Muscatine County's Survey Control Web map is provided to the surveyor community to assist with the digital submittal of their property surveys to the Muscatine County Auditor's office. The application works best in a desktop browser environment but can be used on all platforms from desktop workstations to smartphones and works with Windows, Android, and iOS operating systems. The Web Map was implemented by the Muscatine Area Geographic Information Consortium (MAGIC) using Esri's ArcGIS Server technology and is maintained by the Muscatine County Engineer's office.

Web Map Overview

The Web map consists of a map view window, search tool, measure tool and zoom/location tools. 'Legend' and 'Layer List' buttons allow users to open/close these views as needed. When the Web map is first accessed, the map should be zoomed to the full extent of Muscatine County:
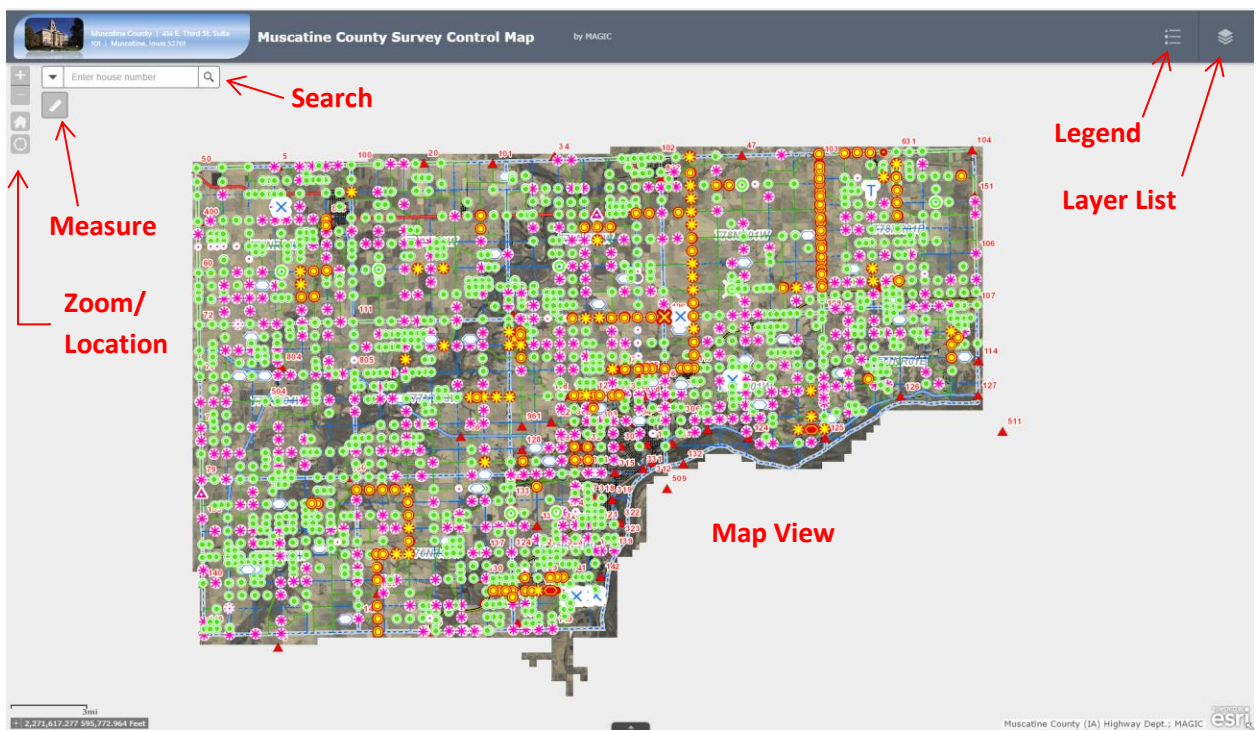

Clicking on the "Layer List" button at the upper right shows layers that can be viewed. Layers such as site addresses and street centerlines do not display until the user has zoomed in sufficiently. Layers can be turned on or off by clicking on the associated check boxes. The "Legend" button displays the symbology for each layer.

PLSS corners and geodetic monument points show attributes when clicked on. PLSS corner points are further divided into two layers: those with and those without GPS coordinates. Historic tie sheets in PDF format are attached to each PLSS or geodetic point.

Attribute and Attached PDF Document Display

Attributes associated with the geodetic survey control and PLSS corner points can be viewed by left-clicking on any of the points in those two layers. For example, this is what you should see when you left click on the red triangle symbol for a geodetic survey control point:
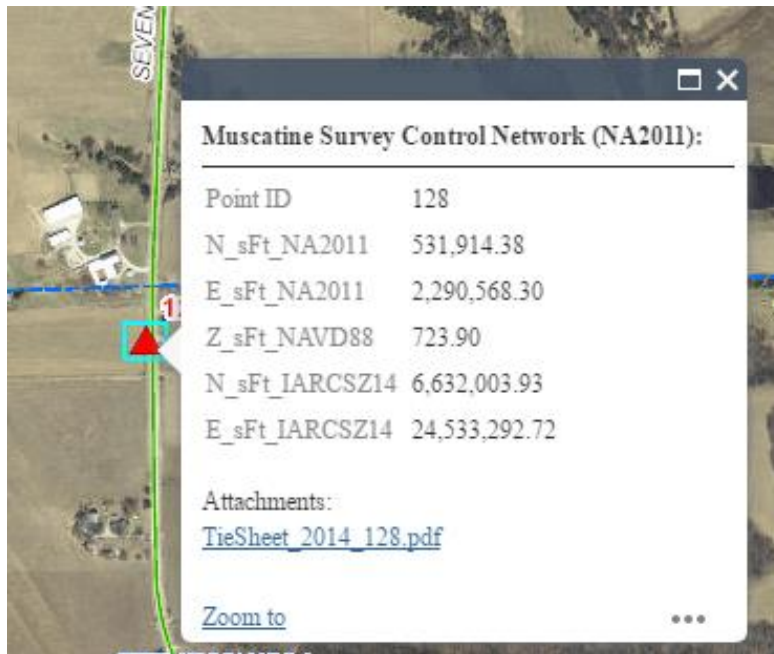
Survey control point attributes include the Point ID, northing/easting coordinates in both Iowa State Plane, South Zone (indicated by the 'NA2011' suffix), northing/easting coordinates for the new Iowa Regional Coordinate System, Zone 14 (indicated by the 'IARCSZ14' suffix) and elevation (indicated by the 'NAVD88' suffix). All units of coordinate values are in US survey feet (sFt). The attribute window can be closed by clicking on the 'X' in the upper right corner of the attribute window.

Section corner point attributes for PLSS corners <u>with</u> GPS attributes are shown below. Note that links to associated historic tie sheets in PDF format are also present at the bottom of the pop-up table:
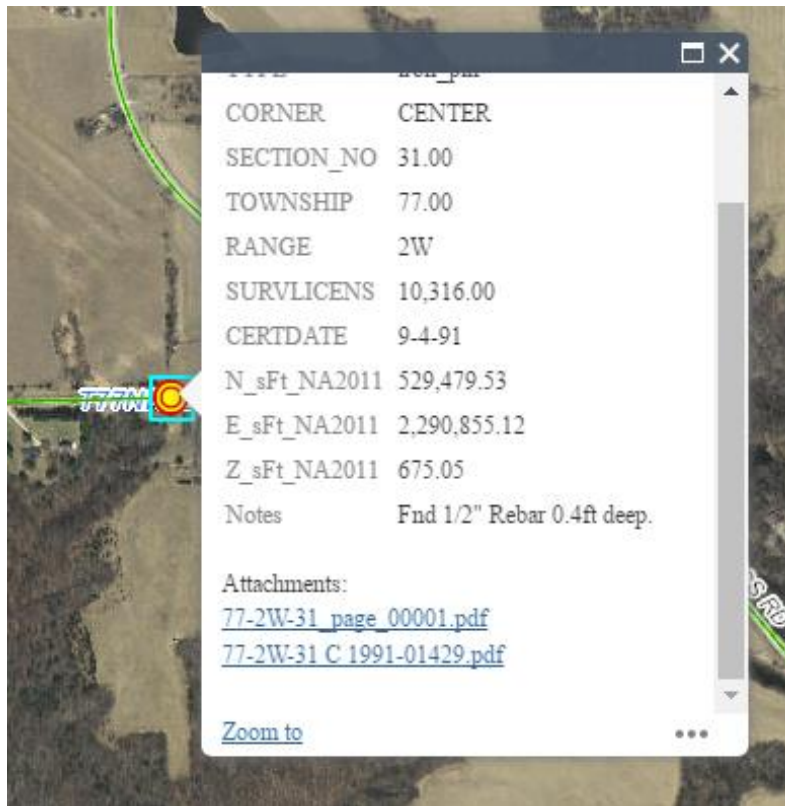

Section corner point attributes for PLSS corners <u>without</u> GPS attributes are the same as shown above with the exception that no coordinate fields are displayed.

While there is only one attached tie sheet for each geodetic survey control monument, there can be multiple tie sheets associated with each PLSS corner point. Left clicking on the attachment link will open the associated tie sheet in PDF format. The way in which you view the PDF will depend on the type of PDF viewing software a user has installed on his computer or mobile device. Most PDFs viewer will allow a user to print the open tie sheet document, typically by right-clicking inside the PDF viewing window and selecting the 'Print' option.

Other Tools

Search, measure, zoom and GPS location tools are also provided with the Web application.

Searches can be done as address or township/range/section searches. The arrow on the left of the
search bar allows you to select which type of search you want to do:
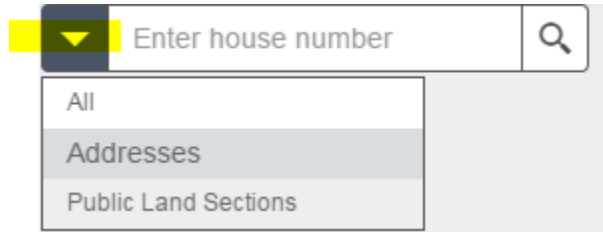
For addresses searches, as you begin typing the house number, an autopopulate your list of possible
addresses:
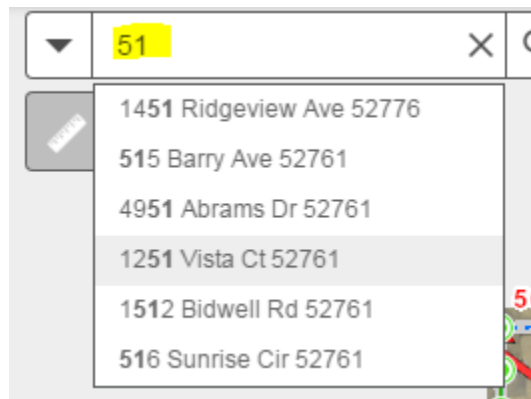
Clicking on the address you're searching for will zoom you to the address location.

The Public Land Sections search option is similar. Since there are only 13 PLSS townships in Muscatine
County, it is simpler if you do the T/R/S search by section number. Since section number is a text field

with an 'S' prefix for each section, it is quickest to just type in the section number of the section you're looking for:
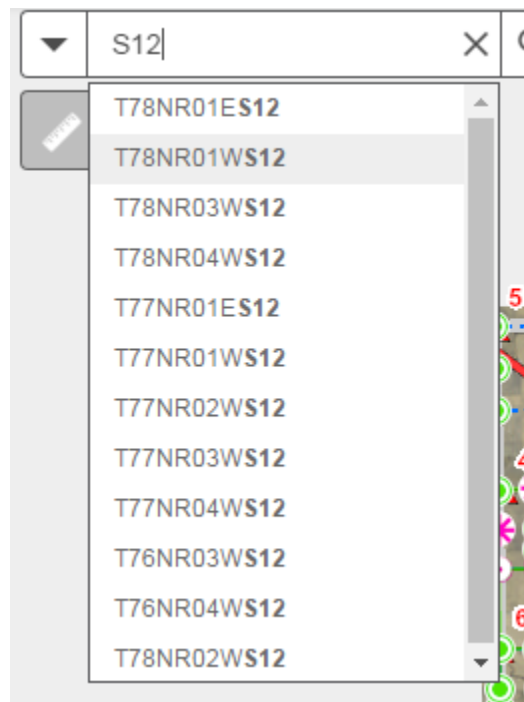
The measure tool provided allows a user to measure distances and areas. The user can select a variety of options as units of measure. Point coordinate measures are only available in decimal degrees or degrees/minutes/seconds.

The 'MyLocation' tool will zoom you to your current location. If you're in an office using a desktop browser, the MyLocation tool will zoom to your office location. If you're using a field tablet or smartphone that is GPS-enabled, it will zoom to your current location out in the field.

The '+' and '-' zoom tools in the upper right corner of the Web application allow users to incremental zoom in (+) or out (-). The home button zooms to the default countywide extent of this Web map.

Search window: Allows a user to find addresses, cities or well-known points of interest in Muscatine County. The search engine used is supplied by ESRI, not any location service supplied by MAGIC or Muscatine County.

<u>Contact Information</u>:

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