Project Introduction and Description

Boston’s Columbia Point will be undergoing major changes in the coming years. UMass Boston is in the midst of developing a 25 year Master Plan, the MBTA is considering selling the air rights over the JFK/UMass T-station and Corcoran Jennison, the owners of the Bayside Expo Center, are planning to dismantle the Expo Center and creating a mixed use development in its place. In response to these major changes, the Boston Redevelopment Authority has issued a Request For Proposals from planning firms for a Master Plan for the entire neighborhood to ensure that development is cohesive.

While the neighborhood has many assets, it also presents significant challenges to successful development. This project is intended to make suggestions about the best ways to determine optimal places for development, which includes demonstrating that while GIS is a very powerful tool, it is not capable of taking into consideration all factors when looking at development possibilities.

The criteria that were used to determine ideal areas for development in this project were:

1. Proximity of green/open space, demonstrated by 1/4 mile buffers around these areas
2. Proximity to transit, including busses and T-stops, demonstrated by 1/4 and 1/2 mile buffers respectively
3. Proximity to schools, libraries and universities, demonstrated by 1/4 mile buffers
4. Outside of the one-hundred year flood zone

Other criteria that are frequently used to determine optimal areas for development including being serviced by existing infrastructure (water, sewer, roads, etc.), proximity to existing development, and avoidance of sensitive environmental features were not mapped, as these conditions can be taken for granted in a neighborhood of urban character such as Columbia Point.

Limitations of GIS When Performing Community Analysis

What these maps do not show are the more subtle aspects of the neighborhood. For example, while there is a large amount of “open” space, much of it is occupied by athletic fields, and what remains is not necessarily welcoming. Also, much of the land on the Point is held by institutions who may be reluctant to part with it. In addition, while there appears to be reasonable access to two separate T-stations from approximately half of the site, in reality, the presence of busy roads and a major highway make getting to the transit stops on foot challenging. These will be issues that the planning firm which is awarded the project will need to investigate more closely, using site visits and community meetings.

While GIS is certainly a useful tool for determining some characteristics for development sites, it should not be the only tool used. Here these site characteristics are demonstrated using pictures of the various assets and challenges of the site that people would experience when present, and not only looking at a map.

Data Sources: GeoDB, The City of Boston’s Assessor’s Office and the Boston Redevelopment Authority; Map Projections: NAD 1983 State Plane Massachusetts Mainland, Special Thanks to Barbara Parmenter, Soledad Gaztambide, Lara Merida, Brad Rawson and James Jennings.