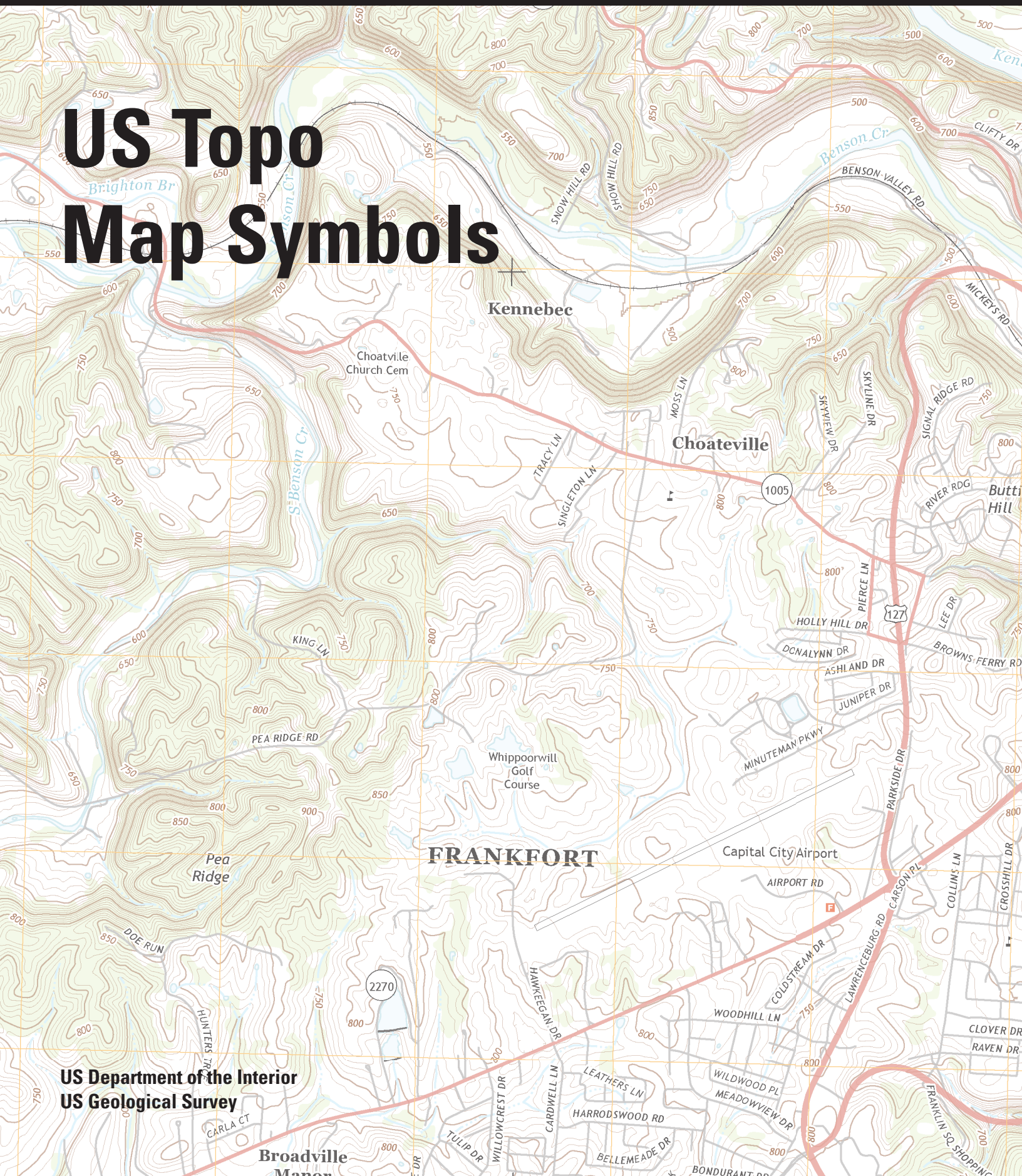


US Topo Map Symbols



What is a US Topo map?

A US Topo map is a digital topographic map that covers 7.5-minutes of longitude by 7.5-minutes of latitude and is produced at a scale of 1:24,000. US Topo maps are freely distributable and are available for download on the Web from the USGS Store (<https://store.usgs.gov>) in Portable Document Format (PDF) with geospatial extensions. PDF maps can be viewed and printed with any conforming PDF software. Versions 9.x and later of Adobe® Reader® and Acrobat® software provide access to the geospatial functionality of the US Topo map. Adobe Reader is available for free at <http://get.adobe.com/reader>. More information about US Topo maps and their use is available at <https://www.usgs.gov/programs/national-geospatial-program/us-topo-maps-america>.

The base data layer of a US Topo map is a recent orthographic aerial photograph. These orthoimages have been corrected to remove scale distortions that result from the varying terrain and deviations of the aircraft's position from the true vertical. The maps include contours that show the shape of the Earth's surface, hydrographic features such as lakes and rivers, roads, boundaries, and geographic names. Additional data from the geographic data themes of transportation, names, elevation, hydrography, boundaries, structures (such as fire stations) and land cover (such as woodland tint) is being added to the maps as they are updated, resulting in a product that will become progressively more robust over time. Feature data is incorporated from national Geographic Information System (GIS) databases under the stewardship of USGS data programs. The US Topo map is intended for conventional map users, not for advanced GIS analysis. However, most of the data sources used are in the public domain and may be downloaded for free from *The National Map (TNM)* (<https://nationalmap.gov>).

US Topo maps are revised on a three-year production cycle.

Symbols on US Topo Maps

The underlying orthoimage for each US Topo map shows those features on the Earth's surface that are visible to the eye. Because each map is made at a scale of 1:24,000 (one inch on the map represents 24,000 inches or 2,000 feet on the ground), selected features are also shown and emphasized by symbols, geographic names, and highway route numbers.

Map features may be represented as points, lines, or polygons. They incorporate different colors and patterns to distinguish between feature types and to show each feature's importance. For example, a perennial stream is symbolized by a solid blue line while an intermittent stream is shown by a blue dashed and dotted line. A large reservoir is depicted by a polygon while a small reservoir may be shown by a point symbol if it is too small to show as a polygon.

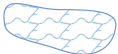
Point symbols of different shapes and sizes depict features such as structures, dams, gates, rocks, waterfalls, and wells. Linear map symbols (lines) show such features as roads, rivers, boundaries, and contours. Color is used to show the class of information: topographic contours in brown, streams and rivers and other hydrographic features in blue, and roads in black and red. Areal features are outlined to depict the areal extent and may also be emphasized by a color tint. Names and labels are shown in different type fonts, sizes, and colors.

The unique feature of a topographic map is the contour. These lines do not exist on the Earth's surface. They join points of equal elevation above a zero level surface (such as Mean Sea Level) and therefore show heights of the land and reveal the shape of the land surface. Heavier brown lines are index contours and are labeled with the elevation they represent. Closely spaced contours indicate a steep land slope; widely spaced contours show more level ground. The elevation difference between adjacent contours is the contour interval. A map of a relatively flat area may have a contour interval of 10 feet. In steep areas an interval of 100 feet or more may be used to avoid coalescence or convergence of the contour lines. The contour interval is always noted below the bar scale in the map marginalia.

The cartographic representation of roads has been updated from a characterization based on organizational maintenance (Interstates, US routes, State routes, etc.) to a functional classification defined as follows:

- Expressway¹: A controlled access, divided arterial highway for through traffic.
- Secondary Highway¹: Hard surface highways including secondary State routes, primary county routes, and other highways that connect principal cities and towns, and link these places with the primary highway system.
- Local Connector¹: Hard surface roads not included in a higher class and improved, loose surface roads passable in all kinds of weather. These roads are adjuncts to the primary and secondary highway system and represent major arteries through populated places.
- Local Road¹: Roads used primarily for local traffic.
- Four Wheel Drive Road¹: Unimproved roads passable only with four wheel drive vehicles.

¹ Federal Highway Administration Planning Glossary - <https://www.fhwa.dot.gov/planning/glossary/index.cfm>

STRUCTURES		
Emergency Service Features		
Fire Station		
Hospital		
Police		
Public Service Features		
Cemetery		
City/Town Hall		
College/University		
Court House		
Post Office		
Prison		
School (K-12)		
State Capitol		
Trade/Technical School		
US Supreme Court		
The White House		
Recreational Features		
Cabin		
Campground		
Park Headquarters		
Picnic Area		
Ranger Station		
Shelter		
Trailhead		
Visitor Center		
Oil & Gas Pipeline Features		
Oil/Gas Pipeline*		
TRANSPORTATION		
Airport Features		
Airport Runway		
Heliport		
Seaplane		
Railroad Features		
Railroad		
Road Features		
Closed Road		
Expressway		
Ferry		
Four Wheel Drive		
Local Connector		
Local Road		
Ramp		
Secondary Highway		
Tunnel		
Road Shields		
Interstate Route		
State Route		
US Route		
Forest Service Primary Route		
Forest Service Secondary Route		
Forest Service High Clearance Route		
Trails		
Snow		
Terra		
Water		
HYDROGRAPHY		
Hydrographic Features		
Area of Complex Channels		
Canal/Ditch		
Coastline		
Underground Conduit		
Dam		
Earthen Dam		
Nonearthen Dam		
Estuary		
Flume		
Foreshore		
Gaging Station		
Gate		
Ice Mass		
Inundation Area		

HYDROGRAPHY – *continued*

Intermittent Lake	
Perennial Lake	
Levee	
Lock Chamber/Spillway	
Ocean	
Pipeline	
Underground Pipeline	
Playa	
Settling Pond	
Tailings Pond	
Rapids	
Reef	
Reservoir	
Nonearthen Reservoir	
Rock	
Nonearthen Shore	
Spring	
Intermittent Stream	
Perennial Stream	
Submerged Stream	
Tunnel	
Wash	
Waterfall	
Well	

Wetland Features

Freshwater Emergent Wetland	
Freshwater Forested/Shrub Wetland	

TERRAIN

Shaded Relief

Shaded Relief	
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Contour Features

Index	
Intermediate	
Supplemental	
Depression Index	
Depression Intermediate	
Depression Supplemental	

LAND COVER

Woodland	
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IMAGES

Orthoimage	
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BOUNDARIES

Designated Areas

National Wild and Scenic Rivers	
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Federal Administered Lands

American Indian, Alaska Native, and Native Hawaiian Area	
Bureau of Land Management* National Park Service U.S. Fish and Wildlife Service U.S. Forest Service	
Department of Defense National Cemetery	
National Monument	
Wilderness Area	

Jurisdictional Boundaries

County or Equivalent	
State or Territory	
International	

*Currently on Alaska US Topo maps only

PLSS

Land Grants	
Section	
Section (protracted)	
Township/Range	
Township/Range (protracted)	