



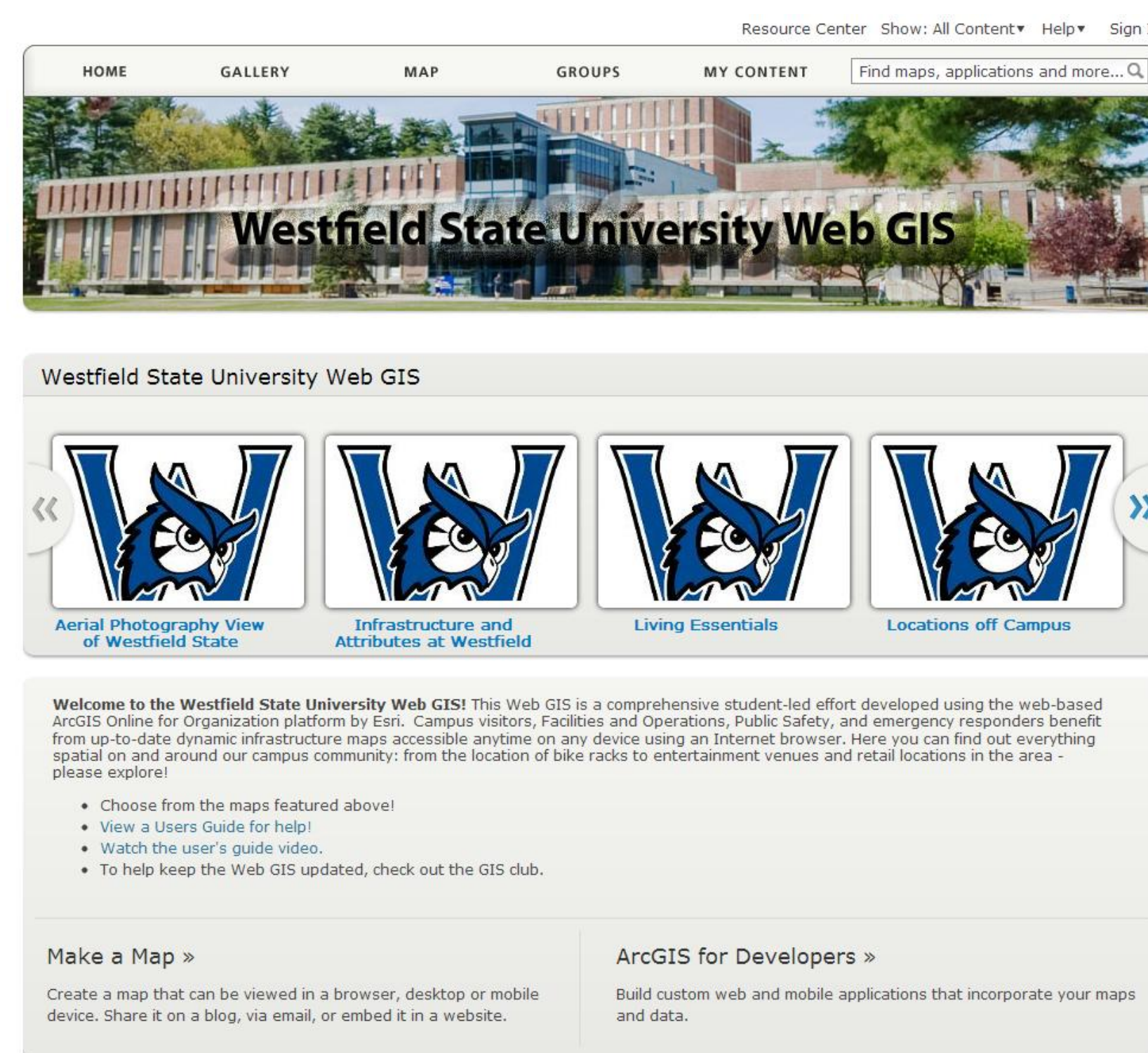
# Westfield State University Web GIS: A Student-Led Project Serving the Campus

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## What is a Web GIS?

Online maps and interactive visualizations are increasingly important tools in an ever changing world of technology for colleges and universities to promote their trademark and to attract potential students. Campus visitors, Facilities and Operations, Public Safety, and emergency responders benefit from up-to-date dynamic infrastructure maps accessible anytime on any device using an Internet browser. Online mapping aims to do all that and more.



**Figure 1.** Home Page of the Westfield State University Web GIS

The Westfield State University Web GIS (Figure 1) is a comprehensive student-led effort developed using the web-based ArcGIS Online for Organization platform by Esri. GIS or geographic information system is a spatial way to display information in a map format. A Web GIS contains all the information in the GIS and is available on the Internet cloud, to anyone with an Internet connection and most web browsers.

- Current and prospective students can now take interactive virtual tours of the campus and surrounding areas to find the location of food services, hiking trails, reliable car mechanics, and much more.

- Campus visitors, parents, and members of the community have access to up-to-date information about events, parking, and campus resources.

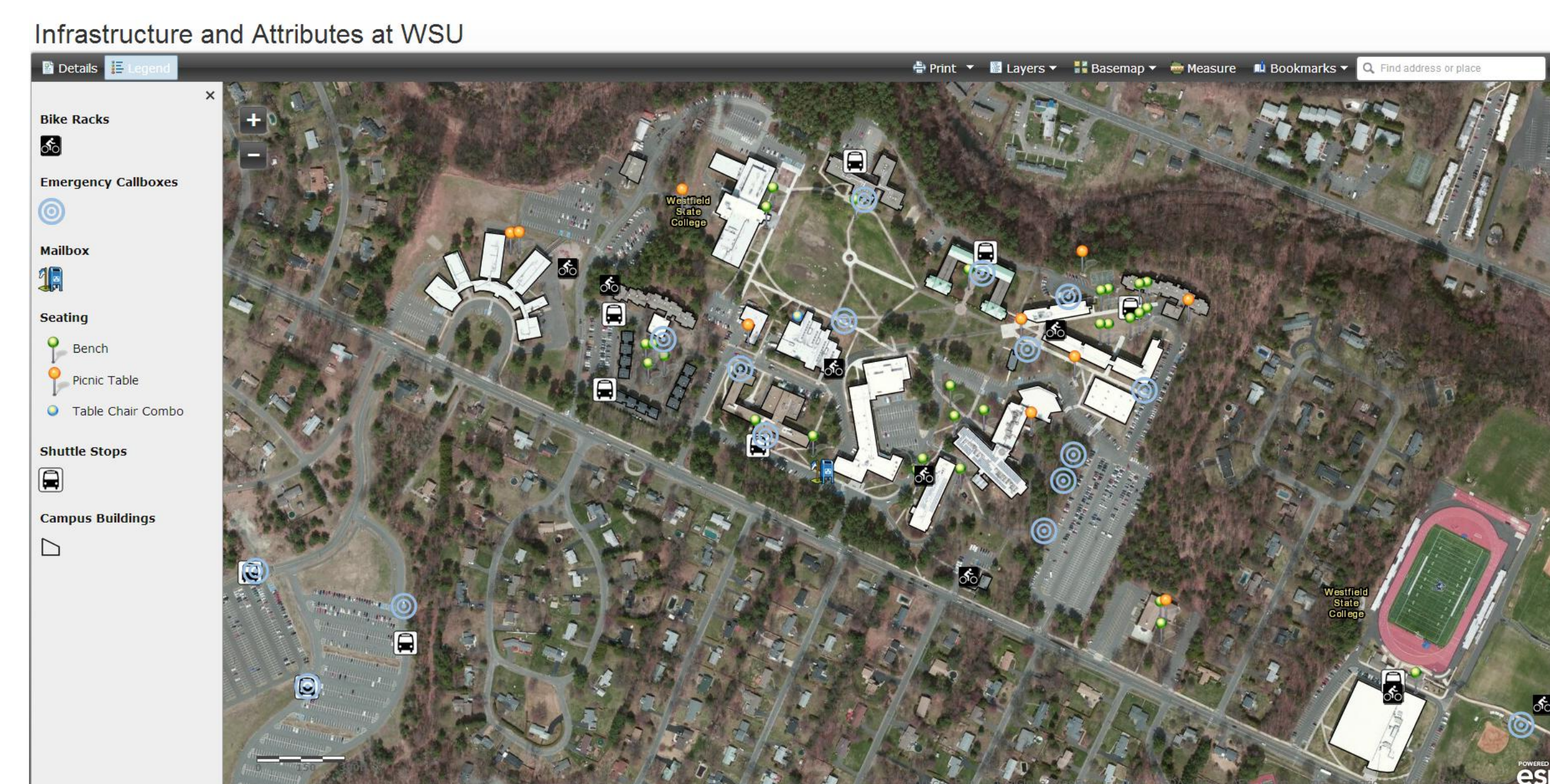
- Facilities and Operations staff can easily locate, maintain, and inventory campus infrastructure (including signage, fire hydrants, recycle bins and more) using basic tablet computers or smart phones.

- Emergency responders can evaluate building safety buffers, locations of hazardous materials, building exits and characteristics before arriving on-scene.

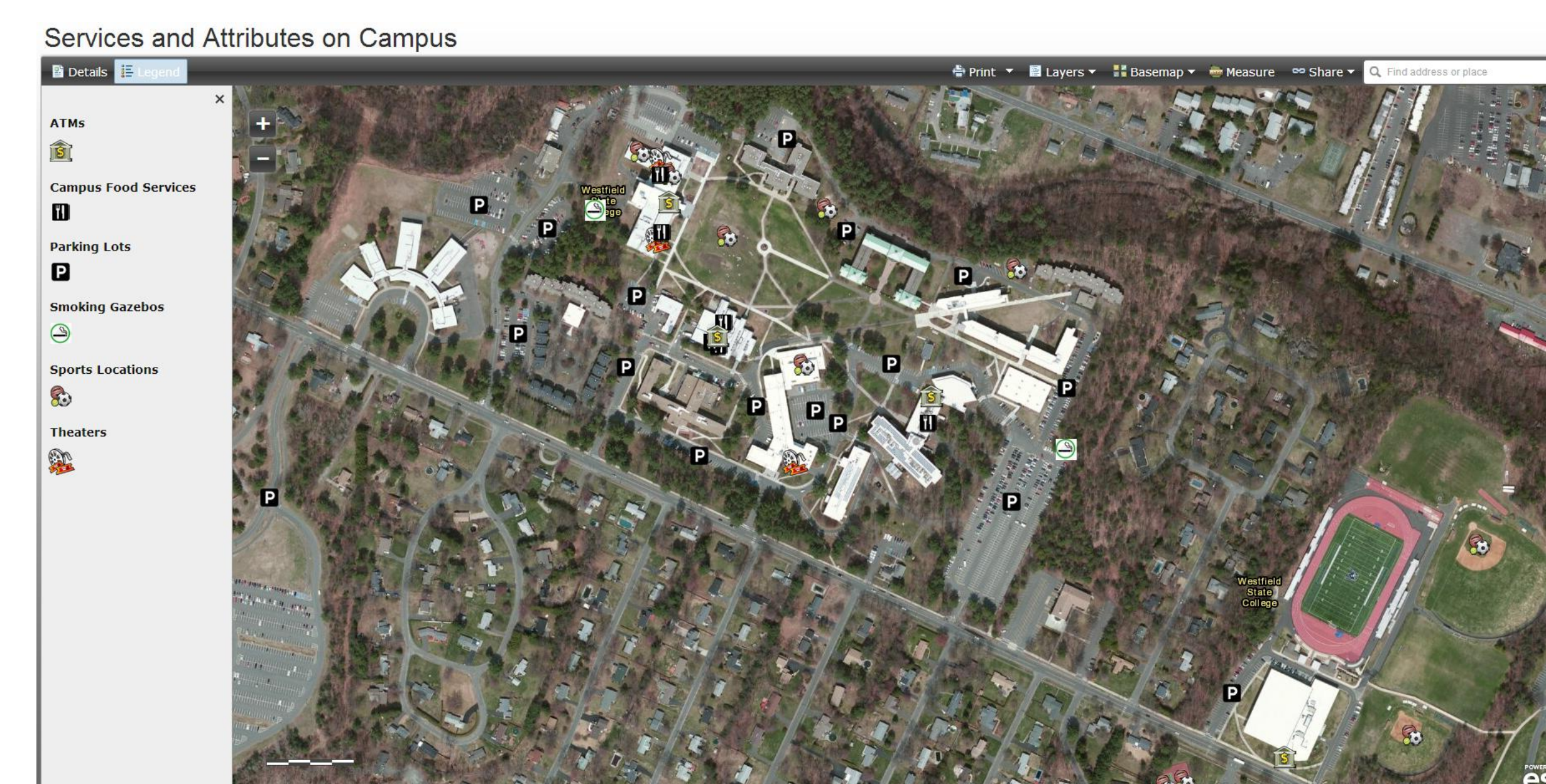
## Creating the Web GIS

Phase 1 of this project included conducting stakeholder surveys and data collection by a GIS Special Topics class at Westfield State University during the Fall 2012 semester. This was followed by data analysis and correction, mapping using both ESRI's ArcMap and ArcGIS Online, and the development of a prototype Web GIS. The prototype was then developed into an independent study program for finalization.

Post-deployment stakeholder surveys in collaboration with campus Facilities and Operations and Public Safety staff in Spring 2013 resulted in the development of additional data sets, interactive map services, and online maps for a variety of audiences both on and off campus. These maps included Campus Building Collapse Zones and Evacuation Buffer Zones. The official launch of the Westfield State University Web GIS is planned for May 2013, complete with the necessary improvements.



**Figure 2.** Infrastructure on Westfield State University Campus



**Figure 3.** Services and Attributes on Westfield State University Campus

## Maps and Data Available

### 1. Aerial View of Campus

### 2. Infrastructure and Attributes on Campus:

View: Bike Racks  
Campus Buildings  
Emergency Call boxes, Mailboxes  
Seating  
Shuttle Stops

### 3. Living Essentials:

View: Coffee Shops  
Department Stores  
Gas Stations  
Grocery Stores  
Pharmacies  
Restaurants

### 4. Locations off Campus:

View: Area colleges, Westfield Services  
Car Services, Gas Stations  
Hair Salons  
Liquor Stores  
Museums, sports and movie cinemas  
Tanning Salons

### 5. Owl Bucks Acceptance Locations

### 6. Recreation and Trails around Campus:

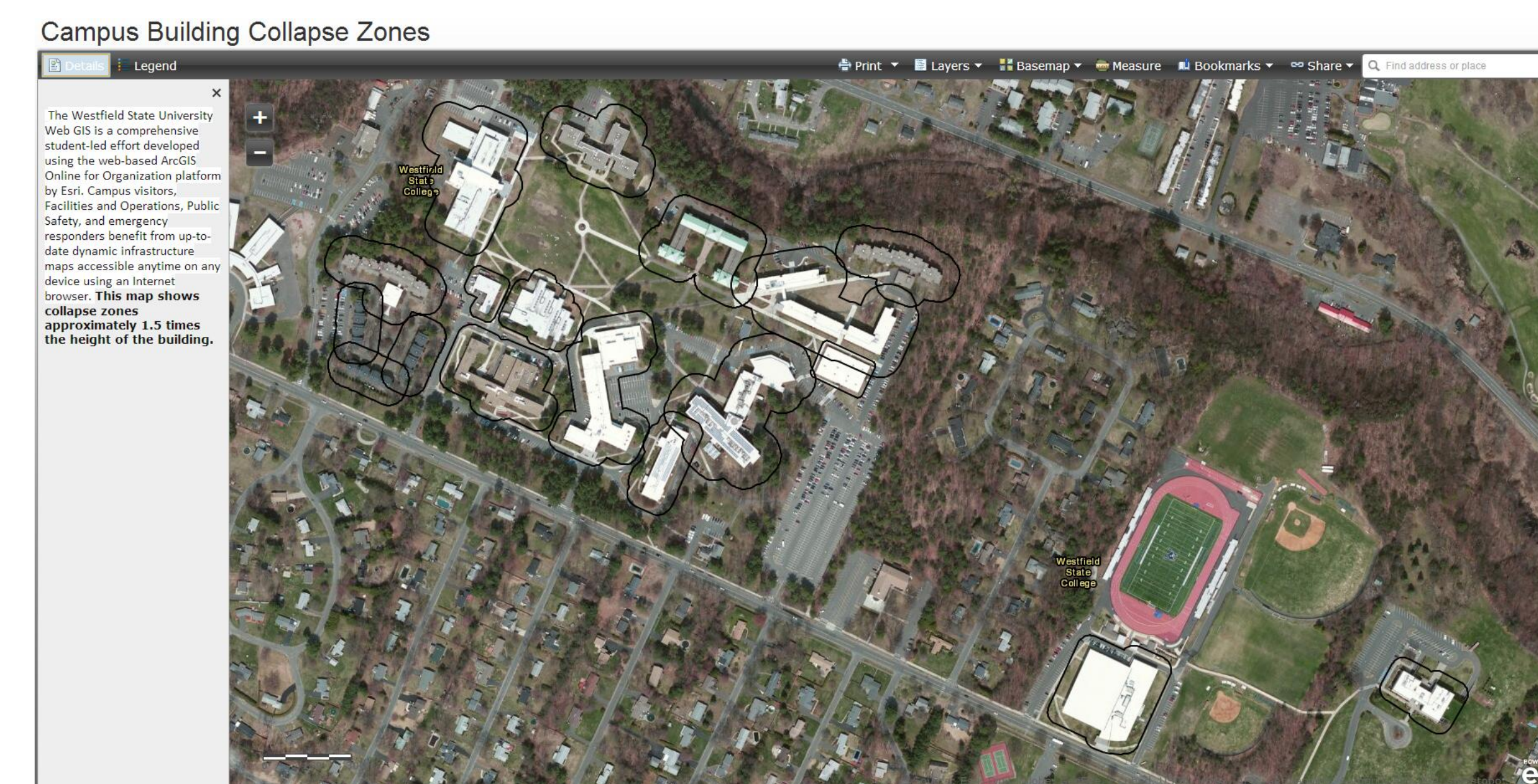
View: Environmental Science Trails  
South Lot Trails, Sports Facilities  
Stanley Park Trails

### 7. Services and Attributes on Campus:

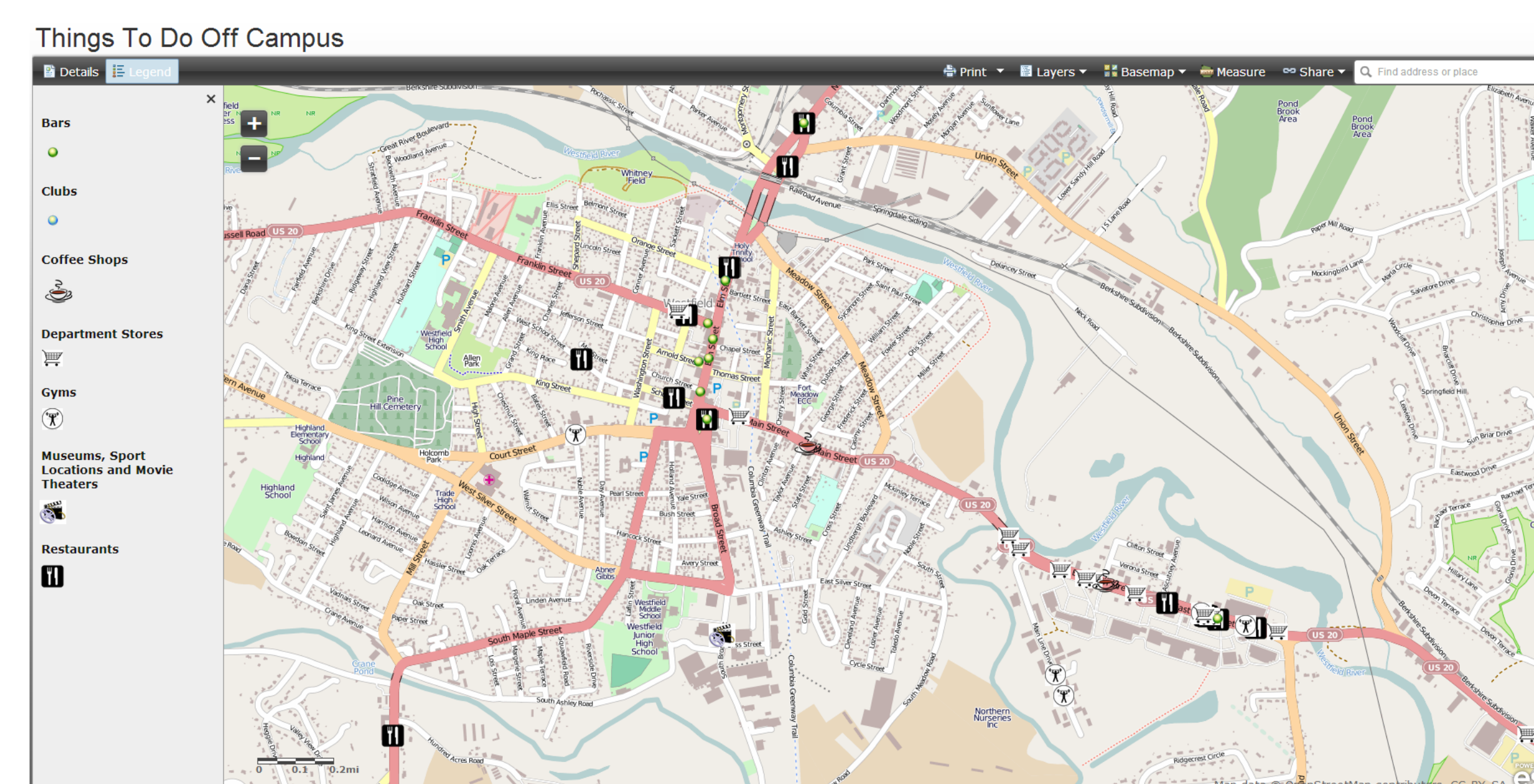
View: ATMs  
Campus Food Services  
Parking  
Smoking Gazebos  
Sports Locations, Theaters

### 8. Things to do off Campus:

View: Bars, Clubs  
Coffee Shops  
Department Stores  
Gyms, Restaurants  
Museums, sports and movie cinemas



**Figure 4.** Campus Building Collapse Zones



**Figure 5.** Things to do off Westfield State University Campus

## Help Functions and Updating

For users who do not have experience with the program, a User's Guide has been created in both PDF and video formats for easy access to information about exploring the Web GIS. The guides are a step-by-step document detailing navigation and tool use within the program. The User's Guide, in both formats, are accessible on the Web GIS home page.



**Figure 6.** Campus Building Buffer Evacuation Zones

Updating this service will be conducted by the newly created GIS Club on campus. This group will continue to make improvements to the data and update new information including recent construction and campus services. This group is open to all students and will determine which maps are available for public viewing.

**Web GIS:** <http://westfield.maps.arcgis.com>

**User's Guide PDF:**  
[http://www.westfield.ma.edu/uploads/cbraun/webgisuserguide\\_spring2013.pdf](http://www.westfield.ma.edu/uploads/cbraun/webgisuserguide_spring2013.pdf)

**Video Guide:**  
<http://www.youtube.com/watch?v=PiVZQBak6sk>

## Acknowledgments

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## For Further Information

- Please contact [ngiles0296@westfield.ma.edu](mailto:ngiles0296@westfield.ma.edu)
- More information on this and related projects can be obtained at [www.westfield.ma.edu/cbraun](http://www.westfield.ma.edu/cbraun)