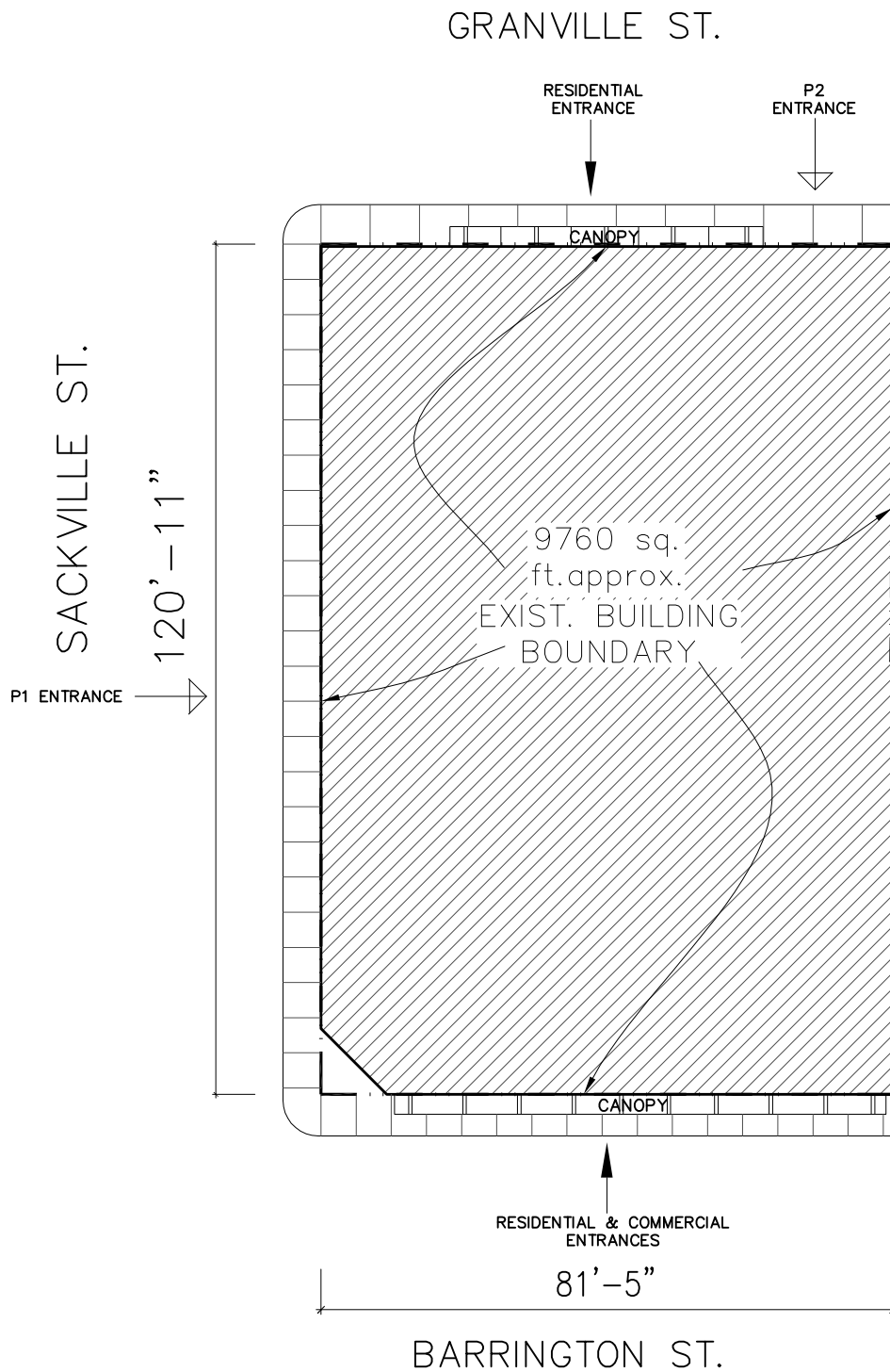
- 8.4.1 The development shall be substantially complete within 6 years of the execution of this Agreement.
- 8.4.2 Upon the completion of the development or portions thereof, or after 6 years from the date of execution of this Agreement, whichever time period is less, Council may review this Agreement, in whole or in part, and may:
- (a) Retain the Agreement in its present form; or
  - (b) Discharge this Agreement on the condition that for those portions of the development that are deemed complete by Council, the Developer's rights hereunder are preserved and the Council shall apply appropriate

zoning pursuant to the planning documents that are in effect at the time of the discharge.

WITNESS that this Agreement, made in triplicate, was properly executed by the respective Parties on this \_\_\_\_\_ day of \_\_\_\_\_, A.D., 20\_\_.

SIGNED, SEALED AND DELIVERED	)	<u><b>[INSERT DEVELOPER NAME]</b></u>
in the presence of	)	
_____	)	Per:_____
	)	
SEALED, DELIVERED AND	)	
ATTESTED to by the proper	)	
signing officers of Halifax Regional	)	<u>HALIFAX REGIONAL MUNICIPALITY</u>
Municipality duly authorized	)	
in that behalf in the presence	)	Per:_____
of	)	<b>MAYOR</b>
_____	)	
	)	Per:_____
	)	<b>MUNICIPAL CLERK</b>





PARADE SQUARE VIEW LINE AT PROPERTY BOUNDARY

RESIDENTIAL  
(11 LEVELS)RESIDENTIAL  
(2 LEVELS)

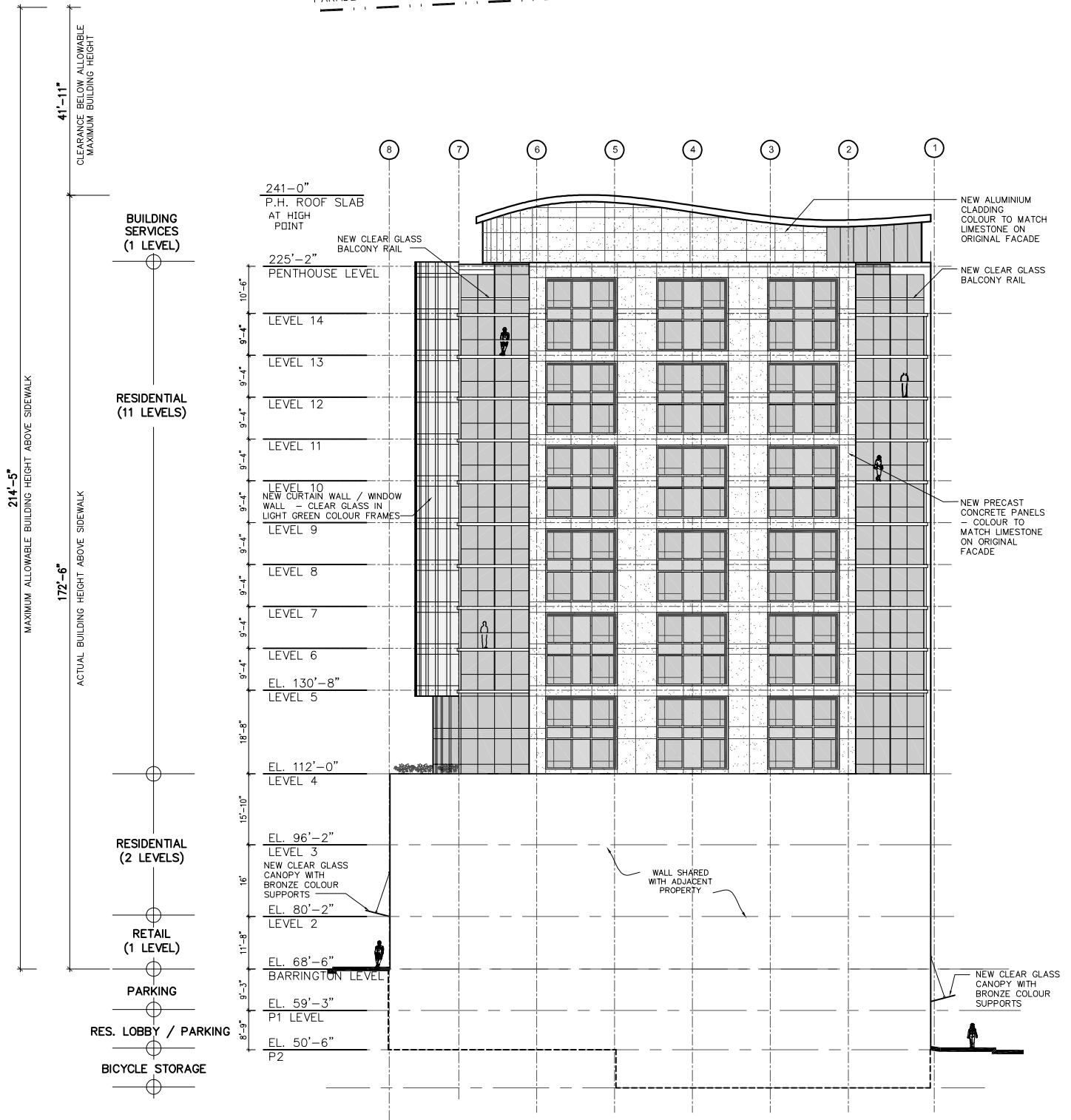
RETAIL  
(1 LEVEL)

PARKING

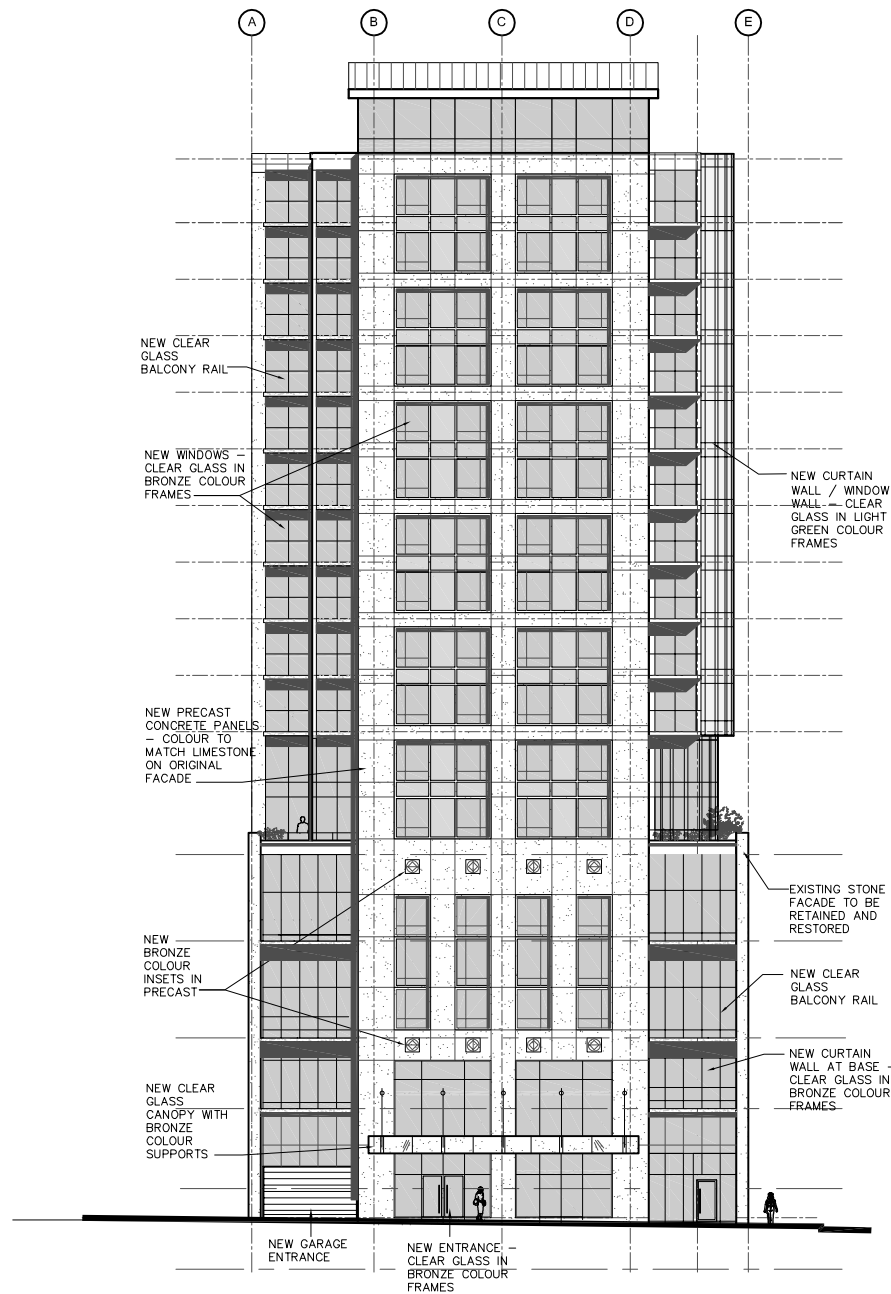
RES. LOBBY / PARKING

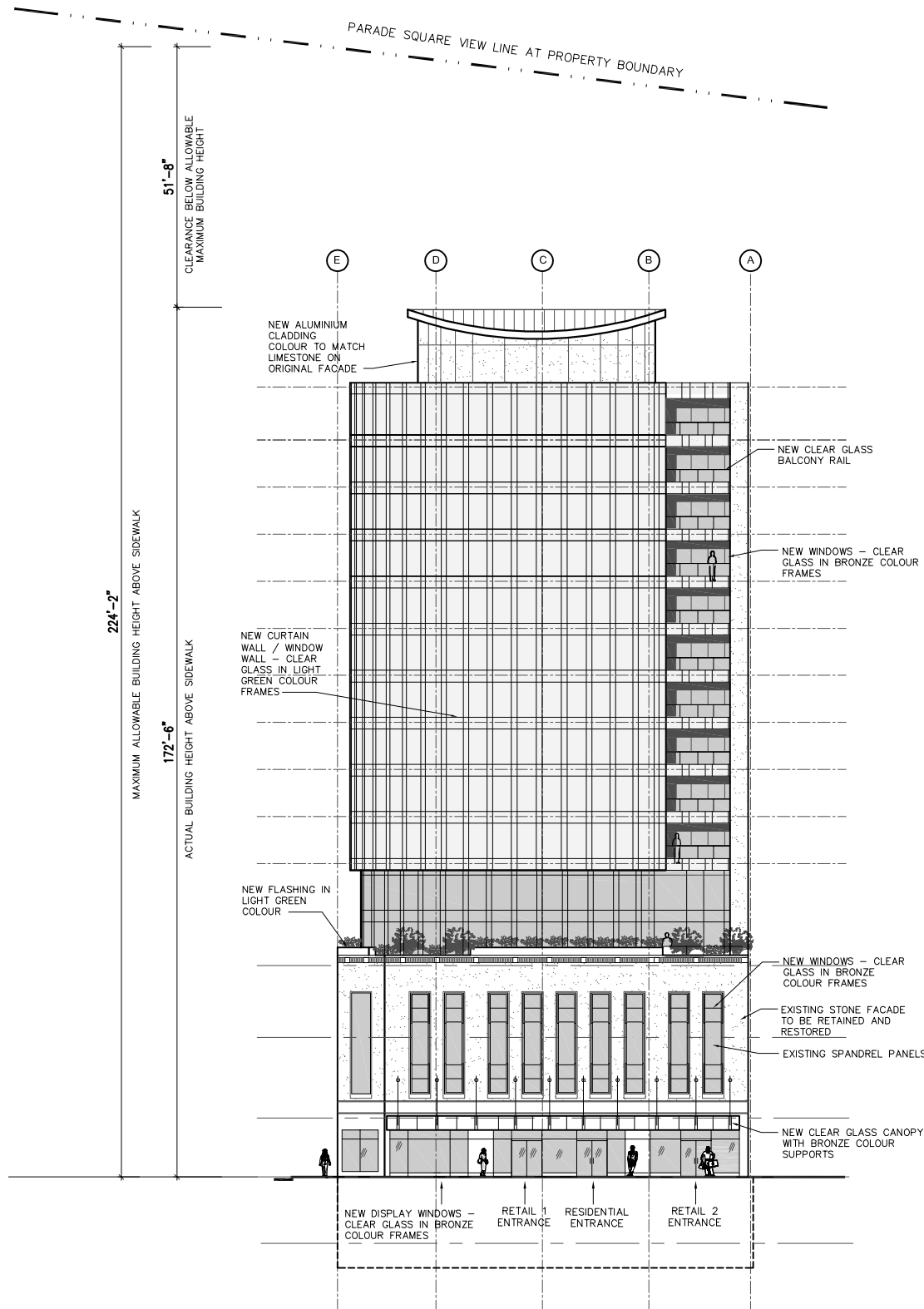
**BICYCLE STORAGE**

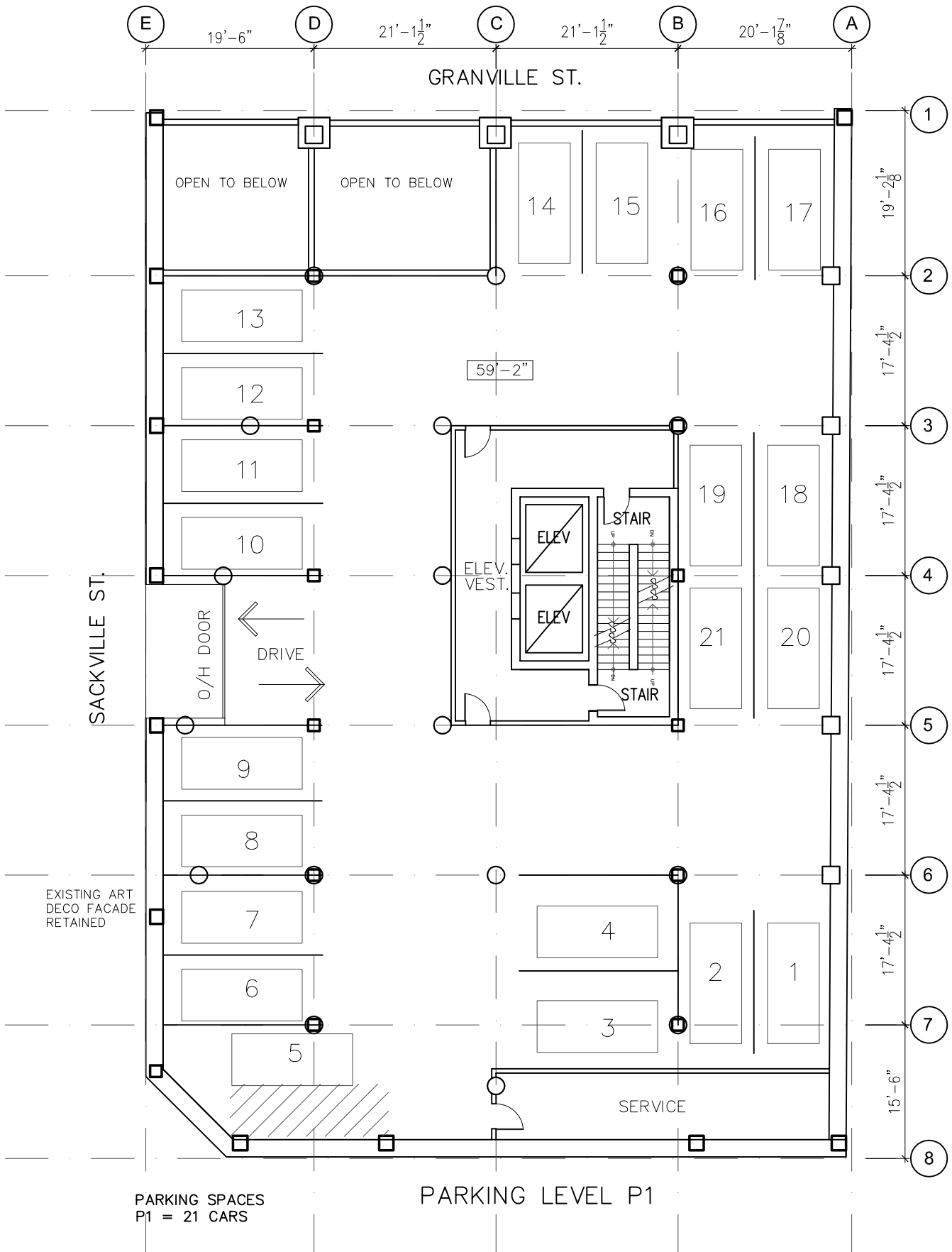
PARADE SQUARE VIEW LINE AT PROPERTY BOUNDARY



PARADE SQUARE VIEW LINE AT PROPERTY BOUNDARY

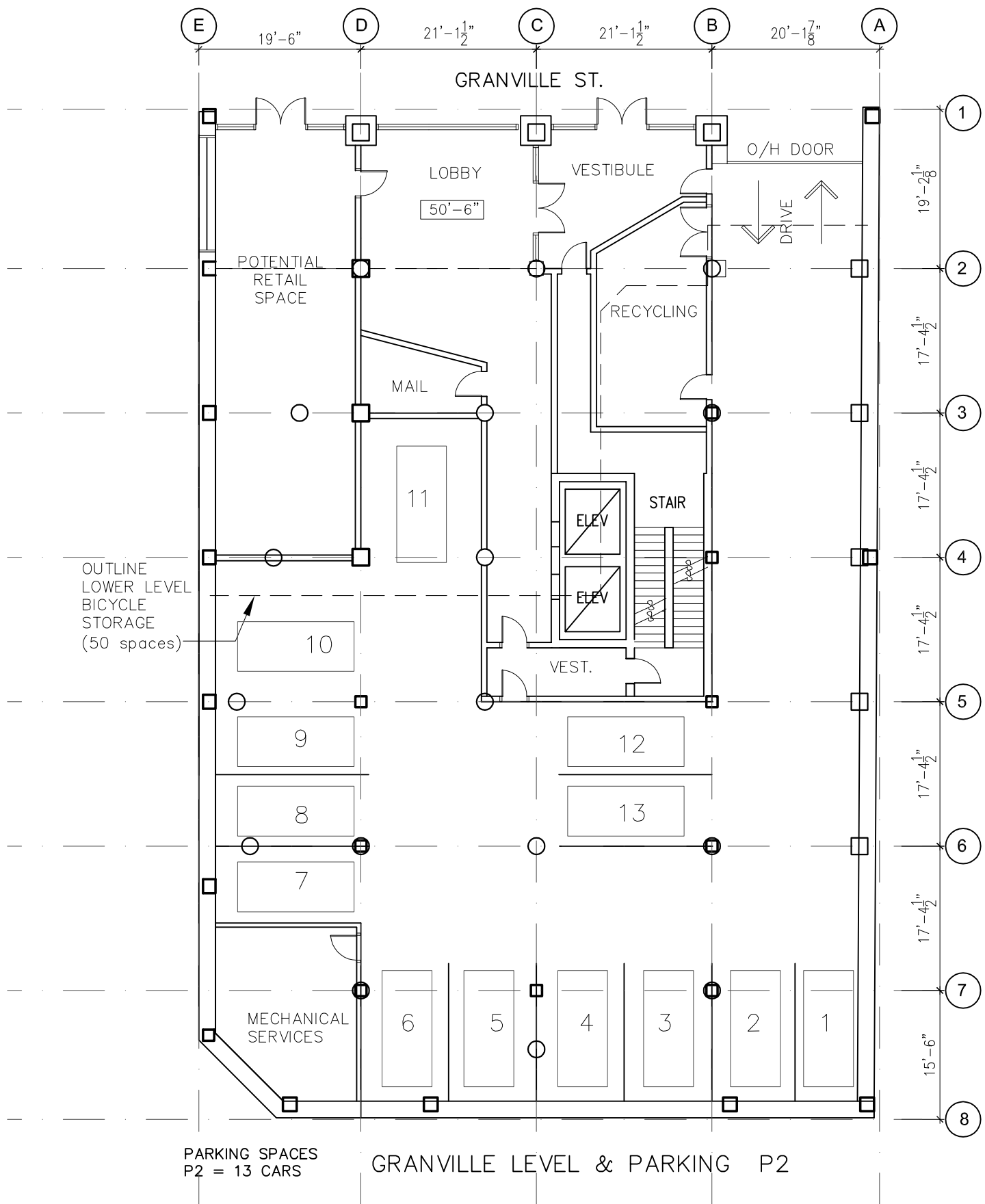


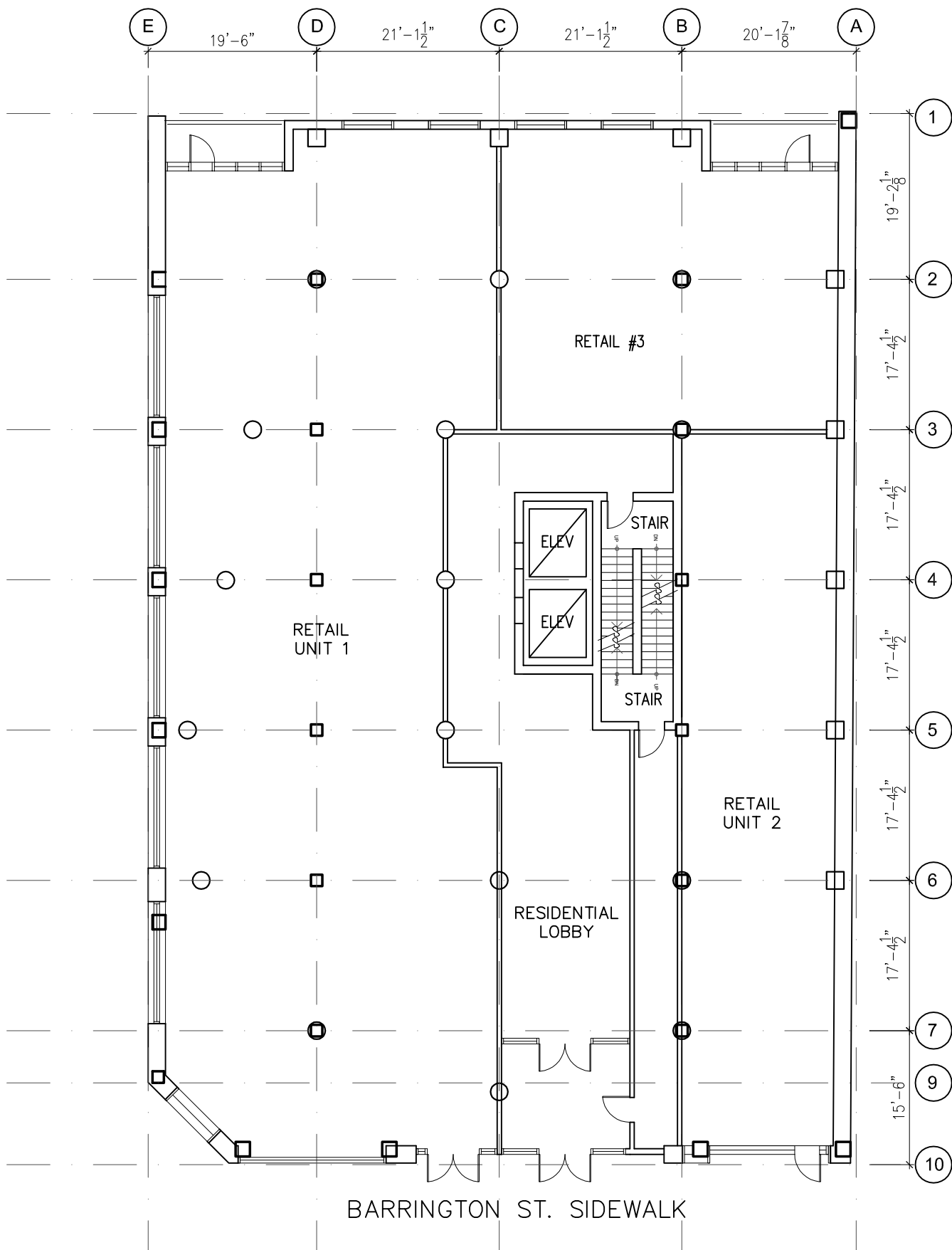




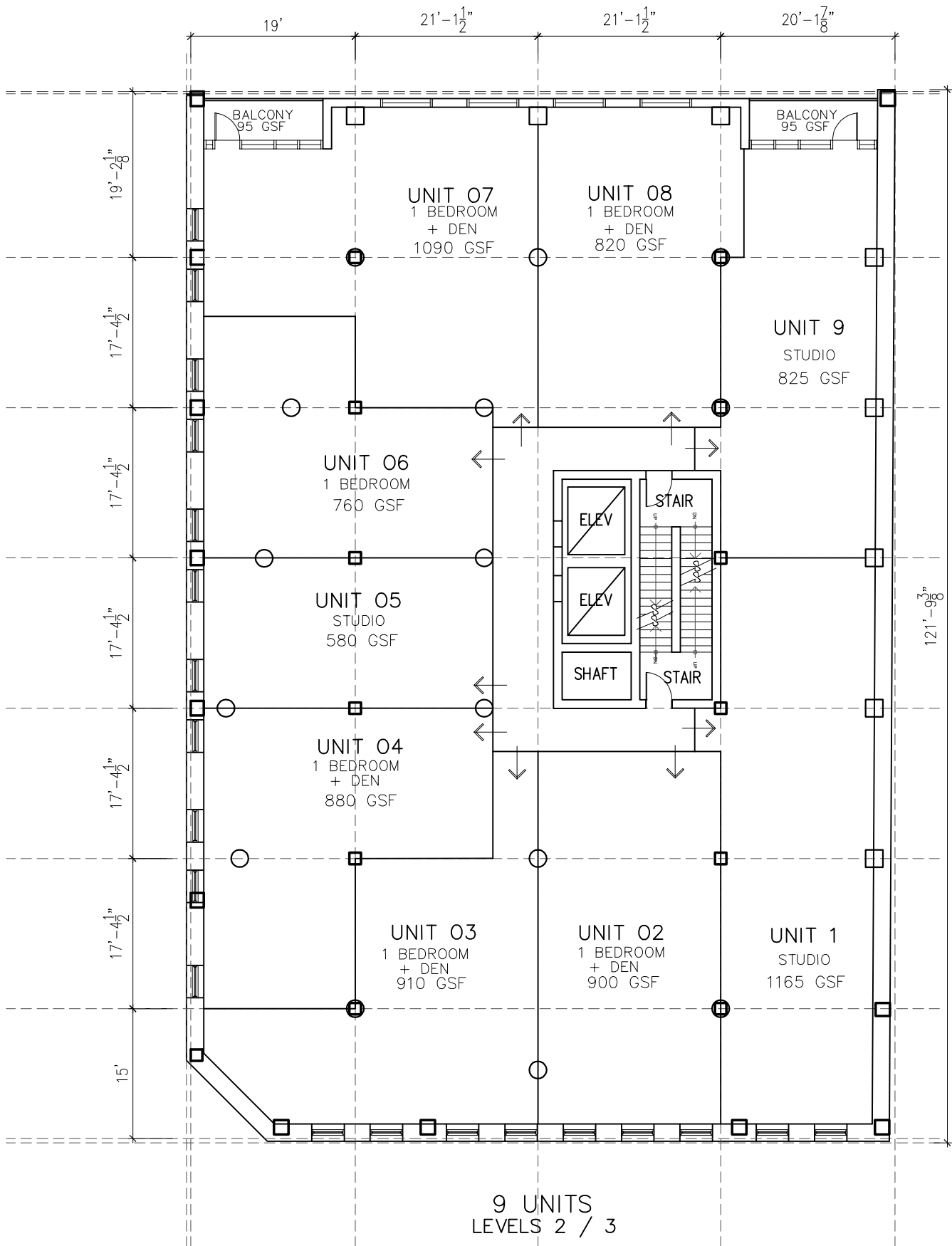
PARKING SPACES  
P1 = 21 CARS

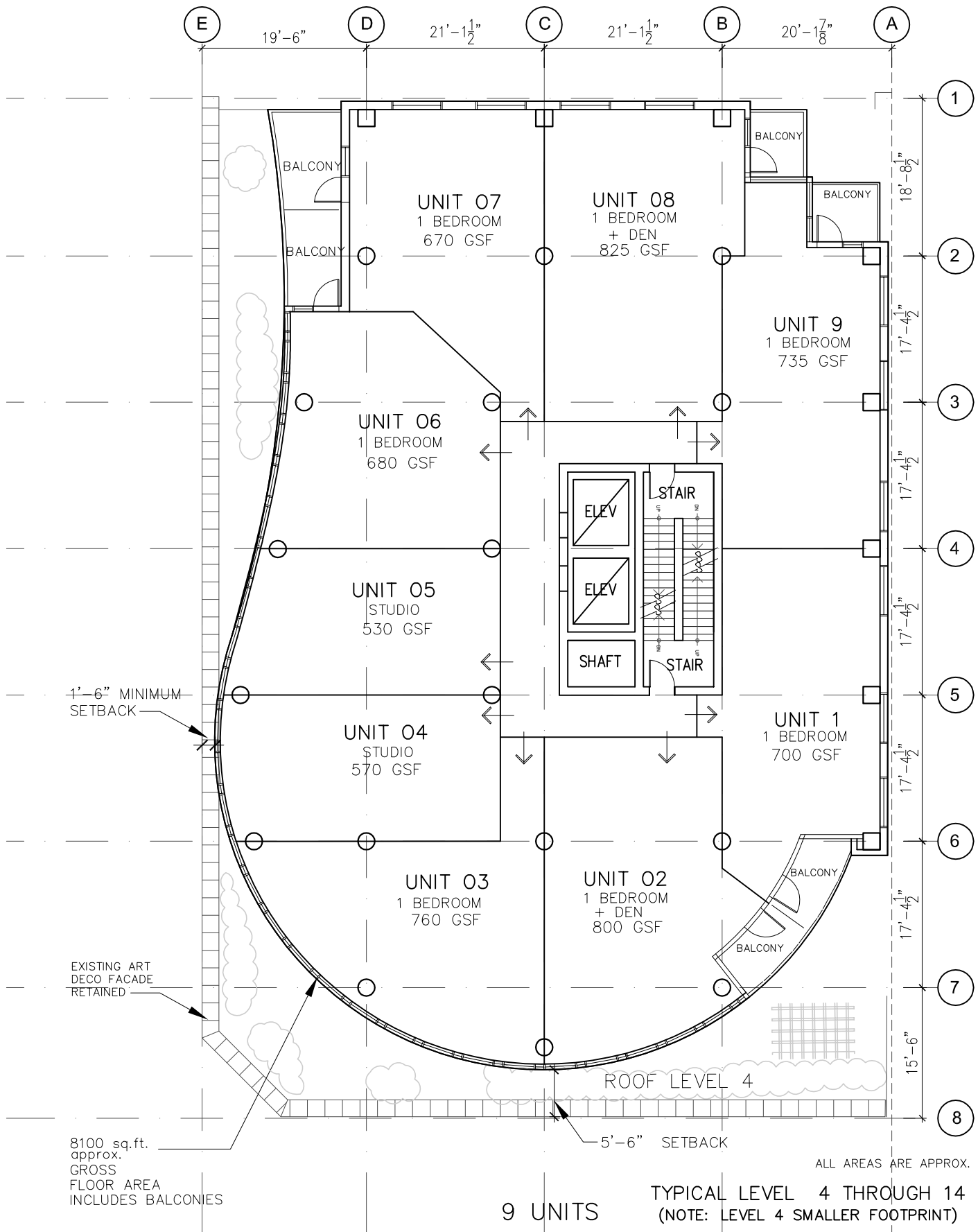
PARKING LEVEL P1











December 16, 2009

Frank Medjuck  
1595 Investments Ltd.  
Suite 700, 1601 Lower Water Street  
Halifax, Nova Scotia  
B3J 2X1



Engineer • Simulate • Innovate

SimuTech Group – Toronto  
ROI Engineering  
60 Ronson Drive, Suite 120  
Toronto, Ontario, Canada  
M9W 2B1  
www.SimuTechGroup.com

Phone: (416) 249-1471  
Fax: (416) 249-5045

**Ref: Updated Pedestrian Wind Assessment for  
Proposed Development at 1595 Barrington Street,  
Halifax**

Dear Mr. Medjuck:

SimuTech Group is pleased to provide the following visual assessment for the proposed building development at 1595 Barrington Street in Halifax.

The proposed development is located at 1595 Barrington St. and is bounded by Sackville St. (north side) and Granville St. (east side). It is approximately 170 feet tall. The building description and location are shown in Figures 1 and 2. It should be noted that currently the region east of the proposed development is relatively open to the waterfront and hence exposed to easterly winds. There is separate proposal (Case 00709) that has been approved by the City of Halifax for a two 27 story (285 feet) building development (former Texpark site) located east of 1595 Barrington Street and which will provide blockage for these winds. Our review looks at potential effects with and without this two building development. The 3D data utilized in this review was provided by Duffus Romans Kundzins Rounsefell Ltd.

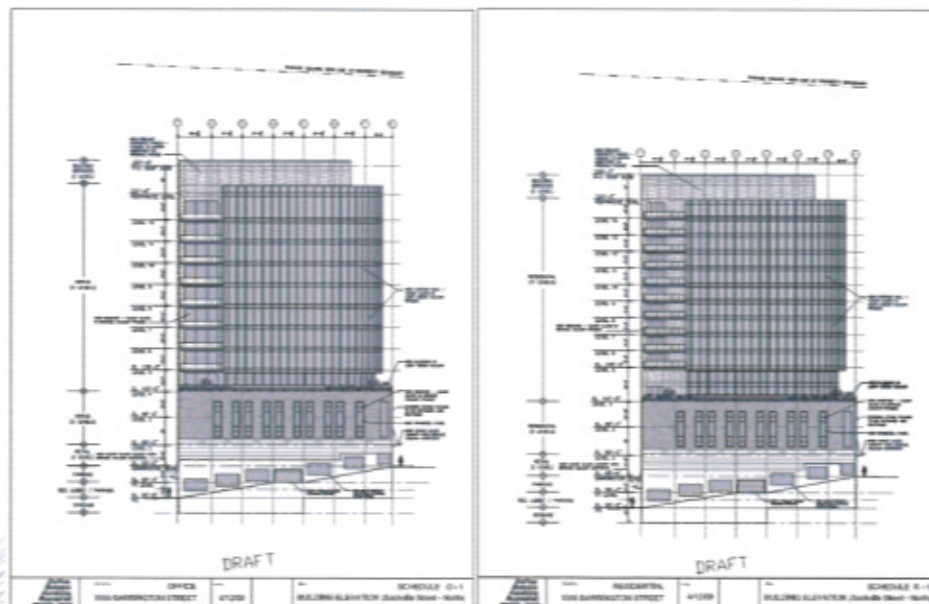


Figure 1: Building Elevation (Office [left] and Residential [right] configurations)





Figure 2: Building Location

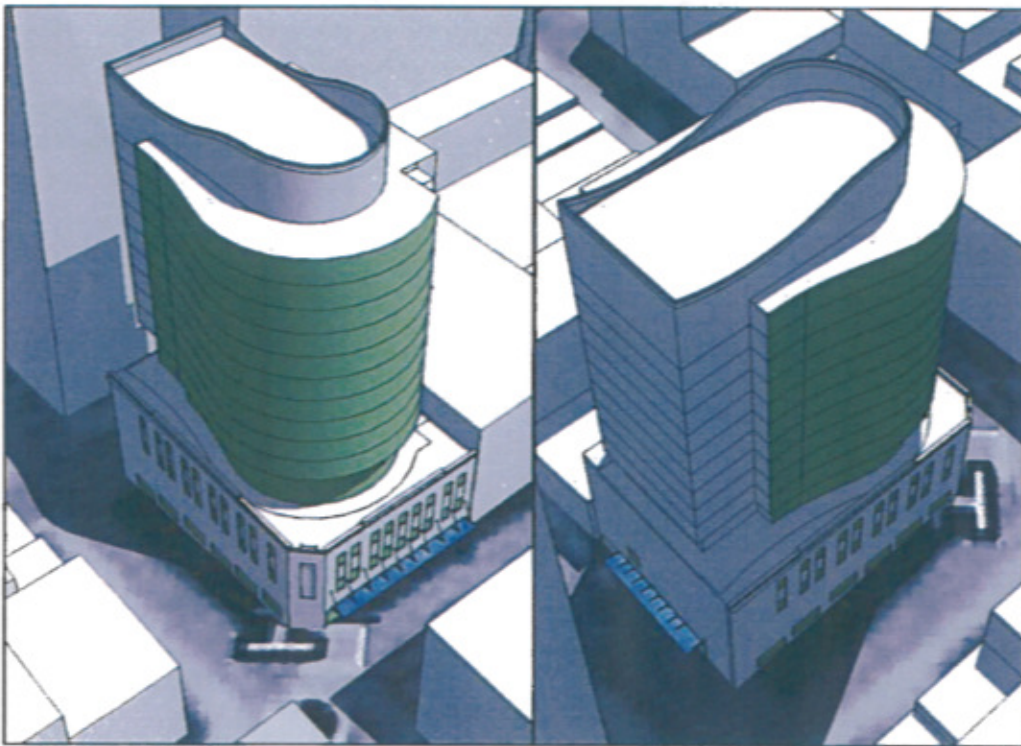


Figure 3: 1595 Barrington Street 3D View



## 1.0 Technical Background

Large buildings can impact the local wind velocities experienced at pedestrian level. Firstly, wind profile is not constant with elevation; the higher one goes, the greater the wind velocity becomes. Taller buildings extend up into higher velocity winds and will alter the flow. Basically, as air hits a flat surface, it is deflected in all four directions. The upwards direction is not of concern for this study. The in-plane deflection (or to the left and right) can cause an increased wind velocity at the building corners. The downward deflected air, or downwash, directs the air towards the ground where it is redirected again.

Where large buildings are located in close proximity, the effects from one building will interact with the other.

Pedestrian wind comfort is evaluated based on the percentage of time wind is in various categories considered comfortable for specific activities. Experience and research on people's perception of mechanical effects of wind has shown that if certain wind speed levels exceed the category for more than 20% of the time, the activity level for that category would be judged to be uncomfortable by most people. It should be noted that in general public's insensitivity to small changes in wind speed would be 5%. The evaluation of the region is based on the Comfort Criteria presented in Table 1 for Gust Equivalent Mean (GEM) values.

For the proposed 1595 Barrington Street building, the local region is evaluated with respect to standing and walking conditions. No local region has been identified for sitting. The proposed building is maintaining the original façade, and hence the utilization of the sidewalk beside the building remains unchanged. As such, a relative comparison between existing and proposed configurations can be made for pedestrian comfort.

GEM Wind Speed	Criteria	Comfortable Activity	Description
0 -10 km/hr	≥80%	Sitting	Wind felt on face.
0 – 14 km/hr	≥80%	Standing	Leaves and small twigs in constant motion; Wind extends light flags.
0 – 19 km / hr	≥80%	Walking	Wind raises dust and loose paper; Small branches are moved.
> 19 km /hr	>20%	Uncomfortable	Range in speeds causing small trees to sway up to whole trees in motion where walking against the wind is uncomfortable

**Table 1: Comfort Criteria Table**



## **2.0 1595 Barrington Street Assessment**

### **2.1 Review with Easterly Two Building Development (former Texpark Site) in Consideration**

Wind speed data was obtained for the Shearwater Airport in Halifax for the period of 1953 to 2002. The data is for the seasonal periods, winter (Nov-Apr) and summer (May-Oct) (Figure 9). Based on this available prevailing wind speed data, a few wind phenomena have been identified around the 1595 Barrington Street area. Since the bottom four floors of the proposed 1595 Barrington Street building will reuse the existing stone facade (and thus the shape at pedestrian level will go unchanged), only the addition of the remaining floors will be taken into consideration when assessing changes in wind patterns for pedestrian safety.

The first and foremost concern in a high-rise building is the downwash caused by the deflection of the winds from the upper levels. Since 1595 Barrington Street building will be sharing its south wall with an existing structure (no sidewalk on south side), only the north, east and west sidewalks would pedestrian wind comfort potentially be affected.

The prevalent westerly winds typical of winter months would normally create a downwash effect onto the Barrington Street sidewalk and entrances (found on the south west face). In this case, the building's design and shape will help mitigate this effect. The western corner of the building (Figure 4) is rounded. This rounded shape will more than likely cause the wind to wrap around the building rather than be deflected down to pedestrian levels as it would by hitting a flat face. This may also assist in reducing downwash that would occur on the easterly buildings if the Barrington Street building was not there.



Figure 4: Effect of shape on mitigating westerly downwash at 1595 Barrington



The easterly winds seen during Summer months could also cause deflection issues, but the effect is mitigated by the presence of approved new development which will shield the east face of 1595 Barrington (Figure 5, dotted green arrow).

Since the downwash effect due to south, west and east winds is predicted to be low, only the northern winds in the winter months may create downwash issues. Northerly winds (Figure 5, solid red arrow) may hit the large north face and deflect downwards towards the Sackville Street sidewalk. The north-west edge of this face has a curved profile that may assist the northerly wind to pass around the building on this side, helping to mitigate the downwash. However, on the northern face there is also a concave inwards curve that may 'catch' the wind, directing more downwards. It should also be noted that the building's lower facade protrudes out from the main building structure (Figure 3) in this region. This is expected to provide some protection to the sidewalk below as it will redirect a portion of the downwash outwards, across the street, sheltering pedestrians on the sidewalk and entrances. The buildings north of Sackville will offer little resistance to the wind and thus will not help reduce this northerly downwash effect. 1595 Barrington St. has no entrances from Sackville St., only large windows with store displays will be present. The downwash may impact air flow on the sidewalk across Sackville Street.

The only other predictable effect which may influence pedestrian level winds is funneling of south winds and north-westerly winds. Since both sides of Granville Street will have high rise structures (existing and 1595 Barrington), the flow may channel and accelerate down Granville Street. The summer months see a prevailing wind from the south, and the winter months see a prevailing wind from the north west (Figure 5, dashed blue arrow). However, the summer winds are anticipated not to be strong, as reflected by the small percentage of gust winds over 30 km/hr (Figure 9). Furthermore, the winter wind speeds over 30 km/hr are perpendicular to the funneling direction (Figure 9) and are not critical for this effect.

A wind tunnel study was performed by Rowan, Williams, Davis and Irwin Inc. (RWDI) on the two building development at the former Texpark site. It is summarized in the Halifax Council Report, Case 00709: Development Agreement – Former Texpark Site, Halifax, Attachment A, March 21, 2006. The testing concluded the conditions on Sackville Street were not significantly different, which would make them suitable for walking / standing utilization. It was noted 'that spring, summer and fall wind conditions around the site caused little concern.' The critical season was winter, with wind gusts from the east (directly from Halifax Harbor). In general, the former Texpark site development shelters the 1595 Barrington Street site from these winds. However, the report also notes that wind funneling does occur up the hill on Sackville Street, gaining speed as it moves upward and that downwashing winds had only a minor impact. The funneling may impact the comfort level for the Barrington Street development on the corner of Sackville and Granville. As previously stated, the building



maintains its original façade, and hence the general shape of the corner at street level has been evaluated by the RWDI wind tunnel testing.

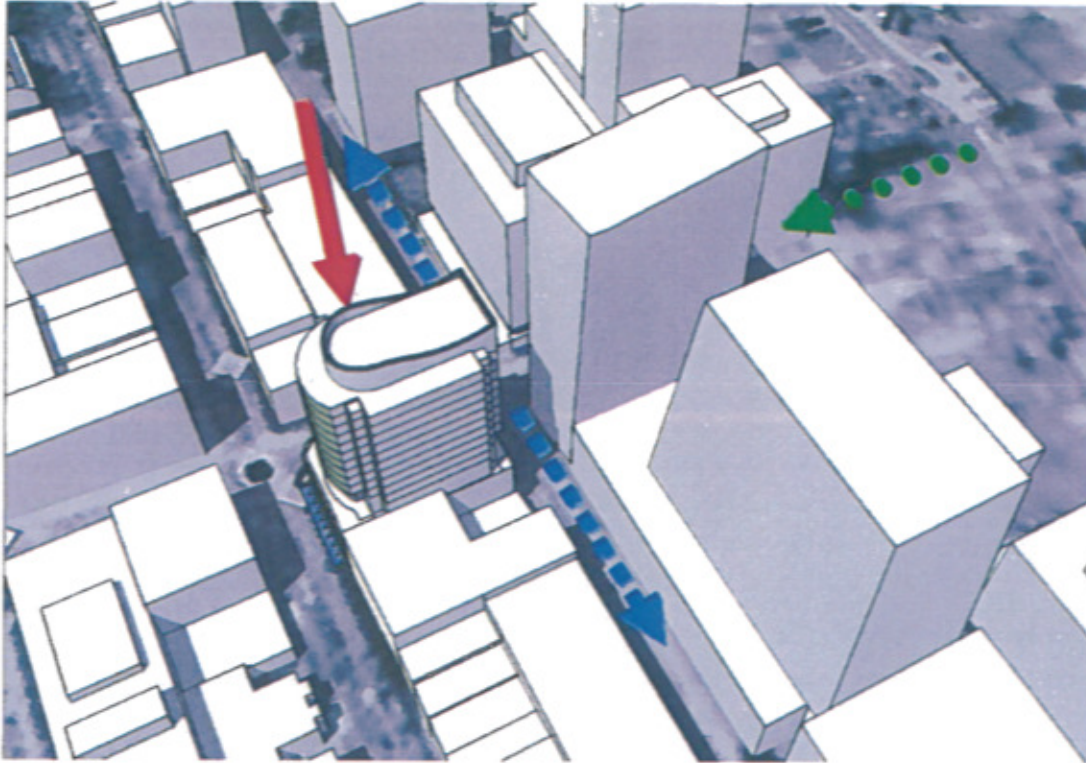


Figure 5: N wind (solid red arrow) may create downwash on north face.  
E wind (dotted green arrow) blocked by other development.  
SE & NW winds (dashed blue arrow) may funnel.

## **2.2 Review with Easterly Two Building Development (former Texpark Site) Absent from Area of Consideration**

When investigating the proposed development without the consideration of the two building development to the east, the previous analysis changes in two key respects.

First and foremost, without the shielding of the two buildings, there is a clear path of parking lots between the 1595 Barrington Street development and the shoreline. This means that the wind would be unimpeded when traveling from the east, and causing a downwash deflection off the east face of the building towards Granville St. The summer winds are primarily from the northwest while winter winds are primarily from the south. The lower frequency of easterly winds indicates downwash on the east face of the building would not be a persistent and common problem. These easterly deflections may only be noticed during



the high speed summer winds which occur less than 1.5% of the time (Figure 9: Summer 30km/h and up). The issue from the east would be associated with winter gusts. The RWDI wind tunnel simulation identified this to be an issue for the building development at the former Texpark Site, on the easterly building faces. The study indicated that downwash was not a critical effect, but primarily funneling as the gust progressed up Sackville Street. The Barrington Street development may be subject to effects from the east winter gusts, however, as the lower building façade remains the same, and noting that the RWDI study indicated downwash not to be critical for the former Texpark site, this is not anticipated to create a critical change to the existing pedestrian comfort level.

The second difference between the previous analysis and that without the two building development is that there would be no SE-NW funneling (as was seen in Figure 5).

All other effects mentioned in the section 2.1 would not be significantly affected by the presence or absence of the two building development.

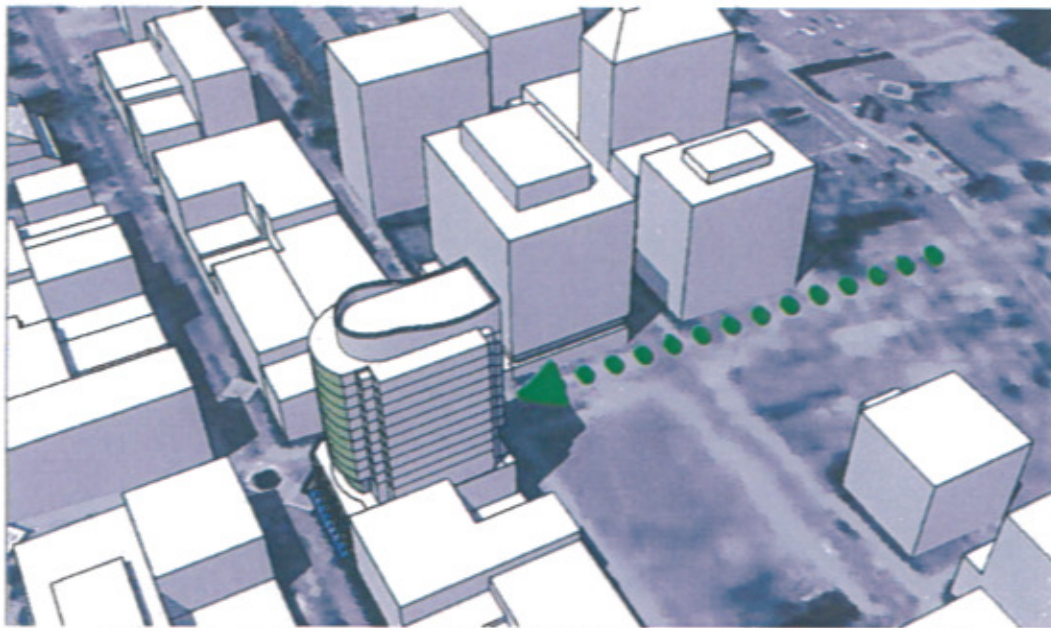


Figure 6: E wind (dotted green arrow) passing through unobstructed



## 2.3 Mitigation Methods

The Barrington Street development maintains the profile of the existing building for the lower façade. As such, pedestrian comfort would be impacted primarily by overall changes in airflow due to the increased height (i.e. downwash, tunneling).

To minimize the potential discomfort due to wind downwash, awnings have been designed for the east and west sides of the building (Figures 7 and 8). They have been placed such that areas near building entrances are shielded. The above mentioned awnings will be particularly helpful on the east face, if the two building development is not constructed. Otherwise, it will serve as a shield to the Barrington development. The only side with no awning is the north face. Since it is a standing or walking area it is a less sensitive comfort category or criteria and is not considered an issue,. Standing and walking pedestrians can tolerate wind speeds of up to 14 and 19 km/h respectively, which is significantly higher than sitting areas (up to 10 km/h). The north face is considered a walking/standing area due to lack of any patios or entrances.

While the awnings help with downwash, they will not help mitigate the funneling effects (blue arrow on Figure 5 and 7). While this is true, the funneling effect is likely minimal (as discussed in Section 2.1) and the limited frequency with which it manifests itself, is caused by surrounding development and it is anticipated that the proposed Barrington St. development should not exasperate it.

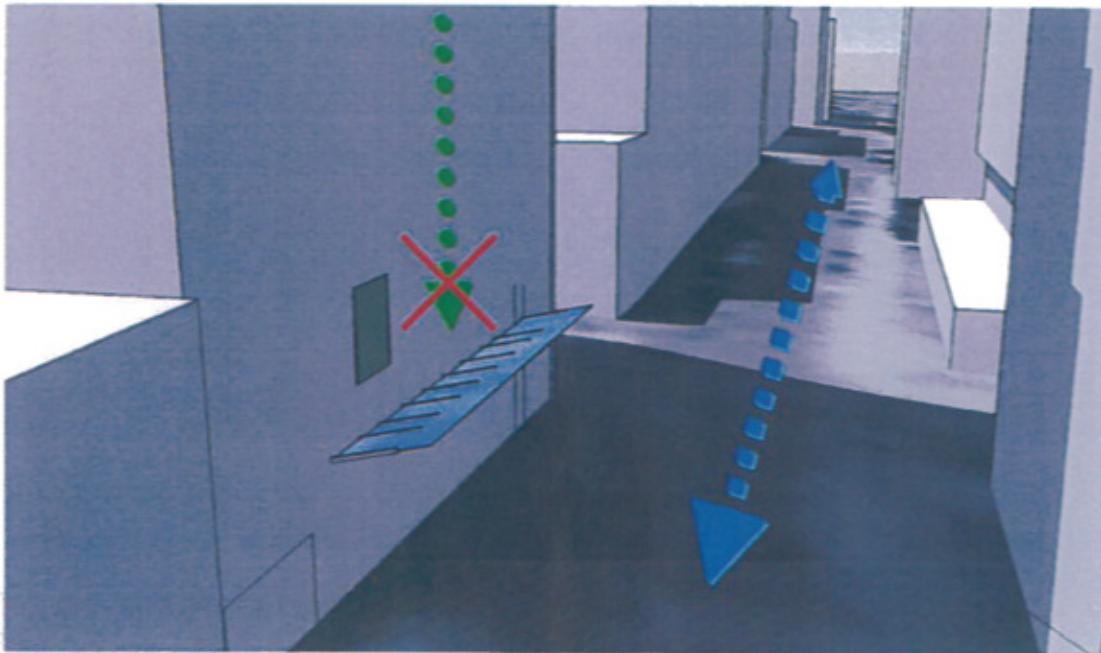


Figure 7: Awning on East Side of Building

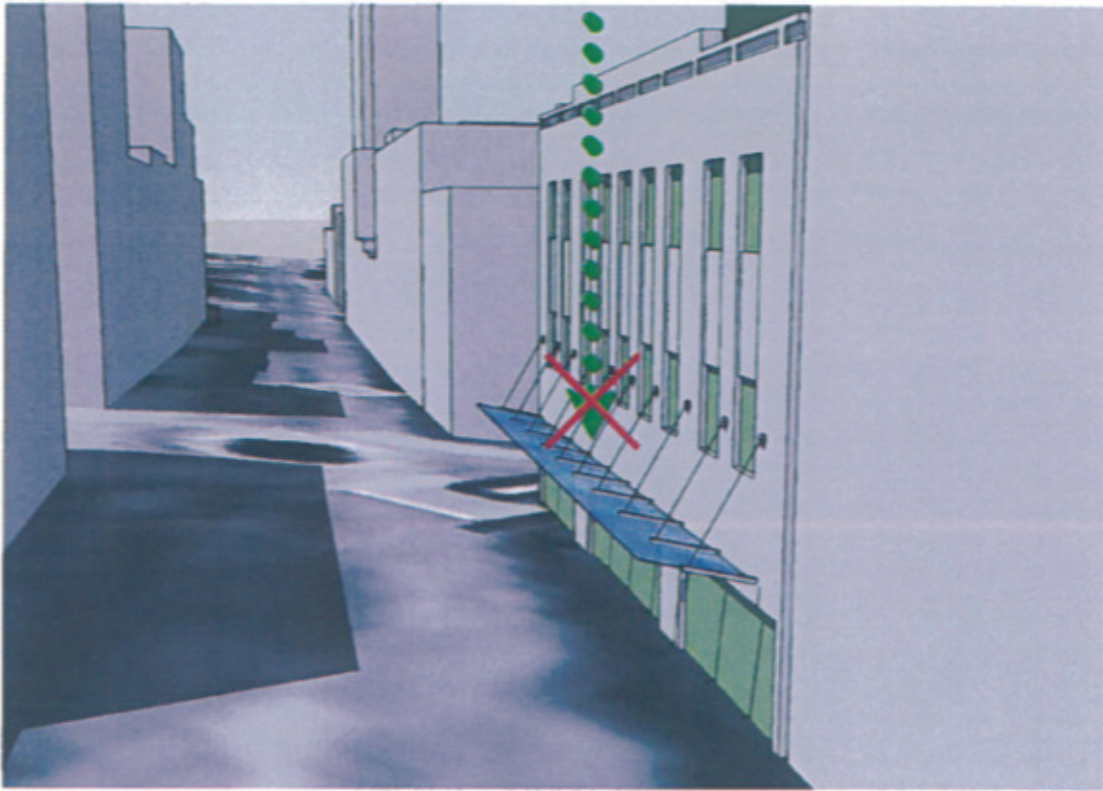
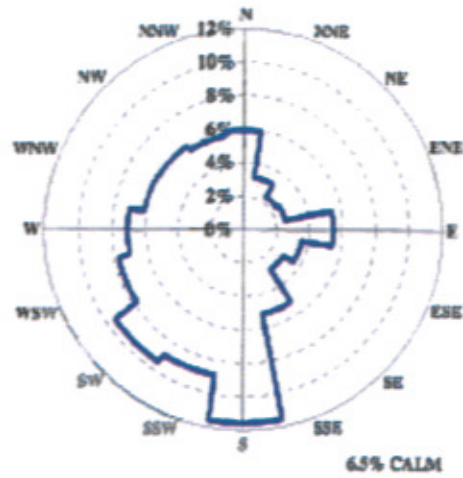
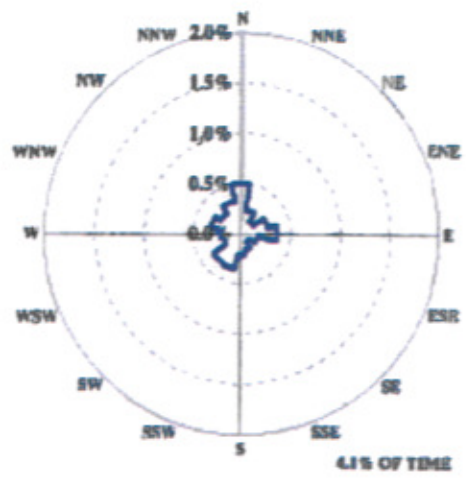


Figure 8: Awning on West Side of Building

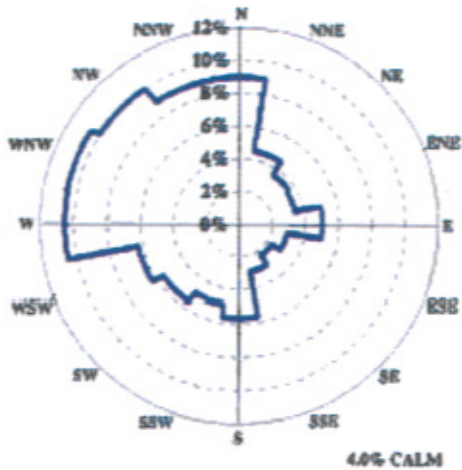




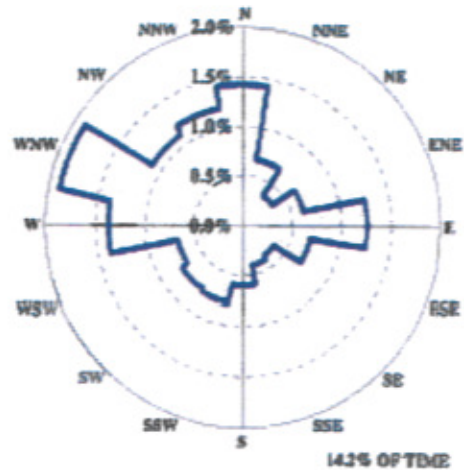
ALL SUMMER WINDS



SUMMER WINDS EXCEEDING 30 km/h



ALL WINTER WINDS



WINTER WINDS EXCEEDING 30 km/h

Figure 9: Winter / Summer Wind Statistical Data (ref <http://www.halifax.ca/planning/documents/Case01114PedestrianWindAssessment.pdf>)

## Summary

Based on SimuTech Group and Trow Engineering's experience with wind study investigations, including multiple building development studies, the visual review of the local Barrington St. area has not flagged any obvious issues with respect to pedestrian wind comfort that would be significantly different than that of the existing region with or without the two building development to the east and the existing facade at 1595 Barrington Street. This is a qualitative review based on before and after conditions and is also based upon the sidewalk usage to be primarily for walking and standing. No regions have been identified where people would be sitting.

Effects are not anticipated to be significantly different than those generated by existing buildings in the region. Interactions between buildings are often complex, thus a detailed wind study, either by computer simulation or wind tunnel, is required to verify the conclusions in this letter and obtain quantitative localized wind speed values.

Some of the key points identified include:

- Rounded westerly building profile will assist in mitigating effects from this direction.
- Large building development to the east will act as a windbreak, mitigating effects from this direction.
- Winds from SE and NW, may have a funneling effect generated between the Barrington Street building and the approved development to the east. These are not anticipated to be more significant than effects with the existing region and the approved development to the east and hence are not anticipated be critical.
- Sackville Street may be impacted from building north face downwash. This is anticipated to be a moderate increase over existing conditions. This region has been identified for standing/walking purposes only.
- East and West sides of the proposed building have awnings which will help mitigate any downwash wind effects.


Prepared By:  
**SimuTech Group Inc.**

  
Alan McKim, P.Eng.  
VP Customer Services



  
Szymon Buhajczuk  
CFD Analyst

Reviewed By:  
**Trow Associates Inc.**

  
Ron Taylor, M.Sc., C.Chem.  
Senior Project Manager  
Environmental Division



### **SimuTech Group Background**

SimuTech Group is the Canadian Channel Partner for ANSYS Inc., authors of the premier CFD codes CFX and Fluent. SimuTech Group provides full service support to our customers including software sales, software technical support, training and engineering consulting services. As such, we are considered advanced users of the software, with an in depth knowledge of CFD.

With the recent increase in computer capabilities, CFD studies of building developments have become an alternative to model wind scale testing. The authors have worked on multiple studies over the past few years, and have gained significant insight into the behavior of wind patterns around building groupings. Based on this experience, we feel confident in our visual assessment of the proposed development at 1595 Barrington Street.

### **Trow Associates Inc. Background**

Trow Associates Inc. (Trow) is a multidisciplinary consulting firm with more than 2,000 employees and 50 offices across Canada. Founded in 1957 and celebrating 52 years of service, our firm has grown into one of the largest engineering and consulting companies in Canada. Trow specializes in Environmental, Building Sciences, GeoScience, Infrastructure, and Materials & Quality Management. Trow offers a wide range of environmental services including air quality, dispersion modeling and pedestrian wind studies. The author has worked on multiple studies in the past few years and assessed pedestrian wind comfort around buildings for City approvals. Based on this experience we are confident in our review of the visual assessment of the proposed development at 1595 Barrington Street.