

How to Install and Use the ArcGIS for AutoCAD Plug-in

ArcGIS for AutoCAD is a free, downloadable plug-in application from ESRI. PAgis' version of ArcGIS Server (10) and the plug-in from ESRI are compatible with **AutoCAD 2010 or higher**. The plug-in allows AutoCAD users to connect to ArcGIS Servers and consume PAgis map services via an internet connection. Please visit the ArcGIS for AutoCAD ESRI webpage to download the plug-in, and review the installation instructions. It is also recommended that you review the "Common Questions" link before proceeding so that you understand the capabilities and limitation of the extension.

<http://www.esri.com/software/arcgis/arcgis-for-autocad/index.html>



The screenshot shows a web browser window displaying the ESRI website for ArcGIS for AutoCAD. The browser's address bar shows the URL <http://www.esri.com/software/arcgis/arcgis-for-autocad/index.html>. The website features the ESRI logo and the tagline "Understanding Our World". A navigation menu includes links for Home, Industries, Products, Training, Support, Services, Events, News, and About. The main content area is titled "ArcGIS for AutoCAD" and includes an "Overview" section. The overview text states: "ArcGIS for AutoCAD is a free, downloadable plug-in application for AutoCAD that provides improved interoperability between AutoCAD and ArcGIS. Within the AutoCAD environment, you gain easy access to enterprise GIS maps hosted by ArcGIS for Server. In addition, ArcGIS for AutoCAD gives you the ability to prepare CAD data for use with the ArcGIS system while leveraging your existing CAD standards." Below this, a section titled "Use ArcGIS for AutoCAD to" lists three bullet points: "Streamline information sharing between GIS and CAD groups.", "View live, rich cartographic GIS maps in AutoCAD.", and "Include the results of GIS analysis in AutoCAD designs." A fourth bullet point states: "Create, manipulate, and define how CAD data is organized and attributed as GIS content so it can be used in ArcGIS for Desktop or AutoCAD." A link to "View demos" is provided. To the right, there is a small image of a map with red lines overlaid, and a caption that reads: "Use ArcGIS for AutoCAD to easily add, create, and edit GIS information in your AutoCAD drawings." The browser window also shows a search bar and a "Products" breadcrumb.

For additional information, please visit the ESRI Resource Center:

http://help.arcgis.com/en/arcgisforautocad/10.0/help/#/What_is_ArcGIS_for_AutoCAD

System Requirements

The screenshot shows a web browser window displaying the ArcGIS Resource Center page for ArcGIS for AutoCAD. The page title is "System Requirements for ArcGIS for AutoCAD". The left sidebar contains a navigation menu with the following items:

- What is ArcGIS for AutoCAD?
- Essential ArcGIS for AutoCAD vocabulary
- A quick tour of ArcGIS for AutoCAD
- What's new in ArcGIS for AutoCAD Build 250
- Installation guide
 - System Requirements for ArcGIS for AutoCAD
 - Installing ArcGIS for AutoCAD
 - Loading ArcGIS for AutoCAD
 - Automatically loading ArcGIS for AutoCAD
 - Uninstalling ArcGIS for AutoCAD
- GIS fundamentals
- Working with maps
- Working with feature classes
- Customizing ArcGIS for AutoCAD

The main content area is titled "System Requirements for ArcGIS for AutoCAD" and includes a sub-header "To install and use ArcGIS for AutoCAD Build 250 you need:". Below this is a table listing the requirements:

An AutoCAD-based application	AutoCAD 2010/2011, 32-bit or 64-bit
	AutoCAD Map 3D 2010/2011, 32-bit or 64-bit
	AutoCAD Civil 3D 2010/2011, 32-bit or 64-bit
Windows Operating System	Microsoft Windows 7 Enterprise, Ultimate, Professional, or Home Premium
	Windows Vista Enterprise, Business, Ultimate, or Home Premium (SP1 or later)
	Microsoft Windows XP Professional or Home edition (SP3)
Microsoft .NET Framework	Microsoft .NET Framework Version 3.5 (SP1 or later)
An Internet connection to ArcGIS Server	ArcGIS Server 9.3 or higher with published map services

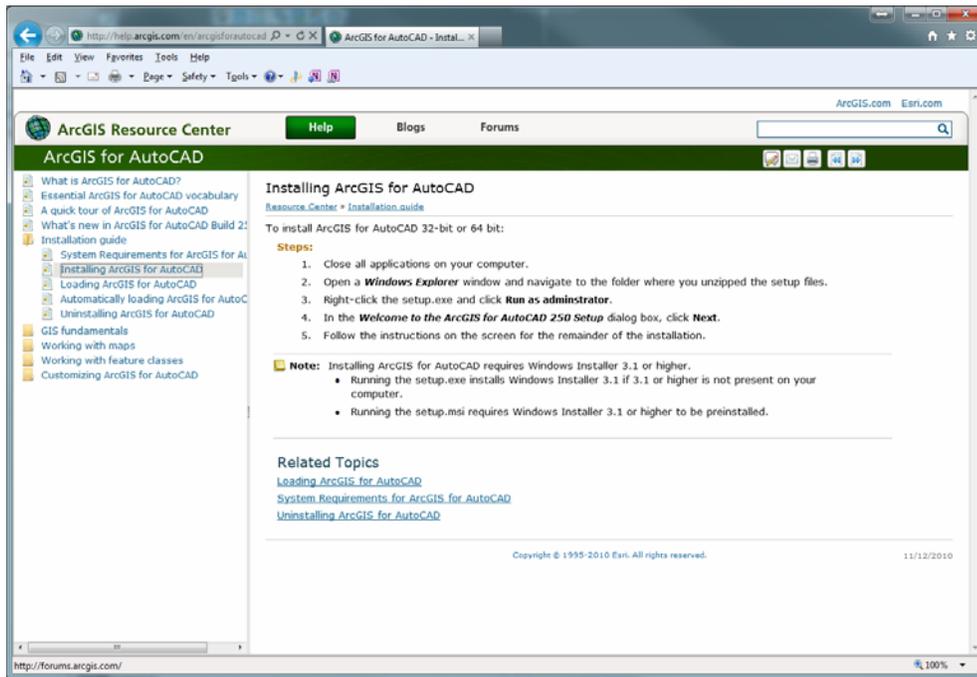
Below the table, there is a **Note** icon and the text: "ArcGIS for AutoCAD cannot be installed on AutoCAD LT."

Under the heading "Related Topics", there are three links:

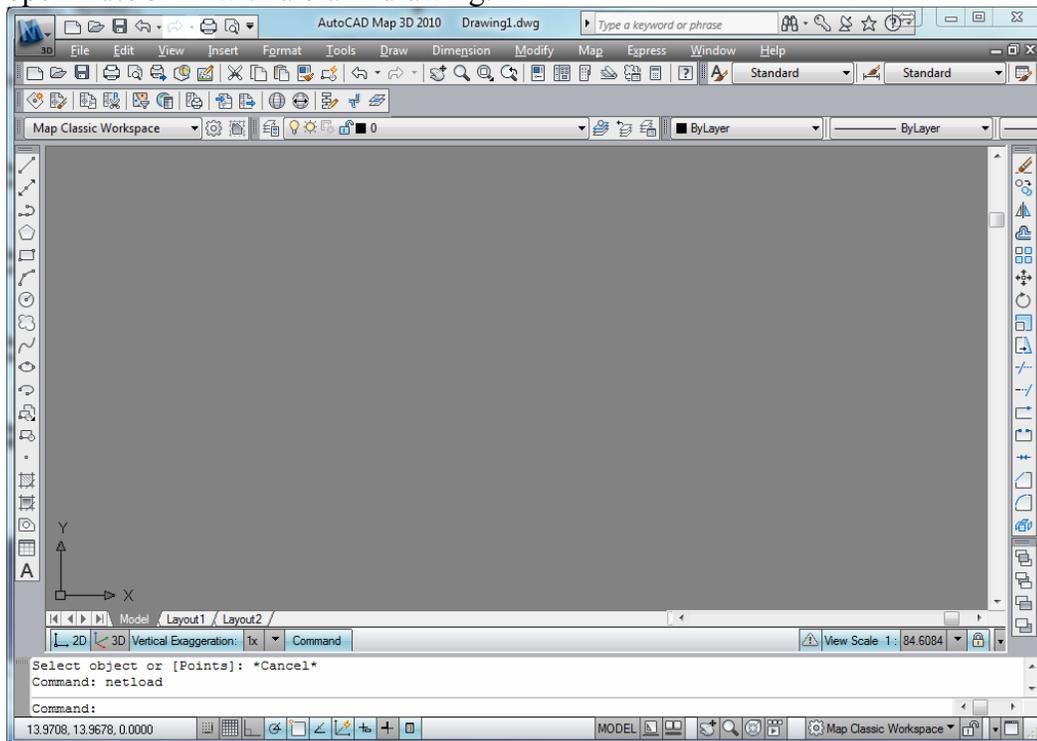
- [Installing ArcGIS for AutoCAD](#)
- [Loading ArcGIS for AutoCAD](#)
- [Uninstalling ArcGIS for AutoCAD](#)

The footer of the page contains the text "Copyright © 1995-2010 Esri. All rights reserved." and the date "11/12/2010". The browser's address bar shows the URL "http://help.arcgis.com/en/arcgisforautocad" and the page title "ArcGIS for AutoCAD - System Requirements".

Installation and Setup

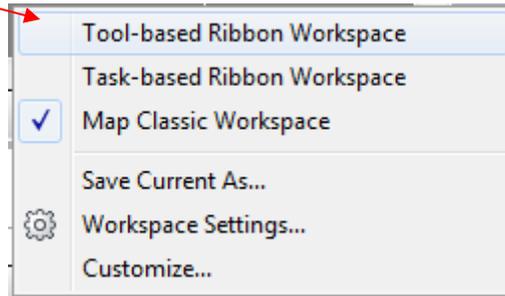


1. Download the plug-in [arcgis-for-autocad250-32bit.zip](#) and follow the setup instructions taking the defaults.
2. After you have downloaded and installed the plug-in using from the above link, open AutoCAD with a blank drawing.

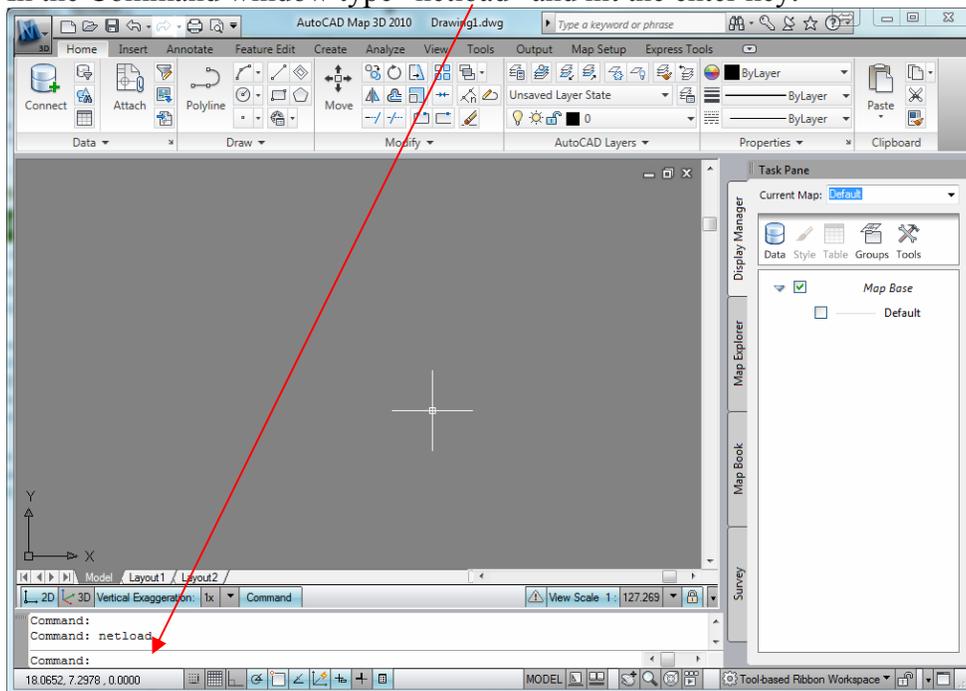


Since the ArcGIS for AutoCAD plug-in does not load into AutoCAD by default, you must run a command to load the file. *Note: You may create a LISP routine to auto-load the plug-in. See the “Common Questions” page from the link on page 1 of this document.*

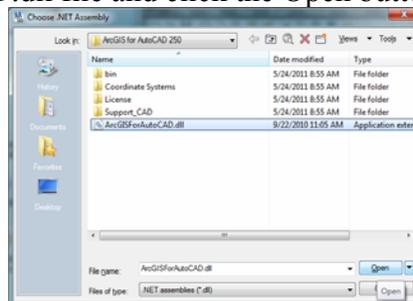
3. You must change your AutoCAD workspace to the “Toolbased Ribbon Workspace” in order to see the plug-in’s toolbar that will be loaded in the next steps.



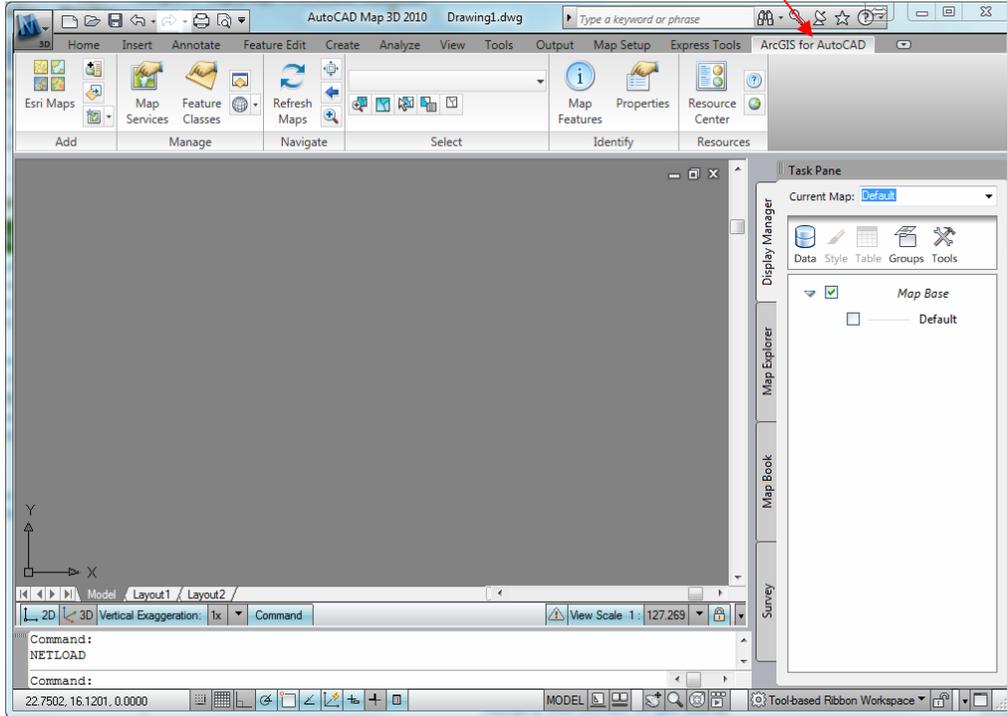
4. In the Command window type “netload” and hit the enter key.



5. A dialog pops up asking you to browse to the ArcGISforAutoCAD.dll file (normally found in C:\Program Files\ArcGIS for AutoCAD 250). Select the ArcGISforAutoCAD.dll file and click the Open button to load the plug-in.

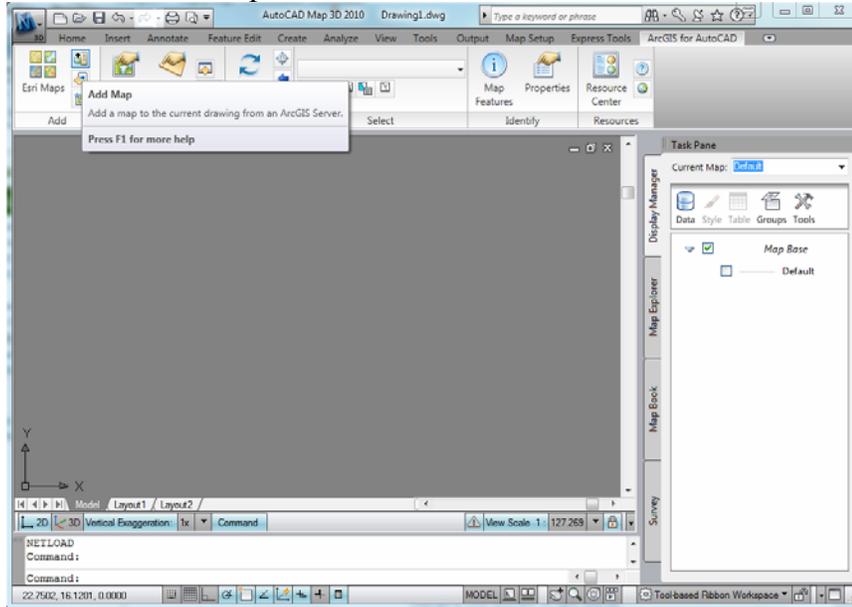


6. Your ribbon tab will automatically switch to the ArcGIS for AutoCAD tab on load:

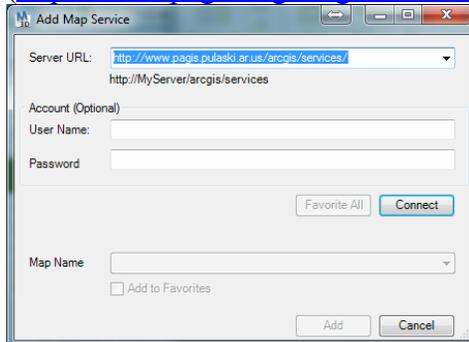


Adding Map Services from PAgis' ArcGIS Server to AutoCAD

1. Click the “Add Map” button

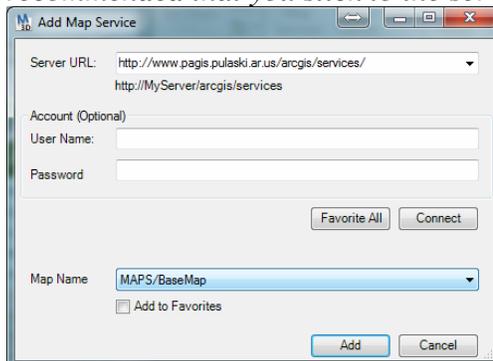


2. Enter the URL to the PAgis ArcGIS Server (<http://www.pagis.org/arcgis/services/>) and click the Connect button:



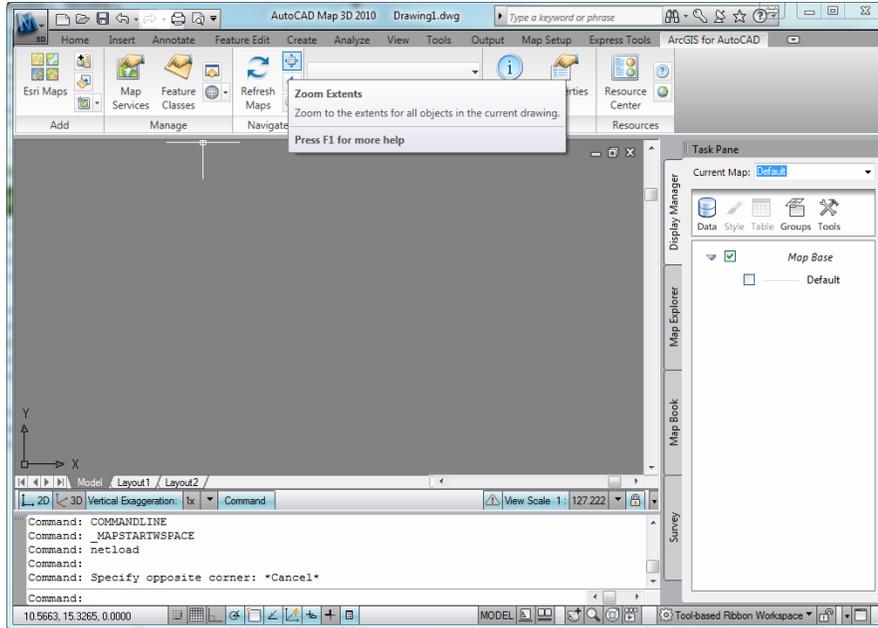
3. Choose a service from the “Map Name” dropdown box (optionally add that to your favorites) and then click the Add button.

NOTE: In this example we are going to choose “MAPS/BaseMap” (It is recommended that you stick to the services with the prefix of “MAPS/...”)

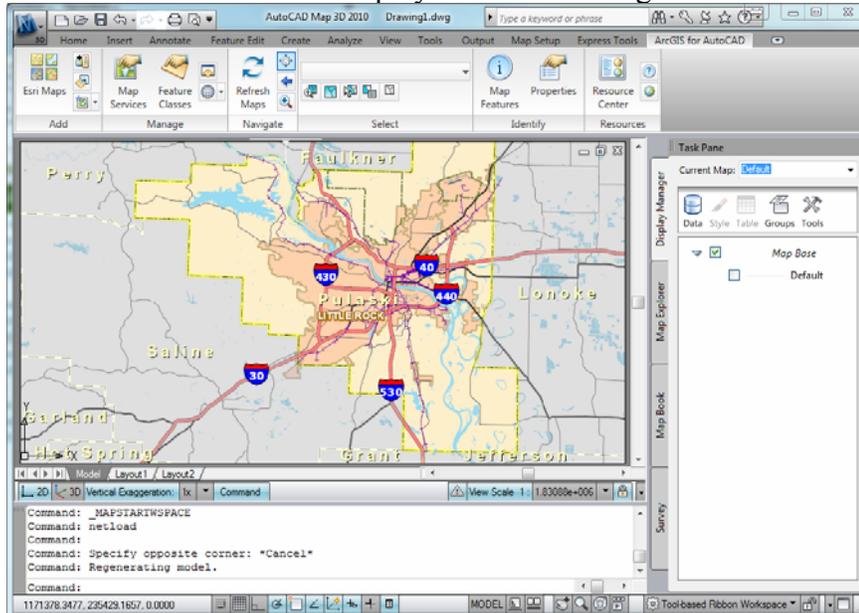


NOTE: Since we started with a bland AutoCAD drawing, even after we add our first service, we need to zoom to the extents of the service to see anything in our map.

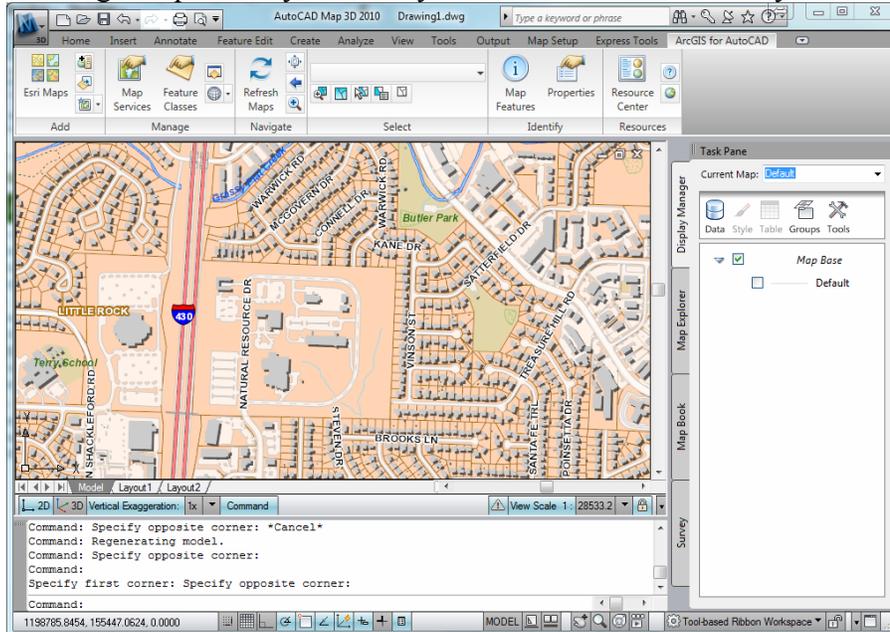
4. Click on the “Zoom Extents” button



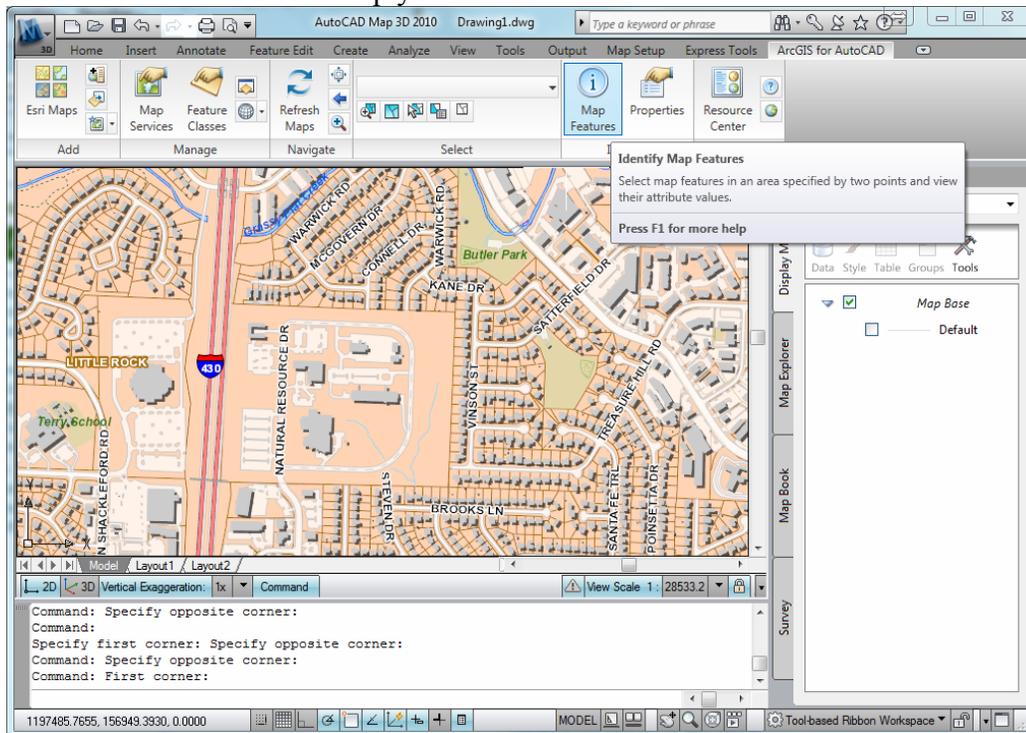
The entire service will be displayed in the drawing:



5. Use the “Zoom” tool to drag a window over a smaller area you would like to inspect. You may need to zoom a few times to get down to where you see the building and parcel layers as they draw based on what scale you are viewing.

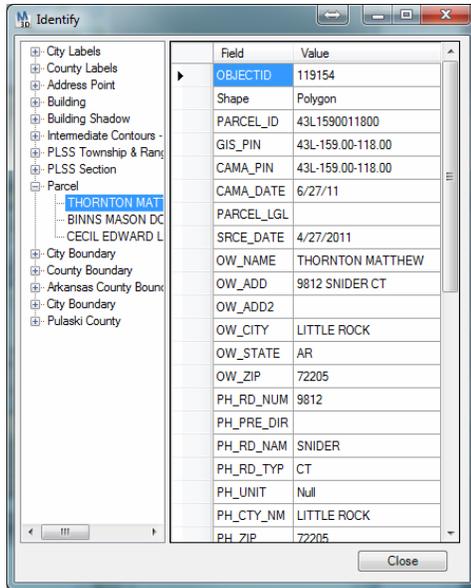


6. Use the “Identify Map Features” tool to get information from the GIS database about each feature on the map you click on.

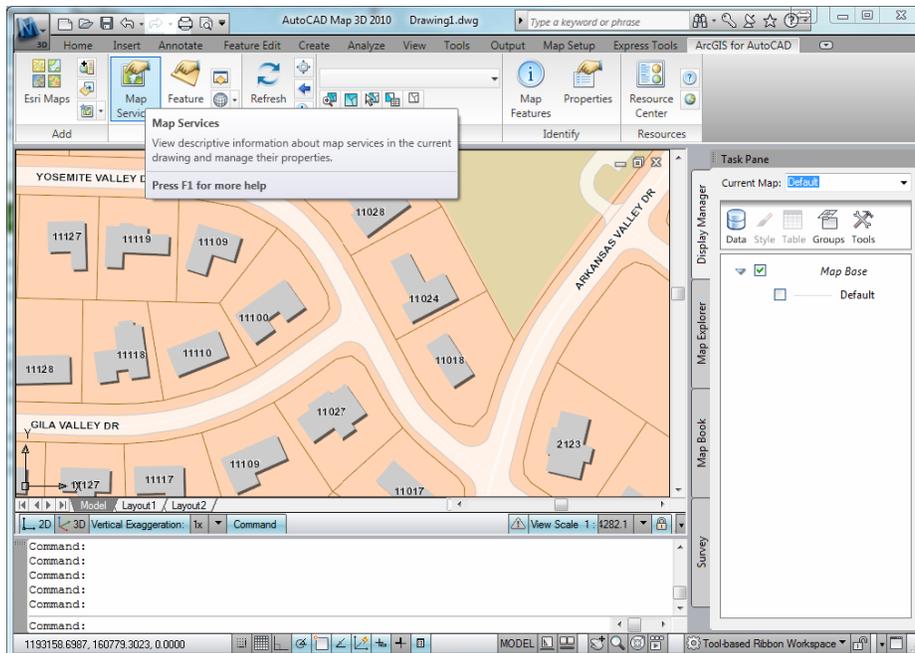


For example, select the identify tool and then drag a box over the area you wish to inspect.

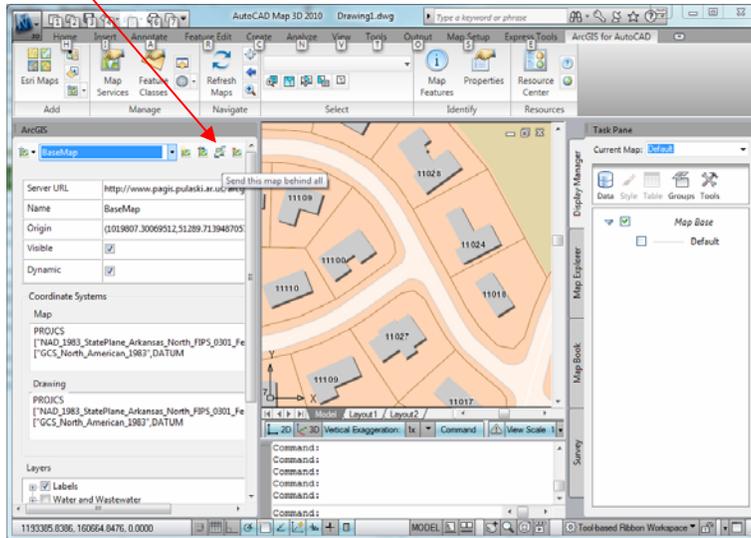
A list of layers that your box intersected is returned. (TIP: Zoom in really tight on the feature you want to inspect before trying to use the identify tool). If you get multiple layers, you will want to expand the results for each layer you intersected until you find the feature you were looking for.



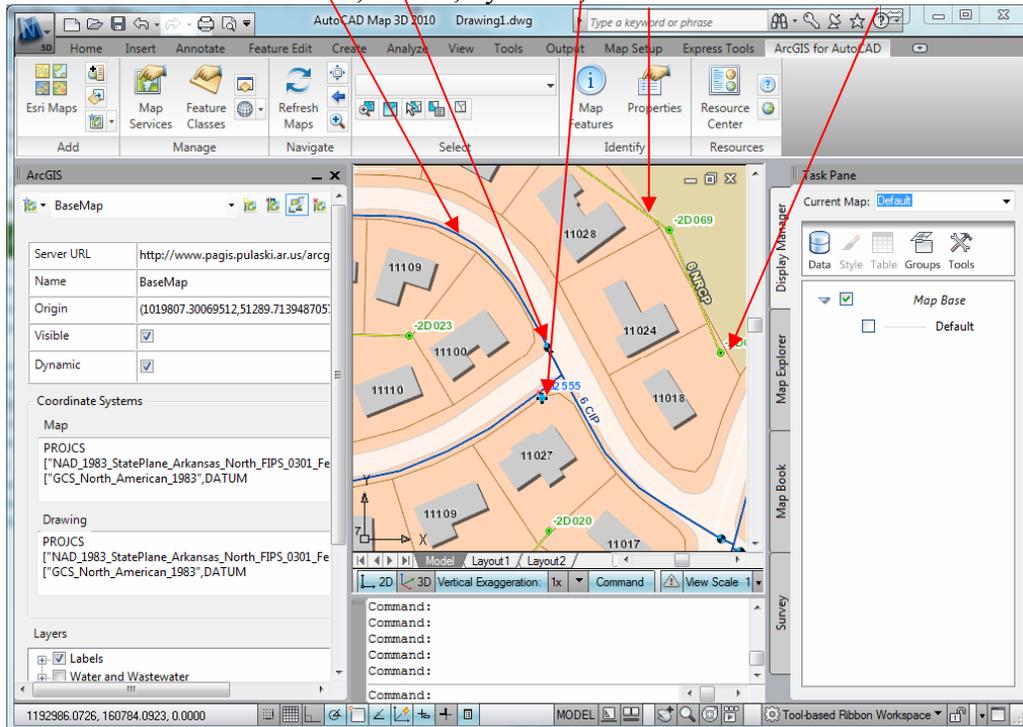
- Next, let's add another service that shows Central Arkansas Water and Little Rock Wastewater layers. Go back to the "Add Map" button and this time select the Map Name "MAPS/WaterWastewater" and click Add.
- When you have multiple services or maps in your drawing, it is important to adjust the order of the layers to make sure that a solid fill polygon such as a county or city boundary layer is not obscuring anything. Click on the "Map Services" button



Since we want to see the Water & Wastewater information, let's bring that layer to the top by selecting "BaseMap" in the dropdown and then clicking on the "Send this map behind all button"

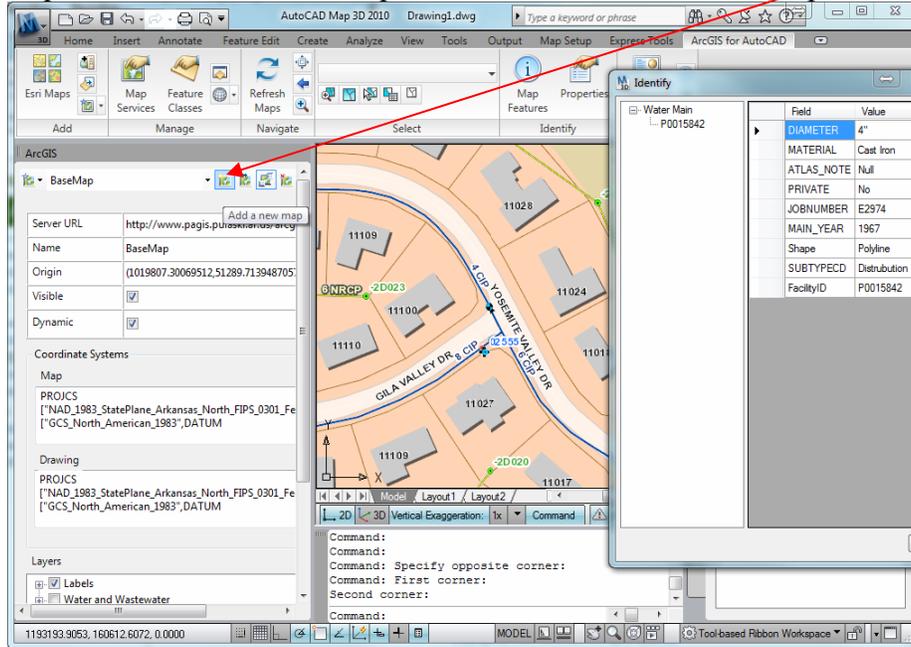


Now we see the water lines, valves, hydrants, sewer lines and sewer manholes:

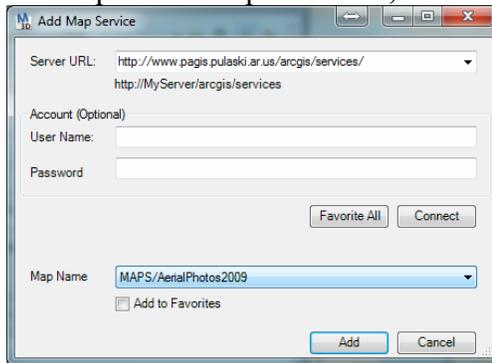


These layers can even be identified just as we did in an earlier step.

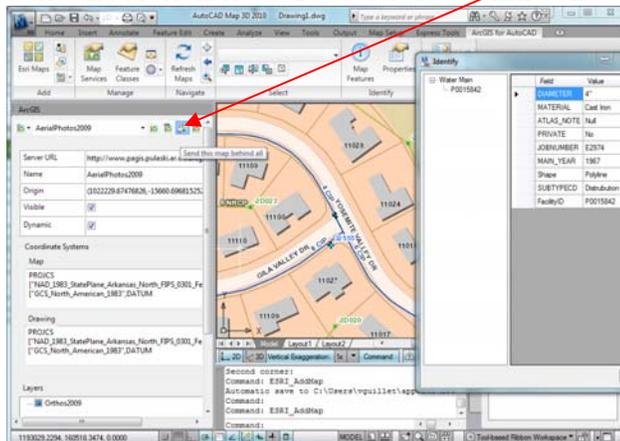
- Next, add the service “MAPS/AerialPhotos2009” layer to your drawing. With the “Map Services” window still open, click on the “Add a New Map” button:



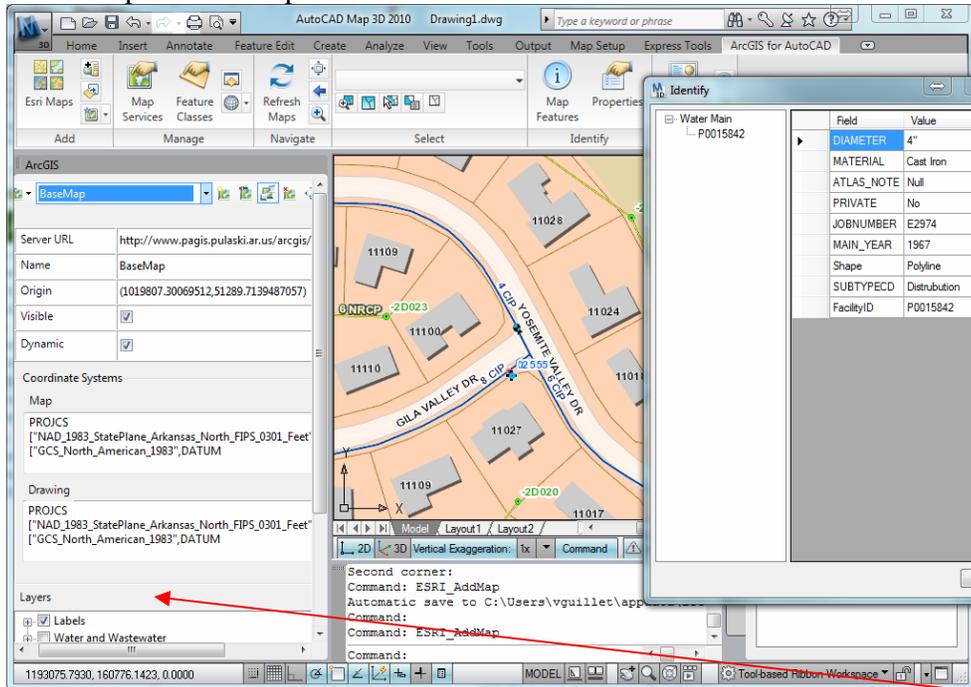
- Connect to the PAGis ArcGIS Server and choose “MAPS/AerialPhotos2009” in the Map Name dropdown box, then click Add.



- Send the AerialPhotos2009 service behind all.

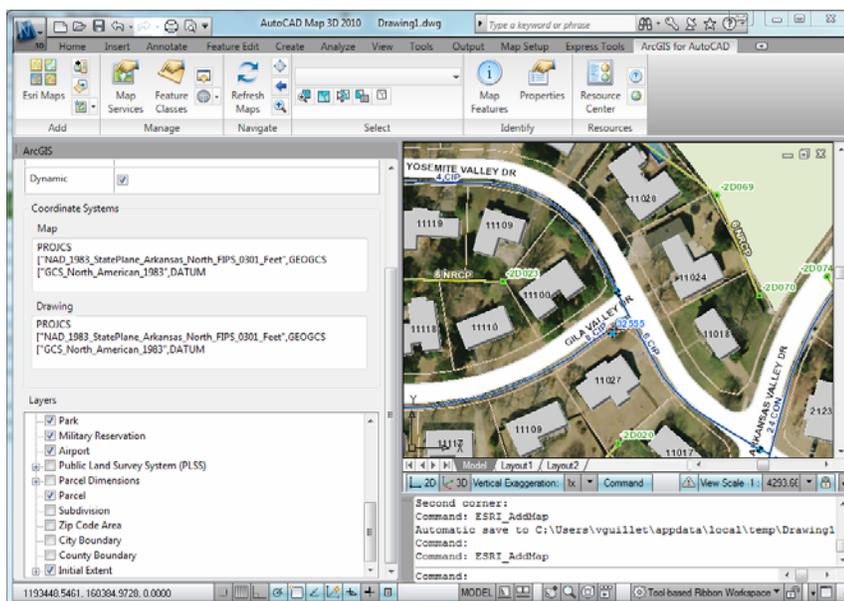


12. Even though the AerialPhotos2009 service is behind the other layers, the county and cities have a solid fill in the BaseMap service. We need to turn those layers off to see the aerial photos. On the “Map Service” panel select the service “BaseMap” in the dropdown box



Notice the list of layers available within this service that we can turn on and off.

Find the layers City Boundary and County Boundary and uncheck the box next to these sub-layers (YOU MAY NEED TO ADJUST YOUR MAP SERVICES PANEL OR USE THE SCROLL BARS AT THE BOTTOM AND SIDES TO GET ALL THE WAY TO THE BOTTOM OF THE LAYER LIST)



13. You may now want to save your .dwg file so that the list of services and map extent will be preserved the next time you open this drawing file.

NOTE: There are many other capabilities of this plug-in that are not discussed in this document such as using standard ESRI map services (topo maps, etc.) adding local feature classes, selecting features by attributes, adjusting layer transparency, etc. It is recommended that you visit the ESRI resources center for more information on the topics not covered here.

For additional information, please visit the ESRI Resource Center:

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