

SITE SUITABILITY ASSESSMENT FOR HOUSING IN WELLAND, ONTARIO

The Multi Criteria Decision Analysis for site selection using 5 criteria. These include Landuse, Slope, Elevation, Aspect as well as distance to roads. These criteria were used to generate the best possible location for real estate sighting. High elevations were completely avoided, marking out elevation higher than 200 meters above sea level. The slope was set to 7-15% suitability, marking all slopes above 15% as unsuitable for residential development.

The aspect was categorized according to the direction the slope faces, marking Eastern, western, southern exposures as more suitable.

Road accessibility is one of the important parameters for urban development as it provides linkage between the settlements The distance to existing urban areas is important because the significantly impact moving costs, so the roads are an important factor in housing development because their presence indicates human activity. The locations must be within 1-5 km from the main and secondary roads.

Weighted overlay set according the my derived AHP ratings, marking distance to roads as 40%, Land use as 20%, Aspect as 10% while Elevation and slope were marked at 15% each.

A Landsat SRTM data was used to derive the Elevation, slope and aspect, while the land use features, road networks and

