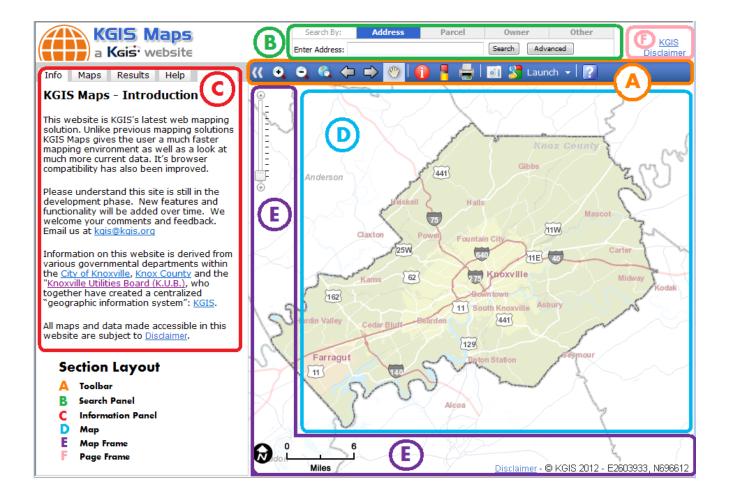
KGIS Maps Help Document

The **KGIS Maps** mapping application has been designed to give quick access to the geographic information most requested by the KGIS audience of users. It replaces KGIS's older family of websites: *KNOXnetWhere?* and *KGIS Lite*, but provides many of the same features in a newer, more browser-friendly interface.



The KGIS Maps interface (see image below) is comprised of the following sections:

- Toolbar includes map navigation, printing, and integration commands (see <u>Toolbar</u>)
- Search Panel allows one to locate a specific address, parcel id, or other key value (Search Panel)
- Information Panel allows selection of different maps, and displays tabular search results (Info)
- Map cartographic rendering of GIS data (according to selected map type and zoom level) (Map)
- *Map Frame* legend information, scale/zoom operators and links to disclaimer (*Map Frame*)
- Page Frame links to the KGIS Home Page and map / data disclaimer information (Page Frame)





The toolbar contains commands that allow one to navigate and interact with the interactive map.

Map Navigation Tools:

Zoom In: Hold down the left mouse button and drag a window box over the geographic area which you want to view in more detail. [By default, upon initial display of the KGIS Maps app, a $(\mathbf{+})$ "roll of the mouse wheel" on the mouse within the map display area performs this similar type of *Zoom In command*]

(-)**Zoom Out:** Hold down the left mouse button and drag a window box which indicates the size you want the current map extents to be re-displayed. For example: if you want to way display a large geographic area, draw a relatively small box.

6 **Full Extent:** This button zooms the map to the full extent of available data. Note that this may or may not be the initial extent as you entered (or "loaded") the application. For example, if the theme has regional data, then this button will adjust the view to include the entire region rather than the initial, Knox County-centric view.

Zoom Previous: Zoom to the previous extent / map that was displayed.

Zoom Next: Zoom to the next extent / map. [Only activated after a "Zoom Previous" command.]

Smr. **Pan:** Hold down the left mouse button and drag the map in any direction

Selection Tools:

Parcel Identify: Click within a parcel boundary to retrieve information about a single parcel of land. (See <u>Retrieve Information from the Map</u> section below for more information)

Clear Graphics: Clear all non-map graphics from the map (e.g. parcel highlights).

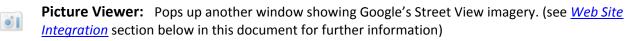
Measure Tools: Toggles on/off a window that allows one to measure lines, areas, and points to obtain State Plane coordinate readouts (see Measure Tools section below for more info.)

Printina Tool:



Print Map: Click the icon to launch the Print map tool. Give your map a Title, Subtitle, Notes, and set the Template. (see *Print Operations* section below in this document for more information about the Printing Tool)

Integration Tools:





Launch External Map Application: Launches Google Maps or Bing Maps applications while maintaining your current mapping extents. (See <u>Web Site Integration</u> for more info)



Share the Map Link: Generates a link (that can be copied and shared) to the currently viewed map and the extents displayed to the screen.

Map Layout Tool:



Full Screen Option. At the very left of the toolbar is a double left arrow button that will shrink the information panels on the left side of the screen, thereby providing for a full screen map. The button works like a toggle switch to open and close the big map.

Search Panel: **B**

The ability to search for key geographic features, such as addresses or parcels, is one of the primary features of **KGIS Maps**. The Search Panel currently provides <u>eight different search options</u>.

Address

Parcel

Owner

Search By:

- Address
- Parcel
- <u>Owner</u>
- Place
- <u>City Block</u>
- Intersection
- <u>Subdivision</u>
- <u>Zoom to XY</u> (Geographic Coordinates)

Search By:

[Note that the *City Block, Intersection, Subdivision,* and *Zoom to XY* searches are accessed through the "<u>Other</u>" tab on the upper right side of the Search panel. KGIS plans to add more search options in the future.]

ADDRESS search:

For an address search,	Enter Ad
one can simply enter an	

Search By:	Address	Parcel	Owner	Place	Other
Enter Address:	4232 FOLEY			Search Advance	ced

address value into the *Enter Address* entry box, and then click the *Search* button. **KGIS Maps** has been equipped with a *geocoding engine* that attempts to validate the entered address and returns a list of any potential matching addresses.

If an address search returns an **exact match** (with a "match score" of 100), it will automatically be located on the map, and the user will be presented with an *Address Info* box (or "bubble") containing the following basic information:

ADDRESS INFO:

The features contained on the Address Info "bubble" are:

Address – site location address as assigned by the MPC. Site Name - name of business, organization or development located at this site location address. (Also maintained by MPC) Parcel ID – the unique identifier for the parcel to which this address is associated.



Place

Search

Other

Note about Addresses: There may be several *site addresses* associated with this same parcel. The *site address* may also be different from the associated parcel's *primary location address* or its owner's *mailing address* (both of which are displayed on such items as the *KGIS Owner Card* report.)

- Owner Card Link by clicking on this icon, an Owner Card Report will be presented to the user in a "pop-up" window
- **Property Map/Details Link** by clicking on this icon, a Property Map & Details Report will be presented to the user in a "pop-up" window
- Full Detail Link by clicking on this icon, a complete set of attributes about this parcel will be presented in the <u>Results</u> pane of the <u>Information Panel</u> on the far left side of the web page

Non-Exact Match

If a partial or slightly misspelled street name is entered, the resulting match score will be less than 100, and the user will instead be presented with a list of potential address candidates in the <u>Search</u>

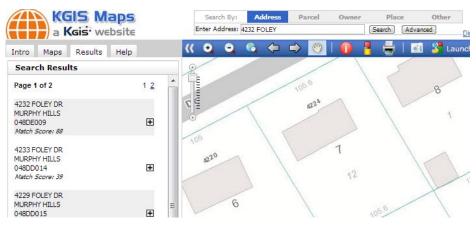
<u>Results</u> subpane (which is located on the <u>Results</u> tab of the <u>Information Panel</u> along the left hand side).

[Example: "4232 Foley" or "4232 Foley Street" returns a list sorted by match score. Click on the desired address hyperlink to then locate the selected record on the map.]

When entering only a street name (without a house number), the Address Search will list all addresses assigned with that same street name.

In cases where more than one possible street name is found, the user will prompted to select the desired one from a candidate list. *Example*: keying in "Main" will produce a candidate list of four streets, each of which contains the substring of "Main". [See right image]

Addresses with Unit or Suite Numbers:





When attempting to search for an address with a Unit or Suite Number, one can type the word "Unit" or "Suite" in front of the unit number itself, or use enter the "#" sign. *Examples: "606 Main Unit 150", "606 Main St Ste 150", "606 Unit 150 Main St", "606 #150 Main St", "606 Main St #150"*)

Data Currency:

The *geocoding engine* (on which the Address Search is founded) executes against a "snapshot" of KGIS-hosted address records generated once per day, Mon.-Fri. at 5:00 p.m. Therefore, to locate a newly added address that is not found in the snapshot, one can alternately use the *Advanced Address Search* (see below), which operates against the most current, "live" data as maintained by the Knoxville Metropolitan Planning Commission (MPC) as part of its regular, transactional address / street name maintenance workflows.

<u>Note about Named Streets without Addresses</u> : Some named streets in Knox County do not have addresses assigned to them; selecting one of these names from the street name list will therefore not perform any action.

Example: entering "TEL" in the Address entry box produces a list of street names, one of which is "Tellico St", which has no associated addresses. To locate "Tellico St" on the map, one might instead use the INTERSECTION search.

Advanced Address Search

When one has trouble finding an

House #:	Unit:
J	ОК

Search By:	Address	Parcel	Owner	Other
Enter Address:	4232 FOLEY		Search Adva	nced

address or determining its exact spelling or house number, the optional *Advanced Address Search* may be of benefit. Click on the *Advanced* button (located on the right side of the Address search panel) to display the advanced search entry form.

On that form, as one begins to type in a street name, a resulting list of valid, MPC-recognized street names

having that same "substring" will be returned in the list box below. After selecting the desired street name from that list box, a resulting list of house numbers will then be presented in the House # box to the right. Select the desired house number (and associated Unit if applicable), and then click the OK button to locate that record on the Map itself.

This Advanced Address Search shows only those street names and house numbers recognized by the MPC - the official addressing authority for all of Knox County. If an address does not correctly display on this list, one should contact the MPC Addressing Department to report the discrepancy.

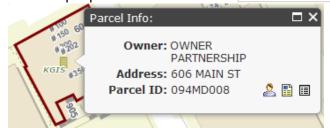
Address

Search By:

Enter Parcel ID: 094MD008

PARCEL search:

To locate a specific parcel of land (or *real property*), enter the unique parcel identifier into



the <u>Enter Parcel ID</u> entry box. Then click on the Search button to initiate the query.

Search

Parcel

If an exact match is found in the database, then the map will be updated to the geographic location for that parcel (whose boundary will be highlighted in

Owner

10/24/2012 10:03 AM

Other

dark red) and a "Parcel Info" *bubble* will display attributes about that parcel (see left image). If **more than one parcel record is returned** by the Search operation, the user will instead be presented with a sorted list of parcel ids (sorted by Parcel ID number) in the <u>Search Results</u> subpane, which is located on the <u>Results</u> tab of the <u>Information Panel</u>. [see image to the right]

The map will be also be updated with highlighted boundaries for each collective set of parcels listed on the "active" *page* of the <u>Search Results</u> pane (allowing for a max of 15 highlighted parcels at a time).

Note: The search results will only allow for up to 400 records. A message will alert the user if the query results exceed that amount.

PARCEL INFO:

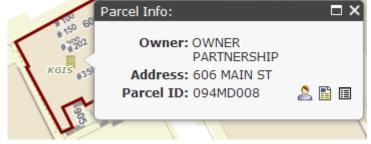
The features contained on the *Parcel Info* "bubble" are:

Owner - current owner of

the parcel, as maintained by the Knox County Property Assessor's Office

Address – *property location* address for the as assigned by the MPC.

Note that this is different than the *mailing address* for the owner. Also, note that while there may be several *site addresses* associated with this same parcel, only one of them will be tagged as the primary *property location address*. If the value for the address is "<Null> <Null>", then this



parcel has most likely been recently added to the database, and its location address has yet to be assigned by MPC's Addressing Dept.

Parcel ID – the unique identifier for the parcel that is highlighted on the screen

- Owner Card Link by clicking on this icon, an Owner Card Report will be presented to the user in a "pop-up" window
- **Property Map/Details Link** by clicking on this icon, a Property Map & Details Report will be presented to the user in a "pop-up" window
- **Full Detail Link** by clicking on this icon, a complete set of attributes about this parcel will be presented in the <u>Results</u> pane of the <u>Information Panel</u> on the far left side of the web page



PARCEL ID FORMAT

A valid "Parcel ID" may consist of up to 13 characters in length, where spaces are important. The format used on



Parcel ID Examples

this KGIS website may be different from other City or County websites, which sometimes use hyphens and other forms of nomenclature. (This site will strip out any hyphens keyed into the search entry box).

The Parcel ID format is listed below:

	KGIS	on City/County websites
CCCIGPPPSSL	094LE041	094LE-041
CCC = CLT Map #	030 211	030-211
I = Insert	116 04206	116-04206
G = Group	059OB01107	059OB-01107
PPP = Parcel Number	066 13219Q	066-13219Q
SS = Parcel Number SubUnit	131KA02261A	131KA-02261A
L = Condo Letter		

- The Insert and Group fields may be blank. However, you will need to insert a space for these.
- The Parcel Number consists of three numeric digits (where zeros are important).
- Two-digit Sub Unit values are required for approx. 15% of Knox County's parcels.
- A single alphabetic Condo Letter is associated with most "non-land" parcels.

Data Currency:

"LIVE"

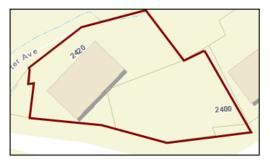
The parcel id search executes against the "live", transactional database that is maintained by the Knox County Property Assessor. On the resulting <u>Parcel Info</u> bubble and on the <u>Search</u> <u>Results</u> pane, the Address and Parcel ID values are also "live". On the map itself, the highlighted boundaries in dark red are also "live".

"SNAPSHOT"

Some of the related parcel record attributes and maps displayed within **KGIS Maps** are "snapshots" in that they are copies of the "live" data. For instance, the Owner Names (as displayed on the <u>Parcel Info</u> bubble and on the <u>Search Results</u> pane) reflect 24-hour "snapshots" retrieved nightly (M-F) from the Assessor's appraisal (CAMA) system.

And depending upon the map type being viewed, **the underlying map images may or may not be "live"**. [See the <u>Maps</u> section of this document for more details about the currency for each <u>Map type</u>.]

Example: the image to the right displays a parcel whose "live" highlighted boundary does not match with the boundaries (grey) in the underlying "snapshot" map that was generated one week prior.



10/24/2012 10:03 AM

<u>Retired Parcels</u>. Users should note that "retired" parcels will not be searchable via the Parcel ID search utility in KGIS Maps (since their boundaries no longer exist). Nevertheless, some of attributes about those old, retired parcels can be accessed via KGIS' Owner Card search utility (<u>click here</u> for example) from the KGIS Home page at <u>www.kgis.org</u>.

OWNER search:

Enter a property owner's name (last name first, with no commas) and then click the Search button.

A list of addresses whose current Owner Name matches *exactly* with the keyed in value will be displayed in the <u>Search Results</u> pane (located on the <u>Results</u> tab of the <u>Information Panel</u>).

If an exact match is not found, the Owner Search will instead return all addresses whose current Owner Name *begins* with the characters keyed into the entry box. For example, a search on "Ijams

Nature" will return a list of six different address candidates (as shown in the image to the right), sorted by owner name.

SS	Search By:	Address	Parcel	Owner	Other		
wn in the , sorted	Enter Owner Name	Enter Owner Name: IJAMS NATURE			Search		
, 501124				Search Results			
				Page 1 of 1	1		

DAMS NATURE CENTER

IJAMS NATURE CENTER INC 0 VUCREST AVE

IJAMS NATURE CENTER INC 3123 ISLAND HOME AVE

DAMS NATURE CENTER INC

JIAMS NATURE CENTER INC

DAMS NATURE CENTER INC 3112 ISLAND HOME AVE

0 ISLAND HOME AVE

0 VUCREST AVE

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0 ISLAND HOME AVE

109DC024

109DC032

095MD005

109DC027

109DC031

109DC021

Then finally, *if a match is still not found*, the Owner Search will attempt to locate those addresses whose owner name contains the keyed-in characters *anywhere within its full contents* (other than the beginning of the name).

<u>Wildcard Search Tip</u>: Although it will not be quite as responsive, a "%" wildcard character can be optionally used by the user to find all occurrences of specific text patterns throughout the full Owner name. For instance, entering the search string of "%VALLEY AUTHORITY" would return all parcels whose Owner name contained those characters anywhere within its full string.

[For information about the icons and information displayed on the <u>Search</u> <u>Results</u> pane, see the <u>Information Panel</u> section in this document.]

Data Currency:

Owner Names on **KGIS Maps** are 24-hour "snapshots" retrieved nightly (M-F) from the County Assessor's appraisal (CAMA) system. It should also be noted that the Assessor's system (and therefore KGIS) does not always reflect the most recent, recorded changes to parcel ownership as maintained by the Register of Deeds Office.

PLACE search:

Enter a place name, then click the *Search button*.



A list of named sites and points of interest ("POIs") whose name *begins* with the entered text will be displayed in the Search Results pane on the left. By clicking on the hyperlinked name, the map will be zoomed to an XY coordinate at or near the location of the named place.



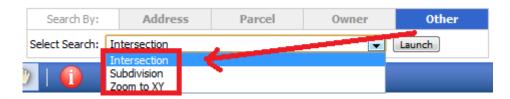
The place names are derived from various sources, and include such things as **parks**, **schools**, **hospitals**, **govt. facilities**, **attractions**, **neighborhoods and named natural features** (streams, mountains). <u>Click</u> <u>here</u> for full list of categories that are

included. Note that the "place name" datasets on which this utility resides will always be a "work in progress" considering the highly variable nature of this information and the difficulty in keeping abreast of all the feature name changes.

<u>Wildcard Search Tip</u>: a "%" wildcard character can be optionally used by the user to find all occurrences of specific text patterns throughout the full Place Name. Example: "%VALLEY"

OTHER search:

Additional search options are available via the *Other* tab (located on the right side of the <u>Search</u> <u>Panel</u>), which will display the following drop-down. After selecting the desired search option, click on the Launch button to initiate the respective search entry dialog box.



Currently, four options are available:

- <u>City Block</u>
- Intersection
- <u>Subdivision</u>
- Zoom To XY

City Block: This search will locate one of City of Knoxville's specific City Blocks, which are numbered and maintained by the Engineering Dept. of the City of Knoxville, (*They can be viewed in KGIS Maps via the City Ward Map*). Enter a valid block number into the text entry box, and the map will be zoomed to the highlighted aerial extents of that block.

	Search By:	Address	Parcel	Owner	Place	Ot
	Select Search:	City Block			-	Launch
K	• •	🖏 🦾 月	nd City Block		۲	
101.1 10			ity Block			A
	=	N N	lumber: 1744	2	1	L/
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Intersection: The street intersection search is designed to locate intersecting streets without having to guess at street names. As one enters a street name in the *Primary Street* text box, a list of

street names containing that substring will be returned (as shown in the right image). Select the desired street name to generate a list of intersecting or *Cross Streets*. Then, select the desired cross street and press *OK* to re-position the map to that corresponding intersection.



Note that in some cases, streets intersect at two or more locations (see example in left image).

Intersection Search	0
Primary Street: SAINT G SAINT GERMAINE DR SAINT GREGORYS CT	Cross Street:
Intersection Search	0
Primary Street: SAINT GERMAINE DR SAINT GERMAINE DR SAINT GREGORYS CT	Cross Street: GIVERNY CIR #1 GIVERNY CIR #2 HISTORIC FERRY WAY
	OK

Data Currency:

The Intersection search queries against the "live", transactional street database that is maintained by the MPC as part of its daily maintenance workflow.

Subdivision: As one enters a subdivision name into the text box, a list of subdivisions and condo / apt. complex names containing that substring will be returned in the list box. Select the desired subdivision name, then click *OK*. The subdivision will be located and highlighted on the map.



Subdivision Search	8
Subdivision Name:	
NORTH HI	
NORTH HILLS NORTH HILLS ESTATES	*
	-
	ОК

Data Currency:

The Subdivision search queries against the "major subdivisions" dataset that is updated bi-monthly by KGIS. The subdivision and apartment complex names used in this dataset are <u>not</u> the officially recorded subdivision names, and therefore do not always match with those sources.

Zoom To XY: To re-center the map to a specific geographic coordinate location, select the *Zoom to XY* option from the *Other* drop-down list. This will initiate the *Zoom to XY* search dialog box, which present the user with three different coordinate format options:

- 1) **Tennessee State Plane** (Easting and Northing) (see below image, far left).
- 2) Longitude / Latitude coordinate using either degrees/minutes/seconds (middle image) or



3) Longitude / Latitude decimal degrees (below, far right)

Select the *Locate Point* button to re-position the map to the entered coordinate location.

Zoom to XY 🙁	Zoom to XY Soom to XY	8
TN State Plane TN State Plane Lon/Lat - Degrees, Minutes, Seconds Lon/Lat - Decimal Degrees	TN State Plane Zoom to XY Lon/Lat - Degrees, Minutes, Seconds Lon/Lat - Decimal Degrees Lon/Lat - Decimal Degrees Lon/Lat - Decimal Degrees	onds
Easting: 2584171 Northing: 598743	Deg. Min. Sec. Longitude: -83 55 14.661 Longitude: -83.9208 Latitude: 35 57 38.298: Latitude: 35.9606	Point

See the <u>Map Frame</u> section below for information about coordinate readouts in the legend of the map. Or reference the <u>Measure Tools</u> section below for information on how to obtain a coordinate value for a particular point on the map.

Information Panel: C

Located along the left hand side of the web page, the *Information Panel* provides feedback, helpful links, and map display options to the user. By clicking on one of the four different *tabs* at the top of the panel, a user can toggle between the different panes.



INTRO pane:

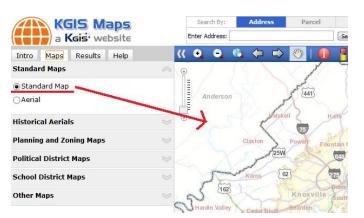
The introduction pane contains links to the **data disclaimer** that applies to all of the data and maps of <u>KGIS Maps</u>

MAPS pane:

More than 20 different types of maps are accessible, each with their own cartographic look and feel,

and arranged into six thematic groupings (see image below).

The *Standard Map* is displayed, by default, upon initial entry into KGIS Maps.



Intro Maps Results Help			
Standard Maps	\diamond		
 Standard Map Aerial 			
Historical Aerials 🛛 😒			
Planning and Zoning Maps	~		
Political District Maps	\otimes		
School District Maps	\otimes		
Other Maps	\otimes		

To view the maps available within each thematic grouping, click on one of the respective "down" arrows along the right edge of the *Maps* pane (see orange, highlighted arrow in upper right image).

To actually view one of those other maps, select the respective "toggle" along the left side of the desired Map name.

The maps currently available to **KGIS Maps** users via the *Maps* pane are shown below. [*Note that* some of the map icons below are hyperlinked, and when selected, will automatically direct your browser to view that map using the <u>Direct Link</u> capability.]





<u>Standard Map</u> Aerial

HISTORICAL AERIALS:



2009 Aerial 2008 Aerial 2007 Aerial 2003 Aerial 1935 Aerial

49

PLANNING & ZONING MAPS:



Existing Landuse FEMA Flood Growth Plan One Year Plan Sector Plan Zoning

POLITICAL DISTRICT MAPS:





<u>City Council</u> <u>County Commission</u> <u>School Board</u> <u>TN State Representatives</u> <u>TN State Senate</u> <u>Voting Precincts</u>

SCHOOL DISTRICT MAPS:

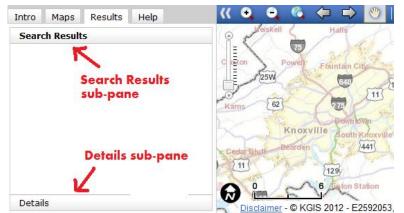


Elementary Schools & Zones Intermediate Schools & Zones Middle Schools & Zones High Schools & Zones



RESULTS pane:

The *Results* pane is where the user is presented with textual results of a user-initiated search (via the <u>Search Panel</u>) or attributes details resulting from a <u>Parcel Identify</u> command (via the <u>Toolbar</u>).



How the pane is organized: The pane is divided into **two sub-sections** (called *sub-panes*): the <u>Search Results</u> sub-pane and the <u>Details</u> sub-pane. The subpanes function as "accordion-like" toggles – when one is selected, its contents are made visible, while the other sub-pane's contents become hidden (and vice-versa).

In the top image, the *Search Results* sub-pane is active (as indicated by the bolded heading), while the *Details* sub-pane is de-active. The right image shows that when the *Details* sub-pane is made active, then the *Search Results* sub-pane is hidden from view.



SEARCH RESULTS sub-pane

When a user performs a Search operation (such as an Owner search) from the <u>Search Panel</u>, the results of that query will be presented into this Search Results sub-pane.

The format of the information in this *Search Results* sub-pane will vary depending on the type of Search that having been just performed.

An <u>Address search</u> will return a list of candidate *Site Addresses* (see below image) with a *Match Score* value that indicates how closely each candidate matched with the user's keyed-in address search entry.

The Address values are generated from a nightly snapshot of site address records maintained by MPC

(each consisting of a House Number, Street Name, and an optional Unit Number).

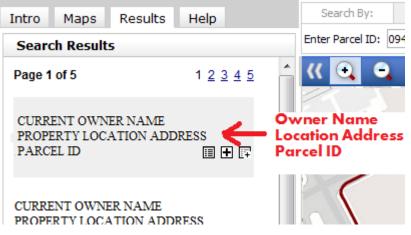
If a *site name* has been assigned by MPC to this *site address*, it will be displayed on the line 2 below, along with the associated *parcel id* (if applicable) on the following line 3. By clicking



on the hyperlinked "plus" sign \mathbb{H} , the map will be "Zoomed To" to the *site address* location and highlighted with red text.

A <u>Parcel or Owner search</u> (see image below right) will return candidate *Parcel* records, including the following attributes:

- Owner (line 1) current parcel owner, as maintained by the Knox County Property Assessor's Office, and transferred to KGIS database every 24 hours.
- Address (line 2) Property Location Address as assigned by the MPC.
 Note that this may be different than the mailing address for the owner. If the value for the address is "<Null> <Null>", then this parcel has most likely been recently added



to the database, and its location address has yet to be assigned by MPC's Addressing Dept.

• Parcel ID – (line 3) the <u>unique identifier</u> for the parcel candidate



The three small icons (see left image) that are located to the lower right of each listed parcel on the <u>Search Results</u> sub-pane are hyperlinks that perform the following:

- Details slides the <u>Details</u> sub-pane to the forefront of the <u>Results</u> pane, and displays a full list of attributes about the selected parcel. (See <u>Details sub-pane</u> below for information about the displayed values)
- **Zoom To** re-positions the map around the selected parcel, and highlights the parcel boundary.
- Details + Zoom To displays the <u>Details</u> sub-pane AND repositions the map

DETAILS sub-pane

A user can retrieve an extended set of attributes (or details) about a single, parcel of land by one of two methods:

1) by performing a Parcel Search or Parcel Identify operation, and



then selecting the *Details* icon from the resulting <u>Parcel Info</u> bubble (see right image), or



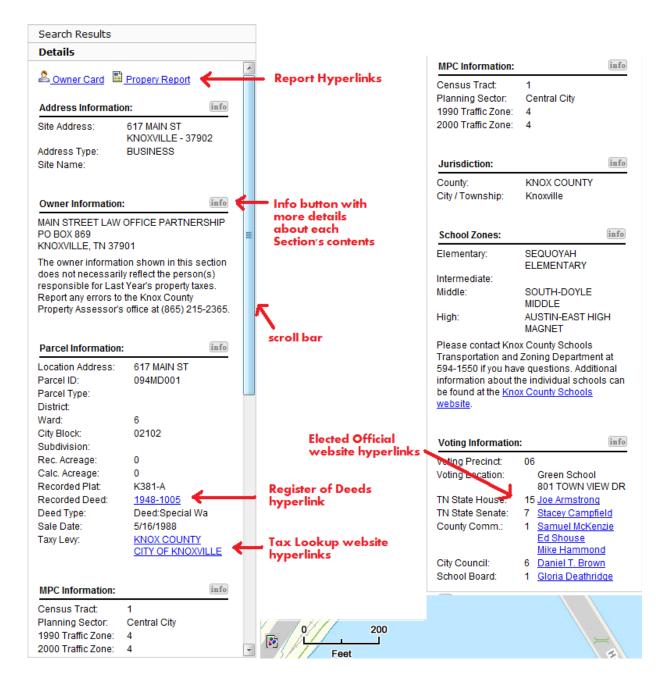


2) by performing an Owner or Parcel Search that results in a list of candidate records, and then selecting one of the two *Details* icons located on the resulting <u>Search Results</u> sub-pane (see left image).

10/24/2012 10:03 AM

The attributes displayed in this <u>Details</u> sub-pane (see example in below image) are derived from information stored within the KGIS database, but maintained by various City/ County agencies / departments.

This sub-pane is arranged in different sections, each of which is more fully described in its respective "info" page (Click on the one of the "*info*" buttons on the screen). The scroll bar along the right edge of the sub-pane will allow one to navigate the full list of attributes.



HELP pane:

The *Help* pane provides access to helpful tips about this web site, including a link to this document.

Intro	Maps	Results	Help	
Toolb	ar			
Searc	h Tools			
FAQs				

A short orientation video is currently accessible,

and KGIS plans to add more in the future to help users get oriented to the site.

Example:



TOOLBAR – quick summary of <u>Toolbar</u> commands
 SEARCH TOOLS – quick summary of Search Options on the <u>Search Panel</u>
 FAQs – Frequently-asked questions (still under development)

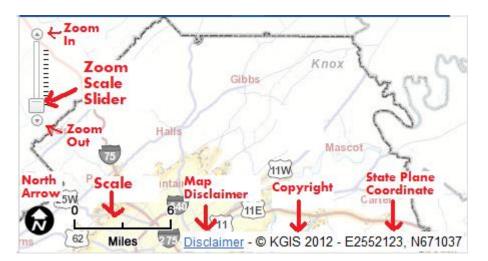
Map: 🥑

The maps displayed in **KGIS Maps** are rendered from a geographical information system that is comprised of more than one hundred different feature classes. To obtain a list of the different maps available for viewing, click on the <u>Maps</u> tab of the <u>Information Panel</u> along the left hand side of the screen. To expand the size of the map, click on the <u>Full Screen Option</u> "double arrows" command on the <u>Toolbar</u> above the map.

Map Frame: 🕑

Several items of interest are arranged along the edges of the *Map*.

Zoom Scale Slider: Maps can be displayed in one of ten predefined scales (ranging from 1:600 to 1: 48,000) each on represented by a "tic" on the slider.



<u>Scale</u>: The smallest available viewing scale (1:48,000) displays at roughly a 1 inch (on the screen) to 6 mile (actual) ratio. The largest viewing scale (1:600) is rendered at roughly 1 inch to 50 feet.

Disclaimer: All information (maps and text) on this website are subject to the hyperlinked disclaimer.

Copyright: All maps on this website are copyrighted by KGIS.

<u>State Plane Coordinate Readout:</u> as the mouse is moved around the <u>Map</u> (no clicking required), a Tennessee State Plane coordinate (Easting/X and Northing/Y) for that position will be displayed here. **KGIS Maps** is based upon the Tennessee State Plane Coordinate System (Lambert Conformal projection), NAD 1985 Horizontal Datum (1995 adjustment).

Page Frame:



In the far upper right portion of the web page are some hyperlinks to the **KGIS Home Page** (www.kgis.org), where other map-based resources can be found, including links to other local and regional mapping applications. One can also gain access to the **Disclaimer** that applies to all information contained on this web site.



Retrieve Information from the Map:

The **Parcel Identify** command **(**) (on the <u>*Toolbar*</u>) allows one to retrieve basic information about a parcel of land. After clicking inside of a property boundary on the map, a resulting data <u>"bubble"</u>

displays the owner, primary location address, and the parcel ID. Three icons on the form also provide access to other functions:

- ² Owner Card Report
- Property Map & Details Report
 View Details

For information about the <u>Parcel Info "bubble"</u>, reference the <u>Search Panel: Parcel Search</u> section above in this document.



Web Site Integration:

KGIS Maps provides some new integration options that hopefully make it easier to navigate to and from other popular web-based applications.

Picture Viewer command:

This command, which is located in the <u>Toolbar</u>, will allow one to quickly access Google's StreetView website.

First, select the command from the toolbar and then click within the confines of a street right-of-way on the map in order to activate the viewer(s).

[While Google has street view information for most of Knox County, there are some areas that do not have



coverage. You will receive the message "no image in this area" in cases where this occurs.]

Important Note: This command makes use of pop-up windows; therefore **pop-ups must be enabled** for the Picture Viewer function to work properly.

Launch Map command:



This *Toolbar* command is a time-saver in that it allows one to **launch quickly into another web mapping application**, such as Google Maps and Bing Maps, and to automatically position their respective maps <u>to the same area</u> as currently displayed in **KGIS Maps**.

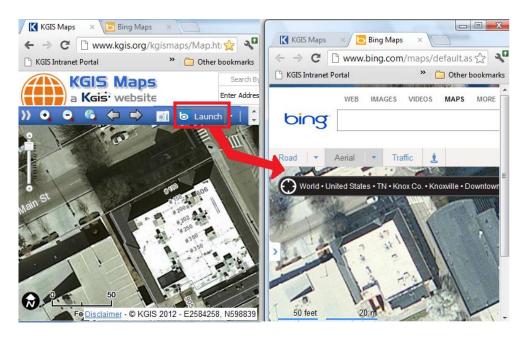
The user first selects the "external" map application of interest from a *drop-down* list by clicking on the small "down arrow" (see right image) located to the right side of the *Launch* command itself. [*The default is set to "Google Maps"*.]



🐱 Launch 🝷

The logo on the *Launch* button itself will then change to the newly selected option.

After this point, one only needs to select the *Launch* command to initiate a new "pop-up" window for the external application. The map extents of that application should automatically be adjusted to align (as best as possible) with the area currently being viewed in your **KGIS Maps** session. (see below image)



Currently the two external applications accessible via this Launch command are:

- Google Maps[™], and
- Bing Maps[™]

KGIS expects to add more sites to this list in the future as new mapping applications become available.

Important Note: This command makes use of pop-up windows; therefore **pop-ups must be enabled** for the Picture Viewer function to work properly.

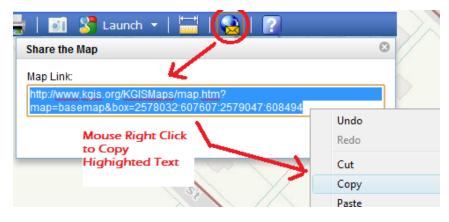
Share the Map Link command:



This *Toolbar* command allows ones to **share a link**

to the KGIS Maps site with others, who may also be interested in viewing the same map & area currently being viewed.

As the map link is highlighted, one will want to *Copy* the highlighted text to their own respective browser's *clipboard*. For instance, in



Internet Explorer, one would typically *right click* the mouse, and then choose *Copy* from the pulldown command window; then one could *paste* that link into an email message, or a hyperlinked document for later quick reference.

This Link preserves the map extents ("box") along with the <u>Map Type</u> (e.g. "Basemap" or "Topographic") that are currently being viewed.

Linking Directly to KGIS Maps:

KGIS Maps has been designed with the ability to pass in URL parameters that will quickly "zoom to" areas on the map, without having to perform an interactive search.

The following example link passes a parameter for a specific *Parcel ID:* <u>http://www.kgis.org/kgismaps/Map.htm?parcel=094MD008</u>



This link will navigate one to **KGIS Maps** and automatically "zooms" the map to the specified parcel of land, and then highlight (in red) that parcel's boundary (see image left).

KGIS Maps is currently designed to allow one of four different "zoom to" parameters as part of its URL string:

> Parcel ID XY XY Range Address

ZOOM TO parameters

Parcel ID - ?parcel=

A *Parcel* search operation (see <u>Search Panel</u> section above) will automatically be initiated using the values keyed in for this parameter. Example: *?parcel=094MD* or *?parcel=094MD008*

XY - ?xy=

A Zoom to XY search operation (see <u>Search Panel: Other Search</u> section above) will automatically be initiated using the Tennessee State Plan Coordinate Easting and Northing values keyed in for this parameter. (note: the coordinates must be separated by a ":"). Example: ?xy=2584171:598743

XY Range - ?box=

The map will be fitted (as best as possible) around a rectangular geographic area (or "box") that can be defined by a *lower left xy coordinate* and an *upper right xy coordinate*. (note: the coordinates must be separated by a ":", and must be arranged by the following: *Lower Left X: Lower Left Y: Upper Right X: Upper Right Y*). Example: *?box=2573919:619719:2575919:621719*

Address - ?address=

An Address search operation (see <u>Search Panel</u> section above) will automatically be initiated using values keyed in for this parameter. Example: <u>?address=606 Main St Ste 150</u> or <u>?address=Main St</u>

Tip: State Plane coordinate values can be obtained by using the *Coordinate Readout* capability (see *Map Frame* section above. Or, if the Latitude, Longitude is known, one can use the *Zoom To* search capability (see *Search Panel* above) to locate that Lat/Long location on the map, then determine the State Plane value by reviewing the *Coordinate Readout* value on the *Map Frame*. Another optional way to obtain a Coordinate location is to select the *Measure Location* command from the *Measure Tools* window (which is accessed from the *Measure Tools* button on the *Toolbar*).

CHANGE MAP parameter

While more than twenty different maps are available for viewing from within **KGIS Maps** (see <u>Information Panel: Maps pane</u> section above for a list of available maps), its default is the *Standard Map*. However, users have the option of initiating the web site <u>with a map other than the default</u> via the use of the **Change Map parameter**.

Similar to the *Zoom To* parameters described above, the *Change Map* parameter is passed to the application as part of the initial URL string, using the following syntax: "?map=", following by a *MapName value* associated with the map of interest. Example: http://www.kgis.org/kgismaps/Map.htm?map=zoning

By initiating the web site in this manner, it will save the user several clicks in those cases when the desired map is one other than the default.

To obtain the valid *MapName value* for a particular map, click on its associated (and hyperlinked) map image as displayed in the *Information Panel: Maps pane* section of this document above.

Use of Multiple parameters

When passing multiple parameters as part of the **KGIS Maps** URL call, separate them by the "**&**" character. The following example will initiate automatically switch the map (to one other than the default) and zoom to a specific parcel location.

Example: http://www.kgis.org/kgismaps/Map.htm?map=topography&parcel=094MD008

Map Navigation using Mouse "Scroll Wheel"

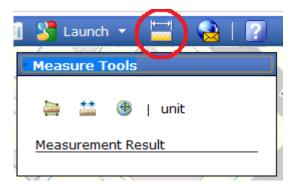
Some computer mice have a scroll wheel that allows the user to navigate the KGIS map ("zoom in" or "zoom out") depending upon the navigation tool that has been selected.

Measure Tools

The Measure Tools command on the Toolbar allows one to perform one of several map measurement operations:

- Area
- Linear
- Point

The command itself acts like a *toggle switch*. Clicking on the *Measure Tools* icon will initiate the *Measure Tools* window (see image to right). The window will continue to be displayed until one *toggles off* (by clicking on the icon again.)



One of the three operations can be accessed by clicking onto its the respective icon:

<u>AREA measure</u> - draw a polygon (closed feature) onto the map and measure its total area. (see image on right)



DISTANCE measure - draw a line (linear feature) onto the map and measure its total length (see



image below left).

Note: be sure to "double-click" when finished drawing the sketch in order to obtain the more accurate length measure.

<u>LOCATION measure</u> place a point on the map, and retrieve its respective State Plane coordinate and Lat/Long value (image below right)



Unit of Measure

One also has the option of changing the respective measurement units from the drop down list on the right side of the *Measure Tools* window. Options include: *Miles, Kilometers, Feet, Meters, Yards*.

Print Operations

This website has been designed primarily for viewing on a computer screen, and therefore the layout, colors, and resolutions are not always ideal for print operations, especially grayscale or high-resolution. KGIS hopes to had better print options in future releases.

PRINT command



The standard way to produce a printed product of the map contents being viewed in **KGIS**

Maps is via the *Print* command, located on the *Toolbar*. The *Print* command initiates a *Print Dialog* box (see right image):

Title: User has the Option to include a title that will appear within the legend of the print product.

- Subtitle: Optional sub-title line to appear on printed map.
- **Notes:** Optional description text to appear on printed map.

-> @ (👔 🚦 🚍 🛐 😤 Launch 👻 🗌
Print Map	↓
Title:	KGIS Office Location
Subtitle:	606 Main St, Suite 150
Notes:	Paid Parking available on Locust Ave
Template:	Letter - Portrait
	Letter - Portrait
	Letter - Landscape
105	Legal - Portrait
60.	Legal - Landscape
	Tabloid - Portrait
X	Tabloid - Landscape

Template: Option to choose a print template other than the default "Letter – Portrait" style.

When finished with the dialog box options, select the *PRINT* button on the Dialog box to initiate a new *Print Frame* browser window. (See Example image below).





A **new capability** has been added to the *Print Frame* window that will allow users to **"nudge"** or "scootch" **the map** to make sure that the area of interest is positioned correctly. To perform this "nudge" operation, simply <left click> the mouse somewhere on the *Print Frame* map, then continue to hold down the <left click> button while at the same type "dragging" the mouse across the screen. Once the map has been "nudged" to the position, release the mouse.

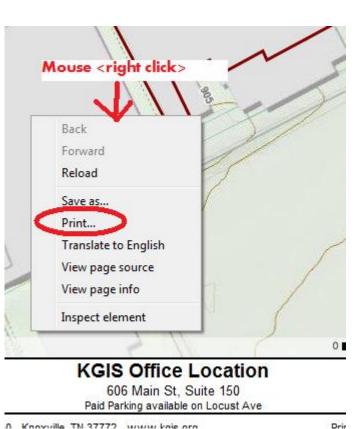
[Note that any highlighted graphics on the screen will also be carried over to the *Print Frame* view. To remove

highlighting, use the Clear Graphics command from the Toolbar prior to issuing the Print command.]

To perform the final step of **sending the map to the printer itself**, one will need to select a *"print"* command from somewhere within the browser's *Print Frame* window. The print options and print command locations vary widely between the different browser types, and from one operating system to the next. Therefore, there may be multiple ways to print the documents to the achieve the best effect.

In general, one usually can find a "Print" option by performing a mouse <right click> from somewhere on the *Print Frame* window, which might display a drop down list similar to the image to the right, from which one can initiate a "**Print...**" command.

Note: Due to some technical constraints, the *Print* command currently produces a JPEG product whose resolution is only 96 dpi. KGIS **n** kare hopes to add higher-resolution options in the future.



inglier resolution options in

PROPERTY MAP & DETAILS REPORT

An alternative to the *Print* command above might be the *Property Map & Details* report, which can be accessed from the <u>Parcel Information "bubble"</u> (via the <u>Parcel</u> <u>Identify</u> tool), or from the *Information Panel:* <u>Detailed Results pane</u> (when applicable). This report contains a small map that is



Parcel 109ED008 - Property Map and Details Report

centered around a single selected parcel. But since this report uses a different algortihm for printing than the <u>Print</u> command itself, and does not allow for the "nudging" or layout options available via *Print*.

Supported Browsers

This web site has been designed to work primarily within the following browsers:

- Internet Explorer (IE)
- Opera
- Mozilla
- Chrome
- Safari

Note re: **IPAD/iOS** devices: Most of the features will also work on iOS devices, but might function in a more awkward manner (such as dialog boxes that get hidden by the keypad entry form). **In**



particular, in order to recognize the iOS "hand gestures" while navigating the map, users will want to first select the <u>Parcel Identify</u> tool from the <u>Toolbar</u> (see left image) upon first entering **KGIS Maps**, after which the "hand gestures" should be recognized properly.