

## Charles Hazell

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**From:** Charles Hazell  
**Sent:** April-28-14 8:04 AM  
**To:** Charles Hazell  
**Cc:** Maya Bastian  
**Subject:** Deputation to the Health department April 28 2014

*Maya pls file*

### **Intro**

### **Context**

### **Recommendations**

First of all thank you for the report . I just read the April 11 , 2014 summary and it provides the city and others with guidance on many important issues . Facts and recommendations dealing with public health have had a profound effect on the form and quality of life of the city going back to the 19th century. It all comes down to people and your work in 20 14 continues in this great tradition.

Much of the report on air quality and health deals with adjacencies. I am here to provide some comment on built form next to the highway , specifically the Gardiner expressway as it passes through the city.

My name is Charles Hazell I live in Toronto , I am an architect and I have had a practice here for 20 years.

Some of my observations come from my tenure on the Design review panel. *The panel is a group of architects , landscape architects urban planners, heritage experts , traffic specialists who regularly convening to review projects of note. Our primary interest is in the design of the public realm. Our comments are intended to improve the current conditions.* I want to say that while I will be making some observations from this perspective I am not here in any way representing the DRP in this deputation.

### *Intro*

There is tremendous pressure to build next to the Gardiner expressway because of the allowable density (80 floors or more). At the Design Review Panel we are having increasing concern over the proximity issues and public space / quality of life issues in this area. We routinely review and make comment on condominium projects . One example from a few years back caused us some concern because of its proposed proximity to the Gardiner expressway . We made a request for more information from Planning that would give us a basis for evaluating such projects in the future.

Bottom line is we cannot knowingly create environments that have negative impact on people . With factual information we can resolve these issues. Its either going to be a healthy city to live in or not. This is a new emergent form of neighbourhood and we have to get it right.

### **Image of pattern of pollutants following the highway**

The Local Air Quality Study and its recommendations give us this information .

The image of the road snaking around and through the city was compelling because in this we might find some indication of what we were looking for or at least a start. Road traffic was a concern , proximity was the key and the Gardiner was likely a source of some of the highest concentrations.

The reduction in the rate of premature deaths and hospitalizations (23% and 41% respectively ) is an important achievement and its effect on the wellbeing of the city has been enormous. It is another sign that we can turn seemingly intractable problems around and it points to a societal shift. It is the result of many individual decisions but key to this success are closing of most of the coal powered generating plants and improvements in the design efficiency of cars has contributed to this general decline .

But even as we chase this down and see positive results , new factors have emerged. in the past 10 years that we would be wise to address .

Two of these that I am aware of are a dramatic shift in population growth from the 905 area to the Downtown core and the entrenching of climate change on our city , the warming trend continues and it is forcing us to adapt .

The large numbers of new residents moving to the downtown as a preferred place to live and work is a new phenomenon and it is expressing itself in an unprecedented housing type and densities : The down town core is rapidly becoming a high density residential environment and it is concentrated in a relatively small area. It is a typology that is rapidly evolving with the result that some parts of the city now have local densities that are some of the highest in the world.

While we have seen good condominium developments many are not and I can tell you that we have yet to fully understand the cumulative effect of this residential building type on our streetscapes , infrastructure or as a long term equity model.

This trend has transformed the physical form of the city ....as well as our understanding of community which up to now has followed on the model of the single family home and the low and midrise residential model. This has challenged our infrastructure which is now by some estimates 20 years away from being fully functional. This is most evident in our transportation systems where congestion and gridlock are increasingly the new norm and a source of air borne contaminants.

Discussions at the DRP routinely come up concerning maximum loading capacity for these new communities how big is too big. (Light sky views , parks , streetscape , proximity etc.)

Some of the most challenging conditions and adjacencies are taking place along the Gardiner expressway.

And while this is taking place climate change continues to take hold and we are all aware of the increasing incidence of extreme weather events (including 3 100 year weather events) , longer extreme heat waves and mild winters. As the warming trend continues it is having an effect on every aspect of city life . Air quality is particularly affected by this factor and this is nowhere more apparent than for those who live in close relationship to highway traffic and areas of traffic congestion.

This is a new environment, we are building it at a ferocious pace and we do not know what it adds up to.

Sealed and unsealed buildings and the Gardiner expressway

The individual those who commutes and works in the downtown works out of sealed buildings . However those who also live in the core have much higher levels of exposure because buildings are not sealed : each unit has operable windows and doors . . Exposure increases with duration of stay and the residential building type. Within that environment those who live next to the Gardiner would seem to have reason for special concerns.

Many new condominiums are within 20 metres from the Gardiner Expressway and some are as close as 5 metres.

### **Image**

This image is of the building we saw in plan 3 years ago.

I was not convinced that this was acceptable then and I am as I drive by the building now I am still not convinced. Everyone here has experienced this and sees the intensity of development that is taking place among the Gardner . This trend is going to intensify with residential projects over 80 stores in height.

### **Image of other and upcoming projects**

These projects are moving forward, the question is are there criteria that we are missing in order that we can be confident that the environment we are creating is fit for residential occupancy.

From what I have seen I do not believe that even as we create this new neighbourhood we do not know enough about these conditions in order to evaluate the design challenges or provide technical

responses to them if they are a concern. The solution may be simple but the reality is we are building this new neighbourhood as we speak and by not having a better understanding of these factors and how they may inform the design we are putting people at risk.

### Time and rate of exposure

Time / rate exposure information is used to determine how to design in relation to potentially hazardous conditions . In the example of a bus terminal the space between the air conditioned bus and the air-conditioned waiting room is contaminated by exhaust fumes. Time rate exposure quantifies the risk to health and suggests how to mitigate the effect . The mechanical engineer takes this information and designs the ventilation system for the terminal which in this case is to provide 10 times the normal volume of outside air. Problem solved.

We need to know to what extent is the Gardiner is source of pollutants as it passes through the residential neighbourhood and office environment in this location and how does this relate to those who reside , work and live there in terms of space and time. Quantifying this will allow us to take reasonable measures to ensure that the basic quality of life standards are put in place.

### Summary

The facts as they stand are that the Gardiner is primary source of pollutants that contribute to negative health outcomes. It runs through the down town core , a new and rapidly evolving residential community is being built around it with no response to potential health effects.

Surely something is missing when we read that Halton has a bylaw that compels diligence and active design response for new construction that is within 150 metres of the highway while in Toronto we build within 5 meters of it without concern.

Water and air quality are fundamental to human health and productivity and wellbeing . The 2014 update report on the Path to Healthier Air , combined with the new Ward 4 and 5 studies contain good news for Toronto because they confirm that with decisive action and commitment we can change the course of the future.

The recommendations are excellent . Item 3 which clearly directs attention to the task of targeting local conditions where residential and community occupancies are in close proximity to each other.

The following is a list of suggestions that you may want to consider.

1 Immediate due diligence study to examine specific conditions along the Gardiner as it passes through the down town core. The purpose of this would be to confirm what the nature and magnitude of risk for the emerging residential neighbourhood and the general public.

2 Initiate a Multiyear monitoring program

3 Conduct a baseline study of the Gardiner Expressway and its effect on air quality if it was

- kept as a raised expressway,
- lowered to grade and integrated with the road system or
- buried.

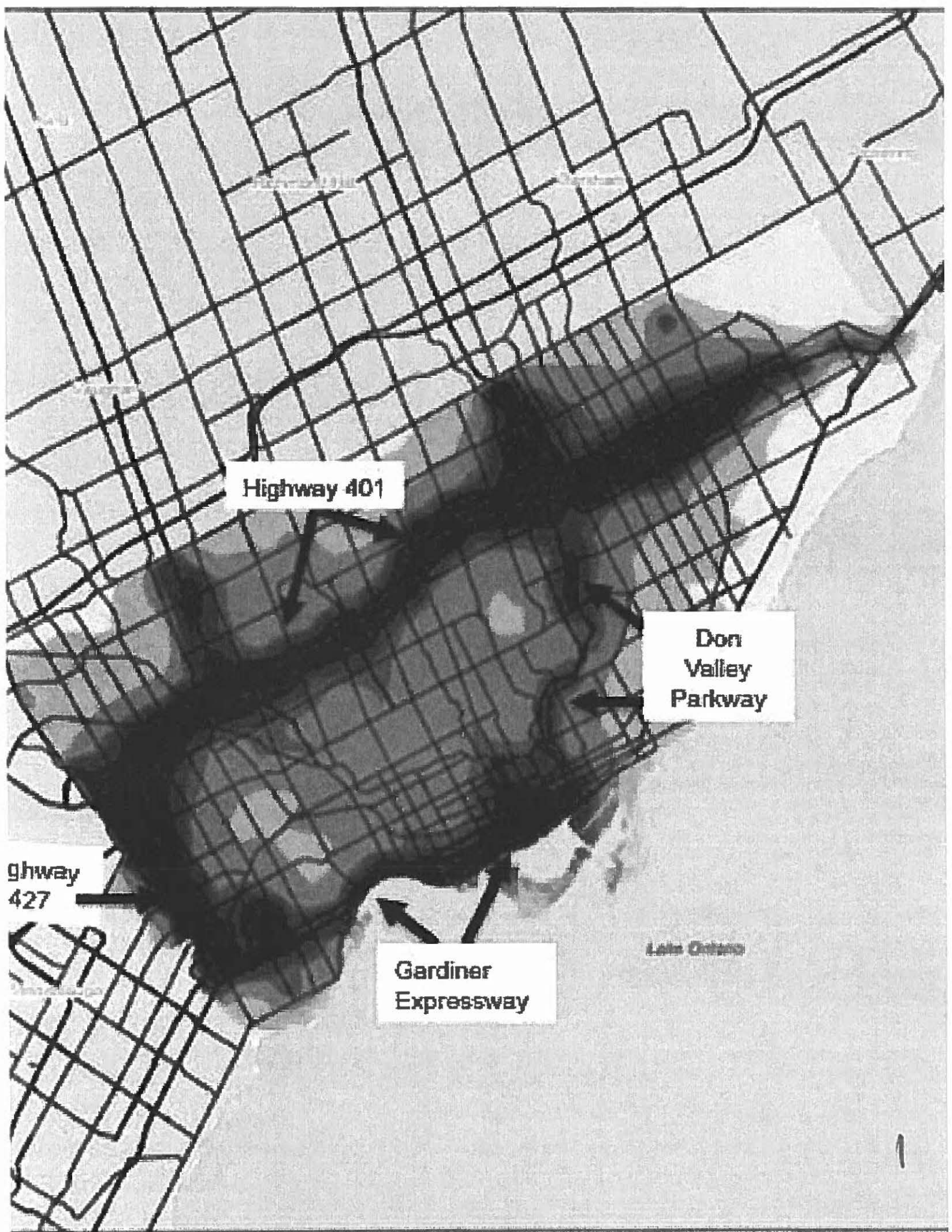
4 Issue good practice guidelines to inform the public , Planning , developers and design professionals.

5 Legislation that would ensure baseline standards are followed so as to protect the individual , the community and capital investment .

The 6 recommendations in the report seem to be excellent. Recommendation 3 addresses a key concern and is action oriented. It will go a long way toward filling in what may be an emerging area of concern . I will make a point of bringing it to the attention of the DRP. With respect to the proposed study and built form opportunities it may be useful to engage the Ontario Association of Architects in combination with the Ontario association of professional engineers for their input.

Finally:

A half dozen years ago the cataloguing of migratory bird deaths and the linking of this to the design of high rise buildings caused the City to adopt new design guideline. This now informs new development in the City. Since 2004 we have had evidence of premature deaths and hospitalization . 10 years later there has been measurable success and lives of thousands of people have been improved. As we know in that time we have also entered into a period of rapid , extreme growth and densification and it is our lot that this remaking of the city is taking place next to a primary source of toxic air bore chemicals and particulates. It is time we took another hard look at our own migration patterns and habitat to make sure that what we are building now supports quality of life for our species and all life into the future .



Highway 401

Don Valley Parkway

Highway 427

Gardiner Expressway

Lake Ontario





City of Toronto  
Green Development Standard

March 2007

# BIRD-FRIENDLY



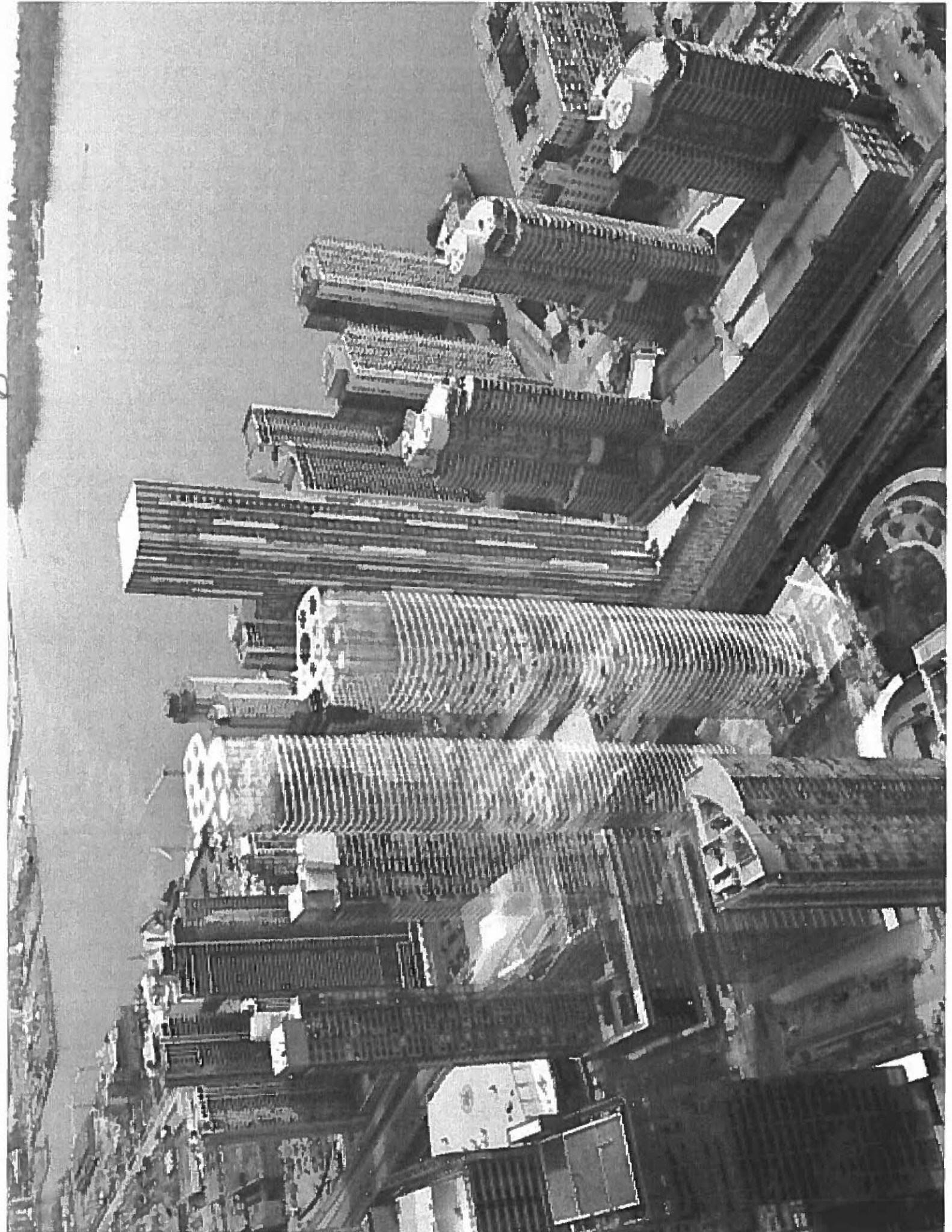
# DEVELOPMENT

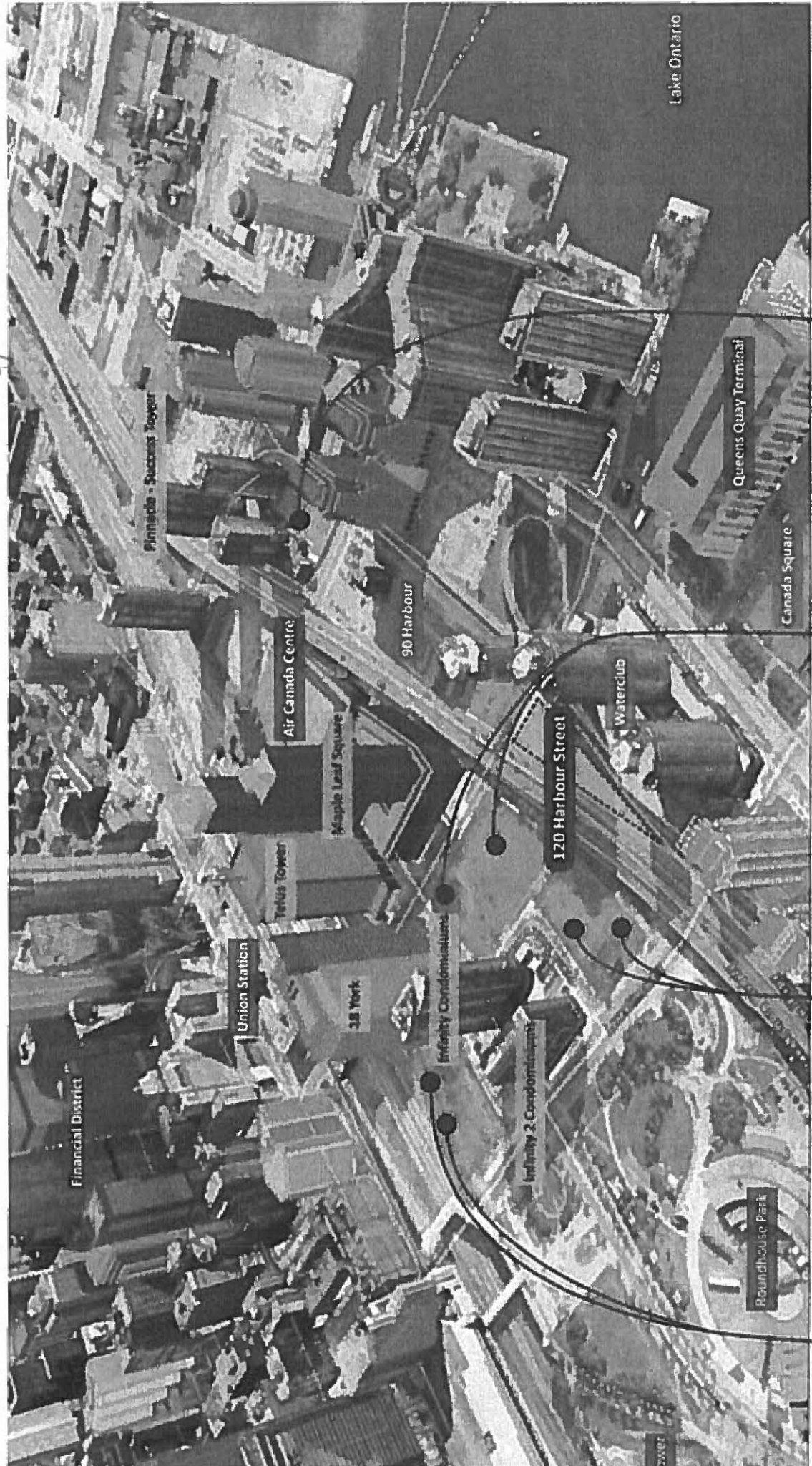


# GUIDELINES









**MAJOR DEVELOPMENT**

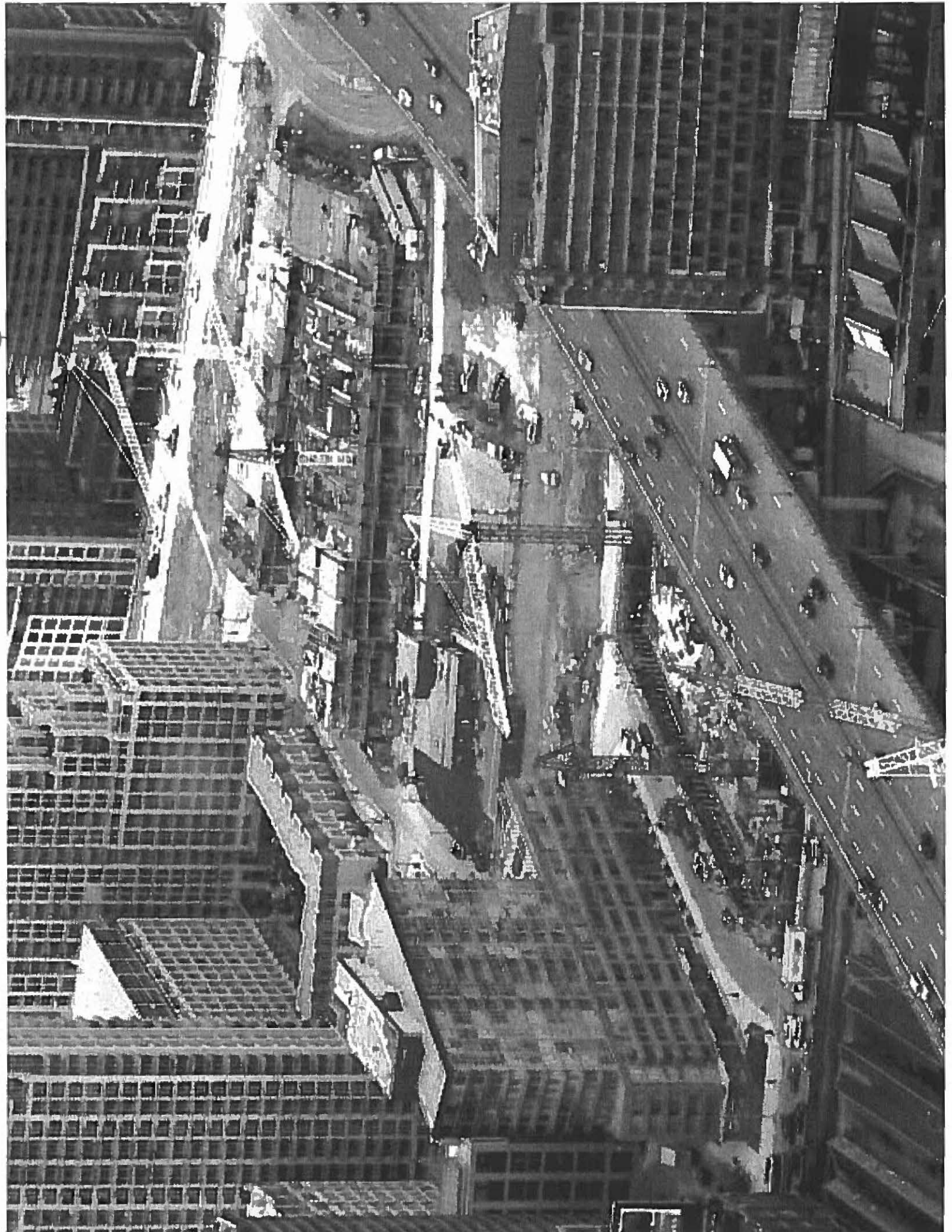
- Subject Site
- Recently Built
- Proposed/Underway Projects
- Components Features

Delta Hotel and Bremer Tower

Infinity 3 and 4 Condominiums

IC1 and IC2 Condominiums and Office Tower

Pinnacle - 33 Bay





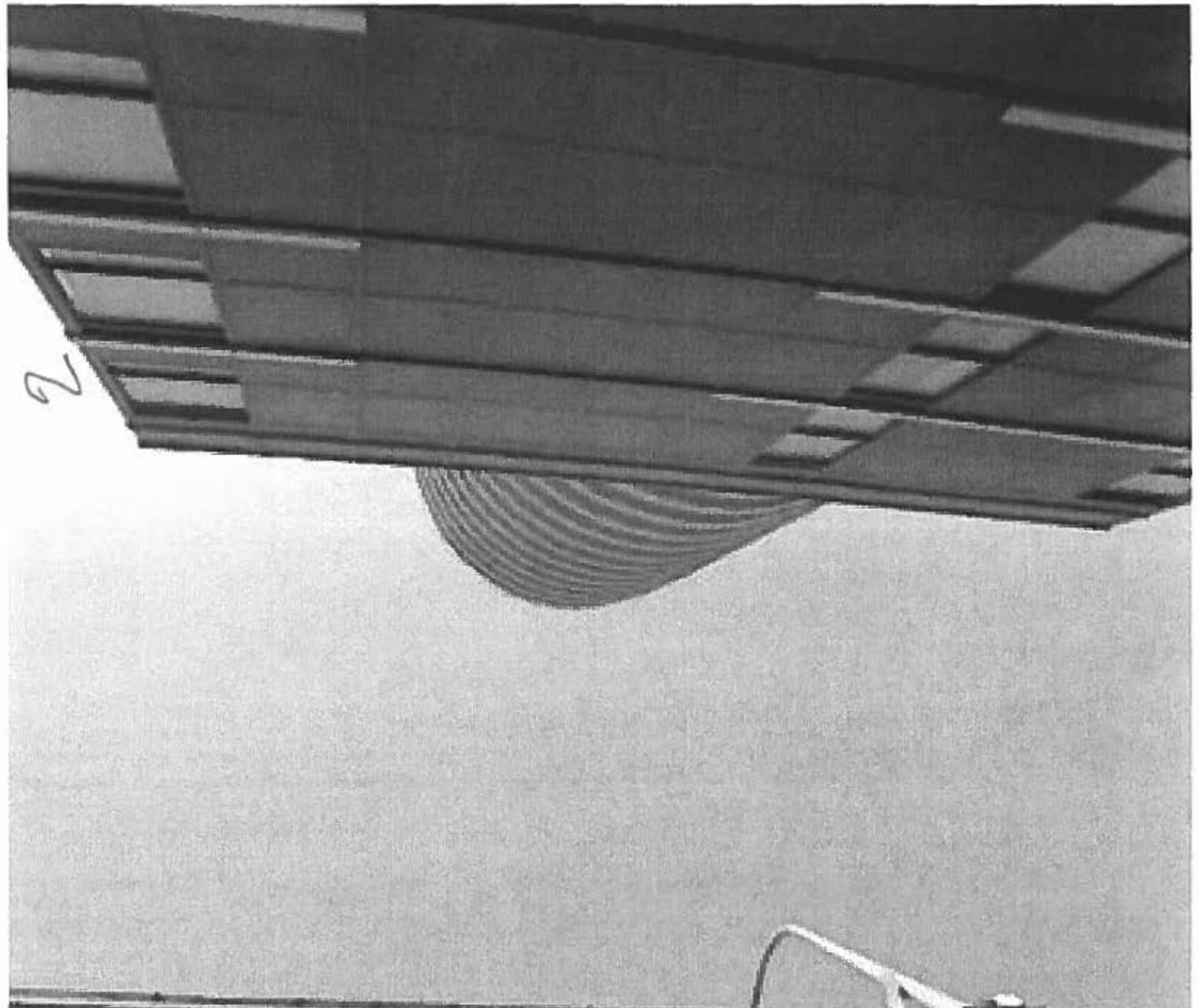
Massachusetts Historical Society

George

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