

CommunityViz New Hampshire

Case Study: Town of Londonderry, NH
December, 2007

Project Goal: Provide technical support to a housing task force.

Submitted By: John Vogl, GIS Manager/Planner

Background

In 2007, Londonderry Council chartered a Housing Task Force to review the issues associated with affordable housing and make recommendations. As part of their work, Task Force members sought to define the amount of affordable housing that could feasibly be built in Londonderry. With this information, members could make judgments about the likelihood of development and make recommendations regarding zoning changes. Maps containing the findings were presented at Task Force meetings. These maps were also reviewed by housing experts who evaluated other criteria such as the neighborhood fit and anticipated abutter reaction.

Work Process

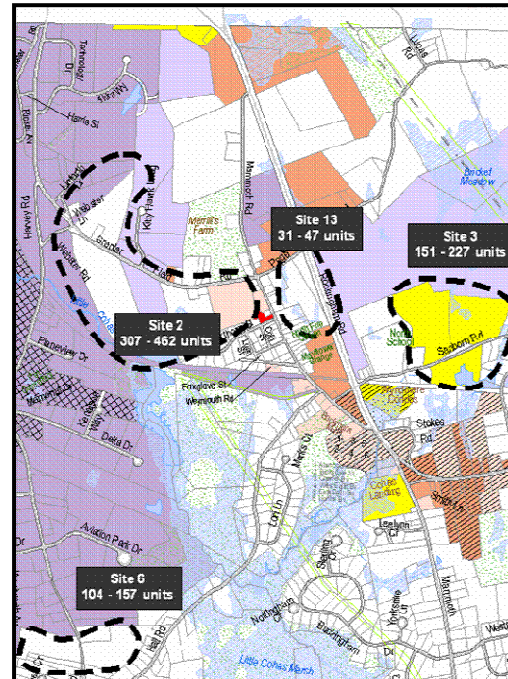
A study area comprising thirteen sub-areas was identified by town staff. This involved reviewing parcels in Londonderry that had potential for connecting to existing water and/or sewer lines and had adequate frontage to support large buildings. This selection set was influenced in large part by local knowledge in terms of knowing the unique history of each sub-area.

Following the selection, a limited build-out analysis was conducted using CommunityViz. This step identified buildable areas and then applied variable assumptions (e.g. densities and lot efficiencies) to report out a total number of new units.

Local data layers used in this project include:

Parcel Boundaries
Public Sewer Mains
Zoning
Base Layers

Existing Building Locations
Public Water Mains
Conservation Lands



All work was completed in-house in an ESRI environment, using both ArcGIS ArcInfo version 9.2 and CommunityViz Scenario 360 version 3.0.

Outcomes

The final outcomes of this application suggested that at four units per acre density, Londonderry had potential for 3,666 housing units. At six units per acre, there was potential for 4,050 units. With the potential sites mapped, and information about potential numbers of new units and buildings, Task Force members were able to review the results and discuss the merits or limitations of each site.

Recommendations in the Task Force report included increased densities in transition zones between residential and industrial districts. Most importantly, members were able to say with confidence that Londonderry has potential sites to locate large, affordable housing projects on parcels that are in close proximity to potential employers and with good highway access.

Lessons Learned

This was a basic application that delivered simple but appropriate results. A further extension would be to develop 3-D scenarios depicting apartment and townhouse style buildings on the lots. This would provide an opportunity to test out building placement and present a realistic depiction of the potential appearance of multi-unit buildings on a site.

Additional indicators were brainstormed but not carried out, including the number of school children, the number of workers and approximate building placement that would be generated by the new buildings.

Funding Assistance

All work was completed in-house, using existing staffing and technical resources.

Contact Information

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About the NH CommunityViz Technical Resource Center

Through the NH CommunityViz Technical Resource Center, NH GRANIT staff at UNH Complex Systems Research Center is available to provide guidance and technical support to CommunityViz users throughout the state. We are also working in collaboration with staff from UNH Cooperative Extension to develop and present educational resources.

<http://www.granit.unh.edu/resourcelibrary/specialtopics/cviz/cviz.html>



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