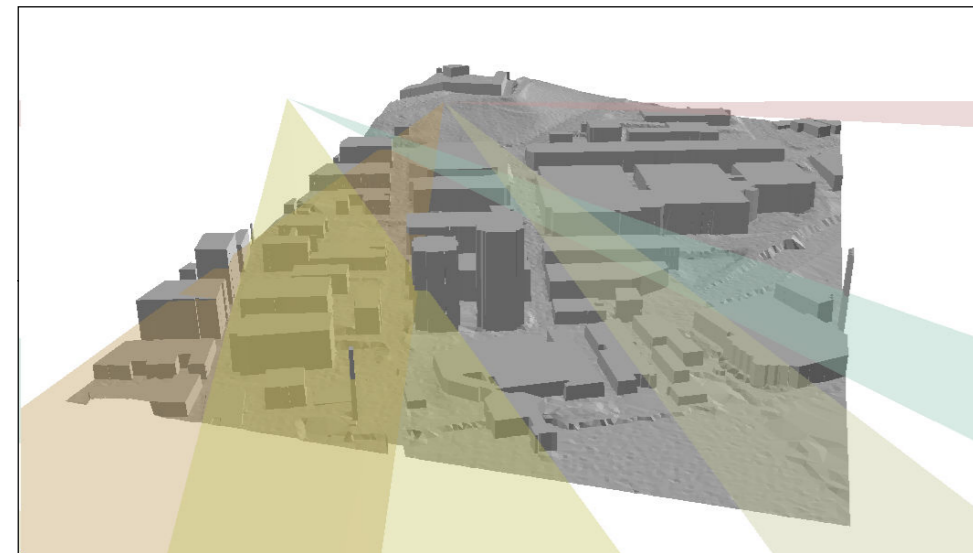


View Plane Analysis

Plate II

By Barbara C. Pietersma, Diploma in Cartography Program April 2009

Viewplane Design Guidelines, By-Laws, & Municipal

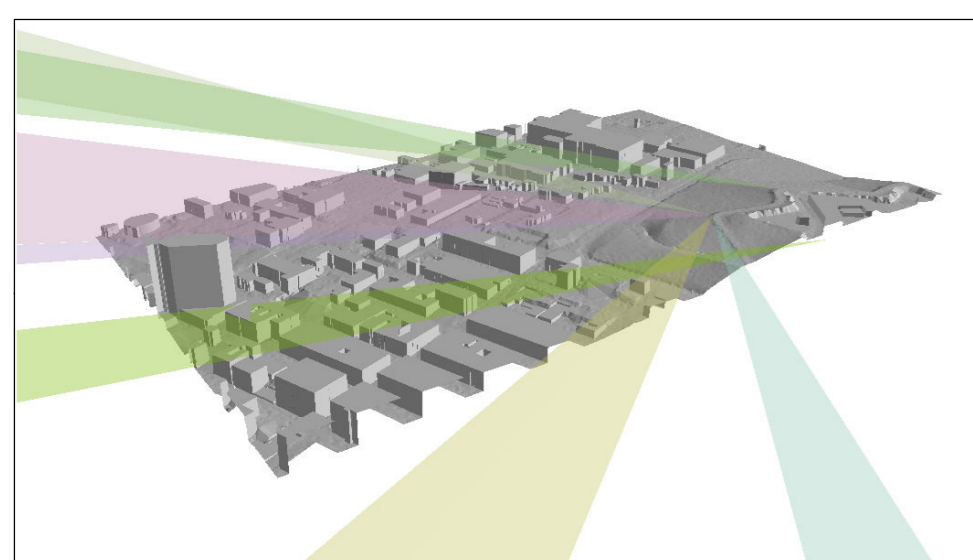


Cross Section 1

The City of Halifax has a long history in trying to balance the pressure for high-rise development in their downtown with the aesthetic significance and historical importance of the Halifax Citadel.

To that end, they have established some innovative view plane design guidelines to protect views by identifying 10 views from 4 key vantage points on the citadel towards the harbour. High-rise development has been discouraged from these view planes corridors.

However, many people feel the view plane guidelines discourage and even hinder development and make Halifax uncompetitive with other Atlantic provinces.



Cross Section 2

In January, 2005, United Gulf Developments proposed to build a 27 story condominium/hotel and commercial development on the Tex-Park site between Hollis and Granville beside the Maritime Centre.

Although the proposed development appears to meet height and view plane guidelines, the proposal has elicited polarized interpretations from heritage-minded and pro-development minded citizens.

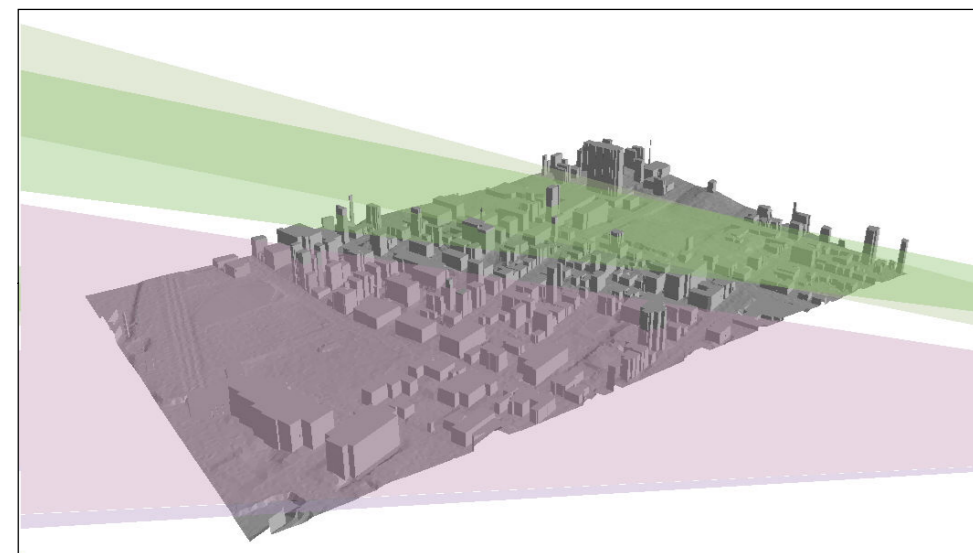
Noted activist, Alan Ruffman, has nicknamed the development the "twisted sisters" and has been vocal in challenging the creation of high-rise development at the expense of heritage. Meanwhile, Halifax architects, Niall Savage and Craig Mosher cautiously criticize the lack of innovative modern design and support for developers in the city.

Halifax regional council approved the proposal last March, 2006. However, a number of groups opposed to the project appealed that decision to the Nova Scotia Utility and Review Board.

On February 5th, 2007, the Nova Scotia Utility and Review Board heard opening arguments into the \$150-million proposal by United Gulf Developments. Hearings began in March. Heritage groups argue that the towers will not fit in with the other buildings in the area.

"The proportion of the towers to the adjacent and existing buildings is so out of whack that it cannot be said to be complementary at all," said Ronald Pink, lawyer for the Heritage Trust of Nova Scotia.

Cross Section 3 Source: 2009 GEOM 2022 3D part 1 - Project Description and Background .pdf



View Planes R6 (green) and C2 (blue) can be seen from this 3D rendering of Citadel Hill and the Proposed "Twisted Sisters" development (aqua blue building in the distance). This image was created by draping a georeferenced airphoto over a hillshade of Halifax produced with 3D Analyst using the lidar points and then viewed in Arc Scene. Although the resulting image is not of the highest quality it does highlight the capabilities of Lidar.



Halifax - Contested twin towers draw student support. In an old city, young people see project

By Peter Moreira

Excerpts from: theglobeandmail.com - 07.03.2006

A 27-storey twin-tower development in downtown Halifax has become the flashpoint in the dispute between a group demanding the city's architectural heritage be preserved and another demanding it be allowed to evolve.

After an overflowing public hearing ran out of time last week, the Halifax Regional Council will reconvene tomorrow night to hear further submissions on whether United Gulf Development Ltd. can build its \$150-million, 285-foot-tall hotel and condo project. The council is expected to vote late tomorrow night on the twisted glass towers.

For decades, development proposals in Halifax have been scrutinized to ensure they did not adversely affect cherished old buildings, such as Historic Properties, where privateers stashed their booty in the War of 1812, or Keith's Brewery, where Alexander Keith started brewing his famous ale in 1820.

The twin towers would be built a block and a half from the waterfront and include a four-storey podium containing commercial space. On top of this would be two twisting towers - a thin hotel and a larger condo tower. Though it abuts only the back of one building with a heritage designation, the project would be within a city block of Keith's Brewery and the Halifax Club, which dates to 1862.

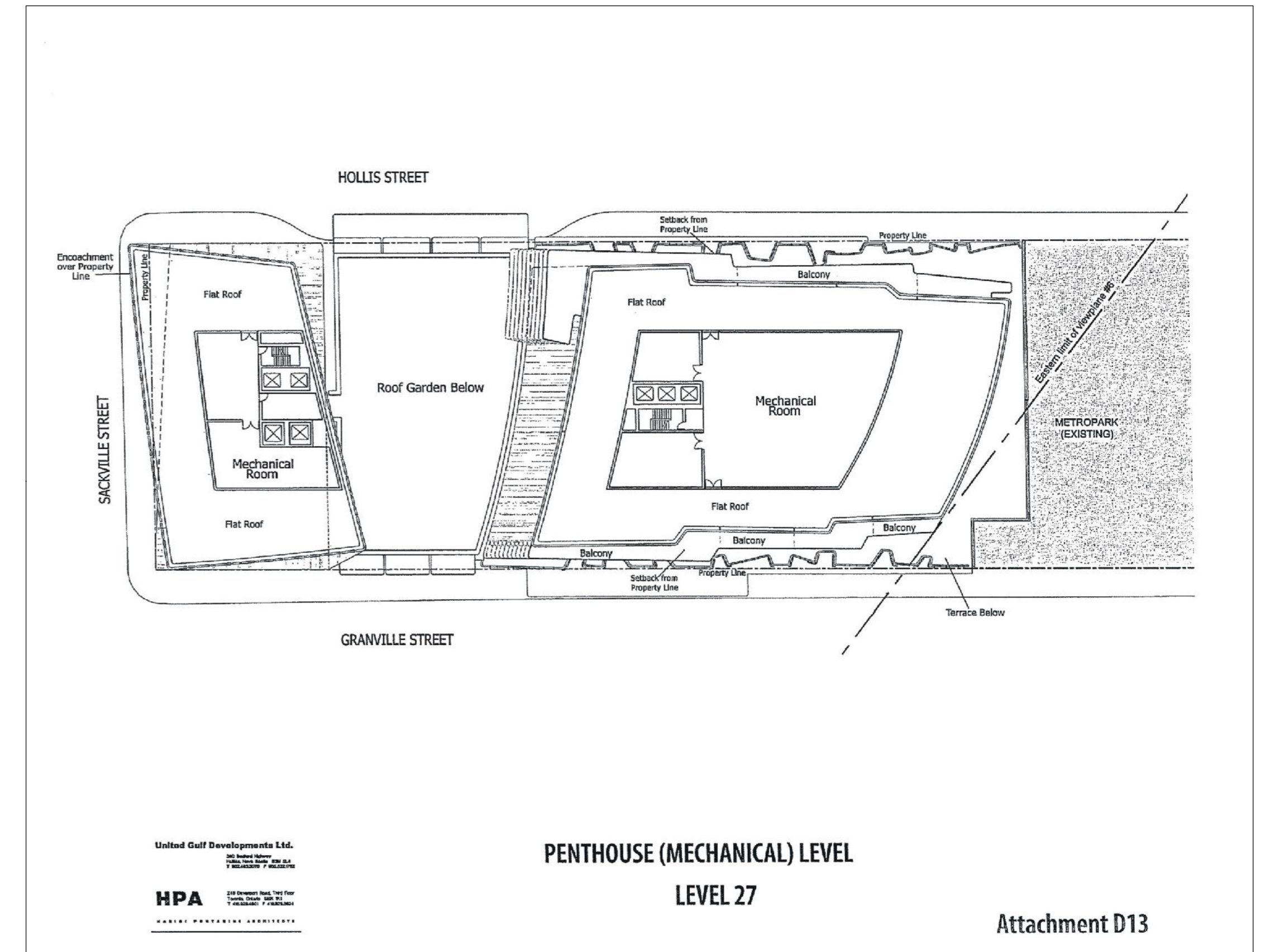
The towers would stand just outside the view planes -hands of the downtown where high-rise development is prohibited to preserve the views of Halifax Harbour from Citadel Hill. Yet it is the development's impact on the 150-year-old granite fortress that particularly upsets heritage groups.

The top of the development would be almost flush with the fortress. The city's planning staff, which said the tower would not be visible from within the fortress itself, has approved the project, though the municipal heritage committee is opposed to it.

Opponents say the building offends other portions of the municipal development strategy, such as the requirement that buildings step down to the waterfront.

'The problem with high-rise for me is the buildings have no character once you get past the windows at street level,' said Alan Ruffman, a civic activist who successfully appealed three high-rise proposals in the 1980s. He said he is concerned about the wind and shadow effects of the project, which he referred to as 'the twisted sisters.'

He added that if this project is approved, developers will build towers of similar scale nearby. Another company, Midtown Development Group, has already appealed a ruling barring the construction of a 17-storey hotel planned for the site of the Midtown Tavern, one of the city's oldest sports bars. The Nova Scotia Court of Appeal is set to hear that case in May.



Source: District 12 Planning Advisory Committee - January 16, 2006 Case 00709: Development Agreement - Former Texpark Site, Halifax



A georeferenced airphoto of Halifax which depicts the 10 viewplanes. The viewplanes were created in ArcGIS 9.3 using COGO with the coordinates, distances and elevations in the chart below. The viewplanes were then converted to points using the Feature Vertices to Point command and adding a field to the attribute tables called elevation. Then the points were used to create a tin for each viewplane using 3D Analyst.

Point	View Plane#	Elevation feet	Elevation m	Slope DMS	Slope DD	Gradient	Drop 1000m	Elev at 1000m	Drop 1500m	Elev at 1500m	Included Angle
B	1	208.6	63.59	01 58 30	1.9750000	0.0344839	34.48	29.10	51.73	11.86	12.0
B	3	208.6	63.59	02 57 40	2.9611111	0.0517272	51.73	11.86	77.59	-14.01	9.0
B	5	208.6	63.59	02 53 40	2.8944444	0.0505606	50.56	13.02	75.84	-12.26	20.0
R	6	240.0	73.16	03 51 00	3.8500000	0.0672965	67.30	5.86	100.94	-27.79	10.5
C	2	216.3	65.93	02 47 30	2.7916667	0.0487624	48.76	17.17	73.14	-7.21	9.0
C	4	216.3	65.93	02 56 30	2.9416667	0.0513869	51.39	14.55	77.08	-11.15	15.0
C	7	216.3	65.93	01 26 40	1.4444444	0.0252157	25.22	40.72	37.82	28.11	4.0
C	8	216.3	65.93	01 25 20	1.4222222	0.0248276	24.83	41.11	37.24	28.69	25.0
C	10	216.3	65.93	00 42 00	0.7000000	0.0122179	12.22	53.71	18.33	47.61	13.0
E	9	223.0	67.97	00 46 50	0.7805556	0.0136241	13.62	54.35	20.44	47.54	15.5

Source: 2009 GEOM 2022 3D part 7 - Animating Viewplanes .pdf