Historical Maps – Layer Information:

KNOX CO. TENNESSEE
HISTORICAL MAPS

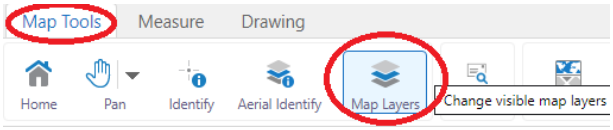
https://www.kgis.org/maps/HistoricalMaps.html?

The Historical Maps web application is designed to provide access to historical maps and aerial photography via the Web, including download capabilities to original source documents. The application uses the same general framework used by most of KGIS's other hosted applications (such as Knox Planning's *MPC Cases* and the City's *Tree Inventory)*. Currently, it is only accessible to internal, KGIS-networked partner organizations, but a publicly accessible version is planned for release in early 2025.

Unique Features of *Historical Maps*

- Additional Map Layers - Users can view (by "toggling on/off") a growing collection of historical maps that have been rectified (rotated, scaled and aligned) to closely match with KGIS's current mapped features, thereby allowing one to compare these old maps with current data.
- Downloading of Source Documents – Users can gain access to the original source documents (both scanned maps and aerial photos) which contain the highest level of resolution and which retain their original scale and rotation characteristics.
- Historical maps "Slider Toolbar" – As can be done with historical aerials, users can "scroll through" several historical map categories (such as the old Property Tax Maps) via the *Basemaps* "slider toolbar".
- Change Layer Drawing Order. – in cases where a map might obscure the visibility of an underlying map, this tool can be useful.

Map Layers



The *Map Layers* list includes the following Categories
Geographic coverage of each layer is indicated:

- *county* = countywide geographic coverage
- *city* = citywide geographic coverage
- *downtown* = downtown geographic coverage
- *county only; no city* = county only, outside of city limit geographic coverage

CURRENT MAPPED FEATURES:

These features display current, transactional layers as maintained on the KGIS system. By displaying these features, one can more easily compare the historical maps with current data.

- Street and Parcels for Overlay
  - Addresses
  - Street Names (*labels and centerlines*)
  - Parcel Polygons
- Aerial Grey – Streets and parcels (*street name labels only, addresses, parcel boundaries*)
- Historic Districts and Pre-1865 Structures

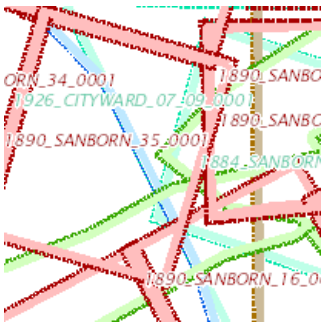
HISTORICAL MAPS:

The maps included in the below categories were derived from source maps obtained or converted into digital format (.jpg, .tif or .pdf), and then geo-rectified (adjusted, rotated, scaled) to match more closely with KGIS's current basemaps. During this rectification process, some of the maps required minimal adjustments, whereas others required significant "warping" and interpretation in order to align more closely with KGIS's current data. Therefore, these rectified maps are NOT to be used in any formal capacity, especially regarding their geographic positional accuracy. Users of these maps should consult the original source maps for more definitive (and in some cases, better resolution) view of the map materials.

Note: More information about each of the following map categories is presented in the document below.

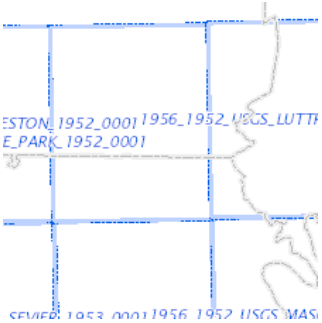
- **Historical Map Index** – county

  The KGIS department maintains a map index that identifies the general coverage of each and every rectified map that is used by this *Historical Maps* app. In particular, the *Identify* tool relies upon this layer to return a list of original source maps whose respective geographic extents overlap at the point indicated.



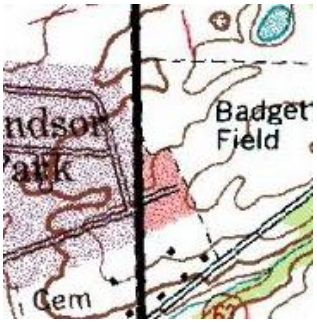
- **Historical Map Index (Individual)** – county

  This is the same information as presented by the Historical Map Index (as describe above), but separated by the unique map categories. It therefore provides an easy way to visually see where the various source files overlap for a particular category: for *1956-1952 USGS Maps*, as an example.



- **1992 -1976 USGS Quads** - county

  These are same maps as displayed in the USGS 24K Topo map theme of *KGIS Maps*, and are scanned versions of the old, no-longer-maintained, USGS 7.5 minute series of topographic quad maps. These digital raster graph (DRG) maps were downloaded by KGIS in the early 2000s from the Tennessee Spatial Data Server, and compiled into an image service used for viewing by KGIS. The respective dates for each of the quad maps included in this image service has not been validated by KGIS, but is estimated to vary from 1976 to 1992 based upon visual comparisons with products published on USGS's website.



Unlike the Historical Map categories available in this *Historical Maps* app, the original source documents for this Map Category are NOT available for downloading. For more interactive viewing of historical Topo maps, visit USGS's Historical Topo Map Explorer website.

- **1987 CLT Maps –** county

  These maps were obtained from the Register of Deeds, and represent scanned copies of the original 1987-vintage hardcopy CLT* map book series of tax maps as maintained by the Property Assessor's Office.

  KGIS's initial set of digital parcel maps, including the current Knox County boundary that is depicted on KGIS Maps, was largely based upon these 1987-vintage CLT maps.

  It should be noted that this set of scanned maps does NOT contain all CLT map grids known to exist at that time.

  * NOTE: CLT stands for "Cole Layer Trimble" or "Cole Layer Trumble", the company that originally produced the paper, county-wide tax map grid utilized by Knox County. The CLT map grid is still used by the Property Assessor (and KGIS) today for assigning unique parcel identifiers.

- **1985 Cemeteries** – county

  This map was produced by the Metropolitan Planning Commission (MPC) back in the 1980s as part of a County-wide survey of cemeteries. A locally recognized authority and dedicated archivist, Mr. Robert McGinnis, provided MPC with the mapped locations of the various cemeteries as identified in his Cemetery Record Survey of that time. Due to the large size (and deterioration) of the hardcopy map, it was photographed by MPC in 2018 into a series of separate .jpgs. Each respective .jpg has been rectified by KGIS for display via this *Historical Maps.* (For more info about the cemeteries mapped in KGIS, click here).

  In addition to providing an invaluable resource for locating cemeteries throughout the county, **this map also provides a good representation of street names** (especially those out in the County) at that time. (Note: the source of the background street network on the map itself is probably from TVA, and KGIS is unable to verify the date at which that information might have been edited).

Tax Maps

The maps contained in the Tax Map categories were obtained by the Knox County Register of Deeds, which has provided download access to these series of tax maps (via its Resources pulldown section).

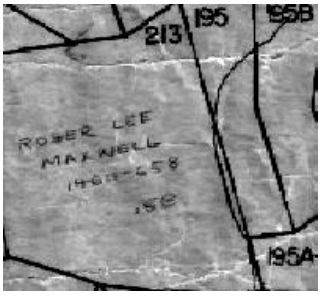
The Register of Deeds site notes that these maps range from the 1950s and the 1960s. However, KGIS has estimated, based upon instrument number information contained on the maps themselves, that the maps range from approximately 1954 thru 1973. Based upon cursory review of these maps, KGIS has further subdivided each into seven different date ranges (as listed below). The primary intent of these groupings is for viewing the various maps in their correct sequence from oldest to newest. Any formal calculation of the exact vintage date of each map should be corroborated elsewhere.

The maps only cover those portions of the County OUTSIDE of the City of Knoxville jurisdictional boundaries. KGIS currently does not have access to historical Property Tax maps similar to these for the urbanized portion

of the City. The maps are coded by their Map Number (which does NOT align with the Property Assessor's current CLT grid formatting).

KGIS rectified the source images by converting the map coordinates as best as possible to current mapping, and then clipping the ancillary border information from the images. The original source documents have better resolution and clarity, especially in their rendering of handwritten items, such as owner names. The border margins of those source maps contain additional valuable notes and ownership info. **KGIS does not guarantee the accuracy of these rectified images in any way.**

- **1973 Tax Maps -** county only; no city

  The maps made visible via this layer represent the most recent version tax map for each respective map grid.

  In some cases, such as Map 69 (in the Weisgarber Rd/Middlebrook Pike area), the displayed tax map's vintage is definitely in the 1973 range (based upon KGIS's review of the map as compared to other available maps for this same Map 69 area).

  In other cases, such as Map 84 (in the Morrell Rd/Westland Dr), the only available map seems to be of much earlier vintage than 1973. Therefore, KGIS has configured the 1973 Tax Map layer to ALSO display this earlier version map rather than leaving this as a "blank hole" on the map. Users should therefore treat this layer as the best available maps up-to that point in time (1973).

- **1972 Tax Maps -** county only; no city

  This view presents the tax maps whose vintage was during or before this timeframe of 1972.

- **1971-1970 Tax Maps -** county only; no city

  This view presents the tax maps whose vintage was during or before this timeframe of 1971-1970.

- **1969-1967 Tax Maps -** county only; no city

  This view presents the tax maps whose vintage was during or before this timeframe of 1967-1969. If the only available map for any particular grid (as for Map Grid 002, for example, in the E Raccoon Valley / Martin Rd area) has a vintage later than 1969, it will be displayed (so as not to present a blank "hole" in the KGIS map display).

- **1966-1964 Tax Maps** - county only, no city

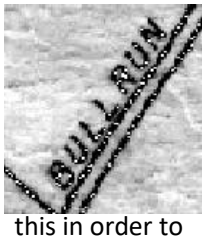
  This view presents the tax maps whose vintage was during or before this timeframe of 1964-1966. If the only available map for any particular grid (such as for example, Map 15 in the Heiskell Rd/Chestnut Ridge Rd area) has a vintage later than 1966, it will be displayed (so as not to present a blank "hole" in the KGIS map display).

- **1963-1960 Tax Maps** - county only, no city

  This view presents the tax maps whose vintage was during or before this timeframe of 1960-1963. If the only available map for any particular grid (such as for example, Map 15 in the Heiskell Rd/Chestnut Ridge

Rd area) has a vintage later than 1963, it will be displayed (so as not to present a blank "hole" in the KGIS map display).

- **1959-1954 Tax Maps** - county only, no city

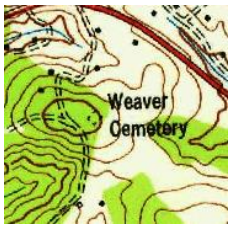


this in order to

This view represents the **oldest tax map available for each respective map grid**. If the only available map for any particular grid (as for Map Grid 002, for example, in the E Raccoon Valley / Martin Rd area) was modified after 1959, it will be displayed even though it is of a later vintage than 1954-1959. (KGIS does prevent a blank "hole" in the map display)

The unique feature of this category of maps is that they typically all have handwritten street names, whereas later versions of the tax maps showcase street names with a more formal text font labels.

- **1956-1952 USGS** - county

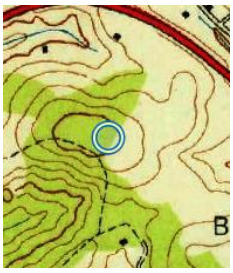


The 1:24000 scale quad maps were obtained from the USGS's TopoView website, and are a collection of the maps last edited during the range of 1952-1956. For more information about each respective grid, users should go to that website (searching for files of type 24K and HTMC). Since the source maps were GeoTiff format, KGIS did not need to further geo-rectify them.

- **1944 Knox County** - county

A 1944 vintage map of Knox County road and street names (outside of the Knoxville City Limits). This map also displays the location of various structures, and including names of rivers, creeks, lakes, schools and churches. The old Civil districts are also an important feature. Source - Knoxville Knox County Metropolitan Planning Commission.

- **1942-1936 USGS** - county

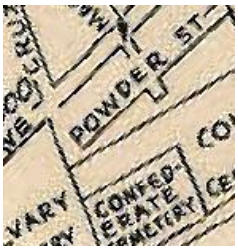


The 1:24000 scale quad maps were obtained from the USGS's TopoView website, and are a collection of the maps last edited during the range of 1936-1942. For more information about each respective grid, users should go to that website (searching for files of type 24K and HTMC). Since the source maps were GeoTiff format, KGIS did not need to further geo-rectify them.

- **1936-1935 USGS** - county

The 1:48000 scale quad maps were obtained from the USGS's TopoView website, and are a collection of the maps last edited during the range of 1935-1936. For more information about each respective grid, users should go to that website (searching for files of type 48K and HTMC). Since the source maps were GeoTiff format, KGIS did not need to further geo-rectify them.

- **1930 Pitner** – city

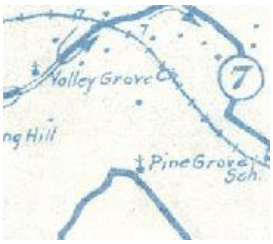


This map is the Pitner's Map of Knoxville of 1930, as obtained courtesy of Knox County's McClung Historical Collection. This is a good resource for old street names in the city.

Although the McClung is not aware of any active copyrights on this product, the McClung has requested that any use of this product be accompanied with a credit to the McClung as having provided this map.

Significant amounts of warping (and guesswork) were required in order to get this map closely aligned with KGIS's current map. As a result, the resolution is somewhat degraded. The original source document should therefore be consulted for original relative positioning of map features and legibility.

- **1930 Post Office** – county



This map displays the rural delivery routes for the County, and can be of value in locating old landmarks such as churches and schools. For more information, visit the State of Tennessee's "Tennessee Virtual Archive" (from which this image was downloaded).

KGIS performed only a minimum amount of rectification of this map to mostly match with the USGS maps of 1897 – 1895 (whose road features closely match with the features of this map). Therefore, the geo-positional accuracy of the final product with KGIS's current maps is general at best.

- **1926 City Ward** – city

These maps were downloaded from the Knox County Library's Historical Resources webpage, which provides links to a shared Google drive containing maps for Wards 1 thru 26 from the year 1926.

KGIS rectified these images to the current KGIS maps by identifying common reference points (such as street intersections) between these 1926 maps and current day maps. Assumptions were made during the rectification process that may have negatively affected the resulting map product's accuracy. These maps should not be used in any official capacity.

These maps have significant overlap with one another. Therefore, *Historical Maps* users will likely want to "toggle off" all of the maps that obscure the visibility (or use the *Change Layer Drawing Order* tool located in the upper right section of the *Map Layers* menu).

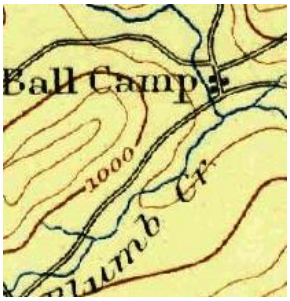
- **1897 Crozier** – city

The Crozier's 1897 Map of Knoxville Tenn and Suburbs was obtained courtesy of Knox County's McClung Historical Collection. This is a good resource for old street names in the city, along with an index of churches, schools and businesses.

Although the McClung is not aware of any active copyrights on this product, the McClung has requested that any use of this product be accompanied with a credit to the McClung as having provided this map.

This is a good resource for old street names in the city, along with an index of churches, schools and businesses.

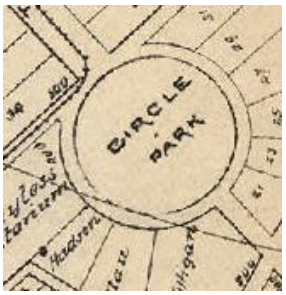
- **1897-1895 USGS** - county



The 1:125000 scale maps were obtained from the USGS's TopoView website, and are a collection of the maps last edited during the range of 1895-1897. For more information about each respective grid, users should go to that website (searching for files of type 100K and HTMC). Since the source maps were GeoTiff format, KGIS did not need to further geo-rectify them.

Note: since these maps are very small scale, only four maps are required to cover all of Knox County.

- **1895 Ogden** (turned on by default)- city



This "New Map of Knoxville" from 1895, produced by Civil Engineer John R. Pill for the Ogden Brothers & Co., was downloaded from the State of Tennessee's "Tennessee Virtual Archive. This is a good resource for old street names in the city.

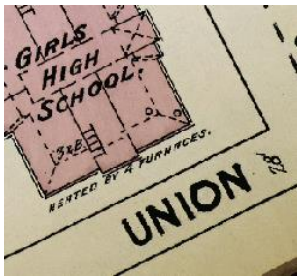
Significant amounts of warping (and guesswork) were required in order to get this map closely aligned with KGIS's current map. As a result, the resolution is somewhat degraded, and the warping is extreme along the edges of the map. The original source document should be consulted for original relative positioning of map features and legibility.

- **1895 Vance Coffee Pill** - county

Knox County map from 1895 showing Real property and landowners. Pill, J. R, and Coffee Vance. Map of Knox Co., Tennessee. [S.l.: Vance, Coffee and Pill, 1895] Map. Obtained from the Library of Congress Digital Archives. Contains property owner names and points of interest.

It should be noted that this map is very difficult to precisely rectify to current day map locations, mostly due to its small scale (covering a large area).

- **1890 Sanborn** -downtown



These 43 separate maps were downloaded from the US Library of Congress Map Collection website. Each map (which were originally compiled at very large scale) was rectified to the KGIS current maps by identifying commonly reference features between the two sets of maps, especially street intersections that look to have not changed in the last 130+ years.

- **1884 Sanborn** -downtown

These 13 separate maps were downloaded from the US Library of Congress Map Collection website. Each map (which were originally compiled at very large scale) was rectified to the KGIS current maps by identifying commonly reference features between the two sets of maps, especially street intersections that look to have not changed in the last 136+ years.

- **1871 Birds Eye** -downtown

This map was downloaded from the US Library of Congress Map Collection website. It is a very stylistic map, and was not intended to be adjusted to fit with a consistent scale (as is KGIS's current map). Nevertheless, since the streets names and landmark on this map might have some value to historians, KGIS has rectified this image to fit with the KGIS map.

Significant guesswork was required in order to correlate features on this early map with KGIS's current map. The outer edges of rectified map showcase the difficulties in warping a schematic such as this to the KGIS.

- **1867 Knoxville Map** - downtown

  A scanned photo (by the Thompson Brothers) of an 1867 Knoxville combined and drawn by W. Weste. The map depicts streets, street names, parcels lines, and it has a couple of old photographs around its edge. The image itself is somewhat blurred and KGIS is unaware of any alternative, better version at this time. This image was obtained courtesy of Knox County's McClung Historical Collection.

  Although the McClung is not aware of any active copyrights on this product, the McClung has requested that any use of this product be accompanied with a credit to the McClung as having provided this map.

HISTORICAL AERIALS:

The aerial photography housed at KGIS includes two general types:

Digital Orthophotography - which are products of very high geographic accuracy that have been adjusted (by software vendors) using precise photogrammetric methods from aerial photography. The accuracy and measuring capabilities of these products are the similar to KGIS's basemap data, and are therefore more reliable and accurate. In the *Map Layers* list, the digital orthophotography products can be recognized by the word "Aerial" (which follows the year in which the product was acquired.)

Scanned and Rectified Aerial Contact Prints – traditional aerial photography products obtained by KGIS and other departments in hardcopy format; which are then scanned into digital form and rectified to best fit with KGIS's basemaps (using processes similar to that used for the Historical Maps as detailed above).

Therefore, **these Scanned and Rectified contact prints** (or "photos") **should NOT be used for any formal measuring or for decisions relying upon geopositional accuracy.** Users should consult the source documents (scanned images) for better resolution and relational accuracy between features displayed on the products. Users can identify the contract print products by *Map Layers* list as those having the label "Knox Contacts".

Example of mis-alignment that can occur between two separate Contact Prints.

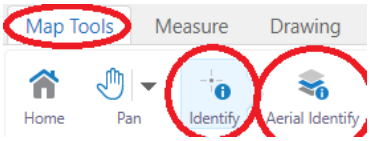
- **2024 Aerial** -county and KUB service area
- **2022 Aerial** -county and KUB service area
- **2020 Aerial** – county and KUB service area
- **2018 Aerial** -county and KUB service area
- **2016 Aerial** -county and KUB service area
- **2013 Aerial**
- **2011 Aerial**
- **2010 Aerial**
- **2009 Aerial**
- **2008 Aerial**
- **2007 Aerial**
- **2003 Aerial**
- **1998-2001 Aerial**
- **1996-1998 Aerial**
- **1995 Knox Contacts**
- **1985 Knox Contacts**
- **1969 Knox Contacts**
- **1959 Knox Contacts**
- **1953 Knox Contacts** -city; excludes downtown
- **1935 Aerial** (Contacts) -city

CURRENT BASE MAPS:

- City Wards *(current)*
- Parks *(current)*
- Topo Map *(current, with 2022 contours)*
- Topo 2016 *(Spring 2016)*
- Standard Base *(current)* (turned on by default)

Downloading Source Documents

Identify Tools The *Identify* tools (on the *Map Tools* menu) can be used to download the original, source documents used to create the rectified (or "adjusted", "warped", "scaled") maps. These original images will usually be rotated differently from KGIS's maps, and will also be of higher resolution (or clarity) since they have NOT been adjusted in any way to fit with the KGIS base mapping. In cases where the rectified maps are clipped, mis-aligned, or rendered non-legible, these original source documents can be consulted.



IDENTIFY – The ***Identify*** tool is used to identify which HISTORICAL MAP products are available for download.

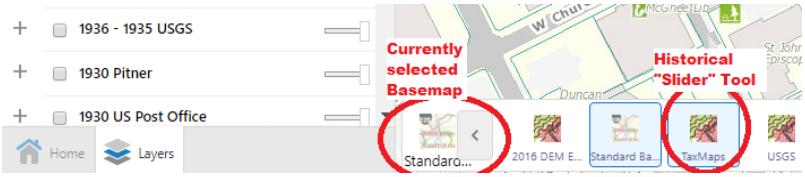
AERIAL IDENTIFY – The ***Aerial Identify*** tool is used to locate which AERIAL products are available for download.

Both tools work similarly, prompting the user to select a point on the map, and then returning a set of results from which the user can select a specific item for download. There are slight variations on how the two different tools are presented to the user (one tool is written "in-house" at KGIS, the other used more "out-of-the-box" functionality provided by the software vendor).

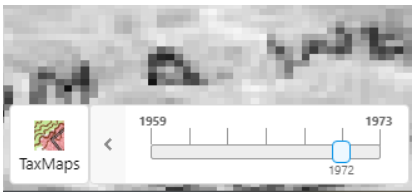
IMPORTANT NOTICE: While this *Historical Maps* application provides capabilities to download original source documents, **further distribution of these products shall be restricted per the respective "Download Info / Disclaimer" section** of each product. For further information, contact KGIS.

Historical Map Slider Tools

Historical Maps provides some tools that allow for users to "scroll" across multiple years (versions) of maps (or aerials) via what we refer to as a map "slider" tool.



These tools can be accessed by clicking on the *Standard Map* icon (in the lower left corner of the map frame), and then by clicking on one of the items (such as *Tax Maps* displayed in the ribbon menu). After doing this, the user will see a Scale Bar *slider* that can be used to scroll the maps from earliest vintage to the most recent.



Change Layer Drawing Order

In cases where a map might obscure the visibility of an underlying map, this tool can be useful. Access it by clicking on the "Panel Actions" menu icon (see image to the right) in the upper right corner of the *Map Tools….Layers* window pane. After selecting the *Change Layer Drawing Order"* command, one can then literally "drag" (and thereby re-position) an item in the *Layers* list to a different position.