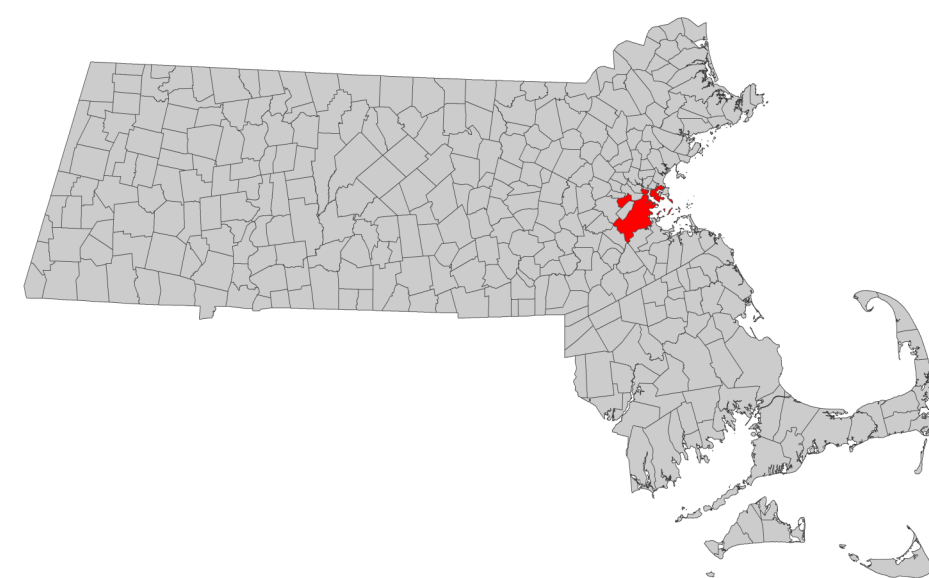


# Using GIS as a Tool for Community Economic Development

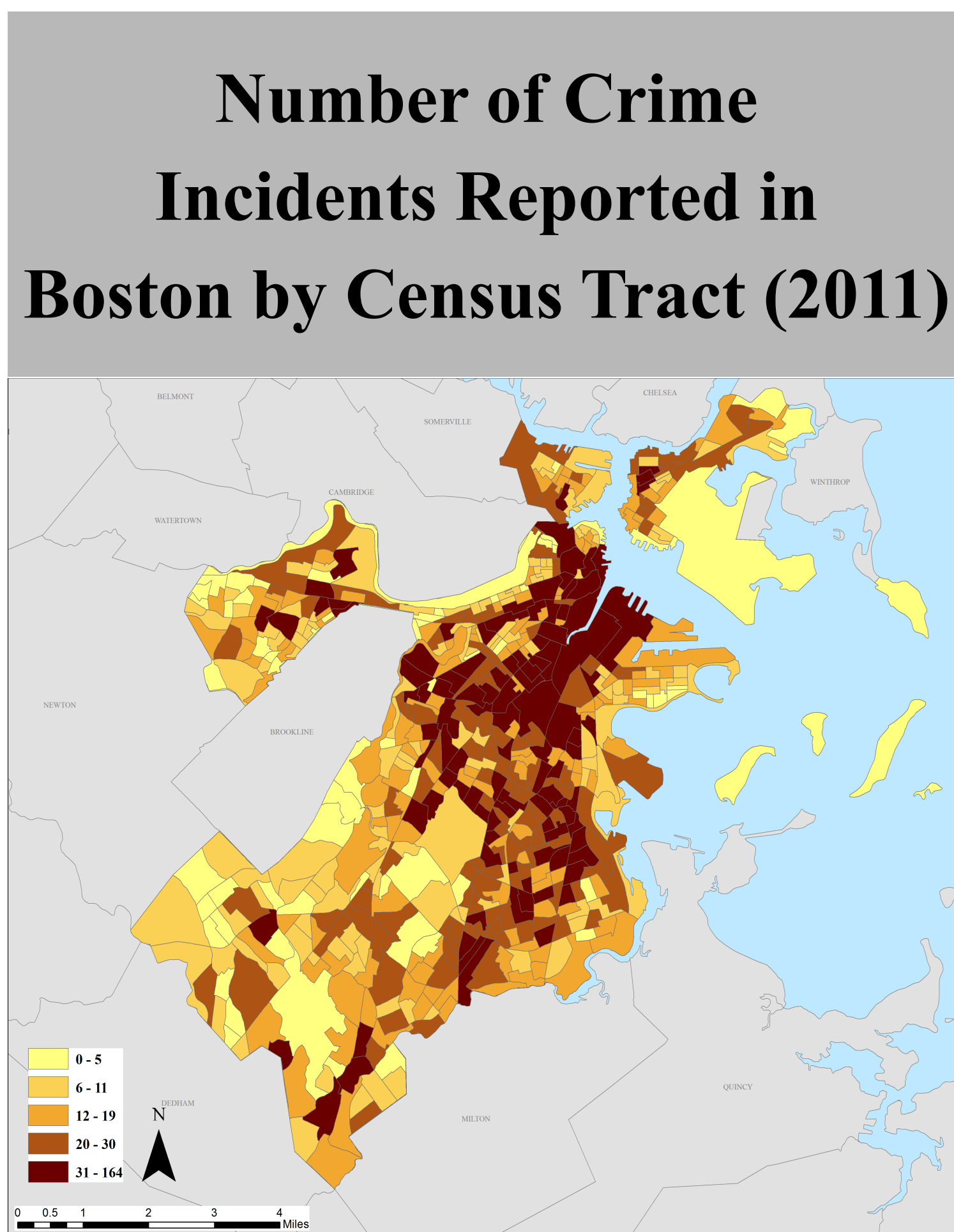
## Introduction

“Community economic development (CED) has evolved from a simple idea in the early 1900s to an economic movement that has helped to revitalize disadvantaged communities across the United States.”<sup>1</sup>

This study explores one of the ways that GIS can be an instrument in establishing effective Community Economic Development (CED) programs and selecting areas of high interest for future development. For most cities, CED is a constant process that brings new and improved resources to its residents. It is a strategy to bring vitality to struggling neighborhoods in the form of new jobs, businesses, building revitalization, community programs, improved public spaces, and affordable housing. Lack of affordable housing is a constant problem in Boston and one of the main focuses of local CED projects. Choosing new locations for affordable housing has many steps and layers to it, but locations of new affordable housing developments should be a place that allows its residents access to amenities needed for daily life as well as somewhere that they would *want* to live. Going forward we will use GIS to locate an area of Boston that could be a candidate for new affordable development.



**Cartography by: Rachel F Kelly**  
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Class: Introduction to GIS, UEP 0232



Neighborhoods with higher crime can be areas of interest for Community Economic Development projects.

## Methods

We will use GIS to prove its suitability as a tool for selecting locations for potential CED affordable housing projects. 2014 assessor's parcels have been used to determine general locations for potential development. We will use 4 variables of selection criteria to identify the best parcel for potential redevelopment. The four variables should be within walking distances of our new development and can easily be interchangeable to meet the goal of each individual project. For this study we will be using:

### 1. Proximity to Water

The waterfront area along Boston Harbor has become a premier destination. Boasting scenic views, entertainment, public beaches, and events that have been extremely successful. Housing along the waterfront is at a premium. We will first isolate parcels within .25 miles of the Boston Harbor.

### 2. Proximity to MBTA Bus Stops

Convenient access to transportation is vital for live, work and play. Next we will isolate parcels that are within 1/8 of a mile from all MBTA bus stops.

### 3. Proximity to Employers with over 250 Employees

Access to jobs and providing areas with employees to fill positions is a major element of CED. We will identify the remaining parcels that are within a 1/2 mile of businesses in Boston that have a minimum of 250 employees.

### 4. Areas with Incidents of Crime Reports

CED revitalizes areas in need and these neighborhoods can often have higher crime rates. The last variable used will be Boston.gov crime incident reports. The remaining parcels with crime reports near them will be the final deciding factor on determining a parcel for redevelopment.

#### Data Sources:

1) Dandridge, Nicole S., and Andre B. Dandridge. "Building Healthy Communities: A Guide to Community Economic Development for Advocates, Lawyers, and Policymakers." *Journal of Affordable Housing & Community Development Law* Spring 2012: 167+. Academic OneFile. Web. 10 Dec. 2014; 2) Boston.gov; 3) Mass GIS, Tufts University Database; 4) United States Census Bureau

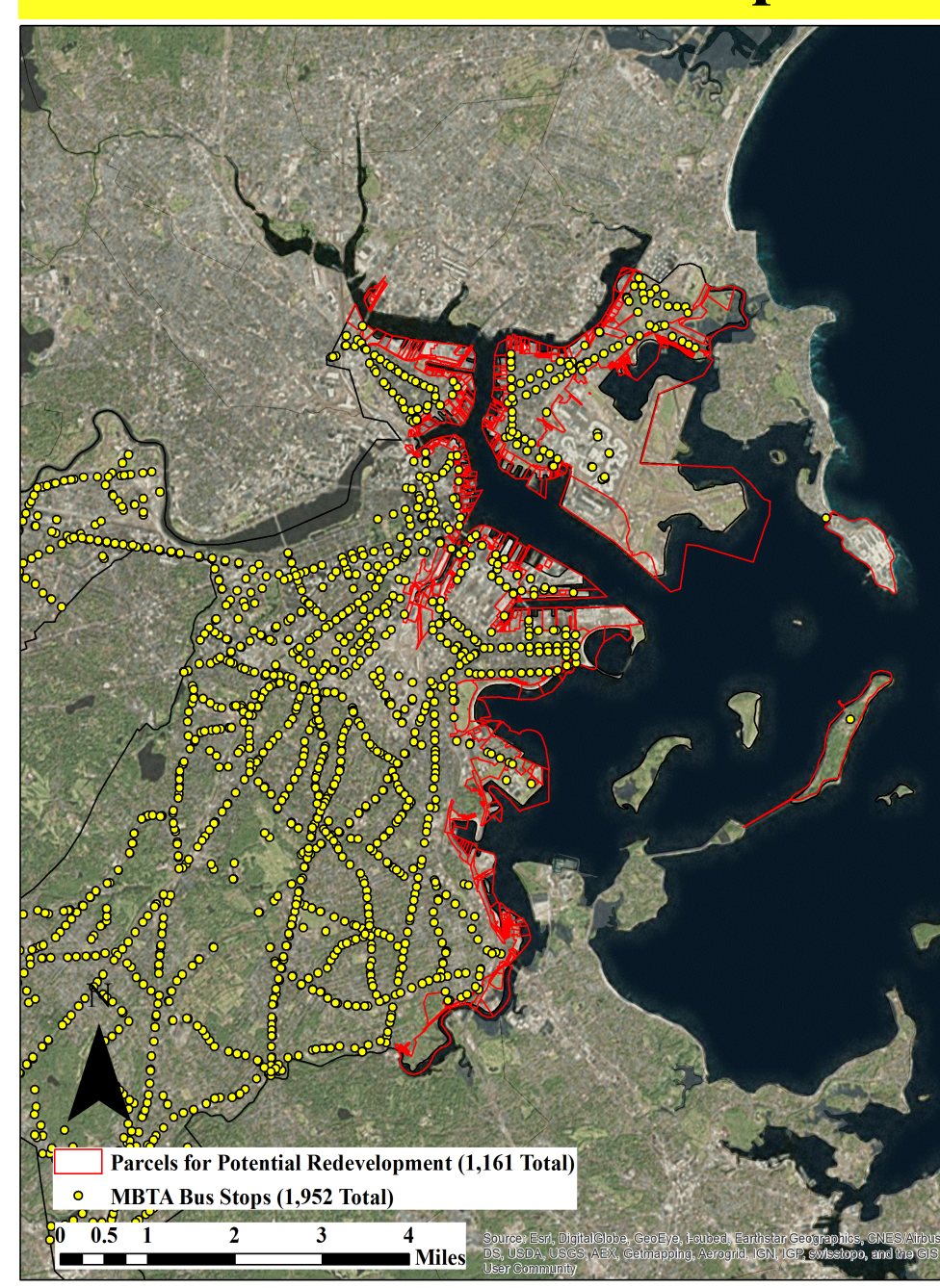
#### Projection:

NAD 1983 State Plane Massachusetts FIPS 2001 (Meters)

Parcels within 1/4 Mile of Ocean



Parcels within 1/8 Mile of Bus Stop



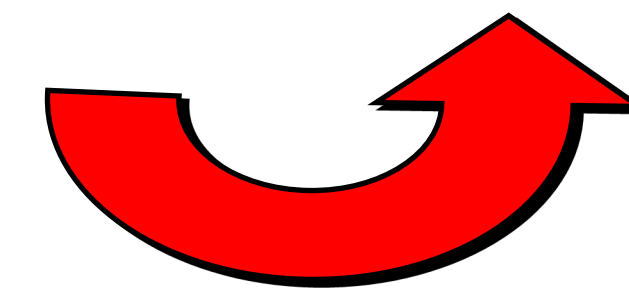
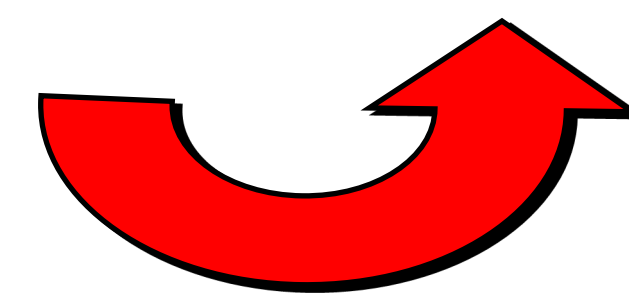
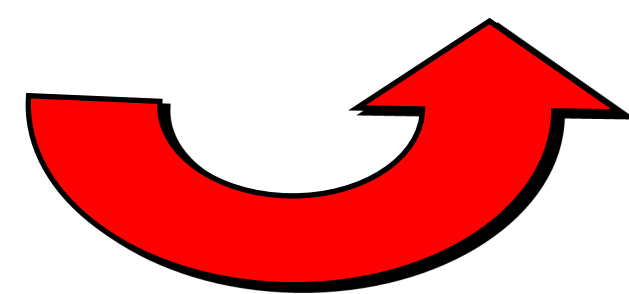
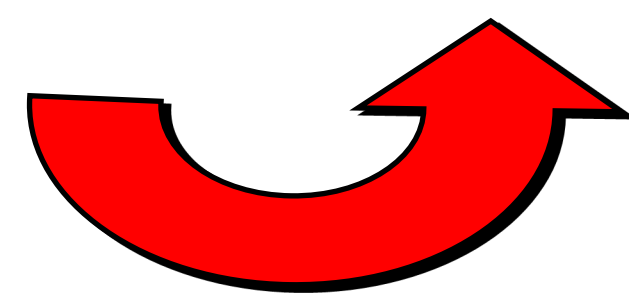
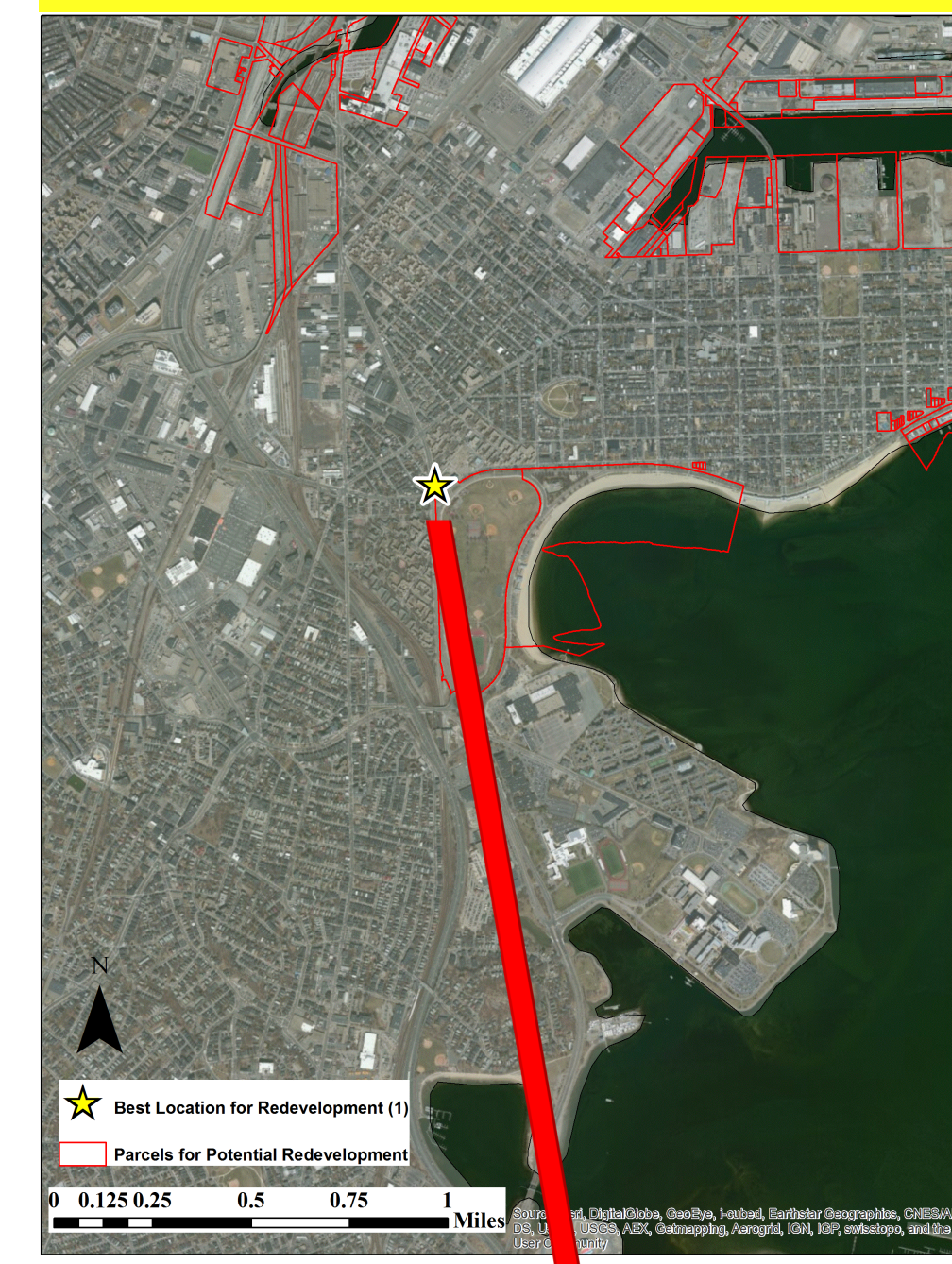
Parcels within 1/2 Mile of Major Employers



Areas with Reports of Crime Incidents

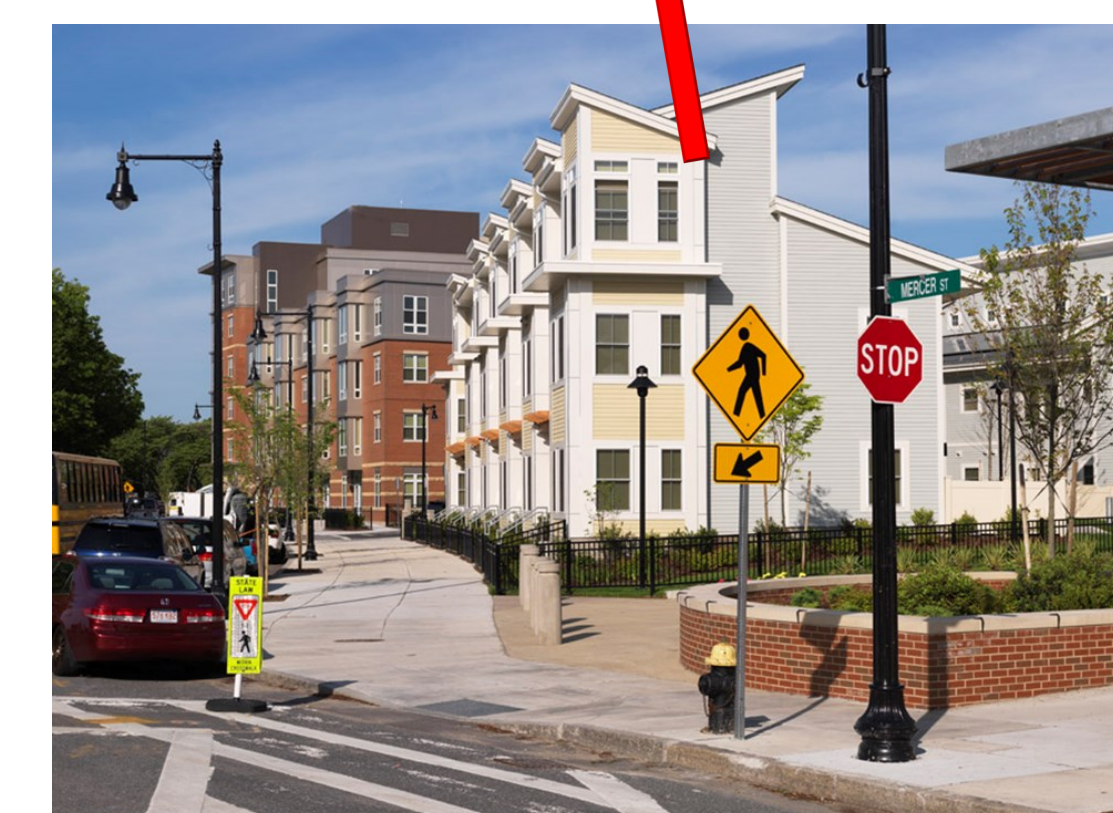


Most Suitable Parcel for Redevelopment



## Conclusion

When we first began this experiment, after the first elimination, we were left with 1177 parcels that were within 1/4 mile of the ocean. Going through each of these parcels by hand to identify a location for development would be incredibly time consuming and tedious. After our next selection of parcels, near MBTA bus stops, we were left with 1161 parcels, still a large number. After selecting parcels by proximity to large employers we were left with 378 parcels. For the last selection criteria we used points of crime incidents and then clipped this layer to the remaining 378 parcels. What we were left with was 17 parcels that had a crime point within them. From here each parcel was researched individually. Many of these parcels were already built out or were industrial or commercial storage areas. However, we did get one prime parcel that fit all of our criteria for redevelopment. This parcel was on Old Colony Avenue in South Boston. Coincidentally this location was recently redeveloped and rehabilitated in to townhome and midrise LEED certified affordable housing. The development is called The Homes at Old Colony. This was a multi-phase project. Most recently the second phase was completed in 2014. Through GIS we were able to use our own selection criteria to fit our own needs. GIS was able to eliminate 1160 parcels along Boston Harbor and guide us right to an ideal parcel. GIS is a valuable tool for CED and can cater to the wants and needs of any similar project.



The Homes at Old Colony, South Boston  
LEED Certified, affordable housing community.  
[www.thehomesatoldcolonybc.com](http://www.thehomesatoldcolonybc.com)