PLATE TWO

3D VISUALIZATION OF BUILDINGS AND VIEW PLANES FOR THE HALIFAX CITADEL

PLANE ANALYSIS VIEW





THE CREATION OF VIEWPLANES IN ARCMAP 9.3 *Viewplanes* are created in Arc by first obtaining the viewpoint shape file in which the points are stored. From here, each point is exported as a shapefile of its own. For facility's sake these points are enlarged and labeled so as to better identify them. Once this is achieved, ten brand new polyline shape files are created with ET GeoWizards. Each file is name in accordance with this chart - B1, C2 etc.

An edit session is then undertaken and, with the COGO toolbar active the **Traverse** button is selected. By clicking on the Start mouse icon, cross hairs appear and with snapping engaged, the proper point can be adhered to. At the top left the drop down menu is set to Direction-Distance. Here values are entered from the _chart. The direction values come from the Bearing 1 column, Distance, from distance. The **Add** button is clicked. The drop down menu is then placed at **Curve**. The values entered: Chord = Chord MSL values, Radius = Distance values, Chord____= Chord Bearing values. The Add button is once again clicked and then Finish. This results in a line with a hooked curve being drawn. In ArcToolbox the Feature Vertices to Points command is run. Once this is done - the edit session is terminated and the attribute table for the resulting points is opened. A new field is added called **ELEV**. The Elevation values from the table are pasted into the Field Calculator which then applies them to the file. In the 3D Analyst toolbar Create Tin From Features is selected. Here the point shape file is checked and an output saved. This results in a TIN being created along with the remainder of the viewplane shape.

| Point | # | Elev | Distance | Bearing1 | Bearing2 | Chord MSL | Chord Bearing |
|-------|----|-------|----------|----------|----------|-----------|----------------------|
| | | | | | | | |
| В | 1 | 63.58 | 1843.795 | 335.386 | 347.303 | 382.802 | 71.340 |
| С | 2 | 65.93 | 1352.031 | 28.064 | 36.939 | 209.218 | 122.500 |
| В | 3 | 63.58 | 1229.165 | 51.083 | 59.825 | 187.360 | 145.450 |
| С | 4 | 65.93 | 1282.977 | 52.978 | 68.117 | 338.010 | 150.550 |
| В | 5 | 63.58 | 1257.526 | 73.700 | 93.392 | 430.075 | 173.550 |
| R | 6 | 73.15 | 1087.011 | 106.464 | 116.658 | 193.145 | 201.560 |
| С | 7 | 65.93 | 2614.576 | 116.575 | 120.611 | 184.137 | 208.590 |
| С | 8 | 65.93 | 2655.446 | 120.611 | 145.336 | 1137.041 | 222.970 |
| E | 9 | 67.97 | 4988.980 | 141.811 | 157.319 | 1346.227 | 239.570 |
| С | 10 | 65.93 | 5396.031 | 151.072 | 163.836 | 1199.610 | 247.450 |
| | | | | | | | |

MGA MUNICIPAL GOVERNMENT ACT STATMENTS OF POLICY IN PLANNING STRATEGY

Section 24 (m) the use and conservation of energy, including the height and siting of developments;

Section 220 (4) A land-use by-law may (d) regulate the height of structures;

Municipal Development Plan for the City of Halifax Part 2-1986

6.1 All new buildings shall be located so that views to the Harbour from the Citadel Hill, as specifically delineated in the Halifax City Zoning By-law, are maintained.

Section 26A: Within the 10 view planes, no new building shall be allowed to exceed 75ft in overall height or penetrate the view plane.

Section 26B: In addition to all other provisions of this by-law, no development permit shall be issued for any development within Schedule A that is greater than 90ft. in height unless such development is will not be visible above the topmost line of the earthworks of the Citadel ramparts from an eyelevel of 5,5ft.above ground level at any of the specified viewing positions in the Parade square of the Citadel. Elevations and coordinate values for the viewing positions in the parade square of the Citadel and elevations to the topmost line of the earthworks of the Citadel ramparts are shown on ZM-17 -

Visit: http://www.halifax.ca/regionalplanning/FinalRegPlan.html

3 DIMENSIONAL PERSPECTIVE VIEWS FROM THE CITADEL



3D view plane perspective one





3D view plane perspective two

Project Description and Background.pdf















PROPOSED TEX-PARK DEVELOPMENT, DOWNTOWN HALIFAX The proposed development pictured below is the brain child and ambition of United Gulf Developers who wish to construct a 27 story condominium/hotel on the Tex-Park site between Hollis and Granville in downtown Halifax. While some hail the project as innovative and futuristic, it has sparked a remarkable amount of controversy pitting architects, experts and citizens against each other.



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. 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

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Brief Citadel History

The Halifax Citadel was constructed in 1749, was one of the British Empires principal overseas naval stations. As such it was built with the intention of defending Halifax from invasion – they built fortifications around the port – something that is now referred to as the Halifax Defense Complex.

The Citadel existing today was finished in 1856 and is the fourth fort since 1749. It is complete with a defensive ditch, ramparts musketry gallery, powder magazine and signal masts. This port was never attacked, but kept British Army stationed there until 1906 and the Canadian Forces occupied it during the First and Second World Wars. This latest Citadel in its star shaped fortification was a 28 year undertaking; this upgrade was necessary as its prior fortifications became obsolete with the onset of more technologically advanced gun weaponry in the 1860's.

http://www.pc.gc.ca/lhn-nhs/ns/halifax/natcul/index_e.asp



3D view plane perspective three



3D view plane perspective four





Developer: UNITED GULF DEVELOPMENTS.

What's planned: Two 27-storey towers, one with a 260-room hotel, the other with 250 condos. There would also be 62,000 square feet of commercial space for lease. Cost: \$150 million.

Location: Former Tex Park site bordering Hollis and Granville streets downtown Halifax. Status: Has yet to sign a development agreement with city. Public hearing underway. Council could make a decision next week.

Website: www.unitedgulf.ca.

Project Description and Background.pdf

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View Planes for City of Halifax Nova Scotia, January 31, 1974 Plan No. P200/12505 Development Department 1983



This compiled LiDAR plate was created in ArcMap 9.3 , ArcScene, CorelDRAW X4.







Produced by Lucy Hughes April 22nd, 2009

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It is a student exercise and as such

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is unedited and unverified.

