

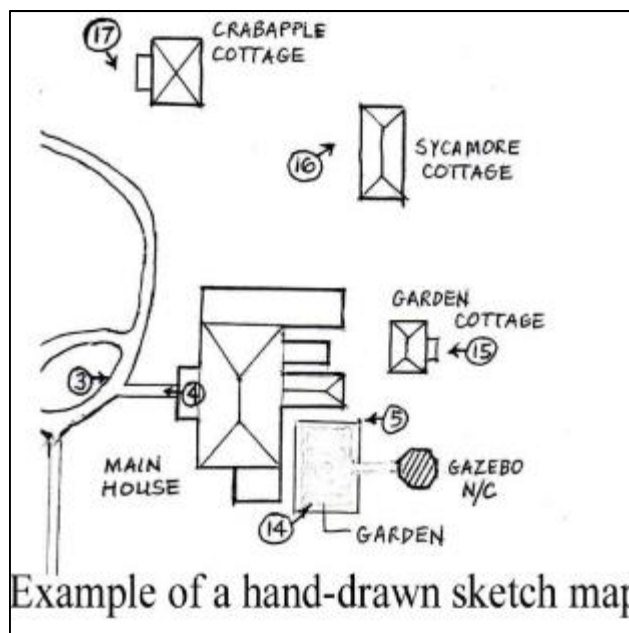
## Guidelines for Preparing Maps and Recording Geographical Information for Historic Register Nominations in Virginia

Geographical information and maps are key components of a nomination to list a property in the Virginia Landmarks Register and the National Register of Historic Places. Without accurate maps, a nomination cannot be considered final and a property will not be listed in the Historic Registers even if all other pieces of the nomination packet are complete.

### *Purpose of Maps*

In a nomination, maps are used to show

- the exact location of a property;
- the locations of resources associated with the nominated property (such as buildings, roads, bridges, parks, archaeological sites, industrial complexes, and battlefields);
- the precise boundary that defines the land area included in the Register nomination – this is referred to as the historic boundary; and
- locations where photographs were taken of the property.



The maps also correspond to the geographical information provided in Section 10 of the nomination form, which includes the location coordinates, a written description of the property's historic boundary, and justification that explains how the boundary was selected. Together, these are used to ensure accuracy of the nomination's verbal boundary description, which serves as the legal basis for defining what is listed in the Virginia Landmarks Register and the National Register of Historic Places. Acceptable methods for conveying this information include citing a legal description based on a survey; including a properly scaled map; providing a tax parcel reference; or using a metes-and-bounds description with a beginning point at a known and permanent location. The location coordinates must be depicted on a scaled map that shows the exact location of the nominated property and its historic boundaries.

### *Electronic Mapping*

Many, but not all, nomination maps now typically are prepared using readily accessible mapping websites such as [Google Maps](#) and [Bing Maps](#). These websites provide a novice user with access to detailed topographic, street, and aerial imagery with just a few mouse clicks.

Free software and apps, such as [Google Earth](#) and [ArcGIS Explorer](#), allow users to create custom maps for a variety of purposes. Meanwhile, professionals use Geographic Information Systems (GIS) to create maps that incorporate all types of data (for a basic introduction to GIS, please see <https://www.esri.com/en-us/what-is-gis/overview>).

Certain types of maps, such as Sketch Maps and Photo Keys, may be drawn by hand (such as the example at the top right of page 1). Instructions for creating these are included herein as well.

Although DHR staff have worked to make this guidance as accessible and user-friendly as possible, our staff is still available to assist with any questions. Your first point of contact should be the [Regional Office](#) staff member you are working with to prepare your nomination. DHR has three regional offices: Eastern (804-482-6099); Northern (540-868-7029); and Western (540-387-5443). You also may contact DHR's Register Historian at 804-482-6439.

**Note:** The guidance herein pertains only to maps for Register nominations. Standards for maps submitted for survey may be different; for details, please contact DHR Archivist Quatro Hubbard at (804) 482-6102 or [Quatro.Hubbard@dhr.virginia.gov](mailto:Quatro.Hubbard@dhr.virginia.gov), or DHR Architectural Survey Coordinator Blake McDonald at (804) 482-6086 or [Blake.McDonald@dhr.virginia.gov](mailto:Blake.McDonald@dhr.virginia.gov).

## **LOCATION MAP**

The first type of map that provides precise location information for a nominated property is the Location Map. DHR encourages submission of digital location maps generated with widely available electronic mapping websites and/or software. Digital location maps will record location information with latitude/longitude coordinates. If you do not have access to a computer, or do not understand the following guidance, please contact the DHR Regional Office staff member assisting you with your nomination.

### **Requirements for Location Maps:**

All location maps submitted with nominations must include the following information:

- A line showing the historic boundary of the nominated property; the boundary line should be instantly distinguishable from the rest of the map.
- A scale, preferably a bar scale (this preserves the map scale regardless if it is printed or viewed on a computer monitor).
- A North arrow.
- The name, city/county, and state of the property being nominated (i.e., Dr. Jane Doe House, Washington County, VA), as well as its DHR file number (i.e., 002-0542).
- Clear labeling of nearby streets, roads, and bodies of water such as rivers and lakes.
- Latitude/longitude coordinates, extending to at least six decimal places
  - Coordinates shown on the map must match the coordinates as they are listed in Section 10 of the nomination form.
- For properties with less than 10 acres, a single set of location coordinates is used, typically taken at the approximate center of the nominated property.
- For properties with more than 10 acres, a minimum of three sets of location coordinates must be provided, based on the shape of the historic boundary. Beginning at the northwesternmost corner or edge of the historic boundary, number each location point in a clockwise direction.
  - For irregularly shaped boundaries, use one line style to delineate the property's actual historic boundaries. Around this, use a different line style to draw a polygon that fully encompasses the actual historic boundaries. Take a location coordinate at each corner (vertices) of the polygon.

- *If you are unsure how to draw the historic boundaries, please contact the DHR staff member who is assisting you*
- Include the WGS datum if it is *not* WGS84 (which is the default for most readily available mapping websites and software).
- The website or software used to generate the map (i.e., Bing Maps; Google Earth; ArcGIS; etc.).
- The Location Map's background may be a topographic map, street map, or aerial photo, as long as it reproduces clearly in black-and-white.
- Provide one printed copy of the location map and, if you have the ability to create one, a PDF or JPG of the map image.
  - You also may email the location map to the DHR staff member you are working with as you prepare your nomination.

### **Software and Websites for Generating Location Maps:**

DHR and the National Park Service have identified several options for generating location maps. Location maps can easily be generated with GIS (Geographic Information Systems) software such as ArcGIS and AutoDesk GIS. GIS professionals, local and regional planning agencies, and other organizations routinely use GIS to generate many types of maps. Fully functional GIS software programs are typically best suited to GIS professionals as they require considerable expense and time to master.

Professionals also may use DHR's online Virginia Cultural Resource Information System (V-CRIS) to create location maps. Use of V-CRIS mapping requires a subscription (either short- or long-term) and one-on-one training with DHR's Architectural Survey Coordinator, who can be reached at (804) 482-6453. After initial training is complete, DHR's Register Historian will provide guidance for creating location maps to accompany nominations; the Register Historian can be reached at (804) 482-6439.

For non-GIS professionals, numerous readily available websites and apps are available. A **web-only** version of **ArcGIS Explorer** is available here: <http://www.arcgis.com/explorer/>. This application does not require downloading of any software, but does require creation of an online (free) account. As the most flexible software option, ArcGIS Explorer also requires some effort to learn how to use it.

**Google Earth** is available for free download at <http://www.google.com/earth/index.html>. This software has the advantage of being designed to work with other Google products and is simpler to use, which means that its functionality is somewhat limited compared to ArcGIS Explorer. To record the location of a single historic property, especially one with little acreage (fewer than 10 acres), it is probably the fastest and easiest option to use.

A very lively online community of GIS users exists. Troubleshooting for GIS can often be accomplished by entering questions into readily available search engines (Google, Bing, DuckDuckGo, etc.).

GIS software is subject to constant change and updating. If you have questions about current standards or guidelines regarding mapping for Historic Register nominations, please contact the

[Regional Office](#) staff member you are working with to prepare your nomination. Please do not hesitate to ask for assistance in creating the location map.

### **Submitting Location Maps to DHR**

Location maps can be submitted to DHR as printouts and/or as a PDF or JPG file. PDFs and JPGs can be emailed, sent to DHR staff via a file transfer site (such as WeTransfer), or on CD (check with DHR staff about the best way to submit your particular map). If emailing, please remember that DHR's email system does not accept file attachments that are larger than 10MB.

Whether the map is submitted on paper or electronically, it must be legible when printed in black-and-white format. Maps that rely on color (color boundary lines, for instance, may disappear in a black and white reproduction) will not be accepted.

### **Printing Location Maps**

Print the map on regular 8.5" x 11" printer paper for inclusion with the rest of your nomination packet. The location map may be printed with a topographic, street map, or aerial photo background.

Printed maps can be augmented with hand-drawn information such as the nominated property's historic boundary, the specific point where each location coordinate was taken, and the property's name and City or County where it is located. A map with hand-drawn information can be scanned and emailed to DHR as a PDF or JPG.

### **TAX PARCEL MAP**

The second type of map that provides precise location information is the Tax Parcel Map. A tax parcel is often considered the simplest means for describing the historic boundaries. Tax parcels are recorded by the local government to indicate the extent of land associated with a given property. Historically, local governments recorded parcel information in map books that included a numeric or alphabetical designation for each book page and the page itself consisting of a map section that showed each parcel's perimeter lines in a given area and an alphanumeric designation labeling each parcel. Nowadays, most local governments record parcel information in Geographic Information System (GIS) databases. GIS-based tax parcel information often is available online. Both historic map books and GIS versions typically can be accessed at the local government office. Consult your local government's website to find the location and contact information for the office that maintains parcel records. Parcel information is part of the public record. Local government staff can assist you with obtaining an accurate parcel map.

For individually nominated properties, a Tax Parcel Map should include the following information:

- The historic boundaries of the nominated property should be instantly distinguishable from the rest of the map.
- A bar scale (this preserves the map scale regardless if it is printed or viewed on a computer monitor).
- A North arrow.

- The name, city or county, and state of the property being nominated (i.e., Dr. Jane Doe House, Washington County, VA), as well as its DHR file number (i.e., 002-0542).
- Perimeter lines of each parcel that is included in the historic boundary.
- Labeling of each parcel with its parcel number (as assigned by the local government tax office).
- Date that the tax parcel information was obtained.

For historic districts, a map showing all the parcel lines and numbers of each property within the district boundary can be used; contact the DHR Regional staff assisting you with your nomination for guidance on creating Tax Parcel Maps for districts.

The National Park Service requires that, when using a tax parcel to provide precise location information, the nomination author include the date that the tax information was accessed and a map showing the parcel's precise boundaries. The map also should include the date the parcel information was obtained. Inclusion of dates is important because tax parcels may be split without subdividing the land. Furthermore, while the terms "parcel" and "lot" are often used interchangeably, there is a difference between them. Simply stated, a parcel is an identification for taxation purposes, while a lot is a recognized subdivision of property with a written legal description that addresses permissions or constraints upon its development. It is common for a lot and a parcel to share the same space, but this is not always uniform in execution. For example, some county GIS systems do not include the extent of a lot when depicting tax parcels, and taxable boundaries sometimes do not include rights-of-way for roads. DHR can assist you with confirming that your Tax Parcel Map shows the full extent of the land area that you intend to include in your nomination.

### **SKETCH MAP**

The third map that must accompany a nomination is the Sketch Map. This map shows locations of all of the contributing and non-contributing resources associated with the property being nominated. The Sketch Map also can be formatted to show the property's historic boundary.<sup>1</sup> For an individually nominated property, the sketch map may show just one resource (a building, an archaeological site, a bridge, etc.) or a large number (such as an industrial complex with numerous buildings and structures, or a large farmstead with dwellings, barns, sheds, and other outbuildings). For a historic district, the sketch map typically shows all of the contributing and non-contributing resources within the boundaries of the district, as well as the historic boundary. For a large historic district that covers thousands of acres, an alternative format for the Sketch Map may be appropriate; consult with the DHR Regional Office staff member assisting you with your nomination to discuss alternate formats.

The Sketch Map can be drawn by hand or created using computer software. If you are unsure of the best approach to use to create the map, please consult with DHR staff.

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<sup>1</sup> The Sketch Map for a large property such as a farmstead or an industrial complex may not show the historic boundary, especially if contributing and non-contributing resources are clustered in one portion of the property. In such cases, a map that shows the entire historic boundary should be provided, along with an inset map that shows the associated resources.

All Sketch Maps submitted with nominations must include the following information:

- The name and city/county and state of the property being nominated (i.e., Dr. Jane Doe House, Washington County, VA).
- A North arrow
- A bar scale (this preserves the map scale regardless if it is printed or viewed on a computer monitor)
- Adjacent streets/roads and any major natural features (rivers, lakes, etc.) and land uses in the immediate vicinity
- Locations of all associated resources and whether they are contributing or non-contributing
- The number and types of resources on the Sketch Map must match the resource counts in Section 5 of the nomination form.
- Resources shown on the map also must match the resources described in Section 7 of the nomination form, including contributing/non-contributing status.
- The Sketch Map must be reproducible in black-and-white; do not use multi-color shading or color lines on the map.
- The Sketch Map may be based on a topographic map, street map, tax parcel map, GIS-based map, or aerial photo, as long as it prints clearly in black-and-white. A hand-drawn Sketch Map may be drawn on plain white paper or graph paper.

For an individually nominated property, if you are using a Sketch Map to depict the nominated property's historic boundary **in lieu of a verbal boundary description (see Section 10 of the nomination form)**, the map's scale must be 1"= 200' or larger scale, the full extent of the historic boundary must be shown, and a bar scale must be used, regardless of whether the map is hand-drawn or electronically generated.

- If the verbal boundary description in Section 10 of your nomination includes a detailed verbal boundary description or references a legal document such as a tax parcel or plat map, then the Sketch Map is not required to be to a particular scale.

Sketch maps for historic districts can be very complex. Consult with DHR staff early in the nomination process to begin coordinating mapping requirements for districts.

- With the widespread adoption of GIS-based software for local government planning processes, DHR now operates on the assumption that Sketch Maps for historic districts will be prepared in consultation with the local government's planning and/or GIS staff. For local governments that do not use GIS, alternative approaches can be used.
  - Check with the local government planning and/or tax assessor's office to see whether GIS-based maps are available to the public, such as a tax parcel map or a street map with building footprints and/or parcel lines
  - The local government may be able to provide a range of versions, and be able to print these for you; please be aware there may be local government fees/charges associated with this service

- For urban and suburban historic districts,<sup>2</sup> the Sketch Map should show street names, property lot lines, building footprints, and all contributing and non-contributing resources, including secondary resources, that are listed in Section 7 of the nomination form.
- On the map image, include a bar scale that will display at a true scale of 1"=200' when the map image is viewed at 100% on a computer monitor.
- The 1" = 200' scale also must be truly represented on a printout of the sketch map. For a historic district with considerable acreage, this can require either printing the map on multiple sheets of regular-sized paper (letter, legal, or ledger size) or using one or more sheets of a large-format paper (larger than 11" by 17").
- For Sketch Maps of rural historic districts, road names and property lot lines must be shown.
  - *Consult with DHR staff for acceptable methods to map contributing and non-contributing resources in rural historic districts.*
- Do not use color alone to denote contributing or non-contributing status, or to show boundary lines. Different shading patterns and types of boundary lines must be used.
  - All information must be discernible when printed in black-and-white.
  - *Use of color coding alone will result in a returned nomination.*
- Provide one printed copy of the Sketch Map and one electronic version saved as a PDF or image file such as a JPG.
  - The printed map will be retained in DHR's permanent Archives. The map PDF will be retained in DHR's digital archives and forwarded to NPS with the rest of the nomination.
- **Please note that DHR does not have the capability to print large format maps (larger than 11" x 17").**

### Creating the Sketch Map

A Sketch Map can be hand-drawn for an individually nominated property, in which case it should meet the following parameters listed above. Drawn to a true scale of 1" = 200', the hand-drawn map should include a bar scale of 1" = 200'. The map may be drawn on plain white paper or graph paper. Regular size paper (8.5" x 11", 8.5" x 14", or 11" x 17") or larger format paper may be used. All information should be discernible if the map is copied in black and white.

A hand-drawn map can be scanned and saved as a PDF or JPG image file. The scan's resolution should be sufficient to create a legible image (typically, this will be the "high" or "fine" quality setting on a scanner).

Sketch Maps for historic districts often require large-format paper. A commercial printing service, such as Kinko's, or a specialty service, such as an architectural drawings printer, can print maps on an assortment of large-format papers. A local government planning or tax assessor's office also may be able to assist you with printing large format maps. DHR currently does not have capability to print large-format maps.

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<sup>2</sup> For large historic districts, an alternative format may be used. Consult with the DHR Regional Office staff member who is assisting you with the nomination.

A digitally generated Sketch Map can be made using the widely available websites and software described above. A digitally generated Sketch Map may have a topographic map, street map, tax parcel map, GIS-based map, aerial photo, or plain white background, as long as it prints clearly in black-and-white.

A PDF or JPG image of the map must be provided to DHR that shows the map in its entirety. This digital image is not required to be sized to fit on a particular paper size; however, it is recommended to use a default setting, such as 8.5" x 11" or 11" x 17". If available, submit the electronic shapefiles used to create the sketch map. The electronic files should include a layer that accurately defines the historic boundary of the nominated property.

Regardless of how it was created, a Sketch Map must photocopy legibly in black-and-white. Color-coded maps will not be accepted because the colors may disappear on a black-and-white reproduction.

### **Submitting Sketch Maps to DHR**

Provide DHR with one printed copy of the Sketch Map and one electronic version saved as a PDF or image file such as a JPG. Digital files can be emailed, sent to DHR staff via a file transfer site (such as WeTransfer), or on CD (check with DHR staff about the best way to submit your particular map). When emailing, please remember that DHR's email system does not accept file attachments that are larger than 10MB.

### **PHOTO KEY**

A Photo Key depicts the location showing where each of your exterior photographs was taken. It can be provided as a standalone map, or photo locations can be included on the Sketch Map that accompanies your nomination (refer to the Register Nomination Checklist for more information about preparing the Sketch Map). The Photo Key information must be reproducible in black-and-white.

The Photo Key must include the following information:

- The location from which each photo was taken.
- The photo number as listed in the Photo Log of the nomination form, as written on the back of the corresponding photo print, and as shown in the digital file name.
- An arrow that shows the direction the camera was facing when the picture was taken.

Photo locations are required for images that depict external views. Photo locations of interior spaces are not required to be included on the Photo Key. If you have a floor plan drawing of a nominated property, photo locations of interior spaces may be added to this drawing; however, this is not required. Interior photos are not required for historic district nominations.

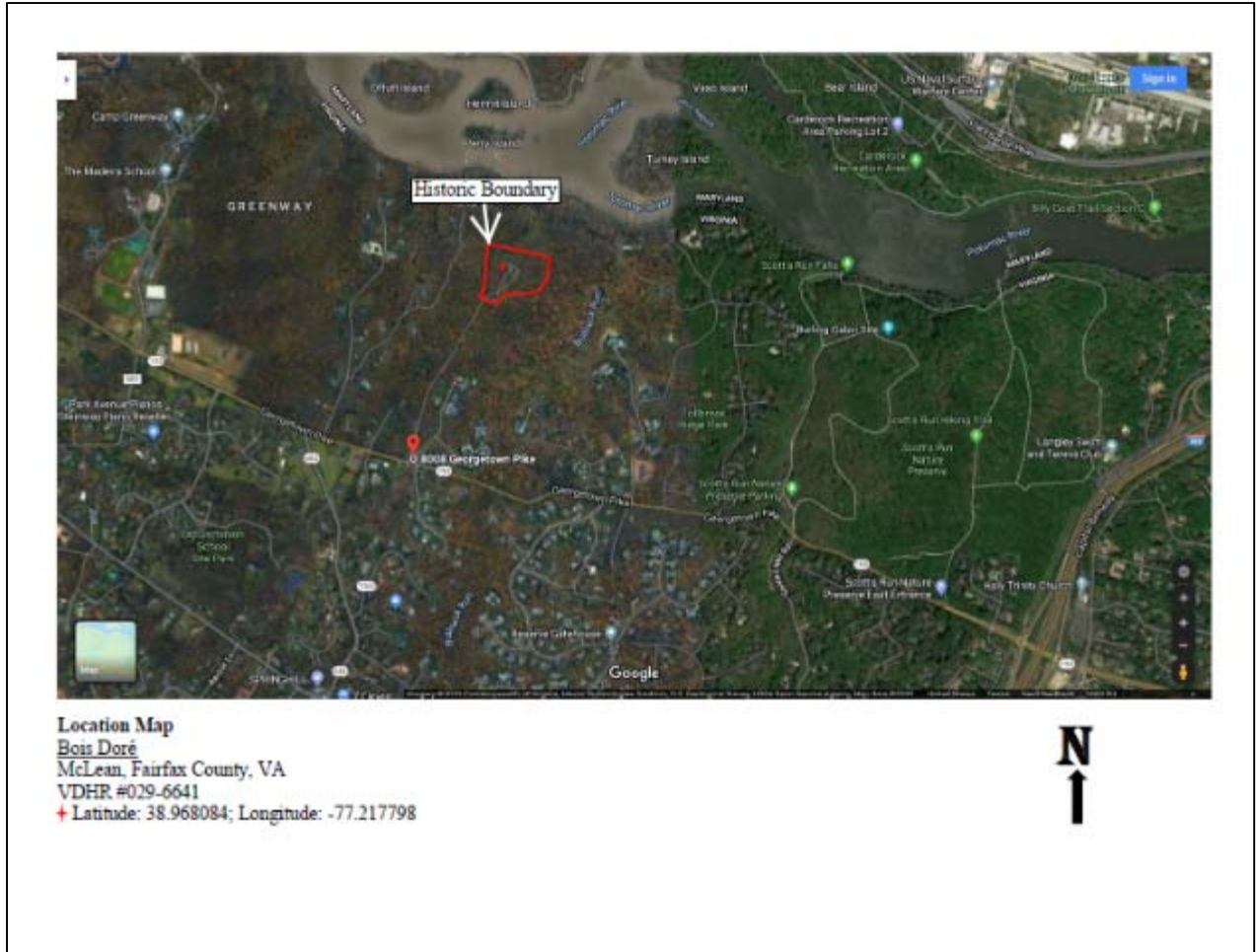
A Photo Key can be included on the Sketch Map, or the Photo Key can be a standalone map. The photo locations and numbers must match those provided in the Photo Log section of the nomination form

- If the photo key is not included on the sketch map, it *must* be submitted as a separate map.

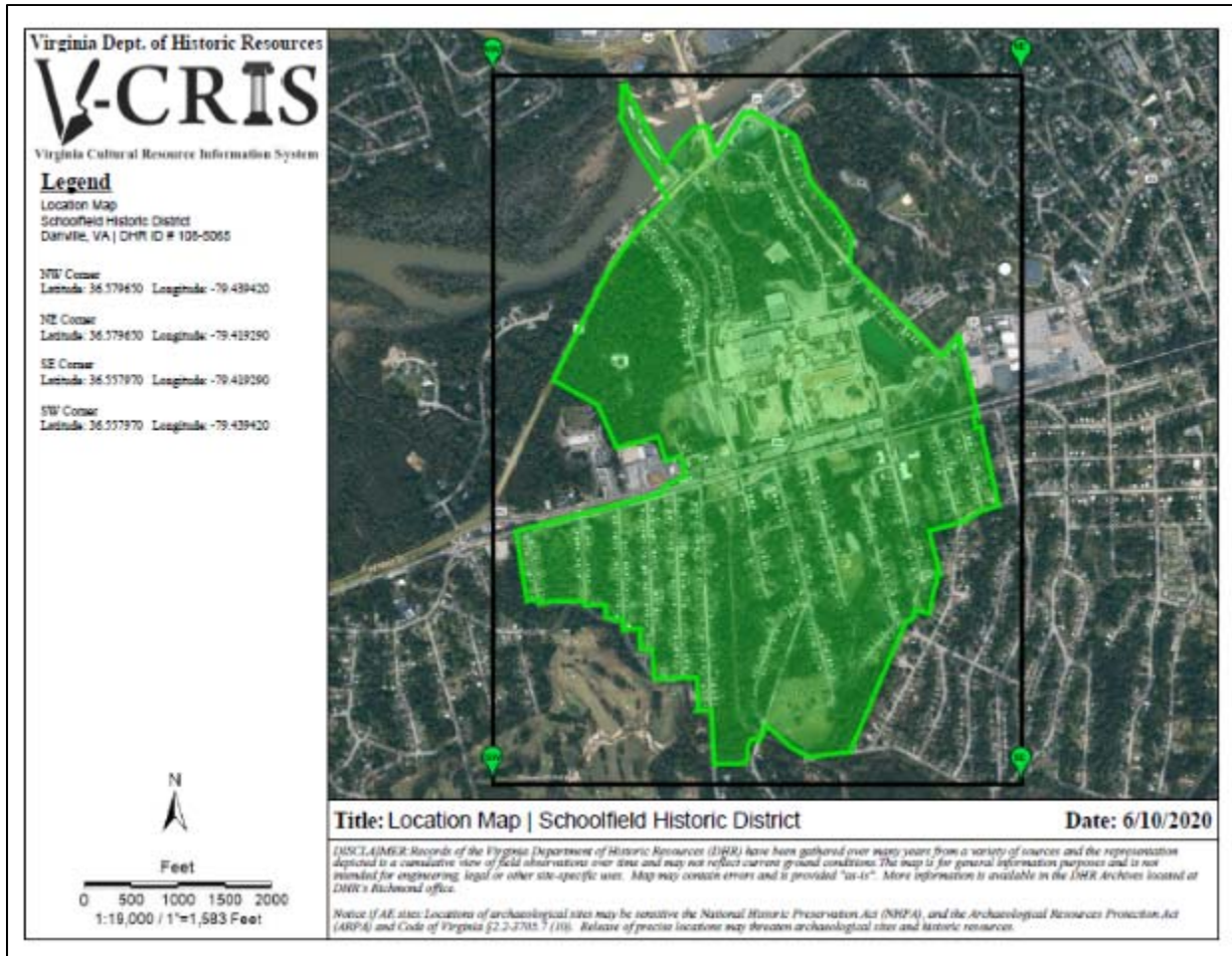


- Photo key information also must be printable in black-and-white.

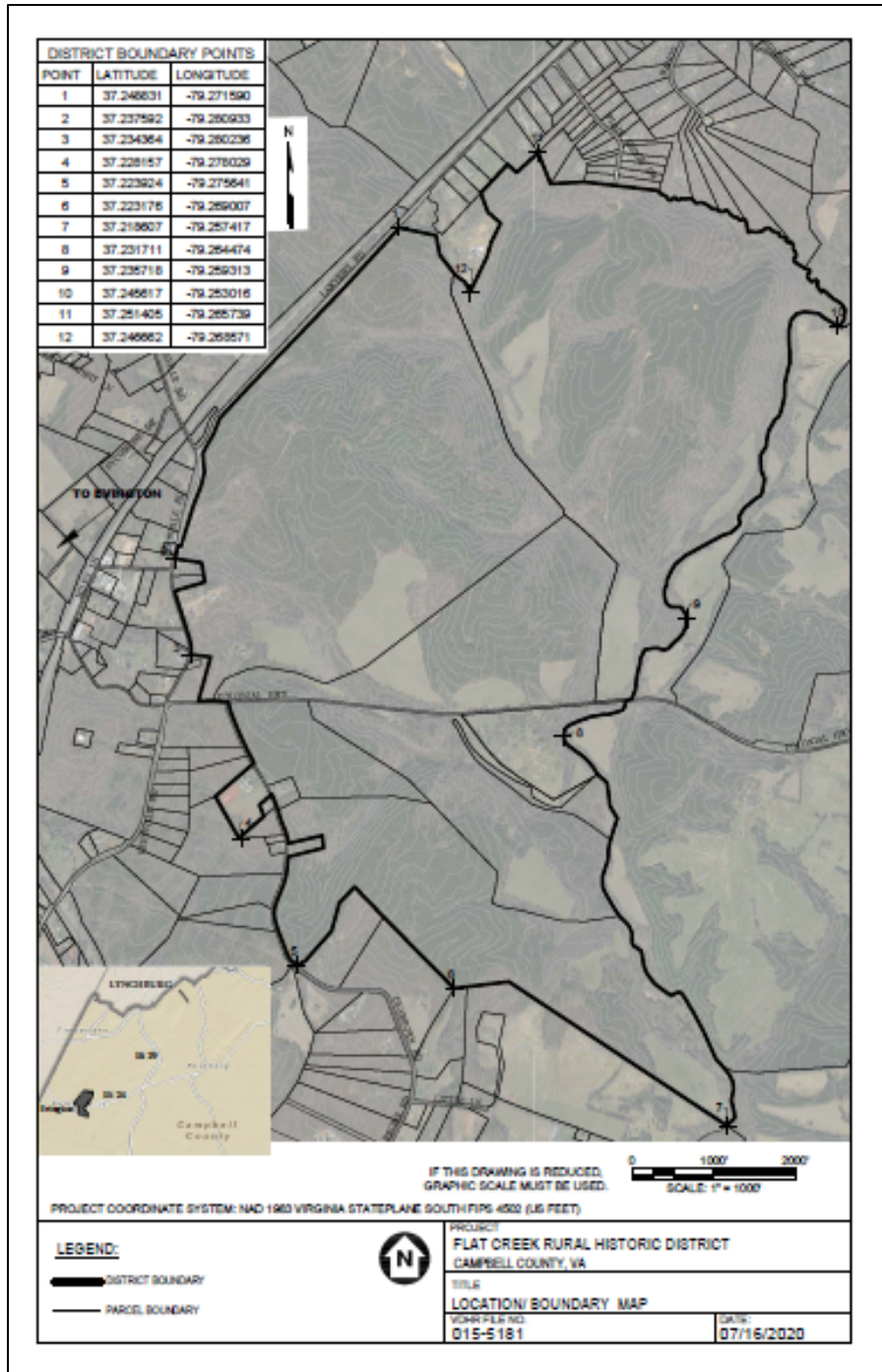
The following pages provide examples of location maps and sketch maps that were prepared to meet current requirements for Historic Register nominations. If you have any questions about preparing maps to accompany your nomination, please contact the Regional Office staff member you are working with. DHR has three regional offices: Eastern (804-482-6099); Northern (540-868-7029); and Western (540-387-5443). You also may contact the Register Historian at 804-482-6439.



Location Map for an Individual Property,  
Shown on an Aerial Photo Background



## Location Map with Simple Polygon Drawn Around Complex Historic Boundary

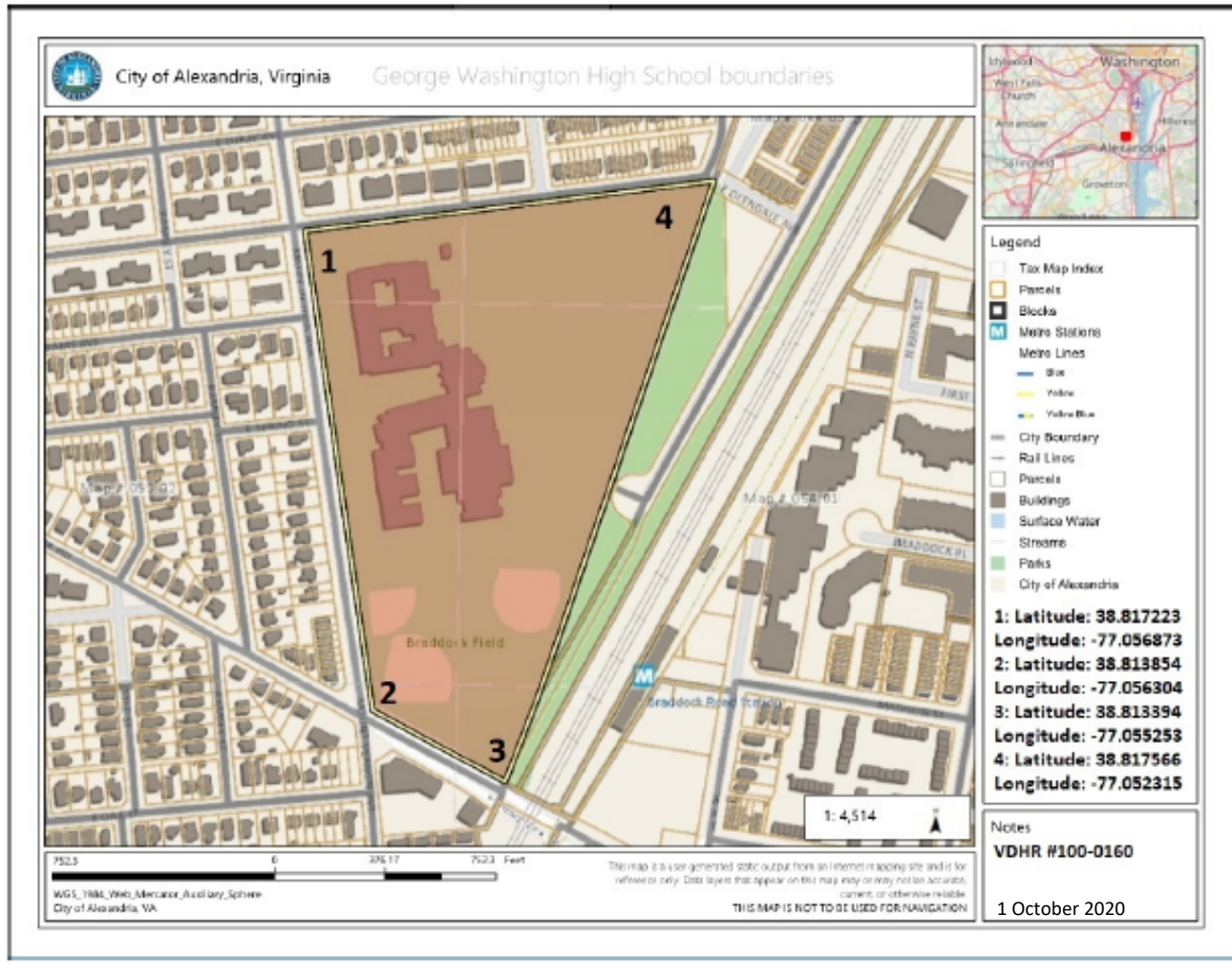


Location Map for a Historic District, Shown on a Parcel Map Background

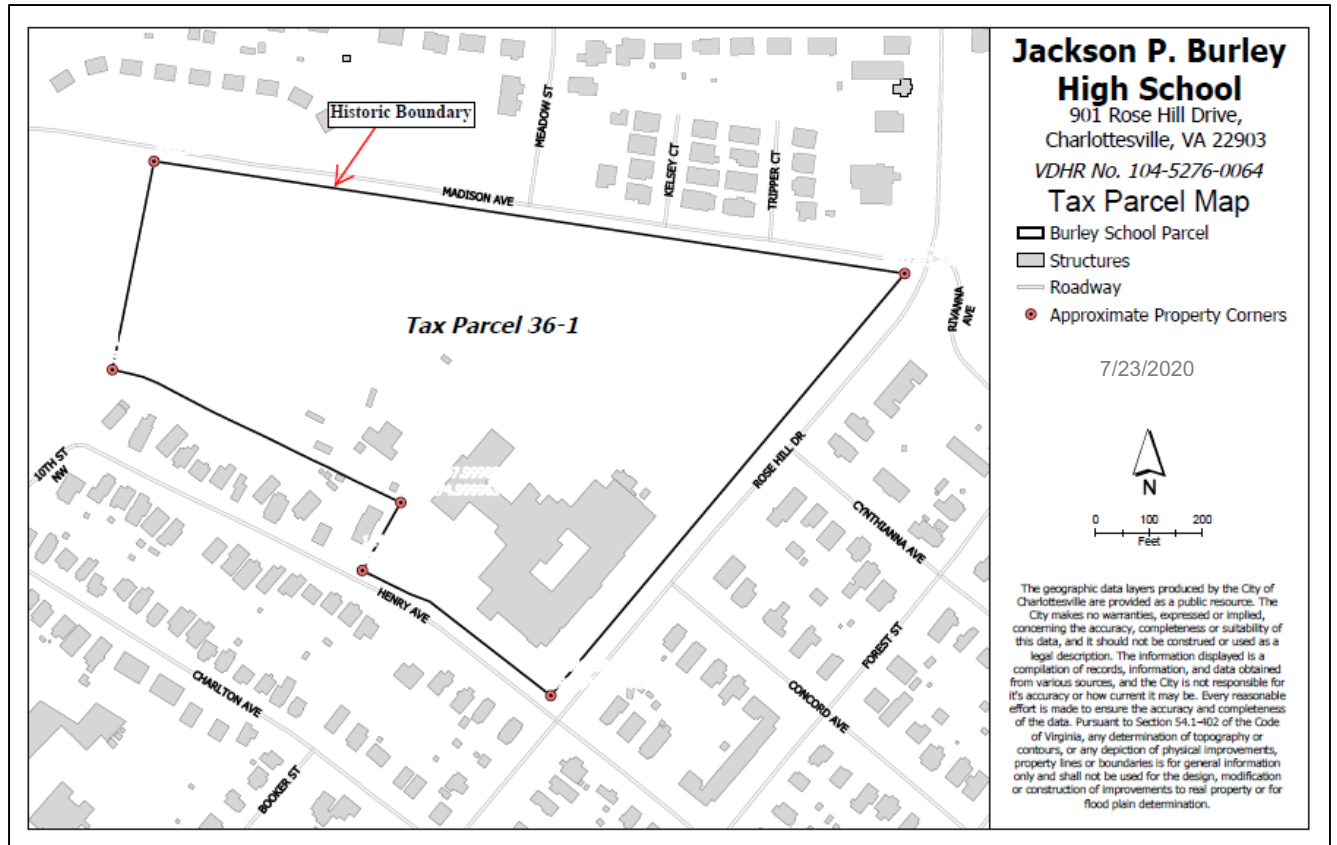
United States Department of the Interior  
 National Park Service / National Register of Historic Places Registration Form  
 NPS Form 10-900  
 OMB No. 1024-0018

George Washington High School  
 Name of Property

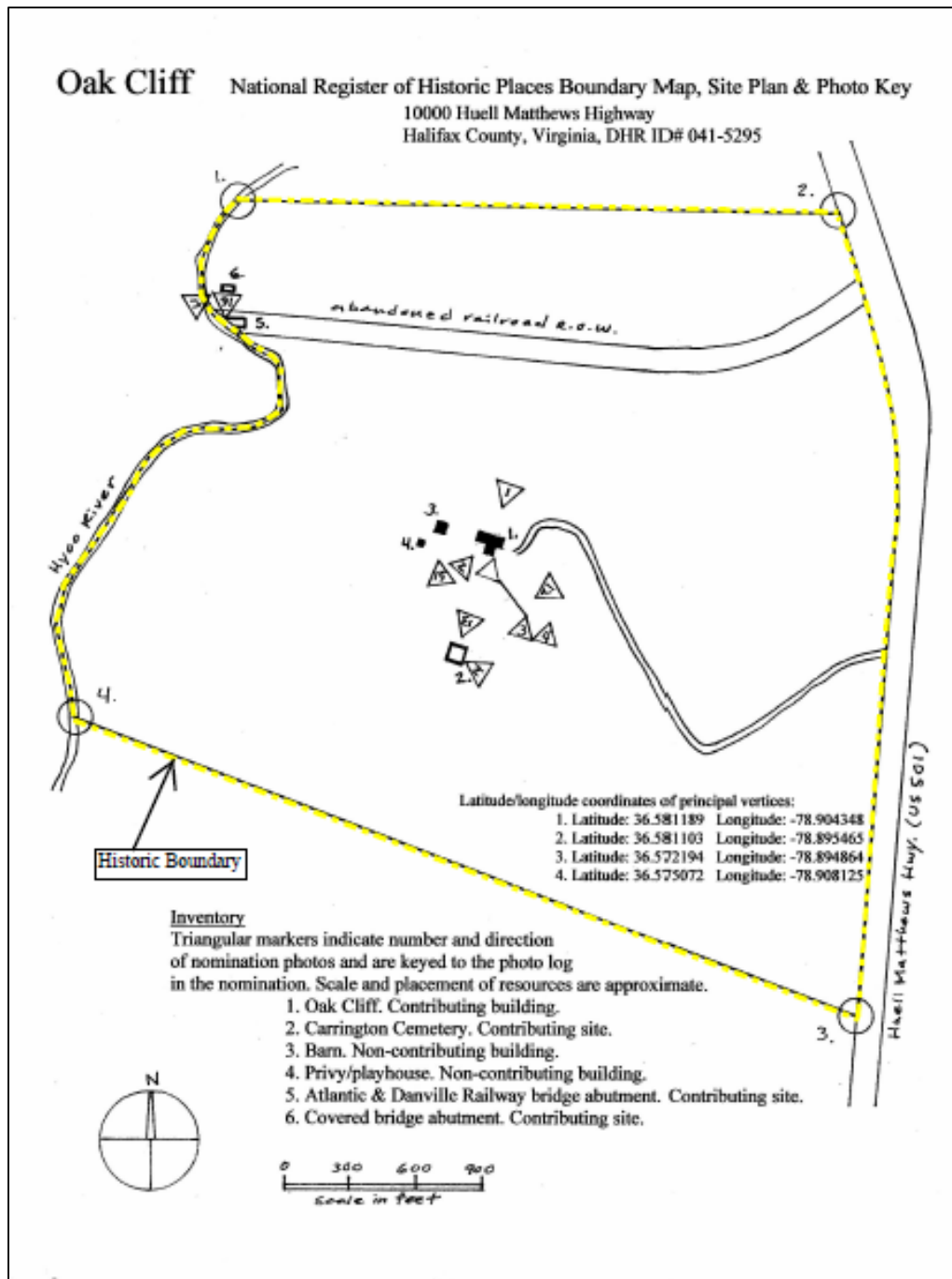
Alexandria (City), VA  
 County and State



# TAX PARCEL MAP FOR AN INDIVIDUALLY NOMINATED PROPERTY



# TAX PARCEL MAP FOR AN INDIVIDUALLY NOMINATED PROPERTY



Hand-Drawn Sketch Map for an Individually Nominated Property. Photo Key Included.





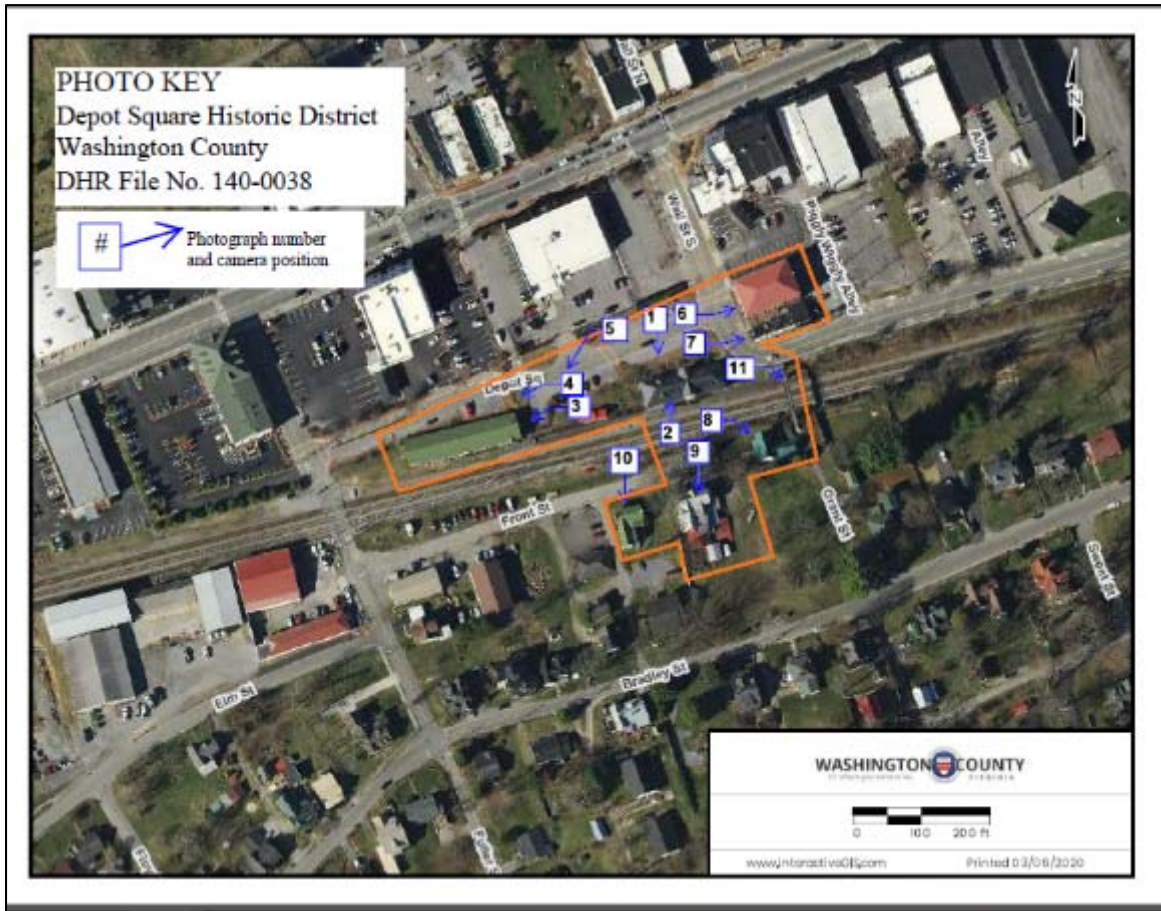


Photo Key for a Small Historic District, Shown on an Aerial Photo Background

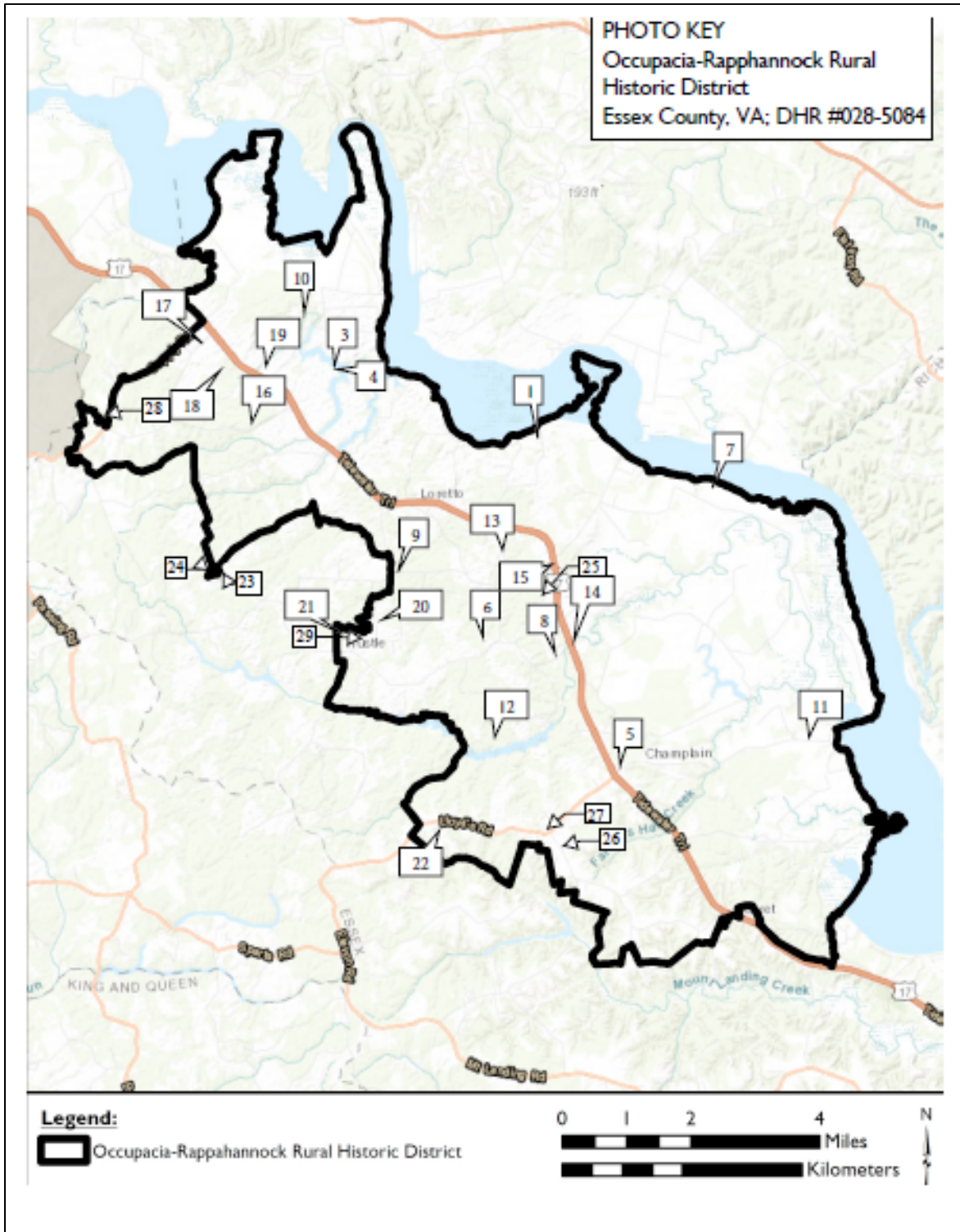


Photo Key for a Large Historic District, Shown on a Topographic Map Background